Addendum

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DATE: May 4, 2022

PROJECT: Board of Commissioners for
Miami County, Ohio
Miami County One Stop Center

PROJECT ADDRESS: Barnhart Rd, Troy, Ohio 45373

ADDENDUM NO. 1

RECEIPT OF THIS ADDENDUM MUST BE NOTED ON THE FORM OF PROPOSAL

TO ALL BIDDERS:

This addendum supplements and amends the original Plans and Specifications and shall be taken into account in preparing proposals and shall become part of the Contract Documents.

BID DUE DATE:

Tuesday, May 10, 2022, 9:05 AM. Send hand delivered to: Board of Miami County Comissioners 201 W Main St. Troy, OH 45373

BIDDERS QUESTIONS:

Q. On the EPDM roofs there is ISO (or extruded) over a 5/8" APA Plywood or combustible deck with the membrane system being fully adhered. Looking through the roofing spec I see several references to FM Class 1 which is Fire testing. FM does not test over wood deck types so there would be neither fire or wind testing for this assembly.
A. The deck is not combustible. It is a fire-retardant-treated deck. Info is in the sheathing section of the spec.

Q. Is the owner insured by Factory Mutual? If not, we could provide Fire / Wind testing through those approved wood decking like UL.
A. The owner is not insured by Factory Mutual.

Q. We could obtain a UL Class A rating on the adhered EPDM area by using a Type X gypsum or DensDeck thermal barrier or by utilizing a top layer of ASTM C1289 Type II, Class 2 ISO (coated glass facer) over your base layer of standard Class 1 ISO.
A. The deck is not combustible. It is a fire-retardant-treated deck. Info is in the sheathing section of the spec.

Q. Can Firestone's UC-3 Snaplock roofing panel be submitted as an approved equal?
A. Yes.

Q. Please provide the following information. 1.Insurance requirements 2. Completion date 3. Liquidated damages information.
A. At a minimum commercial general liability with policy limits of $1,000,000 for each occurrence and $2,000,000 in aggregate as well as automobile liability coverage with a policy limit of not less than $1,000,000 per accident.
The Miami County Board of Commissioners should also be named as an additional insured on the COI that is issued.
You are required to establish a completion date on the Bid Form in calendar days. There are no liquidated damages stated for this project however the Miami County Board of Commissioners will hold the contractor to the schedule they identify.

Q. A0.4/B6 SF5 We need additional information as to a model/type required and what type of voice transmission is needed. These are questions from Total Security Solution.
A. Provide arched backer transaction window for voice transmission. Match glazing type of bullet resistant window.

Q. AO.4/C4 W4 this shows an operable window, but the details in the window schedule A0.8 are storefront.
A. Window is to be operable sliding transaction type. Additional details have been added to sheet A0.8 in Addendum 01.

Q. A0.4/ C1, C2, C3, C4, C5, C6, C7 the window schedule details A0.9, shows a fixed aluminum window (not storefront) are storefront or windows required? There is no specifications for a window
A. These are all fixed aluminum storefront windows. Refer to project Specifications, Section 08 4113 and Section 08 8000.

Q. Are we allowed to lose any excess dirt we may have and spread it onsite to the North or West of the new road we are cutting in
A. You may lose excess dirt to the north and west. All disturbed areas must be stabilized and seeded. The excess spoils must not trap water that drains from the west and positive drainage must be maintained.

Q. In the casework spec. section it calls for the contractor to AWI certified. Are we able to use a non-AWI certified contractor?
A. Casework contractor does not need to be AWI certified but will need to comply with AWI standards.

Q. C7ould you confirm please, if the wood trusses are to be FRT (Fire Retardant Treated) or not? There are a couple of notes stating such, but nothing on the structural section details that we saw. We also noticed that the building is to be sprinkled.
A. The roof trusses do need to be FRT. See Roof Framing Notes on S0.2 for additional requirements.

Q. In reference to Specification 26 6101 1.2.A: Can Edwards be added to the list of acceptable manufactures for the fire alarm system?
A. Edwards may be submitted as an approved equal.

Q. On page A1.1 note 4. Are we just installing the floor mounted rails or are we also to install the file cabinets as well?
A. Floor mounted rails only. Relocated file storage system to be installed by owner's vendor.

Q. On page S0.1 under the structural steel category, it calls for the subcontractor to be AWS qualified. Are we able to use a non-AWS qualified sub-contractor for this scope?

A. Individual welders should be AWS certified. We don't necessarily need the company to be AWS certified.

Q. On A0.5 where it calls out for the ½" bullet resistant fiberglass sheets, it there a spec section for this product? My supplier was asking what the specific UL level that was needed.
A. The information related to the Bullet resistant fiberglass sheets is on the notes of Sheet No. A8.2. There is no UL level for this material.

Q. What is the vertical wall reinforcement for the 8" CMU at the Truck Drive Thru?
A. Information related to vertical wall reinforcement will be added to Sheets No. S1.1 and No. S3.1 in Addendum 01. The four perimeter walls of that area should have #5 vertical bars at 32" O.C. The single interior wall should have #4 vertical bars at 48" O.C.

Q. Per the Aluminum-Framed Entrances and Storefronts Spec (08 4113/1.6 B.2), we are to provide a 20 yr warranty on the finish of the aluminum. The basis of design is Kawneer 451T (08 4113/2.1 A.1a) with a clear anodized finish (as called out in 08 4113/2.9 A). Kawneer does not provide a 20-year warranty but maxes out at 10-year. Please verify if that a 10-year warranty is acceptable.
A. A 10 year warranty is acceptable.

Q. Per the Aluminum-Framed Entrances and Storefronts Spec, the basis of design is Kawneer 451T (08 4113/2.1 A.1a), but it is showing W1, W2, W3, W5, W6, and W7 are showing contradicting head/sill details for their windows (B3, B5, D3, D5/A0.9). These details are depicting a triple pane IG unit which is also not consistent with the insulated glass schedule (08 8000/3.8A, B). Can you verify that Kawneer 451T units with the spec 1" IG units (as shown in B6, D6/A0.8) are acceptable for these window type locations?
A. The 1" insulated glass as described in the spec is correct for these windows. Sheet No. A0.9 is updated in Addendum 01 for clarification.

Q. W4 is a transaction window in lieu of fixed. Is Quik-Serv an acceptable manufacturer for this application? If not, please specify a vendor of choice.
A. The basis of design is the Kawneer OptiQ sliding glass window series with 1" insulated glass. You may submit a Quik-Serv window as an approved equal.

Q. On A1.3 referencing the draft stopping, is there to be a note 11 towards the bottom of the plans where the front entrance is? I see a dashed lined at the gable of the front entrance, but it isn't marked with a note 11.
A. The line indicated is meant to designate draft stopping in this location. The location is suggestive, as the requirement is that areas between draft stopping should not exceed 3,000 SF.

Q. Make sure you are aware that the one line shows 120/208VAC single phase. Do they want a 120/208VAC 3 phase generator or 120/240VAC single phase? Also, the spec calls out for a residential style generator, but NFPA 110 Life Safety industrial style ATS.
A. Yes, the generator is single phase with matching transfer switch, this is only a Standby Generator so does not need to comply with Life-Safety requirements, same goes for ATS. Serves only single-phase loads.

Q. RTU 5: Panel Schedule shows a 30amp breaker but the Equipment detail shows 50amp MOP. Please confirm

A. The breaker for RTU-5 will be changed to 50A/3P, as will the breaker for RTU-2. The breaker for the ATS will be changed to 100A/2P. SPD and associated breaker for Panel, SB single phase.

Q. The main feeder to the meter center is aluminum wire but the feeders to the sub-panels are shown as copper. Can we use aluminum wire to feed the sub-panels?
A. We will allow the panel feeders to be aluminum conductors, equivalent ampacity to copper.

Q. Is MC cable acceptable in walls and above ceilings?
A. We will review the allowance of MC cable and address in Addendum. If we do allow, it will be limited to homerun circuits in EMT to the center of a room and then MC out to vertical drops in walls (NOT run horizontally in walls, except where located below windows or in casework).

Q. Please clarify the status of bidding the Low Voltage Systems. We are noticing the icons on the drawings for Network Cabling, CCTV, and Access Control but there are not any specifications or direction as to the details of these systems. Only the rough-ins are mentioned in the notes. Are these systems to be bid at a later time or maybe they will be direct to the owner?
A. The low voltage systems you noted are going to be provided by the Owner, the Electrical Contractor is only responsible for rough-ins and pathways as noted/specified *(For additional clarification, refer to electrical items submitted in Addendum 01).*

Q. Page P1.2 should there be an overflow with the primary roof drain at column C6?
A. No that area scuppers out at the front.

Q. Does any of the piping need to have arrows and labels?
A. Refer to spec section 22 0553 for pipe labeling requirement. Suite numbers should be included on cold water mains and gas piping.

Q. Does the interior gas piping need to be painted as well?
A. No, just the exterior.

Q. Are the FD1 and FD2 sure seal floor drains or do they need a trap primer?
A. As noted on the drain schedule FD1s require a trap maintenance device and FD2 does not.

Q. C1 is not list for the fixture list. Is this a wall clean out? What size?
A. Change "C1" to "U1"

Q. Page P1.1 column Q4 has an S2 but on the iso it is listed as an C1. Which one is it?
A. The fixture At Q4 is an "S2" revise designations on both the underfloor plan and the iso from "S1" to "S2".

CIVIL DRAWINGS:

ITEM C1 SHEET NO. C0.5 GENERAL DETAILS

Outlet Structure #2 has been modified. Outlet Structure #1 has a modified orifice size.

ITEM C2 SHEET NO. C0.7A GENERAL DETAILS

This page has been added to include the City of Troy's standard construction drawing for the fire hydrant and the tapping sleeve.

ITEM C3 SHEET NO. C0.11 FINAL PLAT

Note added to clarify that the retention basin is for all adjacent lots in the new subdivision.

ITEM C4 SHEET NO. C1.1 EXISTING TOPO PLAN

Notes added to clarify the clearing and grubbing to occur on the south side of the lot.
Note added to not disturb tree on southwest corner of the property.

ITEM C5 SHEET NO. C1.2 DIMENSIONING AND PAVEMENT PLAN

Note modified in reference to the lowering of the utilities in the right-of-way.

ITEM C6 SHEET NO. C2.1 UTILITY PLAN

Retention basin information and outlet structures have been modified. Domestic water line changed from 3" to 4".

ITEM C7 SHEET NO. C3.1 GRADING PLAN

Grading has been modified around the retention basin.

ITEM C8 SHEET NO. C4.1 LANDSCAPE PLAN

Landscape quantities, notes and details have been added to this page.

ARCHITECTURAL DRAWINGS:

ITEM A1 SHEET NO. A0.3 DOOR SCHEDULES

Revised height of door 701 to 8' – 0"

ITEM A2 SHEET NO. A0.4 WINDOW SCHEDULES

Revised Head, Jamb, and Sill detail references for window W4

ITEM A3 SHEET NO. A0.8 WINDOW DETAILS

Added detail D4
Added note for similar details to details B6 and F6.

ITEM A4 SHEET NO. A0.9 WINDOW DETAILS

Refer to CLOUDED areas.

ITEM A5 SHEET NO. A1.3 ROOF PLAN

Refer to CLOUDED areas.

STRUCTURAL DRAWINGS:

ITEM S1 SHEET NO. S1.1 FOUNDATION PLAN.

Added reinforcing size and spacing to the masonry walls in the upper-right area of the plan.

ITEM S2 SHEET NO. S3.1 ROOF FRAMING PLAN

Added reinforcing size and spacing to the masonry walls in the upper-right area of the plan.

PLUMBING ITEMS:

ITEM P1 SPECIFICATIONS, Section 22 0553

Add paragraph 2.2 C to read as follows; "Pipe labeling for cold water mains and all natural gas piping shall include the suite number as noted on plans.".

ITEM P2 SHEET NO. P1.0 UNDERFLOOR PIPING PLAN

Change "up to S1" north of column Q5 to "up to S2" and add up to symbols on pipe risers south of column H4 per attached revised drawing.

ITEM P3 SHEET NO. P1.1 FIRST FLOOR PLAN

Label floor drain in Mechanical and Riser room # 700 "FD2" per attached revised drawing.

ITEM P4 SHEET NO. P1.2 ROOF PLAN

Add note "Wall scupper by G.C" to plans per attached revised drawing.

ITEM P5 SHEET NO. P3.1 SOIL, WASTE, AND VENT DIAGRAM

Change "C1" fixture to "U1" and change "S1" fixture (above sheet title) to "S2". See attached revised drawing.

HVAC ITEMS:

ELECTRICAL ITEMS:

ITEM E1 SPECIFICATIONS, Section 26 4113 Lightning Protection for New Buildings

Add to list of Equal Manufacturer's, "Robbins Lightning, Inc.".

ITEM E2 SPECIFICATIONS, Section 26 6101 Fire Detection and Alarm System

Section 1.2 Acceptable Manufacturer: Add to list of Equal Manufacturer's, "Honeywell/Silent Knight", "Edwards".
Section 1.7 Extra Materials: Delete pullstations.

ITEM E3 SPECIFICATIONS, Section 26 7561 Voice and Data Communications Horizontal Cabling

Add Specification Section, attached.

ITEM E4 SHEET NO. E0.1 LEGENDS AND SCHEDULES

Electrical Legend: Revise all data rough-in boxes to have 1" bushed conduit in lieu of ¾".
Add to the List of Acceptable Equal Manufacturer's:

"A1" - Goldeneye.
"F3" – WAC.
"K2" – Lightway.

ITEM E5 SHEET NO. E0.2 SCHEDULES AND SINGLE LINE DIAGRAM

Refer to attached drawing for revisions to Panelboard Schedules and Panel Feeders.

ITEM E6 SHEET NO. E2.1 LIGHTING PLAN

Add to Construction Note 5: "Provide dimmer for each building face lighting area, North, East, West. Dimmer after lighting control contactor, before lighting zone. Locate dimmer adjacent to lighting contactor in Room 700."
Add General Notes as follows: "A. Type 'MC' cable may be utilized for lighting circuitry, fixture to fixture. Homerun circuitry shall be run overhead in EMT."

ITEM E7 SHEET NO. E3.1 POWER AND SYSTEMS PLAN

1. Add General Notes as follows: "A. Type 'MC' cable may be utilized for runouts to receptacles from junction box in center of room, run vertically concealed in walls (NO Horizontal runs in walls except where receptacle is mounted below windows and where run thru casework). Homerun circuits shall be run overhead in EMT."
2. Provide 20A-120V circuit to ADA Door Operators at entry Doors (R7-18).
3. Receptacle at Records Storage (503) circuited to R5-22.
4. The E.C. shall provide technology cabling, terminations and faceplates in Suite 500 as follows:
    a. Provide data faceplate per each data box location shown.
    b. Provide one (1) data drop from each box location to data rack location in Room 104, with the exception of box locations abutting Waiting Room shall have two (2) data drops per box (total of 4 locations).
    c. Add wireless access point in center of open office area (502).
5. The E.C. shall provide technology cabling, terminations and faceplates in Suite 600 as follows:
    a. Provide data faceplate per each data box location shown.

    b. Provide two (2) data drops from each box location to data rack location in Room 104.

6. The E.C. shall provide one (1) data cable from data rack location in Room 104 to each wireless access point shown on drawing (total of 4). Include 10' of coiled cable located above accessible ceiling at each location for final device installation by Owner.
7. The E.C. shall provide one (1) data cable from each video surveillance camera location to data rack location in Room 104. Refer to Site Plan, E1.1, for exterior pole mounted cameras on site lighting poles (total of 6 @ 3 pole locations). Coordinate camera installation with Owner.
8. The E.C. shall provide one (1) data drop and one (1) RG-6 coax from each Lobby (101) signage/monitor box to Room 104. Provide multi-use faceplate for RJ-45 and coax terminations.
9. No technology cabling required for Suites 200, 300 or 400 (except for exterior cameras shown).
10. Data cabling shall be Cat 6, plenum rated with blue jacket, RJ-45 terminations. Cabling routed below slab/grade, shall be listed for its use. Coordinate data rack location with Owner for final termination/Testing. Provide cable testing per EIA/TIA, furnish Owner with Testing Reports.
11. Provide white data faceplates for all data boxes with terminated cabling, (4 port) with clear window sleeves for jack identification. Coordinate identification tagging with Owner. Provide blank white insert for un-used ports.

ITEM E8 SHEET NO. E3.2 POWER ROOF PLAN

Lighting and Receptacles on roof circuited to R7-17.

END OF ADDENDUM NO. 1

ATTACHMENTS:

Specification Section 26 7561,
Revised Drawing Sheets: C0.5, CO.7A, C0.11, C1.1, C1.2, C2.1, C3.1, C4.1, A0.3, A0.4 A0.8 A0.9 A1.3, S1.1, S3.1, P1.0, P1.1, P1.2, P3.1, E0.2
Pre-Bid Agenda
Pre-Bid Sign-In Sheet
Soils Report

SECTION 26 7561 – VOICE AND DATA COMMUNICATIONS HORIZONTAL CABLING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pathways.
2. UTP cabling.
3. Multiuser telecommunications outlet assemblies.
4. Telecommunications outlet/connectors.
5. Cabling identification products.
6. Cabling administration system

1.2 HORIZONTAL CABLING DESCRIPTION

A. Horizontal cable and its connecting hardware provide the means of transporting signals between the telecommunications outlet/connector and the horizontal cross-connect located in the communications equipment room. This cabling and its connecting hardware are called "permanent link," a term that is used in the testing protocols.

1. TIA/EIA-568-B.1 requires that a minimum of two telecommunications outlet/connectors be installed for each work area.
2. Horizontal cabling shall contain no more than one transition point or consolidation point between the horizontal cross-connect and the telecommunications outlet/connector.
3. Bridged taps and splices shall not be installed in the horizontal cabling.

1.3 PERFORMANCE REQUIREMENTS

A. General Performance: Horizontal cabling system shall comply with transmission standards in TIA/EIA-568-B.1, when tested according to test procedures of this standard.

1.4 SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings:

1. System Labeling Schedules: Electronic copy of labeling schedules, in software and format selected by Owner.
2. Cabling administration drawings and printouts.

C. Qualification Data: For Installer, qualified layout technician, installation supervisor, and field inspector.

D. Maintenance data.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Cabling Installer must have personnel certified by BICSI on staff.

1. Layout Responsibility: Preparation of Shop Drawings, Cabling Administration Drawings, and field testing program development by an RCDD.
2. Installation Supervision: Installation shall be under the direct supervision of Registered Technician, who shall be present at all times when Work of this Section is performed at Project site.

B. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: 25 or less.
2. Smoke-Developed Index: 50 or less.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

D. Telecommunications Pathways and Spaces: Comply with TIA/EIA-569-A.

E. Grounding: Comply with ANSI-J-STD-607-A.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Test cables upon receipt at Project site. Test each pair of UTP cable for open and short circuits.

PART 2 - PRODUCTS

2.1 PATHWAYS

A. Cable Support: NRTL labeled for support of Category 6 cabling, designed to prevent degradation of cable performance and pinch points that could damage cable.

1. Support brackets with cable tie slots for fastening cable ties to brackets.
2. Lacing bars, spools, J-hooks, and D-rings.
3. Straps and other devices.

B. Conduit and Boxes: Comply with requirements in Division 26 Section "Raceway and Boxes for Communications Systems." Flexible metal conduit shall not be used.

1. Outlet boxes shall be no smaller than 4 inches square, and 2-1/2 inches deep.

2.2 UTP CABLE

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Open Protocol.

B. Description: 100-ohm, 4-pair UTP, covered with a blue thermoplastic jacket.

1. Comply with ICEA S-90-661 for mechanical properties.
2. Comply with TIA/EIA-568-B.1 for performance specifications.
3. Comply with TIA/EIA-568-B.2, Category 6 for data.
4. Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444 and NFPA 70 for the following types:

a. Communications, Plenum Rated: Type CMP, complying with NFPA 262.
b. Communications, Riser Rated: Type CMR, complying with UL 1666.
c. Multipurpose, Plenum Rated: Type MPP, complying with NFPA 262.
d. Multipurpose, Riser Rated: Type MPR, complying with UL 1666.

2.3 UTP CABLE HARDWARE

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. American Technology Systems Industries, Inc.
2. Dynacom Corporation.
3. Hubbell Premise Wiring.
4. Panduit Corp.

B. General Requirements for Cable Connecting Hardware: Comply with TIA/EIA-568-B.2, IDC type, with modules designed for punch-down caps or tools. Cables shall be terminated with connecting hardware of same category or higher.

C. Jacks and Jack Assemblies: Modular, color-coded, eight-position modular receptacle units with integral IDC-type terminals.

2.4 CONSOLIDATION POINTS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Data: Open Protocol.

B. Description: Consolidation points shall comply with requirements for cable connecting hardware.

1. Number of Terminals per Field: One for each conductor in assigned cables.
2. Number of Connectors per Field:

a. One for each four-pair UTP cable indicated.

3. Mounting: Recessed in Floor or Wall as indicated on floor plans.
4. NRTL listed as complying with UL 50 and UL 1863.
5. When installed in plenums used for environmental air, NRTL listed as complying with UL 2043.

2.5 MULTIUSER TELECOMMUNICATIONS OUTLET ASSEMBLY (MUTOA)

A. Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Data: Open Protocol

B. Description: MUTOAs shall meet the requirements for cable connecting hardware.

1. Number of Terminals per Field: One for each conductor in assigned cables.
2. Number of Connectors per Field:

a. One for each four-pair UTP cable indicated.

3. Mounting: Recessed in Floor, Wall or Furniture.
4. NRTL listed as complying with UL 50 and UL 1863.
5. Label shall include maximum length of work area cords, based on TIA/EIA-568-B.1.

2.6 DATA OUTLET/CONNECTORS

A. Jacks: 100-ohm, balanced, twisted-pair connector; four-pair, eight-position modular. Comply with TIA/EIA-568-B.1.

B. Workstation Outlets: Four-port-connector assemblies mounted in single gang faceplate.

1. Faceplate: White nylon, complying with requirements in Division 26 Section "Wiring Devices."
2. For use with snap-in jacks accommodating any combination of UTP work area cords.

a. Flush mounting jacks, positioning the cord at a 180-degree angle.

3. Legend: Snap-in, clear-label covers and machine-printed paper inserts.

2.7 GROUNDING

A. Comply with requirements in Division 26 Section "Grounding and Bonding for Electrical Systems" for grounding conductors and connectors.

B. Comply with ANSI-J-STD-607-A.

2.8 IDENTIFICATION PRODUCTS

A. Comply with TIA/EIA-606-A and UL 969 for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers.

B. Comply with requirements in Division 26 Section "Identification for Electrical Systems."

2.9 SOURCE QUALITY CONTROL

A. Factory test UTP cables on reels according to TIA/EIA-568-B.1.

B. Factory test UTP cables according to TIA/EIA-568-B.2.

C. Cable will be considered defective if it does not pass tests and inspections.

PART 3 - EXECUTION

3.1 ENTRANCE FACILITIES

A. Provided by Owner.

3.2 WIRING METHODS

A. Wiring Method: Install cables in raceways and routed thru J-Hook/Bridle Ring System in accessible ceiling spaces except within consoles, cabinets, desks, and counters. Conceal raceway and cables except in unfinished spaces. The floor plans indicate areas where basket tray shall be utilized above accessible ceiling panels. All other areas shall utilize J-Hook/Bridle Ring System and conduit system from workstation outlet to corridor cable management system.

1. Install plenum cable in environmental air spaces, including plenum ceilings.
2. Comply with requirements for raceways and boxes specified in Division 26 Section "Raceway and Boxes for Electrical Systems."

B. Wiring within Enclosures: Bundle, lace, and train cables to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools.

3.3 INSTALLATION OF PATHWAYS

A. J-Hook/Bridle Ring System: Comply with TIA/EIA-569-A. Drawings indicate general routing of system. Provide capacity for all new cabling to be installed plus 100% spare capacity. Provide tiered or tandem hooks as required.

B. Comply with TIA/EIA-569-A for pull-box sizing and length of conduit and number of bends between pull points.

C. Comply with requirements in Division 26 Section "Raceway and Boxes for Communications Systems" for installation of conduits and wireways.

D. Install manufactured conduit sweeps and long-radius elbows whenever possible.

E. Pathway Installation in Communications Equipment Rooms:

1. Position conduit ends adjacent to a corner on backboard where a single piece of plywood is installed, or in the corner of room where multiple sheets of plywood are installed around perimeter walls of room.
2. Secure conduits to backboard when entering room from overhead.
3. Install metal conduits with grounding bushings and connect with grounding conductor to grounding system.
4. Install J-Hooks around perimeter of room near top of backboards 12” O.C.

F. Backboards: Install backboards with 96-inch dimension vertical. Butt adjacent sheets tightly, and form smooth gap-free corners and joints.

3.4 INSTALLATION OF CABLES

A. Comply with NECA 1.

B. General Requirements for Cabling:

1. Comply with TIA/EIA-568-B.1.
2. Comply with BICSI ITSIM, Ch. 6, "Cable Termination Practices."
3. Install Cat 6 patch panel termination hardware unless otherwise indicated.
4. MUTOA shall not be used as a cross-connect point.
5. Consolidation points may be used only for making a direct connection to telecommunications outlet/connectors:

    a. Do not use consolidation point as a cross-connect point, as a patch connection, or for direct connection to workstation equipment.
    b. Locate consolidation points for UTP at least 49 feet from communications equipment room.

6. Terminate conductors; no cable shall contain unterminated elements. Make terminations only at indicated outlets, terminals, cross-connects, and patch panels.
7. Cables may not be spliced. Secure and support cables at intervals not exceeding 30 inches and not more than 6 inches from cabinets, boxes, fittings, outlets, racks, frames, and terminals.
8. Install lacing bars to restrain cables, to prevent straining connections, and to prevent bending cables to smaller radii than minimums recommended by manufacturer.
9. Bundle, lace, and train conductors to terminal points without exceeding manufacturer's limitations on bending radii, but not less than radii specified in BICSI ITSIM, "Cabling Termination Practices" Chapter. Install lacing bars and distribution spools.
10. Do not install bruised, kinked, scored, deformed, or abraded cable. Do not splice cable between termination, tap, or junction points. Remove and discard cable if damaged during installation and replace it with new cable.

11. Cold-Weather Installation: Bring cable to room temperature before dereeling. Heat lamps shall not be used for heating.
12. In the communications equipment room and at workstation outlet in private offices, install a 10-foot- long service loop on each end of cable. Locate private office service loop above accessible ceiling of office.
13. Pulling Cable: Comply with BICSI ITSIM, Ch. 4, "Pulling Cable." Monitor cable pull tensions.

C. UTP Cable Installation:

1. Comply with TIA/EIA-568-B.2.
2. Do not untwist UTP cables more than 1/2 inch from the point of termination to maintain cable geometry.

D. Open-Cable Installation:

1. Install cabling with horizontal and vertical cable guides in telecommunications spaces with terminating hardware and interconnection equipment.
2. Suspend UTP cable not in a wireway or pathway a minimum of 8 inches above ceilings by cable supports not more than 60 inches apart.
3. Cable shall not be run through structural members or in contact with pipes, ducts, or other potentially damaging items. Where cable spans a break in cable tray due to conflict with ductwork or piping, provide “J-hook” on each side of obstruction to route/suspend cable above obstruction.

E. Group connecting hardware for cables into separate logical fields.

F. Separation from EMI Sources:

1. Comply with BICSI TDMM and TIA/EIA-569-A for separating unshielded copper voice and data communication cable from potential EMI sources, including electrical power lines and equipment.
2. Separation between open communications cables or cables in nonmetallic raceways and unshielded power conductors and electrical equipment shall be as follows:

    a. Electrical Equipment Rating Less Than 2 kVA: A minimum of 5 inches.

3. Separation between communications cables in grounded metallic raceways and unshielded power lines or electrical equipment shall be as follows:

    a. Electrical Equipment Rating Less Than 2 kVA: A minimum of 2-1/2 inches.

4. Separation between communications cables in grounded metallic raceways and power lines and electrical equipment located in grounded metallic conduits or enclosures shall be as follows:

    a. Electrical Equipment Rating Less Than 2 kVA: No requirement.

5. Separation between Communications Cables and Electrical Motors and Transformers, 5 kVA or HP and Larger: A minimum of 48 inches.

3.5 FIRESTOPPING

A. Comply with requirements in Division 07 Section "Penetration Firestopping."

B. Comply with TIA/EIA-569-A, Annex A, "Firestopping."

3.6 GROUNDING

A. Install grounding according to BICSI TDMM, "Grounding, Bonding, and Electrical Protection" Chapter.

B. Locate grounding bus bar in data room to minimize the length of bonding conductors. Fasten to wall allowing at least 2-inch clearance behind the grounding bus bar. Connect grounding bus bar with a minimum No. 4 AWG grounding electrode conductor from grounding bus bar to suitable electrical building ground.

C. Bond metallic equipment to the grounding bus bar, using not smaller than No. 6 AWG equipment grounding conductor.

3.7 IDENTIFICATION

A. Identify system components, wiring, and cabling complying with TIA/EIA-606-A. Comply with requirements for identification specified in Division 26 Section "Identification for Electrical Systems."

1. Color-code cross-connect fields. Apply colors to data service connections, covers, and labels.

B. Comply with requirements in Division 09 Section "Interior Painting" for painting backboards. For fire-resistant plywood, do not paint over manufacturer's label.

C. Cable Schedule: Post in prominent location in each equipment room and wiring closet. List incoming and outgoing cables and their designations, origins, and destinations. Protect with rigid frame and clear plastic cover. Furnish an electronic copy of final comprehensive schedules for Project.

D. Cabling Administration Drawings: Show building floor plans with cabling administration-point labeling. Identify labeling convention and show labels for telecommunications closets, horizontal cables, work areas and workstation terminal positions, grounding buses and pathways, and equipment grounding conductors. Follow convention of TIA/EIA-606-A. Furnish electronic record of all drawings, in software and format selected by Owner.

E. Cable and Wire Identification:

1. Label each cable within 4 inches of each termination and tap, where it is accessible in a cabinet or junction or outlet box, and elsewhere as indicated.
2. Exposed Cables: Label each cable at intervals not exceeding 15 feet.
3. Label each terminal strip and screw terminal in each cabinet, rack, or panel.

a. Individually number wiring conductors connected to terminal strips and identify each cable or wiring group being extended from a panel or cabinet to a building-mounted device shall be identified with name and number of particular device as shown.
b. Label each unit and field within distribution racks and frames.

4. Identification within Connector Fields in Equipment Rooms and Wiring Closets: Label each connector and each discrete unit of cable-terminating and connecting hardware. Where similar jacks and plugs are used for both voice and data communication cabling, use a different color for jacks and plugs of each service.
5. Uniquely identify and label work area cables extending from the MUTOA to the work area. These cables may not exceed the length stated on the MUTOA label.

F. Labels shall be preprinted or computer-printed type with printing area and font color that contrasts with cable jacket color but still complies with requirements in TIA/EIA-606-A.

1. Cables use flexible vinyl or polyester that flex as cables are bent.

3.8 FIELD QUALITY CONTROL

A. Tests and Inspections:

1. Visually inspect UTP cable jacket materials for NRTL certification markings. Inspect cabling terminations in communications equipment rooms for compliance with color-coding for pin assignments, and inspect cabling connections for compliance with TIA/EIA-568-B.1.
2. Visually confirm Category 6 marking of outlets, cover plates, outlet/connectors, and patch panels.
3. Visually inspect cable placement, cable termination, grounding and bonding, equipment and patch cords, and labeling of all components.

4. UTP Performance Tests:

a. Test for each outlet and MUTOA. Perform the following tests according to TIA/EIA-568-B.1 and TIA/EIA-568-B.2:

1) Wire map.
2) Length (physical vs. electrical, and length requirements).
3) Insertion loss.
4) Near-end crosstalk (NEXT) loss.
5) Power sum near-end crosstalk (PSNEXT) loss.
6) Equal-level far-end crosstalk (ELFEXT).
7) Power sum equal-level far-end crosstalk (PSELFEXT).
8) Return loss.
9) Propagation delay.
10) Delay skew.

5. Final Verification Tests: Perform verification tests for UTP systems after the complete communications cabling and workstation outlet/connectors are installed.

a. Voice Tests: These tests assume that dial tone service has been installed. Connect to the network interface device at the demarcation point. Go off-hook and listen and receive a dial tone. If a test number is available, make and receive a local, long distance, and digital subscription line telephone call.

