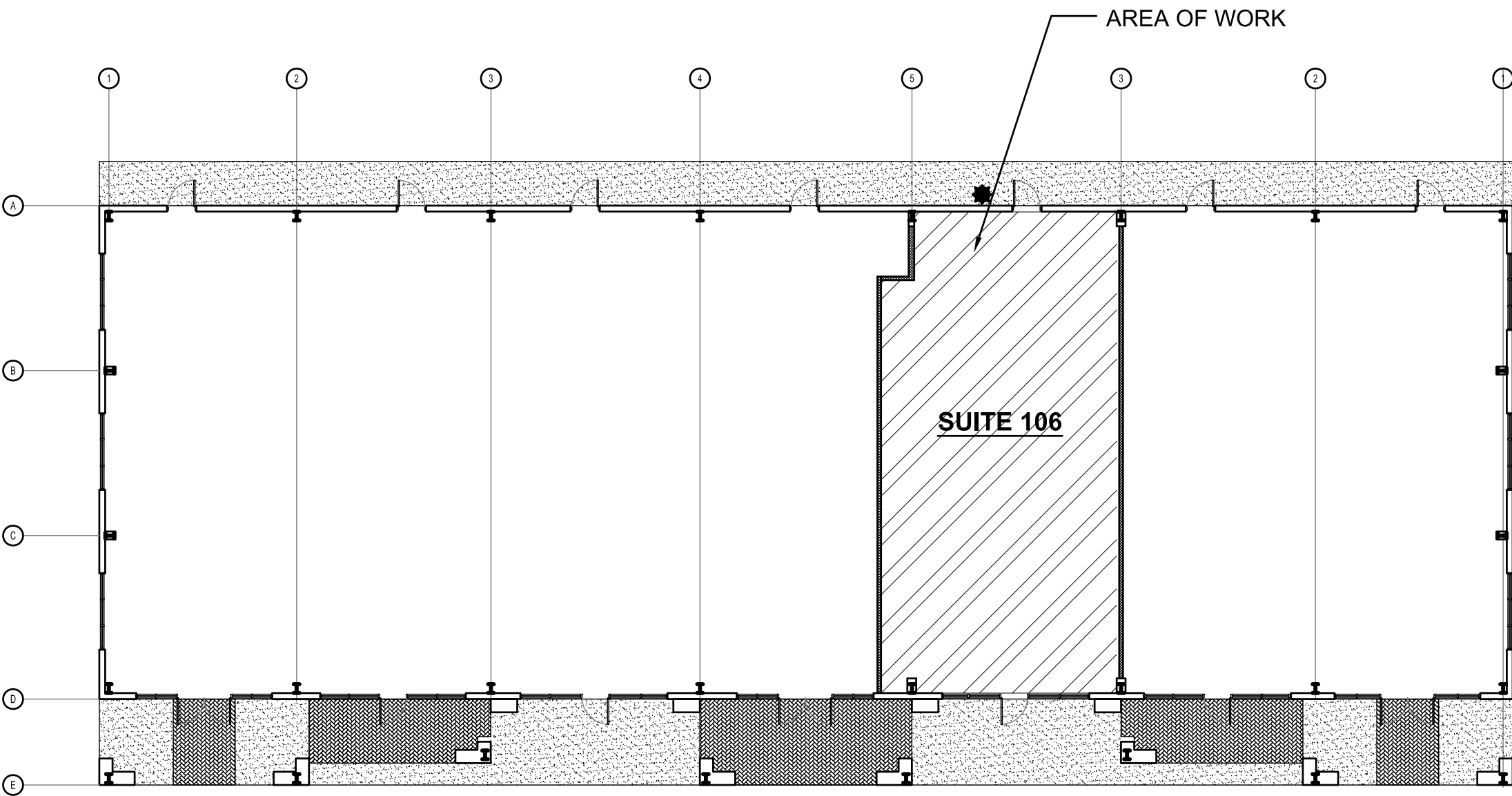


INTERIOR ALTERATION

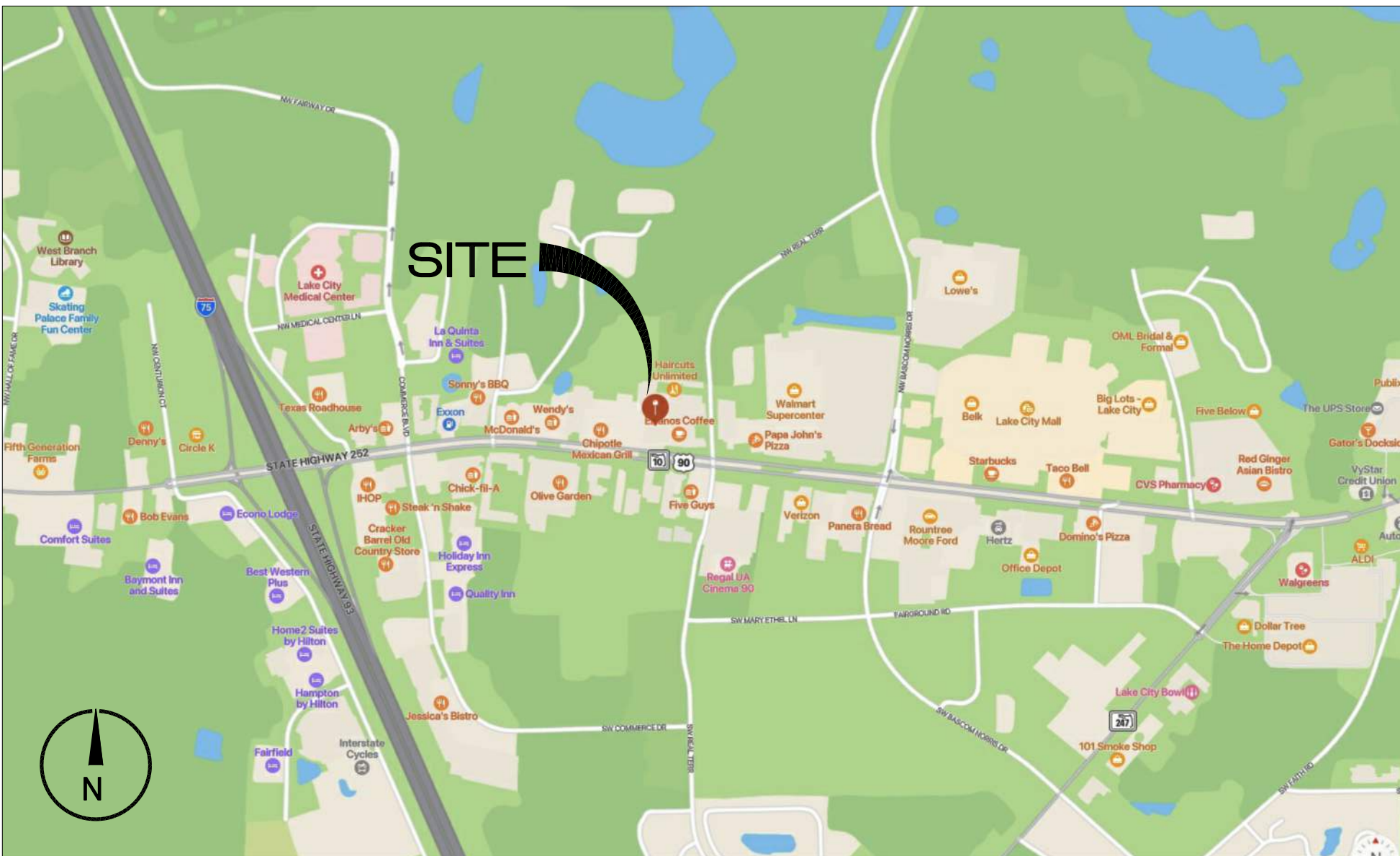
2929 W. US HWY 90, Suite 106
Lake City, Florida, 32055

COLUMBIA COUNTY

BUILDING KEY PLAN:



VICINITY MAP:



PROJECT INFORMATION:

CODES:
FLORIDA BUILDING CODE BUILDING, 7th EDITION 2020
FLORIDA BUILDING CODE ACCESSIBILITY, 7th EDITION 2020
FLORIDA BUILDING CODE ENERGY CONSERVATION, 7th EDITION 2020
FLORIDA BUILDING CODE EXISTING BUILDING, 7th EDITION 2020
FLORIDA BUILDING CODE MECHANICAL, 7th EDITION 2020
FLORIDA BUILDING CODE PLUMBING, 7th EDITION 2020
FLORIDA FIRE PREVENTION CODE, 2020 EDITION
LIFE SAFETY CODE N.F.P.A. 101, 2018 EDITION W/ FLORIDA AMENDMENTS
NATIONAL ELECTRICAL CODE (NEC), 2017 EDITION (NFPA 70)

OCCUPANCY:
"B" BUSINESS

OCCUPANT LOAD
OFFICE : 1,498 s.f. / 150= 9.98.....10 OCCUPANTS

TYPE OF CONSTRUCTION:
TYPE IIB, UNPROTECTED, SPRINKLERED
ALTERATION TYPE : LEVEL 2

BUILDING AREA:
EXISTING BUILDING AREA..... 9,016 sq.ft.
PROPOSED LEASE SPACE..... 1,498 sq.ft.

STRUCTURAL DESIGN CRITERIA:
BASIC WIND SPEED.....140 mph (3 SEC. GUST)
Use coefficients from Chapter 16 F.B.C.
IMPORTANCE FACTOR.....1 EXPOSURE.....C
COMPONENTS AND CLADDING MAXIMUM DESIGN WIND

(including doors and windows).....+22.9 psf, -27.8 psf
FOUNDATION DESIGN BASED ON ALLOWABLE SOIL BEARING
PRESSURE OF 2000 psf.

PLUMBING FIXTURES ANALYSIS

(BASED ON OCCUPANT LOAD OF 10 OCCUPANTS)

WC FIXTURES: 1 PER 25 FOR FIRST 50 THEN 1 PER 50 FOR REMAINDER:
TOTAL REQUIRED..... 1 FIXTURE
TOTAL PROVIDED..... 1 FIXTURE

LAVATORIES: 1 PER 40 FOR FIRST 80 THEN 1 PER 80 REMAINDER:
TOTAL REQUIRED..... 1 FIXTURE
TOTAL PROVIDED..... 1 FIXTURE

DRINKING FOUNTAIN 1 PER 100:
TOTAL REQUIRED..... 1 FIXTURES
TOTAL PROVIDED..... 2 FIXTURES

PROJECT TEAM:

TENANT:
CENTURY STUDIOS
2941 W. HWY 90, SUITE 106
LAKE CITY, FLORIDA, 32055

ARCHITECT:
HARTER - ADAMS P.A.
377 MAITLAND AVE., SUITE 2010
ALTAMONTE SPRINGS, FL 32701
PHONE: (407) 647-5767
CONTACT: TOM ADAMS

ELECTRICAL ENGINEER:
BALANCE IN DESIGN, INC.
1922 ROWENA AVENUE
ORLANDO, FL 32803
PHONE: (407) 230-4831
CONTACT: JULIE WHITLEY

DRAWING INDEX:

A0.0 COVER SHEET/ INDEX/ INFORMATION
ARCHITECTURAL SITE PLAN

A0.1 LIFE SAFETY PLAN

A2.1 DEMOLITION & PROPOSED FLOOR
PLANS, SCHEDULES & DETAILS

A3.1 REFLECTED CEILING PLAN

M1.0 MECHANICAL PLAN & DETAILS

E1.0 ELECTRICAL LEGEND & NOTES

E1.0 ELECTRICAL PLAN & PANEL SCHEDULE

E1.0 ELECTRICAL SPECIFICATIONS

DRAWING SYMBOLS:

SYMBOL	DESCRIPTION
	NORTH ARROW
	2a 10b c FIRE EXTINGUISHER, 5lb.
	DRAWING TITLE
	DOOR NUMBER
	DIMENSION TO FACE
	EXISTING STEEL FRAMING/ CMU/ STUD WALL
	EXISTING TENANT SEPARATION WALL TO ROOF DECK
	PROPOSED DEMOLITION
	PROPOSED 1 HOUR RATED WALL TO ROOF DECK
	PROPOSED METAL FRAME WALL TO 48" A.F.F.
	PROPOSED METAL STUD PARTITION
	WALL SECTION
	ROOM NAME
	REVISION AREA AND SYMBOL

NOTE: NOT ALL SYMBOLS LISTED ARE PART OF
THIS PROJECT.

PROJECT SUMMARY:

THE SCOPE OF WORK INDICATED ON THESE DRAWINGS IS AN INTERIOR ALTERATION TO A SPACE LOCATED WITHIN AN EXISTING SINGLE STORY PRE-ENGINEERED METAL/ MASONRY BUILDING. WORK SHALL CONSIST OF SOME MINIMAL DEMOLITION AND THE CONSTRUCTION OF NEW PARTITIONS AS NOTED ON PLANS. THE OCCUPANCY AND USE SHALL BE "B" BUSINESS. ALL MECHANICAL AND ELECTRICAL SCOPES SHALL BE NOTED ON THEIR RESPECTIVE PLANS.

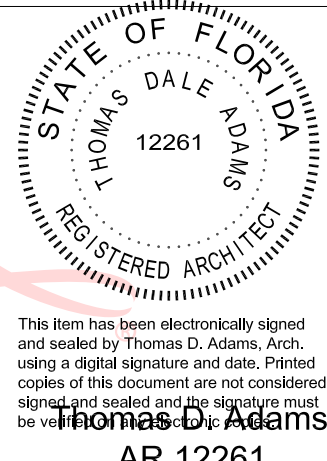
PROVIDE FIRE EXTINGUISHERS HAVING A MINIMUM RATING OF A-10B-C FOR EVERY 3000 SQUARE FEET OF FLOOR AREA. TRAVEL DISTANCE TO AN EXTINGUISHER SHALL NOT EXCEED 75 FEET. MOUNT AT 33-1/2" A.F.F. INSTALLED IN APPROPRIATE LOCATIONS AS DIRECTED BY FIRE MARSHALL TO MEET LOCAL CODES.

LEGAL DESCRIPTION:

PARCEL ID:
35-35-16-02585-006

LEGAL DESCRIPTION:
COMM INTERS OF N R/W U S 90 & E BNDRY OF BROOKSIDE S/D, RUN SE ALONG R/W 275.03 FT FOR POB, RUN N 464.44 FT, EAST 342.21 FT TO W R/W OF NW REAL TERR, S ALONG R/W 69.55 FT, W 156.62 FT, S 400.33 FT TO N R/W OF U S HWY 90, NW ALONG R/W 240.04 FT TO POB (2.51 AC PARCEL FROM SURVEY BEING PART OF ORB 1014-1883-1920) & SWD 1261-668

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by Thomas D
Adams
Date: 2022.01.18
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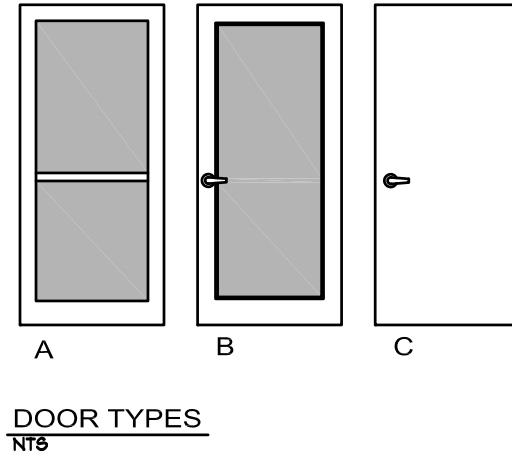


LEGEND

- 3 DOOR NUMBER
- EXISTING CMU/ STUD WALL
- EXISTING RATED TENANT SEPARATION WALL
- PROPOSED DEMOLITION
- PROPOSED METAL STUD PARTITION
- ADJACENT TENANT-NOT PART OF SCOPE

DOOR SCHEDULE

NO	TYPE	SIZE	DESCRIPTION	FRAME	HARDWARE	NOTES
1	A	3'-0" x 7'-0"	THICKNESS 8" G. WOOD-PAINTED ALUMINUM-CLAD GLASS	ALUMINUM	3 BUTTS 45 x 45 SS. 3 BUTTS 3 1/2 x 3 1/2	1. ALL LOCKSETS SHALL BE LEVER HANDLE SCLAGE "SATURN" COMMERCIAL DUTY. 2. HARDWARE FINISH US260 3. HINGES HAGER OR EQUAL
2	C	3'-0" x 7'-0"	HOLLOW METAL STOREFRONT OVERHEAD ROLL-UP	ALUMINUM	PULL CHAIN HOIST	LOCKETS SHALL NOT REQUIRE USE OF KEY, TOOL OR SPECIAL KNOWLEDGE OR EFFORT FOR OPERATION FROM EGRESS SIDE.
3	B	3'-0" x 6'-8"	BI-FOLD HOLLOW METAL DRYWALL	ALUMINUM	DOOR STOP	EXISTING
4	B	3'-0" x 6'-8"	BI-FOLD HOLLOW METAL DRYWALL	ALUMINUM	WEATHER STRIP	NEW
5	B	3'-0" x 6'-8"	BI-FOLD HOLLOW METAL DRYWALL	ALUMINUM	PANIC HARDWARE	NEW
6	B	3'-0" x 6'-8"	BI-FOLD HOLLOW METAL DRYWALL	ALUMINUM	PASSAGE	NEW
7	C	3'-0" x 6'-8"	BI-FOLD HOLLOW METAL DRYWALL	ALUMINUM	LOCKSET	NEW
8	C	3'-0" x 6'-8"	BI-FOLD HOLLOW METAL DRYWALL	ALUMINUM	DEAD BOLT	RELOCATED

DOOR TYPES
NTS

FINISH SCHEDULE

DESCRIPTION	FLOOR	BASE	WALLS	CLG	HT.	NOTES
LOBBY	WOOD LAMINATE	SEAL	CERAMIC TILE	CARPET	NONE	FINISH ON INTERIOR WALLS & CLG SHALL BE MINIMUM CLASS "C" PROVIDE PLYWOOD BACKING FOR ALL WALL MTD FIXTURES
OFFICES	WOOD LAMINATE	SEAL	CERAMIC TILE	CARPET	NONE	
CONFERENCE	WOOD LAMINATE	SEAL	CERAMIC TILE	CARPET	NONE	
WORK STATIONS	WOOD LAMINATE	SEAL	CERAMIC TILE	CARPET	NONE	
CORRIDOR	WOOD LAMINATE	SEAL	CERAMIC TILE	CARPET	NONE	
BREAK	WOOD LAMINATE	SEAL	CERAMIC TILE	CARPET	NONE	
TOILET	WOOD LAMINATE	SEAL	CERAMIC TILE	CARPET	NONE	

- ALL PAINT COLORS SHALL BE SELECTED BY TENANT AND INSTALLED BY CONTRACTOR.
- ALL FLOORING MATERIALS AND PAINT SHALL BE SELECTED BY TENANT AND INSTALLED BY CONTRACTOR.
- EXPOSED BEAMS SHALL BE PAINTED BY CONTRACTOR, COLOR SELECTED BY TENANT.
- ALL SIGNAGE AND ANCILLARY ITEMS SHALL BE PROVIDED BY TENANT AND INSTALLED BY CONTRACTOR.

