



St. Tammany Parish Communications District 9-1-1 Dispatch Center
BID NO.: NF-2016-06-16
GLA Project No. 14109

ADDENDUM NO. 3

BID NO.: NF-2016-06-16
New 9-1-1 Communications Facility

Date: 03 August 2016

The following clarifications, changes, additions or deletions for this project shall be made to the Contract Documents; all other conditions and work shall remain unchanged. The Addendum supersedes current conditions shown in the Contract Documents. **Acknowledge the receipt of these Addenda by inserting its number and date in your bid.** The following revisions to the Specifications and/or Drawings for the project shall become a part of the above numbered Contract Documents.

1.0 General

- 1.1 Reference Volume 1 of the Specifications, Section 2: Instructions to Bidders. Item 5 is revised per this Addendum 3 to read: The successful Bidder understands the limited contract time in the contract is **12 and ½ months [380 days]** (previously stated at 300 calendar days in Addenda 1 and 270 days in Volume 1 Specifications) from the Notice-to-Proceed date.
- 1.2 Surety company bonds are acceptable to meet the bid submittal requirements. No Owner's bond form or AIA form has been issued for this requirement.

2.0 Project Specifications and Contract Documents

Specifications:

- 2.1 Specification section **03 41 00** entitled **Architectural Precast Concrete - Plant Cast**: Precast concrete shall be medium-grey in color with light sandblast finish. Mock up required for Architect review.
- 2.2 Specification section **07 61 13** entitled **Sheet Metal Roofing: "Dens-Deck Prime"** substrate board **is** required per specifications. Adjust perimeter 2 x wood nailer thickness, as required.
- 2.3 Specification section **09 66 23 16** entitled **Terrazzo Flooring**: Mix design shall generally follow the following composition: Matrix color shall match Sherwin Williams SW 7018 "Dovetail", Filler Vical, Marble/Glass/Plastic Aggregates shall be 40% Georgia White, 40% Diablo Blue, 15% Clear, and 5% Mirror Flats. Final mix design shall be as approved by Owner.

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- 2.4 Replace specification section **21 10 00** entitled **AUTOMATIC WET SPRINKLER SYSTEM** in its entirety with replacement specification section **21 10 00** entitled **AUTOMATIC WET SPRINKLER SYSTEM** (attached herein).
- 2.5 Replace specification section **21 22 00** entitled **FM 200 WATERLESS FIRE SUPPRESSION SYSTEMS** in its entirety with replacement specification section **21 22 00** entitled **CLEAN-AGENT FIRE-EXTINGUISHING SYSTEMS** (attached herein).
- 2.6 Specification **09 77 00 Fabric Wrapped Panels** to be $\frac{3}{4}$ " inch thick minimum (vs. 1-1/8" shown on the drawings). See Finish Schedule herein for fabric that is basis of design/Owner approved.

Drawings:

- 2.7 **Sheet a002, Keynote 1:** Revise keynote to read as follows: *"PROVIDE INERT GAS FIRE SUPPRESSION SYSTEM AT RAISED FLOOR VOLUME (15,030 CU. FT. - VERIFY) AT 911 DISPATCH [200] AND TRAINING ROOM [201]"*
- 2.8 **Sheet a002:** Revise sheet legend entitled **"[FM-200] NOTES"** as shown on attached sketch **SK 03**
- 2.9 **Sheet a002:** locate inert-gas fire suppression cylinder tanks within Room [303] as shown on attached sketch **SK 03**.
- 2.10 **Sheet a002, Plan Detail 2** - Revise pre-action water sprinkler note to read as follows: *"FIRE SPRINKLER SYSTEM LOCATED EAST OF GRID LINE 2 SHALL BE A PRE-ACTION SYSTEM. MDF ROOM [113] AND ELEC. ROOM [115] SHALL ALSO BE PROTECTED BY THE PRE-ACTION FIRE SPRINKLER SYSTEM. THE PRE-ACTION FIRE SPRINKLER SYSTEM SHALL BE ARRANGED TO PROVIDE MULTIPLE ZONES, EACH ZONE CONTAINING NOT MORE THAN (8) HEADS. EACH ROOM SERVED BY THE PRE-ACTION SYSTEM SHALL HAVE AT LEAST ONE ZONE"*
- 2.11 **Sheet a050:** Located pre-cast concrete wall as shown on attached sketch **SK 06**.
- 2.12 **Sheet a051:** Provide screening fence at water-well as shown on attached sketch **SK 04** and **SK 05**.
- 2.13 **Sheet a052:** Revise detail number 11 (entitled "Cast-in-Place Wall at Property Line") to detail number 14.
- 2.14 **Sheet a054 Detail 8:** Revise detail as shown on attached sketch **SK 08**.



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- 2.15 **Sheet a054 Detail 11:** Revise detail as shown on attached sketch **SK 09**.
- 2.16 **Sheet a300 Roof Plan:** Add second line of expansion joints at standing seam metal roof system as shown on attached sketch **SK 07**.
- 2.17 **Sheet a401 Detail 2:** There is no gutter at the lower edge of the roof fascia.
- 2.18 **Sheet a603 Detail 2:** Wall finish above millwork shall be acoustical panel system. Architectural millwork finish shall be wood veneer.
- 2.19 Replace **Sheet C05** with **Sheet C05R** (attached herein).
- 2.20 Provide domestic water booster pump station and domestic above-ground potable water storage tank in accordance with Sheet **SKP-1** (attached).
- 2.21 Finish Selections issued herein reflect the basis of Design. Owner has approved these finishes. Any submitted products must be equal in quality and meet color/texture, maintenance criteria established.

3.0 Substitution Requests

3.1 The following Substitution Requests are acceptable to the Architect PROVIDED the material/equipment meets the design document scope and intent, and all Specification and Detail Requirements. **Further review will occur during the submittal process.** All Contract Document requirements apply.

- 1. Acoustical Panels: Accutrack Systems
- 2. Acoustical Panels: Acousti-Tack, G&S Acoustics.
- 3. Acoustical Ceilings: Certainteed Systems
- 4. Acoustical Ceilings: USG Mars HiNRC tiles
- 5. Building Automation Controls: Bernhard MCC
- 6. Building Automation Controls: Gulf States Automation

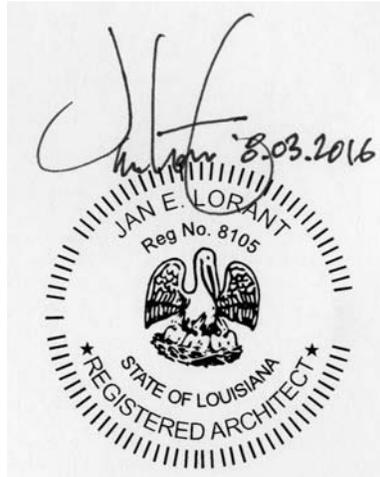
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END OF ADDENDUM NO. 3

SECTION 21 10 00

AUTOMATIC WET SPRINKLER SYSTEM

Addendum 3 (08/04/2016) – Revisions shown italicized bold

GENERAL

1.1 GENERAL DESCRIPTION

- A. This section describes requirements necessary to install an automatic fire sprinkler system per the latest version of referenced codes. See Civil plan for location of well, tanks, pumps, fire main, fire riser, connection, etc. See Architectural plan set for location of fire riser room, structural, mechanical, electrical and plumbing systems. Work in this section includes, but is not limited to, the following principal items:
1. The design, permitting, and installation of a complete automatic fire sprinkler system as required by national and local codes that meets the requirements and gains the approval of all authorities having jurisdiction. Securing and payment for all necessary permits and inspections as required to complete the installation per the Plans and City requirements.
 2. Field verification of all dimensions. No extra charges or compensation will be allowed for any differences between actual dimensions and measurements indicated or for re-routing to avoid structure or other impedances as these are to be expected.
 3. ***Provide (2) water storage tanks per codes referenced and per a002 which are required to be steel tanks of the gallons storage indicated as a minimum. Tanks shall be suitable for storage of adequate quantities of water to provide fire protection in the event of a fire to provide emergency water supplies to the facility for fire protection only.***
 4. ***Not Used.***
 5. **Provide coordination with the Civil engineer for connections and revisions to the domestic potable water system for tank filling. Provide reduced pressure principle backflow preventer to separate potable water supply from non-potable fire protection water systems.**
 6. Provide miscellaneous tank and piping appurtenances including: Tank vents, tank main valves in and out of tank, ***tank level gauge***, tank drain valve, piping, overflow/overflow drain, control valves, pressure relief valves, back-check valves where necessary, reduced pressure principle backflow preventer to separate potable water supply from non-potable fire protection water systems, valves to isolate pumps for service, stainless steel glass faced pressure gauges on pump inlets and outlets, pipe supports, tank foundations designed and sealed by a structural engineer, and other miscellaneous components for a complete and operational system.
 7. Provide miscellaneous controls including: tank level sensors and transmitters, control panels for pumps, pump status transmitter, pump flow sensor and transmitter, pressure sensor and transmitter on outlet pipe, and BACNet interface card for controls, coordination with the Building Automation System (BAS)

- system. BAS system graphics shall display tank water levels, pump status, pump pressure in and out, and include high and low limit level alarms.
8. Provide piping from the fire pump to the building riser including thrust blocks per code.
 9. Provide complete riser including all valves, bells, gauges, and alarms.
 10. Provide all steel fire protection piping.
 11. Provide pre-action system where indicated on architectural plan a002 including all devices and air compressor for a complete pre-action system.
 12. During design provide coordination with the architect and the engineering team to integrate the fire protection system design with the site, building, MPE, and controls systems including fire alarm and **BAS** systems.
 13. Provide a letter of acceptance from the Owners fire protection insurer and complete printed instructions on operation of system to the owner.
 14. Furnishing miscellaneous materials such as brackets, hangers, steel supports for equipment, expansion joints, inspectors test connection, etc.
 15. Provide heads for proper hazard classification. Provide baskets on heads in locations where physical abuse of the head may occur.
 16. Provide alarm valves, zone valves, pumper connection, alarm gong, and miscellaneous equipment as required.
 17. Coordinate installation of fire sprinkler system such that it does not interfere with any architectural, structural, mechanical or plumbing elements. Set height of fire protection piping per architect to avoid interference with ceilings. Coordinate with mechanical contractor to set pipe locations to avoid duct interference. Coordinate with all trades and project manager to assure compatibility of system installation.
 18. **Fire protection engineer to confirm if a fire department connection is appropriate or required per code for this system.**

B. This section describes requirements necessary to install an automatic fire pump system. See Civil plan for location of well, tanks, pumps, fire main, fire riser, connection, etc. See Architectural plan set for location of fire riser room, structural, mechanical, electrical and plumbing systems. Work in this section includes, but is not limited to, the following principal items:

1. **Provide (1) complete packaged fire booster pump system including a housed metal container per codes referenced and per a002. Pump package shall include the following minimum features:**
 - 1.1 **Complete pump installation including a containerized pump house and electric UL/FM listed fire pump system including fire pump, fire pump controller, jockey pump, jockey pump controller, isolation valves, air release valves, check valves, test header with valves, flow meter test loop with UL listed test meter, and all fitting and ancillary equipment as required for a complete and operable system designed in accordance with NFPA-20 requirements.**
 - 2.1 **Containerized unit completely assembled, suitable for immediate operation.**
 - 3.1 **Easy transportation of containerized unit to location of installation.**
 - 4.1 **Packaged pump house system shall include integral heat, ventilation, and exhaust systems as required to meet NFPA and code requirements.**
 - 5.1 **All systems and housing/container shall be suitable for operation in St Tammany Louisiana's climate zone.**

- 6.1 **Packaged fire pump systems shall be provided as a single sourced system designed to meet local codes, requirements, and standards.**
- 7.1 **Packaged pump house/container envelope including walls, roof, doors shall be insulated to meet ASHRAE 90.1 2007 or Code minimum requirements.**
- 8.1 **Provide a reinforced concrete foundation designed for the pump enclosure/container by a registered structural engineer.**

1.2 CODES APPLICABLE

B. The current editions of the following standards are part of this Section:

- 1. International Building Code and required references
- 2. NFPA 20 – Standard for the installation of stationary pumps for fire protection.
- 3. NFPA 70 – National Electric Code
- 4. NFPA 72 – National Fire Alarm Code
- 5. NFPA 75 – Standard for the Protection of Electronic Computer/Data Processing Equipment
- 6. NFPA 2001 – Clean Agent Fire Extinguishing Systems
- 7. NFPA 1221 – Standard for the Installation, Maintenance, and Emergency Services Communication Requirements 2010 Edition
- 8. NFPA 1142 – Water Supplies for Suburban and Rural Firefighting NFPA, Chapter 25, entitled, "Inspection and Testing of Fire Protection Systems."
- 9. NFPA, Chapter 24, entitled, "Installation of Private Fire Service Mains and Their Appurtenances.
- 10. NFPA, Chapter 291, entitled, "Flow Test Procedures."

