

SECTION 08 71 00

DOOR HARDWARE
02/16

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM E283 (2004; R 2012) Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen

ASTM F883 (2013) Padlocks

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

ANSI/BHMA A156.1 (2013) Butts and Hinges

ANSI/BHMA A156.12 (2013) Interconnected Locks & Latches

ANSI/BHMA A156.13 (2012) Mortise Locks & Latches Series 1000

ANSI/BHMA A156.16 (2013) Auxiliary Hardware

ANSI/BHMA A156.17 (2014) Self Closing Hinges & Pivots

ANSI/BHMA A156.18 (2012) Materials and Finishes

ANSI/BHMA A156.2 (2011) Bored and Preassembled Locks and Latches

ANSI/BHMA A156.21 (2014) Thresholds

ANSI/BHMA A156.22 (2012) Door Gasketing and Edge Seal Systems

ANSI/BHMA A156.26 (2012) Continuous Hinges

ANSI/BHMA A156.29 (2012) Exit Locks, Exit Alarms, Alarms for Exit Devices

ANSI/BHMA A156.3 (2014) Exit Devices

ANSI/BHMA A156.30 (2014) High Security Cylinders

ANSI/BHMA A156.31 (2013) Electric Strikes and Frame Mounted Actuators

ANSI/BHMA A156.36 (2010) Auxiliary Locks

ANSI/BHMA A156.4	(2013) Door Controls - Closers
ANSI/BHMA A156.5	(2014) Cylinder and Input Devices for Locks
ANSI/BHMA A156.6	(2015) Architectural Door Trim
ANSI/BHMA A156.7	(2014) Template Hinge Dimensions
ANSI/BHMA A156.8	(2015) Door Controls - Overhead Stops and Holders

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 101	(2015; ERTA 2015) Life Safety Code
NFPA 252	(2012) Standard Methods of Fire Tests of Door Assemblies
NFPA 70	(2017) National Electrical Code
NFPA 72	(2016) National Fire Alarm and Signaling Code
NFPA 80	(2016) Standard for Fire Doors and Other Opening Protectives

STEEL DOOR INSTITUTE (SDI/DOOR)

SDI/DOOR A250.8	(2003; R2008) Recommended Specifications for Standard Steel Doors and Frames
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U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

36 CFR 1191	Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines
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UNDERWRITERS LABORATORIES (UL)

UL Bld Mat Dir	(2012) Building Materials Directory
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1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

- Manufacturer's Detail Drawings; G, RO
- Verification of Existing Conditions; G, RO
- Hardware Schedule; G, RO
- Keying System; G, RO

SD-03 Product Data

Hardware Items; G, RO

SD-08 Manufacturer's Instructions

Installation

SD-10 Operation and Maintenance Data

Hardware Schedule Items, Data Package 1; G, RO

SD-11 Closeout Submittals

Key Bitting

1.3 SHOP DRAWINGS

Submit manufacturer's detail drawings indicating all hardware assembly components and interface with adjacent construction. Indicate power components and wiring coordination for electrified hardware. Base shop drawings on verified field measurements and include verification of existing conditions.

1.4 PRODUCT DATA

Indicate fire-ratings at applicable components. Provide documentation of ABA/ADA accessibility compliance of applicable components, as required by 36 CFR 1191 Appendix D - Technical.

1.5 HARDWARE SCHEDULE

Prepare and submit hardware schedule in the following form:

Hardware Item	Quantity	Size	Reference Publication Type No.	Finish	Mfr Name and Catalog No.	Key Control Symbols	UL Mark (If fire-rated and listed)	BHMA Finish Designation

In addition, submit hardware schedule data package 1 in accordance with Section 01 78 23 OPERATION AND MAINTENANCE DATA.

1.6 KEY BITTING CHART REQUIREMENTS

1.6.1 Requirements

Submit key bitting charts to the Contracting Officer prior to completion of the work. Include:

- a. Complete listing of all keys (e.g. AA1 and AA2).
- b. Complete listing of all key cuts (AA1-123456, AA2-123458).

- c. Tabulation showing which key fits which door.
- d. Copy of floor plan showing doors and door numbers.
- e. Listing of 20 percent more key cuts than are presently required in each master system.

1.7 QUALITY ASSURANCE

1.7.1 Hardware Manufacturers and Modifications

Provide, as far as feasible, locks, hinges, and closers of one lock, hinge, or closer manufacturer's make. Modify hardware as necessary to provide features indicated or specified.

1.7.2 Key Shop Drawings Coordination Meeting

Prior to the submission of the key shop drawing, the Contracting Officer, Contractor, Door Hardware Subcontractor, using Activity and Base Locksmith must meet to discuss and coordinate key requirements for the facility.

1.8 DELIVERY, STORAGE, AND HANDLING

Deliver hardware in original individual containers, complete with necessary appurtenances including fasteners and instructions. Mark each individual container with item number as shown on hardware schedule. Deliver permanent keys and removable cores to the Contracting Officer, either directly or by certified mail. Deliver construction master keys with the locks.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Period: Three years from date of Substantial Completion, except as follows:
 - a. Electric Strike Locks: Five years from date of Substantial Completion.
 - b. Exit Devices: Two years from date of Substantial Completion.
 - c. Manual Closers: 10 years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 TEMPLATE HARDWARE

Hardware applied to metal or to prefinished doors must be manufactured using a template. Provide templates to door and frame manufacturers in accordance with ANSI/BHMA A156.7 for template hinges. Coordinate hardware items to prevent interference with other hardware.

2.2 HARDWARE FOR FIRE DOORS AND EXIT DOORS

Provide all hardware necessary to meet the requirements of NFPA 72 for door alarms, NFPA 80 for fire doors, NFPA 101 for exit doors, NFPA 252 for fire tests of door assemblies, ABA/ADA accessibility requirements, and all other requirements indicated, even if such hardware is not specifically mentioned in paragraph HARDWARE SCHEDULE. Provide Underwriters

Laboratories, Inc. labels for such hardware in accordance with UL Bld Mat Dir or equivalent labels in accordance with another testing laboratory approved in writing by the Contracting Officer.

2.3 HARDWARE ITEMS

Clearly and permanently mark with the manufacturer's name or trademark, hinges, pivots, locks, latches, exit devices, bolts and closers where the identifying mark is visible after the item is installed. For closers with covers, the name or trademark may be beneath the cover. ~~Coordinate electrified door hardware components specified with government provided and installed card reader.~~

2.3.1 Hinges

Provide in accordance with ANSI/BHMA A156.1. Provide hinges that are 4-1/2 by 4-1/2 inch unless otherwise indicated. Construct loose pin hinges for interior doors and reverse-bevel exterior doors so that pins are non-removable when door is closed. Other anti-friction bearing hinges may be provided in lieu of ball bearing hinges.

2.3.1.1 Protection Devices

Provide full height hand and finger protection device at the hinge-side area opening of doors and gates. Provide hinge-side protection devices on both sides of doors and gates, covering hinges and space between door and frame when doors are in the open position. The installed device must push hand and fingers out of the opening and away from a crushing hazard.

2.3.2 Continuous Hinges

Where continuous hinges are required, provide in accordance with ANSI/BHMA A156.26.

2.3.3 Spring Hinges

Provide in accordance with ANSI/BHMA A156.17.

2.3.4 Locks and Latches

2.3.4.1 Bored Locks and Latches

Provide in accordance with ANSI/BHMA A156.2, Series 4000, Grade 1.

2.3.4.2 Interconnected Locks and Latches

Provide in accordance with ANSI/BHMA A156.12. Provide F96 or F97, unless otherwise specified.

2.3.4.3 Auxiliary Locks

Provide in accordance with ANSI/BHMA A156.36, Grade 1.

2.3.4.4 CDX-10 Electro Mechanical Cipher Lock

A. General: Electro-mechanical (cipher) locks shall be Kaba-MAS CDX-10, Style 1. No Substitutions. Locks shall be fail-secure mode (exterior side only locked when power is off). Locks shall be mortise series conforming to BHMA A156.13. In hazardous locations, products shall use

safe power supplies or be pneumatic.

1. Type: Mortise
2. Trim: Lever

2.3.5 Exit Devices

Provide in accordance with ANSI/BHMA A156.3, Grade 1. Provide adjustable strikes for rim type and vertical rod devices. Provide open back strikes for pairs of doors with mortise and vertical rod devices. Provide touch bars in lieu of conventional crossbars and arms. Provide escutcheons not less than 7 by 2-1/4 inch.

2.3.6 Exit Locks With Alarm

Provide in accordance with ANSI/BHMA A156.3 and ANSI/BHMA A156.29, Type E0431 (with full width horizontal actuating bar) for single doors; Type E0431 (with actuating bar) or E0471 (with actuating bar and top and bottom bolts, both leaves active) for pairs of doors, unless otherwise specified. Provide terminals for connection to remote indicating panel. Provide outside control key. Provide door alarms integrated with the fire alarm system in accordance with NFPA 72.

2.3.7 Cylinders and Cores

Provide cylinders for new locks, including locks provided under other sections of this specification. Provide fully compatible cylinders of Grade 1 products from products of one manufacturer with interchangeable cores that are removable by a special control key. Factory set the cores with seven pin tumblers using the A4 system and F keyway. Submit a core code sheet with the cores. Provide master keyed cores in one system for this project. Provide construction interchangeable cores. Best lock cylinders shall be used.

2.3.7.1 High Security Cylinders

Provide in accordance with ANSI/BHMA A156.30, security level A for all high security cylinder components.

2.3.8 Push Button Mechanisms

Provide in accordance with ANSI/BHMA A156.5, Grade 1.

2.3.9 Electrified Hardware

Comply with the requirements of NFPA 70 for wiring of electrified hardware.

2.3.9.1 Electric Strikes and Frame Mounted Actuators

Provide in accordance with ANSI/BHMA A156.31, Grade 1. Provide electric strikes and actuators as required to meet operational requirements. Provide electric strikes that remain secure during power failure. Provide a separate power supply for electric strikes, other locking devices and ancillary parts. Provide strikes and actuators with a minimum opening force of 2300 pounds.

Provide facility interface devices that use direct current (dc) power to energize the solenoids. Provide electric strikes and actuators that incorporate end-of-line resistors to facilitate line supervision by the system. If not incorporated into the electric strike or local controller,

provide metal oxide resistors (MOVs) to protect the controller from reverse current surges.

2.3.9.1.1 Solenoid

Provide actuating solenoid for strikes and actuators that are rated for continuous duty, cannot dissipate more than 12 Watts and must operate on 12 or 24 Volts dc. Inrush current cannot exceed 1 ampere and the holding current cannot be greater than 500 milliamperes. Actuating solenoid must move from fully secure to fully open positions in less than 500 milliseconds.

2.3.9.1.2 Signal Switches

Provide strikes and actuators with signal switches to indicate to the system when the bolt is not engaged or the strike mechanism is unlocked. Signal switches must report a forced entry to the system.

2.3.9.1.3 Tamper Resistance

Provide strike guards that prevent tampering with the latch bolt of the locking hardware or the latch bolt keeper of the electric strike. Strike guards to bolt through the door using tamper resistant screws. Provide strike guards made of 1/8 inch thick brass and that are 11-1/4 inch high by 1-5/8 inch wide, with a minimum 5/32 inch wide offset.

2.3.9.1.4 Coordination

Provide electric strikes and actuators of a size, weight and profile compatible with each specified door frame. Field verify installation clearances prior to procurement.

2.3.9.1.5 Mounting Method

Provide electric strikes and actuators suitable for use with single and double doors, with mortise or rim type hardware specified, and for right or left hand mounting as specified. In double door installations, locate the lock in the active leaf and monitor the fixed leaf.

2.3.9.2 Power Transfer Hinges

Provide power transfer hinges with each electrified lock that route power and monitoring signals from the lockset to the door frame. Coordinate power transfer hinges with door frames.

2.3.9.3 Card Readers and Keypad Access Control Hardware

Contractor to provide all infrastructure to support Card Reader Systems. ~~Card Reader will be provided and installed by the Government.~~ and Keypad Access System(s) are to be fully compatible with one another.

2.3.10 Keying System

Provide an extension of the existing keying system. Existing locks were manufactured by Best and have interchangeable cores. Provide construction interchangeable cores.

Provide sub-master keying system for the first and second floor of the building, and keyed to the existing removable core master and grand master keying systems. The Contracting Officer will provide keying information.

Key equipment spaces and mechanical rooms separately from the building systems, and key alike to the existing master and grand master systems for these doors.

2.3.11 Lock Trim

Provide cast, forged, or heavy wrought construction and commercial plain design for lock trim.

2.3.11.1 Lever Handles

Provide lever handles. Provide in accordance with ANSI/BHMA A156.3 for mortise locks of lever handles for exit devices. Provide lever handle locks with a breakaway feature (such as a weakened spindle or a shear key) to prevent irreparable damage to the lock when force in excess of that specified in ANSI/BHMA A156.13 is applied to the lever handle. Provide lever handles return to within 1/2 inch of the door face.

2.3.11.2 Texture

Provide knurled or abrasive coated knobs or lever handles for doors which are accessible to blind persons and which lead to dangerous areas.

2.3.12 Keys

Provide seven change keys for each interchangeable core, provide two control keys, six masters keys, and six construction master keys. Provide a quantity of key blanks equal to 20 percent of the total number of change keys. Stamp each key with appropriate key control symbol and "U.S. property - do not duplicate." Do not place room numbers on keys.

2.3.13 Door Bolts

Provide in accordance with ANSI/BHMA A156.16. Provide dustproof strikes for bottom bolts, except at doors having metal thresholds. Provide automatic latching flush bolts in accordance with ANSI/BHMA A156.3, Type 25.

2.3.14 Closers

Provide in accordance with ANSI/BHMA A156.4, Series C02000, Grade 1, with PT 4C. Provide with brackets, arms, mounting devices, fasteners, full size covers, except at storefront mounting, and other features necessary for the particular application. Size closers in accordance with manufacturer's printed recommendations, or provide multi-size closers, Sizes 1 through 6, and list sizes in the Hardware Schedule. Provide manufacturer's 10 year warranty.

2.3.14.1 Identification Marking

Engrave each closer with manufacturer's name or trademark, date of manufacture, and manufacturer's size designation in locations that will be visible after installation.

2.3.15 Overhead Holders

Provide in accordance with ANSI/BHMA A156.8.

2.3.16 Door Protection Plates

Provide in accordance with ANSI/BHMA A156.6.

2.3.16.1 Sizes of Mop and Kick Plates

Unless noted otherwise, provide 2 inch less than door width for single doors; 1 inch less than door width for pairs of doors. Provide 10 inch kick plates for flush doors and 1 inch less than height of bottom rail for panel doors. Provide a minimum 36 inch armor plates for flush doors and completely cover lower panels of panel doors, except 16 inch high armor plates on fire doors. Provide 6 inch mop plates.

2.3.16.2 Edge Guards

Stainless steel, of same height as armor plates. Apply to hinge stile and lock stile.

2.3.17 Door Stops and Silencers

Provide in accordance with ANSI/BHMA A156.16. Silencers Type L03011. Provide three silencers for each single door, two for each pair.

2.3.18 Padlocks

Provide in accordance with ASTM F883.

2.3.19 Thresholds

Provide in accordance with ANSI/BHMA A156.21. Use J35100, with vinyl or silicone rubber insert in face of stop, for exterior doors opening out, unless specified otherwise.

2.3.20 Weatherstripping Gasketing

Provide in accordance with ANSI/BHMA A156.22. Provide the type and function designation where specified in paragraph HARDWARE SCHEDULE. Provide a set to include head and jamb seals, and sweep strips,. Air leakage of weatherstripped doors not to exceed 0.5 cubic feet per minute of air per square foot of door area when tested in accordance with ASTM E283. Provide weatherstripping with one of the following:

2.3.20.1 Extruded Aluminum Retainers

Extruded aluminum retainers not less than 0.050 inch wall thickness with vinyl, neoprene, silicone rubber, or polyurethane inserts. Provide clear (natural) anodized aluminum.

2.3.20.2 Interlocking Type

Zinc or bronze not less than 0.018 inch thick.

2.3.20.3 Spring Tension Type

Spring bronze or stainless steel not less than 0.008 inch thick.

2.3.21 Soundproofing Gasketing

Provide in accordance with ANSI/BHMA A156.22. Provide adjustable doorstops

at heads, jams and automatic door bottoms in accordance with the hardware set, of extruded aluminum, clear (natural) anodized, surface applied, with vinyl fin seals between plunger and housing. Provide doorstops with solid neoprene tube, silicone rubber, or closed cell sponge gasket. Provide door bottoms with adjustable operating rod and silicone rubber or closed cell sponge neoprene gasket. Provide doorstops that are mitered at corners. Provide type and function designation where specified in paragraph HARDWARE SETS.

2.3.22 Rain Drips

Provide in accordance with ANSI/BHMA A156.22. Provide extruded aluminum rain drips, not less than 0.08 inch thick, clear anodized finish. Provide the manufacturer's full range of color choices to the Contracting Officer for color selection. Provide rain drips with a 4 inch overlap on each side of each exterior door that is not protected by an awning, roof, eave or other horizontal projection. Set drips in sealant and fasten with stainless steel screws and rubber or neoprene washer between screw head and extruded aluminum rain drip.

2.3.22.1 Door Rain Drips

Approximately 1-1/2 inch high by 5/8 inch projection. Align bottom with bottom edge of door.

2.3.22.2 Overhead Rain Drips

Approximately 1-1/2 inch high by 2-1/2 inch projection. Align bottom with door frame rabbet. Provide at all Exterior Doors.

2.3.23 Auxiliary Hardware (Other than locks)

Provide in accordance with ANSI/BHMA A156.16, Grade 1.

2.3.24 Special Tools

Provide special tools, such as spanner and socket wrenches and dogging keys, as required to service and adjust hardware items.

2.4 FASTENERS

Provide fasteners of type, quality, size, and quantity appropriate to the specific application. Fastener finish to match hardware. Provide stainless steel or nonferrous metal fasteners in locations exposed to weather. Verify metals in contact with one another are compatible and will avoid galvanic corrosion when exposed to weather.

2.5 FINISHES

Provide in accordance with ANSI/BHMA A156.18. Provide hardware in BHMA 630 finish (satin stainless steel), unless specified otherwise. Provide items not manufactured in stainless steel in BHMA 626 finish (satin chromium plated) over brass or bronze, except prime coat finish for surface door closers, and except BHMA 652 finish (satin chromium plated) for steel hinges. Provide hinges for exterior doors in stainless steel with BHMA 630 finish chromium plated brass or bronze with BHMA 626 finish. Furnish exit devices in BHMA 626 finish in lieu of BHMA 630 finish except where BHMA 630 is specified under paragraph HARDWARE SETS. Match exposed parts of concealed closers to lock and door trim. Match hardware finish for aluminum doors to the doors.

PART 3 EXECUTION

3.1 INSTALLATION

Provide hardware in accordance with manufacturers' printed installation instructions. Fasten hardware to wood surfaces with full-threaded wood screws or sheet metal screws. Provide machine screws set in expansion shields for fastening hardware to solid concrete and masonry surfaces. Provide toggle bolts where required for fastening to hollow core construction. Provide through bolts where necessary for satisfactory installation.

3.1.1 Weatherstripping Installation

Provide full contact, weathertight seals that allow operation of doors without binding the weatherstripping.

3.1.1.1 Stop Applied Weatherstripping

Fasten in place with color matched sheet metal screws not more than 9 inch on center after doors and frames have been finish painted.

3.1.1.2 Interlocking Type Weatherstripping

Provide interlocking, self adjusting type on heads and jambs and flexible hook type at sills. Nail weatherstripping to door 1 inch on center and to heads and jambs at 4 inch on center.

3.1.1.3 Spring Tension Type Weatherstripping

Provide spring tension type on heads and jambs. Provide bronze nails with bronze. Provide stainless steel nails with stainless steel. Space nails not more than 1-1/2 inch on center.

3.1.2 Soundproofing Installation

Provide as specified for stop applied weatherstripping.

3.1.3 Threshold Installation

Extend thresholds the full width of the opening and notch end for jamb stops. Set thresholds in a full bed of sealant and anchor to floor with cadmium-plated, countersunk, steel screws in expansion sleeves.

3.2 FIRE DOORS AND EXIT DOORS

Provide hardware in accordance with NFPA 72 for door alarms, NFPA 80 for fire doors, NFPA 101 for exit doors, and NFPA 252 for fire tests of door assemblies.

3.3 HARDWARE LOCATIONS

Provide in accordance with SDI/DOOR A250.8, unless indicated or specified otherwise.

- a. Kick and Armor Plates: Push side of single-acting doors. Both sides of double-acting doors.

- b. Mop Plates: Bottom flush with bottom of door.

3.4 FIELD QUALITY CONTROL

After installation, protect hardware from paint, stains, blemishes, and other damage until acceptance of work. Submit notice of testing 15 days before scheduled, so that testing can be witnessed by the Contracting Officer. Adjust hinges, locks, latches, bolts, holders, closers, and other items to operate properly. Demonstrate that permanent keys operate respective locks, and give keys to the Contracting Officer. Correct, repair, and finish, errors in cutting and fitting and damage to adjoining work.

3.5 HARDWARE SETS

HW Set #1

6	EA	Hinge	Overly MCL-500 Full CAM-Lift Hinge	630
2	EA	Flush Bolt	L04251	626
1	EA	Dust Proof STRK	L0421	626
1	EA	Lockset	F07	630
1	EA	Const Core	E09241	
1	EA	KABA MAS	CDX-10 High Security Dead Bolt	
1	EA	Permanent Core	E09241	626
1	EA	Door Closer	C02021 x PT4G	689
1	EA	Floorstop	L02131	626
3	EA	Silencer	L03011	
1	EA	Sound Rated Door Seal Bottom	By Door Manufacturer	

HW Set #2

3	EA	Hinge	Overly MCL-500 Full CAM-Lift Hinge	630
1	EA	Card Reader	By Government Schlage MTK15	
1	EA	Power Transfer	Schlage PS902	
1	EA	Relay	R6	
1	EA	Electric Strike	HES1006	689
1	EA	Lockset	F76	630
1	EA	Floorstop	L02131	630
1	EA	Const Core	E09241	
1	EA	Permanent Core	E09241	626
1	EA	Threshold	Penko154	630
3	EA	Silencer	L03011	
1	EA	Door Closer	C02021 x PT4G	626
1	EA	Sound Rated Door Seal Bottom	By Door Manufacturer	

HW Set #3

3	EA	Hinge	A5111 4 1/2 X 4 1/2 XNRP	630
1	EA	Lockset	F81	630
1	EA	Const Core	E09241	
1	EA	Permanent Core	E09241	626
1	EA	Card Reader	By Government Schlage MTK15	
1	EA	Power Transfer	Schlage PS902	
1	EA	Relay	R6	
1	EA	Electric Strike	HES1006	689
1	EA	Floorstop	L02131	630
3	EA	Silencer	L03011	
1	EA	Threshold	J33130	630

HW Set #4

3	EA	Hinge	A5111 4 1/2 X 4 1/2 X NRP	630
1	EA	Lockset	F86	630
1	EA	Const Core	E09241	
1	EA	Permanent Core	E09241	626
2	EA	Kick Plate	J102 10" x 2" LDW x B32 x CNSK	630

HW Set #5

3	EA	Hinge	Overly MCL-500 Full	630
			CAM-Lift Hinge	
1	EA	KABA MAS	CDX-10 High Security Dead Bolt	
1	EA	Card Reader	By Government Schlage MTK15	
1	EA	Power Transfer	Schlage PS902	
1	EA	Relay	R6	
1	EA	Electric Strike	HES1006	689
1	EA	Lockset	F76	630
1	EA	Floorstop	L02131	630
1	EA	Const Core	E09241	
1	EA	Permanent Core	E09241	626
1	EA	Threshold	Penko154	630
3	EA	Silencer	L03011	
1	EA	Door Closer	C02021 x PT4G	626
1	EA	Sound Rated	By Door Manufacturer	
		Door Seal Bottom		

HW Set #6 - No Exterior Door Hardware

3	EA	Hinge	Overly MCL-500 Full	630
			CAM-Lift Hinge	
1	EA	Exit Device	RX99L	626
1	EA	Surface Mounted Alarm	Detex EAX 500	
1	EA	Cylinder	E09251/E09261	626
1	EA	Const Core	E09241	
1	EA	Permanent Core	E09241	626
1	EA	Door Closer	C02021 x PT4G	689
1	EA	Kick Plate	J102 10" x 2" LDW x B32 x CNSK	630
1	EA	Door Seal Bottom	By Door Manufacturer	
1	EA	Threshold	Penko154	630
3	EA	Head/Jamb Seal	R04154	
1	EA	Security Latch		
		Guard Plate	DON-JO BLP-110-630 Stainless Steel	
3	EA	Silencer	L03011	
1	EA	Weaterstripping		
1	EA	2 1/2" Aluminum	R0Y976	
		Overhead Rain Drip		

HW Set #7

6	EA	Hinge	Overly MCL-500 Full	630
			CAM-Lift Hinge	
1	EA	Card Reader	By Government Schlage MTK15	
1	EA	Power Transfer	Schlage PS902	
1	EA	Relay	R6	
1	EA	Electric Strike	HES1006	689
1	EA	KABA MAS	CDX-10 High Security Dead Bolt	
2	EA	Floorstop	L02131	630
1	EA	Const Core	E09241	
1	EA	Permanent Core	E09241	626
1	EA	Threshold	Penko154	630
6	EA	Silencer	L03011	
2	EA	Door Closer	C02021 x PT4G	626
2	EA	Door Seal Bottom	By Door Manufacturer	

*Note 1: The installation and function of the electric strike device shall be coordinated with the government installed access control system provider. 2. The door frame shall be factory prepared for the electric power transfer device. 3. Coordinate location of power supply and power input requirements

Modify Control Room BLDG. 380
FTFA 17-1050

Eglin AFB, FL
June 2018

with CF/CI access control system components and provider.

-- End of Section --

SECTION 09 23 00

GYPSUM PLASTERING
08/16

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

- ASTM C206 (2014) Standard Specification for Finishing Hydrated Lime
- ASTM C28/C28M (2010) Gypsum Plasters
- ASTM C35 (2001; R 2014) Inorganic Aggregates for Use in Gypsum Plaster
- ASTM C472 (1999; R 2014) Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete
- ASTM C59/C59M (2000; R 2011) Gypsum Casting Plaster and Gypsum Molding Plaster
- ASTM C61/C61M (2000; R 2011) Gypsum Keene's Cement
- ASTM C631 (2009; R 2014) Bonding Compounds for Interior Gypsum Plastering
- ASTM C842 (2005; E 2010; R 2010) Application of Interior Gypsum Plaster
- ASTM E1042 (2002; R 2014) Acoustically Absorptive Materials Applied by Trowel or Spray

FM GLOBAL (FM)

- FM APP GUIDE (updated on-line) Approval Guide <http://www.approvalguide.com/>

UNDERWRITERS LABORATORIES (UL)

- UL Fire Resistance (2014) Fire Resistance Directory

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.

SD-03 Product Data

Gypsum Base Coat Plaster

Gypsum Finish Coat Plaster

SD-08 Manufacturer's Instructions

Ready-Mix Gypsum Plaster

1.3 DELIVERY, STORAGE, AND HANDLING

Deliver manufactured materials in the manufacturers' original unbroken packages or containers which are labeled plainly with the manufacturers' names and brands. Keep cementitious materials dry and stored off the ground, under cover, and away from sweating walls and other damp surfaces until ready for use. Keep materials wrapped and separate from off-gassing materials, such as paints and adhesives. Do not use materials that have visible moisture or biological growth.

1.4 SCHEDULING AND ENVIRONMENTAL REQUIREMENTS

Commence application only after the area scheduled for gypsum plastering work is completely weathertight. The heating, ventilating, and air-conditioning systems must be complete and in operation prior to application of the plaster. If the mechanical system cannot be activated before veneer plastering is begun, the plastering may proceed in accordance with an approved plan to maintain the environmental requirements specified below. Apply plaster prior to the installation of finish flooring and acoustic ceiling.

1.4.1 Environmental Requirements

Do not expose the gypsum base to excessive sunlight prior to plaster application, as bond failure of the plaster may result. Maintain a continuous uniform temperature of not less than 50 degrees F and not more than 80 degrees F for at least one week prior to the application of veneer plaster, while the plastering is being done, and for at least one week after the plaster is set. Shield air supply and distribution devices to prevent any uneven flow of air across the plastered surfaces. Provide ventilation to exhaust moist air to the outside during plaster application, set, and until plaster is dry. In glazed areas, keep windows open top and bottom or side to side 3 to 4 inches. Openings can be reduced in cold weather. For enclosed areas lacking natural ventilation, provide temporary mechanical means for ventilation.

In unglazed areas subjected to hot, dry winds or temperature differentials from day to night of 20 degrees F or more, screen openings with cheesecloth or similar materials. Avoid rapid drying. During periods of low indoor humidity, provide minimum air circulation following plastering and until plaster is dry.

PART 2 PRODUCTS

2.1 MATERIALS

Conform to the specifications, standards, and requirements specified herein. Provide asbestos-free materials.

2.2 GYPSUM BASE COAT PLASTER

2.2.1 Gypsum Ready-Mixed Plaster Base Coat

ASTM C28/C28M.

2.3 GYPSUM FINISH COAT PLASTER

2.3.1 Gypsum Gauging Plaster Finish Coat

ASTM C28/C28M.

2.4 HYDRATED LIME

ASTM C206, Type S.

2.5 AGGREGATES

2.5.1 Sand for Gypsum Base Coats

ASTM C35.

Sand Gradation: Percentage retained by weight (plus or minus 2 percent) on each sieve.

<u>Sieve Size</u>	<u>Maximum</u>	<u>Minimum</u>
No. 4	0	0
No. 8	5	0
No. 16	30	5
No. 30	65	30
No. 50	95	65
No. 100	100	90

2.5.2 Sand for Gypsum Sand Float Finish

ASTM C842.

Sand Gradation: Percentage retained by weight (plus or minus 2 percent) on each sieve.

<u>Sieve Size</u>	<u>Maximum</u>	<u>Minimum</u>
No. 20	0	
No. 30	0.5	
No. 100	100	40
No. 200	100	70

2.5.3 Lightweight Aggregate, Perlite or Vermiculite for Gypsum Base Coat

ASTM C35.

2.5.4 Silica Sand or Perlite Fines

For use in lime-putty gypsum-gauged finish, aggregated white coat, must have the following gradation: 10 percent maximum retained on a No. 30 sieve, 4 percent minimum and 70 percent maximum retained on a No. 100 sieve, and 70 percent minimum and 100 percent maximum retained on a No. 200 sieve.

2.6 WATER

Use only potable water, free of mineral and organic substances that affect the hardening and durability of the plaster or stucco.

2.7 PROPORTIONING

Unless specified otherwise, materials are specified on a volume basis and must be measured in approved containers, to ensure that the specified proportions will be controlled and accurately maintained during the progress of the work. Measuring materials with shovels (shovel count) is not permitted. Prepare ready-mix gypsum plaster for use by the addition of water only.

2.7.1 Gypsum Base Coat Plaster

Use of sand or lightweight aggregate is optional in gypsum plaster basecoats, except provide (1) sand for Keene's cement and high strength gypsum-gauged finish coats; (2) lightweight aggregate when necessary for a required fire resistance rating.

2.7.1.1 Sand and Gypsum Plaster Base Coat

Mix scratch coat in the proportion of 100 lbs of gypsum neat plaster to not more than 2 cu ft of damp loose sand; mix brown coat in the proportion of 100 lb of gypsum neat plaster to not more than 3 cu ft of damp loose sand; or scratch and brown coats may both be mixed in the proportion of 100 lb of gypsum neat plaster to not more than 2-1/2 cubic feet of damp loose sand.

2.7.1.2 Lightweight Aggregate and Gypsum Plaster Base Coat

Mix scratch coat in the proportion of 100 lbs of gypsum neat plaster to not more than 3 cu ft of lightweight aggregate on masonry. Mix brown coat in the proportion of 100 lbs of gypsum neat plaster to not more than 3 cu ft of lightweight aggregate on masonry. Gypsum ready-mixed plaster with perlite aggregate may be provided in lieu of field-mixed lightweight aggregate and gypsum plaster, provided the specified proportion of aggregate to plaster does not exceed the proportion specified for field-mixed plaster.

2.7.2 Gypsum Plaster Finish Coat

2.7.2.1 Gypsum Sand Float Finish

Mix finish in the proportion of one part neat unfibered gypsum plaster to not more than two parts of sand, by weight.

2.8 MIXING

2.8.1 Job-Mixed Materials

Mix materials in mechanical mixers except finish coats containing lime may be hand mixed. Mechanical mixers must be an approved type that accurately and uniformly controls the quantity of water. When mixing by hand, mix dry plaster aggregate to a uniform color in the mixing box, add water, and hoe the plaster immediately into the water and mix thoroughly to a proper consistency.

2.8.1.1 Water

Water used for rinsing and cleaning containers and tools must not be used in mixing the materials.

2.8.1.2 Sand

Sand proportions must be damp and in loose condition. A volume of damp loose sand must contain a minimum of 80 lbs of dry sand in one cu ft.

2.8.1.3 Mixing (Do's)

Mix the material while the mixer is in continuous operation in the following sequence:

- a. Add maximum (close to 90 percent) of estimated quantity of water.
- b. Add approximately one-half of the sand. If vermiculite or perlite is used, add all the aggregate.
- c. Add cement and approved admixtures.
- d. Add remainder of sand.
- e. Mix with remainder of water as required. Mix until the mixture is uniform in color and consistency.

2.8.1.4 Mixing (Don'ts)

Avoid excessive mixing and agitation. Discard gypsum plaster which has begun to set before it is used; do not permit retempering. Do not use frozen, caked, or lumped materials. Empty mixers and mixing boxes after each batch is mixed, and keep free of old plaster.

2.8.2 Ready-Mixed Packaged Materials

Mix ready-mixed packaged gypsum plaster in accordance with manufacturer's printed instructions.

2.9 BONDING AGENT

ASTM C631, interior application.

PART 3 EXECUTION

3.1 SURFACE PREPARATION

Clean surfaces before application of gypsum plaster of projections, dust, loose particles, grease, bond breakers, and foreign matter. Do not apply plaster directly to surfaces (1) of masonry or concrete that have been coated with bituminous compound or other waterproofing agents, or (2) that have been painted or previously plastered. Before plaster work is started, wet masonry and concrete surfaces thoroughly with a fine fog spray of clean water to produce a uniformly moist condition. Check metal grounds, corner beads, screeds, and other accessories carefully for alignment before starting work. Do not apply gypsum plaster to surfaces containing frost.

3.2 WORKMANSHIP

3.2.1 Slump Tests

Apply Plaster by hand or machine. When a plastering machine is used, control the fluidity of gypsum plaster to have a slump of not more than 3 inch when tested using a 2 by 4 by 6 inch high slump cone. Subsequent to determining water content to meet the specified slump, do not add additional water to the mix. Conduct the slump test according to the following procedure:

- a. Place cone on level, dry, non-absorptive base plate.
- b. While holding cone firmly against base plate, fill cone with plaster taken directly from the hose or nozzle of the plastering machine, tamping with metal rod during filling to release air bubbles.
- c. Screed off plaster level with top of cone. Remove cone by lifting it straight up with a slow and smooth motion.
- d. Place cone in a vertical position adjacent to freed plaster sample, using care not to shake or move base plate.
- e. Lay a straightedge across top of cone, being careful not to shake or move cone. Measure slump in mm inch from the bottom edge of the straightedge to the top of the slumped plaster sample.

3.2.2 Application

Apply gypsum plaster in three coats, except as follows:

Gypsum plaster applied to masonry using a two-coat double-up method.

Apply base coats with sufficient pressure and ensure plaster is sufficiently plastic to provide a strong bond to bases. Work base coats into screeds at intervals from 5 to 8 ft. Plaster must not be continuous across expansion and control joints occurring in walls, partitions, and ceilings. Finish work level, plumb, square, and true, within a tolerance of 1/8 inch in 8 ft, without waves, cracks, blisters, pits, crazing, discoloration, projections, or other imperfections. Form plaster work carefully around angles and contours, and well-up screeds. Take special care to prevent sagging and consequent dropping of applications. There must be no visible junction marks in finish coat where one day's work adjoins another.

3.2.3 Curing

3.2.3.1 Gypsum Plaster

Before the plaster has set, provide environmental controls to prevent the plaster from drying too fast. After the plaster has set, provide for rapid drying to develop high strength.

3.3 GYPSUM PLASTER WORK

ASTM C842.

3.3.1 Gypsum Plaster Thickness Requirements

Plaster thicknesses are from face of metal lath plaster base (scratch coat) or solid base surfaces.

a. Vertical Surfaces

<u>Base Types</u>	<u>Base Coat</u>	<u>Finish Coat</u>	<u>Total Thickness</u>
Metal Lath	13 mm 1/2 inch	3 mm 1/8 inch	16 mm 5/8 inch
Masonry	13 mm 1/2 inch	3 mm 1/8 inch	16 mm 5/8 inch
Concrete	13 mm 1/2 inch	3 mm 1/8 inch	16 mm 5/8 inch
Other Bases	10 mm 3/8 inch	3 mm 1/8 inch	13 mm 1/2 inch

b. Horizontal Surfaces. Total plaster thickness for metal lath plaster, masonry and concrete bases is 16 mm 5/8 inch. Total thickness of plaster for horizontal concrete surfaces is 3 to 10 mm 1/8 to 3/8 inch.

c. Where vertical and horizontal concrete surfaces require more than 16 mm 5/8 inch and 10 mm 3/8 inch, to produce required lines or surfaces, [attach metal plaster base for plaster application] [as indicated].

3.3.2 Gypsum Plaster Basecoat Work

3.3.2.1 Gypsum Two-Coat System

Apply the first coat to cover the base with sufficient material and pressure to form a good bond on the wall or ceiling base. Before the first coat has set and without scratching or cracking the surface, apply a second coat (double back) of the same material proportion as the base coat to the screeds. Straighten to a true surface without application of water, and cross rake or scratch to receive the finish coat.

3.3.2.2 Gypsum Three-Coat System

Apply scratch coat 5 to 6 mm 3/16 to 1/4 inch thick to cover the base with sufficient material and pressure to form a good bond on the wall or ceiling base. Rake or scratch the surface and allow to set firm and hard. Apply the brown coat to bring the base coat out to the screeds, compact and straighten to a true surface without the application of water, and cross rake or scratch to receive the finish coat.

3.3.3 Gypsum Plaster Finish Coats

Moderately moisten or fog spray base coat of plaster that has become dry before finish coat is applied. Accelerate plaster, if necessary, to provide a setting time of not more than 4 hours from the time the plaster is mixed.

3.3.3.1 Lime-Putty and Gypsum-Gauged Finish Coats

Apply lime-putty gypsum-gauged finish white coat or aggregated white coat over the base coat, scratch in thoroughly, lay on well, double back, and fill out to a true, even surface. Allow the finish to dry a few minutes, then trowel well with water. Apply maximum pressure in order to compact the finish coat and provide a smooth finish free from blemishes and irregularities. Apply trowel finish coats of gypsum-gauged lime-putty over properly prepared base coats as thin as possible and 1/16 to 1/8 inch thick for conventional plaster system, except as necessary in spots to level out hollows in base coat.

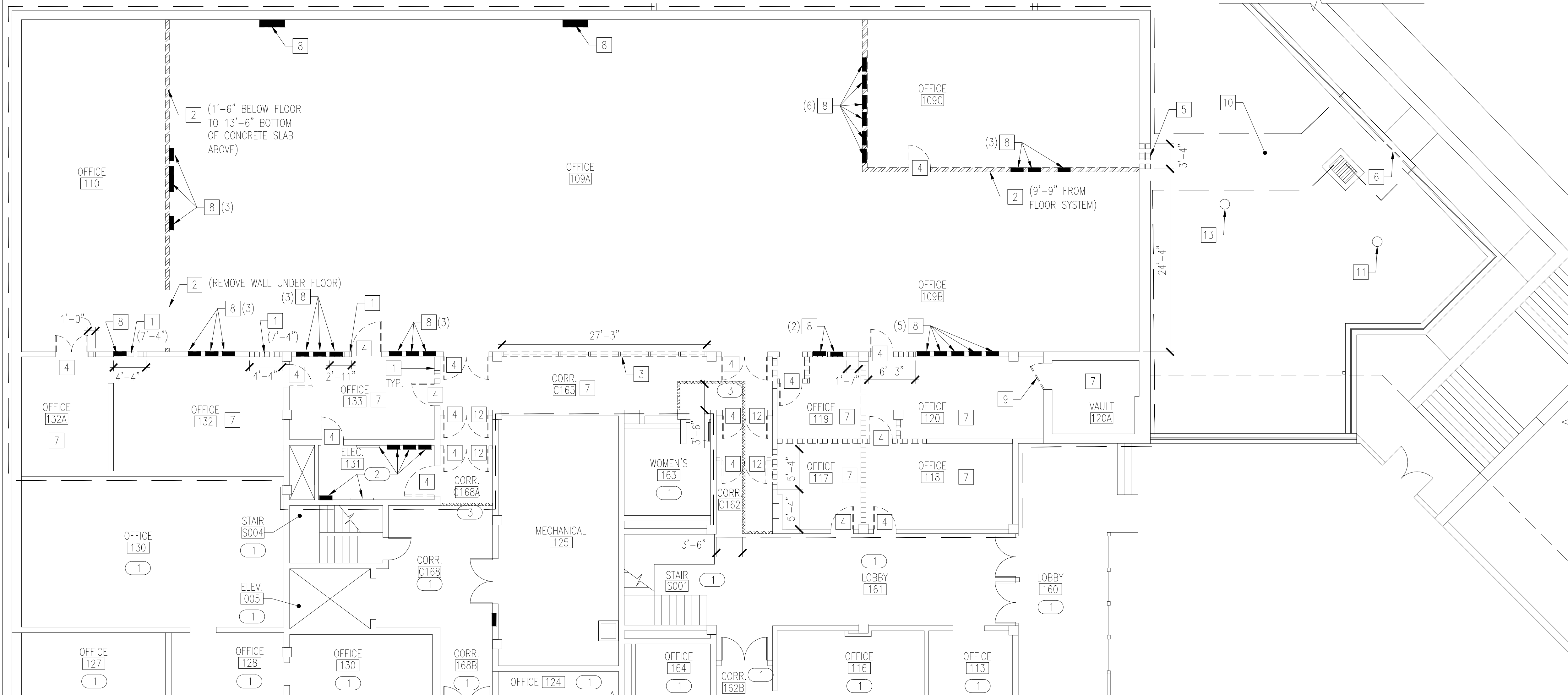
3.3.3.2 Gypsum Sand Float Finish Coat

Apply finish over the base coat, scratch in thoroughly, lay on with a trowel to an even surface, and then float to a true, even surface, free of slick spots or other blemishes. Apply sand float finishes to a maximum thickness of 1/8 inch except as necessary to level-out hollow spots.

3.5 PATCHING AND POINTING

Cut out and patch loose, cracked, damaged, or defective gypsum plaster. Patch must match existing work in texture, color and finish flush with previously applied gypsum plaster surfaces. Point work abutting or adjoining finish work in a neat manner. Remove droppings or splatterings from surfaces. Leave clean and in a condition to receive paint or other finish. Remove protective covering from floors and other surfaces, and rubbish and debris from [the interior and exterior of] the building.

-- End of Section --

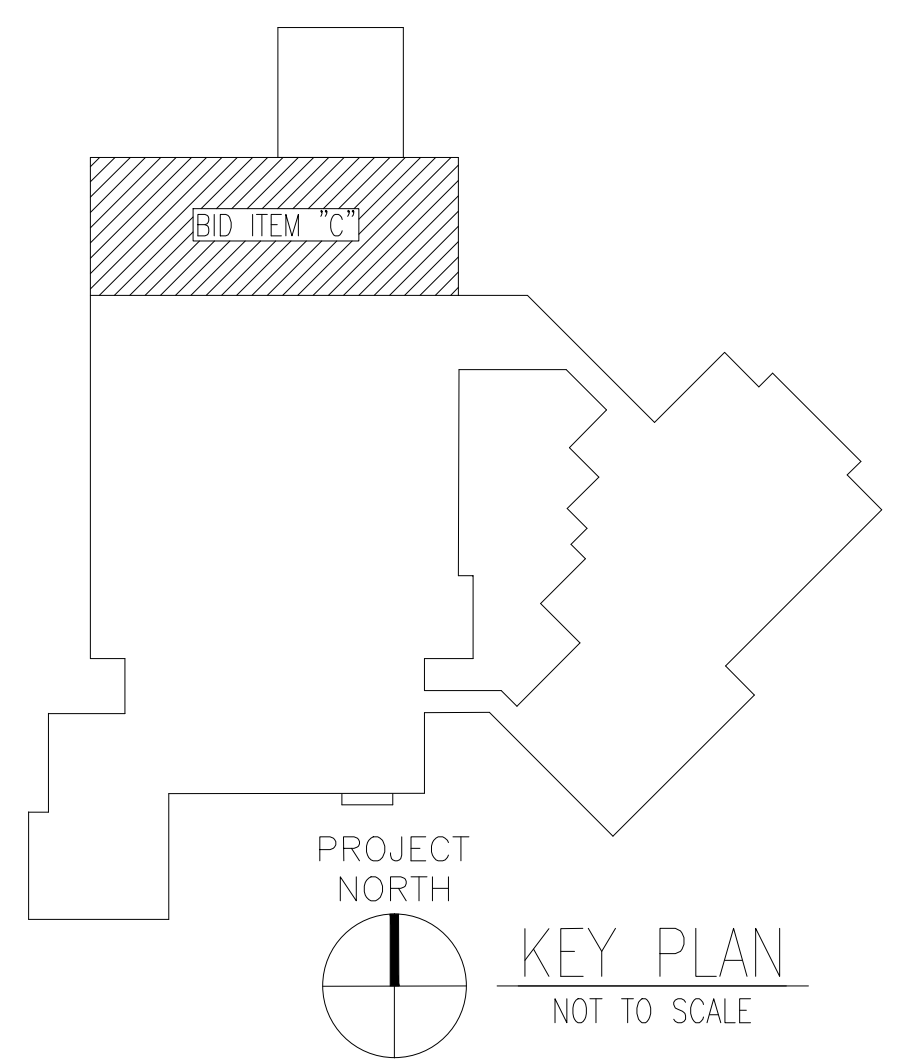
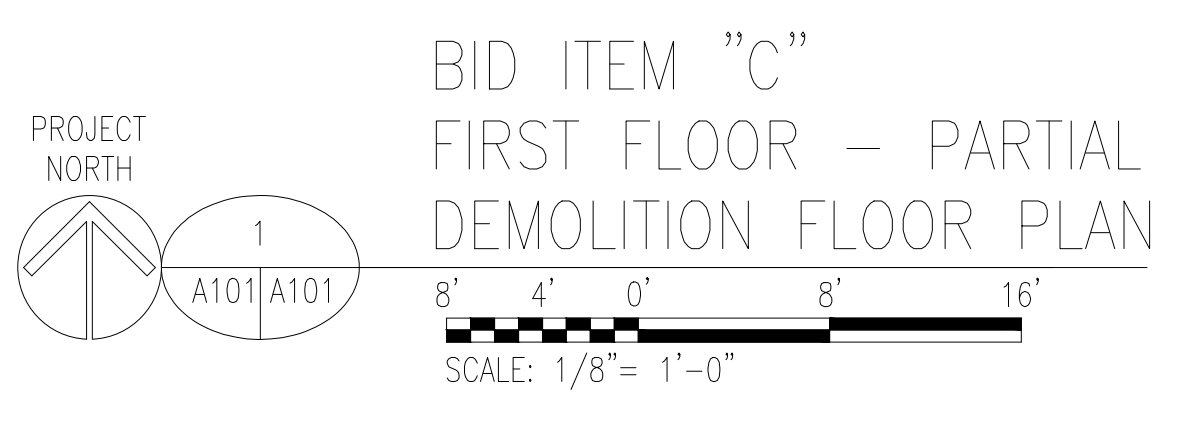


- ### LEGEND
- INDICATES BOUNDARY OF WORK AREA
 - ⌞ REMOVE 2x2 RAISED ACCESS FLOOR SYSTEM. ASBESTOS CONTAINING MASTIC UNDER FLOOR SYSTEM SUPPORTS TO BE REMOVED.
 - ══ EXISTING WALLS TO REMAIN
 - ▣ REMOVE 8" CMU WALL; IF HEIGHT NOT INDICATED, THEN REMOVE FULL HEIGHT OF WALL.
 - ▨ REMOVE 3 5/8" GMS W/ 2 LAYERS 5/8" GWB TO 9'-0" AFF.
 - ⌞ EXISTING DOOR TO REMAIN
 - ⌞ REMOVE DOOR AND FRAME

- ### DEMOLITION KEYNOTES
- 1 REMOVE 8x8x16 CMU WALL CONSTRUCTION FOR NEW OPENING. DIMENSION IN PARENTHESES INDICATES HEIGHT TO BE REMOVED.
 - 2 REMOVE 3 5/8" GALVANIZED METAL STUDS @ 1'-6" O.C. WITH 5/8" GYPSUM WALL BOARD ON BOTH SIDES. DIMENSION IN PARENTHESES INDICATES HEIGHT TO BE REMOVED.
 - 3 REMOVE HOLLOW METAL WINDOW IN 8" CMU WALL TO 10'-4" ABOVE FFE.
 - 4 REMOVE DOOR AND DOOR FRAME.
 - 5 REMOVE EXTERIOR WALL CONSTRUCTION FOR NEW EMERGENCY EXIT DOOR.
 - 6 REMOVE METAL GUARDRAIL AND CONCRETE CURB FOR NEW SIDEWALK.
 - 7 REMOVE FLOOR FINISH THIS AREA. TILES CONTAINING ASBESTOS ARE TO BE REMOVED.
 - 8 REMOVE ELECTRICAL PANELS, SEE ELECTRICAL. NUMBER IN PARENTHESES INDICATES NUMBER OF PANELS.
 - 9 REMOVE VAULT DOOR. REMOVE HINGE AND WELD COVER PLATES, GRIND SMOOTH AND PREP FOR PAINTING.
 - 10 REMOVE TOP SOIL FOR CONSTRUCTION OF SIDEWALK/RAMP.
 - 11 EXISTING LIGHT POLE TO REMAIN.
 - 12 REMOVE PARTITION WALL.
 - 13 PROTECT TREE.

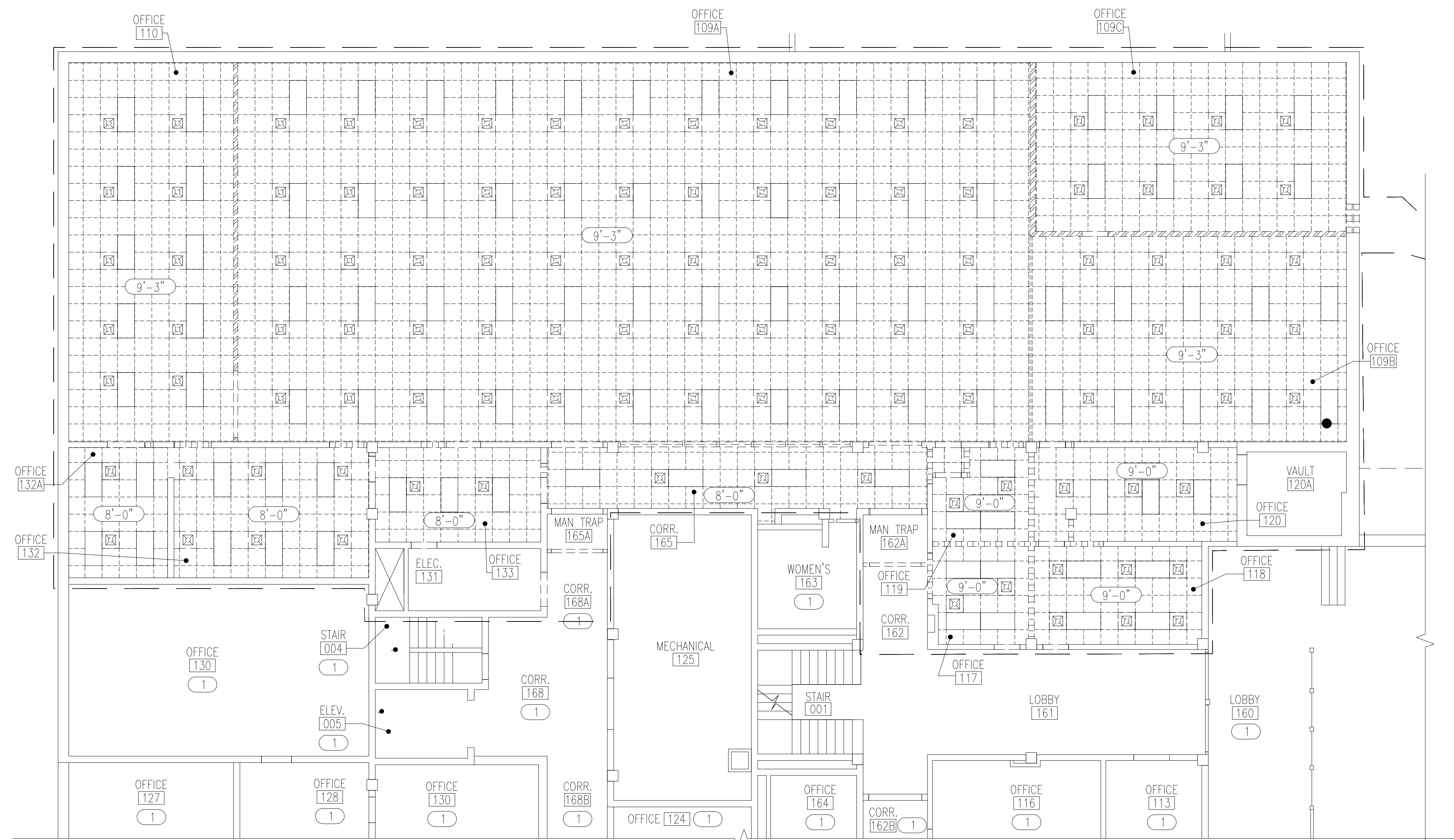
- ### KEYNOTES
- 1 NO WORK THIS SPACE.
 - 2 EXISTING ELECTRICAL PANELS; SEE ELECTRICAL FOR THOSE TO REMAIN AND THOSE TO BE REMOVED.
 - 3 TEMPORARY CONSTRUCTION ZONE SEPARATION WALL: FLOOR-TO-CEILING METAL STUDS WITH ONE LAYER OF 5/8" THICK, IMPACT-RESISTANT DRYWALL ON NON-CONSTRUCTION ZONE SIDE.

- ### GENERAL NOTES:
1. SEE ALL OTHER DISCIPLINES FOR ADDITIONAL DEMOLITION.
 2. SEE SHEET A221 FOR ADDITIONAL ABOVE CEILING DEMOLITION.
 3. ASBESTOS FLOOR TILES ARE PRESENT IN ALL SPACES EXCEPT AT RAISED ACCESS FLOOR SYSTEM. RAISED ACCESS FLOOR SYSTEM HAS ASBESTOS MASTIC AT THE FLOOR SYSTEM SUPPORTS. ALL ASBESTOS CONTAINING MATERIALS ARE TO BE REMOVED.



