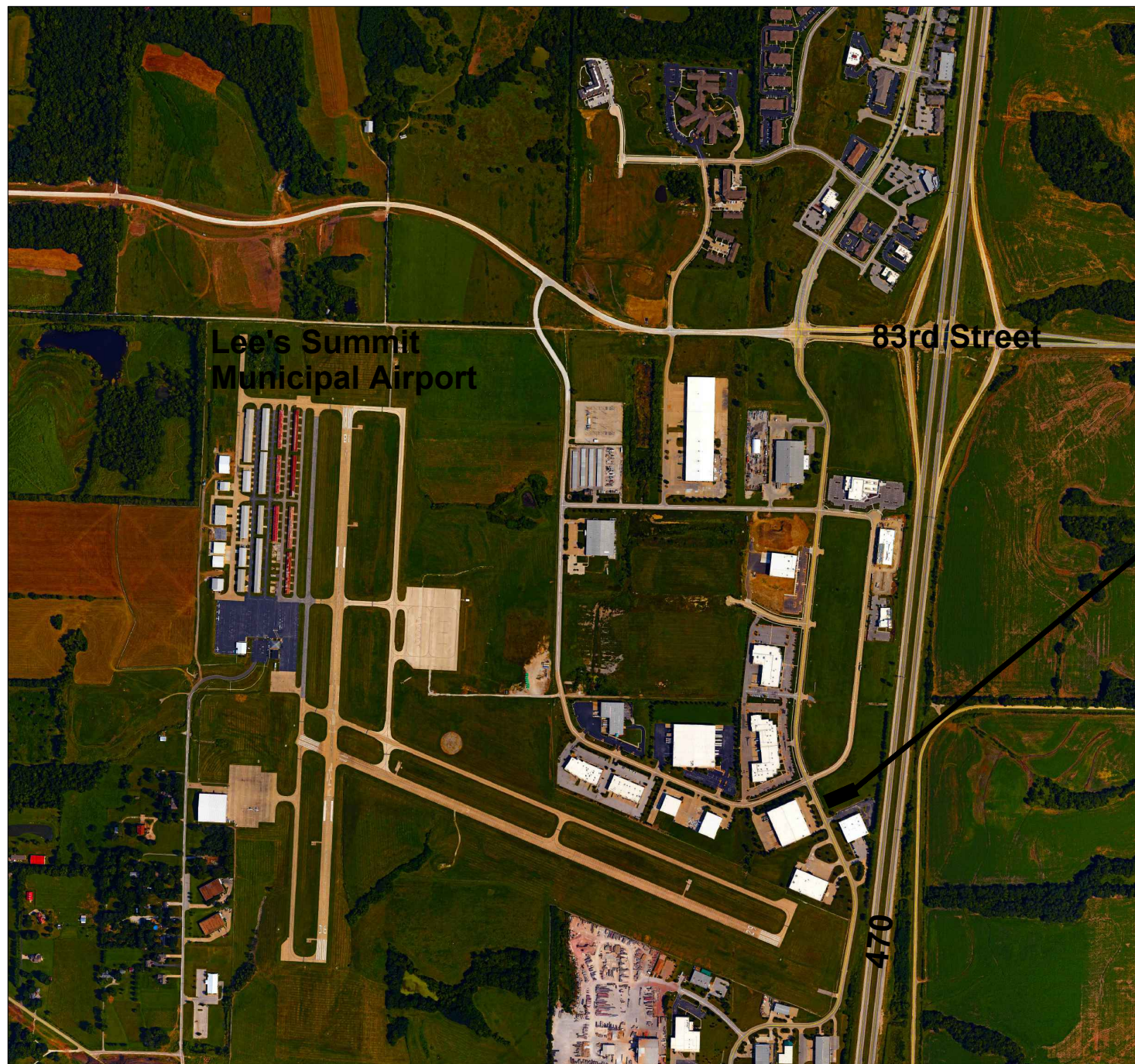
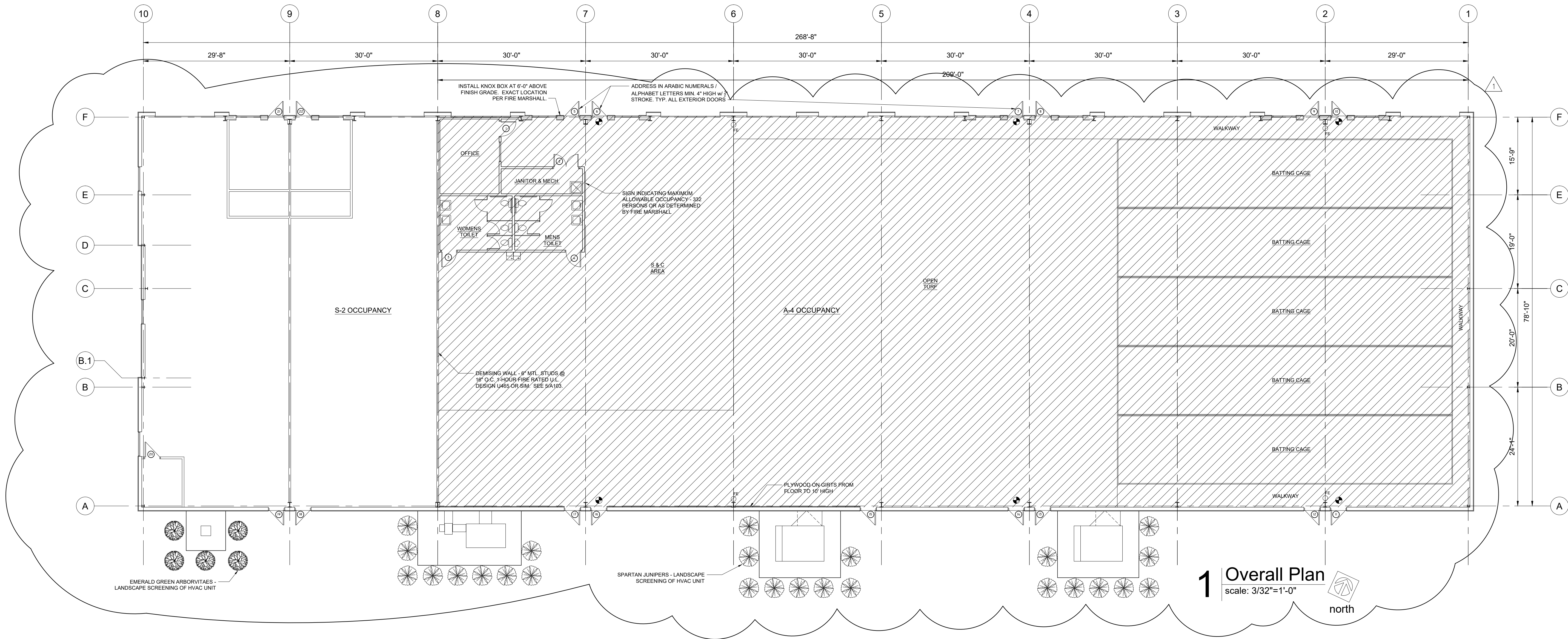




PROJECT SITE



LOCATION PLAN

project synopsis:

Governing Municipality:	Lee's Summit, Missouri
Address:	2605 NE McBaine Drive
Stories:	one
Building Height:	22'-2" unchanged
Construction Type:	VB
Total Building Area:	21,897 sq. ft. unchanged
Tenant Area:	16,600 sq. ft.
Fire Suppression:	Yes (NFPA13)
Occupant Group:	A-3 (Indoor recreation without spectator seating)
Allowable Area:	24,000 sq. ft. before separation increases for A-3 Occupancy, Sprinklered, Type VB
Occupant Load:	16,600 sq. ft. / 50 gross = 332 persons

applicable codes:

2018 International Building Code
2018 International Plumbing Code
2018 International Mechanical Code
2018 International Fuel Gas Code
2018 International Fire Code
2017 National Electrical Code
ICC/ANSI A117.1-2017, Accessible and Usable Buildings and Facilities

general notes:

- Exterior dimensions on Architectural sheets are for reference only.
- Double keyed locks are not permitted on any required or marked exit.
- Provide 2A-10BC fire extinguishers (min. 5 lb.) - location & quantity per fire marshal.
- Exit/emergency lighting are subject to an on site inspection.
- Furnish and install approved address numbers on front and rear of building (5" white vinyl numbers to contrast). Refer to sign standards manual.
- Building construction must fully comply with all requirements of ADA accessibility guidelines.
- Exit doors shall be operable from the inside without the use of a key or any special knowledge or effort.
- Coordinate window mullion & exterior opening locations with shell building contractor & existing conditions and notify architect of any discrepancies.
- Egress illumination will be provided at an intensity of not less than 1 foot candle at floor level & at the exterior of the building.
- Any new exterior utility service equipment shall be painted to match the building standard colors.
- Provide 3-1/2" batt insulation between conditioned & unconditioned spaces.
- Furnish and install electrical outlets at 15' a.f.f. to the lowest outlet per ADA.
- HVAC system to have approved interconnected, smoke detector activated, automatic shutoffs with the detectors located in the return duct.
- HVAC rooftop units shall have an accessible G.F.C.I. outlet per code.
- Furnish and install horns and strobes as required.