B. Provide compliance with local codes and ordinances as required by Authority Having Jurisdiction.

1.3 RELATED SPECIFICATION SECTIONS

- 21 00 00 Fire Protection Systems
- 21 10 00 Automatic Wet Sprinkler System
- 21 22 00 Clean-Agent Fire-Extinguishing Systems
- 10 44 00 Fire Protection Specialties
- 28 31 00 Fire Detection and Alarm
- 23 33 13 Combination Fire Smoke Dampers and Dynamic Fire Dampers
- 23 09 00 Controls Building Automation System "BAS"
- 26 23 13 Emergency Power Sequence of Operations

1.4 RELATED PLANS TO REFERENCE

- Civil Engineering Plans: depicting well, well pump, hydro-pneumatic tank, and piping to the building.
- Architectural Plans: refer to Sheet a002 for "Fire Suppression Plan – Sprinklers" as well as NFPA 1142 fire protection system guidelines

1.5 QUALITY ASSURANCE

- A. Provide a contractor's material and test certificate to the Owner and Authority Having Jurisdiction stating that the system has been designed and installed according to the national standards, state and local codes.
- B. After completion of the installation, test entire system for acceptance by the authority having jurisdiction.

1.6 SUBMITTALS

- A. A complete design including all system components, pipes and heads shall be created in AutoCAD **and coordinated with the Plumbing Contractor and the Civil engineer.**
- B. A complete design of the fire protection system including hydraulic calculations sealed by a licensed Louisiana Fire Protection Engineer.
- C. Fire Protection System Equipment Submittal: Prior to ordering equipment or permitting the fire plans, provide a submittal of all fire sprinkler equipment including: tanks, pumps, valves, pipe, riser, riser components, heads, valves, braces, hangers, and all related hardware integral to the system to the Architect for prior approval. Provide a plan in AutoCAD of the sprinkler piping showing plan view with mechanical ductwork shown in lighter background shade to confirm no interference. Provide plans in AutoCAD showing elevations through at least (8) key sections of the building showing no conflict with ductwork. Architect and Engineer reserve the right to review and modify fire protection pipe layout for optimal appearance of the finished piping system and conformance with the Architect's desired final appearance of the systems. Following review of the submittal by Architect and Engineer, Fire Protection designer may begin permitting process. Review of the submittal does not relieve Fire Protection Engineer and Contractor from responsibility to provide a complete functional system meeting code, AHJ and Owner requirements of the system.
- D. Conformance Certificate: Submit a letter of conformance for fire sprinkler system in accordance with local and national fire codes published by NFPA.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install sprinklers for total coverage of building in accordance with above referenced standards, latest edition. After completion of the installation, the entire system shall be tested for acceptance by the authority having jurisdiction, as required by NFPA 13. Provide suitable spare sprinkler cabinet with extra sprinklers with same rating as those installed and one sprinkler head wrench, all of which shall be installed at the location approved by the authority having jurisdiction.
- B. Provide excavation and backfilling necessary for installation of underground piping in conformance with NFPA 24, "Standard for Installation of Private Fire Service Mains." Include all pipe and material to connect to main tanks per the Civil plans and running to the building's intended fire riser location.
- C. All overhead piping shall be installed concealed behind finished walls or ceiling, unless plans indicate otherwise and shall be coordinated with other trades to avoid conflicts. Occupied portions of the building with exposed structural trusses shall not have fire protection piping installed below the bottom chord of the truss. Fire protection designer shall overlay mechanical ductwork plans on fire protection plans as a background lightly shaded element to verify that no conflicts exist in design.
- D. Provide and install pipe sleeves in floor and walls. Fill the space between sleeve and pipe with an approved sealant to maintain a fire rating equal to the wall or floor. Sealant must be approved by the authority having jurisdiction and Architect.
- E. After work has been installed, carefully fit around, close up, repair, patch and paint all chases, holes or openings as directed, to the entire satisfaction of the Architect.
- F. Acceptance: Provide letter of guarantee stating compliance with the required national standards, state and local codes.
- G. Provide next to the sprinkler riser a printed sheet, protected by transparent plastic cover, giving brief instructions regarding control, emergency procedures and other data for the fire sprinkler system.
- H. After completion of installation and tests and prior to the building's acceptance, instruct the Owner of his/her designated representative in the operation of the sprinkler system.
- I. Provide 3 ring binder of all sprinkler system components, operating procedures, maintenance procedures, warrantee information and instructions.

END OF SECTION

SECTION 21 22 00

CLEAN-AGENT FIRE-EXTINGUISHING SYSTEMS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section outlines the requirements for the installation of a HFC-227ea (Heptafluoropropane), hereinafter referred to by the trade name FM-200, engineered total flooding fire suppression system with automatic control that includes the following:
1. Piping and piping specialties.
 2. Extinguishing-agent containers.
 3. Extinguishing agent.
 4. Detection and alarm devices including remote alarm in the IT Office.
 5. System Specific Control and connection alarm panels.
 6. Accessories.
 7. Connection devices for and wiring between system components.
- B. This Section further outlines the requirements for the installation of an under-floor inert-gas fire suppression system with automatic control that includes the following:
1. Piping and piping specialties.
 2. Extinguishing-agent containers.
 3. Extinguishing agent
 4. Detection and alarm devices including remote alarm in the IT Office.
 5. System Specific Control and connection alarm panels.
 6. Accessories.
 7. Connection devices for and wiring between system components.
- C. Areas to be protected by clean-agent fire-extinguishing systems are illustrated and described in Sheet a002 of the drawings.
- D. The work listed below shall be provided by others.
1. 120 VAC power supply to the fire suppression system control panel.
 2. Interlock wiring and conduit for shutdown of HVAC, dampers, and/or electric power supplies, relays, or shunt trip breakers.
 3. Connection to the building fire alarm system.

1.2 REFERENCES

- A. The current editions of the following standards are part of this Section:
1. International Building Code and required references
 2. NFPA 70 – National Electric Code
 3. NFPA 72 – National Fire Alarm Code
 4. NFPA 75 – Standard for the Protection of Electronic Computer/Data Processing Equipment
 5. NFPA 2001 – Clean Agent Fire Extinguishing Systems

1.3 SYSTEM DESCRIPTION

- A. Design system for Class A, B, and C fires per the requirements in NFPA 2001. Utilize safety factors specified in NFPA 2001 for the design concentrations for Class A, B, and C fires. Use extinguishing agents in concentration suitable for normally occupied areas.
- B. Performance Requirements for Inert Gas System:
 - 1. Minimum design concentration: 34.2% by volume in all areas and/or protected spaces at the minimum anticipated temperature within the protected area. Refer to manufacturer's instructions for other application requirements.
 - 2. Per NFPA 2001, the system design shall not exceed a maximum exposure limit concentration level of 43% by volume, unless provisions for room evacuation before agent release are provided. All personnel should be able to leave the protected space prior to the discharge or at least within 5 minutes of the commencement of discharge.
- C. Each clean-agent fire-extinguishing system shall comprise a supply of extinguishing agent in a modular storage design.
- D. Sequence of Operation:
 - 1. First Alarm Condition:
 - a. First Alarm condition is caused by any one detector in an active alarm state.
 - b. The local alarm bell and an alarm in the IT office will be activated.
 - c. The release panel will display text information regarding the alarm.
 - d. Shut down of air condition and ventilation systems serving protected area.
 - e. An alarm signal will be sent to the building fire alarm system.
 - f. The system will remain in this state until some action is taken to reset the system or until another detector alarms.
 - 2. Second Alarm Condition:
 - a. Second Alarm condition is caused if there are two detectors in an active alarm state.
 - b. The local alarm horn/strobe will be activated.
 - c. The release panel will display text information regarding the alarm.
 - d. The 60-second time delay will start counting. If the abort switch is held closed, the release will be aborted. As soon as the abort button is released, the discharge delay countdown will restart at the preset duration.
 - e. If no other action, the extinguishing agent(s) will discharge after the time delay expires. Activation of a manual pull station will immediately release the extinguishing agent(s).
 - f. At discharge, the equipment power will shut down.
- E. Operating manual-release stations will discharge extinguishing agent when activated.
- F. Operating abort switches will delay extinguishing-agent discharge while being activated. Abort switch must be reset to prevent agent discharge. Release of switch will discharge agent.
- G. Time Delays: Time delays should not exceed 30 seconds after the second confirming alarm initiates release of extinguishing agent. Time delays shall not recycle or reset.

1.4 SUBMITTALS

- A. Product Data: Submit for the following equipment:
 - 1. Extinguishing-agent containers.
 - 2. Extinguishing agent.
 - 3. Discharge nozzles.
 - 4. Control panels.

5. Detection devices.
6. Manual-release stations.
7. Switches.
8. Alarm devices.
9. Audible/visual notification appliances.

- B. Shop Drawings: The Contractor shall submit the following design information and drawings for acceptance prior to starting work on project:
1. Field investigation layout drawings having a scale of not less than ¼" = 1'-0" detailing the location of all agent storage tanks, pipe runs including pipe sizes and lengths, control panel(s), detectors, manual pull stations, abort stations, audible and visual alarms, and all mechanical, structural, and electrical interferences.
 2. Auxiliary details and information such as maintenance panels, door holders, special sealing requirements, and equipment shutdowns.
 3. Separate layouts or drawings for mechanical and electrical work.
 4. Separate layout or drawings showing isometric details of agent storage containers, mounting details, and proposed pipe runs and sizes.
 5. Electrical layout drawings shall show the location of all devices and include point-to-point conduit runs.
 6. Provide copies of flow calculations from an industry recognized commercial program. Calculation sheets must include the manufacturer's name for verification. The individual sections of pipe and each fitting to be used, as shown on isometric drawings, must be identified and included in the calculations. Total agent discharge time must be shown and detailed by zone.
 7. Submit drawings, calculations, and system component data sheets for approval by the AHJ Engineer and Fire Marshall before starting construction.
 8. Design/submittals shall comply with the requirements of NFPA 2001, Chapter 3.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain extinguishing agent and equipment through one source.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency and marked for intended use.
- C. ASME Compliance: Fabricate piping to comply with ASME B31.1, "Power Piping."
- D. FM Compliance: Provide components that are FM approved and are listed in FM's "Fire Protection Approval Guide."
- E. NFPA Compliance: Fabricate and label clean-agent extinguishing systems to comply with NFPA 2001, "Clean Agent Extinguishing Systems."
- F. UL Compliance: Provide equipment components that are UL listed for clean-agent extinguishing system units in UL's "Fire Protection Equipment Directory."
- G. Contractor Qualifications: Contractor shall have the following qualifications.
1. Be trained by the manufacturer to design, install, test, and maintain the specified fire suppression systems.
 2. Employ a NICET certified special hazard designer, Level 2, and Fire Alarm System Level 2, or above, who will be responsible for the project.
 3. A minimum of five years experience in the design, installation, and testing of the specified fire suppression systems.

4. Have an FM-200 recharging station on the Contractor's premises.
5. Provide proof of ability to recharge the FM-200 system within 24 hours after a discharge and list the amount of FM-200 bulk storage available.
6. Have an inert-gas recharging station on the Contractor's premises.
7. Provide proof of ability to recharge the inert-gas system within 24 hours after a discharge and list the amount of certified inert-gas product available in bulk storage.
8. Provide emergency services within 24 hours notification.

