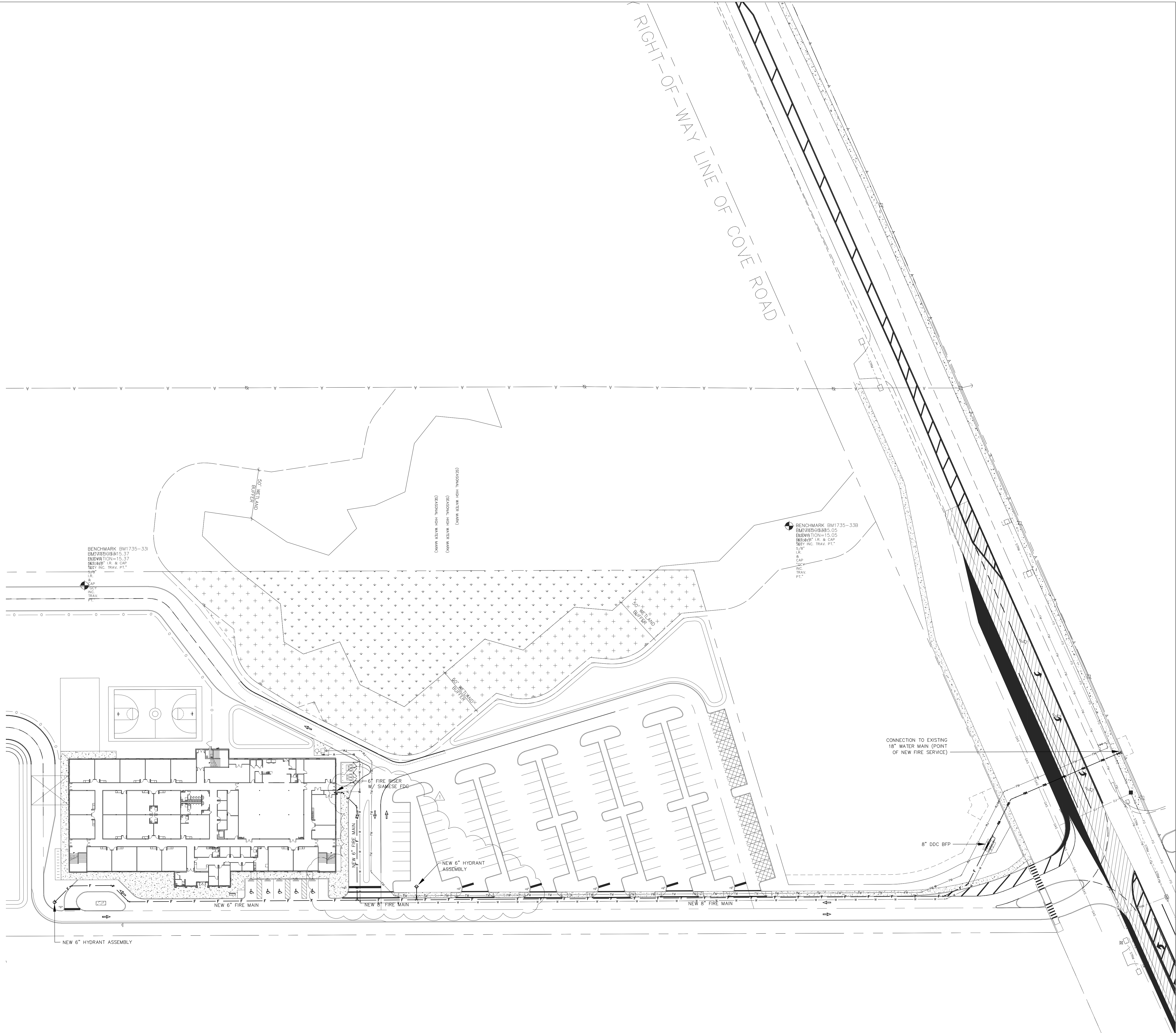


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FAC 61G15-32 FIRE PROTECTION CRITERIA
61G15-32.003
(1) OVERALL DESCRIPTION THE NEW CONSTRUCTION SHALL BE A 2-STORY, EDUCATIONAL BUILDING WITH A NEW WET PIPE FIRE SPRINKLER SYSTEM DESIGNED PER NFPA-13, 2013 EDITION. A NEW 8" FIRE MAIN WILL TAP INTO AN EXISTING 18" WATER MAIN AND THEN RUN UNDERGROUND TO THE 6" NEW RISER.
(2) ACCEPTANCE TESTING ACCEPTANCE TESTING SHALL BE PROVIDED PER NFPA-13, 2013 EDITION.
(3) OCCUPANCY CLASSIFICATION THE ENTIRE FACILITY SHALL BE NEW CONSTRUCTION, EXCEPT AS NOTED BELOW, THE ENTIRE BUILDING SHALL HAVE A LIGHT HAZARD OCCUPANCY CLASSIFICATION.
(4) PREPERATION OF DOCUMENTS THE SPRINKLER SYSTEM FOR THE BUILDING WILL BE A WET PIPE SYSTEM, DESIGNED PER NFPA-13, 2013 EDITION, FOR LIGHT HAZARD OCCUPANCY. THE SYSTEM WILL INCLUDE USING LISTED SCHEDULE 10 AND 40 STEEL OR CPVC PIPING LOCATED ABOVE THE CEILING, WITH PIPE DROPS TO RECESSED PENDENT OR SIDEWALL SPRINKLERS COVERING AREAS BELOW THE CEILING. ANY EXPOSED PIPING WILL BE STEEL, SCHEDULE 40. SPRINKLERS WILL BE ORDINARY-TEMPERATURE, QUICK-RESPONSE TYPE.
(5) STRUCTURAL SUPPORT STRUCTURAL SUPPORT AND STRUCTURAL OPENINGS FOR THE FIRE PROTECTION SYSTEM INCLUDING LIVE AND DEAD LOADS HAVE BEEN COORDINATED WITH THE STRUCTURAL ENGINEER. STEEL SLEEVES WILL BE SET PRIOR TO CONCRETE PLACEMENT, TO PROVIDE FOR PENETRATIONS OF FIRE PROTECTION PIPING THROUGH THE FLOORS OR ROOF STRUCTURE. CORE DRILLING WILL BE ALLOWED FOR CMU WALL PENETRATIONS FOR FIRE PROTECTION PIPING AS MAY BE REQUIRED. ALL PENETRATIONS WILL BE PROPERLY FIRE-CAULKED, AS REQUIRED.
61G15-32.004
