ARCHITECTURAL GENERAL NOTES

Section 07 41 13 – Metal Roof Panels & Ceiling Assemblies

1. Exterior Metal Roofing

- **Panel Profile:** 24-gauge minimun structural Galvalume steel standing seam metal roof panels. Panel width must be a maximum of 16 inches with a minimum leg/seam height of 1.5 inches.
- **High-Wind Compliance:** The entire roof panel grid, clip attachment intervals, and perimeter flashing must possess an active Florida Product Approval certified under **TAS 125** to withstand negative wind uplift forces in a 170 mph wind field.
- **Underlayment:** A continuous layer of self-adhering, high-temperature rubberized asphalt membrane (Grace Ice & Water Shield or approved high-heat equivalent designed for metal roof systems) applied directly over the 15/32-inch wood sheathing substrate.

2. Structural Framing & Wind Tie-Downs

- **Rake Finishes:** Fixed rake flashing and drip edge elements must be installed in strict compliance with the roofing manufacturer's high-wind guidelines and must carry independent HVHZ product approvals by the State of Florida.

3. Ceiling Thermal & Moisture Envelope

- **Vapor Retarder:** A Class I impermeable vapor block sheet must be stretched continuously across the bottom chords of the wood roof rafters before insulation layers are installed.
- **Ceiling Insulation:** 3-inch thick Polyisocyanurate (polyiso) minimun R-6 per 1" thickness rigid foam insulation boards installed flush against the ceiling framing plane underneath the rafters.
- **Interior Ceiling Cladding:** 5/8-inch Type "C" fire-rated moisture-resistant gypsum board mechanically fastened to the ceiling wood blocking grid using extended-length drywall screws driven through the polyiso boards directly into the wood structural elements.

Section 07 21 00 – Interior Wall Insulation and Furring Systems

1. Moisture and Vapor Barriers

- **Primary Wall Barrier:** Class I impermeable vapor block sheet must be stretched continuously between the interior side of masonry wall and Z-furring channels.

2. Thermal Core & Furring Layout

- **Furring Channels:** 2-inch wide galvanized steel Z-furring channels mechanically anchored horizontally or vertically to the interior masonry face.
- **Wall Insulation:** 2-inch thick Polyisocyanurate (polyiso) rigid foam insulation panels tightly fitted and friction-locked within the cavity space between the 2-inch Z-channels, establishing a continuous interior thermal barrier rated at a minimum of R-12.
- **Wall Finish Matrix:** 5/8-inch Type "C" moisture-resistant gypsum board fastened directly to the exposed structural metal flanges of the 2-inch Z-furring channels using self-drilling framing screws.

Section 07 72 00 – Roof Ventilation Systems

1. Intake Eave Ventilation

- **Eave Detailing:** 2x wood blocking elements located along the open eave overhangs must be factory or field-notched to establish a continuous air intake pathway. All eave ventilation openings must be backed with fine-mesh stainless steel wire screening to prevent bird or insect intrusion.

2. Exhaust Ridge Ventilation

- **Ridge Vent Equipment:** Install a continuous **Low Profile Ridge Ventilator manufactured by Metallic Products** (or an engineered equivalent explicitly approved for high-wind/HVHZ service by the State of Florida).
- **Water Barrier Compliance:** The venting unit must be certified under **TAS 100(A)** to block wind-driven rain infiltration during hurricane-force velocity events. The vent must be bedded in continuous ribbons of premium polyisobutylene tape or polyurethane sealant and screwed down securely through the standing seam panel pans into the wood structural deck per certified engineering standards.

Section 08 11 13 – Exterior Openings (Doors & Hardware)

1. Performance and Structural Certifications

- **HVHZ Wind/Impact Mandate:** All exterior door openings—including the personnel doors and the large overhead rolling door assembly—must carry active Florida Product Approvals (FPA) certifying large-missile impact resistance and full compliance within a 170 mph wind design zone.
- **Jamb Interface:** Door frame profiles must match the hollow metal configurations indicated in the schedules, wire tied to solid grouted block jamb cells and precast structural lintel elements.

2. Fabrication and Coatings

- **Steel Construction:** Door faces, structural inner ribs, and frames must be manufactured from **A60 Commercial Quality Galvannealed Steel** matching ASTM A653 criteria.
- **Priming:** All factory surfaces must be treated with a continuous baked-on rust-inhibitive primer immediately post-fabrication.
- **Finishes:** Field coat all frames and door panels utilizing two coats of premium exterior acrylic latex paint or a high-durability two-part aliphatic polyurethane chemical-resistant coating system.

3. Opening Hardware

- **Hardware Controls:** All locksets, strikes, hinges, flush bolts, and exit mechanisms must be constructed of 300-series stainless steel or hot-dip galvanized components to prevent galvanic degradation from the chemical dosing environment.
- **Gaskets:** Personnel doors must be fitted with perimeter silicone or EPDM weatherstripping and a heavy-duty mill-finished aluminum threshold with an integrated neoprene bulb seal.

Section 22 11 19 – Facility Drainage and Piping Systems

1. Floor Drain Hardware

- **Floor Drain Assembly:** Install a **ZURN EZ-PV2-ST-SS Floor Drain** featuring a heavy-duty stainless steel strainer top, set perfectly flush with the low-point of the concrete slab layout.
- **Sewer Gas Barrier:** The drain basin must be fitted with an integrated Zurn mechanical trap seal protection device to maintain a positive vapor block without relying on continuous liquid trap priming.

