SHELL

JACKSON MOB

3035 Hospital Drive
Marianna, FL 32446

OWNER:

QHR HEALTH - JACKSON HOSPITAL

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MECHANICAL, PLUMBING & FIRE PROTECTION, & ELECTRICAL
I.C. Thomasson Associates, Inc.

3031 N. Rocky Point Drive W.,
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Tampa, FL. 33607

813.882.4415
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INTERIOR
Janet Ott Interior Design

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Project Architect:

MBA

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Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS		
No.	Description	Date

Drawing Title:
COVER

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STANDARD ABBREVIATIONS

&	- AND
∡	- ANGLE
@	- AT
℄	- CENTER LINE
Ø	- DIAMETER OR ROUND
#	- NUMBER OR POUND
A	
AB	- ANCHOR BOLT
ACST	- ACOUSTIC(AL)
ADDL	- ADDITIONAL
ADDN	- ADDITION
ADH	- ADHESIVE
ADJ	- ADJACENT, ADJOINING, ADJUSTABLE
AED	- AUTOMATED EXTERNAL DEFIBRILLATOR
AFF	- ABOVE FINISH FLOOR
ALT	- ALTERNATE
ALUM	- ALUMINUM
ANCH	- ANCHOR
ANOD	- ANODIZE(D)
AP	- ACCESS PANEL
APC	- ACOUSTICAL PANEL CEILING
APPROX	- APPROXIMATE
ASPH	- ASPHALT
AUTO	- AUTOMATIC
AVE	- AVERAGE
AWT	- ACOUSTICAL WALL TREATMENT
B	
BAL SHT	- BALANCE SHEET
BC	- BRICK COLOR
BCS	- BABY CHANGING STATION
BD	- BOARD
BG	- BUMPER GUARD
BITUM	- BITUMINOUS
BLDG	- BUILDING
BLKG	- BLOCKING (WOOD)
BOT	- BOTTOM
BRDG	- BRIDGING
BRG	- BEARING
BRK PV	- BRICK PAVERS
BRKT	- BRACKET
BSMT	- BASEMENT
BTWN	- BETWEEN
BUR	- BUILT UP ROOFING
C	
CAB	- CABINET
CB	- CHALKBOARD
CC	- CUBICLE CURTAIN
CCT	- CUBICLE CURTAIN TRACK
CFMF	- COLD-FORMED METAL FRAMING
CG	- CORNER GUARD
CH	- COAT HOOK
CIP CONC	- CAST-IN-PLACE CONCRETE
CJ	- CONTROL JOING, CONSTRUCTION JOINT
CLG	- CEILING
CLR	- CLEAR
CMU	- CONCRETE MASONRY UNIT
CNTR	- COUNTER
CO	- CLEAN OUT, CASED OPENING
COL	- COLUMN
COMB	- COMBINATION, COMBINED
COMP	- COMPRESSIBLE
COMPT	- COMPARTMENT
CONC	- CONCRETE
CONC CTG	- CONCRETE COATING
COND	- CONDITION
CONT	- CONTINUOUS
CONTR	- CONTRACTOR
CORR	- CORRIDOR
CPRS	- COMPRESSIBLE
CPT	- CARPET
CR	- CLOSET ROD
CRL	- CRASH RAIL
CRS	- COLD-ROLLED STEEL
CTR	- CENTER(S)
CUH	- CABINET UNIT HEATER
CUV	- CABINET UNIT VENTILATOR
CW	- CURTAINWALL
D	
D	- DEEP, DEPTH, PENNY NAIL
DC	- DISPLAY CASE
DET	- DETAIL
DETN	- DETENTION
DF	- DRINKING FOUNTAIN
DIA	- DIAMETER
DIM	- DIMENSION
DN	- DOWN
DP	- DECORATIVE PANEL
DR	- DOOR
DS	- DOWNSPOUT
DWG	- DRAWING(S)
E	
EHD	- ELECTRIC HAND DRYER
EJ	- EXPANSION JOINT
EL	- ELEVATION
ELEC	- ELECTRIC, ELECTRICAL
ELEV	- ELEVATOR
EMBED	- EMBEDMENT
EMER	- EMERGENCY
EPDM	- ETHYLENE PROPYLENE DIENE MONOMER
EQ	- EQUAL
EQUIP	- EQUIPMENT
ES	- EXPOSED STRUCTURE
EW	- EACH WAY
EWC	- ELECTRIC WATER COOLER
EWH	- ELECTRIC WATER HEATER
EXIST	- EXISTING
EXP	- EXPANSION

EXT	- EXTERIOR
F	
FAB	- FABRIC
FD	- FLOOR DRAIN
FDTN	- FOUNDATION
FE	- FIRE EXTINGUISHER
FEC	- FIRE EXTINGUISHER CABINET
FF	- FINISH FLOOR
FHC	- FIRE HOSE CABINET
FIN	- FINISH
FLASH	- FLASHING
FLP	- FLOOR PATTERN
FLR	- FLOOR
FRP	- FIBER REINFORCED PLASTIC
FTG	- FOOTING
FURG C	- FURRING CHANNEL
FURN	- FURNACE
FWC	- FABRIC WALLCOVERING
G	
GA	- GAGE, GAUGE
GALV	- GALVANIZED
GB	- GRAB BAR
GFRC	- GLASS-FIBER REINFORCED CONCRETE
GL	- GLASS
GL BLK	- GLASS BLOCK
GLZ CMU	- GLAZED CONCRETE MASONRY UNIT
GRFG	- GLASS-FIBER REINFORCED GYPSUM
GT	- GROUT
GWH	- GAS FIRED WATER HEATER
GYP BD	- GYPSUM WALL BOARD
H	
H	- HIGH, HATCH (ROOF)
HB	- HOSE BIB
HDNR	- HARDENER
HDW	- HARDWARE
HDWD	- HARDWOOD
HM	- HOLLOW METAL
HORIZ	- HORIZONTAL
HR	- HANDRAIL
HT	- HEIGHT
HTG	- HEATING
HVAC	- HEATING, VENTILATING, AND AIR CONDITIONING
I	
ID	- INSIDE DIAMETER, INSIDE DIMENSION
IF	- INSIDE FACE
INCL	- INCLUDED
INSUL	- INSULATION
INT	- INTERIOR
INV	- INVERT
J	
JT	- JOINT
K	
KD	- KNOCKED DOWN
KOP	- KNOCK OUT PANEL
L	
L	- LONG, ANGLE
LAM	- LAMINATE(D)
LAV	- LAVATORY
LH	- LEFT HAND
LINO	- LINOLEUM
LKR	- LOCKER
LL	- LIVE LOAD, LOW LEVEL
LLH	- LONG LEG HORIZONTAL
LLV	- LONG LEG VERTICAL
LT	- LIGHT
LVL	- LEVEL
LVR	- LOUVER
M	
MAS	- MASONRY
MATL	- MATERIAL
MAX	- MAXIMUM
MB	- MARKERBOARD
MBH	- MOB/BROOM HOLDER
MECH	- MECHANICAL
MED	- MEDIUM
MEZZ	- MEZZANINE
MFR	- MANUFACTURER
MH	- MANHOLE
MI	- MIRROR
MIN	- MINIMUM, MINUTE
MISC	- MISCELLANEOUS
MO	- MASONRY OPENING
MOD	- MODEL, MODULE, MODULAR
MSB	- MOP SERVICE BASIN
MT	- MOUNT
MTL	- METAL
N	
NDU	- NEEDLE DISPOSAL UNIT
NIC	- NOT IN CONTRACT, NOISE ISOLATION CLASS
NO	- NUMBER
NOM	- NOMINAL
NTS	- NOT TO SCALE
O	
OA	- OVERALL
OC	- ON CENTER
OD	- OUTSIDE DIAMETER, OUTSIDE DIMENSION
OF	- OUTSIDE FACE
OFD	- OVERFLOW DRAIN
OH	- OVERHEAD
OH DR	- OVERHEAD DOOR
OP	- OPERABLE PARTITION
OPH	- OPPOSITE HAND
OPNG	- OPENING
OPP	- OPPOSITE
OS	- OVERFLOW SCUPPER

P	
PC	- PORTLAND CEMENT, POINT OF CURVE, POLYCARBONATE
PCC	- PRECAST CONCRETE
PERIM	- PERIMETER
PJ	- PROJECTOR
PL	- PLATE, PLASTIC LAMINATE
PLAS	- PLASTER
PLBG	- PLUMBING
PLYWD	- PLYWOOD
PS	- PROJECTION SCREEN
PSF	- POUNDS PER SQUARE FOOT
PT	- PAINT
PTD	- PAPER TOWEL DISPENSER
PTDR	- PAPER TOWEL DISPENSER & RECEPTACLE
PTN	- PARTITION
PTR	- PAPER TOWEL RECEPTACLE
PVC	- POLYVINYL CHLORIDE
R	
RCP	- REFLECTED CEILING PLAN
RD	- ROOF DRAIN, ROAD
REF	- REFERENCE, REFRIGERATOR
REINF	- REINFORCE
REQD	- REQUIRED
RF	- RESILIENT FLOORING
RFG	- ROOFING
RFM	- REMOVABLE FLOOR MAT
RH	- RIGHT HAND
RO	- ROUGH OPENING
RSF	- RESINOUS FLOORING
RST	- REINFORCING STEEL
RTF	- RESILIENT TILE FLOORING
RV	- ROOF VENT, ROOF VENTILATOR
S	
SC	- SEALED CONCRETE
SCHED	- SCHEDULE
SCR	- SHOWER CURTAIN ROD
SCWD	- SOLID CORE WOOD DOOR
SD	- SOAP DISPENSER
SECT	- SECTION
SF	- STOREFRONT
SH	- SHINGLES, SINGLE HUNG (WINDOW)
SHT	- SHEET
SHTHG	- SHEATHING
SHV	- SHELVING
SLNT	- SEALANT
SND	- SANITARY NAPKIN DISPENSER
SNDU	- SANITARY NAPKIN DISPOSAL UNIT
SOG	- SLAB ON GRADE
SPCG	- SPACING
SPEC	- SPECIFICATION
SPKR	- SPEAKER
SQ	- SQUARE
SS	- SERVICE SINK , SOLID SURFACING
SST	- STAINLESS STEEL, SHOWER SEAT
STD	- STANDARD
STL	- STEEL
STL JST	- STEEL JOIST
STL LNTL	- STEEL LINTEL
STL PL	- STEEL PLATE
STL RF DK	- STEEL ROOF DECK
STL TR	- STEEL TRUSS
STN	- STAIN
STRUCT	- STRUCTURAL
SUSP	- SUSPEND
SV	- SHEET VINYL
SWP	- SHEET WALL PROTECTION
SYMM	- SYMMETRICAL
SYNTH	- SYNTHETIC
T	
T	- TILE, TREAD
T&G	- TONGUE AND GROOVE
T/S	- TUB/SHOWER
TB	- TOWEL BAR, TACKBOARD
TC	- TOILET COMPARTMENT
TD	- TRENCH DRAIN
TER	- TERRAZZO
THK	- THICK
TOB	- TOP OF BEAM
TOC	- TOP OF CONCRETE, TOP OF CURB
TOF	- TOP OF FOOTING
TOM	- TOP OF MASONRY
TOS	- TOP OF SLAB, TOP OF STEEL
TOW	- TOP OF WALL
TPH	- TOILET PAPER HOLDER
TR	- TOWEL RACK
TS	- TUBE STEEL, TRANSITION STRIP
U	
UNO	- UNLESS NOTED OTHERWISE
V	
VCT/VT	- VINYL COMPOSITION TILE
VERT	- VERTICAL
VIF	- VERIFY IN FIELD
VWC	- VINYL WALL COVERING
VWE	- VERIFY WITH EQUIPMENT
W	
W	- WIDE, WEST
WC	- WALL COVERING
WD	- WOOD, WOOD DOOR
WDW	- WINDOW
WP	- WALL PATTERN, WATERPROOFING
WT	- WEIGHT, WINDOW TREATMENT
WWF	- WELDED WIRE FABRIC

CODE CRITERIA

X1-CODE (020121)

AMERICANS WITH DISABILITIES ACT REGULATIONS (ADA) TITLE III (28 CFR PART 36), LATEST EDITION

AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS (ASHRAE)
0 ASHRAE HANDBOOK, LATEST EDITION

FLORIDA BUILDING CODE
0 BUILDING CODE-7TH EDITION (2020)
0 FLORIDA ACCESSIBILITY CODE-7TH EDITION (2020)
0 TEST PROTOCOLS FOR HIGH VELOCITY HURRICANE ZONE-7TH EDITION (2020)
0 EXISTING BUILDING-7TH EDITION (2020)
0 MECHANICAL CODE-7TH EDITION (2020)
0 PLUMBING CODE-7TH EDITION (2020)
0 FUEL GAS CODE-7TH EDITION (2020)
0 FLORIDA FIRE PREVENTION CODE, 7TH EDITION (2020)
0 EXCEPT AS SPECIFICALLY MODIFIED BY STATUTE OF BY THE STATE FIRE MARSHAL'S RULES, THE FLORIDA FIRE PREVENTION CODE, 7TH EDITION (2020), WHICH IS COMPRISED OF THE FLORIDA SPECIFIC EDITION OF NFPA 101, THE LIFE SAFETY CODE® (2018 EDITION) AND THE FLORIDA SPECIFIC EDITION OF NFPA 1, THE FIRE CODE (2018 EDITION), ARE HEREBY ADOPTED AND INCORPORATED BY REFERENCE AND ARE APPLICABLE TO THOSE BUILDINGS AND STRUCTURES SPECIFIED IN PARAGRAPHS (A) AND (B) OF SUBSECTION (1) OF SECTION 633.206, F.S. IN ADDITION, THE FOLLOWING STANDARDS, EXCEPT AS SPECIFICALLY MODIFIED IN THE RULE CHAPTERS IN RULE TITLE 69A, ARE HEREBY ADOPTED AND INCORPORATED BY REFERENCE AND SHALL TAKE EFFECT ON THE EFFECTIVE DATE OF THIS RULE, AS A PART OF THE UNIFORM FIRE SAFETY STANDARDS ADOPTED BY RULE BY THE STATE FIRE MARSHAL AND ARE APPLICABLE TO THOSE BUILDINGS AND STRUCTURES SPECIFIED IN SECTIONS 633.206(1)(A) AND (B), F.S.:

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
0 NFPA 4-2018 EDITION, STANDARD FOR INTEGRATED FIRE PROTECTION AND LIFE SAFETY SYSTEM TESTING.
0 NFPA 10-2018 EDITION, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.
0 NFPA 12-2015 EDITION, STANDARD ON CARBON DIOXIDE EXTINGUISHING SYSTEMS.
0 NFPA 12A-2015 EDITION, STANDARD ON HALON 1301 FIRE EXTINGUISHING SYSTEMS.
0 NFPA 13-2016 EDITION, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
0 NFPA 14-2016 EDITION, STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS.
0 NFPA 15-2017 EDITION, STANDARD FOR WATER SPRAY FIXED SYSTEMS FOR FIRE PROTECTION.
0 NFPA 16-2015 EDITION, STANDARD FOR THE INSTALLATION OF FOAM-WATER SPRINKLER AND FOAM-WATER SPRAY SYSTEMS.
0 NFPA 17-2017 EDITION, STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS.
0 NFPA 17A-2017 EDITION, STANDARD ON WET CHEMICAL EXTINGUISHING SYSTEMS.
0 NFPA 20-2016 EDITION, STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION.
0 NFPA 24-2016 EDITION, STANDARDS FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES.
0 NFPA 25-2017 EDITION, STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS.
0 NFPA 30-2018 EDITION, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE.
0 NFPA 51B, 2014 EDITION, STANDARD FOR FIRE PREVENTION DURING WELDING, CUTTING AND OTHER HOT WORK.
0 NFPA 70-2017 EDITION, NATIONAL ELECTRICAL CODE.
0 NFPA 72-2016 EDITION, NATIONAL FIRE ALARM AND SIGNALING CODE.
0 NFPA 76-2016 EDITION, STANDARD FOR THE FIRE PROTECTION OF TELECOMMUNICATIONS FACILITIES.
0 NFPA 80-2016 EDITION, STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES.
0 NFPA 90A-2018 EDITION, STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS.
0 NFPA 90B-2018 EDITION, STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR-CONDITIONING SYSTEMS.
0 NFPA 91-2015 EDITION, STANDARD FOR EXHAUST SYSTEMS FOR AIR CONVEYING OF VAPORS, GASES, MISTS, AND NONCOMBUSTIBLE PARTICULATE SOLIDS.
0 NFPA 92-2015 EDITION, STANDARD FOR SMOKE CONTROL SYSTEMS.
0 NFPA 99-2018 EDITION, HEALTH CARE FACILITIES CODE.
0 NFPA 101, LIFE SAFETY CODE, 2012 EDITION.
0 NFPA 101-2018 EDITION, LIFE SAFETY CODE.
0 NFPA 101A, 2016 EDITION, GUIDE ON ALTERNATIVE APPROACHED TO LIFE SAFETY.
0 NFPA 105-2016 EDITION, STANDARD FOR SMOKE DOOR ASSEMBLIES AND OTHER OPENING PROTECTIVES.
0 NFPA 110, 2016 EDITION, STANDARD FOR EMERGENCY AND STANDBY POWER SYSTEMS.
0 NFPA 170-2015 EDITION, STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS.
0 NFPA 204-2015 EDITION, STANDARD FOR SMOKE AND HEAT VENTING.
0 NFPA 221-2018 EDITION, STANDARD FOR HIGH CHALLENGE FIRE WALLS, FIRE WALLS AND FIRE BARRIER WALLS.
0 NFPA 232-2017 EDITION, STANDARD FOR THE PROTECTION OF RECORDS.
0 NFPA 251-2006, STANDARD METHODS OF TESTS OF FIRE RESISTANCE OF BUILDING CONSTRUCTION AND MATERIALS.
0 NFPA 252-2017 EDITION, STANDARD METHODS OF FIRE TESTS OF DOOR ASSEMBLIES.
0 NFPA 253, 2015 EDITION, STANDARD METHOD OF TEST FOR CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS USING A RADIANT ENERGY SOURCE.
0 NFPA 257-2017 EDITION, STANDARD ON FIRE TESTS FOR WINDOW AND GLASS BLOCK ASSEMBLIES.
0 NFPA 259-2013 EDITION, STANDARD TEST METHOD FOR POTENTIAL HEAT OF BUILDING MATERIALS.
0 NFPA 265-2015 EDITION, STANDARD METHODS OF FIRE TESTS FOR EVALUATING ROOM FIRE GROWTH CONTRIBUTION OF TEXTILE OR EXPANDED VINYL WALL COVERINGS ON FULL HEIGHT PANELS AND WALLS.
0 NFPA 286-2015 EDITION, STANDARD METHODS OF FIRE TEST FOR EVALUATING CONTRIBUTION OF WALL AND CEILING INTERIOR FINISH TO ROOM FIRE GROWTH.
0 NFPA 288-2017 EDITION, STANDARD METHODS OF FIRE TESTS OF FLOOR FIRE DOOR ASSEMBLIES INSTALLED HORIZONTALLY IN FIRE RESISTANCE-RATED FLOOR SYSTEMS.
0 NFPA 400-2016 EDITION, HAZARDOUS MATERIALS CODE.
0 NFPA 652-2016 EDITION, STANDARD ON THE FUNDAMENTALS OF COMBUSTIBLE DUST.
0 NFPA 703-2018 EDITION, STANDARD FOR FIRE RETARDANT-TREATED WOOD AND FIRE-RETARDANT COATINGS FOR BUILDING MATERIALS.
0 NFPA 704-2017 EDITION, STANDARD SYSTEM FOR THE IDENTIFICATION OF THE HAZARDS OF MATERIALS FOR EMERGENCY RESPONSE.
0 NFPA 720-2015 EDITION, STANDARD FOR THE INSTALLATION OF CARBON MONOXIDE (CO) DETECTION AND WARNING EQUIPMENT.
0 NFPA 731-2017 EDITION, STANDARD FOR THE INSTALLATION OF ELECTRONIC PREMISES SECURITY SYSTEM.
0 NFPA 780-2017 EDITION, STANDARD FOR THE INSTALLATION OF LIGHTNING PROTECTION SYSTEMS.
0 NFPA 1221-2016 EDITION, STANDARD FOR THE INSTALLATION, MAINTENANCE, AND USE OF EMERGENCY SERVICES COMMUNICATIONS SYSTEMS.
0 NFPA 1963-2014 EDITION, STANDARD FOR FIRE HOSE CONNECTIONS.
0 NFPA 2001-2015 EDITION, STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS.