1.6 WARRANTY

- A. All system components furnished and installed under this contract shall be guaranteed against defects in design, materials, and workmanship for the full warranty period which is standard for the manufacturer, but in no case less than one year from the date of systems acceptance.
- B. The Contractor shall provide two inspections of the system(s) installed under this contract during the one year warranty period. The first inspection shall be at the six month interval and the second inspection at the twelfth month interval after system acceptance. Inspections shall be conducted in accordance with the manufacturer's guidelines and comply with the recommendations in NFPA 2001.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 1. Fike Corp.; Fire Protection Systems Div.
 2. Fenwal Protection Systems
 3. Amerex Corporation
 4. Tyco (Ansul)
 5. Or equal approved by the Authority Having Jurisdiction

2.2 PIPING MATERIALS

- A. Piping, Valves, and Discharge Nozzles: Comply with types and standards listed in NFPA 2001, Section "Distribution," and Appendix A, for charging pressure of system.
- B. Plain end couplings are not allowed on any piping systems.

2.3 VALVES

- A. General: Brass; suitable for intended operation.
- B. Container Valves: With rupture disc or solenoid, capable of immediate and total agent discharge and suitable for intended flow capacity.
- C. Valves in Sections of Closed Piping and Manifolds: Fabricate to prevent entrapment of liquid, or install valve and separate pressure-relief device.

- D. Valves in Manifolds: Check valve; installed to prevent loss of extinguishing agent when container is removed from manifold.

2.4 EXTINGUISHING-AGENT CONTAINERS

- A. Description: Steel tanks complying with ASME Boiler and Pressure Vessel Code: Section VIII, for unfired pressure vessels. Include minimum working-pressure rating that matches system charging pressure, valve, pressure switch, and pressure gage.
 - 1. Finish: Manufacturer's standard color, enamel or epoxy paint.
 - 2. Manifold: Fabricate with valves, pressure switches, and connections for multiple storage containers, as indicated.
 - 3. Storage-Tank Brackets: Factory- or field-fabricated retaining brackets consisting of steel straps and channels; suitable for container support, maintenance, and tank refilling or replacement.
- B. Each container shall have a pressure gauge and low pressure switch to provide visual and electrical supervision of the container pressure. The low pressure switch shall be wired to the control panel to provide audible and visual "Trouble" alarm in the event the container pressure drops below a pressure required for proper operation of the system. The pressure gauge shall be color coded to provide an easy visual indication of container pressure.
- C. Each container shall have a pressure relief valve that automatically operates when the internal temperature exceeds 150 deg F.
- D. Containers shall be actuated by parallel wired initiators located at each agent container.

2.5 FIRE-EXTINGUISHING CLEAN AGENT

- A. FM-200; HFC 227ea, heptafluoropropane.
- B. Inert Gas Agent: Mixture of nitrogen and argon inert gases. Prolnert® 300 bar, Inergen® 300 bar, or approved equivalent product.

2.6 DISCHARGE NOZZLES

- A. Equipment manufacturer's standard one-piece brass or aluminum alloy of type, discharge pattern, and capacity required for application.
- B. Nozzles shall be available in NPT pipe sizes ¼" through 2". Each size shall be available in 180 deg and 360 deg distribution patterns.

2.7 CONTROL PANELS

- A. Description: FM approved or UL listed, including equipment and features required for testing, supervising, and operating fire-extinguishing system.
- B. Power Requirements: 120-VAC; with electrical contacts for connection to system components and fire alarm system, and transformer or rectifier as needed to produce power at voltage required for accessories and alarm devices.

- C. Enclosure: NEMA ICS 6, Type 1, enameled-steel cabinet.
 - 1. Mounting: Surface.
 - 2. Locks for all panels shall be keyed alike.

- D. Supervised Circuits
 - 1. Provide the following detection applications:
 - a. Single Zone detection circuit.
 - b. Manual pull-station circuit.
 - c. Alarm circuit.
 - d. Release circuit.
 - 2. Provide the following control-panel features:
 - a. Electrical contacts for shutting down fans, activating dampers, and operating system electrical devices.
 - b. Automatic switchover to standby power at loss of primary power.
 - 3. Standby Power: Sealed lead-acid batteries with capacity to operate system for 72 hours and alarm for minimum of 15 minutes. Include automatic battery charger, with varying charging rate between trickle and high depending on battery voltage, that is capable of maintaining batteries fully charged.

2.8 DETECTION DEVICES

- A. Description: Comply with NFPA 2001 and NFPA 72, and include the following types:
 - 1. Photoelectric Detectors: UL 268, consisting of LED light source and silicon photodiode receiving element.
 - 2. If included in the contract, a Fenwal AnaLASER air-sampling control panel may be utilized to activate the fire suppression system control panel(s).

2.9 MANUAL-RELEASE STATIONS

- A. Description: FM approved or UL listed, with "PULL STATION" caption 24-V dc compatible with controls, and red finish. Include contacts for connection to control panel. Unit can manually discharge extinguishing agent with operating device that remains engaged until unlocked.
 - 1. Mounting: Surface.

2.10 SWITCHES

- A. Description: FM approved or UL listed, where available, 120-V ac or low voltage compatible with controls. Include contacts for connection to control panel.
 - 1. Abort Switches: Dead-man type, requiring constant pressure, for delay of system discharge.
 - a. Abort switches do not repeat any time delays.
 - b. Abort switches are located within the protected area near the exit.

2.11 ALARM DEVICES

- A. Description: FM approved or UL listed, where available, 120-V ac or low voltage compatible with controls. Include contacts for connection to control panel.

- B. Horns: 90 to 94 dBA.

- C. Strobe Lights: Translucent lens, with "FIRE" or similar caption as directed by Owner.

2.12 ELECTRICAL POWER AND WIRING

- A. Electrical power, wiring, and devices are specified in Section 16001, "Electrical Work".

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Authority Having Jurisdiction (AHJ) Engineer present, for compliance with hazard-area leakage requirements, installation tolerances, and other conditions affecting work performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 CLEAN-AGENT EXTINGUISHING PIPING INSTALLATION

- A. Install clean-agent extinguishing piping and other components level and plumb and according to manufacturers' written instructions.
- B. Grooved Piping Joints: Groove pipe ends according to AWWA C606 dimensions. Assemble grooved-end steel pipe and steel, grooved-end fittings with steel, keyed couplings and lubricant according to manufacturer's written instructions.
- C. Install extinguishing-agent containers anchored to substrate.
- D. Install pipe and fittings, valves, and discharge nozzles according to requirements listed in NFPA 2001, Section "Distribution," and related Appendix A paragraphs; and ASME B31.1.
 - 1. Install valves designed to prevent entrapment of liquid or install pressure-relief devices in valved sections of piping systems.
 - 2. Install control panels, detection system components, alarms, and accessories, complying with requirements of NFPA 2001, Section "Detection, Actuation, and Control Systems," as required for supervised system application.
- E. All piping shall be reamed, blown clear, and swabbed with suitable solvents to remove burrs, mill varnish, and cutting oils before assembly.
- F. All male threads shall be sealed with Teflon tape pipe sealant applied before assembly.

3.3 LABELING

- A. Caution/Advisory Signs: Provide labeling on entrances, piping, extinguishing-agent containers, other equipment, and panels according to NFPA 2001, including:
 - 1. Entrance sign at entrance to protected space.
 - 2. Manual Discharge sign at manual discharge station.
 - 3. Flashing Light sign required at each flashing light over exit from protected space.

3.4 WIRING

- A. System components shall be securely supported independent of the wiring. Runs of conduit and wiring shall be straight, neatly arranged, properly supported, and installed parallel and perpendicular to walls and partitions.
- B. The sizes of conductors shall be those specified by the system manufacturer. Color codes shall be used. All wires shall be free from grounds and crosses between conductors.
- C. Install wiring to conform to the National Electric Code for Class 1 Signal Systems, except as otherwise permitted for limited energy circuits, as described in NFPA 72.
- D. The complete system electrical installation, and all auxiliary components, shall be grounded in accordance with NFPA 70.

3.5 TRAINING REQUIREMENTS

- A. Prior to acceptance, provide operational training and materials on the system to the owners of the protected space and other personnel designated by the SNL Fire Protection Engineer.
- B. Training session shall include system control panel operation, manual and abort functions, trouble procedures, auxiliary functions, and emergency procedures.

3.6 OPERATION AND MAINTENANCE

- A. Prior to final acceptance, provide four copies of a complete operation and maintenance manual to the AHJ Engineer. The manual shall include the following:
 - 1. All aspects of system operation and maintenance detailed, including piping isometrics, wiring diagrams of all circuits, a written description of system design and sequence of operation.
 - 2. Drawing(s) illustrating control logic.
 - 3. Equipment used in the fire suppression system.
 - 4. Checklists and procedures for emergency situations.
 - 5. Troubleshooting techniques.
 - 6. Maintenance operations and procedures.

3.7 AS-BUILT DRAWINGS

- A. Provide four copies of system "as-built" drawings to the AHJ Engineer. Drawings shall include:
 - 1. Actual equipment locations (control panels, agent containers, detectors, alarms, manual and abort switches).
 - 2. Piping and conduit routing details.
 - 3. Il room or facilities modifications.

3.8 SYSTEM INSPECTION AND CHECKOUT

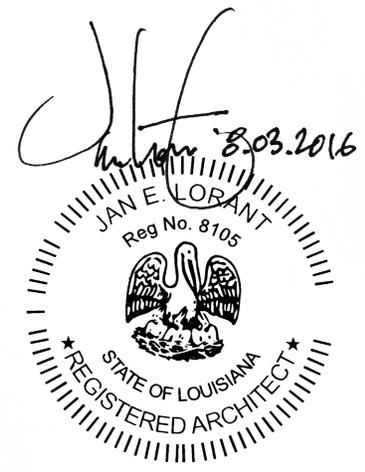
- A. After system installation is completed, the entire system shall be checked out, inspected, and functionally tested by qualified, trained personnel, in accordance with the manufacturer's recommended procedures and NFPA 2001, Section "Approval of Installations".

- B. All containers and distribution piping shall be tested for proper mounting and installation. Perform a "puff test" by discharging a sufficient flow of nitrogen through the piping to verify integrity of piping installation.
- C. All electrical wiring shall be tested for proper connection, continuity, and resistance to ground.
- D. The complete system shall be functionally tested in the presence of the AHJ Engineer and AHJ Fire Marshall.
- E. All functions, including system and equipment interlocks, must be operational at least five days prior to the final acceptance tests.
- F. Remove all keys from manual pull stations, control panels, and all other key-operated devices when clean agents becomes operational. Deliver keys to City Engineer
- G. Verify all manual pull stations are in the securely closed position to prevent an inadvertent clean-agent release.

3.9 ACCEPTANCE TESTING

- A. Conduct acceptance tests in the presence of the AHJ Engineer and Fire Marshall
- B. The acceptance test shall include the following:
 - 1. The entire control system shall be tested to determine it functions as designed and intended. All circuits shall be tested, including.
 - a. Automatic actuation
 - b. Manual actuation
 - c. HVAC and power shutdowns
 - d. Audible and visual alarm devices
 - e. Manual override of abort functions
 - f. Smoke/fire damper operation
 - g. Agent container pressure supervision
 - 2. Supervision of all panel circuits, including AC power and battery power supplies, shall be tested and qualified.
 - 3. Conduct a room pressurization test for each protected space to determine the presence of openings that would impact clean-agent system concentration levels during an activation. Testing shall be conducted in accordance with NFPA 2001 requirements.
 - a. If openings are discovered, the Contractor shall be responsible for coordinating the proper sealing of the protected space(s) by the AHJ.
 - b. Upon completion of repairs, the Contractor shall conduct additional room pressurization tests until a successful test is obtained.
 - c. Copies of successful test results shall be submitted to the AHJ Engineer and Fire Marshall

