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FIRE ALARM LEGEND	
SYMBOL	DESCRIPTION
	WALL MOUNTED HORN/STROBE DEVICE (CANDELA RATING INDICATED)
	WALL MOUNTED STROBE ONLY DEVICE (CANDELA RATING INDICATED)
	WALL MOUNTED HORN ONLY DEVICE
	CEILING MOUNTED HORN/STROBE DEVICE (CANDELA RATING INDICATED)
	CEILING MOUNTED STROBE ONLY DEVICE (CANDELA RATING INDICATED)
	CEILING MOUNTED HORN ONLY DEVICE
	FIRE SPRINKLER FLOW SWITCH
	FIRE SPRINKLER TAMPER SWITCH
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUCIATOR PANEL
	MANUAL PULL STATION
	MAGNETIC DOOR HOLDER
	AREA SMOKE DETECTOR
	HEAT DETECTOR
	CARBON MONOXIDE DETECTOR
	DUCT SMOKE DETECTOR

FIRE ALARM NOTES

- ALL ELECTRICAL WORK SHALL BE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA-70), NATIONAL FIRE ALARM CODE (NFPA-72), LIFE SAFETY CODE (NFPA-101) AND THE APPLICABLE UNIFORM CONSTRUCTION CODE AND LOCAL ORDINANCES.
- ALL CONDUCTORS SHALL BE COPPER ALUMINUM WIRE WILL NOT BE ACCEPTED.
- ALL CIRCUITS SHALL BE MINIMUM WIRE SIZE OF #16 AWG.
- FIRE ALARM CONTROL PANEL AND DEVICE INSTALLATION SHALL COMPLY WITH ICC/ANSI 117A.1 AND ALL OTHER ADA CODES AND REQUIREMENTS.
- PULL STATIONS SHALL BE MOUNTED AT 48" AFF TO THE TOP OF THE BOX. THE PULL LEVER MUST BE LOCATED BELOW 48" AFF.
- STROBE AND HORN/STROBES SHALL BE MOUNTED AT 80" AFF OR 8' BELOW THE CEILING WHICHEVER IS LOWER. ALL STROBES SHALL HAVE A SYNCHRONIZED FLASH.
- DETECTORS SHALL NOT BE LOCATED CLOSER THAN (3) FEET FROM VENTILATION REGISTERS.
- FIRE ALARM ANNUNCIATOR PANEL
- MANUAL PULL STATION
- MAGNETIC DOOR HOLDER
- AREA SMOKE DETECTOR
- HEAT DETECTOR
- CARBON MONOXIDE DETECTOR
- DUCT SMOKE DETECTOR

SPRINKLER DESIGN NOTES

THIS BUILDING IS TO BE FULLY SPRINKLERED. THE CONTRACTOR IS TO DESIGN AND INSTALL THE FIRE PROTECTION SYSTEM IN STRICT ACCORDANCE WITH NFPA PAMPHLET NUMBER 13, AND APPLICABLE LOCAL AND STATE CODES.

THE SPRINKLER SYSTEM SHALL CONFORM TO THE REGULATIONS AND REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTIONS AND OWNER'S INSURANCE CARRIER.

SPRINKLER AND STANDPIPE SUBMITTALS FOR REVIEW AND APPROVAL SHALL INCLUDE THE FOLLOWING:

A) A RECENT (WITHIN LAST SIX MONTHS) CERTIFIED WATER SUPPLY TEST. (TEST TO INCLUDE):

- DATE, TIME AND PERSONS PERFORMING TEST
- SITE PLAN DRAWING SHOWING LOCATION WHERE TEST WAS CONDUCTED AND PROXIMITY TO STRUCTURE (INCLUDE DIMENSIONS)
- STATIC AND RESIDUAL PRESSURES (IN PSI)
- FLOW IN GPM.

B) DESIGN CRITERIA FOR SYSTEM.

C) HYDRAULIC CALCULATION PACKAGE SHALL INCLUDE:

- COVER SHEET
- DATA SHEET
- GRAPH
- CORRESPONDING NOTES TO DRAWINGS.

D) DRAWINGS (FLOOR PLANS AND RISER):

- IDENTIFY ALL ROOMS AND SPACES
- SHOW ALL PIPING AND ITS SIZES
- SHOW ALL HEAD LOCATIONS (AND IDENTIFY TYPE OF HEAD)
- SHOW MOST REMOTE AREAS
- SHOW ALL HYDRAULIC REFERENCE POINTS (NODES)
- SHOW ALL VALVING
- SHOW METHOD OF PIPE BRACING (SEISMIC IF REQUIRED)
- SHOW THROUST BLOCKING AND PRIVATE HYDRANTS (IF REQUIRED)
- SHOW ALL ALARMS AND DEVICES.

