ALLEN & PEPA
ARCHITECTS
215 Fulton Street . Geneva, Illinois . 60134 . 630.578.1105 . www.allenpepa.com

PRE-BID ADDENDUM
Cuba Township Office Renovation
28000 W Cuba Rd, Barrington, IL 60010

APA PROJECT #	25-023	**DATE ISSUED**	10/16/2026
ADDENDUM NO.	002	**BID DUE**	10/21/2026
OWNER	Cuba Township	**ISSUED BY**	APA

This Addendum forms part of Bidding Documents and modifies or clarifies them as described below. Bidders shall acknowledge receipt of this Addendum on the Bid Form.

I. Bidder Question & Answers

1. **Question:** Just looking at the siding, is it the intent to have all metal siding per rendering or face brick per elevation. Please advise
   Answer: 2/A2-1 has been updated to show the correct façade finish.

2. **Question:** Is the intent to remove some of the existing aluminum siding and stagger in the new?
   Answer: Yes, the condition must be field verified and existing siding must be demoed as needed to insert new siding.

3. **Question:** Please confirm that new footings are to bear on grade with no AGG. subbase.
   Answer: New footings shall bear on suitable, undisturbed native soil or properly engineered fill. The General Contractor shall assess and verify existing subsurface conditions during excavation and notify the Architect of any unsuitable bearing conditions. Any additional subbase preparation or remedial measures shall be reviewed and approved by the Structural Engineer prior to proceeding.

4. **Question:** Will the ceilings be painted where new walls are being installed and where existing walls are being infilled?
   Answer: Yes, all ceilings to receive new paint.

5. **Question:** Are only the new walls and adjacent damaged walls being painted?
   Answer: On first floor: Except the interiors of existing toilets and food pantry (excluding the check-in area) all existing & new walls are getting painted.
   On basement level: No new finishes
   See finish plan ID-104.00 for more details.

6. **Question:** What is the substrate of the ceiling?
   Answer: From Visual inspection, it appears to be Gyp board ceiling.

7. **Question:** Does the owner require a job site trailer or and we use existing office space for our office.
   Answer: Yes, Owner requires job site trailer and portable toilets as need by the GC

8. **Question:** Bid form says to include a $20,000 allowance for permit fees but also says to not include any allowances in any bid items on the bid form, where do we add the $20,000 permit allowance.
   Answer: Bid documents

9. **Question:** Please confirm project duration.
   Answer: The owner expects the project to be completed in two phases beginning December 1st, 2026
   Phase 1: Interior renovation, finish updates of the existing building and for new addition – pour in foundation
   Phase 2: Complete construction of the addition including exterior walls, Roof and interior finishes (upon weather improvement and passing of winter)
   All work to be completed by end of May 2027

10. **Question:** There is no line item for plumbing of fire protection (Sprinkler System) on the bid form. Is this work by others or are we to include it in the General Construction line item.
    Answer: A new line for plumbing is added in the updated bid documents

11. **Question:** Is the Fire Protection line item on the bid form for fire alarm or fire sprinkler?
    Answer: That line item has been removed as both fire alarm & sprinkler will be handled under separate contracts directly with owner. The required electrical & plumbing stubs are included in the fire sprinkler drawing set.

12. **Question:** Please confirm caliper and height of three existing (3) trees to be removed for new addition.
    Answer: GC must verify in field for the existing tree measurement. The trees that are to be removed are specified in Existing conditions/demolition site plan (Sheet no 2) of the site plans drawing set.

13. **Question:** Please confirm scope of demo offices note on A0-1. Demolition plan. Does this include demolishing existing flooring or just the walls and ceilings at the demolished walls?

Answer: Please refer to sheets A0-1 & A0-2. The demolition will include existing flooring, walls and ceiling light fixtures as indicated. The ceiling and existing walls to remain must be repaired /patched to receive new paint.

14. **Question:** Please confirm construction of existing exterior walls to be demolished for new windows per A0-1.
    Answer: yes, existing exterior wall must be demolished to the extent shown to accommodate new window. See A0-1 in the updated set for more details.

15. **Question:** Please confirm construction of existing interior walls to be demoed including height.
    Answer: All existing interior walls to be demoed are as indicated on A0-1 and must be demoed in its entirety (floor to ceiling) UNO.

16. **Question:** Please confirm the kitchen cabinet demolition. The demolition plan appears to show that only half of the existing cabinets will be removed.
    Answer: All kitchen casework must be demolished. Sheet A0-1 is updated accordingly

17. **Question:** Please confirm whether the entry wall and countertop are to be demolished and clarify the extent of the demolition.
    Answer: A portion of entry wall and the entire reception countertop must be demolished. Sheet A0-1 is updated accordingly

18. **Question:** Are the glass and roll-up windows to be removed and reinstalled to accommodate countertop replacement?
    Answer: No, the glass and roll up windows are existing to remain

19. **Question:** The existing windows have wood interiors and aluminum-clad exteriors. For the windows designated for reuse, we recommend replacing them with new windows instead. Additionally, the two existing windows in the first-floor conference room should be removed and infilled with drywall, but this work does not appear to be indicated on the demolition plan. Please confirm.
    Answer: Sheet A0-1 is updated to show the windows to be demolished in its entirety and opening being infilled. The infilling wall type is indicated on A1-1 sheet as well.

20. **Question:** A1-1. Please confirm wall type at pick up clo.
    Answer: A1-1 updated.

21. **Question:** A1-1. Confirm if fireproof filing cabinets are by owner.
    Answer : All furniture including desks,chairs,storage cabinets will be by Rieke Interiors. There scope of work also includes procuring & installing glass office partition walls, all casework as well.

22. **Question:** A1-1. Confirm copier is by owner.
    Answer: Yes, copier is by the owner.

23. **Question:** A1-1. Confirm new drinking fountain/bottle filler specification. General note 18 says bottled water to be supplied in lieu of drinking fountain.
    Answer: See sheet P1.1 in plumbing set

24. **Question:** A1-1. What are SW1- SW2?
    Answer: They are shear walls. Refer to sheet A1-3 for more details.

25. **Question:** Wall type R1 is called out as 2x4 framing, but SW2 is called out as 2x6. This is conflicting as part of the R1 wall is shear wall 2. Which size is correct?
    Answer: R1 is supposed to be 2X6 framed wall. A4-1 updated accordingly

26. **Question:** Shear walls call out ½" sheathing, but the wall sections do not show this. Is there to be an additional layer of sheathing on these walls or is the zip wall sheathing sufficient?
    Answer: It will be the zip sheathing. There is no need for additional layer of sheathing.

27. **Question:** A1-2 Confirm 30" x 30" crawl space hatch is new and if so please provide specification and installation detail.
    Answer: Its an existing crawl space access that will remain.

28. **Question:** A1-2 Confirm if new fire water tank and pump require a 4" housekeeping pad.
    Answer: No, the fire tank and pump do not need housekeeping pads

29. **Question:** A1-2. Provide specifications and piping diagram for new floor drain.
    Answer: See plumbing drawings for details

30. **Question:** A1-2. Please confirm thickness of existing foundation wall for new door sawcut.
    Answer: GC to verify in field.

31. **Question:** A1-3. Mid span blocking is drawn. TJI floor joists should not have/need mid span blocking. If blocking is still required by structural engineers, they need to specify the material and provide a drawing detail on how they want this done.
    Answer: Mid span blocking must be provided for improved floor performance. See 7/A1-3 for more details

32. **Question:** A1-5 calls out "5/8 gyp board on the underside of the roof up to 4' on either side of the fire wall", but sheets A2-2 and A3-1 call out FRT sheathing on the roof which should remove the need for the gyp on the underside of the roof. Are both necessary?
    Answer: Yes, both are required for code compliance. Please proceed as shown.

33. **Question:** 1/A3-4 Please confirm new footings do not receive reinforcing steel.
    Answer: Yes, we confirm there are no reinforcing steel in the new footings.

34. **Question:** A3-4 Please confirm sill plate anchor bolt spacing.
    Answer: Spacing as follows: Minimum 2 per side. Max 18" from the corner and 6'-0" OC

35. **Question:** Can you please clarify what (2) treated ¼" Tapcon 8" o.c. is referring to in section detail 2 on A3-4
    Answer: It denotes two rows of 1/4-inch-diameter Tapcon concrete screws, spaced 8 inches on center, with the fasteners staggered between rows.

36. **Question:** 4/A3-5. Please confirm if an expansion joint will be required at new to existing brick veneer, if so, please provide detail.
    Answer: Provide a vertical expansion joint at the intersection of the new and existing brick veneer. Provide a 3/8" wide continuous joint with compressible backer rod and exterior-grade elastomeric sealant. Do not mortar across the joint. Maintain continuity of the weather-resistive barrier and flashing behind the joint. Refer to revised Detail 4/A3-5 for additional information.

37. **Question:** A4-1-WALL TYPES-WALLTYPE M-1- G1. Details are not shown.
    Answer: See updated sheets A1-1 & A4-1 for more details

38. **Question:** The door schedule calls the aluminum frames as F1's, which have no sidelites or transoms. The floor plan and 3D pictures (page A3.3) show transoms and large sidelites. I want to confirm we are to bid them with the sidelites and transoms. The sidelites shown on page A3.3, have no vertical mullions or butt joints in the glass. As these are large openings we will need one or the other. If they want butt joints, the glass will need to be at least 3/8" thick and not 1/4". Could you clarify that for us?
    Answer: Interior storefront partitions are not in the scope of work. It will be handled separately by Rieke interiors

39. **Question**: A4-2 door schedule calls for Dr 113 to be Hardware set 1, Hardware schedule calls for Dr 113 to be Hardware 6
    Answer: Hardware 6 is correct, Schedule updated accordingly.

40. **Question**: M1-1-Please provide detail for condensing unit CU-3 pad. M2.0-Please provide detail for new furnace housekeeping pad. E0.0 & E2.1-Please provide detail for new generator pad.
    Answer: Based on existing site conditions, the ground shall be leveled and prepared with a compacted CA-6 aggregate base. Provide a 4" thick precast concrete equipment pad for the condensing unit and generator, sized to extend a minimum of 6" beyond the equipment footprint on all sides. The General Contractor shall verify existing site conditions and assess any necessary site preparation prior to installation.

41. **Question**: Please provide Specs for Fire Sprinklers and pumps.
    Answer: fire sprinklers, pumps and tanks by Nova as well as Fire alarm system by Sentry alarm systems are contracted separately with owner to be completed. Required electrical/plumbing stubs must be provided by the GC as per electrical & plumbing drawings

42. **Question:** Insulation M3.0-STATES TO PER FORM PREVENTATIVE MAINTENANCE but states not limited to. Please confirm that any other maintenance items to be performed that are not listed are to be performed as a change order.
    Answer: This note is under existing condensing unit schedule and existing gas fired furnace schedule. It continuous to detail out what the other maintenance items are. These must be performed under base bid.

43. **Question:** FU-3 is shown on the first floor on the electrical plans, but mechanical plans show FU-3 located in the basement
    Answer: It will be in the basement as shown in the mechanical plans.

44. **Question:** Please confirm we are to install only a conduit system for the new data outlets and video monitor.
    Answer: Yes, that is correct.

45. **Question:** Is Cat6 or Cat6A required, and what cable jacket rating should we carry?
    Answer: Use solid-copper Cat6 CMP cable throughout. No CCA/copper-clad aluminum cable.
    Cable shall be 23 AWG, solid bare copper, 4-pair, CMP-rated Cat6. All cable needs to be labeled on both ends: at the patch panel/rack end and at the outlet end. Labeling needs to follow ANSI/TIA-606-C. At a minimum, each cable/outlet needs a unique ID that matches the outlet faceplate, patch panel port, cable test report, and final as-built documentation. We will provide or confirm the final Cuba Township labeling format before final turnover.

46. **Question:** The Project Manual and Bid Form breakdown (General Conditions through Fire Protection) do not include a Communications (Division 27), Audiovisual, or Electronic Safety and Security (Division 28) category, and the Drawing List contains no technology or low-voltage sheets. Please confirm whether audiovisual, conferencing, structured cabling, or security systems for the new Conference Room and offices are included in the Base Bid scope, and if so, identify the specification section and drawing sheets that define them.
    Answer:

47. **Question:** If AV/low-voltage systems will be furnished separately, please confirm whether the Electrical contractor's Base Bid includes the associated rough-in (conduit, back boxes, floor boxes, power at display and equipment locations, and in-wall blocking), and which sheets govern those locations
    Answer: No, AV/Low voltage system is not in the bid and will be furnished under a separate contract directly by owner.

48. **Question:** How many cables and terminated jacks are required at each voice/data outlet?
    Answer: Standard workstation locations shall receive two Cat6 cables and two terminated Cat6 RJ45 keystone jacks.
    Each standard workstation outlet shall use a two-port faceplate. Both ports shall be terminated, labeled, and tested.
    In addition to the two active cables, provide a pathway for future cabling. This shall be a minimum 1-inch EMT or ENT stub from the outlet box to accessible ceiling space or the nearest approved cable pathway. Provide a pull string and insulated bushings at the open ends.
    Locations that will support an MFP/copier shall receive four Cat6 cables and four terminated Cat6 RJ45 keystone jacks. Use a four-port faceplate at those locations. All four ports shall be terminated, labeled, and tested.
    MFP/copier locations will be identified during the site walkthrough/meeting tomorrow. If a location is not identified as an MFP location, price it as a standard two-cable/two-port workstation outlet with a future-use pull string pathway.

49. **Question:** Is there a required manufacturer for cable, jacks, faceplates and patch panels?
    Answer: No specific manufacturer is required. Please identify the proposed cable and connectivity manufacturer/product line in the bid.
    Cable, jacks, patch panels, and other passive connectivity must be compatible Cat6 components intended for use together as a structured cabling system.
    If bidder is offering a manufacturer-backed system warranty, bidder must be authorized by that manufacturer to install, test, register, and warranty the proposed system.

Do not mix manufacturers unless the bidder confirms in writing that the proposed combination is compatible and still qualifies for the warranty being offered.

50. **Question:** What cable certification, test reports and system warranty are required?
Answer: Certify 100% of all newly installed Cat6 cable runs as Cat6 permanent links.
Testing shall be completed with a current calibrated cable certifier, such as a Fluke DSX or equivalent, using Cat6 Permanent Link test limits and permanent-link adapters.
Basic continuity testing, toner testing, wiremap-only results, link-light verification, or switch-port testing does not replace cable certification.
All new cable runs must pass before final acceptance. Any failed cable must be repaired or replaced and retested at no additional cost.
Before final payment, provide:
- Native tester project files, such as Fluke LinkWare files or equivalent
- Detailed electronic test reports for all newly installed cable runs
- A summary spreadsheet showing cable ID, patch panel/port, outlet/port, cable length, and pass/fail status
- Tester make/model and current calibration documentation
- Final labeling schedule matching the outlet labels, patch panel labels, and test reports
- Final as-built drawings showing outlet locations, cable IDs, patch panels, and cable pathways

Provide the manufacturer's standard system warranty available for the proposed cabling system. If the proposed system qualifies for a 20- or 25-year manufacturer-backed system warranty, include that warranty in the bid and issue it directly to Cuba Township.
If a manufacturer-backed warranty is not available, bidder shall provide a minimum one-year workmanship warranty covering installation and termination defects.

51. **Question:** Who furnishes and installs the IT rack, patch panels, cable management and patch cords? Is the rack shown new or existing?
Answer: The existing IT rack will remain. Replacing the rack is not included[RR1.1][CF1.2][RR1.3][CF1.4].
Bidder is responsible for providing and installing new Cat6 patch panels, patch-panel labels, cable management, termination hardware, and rack-side cable dressing needed for a clean and serviceable installation.
Bidder shall terminate all new cable runs to the new patch panels in the existing rack.
Bidder shall provide new Cat6 patch cords for the new patch-panel ports. Patch cords must be properly sized for the existing rack and routed through cable management.

Final switch-port assignments and network activation will be coordinated with Cuba Township IT. Do not disconnect, move, remove, or change existing active network connections without approval from Cuba Township IT.

52. **Question:** Which outlets are new, relocated or existing to remain? At reused locations, does the existing cabling remain or need replacement?
Answer: All new outlet locations shown on the final electrical/site plans shall receive the required Cat6 outlet installation unless noted otherwise.
Standard workstation outlets shall receive two Cat6 cables, two terminated jacks, a two-port faceplate, and a future-use pull string pathway.
MFP/copier outlets shall receive four Cat6 cables, four terminated jacks, and a four-port faceplate. MFP/copier locations will be confirmed during the site walkthrough/meeting tomorrow.
Outlets in Existing Office 1 and Existing Office 2 are existing to remain. No cable, outlet, jack, faceplate, pathway, or termination changes are included in those rooms.
The only work in Existing Office 1 and Existing Office 2 is updating labels as needed to match the Cuba Township labeling format.
Existing cable performance in those two offices is not part of the new-cabling certification scope unless approved in writing by Cuba Township IT.

53. **Question:** Where should all new cabling terminate, and who is responsible for conduit, boxes and cable supports?
Answer: All new cable runs shall terminate at the existing IT rack in the designated telecommunications area.
Bidder shall provide and install new Cat6 patch panels in the existing rack, terminate all new cable runs at the patch panels, terminate outlet-end cable runs to Cat6 keystone jacks, and install labeled outlet faceplates.
Bidder is responsible for all low-voltage materials and labor needed for a complete installation. This includes outlet boxes or mud rings, conduit stubs, pull strings, insulated bushings, sleeves, J-hooks, cable tray components, cable supports, firestopping, and related hardware.
Each new outlet location shall have a minimum 1-inch EMT or ENT pathway from the outlet box to accessible ceiling space or the nearest approved cable pathway. Each pathway must include a pull string and insulated bushings at open ends.
Above accessible ceilings, support cable from building structure with listed J-hooks or cable tray. Do not lay cable on ceiling tiles or support cable from ceiling grid, ceiling wires, electrical conduit, sprinkler pipe, plumbing, HVAC ductwork, or other trade infrastructure.
All penetrations through rated walls, floors, shafts, or smoke barriers must be sealed with a listed firestop system suitable for that assembly.
Installation must comply with ANSI/TIA-568.0-E and ANSI/TIA-568.2-E for Cat6 structured cabling, ANSI/TIA-606-C for labeling and documentation, applicable Lake

County requirements, approved construction plans, and manufacturer installation requirements.

54. **Question:** Are we responsible for demolishing any existing voice/data cabling or outlets? If so, please identify the locations and whether cabling needs to be removed back to the existing rack or termination point.
Answer: Bidder shall remove accessible [RR2.1][CF2.2][RR2.3][CF2.4]abandoned voice/data cable, outlet devices, faceplates, and related low-voltage materials made obsolete by the remodel, replacement work, or new outlet layout.
Where [RR3.1][CF3.2][RR3.3][CF3.4]accessible, remove abandoned cabling back to the existing rack, patch panel, telecom room, or nearest accessible termination point. Do not perform demolition outside the approved project scope solely to remove abandoned cable.
Existing active cabling and outlets serving Existing Office 1 and Existing Office 2 must remain in place and undisturbed except for approved relabeling.
Before cutting, disconnecting, or removing any existing cable, outlet, faceplate, patch-panel connection, or telecom-room termination, bidder must identify it and get approval from Cuba Township IT.
Abandoned cable inside finished walls may remain if removal would require demolition outside the project scope. Accessible abandoned cable should be removed unless Cuba Township IT identifies it for future use and it is clearly labeled.

Key Definition:

Accessible: Falls within quoted demolition based on the bid request.

55. **Question:** E3.0-LUMINAIRE SCHEDULES calls for fixture manufacturer to be supplied by ARCHITECT/OWNER. Please confirm if owner is supplying the light fixtures, if not please provide manufacturer information and the corrected E1.0 and E1.1 Lighting Plans, and A1.4 Reflected ceiling plans?
Answer: Lighting fixture models are selected and specified by the architect on sheet A1-4.

56. **Question:** The schedule on E3.0 differs from the described fixtures on A1.4 Reflected Ceiling, not only in the Tag but also types and quantities.
Answer: Refer to sheet A1.4 for fixture details,tags and quantities.

57. **Question:** A1.4 Reflected Ceiling Fixture Tags on the drawing do not match the lighting legend provided on the same. Specifically, those located in Rooms Pickup Closet and Cleaning Supplies.
Answer: Sheet A 1-4 updated.

58. **Question:** Please confirm that there is no security system.

Answer: No, there is no security system in the scope of work.

59. **Question:** Can the drawings from Sentry Security be provided to show the penetrations and layout for new conduit piping that they requested from this bid packages electrical contractor. Need this
Answer: Provided with this addendum

60. **Question:** Will structural sheets from a structural engineer for the foundation, framing, and the roof be provided? Please provide the structural drawings/details for our review.
Answer: All structural information is provided on sheets A1-3, A3-4 & A3-5.

61. **Question:** The ID plan that was issued is not to scale. I am assuming this is just a drawing size thing?
Answer: Refer to the Interior Design (ID) drawings for finish selections and requirements only. For all other work, refer to the applicable discipline-specific drawings. Also note, that the ID plan was based off old layout. The correct layout is as per arch set. The finishes for these spaces will remain as shown in the finish plan

62. **Question:** Finish on the stairs says LVT. Is this for risers as well, or is it just the landings? Nosings are called to be rubber.
Answer: Yes, it is for risers as well.

63. **Question:** In reference the room finish plan included with addendum#1,please confirm that with exception of the new addition CONFRENCE ROOM, OFFICE#1 & NEW FOYER that all the other flooring finishes are existing to be patched and not new.
Answer: In the existing building (First Floor), all flooring except in toilets and food pantry must be demolished and replaced as per ID plan

II. Changes to Bidding Documents

Drawings

a. Sheet A0-1: Updated keynotes

b. Sheet A0-2: Updated keynotes

c. Sheet A1-0: Updated keynotes

d. Sheet A1-2: Updated keynotes

e. Sheet A1-3: Added section detail 7

f. Sheet A1-3: Updating lighting schedule & added ceiling legend

g. Sheet A4-1: Added wall type M-1

h. Sheet A4-2: Updated hardware set for door 113 in door schedule

Bid Documents

a. Part 4: performance requirements: Under commencement & continuity of work Construction Phasing is added :pages 11-12

b. Bid Form : Under base bid, rows to include plumbing costs and allowances added. Pages 14-15

c. Supplementary General Conditions : Under 5.Contract time, the work scope phasing is described pages 18-19

3. Attachments

Included with this Addendum: [Arch/Structural Set, MEP set,Civil plans, Fire sprinkler plan, Fire alarm plans & Contract documents)

END OF ADDENDUM NO [002]

Bid Fo Acknowledgement

The Bidder acknowledges receipt of the Addenda listed below. Enter each addendum number and issue date, including this addendum.

Addendum No	Issue Date
001	09.29.2026
002	10.17.2026

ALLEN & PEPA
ARCHITECTS
215 Fulton Street . Geneva, Illinois . 60134 . 630.578.1105 . www.allenpepa.com

OFFICE RENOVATION AND CONFERENCE ROOM ADDITION

DATE: 10-17-26

Cuba Township

CUBA TOWNSHIP

28000 W. CUBA ROAD • BARRINGTON, ILLINOIS

SUPERVISOR	Christopher Karam
CLERK	Heidi N. Shannon
ASSESSOR	Nicole E. Knapik
HIGHWAY COMMISSIONER	Thomas J. Podgorski

TOWN TRUSTEES

Jill Talbot
Tiffany A. Andreae
Dan Koob
Adam Jurczyk

PREPARED BY:

ALLEN & PEPA
ARCHITECTS

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PROJECT: Cuba Township
Office Renovation
28000 W.Cuba Road
Barrington, IL 60010

OWNER: Cuba Township
28000 W.Cuba Road
Barrington, IL 60010

ARCHITECT: Allen+Pepa Architects, Elgin Studio, Inc.
215 Fulton Street
Geneva, IL 60134
(630) 578-1105

PROJECT NO: Allen+Pepa Architects No. 25-023

DATE: October 16, 2026

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FOR BID DRAWINGS, DATED 10/16/26

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G1-2 Code Study
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G1-5 Specifications
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A0-1 Demolition Plan
A0-2 Demo Reflected Ceiling Plan
A1-1 First Floor Plan
A1-2 Basement Plan
A1-3 Foundation Plans and Details
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M-0.1 Mechanical Legends, Abbreviations and Notes
M-0.2 Mechanical Specifications
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P-3.0 Gas Piping basement Floor Plan

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E-2.1 First Floor Power Plan
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2 Existing Conditions/Demolition Plan
3 Geometric Plan
4 Grading Plan
5 General Notes
6 Details
7 Impervious Are Exhibit (1993)
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9 Impervious Are Exhibit (Proposed)

FIRE SPRINKLER DRAWINGS FOR ELECTRICAL & PLUMBING STUBS

FP-1 Sprinkler Plan, Notes & Details

FIRE ALARM DRAWINGS FOR ELECTRICAL STUBS

AL Cover Sheet
AL1.00 Fire Alarm Basement & First Floor

1. NOTICE TO BIDDERS
Office Renovation and Conference Room Addition

Cuba Township (the "Owner") is accepting sealed bids for the **Office Renovation and Conference Room Addition**, located at 28000 W. Cuba Road, Barrington, Illinois 60010. The Project includes new addition of basement storage, conference room, new offices, finish updates and associated work as indicated in the Contract Documents. All Work shall be performed in strict compliance with the Drawings, Specifications, and other Contract Documents prepared for the Project.

Proposed Contract Documents, including Drawings and Specifications, will be available for examination at :
Office of Cuba Township
28000 W. Cuba Road Barrington,
Illinois 60010

and electronically through the Cuba Township website. Electronic (PDF) files can be provided upon request. Hardcopy sets can be obtained at TNT Reproductions in Libertyville at the Contractor's cost (call 847-367-7440). The Architect can be reached at (630) 618-8098 or by email at smurthy@allenpepa.com, beginning September 23, 2026.

The Architect's team will be available at the **Cuba Township Office, 28000 W. Cuba Road, Barrington, Illinois 60010, on Tuesday, October 13, 2026, between 2:00 p.m. and 4:00 p.m.** to answer questions from prospective bidders regarding the Contract Documents and Project requirements. **Attendance is mandatory** and is a condition for submitting a Bid. Any interpretations, clarifications, or modifications affecting the Contract Documents will be issued by written Addendum, as applicable.

Sealed bids will be received until **1:00 p.m. on Wednesday, October 21, 2026** at the
Office of the Town Clerk,
Cuba Township,
28000 W. Cuba Road, Barrington,
Illinois 60010,

and shall be clearly identified as:
Office Renovation and Conference Room Addition
Cuba Township
Bids will be publicly opened by the Township Clerk or her designee and read aloud at the Cuba Township Office at 1:15 p.m. on Wednesday, October 21, 2026.

Office Renovation and Conference Room Addition
Cuba Township
Bids will be publicly opened by the Township Clerk or her designee and read aloud at the Cuba Township Office at **1:15 p.m. on Wednesday, October 21, 2026**.

Bids shall be submitted in accordance with the requirements of the Contract Documents and on the forms furnished as part of the Bidding Documents, where applicable. All proposals submitted shall remain firm and may not be withdrawn for a period of **sixty (60) days** following the opening of bids without the written consent of Cuba Township.

The Contractor shall comply with all applicable Illinois statutory requirements and applicable federal requirements regarding labor, wages, and equal employment opportunity. The Project is subject to the **Illinois Prevailing Wage Act**, and the successful Contractor shall pay, and shall require all subcontractors to pay, not less than the prevailing rates of wages established by the Illinois Department of Labor for the applicable classifications of labor performing work on the Project. Current prevailing wage rates are available from the Illinois Department of Labor: http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx.

The successful Bidder shall execute the Contract and provide all documentation, insurance, bonds, certifications, and other information required by the Contract Documents. The Project Work shall be performed in strict compliance with the Contract Documents and all applicable federal, state, and local laws, codes, and regulations.

Cuba Township reserves the right to reject any or all bids, to accept all or any part of a bid when permitted, and to waive minor informalities or irregularities in any bid when permitted by applicable law. No bid shall be withdrawn for a period of forty-five (45) days subsequent to the opening of bids without the consent of Cuba Township.

Heidi N. Shannon
Clerk

2. INSTRUCTIONS TO BIDDERS

PART 1 – GENERAL

1.01 IDENTIFICATION OF PROJECT

The official name and location of the Project shall be:

Office Renovation and Conference Room Addition
Cuba Township
28000 W. Cuba Road
Barrington, Illinois 60010

The Owner is:
Cuba Township
28000 W. Cuba Road
Barrington, Illinois 60010

1.02 CONTRACT DOCUMENTS

The Contract Documents consist of the Invitation to Bid/Notice to Bidders, Instructions to Bidders, Form of Proposal, Drawings, Specifications, Supplementary General Conditions, required affidavits and certifications, required surety bonds, Addenda issued during the bidding period, Contractor's accepted Bid Proposal, and other documents identified as part of the Contract.

1.03 EXAMINATION OF DOCUMENTS AND SITE CONDITIONS

Before submitting a bid, each Bidder shall carefully examine the Contract Documents and shall familiarize itself with the Project site and all existing conditions affecting the Work.
Bidders shall inform themselves fully regarding access, staging, transportation, disposal, material handling and storage, availability of labor and utilities, weather conditions, existing construction, equipment requirements, and other conditions that may affect the cost or execution of the Work.

Submission of a bid constitutes acknowledgment that the Bidder has made the investigations necessary to properly estimate the cost and difficulty of performing the Work. Failure to investigate existing conditions shall not constitute a basis for additional compensation.

1.04 INTERPRETATION OF CONTRACT DOCUMENTS

A Bidder who is in doubt as to the meaning or interpretation of any portion of the Drawings, Specifications, or other Contract Documents shall submit a written request for clarification to the Architect with sufficient time to permit a response before the bid due date.
Interpretations or modifications affecting the Contract Documents will be issued by written Addendum and distributed to bidders. Bidders shall acknowledge receipt of all Addenda on the Bid Form.

Oral explanations, interpretations, or instructions shall not be binding upon the Owner or Architect.

1.05 BIDDER QUALIFICATIONS

The Owner reserves the right to investigate the qualifications and responsibility of any Bidder. Upon request, the Bidder shall furnish information regarding its organization, personnel, equipment, financial capability, relevant experience, and successful completion of projects of similar nature and scope.

The Bidder shall identify whether it is an individual, partnership, corporation, limited liability company, or other business entity and shall demonstrate its ability to properly perform and complete the Work.

PART 2 – BIDDING

2.01 PREPARATION AND SUBMISSION OF BIDS

Bids shall be submitted on the Form of Proposal included in the Contract Documents. All requested prices, alternates, unit prices, information, acknowledgments, signatures, affidavits, and certifications shall be completed.
Each bid shall be enclosed in a sealed envelope showing the Bidder's name and return address and clearly marked:

"PROPOSAL FOR OFFICE RENOVATION AND CONFERENCE ROOM ADDITION"
and addressed to:
Cuba Township
28000 W. Cuba Road
Barrington, Illinois 60010
ATTN: Heidi N. Shannon, Clerk
Bids shall be received no later than:
1:00 p.m., Wednesday, October 21, 2026
Bids received after the specified date and time will not be considered.

2.02 BID PRICES
Bid prices shall include all labor, materials, equipment, tools, supervision, transportation, disposal, insurance, required surety bonds, warranties, permits, licenses, fees, overhead, profit, testing, inspections, and other costs necessary to provide a complete Project in accordance with the Contract Documents, except where specifically stated otherwise.
Cuba Township is a tax-exempt public body. Bidders shall exclude applicable taxes for which the Owner's tax-exempt status applies.

2.03 BID SECURITY
Bid security and bid bonds are not required to be submitted with the Bid.

The successful Bidder shall, however, furnish the surety bonds required by the Contract Documents following award and prior to commencement of the Work

2.04 MODIFICATION OR WITHDRAWAL OF BIDS

A Bidder may modify or withdraw its bid by written notice received by the Owner before the established bid due date and time.
Following the bid opening, proposals shall remain firm and shall not be modified, withdrawn, or canceled without the written consent of Cuba Township for a period of sixty (60) days.

2.05 BID OPENING

Bids will be publicly opened by the Township Clerk or her designee and read aloud at the Cuba Township Office at:
1:15 p.m., Wednesday, October 21, 2026

2.06 NON-COLLUSION AND REQUIRED CERTIFICATIONS

Each Bidder shall submit the required Affidavit of Non-Collusion and other certifications and affidavits included with the Bidding Documents.
Where included in the Contract Documents, required certifications may include tax compliance, eligibility for public contracting, and applicable employment, substance-abuse, and sexual-harassment-policy certifications.
Failure to submit required documents may be cause for rejection of the bid.

PART 3 – AWARD AND CONTRACT
3.01 EVALUATION AND AWARD

The Owner may consider bid price, responsiveness to the Contract Documents, Bidder qualifications, experience, responsibility, ability to complete the Work within the required schedule, and other factors permitted by applicable law.
The basis of award shall be to the responsible low Bidder whose bid conforms to the Contract Documents, subject to the Owner's rights and applicable law.
The Owner may make such investigations as it considers necessary to determine the Bidder's ability to perform the Work. The Bidder shall furnish information reasonably requested for this purpose.

3.02 OWNER'S RIGHTS

Cuba Township reserves the right to reject any or all bids, to waive minor informalities or irregularities when permitted by applicable law, and to take such action regarding the bids as is permitted under the Contract Documents and applicable law.
Incomplete, unsigned, conditional, nonresponsive, or otherwise irregular proposals may be rejected by the Owner.

3.03 EXECUTION OF CONTRACT
The successful Bidder shall, within fifteen (15) calendar days after award of the Contract, or within such other period established by the Owner, execute a written Contract with Cuba Township.
See the contract document format in section 9 of this document.

3.04 SURETY BONDS AND INSURANCE

The successful Bidder shall, following award and prior to commencement of the Work, furnish the Performance Bond and Labor and Material Payment Bond required by the Contract Documents. Such bonds shall be issued by a surety company authorized to conduct business in the State of Illinois and acceptable to the Owner. The bonds shall guarantee the Contractor's faithful performance of the Contract and payment of all obligations for labor and materials furnished in connection with the Work.
The cost of all required surety bonds shall be included in the Contract Sum.
Prior to commencement of the Work, the successful Bidder shall also provide certificates of insurance demonstrating compliance with the insurance requirements of the Contract Documents. Cuba Township and the Architect shall be named as additional insureds where required by the Contract Documents.
Failure of the successful Bidder to furnish the required surety bonds, insurance, or other required Contract documentation within the time established by the Owner may constitute grounds for withdrawal of the award and award to another responsible Bidder.

3.05 WARRANTIES
The successful Contractor shall provide all warranties required by the Contract Documents, including a minimum one (1) year written warranty from Final Completion for Construction Work, together with applicable manufacturer's roofing/shingle and other product warranties.

PART 4 – PERFORMANCE REQUIREMENTS

4.01 PERMITS AND CODE COMPLIANCE
Work shall not commence until all required State and local permits and approvals have been obtained.
The Contractor shall obtain permits assigned to the Contractor under the Contract Documents and shall comply with all applicable federal, state, and local laws, ordinances, codes, regulations, and requirements governing the Work.

4.02 COMMENCEMENT AND CONTINUITY OF WORK
The successful Contractor shall commence Work following execution of the Contract and authorization by the Owner and shall diligently and continuously prosecute the Work through completion in accordance with the Contract Documents and approved Project schedule.
The Bidder shall indicate, where requested, the anticipated calendar days required to complete the Work.

CONSTRUCTION PHASING

Phase 1 includes interior renovation and finish updates to the existing building, along with placement of the foundation for the new addition.

Phase 2 includes completion of the new addition, including the exterior walls, roof, and interior finishes. This phase is expected to proceed after winter weather conditions have passed and weather and site conditions permit.

The Contractor shall complete all Work in both phases no later than May 31, 2027. The Contractor shall include both phases in the project schedule and coordinate the sequence of Work with the Owner.

4.03 PREVAILING WAGE
The Project is subject to the Illinois Prevailing Wage Act.

The successful Contractor and all subcontractors shall pay not less than the applicable prevailing rates of wages established by the Illinois Department of Labor to laborers, workers, and mechanics performing Work under the Contract.
All costs associated with compliance with prevailing-wage requirements shall be included in the Bid and Contract Sum, and no additional compensation shall be allowed solely for compliance with such requirements.

4.04 EQUAL EMPLOYMENT OPPORTUNITY

The Contractor and its subcontractors shall comply with all applicable federal and State of Illinois equal employment opportunity and nondiscrimination requirements applicable to the Project.
The Contractor shall not discriminate in employment or performance of the Work on any basis prohibited by applicable law and shall require its subcontractors to comply with applicable requirements.

4.05 CONTRACTOR RESPONSIBILITY

The Contractor shall be responsible for coordinating and performing the Work in a manner that minimizes interference with the Owner's ongoing operations and other work occurring at or adjacent to the Project site.
The Contractor shall be responsible for the means, methods, techniques, sequences, procedures, safety precautions, and programs associated with performance of the Work, except as otherwise specifically provided in the Contract Documents.

3. BID FORM

PROJECT: Office Renovation and Conference Room Addition
Cuba Township
28000 W. Cuba Road
Barrington, Illinois 60010

OWNER: Cuba Township
28000 W. Cuba Road
Barrington, Illinois 60010

Proposal of _____, hereinafter called the **"Bidder,"**

a/an _____ (corporation, partnership, individual, or other

business entity), doing business as _____, to **Cuba**

Township, hereinafter called the **"Owner."**

The Bidder, in response to the Invitation to Bid for the referenced Project, having carefully examined the complete Contract Documents, including the Project Manual, Drawings, Specifications, Addenda, if any, and associated documents, and having examined the Project site and conditions affecting the Work, hereby proposes to furnish all labor, materials, equipment, supervision, services, insurance, required surety bonds, permits, warranties, and other items necessary to complete the Work in strict accordance with the Contract Documents for the amount stated herein.
The Project includes **a new addition consisting of basement storage and conference room, new offices, finish updates, and associated work as indicated in the Contract Documents.**
Submission of this Proposal constitutes acknowledgment that the Bidder has familiarized itself with the Project site, existing conditions, access, availability of labor and materials, and other conditions affecting the performance and cost of the Work.

The Base Bid work shall be as follows:

A. Base Bid:

The Base Bid shall include all Work necessary for the complete construction of the Project as indicated in the Contract Documents, including, but not limited to:

1. Construction of the new building addition, including basement storage and conference room.
2. Construction of new offices.
3. Interior renovations and finish updates.
4. Structural, architectural, mechanical, electrical, plumbing, and other associated Work indicated in the Contract Documents.
5. Site work and restoration associated with the new construction and renovation, where indicated.
6. Demolition, removal, disposal, temporary protection, and preparation required to complete the Work.
7. Coordination with existing construction, utilities, building systems, and ongoing Owner operations.
8. All required permits, inspections, testing, licenses, fees, insurance, and required surety bonds, except where specifically indicated otherwise in the Contract Documents.

9. All labor, materials, equipment, tools, supervision, overhead, profit, warranties, and other services necessary to provide a complete and operational Project.

BASE BID – COMPLETE WORK

Provide lump sum price for Base Bid A. 1 through 9, including any allowances.

CONTRACTOR TO BREAK DOWN BID IN THE FOLLOWING CATEGORIES (Do not include any allowances or alternate costs in these categories):

General Conditions, Overhead and Profit $ _____

General Construction (All work by GC including supervision and items not requested elsewhere in this Bid Form) $ _____

Site Prep (Excavation, Utility Work, Tree Removal, Fencing, Construction Sign, etc.) $ _____

Demolition (Building) $ _____

Concrete $ _____

Masonry $ _____

Metal Structural Framing, Columns & Lintels $ _____

Wall Framing $ _____

Insulation, Air Barrier & Roofing $ _____

Exterior Wall Cladding $ _____

Exterior Curtainwall & Storefront $ _____

Doors, Windows & Hardware (Interior) $ _____

Finishes (Drywall, Wall Panel, Ceiling, Flooring, Painting) $ _____

Mechanical $ _____

Electrical $ _____

Plumbing $ _____

TOTAL ALL:

_____dollars ($_____)

B. Unit Prices:

Provide Unit Prices for all works mentioned above, which may or may not occur during the course of the project. Unit Prices shall apply to all project areas, unless otherwise noted.

Provide unit prices of product and installation for the following items:

a. Light fixture price for each item $ _____
b. Lay-in acoustic ceiling tile $ _____
c. Duplex receptacles $ _____

_____ Dollars
($_____)

The Base Bid represents the Bidder's total lump-sum price for completion of the Work described in the Contract Documents.

D. Allowances:

Allowance Item	**Amount**
Permit fees	$20,000
Total Allowances Included in Base Bid	**$20,000**

Base Bid, including the allowance: $_____

i. CONTRACT TIME

The Bidder agrees to commence the Work following execution of the Contract, receipt of required permits and approvals, submission of required surety bonds and insurance documentation, and authorization by the Owner to proceed.

The Bidder proposes to achieve Final Completion of the Work within: _____ **Calendar Days** from the date established for commencement of the Work.

The Bidder agrees to cooperate with the Owner and Architect in scheduling and performing the Work to minimize disruption to Cuba Township's ongoing operations.

ii. ADDENDA
The Bidder acknowledges receipt of the following Addenda and confirms that all modifications contained therein have been incorporated into this Proposal:

Addendum No.	**Date Received**
_____	_____
_____	_____
_____	_____

iii. BID SECURITY AND SURETY BONDS

No Bid Bond or other bid security is required to accompany this Proposal.
If awarded the Contract, the successful Bidder shall furnish the **Performance Bond and Labor and Material Payment Bond or other surety bond(s) required by the Contract Documents**, issued by a surety authorized to conduct business in the State of Illinois and acceptable to the Owner.
The cost of the required surety bond(s) shall be included in the Base Bid and Contract Sum.

iv. CONTRACT EXECUTION

If awarded the Contract, the undersigned agrees to execute a Contract with Cuba Township within **fifteen (15) calendar days** following written notification of award, or within such other period established by the Owner.

Prior to commencement of the Work, the successful Bidder shall furnish all required surety bonds, certificates of insurance, affidavits, certifications, and other documentation required by the Contract Documents.

The Bidder agrees that this Proposal shall remain firm and shall not be modified, withdrawn, or canceled without the written consent of Cuba Township for a period of **sixty (60) days following the bid opening**.

v. BIDDER CERTIFICATIONS
By submitting this Proposal, the Bidder represents and certifies that:

A. This Proposal is genuine and is not made in the interest of or on behalf of any undisclosed person, firm, corporation, or other entity.
B. The Bidder has not directly or indirectly induced or solicited another bidder to submit a false or sham bid.
C. The Bidder has not directly or indirectly induced or solicited any person, firm, or corporation to refrain from bidding.
D. The Bidder has not sought through collusion, fraud, or other unlawful means to obtain an advantage over another Bidder or the Owner.
E. The Bidder has carefully examined and understands the Contract Documents and has examined the Project site and existing conditions sufficiently to properly prepare this Proposal.
F. All labor, materials, equipment, methods, and workmanship furnished under the Contract shall conform to the Contract Documents, manufacturer's requirements, and applicable laws, codes, regulations, and standards.

G. The Bidder acknowledges that the Project is subject to the **Illinois Prevailing Wage Act** and has included all costs associated with compliance with applicable prevailing-wage requirements in its Proposal.
H. The Bidder has included in its Base Bid all costs necessary to provide the complete Work, except only those items specifically identified in the Contract Documents as being furnished or paid for by the Owner.

vi. OWNER'S RIGHTS

The Bidder acknowledges that Cuba Township reserves the right to reject any or all bids, waive minor informalities or irregularities when permitted by applicable law, and exercise all other rights established in the Contract Documents.
The Bidder understands that award of the Contract shall be made in accordance with the Instructions to Bidders and applicable requirements governing the Project.

viii.BIDDER'S OBLIGATIONS

In submitting this Proposal, the Bidder understands and agrees that it shall be bound by the terms, conditions, and requirements of the Contract Documents, which are incorporated herein by reference.
Dated this _____ day of _____, 2026.

BIDDER INFORMATION
Legal Name of Bidder:

Business Address:

City: _____ **State:** _____ **ZIP:** _____
Telephone: _____
Email: _____
Business Entity:

☐ Individual ☐ Partnership ☐ Corporation ☐ LLC ☐ Other: _____

State of Organization/Incorporation: _____
By: _____
Printed Name: _____
Title: _____
Signature: _____
Date: _____

ATTEST, IF APPLICABLE
By: _____
Printed Name: _____
Title: _____
Signature: _____

4. SUPPLEMENTARY GENERAL CONDITIONS

1. PROJECT WORK

The Project Work shall consist of the new addition of basement storage, conference room, new offices, finish updates, and associated work as indicated in the Contract Documents.The Contractor shall provide all labor, materials, equipment, transportation, supervision, and incidentals necessary to complete the Project in accordance with the Contract Documents.

2. CONTRACT DOCUMENTS

The Contract Documents shall consist of the Invitation to Bid, Instructions to Bidders, Bid Form, General Conditions, Supplementary General Conditions, Specifications, Drawings prepared by Allen + Pepa Architects, Contractor's accepted Bid Proposal, required affidavits and certifications, Performance and Payment Bonds, Notice to Proceed, and Addenda, if any.

3. PROJECT SITE

The Project Site is:

Cuba Township Administrative Offices
28000 W. Cuba Road
Barrington, Illinois 60010

Prior to submitting its Bid, the Contractor shall examine the Project Site and become familiar with existing conditions affecting the Work. No allowance will be made for lack of knowledge of conditions that could reasonably have been determined by examination of the Project Site and Contract Documents.

4. CONTRACT SUM

The Contract Sum shall include all labor, materials, equipment, transportation, supervision, insurance, bonds, fees, overhead, profit, and other costs necessary to complete the Work in accordance with the Contract Documents, except costs specifically identified as reimbursable by the Owner.

The Owner is tax exempt. Applicable State and Federal taxes for which the Owner's exemption applies shall be omitted from the Contract Sum.

5. CONTRACT TIME

The Contractor shall commence the Work upon receipt of the Notice to Proceed. The Owner anticipates that Phase 1 will begin on December 1, 2026. Phase 1 shall include the interior renovation and finish updates to the existing building and placement of the foundation for the new addition.

Phase 2 shall include completion of the new addition, including the exterior walls, roof, and interior finishes. Phase 2 is anticipated to proceed after winter weather conditions have passed and weather and site conditions permit.

The Contractor shall include both phases in the project schedule and coordinate the sequence of Work with the Owner. **All Work shall reach Final Completion no later than May 31, 2027.** Time is of the essence of the Contract.

6. PERMITS AND FEES

The General Contractor shall secure all required permits, licenses, and inspections and deliver required certificates of inspection to the Owner.

The cost of permits shall be a direct reimbursable expense as provided in the Supplementary General Conditions.

7. INSURANCE

The Contractor shall procure and maintain insurance in the types and amounts required by the Supplementary General Conditions.

Required certificates of insurance and endorsements shall be submitted to the Owner prior to commencement of the Work.

8. PERFORMANCE AND PAYMENT BONDS

Prior to commencement of the Work, the Contractor shall furnish Performance and Payment Bonds as required by the Contract Documents, issued by a surety authorized to conduct business in the State of Illinois and acceptable to the Owner.

The cost of the required bonds shall be included in the Contract Sum.

9. PAYMENTS

Applications for Payment, retainage, lien waivers, final payment, and related documentation shall be submitted in accordance with the Supplementary General Conditions.

10. CONTRACTOR RESPONSIBILITY

The Contractor shall supervise and direct the Work and shall be solely responsible for construction means, methods, techniques, sequences, procedures, and safety precautions and programs associated with the Work.

The Contractor shall coordinate the Work of all subcontractors and trades and shall be responsible for the proper execution and completion of the Work in accordance with the Contract Documents.

11. PROTECTION AND INDEMNIFICATION

The Contractor shall protect the Work, Project Site, existing construction, Owner's property, and persons affected by the Work.

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless Cuba Township, Allen + Pepa Architects, and their respective officers, employees, and agents from claims, damages, losses, and expenses arising out of or resulting from the Contractor's performance of the Work, except to the extent caused by the negligence of an indemnified party.

12. WARRANTY

The Contractor shall warrant all workmanship and materials for twelve (12) months from the date of acceptance by the Owner, unless a longer warranty period is required by the Contract Documents or manufacturer.

Required manufacturers' warranties shall be provided to the Owner prior to final payment.

13. CHANGES IN THE WORK

Changes affecting the Contract Sum, Contract Time, or scope of Work shall be authorized by written Change Order in accordance with the Contract Documents.

No additional compensation or extension of Contract Time shall be allowed for changes performed without required authorization.

14. PREVAILING WAGES

The Contractor and all Subcontractors shall comply with the Illinois Prevailing Wage Act and the requirements stated in the Supplementary General Conditions.

All costs associated with prevailing wage compliance shall be included in the Contract Sum.

15. COMPLIANCE WITH LAWS

The Contractor shall comply with all applicable federal, state, and local laws, codes, ordinances, regulations, and requirements governing the Work.

16. NON-DISCRIMINATION

The Contractor and Subcontractors shall comply with applicable federal and State of Illinois laws regarding equal employment opportunity and non-discrimination.

17. DEFAULT

In the event of default by the Contractor, the Owner shall have all rights and remedies available under the Contract Documents and applicable law.

18. GOVERNING LAW

The Contract Documents shall be governed and construed in accordance with the laws of the State of Illinois.

19. CONTRACT DOCUMENTS CONTROL

These General Terms and Conditions shall be read together with the General Conditions, Supplementary General Conditions, Drawings, Specifications, and other Contract Documents.

Where a requirement is specifically addressed in the Supplementary General Conditions, the Supplementary General Conditions shall govern.

5. NON-COLLUSION AFFIDAVIT

State of _____

County of _____

_____ , being first duly sworn, deposes and says:

That he/she is _____ (a partner or officer of the firm of, etc.)

The party makes the foregoing proposal or bid, that such proposal or bid is genuine and not collusive or sham; that said bidder has not colluded, conspired, connived or agreed, directly, or indirectly, with any bidder or person, to put in a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought by agreement of collusion or communication or conference with any person, to fix the bid price of affiant of any other bidder, or to fix any overhead, profit or cost element or said bid price, or of that of any other bidder, or to secure any advantage against CUBA TOWNSHIP, or any person interested in the proposed contract; and that all statements in the said proposal or bid are true.

_____ Signature of Bidder
(if Bidder is an individual)

_____ Signature of Bidder
(if Bidder is a partnership)

_____ Signature of Bidder
(if Bidder is a Corporation)

Scribed and sworn to before me this

_____ day of _____ , 2026

My Commission expires _____ , 2026

6. EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE CERTIFICATE

As used in this certificate the 'subcontract' include the term 'purchase order' and all other agreements effectuating purchase of supplies or services. If this certificate is submitted as part of a bid or proposal the term 'Seller' shall be deemed to refer to the Bidder or Officer, or Subcontractor or Supplier. This certificate shall be renewed annually, Notwithstanding the foregoing, the certifications made herein shall remain applicable until completion of all nonexempt contracts/subcontracts awarded while this certificates is in effect. The undersigned seller certifies the following to **CUBA TOWNSHIP.**

CERTIFICATION OF NONSEGREGATED FACILITIES: Seller certifies that it does not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not permit its employees to perform their services at any location, under its control where segregated facilities are maintained. Contractor certifies further that it will not maintain or provide for its employee any segregated facilities at any of its establishments and that it will not permit its employees to perform their services at any location, under its control where segregated facilities are maintained. Seller agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this certificate. As used in this certification, the term 'segregated facilities' means any waiting rooms, work area, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis or race, color, religion, or national origin because of habit, local custom or otherwise. Contractor further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions for the Equal Opportunity Clause; that it will retain such certifications in its files; and that it will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods); **NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES.** A certification on Nonsegregated Facilities, as required by Section 60-1.8 of Title 41 of the Code of Federal Regulations, must be submitted prior to the award of a subcontract exceeding $10,000 which is not exempt from the provision of the Equal Opportunity Clause. (Note: The penalty for making false statements in offers is prescribed in 1 8 U.S.C. 1001).

AFFIRMATIVE ACTION COMPLIANCE PROGRAM: Prior to 120 days after receipt of any subcontract in the amount of $50,000 or more from the Buyer, if it has 50 or more employees and is not otherwise exempt under 41 C.F. R. Part 60-1 .40. Seller will also require its lower-tier subcontractors who have 50 or more employees and receive a subcontract of $50,000 or more and who are not otherwise exempt under 41 C.F.R. Part 60-1 to establish written affirmative action compliance programs in accordance with 41 C.F.R Sec 60- 1 .40

Seller certifies that it is not currently in receipt of any outstanding letters of deficiencies, show cause, probable cause, or other such notification of noncompliance with EEO regulations.

Executed this ____ day of 2026 by:

Firm Name: _____

By: _____

Title: _____

7. PAYMENT REQUEST FORMS

APPLICATION AND CERTIFICATION FOR PAYMENT

AJA DOCUMENT G702 PAGE ONE OF PAGES

TOGC: CM&B, Inc.
75 Sylvan Street
Danvers, MA 01923

PROJECT:
Address:

APPLICATION NO:

Distribution to:
c=)OWNER
c=)ARCHITECT
[|||CONTRACTOR
c=J
c=J

PERIOD TO:

FROM SUBCONTRACTOR:

VIA ARCHITECT:

CM&B PROJECT NO:

CONTRACT FOR:

CONTRACT DATE:

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.
Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM		$ 0.00
2. Net change by Change Orders		$ 0.00
3. CONTRACT SUM TO DATE (Line 1 ± 2)		$ 0.00
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)		$ 0.00
5. RETAINAGE:		
a. 10 % of Completed Work (Column D + E on G703)	$ - - - - - - - 0.00	
b. --=.....-% of Stored Material (Column F on G703)	$	
Total Retainage (Lines 5a + 5b or Total in Column I of G703)		$ 0.00
6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total)		$ 0.00
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate)		$ 00
8. CURRENT PAYMENT DUE		$ 00
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6)		$ 0

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	$0.00	$0.00
Total approved this Month	$0.00	$0.00
TOTALS	$0.00	$0.00
NET CHANGES by Change Order	$0.00	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment shown herein is now due.

SUBCONTRACTOR:

By: _____ Date: _____

State of: County of:
Subscribed and sworn to before me this day of
Notary Public:
My Commission expires:

ARCHITECT'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED ..... $ _____

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

ARCHITECT:

By: _____ Date: _____

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

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CONTINUATION SHEET *AJA DOCUMENT G703* PAGE OF PAGES

AIA Document G702, APPLICATION AND CERTIFICATION FOR PAYMENT, containing
Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

APPLICATION NO: 0
APPLICATION DATE: 1/0/1900
PERIOD TO: 1/0/1900
PROJECT NO: 0

A	B	C	D	E	F	G		H	I
ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMPLETED FROM PREVIOUS APPLICATION (D+E)	WORK COMPLETED THIS PERIOD	MATERIALS PRESENTLY STORED (NOTIN DORE)	TOTAL COMPLETED AND STORED TO DATE (D+E+F)	% (G÷C)	BALANCE (C-G)	RETAINAGE (IF VARIABLE RATE)
1	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
2	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
3	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
4	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
5	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
6	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
7	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
8	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
9	**NAME OF ITEM:**	$ -	$ -	$ -		$ -			$ -
10	**CHANGE ORDERS (IF APPLICABLE):**	$ -	$ -	$ -		$ -			$ -
	PLEASE BREAKDOWN THE TOTAL SCHEDULED VALUE (INCLUDING CHANGE ORDERS)								
	Total Labor:	$ -							
	Total Materials:	$ -							
	Total Tax:	$ -							
	Total Scheduled Value:	$ -							
	GRAND TOTALS	$ -	$ -	$ -	$ -	$ -	0.00%	$ -	$ -

Users may obtain validation of this document by requesting of the license a completed AIA Document D401 - Certification of Document's Authenticity

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G703-1992

8. CHANGEORDER FORM

AIA® Document G701 TM - 2001

ChangeOrder

PROJECT: *(Name and address)*

CHANGE ORDER NUMBER:

DATE:

OWNER ☐
ARCHITECT ☐
CONTRACTOR ☐
FIELD ☐
☐

TO SUBCONTRACTOR:
(Name and address)

CONTRACTOR'S PROJECT NUMBER:

SUBCONTRACT DATE:

SUBCONTRACT FOR:

The Subcontract is changed as follows:
(Include, where applicable, any undisputed amount attributable to previously executed Construction Change Directives.)

The original was $ _____

The net change by previously authorized Change Orders: $ _____

The prior to this Change Order was $ _____

The will be by this Change Order in the amount of $ _____

The new , including this Change 0rd r, will be $ _____

The Subcontract Time will be by ( ) days.

The date of Substantial Completion as of the date of this Change Order, therefore, is

NOTE: This Change Order does not include changes in the Subcontract Sum, Subcontract Time or Guaranteed Maximum Price that have been authm·ized by Construction Change Directive until the cost and time have been agreed upon by both the Subcontractor and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

NOT VALID UNTIL: SIGNED BY THE SUBCONTRACTOR AND CONTRACTOR.

SUBCONTRACTOR *(Firm name)*	**CONTRACTOR** *(Firm name)*
ADDRESS	**ADDRESS**
BY *(Signature)*	**BY** *(Signature)*
(Typed name)	*(Typed name)*
DATE	**DATE**

Sample

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9. CONTRACT DOCUMENT FORMAT

CONTRACT FOR CUBA TOWNSHIP OFFICE RENOVATION PROJECT

This Agreement is made this _____ day of October, 2026 between Cuba Township, Illinois, hereinafter referred to as "Township," and _____, hereinafter referred to as "Contractor." The Township and the Contractor are sometimes hereinafter referred to as "Party" and collectively as "Parties."

W I T N E S S E T H

That the Township and Contractor, for the consideration hereinafter named, agree as follows:

Section I-Contract Documents

The Contract Documents shall consist of this document together with the Invitation to Bid, Instructions to Bidders, Bid Form, General Conditions, Supplementary General Conditions, Specifications, Drawings prepared by Allen + Pepa Architects, Contractor's accepted Bid Proposal, required affidavits and certifications, Performance and Payment Bonds, Notice to Proceed, and Addenda, if any. These documents represent the entire agreement between the parties, and no statement, promise or inducement made by either Party to the other that is not contained therein shall be binding. The terms or conditions of this Contract may not be modified, except in writing signed by all the parties.

Section II- Contract Work

The Contractor shall provide the materials, services, and equipment to fully execute the Work described in the Contract Documents. The Work shall be furnished and completed in accordance with the Contract Documents.

Section III- Date of Commencement and Final Completion

The Work shall commence upon issuance of the Notice to Proceed. The Owner anticipates that Phase 1 will begin on December 1, 2026.

The Work shall be performed in two phases as described in Section 5 of the Supplementary General Conditions. The Contractor shall achieve Final Completion of all Work no later than May 31, 2027.

Time is of the essence for all matters concerning this Contract.

Section IV- Contract Sum

The Township agrees to pay the Contractor for the performance of the Contract Work in the manner set forth in the Contract Documents. The Contract Sum is:_____. Payment(s) shall be made to the Contractor by the Township only after the Contractor has fully performed the Contract Work and fulfilled the terms of the Contract Documents.

Section V- Change Orders

A Change Order is a written instrument signed by the Owner and Contractor stating their agreement upon all of the following:

.1 The change in the Work;
.2 The amount of the adjustment, if any, in the Contract Sum; and
.3 The extent of the adjustment, if any, in the Contract Time.

A Construction Change Directive is a written proposal or request for information prepared by the Owner directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order. If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

.1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
.2 Unit prices stated in the Contract Documents or subsequently agreed upon;
.3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee

If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Owner shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, the Contractor shall keep and present, in such form as the Owner may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs shall be limited to the following:

.1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Owner;
.2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
.3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;

.4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and

.5 Costs of supervision and field office personnel directly attributable to the change.

A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

Section VI - Additional Terms

1. The contractor, subcontractors, and suppliers shall perform all work required for the Project in a good and workmanlike manner.

2. The Township has determined that the Illinois Prevailing Wage Act applies to this Contract. Contractor shall therefore comply with the Illinois Prevailing Wage Act and shall pay, and require every Subcontractor to pay, the prevailing rates of wages as established by the Illinois Department of Labor for each craft or type of work needed to execute the contract in accordance with 820 ILCS 130/.01 et seq. Contractor shall prominently post the current schedule of prevailing wages at the Contract site and shall notify immediately in writing all of its Subcontractors, of all changes in the schedule of prevailing wages. Any increases in costs to Contractor due to changes in the prevailing rate of wage during the terms of any contract shall be at the expense of Contractor and not at the expense of the Cuba Township. Change orders shall, however, be computed using the prevailing wage rates applicable at the time the change order work is scheduled to be performed. Contractor shall be solely responsible to maintain accurate records as required by the Prevailing Wage Act and to obtain and furnish all such certified records to Department of Labor as required by Statute or Regulation, in the manner specified by the Department of Labor (e.g., through the Department's portal) including certified payroll. Contractor shall be solely liable for paying the difference between prevailing wages and any wages actually received by laborers, workmen and/or mechanics engaged in the Work and in every way defend and indemnify Cuba Township against any claims arising under or related to the payment of wages in accordance with the Prevailing Wage Act. The Cuba Township agrees to notify the Contractor or Subcontractor of the pendency of any such claim, demand, lien or suit.

   The Contractor is advised that the Illinois Department of Labor revises the prevailing wage rates and the Contractor/subcontractor has an obligation to check the Department's web site for revisions to prevailing wage rates. For information regarding current prevailing wage rates,

please refer to the Illinois Department of Labor's website: **http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx.**

The Contractor shall also:

(1) Insert into each subcontract and the project specifications for each subcontract, a written stipulation that the subcontractor shall not pay less than the prevailing rate of wages to all laborers, workers, and mechanics performing work under the contract.

(2) Require each subcontractor to insert into each lower-tiered contract and the project specifications for each lower tiered subcontract, a stipulation that the subcontractor shall not pay less than the prevailing rate of wages to all laborers, workers, and mechanics performing work under the contract.

3. Contractor shall comply with all applicable laws, regulations, and rules promulgated by any Federal, State, County, Municipal and or other governmental unit or regulatory body now in effect during the performance of the work, and the orders and decrees of any courts or administrative bodies or tribunals in any manner affecting the performance of this Contract. By way of example, the following are included within the scope of the laws, regulations and rules referred to in this paragraph, but in no way operate as a limitation on the laws, regulations and rules with which Contractor must comply: all forms of Workers Compensation Laws, all terms of the Equal Employment Opportunity Clause of the Illinois Fair Employment Practices Commission, the Illinois Preference Act, Illinois Substance Abuse Prevention on Works Projects Act, the Social Security Act, Statutes relating to contracts let by units of government, all applicable Civil Rights and Anti-Discrimination Laws and Regulations, and traffic and public utility regulations.

4. Contractor shall contact J.U.L.I.E. (1-800-892-0123) and have the worksite checked for buried utility lines prior to work.

5. Any and all documents and improvements subject to this Contract are, at all times, property of the Township.

6. The Contractor shall coordinate its Work, including without limitation, deliveries, storage, installations, and construction with that of all others on the Project through communication with the Owner. The Contractor shall be responsible for the space requirements, locations, and routing of its equipment. In areas and locations where the proper and most effective space requirements, locations and routing cannot be made as indicated, the Contractor shall, prior to installation, meet with all others involved to plan the most effective method of installation.

7. Contractor shall file a written substance abuse prevention program with the Township for the prevention of substance abuse among its employees prior to the commencement of the Contract Work.

Section VII- Insurance

8. Contractor shall procure and maintain for the duration of this Contract, insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of Work hereunder by the Contractor, the Contractor's agents, representatives, employees or subcontractors. The cost of such insurance shall be borne by the Contractor. Contractor shall submit a Certificate of Insurance complying with the terms herein prior to mobilization.

A. Minimum Scope of Insurance.
Coverage shall be at least as broad as:

i. Broad Form Comprehensive General Liability, or the most recent revision.

ii. Worker's Compensation insurance as required by statute and Employers Liability insurance.

iii. Professional Liability Insurance.

B. Minimum Limits of Insurance.
Provider shall maintain limits no less than:

i. General Liability: $1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this location or the general aggregate limit shall be twice the required occurrence limit.

ii. Workers' Compensation and Employers Liability: Workers' Compensation limits as required by statute and Employers Liability limits of $1,000,000 per accident and $1,000,000 per disease.

iii. Professional Liability Insurance: Contractor shall obtain and maintain, at its own expense, Contractor's professional liability insurance in the amount of no less than Five Hundred Thousand Dollars ($500,000.00) (including a broad form contractual liability coverage with all coverage retroactive to the earlier date of this Agreement of the commencement of Contractor's services in relation to the project) for each claim with respect to negligent acts, errors and omissions in connection with any professional design services to be provided under the contract. Said coverage shall be maintained for a period of two (2) years after the date of final payment.

9. Deductibles and Self-Insured Retentions.
   Any deductible or self-insured retentions must be declared to, and approved by, the Township. At the option of the Township, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Township, its officers, elected and appointed officials, employees, volunteers, and agents; or the contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

10. Other Insurance Provisions.
    The policies are to contain, or be endorsed to contain, the following provisions in the General Liability Coverage:
    a. The Township, its officers, elected and appointed officials, employees, volunteers and agents are to be covered as additional insureds as respects: liability arising out of premises owned, occupied, or used by the Contractor and/or arising out of activities performed on or on behalf of the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the Township, its officers, elected and appointed officials, employees, volunteers, or agents.

    b. The Contractor's insurance coverage shall be primary insurance as respects the Township, its officers, elected and appointed officials, employees, volunteers, and agents. Any insurance or self-insurance maintained by the Township, its officer, elected and appointed officials, employees, volunteers, or agents shall be excess of the Contractor's insurance and shall not contribute with it.

    c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Township, its officers, elected and appointed officials, employees, volunteers, or agents.

    d. Coverage shall state that the Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

    e. The insurer shall agree to waive all rights of subrogation against the Township, its officers, elected and appointed officials, employees, volunteers, and agents for losses arising from the use of the premises.

    f. Each insurance policy required by this clause shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days

prior written notice by certified mail, return receipt required, has been given to the Township.

g. Insurance is to be placed with insurers licensed to do business in Illinois.

h. When requested, Contractor shall furnish the Township with certificates of insurance and with original endorsements if applicable effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The Township reserves the right to require complete certified copies of all required policies, at any time.

11. Indemnification Clause.

Contractor shall, to the fullest extent permitted by law, waive any and all rights of contribution against the Township and shall indemnify the Township and its officers, elected and appointed officials, employees, volunteers and agents from and against all claims, damages, losses and expenses, including, but not limited to, legal fees (attorney's and paralegal's fees, expert fees and court costs) arising out of or resulting from the performance of the Contractor's work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or injury to or destruction of property, other than the work itself, including the loss of use resulting therefrom, or is attributable to misuse or improper use of trademark or copyright protected material or otherwise protected intellectual property, to the extent it is caused by any wrongful or negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable. Such obligation shall not be construed to negate, abridge or otherwise reduce any other right to indemnity that the Township would otherwise have. The Contractor shall similarly, protect, and indemnify the Township, its officers, elected and appointed officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses, including, but not limited to, legal fees, incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of any provisions of the Contract. The indemnification obligations under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Workers' Compensation or Disability Benefit Acts or Employee Benefit Acts. The rights and obligations of this Subsection 10 shall survive the voluntary or involuntary termination of this Contract.

Section VIII- Assignment

This Contract is non assignable in whole or in part by either Party, and an assignment shall be void without the prior written consent of Township, whose consent shall not be unreasonably withheld.

Section IX- Contractor Status

Contractor acknowledges that it is an independent contractor; that it alone retains control of the manner of conducting its activities in furtherance of this Contract; that it as well as any persons or agents as it may employ are not employees of the Township; and that neither this Contract, nor the administration thereof, shall operate to render or deem either party hereto the agent or employee of the other.

Section X- Waiver of Terms

Waiver of any of the terms of this Contract shall not be valid unless it is in writing and signed by all Parties. The failure of claimant to enforce the provisions of this Contract or require performance by opponent of any of the provisions shall not be construed as a waiver of such provisions or affect the right of claimant to thereafter enforce the provisions of this Contract. Waiver of any breach of this Contract shall not be held to be a waiver of any other or subsequent breach of the Contract.

Section XI- Compliance with Freedom of Information Act.

Contractor agrees to maintain, without charge to the Township, all records and documents for projects of the Township in compliance with the Freedom of Information Act ("FOIA"), 5 ILCS 140/1 et seq. In addition, Contractor shall timely produce records which are responsive to a request received by the Township under FOIA so that the Township may provide records to those requesting them within the required statutory time frames. If additional time is necessary to compile records in response to a request, then Contractor must timely notify the Township and if possible, the Township will request an extension so as to comply with FOIA. In the event that the Township is found to have not complied with FOIA due to Contractor's failure to produce documents or otherwise timely or appropriately respond to a request under FOIA, then Contractor shall indemnify and hold the Township harmless, and pay all amounts determined to be due including but not limited to fines, costs, attorneys' fees and penalties.

Section XII – Human Rights Act

Pursuant to Section 2-105 of the Illinois Human Rights Act (775 ILCS 5/1-101 et seq.) ("Rights Act"), all Contractors/Vendors and Subcontractors must have in force and effect a written sexual harassment policy which includes at a minimum the following provisions:

1. a statement of illegality of sexual harassment;
2. the definition of sexual harassment under Illinois law;

3. a description of sexual harassment utilizing examples;
1. an internal complaint process, including penalties;
2. the legal resource, investigative and complaint process available through the Illinois Department of Human Rights ("Department") and the Illinois Human Rights Commission ("Commission");
3. directions on how to contact the Department and the Commission; and
4. protection against retaliation as provided by Section 6-101 of the Rights Act.

The Contractor understands, represents and warrants to the Township that Contractor and its subcontractors (for which the Contractor takes responsibility to ensure that they comply with the Rights Act) are in compliance with Section 2-105 of the Rights Act and will remain in compliance with Section 2-105 of the Rights Act for the entirety of the work. A violation of Section 2-105 is cause for the immediate cancellation of this Contract. However, any forbearance or delay by the Township in canceling this Contract shall not be construed as, and does not constitute, either the Township's consent to such violation or a waiver of any rights the Township may have, including without limitation, cancellation of this Contract.

Section XIII - Other Applicable Laws

This contract shall be governed by the laws of the State of Illinois, which are incorporated herein. In any suit or action arising under this Contract, the prevailing party shall be entitled to an award of reasonable attorney's fees and costs of litigation. No suit or action shall be maintained by the Contractor, its successors or assigns, against the Township on any claim based upon or arising out of this Contract or out of anything done in connection with this Contract unless such action shall be commenced within one year of the voluntary or involuntary termination of this Contract.

Section XIV – Further Assurances

Contractor agrees to sign, execute and deliver, or cause to be signed, executed and delivered, and to do or make, or cause to be done or made, upon written request of the Township, all agreements, instruments, papers, acts or things, supplemental, confirmatory or otherwise, as may be reasonably required by the Township for the purpose of or in connection with goods and services described in the Contract.

IT IS MUTUALLY UNDERSTOOD AND AGREED that the Contractor shall have the full control of the ways and means of performing the work referred to above and that the Contractor or its employees, representatives or subcontractors are in no sense employees of the District, it being specifically agreed that the Contractor bears the relationship of an independent contractor to the District.

IN WITNESS WHEREOF the parties hereto have set their respective hands and seals the day and year first above written.

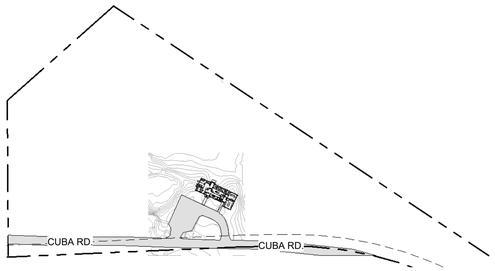
CUBA TOWNSHIP

By: _____ By:_____

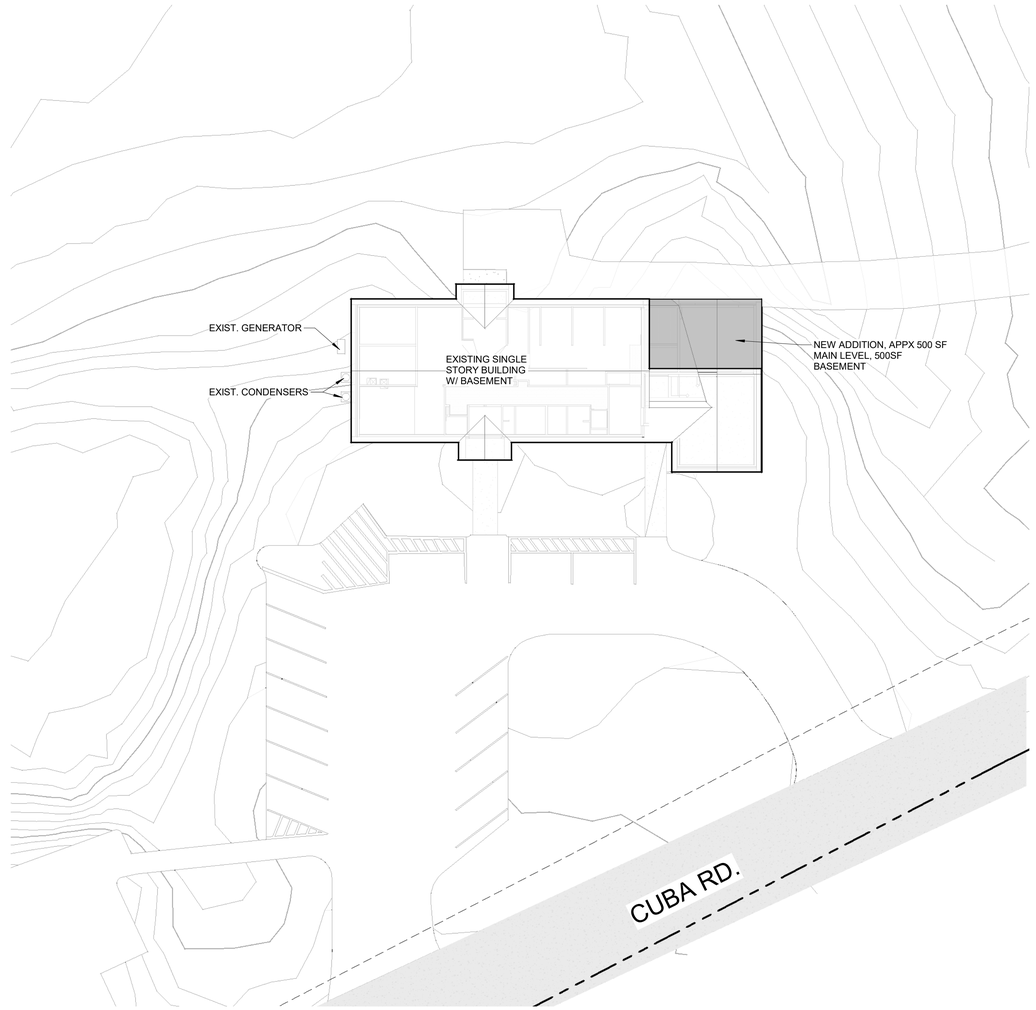
Supervisor, Cuba Township

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010



2 REF. SITE PLAN
1" = 200'-0"



1 SITE PLAN
1" = 20'-0"

LIST OF DRAWINGS

	NAME	DESCRIPTION	CURRENT REVISION NO.	CURRENT REVISION DATE
GENERAL				
1	G1-1	GENERAL BUILDING INFORMATION	4	09.09.2026
2	G1-2	CODE STUDY	6	10.15.26
3	G1-3	ACCESSIBLITY STANDARDS		
4	G1-4	PHOTOS		
5	G1-5	SPECIFICATIONS		
6	G1-6	SPECIFICATIONS		
7	G1-7	SITE PLAN	1	05.18.2026
8	G1-8	SILTWORM DETAILS	1	05.18.2026
ARCHITECTURAL				
9	A0-1	DEMOLITION PLAN	6	10.15.26
10	A0-2	DEMO REFLECTED CEILING PLAN	6	10.15.26
11	A1-1	FIRST FLOOR PLAN	6	10.15.26
12	A1-2	BASEMENT PLAN	6	10.15.26
13	A1-3	FOUNDATION PLANS AND DETAILS	4	09.09.2026
14	A1-4	REFLECTED CEILING PLANS	3	08.26.2026
15	A1-5	ROOF PLAN	6	10.15.26
16	A2-1	EXTERIOR ELEVATIONS		
17	A2-2	EXTERIOR ELEVATIONS & SECTIONS	6	10.15.26
18	A3-1	BUILDING SECTIONS	3	08.26.2026
19	A3-2	INTERIOR ELEVATIONS	6	10.15.26
20	A3-3	3D PERSPECTIVES		
21	A3-4	WALL SECTIONS	5	10.06.2026
22	A3-5	WALL SECTIONS & DETAILS	5	10.06.2026
23	A4-1	WALL TYPES & DETAILS	5	10.06.2026
24	A4-2	SCHEDULES	3	08.26.2026
INTERIOR DESIGN				
25	ID-104.0	FIRST FLOOR FINISH PLAN		
MECHANICAL				
26	M0.1	MECHANICAL LEGENDS, ABBREVIATIONS AND NOTES		
27	M0.2	MECHANICAL SPECIFICATIONS		
28	M1.0	MECHANICAL BASEMENT FLOOR PLAN		
29	M1.1	MECHANICAL FIRST FLOOR PLAN		
30	M2.0	MECHANICAL DETAILS		
31	M3.0	MECHANICAL SCHEDULES		
PLUMBING				
32	P0.1	PLUMBING ABBREVIATIONS AND NOTES		
33	P0.2	PLUMBING SPECIFICATIONS		
34	P1.0	PLUMBING BASEMENT FLOOR PLAN		
35	P1.1	PLUMBING FIRST FLOOR PLAN		
36	P2.0	PLUMBING RISER DIAGRAM		
37	P3.0	GAS PIPING BASEMENT FLOOR PLAN		
38	P4.0	GAS RISER DIAGRAM		
ELECTRICAL				
39	E0.0	ELECTRICAL COVER SHEET		
40	E1.0	BASEMENT LIGHTING PLAN		
41	E1.1	FIRST FLOOR LIGHTING PLAN		
42	E2.0	BASEMENT POWER PLAN		
43	E2.1	FIRST FLOOR POWER PLAN		
44	E3.0	ELECTRICAL SCHEDULES		

ALLEN PEPA ARCHITECTS
INFO@ALLENPEPA.COM
TEL: (630) 578-1105
215 FULTON ST., GENEVA, IL 60134

ENGINEERS

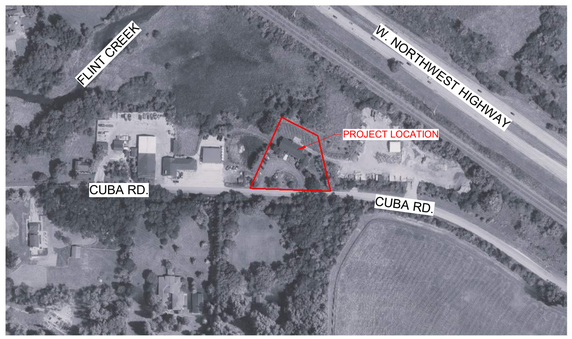
-

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info

SITE LOCATION



LIST OF ABBREVIATIONS

@	AT (THE RATE OF)				
&	AND	FD	FLOOR DRAIN	PLAS LAM	PLASTIC LAMINATE
#	NUMBER OR POUND	FL	FLOOR	PSP	POUNDS PER SQUARE FOOT
ACT	ACOUSTIC CEILING TILE	FT	FOOT	PT	PAINT
AFF	ABOVE FINISHED FLOOR	GL	GLASS	PTD	PAINTED
ALUM	ALUMINUM	GYP BD	GYPSUM WALLBOARD	REQ'D	REQUIRED
BLDG	BUILDING	HC	HOLLOW CORE	SC	SOLID CORE
B/O	BOTTOM OF	HCA	HANDICAP ACCESSIBLE	ST/ST	STAINLESS STEEL
CL	CENTER LINE	HT	HEIGHT	SECT	SECTION
CLG	CEILING	HM	HOLLOW METAL	SF	SQUARE FOOT
COL	COLUMN	INSUL	INSULATION	SY	SQUARE YARD
CONC	CONCRETE	JB	JUNCTION BOX	SHT	SHEET
CONST	CONSTRUCTION	LA	LANDSCAPE ARCHITECT	STD	STANDARD
CONT	CONTINUOUS	LAM	LAMINATE OR LAMINATED	STL	STEEL
CONTR	CONTRACTOR	LAV	LAVATORY	T&B	TOP AND BOTTOM
CPT	CARPET	MAX	MAXIMUM	T&G	TONGUE AND GROOVE
DET	DETAIL	MECH	MECHANICAL	THK	THICK, THICKNESS
DIA	DIAMETER	MO	MASONRY OPENING	T/O	TOP OF
DIAG	DIAGONAL	MTL	METAL	TYP	TYPICAL
DIM	DIMENSION	MFG	MANUFACTURER	UNO	UNLESS NOTED OTHERWISE
DWGS	DRAWINGS	MIN	MINIMUM	VCT	VINYL COMPOSITION TILE
ELECT	ELECTRICAL	MISC	MISCELLANEOUS	VIF	VERIFY IN FIELD
EL	ELEVATION	NIC	NOT IN CONTRACT	W/	WITH
EQ	EQUAL	NO	NUMBER	W/O	WITHOUT
EW	EACH WAY	NTS	NOT TO SCALE	W/C	WATERCLOSET
EXT	EXTERIOR	OC	ON CENTER	YD	YARD
EXIST	EXISTING	OD	OUTSIDE DIAMETER		
EXP JT	EXPANSION JOINT				

SYMBOLS LEGEND

ROOM IDENTIFICATION TAG
ROOM — ROOM NAME
000 — ROOM NUMBER

DOOR IDENTIFICATION TAG
101-1 — DOOR LOCATION / DOOR NUMBER

ELEVATION TAG
X — DRAWING NUMBER
A.X SIM — SHEET NUMBER

SECTION TAG
X — TYP — TAG NOTE
A.X — DRAWING NUMBER / SHEET NUMBER
NOTE: ARROW FILL REMOVED WHEN USING THE BUILDING SECTION TAG

DETAIL TAG
1 — DRAWING NUMBER
SIM — TAG NOTE
A101 — SHEET NUMBER

N — NORTH ARROW
1 — KEYNOTE
ELEVATION TAG
XX — WALL TYPE TAG
1hr — WALL FIRE RATING TAG
REVISION CLOUD
HANDICAP ACCESSIBLE
FE — FIRE EXTINGUISHER
EXISTING EXIT SIGN
NEW EXIT SIGN
EXISTING EMERGENCY LIGHT
NEW EMERGENCY LIGHT

ARCHITECT'S SEAL & STATEMENT

THE ARCHITECT IS NOT RESPONSIBLE FOR THE WORKMANSHIP OF THE CONTRACTOR. ALL LIABILITY OF THE ARCHITECT IS WAIVED WHEN THE CONTRACTOR OR OWNER DEVIATES FROM THESE DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT

DO NOT SCALE THE PLANS. ALL DIMENSIONS SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO ASSEMBLY.