END OF SECTION

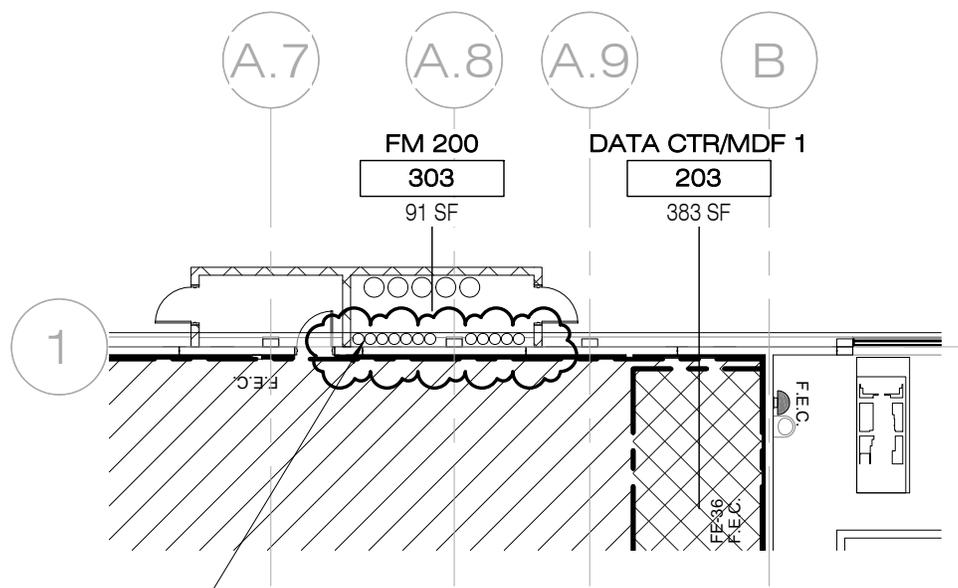


[FM-200] FIRE SUPPRESSION

- TOTAL VOLUME COVERED BY [FM-200]:
810 + 4,985 = **5,795 CU.FT.**
- INSTALL PER NFPA 2001

INERT GAS FIRE SUPPRESSION

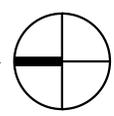
- TOTAL VOLUME COVERED BY INERT GAS:
15,030 CU.FT. [RM200] + [RM201] (UNDERFLOOR VOLUME)
- INSTALL PER NFPA 2001



INERT GAS FIRE SUPPRESSION CANISTERS AND CONTROL SYSTEM - RACK CANISTERS TO WALLS. QUANTITIES TO BE CALCULATED BY FIRE SUPPRESSION SYSTEM PROVIDER.

REVISES
1 / a002

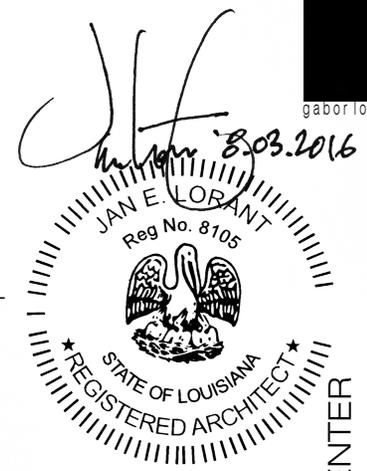
1 Fire Suppression Plan - [FM-200]/Inert Gas (Partial Plan)
1/16" = 1'-0"



STPCD 9-1-1 DISPATCH CENTER

gla No.:
14109

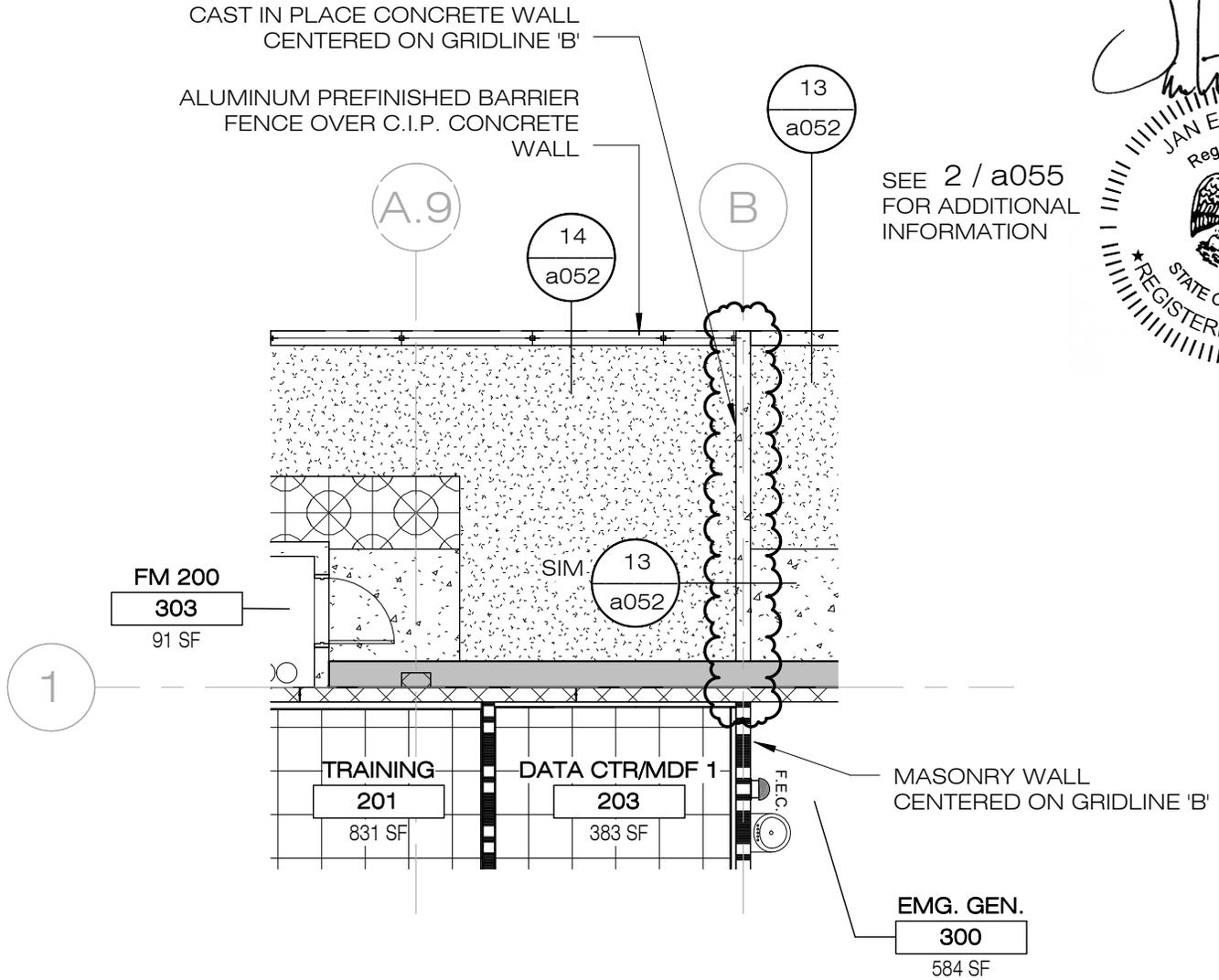
Issue Date:
03 AUG 2016



CAST IN PLACE CONCRETE WALL
CENTERED ON GRIDLINE 'B'

ALUMINUM PREFINISHED BARRIER
FENCE OVER C.I.P. CONCRETE
WALL

SEE 2 / a055
FOR ADDITIONAL
INFORMATION



STPCD 9-1-1 DISPATCH CENTER

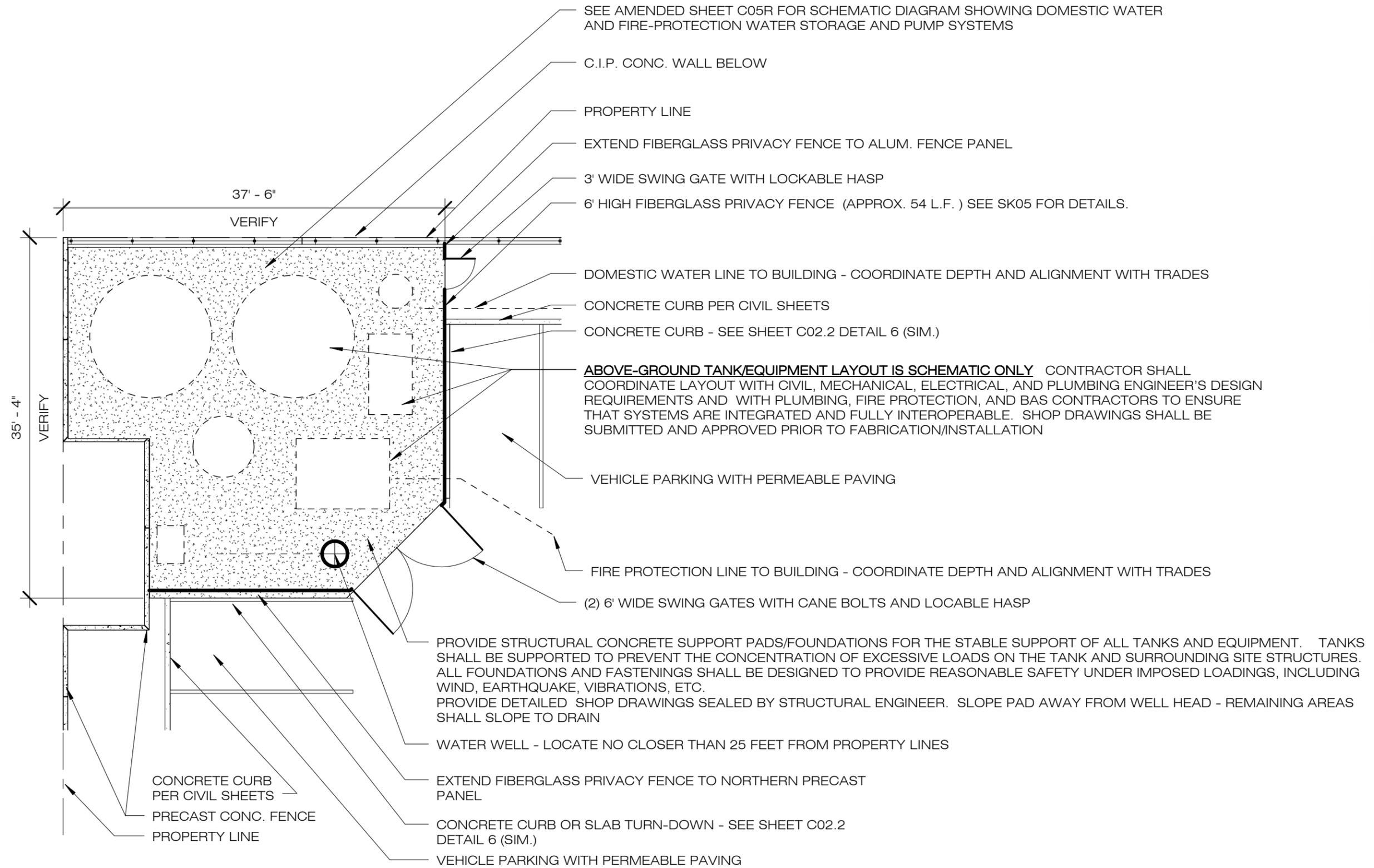
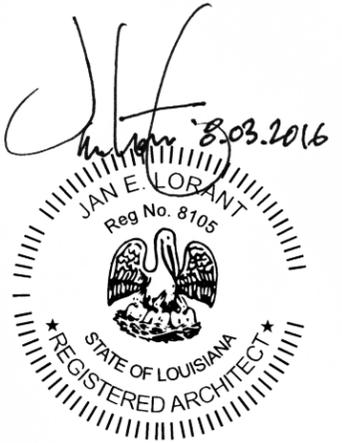
gla No.:
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Issue Date:
03 AUG 2016