2. Under-Slab Piping & Structural Foundation Sleeve

- **Carrier Pipe:** Drainage lines running beneath the concrete slab-on-grade must consist of 3-inch solid-wall structural PVC drain piping connected directly to the floor drain outlet.
- **Wall Penetration Sleeve:** Where the 3-inch PVC line passes through the thick exterior monolithic concrete foundation wall footing, it must be routed inside a **5-inch Schedule 40 PVC sleeve pipe cast directly into the concrete foundation pour** .
- **Annular Seal:** The 3-inch carrier pipe must be centered within the 5-inch sleeve to maintain a minimum uniform **1/2-inch radial clearance space** . The entire internal longitudinal annular gap between the sleeve and carrier pipe must be filled and sealed airtight using high-density closed-cell expanding polyurethane structural spray foam insulation.

3. Exterior Outfall Rock Bed Trench (if needed)

- **Dimensions:** Excavate a drainage trench measuring exactly 10 inches wide by 18 inches deep relative to localized finish grade.
- **Subgrade Slope:** The bottom of the trench excavation must maintain a continuous downward grade slope of **2% minimum** directed away from the building's monolithic foundation edge.
- **Separation Fabric:** Line the entire bottom, vertical sidewalls, and top perimeter flaps of the excavated channel with an approved water-permeable woven geotextile landscape fabric.
- **Aggregate Fill:** Fill the lined trench with clean, washed, uncrushed river rock or crushed stone aggregate graduated from a minimum size of 3/4-inch to a maximum size of 1.5 inches. Wrap the upper margins of the geotextile fabric over the aggregate bed before covering with final topsoil or concrete sidewalk placements.

4. Exterior Emergency Shower Grate

- **Grate:** 3' x 5' fiberglass molded industrial floor graing, matching Fibergrate Model 264417.02 parameters.
- **Anchor Hardware:** Fibergrate Type 316 Stainless Steel grating clips pair with matching concrete masonry expansion anchor sealed with Sikaflex Sealant.

Section 22 13 00 – Facility Sanitary Drainage & Pre-Cast Containment

1. Pre-Cast Holding Tank

- **Manufacturer & Model:** 450-gallon capacity structural concrete tank by Baker Septic & Precast, or approved equal.
- **Access Configuration:** Integration of integrated riser, top cover, and physical access hatch system provided monolithically by the tank manufacturer.
- **Penetration Seal:** Exterior wall core-drill location must interface with the incoming carrier line using a flexible mechanical Kor-N-Seal Pipe Boot to ensure a watertight gasket boundary.

Section 23 81 26 – Split-System Mechanical and Ventilation Loops

1. System Design and Equipment Ratings

The climate inside the booster pumping building must be regulated by 2 industrial split-system heat pump unit matching the details listed in the **Split System Mechanical Schedule** :

- **Indoor Unit (Fan Coil FC-1):** Two Wall-mounted indoor units manufactured by Daikin (Model: FXAA24AAVJU or certified equivalent) configured to operate on a 208-230V, single-phase, 60Hz electrical service loop.
- **System Controller:** System must be supplied with a dedicated BRC1NRV71 Navigation Remote Controller powered via a constant 16 VDC link running directly from the indoor fan coil unit logic terminal board.
- **Outdoor Unit (Heat Pump HP-1):** Two wall bracket mounted condensing units manufactured by DAIKIN / Model RXTA24AAVJU (or approved equal) possessing a certified SEER efficiency rating matching regional energy profiles. Electrical characteristics must comply with nameplate ratings: Operating voltage of 208-230V, single-phase, 60Hz; Minimum Circuit Ampacity (MCA) of 19.8A; and Maximum Overcurrent Protection (MOCP) breaker size of 20A. Weight is approximately 234 lbs.
- **High-Wind Structural Bracing:** Each outdoor condensing unit must be bolted to its external concrete pad using engineered wind-load tie-down brackets (Model number PW082441 or identical certified assembly) calculated to prevent sliding or overturning in a 170 mph wind event.

2. Mechanical Pipe Sleeves and Seals

- **Wall Penetrations:** All refrigerant suction/liquid lines, electrical control cables, and condensation drain hoses passing through the reinforced exterior CMU wall must be routed through a dedicated rigid polyvinyl chloride wall sleeve.
- **Insulation:** The suction line must be wrapped along its entire length with a minimum 1/2-inch wall thickness closed-cell elastomeric pipe insulation jacket.
- **Weather Seal:** Seal both the interior and exterior annular faces of the wall sleeves using a non-hardening waterproof silicone masonry sealant compound to block external relative humidity.