sheet index:

ARCHITECTURAL	
A101	Cover & Overall Plan
A102	Floor Plan
A103	Enlarged Floor Plan
MECH / ELECT / PLUMB	
MEP101	Specifications
M101	Mechanical Plan
P101	Plumbing Plan
P102	Plumbing Details
E101	Electrical Plan
E102	Electrical Details

TENANT INFILL FOR
LOT 10
I-470
BUSINESS & TECHNOLOGY CENTER
AT
2605 NE MCBAIN DRIVE
LEE'S SUMMIT MISSOURI

DATE: 3/3/2022

- REVISIONS:
- 4/4/2022 City Comments



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(816) 797-7115



3-21-2022

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SERVICES**
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1. Install address number on the building facing Independence Avenue and at each Tenant's entrance as directed by the AHJ. (Min. 4" letters/numerals with min. 1/2" stroke.)
2. Install a Knox Box as directed by the Fire Department Chief.

north

NEW DOOR

EXISTING DOOR TO REMAIN

PROPOSED GYPBOARD PARTITION

1 FIRE EXTINGUISHER

EXIT DOOR w/ PANIC HARDWARE

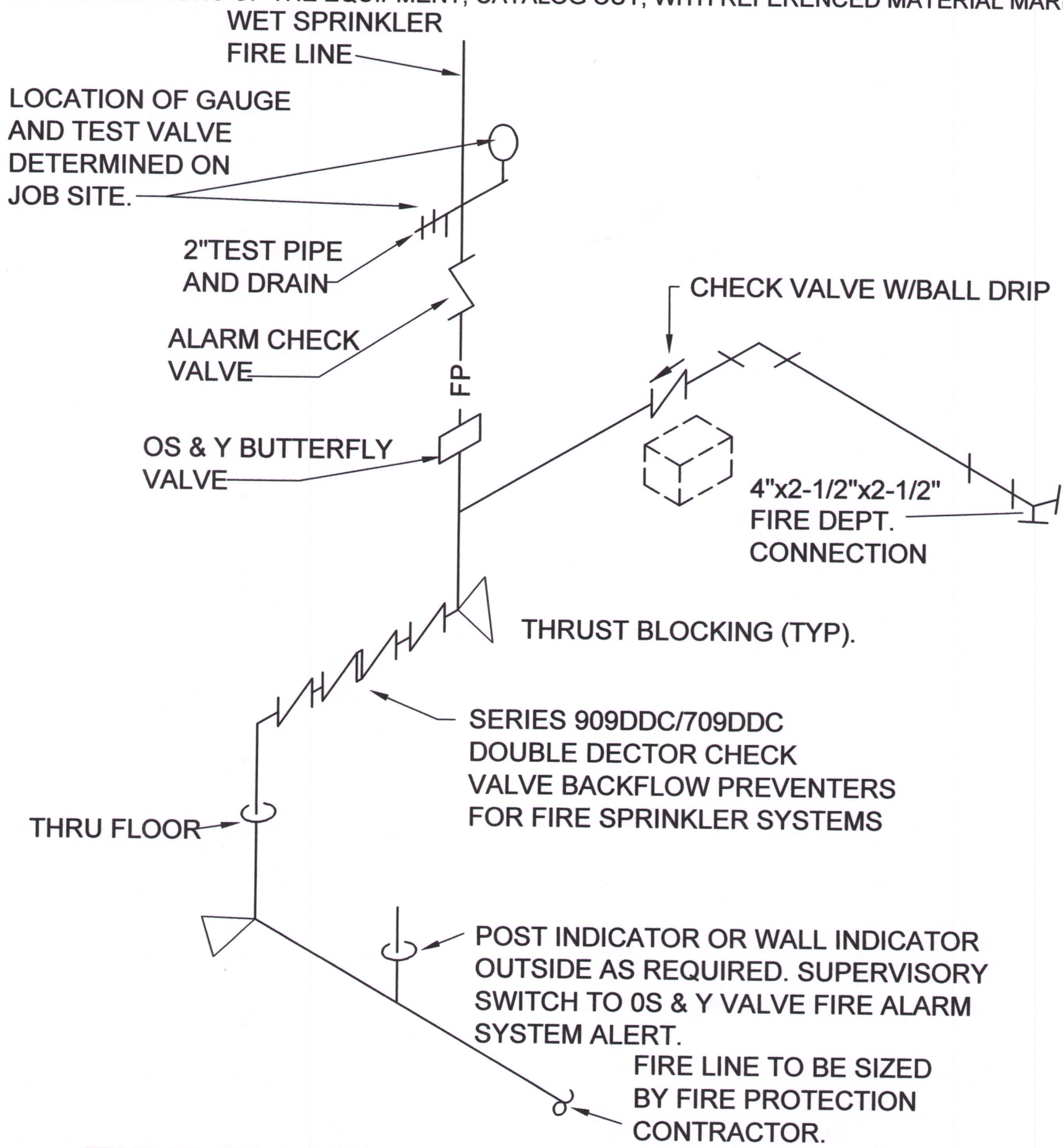
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3-3-2022

FIRE PROTECTION SYSTEM NOTES

1. GENERAL
- (A) SPRINKLER CONTRACTOR TO PROVIDE COMPLETE "SPRINKLER SYSTEM" FOR FIRE PROTECTION THROUGHOUT THE NEW PROPOSED BUILDING, CONFORMING TO THE REQUIREMENTS OF THE N.F.P.A., STATE AND LOCAL AUTHORITIES, AND INSURANCE INTEREST INVOLVED. BUILDING SHALL HAVE A N.F.P.A. 13 SYSTEM.
- (B) ALL ITEMS OF EQUIPMENT SHALL BE U.L. APPROVED AND THE INSTALLATION OF PIPING, FITTINGS, VALVES, POST INDICATOR VALVES, SIAMESE CONNECTIONS, ALARM SWITCHES, VALVES AND BELLS, TEST AND DRAIN VALVES GAUGES, AIR VALVES, COMPRESSORS, HANGERS AND SUPPORTS SHALL BE AS RECOMMENDED BY THE N.F.P.A.
- (C) SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, LAYOUT AND FURNISHING AND INSTALLATION OF THE ENTIRE FIRE PROTECTION SYSTEM. HE SHALL PREPARE ALL DRAWINGS REQUIRED AND RECEIVE APPROVAL FROM STATE AND LOCAL AUTHORITIES AND THE ARCHITECT PRIOR TO STARTING INSTALLATION. CONTRACTOR SHALL ALSO COORDINATE HIS WORK WITH ALL OTHER TRADE INVOLVED ON THE PROJECT IN ORDER TO CLEAR PIPING, LIGHTING AND DUCTWORK. SPRINKLER HEADS TO BE PATTERNED TO SUIT CEILING PANELS.
- (D) SPRINKLER CONTRACTOR TO SIZE AND INSTALL DUCTILE IRON SERVICE LINE FROM STREET MAIN INTO BUILDING AS SHOWN ON SHEET MP-1, SITE PLAN. VERIFY AND COORDINATE DOMESTIC WATER LINE LOCATIONS, SIZE AND REQUIREMENTS WITH THE PLUMBING CONTRACTOR AND CITY AUTHORITIES. INSTALL CONCRETE BLOCKING AT ALL TEES AND ELBOWS IN UNDERGROUND PIPING.
- NOTE: SERVICE LINE INTO BUILDING MECHANICAL ROOM HAS BEEN SHOWN ON THE DRAWINGS FOR INFORMATIONAL PURPOSES ONLY. ACTUAL INSTALLATION INCLUDING SIAMESE CONNECTIONS, POST OR WALL INDICATOR VALVE, IF REQUIRED SHALL BE AS DIRECTED BY LOCAL AUTHORITY.
- (E) SYSTEM TO BE "WET" TYPE TO PROTECT ALL PORTIONS OF THE BUILDING INCLUDING PORTIONS SUBJECT TO FREEZING TEMPERATURES IF REQUIRED BY LOCAL AUTHORITIES.
- (F) SPRINKLER HEADS TO BE STANDARD, PENDANT TYPE IN ROOM WITH CEILINGS AND UNFINISHED ROOMS TO HAVE UPRIGHT HEADS. HEADS AND PIPING IN EXPOSED AREAS, SUCH AS VAULTED CEILINGS AND ATRIUMS TO BE APPROVED BY THE ARCHITECT AND OR THE OWNER PRIOR TO BEGINNING ANY INSTALLATION.
- (G) SPRINKLER CONTRACTOR SHALL APPRAISE THE ELECTRICAL REQUIREMENTS AND THE LOCATIONS OF SUCH REQUIREMENTS. SCHEMATIC LOCATION SHOWN AND INSTALLATION.
- (H) SYSTEM SHALL BE TESTED IN ACCORDANCE WITH THE N.F.P.A. CODE AND LOCAL CODES. GENERALLY, THE SYSTEM, INCLUDING YARD PIPING, SHALL BE TESTED HYDROSTATICALLY AT NO LESS THAN 200 PSI FOR 2 HOURS. THE TESTS SHALL BE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE AND OR THE REPRESENTATIVE OF THE INSURANCE INTEREST AND LOCAL AUTHORITY. ALTERATIONS OR REPAIR SHALL BE MADE IMMEDIATELY AND THE SYSTEM RETESTED.
- (I) IN ALL AREAS WITH CEILINGS, PIPING TO BE INSTALLED ABOVE CEILING UNLESS OTHERWISE DIRECTED BY THE ARCHITECT.
- (J) FURNISH SEVEN SETS OF SHOP DRAWING MATERIAL, EQUIPMENT AND COMPLETE OPERATIONS AND MAINTENANCE INSTRUCTIONS OF THE EQUIPMENT, CATALOG CUT, WITH REFERENCED MATERIAL MARKED.



