5.11.2 Non-shrink, Nonmetallic Grout: Factory-packaged, non-staining, noncorrosive, nongaseous grout complying with ASTM C 1107.

5.12. PIT LADDER

5.12.1 At each hoist way provide a vertical ladder of non-combustible material extending 42" minimum, (48" minimum for A17.1-2000 states) at the same height, above sill of access door or hand-grips.

6. PART 3 - EXECUTION

6.1. EXAMINATION

6.1.1 Examine elevator areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.

6.1.1.1 Verify critical dimensions, and examine supporting structure and other conditions under which elevator work is to be installed.

6.1.1.2 Proceed with installation only after unsatisfactory conditions have been corrected.

6.1.1.3 Notify, in written form, the Owner's Site Representative (OSR) of any found unsatisfactory conditions.

6.2. INSTALLATION

6.2.1 General:

6.2.1.1 Install each equipment item in accordance with accepted Manufacturer's procedures, reference codes, and specifications.

6.2.1.2 Install elevator and machine equipment with clearances in accordance with referenced codes and specifications.

6.2.1.3 Install items so they may be easily removed for maintenance and repair.

6.2.1.4 Coordinate with other trades for proportion and sequence to avoid delays.

6.2.1.5 Establish benchmarks, lines and levels to ensure dimensional coordination of work.

6.2.2 Welded Construction: Provide welded connections for installing elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustment, inspection, maintenance, and replacement of worn parts.

6.2.2.1 Comply with AWS standards for workmanship and for qualifications of welding operators.

6.2.2.2 Each welds must be made by a Certified Welder.

6.2.3 Electrical Runs: All wire and conduit shall run outside the hoist way.

6.2.4 Scheduling and Coordination:

6.2.4.1 Elevator hoist beam(s) (when required by MFG. manufacturer) to be provided at top of elevator shaft. Beam must be able to accommodate proper loads and clearances for elevator installation and operation.

6.2.4.2 Pit floor shall be level and free of debris. Reinforce dry pit to sustain normal vertical forces from rails and buffers.

6.2.4.3 Install level guards at 75° to all recesses, projections or setbacks over 2" (4" for A17.1 2000 states) except for loading or unloading.

6.2.4.4 Provide rail bracket supports in pit, each floor and roof (or as directed on elevator shop drawings). For guide rail bracket supports, provide divider beams between hoistway at each floor and roof.

6.2.4.5 Pit floor shall be level and free of debris. Reinforce dry pit to sustain normal vertical forces from rails and buffers.

6.2.4.6 Install and furnish finished flooring in elevator cab.

6.2.4.7 Finished doors and entrance walls are not to be constructed until after sills and door frames are in place. Consult elevator contractor for rough opening sizes. The general contractor shall supply the drywall framing so that the wall fire resistance rating is maintained, when drywall construction is used.

6.2.4.8 Where sheet rock or drywall construction is used for front walls, it shall be of sufficient strength to maintain the doors in true lateral alignment. Drywall contractor to coordinate with elevator contractor.

6.2.4.9 Before erection of rough walls and doors: erect hoist way sills, headers and frames. After rough walls are finished, erect fascias and toe guards.

6.2.4.10 To maintain legal fire rating (masonry construction), door frames are to be anchored to walls and properly grouted in place.

6.2.4.11 The elevator wall shall interface with the hoist way entrance assembly and be in strict compliance with the elevator contractor's requirements.

6.2.5 Sound Isolation: Mount rotating and vibrating equipment on vibration-isolating mounts designed to effectively prevent transmission of vibrations to structure and thereby eliminate sources of structure-borne noise from elevator system.

6.2.6 Lubricate operating parts of systems as recommended by manufacturers.

6.2.7 Alignment: Coordinate installation of hoist way entrances with installation of elevator guide rails for accurate alignment of entrances with cars. Where possible, delay installation of sills and frames until car is operable in shaft. Reduce clearances to minimum, safe, workable dimension at each landing.

6.2.8 Leveling Tolerance: 3 mm (1/8 inch), up or down, regardless of load and direction of travel.

6.2.9 Set sills flush with finished floor surface at landing. Fill space under sill solidly with non-shrink, nonmetallic grout.