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ERIC PEPA
001-015516
REGISTERED LICENSED ARCHITECT OF ILLINOIS
EXP. 11/30/26

DESIGN FIRM #: IL 184-002172

DATE OF SIGNATURE: 2/25/2026

FOR BID DRAWINGS 10-16-26

Schematic Design:
Design Development
Bidding:
Permit:
ISSUE DATE: 00/00/00

POST BID/PERMIT REVISIONS:

No.	Date	Description
1	05.18.2026	Revision 1
2	06.30.2026	Revision 2
3	08.26.2026	Revision 3
4	09.09.2026	Revision 4

PROJECT NO. 25-023
DRAWN BY LE
CHECKED BY EP
SHEET 1 OF 44

GENERAL BUILDING INFORMATION

G1-1

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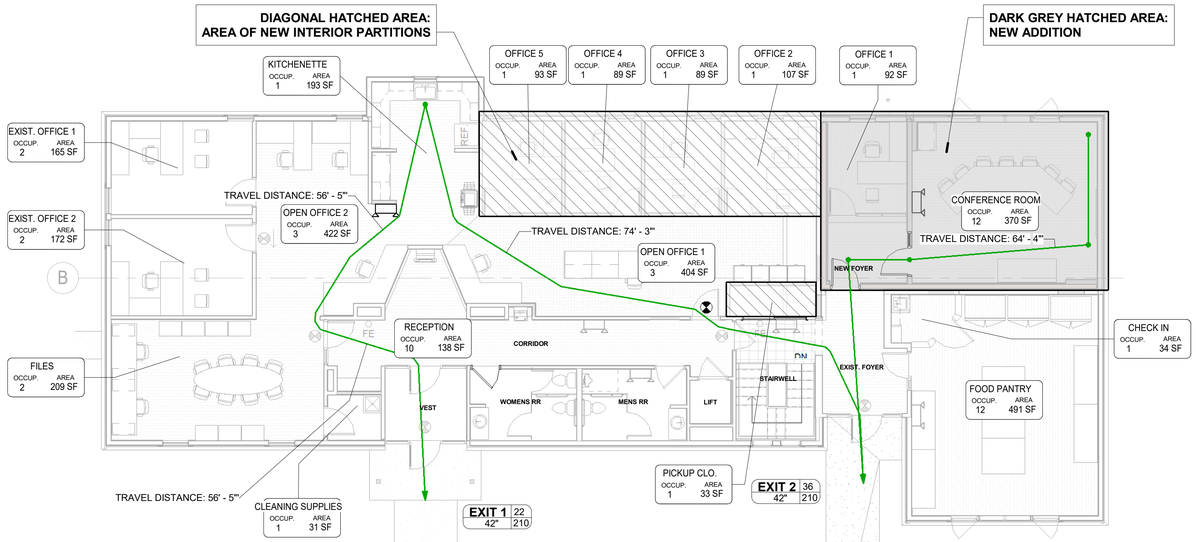
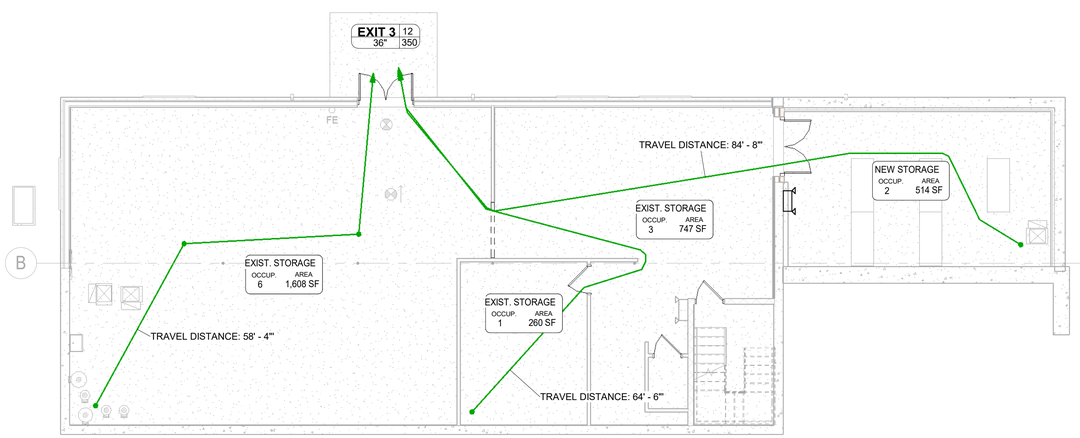


1 FIRST FLOOR - EGRESS PLAN
1/8" = 1'-0"

AREA MATRIX	
Name	Area (Appx.)
BASEMENT	3,039 SF
FIRST FLOOR	4,353 SF
NEW BASEMENT	613 SF
	8,005 SF

NOTES FOR FIRE SPRINKLER SYSTEM:

1. AREAS OF SPRINKLER COVERAGE WILL INCLUDE CONFERENCE ROOM, OFFICE 1, FOYER, AND NEW STORAGE ROOM IN BASEMENT.
2. SYSTEM WILL BE DESIGNED AND INSTALLED PER NFPA-13D.
3. SPRINKLER HEADS TO BE CONCEALED PENDENTS AND SEMI-RECESSED SIDEWALLS.
4. (1) WATER TANK (APPROX. 300 GALLONS) – INSTALLED IN NEW STORAGE ROOM.
   A. NOVA WILL DROP TANK DOWN INTO STORAGE ROOM PRIOR TO 1ST FLOOR DECK ABOVE BEING INSTALLED.
5. (1) 13D FIRE PUMP. (POWER/ALARM WIRING BY OTHERS).
6. (1) 1" DUAL CHECK VALVE INSTALLED ON TANK. THE PLUMBER MUST CONNECT WATER RE-SUPPLY LINE TO THIS VALVE.
7. ONE FLOW SWITCH WILL BE INSTALLED ON THE SYSTEM (WIRING BY OTHERS).
8. ENGINEERED SHOP DRAWINGS, HYDRAULIC CALCULATIONS, AND SUBMITTAL TO CITY FOR PERMIT REVIEW.
9. ENTIRE SPRINKLER SYSTEM TO BE WET PIPE.
10. ALL SIGNS REQUIRED PER CODE ARE INCLUDED.
11. ALL SPRINKLER PIPING SHALL BE INSTALLED PER MANUFACTURER'S LISTING AND APPROVALS.
12. NOVA FIRE PROTECTION WILL SUPPLY THE CITY-REQUIRED ANNUNCIATION DEVICES TO BE INSTALLED/WIRED BY OTHERS. IN MOST CITIES THIS INCLUDES
    ONE ALARM BELL PER FURNACE AND ONE EXTERIOR HORN/STROBE DEVICE.
13. HYDROSTATIC TESTING AND/OR INSPECTION WITH CITY OFFICIAL UPON COMPLETION.



2 BASEMENT - EGRESS PLAN
1/8" = 1'-0"

ENERGY CODE REQUIREMENTS

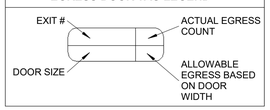
IECC 2024 TABLE C301.1, C402.1.3 AND C402.4, R402.1

CLIMATE ZONE (C301.1): 5A		COMMERCIAL	RESIDENTIAL- 4+ ST., R2, R3, R4, NOT 1&2 FAMILY
ROOFS (C402.1.3/ R402.1.3)	INSULATION ENTIRELY ABOVE ROOF	R-30 ci (continuous insulation)	R-30ci (IL AMMEND. 2024)
	METAL BUILDINGS (b)	R-19 + R-11 LS (Liner System)	N/A
	ATTIC AND OTHER	R-49	R-49
WALLS ABOVE GRADE (C402.1.3)	MASS (g)	R-11.4ci	R-13/17
	METAL BUILDING	R-13+R-14ci	N/A
	METAL FRAMED	R-0+R-15.2ci or R-13 +R-10ci or R20+R-9ci	**Steel-Frame, 16" O.C.:** (R-20+5): R-13+12.7 or R-15+12.3 or R-19+11.6 or R-21+11.3 or R-25+ 10.9 (R-13+10): R-0+20 or R-13+15 or R-15+14 or R-19+13 or R-21+13 **Steel-Frame, 24" O.C.:** (R-20+5): R-13+11.5 or R-15 +10.9 or R-19+10.1 / R-21+ 9.7 or R-25+9.1 (R-13+10): R-0+20 or R-13+ 13 or R-15+12 or R-19+11 or R-21+11
	WOOD FRAMED AND OTHER	R-0+R-16CI or R-13+R-7.5ci or R20+R3.8ci or R-27	30 or 20+5ci or 13+10ci or 0+20ci
WALLS BELOW GRADE (C402.1.3/ R402.1.3)	BELOW-GRADE WALL (d)	R-7.5ci	15ci or 19 or 13+5ci
FLOORS (C402.1.3/ R402.1.3)	MASS (e)	R-14.6ci	30 or 19+7.5ci or 20ci
	JOIST/FRAMING	R-30	R-30
SLAB-ON-GRADE FLOORS (C402.1.3 / R402.1.3)	UNHEATED SLABS	R-15 FOR 24" BELOW	R-10ci FOR 36" DEPTH
	HEATED SLABS (h)	R-15 FOR 36" BELOW + R-5 FULL SLAB	R-10ci, 36" and R-5 full slab
OPAQUE DOORS (C402.1.4 / R402.1.2)	NON-SWINGING	U-0.31	U-0.31
	SWINGING DOOR (C402.1.4)	U-0.37	U-0.37
	GARAGE DOOR (<14% GLAZING)	U-0.31	U-0.31
FENESTRATION (C402.4 / R402.1.2)	FIXED FENESTRATION:	U-0.34, SHGC- 0.33	U-0.30, SHGC: N/A
	OPERABLE FENESTRATION:	U-0.45, SHGC- 0.38	U-0.30, SHGC: N/A
	ENTRANCE DOORS:	U-0.63, SHGC- 0.40	U-0.30, SHGC: N/A
	SKYLIGHTS:	U-0.50, SHGC- 0.40	U-0.50, SHGC: N/A

(b) Where using R-value compliance method, a thermal spacer block shall be provided, otherwise use the U-factor compliance method in Table C402.1.4
(d) Where heated slabs are below grade, below-grade walls shall comply with exterior insulation requirements for heated slabs.
(e) "Mass floors" shall be in accordance with Section C402.2.3
(f) "Mass walls" shall be in accordance with Section C402.2.2.
(g) The first value is for perimeter insulation and the second value is for full, under-slab insulation. Perimeter insulation is not required to extend below the bottom of the slab.

NOTES:
1. PER 2024 IECC C402.2.4: "WHERE THE SLAB-ON-GRADE IS GREATER THAN 24 INCHES (610MM) BELOW THE FINISHED EXTERIOR GRADE, PERIMETER INSULATION IS NOT REQUIRED."

EGRESS DOOR TAG LEGEND



01 - Code Study - Occupancy Calculation			
Name	Occupancy 1/x	Area	Total Occupants
NEW STORAGE	300	514 SF	2
CONFERENCE ROOM	15	370 SF	25
OFFICE 1	150	92 SF	1
FOOD PANTRY	150	491 SF	4
OFFICE 2	150	107 SF	1
OFFICE 3	150	89 SF	1
OFFICE 4	150	89 SF	1
OFFICE 5	150	93 SF	1
PICKUP CLO.	0	33 SF	
CHECK IN	0	34 SF	
FILES	150	209 SF	2
MENS RR	0	93 SF	
WOMENS RR	0	95 SF	
VEST	150	77 SF	1
NEW FOYER	150	69 SF	1
EXIST. FOYER	150	115 SF	1
STAIRWELL	0	120 SF	
CORRIDOR	0	163 SF	
KITCHENETTE	150	193 SF	2
OPEN OFFICE 2	150	422 SF	3
OPEN OFFICE 1	150	404 SF	3
CLEANING SUPPLIES	0	31 SF	
EXIST. OFFICE 2	150	172 SF	2
EXIST. OFFICE 1	150	165 SF	2
RECEPTION	15	138 SF	10
LIFT	0	22 SF	
EXIST. STORAGE	300	1,608 SF	6
EXIST. STORAGE	300	747 SF	3
EXIST. STORAGE	300	260 SF	1

BUILDING INFORMATION

SUMMARY OF WORK:
1. BUILDING ADDITION TO MAIN LEVEL APPX 900SF WITH BASEMENT
2. NEW INTERIOR OFFICES RENOVATION
3. (1) NEW EXTERIOR WINDOW IN EXISTING EXTERIOR WALL
4. NEW INTERIOR LIGHTING
5. NEW FINISHES
6. NEW FIRE SPRINKLER SYSTEM WITH TANK & PUMP ASSEMBLY PER NFPA 13D IN NEW ADDITION ONLY.

APPLICABLE CODES

**ALL CODES MAY BE SUBJUECT TO MUNICIPAL AMENDMENTS

2024 INTERNATIONAL BUILDING CODE
2024 INTERNATIONAL FIRE CODE
2024 INTERNATIONAL FUEL AND GAS CODE
2024 INTERNATIONAL MECHANICAL CODE
2023 NATIONAL ELECTRIC CODE, 2023 NFPA 70
2014 ILLINOIS STATE PLUMBING CODE
2024 ILLINOIS ENERGY CONSERVATION CODE
2018 ILLINOIS ACCESSIBILITY CODE, 2003 ICC/ANSI ACCESSIBILITY CODE

OCCUPANCY CLASSIFICATION AND USE TYPES (CH. 3)

PROPOSED OCCUPANCY: USE GROUP: B - BUSINESS
ZONING CLASSIFICATION: UNINCORPERATED

TYPE OF CONSTRUCTION (CH 6): 5B
FIRE PROTECTION: EXIST. BUILDING UNSPRINKLERED
PER TIM BUHLER @ BARRINGTON COUNTRYSIDE FPD, ONLY NEW ADDITION AREA WILL REQUIRE FIRE PROTECTION BASED ON NFPA 13D SYSTEM.

S.F. ANALYSIS: (APPROXIMATIONS +/ 20 s.f.)
1. FIRST FLOOR: 3,860 SF + 495 SF (ADDITION) = 4,355 SF
2. BASEMENT: 3,170 SF + 520 SF (ADDITION) = 3,690 SF
3. TOTAL AREA: 8,045 SF

ALLOWABLE AREA:
ALLOWABLE HEIGHT: 2 STORIES; 35' MAX HEIGHT

MEANS OF EGRESS (CH. 10)

DEAD END LIMIT (1020.5):	20 FEET / 50 FT. IN M OCCUPANCY
NUMBER OF EXITS REQUIRED (1006.2.1):	2 PER FLOOR
CORRIDOR WIDTH (1020.3):	44" MINIMUM / 36" MIN. IF SERVING <50
CLEAR EXIT WIDTH:	32" (36" NOMINAL)
STAIR WIDTH:	44" MINIMUM / 36" MIN. IF SERVING <50
LANDING WIDTH:	48" MINIMUM OR WIDTH OF STAIRCASE
STAIR HANDRAIL HEIGHT:	34" - 38"
STAIR GUARDRAIL HEIGHT:	42"
PANIC HARDWARE:	50 OR MORE
DOOR SERVING OCCUPANT LOADS:	2 FOR OCCUPANCY W/ 50 OR MORE
MINIMUM WIDTH AT DOORS:	MINIMUM 32" CLEAR OPENING

1. TYPICAL EGRESS WIDTHS, SPRINKLED BUILDING (1005.3.1):
   STAIRWAYS: .3" PER OCCUPANT
   OTHER AREAS: .2" PER OCCUPANT
2. TRAVEL DISTANCE (1017.2):
   B OCCUPANCY- 200' W/OUT SPRINKLER

FIRE RESISTANCE RATING REQUIREMENTS (TABLE 601)

STRUCTURAL FRAME:	0-HRS
ROOF:	0-HR SUPPORTING ROOF ONLY BEARING WALLS
BEARING WALLS EXTERIOR INTERIOR	0-HRS - SEE TABLE 601 and as per 704.5: within 5'
NON-BEARING WALLS:	0 HRS
EXTERIOR:	0 HRS
INTERIOR	0 HRS
ROOF CONSTRUCTION:	0 HRS

FIRE RESISTANCE OF THE EXTERIOR WALL AND OPENINGS PER TABLE 705.5 AND 709.5

0 HR	IF STRUCTURE IS OVER 30 FT AWAY FROM THE FACE OF THE BUILDING. (PERTAINS TO DOOR 104 AND 103)
1 HR	IF DISTANCE FROM FAÇADE TO ADJACENT PROPERTY LINE IS BETWEEN 10' AND 30'
45% OF WALL CAN BE AN OPENING	IF THE BUILDING IS GREATER THAN 20' - 25' AWAY

FLAME SPREAD PER CHAPTER 8 (TABLE 803.9):
ALL NEW INTERIOR FINISHES SHALL COMPLY WITH CHAPTER 8 IBC:

	EXIT ENCLS.	CORRIDORS	ROOMS & ENC. SPACES
GROUP B:	B	C	C

ASTM E84 / FLAME SPREAD (FS) AND SMOKE DEVELOPMENT (SD) INDEX:

CLASS	FLAME SPREAD	SMOKE DEVELOPED
A	FRS: 0-25	0-450
B	FOS: 26-75	0-450
C	FOS: 76-200	0-450

NOTE: BARRINGTON COUNTRYSIDE FIRE PROTECTION DISTRICT IS RESPONSIBLE FOR FIRE PROTECTION

ADA REQUIREMENTS

SEE SHEET G1-2 AREA OF REFUGE
-LOCATIONS AT STAIRS AS SHOWN
-COMMUNICATION DEVICES NOT REQUIRED IF SPRINKLED BUILDING

DESIGN LOADS

DESIGN LOADS: SEE STRUCTURAL

ALLEN PEPA ARCHITECTS
INFO@ALLENPEPA.COM
TEL: (630) 578-1105
215 FULTON ST., GENEVA, IL 60134

ENGINEERS
-

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	00/00/00

POST BID/PERMIT REVISIONS:

No.	Date	Description
1	05.18.2026	Revision 1
2	06.30.2026	Revision 2
6	10.15.26	Revision 6

PROJECT NO.	25-023
DRAWN BY	-
CHECKED BY	-
SHEET	2 OF 44

CODE STUDY

G1-2

FOR BID DRAWINGS 10-16-26

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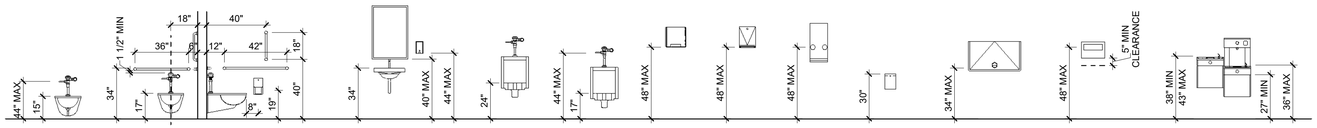
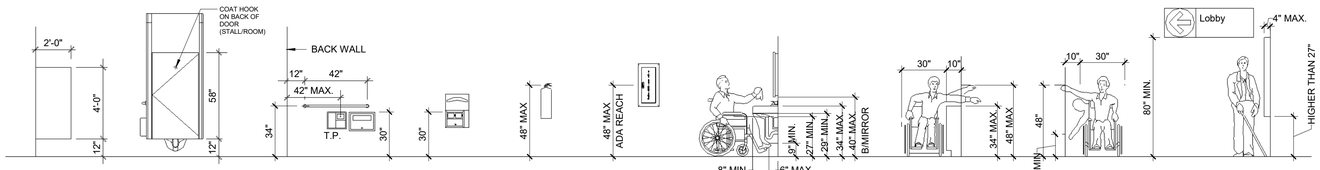
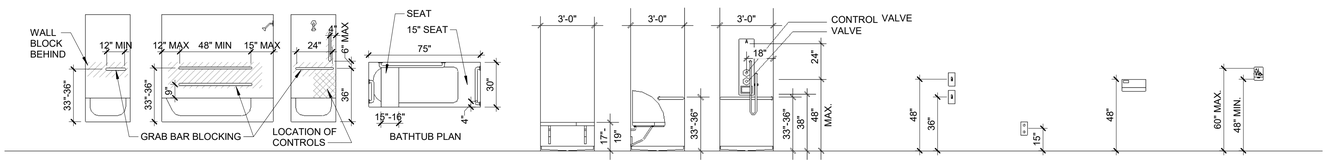


TOILET | GRAB BAR AND TOILET | VERTICAL GRAB BAR & TOILET TISSUE PAPER DISPENSER (TP) | LAVATORY, MIRROR & SOAP DISPENSER (SD) | URINAL | URINAL | HAND DRYER (HD) | PAPER TOWEL DISPENSER (PT) | SANITARY NAPKIN DISPENSER (SND) | SANITARY NAPKIN DISPOSAL (ND) | BABY CHANGING STATION (BCS) | SEAT COVER DISPENSER (SC) | ELECTRIC WATER COOLER AND/ OR BOTTLE FILLER (EWC)

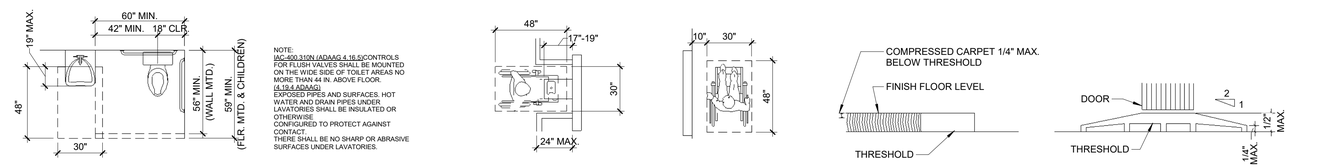
34" IS TO TOP LIP OF CHANGING TABLE PLATFORM WHEN IN OPEN POSITION



WALL MTD. URINAL SCREEN | METAL CEILING HUNG BATHROOM PARTITION W/ ROBE HOOK | SIDE WALL GRAB BAR, TOILET PAPER DISPENSER, SANITARY NAPKIN DISPOSAL | TOILET TISSUE & SEAT COVER | FIRE EXTINGUISHER(FE) | FIRE EXTINGUISHER CABINET (FEC) | LAVATORY CLEARANCES | SIDE REACH HIGH AND LOW | WALKING PARALLEL TO A WALL



BATHTUP SETION /ELEBVATION FOR GRAB BARS | ACCESSIBLE SHOWER W/ FLEXIBLE HOSE SHOWER HEAD | SWITCH | RECEPTACLE OUTLET | THERMOSTAT | WALL SIGNAGE

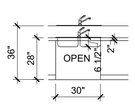


NOTE:
IAC-400.310N (ADAAG 4.16.5)CONTROLS FOR FLUSH VALVES SHALL BE MOUNTED ON THE WIDE SIDE OF TOILET AREAS NO MORE THAN 44 IN. ABOVE FLOOR.
(4.19.4 ADAAG)
EXPOSED PIPES AND SURFACES. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE
CONFIGURED TO PROTECT AGAINST CONTACT.
THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.

CLEARANCE OVERLAY PLAN | CLEAR FLOOR SPACE | PARALLEL APPROACH | TRANSITIONS | THRESHOLD

SINK and COUNTER: replaceable as a unit, or adjustable ht. btwn 28" and 36", or fixed ht of 34" or less. See SECT. 400.360(d) 5B

SINK: The depth of a bowl shall be no greater than 6-1/2 in. Only one bowl of double-bowl or triple-bowl sinks needs to meet this requirement. See SECT.400.360(d 5C

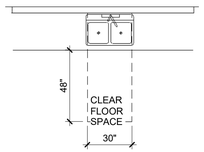


BASE CABINETS: removable under the full 30 in. minimum frontage of the counter. The finished floor shall extend under the counter to the wall. See 400.360(d 5E

PLUMBING: Where sinks are installed to be adjustable in height, rough-in plumbing shall be located to accept connections of supply and drain pipes for sinks mounted at the height of 28 in. See 400.360(d)5B

SINK AND COUNTER ELEVATION

FAUCET: lever operated or push-type operation. See 400.360(d)5D

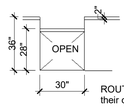


CLEAR FLOOR SPACE: A clear floor space at least 30 in. by 48 in. at all appliances in the kitchen, inc. the range, oven, refrigerator, dishwasher, and trash compactor. See 400.360(d) 2

SINK AND COUNTER PLAN

BASE CABINETS: removable under the full 30 in. minimum frontage of the counter. The finished floor shall extend under the counter to the wall. 400.360(d)4B

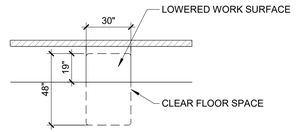
WORK SURFACE: at least (1) 30" section of counter replaceable as a unit, or adjustable ht. btwn 28" and 36", or fixed ht of 34" or less. See 400.360(d)4A



ROUTE:Accessible kitchens and their components shall be on an accessible route.

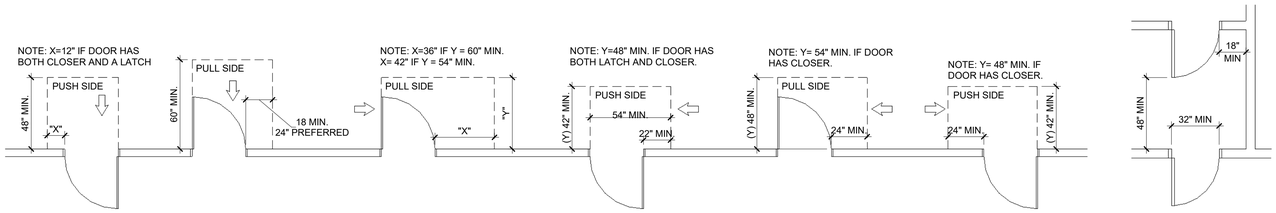
CLEARANCE: Where counters provide the knee clearances specified in Section 400.310(n)(7)(B), clearances between those counters and all opposing base cabinets, countertops, appliances, or walls in kitchens shall be 40 in. min.except in U-shaped kitchens, where such clearances shall be 60 in.

KITCHEN WORK SURFACE



CLEAR FLOOR SPACE: a clear floor space of 30 in. by 48 in. 19" max of the clear floor space may extend underneath the counter.The knee space shall have a min.clear width of 30 in. 400.360(d)4D

KITCHEN WORK SURFACE



FRONT APPROACH | FRONT APPROACH | HINGE SIDE APPROACH | HINGE SIDE APPROACH | LATCH SIDE APPROACH | LATCH SIDE APPROACH | DOORS IN SERIES

ADA GENERAL NOTES

1. ALL HEIGHTS ARE TYPICAL, UNO.
2. SOAP DISPENSERS (SD), TOILET TISSUE PAPER DISPENSERS (TP) AND PAPER TOWEL DISPENSERS (PTD) ARE TO BE SUPPLIED BY OWNER AND INSTALLED BY TRADE CONTRACTOR. TRADE CONTRACTOR TO INSTALL BLOCKING IN WALLS AS REQUIRED.
3. COORDINATE FLUSH VALVE HEIGHT SO AS NOT TO INTERFERE WITH GRAB BAR INSTALLATION.
4. COORDINATE FLUSH VALVE HANDLE POSITION SO AS TO FACE AWAY FROM NEAREST WALL/ PARTITION WALL.
5. IF FIRE EXTINGUISHER (FE) WEIGHS LESS THAN OR EQUAL TO 40 LBS, THEN MOUNTING HEIGHT = 52" AFF.
   IF FIRE EXTINGUISHER (FE) WEIGHS MORE THAN 40 LBS, THEN MOUNTING HEIGHT = 42" AFF.
6. ALL ILLUSTRATIONS HEREIN ARE INCLUDED AS REFERENCE ONLY. ALL DIMENSIONS AND CLEARANCES SHOULD BE VERIFIED WITH ADAAG CURRENT GUIDELINES AND ILLINOIS ACCESSIBILITY CODE.
7. MANUEVERING CLEARANCE @ DOORS PER ILLINOIS ACCESSIBILITY CODE SECTION 400, ILLUSTRATION B, FIG. 25

CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS

1. THE MINIMUM. CLEAR FLOOR OR GROUND SPACE REQUIRED TO ACCOMMODATE A SINGLE. STATIONARY WHEELCHAIR AND OCCUPANT IS 30 INCHES X 48 INCHES. THE MINIMUM CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE POSITIONED FOR FORWARD OR PARALLEL APPROACH TO AN OBJECT. CLEAR FLOOR OR GROUND SPACE FOR WHEELCHAIRS MAY BE PART OF THE KNEE SPACE REQUIRED UNDER SOME OBJECTS.
2. PROVIDE AN ADDITIONAL 12 INCHES WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 15 INCHES DEEP AND DESIGNED FOR SIDE APPROACH.
3. PROVIDE AN ADDITIONAL 6 INCHES WIDTH ON ONE SIDE FOR ALCOVES GREATER THAN 24 INCHES DEEP AND DESIGNED FOR FRONTAL APPROACH.

HAZARDS AND PROTRUDING OBJECTS

1. OBJECTS PROJECTING FROM WALLS WITH THEIR LEADING EDGES BETWEEN 27 INCHES AND 80 INCHES ABOVE THE FINISHED FLOOR SHALL PROTRUDE NO MORE THAN 4 INCHES INTO WALKS, HALLS, CORRIDORS, PASSAGEWAYS, OR AISLES.
2. OBJECTS MOUNTED WITH THEIR LEADING EDGES AT OR BELOW 27 INCHES ABOVE THE FINISHED FLOOR MAY PROTRUDE ANY AMOUNT.
3. FREE-STANDING OBJECTS MOUNTED ON POSTS OR PYLONS MAY OVERHANG 12 INCHES MAXIMUM FROM 27 INCHES TO 80 INCHES ABOVE THE GROUND OR FINISHED FLOOR. 4. PROTRUDING OBJECTS SHALL NOT REDUCE THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE. 5. ANY OBSTRUCTION OVERHANGING A PEDESTRIAN WAY SHALL BE A MINIMUM OF 80 INCHES ABOVE THE WALKING SURFACE AS MEASURED TO THE BOTTOM OF THE OBSTRUCTION.

PARKING

1. SURFACE SLOPES OF PARKING SPACES FOR THE PHYSICALLY DISABLED SHALL NOT EXCEED 1/4 INCH PER FOOT (2% GRADIENT) IN ANY DIRECTION.
2. A DISABLED PARKING SPACE SHALL BE LOCATED SO AS NOT TO REQUIRE ITS USER TO WHEEL OR WALK BEHIND ANY OTHER DISABLED OR NON-DISABLED PARKING SPACE.
3. IN EACH PARKING AREA, A BUMPER OR CURB SHALL BE PROVIDED AND LOCATED TO PREVENT ENCROACHMENT OF CARS OVER THE REQUIRED WIDTH OF WALKWAYS.
4. EACH PARKING SPACE RESERVED FOR PERSONS WITH PHYSICAL DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT, IN WHITE ON DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA AND, WHEN IN THE PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80 INCHES FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISHED GRADE. SIGNS MAY ALSO BE CENTERED ON THE WALL AT THE INTERIOR END OF THE PARKING SPACE AT A MINIMUM HEIGHT OF 36 INCHES FROM THE PARKING SPACE FINISHED GRADE, GROUND, OR SIDEWALK.

WALKS AND SIDEWALKS

1. WALKS AND SIDEWALKS SHALL HAVE A CONTINUOUS COMMON SURFACE NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2 INCHES, AND SHALL BE A MINIMUM OF 48 INCHES IN WIDTH.
2. SURFACE CROSS SLOPES SHALL NOT EXCEED 1/4 INCH PER FOOT.
3. WALKS, SIDEWALKS, AND PEDESTRIAN WAYS SHALL BE FREE OF GRATING WHENEVER POSSIBLE. GRID OPENINGS WITHIN GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS SHALL BE LIMITED TO 1/2 INCH IN THE DIRECTION OF THE TRAFFIC FLOW.
4. WHEN THE SLOPE IN THE DIRECTION OF TRAVEL OF ANY WALK EXCEEDS 1 VERTICAL TO 20 HORIZONTAL, IT SHALL COMPLY WITH THE PROVISIONS OF PEDESTRIANS RAMPS.

ENTRANCES/DOORS

1. ALL PRIMARY ENTRANCES AND EXTERIOR GROUND FLOOR EXIT DOORS TO BUILDINGS AND FACILITIES SHALL BE MADE ACCESSIBLE TO THE PHYSICALLY DISABLED.
2. ALL ACCESSIBLE ENTRANCES SHALL BE IDENTIFIED WITH AT LEAST ONE (1) STANDARD SIGN AND WITH ADDITIONAL DIRECTIONAL SIGNS, AS REQUIRED, VISIBLE FROM APPROACHING PEDESTRIAN WAYS. UBC 1127B.3, 1117B.5 THROUGH 1117B.5.10.
3. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT LESS THAN 36 INCHES IN WIDTH, AND NOT LESS THAN 80 INCHES IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE SO MOUNTED THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32 INCHES.
4. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.
5. LEVER HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 30 INCHES AND 44 INCHES MAXIMUM ABOVE THE FLOOR.
6. THE FLOOR OR LANDING LENGTH ON EACH SIDE OF AN ENTRANCE OR A PASSAGE DOOR SHALL BE LEVEL AND CLEAR AT LEAST 60 INCHES IN THE DIRECTION OF THE DOOR SWING AND AT LEAST 48 INCHES OPPOSITE THE DIRECTION OF DOOR AS MEASURED AT RIGHT ANGLES TO THE FACE OF THE DOOR IN ITS CLOSED POSITION. THE WIDTH OF THE LEVEL AND CLEAR AREA ON THE SIDE WHICH THE DOOR SWINGS SHALL EXTEND A MINIMUM OF 24 INCHES PAST THE STRIKE EDGE OF THE DOOR FOR EXTERIOR DOORS, AND 18 INCHES PAST THE STRIKE EDGE FOR INTERIOR DOORS. REFER TO DETAIL NO. 2 ON THIS DRAWING FOR ADDITIONAL CLEARANCE REQUIREMENTS.
7. THE FLOOR OR LANDING SHALL NOT BE MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGES IN LEVEL BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE LEVELED WITH A SLOPE NO GREATER THAN 1:2.
8. THE BOTTOM 10 INCHES OF ALL DOORS (EXCEPT AUTOMATIC AND SLIDING) SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. WHERE NARROW FRAME DOORS ARE USED, A 1 INCH HIGH SMOOTH PANEL SHALL BE INSTALLED ON THE PUSH SIDE OF THE DOOR. WHICH WILL ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST.
9 THE MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 8-1/2 LBS. FOR EXTERIOR DOORS AND 5 LBS. FOR INTERIOR DOORS. SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY NOT EXCEED 15 LBS.

STAIRWAYS

1. STAIRWAYS SHALL HAVE HANDRAILS ON EACH SIDE AND EVERY STAIRWAY REQUIRED TO BE MORE THAN 88 INCHES IN WIDTH SHALL BE PROVIDED WITH NOT LESS THAN ONE INTERMEDIATE HANDRAIL FOR EACH 88 INCHES OF REQUIRED WIDTH. INTERMEDIATE HANDRAILS SHALL BE SPACED APPROXIMATELY EQUALLY WITHIN THE ENTIRE WIDTH OF THE STAIRWAY.
2. THE UPPER APPROACH AND THE LOWER TREAD OF EACH INTERIOR STAIR SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2 INCHES WIDE AND PLACED PARALLEL TO AND NOT MORE THAN 1 INCH FROM THE NOSE OF THE STEP OR LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP-RESISTANT AS THE TREADS OF THE STAIR.
3. WHERE STAIRWAYS OCCUR OUTSIDE A BUILDING, THE UPPER APPROACH AND ALL TREADS SHALL BE MARKED BY A STRIP OF CLEARLY CONTRASTING COLOR AT LEAST 2 INCHES WIDE AND PLACED PARALLEL TO, AND NOT MORE THAN 1 INCH FROM THE NOSE OF THE STEP OF LANDING TO ALERT THE VISUALLY IMPAIRED. THE STRIP SHALL BE OF A MATERIAL THAT IS AT LEAST AS SLIP-RESISTANT AS THE TREADS OF THE STAIR. A PAINTED STRIPE SHALL BE ACCEPTABLE.
4. ALL STAIR TREAD SURFACES SHALL BE SLIP-RESISTANT.

HANDRAILS

1. HANDRAILS AT STAIRWAYS SHALL BE 34 INCHES TO 38 INCHES ABOVE THE NOSING OF THE TREADS.
2. HANDRAILS AT STAIRWAYS SHALL EXTEND A MINIMUM OF 12 INCHES BEYOND THE TOP NOSING AND 12 INCHES PLUS THE TREAD WIDTH BEYOND THE BOTTOM NOSING.
3. WHERE THE EXTENSION OF THE HANDRAIL IN THE DIRECTION OF THE STAIR RUN WOULD CREATE A HAZARD, THE EXTENSION SHALL BE MADE AT RIGHT ANGLES, ON THE FACE OF A RETURNING WALL. WHERE THE STAIRS ARE CONTINUOUS FROM LANDING TO LANDING, THE INNER RAIL SHALL BE CONTINUOUS AND NEED NOT EXTEND OUT INTO THE LANDING.
4. HANDRAILS ARE REQUIRED ON RAMPS WHEN THE SLOPE EXCEEDS 1:20.
5. HANDRAILS AT RAMPS SHALL RUN ALONG BOTH SIDES OF A RAMP, BE CONTINUOUS THE FULL LENGTH, EXTEND AT LEAST 12 INCHES BEYOND THE TOP AND BOTTOM OF THE RAMP, AND THE ENDS SHALL BE RETURNED.
6. THE HANDRAIL GRIP SURFACE AT RAMPS SHALL BE MOUNTED BETWEEN 34 INCHES AND 38 INCHES ABOVE THE RAMP SURFACE.
7. HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS.
8. HANDRAILS PROJECTED FROM A WALL SHALL HAVE AN ABSOLUTE CLEARANCE 1-1/2 INCHES BETWEEN THE WALL AND THE HANDRAIL.
9. THE HANDGRIP PORTION OF HANDRAILS SHALL BE NOT LESS THAN 1-1/4 INCH NOR MORE THAN 1-1/2 INCH IN CROSS-SECTIONAL DIMENSION OR THE SHAPE SHALL PROVIDE AN EQUIVALENT SMOOTH GRIPPING SURFACE WITH NO SHARP CORNERS.

RAMPS

1. ALL RAMPS USED AS EXITS AND ANY PATH OF TRAVEL HAVING A SLOPE GREATER THAN 1:20 SHALL COMPLY WITH THE REQUIREMENTS OF THIS SECTION. RAMPS SHALL HAVE THE LEAST POSSIBLE SLOPE.
2. PEDESTRIAN RAMPS SERVING PRIMARY ENTRANCES TO A BUILDING SHALL HAVE A MINIMUM WIDTH OF 48 INCHES. RAMPS SERVING AN OCCUPANCY LOAD GREATER THAN 300 SHALL HAVE A MINIMUM WIDTH OF 60 INCHES.
3. ALL RAMPS IN AREAS ACCESSIBLE TO PERSONS WITH DISABILITIES ON A PATH OF TRAVEL OR SERVING EXITS SHALL HAVE A 1:12 MAXIMUM SLOPE WITH CROSS SLOPES NO GREATER THAN 1:50.
4. THE LANDING WIDTH SHALL EXTEND PAST THE STRIKE EDGE OF ANY DOOR OR GATE AS SHOWN ON DETAIL NO. 2 ON THIS DRAWING.
5. DOORS STANDING IN ANY POSITION SHALL NOT REDUCE THE MINIMUM DIMENSION OF THE RAMP TO LESS THAN 42 INCHES OR THE REQUIRED WIDTH BY MORE THAN 3 INCHES.

SANITARY FACILITIES (GENERAL)

1. ALL DOORWAYS LEADING TO SANITARY FACILITIES SHALL HAVE 32 INCH CLEAR, UNOBSTRUCTED OPENINGS.
2. ALL SINKS, FAUCET CONTROLS, AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. LEVER-OPERATED, PUSH-TYPE, AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.
3. LAVATORIES SHALL BE MOUNTED WITH A MINIMUM DISTANCE OF 18 INCHES FROM A WALL OR PARTITION TO THE CENTER LINE OF THE FIXTURE. ACCESSIBLE LAVATORIES SHALL BE MOUNTED WITH THE RIM OR COUNTER SURFACE NO HIGHER THAN 34 INCHES ABOVE THE FINISHED FLOOR.

TOILET ROOM FIXTURES AND ACCESSORIES

1. THE HEIGHT OF ACCESSIBLE WATER CLOSETS SHALL BE A MINIMUM OF 17 INCHES AND A MAXIMUM OF 19 INCHES MEASURED TO THE TOP OF THE TOILET SEAT.
2. PROVIDE 18 INCHES FROM THE CENTERLINE OF THE WATER CLOSET TO THE ADJACENT WALL.
3. TOILET AND URINAL FLUSH CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. CONTROLS FOR THE FLUSH VALVES SHALL BE MOUNTED ON THE OPEN (WIDE) SIDE OF THE TOILET STALL, NO MORE THAN 44 INCHES ABOVE THE FLOOR. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS.
4. WHERE URINALS ARE PROVIDED, AT LEAST ONE SHALL HAVE A CLEAR SPACE 30 INCHES WIDE X 48 INCHES LONG IN FRONT OF THE URINAL. AT LEAST ONE URINAL WITH A RIM PROJECTING A MINIMUM OF 14 INCHES FROM THE WALL AND A MAXIMUM OF 17 INCHES ABOVE THE FLOOR SHALL BE INSTALLED.
5. A CLEAR FLOOR SPACE 30 INCHES WIDE X. 48 INCHES LONG SHALL BE PROVIDED IN FRONT OF A LAVATORY TO ALLOW A FORWARD APPROACH. SUCH CLEAR FLOOR SPACE SHALL ADJOIN OR OVERLAP AN ACCESSIBLE ROUTE AND SHALL EXTEND INTO KNEE AND TOE SPACE UNDERNEATH THE LAVATORY. CLEAR FLOOR AREAS MAY NOT OVERLAP THE DOOR SWING.
6. LAVATORIES SHALL BE MOUNTED WITH A CLEARANCE OF AT LEAST 29 INCHES FROM THE FLOOR TO THE BOTTOM OF THE APRON WITH KNEE CLEARANCE UNDER THE FRONT LIP EXTENDING A MINIMUM OF 30 INCHES WIDE AND 8 INCHES MINIMUM DEPTH AT THE TOP. TOE CLEARANCE SHALL BE THE SAME WIDTH AND SHALL BE A MINIMUM OF 9 INCHES HIGH FROM THE FLOOR AND A MINIMUM OF 17 INCHES DEEP FROM THE FRONT OF THE LAVATORY. PROVIDE 60" CLEAR FLOOR SPACE OF LAVATORY TO WALL AT TOILET SIDE OF LAVATORY.
7. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES.
8. MIRRORS SHALL BE MOUNTED WITH THE BOTTOM EDGE OF THE REFLECTIVE SURFACE NOT MORE THAN 40 INCHES FROM THE FLOOR.
9. LOCATE PAPER TOWEL DISPENSERS, SANITARY NAPKIN DISPENSERS, AND WASTE RECEPTACLES WITH ALL OPERABLE PARTS NOT MORE THAN 40 INCHES FROM THE FLOOR.
10. LOCATE TOILET TISSUE DISPENSERS ON THE WALL WITHIN 12 INCHES OF THE FRONT EDGE OF THE TOILET SEAT.

MULTIPLE ACCOMMODATION TOILET FACILITIES

1. A CLEAR SPACE MEASURED FROM THE FLOOR TO A HEIGHT OF 27 INCHES ABOVE THE FLOOR, WITHIN THE SANITARY FACILITY ROOM, OF SUFFICIENT SIZE TO INSCRIBE A CIRCLE WITH A DIAMETER NOT LESS THAN 60 INCHES, OR A CLEAR SPACE NOT LESS THAN 56 INCHES X 63 INCHES IN SIZE SHALL BE PROVIDED. DOORS OTHER THAN THE DOOR TO THE DISABLED TOILET COMPARTMENT, IN ANY POSITION, MAY ENCROACH INTO THIS SPACE BY NOT MORE THAN 12 INCHES.
2. AN ACCESSIBLE INDIVIDUAL TOILET STALL SHALL PROVIDE AT LEAST 28 INCHES CLEAR SPACE FROM A FIXTURE OR 32 INCHES CLEAR SPACE FROM A WALL AT ONE SIDE OF THE WATER CLOSET. A 48 INCH LONG CLEAR SPACE IN FRONT OF THE WATER CLOSET SHALL BE PROVIDED IF THE COMPARTMENT HAS AN END OPENING DOOR (FACING THE WATER CLOSET). A 60 INCH LONG CLEAR SPACE SHALL BE PROVIDED IN A COMPARTMENT WHEN THE DOOR IS LOCATED AT THE SIDE. GRAB BARS SHALL NOT PROJECT MORE THAN 3 INCHES INTO THE CLEAR SPACES AS SPECIFIED ABOVE.
3. WATER CLOSET COMPARTMENTS SHALL BE EQUIPPED WITH A DOOR THAT HAS AN AUTOMATIC CLOSING DEVICE, AND SHALL HAVE A CLEAR UNOBSTRUCTED OPENING WIDTH OF 32 INCHES WHEN LOCATED AT THE END AND 34 INCHES WHEN LOCATED AT THE SIDE WITH THE DOOR POSITIONED AT AN ANGLE OF 90 DEGREES FROM ITS CLOSED POSITION.
4. EXCEPT FOR DOOR OPENING WIDTHS AND DOOR SWINGS, A CLEAR UNOBSTRUCTED ACCESS NOT LESS THAN 44 INCHES SHALL BE PROVIDED TO WATER CLOSET COMPARTMENTS DESIGNED FOR USE BY THE DISABLED. THE SPACE IMMEDIATELY IN FRONT OF A WATER CLOSET COMPARTMENT SHALL BE NOT LESS THAN 48 INCHES AS MEASURED AT RIGHT ANGLES TO THE COMPARTMENT DOOR IN ITS CLOSED POSITION.

GRAB BARS

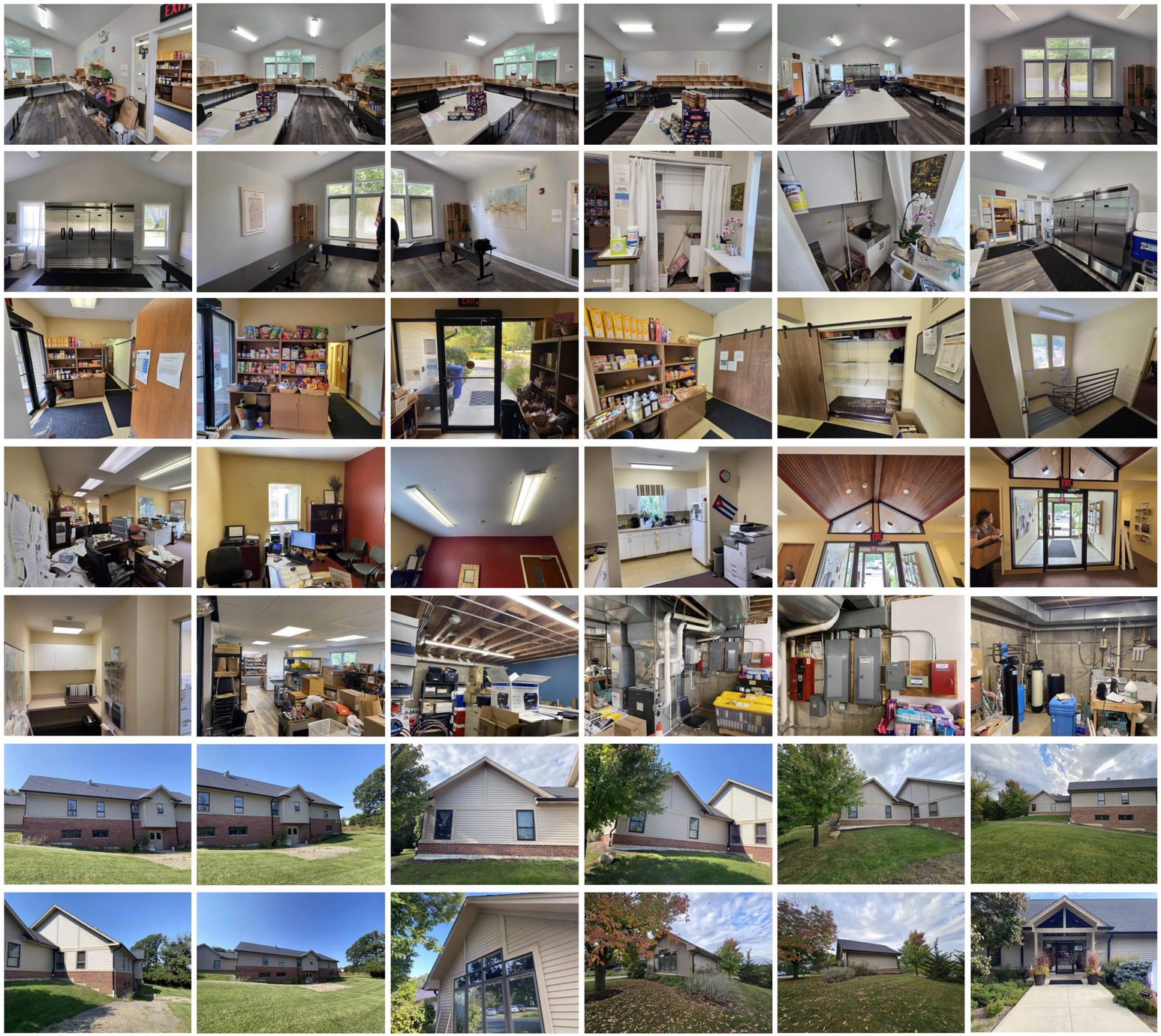
1. GRAB BARS SHALL BE LOCATED ON ONE SIDE AND THE BACK OF THE PHYSICALLY DISABLED TOILET STALL OR COMPARTMENT AND SHALL BE SECURELY ATTACHED 33 INCHES ABOVE AND PARALLEL TO THE FLOOR.
2. GRAB BARS AT THE SIDE SHALL BE AT LEAST 42 INCHES LONG WITH THE FRONT END POSITIONED 54 INCHES FROM THE BACK OF THE STALL. GRAB BARS AT THE BACK SHALL NOT BE LESS THAN 36 INCHES LONG.
3. PROVIDE A VERTICAL GRAB BAR AT SIDE WALL OF TOILET PER 18 INCHES MINIMUM IN LENGTH WITH THE BOTTOM OF TEH BAR LOCATED BETWEEN 39 INCNES AND 41 INCHES ABOVE THE FLOOR, AND WITH THE CENTER LINE OF THE BAR LOCATED BETWEEN 39 INCHES AND 41 INCHES FROM THE REAR WALL.
4. THE DIAMETER OR WIDTH OF THE GRIPPING SURFACES OF A GRAB BAR SHALL BE 1-1/4 INCHES OR THE SHAPE SHALL PROVIDE AN EQUIVALENT GRIPPING SURFACE. IF THE GRAB BARS ARE MOUNTED ADJACENT TO A WALL, THE SPACE BETWEEN THE WALL AND THE GRAB BARS SHALL BE 1-1/2 INCHES.
5. A GRAB BAR AND ANY WALL OR OTHER SURFACE ADJACENT TO IT SHALL BE FREE OF ANY SHARP OR ABRASIVE ELEMENTS. GRAB BAR EDGES SHALL HAVE A MINIMUM RADIUS OF 1/8 INCH.
6. GRAB BARS SHALL NOT ROTATE WITHIN THEIR FITTINGS.
7. GRAB BARS SHALL BE DESIGNED TO SUPPORT A 250 POUND FORCE.

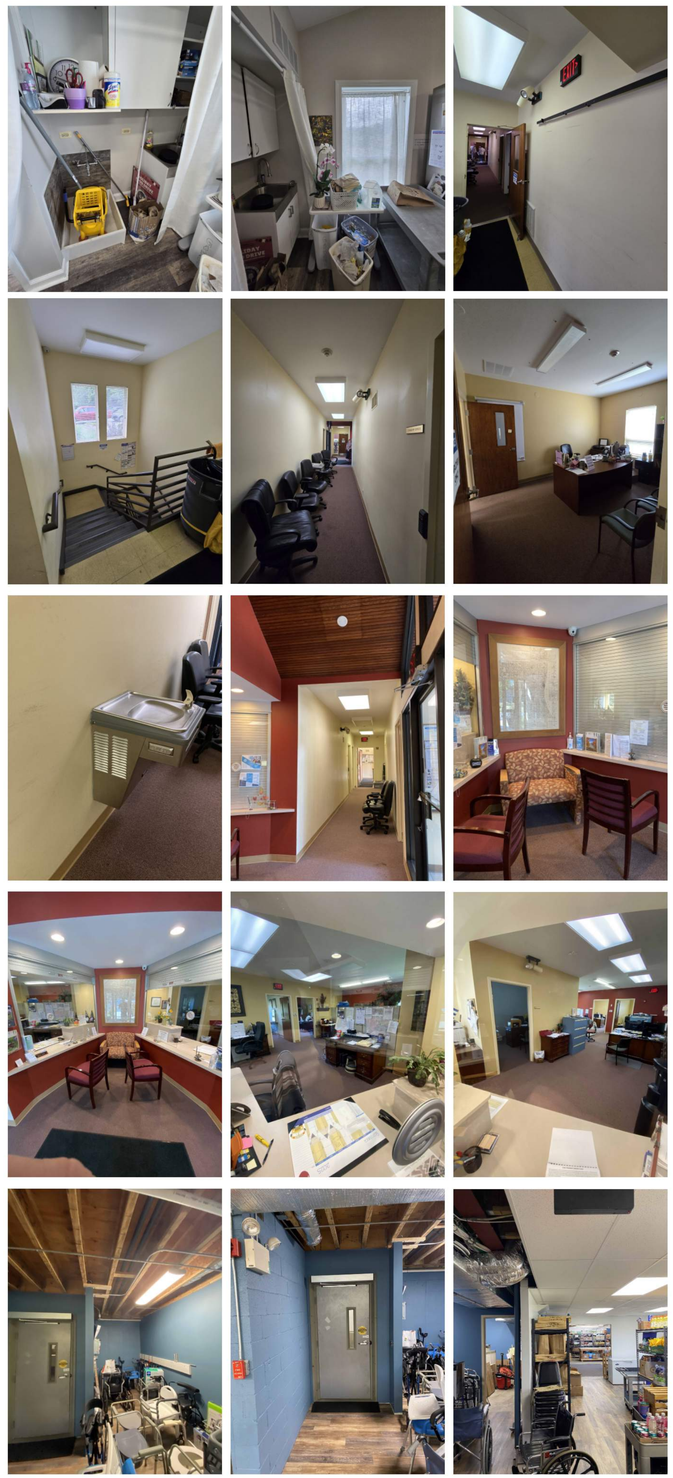
TELEPHONES

1. PROVIDE A 30 INCH X 48 INCH CLEAR SPACE AT TELEPHONE. THE CLEAR SPACE MAY INCLUDE KNEE SPACE UNDER THE TELEPHONE.
2. THE HIGHEST OPERABLE PART OF THE TELEPHONE SHALL BE WITHIN 48 INCHES OF THE FLOOR IF FORWARD APPROACHED AND 54 INCHES IF SIDE APPROACHED.
3. TELEPHONES MOUNTED DIAGONALLY IN A CORNER THAT REQUIRE WHEELCHAIR USERS TO REACH DIAGONALLY SHALL HAVE THE HIGHEST OPERABLE PART NO HIGHER THAN 54 INCHES ABOVE THE FLOOR.
4. THE CORD FROM THE TELEPHONE TO THE HANDSET SHALL BE AT LEAST 29 INCHES LONG.
5. IF BANKS OF PUBLIC TELEPHONES ARE PROVIDED, THEN A REASONABLE NUMBER, BUT ALWAYS AT LEAST ONE (1), IN A BUILDING OR FACILITY SHALL BE EQUIPPED WITH A VOLUME CONTROL.
6. TELEPHONES SHALL HAVE PUSH-BUTTON CONTROLS WHERE SERVICE FOR SUCH EQUIPMENT IS AVAILABLE.

ADDITIONAL REQUIREMENTS

1. THE CENTER OF RECEPTACLE OUTLETS SHALL BE NOT LESS THAN 15 INCHES ABOVE THE FLOOR OR WORKING PLATFORM.
2. THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES, OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE NOT LESS THAN 36 INCHES NOR MORE THAN 48 INCHES ABOVE THE FLOOR OR WORKING PLATFORM.
3. THE CENTER OF FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 48 INCHES ABOVE THE LEVEL OF THE FLOOR, WORKING PLATFORM, GROUND SURFACE, OR SIDEWALK.
4. THE INTERNATIONAL SYMBOL OF ACCESSIBILITY SHALL BE THE STANDARD USED TO IDENTIFY FACILITIES THAT ARE ACCESSIBLE TO AND USABLE BY PHYSICALLY DISABLED PERSONS. THE SYMBOL SPECIFIED ABOVE SHALL CONSIST OF A WHITE FIGURE ON BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595A.
5. WHERE PERMANENT IDENTIFICATION IS PROVIDED OR WHERE SIGNAGE IS REQUIRED FOR ROOMS AND SPACES, RAISED LETTERS SHALL BE PROVIDED AND SHALL BE ACCOMPANIED BY BRAILLE IN CONFORMANCE WITH SECTIONS 1117B-5.6, 1117B.5.6.1, 1117B.5.6.2, AND 1117B.5.6.3. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH OUTSIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE ON THE LATCH SIDE, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. MOUNTING HEIGH





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ISSUE DATE:	00/00/00

POST BID/PERMIT REVISIONS:

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PHOTOS

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FOR BID DRAWINGS 10-16-26

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1.00 GENERAL PROVISIONS
1.01 ALL WORK IS TO BE DONE IN ACCORDANCE WITH STATE AND LOCAL BUILDING CODES AND ALL OTHER CODES OR ORDINANCES WHICH MAY HAVE AUTHORITY OVER THIS PROJECT. IN THE CASE OF DISCREPANCY IN THOSE CODES, THE MORE STRINGENT ONE SHALL BE OBSERVED.

1.02 MATERIALS AND SPECIFIC MANUFACTURERS SPECIFIED MAY BE CHANGED UPON REQUEST IF THE SUBSTITUTION IS OF COMPARABLE QUALITY, COST AND SERVICEABILITY AS DETERMINED BY THE ARCHITECT.

1.03 THE GENERAL CONTRACTOR SHALL PAY ALL REQUIRED FEES AND SECURE ALL PERMITS AS REQUIRED BY GOVERNING BODIES OVER THIS PROJECT.

1.04 THE GENERAL CONTRACTOR SHALL HAVE APPROPRIATE LIABILITY. OWNER AND ARCHITECT SHALL BE PROTECTED FROM ALL LIABILITIES FROM THE CONTRACTOR, ITS EMPLOYEES, AGENTS OR SUBCONTRACTORS.

1.10 SURVEY OF EXISTING CONDITIONS
1.11 THE GENERAL CONTRACTOR, PRIOR TO SUBMITTING HIS BID, SHALL FIELD SURVEY SITE OF PROPOSED WORK TO DETERMINE THE EXTENT AND NATURE OF WORK, VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON DRAWINGS AND ACQUAINT HIMSELF WITH THE EXISTING CONDITIONS PRIOR TO SUBMITTING HIS BID. ANY DISCREPANCIES, OMISSIONS OR CONFLICTS FOUND BETWEEN THE SITE CONDITIONS AND THOSE SHOWN ON THE DRAWINGS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE ARCHITECT.

1.12 THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY UNFORESEEN JOB CONDITIONS WHICH MIGHT AFFECT PROJECT COSTS, CLAIMS FOR ADDITIONAL COMPENSATION AND/OR EXTENSIONS OF TIME BECAUSE OF THE CONTRACTOR'S FAILURE TO FOLLOW THE FOREGOING PROCEDURE AND TO FAMILIARIZE HIMSELF WITH THE CONTRACT DOCUMENTS AND ALL CONDITIONS WHICH MIGHT AFFECT WORK WILL NOT BE ALLOWED. EXTRA WORK AND/OR COSTS MUST BE APPROVED IN WRITING PRIOR TO CONSTRUCTION OF SUCH WORK.

1.20 PROVISIONS FOR LABOR AND MATERIAL
1.21 THE GENERAL CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY FOR THE SUCCESSFUL EXECUTION AND COMPLETION OF THIS PROJECT.

1.22 ALL MATERIALS, METHODS OF INSTALLATION AND FINISHING OF CONSTRUCTION SYSTEMS (PARTITIONS, CEILING, DOORS, FRAMES, FLOORS, ETC.) SHALL CONFORM TO THE MANUFACTURERS' SPECIFICATIONS AND INSTALLATION INSTRUCTION FOR THE EXPECTED USE.

1.30 KEEPING PREMISES CLEAN
1.31 THE GENERAL CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS ON A REGULAR BASIS, AND SHALL PREVENT ANY DIRT, DEBRIS OR DUST FROM AFFECTING ANY FINISHED AREA.

1.32 THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS SHALL TURN THE PROJECT OVER TO THE OWNER FREE FROM ALL CONSTRUCTION DEBRIS, MATERIAL AND EQUIPMENT.

1.40 PROTECTION OF PERSONS AND PROPERTY
1.41 PRIOR TO THE COMMENCEMENT OF WORK, THE GENERAL CONTRACTOR SHALL PROTECT AREAS AND NEW OR EXISTING MATERIALS AND FINISHES FROM DAMAGE WHICH MAY OCCUR FROM CONSTRUCTION, DUST, WATER, ETC.

1.42 ALL EXISTING SURFACES SUCH AS, BUT NOT LIMITED TO, WALLS AND COLUMNS DAMAGED BY WORK ARE TO BE PATCHED BY THE CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT.

1.50 COORDINATION
1.51 THE GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES REQUIRED TO PERFORM WORK AS OUTLINED IN THE CONTRACT DOCUMENTS.

1.60 DRAWINGS
1.61 DO NOT SCALE DRAWINGS. DIMENSIONS SHALL GOVERN. LARGE SCALE DETAILS SHALL GOVERN OVER SMALL SCALE DETAILS.

1.62 ALL DIMENSIONS ARE TO AND FROM WALL CENTERLINES OR NOMINAL STUD WIDTHS, U.N.O.

SECTION 03000 - STRUCTURAL CONCRETE

1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITIONS OF ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE ACI 302 "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION".
2. SUBMIT FOR REVIEW CONCRETE DESIGN MIXES, INCLUDING REQUIRED BACK UP DATA, FOR EACH TYPE OF CONCRETE PROPOSED FOR USE IN THE WORK. PROVIDE AIR-ENTRAINING FOR ALL CONCRETE EXPOSED TO THE WEATHER UNLESS NOTED OTHERWISE WITH A RANGE OF AIR-ENTRAINMENT OF BETWEEN 5% AND 7%.
3. THE USE OF CALCIUM CHLORIDE IN ANY CONCRETE IS STRICTLY PROHIBITED.
4. REFER ACI 305 FOR REQUIREMENTS FOR PLACING CONCRETE IN COLD WEATHER.
5. LOCATE JOINTS, IF PROVIDED, AT POINTS OF MINIMUM STRESS. HORIZONTAL JOINTS IN ANY CONCRETE POURS ARE NOT PERMITTED.
6. CLEAN AND MOISTEN ALL CONSTRUCTION JOINTS IMMEDIATELY PRIOR TO PLACING FRESH CONCRETE.
7. WHERE WATERSTOPS ARE INDICATED ON PLANS, USE CONTINUOUS 6" PVC RIBBED STYLE.
8. REFER TO ACI 318, CHAPTER 7.7 FOR MINIMUM CONCRETE COVER REQUIREMENTS.
9. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR CURBS, PADS, DEPRESSIONS, WALL/SLAB OPENINGS, SPECIAL FINISHES, ETC. PROVIDE ONLY THOSE OPENINGS SHOWN ON THE APPROVED SHOP DRAWINGS. REINFORCED BARS SHALL NOT BE CUT OR DISPLACED FOR THE WORK OF OTHER TRADES WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
10. DETAIL FABRICATE, LABEL, SUPPORT AND PLACE ALL CONCRETE REINFORCEMENT IN ACCORDANCE ACI 315 "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES" AND ACI 318.
11. SUBMIT FOR REVIEW DETAILED SHOP DRAWINGS INDICATING REINFORCEMENT SIZE, SPACING AND PLACEMENT PRIOR TO FABRICATION. INCLUDE DETAILS AND LOCATIONS OF ALL CURBS, CONSTRUCTION JOINTS, SLAB DEPRESSIONS, SLEEVES, OPENINGS, ETC.
12. PROVIDE DOWELS, WHERE REQUIRED, TO MATCH MAIN REINFORCING SIZE AND SPACING.
13. LAP WELDED WIRE FABRIC ONE FULL MESH PANEL TYPICALLY AND TWO MESH PANELS AT ALL CONSTRUCTION JOINTS AND TIE SECURELY. LAP ALL CONTINUOUS REINFORCEMENT SHOWN ON PLANS A MINIMUM OF 36 BAR DIAMETERS OR 24" WHICHEVER IS GREATER. LAP TOP BARS ONLY AT MIDSPAN AND BOTTOM BARS ONLY OVER SUPPORTS.
14. PROVIDE ONLY CONCRETE AND REINFORCING MATERIAL OF THE TYPES AND GRADES LISTED IN THE TABLE BELOW

CONCRETE	F'c (PSI)	UNIT WEIGHT (PCF)
FOOTINGS	3000 PSI	150 PCF
SLAB ON GRADE	4000 PSI	150 PCF
ALL OTHER CONCRETE	3000PSI	150 PCF
REINFORCING BARS	ASTM A-615 GRADE 60	
WELDED WIRE FABRIC	ASTM A-82 AND ASTM A-185 FOR PLAIN BARS - FIBERMESH REINF.	
WELDABLE BARS	ASTM A-706	

15. BASEPLATES, ANCHOR BOLTS, SUPPORT ANGLES, ETC. BELOW GRAD SHALL BE COVERED WITH A MINIMUM OF 3 INCHES OF CONCRETE

SECTION 04000 - MASONRY

1. STONE, MASONRY VENEERS, AND TIES: BRICK TIES AT 16 INCHES ON CENTER IN EITHER DIRECTION, WITH HORIZONTAL 9 GAGE WIRE MECHANICALLY ATTACHED TO TIES
2. MASONRY CHIMNEY TERMINATION: 2 FEET HIGHER THAN ANY PORTION OF BUILDING WITHIN 10 FEET, 3 FEET TALL MIN., MASONRY CHIMNEY CROSS-SECTION
3. FIREPLACE HEARTHS: 16 INCHES IN FRONT AND 8 INCHES BEYOND EACH SIDE OF FIREBOX LESS THAN 6 SQ FT, OR 20 INCHES IN FRONT AND 12 INCHES BEYOND WITH FIREBOX GREATER THAN 6 SQ FT

SECTION 06100 - ROUGH CARPENTRY
PART 1 - GENERAL
PART 2 - PRODUCTS
2.1 WOOD PRODUCTS, GENERAL
A. LUMBER: PROVIDE DRESSED LUMBER, S4S, 19 PERCENT MAXIMUM MOISTURE CONTENT FOR 2-INCH NOMINAL THICKNESS OR LESS, MARKED WITH GRADE STAMP OF INSPECTION AGENCY.
B. ENGINEERED WOOD PRODUCTS: ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND FOR WHICH CURRENT MODEL CODE RESEARCH OR EVALUATION REPORTS EXIST THAT SHOW COMPLIANCE WITH BUILDING CODE IN EFFECT FOR PROJECT.
C. TIMBER: ALL NEW TIMBER STRUCTURAL MEMBERS SHALL BE SOUTHERN PINE STRUCTURAL GRADE # 1 MIN.
D. WOOD STRUCTURAL PANELS: DOC PS 2. PROVIDE PLYWOOD COMPLYING WITH DOC PS 1, WHERE PLYWOOD IS INDICATED.
1. COMPLY WITH APA'S FORM E30T "ENGINEERED WOOD CONSTRUCTION GUIDE"
2.2 TREATED MATERIALS
A. PRESERVATIVE-TREATED MATERIALS: AWPA C2 LUMBER AND AWPA C9 PLYWOOD, LABELED BY AN INSPECTION AGENCY APPROVED BY ALSC'S BOARD OF REVIEW. AFTER TREATMENT, KILN-DRY LUMBER AND PLYWOOD TO 19 AND 15 PERCENT MOISTURE CONTENT, RESPECTIVELY. TREAT INDICATED ITEMS AND THE FOLLOWING:
1. WOOD MEMBERS IN CONNECTION WITH ROOFING, FLASHING, VAPOR BARRIERS, AND WATERPROOFING.
2. CONCEALED MEMBERS IN CONTACT WITH MASONRY OR CONCRETE.
3. WOOD FRAMING MEMBERS LESS THAN 18 INCHES ABOVE GRADE.
4. WOOD FLOOR PLATES INSTALLED OVER CONCRETE SLABS DIRECTLY IN CONTACT WITH EARTH.

SECTION 06100 - ROUGH CARPENTRY (CONT.)
2.3 LUMBER
A. DIMENSION LUMBER: THE FOLLOWING GRADES ARE PER INSPECTION AGENCY INDICATED:
1. NON-LOAD-BEARING INTERIOR PARTITIONS: CONSTRUCTION
2. FRAMING OTHER THAN NON-LOAD-BEARING PARTITIONS: NO. 2.
B. MISCELLANEOUS LUMBER: CONSTRUCTION, STUD, OR NO. 3 GRADE OF ANY SPECIES FOR NAILERS, BLOCKING, AND SIMILAR MEMBERS.
2.4 PANEL PRODUCTS
A. NOT APPLICABLE
2.5 MISCELLANEOUS PRODUCTS
A. FASTENERS: SIZE AND TYPE INDICATED. WHERE ROUGH CARPENTRY IS EXPOSED TO WEATHER, IN GROUND CONTACT, OR IN AREA OF HIGH RELATIVE HUMIDITY, PROVIDE FASTENERS WITH HOT-DIP ZINC COATING COMPLYING WITH ASTM A153/A153M.
1. POWER-DRIVEN FASTENERS: CABO NER-272.
2. BOLTS: STEEL BOLTS COMPLYING WITH ASTM A 307, GRADE A; WITH ASTM A 563 HEX NUTS AND, WHERE INDICATED, FLAT WASHERS.
B. METAL FRAMING ANCHORS: HOT-DIP GALVANIZED STEEL OF STRUCTURAL CAPACITY, TYPE, AND SIZE INDICATED.
C. BUILDING WRAP: NOT APPLICABLE
D. SILL-SEALER: NOT APPLICABLE
E. ADHESIVES FOR FIELD GLUING PANELS TO FRAMING: APA AFG-01.

PART 3 - EXECUTION
3.1 INSTALLATION
A. SET ROUGH CARPENTRY TO REQUIRED LEVELS AND LINES, WITH MEMBERS PLUMB, TRUE TO LINE, CUT, AND FITTED. FIT CARPENTRY TO OTHER CONSTRUCTION; SCRIBE AND COPE FOR ACCURATE FIT. LOCATE NAILERS, BLOCKING, AND SIMILAR SUPPORTS TO COMPLY WITH REQUIREMENTS FOR ATTACHING OTHER CONSTRUCTION.
B. SECURELY ATTACH ROUGH CARPENTRY TO SUBSTRATES, COMPLYING WITH APPLICABLE CODES AND RECOGNIZED STANDARDS AND THE FOLLOWING:
1. CABO NER-272 FOR POWER-DRIVEN FASTENERS.
2. PUBLISHED REQUIREMENTS OF METAL FRAMING ANCHOR MANUFACTURER.
3. IBC 2003
C. FASTENING METHODS: COMPLY WITH RECOMMENDATIONS IN APA'S FORM E30T "ENGINEERED WOOD CONSTRUCTION GUIDE" AND THE FOLLOWING:
1. COMBINATION SUBFLOORING-UNDERLAYMENT: NOT APPLICABLE
D. COUNTERSINK NAIL HEADS ON EXPOSED CARPENTRY WORK AND FILL HOLES WITH WOOD FILLER.
E. INSTALLATION OF PANEL PRODUCTS: COMPLY WITH RECOMMENDATIONS AND "CODE PLUS" PROVISIONS IN APA FORM NO. E30K
F. INSTALL WOOD TRIM WITH MINIMUM NUMBER OF JOINTS PRACTICAL, USING FULL-LENGTH PIECES FROM MAXIMUM LENGTHS OF LUMBER AVAILABLE. COPE AT RETURNS AND MITER AT CORNERS TO PRODUCE TIGHT-FITTING JOINTS WITH FULL-SURFACE CONTACT THROUGHOUT LENGTH OF JOINT. USE SCARF JOINTS FOR END-TO-END JOINTS.

SECTION 06200 - FINISH CARPENTRY
PART 1 - GENERAL (NOT APPLICABLE)
PART 2 - PRODUCTS
2.1 MATERIALS, GENERAL
A. LUMBER: DOC PS 20 AND GRADING RULES OF INSPECTION AGENCIES CERTIFIED BY AMERICAN LUMBER STANDARDS COMMITTEE BOARD OF REVIEW.
PART 3 - EXECUTION
3.1 INSTALLATION
A. CONDITION FINISH CARPENTRY IN INSTALLATION AREAS FOR 24 HOURS BEFORE INSTALLING.
B. PRIME AND BACKPRIME LUMBER FOR PAINTED FINISH EXPOSED ON THE EXTERIOR.
C. INSTALL FINISH CARPENTRY LEVEL, PLUMB, TRUE, AND ALIGNED WITH ADJACENT MATERIALS. SCRIBE AND CUT TO FIT ADJOINING WORK. REFINISH AND SEAL CUTS.
D. INSTALL STANDING AND RUNNING TRIM WITH MINIMUM NUMBER OF JOINTS PRACTICAL, USING FULL-LENGTH PIECES FROM MAXIMUM LENGTHS OF LUMBER AVAILABLE. STAGGER JOINTS IN ADJACENT AND RELATED TRIM. COPE AT RETURNS AND MITER AT CORNERS.

SECTION 08211 - FLUSH WOOD DOORS
PART 1 - GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: SAMPLES FOR FACTORY-FINISHED DOORS.
B. QUALITY STANDARD: NWWDA I.S.1-A.
C. FIRE-RATED WOOD DOORS: LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION BASED ON TESTING PER NFPA 252 AT ATMOSPHERIC PRESSURE.

PART 2 - PRODUCTS
2.1 FLUSH WOOD DOORS
A. DOORS FOR TRANSPARENT FINISH: CUSTOM GRADE.
1. FACES: TO BE SELECTED BY ARCHITECT
2. PAIR MATCHING.
B. INTERIOR VENEER-FACED SOLID-CORE DOORS: FIVE-PLY, PARTICLEBOARD CORES
C. PROVIDE BLOCKING IN PARTICLEBOARD CORES OR PROVIDE DOORS WITH CLOSERS EXIT DEVICES AND KICK PLATES.
D. FIRE-RATED SOLID-CORE DOORS: CORE CONSTRUCTION TO PROVIDE FIRE RATING INDICATED, FACES AND GRADE TO MATCH NON-FIRE-RATED DOORS.
1. COMPOSITE BLOCKING WHERE REQUIRED TO ELIMINATE THROUGH-BOLTING HARDWARE.
2. LAMINATED-EDGE CONSTRUCTION.
3. FORMED-STEEL EDGES AND ASTRAGALS FOR PAIRS OF FIRE-RATED DOORS.
2.2 FABRICATION AND FINISHING
A. FACTORY FIT DOORS TO SUIT FRAME-OPENING SIZES INDICATED AND TO COMPLY WITH REFERENCED QUALITY STANDARD.
1. COMPLY WITH NFPA 80 FOR FIRE-RESISTANCE-RATED DOORS.
B. FACTORY MACHINE DOORS FOR HARDWARE THAT IS NOT SURFACE APPLIED.
C. CUT AND TRIM OPENINGS TO COMPLY WITH REFERENCED STANDARDS.
1. TRIM LIGHT OPENINGS WITH MOLDINGS INDICATED.
D. FACTORY DOORS INDICATED FOR TRANSPARENT FINISH WITH STAIN AND MANUFACTURER'S STANDARD FINISH COMPARABLE TO AWI SYSTEM TR-6, CATALYZED POLYURETHANE.

PART 3 - EXECUTION
3.1 INSTALLATION
A. COMPLY WITH WDMA'S "HOW TO STORE, HANDLE, FINISH, INSTALL, AND MAINTAIN WOOD DOORS."
B. INSTALL FIRE-RATED DOORS TO COMPLY WITH NFPA 80.
C. REPAIR, REFINISH, OR REPLACE FACTORY-FINISHED DOORS DAMAGED DURING INSTALLATION, AS DIRECTED BY ARCHITECT.

SECTION 08 71 00 – DOOR HARDWARE
PART 1 - GENERAL
1.01 RELATED DOCUMENTS
A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
1.02 SUMMARY
A. SECTION INCLUDES:
1. MECHANICAL AND ELECTRIFIED DOOR HARDWARE FOR:
A. SWINGING DOORS.
2. ELECTRONIC ACCESS CONTROL SYSTEM COMPONENTS, INCLUDING:
A. ELECTRONIC ACCESS CONTROL DEVICES.
3. FIELD VERIFICATION, PREPARATION AND MODIFICATION OF EXISTING DOORS AND FRAMES TO RECEIVE NEW DOOR HARDWARE.
4. THE INTENT OF THE HARDWARE SPECIFICATION IS TO SPECIFY THE HARDWARE FOR INTERIOR AND EXTERIOR DOORS, AND TO ESTABLISH A TYPE, CONTINUITY, AND STANDARD OF QUALITY. HOWEVER, IT IS THE DOOR HARDWARE SUPPLIER'S RESPONSIBILITY TO THOROUGHLY REVIEW EXISTING CONDITIONS, SCHEDULES, SPECIFICATIONS, DRAWINGS, AND OTHER CONTRACT DOCUMENTS TO VERIFY THE SUITABILITY OF THE HARDWARE SPECIFIED.
B. EXCLUSIONS: UNLESS SPECIFICALLY LISTED IN HARDWARE SETS, HARDWARE IS NOT SPECIFIED IN THIS SECTION FOR:
1. WINDOWS
2. CABINETS (CASEWORK), INCLUDING LOCKS IN CABINETS
3. SIGNAGE
4. TOILET ACCESSORIES
5. OVERHEAD DOORS
C. RELATED SECTIONS:
1. DIVISION 01 SECTION 'ALTERNATES' FOR ALTERNATES AFFECTING THIS SECTION.
2. DIVISION 07 SECTION " JOINT SEALANTS" FOR SEALANT REQUIREMENTS APPLICABLE TO THRESHOLD INSTALLATION SPECIFIED IN THIS SECTION.
3. DIVISION 09 SECTIONS FOR TOUCHUP, FINISHING OR REFINISHING OF EXISTING OPENINGS MODIFIED BY THIS SECTION.
4. DIVISION 26 SECTIONS FOR CONNECTIONS TO ELECTRICAL POWER SYSTEM AND FOR LOW-VOLTAGE WIRING.
5. DIVISION 28 SECTIONS FOR COORDINATION WITH OTHER COMPONENTS OF ELECTRONIC ACCESS CONTROL SYSTEM.

SECTION 08 71 00 – DOOR HARDWARE (CONT.)
1.03 REFERENCES
A. UL - UNDERWRITERS LABORATORIES
1. UL 10B - FIRE TEST OF DOOR ASSEMBLIES
2. UL 10C - POSITIVE PRESSURE TEST OF FIRE DOOR ASSEMBLIES
3. UL 1784 - AIR LEAKAGE TESTS OF DOOR ASSEMBLIES
4. UL 305 - PANIC HARDWARE
B. DHI - DOOR AND HARDWARE INSTITUTE
1. SEQUENCE AND FORMAT FOR THE HARDWARE SCHEDULE
2. RECOMMENDED LOCATIONS FOR BUILDERS HARDWARE
3. KEY SYSTEMS AND NOMENCLATURE
C. ANSI - AMERICAN NATIONAL STANDARDS INSTITUTE
1. ANSI/BHMA A156.1 - A156.29, AND ANSI/BHMA A156.31 - STANDARDS FOR HARDWARE AND SPECIALTIES
1.04 SUBMITTALS
A. GENERAL:
1. SUBMIT IN ACCORDANCE WITH CONDITIONS OF CONTRACT AND DIVISION 01 REQUIREMENTS.
2. HIGHLIGHT, ENCIRCLE, OR OTHERWISE SPECIFICALLY IDENTIFY ON SUBMITTALS DEVIATIONS FROM CONTRACT DOCUMENTS, ISSUES OF INCOMPATIBILITY OR OTHER ISSUES WHICH MAY DETRIMENTALLY AFFECT THE WORK.
3. PRIOR TO FORWARDING SUBMITTAL, COMPLY WITH PROCEDURES FOR VERIFYING EXISTING DOOR AND FRAME COMPATIBILITY FOR NEW HARDWARE, AS SPECIFIED IN PART 3, "EXAMINATION" ARTICLE, HEREIN.
B. ACTION SUBMITTALS:
1. PRODUCT DATA: TECHNICAL PRODUCT DATA FOR EACH ITEM OF DOOR HARDWARE, INSTALLATION INSTRUCTIONS, MAINTENANCE OF OPERATING PARTS AND FINISH, AND OTHER INFORMATION NECESSARY TO SHOW COMPLIANCE WITH REQUIREMENTS.
2. RISER AND WIRING DIAGRAMS: AFTER FINAL APPROVAL OF HARDWARE SCHEDULE, SUBMIT DETAILS OF ELECTRIFIED DOOR HARDWARE, INDICATING:
A. WIRING DIAGRAMS: FOR POWER, SIGNAL, AND CONTROL WIRING AND INCLUDING:
1. DETAILS OF INTERFACE OF ELECTRIFIED DOOR HARDWARE AND BUILDING SAFETY AND SECURITY SYSTEMS.
2. SCHEMATIC DIAGRAM OF SYSTEMS THAT INTERFACE WITH ELECTRIFIED DOOR HARDWARE.
3. POINT-TO-POINT WIRING.
4. RISERS.
3. SAMPLES FOR VERIFICATION: IF REQUESTED BY ARCHITECT, SUBMIT PRODUCTION SAMPLE OF REQUESTED DOOR HARDWARE UNIT IN FINISH INDICATED, AND TAGGED WITH FULL DESCRIPTION FOR COORDINATION WITH SCHEDULE.
A. SAMPLES WILL BE RETURNED TO SUPPLIER. UNITS THAT ARE ACCEPTABLE TO ARCHITECT MAY, AFTER FINAL CHECK OF OPERATIONS, BE INCORPORATED INTO WORK, WITHIN LIMITATIONS OF KEY COORDINATION REQUIREMENTS.
4. DOOR HARDWARE SCHEDULE: SUBMIT SCHEDULE WITH HARDWARE SETS IN VERTICAL FORMAT AS ILLUSTRATED BY SEQUENCE OF FORMAT FOR THE HARDWARE SCHEDULE AS PUBLISHED BY THE DOOR AND HARDWARE INSTITUTE. INDICATE COMPLETE DESIGNATIONS OF EACH ITEM REQUIRED FOR EACH DOOR OR OPENING, INCLUDE:
A. DOOR INDEX; INCLUDE DOOR NUMBER, HEADING NUMBER, AND ARCHITECTS HARDWARE SET NUMBER.
B. OPENING LOCK FUNCTION SPREADSHEET: LIST LOCKING DEVICE AND FUNCTION FOR EACH OPENING.
C. QUANTITY, TYPE, STYLE, FUNCTION, SIZE, AND FINISH OF EACH HARDWARE ITEM.
D. NAME AND MANUFACTURER OF EACH ITEM.
E. FASTENINGS AND OTHER PERTINENT INFORMATION.
F. LOCATION OF EACH HARDWARE SET CROSS-REFERENCED TO INDICATIONS ON DRAWINGS.
G. EXPLANATION OF ALL ABBREVIATIONS, SYMBOLS, AND CODES CONTAINED IN SCHEDULE.
H. MOUNTING LOCATIONS FOR HARDWARE.
I. DOOR AND FRAME SIZES AND MATERIALS.
J. NAME AND PHONE NUMBER FOR LOCAL MANUFACTURER'S REPRESENTATIVE FOR EACH PRODUCT.
K. OPERATIONAL DESCRIPTION OF OPENINGS WITH ANY ELECTRIFIED HARDWARE (LOCKS, EXITS, ELECTROMAGNETIC LOCKS, ELECTRIC STRIKES, AUTOMATIC OPERATORS, DOOR POSITION SWITCHES, MAGNETIC HOLDERS OR CLOSER/HOLDER UNITS, AND ACCESS CONTROL COMPONENTS). OPERATIONAL DESCRIPTION SHOULD INCLUDE OPERATIONAL DESCRIPTIONS FOR: EGRESS, INGRESS (ACCESS), AND FIRE/SMOKE ALARM CONNECTIONS.
1. SUBMITTAL SEQUENCE: SUBMIT DOOR HARDWARE SCHEDULE CONCURRENT WITH SUBMISSIONS OF PRODUCT DATA, SAMPLES, AND SHOP DRAWINGS. COORDINATE SUBMISSION OF DOOR HARDWARE SCHEDULE WITH SCHEDULING REQUIREMENTS OF OTHER WORK TO FACILITATE FABRICATION OF OTHER WORK THAT IS CRITICAL IN PROJECT CONSTRUCTION SCHEDULE.
5. KEY SCHEDULE:
A. AFTER KEYING CONFERENCE, PROVIDE KEYING SCHEDULE LISTING LEVELS OF KEYING AS WELL AS EXPLANATION OF KEY SYSTEM'S FUNCTION, KEY SYMBOLS USED AND DOOR NUMBERS CONTROLLED.
B. USE ANSI/BHMA A156.28 "RECOMMENDED PRACTICES FOR KEYING SYSTEMS" AS GUIDELINE FOR NOMENCLATURE, DEFINITIONS, AND APPROACH FOR SELECTING OPTIMAL KEYING SYSTEM.
C. PROVIDE 3 COPIES OF KEYING SCHEDULE FOR REVIEW PREPARED AND DETAILED IN ACCORDANCE WITH REFERENCED DHI PUBLICATION. INCLUDE SCHEMATIC KEYING DIAGRAM AND INDEX EACH KEY TO UNIQUE DOOR DESIGNATIONS.
D. INDEX KEYING SCHEDULE BY DOOR NUMBER, KEYSET, HARDWARE HEADING NUMBER, CROSS KEYING INSTRUCTIONS, AND SPECIAL KEY STAMPING INSTRUCTIONS.
E. PROVIDE ONE COMPLETE BITTING LIST OF KEY CUTS AND ONE KEY SYSTEM SCHEMATIC ILLUSTRATING SYSTEM USAGE AND EXPANSION.
1. FORWARD BITTING LIST, KEY CUTS AND KEY SYSTEM SCHEMATIC DIRECTLY TO OWNER, BY MEANS AS DIRECTED BY OWNER.
F. PREPARE KEY SCHEDULE BY OR UNDER SUPERVISION OF SUPPLIER, DETAILING OWNER'S FINAL KEYING INSTRUCTIONS FOR LOCKS.
6. TEMPLATES: AFTER FINAL APPROVAL OF HARDWARE SCHEDULE, PROVIDE TEMPLATES FOR DOORS, FRAMES AND OTHER WORK SPECIFIED TO BE FACTORY OR SHOP PREPARED FOR DOOR HARDWARE INSTALLATION.
C. INFORMATIONAL SUBMITTALS:
1. QUALIFICATION DATA: FOR SUPPLIER, INSTALLER AND ARCHITECTURAL HARDWARE CONSULTANT.
2. PRODUCT DATA FOR ELECTRIFIED DOOR HARDWARE:
A. CERTIFY THAT DOOR HARDWARE APPROVED FOR USE ON TYPES AND SIZES OF LABELED FIRE-RATED DOORS COMPLIES WITH LISTED FIRE-RATED DOOR ASSEMBLIES.
3. CERTIFICATES OF COMPLIANCE:
A. UL LISTINGS FOR FIRE-RATED HARDWARE AND INSTALLATION INSTRUCTIONS IF REQUESTED BY ARCHITECT OR AUTHORITY HAVING JURISDICTION.
B. INSTALLER TRAINING MEETING CERTIFICATION: LETTER OF COMPLIANCE, SIGNED BY CONTRACTOR, ATTESTING TO COMPLETION OF INSTALLER TRAINING MEETING SPECIFIED IN "QUALITY ASSURANCE" ARTICLE, HEREIN.
C. ELECTRIFIED HARDWARE COORDINATION CONFERENCE CERTIFICATION: LETTER OF COMPLIANCE, SIGNED BY CONTRACTOR, ATTESTING TO COMPLETION OF ELECTRIFIED HARDWARE COORDINATION CONFERENCE, SPECIFIED IN "QUALITY ASSURANCE" ARTICLE, HEREIN.
4. WARRANTY: SPECIAL WARRANTY SPECIFIED IN THIS SECTION.
D. CLOSEOUT SUBMITTALS:
1. OPERATIONS AND MAINTENANCE DATA: PROVIDE IN ACCORDANCE WITH DIVISION 01 AND INCLUDE:
A. COMPLETE INFORMATION ON CARE, MAINTENANCE, AND ADJUSTMENT; DATA ON REPAIR AND REPLACEMENT PARTS, AND INFORMATION ON PRESERVATION OF FINISHES.
B. CATALOG PAGES FOR EACH PRODUCT.
C. FACTORY ORDER ACKNOWLEDGEMENT NUMBERS (FOR WARRANTY AND SERVICE)
D. NAME, ADDRESS, AND PHONE NUMBER OF LOCAL REPRESENTATIVE FOR EACH MANUFACTURER.
E. PARTS LIST FOR EACH PRODUCT.
F. FINAL APPROVED HARDWARE SCHEDULE, EDITED TO REFLECT CONDITIONS AS-INSTALLED.
G. FINAL KEYING SCHEDULE
H. COPIES OF FLOOR PLANS WITH KEYING NOMENCLATURE
I. AS-INSTALLED WIRING DIAGRAMS FOR EACH OPENING CONNECTED TO POWER, BOTH LOW VOLTAGE AND 110 VOLTS.
J. COPY OF WARRANTIES INCLUDING APPROPRIATE REFERENCE NUMBERS FOR MANUFACTURERS TO IDENTIFY PROJECT.
1.05 QUALITY ASSURANCE
A. SUPPLIER QUALIFICATIONS AND RESPONSIBILITIES: RECOGNIZED ARCHITECTURAL HARDWARE SUPPLIER WITH RECORD OF SUCCESSFUL IN-SERVICE PERFORMANCE FOR SUPPLYING DOOR HARDWARE SIMILAR IN QUANTITY, TYPE, AND QUALITY TO THAT INDICATED FOR THIS PROJECT AND THAT PROVIDES CERTIFIED ARCHITECTURAL HARDWARE CONSULTANT (AHC) AVAILABLE TO OWNER, ARCHITECT, AND CONTRACTOR, AT REASONABLE TIMES DURING THE WORK FOR CONSULTATION.
1. WAREHOUSING FACILITIES: IN PROJECT'S VICINITY.
2. SCHEDULING RESPONSIBILITY: PREPARATION OF DOOR HARDWARE AND KEYING SCHEDULES.
3. ENGINEERING RESPONSIBILITY: PREPARATION OF DATA FOR ELECTRIFIED DOOR HARDWARE, INCLUDING SHOP DRAWINGS, BASED ON TESTING AND ENGINEERING ANALYSIS OF MANUFACTURER'S STANDARD UNITS IN ASSEMBLIES SIMILAR TO THOSE INDICATED FOR THIS PROJECT.