0 SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA) FIRE, SMOKE AND RADIATION DAMPER GUIDE 2012, 7TH EDITION.

~~0 FGI GUIDELINES FOR DESIGN AND CONSTRUCTION OF OUTPATIENT FACILITIES 2018 EDITION.~~

UNDERWRITERS LABORATORIES, INC. (UL)
0 FIRE RESISTANCE DIRECTORY-LATEST EDITION.
0 BUILDING MATERIALS DIRECTORY-LATEST EDITION.

CENTER FOR MEDICARE & MEDICAID SERVICES (CMS)
0 NFPA 101, 2012 EDITION
0 NFPA 99, 2012 EDITION

GENERAL NOTES

X1-NOTE 02/01/21

IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND EACH OF HIS SUBCONTRACTORS TO REVIEW ALL DRAWINGS, SPECIFICATIONS, ADDENDA, ETC. TO ASSURE COORDINATION OF ALL WORK AFFECTING EACH TRADE. FAILURE TO REVIEW ALL CONTRACT DOCUMENTS FOR APPLICABLE ITEMS OF WORK SHALL NOT RELIEVE THE RESPONSIBLE PARTY FROM PERFORMING ALL WORK SO REQUIRED.

1. DRAWINGS - THESE DRAWINGS SHOULD NOT BE SCALED, BUT RATHER REFER TO DIMENSIONS INDICATED, ACTUAL SIZES OF CONSTRUCTION ITEMS, OR OTHER METHOD OF LOCATING CONSTRUCTION. WHERE NO DIMENSION OR METHOD OF DETERMINING A LOCATION IS GIVEN, VERIFY CORRECT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
2. DIMENSIONS - INTERIOR DIMENSIONS, UNLESS NOTED OR SHOWN OTHERWISE, SHALL BE FROM CENTERLINE OF NEW INTERIOR METAL STUD PARTITIONS AND COLUMN CENTERLINES, AND FROM FACE OF CONCRETE. DIMENSIONS INDICATED AS CLEAR SHALL BE A MINIMUM DIMENSION, FROM FACE TO FACE OF FINISH PARTITION. EXTERIOR DIMENSIONS, UNLESS NOTED OR SHOWN OTHERWISE, SHALL BE FROM FACE OF NEW WALL, AND TO COLUMN CENTERLINES.
3. N.I.C. ITEMS - ALL ITEMS MARKED N.I.C. (NOT IN CONTRACT) ARE TO BE FURNISHED BY THE OWNER. CONSULT THE OWNER FOR ANY ADDITIONAL REQUIRED INFORMATION NOT SHOWN. REFER TO EQUIPMENT SCHEDULE FOR OWNER FURNISHED EQUIPMENT.
4. PARTITIONS - REFER TO PARTITION LEGEND, DETAILS, AND NOTES ON A13 SERIES OF SHEETS.
5. ALL SMOKE BARRIERS, FIRE RATED WALLS AND PARTITIONS, HORIZONTAL EXITS, AND EXIT PASSAGEWAY PARTITIONS SHALL BE CONSTRUCTED PRIOR TO THE CONSTRUCTION OF INTERVENING WALLS. (FBC 449.3.4.5 7TH ED. 2020)
6. EQUIPMENT - VERIFY ANY REQUIREMENTS FOR ROUGH-IN OR CONNECTION WITH EQUIPMENT MANUFACTURER PRIOR TO CONSTRUCTION TO ASSURE CORRECT INSTALLATION, OPENINGS, MECHANICAL, ELECTRICAL, BLOCKING, ETC.
7. DUCTS, PIPES, CONDUIT, ETC. - ALL VERTICAL AND HORIZONTAL DUCTS, PIPES, CONDUIT, ETC. (WHETHER SHOWN OR NOT) IN FINISHED ROOMS SHALL BE LOCATED IN WALLS. ITEMS THAT CANNOT BE LOCATED IN WALLS SHALL BE FURRED IN AND FINISHED TO MATCH ADJACENT FINISHED SURFACES AND ANY REQUIRED WALL OR CEILING RATINGS. VERIFY ACCEPTABILITY WITH ARCHITECT PRIOR TO ENCASEMENT.
8. BLOCKING - ALL BLOCKING WITHIN THE BUILDING ENVELOPE SHALL BE GALVANIZED METAL SO AS TO BE NON-COMBUSTIBLE. ALL BLOCKING OUTSIDE THE BUILDING ENVELOPE SHALL BE PRESSURE TREATED. ISOLATE PRESSURE TREATED WOOD FROM METAL FRAMING WITH 15# FELT AND USE CORROSION RESISTANT FASTENERS TO MINIMIZE GALVANIC ACTION.
9. COORDINATION - GENERAL CONTRACTOR SHALL COORDINATE REQUIREMENTS OF ALL TRADES TO ALLOW FOR TIMELY INCLUSION IN THE WORK ALL REQUIRED ITEMS SO AS NOT TO DELAY THE WORK OR THE WORK OF ANY SUBCONTRACTOR.
10. SPECIFICATIONS - REFER TO THE SPECIFICATIONS BOOK FOR SPECIFICATIONS OF ITEMS. REQUIREMENTS OF THE SPECIFICATIONS APPLY TO ALL ASPECTS OF THE WORK AND ARE INCLUDED AS ADDITIONAL INFORMATION FOR EACH ITEM SO SPECIFIED. IF DISCREPANCIES EXIST BETWEEN SPECIFICATIONS AND DRAWINGS, THE MORE STRINGENT REQUIREMENT SHALL PREVAIL. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES TO OBTAIN CLARIFICATION.
11. MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL - REFER TO DRAWINGS AND SPECIFICATIONS BY EACH DISCIPLINE AS INCLUDED HEREIN. COORDINATE ALL ASPECTS BETWEEN DISCIPLINES. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. FIELD VERIFY ALL REQUIREMENTS AS NECESSARY.
12. THERE SHALL BE A MINIMUM CLEARANCE OF 4" BETWEEN ALL CONDUIT, PIPING, AND DUCTWORK THAT IS PARALLEL OR ADJACENT TO ALL FIRE AND FIRE/SMOKE RATED WALLS TO FACILITATE THE INSPECTION OF THESE WALLS. (FBC 449.3.4.8 7TH ED. 2020)
13. SITE USAGE - USE OF THE SITE FOR ANY CONSTRUCTION STAGING OR OTHER OPERATIONS SHALL BE COORDINATED WITH THE OWNER. TAKE CARE NOT TO LOCK OR ADVERSELY AFFECT ANY PUBLIC OR ADJACENT OWNER AREAS, OR OTHER AREAS NOT WITHIN THE CONSTRUCTION LIMITS.
14. FIRE PROTECTION - THE FIRE SPRINKLER SUBCONTRACTOR SHALL NOT ALTER THE APPROVED FIRE PROTECTION DRAWINGS OR THE DESIGN UNLESS APPROVED BY A.H.C.A. AND THE FIRE PROTECTION ENGINEER OF RECORD. APPROVED SPRINKLER SHOP DRAWINGS SHALL BE AVAILABLE ON SITE AT ALL TIMES.
15. FINISHES - ALL FINISHES AND COLORS OF FIXTURES, EQUIPMENT, LIGHTS, DIFFUSERS, SINKS, PAINT, WALLCOVERING, ETC., SHALL BE SELECTED BY ARCHITECT. SUBMIT FULL RANGE OF AVAILABLE FINISHES TO ARCHITECT FOR SELECTION. REFER TO FINISH SCHEDULE AND NOTES.
16. EXISTING CONDITIONS-THE EXISTING DIMENSIONS AND CONDITIONS SHOWN ON THESE DRAWINGS ARE ASSUMED BY THE ARCHITECT BASED ON AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS ON THE JOB SITE AND NOTIFY THE ARCHITECT OF DEVIATIONS FROM THESE DRAWINGS.
17. CONSTRUCTION SCHEDULING - ALL WORK SHALL BE COORDINATED WITH THE OWNER TO ALLOW CONTINUOUS OPERATION OF ADJACENT AREAS. WHENEVER WORK IS REQUIRED IN ADJACENT AREAS TO CONNECT WORK UNDER THIS CONTRACT, THE OWNER SHALL BE NOTIFIED A MINIMUM OF ONE (1) WEEK IN ADVANCE SO THAT AN APPROPRIATE TIME MAY BE SCHEDULED. ALSO, NOTIFY THE OWNER ONE (1) WEEK IN ADVANCE WHEN PERFORMING WORK THAT MAY DISTURB FUNCTIONS IN ADJACENT AREAS GENERAL CONTRACTOR SHALL GOVERN ALL SUBCONTRACTORS TO PERFORM BY THE ABOVE REQUIREMENTS.
18. PRECAUTIONS - DO NOT PROCEED WITH WORK IF UNFORESEEN CONDITIONS ARE DISCOVERED WHICH COULD CAUSE ADVERSE EFFECTS UPON THE STRUCTURE OR ITS OCCUPANTS. REPORT ANY SUCH CONDITION IMMEDIATELY TO THE ARCHITECT. TAKE PRECAUTIONS TO PROPERLY SUPPORT THE STRUCTURE. THE CONTRACTOR SHALL REPORT ALL TOXIC MATERIALS LOCATED TO THE OWNER, ARCHITECT, AND AUTHORITIES HAVING JURISDICTION. REMOVAL OF MATERIAL WILL BE COMPLETED PER APPROVED MEANS BEFORE CONSTRUCTION CONTINUES.
19. SAFETY - PROVIDE, ERECT, AND MAINTAIN BARRICADES, LIGHTING, AND GUARDRAILS AS REQUIRED BY APPLICABLE REGULATORY AGENCIES TO PROTECT OCCUPANTS OF BUILDING AND WORKERS.
20. EXIT ACCESS - MAINTAIN FREE, SAFE, AND APPROVED MEANS OF EGRESS IN AND OUT OF PROJECT LOCATION AND EXISTING OCCUPIED BUILDING IN ACCORDANCE WITH REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES.
21. CONTRACTOR SHALL INSTALL FLANDERS-PRECISIONAIRE 1" THICK, HRS - 1DT, FLAT PANEL AIR FILTERS (MERV-13) ON ALL AIR GRILLS IN ALL WORK AREAS. CUT FILTER TO SIZE REQUIRED AND TAPE TO GRILL. CHANGE FILTERS A MINIMUM OF ONCE A WEEK, MORE AS CONDITIONS REQUIRE.
22. DUE CARE TO WORK IN A CLEAN MANNER IS REQUIRED ON THIS SITE. OIL RESIDUE, DIRT, DUST, SMUDGES, ETC., PRODUCED AS A RESULT OF WORK PERFORMED SHALL BE CLEANED TO ORIGINAL CONDITIONS. ALL REPAIRS AND MATERIALS SHALL BE AT THE COST OF THE CONTRACTOR.
23. CONTRACTOR SHALL COORDINATE ALL WORK WITH MECHANICAL, PLUMBING, FIRE PROTECTION, MEDICAL GAS, AND ELECTRICAL DRAWINGS.
24. IT IS THE INTENT OF THE CONTRACT DOCUMENTS THAT ALL RATED WALLS IN THE SCOPE OF WORK SHALL HAVE PARTITION IDENTIFICATION PER THE LIFE SAFETY PLANS AND SPECIFICATIONS SECTION 09 21 16.
25. ALL WALL MOUNTED LAVATORIES (SINKS) AND HAND-WASHING FACILITIES SHALL BE ATTACHED TO FLOOR MOUNTED CARRIERS AND SHALL WITHSTAND AN APPLIED VERTICAL LOAD OF A MINIMUM OF 250 POUNDS ON THE FRONT OF THE FIXTURE. (FBC 449.3.13 7TH ED. 2020) PER 2018 GUIDELINE, FBC DESIGN AND CONSTRUCTION OF HEALTH CARE FACILITIES, HOSPITALS (2.1-8.4.3.2) AND OUTPATIENTS (2.1-8.4.3.2).
26. CONTRACTOR SHALL HAVE OWNER VERIFY AND APPROVE ALL RECESSED OUTLET LOCATIONS (INCLUDING POWER, TELEPHONE/DATA, AND ANY OTHER RECESSED ITEMS) BEFORE RUNNING CONDUIT, PIPING, ETC. AND CLOSING IN WALLS.
27. WHERE A BEAM OR JOIST IS NOT AVAILABLE TO PROVIDE SUPPORT FOR HANGING CEILING, DUCTS, PIPES, ETC., DO NOT HANG ANY ITEMS FROM THE METAL ROOF DECKING. CONTRACTOR TO PROVIDE UNI-STRUT OR OTHER APPROVED MEANS OF SUPPORT.
28. NO WIRING SHALL BE IN CONTACT WITH PVC OR CPVC PIPPING.

PARTITION LEGEND

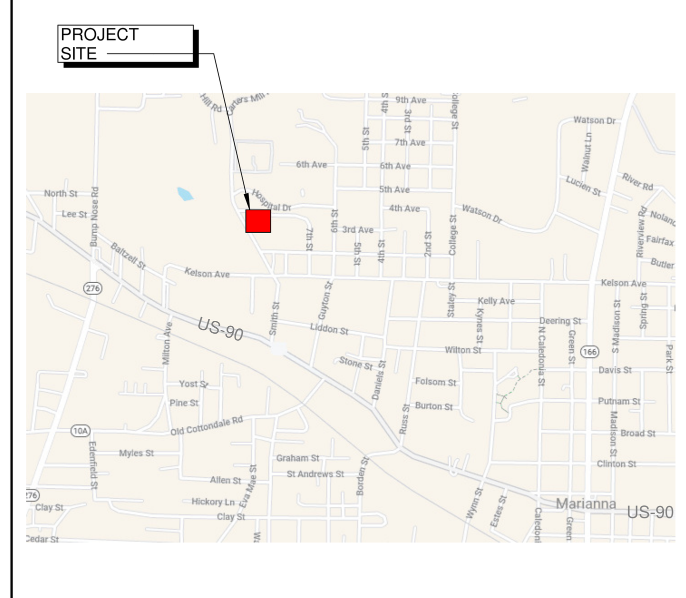
X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

FOUR HOUR FIRE / SMOKE BARRIER
FOUR HOUR FIRE WALL
TWO HOUR FIRE / SMOKE BARRIER
TWO HOUR FIRE WALL
ONE HOUR FIRE / SMOKE BARRIER
ONE HOUR FIRE WALL
SMOKE PARTITION TO DECK
NON-RATED PARTITION
STC 51 — **SOUND ATTENUATION BATT (1 HOUR)**
STC 56 — **SOUND ATTENUATION BATT (2 HOUR)**
SW — **SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)**
SW2 — **SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)**
1 MM — **LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)**
2 MM — **LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)**

VICINITY MAP

X1-VICN (012423)



DESIGN CRITERIA

(011217)

NEW FACILITY IS A TWO-STORY BUILDING AND IS APPROXIMATELY 44,145 S.F. TOTAL BUILDING AREA, CONSTRUCTION TYPE II B, FULLY SPRINKLED PER FBC 2020, AND TYPE II, 000 PER NFPA.

OCCUPANCY - GROUP B BUSINESS PER FBC, AND NEW BUSINESS PER NFPA 101, CHAPTER 38

FIRE RATINGS	FBC	NFPA
BEARING WALLS		
EXTERIOR	0	
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONE ROOF ONLY		0
INTERIOR	0	
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONE ROOF ONLY		0
STRUCTURAL FRAME	0	
COLUMNS		
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONLY A ROOF		0
BEAMS, GIRDERS, TRUSSES, ARCHES		
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING A ROOF		0
FLOORS CONSTRUCTION	0	0
ROOF CONSTRUCTION	0	0

EXTERIOR WALLS (BEARING AND NON-BEARING), GABLE ENDS

HORIZONTAL SEPARATION	RATING	MAX PROTECTED GLAZING	MAX UNPROTECTED GLAZING
0-3FT	1	NOT PERMITTED	NOT PERMITTED
3-5FT	1	15%	15%
5-10FT	1	25%	25%
10-15FT	0	45%	45%
15-20FT	0	75%	75%
20-25FT	0	NO LIMIT	NO LIMIT
25-30FT	0	NO LIMIT	NO LIMIT
OVER 30FT	0	NOT REQUIRED	NOT REQUIRED

MAXIMUM BUILDING AREA — 69,000 S.F. / MAXIMUM BUILDING AREA
MAXIMUM BUILDING HEIGHT — 75' - 4 STORIES MAXIMUM

FAC 69A-60.0081

(032520)

NOTICE FOR STRUCTURES WITH LIGHT-FRAME TRUSS-TYPE CONSTRUCTION (FAC 69A-60.0081).

ANY COMMERCIAL, INDUSTRIAL, OR MULTIUNIT RESIDENTIAL STRUCTURE OF THREE UNITS OR MORE, WHICH USES HORIZONTAL OR VERTICAL LIGHT-FRAME TRUSS-TYPE CONSTRUCTION IN ANY PORTION SHALL BE MARKED WITH AN APPROVED SYMBOL. TOWNHOUSES ARE NOT MULTIUNIT RESIDENTIAL STRUCTURES AND THEREFORE NOT SUBJECT TO THIS RULE. EACH APPROVED SYMBOL SHALL INCLUDE WITHIN THE CENTER CIRCLE ONE OF THE FOLLOWING DESIGNATIONS:

A. STRUCTURE WITH LIGHT-FRAME TRUSS ROOFS SHALL BE MARKED WITH THE LETTER **R**.
B. STRUCTURES WITH LIGHT-FRAME TRUSS FLOOR SYSTEMS SHALL BE MARKED WITH THE LETTER **F**.
C. STRUCTURES WITH LIGHT-FRAME TRUSS FLOOR AND ROOF SYSTEMS SHALL BE MARKED WITH THE LETTERS **RF**.

THE APPROVED SYMBOL SHALL BE PLACED WITHIN 24 INCHES TO THE LEFT OF THE MAIN ENTRY DOOR AND:
A. BE PERMANENTLY ATTACHED TO THE FACE OF THE STRUCTURE ON A CONTRASTING BACKGROUND, OR
B. BE MOUNTED ON A CONTRASTING BASE MATERIAL WHICH IS THEN PERMANENTLY ATTACHED TO THE FACE OF THE STRUCTURE.

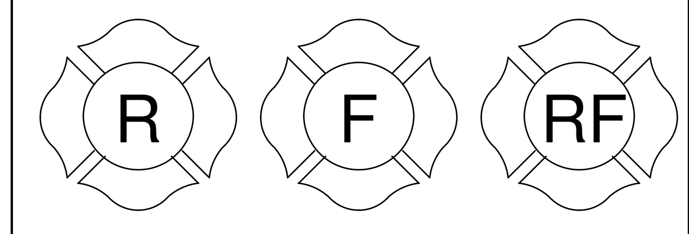
THE DISTANCE ABOVE THE GRADE, WALKING SURFACE OR THE FINISHED FLOOR TO THE BOTTOM OF THE SYMBOL SHALL BE NOT LESS THAN 4 FEET (48 IN.).