DEMOLITION GENERAL NOTES

A. THIS SHEET INDICATES GENERALLY WHERE DEMOLITION OF EXISTING CONSTRUCTION IS TO OCCUR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL CONDITION. THE DEMOLITION SHOWN ON THIS SHEET IS NOT INTENDED TO LIMIT OR FULLY DEFINE THE SCOPE OF ITEMS TO BE DEMOLISHED NOR IS IT INTENDED TO REPRESENT ALL EXISTING FEATURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEYING THE AREA OF DEMOLITION PRIOR TO THE PREPARATION OF HIS BID TO OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUING DEMOLITION WHEN UNUSUAL CONDITIONS EXIST.

B. CONTRACTOR SHALL PATCH, CLEAN AND REPAIR ALL WORN OR DAMAGED SURFACES TO PREPARE FOR NEW CONSTRUCTION AND/ OR NEW FINISHES AFTER DEMOLITION.

C. REPAIR ANY DAMAGE TO WALLS THAT ARE TO REMAIN.

D. DEMOLITION OF MECHANICAL, ELECTRICAL AND PLUMBING ITEMS SHALL BE INDICATED ON THE DRAWINGS.

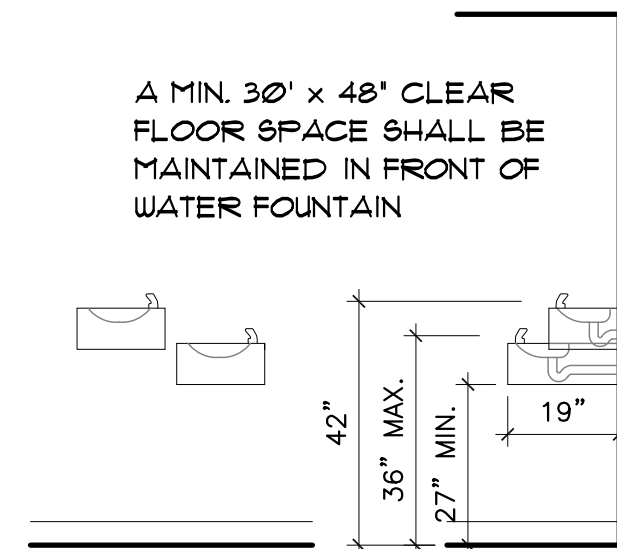
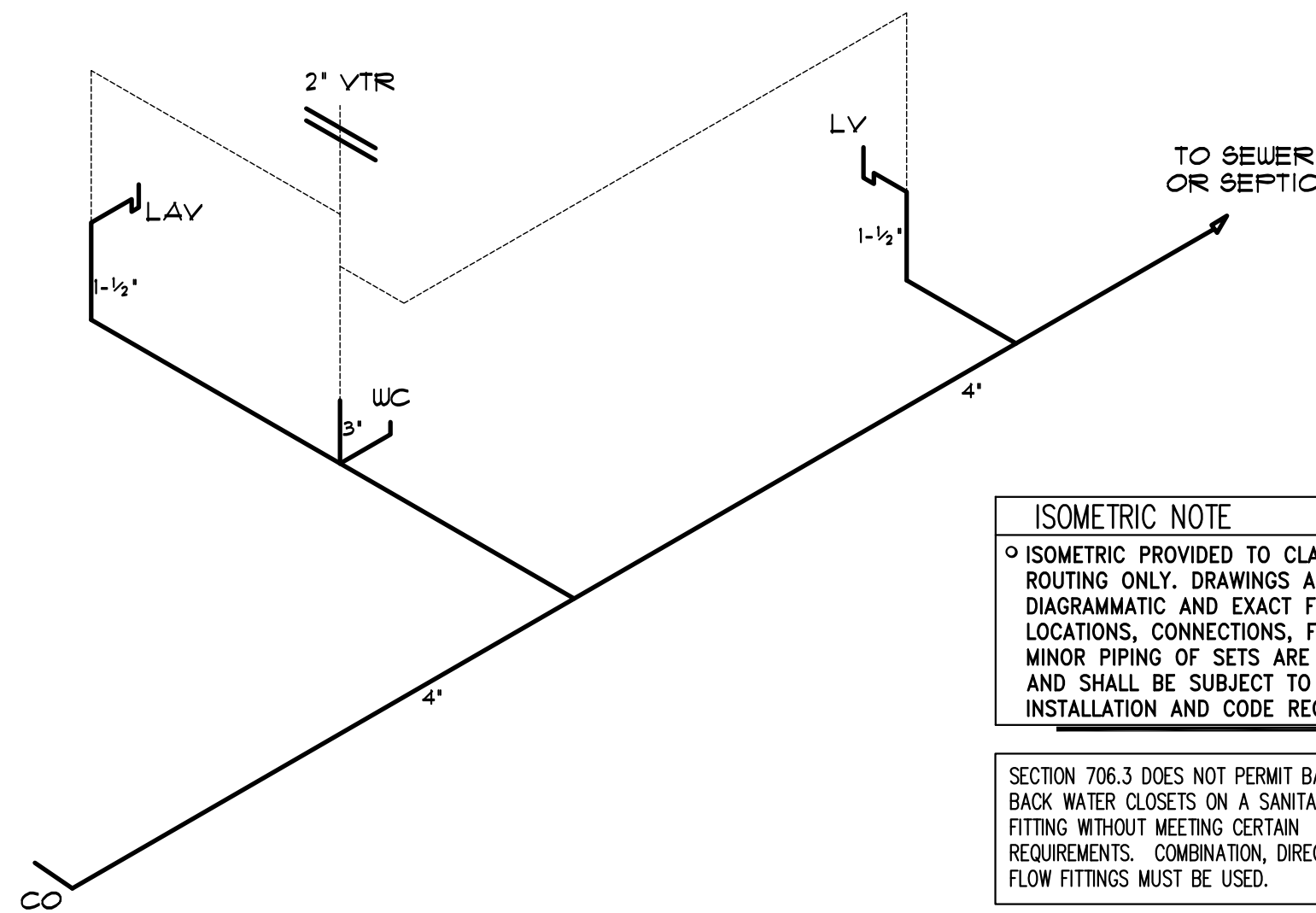
E. WHERE EXISTING WALL-MOUNTED DEVICES, FIXTURES OR OTHER ITEMS OCCUR ON WALLS SCHEDULED TO RECEIVE NEW FINISHES, THESE SHALL BE REMOVED AND STORED BY THE CONTRACTOR AND REINSTALLED AFTER THE NEW FINISHES ARE COMPLETE.

F. SPECIFIC DEMOLITION IS NOT INDICATED IN AREAS WHERE IT MAY BE NECESSARY TO DEMOLISH ALL OR A PORTION OF AN EXISTING BUILDING COMPONENT TO GAIN ACCESS TO AREAS FOR EXTENSION OR TIE-IN TO BUILDING SYSTEMS, OR WHICH MAY BE REQUIRED TO INSTALL NEW CONSTRUCTION. DEMOLITION FOR THESE PURPOSES SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER AND THESE AREAS SHALL BE RETURNED TO THE ORIGINAL CONDITION PRIOR TO BEGINNING CONSTRUCTION.

G. ALL ITEMS REMOVED BY DEMOLITION OPERATIONS SHALL BE THE PROPERTY OF THE CONTRACTOR UNLESS SPECIFICALLY INDICATED ON THESE DRAWINGS OR IDENTIFIED BY THE OWNER TO REMAIN OR BE RELOCATED. REMOVAL OF THESE ITEMS DEMOLISHED IS THE RESPONSIBILITY OF THE CONTRACTOR.

H. THE OWNER WILL IDENTIFY SPECIFIC ITEMS TO BE DEMOLISHED AND TURNED OVER FOR HIS USE. THESE IDENTIFIED ITEMS ARE TO BE REMOVED BY THE CONTRACTOR AND PROTECTING ITEM FROM DAMAGES DELIVERED TO A LOCATION AS DIRECTED BY THE OWNER.

I. CONTRACTOR SHALL IDENTIFY ANY STRUCTURAL ELEMENTS TO BE DEMOLISHED AND PROVIDE TEMPORARY SHORING, BRACING OR SUPPORT REQUIRED TO ASSURE STRUCTURAL STABILITY OF ALL ELEMENTS REMAINING UNTIL NEW STRUCTURAL SUPPORT IS COMPLETED.

4 WATER FOUNTAIN
SCALE: NTS

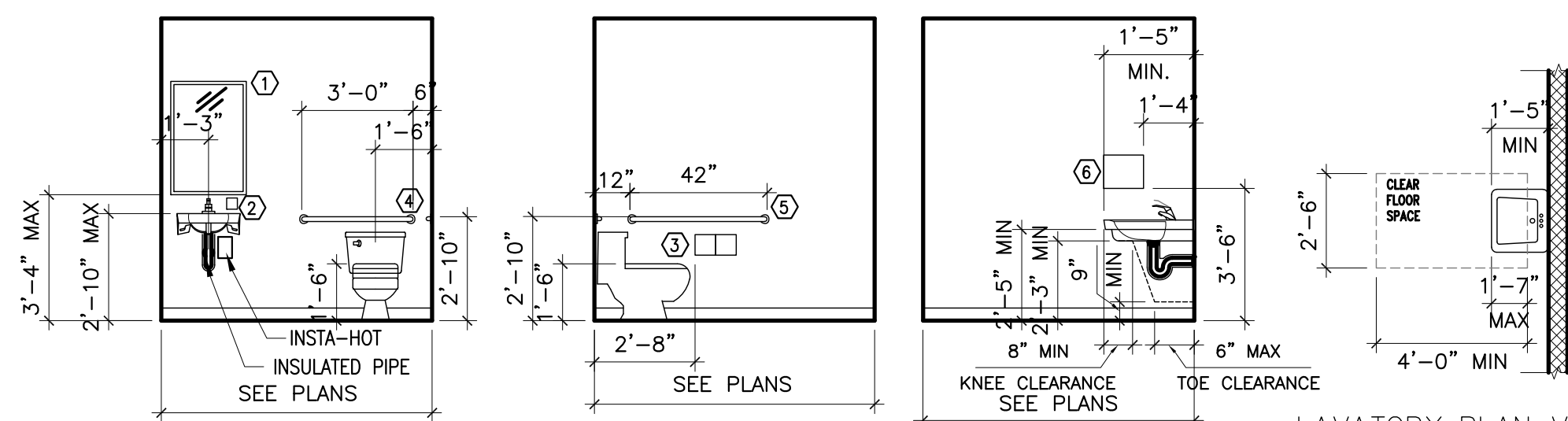
ISOMETRIC NOTE
ISOMETRIC PROVIDED TO CLARIFY PIPE ROUTING ONLY. DRAWINGS ARE DIAGRAMMATIC AND EXACT FIXTURE LOCATIONS, CONNECTIONS, FITTINGS AND MINOR PIPING OF SETS ARE NOT INDICATED AND SHALL BE SUBJECT TO FIELD INSTALLATION AND CODE REQUIREMENTS.

SECTION 706.3 DOES NOT PERMIT BACK TO BACK WATER CLOSETS ON A SANITARY TEE FITTING WITHOUT MEETING CERTAIN REQUIREMENTS. COMBINATION, DIRECTIONAL FLOW FITTINGS MUST BE USED.

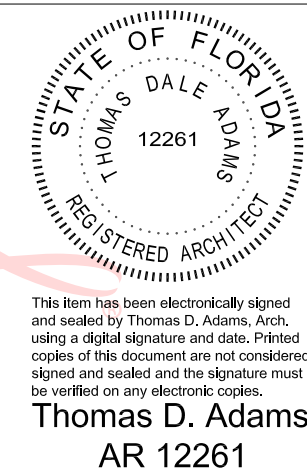
5 WASTE RISER DIAGRAM
SCALE: N.T.S.

ACCESSORIES SCHEDULE

NO.	DESCRIPTION	
1	MIRROR	4 GRAB BAR - 36"
2	SOAP DISPENSER	5 GRAB BAR - 42"
3	TOILET PAPER HOLDER (DOUBLE)	6 PAPER TOWEL DISP & DISPOSAL

3 TOILET ELEVATIONS
SCALE: 1/4" = 1'-0"1 DEMOLITION PLAN
SCALE: 3/16" = 1'-0"2 PROPOSED FLOOR PLAN
SCALE: 3/16" = 1'-0"

Digitally signed
by Thomas D
Adams
Date: 2022.01.18
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AR 12261

HARTER - ADAMS P.A.
ARCHITECTS AND PLANNERS
377 MATLAND AVENUE, STE. 2010 ALTAMONTE SPRINGS, FLORIDA, 32701
PHONE: 407-647-5767 EMAIL: tom.adams137@gmail.com

INTERIOR ALTERATION
Century Studios-Sute 106
2929 W. US Hwy 90, Lake City, Florida, FL, 32055

REVISION

JOB NO.
21028
DATE
12/03/2021
SHEET

A2.1

3 OF 8

ELECTRICAL SYMBOLS LEGEND

NOTE: THESE ARE STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS. REFER TO SPECIFICATIONS FOR MOUNTING HEIGHTS.

LIGHTING

- LINEAR LED LIGHT FIXTURE – CEILING MOUNTED
- UNIVERSAL MOUNTING EXIT LIGHTS, SINGLE AND DOUBLE FACED, ARROWS AS SHOWN ON FLOOR PLANS
- EMERGENCY BATTERY PACK, HEADS AS INDICATED

SWITCHES

- SINGLE POLE SWITCH OCCUPANCY SENSOR SWITCH (UNLESS NOTED BY SUBSCRIPT) SWITCH SUBSCRIPTS:
 - (2) DOUBLE POLE
 - (3) WAY
 - (4) WAY
- WP (WP) WEATHER PROOF (NON OCCUPANCY SENSOR TYPE)
- DIMMER SWITCH LUTRON NOVA-T SIZE AS REQUIRED FOR LOAD UNLESS OTHERWISE NOTED
- DUAL TECHNOLOGY OCCUPANCY SENSOR, SIMILAR TO LEVITON OSC20-MOW
- INTELLIGENT POWER PACK/RELAY, SIMILAR TO LEVITON MZD20-102
- DAYLIGHT SENSOR, SIMILAR TO LEVITON OGD0P-00W

CONDUIT AND WIRE

- CONDUIT CONCEALED IN WALLS OR ABOVE CEILINGS
- CONDUIT HOMERUN – CONDUCTORS ARE #10 AWG CU UNLESS OTHERWISE INDICATED. (SEE SPECIFICATIONS FOR DERATING OF CONDUCTORS BASED ON CIRCUIT LENGTH AND CONDUCTORS IN A CONDUIT)
- CONDUIT WITH UNSWITCHED CONDUCTORS
- CONDUIT TURNED UP OR DOWN IN WALL

RECEPTACLES

- DUPLEX RECEPTACLE
 - (G, GF) DUPLEX GFCI RECEPTACLE
 - (IG) DUPLEX ISOLATED GROUND RECEPTACLE
 - (EW) ELECTRIC WATER COOLER, COORDINATE LOCATION WITH PLUMBING INSTALLER. LOCATE GFCI RECEPTACLE CENTERED UP UNDER COOLER.
 - (WPO) DUPLEX GFCI RECEPTACLE, WEATHERPROOF COVER
 - (SW) SHOW WINDOW RECEPTACLE MOUNTED ON CEILING

POWER CONNECTIONS

- FLUSH OR CONCEALED JUNCTION BOX SIZED PER N.E.C.
- SURFACE JUNCTION BOX OR UNDERGROUND PULL BOX SIZED PER N.E.C.
- MOTOR CONNECTION, MARK NUMBER WILL IDENTIFY EQUIPMENT, EF, AHU, CU, ETC. SEE MOTOR CONNECTION SCHEDULE.
- HEAVY DUTY SAFETY SWITCH, SIZE AND NUMBER OF POLES AS INDICATED
- PANELBOARD, LOW VOLTAGE (120/208V) – SEE PANELBOARD SCHEDULES AND RISER DIAGRAM
- GROUND OR GROUND ROD AS NOTED

COMMUNICATIONS SYSTEM

- COMMUNICATIONS OUTLET
 - 4" SQUARE BOX, ONE GANG RING, WITH 3/4" ROUTED TO ABOVE CEILING ONLY WHERE ACCESSIBLE PATH TO TTb OR COMMUNICATIONS ROOM IS PROVIDED.
- TELEVISION OUTLET
 - 4" SQUARE BOX, ONE GANG RING, WITH 3/4" ROUTED TO ABOVE CEILING ONLY WHERE ACCESSIBLE PATH TO TTb OR COMMUNICATIONS ROOM IS PROVIDED.