SECTION 08 71 00 – DOOR HARDWARE (CONT.)
4. COORDINATION RESPONSIBILITY: ASSIST IN COORDINATING INSTALLATION OF ELECTRONIC SECURITY HARDWARE WITH ARCHITECT AND ELECTRICAL ENGINEERS AND PROVIDE INSTALLATION AND TECHNICAL DATA TO ARCHITECT AND OTHER RELATED SUBCONTRACTORS.
A. UPON COMPLETION OF ELECTRONIC SECURITY HARDWARE INSTALLATION, INSPECT AND VERIFY THAT ALL COMPONENTS ARE WORKING PROPERLY.
B. ARCHITECTURAL HARDWARE CONSULTANT QUALIFICATIONS: PERSON WHO IS EXPERIENCED IN PROVIDING CONSULTING SERVICES FOR DOOR HARDWARE INSTALLATIONS THAT ARE COMPARABLE IN MATERIAL DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND MEETS THESE REQUIREMENTS:
1. FOR DOOR HARDWARE, DHI-CERTIFIED, ARCHITECTURAL HARDWARE CONSULTANT (AHC).
2. CAN PROVIDE INSTALLATION AND TECHNICAL DATA TO ARCHITECT AND OTHER RELATED SUBCONTRACTORS.
3. CAN INSPECT AND VERIFY COMPONENTS ARE IN WORKING ORDER UPON COMPLETION OF INSTALLATION.
4. CAPABLE OF PRODUCING WIRING DIAGRAMS.
5. CAPABLE OF COORDINATING INSTALLATION OF ELECTRIFIED HARDWARE WITH ARCHITECT AND ELECTRICAL ENGINEERS.
C. SINGLE SOURCE RESPONSIBILITY: OBTAIN EACH TYPE OF DOOR HARDWARE FROM SINGLE MANUFACTURER.
D. FIRE-RATED DOOR OPENINGS: PROVIDE DOOR HARDWARE FOR FIRE-RATED OPENINGS THAT COMPLIES WITH NFPA 80 AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. PROVIDE ONLY ITEMS OF DOOR HARDWARE THAT ARE LISTED PRODUCTS TESTED BY UNDERWRITERS LABORATORIES, INTERTEK TESTING SERVICES, OR OTHER TESTING AND INSPECTING ORGANIZATIONS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR USE ON TYPES AND SIZES OF DOORS INDICATED, BASED ON TESTING AT POSITIVE PRESSURE AND ACCORDING TO NFPA 252 OR UL 10C AND IN COMPLIANC

SECTION 08 71 00 – DOOR HARDWARE (CONT.)

10. PROVIDE CYLINDER OR HEX-KEY DOGGING AS SPECIFIED AT NON FIRE-RATED OPENINGS.
11. REMOVABLE MULLIONS: 2 INCHES (51 MM) X 3 INCHES (76 MM) STEEL TUBE. WHERE SCHEDULED AS KEYED REMOVABLE MULLION, PROVIDE TYPE THAT CAN BE REMOVED BY USE OF A KEYED CYLINDER, WHICH IS SELF-LOCKING WHEN RE-INSTALLED.
12. PROVIDE FACTORY DRILLED WEEP HOLES FOR EXIT DEVICES USED IN FULL EXTERIOR APPLICATION, HIGHLY CORROSIVE AREAS, AND WHERE NOTED IN HARDWARE SETS.
13. PROVIDE ELECTRIFIED OPTIONS AS SCHEDULED.
14. PROVIDE EXIT DEVICES WITH OPTIONAL TRIM DESIGNS TO MATCH OTHER LEVER AND PULL DESIGNS USED ON THE PROJECT.
    A. TACTILE WARNING (KNURLING): WHERE REQUIRED BY AUTHORITY HAVING JURISDICTION. PROVIDE ON LEVERS ON EXTERIOR (SECURE SIDE) OF DOORS SERVING ROOMS CONSIDERED TO BE HAZARDOUS.

2.08 CYLINDERS
A. MANUFACTURERS AND PRODUCTS:
1. SCHEDULED MANUFACTURER: FALCON.
2. ACCEPTABLE MANUFACTURERS AND PRODUCTS: CORBIN-RUSSWIN.
B. REQUIREMENTS:
1. PROVIDE CYLINDERS/CORES, FROM THE SAME MANUFACTURER OF LOCKSETS, COMPLIANT WITH ANSI/BHMA A156.5; LATEST REVISION; CYLINDER FACE FINISHED TO MATCH LOCKSET, MANUFACTURER'S SERIES AS INDICATED. REFER TO "KEYING" ARTICLE, HEREIN.
2. PROVIDE CYLINDERS IN THE BELOW-LISTED CONFIGURATION(S), DISTRIBUTED THROUGHOUT THE PROJECT AS INDICATED.
    a. CONVENTIONAL OPEN: CYLINDER WITH K-I-L CYLINDER WITH OPEN KEYWAY

2.09 KEYING
A. COMPLY WITH GUIDELINES IN ANSI/BHMA A156.28, INCORPORATING DECISIONS MADE AT KEYING CONFERENCE.
B. REQUIREMENTS:
1. PROVIDE PERMANENT CYLINDERS/CORES KEYED BY THE MANUFACTURER ACCORDING TO THE FOLLOWING KEY SYSTEM.
    A. MASTER KEYING SYSTEM AS DIRECTED BY THE OWNER.
2. FORWARD BITTING LIST AND KEYS SEPARATELY FROM CYLINDERS, BY MEANS AS DIRECTED BY OWNER. FAILURE TO COMPLY WITH FORWARDING REQUIREMENTS WILL BE CAUSE FOR REPLACEMENT OF CYLINDERS/CORES INVOLVED AT NO ADDITIONAL COST TO OWNER.
3. PROVIDE KEYS WITH THE FOLLOWING FEATURES:
    A. MATERIAL: NICKEL SILVER; MINIMUM THICKNESS OF .107-INCH (2.3MM)
4. IDENTIFICATION:
    A. MARK PERMANENT CYLINDERS/CORES AND KEYS WITH APPLICABLE BLIND CODE PER DHI PUBLICATION "KEYING SYSTEMS AND NOMENCLATURE" FOR IDENTIFICATION. DO NOT PROVIDE BLIND CODE MARKS WITH ACTUAL KEY CUTS.
    B. IDENTIFICATION STAMPING PROVISIONS MUST BE APPROVED BY THE ARCHITECT AND OWNER.
    C. STAMP CYLINDERS/CORES AND KEYS WITH OWNER'S UNIQUE KEY SYSTEM FACILITY CODE AS ESTABLISHED BY THE MANUFACTURER; KEY SYMBOL AND EMBOSSED OR STAMPED WITH "DO NOT DUPLICATE".
    D. FAILURE TO COMPLY WITH STAMPING REQUIREMENTS WILL BE CAUSE FOR REPLACEMENT OF KEYS INVOLVED AT NO ADDITIONAL COST TO OWNER.
5. QUANTITY: FURNISH IN THE FOLLOWING QUANTITIES:
    A. CHANGE (DAY) KEYS: SEE KEYING CONVENTION ON SHEET AS-1 FOR KEYS PER CYLINDER/CORE.
    B. MASTER KEYS: 5.

2.10 KEY CONTROL SYSTEM
A. MANUFACTURERS:
1. SCHEDULED MANUFACTURER: TELKEE.
2. ACCEPTABLE MANUFACTURERS: HPC, LUND.
B. REQUIREMENTS:
1. PROVIDE KEY CONTROL SYSTEM, INCLUDING ENVELOPES, LABELS, TAGS WITH SELF-LOCKING KEY CLIPS, RECEIPT FORMS, 3-WAY VISIBLE CARD INDEX, TEMPORARY MARKERS, PERMANENT MARKERS, AND STANDARD METAL CABINET, ALL AS RECOMMENDED BY SYSTEM MANUFACTURER, WITH CAPACITY FOR 150% OF NUMBER OF LOCKS REQUIRED FOR PROJECT.
    A. PROVIDE COMPLETE CROSS INDEX SYSTEM SET UP BY HARDWARE SUPPLIER, AND PLACE KEYS OR MARKERS AND HOOKS IN CABINET AS DETERMINED BY FINAL KEY SCHEDULE.
    B. PROVIDE HINGED-PANEL TYPE CABINET FOR WALL MOUNTING.

2.11 DOOR CLOSERS
A. MANUFACTURERS AND PRODUCTS:
1. SCHEDULED MANUFACTURER AND PRODUCT: FALCON SC70A SERIES.
2. ACCEPTABLE MANUFACTURERS AND PRODUCTS: CORBIN RUSSWIN DC6000 SERIES.
B. REQUIREMENTS:
1. PROVIDE DOOR CLOSERS CONFORMING TO ANSI/BHMA A156.4 GRADE 1 REQUIREMENTS BY BHMA CERTIFIED INDEPENDENT TESTING LABORATORY. ISO 9000 CERTIFY CLOSERS. STAMP UNITS WITH DATE OF MANUFACTURE CODE.
2. PROVIDE DOOR CLOSERS WITH FULLY HYDRAULIC, FULL RACK AND PINION ACTION WITH ALUMINUM CYLINDER.
3. CLOSER BODY: 1-1/2 INCH (38 MM) DIAMETER MIN 5/8 INCH (16 MM) DIAMETER HEAT-TREATED PINION JOURNAL.
4. HYDRAULIC FLUID: FIREPROOF, PASSING REQUIREMENTS OF UL10C, AND REQUIRING NO SEASONAL CLOSER ADJUSTMENT FOR TEMPERATURES RANGING FROM 120 DEGREES F TO -30 DEGREES F.
5. SPRING POWER: CONTINUOUSLY ADJUSTABLE OVER FULL RANGE OF CLOSER SIZES, AND PROVIDING REDUCED OPENING FORCE AS REQUIRED BY ACCESSIBILITY CODES AND STANDARDS.
6. HYDRAULIC REGULATION: BY TAMPER-PROOF, NON-CRITICAL VALVES, WITH SEPARATE ADJUSTMENT FOR LATCH SPEED, GENERAL SPEED, AND BACKCHECK.
7. PRESSURE RELIEF VALVE (PRV) TECHNOLOGY: NOT PERMITTED.
8. PROVIDE SPECIAL TEMPLATES, DROP PLATES, MOUNTING BRACKETS, OR ADAPTERS FOR ARMS AS REQUIRED FOR DETAILS, OVERHEAD STOPS, AND OTHER DOOR HARDWARE ITEMS INTERFERING WITH CLOSER MOUNTING.

2.12 DOOR CLOSERS
A. MANUFACTURERS AND PRODUCTS:
1. SCHEDULED MANUFACTURER AND PRODUCT: FALCON SC80A SERIES.
2. ACCEPTABLE MANUFACTURERS AND PRODUCTS: CORBIN RUSSWIN DC3000 SERIES.
B. REQUIREMENTS:
1. PROVIDE DOOR CLOSERS CONFORMING TO ANSI/BHMA A156.4 GRADE 1 REQUIREMENTS BY BHMA CERTIFIED INDEPENDENT TESTING LABORATORY.
2. PROVIDE DOOR CLOSERS WITH FULLY HYDRAULIC, FULL RACK AND PINION ACTION WITH ALUMINUM CYLINDER.
3. CLOSER BODY: 1-1/4 INCH (32 MM) DIAMETER, WITH 5/8 INCH (16 MM) DIAMETER HEAT-TREATED PINION JOURNAL.
4. HYDRAULIC FLUID: FIREPROOF, PASSING REQUIREMENTS OF UL10C, AND REQUIRING NO SEASONAL CLOSER ADJUSTMENT FOR TEMPERATURES RANGING FROM 120 DEGREES F TO -30 DEGREES F.
5. SPRING POWER: CONTINUOUSLY ADJUSTABLE OVER FULL RANGE OF CLOSER SIZES, AND PROVIDING REDUCED OPENING FORCE AS REQUIRED BY ACCESSIBILITY CODES AND STANDARDS.
6. HYDRAULIC REGULATION: BY TAMPER-PROOF, NON-CRITICAL VALVES, WITH SEPARATE ADJUSTMENT FOR LATCH SPEED, GENERAL SPEED, AND BACKCHECK.
7. PRESSURE RELIEF VALVE (PRV) TECHNOLOGY: NOT PERMITTED.
8. PROVIDE SPECIAL TEMPLATES, DROP PLATES, MOUNTING BRACKETS, OR ADAPTERS FOR ARMS AS REQUIRED FOR DETAILS, OVERHEAD STOPS, AND OTHER DOOR HARDWARE ITEMS INTERFERING WITH CLOSER MOUNTING.

2.13 DOOR TRIM
A. MANUFACTURERS:
1. SCHEDULED MANUFACTURER: IVES.
2. ACCEPTABLE MANUFACTURERS: HIAWATHA, TRIMCO.
B. REQUIREMENTS:
1. PROVIDE PUSH PLATES 4 INCHES (102 MM) WIDE BY 16 INCHES (406 MM) HIGH BY 0.050 INCH (1 MM) THICK AND BEVELED 4 EDGES. WHERE WIDTH OF DOOR STILE PREVENTS USE OF 4 INCHES (102 MM) WIDE PLATE, ADJUST WIDTH TO FIT.
2. PROVIDE PUSH BARS OF SOLID BAR STOCK, DIAMETER AND LENGTH AS SCHEDULED. PROVIDE PUSH BARS OF SUFFICIENT LENGTH TO SPAN FROM CENTER TO CENTER OF EACH STILE. WHERE REQUIRED, MOUNT BACK TO BACK WITH PULL.
3. PROVIDE OFFSET PULLS OF SOLID BAR STOCK, DIAMETER AND LENGTH AS SCHEDULED. WHERE REQUIRED, MOUNT BACK TO BACK WITH PUSH BAR.
4. PROVIDE FLUSH PULLS AS SCHEDULED. WHERE REQUIRED, PROVIDE BACK-TO-BACK MOUNTED MODEL.
5. PROVIDE PULLS OF SOLID BAR STOCK, DIAMETER AND LENGTH AS SCHEDULED. WHERE REQUIRED, MOUNT BACK TO BACK WITH PUSH BAR.
6. PROVIDE PULL PLATES 4 INCHES (102 MM) WIDE BY 16 INCHES (406 MM) HIGH BY 0.050 INCH (1 MM) THICK, BEVELED 4 EDGES, AND PREPPED FOR PULL. WHERE WIDTH OF DOOR STILE PREVENTS USE OF 4 INCHES (102 MM) WIDE PLATE, ADJUST WIDTH TO FIT.
7. PROVIDE PULLS OF SOLID BAR STOCK, DIAMETER AND LENGTH AS SCHEDULED. WHERE REQUIRED, MOUNT BACK TO BACK WITH PUSH BAR.
8. PROVIDE PULL PLATES 4 INCHES (102 MM) WIDE BY 16 INCHES (406 MM) HIGH BY 0.050 INCH (1 MM) THICK, BEVELED 4 EDGES, AND PREPPED FOR PULL. WHERE WIDTH OF DOOR STILE PREVENTS USE OF 4 INCHES (102 MM) WIDE PLATE, ADJUST WIDTH TO FIT.

SECTION 08 71 00 – DOOR HARDWARE (CONT.)

2.14 PROTECTION PLATES
A. MANUFACTURERS:
1. SCHEDULED MANUFACTURER: IVES.
2. ACCEPTABLE MANUFACTURERS: HIAWATHA, TRIMCO.
B. REQUIREMENTS:
1. PROVIDE KICK PLATES, MOP PLATES, AND ARMOR PLATES MINIMUM OF 0.050 INCH (1 MM) THICK, BEVELED FOUR EDGES AS SCHEDULED. FURNISH WITH SHEET METAL OR WOOD SCREWS, FINISHED TO MATCH PLATES.
2. SIZES OF PLATES:
    A. KICK PLATES: 10 INCHES (254 MM) HIGH BY 2 INCHES (51 MM) LESS WIDTH OF DOOR ON SINGLE DOORS, 1 INCH (25 MM) LESS WIDTH OF DOOR ON PAIRS
    B. MOP PLATES: 4 INCHES (102 MM) HIGH BY 2 INCHES (51 MM) LESS WIDTH OF DOOR ON SINGLE DOORS, 1 INCH (25 MM) LESS WIDTH OF DOOR ON PAIRS
    C. OVERHEAD STOPS AND OVERHEAD STOPHOLDERS

C. MANUFACTURERS:
1. SCHEDULED MANUFACTURERS: GLYNN-JOHNSON.
2. ACCEPTABLE MANUFACTURERS: RIXSON, SARGENT.
D. REQUIREMENTS:
1. PROVIDE HEAVY DUTY CONCEALED MOUNTED OVERHEAD STOP OR HOLDER AS SPECIFIED FOR EXTERIOR AND INTERIOR VESTIBULE SINGLE ACTING DOORS.
2. PROVIDE HEAVY DUTY CONCEALED MOUNTED OVERHEAD STOP OR HOLDER AS SPECIFIED FOR DOUBLE ACTING DOORS.
3. PROVIDE HEAVY OR MEDIUM DUTY AND CONCEALED OR SURFACE MOUNTED OVERHEAD STOP OR HOLDER FOR INTERIOR DOORS AS SPECIFIED. PROVIDE MEDIUM DUTY SURFACE MOUNTED OVERHEAD STOP FOR INTERIOR DOORS AND AT ANY DOOR THAT SWINGS MORE THAN 140 DEGREES BEFORE STRIKING WALL, OPEN AGAINST EQUIPMENT, CASEWORK, SIDELIGHTS, AND WHERE CONDITIONS DO NOT ALLOW WALL STOP OR FLOOR STOP PRESENTS TRIPPING HAZARD.
4. WHERE OVERHEAD HOLDERS ARE SPECIFIED PROVIDE FRICTION TYPE AT DOORS WITHOUT CLOSER AND POSITIVE TYPE AT DOORS WITH CLOSER.

2.15 DOOR STOPS AND HOLDERS
A. MANUFACTURERS:
1. SCHEDULED MANUFACTURER: IVES.
2. ACCEPTABLE MANUFACTURERS: HIAWATHA, TRIMCO.
B. PROVIDE DOOR STOPS AT EACH DOOR LEAF:
1. PROVIDE WALL STOPS WHEREVER POSSIBLE. PROVIDE CONVEX TYPE WHERE MORTISE TYPE LOCKS ARE USED AND CONCAVE TYPE WHERE CYLINDRICAL TYPE LOCKS ARE USED.
2. WHERE A WALL STOP CANNOT BE USED, PROVIDE UNIVERSAL FLOOR STOPS FOR LOW OR HIGH RISE OPTIONS.
3. WHERE WALL OR FLOOR STOP CANNOT BE USED, PROVIDE MEDIUM DUTY SURFACE MOUNTED OVERHEAD STOP.

2.16 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING
A. MANUFACTURERS:
1. SCHEDULED MANUFACTURER: ZERO INTERNATIONAL.
2. ACCEPTABLE MANUFACTURERS: NATIONAL GUARD, REESE.
B. REQUIREMENTS:
1. PROVIDE THRESHOLDS, WEATHER-STRIPPING (INCLUDING DOOR SWEEPS, SEALS, AND ASTRAGALS) AND GASKETING SYSTEMS (INCLUDING SMOKE, SOUND, AND LIGHT) AS SPECIFIED AND PER ARCHITECTURAL DETAILS. MATCH FINISH OF OTHER ITEMS.
2. SMOKE- AND DRAFT-CONTROL DOOR ASSEMBLIES: WHERE SMOKE- AND DRAFT-CONTROL DOOR ASSEMBLIES ARE REQUIRED, PROVIDE DOOR HARDWARE THAT MEETS REQUIREMENTS OF ASSEMBLIES TESTED ACCORDING TO UL 1784 AND INSTALLED IN COMPLIANCE WITH NFPA 105.
3. SIZE OF THRESHOLDS:
    A. SADDLE THRESHOLDS: 1/2 INCH (13 MM) HIGH BY JAMB WIDTH BY DOOR WIDTH
    B. BUMPER SEAL THRESHOLDS: 1/2 INCH (13 MM) HIGH BY 5 INCHES (127 MM) WIDE BY DOOR WIDTH
4. PROVIDE DOOR SWEEPS, SEALS, ASTRAGALS, AND AUTO DOOR BOTTOMS ONLY OF TYPE WHERE RESILIENT OR FLEXIBLE SEAL STRIP IS EASILY REPLACEABLE AND READILY AVAILABLE.

2.17 SILENCERS
A. MANUFACTURERS:
1. SCHEDULED MANUFACTURER: IVES.
2. ACCEPTABLE MANUFACTURERS: HIAWATHA, TRIMCO.
B. REQUIREMENTS:
1. PROVIDE "PUSH-IN" TYPE SILENCERS FOR HOLLOW METAL OR WOOD FRAMES.
2. PROVIDE ONE SILENCER PER 30 INCHES (762 MM) OF HEIGHT ON EACH SINGLE FRAME, AND TWO FOR EACH PAIR FRAME.
3. OMIT WHERE GASKETING IS SPECIFIED.

2.18 BI-FOLD DOOR HARDWARE
A. MANUFACTURER:
1. SCHEDULED MANUFACTURER: JOHNSON HARDWARE.
2. ACCEPTABLE MANUFACTURERS: STANLEY, KN CROWDER.
B. REQUIREMENTS:
1. PROVIDE COMPLETE SETS OF BI-FOLD DOOR HARDWARE AS RECOMMENDED BY MANUFACTURER FOR DOOR TYPE AND WEIGHT.
    a. INCLUDE TRACK, HANGERS, FASTENERS, GUIDES, AND OTHER HARDWARE AS REQUIRED FOR COMPLETE INSTALLATION.

2.19 FINISHES
A. FINISH: BHMA 626/652 (US26D); EXCEPT:
1. CONTINUOUS HINGES: BHMA 628 (US28)
2. PUSH PLATES, PULLS, AND PUSH BARS: BHMA 630 (US32D)
3. PROTECTION PLATES: BHMA 630 (US32D)
4. OVERHEAD STOPS AND HOLDERS: BHMA 630 (US32D)
5. DOOR CLOSERS: POWDER COAT TO MATCH
6. WALL STOPS: BHMA 630 (US32D)
7. WEATHERSTRIPPING: CLEAR ANODIZED ALUMINUM
8. THRESHOLDS: MILL FINISH ALUMINUM

PART 3 – EXECUTION
3.01 EXAMINATION
A. PRIOR TO INSTALLATION OF HARDWARE, EXAMINE DOORS AND FRAMES, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS FOR INSTALLATION TOLERANCES, LABELED FIRE-RATED DOOR ASSEMBLY CONSTRUCTION, WALL AND FLOOR CONSTRUCTION, AND OTHER CONDITIONS AFFECTING PERFORMANCE.
B. FIELD VERIFY EXISTING DOORS AND FRAMES RECEIVING NEW HARDWARE AND EXISTING CONDITIONS RECEIVING NEW OPENINGS. VERIFY THAT NEW HARDWARE IS COMPATIBLE WITH EXISTING DOOR AND FRAME PREPARATION AND EXISTING CONDITIONS.
C. EXAMINE ROUGHING-IN FOR ELECTRICAL POWER SYSTEMS TO VERIFY ACTUAL LOCATIONS OF WIRING CONNECTIONS BEFORE ELECTRIFIED DOOR HARDWARE INSTALLATION.
D. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
3.02 PREPARATION
A. WHERE ON-SITE MODIFICATION OF DOORS AND FRAMES IS REQUIRED:
1. CAREFULLY REMOVE EXISTING DOOR HARDWARE AND COMPONENTS BEING REUSED. CLEAN, PROTECT, TAG, AND STORE IN ACCORDANCE WITH STORAGE AND HANDLING REQUIREMENTS SPECIFIED HEREIN.
2. FIELD MODIFY AND PREPARE EXISTING DOOR AND FRAME FOR NEW HARDWARE BEING INSTALLED.
3. WHEN MODIFICATIONS ARE EXPOSED TO VIEW, USE CONCEALED FASTENERS, WHEN POSSIBLE.
4. PREPARE HARDWARE LOCATIONS AND REINSTALL IN ACCORDANCE WITH INSTALLATION REQUIREMENTS FOR NEW DOOR HARDWARE AND WITH:
    A. STEEL DOORS AND FRAMES: FOR SURFACE APPLIED DOOR HARDWARE, DRILL AND TAP DOORS AND FRAMES ACCORDING TO ANSI/SDI A250.6.
    B. WOOD DOORS: DHI WDHS.5 "RECOMMENDED HARDWARE REINFORCEMENT LOCATIONS FOR MINERAL CORE WOOD FLUSH DOORS."
    C. DOORS IN RATED ASSEMBLIES: NFPA 80 FOR RESTRICTIONS ON ON-SITE DOOR HARDWARE PREPARATION.

3.03 INSTALLATION
A. MOUNT DOOR HARDWARE UNITS AT HEIGHTS TO COMPLY WITH THE FOLLOWING, UNLESS OTHERWISE INDICATED OR REQUIRED TO COMPLY WITH GOVERNING REGULATIONS.
1. STANDARD STEEL DOORS AND FRAMES: ANSI/SDI A250.8.
2. CUSTOM STEEL DOORS AND FRAMES: HMMA 831.
3. WOOD DOORS: DHI WDHS.3, "RECOMMENDED LOCATIONS FOR ARCHITECTURAL HARDWARE FOR WOOD FLUSH DOORS."
B. INSTALL EACH HARDWARE ITEM IN COMPLIANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, USING ONLY FASTENERS PROVIDED BY MANUFACTURER.
C. DO NOT INSTALL SURFACE MOUNTED ITEMS UNTIL FINISHES HAVE BEEN COMPLETED ON SUBSTRATE. PROTECT ALL INSTALLED HARDWARE DURING PAINTING.
D. SET UNITS LEVEL, PLUMB AND TRUE TO LINE AND LOCATION. ADJUST AND REINFORCE ATTACHMENT SUBSTRATE AS NECESSARY FOR PROPER INSTALLATION AND OPERATION.
E. DRILL AND COUNTERSINK UNITS THAT ARE NOT FACTORY PREPARED FOR ANCHORAGE FASTENERS. SPACE FASTENERS AND ANCHORS ACCORDING TO INDUSTRY STANDARDS.
F. INSTALL OPERATING PARTS SO THEY MOVE FREELY AND SMOOTHLY WITHOUT BINDING, STICKING, OR EXCESSIVE CLEARANCE.
G. HINGES: INSTALL TYPES AND IN QUANTITIES INDICATED IN DOOR HARDWARE SCHEDULE BUT NOT FEWER THAN QUANTITY RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED OR ONE HINGE FOR EVERY 30 INCHES (750 MM) OF DOOR HEIGHT, WHICHEVER IS MORE STRINGENT, UNLESS OTHER EQUIVALENT MEANS OF SUPPORT FOR DOOR, SUCH AS SPRING HINGES OR PIVOTS, ARE PROVIDED.

SECTION 08 71 00 – DOOR HARDWARE (CONT.)

H. LOCK CYLINDERS: INSTALL CONSTRUCTION CORES TO SECURE BUILDING AND AREAS DURING CONSTRUCTION PERIOD.
    1. REPLACE CONSTRUCTION CORES WITH PERMANENT CORES AS INDICATED IN KEYING SECTION.
I. WIRING: COORDINATE WITH DIVISION 26, ELECTRICAL SECTIONS FOR:
    1. CONDUIT, JUNCTION BOXES AND WIRE PULLS.
    2. CONNECTIONS TO AND FROM POWER SUPPLIES TO ELECTRIFIED HARDWARE.
    3. CONNECTIONS TO FIRE/SMOKE ALARM SYSTEM AND SMOKE EVACUATION SYSTEM.
    4. CONNECTION OF WIRE TO DOOR POSITION SWITCHES AND WIRE RUNS TO CENTRAL ROOM OR AREA, AS DIRECTED BY ARCHITECT.
    5. TESTING AND LABELING WIRES WITH ARCHITECT'S OPENING NUMBER.
J. KEY CONTROL SYSTEM: TAG KEYS AND PLACE THEM ON MARKERS AND HOOKS IN KEY CONTROL SYSTEM CABINET, AS DETERMINED BY FINAL KEYING SCHEDULE.
K. DOOR CLOSERS: MOUNT CLOSERS ON ROOM SIDE OF CORRIDOR DOORS, INSIDE OF EXTERIOR DOORS, AND STAIR SIDE OF STAIRWAY DOORS FROM CORRIDORS. MOUNT CLOSERS SO THEY ARE NOT VISIBLE IN CORRIDORS, LOBBIES AND OTHER PUBLIC SPACES UNLESS APPROVED BY ARCHITECT.
L. CLOSER/HOLDERS: MOUNT CLOSER/HOLDERS ON ROOM SIDE OF CORRIDOR DOORS, INSIDE OF EXTERIOR DOORS, AND STAIR SIDE OF STAIRWAY DOORS.
M. THRESHOLDS: SET THRESHOLDS IN FULL BED OF SEALANT COMPLYING WITH REQUIREMENTS SPECIFIED IN DIVISION 07 SECTION "JOINT SEALANTS."
N. STOPS: PROVIDE FLOOR STOPS FOR DOORS UNLESS WALL OR OTHER TYPE STOPS ARE INDICATED IN DOOR HARDWARE SCHEDULE. DO NOT MOUNT FLOOR STOPS WHERE THEY MAY IMPEDE TRAFFIC OR PRESENT TRIPPING HAZARD.
O. PERIMETER GASKETING: APPLY TO HEAD AND JAMB, FORMING SEAL BETWEEN DOOR AND FRAME.
P. MEETING STILE GASKETING: FASTEN TO MEETING STILES, FORMING SEAL WHEN DOORS ARE CLOSED.
Q. DOOR BOTTOMS: APPLY TO BOTTOM OF DOOR, FORMING SEAL WITH THRESHOLD WHEN DOOR IS CLOSED.
3.04 FIELD QUALITY CONTROL
A. ENGAGE QUALIFIED MANUFACTURER TRAINED REPRESENTATIVE TO PERFORM INSPECTIONS AND TO PREPARE INSPECTION REPORTS.
    1. REPRESENTATIVE WILL INSPECT DOOR HARDWARE AND STATE IN EACH REPORT WHETHER INSTALLED WORK COMPLIES WITH OR DEVIATES FROM REQUIREMENTS, INCLUDING WHETHER DOOR HARDWARE IS PROPERLY INSTALLED AND ADJUSTED.
3.05 ADJUSTING
A. INITIAL ADJUSTMENT: ADJUST AND CHECK EACH OPERATING ITEM OF DOOR HARDWARE AND EACH DOOR TO ENSURE PROPER OPERATION OR FUNCTION OF EVERY UNIT. REPLACE UNITS THAT CANNOT BE ADJUSTED TO OPERATE AS INTENDED. ADJUST DOOR CONTROL DEVICES TO COMPENSATE FOR FINAL OPERATION OF HEATING AND VENTILATING EQUIPMENT AND TO COMPLY WITH REFERENCED ACCESSIBILITY REQUIREMENTS.
    1. DOOR CLOSERS: ADJUST SWEEP PERIOD TO COMPLY WITH ACCESSIBILITY REQUIREMENTS AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
B. OCCUPANCY ADJUSTMENT: APPROXIMATELY THREE TO SIX MONTHS AFTER DATE OF SUBSTANTIAL COMPLETION, INSTALLER'S ARCHITECTURAL HARDWARE CONSULTANT MUST EXAMINE AND READJUST EACH ITEM OF DOOR HARDWARE, INCLUDING ADJUSTING OPERATING FORCES, AS NECESSARY TO ENSURE FUNCTION OF DOORS AND DOOR HARDWARE.
3.06 CLEANING AND PROTECTION
A. CLEAN ADJACENT SURFACES SOILED BY DOOR HARDWARE INSTALLATION.
B. CLEAN OPERATING ITEMS AS NECESSARY TO RESTORE PROPER FUNCTION AND FINISH.
C. PROVIDE FINAL PROTECTION AND MAINTAIN CONDITIONS THAT ENSURE DOOR HARDWARE IS WITHOUT DAMAGE OR DETERIORATION AT TIME OF SUBSTANTIAL COMPLETION.
3.07 DOOR HARDWARE SCHEDULE
A. HARDWARE ITEMS ARE REFERENCED IN THE FOLLOWING HARDWARE. REFER TO THE ABOVE-SPECIFICATIONS FOR SPECIAL FEATURES, OPTIONS, CYLINDERS/KEYING, AND OTHER REQUIREMENTS.
B. HARDWARE SETS: SEE AS-1.

SECTION 09260 - GYPSUM BOARD ASSEMBLIES

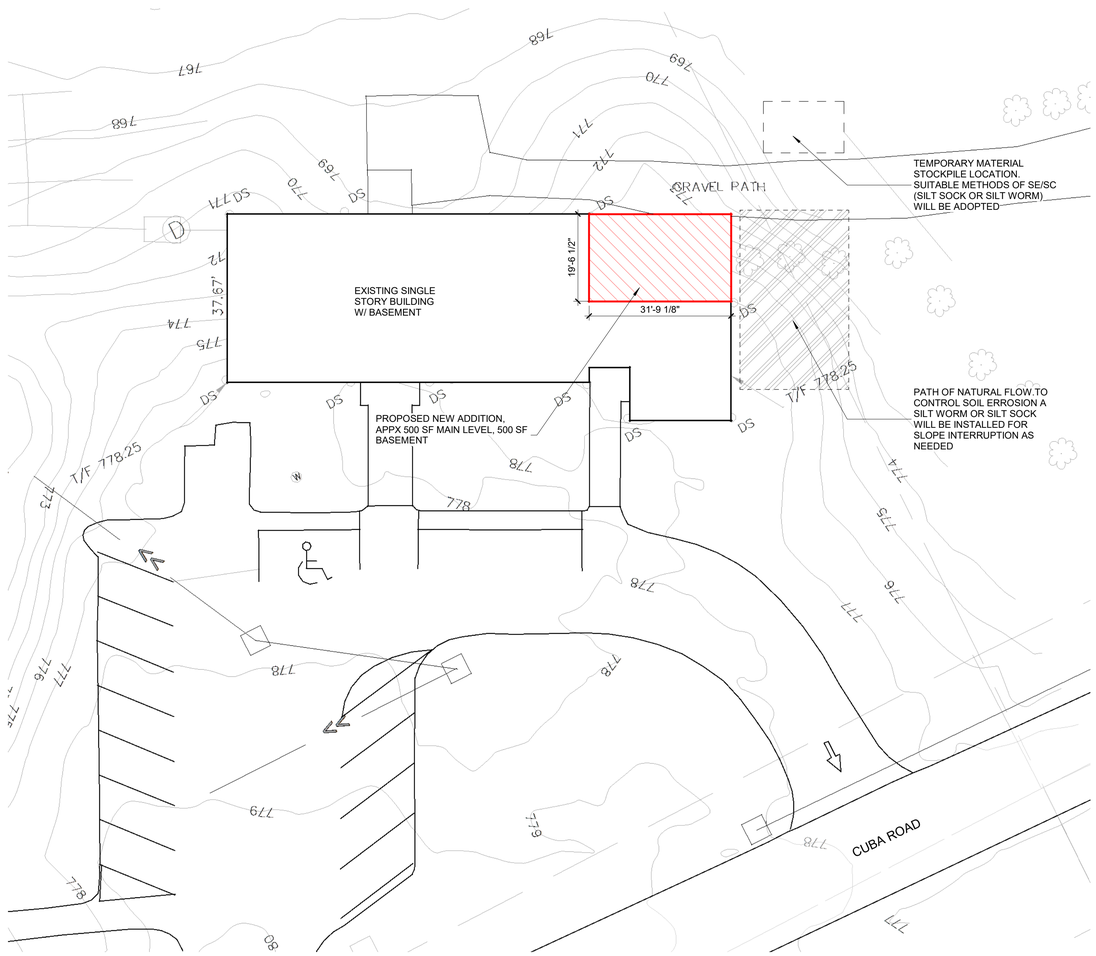
PART 1 – GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA.
B. FIRE-RESISTANCE-RATED ASSEMBLIES: PROVIDE MATERIALS AND CONSTRUCTION IDENTICAL TO THOSE TESTED IN ASSEMBLIES PER ASTM E 119 BY AN INDEPENDENT TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
C. STC-RATED ASSEMBLIES: PROVIDE MATERIALS AND CONSTRUCTION IDENTICAL TO THOSE TESTED IN ASSEMBLIES PER ASTM E 90 AND CLASSIFIED PER ASTM E 413 BY A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY.

PART 2 – PRODUCTS
2.1 METAL FRAMING AND SUPPORTS
A. STEEL FRAMING MEMBERS: GENERAL: ASTM C 754.
    1. STEEL SHEET COMPONENTS: ASTM C 645, WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT ZINC COATING.
B. SUSPENDED CEILING AND SOFFIT FRAMING.
    1. TIE WIRE: ASTM A 641/A 641M, CLASS 1 ZINC COATING, SOFT TEMPER, 0.0625-INCH DIAMETER, OR DOUBLE STRAND OF 0.0475 INCH-DIAMETER WIRE.
    2. WIRE HANGERS: ASTM A 641/A 641M, CLASS 1 ZINC COATING, SOFT TEMPER, 0.162-INCH DIAMETER.
    3. FURRING CHANNELS: STEEL STUDS, 0.0312 INCH THICK, IN DEPTH INDICATED.
    4. GRID SUSPENSION SYSTEM FOR INTERIOR CEILINGS: INTERLOCKING, DIRECT-HUNG SYSTEM.
C. PARTITION AND SOFFIT FRAMING:
    1. STUDS AND RUNNERS: IN DEPTH INDICATED AND [0.0312 INCH THICK, UNLESS OTHERWISE INDICATED.
    2. FLAT STRAP AND BACKING: 0.027 INCH THICK.
2.2 PANEL PRODUCTS
A. PROVIDE IN MAXIMUM LENGTHS AVAILABLE TO MINIMIZE END-TO-END BUTT JOINTS.
B. GYPSUM WALLBOARD: ASTM C 36, IN THICKNESS INDICATED, WITH MANUFACTURER'S STANDARD EDGES. REGULAR TYPE, UNLESS OTHERWISE INDICATED, AND AS REQUIRED FOR SPECIFIC FIRE-RESISTANCE-RATED ASSEMBLIES.
C. CEMENTITIOUS BACKER UNITS: ANSI A118.9.
2.3 ACCESSORIES
A. TRIM ACCESSORIES: ASTM C 1047, FORMED FROM GALVANIZED OR ALUMINUM-COATED STEEL SHEET, ROLLED ZINC, OR PLASTIC.
    1. PROVIDE CORNERBEAD AT OUTSIDE CORNERS, UNLESS OTHERWISE INDICATED.
    2. PROVIDE LC-BEAD (J-BEAD) AT EXPOSED PANEL EDGES.
    3. PROVIDE CONTROL JOINTS WHERE INDICATED.
B. ALUMINUM ACCESSORIES: EXTRUDED-ALUMINUM ACCESSORIES INDICATED WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT PRIMER CLASS II, CLEAR ANODIC FINISH; AA-C12C22A31.
C. JOINT-TREATMENT MATERIALS: ASTM C 475.
    1. JOINT TAPE: PAPER, UNLESS OTHERWISE RECOMMENDED BY PANEL MANUFACTURER.
    2. JOINT COMPOUNDS: DRYING-TYPE, READY-MIXED, ALL-PURPOSE COMPOUNDS.
    3. CEMENTITIOUS BACKER UNIT JOINT-TREATMENT MATERIALS: PRODUCTS RECOMMENDED BY CEMENTITIOUS BACKER UNIT MANUFACTURER.
D. ACOUSTICAL SEALANT FOR EXPOSED AND CONCEALED JOINTS: NONSAG, PAINTABLE, NONSTAINING LATEX SEALANT COMPLYING WITH ASTM C 834.
E. SOUND-ATTENUATION BLANKETS: ASTM C 665, TYPE I (UNFACED).
F. MISCELLANEOUS MATERIALS: AUXILIARY MATERIALS FOR GYPSUM BOARD CONSTRUCTION THAT COMPLY WITH REFERENCED STANDARDS.

PART 3 – EXECUTION
3.1 INSTALLATION
A. INSTALL STEEL FRAMING TO COMPLY WITH ASTM C 754 AND WITH ASTM C 840 REQUIREMENTS THAT APPLY TO FRAMING INSTALLATION AND WITH UNITED STATES GYPSUM'S "GYPSUM CONSTRUCTION HANDBOOK."
B. ISOLATE STEEL FRAMING FROM BUILDING STRUCTURE, EXCEPT AT FLOOR, TO PREVENT TRANSFER OF LOADING IMPOSED BY STRUCTURAL MOVEMENT.
    1. WHERE STUDS ARE INSTALLED DIRECTLY AGAINST EXTERIOR WALLS, INSTALL FOAM-GASKET ISOLATION STRIP BETWEEN STUDS AND WALL.
C. INSTALL AND FINISH GYPSUM PANELS TO COMPLY WITH ASTM C 840 AND GA-216.
    1. ISOLATE GYPSUM BOARD ASSEMBLIES FROM ABUTTING STRUCTURAL AND MASONRY WORK.
    2. PROVIDE EDGE TRIM AND ACOUSTICAL SEALANT.
    2. SINGLE-LAYER FASTENING METHODS: FASTEN GYPSUM PANELS TO SUPPORTS WITH SCREWS.
    3. MULTILAYER FASTENING METHODS: FASTEN BASE LAYERS AND FACE LAYER SEPARATELY TO SUPPORTS WITH SCREWS.
D. STC-RATED ASSEMBLIES: COMPLY WITH ASTM C 919 FOR LOCATION OF EDGE TRIM AND CLOSING OFF SOUND-FLANKING PATHS AROUND OR THROUGH GYPSUM BOARD ASSEMBLIES.
E. FIRE-RESISTANCE-RATED ASSEMBLIES: COMPLY WITH REQUIREMENTS OF LISTED ASSEMBLIES.
F. CEMENTITIOUS BACKER UNITS: COMPLY WITH ANSI A108.11.
G. FINISHING GYPSUM BOARD ASSEMBLIES:
    1. UNLESS OTHERWISE INDICATED, PROVIDE LEVEL 4 FINISH: EMBED TAPE AND APPLY SEPARATE FIRST, FILL, AND FINISH COATS OF JOINT COMPOUND TO TAPE, FASTENERS, AND TRIM FLANGES.
    2. AT CONCEALED AREAS, UNLESS A HIGHER LEVEL OF FINISH IS REQUIRED FOR FIRE-RESISTANCE-RATED ASSEMBLIES, PROVIDE LEVEL 1 FINISH: EMBED TAPE AT JOINTS.
    3. AT SUBSTRATES FOR TILE, PROVIDE LEVEL 2 FINISH: EMBED TAPE AND APPLY SEPARATE FIRST COAT OF JOINT COMPOUND TO TAPE, FASTENERS, AND TRIM FLANGES.

SECTION 09512 - ACOUSTICAL TILE CEILINGS

PART 1 – GENERAL
1.1 SECTION REQUIREMENTS
A. SUBMITTALS: PRODUCT DATA AND MATERIAL SAMPLES.
B. SURFACE-BURNING CHARACTERISTICS OF PANELS: ASTM E 1264,CLASS A MATERIALS, TESTED PER ASTM E 84.
C. FIRE-RESISTANCE-RATED ASSEMBLIES: PROVIDE MATERIALS AND CONSTRUCTION IDENTICAL TO THOSE TESTED IN ASSEMBLIES PER ASTM E 119 BY AN INDEPENDENT TESTING AND INSPECTING AGENCY AC



1 SITE/ GRADING PLAN
1/16" = 1'-0"

GENERAL SITE PLAN NOTES

1. SEE SHEET **G1-1** FOR GENERAL NOTES, SYMBOLS, AND ABBREVIATIONS.
2. CONTRACTOR TO HIRE A PRIVATE UTILITY LOCATING COMPANY TO LOCATE ALL UTILITIES ON SITE AND UTILITIES INVOLVING COORDINATION OF WORK. THE CONTRACTOR SHALL PROVIDE THE OWNER AND PROJECT ARCHITECT AT LEAST TWO (2) WORKING DAYS OF NOTICE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.
3. TAKE SPECIAL CARE NOT TO DAMAGE OR DISTURB EXISTING UTILITY SERVICES. ALL UTILITY SERVICES DAMAGED SHALL BE PLACED BACK IN SERVICE PROMPTLY, AT NO EXPENSE TO OWNER.
4. ALL POSTS, FENCE FABRIC, CONC. FOOTINGS, ETC. THAT ARE REMOVED SHALL BE DISPOSED OF AND NOT REUSED IN ANY PORTION OF THE PROJECT UNO. NEW PERIMETER FENCE AND CONC. FOOTINGS TO BE INSTALLED IN NEW LOCATIONS AS INDICATED.
5. PATCH/REPAIR/PAINT ALL EXISTING DISTURBED ADJACENT/DAMAGED CONSTRUCTION TO A FINISHED APPEARANCE WHETHER OR NOT INDICATED ON THE PLANS. NEW MATERIALS & FINISHES SHALL BE BROUGHT TO A STOPPING POINT TO MINIMIZE DETECTION OF REPAIR, VERIFY LOCATIONS WITH ARCHITECT.
6. CONTRACTOR RESPONSIBLE FOR ALL DAMAGE THAT OCCURS TO EXISTING CONSTRUCTION THAT IS TO REMAIN, EVEN IF NOT IN DESIGNATED WORK AREAS.
7. CONFIRM WITH OWNER ITEMS TO BE SALVAGED. RELOCATE TO OWNER DESIGNATED LOCATION.
8. AFTER CONCRETE/ASPHALT WORK HAS BEEN COMPLETED, RESTORE ALL ADJACENT DAMAGED GRASS AREAS W/ NEW SOD, UNO - SEE SPECIFICATIONS AND CIVIL DRAWINGS.
9. ALL PAVEMENT MARKINGS SHOWN ON ARCHITECTURAL, OR CIVIL DRAWINGS INCLUDING, BUT NOT LIMITED TO, STRIPING ARROWS, STOP BARS, HATCHING, ADA SYMBOLS, ETC. ARE ASSUMED TO BE INCLUDED IN THE BID.
10. AFTER ALL WORK HAS BEEN COMPLETED, RESTORE ALL ADJACENT DAMAGED GRASS AREAS WITH NEW PULVERIZED BLACK DIRT (6" MIN) AND APPROVED SOD AND ALL ADJACENT PLANTED AREAS WITH MATCHING/SIMILAR MATERIALS OF SIMILAR SIZE/AGE AS DIRECTED BY OWNER, AT NO EXPENSE TO OWNER.
11. ASPHALT GRINDINGS SHALL NOT BE REUSED AS AN ASPHALT BASE.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADES, AND EXTENT OF ROUGH GRADING AND FINE GRADING, INCLUDING DE-ROCKING AND IMPORTING FRESH DIRT, AS REQUIRED.
13. VERIFY ALL EXISTING CONDITIONS RELATED TO CONSTRUCTION COMPARED TO THE INFORMATION PROVIDED IN THE CONSTRUCTION DOCUMENTS. IF DISCREPANCIES OR CONFLICTS BETWEEN THE TWO ARE DISCOVERED, NOTIFY THE ARCHITECT FOR CLARIFICATION PRIOR TO SUBMITTING A BID AND/OR PERFORMING WORK.
14. COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES.
15. CONTRACTOR IS RESPONSIBLE TO LOCATE, IDENTIFY, DISCONNECT AND SEAL OR CAP OFF UTILITIES SERVING BUILDINGS AND STRUCTURE TO BE DEMOLISHED. EXISTING UTILITIES TO BE DISCONNECTED TO THE POINT OR SOURCE OR AS DETERMINED TO THE AUTHORITY HAVING JURISDICTION. CONTRACTOR IS RESPONSIBLE TO COORDINATE SHUT DOWNS WITH ALL UTILITY COMPANIES AND TO COORDINATE WITH EXISTING CONDITIONS. UTILITY COMPANIES INCLUDE, BUT ARE NOT LIMITED TO ELECTRIC, GAS, WATER, TELEPHONE AND CABLE.
16. THE CONTRACTOR IS TO IMPLEMENT A STORMWATER POLLUTION AND PREVENTION PLAN (SWPP) AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
17. FIELD VERIFY AND COORDINATE THE EXACT LOCATIONS AND EXTENT OF ALL DEMOLITION AS REQUIRED. PROPERLY DISPOSE ALL ITEMS OFF SITE THAT ARE TO BE REMOVED. VERIFY WITH OWNER IF ANY ITEMS NEED TO BE SALVAGED BEFORE DISPOSING.
18. LEGALLY DISPOSE OF ALL MATERIALS OR RECYCLE OF THEM PER THE ILLINOIS EPA AND FEDERAL GOVERNMENT.
19. ENTRAPMENT. OPENINGS IN GUARDRAILS AND SPACES BETWEEN PLATFORMS, LADDER RUNGS, AND UPRIGHTS IN PROTECTIVE BARRIERS ON CLIMBING EQUIPMENT THAT MEASURE 3" MAXIMUM AIR SPACE BETWEEN PICKETS
20. DO NOT USE TOXIC PLANTS. EXISTING PLANTS SHALL BE EVALUATED AND HAZARDOUS PLANTS REMOVED. CONTACT OWNER FOR LIST OF POISONOUS PLANTS. CONTRACTOR IS RESPONSIBLE FOR ENSURING NO POISONOUS PLANTS ARE USED. PLANTS WHICH HAVE FRUITS THAT POSE A CHOKING HAZARDS SHALL NOT BE USED. PLANTS WITH OTHER HAZARDS SUCH AS THORNS SHALL NOT BE USED. EXISTING VEGETATION SHALL BE PROTECTED WHENEVER POSSIBLE.
21. NO TREE SHALL BE PLANTED WITHIN 10' OF A UTILITY LINE UNLESS APPROVED BY OWNER
22. TREES AND SHRUBS SHALL NOT INTERFERE WITH PHYSICAL OR SIGHT CLEARANCES REQUIRED FOR VEHICLE OR PEDESTRIAN TRAFFIC WITHIN AND ACCESSING THE SITE, BOTH INITIALLY AND THROUGH MATURITY.
23. THERE IS NO SITE GRADING ASSOCIATED WITH THE NEW SCOPE OF WORK

SITE PLAN LEGEND

- VEGETATION
- DS — DOWNSPOUT
- STORM MANHOLE
- W — WELL
- CATCH BASIN
- STORM SEWER

SUMMARY OF IMPERVIOUS SURFACES

EXIST:	
ASPHALT PARKING:	11,675 SF
SIDEWALKS AND CONCRETE PADS:	560 SF
EXISTING ROOF:	4,340 SF
TOTAL EXIST SURFACES:	**16,575 SF**
NEW:	
PROPOSED NEW ADDITION ROOF:	**615 SF**
EXIST SURFACES:	16,575 SF
NEW SURFACES:	615 SF
TOTAL ALL IMPERVIOUS SURFACES:	**17,190 SF**

NOTE: SQUARE FOOTAGE IS APPROXIMATE

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SITE PLAN

G1-7

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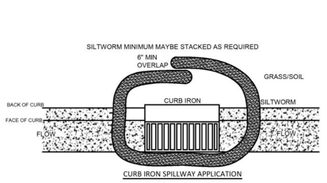
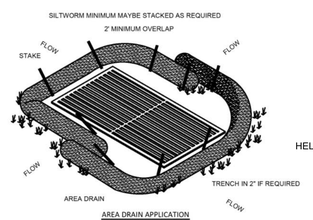
MINIMUM SPECIFICATION FOR SILTWORM		
PROPERTY		
PH	PH	5.0 - 8.5
MOISTURE CONTENT	% WET WEIGHT BASIS	< 60
ORGANIC MATTER CONTENT	% DRY WEIGHT BASIS	25 - 100
PHYSICAL CONTAMINANTS	% DRY WEIGHT BASIS	< 1%
PARTICLE SIZE		2 INCH - 70%-80% ⅜ INCH - 20% - 30% MAX. PARTICLE SIZE 2"

SILTWORM HEIGHTS INSTALLED		
NOMINAL DIAMETER, D	INSTALLED HEIGHT OF SINGLE SILTWORM	INSTALLED HEIGHT OF STACKED SILTWORM
9"	7.5"'	N/A
12"	9.5"	19"
18"	14.5"	29"

FOR DITCH CHECK APPLICATIONS THE MAXIMUM DRAINAGE AREA SHALL BE 15 ACRES. THE MINIMUM INSTALLED HEIGHT OF THE SILTWORM SHALL BE NO LESS THAN 19". THIS CAN BE ACCOMPLISHED BY STACKING SILTWORM PER STACK DETAIL ON PAGE 3. SILTWORM SHALL BE INSTALLED PERPENDICULAR TO THE WATER-FLOW, AND SHOULD PROGRESS UP THE SIDE-SLOPES OF THE DITCH BY A MINIMUM OF 3'.



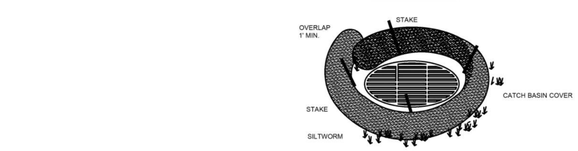
CURB IRON SPILLWAY APPLICATION



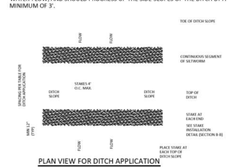
AREA DRAIN APPLICATION

HELLO

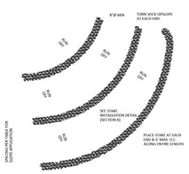
FLARED END APPLICATION



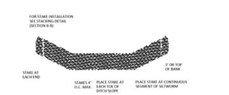
CATCH BASIN APPLICATION



PLAN VIEW FOR DITCH APPLICATION



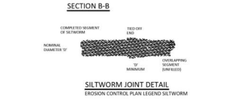
PLAN VIEW FOR FOR SLOPE APPLICATION



DITCH CHECK APPLICATION

SECTION B-B

SILTWORM JOINT STACK DETAIL ONLY)
SEE NOTE



SILTWORM JOINT DETAIL
EROSION CONTROL PLAN LEGEND SILTWORM

1 SILTWORM DETAILS NTS

SILTWORM HEIGHTS INSTALLED

7.5"

MINIMUM SPECIFICATION FOR SILTWORM

NOTE: MANUFACTURER SPECIFICATIONS MAY BE SUBSTITUTE WITH THE APPROVAL OF ENGINEER

SILTWORM CHECK DAM ESTIMATED QUANTITIES				
	V - DITCH (1)		TRAPEZOIDAL DITCH (2)	
	12" SILTWORM	18" SILTWORM	12" SILTWORM	18" SILTWORM
LENGTH (FT)	60	45	72	60

(1) ESTIMATED QUANTITIES BASED ON A 4:1 SIDE SLOPE. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION
(2) ESTIMATED QUANTITIES BASED ON A 4:1 T BOTTOM WIDTH, 4 FT. DEPTH, AND 4:1 SIDE SLOPES. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION

SILTWORM SPACING FOR SLOPE APPLICATION

SILTWORM SPACING FOR DITCH APPLICATION

N/A = NOT RECOMMENDED SPACING NOT TO EXCEED 100'

SILTWORM GENERAL NOTES

SILTWORM ARE SUPPLIED AND INSTALLED IN DIAMETERS OF 9", 12", OR 18". DIAMETER TOLERANCES ARE 2". SILTWORM WILL BECOME OVAL IN SHAPE WHEN IN PLACE, THUS THE INSTALLED HEIGHT WILL BE LESS THAN NORMAL DIAMETER.

MATERIAL SPECIFICATIONS

NETTING:

SILTWORM IS A TUBULAR KNIT HIGH DENSITY POLYPROPYLENE

FILL MATERIAL:

IS A KILN DRIED MATERIAL CONSISTING OF WOOD CHIPS, BARK FREE SOFTWOOD, THAT IS 100% RECYCLED.

APPLICATIONS

SILTWORM CAN BE PLACED IN DITCHES OR AT THE TOP, ON THE FACE, OR AT THE TOW OF SLOPES AS SEDIMENT TRAPPING DEVICES. THEY CAN ALSO SERVE TO REMOVE SEDIMENT FROM RUNOFF AND RELEASE IT AS SHEET FLOW.

PERIMETER CONTROL:

PLACE SILTWORM DIRECTLY ON TOP OF GRADE, AND OVERLAP ENDS A MINIMUM OF 6". SITE PREPARATION IS MINIMAL, AND THERE IS NO STAKING OR TRENCHING REQUIREMENT FOR GRADES UNDER 12%. ARRANGE THE SILTWORM PERIMETER CONTROL IN A MANNER THAT IS APPLIED PERPENDICULAR TO SHEET FLOW. MAINTAIN CONSISTENT GROUND CONTACT.

SLOPE INTERRUPTION:

PLACE SILTWORM PERPENDICULAR TO SHEET FLOW AND CURL ENDS UP TOWARD THE TOP OF THE SLOPE. STAKE THE SILTWORM EVERY 6', AND OVERLAP THE ENDS BETWEEN 1 TO 2 FEET. PLACE A LINE OF DEPENSE AT THE TOP OF THE SLOPE, AND ANOTHER WITHIN 10' FROM THE TOE OF THE SLOPE.

SILTWORM INSTALLATION ON A SLOPE SHALL BE PLACED ALONG OR ON THE GROUND CONTOUR. WHERE POSSIBLE SILTWORM APPLIED TO THE TOE OF A SLOPE SHOULD BE PLACED 10 FEET AWAY FROM THE TOE IN ORDER TO PROVIDE SEDIMENT STORAGE.

DITCH CHECK:

SILTWORM SHOULD BE INSTALLED WITH A SLIGHT ENTRENCHMENT, AND STAKED EVERY 4' IN THE DITCH CHECK APPLICATION.

FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE ARE SHALL BE 15 ACRES. AT SITES WHICH DRAIN INTO A WATERWAY OR SENSITIVE OR SEDIMENT IMPAIRED STREAMS, THE MAXIMUM DRAINAGE AREA SHALL BE LIMITED TO 10 ACRES.

SILTWORM SHALL BE PLACED PERPENDICULAR TO THE FLOW OF WATER. SILTWORM SHALL CONTINUE UP THE SIDE SLOPES TO THE UP-OF BANK OR A MAXIMUM OF 2 FEET ABOVE THE INSTALLED HEIGHT. SILTWORM SHALL REMAIN IN PLACE UNTIL ALL UPSTREAM AREAS ARE PERMANENTLY STABILIZED.

MAINTENANCE

SILTWORMS SHALL BE INSPECTED AFTER EACH RUNOFF EVENT AND SHALL BE REMOVED AND REPLACED IT SIGNS OF UNDERCUTTING OR DOWN STRAMMING BULLS ARE OBSERVED

SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILTWORM WHEN IT HAS ACCUMULATED TO ½ THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 25X-05, SEDIMENT REMOVAL PER CUBIC YARD.

REMOVAL

SILTWORM SHALL BE REMOVED FROM SLOPES, DITCHES, VEGIMETERS, OR INLETS AFTER STABILIZATION IS COMPLETE. THIS MAY BE ACCOMPLISHED BY CUTTING THE SOCK OPEN AND SPREADING THE FILL MATERIAL ON THE SITE. ALL NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED. SILTWORMS APPLIED IN DITCHED SHALL BE COMPLETELY REMOVED.

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ENGINEERS

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SILTWORM DETAILS

G1-8

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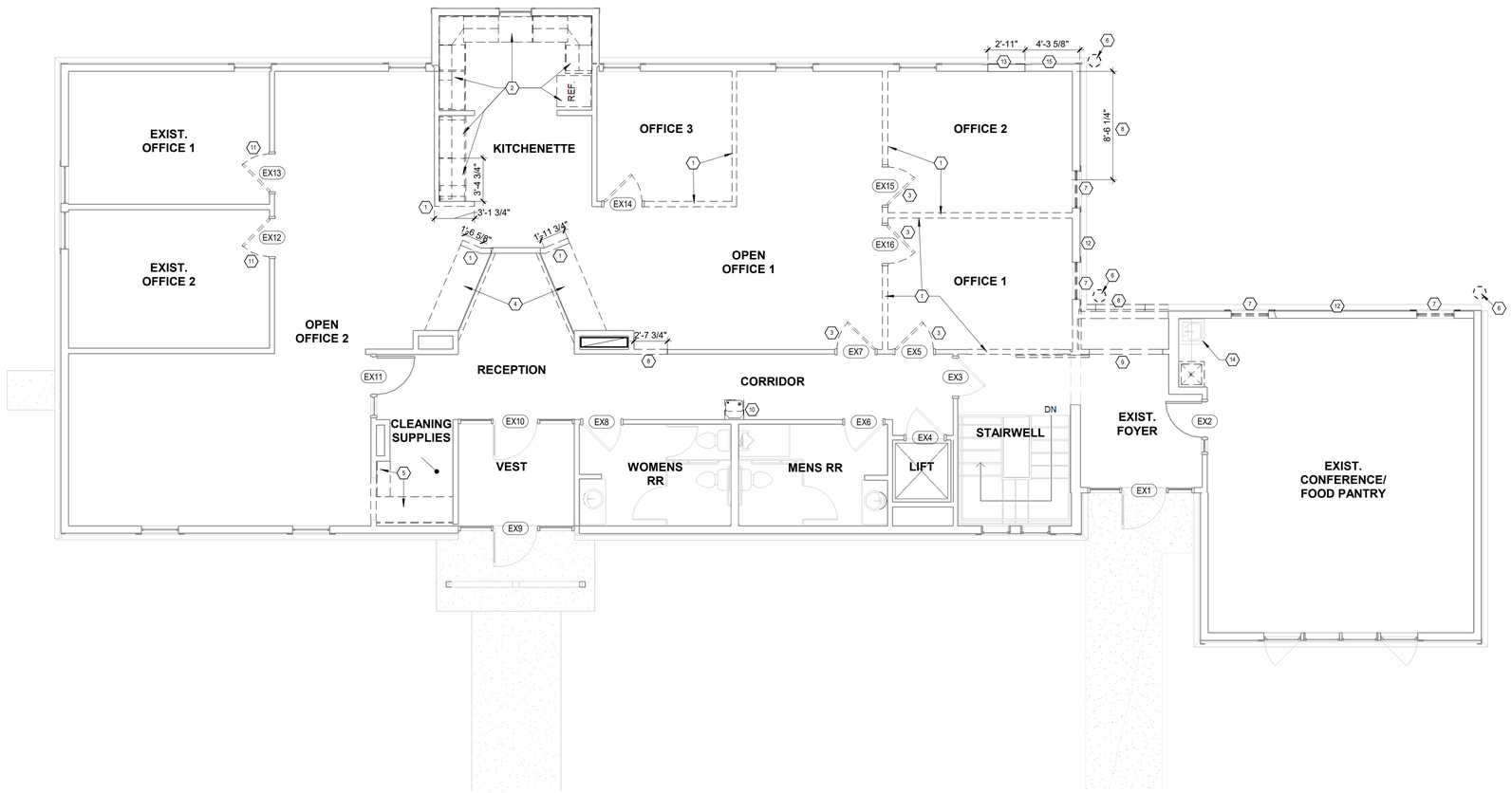

1 FIRST FLOOR DEMOLITION PLAN
3/16" = 1'-0"

DEMOLITION GENERAL NOTES

1. THE GENERAL CONTRACTOR SHALL VISUALLY INSPECT ALL EXISTING CONDITIONS AND SHALL COORDINATE ANY OUTSTANDING DEMO ISSUES WITH THE ARCHITECT PRIOR TO BEGINNING WORK. ALL BASE BUILDING FRAMES, WINDOW SILLS, AND CORE PARTITIONS TO BE FREE FROM MASTIC OR OTHER BUILDING RESIDUE AND READY TO RECEIVE FINISH.
2. PROVIDE PROTECTION OF ALL EXISTING FINISHES TO REMAIN.
3. MAINTAIN AND PROTECT EXISTING UTILITIES TO REMAIN IN SERVICE BEFORE PROCEEDING WITH DEMOLITION, PROVIDING BYPASS CONNECTIONS TO OTHER PARTS OF THE BUILDING.
4. LOCATE, IDENTIFY, SHUT OFF, DISCONNECT, AND CAP OFF UTILITY SERVICES TO BE DEMOLISHED.
5. CONDUCT DEMOLITION OPERATIONS AND REMOVE DEBRIS TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND SITE IMPROVEMENTS.
6. PROVIDE AND MAINTAIN SHORING, BRACING, OR STRUCTURAL SUPPORT TO PRESERVE BUILDING STABILITY AND PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE.
7. PROTECT BUILDING STRUCTURE AND INTERIOR FROM WEATHER AND WATER LEAKAGE AND DAMAGE.
8. PROTECT WALLS, CEILINGS, FLOORS, AND EXPOSED FINISHES THAT ARE TO REMAIN. ERECT AND MAINTAIN DUSTPROOF PARTITIONS BETWEEN AREA OF WORK AND NON-WORK AREAS INCLUDING DUCTS & AREA ABOVE CEILING. COVER AND PROTECT FIXTURES, FURNISHINGS, AND EQUIPMENT THAT ARE TO REMAIN.
9. NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION.
10. PROMPTLY PATCH AND REPAIR HOLES AND DAMAGED SURFACES OF BUILDING CAUSED BY DEMOLITION. RESTORE EXPOSED FINISHES OF PATCHED AREAS AND EXTEND FINISH RESTORATION INTO REMAINING ADJOINING CONSTRUCTION.
11. PROMPTLY REMOVE DEMOLISHED MATERIALS FROM OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM. DO NOT BURN DEMOLISHED MATERIALS.
12. TO THE BEST OF THE OWNER'S AND ARCHITECT'S KNOWLEDGE, THERE ARE NO HAZARDOUS MATERIALS PRESENT IN THE EXISTING AREA OF WORK. IF MATERIAL IS FOUND WHICH MAY BE SUSPECTED TO BE HAZARDOUS, CONTRACTOR SHALL NOTIFY ARCHITECT AND BUILDING OWNER IMMEDIATELY. IF IT IS DETERMINED TO BE HAZARDOUS, THE MATERIAL SHALL BE FULLY ABATED ACCORDING TO APPLICABLE LAWS.
13. PROVIDE DUMPSTER FOR DEBRIS REMOVAL. COORDINATE LOCATION WITH BUILDING OWNER. REMOVE DEMOLITION MATERIALS EACH DAY AND VACUUM PUBLIC/COMMON AREAS BEFORE LEAVING SITE.

KEYNOTES - DEMO PLAN

NOTE	DESCRIPTION
1	DEMO WALLS TO EXTENT SHOWN
2	DEMO ALL LOWER AND UPPER CABINET IN THE KITCHEN. PATCH AND REPAIR WALLS AS NEEDED. PREPARE TO RECIEVE NEW PAINT
3	REMOVE DOOR, FRAME AND ASSOCIATED HARDWARE IN IT'S ENTIRETY
4	DEMO EXISTING COUNTERTOPS, PREPARE AREA TO RECIEVE NEW COUNTERTOPS
5	DEMO EXISTING CASEWORK
6	REMOVE EXISTING DOWN SPOUTS AND RELOCATE TO ACCOMODATE NEW ADDITION
7	REMOVE WINDOW FRAMES AND ASSOCIATED HARDWARE IN IT'S ENTIRETY. INFILL THE OPENING AND MATCH FINISH TO EXISTING ADJACENT WALLS
8	DEMO EXTERIOR BRICK AND SIDING AT BASEMENT LEVEL. DEMO BRICK WALL AND SAWCUT PORTION OF FOUNDATION WALL AS NEEDED TO ACCOMODATE NEW FIRE WALL AND DOUBLE DOOR
9	DEMO BARN DOOR AND ITS ASSOCIATED HARDWARE IN ITS ENTIRETY
10	DEMO EXIST. WATER FOUNTAIN
11	REMOVE DOOR AND ASSOCIATED HARDWARE IN IT'S ENTIRETY
12	DEMO EXIST. EXTERIOR BRICK AND SIDING
13	DEMO PORTION OF WALL FOR NEW WINDOW
14	EXIST. SINK TO REMAIN
15	DEMO EXIST. EXTERIOR WALL TO INSTALL A NEW WINDOW. REFER TO WINDOW SCHEDULE FOR MORE DETAILS

- NEW WALL
- EXISTING WALL TO REMAIN
- DEMO WALL
- RATED WALL
- INSULATED WALL
- CMU WALL
- CONCRETE WALL

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Permit:	
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No.	Date	Description
6	10.15.26	Revision 6

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DEMOLITION PLAN

A0-1

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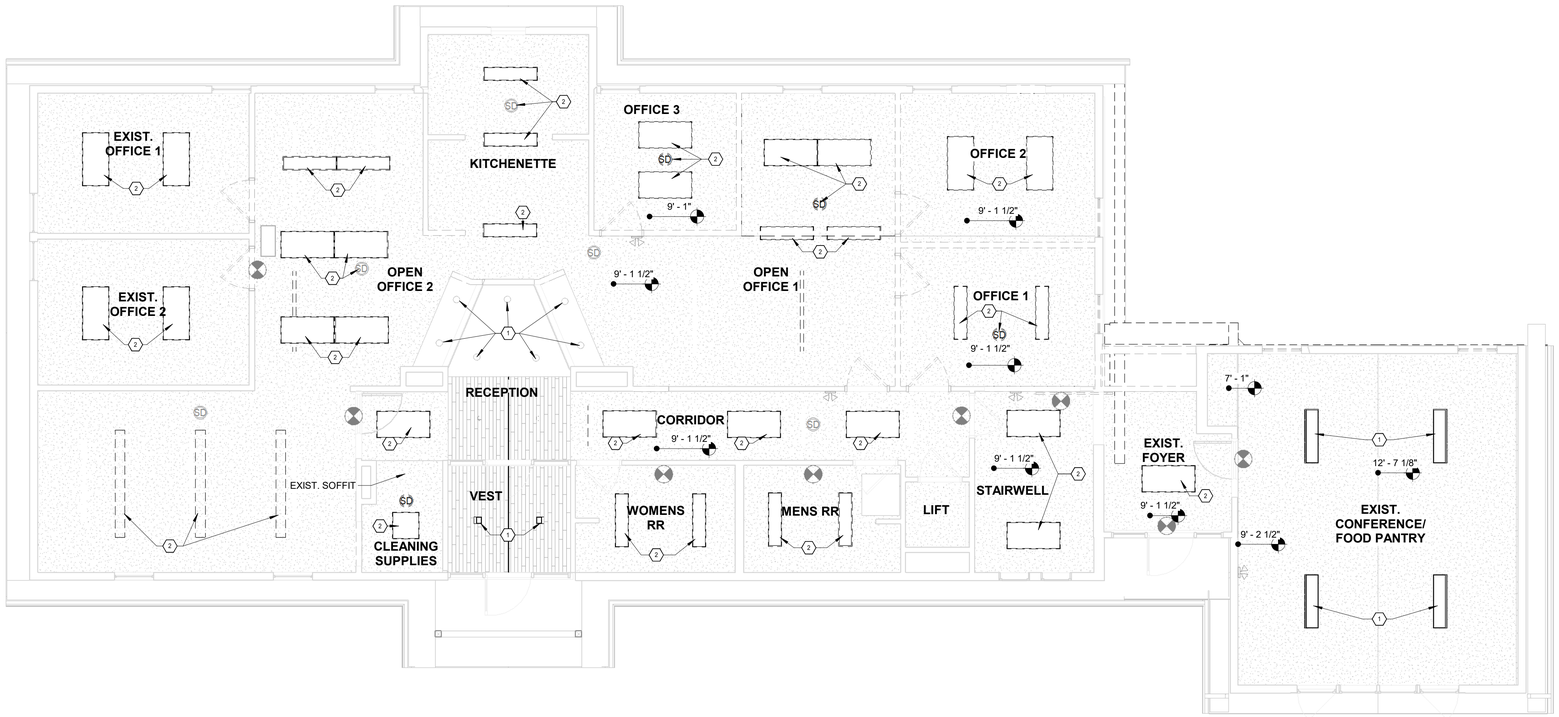

1 FIRST FLOOR DEMO RCP
3/16" = 1'-0"

KEYNOTES - DEMO PLAN	
NOTE	DESCRIPTION
1	EXISTING FIXTURE TO REMAIN
2	DEMO FIXTURE

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DEMO REFLECTED CEILING PLAN

A0-2

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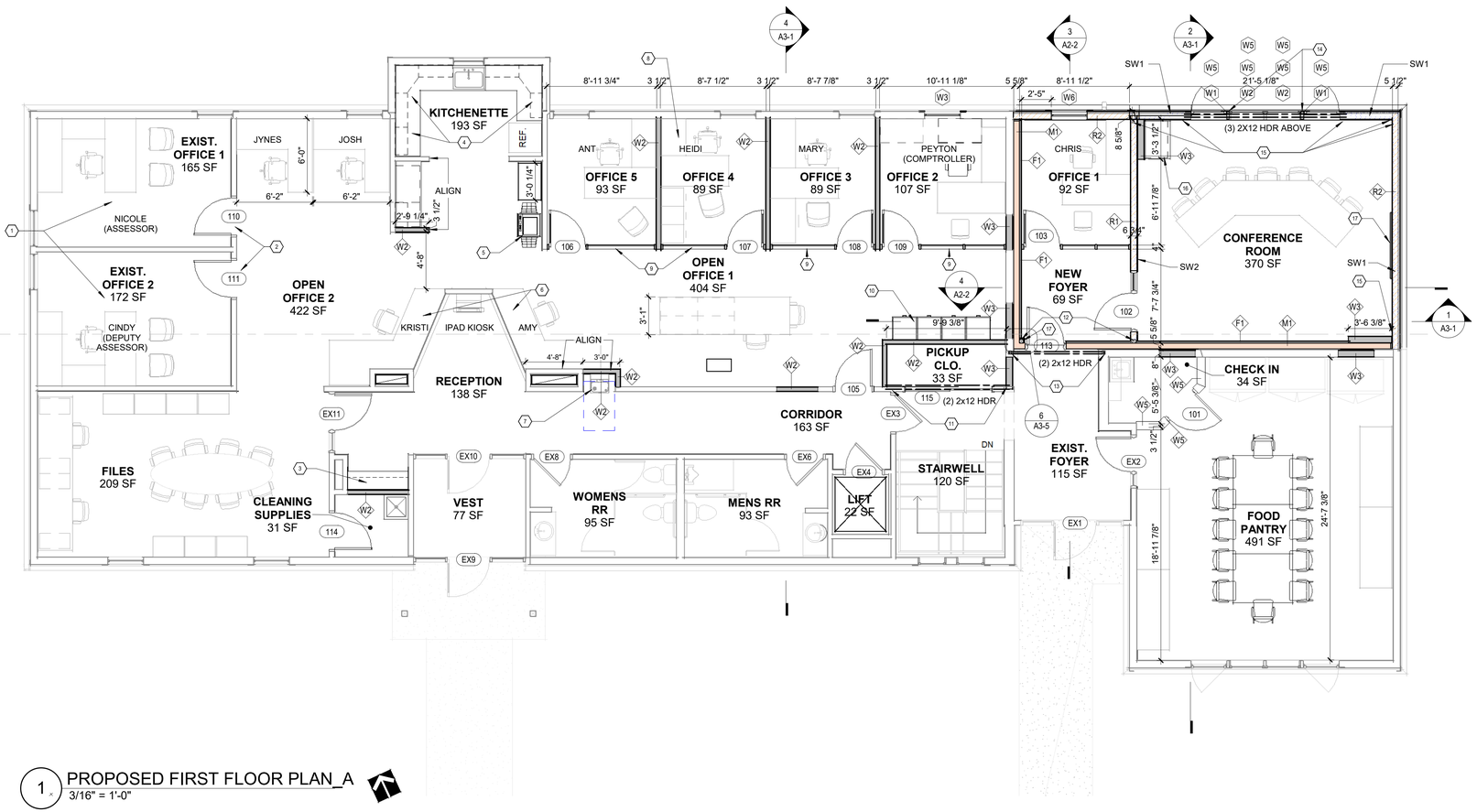

1 PROPOSED FIRST FLOOR PLAN_A
3/16" = 1'-0"

AREA MATRIX	
Name	Area (Appx.)
BASEMENT	3,039 SF
FIRST FLOOR	4,353 SF
NEW BASEMENT	613 SF
	8,005 SF

GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, FEDERAL, STATE, AND NATIONAL CODES AND ORDINANCES AND ALL AUTHORITIES HAVING JURISDICTION OF THE SAME.
2. ANY DISCREPANCIES IN PLAN OR DIMENSIONS ARE TO BE REPORTED TO THE JOB SUPERINTENDENT BEFORE PROCEEDING WITH THE WORK
3. THE GENERAL CONTRACTOR SHALL FAMILIARIZE THEMSELF WITH THE CONTRACT DOCUMENTS AND ALL CONDITIONS WHICH MIGHT AFFECT WORK. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY UNFORESEEN JOB CONDITIONS WHICH MIGHT AFFECT PROJECT COSTS AND SUCH COSTS MUST BE APPROVED BY THE OWNER IN WRITING PRIOR TO CONSTRUCTION OF SUCH WORK.
4. DIMENSIONS ARE TO ROUGH FRAMING SURFACES, OR FACE OF BLOCK @ EXTERIOR WALLS, U.N.O.
5. ALL RESTROOM WALLS SHALL BE INSULATED.
6. ALL DOORS TO HAVE LEVER HANDLES, U.N.O.
7. KEYING SYSTEM TO BE COORDINATED W/ OWNER/TENANT.
8. ALL DOORS IN CONNECTION W/ EGRESS SHALL BE ARRANGED SO AS TO BE READILY OPENED WITHOUT THE USE OF KEY, SPECIAL KNOWLEDGE, TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE.
9. FINISH HARDWARE INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS AND COMPLY WITH THE 2018 ILLINOIS ACCESSIBILITY CODE. INSTALLATION SHALL BE IN A NEAT AND SKILLFUL MANNER, WITH ALL COMPONENTS OPERATING PROPERLY. ALL LEVERS, HANDLES, PULLS AND OTHER EXPOSED ITEMS, SHALL BE SUITABLY WRAPPED AND PROTECTED AS SOON AS THEY HAVE BEEN INSTALLED AND SUCH PROTECTION SHALL REMAIN UNTIL THE ACCEPTANCE OF THE WORK.
10. ALL FLOORING TO BE SLIP-RESISTANT PER ILLINOIS ACCESSIBILITY CODE.
11. ALL WALL PENETRATIONS THROUGH ATTIC, FLOOR, AND EXTERIOR WALL MEMBERS ARE TO BE DRAFTSTOPPED WITH APPROVED FIRE RETARDANT MATERIALS.
12. PROVIDE FIRESTOPPING AT 8', AND AT ALL SOFFITS, PLENUMS AND CHASES.
13. FIRE CAULK ALL OPENINGS @ TOP AND BOTTOM OF WALL FRAMING & AT OTHER PENETRATIONS THROUGH ATTIC OR DEMISING WALLS
14. 14. ALL FINISHES TO BE CLASS C OR BETTER. FLAME SPREAD 76-200, SMOKE DEVELOPED 0-450.
15. CARPET CONTRACTOR TO PROVIDE AND INSTALL RUBBER REDUCER STRIPS AT DOORS WHERE ALL CARPET AND RESILIENT FLOORING MEET, U.N.O.
16. FLASH PATCH ALL AREAS WHERE FLOOR IS NOT LEVEL OR TRUE PRIOR TO FLOORING INSTALLATION.
17. RESTROOM SIGNAGE SHALL BE PROVIDED ON WALL ADJACENT TO LATCH SIDE OF DOOR. MOUNTING HEIGHT SHALL BE 60" AFF. TO CL. OF SIGN.
18. BOTTLED WATER SHALL BE PROVIDED IN LIEU OF DRINKING FOUNTAIN AS PER ILLINOIS ACCESSIBILITY CODE.
19. FIRE EXTINGUISHERS ARE REQUIRED. CONTRACTOR SHALL COORDINATE WITH FIRE DEPARTMENT FOR EXACT LOCATION (NO MORE THAN 75' FROM ANY LOCATION WITHIN SUITE). VERIFY FINAL FIRE EXTINGUISHER LOCATIONS WITH THE FIRE INSPECTOR IN THE FIELD DURING ROUGH INSPECTION. FIRE EXTINGUISHERS SHALL NOT PROJECT MORE THAN 4" OUT FROM WALLS WHEN LOCATED IN PATHS OF CIRCULATION.
20. FIRE ALARM NOTIFICATION APPLIANCES SHALL BE PROVIDED AS REQUIRED BY FIRE MARSHALL.
21. ELECTRICAL OUTLETS SHALL BE LOCATED @ 15" A.F.F. EXCEPT WHERE NOTED A/C (ABOVE COUNTER).
22. MAINTAIN 30" WIDE BY 36" DEEP CLEARANCE IN FRONT OF ELECTRICAL SERVICE PANEL.
23. SPRINKLER WORK TO BE DONE BY CERTIFIED SPRINKLER CONTRACTOR
24. FIRE ALARM WORK TO BE DONE BY CERTIFIED FIRE ALARM CONTRACTOR

#	KEYNOTES FLOOR PLAN
NOTE	DESCRIPTION
1	EXIST. OFFICE TO REMAIN
2	NEW DOORS IN EXIST. FRAMES
3	NEW UPPER/LOWER CABINETS
4	ALL NEW CASEWORK IN KITCHENETTE BY RIEKE INTERIORS
5	COPIER BY OWNER
6	NEW DESK AND CABINETS BY RIEKE INTERIORS
7	NEW DRINKING FOUNTAIN W/ BOTTLE FILLER
8	FIREPROOF FILE CABINETS
9	ALL NEW GLASS WALL PARTITIONS ARE TO BE PROCURED AND INSTALLED BY RIEKE
10	FILE CABINETS BY RIEKE INTERIORS
11	(2) 2x6 POST @ EA. BEARING END, TYP.
12	4X4 WOOD POSTS
13	(2) 2x4 post
14	(2) 2X6 POST
15	HDU5 HOLD DOWN TO CONC.
16	COFFEE BAR BY RIEKE INTERIORS
17	WRAP THE HEIGHT OF THE POST WITH 5/8 GYP BOARD ON THE EXPOSED SIDES

- NEW WALL
- EXISTING WALL TO REMAIN
- DEMO WALL
- RATED WOOD STUD WALL
- RATED WOOD STUD SHEAR WALL
- WOOD STUD SHEAR WALL
- INSULATED WALL
- CMU WALL
- 2-HR RATED CMU WALL
- CONCRETE WALL

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FIRST FLOOR PLAN

A1-1

FOR BID DRAWINGS 10-16-26

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GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, FEDERAL, STATE, AND NATIONAL CODES AND ORDINANCES AND ALL AUTHORITIES HAVING JURISDICTION OF THE SAME.
2. ANY DISCREPANCIES IN PLAN OR DIMENSIONS ARE TO BE REPORTED TO THE JOB SUPERINTENDENT BEFORE PROCEEDING WITH THE WORK
3. THE GENERAL CONTRACTOR SHALL FAMILIARIZE THEMSELF WITH THE CONTRACT DOCUMENTS AND ALL CONDITIONS WHICH MIGHT AFFECT WORK. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY UNFORESEEN JOB CONDITIONS WHICH MIGHT AFFECT PROJECT COSTS AND SUCH COSTS MUST BE APPROVED BY THE OWNER IN WRITING PRIOR TO CONSTRUCTION OF SUCH WORK.
4. DIMENSIONS ARE TO ROUGH FRAMING SURFACES, OR FACE OF BLOCK @ EXTERIOR WALLS, U.N.O.
5. ALL RESTROOM WALLS SHALL BE INSULATED.
6. ALL DOORS TO HAVE LEVER HANDLES, U.N.O.
7. KEYING SYSTEM TO BE COORDINATED W/ OWNER/TENANT.
8. ALL DOORS IN CONNECTION W/ EGRESS SHALL BE ARRANGED SO AS TO BE READILY OPENED WITHOUT THE USE OF KEY, SPECIAL KNOWLEDGE, TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST TO OPERATE.
9. FINISH HARDWARE INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S REQUIREMENTS AND COMPLY WITH THE 2018 ILLINOIS ACCESSIBILITY CODE. INSTALLATION SHALL BE IN A NEAT AND SKILLFUL MANNER, WITH ALL COMPONENTS OPERATING PROPERLY. ALL LEVERS, HANDLES, PULLS AND OTHER EXPOSED ITEMS, SHALL BE SUITABLY WRAPPED AND PROTECTED AS SOON AS THEY HAVE BEEN INSTALLED AND SUCH PROTECTION SHALL REMAIN UNTIL THE ACCEPTANCE OF THE WORK.
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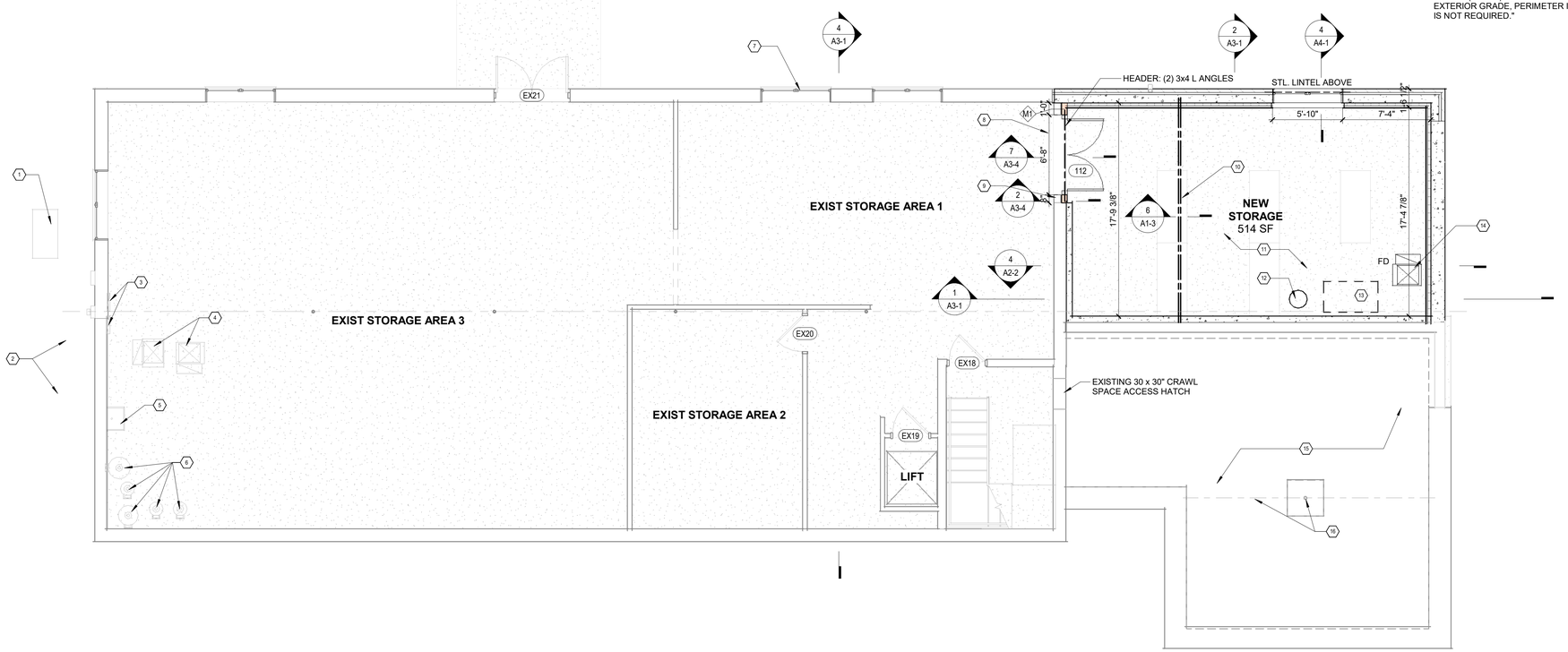
NOTE: PER 2024 IECC C402.2.4: "WHERE THE SLAB-ON-GRADE IS GREATER THAN 24 INCHES (610MM) BELOW THE FINISHED EXTERIOR GRADE, PERIMETER INSULATION IS NOT REQUIRED."



