

DOCUMENT 00 09 00

ADDENDUM NO. 4



Date: **May 13, 2019**
Project: **Ltd. Renovations at Police Annex**
Contract No. P-18-001
3204 Amnicola Highway
Chattanooga, Tennessee 37406

Architect: **Billingsley/Architecture**
Suite 800 Republic Centre
633 Chestnut Street
Chattanooga, Tennessee 37450
(423) 752-0030

This addendum forms a part of the Contract Documents and modifies the original Documents dated 22 February 2019, as noted below. Acknowledge receipt of this Addendum No. 4 in the space provided on the Bid Form and Contracts. Failure to do so may subject the Bidder to disqualification.

This Addendum No. 4 consists of (3) three 8½" x 11" sheets and (11) eleven 24" x 36" sheets.

CHANGES TO THE PROJECT MANUAL

1. Section 00 01 00 – Advertisement for Bids

A. Change

- a. Separate sealed bids for furnishing all supervision, materials, labor, tools, equipment, and appliances necessary for the construction of the following described project, will be received by the City of Chattanooga at City Hall, Purchasing Department, Suite G13, located at 101 E. 11th Street, Chattanooga, TN 37402, until **2:00 p.m., local time, on Tuesday, June 11, 2019**, and then at said place publicly opened and read aloud:

2. Section 26 40 00 – Electrical Service and Distribution

A. Change

- b. This section is re-issued in its entirety with a revision date of 05/06/19 and is attached to this addendum.

CHANGES TO THE DRAWINGS

1. Cover Sheet

A. Addition

- a. Add new sheet E4.1

2. Sheet A2.1 First Floor Plan
 - B. Addition
 - c. Add new emergency generator.

3. Sheet A2.2 Finish Schedule, Door Schedule, and Door Details
 - C. Addition
 - d. Add door #201 to door schedule.

4. Sheet A7.1 Stair Details
 - D. Change
 - e. Change door swing direction at door #201.
 - f. Add label at door #201.

5. Sheet P1.1 Plumbing Plans
 - E. REVISED SHEET – Issued
 - g. Add new emergency generator and note.
 - h. Add floor drain.

6. Sheet P2.1 Plumbing Schedule and Notes
 - F. REVISED SHEET – Issued
 - i. Add floor drain to plumbing fixture schedule.
 - j. Add TP note to Notes, Referenced.

7. Sheet M1.1 First Floor HVAC Plan
 - G. REVISED SHEET – Issued
 - k. Changed CFM's at supply registers at Evidence Vault 122 and New Corridor 123.
 - l. Add exhaust fan at Blood Room 121.

8. Sheet M2.1 Second Floor HVAC Plan
 - H. REVISED SHEET – Issued
 - m. Change Ventilating Fan Schedule.

9. Sheet E1.1 Lighting Plan
 - I. REVISED SHEET – Issued
 - n. New EB-1 and EB-3 at Office Area 107.
 - o. New EB-5 at Evidence Vault 122.

10. Sheet E2.1 First Floor Power Plan

J. REVISED SHEET – Issued

- p. Add Electrical Notes 19 and 20.
- q. Add new emergency generator and notations.
- r. Add EB-4 at Office Area 107.
- s. Add new panel EB at Vehicle Inspection Bay 117.
- t. Add Exhaust Fan at Blood Room 121.
- u. Change to EB-2 at Evidence Vault 122.
- v. Change to EB-6 at Lab 125.

11. Sheet E4.1 Electrical Details

K. NEW SHEET - Issued

- w. This sheet is issued in its entirety with a revision date of 05/06/19 and is attached to this addendum.

END OF DOCUMENT

SECTION 26 4000

ELECTRICAL SERVICE AND DISTRIBUTION

PART 1 - GENERAL

1.1 RELATED SECTIONS

- A. Applicable provisions found in Bid/Contract Requirements, and Division 1, General Requirements, apply to the work under this section.

1.2 SCOPE

- A. Work of this section shall include providing service and distribution, accessories, and other components to be used in electrical systems as specified in subsequent sections, in accordance with the intent of the Contract Documents.

1.3 SUBMITTALS

- A. Submittals required as indicated.

PART 2 - PRODUCTS

2.1 ELECTRICAL DISTRIBUTION EQUIPMENT

- A. All power and lighting distribution equipment herein specified to be by same manufacturer, unless otherwise indicated. This includes switchboards, panelboards, motor control centers, enclosed circuit breakers, safety switches, lighting contactors, distribution transformers, and miscellaneous cabinets and/or enclosures as applicable.
- B. Provide appropriate lug configurations for distribution equipment, compatible with conductor types, sizes, quantities, and arrangements. Refer to riser diagrams, wiring schematics, details, and notations on drawings.
- C. All electrical distribution equipment to be U.L. labeled. Equipment utilized as service entrance equipment to be U.L. labeled "SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT".
- D. Enclosures to be as specified in Section 26 0500, Article "ENCLOSURES FOR ELECTRICAL EQUIPMENT".
- E. Equipment Nameplate Data: Adjust ratings and types of overcurrent protection devices to comply with actual nameplate data of equipment. Coordinate requirements with other contractors and vendors.
- F. Acceptable manufacturers: Square D, General Electric, Siemens, Eaton

2.2 PANELBOARDS [S] [OM]

- A. General: Provide panelboards rated and sized as indicated in schedules on drawings.
- B. Construction features include: Minimum 5" wide gutters, dead front construction, electroplated current carrying parts; U.L. listed terminals suitable for conductors specified; flush front hinged door with cylinder tumbler type locks (all keys alike); circuit directory and frame, code gauge steel, galvanized and baked enamel finished.
- C. Enclosures to be as specified in Section 26 0500, Article "ENCLOSURES FOR ELECTRICAL EQUIPMENT".
- D. Hinged Front: Panelboards with NEMA 1 surface mount enclosures to have hinged front (gutter)

cover, to facilitate access to wiring and breaker compartment.

- E. Door-in-Door: Panelboards with NEMA 1 flush mount enclosures to have door-in-door cover, to facilitate access to wiring and breaker compartment.
- F. Ground bus: Panels to have separate isolated bus for termination of equipment grounding conductors. Ground bus to have lug sizes and quantities to accommodate all grounding conductors to be terminated in panel, including feeders, branch circuits, and bonding jumpers.
- G. Isolated Ground bus: Panels with isolated ground "IG" circuits to have separate isolated bus (in addition to equipment ground bus) for termination of isolated ground conductors.
- H. Circuit breakers to be bolt-on type. Breakers to be toggle action with quickmake, quick-break mechanism. Trip indication to be shown by breaker handle taking a position between ON and OFF. All multiple breakers to be common trip with a single handle.
- I. Circuit breakers to be full module type. Half-size or piggy-back type are not acceptable.
- J. Circuit breakers to have specific UL listings for the following applications:
 - 1. "SWD" - switching lighting fixtures, except HID
 - 2. "HID" - switching HID lighting fixtures
 - 3. "HACR" - protecting HVAC equipment (per nameplate data)
- K. Minimum interrupting rating of breakers to be 10,000 AIC. Provide higher AIC ratings where indicated on drawings or where required to accommodate available fault current values in excess of 10,000 AIC.
- L. Equipment and motor loads: Circuit breaker parameters are provided for estimating purposes only. Circuit breakers to be coordinated with vendors and other contractors to match nameplate data of installed equipment.
- M. Ground Fault Protection:
 - 1. Provide ground fault protection breakers as indicated or required for personnel protection where the use of GFCI-type wiring devices is not practical. Breakers to be Class A (5mA) unless otherwise indicated.
 - 2. In garage service areas, provide ground fault breakers for all circuits serving NEMA 5-15R and NEMA 5-20R receptacles (NEC 511-10).
 - 3. For circuits serving hand dryers, hair dryers (permanently-mounted type), and electric water coolers, provide ground fault breakers.
 - 4. For circuits serving whirlpools, baptistry, and fountains, provide ground fault breakers.
 - 5. For circuits serving residential-type washing machines and dishwashers, provide ground fault breakers.
- N. Lock-Off and Lock-On Devices:
 - 1. Provide lock-off devices for breakers serving loads that require local disconnect, where disconnect switch is not indicated, or where installation of disconnect is impractical.
 - 2. Provide lock-on devices for breakers serving loads that require protection from accidental or unauthorized deactivation, such as life-safety devices and systems, air compressors for dry-pipe sprinkler systems, and night-light circuits.

2.3 ENCLOSED CIRCUIT BREAKERS [S] [OM]

- A. Enclosures to be as specified in Section 26 0500, Article "ENCLOSURES FOR ELECTRICAL EQUIPMENT".
- B. Circuit breakers to be as specified in Section 26 4000, Article "PANELBOARDS".

2.4 NATURAL GAS STANDBY GENERATOR [S] [OM]

A. General: Intent of these specifications is to secure a new and unused standby generator and associated equipment that is of the latest design and efficient performance. The equipment shall include but not be limited to:

1. Natural gas standby generator, with sound attenuated enclosure.
2. Automatic Transfer Switch.
3. Remote annunciator (located as directed).

NOTE: The three (3) items listed above are to be furnished by the Owner as FOB at project site. Contractor to be responsible for unloading, storage, and installation to provide a complete, functional system.

B. Generator set: to be spark-ignition, revolving field type with brushless excitation system. Voltage regulation shall be ± 1 percent. Engine to be dual fuel, 1800 RPM, water cooled.

1. Capacity: 60KW/75KVA continuous standby rating
2. Output: 120/208 volts, 3-phase, 4-wire, 60 Hz
3. Fuel: Natural gas

C. Controls and instrumentation: shall include isochronous governor, safety shutdowns with annunciation lights for low oil pressure, high water temperature, and overspeed. Engine shall also shutdown for low water level and annunciate the light for high water temperature.

1. A unit mounted control panel shall be provided to house the engine and generator controls. Engine instruments shall be provided for oil pressure, water temperature, and alternator charge rate. A cycle cranking automatic start/stop system shall be provided to automatically start and stop the generator upon the proper signal being sent from the automatic transfer switch. An overcrank light shall annunciate if the engine fails to start at the end of the cranking cycle.
2. An engine hour meter shall be provided in the control panel. The panel shall include a frequency meter, A.C. Ammeter, A.C. Voltmeter, and a phase selector switch. A Start-Run-Stop mode switch shall be included as well as a switch for Manual-Auto-Off operation. Also included shall be annunciation lights for high battery voltage, low battery voltage, low coolant temperature, low fuel level, pre-high coolant temperature, pre-low oil pressure, and control switch off. A panel illumination light shall light whenever the generator is running.

D. Accessories: shall include engine jacket water heater, and minimum 2 amp battery charger (both powered by 120 VAC circuit). 24F batteries to be provided with generator mounted battery rack and battery cables.

1. An outdoor weather-protective, sound attenuated, aluminum enclosure with lockable doors shall be provided with a mounted industrial silencing muffler, rain cap, and flexible exhaust fitting.
2. Generator mounted main circuit breaker: 3-pole 225-amp.
3. Lube oil and antifreeze solution.

E. Automatic transfer switches: to be provided by manufacturer of generator set. Switch to have solid neutral, enclosed in NEMA 1 enclosure with lock. Adjustable time delays to be provided for engine starting, transfer, retransfer, and cooldown. Voltage dropout and pickup levels to be Owner adjustable. Seven (7) day exerciser time clock to be provided with load/no load selector switch. Transfer switch to comply with UL 1008, electrically operated and mechanically held. External test switch tO be provided as well as a bypass switch for time delay for test, retransfer, and cooldown.

1. Minimum switch ratings: 3-pole + N, 225 amp, 600V

F. Remote annunciator: A remote annunciator to be provided and installed in building at location, as

directed. It shall be powered by engine battery and shall give visual and audible indication for the following conditions: high water temperature, low oil pressure, overspeed, RPM sensor loss, and overcrank. The panel shall be equipped with a test switch, a reset switch and an alarm on/off switch.

- G. Design is based on: Kohler mdl. KG60 generator
Kohler mdl. KSS-ACTA-0225-S automatic transfer switch
- H. Acceptable manufacturers: Caterpillar/Olympian, Generac, Kohler, Cummins/Onan

PART 3 - EXECUTION

3.1 ELECTRICAL SERVICE AND METERING PROVISIONS

- A. Existing service to remain. No additional work required.

3.2 INSTALLATION OF PANELBOARDS

- A. Securely mount panelboards to walls or building structure. At exterior walls, mount enclosures on galvanized channel spacers (Unistrut P1000T or equal) to reduce condensation potential.
- B. Adjust circuit breaker locations on panelboard buses as required to balance loads between all phases to within 10%. Revise panelboard directories to show final configuration.
- C. Install removable bonding jumper (#6 AWG or equivalent) between multiple ground busses within the same enclosure, to panel enclosure, and to grounding conduit bushings.
- D. At recessed panelboards, provide spare conduits stubbed into accessible area above ceiling. Minimum spares: two (2) conduits, 1 inch size.
- E. Provide metallic plugs for all unused knockouts in enclosures, including those in existing panels.
- F. Equipment Nameplate Data: Adjust ratings and types of circuit breakers to comply with actual nameplate data of equipment. Coordinate requirements with other contractors and vendors.
- G. Isolated Ground: At panels with isolated ground "IG" bus, provide an isolated ground conductor from IG bus in panel to grounding electrode conductor in service entrance equipment.
- H. Modifications to Existing Panelboards (and Loadcenters): Where existing electrical distribution equipment is affected by renovation work, reuse existing breakers and/or provide new circuit breakers, provide revised circuit directory (typed), plug all unused openings, clean interior and exterior of enclosure, and tighten all lugs and bolt-on connections.

3.3 IDENTIFICATION OF PANELBOARDS

- A. Printed labels: Provide machine printed labels for panelboards, indicating panel designation, voltage, phase, and number of wires. Wording example: Panel L1-120/208V 3PH-4W. Labels to have 1/2" high primary letters and 5/16" high secondary letters (black letters on white surface). Labels to be secured by approved method.
- B. Directories: Provide typed directories for panelboard branch circuit identification, which accurately describe loads served, including specific room designations. (ref: NEC 408.4(A))
- C. Breaker labels: Provide numerical identification of each individual breaker, corresponding to numbers on circuit directory. Labels to be preprinted, self-adhesive type, equal to Brady TVM-series on B-702 film. Install labels on interior panel cover adjacent to breaker knockouts.

3.4 INSTALLATION NATURAL GAS FUELED STANDBY GENERATOR

- A. Mount generator and associated equipment on 6" thick (min) reinforced concrete pads. Securely anchor equipment in place. Arrangement shall maintain proper clearances for serving and inspection.

- B. Generator system configuration and installation to comply with applicable provisions of NFPA 37 "Standard for the Installation of Stationary Combustion Engines and Gas Turbines" and NFPA 110 "Standard for Emergency and Standby Power Systems".
- C. Contractor shall provide natural gas piping, valves, connectors, adapters, regulator, etc. as required for a complete, functional fuel system. Installation to comply with applicable provisions of NFPA 54 "National Fuel Gas Code" as appropriate.
- D. Warranty: The generator set supplier shall provide and be responsible for a one year warranty on all components provided. This warranty shall not be broken down for different component manufacturers, but shall be provided and serviced by the generator set manufacturer. Supplier shall maintain a service facility within 100 miles of the jobsite.
- E. Start up: Upon completion of the installation and at the time the generator set is to go into service, a start up and check out of the system shall be completed by the generator set supplier. Any system problems shall be corrected at the time. The supplier shall provide instruction for any operating and maintenance personnel at this time.
- F. Service contract: A one year scheduled maintenance contract shall be provided with the generator set. It shall call for quarterly inspection and an oil, oil filter, fuel filter and antifreeze change at the end of the year. Maintenance to be performed during this period shall follow the manufacturer's recommendations.

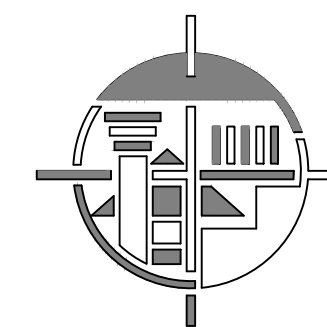
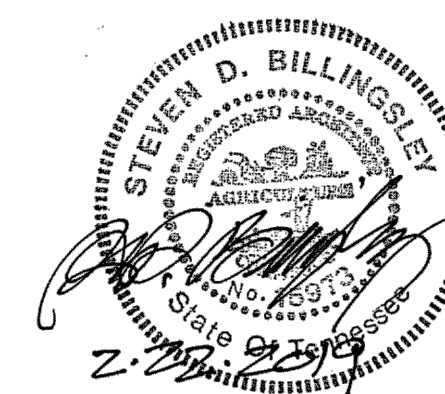
END OF SECTION

LIMITED RENOVATIONS AT P-18-001 POLICE ANNEX - PHASE 1

ANNEX FACILITY 3204 AMNICOLA HIGHWAY CHATTANOOGA, TENNESSEE

PROJECT #17-23

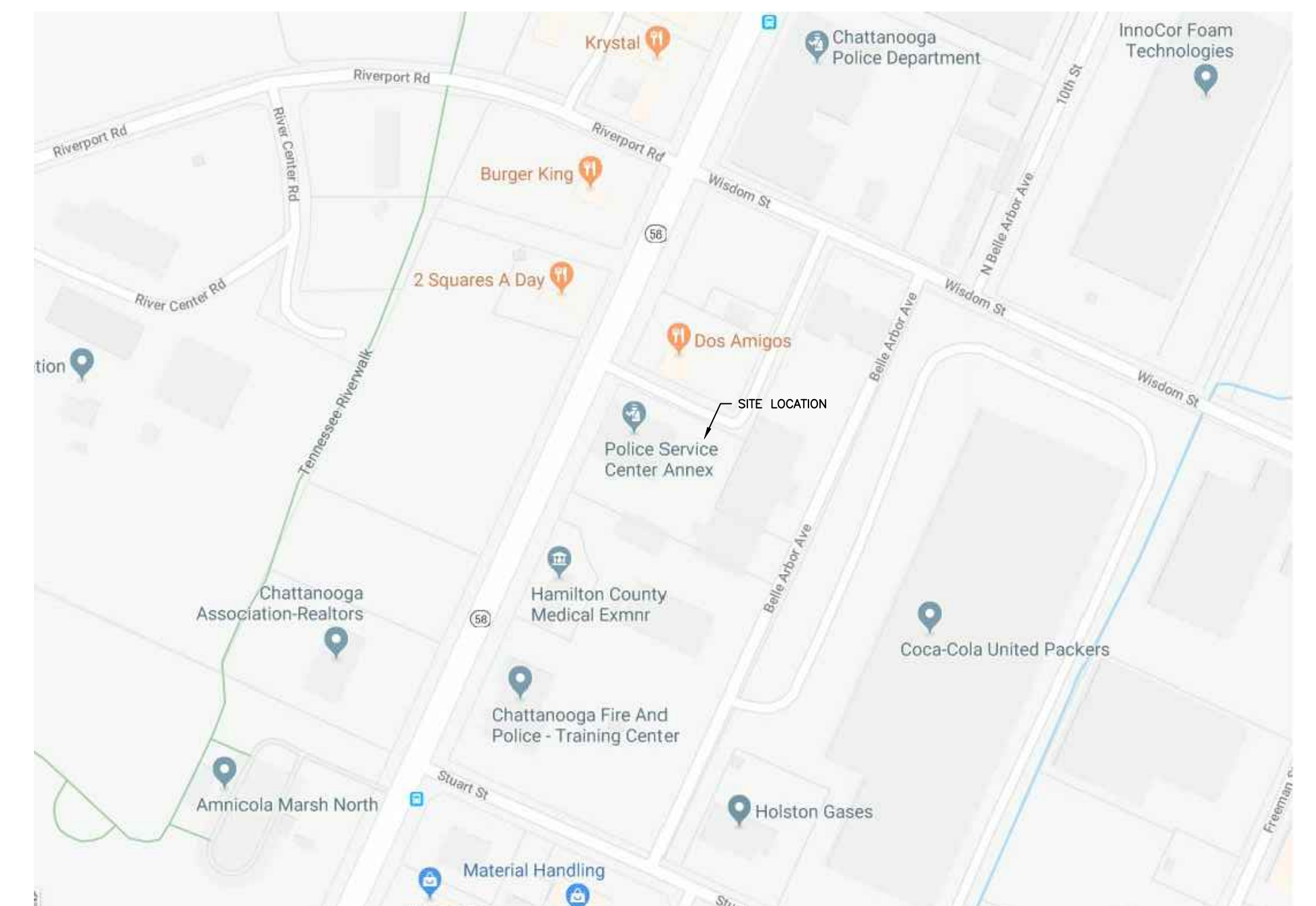
FEBRUARY 22, 2019



BILLINGSLEY
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VICINITY MAP

NOTICE:

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CITY OF CHATTANOOGA

MAYOR:
ANDY BERKE

CITY COUNCIL

DISTRICT 1 - CHIP HENDERSON
DISTRICT 2 - JERRY MITCHELL
DISTRICT 3 - KEN SMITH, CHAIR
DISTRICT 4 - DARRIN LEDFORD
DISTRICT 5 - RUSSELL GILBERT, SR.
DISTRICT 6 - CAROL B. BERZ
DISTRICT 7 - ERSKINE OGLESBY, JR., VICE CHAIR
DISTRICT 8 - ANTHONY BYRD
DISTRICT 9 - DEMETRUS COONROD

DEPARTMENT OF PUBLIC WORKS

ADMINISTRATOR:
JUSTIN C. HOLLAND

GRAPHIC SYMBOLS:

DETAIL NO.		SECTION
SHEET NO.		
DETAIL NO.		SHEET NO.
		NEW ELEVATION
		EXISTING ELEVATION
		DETAIL INDICATOR
		REVISION NUMBER
		WINDOW TYPE
		DOOR NO.