B. Document data for each measurement. Data for submittals shall be printed in a summary report that is formatted similar to Table 10.1 in BICSI TDMM, or transferred from the instrument to the computer, saved as text files, and printed and submitted.

C. Prepare test and inspection reports.

END OF SECTION 26 7561

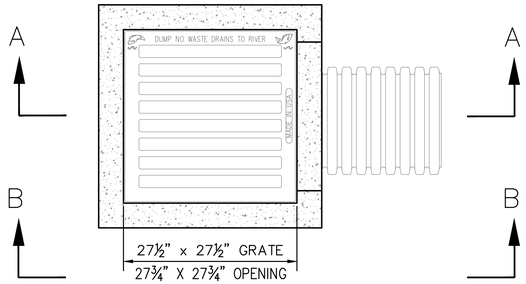
2-2B CATCH BASIN (DETENTION BASIN) OUTLET STRUCTURE

NTS

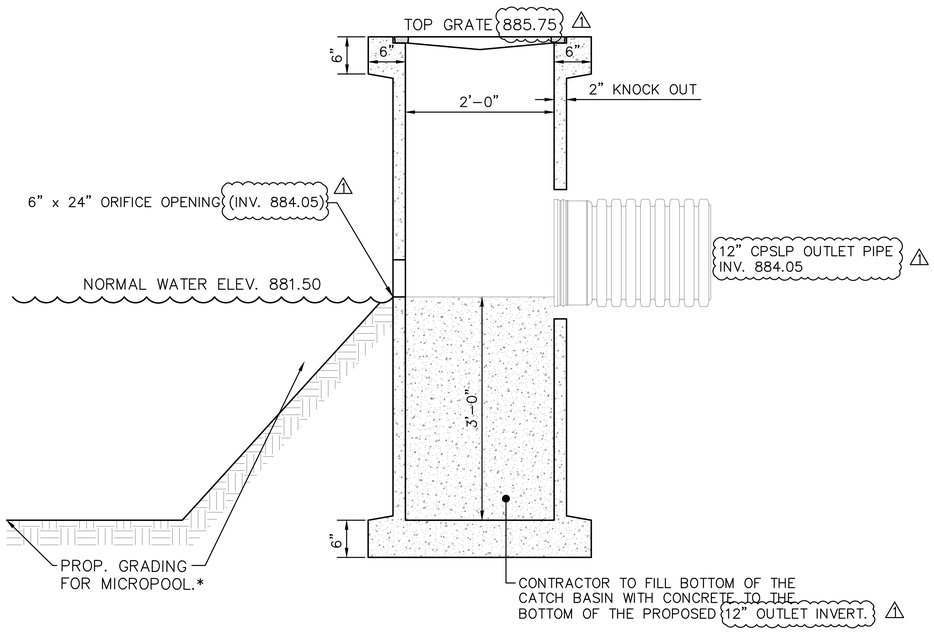
NOTES

A. GRATE SHALL BE NEENAH CATALOG NO. R-4871 (TYPE B GRATE) OR EQUIVALENT. CONTRACTOR SHALL FASTEN/BOLT DOWN GRATE TO STRUCTURE TO ENSURE GRATE IS SECURELY FASTENED IN PLACE.

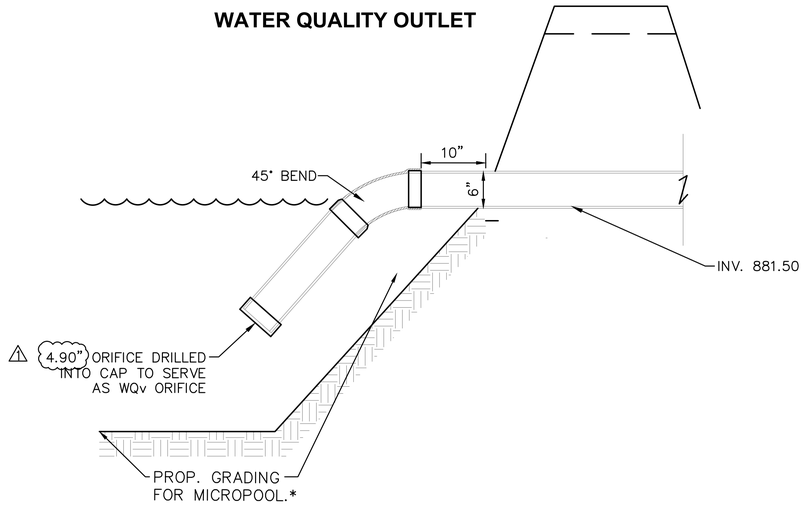
B. PRECAST STRUCTURE CONSTRUCTION IS REQUIRED, UNLESS OTHERWISE APPROVED, AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13. CAST-IN-PLACE CONCRETE IN THE FIELD WILL BE ALLOWED FOR SUMP ELIMINATION/ANTI-FLOATATION.

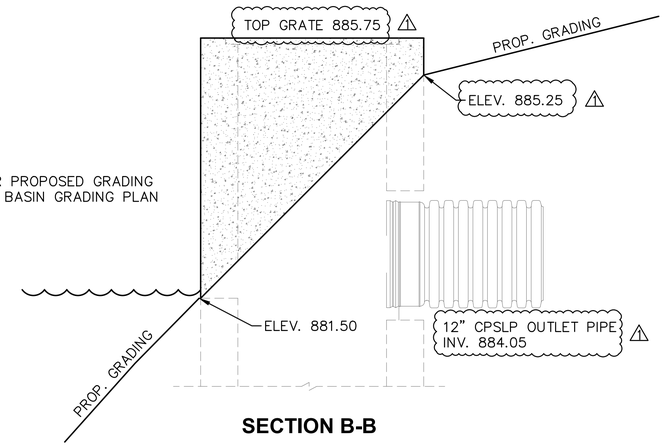


PLAN VIEW

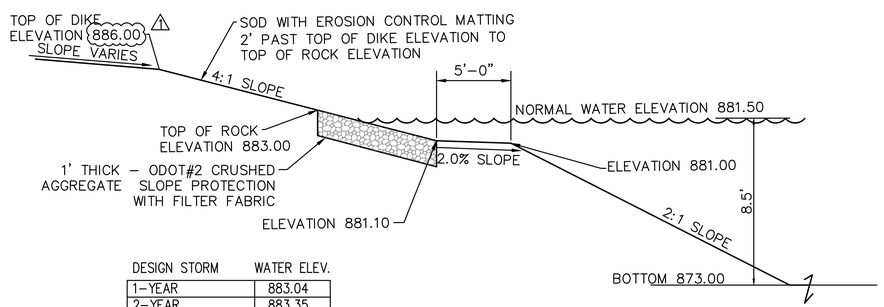


SECTION A-A





SECTION B-B



DESIGN STORM	WATER ELEV.
1-YEAR	883.04
2-YEAR	883.35
5-YEAR	883.95
10-YEAR	884.32
25-YEAR	884.60
50-YEAR	884.88
100-YEAR	885.13

RETENTION POND TYPICAL SECTION

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MIAMI COUNTY ONE STOP CENTER
BOARD OF COMMISSIONERS FOR MIAMI COUNTY, OHIO
BARNHART ROAD, TROY, OHIO 45373

ISSUE

NO.	DATE	DESCRIPTION
1	04/08/2022	FOR CONSTRUCTION
2	05/04/2022	ADDENDUM 1

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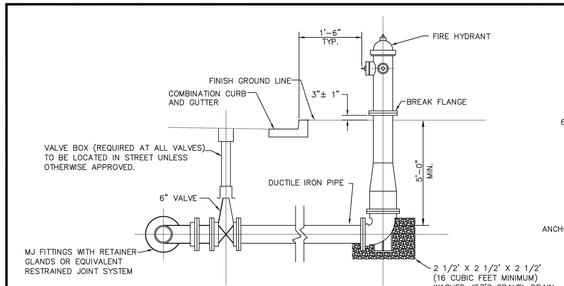
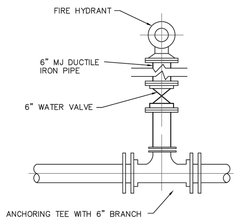
DRAWN	JAC
CHECKED	ATS

TITLE
GENERAL DETAILS

SHEET NO.
C0.5



SECTION VIEW



BASIC TEE DETAIL PLAN

NOTES

A. FIRE HYDRANTS – AMERICAN DARLING B84B; TWO 2–1/2" HOSE NOZZLE WITH DAYTON THREAD CONNECTIONS; ONE 4" I.D (4–1/2" O.D.) WITH 5" STORTZ PUMPER NOZZLE NOT NATIONAL STANDARD THREADS; CONFORMING TO AWWA; CCW TO OPEN; SELF–DRAINING; BREAK FLANGES 3" ABOVE GRADE.
B. FIRE HYDRANT BASES – HYDRANT INLET SHALL BE DESIGNED FOR MULTI–PURPOSE MATERIAL USE WITH A WIDE RANGE OF PIPE OUTSIDE DIAMETERS (O.D.), INLET SHALL INCORPORATE A STAB–FIT DESIGN REQUIRING THE USE OF ONLY ONE TYPE 304 STAINLESS STEEL FASTENER, RESTRAINT ACCESSORIES SHALL BE FACTORY INSTALLED AND ALL HYDRANT INLETS SHALL BE ALPHA DESIGN FURNISHED BY AMERICAN FLOW CONTROL.
C. GATE VALVES SHALL BE AWWA C–515, RESILIENT WEDGE, NONRISING STEM, MECHANICAL JOINT, 150 PSI WORKING PRESSURE, CCW TO OPEN WITH ARROW INDICATING OPEN DIRECTION, MUELLER, AMERICAN ALPHA OR EQUIVALENT. DOMESTIC MADE ONLY. VALVE SHALL BE PLACED AS CLOSE TO THE WATER MAIN AS POSSIBLE.
D. VALVE BOXES SHALL BE 3–PIECE, ADJUSTABLE 36" TO 48", 5.25" DIAMETER NOMINAL, ADJUSTABLE SCREW TYPE, COVER MARKED "WATER", DOMESTIC MADE ONLY.
E. ALL FITTINGS TO BE RESTRAINED AND AWWA C–153 DUCTILE IRON, COMPACT.
F. ALL VALVES AND HYDRANTS SHALL OPEN LEFT BY TURNING IN A COUNTER–CLOCKWISE DIRECTION.
G. CONTRACTOR TO FACE HYDRANT AS REQUIRED BY THE CITY.
H. HYDRANT BODY SHALL BE YELLOW AND DOME SHALL BE WHITE.
YELLOW– DOPAN® YELLOW 3186 OR APPROVED EQUAL.
WHITE– POLAR WHITE WITH REFLECTIVE CLEAR COAT 822900

CITY OF TROY	FIRE HYDRANT DETAIL	REVISIONS: OCT 2018 DEC 2019	DATE APPROVED: NOV 2017 PAGE No. 800–3
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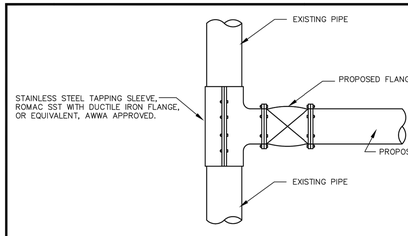


TAPPING SLEEVE AND VALVE DETAIL

NOTES

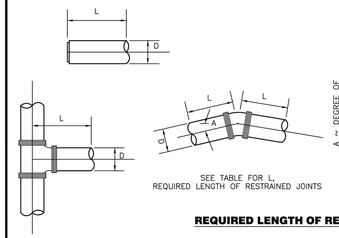
A. BELL JOINT RESTRAINTS – USE FIELD LOCK BY U.S. PIPE OR APPROVED EQUIVALENT.

B. MECHANICAL JOINT RESTRAINTS – EBAA IRON MEGALUG RETAINER GLAND OR EQUIVALENT.

C. ALL MECHANICAL BENDS, TEES, ETC., SHALL BE RESTRAINED USING MECHANICAL RESTRAINING JOINTS.

D. TEST SLEEVE TO 150 PSI(200 PSI FOR FIRE LINE) PRIOR TO CUTTING IN COVING PIPE.

E. TAPPING SLEEVE AND VALVE SHALL BE PROVIDED BY CONTRACTOR WHEN TYING INTO THE EXISTING WATER MAIN.



SEE TABLE FOR L, REQUIRED LENGTH OF RESTRAINED JOINTS

	D–DIAMETER OF PIPE							
	4"	6"	8"	10"	12"	16"	20"	24"
11 1/4°	4	5	7	8	9	11	14	16
22 1/2°	7	10	13	15	18	23	27	32
45°	14	20	26	31	36	47	57	66
90°	34	47	62	74	87	112	136	160
TEE	34	47	62	74	87	112	136	160
END	34	47	62	74	87	112	136	160

*REQUIRED RESTRAINED JOINT AT FITTING AND ONE BELL JOINT FROM FITTING MINIMUM.

DESIGN PARAMETERS FOR RESTRAINED JOINT TABLE
LAYING CONDITIONS – TYPE 2
SOIL DESIGNATION – SILT
DEPTH OF COVER – 5'–0"
DESIGN PRESSURE – 150 PSI
SAFETY FACTOR – 1.50
POLYWRAPPED PIPE
IF WORST CONDITIONS EXIST, ADDITIONAL RESTRAINTS WILL BE NECESSARY.

REQUIRED LENGTH OF RESTRAINED JOINTS FOR WATER MAINS

CITY OF TROY	RESTRAINING JOINTS AND TAPPING SLEEVE FOR WATER MAINS	REVISIONS:	DATE APPROVED: NOV 2017 PAGE No. 800–4
ChoiceOne Engineering			

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MIAMI COUNTY ONE STOP CENTER

BOARD OF COMMISSIONERS FOR MIAMI COUNTY, OHIO

BARNHART ROAD, TROY, OHIO 45373

ISSUE

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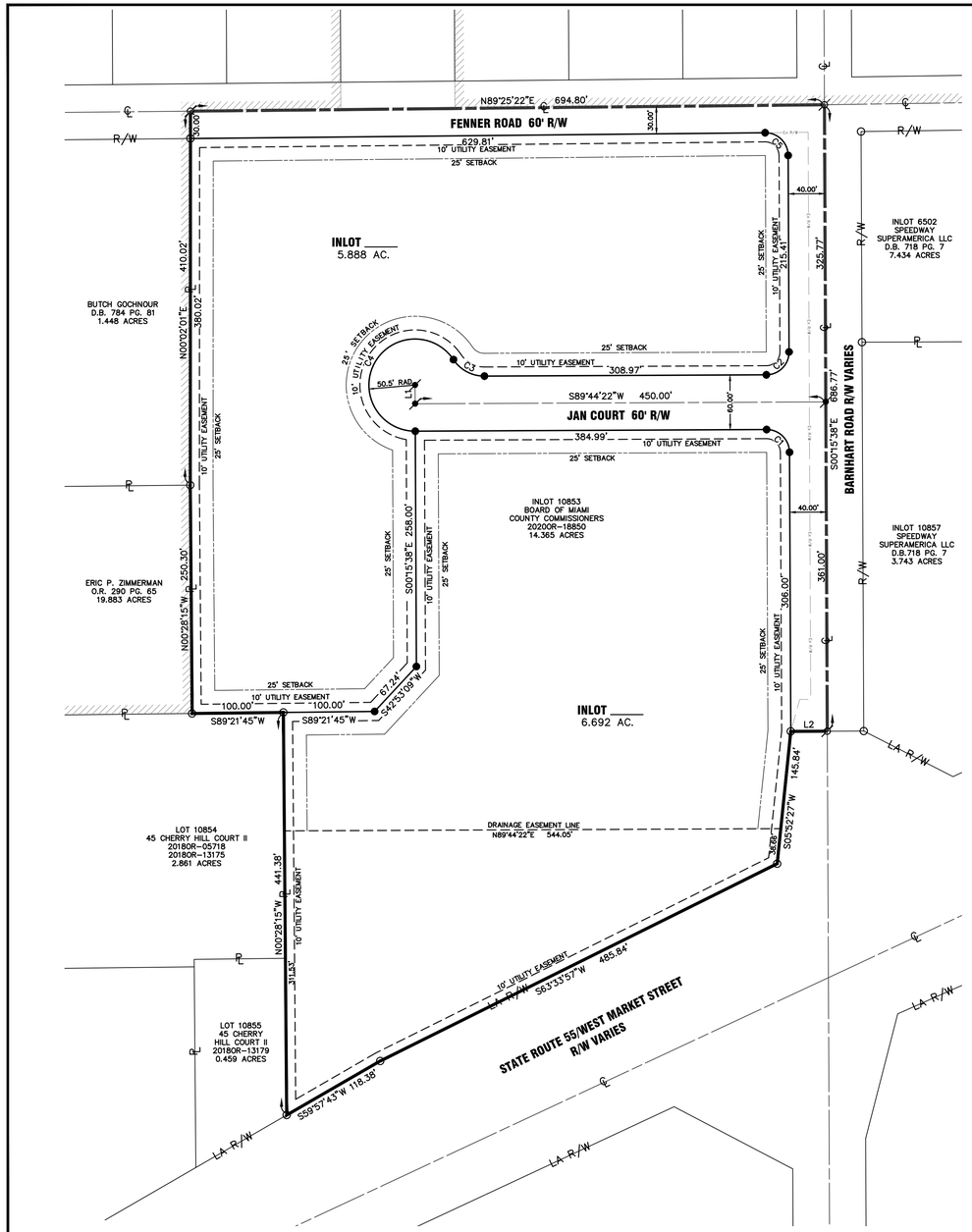
C0.7A



PLAT BOOK ____, PAGE ____-A
MIAMI COUNTY RECORDER'S RECORD OF PLATS

ONE STOP CENTER-SECTION ONE

10853	TROY	MIAMI	OHIO
INLOT	CITY	COUNTY	STATE

DEED REFERENCE

INLOT 10853
BOARD OF MIAMI COUNTY COMMISSIONERS
20200R-18850
14.365 ACRES

SURVEY REFERENCE

LAND SURVEY 8, PG. 34
LAND SURVEY 21, PG. 63
LAND SURVEY 22, PG. 7
REC. P.B. 22, PG. 52
REC. P.B. 27, PG. 30
REC. P.B. 27, PG. 49

NOTES

1.) ALL FRONT LOT LINES ARE SUBJECT TO A 10' UTILITY EASEMENT UNLESS OTHERWISE NOTED. THERE SHALL BE A 10' UTILITY EASEMENT ALONG EACH SIDE OF THE INTERIOR LOT LINES UNLESS OTHERWISE NOTED.

2.) NO WELLS SHALL BE DRILLED IN THIS SUBDIVISION.

3.) ALL DRIVEWAYS SHALL BE INSTALLED OFF OF JAN COURT.

4.) STREET IMPROVEMENTS SHALL BE DONE UPON DEVELOPMENT.

5.) DRAINAGE EASEMENT IS DEDICATED AS A REGIONAL STORMWATER RETENTION BASIN FOR ALL LOTS ADJACENT TO JAN COURT. ⚠

CURVE TABLE					
CURVE	RADIUS	LENGTH	DELTA	CH DIST	CH BEARING
C1	25.00'	39.27'	90°00'00"	35.36'	N45°15'38"W
C2	25.00'	39.27'	90°00'00"	35.36'	S44°44'22"W
C3	40.50'	40.06'	56°40'14"	38.45'	N61°55'31"W
C4	50.50'	208.61'	236°41'00"	88.89'	S28°04'07"W
C5	25.00'	39.41'	90°19'00"	35.45'	S45°25'08"E

LINE TABLE		
LINE	LENGTH	BEARING
L1	20.50'	N00°16'23"W
L2	40.00'	S89°44'22"W

LEGEND

- ● 5/8" X 30" REBAR W/CAP TO BE SET
- ○ IRON PIN FOUND
- MAG NAIL SET
- MAG NAIL FOUND
- UTILITY EASEMENT LINE (SEE NOTE 1)
- BUILDING SETBACK LINE
  FRONT=25'
  REAR=25'
  SIDE=10'
  AS SHOWN ON THIS PLAT
- EXISTING CORPORATION LINE

THE BEARINGS SHOWN HEREON ARE BASED ON NAD 83, GEOID 2003 OHIO SOUTH ZONE, ODOT VRS CORS NETWORK

SCALE 1" = 80'
0 40 80 160

STATE OF OHIO
GOUBEAUX
REGISTERED PROFESSIONAL SURVEYOR

SUBMITTED FOR REVIEW

ChoiceOne Engineering
SIDNEY, OHIO 937.497.0300
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

DATE: 02-03-2022
DRAWN BY: MPL
JOB NUMBER: MIATRO2106
SHEET NUMBER 2 OF 2

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MIAMI COUNTY ONE STOP CENTER

BOARD OF COMMISSIONERS FOR MIAMI COUNTY, OHIO

BARNHART ROAD, TROY, OHIO 45373

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CHECKED	ATS

TITLE
FINAL PLAT

SHEET NO.
C0.11

ChoiceOne Engineering

D.B. 784 PG. 81
1.448 ACRES

ERIC P. ZIMMERMAN
O.R. 290 PG. 65
19.883 ACRES

INLOT 10853
BOARD OF MIAMI
COUNTY COMMISSIONERS
20200R-18850
14.365 ACRES

INLOT 10857
SPEEDWAY
SUPERAMERICA LLC
D.B.718 PG. 7
3.743 ACRES

LOT 10854
45 CHERRY HILL COURT II
20180R-05718
20180R-13175
2.861 ACRES

LOT 10855
45 CHERRY
HILL COURT II
20180R-13179
0.459 ACRES

- ●I.P.S. 5/8" X 30" REBAR W/CAP SET
- ○I.P.F. IRON PIN FOUND
- ●M.N.S. MAG NAIL SET
- ○M.N.F. MAG NAIL FOUND
- EXISTING UTILITY POLE
- EXISTING LIGHT POLE
- EXISTING GUY ANCHOR
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING WATER FAUCET
- —W— EXISTING WATER MAIN
- EXISTING SANITARY CLEAN OUT
- EXISTING SANITARY MANHOLE
- EXISTING ROUND CATCH BASIN
- EXISTING CATCH BASIN
- EXISTING STORM MANHOLE
- EXISTING DOWNSPOUT
- PAD EXISTING ELECTRICAL TRANS. PAD
- EXISTING ELECTRIC RISER
- EXISTING ELECTRIC MANHOLE
- EXISTING ELECTRIC METER
- —E— EXISTING ELECTRIC LINE
- —OVH E— EXISTING OVERHEAD ELECTRIC LINES
- —T— EXISTING TELEPHONE LINE
- EXISTING TELEPHONE METER
- EXISTING CABLE RISER
- —C— EXISTING UG TELEPHONE LINE
- —CTV— EXISTING UG CABLE TV LINE
- GR EXISTING GAS REGULATOR
- —G— EXISTING GAS LINE
- —X— X EXISTING FENCE
- CONIFEROUS SHRUBS
- DECIDUOUS TREE

BENCHMARK #1 RAILROAD SPIKE IN POWER POLE NORTHWEST CORNER OF BARNHART RD AND FENNER RD	**ELEV. 887.56**
BENCHMARK #2 BOLT TIP ARROW FIRE HYDRANT EAST SIDE OF BARNHART NORTH OF TRUCK FUELING DRIVE	**ELEV. 888.66**
BENCHMARK #3 SOUTHEAST BOLT ON BASE OF STRAIN POLE NORTHWEST COR. INTERSECTION OF 55 AND BARNHART	**ELEV. 886.47**

CLEARING AND GRUBBING AS REQUIRED. EXISTING FENCING TO REMAIN.

APPROX. LOCATION OF EXISTING LARGE TREE TO REMAIN

SCALE IN FEET
0 20 40 80

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CHECKED	ATS

TITLE
EXISTING TOPO PLAN

SHEET NO.
C1.1

Choice One Engineering

HEAVY DUTY CONCRETE PAVEMENT
ITEM 452 – 8" NON–REINFORCED CONCRETE PAVEMENT (ODOT QC–1P) WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES ON
ITEM 304 – 6" AGGREGATE BASE ON
ITEM 204 – SUBGRADE COMPACTION

HEAVY DUTY ASPHALT PAVEMENT
ITEM 441 – 1 1/4" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448) PG 64–22 ON
ITEM 407 – NON–TRACKING TACK COAT (APPLIED AT A RATE OF 0.06 GALLONS PER SQUARE YARD) ON
ITEM 441 – 1 3/4" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448) ON
ITEM 407 – NON–TRACKING TACK COAT (APPLIED AT A RATE OF 0.06 GALLONS PER SQUARE YARD) ON
ITEM 301 – 3" ASPHALT CONCRETE BASE ON
ITEM 304 – 8" AGGREGATE BASE (2 EQUAL LIFTS) ON
ITEM 204 – SUBGRADE COMPACTION

REGULAR DUTY ASPHALT PAVEMENT
ITEM 441 – 1 1/2" ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, (448) PG 64–22 ON
ITEM 407 – NON–TRACKING TACK COAT (APPLIED AT A RATE OF 0.06 GALLONS PER SQUARE YARD) ON
ITEM 441 – 2 1/2" ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, (448) ON
ITEM 304 – 6" AGGREGATE BASE (2 EQUAL LIFTS) ON
ITEM 204 – SUBGRADE COMPACTION

REMOVE AND REPLACE EXISTING PAVEMENT IN-KIND
CONTRACTOR TO COORDINATE THE REMOVAL AND REPLACEMENT OF IN–KIND PAVEMENT WITH THE OWNER TO MAINTAIN ACCESS TO THE EXISTING AREAS AS NEEDED AND TO MINIMIZE AND PROPERLY SCHEDULE ANY DOWNTIME THAT MAY BE REQUIRED TO PERFORM THIS WORK. ACTUAL AREAS OF IN–KIND PAVEMENT REPLACEMENT TO BE AS NEEDED TO PERFORM REQUIRED WORK

CONCRETE SIDEWALK
ITEM 608 – 4" CONCRETE SIDEWALK (ODOT QC–1P) ON
ITEM 411 – 4" STABILIZED AGGREGATE BASE

PROPOSED BUILDING

SITE DATA:
BUILDING HEIGHT: 20'–6"
PROPOSED PARKING SPACES: 186

ChoiceOne Engineering

PAVEMENT STRIPING NOTES:
ANY PROPOSED PAVEMENT MARKING SHALL BE STRIPED AS PART OF THIS WORK.

ALL PAVEMENT MARKING LINES SHALL BE WHITE OR YELLOW (DO NOT REQUIRE REFLECTOR BEADS) AND SHALL CONSIST OF 4" WIDE LINES.

ALL PAVEMENT MARKINGS SHALL BE PER ODOT ITEM 640 AND 642. ALL PAVEMENT MARKINGS TO BE TYPE 1, UNLESS APPLICATION IS REQUIRED WHEN AIR AND PAVEMENT TEMPERATURES ARE BETWEEN 35 °F AND 50 °F, THEN OBTAIN APPROVAL FROM THE OWNER AND APPLY ONLY PRE–QUALIFIED TYPE 1A COLD WEATHER TRAFFIC PAINT MATERIALS PER ITEM 642 AND 740.

ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

NOTES:
1) ALL DIMENSIONS INVOLVING CURBING ARE TO THE FACE OF CURB, UNLESS OTHERWISE NOTED.

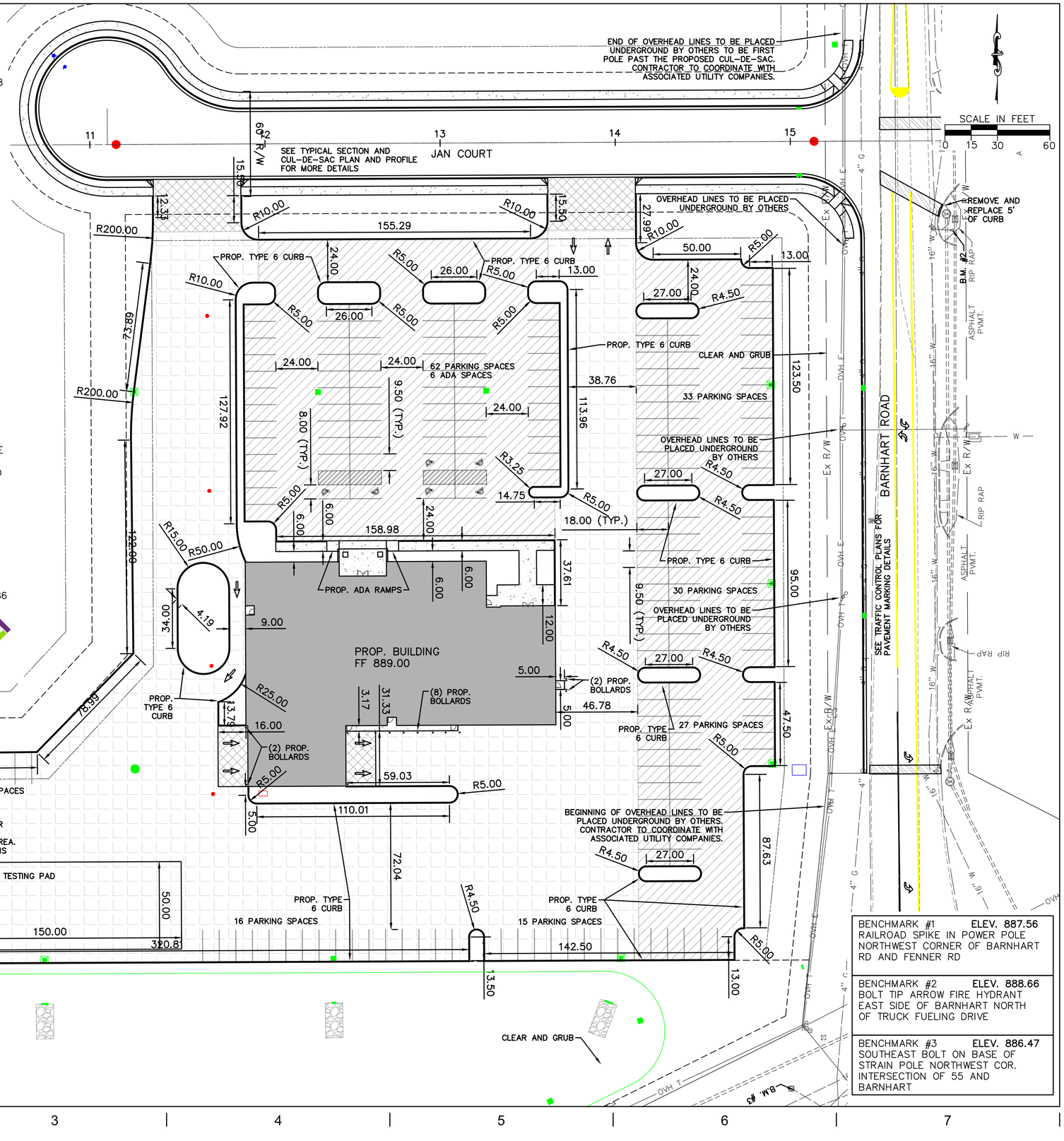
2) INSTALL DRIVEWAY PER CITY OF TROY STANDARDS.

3) CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

4) CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED DEVELOPMENT INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED AND/OR REQUIRED.

5) CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

6) CONTRACTOR TO COORDINATE THE LOWERING OF UTILITIES ON BARNHART ROAD WITH THE ASSOCIATED COMPANIES. SEE PLAN VIEW FOR LOWERING LIMITS. ASSOCIATED COST TO LOWER LINES WILL BE THE RESPONSIBILITY OF THE OWNER.



BENCHMARK #1	ELEV. 887.56
RAILROAD SPIKE IN POWER POLE NORTHWEST CORNER OF BARNHART RD AND FENNER RD	
BENCHMARK #2	ELEV. 888.66
BOLT TIP ARROW FIRE HYDRANT EAST SIDE OF BARNHART NORTH OF TRUCK FUELING DRIVE	
BENCHMARK #3	ELEV. 886.47
SOUTHEAST BOLT ON BASE OF STRAIN POLE NORTHWEST COR. INTERSECTION OF 55 AND BARNHART	

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MIAMI COUNTY ONE STOP CENTER
BOARD OF COMMISSIONERS FOR MIAMI COUNTY, OHIO
BARNHART ROAD, TROY, OHIO 45373

ISSUE

NO.	DATE	DESCRIPTION
1	04/08/2022	FOR CONSTRUCTION
2	05/04/2022	ADDENDUM 1

DATE	04/08/22
JOB NO.	3923.00
DRAWN	JAC
CHECKED	ATS

TITLE
DIMENSIONING AND PAVEMENT PLAN

SHEET NO.
C1.2

NOTES:
CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

ALL UTILITIES TO BE INSTALLED PER CITY OF TROY STANDARDS.