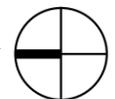
Site Wall at
Generator
Room

SK 06

1 Enlarged Plan - Site wall at Gridline B
1/8" = 1'-0"



1 Well Site - Plan View
1" = 10'-0"



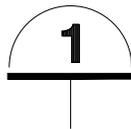
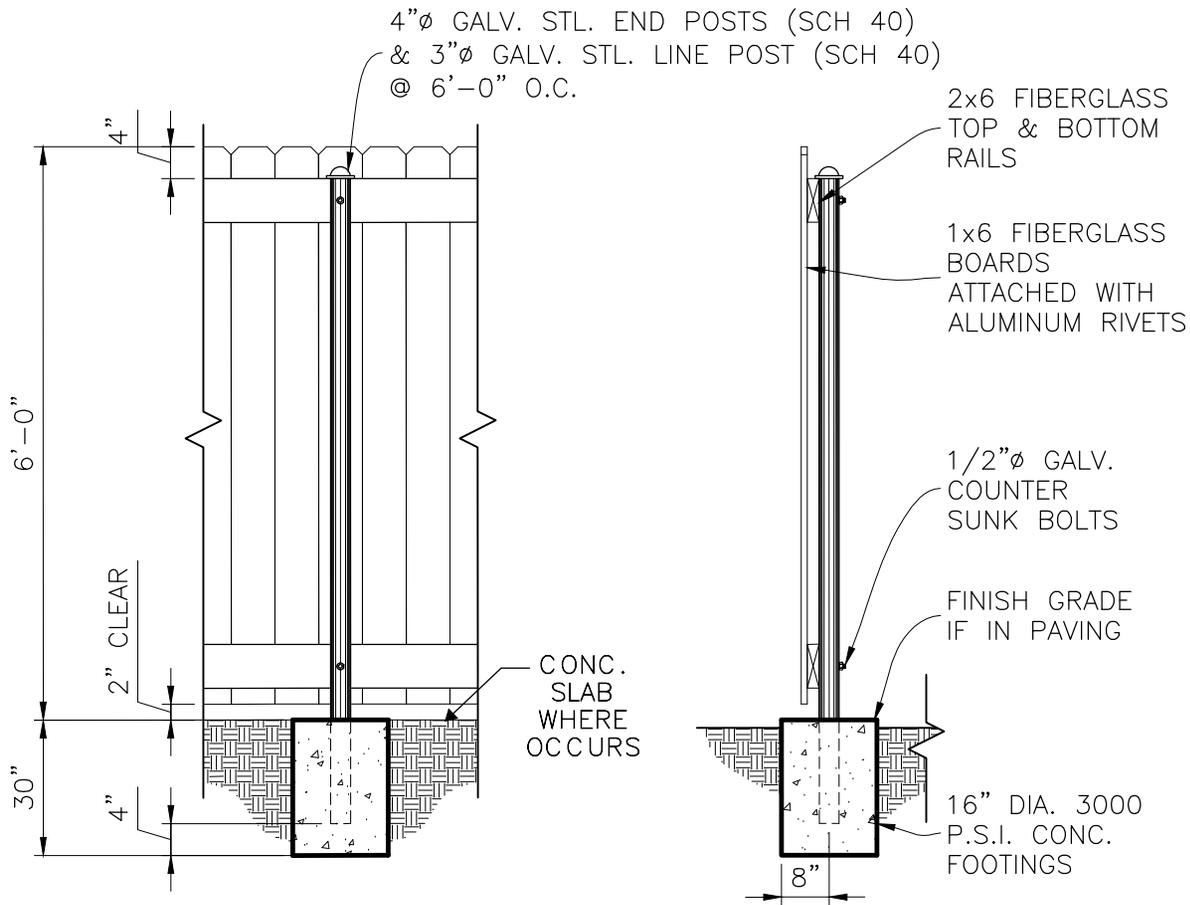
STPCD 9-1-1 DISPATCH CENTER

gla No.:
14109

Issue Date:
03 AUG 2016

WELL SITE
FENCE
DIAGRAM

SK 04



FENCE DETAIL

1/2"=1'-0"

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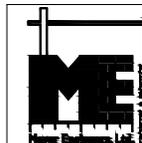
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Issue Date:

02 AUG 2016

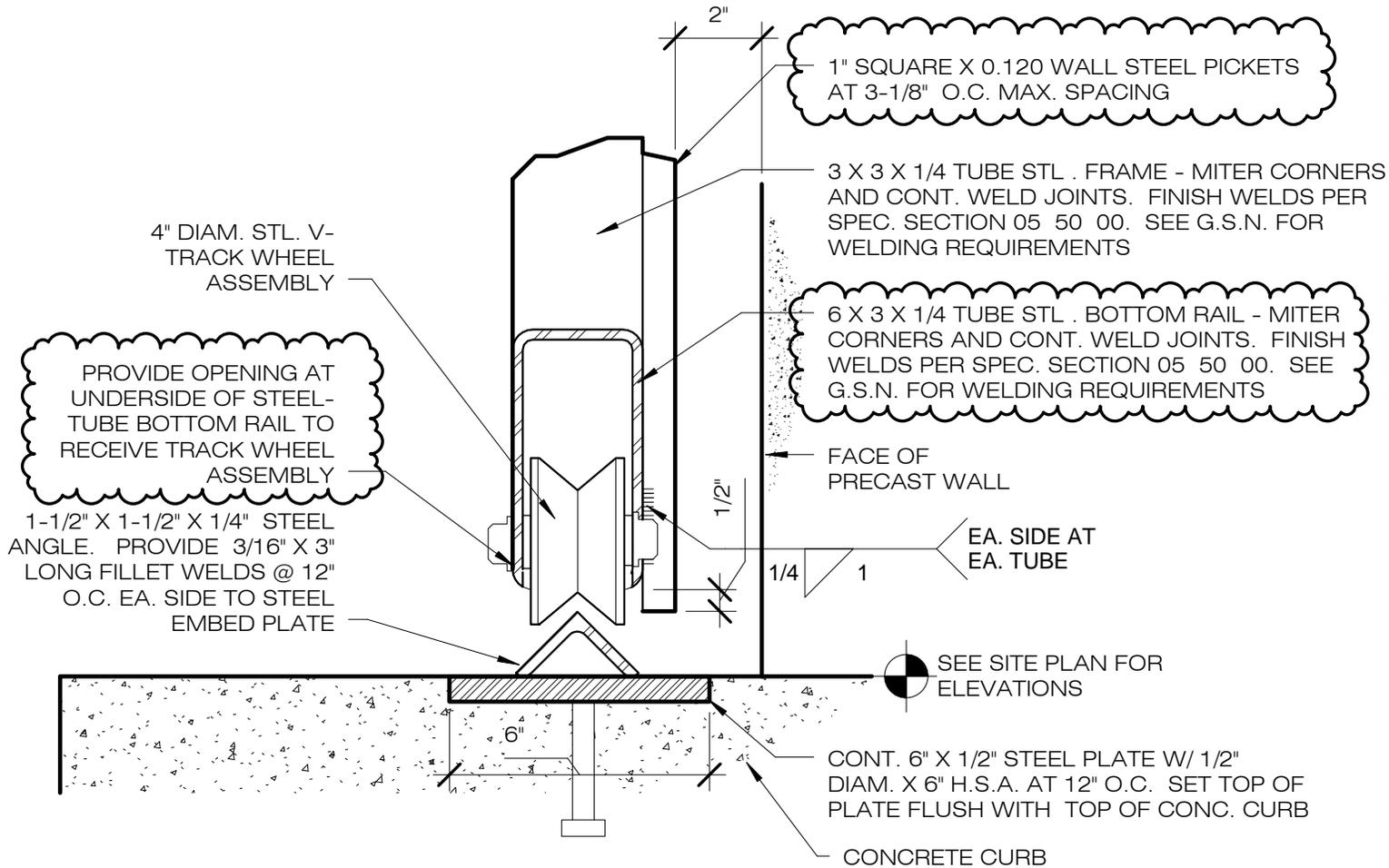
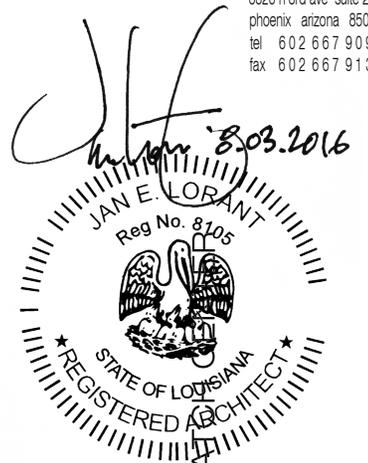
Addendum

SK 05



Meyer Engineers, Ltd.

4937 Hearst Street . Suite 1B . Metairie, Louisiana 70001
phone.504.885.9892 . fax.504-887-5056
website.www.meyer-e-l.com