6.2.10 Performance Criteria -- Times shall be adjustable.

6.2.10.1 Door open time 1.5 seconds

6.2.10.2 Door Close time 2.5 seconds

6.2.10.3 Door open dwell time on a car call 5.0 seconds

6.2.10.4 Door open dwell time on a hall call 5.0 seconds

6.2.10.5 Activation of door close button shall cancel dwell time.

6.2.10.6 Zip or Shuttle dispatch system

6.2.10.7 Floor to floor times: contract speed with leveling zone of 4 to 6 inches maximum either direction

6.2.10.8 Double Hall button response/ doors closing will ignore second hall button activation

6.3. FIELD QUALITY CONTROL

6.3.1 Acceptance Testing: On completion of elevator installation and before permitting use (either temporary or permanent) of elevators, perform acceptance tests as required and recommended by ASME A17.1 and by governing regulations and agencies.

6.3.2 Advise Owner's Representative and AHJ (Authorities Having Jurisdiction) in advance of dates and times tests are to be performed on elevators. Provide a written list of potential building issues affecting the acceptance to the General Contractor and Owner's Representative at least 5 days prior to the AHJ inspection.

6.3.3 Provide a copy of the test results to Owner's Representative at the same time they are provided to the GC.

6.3.4 The project will be inspected by a Publix Representative, or Elevator Consultant or both. Any deficiency list to be addressed and completed within 30 days of receipt.

6.4. DEMONSTRATION

6.4.1 Instruct Owner's personnel in proper use, operation, and daily maintenance of elevators. Training shall be scheduled and may take up to a day. Include all functions of securing the elevators, and special security operations.

6.4.2 Provide two (2) Training Sessions: First training session is at Turnover and Second training session is determined by Publix and is to occur during the Warranty Period.

6.4.3 Provide three (3) Procedure Manuals for training.

6.4.4 Review emergency provisions, including emergency access and procedures to be followed at time of operational failure and other building emergencies.

6.4.5 Train Owner's personnel in procedures to follow to identify sources of operational failures or malfunctions.

6.4.6 Provide a copy of ASME 17.4 or a specific evacuation plan for on-site use per code.

6.4.7 Make final check of each elevator operation with Owner's personnel present and before date of Store Turnover. Determine that systems and devices are functioning properly.

6.5. PROTECTION

6.5.1 Temporary Use: Do not use passenger elevators for construction purposes. Protect finishes from damage.

6.5.1.1 Provide protective coverings, barriers, devices, signs, and other procedures to protect elevators. If, despite such protection, elevators become damaged, engage elevator installer to restore damaged work so that no evidence remains of correction work. Return items that cannot be refinished in the field to the shop, make required repairs and refinish entire unit, or provide new units as required.

6.6. ELECTRIC TRACTION MRL CUSTOMER ELEVATOR schedule

6.6.1 **Customer Traction Elevator:** (Store Level to Mezzanine Elevator)

6.6.1.1 **Type:** Electric Traction MRL

6.6.1.2 **Platform Size:** see size required for inside cab clear "nominal" 6'-9" wide x 5'-8" deep.

6.6.1.3 **Gateway Clear Inside:** As specified by manufacturer

6.6.1.4 **Rated Load:** 2500 lb.

6.6.1.5 **Rated Speed:** 150-200 FPM

6.6.1.6 **Openings:** front only, each floor level - refer to drawings

6.6.1.7 **Number of Stops:** Refer to drawings

6.6.1.8 **Travel Distance:** Refer to drawings

6.6.1.9 **Operation System:** OEM - see above in specifications.

6.6.1.10 **Power Characteristics:** 208 Volt - 3 Phase, [illegible] disc tags.

6.6.1.11 **Hoistway Entrances:**

6.6.1.11.1 Width 4'-0" preferred, will accept 3'-6"

6.6.1.11.2 Height: [illegible] preferred, will accept 7'-0"

6.6.1.11.3 Type: [illegible] speed, side opening

[illegible] Frames: Stainless Steel.

6.6.1.11.[illegible] Doors: Stainless Steel.

6.6.1.11.[illegible] Sills: Aluminum.

6.6.1.12 **Door Protection:** Infrared [illegible]

6.6.1.13 **Car Enclosure:**

6.6.1.13.1 Height: Cab - [illegible], Ceiling -- 7'-6" to 7'-9"

6.6.1.13.2 Ceiling Finish: paneled, stainless steel suspended mirrored panels.

6.6.1.13.3 Front Wall (return): Stainless steel satin finish with integral car door frames.

6.6.1.13.4 Side and Rear Walls: Stainless steel SWL.

6.6.1.13.5 Door faces (interior): Stainless steel satin finish.

6.6.1.13.6 Base Vented, stainless steel.

6.6.1.13.7 Door Sills: Aluminum.

6.6.1.13.8 Handrails: Round ADA compliant Stainless Steel, brush finish on 3 walls of cab.

6.6.1.13.9 Flooring: Aluminum Diamond Plate, 6061-T6 Mill Finish, non-skid - thickness as required to fill recess provided for finish flooring. If this exceeds designed weight limits then we will accept 3/16 or 1/4 inch Aluminum Diamond Plate, 6061-T6 Mill Finish, non-skid, over solid cut strips at 12 inch centers with rigid insulation between strips. Strips (if needed) thickness as required for filling floor finish recess provided by the elevator manufacturer.

