9TH AND 10TH FLOOR RENOVATION ALEXANDRIA MOB 934 THIRD STREET ALEXANDRIA, LA

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1	Existing Floor Plan			
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PROJECT DESCRIPTION - The scope of the project is the renovation/ conversion of the 9 th and 10th floors into apartments. The existing layout of the building is office space. The square footage of each floor is 5800 sf.

THE PRIMARY STRUCTURAL FRAME OF THE EXISTING BUILDING IS STRUCTURAL CONCRETE, TYPE IB CONSTRUCTION. THE INTERIOR WALLS ARE CONSTRUCTED WITH METAL STUDS.

THE EXISTING OCCUPANCY OF THE BUILDING (ALL FLOORS) IS B, BUSINESS. A RECORDS REQUEST OF THE FIRE MARSHAL'S OFFICE SHOWED THE LAST WORK ON THE BUILDING WAS 2001, WHEN THE 2ND FLOOR WAS RENOVATED (PO 233137)

THE NEW OCCUPANCY OF THE 9TH AND 10TH FLOOR WILL BE TYPE R, APARTMENTS

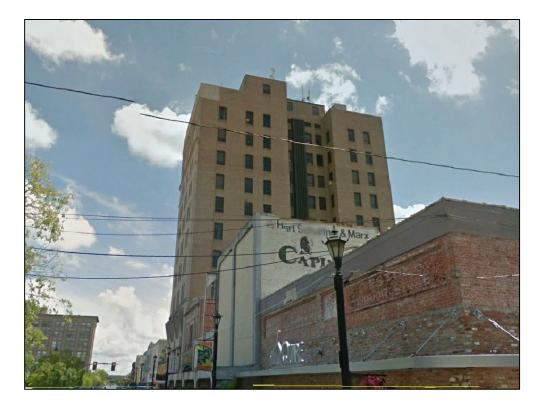
TYPE OF CONSTRUCTION VB UNPROTECTED WITH EXISTING SPRINKLER SYSTEM AND FIRE ALARM

FIRE RESISTANCE RATING: STRUCTURAL FRAME ROOF CONSTRUCTION EXTERIOR WALLS

0 HOURS 0 HOURS 0 HOURS

DESIGN CRITERIA

- 2021 INTERNATIONAL BUILDING CODE
- -2015 NFPA 101
- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL PLUMBING CODE
- 2020 NATIONAL ELECTRIC CODE



NORTH ELEVATION



SOUTH ELEVATION

General Notes:

Thresholds shall be no more than $\frac{1}{2}$ " in height and shall be beveled if more than $\frac{1}{4}$ ". All ground and floor surfaces shall be non-slip. 2. Dimensions are to the centerline or face of studs, center line of columns, or face of vinyl. 3. Contractor to verify all site conditions and building location prior to construction. 4. Materials shall be new and U.L. listed.

conceal the fire walls.

NFPA 101:12.2.9 and IBC 1006.3 & 1006.4 Provide emergency lighting according to 101:7.9 and IBC 1006, including exit discharge (EXTERIOR).

11. EXTERIOR DOORS NFPA 101:7.2.1.3 and IBC 1008.1.5 through 1008.1.7 Provide level landings outside exterior doors that are within 1/2" of the interior finish floor elevation.

12. NFPA 101:7.2.1.5 and IBC 1008.1.9 Locks on doors in means of egress shall not require the use of a key, special device or special knowledge to open in the direction of egress.

13. DOORS NFPA 101.7.2.1.5.9 and IBC 1008.1.94 through 1008.1.9.5 Doors shall be openable with ONLY one releasing operation. A two-step release, such as a knob and an independent slide bolt, is NOT acceptable.

14. INSULATION LAC 55:305 Insulation and insulation assemblies shall meet the requirements of Section 720, International Building Code, 2015 Edition.

No work shall be concealed until approved by local inspectors.

Construction shall comply with all parish, state and local codes.

Contractor to guarantee work for one year.

8. Notify District Fire Inspectorfor all completed fire walls before any construction that would

9. Provide detailed cut sheets of the fire penetration sealing product to the inspector. 10. LIGHTING @ EXTERIOR DOORS

NFPA 101:12.2.8 and IBC 1006 Provide illumination of means of egress in accordance with 101:7.8 and IBC 1006, including exit discharge (EXTERIOR).

a) Concealed and exposed insulation shall have a flame spread of 0-25 and a smoke developed of 0-450 in accordance with IBC 719.

b) Cellulose fiber thermal insulation shall meet the requirements of paragraph IBC 719.

c) Foam plastic insulation shall meet the requirements of IBC 719.

d) Thermal barriers shall protect foam plastic insulation in accordance with IBC 2603.4. e) Ignition barriers shall protect foam plastic insulation used in attics or crawl spaces where entry is made only for service of utilities in accordance with IBC 2603.4.1.6.

15. INTERIOR WALLS & CEILINGS - NFPA 101:38.3.3 Interior walls and ceilings shall have a flame spread of 0-200 and a smoke development rating of 0-450.

16. UTILITIES NFPA 101:38.5.1 Utilities shall comply with the provisions of Section 9.1.

17. HVAC - HVAC system shall be constructed in accordance with NFPA 101:9.2.

19. ELECTRICAL WORK - Compliance with the 2020 NFPA 70, National Electrical Code (NEC), is mandated by RS 40:1730.28.A(7). Contact the local Building Official of the applicable local political subdivision or a Louisiana State Uniform Construction Code Council registered third-party provider to verify plan review and inspection requirements of the proposed electrical work.

20. FIRE EXTINGUISHERS

NFPA 10:6.2.1.2 Provide portable fire extinguishers within the following travel distances; rectilinear route measure:

a) Travel distance to a fire extinguisher shall not exceed 75 feet for Class A, C and D fires. See Table 10:6.2.1.1 and NFPA 10:6.4 and 10:6.5.

b) Travel distance to a fire extinguisher shall not exceed 30 feet for Class B fires (liquids). (May be increased to 50 feet for Light (low) Hazard fires with 10-B extinguisher, for Ordinary (moderate) Hazard fires with 20-B extinguisher, and for Extra (high) Hazard fires with 80-B extinguisher). See Table 10.6.3.1.1

For classification of Hazards see NFPA 10:5.4.1.1 (Light/Low), 10:5.4.1.2 (Ordinary/Moderate): 10:5.4.1.3 (Extra/High).

NFPA 10.6.1.3.3.1 Fire extinguishers shall not be obstructed or obscured from view.

NFPA 10:6.1.3.1 Fire extinguishers shall be conspicuously located where they will be readily accessible and immediately available in the event of fire. Preferably they shall be located along normal paths of travel, including exits from areas.

NFPA 10:6.1.3.8 Top of fire extinguisher, having a gross weight less than 40 lb., shall be not more than 5 feet above the floor, if gross weight 40 lbs. or greater, 3-1/2 feet above the floor.

21. FIRE SEPARATION - Separate living units (in fully sprinklered buildings) from each other with one-half (1/2 hr) hour fire resistance rated construction. Exterior corridors in buildings to be constructed with 1 hour construction (see below). 45 minute entrance door required for all units.