APPROVED FOR RELEASE

WILLIAM C. PAYNE, P.E.
CITY ENGINEER

04-08-19
DATE

MATERIALS:

	EARTH
	POROUS FILL
	BRICK
	CONCRETE MASONRY UNIT
	PLYWOOD
	CONTINUOUS WOOD FAMING
	WOOD BLOCKING
	INSULATION - BATT
	INSULATION - RIGID
	METAL
	CONCRETE

STANDARD ABBREVIATIONS:

A.F.F. - ABOVE FINISHED FLOOR
CPT. - CARPET
CMU - CONCRETE MASONRY UNIT
COL. - COLUMN
CONT. - CONTINUOUS
DWG. - DRAWING
E.W.C. - ELECTRIC WATER COOLER
F.O.S. - FACE OF STUD
F.F.E. - FINISH FLOOR ELEVATION
F.E. - FIRE EXTINGUISHER
F.E.C. - FIRE EXTINGUISHER CABINET
F.D. - FLOOR DRAIN
FTG. - FOOTING
GA. - GAUGE
G.B. OR GYP. BD. - GYPSUM WALLBOARD
HD'WE - HARDWARE
H.M. - HOLLOW METAL
M.O. - MASONRY OPENING
MTL. - METAL
N.I.C. - NOT IN CONTRACT
N.T.S. - NOT TO SCALE
OP'NG. - OPENING
PTD. - PAINTED
R. - RADIUS
R.D. - ROOF DRAIN
RM. - ROOM
SPECS. - SPECIFICATIONS
S.S. - STAINLESS STEEL
T. & G. - TONGUE AND GROOVE
TYP. - TYPICAL
V.C.T. - VINYL COMPOSITION TILE
V.W.C. - VINYL WALL COVERING
W.W.F. - WELDED WIRE FABRIC
WD. - WOOD

LIST OF DESIGNERS:

ARCHITECTURAL

BILLINGSLEY/ARCHITECTURE
REPUBLIC CENTRE, SUITE 800
633 CHESTNUT STREET
CHATTANOOGA, TENNESSEE 37450
(423)752-0030

STRUCTURAL

WOODS ENGINEERING
655 WALNUT STREET
CHATTANOOGA, TENNESSEE
37402
(423)771-4430

MEP

SMITH ENGINEERING
103 JORDAN DRIVE, SUITE 1
CHATTANOOGA, TENNESSEE
37421
(423)499-9532

PROJECT INFORMATION:

2012 INTERNATIONAL BUILDING CODE
2012 INTERNATIONAL PLUMBING CODE
2012 INTERNATIONAL FUEL GAS CODE
2012 INTERNATIONAL MECHANICAL CODE
2012 INTERNATIONAL FIRE CODE
2011 NATIONAL ELECTRICAL CODE
2009 INTERNATIONAL ENERGY CONSERVATION CODE
2009 ANSI A-117.1 HANDICAP CODE

1. OCCUPANCY: BUSINESS (IBC 304.1) - GROUP B - LIMITED REMODEL
2. TYPE OF BUILDING CONSTRUCTION: EXISTING - TYPE III UNSPRINKLERED
3. NUMBER OF STORIES: 2
4. NUMBER OF STORIES AFFECTED: 1
5. NUMBER OF STORIES ALLOWED (IBC TABLE 503): 3
6. TOTAL AREA OF EXISTING BUILDING: 15,465 S.F.
7. ALLOWABLE BUILDING AREA (IBC TABLE 503): 19,000
8. AREA OF WORK: 10,066 S.F.
9. OCCUPANT LOAD (IBC TABLE 1004.1.2): 10,066 S.F./100 = 101 PEOPLE
10. EGRESS WIDTH REQUIRED: (IBC 1005.3.2): (101 PEOPLE) x (0.2") = 20.2"
11. EGRESS WIDTH PROVIDED: 108"
12. NUMBER OF EXITS REQUIRED (IBC 1015.1): 2
13. NUMBER OF EXITS PROVIDED: 3
14. FIRE DISTRICT: YES

NOTE:

PARKING, STORM WATER & LANDSCAPING SHOULD NOT BE AFFECTED BY THIS PROJECT.

INDEX OF DRAWINGS:

ARCHITECTURAL

- A0.1 COVER SHEET
- A1.1 FIRST FLOOR LIFE SAFETY PLAN
- A1.2 FIRST FLOOR DEMOLITION PLAN
- A1.3 FIRST FLOOR SLAB MODIFICATION PLAN, AND SITE PLAN
- A2.1 FIRST FLOOR PLAN
- A2.2 FINISH SCHEDULE, DOOR SCHEDULE, DOOR DETAILS
- A2.3 DETAILS
- A2.4 MEZZANINE DEMOLITION PLAN, FRAMING PLAN AND MEZZANINE FLOOR PLAN
- A2.5 ROOF PLAN, NOTES, AND DETAILS
- A3.1 SECTIONS, WALL DETAILS
- A3.2 ELEVATION AND SECTIONS
- A4.1 FIRST FLOOR EQUIPMENT PLAN
- A4.2 ENLARGED PLANS AND INTERIOR ELEVATIONS
- A5.1 INTERIOR ELEVATIONS AND MILLWORK DETAILS
- A5.2 INTERIOR ELEVATIONS AND MILLWORK DETAILS
- A6.1 FIRST FLOOR REFLECTED CEILING PLAN
- A7.1 STAIR DETAILS

STRUCTURAL

- S1.1 FOUNDATION AND SECOND FLOOR FRAMING PLANS

PLUMBING

- P1.1 PLUMBING PLANS
- P2.1 PLUMBING SCHEDULE AND NOTES

MECHANICAL

- M1.1 FIRST FLOOR HVAC PLAN
- M2.1 SECOND FLOOR HVAC PLAN
- M3.1 ROOF HVAC PLAN

ELECTRICAL

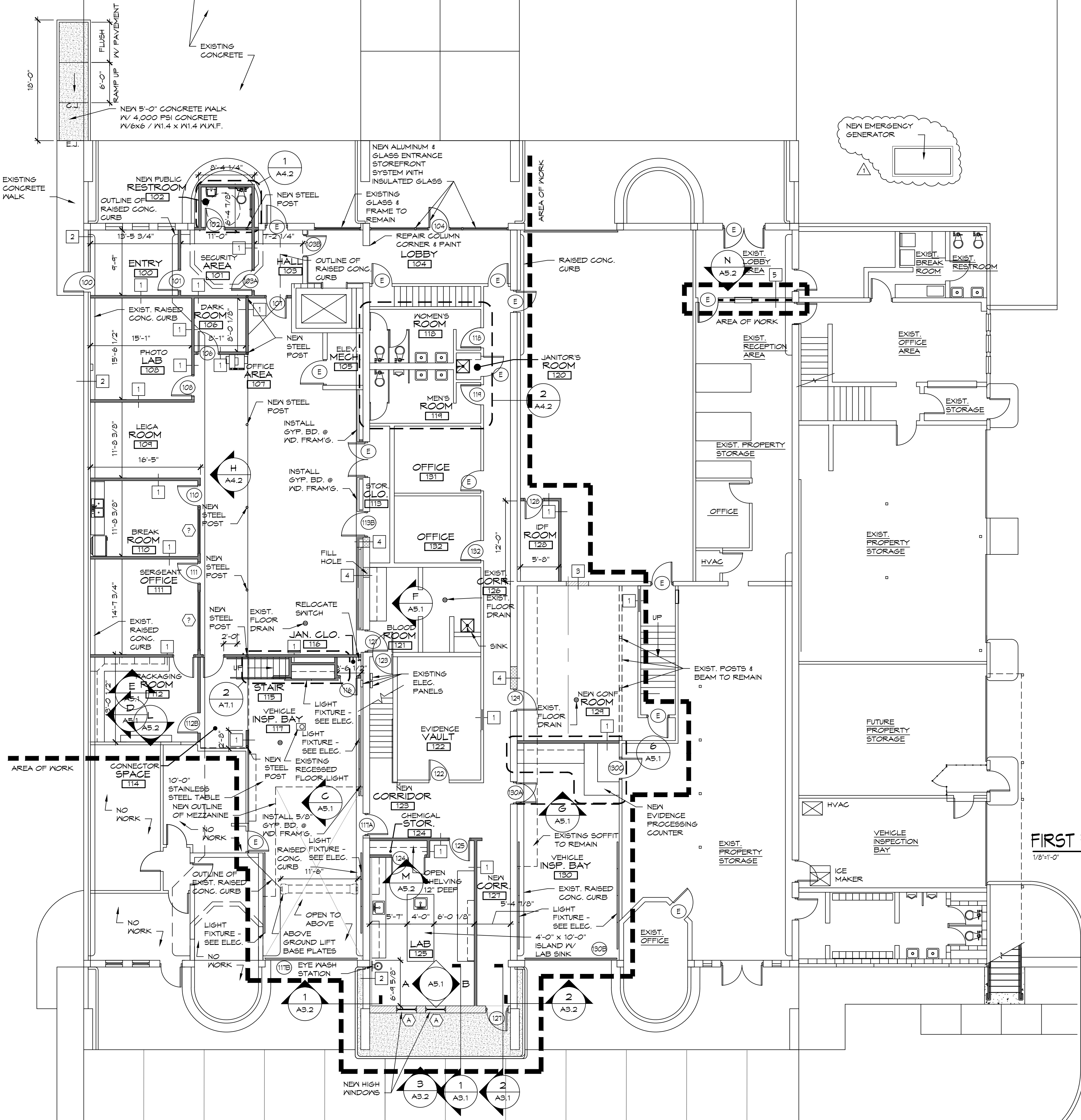
- E1.1 LIGHTING PLAN
- E2.1 FIRST FLOOR POWER PLAN
- E2.2 SECOND FLOOR POWER PLAN
- E3.1 ROOF POWER PLAN
- E4.1 ELECTRICAL DETAILS

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NOTES:
 1) GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, DETAILS, AND CONDITIONS. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN EXISTING DIMENSIONS, DETAIL AND CONDITIONS AND THOSE SHOWN ON CONTRACT DOCUMENTS PRIOR TO STARTING AND WORK AFFECTED BY OR INVOLVING THESE DISCREPANCIES. INITIATING WORK SHALL BE DEEMED AS ACCEPTANCE BY CONTRACTOR OF EXISTING CONDITIONS AND MODIFICATIONS IF REQUIRED SHALL BE APPROVED BY THE ARCHITECT AND BE MADE AT THE CONTRACTOR'S EXPENSE.
 2) PROVIDE MOOD BLOCKING IN STUD WALL CAVITIES FOR MOUNTING DOOR HARDWARE, TOILET ACCESSORIES, CABINETS, RUNNING TRIM, ETC....
 3) RATED WALL SHALL BE LABELED IN THE CEILING CAVITY W/ RED PAINT IDENTIFYING THEM AS RATED PARTITIONS, THEIR RATING & THE WORDS "NO UNPROTECTED PENETRATIONS".
 4) ALL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY OWNER UNLESS NOTED OTHERWISE.

WALL LEGEND

- NEW PARTITION - 5/8" GYP. BD. BOTH SIDES.
 3 5/8" MTL. STUDS (25 GA.) @ 24" O.C. W/ 3 1/2" ACOUSTICAL BATT INSULATION - BRACE & SEAL TO STRUCTURE ABOVE
- NEW PARTITION - 5/8" GYP. BD. ONE SIDE W/ 3 1/2" ACOUSTICAL BATT INSULATION - BRACE TO STRUCTURE ABOVE
- NEW 8" MASONRY WALL
- NEW 12" MASONRY WALL
- EXISTING STRUCTURE TO REMAIN



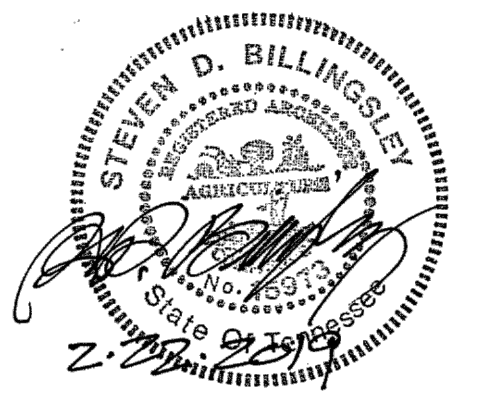
FIRST FLOOR PLAN



PROVIDE NEW GATE CONTROLLER - SEE C-1

BILLINGSLEY
 ARCHITECTURE
 Planning / Architecture / Interiors
 Republic Centre - Suite 800 - 633 Chestnut Street - Chattanooga, Tennessee - 37450
 (423) 752-0030 - billarch.com

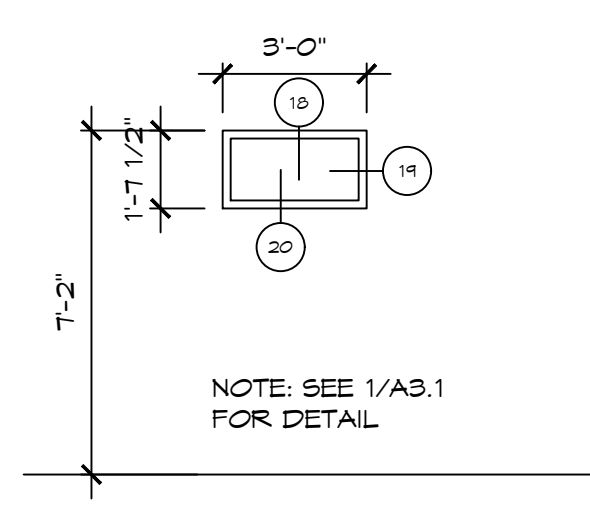
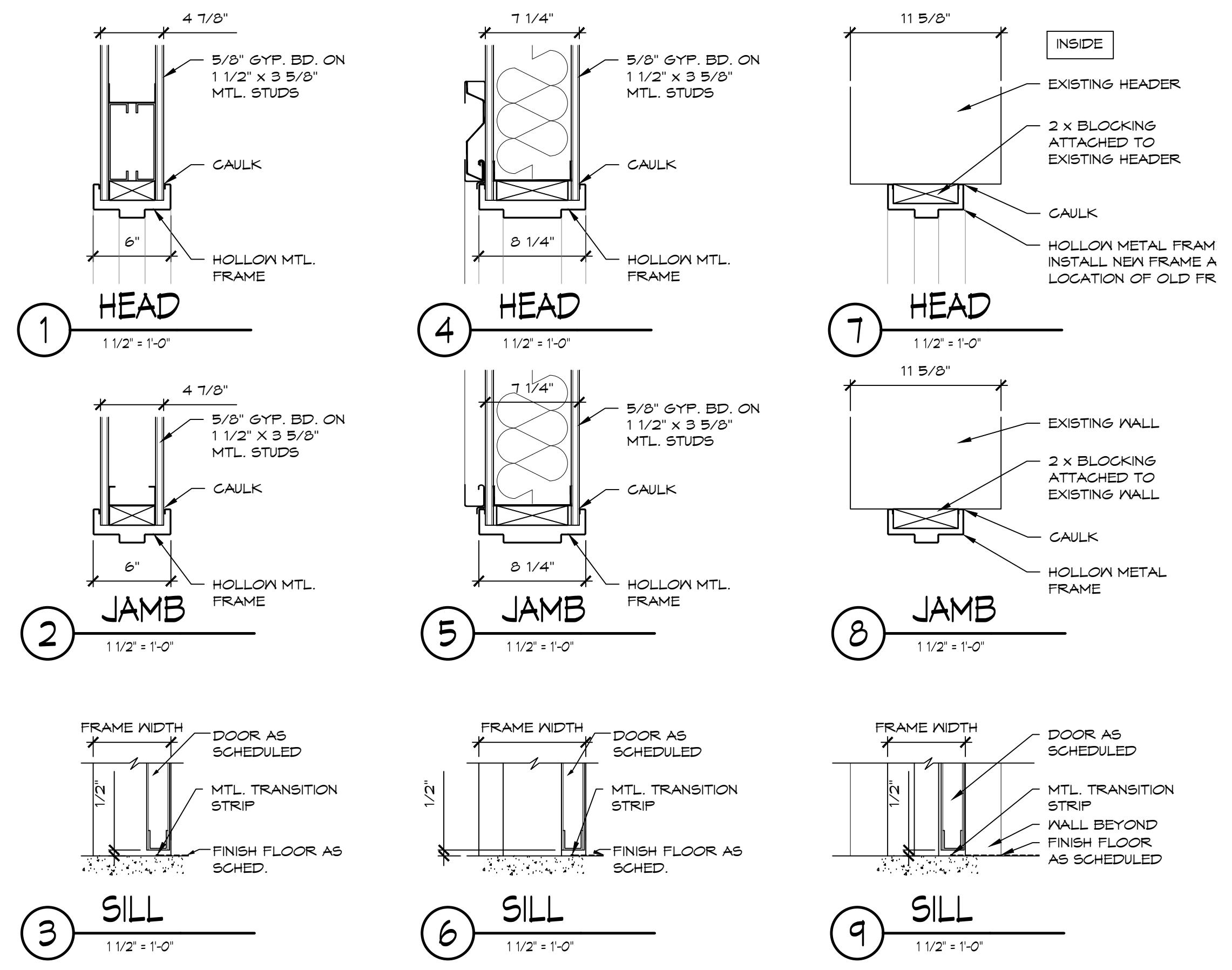
**LIMITED RENOVATIONS AT
 POLICE ANNEX - PHASE 1 - P-18-001**
 ANNEX FACILITY
 3204 AMNICOLA HIGHWAY
 CHATTANOOGA, TENNESSEE