6.6.1.13.10 Car Lighting: LED lighting OEM's standard system. Require a minimum of 20 foot candles at car floor.

6.6.1.14 Car Station:

6.6.1.14.1 Stainless steel, single station, mounted on side panel, as indicated on Drawings. Car Station shall include items as specified.

6.6.1.15 Hall Fixtures:

6.6.1.15.1 Hall Lanterns: Locate at each door at each floor with audible signal, once for up direction and twice for down direction calls.

6.6.1.15.2 Hall Pushbuttons: Locate two at each ingress landing. Install between elevators 1 and 2 and one between 3 and 4.

6.6.1.15.3 Floor Designation Plates: Locate on door jambs, two per landing.

6.6.1.15.4 Elevator Identification media: Locate on hall button sight line jamb at each opening.

6.6.1.16 Emergency Communication System:

6.6.1.16.1 Install hands free telephone programmed to Contractor's 24 hour help line at no charge through the warranty period.

6.6.1.16.2 Phone monitoring.

6.6.1.17 Additional Features:

6.6.1.17.1 Automatic floor call registration at Car Station.

6.6.1.17.2 "Two-door" operation with staggered door operation as specified.

6.6.1.17.3 Car top inspection station with railing.

6.6.1.17.4 Battery powered emergency car lighting, ventilation and alarm.

6.6.1.17.5 Battery powered emergency lowering and door operation.

6.6.1.17.6 Firefighters' service including automatic recall feature.

6.6.1.17.7 Light way access switches.

6.6.1.17.8 Independent service feature.

6.6.1.17.9 Installation and hook-up of security camera in each elevator car - provide two shielded twisted pair and a coax wire traveling cable from camera location (diagonal corner from the door) to controller location and supply 110 volt power supply in car - camera supplied by owner. Coordinate camera location with the owner.

6.6.1.17.10 Elevator Identification, engraved stainless steel plate with floor number, secured to entrance jambs.

6.6.1.17.11 Publix Super Markets, Inc. signage, stone application or other.

6.6.1.17.12 Emergency Power operation. Contractor shall identify any delay required between normal and emergency power operation and then emergency power back to normal power.

END OF SECTION 14 21 55

Section 21 00 00

Fire Suppression
V04162013

1. General

1.1 Submit LOEs in accordance with Section 01 33 00 Submittal Procedures.

1.2. System Description:

1.2.1 Construction Documents indicate the Design of a Fire Sprinkler System that complies with the intent of Publix. Information contained in these Documents shall be the only basis for Bid.

1.2.2 Publix is the approver of all systems.

1.2.3 Design Changes:

1.2.3.1 It is recognized that there are several ways to obtain the protection intended by Publix Super Markets. If changes can be made to the Design to achieve cost or time savings, these shall be submitted to Publix Super Markets for approval before requesting approval by the Authority Having Jurisdiction.

1.2.3.2 Work shall not begin on the assumption of approvability of changes to the Design.

1.2.3.3 If Publix approves design changes, submit Change Order request for inclusion in Contract.

1.3 Scope of Work:

1.3.1 Provide complete overhead sprinkler system as shown on the Drawings and described herein.

1.3.2 Make connection to the underground supply at the "Point of Service" as shown on the Drawings.

1.3.3 Provide back flow preventer and OS&Y Valve assembly at location shown in the Site Documents.

1.3.4 Locate Fire Department Connection as directed by the Authority Having Jurisdiction.

1.3.5 Provide Dry Pipe System for exterior heads at locations north of Florida State Highway 60, with under-canopy heads as indicated, and concealed heads as required.

1.3.6 Provide interconnections to systems provided under separate contract or by Owner.

1.3.7 Provide other systems and apparatus as needed for security of components, ease of access by Fire Fighters and Officials, and as required for a complete, integrated system.