ABBREVIATIONS

A	AMPERES	HPS	HIGH PRESSURE SODIUM
A/C	AIR CONDITIONING	HOA	HAND-OFF-AUTOMATIC
AC	ALTERNATING CURRENT	HP	HORSEPOWER
AF	AMPERE FRAME	HVS	HIGH PRESSURE SODIUM
AFB	ABOVE FINISHED FLOOR	HVAC	HEATING/VENTILATING/AIR CONDITIONING
AFB	ABOVE FINISHED CEILING	HV	HIGH VOLTAGE
AFB	ABOVE FINISHED FLOOR	IMC	INTERMEDIATE METAL CONDUIT
AFB	ABOVE FINISHED GRADE	IN	INCHES
AHU	AIR HANDLER UNIT	INC	INCANDESCENT
AIC	AMPERES INTERRUPTING CAPACITY	JB	JUNCTION BOX
AL	ALUMINUM	kcmil	THOUSAND CIRCULAR MILLS
AT	AMPERE TRIP	KV	KILO-VOLTS
ATS	AUTOMATIC TRANSFER SWITCH	KVA	KILO-VOLTS-AMPERES
AWG	AMERICAN WIRE GAUGE	KVAR	KILO-VOLTS-AMPERES REACTIVE
BFC	BELOW FINISHED CEILING	KW	KILO-WATTS
BFG	BELOW FINISHED GRADE	KWH	KILO-WATT-HOURS
BKR	BREAKER	LAN	LOCAL AREA NETWORK
BLDG	BUILDING	LED	LIGHT EMITTING DIODE
BMS	BUILDING MANAGEMENT SYSTEM	LTG	LIGHTING
C	CONDUIT	m	METER
CAB	CABINET	mm	MILLIMETER
CB	CIRCUIT BREAKER	MAX	MAXIMUM
CCTV	CLOSED CIRCUIT TELEVISION	MCB	MAIN CIRCUIT BREAKER
CKT	CIRCUIT	MCC	MOTOR CONTROL CENTER
CLG	CEILING	MCP	MOTOR CIRCUIT PROTECTOR
CL	CENTERLINE	MFR	MANUFACTURER
COMM	COMMUNICATION	MH	METAL
CONN	CONNECTION	MIC	MICROPHONE HALIDE
CPU	CENTRAL PROCESSING UNIT	MIN	MINIMUM
CT's	CURRENT TRANSFORMERS	MISC	MISCELLANEOUS
CU	COPPER	MLO	MAIN LUGS ONLY
DC	DIRECT CURRENT	MTR	MOTOR
DISC	DISCONNECT(ING)	MTD	MOUNTED
DN	DOWN	MTG	MOUNTING
DWG	DRAWING(S)	MTS	MANUAL TRANSFER SWITCH
EA	EACH	N	NEUTRAL
EF	EXHAUST FAN	NC	NURSE CALL
EM	EMERGENCY	NEC	NATIONAL ELECTRICAL CODE
EMT	ELECTRICAL METALLIC TUBING	NIC	NOT IN CONTRACT
EOL	END OF LINE RESISTOR	NF	NON-FUSED
EQUIP	EQUIPMENT	NTS	NOT TO SCALE
ETR	EXISTING TO REMAIN	P	POLE
EUH	ELECTRIC UNIT HEATER	PB	PULLBOX
EWC	ELECTRIC WATER COOLER	PIV	POST INDICATOR VALVE
EVH	ELECTRIC WATER HEATER	PNL	PANEL
EXH	EXHAUST	PVC	POLYVINYL CHLORIDE
EXIST	EXISTING	PWR	POWER REF REFRIGERATOR
FA	FIRE ALARM	REC	RECEPTACLE
FAAP	FIRE ALARM ANNUNCIATOR PANEL	RENO	RENOVATION
FACP	FIRE ALARM CONTROL PANEL	RGS	RIGID GALVANIZED STEEL
FARA	FIRE ALARM REMOTE ANNUNCIATOR	RTU	ROOF TOP UNIT
FBC	FLUORESCENT	SCA	SHORT CIRCUIT AMPS
FCU	FAN COIL UNIT	SD	SMOKE DETECTOR
FLA	FULL LOAD AMPERES	SPKR	SPEAKER
FLUOR	FLUORESCENT	SW	SWITCH
FMC	FLEXIBLE METAL CONDUIT	TTB	TELEPHONE TERMINAL BOARD
GEC	GROUND ELECTRODE CONDUCTOR	TEL	TELEPHONE TRANSIENT
GEN	ENGINE GENERATOR SET	TVSS	VOLTAGE SURGE SUPPRESSOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
		UL	UNDERWRITERS LABORATORIES
GFGI	GOVERNMENT FURNISHED	UON	UNLESS OTHERWISE NOTED
		V	VOLTS
GFP	GROUND FAULT PROTECTION	VA	VOLT-AMPERES
GND	GROUND	VFD	VARIABLE FREQUENCY DRIVE
GRU	GRAINVILLE REGIONAL UTILITIES	W	WATTS
HGT	HEIGHT	WP	WEATHER PROOF
HID	HIGH INTENSITY DISCHARGE	XFMR	TRANSFORMER

GENERAL ELECTRICAL NOTES:

- IT IS THE INTENT OF THESE CONTRACT DRAWINGS TO PROVIDE A COMPLETE AND WORKABLE FACILITY.
- DESIGN DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS, BENDS, ELBOWS, OR OTHER SPECIFIC ELEMENTS THAT MAY BE REQUIRED FOR PROPER INSTALLATION OF THE WORK. SUCH WORK SHALL BE VERIFIED AT THE SITE. ADDITIONAL BENDS, OFFSETS, AND CONDUIT AS REQUIRED BY VERTICAL AND HORIZONTAL EQUIPMENT LOCATIONS OR OTHER JOB CONDITIONS, SHALL BE PROVIDED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- MATERIALS SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC.
- IN ACCORDANCE WITH NFPA 70, GROUND EXPOSED, NON CURRENT CARRYING METALLIC PARTS OF ELECTRICAL EQUIPMENT, METALLIC RACEWAY SYSTEMS, GROUNDING CONDUCTOR IN METALLIC RACEWAYS.
- BONDING JUMPERS SHALL BE USED TO BOND CONDUIT TO ENCLOSURES, BOXES, AND EQUIPMENT WHERE CONCENTRIC OR ECCENTRIC KNOCKOUTS ARE USED.
- THE INSTALLATION SHALL BE ACCOMPLISHED BY WORKERS SKILLED IN THIS TYPE OF WORK. THE INSTALLATION SHALL BE MADE SO THAT THERE IS NO DEGRADATION OF THE DESIGNED FIRE RATINGS.
- THE CONTRACTOR SHALL INSTALL HIS WORK IN SUCH A MANNER AND AT SUCH A TIME AS WILL REQUIRE A MINIMUM OF CUTTING AND PATCHING OF THE BUILDING STRUCTURE.
- THE CONTRACTOR SHALL PROVIDE ALL ACCESS PANELS REQUIRED DURING THE INSTALLATION OF THIS PROJECT TO PROVIDE ACCESS TO ALL COMPONENTS OF THE ELECTRICAL AND FIRE ALARM SYSTEMS AFTER COMPLETE OF THIS PROJECT FOR MAINTENANCE OR REPAIR OF ALL SYSTEM AFTER OCCUPANCY BY OWNER.
- ALL BOLTS, NUTS, WASHERS, ETC. USED FOR GROUNDING AND BONDING CONNECTIONS SHALL BE SILICON BRONZE. CONTRACTOR SHALL UTILIZE CONNECTORS TO PREVENT GALVANIC ACTION.
- ALL EXPOSED ELECTRICAL CONDUIT VULNERABLE TO MECHANICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL, UNLESS NOTED OTHERWISE. ALL OTHER CONDUIT INSIDE FACILITY SHALL BE ELECTRICAL METAL TUBE (EMT). CONDUITS SHALL BE SUPPORTED BY SUITABLE CLAMPS, HANGERS OR STRAPS TO PROVIDE A RIGID INSTALLATION.
- CONDUIT SUPPORTS SHALL NOT BE FASTENED OR ATTACHED TO OTHER PIPES. PERFORATED STRAP HANGERS WILL NOT BE ALLOWED. EMPTY CONDUIT SHALL BE THOROUGHLY SWABBED OUT WITH DRY SWAB TO REMOVE MOISTURE AND DEBRIS BEFORE WIRE IS DRAWN IN. END OF CONDUIT SHALL BE TIGHTLY PLUGGED UNTIL WIRE IS PULLED. NO CONDUIT SHALL BE LOCATED TO IMPAIR THE STRENGTH OF STRUCTURAL MEMBERS. MAKE CHANGES IN DIRECTION OF RUNS WITH SYMMETRICAL BENDS. DO NOT INSTALL CRUSHED OR DEFORMED CONDUITS. AVOID TRAPPED CONDUITS. PREVENT PLASTER, DIRT, OR TRASH FROM LODGING IN CONDUIT, BOXES, FITTINGS. FREE CLOGGED CONDUITS OF OBSTRUCTIONS.
- ALL EQUIPMENT FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR OR PROVIDED WITH AN ELECTRICAL CONNECTION BY THE ELECTRICAL CONTRACTOR SHALL BE U.L. LISTED.
- ALL WORK SHALL COMPLY WITH CODES AND STANDARDS LISTED IN THE CONTRACT DOCUMENTS.
- THE DRAWINGS ARE DIAGRAMMATIC AND THE OMISSION OF AN ITEM NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING THAT ITEM.
- NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS PRIOR TO PURCHASING EQUIPMENT AND ROUGHING IN WORK.
- PRIOR TO BID, COORDINATE ALL ELECTRICAL WORK WITH MECHANICAL WORK AND OTHER TRADES. REVIEW AND CONFIRM ALL WORK REQUIRED WITH MECHANICAL, PLUMBING, FIRE PROTECTION, ARCHITECTURAL AND SPECIALITY DESIGN PRIOR TO BID.
- CONTRACTOR SHALL NOT CONCEAL ANY WORK UNTIL INSPECTED BY ELECTRICAL INSPECTOR AND/OR ENGINEER. CONTRACTOR SHALL NOTIFY ENGINEER OF A SCHEDULED INSPECTION TIME WITHIN 72 HOURS. CONTRACTORS SHALL NOT CONCEAL WORK UNTIL APPROVED.
- WHERE CROWDED LOCATIONS EXIST OR WHERE THERE IS A POSSIBILITY OF CONFLICT BETWEEN TRADES, CONTRACTOR SHALL MAKE COMPOSITE DRAWINGS SHOWING THE EXACT LOCATION OF DUCTS, CONDUIT AND EQUIPMENT. DRAWINGS SHALL BE BASED ON FIELD MEASUREMENTS AND, AFTER CONSULTATION AND AGREEMENT BETWEEN THE TRADES, SHALL BE APPROVED BY THE ENGINEER BEFORE INSTALLATION OF THE WORK.
- ALL BARE METAL SURFACES SHALL BE PRIMED AND PAINTED TO PREVENT ANY RUST, INCLUDING BUT NOT LIMITED TO ANGLE FRAMING, EQUIPMENT SUPPORTS, MOUNTING HARDWARE, ETC.
- ALL RACEWAYS SHALL HAVE A GREEN GROUNDING CONDUCTOR.
- CONTRACTOR SHALL FIRESTOP ALL ELECTRICAL PENETRATIONS IN FIRE RATED PARTITIONS (WALLS, FLOORS OR CEILINGS) WITH AN APPROVED FIRESTOP SYSTEM RATED FOR THE APPLICATION. FIRESTOP SYSTEM SHALL BE UL LISTED AND INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- CAREFULLY REVIEW MECHANICAL DRAWINGS TO IDENTIFY PROPOSED ROUTING OF HVAC DUCTWORK AND LOCATIONS OF EQUIPMENT TO AVOID CONFLICTS WITH CABLE TRAY, CONDUIT AND LIGHT FIXTURE INSTALLATIONS.
- ALL DEBRIS SHALL BE REMOVED FROM THE SITE DAILY TO AN APPROVED DUMPING FACILITY WHICH MEETS FEDERAL AND LOCAL REQUIREMENTS. NO BURNING ON SITE WILL BE ALLOWED. OWNER'S DUMPSTERS SHALL NOT BE USED.
- WHERE CUTTING CORING OR REMOVAL OF CONDUITS, BOXES OR ANY ELECTRICAL ITEM IS REQUIRED, THE FINISHED SURFACE SHALL BE PATCHED AND PAINTED SO THAT NO EVIDENCE OF THE FORMER INSTALLATION REMAINS.
- ALL RACEWAY TERMINATION'S SHALL HAVE BUSHINGS AND BE GROUNDED WHERE RACEWAY IS METAL.
- COORDINATE ALL MECHANICAL LOADS, VOLTAGES AND LOCATIONS WITH MECHANICAL CONTRACTOR.
- ALL POWER AND FIRE ALARM WIRING SHALL BE CONCEALED. SURFACE MOUNTED RACEWAY SHALL BE FIREWOMOLD (OR EQUIVALENT) METALLIC SURFACE RACEWAY. CONTRACTOR SHALL PROVIDE AND INSTALL ALL RACEWAY, BOXES, AND FITTINGS REQUIRED FOR A COMPLETE INSTALLATION. CABLING IN NON-PUBLIC AREAS MAY BE IN EMT.
- ELECTRICAL OUTLETS OR BOXES SHALL NOT REDUCE THE FIRE-RESISTANT RATING OF FIRE RESISTANT RATED WALL(S), AND SHALL COMPLY WITH FBC 2017 REQUIREMENTS.
- GFCI WEATHER PROOF RECEPTACLES SHALL BE PROVIDED WITH AN ENCLOSURE THAT IS WEATHER PROOF WHILE IN USE.
- COORDINATE WITH THE GENERAL CONTRACTOR SO THAT OCCUPIED BUILDINGS OR PORTIONS OF BUILDINGS ARE NEVER WITHOUT FIRE ALARM PROTECTION THROUGHOUT ALL PHASES OF CONSTRUCTION.
- ALL WORK SHALL BE CONSTRUCTED TO MEET THE PHASING REQUIREMENTS OF THE PROJECT AS OUTLINED IN THE DRAWINGS, SPECIFICATIONS AND PER DIVISION 1 OF THE SPECIFICATIONS.
- PRIOR TO BID, CHECK LEAD TIMES OF ALL EQUIPMENT IN THE PROJECT. IF NECESSARY TO MEET THE PROJECT SCHEDULE, BID SHALL INCLUDE THE COST OF QUICK SHIP PREMIUMS. ALLOW TIME FOR NORMAL SHOP DRAWING PREPARATION AND REVIEW.
- VERIFY MOUNTING HEIGHTS AND ORIENTATIONS OF ALL DEVICES PRIOR TO INSTALLATION. MOUNTING HEIGHTS NOT SHOWN ON THESE PLANS.
- VERIFY ACTUAL EQUIPMENT CONNECTION, DISCONNECT AND OVERCURRENT PROTECTION REQUIREMENTS OF ALL EQUIPMENT PROVIDED BY MECHANICAL CONTRACTOR, PLUMBING CONTRACTOR, FOOD SERVICE PROVIDER, ELEVATOR INSTALLER AND OWNER PRIOR TO ORDERING OR INSTALLING EQUIPMENT.

FBCEC COMMISSIONING REQUIREMENTS

OPERATION AND MAINTENANCE MANUALS
OPERATION AND MAINTENANCE INSTRUCTIONS: PROVIDE MAINTENANCE MANUALS CONTAINING PRODUCT DATA, SHOP DRAWINGS, WIRING DIAGRAMS, INSTRUCTIONS, AND PARTS FOR MAINTAINING AND OPERATING ELECTRICAL SYSTEMS AND EQUIPMENT. INCLUDE A DESCRIPTION OF NORMAL ADJUSTMENTS AND A LIST OF ITEMS REQUIRING PERIODIC MAINTENANCE AND THE FREQUENCY REQUIRED. PROVIDE THE OWNER WITH ANY SPECIAL TOOLS REQUIRED. INCLUDE ALL WARRANTY AND SERVICE CONTRACTS AND AGENCIES TO INCLUDE: NAME, ADDRESS AND CONTACT INFORMATION.

ELECTRICAL WORK CLOSEOUT
RECORD DRAWINGS: DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF ALL CHANGES MADE IN THE ELECTRICAL POWER, LIGHTING AND SYSTEMS FROM THE LAYOUT OF MATERIALS SHOWN ON THE APPROVED SUBMITTALS AND SHOP DRAWINGS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL DELIVER TO ENGINEER AN UP-TO-DATE SET OF REPRODUCIBLE RECORD DRAWINGS.
1.SEE DIVISION 1 FOR SPECIFIC REQUIREMENTS FOR RECORD DRAWINGS.
2.FOR ELECTRICAL WORK, GIVE SPECIAL ATTENTION TO THE COMPLETE AND ACCURATE RECORDING OF:
a)RACEWAY SYSTEMS, SIZE AND LOCATION; LOCATIONS OF CONTROL DEVICES; DISTRIBUTION AND BRANCH ELECTRICAL CIRCUITRY; AND FUSE AND CIRCUIT BREAKER SIZE AND ARRANGEMENTS.
b)EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.
c)APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.
d)WORK OF CHANGE ORDERS WHERE NOT SHOWN ACCURATELY BY CONTRACT DOCUMENTS.
e)WORK OF ADDENDA NOT ATTACHED TO THE DRAWINGS.