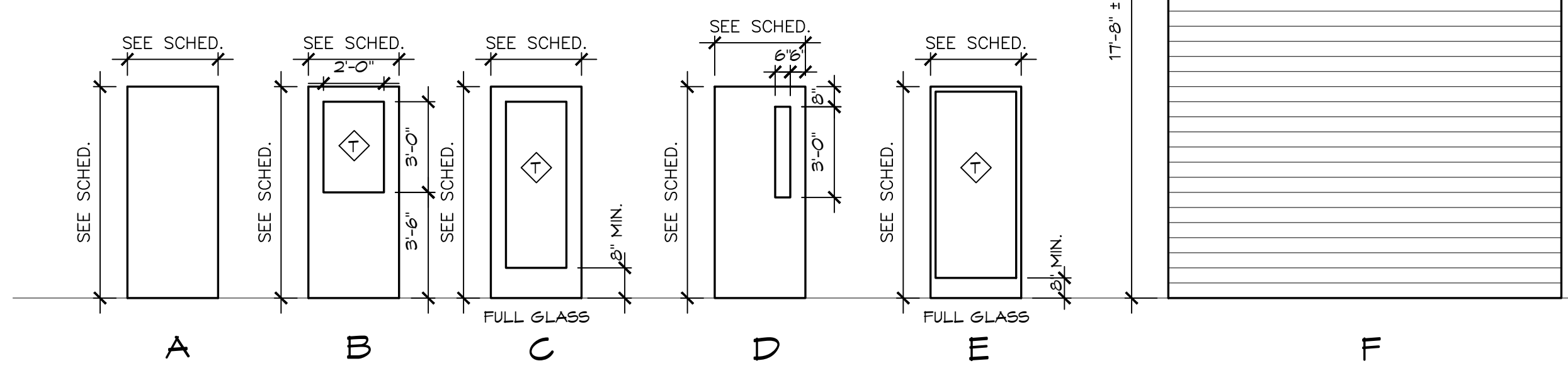
1ST FLOOR PLAN

02/22/2019
 17-23
 SDB, LIM

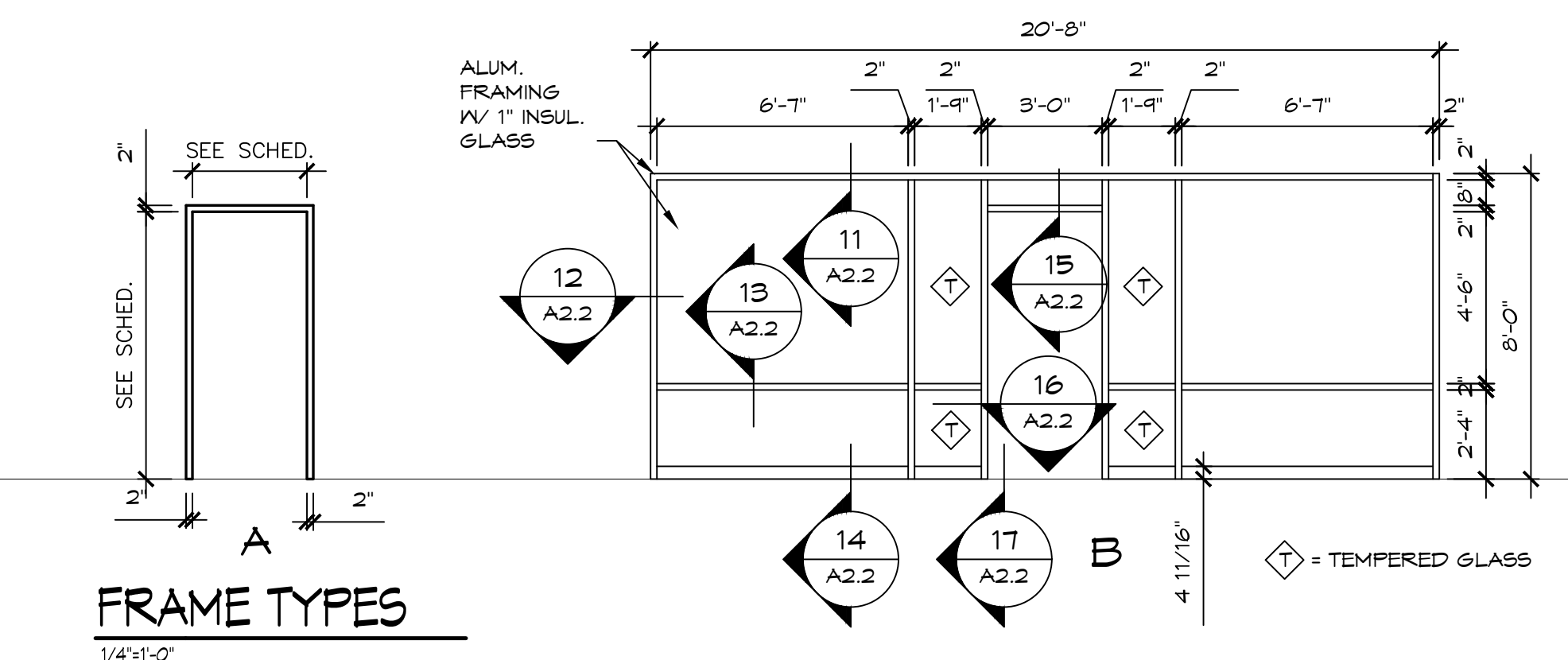
A2.1



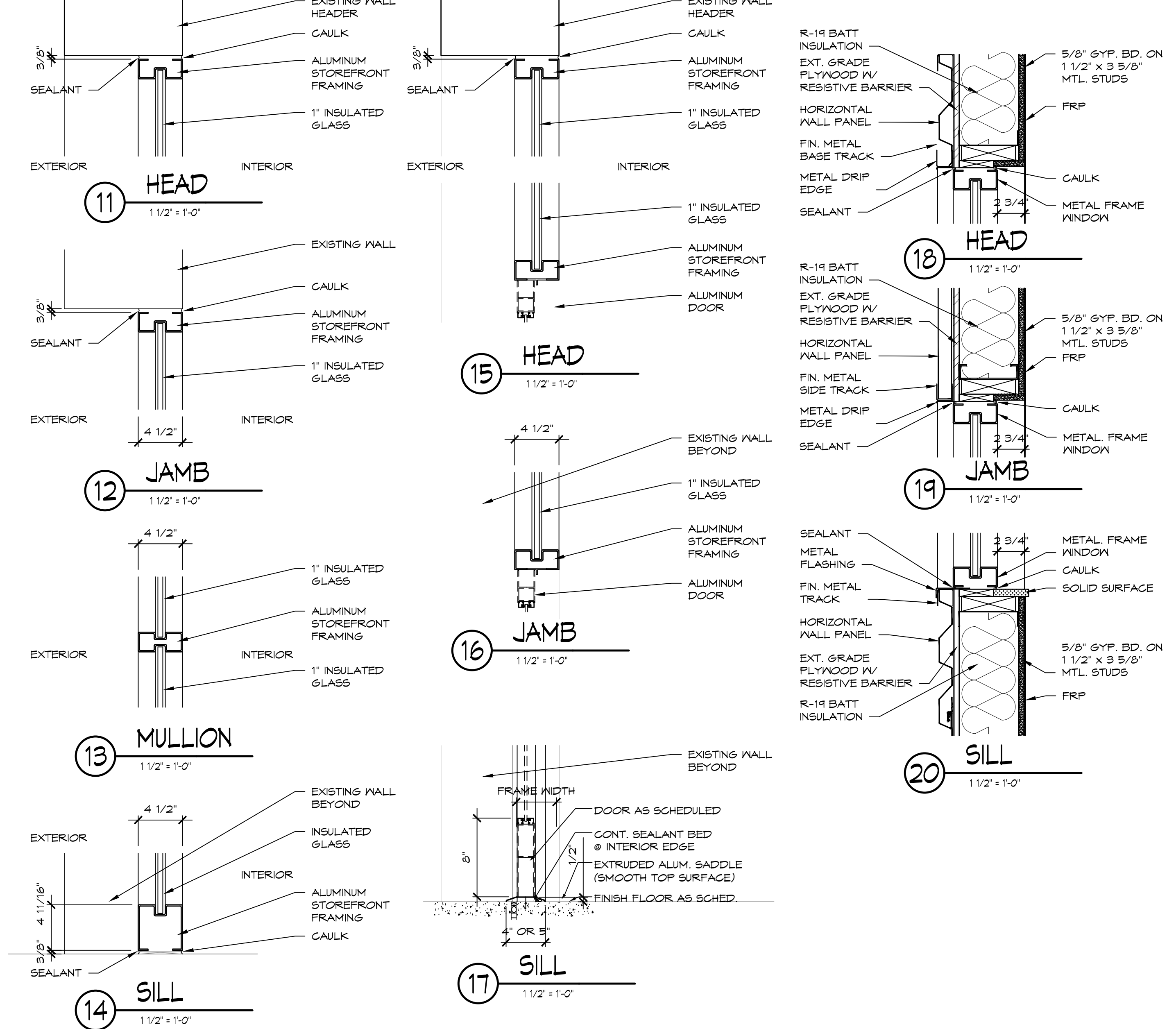
WINDOW TYPES
1/4"x1'-0"



DOOR TYPES
1/4"x1'-0"



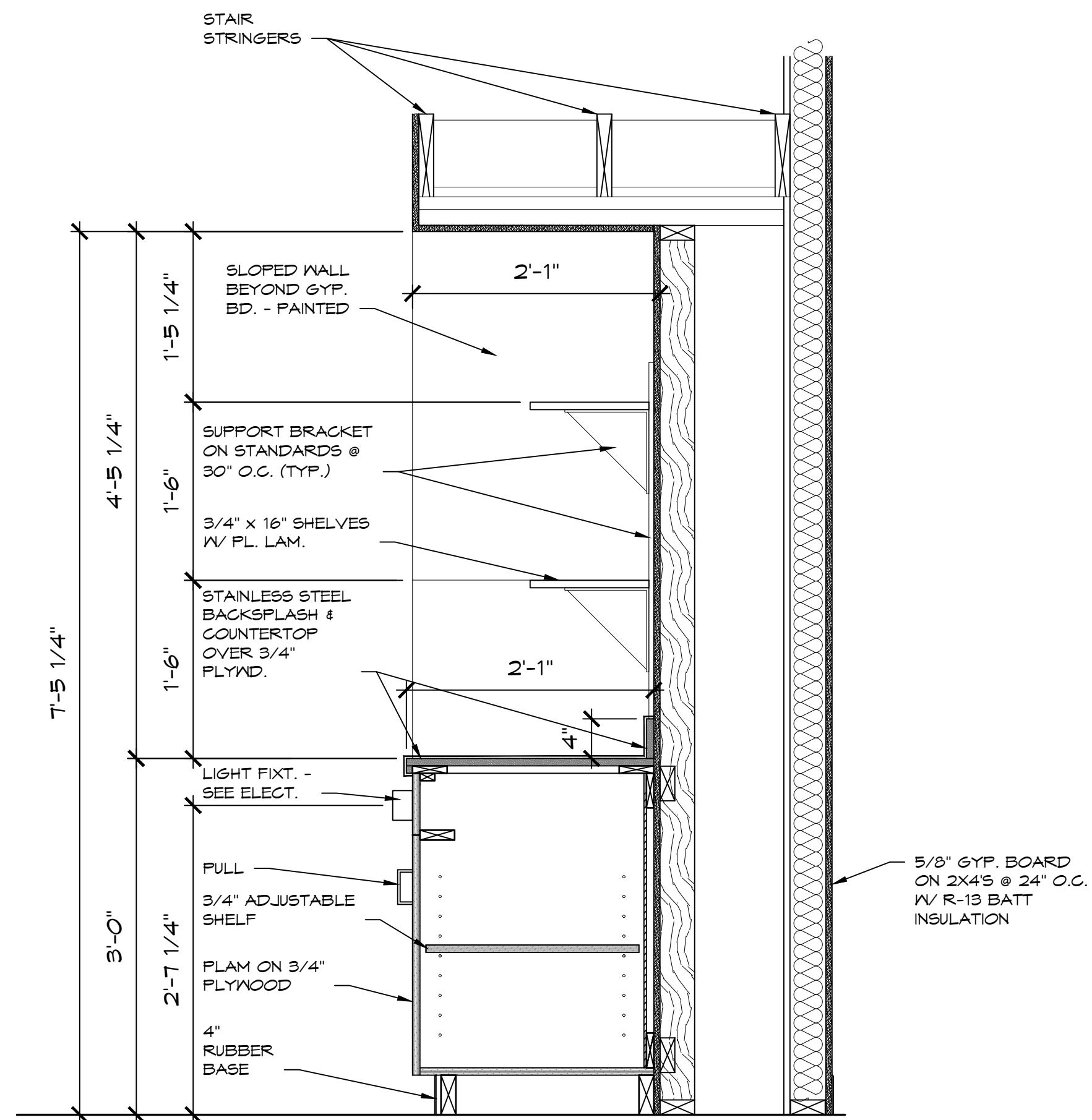
FRAME TYPES
1/4"x1'-0"



DOOR AND FRAME SCHEDULE													
DOOR					FRAME					RATING	HDYVE SET	REMARKS	
NUMBER	SIZE	THICKNESS	MATERIAL	TYPE	OPNG. SIZE	MATL.	TYPE	HEAD	JAMB				SILL
100	3'-0" x T'-0"	1 3/4"	H.M./G.L.	B	3'-0" x T'-0"	EXIST.	EXIST.	-	-	-	-	14	EXISTING METAL FRAME TO BE PAINTED BOND-O EXISTING FRAME AS REQUIRED.
101	3'-0" x T'-0"	1 3/4"	ND./G.L.	D	3'-0" x T'-0"	H.M.	A	1	2	3	-	4	-
102	3'-0" x T'-0"	1 3/4"	S.C. ND.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	11	-
102A	3'-0" x T'-0"	1 3/4"	ND./G.L.	D	3'-0" x T'-0"	H.M.	A	1	2	3	-	4	-
102B	-	-	-	-	-	-	-	-	-	-	-	8	PAINT EXISTING DOOR & FRAME
104	3'-0" x T'-0"	1 3/4"	ALUM./G.L.	E	3'-0" x T'-0"	ALUM.	B	-	-	-	-	1	1" INSULATED GLASS
106	3'-0" x T'-0"	1 3/4"	S.C. ND.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	7	-
107	3'-0" x T'-0"	1 3/4"	S.C. ND.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	8	-
108	3'-0" x T'-0"	1 3/4"	ND./G.L.	B	3'-0" x T'-0"	H.M.	A	1	2	3	-	7	-
110	3'-0" x T'-0"	1 3/4"	ND./G.L.	B	3'-0" x T'-0"	H.M.	A	1	2	3	-	12	-
111	3'-0" x T'-0"	1 3/4"	ND./G.L.	B	3'-0" x T'-0"	H.M.	A	1	2	3	-	6	-
112A	3'-0" x T'-0"	1 3/4"	ND./G.L.	B	3'-0" x T'-0"	H.M.	A	1	2	3	-	6	-
112B	3'-0" x T'-0"	1 3/4"	ND./G.L.	B	3'-0" x T'-0"	H.M.	A	1	2	3	-	6	-
113B	3'-6" x T'-0"	1 3/4"	S.C. ND.	A	3'-6" x T'-0"	H.M.	A	7	8	9	-	3	-
114	3'-0" x T'-0"	1 3/4"	ND./G.L.	D	3'-0" x T'-0"	H.M.	A	1	2	3	-	10	-
116	2'-6" x T'-0"	1 3/4"	S.C. ND.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	3	-
117A	3'-0" x T'-0"	1 3/4"	S.C. ND.	D	3'-0" x T'-0"	H.M.	A	7	8	9	-	10	-
117B	14'-3" x 17'-8", VERIFY	24 GA.	H.M.	F	14'-3" x 17'-8", VERIFY	-	-	-	10	-	-	13	NEW INSULATED ROLL-UP DOOR
121	3'-0" x T'-0", VERIFY	1 3/4"	ND./G.L.	D	3'-0" x T'-0", VERIFY	-	-	-	-	-	-	9	EXISTING FRAME, NEW DOOR & HARDWARE
122	3'-0" x T'-0"	1 3/4"	H.M.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	5	-
123	3'-0" x T'-0", VERIFY	1 3/4"	S.C. ND.	A	3'-0" x T'-0", VERIFY	-	-	-	-	-	-	3	EXISTING FRAME, NEW DOOR & HARDWARE
124	(2) 2'-6" x T'-0"	1 3/4"	ND./G.L.	C	3'-0" x T'-0"	H.M.	A	1	2	3	-	2	-
125	3'-0" x T'-0"	1 3/4"	ND./G.L.	B	3'-0" x T'-0"	H.M.	A	1	2	3	-	4	-
127	3'-0" x T'-0"	1 3/4"	MTL./G.L.	B	3'-0" x T'-0"	H.M.	A	4	5	6	-	15	-
128	3'-0" x T'-0"	1 3/4"	H.M.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	4	-
130A	3'-0" x T'-0", VERIFY	1 3/4"	S.C. ND.	D	3'-0" x T'-0", VERIFY	-	-	-	-	-	-	10	EXISTING FRAME, NEW DOOR & HARDWARE
130B	EXISTING	-	-	-	-	-	-	-	-	-	-	-	NEW OPERATOR & 2 REMOTE OPENERS; NEW SEAL @ THRESHOLD
130C	3'-0" x T'-0"	1 3/4"	H.M.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	4	-
132	3'-0" x T'-0", VERIFY	1 3/4"	S.C. ND.	A	3'-0" x T'-0", VERIFY	-	-	-	-	-	-	6	EXISTING FRAME, NEW DOOR & HARDWARE
201	3'-0" x T'-0"	1 3/4"	H.M.	A	3'-0" x T'-0"	H.M.	A	1	2	3	-	6	-