1.4. Related Work by Others:

1.4.1 Connection to mains:

1.4.1.1 Underground fire sprinkler water supply system shall be as approved by the Publix Super Markets Engineer and the Authority Having Jurisdiction, including an acceptable outlet at a "Point of Connection" within 5 ft. of the building, lateral from the fire main or backflow preventer, furnished and installed by outside utility Subcontractor.

1.4.1.2 All such Fire Sprinkler work shall be accomplished by a Fire Sprinkler Contractor duly registered in the state of the work, and qualified by experience in work of similar scope to that indicated in the Contract Documents. Such work shall include, but not be limited to, connections to mains, underground supplies, backflow preventers, valves, fittings and other appurtenances required to connect the water supply to the fire sprinkler system.

1.4.2 Central station alarm system, complete as shown on Drawings, furnished and installed under separate contract.

1.5. Design Requirements

1.5.1 Minimum requirements for the design, manufacture, testing and methods of installing all materials, apparatus, and equipment shall conform to the requirements of NFPA Standards 24 and 13 and, in some cases, that of FM Global.

1.5.2 Conform to the requirements of the local building code and the Authority Having Jurisdiction. If conflicts occur between the requirements of the above mentioned codes and authorities, the most stringent shall govern.

1.5.3 Obtain a hydrant flow test, performed within the previous 6 month time period, and ensure its acceptability by all Authorities Having Jurisdiction prior to basing calculations and proposal on the results of the test.

1.5.4 Provide inspector's test connection at most remote point from riser. Provide minimum 1 per riser.

1.5.5 Spacing of sprinklers shall not exceed 130 sq. ft. per sprinkler without written permission from Publix.

1.5.6 Sprinkler location: All sprinklers shall be located as shown on Engineer's Drawings, and as required by codes, [illegible] and canopy areas.

1.5.7 Storage Areas, Ordinary [illegible] Group II: Provide a hydraulically designed wet system, provide 0.20 gpm/sq. ft. including the most remote 2000 sq. ft. Spacing of sprinklers shall not exceed 100 sq. ft. per sprinkler.

1.5.8 Sales Areas, [illegible]: Ordinary Hazard Group I: Provide a hydraulically designed wet system, provide 0.15 gpm/sqft for all areas including the most remote 2500 sq. ft.

1.5.9 Hydraulic calculations shall include a total allowance of 250 gpm for outside and inside hose streams.

1.6. Shop Drawings, Calculations and Approvals

1.6.1 Do not begin work until the shop drawings and calculations have been approved by Publix Super Markets and by the Authority Having Jurisdiction.

1.6.2 Any proposed value engineering changes must be submitted to the Publix Engineer prior to submitting any shop drawing and calculations.

1.6.3 Submit shop drawings and calculations simultaneously to the Publix Super Markets Engineer and the Authority Having Jurisdiction for approval and to Marsh Consulting for review.

1.6.4 Upon receiving approval of the Authority Having Jurisdiction, submit evidence of this approval to the Publix Super Markets Engineer.

1.7. Quality:

1.7.1 Subcontractor:

1.7.1.1 The Fire Sprinkler Subcontractor shall be a reputable firm regularly engaged in this type of work, employing skilled workmen, and with proper equipment. Work shall be performed by a firm licensed as a Class I or II Fire Sprinkler Contractor.

1.7.1.2 Upon request, Subcontractor shall show evidence of at least two similar jobs, of comparable size and character, installed and operating within the two years prior to bid opening.

1.7.1.3 Publix reserves the right to refuse any Subcontractor with or without disclosing cause.

1.7.2 Personnel:

1.7.2.1 Employ an experienced Superintendent to oversee all operation.

1.7.2.2 Work shall not proceed without adequate supervision present at all times. Foreman shall be a Journeyman Sprinkler Fitter.

1.7.2.3 Work shall be performed by workers certified in their trade as journeymen, and apprentices in accordance with regulations of the governing authority or customary practice. Utilize workers with skills in proportion to complexity of tasks required.

1.7.2.4 Publix reserves the right to refuse assignment of workers to Publix work with or without disclosing cause.

1.7.3 Quality Standards

1.7.3.1 Work shall be accomplished to ensure leak-proof installation.

1.7.3.2 Work will be judged by Publix in comparison to work of similar types. Substandard construction as judged by Publix Representative will not be accepted.

1.7.3.3 Neatness counts. Make all joints, connections, unions, etc. with proper care to insure that tight connections are made without excess material, well secured to supports.

1.7.3.4 Install piping with runs straight, accurately formed radii at bends, and adequate supports.

1.8 Pressure Test:

1.8.1 Perform testing as required by NFPA 13 and Authorities Having Jurisdiction. Test results shall be certified by these agencies.