Hernandez · Calhoun
Design International
Architecture • Interior Design

REVISION	DATE	DESCRIPTION	BY	APPR'D
<p>BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA</p>				
AS-BUILT				
DATE		DRAWN BY S. CAMPBELL	TITLE	
SIGNATURE		PROJ. ENGR. S. HERNANDEZ	<p>MODIFY CONTROL ROOMS BLDG 380</p>	
APPROVED		APPROVED		
CENM		FIRE PROTECTION ENGR.		
APPROVED		APPROVED		
PROGRAM MANAGER		SAFETY REPRESENTATIVE		
		APPROVED		
		DIR. BASE MED. SERVICE	CONTENTS	
		APPROVED	<p>BID ITEM "C" FIRST FLOOR - PARTIAL DEMOLITION FLOOR PLAN</p>	
		USING AGENCY	APPROVED	
		APPROVED	APPROVED	
		COMMUNICATIONS	APPROVED	
		APPROVED	APPROVED	
		OPERATIONS ENGINEERING	DATE APR 2019	
		APPROVED	DATE JULY 2018	
		ENVIRONMENTAL	SCALE	
		APPROVED	APPROVED	
INDEX NO.	A101	DEPUTY BASE CIVIL ENGINEER		
SPEC. NO.	17AA	PROJ. NO. FTFA 17-1050	DRAWING NO. A10117AA	FILE NO.
				SHEET 3 OF 86

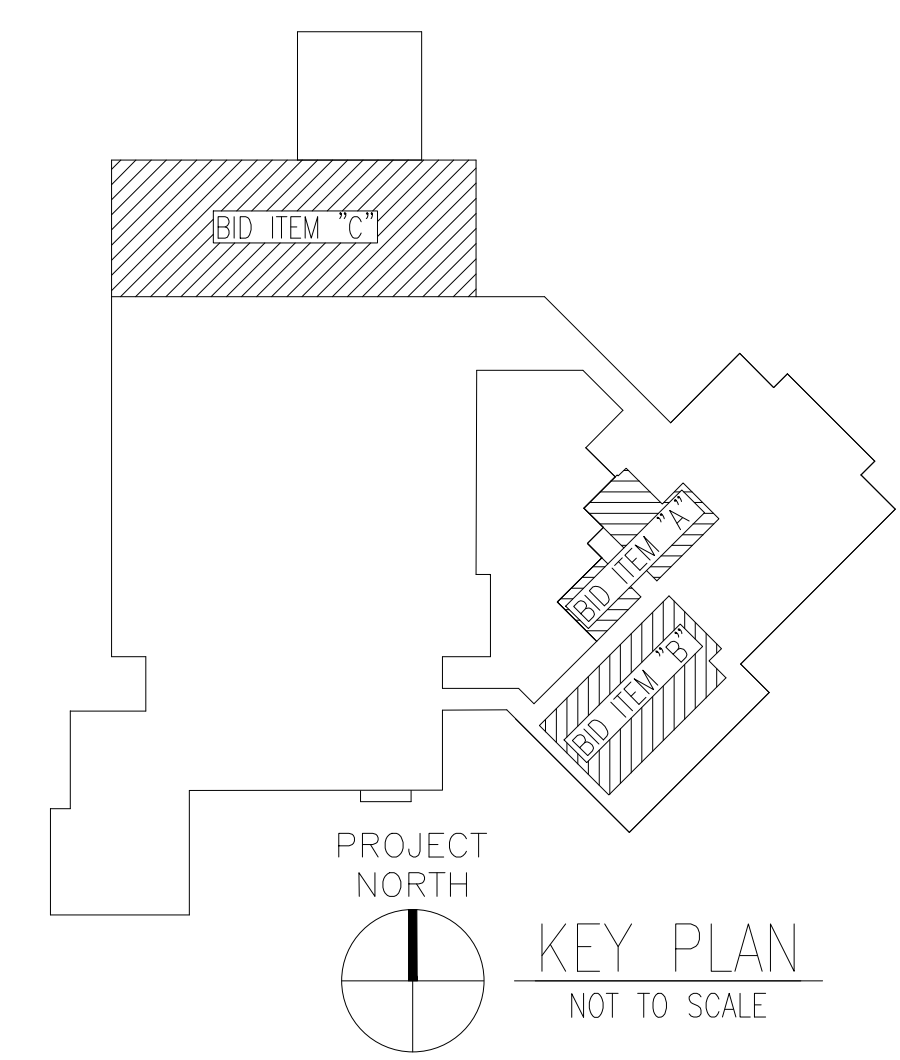


BID ITEM "C"
 FIRST FLOOR - PARTIAL
 DEMOLITION REFLECTED CEILING PLAN
 SCALE: 1/8" = 1'-0"

- LEGEND**
- INDICATES BOUNDARY OF WORK AREA
 - REMOVE 2x2 ACOUSTICAL CEILING TILE SYSTEM, LIGHTING AND ALL OTHER SYSTEM COMPONENTS IN THE SUSPENDED CEILING SYSTEM. SEE MECHANICAL, FIRE PROTECTION AND ELECTRICAL DRAWINGS FOR ADDITIONAL ITEMS TO BE REMOVED.
 - CAREFULLY REMOVE EXISTING LIGHT FIXTURE & TURN OVER TO THE GOVERNMENT; SEE ELECTRICAL DRAWINGS
 - REMOVE EXISTING MECHANICAL EQUIPMENT; SEE MECHANICAL DRAWINGS
 - INDICATES EXISTING CEILING HEIGHT

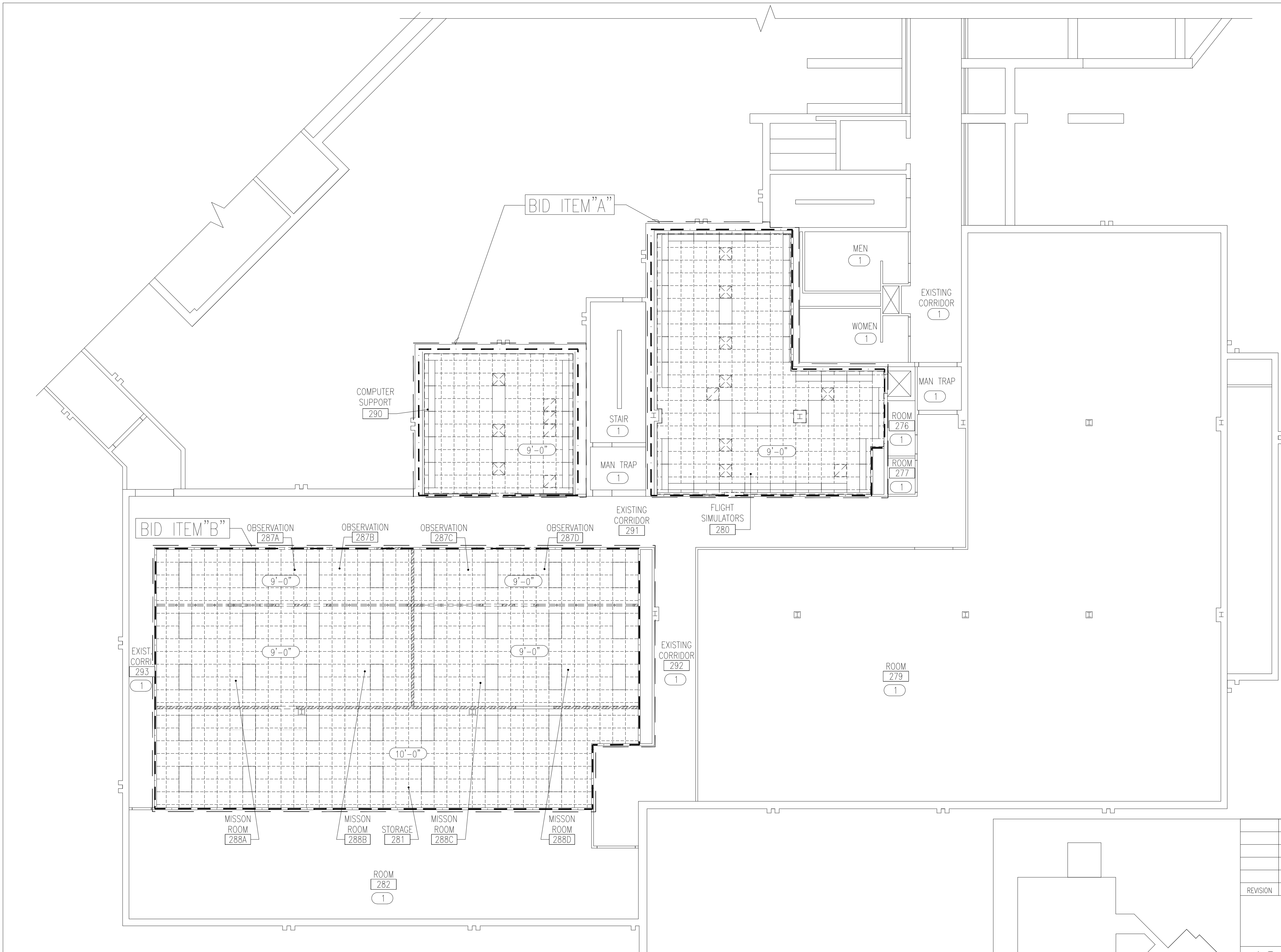
- KEYNOTES**
- NO WORK THIS SPACE.

- GENERAL NOTES:**
1. SEE ALL OTHER DISCIPLINES FOR ADDITIONAL DEMOLITION.
 2. SEE SHEET A221 FOR ADDITIONAL DEMOLITION ABOVE CEILING.
 3. CEILING HEIGHT IS 9'-0" UNO.



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REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY: S. CAMPBELL PROJ. ENGR: S. HERNANDEZ APPROVED: _____ SIGNATURE: _____ APPROVED: _____ CENM: _____ APPROVED: _____ PROGRAM MANAGER: _____		
		TITLE: MODIFY CONTROL ROOMS BLDG 380 CONTENTS: BID ITEM "C" FIRST FLOOR - PARTIAL DEMOLITION REFLECTED CEILING PLAN		
INDEX NO. A103		APPROVED: _____ OPERATIONS ENGINEERING: 96 CEG/CEN APPROVED: _____	DATE: APR 2019 JULY 2018	SCALE: _____
SPEC. NO. 17AA		DEPUTY BASE CIVIL ENGINEER: _____ PROJ. NO. FTFA 17-1050	DRAWING NO. A10317AA	FILE NO. _____
SHEET 5 OF 86				



LEGEND

- INDICATES BOUNDARY OF WORK AREA
- INDICATES SECURE AREA BOUNDARY
- REMOVE 2X2 ACOUSTICAL CEILING TILE SYSTEM, LIGHTING AND ALL OTHER SYSTEM COMPONENTS IN THE SUSPENDED CEILING SYSTEM; SEE MECHANICAL, FIRE PROTECTION, AND ELECTRICAL DRAWINGS FOR ADDITIONAL ITEMS TO BE REMOVED.
- CAREFULLY REMOVE EXISTING LIGHT FIXTURE & TURN OVER TO THE GOVERNMENT; SEE ELECTRICAL DRAWINGS
- INDICATES EXISTING CEILING HEIGHT ABOVE FLOOR

DEMOLITION KEYNOTES

KEYNOTES

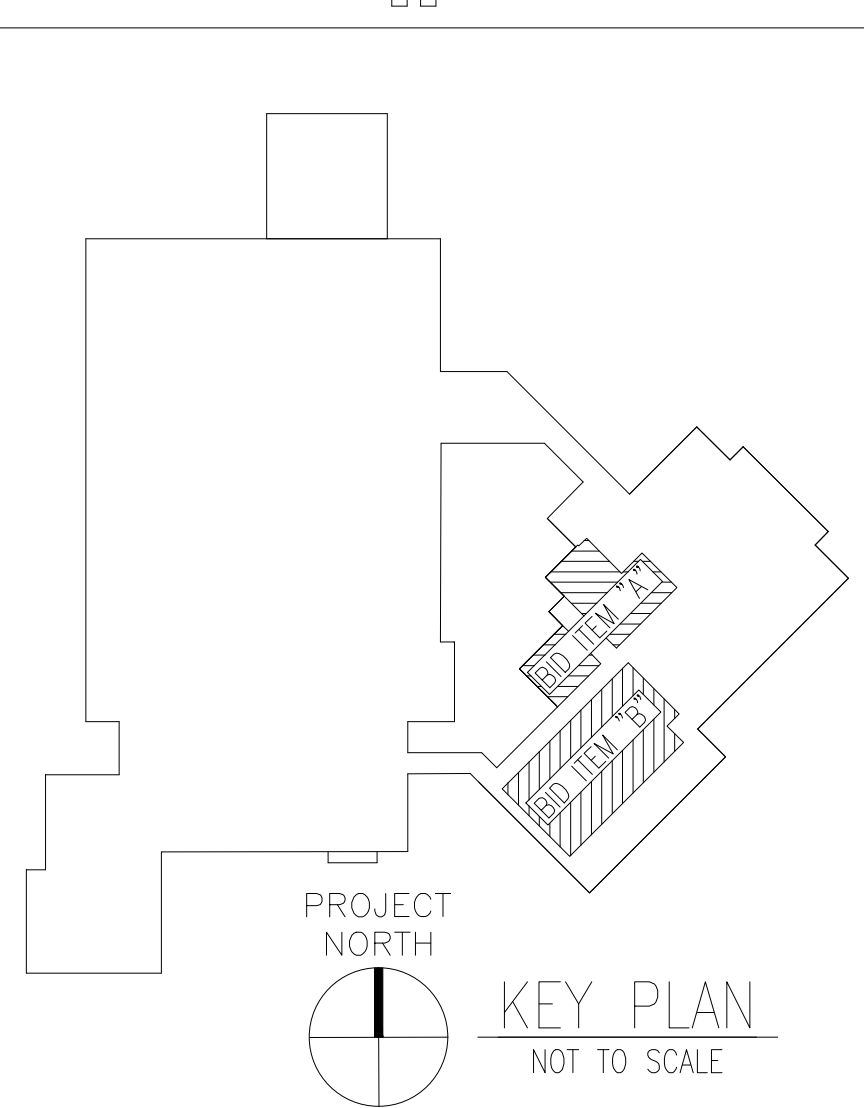
- NO WORK THIS SPACE.

- GENERAL NOTES:**
- SEE ALL OTHER DISCIPLINES FOR ADDITIONAL DEMOLITION.
 - SEE SHEET A221 FOR ADDITIONAL DEMOLITION ABOVE CEILING.
 - CEILING HEIGHT IS 9'-0" UNO.

PROJECT NORTH

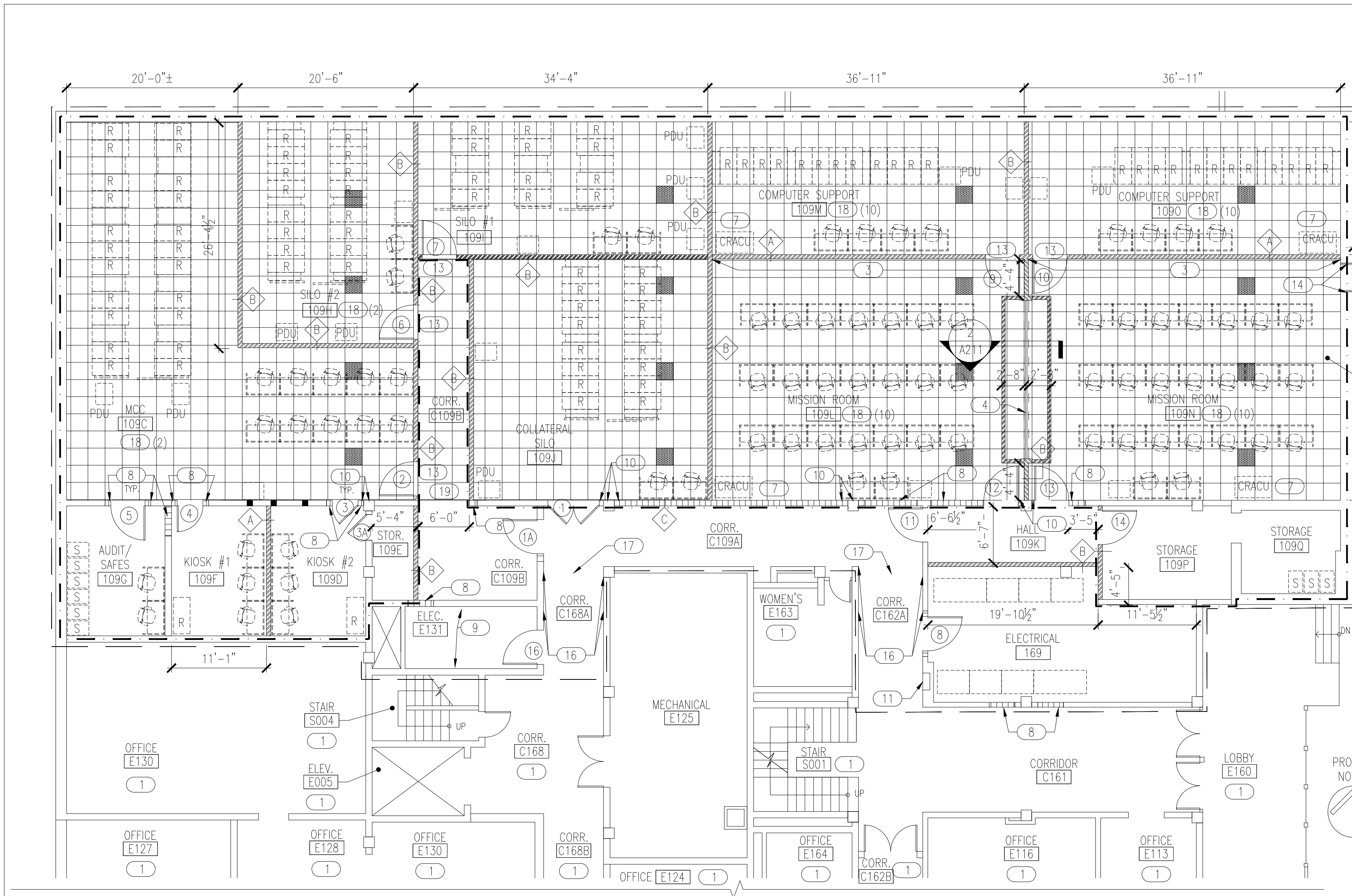
BID ITEMS "A" & "B"
SECOND FLOOR - PARTIAL
DEMOLITION REFLECTED CEILING PLAN

SCALE: 1/8" = 1'-0"



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REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY: S. CAMPBELL	TITLE	
DATE		PROJ. ENGR. S. HERNANDEZ	MODIFY CONTROL ROOMS BLDG 380	
SIGNATURE		APPROVED		
APPROVED		FIRE PROTECTION ENGR.		
CENM		APPROVED		
APPROVED		SAFETY REPRESENTATIVE		
PROGRAM MANAGER		APPROVED		
		DIR. BASE MED. SERVICE		
		APPROVED	CONTENTS	
		USING AGENCY	BID ITEMS "A" & "B" SECOND FLOOR - PARTIAL DEMOLITION REFLECTED CEILING PLAN	
		APPROVED		
		COMMUNICATIONS		
		APPROVED		
		OPERATIONS ENGINEERING	APPROVED	DATE
		APPROVED	96 CEG/CEN	APR 2019
		ENVIRONMENTAL	APPROVED	SCALE
		SPEC. NO.	DEPUTY BASE CIVIL ENGINEER	
		17AA	PROJ. NO.	FILE NO.
			FTFA 17-1050	A10417AA
			DRAWING NO.	SHEET 6 OF 86



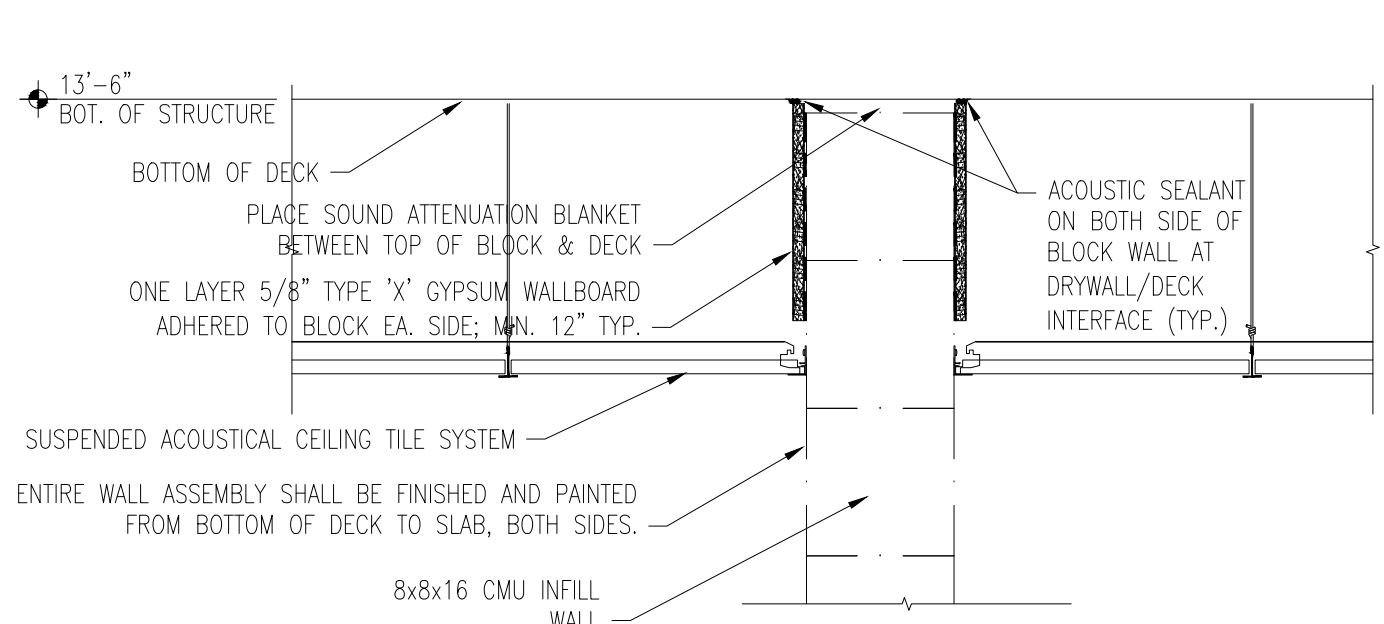
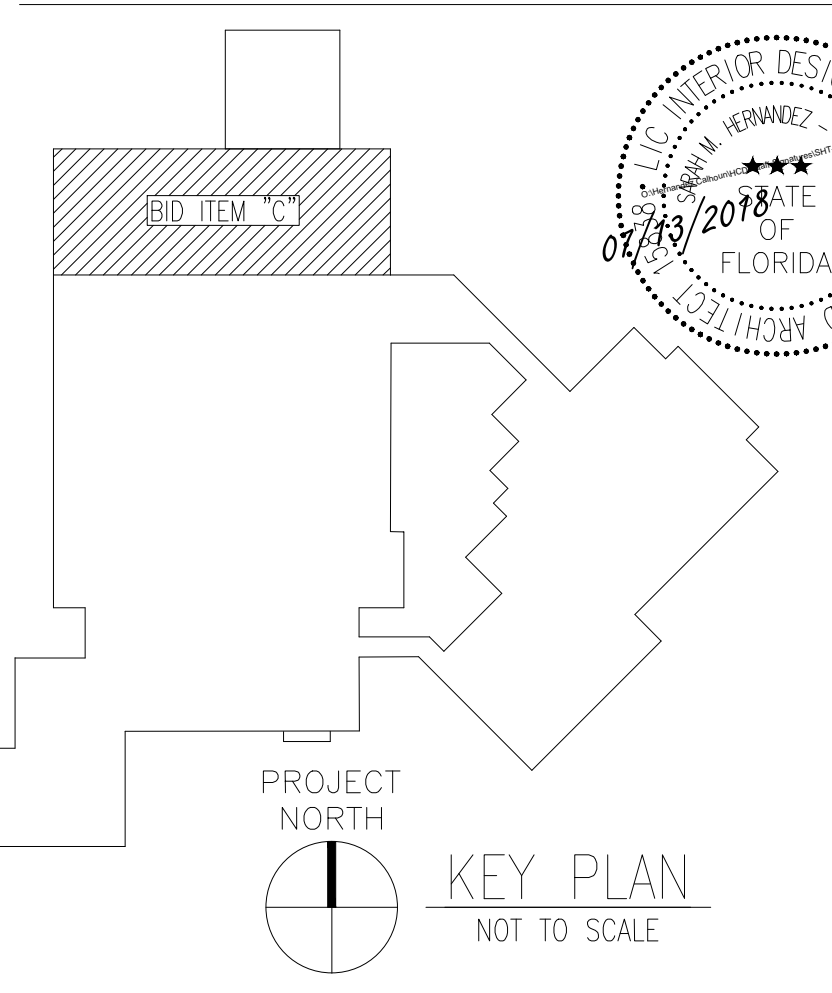
BID ITEM "C"
FIRST FLOOR - PARTIAL
NEW WORK FLOOR PLAN
SCALE: 1/8" = 1'-0"

- LEGEND**
- - - - - INDICATES BOUNDARY OF WORK AREA
 - — — — — INDICATES SECURE AREA BOUNDARY
 - — — — — INDICATES 2x2 RAISED ACCESS FLOOR SYSTEM. SYSTEM STOPS AT ALL WALLS. START SYSTEM WITH WHOLE TILES LOWER RIGHT CORNER OF EACH ROOM.
 - 8x8x16" CMU WALL CONSTRUCTION; CMU SIZE TO MATCH EXISTING
 - 3 3/8" GMS @ 16" O.C. WITH 3/8" GWB BOTH SIDES FROM CONCRETE SLAB TO BOTTOM OF DECK ABOVE. 3 1/2" ACOUSTIC INSULATION FROM FLOOR TO BOTTOM OF DECK.
 - 3 3/8" GMS @ 16" O.C. WITH 2 LAYERS 3/4" TYPE 'X' GWB ON BOTH SIDES FROM CONCRETE SLAB TO BOTTOM OF DECK. 3/4" #9 EXPANDED METAL MESH ON SECURE SIDE OF WALL FROM CONCRETE SLAB TO BOTTOM OF DECK; WELD TO STUDS OR MECHANICALLY FASTEN AT 12" O.C. PROVIDE 3 1/2" SOUND ATTENUATION BLANKETS FROM FLOOR TO BOTTOM OF DECK. INSTALL LAYER OF VISCOELASTIC SOUND DAMPING COMPOUND BETWEEN 2 LAYERS OF GYPSUM WALLBOARD ON BOTH SIDES OF WALL.
 - HOLLOW METAL DOOR AND FRAME, DOOR IDEN; SEE DOOR SCHEDULE
 - EXISTING DOOR TO REMAIN
 - INTERIOR SIGNAGE; SEE SIGNAGE SCHEDULE SHEET A600
 - COMPUTER RACK; SEE TELECOMM DRAWINGS
 - POWER DISTRIBUTION UNIT; SEE ELECTRICAL DRAWINGS
 - UPS UNINTERRUPTED POWER SUPPLY; SEE TELECOMM AND ELECTRICAL DRAWINGS
 - SAFE; NIC
 - COPY
 - COPIER / PRINTER; NIC
 - WORKSTATIONS, PRINTERS & SAFES; NIC
 - RAISED ACCESS FLOOR SYSTEM PERFORATED AIR RETURN PANELS. PANELS DUCTED TO RETURN; SEE MECHANICAL

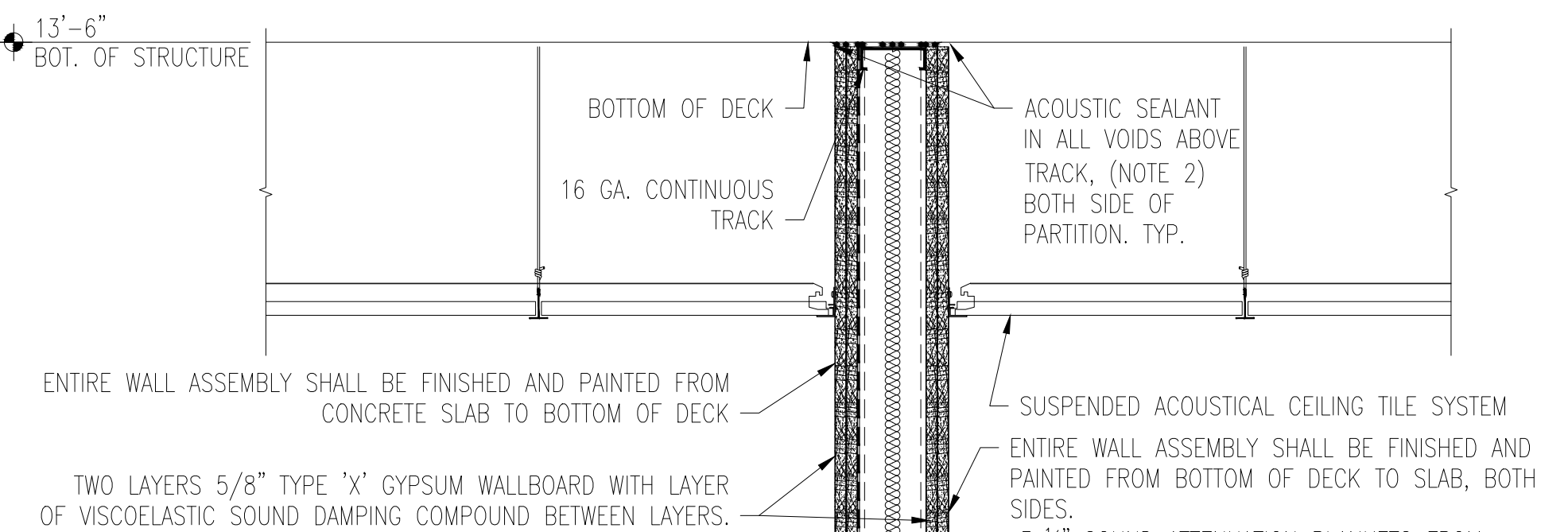
- KEYNOTES**
- NO WORK IN THIS SPACE
 - 4'-0"W x 4'T REINFORCED SIDEWALK.
 - PROVIDE CONTINUOUS 3/4" FIRE RATED PLYWOOD BEHIND GYPSUM WALLBOARD ON "MISSION ROOM" SIDE OF WALL FROM CONCRETE SLAB TO BOTTOM OF DECK.
 - UPWARD ACTING ACOUSTIC WALL SYSTEM(AVRAW); BASIS-OF-DESIGN: SKYFOLD CLASSIC RETRACTING WALL. SYSTEM OPERATED BY USE OF TWO KEYS, ONE IN ROOM 109L AND ONE IN ROOM 109O. WALL TYPE "B" WILL BE CONSTRUCTED DIRECTLY BELOW THE ACOUSTICAL WALL SYSTEM. SEE DETAIL 2/A211
 - 2x2 RAISED ACCESS FLOORING SYSTEM; BASIS-OF-DESIGN: IRVINE CONCORE CC1500
 - ELECTRICAL PANELS; SEE ELECTRICAL
 - MECHANICAL UNIT; SEE MECHANICAL
 - 8x8x16 CMU INFILL CONSTRUCTION WITH HIGH PERFORMANCE ARCHITECTURAL LATEX FINISH (BOTH SIDES). 8x8x16 JAMB BLOCK WITH #4 REBAR AT DOORS. SET DOWELS AT 2'-0" O.C. VERTICALLY; 6" EMBED MINIMUM BOTH SIDES.
 - EXISTING ELECTRICAL PANELS; SEE ELECTRICAL
 - FINISH FACE OF NEW WALL CONSTRUCTION TO ALIGN WITH EXISTING FACE OF WALL / COLUMN
 - EXISTING FIRE HOSE CABINET TO REMAIN
 - CUT/CLEAN/PAINT METAL RAILING. WELD SOLID ANY OPENINGS IN PIPE. GRIND ALL WELDS SMOOTH
 - CONSTRUCT NEW WALL BELOW ACCESS FLOOR SYSTEM AT DOOR SEE DETAIL 6/A601
 - CONTRACTOR TO PROVIDE SMOOTH AND STRAIGHT CUT AT EXISTING WALL; DRESS FINISH FACE AT WALL CUT JAMB AND HEAD WITH HIGH STRENGTH GROUT.
 - MATCH WIDTH OF EXISTING LANDING.
 - REPAIR WALL/HEADER WHERE PARTITION REMOVED.
 - PREP AND PAINT EXISTING WALL/HEADER.
 - RAISED ACCESS FLOOR SYSTEM PERFORATED AIR SUPPLY PANELS. NUMBER OF PANELS INDICATED IN PARENTHESES.
 - PROVIDE TRANSITION; SEE DETAIL 5/A601.

GENERAL NOTES:

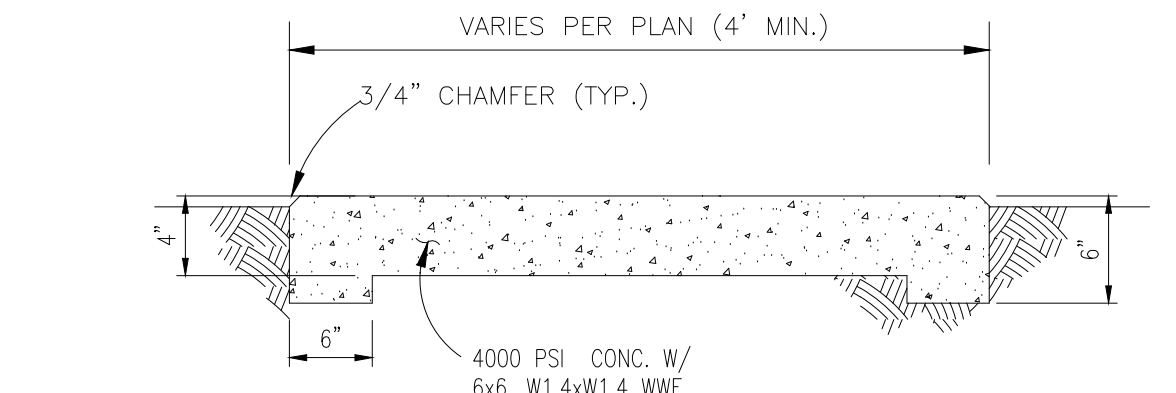
- SEE ABOVE CEILING PLAN A221 FOR ADDITIONAL WALL REPAIR WORK DONE ABOVE CEILING.
- SEE ELECTRICAL, MECHANICAL, PLUMBING AND TELECOMMUNICATION DRAWINGS FOR ADDITIONAL INFORMATION.
- FURNITURE SHOWN FOR INFORMATION ONLY.
- INFILL CMU WALLS AFTER REMOVAL OF EXISTING ELECTRICAL PANELS; SEE ELECTRICAL.
- CLEAN, PREP AND FILL HOLES IN EXISTING METAL DOORS AND DOOR FRAMES TO REMAIN. PAINT DOORS AND DOOR FRAMES.



WALL SECTION - TYPE "C" TYP.
SCALE: 1 1/2" = 1'-0"



WALL SECTION - TYPE "B" TYP.
SCALE: 1 1/2" = 1'-0"

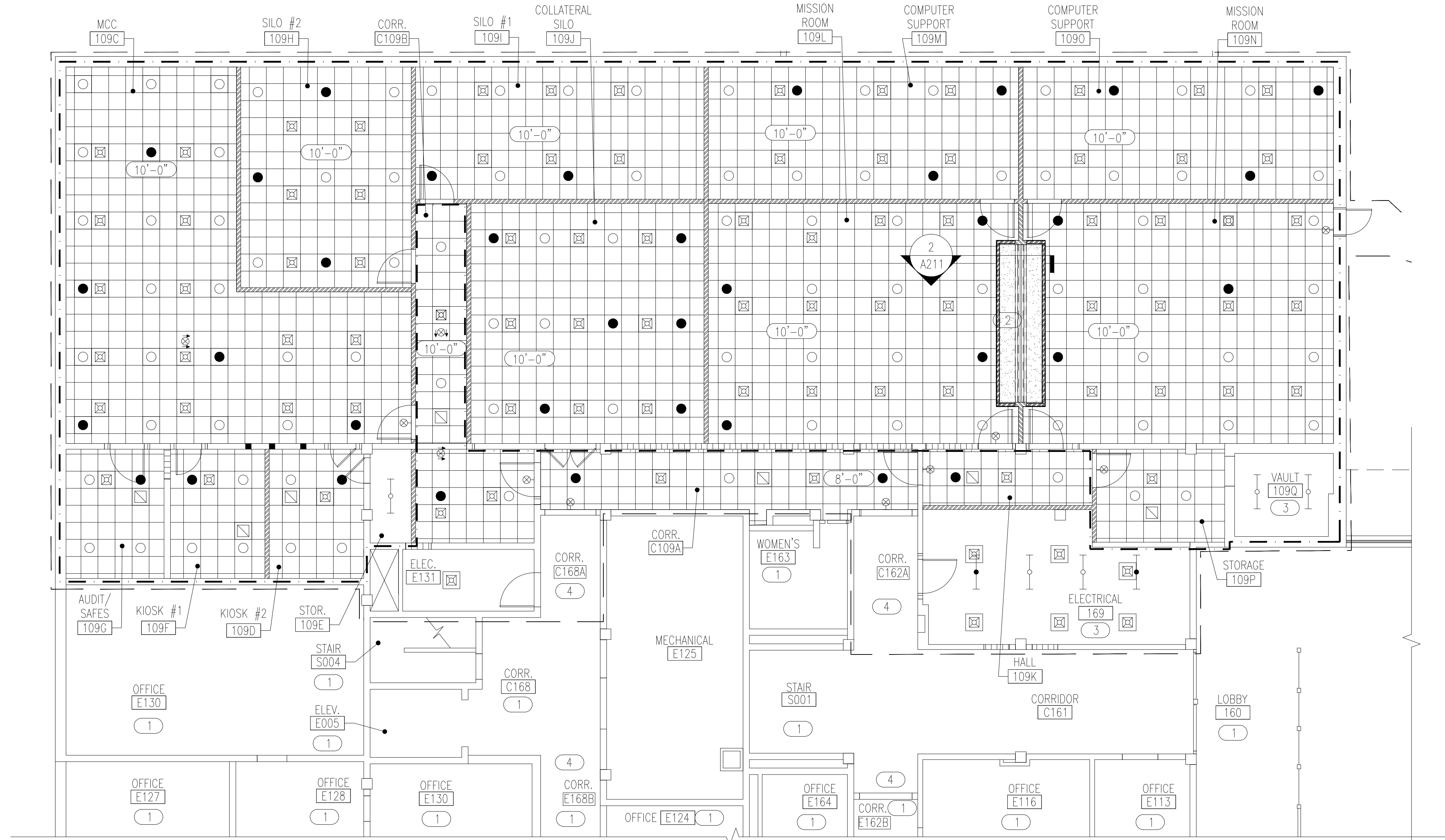


SIDEWALK DETAIL
SCALE: NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY	APPR'D

**BASE CIVIL ENGINEER
EGLIN AIR FORCE BASE, FLORIDA**

AS-BUILT	DRAWN BY S. CAMPBELL	TITLE	
DATE	PROJ. ENGR. S. HERNANDEZ	MODIFY CONTROL ROOMS BLDG 380	
SIGNATURE	APPROVED		
APPROVED	FIRE PROTECTION ENGR.	CONTENTS BID ITEM "C" FIRST FLOOR - PARTIAL NEW WORK PLAN	
CENM APPROVED	APPROVED		
PROGRAM MANAGER	APPROVED		
	SAFETY REPRESENTATIVE	OPERATIONS ENGINEERING APPROVED ENVIRONMENTAL APPROVED SPEC. NO. 17AA PROJ. NO. FTFA 17-1050 DRAWING NO. A20117AA FILE NO.	
	DIR. BASE MED. SERVICE		
	APPROVED		
	APPROVED		
	USING AGENCY	APPROVED	DATE APR 2019
	APPROVED	APPROVED	SCALE
	COMMUNICATIONS	APPROVED	
	APPROVED	DEPUTY BASE CIVIL ENGINEER	
INDEX NO. A201			

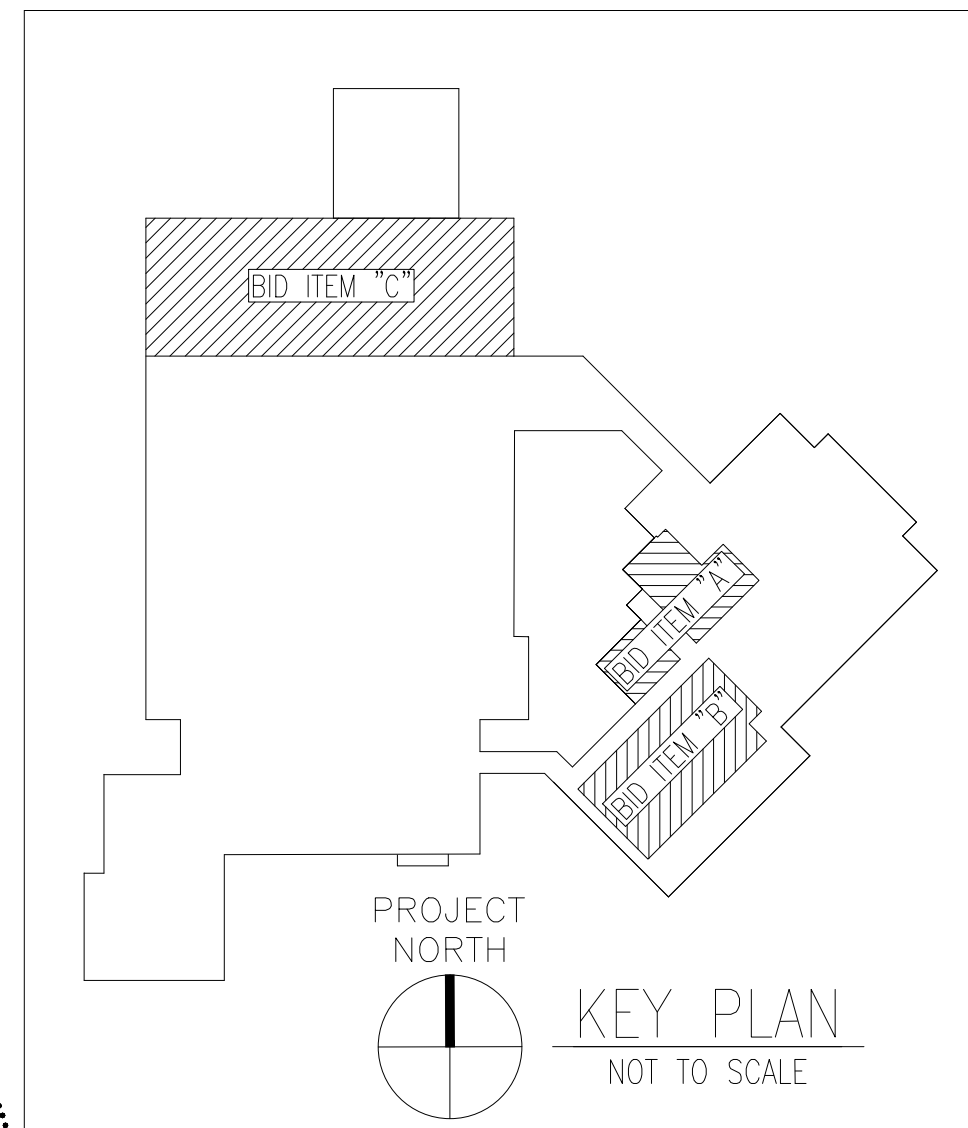
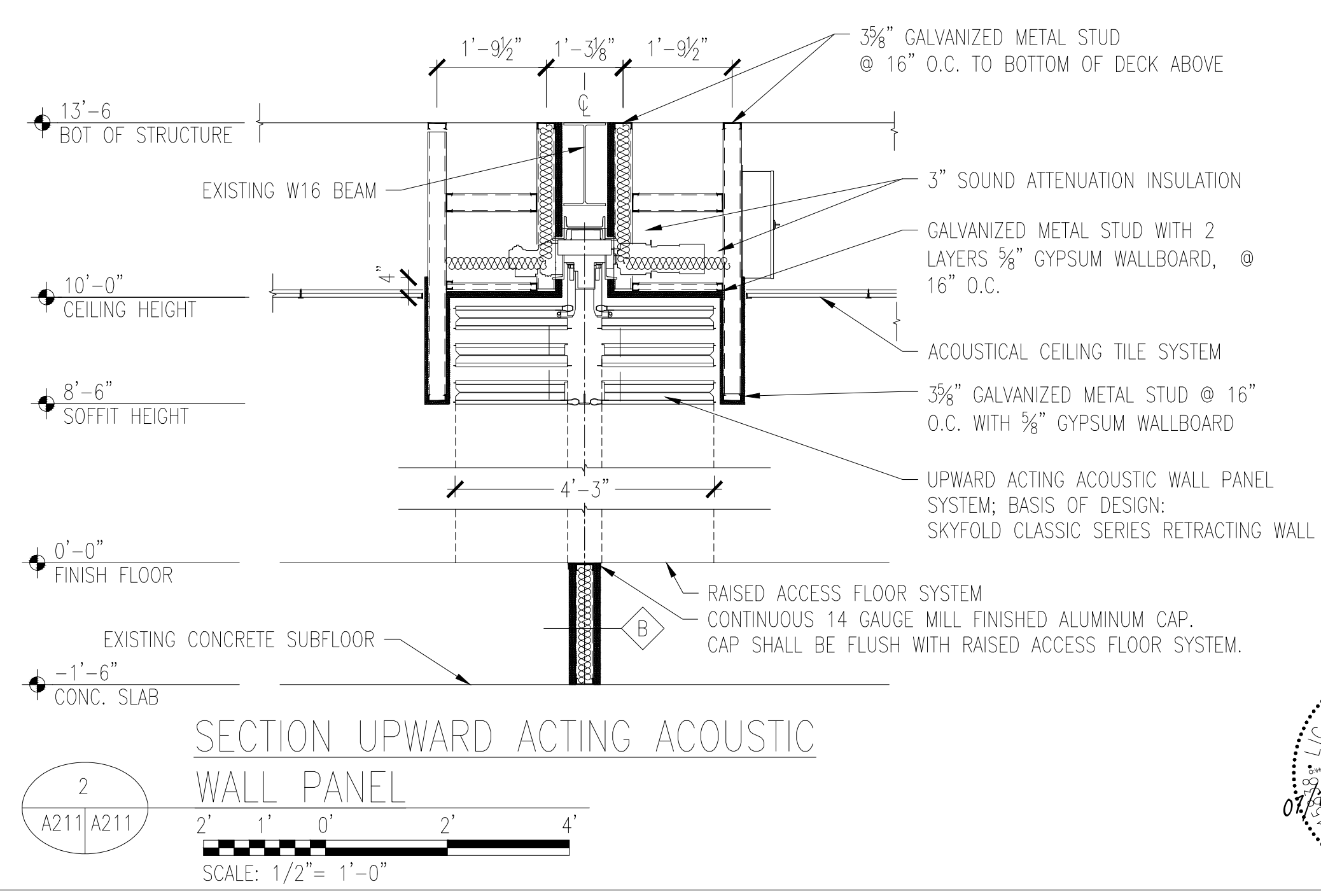
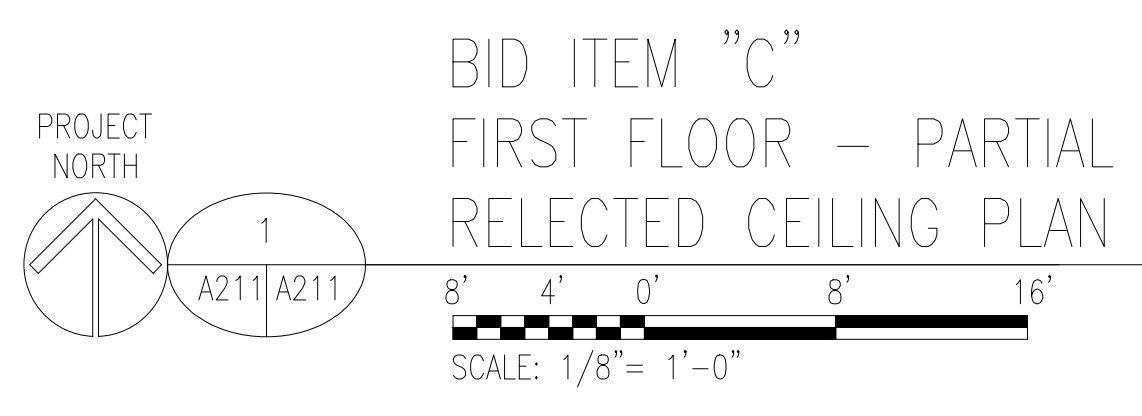


- ### LEGEND
- INDICATES BOUNDARY OF WORK AREA
 - - - INDICATES SECURE AREA BOUNDARY
 - INDICATES ACOUSTICAL CEILING SYSTEM
 - ▨ INDICATES GYPSUM WALLBOARD ACOUSTICAL POCKET BARRIER
 - ○ □ ⊕ INDICATES LIGHT FIXTURE; SEE ELECTRICAL DRAWINGS
 - ⊠ ⊡ INDICATES MECHANICAL EQUIPMENT; SEE MECHANICAL DRAWINGS
 - 10'-0" INDICATES CEILING HEIGHT
 - ◇ SEE WALL TYPE SHEET A201

- ### KEYNOTES
- 1 NO WORK IN THIS SPACE
 - 2 ACOUSTICAL POCKET BARRIER FOR UPWARD ACTING PANEL WALL
 - 3 PAINT EXPOSED STRUCTURE.
 - 4 CONTRACTOR TO REMOVE CEILING TILES AS NEEDED FOR ELECTRICAL / TELECOMM WORK IN THIS AREA. REPLACE DAMAGED TILES AND GRID.

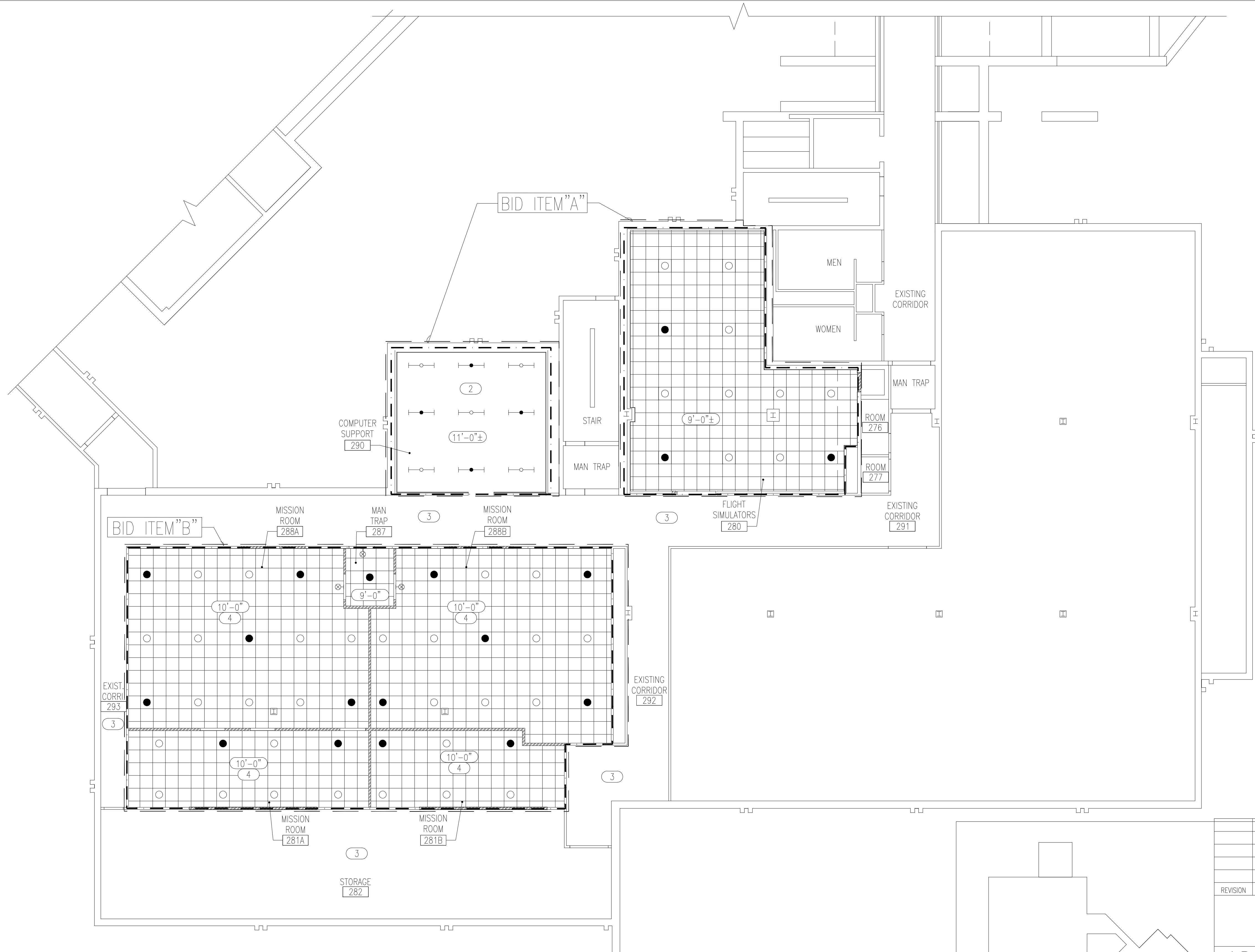
GENERAL NOTES:

1. ALL NEW CEILINGS ARE 9'-0" MINIMUM, UNLESS NOTED OTHERWISE.
2. USE STRUCTURAL CEILING GRID IN ALL SPACES SHOWN TO RECEIVE ACOUSTICAL CEILING TILING; CONCEPT PRODUCT IS THE TATE DATA CENTER STRUCTURAL CEILING, AS DISTRIBUTED BY KINGSPAN GROUP (WWW.KINGSPAN.COM).



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REVISION	DATE	DESCRIPTION	BY	APPR'D	
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA					
AS-BUILT			MODIFY CONTROL ROOMS BLDG 380		
DATE _____ SIGNATURE _____ APPROVED _____ CENM _____ APPROVED _____ PROGRAM MANAGER _____		DRAWN BY S. CAMPBELL PROJ. ENGR. S. HERNANDEZ APPROVED _____ FIRE PROTECTION ENGR. _____ APPROVED _____ SAFETY REPRESENTATIVE _____ APPROVED _____ DIR. BASE MED. SERVICE _____ APPROVED _____ USING AGENCY _____ APPROVED _____ COMMUNICATIONS _____ APPROVED _____ OPERATIONS ENGINEERING _____ APPROVED _____ ENVIRONMENTAL _____ SPEC. NO. 17AA		TITLE MODIFY CONTROL ROOMS BLDG 380 CONTENTS BID ITEM "C" FIRST FLOOR - PARTIAL REFLECTED CEILING PLAN APPROVED _____ DATE APR 2019 96 CEG/CEN APPROVED _____ DEPUTY BASE CIVIL ENGINEER SCALE PROJ. NO. FTFA 17-1050 DRAWING NO. A2117AA FILE NO. SHEET 9 OF 86	
INDEX NO. A211		17AA			

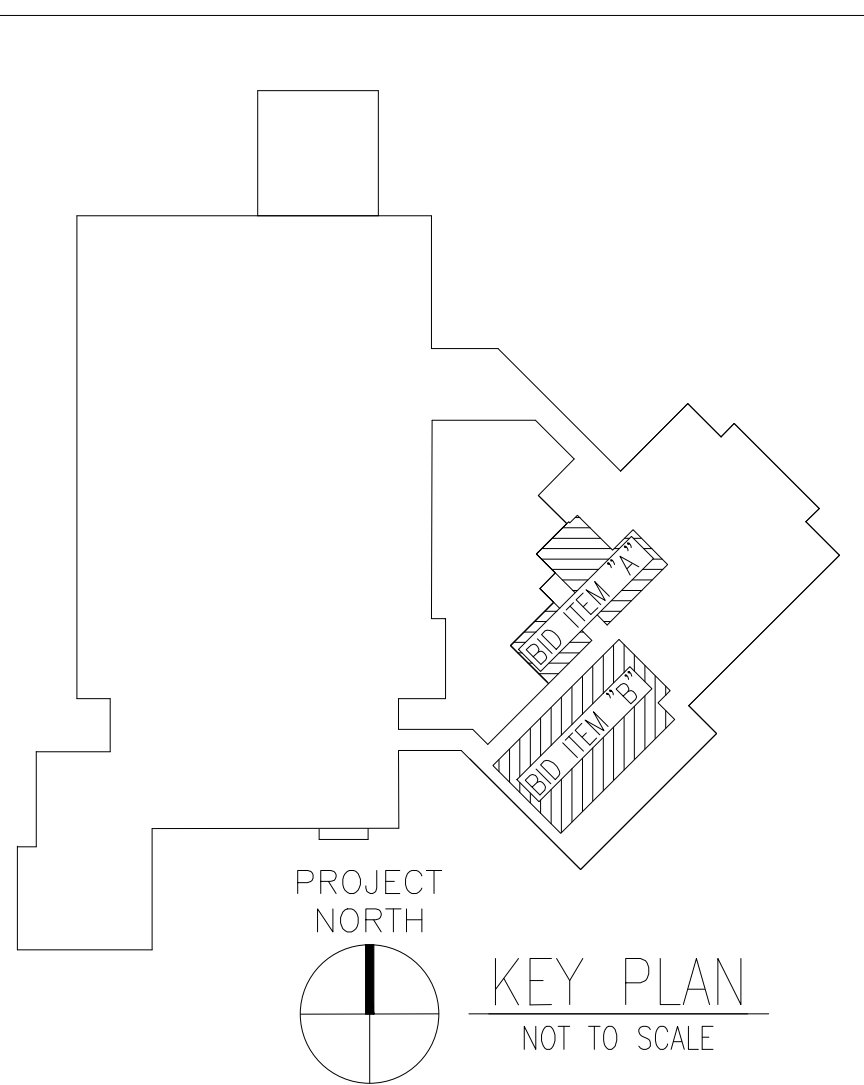
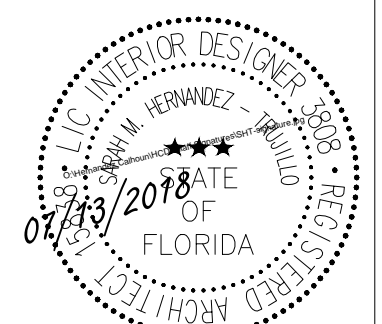
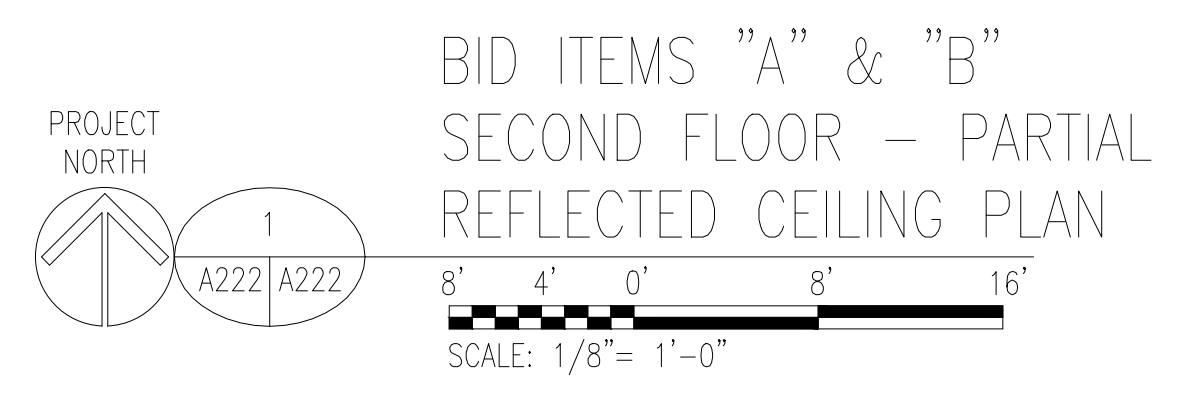


LEGEND

- INDICATES BOUNDARY OF WORK AREA
- INDICATES SECURE AREA BOUNDARY
- INDICATES ACOUSTICAL CEILING SYSTEM
- INDICATES GYPSUM WALLBOARD ACOUSTICAL POCKET BARRIER
- LIGHT FIXTURE; SEE ELECTRICAL DRAWINGS
- MECHANICAL EQUIPMENT; SEE MECHANICAL DRAWINGS
- INDICATES CEILING HEIGHT

- KEYNOTES**
- 1 NO WORK IN THIS SPACE
 - 2 EXPOSED TO STRUCTURE
 - 3 CONTRACTOR TO REMOVE CEILING TILES AS NEEDED FOR ELECTRICAL / TELECOMM WORK IN THIS AREA. REPLACE DAMAGED TILES AND GRID.
 - 4 CONTRACTOR TO MATCH EXISTING CEILING HEIGHT; VERIFY EXISTING CEILING HEIGHT PRIOR TO DEMOLITION.