1 PROPOSED BASEMENT FLOOR PLAN
3/16" = 1'-0"

AREA MATRIX	
Name	Area (Appx.)
BASEMENT	3,039 SF
FIRST FLOOR	4,353 SF
NEW BASEMENT	613 SF
	8,005 SF

# KEYNOTES FLOOR PLAN	
NOTE	DESCRIPTION
1	EXIST. GENERAC NATURAL GAS GENERATOR GUARDIAN 22KW -SEE MECHANICAL
2	EXIST. CONDENSERS -SEE MECHANICAL
3	EXIST. ELECTRICAL PANELS
4	EXIST. HVAC
5	EXIST. LAUNDRY TUB
6	EXIST PLUMBING EQUIPMENT
7	EXIST. EXT. WALL. NO WORK
8	PORTION OF FOUNDATION WALL TO BE SAW CUT TO FORM AN OPENING FOR NEW DOOR. A PORTION OF FIRE WALL MUST BE BUILT TO ACCOMMODATE THE NEW DOOR ALLOWING THE FIRE WALL TO COINTINUE ABOVE. REFER TO DOOR SCHEDULE FOR MORE DETAILS
9	DEMO BRICK EXTERIOR AND INFILL TO MATCH EXISTING
10	NEW LVL BEAM ABOVE
11	NEW 4" S.O.G. ALIGN w/ EXIST. SLAB
12	NEW EJECTOR PUMP FOR FD SEE PLUMBING DRAWINGS FOR DETAILS
13	NEW FIRE WATER TANK AND PUMP TO BE INSTALLED BY NOVA. APPX. LOC. NOVA TO SUBMIT SEPARATE DRAWINGS FOR PERMIT
14	NEW FURNACE - SEE MECHANICAL DRAWINGS FOR DETAILS
15	EXIST. CRAWL SPACE
16	EXIST. STEEL COLUMN & BEAM

NEW WALL
EXISTING WALL TO REMAIN
DEMO WALL
RATED WALL
INSULATED WALL
CMU WALL
CONCRETE WALL

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BASEMENT PLAN

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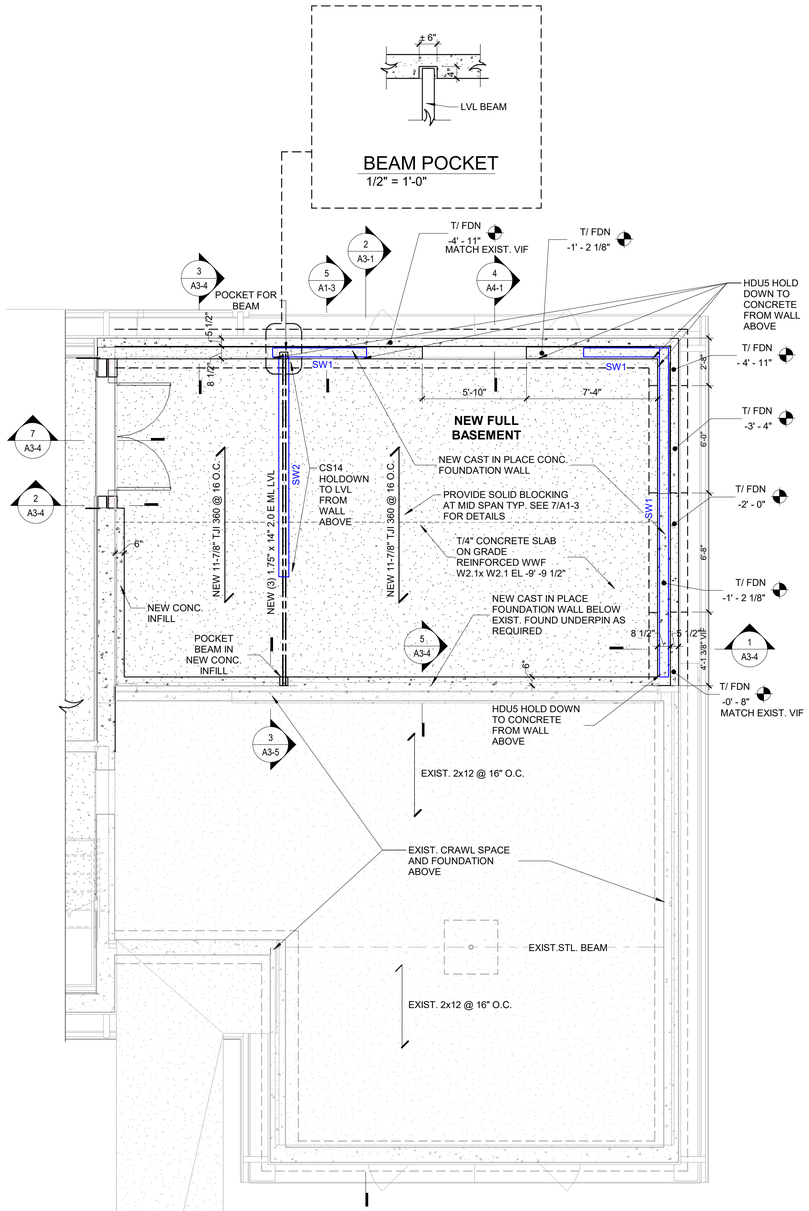


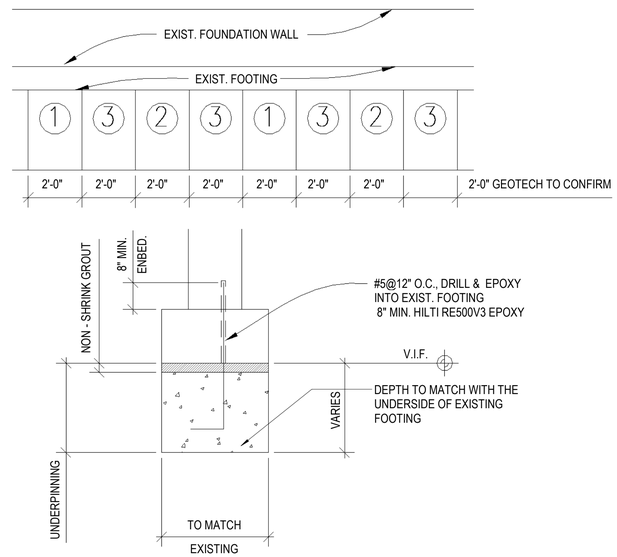
1 ADDITION FOUNDATION PLAN
1/4" = 1'-0"

DESIGN LOADS		
	LIVE LOAD	DEAD LOAD
OFFICE LOADS	50 PSF	10 PSF
CORRIDORS	100 PSF	10 PSF
ROOF/ SNOW LOAD	30 PSF	10 PSF
ATTIC LOAD	20 PSF	10 PSF

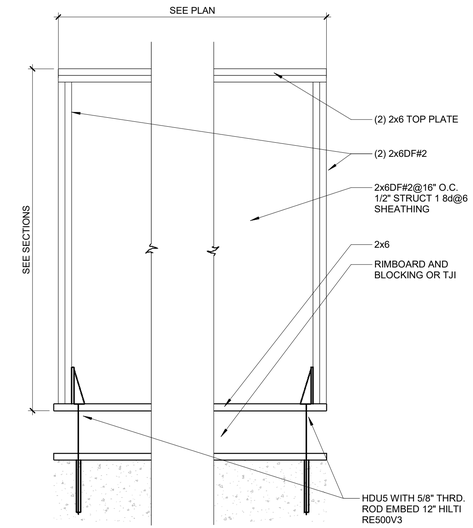
NOTES:
1. T/ FND STEPS DOWN FROM -0'-8" TO -4'11" AT LOCATIONS AS INDICATED IN THE PLAN
2. T/FND STEPS IN PROFILE SEE WALL SECTIONS AND PLAN

CONCEPTUAL PROCEDURE FOR UNDERPINNING OF EXISTING FOUNDATION WALL
FINAL DESIGN IS DELEGATED DESIGN BY OTHERS

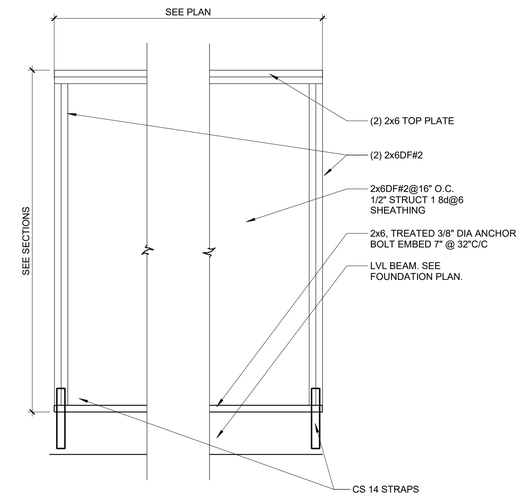
1. EXCAVATE AREA TO BE UNDERPINNED TO 1'-0" ABOVE EXISTING FOOTING. DO NOT EXCAVATE ANY AREA BELOW BOTTOM OF EXISTING FOOTING UNLESS A 4'-0" LEDGE AND A MINIMUM 4:1 SLOPE CAN BE MAINTAINED FROM THE EDGE OF THE EXISTING FOOTING.
2. NEEDLE IN TEMPORARY SUPPORTS FOR THE FOUNDATION WALL @ 24" ON CENTER OR MORE FREQUENTLY, IF NECESSARY, AT ALL AREAS AFFECTED BY EXCAVATION FOR UNDERPINNING.
3. UNDERPIN BY HAND EXCAVATING 24" WIDE TRENCHES DUG PERPENDICULAR TO EXISTING FOUNDATION WALLS. TRENCHES SHALL BE AT LEAST 8'-0" ON CENTERS, UNLESS A GREATER SPACING IS SHOWN ON DRAWINGS.
4. DRILL IN DOWELS AND POUR NEW CONCRETE WALL AND FOOTING THE WIDTH OF THE TRENCH. GROUT WITH NON-SHRINK NON-METALLIC GROUT TO COMPLETELY FILL THE VOID BETWEEN THE NEW AND THE EXISTING WALL.
5. AFTER CONCRETE HAS ATTAINED 75% OF DESIGN STRENGTH, AT LEAST 7 DAYS AFTER POUR, PROVIDE TEMPORARY SUPPORTS AS OUTLINED IN ITEM 2 AND EXCAVATE TRENCHES AT INTERMEDIATE LOCATIONS AND REPEAT STEPS 2, 3, AND 4.
6. REMOVE PROJECTIONS OF EXISTING FOOTING INTO THE NEW BUILDING AS SHOWN. PATCH AND GRIND WALL SMOOTH.
7. ENGAGE THE SERVICES OF AN EXPERIENCED GEOTECHNICAL ENGINEER TO FREQUENTLY MONITOR AND MODIFY, AS REQUIRED, THE SPECIFIED UNDERPINNING PROCEDURE.



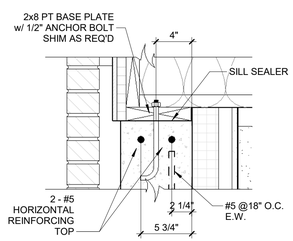
2 UNDERPINNING DETAIL
3/8" = 1'-0"



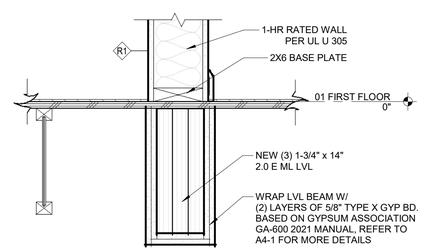
3 SW1 ELEVATION DIAGRAM



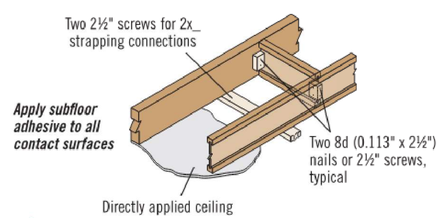
4 SW2 ELEVATION DIAGRAM



5 TOP OF FOUNDATION DETAIL
1 1/2" = 1'-0"



6 LVL SECTION DETAIL
1 1/2" = 1'-0"



PB1 *When specified on the layout, one of the above bracing options is required*

NOTE: ALL CONTACT SURFACES MUST BE GLUED AND NAILED TO AVOID FLOOR SQUEAKS

7 TJI BLOCKING
3/4" = 1'-0"

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FOUNDATION PLANS AND DETAILS

A1-3

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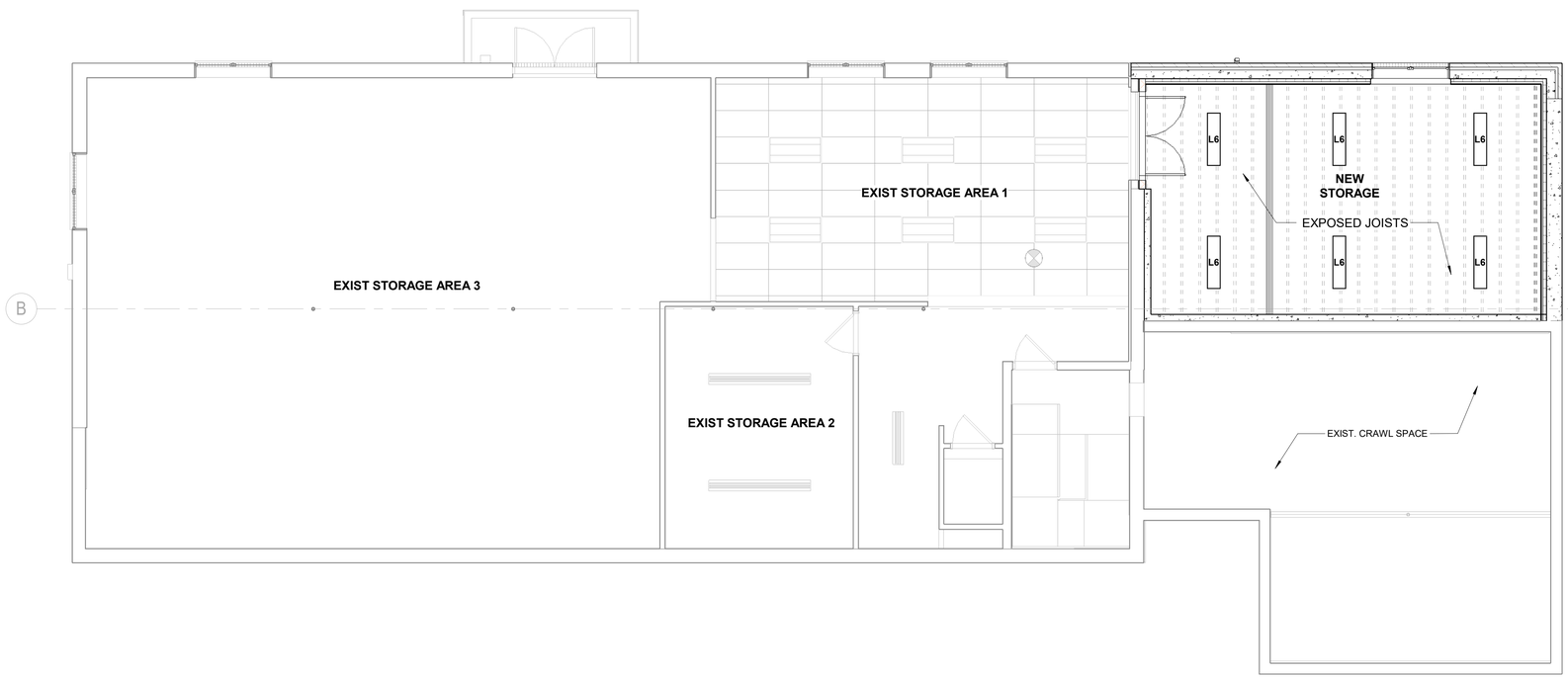
1 FIRST FLOOR REFLECTED CEILING PLAN
3/16" = 1'-0"



2 BASEMENT REFLECTED CEILING PLAN
3/16" = 1'-0"

LIGHTING LEGEND

L1	GOTHAM IVO 4" ROUND SHALLOW RECESSED DOWNLIGHT
L2	NUWATT 4" ROUND CANLESS RECESSED DOWNLIGHT - 2-HR FIRE RATED
L3	NUWATT 6" ROUND CANLESS RECESSED DOWNLIGHT - 2-HR FIRE RATED
L4	LIGHTPLANE+ 2R 6' LPX2R RECESSED LINEAR LIGHT
L5	LIGHTPLANE+ 2R 3' LPX2R RECESSED LINEAR LIGHT
L6	LITHONIA FML4W LINEAR LED
L7	CLX L48 4' LINEAR SURFACE MOUNTED

CEILING LEGEND

5/8" GYP BD. CEILING

5/8" GYP BD. CEILING
1 HR RATED CEILING PER UL P533

GENERAL REFLECTED CEILING NOTES

1. EXISTING CEILING AREA TO BE PATCHED/REPAIRED TO ACCOMMODATE NEW CONSTRUCTION.
2. ALL CEILINGS ARE TO BE SUSPENDED FROM DECK ABOVE.
3. ALIGN NEW GRID TO EXISTING GRID.
4. SPRINKLER HEADS ARE SHOWN FOR REFERENCE ONLY. SPRINKLER CONTRACTOR SHALL PREPARE PERMIT DRAWINGS AND OBTAIN PERMITS SEPARATELY.
5. SEE SHEET G1-1 FOR GENERAL NOTES AND SYMBOLS.
6. SEE MECHANICAL DRAWINGS FOR LOCATION OF DIFFUSER AND RETURN GRILLES.
7. SEE ELECTRICAL DRAWINGS FOR COORDINATION OF ELECTRICAL FIXTURES.
8. PROVIDE CONTROL JOINTS 20'-0" TO 25'-0" OC IN ALL GYP BD CEILINGS AND SOFFITS. COORDINATE LOCATIONS WITH ARCHITECT IN FIELD, UNO.
9. LOCATE ALL SPRINKLER HEADS IN THE CENTER OF CEILING TILES.
10. PATCH/REPAIR EXISTING CEILING SYSTEM AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION WHETHER OR NOT INDICATED ON PLANS.

FIRE-RATED CEILING PENETRATION NOTES

1. ALL RECESSED LIGHT FIXTURES (LUMINAIRES) INSTALLED IN FIRE-RATED RECESSED CEILING ASSEMBLIES SHALL BE CHOSEN, INSTALLED, AND COMPLY WITH THE SPECIFIC UL / ULC DESIGN ASSEMBLY REQUIRED FOR THIS PROJECT.
2. **FIXTURE RATING:** PROVIDE RECESSED LIGHT FIXTURES SPECIFICALLY INHERENTLY LISTED AND TESTED FOR A 1-HOUR FIRE RESISTANCE RATING MINIMUM (COMPLYING WITH ASTM E119 OR UL 263), OR ENCLOSE STANDARD RECESSED FIXTURES IN AN APPROVED, FIELD-FABRICATED ARCHITECTURAL ENCLOSURE OR PRE-MANUFACTURED FIRE-RATED FIXTURE COVER MEETING THE ASSEMBLY REQUIREMENTS.
3. **FIRESTOPPING & SEALING:** ALL HOUSING PENETRATIONS, JUNCTION BOXES, AND GAP PERIMETERS BETWEEN THE FIXTURE FLANGE AND THE GYPSUM BOARD MEMBRANE SHALL BE SEALED WITH AN APPROVED INTUMESCENT FIRESTOP SEALANT / ACOUSTICAL CAULK TO MAINTAIN THE SMOKE, ACUITY, AND FIRE INTEGRITY OF THE CEILING MEMBRANE.
4. **INSTALLATION LIMITS:** CONTRACTOR SHALL STRICTLY ADHERE TO MAX ALLOWABLE SURFACE AREA LIMITATIONS AND SPACING REQUIREMENTS FOR PENETRATIONS PER 100 SQ. FT. OF CEILING MEMBRANE AREA AS DICTATED BY THE GOVERNING UL ASSEMBLY DESIGN AND LOCAL BUILDING CODE.

NEW WALL
EXISTING WALL TO REMAIN
DEMO WALL
RATED WALL
INSULATED WALL
CMU WALL
CONCRETE WALL

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REFLECTED CEILING PLANS

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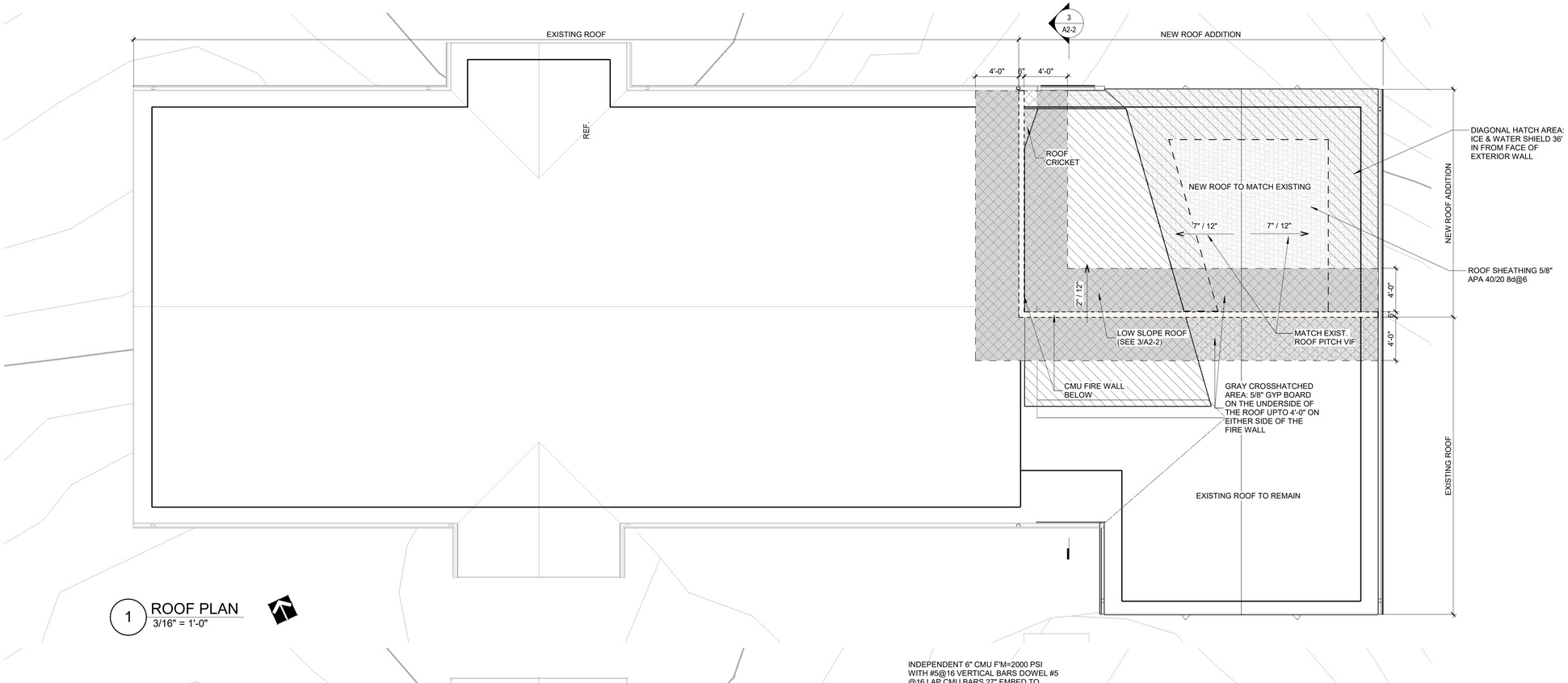
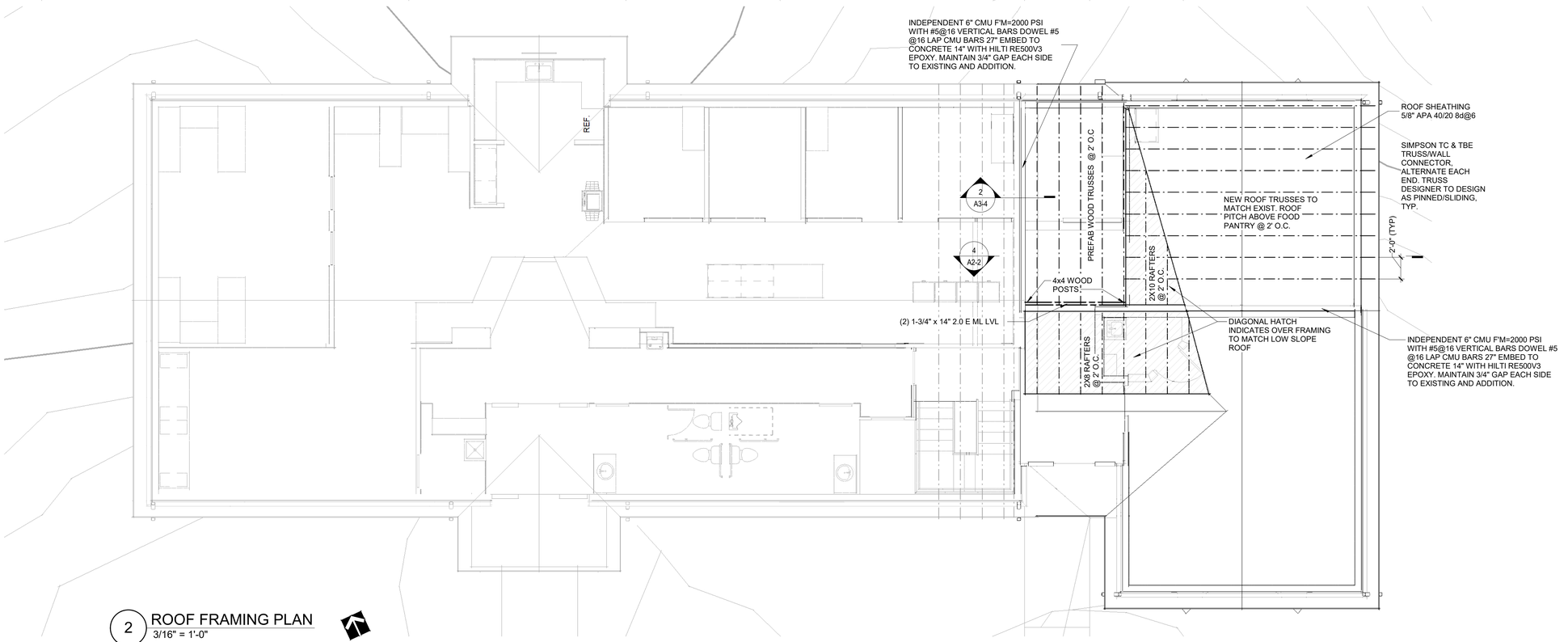


1 ROOF PLAN
3/16" = 1'-0"



2 ROOF FRAMING PLAN
3/16" = 1'-0"

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ROOF PLAN

A1-5

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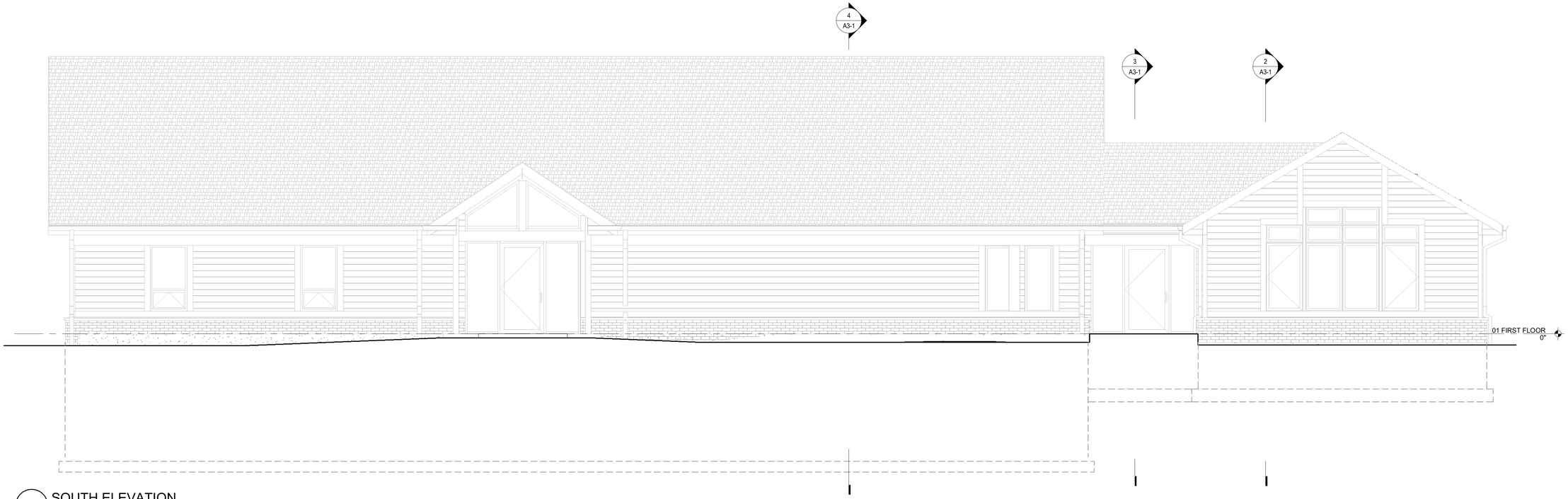
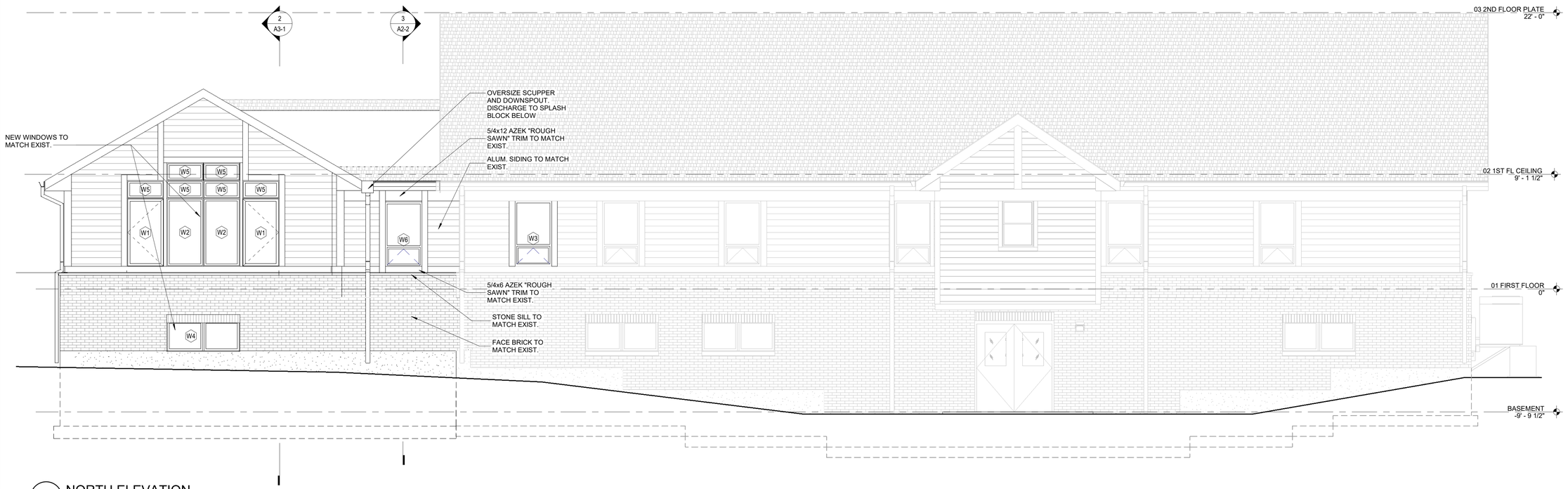


1 SOUTH ELEVATION
1/4" = 1'-0"

NEW ADDITION

EXISTING BUILDING



2 NORTH ELEVATION
1/4" = 1'-0"

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215 FULTON ST., GENEVA, IL 60134

ENGINEERS

-

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	00/00/00

POST BID/PERMIT REVISIONS:

No.	Date	Description

PROJECT NO.	25-023
DRAWN BY	LE
CHECKED BY	EP
SHEET	16 OF 44

EXTERIOR ELEVATIONS

A2-1

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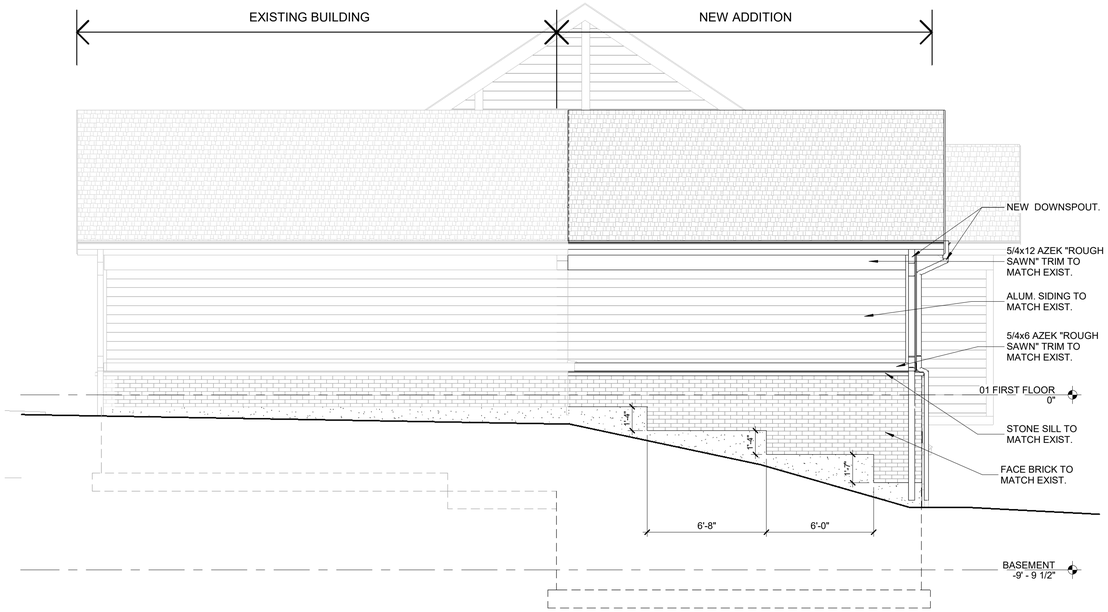
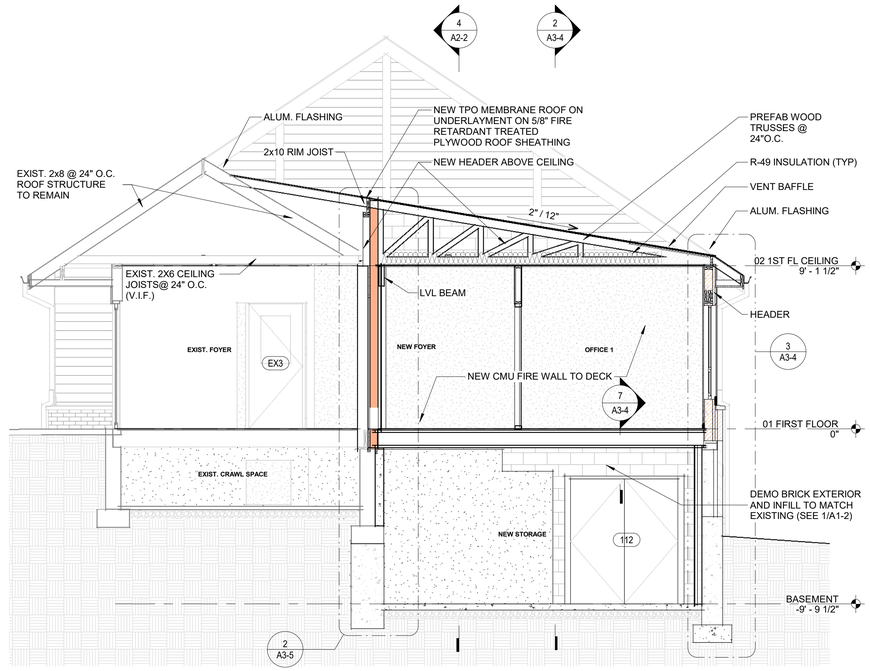
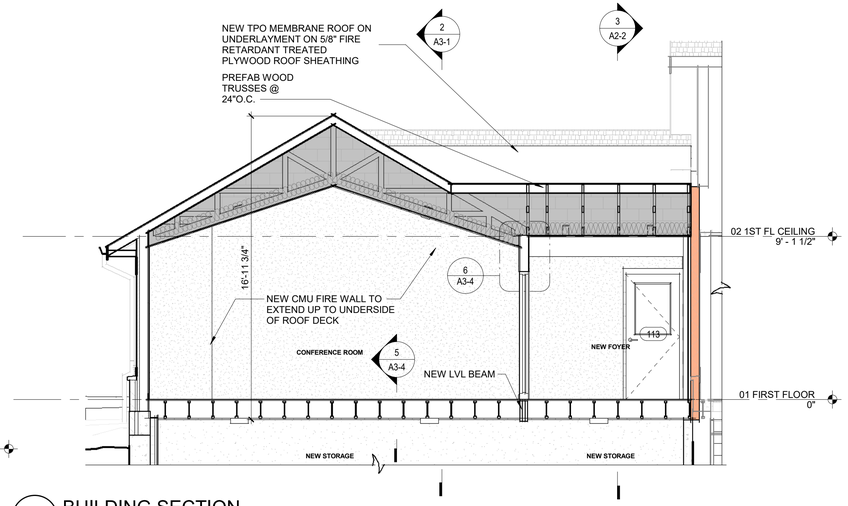


1 EAST ELEVATION
1/4" = 1'-0"



3 BUILDING SECTION
1/4" = 1'-0"

2 WEST ELEVATION
1/4" = 1'-0"



4 BUILDING SECTION
1/4" = 1'-0"

FOR BID DRAWINGS 10-16-26

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No.	Date	Description
3	08.26.2026	Revision 3
6	10.15.26	Revision 6

PROJECT NO.	25-023
DRAWN BY	LE
CHECKED BY	EP
SHEET	17 OF 44

EXTERIOR ELEVATIONS & SECTIONS

A2-2

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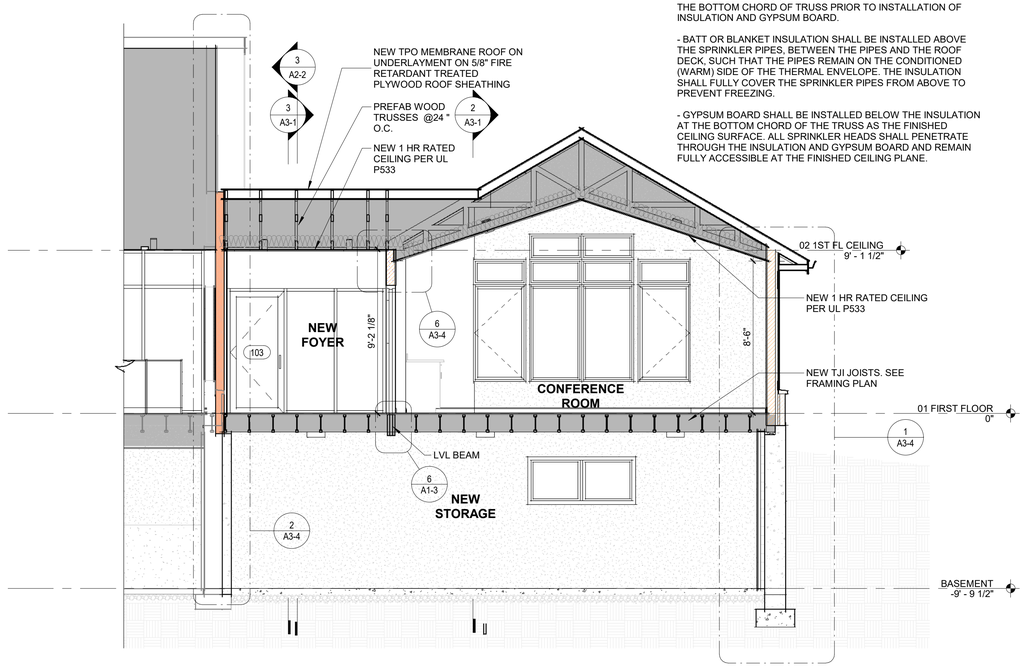
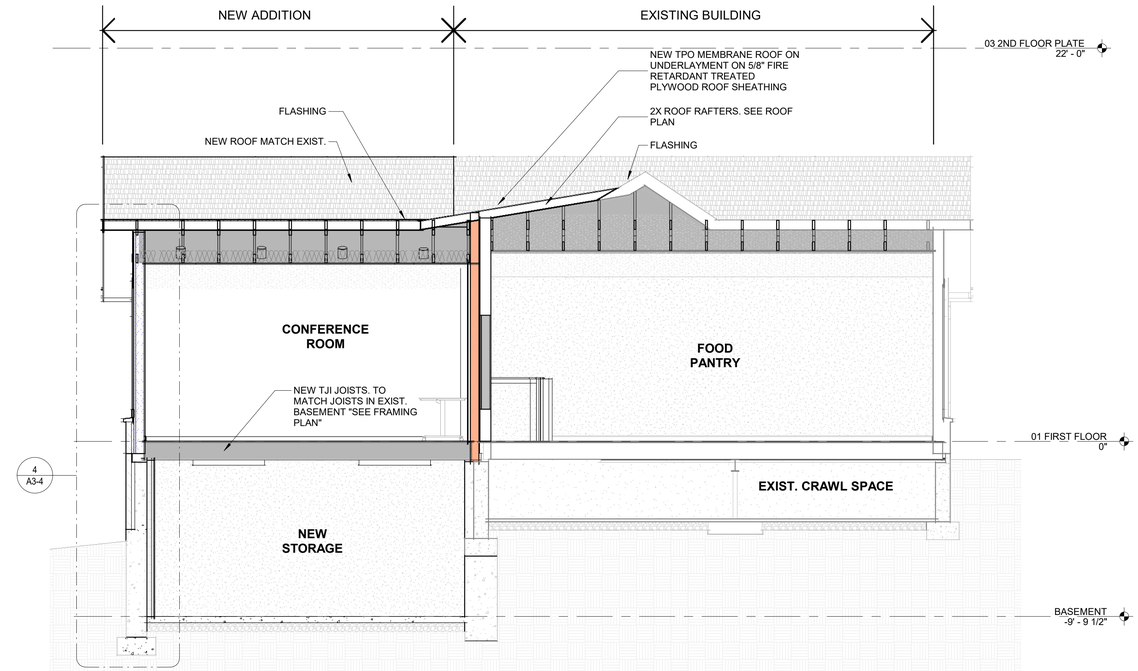
GENERAL CONTRACTOR TO NOTE:
- FOR OFFICE 1, NEW FOYER & CONFERENCE ROOM SPRINKLER PIPES SHALL BE ROUGHED IN WITHIN THE CEILING CAVITY AT THE BOTTOM CHORD OF TRUSS PRIOR TO INSTALLATION OF INSULATION AND GYPSUM BOARD.

- BATT OR BLANKET INSULATION SHALL BE INSTALLED ABOVE THE SPRINKLER PIPES, BETWEEN THE PIPES AND THE ROOF DECK, SUCH THAT THE PIPES REMAIN ON THE CONDITIONED (WARM) SIDE OF THE THERMAL ENVELOPE. THE INSULATION SHALL FULLY COVER THE SPRINKLER PIPES FROM ABOVE TO PREVENT FREEZING.

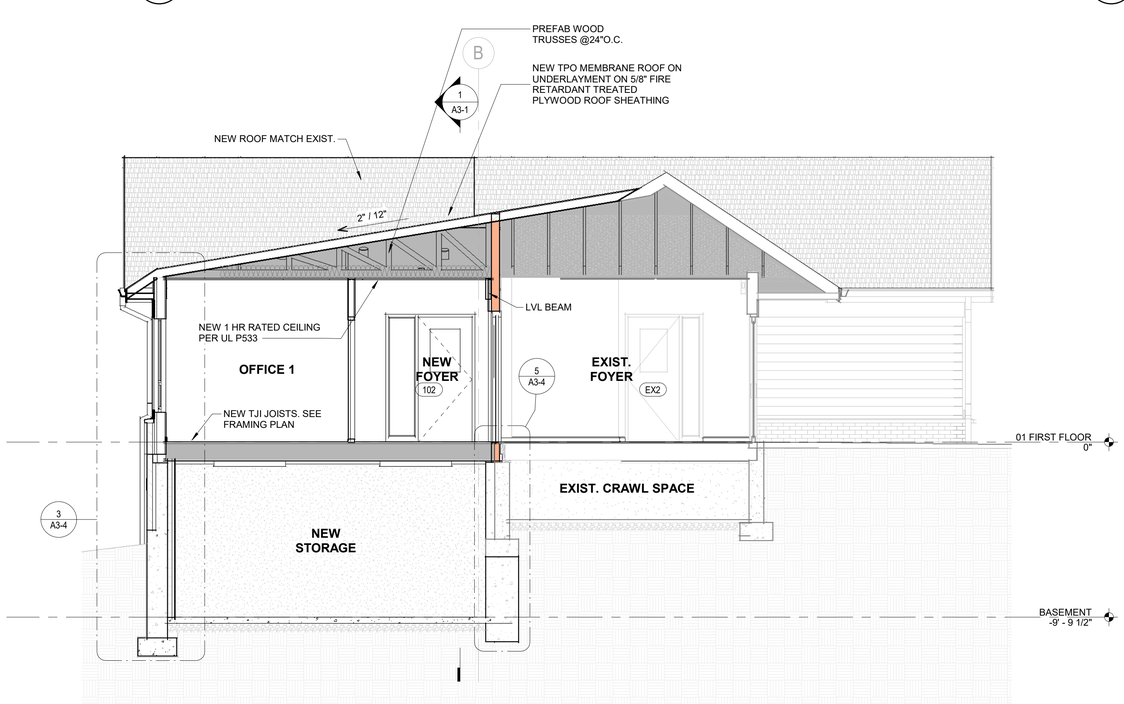
- GYPSUM BOARD SHALL BE INSTALLED BELOW THE INSULATION AT THE BOTTOM CHORD OF THE TRUSS AS THE FINISHED CEILING SURFACE. ALL SPRINKLER HEADS SHALL PENETRATE THROUGH THE INSULATION AND GYPSUM BOARD AND REMAIN FULLY ACCESSIBLE AT THE FINISHED CEILING PLANE.



1 BUILDING SECTION
1/4" = 1'-0"



2 BUILDING SECTION
1/4" = 1'-0"



3 BUILDING SECTION
1/4" = 1'-0"

4 BUILDING SECTION
1/4" = 1'-0"

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POST BID/PERMIT REVISIONS:

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2	06.30.2026	Revision 2
3	08.26.2026	Revision 3

PROJECT NO.	25-023
DRAWN BY	LE
CHECKED BY	EP
SHEET	18 OF 44

BUILDING SECTIONS

A3-1

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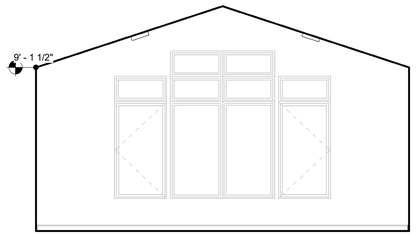
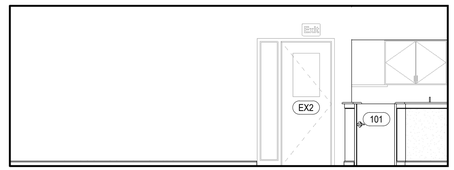
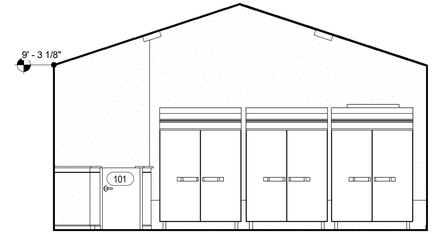


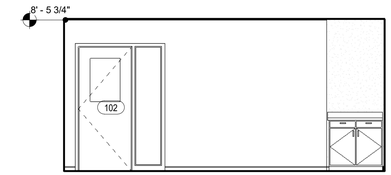
1 FOOD PANTRY LKG. SOUTH
1/4" = 1'-0"



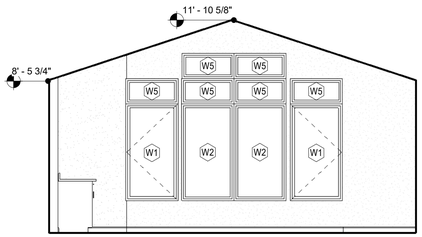
2 FOOD PANTRY LKG. WEST
1/4" = 1'-0"



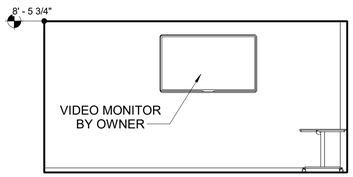
3 FOOD PANTRY LKG. NORTH
1/4" = 1'-0"



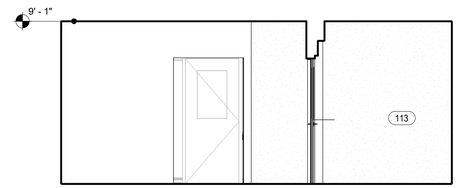
5 CONFERENCE LKG. WEST
1/4" = 1'-0"



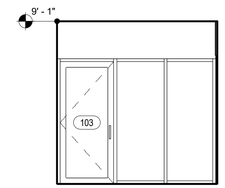
6 CONFERENCE LKG. NORTH
1/4" = 1'-0"



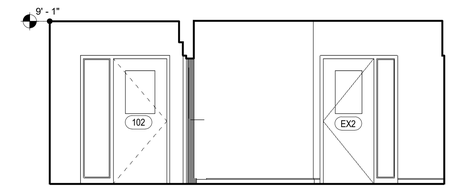
7 CONFERENCE LKG. EAST
1/4" = 1'-0"



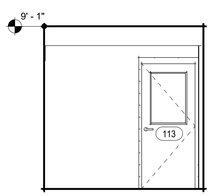
8 FOYER LKG. WEST.
1/4" = 1'-0"



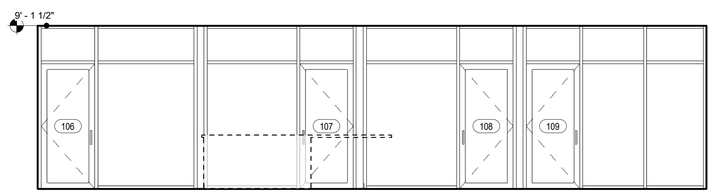
9 FOYER LKG. NORTH
1/4" = 1'-0"



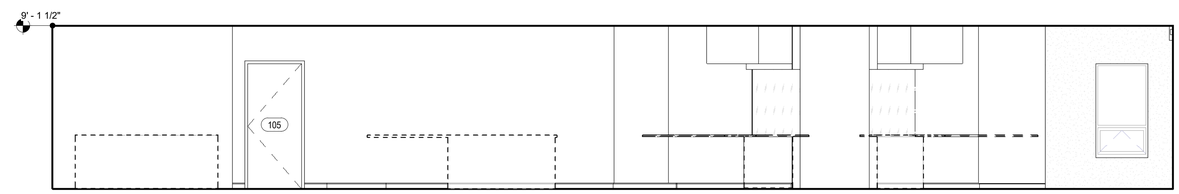
10 FOYER LKG. EAST
1/4" = 1'-0"



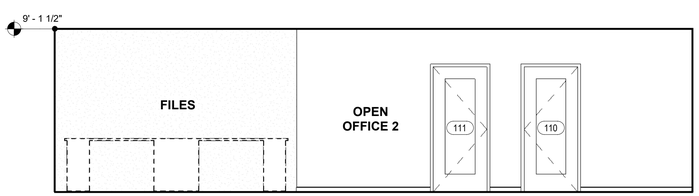
11 FOYER LKG. SOUTH
1/4" = 1'-0"



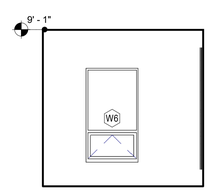
12 OPEN OFFICE LKG. NORTH
1/4" = 1'-0"



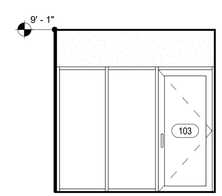
13 OPEN OFFICE LKG. SOUTH
1/4" = 1'-0"



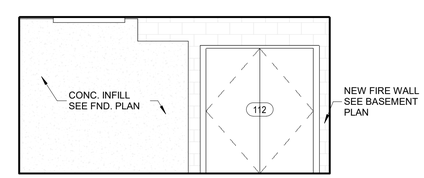
14 OPEN OFFICE 2 LKG. WEST
1/4" = 1'-0"



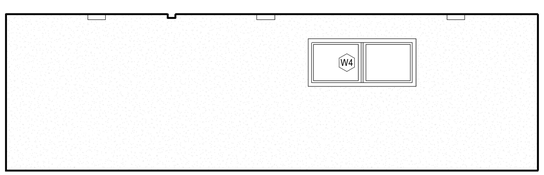
15 OFFICE 1 LKG. NORTH
1/4" = 1'-0"



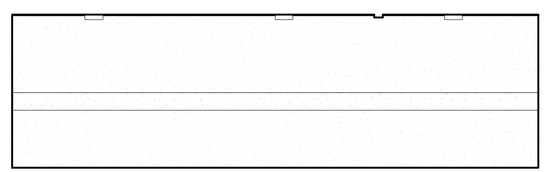
16 OFFICE 1 LKG. SOUTH
1/4" = 1'-0"



17 NEW BASEMENT STORAGE LKG. WEST
1/4" = 1'-0"



18 NEW BASEMENT LKG. WEST
1/4" = 1'-0"



19 NEW STORAGE LKG. SOUTH
1/4" = 1'-0"

FOR BID DRAWINGS 10-16-26

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ENGINEERS
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CUBA TOWNSHIP BLDG. ADDITION

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Contact Info

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	00/00/00

POST BID/PERMIT REVISIONS:

No.	Date	Description
1	05.18.2026	Revision 1
3	08.26.2026	Revision 3
6	10.15.26	Revision 6

PROJECT NO.	25-023
DRAWN BY	LE
CHECKED BY	EP
SHEET	19 OF 44

INTERIOR ELEVATIONS

A3-2

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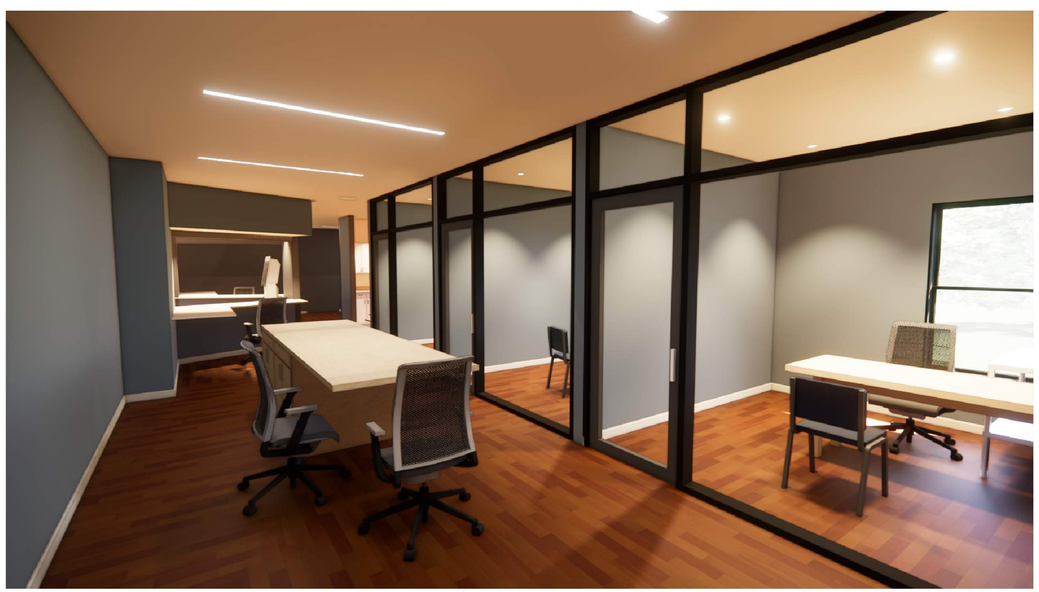
1 REAR OF ADDITION

2 NEW CONFRENCE LKG. NORTHEAST



3 OFFICE PERSPECTIVE

4 FOOD PANTRY PERSPECTIVE

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3D PERSPECTIVES

A3-3

FOR BID DRAWINGS 10-16-26

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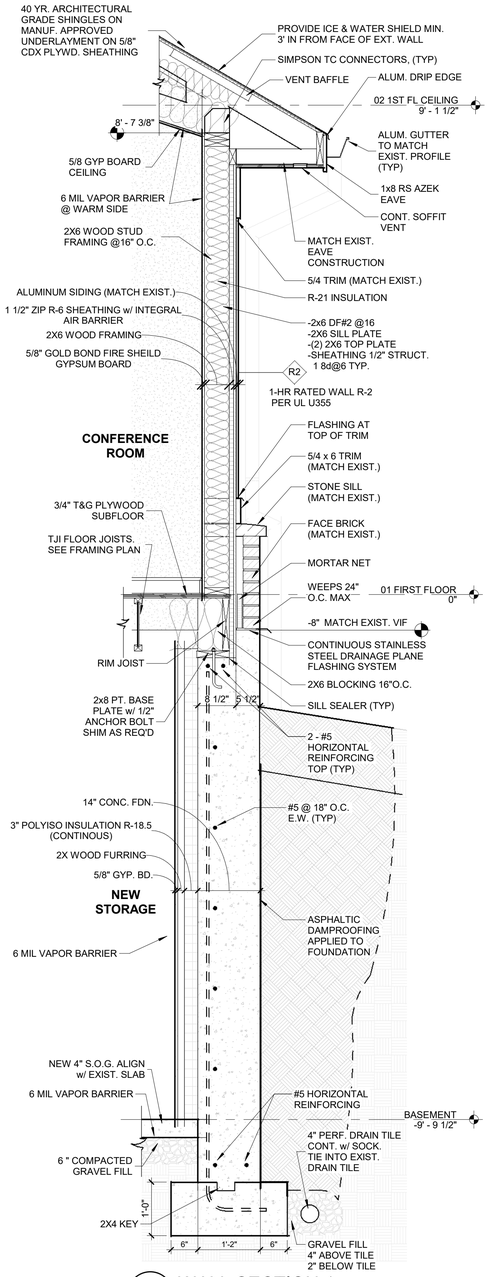
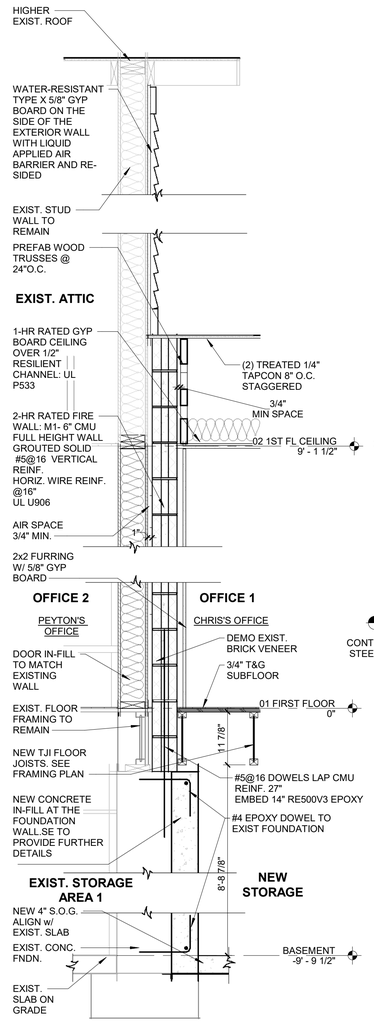
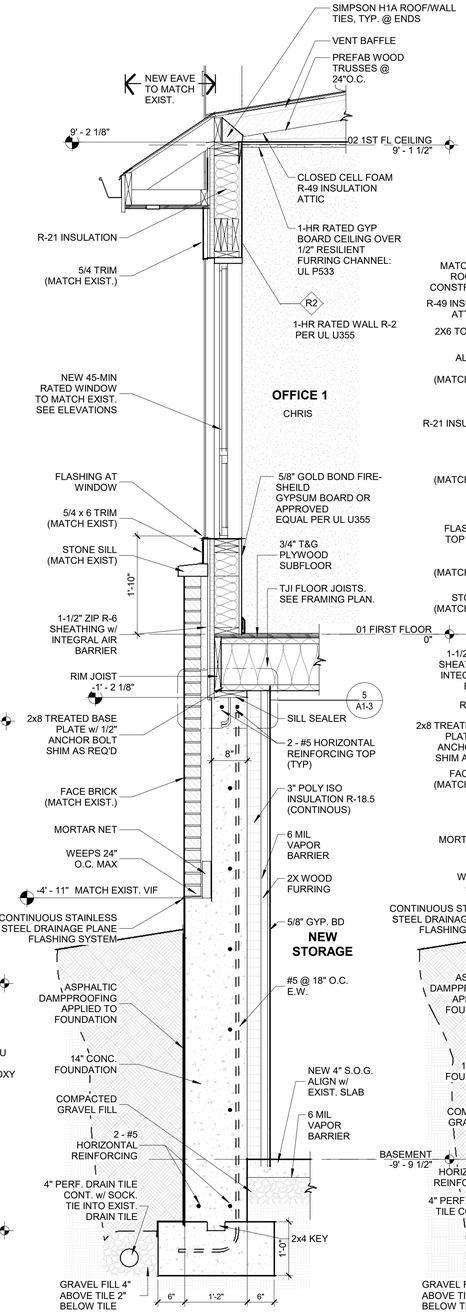


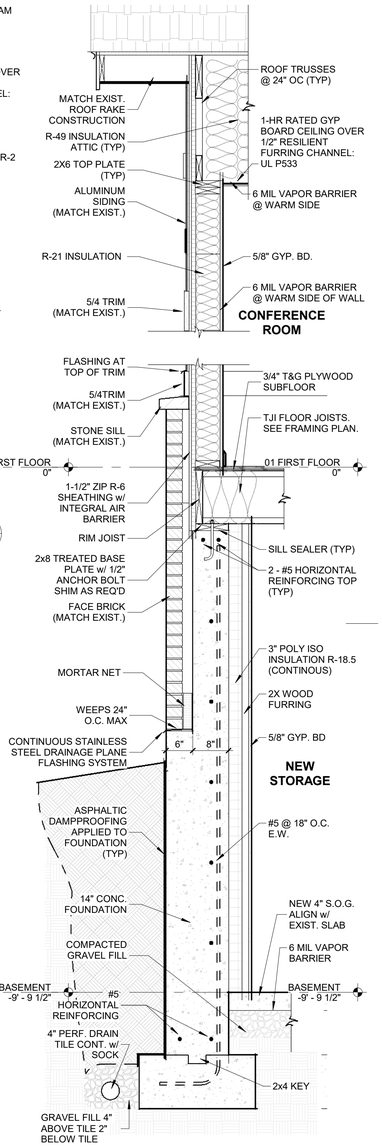
1 WALL SECTION 1
3/4" = 1'-0"



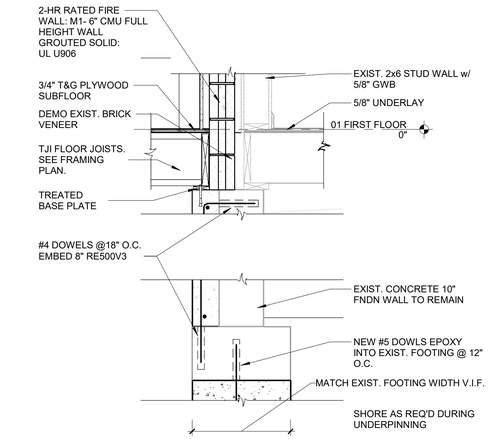
2 WALL SECTION 2
3/4" = 1'-0"



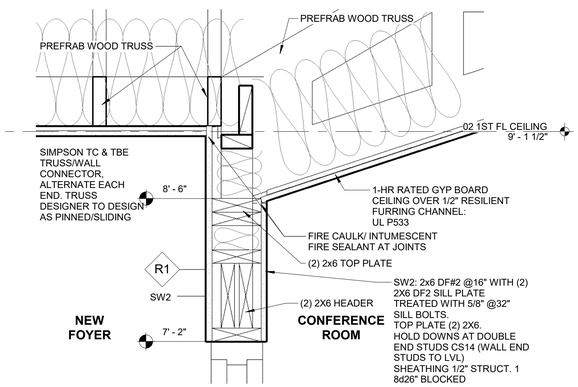
3 WALL SECTION 3
3/4" = 1'-0"



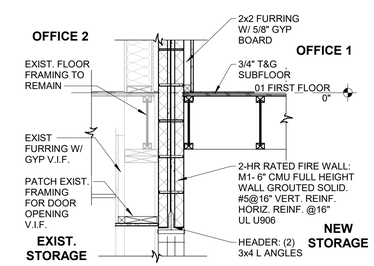
4 WALL SECTION 4
3/4" = 1'-0"



5 WALL SECTION 5
3/4" = 1'-0"



6 WALL SECTION 6
1 1/2" = 1'-0"



7 BASEMENT DOOR HEADER DETAIL
3/4" = 1'-0"

NOTES:
1. PER 2024 IECC C402.2.4: "WHERE THE SLAB-ON-GRADE IS GREATER THAN 24 INCHES (610MM) BELOW THE FINISHED EXTERIOR GRADE, PERIMETER INSULATION IS NOT REQUIRED."
2. ALL INSULATION SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTIONS
3. ALL THERMAL BRIDGES WILL COMPLY WITH IECC C402.7
4. ALL AIR BARRIERS WILL BE CONTINOUS AND SEALED IN APPROVED MANNER
5. ALL OPENINGS IN BUILDING ENVELOPE WILL BE PROPERLY SEALED TO PROVIDE CONTINOUS AIR BARRIER
6. FINISH FLOOR LEVEL TO MATCH EXISTING.

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4	09.09.2026	Revision 4
5	10.06.2026	Revision 5

PROJECT NO.	25-023
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CHECKED BY	EP
SHEET	21 OF 44

WALL SECTIONS

A3-4

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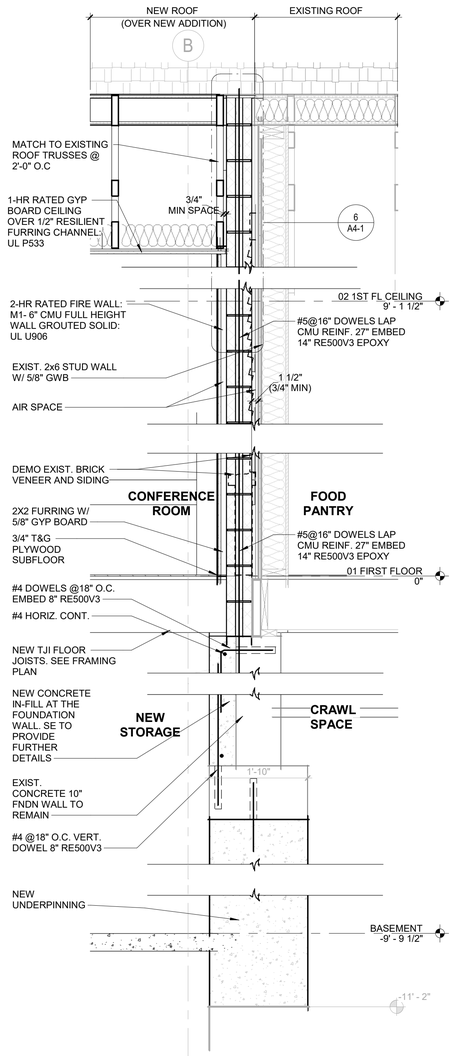
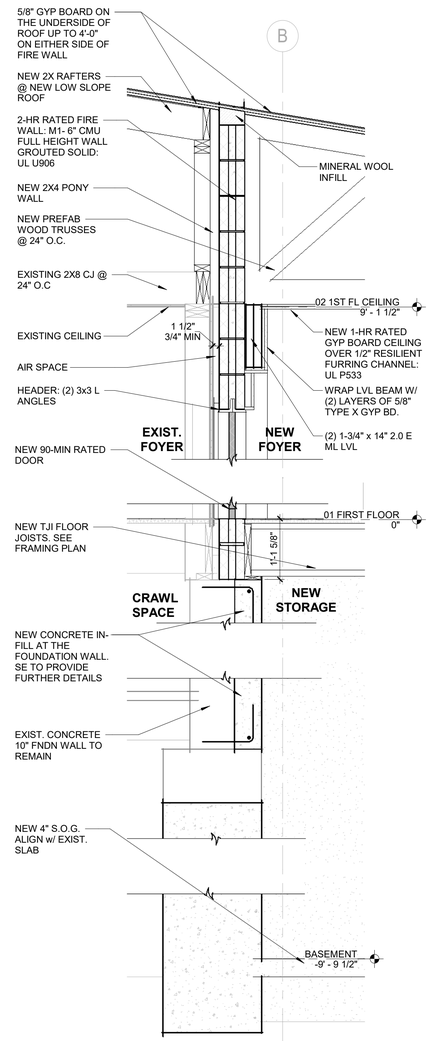
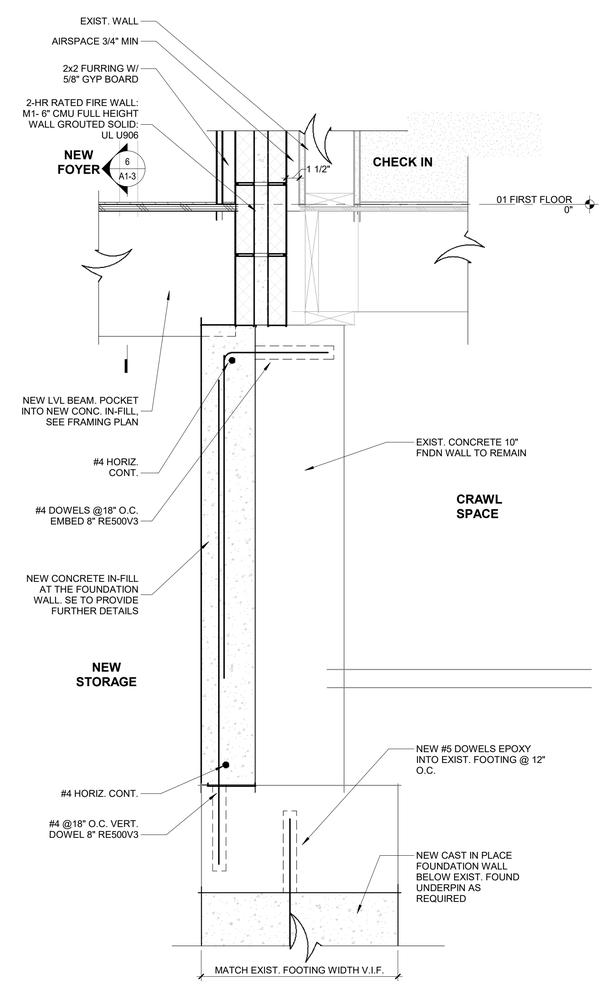


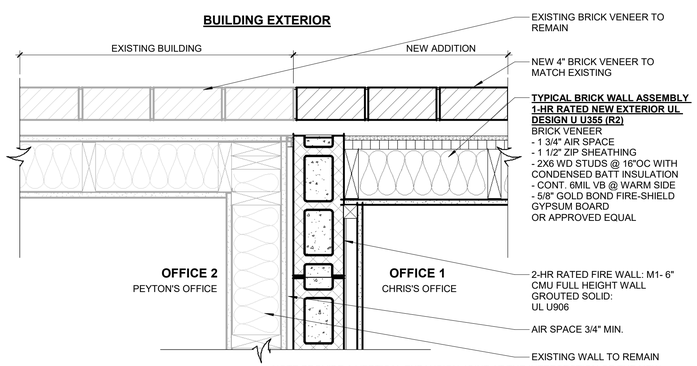
1 SECTION THRU FIRE WALL 1
3/4" = 1'-0"



2 SECTION THRU FIRE WALL 2
3/4" = 1'-0"

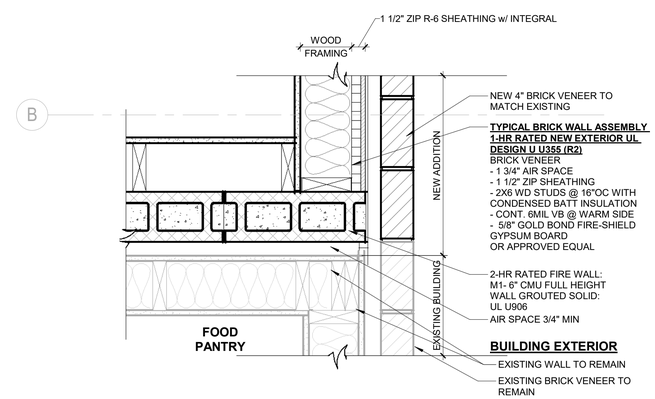


3 LVL TO FOUNDATION DETAIL
1 1/2" = 1'-0"



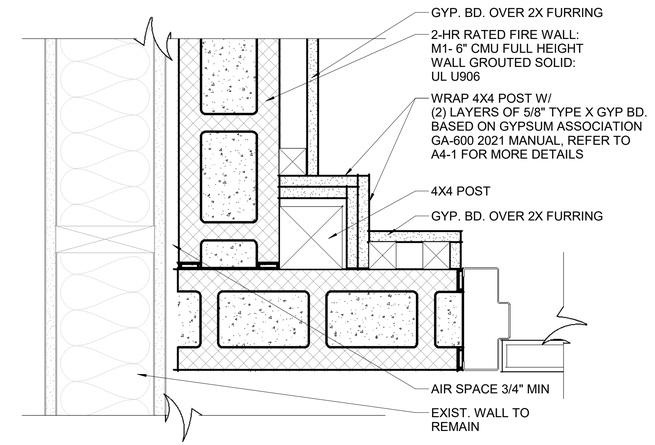
NOTE:PROVIDE A VERTICAL EXPANSION JOINT AT THE INTERSECTION OF THE NEW AND EXISTING BRICK VENEER. PROVIDE A 3/8" WIDE CONTINUOUS JOINT WITH COMPRESSIBLE BACKER ROD AND EXTERIOR-GRADE ELASTOMERIC SEALANT. DO NOT MORTAR ACROSS THE JOINT. MAINTAIN CONTINUITY OF THE WEATHER-RESISTIVE BARRIER AND FLASHING BEHIND THE JOINT.

4 FIRE WALL DETAIL 1
1 1/2" = 1'-0"



NOTE:PROVIDE A VERTICAL EXPANSION JOINT AT THE INTERSECTION OF THE NEW AND EXISTING BRICK VENEER. PROVIDE A 3/8" WIDE CONTINUOUS JOINT WITH COMPRESSIBLE BACKER ROD AND EXTERIOR-GRADE ELASTOMERIC SEALANT. DO NOT MORTAR ACROSS THE JOINT. MAINTAIN CONTINUITY OF THE WEATHER-RESISTIVE BARRIER AND FLASHING BEHIND THE JOINT.

5 FIRE WALL DETAIL 2
1 1/2" = 1'-0"



6 4X4 POST PLAN DETAIL
3" = 1'-0"

FOR BID DRAWINGS 10-16-26

ALLEN PEPA ARCHITECTS
INFO@ALLENPEPA.COM
TEL: (630) 578-1105
215 FULTON ST., GENEVA, IL 60134

ENGINEERS

-

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	00/00/00

POST BID/PERMIT REVISIONS:

No.	Date	Description
3	08.26.2026	Revision 3
4	09.09.2026	Revision 4
5	10.06.2026	Revision 5

PROJECT NO.	25-023
DRAWN BY	LE/ MO
CHECKED BY	EP
SHEET	22 OF 44

WALL SECTIONS & DETAILS

A3-5

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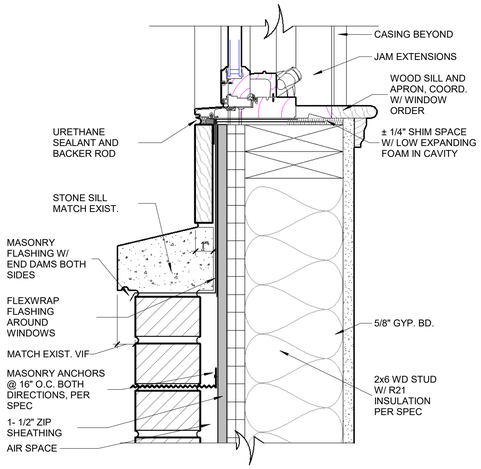
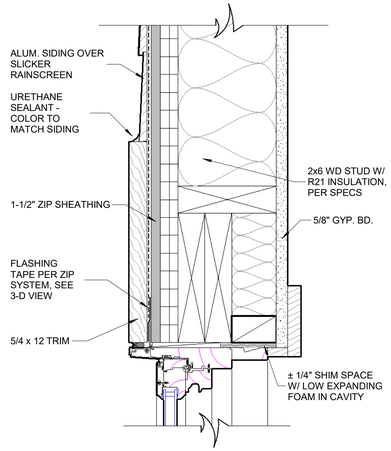
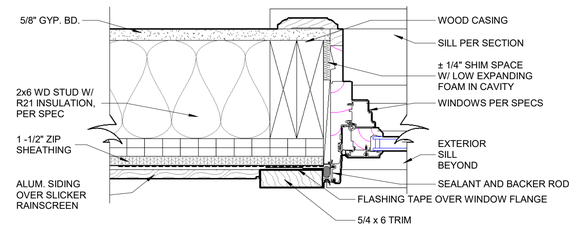


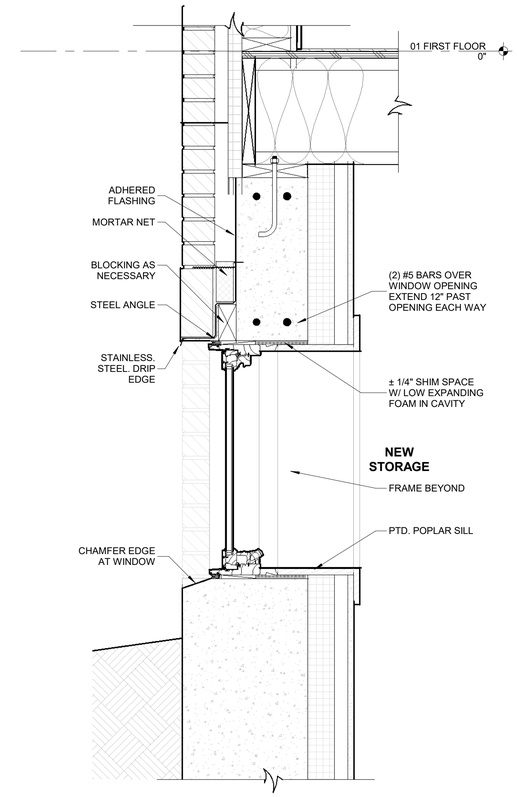
3 WINDOW SILL DETAIL (BRICK)
3" = 1'-0"



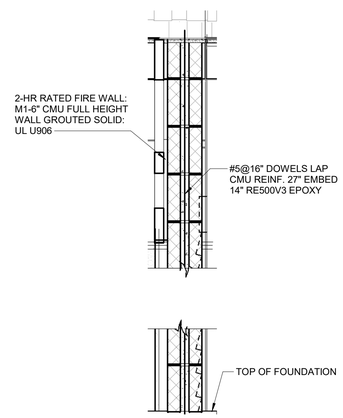
1 WINDOW HEAD DETAIL (SIDING)
3" = 1'-0"



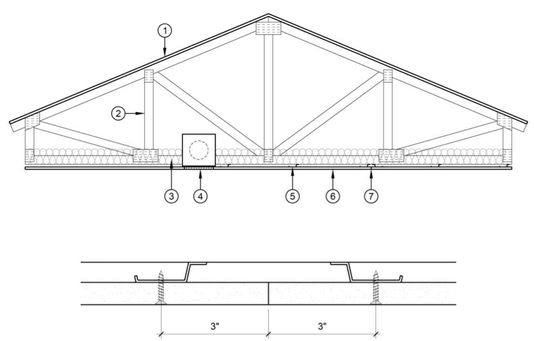
2 WINDOW JAMB DETAIL (SIDING)
3" = 1'-0"



4 SECTION DETAIL BASMENT WINDOW
1 1/2" = 1'-0"



6 WALL TYPE M1 CALLOUT
1" = 1'-0"



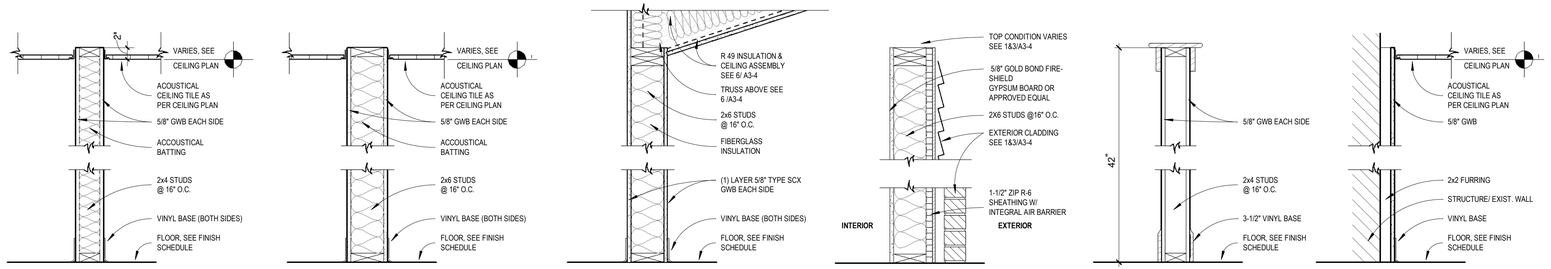
END JOINT DETAIL

1. CLASS A, B, OR C ROOFING SYSTEM OVER MIN. 15/32" WOOD STRUCTURAL PANELS
2. PITCHED OR PARALLEL CHORD ROOF TRUSSES 24" O.C.
3. GLASS FIBER OR MINERAL WOOL INSULATION (OPTIONAL)
4. CEILING DAMPER AND GRILLE (OPTIONAL)
5. MIN. 25 GAUGE 1/2" RESILIENT FURRING CHANNELS (RC-1, RC-2) 16" O.C.
6. 5/8" GOLD BOND EVOLVE X FIRE-SHIELD GYPSUM BOARD (FSLX) FASTENED WITH 1" TYPE S SCREWS 8" O.C. AND LOCATED MIN. 1/2" FROM EDGE JOINTS AND 3" FROM END JOINTS.
7. TAPE AND JOINT COMPOUND OVER JOINTS AND FASTENER HEADS

DATE: 07/01/2024	UL DESIGN: P533	National Gypsum
SCALE: NTS	1 HOUR WOOD TRUSS ROOF-CEILING ASSEMBLY	

© 2024 National Gypsum Services Company

5 1-HOUR RATED CEILING UL P533



W2	W3	R1	R2	W5	F1
2x4 STUD WALL W/ 5/8" GYP. BD.	2x6 STUD WALL W/ 5/8" GYP. BD.	2x6 STUD SHEAR WALL 1-HR RATED PER UL U305	2x6 STUD EXTERIOR WALL 1-HR RATED PER UL U355	2x4 STUD WALL W/ 5/8" GYP. BD.	2x2 FURRING WALL W/ 5/8" GYP. BD.