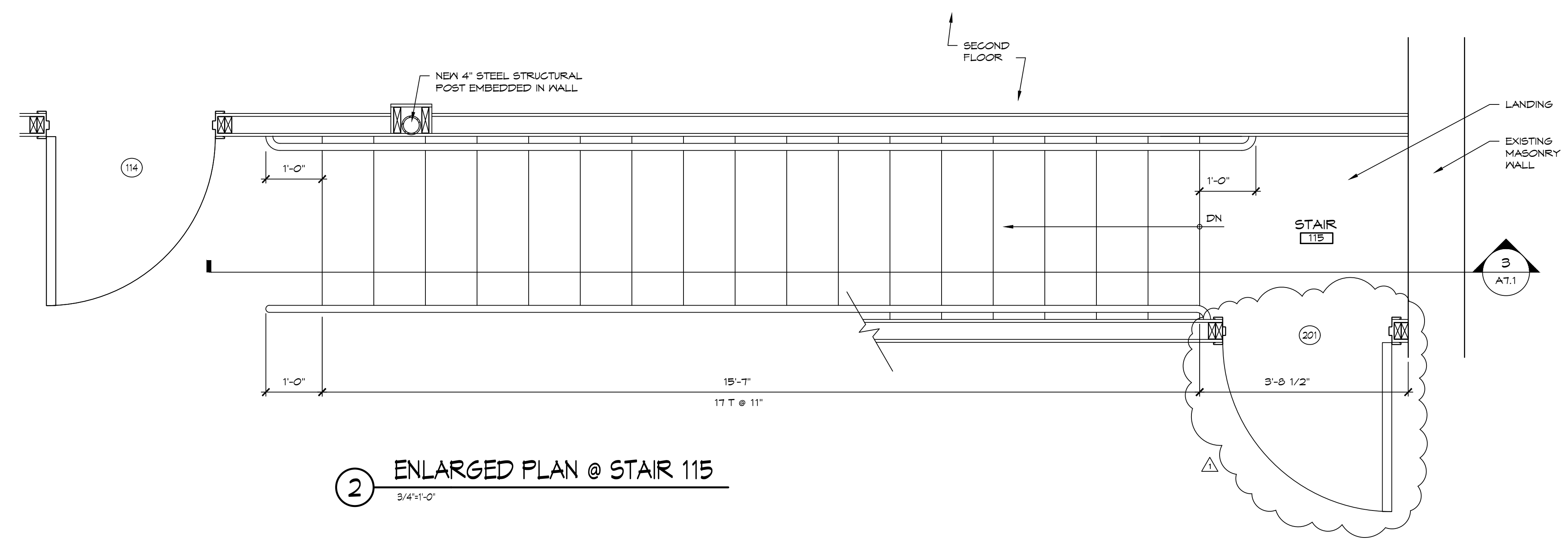


SCHEDULES & DETAILS

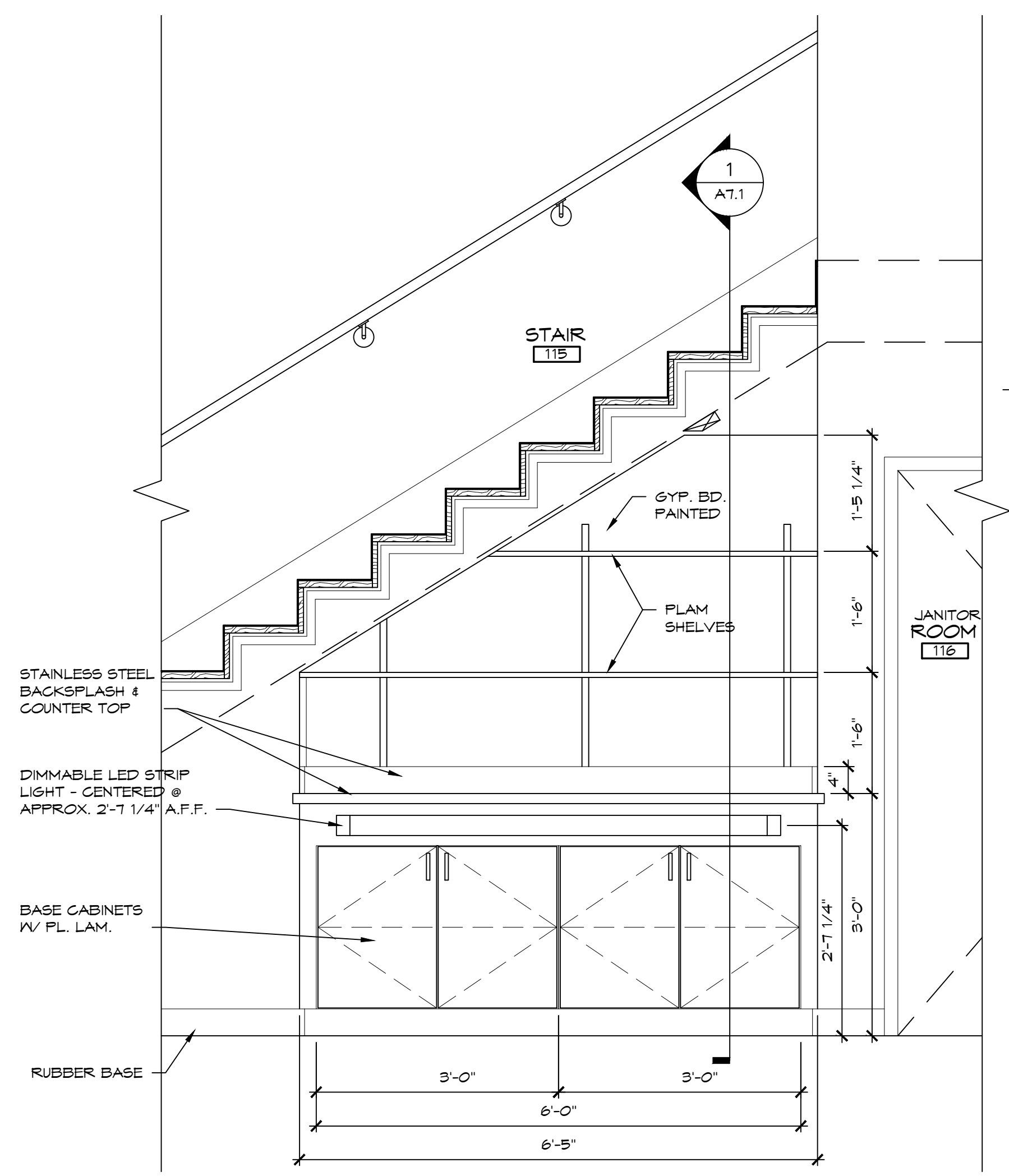


1 MILLWORK SECTION
 3/4"x1'-0"

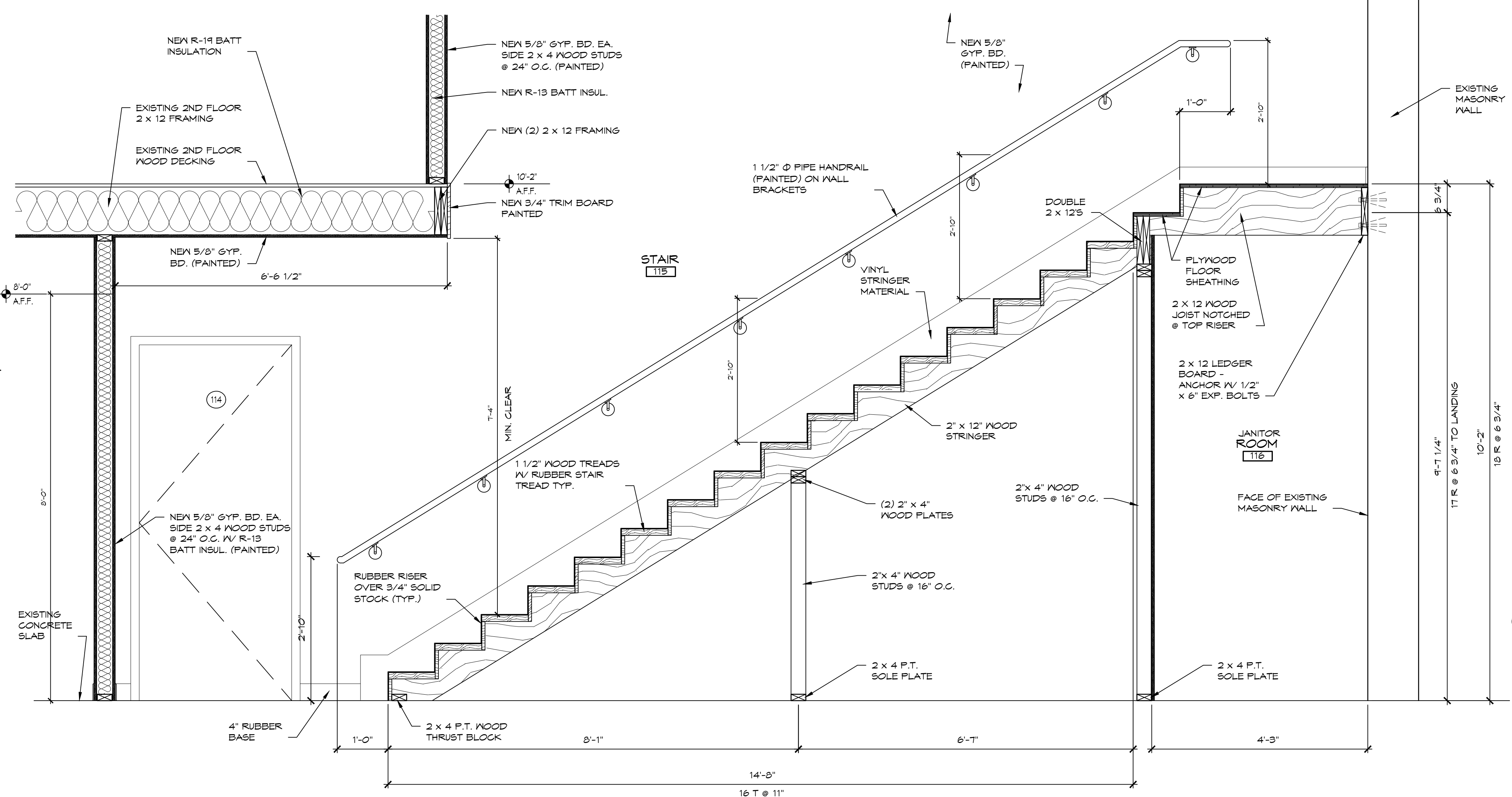
NOTES:
 1. SEE 3/AT.1 FOR STAIR NOTES AND DIMENSIONS.
 2. INTERIOR OF THIS UNIT TO BE MELAMINE OVER HIGH DENSITY MDF



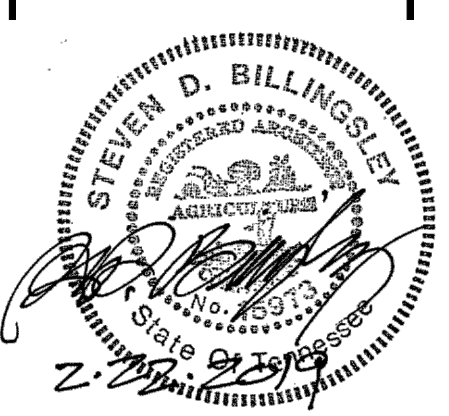
2 ENLARGED PLAN @ STAIR 115
 3/4"x1'-0"



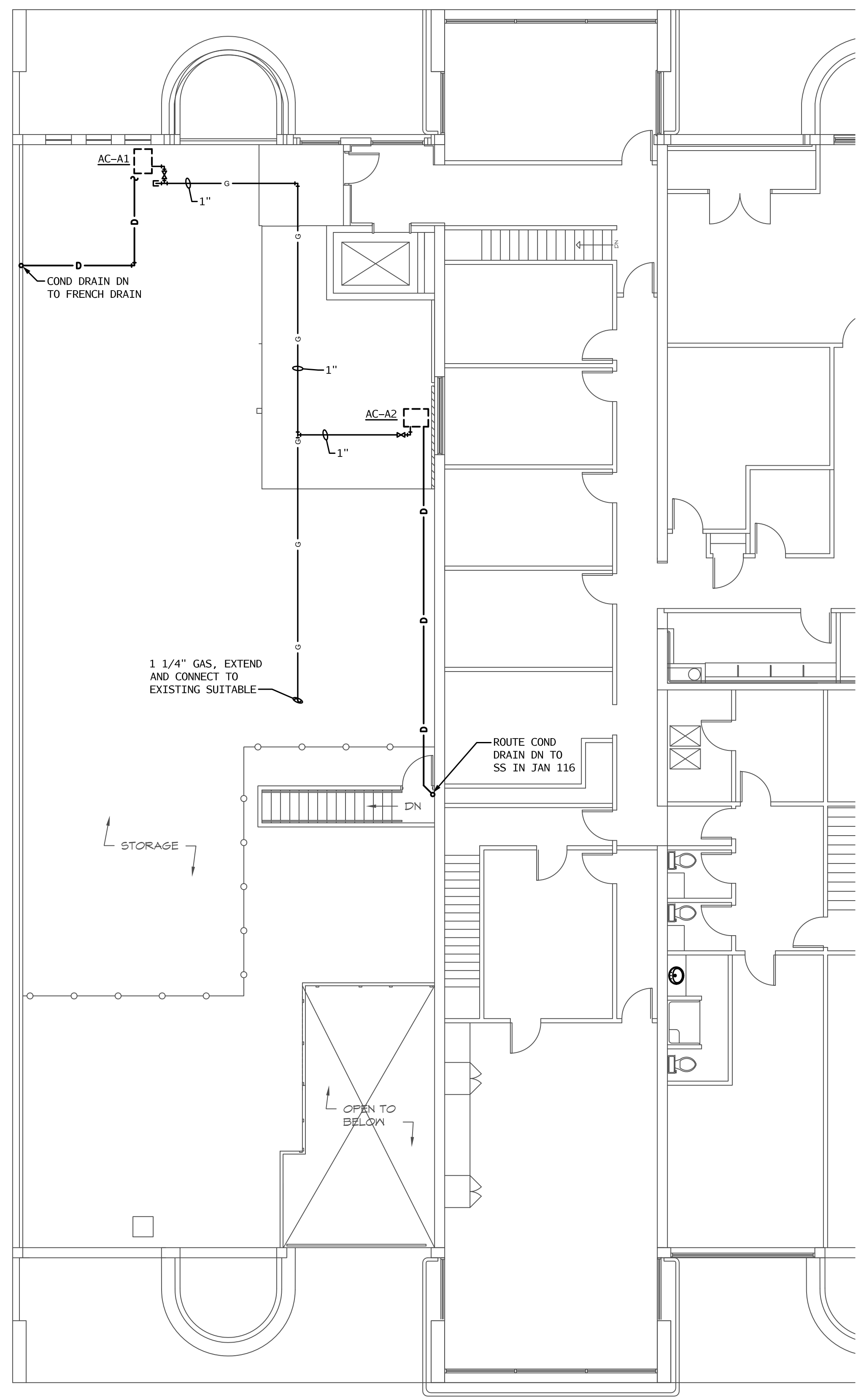
A INTERIOR ELEVATION @ STAIR 115
 3/4"x1'-0"



3 SECTION @ STAIR 115
 3/4"x1'-0"

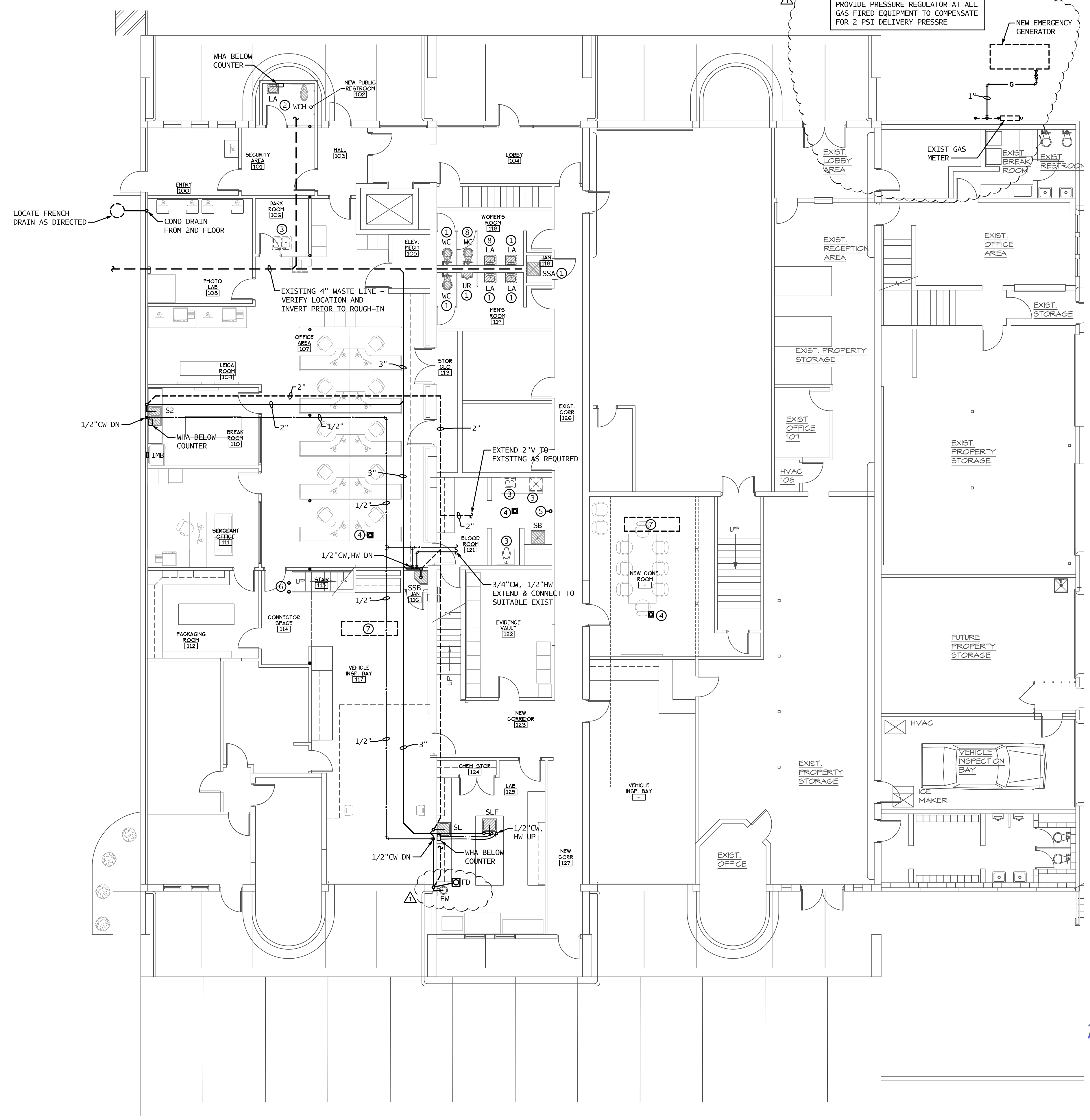


REVISION
5-6-19



SECOND FLOOR PLUMBING PLAN

GRAPHIC SCALE (IN FEET) SCALE: 1/8" = 1'-0"