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LAKEFRONT ESTATES DEVELOPMENT
GLADES COUNTY, FL
POTABLE WATER STORAGE AND PUMPING

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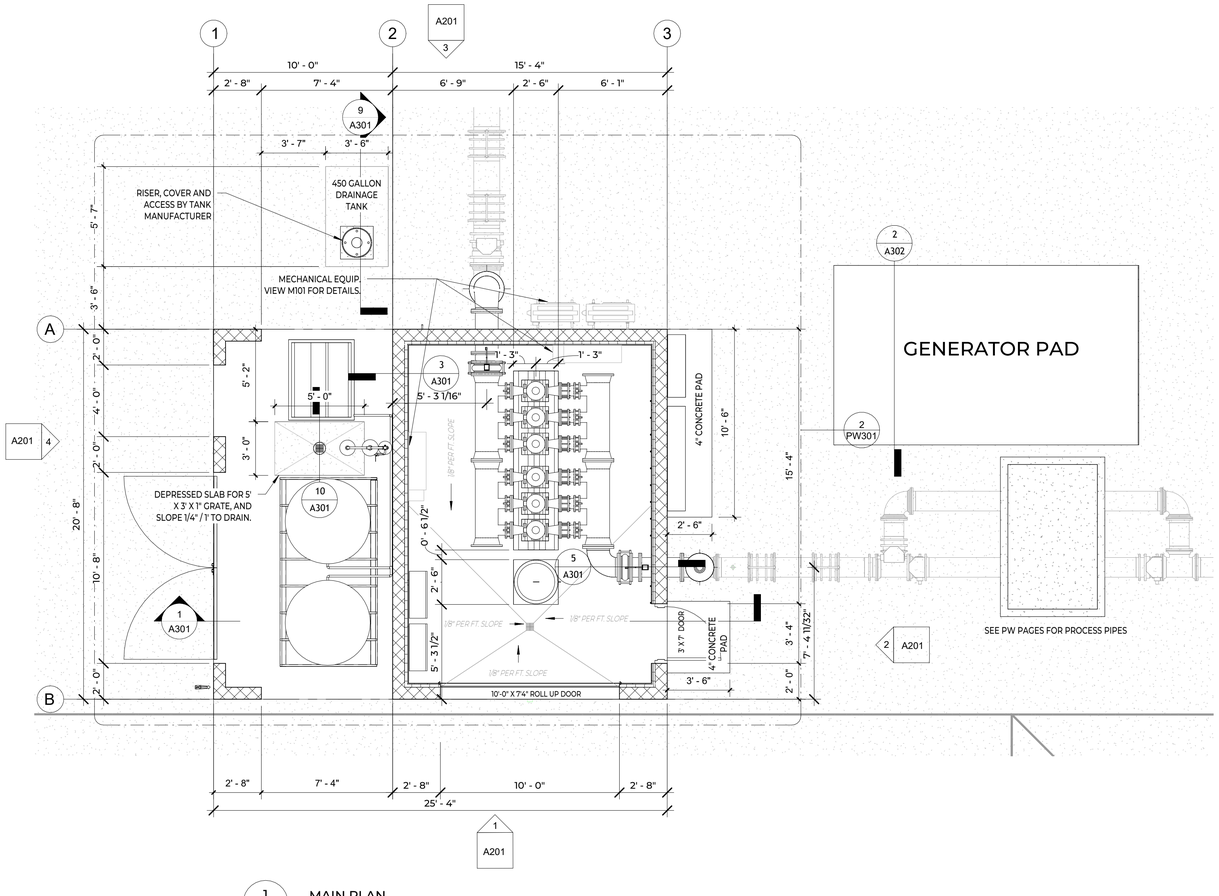
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Date	07.17.2026
Drawn by	FM
Checked by	WDN

CONSTRUCTION DOCUMENTATION

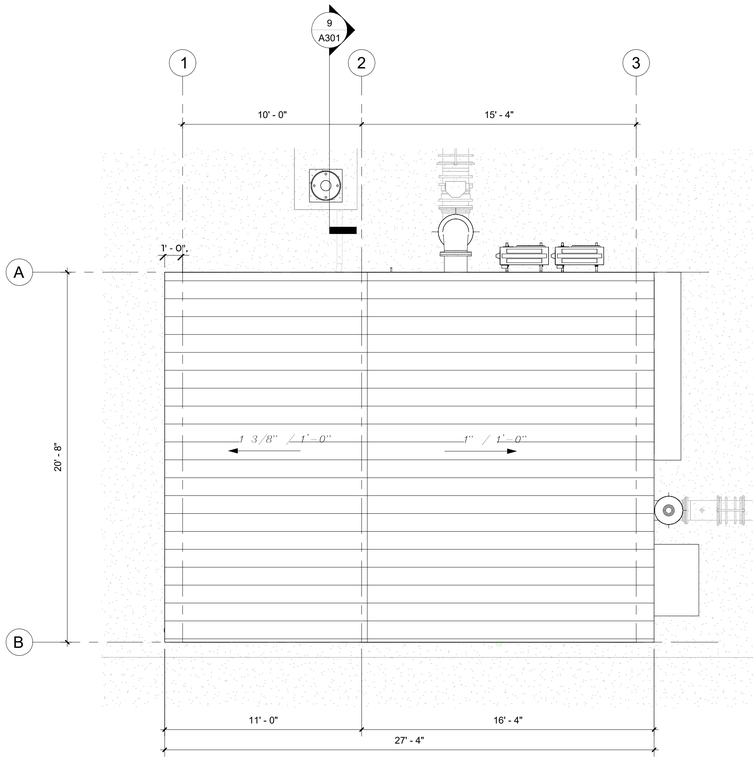
GENERAL NOTES

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1 A101 MAIN PLAN
SCALE: 1/4" = 1'-0"