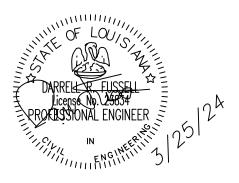


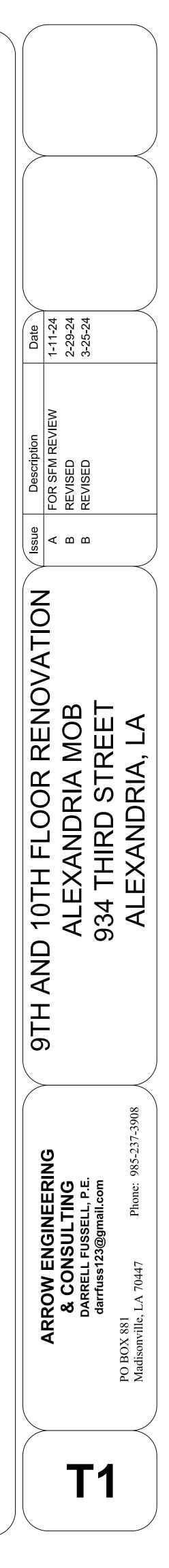
EAST ELEVATION

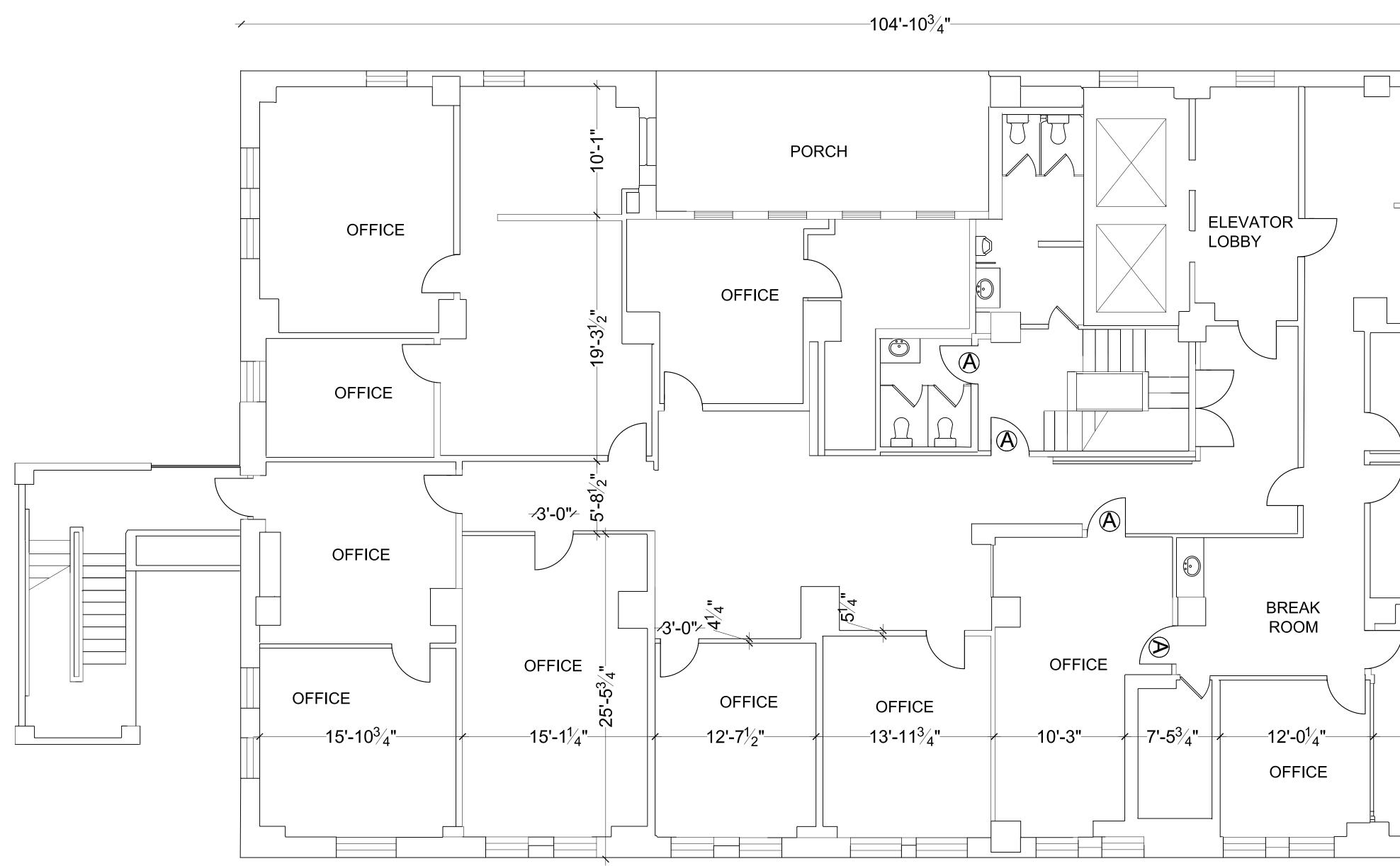
WEST ELEVATION



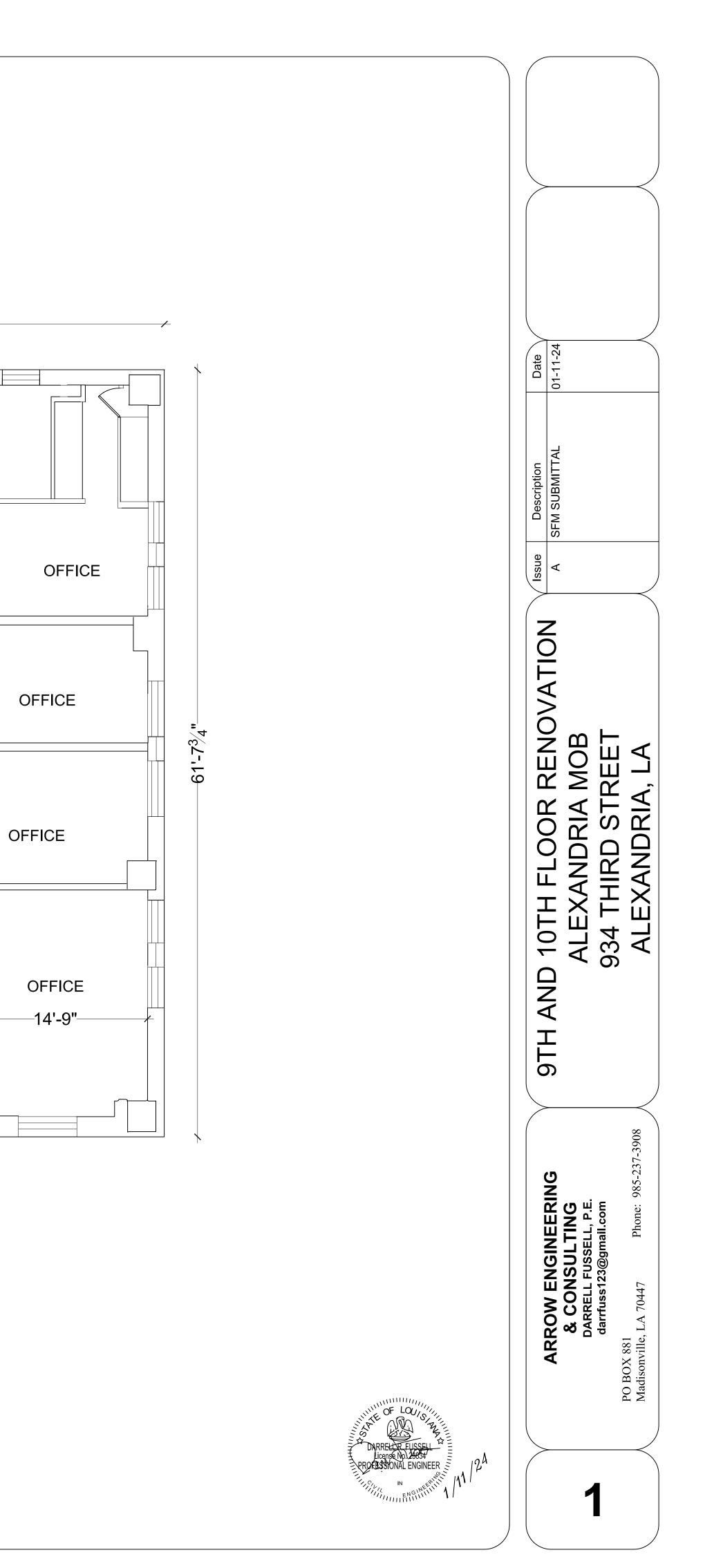
SITE

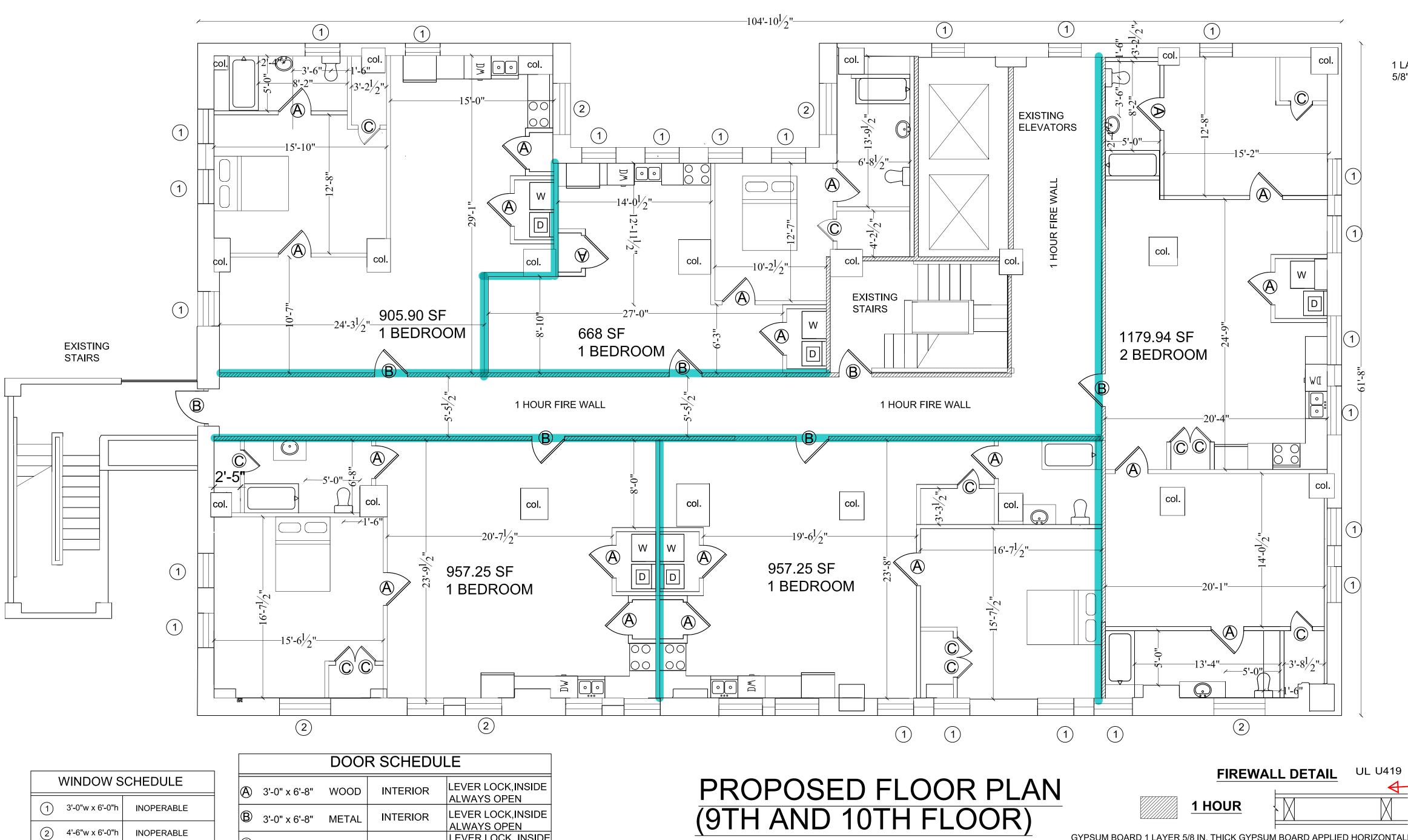






EXISTING FLOOR PLAN SCALE: 3/16" = 1'-0"





SCALE: 3/16" = 1'-0"