FIRE PROTECTION RISER SCHEMATIC
NO SCALE

GENERAL ELECTRICAL NOTES

- ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.
- TELEPHONE/DATA CABLES TO BE 4-PAIR CAT. 5. CABLE TO BE FURNISHED AND INSTALLED BY COMMUNICATIONS CONTR.. ALL CABLING TO BE PLENUM RATED.
- ELECTRICAL CONTRACTOR TO INCLUDE GROUND WIRE IN ALL RACEWAYS. SIZE RACEWAYS AS NECESSARY TO COMPLY WITH N.E.C.
- REFER TO REFLECTED CEILING PLAN AND DETAILS FOR THE EXACT LOCATION OF ALL LIGHTING FIXTURES AND ANY OTHER EQUIPMENT INSTALLED IN THE CEILING SYSTEM. VERIFY EXACT MOUNTING HEIGHTS AND FINISHES WITH CONSTRUCTION COMPANY PRIOR TO ROUGH-IN.
- DUAL LIGHT SWITCH TO BE PROVIDED IN RESTROOMS, ONE FOR FAN VENT, AND ONE FOR LIGHTING.
- EMPTY MUD RING W/ CONDUIT AND PULL STRING NEXT TO LIGHT SWITCH FOR SPEAKER CONTROLS
- PLYWOOD TELEPHONE BACKERBOARD (4\"/>
- THE WORD "PROVIDE" HEREIN SHALL MEAN FURNISH AND INSTALL.

D. ELECTRICAL SPECIFICATIONS

- THE ENTIRE ELECTRICAL SYSTEM SHALL COMPLY WITH THE FOLLOWING:
 - NATIONAL ELECTRICAL CODE AND ANY OTHER APPLICABLE LOCAL CODES.
 - ALL FEEDER AND BRANCH CIRCUIT WIRING SHALL BE ALUMINUM OR COPPER
 - THE REQUIREMENTS FOR ALL ROOF AND WALL OPENINGS DESCRIBED IN SECTIONS HEREIN.
- MATERIALS, PRODUCTS AND EQUIPMENT INCLUDING COMPONENTS THEREOF, SHALL BE NEW AND SUITABLE FOR THE PURPOSE AND SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND OF THE LOCAL AUTHORITIES HAVING JURISDICTION. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING COMPONENTS THEREOF, SHALL BE SIZED IN CONFORMITY WITH THE REQUIREMENTS OF OTHER RECOGNIZED STANDARDS, SUCH AS, ASTM, IEEE, IPCEA, NFPA AND NEMA WHERE THE REQUIREMENTS OF SUCH STANDARDS ARE MORE STRINGENT THAN THOSE CITED ABOVE.
- ELECTRICAL SERVICE PROVIDED IS 800 AMPS, 120/208VOLT, THREE PHASE, 4 WIRE.
- ALL CONDUCTORS SHALL BE ALUMINUM OR COPPER. MINIMUM SIZE SHALL BE #12 FOR POWER WIRING AND #14 FOR CONTROL WIRING. WIRE SHALL BE 600 VOLT INSULATED, NEC TYPE THW, OR THHN/THWN. ALL WIRE SHALL BE RUN IN CONDUIT OR ROMAX. PLASTIC CONDUIT MAY BE USED WHERE ALLOWED BY THE NEC
- LIGHTING AND APPLIANCE PANELBOARDS WITHIN THE SPACE, THEY SHALL BE OF THE SINGLE PHASE, THREE WIRE DISTRIBUTED PHASING TYPE, ALL BREAKERS SHALL BE BOLT-ON TYPE. CIRCUITING SHALL BE ARRANGED TO PRESENT, AS NEARLY AS POSSIBLE, AND EVENLY BALANCED LOAD ON ALL PHASES. PANELBOARDS SHALL BE CIRCUIT BREAKER TYPE. ALL CIRCUIT BREAKERS SHALL HAVE INTERRUPTING CAPACITY AT LEAST 10 % GREATER THAN THE AVAILABLE FAULT CURRENT AT THE BREAKER LOCATION.
- ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH, OR AT LEAST 3 INCHES FROM WATER LINES WHENEVER THEY RUN ALONGSIDE OR ACROSS SUCH LINES. HANGERS SHALL BE FASTENED TO STEEL, CONCRETE OR MASONRY, BUT NOT TO PIPING. HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORTS EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUBMITTED TO LANDLORD FOR APPROVAL OF APPEARANCE. ALL HANGERS MUST BE UNIFORMLY SPACED AND NEATLY INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IS REQUIRED FOR THE SUPPORT FUNCTION. SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH, NEAT FINISHED APPEARANCE. PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES.
- GROUNDING SHALL CONSIST OF COPPER OR ALUMINUM CONDUCTORS IN CONDUIT WITH BOLTED, OR BRAZED CONNECTION TO COLD WATER LINE FOR THE NEUTRAL. GROUNDING AND BONDING SHALL COMPLY WITH NEC ARTICLE 250. ALL METALLIC RACEWAYS SHALL BE GROUNDED.
- PROVIDE WIRING DEVICES EQUAL TO THE FOLLOWING: TOGGLE SWITCHES
LEVITON CAT #1221, RECEPTACLES- LEVITON CAT # 5262, GFCI RECEPTACLES, LEVITON #6699, PROVIDE AN EMPTY CONDUIT SYSTEM FOR THE TELEPHONE SYSTEMS.
- EQUIPMENT TO BE APPROVED BY THE LOCAL TELEPHONE COMPANY. COORDINATE ALL CONDUIT REQUIREMENTS AND TERMINATION WITH THE LOCAL SOUTHWESTERN BELL TELEPHONE COMPANY OR OTHER TELEPHONE SYSTEM PROVIDER.
- DUPLEX RECEPTACLES AND TELE-COMMUNICATION OUTLETS SHALL BE MOUNTED AT 15" ABOVE FINISH FLOOR UNLESS OTHERWISE NOTED. TOGGLE SWITCHES SHALL MOUNT AT 48" ABOVE FINISH FLOOR. WALL MOUNTED TELEPHONE OUTLETS SHALL BE MOUNTED AT 48" ABOVE FINISH FLOOR.

A. PLUMBING SPECIFICATIONS

- ALL PLUMBING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY LANDLORD AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:

DRAINAGE AND VENT PIPE FITTING FOR SHALL BE PVC PLASTIC

WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER TUBING, SEAMLESS DRAWN, HARD TEMPERED WITH PLAIN ENDS ASTM B88. FITTING SHALL BE WROUGHT, OR CAST, COPPER WITH SOCKET ENDS FOR LEAD FREE SOLDER PEX IS ALLOWED WHERE IT HAS CITY APPROVAL.
- ALL VALVES FOR DOMESTIC WATER SHALL BE 125 PSI TEST ALL BRONZE LINE SIZE FULL PORT BALL VALVES QUARTER-TURN INSTALLED IN THE PROPER ORIENTATION. BALL VALVES SHALL BE MANUFACTURED BY ONE OF THE FOLLOWING:

NIBCO
CRANE
WATTS

ALL VALVES SHALL BE ACCESSIBLE FOR EASE OF OPERATIONS.
- PIPE IS TO BE SUPPORTED SECURELY FROM HANGERS AS FOLLOWS:

PIPES SUPPORTED FROM STEEL STRUCTURE SHALL BE SUPPORTED FROM STEEL BEAMS AND JOISTS WITH APPROVED CLAMPS AND OTHER STRUCTURAL ATTACHMENTS.