3 A101 ROOF PLAN
SCALE: 1/4" = 1'-0"

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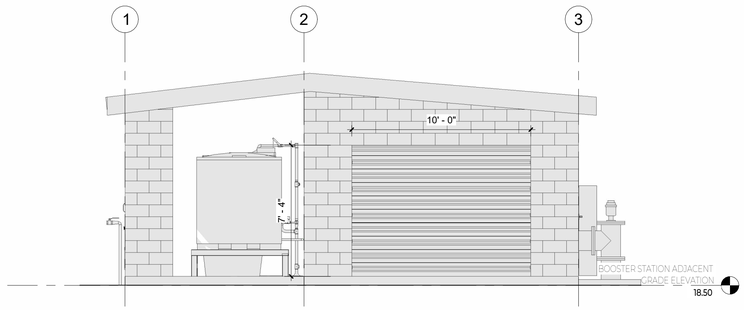
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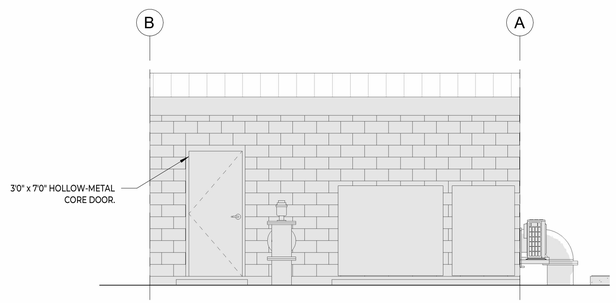
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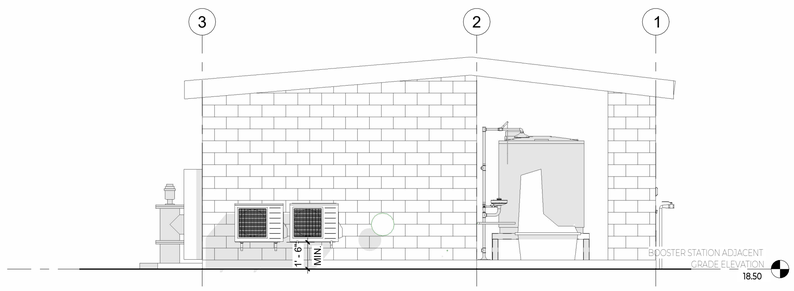
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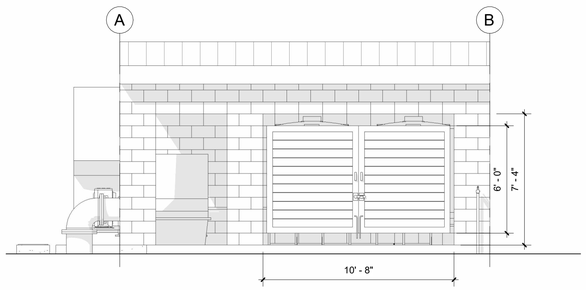
1 A201 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



2 A201 EAST ELEVATION
SCALE: 1/4" = 1'-0"



3 A201 NORTH ELEVATION
SCALE: 1/4" = 1'-0"



4 A201 WEST ELEVATION
SCALE: 1/4" = 1'-0"

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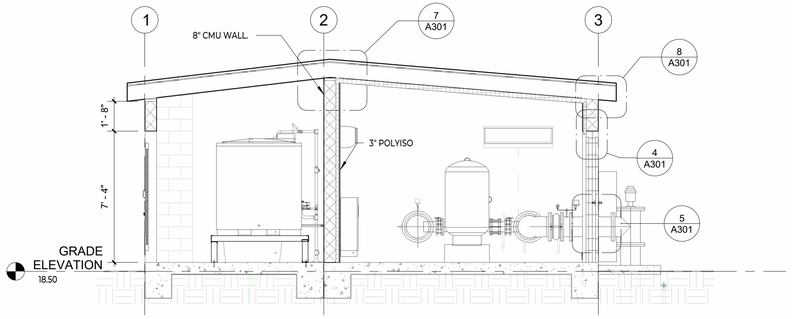
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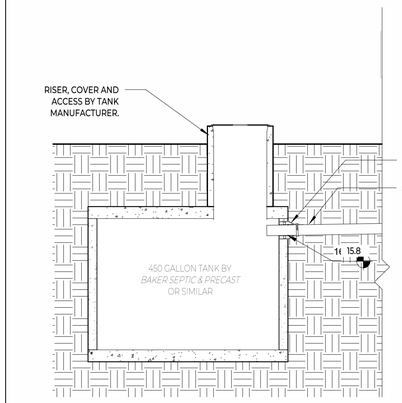
ELEVATIONS