CONTRACTOR TO VERIFY AND LOCATE WHERE STORM, SANITARY, AND WATER LATERALS AND ALL OTHER PROPOSED UTILITY SERVICES TIE INTO THE PROPOSED BUILDING PER BUILDING PLANS. CONTRACTOR SHALL ALSO VERIFY THE SIZES AND TYPES OF ALL LATERALS AND HOW THEY MAY TIE INTO THE PROPOSED BUILDINGS.

CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED UTILITIES INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED AND/OR REQUIRED.

CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

DOWNSPOUT PIPING NOTE:
THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSLP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

EXISTING UTILITY NOTES:
CONTRACTOR SHALL DETERMINE THE TYPE OF SERVICE FOR ALL EXISTING UNDERGROUND LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION AND SHALL ENSURE THE FOLLOWING:

1. THAT ALL EXISTING STORM LINES OR ANY OTHER EXISTING CLEAN WATER DRAINAGE LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE OR NEED TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO THE PROPOSED OR EXISTING STORM SEWER.

2. THAT ALL EXISTING SANITARY LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING SANITARY SEWER LINES/STRUCTURES OR INTO PROPOSED SANITARY SEWER LINES/STRUCTURES.

3. THAT ALL EXISTING WATER LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING WATER LINES OR INTO PROPOSED WATER LINES.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REP. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

LOCATE EXISTING UTILITIES NOTE:
THIS ITEM OF WORK MAY BE PERFORMED ON AS NEEDED BASIS AND SHALL CONSIST OF THE CONTRACTOR FIELD LOCATING THE VARIOUS EXISTING UTILITY LINES LOCATION, SIZE, AND DEPTH PRIOR TO PERFORMING ANY PROPOSED WORK OR ONCE WORK HAS BEGUN. THIS WORK MAY ALSO REQUIRE THE CONTRACTOR TO INSPECT THE LINES BY OTHER METHODS SUCH AS DYE TESTING OR CAMERA/VIDEO TO FIND THE ORIGIN AND LOCATION OF THE LINE. THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH THE OWNER AS NEEDED TO ENSURE EXISTING FACILITY OPERATIONS ARE MAINTAINED.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REPRESENTATIVE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

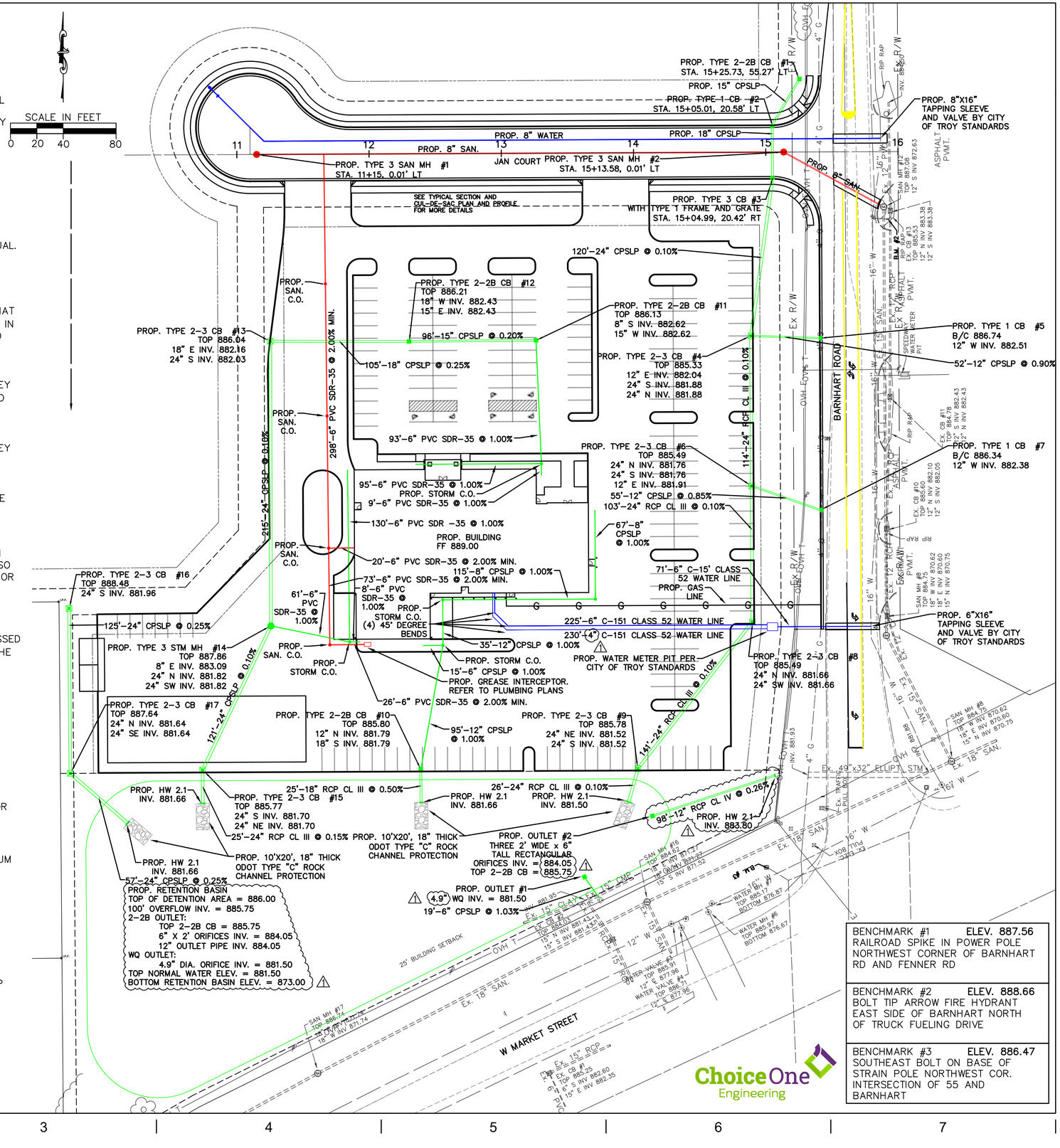
UNKNOWN EXISTING UNDERGROUND UTILITIES:
CONTRACTOR TO BE AWARE THERE MAY BE OTHER UNKNOWN SERVICES OR UNKNOWN UNDERGROUND UTILITIES OR ITEMS WHICH MAY BE LOCATED WITHIN THE SITE AND MAY REQUIRE REMOVAL OR REROUTING IN ORDER TO PERFORM THE PROPOSED PROJECT. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY UNKNOWN UNDERGROUND UTILITIES OR OTHER ITEMS WHICH ARE ENCOUNTERED AND WORK WITH THE OWNER TO DECIDE HOW THESE ITEMS SHOULD BE HANDLED.

GAS, ELECTRIC, COMMUNICATION CONFLICT NOTE:
CONTRACTOR TO LOWER/DIP THESE UTILITIES AS NEEDED TO AVOID CONFLICTS WITH ANY PROPOSED OR EXISTING SANITARY OR STORM OR WATER LINES THEY MAY CONFLICT WITH. IF THESE UTILITY LINES CONFLICT WITH ANY PROPOSED OR EXISTING WATERLINES THEN CONTRACTOR TO DETERMINE WHETHER TO LOWER/DIP THE WATERLINE OR LOWER/DIP THE GAS/ELECTRIC/COMMUNICATION LINE(S). CONTRACTOR MAY NEED TO CONSULT WITH AND OBTAIN OWNER'S APPROVAL AS TO WHICH UTILITY WILL BE LOWERED PRIOR TO PERFORMING THIS WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

ELECTRICAL/MECHANICAL NOTE:
CONTRACTOR SHALL REFER TO THE ELECTRICAL/MECHANICAL DRAWINGS FOR DEMOLITION AND/OR INSTALLATION INFO. OF ALL EXISTING AND PROPOSED ELECTRICAL/MECHANICAL ITEMS FOR THE SITE AND/OR HOW THESE ITEMS ARE TO BE HANDLED AND ADDRESSED.

WATER MAIN CROSSING SEPARATION NOTE:
WHENEVER A SANITARY OR STORM SEWER AND WATER LINE MUST CROSS, THE SEWER AND WATER SHALL BE LAID AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. IF REQUIRED, CONTRACTOR SHALL LOWER/DIP THE WATER MAIN AS NEEDED TO OBTAIN THE 18" MINIMUM SEPARATION DISTANCE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SANITARY SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PSI PRESSURE TEST (NOTE: DO NOT PRESSURE TEST SANITARY SEWER TO 100 PSI). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN.

AT CROSSINGS, THE WATER MAIN SHALL HAVE A MINIMUM VERTICAL DISTANCE OF 18" FROM STORM AND SANITARY SEWERS. ALSO ONE FULL LENGTH OF WATER MAIN SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM AND SANITARY SEWERS AS POSSIBLE.



BENCHMARK	ELEV.
#1 RAILROAD SPIKE IN POWER POLE NORTHWEST CORNER OF BARNHART RD AND FENNER RD	887.56
#2 BOLT TIP ARROW FIRE HYDRANT EAST SIDE OF BARNHART NORTH OF TRUCK FUELING DRIVE	888.66
#3 SOUTHEAST BOLT ON BASE OF STRAIN POLE NORTHWEST COR. INTERSECTION OF 55 AND BARNHART	886.47

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TITLE
UTILITY PLAN

SHEET NO.
C2.1

LEGEND

- —830— EXISTING CONTOURS
- —830— PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED EDGE PAVEMENT

PROJECT EARTH DISTURBED AREA = 8.32 ACRES

NOTES:
CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

CONTRACTOR TO TIE INTO EXISTING PAVEMENT ELEVATIONS AS REQUIRED WHERE EVER NEW PAVEMENT ABUTS UP TO EXISTING PAVEMENT TO ENSURE A SMOOTH TRANSITION. ALL EX. PAVEMENT ELEVATIONS GIVEN ARE APPROXIMATED AND SHALL BE FIELD VERIFIED. CONTRACTOR SHALL ALSO ENSURE THAT A SMOOTH TRANSITION IS PROVIDED WHERE EVER PROPOSED GRADES MEET EXISTING GRADES THROUGHOUT THE SITE.

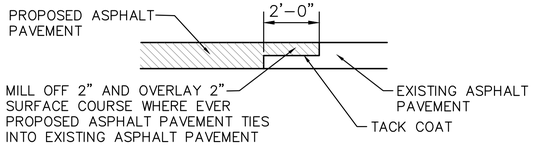
ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.

CONTRACTOR TO ENSURE ALL AREAS OF THE SITE HAVE POSITIVE DRAINAGE. NO PONDING OR PUDDLING OF WATER IS PERMITTED.

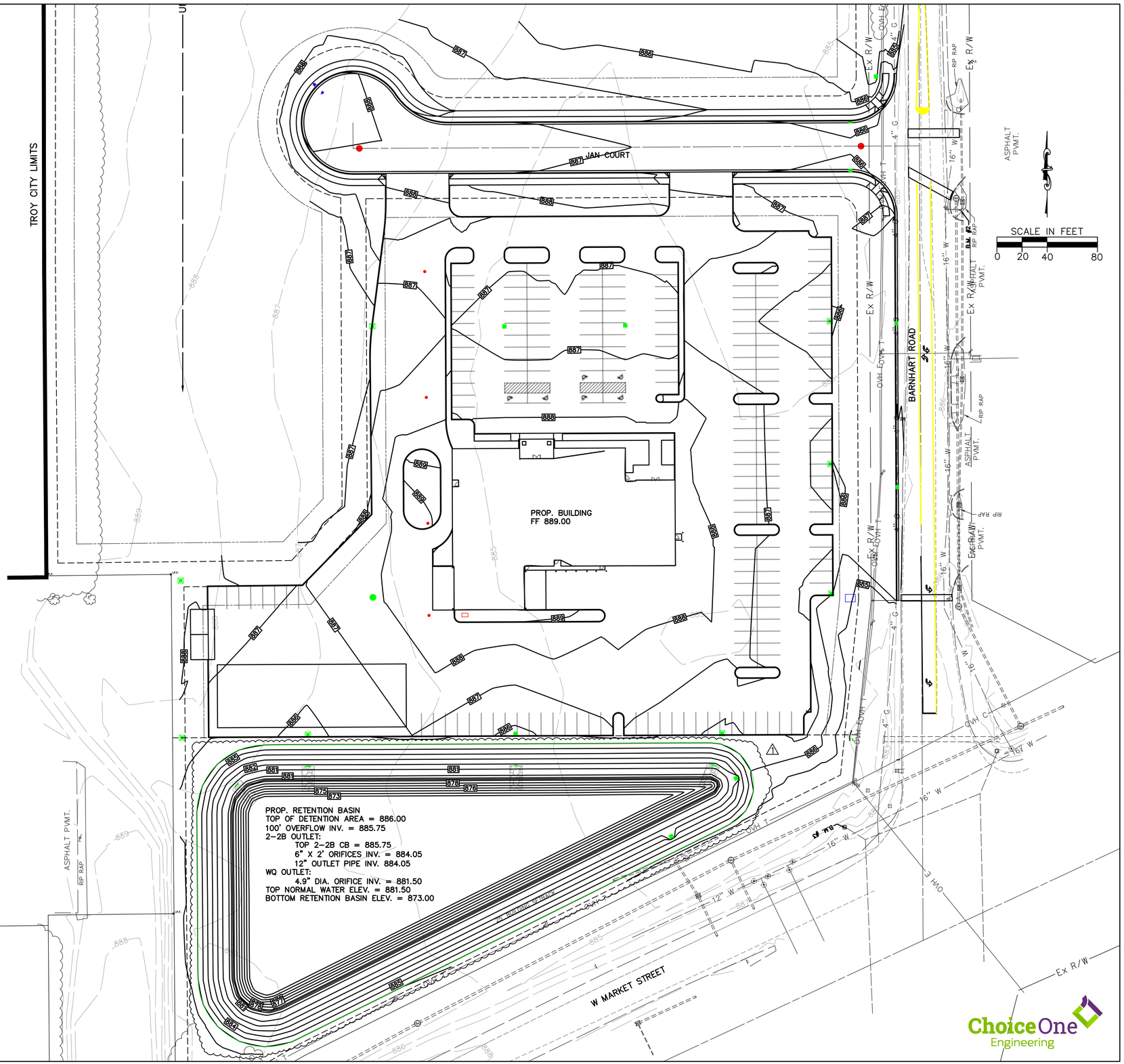
GRADING LIMITS NOTE:
CONTRACTOR SHALL VERIFY THE FOLLOWING WITH THE CONSTRUCTION MANAGER AND OWNER'S REPRESENTATIVE:

1. AREAS WHERE GRADING OPERATIONS ARE TO TAKE PLACE.
2. AREAS WHERE GRADING OPERATIONS ARE NOT TO TAKE PLACE.
3. GRADING LIMITS.
4. GRADING TIE-IN POINTS TO EXISTING GRADES.

TRANSITION DETAIL



BENCHMARK #1 RAILROAD SPIKE IN POWER POLE NORTHWEST CORNER OF BARNHART RD AND FENNER RD	ELEV. 887.56
BENCHMARK #2 BOLT TIP ARROW FIRE HYDRANT EAST SIDE OF BARNHART NORTH OF TRUCK FUELING DRIVE	ELEV. 888.66
BENCHMARK #3 SOUTHEAST BOLT ON BASE OF STRAIN POLE NORTHWEST COR. INTERSECTION OF 55 AND BARNHART	ELEV. 886.47



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TITLE
GRADING PLAN

SHEET NO.
C3.1

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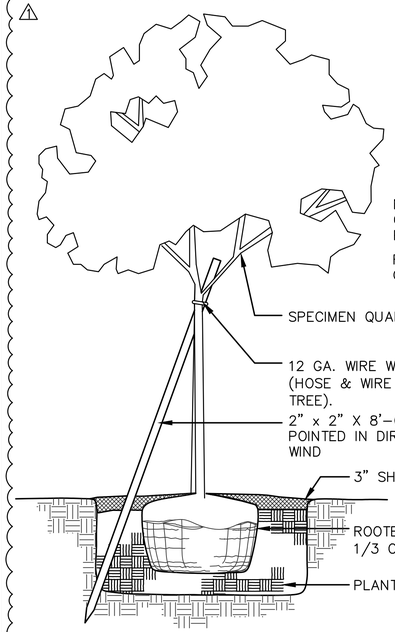
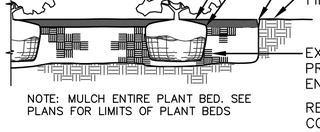


TREE PLANTING DETAIL



SHRUB PLANTING DETAIL

GENERAL NOTES

A. IF NOT READILY APPARENT, LOCATE ROOT FLARE BY REMOVING TWINE, BURLAP, AND EXCESS SOIL.
B. DIG TREE HOLE AT LEAST TWO TIMES WIDER THAN THE TREE BALL, WITH SIDES SLOPED TO AN UNEXCAVATED OR FIRM BASE. DIG HOLE TO A DEPTH SO THE LOCATED ROOT FLARE, AT THE FIRST ORDER LATERAL ROOT, WILL BE AT FINISHED GRADE.
C. LIFT ONLY FROM THE BOTTOM OF THE ROOT BALL, POSITION TREE ON FIRM PAD SO THAT IT IS STRAIGHT AND TOP OF ROOT FLARE IS LEVEL WITH THE SURROUNDING SOIL.
D. REMOVE ALL TWINE FROM THE ROOT BALL. IF PRESENT, REMOVE AND DISCARD AT LEAST THE TOP ONE HALF OF THE WIRE BASKET. BURLAP SHALL BE REMOVED FROM THE TOP TO A POINT HALFWAY DOWN THE ROOT BALL AND DISCARDED.
E. WITH CLEAN, SHARP PRUNING TOOLS, PRUNE OFF ANY SECONDARY/ADVENTITIOUS, GIRDLING, AND POTENTIAL GIRDLING ROOTS.
F. MULCH THE ENTIRE PLANTING SURFACE WITH MULCH APPLIED NO LESS THAN TWO INCHES DEEP AND NO MORE THAN THREE INCHES DEEP, LEAVING THREE INCHES ADJACENT TO THE TREE TRUNK FREE OF MULCH.

PLANTS

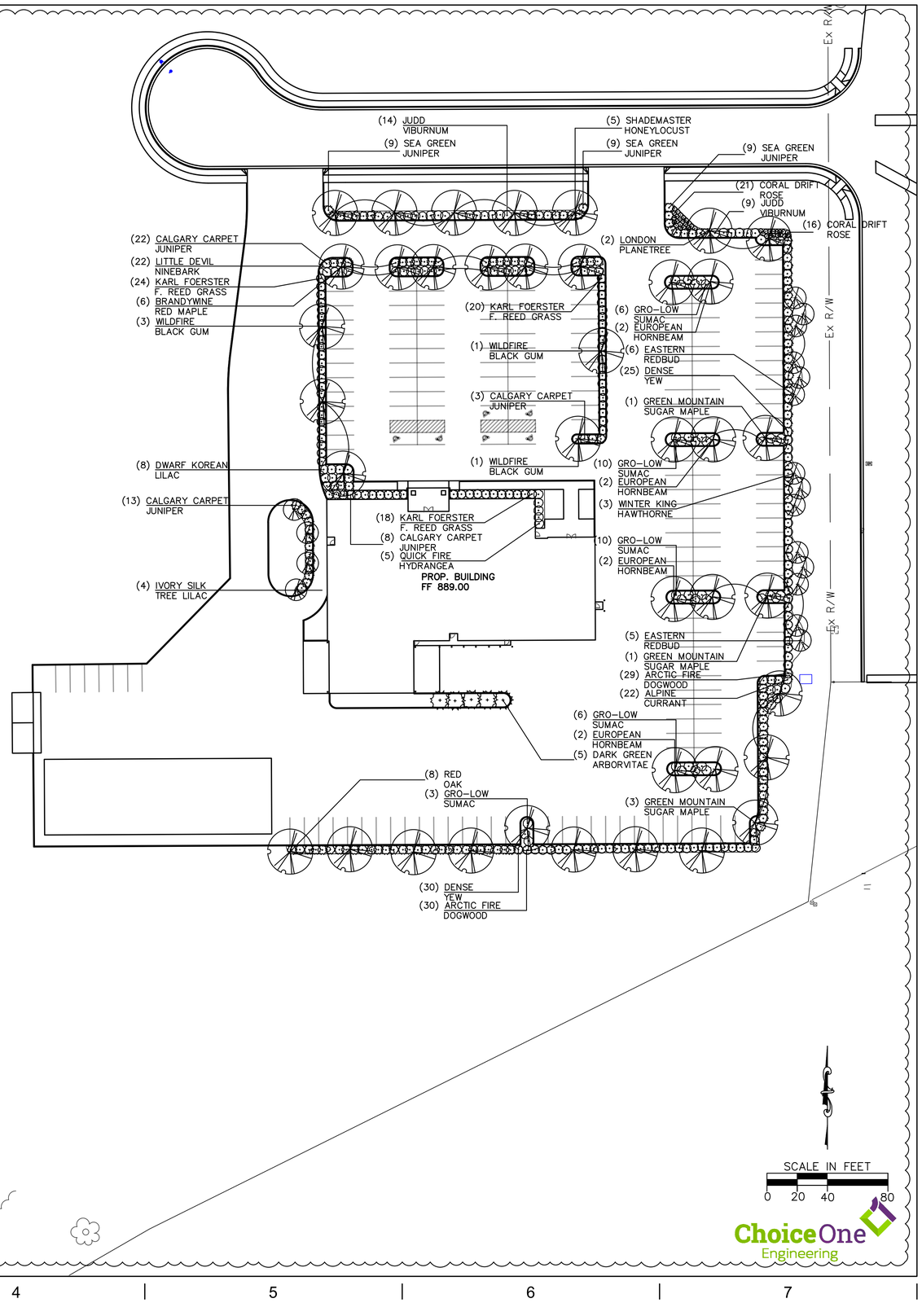
A. SPECIES AND SIZE IDENTIFIED IN PLANT SCHEDULE, GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE WORK.
1. PROVIDE HEALTHY, SOUND, VIGOROUS PLANT MATERIALS, FREE FROM PLANT DISEASES, INSPECT PESTS, HEALTHY WELL-DEVELOPED ROOT SYSTEMS, FRESHLY DUG, NURSERY GROWN, WELL-BRANCHED, DENSELY FOLIATED WHEN IN LEAF AND WELL-PROPORTIONED, PARTICULARLY WITH RESPECT TO THE WIDTH-HEIGHT RELATIONSHIP.
2. DAMAGED OR BROKEN BRANCHES, BROKEN BALL AND LOOSE TOP BALL ARE NOT ACCEPTABLE.

B. MULCH MATERIALS
1. HARDWOOD SPECIES WOOD SHAVINGS, FREE OF GROWTH OR GERMINATION INHIBITING INGREDIENTS CONTAINING NO STICKS LARGER THAN ¼ INCH IN DIAMETER, STONES, CLAY OR OTHER FOREIGN MATERIAL THAT WILL PREVENT EVENTUAL DECAY OF THE MULCH NECESSARY FOR ITS COMPLETE EFFECTIVENESS.

C. PLANTING
1. SET PLANTS IN CENTER OF HOLE, PLUMB AND STRAIGHT. REMOVE ⅓ TOP OF BURLAP (IF APPLICABLE).
2. SATURATE SOIL WITH WATER WHEN THE HOLE IS HALF FULL OF TOPSOIL AND AGAIN WHEN FULL.
3. DO NOT INSTALL PLANT LIFE WHEN AMBIENT TEMPERATURES MAY DROP BELOW 35 DEGREES F OR RISE ABOVE 90 DEGREES F.

PLANTING SCHEDULE

QTY.	COMMON NAME	BOTANICAL NAME	SIZE	ROOT
	TREES			
5	SHADEMASTER HONEYLOCUST	GLEDITSIA T.I. 'SHADEMASTER'	2" CAL.	B&B
2	LONDON PLANETREE	PLATANUS ACERIFOLIA	2" CAL.	B&B
8	EUROPEAN HORNBEAM	CARPINUS B. 'FASTIGIATA'	2" CAL.	B&B
11	EASTERN REDBUD	CERCIS CANADENSIS	2" CAL.	B&B
5	GREEN MOUNTAIN SUGAR MAPLE	ACER SACCHARUM 'GREEN MOUNTAIN'	2" CAL.	B&B
5	WILDFIRE BLACK GUM	NYSSA SYLVATICA	2" CAL.	B&B
8	RED OAK	QUERCUS RUBRA	2" CAL.	B&B
4	IVORY SILK LILAC	SYRINGA RETICULATA	2" CAL.	B&B
3	WINTER KING HAWTHORN	CRATAEGUS VIRIDIS 'WINTER KING'	2" CAL.	B&B
6	BRANDYWINE RED MAPLE	ACER RUBRUM 'BRANDYWINE'	2" CAL.	B&B
	SHRUBS			
27	SEA GREEN JUNIPER	JUNIPERUS CH. 'SEA GREEN'	24" SPR.	B&B
23	JUDD VIBURNUM	VIBURNUM JUDDI	24" SPR.	B&B
37	CORAL DRIFT ROSE	ROSA 'CORAL DRIFT'	18" SPR.	NO. 3 CONT.
35	GROW LOW SUMAC	RHUS AROMATICA	18" SPR.	NO. 3 CONT.
62	KARL FOERSTER F. REED GRASS	CALAMAGROSTIS ACUTIFLORA	CLUMP	NO. 2 CONT.
46	CALGARY CARPET JUNIPER	JUNIPERUS SABINA 'MONNA'	15" SPR.	NO. 3 CONT.
22	LITTLE DEVIL NINEBARK	PHYSOCARPUS O. 'DONNA MAY'	18" SPR.	NO. 3 CONT.
55	DENSE YEW	TAXUS DENSIFORMIS	24" SPR.	B&B
59	ARCTIC FIRE DOGWOOD	CORNUS A. 'ARCTIC FIRE'	18" SPR.	NO. 3 CONT.
8	DWARF KOREAN LILAC	SYRINGA MEYERI PALABIN	18" SPR.	NO. 3 CONT.
5	QUICKFIRE HYDRANGEA	HYDRANGEA P. 'QUICKFIRE'	24" SPR.	NO. 3 CONT.
22	ALPINE CURRANT	RIBES ALPINUM	18" SPR.	NO. 3 CONT.
5	DARK GREEN ARBORVITAE	THUJA O. 'NIGRA'	6' HGT.	NO. 3 CONT.



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LANDSCAPE PLAN

SHEET NO.
C4.1

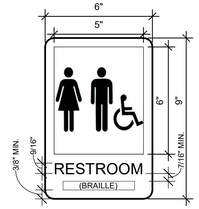
DOOR AND FRAME SCHEDULE

DOOR No.	ROOM NAME	DOOR SIZE W	DOOR SIZE H	DOOR SIZE T	DOOR MAT.	DOOR TYPE	DOOR FIN.	U/C	FRAME MAT.	FRAME TYPE	FRAME FIN.	DETAILS JAMB	DETAILS HEAD	DETAILS SILL	FIRE RTG.	HDW. SET	REMARKS
100A	ENTRY VESTIBULE	6' - 0"	7' - 0"		ALUM.	AL1	ANODIZED		ALUM				E1/A0.7	F1/A0.7		1.0	3
100B	LOBBY	6' - 0"	7' - 0"		ALUM.	AL1	ANODIZED		ALUM				E1/A0.7	F1/A0.7		6.0	3
102	MEN'S	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	21.0	
103	WOMEN'S	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	21.0	
104	CENTRAL DATA	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	8.0	
105	JAN.	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	9.0	
200	WAITING	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			10.0	
201	WORKSTATIONS	3' - 0"	3' - 8"	1 3/4"	PL-1	G1	-		-	-	-	-	-			24.0	1
202	EMPLOYEE AREA	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	E6/A0.7	C6/A0.7			2.0	
203	OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	19.0	
204	BREAK ROOM	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			15.0	
205	STORAGE	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	13.0	
206	TOILET	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	21.0	
300	PUBLIC CORRIDOR	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			16.0	
301A	WAITING	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	E6/A0.7	C6/A0.7			11.0	
301B	CAR / LIGHT TRUCK DRIVE-THRU	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	D4/A0.7	B4/A0.7			2.0	
302A	CORRIDOR	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			8.0	
302B	PUBLIC CORRIDOR	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			7.0	
303	ADMIN OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
304A	LT. OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
304B	LT. OFFICE	3' - 0"	8' - 0"	1 1/2"	WD	B1	STAIN		HM	1	P	C1/A0.7	B1/A0.7			25.0	
305A	SGT OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
305B	SGT OFFICE	3' - 0"	8' - 0"	1 1/2"	WD	B1	STAIN		HM	1	P	C1/A0.7	B1/A0.7			25.0	
305C	SGT OFFICE	3' - 0"	8' - 0"	1 1/2"	WD	B1	STAIN		HM	1	P	C1/A0.7	B1/A0.7			25.0	
306	MCES OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
307	CHANGE	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
308	TLT SHOWER	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
309	CHANGING ROOM	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
310A	LCS INSPECTION	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			17.0	
310B	LCS INSPECTION	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	D4/A0.7	B4/A0.7			2.0	
311	COMM ROOM	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	8.0	
312	REPORT	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			15.0	
313	GUN CLOSET	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	8.0	
314	STAFF TLT	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
315A	CONFERENCE ROOM	3' - 0"	7' - 0"	1 3/4"	WD	FG1	STAIN		HM	1	P	C1/A0.7	B1/A0.7			23.0	
315B	CONFERENCE ROOM	3' - 0"	7' - 0"	1 3/4"	WD	FG1	STAIN		HM	1	P	C1/A0.7	B1/A0.7			23.0	
317	BUS / TRUCK DRIVE-THRU	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	E6/A0.7	C6/A0.7			3.0	
318A	LCS STORAGE	5' - 0"	7' - 0"	1 3/4"	HM	F1	P		HM	1	P	D4/A0.7	B4/A0.7			14.0	
318B	LCS STORAGE	5' - 0"	7' - 0"	1 3/4"	HM	F1	P		HM	1	P	D4/A0.7	B4/A0.7			14.0	
400	LOBBY	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			10	
401	WORK STATIONS	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			18.0	
402	STORAGE	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	12.0	
402B	STORAGE	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	E6/A0.7	C6/A0.7			2.0	
403	TOILET	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
404	BREAK ROOM	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			15.0	
500	WAITING	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			10.0	
501	DEALER	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			17.0	
502	WORK STATIONS	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	E6/A0.7	C6/A0.7			2.0	
504	TOILET	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
505	STORAGE	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	13.0	
506	BREAK ROOM	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			15.0	
507	OFFICE / MEETING ROOM	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	19.0	
508	OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	19.0	
600	VESTIBULE	6' - 0"	7' - 0"		ALUM.	AL1	ANODIZED		ALUM				E1/A0.7	F1/A0.7		1.0	3
601	LOBBY	6' - 0"	7' - 0"		ALUM.	AL1	ANODIZED		ALUM				E1/A0.7	F1/A0.7		6.0	3
602	STORAGE	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	13.0	
603A	CORRIDOR	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	17.0	
603B	CORRIDOR	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	E6/A0.7	C6/A0.7			2.0	
604	CONFERENCE ROOM	3' - 0"	7' - 0"	1 3/4"	WD	FG1	STAIN		HM	1	P	C1/A0.7	B1/A0.7			23.0	
608	DEVELOPMENT SERVICES MANAGER	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
609	DIRECTORS OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
610	BUILDING OFFICIAL	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
611	INSPECTORS OFFICE	3' - 0"	7' - 0"	1 3/4"	HM	NL1	P		HM	1	P	E6/A0.7	C6/A0.7			2.0	
611A	INSPECTORS OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			18.0	
612	PLANNER	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
613	PLANNING AND ZONING MANAGER	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
614	COMMON SPACE / PLAN'S STORAGE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			15.0	
615	BREAK ROOM	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			15.0	
617	MEN'S	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
618	WOMEN'S	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	22.0	
619	CUSTODIAL STOR.	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	13.0	
620	OFFICE	3' - 0"	7' - 0"	1 3/4"	WD	NL2	STAIN		HM	1	P	C1/A0.7	B1/A0.7			19.0	
621	JAN.	3' - 0"	7' - 0"	1 3/4"	WD	F1	STAIN		HM	1	P	C1/A0.7	B1/A0.7		-	9.0	
700	MECHANICAL AND RISER ROOM	3' - 0"	7' - 0"	1 3/4"	HM	F2	P		HM	1	P	E6/A0.7	C6/A0.7		-	2.0	2
701	SHED	6' - 0"	8' - 0"	1 3/4"	HM	FG5	P		HM	1	P	E6/A0.7	C6/A0.7		-	4.0	
OH1	CAR / LIGHT TRUCK DRIVE-THRU	12' - 0"	14' - 0"	2"	ALUM	OH1	PWDR COATED		ALUM			B1/A0.10	C5/A0.10	F5/A0.10		26.0	2
OH2	BUS / TRUCK DRIVE-THRU	12' - 0"	14' - 0"	2"	ALUM	OH1	PWDR COATED		ALUM			B1/A0.10	C5/A0.10	F5/A0.10		26.0	2
OH3	CAR / LIGHT TRUCK DRIVE-THRU	12' - 0"	14' - 0"	2"	ALUM	OH1	PWDR COATED		ALUM			B1/A0.10	C5/A0.10	F5/A0.10		26.0	2
OH4	BUS / TRUCK DRIVE-THRU	12' - 0"	14' - 0"	2"	ALUM	OH1	PWDR COATED		ALUM			B1/A0.10	C5/A0.10	F5/A0.10		26.0	2

DOOR REMARKS

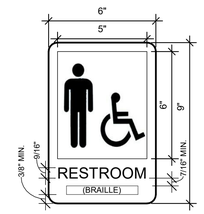
No.	REMARK
1	GATE DOOR BY CASEWORK MANUFACTURER.
2	HEIGHT AND WIDTH DIMENSIONS ARE FOR OPENING. REFER TO DOOR ELEVATIONS FOR ACTUAL DOOR SIZES.
3	REFER TO STOREFRONT AND WINDOW SCHEDULE FOR MORE DETAILS.