LEVER LOCK, INSIDE

ALWAYS OPEN

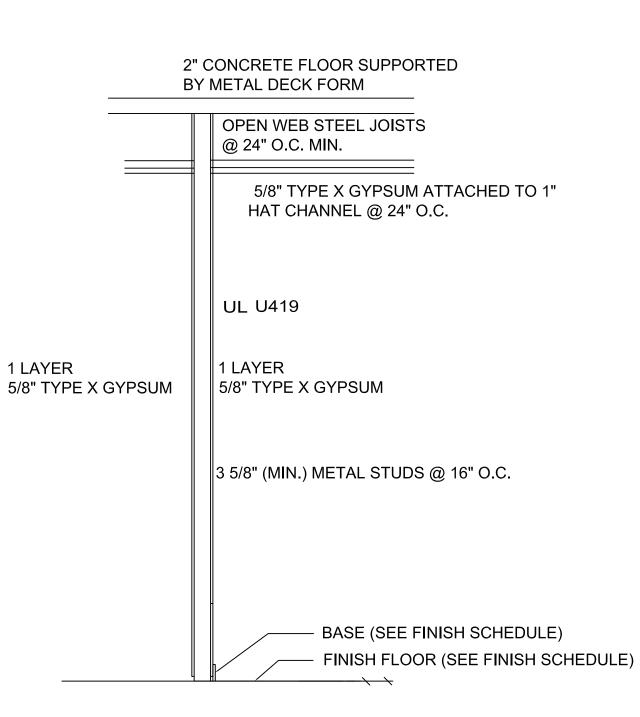
INTERIOR

© 2'-0" x 6'-8" WOOD

REVIEWED FOR STATE FIRE MARSHAL AS PER REVIEW LETTER BY: LAUREN LANDRY, ARCHITECT aller

GYPSUM BOARD 1 LAYER 5/8 IN. THICK GYPSUM BOARD APPLIED HORIZONTALLY OR VERTICALLY. STEEL STUDS 6 IN. DEEP, 20 GA. SPACED 16 IN. O.C.