IN AREAS WITH CONCRETE FLAT SLABS AND CONCRETE ON METAL INSERTS, SELF-DRILLING ANCHORS OR POWER-DRIVEN ANCHORS WILL BE ALLOWED.

NO PIPE HANGERS WILL BE SUPPORTED FROM THE METAL ROOF DECK.

HANGERS SHALL NOT PIERCE PIPING INSULATION VAPOR BARRIER.

ALL STEEL HANGERS, RODS, SEAM CLAMPS, ETC., EXPOSED TO PUBLIC VIEW SHALL BE PAINTED TO MATCH ADJACENT FINISH.
- PIPE SUPPORTED FROM STEEL STRUCTURE SHALL BE SUPPORTED FROM STEEL BEAMS AND JOISTS WITH APPROVED CLAMPS AND OTHER STRUCTURAL ATTACHMENTS.

APPEARANCE AND SPACING OF HANGERS EXPOSED TO PUBLIC VIEW ARE IMPORTANT ASPECTS OF THE FINAL VISUAL ENVIRONMENT, SPECIFIC DETAILS OF SUPPORT METHODS AND LOCATION OF HANGERS MUST BE DEDICATED ON DRAWINGS SUBMITTED TO LANDLORD FOR REVIEW AND ARE SUBJECT TO LANDLORDS APPROVAL. ALL HANGERS MUST BE EVENLY SPACED AND GROUPED AS MUCH AS POSSIBLE WITH SUPPORTS FOR OTHER TRADES TO MINIMIZE VISUAL CLUTTER IN THE UPPER PORTIONS OF ALL SPACES EXPOSED TO PUBLIC VIEW. SUPPORT SYSTEMS MUST BE NEAT AND WORKMANLIKE AND FREE OF EXTRA LENGTH OF SUPPORT RODS BELOW THE SUPPORTED MEMBER/HARDWARE

AND ACCESSORIES MUST BE SELECTED WITH A SMOOTH- FINISHED APPEARANCE FOR THE COMPLETED SUPPORT ASSEMBLY. HANGERS EXPOSED TO PUBLIC VIEW SHALL BE OF THE CLEVIS, OR TRAPEZE TYPE, COMPLETE WITH BOLTS, RODS, AND NUTS.

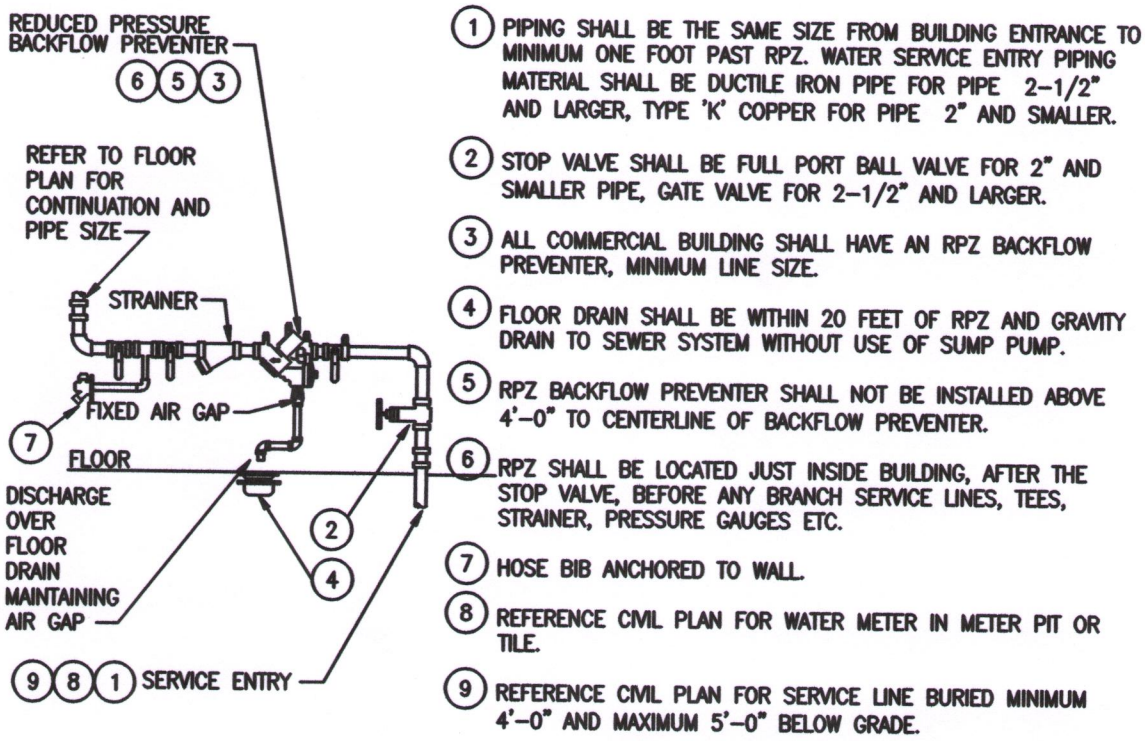
MINIMUM HANGER ROD DIAMETER SHALL BE LESS THAN, AND MAXIMUM SPACING OF SUPPORTS FOR STEEL AND COPPER HORIZONTAL PIPING MUST NOT BE GREATER THAN, THE VALUES IN THE LATEST ISSUE OF THE ASHRAE EQUIPMENT HANDBOOK. CAST IRON PIPE MUST BE SUPPORTED

AT LEAST EVERY FIVE FEET AND AT EVERY JOINT AND FITTING. CAST IRON PIPE BRANCHES MUST HAVE HANGERS FOUR FOOT ON CENTER MAXIMUM. WHERE REQUIRED TO MEET MINIMUM SPACING OF HANGERS,

PLUMBING CONTRACTOR IS RESPONSIBLE FOR INSTALLING ADDITIONAL INTERMEDIATE STRUCTURAL SUPPORTS.

PROVIDE CAST BRASS OR CHROME ESCUTCHEONS WITH SET SCREWS, DEEP TYPE, TO COVER SLEEVES OR OF A SIZE TO COVER FITTING PROJECTIONS. PROVIDE ESCUTCHEONS FOR ALL EXPOSED PIPING THROUGH WALLS, FLOORS, AND EXPOSED CEILING.

- ALL PIPE INSULATION IN AREAS EXPOSED TO PUBLIC VIEW SHALL BE INSTALLED IN THE MOST WORKMANLIKE MANNER AND IS SUBJECT TO THE APPROVAL OF PROJECT DESIGNER FOR APPEARANCE.



ARRANGEMENT SHOWN IS SCHEMATIC. MODIFY TO SUIT MANUFACTURER'S STANDARDS, MEET LOCAL CODE REQUIREMENTS, AND ALL OTHER APPLICABLE CODE REQUIREMENTS. ROUTE ALL DRAINS TO NEARBY FLOOR DRAIN. CLEAN STRAINER BEFORE TURNING BUILDING OVER TO OWNER. PROVIDE ANY REQUIRED CERTIFICATION OF TEST OF BACKFLOW PREVENTER TO LOCAL AUTHORITIES. ALL ITEMS SHALL BE APPROVED FOR DOMESTIC WATER.

REDUCED PRESSURE ZONE
BACKFLOW PREVENTER DETAIL

B. MECHANICAL SPECIFICATIONS

- NOISE AND VIBRATION CONTROL. ALL EQUIPMENT INSTALLED BY MECHANICAL CONTRACTOR SHALL BE PROVIDED WITH VIBRATION ISOLATORS, SOUND TRAPS, DUCT LINING, ACOUSTICAL HOUSINGS, ACOUSTICAL LOUVERS, AND OTHER NOISE AND VIBRATION CONTROL APPARATUS REQUIRED TO LIMIT INTRUSION INTO THE ADJACENT SPACES ACCORDINGLY.
 - INTRUSIVE NOISE LEVELS IN ADJACENT SPACES SHALL NOT EXCEED NC-40 WHEN MEASURED IN THESE SPACES.
 - TENANT EQUIPMENT NOISE EMITTED TO THE EXTERIOR SHALL NOT EXCEED 55 DBA IN ANY OCCUPIED EXTERIOR SPACES.
- MECHANICAL CONTRACTOR SHALL PROVIDE VIBRATION ISOLATION OF DUCTWORK, PIPING AND EQUIPMENT IN ACCORDANCE WITH PRACTICES DESCRIBED IN THE LATEST ASHRAE HANDBOOK SO THAT THE MEASUREMENTS MADE IN ADJACENT SPACES DO NOT EXCEED 5 DECIBELS.
- FIELD CONDITIONS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. THE MECHANICAL CONTRACTOR IS REQUIRED TO VISIT THE SITE AND VERIFY FIELD CONDITIONS WHICH MAY AFFECT THE DESIGN AND INSTALLATION BEFORE SUBMITTING A BID.
- ALL ROOF PENETRATIONS SHALL BE BY LANDLORDS APPROVED ROOF CONTRACTOR ONLY.