SIGNAGE LEGEND



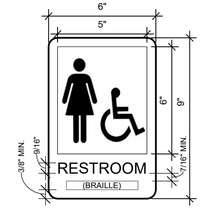
UNISEX RESTROOM - TYPE 1

3" = 1'-0"



MEN'S RESTROOM - TYPE 2

3" = 1'-0"



WOMEN'S RESTROOM - TYPE 3

3" = 1'-0"

SIGN NOTES

A. ALL SIGNS SHALL HAVE BRAILLE LETTERING BENEATH TEXT, TYPICAL.

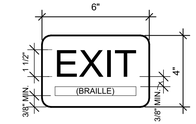
B. SIGNS MOUNTED ON GLASS AT DOOR NEED TO BE MOUNTED WITH ADHESIVE AND MATCHING BACKER PLATE FOR OTHER SIDE OF GLASS.

C. TEXT AND GRAPHICS TO BE NON-GLARE COLOR IN HIGH CONTRAST WITH BACKGROUND. SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

D. BACKGROUND TO BE NON-GLARE COLOR IN HIGH CONTRAST WITH TEXT AND GRAPHICS. SELECTED BY ARCHITECT FROM MANUFACTURER'S STANDARD COLORS.

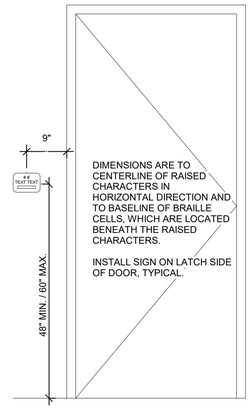
E. 1/2" RADIUS CORNERS.

F. ALL TEXT ON SIGNS LOCATED NEXT TO INTERIOR DOORS WILL BE 1/32" RAISED CHARACTERS, UPPERCASE, AND VIEWABLE AT LESS THAN 6 FEET.



EXIT SIGN - TYPE 4

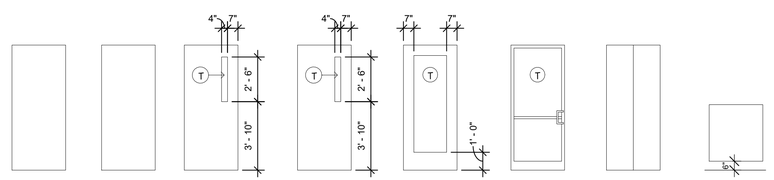
3" = 1'-0"



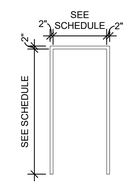
SIGNAGE LOCATION

3/4" = 1'-0"

DOOR ELEVATIONS



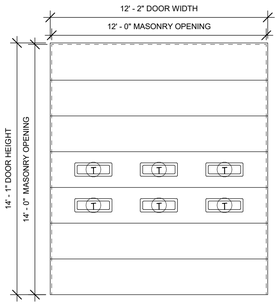
FRAME ELEVATIONS



TYPE 1

SINGLE / PAIR STANDARD

APPARATUS BAY DOOR ELEVATION



TYPE OH1

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STATE OF OHIO
TIMOTHY J. BEMENT
12305
REGISTERED ARCHITECT

Timothy J. Bement, License #12305
Expiration Date 12/31/2023

MIAMI COUNTY ONE STOP CENTER
BOARD OF COMMISSIONERS FOR MIAMI COUNTY, OHIO
BARNHART ROAD, TROY, OHIO 45373

ISSUE

NO.	DATE	DESCRIPTION
1	04/08/2022	FOR CONSTRUCTION
2	05/04/2022	ADDENDUM 1

DATE	04/08/22
JOB NO.	3923.00
DRAWN	MLG
CHECKED	RFW/TJB

TITLE
DOOR SCHEDULES

SHEET NO.
A0.3

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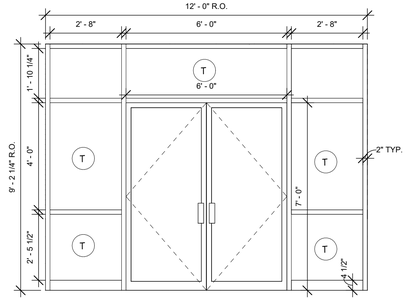
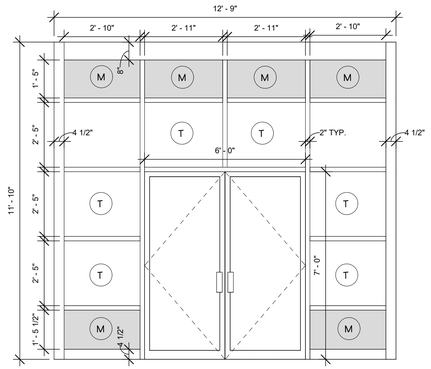
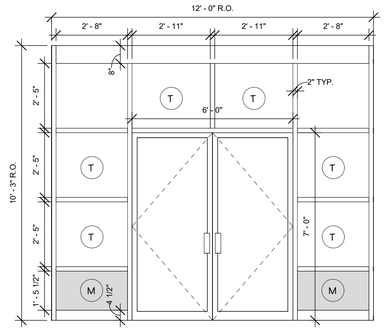


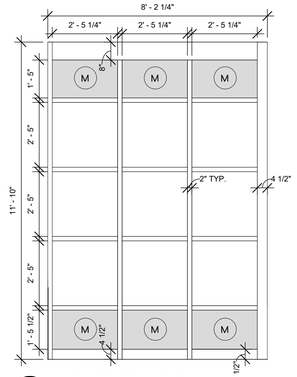
B1 SF1 ELEVATION
3/8" = 1'-0"



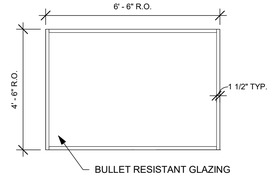
B2 SF2 ELEVATION
3/8" = 1'-0"



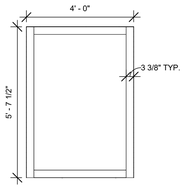
B4 SF3 ELEVATION
3/8" = 1'-0"



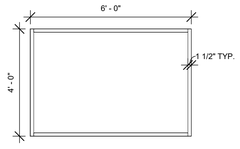
B5 SF4 ELEVATION
3/8" = 1'-0"



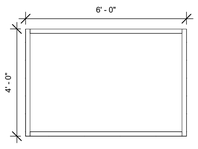
B6 SF5 ELEVATION
3/8" = 1'-0"



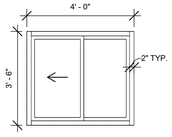
C1 W1 ELEVATION
3/8" = 1'-0"



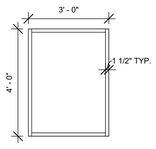
C2 W2 ELEVATION
3/8" = 1'-0"



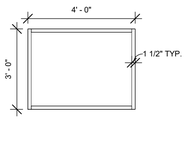
C3 W3 ELEVATION
3/8" = 1'-0"



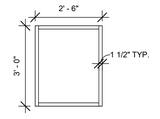
C4 W4 ELEVATION
3/8" = 1'-0"



C5 W5 ELEVATION
3/8" = 1'-0"



C6 W6 ELEVATION
3/8" = 1'-0"



C7 W7 ELEVATION
3/8" = 1'-0"

T INDICATES TEMEPERED GLAZING

M INDICATES METAL PANEL

WINDOW SCHEDULE

TYPE	QUANTITY	ROUGH OPENING WIDTH	ROUGH OPENING HEIGHT	MATERIAL	JAMB	HEAD	SILL	HEAD HEIGHT	COMMENTS
	2								
SF1	2	12' - 0"	9' - 2 1/4"	ALUM.	F6/A0.8	B4/A0.8	F2/A0.7	9' - 2 1/4"	
SF2	1	12' - 4 1/2"	11' - 10"	ALUM.	-	B1/A0.8	F2/A0.7	11' - 10"	1
SF3	1	12' - 0"	10' - 3"	ALUM.	F4/A0.8	B6/A0.8	F2/A0.7	10' - 3"	
SF4	2	8' - 0"	11' - 10"	ALUM.	F4/A0.8	B1/A0.8	F2/A0.7	11' - 10"	1
SF5	4	6' - 6"	4' - 6"	ALUM.	F1/A0.8	C1/A0.8	D1/A0.8	7' - 10 1/2"	
W1	21	4' - 0"	5' - 7 1/2"	ALUM.	F5/A0.9	B5/A0.9	D5/A0.9	8' - 7 1/2"	
W2	4	6' - 0"	4' - 0"	ALUM.	F3/A0.9	B3/A0.9	D3/A0.9	6' - 6"	
W3	1	6' - 0"	4' - 0"	ALUM.	F3/A0.9	B3/A0.9	D3/A0.9	6' - 6"	2
W4	1	4' - 0"	3' - 6"	ALUM.	F6/A0.8 SIM	B6/A0.8 SIM	D4/A0.8	6' - 8"	
W5	3	3' - 0"	4' - 0"	ALUM.	F3/A0.9	B3/A0.9	D3/A0.9	6' - 6"	
W6	1	4' - 0"	3' - 0"	ALUM.	F3/A0.9	B3/A0.9	D3/A0.9	6' - 6"	2
W7	2	2' - 6"	3' - 0"	ALUM.	F3/A0.9	B3/A0.9	D3/A0.9	5' - 6"	

WINDOW REMARKS

1	4 1/2" CORNER STOREFRONT MULLIONS AT JAMB INTERSECTING WITH OTHER STOREFRONT SEGEMENTS.
2	1 WAY VIEWING GLASS

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DATE	04/08/22
JOB NO.	3923.00
DRAWN	MLG
CHECKED	RFW/TJB

TITLE
WINDOW SCHEDULES

SHEET NO.
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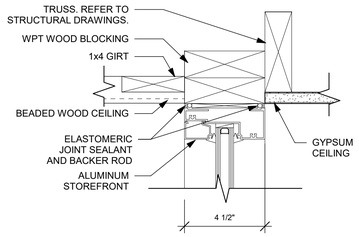
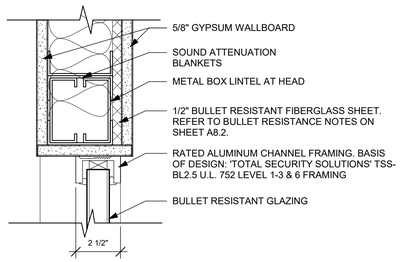
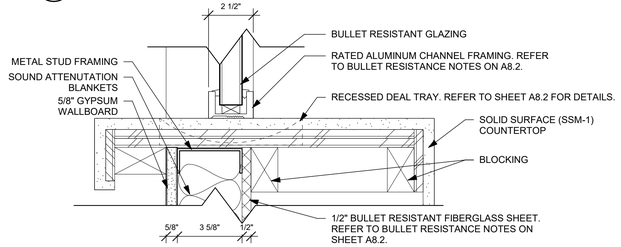


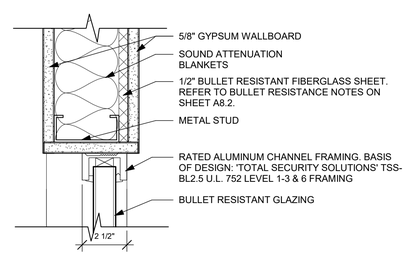
B1 HEAD DETAIL - METAL STOREFRONT
3" = 1'-0"



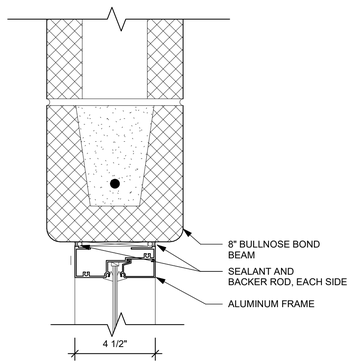
C1 BULLET RESISTANCE HEAD DETAIL
3" = 1'-0"



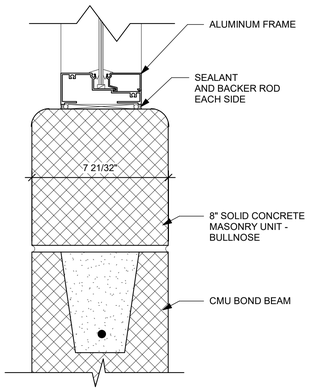
D1 BULLET RESISTANCE SILL
3" = 1'-0"



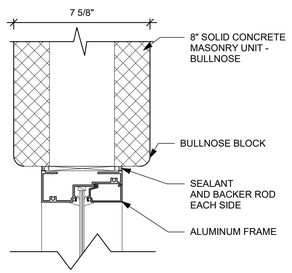
F1 BULLET RESISTANCE JAMB DETAIL
3" = 1'-0"



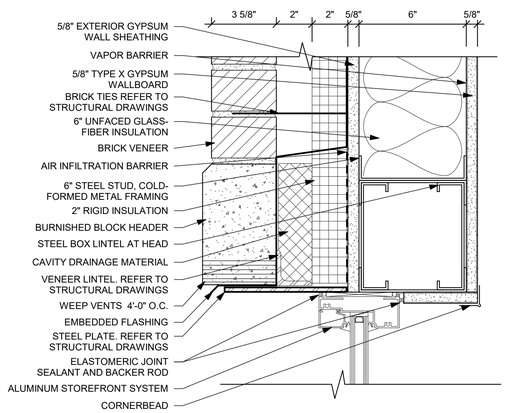
B3 HEAD DETAIL - MASONRY
3" = 1'-0"



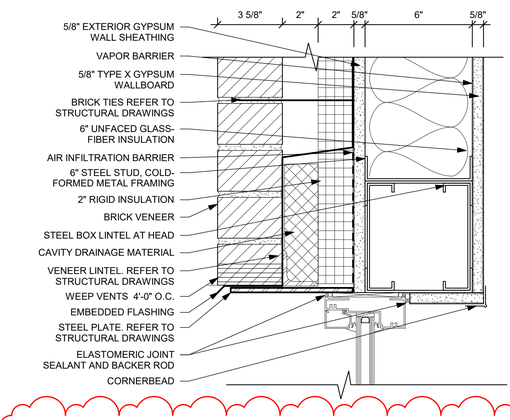
D3 SILL DETAIL - MASONRY
3" = 1'-0"



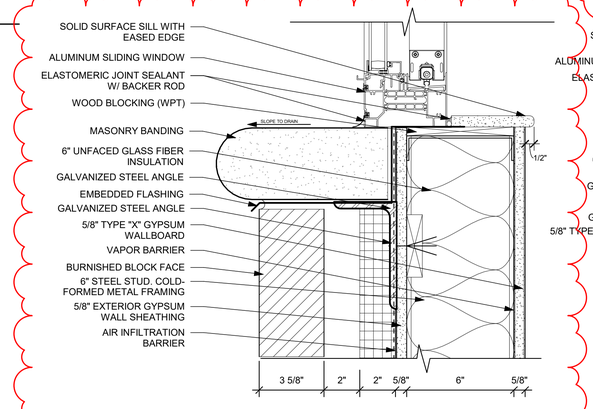
F3 JAMB DETAIL - MASONRY
3" = 1'-0"



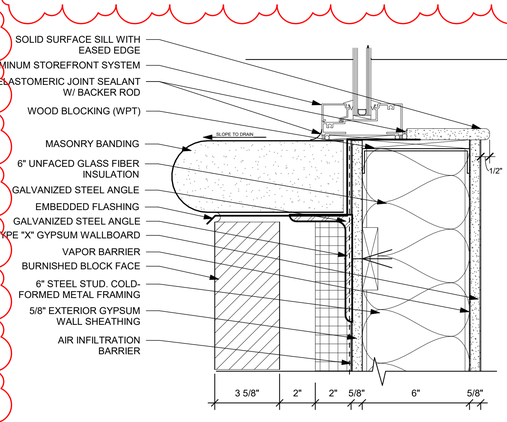
B4 HEAD DETAIL - EXTERIOR WALL
3" = 1'-0"



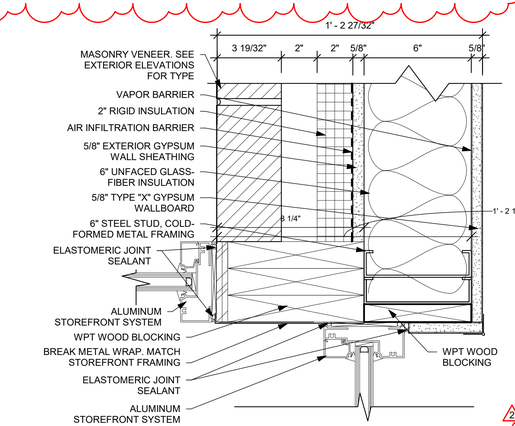
B6 HEAD DETAIL - EXTERIOR WALL
3" = 1'-0" WHEN SIMILAR REPLACE STOREFRONT WITH SLIDING GLASS WINDOW.



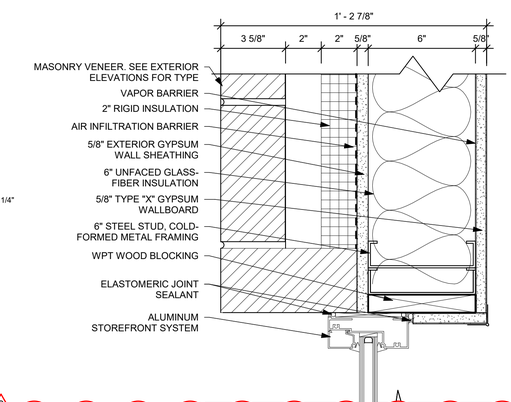
D4 SILL DETAIL - SLIDING WINDOW
3" = 1'-0"



D6 SILL DETAIL - EXTERIOR WALL
3" = 1'-0"



F4 JAMB DETAIL - EXTERIOR WALL
3" = 1'-0"



F6 JAMB DETAIL - EXTERIOR WALL
3" = 1'-0" WHEN SIMILAR REPLACE STOREFRONT WITH SLIDING GLASS WINDOW.

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Timothy J. Bement License #12305
Expiration Date 12/31/2023

MIAMI COUNTY ONE STOP CENTER
BOARD OF COMMISSIONERS FOR MIAMI COUNTY, OHIO
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ISSUE

NO.	DATE	DESCRIPTION
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2	05/04/2022	ADDENDUM 1

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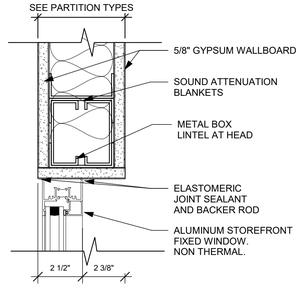
CHECKED	RFW/TJB

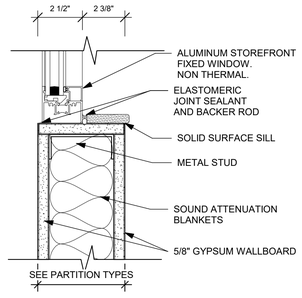
TITLE
WINDOW DETAILS

SHEET NO.
A0.8

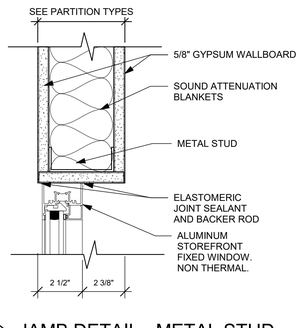
5/4/2022 3:44:27 PM



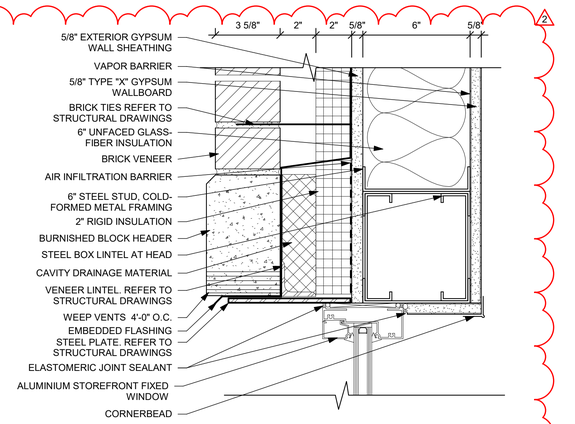
B3 HEAD DETAIL - METAL STUD
3" = 1'-0"



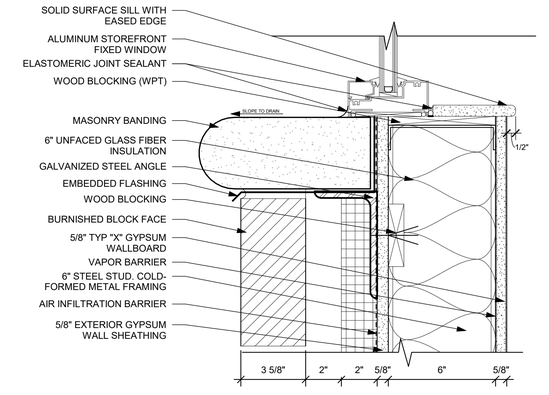
D3 SILL DETAIL - METAL STUD
3" = 1'-0"



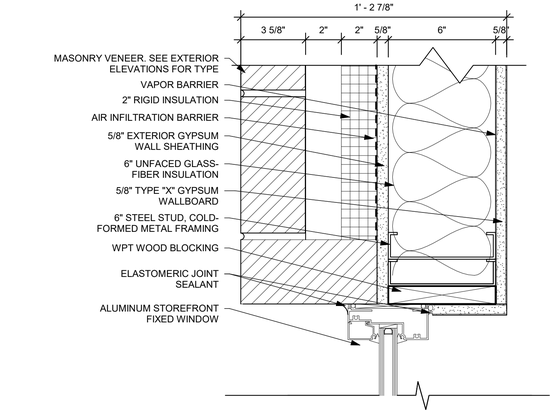
F3 JAMB DETAIL - METAL STUD
3" = 1'-0"



B5 HEAD DETAIL - EXTERIOR WALL
3" = 1'-0"



D5 SILL DETAIL - EXTERIOR WALL
3" = 1'-0"



F5 JAMB DETAIL - EXTERIOR WALL
3" = 1'-0"

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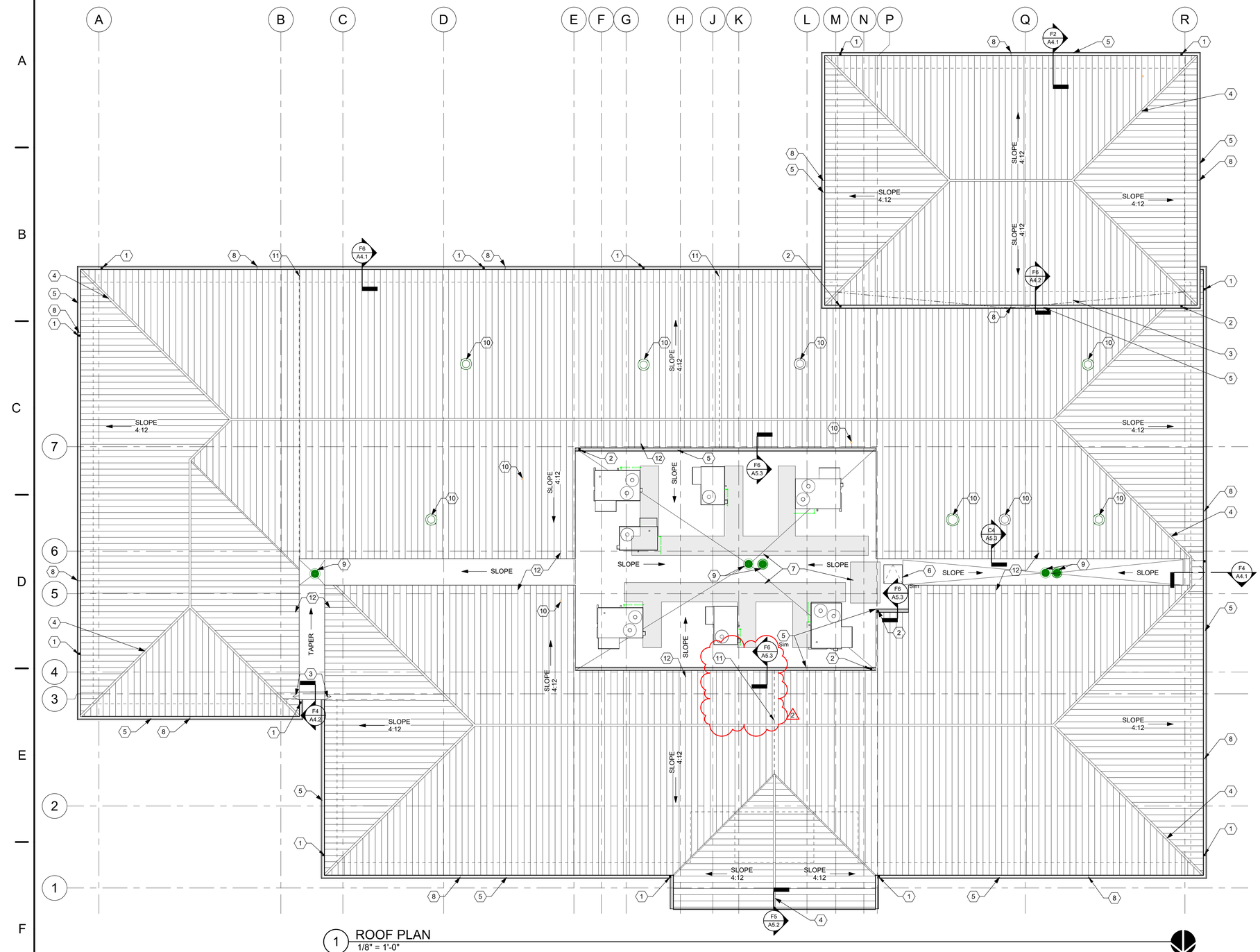
TITLE
WINDOW DETAILS

SHEET NO.
A0.9

5/4/2022 4:39:17 PM



1 ROOF PLAN
1/8" = 1'-0"

CONSTRUCTION NOTES

INDICATES CONSTRUCTION NOTE.

1. DOWNSPOUT LOCATION WITH 24" DOWNSPOUT ADAPTOR AT GRADE. REFER TO C6/A5.1 FOR DETAILS.
2. DOWNSPOUT LOCATION. DRAIN ON TO ROOF BELOW.
3. SADDLE FLASHING, CRICKET - BASIS OF DESIGN: SMACNA FIGURE 4-17B. PROVIDE STEP FLASHING AT RAISED WALL.
4. CONTINUOUS RIDGE VENT. SEE B5/A5.2 FOR DETAILS.
5. 6" PREFINISHED ALUMINUM GUTTER.
6. ROOF HATCH. 36" x 30" WITH STEEL LADDER-UP SAFETY POST. BASIS OF DESIGN. BILCO TYPE S OR EQUAL.
7. CONTINUOUS WALKWAY PADS BY EPDM ROOFING MANUFACTURER.
8. GUTTER EXPANSION JOINT - INSTALL PER LATEST EDITION OF SMACNA STANDARDS. GUTTER EXPANSION JOINTS SPACING NOT TO EXCEED 40 FT.
9. ROOF DRAINS. REFER TO PLUMBING DRAWINGS.
10. ROOF PENETRATION. REFER TO PLUMBING AND MECHANICAL DRAWINGS.
11. DRAFTSTOPPING LOCATIONS. AREA BETWEEN NOT TO EXCEED 3,000 S.F.
12. SNOW GUARD ATTACHED TO STANDING SEAMS PER SPECIFIC STANDING SEAM MANUFACTURER'S REQUIREMENTS. TYPICAL AT ALL SLOPED ROOF RIDGES OVER FLAT ROOF.

GENERAL NOTES

A. ROOF IS METAL STANDING SEAM PANELS OVER ICE AND WATER SHIELD UNDERLAYMENT AND APA RATED SHEATHING. REFER TO STRUCTURAL DRAWINGS FOR SHEATHING DETAILS.

B. COORDINATE ROOF PENETRATIONS WITH PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

C. ALL PENETRATIONS THROUGH ROOF (I.E. VENTS, FLUES, ETC.) SHALL BE PAINTED TO MATCH ROOF.

D. ROOF VENTILATION TO BE MAINTAINED @ A MINIMUM OF 1:150 RATIO. (1/150) X 16,830 = 112 SF OF VENTILATION MINIMUM. PROVIDE 1/2 AT RIDGE PEAKS AND 1/2 THROUGH VENTED SOFFITS.