DESIGN CRITERIA

FIRE PROTECTION AREA TYPES:

A. LIGHT HAZARD - 0.10 GPM/SQ. FT. COVER 1500 SQ. FT. STANDARD COVERAGE. SPRINKLER HEADS SHALL BE SPACED AT A 22'-0" FT. MAXIMUM WITH SPRINKLER HEADS AT A MAXIMUM OF 15'-0" APART AND SPACED AT A MAXIMUM OF 7'-6" FROM ALL WALLS. EXTENDED COVERAGE HEADS WITH LISTED BRACING ARE ALLOWED IF SUFFICIENT PRESSURE IS AVAILABLE.

SPRINKLER SPECIFICATION

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. SUBMITTALS: PRODUCT DATA FOR VALVES, SPRINKLERS, SPECIALTIES, AND ALARMS.

- SUBMIT SPRINKLER SYSTEM DRAWINGS IDENTIFIED AS "WORKING PLANS" AND CALCULATIONS ACCORDING TO NFPA 13. PLANS AND CALCULATIONS MUST BE SIGNED AND SEALED BY A LICENSED FIRE PROTECTION ENGINEER. SUBMIT REQUIRED NUMBER OF SETS TO AUTHORITIES HAVING JURISDICTION FOR REVIEW, COMMENT, AND APPROVAL. INCLUDE SYSTEM HYDRAULIC CALCULATIONS WHERE APPLICABLE.
- SUBMIT TEST REPORTS AND CERTIFICATES AS DESCRIBED IN NFPA 13.

B. DESIGN AND INSTALLATION APPROVAL: ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.

C. HYDRAULICALLY DESIGN SPRINKLER SYSTEMS ACCORDING TO NFPA 13.

D. COMPLY WITH NFPA 13 AND NFPA 70.

E. UL-LISTED AND -LABELED AND FMG-APPROVED PIPE AND FITTINGS.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

- STEEL PIPE: ASTM A 53A 53M, ASTM A 135, OR ASTM A 759.
- COPPER TUBE: ASTM B 88, TYPE L OR M, DRAWN TEMPER.
- GROOVED-END FITTINGS: UL-LISTED AND FMG-APPROVED, ASTM A 536, GRADE 65-45-12 DUCTILE IRON OR ASTM A 47 GRADE 32510 MALLEABLE IRON, WITH GROOVES OR SHOULDERS DESIGNED TO ACCEPT GROOVED COUPLINGS.
- GROOVED-END COUPLINGS: UL 213, ASTM A 536 DUCTILE IRON OR ASTM A 471 MALLEABLE IRON HOUSING, WITH ENAMEL FINISH. INCLUDE GASKETS, BOLTS, AND ACCESSORIES.
- WROUGHT-COPPER FITTINGS: ASME B16.22, STREAMLINED PATTERN.

2.2 VALVES

- FIRE-PROTECTION SERVICE VALVES: UL LISTED AND FMG-APPROVED, WITH 175-PSI WORKING PRESSURE MINIMUM WORKING-PRESSURE RATING. VALVES FOR USE WITH GROOVED-END PIPE TO BE GROOVED END TYPE. INDICATING VALVES SHALL BE BUTTERFLY OR BALL TYPE. BRONZE BODY WITH BRONZE DISC AND INTEGRAL INDICATING DEVICE WITH 115-AC, ELECTRICAL SINGLE-POLE, DOUBLE-THROW SWITCH.
- GATE VALVES: UL 262, CAST BRONZE, THREADED ENDS, SOLID WELDED, OUTSIDE SCREW AND YOKE, RISING STEM.
- SWING CHECK VALVES, NPS 2 AND SMALLER: UL 312, CAST IRON, SEWER CLASS 150, BRONZE BODY WITH BRONZE DISC AND THREADED ENDS.
- SWING CHECK VALVES, NPS 2-1/2 AND LARGER: UL 312, CAST-IRON BODY AND BOLTED CAP, WITH BRONZE DISC OR CAST-IRON DISC WITH BRONZE DISC RING AND BOLTED ENDS.
- ALARM CHECK VALVES: UL 393, 175-PSIG WORKING PRESSURE, DESIGNED FOR HORIZONTAL OR VERTICAL INSTALLATION, WITH CAST-IRON FLANGED INLET AND OUTLET, BRONZE GROOVED SEAT WITH O-RING SEALS, AND SINGLE-POLE, DOUBLE-THROW, LATCH DESIGN. INCLUDE TRIM SETS FOR BYPASS, DRAIN, ELECTRIC SPRINKLER ALARM SWITCH, PRESSURE GAGES, RETARDING CHAMBER, FILL-LINE ATTACHMENT WITH STRAINER, AND DRIP CUP.
- ASSEMBLY VALVES: UL 1726, AUTOMATIC DRAIN VALVE, NPS 3/4, BALL CHECK DEVICE WITH THREADED ENDS.