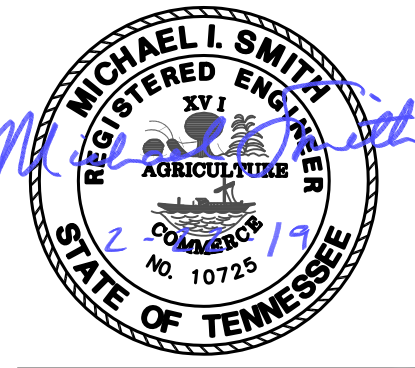
FIRST FLOOR PLUMBING PLAN

GRAPHIC SCALE (IN FEET) SCALE: 1/8" = 1'-0"



**CHATTANOOGA POLICE DEPT.
INTERIOR RENOVATIONS**

ANNEX FACILITY
3201 AMNICOLA HIGHWAY
CHATTANOOGA, TENNESSEE



PLUMBING PLANS

Project #:	1850
2/22/2019	
17-23	
JCP	
P1.1	

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PLUMBING SYMBOLS	
—	SANITARY WASTE
----	SANITARY VENT
—	DOMESTIC COLD WATER
—	DOMESTIC HOT WATER
— G	GAS (NATURAL OR LPG)
— —	SHUTOFF VALVE (OR COCK)
— —	CHECK VALVE
— —	BALANCING VALVE
— —	UNION OR FLANGED CONNECTION
— — SA	SHOCK ARRESTOR (FOR DOMESTIC WATER)
VTR	VENT THROUGH ROOF
CO	CLEANOUT
WCO	WALL CLEANOUT
HD	HUB DRAIN
PRV	PRESSURE REDUCING VALVE
BFP	BACKFLOW PREVENTER
BV	BLENDED VALVE
CW	COLD WATER
HW	HOT WATER
FD	FLOOR DRAIN (REFER TO PLBG. FIXT. SCHED.)
FS	FLOOR SINK (REFER TO PLBG. FIXT. SCHED.)
WF	WALL FAUCET (REFER TO PLBG. FIXT. SCHED.)
HB	HOSE BIBB (REFER TO PLBG. FIXT. SCHED.)
AF	ABOVE FINISHED FLOOR
⊕	CONNECT NEW TO EXISTING CONNECTION POINT

PLUMBING FIXTURE SCHEDULE				
TYPE	DESCRIPTION	MANUFACTURER AND CATALOG NO.	ACCESSORIES AND REMARKS	CONNECTION SIZES
WC	WATER CLOSET FLUSH VALVE FLOOR MOUNT	KOHLER "WELLWORTH" K-4406	VALVE: ZURN Z-6000AV-HET, SEAT: CHURCH 295C VITREOUS CHINA, SIPHON JET, ELONGATED BOWL, OPEN FRONT WHITE SEAT, 1.28 GPF, 15" RIM	CW: 1" WD: 3"
WCH	WATER CLOSET FLUSH VALVE FLOOR MOUNT ADA COMPLIANT	KOHLER "HIGHLINE" K-4405 NOTE T	VALVE: ZURN Z-6000AV-HET, SEAT: CHURCH 295C VITREOUS CHINA, SIPHON JET, ELONGATED BOWL, OPEN FRONT, WHITE SEAT, 1.28 GPF, 17" RIM	CW: 1" WD: 3"
UR	URINAL 0.125 GPF WALL HUNG	KOHLER "BARDON" K-4904-ET NOTE U	VALVE: ZURN Z6003-ULF CARRIER: ZURN Z-1222 VITREOUS CHINA, 1.0 PINT FLUSH, INTEGRAL TRAP	CW: 3/4" WD: 2"
LA	LAVATORY WALL HUNG ADA COMPLIANT	KOHLER "CHESAPEAKE" K-1729 W/ "BVA" NOTE H,FC	TRIM: SYMMONS S-20-0 DRAIN/TRAP: K-9000/K-7715 SUPPLIES: K-7607 CARRIER: ZURN Z-1231 20"X18" VITREOUS CHINA, FIXED DRAIN, SINGLE HANDLE TRIM, WASHERLESS	CW: 1/2" HW: 1/2" WD: 1 1/4"
SB	UTILITY SINK 1-COMPARTMENT S.S. WITH LEGS	ELKAY B1C118X18	TRIM: ZURN Z-841F1 FAUCET, MCGUIRE 151 DRAIN TRAP: MCGUIRE 8912, SUPPLIES: MCGUIRE 165 21"X 21" STAINLESS STEEL	CW: 1/2" HW: 1/2" WD: 1 1/2"
SB (ALT)	SINGLE SCRUB SINK KNEE ACTION VALVE WALL MOUNT	ELKAY EWS2520KC	TRIM: LK397C, LK395A, AE19A, LK188 TRAP: MCGUIRE 8912, CP BRASS STOPS 25"X22", TYPE 304 S.S., 14 GAUGE	CW: 1/2" HW: 1/2" WD: 1 1/2"
SL	COUNTER SINK 1-COMPARTMENT	ELKAY DLR252210	TRIM: LK35, ZURN Z-831-B4 C.P.B. P-TRAP, ANGLE STOPS 25"X22"X10"D, 304 S.S., 18 GA, 3-HOLE DRILLING	CW: 1/2" HW: 1/2" WD: 1 1/2"
SLF	COUNTER SINK 1-COMPARTMENT FOOT PEDALS	ELKAY DLR252210	TRIM: LK35, ZURN Z821CO-XL-19F, Z85500-XL DBL. FOOT PEDAL VALVES, CP P-TRAP, ANGLE STOPS 25"X22"X10"D, 304 SS, 18 GA, 1-HOLE DRILLING	CW: 1/2" HW: 1/2" WD: 1 1/2"
S2	COUNTER SINK 2-COMPARTMENT DISPOSAL	ELKAY PSR-3322 IN-SINK-ERATOR "BADGER 5"	TRIM: LK4100, (2) LK35 C.P.B. P-TRAP, ANGLE STOPS 33"X22", TYPE 302 S.S., 20 GAUGE 3-HOLE DRILLING	CW: 1/2" HW: 1/2" WD: 1 1/2"
SSA	SERVICE SINK WALL HUNG	KOHLER "BANNON" K-6716	TRIM: K-8905, K-8937 TRAP: K-6673 WALL HANGER SUPPORTS 24"X20" ENAMELED CAST IRON, SS RIM GUARD	CW: 1/2" HW: 1/2" WD: 3"
SSB	SERVICE SINK PRECAST TERRAZZO 24"X 24" W/ MITER	WILLIAMS SBC-1500-BP	TRIM: T-15-VB, TRAP: C.I. P-TRAP, SS BACK PANELS MOP HANGER: T-40, HOSE & HOOK: T-35 24"X24"X12" DEEP, SS RIM GUARD, 2 WALL FLANGES	CW: 1/2" HW: 1/2" WD: 3"
EM	EMERGENCY EYE WASH WALL MOUNT	HANS 7360BT-7460BT W/ BRADLEY S19-2000 MIXING VALVE	EMERGENCY EYE/FACE WASH, 11" DIA. SS BOWL, WALL BRACKET, SUPPLY W/ BALL VALVE AND SIGNAGE, P-TRAP ON WASTE, THERMOSTATIC MIXING VALVE	CW: 1/2" HW: 12" WD: 1-1/2"
WHA	WATER HEATER ELECTRIC INSTANTANEOUS	EEMAX SPEX3512T	3500W, 120V, 1.0 GPM FLOW RESTRICTOR MOUNT ON WALL BELOW FIXTURE, PROVIDE FITTINGS AS REQUIRED, THERMOSTAT CONTROL	CW: 3/8" HW: 3/8"
BVA	BLENDED VALVE THERMOSTATIC SINGLE FIXTURE	SYMMONS 7-210-CK	SERVICE VALVES, UNION/COUPLINGS AT ALL CONNECTIONS, 3 GPM @ 20 PSI DROP	CW: 3/8" HW: 3/8" BW: 3/8"
IMB	ICE MAKER BOX METAL BOX	OATEY 38688	1/4 TURN VALVE W/ WATTS SAC VACUUM BREAKER, METAL BOX, FLUSH MOUNT, BTM SUPPLY, WATER HAMMER ARRESTOR	CW: 1/2"
FD	FLOOR DRAIN PVC BODY	ZURN FROSNIPXSC NOTE TP	TRAP: PVC P-TRAP PVC BODY, 5" DIA, NICKEL STRAINER AND TRIM ZURN Z-1022 TRAP PRIMER	WD: 3" UNO CW: 1/2"

NOTES, GENERAL:

- LISTED MANUFACTURERS AND MODEL NUMBERS ARE TO INDICATE QUALITY STANDARDS. EQUAL PRODUCTS BY OTHER MANUFACTURERS ARE ACCEPTABLE.
- IN JURISDICTIONS WITH STANDARDS/CODES FOR HIGH EFFICIENCY PLUMBING FIXTURES, COMPONENTS SHALL COMPLY WITH APPLICABLE LIMITATIONS FOR GALLONS PER FLUSH (GPF) AND FLOW RATES (GPM).
- FIXTURES USED FOR PUBLIC HAND WASHING TO HAVE THERMOSTATIC BLENDING VALVE, EQUAL TO SYMMONS 5-210-CK OR LAWLER TMM-1070. MOUNT VALVE ABOVE HANDICAPPED ZONE SO DEVICE IS NOT REQUIRED TO BE INSULATED. SET TEMPERATURE AT 110 DEG OR AS DIRECTED.

NOTES, REFERENCED:

H. PROVIDE PROTECTIVE INSULATING COVERS FOR WATER AND DRAIN PIPING, AND OFFSET TAILPIECE, AT HANDICAPPED FIXTURES PER ADA. INSULATING COVERS FOR PIPING MAY BE OMITTED WHERE PIPING IS PROTECTED BY MILLWORK.

T. FLUSH ACTUATOR TO BE LOCATED ON WIDE SIDE OF TOILET ENCLOSURE NO MORE THAN 44" AFF PER ADA.

U. MOUNT LIP OF URINAL 17" AFF AND FLUSH ACTUATOR NO MORE THAN 44" AFF (UNITS DESIGNATED FOR HANDICAPPED) PER ADA.

TP. WHERE ACCEPTABLE TO LOCAL AHJ, "TRAP-GUARD" BY PRO-SET, "MI-GARD" BY MIFAB, OR "SURE-SEAL" BY RECTORSEAL MAY BE USED IN LIEU OF TRAP PRIMERS.

PLUMBING NOTES:

REFERENCED NOTES

- NEW PLUMBING FIXTURE REPLACING EXISTING AT SAME LOCATION. REFER TO NOTE "B" BELOW.
- NEW PLUMBING FIXTURE AT NEW/REVISED LOCATION. PROVIDE MODIFICATIONS TO MOUNTING ACCESSORIES, WASTE, VENT, AND WATER PIPING AS REQUIRED. CONCEAL PIPING BEHIND ROOM FINISHES.
- EXISTING PLUMBING FIXTURE TO BE REMOVED. CAP WASTE, VENT, AND WATER LINES CONCEALED BEHIND ROOM FINISHES. RETAIN SEWER CLEANOUT PROVISIONS AS REQUIRED.
- EXISTING FLOOR DRAIN TO BE REMOVED. TERMINATE/CAP WASTE PIPING CONCEALED BEHIND ROOM FINISHES. RETAIN SEWER CLEANOUT PROVISIONS AS REQUIRED.
- EXISTING CONDENSATE DRAIN. REROUTE TO SERVICE SINK IN JAN 116.
- EXISTING PIPING STUB UP IN OLD VEHICLE INSPECTION AREA. DEACTIVATE SYSTEM IF PRESENTLY ACTIVE, AND TERMINATE/CAP PIPING CONCEALED BEHIND ROOM FINISHES.
- EXISTING FLOOR PIT TO BE REMOVED. TERMINATE/CAP WASTE PIPING CONCEALED BEHIND ROOM FINISHES. RETAIN SEWER CLEANOUT PROVISIONS AS REQUIRED.
- NEW PLUMBING FIXTURE AT REACTIVATED LOCATION (OLD ROUGH-IN BEHIND ROOM FINISHES). PROVIDE MODIFICATIONS TO MOUNTING ACCESSORIES, WASTE, VENT, AND WATER PIPING AS REQUIRED. CONCEAL PIPING BEHIND ROOM FINISHES.

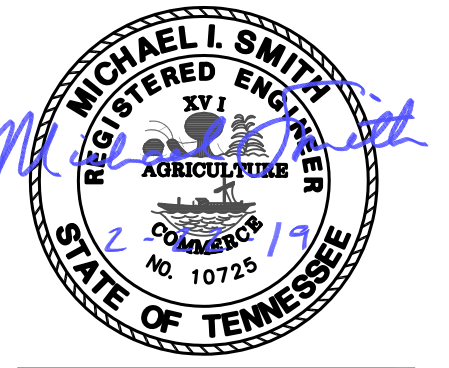
UNREFERENCED NOTES

- A CUT AND PATCH EXISTING CONSTRUCTION AS REQUIRED TO INSTALL NEW PLUMBING FIXTURES AND PIPING. ADJUST LOCATIONS TO ACCOMMODATE EXISTING CONDITIONS.
- B AT FIXTURE REPLACEMENT AT EXISTING LOCATION, MODIFY MOUNTING ACCESSORIES, WASTE, VENT, AND WATER PIPING IF REQUIRED. CONCEAL PIPING BEHIND ROOM FINISHES. REPLACE ALL ACCESSIBLE BRANCH PIPING (BETWEEN FIXTURE AND PIPE HEADER OR MAIN). REPLACE OR RECONFIGURE CARRIERS AND SUPPORTS AS REQUIRED TO PROVIDE A NEAT AND SECURE INSTALLATION.
- C REMOVE ALL ACCESSIBLE DWV AND DOMESTIC WATER PIPING NO LONGER IN SERVICE, WITH ASSOCIATED SUPPORTS AND ACCESSORIES. CAP PIPING BEHIND ROOM FINISHES. RETAIN SEWER CLEANOUT PROVISIONS AS REQUIRED.



CHATTANOOGA POLICE DEPT.
INTERIOR RENOVATIONS

ANNEX FACILITY
3201 AMNICOLA HIGHWAY
CHATTANOOGA, TENNESSEE



PLUMBING SCHEDULE & NOTES

2/22/2019
17-23
JCP

P2.1

Project #: 1850

Smith Engineering
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103 Jordan Drive STE 1 Chattanooga, TN 37421
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MECHANICAL NOTES:

REFERENCED

- 1 MOUNT A/C UNIT/FURNACE ON 1/4" NEOPRENE ISOLATOR ON 18" HIGH (MIN) RETURN AIR PLENUM AND CONFIGURE FOR BOTTOM RETURN. CONNECT SA DUCT TO BONNET DX COIL WITH FLEXIBLE CONNECTION. EXTEND INTAKE & VENT PIPING FROM EACH FURNACE TO COMBINATION INTAKE/VENT ROOF (OR WALL) CAP.

PLENUM/PLATFORM TO BE CONSTRUCTED WITH METAL COMPONENTS (NO COMBUSTIBLE MATERIALS).
- 2 MOUNT CONDENSING UNIT ON ROOF ON 12" HIGH (MIN) EQUIPMENT RAILS, EQUAL TO CUSTOM CURB CES-2, FLASHED INTO ROOFING. MAINTAIN 36" CLEARANCE TO ELECTRICAL ACCESS PANELS. ROUTE REFRIGERANT PIPING FROM CONDENSING UNIT DOWN THROUGH ROOF USING ROOF PORTAL SYSTEM AND RUN TO ASSOCIATED A/C UNIT. MINIMIZE PIPING EXPOSED ON EXTERIOR.
- 3 INSTALL HIGH WALL DUCT-FREE FAN COIL UNIT ON WALL NEAR CEILING. CONCEAL PIPING AND WIRING BEHIND ROOM FINISHES. EXTEND PUMPED CONDENSATE TO BUILDING EXTERIOR, OR TO OTHER LOCATION AS DIRECTED.

CONCEAL PIPING AND WIRING BEHIND ROOM FINISHES WHERE PRACTICAL. IF REQUIRED TO BE RUN EXPOSED, INSTALL PIPING AND WIRING IN PLASTIC ENCLOSURE SYSTEM, EQUAL TO DIVERSITECH "SPEEDICHANNEL" OR AIRTEC "SLIMDUCT".
- 4 INSTALL MINI-SPLIT SYSTEM FAN COIL UNIT EXPOSED OVERHEAD. CONNECT SUPPLY AND RETURN DUCTWORK WITH FLEX CONNECTIONS. IN FINISHED AREAS, CONCEAL PIPING AND WIRING BEHIND ROOM FINISHES. EXTEND PUMPED CONDENSATE TO SERVICE SINK, BUILDING EXTERIOR, OR TO OTHER LOCATION AS DIRECTED.
- 5 NEW UNIT REPLACING EXISTING EQUIPMENT. MOUNT A/C UNIT/FURNACE ON 1/4" NEOPRENE ISOLATOR ON 18" HIGH (MIN) RETURN AIR PLENUM AND CONFIGURE FOR BOTTOM RETURN. CONNECT SA DUCT TO BONNET DX COIL WITH FLEXIBLE CONNECTION. EXTEND INTAKE & VENT PIPING FROM EACH FURNACE TO COMBINATION INTAKE/VENT ROOF (OR WALL) CAP.

TRANSITION AND RECONNECT TO EXISTING AIR DISTRIBUTION SYSTEM AT LOCATIONS WHERE NEW DUCTWORK IS NOT INDICATED. EXISTING POSSIBLE COMPONENTS MAY BE REUSED WHERE SUITABLE.