THE DISTANCE ABOVE THE GRADE, WALKING SURFACE OR THE FINISHED FLOOR TO THE BOTTOM OF THE SYMBOL SHALL BE NOT MORE THAN 6 FEET (72 IN.).

IN SINGLE TENANT STRUCTURES WITH MULTIPLE MAIN ENTRY DOORS, SUCH AS BIG BOX RETAIL STORES, DEPARTMENT STORES AND GROCERY STORES, THE AUTHORITY HAVING JURISDICTION IS AUTHORIZED TO REQUIRE THAT OTHER MAIN ENTRY DOORS OF THE STRUCTURE BE MARKED WITH AN APPROVED SYMBOL.

IN MULTIPLE TENANT STRUCTURES AND COVERED MALL STRUCTURES WITH MULTIPLE MAIN ENTRY DOORS, THE AUTHORITY HAVING JURISDICTION IS AUTHORIZED TO REQUIRE THAT OTHER MAIN ENTRY DOORS OF THE STRUCTURE BE MARKED WITH AN APPROVED SYMBOL.

IN MULTIPLE TENANT STRUCTURES AND COVERED MALLS WITH MULTIPLE MAIN ENTRY DOORS, THE AUTHORITY HAVING JURISDICTION IS AUTHORIZED TO REQUIRE THAT OTHER MAIN ENTRY DOORS BE MARKED WITH AN APPROVED SYMBOL. IN SUCH STRUCTURES, APPROVED SYMBOLS SHALL BE MARKED ON ONE SIDE OF THE STRUCTURE ONLY AND SPACED NOT CLOSER THAN 100 FEET OR AT EACH END OF THE STRUCTURE WHEN SUCH STRUCTURE IS LESS THAN 100 FEET IN LENGTH.



APPROVED PRODUCTS LIST

Product Category	Sub Category	Manufacturer	Florida Approval Number	Approval Date
Panel Walls	Storefront	YKK	FL 14218 R13	04/11/23
Exterior Doors	Swinging	YKK	FL 16554 R12	02/07/23
Exterior Doors	Swinging	Ceco	FL 4553.1 R13	12/10/20
Roofing	Roofing Insulation	Celcore Incorporated	FL2037-R7	02/23/21
Roofing	Single Ply Roof Sys.	Holcim Solutions	FL15894-R20	12/15/21

SEE SPECIFICATIONS FOR A COPY OF THE FLORIDA PRODUCT APPROVAL OF THE ITEMS LISTED ABOVE.

NOTE: Per F.A.C. Rule 9B-72.090 Product Approval by the Commission, Article (1)(d), product approval shall be valid until such time as the product changes decreasing the product's performance or when a change in the Code provisions would require re-approval.

SYMBOLS & MATERIAL LEGEND

COLUMN AND CONSTRUCTION GRID LINES
DOOR SYMBOL
EQUIPMENT NUMBER
FURNITURE NUMBER
KEYNOTE
ALUMINUM WINDOW/ STOREFRONT
HOLLOW METAL WINDOW
LINE OF OVERHEAD WALL CABINET
C.C.T. — CUBICLE CURTAIN TRACK
I.V. — I.V. TRACK
SECTION LETTER / CUTTING LINE / DRAWINGS WHERE LOCATED (1 / A5-1)
INTERIOR ELEVATION NUMBER / DRAWING WHERE LOCATED / SOLID ARROW INDICATES DIRECTION (A, B, C, D / A13-1)
DETAIL INDICATION SYMBOL (2 / A12-1)
100'-0" FIRST FLOOR — FLOOR/DATUM ELEVATION LEVEL
MATCH LINE

EARTH/FILL	BRICK
CONCRETE	STUCCO, CEMENT PLASTER, LIGHTWEIGHT CONC.
CMU-LARGE SCALE	CMU - SMALL SCALE
CERAMIC TILE	METAL - LARGE SCALE
METAL - SMALL SCALE OR SHEET METAL	FINISHED WOOD
WOOD BLOCKING	WOOD SHIM
PLYWOOD	G.W.B.
RIGID INSULATION	BATT INSULATION
FOAM FILL INSULATION	SAFING INSULATION
STEEL	PARKING SPACES

DRAWING INDEX

COVER
-- COVER
X1-1 DRAWING INDEX

ARCHITECTURAL SITE
AS3-1 ARCHITECTURAL SITE PLAN
AS3-1.1 ARCHITECTURAL SITE PLAN DETAILS

CIVIL
.S1 SURVEY
.T1 TITLE SHEET
C1.0 EXISTING CONDITIONS AND DEMOLITION PLAN
C2.0 SITE AND DIMENSION PLAN
C3.0 GRADING AND DRAINAGE PLAN
C4.0 UTILITY PLAN
C5.0 STORMWATER POLLUTION PREVENTION PLAN
C6.0 SITE DETAILS
C7.0 RETAINING WALL DETAILS

LANDSCAPE
L1 LANDSCAPE PLAN
L2 IRRIGATION PLAN

ARCHITECTURAL
A1-1 FIRST FLOOR LIFE SAFETY PLAN
A1-2 SECOND FLOOR LIFE SAFETY PLAN
A5-1 FIRST FLOOR ARCHITECTURAL PLAN
A5-2 SECOND FLOOR ARCHITECTURAL PLAN
A6-1 FIRST FLOOR DIMENSION PLAN
A6-2 SECOND FLOOR DIMENSION PLAN
A8-1 FIRST FLOOR REFLECTED CEILING PLAN
A8-2 SECOND FLOOR REFLECTED CEILING PLAN
A8-3 REFLECTED CEILING DEAILS
A9-1 ROOF PLAN & DETAILS
A9-1.1 ROOF DETAILS
A9-2 AWNING PLANS, SECTIONS, DETAILS & STAIR ROOF PLANS
A10-1 EXTERIOR ELEVATIONS AND SECTIONS
A10-1.1 PANEL JOINT & REVEAL LOCATIONS
A10-2 BUILDING SECTIONS
A11-1 WALL SECTIONS
A11-2 CANOPY SECTIONS
A12-1 STAIR PLANS, SECTIONS, DETAILS
A12-2 STAIR PLANS, SECTIONS, DETAILS
A12-3 STAIR, LADDERS, SECTIONS, DETAILS
A12-4 ELEVATOR PLAN, SECTIONS AND DETAILS
A13-1 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A13-1.1 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A13-2 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A13-2.1 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A13-2.2 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A13-3 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A13-3.1 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A13-4 INTERIOR PARTITION SECTIONS, NOTES, DETAILS
A14-1 DOOR SCHEDULE, ELEVATIONS, DETAILS, NOTES
A15-1 WINDOW / STOREFRONT ELEVATIONS, DETAILS, NOTES
A17-1 INTERIOR ELEVATIONS
A17-2 INTERIOR ELEVATIONS
A19-1 FINISH SCHEDULE AND NOTES
A19-2 FINISH SCHEDULE AND NOTES
A20-1 MISCELLANEOUS DETAILS
A20-2 MISCELLANEOUS DETAILS

STRUCTURAL
S0-1 STRUCTURAL SPECIFICATIONS
S0-2 SCHEDULES & WIND TABLES
S1-1 FOUNDATION PLAN
S1-2 SECOND FLOOR FRAMING PLAN
S1-3 ROOF FRAMING PLANS
S2-1 FOUNDATION DETAILS
S2-2 FOUNDATION DETAILS
S3-1 FLOOR FRAMING DETAILS
S4-1 ROOF FRAAMING DETAILS
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S6-1 TILT-UP PANELS
S7-1 WALL SECTIONS
S8-1 ISOMETRIC VIEW

MECHANICAL
M000 MECHANICAL LEGEND
M110 HVAC FIRST FLOOR PLAN
M120 HVAC SECOND FLOOR PLAN
M130 HVAC ROOF PLAN
M220 HVAC CONTROLS & PIPING SECOND FLOOR PLAN
M310 HVAC ISOMETRIC PLAN
M320 HVAC PIPING ISOMETRIC PLAN
M700 MECHANICAL SCHEDULES
M701 MECHANICAL SCHEDULES
M800 MECHANICAL DETAILS
M801 MECHANICAL DETAILS
M802 MECHANICAL DETAILS
M803 MECHANICAL DETAILS
M900 MECHANICAL CONTROLS
M901 MECHANICAL CONTROLS

PLUMBING
P000 PLUMBING LEGENDS
P100 PLUMBING UNDERGROUND PLAN
P110 PLUMBING FIRST FLOOR PLAN
P120 PLUMBING SECOND FLOOR PLAN
P130 PLUMBING ROOF PLAN
P600 PLUMBING ISOMETRIC DIAGRAMS
P800 PLUMBING DETAILS

FIRE PROTECTION
FP000 FIRE PROTECTION LEGEND
FP110 FIRE PROTECTION FIRST FLOOR PLAN
FP120 FIRE PROTECTION SECOND FLOOR PLAN
FP800 FIRE PROTECTION DETAILS
FP801 FIRE PROTECTION DETAILS

ELECTRICAL
E000 ELECTRICAL LEGENDS
E001 ELECTRICAL SITE PLAN
E002 LIGHTING SITE PLAN
E003 ELECTRICAL SITE DETAILS
E110 LIGHTING FIRST FLOOR PLAN
E120 LIGHTING SECOND FLOOR PLAN
E210 ELECTRICAL FIRST FLOOR PLAN
E220 ELECTRICAL SECOND FLOOR PLAN
E320 ELECTRICAL ROOF PLAN
E600 ELECTRICAL RISER DIAGRAM
E601 ELECTRICAL ONE-LINE DIAGRAM
E700 ELECTRICAL SCHEDULES
E800 ELECTRICAL DETAILS
E801 ELECTRICAL DETAILS

SHEET NO. SYSTEM

DISCIPLINE → **A5-1A** ← **AREA OF BUILDING**
CATEGORY / **FLOOR OF BUILDING**

Project Architect:
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4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:
Robert H. Blau, AIA

Project Name:
JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:
3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:
DRAWING INDEX

Drawing Number:
X1-1

Drawn by: MBA
Checked by: MRM or BHB
Scale: As indicated

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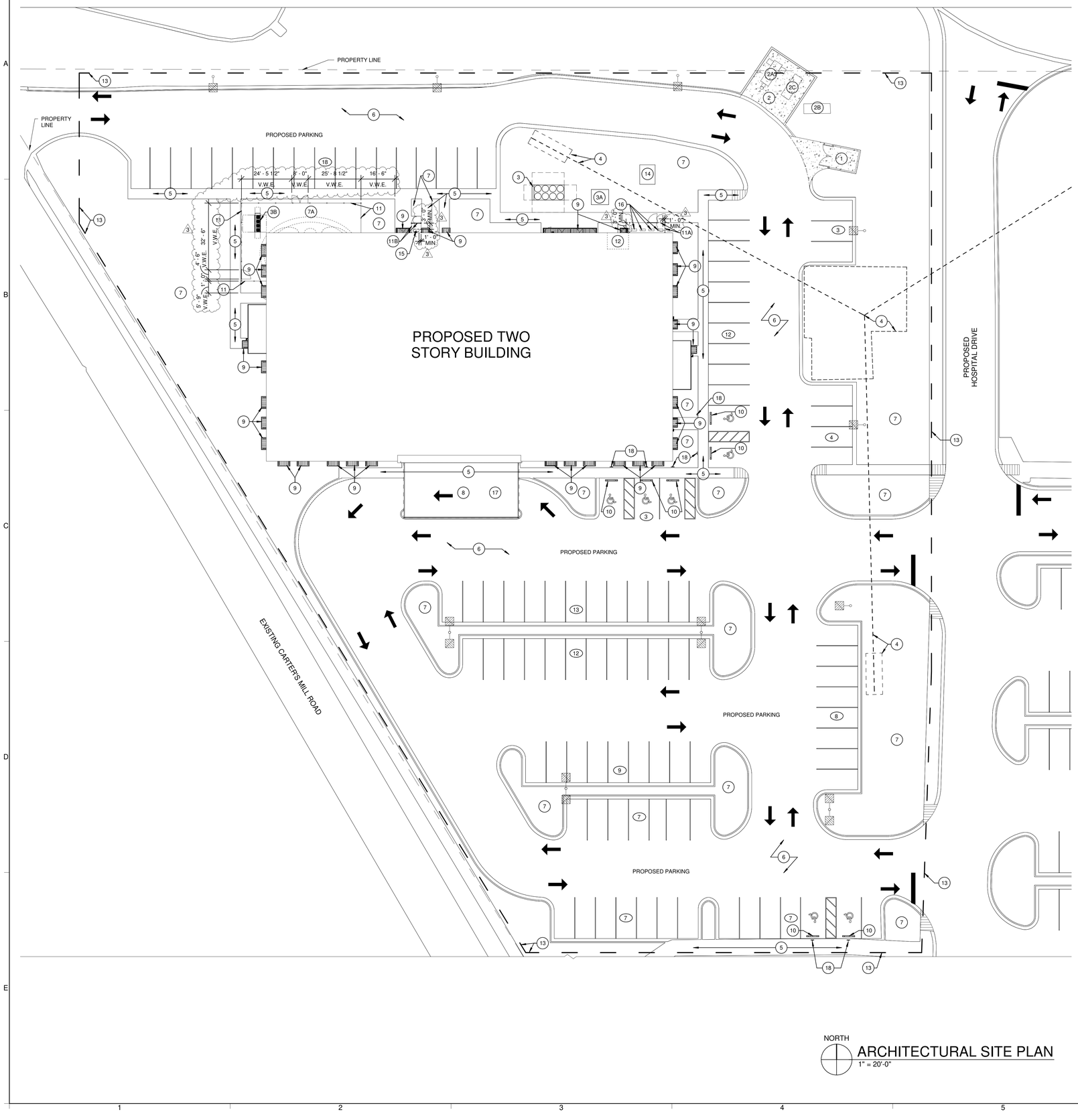
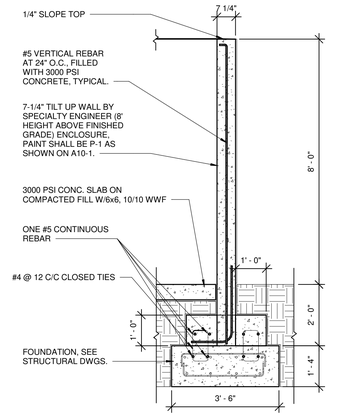


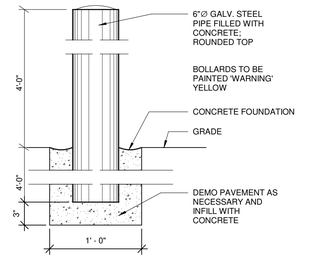
ARCHITECTURAL SITE PLAN

1" = 20'-0"



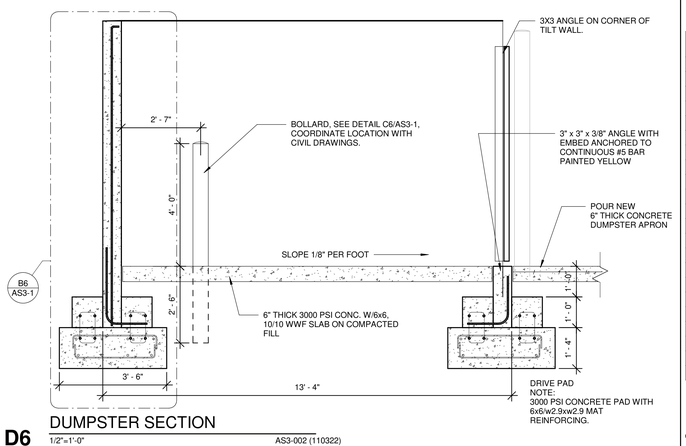
B6 DUMPSTER WALL SECTION

1/2"=1'-0" AS3-002 (110322)



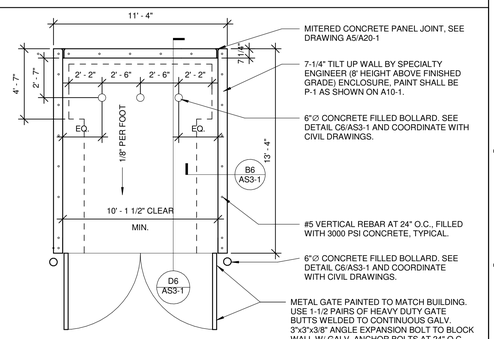
C6 PIPE BOLLARD DETAIL

1 1/2"=1'-0" AS3-007 (030415)



D6 DUMPSTER SECTION

1/2"=1'-0" AS3-002 (110322)



E6 DUMPSTER DETAIL

1/4"=1'-0" AS3-001D (110322)

SITE DATA

TOTAL ACREAGE:	11.83 ACRES
TOTAL BUILDING AREA:	44,145 S.F.
TENANT A BUILDING AREA:	9,733 S.F.
TOTAL PARKING REQUIRED FOR PROPOSED AREA (1 PARKING SPACE PER 300 S.F.):	147
REQUIRED RESERVED PARKING FOR TENANT A:	33
TOTAL REQUIRED NO. ADA PARKING SPACES:	5
REQUIRED NO. ADA PARKING SPACES RESERVED FOR TENANT A:	2
PARKING PROVIDED:	101
NO. ADA PARKING PROVIDED:	7

NOTE: ADDITIONAL PARKING PROVIDED AT ADJACENT EXISTING BUILDINGS. SEE CIVIL DRAWINGS.