WALL TYPES
1" = 1'-0"

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PROJECT NO.	25-023
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SHEET	23 OF 44

WALL TYPES & DETAILS

A4-1

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WALL SIGNAGE

SIGNAGE NOTES

1. PERMANENT LETTERS AND NUMERALS SHALL BE RAISED 1/32" UPPER CASE AND ACCOMPANIED WITH GRADE 2 BRAILLE.

2. CHARACTERS AND BACKGROUND OF SIGNS SHALL BE MATTE FINISH.

3. BACKGROUNDS SHALL BE BLACK IN COLOR. CHARACTERS SHALL BE WHITE IN COLOR. FRAMES SHALL BE WHITE IN COLOR.

4. SIGNAGE SHALL BE PROVIDED AND INSTALLED IN COMPLIANCE WITH ILLINOIS ACCESSIBILITY CODE SECTION 400.310.a

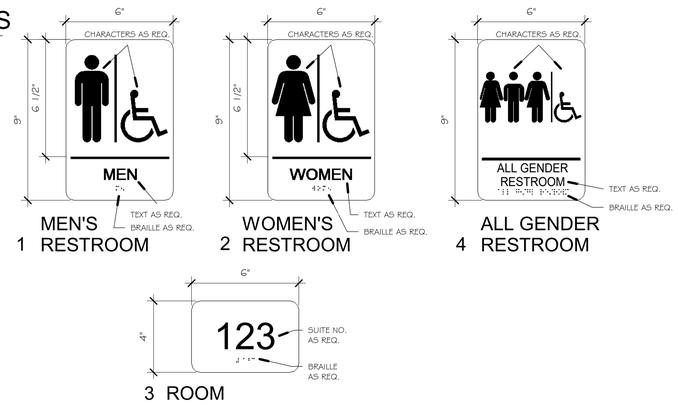
5. ALL SIGNS SHALL BE WALL MOUNTED W/ HARDWARE APPROVED BY SIGN MANUFACTURER.

6. PROVIDE SHOP DRAWINGS FOR OWNER/ARCHITECT REVIEW PRIOR TO INSTALLATION OF ANY SIGNS. USE OF ALTERNATE SIGNAGE, FRAMES, ETC. SHALL BE APPROVED BY OWNER/ARCHITECT.

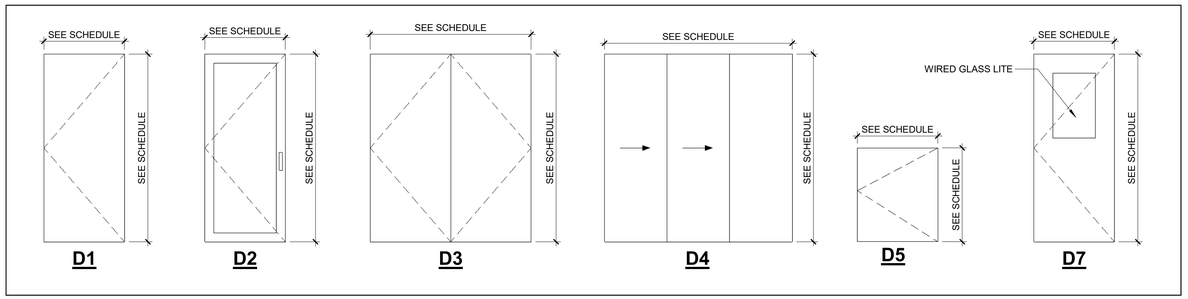
7. CONTACT _____.

8. VERIFY ROOM NAMES, ROOM NUMBERS, ETC. WITH OWNER PRIOR TO MANUFACTURING SIGNS.

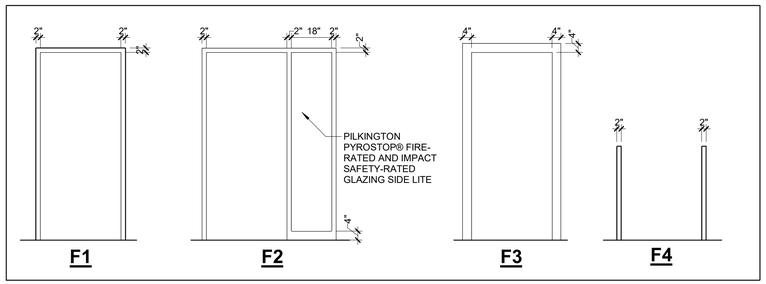
9. SEE ACCESSIBILITY STANDARDS SHEET FOR MOUNTING HEIGHT.



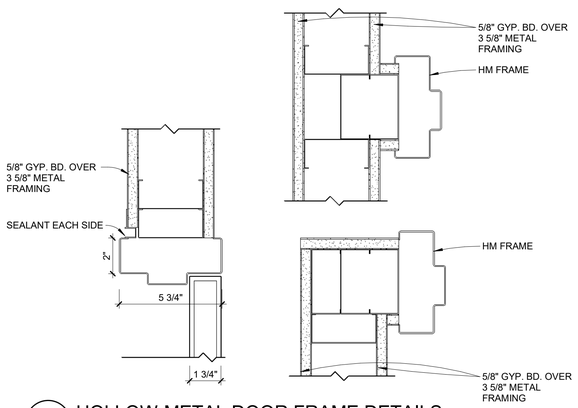
08 - Door & Frame Schedule													
	Door						Frame						
				Size									
Door Number	Type	Material	Finish	Width	Height	Thickness	Type	Material	Finish	Hardware	Rating	Signage	Comments
New Construction													
101	D5	SC WD	STN.	3' - 0"	3' - 6"	1 3/4"	F1	HM	PTD.	HDWE 1			
102	D6	SC WD	STN.	3' - 0"	7' - 0"	1 3/4"	F2	HM	PTD.	HDWE 2			45 MIN RATED
103	D2	ALUM	ANOD.	3' - 0"	6' - 10"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
105	D1	SC WD	STN.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
106	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
107	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
108	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
109	D2	ALUM	ANOD.	3' - 0"	7' - 0"	1 3/4"	F1	ALUM	ANOD.	HDWE 3			
110	D2	SC WD	PTD.	3' - 0"	7' - 0"	1 3/4"	F1	N/A	N/A	HDWE 3			
111	D2	SC WD	PTD.	3' - 0"	7' - 0"	1 3/4"	F1	N/A	N/A	HDWE 3			
112	D3	SC WD	PTD.	6' - 0"	7' - 0"	1 3/4"	F1	HM	PTD.	HDWE 5			
113	D7	HM	PTD.	3' - 0"	7' - 0"	1 3/4"	F1	HM	PTD.	HDWE 6			90 MIN RATE
114	D1	SC WD	PTD.	3' - 0"	6' - 8"	1 3/4"	F1	HM	PTD.	HDWE 1			
115	D4	SC WD	PTD.	7' - 0"	8' - 0"	1 3/8"	F3	WD	PTD.	HDWE 4			SEE 2/ A4-2. INSTALL PER MANUF.



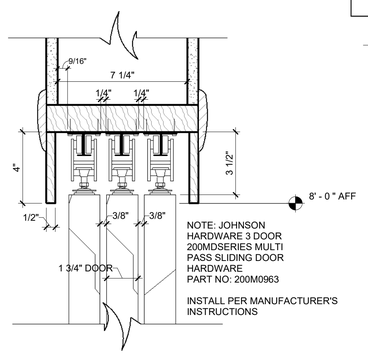
DOOR LEGEND
3/8" = 1'-0"



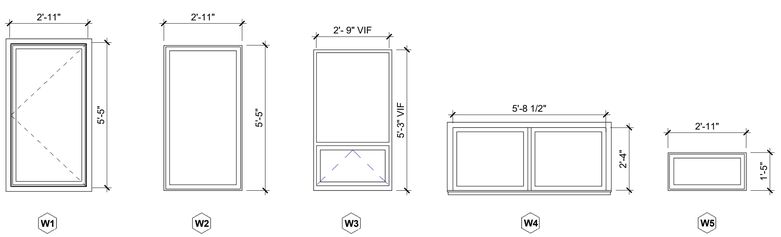
FRAME LEGEND
3/8" = 1'-0"



1 HOLLOW METAL DOOR FRAME DETAILS
3" = 1'-0"



2 DOOR TYPE D4 HEADER DETAIL1
3" = 1'-0"



W3 REUSE EXISTING WINDOWS

WINDOW LEGEND
3/8" = 1'-0"

NOTE:
1. ALL WINDOWS WILL BE NRFC CERTIFIED
2. ALL NEW EXTERIOR WINDOWS TO RECEIVE BIRD FRIENDLY TREATMENT (DECALS,SCREENS ETC) IN ACCORDANCE WITH AMERICAN BIRD CONSERVANCY

WINDOW SCHEDULE						
TYPE	DESCRIPTION	COUNT	WIDTH	HEIGHT	OPERATION TYPE	COMMENTS
New Construction						
W1	DUAL PANE CASEMENT	2	2' - 11"	5' - 5"	OPERABLE	3565 PELLA LOW E ARGON FILLED
W2	DUAL PANE CASEMENT	2	2' - 11"	5' - 5"	FIXED	3565 PELLA LOW E ARGON FILLED
W3	CASEMENT OVER AWNING	1	2' - 11"	5' - 3"	COMBINATION	REUSE EXIST. WINDOWS SEE DEMO PLAN
W4	DUAL PANE CASEMENT	1	5' - 8 1/2"	2' - 4"	FIXED	
W5	DUAL PANE CASEMENT	6	2' - 11"	1' - 3"	FIXED	3517 PELLA LOW E ARGON FILLED
W6	CASEMENT OVER AWNING	1	2' - 11"	5' - 3"	COMBINATION	REUSE EXIST. WINDOWS SEE DEMO PLAN

13

Hardware Schedule Legend																						
Hardware Set:	Latchsets	Vestibule	Passage	Office/Corridor	Classroom	Bath Privacy	Storeroom	Cylinder/deadbolt if req'd	Push Paddle Storefront latch	Exit devices - Rim device	Closer	Push plate - pull plate	1 1/2 pair hinges	1 pair hinges	Kick plate	Kick-down hold open	Silencers	Door stop	Spring Hinge	Overhead Door Hardware	Weather Strips	Magnetic Hold Open Hardware (LNC SEM 7800)	Comments
HDWE 1			●								●			●			●	●					HALF DOOR
HDWE 2											●	●	●				●	●					CONF. RM. DOORS
HDWE 3				●									●				●	●					OFFICE DOORS
HDWE 4																	●						POCKET SLIDING DOORS
HDWE 5							●				●		●		●		●	●					STORAGE RM. DOORS
HDWE 6			●																			●	FOR DOOR 113

NOTE: ALL HARDWARE SHALL COMPLY WITH THE 2018 ILLINOIS ACCESSIBILITY CODE

DOOR SCHEDULE ABBREVIATIONS
HM HOLLOW METAL
WD WOOD DOOR
FV FIELD VERIFY

SPECIFICATIONS:
LOCKSETS: SCHLAGE, BEST ACCESS, YALE

PANIC BAR: VON DUPRIN

HINGES: BOMMER INDUSTRIES, HAGER COMPANIES, STANLEY HARDWARE

CYLINDRICAL LOCKS: SCHLAGE, BEST, ACCESS, YALE

CLOSERS: LCN, SARGENT, CORBIN OR YALE

GASKETING: NATIONAL GUARD PRODUCTS, PEMKO MANUFACTURING

DOOR STOPS: ROCKWOOD, QUALITY, HAGER

ALUMINUM THRESHOLDS: NATIONAL OR WITH DOOR FRAME

KEYING: PROVIDE 5 KEYS

LOCKSET DEFINITIONS:

VESTIBULE LOCK: UNLOCKED BY KEY FROM OUTSIDE, NEVER LOCKED FROM INTERIOR

PASSAGE: BOTH LEVERS ALWAYS UNLOCKED

OFFICE/CORRIDOR LOCK: LOCKED OR UNLOCKED FROM OUTSIDE, PUSH BUTTON LOCKING WITH THUMBTURN, CLOSING DOOR OR TURNING LEVER RELEASES LOCK

CLASSROOM: OUTSIDE LEVER LOCKED AND UNLOCKED BY KEY, INTERIOR ALWAYS UNLOCKED

BED/BATH PRIVACY: PUSH BUTTON LOCKING. CAN BE OPENED FROM OUTSIDE WITH SMALL SCREWDRIVER. TURNING RELEASES BUTTON

STOREROOM: OUTSIDE LEVER ALWAYS FIXED, INSIDE LEVER ALWAYS UNLOCKED

PUSH PADDLE STOREFRONT LATCH (CYLINDER REQUIRED):
ALWAYS ACTIVE INTERIOR PANEL THAT CAN BE LOCKED IN THE OPEN POSITION DURING THE DAY OR LATCHED DURING OFF-HOURS AND OPENED WITH A KEY.

FOR BID DRAWINGS 10-16-26

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1	05.18.2026	Revision 1
3	08.26.2026	Revision 3

PROJECT NO. 25-023
DRAWN BY -
CHECKED BY -
SHEET 24 OF 44

SCHEDULES

A4-2

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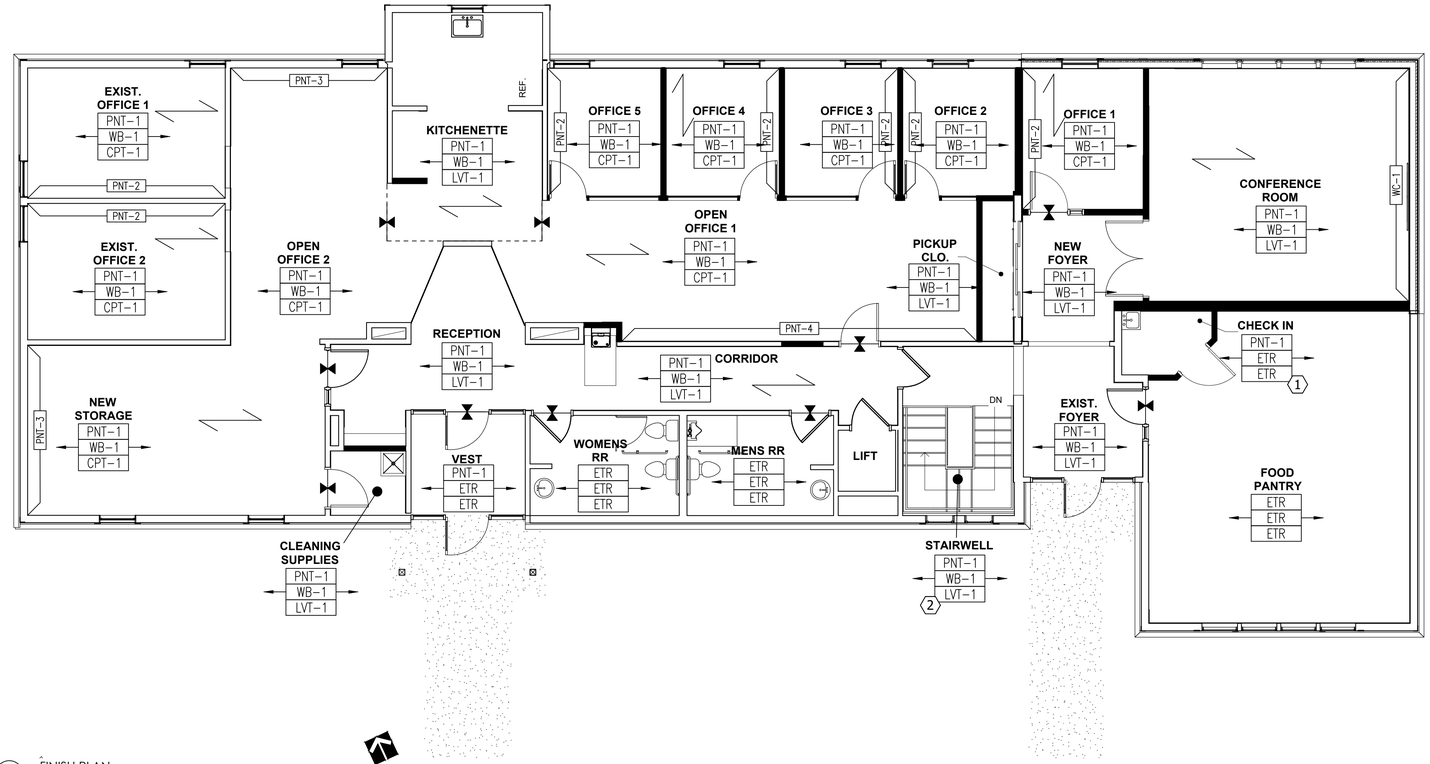

1 FINISH PLAN
SCALE: 1/8"=1'-0"

GENERAL ABBREVIATION KEY:
- AFF - ABOVE FINISHED FLOOR
- ETR - EXISTING TO REMAIN
- NTS - NOT TO SCALE
- OC - ON CENTER
- UNO - UNLESS NOTED OTHERWISE

SYMBOL KEY:
- FLOOR TRANSITION
- FINISH DIRECTION
- XXX-X FINISH TYPE
- 1 KEYNOTE
- AREA NOT IN CONTRACT

FINISH PLAN GENERAL NOTES:
1. ALL WALLS TO BE PAINTED PNT-1 WITH WB-1 WALLBASE, UNO.
2. ALL DOOR FRAMES TO BE PAINTED PNT-1
3. PAINT FINISHES ARE TO BE AS FOLLOWS:
   - -GENERAL WALLS TO RECEIVE EGGSHELL FINISH, UNO
   - -CEILINGS TO RECEIVE FLAT FINISH
   - -DOORS AND DOOR FRAMES TO RECEIVE SEMI-GLOSS FINISH
4. CPT-1 TO BE INSTALLED ASHLAR THROUGHOUT. SEE FINISH PLAN FOR INSTALLATION DIRECTION.
5. LVT-1 TO BE INSTALLED ASHLAR. SEE FINISH PLAN FOR INSTALLATION DIRECTION.
6. ANY WOOD DOORS - TO BE STAINED TO MATCH WALNUT FINISH (TO BE APPROVED BY INTERIOR DESIGNER)
7. GLASS WALL FRAMING TO BE SILVER FINISH

* FLOORING MATERIAL & INSTALL - PROVIDED BY RIEKE INTERIORS
* WALLCOVERING MATERIAL & INSTALL - PROVIDED BY RIEKE INTERIORS

1 PATCH WITH EXISTING LVT IF NECESSARY (LIFEPROOF/ WALTON OAK VINYL PLANK) 7" X 48"

2 PROVIDE RUBBER NOSING FOR STAIRS

FINISH LEGEND

MATERIAL TYPE	TAG	MANUFACTURER	PRODUCT/STYLE/COLOR	NOTES
CARPET TILE	CPT-1	BENTLEY	STYLE: SERVE IT UP COLOR: JULIENNE 801542	GENERAL CARPET SIZE: 18" X 36" INSTALL PATTERN: ASHLAR
LUXURY VINYL	LVT-1	MOHAWK	COLLECTION: LIVING LOCAL STYLE: WOODS 4.5 C2120 COLOR: 868 YOSEMITE	GENERAL LVT SIZE: 9.25" X 59" WEAR LAYER: 20 MIL THICKNESS: 4.5 MM INSTALL PATTERN: ASHLAR
VINYL WALLBASE	WB-1	TARKETT	STYLE: TRADITIONAL WALL BASE 63 COLOR: BURNT UMBER B	INSTALL ON ALL WALLS AS NOTED
VINYL FLOOR TRANSITION STRIP	N/A	SCHLUTER	COLOR: SCHIENE #AE30	SLIM LINE TRANSITION IN DIMENSIONS REQUIRED PER FLOORING THICKNESS" AS DETERMINED BY FLOORING CONTRACTOR. "FLOOR TRANSITION SYMBOL" REPRESENTS TRANSITION LOCATION ON FINISH PLAN.
PAINT	PNT-1	BENJAMIN MOORE	COLOR: CHANTILLY LACE OC-65	GENERAL WALL PAINT AND GENERAL DOOR TRIM PAINT EGGSHELL FINISH
PAINT	PNT-2	BENJAMIN MOORE	COLOR: SEAPEARL OC-19	ACCENT WALL PAINT. SEE FINISH PLAN FOR LOCATIONS. EGGSHELL FINISH
PAINT	PNT-3	BENJAMIN MOORE	COLOR: AMSTERDAM AF-550	ACCENT WALL PAINT SEE FINISH PLAN FOR LOCATIONS. EGGSHELL FINISH
PAINT	PNT-4	BENJAMIN MOORE	COLOR: GREAT BARRINGTON GREEN HC-122	ACCENT WALL PAINT SEE FINISH PLAN FOR LOCATIONS. EGGSHELL FINISH
WALLCOVERING	WC-1		PROVIDED BY RIEKE INTERIORS	INSTALLED BY RIEKE INTERIORS
WALLCOVERING	WC-2		PROVIDED BY RIEKE INTERIORS	INSTALLED BY RIEKE INTERIORS

ROOM FINISH SCHEDULE - FIRST FLOOR

ROOM NUMBER	ROOM NAME	FLOOR FINSH	WALLBASE	WALL FINISH	NOTES
	VESTIBULE	ETR	ETR	PNT-1	
	RECEPTION	LVT-1	WB-1	PNT-1	
	CLEANING SUPPLIES	LVT-1	WB-1	PNT-1	
	NEW STORAGE	CPT-1	WB-1	PNT-1/ PNT-3	SEE FINISH PLAN FOR ACCENT LOCATION
	EXIST OFFICE 1	CPT-1	WB-1	PNT-1/ PNT-2	SEE FINISH PLAN FOR ACCENT LOCATION
	EXIST OFFICE 2	CPT-1	WB-1	PNT-1/ PNT-2	SEE FINISH PLAN FOR ACCENT LOCATION
	OPEN OFFICE 2	CPT-1	WB-1	PNT-1/ PNT-3	SEE FINISH PLAN FOR ACCENT LOCATION
	KITCHENETTE	LVT-1	WB-1	PNT-1	
	OPEN OFFICE 1	CPT-1	WB-1	PNT-1/ PNT-4	SEE FINISH PLAN FOR ACCENT LOCATION
	OFFICE 1	CPT-1	WB-1	PNT-1/ PNT-2	SEE FINISH PLAN FOR ACCENT LOCATION
	OFFICE 2	CPT-1	WB-1	PNT-1/ PNT-2	SEE FINISH PLAN FOR ACCENT LOCATION
	OFFICE 3	CPT-1	WB-1	PNT-1/ PNT-2	SEE FINISH PLAN FOR ACCENT LOCATION
	OFFICE 4	CPT-1	WB-1	PNT-1/ PNT-2	SEE FINISH PLAN FOR ACCENT LOCATION
	OFFICE 5	CPT-1	WB-1	PNT-1/ PNT-2	SEE FINISH PLAN FOR ACCENT LOCATION
	WOMEN'S RR	ETR	ETR	ETR	
	MEN'S RR	ETR	ETR	ETR	
	CORRIDOR	LVT-1	WB-1	PNT-1	
	STAIRWELL	LVT-1	WB-1	PNT-1	
	PICKUP CLOSET	LVT-1	WB-1	PNT-1	
	NEW FOYER	LVT-1	WB-1	PNT-1	
	EXIST FOYER	LVT-1	WB-1	PNT-1	
	FOOD PANTRY	ETR	ETR	PNT-1/ WC-2	SEE FINISH PLAN FOR ACCENT LOCATION
	CHECK IN	ETR	ETR	PNT-1	
	CONFERENCE ROOM	LVT-1	WB-1	PNT-1/ WC-1	SEE FINISH PLAN FOR ACCENT LOCATION

RIEKE INTERIORS
2000 FOX LANE
ELGIN, IL. 20123
PH: 847.622.9711

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IN SIGNING THIS DOCUMENT, YOU ARE IN AGREEMENT THAT THIS DOCUMENT MEETS YOUR SPECIFICATIONS. PLEASE NOTE THAT CHANGES TO ANY PROJECT ELEMENTS AFTER SIGN-OFF MAY BE SUBJECT TO ADDITIONAL CHARGES.

SIGNATURE:
CLIENT NAME:
TITLE:
DATE:

NO.	DATE	DESCRIPTION
1	1.30.26	FINISH PLAN
	1.23.26	FINISH PLAN

REVISION LOG

CUBA TOWNSHIP
28000 W. CUBA ROAD
BARRINGTON, IL 60010

PROJECT ADDRESS:

N
PLAN NORTH

FIRST FLOOR FINISH PLAN

ID-104.00

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	DUCT WIDTH x DEPTH CLEAR INSIDE DIMENSION
UP DN	SUPPLY AIR DUCT SECTION UP - DOWN
UP DN	RETURN AIR DUCT SECTION UP - DOWN
UP DN	EXHAUST AIR DUCT SECTION UP - DOWN
UP DN	ROUND SUPPLY AIR DUCT SECTION UP - DOWN
UP DN	ROUND RETURN AIR DUCT SECTION UP - DOWN
UP DN	ROUND EXHAUST AIR DUCT SECTION UP - DOWN
	SQUARE ELBOW W/TURNING VANES
DN	DROP IN DUCT (DIRECTION OF FLOW)
UP	RISE IN DUCT (DIRECTION OF FLOW)
	TAKE-OFF DAMPER/EXTRACTOR
	MANUAL VOLUME DAMPER
FD	FIRE DAMPER
FSD	FIRE & SMOKE DAMPER
M	MOTORIZED DAMPER
	RECTANGULAR TO ROUND TRANSITION
	SUPPLY DIFFUSER
	SUPPLY GRILLE
	EXHAUST GRILLE
	RETURN GRILLE
CD	CONDENSATE DRAIN PIPE
CS	CONDENSER WATER SUPPLY
CR	CONDENSER WATER RETURN
CWS	CHILLED WATER SUPPLY
CWR	CHILLED WATER RETURN
G	GAS PIPE
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
MU	MAKEUP WATER
RL RS	REFRIGERANT PIPE
	REDUCER
	UNION
	PIPE DOWN
	PIPE UP
	GAS PRESSURE REDUCING VALVE (GPR) WITH VENT
	ISOLATION VALVE
S	SOLENOID VALVE
	BALL VALVE (2-1/2" AND SMALLER)
	GLOBE VALVE
	CHECK VALVE
	BUTTERFLY VALVE (3" AND LARGER)
	BALANCING VALVE
	TWO WAY CONTROL VALVE
	THREE WAY CONTROL VALVE
	RELIEF(R), OR SAFETY(S) VALVE
	PUMP, IN SCHEMATIC PRESENTATION
T	THERMOSTAT
H	HUMIDISTAT
SD	DUCT SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
T/H	DUCT TEMP / HUMID SENSOR
	NEW CONNECTION
	LIMIT OF DEMOLITION
UC 1"	UNDERCUT
S	SPACE TEMP. AVERAGING SENSOR

ABBREVIATIONS

AC	AIR CONDITIONING
ACH	AIR CHANGES PER HOUR
AD	ACCESS DOOR OR PANEL
AF	AIR FOIL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AMP	AMPERE
AP	ACCESS PANEL
ARCH	ARCHITECTURAL
ASSY	ASSEMBLY
B	BOILER
BAS	BUILDING AUTOMATION SYSTEM
BG	BELOW GRADE
BHP	BRAKE HORSEPOWER
BI	BACKWARD INCLINED
BLDG	BUILDING
BOP	BOTTOM OF PIPE
BS	BELOW SLAB
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNITS PER HOUR
C	COMMON
CA	COMPRESSED AIR, COMBUSTION AIR
CAP	CAPACITY
CB	CIRCUIT BREAKER
CC	COOLING COIL
CD	CEILING DIFFUSER
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFM	CUBIC FEET PER MINUTE
CFH	CUBIC FEET PER HOUR
CH	CHILLER
CLG	CEILING
CEF	CEILING EXHAUST FAN
CMU	CONCRETE MASONRY UNIT
COND	CONDENSER, CONDENSATE
CONT	CONTINUATION
COP	COEFFICIENT OF PERFORMANCE
CRD	CEILING RADIATION DAMPER
CTE	CONNECT TO EXISTING
CU	CONDENSING UNIT
DB	DRY BULB, OR DECIBEL
DDC	DIRECT DIGITAL CONTROL
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DTG	DOOR TRANSFER GRILL
DWG	DRAWING
(E)	EXISTING
EA	EXHAUST AIR
EAD	EXHAUST AIR DAMPER
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EFF	EFFICIENCY
EG	EXHAUST GRILLE
EL.	ELEVATION
ELEV	ELEVATION
ENT	ENTERING
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST AIR
EXT	EXTERIOR
F	FAHRENHEIT
F/A	FROM ABOVE
F/B	FROM BELOW
FC	FORWARD CURVED
FCU	FAN COIL UNIT
FLA	FULL LOAD AMPS
FLR	FLOOR
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FEET
G	NATURAL GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REDUCING VALVE
GR.	GRILLE
GSM	GALVANIZED SHEET METAL
HC	HEATING COIL
HP	HORSEPOWER, OR HEAT PUMP
HTG.	HEATING
HZ	HERTZ
ID	INSIDE DIAMETER
IN	INCHES
KEF	KITCHEN EXHAUST FAN
kW	KILOWATTS
KWH	KILOWATT HOURS
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTUH
MCA	MINIMUM CIRCUIT AMPACITY
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
MTG	MEETING
(N)	NEW
NC	NORMALLY CLOSED
NO	NORMALLY OPEN, OR NUMBER
NPT	NATIONAL PIPE THREAD
N.R.	NOT REQUIRED
N.T.S.	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
OSA	OUTSIDE AIR
OSAD	OUTSIDE AIR DAMPER
P	PUMP
PD	PRESSURE DROP
PH	PHASE
PLBG	PLUMBING
PLC	PROGRAMMABLE LOGIC CONTROL
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAGE
(R)	REMOVE
R OR RA	RETURN AIR
RAD	RETURN AIR DAMPER
(RL)	RELOCATE
REQD	REQUIRED
RF	RETURN FAN
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP HVAC UNIT
S OR SA	SUPPLY AIR
SAD	SUPPLY AIR DAMPER
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SP	STATIC PRESSURE
SQ	SQUARE
SQ. FT.	SQUARE FEET
SR	SPRING RANGE
SS	STAINLESS STEEL
STD	STANDARD
T OR TA	TRANSFER AIR
T/A	TO ABOVE
T/B	TO BELOW
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE, OR TEMPORARY
TOS	TOP OF SLAB
TSP	TOTAL STATIC PRESSURE
TTC	TIGHT TO CEILING
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VA	VOLT-AMPERE
VAV	VARIABLE AIR VOLUME
V.D.	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
V.I.F.	VERIFY IN FIELD
VOL	VOLUME
VV	VARIABLE VOLUME
W/	WITH
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
W/O	WITHOUT

DUCTWORK / EQUIPMENT / PIPING LEGEND

	DEMOLISH LINE (EXISTING DUCTWORK, EQUIPMENT, AND PIPING TO BE REMOVED)
	EXISTING LINE (EXISTING DUCTWORK, EQUIPMENT, AND PIPING TO BE REMAIN)
	NEW LINE (NEW DUCTWORK, EQUIPMENT, AND PIPING TO BE INSTALLED)

NOTES:
ETR- EXISTING TO REMAIN.

EQUIPMENT IDENTIFICATION

XXX
X
SYMBOL OR TYPE (SEE SCHEDULE OR SPECIFICATIONS)
IDENTIFICATION NUMBER (SEE SCHEDULE)

XX
KEYNOTES

AIR DEVICE IDENTIFICATION

U-CFM-T
SIZE
U= USAGE (S = SUPPLY, R = RETURN, E = EXHAUST, T = TRANSFER)
CFM = AIR QUANTITY
TYPE OF AIR DEVICE
NECK SIZE OF AIR DEVICE

GENERAL NOTES :

1. ALL WORK PERFORMED SHALL CONFORM WITH LOCAL CITY & STATE REGULATIONS. ALL WORK SHALL BE CONDUCTED, INSTALLED AND COMPLETED IN A WORKMANLIKE AND APPROVED MANNER SO AS TO SECURE THE RESULTS INTENDED BY THESE DOCUMENTS.
2. ALL WORK IS TO BE FULLY COORDINATED WITH ALL OTHER TRADES.
3. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND INCLUDING ANY ITEMS NOT INDICATED ON THE DRAWINGS BUT NECESSARY FOR PROPER OPERATION OF MECHANICAL SYSTEM.
4. THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT & IN STRICT ACCORDANCE WITH ARCHITECT/ENGINEER & OWNER'S STIPULATION.
5. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES & SHALL MAKE NECESSARY OFF-SETS & CHANGES IN ELEVATIONS TO ACCOMMODATE OTHER TRADES & THE EXISTING CONDITIONS.
6. WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS & MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES & EQUIPMENT WITH FIELD CONDITIONS, SHOP DRAWINGS, & WORK OF OTHER TRADES PRIOR TO ROUGH IN. EACH CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL & REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.
7. ALL EQUIPMENT AND MATERIALS SHALL BE U.L. LISTED OR ETL.
8. CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND FEES REQUIRED FOR THEIR WORK.
9. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL & STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.
10. INCLUDE ALL OVERTIME NECESSARY TO MAINTAIN JOB SCHEDULE UNDER NORMAL CONDITIONS OR DUE TO THIS CONTRACTOR'S NEGLIGENCE OR INABILITY TO PROPERLY STAFF THE PROJECT.
11. ALL MAJOR PIECES OF MECHANICAL EQUIPMENT SHALL BE STARTED AND ADJUSTED AND PUT INTO OPERATION BY A FACTORY REPRESENTATIVE OR A FACTORY TRAINED AND AUTHORIZED PERSONNEL. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS.
12. PRIOR TO BID, IF THE CONTRACTOR FINDS ANY DISCREPANCIES OR OMISSIONS IN THE PROJECT DOCUMENTS, THE CONTRACTOR IS TO NOTIFY THE ENGINEER IN WRITING & OBTAIN CLARIFICATION. ADDITIONAL COMPENSATION WILL NOT BE GRANTED AFTER AWARD OF CONTRACT FOR ANY ADDITIONAL WORK REQUIRED TO COMPLY WITH THESE DOCUMENTS.
13. ALL CHANGE PROPOSAL REQUESTS FOR WORK ADDITIONAL TO THE BASE BID CONTRACT SHALL BE BASED ON MATERIAL, LABOR, OVERHEAD AND PROFIT AS PUBLISHED IN THE LATEST EDITION OF "MEANS MECHANICAL, ELECTRICAL, PLUMBING AND BUILDING CONSTRUCTION COST DATA. "ALL CHANGE REQUESTS MUST BE BROKEN DOWN IN THE FOLLOWING MANNER.
    a. MATERIAL COST; (I.E. EQUIPMENT, SHEET METAL PER POUND AND PIPING PER LINEAL FOOT/FITTING)
    b. LABOR COST; (NUMBER OF HOURS AT CURRENT LABOR RATE PER HOUR) OVERHEAD & PROFIT: (INDICATING PERCENTAGES)
    c. TOTAL CHANGE ORDER PRICE: (MATERIAL + LABOR + O&P)
    d. PRICING FOR ALL ITEMS OF WORK WHICH ARE TO BE CREDITED TO THE PROJECT SHALL BE BROKEN DOWN IN A SIMILAR MANNER TO THE ADDED COSTS.
14. ALL CUTTING AND PATCHING THAT IS REQUIRED TO COMPLETE THE WORK SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
15. THE CONTRACTOR IS TO PROVIDE ALL LINTELS, SUPPORT STEEL AND FRAMING THAT IS REQUIRED TO COMPLETE THE WORK.
16. CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, AND COLUMNS AND WALLS AS SHOWN ON DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECTS BEFORE CONTRACTOR CUTS ANY STRUCTURAL BUILDING MEMBER.
17. PROVIDE ALL COORDINATION AND MISCELLANEOUS STEEL NECESSARY FOR SUITABLE ANCHORAGE OF HVAC ITEMS AND EQUIPMENT.
18. CONTRACTOR IS TO INCLUDE ALL REQUIRED PREMIUM TIME IN BASE BID INCLUDE ALL TIME ESCALATION COSTS REQUIRED TO COMPLETE THE WORK.
19. PROVIDE FOR SAFETY AND PROTECTION OF CONTRACTOR'S OWN WORK, INCLUDING THE COVERING OF ANY HOLES, SHAFT OPENINGS, ETC., SO AS TO AVOID ANY UNNECESSARY SAFETY HAZARDS AS REQUIRED AND OUTLINED BY OSHA AND ALL APPLICABLE REGULATIONS.
20. PROVIDE DUST AND NOISE PROTECTION OF ADJOINING NON-CONSTRUCTION AREAS. PROPERLY PROTECT ALL FLOORS, ROOFS AND THE LIKE.
21. MECHANICAL EQUIPMENT & APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR THE LABELED EQUIPMENT. CONNECTIONS TO THE MECHANICAL EQUIPMENT AND APPLIANCES, SUCH AS FUEL SUPPLY, CHIMNEY & DUCTS, SHALL CONFORM TO THE REQUIREMENTS OF THESE DOCUMENTS. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOBSITE AT ALL TIMES FOR INSPECTION.
22. THE DRAWINGS, SCHEDULES, & SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH TYPES OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL & MECHANICAL DESIGN. SUBSTITUTIONS FOR PRODUCTS WILL ONLY BE CONSIDERED IF SUBMITTED ONLY FOR PRODUCTS EQUAL OR BETTER THAN THAT SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED. PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION & MAINTENANCE ON THE EQUIPMENT.
23. THE MECHANICAL EQUIPMENT HAS BEEN COORDINATED WITH THE ELECTRICAL DESIGN DRAWINGS BASED ON THE ELECTRICAL CHARACTERISTICS OF THE EQUIPMENT SPECIFIED. ALL CHANGES AND/OR MODIFICATIONS TO THE ELECTRICAL DESIGN AND INSTALLATION EXPENSE, DUE TO SUBSTITUTIONS OF EQUIPMENT (I.E. AMPERAGE INCREASE) WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
24. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT THEY SUBMIT FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.
25. WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED & SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT, OR ENGINEER TO MAKE CHANGE WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE & FUNCTION AS INTENDED.
26. COORDINATED SHOP DRAWINGS SHALL BE PROVIDED BY EACH SUBCONTRACTOR AND SHALL CONTAIN A LAYOUT OF ALL DUCTWORK, CONDUIT, PIPING, EQUIPMENT, STRUCTURE, WALLS, CEILING, ETC. AS REQUIRED TO REFLECT FULL COORDINATION ACROSS ALL TRADES AND SHALL BE SUBMITTED FOR REVIEW.
27. COORDINATED DRAWINGS SHALL BE SIGNED OFF BY ALL OTHER TRADES PRIOR TO BEING SUBMITTED FOR REVIEW. PLANS SHALL BE PREPARED AT A MINIMUM OF 1/8" SCALE OR THE SCALE OF THE DESIGN DRAWINGS, WHICHEVER IS LARGER. NO EQUIPMENT SHALL BE INSTALLED WITHOUT APPROVED SHOP DRAWINGS.

HVAC NOTES :

1. FIBERGLASS DUCT IS NOT PERMISSIBLE.
2. ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS AND DO NOT INCLUDE ALLOWANCES FOR DUCT LINER THICKNESS.
3. PROVIDE DUCT OFFSETS OVER OR UNDER PIPING OR OBSTRUCTIONS AS REQUIRED. WHERE DUCT OFFSETS ARE REQUIRED, USE 45° SMOOTH RADIUS ELBOWS OR MITERED ELBOWS WITH TURNING VANES WHERE SPACE IS RESTRICTED.
4. ALL SUPPLY DUCTS LARGER THAN 10" ON EITHER SIDE WITH RECTANGULAR ELBOWS SHALL HAVE TURNING VANES.
5. MAINTAIN DUCTWORK LEVEL AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE.
6. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH AND GRADUAL SQUARE TO ROUND TRANSITIONS. SPIN-IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE.
7. PROVIDE FLEX DUCT CONNECTORS AT DUCT CONNECTIONS TO UNITS HOUSING ROTATING EQUIPMENT.
8. FOR RECTANGULAR DUCT, ALL TAKEOFFS FROM THE MAIN SHALL BE 45 TAP COLLARS (OR BOOT).
9. DUCT RUNOUTS TO DIFFUSERS OR GRILLES ARE THE SAME SIZE AS NECK UNLESS NOTED OTHERWISE (UON).
10. SEE THE REFLECTED CEILING PLAN FOR THE EXACT LOCATION OF DIFFUSERS AND GRILLES WITH RESPECT TO THE LIGHTING LAYOUT.
11. FLEXIBLE DUCT RUNOUTS TO ALL DIFFUSERS SHALL BE INSTALLED FREE OF KINKS AND SAGS. THE LENGTH OF FLEXIBLE RUNOUTS TO AIR REGISTERS SHALL NOT EXCEED 5 FEET. SUPPORT FLEXIBLE DUCTS IN ACCORDANCE WITH THE SMACNA STANDARD.
12. PROVIDE ACCESS DOORS IN ALL PLENUMS AND DUCTS AT EACH AIR HANDLING UNIT.
13. PROVIDE ACCESS PANELS TO ANY EQUIPMENT REQUIRING ADJUSTMENT OR MAINTENANCE THAT IS LOCATED ABOVE NON-ACCESSIBLE CEILINGS.
14. PROVIDE A ACCESS DOOR IN DUCTWORK AT EACH A FIRE DAMPER TO ENSURE EASY ACCESS. BY FACILITIES MAINTENANCE AND LOCAL AUTHORITY APPROVAL, FOR MAINTENANCE INSPECTION AND RESETTING. IN DUCT 10" x 10" (100 SQ. INS.) AND SMALLER PROVIDE A 12" LONG FLANGED AND GASKETED SECTION OF DUCT ADJACENT TO THE FIRE DAMPER.
15. PROVIDE A DESCRIPTION OF EVERY ACCESS PANEL TO INDICATE ITS FUNCTION. DESCRIPTION SHALL BE STENCILED WITH MIN. 1/2" HIGH LETTERS.
16. REFER TO ARCHITECTURAL FLOOR PLANS AND ELEVATIONS FOR EXACT LOUVER LOCATIONS. REFER TO THE MECHANICAL SCHEDULE FOR SIZES.
17. THE METHOD OF FIXING THE UPPER ATTACHMENTS FOR PIPE AND DUCT SUPPORTS SHALL BE TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.DUCT SHALL BE SUPPORTED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARD-METAL AND FLEXIBLE. FLEXIBLE AND OTHER FACTORY-MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
18. LONGITUDINAL AND TRANSVERSE JOINTS, SEAMS AND CONNECTIONS IN METALLIC AND NONMETALLIC DUCTS SHALL BE CONSTRUCTED AS SPECIFIED IN SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE AND NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARDS.
    18.1. JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS AND CONNECTIONS IN DUCTWORK INCLUDING CONNECTIONS TO FLANGES SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS (ADHESIVES), MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS, LIQUID SEALANTS OR TAPES.
    18.2. MASTICS USED TO SEAL METALLIC AND FLEXIBLE AIR CONNECTORS SHALL COMPLY WITH UL181B AND SHALL BE MARKED "181B-FX" FOR PRESSURE-SENSITIVE TAPE OR "181 B-M" FOR MASTIC.
19. MECHANICAL EXHAUSTS SHALL DISCHARGE TO THE OUTDOORS.
    19.1. ALL ENVIRONMENTAL AIR EXHAUST TERMINATION POINTS SHALL BE MINIMUM 3 FEET FROM THE OPERABLE OPENINGS OF THE BUILDING.
20. DUE TO EXTREMELY LIMITED CLEARANCES BETWEEN CEILINGS AND STRUCTURE, FIELD COORDINATION BETWEEN TRADES IS CRITICAL. MECHANICAL CONTRACTOR MAY NEED TO ADJUST DUCT ELEVATIONS AND SIZES TO SUITE CONDITIONS. CHANGES TO DUCT SIZES ARE ALLOWED BASED ON THE FOLLOWING: AREA OF DUCT MUST BE MAINTAINED TO SIZE SHOWN; MINIMUM DUCT SIZE IS 6" INSIDE. CONTRACTOR SHALL KEEP ACCURATE DOCUMENTATION OF ADJUSTMENTS AND PROVIDE AS BUILT DRAWINGS.
21. ALL OUTDOOR AIR, RETURN AIR AND EXHAUST AIR MOTORIZED DAMPERS SHALL HAVE AND A MANUALLY OPERATED OPPOSED BLADE TYPE BALANCING DAMPER INSTALLED ADJACENT TO EACH.
22. PROVIDE SPRING OR NEOPRENE TYPE VIBRATION ISOLATOR HANGERS FOR ALL SUSPENDED AIR MOVING EQUIPMENT. ISOLATORS SHALL BE SELECTED AND SIZED FOR THE DUTY BY THE INSTALLATION CONTRACTOR.

MECHANICAL SHEET INDEX

SHEET NO.	SHEET NAME	SCALE
M0.1	MECHANICAL LEGENDS, ABBREVIATIONS AND NOTES	N.T.S.
M0.2	MECHANICAL SPECIFICATIONS	N.T.S.
M1.0	MECHANICAL BASEMENT FLOOR PLAN	3/16" = 1'-0"
M1.1	MECHANICAL FIRST FLOOR PLAN	3/16" = 1'-0"
M2.0	MECHANICAL DETAILS	N.T.S.
M3.0	MECHANICAL SCHEDULES	N.T.S.

APPLICABLE CODES

1. 2024 INTERNATIONAL BUILDING CODE (IBC)
2. 2023 NATIONAL ELECTRIC CODE (NEC)
3. 2024 INTERNATIONAL MECHANICAL CODE (IMC)
4. 2024 ILLINOIS ENERGY CONSERVATION CODE
5. 2014 STATE PLUMBING CODE
6. 2024 INTERNATIONAL FUEL GAS CODE (IFGC)

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Schematic Design:
Design Development
Bidding:
Permit:
ISSUE DATE:

POST BID/PERMIT REVISIONS:

No.	Date	Description
0	02/25/26	ISSUED FOR PERMIT
1	06/17/26	PERMIT REVISION #1
2	08/26/26	REVISION #3

PROJECT NO.	2025-23
DRAWN BY	H.T.
CHECKED BY	N.R.
SHEET	01 OF 06

MECHANICAL LEGENDS, ABBREVIATIONS AND NOTES

PROFESSIONAL ENGINEER
SUSHIL KUMAR
062.065805
STATE OF ILLINOIS
EXP:11/30/2027

M0.1

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MECHANICAL SPECIFICATION

HVAC NOTES :

23. NO HANGERS OR SUPPORT OF ANY TRADE SHALL PENETRATE THRU ANY NEW OR EXISTING DUCTWORK EITHER FOR TEMPORARY OR PERMANENT PURPOSES.

24. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR COORDINATION OF ALL SUPPLY AND RETURN AIR DEVICE LOCATIONS. ALL MEDIUM PRESSURE ROUND DUCT TAKE-OFFS SHALL BE BELLMOUTH, GASKETED FITTINGS, BUCKLEY "AIR-TITE" OR EQUAL.

25. DUCTS AND PLENUMS OPERATING AT STATIC PRESSURES IN EXCESS OF 3 INCHES OF WATER GAUGE (W.G.) SHALL BE LEAK TESTED IN ACCORDANCE WITH SMACNA.

26. PROVIDE BALANCING DAMPERS (VOLUME DAMPERS) AT POINTS ON RETURN & EXHAUST SYSTEMS WHERE BRANCHES ARE TAKEN FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. ALL LOW PRESSURE SUPPLY BRANCH DUCTS SHALL BE PROVIDED WITH "EXTRACTOR" DAMPERS WITH LOCKING RODS. ALL INACCESSIBLE VOLUME DAMPERS INSTALLED ABOVE NON-ACCESSIBLE CEILINGS (I.E. FINISHED GYP BOARD) SHALL BE INSTALLED WITH REMOTE ADJUSTABLE OPERATORS COMPLETE WITH ALL PERTINENT LINKAGES, ETC. TO LOCATIONS AS APPROVED BY THE ARCHITECT.

27. CONSTRUCT BENDS AND ELBOWS WITH RADIUS OF NOT LESS THAN 1-1/2 TIMES WIDTH OF DUCT ON CENTERLINE, OR USE SQUARE THROAT ELBOWS WITH TURNING VANES.

28. INCREASE DUCT SIZES GRADUALLY NOT EXCEEDING 15 DEGREES DIVERGENCE WHEREVER POSSIBLE. DIVERGENCE UPSTREAM OF EQUIPMENT SHALL NOT EXCEED 30 DEGREES. CONVERGENCE DOWNSTREAM SHALL NOT EXCEED 45 DEGREES.

29. ADEQUATE ACCESS IS TO BE PROVIDED TO EASILY CHANGE FILTERS. PROVIDE ONE SPARE SET OF ALL FILTERS.

30. ALL KITCHEN EXHAUST HOODS SUPPLIED TO THE PROJECT ARE TO BE RECEIVED & HUNG BY THE CONTRACTOR.

31. WHENEVER POSSIBLE, ALL DUCT ELBOWS ON KITCHEN EXHAUST SYSTEMS SHALL BE CONSTRUCTED WITH LONG RADIUS FITTINGS.

INSTALLATION NOTES :

1. ALL EQUIPMENT, DUCTWORK, PIPEWORK, ETC SHALL BE SUPPORTED.

2. ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS, ETC. TO ALLOW SMOOTH FLOWS. ALL SPLIT DUCT FITTINGS SHALL TRANSITION TO FULL SIZE OF THE SUM OF BOTH BRANCHES UPSTREAM OF SPLIT.

3. MAINTAIN A MINIMUM 6" CLEARANCE BETWEEN DUCTWORK, PIPING, EQUIPMENT, ETC. AND ALL FIRE RATED AND FIRE/SMOKE RATED PARTITIONS, TO ALLOW FOR INSPECTION OF RATED WALLS.

4. ALL EQUIPMENT SHALL BE CAPABLE OF FITTING INTO THE SPACES ALLOCATED WHILE MEETING THE MANUFACTURER'S RECOMMENDED ACCESS REQUIREMENTS. REVIEW ALL SPACES WHERE EQUIPMENT IS TO BE INSTALLED PRIOR TO ORDERING OF EQUIPMENT AND NOTIFY THE ENGINEER OF ANY INADEQUATE CLEARANCES OR CONDITIONS THAT WILL PREVENT THE PROPER INSTALLATION, MAINTENANCE, AND OPERATION OF THE EQUIPMENT.

5. SLEEVE AND SEAL ALL PIPING PENETRATIONS THROUGH BUILDING PARTITIONS.

6. VERIFY AND COORDINATE ALL ROOF, WALL, AND FLOOR PENETRATIONS WITH THE STRUCTURAL AND ARCHITECTURAL DRAWINGS PRIOR TO THE START OF CONSTRUCTION.

7. PROVIDE ACCESS PANELS TO ALL CONCEALED VALVES, DAMPERS, AND EQUIPMENT. PANELS SHALL BE MILCOR, ELMDOR, OR EQUAL. COORDINATE THE LOCATION OF ACCESS PANELS TO ENSURE THAT THE EQUIPMENT CAN BE MAINTAINED ADEQUATELY.

8. INSTALL CONDENSATE DRAINS AT A MINIMUM SLOPE OF 1/4" PER FOOT. INDIVIDUAL UNIT CONDENSATE DRAINS SHALL BE 3/4" DIAMETER LINES AND 1" FOR COMBINED LINES UNLESS OTHERWISE INDICATED.

9. THE CONTRACTOR SHALL PROVIDE ALL CONTROL COMPONENTS AND ACCESSORIES INCLUDING EQUIPMENT MOTOR STARTERS, THERMOSTATS, SENSORS, WIRING, BOXES, ETC.

10. INSULATE ALL SEWER PIPING RECEIVING AIR CONDITIONING CONDENSATE DRAINS, OR ANY OTHER COLD LIQUID WHICH MAY CREATE CONDENSATION, FROM POINT OF CONNECTION TO TOP OF CONCRETE SLAB-ON-GRADE.

11. MOUNT ALL ROOM THERMOSTATS AT 4'-0" ABOVE FINISHED FLOOR UNLESS OTHERWISE INDICATED.

12. ALL HVAC SYSTEM THERMOSTATS IN UNITS SHALL BE EQUIPPED WITH ENERGY STAR SEVEN DAY PROGRAMMABLE THERMOSTATS WITH NIGHT SETBACK.

13. PRIOR TO PERMIT BEING FINALED, A COMPLETE REPORT OF THE TESTING AND ADJUSTING SHALL BE PROVIDE TO THE OWNER/OWNER'S REPRESENTATIVE AND TO THE INSPECTOR.

14. INSTALLING CONTRACTOR SHALL INSTALL HILTI FIRE CAULK ON ALL DUCT AND PIPE PENETRATION GOING THROUGH FIRE RATED ASSEMBLIES. INSTALLATION SHALL BE PER HILTI DETAIL.

15. PENETRATION IN FIRE-RESISTANCE-RATED WALLS/PARTITIONS OR HORIZONTAL ASSEMBLIES: PENETRATION FIRESTOPPING SYSTEMS WITH RATINGS DETERMINED PER ASTM E 814 OR UL 1479, BASED ON TESTING AT A POSITIVE PRESSURE DIFFERENTIAL OF 0.01-INCH WG. FIRE RATING: NOT LESS THAN THE FIRE-RESISTANCE RATING OF CONSTRUCTIONS PENETRATED.

16. PENETRATIONS IN SMOKE BARRIERS: PENETRATION FIRESTOPPING SYSTEMS WITH RATINGS DETERMINED PER UL 1479, BASED ON TESTING AT A POSITIVE PRESSURE DIFFERENTIAL OF 0.30-INCH WG.

17. ACCESSORIES: PROVIDE COMPONENTS FOR EACH PENETRATION FIRESTOPPING SYSTEM THAT ARE NEEDED TO INSTALL FILL MATERIALS AND TO MAINTAIN RATINGS REQUIRED. USE ONLY THOSE COMPONENTS SPECIFIED BY PENETRATION FIRESTOPPING SYSTEM MANUFACTURER AND APPROVED BY QUALIFIED TESTING AND INSPECTING AGENCY FOR CONDITIONS INDICATED.

18. EXHAUST AND INTAKE VENTING MATERIAL, SIZING & TERMINATION TO BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS BASED ON ACTUAL INSTALLED CONDITIONS.

TESTING AND BALANCING :

1. TEST AND BALANCE OF AIR AND HYDRONIC SYSTEM SHALL BE PERFORMED BY A THIRD-PARTY INDEPENDENT CONTRACTOR CERTIFIED BY EITHER AABC (THE ASSOCIATED AIR BALANCE COUNCIL) OR NEBB (NATIONAL ENVIRONMENTAL BALANCING BUREAU). BALANCING AND TESTING SHALL BE PERFORMED BY AABC OR NEBB CERTIFIED TECHNICIANS.

2. PERFORM TESTING AND BALANCING PROCEDURES ON EACH SYSTEM ACCORDING TO THE PROCEDURES CONTAINED IN AABC'S OR NEBB'S STANDARDS FOR TOTAL SYSTEM BALANCE. SUBMIT REPORT IN THE FORMAT PUBLISHED BY AABC OR NEBB.

3. MARK EQUIPMENT AND BALANCING DEVICES, INCLUDING DAMPER-CONTROL POSITIONS, VALVE POSITION INDICATORS, FAN-SPEED-CONTROL LEVERS, AND SIMILAR CONTROLS AND DEVICES, WITH PAINT OR OTHER SUITABLE, PERMANENT IDENTIFICATION MATERIAL TO SHOW FINAL SETTINGS.

4. TAKE AND REPORT TESTING AND BALANCING MEASUREMENTS IN INCH-POUND (IP) UNITS.

DUCTWORK INSULATION :

A. INDOOR DUCT INSULATION

1. CONCEALED, SUPPLY-AIR, RETURN-AIR, EXHAUST-AIR, OUTDOOR AIR DUCT AND PLENUM INSULATION: MINERAL-FIBER BLANKET (R-6) 1-1/2 INCHES THICK WITH FSK JACKET.

2. CONCEALED, TYPE I, COMMERCIAL, KITCHEN HOOD EXHAUST DUCT AND PLENUM INSULATION: FIRE-RATED BLANKET; THICKNESS AS REQUIRED TO ACHIEVE 2-HOUR FIRE RATING.

3. EXPOSED, SUPPLY-AIR, RETURN-AIR, EXHAUST-AIR, OUTDOOR AIR DUCT AND PLENUM INSULATION: MINERAL-FIBER BOARD (R-6) 1-1/2 INCHES THICK WITH FSK JACKET.

4. EXPOSED SUPPLY-AIR DUCT IN CONDITIONED SPACE SHALL NOT BE INSULATED. UNLESS SPECIFIED ON PLANS.

5. EXPOSED, TYPE I, COMMERCIAL, KITCHEN HOOD EXHAUST DUCT AND PLENUM INSULATION: FIRE-RATED BOARD; THICKNESS AS REQUIRED TO ACHIEVE 2-HOUR FIRE RATING.

B. OUTDOOR DUCT INSULATION

1. EXPOSED SUPPLY, RETURN, EXHAUST AND OUTDOOR AIR DUCT AND PLENUM INSULATION: MINERAL-FIBER BOARD 3 INCHES (R-12) THICK WITH WEATHERPROOF ALUMINUM JACKET W/ VAPOR BARRIER (3M VENTURE CLAD 1577 CW OR EQUAL).

2. CONCEALED SUPPLY, RETURN, EXHAUST AND OUTDOOR AIR DUCT AND PLENUM INSULATION: MINERAL-FIBER BOARD 3 INCHES (R-12) THICK WITH WEATHERPROOF FSK JACKET.

C. SURFACE-BURNING CHARACTERISTICS: FOR INSULATION AND RELATED MATERIALS, AS DETERMINED BY TESTING IDENTICAL PRODUCTS ACCORDING TO ASTM E 84, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. FACTORY LABEL INSULATION AND JACKET MATERIALS AND ADHESIVE, MASTIC, TAPES, AND CEMENT MATERIAL CONTAINERS, WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.

1. INSULATION INSTALLED INDOORS: FLAME-SPREAD INDEX OF 25 OR LESS, AND SMOKE-DEVELOPED INDEX OF 50 OR LESS.
2. INSULATION INSTALLED OUTDOORS: FLAME-SPREAD INDEX OF 75 OR LESS, AND SMOKE-DEVELOPED INDEX OF 150 OR LESS.
3. NFPA 90A AND 90B •CALIFORNIA INSULATION QUALITY STANDARDS CA-T052.

D. FLEXIBLE DUCT: PROVIDE FACTORY ASSEMBLED CLASS 1 AIR DUCT (UL 181) WITH 1" THICK 1 PCF FIBERGLASS INSULATION AND REINFORCED OUTER PROTECTIVE COVER/VAPOR BARRIER. FLEXIBLE DUCT SHALL MEET NFPA 90A WITH FLAME SPREAD UNDER 25, SMOKE DEVELOPED UNDER 50, AND SHALL BE RATED FOR MINIMUM 2" W.G. PRESSURE AND 0 TO 250°F TEMPERATURE. PROVIDE SCREW-OPERATED METAL ADJUSTABLE CLAMPING DEVICES. USE TWIST-LOCK TAP COLLARS AT CONNECTIONS INTO SHEET METAL DUCTWORK. MAXIMUM EXTENDED LENGTH OF FLEXIBLE DUCT SHALL CONFORM TO THE APPLICABLE CODE."

E. ITEMS NOT INSULATED:

1. METAL DUCTS WITH DUCT LINER OF SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE AND ASHRAE/IESNA 90.1.
2. FACTORY-INSULATED FLEXIBLE DUCTS.
3. FACTORY-INSULATED PLENUMS AND CASINGS.
4. FLEXIBLE CONNECTORS.
5. VIBRATION-CONTROL DEVICES.
6. FACTORY-INSULATED ACCESS PANELS AND DOORS.

PIPING INSULATION :

A. CONTRACTOR SHALL REVIEW MANUFACTURER'S INSULATION R-VALUE CHART FOR ASSOCIATED PIPE SIZE TO DETERMINE INSULATION THICKNESS.

B. INDOOR PIPING INSULATION :

1. REFRIGERANT SUCTION, LIQUID, AND HOT-GAS PIPING:
   a. FLEXIBLE ELASTOMERIC, 1 INCH THICK WITH PVC JACKET.
   b. MINERAL-FIBER, PREFORMED PIPE, TYPE I, 1 INCH THICK WITH ASJ JACKET.

2. CONDENSATE PIPING:
   a. FLEXIBLE ELASTOMERIC, 1/2 INCH THICK.
   b. MINERAL-FIBER, PREFORMED PIPE, TYPE I, 1/2 INCH THICK WITH ASJ JACKET.

C. OUTDOOR, ABOVEGROUND PIPING INSULATION SCHEDULE.

1. REFRIGERANT SUCTION, LIQUID, AND HOT-GAS PIPING:
   a. FLEXIBLE ELASTOMERIC, 1 INCH THICK WITH PVC JACKET.
   b. MINERAL-FIBER, PREFORMED PIPE, TYPE I, 1 INCH THICK WITH PVC JACKET.

2. CONDENSATE PIPING:
   a. FLEXIBLE ELASTOMERIC, 1/2 INCH THICK WITH PVC JACKET.
   b. MINERAL-FIBER, PREFORMED PIPE, TYPE I, 1/2 INCH THICK WITH PVC JACKET.

REFRIGERATION PIPING :

A. REFRIGERANT PIPING SHALL BE COPPER TUBE ASTM B819, TYPE K OR ASTM B 280, TYPE ACR. PIPING SHALL BE RATED FOR LINE TEST PRESSURE FOR THE REFRIGERANT USED ON THE PROJECT. ALL COPPER PIPING SHALL BE BRAZED USING AWS A5.8 FILLER MATERIAL. THE BRAZING SHALL BE PERFORMED PER AMERICAN WELDING SOCIETY (AWS) STANDARDS. SOLDERED JOINTS SHALL NOT BE USED IN SUCH REFRIGERATION SYSTEMS.

B. AFTER COMPLETION OF PIPING INSTALLATION AND PRIOR TO INITIAL OPERATION, CONDUCT TEST ON PIPING SYSTEM ACCORDING TO ASME B31.5. FURNISH MATERIALS AND EQUIPMENT REQUIRED FOR TESTS. PERFORM TESTS IN THE PRESENCE OF COR. IF THE TEST FAILS, CORRECT DEFECTS AND PERFORM THE TEST AGAIN UNTIL IT IS SATISFACTORILY DONE AND ALL JOINTS ARE PROVED TIGHT.

IECC GENERAL NOTES :

1. 2024 ILLINOIS ENERGY CONSERVATION CODE, ALL EQUIPMENT AND SYSTEMS MUST BE SIZED TO BE NO GREATER THAN NEEDED TO MEET CALCULATED LOADS.

2. 2024 ILLINOIS ENERGY CONSERVATION CODE CLIMATE ZONE-5A FOR THE PROJECT LOCATION: 28000 W CUBA RD, BARRINGTON, IL 60010.

3. EACH HEATING OR COOLING SYSTEM SERVING A SINGLE ZONE MUST HAVE ITS OWN TEMPERATURE CONTROL DEVICE.

4. DESIGN HEATING AND COOING LOADS FOR THE BUILDING MUST BE DETERMINED USING PROCEDURES IN THE ASHRAE HANDBOOK OF FUNDAMENTALS OR AN APPROVED EQUIVALENT CALCULATION PROCEDURE.

5. THE SYSTEM OR ZONE CONTROL MUST BE A PROGRAMMABLE THERMOSTAT OR OTHER AUTOMATIC CONTROL MEETING THE FOLLOWING CRITERIA:

   a. CAPABLE OF SETTING BACK TEMPERATURE TO 55°F DURING HEATING AND SETTING UP TO 85°F DURING COOLING.
   b. CAPABLE OF AUTOMATICALLY SETTING BACK OR SHUTTING DOWN SYSTEMS DURING UNOCCUPIED HOURS USING 7 DIFFERENT DAY SCHEDULES.
   c. HAVE AN ACCESSIBLE 2-HOUR OCCUPANT OVERRIDE.
   d. HAVE A BATTERY BACKUP CAPABLE OF MAINTAINING PROGRAMMED SETTINGS FOR AT LEAST 10 HOURS WITHOUT POWER.

6. THE SYSTEM MUST SUPPLY OUTSIDE VENTILATION AR AS REQUIRED BY THE BUILDING CODE. IF THE VENTILATION SYSTEM IS DESIGNED TO SUPPLY OUTDOOR-AIR QUANTITIES EXCEEDING THE MINIMUM REQUIRED LEVELS. THE SYSTEM MUST BE CAPABLE OF REDUCING OUTDOOR-AIR FLOW TO THE MINIMUM REQUIRED LEVELS.

7. AIR DUCTS MUST BE INSULATED TO THE FOLLOWING LEVELS:

   a. SUPPLY AND RETURN AIR DUCTS FOR CONDITIONED AIR LOCATED IN UNCONDITIONED SPACES (SPACES NEITHER HEATED NOR COOLED) MUST BE INSULATED WITH A MINIMUM OF R-6. UNCONDITIONED SPACES INCLUDE UNVENTILATED ATTICS, CRAWL SPACES. UNHEATED BASEMENTS, AND UNHEATED GARAGES.
   b. SUPPLY AND RETURN AIR DUCTS AND PLENUMS MUST BE INSULATED TO A MINIMUM OF R-12 WHEN LOCATED OUTSIDE THE BUILDING.
   c. WHEN DUCTS ARE LOCATED WITHIN EXTERIOR COMPONENTS (E.G., FLOORS OR ROOFS) OR IN VENTILATED ATTICS, MINIMUM R-12 INSULATION IS REQUIRED ONLY BETWEEN THE DUCT AND THE BUILDING EXTERIOR.

   EXCEPTION(S):
   a. DUCT INSULATION IS NOT REQUIRED ON DUCTS LOCATED WITHIN THE EQUIPMENT.

8. MECHANICAL FASTENERS AND SEALS, MASTICS, OR GASKETS MUST BE USED WHEN CONNECTING DUCTS TO FANS AND OTHER AIR DISTRIBUTION EQUIPMENT. INCLUDING MULTIPLE-ZONE TERMINAL UNITS.

9. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS. AND CONNECTIONS IN DUCTWORK MUST BE SECURELY SEALED USING WELDMENTS; MECHANICAL FASTENERS WITH SEALS, GASKETS, OR MASTICS: MESH AND MASTIC SEALING SYSTEMS; OR TAPES. TAPES AND MASTICS MUST BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A AND SHALL BE MARKED '181A-P' FOR PRESSURE SENSITIVE TAPE, '181A-M' FOR MASTIC OR '181A-H' FOR HEAT-SENSITIVE TAPE. TAPES AND MASTICS USED TO SEAL FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS SHALL COMPLY WITH UL 181B AND SHALL BE MARKED '1810-FX' FOR PRESSURE-SENSITIVE TAPE OR '1818-M' FOR MASTIC. UNLISTED DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS.

   EXCEPTION(S):
   a. CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS ON DUCTS OPERATING AT STATIC PRESSURES LESS THAN 2 INCHES W.G. PRESSURE CLASSIFICATION.

10. OPERATION AND MAINTENANCE DOCUMENTATION MUST BE PROVIDED TO THE OWNER THAT INCLUDES AT LEAST THE FOLLOWING INFORMATION:
    a. EQUIPMENT CAPACITY (INPUT AND OUTPUT) AND REQUIRED MAINTENANCE ACTIONS.
    b. EQUIPMENT OPERATION AND MAINTENANCE MANUALS.
    c. HVAC SYSTEM CONTROL MAINTENANCE AND CALIBRATION INFORMATION,
    d. INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE.
    e. DESCRIPTIONS; DESIRED OR FIELD-DETERMINED SET POINTS MUST BE PERMANENTLY RECORDED ON CONTROL DRAYANGS, AT CONTROL DEVICES, OR, FOR DIGITAL.
    f. CONTROL SYSTEMS, IN PROGRAMMING COMMENTS.
    g. COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.

11. THERMOSTATS CONTROLLING BOTH HEATING AND COOLING MUST BE CAPABLE OF MAINTAINING A 5°F DEADBAND (A RANGE OF TEMPERATURES WHERE NO HEATING OR COOLING IS PROVIDED).

    EXCEPTION(S):
    a. DEADBAND CAPACITY IS NOT REQUIRED IF THE THERMOSTAT DOES NOT HAVE AUTOMATIC CHANGEOVER CAPABILITY BETWEEN HEATING AND COOLING.
    b. SPECIAL OCCUPANCY OR SPECIAL APPLICATIONS WHERE WIDE TEMPERATURE RANGES ARE NOT ACCEPTABLE AND ARE APPROVED BY THE AUTHORITY HAVING JURISDICTION.

12. BALANCING DEVICES PROVIDED IN ACCORDANCE WITH BUILDING CODE. ALL AIR BALANCING & TESTING SHALL BE DONE BY AN INDEPENDENT CONTRACTOR.

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Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	

POST BID/PERMIT REVISIONS:

No.	Date	Description
0	02/25/26	ISSUED FOR PERMIT
1	06/17/26	PERMIT REVISION #1
2	08/26/26	REVISION #3

PROJECT NO.	2025-23
DRAWN BY	H.T.
CHECKED BY	N.R.
SHEET	02 OF 06

MECHANICAL SPECIFICATIONS

PROFESSIONAL ENGINEER
SUSHIL KUMAR
062.065805
STATE OF ILLINOIS

EXP:11/30/2027

M0.2

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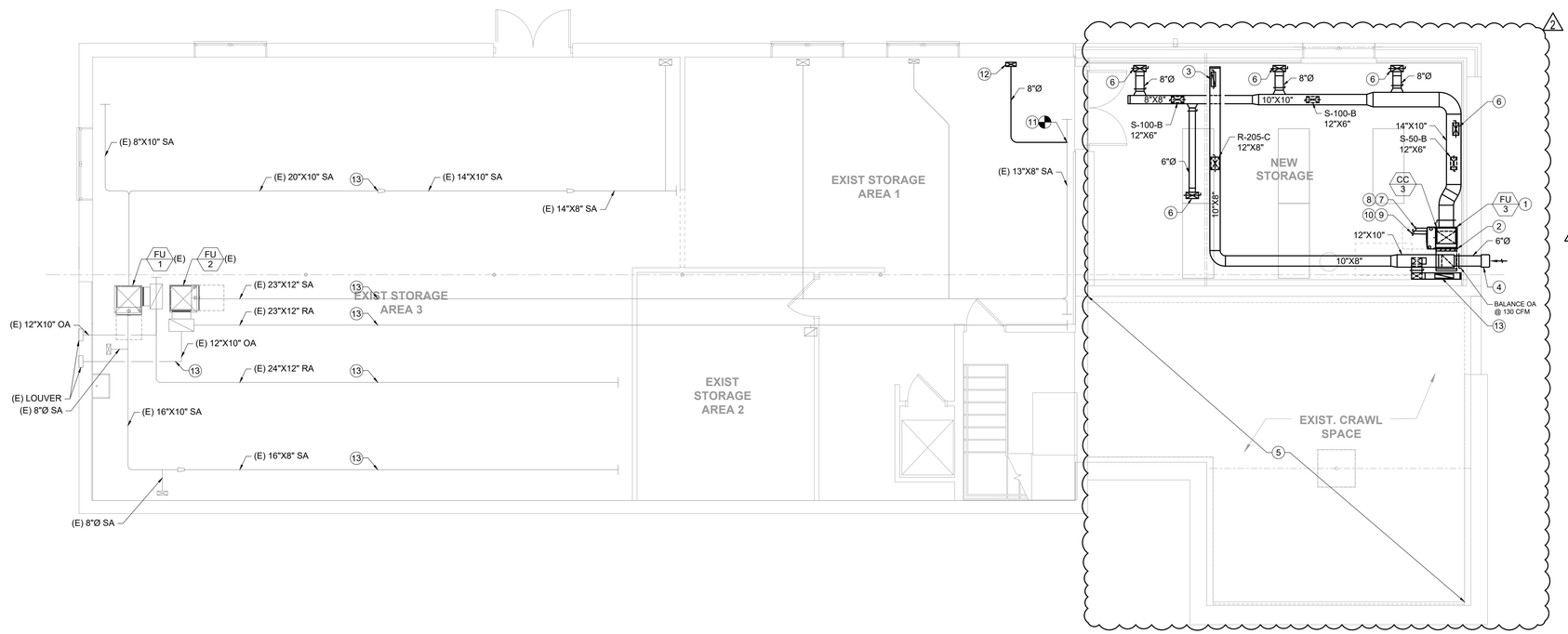

NORTH

1 MECHANICAL BASEMENT FLOOR PLAN

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

MECHANICAL GENERAL NOTES:

1. ALL DUCTWORK SHALL CONFORM TO SMACNA STANDARDS. ALL DUCTWORK SIZES ARE NET INSIDE DIMENSIONS.
2. MECHANICAL CONTRACTOR SHALL COORDINATE THE DUCT LAYOUT AND DIMENSIONS WITH FIELD VERIFICATION.
3. ADJUST SUPPLY, RETURN, AND EXHAUST AIR REGISTERS/GRILLES TO FIT AS PER FIELD VERIFICATION.
4. DIFFUSERS SHALL BE INSTALLED SYMMETRICALLY IN ACCORDANCE WITH THE LIGHTING LAYOUT DESIGN. DIFFUSERS SHALL NOT BE OFF-CENTERED OR MISALIGNED. COORDINATE WITH ARCHITECT FOR APPROVAL.
5. INDOOR CONCEALED DUCTWORK SHALL BE INSULATED AS PER THE SPECIFICATIONS. REFER SHEET #M0.2, DUCTWORK INSULATION SECTION.
6. T&B CONTRACTOR SHALL SPECIFY MINIMUM POSITION OF THE OUTSIDE AIR DAMPER CORRESPONDING TO THE FRESH AIR VENTILATION REQUIRED FOR THE UNIT. REFER TO THE VENTILATION SCHEDULE FOR THE FRESH AIR VENTILATION REQUIREMENTS.
7. SALVAGE AND CLEAN EXISTING DIFFUSER. THE CONTRACTOR SHALL COORDINATE WITH LANDLORD AND TENANT SPACE OWNER BEFORE INSTALLING EXISTING DIFFUSER.
8. INDOOR CONCEALED DUCTWORK SHALL BE INSULATED WITH 5/8" THICK R-8 DUCT WRAP INSULATION.

MECHANICAL FLOOR PLAN KEYNOTES:

1. FIELD COORDINATE THE EXACT LOCATION OF HVAC EQUIPMENT. MAINTAIN CODE REQUIRED, MANUFACTURER'S RECOMMENDED CLEARANCES AT HVAC EQUIPMENT.
2. PROVIDE MERV-8 FILTER KIT CONNECTED AT THE RETURN DUCT OF FURNACE
3. 14"X4" RA DUCT UP.
4. 6"Ø OA DUCT TO WALL CAP WITH WIRE MESH SCREEN.(MANUFACTURER #BROAN, MODEL NO: 641 FA OR EQUIVALENT).
5. EXISTING SUPPLY AND RETURN DUCT TO REMAIN AS IS. CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION AND CONDITION AT SITE.
6. 12"X6" SA REGISTER PLENUM BOX FOR FIRST FLOOR.
7. ROUTE REFRIGERANT PIPING BETWEEN OUTDOOR UNIT AND ASSOCIATED INDOOR UNIT. PIPE SIZES AND INSTALLATION SHALL BE AS PER MANUFACTURER'S RECOMMENDATIONS.
8. REFRIGERATION PIPING SHALL BE COPPER ASTM B-280 ACR TUBING WITH INSULATION.
9. 1/4"Ø INSULATED CONDENSATE DRAIN PIPE (PIPE MATERIAL PVC). PIPE SHALL BE SLOPED MIN. 1/8" PER FT. IN DIRECTION OF FLOW.
10. ROUTE CONDENSATE DRAIN PIPE TO NEAREST FLOOR DRAIN WITH INDIRECT CONNECTION.
11. CONNECT THE NEW 8" Ø DUCT TO THE RELOCATED EXISTING GRILLE 10"X4" AS SHOWN ON THE PLAN.
12. 10"X4" SA DUCT UP.
13. 18"X4" RA DUCT UP

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CHECKED BY	N.R.
SHEET	03 OF 06

MECHANICAL BASEMENT FLOOR PLAN

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065806 STATE OF ILLINOIS

EXP:11/30/2027

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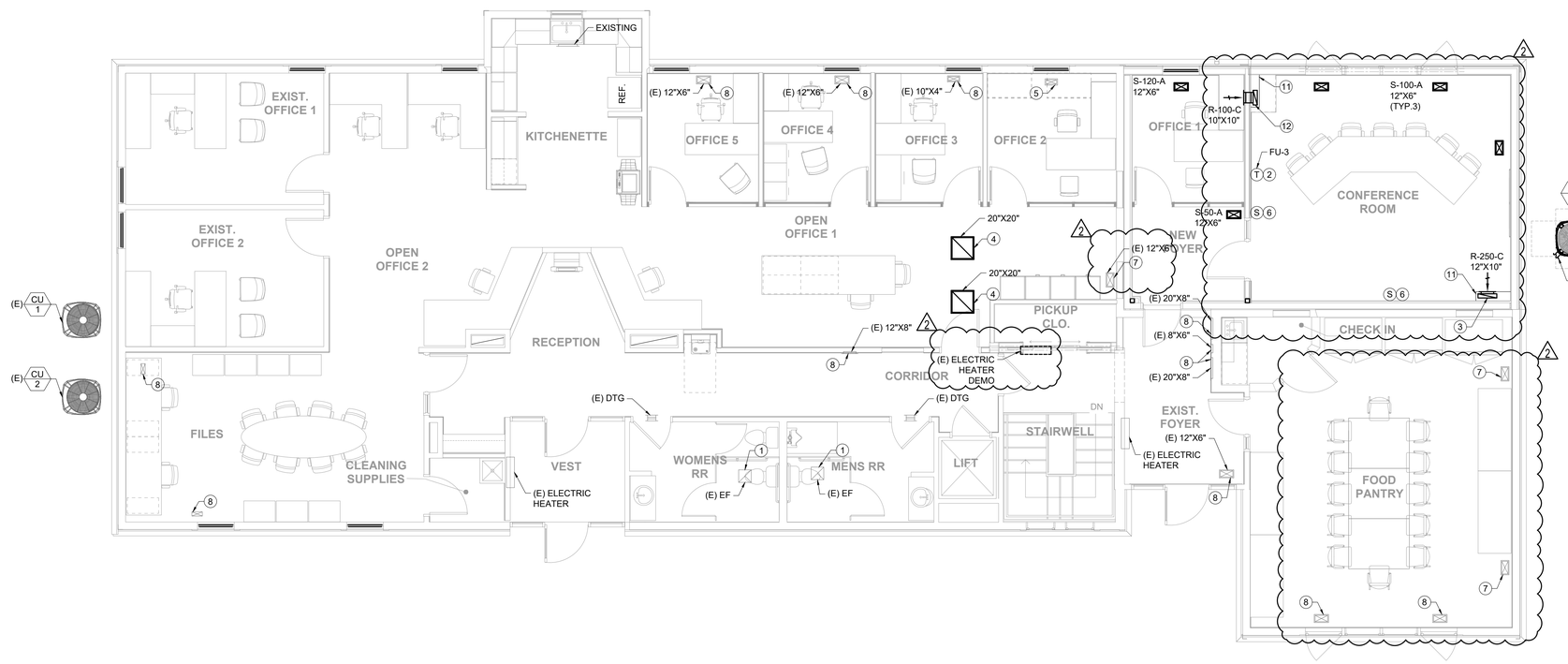

NORTH

1 MECHANICAL FIRST FLOOR PLAN

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

MECHANICAL GENERAL NOTES:

1. ALL DUCTWORK SHALL CONFORM TO SMACNA STANDARDS. ALL DUCTWORK SIZES ARE NET INSIDE DIMENSIONS.
2. MECHANICAL CONTRACTOR SHALL COORDINATE THE DUCT LAYOUT AND DIMENSIONS WITH FIELD VERIFICATION.
3. ADJUST SUPPLY, RETURN, AND EXHAUST AIR REGISTERS/GRILLES TO FIT AS PER FIELD VERIFICATION.
4. DIFFUSERS SHALL BE INSTALLED SYMMETRICALLY IN ACCORDANCE WITH THE LIGHTING LAYOUT DESIGN. DIFFUSERS SHALL NOT BE OFF-CENTERED OR MISALIGNED. COORDINATE WITH ARCHITECT FOR APPROVAL.
5. INDOOR CONCEALED DUCTWORK SHALL BE INSULATED AS PER THE SPECIFICATIONS. REFER SHEET #M0.2, DUCTWORK INSULATION SECTION.
6. T&B CONTRACTOR SHALL SPECIFY MINIMUM POSITION OF THE OUTSIDE AIR DAMPER CORRESPONDING TO THE FRESH AIR VENTILATION REQUIRED FOR THE UNIT. REFER TO THE VENTILATION SCHEDULE FOR THE FRESH AIR VENTILATION REQUIREMENTS.
7. SALVAGE AND CLEAN EXISTING DIFFUSER. THE CONTRACTOR SHALL COORDINATE WITH LANDLORD AND TENANT SPACE OWNER BEFORE INSTALLING EXISTING DIFFUSER.

MECHANICAL FLOOR PLAN KEYNOTES:

2
1. EXISTING FAN AND DUCTWORK SHALL BE RELOCATED AND ADJUSTED AS PER NEW LIGHTING PLAN.
2. INSTALL THE THERMOSTAT AT THE PROPOSED LOCATIONS. THE EXACT LOCATION SHALL BE FIELD CONFIRMED AND COORDINATED WITH THE ARCHITECT/OWNER PRIOR INSTALLATION.

2
3. 18"X4" RA DUCT DN.

4. DEMOLISH THE EXISTING 20"X20" RETURN GRILLE AND PROVIDE NEW RETURN GRILLES AS SHOWN. CONNECT NEW RETURN GRILLES TO EXISTING RETURN DUCT. COORDINATE EXISTING RETURN DUCT LOCATION ON SITE FOR CONNECTION.
5. RELOCATE THE EXISTING GRILLE 10"X4" TO THE NEW LOCATION AS SHOWN.
6. PROVIDE A SPACE TEMPERATURE AVERAGING SENSORS/THERMOSTAT CONTROLLER.

2
7. RELOCATE EXISTING SUPPLY VENT TO LOCATION SHOWN, CONTRACTOR SHALL FIELD VERIFY THE EXISTING LOCATION AND CONDITION AT SITE.

8. EXISTING SUPPLY AND RETURN GRILLE TO REMAIN AS IS. FIELD COORDINATE EXACT LOCATION AND CONDITION AT SITE.
9. FIELD COORDINATE THE EXACT LOCATION OF HVAC EQUIPMENT. MAINTAIN CODE REQUIRED, MANUFACTURER'S RECOMMENDED CLEARANCES AT HVAC EQUIPMENT.
10. ROUTE REFRIGERANT LINES TO CORRESPONDING HVAC INDOOR UNIT. PIPE SIZE AND INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

2
11. ARCHITECT TO PROVIDE BUMP-OUT WALL TO RUN DUCT INTO THE WALL UP TO THE CEILING.
12. 14"X4" RA DUCT DN.

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SHEET	04 OF 06

MECHANICAL FIRST FLOOR PLAN

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065805 STATE OF ILLINOIS

EXP:11/30/2027

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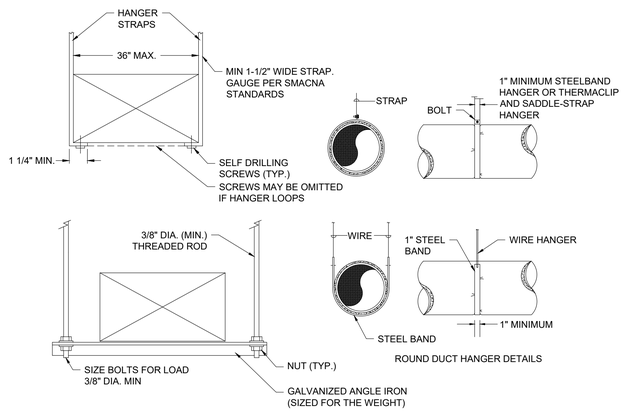
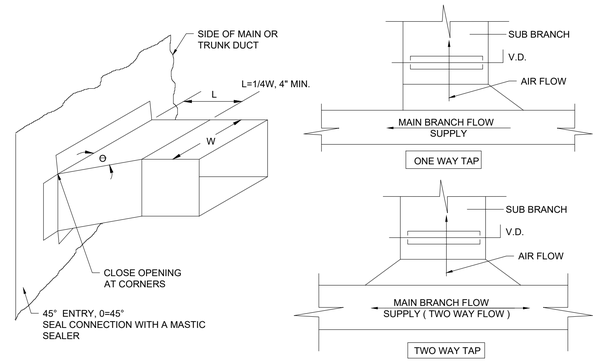
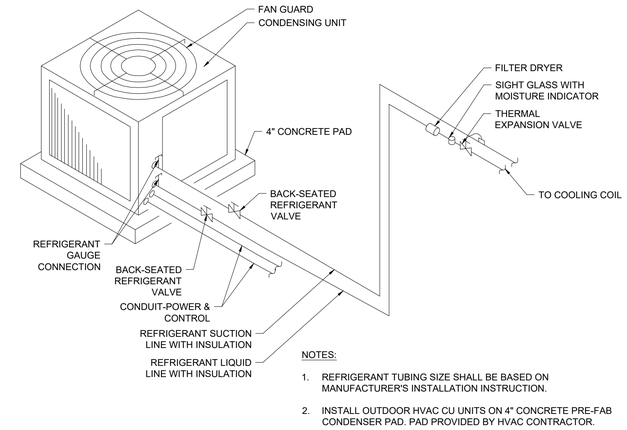


1 HANGER SUPPORT DETAIL
SCALE: N.T.S.



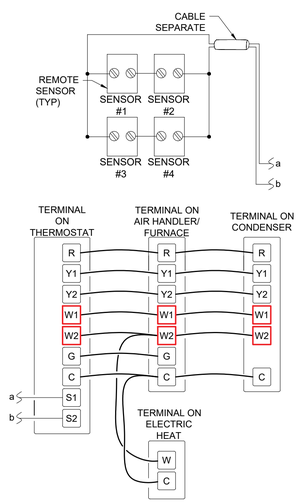
2 TYPICAL BRANCH CONNECTION DETAILS
SCALE: N.T.S.