TESTS:
1.TEST ALL SYSTEMS AND PLACE IN PROPER WORKING ORDER PRIOR TO DEMONSTRATING SYSTEMS TO THE OWNER.
2.TEST SYSTEM GROUND TO DEMONSTRATE THAT THE GROUND RESISTANCE DOES NOT EXCEED THE REQUIREMENTS OF NEC.
3.PERFORM SUCH TESTS AS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THE SITE.

REQUIREMENTS OF FLORIDA BUILDING CODE ENERGY CODE:
C408.3 LIGHTING SYSTEM FUNCTIONAL TESTING
CONTROLS FOR AUTOMATIC LIGHTING SYSTEMS SHALL COMPLY WITH SECTION C408.3

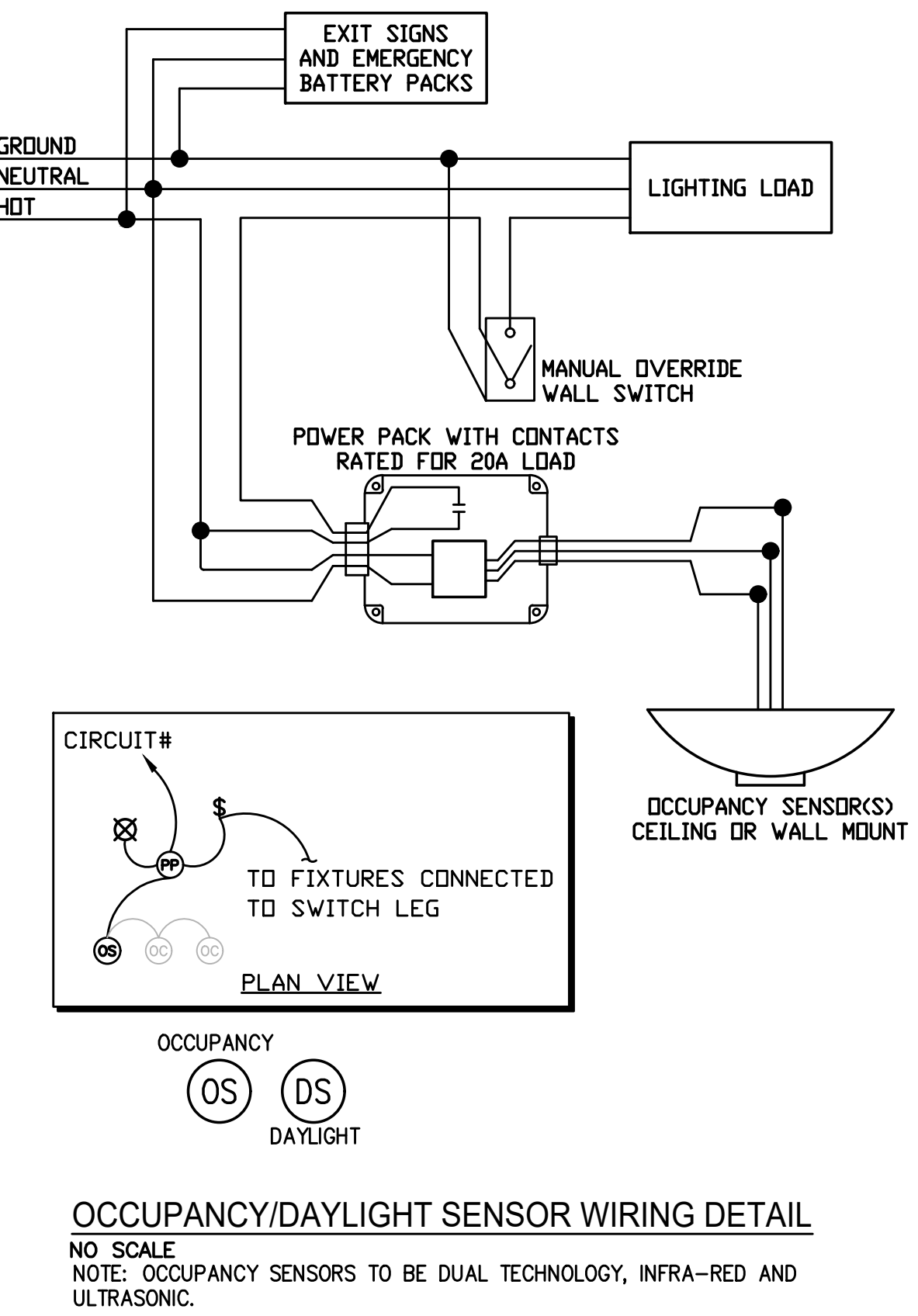
C408.3.1 FUNCTIONAL TESTING
TESTING SHALL ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURERS INSTALLATION INSTRUCTIONS. THE CONSTRUCTION DOCUMENTS SHALL STATE THE PARTY WHO WILL CONDUCT THE REQUIRED FUNCTIONAL TESTING. WHERE REQUIRED BY CODE OFFICIAL, AN APPROVED PARTY INDEPENDENT FROM THE DESIGN OR CONSTRUCTION OF THE PROJECT SHALL BE RESPONSIBLE FOR THE FUNCTIONAL TESTING AND SHALL PROVE DOCUMENTATION TO THE CODE OFFICIAL CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET THE PROVISIONS OF SECTION C405.

WHERE OCCUPANT SENSORS, TIME SWITCHES, PROGRAMMABLE SCHEDULE CONTROLS, PHOTOSENSORS OR DAYLIGHTING CONTROLS ARE INSTALLED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED:

- CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIME-OUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE.
- CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHT OFF.
- CONFIRM THAT THE PLACEMENT AND SENSITIVITY ADJUSTMENTS FOR PHOTOSENSOR CONTROLS REDUCE ELECTRIC LIGHT BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE SPECIFIED.

REFERENCE STANDARDS AND REGULATORY REQUIREMENTS:

- CONFORM TO ALL THE APPLICABLE REQUIREMENTS OF THE FOLLOWING CODE, STANDARDS, GUIDELINES, ETC. IF THERE SHOULD BE CONFLICTING REQUIREMENTS BETWEEN THESE CODES, STANDARDS, GUIDELINES, ETC., THE MORE OR MOST STRINGENT REQUIREMENT SHALL APPLY THAT DOES NOT VIOLATE ANY CODES OR LAWS.
 - FLORIDA BUILDING CODE (FBC), 2020 EDITION
 - NATIONAL ELECTRIC CODE (NEC), 2017 EDITION (NFPA 70)
 - FLORIDA FIRE PREVENTION CODE 2020 EDITION
 - AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
 - UNDERWRITER'S LABORATORY (UL)
 - NATIONAL ELECTRICAL MANUFACTURERS' ASSOCIATION (NEMA)
 - THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
 - ALL AUTHORITIES HAVING JURISDICTION, APPLICABLE STANDARDS AND GUIDELINES.



OCCUPANCY/DAYLIGHT SENSOR WIRING DETAIL

NO SCALE
NOTE: OCCUPANCY SENSORS TO BE DUAL TECHNOLOGY, INFRA-RED AND ULTRASONIC.

AR 12261

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INTERIOR ALTERATION

Century Studios-Sute 106

2929 W. Us Hwy 90, Lake City, Florida, FL, 32055

REVISION

JOB NO.

21026

DATE

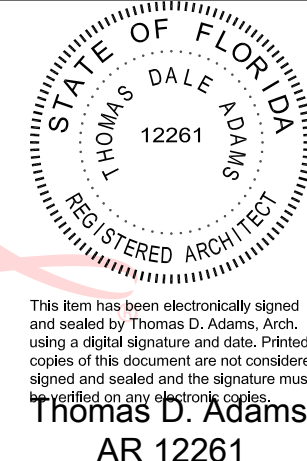
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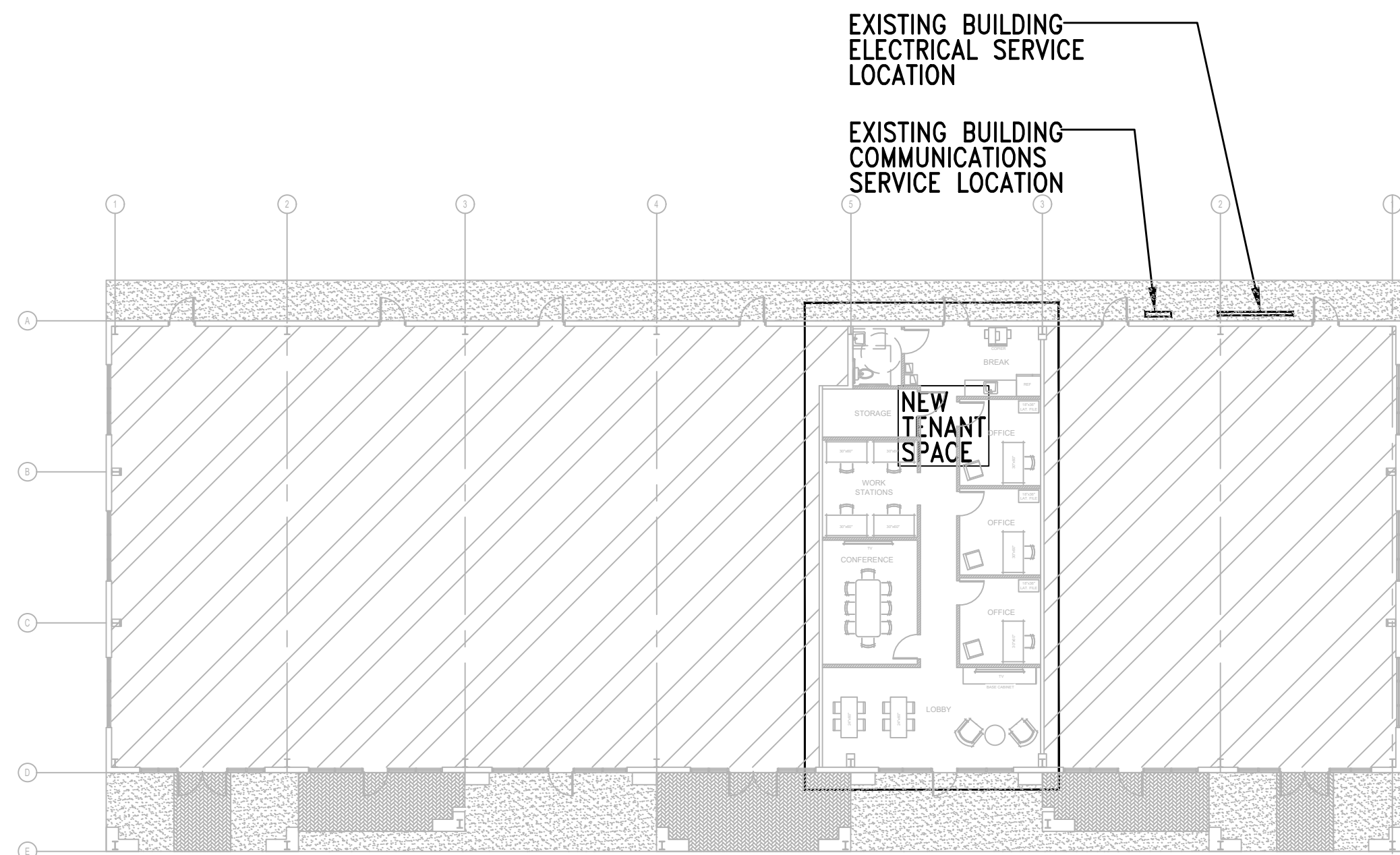
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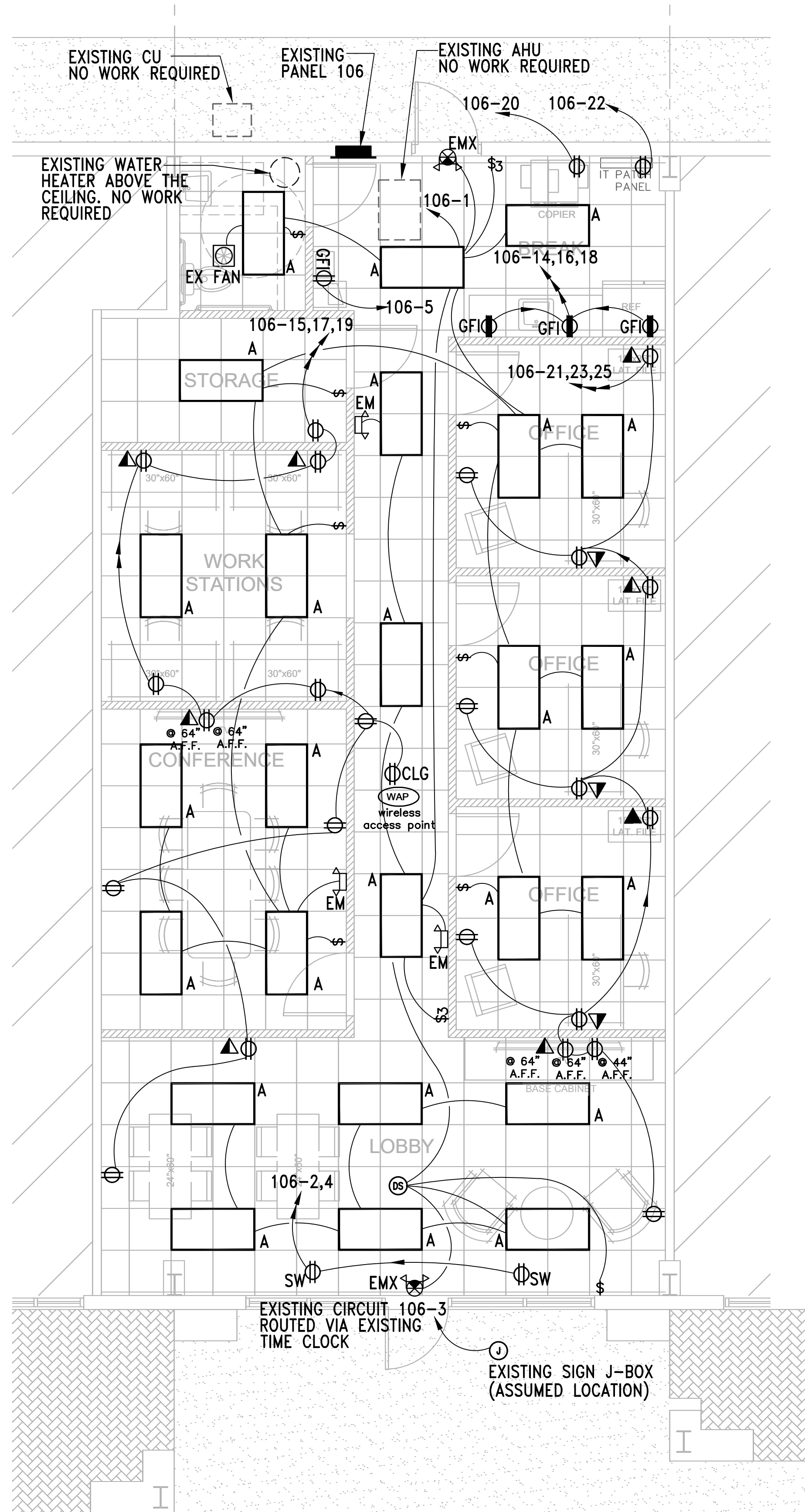
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2 BUILDING PLAN
SCALE: 1" = 16'-0"



1 ELECTRICAL PLAN
SCALE: 1/4" = 1'-0"

- GENERAL NOTES:
1. ALL SWITCHES SHALL BE OCCUPANCY TYPE, DUAL TECHNOLOGY.
 2. ALL GENERAL AREA LIGHTS, EXCEPT NIGHT LIGHTS, TO BE CONNECTED TO OCCUPANCY AND/OR DAYLIGHT SENSORS.
 3. EXIT SIGNS AND EMERGENCY LIGHTS TO BE CONNECTED AHEAD OF ALL SWITCHING.
 4. VERIFY MOUNTING HEIGHTS OF ALL RECEPTACLES WITH OWNER OR ARCHITECT PRIOR TO ROUGH-IN.
 5. AIR HANDLER, CONDENSING UNIT AND WATER HEATER ARE EXISTING. SHOWN FOR REFERENCE ONLY, NO WORK REQUIRED.