GYPSUM BOARD 1 LAYER 5/8 IN. THICK GYPSUM BOARD APPLIED HORIZONTALLY OR VERTICALLY.



FIREWALL SECTION NOT TO SCALE

FLOOR/ CEILING DETAIL UL G502

1 HR Fire Separation Floor-Ceiling

System Description

- 2" concrete floor supported by metal deck form
- open web steel joists @ 24" o.c. min.
- 5/8" type x gypsum attached to 1" hat channel @ 24" o.c.
- joints finished

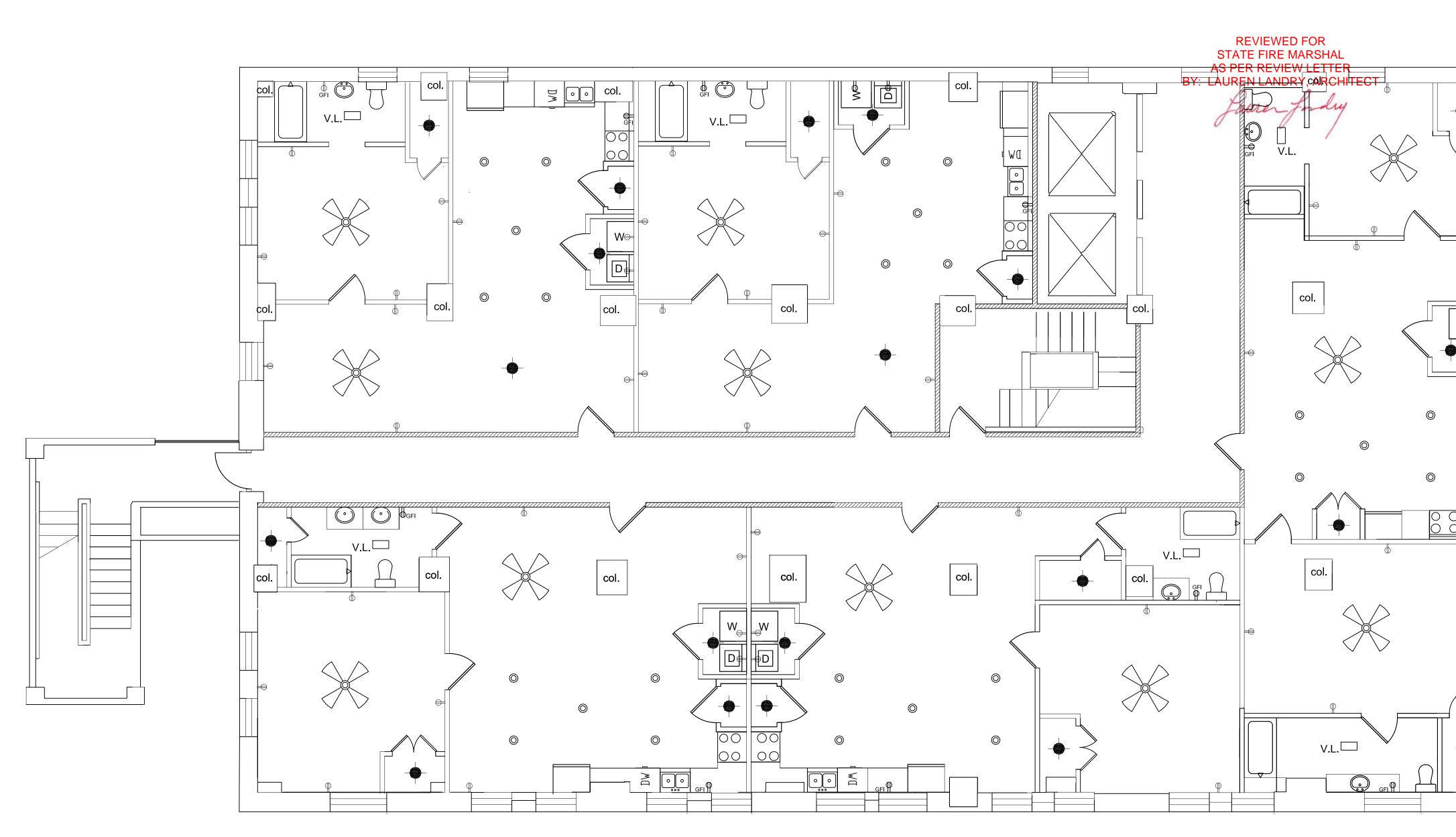
NOTE: THE EXISTING STRUCTUREIS COMPOSED OF : -CONCRETE FRAME (COLUMNS BEAM AND FLOOR) - THE EXISTING WALLS ARE COMPOSED OF 3 5/8"-6" METAL STUDS WITH 5/8" TYPE X SHEETROCK.

UL LISTED
ASSEMBLY #U419
HAS METAL STUD
CONSTRUCTION;
WOOD IS NOT
PERMITTED IN A
HIGH RISE
BUILDING UNLESS
IT IS
FIRE-RETARDANT.

NOTE: THE DEMISING WALLS BETWEEN UNITS WILL BE CONSTRUCTED OF 3 5/8"-6" METAL STUDS WITH ONE LAYER OF 5/8" TYPE X SHEETROCK ON EACH SIDE, CONFORMING TO UL U419 (ONE HOUR). A 30 MINUTE RATING IS REQUIRED BETWEEN UNITS

NOTE: THE EXISTING FIRE ALARM AND SPRINKLER SYSTEM TO BE MODIFIED AS REQUIRED FOR THE RENOVATION

DARI Lie PROFESSION	Date Date 01-11-24	5/24
	IssueDescriptionASFM SUBMITTALBREVISEDCREVISED	
	OVATION	ALEXANDRIA, LA
	ARROW ENGINEERING & CONSULTING DARRELL FUSSELL, P.E. darrfuss123@gmail.com	PO BOX 881 Madisonville, LA 70447 Phone: 985-237-3908
	<u>></u> 2	



SMOKE DETECTOR NOTES

SMOKE DETECTORS WILL BE INSTALLED INSIDE OF EACH SLEEP AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM DOOR AND ON EACH ADDITIONAL STORY OF THE DWELLING, INCLUDING BASEMENTS AND ALL WITH ALARMS. ALL DETECTORS SHALL BE "UL" APPROVED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURES'S INSTRUCTIONS. REQUIRED SMOKE DETECTORS SHALL RECEIVE THEIR PRIMARY POWER SOURCE FROM THE BUILDING WIRING WHEN SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE, AND WHEN PRIMARY POWER IS INTERRUPTED, SHALL HAVE A BATTERY BACKUP.