ROOF PLAN LEGEND

INDICATES EXTERIOR EDGE OF WALL BELOW

INDICATES EXTENTS OF ROOF SADDLE BELOW

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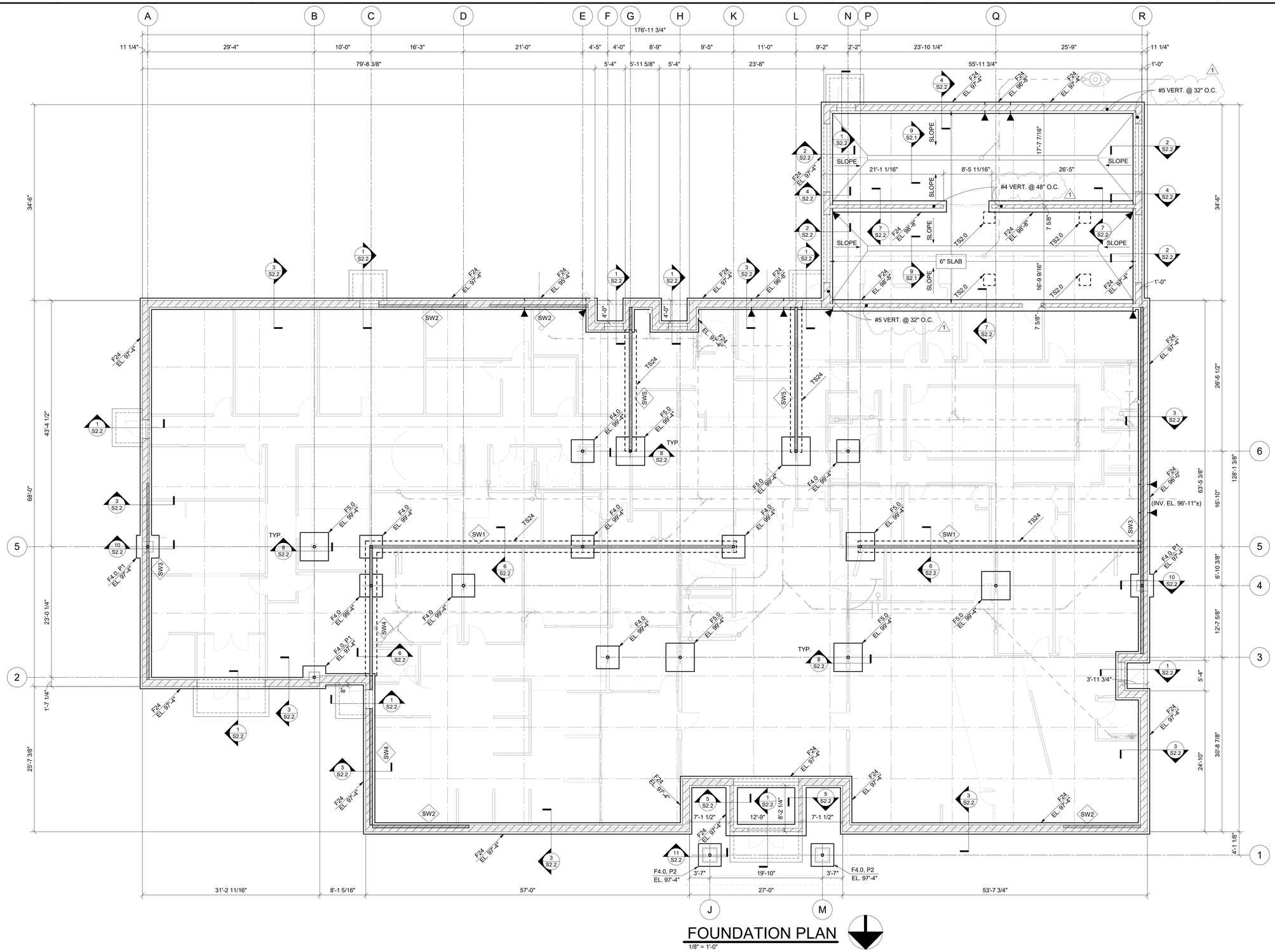
TITLE
ROOF PLAN

SHEET NO.
A1.3

5/4/2022 3:44:36 PM



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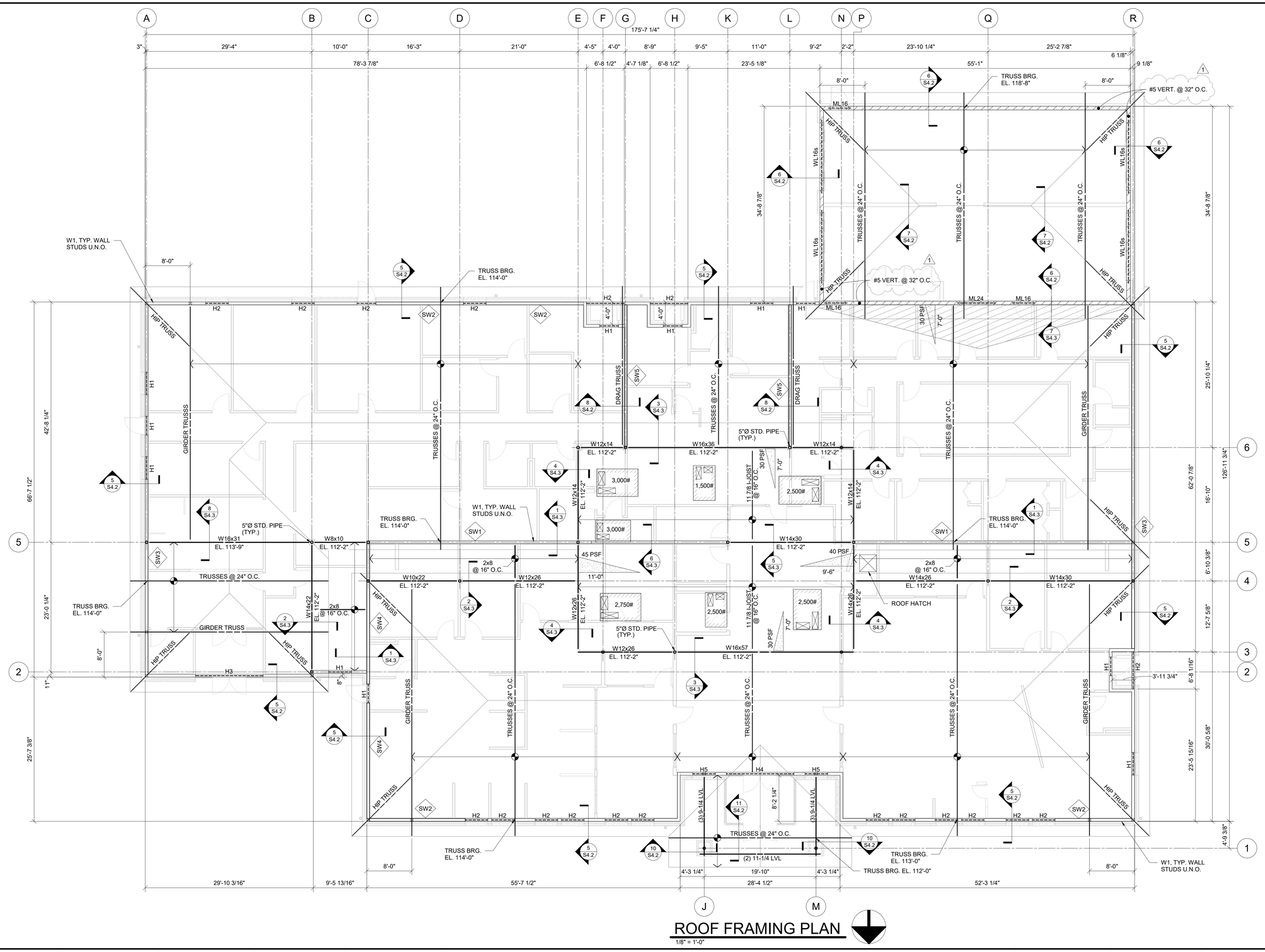
TITLE
FOUNDATION PLAN

SHEET NO.
S1.1

5/4/2022 8:54:15 AM



ROOF FRAMING PLAN

1/8" = 1'-0"

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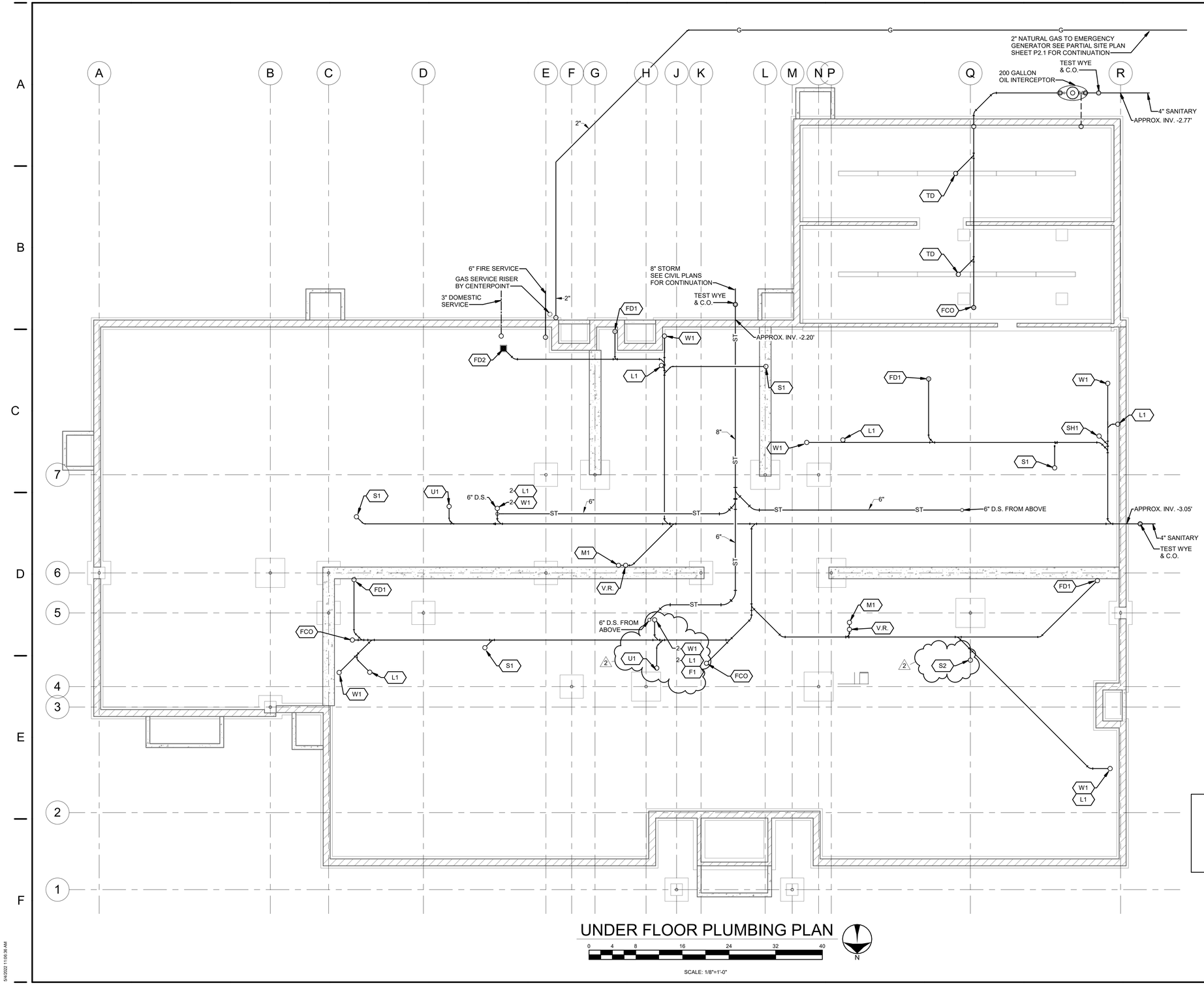
DRAWN	CMS
CHECKED	SNF

TITLE
ROOF FRAMING PLAN

SHEET NO.
S3.1

5/4/2022 8:54:19 AM

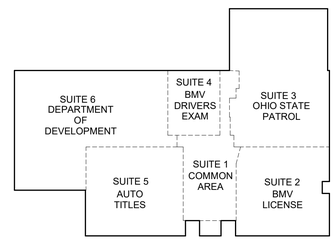


UNDER FLOOR PLUMBING PLAN

0 4 8 16 24 32 40

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

N



SUITE KEY PLAN

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DRAWN	DG
CHECKED	JDZ

TITLE
UNDERFLOOR PIPING PLAN

SHEET NO.
P1.0

5/4/2022 11:06:36 AM

CONSTRUCTION NOTES

1. DOMESTIC WATER SERVICE. SEE DETAIL SHEET P3.1
2. ELECTRIC WATER HEATER ON SHELF. SEE DETAIL SHEET P2.1.
3. TRANSFORMER FOR FLUSH VALVES. SLOAN # EL-451. TURN TRANSFORMER OVER TO E.C. WHO WILL MOUNT AND POWER UNIT. P.C. SHALL PROVIDE ALL LOW VOLTAGE WIRING FROM TRANSFORMER TO FLUSH VALVES. A MAXIMUM OF 10 FLUSH VALVES ARE ALLOWED ON EACH TRANSFORMER. FOLLOW MANUFACTURER'S RECOMMENDATIONS.
4. SANITARY PIPING NEAR TOP OF FLOOR.
5. UP TO VENT THRU ROOF. SEE DETAIL SHEET P2.1.
6. DROP 2" COLD WATER IN CHASE AND SERVE EACH FIXTURE INDIVIDUALLY.
7. PROVIDE WATER HAMMER ARRESTOR AT TOP OF DROP.

GAS REGULATOR AND METERS

1 1/2" VENT RISER FROM BELOW

OIL INTERCEPTOR ACCESS LID. SEE DETAIL SHEET P2.1

FCO

3" BASIN VENT RISER FROM BELOW AND 3" VENT THRU ROOF

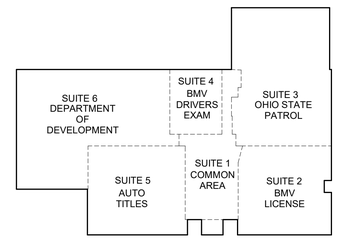
8" SDS

SSO

FIRST FLOOR PLAN

0 4 8 16 24 32 N 40

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



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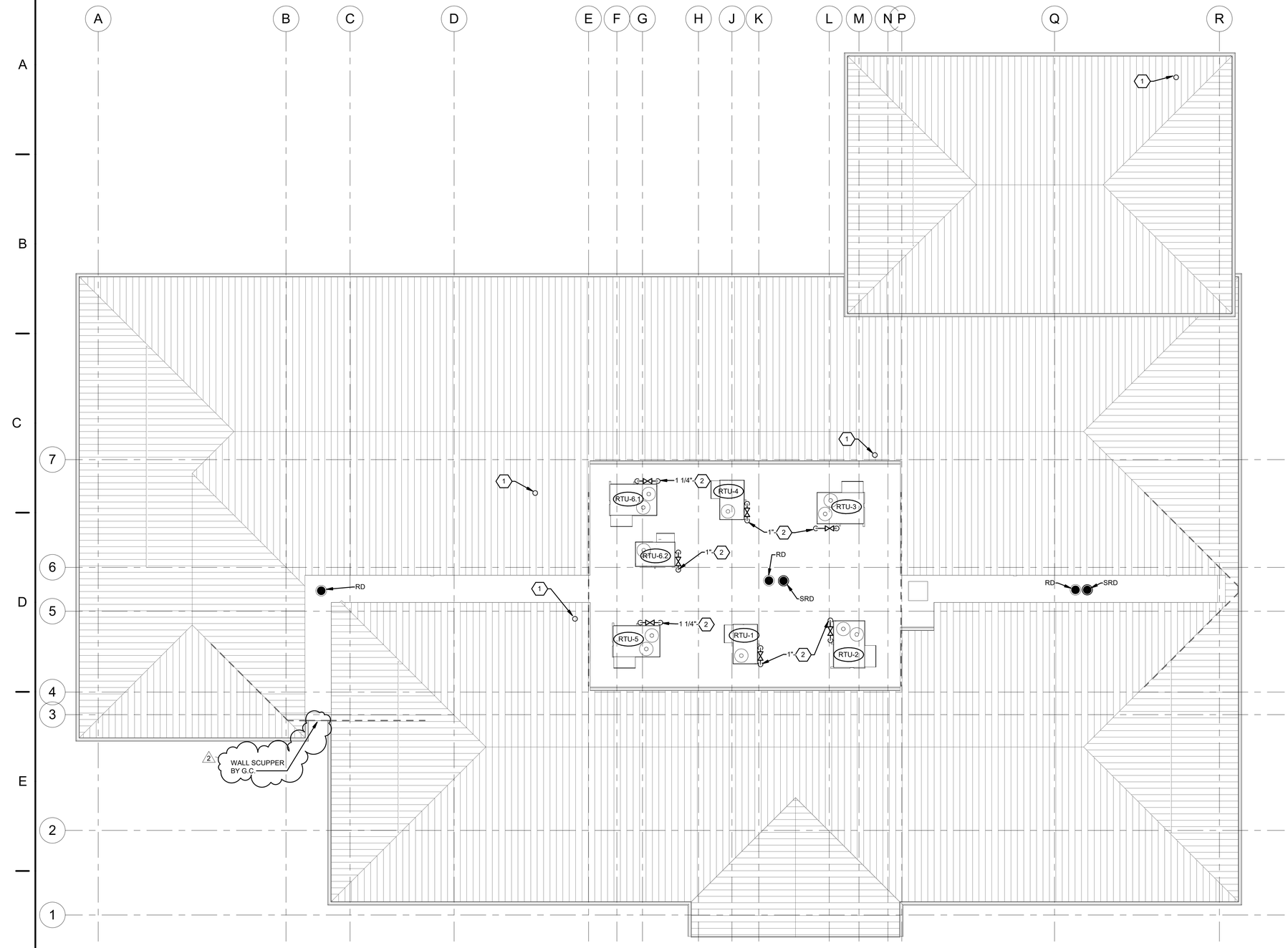
TITLE
FIRST FLOOR PLAN

SHEET NO.
P1.1

5/4/2022 11:06:40 AM

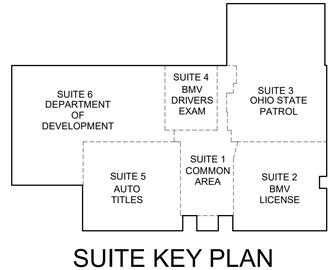
CONSTRUCTION NOTES

1. 3" VENT THRU ROOF. SEE DETAIL SHEET P2.1.
2. NATURAL GAS PIPING FROM BELOW. OFFSET AND CONNECT TO ROOF TOP UNIT. PROVIDE SHUT-OFF VALVE, FULL SIZE DIRT LEG AND UNION(AT CONNECTION TO UNIT) SEE GAS CONNECTION DETAIL SHEET P2.1.



ROOF PLAN

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



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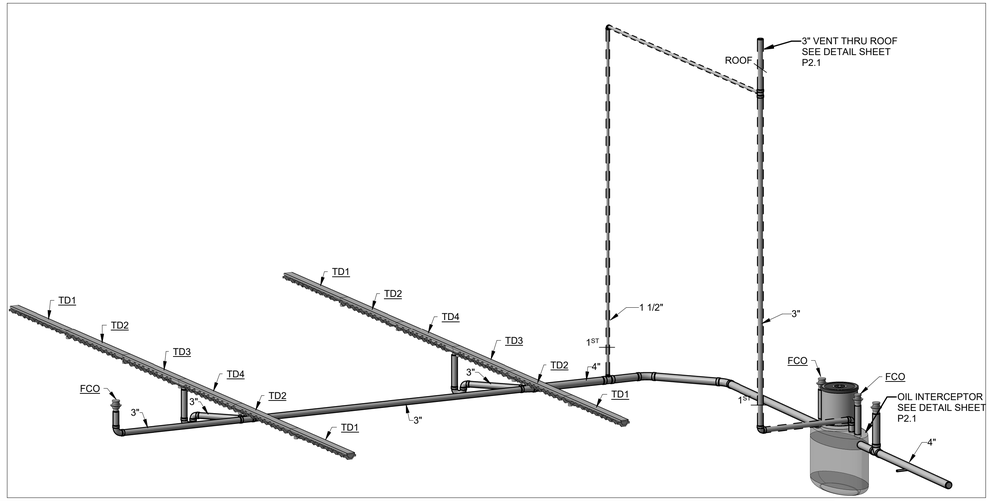
DRAWN	DG
CHECKED	JDZ

TITLE
ROOF PLAN

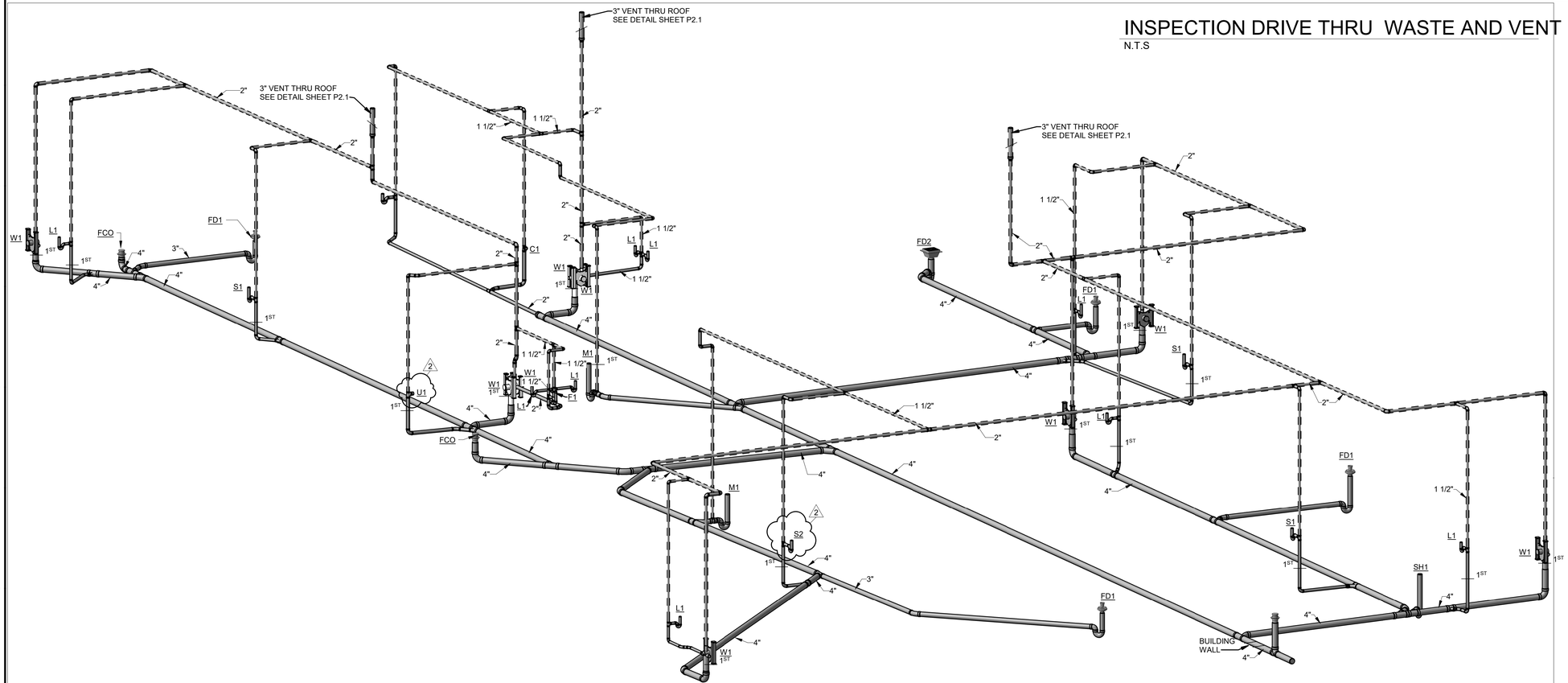
SHEET NO.
P1.2

5/4/2022 11:06:42 AM



INSPECTION DRIVE THRU WASTE AND VENT

N.T.S



MAIN BUILDING SOIL, WASTE AND VENT

N.T.S

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CHECKED	JDZ

TITLE
SOIL, WASTE, AND VENT DIAGRAM

SHEET NO.
P3.1

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5/4/2022 11:06:51 AM

PANEL R1

MOUNTING: SURFACE
CONN. LOAD: 65 KW (2)
DEMAND LOAD: 40 KW (111 AMPS) (2)
MAINS: 200A M.B.
VOLTAGE: 208Y/120V-3PH-4W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
LOBBY LTG.		0.6-L	20/1	1	2	20/1	0.4-R		300
104 RACK		2.0-R	20/2	3	4	20/1	1.0-R		102,103
			-	5	6	20/1	1.2-R		101
HAND DRYER		1.0-H/M	20/1	7	8	20/1	1.0-M		ADA DOORS
HAND DRYER		1.0-H/M	20/1	9	10	20/1	1.5-H		EH 301
MESSAGE BRD		0.5-R	20/1	11	12	20/1			
			20/1	13	14	20/1			
			20/1	15	16	20/1			
			20/1	17	18	20/1			
			20/1	19	20	20/1			
			20/1	21	22	20/1			
			20/1	23	24	20/1			
EF1-1		0.4-M	20/1	25	26	60/3	14-H/M		AC1 a
WTR HTR		4.5-H	30/2	27	28	-			
			-	29	30	-			
RTU-1		10-M	45/3	31	32	60/3	14-M		AC1 b
			-	33	34	-			
			-	35	36				
SPD			30/3	37	38	100/2	12 (2)		STANDBY
			-	39	40	-			A.T.S
			-	41	42	-			

ABBREVIATIONS:
L-LIGHTS, R-RECEPTACLES, M-MOTORS, H- RESISTANCE HEAT, C-CONTROL,
M.L.O- MAIN LUGS ONLY, D.S.L.- DOUBLE SET OF LUGS, M.B- MAIN BREAKER,
L.C.- LOCKING CLIP ON BREAKER

PANEL R2

MOUNTING: SURFACE
CONN. LOAD: 37 KW (2)
DEMAND LOAD: 29 KW (81 AMPS) (2)
MAINS: 200A M.B.
VOLTAGE: 208Y/120V-3PH-4W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
SUITE LTG.		1.2-L	20/1	1	2	20/1	1.8-R		203
201		1.2-R	20/1	3	4	20/1	0.4-R		204
201		1.2-R	20/1	5	6	20/1	0.2-R		204
201		1.2-R	20/1	7	8	20/1	1.0-R		204 MICRO
201		1.2-R	20/1	9	10	20/1	1.0-R		204,205
202		0.4-R	20/1	11	12	20/1	0.4-R		205 RACK
202		0.4-R	20/1	13	14	20/1	1.0-R		200
202		0.4-R	20/1	15	16	20/1	0.8-R		KIOSK
202		0.4-R	20/1	17	18	20/1	1.0-R		201
202		0.6-R	20/1	19	20	20/1	0.6-R		206
202		0.8-R	20/1	21	22	20/1	0.6-M		EF-2
202		0.4-R	20/1	23	24	20/1	0.5-M		DISPOSER
202		0.6-R	20/1	25	26	20/1			
			20/1	27	28	20/1			
			20/1	29	30	20/1			
			20/1	31	32	20/1			
EH		1.5-H	20/1	33	34	30/2	4.5-H		WTR HTR
EH		1.5-H	20/1	35	36	-			
SPD			30/3	37	38	50/3 (2)	10-M		RTU-2
			-	39	40				
			-	41	42	-			

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L.C.- LOCKING CLIP ON BREAKER

PANEL R7

MOUNTING: SURFACE
CONN. LOAD: 43 KW (2)
DEMAND LOAD: 30 KW (85 AMPS) (2)
MAINS: 200A M.B.
VOLTAGE: 208Y/120V-3PH-4W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
SITE LTG.		0.7-L	20/1	1	2	20/1	0.3-L		SHED
SITE LTG.		0.6-L	20/1	3	4	20/1	0.5-R		SHED
POLE CAMERA		0.2-C	20/1	5	6	20/1	0.6-M		EF6-1
SITE LTG.		0.7-L	20/1	7	8	20/1	0.6-M		EF6-2
SITE LTG.		0.7-L	20/1	9	10	20/1	1.0-M		ADA DOOR
POLE CAMERA		0.2-C	20/1	11	12	20/1	0.4-R		700
BLDG. LTG		0.3-L	20/1	13	14	20/1	0.4-R		700
ENTRY LTG.		0.2-L	20/1	15	16	20/1	0.5-M		DRY PIPE COMPR
			20/1	17	18	20/1			
			20/1	19	20	20/1			
			20/1	21	22	20/1			
			20/1	23	24	20/1			
			20/1	25	26	20/1			
			20/1	27	28	20/1			
RTU6-1		15-M	50/3	29	30	20/1			
			-	31	32	20/1			
			-	33	34	20/1			
EH		15-H	20/1	35	36	20/1			
SPD			30/3	37	38	60/3	14-H		AC6-2
			-	39	40	-			
			-	41	42	-			

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L.C.- LOCKING CLIP ON BREAKER

PANEL R3

MOUNTING: SURFACE
CONN. LOAD: 54 KW (2)
DEMAND LOAD: 38 KW (106 AMPS) (2)
MAINS: 200A M.B.
VOLTAGE: 208Y/120V-3PH-4W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
SUITE LTG.		0.8-L	20/1	1	2	20/1	0.6-R		316
SUITE LTG.		0.7-L	20/1	3	4	20/1	1.0-R		317
BAY LTG.		0.8-L	20/1	5	6	20/1	0.8-R		312
302, 314		1.0-R	20/1	7	8	20/1	1.0-R		312
316		0.8-R	20/1	9	10	20/1	0.4-R		311
316		1.2-R	20/1	11	12	20/1	1.2-R		310,302
SPARE			20/1	13	14	20/1	1.0-R		306
SPARE			20/1	15	16	20/1	0.8-R		305
E3-3		0.4-M	20/1	17	18	20/1	1.0-R		304
EH		1.5-H	20/1	19	20	20/1	1.0-R		303
EH		1.5-H	20/1	21	22	30/2	4.5-H		WAT. HTR.
EH		1.5-H	20/1	23	24	-			
EH		1.5-H	20/1	25	26	30/3	5-M		AIR COMP.
EF3-1		0.4-M	20/1	27	28	-			
EF3-2		0.4-M	20/1	29	30	-			
GAS HTRS		0.4-M	20/1	31	32	60/3	12-M		VEHICLE LIFT
RAD HTR		0.6-M	20/1	33	34	20/1			
RAD HTR		0.6-M	20/1	35	36	20/1			
O/H DOOR		1.0-M	20/1	37	38	45/3	10-M		RTU-3
O/H DOOR		1.0-M	20/1	39	40	-			
O/H DOOR		1.0-M	20/1	41	42	-			
O/H DOOR		1.0-M	20/1	43	44	20/1			SPARE
SPARE			20/1	45	46	20/1			SPARE
SPARE			20/1	47	48	20/1			SPARE
SPD			30/3	49	50	20/1			SPARE
			-	51	52	20/1			SPARE
			-	53	54	20/1			SPARE

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L.C.- LOCKING CLIP ON BREAKER

PANEL R4

MOUNTING: SURFACE
CONN. LOAD: 25 KW (2)
DEMAND LOAD: 19 KW (53 AMPS) (2)
MAINS: 200A M.B.
VOLTAGE: 208Y/120V-3PH-4W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
SUITE LTG.		0.6-L	20/1	1	2	20/1	0.8-R		403,404
405		0.4-R	20/1	3	4	20/1	0.2-R		404
405		0.4-R	20/1	5	6	20/1	1.0-R		404 MICRO
405		0.4-R	20/1	7	8	20/1	0.4-R		404
405		0.4-R	20/1	9	10	20/1	0.4-R		402
401		0.8-R	20/1	11	12	20/1	0.4-R		405
			20/1	13	14	20/1	0.4-R		405
			20/1	15	16	20/1	0.4-R		405
			20/1	17	18	20/1	0.4-R		405
			20/1	19	20	20/1			
			20/1	21	22	20/1			
			20/1	23	24	20/1			
			20/1	25	26	20/1			
			20/1	27	28	20/1			
			20/1	29	30	20/1	1.5-H		EH
			20/1	31	32	20/1	1.5-H		EH
			20/1	33	34	30/2	4.5-H		WTR HTR
EF-4		0.6-M	20/1	35	36	-			
SPD			30/3	37	38	30/3	7.5-M (2)		RTU-4
			-	39	40	-			
			-	41	42	-			

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PANEL R5

MOUNTING: SURFACE
CONN. LOAD: 38 KW (2)
DEMAND LOAD: 30 KW (85 AMPS) (2)
MAINS: 200A M.B.
VOLTAGE: 208Y/120V-3PH-4W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
SUITE LTG.		0.9-L	20/1	1	2	20/1	0.4-R		505 RACK
SUITE LTG.		0.5-L	20/1	3	4	20/1	0.8-R		505,504
501 COPIER		1.0-R	20/1	5	6	20/1	0.4-R		506
500		0.8-R	20/1	7	8	20/1	0.4-R		506
502		0.8-R	20/1	9	10	20/1	0.8-R		506
502		0.8-R	20/1	11	12	20/1	1.0-R		506 MICRO
502		0.8-R	20/1	13	14	20/1	1.2-R		507
502		0.8-R	20/1	15	16	20/1	1.2-R		508
502		0.8-R	20/1	17	18	20/1	0.5-R		503
502 COPIER		1.0-R	20/1	19	20	20/1	1.5-H		502
502		1.0-R	20/1	21	22	20/1			
			20/1	23	24	20/1			
			20/1	25	26	20/1			
			20/1	27	28	20/1			
			20/1	29	30	20/1			
			20/1	31	32	20/1			
EF-5		0.6-M	20/1	33	34	30/2	4.5-H		WTR HTR
EH		1.5-H	20/1	35	36				
SPD			30/3	37	38	50/3	12-M (2)		RTU-5
			-	39	40	-			
			-	41	42	-			