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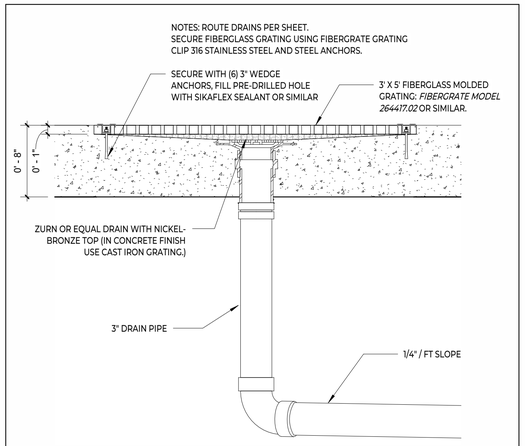
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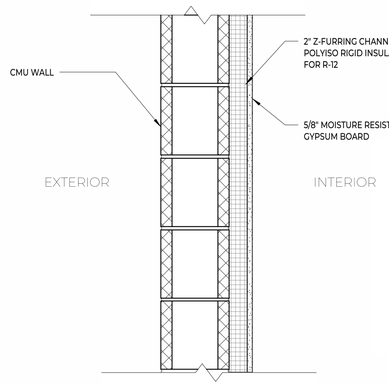
1 A301 CROSS SECTION
SCALE: 1/4" = 1'-0"



9 A301 PRE-CAST TANK
SCALE: 1/2" = 1'-0"

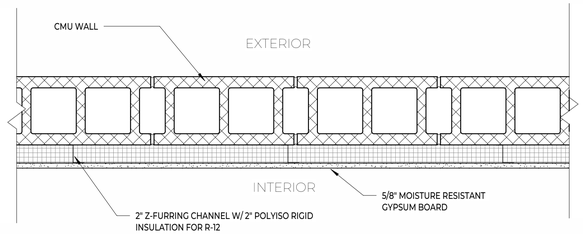


10 A301 EMERGENCY SHOWER DRAIN
SCALE: 1 1/2" = 1'-0"



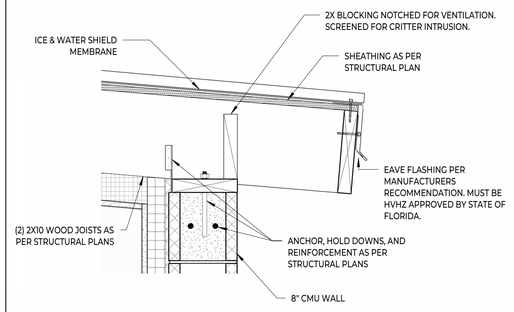
TYP. INSULATED WALL SECTION

NOTE: FOR ROOF AND WALL REINFORCEMENT AND STRUCTURAL DETAILS REVIEW PAGES S101 & S301



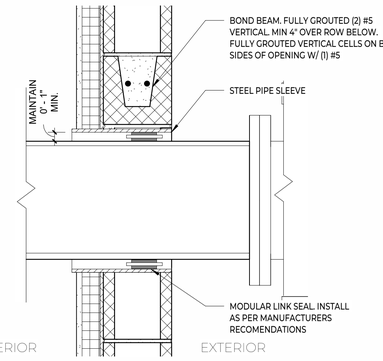
TYP. INSULATED WALL PLAN VIEW

3 A301 INSULATED WALL
SCALE: 1 1/2" = 1'-0"

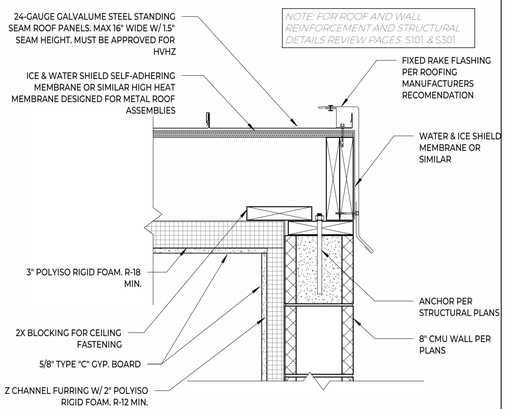


*PAINT / PRIME ALL EXPOSED DIMENSIONAL LUMBER

8 A301 INSULATED CEILING EAVE
SCALE: 1 1/2" = 1'-0"

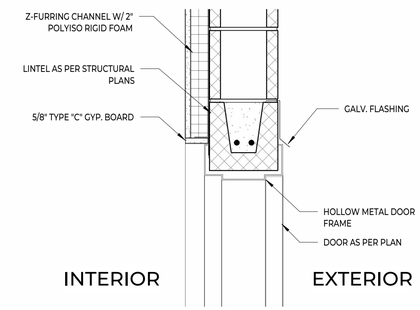


5 A301 12" PIPE SLEEVE
SCALE: 1 1/2" = 1'-0"

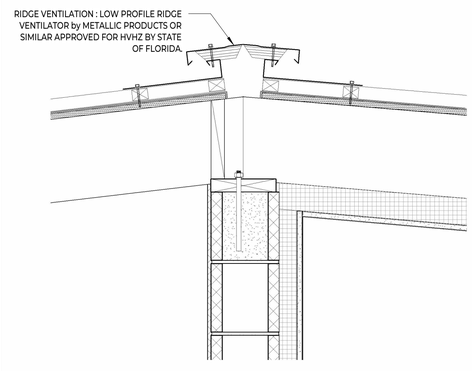


NOTE: FOR ROOF AND WALL REINFORCEMENT AND STRUCTURAL DETAILS REVIEW PAGES S101 & S301

2 A301 ROOF TO RAKE WALL
SCALE: 1 1/2" = 1'-0"



4 A301 DOOR HEAD DETAIL
SCALE: 1 1/2" = 1'-0"



7 A301 RIDGE VENT DETAIL
SCALE: 1 1/2" = 1'-0"

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POTABLE WATER STORAGE AND PUMPING