ALL OPENINGS THROUGH STRUCTURALLY SUPPORTED SLABS MUST BE CORE BORED, SLEEVED, GROUTED, SEALED AND MADE WATERPROOF. SLEEVES, EXCEPT FOR WATER CLOSETS, MUST EXTEND AT LEAST TWO INCHES (2) ABOVE THE FINISHED FLOOR. LOCATION OF ALL FLOOR OPENINGS MUST BE APPROVED BY THE LANDLORD IN WRITING. WATERPROOFING MUST BE INSPECTED AND APPROVED BY THE LANDLORD BEFORE ANY FLOOR MATERIAL IS INSTALLED. MECHANICAL CONTRACTOR IS RESPONSIBLE TO TAKE WHATEVER MEASURES ARE NECESSARY INCLUDING, BUT NOT LIMITED TO, THOSE MEASURES PRESCRIBED BY LANDLORD IN THE EXERCISE OF ITS REASONABLE JUDGEMENT TO ASSURE THAT CORE BORING WILL NOT DAMAGE THE LANDLORDS STRUCTURE, CONDUITS, ETC. THE COST OF SUCH TESTS OR REPAIR OF ANY DAMAGE WILL BE BORNE BY THE MECHANICAL CONTRACTOR.

C. HVAC SPECIFICATIONS

- WHERE ANY HVAC UNITS, DUCTWORK AND/OR DIFFUSERS, OR OUTLETS ARE PROVIDED BY MECHANICAL CONTRACTOR, M.C. SHALL ENGAGE THE SERVICES OF A CERTIFIED AIR BALANCE CONTRACTOR TO ADJUST AND COMPLETELY BALANCE GENERAL CONTRACTORS PORTION OF THE SYSTEM TO DESIGN AIR AND CHILLED WATER QUANTITIES, GENERAL CONTRACTOR SHALL PROVIDE TO LANDLORD A COPY OF THE CERTIFIED BALANCE REPORT SHOWING DESIGN AND MEASURED QUANTITIES, STATIC PRESSURE, FAN MOTOR RPM, MOTOR CURRENT AND EXHAUST QUANTITIES.
- CONSTRUCTION OF ALL DUCTWORK SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL IN ACCORDANCE WITH THE BEST RECOMMENDED PRACTICES OF THE AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE) AND IN STRICT COMPLIANCE WITH ALL THE APPLICABLE STANDARDS OF THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATIONS (SMACNA) LATEST EDITIONS. BRANCHES FROM THE MAIN LOW VELOCITY TRUNK DUCTWORK SHALL BE FURNISHED WITH SPLITTER DAMPERS OR SIMILAR BALANCE DEVICES IN THE LATEST STANDARDS OF THE ASSOCIATED AIR BALANCE COUNCIL. ACCESS PANELS ARE REQUIRED FOR THESE DEVICES IN THE CEILINGS.
- DUCT INSULATION: ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED WITH A MINIMUM R-5 VALUE GLASS FIBER INSULATION WITH FOIL VAPOR BARRIER, EXCEPT THOSE PORTIONS WHICH ARE LINED FOR ACOUSTICAL PURPOSES, (USE 2" MINIMUM LINER) AND SUPPLY AIR DUCTWORK WITHIN AIR CONDITIONED SPACES (NOT RETURN AIR PLUNUMS.)
- AIR DISTRIBUTION DEVICES: AIR DISTRIBUTION DEVICES SHALL BE GRILLES OR CEILING DIFFUSERS INSTALLED AS REQUIRED TO ACHIEVE DRAFT FREE DISTRIBUTION IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE. DIFFUSERS OR GRILLES SHALL HAVE LOCKABLE, INDIVIDUAL MANUAL VOLUME CONTROL DEVICES.
- PIPING SYSTEMS: ALL PIPING SYSTEMS MUST BE COMPATIBLE WITH THE TYPE OF MATERIALS USED BY THE LANDLORD AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS: PIPE SUPPORTS AND VALVES SHALL BE AS SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.
- PIPING SUPPORTS AND VALVES SHALL BE SPECIFIED UNDER PLUMBING SPECIFICATIONS UNLESS OTHERWISE NOTED.

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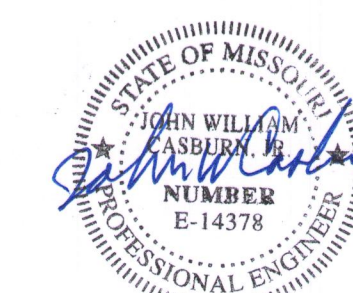


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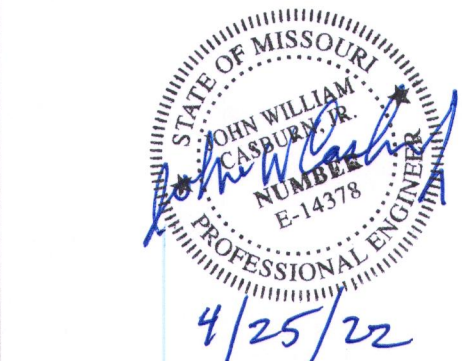
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REVISIONS:
4/5/22
ADDED DETECTORS & REV AHU'S
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4/25/22