2(a) POINT OF SERVICE: POINT OF SERVICE IS AN EXISTING 18" WATER MAIN. A NEW 8" FIRE SERVICE WILL BE EXTENDED TO THE BUILDING TO SERVE THE NEW SPRINKLER SYSTEM. TWO (2) NEW 6" HYDRANT ASSEMBLIES SHALL SERVE THE BUILDING.
2(b) GOVERNING STANDARDS: SYSTEM DESIGN AND INSTALLATION SHALL COMPLY WITH NFPA-13, 2013 EDITION; NFPA-24, 2013 EDITION; 2017 FLORIDA BUILDING CODE, 6TH EDITION; 2017 FLORIDA FLORIDA FIRE PREVENTION CODE, 6TH EDITION.
2(c) OCCUPANCY CLASSIFICATIONS: EXCEPT AS NOTED, BUILDING IS CLASSIFIED AS LIGHT HAZARD OCCUPANCY.
2(d) DESIGN APPROACH: SYSTEM SHALL BE A HYDRAULICALLY-CALCULATED, FULLY-AUTOMATIC, WET-PIPE SYSTEM INSTALLED THROUGHOUT THE ENTIRE BUILDING, EXCEPT PORTIONS OF SYSTEM PROTECTING EXTERIOR CANOPIES SHALL BE PROTECTED FROM FREEZING BY ANY OF THE APPROVED METHODS OUTLINED IN NFPA-13, 2013 EDITION. ANY PORTIONS OF THE SPRINKLER SYSTEM THAT ARE SUBJECT TO FREEZING SHALL BE PROTECTED BY A DRY-PIPE SYSTEM AS INDICATED IN NFPA-13, 2013 EDITION. EXCEPT FOR THE KITCHEN, MECHANICAL, JANITOR, STORAGE AND KILN ROOMS, THE FIRE SPRINKLER SYSTEM FOR THE ENTIRE BUILDING SHALL BE DESIGNED FOR LIGHT HAZARD OCCUPANCY WITH HYDRAULIC CALCULATIONS BASED ON AREA/DENSITY CRITERIA OF 0.10 GPM/SF OVER THE MOST HYDRAULICALLY DEMANDING 1500 SQUARE FEET. MAXIMUM COVERAGE AREA SHALL NOT EXCEED 225 SF PER SPRINKLER. MAXIMUM DISTANCE BETWEEN SPRINKLERS SHALL NOT EXCEED 15 FEET. QUICK-RESPONSE SPRINKLERS SHALL BE USED THROUGHOUT. FIRE SPRINKLER SYSTEM FOR THE KITCHEN, MECHANICAL, JANITOR, STORAGE AND KILN ROOMS SHALL BE DESIGNED FOR ORDINARY GROUP 1 HAZARD OCCUPANCY WITH HYDRAULIC CALCULATIONS BASED ON AREA/DENSITY CRITERIA OF 0.15 GPM/SF OVER THE MOST HYDRAULICALLY DEMANDING 1500 SQUARE FEET. MAXIMUM COVERAGE AREA SHALL NOT EXCEED 130 SF PER SPRINKLER. MAXIMUM DISTANCE BETWEEN SPRINKLERS SHALL NOT EXCEED 15 FEET. EXTERIOR