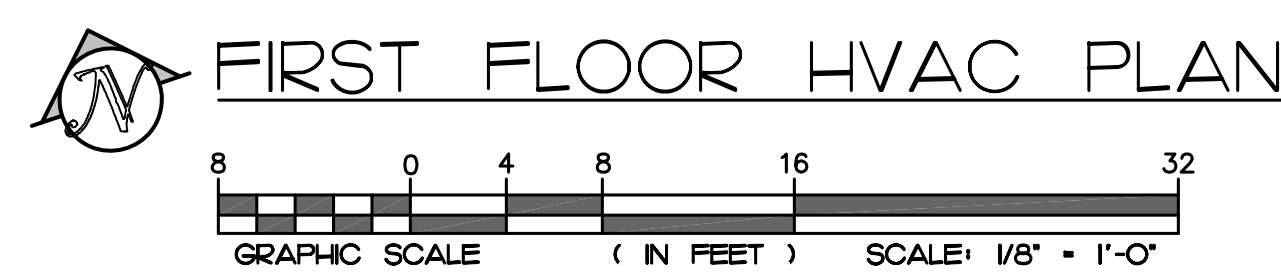
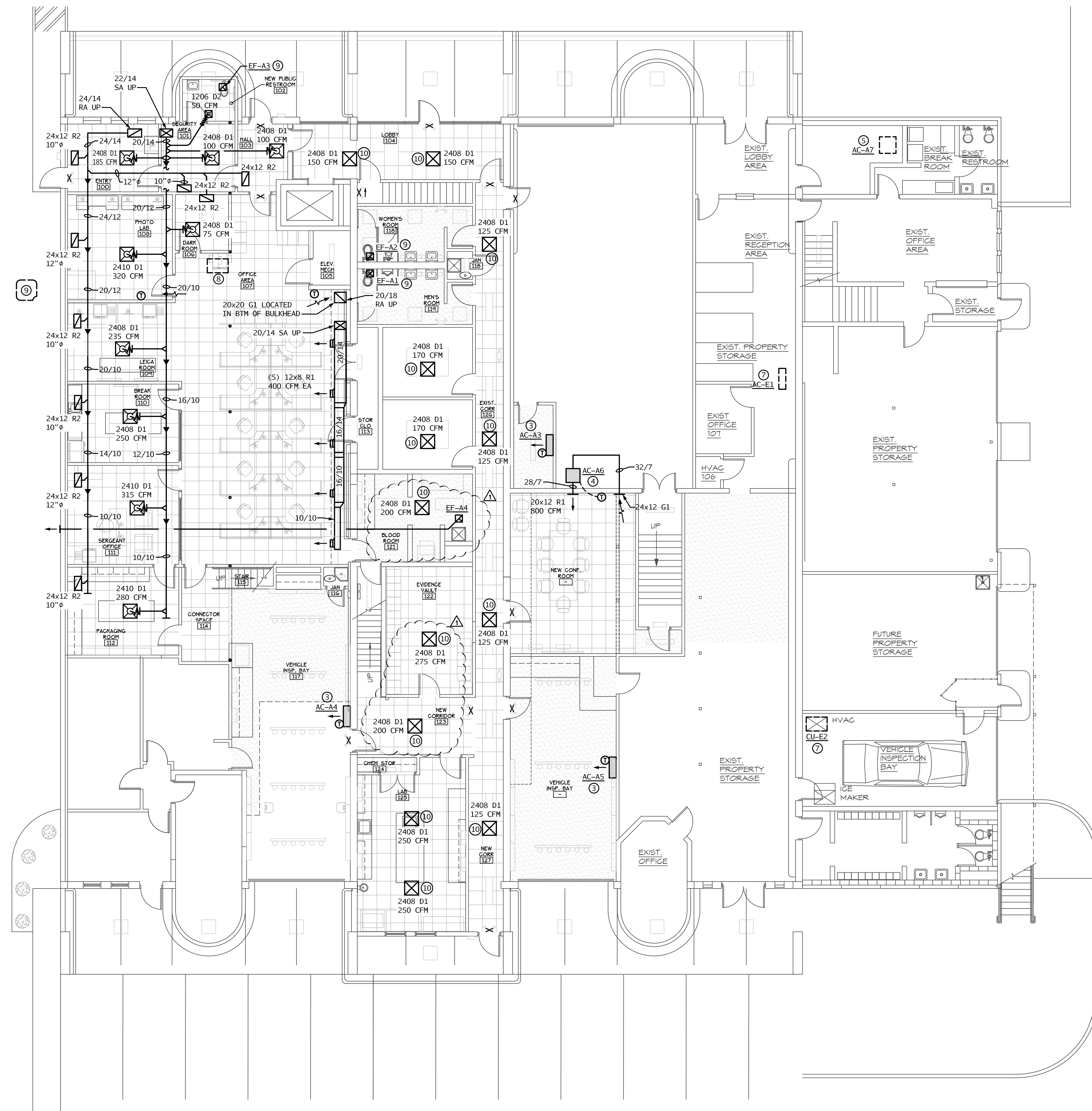
PLENUM/PLATFORM TO BE CONSTRUCTED WITH METAL COMPONENTS (NO COMBUSTIBLE MATERIALS).
- 6 MOUNT NEW A/C UNIT ON ROOF ON EXISTING PERIMETER ROOF CURB. PROVIDE CURB ADAPTER AS REQUIRED. UNIT TO HAVE VERTICAL DISCHARGE. SA AND RA DUCTS TO PENETRATE ROOF INSIDE CURB PERIMETER.
- 7 EXISTING UNIT TO REMAIN IN OPERATION; SHOWN FOR INFORMATIONAL PURPOSES ONLY.
- 8 REMOVE EXISTING HVAC EQUIPMENT (SPLIT SYSTEM), WITH ASSOCIATED PIPING, DUCTWORK, SUPPORTS, AND CONTROLS (IN ACCESSIBLE LOCATIONS). PATCH AND REPAIR BUILDING FINISHES TO MATCH ADJACENT SURFACES. PROVIDE 20 GA. GALVANIZED STEEL CAPS FOR VENTS AND/OR ROOF CURBS. COAT INSIDE SURFACE OF CURB CAP WITH INSULATING MASTIC TO PREVENT CONDENSATION.
- 9 REPLACE EXISTING FAN; INSTALL NEW EXHAUST FAN RECESSED IN CEILING AND EXTEND DUCT FROM FAN DISCHARGE TO BUILDING EXTERIOR AND TERMINATE WITH SUITABLE VENT CAP. SEE NOTES AT "VENTILATING FAN SCHEDULE". EXISTING DUCTWORK MAY BE REUSED WHERE SUITABLE.
- 10 NEW CEILING DIFFUSER IN RENOVATED AREA. REVISE DUCTWORK AS REQUIRED.
- 11 PROVIDE 18"X 18" SOFFIT VENT (W/ INSECT SCREEN) FOR OUTSIDE AIR INTAKE (LOCATED AS DIRECTED BY ARCHITECT). PROVIDE 10" RD TRUNK DUCT FROM 6" DEEP PLENUM BEHIND VENT. EXTEND 8" RD. OA DUCT (W/ MVD) FROM TRUNK DUCT TO RA DUCT/PLENUM AT AC-A1 AND AC-A2.

UNREFERENCED

- A ROUND DUCT RUNOUTS TO INDIVIDUAL DIFFUSERS TO BE SAME SIZE AS DIFFUSER NECK UNLESS NOTED.
- B MAINTAIN 10 FT. (MIN.) SEPARATION BETWEEN OUTSIDE AIR INTAKES AND EXHAUST OR VENT OPENINGS.
- C DO NOT INSTALL DUCTWORK, PIPING, OR OTHER FOREIGN COMPONENTS IN "DEDICATED EQUIPMENT SPACE" OVER ELECTRICAL PANELS AND SWITCHGEAR. REF: 2017 NEC 110.26(E)(1)(a). IF UNAVOIDABLE, PROVIDE SUITABLE PROTECTION PER 2017 NEC 110.26(E)(1)(b).
- D EXTEND FULL SIZE CONDENSATE DRAIN LINE FROM EACH A/C UNIT (AND CONDENSING FURNACE), AND TERMINATE AT FLOOR DRAIN, SERVICE SINK, FRENCH DRAIN, OR OTHER TERMINATION POINTS AS DIRECTED. TRAP AND VENT DRAIN LINE AT CONNECTION TO COIL.
- C REFRIGERANT PIPING TO BE SIZED BY EQUIPMENT MANUFACTURER OR FACTORY-AUTHORIZED REPRESENTATIVE. SIZING CALCULATIONS TO BE BASED ON ACTUAL FIELD ROUTING AND CONFIGURATION.
- D WHERE SPACE AND CLEARANCES PERMIT, CONTRACTOR MAY SUBSTITUTE RIGID ROUND DUCTWORK IN PLACE OF RECTANGULAR DUCTWORK. MAINTAIN EQUIVALENT CROSS-SECTION AREA AND PROVIDE SUITABLE BRANCH TAP FITTINGS.
- E DURING NEW WORK, PATCH/REPAIR UNUSED OPENINGS IN EXISTING DUCTWORK WITH SHEETMETAL OF EQUAL OR THICKER GAUGE AND GASKET/SEALANT, SECURED WITH SHEETMETAL SCREWS, FOR A PERMANENT AND AIRTIGHT PATCH. REPAIR INSULATION TO MATCH ADJACENT SURFACES.
- F IN RENOVATED AREAS, REVISE HVAC SYSTEM CONFIGURATION AS INDICATED OR REQUIRED. REMOVE DUCTWORK AND PIPING NO LONGER IN SERVICE. RELOCATE AND REINSTALL CONTROL DEVICES AS DIRECTED TO MAINTAIN A FULLY FUNCTIONAL SYSTEM.
- G REMOVE EXISTING HVAC EQUIPMENT NO LONGER REQUIRED, WITH ASSOCIATED PIPING, DUCTWORK, SUPPORTS, AND CONTROLS (IN ACCESSIBLE LOCATIONS). PATCH AND REPAIR BUILDING FINISHES TO MATCH ADJACENT SURFACES.
- H CUT AND PATCH EXISTING CONSTRUCTION AS REQUIRED TO INSTALL NEW HVAC EQUIPMENT. ADJUST LOCATIONS TO ACCOMMODATE EXISTING STRUCTURAL CONDITIONS.

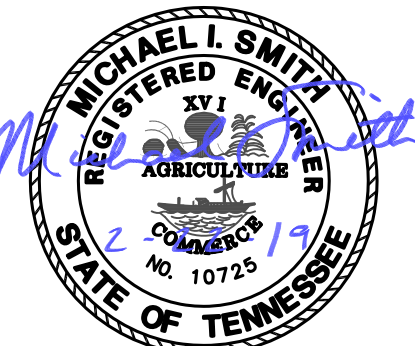
EXISTING HVAC UNIT DESCRIPTION

- AC-E1 FIRST FLOOR EVIDENCE ROOM-EMS MINISPLIT, CONDENSING UNIT DATA PLATE NOT READABLE, AHU NOT ACCESSIBLE.
- AC-E2 FIRST FLOOR EVIDENCE ROOM - CARRIER SPLIT SYSTEM. CONDENSING UNIT DATA PLATE NOT READABLE.
- AC-E3 FIRST FLOOR CARRIER ROOFTOP UNIT M#48TCD012AG5A0A0A0, S#380GG30438.
- AC-E4 SECOND FLOOR OFFICE-CARRIER ROOFTOP UNIT M#48GS-060115301YP, S#4705G12245.
- AC-E5 UPSTAIRS OFFICE AREA-CARRIER SPLIT SYSTEM, TWINNED FURNACES-58WAV091-16, 3294A23575 AND 3194A16364-FURNACES. CONDENSER 38AU2A08A0A5A0A0A0, 0112C90835.
- AC-E6 FIRST FLOOR-CARRIER SPLIT SYSTEM, CONDENSER-CARRIER 24AB360A520, 1712E06647, CARRIER FURNACE 58STA135 - 14122, 2012A18464.
- AC-E7 CARRIER SPLIT SYSTEM. CONDENSER - CARRIER 24AB360A520. FURNACE - CNRP2414ATAAAAA.
- AC-E8 DUCTLESS MINISPLIT FOR 2ND FLOOR SERVER ROOM.



CHATTANOOGA POLICE DEPT.
INTERIOR RENOVATIONS

ANNEX FACILITY
3201 AMNICOLA HIGHWAY
CHATTANOOGA, TENNESSEE



1st FLOOR
HVAC PLAN

2/22/2019

17-23

JCP

M1.1

Project #: 1850

Smith Engineering
Professional Corporation

103 Jordan Drive STE 1 Chattanooga, TN 37421
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AIR CONDITIONING UNIT SCHEDULE												
MARK	CFM	EXT S P	BLOWER DATA		COOLING MBH		HEATING DATA		COND DATA		MIN EER/SEER	MANUFACTURER AND REMARKS
			HP	VOLTS/PH	TOTAL	SENS	MBH	SOURCE	VOLTS/PH	FLA		
AC-A1 AC-A2	1,950 240 OA	0.65"	1	115/1 10.9A	58.0	43.0	117 76	NAT GAS 2-STAGE	208/1	22.3 (40A MOCP)	14.0	CARRIER 59TP5A120E24-22 HI-EFF GAS FURNACE CAPMP60 DX COIL 24ACC460 COND. UNIT
AC-A3	780	0.00"	80W	208/1 FROM CU	22.0	17.1	26.0	HEAT PUMP	208/1	16.0 (30A MOCP)	16.0	CARRIER 40MAQB24-3 HIGH WALL UNIT, 38MAQB24-3 OUTDOOR UNIT HEAT PUMP
AC-A4 AC-A5	870	0.00"	80W	208/1 FROM CU	30.0	22.5	30.0	HEAT PUMP	208/1	16.4 (30A MOCP)	16.0	CARRIER 40MAQB30-3 HIGH WALL UNIT, 38MAQB30-3 OUTDOOR UNIT HEAT PUMP
AC-A6	780	0.00"	80W	208/1 FROM CU	22.0	17.1	26.0	HEAT PUMP	208/1	16.0 (30A MOCP)	16.0	CARRIER 40MBQB24-3 FAN COIL UNIT, 38MAQB24-3 OUTDOOR UNIT HEAT PUMP
AC-A7	800 120 OA	0.65"	1/2	115/1 7.5A	22.8	17.2	40 26	NAT GAS 2-STAGE	208/1	11.4 (20A MOCP)	14.0	CARRIER 59TP5A040E14-10 HI-EFF GAS FURNACE CAPMP24 DX COIL 24ACC424 COND. UNIT
AC-A8	3,000 400 OA	0.70"	2.4	INTEGRAL	89.0	66.3	125.0	NAT GAS	208/3	35.8 (50A MOCP)	12.0	CARRIER 48HCDE08 ROOFTOP UNIT, GAS HEAT, ROOF CURB, 100% OA ECONOMIZER, DUAL COMPR, NOTE 8
AC-A9	1,600 200 OA	0.65"	1	115/1 13.5A	47.0	35.3	97 63	NAT GAS 2-STAGE	208/1	17.0 (35A MOCP)	14.0	CARRIER 59TP5A100E21-20 HI-EFF GAS FURNACE CAPMP48 DX COIL 24ACC448 COND. UNIT
AC-A10	1,950 240 OA	0.65"	1	115/1 10.9A	58.0	43.0	117 76	NAT GAS 2-STAGE	208/1	22.3 (40A MOCP)	14.0	CARRIER 59TP5A120E24-22 HI-EFF GAS FURNACE CAPMP60 DX COIL 24ACC460 COND. UNIT

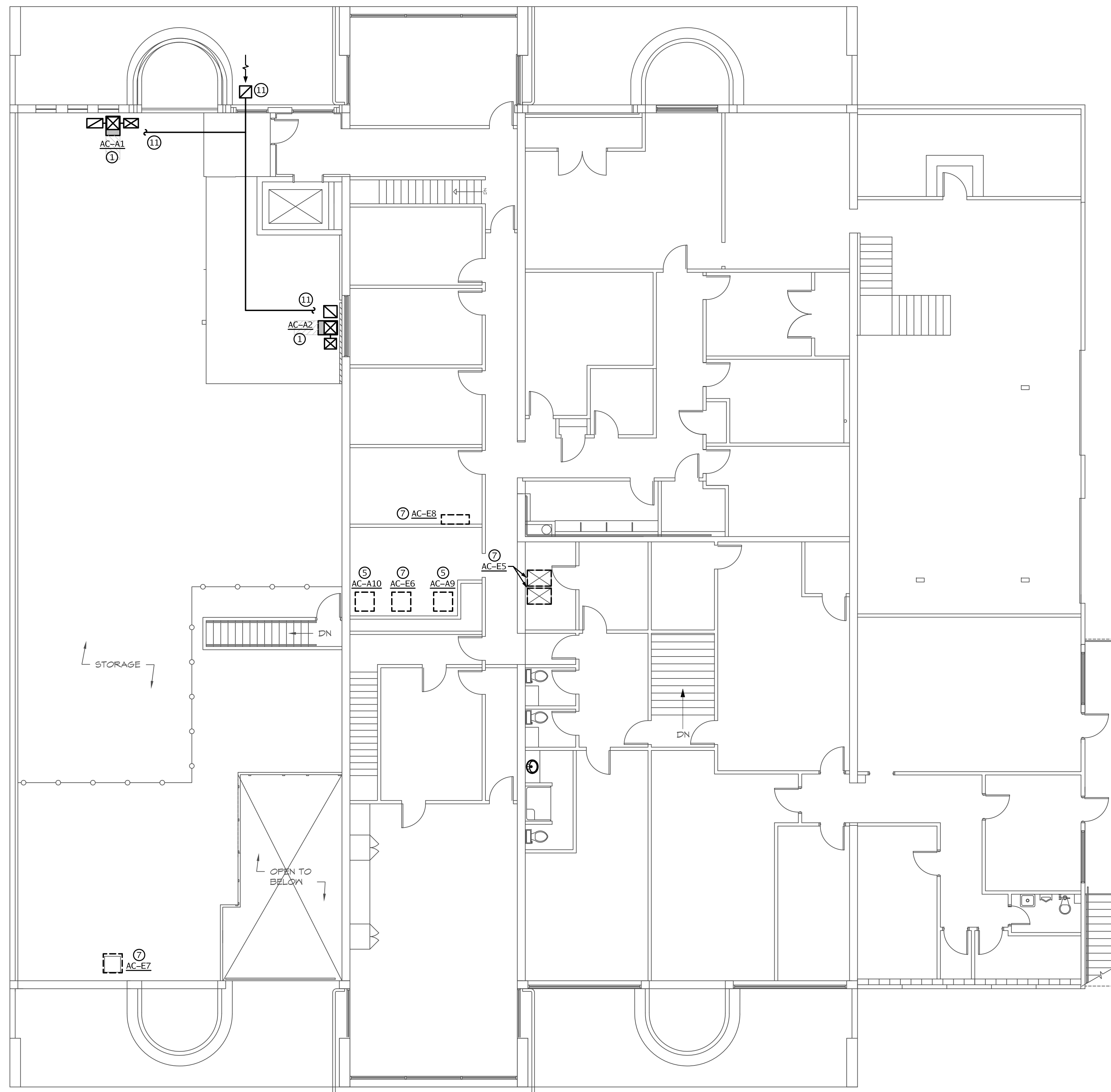
- NOTES:
1. ACCEPTABLE MFR'S: CARRIER, TRANE, YORK, LENOX; DUCTLESS UNITS: CARRIER/TOSHIBA, TRANE/FUJITSU, DAIKIN, LG, SAMSUNG
 2. COOLING CAPACITIES ARE BASED ON STANDARD ARI CONDITIONS.
 3. PROVIDE PLEATED-MEDIA DISPOSABLE FILTERS, EQUAL TO FARR 30/30, FOR DUCTED SYSTEMS.
 4. PROVIDE WI-FI COMPATIBLE THERMOSTAT/SENSOR WITH DIGITAL DISPLAY FOR EACH A/C UNIT, AS APPROPRIATE.
 5. RTU'S WITH DUAL COMPRESSORS TO HAVE STAGED AIR VOLUME (SAV) W/ 2-SPEED INDOOR FAN MOTOR/VFD.
 6. UNITS TO OPERATE WITH R-410A REFRIGERANT.
 7. FURNACES TO BE 96% AFUE (MIN) 2-STAGE, WITH ECM BLOWER MOTORS.
 8. WHEN AVAILABLE AS FACTORY OPTION, UNITS TO HAVE "HUMIDIFIER" FEATURE.