ALL SLEEP AREAS ARE TO BE PROTECTED WITH ARC FAULT BREAKERS.

2020 National Electrical Code:

- 1. Electrical work must be in compliance with the <u>National Electrical Code</u>.

- section 210.8 (B). * Recepticle for the water fountains must also be GFCI protected.

- Equipment, (4) GFCI Protection.

* A 125 volt, single phase 15 or 20 amp. rated receptacle outlet must be installed at an accessible location for the servicing of any heating and air conditioning equipment (condensers) on the same level, within 25 feet of the equipment as per the National Electrical Code art. 210-63.

- 5. Each means of disconnect shall be <u>legibly marked</u> to indicate its purpose unless located and arranged so the purpose is evident as per NEC section 110.22.
- 6. Every circuit and circuit modification, for switch and panel boards, must be legibly identified as to its clear, evident, and specific purpose or use. As per NEC section 408.4.
- 7. <u>Motor disconnects</u> in sight of equipment must be provided as indicated in NEC article 430 IX.

ELECTRICAL PLAN SCALE: 3/16" = 1'-0"

2. Sufficient access and working space shall be provided and maintained about all electrical equipment to permit ready and safe operation and maintenance of the equipment as per the National Electrical Code Art. 110-26.

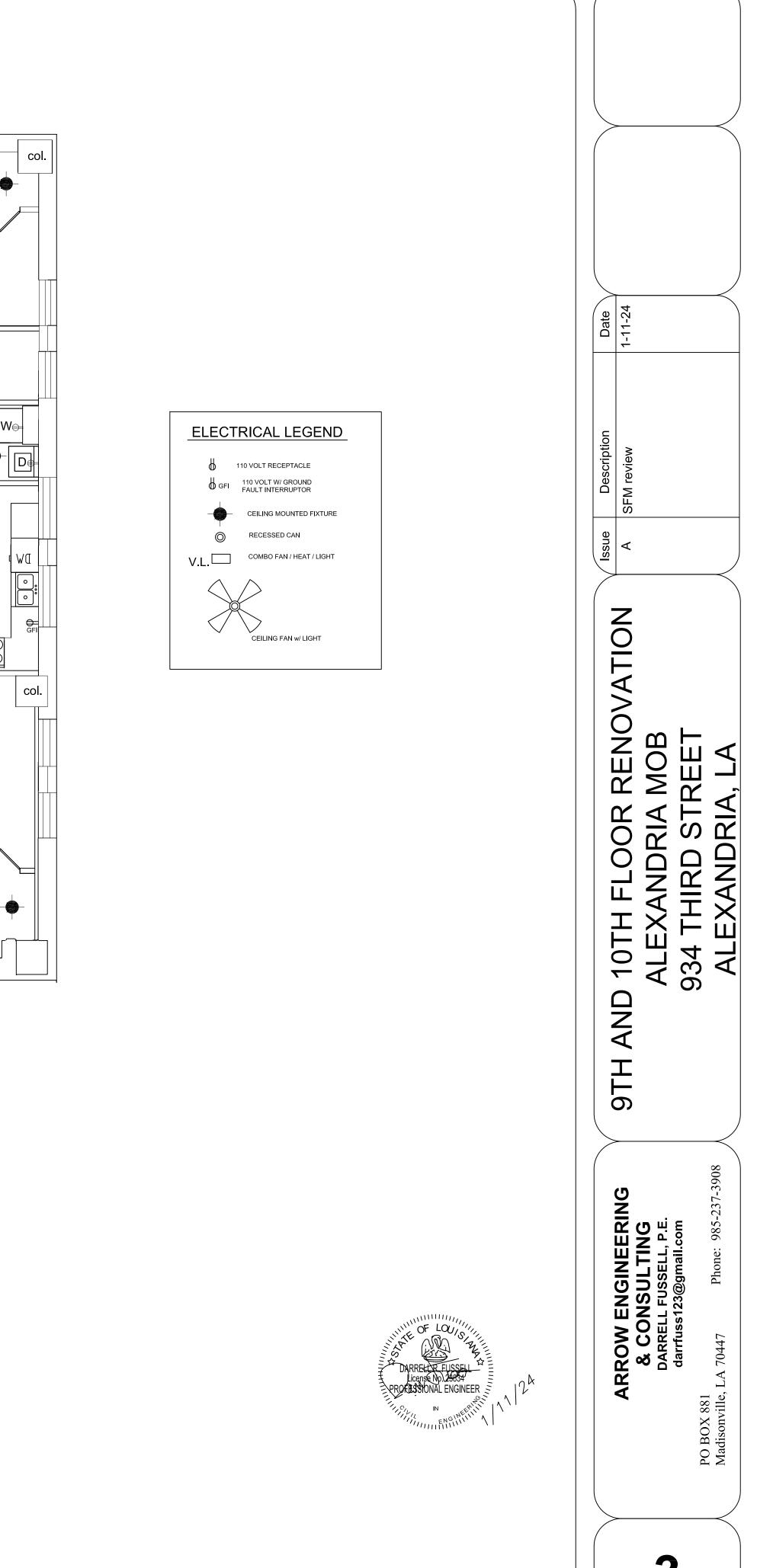
3. Bonding of piping systems and exposed structural steel is required for metal water piping, metal gas piping, other metal piping that may become energized and structural steel, as per The National Electrical Code section 250-104.

4. <u>GFCI protection</u> must be provided for receptacles located in bathrooms, rooftops, and for outdoor receptacles as per NEC

* Receptacles shall be not less than 6 ft. from the inside walls of the immersion pool. As per NEC, Section 680.22, Lighting, Receptacles, and Equipment, (2) Other Receptacles, Location.

* All 15- and 20-ampere, single-phase, 125-volt receptacles located within 20 ft. of the inside walls of the immersion pool shall be protected by a ground-fault circuit interrupter. As per NEC, Section 680.22, Lighting, Receptacles, and

- 8. A means to disconnect each appliance from all un-grounded conductors must be provided in accordance with NEC article 422 III.
- 9. Listed or labeled equipment shall be installed and used in accordance with any instructions included in the listing or labeling. As per NEC, section 110.3 (B).
- 10. <u>Fixtures shall be supported</u> in accordance with section NEC 410.36.
- 11. Framing members of suspended ceiling systems used to support fixtures shall be securely fastened to each other and shall be securely fastened to the building structure at appropriate intervals. Fixtures shall be securely fastened to the ceiling framing members by mechanical means such as bolts, screws, or rivets. Listed clips identified for use with the type of ceiling framing members and fixtures shall also be permitted. As per NEC section 410.36 (B).
- 12. Where a branch circuit serves continuous loads or any combination of continuous and non-continuous loads, the minimum branch circuit conductor size, before the application of any adjustment or correction factors, shall have an allowable ampacity of not less than the non-continuous load plus 125 percent of the continuous load. As per NEC section 210.19 (A), (1).
- 13. In <u>damp or wet locations</u> surface -type enclosures within the scope of this article shall be placed or equipped so as to prevent moisture or water from entering or accumulating within the cabinet or cutout box, and shall be mounted so that there is at least 1/4 inch airspace between the enclosure and the wall or other supporting surface.
- 14. Enclosures installed in wet locations shall be weatherproof (such as listed in NEMA 250-2003). For enclosures in wet locations, raceways or cables entering above the level of un-insulated live parts shall use fittings listed for wet locations. As per NEC section 312.2.
- 15. All grounding electrodes as described in 250.52(A)(1) through (A)(7) that are present at each building or structure served (including a concrete encased electrode) shall be bonded together to form the grounding electrode system. The concrete encased electrode as described in NEC section 250.52(A)(3) must be used at each building electrical service.