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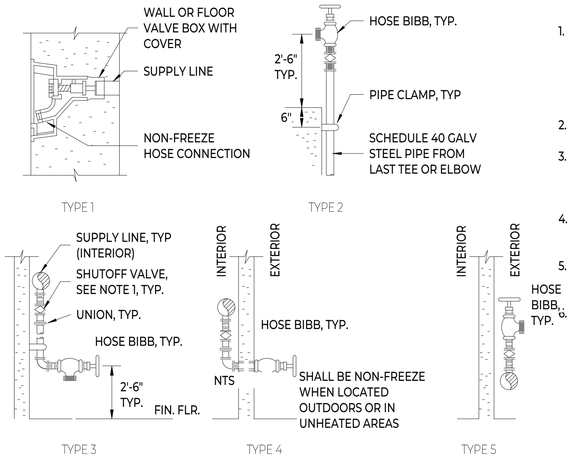
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SECTIONS AND DETAILS

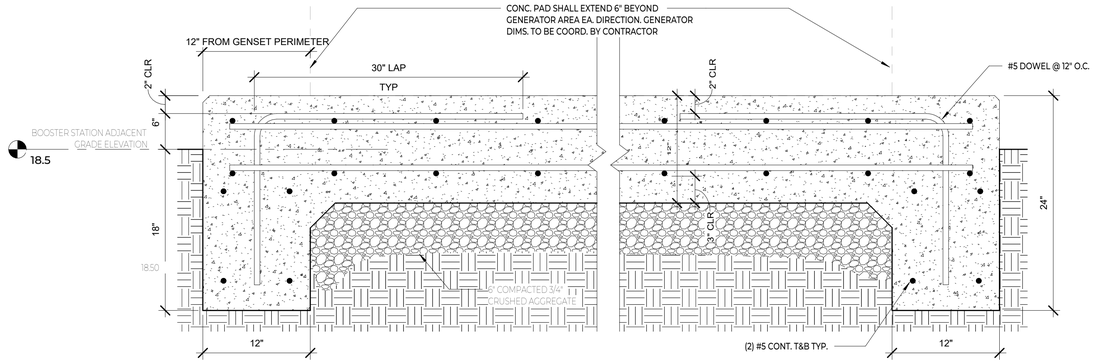
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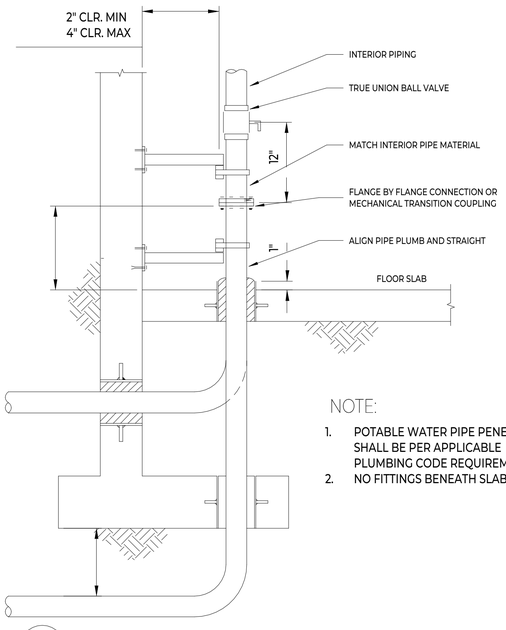


7 A302 TYP. HOSE BIB MOUNTING ARRANGEMENTS
SCALE: 12" = 1'-0"

1. 1. ALL HOSE BIBBS TO BE CONTROLLED BY INDIVIDUAL SHUTOFF VALVES (BALL OR PLUG VALVES), EXCEPT WHERE INDIVIDUALLY CONTROLLED BRANCH MAIN SERVES HOSE BIBBS ONLY.
2. 2. FOR SIZE & LOCATION SEE DRAWINGS.
3. 3. PROVIDE WARNING SIGN, WHEN USED FOR NON-POTABLE OR UTILITY WATER. REFER TO STANDARD DETAIL.
4. 4. SEE SPECS FOR ADDITIONAL DESCRIPTION OF HOSE BIBBS.
5. 5. SUBSTITUTE 1½" GLOBE VALVE WITH HOSE ADAPTER FOR 1½" HOSE BIBBS.
6. PROVIDE STAINLESS STEEL SUPPORTS AND FASTENERS AS NECESSARY.