FABRICATE AND INSTALL PER ASTM 2200

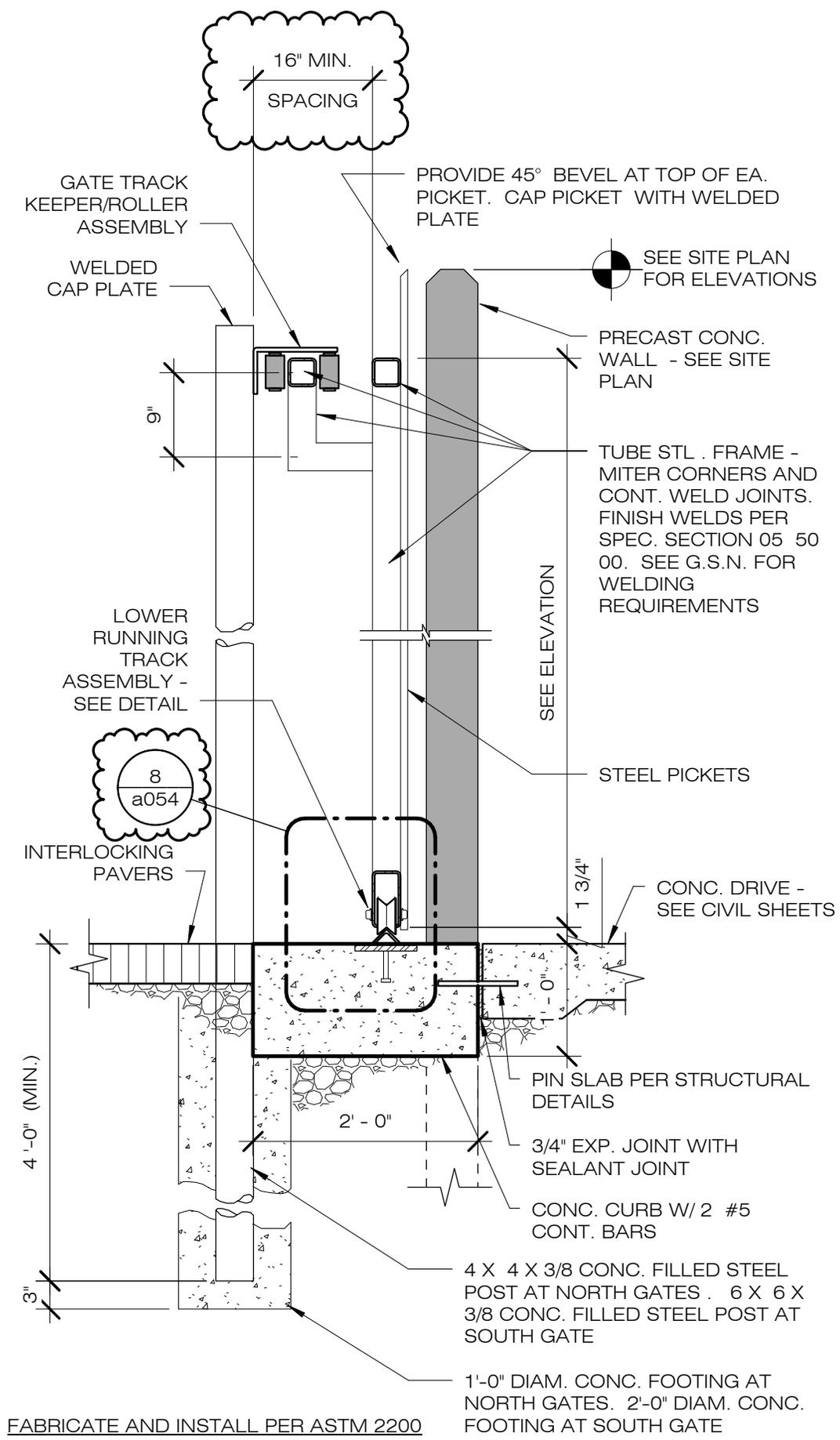
STPCD 9-1-1 DISPATCH

gla No.:
14109

Issue Date:
03 AUG 2016

Rolling Gate -
Track

8 V-track at Rolling Gate
3" = 1'-0"



FABRICATE AND INSTALL PER ASTM 2200

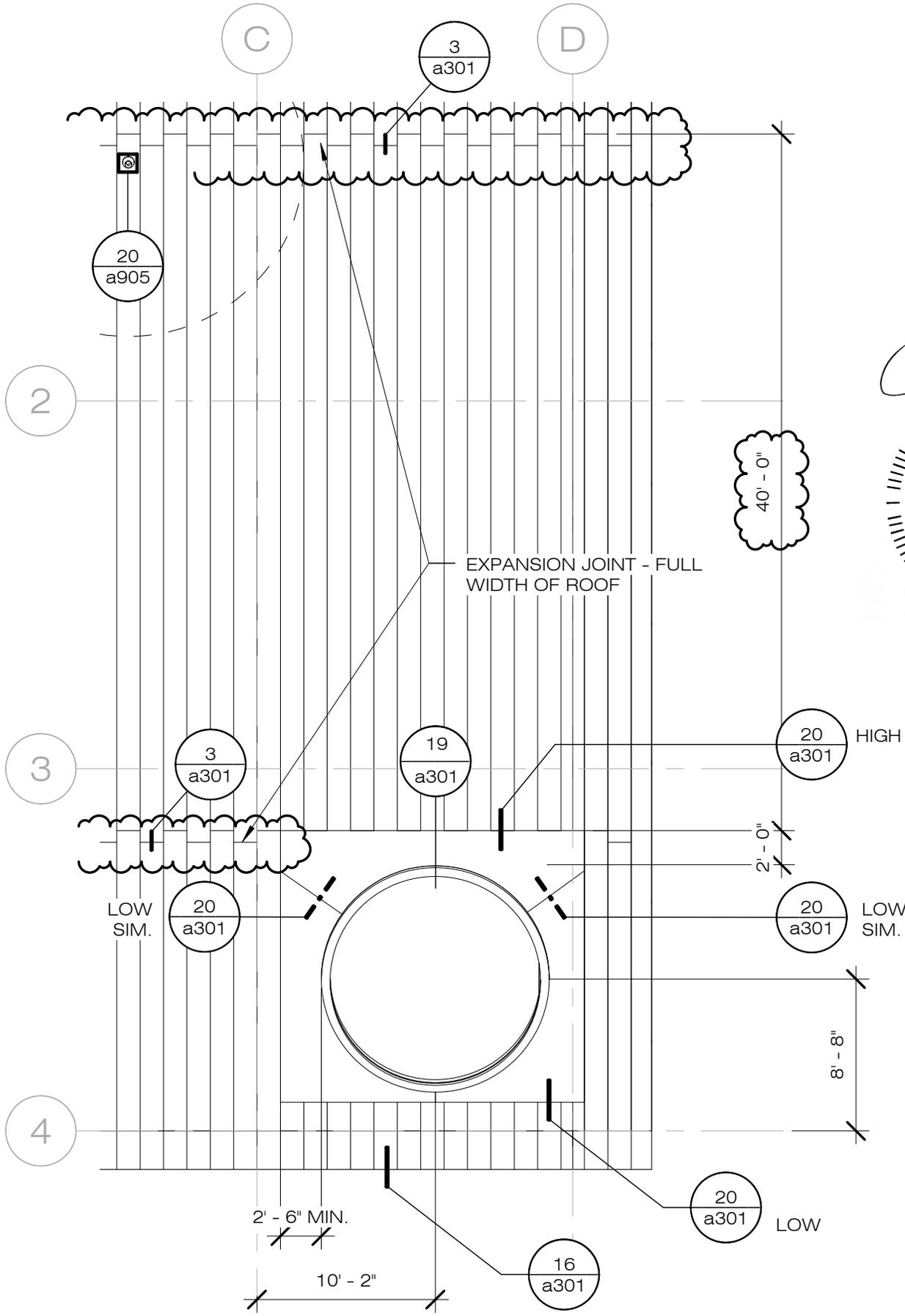
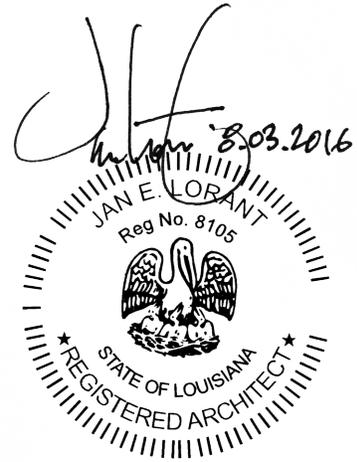
STPCD 9-1-1 DISPATCH CENTER

gla No.:
14109

Issue Date:
03 AUG 2016

Rolling Gate -
Section

11 Section at Rolling Gate
3/4" = 1'-0"



STPCD 9-1-1 DISPATCH CENTER

gla No.:
14109

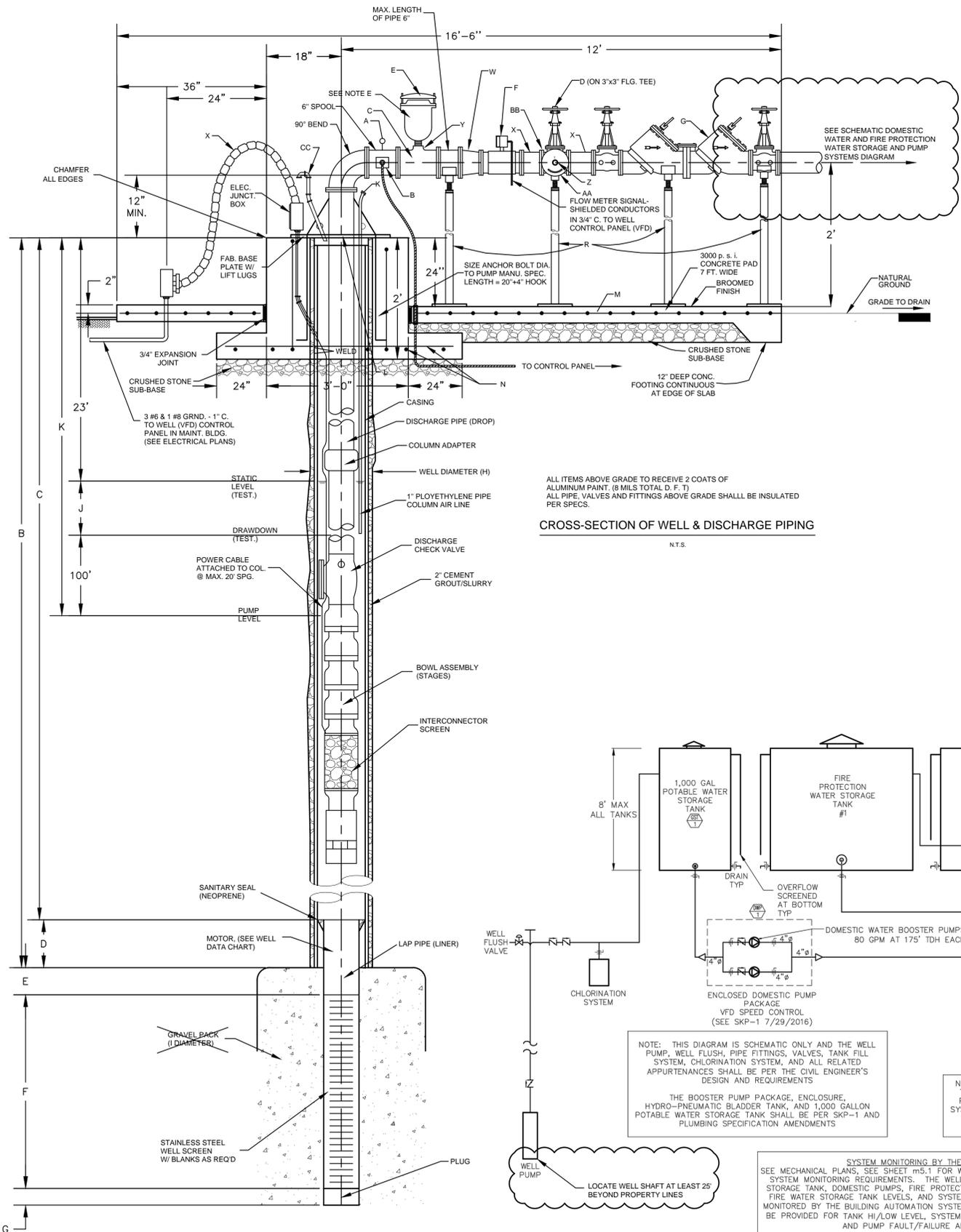
Issue Date:
03 AUG 2016

Partial Roof
Plan-Expansion
Joints

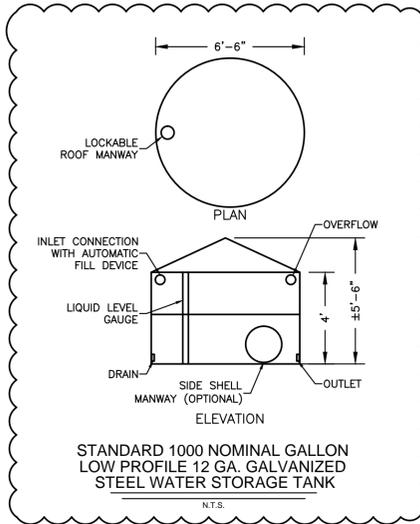
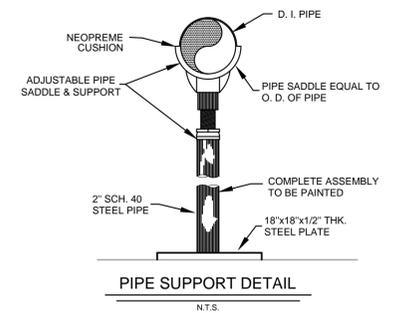
SK 07

1 Partial Roof Plan
1/8" = 1'-0"

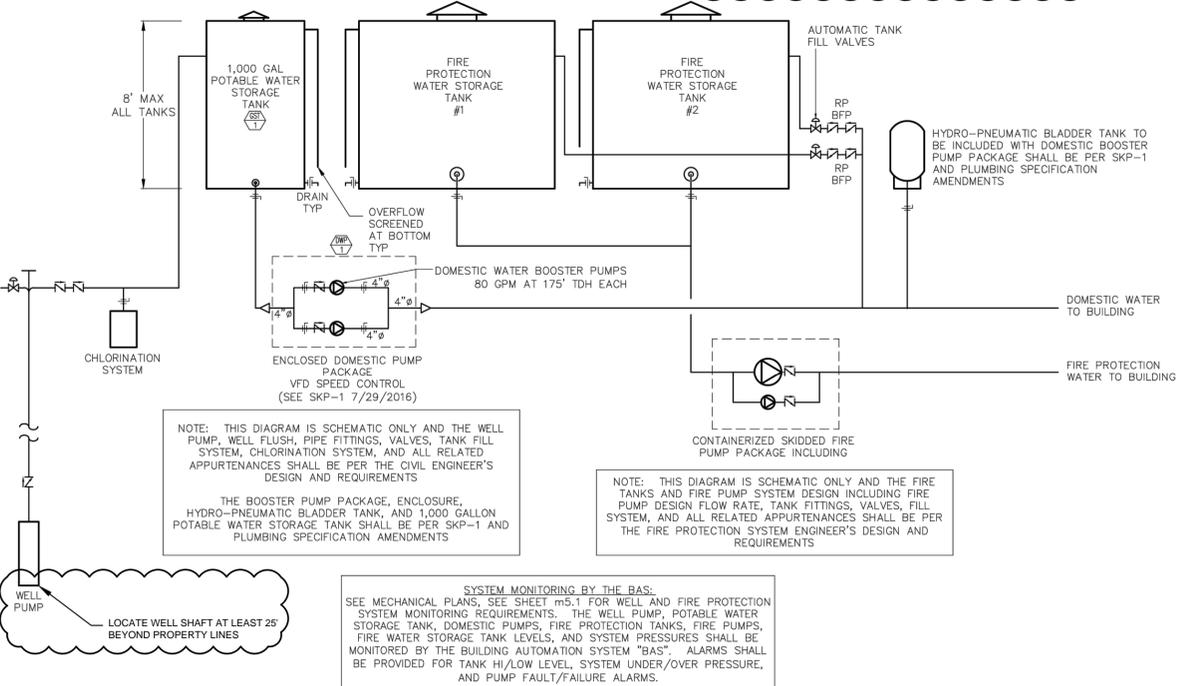




CROSS-SECTION OF WELL & DISCHARGE PIPING
N.T.S.



STANDARD 1000 NOMINAL GALLON LOW PROFILE 12 GA. GALVANIZED STEEL WATER STORAGE TANK
N.T.S.