SITE PLAN KEY NOTES

1. DUMPSTER ENCLOSURE, SEE AS3-1 DETAILS AND CIVIL DRAWINGS
2. NEW GENERATOR PAD AND ENCLOSURE, N.I.C. CIVIL DRAWINGS
2A. FUTURE GENERATOR LOCATION FOR ASC, NOT IN MOB SHELL SCOPE OF WORK, SEE TENANT "A" / ASC DRAWINGS
2B. EXISTING GENERATOR FOR HUDNALL BUILDING TO BE REMOVED ONCE NEW GENERATOR IS CONNECTED. NOT IN MOB SHELL SCOPE OF WORK
2C. FUTURE NEW GENERATOR FOR HUDNALL BUILDING, NOT IN MOB SHELL SCOPE OF WORK. SEE CIVIL DRAWINGS
3. CHILLER, SEE MECHANINICAL DRAWINGS
3A. FUTURE CHILLER LOCATION FOR ASC, NOT IN MOB SHELL SCOPE OF WORK, SEE TENANT "A" / ASC DRAWINGS
3B. FUTURE CHILLER LOCATION FOR TENANT "B" / IMAGING, NOT IN MOB SHELL SCOPE OF WORK, SEE IMAGING DRAWINGS
4. EXISTING GUIDE WIRES FOR CELL TOWER WITHIN EXISTING CHAIN LINK FENCE ENCLOSURE TO REMAIN, SEE CIVIL DRAWINGS
5. CONCRETE WALK, SEE CIVIL DRAWINGS
6. ASPHALT PARKING LOT, SEE CIVIL DRAWINGS
7. FOR LANDSCAPING, SEE CIVIL DRAWINGS
7A. LANDSCAPING IN THIS AREA SHOULD NOT REQUIRE THE USE OF ANY MACHINERY THAT COULD INTERFERE WITH FUTURE MRI
8. CANOPY ABOVE
9. AWNING, SEE DETAILS ON SHEET A9-2
10. WHEEL STOP
11. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "B" IMAGING, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
11A. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "A" / ASC, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
11B. 8' HIGH FENCE WITH GATE LOCATIONS FOR SHELL MECHANICAL EQUIPMENT, COORDINATE WITH MECHANICAL EQUIPMENT AND DRAWINGS, SEE SHEET AS3-1.1
12. EMERGENCY ELECTRICAL ROOM, SEE ELECTRICAL DRAWINGS
13. LIMITS OF WORK LINE
14. TRANSFORMER LOCATION, SEE ELECTRICAL DRAWINGS
15. CONDENSING UNIT HP-E1, SEE MECHANICAL DRAWING M110
16. FUTURE TENANT "A" / ASC MECHANICAL EQUIPMENT, NOT IN MOB SHELL SCOPE OF WORK, SEE TENANT "A" / ASC DRAWINGS
17. CONCRETE DRIVE BELOW CANOPY, SEE CIVIL DRAWINGS
18. ADA PARKING SIGNAGE MOUNTED IN GRASS AREA, SEE CIVIL DRAWINGS

Project Architect:

MBA

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

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SHELL

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3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

#	REVISIONS	
No.	Description	Date
3	ADD #3	11/7/23

Drawing Title:

ARCHITECTURAL SITE PLAN

Drawing Number:

AS3-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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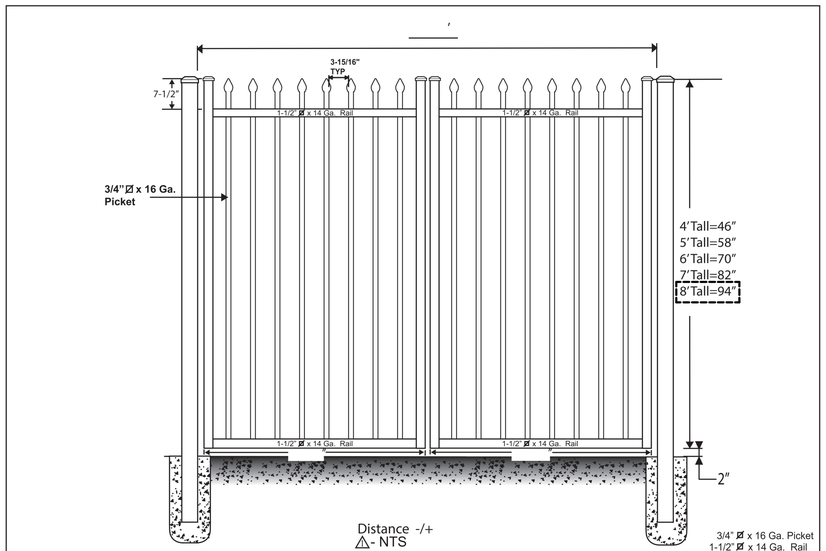
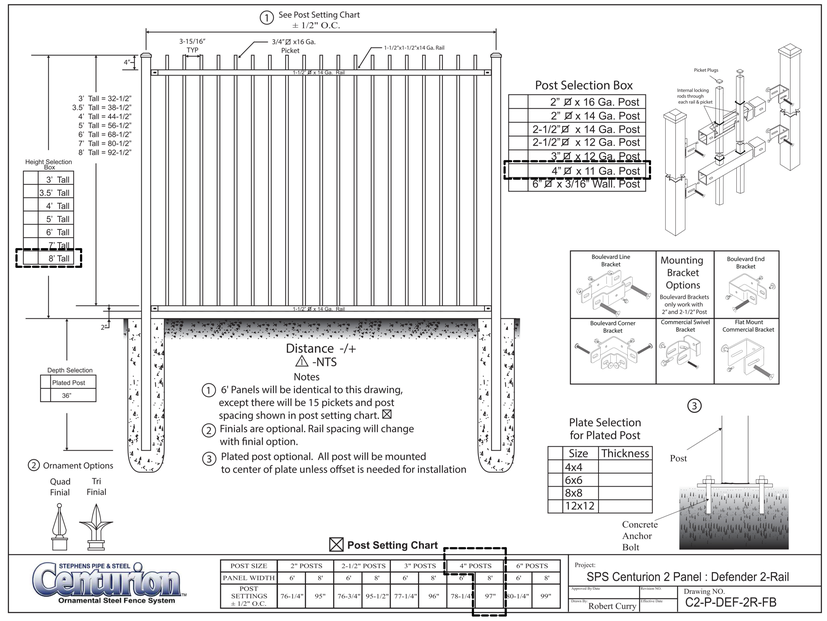


STEPHENS PIPE & STEEL Centurion™ Ornamental Steel Fence System

Amount of Pickets will vary upon Construction

Project: SPS Centurion 2 Gate DD:Spartan 2-Rail under 10'x4-8' Tall		
Approved By/ Date	Revision NO.	Drawing NO.
Drawn By: Robert Curry	Effective Date	C2-Spartan-2R-FB-GD-10



Post Setting Chart

POST SIZE	2" POSTS		2-1/2" POSTS		3" POSTS		4" POSTS		6" POSTS	
PANEL WIDTH	6'	8'	6'	8'	6'	8'	6'	8'	6'	8'
POST SETTINGS ± 1/2" O.C.	76-1/4"	95"	76-3/4"	95-1/2"	77-1/4"	96"	78-1/4"	97"	80-1/4"	99"

STEPHENS PIPE & STEEL Centurion™ Ornamental Steel Fence System

Project: SPS Centurion 2 Panel : Defender 2-Rail		
Approved By/ Date	Revision NO.	Drawing NO.
Drawn By: Robert Curry	Effective Date	C2-P-DEF-2R-FB

NOTE: SOME FENCING & GATES WILL BE ADJACENT TO MRI

FENCE TO BE OUTSIDE OF GAUSS LINES, SEE TENANT "B"/ IMAGING DRAWINGS AND EQUIPMENT BOOK 3

STEPHENS PIPE & STEEL Centurion™ Ornamental Steel Fence System

Amount of Pickets will vary upon Construction

Project: SPS Centurion 2 Gate :Spartan 2-Rail Under 6'x4-8' Tall		
Approved By/ Date	Revision NO.	Drawing NO.
Drawn By: Robert Curry	Effective Date	C2-Spartan-2R-GS-6

PROVIDE CAUTION SIGN ON THE FENCE AT NW CORNER OF BUILDING. PLACE ON EVERY GATE; AND EVERY SIDE PER LOCAL AND STATE CODES. FINAL SIGN TEXT TO BE COORDINATED WITH OWNER AND MRI EQUIPMENT PROVIDER.

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date
3	ADD #3	11/7/23

Drawing Title:

ARCHITECTURAL SITE PLAN DETAILS

Drawing Number:

AS3-1.1

Drawn by: MBA
Checked by: Checker
Scale: 1/2" = 1'-0"

11/7/2023 11:19:59 AM
C:\Users\MBlau\Documents\22013.01_Shell_Central_335_rrblaze5A38V.rvt

CONSTRUCTION PLANS
FOR:

JACKSON HOSPITAL MEDICAL OFFICE BUILDING

PREPARED
FOR:

JACKSON HOSPITAL
4250 HOSPITAL DRIVE
MARIANNA, FL 32446

LOCATION MAP
JACKSON COUNTY, FLORIDA
SECTION 33, TOWNSHIP 5 NORTH, RANGE 10 WEST

DRAWING INDEX

DWG NO.	DRAWING NAME
T1	TITLE SHEET
S1	SURVEY
C1.0	EXISTING CONDITIONS AND DEMOLITION PLAN
C2.0	OVERALL SITE AND DIMENSION PLAN
C3.0	GRADING AND DRAINAGE PLAN
C4.0	UTILITY PLAN
C5.0	STORMWATER POLLUTION PREVENTION PLAN
C6.0	SITE DETAILS
C7.0	RETAINING WALL DETAILS
L1	LANDSCAPE PLAN
L2	IRRIGATION PLAN

CONSTRUCTION PLANS

SEPTEMBER 2023

PREPARED BY:

DHM
MELVIN ENGINEERING

4428 LAFAYETTE STREET / MARIANNA, FLORIDA 32446/ (850) 482-3045

Project Architect:

MBA

Mason Blau & Associates
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CONSTRUCTION DOCUMENTS

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EB-0005637 LC-0000277
www.melvineng.com

MARIANNA OFFICE
4428 Lafayette Street
Marianna, FL 32446
Phone: (850) 482-3045

DAVID H. MELVIN, P.E.

FLORIDA REG. NO. 38734

Project Name:

JACKSON MOB

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION PLANS
Issue Date: 09/29/2023

Revisions

No.	Description	Date
1	Pre-Bid RFC 1	10-27-23
2	Pre-Bid RFC 3	11-06-23

N

Drawing Title:

TITLE SHEET

Drawing Number:

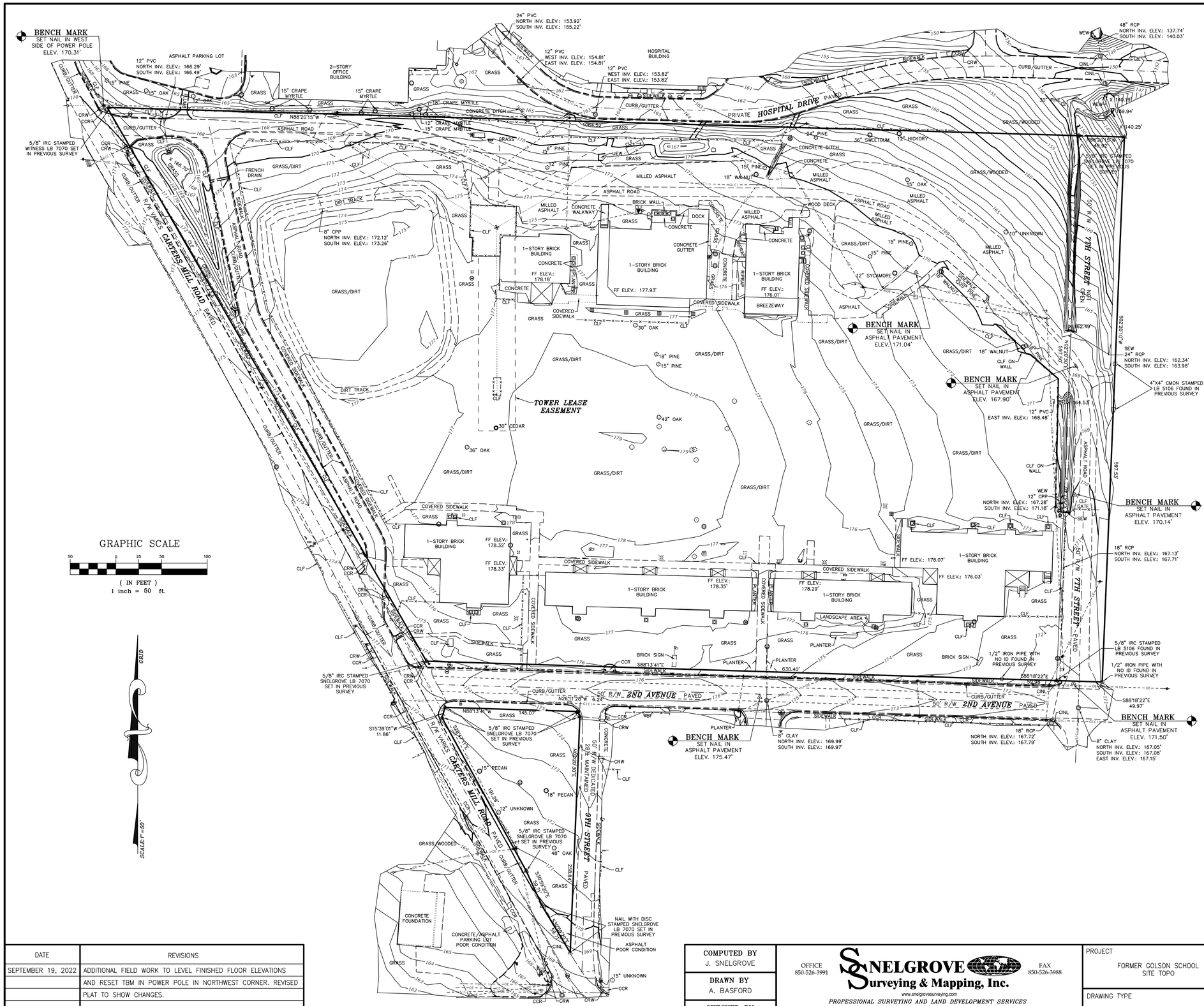
T1

Drawn by: MMF
Checked by: DHM
Scale: 1"=40'

P:\E-Mail\Dogarun\Jackson Hospital Topo.dwg, 9/20/2022 10:35:04 AM, Alan B.

A TOPOGRAPHIC SURVEY FOR JACKSON HOSPITAL LOCATED IN SECTION 33 TOWNSHIP 5 NORTH, RANGE 10 WEST JACKSON COUNTY, FLORIDA

THIS IS NOT A BOUNDARY SURVEY



LEGEND

	AIR CONDITIONER PAD
	TOWER
	CLEANOUT
	DELINEATOR POST
	DRAIN GRATE
	ELECTRICAL OUTLET
	ELECTRICAL POLE
	FIRE HYDRANT
	GAS REGULATOR
	GUY ANCHOR
	GUY POLE
	MAILBOX
	MANHOLE SANITARY SEWER
	MANHOLE STORM WATER
	METER ELECTRIC
	METER WATER
	MONITORING WELL
	MONUMENT–CONCRETE (CAST)
	MONUMENT–IRON ROD & CAP
	MONUMENT–METAL PIPE
	MONUMENT–NAIL
	LIGHT POLE
	POST
	SHARED POLE
	SHARED POLE WITH TRANSFORMER
	SERVICE CABINET
	SINGLE SUPPORT SIGN
	TELEPHONE PEDESTAL
	TELEPHONE POLE
	TRANSFORMER
	TREE–UNKNOWN
	TREE–CONIFEROUS
	TREE–DECIDUOUS
	TREE–OAK
	TREE–PINE
	VALVE COVER GAS
	VALVE COVER WATER
	VALVE WATER
	WIRE PULL BOX
— — —	EASEMENT LINE
—x—x—x—	FENCE LINE
- - -SIG- - -	GAS–EXISTING TYPE C
- - -OE- - -	OVERHEAD ELECTRIC–EXISTING
———	PROPERTY LINE
- - -SIG- - -	SANITARY SEWER–EXISTING TYPE C
- - -OT- - -	TELEPHONE LINE–AERIAL
- - -WIG- - -	WATER–EXISTING TYPE C
CCR	CURB CUT RAMP
CINL	CURB INLET
CLF	CHAIN LINK FENCE
CMON	CONCRETE MONUMENT
CPP	CORRUGATED PLASTIC PIPE
CRW	CURB RAMP WARNING
ELEV.	ELEVATION
FF	FINISHED FLOOR
INV.	INVERT
IRC	IRON ROD & CAP
MES	MITERED END SECTION
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
SEW	STRAIGHT ENDWALL
UEW	U–TYPE ENDWALL
WBF	WOOD BOARD FENCE
WEW	WINGED ENDWALL

SURVEYOR'S NOTES AND REPORT:

1. This is not a boundary survey. Boundary information is shown hereon per previous boundary surveys by this firm for Jackson Hospital, Job No. 21–081–04, dated August 20, 2021, and Job No. 21–233–11, dated December 6, 2021.
2. The purpose of this survey is to locate certain topographic features over an area as specified by client.
3. The horizontal coordinate datum of this survey is based on Grid North and the Florida State Plane Coordinate System, Zone Florida North, NAD 83/2011 by GPS derived positions from an existing Florida Permanent Reference Network station designated FLMR.
4. Elevations shown hereon are based on North American Vertical Datum of 1988 (NAVD88) by direct ties to an existing National Geodetic Survey (NGS) benchmark designated L 393, elevation 180.34 feet.
5. This survey is based on the US Survey Foot unit of measurement.
6. Underground utilities, underground foundations and other improvements were not located except as shown.
7. Underground utilities shown hereon are field locations of markings made by City of Marianna.
8. Some portions of this plat may be shown off scale for better presentation and or clarity.
9. Field work was completed September 1, 2022.
10. This plat of survey is certified to and prepared for the sole and exclusive benefit of the entities and/or individuals listed hereon, on the most current date, and shall not be relied upon by any other entity or individuals whomsoever.
11. This map is intended to be displayed at a scale of 1 inch equals 50 feet.

CERTIFICATION

I hereby certify that in my opinion this is a true representation of the topography shown hereon and that this survey meets the Standards of Practice as set forth by the Florida Board of Professional Surveyors and Mappers in Chapter 5J–17, Florida Administrative Code, pursuant to Section 472.027 Florida Statutes.

Jesse A. Snelgrove
Professional Surveyor and Mapper #6734

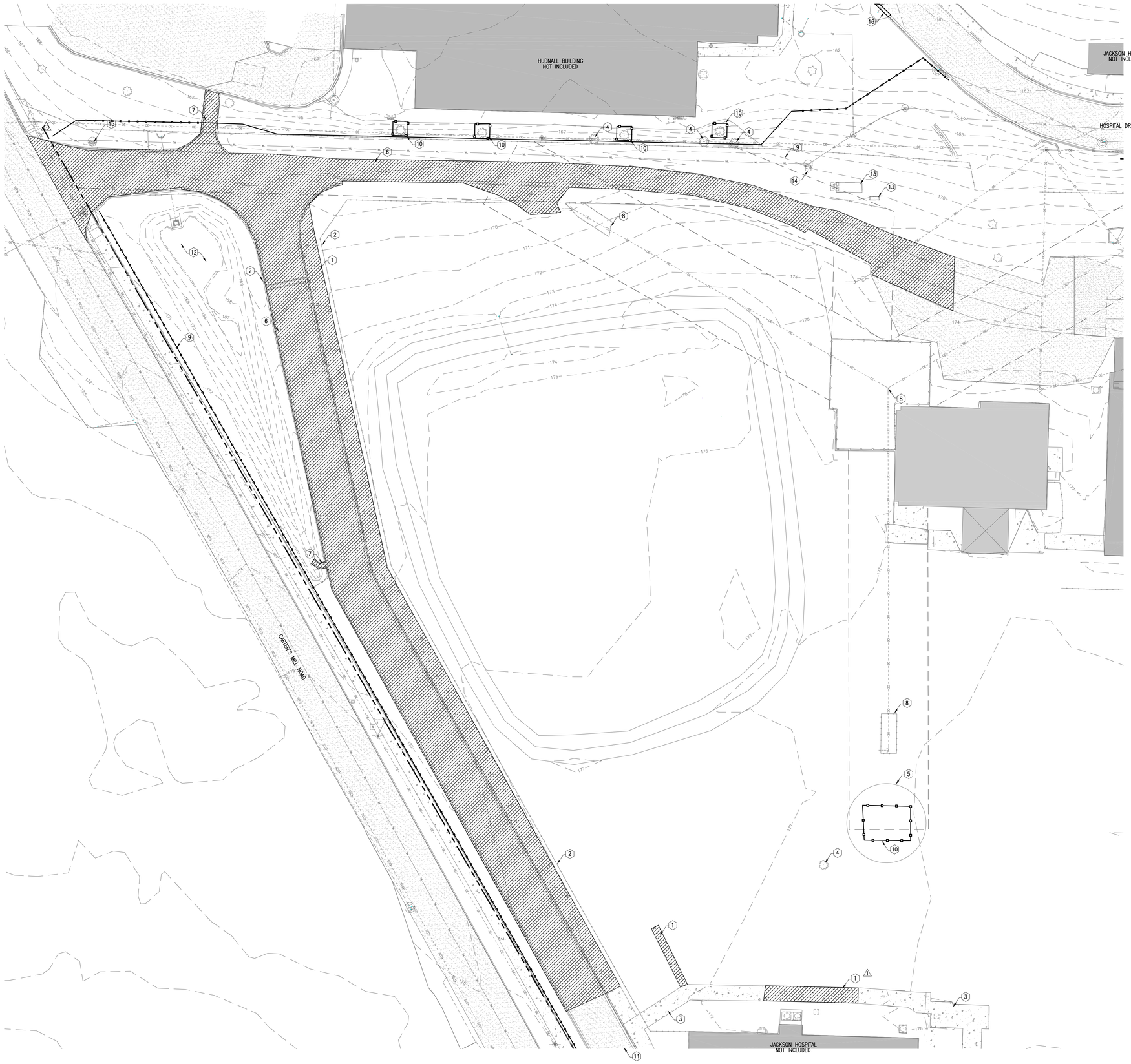
DATE	REVISIONS
SEPTEMBER 19, 2022	ADDITIONAL FIELD WORK TO LEVEL FINISHED FLOOR ELEVATIONS
	AND RESET TBM IN POWER POLE IN NORTHWEST CORNER. REVISED
	PLAT TO SHOW CHANGES.