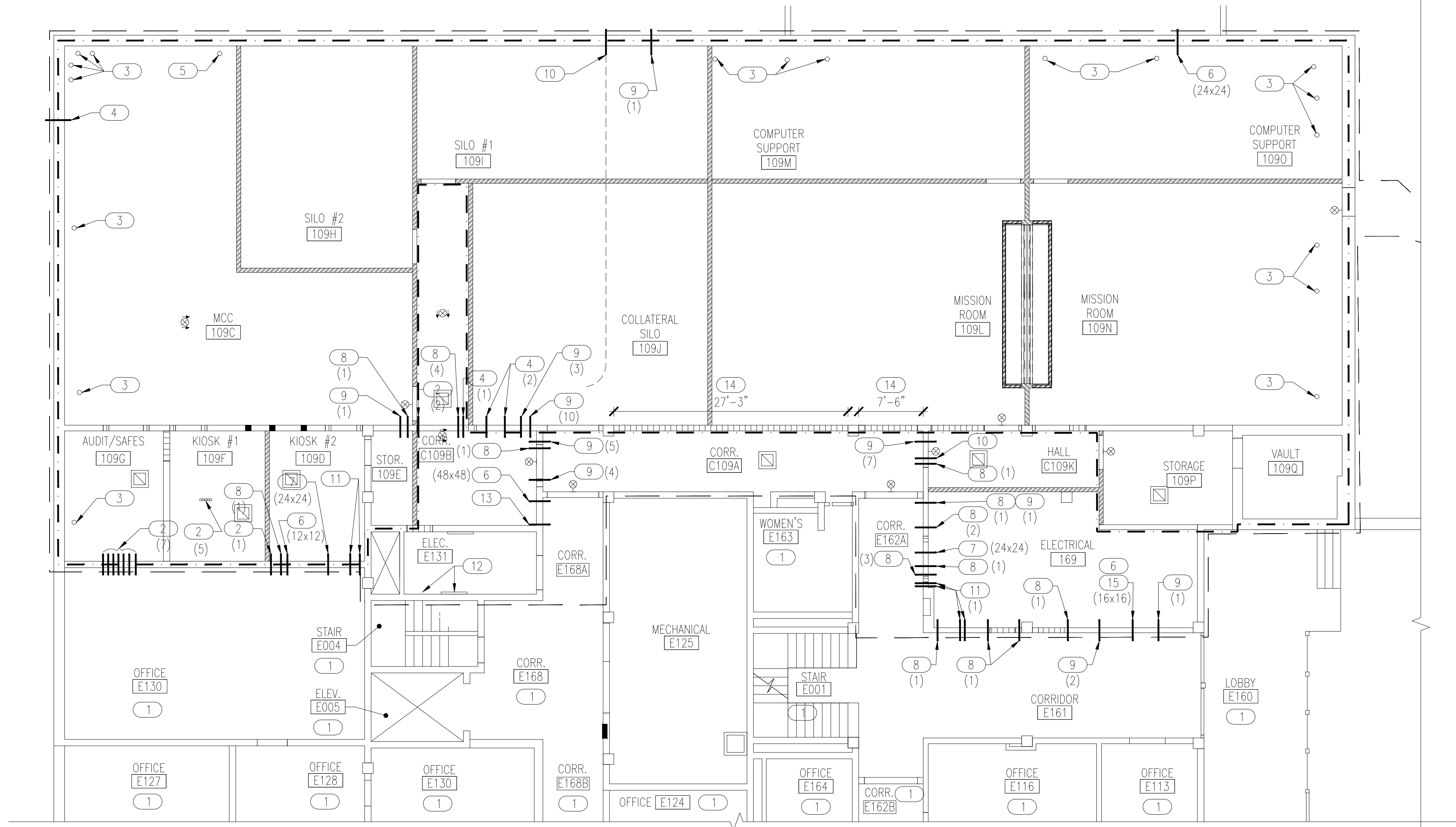
- GENERAL NOTES:**
1. ALL NEW CEILINGS ARE 9'-0" MINIMUM, UNLESS NOTED OTHERWISE.
 2. USE STRUCTURAL CEILING GRID IN ALL SPACES SHOWN TO RECEIVE ACOUSTICAL CEILING TILING; CONCEPT PRODUCT IS THE TATE DATA CENTER STRUCTURAL CEILING, AS DISTRIBUTED BY THE KINGSPAN GROUP (WWW.KINGSPAN.COM).



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REVISION	DATE	DESCRIPTION	BY	APPR'D

AS-BUILT		DRAWN BY: S. CAMPBELL PROJ. ENGR: S. HERNANDEZ DATE: _____ APPROVED: _____ SIGNATURE: _____ APPROVED: _____ CEINM: _____ APPROVED: _____ PROGRAM MANAGER: _____	TITLE MODIFY CONTROL ROOMS BLDG 380
		DIR. BASE MED. SERVICE APPROVED: _____ USING AGENCY APPROVED: _____ COMMUNICATIONS APPROVED: _____ OPERATIONS ENGINEERING APPROVED: _____ ENVIRONMENTAL APPROVED: _____	CONTENTS BID ITEMS "A" & "B" SECOND FLOOR - PARTIAL REFLECTED CEILING PLAN
INDEX NO.	A212	APPROVED: _____ DATE: APR 2019 APPROVED: _____ DATE: JULY 2018 APPROVED: _____ DEPUTY BASE CIVIL ENGINEER APPROVED: _____	DATE: APR 2019 SCALE: _____ DATE: JULY 2018
SPEC. NO.	17AA	PROJ. NO. FTFA 17-1050 DRAWING NO. A21217AA	FILE NO. _____ SHEET 10 OF 86



- ### LEGEND
- INDICATES BOUNDARY OF WORK AREA
 - - - - - INDICATES SECURE AREA BOUNDARY
 - INDICATES ± LOCATION OF EXISTING PENETRATION / OPENING THROUGH CMU WALL
 - (#) QUANTITY OF CONDUITS

- ### KEYNOTES
- (1) NO WORK IN THIS SPACE
 - (2) IF 2"Ø CONDUITS ARE REQUIRED, THEN EITHER PROVIDE DI-ELECTRIC BREAK OR GROUND AS REQUIRED TO MEET SECURITY REQUIREMENTS. IF CONDUITS ARE NOT NEEDED, THEN REMOVE CONDUIT RUN AND GROUT OPENING SOLID; SEE ELECTRICAL. (#) = QUANTITY OF CONDUITS.
 - (3) REMOVE FLOOR BOXES AND CONDUIT. GROUT OPENING SOLID
 - (4) IF 1½"Ø CONDUITS ARE REQUIRED, THEN EITHER PROVIDE DI-ELECTRIC BREAK OR GROUND AS REQUIRED TO MEET SECURITY REQUIREMENTS. IF CONDUITS ARE NOT NEEDED, THEN REMOVE CONDUIT RUN AND GROUT OPENING SOLID; SEE ELECTRICAL. (#) = QUANTITY OF CONDUITS.
 - (5) REMOVE ¾"Ø CONDUITS AND GROUT SOLID
 - (6) INFILL OPENING IN CAST-IN-PLACE CONCRETE WALL OR CMU WALL WITH CMU (IF OVER THE SIZE OF 8x16) OR GROUT SOLID (IF OPENING IS LESS THAN 8x16). SIZE INDICATED NEXT TO KEYNOTE (WxH) IN INCHES.
 - (7) REMOVE HVAC DUCTWORK AND INFILL PER KEYNOTE 6 OR PROVIDE NEW DUCTWORK; COORDINATE WITH MECHANICAL. SIZE INDICATED NEXT TO KEYNOTE (WxH) IN INCHES.
 - (8) IF ¾"Ø CONDUITS ARE REQUIRED, THEN EITHER PROVIDE DI-ELECTRIC BREAK OR GROUND AS REQUIRED TO MEET SECURITY REQUIREMENTS. IF CONDUITS ARE NOT NEEDED, THEN REMOVE CONDUIT RUN AND GROUT OPENING SOLID; SEE ELECTRICAL. (#) = QUANTITY OF CONDUITS.
 - (9) IF 3"Ø CONDUITS ARE REQUIRED, THEN EITHER PROVIDE DI-ELECTRIC BREAK OR GROUND AS REQUIRED TO MEET SECURITY REQUIREMENTS. IF CONDUITS ARE NOT NEEDED, THEN REMOVE CONDUIT RUN AND GROUT OPENING SOLID; SEE ELECTRICAL. (#) = QUANTITY OF CONDUITS.
 - (10) REMOVE 4" PIPE, PIPE HANGARS AND GROUT OPENING IN EXTERIOR WALL SOLID.
 - (11) PROVIDE GROUND AS REQUIRED TO MEET SECURITY REQUIREMENTS IN 4"Ø SUPPLY/RETURN HVAC WATER LINES; SEE MECHANICAL
 - (12) PROVIDE DI-ELECTRIC BREAK IN ALL CONDUIT FROM THESE ELECTRICAL PANELS; SEE ELECTRICAL
 - (13) REMOVE 60+ COMMUNICATION/DATA CABLES.
 - (14) EXTEND CMU WALL CONSTRUCTION 4' TO BOTTOM OF CONCRETE SLAB ABOVE.
 - (15) REMOVE 20+ COMMUNICATION/DATA CABLES.

- ### GENERAL NOTES:
1. SEE OTHER DISCIPLINES FOR ADDITIONAL ABOVE CEILING DEMOLITION AND NEW WORK.
 2. CONTRACTOR TO PROVIDE 20% MORE OF EACH WALL CLOSURE OR CONDUIT DI-ELECTRIC BREAK THAN SHOWN IN CONSTRUCTION DRAWINGS.
 3. ALL SYSTEMS PENETRATING THE SECURE AREA BOUNDARY SHALL HAVE A DI-ELECTRIC BREAK PROVIDED OR PROPER GROUNDING AS INDICATED IN MECHANICAL AND ELECTRICAL DRAWINGS. ANY NON FUNCTIONING OR UNNEEDED SYSTEMS PENETRATING THE SECURE AREA BOUNDARY SHALL BE REMOVED IN THEIR ENTIRETY AS INDICATED.

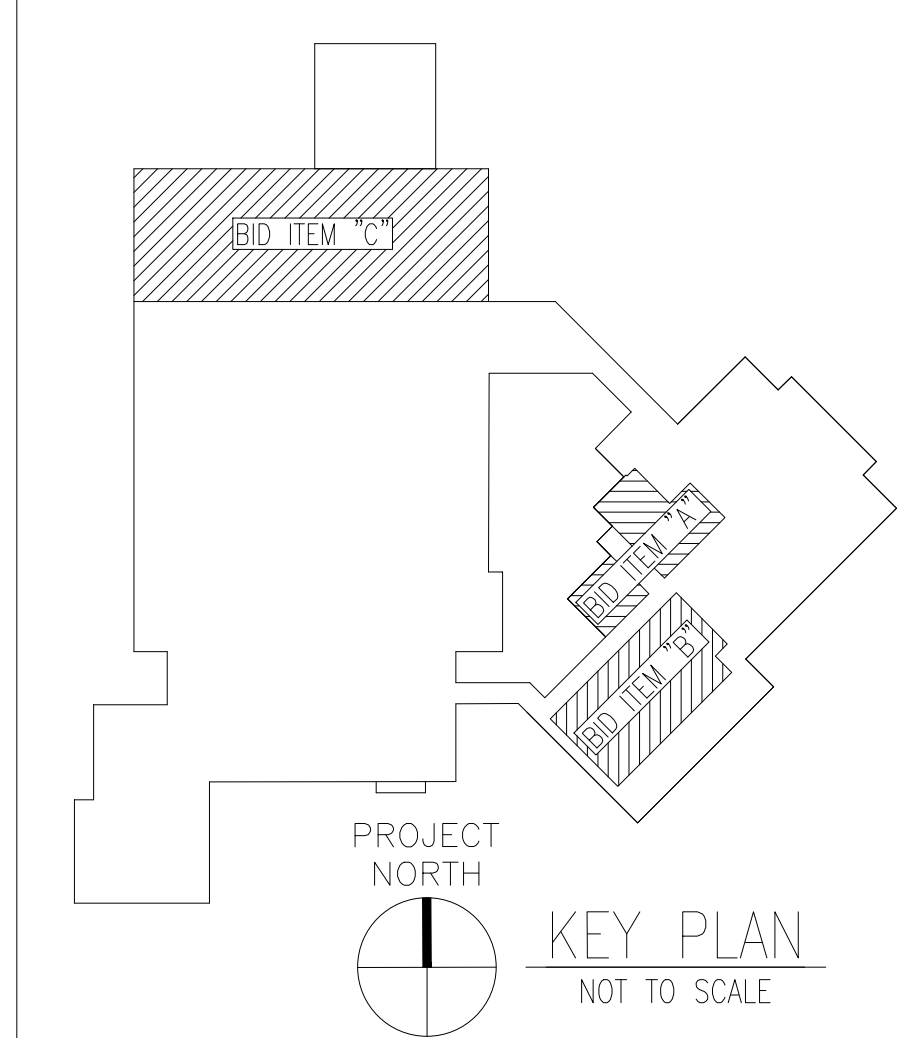
BID ITEM "C"
 FIRST FLOOR – PARTIAL
 ABOVE CEILING PLAN

PROJECT NORTH

1
 A221 | A221

8' 4' 0' 8' 16'

SCALE: 1/8" = 1'-0"



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REVISION	DATE	DESCRIPTION	BY	APPR'D

AS-BUILT		DRAWN BY : S. CAMPBELL		TITLE	
DATE		PROJ. ENGR. S. HERNANDEZ		MODIFY CONTROL ROOMS BLDG 380	
SIGNATURE		APPROVED			
APPROVED		FIRE PROTECTION ENGR.			
CENM		APPROVED			
APPROVED		SAFETY REPRESENTATIVE			
PROGRAM MANAGER		APPROVED			
		DIR. BASE MED. SERVICE		CONTENTS BID ITEM "C" FIRST FLOOR - PARTIAL ABOVE CEILING PLAN	
		APPROVED		APPROVED	DATE
		USING AGENCY		OPERATIONS ENGINEERING	96 CEG/CEN
		APPROVED		APPROVED	JULY 2019
		COMMUNICATIONS		APPROVED	SCALE
		APPROVED		ENVIRONMENTAL	DEPUTY BASE CIVIL ENGINEER
INDEX NO.	A221	SPEC. NO.	17AA	PROJ. NO.	FTFA 17-1050
		DRAWING NO.	A22117AA	FILE NO.	
				SHEET	11 OF 86

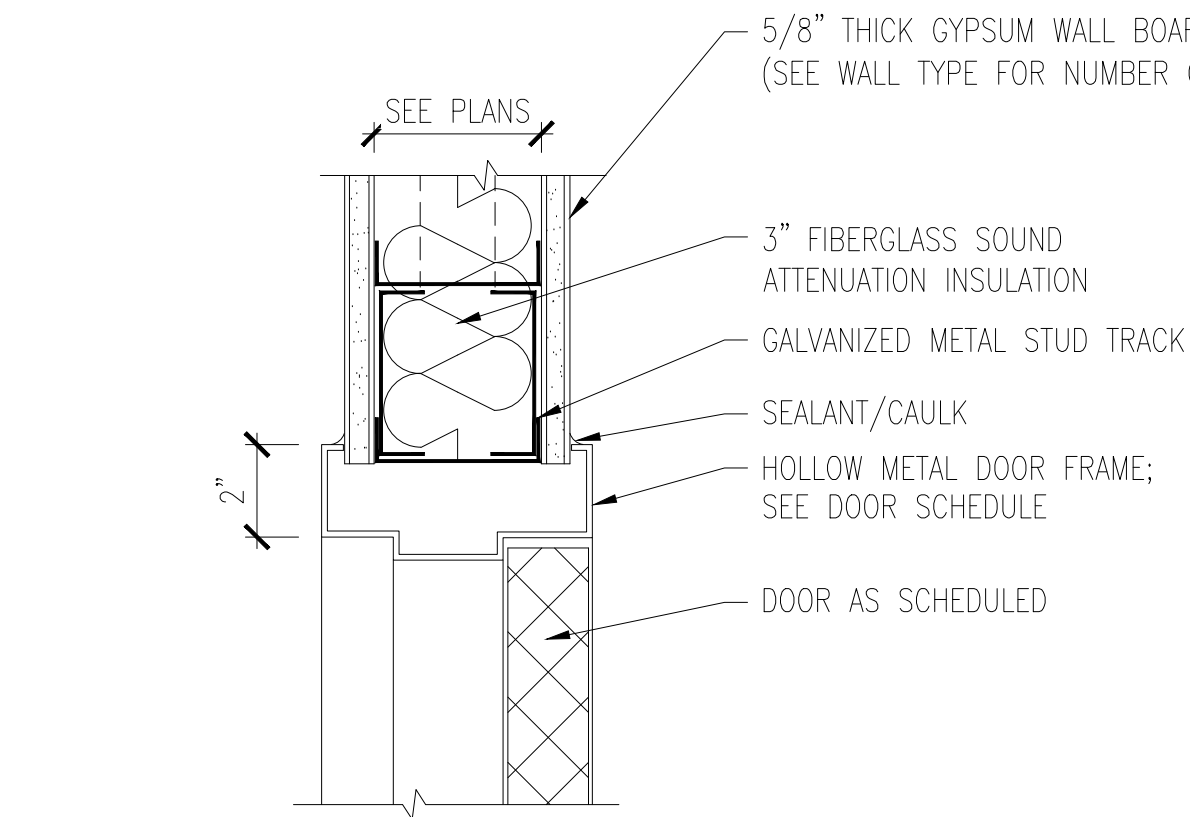
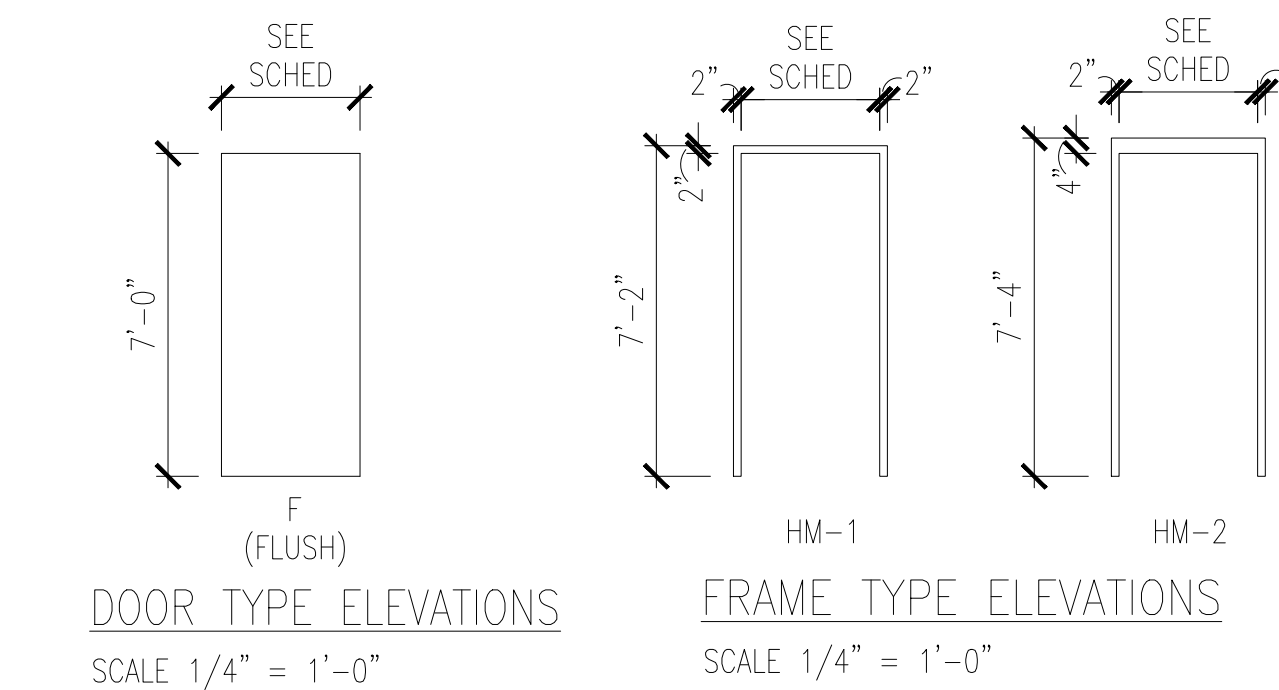
Door Schedule

Mark	Space	Door							Frame			Fire Rating	Hardware		Remarks		
		Width	Height	Thick.	Door Mat'l	Door Type	Undercut	Glazing	Frame Mat'l	Frame Type	Details			Set #		Keyside Space	
											Head		Jamb				Sill
1	109J	(2)3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	6/A601	-	1	C109A	3, 4
1A	C109B	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	-	-	2	C109A	2
2	109C	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	2	C109B	2, 3
3	109D	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	-	-	3	109C	2
3A	109E	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	-	-	4	109D	
4	109F	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	-	-	3	109C	2
5	109G	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	-	-	3	109C	2
6	109H	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	2	C109B	2, 3
7	109I	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	2	C109B	2, 3
8	169	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	4/A601	3/A601	-	-	3	E162A	2
9	109M	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	2	109L	2, 3
10	109O	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	2	109N	2, 3
11	C109K	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	2	C109A	3, 4
12	109L	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	2/A601	6/A601	-	5	C109K	2, 3
13	109N	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	6/A601	-	5	C109K	2, 3
14	109P	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	1/A601	2/A601	6/A601	-	5	C109K	2, 3
15	EXT	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	8/A601	9/A601	7/A601	-	6	109N	1, 3, 5
16	E131	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	2	4/A601	3/A601	-	-	3	E168A	2
20	287	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	5	291	2, 3, 4
21	288A	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	5	287	2, 3, 4
22	288B	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	5	287	2, 3, 4
23	281A	3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	-	-	3	288A	2, 6
24	290	4'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	5	291	3, 4
25	280	(2)3'-0"	7'-0"	1 3/4"	HM	F	-	-	HM	1	1/A601	2/A601	6/A601	-	7	291	3, 4

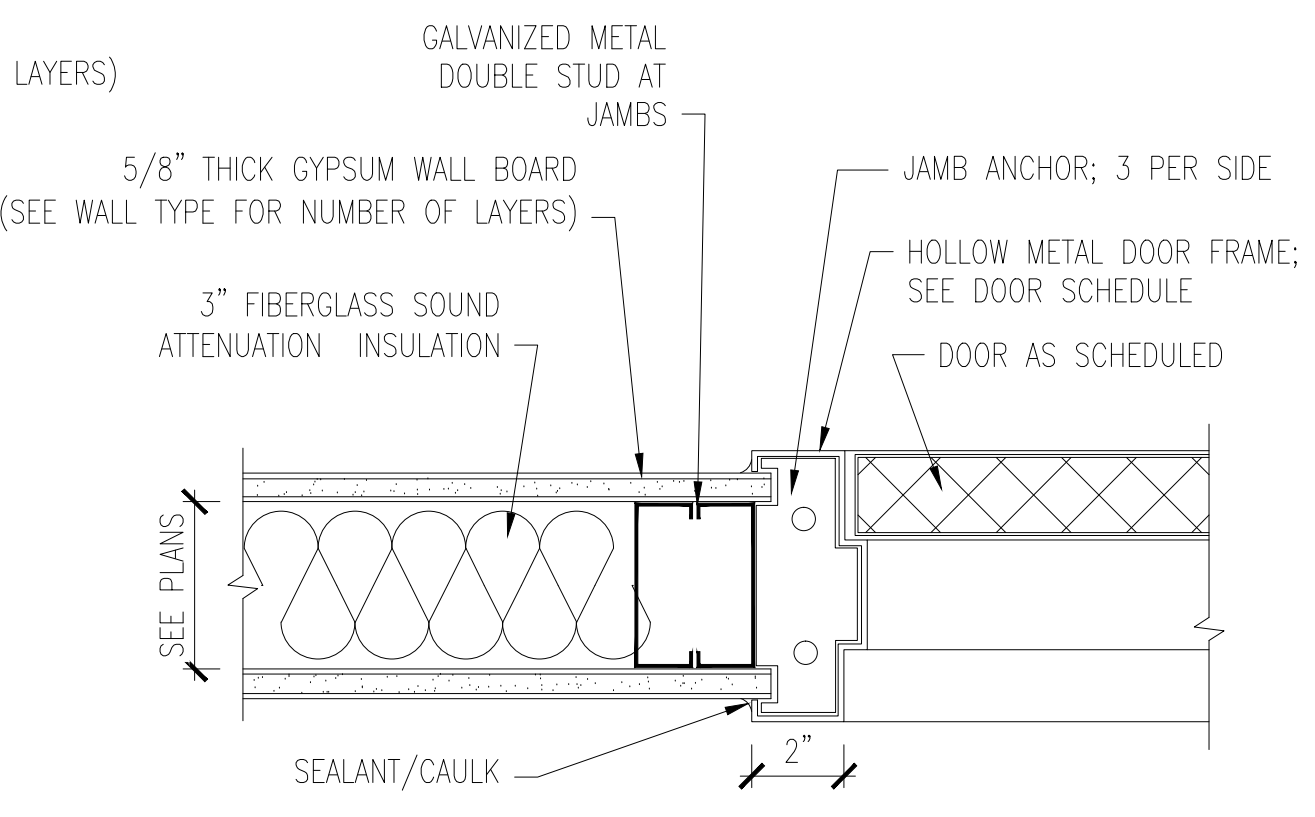
- DOOR SCHEDULE REMARKS**
- EMERGENCY EXIT ONLY; NO EXTERIOR DOOR HARDWARE.
 - PROVIDE CARD READER ACCESS SYSTEM x INFRASTRUCTURE. COORDINATE THE WORK WITH ADVANTOR (IDS SYSTEM) AND SECURADYNE (ACS SYSTEM).
 - PROVIDE STC 55 RATED DOOR, DOOR FRAME, AND THRESHOLD.
 - PROVIDE DEADLOCK CDX-10.
 - INSULATED HOLLOW METAL DOOR WITH WEATHERSTRIPPING.
 - PROVIDE 14 GAUGE MILL FINISHED ALUMINUM CAP AT THRESHOLD SIMILAR TO 6/A601

ABBREVIATIONS

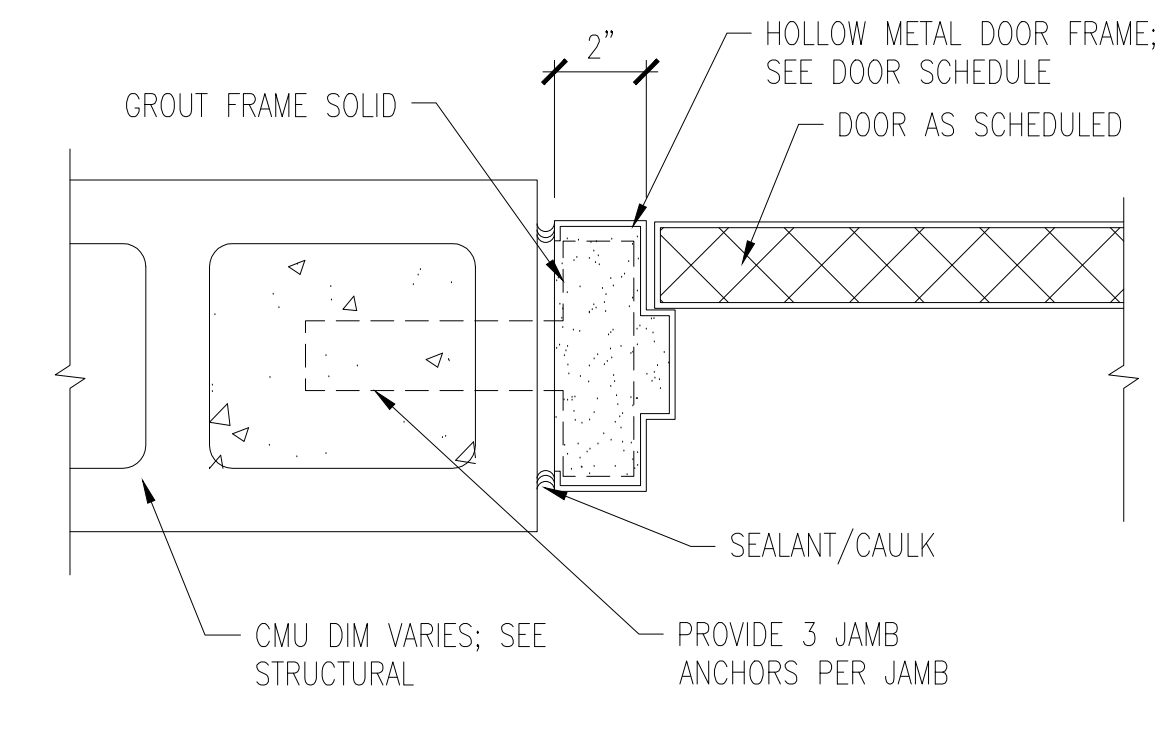
ALUM	ALUMINUM
HM	HOLLOW METAL
MFR	FRAME DETAIL/CONDITION PER SELECTED MANUFACTURER
PR	PAIR
SL	SLIDING
STL	STEEL
WD	WOOD
FR	FROSTED



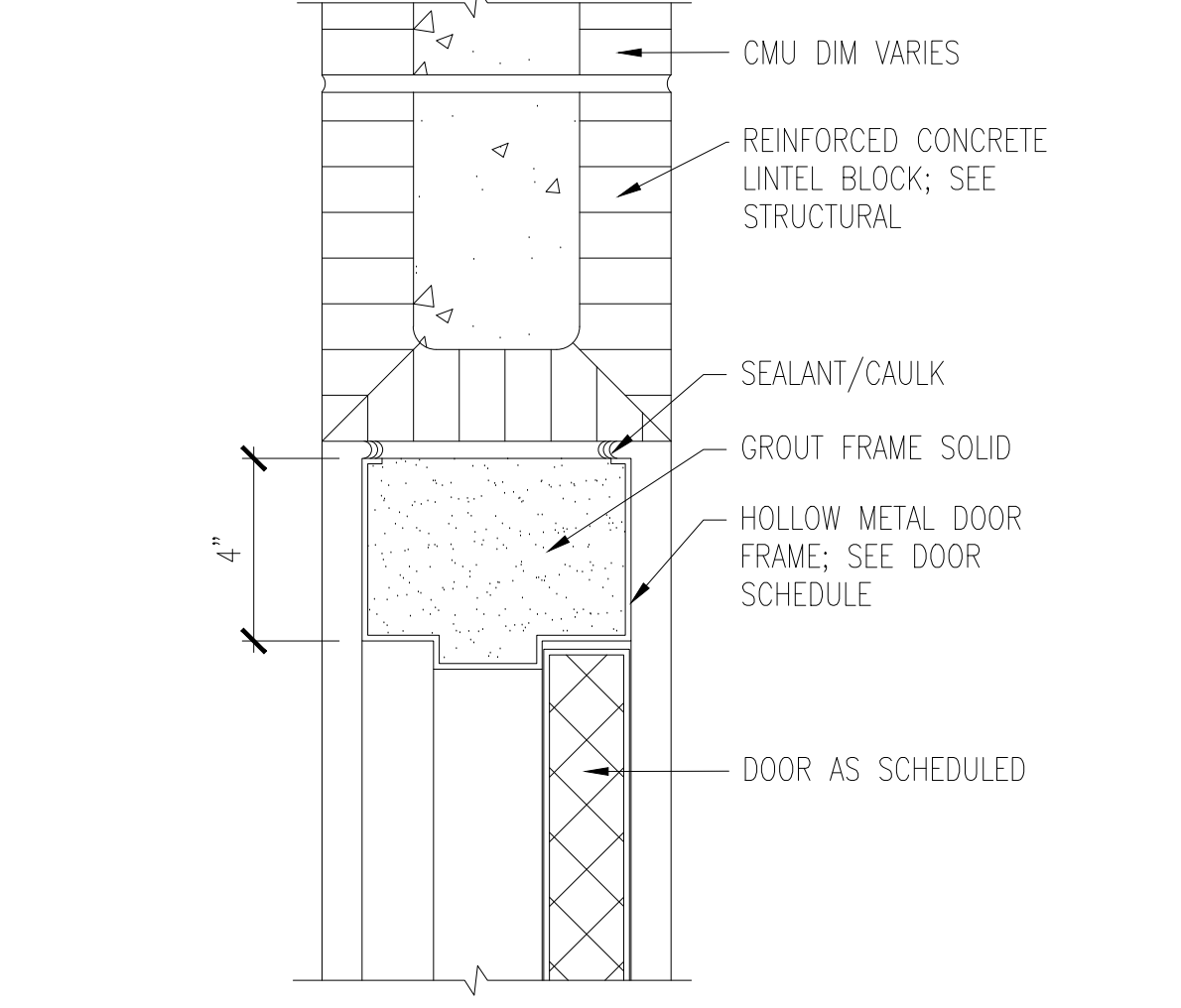
1 HOLLOW METAL HEAD AT STUD WALL
SCALE: 3" = 1'-0"



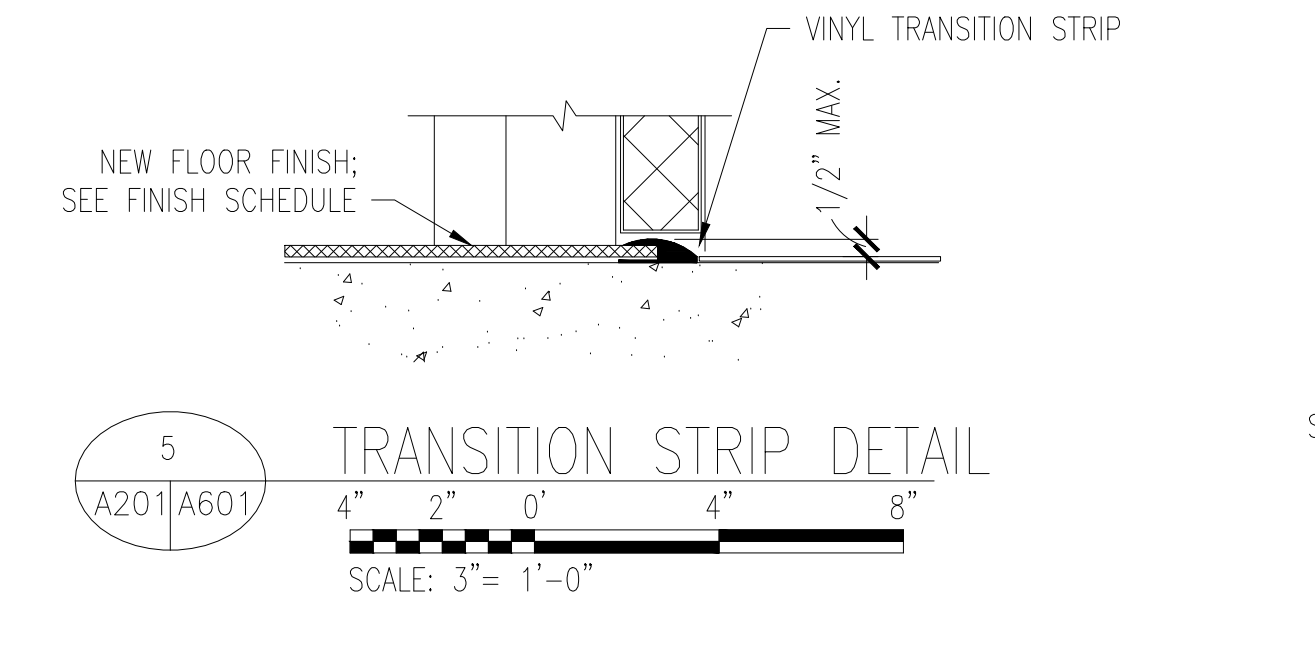
2 HOLLOW METAL JAMB AT STUD WALL
SCALE: 3" = 1'-0"



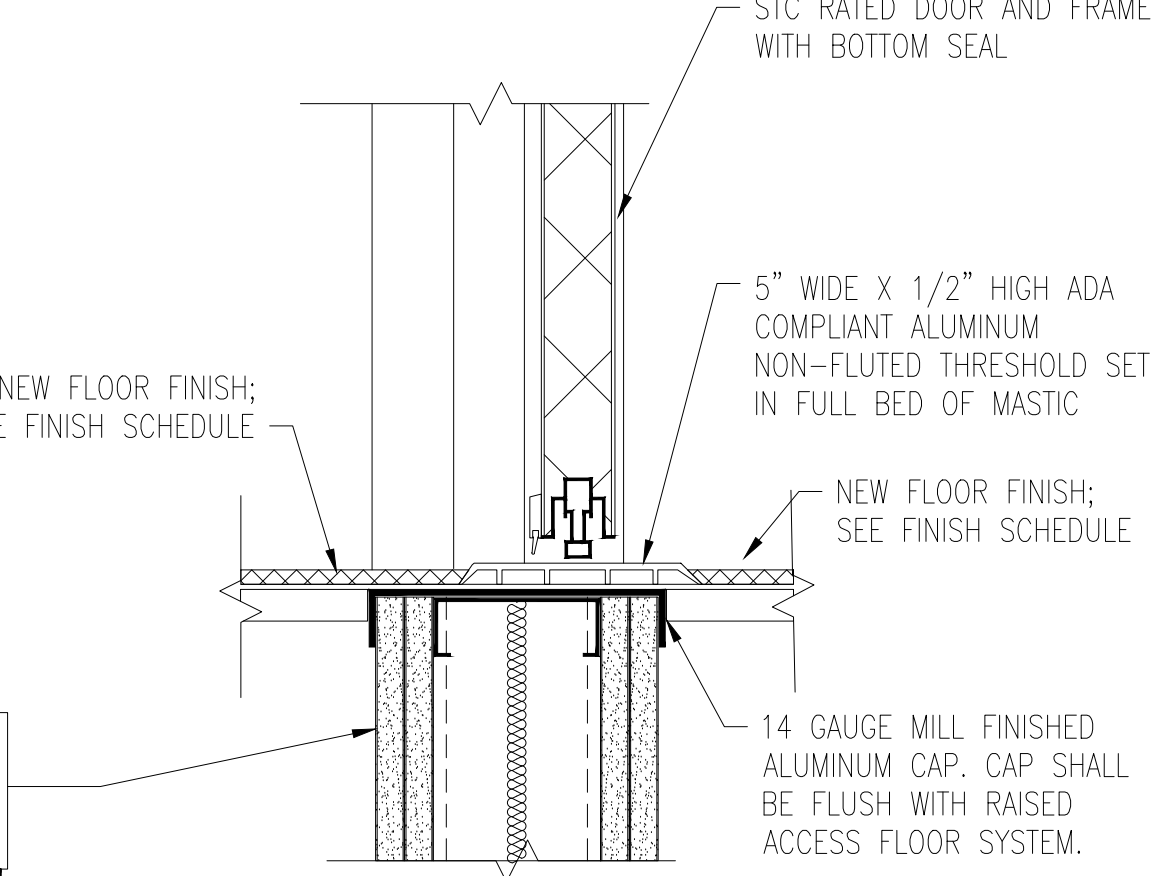
3 HOLLOW METAL JAMB AT CMU WALL
SCALE: 3" = 1'-0"



4 HM HEAD AT CMU WALL
SCALE: 3" = 1'-0"

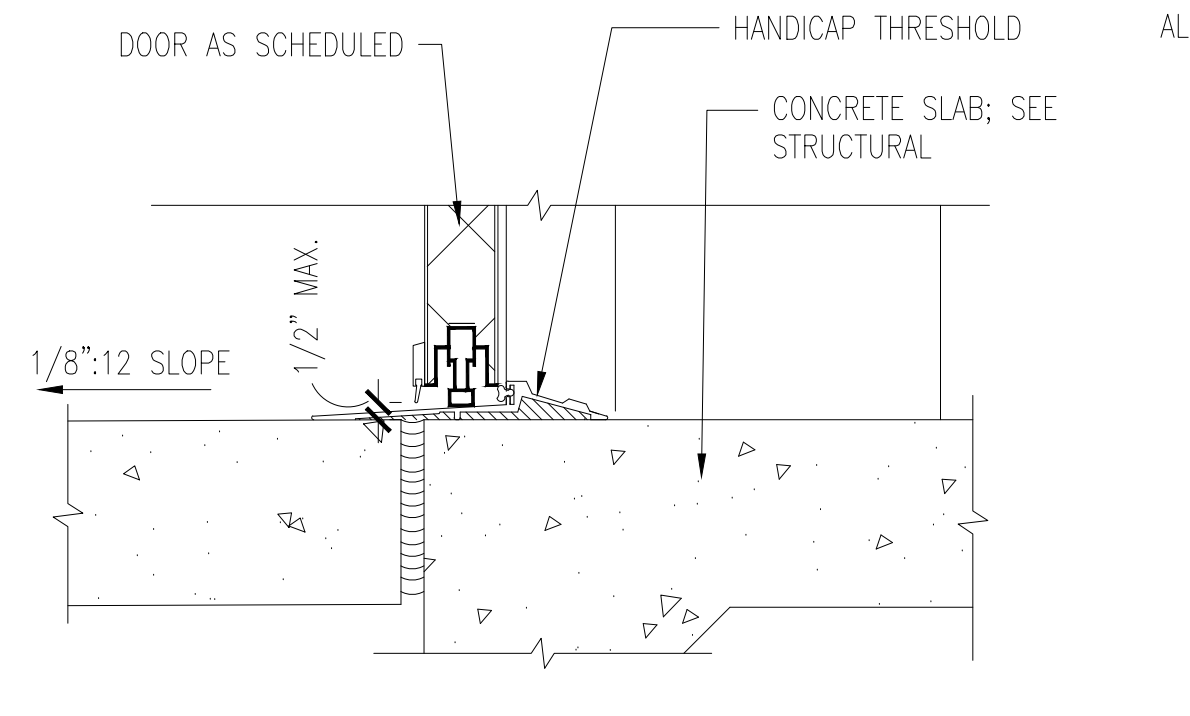


5 TRANSITION STRIP DETAIL
SCALE: 3" = 1'-0"

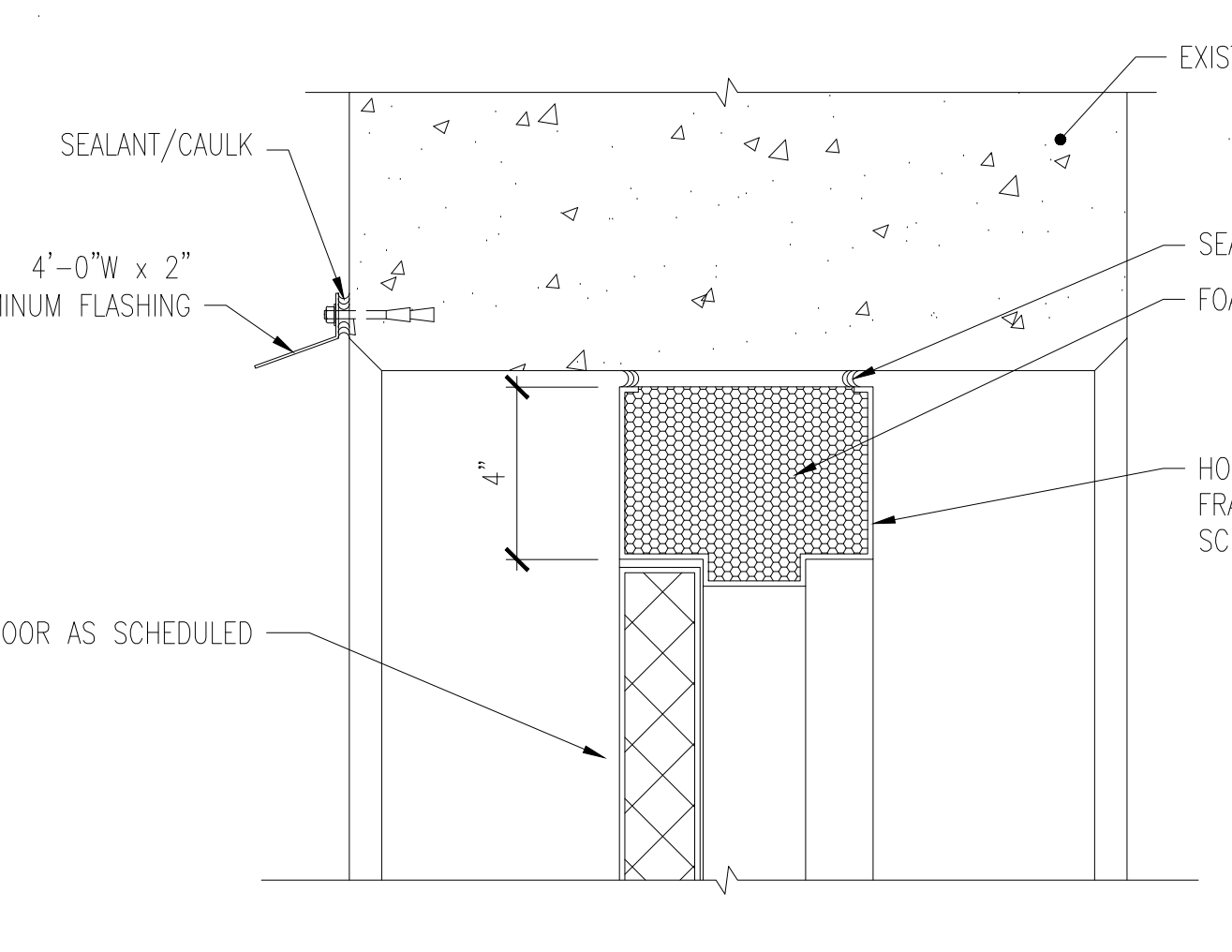


6 DOOR SILL @ SOUND RATED DOOR
SCALE: 3" = 1'-0"

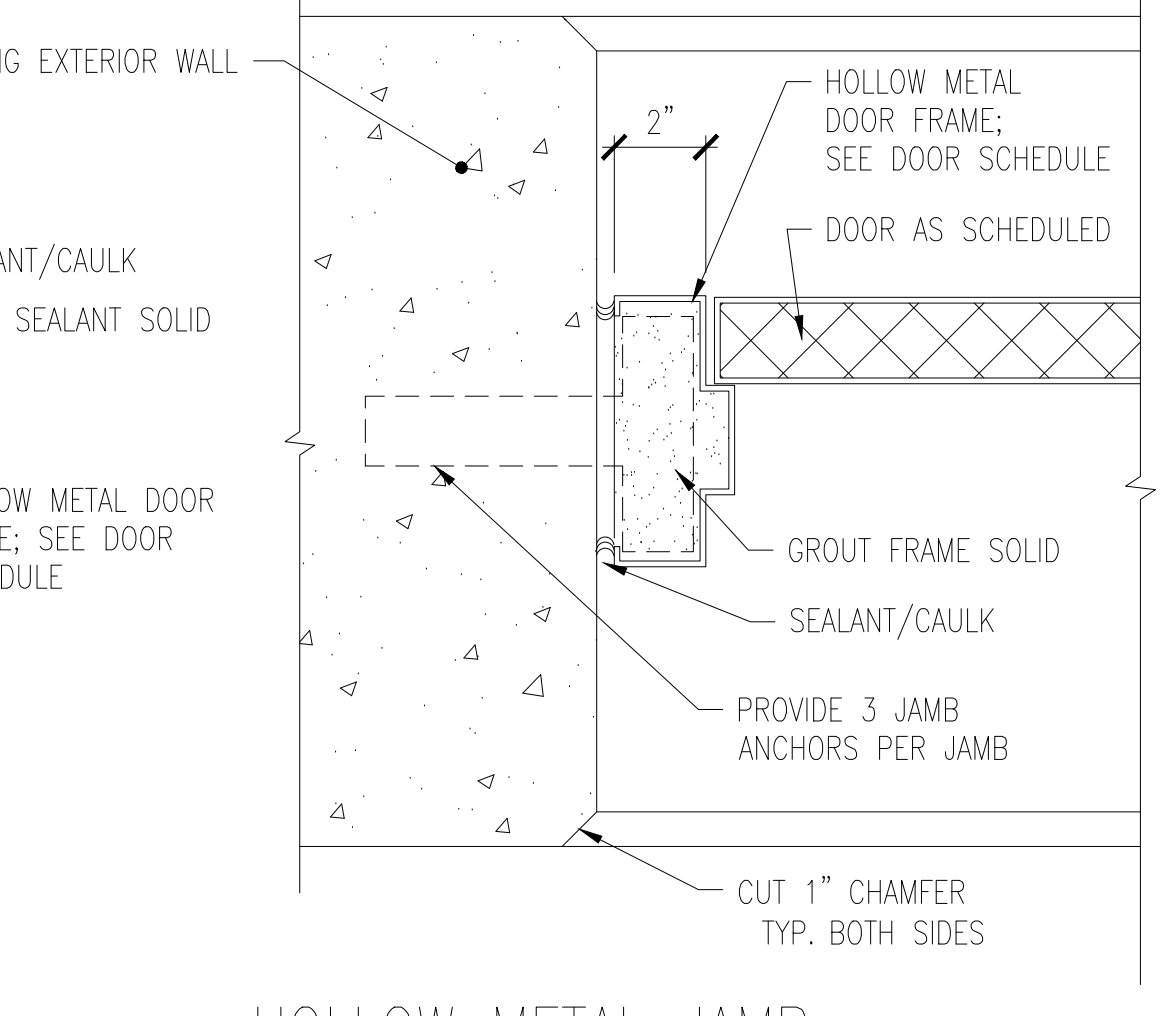
NOTE: AT RAISED ACCESS FLOOR SYSTEM, THIS DETAIL OCCURS BELOW DOOR THRESHOLD. WALL TYPE TO MATCH ADJOINING WALL; SEE PLANS



7 THRESHOLD DETAIL
SCALE: 3" = 1'-0"



8 HM HEAD AT CMU WALL
SCALE: 3" = 1'-0"

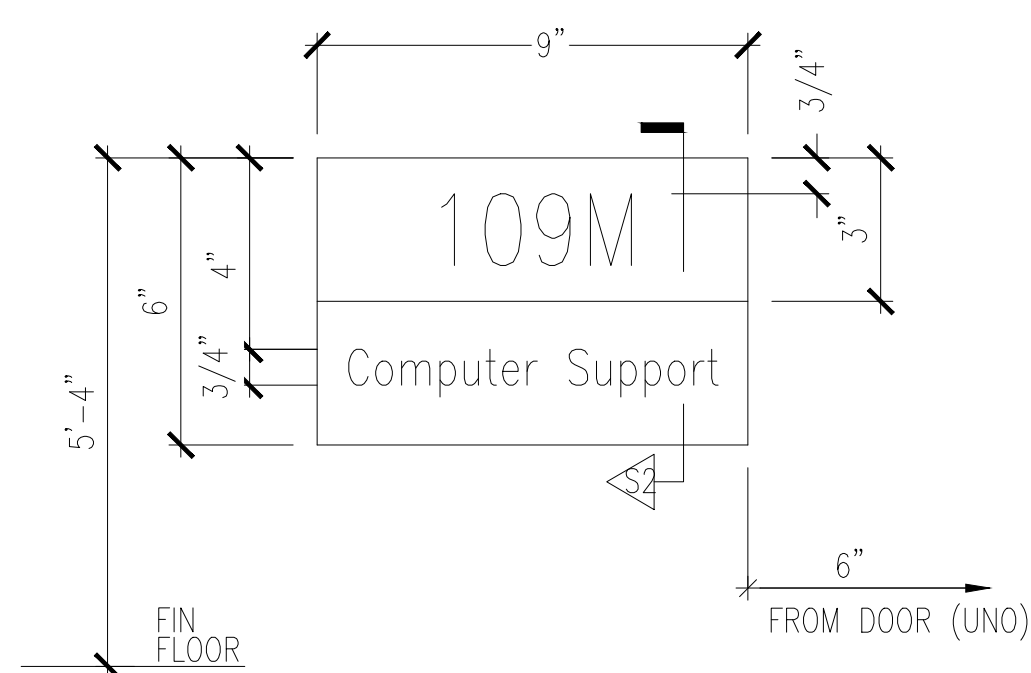


9 HOLLOW METAL JAMB AT EXTERIOR WALL
SCALE: 3" = 1'-0"



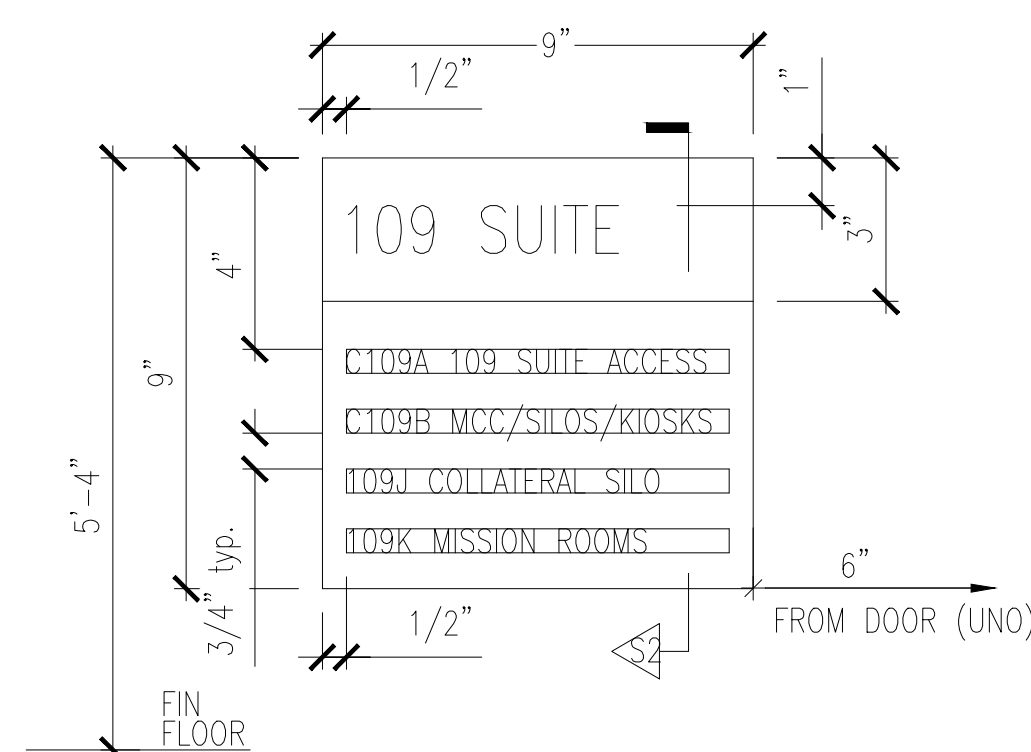
Hernandez • Calhoun Design International
Architecture • Interior Design

REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY S. CAMPBELL	TITLE	
DATE		PROJ. ENGR. S. HERNANDEZ	MODIFY CONTROL ROOMS BLDG 380	
SIGNATURE		APPROVED		
APPROVED		FIRE PROTECTION ENGR.		
APPROVED		APPROVED		
CENM		SAFETY REPRESENTATIVE		
APPROVED		APPROVED		
PROGRAM MANAGER		DIR. BASE MED. SERVICE		
APPROVED		APPROVED		
APPROVED		USING AGENCY		
APPROVED		APPROVED		
APPROVED		COMMUNICATIONS		
APPROVED		APPROVED		
APPROVED		OPERATIONS ENGINEERING		
APPROVED		APPROVED		
ENVIRONMENTAL		DEPUTY BASE CIVIL ENGINEER		
SPEC. NO.		17AA	PROJ. NO.	FTFA 17-1050
DRAWING NO.		A60117AA	FILE NO.	
DATE		APR 2019	SCALE	
INDEX NO.		A601	SHEET 12 OF 86	



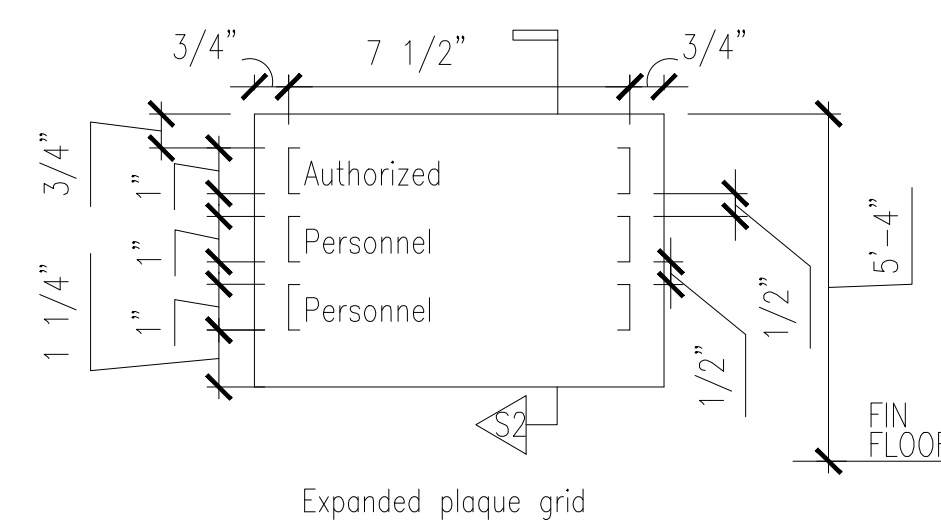
NOTE: TYPOGRAPHY - (ROOM NUMBER) HELVETICA MEDIUM, 1-1/2" TEXT, CENTERED, WITH ACCOMPANYING GRADE TWO BRAILLE; (TENANT NAME) HELVETICA MEDIUM, 3/4" TEXT, CENTERED.

SIGN TYPE B



NOTE: TYPOGRAPHY - (ROOM NUMBER/DESCRIPTION) HELVETICA MEDIUM, 1" TEXT, FLUSH LEFT, WITH ACCOMPANYING GRADE TWO BRAILLE; (TENANT NAMES AND/OR FUNCTIONS) HELVETICA MEDIUM, 1/2" TEXT, FLUSH LEFT.

SIGN TYPE BB2



NOTE: DIRECTIVE - UPPER AND LOWER CASE HELVETICA MEDIUM, 1" CAPITAL LETTER HEIGHT, CENTERED. AVERAGE LINE LENGTH IS 10 CHARACTERS PER LINE.