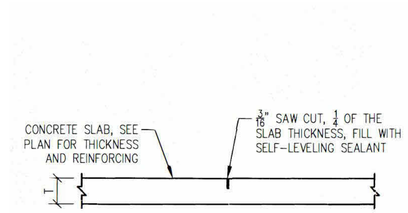


2 A302 GENERATOR CONC. PAD
SCALE: 1 1/2" = 1'-0"



NOTE:
1. POTABLE WATER PIPE PENETRATIONS SHALL BE PER APPLICABLE PLUMBING CODE REQUIREMENTS.
2. NO FITTINGS BENEATH SLAB

5 A302 TRANSITION THROUGH CONCRETE - Small Diameter Pipe
SCALE: NTS



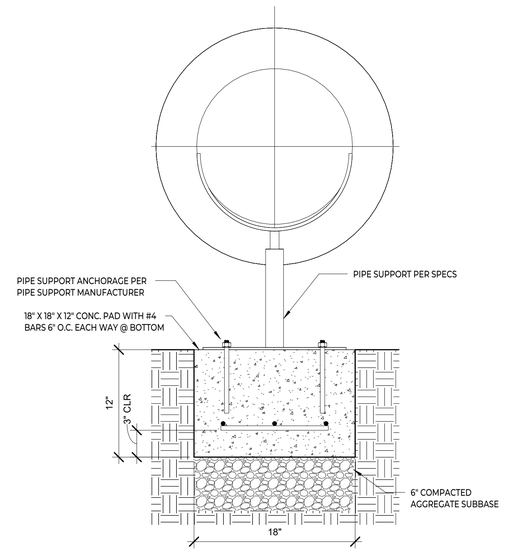
CONTROL JOINTS

CONTROL JOINT NOTES:
1. Control joints shall be field located by the contractor.
2. Control joints shall be located to limit the frequency and width of random cracks in the concrete slab.
3. Locate and install control joints in accordance with ACI 360R "Design of Slabs on Ground" and the details shown.
4. Maximum spacing of joints shall be per the table below.
5. Saw cuts should be made as soon as possible.

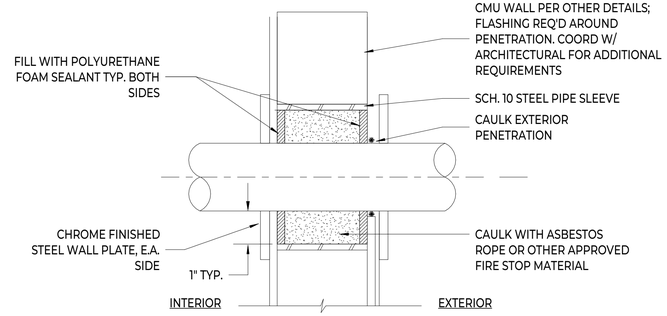
MAXIMUM SPACING OF CONTROL JOINTS

Slab thickness (T), in.	Slump 4 in. to 6 in.	
	Maximum-size aggregate less than 3/4 in.	Maximum-size aggregate 3/4 in. and larger
4	8 ft.	10 ft.
5	10 ft.	13 ft.
6	12 ft.	15 ft.
7	14 ft.	18 ft.
8	16 ft.	20 ft.

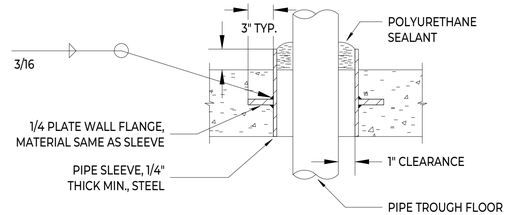
1 A302 CONTROL JOINTS
SCALE: 6" = 1'-0"



3 A302 PIPE SUPPORT
SCALE: 1 1/2" = 1'-0"



4 A302 TYP. PIPE THROUGH WALL
SCALE: NTS



NOTES
- THIS SLEEVE IS TO BE USED BETWEEN DRY SPACES, ONLY.
- FOR CORE-DRILLED HOLES IN EXISTING FLOORS, PIPE SLEEVE AND WALL FLANGE NOT REQUIRED.

6 A302 TYP. FLOOR PIPE SLEEVE
SCALE: NTS

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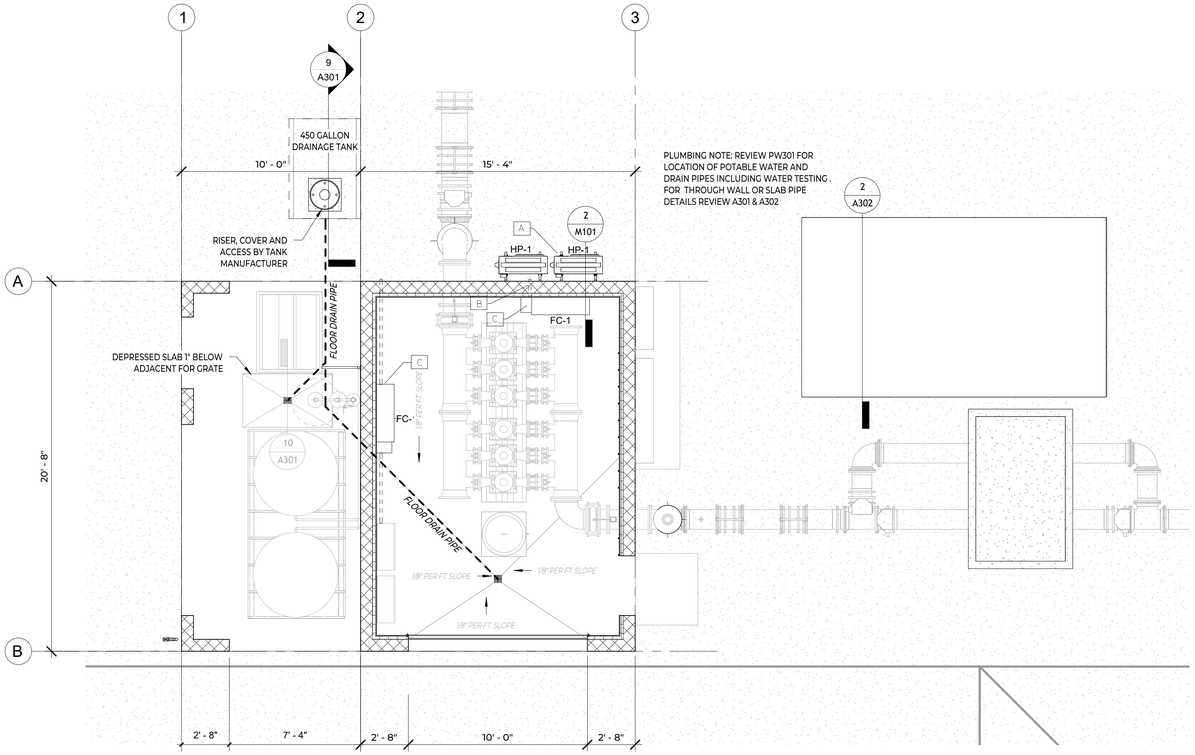
WALKER NOE LICENSE No 101132 STATE OF FLORIDA PROFESSIONAL ENGINEER