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L.C.- LOCKING CLIP ON BREAKER

PANEL R6

MOUNTING: SURFACE
CONN. LOAD: 69 KW (2)
DEMAND LOAD: 40 KW (111 AMPS) (2)
MAINS: 200A M.B.
VOLTAGE: 208Y/120V-3PH-4W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
SUITE LTG.		0.8-L	20/1	1	2	20/1	1.0-R		617,618
SUITE LTG.		0.8-L	20/1	3	4	20/1	1.0-R		620
SUITE LTG.		0.8-L	20/1	5	6	20/1	0.6-R		618
604 MICRO		1.0-R	20/1	7	8	20/1	0.8-R		618
604		0.8-R	20/1	9	10	20/1	0.6-R		
604		1.0-R	20/1	11	12	20/1	0.6-R		
601		0.6-R	20/1	13	14	20/1	0.6-R		
601,603		1.0-R	20/1	15	16	20/1	0.8-R		607
605		0.6-R`	20/1	17	18	20/1	0.5-R		607
605		0.8-R	20/1	19	20	20/1	0.4-R		606
608		1.4-R	20/1	21	22	20/1	0.6-R		606
609		1.6-R	20/1	23	24	20/1	0.4-R		603
610		1.6-R	20/1	25	26	60/3	19-H/M		AC6-1a
611		1.0-R	20/1	27	28	-			
611		0.8-R	20/1	29	30	-			
611		0.4-R	20/1	31	32	60/3	14-H		AC6-1b
WTR HTR		4.5-H	30/2	33	34	-			
			-	35	36	-			
			20/1	37	38	30/3	8-M		RTU-6-2 (2)
			20/1	39	40	-			
			20/1	41	42	-			
			20/1	43	44	20/1			
			20/1	45	46	20/1			
			20/1	47	48	20/1			
SPD			30/3	49	50	20/1			
			-	51	52	20/1			
			-	53	54	20/1			

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L.C.- LOCKING CLIP ON BREAKER

PANEL SB

MOUNTING: SURFACE
CONN. LOAD : 12 KW
DEMAND LOAD: 12KW (50 AMPS)
MAINS: 100A M.B.
VOLTAGE: 208Y/120V-1PH-3W

REMARK	DEMAND KVA	CONNECTED KVA	BKR.	CKT. NO.		BKR.	CONNECTED KVA	DEMAND KVA	REMARK
RISER RM 700		1.0-R	20/1	1	2	20/1	0.4-R		DATA 104
RACK 402		1.0-R	20/1	3	4	20/1	0.4-R		DATA 104
RACK 311...		1.0-R	20/1	5	6	20/1	0.4-R		DATA 104
RACK 205		1.0-R	20/1	7	8	20/1	0.4-R		DATA 104
RACK 621		1.0-R	20/1	9	10	20/1	0.4-R		F.A. PNL.
RACK 505		1.0-R	20/1	11	12	20/2	2.0-R		SERVER 104
S.B. LTG.		1.2-L	20/1	13	14	-			
EF1-2		0.6-M	20/1	15	16	20/1			
			20/1	17	18	20/1			
			20/1	19	20	20/1			
			20/1	21	22	20/1			
			20/1	23	24	20/1			
SPD			30/2 (2)	25	26	20/1			
				27	28	20/1			
			-	29	30	20/1			

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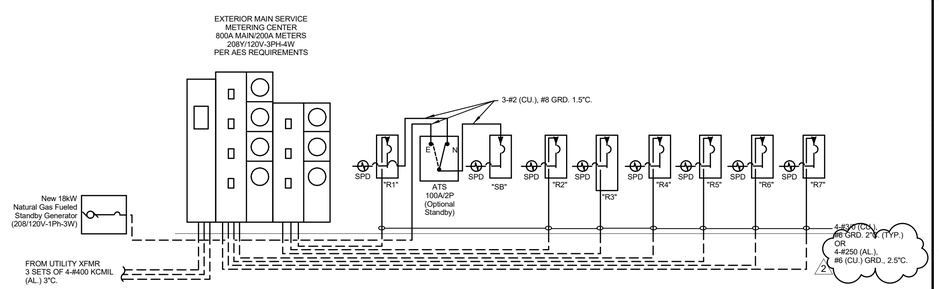

SINGLE-LINE DIAGRAM

341 KW CONNECTED LOAD
226 KW DEMAND LOAD (628 AMPS @ 208V-3PH) (2)

NAUMAN & ZELINSKI LLC.
204 S. Ludlow Street Suite 400 Dayton, Ohio 45402
Phone: (937) 223-3821 ~ Fax: (937) 223-3849

App Architecture
creative focused design
615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

STATE OF OHIO
JEFFREY D. ZELINSKI
63822
REGISTERED PROFESSIONAL ENGINEER

MIAMI COUNTY ONE STOP CENTER
BOARD OF COMMISSIONERS FOR MIAMI COUNTY, OHIO
BARNHART ROAD, TROY, OHIO 45373

ISSUE

NO.	DATE	DESCRIPTION
1	04/08/2022	FOR CONSTRUCTION
2	05/04/2022	ADDENDUM 1

DATE	04/08/22
JOB NO.	3923.00
DRAWN	TR
CHECKED	JDZ

TITLE
SCHEDULES AND SINGLE LINE DIAGRAM

SHEET NO.
E0.2

5/4/2022 11:07:19 AM

Pre-Bid Agenda

App Architecture
creative focused design

615 Woodside Drive, Englewood, Ohio 45322
T 937.836.8898 F 937.832.3696
www.app-arch.com

DATE: April 22, 2022

PROJECT: Board of Miami County Commissioners
Miami County One Stop Center

SIGN-IN &INTRODUCTIONS: Owner – App Architecture – Contractors – Subcontractors
Chris Johnson – Board of Miami County Commissioners, Director of Operations & Facilities
Rick Willis – App Architecture, Project Manager
Jezerinac Geers & Associates – Structural Engineer
Nauman & Zelinski, LLC – PME Engineers
Choice One Engineering – Civil Engineer

GENERAL SCOPE OF PROJECT:

- Single Prime Contract covering all branches of Work.
- Project Budget-$7.2M
- Phasing – lowering of utilities from existing poles at Barnhart Road.

BID REQUIREMENTS:

- Bid due date – Tuesday, May 10, 2022 - 9:05 AM
- Bids due at Commissioner's Office, 201 W Main Street, Troy Ohio
- Use bid forms provided in the Project Manual.
- Bid Bond required.
- Performance and Payment Bond required.
- Geotechnical Report is available
- Last day for questions is Tuesday, May 3, 2022

SUPPLEMENTARY CONDITIONS:

- Permits, Owner submitting and paying for building and structural only.
- Owner is sales tax exempt.
- Payment of "Prevailing Wages" is required.
- Notice of Commencement provided by the Owner

TEMPORARY FACILITIES:

- Utilities - by the GC
- Field offices, storage trailers by the GC.
- Temporary toilets, by the GC.
- Refer to Sheet No. C6.5 for limits of site and proposed construction entrance.

OWNER COMMENTS:

CONTRACTOR QUESTIONS:

Direct architectural, structural and site bid questions to App Architecture, Attn. Rick Willis, **email only**.
Direct mechanical and electrical bid questions to Nauman & Zelinski, LLC, Attn. Bob Stohr, **email only**.

Rick Willis rick.willis@app-arch.com
Bob Stohr rstohr@nzengineering.com

All necessary clarifications will be made by Addendum.

Pre-Bid Sign-In Sheet

App Architecture
creative focused design

DATE: April 22, 2022

PROJECT: Board of Miami County Commissioners – One Stop Center

Name	Company	Address	Communication Numbers
Jake Cordonnier	Choice One Engineering		Phone: 937-726-7903 Fax: E-Mail: jac@choiceoneengineering.com
David Abney	Wise Construction co		Phone: 937/854-0281 Fax: E-Mail: DEAE WiseConstructionco.com
Tim Siegenthaler	Westerheide CC		Phone: 937-844-3609 Fax: E-Mail: tim @ westerheidecc.com
Chris Rohrer	Brian Bros. Painting		Phone: 937-214-4377 Fax: E-Mail crohrer@brianbrospainting.com
MARTT DOBELEIT	BICBREY		Phone: 937-228-0046 Fax: " - " -8751 E-Mail: MARTT@BIGBREY-CONSTRUCTION.com
ALEX MILLER	SIDNEY ELECTRIC		Phone: (937)498-2357 Fax: E-Mail: amiller@sidneyelectric.com
Clay Hoying	Slagle Mechanical		Phone: 937-492-4151 Fax: E-Mail: choying@slaglemech.com
			Phone: Fax: E-Mail:

Pre-Bid Sign-In Sheet

App Architecture
creative focused design

DATE: April 22, 2022

PROJECT: Board of Miami County Commissioners – One Stop Center

Name	Company	Address	Communication Numbers
Jim Wilson	Miami County		Phone: Fax: E-Mail: jwilson@miamicountyohio.gov
Chris Johnson	Miami County		Phone: 937-440-5999 Fax: E-Mail: cjohnson@miamicountyohio.gov
Nathan Lucas	Arcon Builders		Phone: 937-308-0198 Fax: E-Mail: nate.lucas@arconbuilders.com
			Phone: Fax: E-Mail:
			Phone: Fax: E-Mail:
			Phone: Fax: E-Mail:
			Phone: Fax: E-Mail:
			Phone: Fax: E-Mail:

SOIL STUDY FOR PROPOSED BUILDING
W. MARKET STREET,
TROY, OHIO

Submitted For:

Board Of Miami Commissioners
209 West Water Street
Troy, Ohio 45373

Report No. 202691-1221-2224
December 17, 2021

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DAYTON ENGINEERING SERVICES
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Dayton, Ohio 45401-0051
P. 937.236.8805 **F.** 937.233.2016
www.bowser-morner.com

December 17, 2021

Board of Miami Commissioners
209 West Water Street
Troy, Ohio 45373

Attention: Mr. Chris Johnson, ARM

Re: Report No. 202691-1221-224; Soil Study for Proposed Building, W. Market Street, Troy, Ohio

Dear Mr. Johnson:

Bowser-Morner, Inc. is pleased to submit our report of the soil study for the above-referenced project. The purpose of this study is to determine the physical characteristics of the soil strata and allowable bearing capacity for the proposed structure. Also noted are other conditions that could affect the design and/or construction of the structure.

The samples collected that were not used to perform the laboratory tests will be kept in our laboratory for 30 days unless you advise us otherwise. If you have any questions or if we can help you in any way on this project or future work, please call us.

Sincerely,
BOWSER-MORNER, INC.

"This document was originally issued by Chris R. Ryan, M.S.C.E., P.E. and Daniel Otieno on December 17, 2021. This document is not considered a sealed document."

Daniel M. Otieno
Geotechnical Engineer

Chris R. Ryan, M.S.C.E., P.E.
Sr. Geotechnical Engineer

DO/CRR/an
3-Client
2-File

TABLE OF CONTENTS

Section I

Text

1.0 INTRODUCTION

A One Stop Center building will be constructed on the northwest corner of the intersection of West Market Street and Barnhart Road in Troy, Ohio. A vicinity map (Figure 1) is included in Section III of this report. Our findings on the soil conditions and groundwater levels with respect to the potential construction problems, and recommendations for the allowable bearing capacity for the construction of the building are given in this report.

Authorization to proceed with this soil study was given by Board of Miami Commissioners Purchase Order No. 2105963-00 dated October 12, 2021. The work was to proceed in accordance with our proposal and agreement, Quotation No. 21-2771-105 dated October 5, 2021.

The draft soil boring logs and preliminary foundation recommendations were emailed to Mr. Chris Johnson, ARM, of the Board of Miami Commissioners on November 23, 2021.

Bowser-Morner, Inc. Report No. 163428-0913-249, dated September 25, 2013 discussed the soil conditions for press foundation at a site to the west of the proposed building site. Two soil test borings were advanced for that study. That report was prepared for F. Tech R&D N.A., Inc. We reviewed the relevant soil boring and laboratory data from the previous study to assist in the evaluation of this project.

2.0 WORK PERFORMED

2.1 Field Work

Three (3) soil borings were made at the locations shown on the boring location plan, Figure 2 in Section III. The boring logs and boring location plan are included in Section III. The borings were made with a truck-mounted boring rig using hollow-stem augers and standard penetration resistance methods. The standard penetration tests were performed in accordance with ASTM D1586, which includes a 140-pound hammer, 30-inch drops, and two-inch-O.D. split-spoon samplers driven at maximum depth intervals of five feet or at major changes in stratum, whichever occurred first. The disturbed split-spoon samples were visually classified, logged, sealed in moisture-proof jars, and taken to the Bowser-Morner, Inc. laboratory for study. The depths where these "SS"-type split-spoon samples were collected are noted on the corresponding boring logs.

2.2 Laboratory Work

One (1) Atterberg limits test was performed in accordance with ASTM D4318 to determine the liquid and plastic limits on the most visibly plastic cohesive soil or as needed for soil classification. In addition, 13 moisture content determinations were made in accordance with ASTM D2216. The moisture contents ranged from 7.0% to 24.6% for the brown or gray silty clay. The results of the laboratory tests are summarized in Table 2-1 and included in Section III of this report.

Table 2-1. Summary of Laboratory Test Results

Boring No.	Depth (ft.)	Moisture Content (%)	Atterberg Limits LL	PL	PI
1	1.0 – 2.5	21.5			
	6.0 – 7.5	11.2			
	13.5 – 15.0	7.0			
	23.5 – 25.0	10.3			
2	3.5 – 5.0	16.3	21	14	7
	6.0 – 7.5	13.9			
	8.5 – 10.0	10.1			
	13.5 – 15.0	9.6			
	18.5 – 20.0	9.1			
3	1.0 – 2.5	24.6			
	6.0 – 7.5	12.2			
	13.5 – 15.0	7.2			
	23.5 – 25.0	14.4			

3.0 SOIL AND GROUNDWATER CONDITIONS

Based on the information from the three borings made for this study, the subgrade soil conditions are described in descending order below:

- Six inches of topsoil.
- Below the topsoil layer, eight to 29.5 feet of soft-to-hard brown or gray silty clay. The layer extends to the bottom of the boring at a depth of 24.5 and 30 feet below the existing grade in Borings 1 and 2 respectively.
- In Boring 3 and below the brown and gray silty clay layer, five feet of hard brown sandy lean clay. Below the brown sandy lean clay layer, 11.5 feet of very stiff-to-hard brown and gray silty clay extending to the bottom of the boring at a depth of 25 feet below the existing grade.

Free groundwater was encountered during the advancement of the borings at the depths and elevations summarized in Table 3-1.

Table 3-1. Summary of Groundwater Observations

Boring No.	Depth Groundwater First Observed (ft)		Groundwater Observations at Completion of Boring	
	Depth	Elevation*	Depth	Elevation*
1	6.0	89.6	17.0	78.6
2	6.3	90.1	11.5	84.9
3	8.5	87.1	22.5	73.1

*Refers to an assumed elevation of 100.0 feet for the benchmark shown on the boring location plan.

Free groundwater is defined as water that seeps into an open borehole before it is backfilled. Groundwater observations were made during the boring operations by noting the depth of water on the boring tools and in the open boreholes following withdrawal of the boring augers. However, it should be noted that short-term water level readings are not necessarily a reliable indication of the groundwater level and that significant fluctuations may occur due to variations in rainfall and other factors. For specific questions on the soil conditions, please refer to the individual boring logs in Section III.

4.0 DISCUSSION AND RECOMMENDATIONS

4.1 Project Description

A One Stop Center building will be constructed on the northwest corner of the intersection of West Market Street and Barnhart Road in Troy, Ohio. We understand that the maximum uniform wall load will be approximately 5 kips per foot and the maximum load will be approximately 200 kips. Car parking and driveways will be constructed on all sides of the proposed building. A detention pond will also be constructed on the south side of the facility. No design was provided for this report.

The following recommendations are based on this information. If the above statements are incorrect or changes are made, Bowser-Morner, Inc. should be notified so that the new data can be reviewed and additional recommendations and services can be given if required to meet the needs of your project.

4.2 Foundation Recommendations

4.2.1 Foundation Subgrade Preparation

Based on the subgrade soil conditions indicated in Borings 1 through 3 made at this site, the site is covered with topsoil and/or weak soil that extends to the approximate depths outlined in Table 4-1. Based on the results of the standard penetration tests (SPT) in the borings, the recommended net allowable bearing capacities and the depths to bearing strata at each boring are also tabulated in Table 4-1.

Table 4-1. Depths and Elevations to Bearing Strata

Boring No.	Depth to Bearing Strata (ft)	Elevation* of Bearing Strata (ft)	Topsoil, Fill, and/or Weak Soil	Recommended Net Allowable Bearing Capacity (psf)
1	0.5	95.1	Topsoil	1,500
	3.5	92.1	Topsoil and Weak Soil	2,000
	6.0	89.6	Topsoil and Weak Soil	4,000
2	0.5	95.9	Topsoil	500
	6.0	90.4	Topsoil and Weak Soil	4,000**
3	0.5	95.1	Topsoil	1,000
	3.5	92.1	Topsoil and Weak Soil	3,000
	6.0	89.6	Topsoil and Weak Soil	4,000

*Refers to an assumed elevation of 100.0 feet for the benchmark shown on the boring location plan.
**Bearing capacity applies only to foundations placed at the depths specified in Table 4-1. The recommended allowable bearing capacities will have to be reduced with foundations to be placed below these depths, because a weaker soil layer was encountered at a depth of 23.5 feet in Boring 2.

The topsoil and weak soil are unreliable to support the proposed building foundations and floor slab on-grade. Within the building construction limits, the topsoil and the weaker soil can be removed to the suitable depths with the desired allowable bearing capacities as outlined in Table 4-1 and replaced with compacted backfill.

The bottoms of the foundation excavations should extend to the suitable depths with the desired allowable bearing capacities as outlined in Table 4-1. After the foundation excavations extend to the suitable depths, the over-excavation can be filled with compacted backfill. The bottoms of exterior footing foundations for heated structures should be placed at least 32 inches below the final adjacent grades to protect against frost penetration and heaving. Interior footings not subject to frost action may bear at a minimum depth of 18 inches below the floor slab if they are supported on original materials or compacted fill placed in accordance with our recommendations. The bottoms of exterior footing foundations for non-heated structures should be placed at least 36 inches below the final adjacent grades to protect against frost penetration and heaving.

The base of each excavation should extend one lateral foot for every foot of excavation below the bottom of the footing foundation as shown in Figure 3 in Section III. If an excavation will extend more than five feet below the existing grade, a maximum allowable side slope of 1 (horizontal) to 1 (vertical) should be maintained in any excavation for stability and for the safety of the workers.

After the foundation excavations extend to the desired grade, the top foot at the bottom of each excavation should be compacted to at least 90% of the maximum dry-unit weight as determined by the modified Proctor test (ASTM D1557) before any new fill or foundation is placed. Any soft soil pockets should be undercut and replaced with newly compacted fill. Any lean clay soils to be imported as backfill or removed from the project site probably will have significantly different Proctor

values. Consequently, samples to be tested by the Proctor method should be obtained from a representative area and from the same elevation as the design subgrade.

After the bottoms of the excavations have been compacted, structural fill can be placed to bring the bottoms of the excavations to reach the desired final grade. The fill placed below the bottom of the footing foundations should be placed in eight-inch-thick lifts and compacted to at least 95% of the maximum dry-unit weight as determined by the modified Proctor test (ASTM D1557). Fill placed above the bottom of the footing foundations to serve as the subgrade for the floor slab should be compacted to at least 90% of the maximum dry-unit weight as determined by the modified Proctor test (ASTM D1557 Structural fill should be placed in accordance with the recommendations given in Section 4.4.

The footing foundations for the building can be supported on the original subgrade soil or newly compacted backfill extending to the depths and elevations outlined in Table 4-1. The foundations can be designed with the corresponding net allowable bearing capacities outlined in Table 4-1. For these recommended allowable bearing capacities outlined in Table 4-1 for the original soil layer or for the newly compacted backfill, the total estimated amount of settlement of the foundations will be about one inch with differential settlement of about 3/4 inch over a distance of 40 feet.

The soil removed from this site that is free of organic or objectionable materials as defined by a field technician who is qualified in soil material identification and compaction procedures can be reused as fill. Objectionable or undesirable soils are defined as those materials that cannot meet design placement specifications or materials that will deteriorate with time.

When determining the geometric size (the “footprint”) of the footing foundation, the total system loads applied to the tops of the foundations should be considered in the bearing pressure calculations.

The bearing capacities recommended in Table 4-1 for foundations supported on structural fill applies to well-graded granular soils, low-to-medium plastic clays, clayey sands, and some silty sands that are placed and compacted in accordance with the recommendations given in this report. However, uniformly graded or gap-graded granular soils (GP or SP), silts (ML), silty fine sands (SM), and high plasticity clays (CH) will be difficult to place and compact, and may result in a reduced bearing capacity. If these soils will be used as backfill, Bowser-Morner should be notified before the soils are placed so that the proposed placement methods and bearing capacity recommendations can be reviewed.

The bearing capacity of a soil is not a unique physical property of the soil. Instead, it depends explicitly on several factors including the footing type, size, and shape; the depth of embedment; the eccentricity and inclination of the applied load; the footing base inclination; the stiffness of the footing; the proximity of the footing to open cuts or slopes; the relative distance between the bottom of the footing and the water table; and the allowable amounts of settlement. The recommended allowable bearing capacity is based on the foundation design

parameters given above and the assumptions that the applied load is vertical with no eccentricity, the base is horizontal and level, the footing is rigid, the footing is not close to an open cut or slope, and the water table is below the bottom of footing. If the actual conditions vary from the parameters and assumptions stated above, Bowser-Morner should be notified so that the new information can be reviewed and additional recommendations and services can be given to meet the needs of your project.

Foundations supported on soil settle as the result of externally applied loads. While the foundations should be expected to settle, the amount of settlement should be within the tolerable limits for the structure.

4.2.2 Site Classification For Seismic Design

Based on the results of the standard penetration tests (SPT) in the borings made for this study, the average "N" values range from 24 to 26 blows per foot for the soil layer within 25 to 30 feet of the existing grade. Based on the results of the average "N" value, it is our opinion that the site will be classified as a "D" type in accordance with the *Ohio Building Code*.

4.3 Floor Slabs On-Grade

Based on information from the borings performed, the proposed building site area is covered by a layer of topsoil and weak soil that extends to the depths outlined in Table 4-1. The topsoil and the weak soil layers extending to the depths outlined in Table 4-1 are also not reliable to support the floor slab due to the potential for settlement.

The bottoms of the floor slab on-grade excavations should extend to the suitable depths with the desired allowable bearing capacities as outlined in Table 4-1. The building floor slab on-grade either can be constructed over the newly compacted backfill. The upper one foot of compacted fill should be a well-graded, granular material such as crushed sand and gravel or crushed stone. To help distribute concentrated loads and equalize moisture conditions under the slab, this granular material should contain less than 5% of fines or particles that can pass through a No. 200 sieve.

We also recommend that slabs on-grade "float" by being fully supported on the ground and not structurally connected to the walls or foundations. Floating will minimize the possibility of cracking and displacement of the slabs on-grade as a result of differential movements between the slabs and the foundations. Although the movements should be within the tolerable limits for structural safety, such movements could be detrimental to the slabs if they were rigidly connected to the foundations.

4.4 Compaction Requirements

Structural fill placed below the foundation bearing elevation should be compacted to at least 95% of the maximum dry unit weight with moisture contents within 2% of the optimum moisture content as determined by the modified Proctor test (ASTM D1557). Fill placed above the bottoms of the foundations or under pavement areas should be compacted to at least 90% of the maximum dry unit weight with moisture contents within 2% of the optimum moisture content as determined by the modified Proctor test (ASTM

D1557). The compaction should be accomplished by placing the fill in successive, horizontal, approximately six- to eight-inch-thick loose lifts and mechanically compacting each lift to at least the specified minimum dry density. Field density tests should be performed at a minimum rate of one per 2,500 square feet of fill area and for each lift to verify that adequate compaction is achieved. Backfill for utility trenches, foundation excavations, etc., within structures or paved areas, is considered structural fill and should be placed in accordance with these recommendations.

It must be emphasized that the excavation and compaction of soil fill are highly influenced by weather conditions. Performing the earthwork under wet and frozen conditions is generally very difficult. As a result, compaction of wet silty and clayey soil should be avoided during wet and frozen conditions because the wet soil cannot be compacted to the required unit weight without drying or other soil stabilization methods. Alternatively, granular soil can be used as backfill to facilitate the backfill and compaction work during winter and wet weather conditions. The construction cost during the winter and wet weather conditions will be higher by the purchase of granular soil from the sand and gravel pits.

Puddling or jetting of the backfill material, including the utility trenches, should not be allowed as a compaction method. Silty or clayey soils encountered above foundation depth will often soften, and the bearing capacity may be reduced if water ponds in the excavation.

Lean concrete that is placed below the bottom of foundation should have a minimum 28-day compressive strength of 2,000 pounds per square inch (psi).

4.5 Foundation Excavations

During the foundation excavations, the subsurface conditions should be verified. Changes in subsurface conditions other than what are shown on the boring logs warrant additional subsurface investigation before the structures foundations are constructed.

The foundation excavations should be observed to ensure that the loose, soft, or otherwise undesirable materials are removed and that the foundations will be supported directly on an acceptable surface. At the time of this observation, it may be necessary to use a hand penetration device in the base of the foundation excavation to ensure that the soils immediately below the foundation base are satisfactorily prepared to support the foundations. Please note that such shallow observations do not replace an adequate deep-boring program and structural fill compaction QA/QC records. The overall performance of the foundations is governed by the soils below the bottom of the footing foundation.

If pockets of soft, loose, or otherwise unsuitable materials are encountered in the footing excavations and it is inconvenient to lower the footings, the proposed footing elevations may be reestablished by backfilling after the undesirable materials have been removed. The excavation under each footing should extend to suitable soils, and the base of the excavation should extend one lateral foot for every foot of excavation below the bottom of the footing foundation as shown in Figure 3 in Section III. The entire excavation should then be refilled with well-compacted, engineered fill. Special care should be taken to remove the sloughed, loose, or soft materials near the base of the excavation slopes.

Extra care should also be taken to tie-in the compacted fill with the excavation slopes, with benches as necessary, to ensure that no pockets of loose or soft materials are left along the excavation slopes below the foundation bearing level. The contractor should maintain temporary cut slopes in accordance with the current OSHA regulations governing trenching and slope stability.

Soils exposed at the bases of satisfactory foundation excavations should be protected against any detrimental change in condition such as from construction disturbances, rain, and freezing. Surface runoff should be drained away from the excavation and not allowed to pond. If possible, foundation concrete should be placed the same day the excavation is made. If this is not practical, the foundation excavations should be adequately protected. Also, for this reason, proper drainage should be maintained after construction. It must be emphasized that all excavations must conform to all state, federal, and local regulations relative to slope geometry.

4.6 Construction Dewatering

Groundwater was encountered at depths of between 6.0 and 22.5 feet in all three borings during the boring operations as outlined in Table 3-1. Any groundwater or surface water infiltration encountered in the excavations should be lowered to the bottom of the maximum excavation using sumps and pumps. Sumps can consist of perforated pipes or drums installed vertically in the relatively permeable granular soils and surrounded with free-draining sand and gravel. The perforations of the pipe should be covered with a layer of filter fabric to keep silt and fine sand from pumping through the sumps. Care must be exercised when pumping from sumps that extend into silts or other granular soils since general deterioration of the bearing soils and a localized “quick” condition could result. The groundwater should be kept at a level below the fill operation during the placement and compaction of the backfill materials during the construction of the foundations.

The amount and type of dewatering required during construction will depend on the weather and groundwater levels at the time of construction, and the effectiveness of the contractor’s techniques in preventing surface runoff from entering open excavations. Typically, groundwater levels are highest during winter and spring, and lower in summer and early fall.

4.7 Drainage

Adequate drainage should be provided at the site to minimize any increase in moisture content of the foundation soils during and after construction. The exterior grade including all pavements or parking areas should be sloped away from the new structures foundations to keep water from ponding. All permanent foundation, wall, and below-grade floor drains should provide positive discharge away from the new structures.

4.8 Detention Pond

A detention pond will be constructed on the south side of Borings 2 and 3. Based on the soil conditions indicated in these two borings and our assumption that the pond will be about ten feet deep, the bottoms of the ponds will be in the brown silty clay, or brown sandy lean clay. Based on our experience, the clay soil will have a relatively low permeability and will retain the water. If any sand seams or pockets are encountered at

the bottom of the pond excavation, the sand layer should be over-excavated two feet below the bottom of the pond elevation and replaced with compacted silty and clayey soil to reduce the amount of water infiltration. Any lean clay removed from the pond excavations can be reused as the material to replace the over-excavated granular soil. The construction of the pond will most likely to be a dug out and embankment dam type. The design of the embankment dam is beyond the scope of our study.

4.9 Pavement Recommendations

4.9.1 Pavement Subgrade Preparation Recommendations

Based on information from the borings made at this site, the proposed parking and driveway pavement areas are covered by topsoil that extends to the depths outlined in Table 4-2.

Table 4-2. Depths to Bottom of Unreliable Soil

Boring No.	Depth to Bottom of Unsuitable Soils (ft)	Elevation* at Bottom of Unsuitable Soils (ft)	Topsoil and/or Weak Soil
1	0.5	95.1	Topsoil
2	0.5	95.9	Topsoil
3	0.5	95.1	Topsoil

*Refers to an assumed elevation of 100.0 feet for the benchmark shown on the boring location plan.

The topsoil in the proposed car parking and driveway areas should be removed. It can be stockpiled for landscaping purposes. After the topsoil, any trees, and root balls have been removed and any ground surface in the proposed pavement areas that is higher than the proposed subgrade has been re-graded, the top foot of the subgrade soil layer at the bottom of the excavation should be compacted to at least 90% of the maximum dry-unit weight as determined by the modified Proctor test (ASTM D1557) before any new fill or subgrade is placed. Any soft soil pockets should be undercut and replaced with newly compacted fill. Verification of the subgrade will have to be performed during the re-compaction of the top of the stripped ground surface. A soil technician under the supervision of the geotechnical engineer should be on-site to observe the compaction. Any additional backfill to be placed over the recompacted ground surface to support the granular base should be placed in eight-inch-thick lifts and compacted to at least 90% of the maximum dry-unit weight as determined by the modified Proctor test (ASTM D1557).

Any weak or loose soil layer encountered during the re-compaction of the subgrade soil layer should be undercut and replaced with newly compacted backfill. Any thin layer of soft clay can be scarified and recompacted to achieve the density to at least 90% of the maximum dry-unit weight as determined by the modified Proctor test. The recompacted subgrade should be firm with the deflection less than 1/2 inches under the compaction equipment.

Any additional subgrade fill, which is needed to reach the final proposed subgrade, can be placed and compacted to bring the ground to the desired grade, if needed. The newly placed fill should be placed in horizontal eight-inch-thick

lifts and compacted to at least 90% of the maximum dry-unit weight with moisture contents within 2% of the optimum moisture content by the modified Proctor method (ASTM D1557). The granular base can be supported on the newly compacted soil or on the recompacted subgrade.

Silty or clayey soil at subgrade depth will tend to degrade quickly under construction traffic when wet. Degradation of the wet subgrade soils will result in a reduced support value. For this reason, all of the exposed subgrade should be graded to drain and should be protected against any detrimental change in condition such as from disturbances, rain, and freezing. The ground surface near the parking area should slope away from the walkway so that surface runoff is not allowed to pond next to the walkway. Adequate drainage should be provided at the site to avoid an increase in moisture content of the subgrade soils during and after construction.

4.9.2 Pavement Design Recommendations

Based on the results of the laboratory tests, the subgrade soils on the site can be classified as A-4 and A-7-6 types in accordance with the AASHTO Soil Classification System. Our experience has been that the long-term performance records of these types of soils are less than what are predicted by standard design charts. For this reason, after this type of subgrade soil is compacted to 90% of the maximum dry unit weight as determined by the modified Proctor test, a California Bearing Ratio (CBR) value of 3 can be assigned for the pavement design. An equivalent soil support value (SSV) of 2.4 can be used for the asphalt pavement design, and a modulus of subgrade reaction (k) of 100 pci can be used for the concrete pavement design.