SIGN TYPE DD1

FIRST FLOOR SIGNAGE SCHEDULE

SIGN/SYMBOL	TYPE	SIGN SIZE	TEXT/DESCRIPTION	REMARKS
1A	B	6" x 9"	C109A 109 SUITE	
1B	BB2	9" x 9"	109 SUITE *	1,5,6
2	B	6" x 9"	109J COLLATERAL SILO	
2A	BB2	9" x 9"	C109B MCC/SILO *	1,5,6
3	B	6" x 9"	109C MCC	
4	B	6" x 9"	109D KIOSK #2	
5	B	6" x 9"	109F KIOSK #1	
6	B	6" x 9"	109G AUDIT/SAFES	
7	B	6" x 9"	109H SILO #2	
8	B	6" x 9"	109I SILO #1	
9	B	6" x 9"	109M COMPUTER SUPPORT	
10	B	6" x 9"	109O COMPUTER SUPPORT	
11	B	6" x 9"	109P STORAGE VAULT	
12	B	6" x 9"	109N MISSION ROOM	
13	B	6" x 9"	109L MISSION ROOM	
14	BB2	9" x 9"	109K MISSION ROOMS *	1,5,6
15	C	9" x 6"	163 WOMEN'S	4
16	B	6" x 9"	169 ELECTRICAL	
17	B	6" x 9"	131 ELECTRICAL	

SIGNAGE SCHEDULE REMARKS

- TEXT FOR CORRIDOR/LOBBY DIRECTORY SIGN TO BE PROVIDED BY USERS
- SYMBOL - HANDICAP
- SYMBOL - MEN
- SYMBOL - WOMEN
- PROVIDE REMOVABLE MESSAGE STRIP SLOTS IN LOWER AREA OF SIGN *
- PREPRINTED MESSAGE STRIPS ARE INDICATED WITH BRACKETS [].

SIGNAGE SCHEDULE GENERAL NOTES

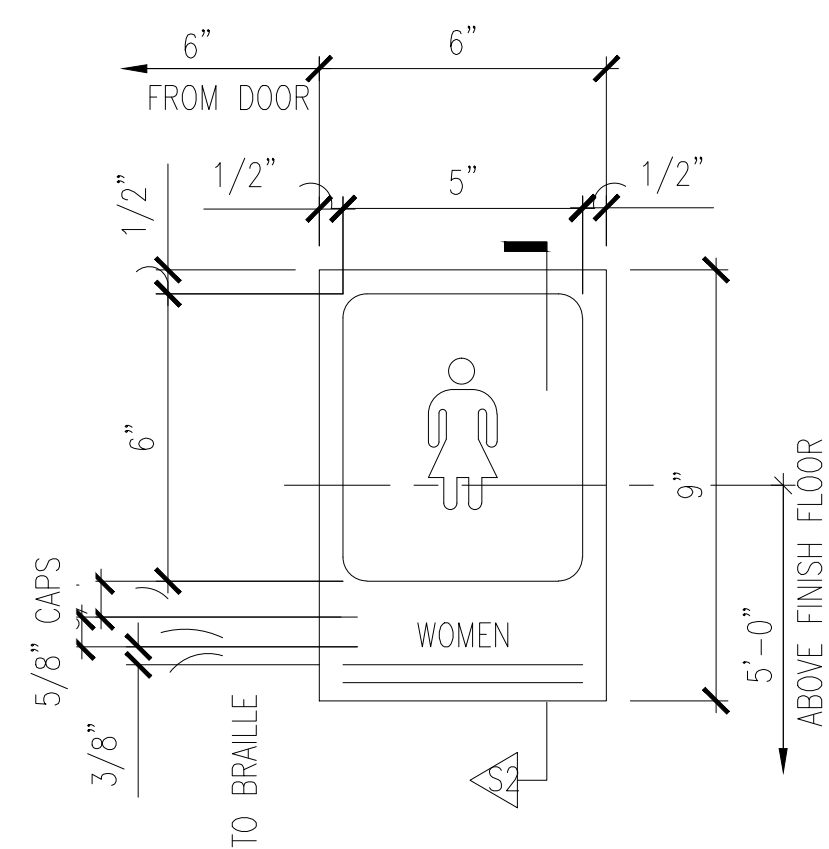
- SEE SPECIFICATIONS SECTION 09 06 90 COLOR SCHEDULE FOR SIGNAGE COLORS.
- SEE THIS SHEET FOR SIGNAGE ELEVATIONS AND SECTIONS. SEE SHEET A703 FOR SIGN LOCATIONS.
- ALL INTERIOR SIGNAGE SHALL CONFORM TO AIR FORCE STANDARDS (LATEST EDITION).
- CONTRACTOR TO PROVIDE SIGNAGE SCHEDULE PER SPECIFICATIONS. PRE-PRINTED INSERT TEXT AND FIXED TEXT WILL BE REVIEWED AND APPROVED BY CONTRACTING OFFICER'S REPRESENTATIVE. BLANK MESSAGE INSERTS WILL BE PROVIDED FOR EACH INSERT SPACE NOT INDICATED WITH PRE-PRINTED SIGNAGE FOR OWNER USE AFTER CONTRACTOR INSTALLATION.

SECOND FLOOR SIGNAGE SCHEDULE

SIGN/SYMBOL	TYPE	SIGN SIZE	TEXT/DESCRIPTION	REMARKS
20	B	3" x 9"	[TO BE DETERMINED]	
21	B	3" x 9"	[TO BE DETERMINED]	
22	DD1	6" x 9"	[TO BE DETERMINED]	
23	DD1	6" x 9"	[TO BE DETERMINED]	
24	BB2	9" x 9"	[TO BE DETERMINED]	
25	B	6" x 9"	290 COMPUTER SUPPORT	
26	B	6" x 9"	280 [TO BE DETERMINED]	

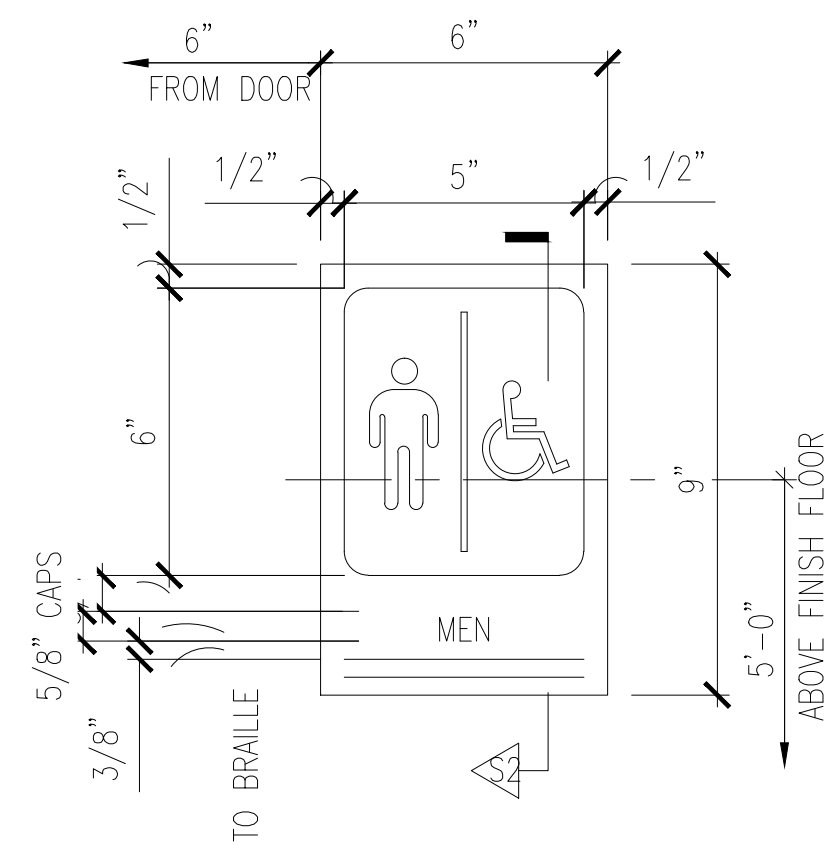
GENERAL NOTES

- SEE SHEET A703 FOR SIGN LOCATIONS



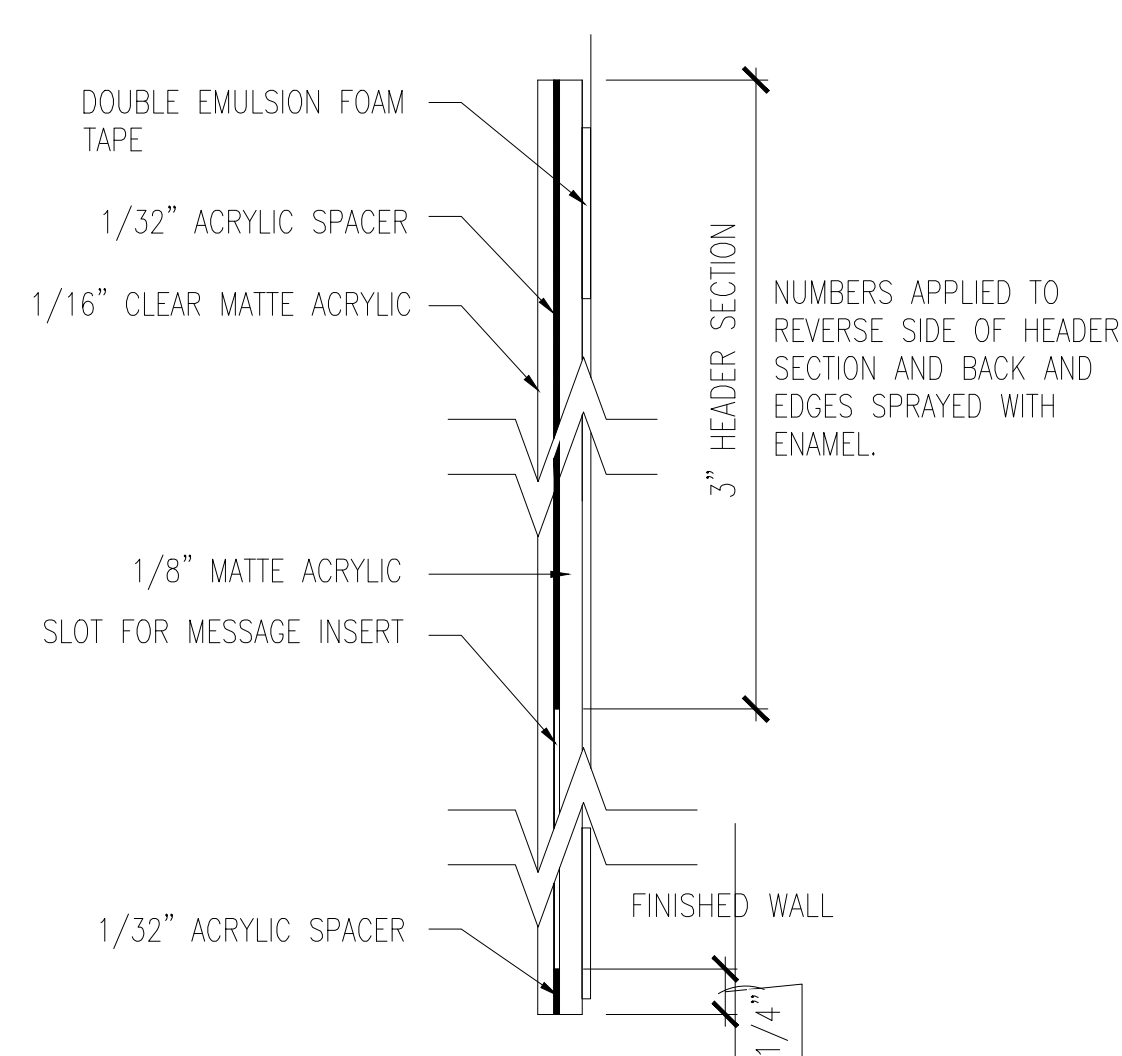
NOTE: TYPOGRAPHY- UPPER CASE HELVETICA MEDIUM, 5/8" [16] CAPITAL LETTER HEIGHT, CENTERED WITH ACCOMPANYING GRADE TWO BRAILLE. MESSAGE LINE WILL ACCOMMODATE 7 TILES OR CHARACTERS MAXIMUM. SYMBOL- WHITE SYMBOL ON DARK BACKGROUND (SEE SPECIFICATIONS SECTION 09 06 90).

SIGN TYPE C



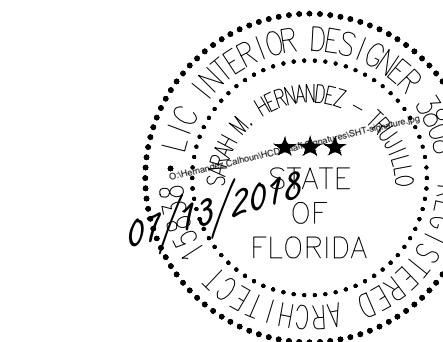
NOTE: TYPOGRAPHY- UPPER CASE HELVETICA MEDIUM, 5/8" [16] CAPITAL LETTER HEIGHT, CENTERED WITH ACCOMPANYING GRADE TWO BRAILLE. MESSAGE LINE WILL ACCOMMODATE 7 TILES OR CHARACTERS MAXIMUM. SYMBOL- WHITE SYMBOL ON DARK BACKGROUND (SEE SPECIFICATIONS SECTION 09 06 90).

SIGN TYPE D

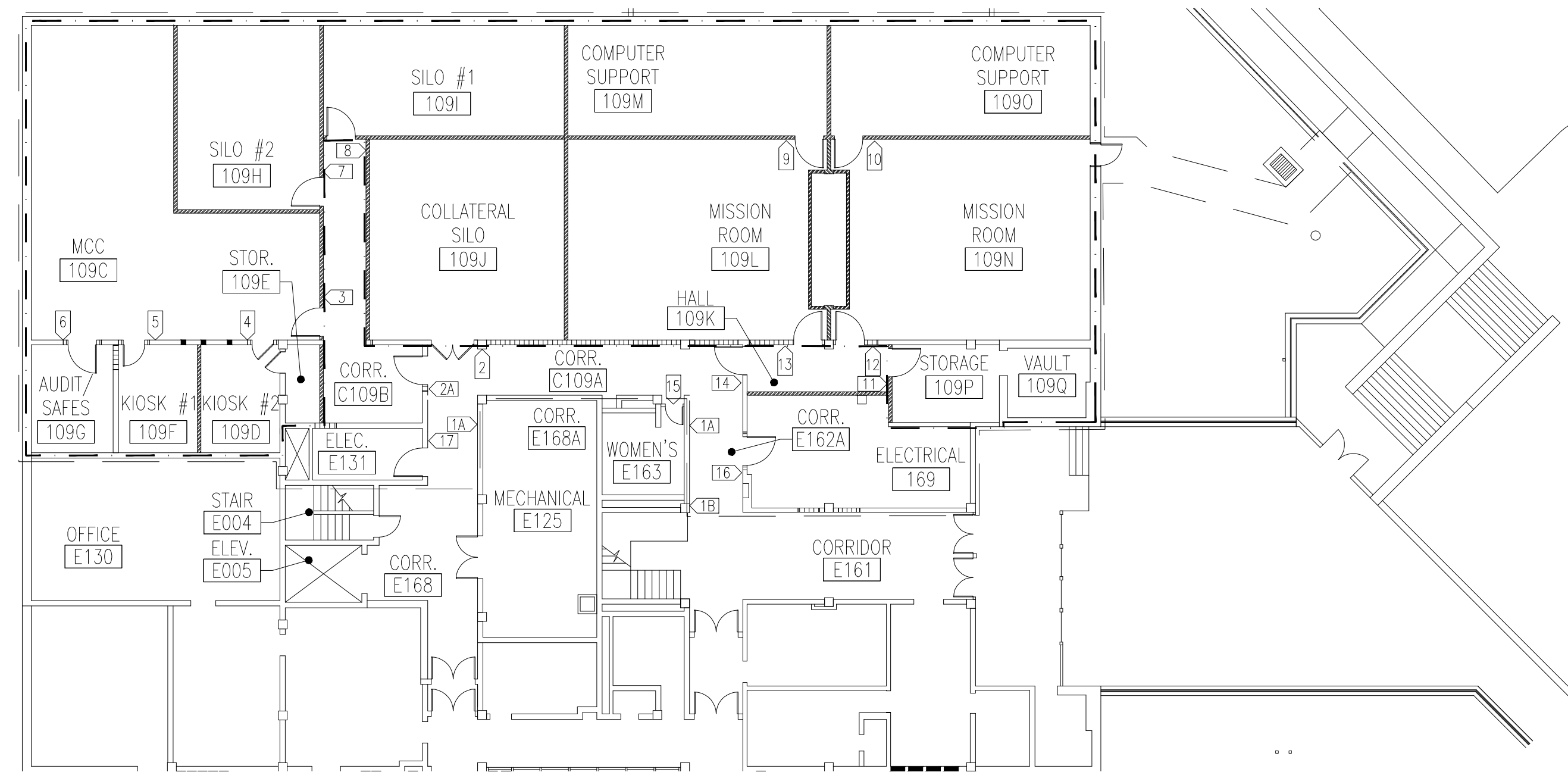


SIGN SECTION S-2

REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY B. HOWE PROJ. ENGR. S. HERNANDEZ APPROVED FIRE PROTECTION ENGR. APPROVED SAFETY REPRESENTATIVE APPROVED DIR. BASE MED. SERVICE APPROVED USING AGENCY APPROVED COMMUNICATIONS APPROVED OPERATIONS ENGINEERING APPROVED ENVIRONMENTAL APPROVED DEPUTY BASE CIVIL ENGINEER		
DATE		TITLE		
SIGNATURE		MODIFY CONTROL ROOMS BLDG 380		
APPROVED		CONTENTS		
CENM		SIGNAGE SCHEDULE AND DETAILS		
APPROVED		APPROVED		
PROGRAM MANAGER		DATE APR 2019		
INDEX NO.		DATE JULY 2010		
A702		SCALE		
SPEC. NO. 17AA		PROJ. NO. FTFA 17-1050		
DRAWING NO. A70217AA		FILE NO.		
SHEET 14 OF 86				

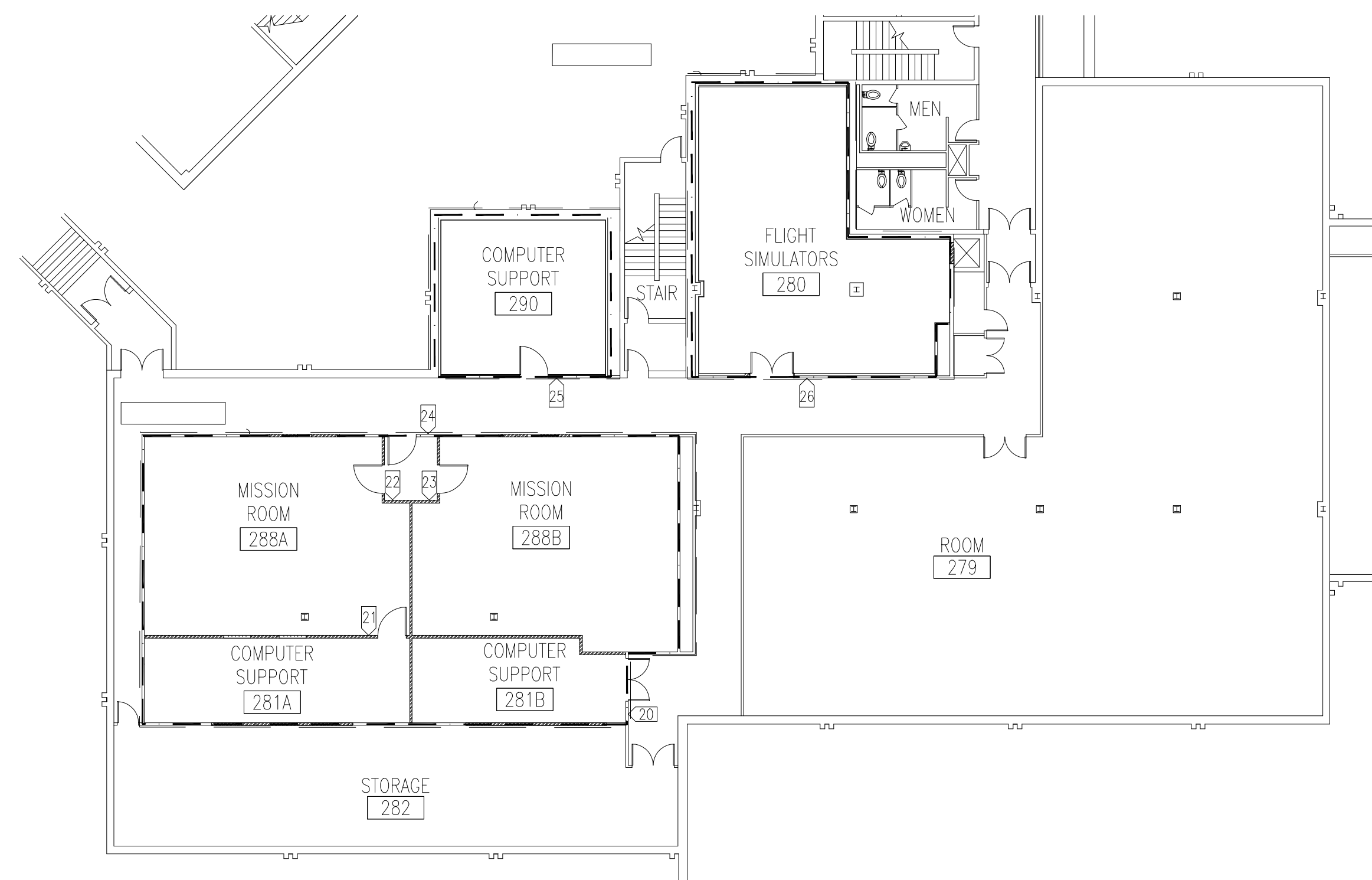


Hernandez - Calhoun
Design International
 Architecture • Interior Design



1
A7-2 | A7-3

BID ITEM "C"
FIRST FLOOR SIGNAGE PLAN
SCALE: NOT TO SCALE

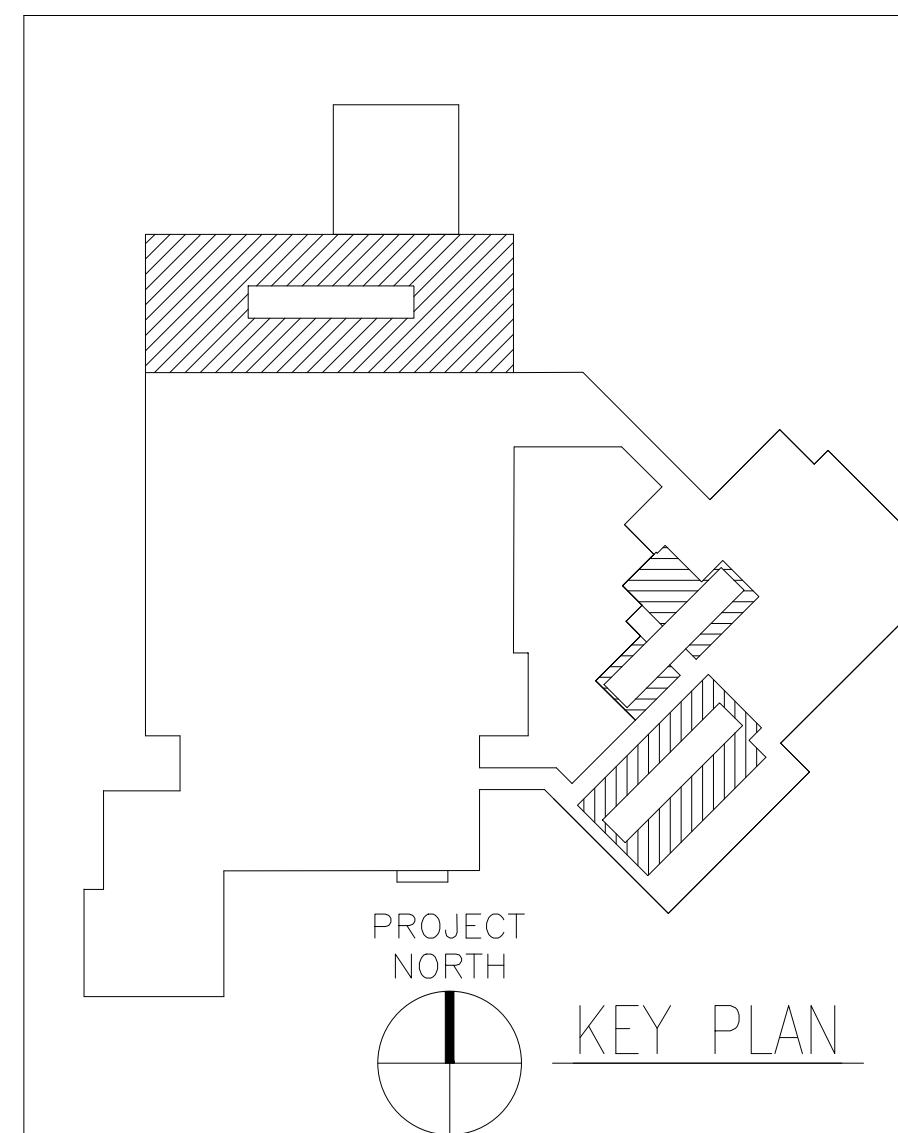


2
A7-2 | A7-3

BID ITEMS "A" & "B"
SECOND FLOOR SIGNAGE PLAN
SCALE: NOT TO SCALE

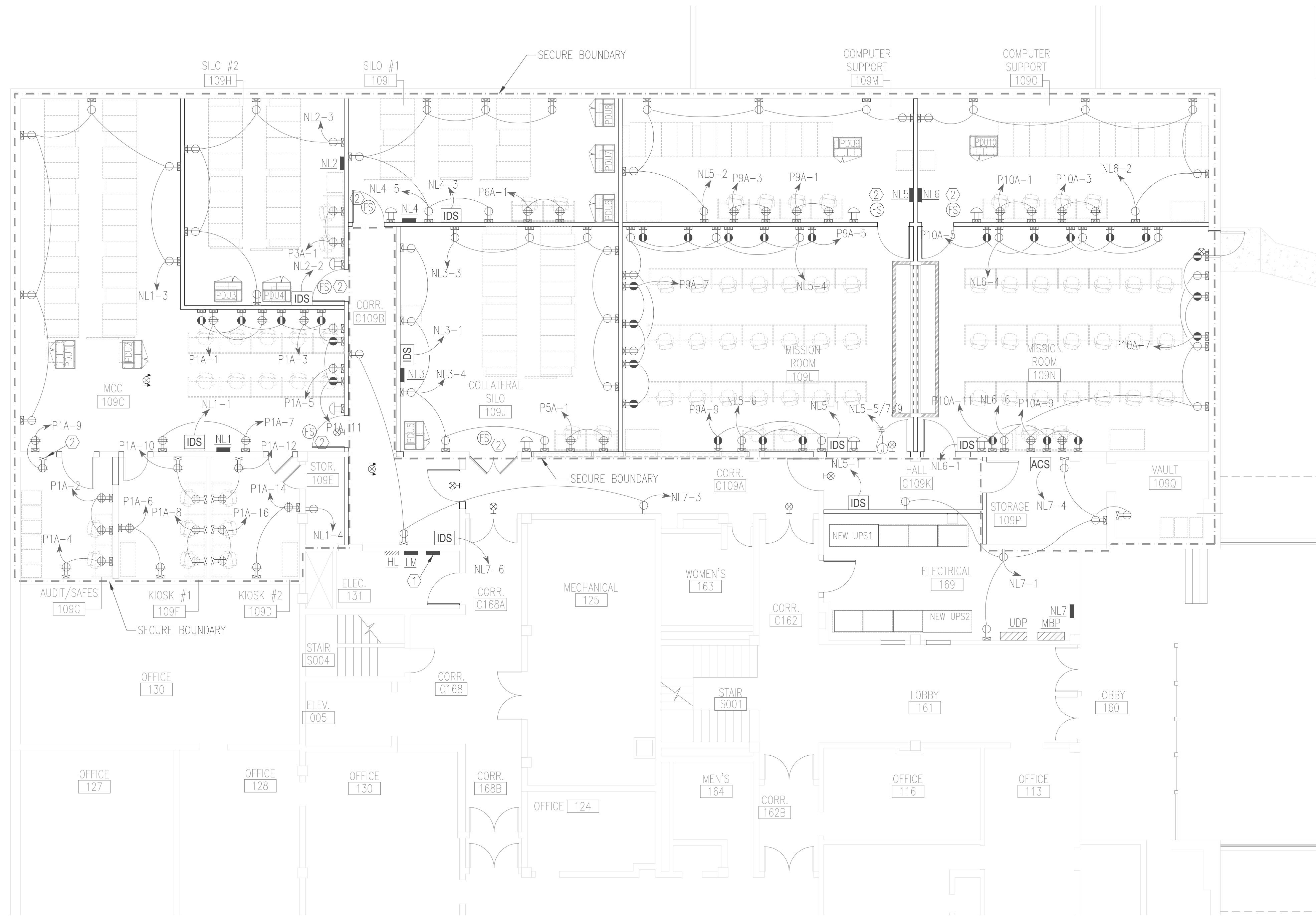
LEGEND
 - - - INDICATES BOUNDARY OF WORK AREA
 - - - INDICATES SECURE AREA BOUNDARY

GENERAL NOTES:
 1. SEE SHEET A702 FOR SIGN TYPES.



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 Design International
 Architecture • Interior Design

REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		TITLE		
DATE	DRAWN BY B. HOWE	MODIFY CONTROL ROOMS BLDG 380		
SIGNATURE	PROJ. ENGR. S. HERNANDEZ			
APPROVED	APPROVED			
CENM	FIRE PROTECTION ENGR.			
APPROVED	APPROVED			
PROGRAM MANAGER	SAFETY REPRESENTATIVE			
	APPROVED			
		CONTENTS		
		SIGNAGE FLOOR PLANS		
		APPROVED	DATE	APR 2019
		OPERATIONS ENGINEERING	96 CEG/CEN	JULY 2018
		APPROVED	APPROVED	SCALE
INDEX NO.	A703	DEPUTY BASE CIVIL ENGINEER		
SPEC. NO.	17AA	PROJ. NO.	FTFA 17-1050	DRAWING NO.
			A70317AA	FILE NO.
				SHEET 15 OF 86



SECURE BOUNDARY NOTES

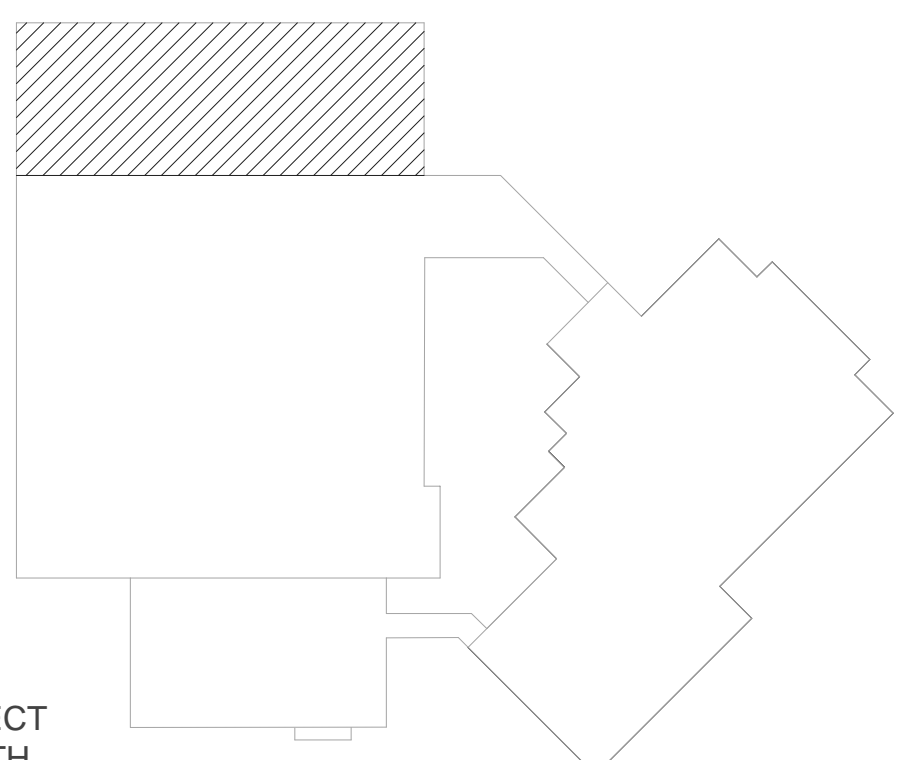
1. ALL DEVICES INSTALLED ON SECURE PERIMETER WALLS OF EACH SECURE SPACE SHALL BE SURFACE MOUNTED.
2. ALL PENETRATIONS THROUGH SECURE PERIMETER SHALL BE AT A SINGLE POINT AND SHALL CONTAIN DIELECTRIC ISOLATION. SEE DIELECTRIC ISOLATION DETAIL SHEET E-604.

NEW WORK - POWER PLAN - BID ITEM 'C'

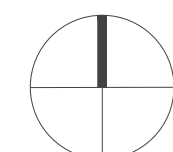
SCALE: 1/8" = 1'-0"

KEYNOTES:

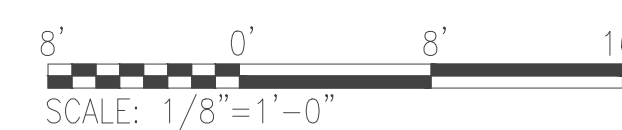
- ① REPLACE PANEL 'MBC'. RECONNECT EXISTING CIRCUITS NOT BEING DEMOLISHED. SEE NEW WORK POWER RISER DIAGRAM SERVICE No. 4 - BID ITEM C, SHEET E-600.
- ② FIRE ALARM FLOW SWITCH MONITORING THE SPECIFIC ROOM WHICH INSTALLED. IF ACTIVATED, THE FLOW SWITCH WILL ONLY DE-ENERGIZE PDU'S IN THE SAME ROOM.



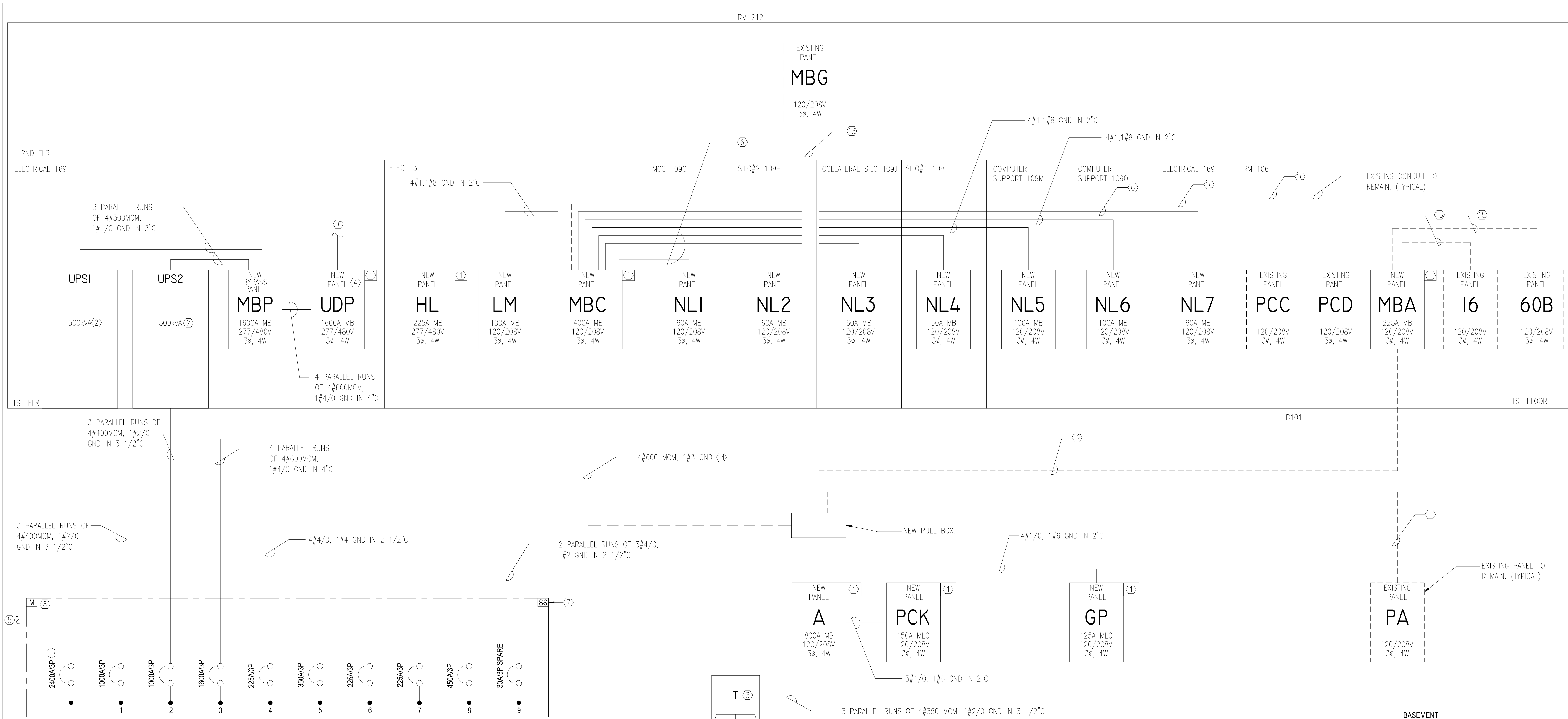
PROJECT NORTH



KEY PLAN
NOT TO SCALE



REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		MODIFY CONTROL ROOMS BLDG 380		
DATE	SIGNATURE	DRAWN BY <u>DL MORGENTHAU</u>	TITLE	
APPROVED	CENM	PROJ. ENGR. <u>D. MORGENTHAU</u>	NEW WORK - POWER PLAN - BID ITEM 'C'	
APPROVED	PROGRAM MANAGER	FIRE PROTECTION ENGR.		
		SAFETY REPRESENTATIVE		
		APPROVED		
		DIR. BASE MED. SERVICE		
		APPROVED	CONTENTS	
		USING AGENCY	NEW WORK - POWER PLAN - BID ITEM 'C'	
		APPROVED		
		COMMUNICATIONS		
		APPROVED	APPROVED	DATE APR 2019
		OPERATIONS ENGINEERING	96 CEG/CEN	JULY 2010
		APPROVED	APPROVED	SCALE
INDEX NO.		ENVIRONMENTAL	DEPUTY BASE CIVIL ENGINEER	
E-201		SPEC. NO.	PROJ. NO.	DRAWING NO.
		17AA	FTFA 17-1050	E20117AA
			FILE NO.	SHEET 59 OF 86



**SERVICE No. 4
NEW MAIN SWITCHBOARD "No. 1"**
2500A, 277V/480Y, 3Ø, 4W, 65KAIC

NEW WORK - POWER RISER DIAGRAM SERVICE No. 4 - BID ITEM C

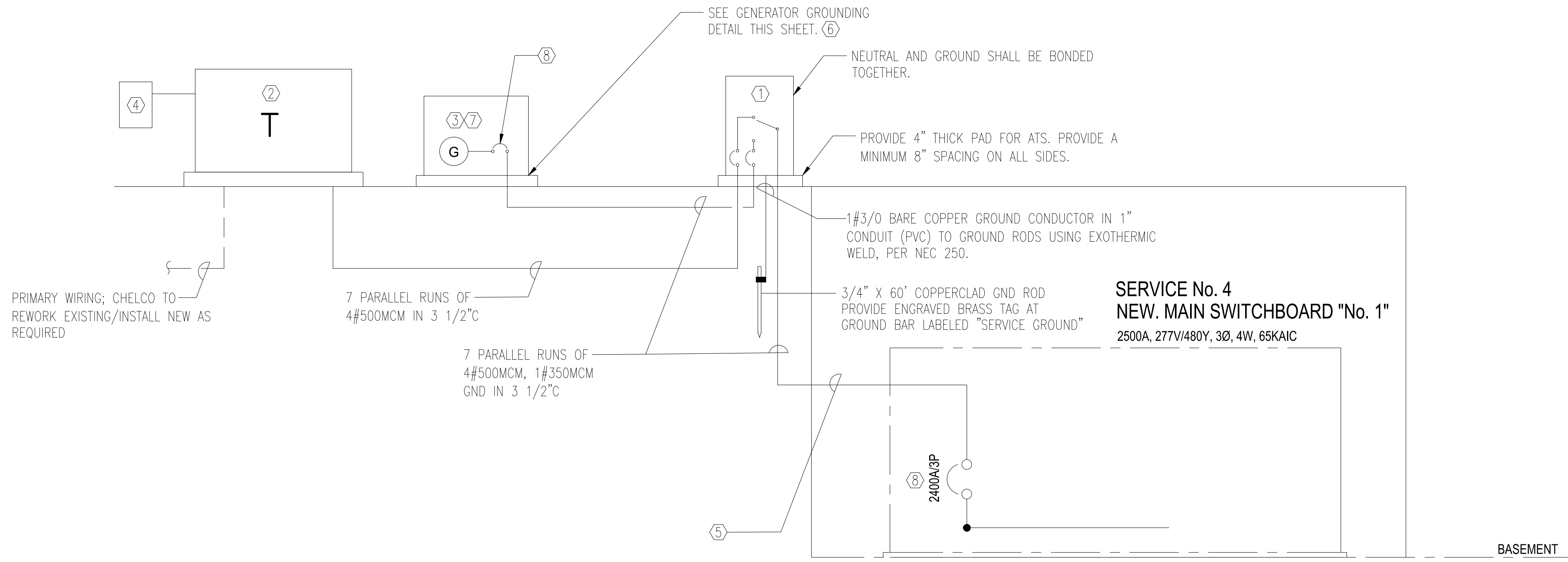
NOT TO SCALE
KEYNOTES:

- ① SURGE SUPPRESSOR; INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO SURGE SUPPRESSION NOTE.
- ② NEW 500KVA UPS INPUT:480Y/277V, 3Ø, 4W OUTPUT:480Y/277V, 3Ø, 4W
- ③ NEW 300KVA DRY TYPE TRANSFORMER. INPUT:480Δ, 3Ø, 3W OUTPUT: 208Y/120V, 3Ø, 4W. MINIMUM IMPEDANCE 5.0%Z
- ④ SEE NEW WORK - POWER RISER DIAGRAM UPS DISTRIBUTION SHEET E-601 FOR ADDITIONAL INFORMATION.
- ⑤ SEE NEW WORK - POWER RISER DIAGRAM SERVICE ENTRANCE No. 4, SHEET E-604 FOR SERVICE ENTRANCE INFORMATION.
- ⑥ INSTALL 4#4, 1#10 GROUND IN 1 1/4" CONDUIT FROM 'MBC' TO EACH PANEL.
- ⑦ FURNISH SWITCHBOARD WITH INTEGRAL SURGE SUPPRESSOR.
- ⑧ FURNISH SWITCHBOARD WITH INTEGRAL DEMAND METER.
- ⑨ 2500 AMP RATED MAIN BREAKER WITH GROUND FAULT PROTECTION. PROVIDE ADJUSTABLE CIRCUIT BREAKER TYPE WITH INPUT BREAKER LONG TIME PICKUP (LTPU) SET TO 2400 AMPS.
- ⑩ SEE NEW WORK - POWER RISER DIAGRAM UPS DISTRIBUTION SHEET E-601.
- ⑪ INSTALL TWO PARALLEL RUNS OF 4#250MCM, 1#1 GROUND IN EXISTING 3 1/2" CONDUITS.
- ⑫ INSTALL 4#4/0, 1#4 GND IN EXISTING 3 1/2" CONDUIT.
- ⑬ INSTALL TWO PARALLEL RUNS 4#3/0, 1#3 IN EXISTING 3 1/2" CONDUIT.
- ⑭ REUSE EXISTING 4" CONDUIT.
- ⑮ CONNECT EXISTING FEEDERS TO REMAIN.
- ⑯ INSTALL 4#1/0, 1#6 GROUND IN EXISTING 2" CONDUIT

SURGE SUPPRESSION NOTE:

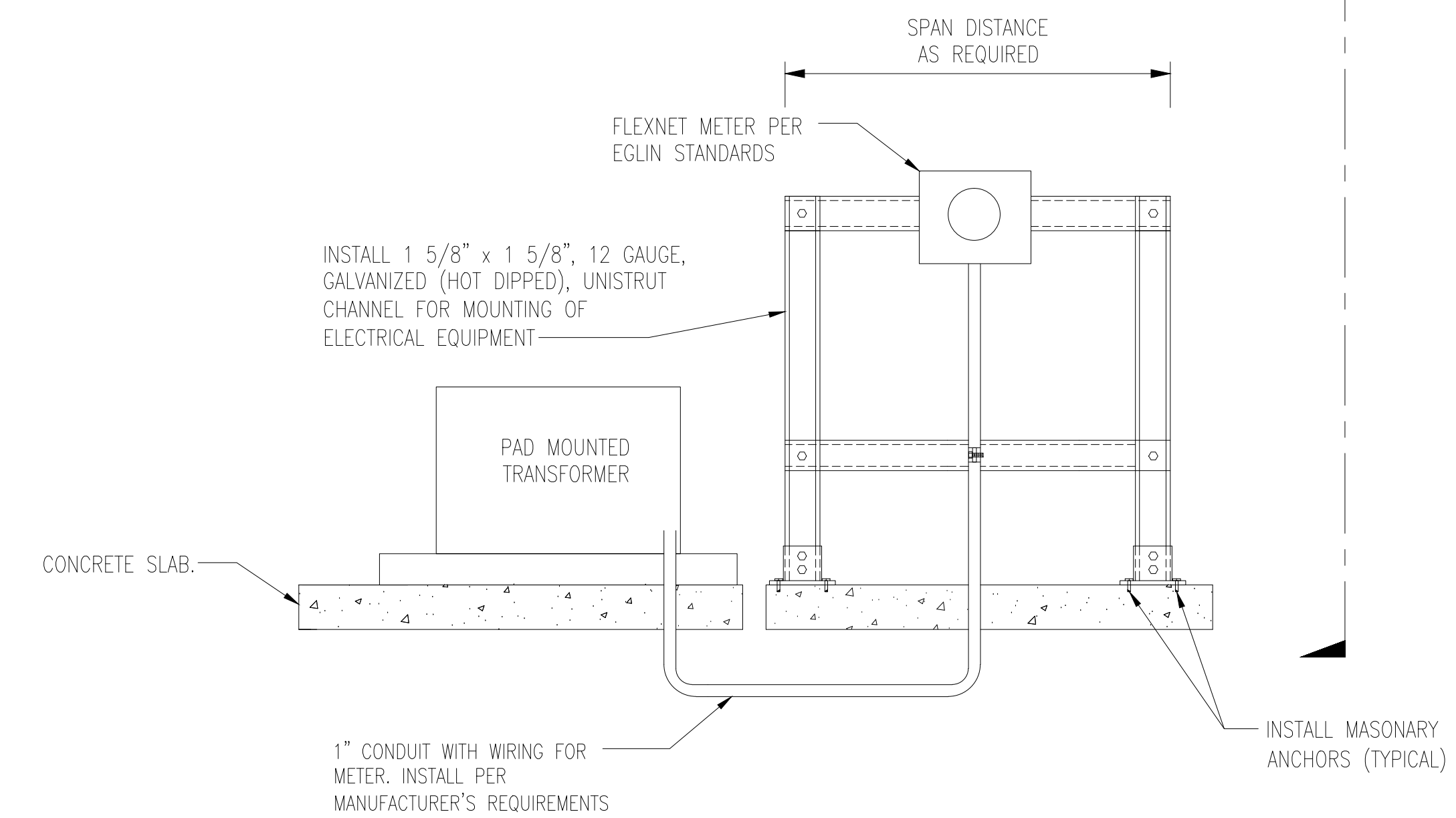
SURGE PROTECTION DEVICES (SPD) SHALL BE LISTED IN ACCORDANCE WITH UL 1449-3RD EDITION. SPD'S SHALL PROVIDE PROTECTION L-N, L-G AND N-G. SPD SHALL HAVE A 200KAIC RATING. SPD SHALL HAVE A SURGE CURRENT RATING PER MODE OF NO LESS THAN 150KA AND 300KA PER PHASE AND BE MODULAR IN DESIGN. SPD SHALL HAVE A 20KA "IN" RATING BY UL AND BE RATED AS A TYPE 1 DEVICE. BOTH THE "TYPE" RATING AND "IN" RATING MUST BE LISTED AS PART OF THE UL LABEL ON THE PRODUCT. THE SPD MUST QUALIFY FOR UL 96A LIGHTNING PROTECTION SYSTEM (LPS) MASTER LABELING. SPD SHALL HAVE A TEN (10) YEAR WARRANTY. SPD SHALL BE EQUIPPED WITH AN INTEGRAL DISCONNECTING MEANS FOR APPLICATIONS WHERE NO BREAKER IS AVAILABLE SUCH AS A RETROFIT APPLICATION. SPD SHALL HAVE DRY CONTACTS FOR REMOTE MONITORING, AN AUDIBLE ALARM REDUNDANT INDICATION PER PHASE AND PER MODE AND A TRANSIENT EVENT COUNTER. SPD SHALL HAVE A MAXIMUM VPR RATING BY UL OF 1200V, L-N AND L-G ON A 277/480V SYSTEM AND 800V, L-N AND L-G ON A 120/208V SYSTEM. SPD ENCLOSURE SHALL HAVE A NEMA 4 RATING FOR INDOOR AND OUTDOOR USE.

REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY: C. KAUNITZ PROJ. ENGR. D. MILLER APPROVED FIRE PROTECTION ENGR. APPROVED SAFETY REPRESENTATIVE APPROVED DIR. BASE MED. SERVICE APPROVED USING AGENCY APPROVED COMMUNICATIONS APPROVED OPERATIONS ENGINEERING APPROVED ENVIRONMENTAL SPEC. NO.	MODIFY CONTROL ROOMS BLDG 380	
DATE: _____ SIGNATURE: _____ APPROVED: _____ CENM: _____ APPROVED: _____ PROGRAM MANAGER: _____		TITLE: _____ CONTENTS:	NEW WORK - POWER RISER DIAGRAM SERVICE No. 4 & PANEL HM - BID ITEMS B & C	
INDEX NO. E-600		APPROVED: _____ 96 CEG/CEN APPROVED: _____ DEPUTY BASE CIVIL ENGINEER	DATE: APR 2019 JULY 2018	SCALE: _____
SPEC. NO. 17AA		PROJ. NO. FTFA 17-1050	DRAWING NO. E60017AA	FILE NO. _____ SHEET 68 OF 86



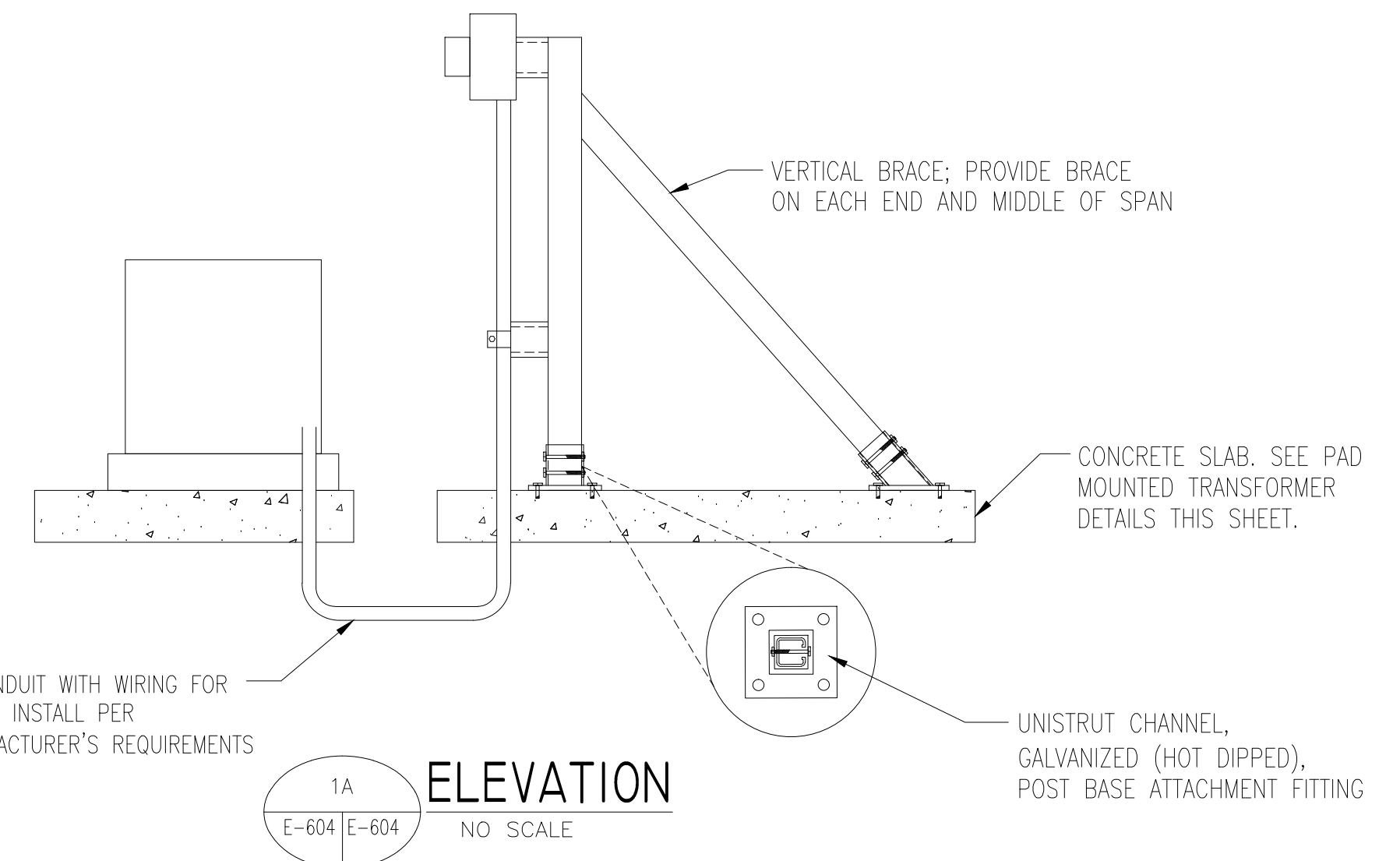
NEW WORK - POWER RISER DIAGRAM SERVICE ENTRANCE No. 4

NOT TO SCALE



METER MOUNTING DETAIL

NOT TO SCALE



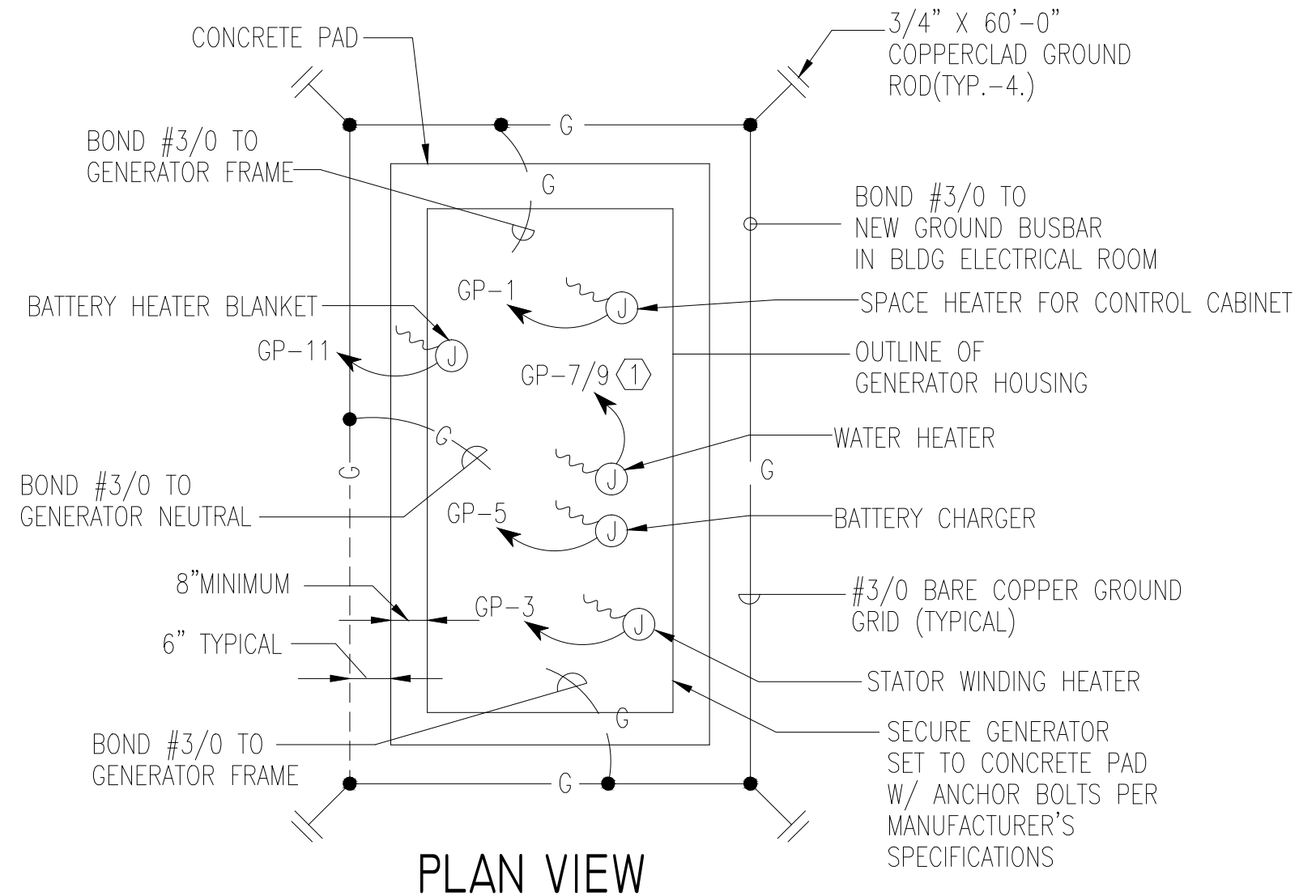
ELEVATION

NOT TO SCALE

COORDINATION STUDY NOTE:
THE CONTRACTOR'S COORDINATION STUDY SHALL DETERMINE ALL BREAKER SETTINGS FOR THE PROJECT. IT SHALL ACCOUNT FOR THE NEW ATS, NEW GENERATOR, NEW MAIN SERVICE SWITCHBOARD, NEW DISTRIBUTION PANELBOARDS, AND ALL NEW ASSOCIATED DOWNSTREAM BREAKERS. THE CONTRACTOR SHALL ENGAGE THEIR MANUFACTURER'S FACTORY REPRESENTATIVE TO PROVIDE THE STUDY. THE CONTRACTOR SHALL USE THE STUDY IN SETTING ALL FINAL BREAKER VALUES.