2.3 SPRINKLERS

- UL LISTED FOR APPLICATIONS EXCEPT RESIDENTIAL.
- SPRINKLER TYPES AND CATEGORIES: NOMINAL 1/2-INCH ORIFICE FOR "ORDINARY" TEMPERATURE CLASSIFICATION. UNLESS OTHERWISE INDICATED OR REQUIRED BY APPLICATION.
- SPRINKLER TYPES INCLUDE THE FOLLOWING:
 - UPRIGHT AND PENDENT SPRINKLERS.
 - QUICK-RESPONSE SPRINKLERS.
 - SPRINKLER FINISHES: CHROME PLATED AND BRONZE.
 - SPRINKLER ESCUTCHEONS: CHROME-PLATED STEEL, ONE PIECE, FLAT.
 - SPRINKLER GUARDS: WIRE-CAGE TYPE, INCLUDING FASTENING DEVICE.
 - SPRINKLER CABINETS: FINISHED STEEL CABINET AND HINGED COVER, WITH SPACE FOR MINIMUM OF 6 SQUARE SPRINKLERS PLUS SPRINKLER WRENCH, SUITABLE FOR WALL MOUNTING. INCLUDE NUMBER OF SPRINKLERS REQUIRED BY NFPA 13 AND ONE WRENCH FOR SPRINKLERS. INCLUDE SEPARATE CABINET WITH SPRINKLERS AND WRENCH FOR EACH STYLE SPRINKLER ON PROJECT.
- SPECIALTIES AND ALARMS
 - FIRE DEPARTMENT CONNECTIONS: UL 465, FLUSH, WALL-TYPE, WITH CAST-BRASS BODY, NH-STANDARD THREAD INLETS MATCHING LOCAL FIRE DEPARTMENT THREADS, AND HAVING TWO NPS 2-1/2 INLETS AND NPS 4 OUTLET.
 - INLET ALIGNMENT: IN-LINE, HORIZONTAL, UNLESS OTHERWISE INDICATED.
 - CLAPPER TYPE: DROP CLAPPERS IN BODY.
 - DIRECTION OF OUTLET: BACK, UNLESS OTHERWISE INDICATED.
 - FINISH: ROUGH CHROME-PLATED.
 - WATER-FLOW INDICATORS: UL 346, ELECTRICAL SUPERVISION, VANE-TYPE WATER-FLOW DETECTOR, WITH 250-PSIG WORKING PRESSURE RATING, AND DESIGNED FOR HORIZONTAL OR VERTICAL INSTALLATION. INCLUDE 2 SINGLE-POLE, DOUBLE-THROW CIRCUIT SWITCHES FOR ISOLATED ALARM AND AUXILIARY CONTACTS, 7A, 125-V AC AND 0.25 A, 24-V DC, COMPLETE WITH FACTORY-SET, FIELD-ADJUSTABLE RETARD ELEMENT TO PREVENT FALSE SIGNALS AND TAMPERPROOF COVER THAT SENDS SIGNAL IF REMOVED.
 - PRESSURE SWITCHES: UL 753, ELECTRICAL SUPERVISION-TYPE, WATER-FLOW SWITCH WITH RETARD FEATURE. INCLUDE SINGLE-POLE, DOUBLE-THROW, NORMALLY CLOSED CONTACTS AND DESIGN THAT OPERATES ON RISING PRESSURE AND SIGNALS WATER FLOW.
 - VALVE SUPERVISORY SWITCHES: UL 753, ELECTRICAL, SINGLE-POLE, DOUBLE-THROW, WITH NORMALLY CLOSED CONTACTS. INCLUDE DESIGN THAT SIGNALS CONTROLLED VALVE IS IN OTHER THAN FULLY OPEN POSITION.
 - PRESSURE GAGES: UL 393, 3-1/2- TO 4-1/2-INCH DIAMETER DIAL WITH DIAL RANGE OF 0 TO 250 PSIG.

PART 3 - EXECUTION

3.1 PIPE AND FITTING APPLICATION

- USE STEEL PIPE WITH THREADED, ROLL-GROOVED, OR CUT-GROOVED JOINTS; COPPER TUBE WITH WROUGHT-COPPER FITTINGS AND BRAZED JOINTS.
 - FOR STEEL PIPE JOINED BY THREADED FITTINGS, USE SCHEDULE 40.
 - FOR STEEL PIPE JOINED BY WELDING OR ROLL-GROOVED PIPE AND FITTINGS, USE SCHEDULE 10.
- PIPE BETWEEN FIRE DEPARTMENT CONNECTIONS AND CHECK VALVES: USE GALVANIZED STEEL PIPE WITH FLANGED OR THREADED JOINTS.
- INSTALL SHUTOFF VALVE, CHECK VALVE, BACKFLOW PREVENTER, PRESSURE GAGE, DRAIN, AND OTHER ACCESSORIES INDICATED AT CONNECTION TO WATER SERVICE PIPING.