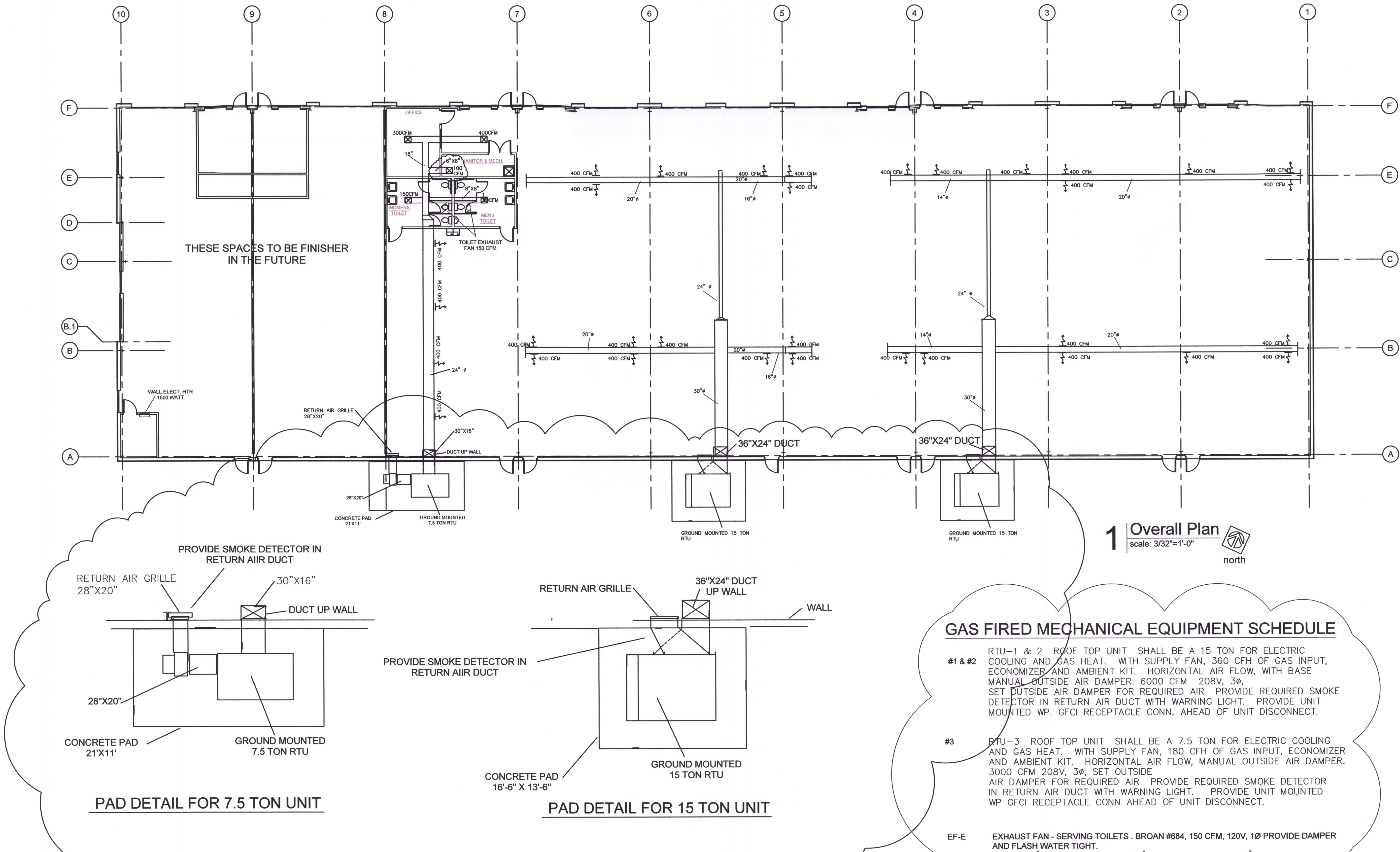
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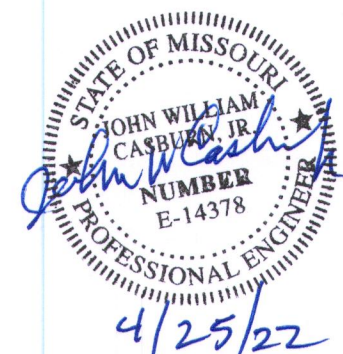
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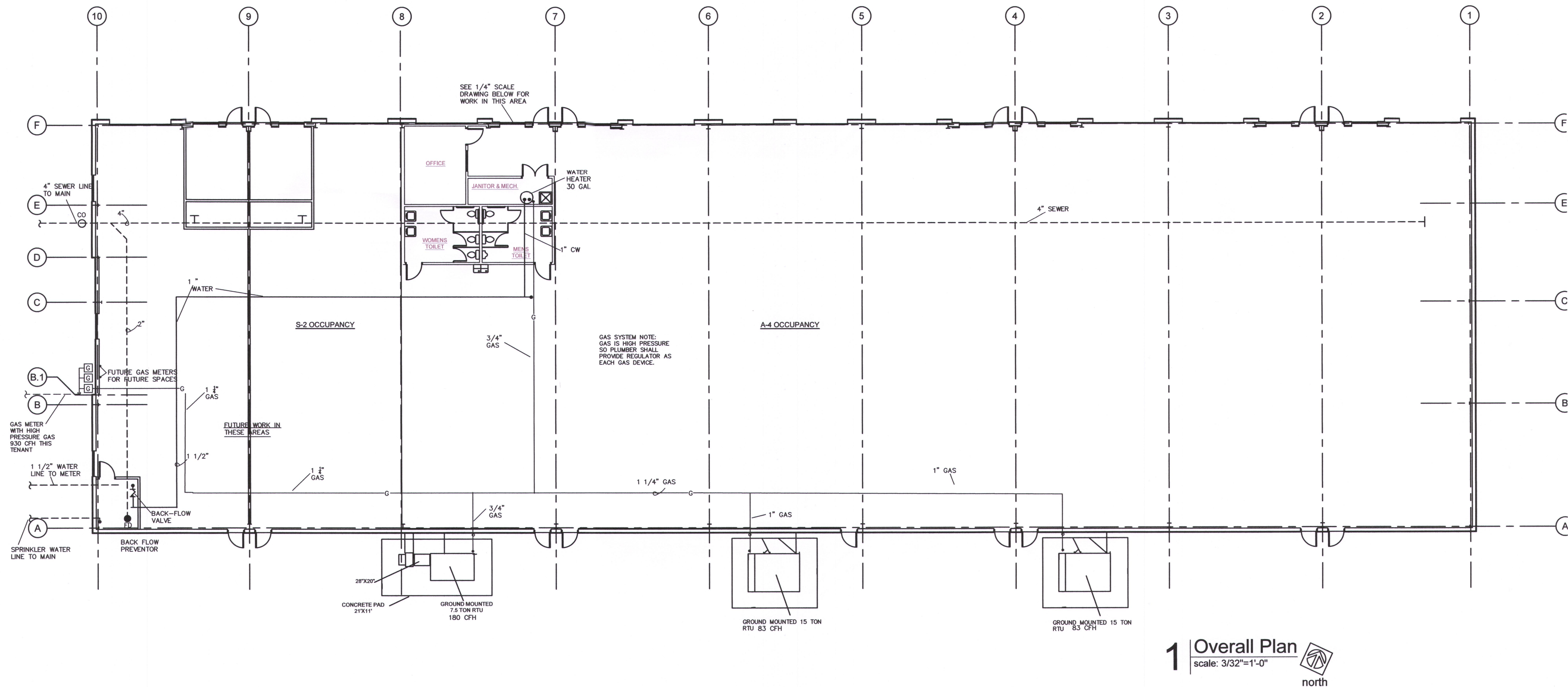
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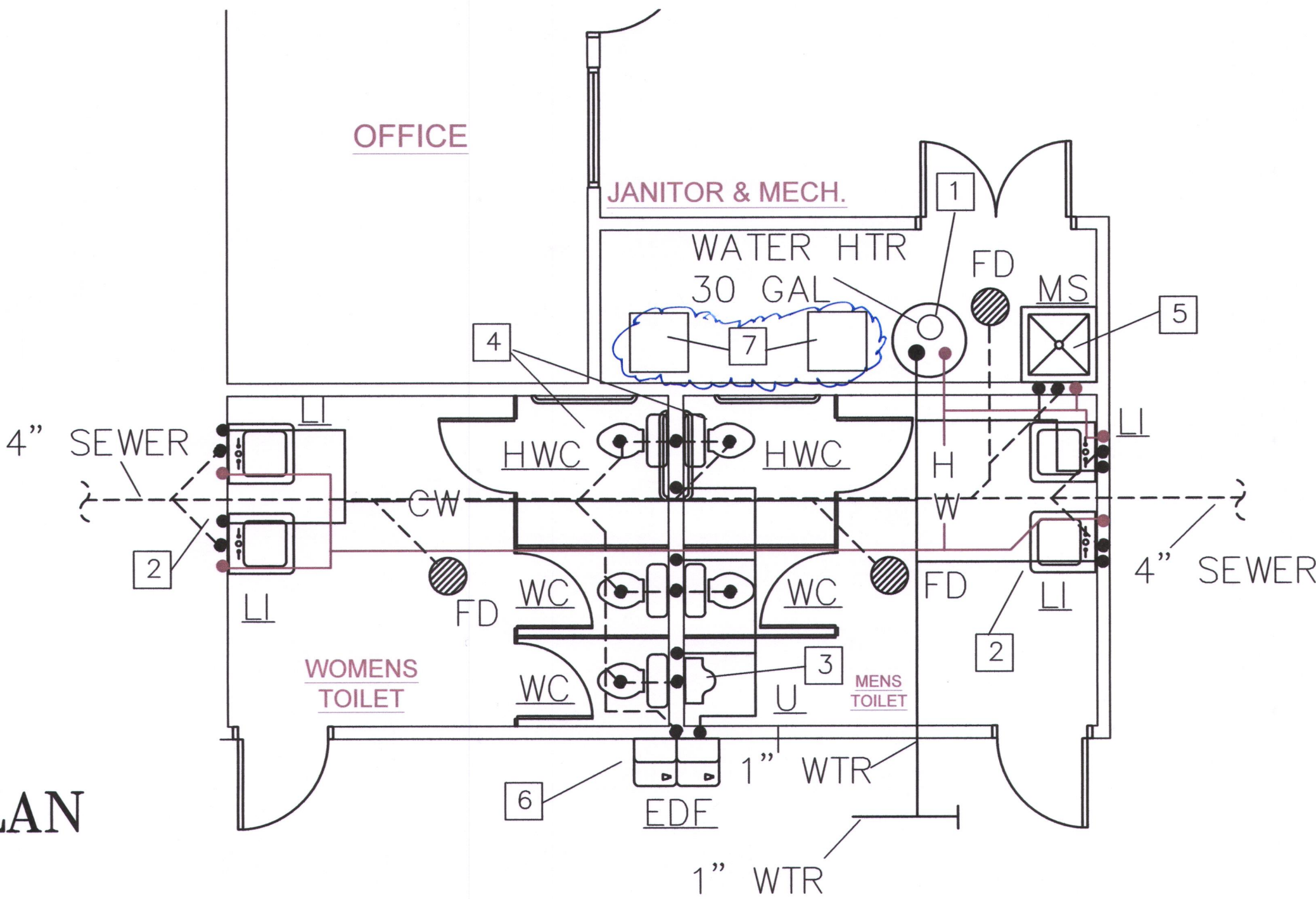