KEYNOTES:

- 1 NEW 2500 AMP/4 POLE SERVICE ENTRANCE RATED AUTOMATIC TRANSFER SWITCH CONTAINING TWO INTEGRAL 2500 AMP RATED MAIN BREAKERS WITH GROUND FAULT PROTECTION (GFP) AND BYPASS ISOLATION. PROVIDE ADJUSTABLE CIRCUIT BREAKER TYPES WITH INPUT BREAKER LONG TIME PICKUP (LTPU) SET TO 2400 AMPS. TRANSFER SWITCH SHALL HAVE A MINIMUM AIC RATING OF 65K. FURNISH TRANSFER SWITCH IN NEMA 3R ENCLOSURE. SET GFP UNITS AS REQUIRED TO PROTECT THE ELECTRICAL SYSTEM SUCH THAT THE FAULT ENERGY DOESN'T EXCEED 2,000 KW-CYCLES. SET GFP UNITS THAT ARE IN SERIES WITH ONE ANOTHER SUCH THAT THE GFP UNIT CLOSEST TO A FAULT WILL TRIP WITHOUT ALSO TRIPPING GFP UNITS THAT ARE UPSTREAM.
- 2 NEW 2000KVA, PAD MOUNTED TRANSFORMER TO BE FURNISHED AND INSTALLED BY CHELCO. ELECTRICAL CONTRACTOR IS TO SUBCONTRACT TO CHELCO TO PROVIDE AND INSTALL THE TRANSFORMER, AS WELL AS CONSTRUCT ALL PRIMARY CONNECTIONS AS REQUIRED. TRANSFORMER SHALL HAVE A MINIMUM IMPEDANCE 5.75%Z, 12,470Δ-480Y/277V. TRANSFORMER SHALL HAVE MARKING NAMEPLATE PER NEC 450.11.
- 3 NEW MINIMUM 1750KW, 2200KVA DIESEL GENERATOR 480Y/277V, 3φ, 4W. PEAK STARTING KVA 7000KVA WITH A 20% VOLTAGE DIP. FURNISH WITH SUB BASE FUEL TANK SIZED FOR 48 HOURS AT FULL LOAD. MINIMUM SIZE OF 3500 GALLONS. FINAL FUEL TANK SIZE SHALL BE SIZED PER GENERATOR FURNISHED AND INSTALLED BY CONTRACTOR.
- 4 PROVIDE A COMBINATION KW-HR AND KW DEMAND METER, METER SHALL INCLUDE WIRELESS TRANSCIEVER HARDWARE. THE METER AND WIRELESS TRANSCIEVER HARDWARE SHALL BE COMPATIBLE WITH FLEXNET SYSTEM CURRENTLY BEING UTILIZED BY EGLIN AFB. PROVIDE A 13 POINT TERMINAL METER CAN WITH VOLTAGE AND CURRENT TEST SWITCHES. FOR INFORMATION REGARDING SPECIFICS OF METER AND WIRELESS TRANSCIEVER HARDWARE TO BE UTILIZED, INCLUDING FREQUENCY REQUIREMENTS, CONTACT ALAN MARDIS WITH MAINTENANCE ENGINEERING EGLIN AFB, AT THE FOLLOWING TELEPHONE NUMBER: 850-883-4809. SEE METER MOUNTING DETAIL THIS SHEET.
- 5 ELECTRICAL CONTRACTOR SHALL INCLUDE IN THEIR PROPOSAL PROVISIONS FOR NEW CONDUIT AND WIRING FOR SERVICE ENTRANCE. HOWEVER, IF EXISTING CONDUIT IS FOUND TO BE USEABLE, CONTRACTOR MAY INSTALL NEW CONDUCTORS IN EXISTING CONDUIT.
- 6 GENERATOR SLAB SHALL BE A MINIMUM OF 12" THICK WITH #5 REBAR INSTALLED AT 12" IN CENTER BOTH DIRECTIONS. PAD SHALL EXTEND 3' BEYOND FOOTPRINT OF GENERATOR ON ALL SIDES. SLAB SIZED FOR 1750KW IN WEATHER ENCLOSURE WITH 3500 GALLON SUB BASE FUEL TANK AND APPROXIMATE WEIGHT OF 50,000 LBS. THE WEIGHT OF THE SLAB MUST BE EQUAL OR GREATER THAN THE WEIGHT OF THE SELECTED ENCLOSURE AND GENERATOR WHEN FULLY LOADED WITH DIESEL FUEL.
- 7 ALL AIR QUALITY PERMITTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 8 2500 AMP RATED MAIN BREAKER WITH GROUND FAULT PROTECTION. PROVIDE ADJUSTABLE CIRCUIT BREAKER TYPE WITH INPUT BREAKER LONG TIME PICKUP (LTPU) SET TO 2400 AMPS. SET GFP UNIT AS REQUIRED TO PROTECT THE ELECTRICAL SYSTEM SUCH THAT THE FAULT ENERGY DOESN'T EXCEED 2,000 KW-CYCLES. SET GFP UNITS THAT ARE IN SERIES WITH ONE ANOTHER SUCH THAT THE GFP UNIT CLOSEST TO A FAULT WILL TRIP WITHOUT ALSO TRIPPING GFP UNITS THAT ARE UPSTREAM.



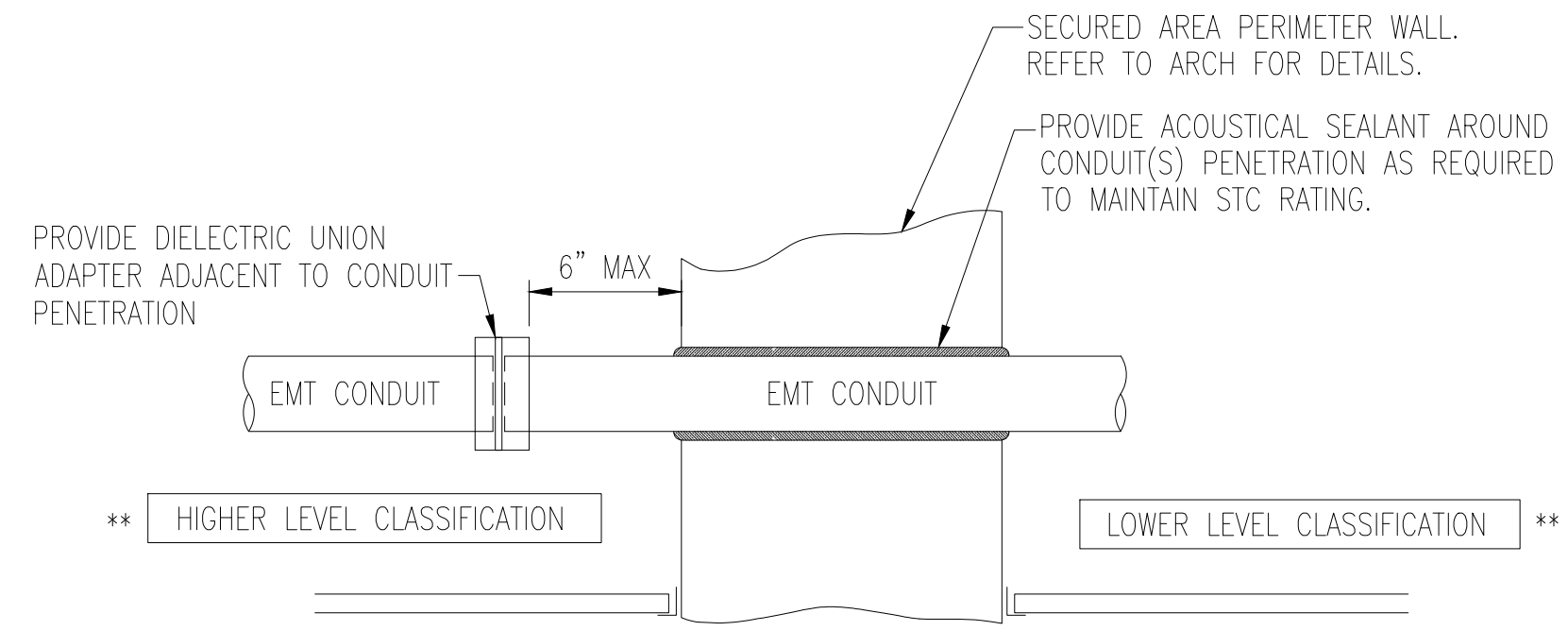
**PLAN VIEW
GENERATOR GROUNDING DETAIL**

NOT TO SCALE

NOTE: ALL GROUND CONNECTIONS SHALL BE EXOTHERMICALLY WELDED

GENERATOR GROUNDING DETAIL KEYNOTES:

- 1 2#4, 1#10 GROUND IN 1" C
- 2 BATTERY CHARGER SHALL BE CURRENT LIMITING, AUTOMATIC-EQUALIZING AND FLOAT CHARGING TYPE. UNIT SHALL COMPLY WITH UL1236



DIELECTRIC ISOLATION DETAIL

NOT TO SCALE

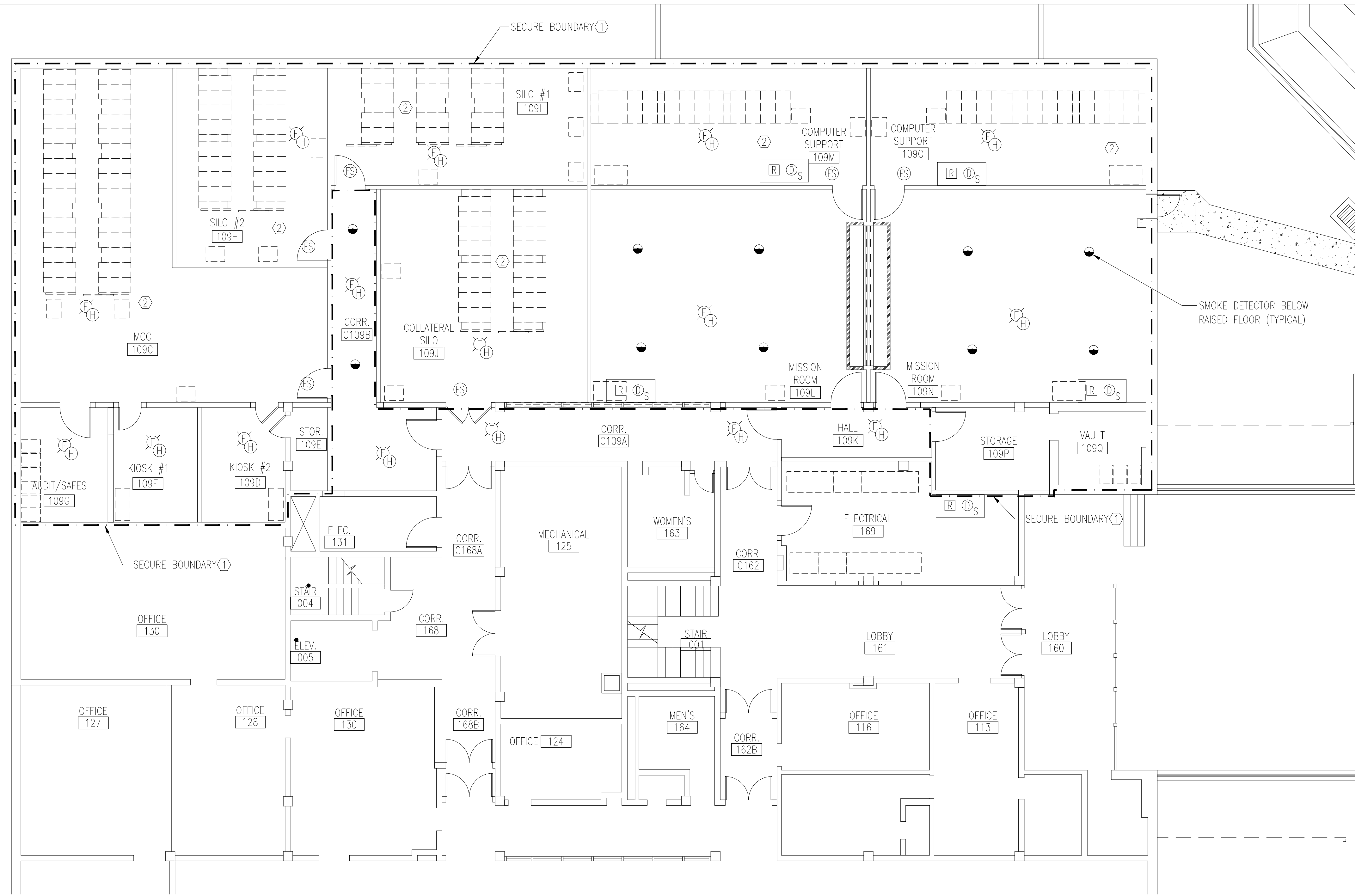
NOTE: PROVIDE ISOLATION FOR ALL ABOVE GROUND METALLIC CONDUITS ENTERING/LEAVING SECURED PERIMETERS. PROVIDE A DIELECTRIC UNION INSIDE THE SECURED AREA PERIMETER ADJACENT TO THE PENETRATION.

** THERE ARE NUMEROUS INSTANCES OF HIGHER LEVEL CLASSIFICATION REVERSING BETWEEN ADJACENT ROOMS IN THE ROOM 109 SUITE - PLAN ON HAVING DIELECTRIC UNION ADAPTERS ON BOTH SIDES OF THESE WALLS.

REFER TO ARCHITECTURAL PLANS FOR SECURE AREA BOUNDARIES.

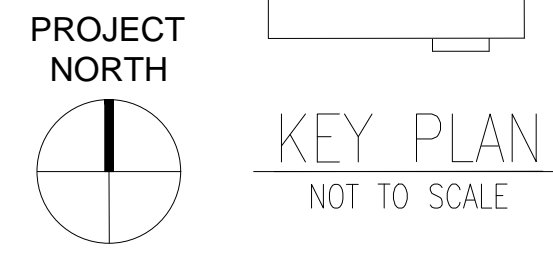
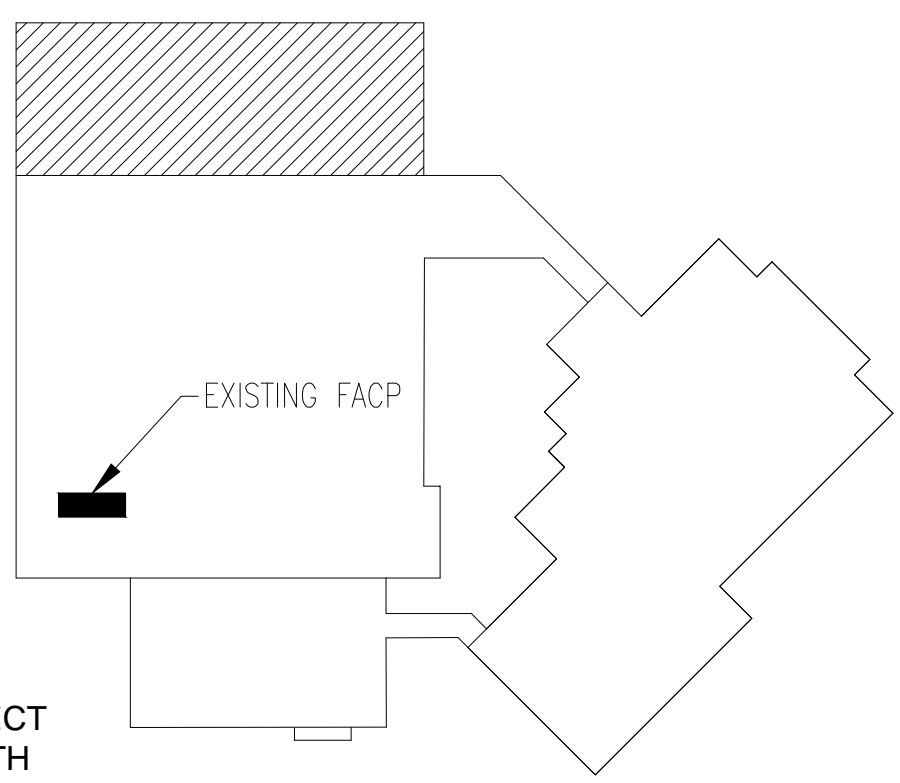
REVISION	DATE	DESCRIPTION	BY	APPR'D
1	25APR19	Clarified Dielectric Isolation Detail & 48-hour minimum generator run time (Keynote 3)	TLF	TLF

BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA	
MODIFY CONTROL ROOMS BLDG 380	
AS-BUILT	TITLE
DATE	PROJECT
SIGNATURE	PROJ. ENGR. D. MILLER
APPROVED	APPROVED
CENM	FIRE PROTECTION ENGR.
APPROVED	APPROVED
PROGRAM MANAGER	SAFETY REPRESENTATIVE
	APPROVED
	DIR. BASE MED. SERVICE
	APPROVED
	USING AGENCY
	APPROVED
	COMMUNICATIONS
	APPROVED
	OPERATIONS ENGINEERING
	APPROVED
INDEX NO.	ENVIRONMENTAL
E-604	DEPUTY BASE CIVIL ENGINEER
	APPROVED
	DATE
	APR 2019
	96 CEG/CEN
	APPROVED
	SCALE
	JULY 2010
SPEC. NO.	PROJ. NO.
17AA	FTFA 17-1050
DRAWING NO.	FILE NO.
E60417AA	
SHEET	72 OF 86

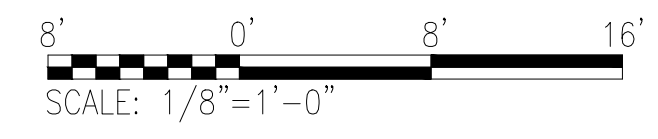


GENERAL NOTES (SHEET FA-200):
 - PROVIDE A FRAMED CAD DRAWN FLOOR PLAN SHOWING THE LOCATION OF ALL UNDER FLOOR SMOKE DETECTORS AND THEIR CORRESPONDING ADDRESS IN ACCORDANCE WITH UFC 3-600-01. CAD DRAWING SHALL BE INSTALLED ADJACENT TO FACP.

KEYNOTES:
 ① BOUNDARY OF SECURED AREA, SURFACE MOUNT ALL DEVICES LOCATED ON ENTIRE RUN OF SECURED WALL PERIMETER (BOTH SIDES OF WALL FOR COMMON WALLS). ALL SECURE WALL CONDUIT PENETRATIONS SHALL HAVE DI-ELECTRIC BREAKS. SEE DI-ELECTRIC DETAIL SHEET FA-600.
 ② ROOM CONTAINS ULTRA-SENSITIVE SMOKE DETECTION SYSTEM WHICH SHALL BE FURNISHED AND INSTALLED BY FIRE ALARM CONTRACTOR. REFER TO SHEET FA-202.

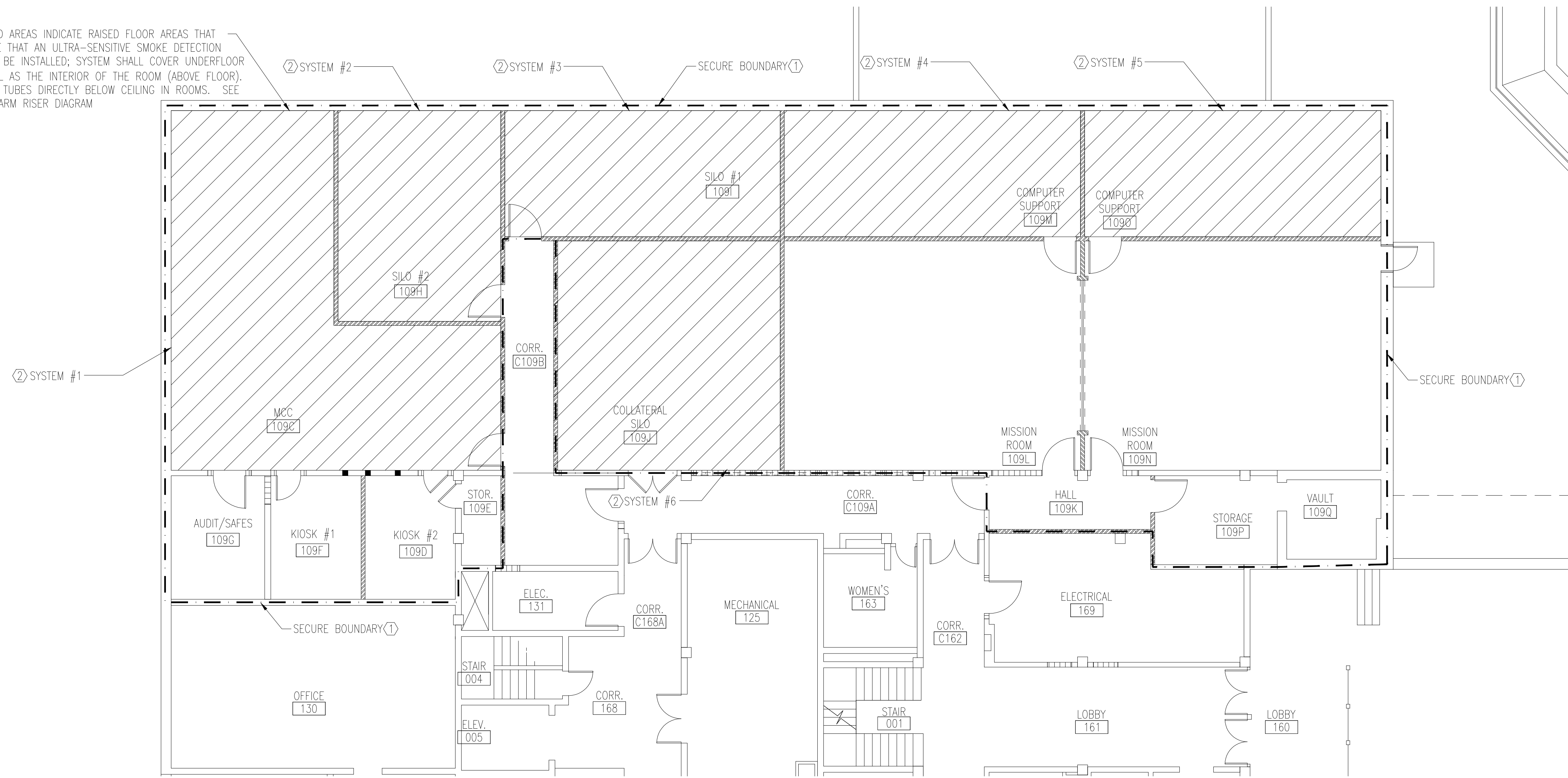


NEW WORK - FIRE ALARM PLAN - BID ITEM 'C'
 SCALE: 1/8" = 1'-0"



REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY: BAGWELL PROJ. ENGR. BRADLEY APPROVED FIRE PROTECTION ENGR. APPROVED SAFETY REPRESENTATIVE APPROVED DIR. BASE MED. SERVICE APPROVED USING AGENCY APPROVED COMMUNICATIONS APPROVED OPERATIONS ENGINEERING APPROVED ENVIRONMENTAL APPROVED SPEC. NO. 17AA	MODIFY CONTROL ROOMS BLDG 380	
DATE		TITLE	CONTENTS	
SIGNATURE		NEW WORK - FIRE ALARM PLAN - BID ITEM 'C'		
APPROVED		APPROVED	DATE	APR 2019
CENM		APPROVED	DATE	JULY 2010
APPROVED		APPROVED	SCALE	
PROGRAM MANAGER		APPROVED	DEPUTY BASE CIVIL ENGINEER	
INDEX NO.	FA-200	PROJ. NO.	FTFA 17-1050	DRAWING NO.
		17AA	FA20017AA	FILE NO.
				SHEET 20 OF 86

HATCHED AREAS INDICATE RAISED FLOOR AREAS THAT REQUIRE THAT AN ULTRA-SENSITIVE SMOKE DETECTION SYSTEM BE INSTALLED; SYSTEM SHALL COVER UNDERFLOOR AS WELL AS THE INTERIOR OF THE ROOM (ABOVE FLOOR). INSTALL TUBES DIRECTLY BELOW CEILING IN ROOMS. SEE FIRE ALARM RISER DIAGRAM

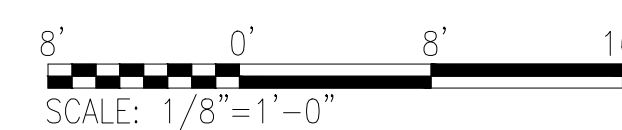
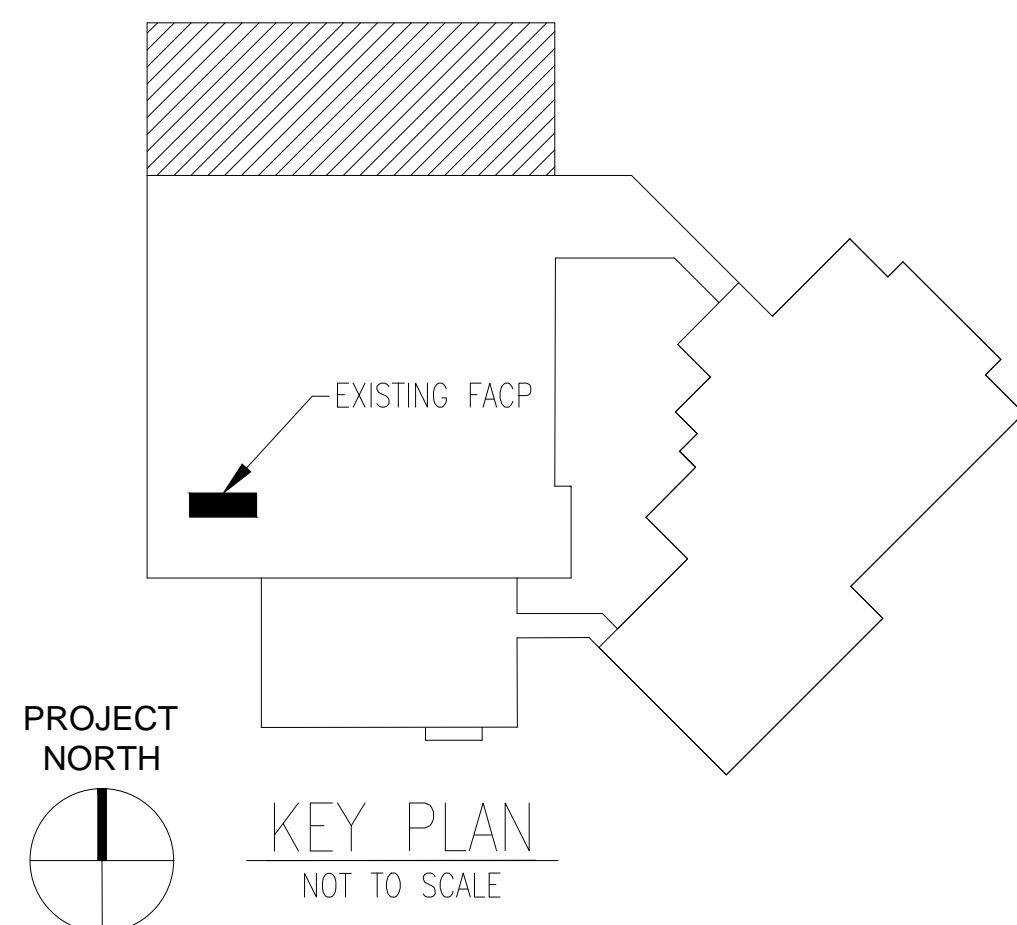


NEW WORK - FIRE ALARM ULTRA-SENSITIVE SMOKE DETECTION SYSTEM PLAN - BID ITEM 'C'

SCALE: 1/8" = 1'-0"

KEYNOTES:

- ① BOUNDARY OF SECURED AREA, SURFACE MOUNT ALL DEVICES LOCATED ON ENTIRE RUN OF SECURED WALL PERIMETER (BOTH SIDES OF WALL FOR COMMON WALLS). ALL SECURE WALL CONDUIT PENETRATIONS SHALL HAVE DI-ELECTRIC BREAKS. SEE DI-ELECTRIC DETAIL SHEET FA-600.
- ② INDICATES PERIMETER OF ULTRA-SENSITIVE SMOKE DETECTION SYSTEM. A SEPARATE SYSTEM SHALL BE INSTALLED FOR EACH SPACE INDICATED.



REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		MODIFY CONTROL ROOMS BLDG 380		
DATE	DRAWN BY BAGWELL	TITLE		
SIGNATURE	PROJ. ENGR. BRADLEY	NEW WORK - FIRE ALARM ULTRA - SENSITIVE SMOKE DETECTION PLAN - BID ITEM 'C'		
APPROVED	FIRE PROTECTION ENGR.	CONTENTS		
CENM	SAFETY REPRESENTATIVE	APPROVED		
APPROVED	APPROVED	APPROVED		
PROGRAM MANAGER	DIR. BASE MED. SERVICE	APPROVED		
	APPROVED	USING AGENCY		
	APPROVED	COMMUNICATIONS		
	APPROVED	OPERATIONS ENGINEERING		
	APPROVED	ENVIRONMENTAL		
INDEX NO.	17AA	PROJ. NO.	FTFA 17-1050	
FA-202	17AA	DRAWING NO.	FA20217AA	
		FILE NO.		
			DATE	APR 2019
			DATE	JULY 2010
			SCALE	
			DEPUTY BASE CIVIL ENGINEER	

ULTRA SENSITIVE SMOKE DETECTION SYSTEM NOTES:

- SMOKE DETECTION SYSTEM SHALL REPORT 4 STAGES AS FOLLOWS:
STAGE 1 - FAULT
STAGE 2 - ALERT
STAGE 3 - PRE-ALARM
STAGE 4 - ALARM - REPORTS AS ZONE THRU FIRE ALARM/TRANSCIEVER
- A NEW BELOW RAISED FLOOR & ABOVE RAISED FLOOR (INTERIOR OF ROOM) ULTRA-SENSITIVE SMOKE DETECTION SYSTEM SHALL BE PROVIDED AND INSTALLED AND ZONED AS SHOWN. THE NEW SYSTEM SHALL TIE INTO THE NEW FIRE ALARM SYSTEM; FULLY DESIGNED SHOP DRAWINGS SHALL BE PROVIDED BY THE SYSTEM SUB-CONTRACTOR;
- SMOKE DETECTION CONDUIT IS NOT TO BE RUN ABOVE CEILING; ALL CONDUIT IS TO BE INSTALLED BELOW THE SECURE CEILING (I.E. VISIBLE FROM WITHIN THE ROOM), OR BELOW THE RAISED FLOOR.
- SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ETL 01-18
- PROVIDE AIR ASPIRATING TYPE SMOKE DETECTORS FOR USE IN ULTRA SENSITIVE SMOKE DETECTION SYSTEM.
- THE SYSTEM SHALL BE PROGRAMMABLE IN MULTIPLE LEVELS TO INDICATE DETECTION OF PARTICLES THAT ARE NOT NORMALLY PRESENT, TO INDICATE THE PRESENCE OF PARTICLES THAT COULD BE PRODUCED BY A FIRE, AND TO INDICATE THE PRESENCE OF PARTICLES OF THE PROPER SIZE AND QUANTITY TO INDICATE THAT A FIRE CONDITION EXISTS.

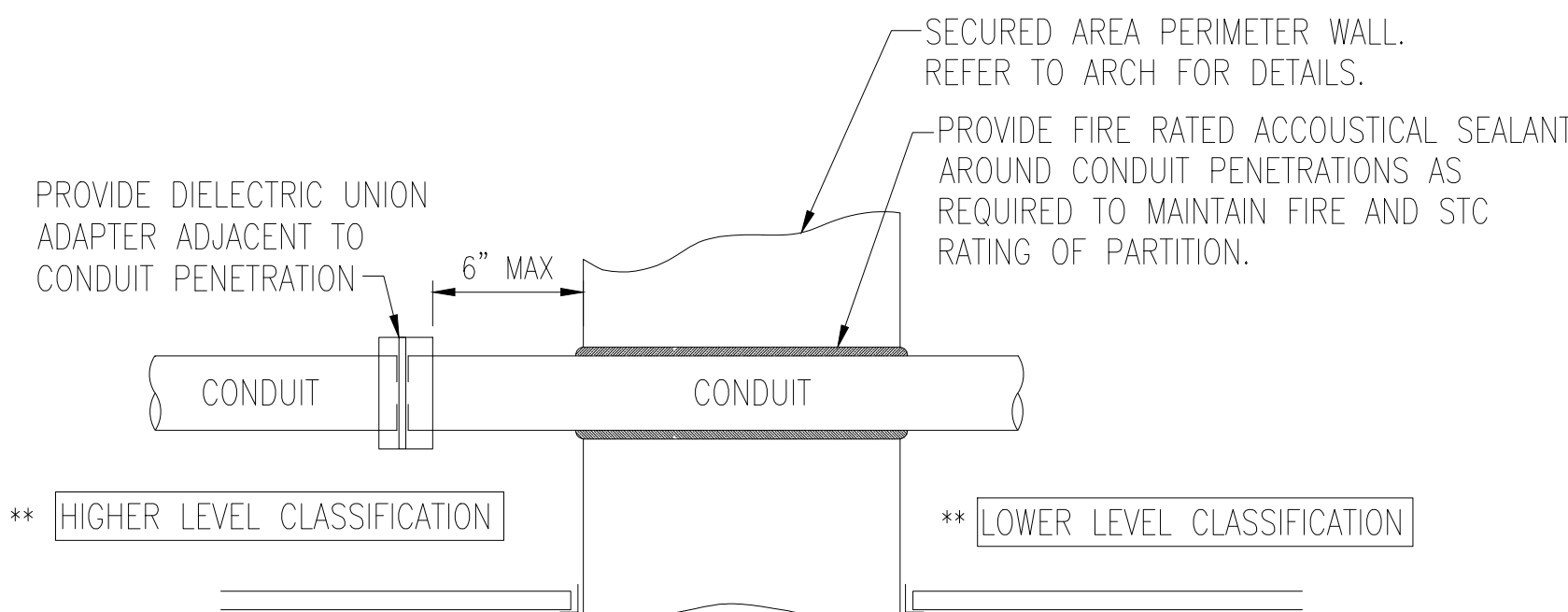
FIRE ALARM NOTIFICATION SYSTEM GENERAL NOTES:

- FIRE ALARM SYSTEM CONDUCTORS SHALL BE AS RECOMMENDED BY THE FIRE ALARM SYSTEM EQUIPMENT MANUFACTURER, BUT SHALL NOT BE LESS THAN #14 AWG FOR INITIATING DEVICES, SIGNALING LINES, AND NOTIFICATION APPLIANCE CIRCUITS. INSTALL WIRING IN 3/4" DIA. CONDUIT MINIMUM.
- REFER TO SPECS AND OTHER FIRE ALARM DRAWINGS FOR MINIMUM ZONE REQUIREMENTS. ALL ZONES SHALL BE CONFIRMED AND COORDINATED WITH THE GOVERNMENT PRIOR TO RE-PROGRAMMING THE FACP.
- FIRE ALARM RISER DIAGRAM IS DIAGRAMMATIC IN NATURE ONLY; FIRE ALARM SUBCONTRACTOR IS TO PROVIDE FULL SYSTEM CALCULATIONS WITH SHOP DRAWINGS TO THE GENERAL CONTRACTOR, AND SHALL PROVIDE ADDITIONAL POWER SUPPLIES, AMPLIFIERS AND NAC LOOPS AS REQUIRED TO COMPLY WITH SPECIFICATIONS, UFC, NFPA AND MANUFACTURER REQUIREMENTS FOR EXACT EQUIPMENT TO BE INSTALLED.
- COORDINATE ALL FA WIRING WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION.

TYPICAL EGLIN AFB FIRE ALARM TESTING PROCEDURES (THESE ARE GENERALIZED PROCEDURES THAT WILL NEED TO BE VERIFIED AND FINALIZED WITH THE GOV'T BASED ON THE PROJECT REQUIREMENTS):

1. GENERAL CONTRACTOR SUBMITS THE FACU AND BUILDING TRANSCIEVER (BT) ZONE DESIGNATIONS TO THE ENGINEERING SECTION'S CONSTRUCTION CONTROL REP (CCR) AS SOON AS THEY ARE FINALIZED. NOTE THAT THIS INFORMATION SHOULD MATCH THE APPROVED SHOP DRAWINGS, OTHERWISE THE BT AND FIRE ALARM CENTRAL STATION EQUIPMENT WILL NOT BE ABLE TO BE PROGRAMMED.
2. THE CCR WILL PASS THIS INFORMATION ON TO THE FIRE DEPT'S TECH SERVICES OFFICE (BASE FD) AND FIRE ALARM (F/A) SECTION FOR REVIEW AND APPROVAL, THEN FOLLOW-UP WITH EACH WHEN THE GENERAL CONTRACTOR CONFIRMS THAT THEY ARE READY FOR THE ACTUAL SYSTEM PROGRAMMING. UPON NOTIFICATION, F/A SECTION WILL SCHEDULE TO PROGRAM THE BT/CENTRAL STATION, AND NOTIFY THE CCR WHEN THIS HAS BEEN COMPLETED. THIS PROGRAMMING WILL TAKE PLACE A FEW DAYS BEFORE THE ACTUAL FINAL INSPECTION & FIRE ALARM SYSTEM TESTING DATE.
3. FIRE ALARM SYSTEM SUBCONTRACTOR SHALL PERFORM THE INITIAL WATTAGE OUTPUT TEST OF THE BT (THIS IS PART OF THE MANUFACTURER'S TESTING REQUIREMENTS), AND SUBSEQUENTLY TEST ALL OF THE VARIOUS FIRE ALARM SYSTEM COMPONENTS, ENSURING THE PROPER INPUT AND OUTPUT RESPONSES ARE BEING TRANSMITTED/RECEIVED.
4. THE GENERAL CONTRACTOR AND CCR (AND POSSIBLY THE ENGINEERING SECTION) SHOULD WITNESS THE ABOVE INITIAL TESTING, AND CONCUR THAT THE SUBCONTRACTOR IS READY FOR FINAL VERIFICATION TESTING, BEFORE PROCEEDING TO SCHEDULING THE FINAL TESTING.
5. THE GENERAL CONTRACTOR WILL MAKE PROPER NOTIFICATION TO THE CCR REQUESTING THAT A FINAL FIRE ALARM SYSTEM TEST DATE/TIME BE SCHEDULED WITH THE GOV'T.
6. THE CCR WILL COORDINATE THIS DATE/TIME WITH THE F/A SECTION (MR. CHUCK LANNING) AND BASE FD (MR. STEVE CARRICO), AND REMIND THE F/A SECTION THAT THE BT WILL NEED TO BE PROGRAMMED WITH THE INFORMATION IN STEP 1.
7. THE GENERAL CONTRACTOR SHALL VERIFY WITH HIS/HER FIRE ALARM SYSTEM SUBCONTRACTOR THAT THE OPERATION OF THE F/A SYSTEM, BT, AND CENTRAL STATION ARE ALL FUNCTIONING AS DESIGNED, IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS, AND HAVE THIS INFORMATION AVAILABLE AT THE FINAL TESTING.
8. THE GENERAL CONTRACTOR WILL BEGIN THE FINAL TESTING OPERATION BY DISCONNECTING THE COMMERCIAL POWER TO THE F/A SYSTEM(S) IN THE AFFECTED AREA(S), AS MAY BE FURTHER DEFINED IN THE SPECIFICATIONS. THIS POWER OUTAGE TIMEFRAME WILL COINCIDE WITH THE BEGINNING OF THE FINAL FIRE ALARM INSPECTION/TESTING DATE AND TIME, AND WILL BE PERFORMED (& LABELED) USING APPROPRIATE LOCK-OUT/TAG-OUT PROCEDURES.
9. ONCE POWER HAS BEEN DISCONNECTED FROM THE SYSTEM(S), THE FIRE ALARM SYSTEM SUBCONTRACTOR WILL TEST THE F/A SYSTEM ON BATTERY BACK-UP POWER FIRST, AS CALLED FOR IN THE PROJECT SPECIFICATIONS, THEREBY PROVING THE SYSTEM WILL WORK UNDER THOSE CONDITIONS; THIS TEST SHALL BE CONDUCTED IN WITNESS OF CCR, BASE FD, AND F/A SHOP.
10. UPON SUCCESSFUL COMPLETION OF THE BATTERY BACKUP TESTING, THE GENERAL CONTRACTOR WILL THEN RESTORE POWER, ALLOWING THE SUBCONTRACTOR TO BEGIN PERFORMING THE WATTAGE OUTPUT TEST FOR THE BASE FD AND F/A SECTION TO WITNESS, PLACING THE TRANSCIEVER BACK ON LINE, AND THEN PROCEEDING WITH THE FINAL F/A SYSTEM INSPECTION/TESTING. BASE PERSONNEL WILL COORDINATE WITH FIRE DISPATCH AND ENSURE THAT THE SIGNALS ARE BEING PROPERLY RECEIVED AT DISPATCH, AND CORRECTLY IDENTIFIED ON THE FACU AND BT DURING THIS PORTION OF THE TEST.

** THE GENERAL CONTRACTOR SHOULD HAVE PRE-TESTED AND SCHEDULED THE FINAL TESTING OF THE EXIT AND EMERGENCY LIGHT SYSTEM AROUND THIS SAME TIMEFRAME IF THESE HAVE NOT ALREADY BEEN ACCOMPLISHED **



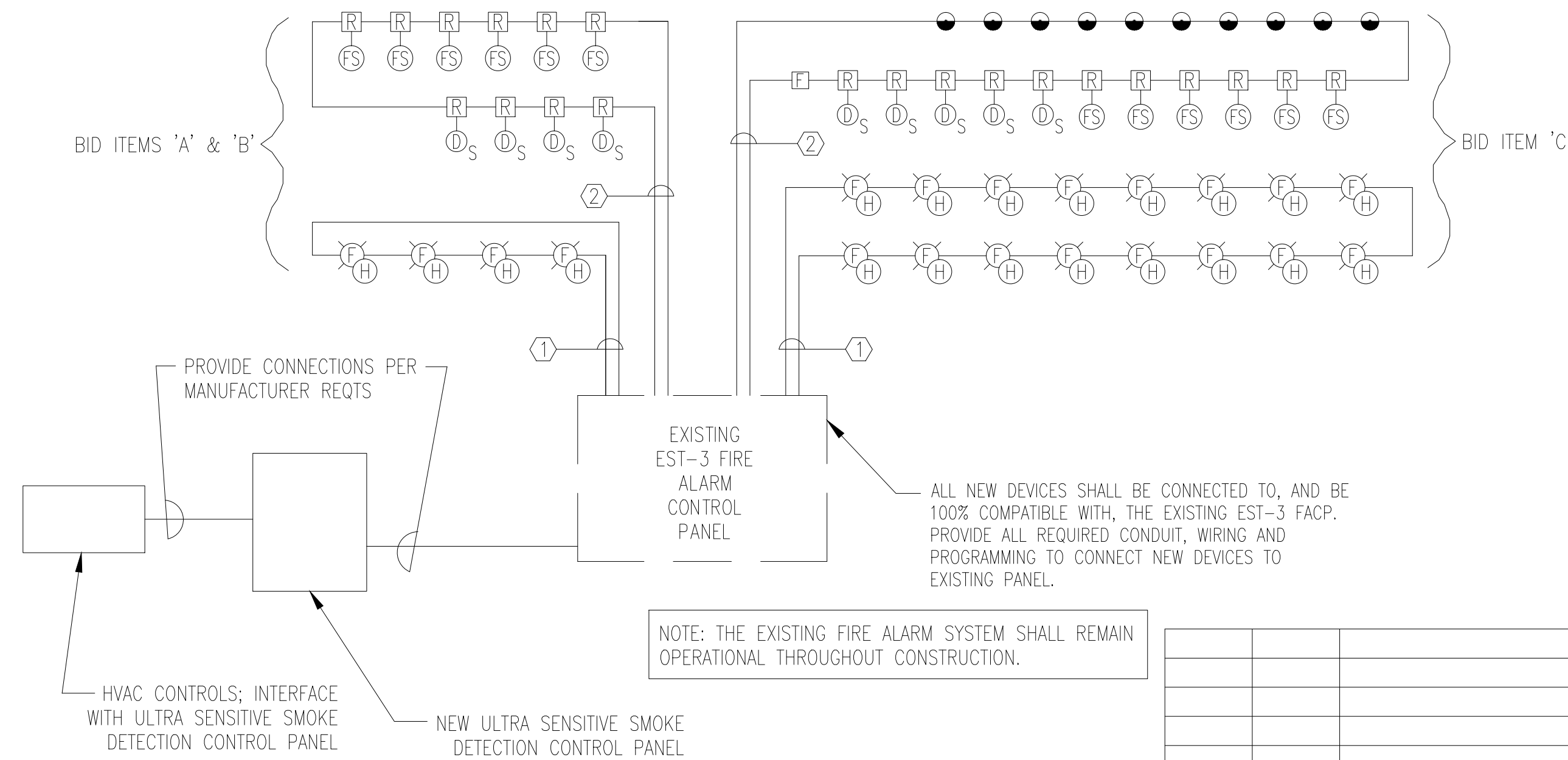
NOTE: PROVIDE ISOLATION FOR ALL ABOVE GROUND METALLIC CONDUITS ENTERING/LEAVING SECURED PERIMETERS. PROVIDE A DIELECTRIC UNION INSIDE THE SECURED AREA PERIMETER ADJACENT TO THE PENETRATION.

** THERE ARE NUMEROUS INSTANCES OF HIGHER LEVEL CLASSIFICATION REVERSING BETWEEN ADJACENT ROOMS IN THE ROOM 109 SUITE - PLAN ON HAVING DIELECTRIC UNION ADAPTERS ON BOTH SIDES OF THESE WALLS.

REFER TO ARCHITECTURAL PLANS FOR SECURE AREA BOUNDARIES.

DIELECTRIC ISOLATION DETAIL

NOT TO SCALE



FIRE ALARM RISER DIAGRAM

NOT TO SCALE

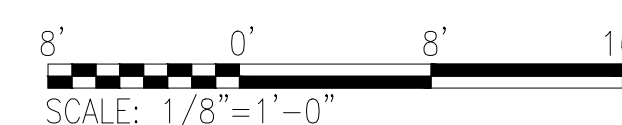
PRELIMINARY FIRE ALARM TESTING NOTE:

A PRELIMINARY FIRE ALARM SYSTEM TEST SHALL BE PERFORMED BEFORE ANY MODIFICATION IS MADE TO THE EXISTING SYSTEM. THE GENERAL CONTRACTOR SHALL COORDINATE AND SCHEDULE THIS TEST WITH THE CONSTRUCTION CONTROL REP AND CUSTOMER AT LEAST FOURTEEN (14) DAYS PRIOR TO PERFORMING ANY TESTING. THE GOVERNMENT SHALL APPROVE DATE(S) AND TIME(S) OF ALL TESTING.

KEYNOTES:

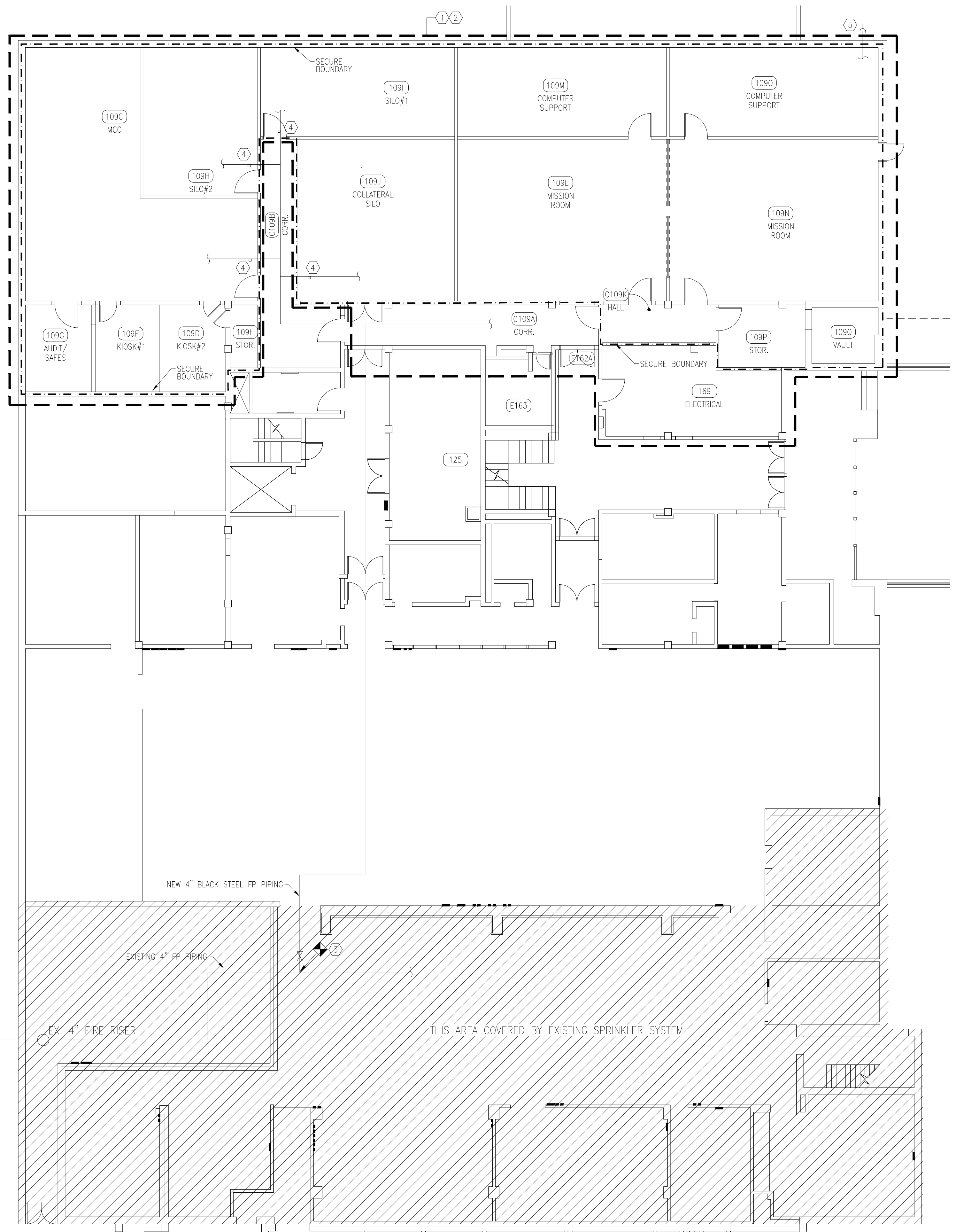
① NAC CIRCUIT; 2#14 TWISTED PAIR IN 3/4"

② IDC CIRCUIT; 2#14 TWISTED PAIR IN 3/4"



	FACU DISPLAY	AUX FUNC	MONACO TRANSMISSION SUPERVISING STATION				EVAC		
ALARM SIGNALS	AUDIO/VISUAL ALARM INDICATION BY DEVICE	SHUTDOWN AFFECTED AIR HANDLER	SHUNT TRIP POWER TO AFFECTED AREA	XMIT ALARM SIGNAL - FLOW SWITCH TO SS	XMIT ALARM SIGNAL - SMOKE DETECTOR TO SS	XMIT ALARM SIGNAL - DUCT DETECTOR TO SS	XMIT ALARM SIGNAL - ULTRA-SENSITIVE TO SS THROUGHOUT	FIRE ALARM STROBES THROUGHOUT	GEN. EVAC MESSAGE THROUGHOUT
WATERFLOW SWITCHES			X	X				X	X
SMOKE DETECTOR - BELOW FLOOR	X				X			X	X
DUCT DETECTOR	X	X				X		X	X
ULTRA-SENSITIVE SMOKE DETECTION SYSTEM	X						X	X	X

REVISION	DATE	DESCRIPTION	BY	APPR'D	
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA					
AS-BUILT		DRAWN BY BAGWELL PROJ. ENGR. BRADLEY APPROVED FIRE PROTECTION ENGR. APPROVED SAFETY REPRESENTATIVE APPROVED DIR. BASE MED. SERVICE APPROVED USING AGENCY APPROVED COMMUNICATIONS APPROVED OPERATIONS ENGINEERING APPROVED ENVIRONMENTAL SPEC. NO. 17AA	MODIFY CONTROL ROOMS BLDG 380		
INDEX NO. FA-600		FIRE ALARM RISER, MATRIX, NOTES, AND TESTING PROCEDURES			
		APPROVED	DATE	APR 2019	
		96 CEG/CEN	DATE	JULY 2010	
		DEPUTY BASE CIVIL ENGINEER	SCALE		
PROJ. NO. FTFA 17-1050	DRAWING NO. FA60017AA	FILE NO.	SHEET 24 OF 86		

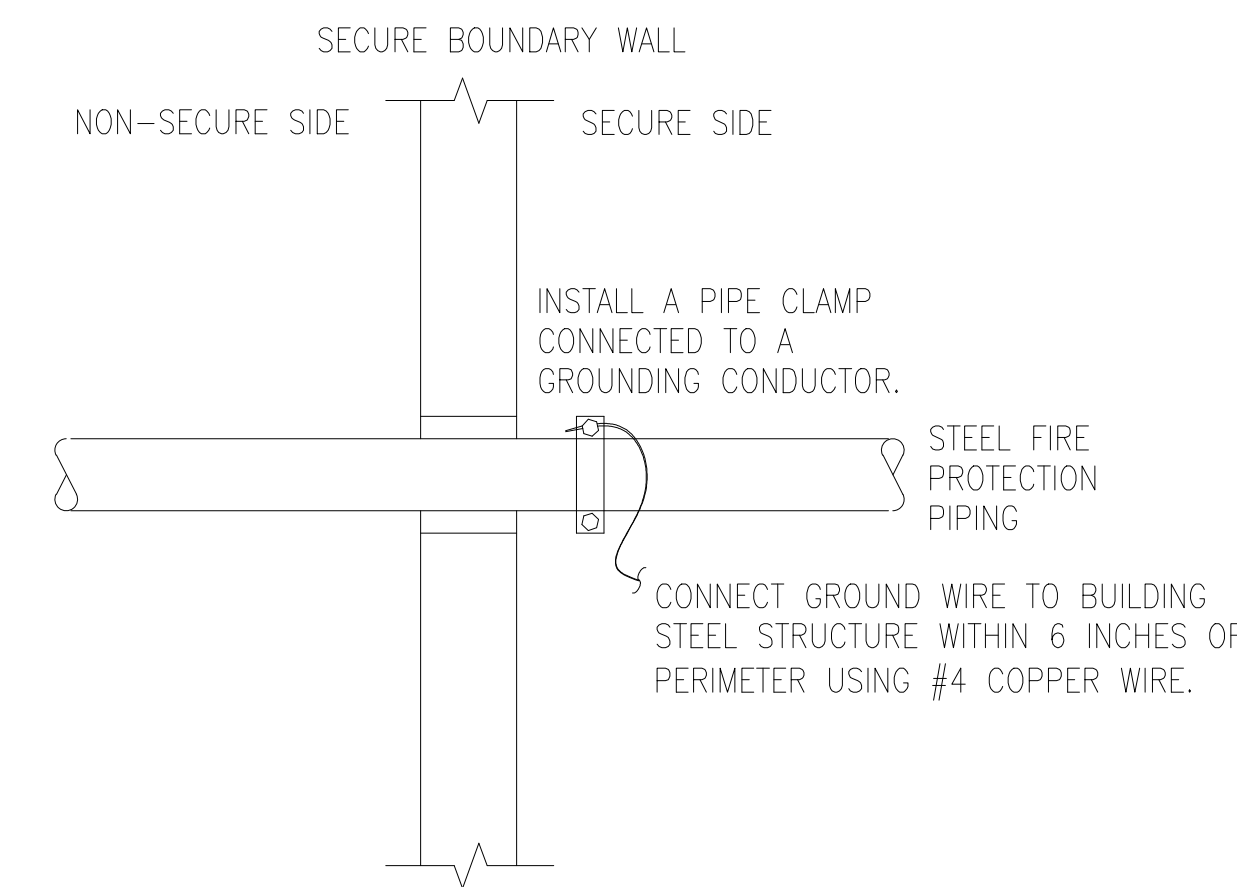


SHEET NOTES

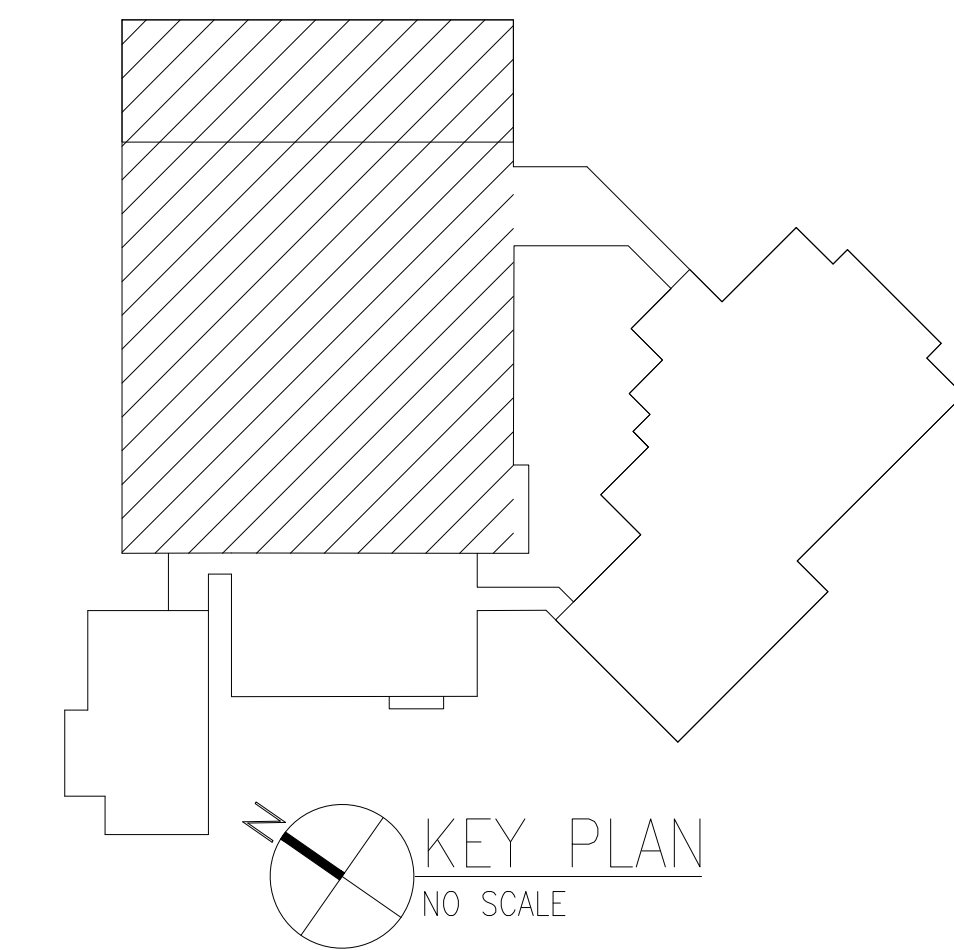
- ① INSTALL NEW WET PIPE FIRE SPRINKLER SYSTEM TO ACCOMMODATE THE NEW ARCHITECTURAL LAYOUT. DESIGN AND INSTALLATION OF THE NEW SPRINKLER SYSTEM SHALL BE IN ACCORDANCE WITH UFC 3-600-01 CHANGE 1, 28 NOVEMBER 2016, FIRE PROTECTION ENGINEERING FOR FACILITIES, NFPA-13, THE SPECIFICATIONS, AND THE AUTHORITY HAVING JURISDICTION.
- ② THE FIRE SPRINKLER CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.
- ③ CONNECT NEW FIRE PROTECTION PIPING TO EXISTING AS SHOWN. PROVIDE AND INSTALL SUPERVISED CONTROL VALVE, COORDINATE WITH ELECTRICAL.
- ④ THIS SPACE SHALL BE FED BY SINGLE DEDICATED FIRE PROTECTION LINE WITH DEDICATED FLOW SWITCH AND SHUNT TRIP FOR FUTURE USE.
- ⑤ FIRE SPRINKLER CONTRACTOR SHALL SHALL INSTALL INSPECTOR'S TEST CONNECTION LOCATED AT HYDRAULICALLY MOST REMOTE AREA OF FIRE PROTECTION SYSTEM. DRAIN TO CONCRETE SPLASH BLOCK OUTSIDE THE BUILDING.