LIGHTING FIXTURE SCHEDULE

TYPE	LAMPS	WATTS	DESCRIPTION	MANUFACTURER / CATALOG NUMBER	SEE NOTE
A	LED	36	2 X 4 INEAR LAY-IN, 4000 LUMENS, RECTANGULAR SHIELD, 3500K, 80CRI	COLUMBIA LCAT24-35LWGR-EDU	1
EMX	LED	1	UNIVERSAL EXIT SIGN WITH TWO HEAD EMERGENCY LIGHT AND BATTERY	COMPASS CCR	1
EM	LED	1	EMERGENCY BATTERY UNIT-HIGH INTENSITY	COMPASS CU2HL-WH	1

NOTES:
1. FIXTURE SPECIFIED FOR PERFORMANCE CRITERIA. SUBSTITUTIONS OF EQUAL QUALITY AND PERFORMANCE WILL BE APPROVED

PANEL: 106 (EXISTING)

VOLTAGE:	120/208/3PH	MAIN:	200A M.C.B.
MOUNTING:	FLUSH	A.I.C.	10 KA SERIES RATED
SPACES:	42	SECTION:	1 OF 1

CIRCUIT LABEL	LOAD (AMPS)	AMP	POLE	CIR NO.	CIR NO.	AMP	POLE	LOAD (AMPS)	CIRCUIT LABEL
A	B	CB		NO.	NO.	CB		A	B
LIGHTING	8	20	1	1	2	20	1	11	SHOW WIN RECPT
SIGN	10	20	1	3	4	20	1	11	SHOW WIN RECPT
EWC	8	20	1	5	6	20	1	5	SPARE
EXIST	25	40	2	7	8	20	1	5	SPARE
CONDENSING UNIT	25	40	2	9	10	50	2	40	EXIST
EXIST WTR HTR	24	30	2	11	12	20	1	8	AHU
RECPT	9	20	1	13	14	20	1	8	RECPT
RECPT	5	20	1	15	16	20	1	8	RECPT
RECPT	5	20	1	17	18	20	1	8	RECPT
RECPT	8	20	1	19	20	20	1	12	COPIER
RECPT	8	20	1	21	22	20	1	5	IT EQUIP
RECPT	3	20	1	23	24	20	1		SPACE
SPACE		20	1	25	26	20	1		SPACE
SPACE				27	28	20	1		SPACE
SPACE				29	30	20	1		SPACE
SPACE				31	32				SPACE
SPACE				33	34				SPACE
SPACE				35	36				SPACE
SPACE				37	38				SPACE
SPACE				39	40				SPACE
SPACE				41	42				SPACE
NO DEMAND TAKEN									101 116 94 TOTAL
ASSUMED 200 AMP FEED WITH 200 AMP BREAKER AT EXISTING METER BANK									

ELECTRICAL SPECIFICATIONS

1.01 RELATED DOCUMENTS: THE OTHER CONTRACT DOCUMENTS COMPLEMENT THE REQUIREMENTS OF THIS SECTION. THE GENERAL ELECTRICAL REQUIREMENTS APPLY TO THE WORK OF THIS SECTION.

1.02 WORK INCLUDED: PROVIDE ALL MATERIAL AND LABOR FOR A COMPLETE ELECTRICAL INSTALLATION. INCLUDE THE FURNISHING OF SYSTEMS, EQUIPMENT, MATERIAL, SUPERVISION, OPERATIONS, METHODS, AND LABOR FOR THE FABRICATION, INSTALLATION, START-UP, AND TESTS REQUIRED.

1.03 CODES AND STANDARDS INSTALL ALL WORK IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING:

1.NATIONAL ELECTRIC CODE (NEC), 2017.

2.FLORIDA BUILDING CODE, CURRENT ADDITION

3.NFPA, ALL APPLICABLE CHAPTERS.

4.AMERICANS WITH DISABILITIES ACT, 1992.

1.04 PERMITS AND INSPECTIONS: OBTAIN AND MAKE ALL PAYMENTS FOR PERMITS AND INSPECTIONS REQUIRED. AT THE COMPLETION OF THE PROJECT AND BEFORE FINAL ACCEPTANCE OF THE ELECTRICAL WORK, PROVIDE EVIDENCE OF FINAL INSPECTION AND APPROVAL BY THE AUTHORITIES HAVING JURSDICTION.

1.05 TEMPORARY POWER

PROVIDE TEMPORARY POWER DISTRIBUTION REQUIRED BY ALL TRADES FOR CONSTRUCTION AND TESTING OF THIS PROJECT. IF ANY FEES, CHARGES OR COSTS WILL BE DUE THE UTILITY COMPANY FOR TEMPORARY POWER HOOK-UP AND INSTALLATION, THESE FEES, CHARGES OR COSTS SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE.

1.06 UTILITY COMPANY FEES, CHARGES OR COSTS: IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE REQUIRED UTILITY COMPANY TO DETERMINE IF ANY FEES, CHARGES OR COSTS WILL BE DUE THE UTILITY COMPANY FOR PERMANENT POWER HOOK-UP, INSPECTION AND INSTALLATION. THESE FEES, CHARGES OR COSTS SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE.

1.07 CONTRACT DRAWINGS

1 IT IS THE INTENT OF THE DRAWINGS TO ESTABLISH THE TYPES OF SYSTEMS AND FUNCTIONS. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATE APPROXIMATE LOCATIONS AND EXTENT OF WORK. IN CASE OF DOUBT AS TO WORK INTENDED, NOTIFY THE ARCHITECT TO OBTAIN CLARIFICATION.

2 COORDINATE ACTUAL LOCATIONS OF OUTLETS AND EQUIPMENT WITH BUILDING FEATURES AND EQUIPMENT AS INDICATED ON THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. WHERE DISCREPANCIES OCCUR BETWEEN DRAWINGS, SPECIFICATIONS, AND FIELD CONDITIONS, NOTIFY THE ARCHITECT TO OBTAIN AN INTERPRETATION.

1.08 SHOP DRAWINGS AND PRODUCT DATA

SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:

1.SWITCHGEAR

SHOP DRAWINGS MUST SHOW PUBLISHED RATINGS OR CAPACITY DATA, DETAILED EQUIPMENT DRAWINGS, PANEL DIAGRAMS, WIRING DIAGRAMS, INSTALLATION INSTRUCTIONS, AND OTHER PERTINENT DATA. SUBMIT DATA FOR REVIEW BEFORE PLACING PURCHASE ORDERS OR RELEASING EQUIPMENT FOR DELIVERY.

1.09 OPERATION AND MAINTENANCE INSTRUCTIONS: PROVIDE MAINTENANCE MANUALS CONTAINING PRODUCT DATA, SHOP DRAWINGS, WIRING DIAGRAMS, INSTRUCTIONS, AND PARTS FOR MAINTAINING AND OPERATING ELECTRICAL SYSTEMS AND EQUIPMENT. INCLUDE A DESCRIPTION OF NORMAL ADJUSTMENTS AND A LIST OF ITEMS REQUIRING PERIODIC MAINTENANCE AND THE FREQUENCY REQUIRED. PROVIDE THE OWNER WITH ANY SPECIAL TOOLS REQUIRED.

1.10 ACCEPTABLE PRODUCTS

USE ONLY NEW PRODUCTS MADE BY COMPANIES REGULARLY ENGAGED IN THE MANUFACTURE OF TYPE EQUIPMENT SPECIFIED. LIKE EQUIPMENT, I.E., ALL PANELBOARDS, SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. DO NOT PURCHASE OR INSTALL ANY EQUIPMENT THAT MUST BE SUBMITTED FOR REVIEW UNTIL THE SUBMITTAL HAS BEEN REVIEWED BY THE ARCHITECT.

1.11 ELECTRICAL CONNECTIONS TO EQUIPMENT

PROVIDE POWER CIRCUIT AND CONTROL WIRING FOR ALL ELECTRICAL EQUIPMENT AND CONNECT COMPLETE UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS. MOTOR HORSEPOWER AND EQUIPMENT SIZES SHOWN AND/OR SPECIFIED ARE ESTIMATED, AND SIZE OF WIRE, CONDUIT, AND CIRCUIT PROTECTION DEVICES ARE BASED ON SAID ESTIMATE. ASCERTAIN THE ACTUAL HORSEPOWER AND CURRENT REQUIREMENTS OF THE MOTORS AND EQUIPMENT TO BE INSTALLED PRIOR TO BEGINNING INSTALLATIONS OF FEEDERS FOR SAME. IF THE ACTUAL REQUIREMENTS ARE DIFFERENT, NOTIFY THE ARCHITECT TO OBTAIN CLARIFICATION.

1.12 IDENTIFICATION

CABLE/CONDUCTOR IDENTIFICATION BANDS: VINYL-CLOTH SELF-ADHESIVE CABLE/CONDUCTOR MARKERS OF WRAP-AROUND TYPE; EITHER PRE-NUMBERED PLASTIC COATED TYPE, OR WRITE-ON TYPE WITH CLEAR PLASTIC SELF-ADHESIVE COVER PLAP; NUMBERED TO SHOW CIRCUIT IDENTIFICATION. APPLY CABLE/CONDUCTOR IDENTIFICATION, AT ORIGIN AND TERMINUS. MATCH IDENTIFICATION WITH MARKING SYSTEM USED IN PANELBOARDS, SHOP DRAWINGS, AND CONTRACT DOCUMENTS.

ENGRAVED PLASTIC LAMINATE SIGNS: PROVIDE ENGRAVED PLASTIC LAMINATE WITH WHITE CORE PILES (LETTER COLOR). PUNCH FOR MECHANICAL FASTENING. INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON EACH PANEL. PROVIDE SINGLE LINE OF TEXT, 1/2-INCH HIGH LETTERING ON 1-1/2-INCH HIGH SIGN (2" HIGH WHERE 2 LINES ARE REQUIRED). INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON EACH MAJOR UNIT OF ELECTRICAL EQUIPMENT IN BUILDING; INCLUDING CENTRAL OR MASTER UNIT OF EACH ELECTRICAL SYSTEM.

PANEL DIRECTORIES:

PROVIDE PANEL DIRECTORIES FOR EACH PANEL. INCLUDE ROOM NUMBERS AND EQUIPMENT SERVED. PREPARE DIRECTORIES BASED ON FIELD CONDITIONS. PANEL SCHEDULES ON THE PLANS ARE NOT SUFFICIENTLY DETAILED TO SERVE THIS PURPOSE.

PART 2 – PRODUCTS

2.01 OUTLET BOXES

GENERAL USE BOXES: GALVANIZED, PRESSED STEEL UNITS OF PROPER DEPTH AND GAUGE REQUIRED BY THE OUTLET LOCATION. EQUIP WITH PLASTER RING OR COVER AS NECESSARY. ACCEPTABLE MANUFACTURERS: RACO, STEEL CITY, OR ARCHITECT APPROVED EQUAL.

SPECIAL BOXES: GALVANIZED SHEET METAL CONSTRUCTION AND SIZED IN ACCORDANCE WITH THE NEC BASED ON THE NUMBER OF CONDUITS AND SPLICES TO BE HOUSED. FOR SPECIAL SYSTEMS, USE BOXES AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

2.02 CONDUIT

ELECTRICAL METALLIC TUBING (EMT/THINWALL): GALVANIZED STEEL CONFORMING TO UL 797.

RIGID METALLIC CONDUIT (RMC): HOT-DIPPED GALVANIZED STEEL CONFORMING TO UL 6.

INTERMEDIATE METAL CONDUIT (IMC): HOT-DIPPED GALVANIZED STEEL CONFORMING TO UL 1242.

FLEXIBLE METAL CONDUIT (GREENFIELD): SPIRAL WOUND, SQUARE-LOCKED, HOT-DIPPED GALVANIZED STEEL CONFORMING TO UL 1.

LIQUID-TIGHT FLEXIBLE METAL CONDUIT (SEALTITE): SPIRAL WOUND, SQUARE-LOCKED, HOT-DIPPED GALVANIZED STEEL WITH A BONDED OUTER JACKET OF PVC CONFORMING TO UL 360.

2.03 CONDUIT FITTINGS

FITTINGS SHALL BE MALLEABLE IRON, HOT-DIPPED GALVANIZED OR CADMIUM PLATED

EMT: COMPRESSION TYPE

RMC AND IMC: THREADED

FLEXIBLE METAL: TWO-SCREW, DOUBLE CLAMP.

LIQUID-TITE, FLEXIBLE METAL: COMPRESSION TYPE WITH INSULATED THROAT.

2.04 WIRE AND CABLE – 600 VOLT

CONDUCTORS: 90% CONDUCTIVITY, SOFT DRAWN COPPER OR COMPACT STRANDED ALUMINUM. INSULATION: HEAT AND MOISTURE RESISTANT WITH AT LEAST AN OPERATING TEMPERATURE OF 75 C (RHW, THW, THWN, XHHW) AND A 600 VOLT RATING UNLESS OTHERWISE INDICATED. USE STRANDED CONDUCTOR ON ALL WIRING #6 AWG AND LARGER. ALL OTHER WIRING MAY BE SOLID. ALUMINUM SHALL BE ONLY #1 AND LARGER.

2.05 RECEPTACLES

DUPLEX: 20 AMPERE, 120 VOLTS, HEAVY DUTY, COMMERCIAL SPECIFICATION GRADE, GROUNDING TYPE MEETING THE REQUIREMENTS OF FS WC-5960, NEMA WD-1, AND UL 498. COLOR: SELECTED BY OWNER.

2.06 LIGHT SWITCHES

PROVIDE SINGLE POLE, TWO-POLE, THREE-WAY, FOUR-WAY, MOMENTARY, LIGHTED, OR PILOT-LIGHTED AS REQUIRED TO CONTROL LIGHTS OR DEVICE.

TOGGLE: 20 AMPERE, 120/277 VOLT, HEAVY DUTY, COMMERCIAL SPECIFICATION GRADE, QUIET TYPE, MEETING THE REQUIREMENTS OF FS WS-8960 AND NEMA WD-1. COLOR: SELECTED BY OWNER.

2.07 PLATES: PROVIDE PLATES ON ALL SWITCHES, RECEPTACLES SPECIAL DEVICES, AND OUTLET BOXES. USE SMOOTH STYLE, BAKELITE PLASTIC WITH COLOR TO MATCH DEVICE.

2.08 SWITCHGEAR:

PANELBOARDS: PROVIDE PANELS OF THE DEAD FRONT, CIRCUIT BREAKER TYPE, IN ACCORDANCE WITH THE PANELBOARD SCHEDULE. PANEL SHALL BE PROVIDED WITH SOLID NEUTRAL AND GROUND BUS CONNECTIONS. AIC RATING SHALL BE AS INDICATED ON THE SCHEDULE. BREAKERS SHALL BE BOLT-IN UNLESS NOTED OTHERWISE.

SAFETY SWITCHES (DISCONNECTS): HEAVY DUTY, FUSED OR UNFUSED, WITH NUMBER OF POLES, ELECTRICAL CHARACTERISTICS, RATINGS AND MODIFICATIONS AS REQUIRED.

SWITCHING MECHANISM: QUICK-MAKE, QUICK-BREAK, WITH HANDLE THAT IS PADLOCKABLE IN THE "OFF" POSITION. ENCLOSURE TO BE SUITABLE FOR THE AREA IN WHICH IT IS TO BE INSTALLED, HAVING A DEFEATABLE DOOR INTERLOCK WHICH PREVENTS THE DOOR FROM OPENING WHEN THE SWITCH IS "ON".

EQUIP FUSIBLE UNITS WHICH USE CURRENT LIMITING FUSES WITH FUSEHOLDERS HAVING REJECTION CLIPS TO PREVENT OTHER TYPE FUSES FROM BEING INSTALLED.

2.09 GROUNDING

EQUIPMENT GROUNDING METHODS

PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN ALL CONDUITS AND RACEWAYS. SIZED IN ACCORDANCE WITH NEC, UNLESS SHOWN OTHERWISE ON THE PLANS. ALL EQUIPMENT GROUNDING SHALL BE ACCOMPLISHED USING THIS CONDUCTOR UNLESS OTHERWISE INDICATED.

AT ALL ELECTRIC PANELS, INSTALL GROUNDING BUSHINGS ON ALL CONDUITS AND A LUG ON THE PANEL BACKBOX AND BOND CONDUITS AND BACKBOX TOGETHER USING A BARE #4 AWG COPPER CONDUCTOR. BOND JUNCTION BOXES IN FEEDER CONDUIT RUNS IN A SIMILAR MANNER.

2.10 ANCHORS AND FASTENERS:

USE ANCHORS AND FASTENERS OF A TYPE DESIGNED AND INTENDED FOR USE IN THE BASE MATERIAL TO WHICH THE MATERIAL OR SUPPORT IS TO BE ATTACHED, AND CAPABLE OF SUPPORTING THE INTENDED LOAD AND WITHSTANDING ANY ASSOCIATED STRESSES AND VIBRATIONS. DO NOT USE NAILS EXCEPT FOR TEMPORARY SUPPORT OR FOR LIGHT LOADS IN WOOD FRAME CONSTRUCTION. DO NOT USE WOODEN PLUGS OR PLASTIC ANCHORS FOR FASTENING. IN OUTDOOR LOCATIONS OR OTHER CORROSIVE ATMOSPHERES, USE NON-CORROSIVE ANCHORS AND FASTENERS OR TYPES HAVING SUITABLE CORROSIVE RESISTING COATINGS.

PART 3 – EXECUTION

3.01 GENERAL REQUIREMENTS: USE GOOD WORKMANSHIP IN THE INSTALLATION OF ALL ELECTRICAL MATERIALS AND EQUIPMENT. INSTALL EQUIPMENT LEVEL, PLUMB, AND TRUE WITH THE STRUCTURE AND OTHER EQUIPMENT. FIRMLY SECURE ALL MATERIALS IN PLACE, ADEQUATELY SUPPORTED, AND PERMANENT. MATERIALS EMBEDDED IN CONCRETE OR MASONRY OR OTHERWISE PART OF THE STRUCTURE ARE CONSIDERED SUFFICIENTLY SUPPORTED. USE HARDWARE AND ACCESSORY FITTINGS OF A TYPE DESIGNED, INTENDED, AND APPROPRIATE FOR THE USE AND TO COMPLEMENT THE ITEMS WITH WHICH THEY ARE USED.