1.8.2 As a minimum, test all piping and equipment under hydrostatic pressure of 200 pounds per square inch for a 2 hour continuous period.

1.8.3 Correct all defects revealed by test.

1.8.4 Retest as required until system is leak free under test conditions.

2. Products

2.1. Heads

2.1.1 All sprinkler heads shall be UL listed, Factory Mutual approved, and the product of one manufacturer.

2.1.2 Approved manufacturer's:

Viking
Victaulic
Tyco
Reliable
Globe

2.1.3 Sprinkler heads shall be **standard response** thermosensitive glass bulb style, standard pressure rated to 175 PSI.

2.1.4 Sprinklers with 1/2" orifices shall have 1/2" NPT connections, 17/32" orifices shall have 3/4" NPT connections, dry pendant heads shall have 1" NPT connections.

2.1.5 Areas with suspended ceilings. Use chrome recessed or semi-recessed type sprinklers rated at 155 degrees F. unless otherwise noted on the plan.

2.1.6 In areas with exposed structure:

2.1.6.1 Sales/Customer Areas: Use brass upright type sprinklers rated at 155 degrees F. Where suspended ceiling occurs use chrome pendant type sprinklers rated at 155 degrees F. Provide chrome two-piece escutcheons.

2.1.6.2 Storage, and other areas not used by customers: Use brass upright type, rated at 155 degrees F.

2.1.7 Cooler/Freezer Areas. Provide 175 degree F dry pendant sprinklers. Seal pipe penetration and insulate pipe to 1'-0" above top of cooler/freezer insulation panel. Minimum barrel length shall be 18".

2.1.7.1 Approved Manufacturers: Viking & Reliable

2.2 Provide spare sprinkler heads and wrenches. Provide number of cabinets, spare sprinkler heads at locations required by NFPA 13. Minimum cabinet size shall be for 12 heads.

2.3. Dry Systems: Where required by local authorities, the system shall be controlled by a separate wall or post indicator valve and dry pipe valve. Valves are to be equipped with an air compressor, low air trouble alarm, and supervisory switches. Control valves for either shall be located 4'-6" above finished floor.

2.3.1 Air compressors for dry systems will be direct drive, electric motor driven, air cooled, with thermal overload protection. Units shall be fully automatic, with a UL listed pressure switch, check valve and safety valve, oil-less piston compressor, and permanently lubricated bearings. Include air filters and riser mounting kits. See construction drawings for power requirements.

2.3.1.1 Approved manufacturer: General Air Products.

2.4. Back Flow Devices: Provide a Factory Mutual approved back flow device where required by local codes. At stores located north of Florida Route 60, set assembly in insulated below-ground concrete vault or provide means of freeze protection.

2.5. Inspector's test connection shall be piped to floor level on the inside of the building, then carried through the wall and piped to grade. Conform to requirements of NFPA 13 and Factory Mutual.

2.6. Riser assembly shall include alarm valve with DPDT water flow switch, water motor alarm, electrically supervised gate valve, main drain and pressure gauges. Water flow switch and tamper switch. Riser assembly shall be located in rear of store. All risers shall be interior risers. System control valve shall be a wall or post indicator type.

2.7. Provide pipe sleeves for all pipes passing through concrete floors and for all pipes passing through concrete and masonry walls.

2.8. Provide escutcheons for all exposed pipes passing through floors and walls. Escutcheons shall be chrome plated steel or stainless steel, one-piece hinged, fastened with set screw, size to suit. Where subject to corrosion (outside) use stainless steel only.

2.9. Tamper Switches: Provide Systems Sensor Supervisory switch OSY2 for outside screw and yoke gate valves, or PIBV2 for post indicator gate valves, to be wired by others.

2.10. All fittings shall be U.L. and Factory Mutual approved and stamped and shall conform to the requirements of NFPA, 013 and the Factory Mutual Approval Guide, except that no "slip" type fittings are to be used.

2.11. Piping:

2.11.1 Piping shall conform to the requirements of NFPA, 013 and the Factory Mutual Approval Guide. Piping may be grooved, threaded and/or welded if all components and methods are Factory Mutual approved.

2.11.2 Underground Service Piping:

2.11.2.1 Pipe: AWWA C900, PVC, AWWA C151, Ductile Iron Pipe

2.11.2.2 Fittings and Joints: AWWA C110 & C115, Ductile Iron Pipe ANSI B16.1 Cast Iron Pipe, for sizes 3"-48".

2.11.3 Above ground Service Piping:

2.11.3.1 Sprinkler Piping, ASTM-A795 and ASTM A53 black and hot dipped, zinc coated (galvanized) welded and seamless steel pipe. ASTM A135 for electric resistance welded steel pipe.