FLOOR PLAN NOTES

- 1 GAS WATER HEATER - 30 GAL PROVIDE 4" FLUE UP THRU ROOF
- 2 1/2" COLD, HOT WATER AND 2" WASTE DOWN AND; 1 1/4" VENT UP. STUB-UP AND CONNECT LAVATORY AS REQUIRED.
- 3 1/2" COLD, AND 2" WASTE DOWN AND 1 1/2" VENT UP. STUB-OUT AND CONNECT TO URNAL AS REQUIRED.
- 4 1/2" COLD WATER, 4" WASTE DOWN AND VENT UP. STUB-OUT AND CONNECT TO WATER CLOSET AS REQUIRED.
- 5 1/2" COLD AND 2" WASTE DOWN AND 2" VENT UP. STUB OUT AND CONNECT TO MOP SINK
- 6 1/2" COLD, AND 2" WASTE DOWN AND 1 1/2" VENT UP. STUB-OUT AND CONNECT TO EDF AS REQUIRED.
- 7 PROVIDE TWO 24" X 24" GRILLES IN CEILING FOR COMBUSTION AIR

OFFICE PLUMBING PLAN

SCALE: 1/4"=1'0"



SCHEDULE OF PIPE AND FITTING MATERIAL

SERVICE	MATERIAL	JOINTS	FITTINGS	NOTES
ROOF DRAINS	SERVICE WEIGHT CAST IRON (CI)			
CONDENSATE DRAINS	COPPER "M" HARD	SOLDERED OD BRAZED	WROUGHT COPPER OR CAST BRONZE	①
VENTS AND WASTE LINES (ABOVE GROUND)	SERVICE WEIGHT CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD OR TYSEAL	CAST IRON-PVC APPROVED	①
SOIL LINES (BELOW GROUND) - UNDER SLAB	CAST IRON (CI) (PVC WHEN APPROVED BY CITY)	LEAD OR TYSEAL	CAST IRON-PVC APPROVED	②
REFRIGERANT AND DOMESTIC WATER PIPE - (BELOW GROUND) SMALLER THAN 3"	COPPER "K" SOFT DRAWN	SOLDERED OR BRAZED	WROUGHT COPPER OR CAST BRONZE	⑥ ⑦
DOMESTIC WATER 3" AND LARGER	DUCTILE IRON	MECHANICAL		
DOMESTIC WATER PIPE (ABOVE GROUND)	COPPER "L" HARD ASTM C-200	SOLDERED OR BRAZED	WROUGHT COPPER OR CAST BRONZE	⑦
SEWER LINE PIPING (BELOW GROUND) NOT UNDER SLAB	PVC	ASTM C-425	ASTM C-200	① ②
GAS PIPE (BELOW GROUND)	SCHEDULE 40, BLACK STEEL-X-TRUE COATED AND WRAPPED	CAST IRON	CAST IRON MALLEABLE IRON	③ ④
GAS PIPE (ABOVE GROUND)	SCHEDULE 40 BLACK STEEL	SCREWED	CAST IRON MALLEABLE IRON	③ ⑤

NOTES

- PVC OR ABS SCHEDULE 40, SOLVENT WELDED JOINTS MAY BE USED ONLY WITH WRITTEN AUTHORIZATION OF APPROVAL BY LOCAL INSPECTING AUTHORITY SUBMITTED BELOW TO ARCHITECT AND ENGINEER PRIOR TO BIDDING. CONDITIONS OF NOTE 2 BELOW. SCR-35 SANITARY PIPE WHEN APPROVED.
- NO PVC OR ABS TO BE USED IN TYPE II CONSTRUCTION, THROUGH OR IN RETURN AIR PLENUMS, IN CITIES WHERE SUCH MATERIAL IS NOT ACCEPTABLE; OR BELOW BUILDING SLAB OR DRIVEWAY SURFACES.
- SCREWED GAS CONNECTION FOR 2" AND SMALLER; WELDED CONNECTION FOR 2" AND LARGER, AND IN RETURN AIR PLENUMS.
- THREADS AND WELDS PAINTED PRIOR TO WRAPPING, ALL EXTERIOR PIPING (ESPECIALLY ON ROOF) TO BE PAINTED (COLOR BY ARCHITECT) TO MATCH ADJACENT SURFACE. PROVIDE CATHODIC UNDERGROUND PROTECTION ON GAS PIPING AS RECOMMENDED BY LOCAL GAS SERVICE (FOR GOVERNING AUTHORITY)
- CONNECT ALL GAS TO EQUIPMENT THROUGH GAS COCK, UNION AND DIRT LEG.
- NO WATER FITTINGS OR CONNECTIONS BELOW FLOOR SLAB. MAKE GRADUAL BEND OR RADIUS.
- PROVIDE WATER HAMMER ARRESTORS PRIOR TO CONNECTION OF HOT/COLD WATER LINES TO PLUMBING FIXTURES. COLD WATER LINES TO PLUMBING FIXTURES. ALL POTABLE WATER SYSTEMS SOLDERING TO BE 90/5, TIN/ANTIMONIAL OR UL, BOCA, UPC APPROVAL FOR SUBSTITUTION.

PIPING INSULATION SCHEDULE

PIPE SYSTEM	INSULATION	THICKNESS	TEMP.
REFRIGERANT SUCTION		1/2"	-20°F TO 70°F
DOMESTIC HOT & COLD HORIZONTAL MAINS ONLY		1/2"	-20°F TO 70°F
HANDICAP "P" TRAP & HOT WATER UNDER LAVATORY		1/2"	-20°F TO 70°F

NOTE: ALL HORIZONTAL HOT & COLD WATER MAINS ARE TO BE INSULATED. VERTICAL MAINS AS NOTED OR SHOWN ON PLANS.

INSULATE INCONDITIONED AND UNCONDITIONAL SPACES.

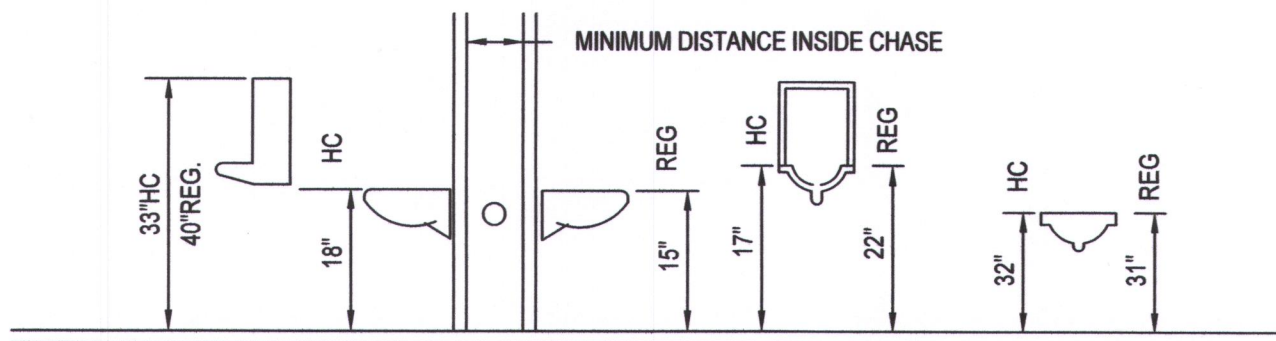
** FLEXIBLE UNICELLULAR (UP THRU 2") UNICELLULAR ELASTOMERIC CLOSED CELL INSULATION, 0.27 BTU-IN/H-SF THERMAL CONDUCTANCE AT 75°F, 3% MAXIMUM WATER ABSORPTION BY WEIGHT. ARMSTRONG AP ARMAFLEX OR RUBATEX.

PLUMBING CONNECTION/MOUNT.

FIXTURE	HOT WATER	COLD WATER	WASTE	VENT
LAVATORY OR SINK	1/2"	1/2"	1-1/2"	1-1/2"
WATER CLOSET, TANK TYPE		1/2"	4"	3"
URINALS		3/4"	2"	1-1/2"
DRINKING FOUNTAINS		1/2"	1-1/4"	1-1/4"

FIXTURE	MOUNTING HEIGHT
LAVATORY OR SINK	31" FLOOR TO RIM
HANDICAPPED LAVATORIES	34" FLOOR TO RIM
WATER CLOSET	15" FLOOR RIM
HANDICAPPED WATER CLOSET	18" FLOOR TO RIM
STANDARD URINALS	22" FLOOR TO RIM
HANDICAPPED URINALS	17" FLOOR TO RIM
HANDICAPPED DRINKING FOUNTAIN	35" FLOOR TO RIM, 27" KNEE SPACE

PLUMBING CONTRACTOR TO REFERENCE PLUMBING FLOOR PLANS AND DETAIL SHEET AND SPECIFICATIONS FOR SPECIFIC FIXTURE IDENTIFICATION USED.