3.02 MINIMUM SIZES

20 AMP CIRCUITS SHALL BE SIZED AS FOLLOWS:

75 FT. TO 100 FT: #10 HOMERUN, 3/4".

101 FT. TO 200 FT: #10 THRU-OUT CIRCUIT, 3/4".

201 FT. TO 300 FT:#8 HOMERUN, #10 THRU-OUT REMAINDER OF CIRCUIT 1".

3.03 LOCATIONS AND DIMENSIONS

LOCATE ALL DEVICES AND EQUIPMENT. ALL DIMENSIONS SHOWN ON THE DRAWINGS ARE FROM FINISHED FLOOR TO THE CENTER OF THE DEVICE UNLESS OTHERWISE INDICATED. STANDARD MOUNTING HEIGHTS ARE AS FOLLOWS:

LIGHT SWITCHES: 48"

RECEPTACLES: 18"

DISCONNECT SWITCHES: 60" TO THE TOP

PANELBOARDS: 72" TO THE TOP

THE ARCHITECT AND OWNER RESERVE THE RIGHT TO CHANGE ANY SWITCH OR RECEPTACLE LOCATION, WITHIN THE SAME ROOM, WITHOUT ADDED COST, IF CHANGE IS MADE BEFORE ROUGH-IN. LOCATE OUTLETS INTENDED FOR THE SUPPLY OF SPECIFIC ITEMS SUCH AS WATER COOLERS, COPYING MACHINES, FANS, ETC., AS RECOMMENDED BY MANUFACTURER.

3.04 WIRING METHODS

INSTALL ALL WIRING IN CONDUIT OR APPROVED RACEWAYS UNLESS OTHERWISE INDICATED. CONCEAL THE CONDUIT AND OUTLET INSTALLATION IN WALLS, ABOVE FINISHED CEILINGS, UNDERGROUND, OR UNDER FLOOR AS INDICATED IN CONTRACT DOCUMENTS.

SET OUTLET BOXES SQUARE, LEVEL, AND FLUSH WITH FINISHED SURFACES. SECURE AND BRACE WORK IN SUCH A MANNER AS TO INSURE THAT OUTLET BOXES AND CONDUIT DO NOT BECOME DISLOCATED DURING THE CONCRETE PLACING OPERATIONS OR WHILE OTHER CONSTRUCTION WORK IS BEING DONE.

UNLESS OTHERWISE INDICATED, PROVIDE CONDUIT IN ACCORDANCE WITH THE FOLLOWING:

RIGID METAL CONDUIT (RMC): ANYWHERE

INTERMEDIATE METAL CONDUIT (IMC): ANYWHERE

THINWALL METAL (EMT): ANYWHERE EXCEPT UNDERGROUND OR IN SLABS ON GRADE

POLYVINYL CHLORIDE (PVC): UNDERGROUND, IN SLABS ON GRADE OR CONCEALED IN MASONRY WALLS.

USE FLEXIBLE STEEL CONDUIT WITH GROUND WIRE FOR FINAL CONNECTION TO MOTORS AND LIGHT FIXTURES. USE SEALTITE IN DAMP OR CORROSIVE ATMOSPHERES.

METAL CLAD CABLE MAY BE USE FOR SWITCHLEGS AND BRANCH CIRCUITS WHERE ACCEPTABLE TO OWNER. HOMERUNS SHALL BE CONDUIT AND WIRE (NOT CABLE).

DO NOT PULL CONDUCTORS INTO CONDUITS UNTIL ALL WORK WHICH MAY CAUSE DAMAGE TO THE WIRES IS COMPLETED. INSTALL WIRE AND CABLES SO AS NOT TO DAMAGE THE INSULATION OR CABLE SHEATH. PULL ALL CONDUCTORS TO BE INSTALLED IN A RACEWAY TOGETHER.

KEEP CONDUCTOR SPLICES TO A MINIMUM. PROVIDE SPLICES AND TAPS WITH AT LEAST THE EQUIVALENT MECHANICAL STRENGTH AND INSULATION AS THE CONDUCTORS. PROVIDE SPICE AND TAP DEVICES OF THE PROPER SIZE AND TYPE FOR THE USE AND COMPATIBLE WITH THE CONDUCTOR MATERIAL. PROVIDE SUFFICIENT LENGTH OF CONDUCTORS WITHIN CABINETS AND CUTOUT BOXES TO NEATLY TRAIN THE CONDUCTOR TO THE TERMINAL POINT WITH NO EXCESS. FASTEN THE CABLES TOGETHER IN NEAT BUNDLES WHEN THERE ARE MANY CONDUCTORS.

3.05 EQUIPMENT MOUNTING

INSTALL EQUIPMENT MOUNTING ON CEILING, WALL, OR FLOOR AS INDICATED OR AS APPROPRIATE. PROVIDE FASTENERS OR SUPPORTS SUFFICIENT IN SIZE AND QUANTITY TO SUBSTANTIALLY SECURE THE EQUIPMENT IN PLACE TO THE BUILDING STRUCTURE OR STRUCTURAL ELEMENT. INSTALL THE EQUIPMENT PLUMB AND TRUE AS INTENDED AND SECURE. WHEN SEVERAL ITEMS OF EQUIPMENT ARE WALL MOUNTED IN THE SAME AREA, LINE THEM UP VERTICALLY AND HORIZONTALLY ALONG WITH ANY ASSOCIATED RACEWAYS.

3.06 SLEEVES

WHERE ELECTRICAL CONDUITS PASS THROUGH WALLS, ROOFS, CEILINGS, OR FLOORS, SET SLEEVES FOR THEM WHEN THE FLOORS, WALLS, OR ROOFS ARE CONSTRUCTED. IF ANY HOLES ARE CUT IN FINISHED WORK WHERE SLEEVES HAVE BEEN OMITTED, USE A CONCRETE CORING MACHINE OR OTHER APPROVED METHOD AND ONLY WITH THE WRITTEN CONSENT OF THE ARCHITECT. CUT ALL SUCH HOLES CAREFULLY, NO LARGER THAN NECESSARY. COVER THESE HOLES ENTIRELY BY ESCUTCHEON PLATES WHEN WORK IS COMPLETED. PROVIDE SLEEVES MADE OF STEEL NO LIGHTER THAN 18 GAUGE.

WHERE CONDUITS PASS THROUGH SLEEVES IN EXTERIOR WALLS, CAULK THE ANNUAL SPACE AND FILL INSIDE AND OUT WITH A NON-HARDENING, WATERPROOF SEALANT FINISHED OFF FLUSH WITH BOTH FACES OF THE WALL.

WHERE CONDUITS PASS THROUGH SLEEVES IN THE ROOF, FLASH THE PENETRATION IN ACCORDANCE WITH SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC., AND THE ROOFING MANUFACTURER'S RECOMMENDED PROCEDURES AND MATERIALS.

SEAL CONDUITS OR CABLES PASSING THROUGH SLEEVES IN FLOORS OR WALLS INSIDE THE BUILDING TO PREVENT PASSAGE OF SMOKE OR SPREAD OF FIRE. USE A FIRE RESISTANT SILICONE FOAM SEALANT, CLASSIFIED BY UL. MAINTAIN FIRE RATING OF ALL WALLS AND FLOORS.

3.07 CUTTING AND PATCHING: CUT WALLS, FLOORS, ETC. AS REQUIRED FOR THE ELECTRICAL INSTALLATIONS. UNLESS OTHERWISE INDICATED, PATCH AND REFINISH TO MATCH ADJACENT SURFACES.

3.08 PROTECTION OF EQUIPMENT

DURING CONSTRUCTION, PROTECT ALL EQUIPMENT FROM INSULATION MOISTURE ABSORPTION AND METALLIC COMPONENT CORROSION BY APPROPRIATE USE OF STRIP HEATERS, LAMPS, COVERINGS, OR OTHER SUITABLE MEANS. APPLY PROTECTION IMMEDIATELY UPON RECEIVING THE PRODUCTS AND MAINTAIN CONTINUALLY. KEEP PRODUCTS CLEAN BY ELEVATING ABOVE GROUND OR FLOOR AND BY USING SUITABLE COVERINGS. TAKE SUCH PRECAUTIONS AS ARE NECESSARY TO PROTECT APPARATUS AND MATERIALS FROM DAMAGE. FAILURE TO PROTECT MATERIALS IS SUFFICIENT CAUSE FOR REJECTION OF THE APPARATUS OR MATERIAL IN QUESTION. PROTECT FACTORY FINISH FROM DAMAGE DURING CONSTRUCTION OPERATIONS AND UNTIL ACCEPTANCE OF THE PROJECT. SATISFACTORILY RESTORE ANY FINISHES THAT BECOME STAINED OR DAMAGED.

3.09 ELECTRICAL WORK CLOSEOUT

RECORD DRAWINGS: DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF ALL CHANGES MADE IN THE ELECTRICAL POWER, LIGHTING AND SYSTEMS FROM THE LAYOUT OF MATERIALS SHOWN ON THE APPROVED SUBMITTALS AND SHOP DRAWINGS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL DELIVER TO ENGINEER AN UP-TO-DATE SET OF REPRODUCIBLE RECORD DRAWINGS.

1.SEE DIVISION 1 FOR SPECIFIC REQUIREMENTS FOR RECORD DRAWINGS.

2.FOR ELECTRICAL WORK, GIVE SPECIAL ATTENTION TO THE COMPLETE AND ACCURATE RECORDING OF:

a)RACEWAY SYSTEMS, SIZE AND LOCATION, LOCATIONS OF CONTROL DEVICES, DISTRIBUTION AND BRANCH ELECTRICAL CIRCUITRY; AND FUSE AND CIRCUIT BREAKER SIZE AND ARRANGEMENTS.

b)EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.

c)APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

d)WORK OF CHANGE ORDERS WHERE NOT SHOWN ACCURATELY BY CONTRACT DOCUMENTS.

e)WORK OF ADDENDA NOT ATTACHED TO THE DRAWINGS.

TESTS:

1. TEST ALL SYSTEMS AND PLACE IN PROPER WORKING ORDER PRIOR TO DEMONSTRATING SYSTEMS TO THE OWNER.

2. TEST SYSTEM GROUND TO DEMONSTRATE THAT THE GROUND RESISTANCE DOES NOT EXCEED THE REQUIREMENTS OF NEC.

3.PERFORM SUCH TESTS AS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THE SITE.

Wall Opening Protective Materials (CLIV)

SpecSeal Power Shield Box Inserts , for use with flush device UL Listed Metallic Outlet Boxes without internal clamps installed with steel mud rings in framed wall assemblies. When protective material is used in outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. (610 mm) provided that the boxes are not installed back-to-back. Installation shall comply with the National Electrical Code (NFPA 70). The max outlet box dimensions, hourly rating, type of stud, use of stud cavity insulation and type of faceplate are tabulated below. Additional general construction features shall comply as follows:

A.Studs – Unless otherwise specified, the minimum stud width is 3–1/2 in. (89 mm).

B.Stud Cavity Insulation – Where indicated in the table below, stud cavity insulation to consist of min 3–1/2 in. (89 mm) thick fiberglass (min 0.5 pcf or 8 kg/m³) or mineral fiber (min 4 pcf or 64 kg/m³). Unless indicated as required, stud cavity insulation is optional.

C.Wall Design – Stud composition is indicated in the table below. Wall construction shall comply with the individual U300, U400 or V400 Series Wall and Partition Design in the Fire Resistance Directory.

D.Pad Dimensions – The min dimensions of the insert pad are shown in the table below. Pads may be cut to achieve dimensions shown in table and partial insert pads may be utilized.

Product	Max Outlet Box Size, in (mm)	Pad Size, in (mm)	Rating, Hr	Stud	Cavity Insulation	Face Plate Type
EP23	2 x 3 x 2-1/4 (51 x 76 x 57) deep	1-7/8 x 2-3/4 (48 x 70)	2	Steel	No	Steel
EP23	2 x 3 x 2-1/4 (51 x 76 x 57) deep	1-7/8 x 2-3/4 (48 x 70)	2	Steel	Yes	Plastic
EP23	2 x 3 x 2-1/4 (51 x 76 x 57) deep	1-7/8 x 2-3/4 (48 x 70)	1	Steel or Wood	Yes	Plastic or Steel
EP24	2-1/8 x 4 x 2-1/8 (54 x 102 x 54) deep	1-7/8 x 3-3/4 (48 x 95)	2	Steel	No	Steel
EP24	2-1/8 x 4 x 2-1/8 (54 x 102 x 54) deep	1-7/8 x 3-3/4 (48 x 95)	2	Steel	Yes	Plastic
EP24	2-1/8 x 4 x 2-1/8 (54 x 102 x 54) deep	1-7/8 x 3-3/4 (48 x 95)	1	Steel or Wood	Yes	Plastic or Steel
EP44	4 x 4 x 2-1/8 (102 x 102x 54) deep	3-3/4 x 3-3/4 (95 x 95)	2	Steel	No	Steel
EP44	4 x 4 x 2-1/8 (102 x 102x 54) deep	3-3/4 x 3-3/4 (95 x 95)	2	Steel	Yes	Plastic
EP44	4 x 4 x 2-1/8 (102 x 102x 54) deep	3-3/4 x 3-3/4 (95 x 95)	1	Steel or Wood	Yes	Plastic or Steel
EP45	4-11/16 x 4-11/16 x 2-1/8 (119 x 119 x 54) deep	4-1/2 x 4-1/2 (114 x 114)	1 or 2	Steel or Wood	Yes	Plastic or Steel
EP45	4-1/2 x 5 x 2-3/8 (114 x 127 x 60) deep	4-1/2 x 4-1/2 (114 x 114)	1 or 2	Steel or Wood	Yes	Plastic or Steel
EP45	4-1/2 x 14 x 2-1/2 (114 x 356 x 64) deep	4-1/2 x 13-3/4 (114 x 49)	1 or 2	Steel or Wood	Yes	Plastic or Steel

Specified Technologies Inc. 200 Evans Way Somerville, NJ 08876

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SpecSeal Putty Pads , for use with flush device UL Listed Metallic Outlet Boxes installed with steel mud rings or UL Listed Nonmetallic Outlet Boxes in framed wall assemblies. When protective material is used on outlet boxes on both sides of the wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. (610 mm) provided that the boxes are not installed back-to-back. Installation shall comply with the National Electrical Code (NFPA 70). Min 3/16 in. (5 mm) thick moldable putty pads are to be installed to completely cover the exterior surfaces of the outlet box (except for the side of the outlet box against the stud) and to completely seal against the stud within the stud cavity. Adjoining pieces of moldable putty pads to be overlapped approx 1/2 in. (13 mm) at the seam. An additional 3/16 in. (5 mm) thickness of putty to be formed around the connector securing the end of each type MC cable, electrical metallic tube (EMT) or conduit to the box. When nonmetallic box is used with Type NM cable, a 3/16 in. (5 mm) thickness of putty shall be formed around the cable at its connection to the box and extending a min of 1 in. (25 mm). The box composition, max device dimensions, hourly rating, type of stud and type of faceplate are tabulated below. Additional general construction features shall comply as follows:

A.Studs – Unless otherwise specified, the minimum stud width is 3–1/2 in. (89 mm).

B.Stud Cavity Insulation – Unless indicated as required, stud cavity insulation is optional and may consist of min 3–1/2 in. (89 mm) thick fiberglass (min 0.5 pcf or 8 kg/m³) or mineral fiber (min 4 pcf or 64 kg/m³).

C.Wall Design – Stud composition is indicated in the table below. Wall construction shall comply with the individual U300, U400 or V400 Series Wall and Partition Design in the Fire Resistance Directory.

D.Metallic Outlet Boxes – Except as indicated in the table below, when steel outlet boxes are used and the boxes are interconnected by means of electrical metallic tube or conduit, a ball of putty is to be installed to plug the open end of each electrical metallic tube (EMT) or conduit within the outlet box. When MC cable is used and/or when the outlet boxes are not interconnected, the ball of putty is not required.

E.Nonmetallic Outlet Boxes – The box manufacturer is indicated in the table below. Boxes shall bear a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory.

Outlet Box Type	Outlet Box Mfr	Max Outlet Box Size, in (mm)	Rating, Hr	Stud	Faceplate Type	Putty Ball
Steel	N.A.	4 x 4 x 2-1/8 (102 x 102 x 54) deep	1	Steel or Wood	Steel	No
Steel	N.A.	4 x 4 x 2-1/8 (102 x 102 x 54) deep	1	Steel or Wood	Plastic	Yes
Steel	N.A.	4-11/16 x 4-11/16 x 2-1/8 (119 x 119 x 54) deep	1 or 2	Steel or Wood	Steel	Yes
Steel	N.A.	4-1/2 x 5 x 2-3/8 (114 x 127 x 60) deep	1 or 2	Steel or Wood	Steel	Yes
Steel	N.A.	4-1/2 x 14 x 2-1/2 (114 x 127 x 60) deep	1 or 2	Steel or Wood	Steel	Yes
Polyvinyl Chloride	Lamson & Sessions	3-3/4 x 4 x 3 (95 x 102 x 76) deep	1 or 2	Wood	Plastic or Steel	N.A.
Phenolic	Allied Moulded Products	3-3/4 x 4 x 3 (95 x 102 x 76) deep	1 or 2	Wood	Plastic or Steel	N.A.
Polycarbonate	Thomas & Betts	3-3/4 x 4 x 3 (95 x 102 x 76) deep	1 or 2	Wood	Plastic or Steel	N.A.
Phenolic	Thomas & Betts	3-3/4 x 4 x 3 (95 x 102 x 76) deep	1 or 2	Wood	Plastic or Steel	N.A.
Polyvinyl Chloride	Pass & Seymour	2-1/4 x 3-3/4 x 2-3/4 (67 x 95 x 70) deep	1 or 2	Wood	Plastic or Steel	N.A.