HVAC NOTES

1. HVAC System to be attic type with coil drain pan, built in drain and level switch.

2. The Contractor shall be responsible for field verifying all dimensions and locations prior to beginning of work. The installer of mechanical systems shall coordinate with all other disciplines to avoid interference.

The contractor shall notify the architect/engineer of any discrepancies prior to beginning job.

Plans and diagrams are schematic only and should not be scaled.

equipment, and labor required for a complete and operational mechanical system. Mechanical Contractor shall refer to Achitectural drawings for all scaled reference drawings.

3. All rigid rectangular and round duct dimensions as well as flexible ducts shown are inside dimensions and represent the net airflow area of duct.

4. All ducts shall be insulated externally with 1-1/2", 1-1/2 lb. density fiberglass insulation. R Value for insulation shall be R-5 or greater for inside building ducts and R-8

or greater for outside building ducts. Adjust insulation thicknesses and/or densities to conform to this requirement. 5. Contractor to field route package hvac unit condensate lines to nearby drain or to outside of building (french drain). 6. Provide fire dampers where ducts penetrate fire resistant (fireated for one or more hours) walls

and partitions and at all fresh air intakes. See exceptions referenced in International Mechánical Code.

All dampers may not be shown on plans for clarity purposes. Contractor to factor in additional

dampers for fire rated walls and ceilings not shown on plans. 7. All offsets and turns of ducts greater than 30 degrees to have single thickness turning vanes (rectangular ducts).

8. All individual return air and fresh air ducts shall have manual dampers for adjusting flow rates. 9. All taps from main ducts to ceiling diffusers and wall resisters shall have manual dampers near

main duct tap. See spin damper detail. 10. Mechanical Contractor to coordinate with electrical contractor with regards to final location of ceiling

diffusers, ceiling lights, and ceiling fans. Mechanical Contractor to adjust location of diffusers as needed

to avoid interference with lights and fans except in cases where diffuser throws will be adversely affected.

11. All work shall be performed in accordance with the requirements of the applicable parish, all applicable codes, standards, and established practices of the industry.

 Install diffusers, registers, and grilles according NFPA90A.
 HVAC Air distribution systems to have airflows balanced within the distribution system, including submains, branches, and terminals to indicated quantities as shown on the drawings.

14. Each HVAC unit shall come equipped with a heating and cooling stage thermostat including

subbase consisting of manual system switch (off-heat-auto-cool). Fan switch (auto-on)

thermostat to be solid state, programmable with occupant over-ride and setback capabilities.

In addition to thermostats, the control system should include all required accessories such as transformers,

wires, relays, sensors, etc., to complete the working control. See schedule for additional requirements. 15. Outside air dampers to be manually adjusted to cfm flowrate indicated on the equipment schedule.

16. Provide approved smoke detector in the return air stream of AHU units upstream of

outside air entry and interlock with the unit control system to stop the fan in the event of detecting smoke in the system. Provide approved smoke detector in the main supply air duct prior to any branch duct connections. Smoke dampers are mandatory for systems with 2000 cfm flowrate or greater. Interlock with the unit control system to stop the fan in the event of detecting smoke in the system.

17. All outside air intakes shall be a minimum of 10 feet from any exhaust or vent.

18. All flexible ducts must be mechanically fastened and sealed to prevent leakage using duct mastic. The following locations must be sealed: all connections, supply and return air grilles, penetrations into plenum, etc.,

as identified in the Louisiana Energy Code. 20. All metal duct transverse and longitudinal seams must be sealed. Spiral Ducts do not require sealing. Various exterior-duct sealant materials may be used to seal seams, however pressure-sensitive tape (duct tape) cannot be used as the primary sealant.

21. It is recommended that AHU unit blowers operate continuously during occupied periods. 22. Contractor shall balance A/C Systems to specified CFM in accordance with AABC.

23. Insulate all refrigeration lines and run same concealed in walls and

attic (1/2" ARMAFLEX MINIMUM.)

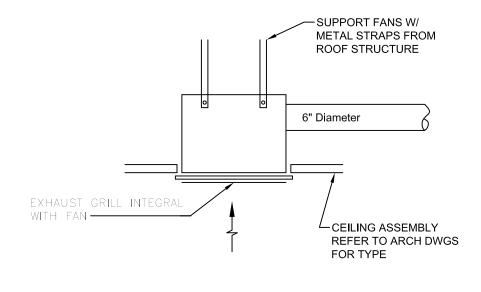
24. Return air grill to have unit filters in rack w/ grill frame (locate

as req'd).

25. Exhaust duct from each restroom, vent thru roof.

26. Use min. 1-1/2" ext. wrap fiberglass insulation on metal and flex-ducts.

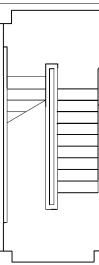
plumbing contractor to provide drain to outside



DETAIL	OF	FLEXIBI
SCALE:	N.T.S.	