COMPUTED BY	J. SNELGROVE
DRAWN BY	A. BASFORD
CHECKED BY	J. SNELGROVE

OFFICE 850-526-3991
SNELGROVE Surveying & Mapping, Inc.
FAX 850-526-3988
www.snelgrovesurveying.com
PROFESSIONAL SURVEYING AND LAND DEVELOPMENT SERVICES
P.O. BOX 836 - MARIANNA, FL 32447 / 4997 U.S. HIGHWAY 90 - MARIANNA, FL 32446 CERTIFICATE OF AUTHORIZATION LB-7070

© THIS SURVEY MAP AND THE NOTES AND REPORT SHOWN HEREON OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF THE FLORIDA LICENSED SURVEYOR AND MAPPER WHOSE NAME APPEARS IN THE CERTIFICATION. THE MAP AND NOTES ARE NOT COMPLETE WITHOUT THE OTHER. REPRODUCTION OF THIS MAP WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE HEREON SIGNED SURVEYOR AND MAPPER IS PROHIBITED.

PROJECT	LOCATION	DATE	CLIENT
FORMER GOLSON SCHOOL SITE TOPO	SEC 33, T 5 N, R 10 W JACKSON COUNTY, FLORIDA	SEPTEMBER 1, 2022	JACKSON HOSPITAL C/O. DHM INC.
DRAWING TYPE: TOPOGRAPHIC SURVEY	SCALE: 1"=50'	JOB NO.: 22–060–06	SHEET NO.: 1 OF 1



EXISTING CONDITIONS AND DEMOLITION PLAN

1" = 20'

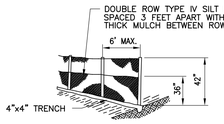
LEGEND

- PROPERTY BOUNDARY
- EXISTING ASPHALT AREA
- EXISTING CONCRETE
- EXIST. OVERHEAD ELECTRIC
- AREAS TO BE DEMOLISHED
- PROPOSED SILT FENCE
- EXIST. CONTOURS

SCALE 0 20

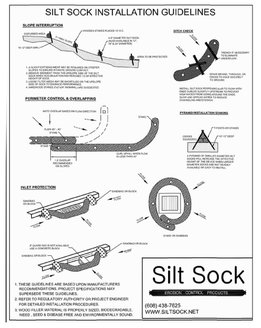
DEMOLITION PLAN

1. EXISTING CONCRETE TO BE REMOVED
2. EXISTING FENCE TO BE REMOVED
3. EXISTING SIDEWALK AND CANOPY TO REMAIN
4. EXISTING TREE TO BE REMOVED
5. EXISTING TREE TO REMAIN
6. EXISTING ASPHALT TO BE REMOVED
7. EXISTING CONCRETE FLUME TO BE REMOVED
8. EXISTING TOWER EASEMENT (TOWER, GUY WIRES AND FENCING) TO REMAIN
9. INSTALL SILT FENCE (SEE DETAIL A/C1.0)
10. INSTALL TREE PROTECTION BARRICADE (SEE DETAIL C/C1.0)
11. PARTIAL ASPHALT TO REMAIN FOR CONSTRUCTION ENTRANCE. TO BE REMOVED AT CONSTRUCTION COMPLETION.
12. EXISTING STORMWATER MANAGEMENT FACILITY TO BE FILLED AND ALL DRAINAGE STRUCTURES TO BE REMOVED
13. EXISTING GENERATOR TO BE REMOVED BY HOSPITAL AND NEW GENERATOR TO BE INSTALLED (NOT IN THIS CONTRACT; SEE SHEET C4.0)
14. EXISTING FIRE HYDRANT TO BE REMOVED (SEE SHEET C4.0)
15. EXISTING FIRE HYDRANT TO REMAIN
16. INSTALL SILT SOCK AT EXISTING INLET (SEE DETAIL B/C1.0)



A C1.0 SILT FENCE DETAIL

N.T.S.



B C1.0 SILT SOCK DETAIL

N.T.S.

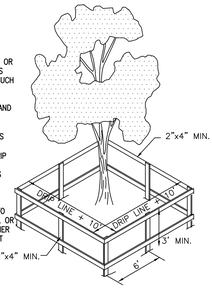
NOTES:

1. INSTALL BARRICADES AROUND EXISTING TREES TO REMAIN UNDER DETAIL.

2. IN AREAS WHERE MAJOR GRADING OR SURFACE CLEARING AND GRUBBING IS REQUIRED WITH HEAVY EQUIPMENT, SUCH AS NEW CONCRETE INFRASTRUCTURE FOOTINGS, ETC., DO NOT TEAR, RIP MAJOR ROOTS BUT CUT CAREFULLY AND CLEANLY AS YOU GO.

3. INSTALL 5"-6" LAYER OF CYPRESS MULCH (TO BE REMOVED LATER) AROUND ANY LARGE TREE WITHIN DRIP LINE, WHERE CONSTRUCTION AND EQUIPMENT MOBILITY, AND ACCESS IS ABSOLUTELY REQUIRED TO PROTECT SURFACE ROOTS.

4. AREA WITHIN BARRICADE IS NOT TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT. RIBBONS, FLAGS OR OTHER VISIBLE MATERIAL MUST BE ADDED AT POST RAIL CONNECTIONS.



C C1.0 TREE BARRICADE DETAIL

N.T.S.

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
Lic # 0002779
T: 727.530.0570

CONSTRUCTION DOCUMENTS

DHM
MELVIN ENGINEERING
EB-0005637 LC-0000277
www.melvineng.com
MARIANNA OFFICE
4428 Lafayette Street
Marianna, FL 32446
Phone: (850) 482-3045
DAVID H. MELVIN, P.E.
FLORIDA REG. NO. 38734

Project Name:

JACKSON MOB

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION PLANS

Issue Date: 09/28/2023

Revisions		
No.	Description	Date
1	Pre-Bid RFC	10-27-23

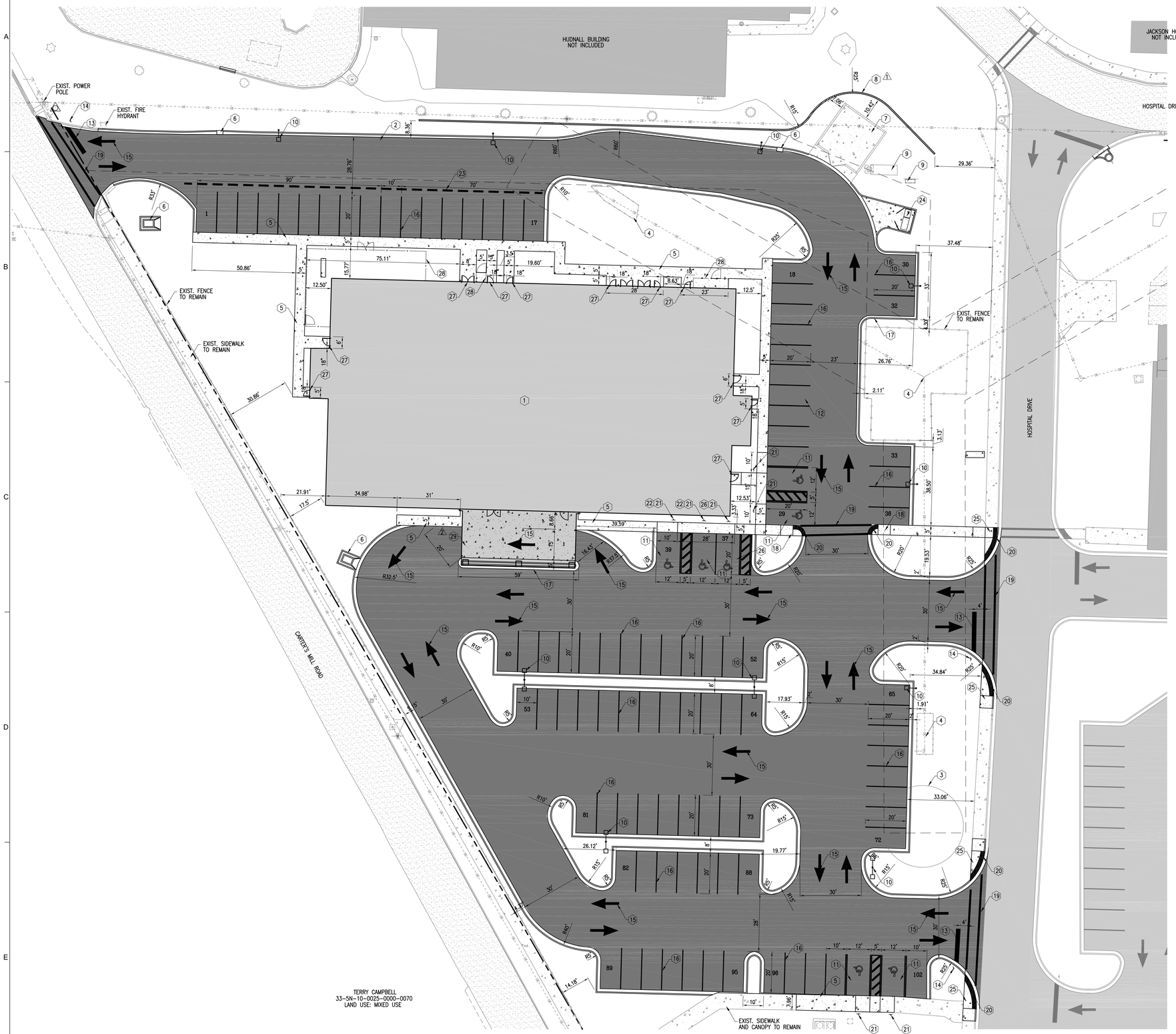
Drawing Title:

EXISTING CONDITIONS & DEMOLITION PLAN

Drawing Number:

C1.0

Drawn by: MMF
Checked by: DHM
Scale: 1"=20'



SITE AND DIMENSION PLAN

1" = 20'

LEGEND

- PROPERTY BOUNDARY
- EXISTING ASPHALT AREA
- EXISTING CONCRETE
- PROPOSED ASPHALT AREA
- PROPOSED CONCRETE
- EXIST. OVERHEAD ELECTRIC
- PROPOSED CHAINLINK FENCE

0 20 SCALE

DEVELOPMENT NOTES

DEVELOPER:	JACKSON HOSPITAL 4250 HOSPITAL DRIVE MARIANNA, FL 32448 CONTACT: BROOKE DONALDSON
ENGINEER:	DAVID H. MELVIN, INC. CONSULTING ENGINEERS 4428 LAFAYETTE STREET MARIANNA, FL 32446 CONTACT: MARY-MARGARET FARRIS, EI (850) 482-3045
SURVEYOR:	SNELGROVE SURVEYING & MAPPING 4997 HIGHWAY 90 MARIANNA, FL 32448 (850) 526-3991

SITE NARRATIVE

IT IS PROPOSED TO DEVELOP A PORTION OF THE 12.00-ACRES WHICH WAS PREVIOUSLY DEVELOPED AS GOLSON ELEMENTARY LOCATED ON THE NORTH SIDE OF 2ND AVENUE AS A MEDICAL OFFICE DEVELOPMENT. PROPOSED IMPROVEMENTS ARE TO CONSIST OF ONE NEW BUILDING, VEHICULAR USE AREA, NEW DRIVEWAY CONNECTION ON CARTER'S MILL ROAD AND HOSPITAL DRIVE, ON-SITE UTILITY IMPROVEMENTS AND ON-SITE DRAINAGE IMPROVEMENTS. SEWER IS TO BE PROVIDED BY CONNECTION TO CITY SEWER SYSTEM. WATER IS TO BE PROVIDED BY CONNECTION TO CITY WATER SYSTEM. STORMWATER WATER RATE CONTROL WILL BE PROVIDED BY AN REGIONAL STORMWATER FACILITY. GARBAGE DISPOSAL WILL BE PROVIDED BY PROPOSED ON-SITE DUMPSTER.

SITE NOTES

1. PROPOSED 44,145 SF MEDICAL BUILDING (SEE ARCHITECTURAL FOR DETAILS)
2. INSTALL ASPHALT PAVEMENT (SEE DETAIL A/C6.0)
3. EXISTING TREE TO REMAIN
4. EXISTING TOWER EASEMENT (TOWER, GUY WIRES AND FENCING) TO REMAIN
5. PROPOSED CONCRETE SIDEWALK (SEE DETAIL E/C6.0)
6. PROPOSED STORMWATER INLETS (SEE SHEET C3.0)
7. PROPOSED 25'x25'x8" THICK CONCRETE GENERATOR PAD (NOT INCLUDED IN THIS CONTRACT)
8. INSTALL 270 LF RETAINING WALL (SEE SHEET C7.0)
9. EXISTING GENERATOR TO REMAIN IN OPERATION UNTIL NEW GENERATOR IS BROUGHT ONLINE (NOT INCLUDED IN THIS CONTRACT)
10. PROPOSED SITE LIGHTING (SEE SHEET C4.0)
11. INSTALL 12'x20' ADA PARKING SPACE (SEE DETAIL B/C6.0)
12. INSTALL 10'x20' REGULAR PARKING SPACE (SEE DETAIL B/C6.0)
13. INSTALL 24" WIDE WHITE STOP BAR (THERMOPLASTIC)
14. INSTALL 36"x36" STOP SIGN (R1-1)
15. INSTALL DIRECTIONAL ARROW STRIPING (FDOT STD. INDEX NO. 711-001)
16. INSTALL 4" WHITE STRIPE (THERMOPLASTIC)
17. INSTALL TYPE F CURB AND GUTTER (SEE DETAIL D/C6.0)
18. INSTALL SIDEWALK CR F (FDOT STD. INDEX NO. 522-002)
19. INSTALL PEDESTRIAN CROSSING STRIPING (FDOT STD. INDEX NO. 711-001)
20. INSTALL DETECTABLE WARNING SURFACE
21. INSTALL ADA PARKING SIGN (SEE DETAIL C/C6.0)
22. INSTALL CO-MOUNTED 'RESERVED FOR SURGERY CENTER' SIGN
23. INSTALL 12" WHITE DASHED LINE (THERMOPLASTIC)
24. INSTALL 11'-4"x13'-4"x8" THICK CONCRETE DUMPSTER PAD WITH 7 1/4' TILT-UP WALL PANELS ENCLOSURE WITH GATES (SEE ARCHITECTURAL SITE PLANS FOR DETAILS)
25. INSTALL SIDEWALK CR G (FDOT STD. INDEX NO. 522-002)
26. INSTALL 12'x20' ADA VAN PARKING SPACE (SEE DETAIL B/C6.0)
27. EDGE OF SIDEWALK TO BE MIN. DISTANCE OF 18" FROM LATCH SIDE OF DOOR
28. PROPOSED FENCE ENCLOSURE BY OTHERS (SEE ARCHITECTURAL FOR DETAILS)
29. INSTALL 6" THICK 4,000 PSI CONCRETE WITH #4 @ 12" O.C.E.W.

SITE STATISTICS TABLE

General Information			
Property Tax ID #(s):	33-5N-10-0304-0230-0000		
Site Address:	3035 Hospital Drive		
Owner:	Jackson Hospital		
Engineer:	David H. Melvin, Inc.		
Utilities:			
Water	City of Marianna		
Sewer	City of Marianna		
Gas	City of Marianna		
Electric	FPU		
Land Use:	Public Institutional		
Lot Coverage:	90% Maximum		
Building Height:	70 Feet Maximum		
Flood Zone:	12063C0315D, Zone X		
Site Data Table (Parcel: 33-5N-10-0304-0230-0000)			
Development Area:		**145,600 SF**	**3.34 AC**
Existing Impervious Area (SF):		**21,060 SF**	**14.46 %**
Asphalt Area		17,710 SF	**12.16** %
Concrete Area		3,350 SF	**2.30** %
Proposed Impervious Area (SF):		**116,385 SF**	**79.93 %**
Building Area		44,145 SF	30.32 %
Concrete Area		6,030 SF	4.14 %
Asphalt Area		66,210 SF	45.47 %
Pre-Post Impervious Area Total		**116,385 SF**	**79.93 %**
Existing Impervious Area (SF):		21,060 SF	14.46 %
Existing Impervious Area Removed (Building, Concrete Asphalt):		21,060 SF	14.46 %
Parking Data			
Required Parking Spaces:			
Medical and Health Offices (1 space/ 300 SF; 34,305 SF):		114 Spaces	
Handicap Parking Spaces (5 spaces/1 space per 25 reg/spaces):		5 Spaces	
Ambulatory Surgical Center (1 space/300 SF; 9,733 SF)		33 Spaces	
Handicap Parking Spaces (2 spaces/1 space per 25 reg/spaces):		2 Spaces	
Total Required Parking Spaces (All Uses):		**147 Spaces**	
Off-Site Parking Spaces:		46 Spaces	
Total Number of Spaces Provided (Includes 7 Handicap Spaces):		**147 Spaces**	
Loading Zones (1 per 20,000 SF, plus 1 per 20,000 additional SF)		2 Spaces	

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
Llc # 0002779
T: 727.530.0570

CONSTRUCTION DOCUMENTS

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DAVID H. MELVIN, P.E.