SECURE ROOM PENETRATION NOTES

ALL NEW METALLIC PENETRATIONS THROUGH SECURE AREA WALLS SHALL CONFORM TO THE FOLLOWING:
 1. METALLIC FIRE SPRINKLER PIPE: GROUND THE PIPE WITHIN 6 INCHES OF THE PERIMETER USING A NO. 4 COPPER WIRE TO THE BUILDING GROUND.
 2. PENETRATION SEALS: SEAL BOTH SIDERS OF PENETRATION WITH UL APPROVED FIRE STOPPING SYSTEMS LISTED TO MAINTAIN THE FIRE RATING OF THE WALLS IN WHICH THEY ARE INSTALLED; FIRE STOPPING SHALL BE IDENTICAL PRODUCT SUPPLIED BY A SINGLE MANUFACTURER THROUGHOUT THE BUILDING. BOTH SIDERS OF PENETRATION SHALL BE SEALED WITH SEALANT FINISHED TO MATCH ADJACENT WALL, FLOOR, OR CEILING.



SECURE PIPE PENETRATION DETAIL
NO SCALE

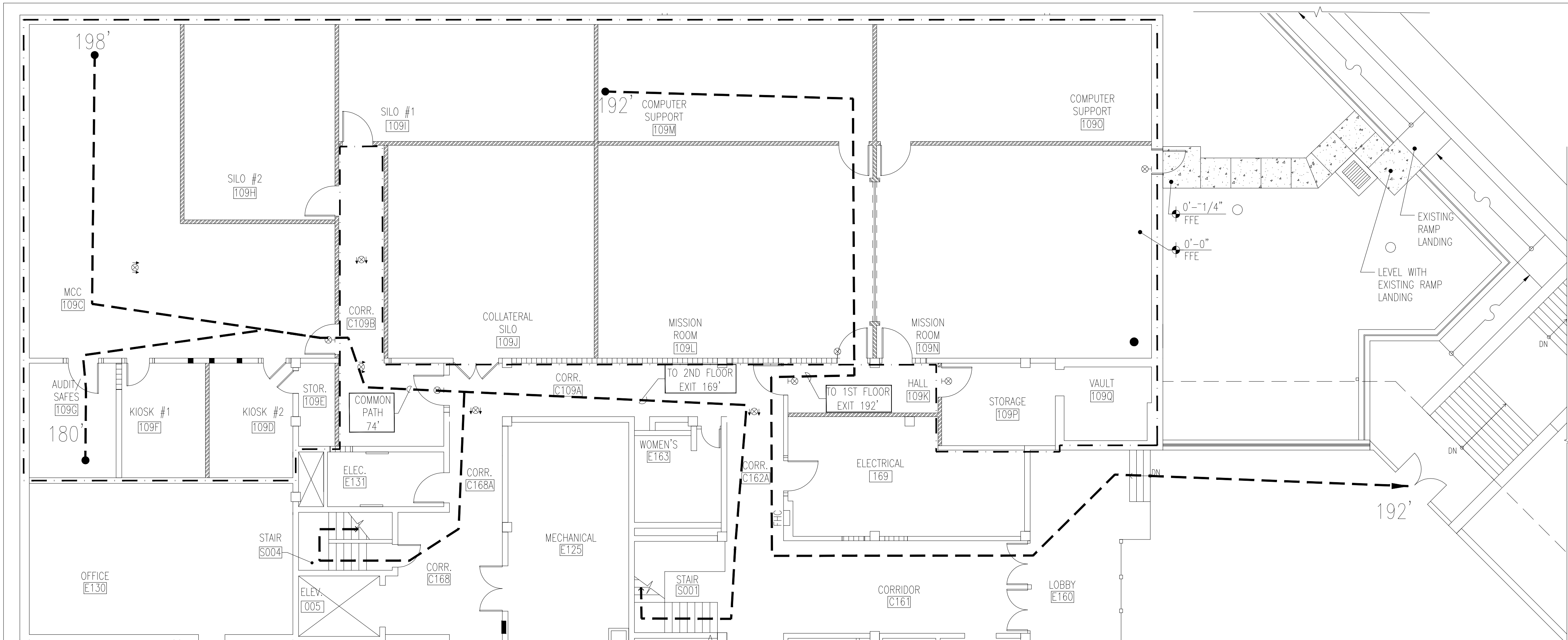


KEY PLAN
NO SCALE

BID ITEM "C"
FIRE PROTECTION NEW WORK PLAN - ROOM 109
 SCALE: 1" = 10'-0"

PETERSON ENGINEERING INC.
 (PROF. ENG. #: 3600)
 75 SOUTH "F" STREET
 PENSACOLA, FLORIDA 32502
 (850) 434-0513
 PEI 17099

REVISION	DATE	DESCRIPTION	BY	APP'R'D	
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA					
AS-BUILT			DRAWN BY <u>D. MARSHALL</u> PROJ. ENGR. <u>E. BRADLEY</u> APPROVED _____ FIRE PROTECTION ENGR. APPROVED _____ SAFETY REPRESENTATIVE APPROVED _____ DIR. BASE MED. SERVICE APPROVED _____ USING AGENCY APPROVED _____ COMMUNICATIONS APPROVED _____ OPERATIONS ENGINEERING APPROVED _____ ENVIRONMENTAL APPROVED _____	MODIFY CONTROL ROOMS BLDG 380	
DATE: _____ SIGNATURE: _____ APPROVED: _____ CENM: _____ APPROVED: _____ PROGRAM MANAGER: _____			CONTENTS: FIRE PROTECTION NEW WORK PLAN - ROOM 190		
INDEX NO. FP-201		APPROVED _____	DATE: APR 2019		
SPEC. NO. 17AA		APPROVED _____	SCALE _____		
PROJ. NO. FTFA 17-1050		APPROVED _____	DATE: JULY 2018		
DRAWING NO. FP20117AA		APPROVED _____	SCALE _____		
FILE NO. _____		DEPUTY BASE CIVIL ENGINEER	SHEET 28 OF 86		



- LEGEND:**
- - - - - INDICATES SECURE AREA BOUNDARY
 - ⊗ EXISTING EXIT LIGHT TO REMAIN
 - ⊗ LED EXIT LIGHT FIXTURES
 - FHC EXISTING FIRE HOSE CABINET
 - 82' PATH OF TRAVEL WITH DISTANCE INDICATED

BUILDING CODES AND ORDINANCES:

INTERNATIONAL BUILDING CODE (IBC), 2018
 NFPA 70 – NATIONAL ELECTRICAL CODE, 2017
 NFPA 72 – NATIONAL FIRE ALARM CODE, 2016
 NFPA 101 – LIFE SAFETY CODE, 2018

UNIFIED FACILITIES CRITERIA (UFC) 3-600-01 DESIGN: FIRE PROTECTION ENGINEERING FOR FACILITIES
 8 AUGUST 2016 WITH CHANGE 1 DATED 28 NOVEMBER 2016

SEE ENGINEERING DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS

*NOTE: FIRST FLOOR DESIGN/OCCUPANT LOAD IS CHANGING FROM EXISTING. FIRST FLOOR OF BUILDING IS UNSPRINKLERED. RENOVATED AREA TO RECEIVE NEW SPRINKLER SYSTEM.

**NOTE: FIRST FLOOR: SECOND FLOOR DESIGN/OCCUPANT LOAD REMAINS SAME AS EXISTING. SECOND FLOOR OF BUILDING IS SPRINKLERED.

***NOTE: SECOND EXIT (DIRECT TO EXTERIOR) REQUIRED FOR ROOMS 103-106 WHEN UPWARD ACTING ACOUSTIC PARTITION IS OPEN AND OCCUPANT LOAD OF ROOMS 103-106 IS 50.

BUILDING CONSTRUCTION TYPE:
 IBC TYPE IIB

OCCUPANCY TYPE:
 BUSINESS GROUP "B"

FIRST FLOOR RENOVATED AREA = 9,525 G.S.F.
 FIRST FLOOR TOTAL AREA = 54,530 GSF

ALLOWABLE AREA = BUSINESS- 23,000 G.S.F PER FLOOR
 ALLOWABLE HEIGHT: 4 STORIES

FIRE SPRINKLER:
 FIRST FLOOR BUILDING IS UNSPRINKLERED *AREAS WITHIN BOUNDARY OF WORK ARE SPRINKLERED.
 SECOND FLOOR IS SPRINKLERED

MEANS OF EGRESS:
 NUMBER OF EXITS (1ST FLOOR): 2 REQUIRED, 4 PROVIDED (~224")

FIRST FLOOR ALLOWED PERSONNEL IN AREA OF WORK = 79
 TOTAL OCCUPANTS X 0.2 (HORIZONTAL EXIT) = 16"
 ALL FOUR EXITS MAINTAIN 32" CLEAR EGRESS WIDTH, PROVIDED EGRESS EXCEEDS REQUIRED.
 (FIRST FLOOR)

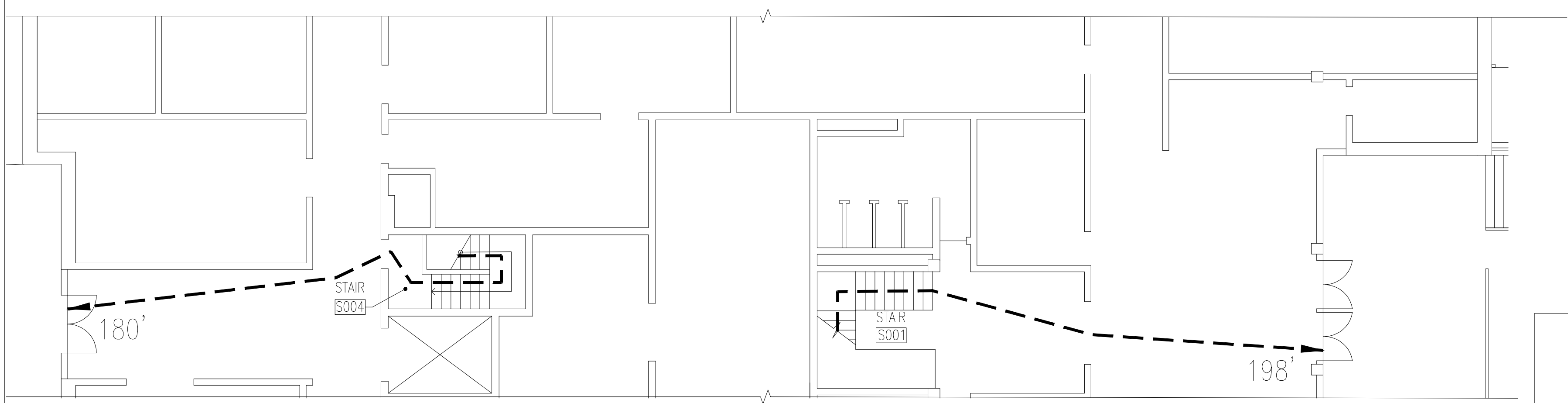
DEAD END LIMIT: 20 FEET (UNSPRINKLERED)
 (FIRST FLOOR)

COMMON PATH OF TRAVEL: 75 FEET (UNSPRINKLERED)
 (FIRST FLOOR)

MAXIMUM TRAVEL DISTANCE: 200 FEET (UNSPRINKLERED)

FIRE PROTECTION REQUIREMENTS:

STRUCTURAL FRAME:	0 HOUR
BEARING WALLS:	0 HOUR
NON-BEARING WALLS, EXTERIOR:	0 HOUR
NON-BEARING WALLS, INTERIOR:	0 HOUR
CORRIDOR:	0 HOUR
FLOOR CONSTRUCTION:	0 HOUR
ROOF CONSTRUCTION:	0 HOUR



**BID ITEM "C"
 SECOND FLOOR – PARTIAL
 LIFE SAFETY PLAN**

PROJECT NORTH

1
 LS01/LS01

8' 4' 0' 8' 16'

SCALE: 1/8" = 1'-0"

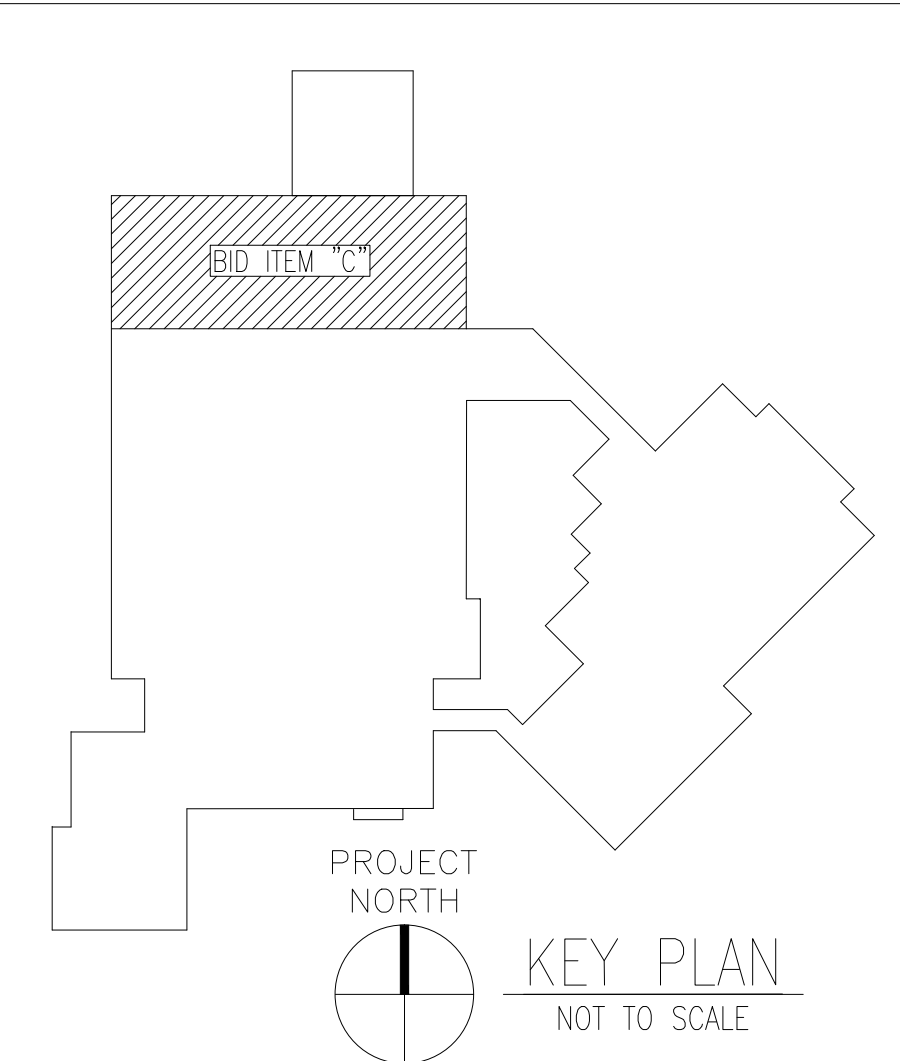
**BID ITEM "C"
 FIRST FLOOR – PARTIAL
 LIFE SAFETY PLAN**

PROJECT NORTH

1
 LS01/LS01

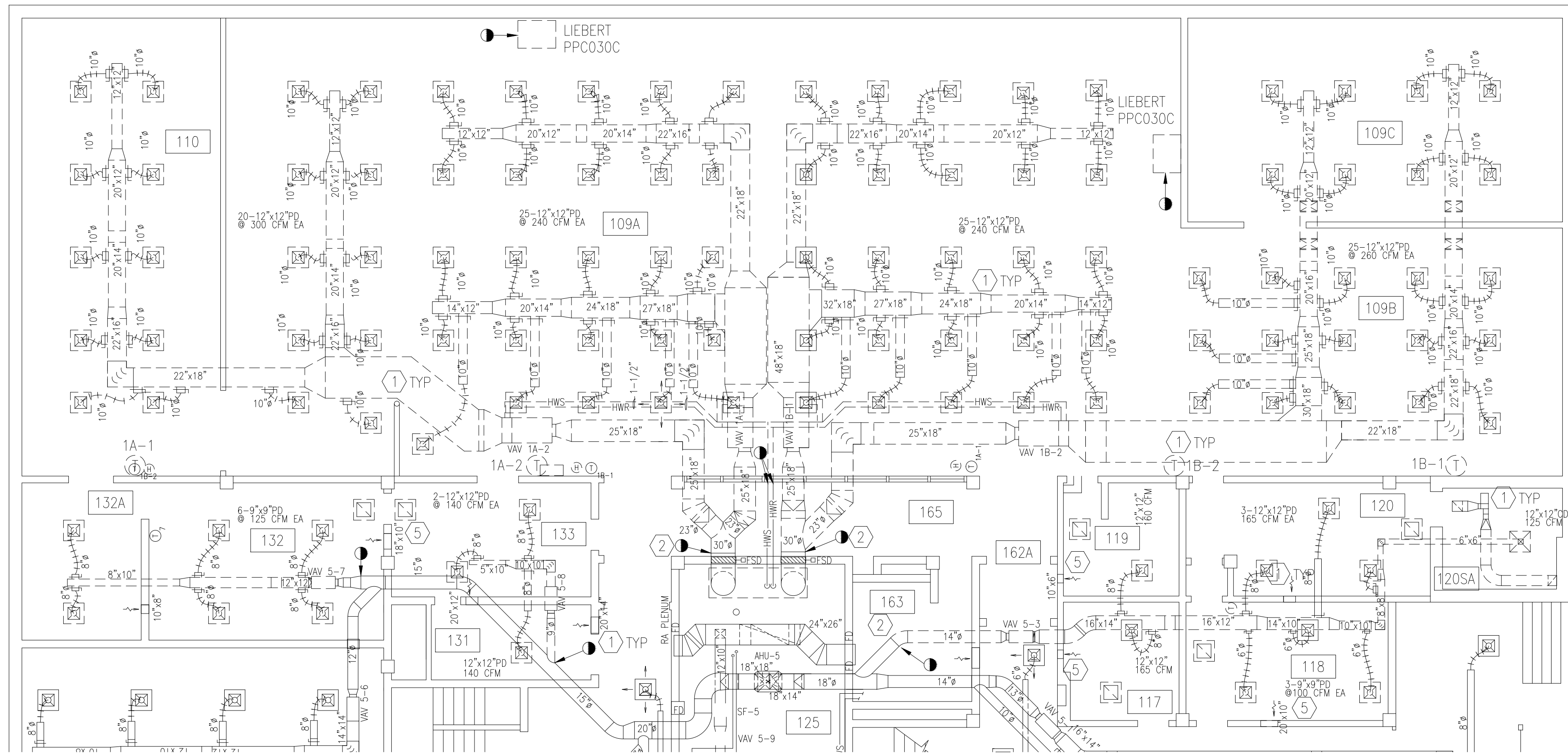
8' 4' 0' 8' 16'

SCALE: 1/8" = 1'-0"

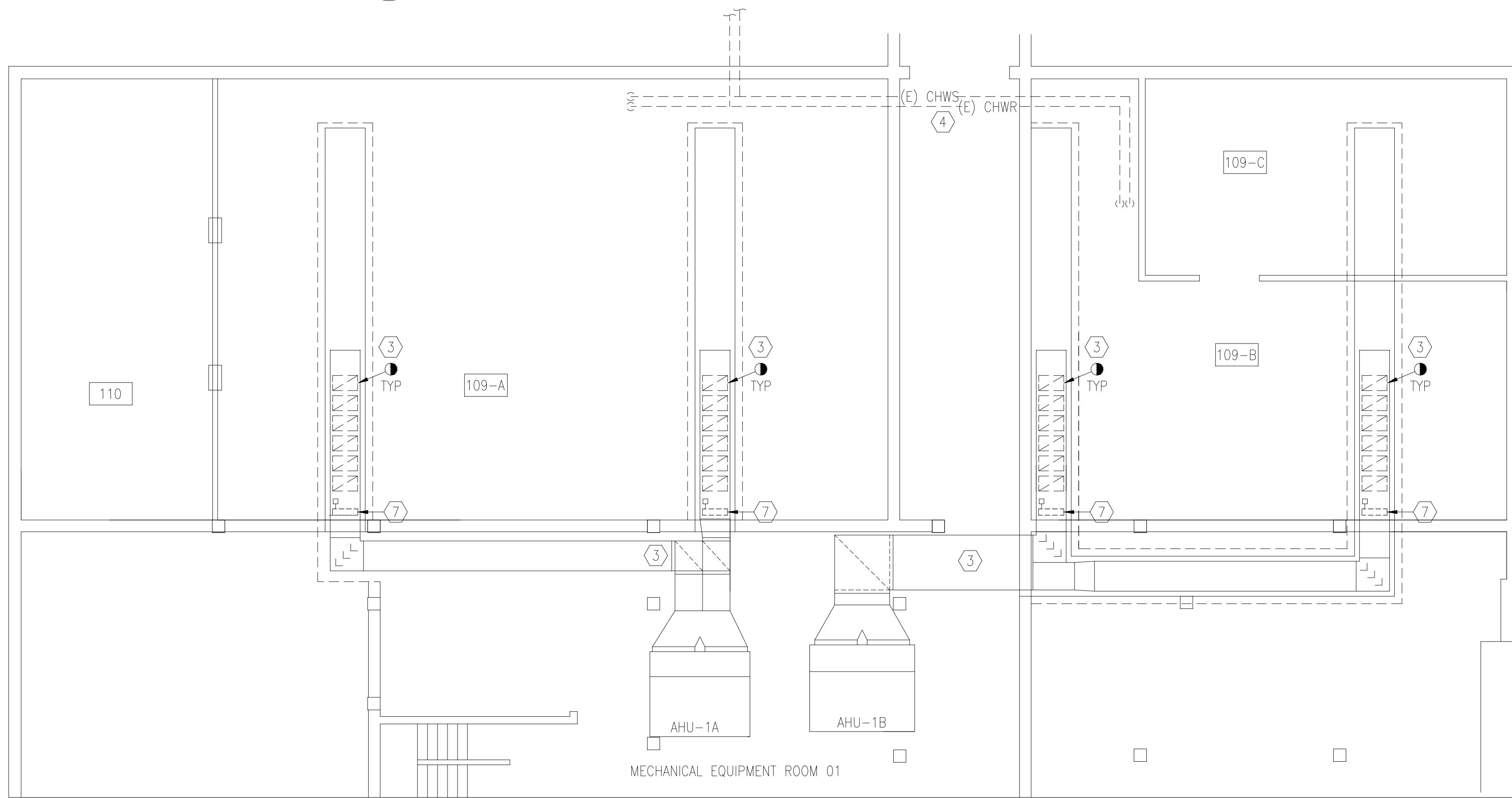


**Hernandez • Calhoun
 Design International
 Architecture • Interior Design**

REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY S. CAMPBELL	MODIFY CONTROL ROOMS BLDG 380	
DATE		PROJ. ENGR. S. HERNANDEZ		
SIGNATURE		APPROVED		
APPROVED		FIRE PROTECTION ENGR.		
CENM		SAFETY REPRESENTATIVE		
APPROVED		APPROVED		
PROGRAM MANAGER		DIR. BASE MED. SERVICE		
APPROVED		APPROVED		
USING AGENCY		APPROVED		
COMMUNICATIONS		APPROVED		
APPROVED		OPERATIONS ENGINEERING	APPROVED	DATE APR 2019
INDEX NO.		ENVIRONMENTAL	APPROVED	SCALE
SPEC. NO.		DEPUTY BASE CIVIL ENGINEER	DATE JULY 2018	
17AA		PROJ. NO. FTFA 17-1050	DRAWING NO. LS0117AA	FILE NO.
				SHEET 16 OF 86



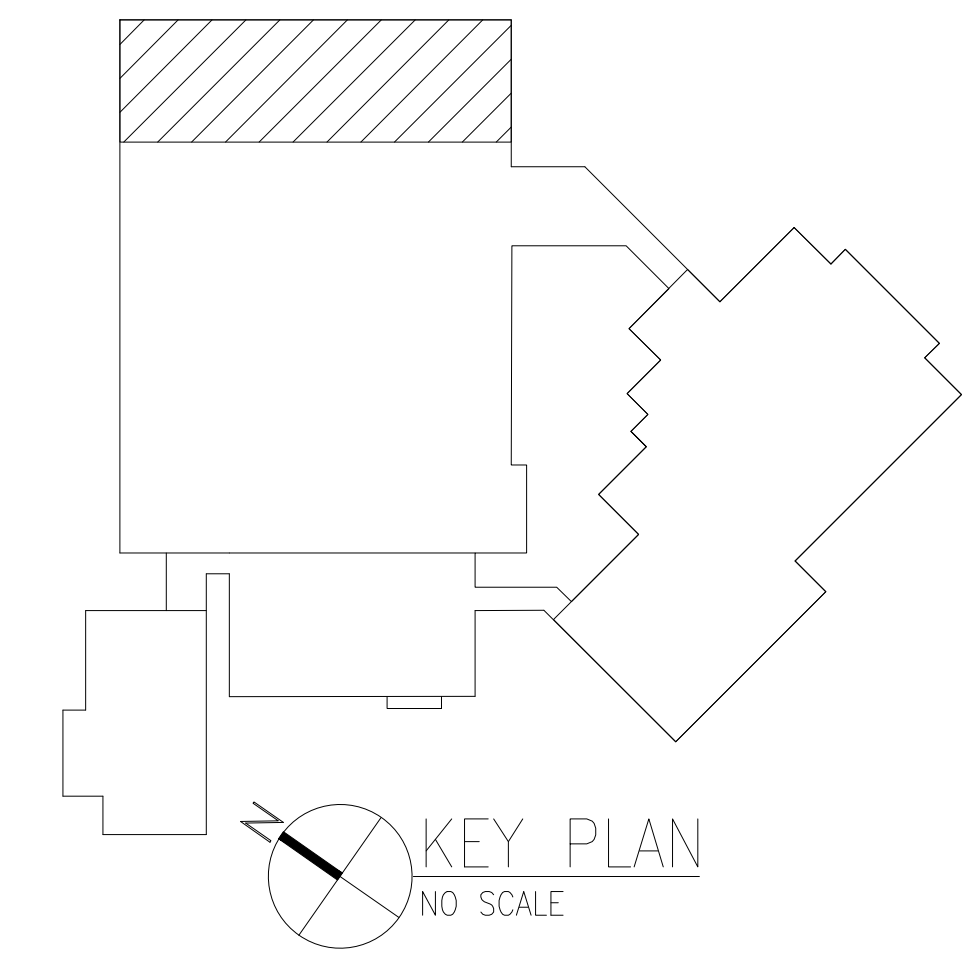
BID ITEM "C"
MECHANICAL DEMOLITION PLAN - ROOM 109
 SCALE: 1/8" = 1'-0"



BID ITEM "C"
MECHANICAL DEMOLITION UNDER FLOOR PLAN - ROOM 109
 SCALE: 1/8" = 1'-0"

SHEET NOTES

- ① DEMOLISH ALL SUPPLY AIR DIFFUSERS IN CEILING, ALL VAV BOXES, AND THERMOSTATS.
- ② DEMOLISH SUPPLY AIR DUCT BACK TO POINT INDICATED.
- ③ RE-USE EXISTING RETURN DUCTWORK. PREPARE FOR NEW RETURN DUCT CONNECTIONS. PATCH HOLES IN DUCTWORK CREATED FROM DEMOLITION.
- ④ REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN PIPING.
- ⑤ REMOVE EXISTING TRANSFER RETURN GRILLE.
- ⑥ REMOVE RETURN AIR GRILLES AND BRANCH DUCTWORK. PATCH HOLES IN EXISTING RETURN DUCTWORK AIRTIGHT.
- ⑦ REMOVE AND RECONNECT/REUSE EXISTING FIRE/SMOKE DAMPER FOR INSTALLATION OF NEW SECURITY BARS.

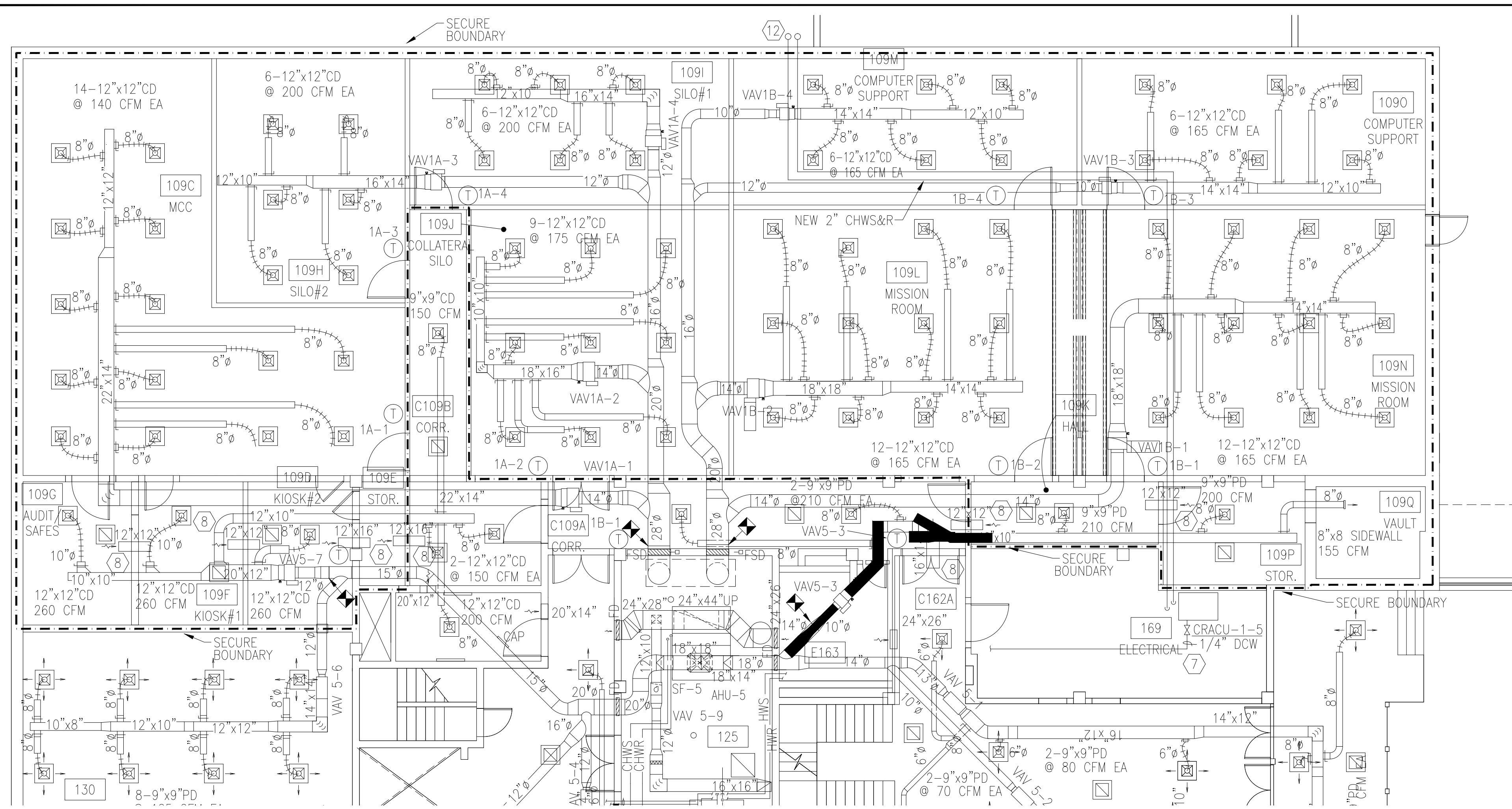


KEY PLAN
 NO SCALE

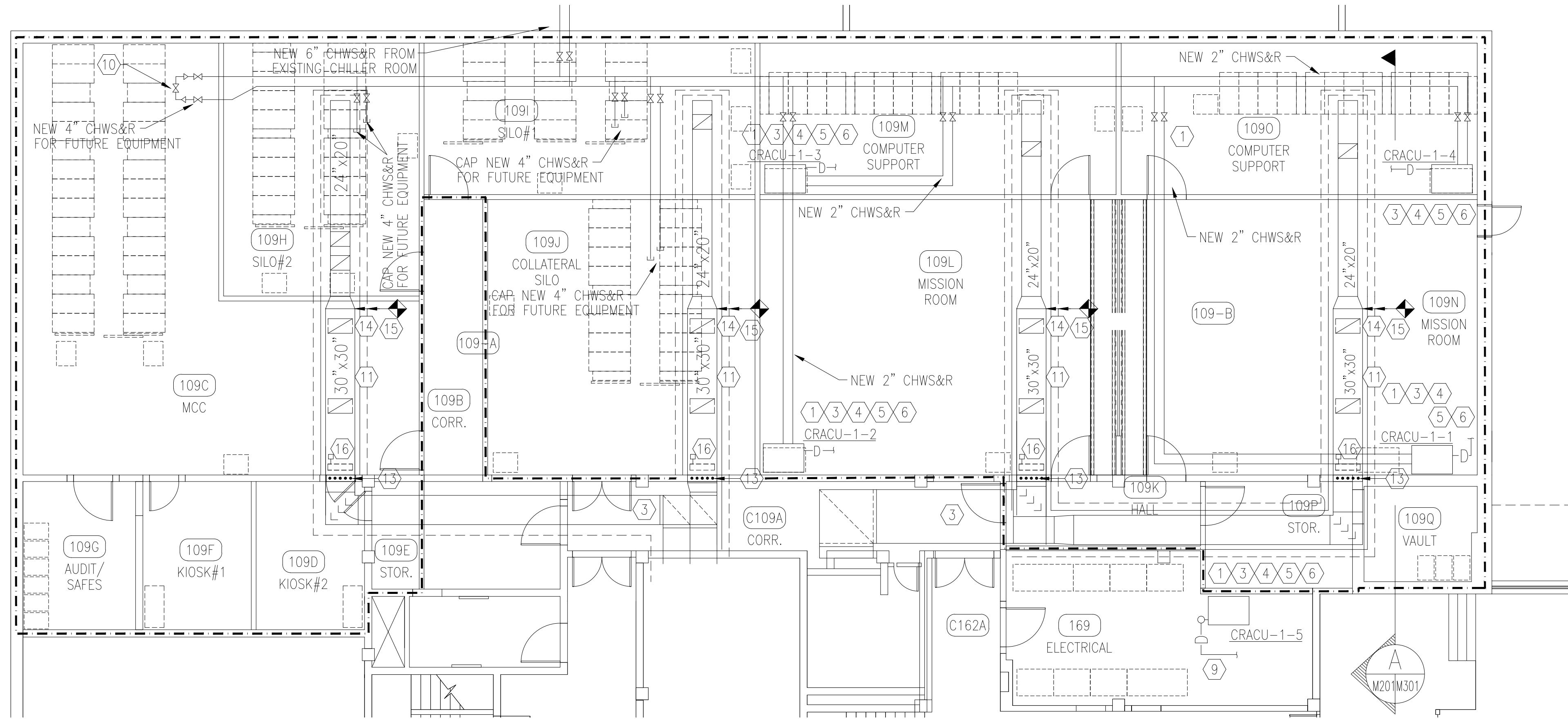
REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT				
DATE	DRAWN BY D. MARSHALL		TITLE	
SIGNATURE	PROJ. ENGR. G. PETERSON		MODIFY CONTROL ROOMS BLDG 380	
APPROVED	APPROVED			
CENM	FIRE PROTECTION ENGR.			
APPROVED	APPROVED			
PROGRAM MANAGER	SAFETY REPRESENTATIVE			
CONTENTS				
MECHANICAL DEMOLITION PLAN - ROOM 109				
APPROVED				
OPERATIONS ENGINEERING				
APPROVED				
ENVIRONMENTAL				
DEPUTY BASE CIVIL ENGINEER				
INDEX NO.	APPROVED	DATE	APR 2019	
M-101	SPEC. NO.	17AA	DATE	JULY 2018
	PROJ. NO.	FTFA 17-1050	SCALE	
	DRAWING NO.	M10117AA		
FILE NO.				
			SHEET	32 OF 86

PETERSON ENGINEERING INC.

(PROF. ENG. #: 3600)
 75 SOUTH "F" STREET
 PENSACOLA, FLORIDA 32502
 (850) 434-0513
 PEI 17099



BID ITEM "C"
MECHANICAL NEW WORK CEILING PLAN - ROOM 109
SCALE: 1/8" = 1'-0"



BID ITEM "C"
MECHANICAL NEW WORK RAISED FLOOR PLAN - ROOM 109
SCALE: 1/8" = 1'-0"

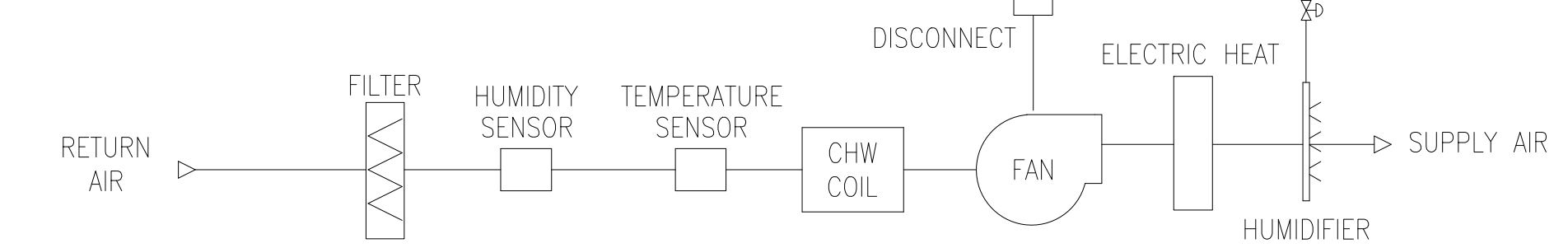
PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI 17099

SHEET NOTES

- 1 PROVIDE INSTALL NEW FLOOR MOUNTED COMPUTER ROOM AIR CONDITIONER UNIT, (CRACU).
- 2 PROVIDE AND INSTALL NEW SA, RA DUCT AND SA, RA GRILLES AS SHOWN.
- 3 CONTRACTOR SHALL REQUEST TO SCHEDULE TO PERFORM A TEST OF THE FIRE ALARM SYSTEM TO CONFIRM THAT THE SMOKE DETECTION SHUTS DOWN THE CRACU'S.
- 4 MAINTAIN MINIMUM 18" ON BOTH SIDES, AND 24" CLEARANCE IN FRONT OF CRACU'S FOR UNIT ACCESS AND FILTER REMOVAL. REFER TO MANUFACTURER FOR RECOMMENDED CLEARANCES. TOP OF UNITS SHALL REMAIN UNOBSTRUCTED.
- 5 ROUTE NEW CONDENSATE FROM CRACU'S TO NEAREST FLOOR DRAIN (IF AVAILABLE), OTHERWISE INSTALL A CONDENSATE PUMP AND DISCHARGE TO A SPLASH BLOCK AT EXTERIOR OF BUILDING.
- 6 PROVIDE ONE NEW WATER SENSOR FOR EACH CRACU. WIRE TO EACH CRACU SO THAT EACH UNIT WILL SHUTDOWN WHEN WATER IS IN THE UNDER FLOOR PLENUM.
- 7 PROVIDE NEW 1/4" DOMESTIC COLD WATER CONNECTION FOR CRACU-1-5 IN ELECTRICAL ROOM. TAP FROM NEAREST EXISTING WATER LINE. CONTRACTOR SHALL FIELD VERIFY EXISTING DOMESTIC COLD WATER LINES NEARBY BEFORE CONSTRUCTION BEGINS.
- 8 PROVIDE RETURN TRANSFER DUCT WITH SECURITY BARS AND WHITE NOISE
- 9 GENERATORS FOR ALL SPACES SERVED BY EXISTING AHU-5.
- 10 PROVIDE CRACU-1-5 WITH CONDENSATE DRAIN PUMP. PUMP CONDENSATE OUTSIDE THE BUILDING TO CONCRETE SPLASH BLOCK.
- 11 PROVIDE 1" BYPASS IN CHILLED WATER LINES. REDUCE 4" CHWS TO 1" WITH 1" BALANCING VALVE. BALANCE TO 2 GPM.
- 12 RE-USE EXISTING RETURN DUCTWORK UNDER SLAB.
- 13 NEW 2" CHWS&R TO CRACU-1-5. SEE SHEET M-205 FOR CONTINUATION BACK TO CHILLED WATER MAINS.
- 14 PROVIDE SECURITY BARS AT SECURE PENETRATION IN RETURN DUCTWORK. MECHANICAL CONTRACTOR TO PROVIDE WHITE NOISE GENERATOR INSIDE SECURE SIDE OF RETURN DUCTWORK. PROVIDE DUCT ACCESS PANEL FOR VISUAL INSPECTION OF SECURITY BARS AND WHITE NOISE GENERATOR. SEE DETAIL, SHEET M-501.
- 15 18"x12" DUCTED RETURN TO RAISED FLOOR TILE, SEAL AIR TIGHT. (TYP. OF 13) COORDINATE RETURN GRILLE LOCATION WITH FLOOR MOUNTED EQUIPMENT.
- 16 TIE INTO EXISTING RETURN DUCTWORK UNDER SLAB WITH NEW DUCTWORK TO BE DUCTED TO NEW RETURN GRILLES IN THE RAISED FLOOR. PROVIDE (2) 18"x12" DUCTED RETURNS IN ROOMS 109C, 109H, 109I, 109J, 109L. PROVIDE (1) 18"x12" DUCTED RETURN IN ROOMS 109N, 109M AND 109I. PATCH HOLES IN DUCTWORK CREATED DURING CONSTRUCTION IN NEW DUCTED RETURN FROM RAISED FLOOR BACK TO AHU-1A/AHU-1B.
RECONNECT/REUSE EXISTING FIRE/SMOKE DAMPER.

CRACU SEQUENCE OF OPERATION

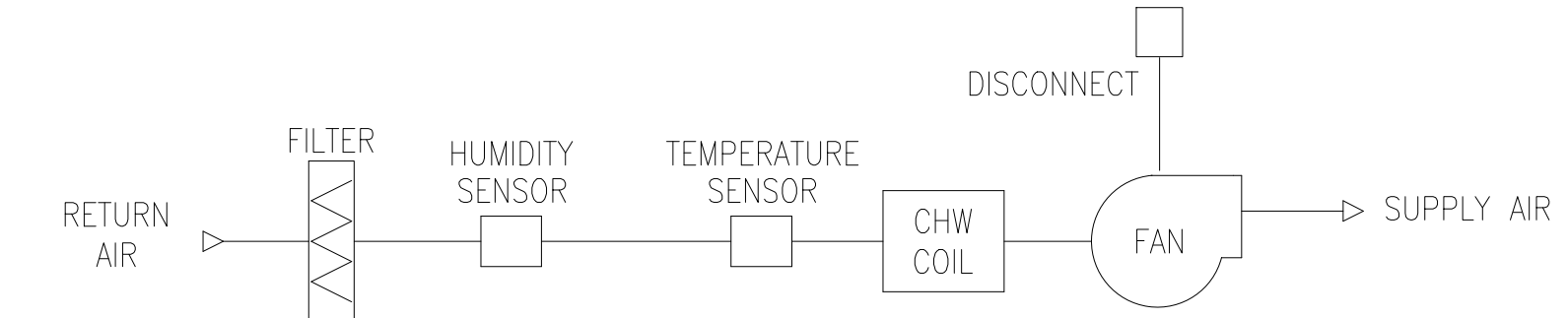
THE CRACU SHALL MAINTAIN SPACE TEMPERATURE AND HUMIDITY SET POINTS AS PROGRAMMED INTO THE UNITS STANDALONE CONTROL SYSTEM. SPACE SMOKE DETECTION SHALL REPORT TO FIRE ALARM CONTROL PANEL WHICH SHALL BE WIRED TO SHUT DOWN CRAC UNITS. EACH UNITS CONDENSATE OVERFLOW SHALL BE MONITORED AND ALARMED TO ALSO PROVIDE FOR INDIVIDUAL UNIT SHUTDOWN.



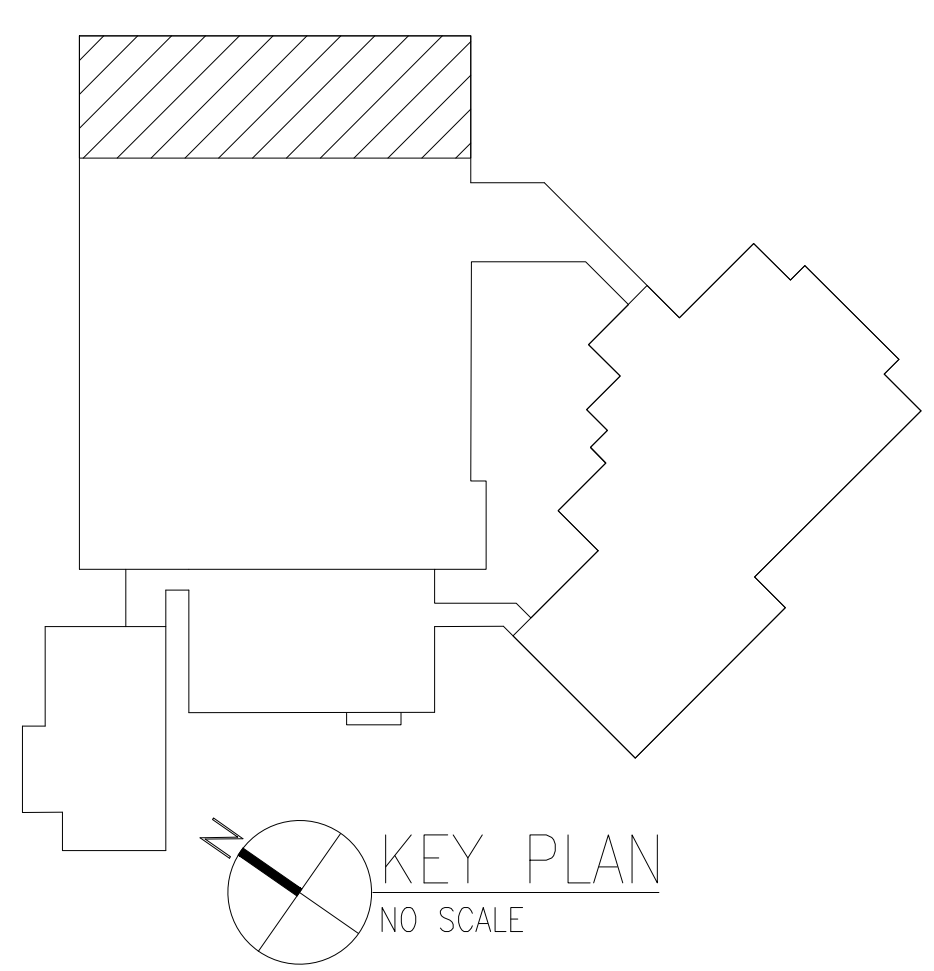
COMPUTER ROOM AIR CONDITIONING UNIT CONTROL
CRACU-1-5 ONLY

CRACU SEQUENCE OF OPERATION

THE CRACU SHALL MAINTAIN SPACE TEMPERATURE SET POINTS AS PROGRAMMED INTO THE UNITS STANDALONE CONTROL SYSTEM. SPACE SMOKE DETECTION SHALL REPORT TO FIRE ALARM CONTROL PANEL WHICH SHALL BE WIRED TO SHUT DOWN CRAC UNITS. EACH UNITS CONDENSATE OVERFLOW SHALL BE MONITORED AND ALARMED TO ALSO PROVIDE FOR INDIVIDUAL UNIT SHUTDOWN.



COMPUTER ROOM AIR CONDITIONING UNIT CONTROL
CRACU-1-1/1-2/1-3/1-4 ONLY

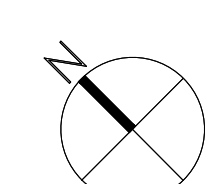
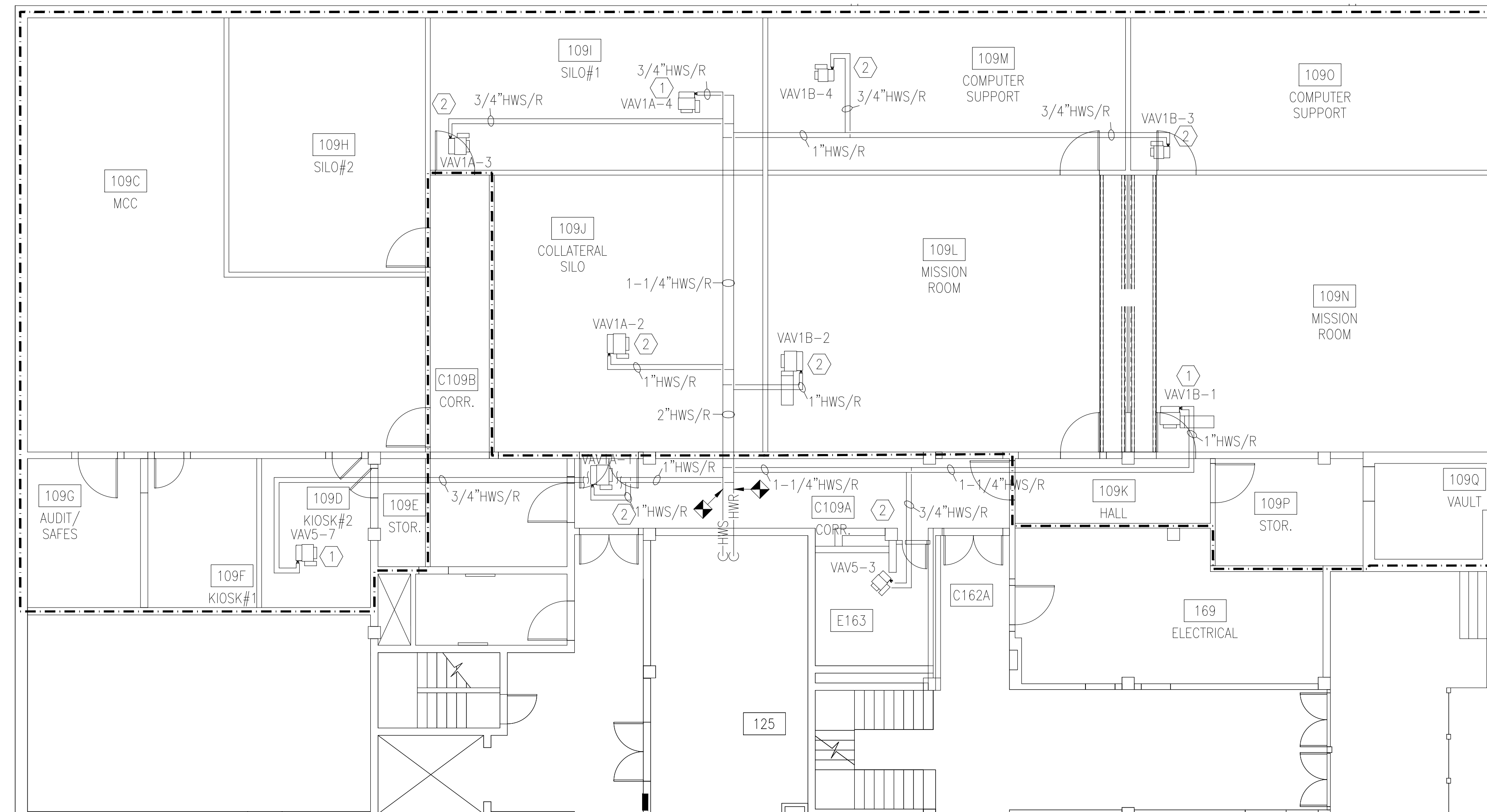


KEY PLAN
NO SCALE

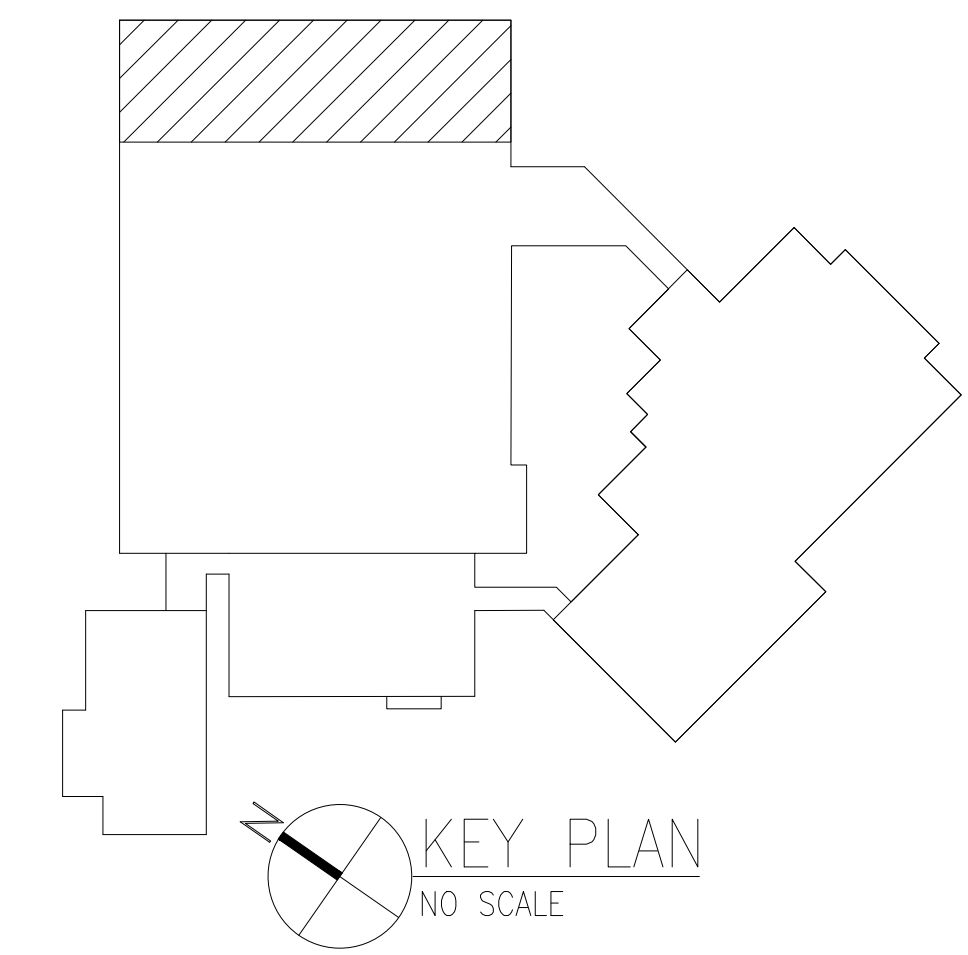
REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT			MODIFY CONTROL ROOMS BLDG 380	
DATE	DRAWN BY <u>D. MARSHALL</u>		TITLE	
SIGNATURE	PROJ. ENGR. <u>G. PETERSON</u>		APPROVED	
APPROVED	FIRE PROTECTION ENGR.		APPROVED	
CENM	SAFETY REPRESENTATIVE		APPROVED	
APPROVED	DIR. BASE MED. SERVICE		APPROVED	
PROGRAM MANAGER	USING AGENCY		APPROVED	
	COMMUNICATIONS		APPROVED	
	OPERATIONS ENGINEERING		APPROVED	
INDEX NO.	ENVIRONMENTAL		APPROVED	
	SPEC. NO. 17AA		DEPUTY BASE CIVIL ENGINEER	
	PROJ. NO. FTFA 17-1050	DRAWING NO. M20117AA	FILE NO.	DATE APR 2019
				JULY 2018
				SCALE
				SHEET 38 OF 86

SHEET NOTES

- ① PROVIDE 3-WAY HOT WATER VALVE.
- ② PROVIDE 2-WAY HOT WATER VALVE.