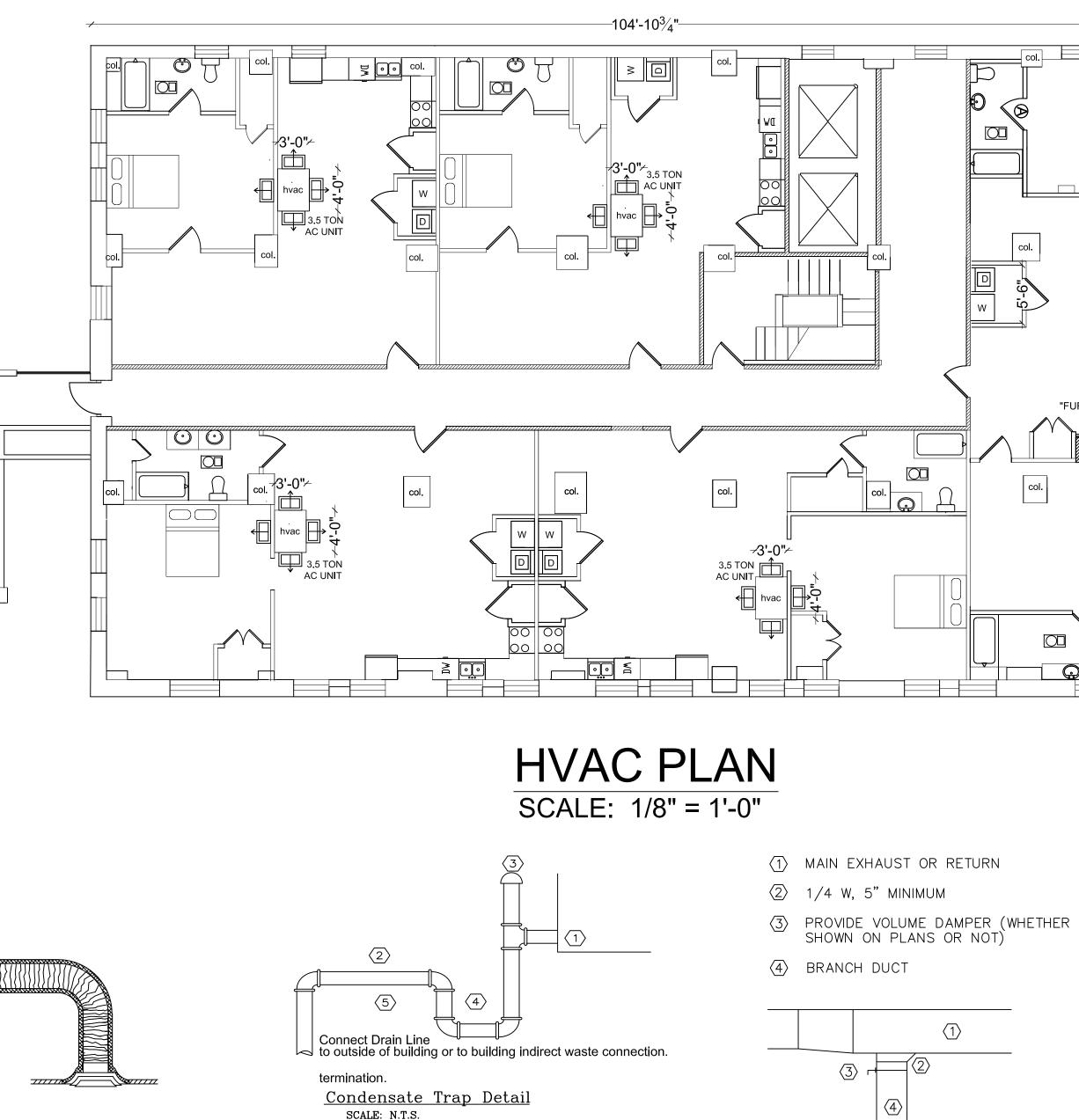
DETAIL OF TYPICAL TOILET EXHAUST FANS SCALE: N.T.S.

NOTE: THE BACK SIDE OF ALL DIFFUSERS SHALL BE INSULATED.



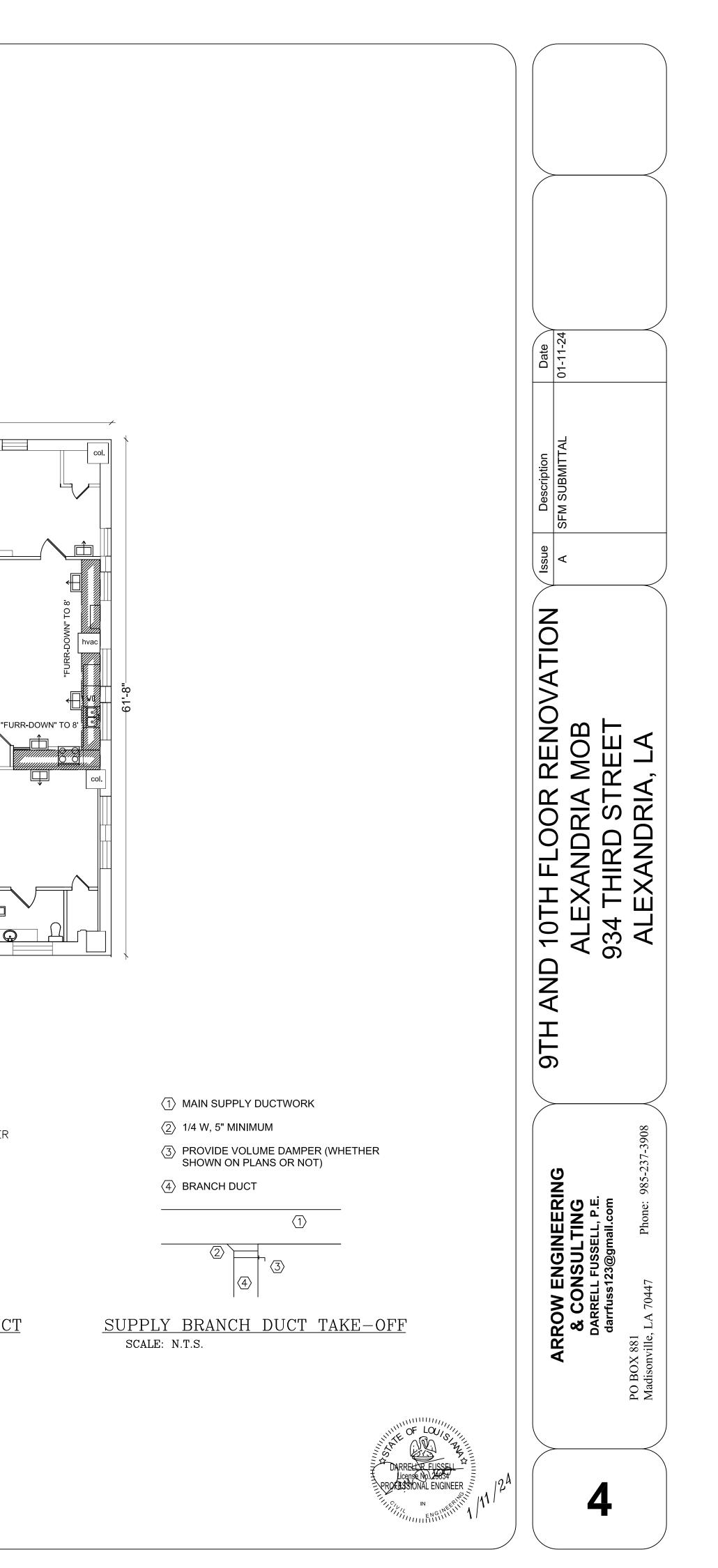
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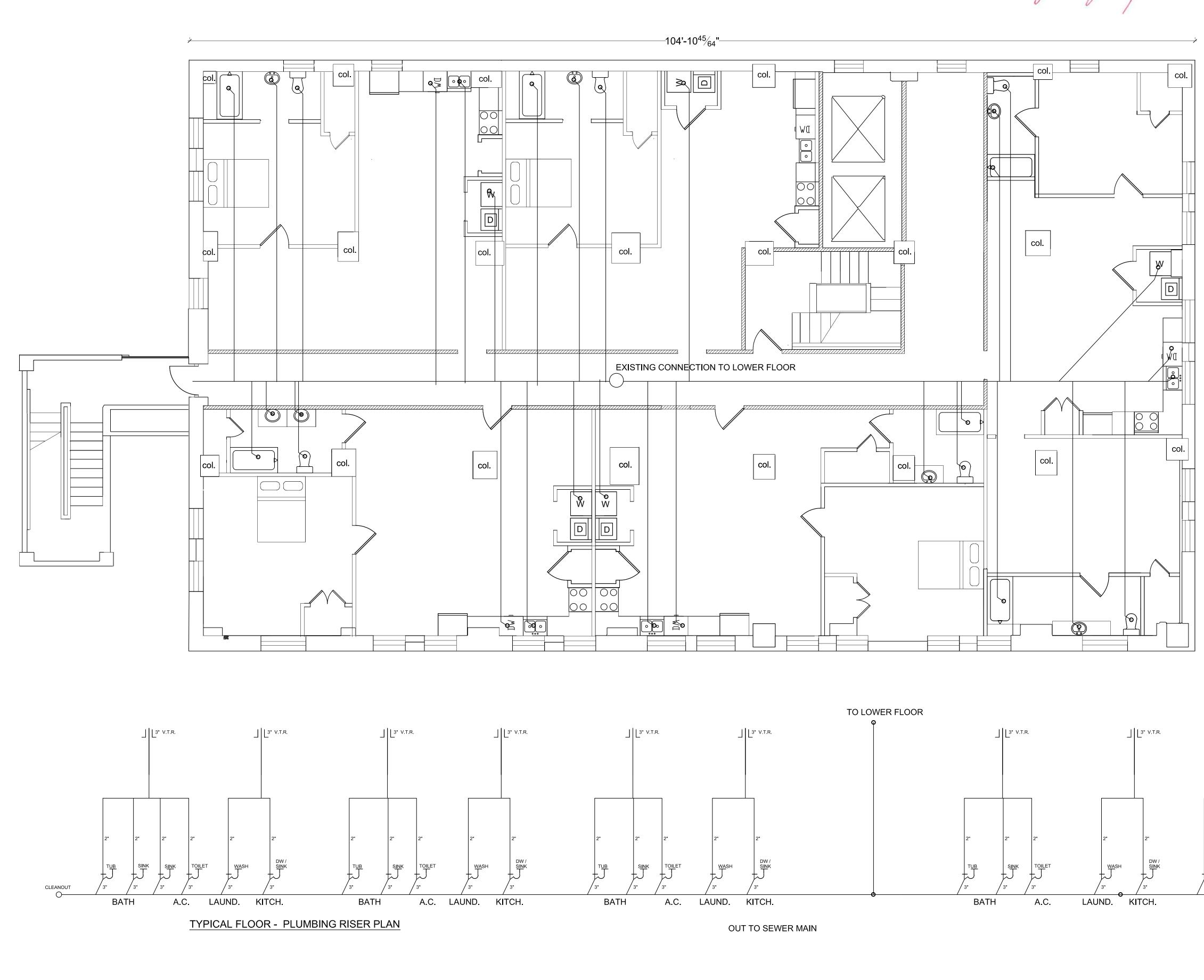
HVAC LEGEND				
MARK	ELEC.	DESCRIPTION		
	120V	EXHAUST FAN 100 CFM, 80W, 950 RPM		
		SIDE DIFFUSER		