SCHEMATIC DOMESTIC WATER AND FIRE PROTECTION WATER STORAGE AND PUMP SYSTEMS
N.T.S.

LEGEND		
ITEM NO.	NO. REQ'D.	DESCRIPTION
A	1	COMPOUND GAUGE SUITABLE FROM 30" VACUUM TO 150 p.s.i.; 3/12" DIA., STEEL CASE, GLASS LENS, 1/4" NPT, BRASS NEEDLE VALVE AND FNPT WELDED BOSS
B	1	PRESSURE TRANSDUCER MOUNTED W/ STAINLESS STEEL TAPPING SADDLE OR WELDED BOSS, SHIELDED CONDUCTORS IN 3/4" C. TO WELL CONTROL PANEL
C	1	12" LONG SOLID SLEEVE (6')
D	3	AWWA 3" GATE VALVE 125 CLASS, FLANGED NONRISING STEM, HAND WHEEL, O-RING PACKING, DOUBLE DISC, WITH RESILIENT SEATS
E	1	2" AIR-VACUUM VALVE
F	1	3" TURBINE METER AND TRANSMITTER (FLG.) W/ 4-20MA SIGNAL TO WELL CONTROL PANEL
G	1	3" DOUBLE CHECK VALVE ASSEMBLY, IRON BODY, BRONZE MOUNTED W/ VALVES (SEE SPECS.)
H	1	45° BEND FLG. (4"x3" REDUCING)
J		NOT USED
K	1	1" CAPPED OBSERVATION PIPE (STL.)
L	1	NEOPRENE WELL HEAD SANITARY SEAL
M	1	5' SLAB WITH 6"x6"x6 ga. WIRE MESH
N	1	NO. 6 BARS AT 12" O.C.
O	4	NO. 4 STIRRUPS
P	2	TIE RODS (GALV.) AFTER THREADING
R	4	PIPE SUPPORTS (SEE DETAIL THIS SHEET)
S	1	FLG. x PE PIPE (4")
T	1	CONCRETE THRUST BLOCK MIN. 30 SQ. FT. SURFACE AGAINST UNDISTURBED EARTH.
U	1	SOCKET CLAMP
V	1	90° BEND M.J. (4") (REST. JT.)
W	1	6"x3" REDUCER (FLANGED)
X	2	6" LONG SPOOL (FLG. x UNI-FLG.)
Y	1	2" TAPPED OUTLET
Z	1	3/4" BOILER COCK-SAMPLE SMOOTH NOZZLE BIB
AA	1	TAPPED BLIND FLANGE
BB	1	TEE (3") (FLANGED)
CC	1	CASING VENT, GALV., SCREENED 1" DIA. MIN.
NOTE		DIRECT BLOW-OFF DISCHARGE AWAY FROM ELECTRICAL SERVICES.
*NOTE E		IF AIR-VACUUM VALVE IS FURNISHED WITH THREADED DISCHARGE, PIPE TO A POINT 24" ABOVE THE CONCRETE SLAB.

WATER SYSTEM NOTES:

- WATER SHALL BE PUMPED FROM THE WATERWELL TO THE HYDROPNEUMATIC TANK. A PRESSURE TRANSMITTER (ROSEMOUNT MODEL 2088 OR APPROVED EQUAL) ON THE STORAGE TANK SHALL MONITOR LIQUID LEVELS IN THE STORAGE TANK. THE PRESSURE TRANSMITTER SHALL BE USED IN CONJUNCTION WITH A DIGITAL LEVEL CONTROLLER (PRECISION DIGITAL P6000 IN NEMA-4X STAINLESS STEEL ENCLOSURE OR APPROVED EQUAL) TO PROVIDE START/STOP SIGNAL TO THE WELL PUMP MOTOR STARTER TO MAINTAIN THE DESIRED LEVELS IN THE STORAGE TANK. THE WELL PUMP STARTER SHALL BE SUPPLIED BY THE WATER WELL DRILLER AND SHALL BE IN A WEATHERPROOF ENCLOSURE AT THE WELL SITE. THE DIGITAL CONTROLLER SHALL ALSO PROVIDE A CONTACT CLOSURE FOR A LOW LEVEL SHUTDOWN IN THE STORAGE TANK. THE LEVEL CONTROLS IN THE GROUND SURFACE TANK SHALL BE AS FOLLOWS:
 - LOW WATER LEVEL ALARM: 2' ABOVE THE BOTTOM OF THE TANK
 - WELL PUMP ON: 4' ABOVE THE BOTTOM OF THE TANK
 - WELL PUMP OFF: 6' ABOVE THE BOTTOM OF THE TANK
- THE PUMP SYSTEM MUST OPERATE AT A SET FLOW RATE OF 85 GPM. THE APPROXIMATE ACTUAL FLOW RATE MUST BE FACTORED INTO THE PROGRAMMING OF THE CHLORINE FEED PUMP SYSTEM TO MAINTAIN THE PROPER LEVEL OF CHLORINATION.
- THE CHEMICAL FEED PUMP SHALL BE ACTIVATED WHEN THE WATERWELL PUMP IS ON. (MILTON ROY CO., MODEL # A 141-918SI OR EQUAL)
- WATER SHALL ENTER THE HYDROPNEUMATIC STORAGE TANK THROUGH THE 3" WATERLINE.
- THE HYDROPNEUMATIC TANK WILL PRESSURIZE THE WATERLINE SERVICING THE SITE FOR A MAXIMUM FLOW OF 80 GPM @ 70-80 PSI.
- AN AIR COMPRESSOR UNIT WILL BE MOUNTED TO THE HYDROPNEUMATIC STORAGE TANK. THE AIR COMPRESSOR UNIT WILL BE AUTOMATICALLY SWITCHED ON AND OFF BY A FIELD ADJUSTABLE TIMER-ACTUATED CONTROLLER IN ORDER TO MAINTAIN THE NECESSARY AIR PAD ON THE HYDRO-PNEUMATIC TANK. THE AIR COMPRESSOR SHALL OPERATE ON 240/360. AIR COMPRESSOR SHALL HAVE A RUNTIME OF BETWEEN 5 TO 10 MINUTES TO REPRESSURIZE TANK FROM LOW PRESSURE TO HIGH PRESSURE SETPOINT
- WATER WILL EXIT THE HYDROPNEUMATIC TANK THROUGH A 3" OUTLET.
- BALL VALVES AND UNIONS SHALL BE INSTALLED BEFORE AND AFTER EACH PIECE OF EQUIPMENT WHEN APPROPRIATE TO ALLOW FOR SERVICING.
- MIN. 50' TO SEWER LINES
- THERE ARE NO EXISTING OR PROPOSED SOURCES OF CONTAMINATION WITHIN 100 FEET OF THE WELL.
- CONTRACTOR TO PROVIDE COVER FOR SODIUM HYPOCHLORITE DRUM.
- HYPOCHLORITE PRODUCT WILL BE NSF60
- CHLORINE FLOW MONITOR PROVIDED
- CALIBRATION TUBE WILL BE INSTALLED.
- CONTRACTOR SHALL COORDINATE WITH THE PLUMBING CONTRACTOR AND FIRE PROTECTION CONTRACTOR TO ENSURE THAT THE SYSTEMS ARE INTEGRATED AND WORK WELL TOGETHER, AND TO PROVIDE SHOP DRAWING SUBMITTALS FOR ALL SYSTEMS

WATERWELL NOTES:

- WATERWELL AND WATER SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TITLE 51, PART XII, WATER SUPPLIES, AND TITLE 56, PART I, WATERWELLS, OF THE LOUISIANA ADMINISTRATIVE CODE.
- ALL WATER WELL ITEMS SHALL BE DISINFECTED WITH CHLORINE (CONFORMING TO AWWA B301) WITH A CONCENTRATION 50-500 PPM SHALL BE OBTAINED IN WELL AND REMAIN FOR 24 HOURS. DISINFECTION SHALL BE IN ACCORDANCE WITH SECTIONS A1 TO A10 OF AWWA A100.
- THE ELECTRICAL CABLE SHALL BE ATTACHED TO THE RISER PIPE AT 20' INTERVALS OR LESS.
- WATER WELL AND WATER DISTRIBUTION SYSTEM SHALL BE INSTALLED, SET UP, AND ADJUSTED BY A CONTRACTOR WHO HAS A MINIMUM OF 5 YEARS EXPERIENCE IN THE CONSTRUCTION OF WATER WELL AND WATER WELL DISTRIBUTION SYSTEMS.

TANK NOTES:

- 125 PSIG, ASME HYDROPNEUMATIC TANK, 2500 GALLON CAPACITY, HORIZONTAL WITH 6" CLEARANCE SUPPORT. FEMALE NPT CONNECTIONS AS NEEDED, III 12" x 6" ELLIPTICAL MANWAY, FDA AND NSF61 APPROVED EPOXY LINED INTERIOR, WHITE EPOXY EXTERIOR. TANK SHALL BE INSULATED, FURNISH WITH TANK MOUNTED AIR RITE MODEL 610HP AIR COMPRESSOR, TANK TO BE MANUFACTURED BY DIXIE TANK COMPANY, MODEL # 1468/60" HPT-100WP-E-ASME OR APPROVED EQUIVALENT, WITH ACCESS MANHOLE, DRAIN, PRESSURE GAUGE, WATER SIGHT GLASS, ADDITIONAL PORT TO ALLOW FOR TEMPORARY AIR COMPRESSOR, AND SMOOTH SAMPLE TAP. SEE SPECIFICATIONS.
- THE SODIUM HYPOCHLORITE FEED PUMP WILL OPERATE AT NO LOWER THAN 20% OF THE FEED RANGE UNLESS TWO FULLY INDEPENDENT ADJUSTMENT MECHANISMS SUCH AS PUMP PULSE RATE AND STROKE LENGTH ARE FITTED WHEN THE PUMP SHALL OPERATE AT NO LOWER THAN 10% OF THE RATED MAXIMUM.
- A SPARE HYPOCHLORITE INJECTION PUMP SHALL REMAIN ON SITE.
- THE HYPOCHLORITE INJECTION PUMP WILL BE ELECTRICALLY INTERCONNECTED WITH THE WELL PUMP.
- THE ABOVE WELL WILL BE SAMPLED BY THE APPLICANT FOR THE NATIONAL PRIMARY DRINKING WATER CONTAMINANTS AND TOTAL COLIFORM PRIOR TO BEING PLACED INTO SERVICE

- GENERAL NOTES:**
- INSULATE ALL EXPOSED PIPING. PROVIDE ALUMINUM JACKET FOR PIPES.
 - ENSURE ALL NEC CLEAR WORKSPACES ARE MAINTAINED WHEN INSTALLING EQUIPMENT.
 - ALL MATERIAL IN WATER DISTRIBUTION SYSTEM MUST COMPLY WITH NSF 61 AND NSF 372 (SEE SPECIFICATIONS).
 - ALL WATER DISTRIBUTION ITEMS SHALL BE DISINFECTED IN COMPLIANCE WITH AWWA STANDARDS AND PROCEDURES BEFORE PLACING THEM INTO SERVICE.

ELECTRICAL NOTES:

- ALL WORK TO BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE
- CONTRACTOR TO COORDINATE WITH PROPER AUTHORITY FOR POWER SUPPLY.
- CONTRACTOR TO PAY ANY INSPECTION FEES.
- SEE ELECTRICAL SCHEMATIC FOR CONDUIT AND WIRE SIZES.

WELL DATA CHART	
DIMENSIONS:	
A. 440 FT. MIN.	F. 40 FT. "
B. 410 FT.	G. 20 FT.
C. 394 FT.	H. 10 inches
D. 16 FT.	I. N/A
E. 5 FT.	J. (unk) FT.
	K. (unk) FT.
PRELIMINARY PUMP DATA:	
WELL NO.	STAGES SIZE "X"
BOWL ASSEMBLY	
SIZE PIPE	PVC F-480 (NSF)
HEAD TYPE	PVC F-480 (NSF)
SUCTION LENGTH	4'
DESIGN CONDITIONS	85 GPM @ 250' TDH
MOTOR DATA:	
H.P. 10	EFF. (MIN. 80%)
VOLTAGAGE 30/208V	SPEED (unk) RPM
TYPE	FRAME
	SERIAL NO.
REMARKS:	VHS - WEATHERPROOF
CASING DATA:	
WELL	4" DIA.
LINEER	2" DIA.
SIZE	SIZE
WEIGHT 10.97 FT.	WEIGHT 3.65 LB./FT.
WALL 0.240 IN.	WALL 0.150 IN.
SCREEN DATA:	
SIZE	2"
TYPE	JOHNSON SLOTTED
MATERIAL	STAINLESS STEEL TYPE 304
GAUGE	
OPENINGS	

* SAND ANALYSIS SHALL BE PERFORMED & RECOMMENDATIONS SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE SCREEN AND GRAVEL PACK SELECTION AND INSTALLATION.