BID ITEM "C"
HOT WATER PIPING PLAN - ROOM 109
SCALE: 1/8" = 1'-0"



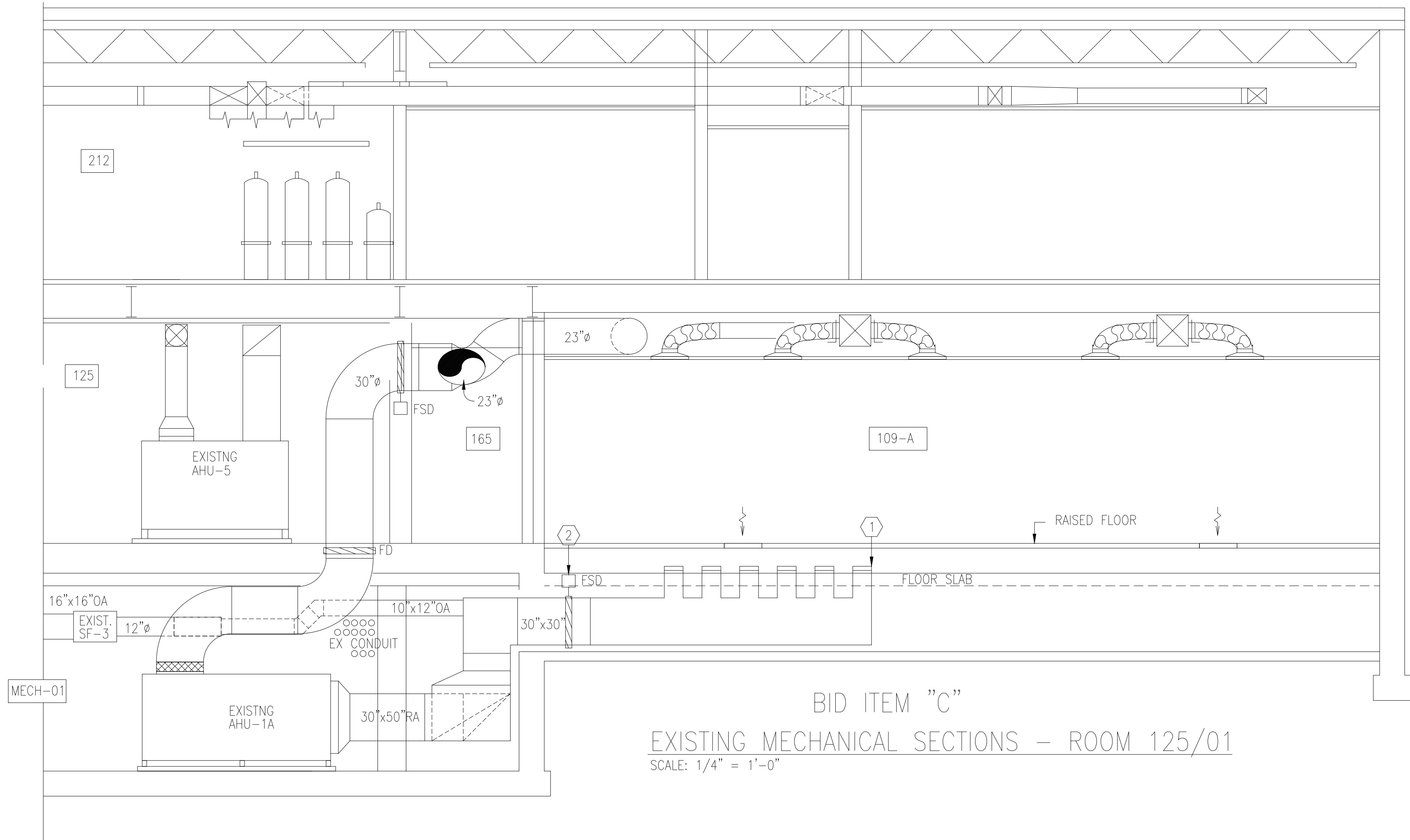
REVISION	DATE	DESCRIPTION	BY	APPR'D

BASE CIVIL ENGINEER
EGLIN AIR FORCE BASE, FLORIDA

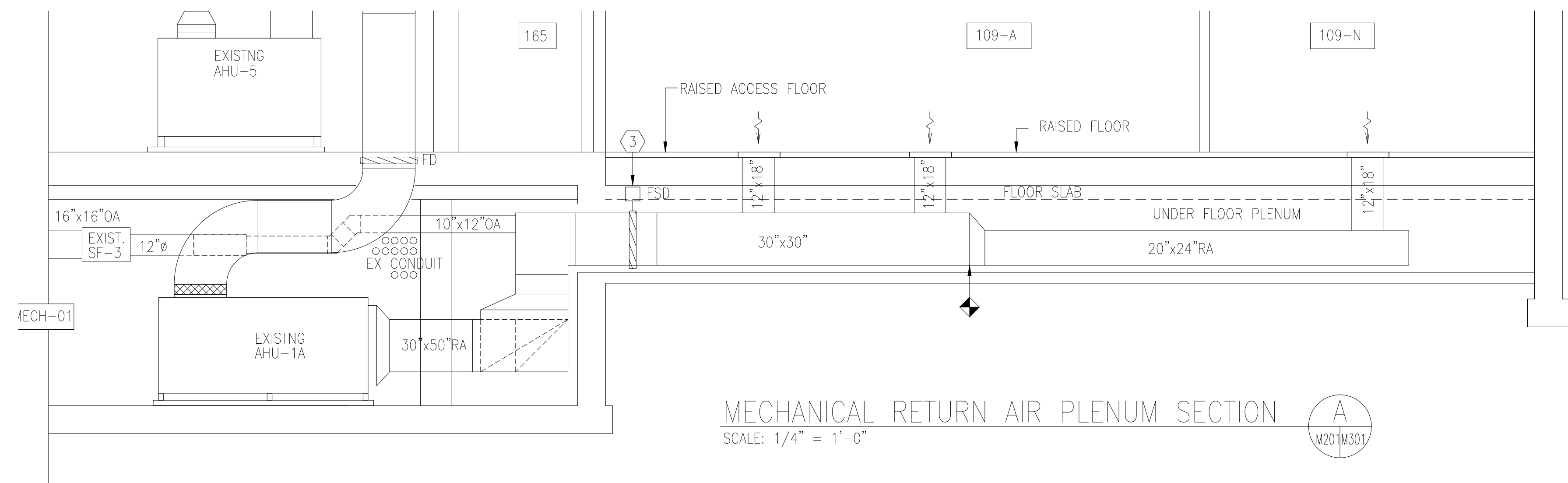
AS-BUILT		DRAWN BY <u>D. MARSHALL</u>		TITLE MODIFY CONTROL ROOMS BLDG 380
DATE		PROJ. ENGR. <u>G. PETERSON</u>		
SIGNATURE		APPROVED		
APPROVED		FIRE PROTECTION ENGR.		
CENM		APPROVED		
APPROVED		SAFETY REPRESENTATIVE		
PROGRAM MANAGER		APPROVED		
		DIR. BASE MED. SERVICE		
		APPROVED		
		USING AGENCY		
		APPROVED		
		COMMUNICATIONS		
		APPROVED		
		OPERATIONS ENGINEERING		
		APPROVED		
INDEX NO.	M-206	ENVIRONMENTAL		
		DEPUTY BASE CIVIL ENGINEER		
		SPEC. NO.	17AA	
		PROJ. NO.	FTFA 17-1050	
		DRAWING NO.	M20617AA	
		FILE NO.		
		DATE	APR 2019	
		DATE	JULY 2018	
		SCALE		
		SHEET	43 OF 86	

PETERSON ENGINEERING INC.

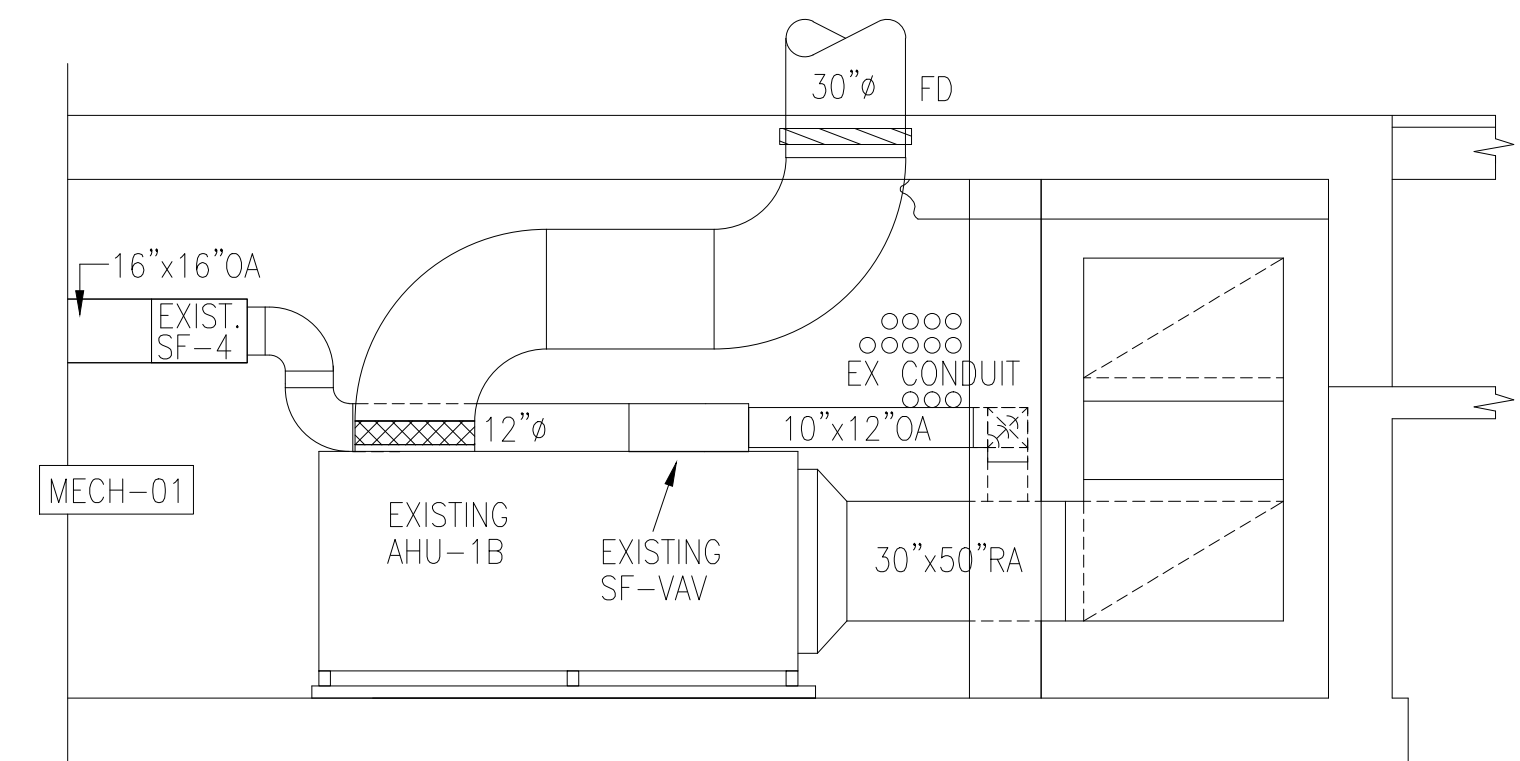
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI 17099



BID ITEM "C"
 EXISTING MECHANICAL SECTIONS - ROOM 125/01
 SCALE: 1/4" = 1'-0"



MECHANICAL RETURN AIR PLENUM SECTION
 SCALE: 1/4" = 1'-0"



BID ITEM "C"
 EXISTING MECHANICAL SECTIONS - ROOM 01
 SCALE: 1/4" = 1'-0"

SHEET NOTES

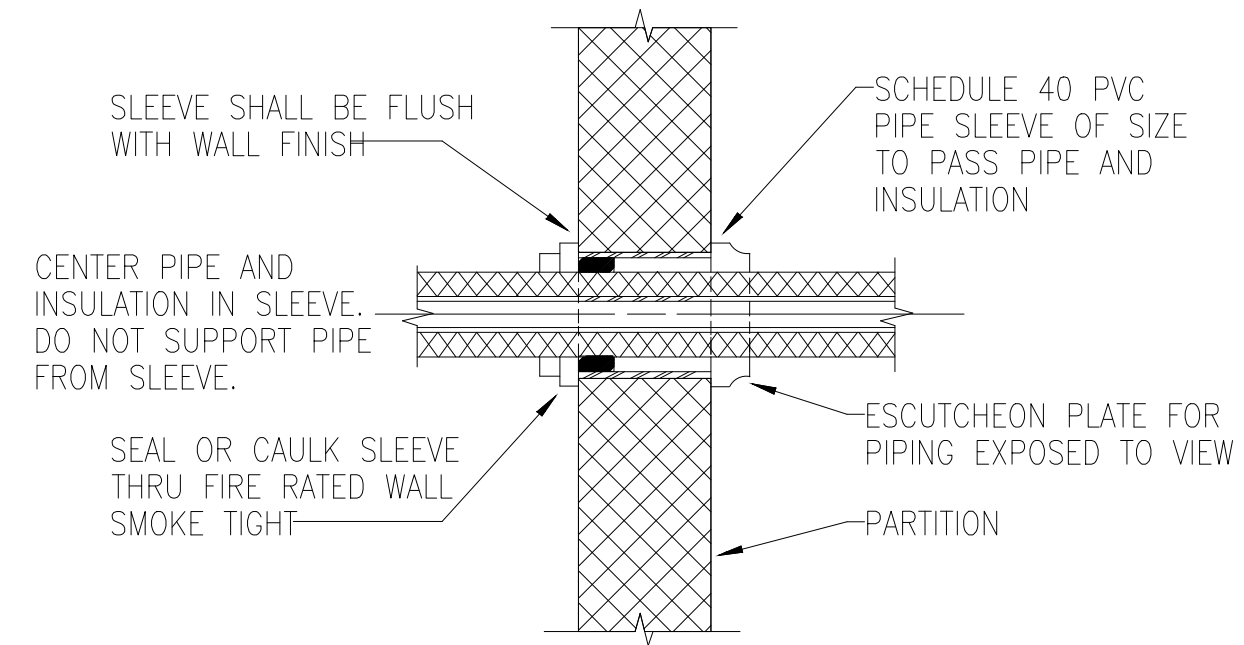
- ① DUCT EXISTING RETURN DUCTWORK UNDER FLOOR TO NEW RAISED FLOOR TILES. UNDER FLOOR SHALL NOT BE USED AS A RETURN PLENUM. UNDER FLOOR SHALL BE USED AS SUPPLY PLENUM FOR NEW AND FUTURE CRAC UNITS.
- ② REMOVE FIRE/SMOKE DAMPER FOR INSTALLATION OF NEW SECURITY BARS.
- ③ REUSE/RECONNECT EXISTING FIRE/SMOKE DAMPER IN NEW WORK.

REVISION	DATE	DESCRIPTION	BY	APPR'D

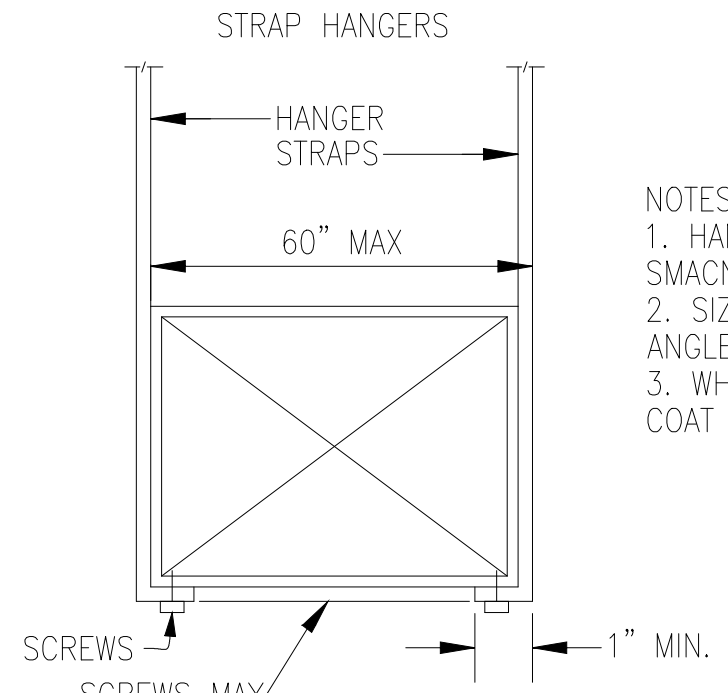
BASE CIVIL ENGINEER
 EGLIN AIR FORCE BASE, FLORIDA

AS-BUILT		DRAWN BY <u>D. MARSHALL</u>		TITLE	
DATE _____		PROJ. ENGR. <u>G. PETERSON</u>		MODIFY CONTROL ROOMS BLDG 380	
SIGNATURE _____		APPROVED _____			
APPROVED _____		FIRE PROTECTION ENGR. APPROVED _____			
CENM APPROVED _____		SAFETY REPRESENTATIVE APPROVED _____			
PROGRAM MANAGER _____		DIR. BASE MED. SERVICE APPROVED _____			
		USING AGENCY APPROVED _____			
		COMMUNICATIONS APPROVED _____		CONTENTS	
		OPERATIONS ENGINEERING APPROVED _____		EXISTING MECHANICAL SECTIONS - ROOM 125/01	
		ENVIRONMENTAL APPROVED _____			
		SPEC. NO. _____		APPROVED _____	DATE APR 2019
M-301		17AA		96 CEG/CEN	JULY 2018
		FTFA 17-1050		APPROVED _____	SCALE
		DRAWING NO. M30117AA		DEPUTY BASE CIVIL ENGINEER	
		FILE NO. _____			
					SHEET 44 OF 86

PETERSON ENGINEERING INC.
 (PROF. ENG. #: 3600)
 75 SOUTH "F" STREET
 PENSACOLA, FLORIDA 32502
 (850) 434-0513
 PEI 17099

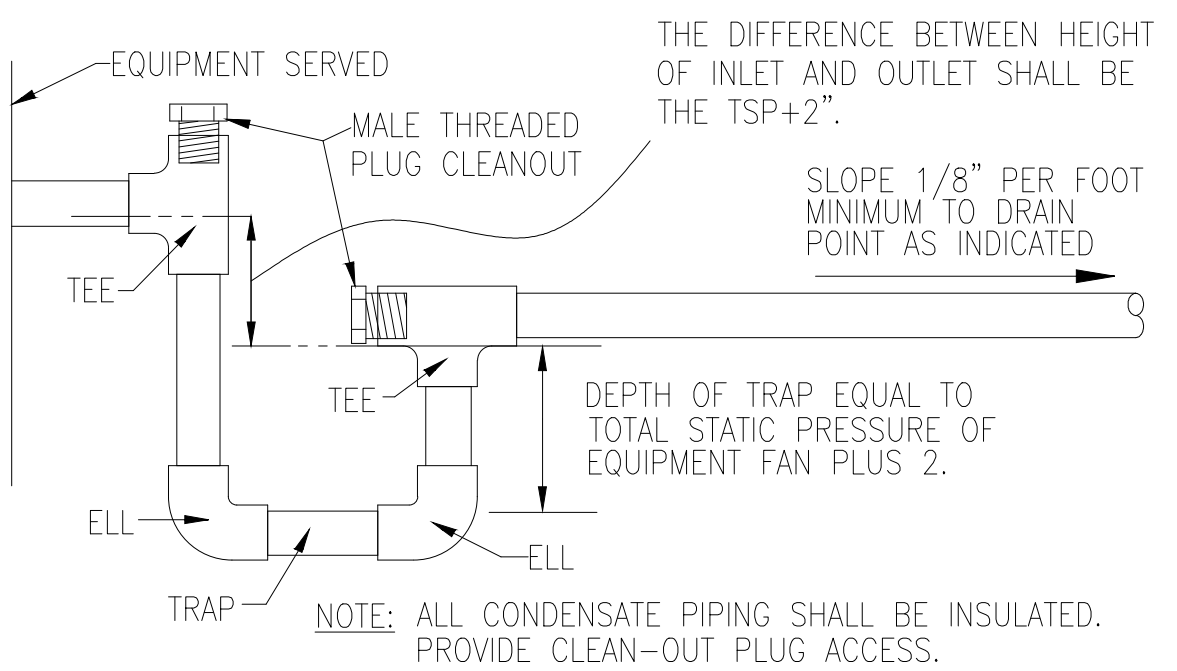


WALL SLEEVE DETAIL
NOT TO SCALE

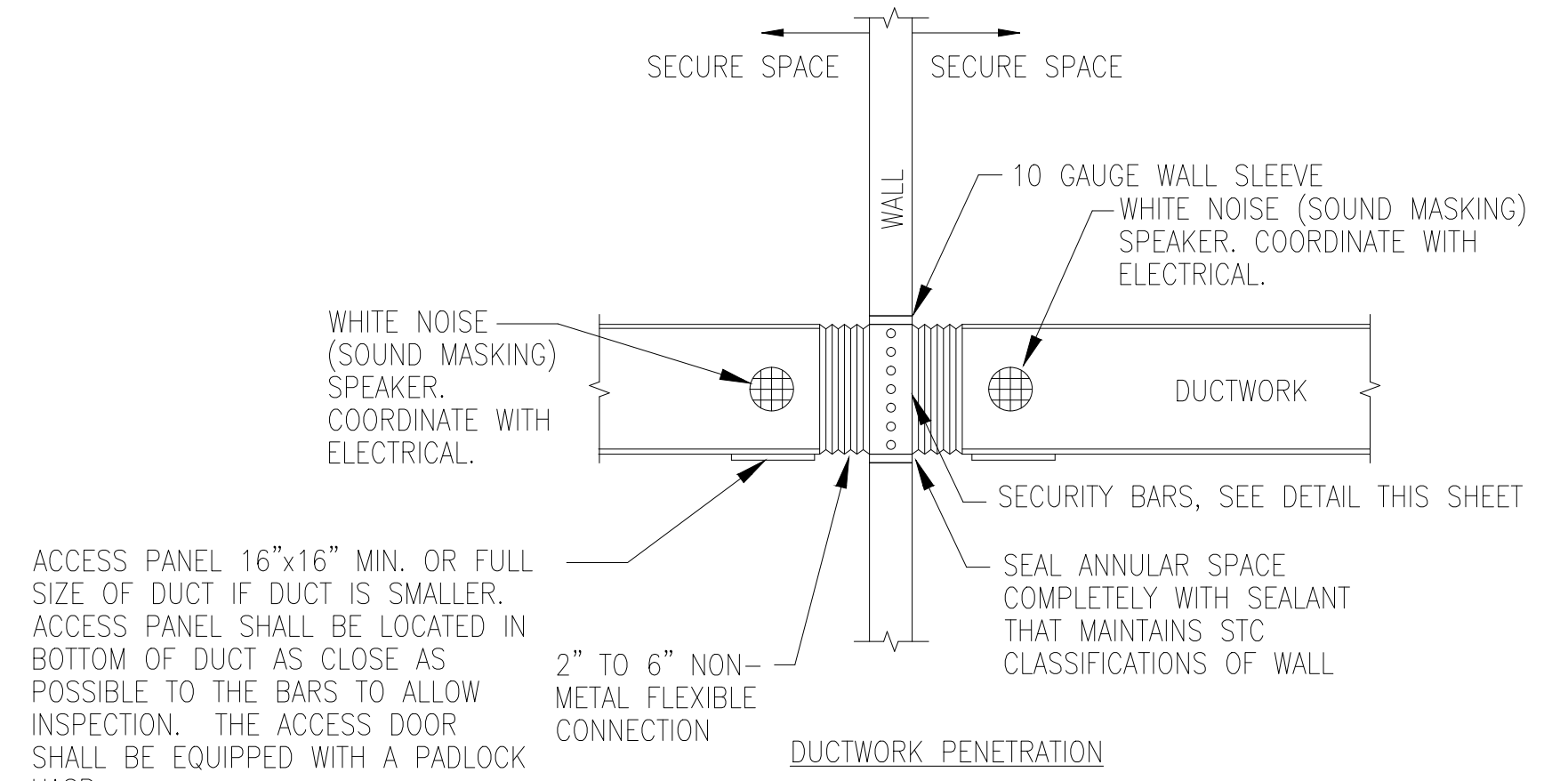


DUCT HANGER DETAIL
NOT TO SCALE

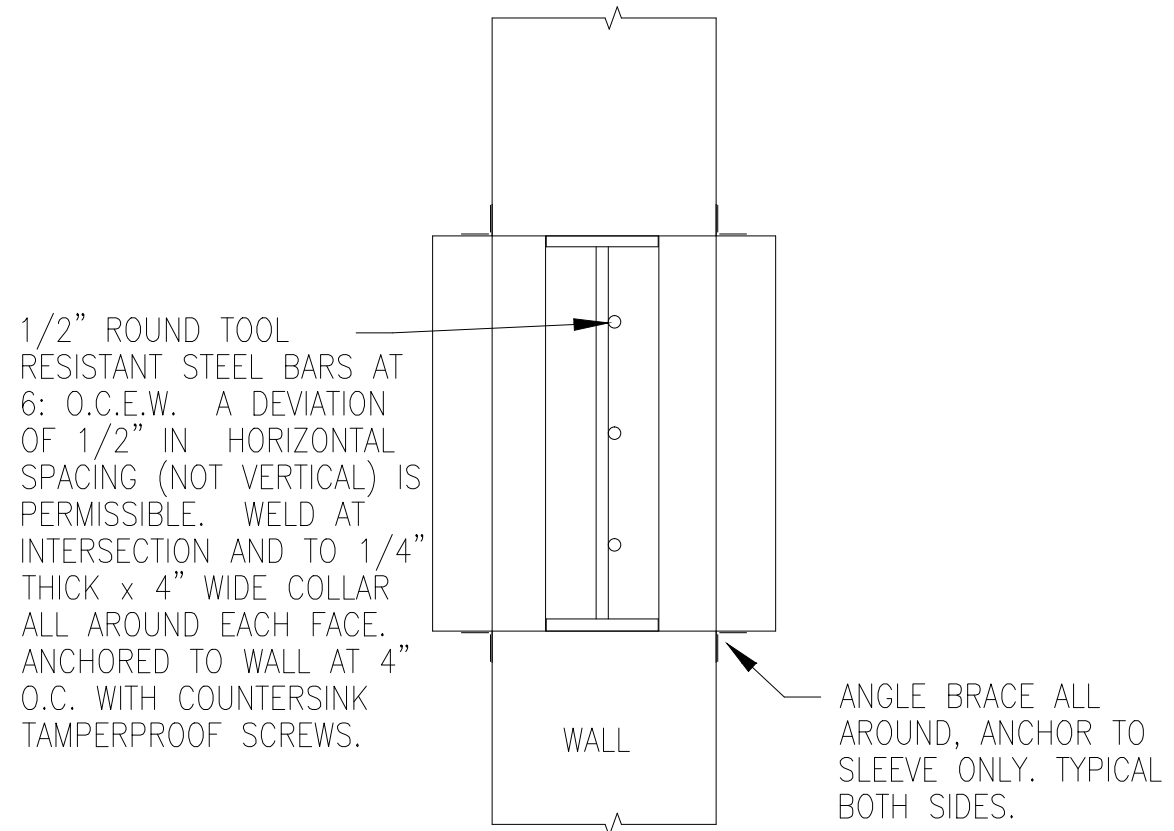
NOTES:
1. HANGERS TO BE ATTACHED TO STRUCTURE PER SMACNA STANDARDS.
2. SIZE OF FASTENERS, STRAPS, RODS, AND OR ANGLES TO BE PER SMACNA STANDARDS.
3. WHERE SCREWS PENETRATE DUCTWORK FULLY COAT SCREW HEAD WITH APPROVED MASTIC.



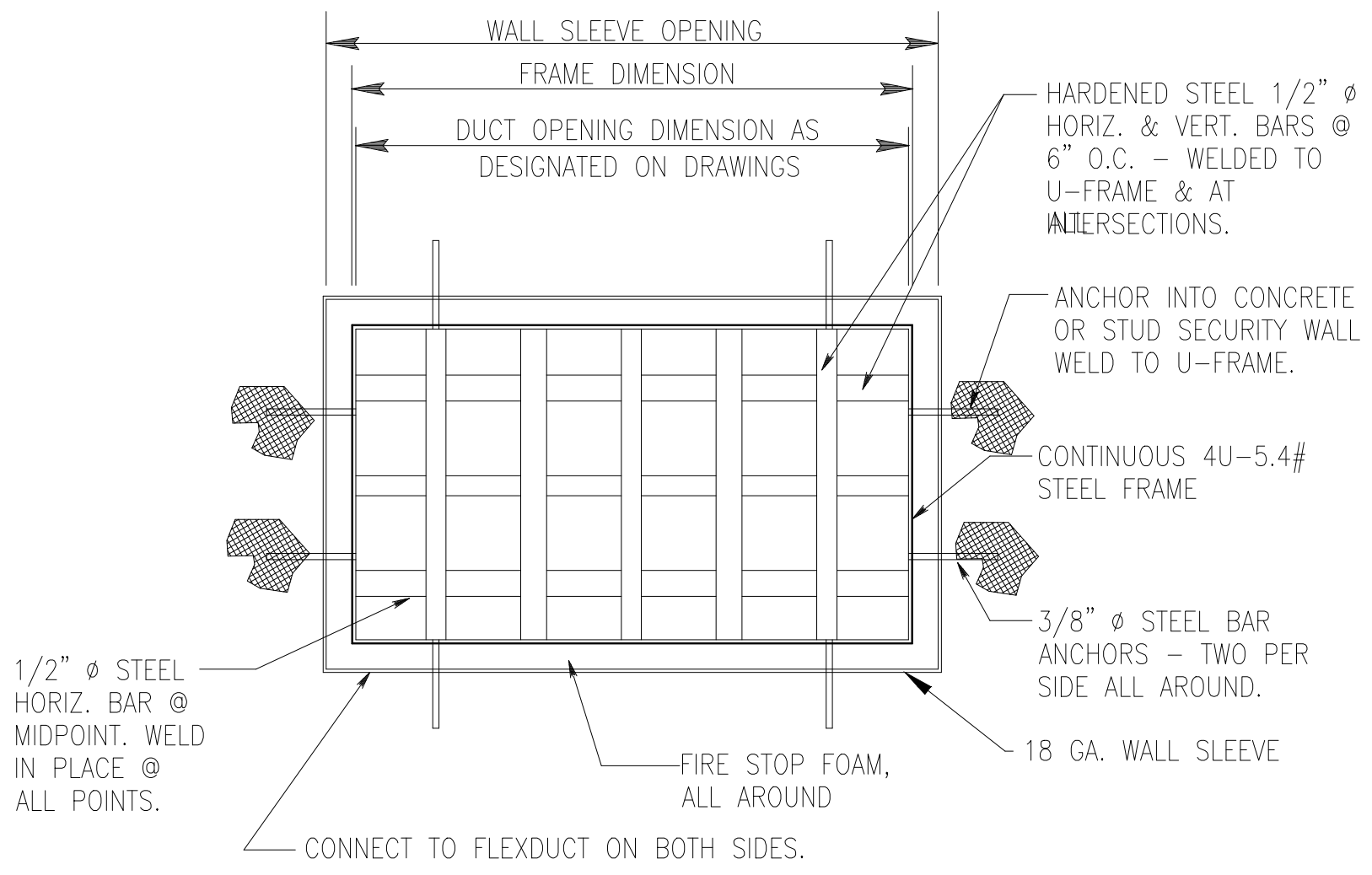
TYPICAL CONDENSATE DRAIN DETAIL
NOT TO SCALE



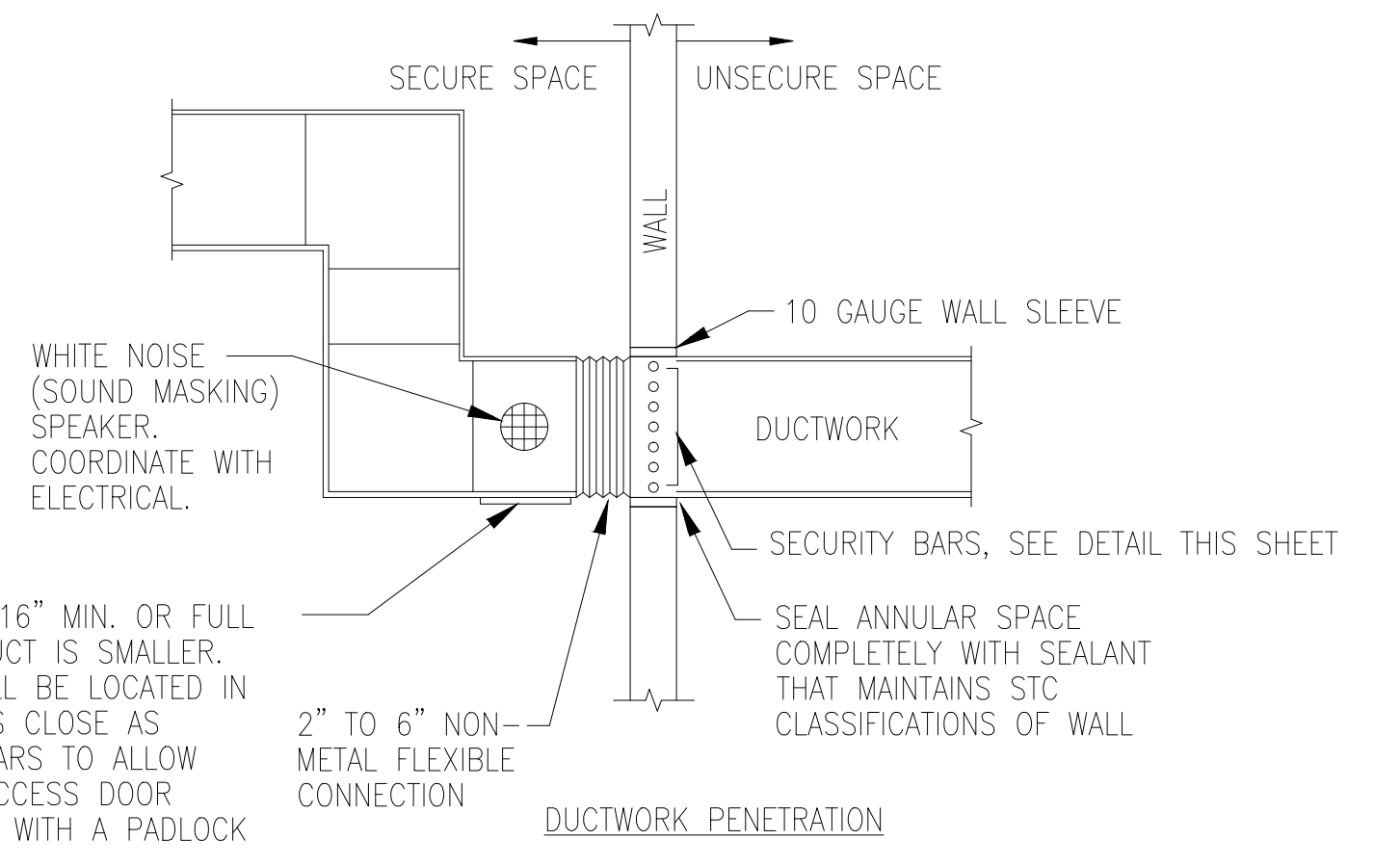
SECURITY BOUNDARY PENETRATION DETAIL
BACK TO BACK SECURE SPACES



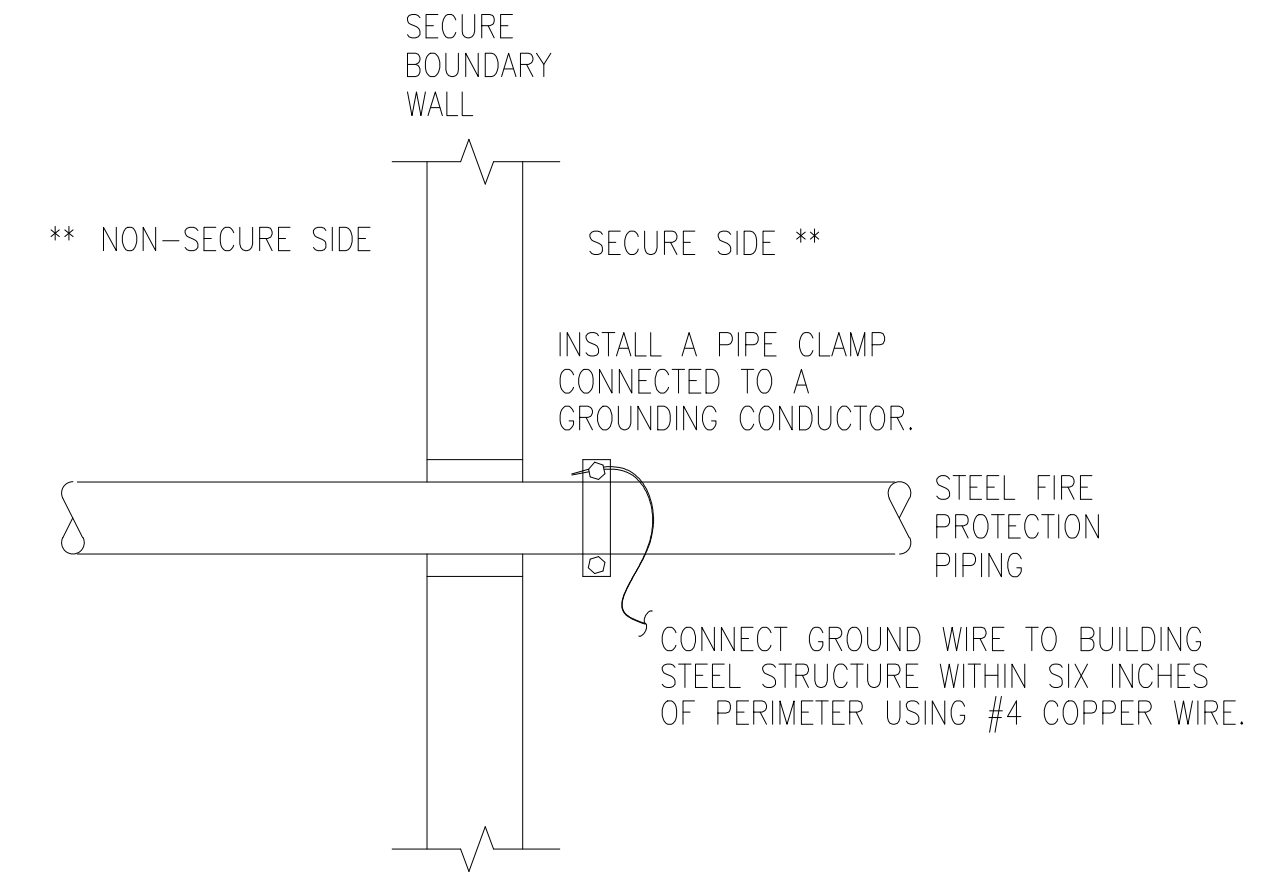
TYPICAL SECURITY BAR DETAIL
NOT TO SCALE



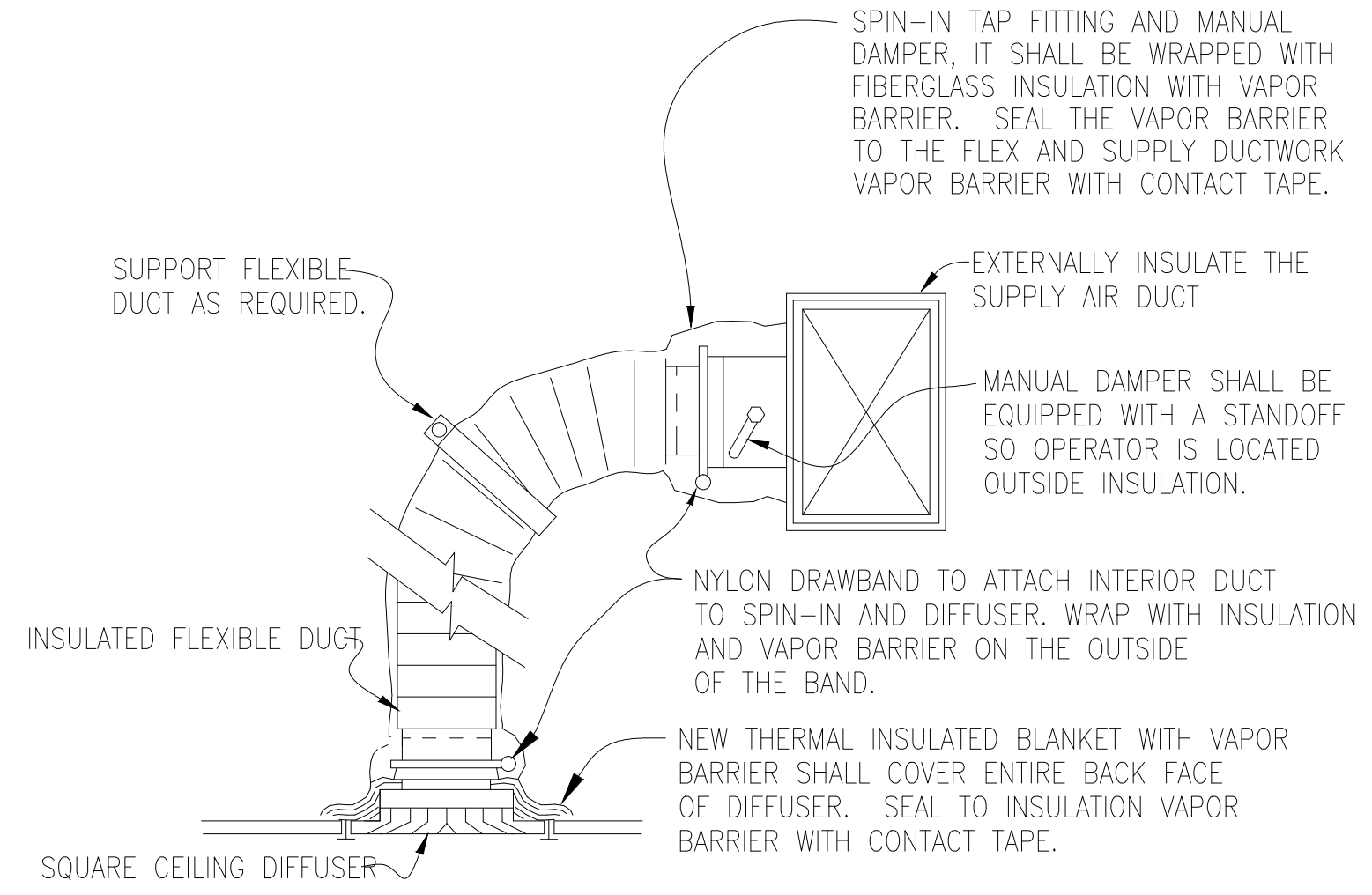
SECURITY BARRIER IN RECTANGULAR OPENINGS
NOT TO SCALE



SECURITY BOUNDARY PENETRATION DETAIL



SECURE PIPE PENETRATION DETAIL
NO SCALE



PANEL DIFFUSER DETAIL
NOT TO SCALE

NOTE: PROVIDE ISOLATION FOR ALL ABOVE GROUND METALLIC CONDUITS ENTERING/LEAVING SECURED PERIMETERS. PROVIDE A DIELECTRIC UNION INSIDE THE SECURED AREA PERIMETER ADJACENT TO THE PENETRATION.

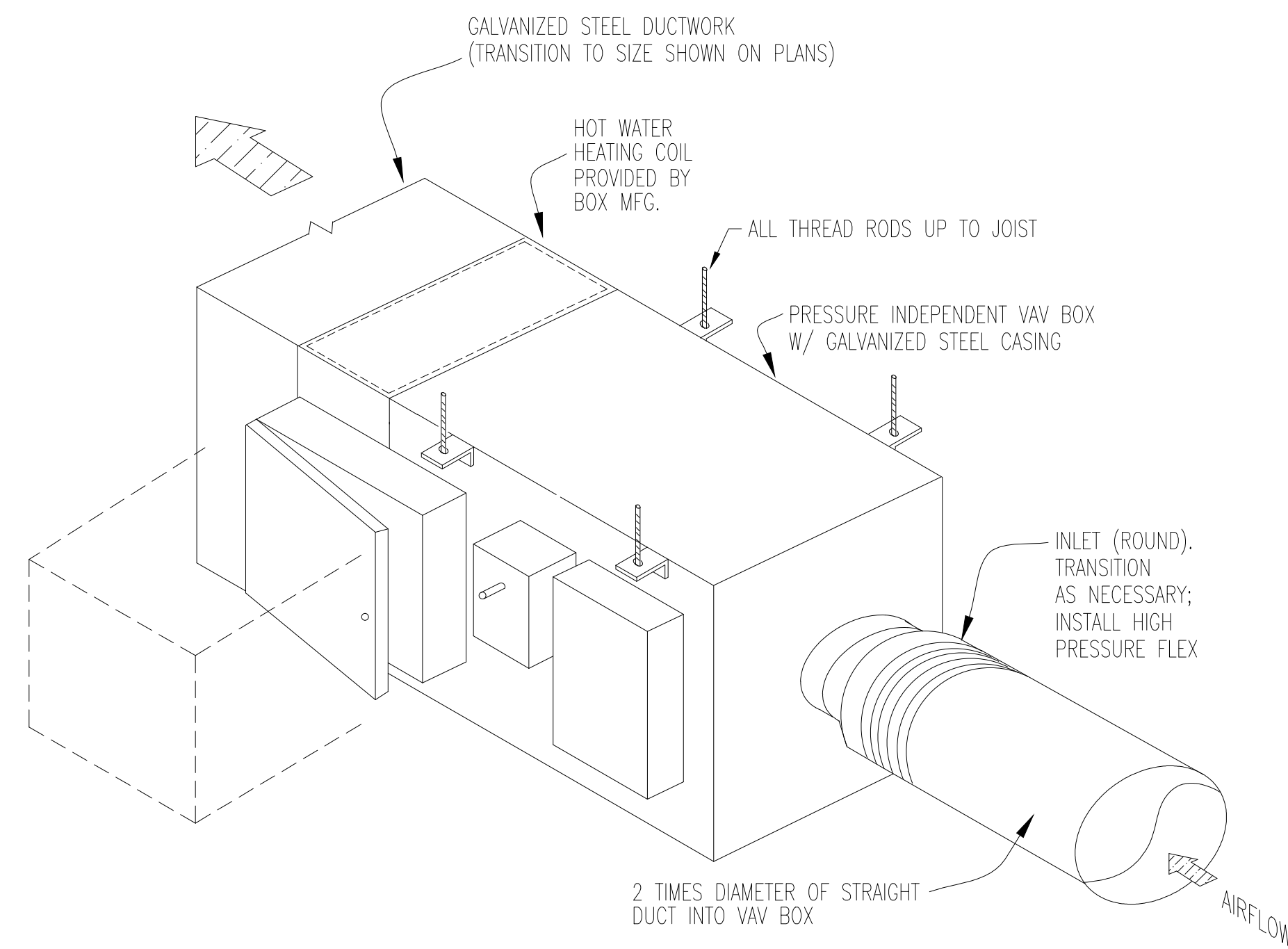
** THERE ARE NUMEROUS INSTANCES OF HIGHER LEVEL CLASSIFICATION REVERSING BETWEEN ADJACENT ROOMS IN THE ROOM 109 SUITE - PLAN ON HAVING DIELECTRIC UNION ADAPTERS ON BOTH SIDES OF THESE WALLS.

REFER TO ARCHITECTURAL PLANS FOR SECURE AREA BOUNDARIES.

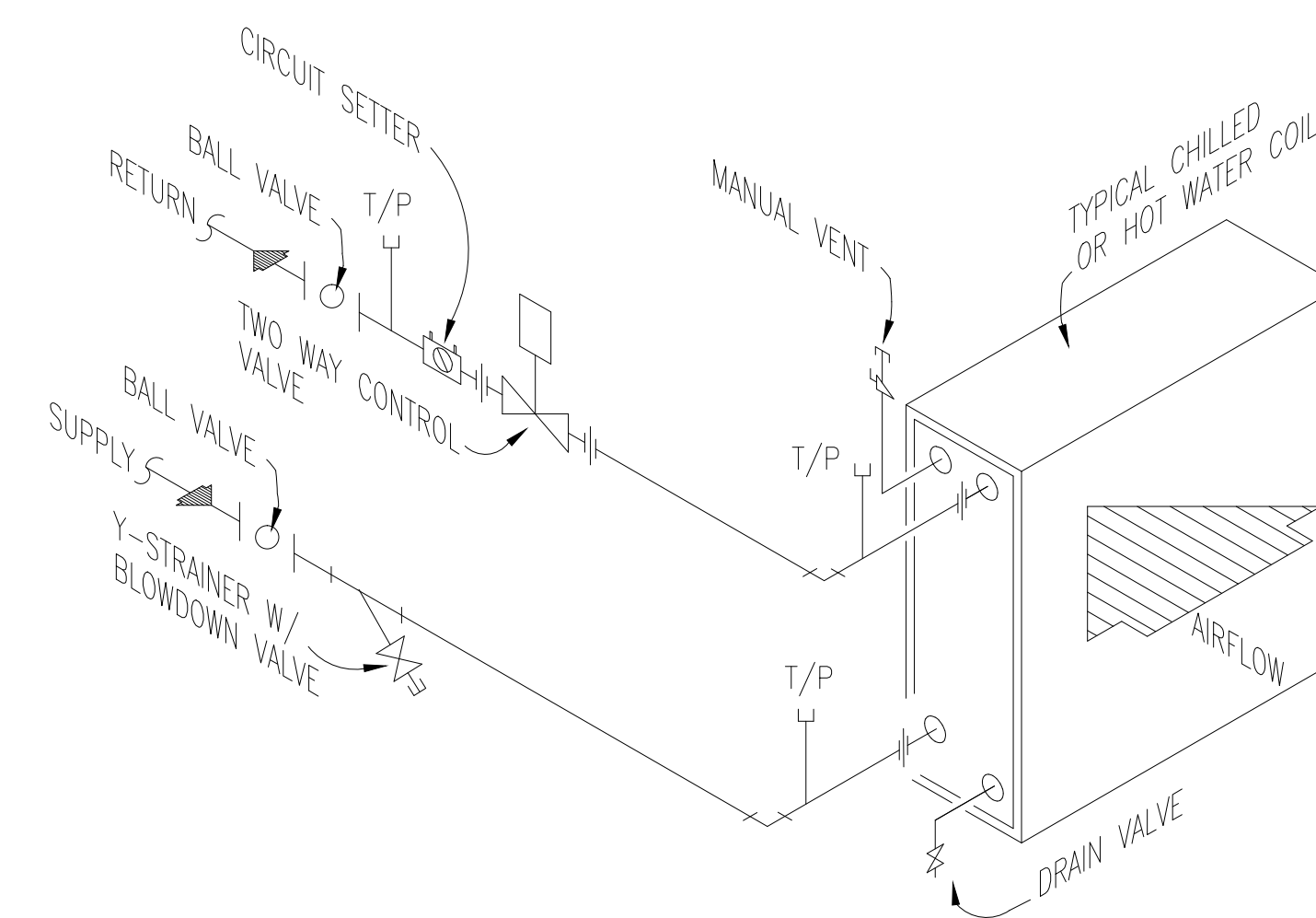
PETERSON ENGINEERING INC.

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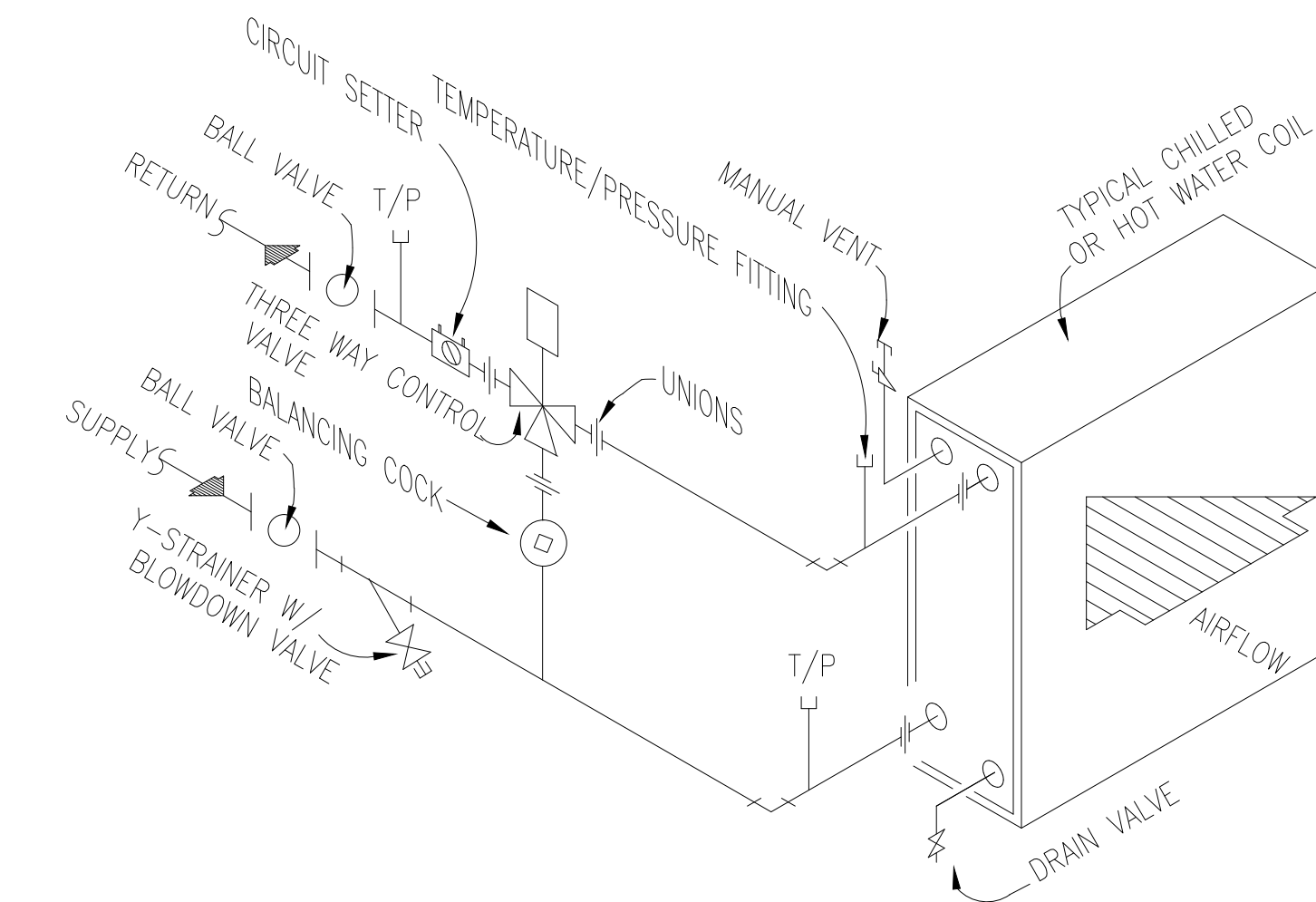
REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DATE	TITLE	
SIGNATURE		PROJ. ENGR. G. PETERSON	MODIFY CONTROL ROOMS BLDG 380	
APPROVED		FIRE PROTECTION ENGR.		
CENM		SAFETY REPRESENTATIVE		
APPROVED		APPROVED		
PROGRAM MANAGER		DIR. BASE MED. SERVICE		
		APPROVED	CONTENTS	
		USING AGENCY	MECHANICAL DETAILS	
		APPROVED		
		COMMUNICATIONS		
		APPROVED		
		OPERATIONS ENGINEERING		
		APPROVED		
		ENVIRONMENTAL		
		APPROVED		
INDEX NO.		DEPUTY BASE CIVIL ENGINEER		DATE: APR 2019
M-501		PROJ. NO. 17AA	FTFA 17-1050	SCALE
		DRAWING NO. M50117AA	FILE NO.	SHEET 45 OF 86



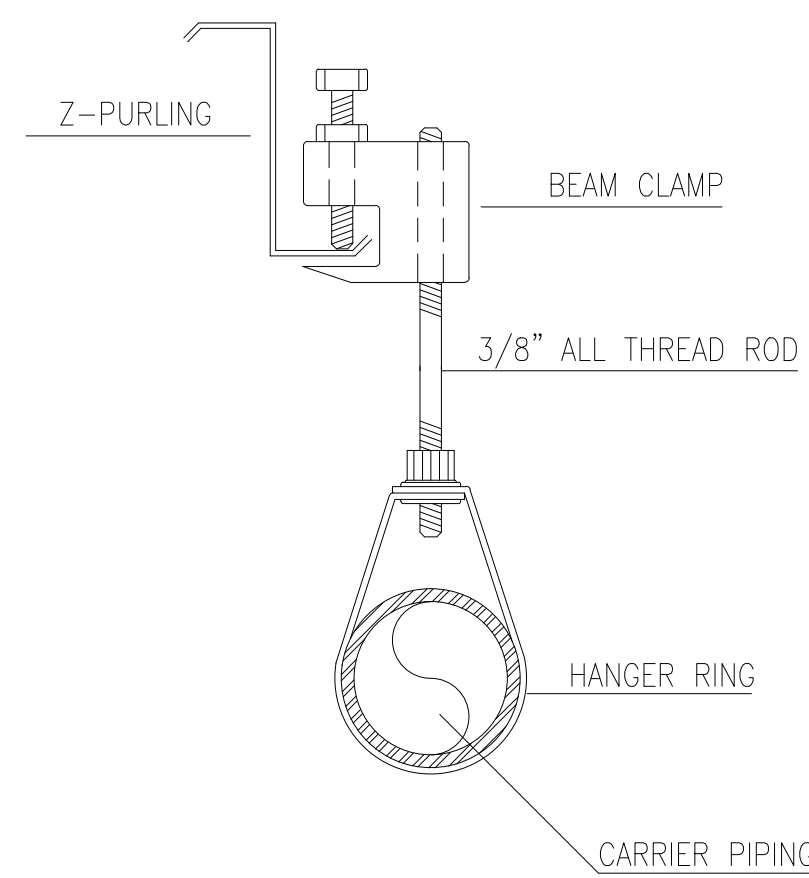
TYPICAL VAV TERMINAL UNIT DETAIL
NOT TO SCALE



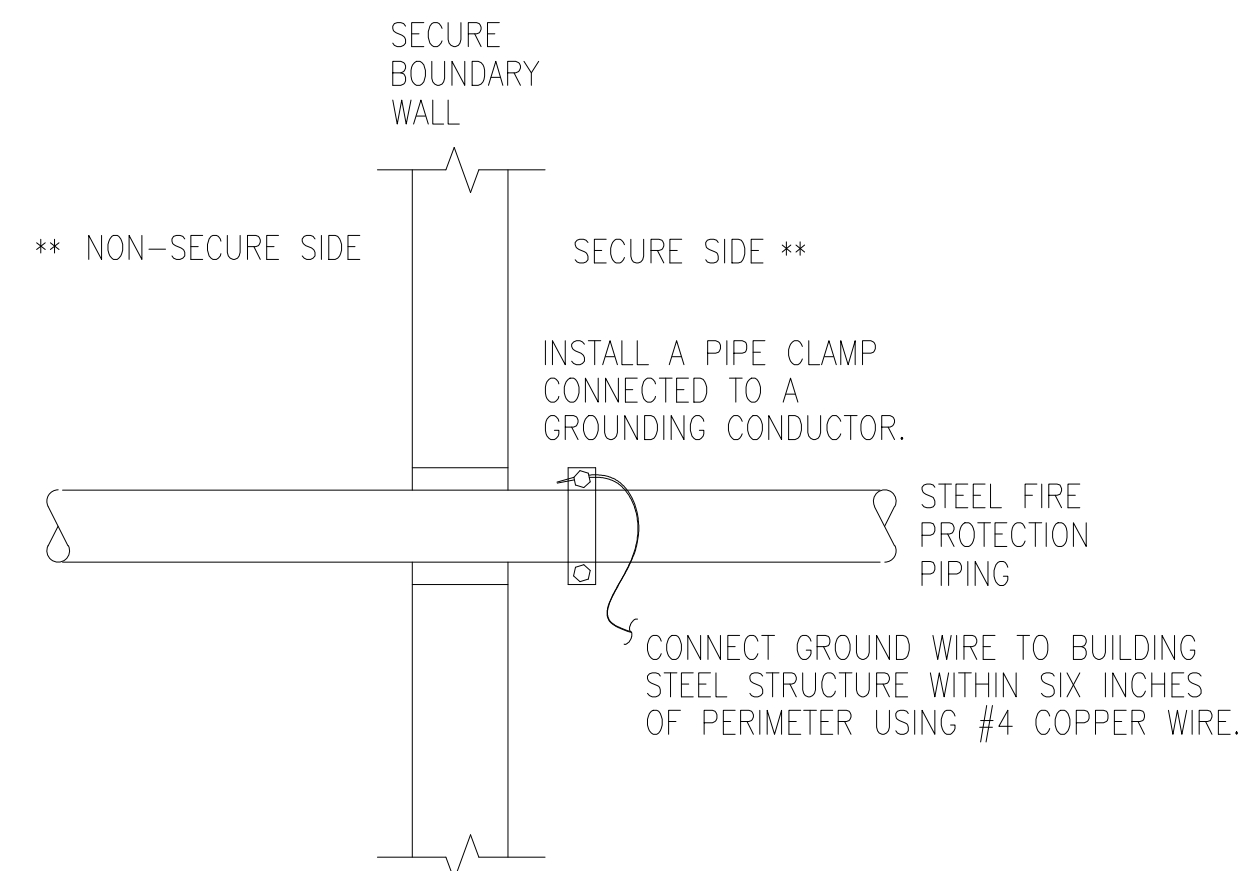
TWO WAY VALVE PIPING DIAGRAM
TYPICAL COIL CONNECTION DETAIL
NOT TO SCALE



THREE WAY VALVE PIPING DIAGRAM
NOTE: AIR/WATER SHALL BE PIPED IN COUNTER FLOW CONFIGURATION.
THREE-WAY CONTROL VALVE SHALL BE PIPED IN MIXING CONFIGURATION.
TYPICAL COIL CONNECTION DETAIL
NOT TO SCALE



PIPE HANGER DETAIL
N.T.S.