NOTES:

1. REFRIGERANT TUBING SIZE SHALL BE BASED ON MANUFACTURER'S INSTALLATION INSTRUCTION.
2. INSTALL OUTDOOR HVAC CU UNITS ON 4" CONCRETE PRE-FAB CONDENSER PAD. PAD PROVIDED BY HVAC CONTRACTOR.

3 CONDENSING UNIT DETAIL
SCALE: N.T.S.



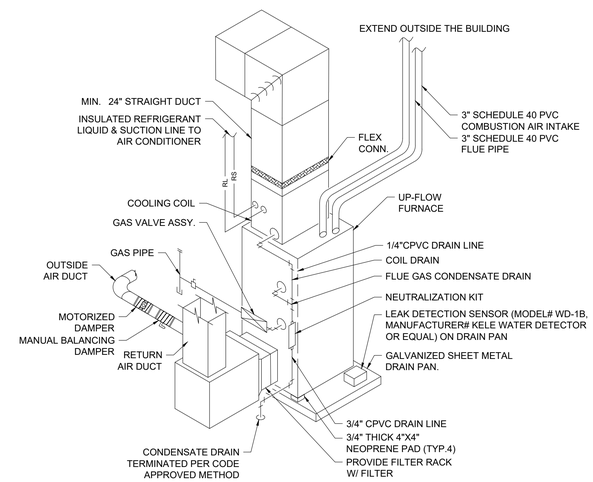
THERMOSTAT
SEE PLAN
MANUFACTURE: HONEYWELL
MODEL: T6 PRO OR EQUAL

REMOTE SENSOR
(WALL MOUNTED)
MANUFACTURE: HONEYWELL
MODEL: C7189 OR EQUAL

NOTES:

- THIS CONFIGURATION IS APPLICABLE ONLY FOR THERMISTOR-BASED SENSORS.
- REFER TO INSTALLATION MANUAL FOR DETAILED CONNECTION INSTRUCTIONS.
- THE SENSOR SHOULD BE INSTALLED 5 FT AFF IN A WELL-VENTILATED, AVERAGE-TEMPERATURE LOCATION.
- THE MAXIMUM DISTANCE BETWEEN THE REMOTE SENSOR AND THE THERMOSTAT SHALL BE 200 FEET AS PER MANUFACTURE INSTALLATION GUIDELINES.
- USE OF A REMOTE SENSOR DISABLES THE THERMOSTAT'S INTERNAL TEMPERATURE SENSOR.
- CONTRACTOR SHALL INSTALL THERMOSTAT WITH CORRECT NUMBER OF STAGES OF HEAT/COOL REQUIRED FOR THE SYSTEM.
- PROVIDE THERMOSTAT CONTROLLER. THERMOSTAT CONTROLLER SHALL BE WIRED WITH ALL THE ASSOCIATED SPACE TEMPERATURE AVERAGING SENSORS AND HVAC UNIT. CONTRACTOR SHALL VERIFY WITH MANUFACTURER ALL WIRING REQUIREMENTS PRIOR TO INSTALLATION AND INSTALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED INSTALLATION REQUIREMENTS.

4 THERMOSTAT WITH AVERAGING REMOTE SENSOR
SCALE: N.T.S.



NOTES:

1. PROVIDE SUPPORT PER MANUFACTURER'S RECOMMENDATION FOR INSTALLATION OF THE HVAC UNIT.
2. THE MOTORIZED AIR DAMPER SHALL BE FAIL CLOSE AND INTERLOCKED WITH THE AHU. WHEN THE AHU STARTS, THE DAMPER SHALL OPEN AND CLOSE WHEN THE AHU STOPS. PROVIDE CONTROLS AND POWER WIRING AS NEEDED FOR OPERATION. THE MOTORIZED DAMPER SHALL BE IN COMPLIANCE WITH THE ILLINOIS ENERGY CONSERVATION CODE 2024, SECTION C403.7.7.

5 CONDENSING GAS FIRED FURNACE INSTALLATION DETAIL
SCALE: N.T.S.

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CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info:

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	

POST BID/PERMIT REVISIONS:

No.	Date	Description
0	02/25/26	ISSUED FOR PERMIT
1	06/17/26	PERMIT REVISION #1
2	08/26/26	REVISION #3

PROJECT NO.	2025-23
DRAWN BY	H.T.
CHECKED BY	N.R.
SHEET	05 OF 06

MECHANICAL DETAILS

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065806 STATE OF ILLINOIS

EXP:11/30/2027

M2.0

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COOLING COIL SCHEDULE

TAG	ASSOCIATED TO	QTY.	REFRIGERANT	NOMINAL COOLING CAPACITY(MBH)	REFRIGERANT LINE (IN.)		DRAIN CONNECTION (IN.)	WEIGHT (LBS)	DIMENSION (IN.) (W X D X H)	MODEL	BASIS OF DESIGN	NOTES
					SUCTION	LIQUID						
CC-3	FU-3	1	R-454B	24	3/4"Ø	3/8"Ø	3/4"Ø	43	17-1/2" X 14-1/2" X 20"	RCFY2417	RHEEM	1 TO 3

NOTES:
1. COOLING COIL, INSULATED REFRIGERANT PIPING, AND SLOPED CONDENSATE PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
2. CONDENSATE DRAIN PIPING SHALL BE INSULATED TO COMPLY WITH LOCAL CODE REQUIREMENTS.
3. UNIT SHALL BE EQUIPPED WITH A DRIP-PROOF CONDENSATE DRAIN PAN.

AIR DEVICE SCHEDULE

				NOMENCLATURE	U = USAGE (S = SUPPLY, R = RETURN, E = EXHAUST, T = TRANSFER)				EXAMPLE	REFERENCE IMAGE
				U-CFM-T	CFM = AIR QUANITY		T = TYPE OF AIR DEVICE		S-150-A	
				SIZE	SIZE = NECK SIZE OF AIR DEVICE				8"Ø	
TYPE	USAGE	SERVING	NECK SIZE	FACE SIZE	MATERIAL	DESCRIPTION	MANUFACTURER	MODEL NO.	REMARKS	
A	SUPPLY	REFER TO FLOOR PLAN	SEE PLAN	12"X6"	STEEL	HEAVY DUCTY STEEL FLOOR REGISTER	HART COOLEY	210	1,2,3	
B	SUPPLY	REFER TO FLOOR PLAN	SEE PLAN	12"X6"	STEEL	STEEL DOUBLE DEFLECTION REGISTER, OBD DAMPER	HART COOLEY	92HVV	1,2,3,4	
C	RETURN	REFER TO FLOOR PLAN	SEE PLAN	12"X8" 10"X10" 12"X10" 20"X20"	STEEL	94A-STEEL RETURN AIR GRILLE, 35-DEGREE FIXED BLADE	HART COOLEY	94A	1,2,3	

NOTES:
1. CUSTOM FINISH & COLOR AS SELECTED BY ARCHITECT/OWNER.
2. PROVIDE FOAM GASKET SEAL.
3. COORDINATE FRAME TYPE WITH REFLECTED CEILING PLAN & ARCHITECT.
4. AIR SCOOP DEVICE ACCESSORIES TO BE INCLUDED FOR THE VOLUME ADJUSTMENT.

EXISTING CONDENSING UNIT SCHEDULE

TAG	ASSOCIATED TO	QTY.	REFRIGERANT	NOMINAL COOLING CAPACITY (MBH)	AMBIENT AIR TEMP. (°F)	COOLING STAGE	REFRIGERANT LINE (IN.)		COMPRESSOR DATA			CONDENSOR FAN		UNIT ELECTRICAL DATA					WEIGHT (LBS)	DIMENSION (IN.) (W X D X H)	SEER2	MODEL	BASIS OF DESIGN	NOTES
							SUCTION	LIQUID	TYPE	QTY.	RLA (A)	FAN QTY.	MOTOR FLA (A)	MCA (A)	MOCP (A)	V/Ph/Hz	DISCONNECT BY	DISCONNECT TYPE						
(E)CU-1	(E)CC-1	1	R-410A	60	91.5	-	-	-	-	1	26.8	1	0.93	35	60	230/1/60	E.C.	-	-	-	-	4TTB3060D1000CA	AMERICAN STANDARD	-
(E)CU-2	(E)CC-2	1	R-410A	48	91.5	-	-	-	-	1	21.8	1	0.95	28	50	230/1/60	E.C.	-	-	-	-	4A7A3048D1000NA	AMERICAN STANDARD	-

NOTES:
1. CONTRACTOR SHALL PERFORM PREVENTATIVE MAINTENANCE ON UNIT INCLUDING BUT NOT LIMITED TO LUBRICATION OF MOTORS/FANS, CLEANING CONDENSER & EVAPORATOR COILS, REPLACING MOTOR BELT/SHEAVES, ETC. TO MAKE HVAC UNIT FULLY FUNCTIONAL..

CONDENSING UNIT SCHEDULE

TAG	ASSOCIATED TO	QTY.	REFRIGERANT	NOMINAL COOLING CAPACITY (MBH)	AMBIENT AIR TEMP. (°F)	COOLING STAGE	REFRIGERANT LINE (IN.)		COMPRESSOR DATA			CONDENSOR FAN		UNIT ELECTRICAL DATA					WEIGHT (LBS)	DIMENSION (IN.) (W X D X H)	SEER2	MODEL	BASIS OF DESIGN	NOTES
							SUCTION	LIQUID	TYPE	QTY.	RLA (A)	FAN QTY.	MOTOR FLA (A)	MCA (A)	MOCP (A)	V/Ph/Hz	DISCONNECT BY	DISCONNECT TYPE						
CU-3	CC-3	1	R-454B	24	91.5	2	3/4"Ø	3/8"Ø	SCROLL	1	12	1	0.8	16	25	230/1/60	E.C.	-	184	33.75" X 33.75" X 25"	16	RA16AY24	RHEEM	1 TO 3

NOTES:
1. UNIT & IT'S INSULATED REFRIGERANT PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
2. COORDINATE WITH THE STRUCTURE FOR THE EXACT LOCATION BEFORE INSTALLING THE UNIT ON THE GRADE.
3. ELECTRICAL WORK MUST BE PERFORMED IN ACCORDANCE WITH RELEVANT LOCAL AND NATIONAL REGULATIONS AND WITH INSTRUCTIONS IN THE INSTALLATION MANUAL.

VENTILATION SCHEDULE - 2024 INTERNATIONAL MECHANICAL CODE

SR NO.	NAME	OCCUPANCY CATEGORY	AREA (S.FT.) **(Az)**	OCCUPANTS DENSITY PER 1000 S.F	CODE MAXIMUM OCCUPANTS	OCCUPANTS (ACTUAL) **(Pz)**	OCCUPANTS DIVERSITY **(D)**	CODE MINIMUM VENTILATION							ACTUAL MECHANICAL VENTILATION				UNIT(S) SERVING SPACE
								PEOPLE OUTDOOR AIR RATE		AREA OUTDOOR AIR RATE		AIR DISTRIBUTION EFFECTIVENESS **(Ez)**	TOTAL OUTDOOR AIR RATE **(Voz = (D*RpPz + RaAz)/Ez)**	TOTAL EXHAUST CFM	PRIMARY AIR FLOW CFM	SYSTEM % OA	SYSTEM OA = PRIMARY AIR FLOW x SYSTEM % OA	EXHAUST CFM	
								CFM/PERSON **(Rp)**	TOTAL CFM **(Rp x Pz)**	CFM/S.FT. **(Ra)**	TOTAL CFM **(Ra x Az)**								
1	CONFERENCE ROOM	CONFERENCE ROOM	400	50	20	7	0.75	5.0	35	0.06	24	1	50	0	300	18	54	0	FU-3
2	NEW FOYER ROOM	MAIN ENTRIES LOBBIES	70	10	1	0	0.75	5.0	0	0.06	4	1	4	0	50	18	9	0	
3	NEW STORAGE ROOM_BASEMENT	STORAGE ROOM	580	0	0	0	0.75	0.0	0	0.06	35	1	35	0	250	18	45	0	
4	OFFICE 1	OFFICE SPACE	110	5	1	1	0.75	5.0	5	0.06	7	1	10	0	120	18	22	0	
	TOTAL		**1160**			**8**							**99.6**	**0**	**720**		**130**	**0**	

NOTE:
1. COORDINATED WITH IMC 2024, TABLE 403.3.1.1.

EXISTING GAS-FIRED FURNACE SCHEDULE

TAG	TYPE	QTY.	SUPPLY AIR FLOW (CFM)	E.S.P. (IN. W.C.)	OUTSIDE AIR FLOW (CFM)	GAS INPUT (CFH)	HEATING AND COOLING STAGE	BLOWER SECTION DATA			GAS-BURNER SECTION DATA							UNIT ELECTRICAL DATA				WEIGHT (LBS)	DIMENSION (IN.) (W X D X H)	AFUE	MODEL	BASIS OF DESIGN	NOTES
								FAN DATA		MOTOR (HP)					HEATING CAPACITY INPUT/OUTPUT (MBH)												
								QTY.	DIA. X WIDTH (IN.)		TYPE	BURNER TYPE	BURNER QTY.	PIPE SIZE (IN.)	1ST STAGE	2ND STAGE	GAS PRESSURE (MIN/MAX) (IN. W.C.)	MCA (A)	MOCP (A)	V/Ph/Hz	DISCONNECT						
(E)FU-1	-	1	-	-	-	120	1	1	11"Ø X 10"	1	NATURAL GAS	MULTIPORT INSHOT	6	1/2"Ø	120/113.4	-	5 / 13.8	14.1	15	120/1/60	BY E.C.	156	24-1/2"X28-3/4"X34"	95%	S9X1D120U5PSB	AMERICAN STANDARD	-
(E)FU- 2	-	1	-	-	-	120	1	1	11"Ø X 10"	1	NATURAL GAS	MULTIPORT INSHOT	6	1/2"Ø	120/113.4	-	5 / 13.8	14.1	15	120/1/60	BY E.C.	156	24-1/2"X28-3/4"X34"	95%	S9X1D120U5PSB	AMERICAN STANDARD	-

NOTES:
1. CONTRACTOR SHALL PERFORM PREVENTATIVE MAINTENANCE ON UNIT INCLUDING BUT NOT LIMITED TO FILTER REPLACEMENT, LUBRICATION OF MOTORS/FANS, CLEANING CONDENSER/EVAPORATOR COILS, REPLACING MOTOR BELT/SHEAVES, ETC. TO MAKE HVAC UNIT FULLY FUNCTIONAL.

GAS-FIRED FURNACE SCHEDULE

TAG	TYPE	QTY.	SUPPLY AIR FLOW (CFM)	E.S.P. (IN. W.C.)	OUTSIDE AIR FLOW (CFM)	GAS INPUT (CFH)	HEATING AND COOLING STAGE	BLOWER SECTION DATA			GAS-BURNER SECTION DATA							UNIT ELECTRICAL DATA				WEIGHT (LBS)	DIMENSION (IN.) (W X D X H)	AFUE	MODEL	BASIS OF DESIGN	NOTES
								FAN DATA		MOTOR (HP)					HEATING CAPACITY INPUT/OUTPUT (MBH)												
								QTY.	DIA. X WIDTH (IN.)		TYPE	BURNER TYPE	BURNER QTY.	PIPE SIZE (IN.)	1ST STAGE	2ND STAGE	GAS PRESSURE (MIN/MAX) (IN. W.C.)	MCA (A)	MOCP (A)	V/Ph/Hz	DISCONNECT						
FU-3	UPFLOW	1	770	0.7	100	42	2	1	11"Ø X 7"	1/2	NATURAL GAS	-	-	1/2"Ø	42/41	29.4/28.2	5 / 10.5	9	15	120/1/60	BY E.C.	123	17-1/2" X 29-5/8" X 34"	96%	R962V0403A17	RHEEM	1 TO 3

NOTES:
1. UNIT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS & PROVIDE 24" CLEARANCE IN FRONT OF THE UNIT & ADDITIONAL CLEARANCE FOR ELECTRICAL CONNECTION AS RECOMMENDED.
2. THE CONCENTRIC VENT KIT (COMBUSTION AIR & VENT KIT), RETURN AIR FILTER KIT & CONDENSATE NEUTRALIZER KIT SHALL BE PROVIDED.
3. ELECTRICAL WORK MUST BE PERFORMED IN ACCORDANCE WITH RELEVANT LOCAL AND NATIONAL REGULATIONS AND WITH INSTRUCTIONS IN THE INSTALLATION MANUAL.

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Contact Info:

Schematic Design:
Design Development
Bidding:
Permit:
ISSUE DATE:

POST BID/PERMIT REVISIONS:

No.	Date	Description
0	02/25/26	ISSUED FOR PERMIT
1	06/17/26	PERMIT REVISION #1
2	08/26/26	REVISION #3

PROJECT NO.	2025-23
DRAWN BY	H.T.
CHECKED BY	N.R.
SHEET	06 OF 06

MECHANICAL SCHEDULES

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065806 STATE OF ILLINOIS

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PLUMBING ABBREVIATIONS

AC	ACCESS DOOR
AD	AREA DRAIN
AAV	AIR ADMITTANCE VALVE
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
A/E	ARCHITECT/ENGINEER
AHJ	AUTHORITY HAVING JURISDICTION
ADA	AMERICANS WITH DISABILITIES ACT
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
BHP	BRAKE HORSEPOWER
BT	BATH TUB
BTU	BRITISH THERMAL UNIT
BFP	BACK FLOW PREVENTER
C/I	CONTRACTOR INSTALLED
CD	CONDENSATE
CO	CLEAN OUT
CONN	CONNECTION
CONT	CONTINUOUS
CP	CIRCULATION PUMP
CV	CHECK VALVE
CW	COLD WATER
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNIT
DIA	DIAMETER
DN	DOWN
DW	DISH WASHER
DWG	DRAWING
ECO	EXTERIOR CLEAN OUT
(E)	EXISTING
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
°F	DEGREE FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FFL	FINISH FLOOR LEVEL
FS	FLOOR SINK
GAL	GALLONS
GD	GARBAGE DISPOSER
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REGULATOR
GW	GREASE WASTE
GWH	GAS WATER HEATER
GI	GREASE INTERCEPTOR
G	GENERATOR
HW	HOT WATER
HWC	HOT WATER CIRCULATION
HB	HOSE BIBB
I.E.	INVERT ELEVATION
IWH	INSTANTANEOUS WATER HEATER
KS	KITCHEN SINK
L	LAVATORY
M	METER
MB	MOP SINK
MX	MIXING VALVE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
N.T.S.	NOT TO SCALE
OW	OIL WASTE
PD	PUMP DISCHARGE
PDI	PLUMBING DRAINAGE INSTITUTE
PSIG	POUNDS PER SQUARE INCH GAUGE
RD	ROOF DRAIN
OD	OVERFLOW ROOF DRAIN
RC	ROOF CONDUCTOR
RM	ROOM
S	SINK
SAN	SANITARY
SH	SHOWER
TD	TRENCH DRAIN
TPV	TEMPERATURE/PRESSURE RELIEF VALVE
TP	TRAP PRIMER
TYP	TYPICAL
TW	TEMPERED WATER
UB	UTILITY BOX
U/G	UNDERGROUND
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WM	WASHING MACHINE

PLUMBING SHEET INDEX

SHEET NO.	SHEET NAME.	SCALE
P0.1	PLUMBING LEGEND, ABBREVIATIONS AND NOTES	N.T.S.
P0.2	PLUMBING SPECIFICATIONS	N.T.S.
P1.0	PLUMBING BASEMENT FLOOR PLAN	3/16" = 1'-0"
P1.1	PLUMBING FIRST FLOOR PLAN	3/16" = 1'-0"
P2.0	PLUMBING RISER DIAGRAM	3/16" = 1'-0"
P3.0	GAS PIPING BASEMENT FLOOR PLAN	3/16" = 1'-0"
P4.0	GAS RISER DIAGRAM	N.T.S.

APPLICABLE CODES

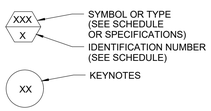
1. 2018 INTERNATIONAL BUILDING CODE (IBC)
2. 2017 NATIONAL ELECTRIC CODE (NEC)
3. 2018 INTERNATIONAL MECHANICAL CODE (IMC)
4. 2021 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
5. 2014 ILLINOIS PLUMBING CODE
6. 2018 INTERNATIONAL FUEL GAS CODE (IFGC)

PIPING LEGEND

— — —	DEMOLISH LINE (EXISTING DUCTWORK, EQUIPMENT, AND PIPING TO BE REMOVED)
————	EXISTING LINE (EXISTING DUCTWORK, EQUIPMENT, AND PIPING TO BE REMAIN)
————	NEW LINE (NEW DUCTWORK, EQUIPMENT, AND PIPING TO BE INSTALLED)

NOTES:
ETR- EXISTING TO REMAIN.

EQUIPMENT IDENTIFICATION



ROOF DRAIN IDENTIFICATION

RD-1 — SYMBOL
X" (1000) — SIZE (GPM)

PLUMBING GENERAL NOTES

1. PLUMBING GENERAL NOTES ON THESE DRAWINGS ARE A PART OF THE PLUMBING SPECIFICATIONS TO THE SAME EXTENT AS IF WRITTEN HEREIN FULL.

2. ALL WORK AND MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF LOCAL AND STATE GOVERNING CODES, ORDINANCES AND HEALTH DEPARTMENT REGULATIONS.

3. THE INTENT OF THESE DRAWINGS IS TO FURNISH THE OWNER WITH A PLUMBING INSTALLATION READY FOR USE AND COMPLETE IN EVERY ASPECT.

4. FURNISH AND INSTALL A COMPLETE AND OPERABLE SOIL, WASTE AND VENT SYSTEM WITH FINAL CONNECTIONS TO ALL FIXTURES, APPLIANCES, DRAINS, EQUIPMENT, STRUCTURES, ETC., REQUIRING DRAINAGE CONNECTIONS THERETO TO CONVEYANCE TO THE PUBLIC SEWER SYSTEM.

   4.1. HORIZONTAL DRAINAGE PIPING SHALL BE INSTALLED AT UNIFORM SLOPES NOT LESS THAN THE FOLLOWING:

   4.1.1. PIPING THREE (3) INCHES OR LESS : 1/4 INCH PER LINEAL FOOT.
   4.1.2. PIPING LARGER THAN THREE (3) INCHES OR LESS THAN EIGHT (8) INCHES : 1/8 INCH PER LINEAL FOOT.
   4.1.3. UNLESS OTHERWISE INDICATED ON DRAWINGS, UNDERGROUND DRAINAGE VENT PIPING SHALL BE MINIMALLY SLOPED BACK TO DRAINAGE PIPING.

5. FURNISH AND INSTALL A COMPLETE AND OPERABLE DOMESTIC WATER DISTRIBUTION SYSTEM WITH FINAL CONNECTIONS TO ALL PLUMBING FIXTURES, APPLIANCES, EQUIPMENT, WALL HYDRANTS, ETC., REQUIRING DOMESTIC WATER CONNECTIONS THERE TO FROM THE DOMESTIC WATER SERVICE.

6. FURNISH AND INSTALL ALL PLUMBING FIXTURES, EQUIPMENT, APPLIANCES, COMPLETE WITH ALL NECESSARY AND REQUIRED TRIMMINGS, ACCESSORIES, COMPONENTS AND APPURTENANCES INCLUDING BUT NOT LIMITED TO P-TRAPS, BACK FLOW DEVICES, AIR CHAMBERS, STOPS AND SUPPLIES, HANGERS, SUPPORTS, ANCHORS, CARRIERS, TAILPIPES, TEMPERING VALVES, ETC.

7. ALL PIPING SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS OF THE BUILDING, OR AS APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. PLACE ALL HANGERS SPACING AS PER ILLINOIS STATE PLUMBING CODE SECTION 890.910.

   7.1. PIPES ONE (1) INCH IN DIAMETER OR LESS: SOLID OR SPLIT RING TYPE
   7.2. PIPES LARGER THAN ONE (1) INCH: STANDARD WEIGHT CLEVIS HANGERS
   7.3. INSULATED PIPING: SEMI-CIRCULAR SHIELD.

8. CONTRACTOR SHALL PROVIDE ACCESS PANELS TO ACCESS ANY VALVES OR ANY PLUMBING ITEMS REQUIRING ACCESS FOR MAINTENANCE. CONTRACTOR SHALL PROVIDE TO THE GENERAL CONTRACTOR ALL LOCATION AND SIZES OF ACCESS PANELS FOR APPROVAL BY THE ARCHITECT. CONTRACTOR SHALL PROVIDE ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION.

9. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, PIPING, ETC ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT ACTUAL INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.

10. LAYOUT AND COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ ENGINEER BEFORE PROCEEDING WITH ANY FABRICATION OR EQUIPMENT ORDERS.

11. CAULK ALL PIPE PENETRATIONS OF FULL HEIGHT NON FIRE RATED WALLS, PARTITIONS, FLOORS AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS WITHIN THE ROOMS.

12. CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. THE CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENTS, CABINET, ETC., AND THE ARCHITECT PRIOR TO ANY INSTALLATION.

13. VALVES,UNIONS, ETC. TO BE SAME SIZE AS PIPE UNLESS OTHER WISE INDICATED ON DRAWINGS.

14. IN CONCEALED LOCATIONS WHERE PIPING, OTHER THAN CAST IRON OR GALVANIZED STEEL, IS INSTALLED THROUGH HOLES OR NOTCHES IN STUDS, JOISTS, RAFTERS OR SIMILAR MEMBERS LESS THAN 1 1/4 INCHES FROM THE NEAREST EDGE OF THE MEMBER, THE PIPE SHALL BE PROTECTED BY STEEL SHIELD PLATES. SUCH PLATES SHALL COVER THE AREA OF THE PIPE WHERE THE MEMBER IS NOTCHED OR BORED, AND SHALL EXTEND NOT LESS THAN 2 INCHES ABOVE SOLE PLATES AND BELOW TOP PLATES.

15. SHIELD PLATES SHALL BE OF STEEL MATERIAL HAVING A THICKNESS OF NOT LESS THAN 0.0575 INCH.

PLUMBING SPECIFICATIONS

GENERAL

RELATED DOCUMENTS:

1. THE GENERAL REQUIREMENTS OF THE ARCHITECTURAL SPECIFICATIONS ARE PART OF THESE SPECIFICATIONS. WHERE AN INCONSISTENCY EXISTS BETWEEN THE WORDING OR INTENT, THIS SECTION SHALL TAKE PRECEDENCE. THE STANDARD FORM OF "GENERAL CONDITIONS" ISSUED BY THE AMERICAN INSTITUTE OF ARCHITECTS DOCUMENT A201, LATEST EDITION, SHALL FORM PART OF THIS CONTRACT.

2. CONTRACT DOCUMENTS MAY INCLUDE, BUT NOT LIMITED TO THE FOLLOWING: ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, FIRE PROTECTION, AND CIVIL.

DEFINITIONS:

1. WATER DISTRIBUTION PIPING: INTERIOR DOMESTIC WATER PIPING.

2. WATER SERVICE: EXTERIOR DOMESTIC WATER PIPING.

3. ACCESSIBLE FIXTURE: PLUMBING FIXTURE THAT CAN BE APPROACHED, ENTERED, AND USED BY PEOPLE WITH DISABILITIES.

PERFORMANCE REQUIREMENTS:

1. DESIGN SUPPORTS FOR MULTIPLE PIPES CAPABLE OF SUPPORTING COMBINED WEIGHT OF SUPPORTED SYSTEMS, SYSTEM CONTENTS, AND COMPONENTS.

2. DESIGN EQUIPMENT SUPPORTS CAPABLE OF SUPPORTING COMBINED OPERATING WEIGHT OF SUPPORTED EQUIPMENT, CONNECTED SYSTEMS AND COMPONENTS.

3. DESIGN SEISMIC-RESTRAINT (IF APPLICABLE) HANGERS AND SUPPORTS FOR PIPING AND EQUIPMENT, AND OBTAIN APPROVAL FROM AUTHORITIES HAVING JURISDICTION.

4. COMPONENTS AND INSTALLATION SHALL BE CAPABLE OF WITHSTANDING THE FOLLOWING WORKING PRESSURE, UNLESS OTHERWISE INDICATED:

   4.1. DOMESTIC WATER PIPING: 125 PSIG.
   4.2. SANITARY WASTE AND VENT PIPING: 10' HEAD OF WATER.
   4.3. STORM DRAINAGE PIPING: 10' HEAD OF WATER.
   4.4. FORCE-MAIN: 100 PSIG.
   4.5. GAS PIPING: 60 PSIG.

5. SYSTEMS SHALL BE DESIGNED, MANUFACTURED, TESTED AND INSTALLED IN ACCORDANCE WITH FOLLOWING STANDARDS:

ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE.
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE.
ASHRAE	AMERICAN SOCIETY OF HEATING REFRIGERATION AND AIR CONDITIONING ENGINEERS.
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS.
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS.
ASSE	AMERICAN SOCIETY OF SANITARY ENGINEERS.
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS.
CISPI	CAST IRON SOIL AND PIPE INSTITUTE.
IAPMO	INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS.
ICC	INTERNATIONAL CODE COUNCIL.
FM	FACTORY MUTUAL STANDARD.
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION.
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION.
PDI	PLUMBING AND DRAINAGE INSTITUTE.
UL	UNDERWRITERS LABORATORIES.

SUBMITTALS:

1. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE ARCHITECT/ENGINEER A COMPLETE LIST OF ITEMS TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. INCLUDING, BUT NOT BE LIMITED TO THE FOLLOWING:

   1.1. DIMENSIONED SHOP DRAWINGS OF MATERIALS, FIXTURES AND EQUIPMENT.
   1.2. DIMENSIONED SHOP DRAWINGS OF EQUIPMENT AND PIPING PLAN LAYOUT(S).
   1.3. PRODUCT DATA.
   1.4. FIELD-QUALITY CONTROL INSPECTION AND TEST REPORTS
   1.5. FIELD TEST CERTIFICATES.
   1.6. OPERATION AND MAINTENANCE DATA.
   1.7. EQUIPMENT MANUALS.
   1.8. VALVE TAGS.
   1.9. WELDING CERTIFICATES.

2. ANY DEFERRED CONTRACTOR SUBMITTALS OR CALCULATIONS REQUIRED BY THE LOCAL AHJ, IN ORDER TO OBTAIN OCCUPANCY CERTIFICATE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR. ALL SUBMITTALS SHALL BE PREPARED BY A LICENSED PROFESSIONAL ENGINEER, LICENSED IN THE PROJECT JURISDICTION, AS REQUIRED BY THE LOCAL AHJ. THE CONTRACTOR'S ENGINEER SHALL PREPARE PLANS, CUT SHEETS, CALCULATIONS, ETC. AS REQUIRED. ALL DEFERRED SUBMITTALS SHALL BE SIGNED AND STAMPED BY THE PREPARING ENGINEER. THE ELECTRICAL CONTRACTOR SHALL INCLUDE ANY FEES REQUIRED FOR SUCH SUBMISSION IN HIS BID.

QUALITY ASSURANCE:

1. WELDING: QUALITY PROCEDURES AND PERSONNEL ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE: SECTION IX.

2. SURFACE-BURNING CHARACTERISTICS: FOR INSULATION AND RELATED MATERIALS, AS DETERMINED BY TESTING IDENTICAL PRODUCTS ACCORDING TO ASTM E 84, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. FACTORY LABEL INSULATION AND JACKET MATERIALS AND ADHESIVE, MASTIC, TAPES, AND CEMENT MATERIAL CONTAINERS, WITH APPROPRIATE MARKINGS OF APPLICABLE TESTING AGENCY.

   2.1. INSULATION INSTALLED INDOORS: FLAME-SPREAD INDEX OF 25 OR LESS, AND SMOKE-DEVELOPED INDEX OF 50 OR LESS.
   2.2. INSULATION INSTALLED OUTDOORS: FLAME-SPREAD INDEX OF 75 OR LESS, AND SMOKE-DEVELOPED INDEX OF 150 OR LESS.

3. PIPING MATERIALS SHALL BEAR LABEL, STAMP OR OTHER MARKINGS OF SPECIFIED TESTING AGENCY.

4. ASME COMPLIANCE:

   4.1. ASME B31.9 FOR BUILDING SERVICES PIPING.
   4.2. ASME COMPLIANCE FOR FERROUS VALVES: ASME B16.10 AND ASME B16.34 FOR DIMENSION AND DESIGN CRITERIA.

5. NSF COMPLIANCE:

   5.1. NSF 14, "PLASTIC PIPING SYSTEM COMPONENTS AND RELATED MATERIALS."
   5.2. NSF 61, "DRINKING WATER SYSTEM COMPONENTS - HEALTH EFFECTS; SECTIONS 1 THROUGH 9."
   5.3. NSF 372, "DRINKING WATER SYSTEM COMPONENTS-TECHNICAL REQUIREMENT."

6. ELECTRICAL COMPONENTS, DEVICES AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION AND MARKED FOR INTENDED USE.

7. REGULATORY REQUIREMENTS:

   7.1. COMPLY WITH PUBLIC LAW 101-336, "AMERICAN WITH DISABILITIES ACT," AND "UNIFORM FEDERAL ACCESSIBILITY STANDARDS" AND MAAB
   7.2. COMPLY WITH PUBLIC LAW 102-486, "ENERGY POLICY ACT."

8. AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE):

   8.1. ASSE 1016 - PERFORMANCE REQUIREMENTS FOR AUTOMATIC COMPENSATING VALVES FOR INDIVIDUAL SHOWERS AND TUB/SHOWER COMBINATIONS.
   8.2. ASSE 1017 - PERFORMANCE REQUIREMENTS FOR TEMPERATURES ACTUATED MIXING VALVES FOR HOT WATER DISTRIBUTION SYSTEMS.
   8.3. ASSE 1070 - PERFORMANCE REQUIREMENTS FOR WATER TEMPERATURE LIMITING DEVICES..
   8.4. ASSE 1071 - PERFORMANCE REQUIREMENTS FOR TEMPERATURE ACTUATED MIXING VALVES FOR PLUMBED EMERGENCY EQUIPMENT.
   8.5. ASSE 1010 - WATER HAMMER ARRESTORS.

9. ANSI/ISEA Z358.1 – AMERICAN NATIONAL STANDARD FOR EMERGENCY EYEWASH AND SHOWER EQUIPMENT.

10. CONDENSATE DISPOSAL. CONDENSATE FROM ALL COOLING COILS AND EVAPORATORS SHALL BE CONVEYED FROM THE DRAIN PAN OUTLET TO AN APPROVED PLACE OF DISPOSAL. SUCH PIPING SHALL MAINTAIN A HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN ONE-EIGHTH UNIT VERTICAL IN 12 UNITS HORIZONTAL (1-PERCENT SLOPE). CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY OR OTHER AREAS SO AS TO CAUSE A NUISANCE.

EQUIPMENT CAPACITY MINIMUM CONDENSATE PIPE DIAMETER (INCH)

- UP TO 20 TONS OF REFRIGERATION — 3/4 INCH
- OVER 20 TONS TO 40 TONS OF REFRIGERATION — 1 INCH
- OVER 40 TONS TO 90 TONS OF REFRIGERATION — 1 1/4 INCH
- OVER 90 TONS TO 125 TONS OF REFRIGERATION — 1 1/2 INCH
- OVER 125 TONS TO 250 TONS OF REFRIGERATION — 2 INCH

11. ELECTRIC WATER HEATERS LESSER THAN & EQUAL TO12kW, GAS FIRED STORAGE WATER HEATERS LESSER THAN & EQUAL TO 75 Mbh AND GAS FIRED INSTANTANEOUS WATER HEATERS GREATER THAN 50 Mbh BUT LESSER THAN 200Mbh SHOULD COMPLY WITH THE TEST PROCEDURE MENTIONED IN THE DOE 10 CFR PART 430.

12. ELECTRIC WATER HEATERS ≥12kW, GAS FIRED STORAGE WATER HEATERS>75 Mbh AND GAS FIRED INSTANTANEOUS WATER HEATERS ≥200Mbh SHOULD COMPLY WITH THE TEST PROCEDURE MENTIONED IN THE DOE ANSI Z21.10.3.

CONTRACT DOCUMENTS:

1. CONTRACTOR SHALL REVIEW CONTRACT DOCUMENTS AND BECOME FAMILIAR WITH THE SITE AND LOCAL CONDITIONS RELATING TO WORK AS DESCRIBED HEREIN PRIOR TO SUBMITTING BID PROPOSAL. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT. IDENTIFY ALL DISCREPANCIES AND NOTIFY ARCHITECT/ENGINEER, IN WRITING.

2. THE DRAWINGS INDICATE THE GENERAL LAYOUT OF THE VARIOUS SYSTEM(S) AND EQUIPMENT. THE LAYOUT OF THE SYSTEM(S) EQUIPMENT, ACCESSORIES AND OTHER COMPONENTS ARE DIAGRAMMATIC UNLESS SPECIFICALLY SHOWN OR DIMENSIONED.

3. CONTRACTOR SHALL BID ALL WORK AS SHOWN, AND MATERIAL AND EQUIPMENT AS SPECIFIED HEREIN. ANY SUBSTITUTION (NOT APPROVED) DURING THE BIDDING PROCESS TO SECURE AWARD OF THE CONTRACT WILL NOT BE ACKNOWLEDGED.

4. CONTRACTOR SHALL BE FINANCIALLY LIABLE FOR ANY REQUIRED ENGINEERING REVIEW DUE TO ANY PROPOSED PRODUCT CHANGE AND/OR VOLUNTARY "VALUE ENGINEERING" DURING THE BIDDING PROCEDURE AND THE SUBMITTAL PROCESS.

5. ANY CONFLICTING INFORMATION DEPICTED OR IMPLIED ON THE DRAWINGS IDENTIFIED DURING THE BIDDING PROCESS SHALL BE SUBMITTED FOR CLARIFICATION OF INTENT. FAILURE TO CLARIFY THE ARCHITECT/ENGINEER INTENT, MAY MAKE THE CONTRACTOR LIABLE FOR ANY ASSOCIATED COSTS RELATIVE TO CHANGES DURING THE CONSTRUCTION PROCESS.

SPECIFICATIONS AND DRAWINGS:

SPECIFICATIONS AND DRAWINGS ARE INTENDED TO BE COOPERATIVE. WHAT IS CALLED FOR BY EITHER SHALL BE AS BINDING AS IF CALLED FOR BY BOTH. ANY WORK OR MATERIALS NOT SPECIFICALLY MENTIONED THOUGH REQUIRED TO MAKE THE JOB COMPLETE, SHALL BE FURNISHED AT THE CONTRACTOR'S EXPENSE.

CONTRACTOR TO PRICE OWNER FOR THE WORST CASE, IF ANY DISCREPANCIES.

VISITING THE SITE:

PRIOR TO SUBMITTING BID PROPOSAL, CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE SITE AND EXISTING CONDITIONS FOR DOING WORK AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN. FAILURE TO COMPLY SHALL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT. CONTRACTOR SHALL IDENTIFY ALL DISCREPANCIES AND NOTIFY ARCHITECT/ENGINEER, IN WRITING.

PERMITS, FEES & INSPECTIONS:

1. CONTRACTOR SHALL PREPARE AND SUBMIT ALL DATA, DRAWINGS AND DETAILS REQUIRED, SECURE AND PAY FOR ALL PERMITS, GOVERNMENTAL FEES, TAXES, INSPECTIONS AND LICENSES NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK.

2. CONTRACTOR SHALL PAY FOR ALL APPLICABLE FEES FOR TEST AND INSPECTIONS REQUIRED BY LOCAL AUTHORITIES HAVING JURISDICTION.

3. WHERE REGULATIONS OF UTILITY COMPANIES APPLY, CONFORMANCE WITH THEIR REGULATIONS IS MANDATORY AND ANY COSTS INVOLVED SHALL BE INCLUDED IN THE CONTRACT.

LAWS AND ORDINANCES:

CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF WORK AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN. IF CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, CONTRACTOR SHALL PROMPTLY NOTIFY ARCHITECT/ENGINEER IN WRITING WHEN SUBMITTING BID AND ANY NECESSARY CHANGES SHALL BE ADJUSTED AS PROVIDED IN THE CONTRACT FOR SUCH CHANGES IN WORK. IF CONTRACTOR PERFORMS ANY WORK, CONTRARY TO SUCH LAWS, ORDINANCES, RULES & REGULATIONS, CONTRACTOR SHALL BEAR ALL COSTS FOR CORRECTING THE WORK.

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Contact Info:

Schematic Design:
Design Development
Bidding:
Permit:
ISSUE DATE:

POST BID/PERMIT REVISIONS:

No.	Date	Description
0	02/25/26	ISSUED FOR PERMIT

PROJECT NO.	2025-23
DRAWN BY	H.T.
CHECKED BY	A.D.
SHEET	01 OF 07

PLUMBING LEGEND ABBREVIATIONS AND NOTES

PROFESSIONAL SEAL

EXP:11/30/2027

P0.1

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PLUMBING SPECIFICATIONS

TRADE JURISDICTION:

WHEN IT BECOMES NECESSARY FOR THE COMPLETE FULFILLMENT OF THIS WORK FOR THIS CONTRACTOR TO FURNISH LABOR OR MATERIALS OTHER THAN THAT WHICH IS GENERALLY ACCEPTED BY THIS TRADE OR BRANCH OF WORK, THE CONTRACTOR SHALL SUBLET SAME TO A CONTRACTOR ENGAGED IN THE TRADE OR BRANCH OF WORK INVOLVED. THERE SHALL BE NO DELAY TO OR STOPPAGE OF WORK DUE TO THE INFRINGEMENT OR ALLEGED INFRINGEMENT TO TRADE AGREEMENTS AS TO THE JURISDICTION.

REQUESTS FOR INFORMATION (RFI'S):

1. ALL REQUESTS FOR INFORMATION (RFI'S) SHALL BE SUBMITTED IN WRITING TO THE GENERAL CONTRACTOR OR CONSTRUCTION MANAGER.
2. IF THERE IS NO CONSTRUCTION MANAGER OR GENERAL CONTRACTOR. SUBMIT RFI'S TO THE ARCHITECT/ENGINEER.
3. THERE WILL BE NO RESPONSE TO RFI'S THAT ARE NOT SUBMITTED IN WRITTEN FORM.
4. ANY FORMAL OR INFORMAL, OR PHONE CONVERSATION DOES NOT CONSTITUTE THE AUTHORIZATION TO PROCEED.
5. STATE THE PERIOD OF ENGINEER/ARCHITECT REVIEW (TYPICALLY AT LEAST 7 DAYS)

WORKMANSHIP:

ALL LABOR SHALL BE EXECUTED IN A NEAT, WORKMANLIKE MANNER AND SHALL BE PERFORMED BY PERSONS SKILLED IN THEIR RESPECTIVE TRADES. THE ARCHITECT/ENGINEER SHALL DECIDE ALL MATTERS PERTAINING TO THE QUALITY OF WORKMANSHIP AND MATERIALS.

COORDINATION OF WORK:

CONTRACTOR SHALL COORDINATE WITH OTHER CONSTRUCTION TO AVOID INTERFERENCE BEFORE STARTING ANY INSTALLATION. ANY NEGLECT BY THE CONTRACTOR TO COORDINATE WITH OTHER CONSTRUCTION SHALL BE MADE AT THE CONTRACTOR'S OWN EXPENSE.

CUTTING AND PATCHING:

CONTRACTOR SHALL INCLUDE ALL CUTTING AND PATCHING, AS REQUIRED. ALL CORES THROUGH SLABS AND FOUNDATION WALLS SHALL BE APPROVED IN WRITING BY THE ARCHITECT/ENGINEER. CONTRACTOR SHALL ASSUME ALL LIABILITIES FOR CORES WHICH HAVE NOT BEEN APPROVED. PATCH ALL DISTURBED WALL, FLOORS, PARTITIONS, CEILINGS, ETC., RESTORE TO ORIGINAL CONDITION.

OPERATING INSTRUCTIONS:

CONTRACTOR SHALL PREPARE A TYPEWRITTEN LIST IN DUPLICATE OF INSTRUCTIONS OF THE OPERATION OF ALL EQUIPMENT AND SHALL INSTRUCT IN ITS OPERATION. ALL VALVES AND EQUIPMENT SHALL BE MARKED WITH A METAL TAG AND A TYPEWRITTEN SCHEDULE SHALL BE GIVEN TO THE OWNER.

GUARANTEE:

CONTRACTOR SHALL GUARANTEE WORK TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE. ANY REPAIRS OR REPLACEMENT DURING THIS PERIOD SHALL BE MADE WITHOUT COST TO THE OWNER, UPON OWNER'S REQUEST.

PRODUCTS:

MATERIALS:

1. ALL MATERIALS SHALL BE NEW AND OF FIRST CLASS PRODUCTS OF MANUFACTURERS SPECIFIED HEREIN AND OR AS APPROVED BY THE ARCHITECT/ENGINEER OF RECORD.MENTION ALL PRODUCTS TO BE STATE APPROVED FOR IT'S INTENDED USE AND SUBMITTALS ARE TO HAVE APPROVAL # CLEARLY INDICATED ON EACH PRODUCT SUBMITTAL. IF NOT PRESENT, SUBMITTAL WILL BE REJECTED.
2. THE DESIGN INTENT, SPACE REQUIREMENTS, PERFORMANCE, ETC., ARE BASED ON PRODUCTS OF THE MANUFACTURER(S) INDICATED IN THESE SPECIFICATIONS. UNLESS NOTED OTHERWISE EQUAL PRODUCTS OF OTHER MANUFACTURER(S) MAY BE SUBMITTED FOR REVIEW TO THE ARCHITECT/ENGINEER OF RECORD. PRODUCTS INSTALLED WITHOUT APPROVAL OF THE ARCHITECT/ENGINEER SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
3. MANUFACTURER(S) IDENTIFICATION OF MATERIAL: EACH LENGTH OF PIPE, PIPE FITTING, EQUIPMENT, DEVICE AND APPURTENANCE IN THE FIRE PROTECTION SYSTEM SHALL HAVE CAST, STAMPED OR INDELIBLY MARKED ON IT THE MARKER'S MARK OR NAME, WEIGHT, CLASS OF PRODUCT AND STANDARD THAT APPLIES.
4. PROVIDE DIELECTRIC FITTINGS TO CONNECT PIPING TO EQUIPMENT OR OTHER PIPING OF DISSIMILAR METALS. USE CLAMPS AND FASTENERS OF SIMILAR METALS OR ISOLATE FROM PIPING. ISOLATE PIPING FROM CONCRETE SLABS AND WALLS TO PREVENT CORROSION.
5. ALL SHOWER AND SHOWER/TUB COLD AND HOT WATER PIPING IN WALL FOR VALVE, SHOWER HEAD AND TUB FILL SHALL BE MOUNTED WITH HOLDRITE "STOUT" BRACKETS AND CLAMPS WITH ACOUSTICAL ISOLATORS.

PLUMBING FIXTURES:

1. PLUMBING FIXTURES AND TRIMMINGS HAVE BEEN SELECTED AS A BASE FOR THIS INSTALLATION, EXCEPT WHERE OTHERWISE SPECIFIED, BUT OTHER MAKES WHICH ARE EQUAL AND APPROVED MAY BE USED. CONTRACTOR SHALL SUBMIT FOR ARCHITECT/ENGINEER'S APPROVAL PORTFOLIO ILLUSTRATING AND DESCRIBING IN DETAIL THE FIXTURES, TRIMMINGS AND VALVES CONTRACTOR CONTEMPLATES USING, GIVING NAMES AND CATALOG NUMBERS OR IDENTIFYING DESCRIPTION.
   - 1.1. PLUMBING FIXTURES SHALL BE OF THE BEST QUALITY AND SHALL HAVE MANUFACTURER'S GUARANTEE LABEL OR TRADEMARK INDICATING FIRST QUALITY.
2. INSTALL/PROVIDE FLUSH VALVES AND/OR FLUSH TANKS WITH HANDLE ON OPEN SIDE OF FIXTURE.
3. SET ALL FLOOR FIXTURES ON A WHITE TILE SETTERS GROUT TO FORM A SOLID WATER TIGHT BASE.
4. CAULK ALL FIXTURES WATER TIGHT TO WALL AND FLOOR USING CLEAR SILICONE CAULK NEAT AND SMOOTHLY SET IN PLACE AND EXCESS CLEANED FROM WALL OR FIXTURE.
5. ALL PLUMBING FIXTURE SHALL BE WATER-SENSE LABELED.
6. THERMOSTATIC MIXING VALVES, SHALL BE INSTALLED ON ALL SINKS AND LAVATORIES WITHOUT EXCEPTION.
7. METER BOXES. METER BOXES SHALL BE CONSTRUCTED IN SUCH A MANNER THAT RODENTS ARE PREVENTED FROM ENTERING A STRUCTURE BY WAY OF THE WATER SERVICE PIPES CONNECTING THE METER BOX AND THE STRUCTURE.

HANGERS AND SUPPORTS:

1. STEEL PIPE HANGERS AND SUPPORTS: MSS SP-58, TYPES 1 THROUGH 58, FACTORY-FABRICATED COMPONENTS. REFER TO EXECUTION SECTION "HANGER AND SUPPORT APPLICATIONS."
   - 1.1. GALVANIZED, METALLIC COATINGS: PRE-GALVANIZED OR HOT DIPPED.
   - 1.2. NON-METALLIC COATINGS: PLASTIC COATING, JACKET, OR LINER
   - 1.3. PADDED HANGERS: HANGER WITH FIBERGLASS OR OTHER PIPE INSULATION PAD OR CUSHION FOR SUPPORT OF BEARING SURFACE OF PIPING.
2. COPPER PIPING SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 6'-0" AND AT EACH CHANGE IN HORIZONTALS OF VERTICAL. HANGERS SHALL SUPPORT PIPING AT PIPE WITH INSULATION OVER TOP OR WITH METAL SLEEVE TO PROTECT INSULATION FROM BEING CRUSHED.
   - 2.1. HANGER SHIELD: HANGERS FOR PIPING SHALL BE PLACED AROUND THE OUTSIDE OF THE INSULATION AND PROTECTIVE SHIELDS SHALL BE INSTALLED AT EVERY HANGER LOCATION. SHIELD SHALL NOT BE LESS THAN 2/3 THE CIRCUMFERENCE OF THE INSULATION AND WHERE SPEED CLIPS ARE USED, THE METAL SHIELD SHALL BE CONTINUOUS AROUND THE CIRCUMFERENCE OF THE PIPE INSULATION. SHIELDS SHALL BE FABRICATED OF THE FOLLOWING GAUGES:

NOMINAL PIPE SIZE	METAL GAUGE
0" - 1 1/2"	20
2" - 3"	16
3 1/2"	UP TO 14

3. TRAPEZE PIPE HANGERS: MSS SP-69, TYPE 69, SHOP OR FIELD FABRICATED PIPE-SUPPORT ASSEMBLY MADE FROM STRUCTURAL STEEL SHAPES WITH MSS-SP-58 HANGER RODS, NUTS, SADDLES, AND U-BOLTS.
4. METAL FRAMING SYSTEMS: MFMA-3, SHOP OR FIELD FABRICATED PIPE SUPPORT ASSEMBLY MADE OF STEEL CHANNELS AND OTHER COMPONENTS.
5. THERMAL HANGER SHIELD INSERTS: 100-PSIG MINIMUM, COMPRESSIVE STRENGTH INSULATION INSERT ENCASED IN SHEET METAL SHIELD.
6. FASTENER SYSTEMS:
   - 6.1. POWDER ACTUATED FASTENERS: THREADED STEEL STUD, FOR USE IN HARDENED PORTLAND CEMENT CONCRETE WITH PULLOUT, TENSION, AND SHEAR CAPACITIES APPROPRIATE FOR SUPPORTED LOADS AND BUILDING MATERIALS WHERE USED.
   - 6.2. MECHANICAL EXPANSION ANCHORS: INSERT WEDGE TYPE, ZINC COATED OR STAINLESS STEEL, FOR USE IN HARDENED PORTLAND CEMENT CONCRETE WITH PULLOUT, TENSION, AND SHEAR CAPACITIES APPROPRIATE FOR SUPPORTED LOADS AND BUILDING MATERIALS WHERE USED.
7. EQUIPMENT SUPPORTS: WELDED, SHOP OR FIELD FABRICATED EQUIPMENT SUPPORT MADE FROM STRUCTURAL STEEL SHAPES.
8. MISCELLANEOUS MATERIALS:
   - 8.1. STRUCTURAL STEEL: ASTM A 46/A 36M, STEEL PLATES, AND BARS; BLACK AND GALVANIZED.
   - 8.2. GROUT: ASTM C 1107, FACTORY-MIXED AND PACKAGED, DRY, HYDRAULIC-CEMENT, NON-SHRINK AND NON-METALLIC GROUT; SUITABLE FOR INTERIOR AND EXTERIOR APPLICATIONS.
   - 8.3. PROPERTIES: NON-STAINING, NON-CORROSIVE, AND NON-GASEOUS.
   - 8.4. DESIGN MIX: 5000-PSI, 28-DAY COMPRESSIVE STRENGTH.
9. PROVIDE SEISMIC BRACING OF PIPING BASED ON SEISMIC CATEGORY OF ZONE PROJECT IS BEING CONSTRUCTED.

INSULATION:

1. THERMAL INSULATION MATERIALS SHALL MEET THE PROPERTY REQUIREMENTS OF THE FOLLOWING,
   - 1.1. ASTM C547, ASTM C585, AND ASTM C1136.
2. INSULATION MATERIALS SHALL MEET THE MINIMUM REQUIREMENTS OF IECC-2021
3. INSULATION MATERIALS SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF 25 AND A MAXIMUM SMOKE DEVELOPED INDEX OF 50 WHEN TESTED IN ACCORDANCE WITH THE FOLLOWING TESTING STANDARDS:
   - 3.1. ASTM E84, UL 723 AND NFPA 255.
4. INSULATION SHALL BE FIBERGLASS PRE-FORMED PIPE INSULATION, ONE-PIECE, HINGED SECTION, WITH FACTORY APPLIED WHITE POLYMER FACING, TWO-COMPONENT ADHESIVE CLOSURE SYSTEM, AND MATCHING PRESSURE SENSITIVE TAPE. MANUFACTURER'S DATA REGARDING THICKNESS CONSTRAINTS IN RELATION TO OPERATING TEMPERATURE SHALL BE FOLLOWED. STAPLING IS NOT ALLOWED TO COMPLETE THE CLOSURE.
5. INSULATION MATERIAL CAN BE A FLEXIBLE ELASTOMERIC POLYETHYLENE INSULATION. INSTALL IN CONFORMATION WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
6. COVER ALL OF THE FOLLOWING PIPE TYPES LISTED WITH PRE MOLDED PIPE INSULATION OF THICKNESS INDICATED, 4 LB. DENSITY AND ASJ JACKET.

PIPE TYPE	INSULATION THICKNESS (INCHES)
DOMESTIC COLD WATER	
PIPE SMALLER THAN 1-1/2"	1/2
PIPE 1-1/2" INCH AND LARGER	1
PIPE 2-1/2 INCH AND LARGER	1
DOMESTIC HOT WATER	
PIPE SMALLER THAN 1-1/2"	1
PIPE 1-1/2" AND LARGER	1-1/2
DOMESTIC HOT WATER (CIRCULATING)	
PIPE SMALLER THAN 1-1/2"	1
PIPE 1-1/2" AND LARGER	1-1/2
STORM WATER	
PIPE 3 INCH AND LARGER	1

FIRE STOPPING:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR FIRE STOPPING, FIRE CAULKING AND INSTALLING ALL SYSTEMS WHERE PLUMBING PIPING AND EQUIPMENT PENETRATE FIRE RATED SYSTEMS. SEE ARCHITECTURAL PLANS FOR LOCATIONS OF FIRE RATED WALLS, FLOORS AND STRUCTURES. MATERIAL SHALL STOP AND PREVENT FIRE AND SMOKE FROM PASSING/PENETRATING FIRE BARRIER.

EXECUTION

SCOPE OF WORK:

1. PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, FACILITIES, TRANSPORTATION, FEES AND SERVICES NECESSARY FOR A COMPLETE PLUMBING SYSTEM(S) AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. WORKMANSHIP SHALL BE COMPLETE IN EVERY ASPECT, TESTED, APPROVED AND SATISFACTORY TO THE ARCHITECT/ENGINEER AND IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL LAWS HAVING JURISDICTION.
2. IT IS THE DECLARED AND ACKNOWLEDGED INTENT OF THESE SPECIFICATIONS TO PROVIDE A COMPLETE PLUMBING SYSTEM(S), INCLUSIVE OF ALL REQUIRED PARTS AND ACCESSORIES COMPLETE AND READY FOR USE AS DESCRIBED, BUT NOT LIMITED TO THE FOLLOWING:
   - 2.1. DOMESTIC WATER SERVICE AND DISTRIBUTION.
   - 2.2. DOMESTIC HOT WATER.
   - 2.3. SANITARY DRAINAGE SYSTEM.
   - 2.4. PLUMBING FIXTURES.
   - 2.5. PLUMBING EQUIPMENT.
   - 2.6. PLUMBING SPECIALTIES.
3. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT AND LOCATION OF THE WORK INCLUDED. WORK INDICATED, BUT HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE PROVIDED, INCLUDING THESE DETAILS, WITHOUT EXTRA COST TO THE OWNER.

SUBMITTALS AND SHOP DRAWINGS:

1. SHOP DRAWING LAYOUT SUBMITTAL(S) SHALL BE A MINIMUM OF 1/8 INCH PER FOOT SCALE, SHOWING ALL PIPING TO BE INSTALLED. DETAILED LAYOUT(S) OF TOILETS, KITCHENS AND EQUIPMENT ROOMS SHALL BE NOT LESS THAN 1/4 INCH PER FOOT SCALE. THE DRAWING SHALL ALSO SHOW THE WORK COORDINATED WITH ALL OTHER TRADES, ALL DRAWINGS SHALL BE SUBMITTED PRIOR TO STARTING ANY WORK, AND IN ACCORDANCE WITH AN APPROVED SCHEDULE, PROVIDED BY THE GENERAL CONTRACTOR, TO AVOID ANY DELAY ON THE PROJECT.
2. EQUIPMENT, FIXTURES AND OTHER RELATED APPURTENANCES SHALL BE SUBMITTED IN BOUNDED BOOKLETS. ALL DATA MUST BE CLEARLY LEGIBLE. SUBMIT SIX(6) COPIES MIN. OF EACH.
3. CONTRACTOR SHALL SUBMIT TO GOVERNMENTAL AGENCIES AND UTILITY COMPANIES, SHOP DRAWINGS WHICH ARE REQUIRED BY THESE AGENCIES FOR THEIR APPROVAL.
4. CONTRACTOR SHALL PREPARE AND FURNISH TO THE OWNER, AN ELECTRONIC SUBMITTAL CONTAINING A COMPLETE LIST OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT. EACH PIECE OF EQUIPMENT LISTED SHALL ALSO BE DESCRIBED BY MANUFACTURER(S) MODEL NUMBER, FIGURE NUMBER AND THE COMPONENTS THEREIN WHICH MAKE UP THE PART(S) LIST. ELECTRONIC VERSION OF SHOP DRAWINGS MAY ALSO BE SUBMITTED TO THE ARCHITECT IN PDF FORM VIA EMAIL.
5. SHOP DRAWINGS SHALL INCLUDE CONTRACTOR'S NAME, JOB ADDRESS, MANUFACTURER'S NAME, CATALOG NUMBERS, CUTS, DIAGRAMS AND OTHER SUCH DESCRIPTIVE DATA AS REQUIRED TO IDENTIFY AND REVIEW THE EQUIPMENT.
6. SUBMITTAL REVIEWS ARE A COURTESY REVIEW FOR GENERAL CONFORMANCE AND DO NOT IMPLY A GUARANTEE OF EXISTING CONDITIONS OR BUILDING MEASUREMENTS. A SUBMITTAL REVIEW IN NO WAY ALLEVIATES THE CONTRACTOR OF ENSURING COMPATIBILITY AND FUNCTIONALITY SYSTEMS, COMPONENTS, OR OTHER RESPONSIBILITIES UNDER THE CONTRACT.
7. SHOP DRAWINGS WILL REQUIRE A MINIMUM OF 5 BUSINESS DAYS FOR REVIEW. THE CONTRACTOR SHALL INCLUDE THE REQUIRED REVIEW TIME IN ALL PROJECT AND CONSTRUCTION SCHEDULES. THERE SHALL BE NO ADDITIONAL COMPENSATION OR CONSIDERATION FOR FAILURE TO INCLUDE THE PROPER REVIEW TIME.
8. NO EQUIPMENT SHALL BE PURCHASED OR INSTALLED WITHOUT AN APPROVED SHOP DRAWING SUBMITTED. FAILURE TO COMPLY WITH THIS PROVISION, THE CONTRACTOR DOES AT HIS OWN RISK.
9. ONE (1) WEEK PRIOR TO FINAL INSPECTION, DELIVER TO THE ARCHITECT/ENGINEER TYPEWRITTEN COPIES OF EACH OF THE FOLLOWING:
   - 9.1. CERTIFICATION FROM CONTRACTOR THAT ALL EQUIPMENT AND SYSTEM(S) HAVE BEEN PROPERLY INSTALLED, ADJUSTED AND TESTED.
   - 9.2. CERTIFICATION FROM RESPECTIVE MANUFACTURER(S) AUTHORIZED REPRESENTATIVE THAT EQUIPMENT AND SYSTEM(S) HAVE BEEN PROPERLY INSTALLED, ADJUSTED AND TESTED.
   - 9.3. CERTIFICATION FROM AUTHORITY HAVING JURISDICTION THAT ALL EQUIPMENT AND SYSTEM(S) HAVE BEEN PROPERLY INSTALLED, ADJUSTED, TESTED AND ACCEPTED FROM THE AUTHORITY HAVING JURISDICTION.

INSPECTIONS AND TESTS:

1. TESTING SHALL BE DONE IN THE PRESENCE OF GOVERNING AUTHORITY AND OWNER'S REPRESENTATIVE. PROVIDE FIVE (5) DAYS NOTICE TO THE OWNER, ARCHITECT OF RECORD AND GOVERNING AUTHORITY. PROVIDE ALL NECESSARY EQUIPMENT, MATERIAL AND LABOR TO PERFORM TESTS.
2. ROUGHED-IN PLUMBING: THE DRAINAGE AND VENT PIPING SYSTEMS SHALL BE TESTED UPON COMPLETION OF ROUGHED-IN PIPING INSTALLATION, BY USING WATER OR AIR TO PROVE WATERTIGHT.
3. SANITARY & STORM DRAINAGE AND VENT WATER TEST. A WATER TEST SHALL BE APPLIED TO THE DRAINAGE SYSTEM EITHER IN ITS ENTIRETY OR IN SECTIONS. IF APPLIED TO THE ENTIRE SYSTEM, ALL OPENINGS IN THE PIPING SHALL BE TIGHTLY CLOSED, EXCEPT THE HIGHEST OPENING, AND THE SYSTEM SHALL BE FILLED WITH WATER TO THE POINT OF OVERFLOW. IF THE SYSTEM IS TESTED IN SECTIONS, EACH OPENING SHALL BE TIGHTLY PLUGGED EXCEPT THE HIGHEST OPENINGS OF THE SECTION UNDER TEST, AND EACH SECTION SHALL BE FILLED WITH WATER, BUT SECTIONS SHALL NOT BE TESTED WITH LESS THAN A 10-FOOT (3048 MM) HEAD OF WATER. IN TESTING SUCCESSIVE SECTIONS, NOT LESS THAN THE UPPER 10 FEET (3048 MM) OF THE NEXT PRECEDING SECTION SHALL BE TESTED SO THAT NO JOINT OR PIPE IN THE BUILDING, EXCEPT THE UPPERMOST 10 FEET (3048 MM) OF THE SYSTEM, SHALL HAVE BEEN SUBMITTED TO A TEST OF LESS THAN A 10-FOOT (3048 MM) HEAD OF THIS PRESSURE SHALL BE HELD FOR NOT LESS THAN 15 MINUTES. THE SYSTEM SHALL THEN BE TIGHT AT ALL POINTS.
4. DRAINAGE AND VENT AIR TEST. AN AIR TEST SHALL BE MADE BY FORCING AIR INTO THE SYSTEM UNTIL THERE IS A UNIFORM GAUGE PRESSURE OF 5 PSI (34.5 KPA) OR SUFFICIENT TO BALANCE A 10-INCH (254 MM) COLUMN OF MERCURY. THIS PRESSURE SHALL BE HELD FOR A TEST PERIOD OF NOT LESS THAN 15 MINUTES.
5. WATER SUPPLY SYSTEM: WATER SUPPLY SYSTEM SHALL BE TESTED AND PROVED WATERTIGHT UPON COMPLETION OF A SECTION OR THE ENTIRE SYSTEM. SYSTEM SHALL BE TESTED UNDER A WATER PRESSURE OF AT LEAST 1.5 TIMES THE SYSTEM PRESSURE, BUT AT LEAST 100 PSI AT A MINIMUM BY AIR OR WATER. TESTING PRESSURE SHALL BE MAINTAINED FOR A LEAST FIFTEEN (15) MINUTES AND WATER USED FOR TEST SHALL BE FROM POTABLE WATER.
6. PLASTIC PIPING SHALL NOT BE TESTED USING AIR.

FLUSHING:

1. CHLORINATION OF WATER PIPING: FLUSH THE DOMESTIC WATER PIPING SYSTEM WITH CLEAN POTABLE WATER UNTIL CONTAMINATED WATER DOES NOT APPEAR AT THE OUTLET. FILL WITH A SOLUTION CONTAINING 50 PARTS PER MILLION OF CHLORINE FOR A PERIOD (AS PRESCRIBED BY THE CODE) BEFORE FLUSHING. FLUSH THE SYSTEM COMPLETELY WITH CLEAR WATER UNTIL ALL RESIDUAL CHLORINE CONTENT IS REMOVED. CHLORINATION SHALL BE PERFORMED AFTER ALL PIPING AND FINAL CONNECTIONS AND PRESSURE TESTING HAS BEEN COMPLETED. IF, AFTER THE PIPES HAVE BEEN CHLORINATED, THE PIPES HAVE TO BE DISMANTLED, THE CHLORINATION PROCESS MUST BE REPEATED.
2. NON-CHLORINATED WATER SUPPLY: WATER SUPPLY SYSTEM SHALL BE FLUSHED WITH CLEAN, POTABLE WATER UNTIL NO DIRTY WATER APPEARS AT THE POINT OF OUTLET.

DISINFECTION OF POTABLE WATER SYSTEM:

1. DISINFECT AND FLUSH POTABLE WATER SYSTEM PER LOCAL PLUMBING, BUILDING, AND HEALTH DEPARTMENT REQUIREMENTS.

LABEL AND IDENTIFICATION:

1. IDENTIFICATION FOR ALL PIPING SYSTEM(S) SHALL COMPLY WITH ANSI A13.1 FOR SIZE OF LETTERING AND BACKGROUND COLOR FIELD.
2. PIPING SYSTEM(S): IDENTIFICATION SHALL INCLUDE THE CONTENTS OF THE PIPING SYSTEM(S) AND AN ARROW INDICATING THE DIRECTION OF FLOW. HAZARDOUS PIPING SYSTEM(S) SHALL ALSO CONTAIN INFORMATION ADDRESSING THE NATURE OF THE HAZARD. IDENTIFICATION SHALL BE REPEATED AT MAXIMUM INTERVALS OF TWENTY-FIVE (25) FEET AND AT CHANGE IN DIRECTION AND ALSO AT EACH POINT WHERE PIPING PASSES THROUGH A WALL, FLOOR OR ROOF. COLOR OF THE PIPE IDENTIFICATION SHALL BE DISCERNIBLE AND CONSISTENT THROUGHOUT THE BUILDING.
3. EQUIPMENT: IDENTIFICATION SHALL INCLUDE SYSTEM NUMBER, CAPACITY, FLOW RATE, STATIC PRESSURE, PUMP HEAD, HORSEPOWER, VOLTAGE, ETC.
4. VALVE TAGS: PROVIDE BRASS VALVE TAGS AND BRASS "S" HOOK FASTENERS WITH VALVE NUMBER AND TYPE OF SERVICE NOTED ON TAG. PROVIDE DUPLICATE CHARTS, THE CHART SHALL BE FOR ALL VALVES AND SHALL INDICATE VALVE IDENTIFICATION NUMBER, LOCATION AND PURPOSE.

RECORD DRAWING SUBMITTALS:

1. AT PROJECT CLOSE-OUT, CONTRACTOR SHALL SUBMIT RECORD DRAWINGS (CERTIFIED OR APPROVED) ALSO KNOWN AS "AS-BUILT" DRAWINGS. LAYOUT SUBMITTALS SHALL BE SUBMITTED FOR RECORDS PRIOR TO FINAL ACCEPTANCE IN ELECTRONIC FORM ON COMPACT DISC(S), USING AUTOCAD VERSION 2010 "DWG" FORMAT OR ADOBE ACROBAT "PDF" FORMAT VIEWABLE FROM ADOBE.RECORD DATA EQUIPMENT, FIXTURE AND RELATED APPURTENANCES MAY BE SUBMITTED AS BOUND HARDCOPY OR ELECTRONIC ADOBE ACROBAT "PDF" FORMAT.
2. PROVIDE RECORD SUBMITTALS AS FOLLOWS:
   - 2.1. OWNER: 1 COPY.
   - 2.2. ARCHITECT OF RECORD: 1 COPY.
   - 2.3. ENGINEER OF RECORD: 1 COPY.
3. CONTRACTOR IS NOT ALLOWED TO USE THE CONTRACT DOCUMENTS FOR "AS-BUILT" DRAWINGS. BACKGROUNDS SHALL BE IN THE LATEST RELEASE OF AUTOCAD.

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PLUMBING SPECIFICATIONS

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065806 STATE OF ILLINOIS

EXP:11/30/2027

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SEWAGE EJECTOR PUMP SCHEDULE

TAG	DESCRIPTION	QTY.	LOCATION	STYLE	FLOW (GPM)	HEAD (FEET)	DISCHARGE (INCH)	ELECTRICAL DATA				WEIGHT (LBS)	DIMENSION (IN.) (DIA. X HEIGHT)	MODEL	BASIS OF DESIGN
								HP	RPM	FLA (A)	VPh/HZ				
SEP-1	SEWAGE EJECTOR PUMP	1	REFER TO PLAN	SIMPLEX PUMP	20	18	2"Ø	4/10	1725	12	120/1/60	94	Ø28.7" X 36.6"	700 SERIES 702/LE41	LIBERTY PUMPS

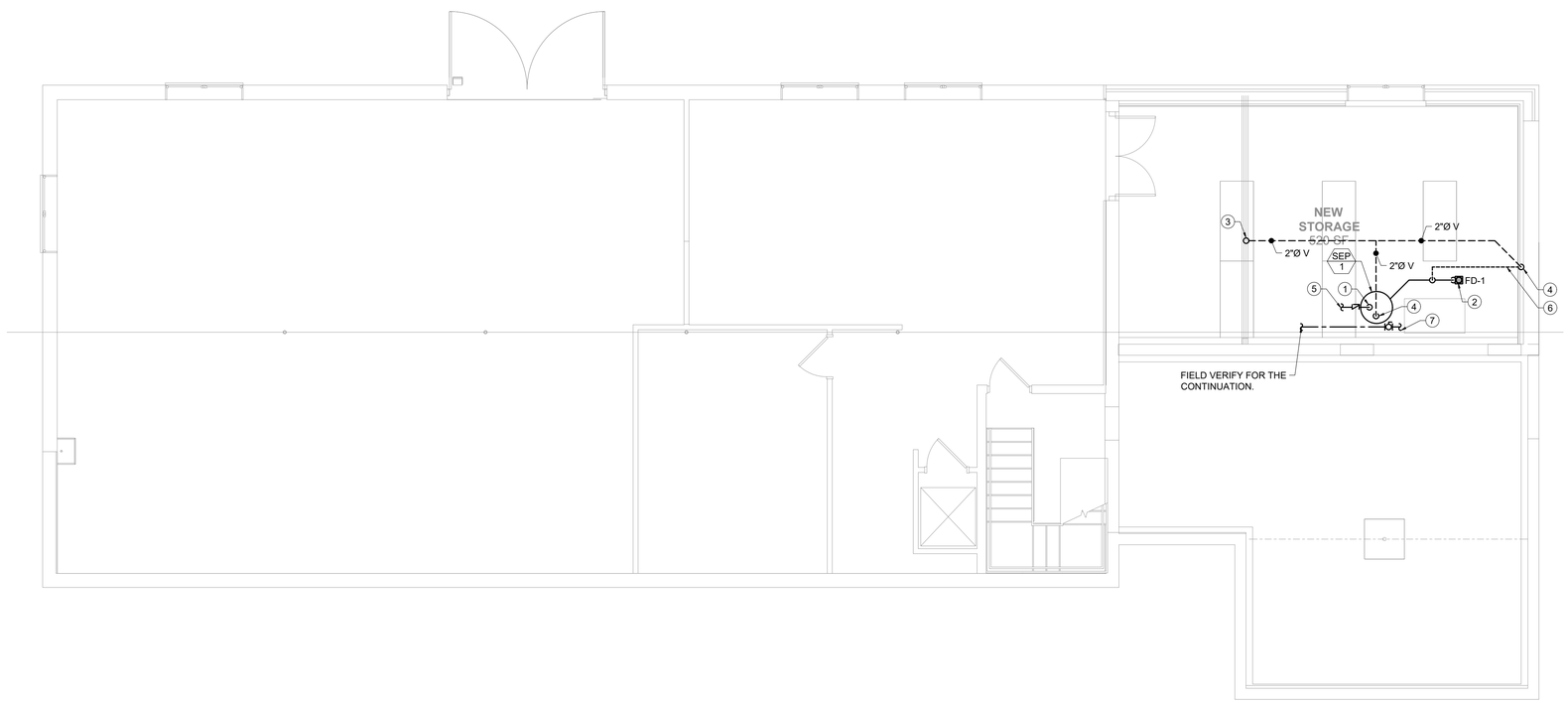
NOTES:
1. PUMP INSTALLED IN A TANK THAT IS VENTED IN ACCORDANCE WITH LOCAL CODE.
2. PROVIDE FLOAT SWITCH SYSTEM AND ALARM INTERFACE SYSTEM.
3. PROVIDE HEAVY DUTY COVER.

PLUMBING GENERAL NOTES:

1. PROVIDE FIRE BLOCKING AT OPENINGS AROUND VENTS, AND PIPES AT FIRE-RATED WALLS AND FLOOR LEVELS WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND COMBUSTION PRODUCTS.
2. ALL SANITARY WASTE PIPING RUNS BELOW THE FLOOR.
3. ALL PLUMBING FIXTURES SHALL BE WATER SENSE TYPE AND COMPLY WITH LOCAL PLUMBING AND BUILDING CODES.
4. THE PLUMBING FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL CODES REQUIREMENT.
5. CONTRACTOR TO VERIFY INVERTS PRIOR TO COMMENCING WORK.NOTIFY ENGINEER OF ANY ISSUES.

PLUMBING BASEMENT FLOOR PLAN KEYNOTES:

1. 2"Ø SANITARY DISCHARGE PIPE DN TO SEP-1.
2. 2"Ø SAN PIPE UP TO FD-1.
3. 2"Ø VENT PIPE UP.
4. 2"Ø VENT PIPE DN.
5. PLUMBING CONTRACTOR TO FIELD COORDINATE AND CONNECT NEW SANITARY PIPE TO EXISTING SANITARY MAINS WITH REQUIRED INVERT ELEVATION.
6. 2"Ø VENT PIPE RUN BELOW THE FLOOR.
7. 3/4" WATER LINE FOR FILLING THE FIRE WATER TANK
   CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF FIRE WATER TANK.



NORTH

1 PLUMBING BASEMENT FLOOR PLAN
SCALE: 3/16" = 1'-0"

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PLUMBING BASEMENT FLOOR PLAN

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER
SUSHIL KUMAR
062.056805
STATE OF ILLINOIS

EXP:11/30/2027

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PLUMBING FIXTURE SCHEDULE

TAG	MANUFACTURER	MODEL	FIXTURE	MOUNTING	HW	CW	WASTE	VENT	ACCESSORIES / REMARKS	IMAGE
DF-1	ELKAY	LZS8WSAP	DRINKING FOUNTAIN	WALL	-	1/2"	2"	2"	ENHANCED FILTERED BOTTLE FILLING STATION & SINGLE ADA COOLER ARCTIC WHITE LEAD REDUCTION DROP DOWN WRAPPER ASME A112.19.3/CSA B45.4 ADA & ICC A117.1	

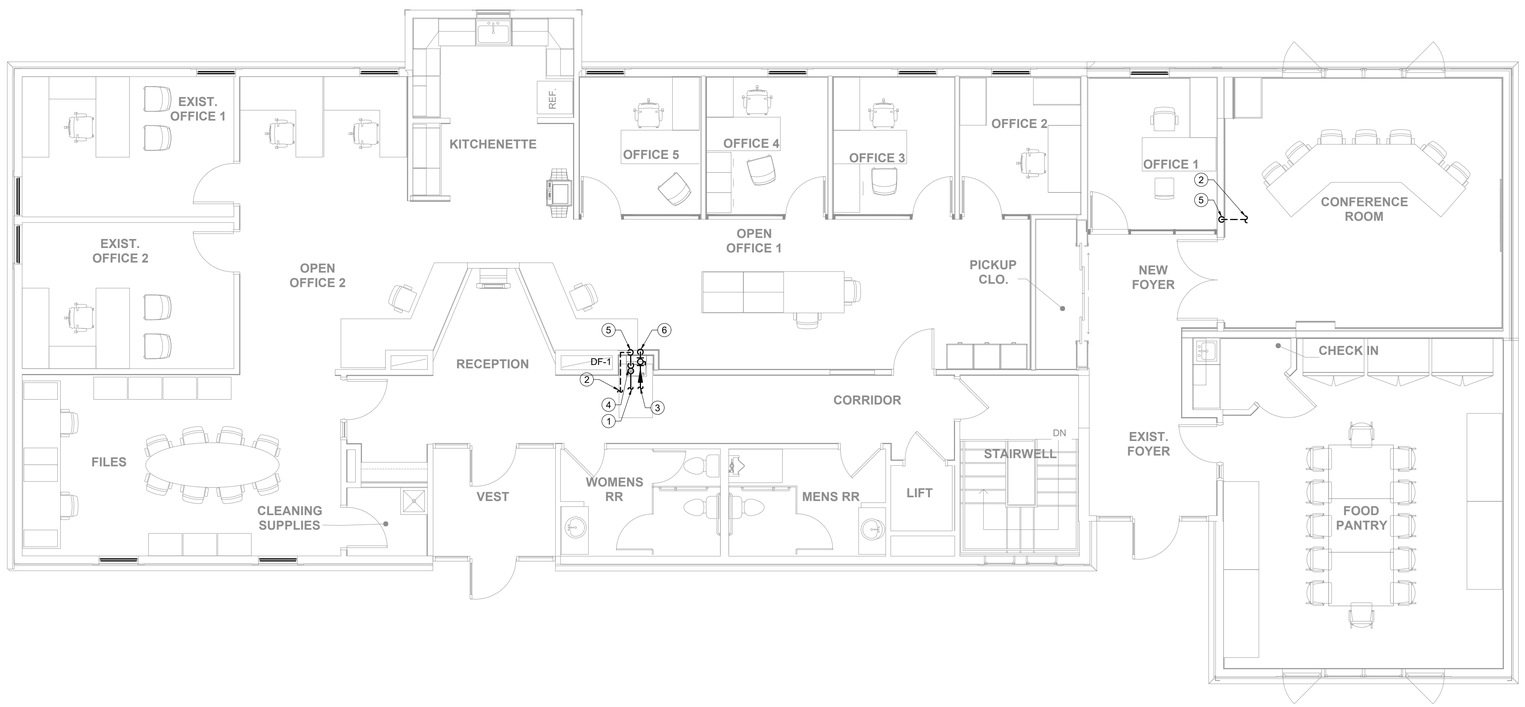
NOTE:
1. REFER TO ARCHITECTURE, OWNERSHIP OR INTERIOR DESIGNER FOR ALL FIXTURE SELECTION AND ACCESSORIES. ALL ARE SUBJECT TO CHANGE.

PLUMBING GENERAL NOTES:

1. PROVIDE FIRE BLOCKING AT OPENINGS AROUND VENTS, AND PIPES AT FIRE-RATED WALLS AND FLOOR LEVELS WITH AN APPROVED MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND COMBUSTION PRODUCTS.
2. ALL SANITARY WASTE PIPING RUNS BELOW THE FLOOR.
3. ALL PLUMBING FIXTURES SHALL BE WATER SENSE TYPE AND COMPLY WITH LOCAL PLUMBING AND BUILDING CODES.
4. THE PLUMBING FIXTURES SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL CODES REQUIREMENT.
5. CONTRACTOR TO VERIFY INVERTS PRIOR TO COMMENCING WORK.NOTIFY ENGINEER OF ANY ISSUES.

PLUMBING FIRST FLOOR PLAN KEYNOTES:

1. PLUMBING CONTRACTOR TO FIELD COORDINATE AND CONNECT NEW SANITARY PIPE TO EXISTING SANITARY MAINS WITH REQUIRED INVERT ELEVATION.
2. PLUMBING CONTRACTOR TO FIELD COORDINATE AND CONNECT NEW VENT PIPE TO NEAREST EXISTING VENT PIPE.
3. PLUMBING CONTRACTOR TO FIELD COORDINATE AND CONNECT NEW 1/2"Ø DOMESTIC COLD WATER PIPE TO NEAREST EXISTING COLD WATER PIPE.
4. 2"Ø SAN PIPE UP TO DF-1.
5. 2"Ø V PIPE DN.
6. 1/2"Ø CW PIPE DN TO DF-1.



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1 PLUMBING FIRST FLOOR PLAN
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PLUMBING FIRST FLOOR PLAN

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER
SUSHIL KUMAR
062.065605
STATE OF ILLINOIS

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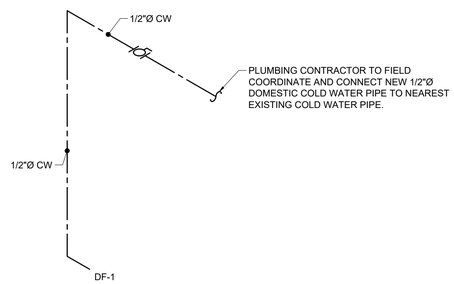
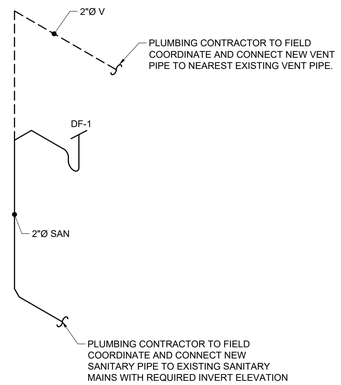


1 DOMESTIC WATER RISER DIAGRAM
SCALE: N.T.S.



2 SANITARY DRAINAGE RISER DIAGRAM
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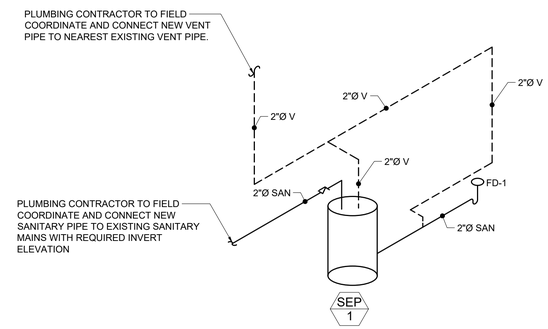

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PLUMBING RISER DIAGRAM

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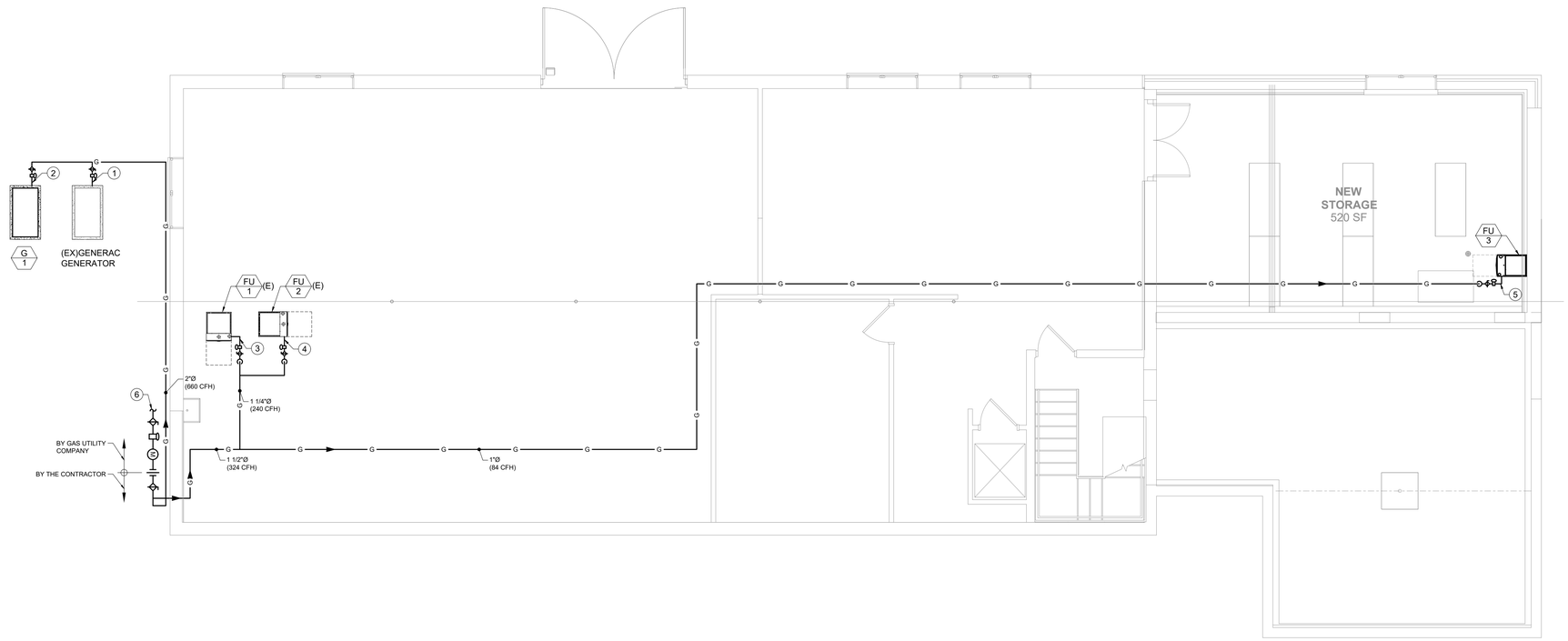
GAS PIPING BASEMENT FLOOR PLAN KEYNOTES:

1. 1 1/2"Ø (327 CFH) GAS PIPE UP TO EXISTING GENERATOR.
2. 1 1/2"Ø (333 CFH) GAS PIPE UP TO G-1.
3. 1"Ø (120 CFH) GAS PIPE UP TO (E)FU-1.
4. 1"Ø (120 CFH) GAS PIPE UP TO (E)FU-2.
5. 1"Ø (84 CFH) GAS PIPE TO FU-3.
6. INCOMING GAS SERVICE BY GAS UTILITY COMPANY. REFER TO CIVIL DRAWINGS FOR CONTINUATION.