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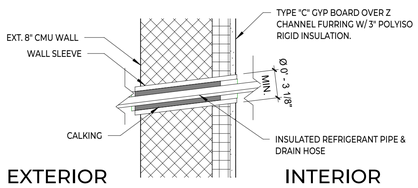
STRUCTURAL DETAILS

A302

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1 M101 MECHANICAL PLAN
SCALE: 1/4" = 1'-0"



2 M101 WALL SLEEVE
SCALE: 1 1/2" = 1'-0"

HVAC KEY NOTES

A. MOUNT OUTDOOR UNIT USING WALL CONDENSER BRACKET BY *RECTORSEAL - MODEL # WBB500* HP 18" AFF MIN. AND IN ACCORDANCE WITH APPROVED INSTALLATION INSTRUCTIONS FOR FL18362-R7
B. PROVIDE 5/8" CONDENSATE DRAIN PIPING SLOPED 1/4" PER FOOT MIN. ROUTED TO OUTDOORS WITH WEATHER TIGHT PENETRATION.
C. MOUNT INDOOR UNIT AT 6' AFF MIN. AND CONNECT TO DAIKIN NAVIGATION REMOTE CONTROLLER

HVAC GENERAL NOTES

1. CONTRACTOR SHALL ABIDE BY ALL CURRENT LOCAL AND FEDERAL CODES AND STANDARDS ALONG WITH EQUIPMENT MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.
2. THE INTENT OF THE CONTRACT DOCUMENTS IS TO INCLUDE ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY OR REASONABLY INFERRABLE TO PROVIDE A COMPLETE AND FULLY-FUNCTIONAL SYSTEM READY FOR SAFE, AND RELIABLE OPERATION.
3. CONTRACTOR TO COORDINATE ALL EQUIPMENT LOCATIONS, ENVELOPE PENETRATIONS, DUCT RUNS, AND PIPING LOCATIONS WITHIN THE SCOPE OF THIS PROJECT.
4. NOTE DUAL SYSTEM. (2) OUTDOOR UNITS AND (2) INDOOR UNITS ARE REQUIRED.

Split System Mechanical Schedule

Indoor Unit

Tag	Location	Nominal Tons	Cooling (MBH)	Heating (MBH)	CFM	Volts/Phase	MCA	MOCP	Weight	Manufacturer/Model
FC-1	See Plans	2	24.0	27.0	670	208-230 / 1	0.6	15 A	35.3 lbs	Daikin / FXAA24AAVJU

Alternate Manufacturers: Mitsubishi, Samsung, LG
Notes:
Provide BRC1NRV71 Navigation Remote Controller powered by 16 VDC from indoor unit.
Wall mount FC-1 as shown on plans.

Outdoor Unit

Tag	Cooling (MBH)	Heating (MBH)	HSPF2	SEER2	Volts/Phase	MCA	MOCP	Weight	Manufacturer/Model
HP-1	25	25.8	9.6	23.3	208-230 / 1	19.8 A	20 A	234 lbs	Daikin / RXTA24AAVJU

Alternate Manufacturers: Mitsubishi, Samsung, LG
Notes:
Provide all ancillary components necessary for complete and fully-functional system
Mount outdoor unit on wall brackets at 18" A.F.F min.
Provide and install wind baffle on outdoor unit. Daikin model number KPW082A41 or similar.

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217 SOUTH 11TH STREET, BOISE ID 83702

LAKEFRONT ESTATES DEVELOPMENT
GLADES COUNTY, FL
POTABLE WATER STORAGE AND PUMPING

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Revision

No.	Description	Date

Project number	25011
Date	07.17.2026
Drawn by	FM
Checked by	WDN

CONSTRUCTION DOCUMENTATION

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MECHANICAL PLAN

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