AIR DISTRIBUTION DEVICE SCHEDULE						
TYPE	DESCRIPTION	MOUNTING	MANUFACTURER AND CATALOG NO.	MATERIAL	FINISH	ACCESSORIES AND REMARKS
D1	SUPPLY DIFFUSER LOUVER FACE, RD. NECK 24"X 24" FACE	CEILING	TITUS TMS W/ DAMPER D-100 (6"-12")	STEEL	WHITE ENAMEL	CONCENTRIC LOUVER CONFIGURATION, VOLUME DAMPER, TYPE 3 BORDER, TRM FRAME AT SURFACE LOCATIONS
D2	SUPPLY DIFFUSER LOUVER FACE, RD. NECK 12"X 12" FACE	CEILING	TITUS TMS W/ D-100	STEEL	WHITE ENAMEL	CONCENTRIC LOUVER CONFIGURATION, OB VOLUME DAMPER, TYPE 3 BORDER W/ 24"X24" LAYIN PANEL
G1	RETURN/EXH GRILLE 35 DEG DEFLECTION	CEILING	TITUS 350RL	STEEL	WHITE ENAMEL	1 1/4" WIDE FRAME, HORIZONTAL BARS @ 3/4" O.C.
R1	SUPPLY REGISTER DOUBLE DEFLECTION	WALL OR DUCT	TITUS 300RL W/ AG-15	STEEL	WHITE ENAMEL	1 1/4" WIDE FRAME, HORIZONTAL BARS IN FRONT, OB DAMPER
R2	RETURN/EXH REGISTER EGGCRATE GRID	CEILING	TITUS 50F W/ AG-15	ALUMINUM	WHITE ENAMEL	1/2"X1/2"X1/2" GRID, TYPE 3 BORDER, TRM FRAME AT SURFACE LOCATIONS, OB DAMPER

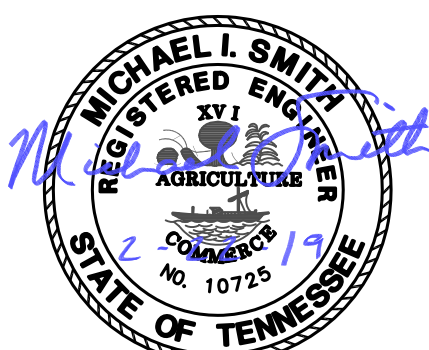
- NOTES:
1. ACCEPTABLE MFR'S: TITUS, TUTTLE & BAILEY, KRUEGER, METALAIRE, ANEMOSTAT, PRICE, NAILOR
 2. PROVIDE TRANSITION FROM DIFFUSER NECK TO ROUND DUCT RUNOUT SIZE IF REQUIRED.

VENTILATING FAN SCHEDULE									
MARK	DESCRIPTION	CFM	EXT. S.P.	HP	RPM DRIVE	SONES	VOLTS PHASE	MANUFACTURER & CATALOG NO.	ACCESSORIES/REMARKS
EF-A1 EF-A2	CENTRIFUGAL CEILING EXHAUST	150	0.250"	128W	1050 DIRECT	3.0	115 1	GREENHECK SP-B150	W/ AUTO. BACKDRAFT DAMPER, DISCONNECT SWITCH, INTEGRAL GRILLE, WALL/ROOF VENT, NOTE 3
EF-A3	CENTRIFUGAL CEILING EXHAUST	75	0.250"	50W	800 DIRECT	2.5	115 1	GREENHECK SP-B90	W/ AUTO. BACKDRAFT DAMPER, DISCONNECT SWITCH, INTEGRAL GRILLE, WALL/ROOF VENT, NOTE 2
EF-A4	CENTRIFUGAL CEILING EXHAUST	225	0.250"	83W	1000 DIRECT	3.4	115 1	GREENHECK SP-A250	W/ AUTO. BACKDRAFT DAMPER, DISCONNECT SWITCH, INTEGRAL GRILLE BVES08 BRICK VENT, NOTES 4,5

- NOTES:
1. ACCEPTABLE MFR'S: AOME, COOK, GREENHECK, PENN, TWIN CITY
 2. EXTEND 6" RD. EXHAUST DUCT TO WALL/ROOF VENT (OR EXISTING EXHAUST DUCT IF SUITABLE, AS DIRECTED). TRANSITION AS REQUIRED.
 3. EXTEND 8" RD. EXHAUST DUCT TO WALL/ROOF VENT (OR EXISTING EXHAUST DUCT IF SUITABLE, AS DIRECTED). TRANSITION AS REQUIRED
 4. EXTEND 8" RD. EXHAUST DUCT TO BRICK VENT, TRANSITION AS REQUIRED.
 5. PROVIDE SOLID-STATE SPEED CONTROL SWITCH FOR ADJUSTING AIR QUANTITY. LOCATE SWITCH IN ROOM AS DIRECTED.



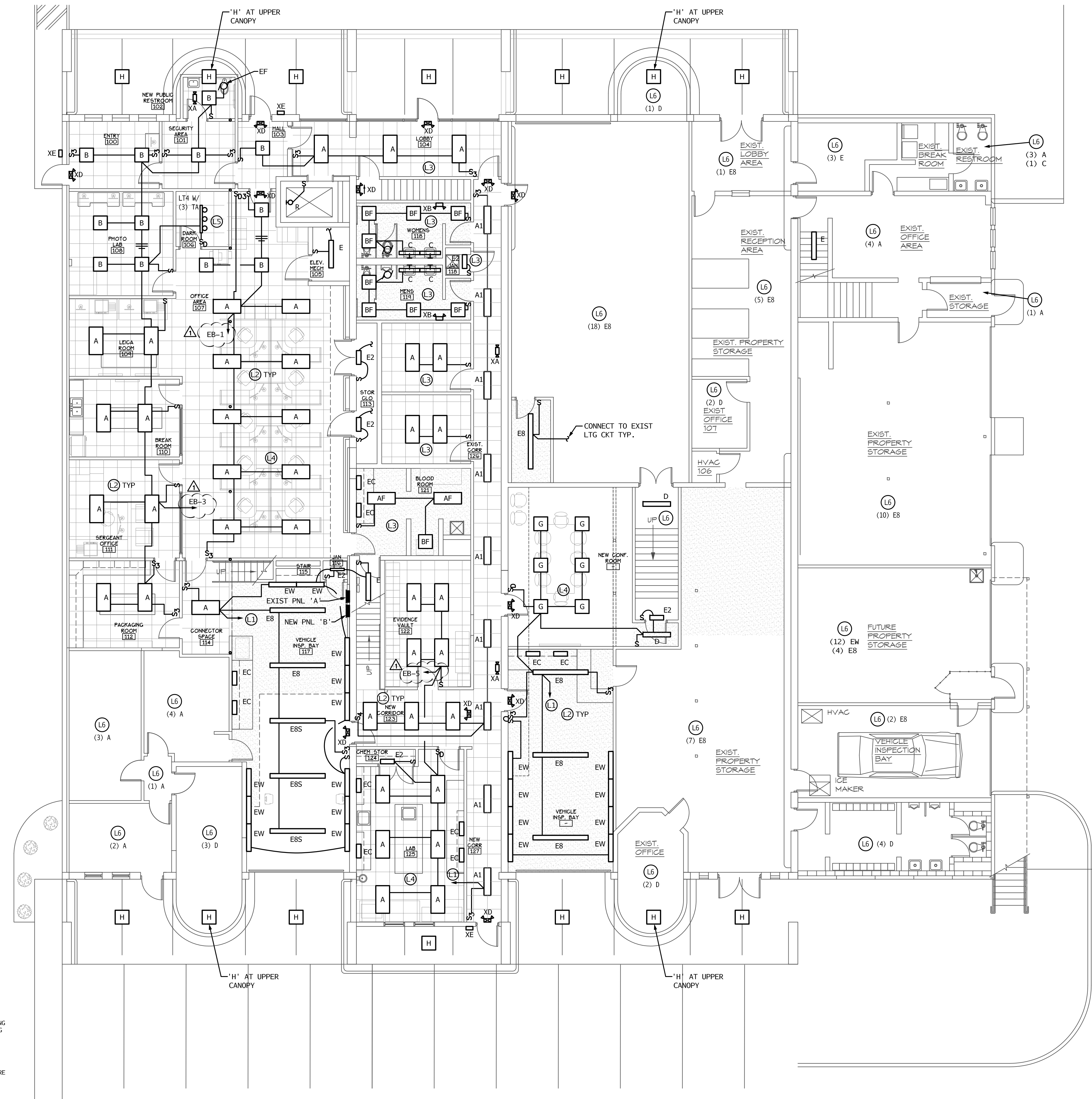
SECOND FLOOR HVAC PLAN



LIGHTING FIXTURE SCHEDULE					
MARK	DESCRIPTION	MOUNTING	LAMPS QTY & TYPE FIXTURE WATTS	MANUFACTURER AND CATALOG NO.	ACCESSORIES AND REMARKS
A	2'X4' FLAT PANEL GRID 5500 LUMEN	CEILING RECESSED	LED ARRAY 49 WATTS	COLUMBIA CFP24-5535	PANEL 1.18" THICK, ALUM. FRAME, 3500K, TRANSLUCENT PLASTIC LENS, 0-10V DIM
AF	2'X4' FLAT PANEL FLANGE 5500 LUMEN	CEILING RECESSED	LED ARRAY 49 WATTS	COLUMBIA CFP24-5535 W/ FK24	PANEL 1.18" THICK, ALUM. FRAME, 3500K, TRANSLUCENT PLASTIC LENS, 0-10V DIM
B	2'X2' FLAT PANEL GRID 4000 LUMEN	CEILING RECESSED	LED ARRAY 41 WATTS	COLUMBIA CFP22-4035	PANEL 1.18" THICK, ALUM. FRAME, 3500K, TRANSLUCENT PLASTIC LENS, 0-10V DIM
BF	2'X2' FLAT PANEL FLANGE 4000 LUMEN	CEILING RECESSED	LED ARRAY 41 WATTS	COLUMBIA CFP22-4035 W/ KK22	PANEL 1.18" THICK, ALUM. FRAME, 3500K, TRANSLUCENT PLASTIC LENS, 0-10V DIM
A1	1'X4' FLAT PANEL GRID 4000 LUMEN	CEILING RECESSED	LED ARRAY 39 WATTS	COLUMBIA CFP14-4035	PANEL 1.18" THICK, ALUM. FRAME, 3500K, TRANSLUCENT PLASTIC LENS, 0-10V DIM
C	3" WALL BRACKET 3600 LUMEN	WALL 6'8" AFF	LED ARRAY 32 WATTS	LIGHTWAY VLXV-36-LED-U-32W-3 -W2-WSA	OPAL ACRYLIC DIFFUSER, WHITE FINISH
D	4" WRAPAROUND LED 4850 LUMEN	CEILING SURFACE	LED ARRAY 37 WATTS	COLUMBIA CWP-4035	FROSTED ACRYLIC LENS, WHITE FINISH ON END PLATES, 3500K
E	4" LED STRIPLIGHT 4200 LUMEN	CLG/WALL SURFACE	LED ARRAY 41 WATTS	COLUMBIA CSL4-4035 EW: NOTE FEW	WHITE FINISH, FROSTED ACRYLIC LENS, 3500K, 2.25" WIDE, 0-10V DIM
E8	8" LED STRIPLIGHT 8400 LUMEN	CLG/WALL SURFACE	LED ARRAY 81 WATTS	COLUMBIA CSL8-4035 E8S: NOTE FES	WHITE FINISH, FROSTED ACRYLIC LENS, 3500K, 2.25" WIDE, 0-10V DIM
E2	2" LED STRIPLIGHT 3000 LUMEN	CLG/WALL SURFACE	LED ARRAY 26 WATTS	COLUMBIA LCS2-35ML-EU	WHITE FINISH
EC	24" UNDERCABINET LED 900 LUMEN	MILLWORK SURFACE	LED ARRAY 12 WATTS	LUMAX UCLEDW24-12-900-W	ACRYLIC DIFFUSER, ROCKER SWITCH WITH HI/LO/OFF, WHITE FINISH
F	6" RD. DOWNLIGHT LED = 2000 LUMEN	CEILING RECESSED	LED ARRAY 26.4 WATTS	PRESCOLITE LF6LEDG4 -BLFLED7G4-35K	6" RD. CLEAR ALZAK REFLECTOR, 3500K, 6.5" HGT, 0-10V DIM
G	8" DIRECT/INDIRECT LED 9200 LUMEN	CEILING SUSPEND	LED ARRAY 74 WATTS	LITECONTROL SAE103-P-ID-LPA-08 -SGL-C1-35K0-ID115-00-1C-UNV	8"W X 2"H RECTILINEAR, DIRECT/INDIRECT 73% UPLIGHT, 3500K, 0-10V DIM TO 1%
H	2'X2' TILE LED 3500 LUMEN	CEILING SURFACE	LED ARRAY 40 WATTS	NEW STAR AGV22-0P-UN-35	ALUM FRAME IN CRS HSG, OPAL POLYCARB LENS, 3500K, WHITE FINISH, WET LABEL
LT4	4' LIGHT TRACK	CEILING SURFACE	N/A	WAC JT-4-BK	1-CIRCUIT, BLACK FINISH, MOUNTING ACCESSORIES, LIVE END
TA	TRACK LIGHT	LIGHT TRACK	LED ARRAY 20 WATTS	WAC J-2020-930-BK W/ LENS-16-BLU	BLACK FINISH, 3" RD X 6" CYL, ELV DIM, YOKE MOUNT, ADJUSTABLE 15-50 DEG BEAM
R	UTILITY LIGHT LED 1200 LUMEN	WALL OR STRUCTURE	LED ARRAY 22 WATTS	E-CONOLIGHT VTGL221NG	CAST ALUMINUM WALL ARM W/ PLATE, GUARD, GLASS COVER W/ GASKET
XA	EMERGENCY LIGHT EMER POWER PACK	CEILING RECESSED	(4) LED UNITS 4 WATTS	DUAL-LITE EV4R	FOUR LED LAMPS, TEST SWITCH, EMER. BATTERY PACK, CONNECT TO UNSWITCHED CONDUCTOR, 120V/277V DUAL RATED
XB	EMERGENCY LIGHT EMER POWER PACK	WALL 7'6" AFF	(2) LED HEADS 2 WATTS	DUAL LITE EV2	DUAL LAMP HEADS, TEST SWITCH, EMER. BATTERY PACK, CONNECT TO UNSWITCHED CONDUCTOR, 120V/277V DUAL RATED
XD	SGL/OBL FACE EXIT THERMOPLASTIC COMBINATION UNIT	CLG/WALL AS DIRECTED	LONG LIFE LED'S PLUS LED HEADS	DUAL LITE EVCURWE	UNIVERSAL MOUNT, RED LETTERS ON WHITE, BATTERY PACK, CONNECT TO UNSWITCHED CONDUCTOR, 120V/277V DUAL RATED
XE	EMERGENCY LIGHT LED SCENCE	WALL 8'6" AFF	LED ARRAY 10 WATTS	SIGNTEX MOE-BB-10-B-LT	WALL SCENCE, EMER. BATTERY PACK, LOW TEMP, CONNECT TO UNSWITCHED CONDUCTOR, BRONZE FINISH, WET LOCATION LABEL

NOTES, GENERAL:
 1. EXIT AND EMERGENCY LIGHTING FIXTURES TO HAVE POWER PACKS WITH PURE-LEAD, LEAD-CALCIUM, OR NICAD BATTERIES. POWER PACKS TO OPERATE FIXTURE LAMPS FOR 90 MINUTES. CONNECT POWER PACKS TO UNSWITCHED CONDUCTOR OF LOCAL LIGHTING CIRCUIT.
 2. EXIT LIGHTING FIXTURES TO HAVE ARROW AND FACE CONFIGURATION APPROPRIATE FOR SPECIFIC LOCATION AND APPLICATION.
 3. VERIFY STEM/CABLE LENGTH OF SUSPENDED FIXTURES WITH ARCHITECT/ENGINEER PRIOR TO PLACING FIXTURE ORDER.
 4. VERIFY COLOR/FINISH OF EXPOSED SURFACES OF FIXTURES WITH ARCHITECT PRIOR TO PLACING FIXTURE ORDER.
 5. FIXTURE MOUNTING HEIGHTS ARE APPROXIMATE. VERIFY ACTUAL MOUNTING HEIGHTS WITH ARCHITECT/ENGINEER PRIOR TO ROUGH-IN.

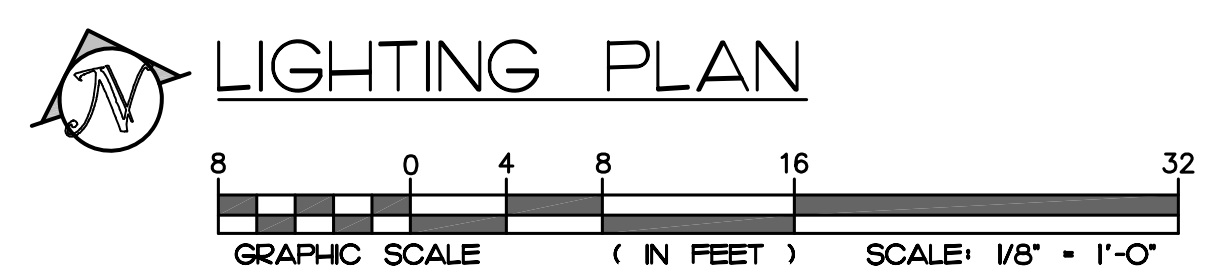
NOTES, REFERENCED:
 FES. MOUNT FIXTURE ON UNISTRUT CHANNEL AND SUSPEND WITH ALL-THREAD RODS AT 16"0" AFF (OR AS DIRECTED).
 FEW. MOUNT FIXTURE ON WALL 42" AFF OR AS DIRECTED.
 RC. CONNECT UNDERCABINET LIGHTING FIXTURE(S) TO NEAREST RECEPTACLE CIRCUIT, UNLESS OTHERWISE INDICATED.
 SM. MOUNT FIXTURE OVER EXISTING RECESSED SQUARE FIXTURE. REMOVE EXISTING FIXTURE TRIM AND HOUSING AS REQUIRED.
 CAULK AND SEAL WATERIGHT AROUND PERIMETER OF NEW FIXTURE.