FLORIDA REG. NO. 38734

Project Name:

JACKSON MOB

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION PLANS
Issue Date: 09/28/2023

Revisions

No.	Description	Date
1	Pre-Bid RFC 1	10-27-23
2	Pre-Bid RFC 3	11-06-23

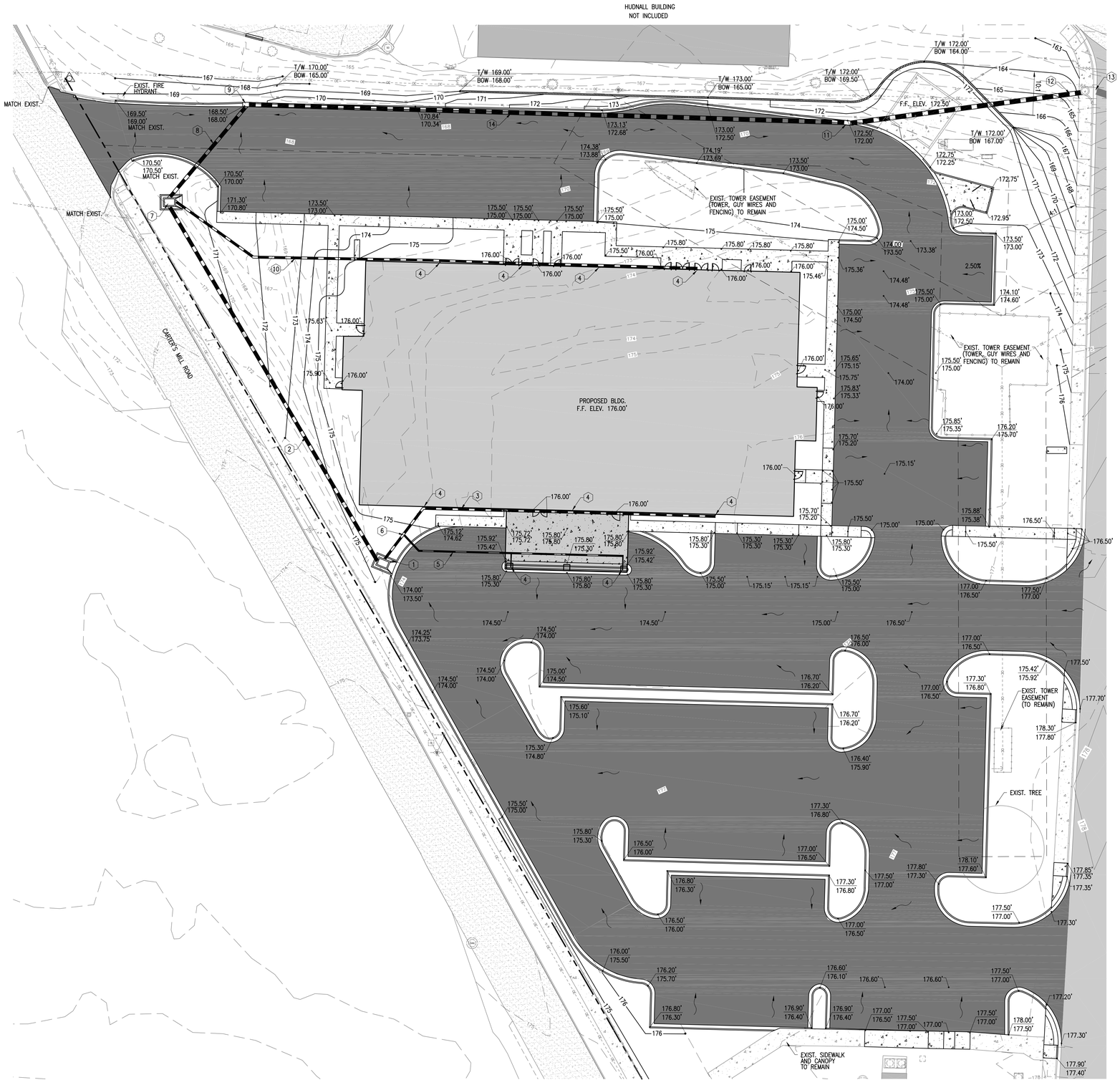
Drawing Title:

OVERALL SITE & DIMENSION PLAN

Drawing Number:

C2.0

Drawn by: MMF
Checked by: DHM
Scale: 1"=20'



GRADING AND DRAINAGE PLAN

1" = 20'

LEGEND

- PROPERTY BOUNDARY
- EXISTING ASPHALT AREA
- EXISTING CONCRETE
- PROPOSED ASPHALT AREA
- PROPOSED CONCRETE
- EXIST. OVERHEAD ELECTRIC
- EXISTING CONTOURS
- PROPOSED CONTOURS
- DRAINAGE ARROW

0 20 SCALE

DRAINAGE NOTES

1. S-1, TYPE E DBI W/TRAVERSABLE SLOT (FDOT STD. INDEX NO. 425-052)
   TOP ELEV. 173.50'
   SLOT ELEV. 173.00
   BOTT. ELEV. 169.00'
2. INSTALL 186 LF 18" PIPE @ 5.23% SLOPE ⚠1
3. INSTALL 182 LF 12" ADS N-12 HEADER PIPE @ 2.19% SLOPE
   EAST INV. ELEV. 173.00'
   SW INV. ELEV. 169.00'
4. PROPOSED DOWNSPOUT TYP. PROVIDE AND INSTALL APPROPRIATE CONNECTION COUPLING (SEE ARCHITECTURAL PLAN FOR DETAILS)
5. INSTALL 102 LF 8" ADS N-12 HEADER PIPE @ 1.00% SLOPE
   EAST INV. ELEV. 170.30'
   WEST INV. ELEV. 169.30'
6. S-2, INSTALL 8"x12" ADS TEE
   TOP ELEV. 174.50'
   INV. ELEV. 169.30'
7. S-3, TYPE D DBI W/TRAVERSABLE SLOT (FDOT STD. INDEX NO. 425-052)
   TOP ELEV. 170.00'
   E. SLOT ELEV. 169.50'
   INV. ELEV. 164.50' (12"/18")
   DEPTH = 5.50'
8. INSTALL 53 LF 18" PIPE @ 0.94% SLOPE
9. S-4, TYPE E DBI (FDOT STD. INDEX NO. 425-052)
   TOP ELEV. 168.00'
   INV. ELEV. 164.00'
   DEPTH = 4.0'
10. INSTALL 246 LF 12" N-12 ADS HEADER PIPE @ 3.45% SLOPE
    EAST INV. ELEV. 173.00'
    WEST INV. ELEV. 164.50'
11. S-5, TYPE 9 INLET (FDOT STD. INDEX NO. 425-024)
    TOP ELEV. 172.50'
    GUTTER ELEV. 172.00'
    BOTT. ELEV. 163.00' (E,W)
    DEPTH = 9.50'
12. INSTALL 111 LF 24" PIPE @ 2.84% SLOPE
13. TYPE 3 CURB INLET
    TOP ELEV. 163.00'
    GUTTER ELEV. 162.17'
    BOTT. ELEV. 157.50'
    DEPTH = 5.0'
14. INSTALL 271 LF 18" PIPE @ 0.36% SLOPE

CONSTRUCTION NOTES:

1. ENGINEER SHALL PROVIDE CONTRACTOR WITH ELECTRONIC FILE FOR SITE STAKEOUT. CONTRACTOR SHALL VERIFY ALL LAYOUT FEATURES PRIOR TO INSTALLATION OF IMPROVEMENTS. CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS OR AMBIGUITY. THE CONTRACTOR SHALL UTILIZE REGISTERED SURVEYOR FOR LAYOUT OF ALL SITE IMPROVEMENTS.

2. UNLESS OTHERWISE INDICATED OR MODIFIED ON THE PLANS OR IN THE SPECIFICATIONS, THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD CONSTRUCTION SHALL BE THE GOVERNING SPECIFICATIONS FOR CONSTRUCTION MATERIAL AND SITE WORK.

3. WHERE REFERENCE IS MADE TO A STANDARD INDEX OR DETAIL, THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD CONSTRUCTION SHALL BE USED AS IF A PART OF THIS PLAN.

4. PRIOR TO COMMENCING CONSTRUCTION IN ANY COUNTY, OR STATE RIGHT-OF-WAY OR EASEMENT, THE CONTRACTOR SHALL LOCATE AND VERIFY ALL EXISTING PRIVATE AND PUBLIC UTILITIES. THE CONTRACTOR SHALL ALSO COORDINATE WITH THE APPROPRIATE UTILITY PROVIDER FOR ANY NECESSARY UTILITY RELOCATION'S REQUIRED TO IMPLEMENT THE PROPOSED PLAN. ANY REQUIRED UTILITY RELOCATION WORK SHALL BE INCLUDED IN THE CONSTRUCTION BID.

5. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

6. EXISTING SURVEY ELEVATION INFORMATION WAS OBTAINED FROM SNELGROVE SURVEYING & MAPPING, INC. IF ANY DISCREPANCIES ARE FOUND DURING CONSTRUCTION WITH EXISTING ELEVATION INFORMATION THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION PRIOR TO ANY FURTHER CONSTRUCTION OR INSTALLATION OF IMPROVEMENTS.

7. THE HORIZONTAL COORDINATE DATUM OF THIS SURVEY IS BASED ON GRID NORTH AND THE FLORIDA STATE PLAN COORDINATE SYSTEM, ZONE FLORIDA NORTH, NAD 83/11 BY GPS DERIVED POSITIONS FROM AN EXISTING FLORIDA PERMANENT REFERENCE NETWORK STATION DESIGNATED FLMR.

8. CONTRACTOR SHALL SOD ALL DISTURBED AREA AND RE-GRADE SMOOTH ALL AREAS ON-SITE (25,000 SF). THE REMAINDER OF THE DISTURBED AREA SHALL BE SEEDED AND MULCHED TO ENSURE STABILITY AND PROHIBIT EROSION.

9. CONTRACTOR SHALL NOTIFY ENGINEER FOR SITE VISIT AND CONFIRMATION OF GRADE STAKING PRIOR TO INSTALLATION OF ANY STRUCTURE, CONCRETE OR ASPHALT.

10. GRADING AND ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE. THE GROUND IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING AT A SLOPE OF NOT LESS THAN ONE UNIT VERTICAL IN 20 UNITS HORIZONTAL (5-PERCENT SLOPE) FOR A MINIMUM DISTANCE OF 10 FEET MEASURED PERPENDICULAR TO THE FACE OF THE WALL. IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10 FEET OF HORIZONTAL DISTANCE, A 5-PERCENT SLOPE SHALL BE PROVIDED TO AN APPROVED ALTERNATIVE METHOD OF DIVERTING WATER AWAY FROM THE FOUNDATION. SWALES USED FOR THIS PURPOSE SHALL BE SLOPED A MINIMUM OF 2-PERCENT WHERE LOCATED WITHIN 10 FEET OF THE BUILDING FOUNDATION. IMPERVIOUS SURFACES WITHIN 10 FEET OF THE BUILDING FOUNDATION SHALL BE SLOPED A MINIMUM OF 2-PERCENT AWAY FROM THE BUILDING.

11. BUILDING ROOF SHALL BE CONSTRUCTED WITH GUTTERS AND DOWNSPOUTS TO PROVIDE POSITIVE DRAINAGE CONVEYANCE AWAY FROM THE BUILDINGS.

CONSTRUCTION SEQUENCE:

1. ALL PERMITS (NWFWMD AND CITY) MUST BE OBTAINED PRIOR TO ANY CONSTRUCTION COMMENCEMENT AND KEPT ON-SITE DURING CONSTRUCTION UNTIL COMPLETION OF PROJECT.

2. THE CONTRACTOR SHALL REQUEST AN ON-SITE PRE-CONSTRUCTION MEETING WITH THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITY.

3. CONSTRUCT SEDIMENTATION/EROSION CONTROLS AND THEN CLEARLY "FLAG" THE LIMITS OF CLEARING. CONSTRUCTION ACTIVITY SHALL NOT COMMENCE UNTIL THE SEDIMENT CONTROLS HAVE BEEN INSPECTED AND APPROVED. THE CONTRACTOR SHALL CONTACT CITY REPRESENTATIVE TO INSPECT SAID SEDIMENT/EROSION CONTROLS PRIOR TO CONSTRUCTION ACTIVITY.

4. CLEAR THE REMAINING PORTION OF THE SITE AND CREATE DIVERSION CHANNELS TO DIRECT THE FLOW. WHERE NEEDED, CHECK DAMS CONSTRUCTED OF HAY BALES SHALL BE USED TO TRAP SEDIMENT.

5. CONSTRUCT SITE IMPROVEMENTS IN ACCORDANCE WITH THE APPROVED PLANS.

6. SOD OR SEED ALL REMAINING DISTURBED AREAS.

7. CONTACT PROJECT ENGINEER FOR INSPECTION OF SITE DURING CONSTRUCTION.

8. PRIOR TO THE REMOVAL OF ANY EXCAVATED MATERIAL FROM THE SITE THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE LOCATION OF ALL PROPOSED DISPOSAL SITES. ALL DISPOSAL SITES SHALL BE PROPERLY PERMITTED AND APPROVED TO RECEIVE THE EXCAVATED MATERIALS. CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL OF THE ALLOWABLE DISPOSAL SITES FROM THE ENGINEER PRIOR TO THE REMOVAL OF ANY EXCAVATED MATERIALS.

9. OBTAIN FINAL APPROVAL FROM THE ENGINEER AND OWNER. CONTRACTOR SHALL REPAIR/REPLACE/RECONSTRUCT AT NO EXTRA COST ANY RELATED ITEMS TO THE STORMWATER CONVEYANCE SYSTEM THAT ARE FOUND TO BE IN NON-COMPLIANCE WITH THE PERMITTED PLANS.

Project Architect:

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CONSTRUCTION DOCUMENTS

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DAVID H. MELVIN, P.E.
FLORIDA REG. NO. 38734

Project Name:

JACKSON MOB

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION PLANS

Issue Date: 09/28/2023

Revisions

No.	Description	Date
1	Pre-Bid RFC	10-27-23

N

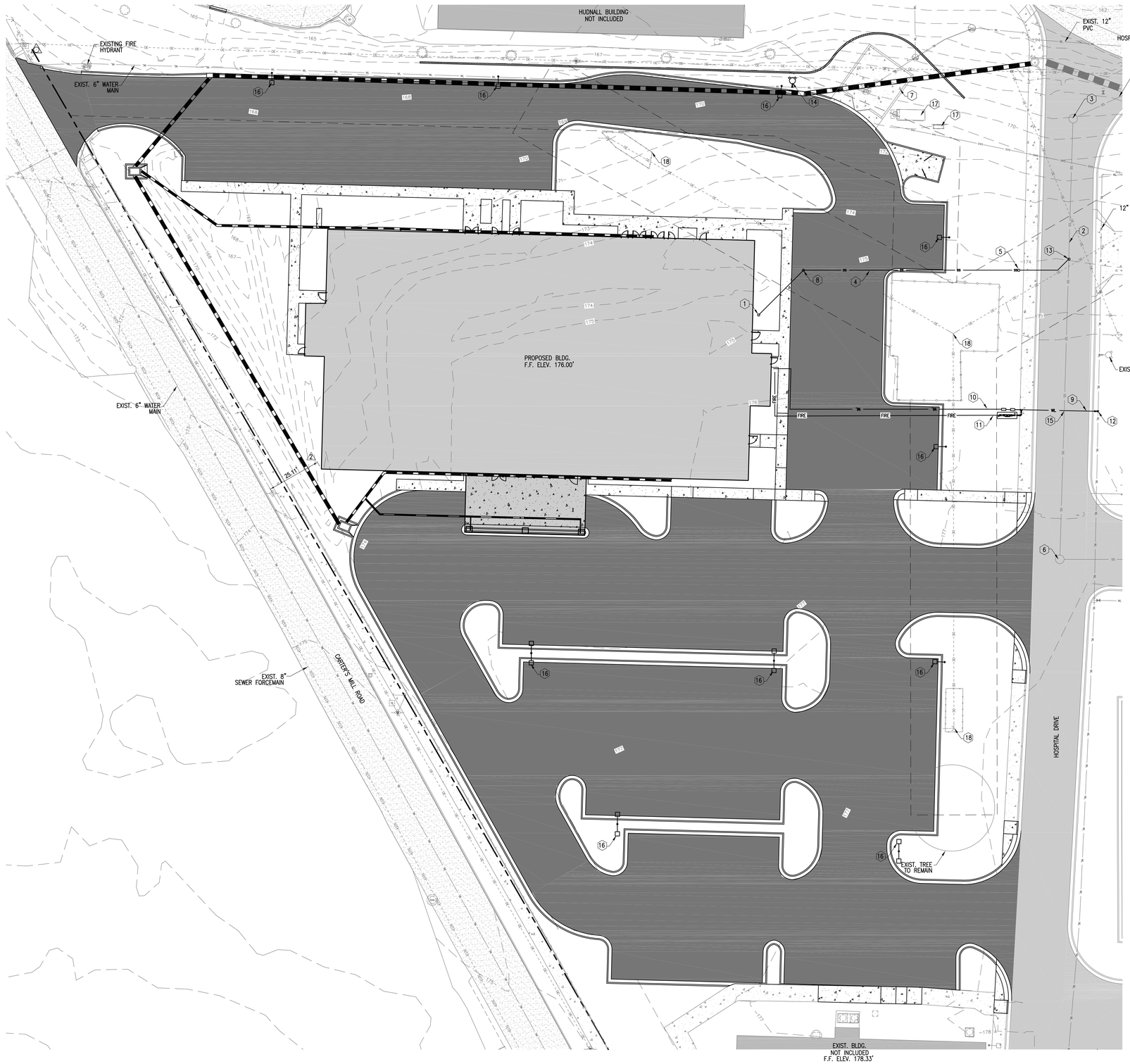
Drawing Title:

GRADING AND DRAINAGE PLAN

Drawing Number:

C3.0

Drawn by: MMF
Checked by: DHM
Scale: 1"=20'



UTILITY PLAN

1" = 20'

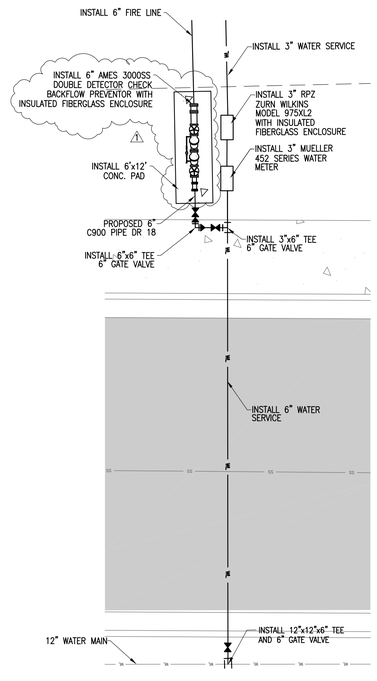
LEGEND

- PROPERTY BOUNDARY
- EXISTING ASPHALT AREA
- EXISTING CONCRETE
- PROPOSED ASPHALT AREA
- PROPOSED CONCRETE
- OE — OE — EXIST. OVERHEAD ELECTRIC
- SS — SS — EXIST. SANITARY SEWER
- W — W — EXISTING WATER MAIN
- WL — WL — PROPOSED WATER MAIN
- SS — SS — PROPOSED SANITARY SEWER
- GAS — GAS — EXISTING GAS LINE
- 171 — EXISTING CONTOURS

0 20
SCALE

UTILITY NOTES

1. INSTALL 6" SEWER CLEAN-OUT (SEE DETAIL F/C6.0) INV. ELEV. 172.00'
2. 8" SEWER MAIN
3. SEWER MANHOLE TOP ELEV. 165.50' INV. ELEV. 156.00' DEPTH = 9.50'
4. INSTALL 155 LF 6" SEWER LATERAL @ 7.29% SLOPE
5. INSTALL 6" SEWER CLEAN-OUT (SEE DETAIL F/C6.0) INV. ELEV. 165.19'
6. SEWER MANHOLE TOP ELEV. 177.00' INV. ELEV. 171.00' DEPTH = 6.00'
7. PROPOSED GENERATOR PAD (BY OTHERS, NOT IN THIS CONTRACT)
8. INSTALL 6" SEWER CLEAN-OUT (SEE DETAIL F/C6.0) INV. ELEV. 169.88'
9. INSTALL 6" WATER SERVICE (SEE PLUMBING PLAN FOR COORDINATION)
10. INSTALL 3" WATER SERVICE WITH 3" RPZ BACKFLOW PREVENTOR WITH FIBERGLASS ENCLOSURE
11. INSTALL 6" FIRE LINE AND RPZ (SEE PLUMBING PLAN FOR DETAILS) ⚠1
12. INSTALL 12"x12"x6" TEE AND 6" GATE VALVE
13. 6" SEWER CONNECTION INV. ELEV. 160.69'
14. INSTALL FIRE HYDRANT ASSEMBLY
15. UTILITY CONFLICT 8" SEWER MAIN INV. ELEV. 167.48' PROPOSED 6" WATER SERVICE INV. ELEV. 174.00'
16. PROPOSED SITE LIGHTING (SEE ELECTRICAL LIGHTING PLAN)
17. EXISTING GENERATOR TO REMAIN IN OPERATION UNTIL NEW GENERATOR IS BROUGHT ONLINE. EXISTING GENERATOR TO BE REMOVED BY HOSPITAL. (NOT IN THIS CONTRACT)
18. EXISTING TOWER EASEMENT (TOWER, GUY WIRES AND FENCING) TO REMAIN



A C4 METER/RPZ DETAIL

1" = 5'-0"

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Marianna, FL 32446

CONSTRUCTION PLANS
Issue Date: 09/28/2023

Revisions		
No.	Description	Date
1	Pre-Bid RFC 1	10-27-23
2	Pre-Bid RFC 3	11-06-23

Drawing Title:

UTILITY PLAN

Drawing Number:

C4.0

Drawn by: MMF
Checked by: DHM
Scale: 1"=20'

1. INTRODUCTION

THIS DOCUMENT IS INTENDED TO PROVIDE GUIDANCE TO THE RESPONSIBLE AUTHORITY/OPERATOR FOR THE CREATION OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IN COMPLIANCE WITH CHAPTER 62-621.500 (4] OF THE FLORIDA ADMINISTRATIVE CODE, WHICH PERTAINS TO THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. THE ADMINISTRATIVE CODE GRANTS THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) THE AUTHORITY TO REGULATE POINT SOURCE DISCHARGE OF STORMWATER FROM CONSTRUCTION SITES.