NORTH

1 GAS PIPING BASEMENT FLOOR PLAN
SCALE: 3/16" = 1'-0"

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GAS PIPING BASEMENT FLOOR PLAN

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER
SUSHIL KUMAR
062.065805
STATE OF ILLINOIS

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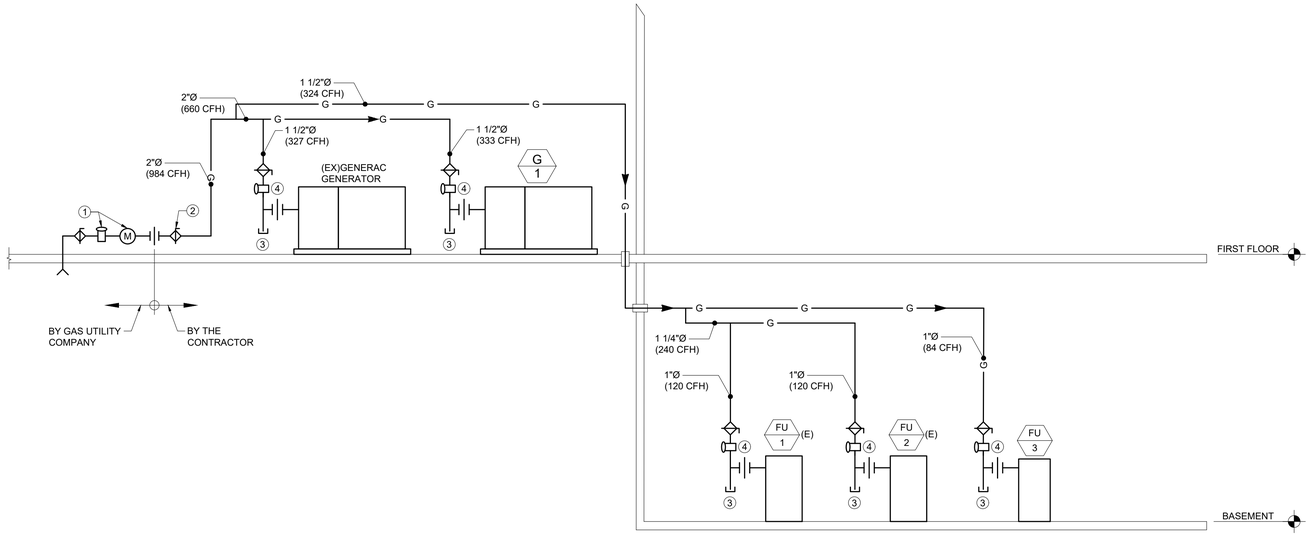

GAS CONSUMPTION SCHEDULE SCHEDULE 40 METALLIC PIPE REFER TABLE 402.4(2) FROM INTERNATIONAL FUEL GAS CODE 2018 INLET PRESSURE : LESS THAN 2 PSI DELIVERY PRESSURE: 7 INCH. W.C PRESSURE DROP :0.5 INCH WC						
DESCRIPTION / TAG	BASIS OF DESIGN	MODEL	WORKING PRESSURE	QTY.	CFH	TOTAL CFH
(E)FU-1	AMERICAN STANDARD	S9X1D120U5	5" W.C.- 13.8" W.C.	1	120	120
(E)FU-2	AMERICAN STANDARD	S9X1D120U5	5" W.C.- 13.8" W.C.	1	120	120
FU-3	RHEEM	R962V085	5" W.C.- 10.5" W.C.	1	84	84
(E) GENERATOR	GENERAC	-	3.5" W.C.- 7" W.C.	1	327	327
G-1	GENERAC	G007290-0	3.5" W.C.- 7" W.C.	1	333	333
				TOTAL		984
			WITH DIVERSITY FACTOR = 0.75	TOTAL		738

1 GAS RISER DIAGRAM
SCALE: N.T.S.

GAS PRESSURE REGULATOR VENT NOTE

GAS PRESSURE REGULATORS INSTALLED INDOORS SHALL HAVE VENT-LIMITING DEVICE. VENT-LIMITING DEVICE SHOULD BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

GAS RISER KEYNOTES:

1. INCOMING GAS SERVICE, LINE PRESSURE REGULATOR, AND METER BY @ 7 INCH. WC GAS UTILITY COMPANY TO DELIVER INDICATED GAS FLOW RATE DOWNSTREAM OF PRESSURE REGULATOR AND METER.
2. BUILDING NATURAL GAS MAIN SHUT-OFF VALVE.
3. MAKE FULL SIZE CONNECTION TO GAS FIRED EQUIPMENT WITH MINIMUM 6" LONG DIRT LEG.
4. PROVIDE PRV AS REQUIRED AT INDIVIDUAL EQUIPMENT. ROUTE GAS VENT FULL SIZE.

GAS PIPING NOTES:

1. GAS PIPING SHALL BE INSTALLED IN COMPLIANCE WITH 2018 INTERNATIONAL FUEL GAS CODE CHAPTER 4 GAS PIPING INSTALLATION.
2. UPTO 2 INCHES:
   (i) PIPE: ASTM A 53/A 53M, BLACK STEEL, SCHEDULE 40, TYPE E OR S, GRADE B.
   (ii) FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN MALLEABLE-IRON THREADED FITTINGS OR WROUGHT-STEEL WELDING FITTINGS AS PER ASTM A 234/A 234M FOR BUTT WELDING AND SOCKET WELDING.
   (iii) CONTRACTOR TO CONSTRUCT WELDED JOINTS ACCORDING TO AWS D10.12/D10.12M, USING QUALIFIED PROCESSES AND WELDING OPERATORS.
   (iv) JOINTS: WELDED OR THREADED JOINTS.
3. ABOVE 2 INCHES:
   (i) PIPE: ASTM A 53/A 53M, BLACK STEEL, SCHEDULE 40, TYPE E OR S, GRADE B.
   (ii) FITTINGS: WROUGHT-STEEL WELDING FITTINGS AS PER ASTM A 234/A 234M FOR BUTT WELDING AND SOCKET WELDING.
   (iii) CONTRACTOR TO CONSTRUCT WELDED JOINTS ACCORDING TO AWS D10.12/D10.12M, USING QUALIFIED PROCESSES AND WELDING OPERATORS.
   (iv) JOINTS: WELDED OR THREADED JOINTS.
4. NIPPLES: STEEL, ASTM A733, SCHEDULE 40.
5. THREADED METALLIC JOINTS: THREADED JOINTS IN METALLIC PIPE SHALL HAVE TAPERED THREADS EVENLY CUT. METAL SCREWED PIPE JOINTS SHALL BE MADE LEAK-TIGHT BY APPLYING RECTOR SEAL NO. 5 PIPE THREAD SEALANT TO ALL THREADED JOINTS. CARE MUST BE TAKEN TO PREVENT THE PIPE DOPE COMPOUND FROM GETTING INSIDE THE INTERNAL PIPELINE. TEFLON TAPE TYPE SEALANT IS PROHIBITED.
6. ALL GAS PIPING AND FITTINGS SHALL BEAR THE MANUFACTURER'S IDENTIFICATION AND BE LISTED BY A THIRD-PARTY CERTIFICATION AGENCY.
7. OUTDOOR PIPING, FITTINGS, AND VALVES SHALL HAVE ONE COAT PRIMER AND ONE FINISH COAT YELLOW.
8. GAS COCKS TO BE SUITABLE FOR GAS SERVICE.
9. INTERIOR GAS PIPING SHALL NOT RUN IN OR THROUGH AN AIR DUCT, CLOTHES CHUTE, CHIMNEY OR VENT, VENTILATING DUCT, DUMBWAITER, ELEVATOR SHAFT, OR CONCEALED PLENUM.
10. PIPING SHALL NOT BE LOCATED IN SOLID PARTITIONS OR SOLID WALLS, UNLESS INSTALLED IN A CHASE OR CASING.
11. PIPING SHALL NOT BE USED AS A GROUNDING ELECTRODE.
12. PIPING INSTALLED THROUGH A MASONRY WALL SHALL BE ENCASED IN A SLEEVE. THE SLEEVE SHALL BE SEALED OUTSIDE OF THE FOUNDATION WALL TO PREVENT ENTRY OF WATER. GAS PIPING SHALL NOT PENETRATE A BUILDING FOUNDATION WALL BELOW GRADE.
13. PIPE SUPPORT BOTH INDOOR AND OUTDOOR SHALL BE DESIGNED AND INSTALLED BY INSTALLING CONTRACTOR COMPLYING WITH THE REQUIREMENTS OF LOCAL, STATE, AND NATIONAL CODES ADOPTED BY AHJ.
14. GAS PRESSURE REGULATORS THAT REQUIRE A VENT SHALL HAVE AN INDEPENDENT VENT TO OUTSIDE OF THE BUILDING. THE VENT SHALL BE TERMINATED SO AS TO PREVENT THE ENTRY OF WATER OR FOREIGN OBJECTS.
15. INCOMING GAS SERVICE, PRESSURE REGULATOR AND METER BY GAS UTILITY COMPANY TO DELIVER INDICATED GAS FLOW RATE @ 7" W.C. DOWNSTREAM OF PRESSURE REGULATOR AND METER.
16. LABEL GAS PIPING EVERY 20' AND AT EVERY 90 DEG ELBOW. LABEL ALL GAS VALVES.
17. GAS PIPE SHALL BE DESIGNED BASED ON 984 CFH AND 175 FT. OF MAXIMUM DEVELOPED LENGTH OF GAS PIPE. IF CONTRACTOR FINDS ANY DEVIATION IN THE VOLUMETRIC FLOW RATE OR THE LENGTH OF THE PIPE THAN THE CONTRACTOR SHALL RESIZE THE GAS PIPE BASED ON THE CODE SPECIFIED. CONTRACTOR TO VERIFY THE PIPE SIZE AND ROUTING WITH ENGINEER BEFORE THE INSTALLATION.
18. ALL PIPING SYSTEMS SHALL BE TESTED FOR GAS TIGHTNESS PRIOR TO BEING PUT INTO SERVICE OR CONCEALED. TESTING, INSPECTION, AND PURGING SHALL BE PERFORMED IN ACCORDANCE WITH IFGC SECTIONS 406 & 404

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0	02/25/26	ISSUED FOR PERMIT

PROJECT NO.	2025-23
DRAWN BY	H.T.
CHECKED BY	A.D.
SHEET	07 OF 07

GAS RISER DIAGRAM

PROFESSIONAL SEAL

PROFESSIONAL ENGINEER
SUSHIL KUMAR
062.065806
STATE OF ILLINOIS

EXP:11/30/2027

P4.0

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ELECTRICAL LEGEND

POWER

- ABOVE COUNTER QUADPLEX RECEPTACLE
- ABOVE COUNTER DUPLEX RECEPTACLE
- QUADPLEX RECEPTACLE
- DUPLEX RECEPTACLE
- GFI ABOVE COUNTER QUADPLEX RECEPTACLE
- GFI ABOVE COUNTER DUPLEX RECEPTACLE
- GFI QUADPLEX RECEPTACLE
- GFI DUPLEX RECEPTACLE
- USB DUPLEX RECEPTACLE
- SPECIAL RECEPTACLE
- WEATHER PROOF/GFI DUPLEX RECEPTACLE
- CEILING DUPLEX RECEPTACLE
- CEILING QUADPLEX RECEPTACLE
- CEILING SPECIAL RECEPTACLE
- FLOOR QUADPLEX RECEPTACLE
- FLOOR DUPLEX RECEPTACLE
- GFI FLOOR QUADPLEX RECEPTACLE
- GFI FLOOR DUPLEX RECEPTACLE
- AUTOMATIC CONTROLLED SPLIT QUADPLEX RECEPTACLE
- AUTOMATIC CONTROLLED SPLIT DUPLEX RECEPTACLE
- ABOVE COUNTER AUTOMATIC CONTROLLED SPLIT QUADPLEX RECEPTACLE
- ABOVE COUNTER AUTOMATIC CONTROLLED SPLIT DUPLEX RECEPTACLE
- AUTOMATIC CONTROLLED SPLIT FLOOR QUADPLEX RECEPTACLE
- PANELBOARD
- E E — HARD WIRED CONNECTION - WALL /CEILING
- SPD — SURGE PROTECTIVE DEVICE
- J J — JUNCTION BOX(WALL MOUNTED)

LOW VOLTAGE

- ACP — ACCESS CONTROL PANEL
- VOICE/DATA OUTLET
- ABOVE COUNTER VOICE/DATA OUTLET
- FLOOR / CEILING VOICE/DATA OUTLET
- DATA OUTLET
- FLOOR / CEILING VOICE/DATA OUTLET
- VOICE OUTLET
- FLOOR / CEILING VOICE OUTLET

LIGHTING

- $ — SWITCH
- $D — DIMMER SWITCH
- $3W — 3 - WAY SWITCH
- $4W — 4 - WAY SWITCH
- $VS — VACANCY SENSOR (WALL MOUNT)
- $OS — OCCUPANCY SENSOR (WALL MOUNT)
- $M — LOW VOLTAGE MOMENTARY CONTACT SWITCH
- $OR — TIME CLOCK OVER RIDE SWITCH
- VS — VACANCY SENSOR (CEILING)
- OS — OCCUPANCY SENSOR (CEILING)
- DS — DAYLIGHT SENSOR (CEILING)
- RC — 0-10V DIMMING CONTROLLER(CEILING)
- MS — MOTION SENSOR (CEILING)
- BATTERY EMERGENCY LIGHT (WALL MOUNT)
- BATTERY EMERGENCY LIGHT (CEILING MOUNT)
- EXIT SIGN
- X — UPPERCASE LETTER DENOTES FIXTURE TAG
- x — LOWERCASE LETTER DENOTES SWITCH DESIGNATION

ANNOTATION

- X — KEY NOTE TAG

MISCELLANEOUS

- PP — POWER PACK
- PB — PULL BOX
- CONDUIT CONCEALED IN WALL, CEILING OR UNDERGROUND. CENTER LINES DENOTE UNDERGROUND/FLOOR CONDUIT. DASHED LINES DENOTE DEMOLITION. ARROWHEAD DENOTES HOMERUN TO PANEL. SLASHED DENOTE QUANTITY OF CONDUCTORS. DOT DENOTES GROUND. LONG SLASH DENOTES NEUTRAL CONDUCTOR. SHORT SLASH DENOTES PHASE CONDUCTOR, SWITCH LEG OR CONTROL.
- FLEXIBLE CONDUIT WHIP - MAX 6'-0" IN LENGTH
- M — CT CABINET AND UTILITY METER
- CIRCUIT BREAKER
- ENCLOSED CIRCUIT BREAKER
- FUSED SWITCH
- DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH

ELECTRICAL ABBREVIATIONS

ACP	ACCESS CONTROL PANEL
AOR	AREA OF RESCUE
AF	AMPERE FRAME
AFF	ABOVE FINISHED FLOOR
AT	AMPERE TRIP
BOH	BACK OF HOUSE
C	CEILING MOUNTED
CL	CENTER LINE
CKT	CIRCUIT
CR	CARD READER
D	DEDICATED
DG	DOWNERS GROVES
DP	DISTRIBUTION PANEL
EBC	EXTENDED BATTERY CABINET
EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EX	EXISTING
ETR	EXISTING TO REMAIN
EPO	EMERGENCY PUSH OFF
ER	EXISTING, RELOCATED
FAC	FIRE ALARM CONTRACTOR
FPC	FIRE PROTECTION CONTRACTOR
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
HD	HAND DRYER
LVC	LOW VOLTAGE CONTRACTOR
MDP	MAIN DISTRIBUTION PANEL
MC	MECHANICAL CONTRACTOR
MT	MOUNT
NL	NIGHT LIGHT
PC	PLUMBING CONTRACTOR
PL	PILOT LIGHT
SM	SURFACE MOUNT
TC	TIMECLOCK
TGB	TELECOMMUNICATIONS GROUND BUS
TTC	TELEPHONE TERMINAL CABINET
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
W	WALL MOUNT AT 48" A.F.F.
WP	WEATHERPROOF

FEEDER SCHEDULE

200	3#3/0AWG CU THWN & 1#6AWG CU THWN EGC IN 2" C
100	3#1AWG CU THWN & 1#8AWG CU THWN EGC IN 1-1/2" C
EX	EXISTING FEEDER

LINE WEIGHT LEGEND

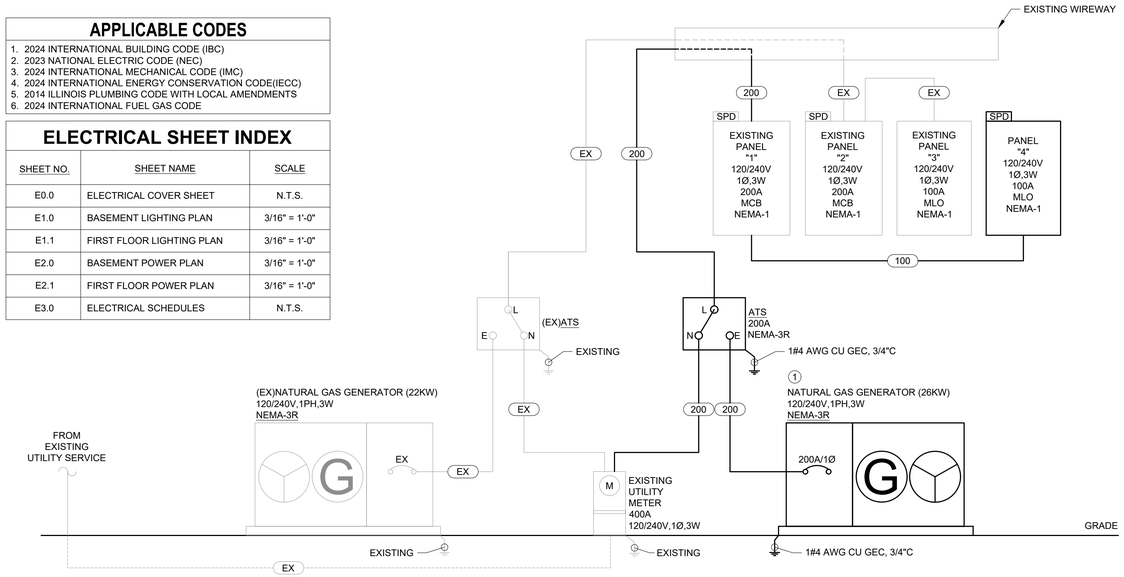
- NEW
- EXISTING

APPLICABLE CODES

1. 2024 INTERNATIONAL BUILDING CODE (IBC)
2. 2023 NATIONAL ELECTRIC CODE (NEC)
3. 2024 INTERNATIONAL MECHANICAL CODE (IMC)
4. 2024 INTERNATIONAL ENERGY CONSERVATION CODE(IECC)
5. 2014 ILLINOIS PLUMBING CODE WITH LOCAL AMENDMENTS
6. 2024 INTERNATIONAL FUEL GAS CODE

ELECTRICAL SHEET INDEX

SHEET NO.	SHEET NAME	SCALE
E0.0	ELECTRICAL COVER SHEET	N.T.S.
E1.0	BASEMENT LIGHTING PLAN	3/16" = 1'-0"
E1.1	FIRST FLOOR LIGHTING PLAN	3/16" = 1'-0"
E2.0	BASEMENT POWER PLAN	3/16" = 1'-0"
E2.1	FIRST FLOOR POWER PLAN	3/16" = 1'-0"
E3.0	ELECTRICAL SCHEDULES	N.T.S.



1 EXISTING ELECTRICAL ONE-LINE DIAGRAM

SCALE: N.T.S.

ONE-LINE GENERAL NOTES:

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ARC-FLASH HAZARD WARNING FIELD LABELING TO ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC 110.16. SERVICE EQUIPMENT SHALL BE MARKED TO INDICATED THE MAXIMUM AVAILABLE FAULT CURRENT AS REQUIRED BY NEC SECTION 110.24. THE FIELD MARKING(S) SHALL INCLUDE THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED AND BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED. ELECTRICAL CONTRACTOR SHALL REQUEST A DATED LETTER WITH FAULT CURRENT INFORMATION FROM THE LOCAL UTILITY.
2. FEEDER SIZES INDICATED ARE BASED UPON COPPER CONDUCTORS. ALUMINUM CONDUCTORS MAY BE ALLOWED WITH PRIOR OWNER AND AHJ AUTHORIZATION. IF ALUMINUM CONDUCTORS ARE SUBSTITUTED FOR THE COPPER CONDUCTORS INDICATED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE FOLLOWING TO THE ENGINEER FOR REVIEW AND APPROVAL: REVISED FEEDER SIZES, VOLTAGE DROP CALCULATIONS, AND REVISED KAIC CALCULATIONS. ADDITIONALLY, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE CIVIL ENGINEER AND UTILITY COMPANY FOR ANY RESTRICTIONS REGARDING MAXIMUM QUANTITY OF ALLOWABLE CONDUCTORS, CONDUCTOR MATERIAL REQUIREMENTS, ETC.
3. THE CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS COMBINED SHALL BE SIZED FOR A MAXIMUM OF 5 PERCENT VOLTAGE DROP TOTAL, IN ACCORDANCE WITH THE 2018 CEC. CALCULATIONS SHALL BE COMPLETED BY THE ELECTRICAL CONTRACTOR BASED ON ACTUAL FIELD INSTALLATIONS AND DISTANCES PRIOR TO ROUGH-IN.
4. PROVIDE NEW CIRCUIT BREAKER(S) MATCHING EXISTING PANEL BOARD MANUFACTURER AND AIC RATING. AIC RATING BASED ON EXISTING DRAWINGS, FIELD VERIFY PRIOR TO CIRCUIT BREAKER INSTALLATION.
5. EC SHALL FIELD VERIFY ALL CIRCUITS AND CREATE A CIRCUIT BREAKER DIRECTORY FOR ALL BREAKERS ON THE PANEL. CONTRACTOR SHALL REMOVE THE EXISTING CIRCUIT BREAKER DIRECTORY AND REPLACE WITH NEW.
6. FEEDER CONDUCTORS FROM THE UTILITY SERVICE POINT TO ALL THE EXISTING PANELS ARE EXISTING AND SHALL REMAIN AS-IS. NO MODIFICATIONS OR VERIFICATION ARE REQUIRED UNLESS DIRECTED BY THE UTILITY PROVIDER. THE ELECTRICAL CONTRACTOR (EC) SHALL COORDINATE WITH THE UTILITY COMPANY FOR RECONNECTION AS NEEDED.
7. THE EC SHALL COORDINATE ROUTING, ACCESS, AND WORK SCHEDULE WITH OTHER TRADES TO AVOID CONFLICTS WITH EXISTING SYSTEMS, FINISHES, AND MECHANICAL/ELECTRICAL INFRASTRUCTURE.
8. THE EC SHALL CONFIRM THAT ALL PANELS AND ELECTRICAL EQUIPMENT MAINTAIN PROPER WORKING CLEARANCES PER NEC ARTICLE 110.26. ANY VIOLATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR RESOLUTION.
9. THE EC SHALL VERIFY THE PRESENCE AND INTEGRITY OF ALL GROUNDING AND BONDING CONNECTIONS, INCLUDING PANEL GROUND BUSES AND GROUNDING ELECTRODE CONDUCTORS. DEFICIENCIES SHALL BE CORRECTED PER NEC REQUIREMENTS.
10. THE EC SHALL IDENTIFY ANY SPARE BREAKERS, UNUSED CIRCUITS, OR ABANDONED WIRING IN EXISTING PANELS. UNUSED CONDUCTORS SHALL BE REMOVED OR PROPERLY TERMINATED AND LABELED IN ACCORDANCE WITH NEC STANDARDS.
11. EXISTING PANELBOARDS AND ASSOCIATED ELECTRICAL EQUIPMENT SHOWN ON THE SLD ARE ASSUMED TO REMAIN. THE EC SHALL VERIFY THE CONDITION AND CODE COMPLIANCE OF ALL COMPONENTS. ANY DAMAGED OR NON-COMPLIANT ITEMS SHALL BE REPORTED PRIOR TO REUSE.
12. PROVIDE A GROUNDING ELECTRODE CONDUCTOR (GEC) FROM EACH GENERATOR TO THE GROUNDING ELECTRODE SYSTEM (MINIMUM TWO RODS OR AS APPROVED BY AHJ).
13. INSTALL THE 26KW WEATHER PROOF ENCLOSURE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE 2017 (NEC), LOCAL BUILDING CODES, AND MANUFACTURERS SPECIFICATIONS.

X **ONE-LINE KEY NOTES:**

1. MAIN BREAKER IS MANUFACTURER INSTALLED IN GENERATOR, EC TO REFER EQUIPMENT CUTSHEET PRIOR TO ROUGH IN, EC SHALL COMPLY THE MANUFACTURER AND NEC GUIDELINES FOR INSTALLATION.

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4	09/09/26	REVISION #4

PROJECT NO.	2025-23
DRAWN BY	S.P.
CHECKED BY	D.P.
SHEET	01 OF 06

ELECTRICAL COVER SHEET

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065806 STATE OF ILLINOIS

EXP:11/30/2027

E0.0

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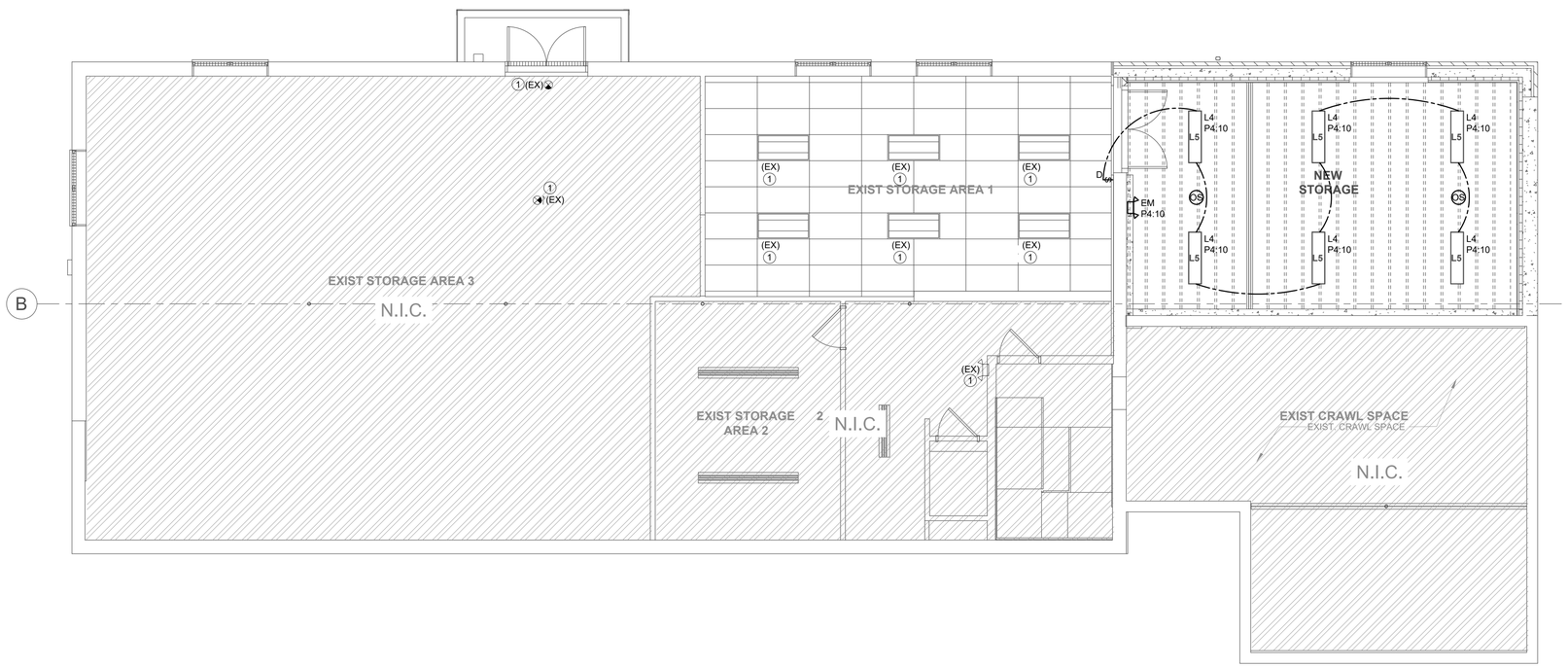
LIGHTING GENERAL NOTES:

1. ALL 20A BRANCH CIRCUITS SHALL USE #12AWG CONDUCTORS IN 3/4"C MINIMUM. CONTRACTOR SHALL PROVIDE HOMERUNS TO ELECTRICAL PANELS AS REQUIRED. EACH CIRCUIT SHALL CONTAIN A DEDICATED NEUTRAL CONDUCTOR FOR A MAX. OF (1) NETWORK PER HOMERUN. ALL FEEDERS OR BRANCH CIRCUITS GREATER THAN 75' IN LENGTH SHALL BE INCREASED IN SIZE AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP.
2. EMERGENCY LIGHTING MUST BE PROVIDED IN ALL EXIT ACCESS AREAS, CORRIDORS, AND NEAR EXIT DOORS.THE SYSTEM MUST PROVIDE A MINIMUM OF 1 FOOT-CANDLE (10.8 LUX) OF ILLUMINATION ALONG ALL EGRESS PATHS AND BE CONNECTED TO A RELIABLE EMERGENCY POWER SOURCE, ENSURING 90 MINUTES OF BACKUP POWER DURING A POWER FAILURE.
3. ALL LIGHTING MUST COMPLY WITH THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC). USE OF LED FIXTURES, MOTION SENSORS, AND AUTOMATIC LIGHTING CONTROLS TO MINIMIZE ENERGY CONSUMPTION AND MAXIMIZE OPERATIONAL EFFICIENCY IS REQUIRED.
4. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS FOR GENERAL LIGHTING. EXIT SIGN AND BATTERY EMERGENCY LIGHTING SHALL BE BASED ON THE ENGINEERING PLANS.
5. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH ITS OWN DEDICATED NEUTRAL CONDUCTOR, AS REQUIRED BY NEC 210.4(B), TO ENSURE BALANCED LOADING, REDUCE THE RISK OF OVERHEATING, AND MAINTAIN COMPLIANCE WITH CODE.
6. ROUTING OF ALL FIXTURE WIRING SHALL BE CONCEALED AND RUN IN A NEAT AND WORKMANLIKE MANNER.
7. ALL LIGHTING FIXTURES MUST BE UL-LISTED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. FIXTURES SHOULD BE PLACED IN LOCATIONS THAT DO NOT OBSTRUCT MEANS OF EGRESS OR VIOLATE REQUIRED CLEARANCE SPACE, ENSURING SAFETY AND ACCESSIBILITY.
8. LIGHTING CIRCUITS MUST BE CONTROLLED BY SUITABLE SWITCHES AND DIMMING SYSTEMS WHERE NECESSARY. ALL SWITCHES MUST BE EASILY ACCESSIBLE, PROPERLY LABELED, AND DESIGNED TO ALLOW EFFICIENT CONTROL OF THE LIGHTING SYSTEM.

(X) LIGHTING KEYNOTES:

1. EXISTING LIGHT FIXTURE, IT'S CONTROL AND CIRCUIT SHALL REMAIN. ELECTRICAL CONTRACTOR (EC) SHALL FIELD-VERIFY EXISTING CONDITIONS AND CONNECTIONS TO ENSURE COMPLIANCE WITH APPLICABLE CODES AND STANDARDS.



NORTH

1 BASEMENT LIGHTING PLAN
SCALE: 3/16" = 1'-0"

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DRAWN BY	S.P.
CHECKED BY	D.P.
SHEET	02 OF 06

BASEMENT LIGHTING PLAN

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065805 STATE OF ILLINOIS

EXP:11/30/2027

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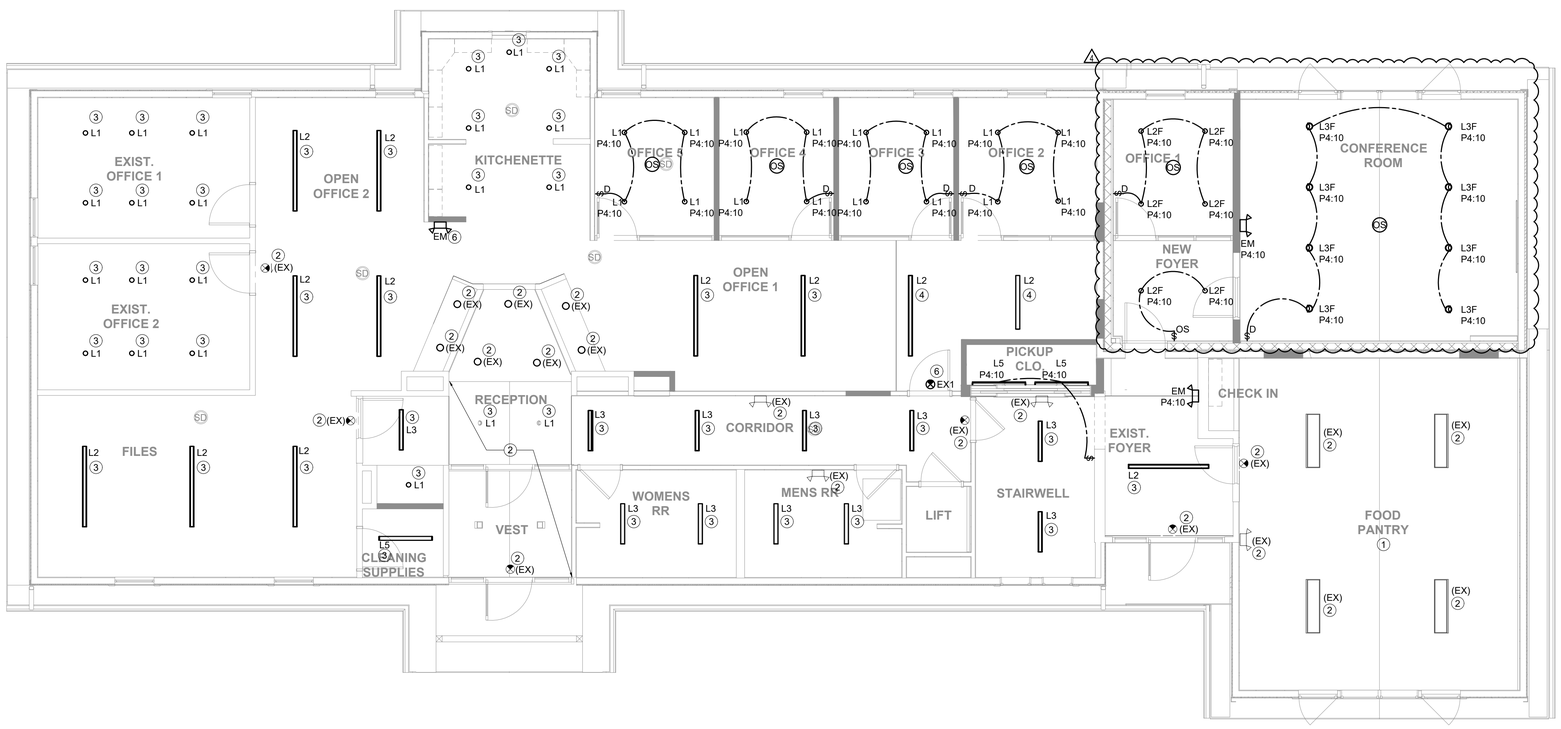

NORTH

1 FIRST FLOOR LIGHTING PLAN

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

LIGHTING GENERAL NOTES:

1. ALL 20A BRANCH CIRCUITS SHALL USE #12AWG CONDUCTORS IN 3/4"C MINIMUM. CONTRACTOR SHALL PROVIDE HOMERUNS TO ELECTRICAL PANELS AS REQUIRED. EACH CIRCUIT SHALL CONTAIN A DEDICATED NEUTRAL CONDUCTOR FOR A MAX. OF (1) NETWORK PER HOMERUN. ALL FEEDERS OR BRANCH CIRCUITS GREATER THAN 75' IN LENGTH SHALL BE INCREASED IN SIZE AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP.
2. EMERGENCY LIGHTING MUST BE PROVIDED IN ALL EXIT ACCESS AREAS, CORRIDORS, AND NEAR EXIT DOORS.THE SYSTEM MUST PROVIDE A MINIMUM OF 1 FOOT-CANDLE (10.8 LUX) OF ILLUMINATION ALONG ALL EGRESS PATHS AND BE CONNECTED TO A RELIABLE EMERGENCY POWER SOURCE, ENSURING 90 MINUTES OF BACKUP POWER DURING A POWER FAILURE.
3. ALL LIGHTING MUST COMPLY WITH THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC). USE OF LED FIXTURES, MOTION SENSORS, AND AUTOMATIC LIGHTING CONTROLS TO MINIMIZE ENERGY CONSUMPTION AND MAXIMIZE OPERATIONAL EFFICIENCY IS REQUIRED.
4. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS FOR GENERAL LIGHTING. EXIT SIGN AND BATTERY EMERGENCY LIGHTING SHALL BE BASED ON THE ENGINEERING PLANS.
5. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH ITS OWN DEDICATED NEUTRAL CONDUCTOR, AS REQUIRED BY NEC 210.4(B), TO ENSURE BALANCED LOADING, REDUCE THE RISK OF OVERHEATING, AND MAINTAIN COMPLIANCE WITH CODE.
6. ROUTING OF ALL FIXTURE WIRING SHALL BE CONCEALED AND RUN IN A NEAT AND WORKMANLIKE MANNER.
7. ALL LIGHTING FIXTURES MUST BE UL-LISTED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. FIXTURES SHOULD BE PLACED IN LOCATIONS THAT DO NOT OBSTRUCT MEANS OF EGRESS OR VIOLATE REQUIRED CLEARANCE SPACE, ENSURING SAFETY AND ACCESSIBILITY.
8. LIGHTING CIRCUITS MUST BE CONTROLLED BY SUITABLE SWITCHES AND DIMMING SYSTEMS WHERE NECESSARY. ALL SWITCHES MUST BE EASILY ACCESSIBLE, PROPERLY LABELED, AND DESIGNED TO ALLOW EFFICIENT CONTROL OF THE LIGHTING SYSTEM.

(X) LIGHTING KEYNOTES:

1. EC SHALL PROVIDE POWER TO THE EXISTING LIGHTING FIXTURE IN THESE AREA AS PER MANUFACTURER GUIDELINES AND THE NEC CLEARANCES. CONTROLLING WILL REMAIN. VERIFY AT SITE IF NEEDED PROVIDE NEW CONTROL. COORDINATE WITH THE OWNER BEFORE ANY INSTALLATION.
2. EXISTING LIGHT FIXTURE, IT'S CONTROL AND CIRCUIT SHALL REMAIN. ELECTRICAL CONTRACTOR (EC) SHALL FIELD-VERIFY EXISTING CONDITIONS AND CONNECTIONS TO ENSURE COMPLIANCE WITH APPLICABLE CODES AND STANDARDS.
3. EC SHALL FEED NEW LIGHT FIXTURES FROM THE SAME CIRCUIT SERVING PREVIOUS FIXTURE OF THAT AREA AND PROVIDE THE SAME CONTROLLING AS PREVIOUS FIXTURES. IF REQUIRED PROVIDE NEW CIRCUITS AND CONTROLLING AT SITE AFTER VERIFYING. COORDINATE WITH THE OWNER BEFORE ANY INSTALLATION.
4. EC SHALL FEED NEW LIGHT FIXTURES FROM THE SAME CIRCUIT SERVING ADJACENT LIGHT FIXTURE OF THAT AREA AND PROVIDE THE SAME CONTROLLING AS ADJACENT FIXTURES TO KEEP SAME CONTROLLING FOR ENTIRE AREA. IF REQUIRED PROVIDE NEW CIRCUITS AND CONTROLLING AT SITE AFTER VERIFYING. COORDINATE WITH THE OWNER BEFORE ANY INSTALLATION.
5. EC TO VERIFY WHETHER AN EXIT SIGN IS EXISTING AT THIS LOCATION. IF EXISTING, RETAIN; IF NOT, PROVIDE A NEW EXIT SIGN PER PLANS.
6. EC SHALL FEED NEW LIGHT FIXTURES FROM THE SAME CIRCUIT SERVING ADJACENT LIGHT FIXTURE OF THAT AREA. IF REQUIRED PROVIDE NEW CIRCUITS AT SITE AFTER VERIFYING. COORDINATE WITH THE OWNER BEFORE ANY INSTALLATION.

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CHECKED BY	D.P.
SHEET	03 OF 06

FIRST FLOOR LIGHTING PLAN

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065805 STATE OF ILLINOIS

EXP:11/30/2027

E1.1

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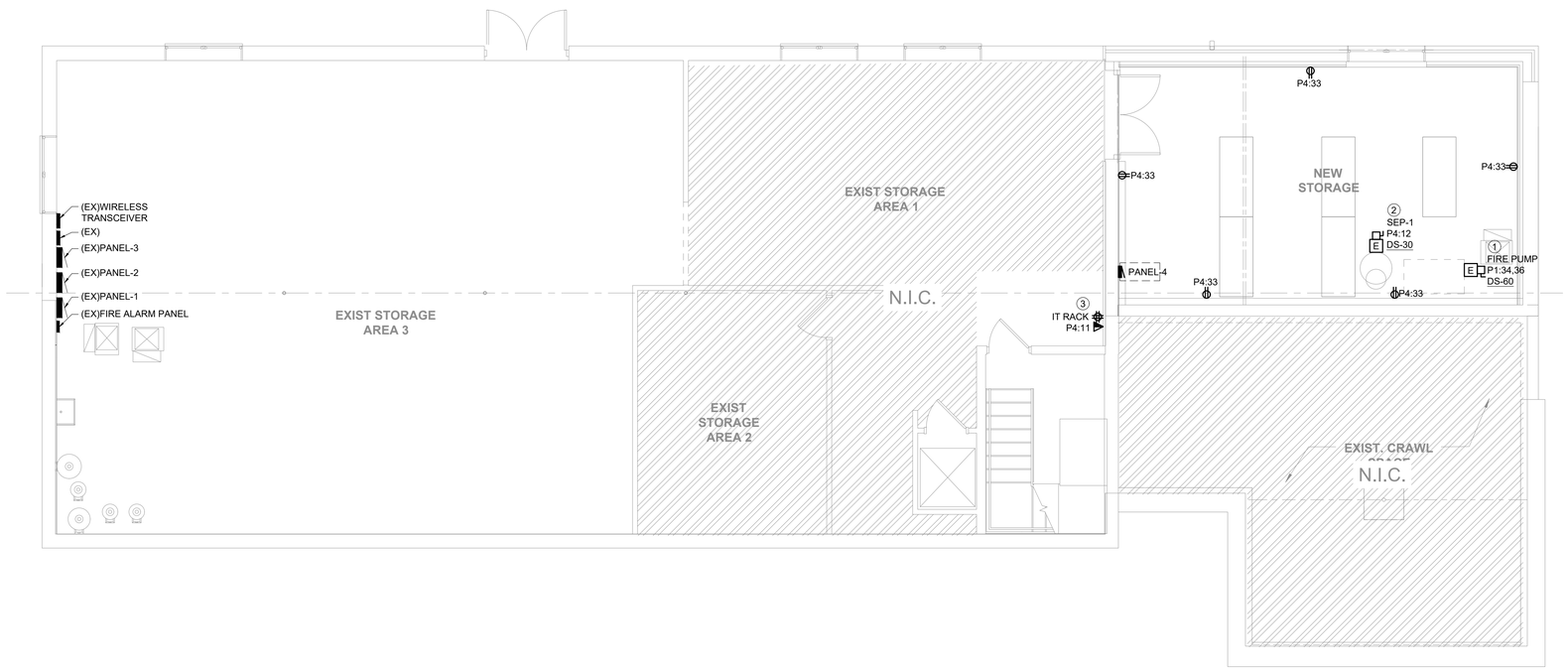

NORTH

1 BASEMENT POWER PLAN

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

POWER GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH 2017 NEC, 2021 IECC WITH BARRINGTON AMENDMENTS. OBTAIN PERMITS AND COORDINATE INSPECTIONS WITH THE LOCAL AHJ AND UTILITY PROVIDER.
2. ALL FEEDERS AND BRANCH CIRCUITS SHALL USE COPPER CONDUCTORS IN EMT (OR RIGID/IMC AS REQUIRED). SIZE PER NEC 215 & 210 INCLUDING 125% FOR CONTINUOUS LOADS. VOLTAGE DROP SHALL NOT EXCEED 5% TOTAL.
3. PROVIDE A DEDICATED NEUTRAL FOR EACH CIRCUIT. ALL NEUTRALS AND GROUNDS MUST BE CONTINUOUS AND PROPERLY SIZED. MULTIWIRE BRANCH CIRCUITS SHALL HAVE A COMMON DISCONNECT.
4. PANELBOARDS SHALL BE CLEARLY LABELED WITH TYPED DIRECTORIES. MAINTAIN 36" CLEARANCE AND MOUNT PER NEC 408. ALL PANELS SHALL BE GROUNDED AND BONDED PER NEC 250.
5. GROUNDING SYSTEM SHALL INCLUDE BONDING TO WATER SERVICE, STRUCTURAL STEEL, AND TWO GROUND RODS 6' APART PER NEC 250 AND LOCAL CODE. GROUND ALL METALLIC CONDUIT AND ENCLOSURES.
6. VOLTAGE DROP ON FEEDERS AND BRANCH CIRCUITS SHALL NOT EXCEED 3% INDIVIDUALLY OR 5% COMBINED. UPSIZE CONDUCTORS AS REQUIRED.
7. PROVIDE GFCI PROTECTION FOR ALL 125V, 15A AND 20A RECEPTACLES LOCATED IN RESTROOMS, KITCHENS, WITHIN 6 FEET OF SINKS, AND IN WET OR DAMP LOCATIONS, AS REQUIRED BY NEC 210.8. PROTECTION SHALL BE PROVIDED USING GFCI BREAKERS OR GFCI RECEPTACLES, AS APPROPRIATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL REQUIRED LOCATIONS IN THE FIELD.
8. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH ITS OWN DEDICATED NEUTRAL CONDUCTOR, AS REQUIRED BY NEC 210.4(B), TO ENSURE BALANCED LOADING, REDUCE THE RISK OF OVERHEATING, AND MAINTAIN COMPLIANCE WITH CODE.
9. ALL 20A BRANCH CIRCUITS SHALL USE #12AWG CONDUCTORS IN 3/4"C MINIMUM. CONTRACTOR SHALL PROVIDE HOMERUNS TO ELECTRICAL PANELS AS REQUIRED. EACH CIRCUIT SHALL CONTAIN A DEDICATED NEUTRAL CONDUCTOR FOR A MAX. OF (1) NETWORK PER HOMERUN. ALL FEEDERS OR BRANCH CIRCUITS GREATER THAN 75' IN LENGTH SHALL BE INCREASED IN SIZE AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP. ALL OTHER CIRCUITS CONDUCTORS SHALL BE SIZED TO MATCH THEIR RESPECTIVE OVER CURRENT PROTECTIVE DEVICES UNO.

ⓧ ELECTRICAL POWER KEYNOTES:

1. EC SHALL COORDINATE WITH THE MC/PC FOR EXACT LOCATION OF FIRE PUMP, PRIOR TO START OF WORK. PROVIDE ELECTRICAL CONNECTION AND DISCONNECT AS PER THE REQUIREMENT ALSO COMPLY WITH NEC AND LOCAL AHJ REQUIREMENTS. THE LOCATION IS JUST SHOWN FOR REPRESENTATION.
2. E.C TO FIELD COORDINATE EXACT LOCATION AND/OR MOUNTING HEIGHT WITH MECHANICAL/PLUMBING CONTRACTOR.
3. E.C TO FIELD COORDINATE EXACT LOCATION AND/OR MOUNTING HEIGHT WITH OWNER/ARCHITECT.

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CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info:

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	

POST BID/PERMIT REVISIONS:

No.	Date	Description
2	07/01/26	REVISION #2
3	08/26/26	REVISION #3
4	09/09/26	REVISION #4

PROJECT NO.	2025-23
DRAWN BY	S.P.
CHECKED BY	D.P.
SHEET	04 OF 06

BASEMENT POWER PLAN

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065805 STATE OF ILLINOIS

EXP:11/30/2027

E2.0

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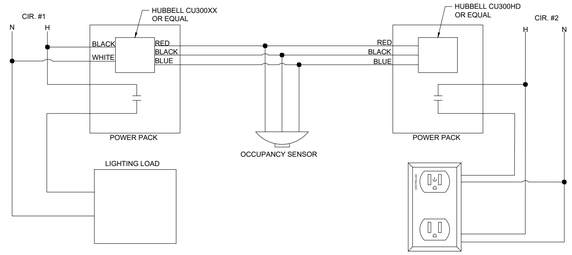

2 AUTOMATIC RECEPTACLE CONTROL
SCALE: N.T.S.

AUTOMATIC RECEPTACLE CONTROL (ARC) REQUIREMENT (IECC 2021, SECTION C405.12.1)

1. AT LEAST 50% OF ALL 125V, 15- AND 20-AMP RECEPTACLES IN ENCLOSED OFFICES, CONFERENCE ROOMS, COPY/PRINT ROOMS, BREAKROOMS, CLASSROOMS, AND INDIVIDUAL WORKSTATIONS (INCLUDING THOSE IN MODULAR FURNITURE SYSTEMS) SHALL BE AUTOMATICALLY CONTROLLED USING OCCUPANCY SENSORS OR TIME SCHEDULING.
2. AT LEAST 25% OF THE BRANCH CIRCUIT FEEDERS SERVING MODULAR FURNITURE SYSTEMS, NOT EXPLICITLY SHOWN ON THE CONSTRUCTION DOCUMENTS, SHALL BE AUTOMATICALLY CONTROLLED.
3. RECEPTACLES AND FEEDERS MUST DISCONNECT DURING PERIODS OF VACANCY OR BASED ON A TIME SCHEDULE TO COMPLY WITH ENERGY EFFICIENCY STANDARDS.

POWER GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH 2017 NEC, 2021 IECC WITH BARRINGTON AMENDMENTS. OBTAIN PERMITS AND COORDINATE INSPECTIONS WITH THE LOCAL AHJ AND UTILITY PROVIDER.
2. ALL FEEDERS AND BRANCH CIRCUITS SHALL USE COPPER CONDUCTORS IN EMT (OR RIGID/IMC AS REQUIRED). SIZE PER NEC 215 & 210 INCLUDING 125% FOR CONTINUOUS LOADS. VOLTAGE DROP SHALL NOT EXCEED 5% TOTAL.
3. PROVIDE A DEDICATED NEUTRAL FOR EACH CIRCUIT. ALL NEUTRALS AND GROUNDS MUST BE CONTINUOUS AND PROPERLY SIZED. MULTIWIRE BRANCH CIRCUITS SHALL HAVE A COMMON DISCONNECT.
4. PANELBOARDS SHALL BE CLEARLY LABELED WITH TYPED DIRECTORIES. MAINTAIN 36" CLEARANCE AND MOUNT PER NEC 408. ALL PANELS SHALL BE GROUNDED AND BONDED PER NEC 250.
5. GROUNDING SYSTEM SHALL INCLUDE BONDING TO WATER SERVICE, STRUCTURAL STEEL, AND TWO GROUND RODS 6' APART PER NEC 250 AND LOCAL CODE. GROUND ALL METALLIC CONDUIT AND ENCLOSURES.
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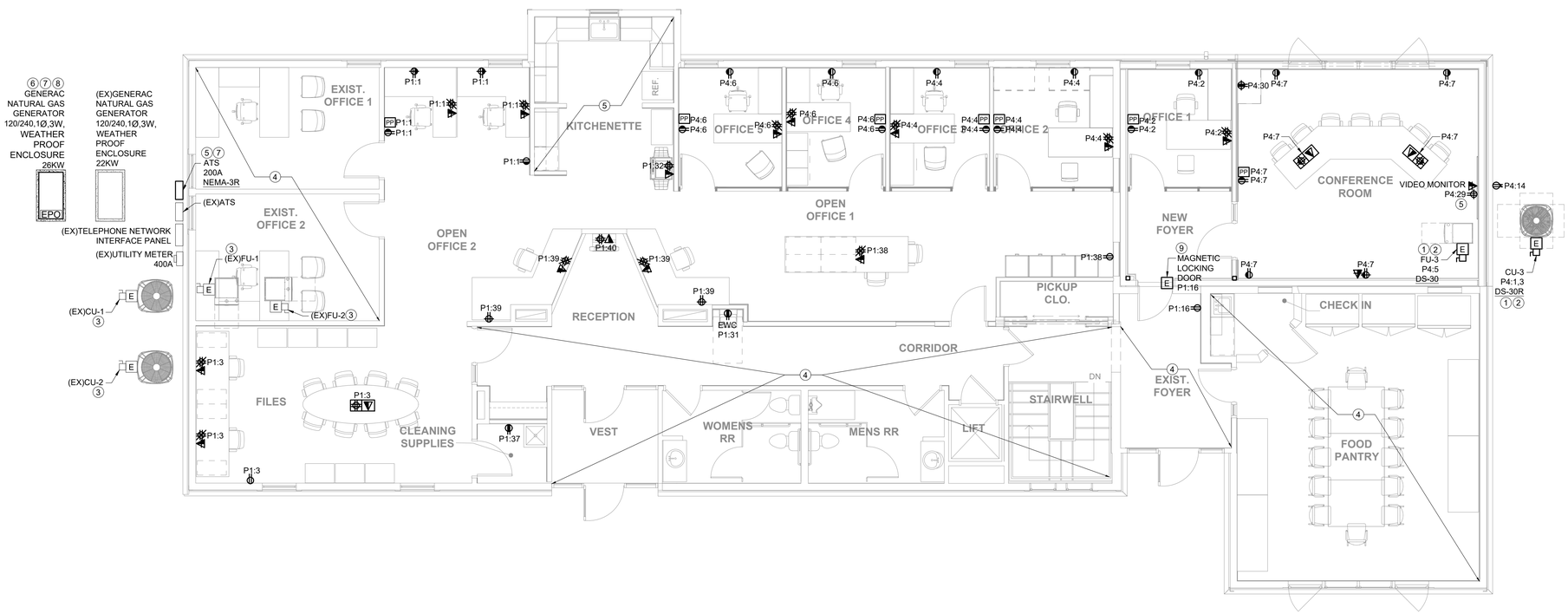
8. EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH ITS OWN DEDICATED NEUTRAL CONDUCTOR, AS REQUIRED BY NEC 210.4(B), TO ENSURE BALANCED LOADING, REDUCE THE RISK OF OVERHEATING, AND MAINTAIN COMPLIANCE WITH CODE.
9. ALL 20A BRANCH CIRCUITS SHALL USE #12AWG CONDUCTORS IN 3/4"C MINIMUM. CONTRACTOR SHALL PROVIDE HOMERUNS TO ELECTRICAL PANELS AS REQUIRED. EACH CIRCUIT SHALL CONTAIN A DEDICATED NEUTRAL CONDUCTOR FOR A MAX. OF (1) NETWORK PER HOMERUN. ALL FEEDERS OR BRANCH CIRCUITS GREATER THAN 75' IN LENGTH SHALL BE INCREASED IN SIZE AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP. ALL OTHER CIRCUITS CONDUCTORS SHALL BE SIZED TO MATCH THEIR RESPECTIVE OVER CURRENT PROTECTIVE DEVICES UNO.

ⓧ ELECTRICAL POWER KEYNOTES:

1. EC SHALL COORDINATE WITH THE MC FOR EXACT LOCATION OF MECHANICAL EQUIPMENT, PRIOR TO START OF WORK. PROVIDE ELECTRICAL CONNECTION AND DISCONNECT AS PER THE REQUIREMENT. THE LOCATION IS JUST SHOWN FOR REPRESENTATION.
2. E.C TO FIELD COORDINATE EXACT LOCATION AND/OR MOUNTING HEIGHT WITH MECHANICAL/PLUMBING CONTRACTOR.
3. EC TO VERIFY THE EXISTING ELECTRICAL CONNECTION & DISCONNECT FOR THE EXISTING MECHANICAL EQUIPMENT AT THE SITE.
4. EXISTING RECEPTACLES IN THE AREA ARE TO REMAIN UNLESS NOTED OTHERWISE. ELECTRICAL CONTRACTOR (EC) SHALL FIELD-VERIFY EXISTING CONDITIONS AND CONNECTIONS TO ENSURE COMPLIANCE WITH APPLICABLE CODES AND STANDARDS.
5. E.C TO FIELD COORDINATE EXACT LOCATION AND/OR MOUNTING HEIGHT WITH OWNER/ARCHITECT.
6. PROVIDE A LISTED SURGE PROTECTIVE DEVICE (SPD) AT THE GENERATOR OUTPUT AND AT THE AUTOMATIC TRANSFER SWITCH IN ACCORDANCE WITH NEC 700.8. COORDINATE SPD RATINGS WITH SYSTEM VOLTAGE, SHORT CIRCUIT RATING, AND UL 1449 TYPE 1 LISTING.
7. EC IS RESPONSIBLE FOR COORDINATING THE PRECISE POSITIONING OF ALL AUTOMATIC TRANSFER SWITCHES (ATS) WITH THE GC TO ENSURE ALIGNMENT WITH ACTUAL SITE CONDITIONS, PRIOR TO INSTALLATION,.
8. THE LOCATION OF THE GENERATOR IS BASED ON AN APPROXIMATE POSITION. THE ELECTRICAL CONTRACTOR (EC) SHALL COORDINATE WITH THE OWNER AND ARCHITECT TO DETERMINE THE EXACT LOCATION, ENSURING COMPLIANCE WITH ALL APPLICABLE NEC REQUIREMENTS, INCLUDING CLEARANCES, ACCESSIBILITY, AND VENTILATION.
9. EC SHALL FIELD-VERIFY MAGNETIC LOCKING DOOR POWER CONNECTION REQUIREMENTS AND DOOR OPERATING SYSTEM SPECIFICATIONS WITH THE VENDOR. THE DOOR CONTROL SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIRED EGRESS PATH AND LIFE SAFETY CODES.



NORTH

1 FIRST FLOOR POWER PLAN
SCALE: 3/16" = 1'-0"

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CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info:

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	

POST BID/PERMIT REVISIONS:

No.	Date	Description
2	07/01/26	REVISION #2
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4	09/09/26	REVISION #4

PROJECT NO.	2025-23
DRAWN BY	S.P.
CHECKED BY	D.P.
SHEET	05 OF 06

FIRST FLOOR
POWER PLAN

PROFESSIONAL ENGINEER
SUSHIL KUMAR
062.065805
STATE OF ILLINOIS
EXP:11/30/2027

E2.1

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TAG:	(EX)PANEL 1										
LOAD	LOAD TYPE	A	B	AMPS	CKT. NO.	CKT. NO.	AMPS	A	B	LOAD TYPE	LOAD
OFFICE AREA RECEPTACLE(S)	R	1440		20	1	2	20			R	EXISTING LOAD
OFFICE & RECEPTION AREA RECEPTACLE(S)	R		1440	20	3	4				R	
HALL WALL HEATER	H			30	5	6	20			HW	WATER HEATER
	H				7	8				HW	
FIRE ALARM	R			20	9	10	60			H	(EX)CU-1
SPACE					11	12				H	
LIFTS	EQ			30	13	14	50			H	(EX)CU-2
SPACE					15	16				H	
SPACE					17	18	20			L	EXTERIOR LIGHTS
FURNACE UNIT	H			40	19	20	20			H	LOBBY WALL HEAT
	H				21	22				H	
WATER SOFTNER	EQ			20	23	24	20			H	LOBBY WALL HEAT
EXTERIOR RECEPTACLE(S)	R			20	25	26				H	
SPACE					27	28	20			L	EXTERIOR LIGHTS
SPACE					29	30					SPACE
DRINKING FOUNTAIN COORRIDOR	EQ		370	20	31	32	20		360	EQ	COPIER MACHINE
PANEL-4	P	6329		100	33	34	20	1865		EQ	FIRE PUMP * NOTE-6
	P		7776		35	36			1865	EQ	
CLEANING SUPPLIES ARE A RECEPTACLE(S)	R	180		20	37	38	20	900		R	OPEN OFF.1 & NEW (STORAGE,FOYER RECEPTACLE(S)
OPEN OFFICE-2 RECEPTACLE(S)	R		1080	20	39	40	20		360	R	IPAD KIOSK
SPACE					41	42					SPACE
SUBTOTAL #1		7949	10666					2765	2585		**SUBTOTAL #2**
SUBTOTAL #2		2765	2585								
SUBTOTAL #1 + #2		**10714**	**13251**								

NEW ADDED PANEL LOAD:	23.97	KVA	99.9	**AMPS.**	78.4	**NEW ADDED DEMAND AMPS**
VOLTS:	120/240V	1PH	3W	**MIN. WITHSTAND:**	EXISTING	
MAINS:	200	A MCB				
MOUNTING:	SURFACE			AF=ARC FAULT,GF=GROUND FAULT,SC=SFCI,LO=LOCK ON		

NOTES:
1.CONTRACTOR SHALL PROVIDE ADEQUATE WITHSTAND RATING OF EQUIPMENT PER AVAILABLE FAULT CURRENT FROM THE EXISTING UTILITY OR DISTRIBUTION. COORDINATE WITH UTILITY.
2.THE CONTRACTOR SHALL ADJUST CIRCUITS AS REQUIRED BASED ON FINAL EQUIPMENT TO MAINTAIN 10% LOADING BETWEEN PHASES.
3.VERIFY ELECTRICAL REQUIREMENTS AND EQUIPMENT LOCATION PRIOR TO ROUGH-IN.
5.BOLD BREAKER AMPS TEXT DENOTES NEW CIRCUIT BREAKER IN THE EXISTING PANEL.
6. 20A/2P = 2#12 & 1#12 GND IN 3/4"C.

TAG:	(EX)PANEL-2										
LOAD	LOAD TYPE	A	B	AMPS	CKT. NO.	CKT. NO.	AMPS	A	B	LOAD TYPE	LOAD
EXISTING OFFICE AREA LIGHTS	L			20	1	2	20			EQ	EXISTING VOLTAGE SUPPRESSOR
EXISTING OFFICE & NEW OPEN OFFICE LIGHTS	L			20	3	4				EQ	
EXISTING EM LIGHTS	L			20	5	6	20			R	EXISTING OFFICE RECEPTACLE(S)
EXISTING OFFICE RECEPTACLE(S)	R			20	7	8	20			L	EXISTING ENTRY LIGHTS
EXISTING OFFICE RECEPTACLE(S)	R			20	9	10	20			R	EXISTING OFFICE RECEPTACLE(S)
EXISTING OFFICE RECEPTACLE(S)	R			20	11	12	20			R	EXISTING OFFICE RECEPTACLE(S)
EXISTING OFFICE RECEPTACLE(S)	R			20	13	14	20			R	EXISTING OFFICE RECEPTACLE(S)
EXISTING EXHAUST FAN	H			20	15	16	20			R	EXISTING OFFICE RECEPTACLE(S)
EXISTING BASEMENT LIGHTS	L			20	17	18	20			R	EXISTING OFFICE RECEPTACLE(S)
EXISTING BASEMENT RECEPTACLE(S)	R			20	19	20	20			L	EXISTING BATH LIGHTS
EXISTING LIGHTS	L			20	21	22	20			L	EXISTING JANITOR ROOM LIGHTS
EXISTING DOOR OPENER	EQ			20	23	24	20			R	EXISTING DEDICATED RECEPTACLE(S)
EXISTING RECEPTACLE(S)	R			20	25	26	20			EQ	EXISTING FRIDGE/FREEZER
EXISTING WATER HEATER	HW			20	27	28	20			R	EXISTING LOAD
EXISTING FRONT DESK RECEPTACLE(S)	R			20	29	30	20			R	EXISTING LOAD
EXISTING FRONT DESK RECEPTACLE(S)	R			20	31	32	20			R	EXISTING LOAD
EXISTING WELL PUMP	EQ			20	33	34	60			P	EXISTING PANEL-3
	EQ				35	36				P	
EXISTING LOAD	R			20	37	38	20			R	EXISTING LOAD
EXISTING LOAD	R			20	39	40	20			R	EXISTING LOAD
SUBTOTAL #1		0	0					0	0		**SUBTOTAL #2**
SUBTOTAL #2		0	0								
SUBTOTAL #1 + #2		**0**	**0**								

NEW ADDED PANEL LOAD:	0.00	KVA	0.0	**AMPS.**	0.0	**NEW ADDED DEMAND AMPS**
VOLTS:	120/240V	1PH	3W	**MIN. WITHSTAND:**	EXISTING	
MAINS:	200	A MCB				
MOUNTING:	SURFACE			AF=ARC FAULT,GF=GROUND FAULT,SC=SFCI,LO=LOCK ON		

NOTES:
1.CONTRACTOR SHALL PROVIDE ADEQUATE WITHSTAND RATING OF EQUIPMENT PER AVAILABLE FAULT CURRENT FROM THE EXISTING UTILITY OR DISTRIBUTION. COORDINATE WITH UTILITY.
2.THE CONTRACTOR SHALL ADJUST CIRCUITS AS REQUIRED BASED ON FINAL EQUIPMENT TO MAINTAIN 10% LOADING BETWEEN PHASES.
3.VERIFY ELECTRICAL REQUIREMENTS AND EQUIPMENT LOCATION PRIOR TO ROUGH-IN.

TAG:	(EX)PANEL-3										
LOAD	LOAD TYPE	A	B	AMPS	CKT. NO.	CKT. NO.	AMPS	A	B	LOAD TYPE	LOAD
EXISTING EAST FREEZER	EQ			20	1	2	20			EQ	EXISTING EAST FREEZER
EXISTING WEST FREEZER	EQ			20	3	4					SPACE
SPACE					5	6					SPACE
ASSEROR FURNACE	H			20	7	8	20			H	TOWN SKID FURNACE
SUBTOTAL #1		0	0					0	0		**SUBTOTAL #2**
SUBTOTAL #2		0	0								
SUBTOTAL #1 + #2		**0**	**0**								

NEW ADDED PANEL LOAD:	0.00	KVA	0.0	**AMPS.**	0.0	**NEW ADDED DEMAND AMPS**
VOLTS:	120/240V	1PH	3W	**MIN. WITHSTAND:**	EXISTING	
MAINS:	200	A MCB				
MOUNTING:	SURFACE			AF=ARC FAULT,GF=GROUND FAULT,SC=SFCI,LO=LOCK ON		

NOTES:
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3.VERIFY ELECTRICAL REQUIREMENTS AND EQUIPMENT LOCATION PRIOR TO ROUGH-IN.

GENERATOR SCHEDULE

TAG	MANUFACTURER	MODEL	FUEL TYPE	POWER (kW)	AMBIENT TEMPERATURE
NATURAL GAS GENERATOR	GENERAC OR EQUAL	G0007290-0 OR EQUAL	NATURAL GAS	26	50 °C

NOTES:
1. REFER TO MANUFACTURER SPECIFICATIONS FOR GENERATOR DETAILS.
2. GENERATOR SHOULD BE IN WEATHER-PROTECTED ENCLOSURE. THE REQUIREMENT OF SOUND ATTENUATED SHALL BE CONFIRM WITH CLIENT BEFORE ORDERING.

LUMINAIRE SCHEDULE

TAG	LUMINAIRE DECRIPTION	LUMINAIRE TYPE	CONTROL TYPE	LUMINAIRE MAX VA	LUMINAIRE VOLTS	MOUNTING	MANUFACTURING & CATALOG NUMBER
L1	4" ROUND RECESSED LED DOWNLIGHT	LED	0-10V	15.7	120	RECESSED	PROVIDED BY ARCHITECTURE / CLIENT
L2	6' LINEAR RECESSED LED LIGHT	LED	0-10V	72	120	RECESSED	PROVIDED BY ARCHITECTURE / CLIENT
L3	3' LINEAR RECESSED LED LIGHT	LED	0-10V	36	120	RECESSED	PROVIDED BY ARCHITECTURE / CLIENT
L4	LINEAR FLUSH MOUNT LED LIGHT	LED	0-10V	50.0	120	RECESSED	PROVIDED BY ARCHITECTURE / CLIENT
L5	4' LINEAR LED LIGHT	LED	0-10V	21.6	120	SURFACE	PROVIDED BY ARCHITECTURE / CLIENT
L2F	NUWATT 4" ROUND CANLESS DOWNLIGHT 2HR FIRE RATED	LED	0-10V	12.0	120	RECESSED	PROVIDED BY ARCHITECTURE / CLIENT
L3F	NUWATT 6" ROUND CANLESS DOWNLIGHT 2HR FIRE RATED	LED	0-10V	15.0	120	RECESSED	PROVIDED BY ARCHITECTURE / CLIENT
EM	WHITE THERMOPLASTIC WALL OR CEILING/PENDANT MOUNTED BATTERY PACK WITH TWO 6V, LED HEADS, 90 MINUTE BATTERY BACKUP	LED	-	5	120	WALL/SURFACE	LITHONIA LIGHTING ELM4L
EX1	EXIT SIGN WITH 90 MINUTES OF EMERGENCY BATTERY BACKUP	LED	-	5	120	WALL/SURFACE	#EXRG-EL-M6 OR EQUAL OR PROVIDED BY OWNER/ARCHITECT

NOTES:
1. LUMINAIRES TO BE SELECTED BY OWNER/CONTRACTOR.
2. REFER TO ARCHITECTURAL SHEETS FOR WALL, COLUMN, AND PENDANT MOUNTING HEIGHTS UNLESS NOTED OTHERWISE.
3. E.C. SHALL COORDINATE VOLTAGES REQUIRED FOR FIXTURES PRIOR TO ORDERING.
4. ALL FIXTURES SHALL BE UL OR ETL LISTED.
5. ALL FIXTURES SHALL BEAR A MAXIMUM WATTAGE LABEL AS INDICATED ABOVE. THE DISTRIBUTOR SHALL AFFIX THE MAX WATTAGE LABEL PRIOR TO SHIPMENT WHERE A REDUCTION IN MAXIMUM WATTAGE IS REQUIRED FOR ENERGY CODE COMPLIANCE.

DISCONNECT AND STARTER SCHEDULE

ITEM	DISCONNECT TYPE & RATING: HEAVY DUTY SWITCH: FUSED	NON-FUSED	CIRCUIT BREAKER	VOLTAGE	POLES	STARTER: NEMA SIZE	TYPE	NEMA ENCLOSURE	REMARKS	APPROVED MANUFACTURERS
DS-30		30		240	1			1		SQUARE D 3110 SERIES EATON DH SERIES ABB TH SERIES SIEMENS HNF SERIES
DS-60		60		240	1			1		SQUARE D 3110 SERIES EATON DH SERIES ABB TH SERIES SIEMENS HNF SERIES
DS-30R		30		240	2			3R		SQUARE D 3110 SERIES EATON DH SERIES ABB TH SERIES SIEMENS HNF SERIES

TAG:	PANEL-4										
LOAD	LOAD TYPE	A	B	AMPS	CKT. NO.	CKT. NO.	AMPS	A	B	LOAD TYPE	LOAD
CU-3 * NOTE-4	H	1536		25	1	2	20	720		R	OFFICE AREA-1 RECEPTACLE(S)
	H		1536		3	4	20		1440	R	OFFICE AREA-2,3 RECEPTACLE(S)
FU-3	H	864		20	5	6	20	1440		R	OFFICE AREA-4,5 RECEPTACLE(S)
CONFERENCE ROOM RECEPTACLE(S)	R		1620	20	7	8	20		1200	EQ	COFEE MACHINE
VIDEO MONITOR	EQ	500		20	9	10	20	1166		L	NEW OFFICE 1,2,3,4,5 & NEW FOYER AREA LIGHTS
IT RACK RECEPTACLE(S)	R		360	20	11	12	20		1440	M	SEP-1
SPARE				20	13	14	20	180		R	MAINTANANCE RECEPTACLE(S)
SPARE				20	15	16	20		180	R	FOYER AREA RECEPTACLE(S)
SPARE				20	17	18	20				SPARE
SPACE				20	19	20	20				SPARE
SPACE					21	22					SPACE
SPACE					23	24					SPACE
SPACE					25	26					SPACE
SPACE					27	28					SPACE
SPACE					29	30					SPACE
SUBTOTAL #1		2900	3516					3506	4260		**SUBTOTAL #2**
SUBTOTAL #2		3506	4260								
SUBTOTAL #1 + #2		**6406**	**7776**								

NEW ADDED PANEL LOAD:	14.18	KVA	59.1	**AMPS.**	59.1	**NEW ADDED DEMAND AMPS**
VOLTS:	120/240V	1PH	3W	**MIN. WITHSTAND:**	22K	
MAINS:	100	A MLO				
MOUNTING:	SURFACE			AF=ARC FAULT,GF=GROUND FAULT,SC=SFCI,LO=LOCK ON		

NOTES:
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2.THE CONTRACTOR SHALL ADJUST CIRCUITS AS REQUIRED BASED ON FINAL EQUIPMENT TO MAINTAIN 10% LOADING BETWEEN PHASES.
3.VERIFY ELECTRICAL REQUIREMENTS AND EQUIPMENT LOCATION PRIOR TO ROUGH-IN.
4.40A/2P = 2#8 & 1#10 GND IN 3/4"C.

AUTOMATIC TRANSFER SWITCH SCHEDULE

SWITCH TYPE:
- AUTO - AUTOMATIC
- B/I - AUTOMATIC WITH BYPASS ISOLATION
- MAN - MANUAL OPERATION
- CT - CLOSED TRANSITION
- DT - DELAY TRANSITION - CENTER OFF
- STAT - STATIC SOLID STATE
- /30 - 30 CYCLE WITHSTAND RATING
- SN - SWITCHED NEUTRAL
- ON - OVERLAPPING SWITCHED NEUTRAL
- DN - SOLID NEUTRAL

ACCESSORIES: (ACC)
- EE - ENGINE EXERCISER
- IM - INPHASE MONITOR
- SH - STRIP HEATER WITH THERMOSTAT
- RM - REMOTE ANNUNCIATOR
- RC - REMOTE CONTROL CIRCUITS
- EL - ELEVATOR EMERGENCY TO NORMAL PRESIGNAL
- SP - SERIAL COMMUNICATIONS PORT
- PM - POWER MONITORING METER
- RTC - REMOTE TRANSFER CONTROL FROM FIRE COMMAND CENTER
- RMC - REMOTE ANNUNCIATION AT FIRE COMMAND CENTER
- TI - TRANSFER INHIBIT
- LS - LOAD SHED

ITEM	SWITCH: TYPE	VOLTAGE	POLES	AMPS	NEMA ENCLOSURE	ACC	MANUFACTURERS	MODEL
ATS	AUTO	240	3	200	3R	EE, IM	GENERAC OR EQUAL	G0099520 OR EQUAL

ALLEN PEPA ARCHITECTS
INFO@ALLENPEPA.COM
TEL: (630) 578-1105
215 FULTON ST., GENEVA, IL 60134

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T.: +1(312) 446-3327

CUBA TOWNSHIP BLDG. ADDITION

28000 W CUBA RD, BARRINGTON, IL 60010

Contact Info:

Schematic Design:	
Design Development	
Bidding:	
Permit:	
ISSUE DATE:	

POST BID/PERMIT REVISIONS:

No.	Date	Description
2	07/01/26	REVISION #2
3	08/26/26	REVISION #3
4	09/09/26	REVISION #4

PROJECT NO.	2025-23
DRAWN BY	S.P.
CHECKED BY	D.P.
SHEET	06 OF 06

ELECTRICAL SCHEDULES

PROFESSIONAL ENGINEER SUSHIL KUMAR 062.065805 STATE OF ILLINOIS
EXP:11/30/2027

E3.0

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ENGINEERING PLANS FOR

CUBA TOWNSHIP BUILDING ADDITION
CUBA TOWNSHIP

28000 W CUBA ROAD
BARRINGTON, IL 60010

STANDARD SYMBOLS

FEATURE	EXISTING	PROPOSED
BUFFALO BOX		
BUSH/SHRUB		
CATCH BASIN		
CLEANOUT	CO	C.O.
COMBINE SEWER LINE		
CONTOUR	708	708
CULVERT		
DITCH/SWALE		
ELECTRIC LINE	E	E
ELECTRIC MANHOLE		
FENCE	X	X
FIRE HYDRANT		
FLARED END SECTION		
GAS LINE	G	G
GAS MANHOLE		
GAS VALVE		
INLET		
LIGHT POLE		
OVERHEAD WIRES	A	A
POWER POLE		
R.O.W LINE		
R.O.W MARKER		
SANITARY FORCEMAIN LINE	CC	CC
SANITARY SEWER LINE	C	C
SANITARY SEWER MANHOLE		
SIGN		
SPOT ELEVATION	×850.00	×850.0
STORM SEWER LINE		
STORM SEWER MANHOLE		
TELEPHONE LINE	T	T
TELEPHONE MANHOLE		
TELEPHONE BOX/PEDESTAL		
TREE-CONIFEROUS (SIZE/TAG#)	345	345
TREE-DECIDUOUS (SIZE/TAG#)	12"	12"
VALVE BOX		
VALVE VAULT		
WATER VALVE		
WATERMAIN LINE	W	W

EXISTING UTILITIES: WHEN THE PLANS OR SPECIAL PROVISIONS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES AND IS ONLY INCLUDED FOR THE CONVENIENCE OF THE BIDDER. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS RELATIVE TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. HE SHALL ALSO OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES, DETAILED INFORMATION RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THEM.

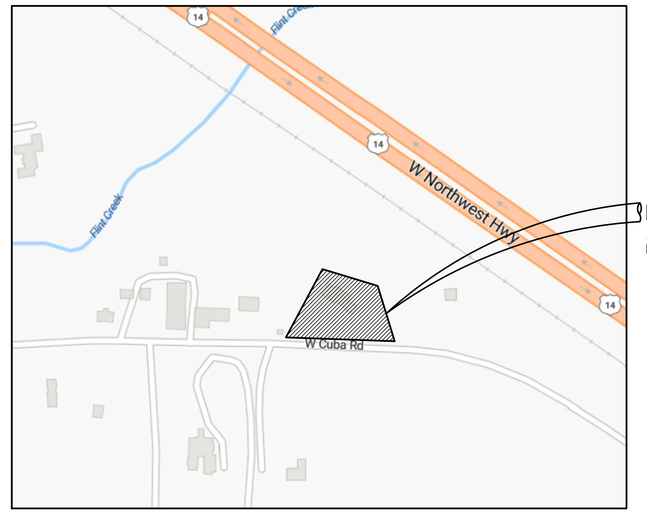
CONTRACTOR IS RESPONSIBLE FOR CONTACTING J.U.L.I.E. AT 1-800-892-0123 AND MUST ACQUIRE A DIG NUMBER A MINIMUM OF 72 HOURS PRIOR TO ANY WORK BEING DONE.

NOTE: CONSTRUCTION MEANS, METHODS AND JOB SITE SAFETY IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR

J.U.L.I.E
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION CALL 811

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

N



PROJECT LOCATION
28000 W CUBA ROAD
BARRINGTON, ILLINOIS 60010

LOCATION MAP
(Not to Scale)

SHEET INDEX

1. TITLE SHEET
2. EXISTING CONDITIONS/DEMOLITION PLAN
3. GEOMETRIC PLAN
4. GRADING PLAN
5. GENERAL NOTES
6. DETAILS
7-9. IMPERVIOUS AREA EXHIBIT

TOPOGRAPHIC SURVEY BY:
ACCURATE SURVEY SERVICE, INC.
22519 N. PEPPER RD., SUITE 10
BARRINGTON, ILLINOIS 60010
TELEPHONE: 847-381-8735

PLANS PREPARED FOR:
CUBA TOWNSHIP
28000 W CUBA ROAD
BARRINGTON, ILLINOIS 60010
TELEPHONE: 847-381-1924

PROFESSIONAL DESIGN FIRM LICENSE:
GEWALT HAMILTON ASSOCIATES, INC.
DESIGN FIRM - LAND SURVEYOR/PROF ENG
LICENSE NUMBER: 184.000922-0010

COORDINATING/PERMITTING AGENCIES:

CUBA TOWNSHIP	1-847-381-1924
LAKE COUNTY STORMWATER MANAGEMENT COMMISSION	1-847-377-7700

MARK G. F. COBB 062-067573 LICENSED PROFESSIONAL ENGINEER STATE OF ILLINOIS

SIGNED: Mark Cobb P.E.
NAME OF PROJECT MANAGER

DATE: SEPTEMBER 4, 2026

ILLINOIS LICENSE NO.: 062-067573

EXPIRATION DATE: NOVEMBER 30, 2027

SET FOR REVIEW

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TITLE SHEET

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101-DT.dwg
DRAWN BY: MGW DATE: 9-04-2026
GHA PROJECT # 3376.101
CHECKED BY: MGC DATE: 9-04-2026
SCALE: N.A.
SHEET NUMBER: 1 OF 9 SHEETS

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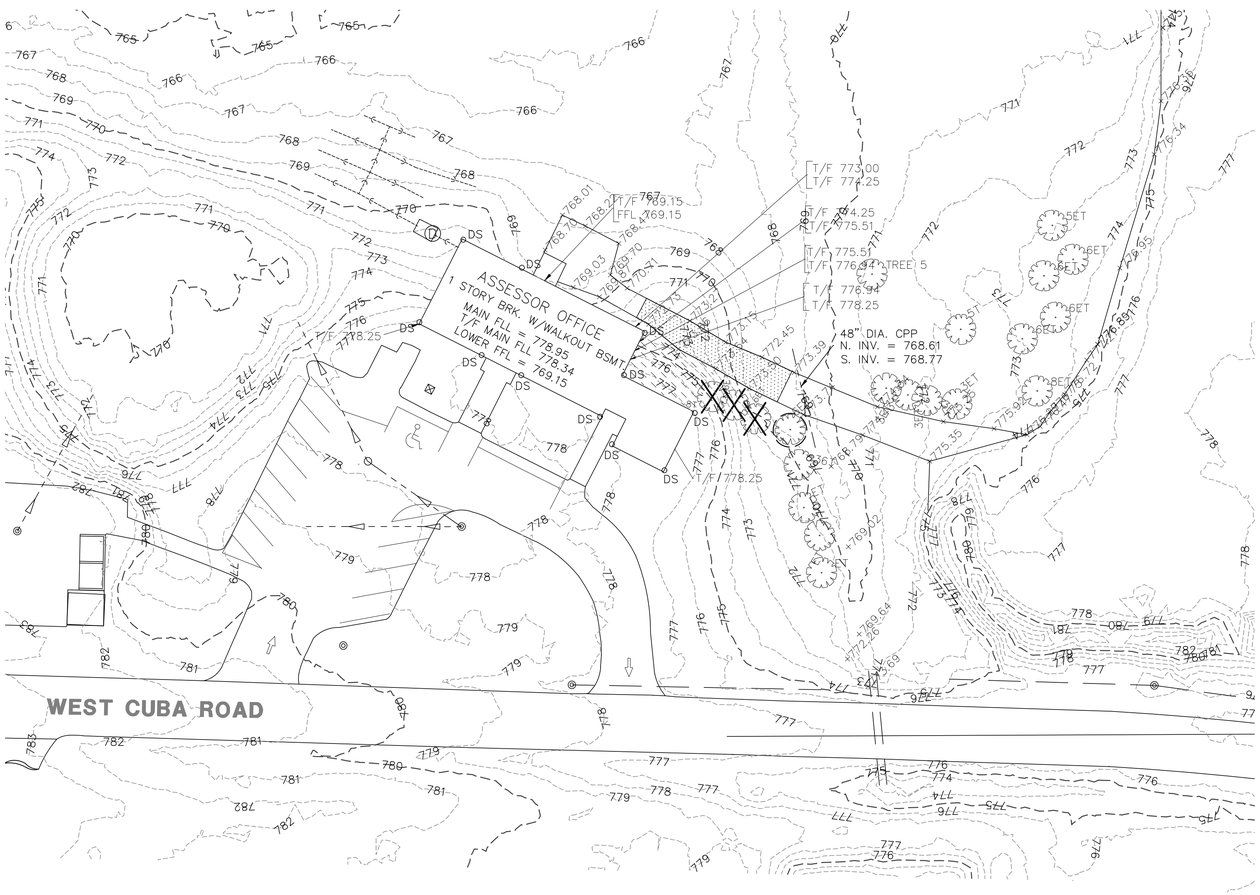

N

GRAPHIC SCALE

30 0 15 30

(IN FEET)
1 inch = 30 ft.