SECURE PIPE PENETRATION DETAIL
NOT TO SCALE

NOTE: PROVIDE ISOLATION FOR ALL ABOVE GROUND METALLIC CONDUITS ENTERING/LEAVING SECURED PERIMETERS. PROVIDE A DIELECTRIC UNION INSIDE THE SECURED AREA PERIMETER ADJACENT TO THE PENETRATION.

** THERE ARE NUMEROUS INSTANCES OF HIGHER LEVEL CLASSIFICATION REVERSING BETWEEN ADJACENT ROOMS IN THE ROOM 109 SUITE -- PLAN ON HAVING DIELECTRIC UNION ADAPTERS ON BOTH SIDES OF THESE WALLS.

REFER TO ARCHITECTURAL PLANS FOR SECURE AREA BOUNDARIES.

PETERSON ENGINEERING INC.

(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
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(850) 434-0513
PEI 17099

REVISION	DATE	DESCRIPTION	BY	APPR'D	
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA					
AS-BUILT		DRAWN BY <u>D. MARSHALL</u> PROJ. ENGR. <u>G. PETERSON</u> APPROVED FIRE PROTECTION ENGR. APPROVED SAFETY REPRESENTATIVE APPROVED DIR. BASE MED. SERVICE APPROVED USING AGENCY APPROVED COMMUNICATIONS APPROVED OPERATIONS ENGINEERING APPROVED ENVIRONMENTAL SPEC. NO. <u>17AA</u>	MODIFY CONTROL ROOMS BLDG 380		
DATE		TITLE	CONTENTS		
SIGNATURE		APPROVED	MECHANICAL DETAILS		
APPROVED		APPROVED	APPROVED		
CENM		APPROVED	APPROVED		
APPROVED		APPROVED	APPROVED		
PROGRAM MANAGER		APPROVED	APPROVED		
INDEX NO.		APPROVED	APPROVED		
M-502		APPROVED	APPROVED		
SPEC. NO.		APPROVED	APPROVED		
17AA		APPROVED	APPROVED		
PROJ. NO.		APPROVED	APPROVED		
FTFA 17-1050		APPROVED	APPROVED		
DRAWING NO.		APPROVED	APPROVED		
M50217AA		APPROVED	APPROVED		
FILE NO.		APPROVED	APPROVED		
SHEET 46 OF 86		APPROVED	APPROVED		
DATE		APR 2019	DATE		
APR 2019		APR 2019	APR 2019		
SCALE		APR 2019	APR 2019		

TELECOMMUNICATIONS / SECURITY SYSTEM LEGEND									
DEVICE SYMBOL	SYMBOL SUBSCRIPT - TYPE 'X'	DESCRIPTION	CAT 6 UTP (QTY)	CAT 6 STP (QTY)	RG-6 COAX (QTY)	FIBER DUAL STRAND (QTY)	JACK/MODULE TYPE	JACK/MODULE COLOR	MOUNTING HEIGHT AFF (UNO)
SPECIAL SYSTEMS (SECURED) NETWORK RACEWAY									
	-	ABOVEGROUND 4" CONDUIT	-	-	-	-	-	-	VARIES
	-	4" CONDUIT SLEEVE	-	-	-	-	-	-	VARIES
	-	PULL BOX - SECURED (S)	-	-	-	-	-	-	SEE PLAN, SCHEDULE
ACCESS CONTROL SYSTEM (ACS)									
	-	CARD READER	SEE ACS SINGLE LINE DIAGRAMS						48", SEE DETAIL
	-	CARD READER/ KEYPAD							48", SEE DETAIL
	-	ACS INTERFACE UNIT							SEE PLAN
INTRUSION DETECTION SYSTEM (IDS)									
	-	WALL MOUNTED KEY PAD	SEE IDS SINGLE LINE DIAGRAMS						48", SEE DETAIL
	-	CEILING MOUNTED MOTION DETECTOR							SEE DETAIL
	-	WALL MOUNTED MOTION DETECTOR (BELOW FLOOR)							SEE DETAIL
	-	BALANCED MAGNETIC SWITCH							SEE DETAIL
	-	HIGH SECURITY SWITCH							SEE DETAIL
	-	IDS CONTROL PANEL							SEE PLAN

DIELECTRIC BREAK/GROUNDING NOTE

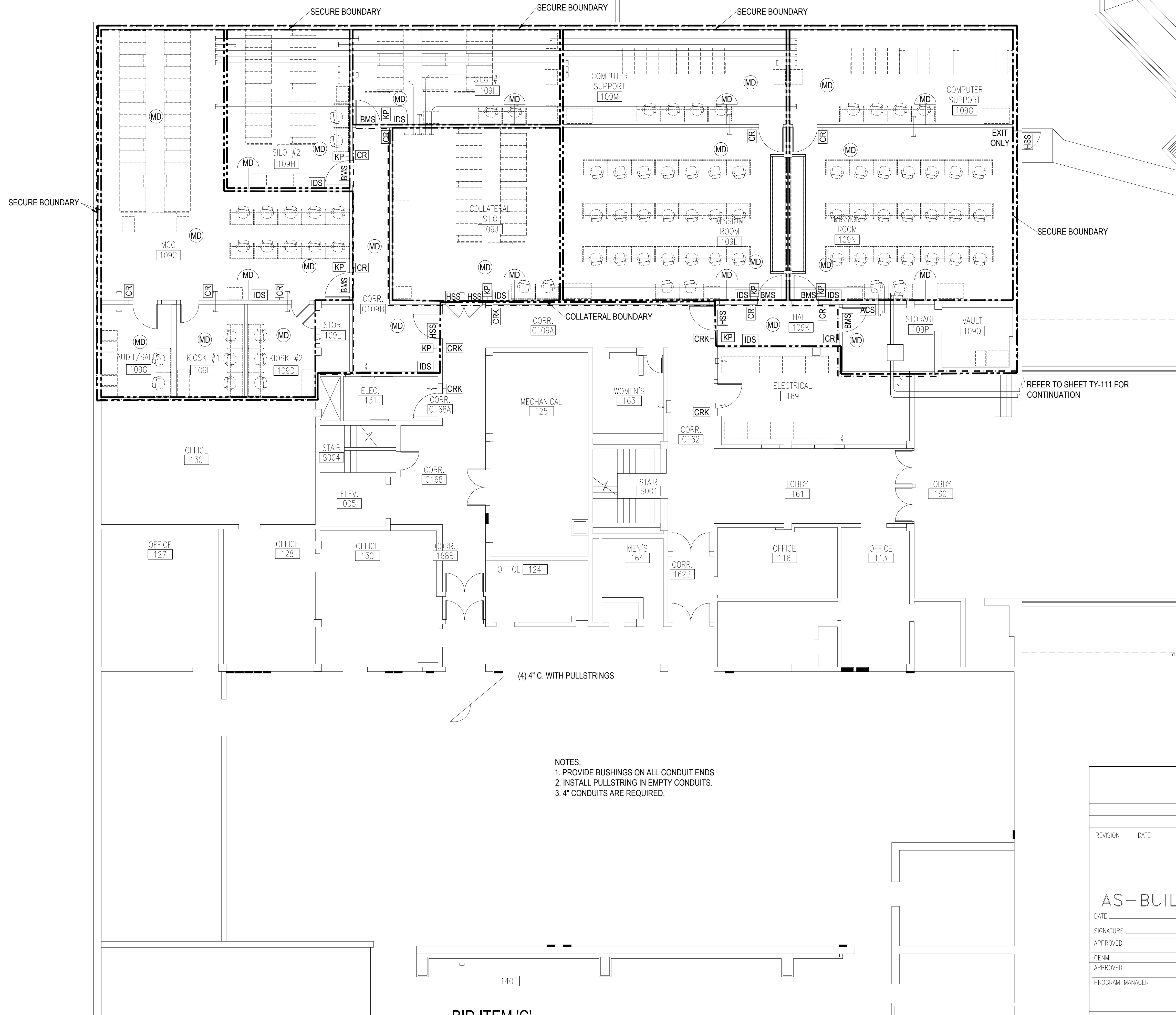
PROVIDE DIELECTRIC BREAKS IN CONDUIT WHEN ENTERING SECURE SPACES. WHERE A DIELECTRIC BREAK IS NOT POSSIBLE, THE CONDUIT SHALL BE GROUNDED PER ICD 705 REQUIREMENTS.

BID ITEMS NOTE

BID ITEM A: ROOMS 280 AND 290
 BID ITEM B: MISSION ROOMS 288
 BID ITEM C: ROOM 109 AND SUPPORTING AREAS; NEW SERVICE #4 AND GENERATOR

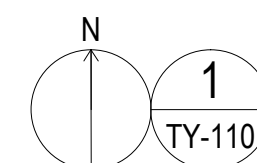
REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		MODIFY CONTROL ROOMS BLDG 380		
DATE	SIGNATURE	DRAWN BY M. NOELL PROJ. ENGR. J. LOGAN APPROVED	TITLE	
APPROVED	CENM	FIRE PROTECTION ENGR. APPROVED	CONTENTS	
APPROVED	PROGRAM MANAGER	SAFETY REPRESENTATIVE APPROVED	TELECOM / SECURITY LEGEND	
APPROVED		DIR. BASE MED. SERVICE APPROVED	APPROVED	
APPROVED		USING AGENCY APPROVED	DATE APR 2019 JULY 2018	
APPROVED		COMMUNICATIONS APPROVED	SCALE	
INDEX NO.		OPERATIONS ENGINEERING APPROVED	DEPUTY BASE CIVIL ENGINEER	
TY-001		ENVIRONMENTAL APPROVED	PROJ. NO. 17AA	DRAWING NO. TY00117AA
		SPEC. NO.	PROJ. NO. FTFA 17-1050	FILE NO.
				SHEET 81 OF 86

OF WORK AREA
A BOUNDARY

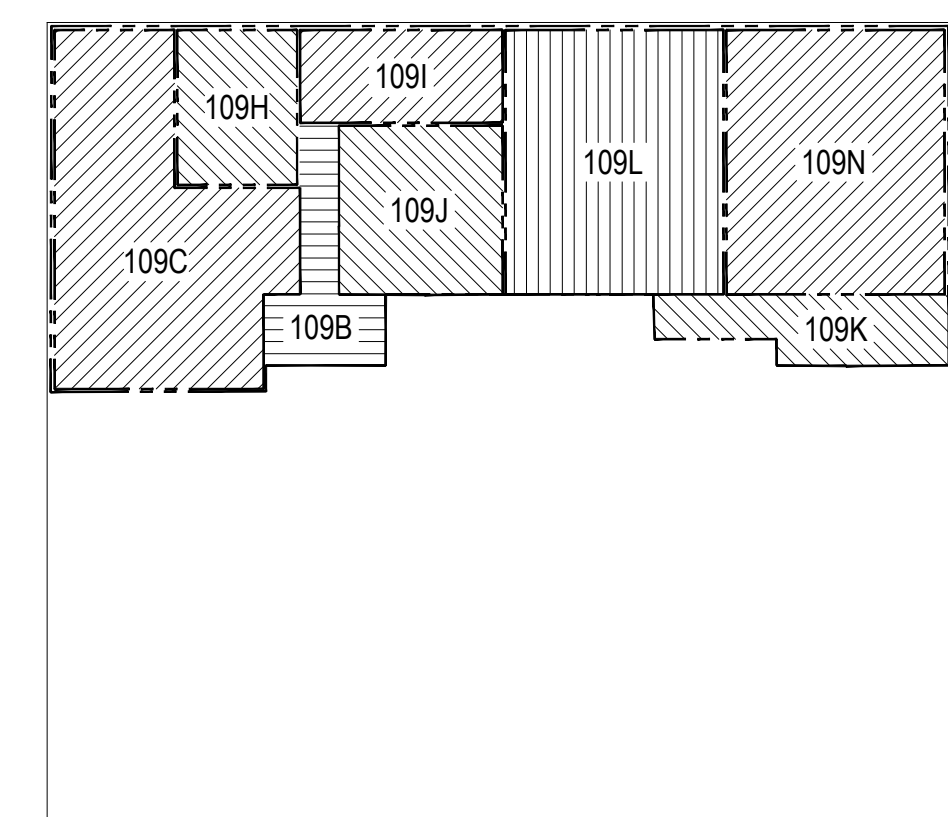
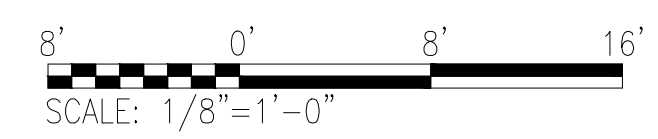


- NOTES:
 1. PROVIDE BUSHINGS ON ALL CONDUIT ENDS
 2. INSTALL PULLSTRING IN EMPTY CONDUITS.
 3. 4" CONDUITS ARE REQUIRED.

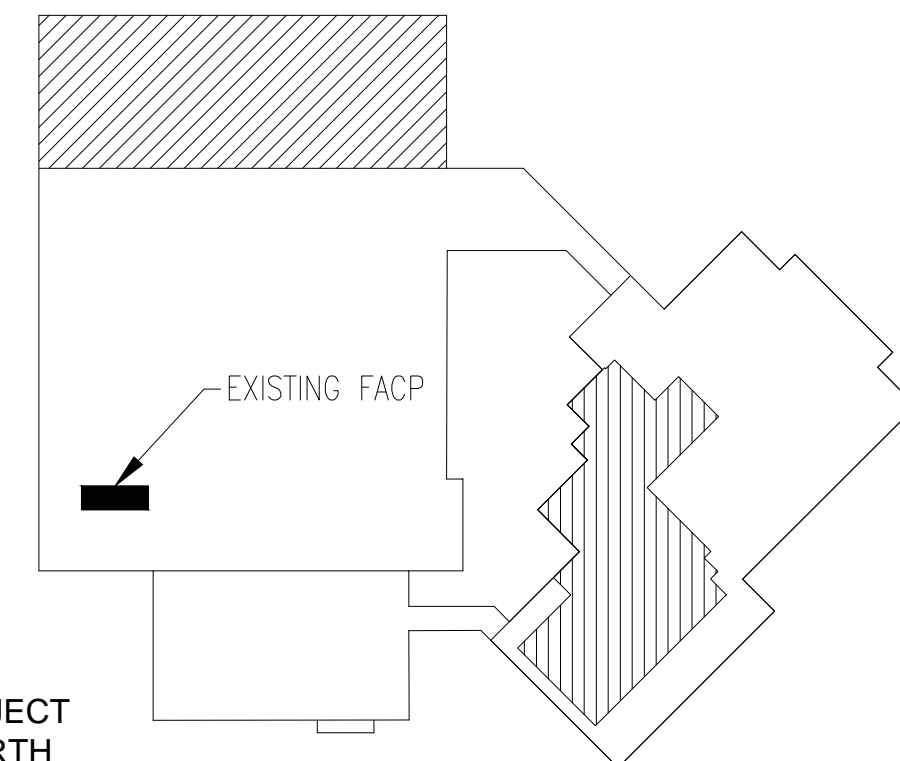
**BID ITEM 'C'
 FIRST FLOOR -
 NEW WORK FLOOR PLAN**



1
 TY-110 SCALE: 1/8"=1'-0"



KEY PLAN - SECURED AREAS
 NOT TO SCALE



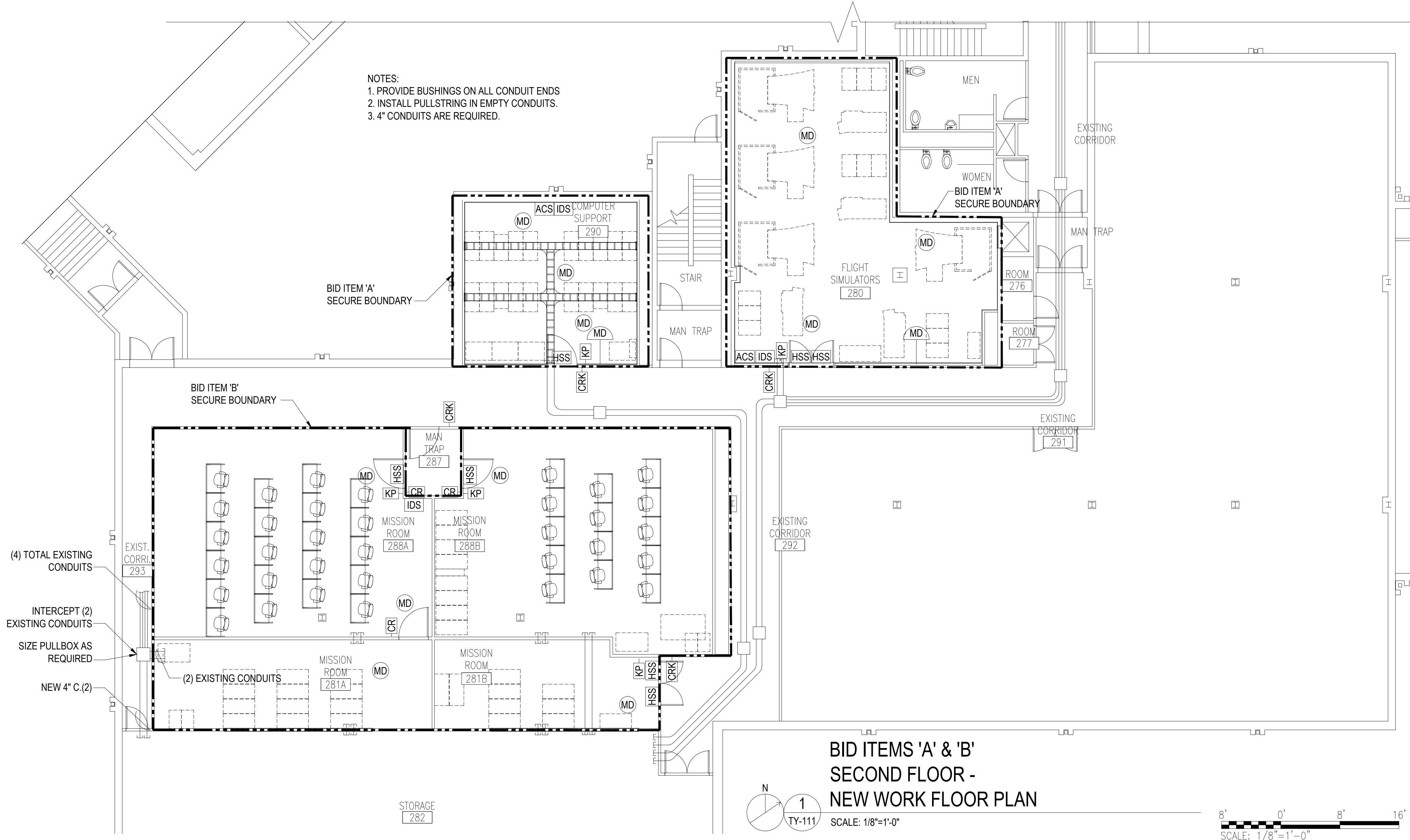
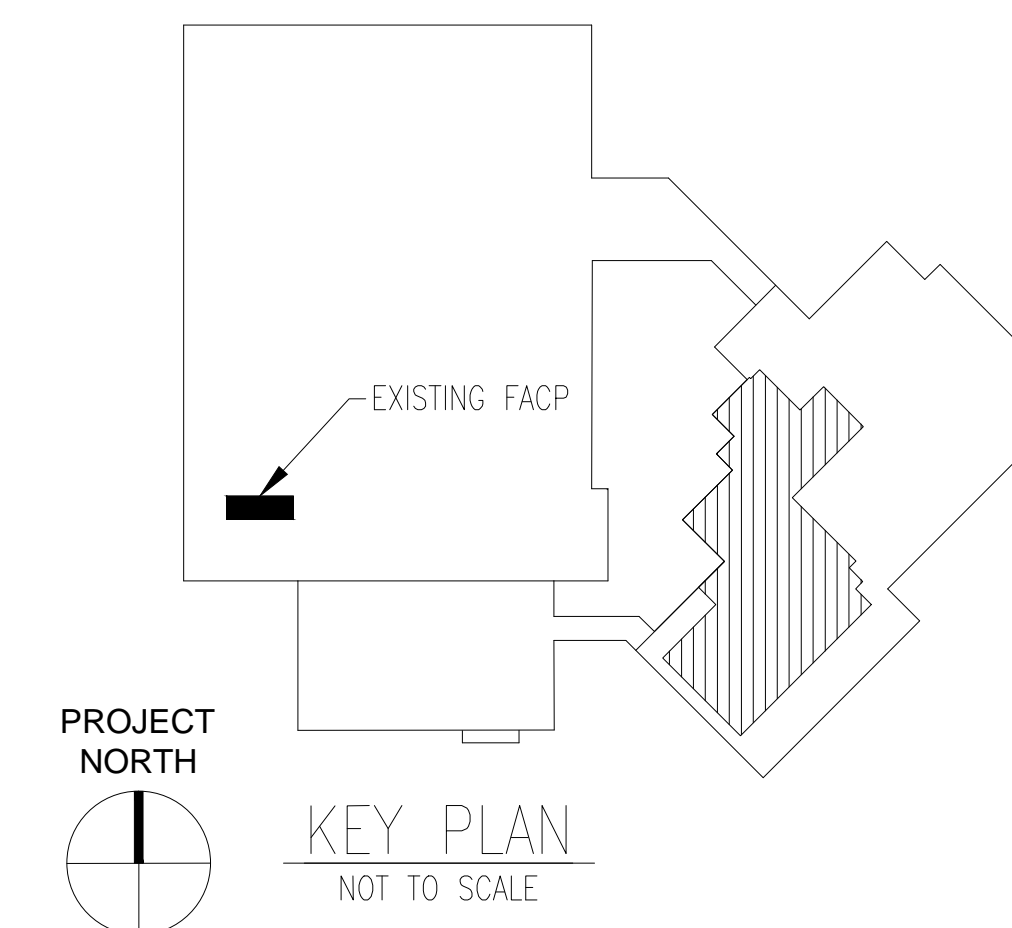
PROJECT NORTH
 KEY PLAN
 NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT		DRAWN BY <u>M. ROSENBLUTZ</u> PROJ. ENGR. <u>D. MULLER</u> APPROVED _____ FIRE PROTECTION ENGR. APPROVED _____ SAFETY REPRESENTATIVE APPROVED _____ DIR. BASE MED. SERVICE APPROVED _____ USING AGENCY APPROVED _____ COMMUNICATIONS APPROVED _____ OPERATIONS ENGINEERING APPROVED _____ ENVIRONMENTAL SPEC. NO. <u>17AA</u>	MODIFY CONTROL ROOMS BLDG 380	
DATE _____ SIGNATURE _____ APPROVED _____ CENM APPROVED _____ PROGRAM MANAGER _____		TITLE _____ CONTENTS FIRST FLOOR - TELECOM/SECURITY NEW WORK FLOOR PLAN - BID ITEM C	APPROVED _____ DATE <u>APR 2019</u> 96 CEG/CEN <u>JULY 2018</u> APPROVED _____ SCALE _____ DEPUTY BASE CIVIL ENGINEER	
INDEX NO. <u>TY-110</u>		PROJ. NO. <u>FTFA 17-1050</u> DRAWING NO. <u>TY11017AA</u> FILE NO. _____	SHEET <u>83</u> OF <u>86</u>	

REFER TO SHEET TY-110 FOR CONTINUATION

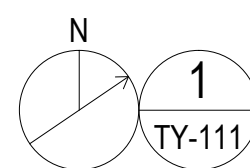
PULL BOX SIZING CRITERIA				
CONDUIT SIZE	WIDTH (IN)	LENGTH (IN)	DEPTH (IN)	WIDTH INCREASE FOR ADDITIONAL CONDUIT
1	4	16	3	2
1-1/4	6	20	3	3
1-1/2	8	27	4	4
2	8	36	4	5
2-1/2	10	42	5	6
3	12	48	5	6
3-1/2	12	54	6	6
4	15	60	8	8

NOTES:
 1. PROVIDE BUSHINGS ON ALL CONDUIT ENDS
 2. INSTALL PULLSTRING IN EMPTY CONDUITS.
 3. 4" CONDUITS ARE REQUIRED.

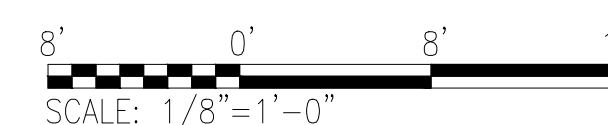


(4) TOTAL EXISTING CONDUITS
 INTERCEPT (2) EXISTING CONDUITS
 SIZE PULLBOX AS REQUIRED
 NEW 4" C.(2)

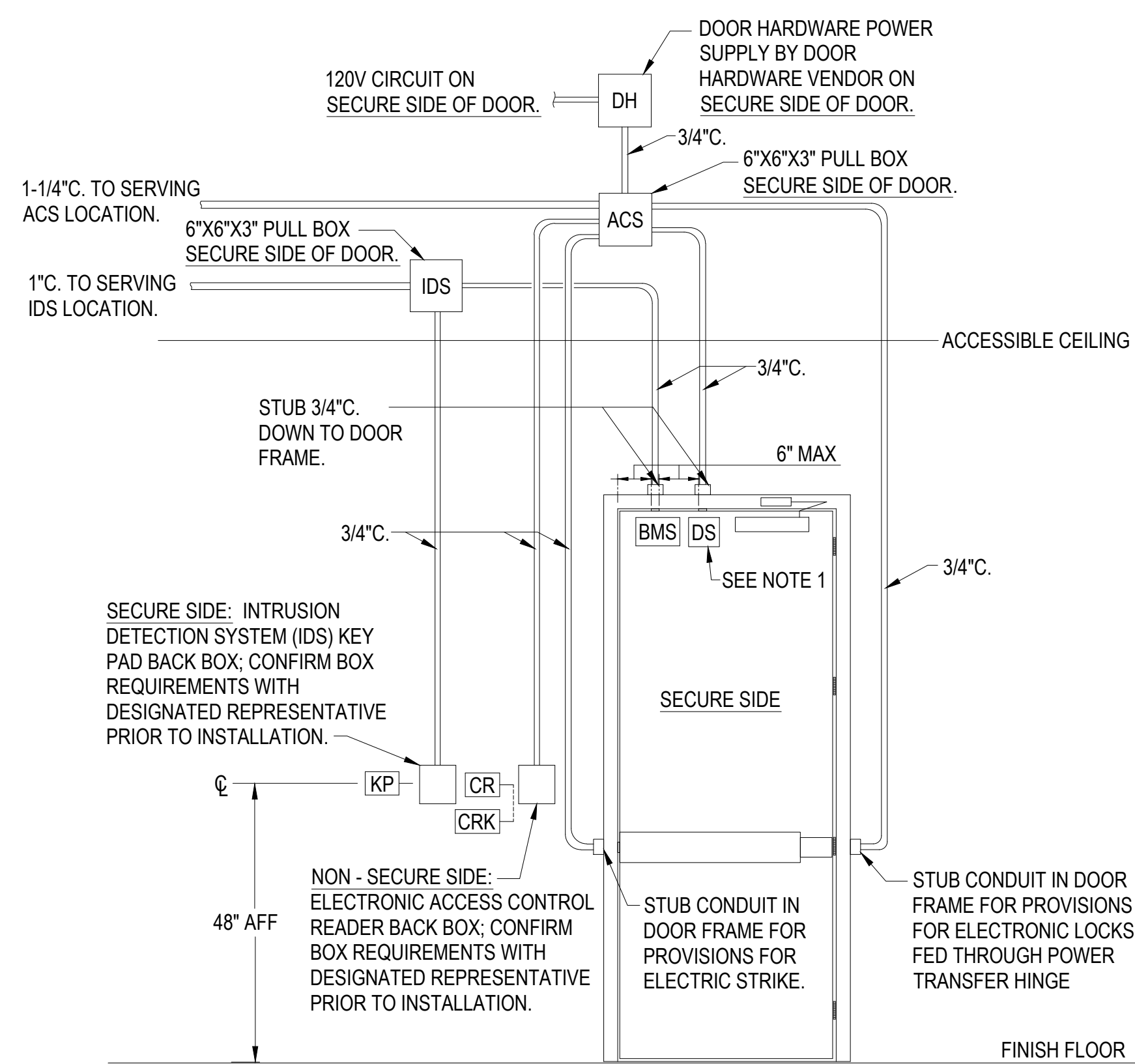
**BID ITEMS 'A' & 'B'
 SECOND FLOOR -
 NEW WORK FLOOR PLAN**



SCALE: 1/8"=1'-0"



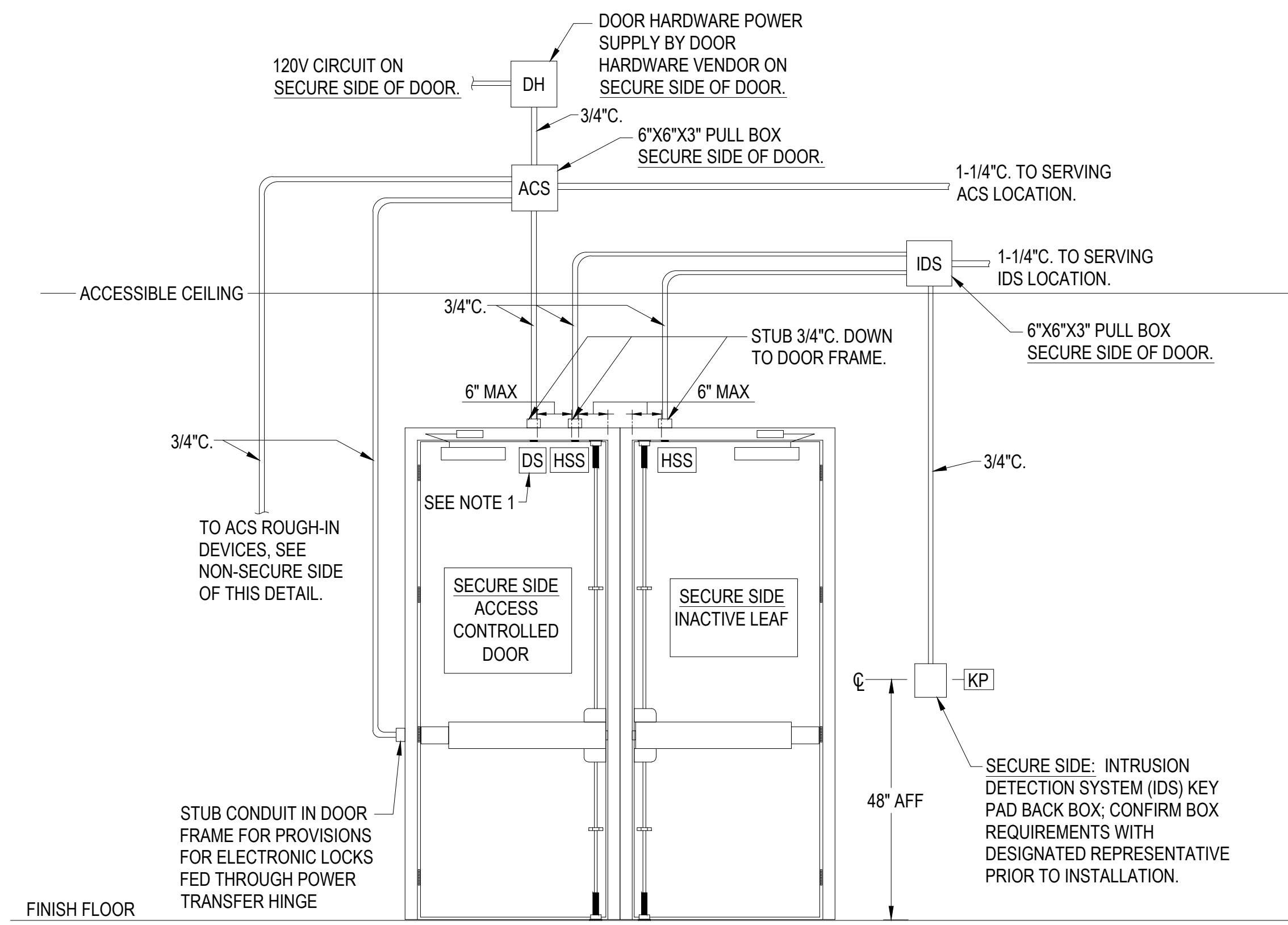
REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT DATE _____ SIGNATURE _____ APPROVED _____ CENM APPROVED _____ PROGRAM MANAGER _____		DRAWN BY M. NOELL PROJ. ENGR. J. LOGAN APPROVED _____ FIRE PROTECTION ENGR. APPROVED _____ SAFETY REPRESENTATIVE APPROVED _____ DIR. BASE MED. SERVICE APPROVED _____ USING AGENCY APPROVED _____ COMMUNICATIONS APPROVED _____ OPERATIONS ENGINEERING APPROVED _____ ENVIRONMENTAL SPEC. NO. 17AA		
INDEX NO. TY-111		MODIFY CONTROL ROOMS BLDG 380 CONTENTS SECOND FLOOR - TELECOM/SECURITY NEW WORK FLOOR PLAN - BID ITEMS A & B		
APPROVED _____ OPERATIONS ENGINEERING APPROVED _____ ENVIRONMENTAL APPROVED _____		APPROVED _____ 96 CEG/CEN APPROVED _____ DEPUTY BASE CIVIL ENGINEER APPROVED _____		
PROJ. NO. FTFA 17-1050 DRAWING NO. TY1117AA FILE NO. _____		DATE APR 2019 SCALE _____ SHEET 84 OF 86		



- NOTES:
1. ACS DOOR POSITION SWITCH (NOT SHOWN ON PLANS FOR CLARITY).
 2. DOOR HARDWARE PROVIDED BY DOOR HARDWARE VENDOR.
 3. ALL NOTED CONDUIT IS CONCEALED.
 4. ALL NOTED ACCESSIBLE PULL BOXES AND BACK BOXES (THIS DETAIL) ARE LOCATED ON SECURE SIDE OF DOOR.
 5. AS A MINIMUM, PROVIDE PULLBOX EVERY 100' OF INTERIOR CONDUIT RUNS.

SECURITY DOOR ROUGH-IN DETAIL SINGLE DOOR

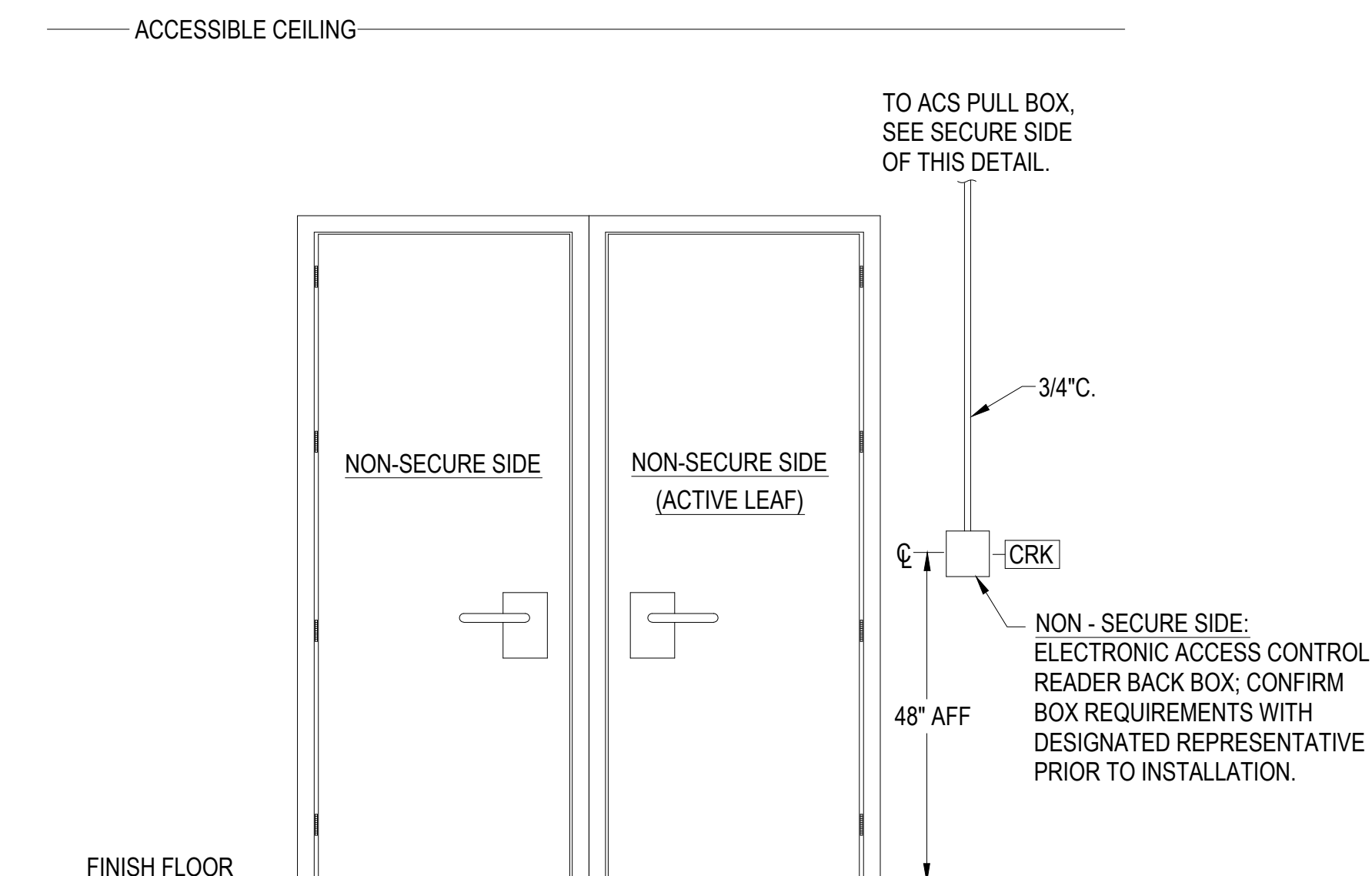
1 NOT TO SCALE



- NOTES:
1. ACS DOOR POSITION SWITCH (NOT SHOWN ON PLANS FOR CLARITY).
 2. ALL NOTED CONDUIT IS CONCEALED.
 3. ALL NOTED ACCESSIBLE PULL BOXES AND BACK BOXES (THIS DETAIL) ARE LOCATED ON SECURE SIDE OF DOOR.
 4. AS A MINIMUM, PROVIDE PULLBOX EVERY 100' OF INTERIOR CONDUIT RUNS.

SECURITY DOOR ROUGH-IN DETAIL DOUBLE DOOR (SECURE SIDE)

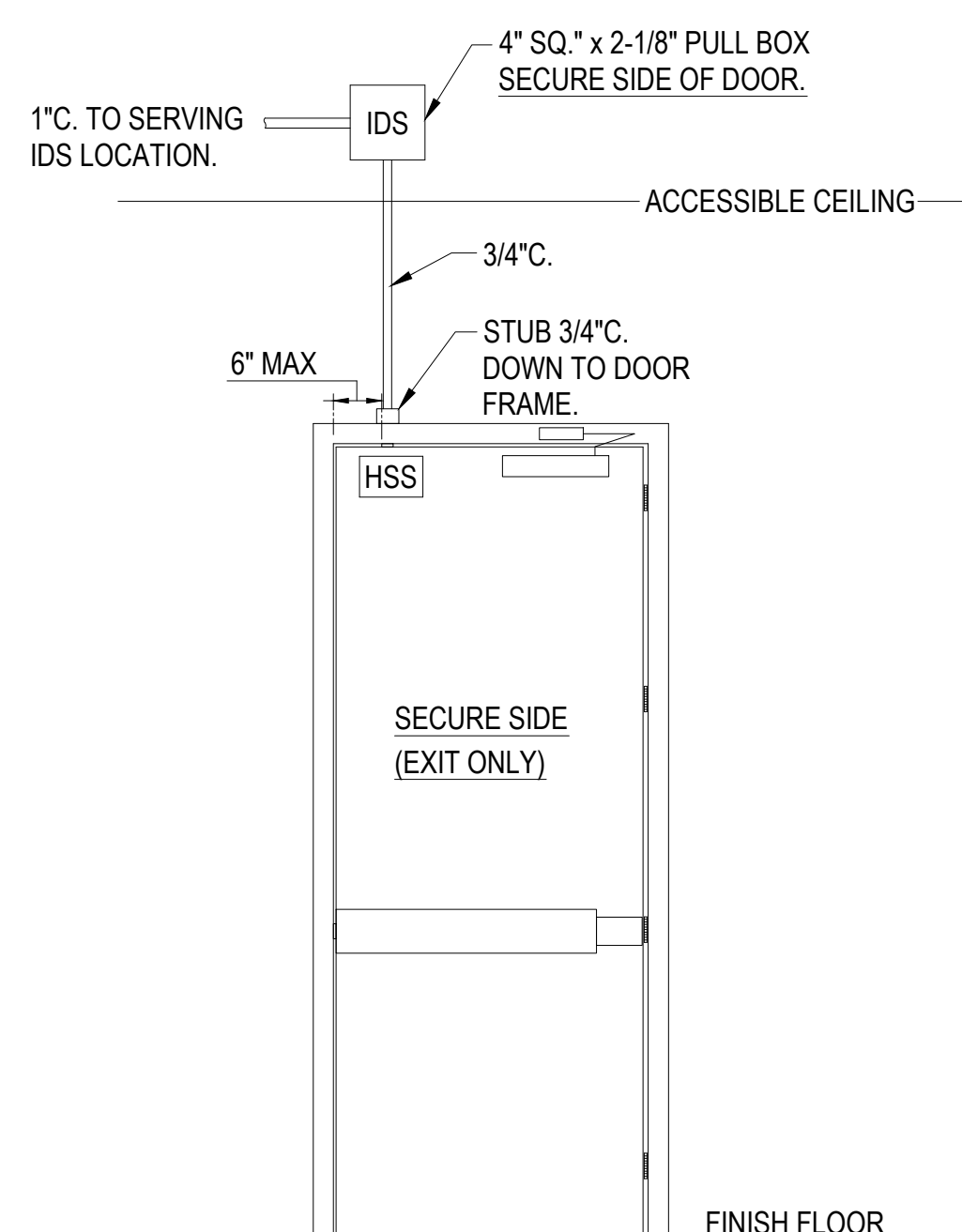
2 NOT TO SCALE



- NOTES:
1. ALL NOTED CONDUIT IS CONCEALED.
 2. ALL NOTED BACK BOXES (THIS DETAIL) ARE LOCATED ON NON-SECURE SIDE OF DOOR.

SECURITY DOOR ROUGH-IN DETAIL DOUBLE DOOR (NON-SECURE SIDE)

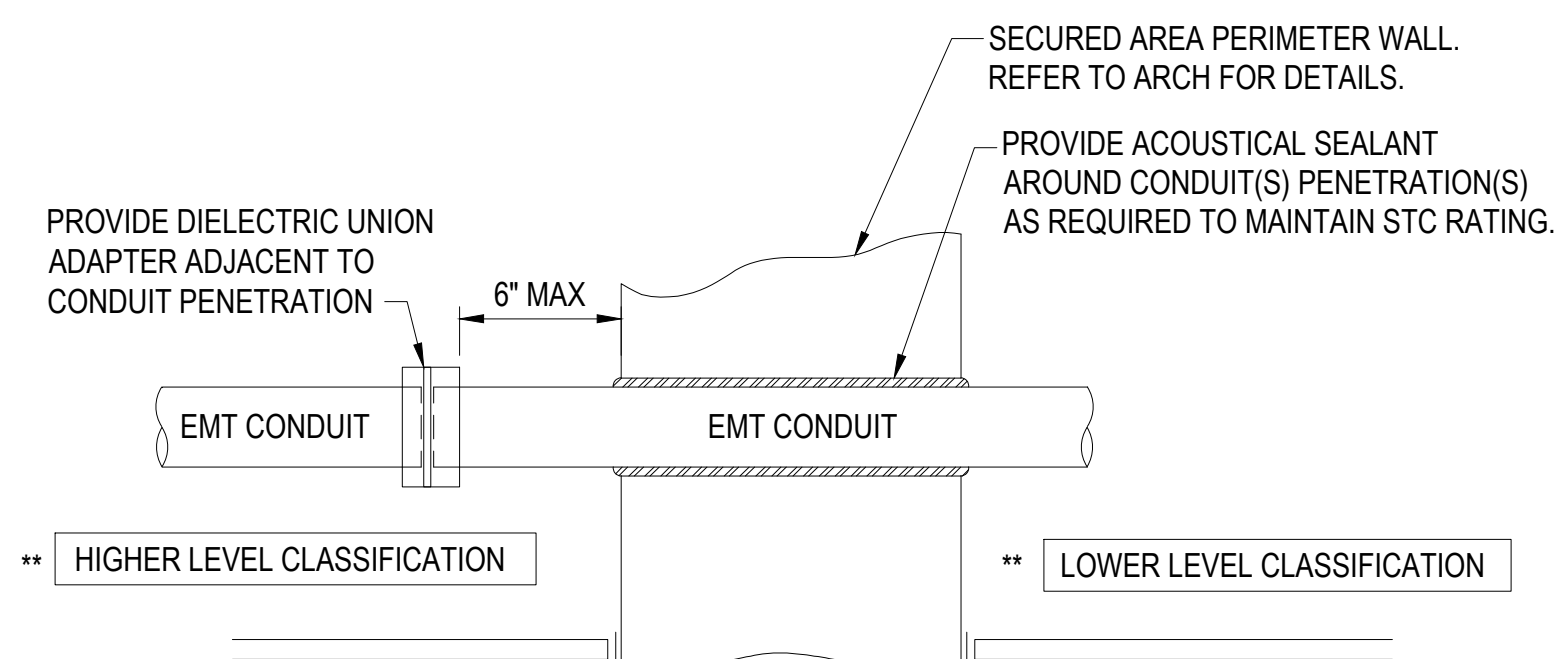
3 NOT TO SCALE



- NOTES:
1. ALL NOTED CONDUIT IS CONCEALED.
 2. ALL NOTED ACCESSIBLE PULL BOXES ARE LOCATED ON SECURE SIDE OF DOOR.
 3. AS A MINIMUM, PROVIDE PULLBOX EVERY 100' OF INTERIOR CONDUIT RUNS.

SECURITY DOOR ROUGH-IN DETAIL SINGLE DOOR (EXIT ONLY)

4 NOT TO SCALE



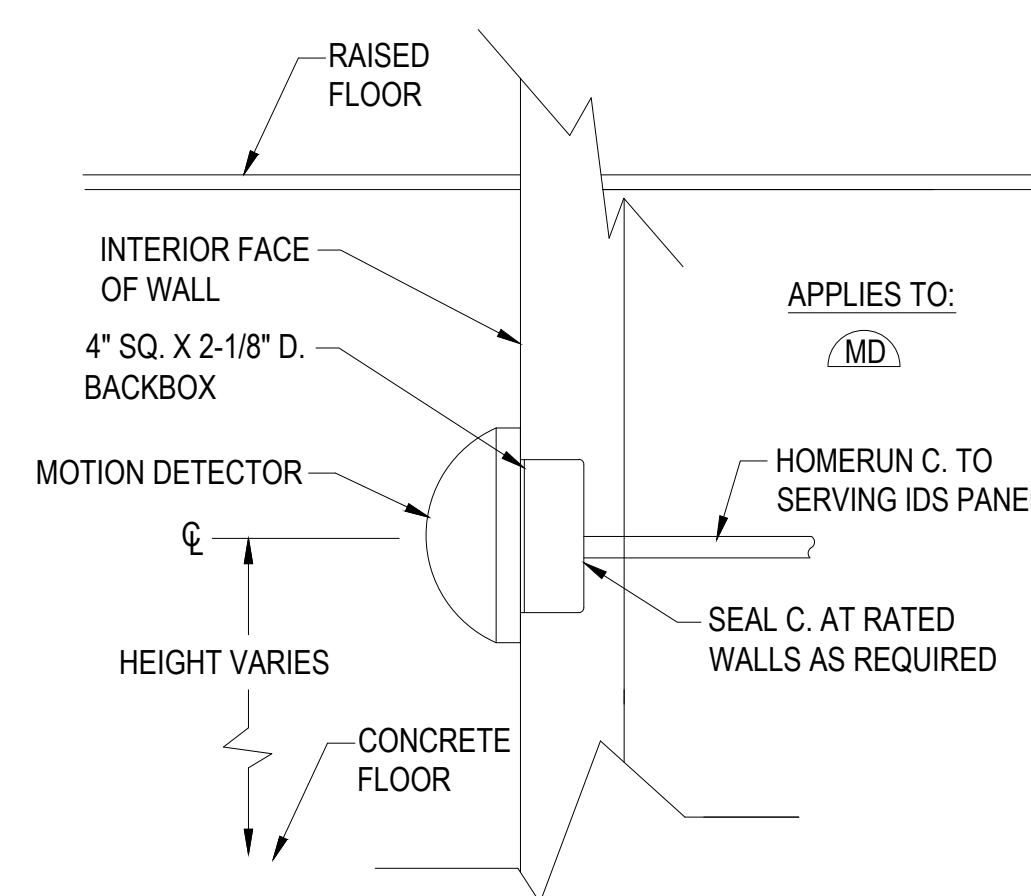
NOTE: PROVIDE ISOLATION FOR ALL ABOVE GROUND METALLIC CONDUITS ENTERING/LEAVING SECURED PERIMETERS. PROVIDE A DIELECTRIC UNION INSIDE THE SECURED AREA PERIMETER ADJACENT TO THE PENETRATION.

** THERE ARE NUMEROUS INSTANCES OF HIGHER LEVEL CLASSIFICATION REVERSING BETWEEN ADJACENT ROOMS IN THE ROOM 109 SUITE - PLAN ON HAVING DIELECTRIC UNION ADAPTERS ON BOTH SIDES OF THESE WALLS.

REFER TO ARCHITECTURAL FOR SECURE AREA BOUNDARIES.

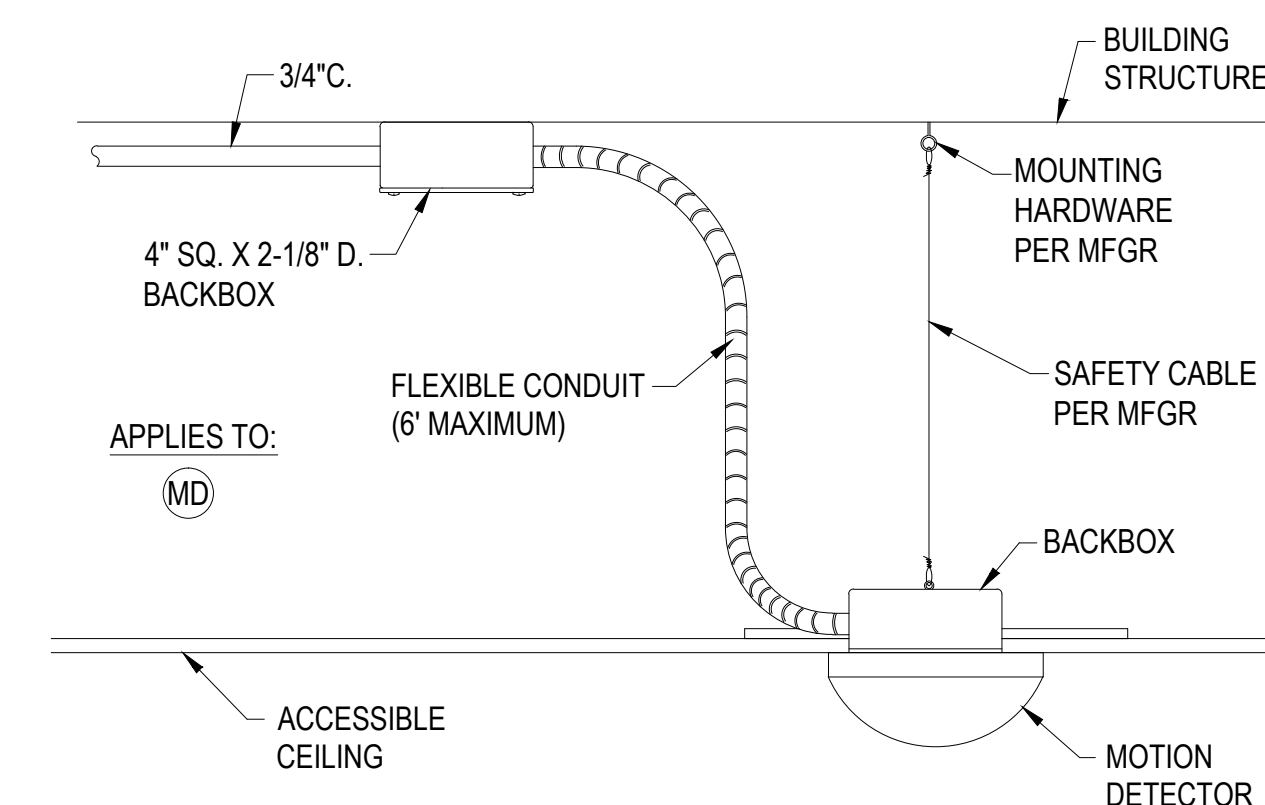
DIELECTRIC ISOLATION DETAIL - DIELECTRIC UNION ADAPTER

5 NOT TO SCALE



MOTION DETECTOR WALL MOUNT DETAIL

6 NOT TO SCALE



MOTION DETECTOR CEILING MOUNT DETAIL

7 NOT TO SCALE

REVISION	DATE	DESCRIPTION	BY	APPR'D
BASE CIVIL ENGINEER EGLIN AIR FORCE BASE, FLORIDA				
AS-BUILT			MODIFY CONTROL ROOMS BLDG 380	
DATE		TITLE		
SIGNATURE		DRAWN BY M. NOELL		
APPROVED		PROJ. ENGR. J. LOGAN		
CENM		APPROVED		
APPROVED		FIRE PROTECTION ENGR.		
PROGRAM MANAGER		SAFETY REPRESENTATIVE		
		APPROVED		
		DIR. BASE MED. SERVICE		
		APPROVED		
		USING AGENCY		
		APPROVED		
		COMMUNICATIONS		
		APPROVED		
		OPERATIONS ENGINEERING		
		APPROVED		
INDEX NO.		ENVIRONMENTAL		
TY-201		DEPUTY BASE CIVIL ENGINEER		
SPEC. NO.		PROJ. NO.		
17AA		FTFA 17-1050		
		DRAWING NO.		
		TY20117AA		
		FILE NO.		
		SCALE		
		DATE		
		APR 2019		
		SHEET		
		85 OF 86		