The pavement sections outlined in Table 4-3 are recommended only for car parking areas that will accommodate traffic with a gross vehicle weight of less than 4,000 pounds. The projected traffic counts and vehicular loading data were not provided. As a result, the pavement recommendations are only intended for low-impact areas, such as parking areas and driving lanes, where only lightweight passenger cars are anticipated.

Table 4-3. Recommended Car Parking Pavement Sections

	Alternative Pavement Sections (inches)		
Pavement Component	**#1**	**#2**	**#3**
448 Asphalt Concrete Surface Course, Type	3	2	--
301 Asphalt Concrete	--	3	--
304 Granular Base	8	--	--
Portland Cement Concrete	--	--	3-1/2

One additional inch of asphalt concrete or Portland cement concrete should be placed in the driving lanes in the car parking areas and in the proposed driveways to handle the channelized traffic conditions. We recommend that a Portland cement concrete pavement be used in front of trash bins and within any truck loading dock area to handle the large start-and-stop loads imposed by the heavy truck traffic.

Based on Asphalt Institute Pavement design recommendations, at least four inches of asphalt pavement should be provided to handle the occasional truck traffic. Since the projected truck traffic data were not provided to us, the designs of the heavy-duty pavement and the driveway pavement are beyond the scope of our study.

Several items should be carefully considered during the selection of a final design cross section. These factors are:

A. A tack coat should be applied between layers of bituminous concrete.

B. The paved area should have a slope of at least 1.5% for adequate drainage. The base material and/or surface of the subgrade should be allowed to drain through holes in the catch basins or through the shoulders. No undrained granular fill area, including the utility trenches and base course, should be allowed.

C. Before paving, the entire area should be thoroughly compacted or recompacted to a dry unit weight of 90% of the maximum modified Proctor value at no more than 2% over the optimum moisture content.

5.0 CLOSURE

5.1 Basis Of Recommendations

The evaluations, conclusions, and recommendations in this report are based on our interpretation of the field and laboratory data obtained during the exploration, our understanding of the project and our experience with similar sites and subsurface conditions. Data used during this exploration included, but were not necessarily limited to:

- Three exploratory borings performed during this study.
- Observations of the project site by our staff.
- A previous geotechnical soil study for F. Tech R&D N.A., Inc. Bowser-Morner, Inc. Report No. 163428-0913-249, dated September 25, 2013 discusses the soil conditions for press foundation at a site to the west of the proposed building site.
- The results of the laboratory soil tests.
- The site plan provided by Board of Miami Commissioners.
- Communications with Mr. Chris Johnson, ARM of Board of Miami Commissioners.
- Published soil or geologic data of this area.

In the event that changes in the project characteristics are planned, or if additional information or differences from the conditions anticipated in this report become apparent, Bowser-Morner, Inc. should be notified so that the conclusions and

recommendations contained in this report can be reviewed and, if necessary, modified or verified in writing.

5.2 Limitations and Additional Services

The subsurface conditions discussed in this report and those shown on the boring logs represent an estimate of the subsurface conditions based on interpretation of the boring data using normally accepted geotechnical engineering judgments. Although individual test borings are representative of the subsurface conditions at the boring locations on the dates shown, they are not necessarily indicative of subsurface conditions at other locations or at other times.

Regardless of the thoroughness of a subsurface exploration, there is the possibility that conditions between borings will differ from those at the boring locations, that conditions are not as anticipated by designers, or that the construction process has altered the soil conditions. As variations in the soil profile are encountered, additional subsurface sampling and testing may be necessary to provide data required to reevaluate the recommendations of this report. Consequently, after submission of this report, it is recommended that Bowser-Morner, Inc. be authorized to perform additional services to work with the designer(s) to minimize errors and omissions regarding the interpretation and implementation of this report.

Before construction begins, we recommend that Bowser-Morner, Inc.:

- Work with the designers to implement the recommended geotechnical design parameters into plans and specifications.
- Consult with the design team regarding interpretation of this report.
- Establish criteria for the construction observation and testing for the soil conditions encountered at this site.
- Review final plans and specifications pertaining to geotechnical aspects of design.

During construction, we recommend that Bowser-Morner, Inc.:

- Observe the construction, particularly the site preparation, fill placement, and foundation excavation.
- Perform in-place density testing of all compacted fill.
- Perform materials testing of soil and other materials as required.
- Consult with the design team to make design changes in the event that differing subsurface conditions are encountered.

If Bowser-Morner, Inc. is not retained for these services, we shall assume no responsibility for construction compliance with the design concepts, specifications or recommendations.

5.3 Warranty

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. No other warranty, express or implied, is made.

The scope of this study did not include an environmental assessment for the presence or absence of hazardous or toxic materials in the soil, surface water, groundwater or air, on, within or beyond the site studied. Any statements in the report or on the boring logs regarding odors, staining of soils or other unusual items or conditions observed are strictly for the information of our client.

To evaluate the site for possible environmental liabilities, we recommend an environmental assessment, consisting of a detailed site reconnaissance, a record review, and report of findings. Additional subsurface drilling and sampling, including groundwater sampling, may be required. Bowser-Morner, Inc. can provide this service and would be pleased to provide a cost proposal to perform such a study, if requested.

This report has been prepared for the exclusive use of Board of Miami Commissioners for specific application to the building on W. Market Street in Troy, Ohio (see Figure 1 in Section III of this report). Specific design and construction recommendations have been provided in the various sections of the report. The report shall therefore, be used in its entirety. This report is not a bidding document and shall not be used for that purpose. Anyone reviewing this report must interpret and draw their own conclusions regarding specific construction techniques and methods chosen. Bowser-Morner, Inc. is not responsible for the independent conclusions, opinions or recommendations made by others based on the field exploration and laboratory test data presented in this report.

Section II

Specifications

CLEARING AND GRADING SPECIFICATIONS

I. GENERAL CONDITIONS

The contractor shall furnish all labor, materials, and equipment, and perform all work and services necessary to complete in a satisfactory manner the site preparation, excavation, filling, compaction and grading as shown on the plans and as described therein.

This work shall consist of all clearing and grading, removal of existing structures unless otherwise stated, preparation of the land to be filled, filling of the land, spreading and compaction of the fill, and all subsidiary work necessary to complete the grading of the cut and fill areas to conform with the lines, grades, slopes, and specifications.

This work is to be accomplished under the constant and continuous supervision of the Owner or his designated representative.

In these specifications the terms "approved" and "as directed" shall refer to directions to the Contractor from the Owner or his designated representative.

II. SUBSURFACE CONDITIONS

Prior to bidding the work, the Contractor shall examine, investigate and inspect the construction site as to the nature and location of the work, and the general and local conditions at the construction site, including, without limitation, the character of surface or subsurface conditions and obstacles to be encountered on and around the construction site; and shall make such additional investigation as he may deem necessary for the planning and proper execution of the work. Borings and/or soil investigations shall have been made. Results of these borings and studies will be made available by the Owner to the Contractor upon his request, but the Owner is not responsible for any interpretations or conclusions with respect thereto made by the Contractor on the basis of such information, and the Owner further has no responsibility for the accuracy of the borings and the soil investigations.

If conditions other than those indicated are discovered by the Contractor, the Owner should be notified immediately. The material which the Contractor believes to be a changed condition should not be disturbed so that the Owner can investigate the condition.

III. SITE PREPARATION

Within the specified areas, all trees, brush, stumps, logs, tree roots, and structures scheduled for demolition shall be removed and disposed of.

All cut and fill areas shall be properly stripped. Topsoil will be removed to its full depth and stockpiled for use in finish grading. Any rubbish, organic and other objectionable soils, and other deleterious material, shall be disposed of off the site, or as directed by the Owner or his designated representative if on site disposal is provided. In no case shall such objectionable material be allowed in or under the fill unless specifically authorized in writing.

Prior to the addition of fill, the original ground shall be compacted to job specifications as outlined below. Special notice shall be given to the proposed fill area at this time. If wet spots, spongy conditions, or ground water seepage is found, corrective measures must be taken before the placement of fill.

IV. FORMATION OF FILL AREAS

Fills shall be formed of satisfactory materials placed in successive horizontal layers of not more than eight (8) inches in loose depth for the full width of the cross section. The depth of lift may be increased if the Contractor can demonstrate the ability to compact a larger lift. If compaction is accomplished using hand-tamping equipment, lifts will be limited to 4-inch lose lifts.

All material entering the fill shall be free of organic matter such as leaves, grass, roots, and other objectionable material.

The operations on earth work shall be suspended at any time when satisfactory results cannot be obtained because of rain, freezing weather, or other unsatisfactory conditions. The Contractor shall keep the work areas graded to provide the drainage at all times.

The fill material shall be of the proper moisture content before compaction efforts are started. Wetting or drying of the material and manipulation to secure a uniform moisture content throughout the layer shall be required. Should the material be too wet to permit proper compaction or rolling, all work on all portions of the embankment thus affected shall be delayed until the material has dried to the required moisture content. The moisture content of the fill material should be no more than two (2) percentage points higher or lower than optimum unless otherwise authorized. Sprinkling shall be done with equipment that will satisfactorily distribute the water over the disced area.

Compaction operations shall be continued until the fill is compacted to not less than 90% above foundation elevation and 95% below foundation elevation, of the maximum density as determined in accordance with the latest ASTM D-1557 (Modified). Any areas inaccessible to a roller shall be consolidated and compacted by mechanical tampers. The equipment shall be operated in such a manner that hardpan, cemented gravel, clay or other chunky soil material will be broken up into small particles and become incorporated with the other material in the layer.

In the construction of filled areas, starting layers shall be placed in the deepest portion of the fill, and as placement progresses, additional layers shall be constructed in horizontal planes. If directed, original slopes shall be continuously, vertically benched to provide horizontal fill planes. The size of the benches shall be formed so that the base of the bench is horizontal and the back of the bench is vertical. As many benches as are necessary to bring the site to final grade shall be constructed. Filling operations shall begin on the lowest bench, with the fill being placed in horizontal eight (8) inch loose lifts unless otherwise authorized. The filling shall progress in this manner until the entire first bench has been filled, before any fill is placed on the succeeding benches. Proper

drainage shall be maintained at all times during benching and filling of the benches, to insure that all water is drained away from the fill area.

When rock and other embankment material are excavated at approximately the same time, the rock shall be incorporated into the outer portion of the areas. Stones or fragmentary rock larger than four (4) inches in their greatest dimensions will not be allowed in the fill unless specifically authorized in writing. Rock fill shall be brought up in layers as specified or as directed, and every effort shall be exerted to fill the voids with the finer material to form a dense, compact mass. Rock or boulders shall be disposed of as deleterious material per Item III.

Frozen material shall not be placed in the fill nor shall the fill be placed upon frozen material.

The Contractor shall be responsible for the stability of all fills made under the contract, and shall replace any portion, which in the opinion of the Owner or his designated representative, has become displaced due to carelessness or negligence on the part of the Contractor. Fill damaged by inclement weather shall be repaired at the Contractor's expense.

V. SLOPE RATIO AND STORM WATER RUN-OFF

Slopes shall not be greater than 2 (horizontal) to 1 (vertical) in both cut and fill, and storm water shall not be drained over the slopes.

VI. GRADING

The Contractor shall furnish, operate, and maintain such equipment as is necessary to construct uniform layers, and control smoothness of grade for maximum compaction and drainage.

VII. COMPACTING

The compaction equipment shall be approved equipment of such design, weight, and quantity to obtain the required density in accordance with these specifications.

VIII. TESTING AND INSPECTION SERVICES

Testing and inspection services will be provided by the Owner.

IX. SPECIAL CONDITIONS

Section III

Boring Log Terminology, Boring Logs, Laboratory Data, And Prints

BORING LOG TERMINOLOGY

Stratum Depth:

Distance in feet and/or inches below ground surface.

Stratum Elevation:

Elevation in feet below ground surface elevation.

Description of Materials:

Major types of soil material existing at boring location. Soil classification based on one of the following systems: Unified Soil Classification System., Ohio State Highway Classification System, Highway Research Board Classification System, Federal Aviation Authority Classification System, Visual Classification.

Sample No.:

Sample numbers are designated consecutively, increasing with depth for each boring.

Sample Type:

"A" Split spoon, 2" O.D., 1-3/8" I.D., 18" in length.

"B" Rock Core

"C" Shelby Tube 3" O.D. except where noted

"D" Soil Probe

"E" Auger Cuttings

"F" Sonic

Sample Depth:

Depth below top of ground at which appropriate sample was taken.

Blows per 6" on Sampler:

The number of blows required to drive a 2" O.D., 1-3/8" I.D., split spoon sampler, using a 140 pound hammer with a 30-inch free fall, is recorded for 6" drive increments. (Example: 3/8/9).

"N" Blows/Ft.:

Standard penetration resistance. This value is based on the total number of blows required for the last 12" of penetration. (Example: 3/8/9: N = 8 + 9 = 17)

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Water Observations:

Depth of water recorded in test boring is measured from top of ground to top of water level. Initial depth indicates water level during boring, completion depth indicates water level immediately after boring, and depth after "X" number hours indicates water level after letting water rise or fall over a time period. Water observations in pervious soil are considered reliable ground water levels for that date. Water observations in impervious soils can not be considered accurate ground water measurements for that date unless records are made over several days' time. Factors such as weather, soil porosity, etc., will cause the ground water level to fluctuate for both pervious and impervious soils.

SOIL DESCRIPTION

Color:

When the color of the soil is uniform throughout, the color recorded will be such as brown, gray, or black and may be modified by adjectives such as light and dark. If the soil's predominant color is shaded by a secondary color, the secondary color precedes the primary color, such as: gray-brown, yellow-brown. If two major and distinct colors are swirled throughout the soil, the colors will be modified by the term mottled, such as: mottled brown and gray.

Particle Size		Visual
Boulders		Larger than 8"
Cobbles		8" to 3"
Gravel	– Coarse	3" to 3/4"
	– Fine	2 mm. To 3/4"
Sand	– Coarse	2 mm. – 0.6 mm. (Pencil lead size)
	– Medium	0.6 mm. – 0.2mm. Table sugar and salt size)
	– Fine	0.2 mm. – 0.06 mm. (Powdered sugar and human hair size)
Silt		0.06 mm. – 0.002 mm.
Clay		0.002 and smaller (Particle size of both Silt and Clay not visible To naked eye

Soil Components

Major Component:	Minor Component Term
Gravel	Trace 1-10%
Sand	Some 11-35%
Silt	And 36-50%
Clay	

Moisture Content

Term	Relative Moisture
Dry	Powdery
Damp	Moisture content below plastic limit
Moist	Moisture content above plastic limit but below liquid limit
Wet	Moisture content Above liquid limit

Condition of Soil Relative to Compactness Granular Material

Very Loose	5 blows/ft. or less
Loose	6 to 10 blows/ft.
Medium Dense	11 to 30 blows/ft.
Dense	30 to 50 blows/ft.
Very Dense	51 blows/ft. or more

Condition of Soil Relative to Consistency Cohesive Material

Very Soft	3 blows/ft. or less
Soft	4 to 5 blows/ft.
Medium Stiff	6 to 10 blows/ft.
Stiff	11 to 15 blows/ft.
Very stiff	16 to 30 blows/ft.
Hard	31 blows/ft. or more

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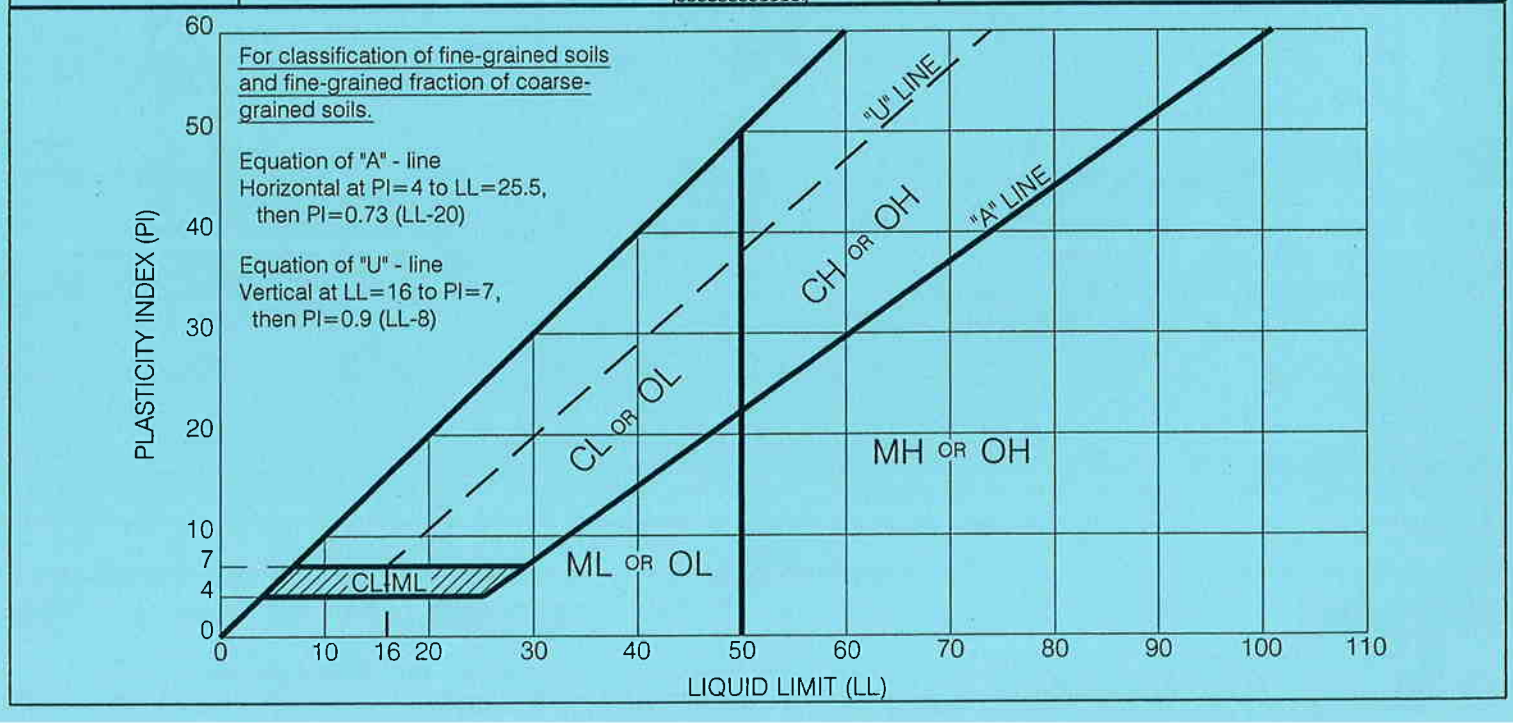
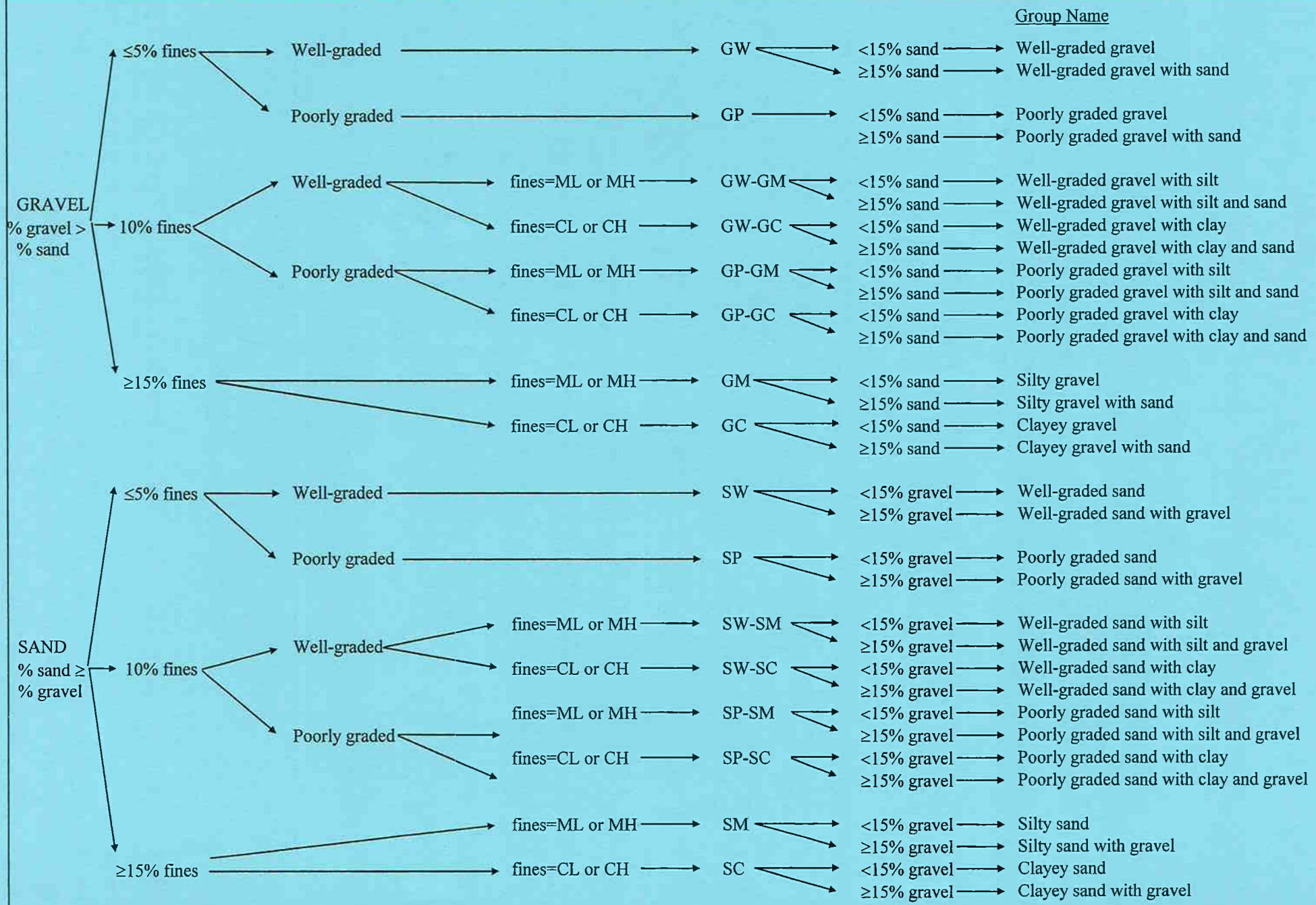
UNIFIED CLASSIFICATION SYSTEM

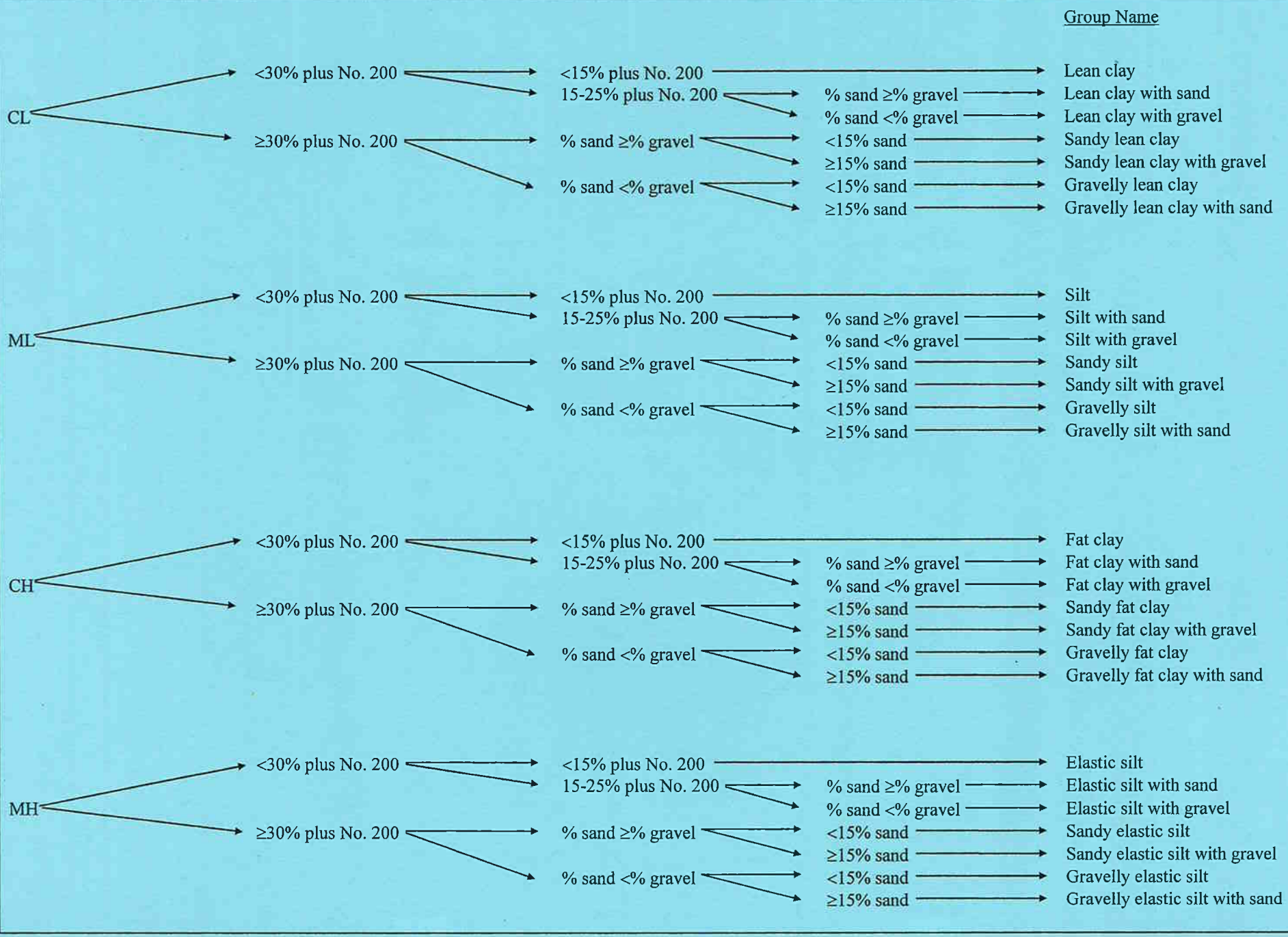
MAJOR DIVISIONS			GRAPH SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVEL WELL-GRADED GRAVEL WITH SAND
				GP	POORLY GRADED GRAVEL POORLY GRADED GRAVEL WITH SAND
	MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	GRAVELS WITH FINES APPRECIABLE AMT. OF FINES)		GM	SILTY GRAVEL SILTY GRAVEL WITH SAND
				GC	CLAYEY GRAVEL CLAYEY GRAVEL WITH SAND
	SAND AND SANDY SOILS	CLEAN SAND (LITTLE OR NO FINES)		SW	WELL-GRADED SAND WELL-GRADED SAND WITH GRAVEL
				SP	POORLY GRADED SAND POORLY GRADED SAND WITH GRAVEL
	MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE	SANDS WITH FINES (APPRECIABLE AMT. OF FINES)		SM	SILTY SAND SILTY SAND WITH GRAVEL
				SC	CLAYEY SAND CLAYEY SAND WITH GRAVEL
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILT AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	SILT, SILT WITH SAND, SANDY SILT GRAVELLY SILT, GRAVELLY SILT WITH SAND
				CL	LEAN CLAY WITH SAND, SANDY LEAN CLAY GRAVELLY LEAN CLAY WITH SAND
				OL	ORGANIC CLAY, SANDY ORGANIC CLAY ORGANIC SILT, SANDY ORGANIC SILT WITH GRAVEL
	SILT AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	ELASTIC SILT WITH SAND, SANDY ELASTIC SILT GRAVELLY ELASTIC SILT WITH SAND
				CH	FAT CLAY WITH SAND, SANDY FAT CLAY GRAVELLY FAT CLAY WITH SAND
				OH	ORGANIC CLAY WITH SAND, SANDY ORGANIC CLAY, ORGANIC SILT, SANDY ORGANIC SILT
	HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS



Flow Chart for Visually Identifying Soils Based on ASTM D-2488



Flow Chart for Visually Identifying Soils Based on ASTM D-2488



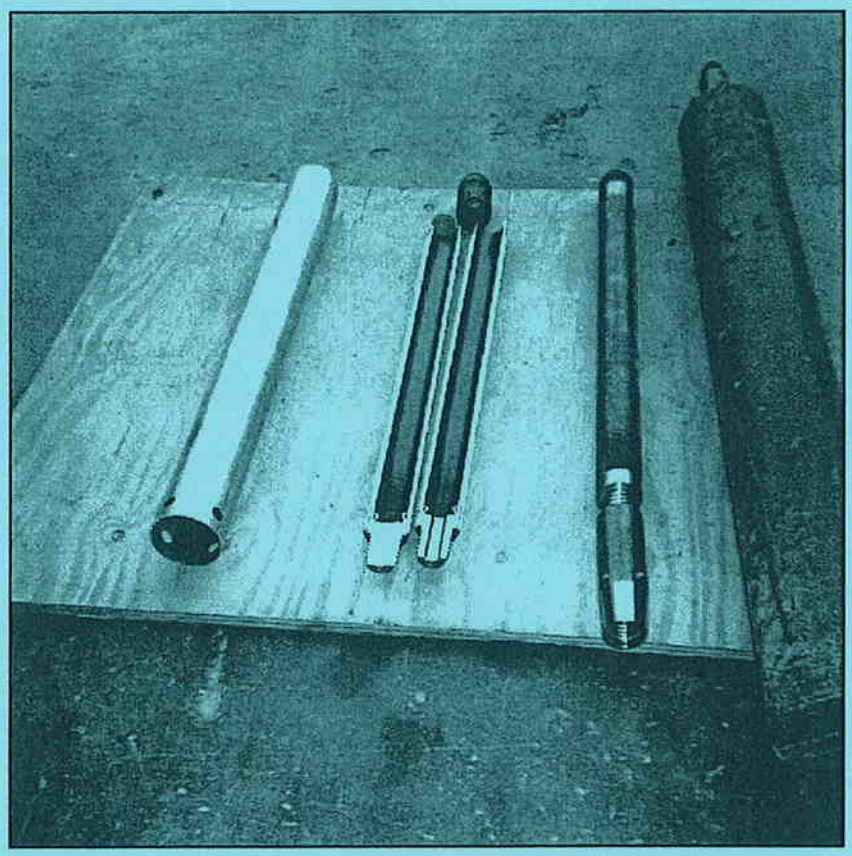
STANDARD PENETRATION RESISTANCE (ASTM D1586)

The purpose of this test is to determine the relative consistency of the soils in a boring, or from boring over the site. This method consists of making a hole in the ground and driving a 2-inch O.D. split spoon sampler into the soil with a 140-pound hammer dropped from a height of 30 inches. The sampler is driven 18 inches and the number of blows recorded for each 6 inches of penetration. Values of standard penetration (N) are determined in blows per foot, summarizing the flows required for the last two 6-inche increments of penetration.

Example : 2-6-8; N = 14

THIN-WALLED SAMPLER (ASTM D1587)

The purpose of the thin-walled sampler is to recover a relatively undisturbed soil sample for laboratory tests. The sampler is a thin-walled seamless tube with a 3-inch outside diameter, which is hydraulically pressed into the ground, at a constant rate. The ends are then sealed to prevent soil moisture loss, and the tube is returned to the laboratory for tests.