2.11.3.1.1 Exterior Wet/Dry Sprinkler Piping & Fittings: Galvanized steel.

2.11.3.1.2 Interior Wet Sprinkler Piping & Fittings: Black steel

2.11.3.1.3 Interior Dry Sprinkler Piping & Fittings: Galvanized steel

2.11.3.2 Pipe sizes 1"-2" shall be Schedule 40.

2.11.3.3 Pipe sizes 2 1/2" - 8" shall be Schedule 10.

2.11.4 Fire Department Connection Piping:

2.11.4.1 Interior: Same as Interior Sprinkler Piping above.

2.11.4.2 Exterior: Same as Exterior Service Piping above. Where shall be set-up for connections above grade, use standard weight galvanized steel pipe with galvanized malleable iron screwed fittings.

2.11.5 Drains: [illegible] 40 galvanized steel screwed pipe with cast iron drainage pattern screwed fittings.

2.12. Valves:

2.12.1 Drain valves, test valves, and control valves shall be fitted with FM approved [illegible] signs indicating their use

2.12.2 Gate Valves

2.12.2.1 Non Rising Stem: 4" - 12", iron body, 175 lb. service rating, flanged connections. UL listed, Factory Mutual approved. Bolted bonnet indicator, bolt plate, solid bronze or resilient wedge.

Nibco F609

2.12.2.2 Outside Screw and Yoke: 4" - 12" iron body 200 lb. service rating, flanged connections, UL listed, Factory Mutual approved. Epoxy coated interior/exterior. Pregrooved stem for supervisory switch, resilient wedge.

Nibco F607RW

2.12.2.3 Other approved manufacturer's:

Mueller
Kennedy
Stockham
Watts

2.12.3 Alarm Check Valves: 3" - 8" iron body, 175 lb. service rating, flanged or grooved connection, UL listed, Factory Mutual approved. Vertical mounted with complete trim for variable pressure. Bolted hand hole cover. EPDM rubber clapper seal.

2.12.3.1 Wet Alarm Check Valves:

Central Model F or G
Viking Model J-1
Reliable Model E

2.12.3.2 Retard Chambers:

Central Model F
Viking C-1
Reliable Model E-1

2.12.3.3 Dry Alarm Check Valves:

Central Model C
Viking F-1
Victaulic Series 756 Firelock

2.12.3.4 Accelerators and Exhausters:

Central Model A
Viking Model E-1
Victaulic Series 746

2.12.4 Double Check Detector Assembly: Iron body, 175 lb. service rating, UL listed Factory Mutual approved. Epoxy coated interior/exterior. Ductile iron or stainless steel clapper. EPDM rubber seal. Resilient wedge outside screw and yoke gate valves.

FEBCO 856, Watts 757DCDA - OSY or equal as approved by Publix Engineer.

2.12.5 Indicator Posts: Iron body, UL listed, Factory Mutual approved for use with non-rising stem gate valves:

NIBCO NP1AJ upright post or NP2AJ wall post
Grinnell
Kennedy
Mueller
Stockham

2.12.6 Drain Valves: Angle or globe type as required.

Jenkins 108-A angle or 106A globe or equal as approved by Publix Engineer.

2.12.7 Check Valves: Factory Mutual approved swing check valves installed horizontally, iron body, bronze mounted, 175 pound service rating.

2.13. Riser and Fire Department Connection:

2.13.1 Riser: Provide riser where indicated on the drawings. Riser shall have alarm valve, complete with valve trimmings, gauges, and all required accessory equipment. Provide approved electric flow switch where indicated on the drawings.

2.13.2 Inspector's Test Connection: 1" inspectors test valve, drain valve and pipe extending to drain indicated on drawings. System shall also be connected into the central fire alarm system.

2.13.3 Fire Department Connections: Factory Mutual approved flush type Fire Department connections 4" F.I.P.T. outlet and two 2-1/2" NSHT inlets with lettered escutcheon. All exposed parts shall be rough brass and polished chrome plate shall be lettered "Automatic Sprinkler", "Fire Department Connections".

2.14 Gauges

2.14.1 Pressure gauges shall be installed as required by code, Factory Mutual approved 4-1/2" dial type, and shall have a maximum limit of not less than twice the normal working pressure at the point where installed.