CANOPIES OF COMBUSTIBLE CONSTRUCTION OR UNDER WHICH DINING OR BAR ACTIVITIES WILL OCCUR, REGARDLESS OF CONSTRUCTION, SHALL BE CLASSIFIED AS LIGHT HAZARD AND HAVE A MINIMUM DESIGN DENSITY OF 0.10 GPM/SF OVER THE MOST DEMANDING 1500 SF. MAXIMUM COVERAGE AREA PER SPRINKLER SHALL NOT EXCEED 225 SF. MAXIMUM SPRINKLER SPACING SHALL NOT EXCEED 15 FEET. SPRINKLERS SHALL BE ORDINARY TEMPERATURE, DRY SPRINKLERS. PROTECT EXPOSED PIPING USING DRY SPRINKLERS OR OTHER APPROVED METHOD OF FREEZE PROTECTION OUTLINED IN NFPA-13.
2(e) WATER SUPPLY CHARACTERISTICS: THE WATER SUPPLY SHALL BE FROM A NEW 8" FIRE SERVICE MAIN.
2(f) WELL FLOW TEST INFORMATION: FLOW TEST WAS CONDUCTED ON 08/21/2018. NUMBER/DIAMETER OF PORTS FLOWED: NOT PROVIDED. STATIC PRESSURE: 68.4 PSI RESIDUAL PRESSURE: 64.6 PSI NOMINAL FLOW RATE: 1000 GPM CALCULATED FLOW AT 20 PSI: 6900 GPM (FROM HYDRANT FLOW CURVE) FLOW HYDRANT: HYDRANT # FH2248 PRESSURE HYDRANT: HYDRANT # FH2248 (REFER TO HYDRANT FLOW CURVE PROVIDED BY LOCAL UTILITY)
2(g) VALVING AND ALARM REQUIREMENTS: INSTALL FLOW SWITCH IN FIRE RISER AND PUT TAMPER SWITCH ON CONTROL VALVE IN RISER WITH LOCAL AUDIBLE ALARM AND CENTRAL STATION MONITORING. ISOLATION VALVES ON BACKFLOW PREVENTER OUTSIDE SHALL BE CHAINED AND LOCKED OPEN; BACKFLOW PREVENTER SHALL BE ELECTRONICALLY SUPERVISED.
2(h) MIC RISK EVALUATION: IN ACCORDANCE WITH 2010 NFPA-13, 231.5, WATER SUPPLY AND ENVIRONMENTAL CONDITIONS SHALL BE EVALUATED FOR THE EXISTENCE OF MICROBES AND CONDITIONS THAT CONTRIBUTE TO MICROBIOLOGICALLY INFLUENCED CORROSION (MIC), WHERE CONDITIONS ARE FOUND THAT CONTRIBUTE TO MIC, THE OWNER SHALL NOTIFY THE SPRINKLER SYSTEM INSTALLER AND A PLAN SHALL BE DEVELOPED TO TREAT THE SYSTEM USING ONE OF THE FOLLOWING METHODS: (1) INSTALL WATER PIPE THAT WILL NOT BE AFFECTED BY THE MIC MICROBES; (2) TREAT ALL WATER THAT ENTERS THE SYSTEM USING AN APPROVED BIOCIDES; (3) IMPLEMENT AN APPROVED PLAN FOR MONITORING THE INTERIOR CONDITIONS OF THE PIPE AT ESTABLISHED TIME INTERVALS AND LOCATIONS.
2(i) BACKFLOW PREVENTION DETAILS: 8" DDC BACKFLOW PREVENTER MEETING LOCAL REQUIREMENTS SHALL BE INSTALLED FOR THE BUILDING; REFER TO CIVIL PLANS FOR BACKFLOW CHARACTERISTICS.
2(j) COMPONENT SPECIFICATIONS: ALL INSIDE AND UNDERGROUND PIPING, VALVES, SWITCHES, AND OTHER COMPONENTS TO BE UL AND FM LISTED MATERIALS FOR FIRE PROTECTION. ALL UNDERGROUND PIPING SHALL BE INSTALLED BY A STATE (FS635.521) CERTIFIED CONTRACTOR, WHO SHALL BE RESPONSIBLE FOR PIPING OUTSIDE OF THE BUILDING UP TO ONE FOOT ABOVE FINISHED FLOOR INSIDE THE BUILDING.
2(k) FIRE PUMP: AVAILABLE WATER SUPPLY PRESSURE AND FLOW AT THE SITE SITE APPEAR ADEQUATE TO MEET THE DEMAND OF THE NEW FIRE SPRINKLER SYSTEM WITHOUT THE NEED FOR A FIRE PUMP; REFER TO FLOW TEST DATA ABOVE.
2(l) ON-SITE WATER STORAGE TANK: AVAILABLE WATER SUPPLY TO THE SITE APPEAR ADEQUATE TO MEET THE DEMAND OF THE NEW FIRE SPRINKLER SYSTEM WITHOUT THE NEED FOR AN ON-SITE WATER STORAGE TANK.
2(m) NFPA-13 OWNER'S CERTIFICATE: OWNER'S CERTIFICATE HAS BEEN COMPLETED BY THE OWNER AND ACCOMPANIES THIS SUBMITTAL.

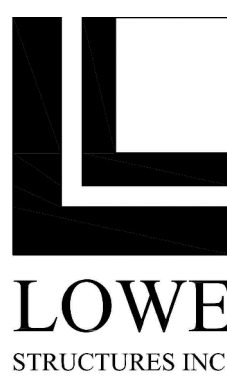


1 FAC 61G15-32 FIRE SPRINKLER CRITERIA PLAN  
FP1.1 SCALE: 1" = 40'-0"

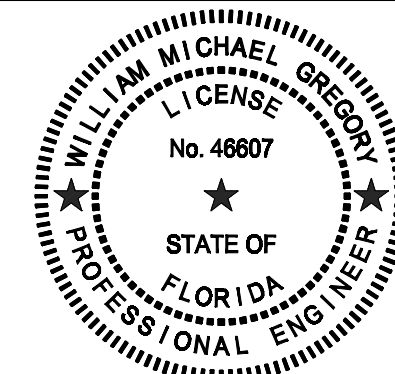


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Stuart, FL

PROJECT NO.: 18020

DATE: 09.28.2018

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FAC 61G15-32  
FIRE SPRINKLER  
CRITERIA PLAN

FP1.1

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