... VALUES SHALL BE RECOMMENDED BY CONTRACTOR FOR APPROVAL AFTER WELL LEVEL AND ELECTRIC LOGS HAVE BEEN PERFORMED.

"X" EQUIPMENT SELECTION SHALL BE MADE AFTER PUMP TEST RESULTS.

INFORMATION SHALL BE PROVIDED BY CONTRACTOR, COMPLETE & q. DEVELOPED WELL DATA, EQUIPMENT, CAPACITIES, ETC. FOR ALL BLANK SPACES GIVEN ABOVE AND SUBMITTED IN 5 XEROXED (OR EQUAL) COPIES TO THE ENGINEER.

CONSTRUCTION NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH WATER WELL RULES, REGULATIONS, AND STANDARDS-STATE OF LOUISIANA, LATEST EDITION.
- ANY PERSON, FIRM OR CORPORATION WHO ENGAGES IN THE BUSINESS OF DRILLING OR REWORKING WATER WELLS AND/OR PLUGGING AND ABANDONING WATER WELLS AND WATER TEST HOLES SHALL BE LICENSED THROUGH THE LOUISIANA OFFICE OF PUBLIC WORKS.

SYSTEM MONITORING BY THE BAS:
SEE MECHANICAL PLANS, SEE SHEET ms.1 FOR WELL AND FIRE PROTECTION SYSTEM MONITORING REQUIREMENTS. THE WELL, PUMP, POTABLE WATER STORAGE TANK, DOMESTIC PUMPS, FIRE PROTECTION TANKS, FIRE PUMPS, FIRE WATER STORAGE TANK LEVELS, AND SYSTEM PRESSURES SHALL BE MONITORED BY THE BUILDING AUTOMATION SYSTEM "BAS". ALARMS SHALL BE PROVIDED FOR TANK HI/LOW LEVEL, SYSTEM UNDER/OVER PRESSURE, AND PUMP FAULT/FAILURE ALARMS.

LOCATE WELL SHAFT AT LEAST 25' BEYOND PROPERTY LINES

Meyer Engineers, Ltd.
4937 Hearst Street . Suite 1B . Metairie, Louisiana 70001
phone.504.885.9892 . fax.504-887-5056
website.www.meyer-e-l.com



DOMESTIC WATER BOOSTER PUMP STATION

*PROVIDE LISTED OR APPROVED EQUAL EQUIPMENT BY OTHER MANUFACTURERS

MARK	MANUFACTURER	MODEL	TYPE	SERVICE	PUMP INFORMATION			ELECTRICAL					NOTES:				
					QUANTITY / TYPE	GPM	HEAD FT.	BOOST PRESSURE	HP	VOLT	PH	HZ		RPM	FLA	MCA	MOCF
DWP-1	AMT ADVANCED MECHANICAL TECHNOLOGIES	00HR-B-2-0974-I-D-V-I-X-C	DUPLEX BOOSTER PUMP PACKAGED SYSTEM	DOMESTIC POTABLE WATER	2 PUMPS / GRUNDFOS	80 EA 160 TOTAL	175'	75 PSA	7.5 EA PUMP	460	3	60	VFD	42.8	48	60	1-11

NOTES:

1. PROVIDE A FACTORY PACKAGED AND SKID MOUNTED DUPLEX PUMP SYSTEM INCLUDING: (2) BOOSTER PUMPS, (2) VFD'S, 4"Ø INLET AND OUTLET PIPE MANIFOLD, SHUT-OFF-VALVES, CHECK VALVES, SYSTEM CONTROLLER, BREAKERS, PUMP INLET STRAINERS, DISCONNECTS, TRANSFORMERS, AND OPERATOR INTERFACE FOR A COMPLETE SYSTEM. SYSTEM SHALL BE PROVIDED WITH SINGLE POINT POWER, PUMP MOTORS SHALL BE INVERTER DUTY MOTORS, SUITABLE FOR VFD USE. VFD'S SHALL BE ABB ACS310 INDUSTRIAL PUMP AC DRIVES OR APPROVED EQUAL.
2. PROVIDE SYSTEM INSTALLED INSIDE AN ACCESSIBLE ENCLOSURE OR CONTAINER AS A FACTORY PACKAGED SYSTEM SOURCED FROM THE MANUFACTURER, RATED FOR ST. TAMMANY LOUISIANA WEATHER CONDITIONS. ENCLOSURE SHALL INCLUDE HEATER, LOUVER, AND EXHAUST FOR VENTILATION.
3. PROVIDE SYSTEM WITH AN ASME RATED HYDRO-PNEUMATIC BLADDER TANK SIZED FOR THE SYSTEM. TANK SHALL BE RATED FOR OUTDOOR INSTALLATION SUITABLE FOR THE CLIMATE ZONE.
4. INCLUDE PRESSURE GAUGES IN/OUT.
5. INCLUDE WITH LCD OPERATOR INTERFACE WITH REMOTE MONITORING ACCESS AND CONTROL.
6. PROVIDE WITH BACNET INTERFACE TO INTEGRATE TO THE BUILDING AUTOMATION SYSTEM FOR MONITORING (SEE MECHANICAL PLANS SHEET m5.1).
7. PROVIDE WITH LIOTEC DRY-RUNNING SENSOR (OR APPROVED EQUAL) TO PROTECT PUMPS IN THE EVENT OF A DRY-RUN CONDITION.
8. PROVIDE SYSTEM WITH FACTORY WIRED TEMPERATURE SENSOR AT PUMP DISCHARGE TO SHUT-DOWN PUMP ON A HIGH-TEMP CONDITION.
9. PROVIDE SYSTEM WITH FACTORY WIRED PRESSURE SENSOR CONTROLS.
10. SKIDDED PUMP SYSTEM PACKAGE AND THE HYDRO-PNEUMATIC TANK SHALL BE NSF/ANSI-61 CERTIFIED FOR USE IN POTABLE WATER SYSTEMS, SHALL BE LEAD FREE, AND SHALL MEET REQUIREMENTS OF THE EPA AND SAFE DRINKING WATER ACT. PROVIDE LISTING AND COMPLIANCE INFORMATION WITH SUBMITTAL PACKAGE.
11. PROVIDE AND INSTALL TANK ON A REINFORCED CONCRETE HOUSEKEEPING PAD. PAD SHALL BE DESIGNED AND SEALED BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF LOUISIANA.



DOMESTIC ABOVE GROUND POTABLE WATER STORAGE TANK

*PROVIDE LISTED OR APPROVED EQUAL EQUIPMENT BY OTHER MANUFACTURERS

MARK	MANUFACTURER	MODEL	TYPE AND SERVICE	MINIMUM CAPACITY	NOTES:
GST-1	NATIONAL STORAGE TANK, INC.	WS-1000-IC	ABOVE GROUND POTABLE WATER WELED STEEL STORAGE TANK	1,000 GALLONS	1-12

NOTES:

1. PROVIDE NSF-61 CERTIFIED POTABLE WATER WELED STEEL STORAGE TANK, 12 GAUGE MINIMUM.
2. PROVIDE AND INSTALL TANK ON A REINFORCED CONCRETE HOUSEKEEPING PAD. PAD SHALL BE DESIGNED AND SEALED BY A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF LOUISIANA.
3. TANK INTERIOR SHALL BE LINED WITH AN NSF-61 COMPLIANT INTERIOR EPOXY COATING.
4. TANK EXTERIOR SHALL BE GALVANIZED STEEL, OR ALTERNATELY SHALL BE PRIMED AND PAINTED WITH AN UP PROTECTIVE PAINT, COLOR PER ARCHITECT.
5. NOMINAL TANK DIMENSION: 6'-6" DIAMETER X 5'-6" HIGH. ALTERNATE DIMENSIONS MAY BE ACCEPTABLE BASED ON PRIOR APPROVAL. MAXIMUM TANK HEIGHT SHALL BE 8' ABOVE FINISHED GRADE.
6. TANK SHALL INCLUDE A MINIMUM (4) 3" FLANGED (TWO HOLED) PIPE CONNECTIONS FOR FILL, SUPPLY, DRAIN, AND OVERFLOW.
7. TANK SHALL INCLUDE A SUITABLE WEATHER PROTECTED AND SCREENED TANK VENT SIZED BY THE MANUFACTURER AND RATED FOR THE MAXIMUM FILL CAPACITY OF THE WELL PUMP.
8. TANK SHALL INCLUDE A 20" DIAMETER ROOF HATCH FOR INSPECTION, ACCESS, AND MAINTENANCE.
9. TANK SHALL INCLUDE A VISUAL TANK LEVEL INDICATOR WITH ALL REQUIRED FITTINGS.
10. INCLUDE ALL REQUIRED VALVES, CHECK VALVES, DRAIN VALVES FOR THE TANK.
11. TANK, VALVES, AND FITTINGS SHALL BE NSF/ANSI-61 CERTIFIED FOR USE IN POTABLE WATER SYSTEMS, SHALL BE LEAD FREE, AND SHALL MEET REQUIREMENTS OF THE EPA AND SAFE DRINKING WATER ACT. PROVIDE LISTING AND COMPLIANCE INFORMATION WITH SUBMITTAL PACKAGE.
12. TANK SHALL INCLUDE A 10 YEAR MANUFACTURER WARRANTY.



Date Signed: 07/29/2016



2800 S. RURAL RD. SUITE 101
TEMPE, AZ 85282 (480)968 3070
JOB NUMBER 15-001

**STPCD 911 DISPATCH
ADDENDUM
POTABLE WATER BOOSTER PUMP STATION AND POTABLE WATER STORAGE TANK**

DRAWN BY: WDK
DATE: 07/29/2016

SHEET
SKP-1
1 OF 1

St. Tammany Parish Communications District 9-1-1 Dispatch Center
BID NO.: NF-2016-06-16 ADDENDUM NO. 3
Interior Finishes

MATERIAL	PRODUCT	COLOR	NOTES
Aluminum Window Frames	Varies	Clear Anodized	
Ground-face (Honed) masonry	Trenwyth Trendstone	Mission White	
Solid Surface	Dupont Zodiaq Quartz	Coarse Carrara	
Plastic Laminate (P-Lam)	Formica	5488 Smokey Brown Pear (Naturelle Finish)	
Thermo-Fused Composite Panel (Wood Finish)	West-Coast Laminating Metro Collection	LM67 Aspen Oak	
Wall Tile 1	Kaiser Tile Sweet Sixteen	Earl Grey	
Wall Tile 2	Kaiser Tile Sweet Sixteen	Coconut	
Wall Fabric at Acoustical Wall System	Guilford of Maine	2977 Hatchet Armament 031	911 Dispatch Room 200/Adjoining Spaces
Wall Fabric at Acoustical Wall System	Guilford of Maine	3008 Bix Fort 070	Board Room 101 North Wall
Accent Tile 1	UltraGlass Linen	Opaque 15B (Red)	
Accent Tile 2	UltraGlass Linen	Opaque 15B (Blue)	
Mosaic Aluminum Tile	Kaiser Tile Aerial	Black	10-3/4"x11-7/8"x3/8"
Paint 1	Sherwin Williams	SW 718 Dovetail	
Paint 2	Sherwin Williams	SW 7065 Argos	
Paint 3	Sherwin Williams	SW 7070 Site White	
Terrazzo Floor	As approved by Owner		See Mix Design
VCT (Standard)	Mannington Essentials	175 Mineral Grey	
Rubber Base	Burke	727 Thunder	
Carpet A	Julie Industries Colonial Series	Mission Critical "Smith" Standard	Static Dissipative
Carpet B	Shaw 64505	"Stipple"	
Toilet Partitions	Global Partitions	SS Diamond Finish	