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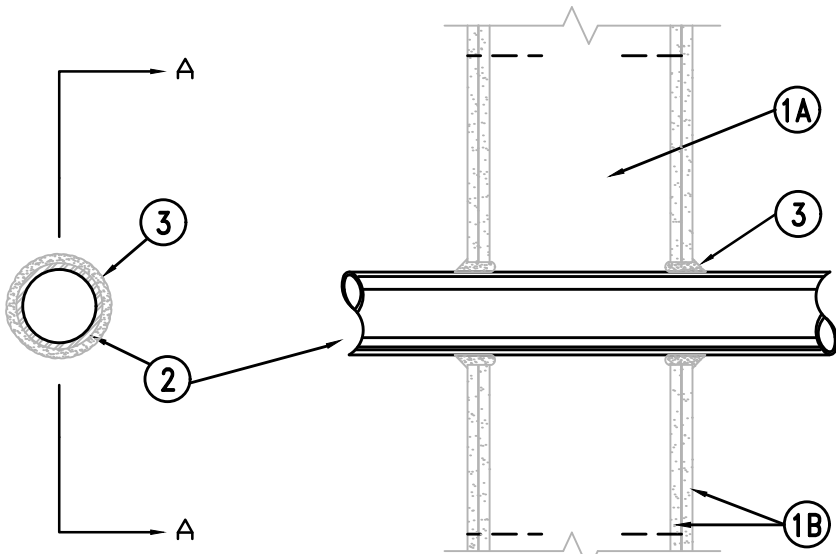
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Created or Revised: July 31, 2007

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System No. W-L-1001
June 15, 2005

F Ratings – 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings – 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient –less than 1 CFM/sq ft
L Rating At 400 F –less than 1 CFM/sq ft



1. Wall Assembly –The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs –Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3–5/8 in. (92 mm) wide by 1–3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

B. Gypsum Board* –Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. Through-Penetrant –One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in. / (0 mm). (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe –Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe –Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. Conduit –Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing

D. Copper Tubing –Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing

E. Copper Pipe –Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

F. Through Penetrating Product* –Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. CASTITE, DIV OF TITEFLEX

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly. WARD MFG INC

3. Fill, Void or Cavity Material* –Caulk or Sealant –Min 5/8. , 1–1/4,1–7/8 and 2–1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In (mm)	F RATING Hr	T RATING Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY –CP 25WB+ or FB-3000 WT.

*Bearing the UL Classification Mark

AR 12261

HARTER – ADAMS P.A.

ARCHITECTS AND PLANNERS

377 MAYLAND AVENUE, S.E. 3010 ATLANTA, GEORGIA 30316
PHONE: 404-527-3767 FAX: 404-527-3767

INTERIOR ALTERATION

Century Studios-Sute 106

2929 W. US Hwy 90, Lake City, Florida, FL., 32055

REVISION

JOB NO. 21026

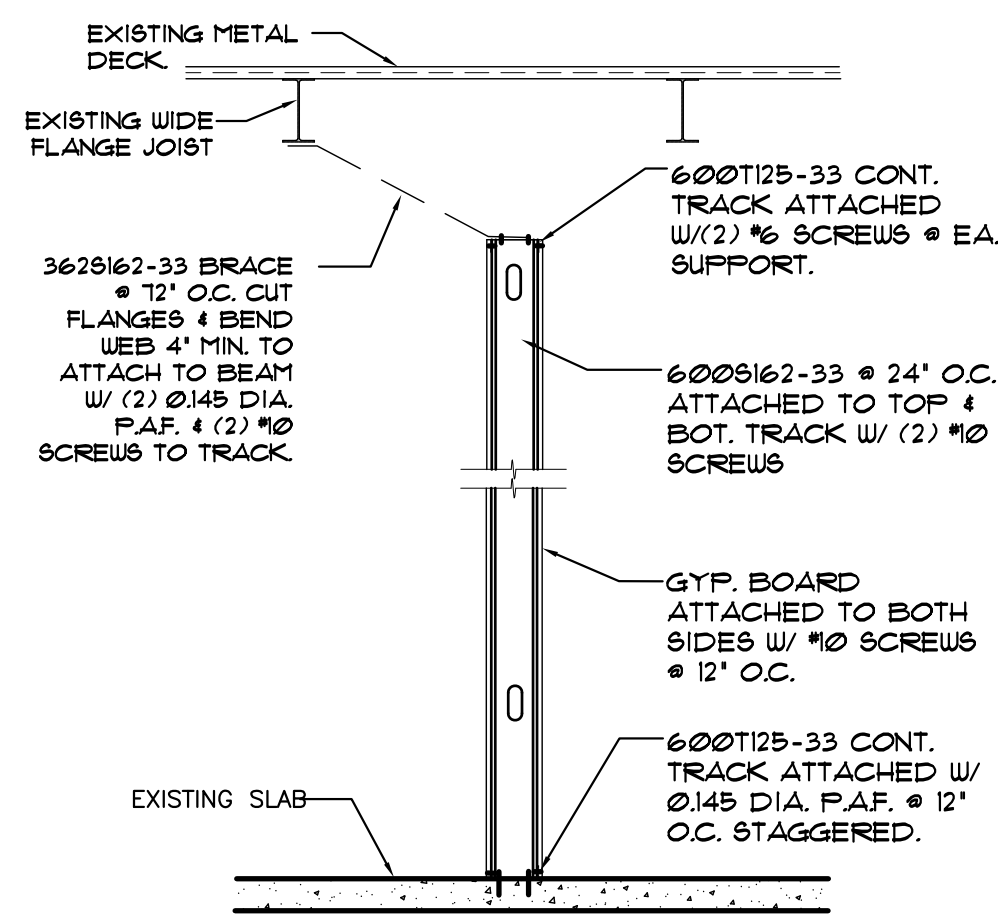
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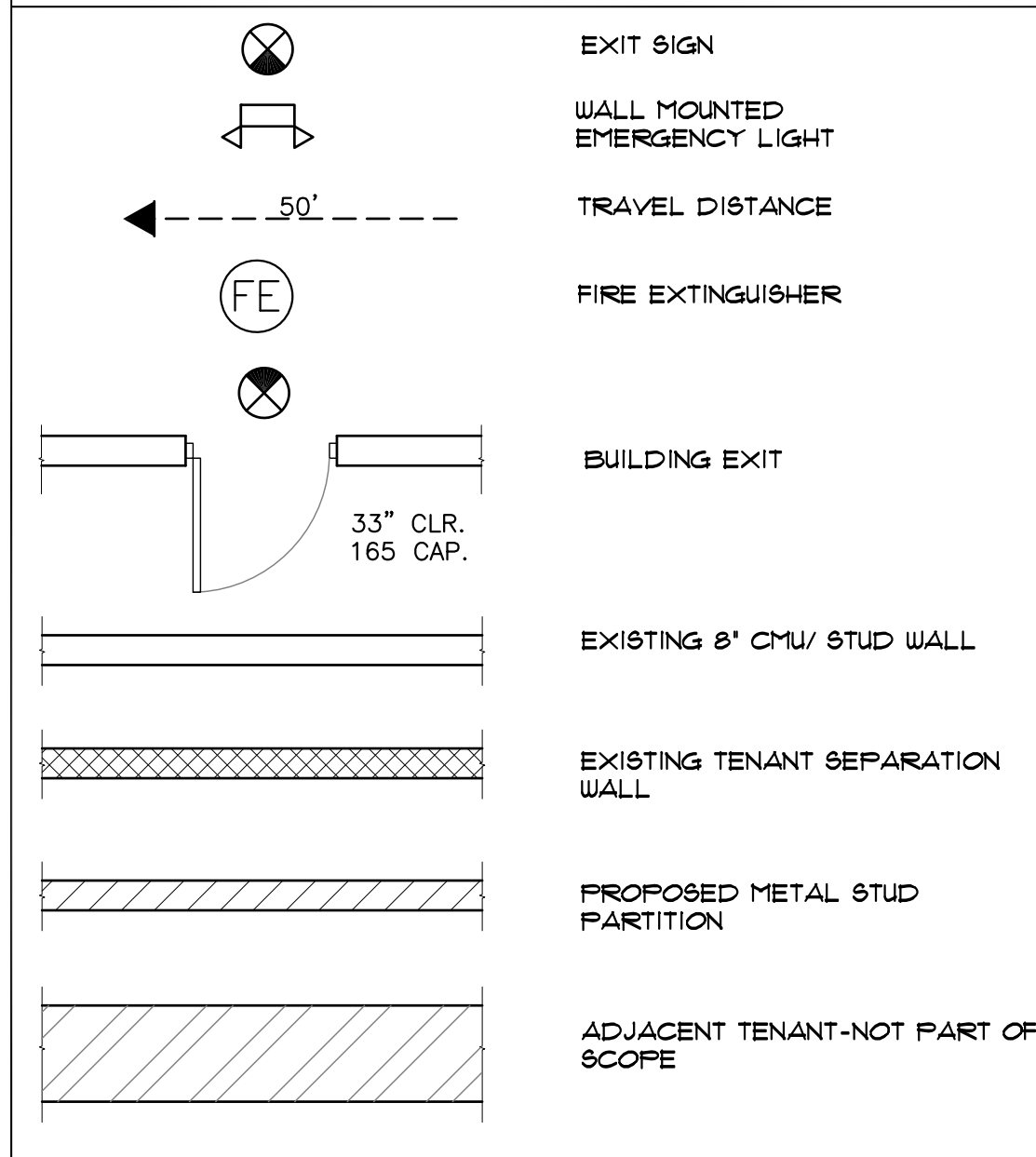
3 OF -

Thomas D. Adams
AR 12261

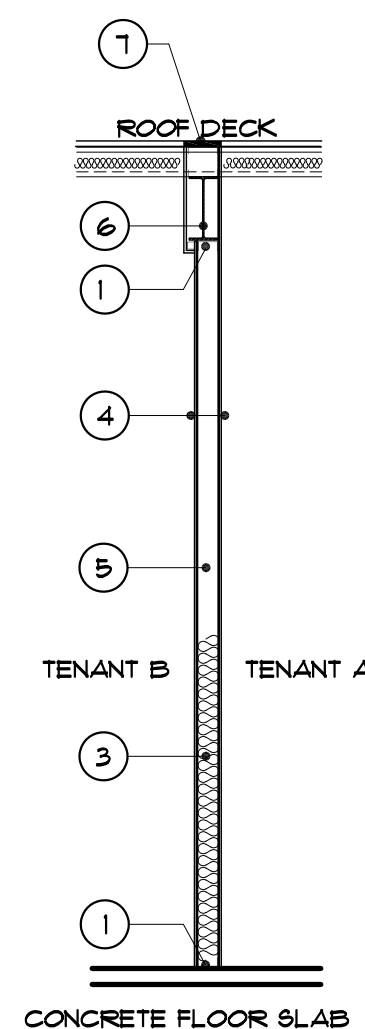


3 INTERIOR PARTITION BRACING
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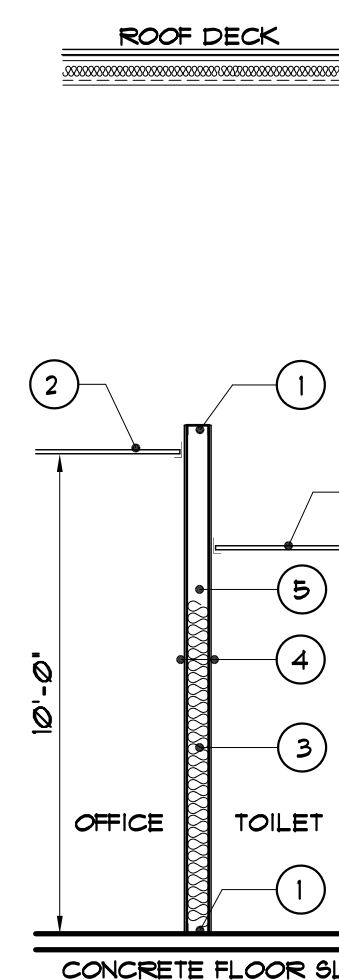
LIFE SAFETY LEGEND:



PROVIDE FIRE EXTINGUISHERS HAVING A MINIMUM RATING OF 2A-10B-C FOR EVERY 3000 SQUARE FEET OF FLOOR AREA. TRAVEL DISTANCE TO AN EXTINGUISHER SHALL NOT EXCEED 15 FEET. MOUNT AT 33 1/2" AFF. INSTALLED IN APPROPRIATE LOCATIONS AS DIRECTED BY FIRE MARSHALL TO MEET LOCAL CODES.



2 FIRE-RATED WALL
(EXISTING)

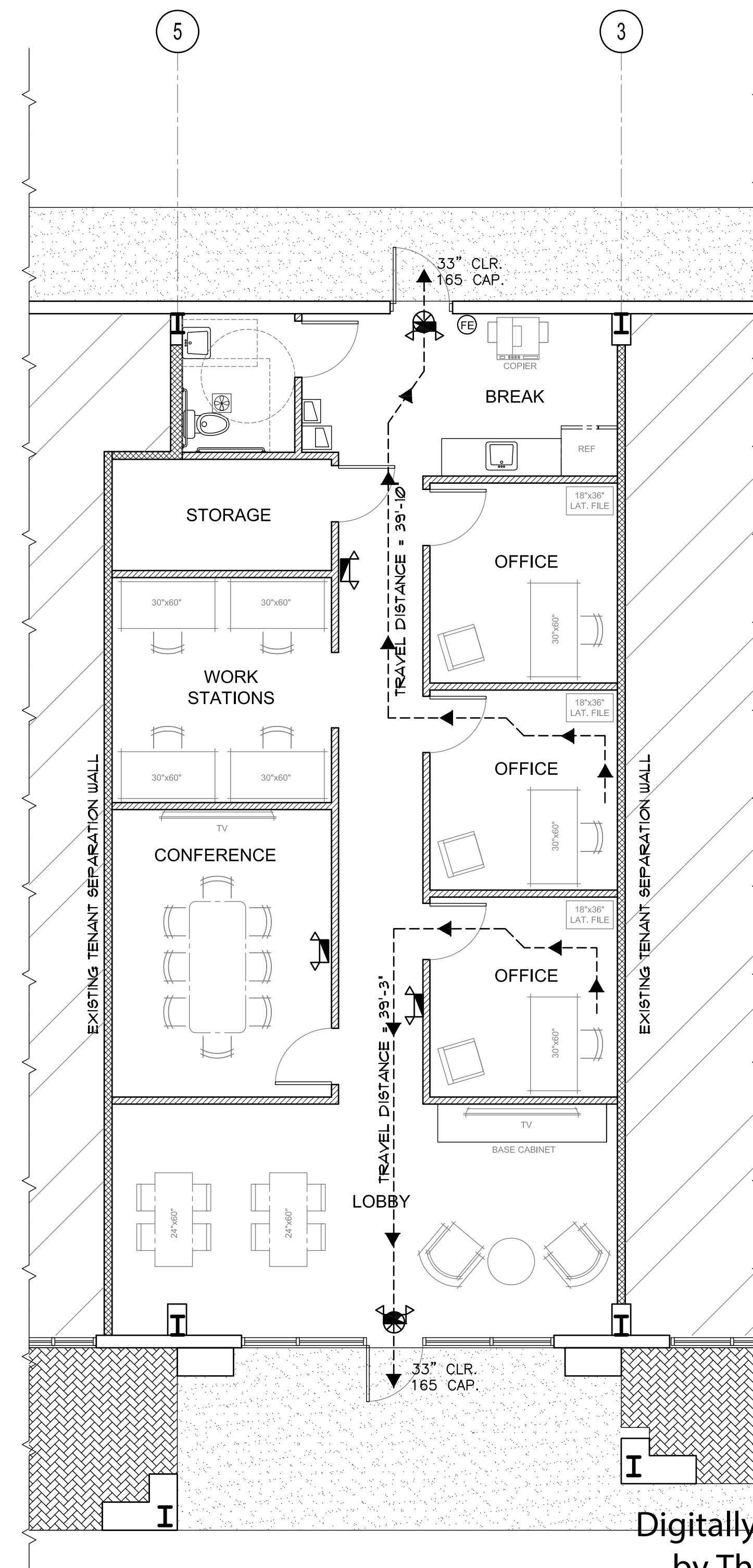


3 INTERIOR WALL

1. TOP AND BOTTOM RUNNER
2. SUSPENDED ACOUSTICAL CEILING
3. SOUND INSULATION (OPTIONAL)
4. 1/2" GYP. BD. WALLS/ CEILING, 5/8" AT FIRE RATED ASSEMBLIES
5. 3-5/8" WIDE METAL STUDS (UNO.), AT 24" O.C. MAX. GAUGE PER CHART BELOW, (25 GA. MIN.).

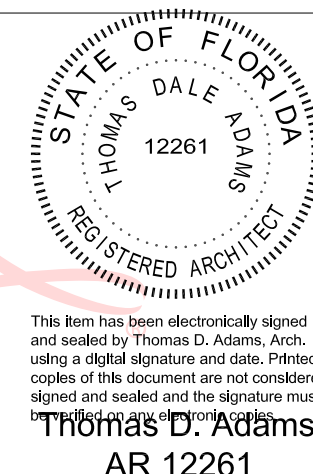
25 GA.	11'-0" MAX. UNBRACED PARTITION HGT.
20 GA.	14'-0" MAX. UNBRACED PARTITION HGT.
18 GA.	17'-0" MAX. UNBRACED PARTITION HGT.
16 GA.	20'-0" MAX. UNBRACED PARTITION HGT.