ELECTRICAL NOTES: LIGHTING

- REFERENCED:
- (L1) CONNECT TO EXISTING LIGHTING CIRCUIT, WITH ADEQUATE CAPACITY, SERVING THIS AREA. EXISTING CIRCUIT HOMERUN MAY BE REUSED WHERE SUITABLE (SEE NOTE 5 BELOW).
 - (L2) EXISTING LIGHTING IN RENOVATED AREA TO BE REMOVED, WITH ASSOCIATED SUPPORTS, WIRING, AND SWITCH(ES). REVISE CIRCUITING AND SWITCHING TO ACCOMMODATE RENOVATION.
 - (L3) PROVIDE NEW LIGHTING IN THIS AREA. REUSE SWITCHING IF SUITABLE. AND RECONNECT TO EXISTING LIGHTING CIRCUIT. SEE NOTE 4 BELOW.
 - (L4) LIGHTING FIXTURE(S) IN THIS AREA TO HAVE 0-10V DIMMING CONTROL. PROVIDE SUITABLE WALL-MOUNT DIMMER AND CONTROL WIRING TO FIXTURE DRIVERS.
0-10V DIMMING CIRCUITS REQUIRE TWO (2) CONTROL WIRES (VIOLET AND GRAY) IN ADDITION TO HOT/PHASE AND NEUTRAL CONDUCTORS, FROM DIMMER SWITCH TO EVERY FIXTURE.
 - (L5) LIGHTING FIXTURE(S) IN THIS AREA TO HAVE ELV DIMMING CONTROL. PROVIDE SUITABLE WALL-MOUNT DIMMER.
 - (L6) EXISTING LIGHTING IN THIS AREA TO BE REPLACED. NO OTHER WORK EXCEPT AS REQUIRED TO RECONNECT FIXTURES AND MAINTAIN CIRCUIT CONTINUITY. UNLESS OTHERWISE DIRECTED, FIXTURES TO BE REPLACED "ONE FOR ONE" IN SAME CONFIGURATION.
- NOTATION: INDICATES QUANTITY AND FIXTURE TYPE. EXAMPLE: (4)A

- UNREFERENCED:
- A UNLESS OTHERWISE DIRECTED, IN RENOVATED AREAS, REMOVE EXISTING LIGHTING FIXTURES, WITH ASSOCIATED SWITCHES AND WIRING (AS AFFECTED BY RENOVATION WORK). PROVIDE BLANK COVERPLATES FOR FLUSH BOXES NO LONGER IN USE.
 - B WHERE SUITABLE, CONNECT NEW CIRCUITS TO EXISTING PANELBOARDS. REUSE EXISTING CIRCUIT BREAKERS OR PROVIDE NEW BREAKERS AS INDICATED OR REQUIRED. EXISTING CIRCUIT HOMERUNS MAY BE REUSED WHERE SUITABLE.
 - C AT CONTRACTOR'S OPTION, PROVIDE NEW PANEL ADJACENT TO EXISTING, AND CONNECT WITH LUIGS/CIRCUIT BREAKER AND CONDUCTORS OF EQUAL AMPACITY.
 - D WHERE POSSIBLE, IN FINISHED AREAS CONCEAL WIRING IN NEW CONSTRUCTION. WHERE IMPRACTICAL TO CONCEAL AT EXISTING CONSTRUCTION, USE SURFACE RACEWAY SYSTEM EQUAL TO WIREMOLD #2000.
 - E WHERE SUITABLE, RECONNECT NEW LIGHTING FIXTURES TO EXISTING LOCAL SWITCH LEGS. REPLACE EXISTING SWITCHES AND COVERPLATES.
 - F MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED. MULTIPLE LIGHTING AND APPLIANCE CIRCUITS MAY NOT BE COMBINED TO UTILIZE COMMON NEUTRAL CONDUCTOR. (REFER TO 2017 NEC 210.4)
 - G PENETRATIONS OF FIRE-RATED BUILDING COMPONENTS BY RACEWAYS AND CABLES TO BE PROVIDED WITH APPROPRIATE FIRE BARRIERS. METHODS AND MATERIALS TO BE UL LISTED AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM-E814/UL1479.
 - H PENETRATIONS OF SMOKE BARRIER BUILDING COMPONENTS BY RACEWAYS AND CABLES TO BE PROVIDED WITH APPROPRIATE SMOKE-TIGHT CAULKING AND/OR SEALS.
 - I PROVIDE (FURNISH AND INSTALL) THE FOLLOWING QUANTITIES AND TYPES OF LIGHTING FIXTURES:
(6) TYPE A, (4) TYPE D, (6) TYPE E, (6) TYPE E8, (8) TYPE XB, (8) YP XD
THESE FIXTURES TO BE USED BY THE CONTRACTOR TO REPLACE (OR SUPPLEMENT) EXISTING FIXTURES AS DIRECTED ON JOB SITE.



Project #: 1850

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ELECTRICAL SYMBOLS		
SYMBOL	DESCRIPTION	MOUNTING *
—	ARROW INDICATES CIRCUIT HOMERUN	---
⊥	TICK MARKS INDICATE WIRE QUANTITY (MORE THAN 2)	---
▬	PANELBOARD	78" AFF
▭	SPECIAL CABINET OR ENCLOSURE	VERIFY
⊞	DISCONNECT SWITCH	48" AFF
⊞	JUNCTION BOX (PIGTAIL SHOWN)	AS NOTED
⊞	JUNCTION BOX	AS NOTED
⊞	MOTOR	---
⊞	DUPLEX RECEPTACLE	16" AFF *
⊞	DUPLEX RECEPTACLE ABOVE COUNTER	---
⊞	DUPLEX RECEPTACLE W/ WEATHERPROOF COVER	16" AFF *
⊞	DUPLEX RECEPTACLE W/ GROUND FAULT INTERRUPTER	16" AFF *
⊞	QUADRUPLEX RECEPTACLE	16" AFF *
⊞	DUPLEX RECEPTACLE W/ USB PORTS LEVITON T-5632	36" AFF *
⊞	SPECIAL RECEPTACLE - NEMA CONFIG. NOTED	16" AFF *
⊞	SPECIAL RECEPTACLE - NEMA CONFIG. NOTED	16" AFF *
⊞	FLOOR	---
⊞	PLUGMOLD STRIP WITH RECEPT 12"OC UNLESS NOTED	AS DIRECTED
S	SWITCH - SINGLE POLE	48" AFF **
S ₃	SWITCH - 3 WAY	48" AFF **
S ₄	SWITCH - 4 WAY	48" AFF **
S ₀	SWITCH - DIMMER (1000W MINIMUM)	48" AFF **
S _c	SWITCH - SPEED CONTROL	48" AFF **
S _m	SWITCH - MOTION DETECTOR	48" AFF **
⊞	COMBINATION VOICE/DATA OUTLET FLUSH WALLBOX WITH 3/4" STUB ABV CLG	16" AFF
⊞	TV/POWER WALL BOX, EQUAL TO ARLINGTON TVBS505 WITH NEMA 5-20R RECEPT & 1" C. STUB ABV CLG	48" AFF OR AS NOTED *
⊞	THERMOSTAT	48" AFF **
AFF	ABOVE FINISHED FLOOR	---
AFC	ABOVE FINISHED CEILING	---
BFC	BELOW FINISHED CEILING	---
⊞	SMOKE DETECTOR - DUCT MOUNTED	---

* REFER TO DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION
 ** HANDLE OR OPERATOR-DEVICE MUST BE LOCATED NO MORE THAN 48" AFF, FOR COMPLIANCE WITH ADA

ELECTRICAL NOTES:

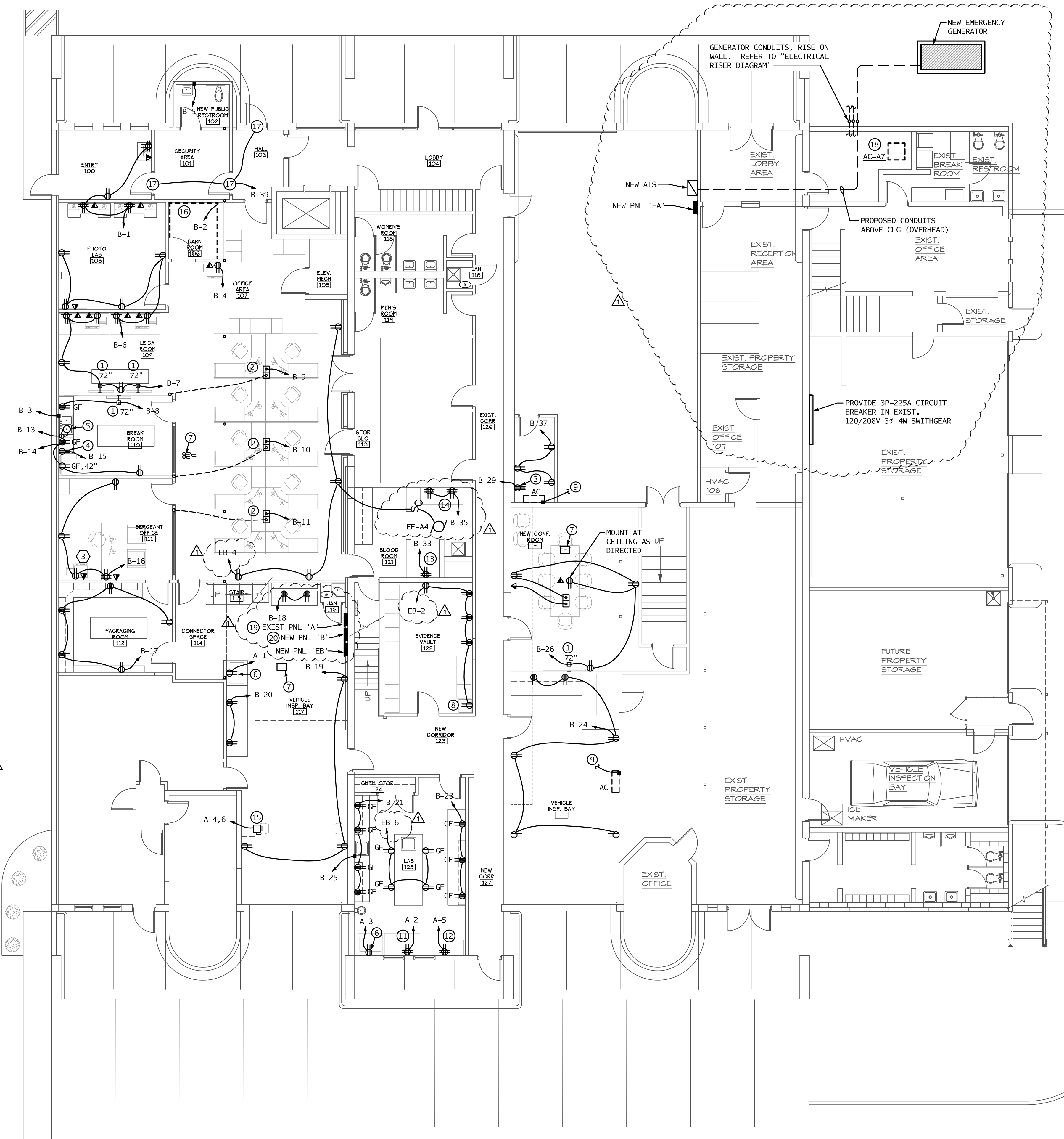
REFERENCED:

- TV WALL BOX (VERIFY MOUNTING HEIGHT PRIOR TO ROUGH-IN), WITH DUPLEX RECEPTACLE AND COAXIAL CONNECTOR FOR TV. BOX TO BE STEEL, FLUSH MOUNTED, 2 GANG, WITH WHITE TRIM PLATE, EQUAL TO ARLINGTON TVBS505. STUB 3/4" C. FROM LOW VOLTAGE COMPARTMENT TO AN ACCESSIBLE LOCATION ABOVE CEILING OR AS DIRECTED.
- PROVIDE FLOOR BOX AND CONNECTION TO MODULAR FURNITURE FEED AS REQUIRED. COORDINATE EXACT REQUIREMENTS AND LOCATIONS FOR FURNITURE FEEDS WITH FURNITURE VENDOR PRIOR TO ROUGH-IN. PROVIDE 2" CONDUIT FROM FLOOR BOX TO ACCESSIBLE LOCATION ABOVE CEILING FOR TELEPHONE/DATA
- PROVIDE RECEPTACLE FOR SERVER UPS. FOR ESTIMATING PURPOSES PROVIDE NEMA L6-30R RECEPTACLE (VERIFY ACTUAL REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN).
- DUPLEX RECEPTACLE FOR UNDERCOUNTER DISHWASHER. LOCATE BELOW COUNTER AS DIRECTED. DIRECT CONNECTION FROM J-BOX MAY BE USED IF ACCEPTABLE TO LOCAL AHJ. CONNECT TO "GFCI" CIRCUIT BREAKER.
- PROVIDE 120V, 20A CIRCUIT FOR DISPOSAL AT SINK. PROVIDE SPST TOGGLE SWITCH FOR CONTROL. CONNECT TO "GFCI/AFCI" CIRCUIT BREAKER.
- QUANTITY OF 2 - FINGERPRINT FUMING HOOD (ARROWHEAD FORENSICS - ARROWFLOW PC36). PROVIDE DUPLEX RECEPTACLE ON DEDICATED 20 AMP BREAKER. PROVIDE NEW 1P-20A BREAKER IN EXISTING PANEL 'A', CKT A-1 OR A-3.
- IN EXISTING VEHICLE INSPECTION AREA REMOVE EXISTING IN GROUND INSPECTION LIGHTING AND EXISTING CONDUIT MOUNTED RECEPTACLES AS REQUIRED. REMOVE DEVICES AND WIRING AND ABANDON CONDUITS. MAINTAIN CIRCUIT CONTINUITY FOR ANY DEVICES TO REMAIN.
- DUPLEX RECEPTACLE FOR UNDER COUNTER REFRIGERATOR. LOCATE AS DIRECTED.
- HIGH-WALL DUCTLESS A/C UNIT POWER SOURCE TO BE FED FROM ASSOCIATED OUTDOOR UNIT. WIRING TO BE 14/3 W/ GD MC CABLE AND BE RUN WITH REFRIGERANT PIPING. IF REQUIRED BY AHJ, PROVIDE LOCAL POWER DISCONNECT EQUAL TO HUBBELL HBL7810D, LOCATED AS DIRECTED.
- PROVIDE POWER FOR CONDENSING UNIT. 2P-30A BREAKER, 2 #10, #10 GD, 3/4" C. PROVIDE 2P-30A FUSED DISCONNECT SWITCH (NEMA 3R), FUSED AS REQUIRED.
- CYANOACRYLATE FUMING CHAMBER (AIRSCIENCE SAFEFUME CATRI-A) - PROVIDE QUADRUPLEX RECEPTACLE ON DEDICATED 20 AMP BREAKER. PROVIDE NEW 1P-20A BREAKER IN EXISTING PANEL 'A', CKT A-2.
- CHEMICAL FUME HOOD (LABCONCO FREE STANDING) - PROVIDE QUADRUPLEX RECEPTACLE ON DEDICATED 20 AMP BREAKER. PROVIDE NEW 1P-20A BREAKER IN EXISTING PANEL 'A', CKT A-5.
- FORENSIC DRYING CABINET (MYSTAIER/MISONIX SINGLE CHAMBER) - PROVIDE DUPLEX RECEPTACLE ON DEDICATED 20 AMP BREAKER.
- FORENSIC DRYING CABINET (AIRSCIENCE SAFEKEEPER FDC-010-QUAD-A) - PROVIDE (2) QUADRUPLEX RECEPTACLES ON DEDICATED 20 AMP BREAKER.
- PROVIDE POWER FOR CAR LIFT. PROVIDED 2P-30A FUSED DISCONNECT SWITCH (NEMA 1), FUSE AS REQUIRED. VERIFY EXACT REQUIREMENTS WITH OWNER PRIOR TO ROUGH-IN. PROVIDE NEW 2P-30A BREAKER IN EXISTING PANEL 'A', CKT A-4,6.
- PROVIDE PLUGMOLD STRIP WITH NEMA 5-15R RECEPTACLES AT 36" O.C., MOUNTED ALONG WALL ABOVE COUNTER AS DIRECTED. STRIP ASSEMBLY TO BE EQUAL TO WIREMOLD 20G306TR SERIES, BLACK COLOR.
- PROVIDE SUITABLE 120VAC POWER SOURCE FOR FUTURE SECURITY DOOR MAG LOCK. PROVIDE FLUSH J-BOXES 48" AFF AND 3/4" CONDUITS STUB ABOVE CEILING AT ENTRY/EXIT SIDES OF DOOR. COORDINATE REQUIREMENTS WITH OWNER AND VENDOR.
- DISCONNECT, RECONNECT, AND MODIFY ELECTRICAL CONNECTION TO EXISTING HVAC UNIT BEING REPLACED. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH MECHANICAL CONTRACTOR.
- EXISTING ELECTRICAL PANEL 'A' - SQUARE D TYPE NQ, 120/208V, 3P, 400A MLO. PROVIDE NEW BREAKERS AS REQUIRED.
- NEW PANEL 'B' - 120/208V, 3P, 225A MAIN BREAKER. PROVIDE FEED THRU LUGS IN EXISTING PANEL 'A' WITH (4) #4/0, #4 GD, 2 1/2" C. (10 FOOT TAP RULE). REFER TO PANEL SCHEDULE FOR ADDITIONAL INFORMATION.

UNREFERENCED:

- A COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. ALL EQUIPMENT TO BE INSTALLED IN STRICT ACCORD WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS, UNLESS SPECIFICALLY DIRECTED OTHERWISE BY THE OWNER. ADJUST RATINGS AND TYPES OF CIRCUIT OVERCURRENT PROTECTION DEVICES TO COMPLY WITH ACTUAL NAMEPLATE DATA OF EQUIPMENT. COORDINATE REQUIREMENTS WITH OTHER CONTRACTORS AND VENDORS.
- B PENETRATIONS OF FIRE-RATED BUILDING COMPONENTS BY RACEWAYS AND CABLES TO BE PROVIDED WITH APPROPRIATE FIRE BARRIERS. METHODS AND MATERIALS TO BE UL LISTED AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM-E814/UL1479.

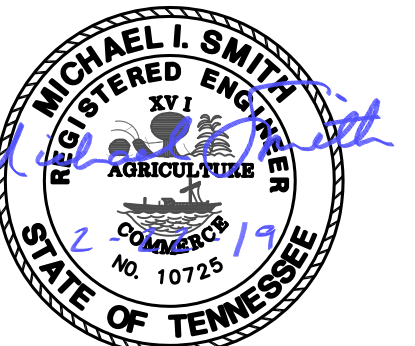
PENETRATIONS OF SMOKE BARRIER BUILDING COMPONENTS BY RACEWAYS AND CABLES TO BE PROVIDED WITH APPROPRIATE SMOKE-TIGHT CAULKING AND/OR SEALS.
- C MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED. MULTIPLE LIGHTING AND APPLIANCE CIRCUITS MAY NOT BE COMBINED TO UTILIZE COMMON NEUTRAL CONDUCTOR. (REFER TO NEC 210.4)
- D WHERE POSSIBLE, IN FINISHED AREAS CONCEAL WIRING IN NEW CONSTRUCTION. WHERE IMPRACTICAL TO CONCEAL AT EXISTING CONSTRUCTION, USE SURFACE RACEWAY SYSTEM EQUAL TO WIREMOLD #2000.



1ST FLOOR POWER PLAN
 GRAPHIC SCALE (IN FEET) SCALE: 1/8" = 1'-0"



**CHATTANOOGA POLICE DEPT.
 INTERIOR RENOVATIONS**
 ANNEX FACILITY
 3201 AMNICOLA HIGHWAY
 CHATTANOOGA, TENNESSEE



Project #: 1850
 2/22/2019
 17-23
 JCP
E2.1

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