3.2 PIPING INSTALLATION

- INSTALL "INSPECTOR'S TEST CONNECTIONS" IN SPRINKLER PIPING, COMPLETE WITH SHUTOFF VALVE.
- INSTALL SPRINKLER ZONE CONTROL VALVES, TEST ASSEMBLIES, AND DRAIN HEADERS ADJACENT TO STANDPIPES WHEN SPRINKLER PIPING IS CONNECTED TO STANDPIPE.
- INSTALL BALL DRIP VALVES TO DRAIN PIPING BETWEEN FIRE DEPARTMENT CONNECTIONS AND CHECK VALVES, AND WHERE INDICATED. DRAIN TO FLOOR DRAIN OR OUTSIDE BUILDING.
- INSTALL ALARM DEVICES IN PIPING SYSTEMS.
- INSTALL PRESSURE GAGES ON RISER OR FEED MAIN, AT EACH SPRINKLER TEST CONNECTION, AND AT TOP OF EACH RISER. INSTALL GAGES TO PERMIT REMOVAL, AND INSTALL WHERE THEY WILL NOT BE SUBJECT TO FREEZING.
- INSTALL FIRE-PROTECTION SERVICE VALVES SUPERVISED OPEN, LOCATED TO CONTROL SOURCES OF WATER SUPPLY EXCEPT FROM FIRE DEPARTMENT CONNECTIONS. WHERE THERE IS MORE THAN ONE CONTROL VALVE, PROVIDE PERMANENTLY MARKED IDENTIFICATION SIGNS INDICATING PORTION OF SYSTEM CONTROLLED BY EACH VALVE.
- INSTALL CHECK VALVE IN EACH WATER SUPPLY CONNECTION. INSTALL BACKFLOW PREVENTERS INSTEAD OF CHECK VALVES IN POTABLE-WATER SUPPLY SOURCES.
- INSTALL ALARM CHECK VALVES IN VERTICAL POSITION FOR PROPER DIRECTION OF FLOW, INCLUDING BYPASS CHECK VALVE AND RETARD CHAMBER DRAIN LINE CONNECTION.

3.3 SPRINKLER APPLICATIONS

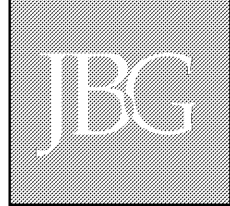
- ROOMS WITHOUT CEILINGS: UPRIGHT SPRINKLERS.
- ROOMS WITH SUSPENDED CEILINGS: PENDANT SPRINKLERS.
- SPECIAL APPLICATIONS: USE EXTENDED COVERAGE, AND QUICK-RESPONSE SPRINKLERS WHERE INDICATED.
- SPRINKLER FINISHES: CHROME PLATED IN FINISHED SPACES EXPOSED TO VIEW, ROUGH BRONZE IN UNFINISHED SPACES NOT EXPOSED TO VIEW.
- INSTALL SPRINKLERS IN SUSPENDED CEILINGS IN CENTER OF TILES.

3.4 SPECIALTIES AND ALARMS INSTALLATIONS

- INSTALL FIRE DEPARTMENT CONNECTIONS WITH BALL DRIP VALVES INSTALLED AT EACH CHECK VALVE FOR FIRE DEPARTMENT CONNECTION TO MAINS. EXTEND TO FLOOR DRAIN OR OUTSIDE BUILDING.
- CONNECT ALARM DEVICES TO FIRE ALARM SYSTEM.

3.5 TESTING

- PERFORM FIELD ACCEPTANCE TESTS OF EACH FIRE-PROTECTION SYSTEM. FLUSH, TEST, AND INSPECT SPRINKLER PIPING SYSTEMS ACCORDING TO NFPA 13, CHAPTER "SYSTEM ACCEPTANCE."



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REVISIONS

NO.	DESCRIPTION

RENEWED MEDICAL BUILDING
CORE & SHELL ONLY

SOUTH FULTON, GEORGIA
PROJECT #19-2983

03/27/2020

BRIAN J. FAGAN - PROFESSIONAL ENGINEER
GA LICENSE NUM: 32550 - EXP: 12/31/2020

MARCH 27, 2020

PERMIT SET

RELEASE DATE

Fire Protection Plan

DRAWING TITLE

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Checked By: BF
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