2.14.2 Control valves, drain valves, check valves, identification tags and drain piping shall be approved for fire service and shall conform to the requirements set forth in NFPA 13.

3. Execution

3.1. General

3.1.1 Architectural and Structural Drawings shall be used for building construction, dimensions and specific locations.

3.1.2 Perform all cutting and fitting required for work of this Section in rough construction of the building, and in areas of existing buildings and structures as required by alterations and connections to existing.

3.1.3 All patching of finished construction of new and existing buildings shall be by the General Contractor under the Sections of Specifications covering those materials.

3.1.4 Subcontractor shall perform all excavation and backfill required for services, inside and outside the building. Cutting of curbs, walks, concrete and paving required by the excavation shall be done by Subcontractor. Any rock shall be excavated 3 inches below the laying depth, and the trench shall be backfilled with sand 3 inches deep. Over excavation shall be added in 12 inch layers and mechanically compacted. Flooding or puddling not permitted. All piping which will be under walks, planters, streets, parking lots, concrete or asphalt shall be mechanically compacted in 12 inch layers. Pipe under driveways shall have a minimum cover of 3 ft.

3.1.5 Verify all field dimensions and locations of equipment and fixtures within the layout as established by the General Contractor to insure close, neat fit, with other trades work.

3.1.6 No underground piping shall be covered until inspected by Publix' Representative and Authority Having Jurisdiction.

3.1.7 Where the work is dependent upon work of other trades or work already in place for its proper installation, examine such other work and see that is in the proper condition and state of completion before continuing the installation.

3.1.8 Include the services of an experienced Superintendent, who shall be constantly in charge of the work, together with qualified journeymen required to properly unload, install, connect, adjust, start and operate and test the work involved, including equipment and materials furnished by others and by Owner. All work shall be executed in a first class workmanlike manner. Workmanship that, in the opinion of Publix, is substandard or shoddy, shall be removed and replaced with acceptable work at no cost to Publix.

3.1.9 Follow Drawings in laying out work and check Drawings of other trades to verify spaces in which work will be installed. Coordinate work with other trades. Maintain maximum headroom and space conditions at all points. Where headroom or space conditions appear inadequate, notify Architect before proceeding with installation.

3.2. Area of horizontal cuts by trades: See Section 01 11 00 Summary of Work.

3.3. Conceal all piping above suspended ceiling where practical.

3.4. If directed by Architect, the Subcontractor shall, without extra charge, make reasonable modifications in the layout as needed to prevent conflict with work of other trades or for proper execution of the work.

3.5. Provide qualified installers. Install materials, apparatus and equipment in neat, workmanlike manner.

3.6. Cooperate with the work of other trades to prevent conflict or interference and to aid rapid completion of the overall project.

3.7. Protect materials, apparatus and equipment from damage, [illegible] debris and work of other trades. Do not install damaged materials and equipment; remove them from the site.

3.8. Install drops for sprinkler heads in areas with [illegible]. Sprinkler heads in the ceiling shall be located within 1 1/2" of the center of tile. Coordinate the exact location with ceiling grid with the ceiling contractor.

3.9. Examine all work of others. If any conditions exist which will prevent satisfactory installation of work or equipment the Architect shall be notified in writing. Starting of work without notification indicates acceptance, and any or all changes required will be at Contractor's expense.

3.10. Keep the job site free from accumulations of waste materials and rubbish. Leave the job site in a clean, orderly and acceptable condition. Clean all materials and equipment of dust, paint, spots and stains, soil marks and other foreign matter.

3.11. The inside sprinkler piping shall be installed in such a manner that there will be no leakage.

3.12. There shall be no on site welding of sprinkler piping.

3.13. Install, test and flush the fire protection underground from the "Point of Service" to the building in accordance with NFPA 24.

3.14. Requirements for Final Acceptance and Payment:

3.14.1 The entire system shall be tested under hydrostatic pressure. The pressure shall be 50 psi greater than pressure in the mains, but in no case less than 200 psi. The test pressure shall be maintained for two (2) hours. Properly executed test certificate shall be sent to Factory Mutual Engineering Association and Publix' Representative upon Completion.

3.14.2 Furnish Publix' Representative with a complete set of all manufacturer's warranties and instructions, and with two sets of as-built drawings.

3.14.3 Obtain final inspection and test required by the authorities having jurisdiction for their acceptance of the system; provide adequate advance notice to Publix' representative of such inspection and test; furnish Publix' Representative with evidence of acceptance of the system by the local authority having jurisdiction.