PLUMBING FIXTURE SCHEDULE

HWC

WATER CLOSET - GERBER, AQUA SAVER 21-702 ROUND VITREOUS CHINA, ELONGATED FLOOR OUTLET, SIPHON JET ACTION, TANK TYPE TOILET W/WHITE, SOLID PLASTIC - KOHLER #K4716 OPEN FRONT SEAT LESS COVER. PROVIDE FLEXIBLE SUPPLY PIPE WITH WHEEL HANDLE STOP. 1/2", 4"WASTE, 2"VENT.
HWC - HANDICAPPED WC GERBER, AQUA SAVER 21-718, 18" A.F.F. TO RIM. KOHLER K-4712 SEAT

WH

BATHMASTER: BF7404-00 W/THROP 20 X 18 WALL HUNG, 4" CENTERSET FAUCET, INCLUDE STRAINER, OR EQUAL FAUCET: DELTA 2567 - LPH H22, A22 CHROME, OR EQUAL

WALL HYDRANT - EXTERIOR WOODFORD #65 NON-FREEZE HYDRANT W/VACUUM BREAKER AND AUTOMATIC DRAIN OR EQUAL. 3/4" CW.

JAN

JANITOR SINK - WILLIAMS MODEL MTB-24"x24" FLOOR MOUNTED BASIN W/AMERICAN STANDARD 8341.075 FAUCET WITH VACUUM BREAKER. INCLUDE VINYL BUMPER FOR EXPOSED SIDE & PROVIDE P-TRAP FOR DRAIN. 1/2" H & CW, 3"WASTE, 2"VENT.

FD

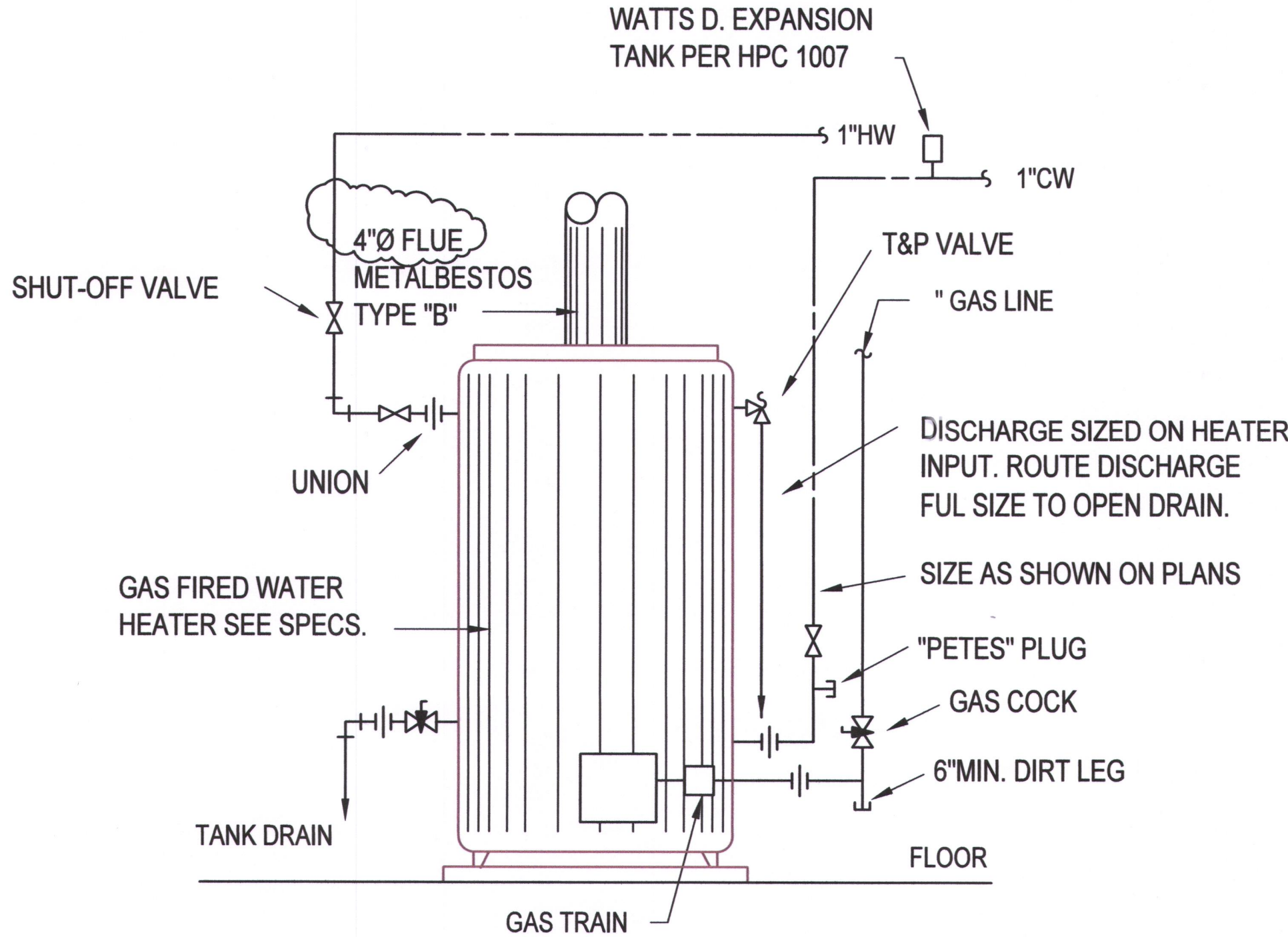
FLOOR DRAIN - JOSAM 32000 CAST IRON, ROUND 7" NIKOLY MEDIUM DUTY LOOSE SET ANTI-TILTING GRATE. SIZE TO SUIT PIPE SIZE AS SHOWN ON DWG. OR EQUAL.

DF

DRINKING FOUNTAIN - HALSEY TAYLOR #HAC8FSBL-QADA BARRIER FREE COOLER, 120V, 1Ø, 4 AMP. 1/2" CW, 1 1/2" WASTE, 1 1/4" VENT

UR

URINAL - AMERICAN STANDARD #6400.014 VITREOUS CHINA WATER SAVER (1.5 GALLONS PER FLUSH) URINAL W/INTEGRAL SPREADER FLOOR MOUNTED W/SLAN ROYAL 186 FLUSH VALVE, STRAINER TOP SPUD. 1/2" CW, 2"WASTE, 1-1/2" VENT.



GAS WATER HEATER DETAIL

NO SCALE APPROX. 1000 LBS OPERATING WEIGHT

WATER HEATER AOSMITH #GCR-30, 30 GALLON, NATURAL GAS-FIRED HEATER REQUIRING 30 CFH NATURAL GAS FOR 37 GPH RECOVER @ 90 RISE. HEATER TO BE FITTED WITH T&P VALVE WITH AGA-RATING OF MIN. 10% ABOVE BTU INPUT OF HEATER. VALVES SET FOR 150 PSI @ 210 WATER. THERMO-BOND PROTECTIVE COATED THERMOSTAT TUBE OF LENGTH REQ'D. FOR INSERTION INTO HOTTEST WATER IN TANK. INSTALL VALVE DIRECTLY TO HEATER WITHOUT ELBOWS AND/OR COUPLINGS. EXTEND FULL-SIZE COPPER DRAIN LINE FROM VALVE TO WITHIN 6" OF FLOOR DRAIN.

PROVIDE 4" VENT LINE VERTICAL THRU ROOF. PROVIDE 2-24"X24" AIR GRILLES IN CEILING FOR COMBUSTION AIR OPEN TO WAREHOUSE SPACE

TENANT
INFILL
FOR

LOT 10
I-470
BUSINESS &
TECHNOLOGY
CENTER

AT

2601 NE
MCBAINE DRIVE
LEE'S SUMMIT
MISSOURI

DATE: 3/9/2022

REVISIONS:

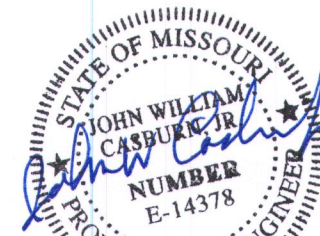
- 4/5/22 PASSES WATER HAMMER & COMB. AIR
- REV WTR HTR AIR REQ
- 4/25/22

SBC

ARCHITECTURAL
SERVICES

Robert J. Shirk Jr. - Principal / Project Mgr.

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4/25/22

SHEET NO.

P102