THE INFORMATION CONTAINED HEREIN IS ORGANIZED TO CORRESPOND TO THE ITEMS OUTLINED IN PART 4 OF THE FDEP FORM 62-621.300(4)(a) 'GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES'. IT SHALL BE THE RESPONSIBILITY OF THE RESPONSIBLE AUTHORITY/OPERATOR TO DEVELOP THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN AND TO SUBMIT THE FDEP FORM 62-621.300(4)(b) 'NOTICE OF INTENT TO USE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES' AT LEAST TWO (2) CALENDAR DAYS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. THE RESPONSIBLE AUTHORITY/OPERATOR SHALL POST A COPY OF THE NOTICE OF INTENT (NOI) OR ACKNOWLEDGMENT LETTER FROM FDEP AT THE CONSTRUCTION SITE IN A PROMINENT PLACE FOR PUBLIC VIEWING. THE RESPONSIBLE AUTHORITY/OPERATOR SHALL ALSO MAINTAIN RECORDS OF THE SWPPP AND OTHER DOCUMENTS SPECIFIED IN THE GENERIC PERMIT AT THE CONSTRUCTION SITE TO BE AVAILABLE FOR REVIEW.

2. SITE DESCRIPTION

COUNTY: JACKSON
SECTION, TOWNSHIP, RANGE: 33, 5N, 10W
COUNTY PARCEL NO.: 33-5N-10-0304-0230-0000

STREET ADDRESS: HOSPITAL DRIVE, MARIANNA, FLORIDA
PROJECT AREA: 3.34-ACRES±
SITE LOCATION MAP: REFER TO CONSTRUCTION PLANS

A. NATURE OF CONSTRUCTION ACTIVITY

THE PROJECT IS COMPRISED OF THE CONSTRUCTION OF A 44,145 SF MEDICAL BUILDING, VEHICULAR USE AREA AND ON-SITE UTILITY IMPROVEMENTS.

ANTICIPATED START DATE: JANUARY 2024
ANTICIPATED COMPLETION DATE: DECEMBER 2024

THE START AND END DATES FOR EACH MAJOR CONSTRUCTION ACTIVITY SHALL BE INCLUDED WITH THE SWPPP. THE SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES OUTLINED BELOW IS PROVIDED AS A GENERAL GUIDELINE, THE ACTUAL SEQUENCING AND DATES ARE TO BE PROVIDED IN THE SWPPP:

B. GENERAL SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES

1. PRIOR TO CONSTRUCTION, SILT FENCING AND TREE PROTECTION FENCING SHALL BE INSTALLED AND ALL EXISTING STORM DRAINAGE SWALE AND INLETS SHALL BE PROTECTED IN ACCORDANCE WITH THE PRACTICES DESCRIBED IN 'THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL' (CURRENT EDITION) AND FDOT STANDARD SPECIFICATION SECTION 104 (CURRENT EDITION).
2. THE CONSTRUCTION SERVICE ENTRANCE SHALL BE STABILIZED TO MINIMIZE THE CREATION OF DUST AND OFF-SITE TRACKING OF SEDIMENTS.
3. ONLY THE AREA COMPRISING THE PROPOSED STORMWATER MANAGEMENT FACILITY(S) SHALL BE CLEARED AND GRUBBED OF UNWANTED VEGETATION.
4. THE PROPOSED STORMWATER MANAGEMENT FACILITY(S) SHALL BE CONSTRUCTED.
5. IF SUITABLE, THE EXCAVATED SOIL FROM THE FACILITY(S) MAY BE USED AS FILL FOR ON-SITE GRADING THAT IS DEPICTED IN THESE CONSTRUCTION PLANS. THE CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIAL ON-SITE OR OFF-SITE TO A PERMITTED LOCATION.
6. THE REMAINING PORTION OF THE SITE THAT IS TREATED BY THE CONSTRUCTED STORMWATER MANAGEMENT FACILITY(S) SHALL BE CLEARED AND GRUBBED.
7. THE PERMANENT ROADWAYS/ DRIVEWAYS SHALL BE ROUGHLY GRADED.
8. THE UNDERGROUND UTILITIES INFRASTRUCTURE AND STORMWATER PIPING SYSTEM SHALL BE INSTALLED. ANY DE-WATERING (PUMPED) SHALL BE DIVERTED TO THE ASSOCIATED STORMWATER MANAGEMENT FACILITY(S).
9. THE PERMANENT ROADWAY / DRIVEWAY SUBGRADE SHALL BE COMPACTED, A BASE SHALL BE ESTABLISHED, AND THEN FOLLOWED BY AN OVERLAY OF ASPHALT OR CONCRETE PAVEMENT.
10. UPON SIGNIFICANT COMPLETION OF CONSTRUCTION, THE STORMWATER PIPING SYSTEM SHALL BE FLUSHED OUT TO REMOVE ACCUMULATED DEBRIS AND SEDIMENT.
11. UPON COMPLETION OF THE DEBRIS AND SEDIMENT REMOVAL FROM THE STORMWATER PIPING SYSTEM, THE PROPOSED STORMWATER MANAGEMENT FACILITY(S) SHALL BE FINE GRADED AND BE EXCAVATED TO THE DESIGN BOTTOM ELEVATION. ONCE COMPLETED, NO HEAVY MACHINERY SHALL BE ALLOWED WITHIN THE STORMWATER MANAGEMENT FACILITY(S).
12. ALL REMAINING DISTURBED AREAS WITHIN THE CONSTRUCTION AREA SHALL BE COMPLETELY GRASSED AND/OR LANDSCAPED ACCORDING TO THE CONSTRUCTION AND/OR LANDSCAPING PLANS. TURF ESTABLISHMENT SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 570. EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO REMOVAL OF SILT FENCING AND OTHER EROSION CONTROL APPLICATIONS.

C. SITE AREA ESTIMATES AND RUNOFF DATA:

TOTAL PROJECT SITE AREA: 3.34-ACRES±
TOTAL SITE AREA TO BE DISTURBED: 3.34-ACRES±

RUNOFF COEFFICIENTS:

PRE-DEVELOPMENT 'C' FACTOR: 0.80
POST-DEVELOPMENT 'C' FACTOR: 0.80

D. SOIL CONDITIONS AND STORMWATER QUALITY

THE NRCS DATA FOR THE SITE REVEALS THAT THE SITE SOILS ARE COMPRISED OF ORANGEBURG LOAMY SAND (SC-SM, SC). REFER TO THE GENERAL NOTES SHEET IN THE CONSTRUCTION PLANS FOR INFORMATION REGARDING THE GEOTECHNICAL INVESTIGATIONS FOR THE SITE.

E. SITE MAP

REFER TO CONSTRUCTION PLANS

F. STORMWATER OUTFALL LOCATION AND RECEIVING WATER BODY.

OUTFALL ID#	LOCATION	RECEIVING WATERBODY
EXISTING INLET	30°46'39"N, 85°32'48"W	CHIPOLA RIVER

3. CONTROLS TO REDUCE POLLUTION

AS OUTLINED IN THE WATER MANAGEMENT DISTRICT ENIVROMENTAL RESOURCE PERMIT (ERP), ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED IN A MANNER AS TO NOT VIOLATE STATE WATER QUALITY STANDARDS. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY, THE RESPONSIBLE AUTHORITY/OPERATOR SHALL IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES TO RETAIN SEDIMENT ON-SITE IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). IF SITE CONDITIONS ARE SUCH THAT ADDITIONAL CONTROL MEASURES ARE REQUIRED OTHER THAT WHAT IS OUTLINED IN THE SWPPP, THE RESPONSIBLE AUTHORITY/OPERATOR OR OTHER SUBCONTRACTORS SHALL IMPLEMENT ADDITIONAL BEST MANAGEMENT PRACTICES. REGULAR INSPECTION AND MAINTENANCE OF THESE MEASURES IS REQUIRED FOR THE DURATION OF CONSTRUCTION ACTIVITIES. THE FOLLOWING INFORMATION IS INTENDED TO PROVIDE GUIDANCE ON STANDARD MEASURES AND BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL. PLEASE REFER TO THE SWPPP FOR SPECIFIC DETAILS AND REQUIREMENTS FOR THE SITE.

4. EROSION AND SEDIMENT CONTROLS

A. GENERAL STABILIZATION PRACTICES

EXISTING TREES AND NATURAL VEGETATION TO REMAIN ON-SITE SHALL BE PROTECTED BY TREE BARRICADE FENCING AS DEPICTED. TYPE III SILT FENCING SHALL PROTECT ALL DRAINAGE STRUCTURES AND SHALL BUFFER AREAS WITH POTENTIAL TO CONTRIBUTE OFF-SITE RUNOFF AND AS SPECIFICALLY DEPICTED ON THE SWPPP. STABILIZATION MEASURES SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN SEVEN (7) DAYS OR AS REQUIRED BY THE PERMITTING AGENCY, IN PORTIONS OF THE SITE WHERE CONSTRUCTION TEMPORARILY OR PERMANENTLY CEASED. UPON COMPLETION OF CONSTRUCTION, ALL STORMWATER MANAGEMENT FACILITIES SHALL BE SCRAPED CLEAN OF ANY ACCUMULATED SEDIMENT OR DEBRIS. ALL TURF ESTABLISHMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF FDOT STANDARD SPECIFICATION SECTION 570 AND EVIDENCE OF GROWTH MUST BE PRESENT PRIOR TO THE REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

B. GENERAL STORM STRUCTURE PROTECTION PRACTICES

A STORMWATER MANAGEMENT SYSTEM WILL BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION PLANS AND WILL BE COMPRISED OF A WET DETENTION FACILITY AND A STORM PIPE CONVEYANCE SYSTEM. TO PREVENT EROSION DURING CONSTRUCTION, TYPE III SILT FENCING IS TO BE INSTALLED IN THE LOCATIONS SHOWN WITHIN THE CONSTRUCTION PLANS AND THE SWPPP. ALL EXISTING AND PROPOSED STORM DRAINS AND DRAINAGE SWALES SHALL BE PROTECTED IN ACCORDANCE WITH THE MEASURES DETAILED IN THE SWPPP AND/OR THE 'STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL' (CURRENT EDITION) UNTIL CONSTRUCTION HAS BEEN COMPLETED. UPON COMPLETION OF CONSTRUCTION OR SOIL DISTURBANCE ACTIVITIES, THE STORM PIPE CONVEYANCE SYSTEM SHALL BE FLUSHED TO REMOVE ALL ACCUMULATED DEBRIS AND SEDIMENT.

C. DRAINAGE AREAS SERVING LESS THAN 10 DISTURBED ACRES

DRAINAGE AREAS THAT ARE COMPRISED OF 10 DISTURBED ACRES OR LESS ARE RECOMMENDED TO UTILIZE SEDIMENT BASINS AND/OR TRAPS IF THE AREA IS NOT SERVED BY A PERMANENT STORMWATER MANAGEMENT FACILITY. IF A PERMANENT STORMWATER MANAGEMENT FACILITY IS PROPOSED TO BE USED AS A SEDIMENT BASIN AND/OR TRAP, APPROPRIATE MEASURES SHALL BE TAKEN TO ENSURE REMOVAL OF ANY ACCUMULATED SEDIMENT OR DEBRIS TO ASSURE THE DESIGN CAPACITY OF THE FACILITY IS PROVIDED. SILT FENCES OR OTHER SEDIMENT CONTROL SHALL BE INSTALLED AS OUTLINE IN THE CONSTRUCTION PLANS AND THE SWPP. LOCATION WHERE SILT FENCE SHALL BE INSTALLED INCLUDES, BUT IS NOT LIMITED TO, SIDE SLOPE AND DOWN SLOPE BOUNDARIES, INLET LOCATIONS, OUTLET LOCATIONS, WETLAND SETBACKS, OR AS OTHERWISE NOTED IN THE SWPPP. UPON COMPLETION OF CONSTRUCTION OR SOIL DISTURBING ACTIVITIES, SIDE SLOPES, SWALES, AND ALL DISTURBED AREAS SHALL BE STABILIZED WITH GRASS AND LANDSCAPING AS SPECIFIED ON THE CONSTRUCTION DRAWINGS. NOTE THAT EROSION CONTROL IS SUBJECT TO THE SWPPP AND MAY BE AMENDED BY THE RESPONSIBLE AUTHORITY/OPERATOR AS NEEDED TO ENSURE SEDIMENTATION IS ADEQUATELY CONTROLLED.

D. DRAINAGE AREAS SERVING MORE THAN 10 DISTURBED ACRES
DRAINAGE AREAS THAT ARE COMPRISED OF 10 DISTURBED ACRES OR MORE ARE REQUIRED TO UTILIZE SEDIMENT BASINS AND/OR TRAPS IF THE AREA IS NOT SERVED BY A PERMANENT STORMWATER MANAGEMENT FACILITY. IF A PERMANENT STORMWATER MANAGEMENT FACILITY IS PROPOSED TO BE USED AS A SEDIMENT BASIN AND/OR TRAP, APPROPRIATE MEASURES SHALL BE TAKEN TO ENSURE REMOVAL OF ANY ACCUMULATED SEDIMENT OR DEBRIS TO ASSURE THE DESIGN CAPACITY OF THE FACILITY IS PROVIDED. SILT FENCES OR OTHER SEDIMENT CONTROL SHALL BE INSTALLED AS OUTLINE IN THE CONSTRUCTION PLANS AND THE SWPPP. LOCATIONS WHERE SILT FENCE SHALL BE INSTALLED INCLUDES, BUT IS NOT LIMITED TO, SIDE SLOPE AND DOWN SLOPE BOUNDARIES, INLET LOCATIONS, OUTLET LOCATIONS, WETLAND SETBACKS, OR AS OTHERWISE NOTED IN THE SWPPP. UPON COMPLETION OF CONSTRUCTION OR SOIL DISTURBING ACTIVITIES, SIDE SLOPES, SWALES, AND ALL DISTURBED AREAS SHALL BE STABILIZED WITH GRASS AND LANDSCAPING AS SPECIFIED ON THE CONSTRUCTION DRAWINGS. NOTE THAT EROSION CONTROL IS SUBJECT TO THE SWPPP AND MAY BE AMENDED BY THE RESPONSIBLY AUTHORITY/OPERATOR AS NEEDED TO ENSURE SEDIMENTATION IS ADEQUATELY CONTROLLED.

5. STORMWATER MANAGEMENT PRACTICES

A. BEST MANAGEMENT PRACTICES

AFTER CONSTRUCTION, THE STORMWATER MANAGEMENT SYSTEM SHALL BE MAINTAINED IN ACCORDANCE WITH THE SPECIFIED STORMWATER MAINTENANCE NOTES IN THE INCLUDED CONSTRUCTION DRAWINGS AND/OR RESPECTIVE MAINTENANCE REPORTS. SPECIFICALLY, THE PROPOSED SMF(S) SHALL BE MOWED REGULARLY IN THE SPECIFIED AREAS; STORM PIPES AND STRUCTURES WILL BE INSPECTED SEMI-ANNUALLY AND CLEANED ANNUALLY.

B. VEGETATED SWALES

WHEN VEGETATED SWALES ARE UTILIZED, SILT FENCING OR EQUIVALENT SEDIMENT CONTROLS SHALL BE INSTALLED AT ADEQUATE INTERVALS TO COLLECT SEDIMENT ALONG THE SWALE. THE SEDIMENT SHALL BE REMOVED WHEN SEDIMENT REACHES ONE-THIRD OF THE HEIGHT OF THE SILT FENCING.

C. VELOCITY DISSIPATION DEVICES AT DISCHARGE POINTS

WHEN DISCHARGE POINTS ARE NOT LOCATED UNDER WATER, RIPRAP PADS HAVE BEEN PROVIDED AT LOCATIONS WHERE NECESSARY DUE TO ANTICIPATED DISCHARGE VELOCITIES. PLEASE SEE THE CONSTRUCTION PLANS FOR DETAILS AND LOCATIONS, AS NEEDED.

6. CONTROLS FOR OTHER POTENTIAL POLLUTANTS

A. WASTE DISPOSAL

DISPOSE OF ALL UNSUITABLE MATERIALS AND CONSTRUCTION DEBRIS IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS. THE METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE SPECIFIED IN THE SWPPP OR APPROVED BY THE ENGINEER: PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION ACTIVITIES, DISPOSE OF ALL FERTILIZERS OR OTHER CHEMICAL CONTAINERS TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER, DISPOSE OF SOLID MATERIALS, INCLUDING BUILDING AND CONSTRUCTION MATERIALS, OFF THE PROJECT SITE IN APPROVED LOCATIONS. NO MATERIALS SHALL BE DISPOSED OF IN SURFACE WATERS OR WETLANDS.

B. OFF-SITE VEHICLE TRACKING & DUST CONTROL

TO MINIMIZE OFF-SITE VEHICULAR TRACKING OF SEDIMENTS AND DUST GENERATION, A STABILIZED CONSTRUCTION ENTRANCE AND SOIL TRACKING PREVENTION DEVICE SHALL BE ESTABLISHED AT ALL CONSTRUCTION ENTRANCES. INCLUDE THE FOLLOWING METHODS IN ADDITION TO THOSE SPECIFIED IN THE SWPPP OR AS DIRECTED BY THE ENGINEER: COVER LOADED HAUL TRUCKS WITH TARPAULINS, REMOVE EXCESS DIRT FROM ROADS DAILY, USE ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION OR MILLING OPERATIONS.

C. TEMPORARY POTABLE WATER AND SANITARY SEWER SYSTEMS

ENSURE THAT TEMPORARY/CONSTRUCTION POTABLE CONNECTIONS TO EXISTING PUBLIC WATER MAINS ARE INSTALLED IN ACCORDANCE WITH THE GOVERNING AUTHORITY/UTILITY OWNER'S REQUIREMENTS. IF TEMPORARY SANITARY SYSTEMS ARE UTILIZED DURING CONSTRUCTION PROPERLY CONTROL AND DISCHARGE ANY SANITARY WASTE IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.

D. FERTILIZER & PESTICIDES

THE USE OF FERTILIZERS, HERBICIDES, AND PESTICIDES ON THE PROJECT SITE WILL BE DIRECTED BY THE LANDSCAPE PLAN AND TO SUPPORT THE GROWTH OF THE PROPOSED VEGETATION. ESTABLISHING THIS VEGETATION WILL AID IN THE STABILIZATION OF THE PROJECT SITE AND REDUCE EROSION. APPLICATION RATES FOR THE FERTILIZERS, HERBICIDES, AND PESTICIDES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO GUARD AGAINST OVERUSE, WHICH CAN LEAD TO VIOLATIONS OF STATE WATER QUALITY STANDARDS.

E. HAZARDOUS MATERIAL

THE SWPPP SHALL PROVIDE A LIST OF HAZARDOUS MATERIALS THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES. THE CONSTRUCTION SITE MUST BE IN COMPLIANCE WITH STATE (FDEP RULE CHAPTER 62-25 F.A.C.) AND FEDERAL REQUIREMENTS. IN ADDITION, THE CONSTRUCTION SITE SHALL BE ALSO BE IN COMPLIANCE WITH ALL APPLICABLE LOCAL CODES, ORDINANCES, OR REQUIREMENTS.