REMOVAL LEGEND

- GRAVEL REMOVAL
- EARTH/GRAVEL REMOVAL
- TREE/SHRUB REMOVAL
- TREE TRUNK PROTECTION FENCE

EXISTING CONDITION AND DEMOLITION NOTES

1. PRIOR TO STARTING ANY CONSTRUCTION, PROVIDE SOIL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS AND AS REQUIRED PER IEPA NPDES GUIDELINES. REFER TO NOTES AND DETAILS THROUGHOUT THE ENTIRE PLAN SET.
2. PRIOR TO STARTING ANY EXCAVATION WORK, PROVIDE TREE PROTECTION, PRESERVATION AND ROOT PRUNING AS SHOWN ON THE PLANS AND NOTES THROUGHOUT THE ENTIRE PLAN SET..
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FENCING THE ACTIVE WORK ZONE FROM THE PUBLIC AND PROTECTING THE PUBLIC FROM ANY CONSTRUCTION RELATED HAZARDS. AT A MINIMUM, ALL EXCAVATION, DEMOLITION AREAS AND OTHER AREAS POTENTIALLY HAZARDOUS TO PEDESTRIANS AND VEHICLES MUST BE PROTECTED.
4. AT ALL TIMES, MAIN DRIVE, LOADING DOCKS, AND DUMPSTER AREAS SHALL REMAIN OPEN AND UNOBSTRUCTED. TEMPORARY SHUT DOWN OF ONE TRAFFIC LANE AT A TIME WILL BE PERMITTED FOR SHORT TERM PERIODS AND SHALL BE COORDINATED WITH APPOINTED PROPERTY OWNER CONSTRUCTION STAFF. SHORT TERM CLOSINGS SHALL BE COMPLETED WITHIN THE WORK DAY AND RESTORED TO UNOBSTRUCTED ACCESS BY THE CLOSE OF THE WORK DAY.
5. TEMPORARY STONE OR ASPHALT PATHWAYS SHALL BE PROVIDED AS NEEDED THROUGHOUT THE COURSE OF CONSTRUCTION TO FACILITATE SAFE PEDESTRIAN AND VEHICULAR MOVEMENT. THE LONGITUDINAL SLOPE OF SUCH PATHS SHALL NOT EXCEED 5% AND CROSS SLOPES SHALL NOT EXCEED 2%. PROVIDE 6" CA-6 BASE AND 2" SURFACE ASPHALT.
6. THE EXISTING FACILITIES WILL REMAIN OPEN AND ACTIVELY USED. CONTRACTOR SHALL REFER TO MECHANICAL, ELECTRICAL AND ARCHITECTURAL PLANS AND COORDINATE WITH UTILITY COMPANIES TO ENSURE CONTINUOUS UTILITY SERVICES DURING DEMOLITION AND TRANSITIONING OF SERVICES.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION AND DISPOSAL OF ALL EXISTING IMPROVEMENTS ONSITE NECESSARY TO COMPLETE THE JOB. THESE IMPROVEMENTS INCLUDE, BUT ARE NOT LIMITED TO, EXISTING PAVEMENTS, CURBS, SIDEWALKS, UTILITIES, LIGHTING, LIGHT BASES, MANHOLES, FENCES, FOUNDATIONS, AND OTHER STRUCTURES WITHIN THE WORK AREA. EXCAVATE AND GRADE TO PROPOSED PAVEMENT AND BUILDING SUBBASE GRADES. (REFER TO FOUNDATION PLANS FOR PROPOSED BUILDING SUBBASE GRADES.) THESE ITEMS SHALL BE COMPLETELY REMOVED AND LEGALLY DISPOSED OF OFFSITE.
8. REMOVE OR ABANDON EXISTING UTILITIES AS SHOWN. UTILITIES THAT ARE REMOVED, UNLESS OTHERWISE NOTED, SHALL BE BACKFILLED WITH CA-6 CRUSHED STONE IN LIFTS OF 8" OR LESS AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY. UTILITIES TO BE ABANDONED SHALL BE PLUGGED AT BOTH ENDS WITH A MINIMUM OF 2 FEET LONG NON-SHRINK CONCRETE/MORTAR PLUGS. MANHOLE STRUCTURES TO BE ABANDONED SHALL HAVE THE TOP SECTION REMOVED, SEWERS BULKHEADED WITH CONCRETE AND BACKFILLED WITH CA-6 CRUSHED STONE.
9. TEMPORARILY REMOVE, STORE AND PROTECT SIGN AND POSTS WITHIN AFFECTED WORK ZONE FOR REINSTALLATION. COORDINATE ONSITE STORAGE WITH PROPERTY OWNER.
10. THE CONTRACTOR SHALL INCLUDE ALL ASSOCIATED COSTS WITH THE REMOVAL, TRANSPORT, DISPOSAL, TESTING AND CERTIFICATION OF "UNCONTAMINATED SOIL" AS DEFINED UNDER 415 ILCS 5/3.160 INCLUDING ANY FEES, TAXES, OR SURCHARGES CHARGED BY OR THROUGH THE OPERATOR(S) OF CLEAN CONSTRUCTION OR DEMOLITION DEBRIS FILL OPERATIONS OR UNCONTAMINATED SOIL FILL OPERATIONS FOR THE ACCEPTANCE OF UNCONTAMINATED SOIL.

GHA GEWALT HAMILTON ASSOCIATES, INC.
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EXISTING CONDITIONS/DEMOLITION PLAN

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101-PR.dwg
DRAWN BY: MGW DATE: 9-04-2026
GHA PROJECT # 3376.101
CHECKED BY: MGC DATE: 9-04-2026
SCALE: 1" = 30'
SHEET NUMBER: 2 OF 9 SHEETS

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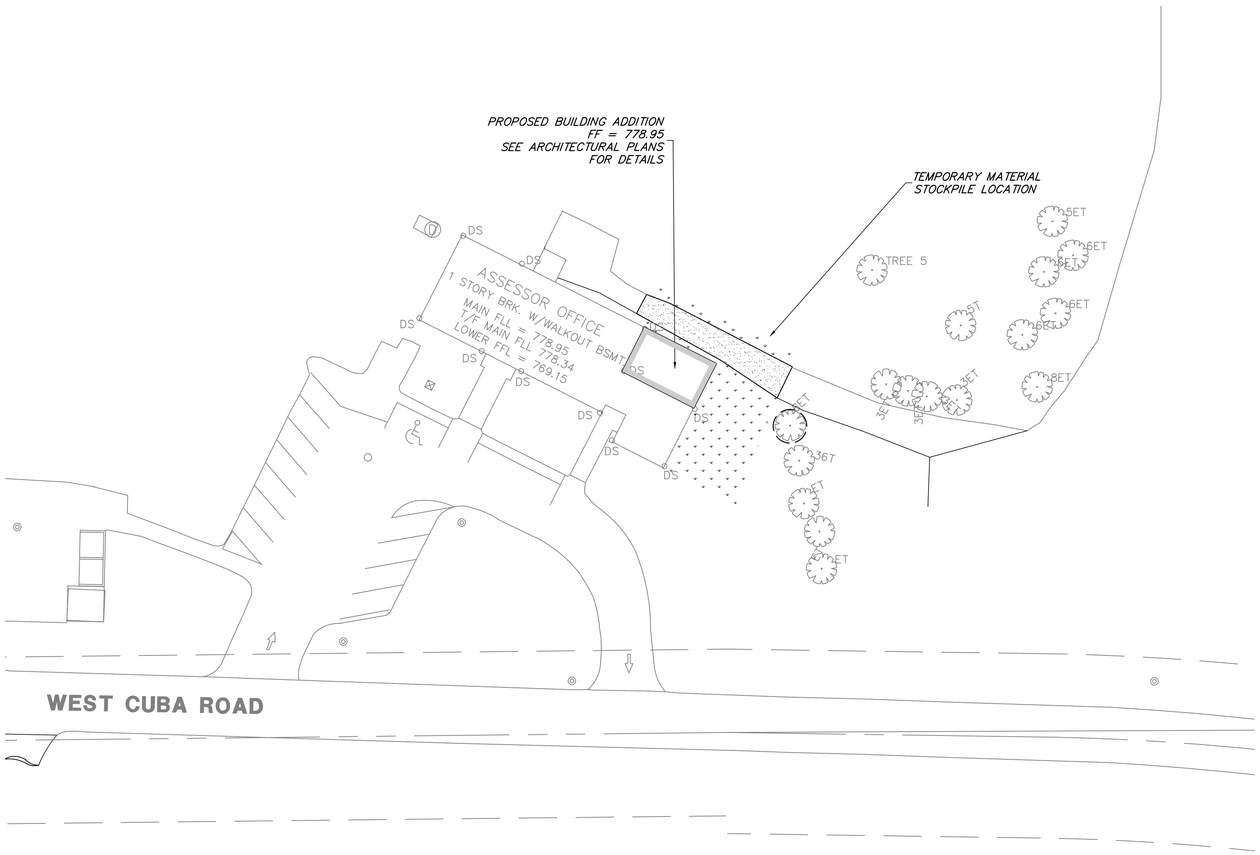

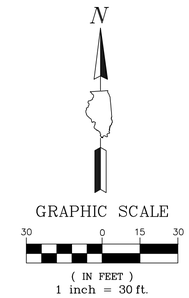

PROPOSED LEGEND

- LAWN RESTORATION
- GRAVEL PATHWAY
- TREE TRUNK PROTECTION FENCE

GEOMETRIC AND PAVING PLAN

1. ALL PAVEMENT DIMENSIONS ARE TO EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. E=EDGE OF PAVEMENT, B=BACK OF CURB, F=FACE OF CURB. RADII DIMENSIONS ARE TO BACK OF CURB.

2. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL SEED AND BLANKET AS NECESSARY TO MEET SOIL EROSION AND SEDIMENT CONTROL REQUIREMENTS. REFER TO NOTES AND DETAILS THROUGHOUT THE PLAN SET FOR SPECIFIC MATERIAL REQUIREMENTS.

3. FOR FINAL RESTORATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL DISTURBED TURF AREAS AND PROPOSED TURF AREAS AS FOLLOWS:

   a. PRIOR TO PLACEMENT OF TOPSOIL RESTORATION AREA SUBGRADE MATERIAL SHALL BE ROTOTILLED AND RE-COMPACTED TO A MAXIMUM OF 80% STANDARD PROCTOR TO A DEPTH OF 6".
   b. SPREAD A MINIMUM OF 6" OF EXISTING SITE SALVAGED SCREENED TOPSOIL OR NEW PULVERIZED TOPSOIL ON ALL DISTURBED AREAS. COMPACT TO 80% STANDARD PROCTOR.
   c. TOPSOIL MUST BE FREE OF LITTER, BRUSH, ROCKS AND EARTH CLODS OF GREATER THAN 1 INCH IN ANY DIMENSION. CONTAIN BETWEEN 1%-10% ORGANIC MATTER, 12%-50% CLAY, AND LESS THAN 55% SAND CONTENT. PH SHALL BE BETWEEN 6.0 AND 8.0.
   d. SEED RESTORATION AREAS AS FOLLOWS:
   - IDOT CLASS 1 SEED. (LAWN MIXTURE)
   - FERTILIZER SHALL BE APPLIED FOLLOWING IDOT REQUIREMENTS.
   - EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN S75 OR APPROVED EQUAL INSTALLED FOLLOWING MANUFACTURER GUIDELINES.
   h. CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THE RESTORED AREA PER IDOT SPECIFICATIONS FOR A DURATION OF 30 DAYS PRIOR TO THE OWNER'S FINAL REVIEW AND ACCEPTANCE. IF RESTORATION HAS NOT SHOWN A "CATCH" OR UNIFORM STAND, THE CONTRACTOR SHALL REPEAT RESEEDING OR RESODDING UNTIL A UNIFORM STAND IS ACHIEVED.

13. ONCE RESTORATION HAS BEEN COMPLETED, THE CONTRACTOR SHALL REMOVE EROSION CONTROL DEVICES. SILT FENCE TRENCHES SHALL BE BACKFILLED AND RESTORED IN KIND. STORM STRUCTURES SHALL BE CLEANED OF DEBRIS.

GEWALT HAMILTON ASSOCIATES, INC.
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GEOMETRIC PLAN

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101-PR.dwg
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SCALE: 1" = 30'

SHEET NUMBER: 3 OF 9 SHEETS

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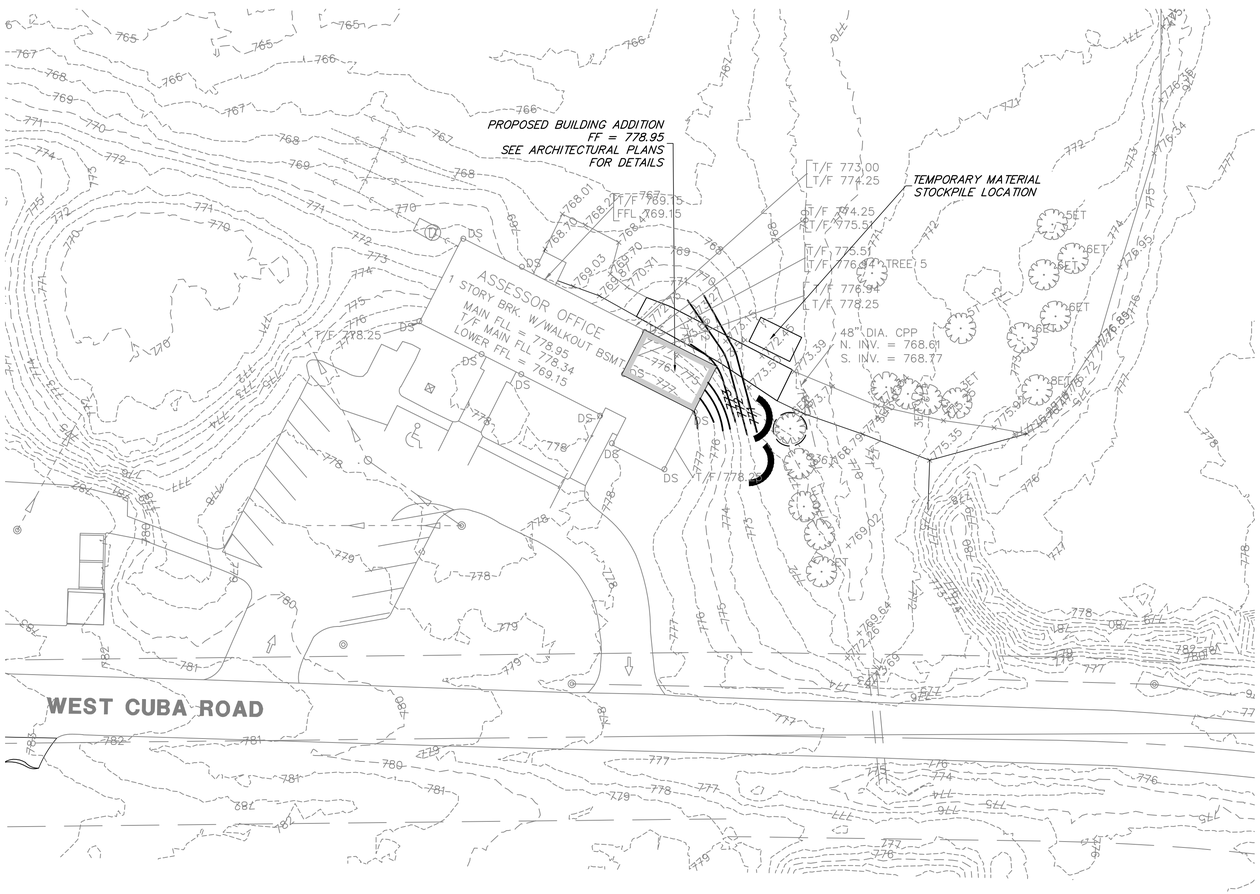

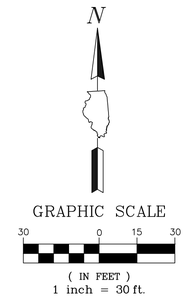

GRADING LEGEND

600.50 / 600.00	TOP OF CURB / FLOW LINE
×670.30	PROPOSED SPOT ELEVATION
—XXX—	CONTOUR
2.5% →	SLOPES
◡	SILTWORM

GRADING PLAN NOTES

1. PRIOR TO STARTING ANY CONSTRUCTION, PROVIDE SOIL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS AND AS REQUIRED PER IEPA NPDES GUIDELINES. REFER TO NOTES AND DETAILS THROUGHOUT THE ENTIRE PLAN SET.
2. PRIOR TO STARTING ANY EXCAVATION WORK, PROVIDE TREE PROTECTION, PRESERVATION AND ROOT PRUNING AS SHOWN ON THE PLANS AND NOTES THROUGHOUT THE ENTIRE PLAN SET.
3. REFER TO GENERAL NOTES FOR GRADING, COMPACTION AND PROOF ROLL REQUIREMENTS.
4. HANDICAP ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED BETWEEN 1.0% AND 1.90% MAXIMUM SLOPES IN ANY ONE DIRECTION. ILLINOIS ACCESSIBILITY CODE PERMITS A MAXIMUM CONSTRUCTED SLOPE OF 2.00%.
5. CRUSHED CONCRETE MEETING IDOT CERTIFICATIONS FOR THE DESIGN PLAN GRADATIONS FOR NON-POROUS PAVEMENT AND SIDEWALK STONE BASE, STRUCTURAL FILL, AND TRENCH BACKFILL WILL BE PERMITTED.
6. CRUSHED CONCRETE MAY NOT BE USED FOR UNDERDRAIN TRENCH OR POROUS FILL CONDITIONS.
7. THE CONTRACTOR SHALL IMPORT OR EXPORT SOIL AS NECESSARY TO CONSTRUCT THE SITE TO SPECIFIED PLAN GRADES. SUCH WORK IS CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR SUCH WORK. MINOR ADJUSTMENTS TO GRADES CAN BE ACCOMMODATED WITH PROJECT ENGINEER APPROVAL.
8. THE CONTRACTOR SHALL INCLUDE ALL ASSOCIATED COSTS WITH THE REMOVAL, TRANSPORT, DISPOSAL, TESTING AND CERTIFICATION OF "UNCONTAMINATED SOIL" AS DEFINED UNDER 415 ILCS 5/3.160 INCLUDING ANY FEES, TAXES, OR SURCHARGES CHARGED BY OR THROUGH THE OPERATOR(S) OF CLEAN CONSTRUCTION OR DEMOLITION DEBRIS FILL OPERATIONS OR UNCONTAMINATED SOIL FILL OPERATIONS FOR THE ACCEPTANCE OF UNCONTAMINATED SOIL.
9. ALL STRUCTURES SHALL BE ADJUSTED TO MEET FINISHED TURF AND PAVEMENT GRADES.
10. REFER TO SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS FOR SEED AND BLANKET REQUIREMENTS FOR TEMPORARY STABILIZATION.
11. REFER TO GEOMETRIC PLAN OR LANDSCAPE PLAN FOR FINAL RESTORATION REQUIREMENTS.

GEWALT HAMILTON ASSOCIATES, INC.
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TEL 847.478.9700 ▪ FAX 847.478.9701

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GRADING PLAN

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101-PR.dwg
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GHA PROJECT # 3376.101
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SCALE: 1" = 30'
SHEET NUMBER: 4 OF 9 SHEETS

J:\3376\3376 CUBA TOWNSHIP\3376.101 CUBA TOWNSHIP BUILDING ADDITION\3376.101-PR.DWG 9/2/2026 9:59 AM

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" LATEST EDITION, THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS" LATEST EDITION, THE ILLINOIS PLUMBING CODE, THE DETAILS IN THESE PLANS, THE CONTRACT DOCUMENTS, ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION, THE IEPA AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION AND ALL ADDENDA THERETO.

2. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.

3. WHENEVER, DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE CONTRACT. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.

4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE PRIOR TO ORDERING MATERIALS. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS/HER OWN RISK AND EXPENSE AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY COSTS INCURRED..

5. ALL PAVEMENT DIMENSIONS ARE SHOWN TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

6. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE THE MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

7. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 72 HOURS PRIOR TO BEGINNING WORK.

8. IF DURING CONSTRUCTION THE CONTRACTOR ENCOUNTERS OR OTHERWISE BECOMES AWARE OF ANY SEWERS OR UNDERDRAINS OTHER THAN THOSE SHOWN ON THE PLANS, HE/SHE SHALL INFORM THE ENGINEER, WHO SHALL DIRECT THE WORK NECESSARY TO MAINTAIN OR REPLACE THE FACILITIES IN SERVICE AND TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION IF MAINTAINED. EXISTING FACILITIES TO BE MAINTAINED THAT ARE DAMAGED BECAUSE OF NON-COMPLIANCE WITH THIS PROVISION SHALL BE REPLACED AT THE CONTRACTOR'S OWN EXPENSE.

9. THE CONTRACTOR SHALL PROVIDE TEMPORARY TOILET FACILITIES AND HAND SANITIZING STATIONS FOR THE USE OF ALL THE CONTRACTORS PERSONNEL EMPLOYED ON THE WORK SITE. THE FACILITIES SHALL BE MAINTAINED IN PROPER SANITARY CONDITION THROUGHOUT THE PROJECT. THE LOCATION OF THE TEMPORARY FACILITIES SHALL BE APPROVED BY THE ENGINEER.

10. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE NPDES PERMIT AND SWPPP MANUAL. IF NO NPDES PERMIT OR SWPPP MANUAL IS NEEDED FOR THE PROJECT THE CONTRACTOR SHALL PERFORM SOIL EROSION SEDIMENT CONTROL BEST PRACTICES OR AS DIRECTED BY THE OWNER TO PREVENT ILLICIT DISCHARGES FROM THE SITE.

PROJECT SPECIFIC NOTES

1. THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS THAT INCLUDE; CRITICAL SPOT GRADES SUCH AS OVERFLOW ELEVATIONS, SPOT ELEVATIONS NEAR ENTRANCES, SPOT ELEVATIONS ALONG THE DESIGNATED ADA ROUTE, SUFFICIENT INFORMATION SUCH THAT THE ENGINEER MAY VERIFY DETENTION VOLUMES, RIM AND INVERT ELEVATIONS OF ALL SEWERS, RIM AND TOP OF PIPE ELEVATIONS OF ALL WATER MAIN, LOCATIONS OF ALL INSTALLED UNDERGROUND UTILITIES, LOCATIONS OF ALL BURIED BENDS AND FITTINGS AND ALL FIELD CHANGES FROM THE APPROVED DRAWINGS.

2. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS FROM THE DATE OF INITIAL ACCEPTANCE OF THE WORK BY THE OWNER AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE.

3. ALL CONSTRUCTION WILL BE INSPECTED BY THE OWNER'S REPRESENTATIVE. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE MUNICIPALITY AS WELL AS THE STANDARD SPECIFICATIONS.

4. ALL PUBLIC WATER MAINS AND SANITARY SEWER MAINS MUST BE ACCEPTED BY THE **CUBA TOWNSHIP**.

5. THE SEWER AND WATER CONTRACTOR SHALL BE REQUIRED TO BE LICENSED AND BONDED WITH THE **CUBA TOWNSHIP** BEFORE WORK IS STARTED.

6. CONTRACTOR SHALL NOTIFY THE **CUBA TOWNSHIP (847-381-1924) AND THE PROJECT ENGINEER (847-478-9700)** AT LEAST 72 HOURS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.

7. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, ENGINEER, THE MUNICIPALITY AND THEIR AGENTS, FROM ALL LIABILITY INVOLVED IN CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT.

8. THE CONTRACTOR MUST CARRY INSURANCE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. ALL OFFICIALS, EMPLOYEES AND AGENTS OF GEWALT HAMILTON ASSOCIATES MUST BE LISTED AS ADDITIONAL INSURED.

9. ALL ELEVATIONS ARE ON **NAVD 88** VERTICAL DATUM.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL TRAFFIC CONTROL TO ADEQUATELY INFORM AND PROTECT THE PUBLIC OF ALL CONSTRUCTION OPERATIONS.

11. STOCKPILING MATERIAL WITHIN THE 100 YEAR FLOOD PLAIN AND OR THE FLOODWAY IS STRICTLY PROHIBITED

12. PRIOR TO PLACEMENT OF FABRIC AND STONE, THE SUBGRADE SHALL BE PROOF-ROLLED IN THE PRESENCE OF THE ENGINEER. PROOF-ROLLING SHALL BE DONE USING A THREE AXLE DUMP TRUCK TOGETHER WITH LOAD WEIGHING AT LEAST TWENTY-FIVE (25) TONS. THE LOAD SHALL BE UNIFORMLY PLACED IN THE DUMP BODY. ALL DEFICIENCIES SHALL BE REPAIRED AND RE-PROOF-ROLLED UNTIL FOUND ACCEPTABLE TO THE ENGINEER.

13. CRUSHED CONCRETE IS NOT PERMITTED FOR USE ON THE PROJECT UNLESS PRIOR WRITTEN NOTICE IS GIVEN BY THE ENGINEER.

14. ALL STONE USED ON THE PROJECT SHALL BE CRUSHED UNLESS SPECIFICALLY NOTED OTHERWISE.

15. ALL CONNECTIONS TO EXISTING STORM MANHOLES SHALL BE INSTALLED WITH A NEOPRENE BOOT SECURED WITH DOUBLE STAINLESS STEEL STRAPS MEETING THE REQUIREMENTS OF ASTM C-923.

16. ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH APPLIED WITHIN 1 HOUR OF FINAL STRIKING.

17. ALL CONCRETE SHALL CONSIST OF PORTLAND CEMENT CONCRETE MEETING REQUIREMENTS OF SECTION 1020. ALL SIDEWALKS, CURBS AND POST FOUNDATIONS SHALL BE CLASS SI 3,500 PSI @ 14 DAYS. ALL PAVEMENT SHALL BE CLASS PV 3,500 PSI @ 14 DAYS. WHERE NOTED ON THE PLANS HIGH EARLY CONCRETE SHALL BE CLASS PV TYPE III 3,500 PSI CONCRETE @ 3 DAYS. ALL CONCRETE REQUIRING A CURE TIME FASTER THAN 3 DAYS SHALL HAVE A MIX DESIGN SUBMITTED TO THE ENGINEER FOR APPROVAL. WHEN REQUIRED BY THE MUNICIPALITY, FLY ASH SHALL NOT BE USED IN THE MIX DESIGN. SLUMP SHALL BE 2-4" AND AIR CONTENT SHALL BE BETWEEN 5-8% UNLESS MODIFIED BY ARTICLE 1020.04.

18. ALL CONCRETE SHALL HAVE A WHITE, IDOT TYPE 3 CURING COMPOUND APPLIED TO THE SURFACE WITHIN 1 HOUR OF FINAL STRIKING AT THE MANUFACTURER RECOMMENDED APPLICATION RATE.

19. 3/4" THICK PRE-MOLDED FIBER EXPANSION JOINTS WITH 2 , 3/4" x 18" PLAIN ROUND, STEEL DOWEL BARS SHALL BE INSTALLED IN ALL CURBS AT (45') FORTY-FIVE FOOT INTERVALS AND AT ALL P.C.'S, P.T.'S AND CURB RETURNS. ALTERNATE ENDS OF THE DOWEL BARS SHALL BE GREASED AND FITTED WITH METAL EXPANSION TUBES. ALL EXPANSION JOINTS MUST BE FREE OF CONCRETE FOR FULL DEPTH. CONTRACTION JOINTS SHALL BE TOOLED AT 15' INTERVALS.

20. UNLESS OTHERWISE NOTED ON THE PLANS WHENEVER NEW CONCRETE ABUTS EXISTING/ OR NEW CONCRETE SET A 1/2" THICK PRE-MOLDED FIBER EXPANSION JOINT AND DOWEL WITH SMOOTH 12" #4 BARS @ 24" O.C. THIS INCLUDES CONCRETE POURED ADJACENT TO EXISTING SIDEWALKS, CURBS AND BUILDING. THE DOWEL BARS SHOULD BE 4" INTO EXISTING CONCRETE WITH 8" EXTENDING INTO NEW CONCRETE.

21. ALL DOWEL BARS AND TIE BARS SHALL BE EPOXY COATED UNLESS NOTED OTHERWISE.

22. ALL PAVEMENT AND BUILDING SUBGRADE SHALL BE COMPACTED TO 95% MODIFIED PROCTOR DENSITY (ASTM D-1557). ALL SUBGRADE IN LAWN AREAS SHALL BE COMPACTED TO 90% MODIFIED PROCTOR DENSITY (ASTM D-1557). ALL TOPSOIL AND SUBGRADE 6" BELOW TOPSOIL SHALL BE COMPACTED TO 80% STANDARD PROCTOR DENSITY (ASTM D-698)

23. SPREAD SCREENED TOPSOIL ON ALL DISTURBED AREAS AND PROPOSED GREEN AREAS. TOPSOIL SHALL COMPLY WITH REQUIREMENTS OF ARTICLE 1081.05.

24. ALL SIGNAGE SHALL BE INSTALLED IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ILLINOIS SUPPLEMENT OR ILLINOIS DEPARTMENT OF TRANSPORTATION DETAILS.

25. ALL SIGNAGE NOT ATTACHED TO SIGNAL OR LIGHTING POLES SHALL BE MOUNTED ON TELESCOPING STEEL SIGN SUPPORTS WITH BREAKAWAY BASES IN ACCORDANCE WITH SECTION 728.

26. ALL SIGNAGE SHALL HAVE TYPE ZZ SHEETING.

EROSION CONTROL NOTES

1. AT A MINIMUM, THE CONTRACTOR SHALL INSTALL AND MAINTAIN SOIL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S URBAN MANUAL.

2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. WHERE DISCHARGE LOCATIONS OR POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.

3. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE SEDIMENT TRACKING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY ROAD OF MATERIAL THAT IS FROM THE PROJECT. THIS WILL BE DONE AT THE CLOSE OF EACH DAY OF WORK OR MORE FREQUENTLY AS FIELD CONDITIONS WARRANT.

4. ALL STORM WATER STRUCTURES WITH OPEN LIDS SHALL BE PROTECTED WITH INLET FILTER BASKETS. DURING CONSTRUCTION, SEDIMENT SHALL BE REMOVED AS NEEDED, AND BASKETS SHALL BE REPAIRED OR REPLACED AS NEEDED.

5. AFTER ACHIEVING PERMANENT VEGETATION, ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE REMOVED, AND THE DRAINAGE STRUCTURES SHALL BE CLEANED.

6. THE CONTRACTOR SHALL KEEP A WATER SOURCE AT THEIR DISPOSAL FOR THE PURPOSE OF WATERING DOWN SOIL ON SITE AND ADJACENT ROADWAYS WHICH OTHERWISE MAY BECOME AIRBORNE.

7. THE CONTRACTOR SHALL STABILIZE ALL IDLE, DISTURBED AREAS WITHIN SEVEN DAYS OF CESSATION OF THE CONSTRUCTION ACTIVITIES IN THAT AREA.

8. THE CONTRACTOR IS EXPRESSLY ADVISED NOT TO DISTURB AREAS WHICH ARE OUTSIDE THOSE NECESSARY TO PROVIDE THE IMPROVEMENTS AS CALLED FOR IN THE PLANS.

9. ALL EROSION CONTROL MEASURES SHALL BE REPLACED IF DAMAGED OR MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

10. ALL BYPASS CHANNELS, MUST BE CONSTRUCTED SO THAT CHANNEL FLOWS WILL NOT CAUSE EROSION OF EXCAVATED MATERIAL. IN EACH CASE A SEDIMENTATION BASIN MUST BE CONSTRUCTED SO AS TO ALLOW THE SEDIMENT TO SETTLE PRIOR TO THE DOWNSTREAM OUTLET OF THE PROJECT AREA.

11. PUMPS MAY BE USED AS BYPASS DEVICES, BUT IN NO CASE WILL THE WATER BE DIVERTED OUTSIDE THE PROJECT LIMIT. ALL PUMPED WATER SHALL BE FREE OF SILT. PUMPING MAY REQUIRE THE USE OF A SEDIMENT CONTAINMENT FILTER BAG AND OTHER SUPPLEMENTAL SEDIMENT CONTROL MEASURES.

12. CONCRETE WASHOUT FACILITIES SHALL BE MADE AVAILABLE IF NEEDED, AND PROPERLY MAINTAINED THROUGHOUT THE PROJECT.

13. PROPERLY MANAGE ALL MATERIAL STORAGE AREAS, PORTABLE TOILETS, AND EQUIPMENT FUELING, CLEANING, AND MAINTENANCE AREAS TO ENSURE THESE AREAS ARE FREE OF SPILLS, LEAKS, OR OTHER POTENTIAL POLLUTANTS.

14. WASTE, CONSTRUCTION DEBRIS, AND BUILDING MATERIALS SHALL BE COLLECTED AND PLACED IN APPROVED RECEPTACLES.

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GENERAL NOTES

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101-DT.dwg
DRAWN BY: MGW DATE: 9-04-2026
CHECKED BY: MGC DATE: 9-04-2026
GHA PROJECT # 3376.101
SCALE: N.A.
SHEET NUMBER: 5 OF 9 SHEETS

G:\3300\3376 CUBA TOWNSHIP\3376.101 CUBA TOWNSHIP BUILDING ADDITION\3376.101-DT.DWG 9/4/2026 8:59 AM

MINIMUM SPECIFICATION FOR SILTWORM		
PROPERTY		
PH	PH	5.0 - 8.5
MOISTURE CONTENT	% WET WEIGHT BASIS	< 60
ORGANIC MATTER CONTENT	% DRY WEIGHT BASIS	25 - 100
PHYSICAL CONTAMINANTS	% DRY WEIGHT BASIS	< 1%
PARTICLE SIZE		2 INCH - 70%-80% ⅜ INCH - 20% - 30% MAX. PARTICLE SIZE 2"

SILTWORM HEIGHTS INSTALLED		
NOMINAL DIAMETER, D	INSTALLED HEIGHT OF SINGLE SILTWORM	INSTALLED HEIGHT OF STACKED SILTWORM
9"	7.5"'	N/A
12"	9.5"	19"
18"	14.5"	29"

SILTWORM HEIGHTS INSTALLED

7.5"

MINIMUM SPECIFICATION FOR SILTWORM

NOTE: MANUFACTURER SPECIFICATIONS MAY BE SUBSTITUTE WITH THE APPROVAL OF ENGINEER

SILTWORM CHECK DAM ESTIMATED QUANTITIES				
	V - DITCH (1)		TRAPEZOIDAL DITCH (2)	
	12" SILTWORM	18" SILTWORM	12" SILTWORM	18" SILTWORM
LENGTH (FT)	60	48	72	60

(1) ESTIMATED QUANTITIES BASED ON A 4:1 SIDE SLOPE. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION

(2) ESTIMATED QUANTITIES BASED ON A 4 FT BOTTOM WIDTH, 4 FT DEPTH, AND 4:1 SIDE SLOPES. QUANTITIES WILL VARY BASED ON ACTUAL DITCH CONFIGURATION

SILTWORM SPACING FOR SLOPE APPLICATION

SILTWORM SPACING FOR DITCH APPLICATION

N/A = NOT RECOMMENDED SPACING NOT TO EXCEED 100'

SILTWORM GENERAL NOTES

SILTWORM ARE SUPPLIED AND INSTALLED IN DIAMETERS OF 9", 12", OR 18". DIAMETER TOLERANCES ARE 2". SILTWORM WILL BECOME OVAL IN SHAPE WHEN IN PLACE. THUS THE INSTALLED HEIGHT WILL BE LESS THAN NOMINAL DIAMETER.

MATERIAL SPECIFICATIONS

NETTING:

SILTWORM IS A TUBULAR KNIT HIGH DENSITY POLYPROPYLENE.

FILL MATERIAL:

IS A KILN DRIED MATERIAL CONSISTING OF WOOD CHIPS, BARK FREE SOFTWOOD, THAT IS 100% RECYCLED.

APPLICATIONS

SILTWORM CAN BE PLACED IN DITCHES OR AT THE TOP, ON THE FACE, OR AT THE TOW OF SLOPES AS SEDIMENT TRAPPING DEVICES. THEY CAN ALSO SERVE TO REMOVE SEDIMENT FROM RUNOFF AND RELEASE IT AS SHEET FLOW.

PERIMETER CONTROL:

PLACE SILTWORM DIRECTLY ON TOP OF GRADE, AND OVERLAP ENDS A MINIMUM OF 6". SITE PREPARATION IS MINIMAL, AND THERE IS NO STAKING OR TRENCHING REQUIREMENT FOR GRADES UNDER 12%. ARRANGE THE SILTWORM PERIMETER CONTROL IN A MANNER THAT IS APPLIED PERPENDICULAR TO SHEET FLOW. MAINTAIN CONSISTENT GROUND CONTACT.

SLOPE INTERRUPTION:

PLACE SILTWORM PERPENDICULAR TO SHEET FLOW AND CURL ENDS UP TOWARD THE TOP OF THE SLOPE. STAKE THE SILTWORM EVERY 6'. AND OVERLAP THE ENDS BETWEEN 1 TO 2 FEET. PLACE A LINE OF DEFENSE AT THE TOE OF THE SLOPE, AND ANOTHER WITHIN 10' FROM THE TOE OF THE SLOPE.

SILTWORM INSTALLATION ON A SLOPE SHALL BE PLACED ALONG OR ON THE GROUND CONTOUR. WHERE POSSIBLE SILTWORM APPLIED TO THE TOE OF A SLOPE SHOULD BE PLACED 10 FEET AWAY FROM THE TOE IN ORDER TO PROVIDE SEDIMENT STORAGE.

DITCH CHECK:

SILTWORM SHOULD BE INSTALLED WITH A SLIGHT ENTRENCHMENT, AND STAKED EVERY 4' IN THE DITCH CHECK APPLICATION.

FOR DITCH APPLICATIONS, THE MAXIMUM DRAINAGE ARE SHALL BE 15 ACRES, AT SITES WHICH OUTFALL TO EXCEPTIONAL WATER OR SEDIMENT-IMPAIRED STREAMS. THE MAXIMUM DRAINAGE AREA SHALL BE LIMITED TO 10 ACRES.

SILTWORM SHALL BE PLACED PERPENDICULAR TO THE FLOW OF WATER. SILTWORM SHALL CONTINUE UP THE SIDE SLOPES TO THE UP OF BANK OR A MAXIMUM OF 3 FEET ABOVE THE INSTALLED HEIGHT. SILTWORM SHALL REMAIN IN PLACE UNTIL ALL UPSTREAM AREAS ARE PERMANENTLY STABILIZED.

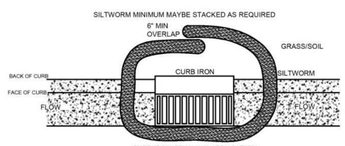
MAINTENANCE

SILTWORMS SHALL BE INSPECTED AFTER EACH RUNOFF EVENT AND SHALL BE REMOVED AND REPLACED IT SIGNS OF UNDERCUTTING OR DOWN STREAMING RILLS ARE OBSERVED

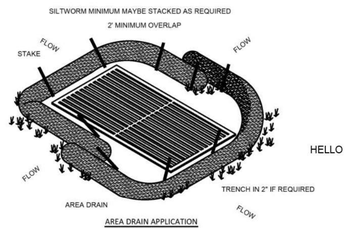
SEDIMENT SHALL BE REMOVED FROM BEHIND THE SILTWORM WHEN IT HAS ACCUMULATED TO 1/2 THE ORIGINAL HEIGHT OF THE STRUCTURE AND PAID FOR UNDER ITEM NUMBER 200-05, SEDIMENT REMOVAL PER CUBIC YARD.

REMOVAL

SILTWORM SHALL BE REMOVED FROM SLOPES, DITCHES, PERIMETER, OR INLETS AFTER STABILIZATION IS COMPLETE. THIS MAY BE ACCOMPLISHED BY CUTTING THE SOCK OPEN AND SPREADING THE FILL MATERIAL ON THE SITE. ALL NON-BIODEGRADABLE MATERIALS SHALL BE REMOVED. SILTWORMS APPLIED IN DITCHES SHALL BE COMPLETELY REMOVED.



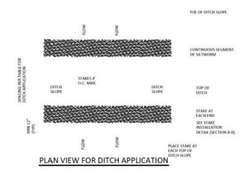
CURB IRON SPILLWAY APPLICATION



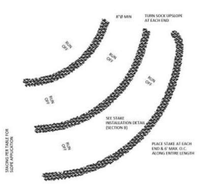
AREA DRAIN APPLICATION

HELLO

FOR DITCH CHECK APPLICATIONS THE MAXIMUM DRAINAGE AREA SHALL BE 15 ACRES. THE MINIMUM INSTALLED HEIGHT OF THE SILTWORM SHALL BE NO LESS THAN 19". THIS CAN BE ACCOMPLISHED BY STACKING SILTWORM PER STACK DETAIL ON PAGE 3. SILTWORM SHALL BE INSTALLED PERPENDICULAR TO THE WATER-FLOW, AND SHOULD PROGRESS UP THE SIDE-SLOPES OF THE DITCH BY A MINIMUM OF 3'.

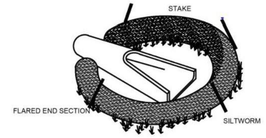


PLAN VIEW FOR DITCH APPLICATION

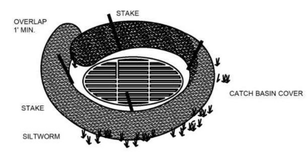


PLAN VIEW FOR FOR SLOPE APPLICATION

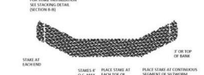
MAINTENANCE APPLICATION



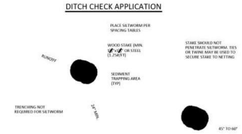
FLARED END APPLICATION



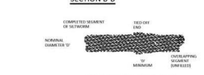
CATCH BASIN APPLICATION



DITCH CHECK APPLICATION



SECTION B-B

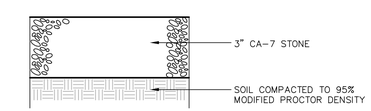


SILTWORM JOINT DETAIL

EROSION CONTROL PLAN LEGEND SILTWORM

SILTWORM JOINT STACK DETAIL ONLY)
SEE NOTE 3

1 SILTWORM DETAILS NTS



10.12.2018

GEWALT HAMILTON ASSOCIATES, INC.

PERMEABLE GRAVEL PATH DETAIL

GEWALT HAMILTON ASSOCIATES, INC.
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DETAILS

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101-DT.dwg
DRAWN BY: MGW
DATE: 9-04-2026
CHECKED BY: MGC
DATE: 9-04-2026
GHA PROJECT # 3376.101
SCALE: N.A.
SHEET NUMBER: 6 OF 9 SHEETS

J:\3300\3376 CUBA TOWNSHIP\3376.101 CUBA TOWNSHIP BUILDING ADDITION\3376.101-DT.DWG 9/3/2026 8:59 AM

TOTAL PROPERTY OWNERSHIP AREA

- 19.81 ACRES (862,984 S.F.)

TOTAL IMPERVIOUS AREA (1993)

- 1.39 ACRES (60,393 S.F.)

N

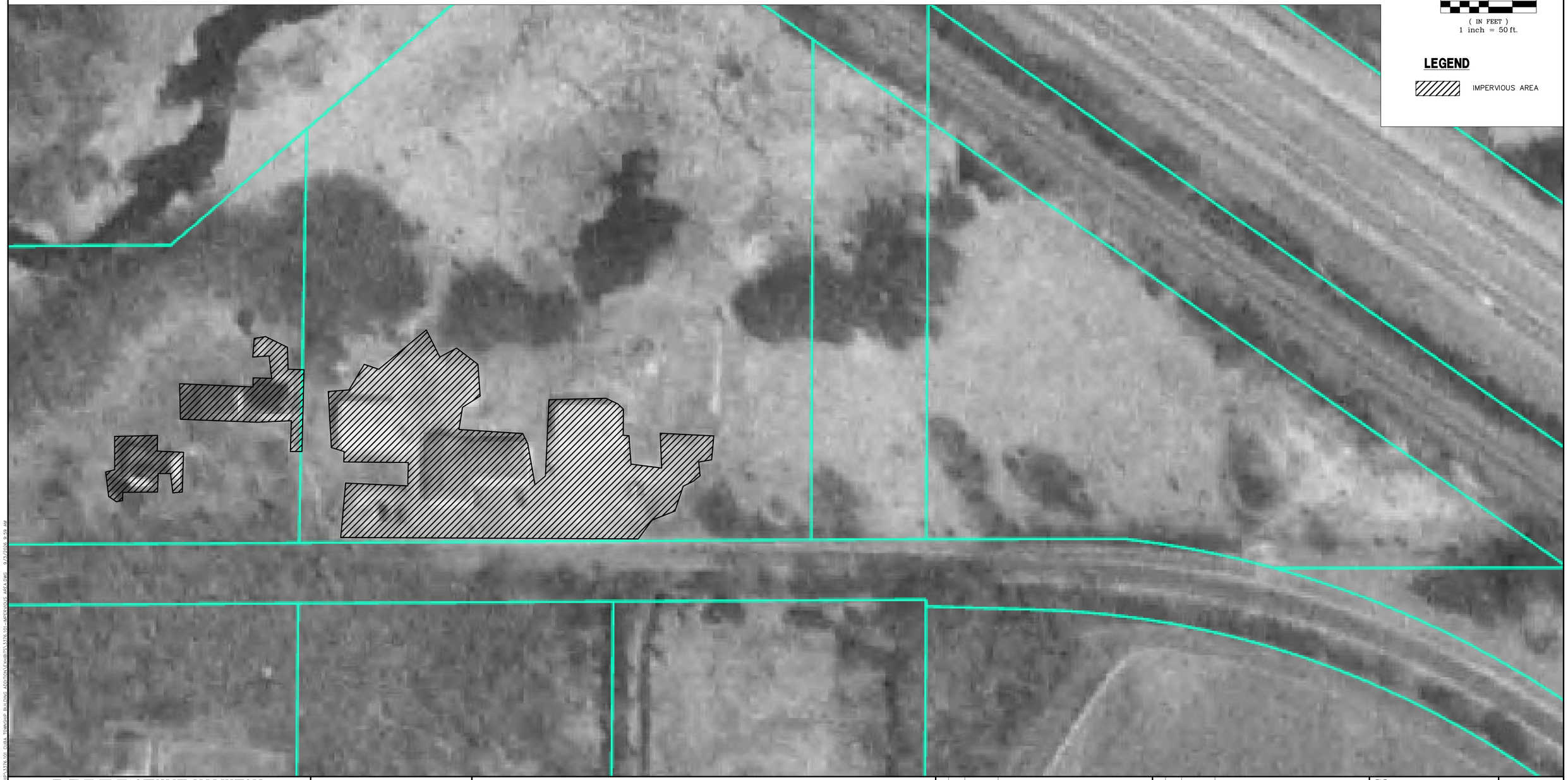
GRAPHIC SCALE

50 0 25 50

(IN FEET)
1 inch = 50 ft.

LEGEND

IMPERVIOUS AREA



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IMPERVIOUS AREA EXHIBIT (1993)

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101–Impervious Area.dwg

DRAWN BY: MGW
DATE: 9–04–2026

GHA PROJECT # 3376.101

CHECKED BY: MGFC
DATE: 9–04–2026

SCALE: 1"=50'

SHEET NUMBER: 7 OF 9 SHEETS

Q:\3300\3376 CUBA TOWNSHIP\3376.101 CUBA TOWNSHIP BUILDING ADDITION\CHUBB\3376.101-IMPERVIOUS AREA.DWG 9/2/2026 8:59 AM

TOTAL PROPERTY OWNERSHIP AREA

- 19.81 ACRES (862,984 S.F.)

TOTAL IMPERVIOUS AREA (EXISTING)

- 4.22 ACRES (183,729 S.F.)

NET IMPERVIOUS AREA

1993 TO EXISTING

- 1.39 – 4.22 ACRES = 2.83 ACRE INCREASE

N

GRAPHIC SCALE

50 0 25 50

(IN FEET)
1 inch = 50 ft.

LEGEND

IMPERVIOUS AREA

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IMPERVIOUS AREA EXHIBIT (EXISTING)

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION	NO.	BY	DATE	REVISION

FILE: 3376.101–Impervious Area.dwg

DRAWN BY: MGW
DATE: 9–04–2026

GHA PROJECT # 3376.101

CHECKED BY: MGFC
DATE: 9–04–2026

SCALE: 1"=50'

SHEET NUMBER: 8 OF 9 SHEETS

TOTAL PROPERTY OWNERSHIP AREA

- 19.81 ACRES (862,984 S.F.)

TOTAL IMPERVIOUS AREA (PROPOSED)

- 4.23 ACRES (184,263 S.F.)

NET IMPERVIOUS AREA

1993 TO PROPOSED

- 1.39 – 4.23 ACRES = 2.84 ACRE INCREASE

N

GRAPHIC SCALE

50 0 25 50

(IN FEET)
1 inch = 50 ft.

LEGEND

IMPERVIOUS AREA

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625 Forest Edge Drive ▪ Vernon Hills, IL. 60061
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IMPERVIOUS AREA EXHIBIT (PROPOSED)

CUBA TOWNSHIP BUILDING ADDITION
28000 W CUBA ROAD
BARRINGTON, IL 60010

NO.	BY	DATE	REVISION

NO.	BY	DATE	REVISION

FILE: 3376.101–Impervious Area.dwg

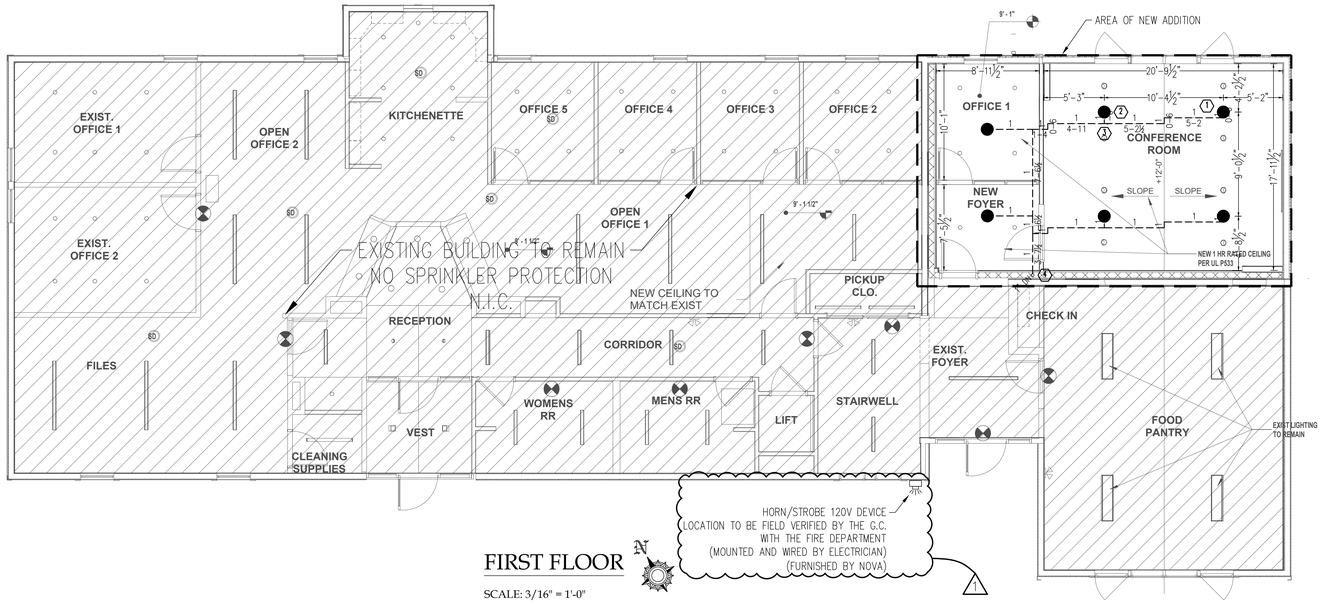
DRAWN BY: MGW
DATE: 9–04–2026

GHA PROJECT # 3376.101

CHECKED BY: MGFC
DATE: 9–04–2026

SCALE: 1"=50'

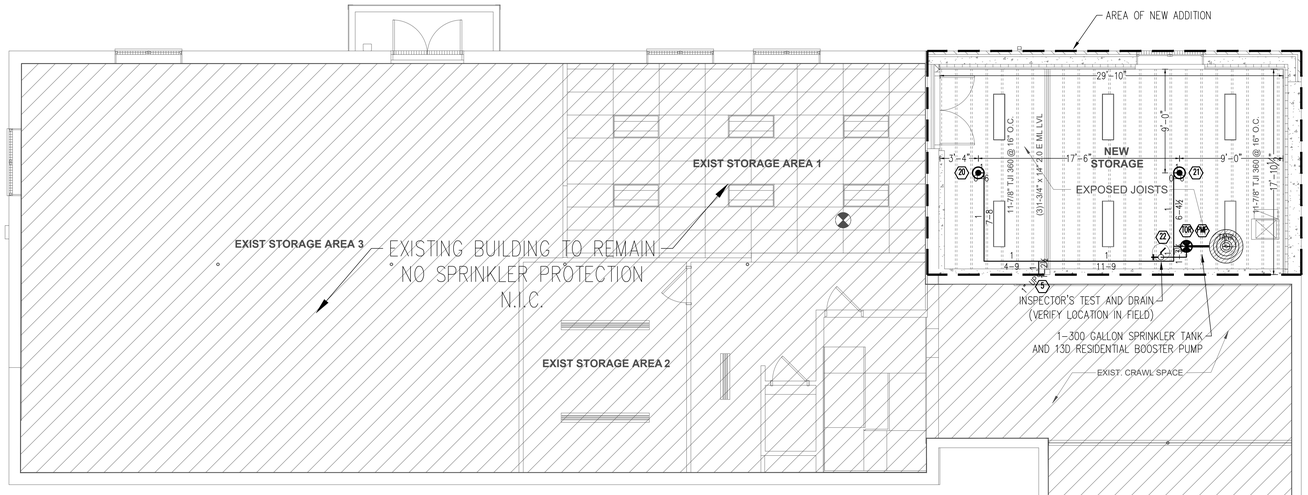
SHEET NUMBER: 9 OF 9 SHEETS



FIRST FLOOR

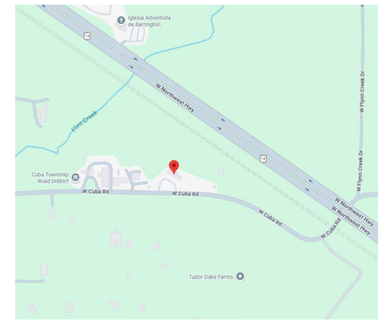
SCALE: 3/16" = 1'-0"

DASHED LINE DENOTES PIPING IN COLD AREA
(TO BE BOXED AND INSULATED BY OTHERS)



BASEMENT

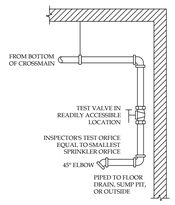
SCALE: 3/16" = 1'-0"

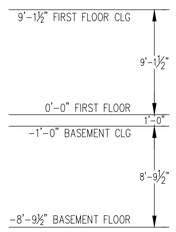


SITE PLAN

N.T.S.

INSPECTOR'S TEST DETAIL:





ELEVATION PLAN

SCALE: N.T.S.

GENERAL NOTES

INSTALLATION

SPRINKLER OBSTRUCTIONS
PROPER SPRINKLER-TO-OBSTRUCTION CLEARANCES SHALL BE MAINTAINED PER NFPA 13D. CEILING FANS REQUIRE A MINIMUM CLEARANCE (CENTER-TO-CENTER) OF 3'-0" FROM PENDENT SPRINKLERS AND 5'-0" FROM HORIZONTAL SIDEWALL SPRINKLERS.

RESIDENTIAL BATHROOMS AND CLOSETS
IN ACCORDANCE WITH NFPA, SPRINKLERS ARE NOT REQUIRED IN BATHROOMS 55FT² AND LESS.

SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES THAT MEET ALL OF THE FOLLOWING CONDITIONS:
1. THE AREA OF THE SPACE DOES NOT EXCEED 24FT²
2. THE WALLS AND CEILINGS ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED IN NFPA 220.

IN AL CLOSETS AND COMPARTMENTS THAT ARE SMALLER THAN 400FT², INCLUDING THOSE HOUSING MECHANICAL EQUIPMENT, PENDENT, UPRIGHT, AND SIDEWALL RESIDENTIAL SPRINKLERS SHALL BE PERMITTED TO BE INSTALLED IN EITHER OF THE FOLLOWING SITUATIONS:
1. WITHIN 18IN. OF THE CEILING TO AVOID OBSTRUCTIONS NEAR THE CEILING WHERE THE COMPARTMENT IS ENCLOSED BY WALLS AND A DOOR.
2. AT THE HIGHEST CEILING LEVEL WITHOUT REGARD TO OBSTRUCTIONS OR MINIMUM DISTANCES TO WALL

SPRINKLERS SHALL NOT BE REQUIRED IN CLOSETS IN GARAGES AND EXTERIOR CLOSETS (REGARDLESS OF SIZE) LOCATED ON EXTERIOR BALCONIES, EXTERIOR BREEZEWAYS/CORRIDORS, OR ACCESSED FROM OUTDOORS WHERE THE CLOSET DOES NOT HAVE DOORS OR UNPROTECTED PENETRATIONS DIRECTLY INTO THE DWELLING UNIT.

SHADOW AREAS
SHADOW AREAS SHALL BE PERMITTED IN THE PROTECTION AREA OF A SPRINKLER AS LONG AS THE CUMULATIVE DRY AREAS DO NOT EXCEED 15 FT² PER SPRINKLER.

INSULATION
ALL SPRINKLER PIPING INSTALLED IN ATTIC OR ANY UNHEATED AREA MUST BE BOXED AND INSULATED TO PREVENT FREEZING. BOXING AND INSULATING SPRINKLER PIPE IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

EXCLUDED SPACES
SPRINKLERS SHALL NOT BE REQUIRED IN GARAGES, OPEN ATTACHED PORCHES, CARPORTS, AND SIMILAR STRUCTURES UNLESS AMENDED BY LOCAL AHJ.

SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS WITH OR WITHOUT STORAGE, PENTHOUSE EQUIPMENT ROOMS, ELEVATOR MACHINE ROOMS, CONCEALED SPACES DEDICATED EXCLUSIVELY TO AND CONTAINING ONLY DWELLING UNIT VENTILATION EQUIPMENT, FLOOR/CEILING SPACES, ELEVATOR SHAFTS, CRAWL SPACES, AND OTHER CONCEALED SPACES THAT ARE NOT USED OR INTENDED FOR LIVING PURPOSES.

SPRINKLER PLAN
THIS SPRINKLER PLAN IS DIAGRAMMATIC. ACTUAL INSTALLATION OF SPRINKLER HEADS AND PIPING MAY CHANGE SLIGHTLY DUE TO FIELD CONDITIONS.

MATERIALS

SPRINKLER PIPE
THE SPRINKLER PIPING MAY BE STEEL OR CPVC, SEE NOTES ADJACENT TO EACH FLOOR PLAN FOR MATERIAL USED. STEEL PIPING 2" & LARGER TO BE LIGHT WALL BLACK SPRINKLER PIPING WITH GROOVED ENDS. ALL STEEL PIPING 1½" AND SMALLER TO BE SCHEDULE 40 BLACK SPRINKLER PIPING. ALL SPRINKLER PIPING SHALL BE APPROVED FOR USE IN FIRE SPRINKLER SYSTEMS.

WATER FLOW MONITORING DEVICES
ALL ELECTRONIC MONITORING DEVICES TO BE INSTALLED AND WIRED BY OTHERS. ALARM BELL(S) TO BE INSTALLED (BY OTHERS) ON EACH FURNACE RETURN AIR DUCT.

FIRESTOPPING
FIRESTOPPING MATERIAL USED ON THE SPRINKLER PIPING MUST MEET THE COMPATIBILITY REQUIREMENTS FOR CPVC PIPING. CONTACT CPVC MANUFACTURER FOR MORE INFORMATION AT WWW.BLAZEMASTER.COM.

TESTING AND INSPECTION

FINAL SYSTEM APPROVAL IS SUBJECT TO ON-SITE FIELD INSPECTIONS AND TESTING BY THE AUTHORITY HAVING JURISDICTION (A.H.J.). THE A.H.J. SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE OF ANY SPRINKLER PIPING BEING CONCEALED, SUCH AS IN WALLS OR ABOVE CEILINGS, SO THEY CAN INSPECT THE SYSTEM PIPING FOR CONFORMANCE WITH CODE REQUIREMENTS.

HYDROSTATIC TEST
WET SPRINKLER SYSTEM PIPING SHALL BE TESTED AT SYSTEM WORKING PRESSURE WHERE A FIRE DEPARTMENT PUMPER CONNECTION IS NOT PROVIDED PER NFPA 13D.

THE TEST PRESSURE SHALL BE READ FROM A GAUGE LOCATED AT THE LOWEST ELEVATION POINT OF THE SYSTEM OR PORTION BEING TESTED.

WATERFLOW DEVICES
WHERE WATERFLOW DETECTION DEVICES ARE INSTALLED, THESE DEVICES, INCLUDING THE ASSOCIATED ALARM CIRCUITS, SHALL BE FLOW TESTED THROUGH THE INSPECTOR'S TEST CONNECTION AND SHALL RESULT IN AN AUDIBLE ALARM ON THE PREMISES.

OPERATING TEST
ALL CONTROL VALVES SHALL BE FULLY CLOSED AND OPENED UNDER SYSTEM PRESSURE TO ENSURE PROPER OPERATION.
ALL CONTROL VALVES SHALL BE IDENTIFIED WITH PROPER SIGNAGE.

MAIN FLUSHING – BY OTHERS
INSTALLING CONTRACTOR SHALL FLUSH, TEST AND CHLORINATE UNDERGROUND MAINS PER NFPA 24 BEFORE ANY CONNECTION IS MADE TO THE SPRINKLER SYSTEM PIPING.

THE SYSTEM SHALL BE FLUSHED AT A MINIMUM VELOCITY OF 10 FT./SEC. REFER TO TABLE 10.10.2.1 IN NFPA 24 FOR MINIMUM FLOW REQUIREMENTS.

THE UNDERGROUND PIPING SHALL BE HYDROSTATICALLY TESTED WITH WATER AT NO LESS THAN 200 PSI OR 50 PSI OVER SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER.

THE GENERAL CONTRACTOR SHALL PROVIDE THE MUNICIPALITY AND NOVA FIRE PROTECTION WITH CERTIFICATES OF COMPLETION.

HYDRAULIC DATA

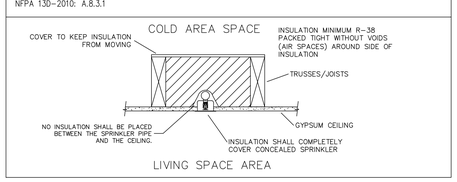
SYSTEM DESIGN CRITERIA

EACH HYDRAULICALLY DESIGNED SPRINKLER SYSTEM SHALL BE PERMANENTLY MARKED WITH A METAL OR RIGID PLASTIC SIGN SECURED WITH CORROSION RESISTANT WIRE, CHAIN, OR PLASTIC. THE SIGNS SHALL BE HUNG AT THE SYSTEM VALVE FOR THE CORRESPONDING HYDRAULICALLY DESIGNED AREA AND SHALL INCLUDE ALL PERTINENT HYDRAULIC DATA.

#	FLOOR	AREA OF PROTECTION	SYSTEM TYPE	OCCUPANCY CLASSIFICATION	DENSITY (GPM/FT²)	MAX. SPRINKLER AREA & SPACING	SYSTEM PRESSURE	SAFETY FACTOR	SHEET #
1	FIRST	CONFERENCE RM 2-CP	WET	RESIDENTIAL	2-HEAD REMOTE	256FT² (16'X16')	34 PSI	34 PSI	FP-1
2	BASEMENT	STORAGE 2-P	WET	RESIDENTIAL	2-HEAD REMOTE	324FT² (18'X18')	34 PSI	34 PSI	FP-1
3									
4									
5									
6									

COLD SPACE INSULATION DETAIL

PIPING IN AREAS SUBJECT TO TEMPERATURES BELOW 40°F MUST BE BOXED AND INSULATED (BY OTHERS). BOX CONSISTS OF A MINIMUM OF R-38 INSULATION OR AN R VALUE DETERMINED BY THE INSULATING CONTRACTOR TO MAINTAIN A MINIMUM OF 40°. THE INSULATION SHALL BE BACKED BY A COVER IN ORDER TO KEEP THE INSULATION FROM MOVING. BOXED-IN AREA MAY BE CREATED BY ANY MATERIAL SUITABLE FOR PREVENTING THE MOVEMENT OF DISPLACEMENT OF THE INSULATION. TYPICAL MATERIALS ARE PLYWOOD OR INSULATING FOAM BOARD. NFPA 13D-2010: A.8.3.1



SPRINKLER DESCRIPTION
BASEMENT– ⊙ 18X18
FIRST FLOOR– ● 16X16

PIPING LINEAR FT.

PIPE TYPE	SIZE	LINEAR FT.
STEEL SCH. 40	1"	54'-0"
CPVC	1"	74'-0"

PIPE INSTALLATION METHOD

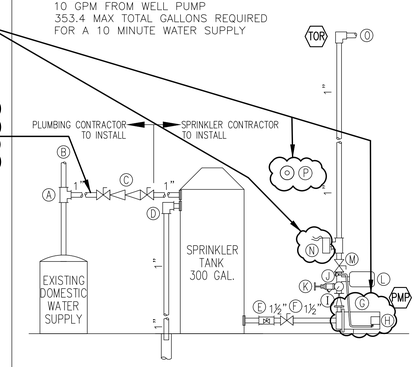
FLOOR	CONSTRUCTION TYPE	SPRINKLER PIPE	INSTALLATION METHOD
BASEMENT	EXPOSED/UNFINISHED	STEEL	EXPOSED PIPE BELOW BEAMS AND IN JOISTS
FIRST FLOOR	DRYWALL/FINISHED	CPVC	CONCEALED ABOVE CEILING OR IN WALLS

1 ELECTRICIAN RESPONSIBILITY:
–WIRE 230v/3 HP BOOSTER PUMP.
–WIRE FLOW SWITCH, 6" ALARM BELL, AND EXTERIOR HORN/STROBE AV DEVICE.

1 PLUMBER RESPONSIBILITY:
PLUMBER TO PROVIDE A 1" WATERLINE WITH A 1" MALE THREAD OFF EXISTING DOMESTIC WATER SYSTEM TO THE SPRINKLER SYSTEM BACKFLOW SUPPLYING WATER TO THE SPRINKLER TANK.

TANK REFILL RATE:
10 GPM FROM WELL PUMP
353.4 MAX TOTAL GALLONS REQUIRED FOR A 10 MINUTE WATER SUPPLY

SPRINKLER RISER DETAIL



Ⓐ INCOMING WATER FROM WELL TO BE SIZED TO 1" FOR SPRINKLER TANK FILL. (INSTALLED BY PLUMBER) (TIE-IN LOCATED BEFORE A WATER SOFTENER)
Ⓑ TO DOMESTIC
Ⓒ 1" BACKFLOW ASSEMBLY TO BE INSTALLED MAXIMUM 10'-0" FROM SPRINKLER TANK.
Ⓓ OVERFLOW DRAIN–PIPED TO FLOOR DRAIN SEPARATE FROM MAIN DRAIN.
Ⓔ TANK DRAIN–½" BALL VALVE
Ⓕ 1½" BALL VALVE
Ⓖ 13D RESIDENTIAL PUMP 50 PSI, 45 GPM, 3 HP, 230 VOLT (WIRED BY ELECTRICIAN)
Ⓗ PUMP PRESSURE SWITCH
Ⓘ 1½" CHECK VALVE
Ⓙ PRESSURE GAUGE
Ⓚ DRAIN VALVE
Ⓛ EXPANSION TANK
Ⓜ 1½" BALL VALVE
Ⓝ FLOW SWITCH (WIRED BY ELECTRICIAN)
Ⓞ 1" TO SPRINKLER SYSTEM
Ⓟ 6" ALARM BELL (INSTALLED & WIRED BY ELECTRICIAN)

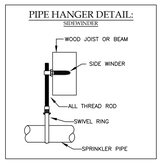
RISER NOTES
1. NOVA INSTALLATION BEGINS AFTER BACKFLOW. GENERAL CONTRACTOR IS RESPONSIBLE FOR CONNECTION FROM WELL TO THE BACKFLOW.
2. TANK TO BE INSTALLED NOT MORE THAN 10' FROM THE BACKFLOW.
3. ALL ELECTRICAL DEVICES TO BE WIRED BY THE ELECTRICIAN.
4. ALL SYSTEM VALVES AND GAUGES SHALL BE ACCESIBLE FOR OPERATIONS, INSPECTION, TESTS, AND MAINTENANCE.
5. HYDRAULIC PLACARDS TO BE ATTACHED TO OR NEAR THE RISER.

PIPE HANGER DETAIL:
STEEL PIPE HANGER SPACING

STEEL PIPE SIZE	MAXIMUM HANGER SPACING
1"	12'-0"
1¼"	12'-0"
1½"-4"	15'-0"

1. THERE SHALL BE NOT LESS THAN ONE HANGER FOR EACH SECTION OF PIPE.
2. SPRINKLERS SHALL NOT LESS THAN 6 FEET SHALL NOT REQUIRE A HANGER.
3. THE UNSUPPORTED LENGTH BETWEEN THE END SPRINKLER AND THE LAST HANGER ON THE LINE SHALL NOT BE GREATER THAN 36" FOR 1" PIPE, 48" FOR 1¼" PIPE AND 60" FOR 1½" PIPE OR LARGER.
4. THE LENGTH OF AN UNSUPPORTED ARMOVER TO A SPRINKLER SHALL NOT EXCEED 24" FOR STEEL PIPE.
5. ON CROSS MAINS THERE SHALL BE AT LEAST ONE HANGER BETWEEN EACH SET OF TWO BRANCH LINES.

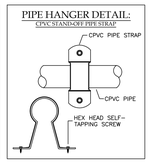
PIPE HANGER DETAIL:
SIDEWINDER



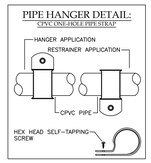
PIPE HANGER DETAIL:
CPVC PIPE HANGER SPACING

CPVC PIPE SIZE	MAX HANGER SPACING
¾"	5'-6"
1"	6'-0"
1¼"	6'-6"
1½"	7'-0"
2"	8'-0"

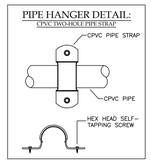
PIPE HANGER DETAIL:
CPVC STANDOFF PIPE STRAP



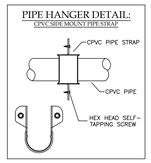
PIPE HANGER DETAIL:
CPVC ONE-HOLE PIPE STRAP



PIPE HANGER DETAIL:
CPVC TWO-HOLE PIPE STRAP



PIPE HANGER DETAIL:
CPVC SIDE MOUNT PIPE STRAP



SCOPE OF WORK

CONTRACT TYPE: DESIGN-BUILD
NFPA STANDARD: NFPA 13D
PROJECT DESCRIPTION: DESIGN AND INSTALL A FIRE SPRINKLER SYSTEM IN THE ADDITION ONLY OF A OFFICE BUILDING.

BUILDING DETAILS

BUILDING TYPE: OFFICE
NEW OR EXISTING: EXISTING & NEW ADDITION CONSTRUCTION
NUMBER OF FLOORS: 1 FLOOR WITH BASEMENT

SPRINKLER SYSTEM DETAILS

OF WET SYSTEMS: 1 WET SYSTEM
SYSTEM(S) DESIGN CODES: NFPA 13D
TOTAL SPRINKLERS: 8 TOTAL SPRINKLERS
BACKFLOW PREVENTOR: 1" DOUBLE CHECK VALVE
INCOMING WATER SERVICE: EXISTING SUPPLIED BY WELL

I have reviewed these plans and they conform to current acceptable standards for the installation of sprinkler systems
Signed:
Name: Kyle Garrity
Certification #: 124262
NICET Level IV
Fire Protection Engineering Technology
Water Based Systems Layout
NICET CERTIFIED

REVIEWING AUTHORITY COMMENTS/STAMPS

SHEET SET LEGEND

SHEET	SHEET TITLE
FP-1	SPRINKLER PLAN, NOTES, & DETAILS

DOCUMENT RECORD

INITIALS	DATE	DESCRIPTION
SMK	9/11/2026	ISSUED FOR PERMIT
SMK	10/16/2026	REVISION #1 FOR BID

SPRINKLER LEGEND

SYM	MAKE / MODEL	K	THD	ORF	FIN	SIN #	TEMP	QTY
⊙	RELIABLE F1 RES49 SEMI-RECESSED PENDENT	4.9	½"	7/16"	WHT	R3516	155°	2
●	RELIABLE RFC49 CONCEALED PENDENT	4.9	½"	7/16"	WHT	RA0616	165°	6

TOTAL SPRINKLERS ON SHEET 8
TOTAL SPRINKLERS ON PROJECT 8

NOVA FIRE PROTECTION
1530 WILEY ROAD • SCHAUMBURG • ILLINOIS • 60173
TEL: (847) 885-1605 • FAX: (847) 885-1607
www.NOVAFP.com
FIRE SPRINKLER CONTRACTOR LICENSE # FSC0069

DRAWN BY: S. KOZLOWSKI NOVA JOB #: 5316-1

CUBA TOWNSHIP BUILDING ADDITION
28000 WEST CUBA ROAD
BARRINGTON, ILLINOIS

SPRINKLER PLAN, NOTES, & DETAILS

FP-1
OF 1

CUBA TOWNSHIP
FIRE ALARM PLAN
28000 W CUBA ROAD
BARRINGTON, IL 60010

CONTRACTOR: SENTRY SECURITY
CONTACT: MIKE RAGNANESE
PHONE: (847) 353-7200

SITE PLAN
SCALE N.T.S.

BUILDING INFORMATION
BUILDING HEIGHT: ONE STORY
TYPE OF CONSTRUCTION: 5B
TYPE OF OCCUPANCY: B–BUSINESS
FULLY PROTECTED BY AN APPROVED AUTOMATIC SPRINKLER SYSTEM
OCCUPANCY LOAD: 74
SQUARE FOOTAGE: 8,045

DESIGN SUPERVISOR CARL J. OLOMON FIRE ALARM SYSTEMS, LEVEL IV NICET # 104680		EXP. DATE 02/01/29
DRAWN K. ADAD		DATE 05/13/26
CHECKED CARL J. OLOMON		DATE 05/13/26

SCOPE OF WORK:

1. THE CONTRACTOR SHALL INSTALL A NEW FULLY NFPA 72 COMPLIANT FIRE ALARM SYSTEM AS INDICATED ON THESE DRAWINGS.
   A. THIS SYSTEM SHALL CONSIST OF COMPLETE DETECTION VIA MONITORED SPRINKLER SYSTEM.
      A.1 THIS BUILDING IS FULLY PROTECTED BY AN APPROVED AUTOMATIC SPRINKLER SYSTEM.
   B. THIS SYSTEM SHALL CONSIST OF FULL AREA NOTIFICATION.
   C. THIS SYSTEM SHALL CONSIST OF MANUAL FIRE ALARM BOXES.

FIRELITE – PARTS LIST

SYMBOL	QTY	DESCRIPTION	PART NUMBER	MOUNTING NOTES
FCP	1	FIRE ALARM CONTROL PANEL W/ DOCUMENT BOX	ES–200X	72" A.F.F. TO TOP
	2	7AH BATTERY	–	–
R1	4	ADDRESSABLE RELAY FOR HVAC SHUT DOWN	CRF–300	DETERMINE IN FIELD
DD	4	DUCT DETECTOR	DNRW W/SD365R	DETERMINE IN FIELD
FAA	1	FIRE ALARM ANNUNCIATOR	ANN–80	60" A.F.F. TO CENTER
135°F D	1	HEAT DETECTOR	H365	ON CEILING OR WALL AS REQUIRED
HT D 194°F	4	HEAT DETECTOR HIGH TEMPERATURE	H365HT	ON CEILING OR WALL AS REQUIRED
S	4	MANUAL PULL STATION	BG–12LX	48" A.F.F. TO CENTER
RTS	4	REMOTE KEY TEST SWITCH	RTS151KEY	DETERMINE IN FIELD
SD	24	SMOKE DETECTOR PHOTOELECTRIC	SD365	ON CEILING OR WALL AS REQUIRED
VSS	2	SPRINKLER VALVE SUPERVISORY SWITCH W/MONITOR MODULE	MMF–300	DETERMINE IN FIELD
WF	1	WATERFLOW W/MONITOR MODULE	MMF–300	DETERMINE IN FIELD
RA	1	WIRELESS RADIO	–	DETERMINE IN FIELD

* CONTRACTOR IS RESPONSIBLE TO VERIFY ALL PART NUMBERS AND QUANTITIES.

SYSTEM SENSOR – NOTIFICATION LIST

SYMBOL	QTY	DESCRIPTION	PART NUMBER	MOUNTING NOTES
AV	14	AUDIO VISUAL	P2RLED	80"–96" A.F.F. TO CENTER OF LENS
V	6	VISUAL	SRLED	80"–96" A.F.F. TO CENTER OF LENS
WP V	1	VISUAL WEATHERPROOF	SGRKLED	80"–96" A.F.F. TO CENTER OF LENS

* CONTRACTOR IS RESPONSIBLE TO VERIFY ALL PART NUMBERS AND QUANTITIES.

DRAWING LIST:

–	COVER
AL0.01	FIRE ALARM NOTES, SYMBOLS, INFORMATION AND DETAILS
AL1.00	FIRE ALARM BASEMENT & FIRST FLOOR PLANS
AL1.01	FIRE ALARM ATTIC PLAN
AL2.00	FIRE ALARM SINGLE LINE RISER DIAGRAM
AL3.00	FIRE ALARM CONTROL PANEL DETAIL

APPROVAL STAMP

Fire Safety Consultants, Inc.
2175 Point Blvd
Suite 380
Elgin, IL 60123
PH: 847-697-1300
FSCI
RECOMMENDING APPROVAL
6/8/2026, 3:25:38 PM
F26-13355
Mike Carnduff - NICET #149677

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CONTACT: MIKE RAGNANESE

CUBA TOWNSHIP
CONTRACTOR: SENTRY SECURITY

1

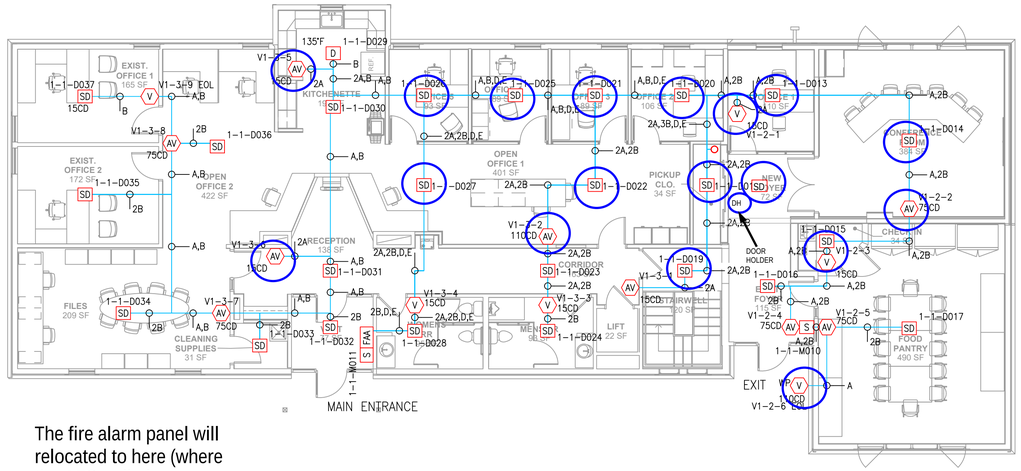
CUBA TOWNSHIP
FIRE ALARM PLAN
28000 W CUBA ROAD
BARRINGTON, IL 60010

CONTRACTOR: SENTRY SECURITY
339 EGIDI DRIVE
WHEELING, IL 60090
CONTACT: MIKE RAGNANESE
PHONE: (847) 353-7200

This is an existing fire alarm system that will be changed to a different brand, so some existing device will just be swapped and not need new conduit.
It's the new devices and relocated device that will need conduit and /or boxes.

The devices that will need conduit stubs or boxes will be circled in BLUE

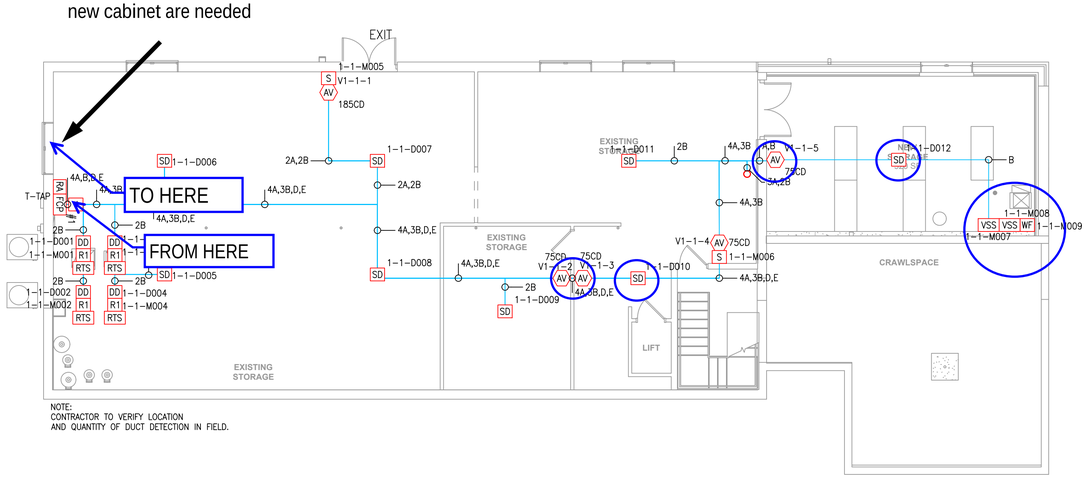
Note: there is an open attic above most of the 1st floor, but not all.



The fire alarm panel will relocated to here (where the AES radio is currently mounted.

Sentry will move the panel. Conduit stubs to new cabinet are needed

1 FIRE ALARM FIRST FLOOR PLAN
SCALE: 1/8"=1'-0"



NOTE:
CONTRACTOR TO VERIFY LOCATION AND QUANTITY OF DUCT DETECTION IN FIELD.

2 FIRE ALARM BASEMENT PLAN
SCALE: 1/8"=1'-0"

MASTER NOTIFICATION ZONE LIST

POWER SUPPLY IDENTIFIER	CIRCUIT	LOCATION	TOTAL CURRENT (A)	CIRCUIT LENGTH (FT)	VOLTAGE AT LAST DEVICE (V)	VOLTAGE DROP (%)
FCP#1	CIRCUIT 1	FIRST FLOOR	0.538	164	19.86	2.66%
FCP#1	CIRCUIT 2	2ND FLOOR EAST	0.382	233	19.85	2.68%
FCP#1	CIRCUIT 3	2ND FLOOR WEST OFFICES	0.427	465	19.18	5.98%
FCP#1	CIRCUIT 4	SPARE	0.000	0	20.40	0.00%

The Fire-Lite SD365 smoke detector mounts to any of the following electrical boxes that are at least 1.5 inches (3.81 cm) deep:
- Single-gang box
- 3.5-inch or 4.0-inch octagonal box
- 4.0-inch square electrical box (with or without a mud ring)

Key Installation Requirements:

- Box Depth: The electrical backbox must have a minimum depth of 1.5 inches to properly accommodate the base wiring and connections.
- Mud Ring: A mud ring is not required, though a 4-inch square box can be used with or without one.

System Sensor wall-mount strobes, horns, and horn strobes (such as the L-Series) mount to standard recessed electrical boxes..

Recessed Wall Box Options (Flush Mount)

- Standard Horns, Strobes, and Horn Strobes:
  - 4" × 4" × 1½" (or deeper) square back box
  - Single-gang or double-gang back box
- Mud Rings:
  A standard single-gang or double-gang plaster/mud ring can be used

SCOPE OF WORK

1. THE CONTRACTOR SHALL INSTALL A NEW FULLY NFPA 72 COMPLIANT FIRE ALARM SYSTEM AS INDICATED ON THESE DRAWINGS.
   - A. THIS SYSTEM SHALL CONSIST OF COMPLETE DETECTION VIA MONITORED SPRINKLER SYSTEM.
     - A.1 THIS BUILDING IS FULLY PROTECTED BY AN APPROVED AUTOMATIC SPRINKLER SYSTEM.
   - B. THIS SYSTEM SHALL CONSIST OF FULL AREA NOTIFICATION.
   - C. THIS SYSTEM SHALL CONSIST OF MANUAL FIRE ALARM BOXES.

WIRE/CABLE LEGEND

NAC	14/2 AWG	A
SLC	18/2 AWG	B
AUX	14/2 AWG	D
FAA	16/2 AWG	E
RTS	18/4 AWG	G
RADIO	(1)RJ11+(3)18/2	L
RACEWAY	MULTICONDUCTOR RACEWAY/PATHWAY	A,B,C...

NOTES

1. ALL WIRING/CABLE TO BE ENCLOSED IN APPROVED RACEWAY OR EXPOSED PATHWAY UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO VERIFY WIRE/CABLE TYPE PER MANUFACTURER'S SPECIFICATION.
3. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ANY PLENUM RATED AREAS WHERE PLENUM RATED CABLE MAY BE REQUIRED.

BLOCK LEGEND

SYMBOL	DESCRIPTION
FCP	FIRE ALARM CONTROL PANEL W/ DOCUMENT BOX
R1	ADDRESSABLE RELAY FOR HVAC SHUT DOWN
AV	AUDIO VISUAL
DD	DUCT DETECTOR
FAA	FIRE ALARM ANNUNCIATOR
D	HEAT DETECTOR
J	SLC T-TAP
S	MANUAL PULL STATION
RTS	REMOTE KEY TEST SWITCH
O	RISER CONDUIT
SD	SMOKE DETECTOR PHOTOELECTRIC
VSS	SPRINKLER VALVE SUPERVISORY SWITCH W/MONITOR MODULE
V	VISUAL
WF	WATERFLOW W/MONITOR MODULE
RA	WIRELESS RADIO

DEVICE LEGEND

DEVICE SUBSCRIPT (SEE SUBSCRIPTS)
DEVICE CIRCUIT NUMBER AND DEVICE WIRING LOCATION ALONG CIRCUIT (NODE 2, CIRCUIT 1, DEVICE 4)

C/WP/H V2-1-4 1-1-D012
AV SD
110CD

DEVICE CANDELA RATING
DEVICE IDENTIFICATION DESIGNATION (MODULE/DETECTOR) AND ADDRESS FOR PROGRAMMING (NODE 1, CIRCUIT 1, DETECTOR 12)

SUBSCRIPTS

N	NEW DEVICE	ROR	RATE-OF-RISE
H	HIGH CANDELA	FT	FIXED TEMPERATURE
CD	CANDELA	RB	RELAY BASE
DC	DROP CEILING	EL	ELEV. RECALL DEVICE
HC	HARD CEILING	TR	TRANSMITTER
C	CEILING MOUNTED	RC	RECEIVER
W	WATT	LF	LOW FREQUENCY
WP	WEATHERPROOF	FSD	FIRE SMOKE DAMPER
EOL	END OF LINE RESISTOR	HT	HIGH TEMPERATURE

DRAWING TITLE: FIRE ALARM BASEMENT & FIRST FLOOR			
SCALE:	1/8" = 1'-0"	JOB: CUBA TOWNSHIP 28000 W CUBA ROAD BARRINGTON, IL 60010	REVISIONS:
DATE:	05/13/26		
DRAWN BY:	K. ADAD	ENGINEER: FIRE BY DESIGN, INC. 155 REVERE DRIVE, SUITE 10 NORTHBROOK, IL 60062	PHONE: (847) 265-4400 FAX: (847) 265-4401
APPROVED BY:	C.U.J.O.		
PROJECT NO:	KA051326-8243	CONTRACTOR: CONTRACTOR: SENTRY SECURITY 339 EGIDI DRIVE WHEELING, IL 60090	CONTACT: MIKE RAGNANESE 847-353-7200

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