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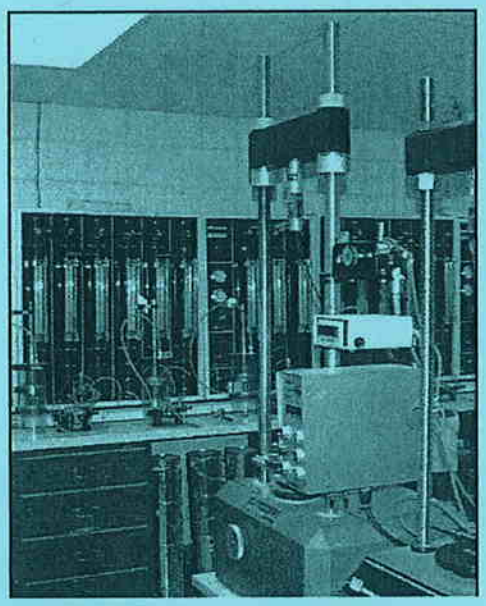
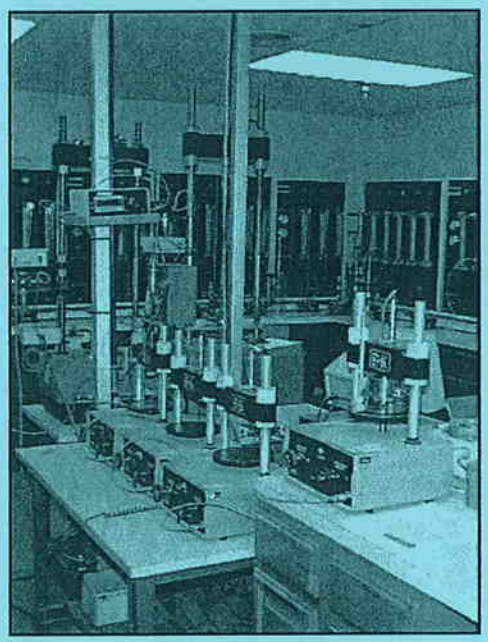
UNCONFINED COMPRESSION OR TRIAXIAL TESTS (ASTM D 2166)



The unconfined compression test and the triaxial tests are performed to determine the shearing strength of the soil, to use in establishing its safe bearing capacity. In order to perform the unconfined compression test, it is necessary that the soil exhibit sufficient cohesion to stand in an unsupported cylinder. These tests are normally performed on samples which are 6.0 inches in height and 2.85 inches in diameter. In the triaxial test, various lateral stresses can be applied to more closely simulate the actual field conditions. There are several different types of triaxial tests. These are, however, normally performed on constant strain apparatus with a deformation rate of 0.05 inches per minute.

CONSOLIDATION TEST (ASTM D 2435)



The purpose of this test is to determine the compressibility of the soil. This test is performed on a sample of soil which is 2.5 inches in diameter and 1.0 inch in height, and has been trimmed from relatively "undisturbed" samples. The test is performed with a lever system or an air activated piston for applying load. The loads are applied in increments and allowed to remain on the sample for a period of 24 hours. The consolidation of the sample under each individual load is measured and a curve of void ratio vs. Pressure is obtained. From the information obtained in this manner and the column loads of the structure, it is possible to calculate the settlement of each individual building column. This information, together with the shearing strength of the soil, is used to determine the safe bearing capacity for a particular structure.

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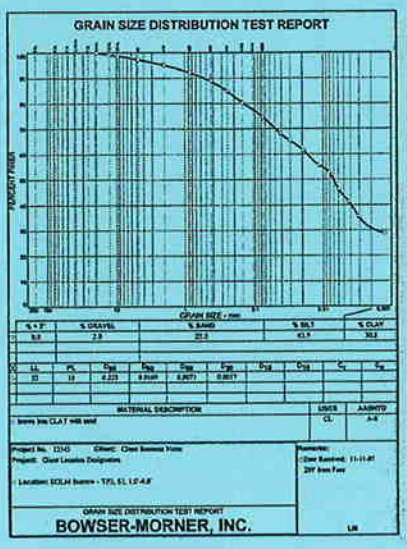
REVISED TO ASTM D4318
ATTERBERG LIMITS (ASTM D423 AND D424)

These tests determine the liquid and plastic limits of soils having a predominant percentage of fine particle (silt and clay) sizes. The liquid limit of a soil is the moisture content expressed as a percent at which the soil changes from a liquid to a plastic state, and the plastic limit is the moisture content at which the soil changes from a plastic to a semi-solid state. Their difference is defined as the plasticity index (P.I. = L.L. - P.L.), which is the change in moisture content required to change the soil from a "semi-solid" to a liquid. These tests furnish information about the soil properties which is important in determining their relative swelling potential and their classifications.

MECHANICAL ANALYSIS (ASTM D422)

This test determines the percent of each particle size of a soil. A sieve analysis is conducted on particle sizes greater than a No. 200 sieve (0.074 mm), and a hydrometer test on particles smaller than the No.200 sieve. The gradation curve is drawn through the points of cumulative percent of particle size, and plotted on semi-logarithmic paper for the combined sieve and hydrometer analysis. This test, together with the Atterberg Limits tests, is used to classify a soil.



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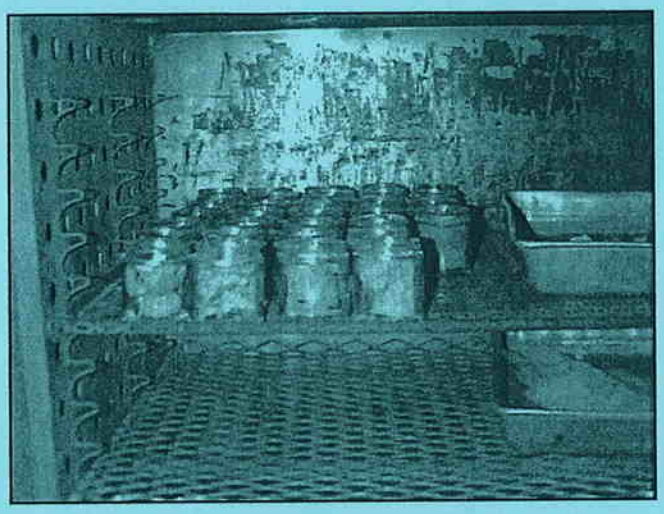
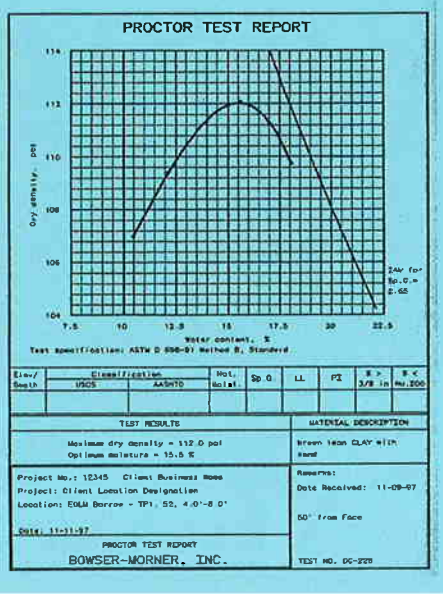
NATURAL MOISTURE CONTENT (ASTM D2216)

The purpose of this test is to indicate the range of moisture contents present in the soil. A wet sample is weighed, placed in the constant temperature oven at 105° for 24 hours, and re-weighed. The moisture content is the change in weight divided by the dry weight.



PROCTOR TESTS

The purpose of these tests is to determine the maximum density and optimum moisture content of a soil. The Modified Proctor test is performed in accordance with ASTM D1557. The test is performed by dropping a 10-pound hammer 25 times from an 18-inch height on each of 5 equal layers of soil in a 1/30 cubic foot mold, which represents a compaction effort of 56,250 foot pounds per cubic foot. The moisture content is then raised, and this procedure is repeated. A moisture density curve is then plotted, with the density on the ordinate axis and the moisture on the abscissa axis. The moisture content at which the maximum density requirement can be achieved with a minimum compactive effort is designated as the optimum moisture content (O.M.C.). The Standard Proctor test is performed in accordance with ASTM D698. This test is similar to the Modified Proctor test and is performed by dropping a 5.5 pound hammer 25 times from a height of 12 inches on 3 equal layers of soil in a 1/30 cubic foot mold, which represents a compaction effort of 12,375 foot pounds per cubic foot. This test gives proportionately lower results than the Modified Proctor test.


PROCTOR TEST REPORT

Dry density, pcf

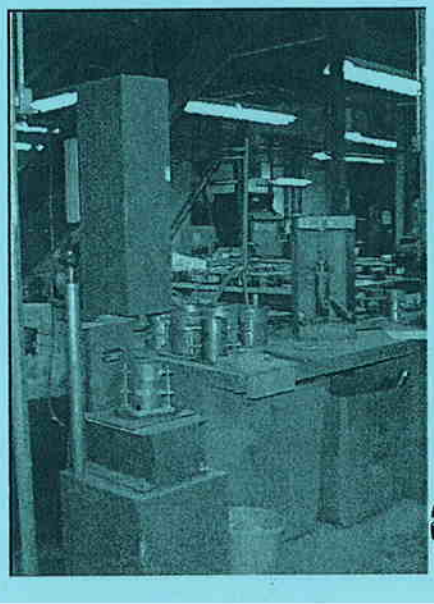
Water content, %

ZAV for Sp.G.= 2.65

Test specification: ASTM D 698-91 Method B, Standard

Elev./ Depth	Classification USCS	Classification AASHTO	Nat. Moist.	Sp. G.	LL	PI	% > 3/8 in	% < No.200

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 112.0 pcf Optimum moisture = 15.5 %	Brown lean CLAY with sand
Project No.: 12345 Client: Business Name Project: Client Location Designation Location: EQLN Borrow - TP1, S2, 4.0'-8.0' Date: 11-11-97	Remarks: Date Received: 11-09-97 50' from face
PROCTOR TEST REPORT BOWSER-MORNER, INC.	TEST NO. DC-228



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CLIENT
Board of Miami Commissioners

PROJECT
Soil Study for Proposed Building, W. Market Street, Troy, Ohio

JOB NO. **202691**

BORING STARTED **11/9/21** | BORING COMPLETED **11/9/21**

DRILLER **BK-TB** | METHOD **3 1/4" HSA**

TYPED BY **dmo**

1 Boring No.

Sheet 1 of 1

PROJECT LOCATION
LAT. **40°01'23"N** LONG. **84°14'26"W**

SURFACE ELEVATION **95.6***

BORING LOCATION
As shown on Boring Location Plan.

It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

VISUAL CLASSIFICATION OF THE MATERIAL

COMMENTS
***Surface elevation refers to an assumed elevation of 100.0' for the benchmark shown on the Boring Location Plan.**

N VALUE, blows/ft.

DEPTH (ft. BGL)	SAMPLE NO.	BLOW COUNTS	N VALUE	REMARKS
0.0				
		TOPSOIL (6")		
1.0		Medium stiff gray and brown silty CLAY - moist		
2.0	SS1	3, 3, 4	7	
3.0				
4.0	SS2	(Trace clay, trace gravel at 3.5') 1, 3, 5	8	
5.0				
6.0		(Becomes brown and very stiff at 6.0')		▽
7.0	SS3	7, 8, 11	19	
8.0				
9.0	SS4	19, 12, 13	25	
10.0				
11.0				
12.0				
13.0				
14.0	SS5	(Becomes gray and hard at 13.5') 16, 25, 22	47	
15.0				
16.0				
17.0				▽
18.0				
19.0	SS6	7, 16, 16	32	
20.0				
21.0				
22.0				
23.0				
24.0	SS7	11, 19, 16	35	
25.0		Bottom of boring at 25.0 feet		
26.0				

WATER LEVEL MEASUREMENTS

	DEPTH	DATE
INITIAL	6.0	11/9/2021
AT COMPLETION	17.0	11/9/2021
OTHER	N/A	N/A

SS — SPLIT SPOON
SL — SPLIT SPOON W/SOIL LINER
NQ— ROCK CORE
ST — SHELBY TUBE
AS — AUGER CUTTINGS
SC — SONIC

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GINT Report Used: NEWLOGIN Report No.: 202691.GPJ GINT Template Used: NATALIE_EDITS.GDT Date Printed: 11/10/21

CLIENT
Board of Miami Commissioners

PROJECT
Soil Study for Proposed Building, W. Market Street, Troy, Ohio

JOB NO. **202691**

BORING STARTED **11/9/21** | BORING COMPLETED **11/9/21**

DRILLER **BK-TB** | METHOD **3 1/4" HSA**

TYPED BY **dmo**

2 Boring No.

Sheet 1 of 2

PROJECT LOCATION
LAT. **40°01'23"N** LONG. **84°14'26"W**

SURFACE ELEVATION **96.4***

BORING LOCATION
As shown on Boring Location Plan.

It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

COMMENTS
***Surface elevation refers to an assumed elevation of 100.0' for the benchmark shown on the Boring Location Plan.**

VISUAL CLASSIFICATION OF THE MATERIAL

DEPTH (ft. BGL)	SAMPLE NO.	BLOW COUNTS	N VALUE, blows/ft. (10 20 30 40 50 60 70 80 90)	REMARKS
0.0			TOPSOIL (6")	
0.5			Medium stiff dark brown silty CLAY - moist	
1.0	SS1	2 2 4	◇6	
2.0			(Trace gravel. Becomes light-brown at 2.0')	
3.0				
4.0	SS2	1 1 2	◇3	
5.0			(Trace sand, trace gravel. Becomes gray and brown, very soft, and very moist at 3.5')	
6.0			(Becomes hard at 6.0')	
7.0	SS3	2 18 20	◇38	▽
8.0			(4" wet sand with gravel seam at 6.25')	
9.0	SS4	11 22 30	◇52	
10.0				
11.0				▼
12.0				
13.0				
14.0	SS5	16 22 22	◇44	
15.0			(Becomes gray at 13.5')	
16.0				
17.0				
18.0				
19.0	SS6	8 16 16	◇32	
20.0				
21.0				
22.0				

Continued Next Page

WATER LEVEL MEASUREMENTS

	DEPTH	DATE
INITIAL	6.3 ▽	11/9/2021
AT COMPLETION	11.5 ▼	11/9/2021
OTHER	N/A ▼	N/A

SS — SPLIT SPOON
SL — SPLIT SPOON W/SOIL LINER
NQ— ROCK CORE
ST — SHELBY TUBE
AS — AUGER CUTTINGS
SC — SONIC

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Board of Miami Commissioners

PROJECT
Soil Study for Proposed Building, W. Market Street, Troy, Ohio

JOB NO. **202691**

BORING STARTED **11/9/21** | BORING COMPLETED **11/9/21**

DRILLER **BK-TB** | METHOD **3 1/4" HSA**

TYPED BY **dmo**

2 Boring No.

Sheet 2 of 2

PROJECT LOCATION
LAT. **40°01'23"N** LONG. **84°14'26"W**

SURFACE ELEVATION **96.4***

BORING LOCATION
As shown on Boring Location Plan.

It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

VISUAL CLASSIFICATION OF THE MATERIAL

COMMENTS
***Surface elevation refers to an assumed elevation of 100.0' for the benchmark shown on the Boring Location Plan.**

DEPTH (ft. BGL)	SAMPLE NO.	SAMPLER TYPE / RECOVERY	GRAPHIC LOG	VISUAL CLASSIFICATION OF THE MATERIAL	BLOW COUNTS	N VALUE, blows/ft. (10 20 30 40 50 60 70 80 90)	REMARKS
23.0				Medium stiff dark brown silty CLAY - moist			
24.0	SS7			(Becomes medium stiff at 23.5')	4 4 4	◇8	
25.0							
26.0							
27.0							
28.0							
29.0	SS8			(Becomes very stiff at 28.5')	5 7 11	◇18	
30.0				Bottom of boring at 30.0 feet			
31.0							
32.0							
33.0							
34.0							
35.0							
36.0							
37.0							
38.0							
39.0							
40.0							
41.0							
42.0							
43.0							
44.0							
45.0							
46.0							
47.0							
48.0							

GINT Report Used: NEWLOGIN Report No.: 202691.GPJ GINT Template Used: NATALIE_EDITS.GDT Date Printed: 11/10/21

CLIENT
Board of Miami Commissioners

PROJECT
Soil Study for Proposed Building, W. Market Street, Troy, Ohio

JOB NO. **202691**

BORING STARTED **11/9/21** | BORING COMPLETED **11/9/21**

DRILLER **BK-TB** | METHOD **3 1/4" HSA**

TYPED BY **dmo**

3 Boring No.

Sheet 1 of 1

PROJECT LOCATION
LAT. **40°01'23"N** LONG. **84°14'26"W**

SURFACE ELEVATION **95.6***

BORING LOCATION
As shown on Boring Location Plan.

It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

COMMENTS
***Surface elevation refers to an assumed elevation of 100.0' for the benchmark shown on the Boring Location Plan.**

DEPTH	SAMPLE NO.	SAMPLER TYPE / RECOVERY	GRAPHIC LOG	VISUAL CLASSIFICATION OF THE MATERIAL	BLOW COUNTS	N VALUE, blows/ft. (10 20 30 40 50 60 70 80 90)	REMARKS
				TOPSOIL (6")			
1.0				Soft brown silty CLAY - moist	2		
2.0	SS1				2	◇4	
3.0					2		
4.0	SS2			(Trace gravel. Becomes stiff at 3.5')	2		
5.0					5	◇12	
6.0					7		
7.0	SS3			(Becomes gray and very stiff at 7.0')	7		
8.0					8	◇23	
9.0	SS4			Hard brown sandy lean CLAY (some silt, trace shale fragments) - moist	15		▽
10.0					13		
11.0					26	◇49	
12.0					23		
13.0							
14.0	SS5			Very stiff brown and gray silty CLAY (trace sand, trace gravel) - moist	11		
15.0					14	◇30	
16.0					16		
17.0							
18.0							
19.0	SS6			(Becomes gray and hard at 18.5')	13		
20.0					16	◇47	
21.0					31		
22.0							
23.0							▼
24.0	SS7			(Becomes very stiff at 23.5')	10		
25.0					11	◇23	
26.0				Bottom of boring at 25.0 feet	12		

WATER LEVEL MEASUREMENTS

	DEPTH		DATE
INITIAL	8.5	▽	11/9/2021
AT COMPLETION	22.5	▼	11/9/2021
OTHER	N/A	▼	N/A

A — SPLIT SPOON
B — ROCK CORE
C — SHELBY TUBE
D — SOIL PROBE
E — AUGER CUTTINGS
F — SONIC

Bowser-Morner, Inc.
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Fax:
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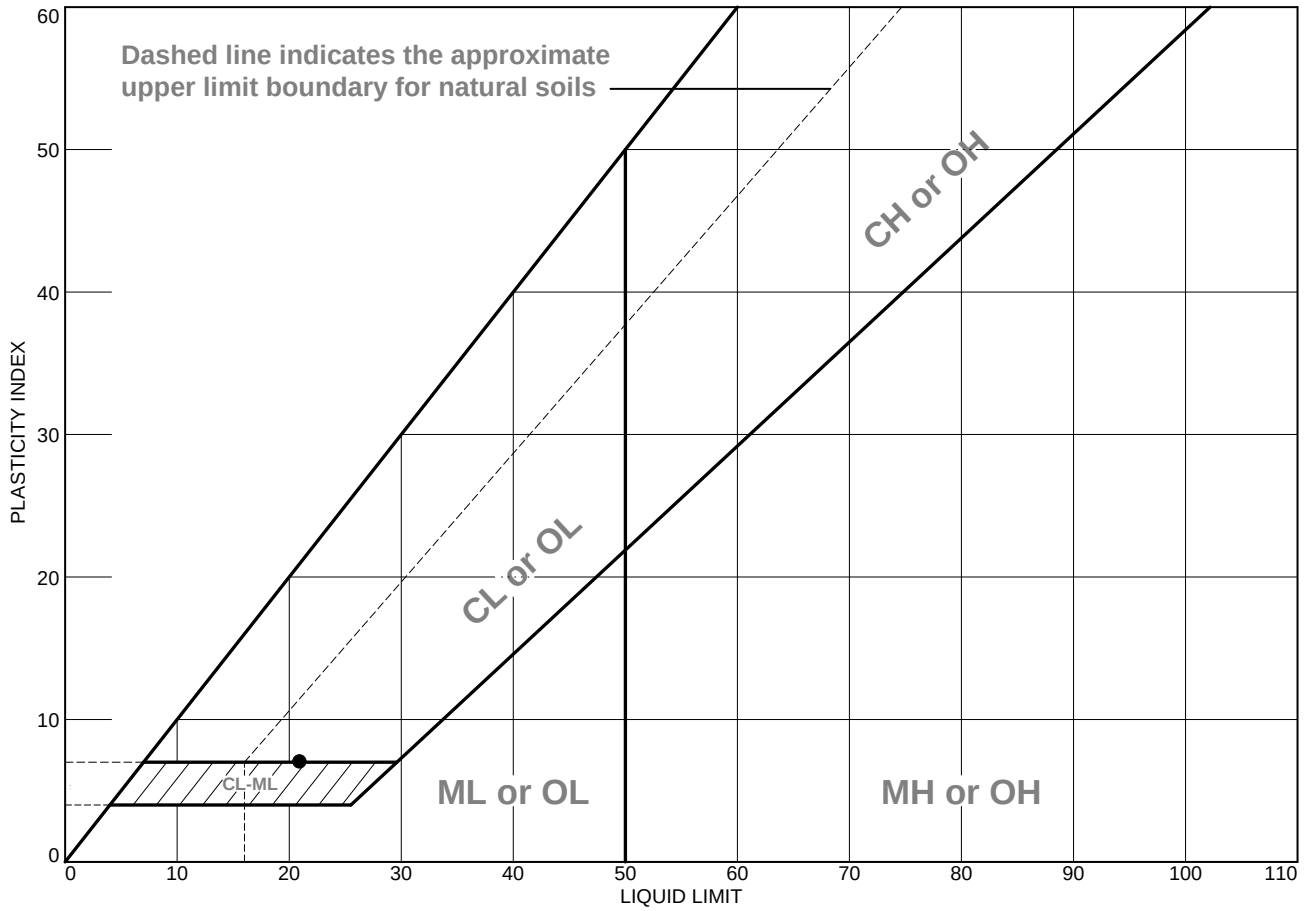
LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	B-2, SS2	21	14	7			

Project No. 202691 **Client:** Board of Miami Commissioners

Project: Proposed Building

●**Location:** B-2 **Depth:** 3.5' - 5.0' **Sample Number:** SS2

Remarks:

●As Received
Moisture Content: 16.3 %

BOWSER-MORNER, INC.

Dayton, Ohio

Tested By: jw **Checked By:** hr

Moisture Content of Soil

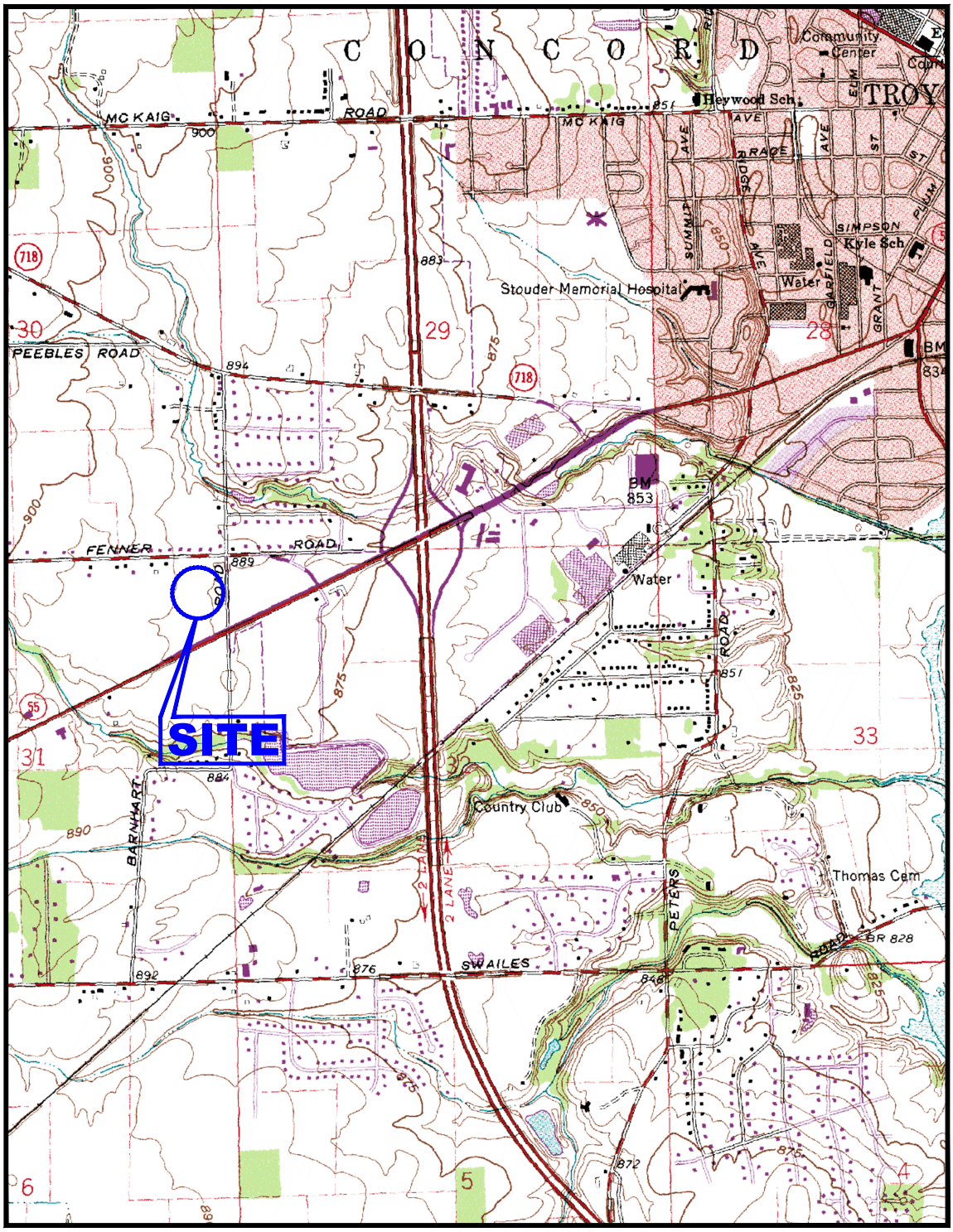
ASTM (D-2216)

BOWSER MORNER

Client: Board of Miami Commissioners
Project: Proposed Building

Work Order No.: 202691
Date: 11/18/21

Boring Number	Sample Number	Depth, (ft)	Depth, (m)	Moisture Content, (%)
1	SS 1	1.0 - 2.5	0.3 - 0.8	21.5
	SS 2	3.5 - 5.0	1.1 - 1.5	Not Tested
	SS 3	6.0 - 7.5	1.8 - 2.3	11.2
	SS 4	8.5 - 10.0	2.6 - 3.0	Not Tested
	SS 5	13.5 - 15.0	4.1 - 4.6	7.0
	SS 6	18.5 - 20.0	5.6 - 6.1	Not Tested
	SS 7	23.5 - 25.0	7.2 - 7.6	10.3
2	SS 1	1.0 - 2.5	0.3 - 0.8	Not Tested
	SS 2	3.5 - 5.0	1.1 - 1.5	16.3
	SS 3	6.0 - 7.5	1.8 - 2.3	13.9
	SS 4	8.5 - 10.0	2.6 - 3.0	10.1
	SS 5	13.5 - 15.0	4.1 - 4.6	9.6
	SS 6	18.5 - 20.0	5.6 - 6.1	9.1
	SS 7	23.5 - 25.0	7.2 - 7.6	Not Tested
	SS 8	28.5 - 30.0	8.7 - 9.1	Not Tested
3	SS 1	1.0 - 2.5	0.3 - 0.8	24.6
	SS 2	3.5 - 5.0	1.1 - 1.5	Not Tested
	SS 3	6.0 - 7.5	1.8 - 2.3	12.2
	SS 4	8.5 - 10.0	2.6 - 3.0	Not Tested
	SS 5	13.5 - 15.0	4.1 - 4.6	7.2
	SS 6	18.5 - 20.0	5.6 - 6.1	Not Tested
	SS 7	23.5 - 25.0	7.2 - 7.6	14.4



USGS QUAD: Troy, Ohio

Latitude: 40°01'23"N Longitude: 84°14'26"W

VICINITY MAP

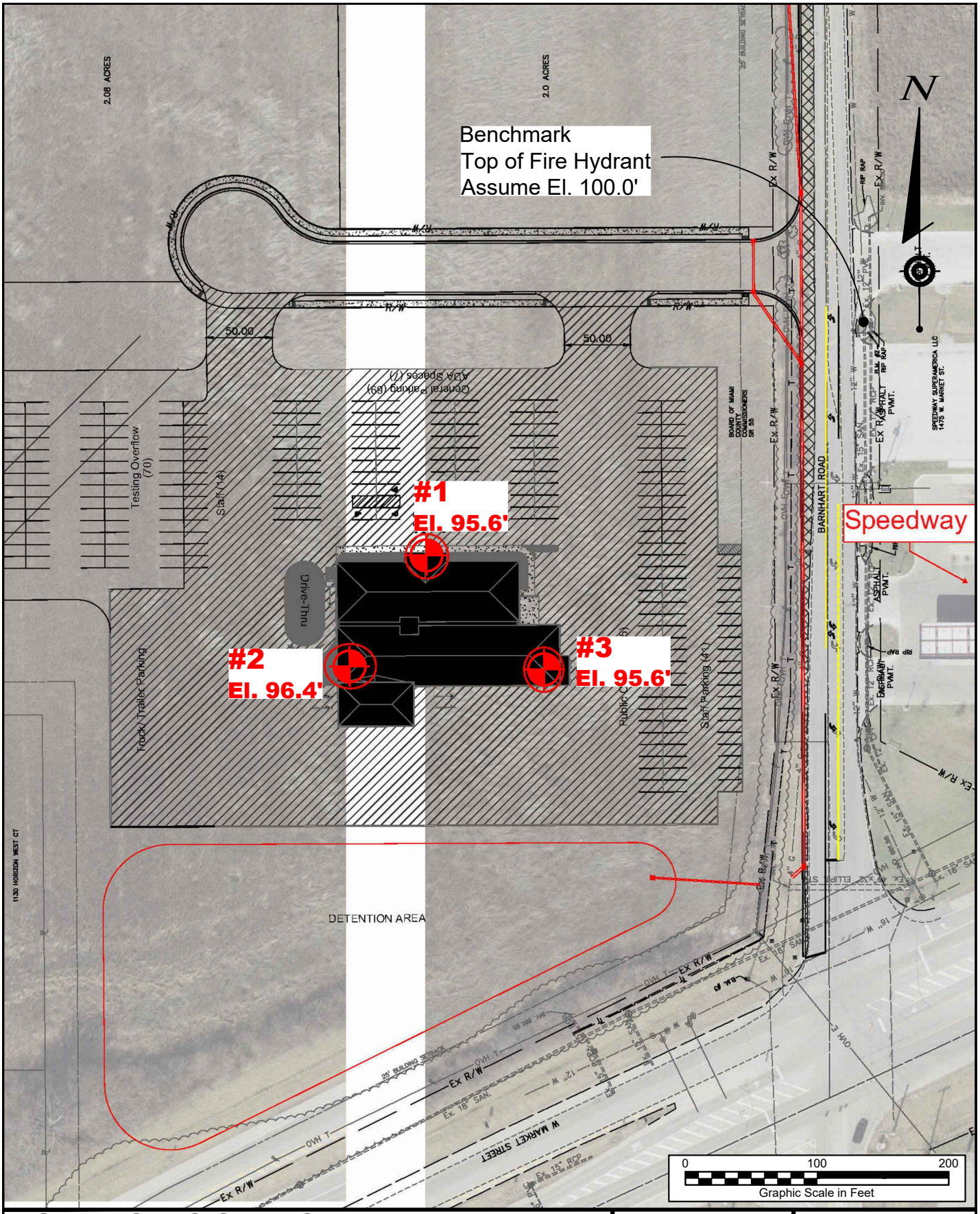
Soil Study for Proposed Building,
W. Market Street, Troy, Ohio

Client: Board of Miami Commissioners

11-2021/SR

PROJECT NO.	202691
SCALE	1"=2000'
FIGURE NO.	1

BOWSER MORNER



BORING LOCATION PLAN

Soil Study for Proposed Building,
W. Market Street, Troy, Ohio

Client: Board of Miami Commissioners

11-2021/SR

PROJECT NO.
202691

SCALE
GRAPHIC

FIGURE NO.
2

BOWSER MORNER

ENGINEERING & ENVIRONMENTAL SERVICES:

Geotechnical Engineering
Subsurface Exploration
Civil Engineering
Environmental Services
Due Diligence
Permitting

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Construction Materials Laboratories
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Concrete
Stone & Masonry
Asphalt
Analytical Services Laboratories
Industrial Minerals
Product Testing
Mechanical/Metallurgical Testing
Calibration Services
Chemistry Laboratory
Consulting Geology
Radon Reference Laboratory

CONSTRUCTION SUPPORT SERVICES:

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Building Code Special Inspections
Transportation Projects:
- Contractor QA/QC
- Material Supplier QA/QC
- Owner Quality Assurance

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- Construction Engineering

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