LE DUCT CONNECTION

- $\langle 1 \rangle$ DRAIN PAN CONNECTION ON HVAC UNIT $\langle 2 \rangle$ INSULATED DRAIN LINE SAME SIZE AS DRAIN PAN CONNECTION BUT NOT LESS THAN 3/4"
- $\langle 3 \rangle$ BREATHER CAP/ CLEANOUT
- $\langle \overline{4} \rangle$ DEPTH OF SEAL AS REQUIRED TO OVERCOME OPERATING S.P. $\langle 5 \rangle$ PITCH DOWN TOWARDS DRAIN
- EXHAUST/ RETURN BRANCH DUCT SCALE: N.T.S.





REVIEWED FOR STATE FIRE MARSHAL AS PER REVIEW LETTER BY: LAUREN LANDRY, ARCHITECT uren

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- Number of plumbing fixtures required is to be determined by IPC TABLE 403.1.
- The water distribution system shall be protected against backflow in accordance with section 608 IPC. Devices for the prevention of backflow or back siphoning shall comply with the standards listed in 2015 IPC.
- Drainage, sewer, vent, water and other piping must be tested in accordance with IPC (section 312).
- <u>Soil piping must be supported</u> in accordance with IPC (section 308). <u>Cleanouts</u> in the drainage piping shall be located as listed in IPC (section 708).
- Change in Direction. The following applies to the use of fittings in changes of direction of drainage piping. 1. Changes in direction in drainage piping shall be made by the appropriate use of 45° (0.785 rad) wyes, longor-short-sweep quarter bends, one-sixth, one-eighth, or one sixteenth bends, or by a combination of these or equivalent fittings. Single and double sanitary tees and quarter bends may be used in drainage lines only where the direction of flow is from the horizontal to the vertical. A sanitary tee shall not be used on a horizontal drainage line as a take off fitting for a vent.
- 2. Changes in direction in Schedule 40 DWV-PVC and ABS drainage piping shall be made by the appropriate use of 45° (0.785 rad) wyes, quarter bends or long sweep quarter bends, one-sixth, one-eighth, or one-sixteenth bends, or by a combination of these or equivalent fittings. Single and double sanitary tees and quarter bends may be used in drainage lines only where the direction of flow is from the horizontal to the vertical. A sanitary tee shall not be used on a horizontal drainage line as a take off fitting for a vent.
- 8. Short Sweeps. Short sweeps not less than 3-inch diameter may be used in soil and waste lines where the change in direction of flow is from the horizontal to the vertical and may be used for making necessary offsets between the ceiling and the next floor above.
- Prohibited Fittings. A straight tee branch shall not be used as a drainage fitting. A saddle type fitting or running threads shall not be used in the drainage or vent system. Drainage or vent piping shall not be drilled or tapped unless approved by the plumbing official. A fitting having a hub in the direction opposite to flow shall not be used in the drainage system, unless the pipe is cut by either a saw or snap cutter, which will assure clean, smooth cuts of the pipe. Double sanitary tee pattern fittings shall not receive the discharge of fixtures or appliances with pumping action discharge.
- Heel or Side Inlet Bend Prohibited. Heel or side inlet quarter bend fittings shall not be used in the drainage or 10. vent system.
- 11. Obstruction to Flow. A fitting or connection which offers abnormal obstruction to flow shall not be permitted, IPC (Section 715).
- Fittings are to be installed per section 605.5 IPC.
 Provide hot water temp. control not exceeeding 110 degrees at all lavatories.

PLUMBING PLAN SCALE: 3/16" = 1'-0"