NOTE:
FOR INTERIOR PARTITIONS STUDS ARE FASTENED TO TOP AND BOTTOM TRACK WITH 1 #10 TEK SCREW EACH SIDE OF EACH STUD. BOTTOM TRACK IS FASTENED TO FLOOR WITH PAF AT 24". TOP TRACK FASTENED TO JOISTS USING 20 GA. CLIP ANGLE W/ (3) #10 TEK SCREWS



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

Digitally signed
by Thomas D
Adams
Date: 2022.01.18
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INTERIOR ALTERATION
Century Studios-Sute 106
2929 W. US Hwy 90, Lake City, Florida, FL., 32055

REVISION

JOB NO.
21028
DATE
12/03/2021
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2 OF 8

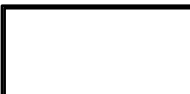
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AR 12261

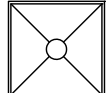
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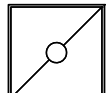
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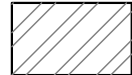
2X4 LAY IN LIGHT FIXTURE



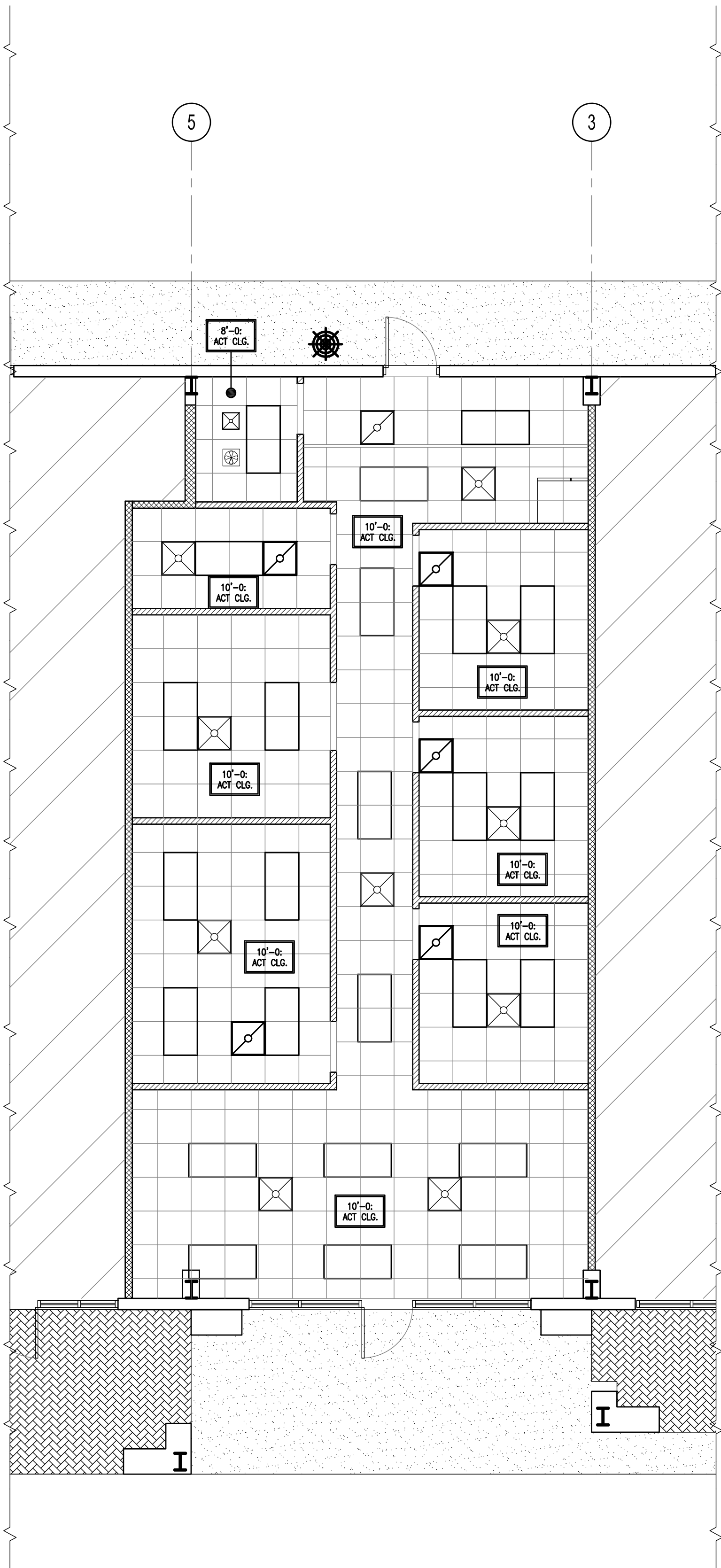
NEW/ RELOCATED SUPPLY AIR REGISTER



NEW/ RELOCATED RETURN AIR REGISTER



ADJACENT TENANT-NOT PART OF SCOPE



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



Digitally signed
by Thomas D
Adams
Date: 2022.01.18
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STATE OF FLORIDA

12261

REGISTERED ARCHITECT

This item has been electronically signed and sealed by Thomas D. Adams, Archt. using a digital signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Thomas D. Adams
AR 12261

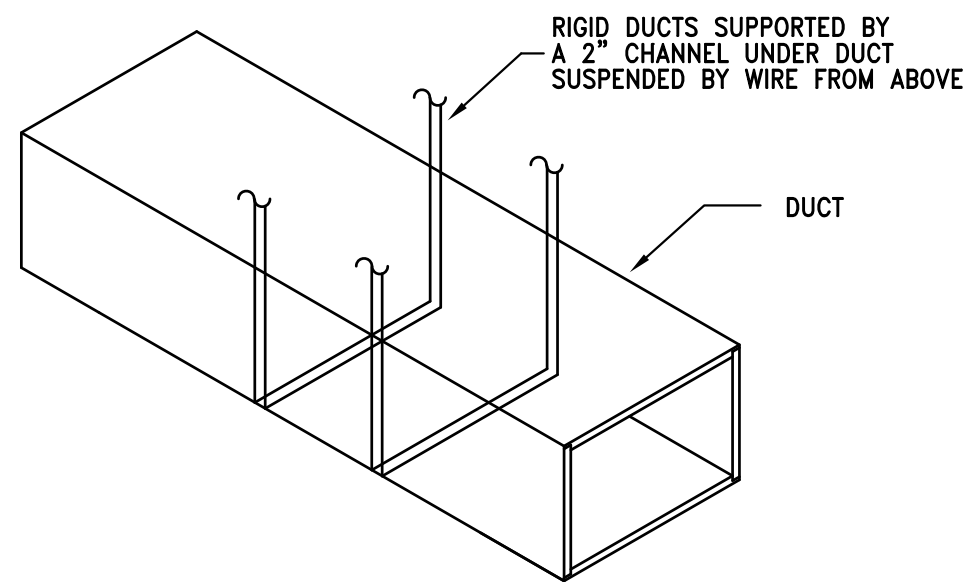
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INTERIOR ALTERATION
Century Studios–Sute 106
2929 W. US Hwy 90, Lake City, Florida, FL., 32055

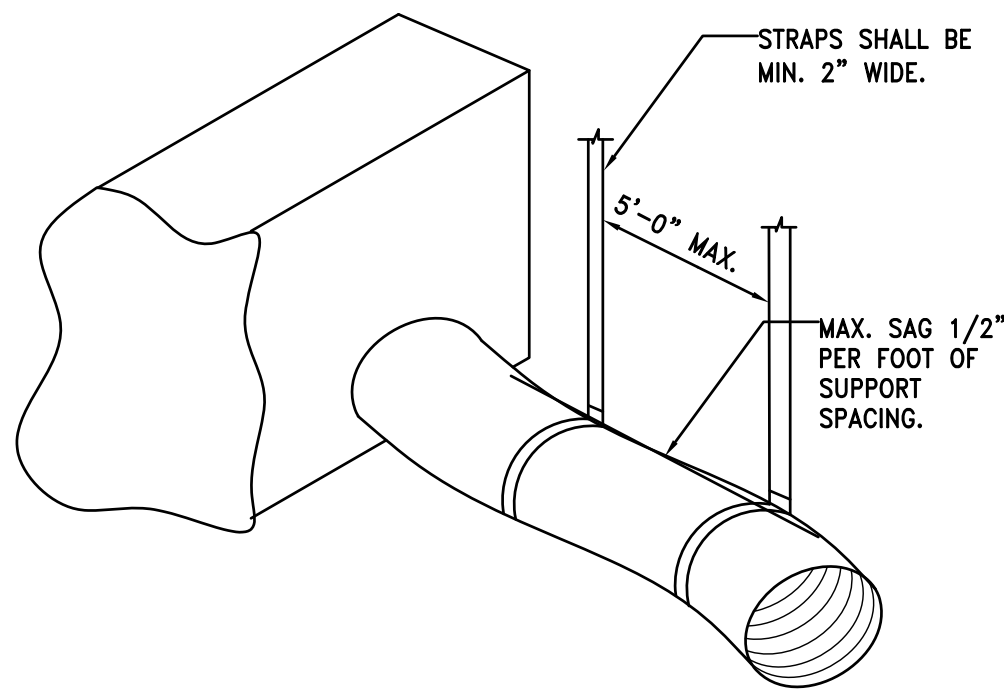
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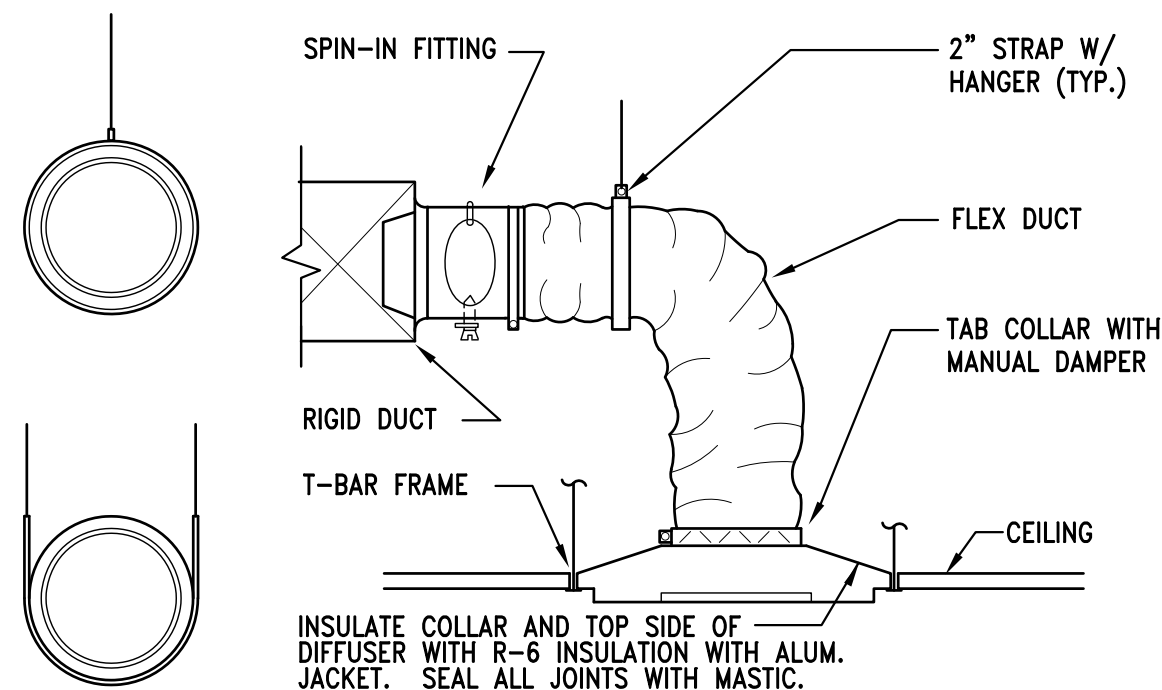


MAX. HALF OF DUCT PERIMETER	STRAP MATERIAL			
	10'-0" SPACING	8'-0" SPACING	5'-0" SPACING	4'-0" SPACING
P/2 = 30"	1.5" X 22 GA	1.5" X 22 GA	1.5" X 22 GA	1.5" X 22 GA
P/2 = 72"	1.5" X 18 GA	1.5" X 20 GA	1.5" X 22 GA	1.5" X 22 GA
P/2 = 96"	1.5" X 16 GA	1.5" X 18 GA	1.5" X 20 GA	1.5" X 22 GA
P/2 = 120"	1.5" X 16 GA	1.5" X 16 GA	1.5" X 18 GA	1.5" X 20 GA
P/2 = 168"	1.5" X 16 GA	1.5" X 16 GA	1.5" X 16 GA	1.5" X 18 GA

DUCT SUPPORT DETAIL
NOT TO SCALE



FLEXIBLE SUPPORTS DETAIL
NOT TO SCALE

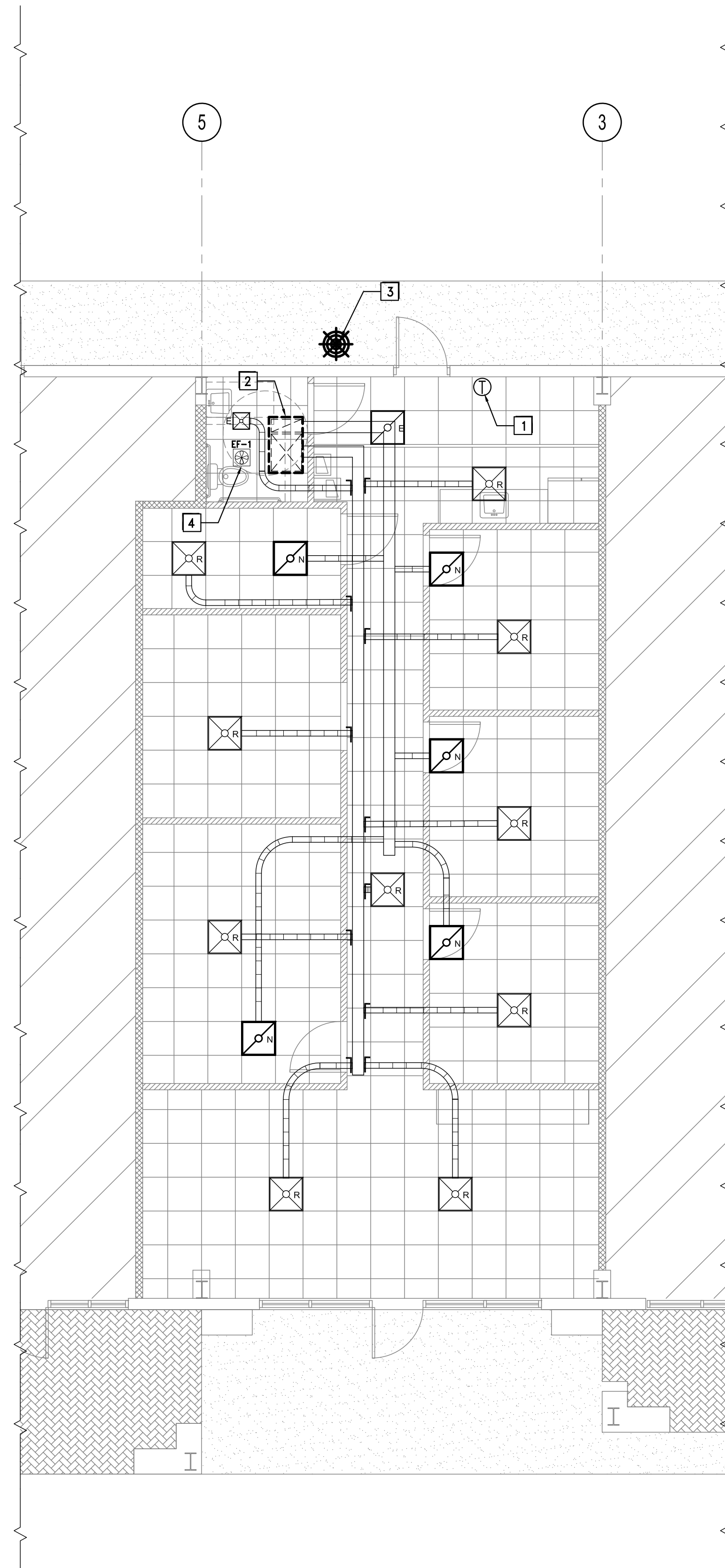


CEILING DIFFUSER DETAIL
NOT TO SCALE

H.V.A.C. LEGEND	
CONTROLS	TERMINALS
ⓘ EXISTING 7 DAY/24 HR.-ON/OFF/AUTO DIGITAL PROGRAMABLE THERMOSTAT	⊠ SUPPLY AIR REGISTER (E) DENOTES EXISTING (R) DENOTES RELOCATED (N) DENOTES NEW
1 VOLUME DAMPER	⊡ RETURN AIR REGISTER (E) DENOTES EXISTING (R) DENOTES RELOCATED (N) DENOTES NEW
DUCTWORK - GRILLES	
▬ FLEX DUCT	⊞ EXISTING EXHAUST FAN
▬ EXISTING RECTANGLE DUCT	⬆ WALL GRILLE OR LOUVER (THROW SHOWN)

HVAC NOTES	
1	EXISTING FULLY DIGITAL 7 DAY PROGRAMMABLE TYPE THERMOSTAT.
2	EXISTING HORIZONTAL SUSPENDED AIR HANDLER ABOVE CEILING.
3	EXISTING CONDENSING UNIT.
4	EXISTING TOILET EXHAUST FAN

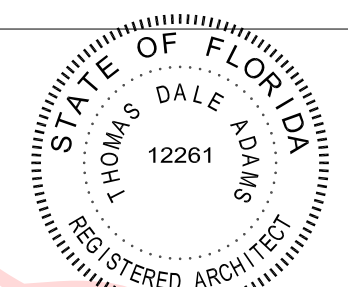
SCOPE OF WORK:	
THE MECHANICAL SCOPE OF WORK SHALL BE TO RELOCATE/ ADD SUPPLY AND/ OR RETURN AIR REGISTERS TO ACCOMMODATE THE NEW FLOOR PLAN. THE AIR HANDLER, CONDENSING UNIT AND TOILET EXHAUST FAN ARE EXISTING AND SHALL REMAIN WITH NO CHANGE.	



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



Digitally signed
by Thomas D
Adams
Date: 2022.01.18
'11:00:47 -05'00



This item has been electronically signed and sealed by Thomas D. Adams, Arch. using a digital signature and date. Printed copies of this document are not considered signed and sealed and the signature must be written.

Thomas D. Adams
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REVISION

JOB NO.
21028

DATE
12/03/2021

SHEET

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