3.14.4 Contractor's Material and Test Certificates for Underground Piping/Aboveground Piping shall be completed on the appropriate NFPA 13 form and submitted to the Owner and the Authority Having Jurisdiction.

3.14.5 The system, upon completion and testing, shall be inspected and accepted by the Owner and the Authority Having Jurisdiction.

3.15. Guarantee

3.15.1 All equipment shall be tested, adjusted and placed in proper operating condition by the subcontractor. Both the Contractor and the Engineer shall advise the Architect in writing that the systems are installed according to the Specifications and Drawings and are operating satisfactorily. The Owner shall receive written warranty covering all defects in workmanship and material for a period of one (1) year from the date of Final Acceptance.

3.15.2 All defects within this period shall be repaired without cost to the Owner. This shall include adjustments, and all regular and preventative maintenance.

3.15.3 The Owner reserves the right to make emergency repairs as required to keep equipment in operation without voiding the Contractor's warranty.

3.16. Final Inspection

3.16.1 All of the following items shall be completed prior to final inspection. No exceptions will be made and no final payment will be made until all items are completed.

3.17. Cleaning Equipment and Premises:

3.17.1 Thoroughly clean all exposed parts of the apparatus and equipment. Exposed parts which are to be painted shall be thoroughly cleaned of cement, plaster, and other material and all oil and grease spots shall be removed. Repaint or touch up as required to make look like new. Such surfaces shall be carefully wiped and all cracks and corners scraped out.

3.17.2 Exposed metal work shall be carefully brushed down with steel brushes to remove rust and other spots and touched up with primer.

3.18. Identification, Operating Instructions and Service Manual:

3.18.1 Provide a permanent non-corrosive metallic placard indicating hydraulic design and demand information, securely affixed to riser, one required each riser.

3.18.2 Manual:

3.18.2.1 Provide two (2) neatly bound copies of maintenance and instruction book, parts lists pertaining to all equipment furnished. Submit to the Architect for approval.

3.18.2.2 Each section shall be indexed and include part lists, instruction books, suppliers' phone numbers and addresses, and individual equipment generators all in separate sections.

End of Section 21 00 00

Order Plans @ WWW.LDILine.com

LITTLE
DIVERSIFIED ARCHITECTURAL CONSULTING
615 South College Street, Suite 1600 Charlotte, NC 28202
T: 704.525.6350 F: 704.561.8700
www.littleonline.com

This drawing and the design shown are the property of Little Diversified Architectural Consulting. The reproduction, copying or other use of this drawing without their written consent is prohibited and any infringement will be subject to legal action.
© Little 2019

Publix
CORPORATE OFFICES - FACILITIES DESIGN
PHYSICAL ADDRESS:
3300 PUBLIX CORPORATE PKWY., LAKELAND, FL 33811-3311
MAILING ADDRESS:
BOX 407, LAKELAND, FL 33802
(863)688-7407

SIENNA LITE DECOR

ARCHITECT OF RECORD:
TIM MORRISON
SOUTH CAROLINA REGISTRATION # 5687
STRUCTURAL ENGINEER OF RECORD:
DANIEL P. WRAY
SOUTH CAROLINA REGISTRATION # 23588
PLUMBING ENGINEER OF RECORD:
JOHN PARKER
SOUTH CAROLINA REGISTRATION # 22973
FIRE PROTECTION ENGINEER OF RECORD:
FADI GHUMRAWI
SOUTH CAROLINA REGISTRATION # 28967
MECHANICAL ENGINEER OF RECORD:
JOHN PARKER
SOUTH CAROLINA REGISTRATION # 22973
ELECTRICAL ENGINEER OF RECORD:
ROBERT K. STACY
SOUTH CAROLINA REGISTRATION # 33879
REFRIGERATION ENGINEER OF RECORD:
SCOTT T. ERCOLE
SOUTH CAROLINA REGISTRATION # 34783

ISSUE FOR
100% FOR CONSTRUCTION

ISSUE DATE
10/16/2019

REVISIONS

NO.	REASON	DATE

PROJECT TEAM
PRINCIPAL IN CHARGE
Tim Morrison, AIA
PROJECT MANAGER
Miguel Vazquez/Heather Nifong
DESIGN TEAM
HV

PROJECT NAME
PUBLIX 1485 Remodel
Village at Cherry Road
2186 N. Cherry Road
Rock Hill, SC 29732

PROJECT NUMBER
122.12061.00

SHEET TITLE
PROJECT MANUAL

SHEET NUMBER
PM.8