7. CHANGES TO THE STORMWATER POLLUTION PREVENTION PLAN

THE SWPP SHALL BE AMENDED TO REFLECT ANY APPLICABLE CHANGES IN A STATE, REGIONAL, OR LOCAL PERMIT FOR WHICH THE RESPONSIBLE AUTHORITY/OPERATOR RECEIVES WRITTEN NOTICE. WHEN WRITTEN NOTICE IS RECEIVED, THE RESPONSIBLE AUTHORITY/OPERATOR SHALL PROVIDE A RE-CREATION OF THE SWPPP, WHICH HAS BEEN REVISED TO ADDRESS SUCH CHANGES. AMENDMENTS TO THE PLAN SHALL BE PREPARED, SIGNED, DATED, AND KEPT AS ATTACHMENTS TO THE ORIGINAL PLAN.

8. MAINTENANCE

THE SWPPP SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGH THE DURATION OF THE PROJECT. THE MAINTENANCE PLAN SHOULD, AT A MINIMUM, THE SWPPP SHOULD COMPLY WITH THE FOLLOWING:

A. SILT FENCE: MAINTAIN PER FDOT STANDARD SPECIFICATION SECTION 104. ANTICIPATE REPLACEMENT OF SILT FENCE ON 12 MONTH INTERVALS.
B. SEDIMENT BARRIERS: REMOVE SEDIMENT AS PER MANUFACTURE'S RECOMMENDATIONS OR WHEN WATER PONDS IN UNACCEPTABLE AMOUNTS OR AREAS.
C. STORMWATER PONDS: REMOVE SEDIMENT FROM THE PONDS OR BASINS WHEN IT BECOMES 1.5' DEEP AT ANY POINT OR AS DIRECTED BY THE ENGINEER
D. IF REPAIRS ARE REQUIRED TO ANY OF THE EROSION AND SEDIMENT CONTROLS, IT SHALL BE INITIATED WITHIN 24 HOURS OF BEING REPORTED.

12. INSPECTIONS

INSPECTION OF THE PROJECT SITE AND SEDIMENT & EROSION CONTROLS SHALL BE DONE IN ACCORDANCE WITH THE SWPPP. AT A MINIMUM, QUALIFIED PERSONNEL SHALL INSPECT ITEMS A - G AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF STORM EVENT THAT IS 0.50 INCHES OR GREATER. IN ORDER TO ENSURE COMPLIANCE, RAIN GAUGE(S) SHALL BE INSTALLED AND MAINTAINED AT THE PROJECT SITE TO RECORD THE DAILY RAINFALL AMOUNTS. IN PORTIONS OF THE PROJECT WHERE PERMANENT STABILIZATION HAS BEEN COMPLETED, CONDUCT INSPECTIONS AT LEAST ONCE EVERY MONTH.

ALL INSPECTIONS ARE TO BE RECORDED AND INCLUDE THE NAME(S) AND QUALIFICATION OF THE INSPECTOR, THE DATE OF INSPECTION, RAINFALL DATA, LOCATION AND CONDITION OF CONTROL MEASURES, OBSERVATIONS, AND CORRECTIVE ACTIONS RECOMMENDED. A COPY OF THE SWPPP INSPECTION REPORT FORM FROM FDEP HAS BEEN INCLUDED ON THIS SHEET AS AN EXAMPLE. ALSO, INSPECT AND ENSURE THAT CONTROLS INSTALLED IN THE FIELD CORRESPOND TO THOSE SPECIFIED ON THE CURRENT SWPPP.

AREAS TO INSPECT INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

A. POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES
B. POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM DRAIN SYSTEMS (MS4)
C. DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED
D. AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION
E. STRUCTURAL CONTROLS
F. STORMWATER MANAGEMENT SYSTEMS
G. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE

INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTION THAT ITEMS ARE NOT IN GOOD WORKING ORDER. IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, OR PREVENT DISCHARGING POLLUTANTS, PROVIDE ADDITIONAL MEASURES AS REQUIRED AND THE RESPONSIBLE AUTHORITY/OPERATOR SHALL REVISE THE SWPPP ACCORDINGLY.

13. NON-STORMWATER DISCHARGES

REFER TO THE SWPPP FOR ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOW FROM FIRE FIGHTING ACTIVITIES). THE SWPPP SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT THE POLLUTION OF THESE NON-STORMWATER DISCHARGES. SUCH DISCHARGES MAY INCLUDE IRRIGATION OPERATIONS OR RUNOFF GENERATED FROM CONSTRUCTION PRACTICES.

14. CONTRACTORS CERTIFICATION

ENSURE THAT ALL CONTRACTORS AND SUBCONTRACTORS WORKING WITHIN THE PROJECT AREA SIGN THE FOLLOWING CERTIFICATION, AN EXAMPLE FORM HAS BEEN PROVIDED ON THIS SHEET:

"I certify under penalty of law that I understand, and shall comply with, the terms and conditions of the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities and this Stormwater Pollution Prevention Plan prepared thereunder."

15. RETENTION OF RECORDS

THE RESPONSIBLE AUTHORITY/OPERATOR SHALL RETAIN COPIES OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), ALL REPORTS REQUIRED BY THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES, AND ALL DATA USED TO COMPLETE THE NOTICE OF INTENT FOR A PERIOD OF AT LEAST THREE (3) YEARS FROM THE DATE THAT THE SITE HAS REACHED FINAL STABILIZATION AND THE NOTICE OF TERMINATION (N.O.T) IS SUBMITTED.

16. NOTICE OF TERMINATION

WHEN THE SITE HAS REACHED FINAL STABILIZATION AND ALL STORMWATER DISCHARGE AUTHORIZED BY THE GENERIC PERMIT HAS BEEN ELIMINATED, THE RESPONSIBLE AUTHORITY/OPERATOR SHALL SUBMIT A NOTICE OF TERMINATION (FDEP FORM 62-621.300(6)) THAT IS SIGNED IN ACCORDANCE WITH PART VII.C OF FDEP DOCUMENT NO. 62.621.300(4)(a) WITHIN 14 DAYS OF FINAL STABILIZATION OF THE SITE TO TERMINATE COVERAGE UNDER THIS PERMIT. THE ELIMINATION OF STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES MEANS THAT ALL DISTURBED SOILS AT THE SITE FINAL BEEN FINALLY STABILIZED AND ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN REMOVED OR WILL BE REMOVED AT AN APPROPRIATE TIME, OR THAT ALL STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES FROM THE SITE THAT ARE AUTHORIZED BY THIS GENERIC PERMIT HAVE OTHERWISE BEEN ELIMINATED. FOR CONSTRUCTION ACTIVITIES WHERE THE RESPONSIBLE AUTHORITY/OPERATOR CHANGES, THE CURRENT RESPONSIBLE AUTHORITY/OPERATOR SHALL FILE A NOTICE OF TERMINATION WITHIN 14 DAYS OF RELINQUISHING CONTROL OF THE PROJECT TO THE NEW RESPONSIBLE AUTHORITY/OPERATOR. NOTE THAT COVERAGE UNDER THE GENERIC PERMIT IS NOT TRANSFERABLE.

THE NOTICE OF TERMINATION CAN BE SUBMITTED EITHER OF THE FOLLOWING WAYS:

A. ONLINE AT http://www.fldepportal.com/go/
B. EMAIL TO NPDES-stormwater@dep.state.fl.us
C. MAIL TO THE FOLLOWING ADDRESS:
NPDES STORMWATER NOTICES CENTER, MS# 2510
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROJECTION
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

IF THE PROJECT DISCHARGES TO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4), THE RESPONSIBLE AUTHORITY/OPERATION SHALL ALSO SUBMIT A COPY OF THE NOTICE OF TERMINATION OR THE ACKNOWLEDGEMENT LETTER WITHIN SEVEN (7) CALENDAR DAYS OF RECEIPT TO THE OPERATOR OF THE MS4.

17. OWNER'S INSTRUCTIONS FOR MAINTENANCE AND INSPECTION OF STORMWATER FACILITIES

FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES AND NOTICE OF TERMINATION, THE OWNER WILL ASSUME RESPONSIBILITY FOR THE STORMWATER SYSTEM. THE ENTIRE STORMWATER SYSTEM SHOULD BE INSPECTED ON AT LEAST A SEMI-ANNUAL BASIS. THIS SHOULD INCLUDE A VISUAL INSPECTION OF THE POND, POND BANKS, BLEED-DOWN ORIFICES, OTHER CONTROL STRUCTURES, AND DISCHARGE PIPES. THESE SHOULD BE KEPT FREE OF DEBRIS AND CLEANED ON A FREQUENCY AS REQUIRED TO KEEP THEM FUNCTIONAL, AS DESIGNED. MOWING/CLEARING AROUND THE STRUCTURES MAY BE REQUIRED TO PREVENT VEGETATION FROM CLOGGING THEM.
SEDIMENT SUMPS, IF DESIGNED AND INSTALLED, SHOULD HAVE SEDIMENT REMOVED AS NECESSARY TO ALLOW THEM TO EFFICIENTLY REMOVE SUSPENDED PARTICLES. THEY SHOULD BE RE-DUG TO THE ORIGINAL DESIGN SPECIFICATIONS, IF SILTED IN.

FOR PERCOLATION TREATMENT PONDS/SWALES, THE OWNER OF THE FACILITY SHALL INSPECT THE POND BOTTOM PERIODICALLY AFTER HEAVY RAINFALL EVENTS TO CHECK FOR PERSISTENT PONDING OR POOLING OF WATER. ALL LARGE DEBRIS SHALL BE REMOVED AND DISPOSED OF ELSEWHERE. IF PROLONGED PONDING PERSISTS, I.E., IN EXCESS OF 72 HOURS, THE OWNER SHALL RAKE OR SCARIFY THE SURFACE. IF REQUIRED, THE SOIL IN THE AREA OF PONDING SHALL BE REMOVED AND REPLACED WITH CLEAN SANDY, NON-COHESIVE SOILS.

SPECIFIC CONDITIONS OF ALL PERMITS MAY REQUIRE ADDITIONAL MAINTENANCE ACTIVITIES ABOVE AND BEYOND THOSE OUTLINED ABOVE.
PLEASE BE AWARE OF ALL PERMIT CONDITIONS AS ISSUED BY REGULATORY AGENCIES TO ENSURE PERMIT COMPLIANCE.

Stormwater Pollution Prevention Plan Inspection Report Form

Inspections must occur at least once a week and within 24 hours of the end of a storm event that is 0.50 inches or greater.

Project Name:______________________________ FDEP NPDES Stormwater Identification Number: FLR________

Location	Rain data	Type of control (see below)	Date installed / modified	Current Condition (see below)	Corrective Action / Other Remarks

Condition Code:
G = Good M = Marginal, needs maintenance or replacement soon P = Poor, needs immediate maintenance or replacement C = Needs to be cleaned O = Other

Control Type Codes

1. Silt Fence	10. Storm drain inlet protection	19. Reinforced soil retaining system	28. Tree protection
2. Earth dikes	11. Vegetative buffer strip	20. Gabion	29. Detention pond
3. Structural diversion	12. Vegetative preservation area	21. Sediment Basin	30. Retention pond
4. Swale	13. Retention Pond	22. Temporary seed / sod	31. Waste disposal / housekeeping
5. Sediment Trap	14. Construction entrance stabilization	23. Permanent seed / sod	32. Dam
6. Check dam	15. Perimeter ditch	24. Mulch	33. Sand Bag
7. Subsurface drain	16. Curb and gutter	25. Hay Bales	34. Other
8. Pipe slope drain	17. Paved road surface	26. Geotextile	
9. Level spreaders	18. Rock outlet protection	27. Rip-rap	

Inspector Information:

________________________ ________________________ ____________
Name Qualification Date

The above signature also shall certify that this facility is in compliance with the Stormwater Pollution Prevention Plan and the State of Florida Generic Permit for Stormwater Discharge from Large and Small Construction Activities if there are not any incidents of non-compliance identified above.

* * * * * *

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

________________________ ____________
Name (Responsible Authority) Date

CONTRACTOR/SUBCONTRACTOR CERTIFICATION STATEMENT

SITE NAME: ____________________
SITE LOCATION: ____________________

NOTE: THE STORMWATER POLLITION PREVENTION PLAN (SWPPP) MUST CLEARLY IDENTIFY, FOR EACH MEASURE IDENTIFIED WITHIN THE SWPPP, THE CONTRACTOR(S) OR SUBCONTRACTOR(S) THAT WILL IMPLEMENT EACH MEASURE. ALL CONTRACTOR(S) AND SUBCONTRACTOR(S) IDENTIFIED IN THE SWPPP MUST SIGN THE FOLLOWING CERTIFICATION:

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND, AND SHALL COMPLY WITH, THE TERMS AND CONDITIONS OF THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES AND THIS STORMWATER POLLUTION PREVENTION PLAN PREPARED THEREUNDER."

DATE	RESPONSIBLE INDIVIDUAL NAME	RESPONSIBLE INDIVIDUAL SIGNATURE	TITLE	COMPANY NAME, ADDRESS, AND PHONE NUMBER

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
Lic # 0002779
T: 727.530.0570

CONSTRUCTION DOCUMENTS

DHM
MELVIN ENGINEERING
EB-0005637 LC-0000277
www.melvineng.com
MARIANNA OFFICE
4428 Lafayette Street
Marianna, FL 32446
Phone: (850) 482-3045
DAVID H. MELVIN, P.E.
FLORIDA REG. NO. 38734

Project Name:

JACKSON MOB

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION PLANS
Issue Date: 09/28/2023

Revisions

No.	Description	Date
1	Pre-Bid RFC 1	10-27-23
2	Pre-Bid RFC 3	11-06-23

N

Drawing Title:
STORMWATER POLLUTION PREVENTION PLAN

Drawing Number:
C5.0

Drawn by: MMF
Checked by: DHM
Scale: N.T.S.

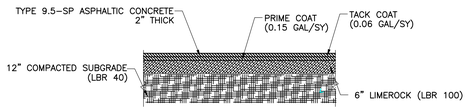
NOTES:

1. SOIL UNDER ALL PAVED AREAS (FILL AND CUT SECTIONS) SHALL BE COMPACTED TO 98% MODIFIED PROCTOR. BORROW MATERIAL, IF REQUIRED, IS TO BE PROVIDED BY THE CONTRACTOR AND SHALL HAVE A MINIMUM LBR VALUE OF 40.

2. SOIL COMPACTION AND BASE INPLACE TESTING SHALL BE PERFORMED BY A CERTIFIED TESTING LAB AT THE EXPENSE OF THE CONTRACTOR. DENSITIES FOR FILL MATERIAL, BASE MATERIAL AND OTHER AREAS WITH REQUIRED PERCENT OF COMPACTION SHALL BE TAKEN AT THE RATE OF ONE PER LIFT (6" MAXIMUM COMPACTED THICKNESS) PER 300 SY.

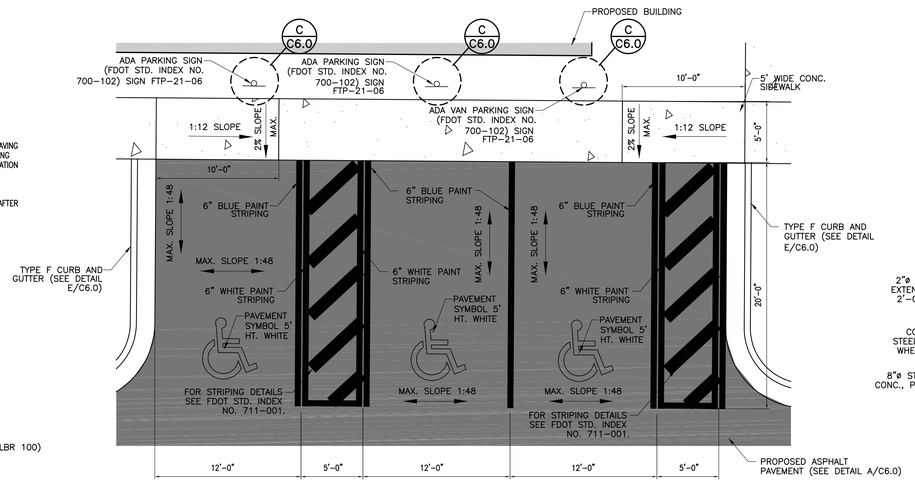
3. CONTRACTOR SHALL NOT PROCEED WITH PAVING UNTIL ENGINEER HAS OBSERVED PROOF ROLLING OF THE BASE AND ISSUED WRITTEN AUTHORIZATION TO PROCEED.

4. FINAL LIFT OF ASPHALT SHALL NOT BE INSTALLED UNTIL THE END OF THE PROJECT AFTER ALL LANDSCAPING HAS BEEN INSTALLED.



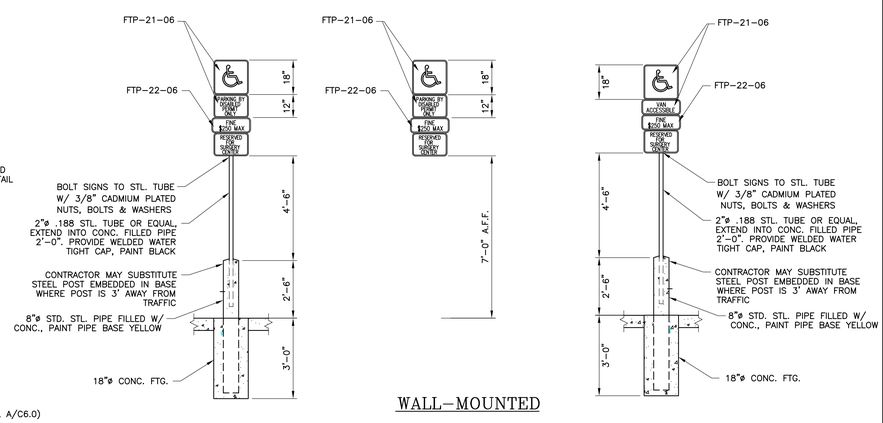
A C2.0 ASPHALT PAVING DETAIL

N.T.S.



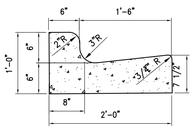
B C2.0 PARKING SPACE DETAIL

SCALE: 1" = 5'



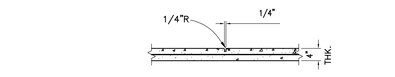
C C6.0 ADA PARKING SIGN DETAIL

N.T.S.

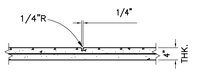


D C2.0 TYPE F CURB

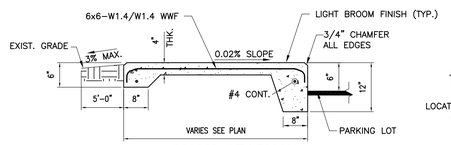
SCALE: 1" = 1'



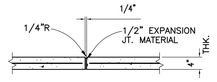
SAW CUT JOINT (12 HOUR)



SAWCUT JOINT (96 HOUR)



WALK SECTION

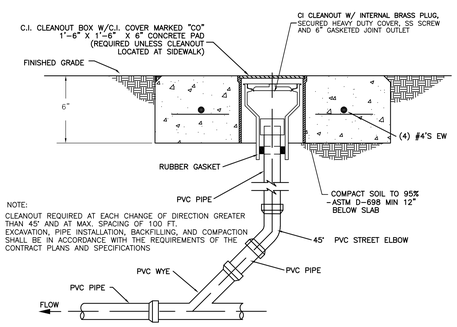


LOCATE EXPANSION JOINTS AT 30'-0" O.C. MAX. AND AT ALL SIDEWALK INTERSECTIONS

EXPANSION JOINT

E C2.0 TYP. SIDEWALK SECTION

N.T.S.



F C3.0 TYPICAL CLEAN-OUT DETAIL

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
Lic # 0002779
T: 727.530.0570

CONSTRUCTION DOCUMENTS

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DAVID H. MELVIN, P.E.

FLORIDA REG. NO. 38734

Project Name:

JACKSON MOB

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3035 Hospital Drive
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CONSTRUCTION PLANS
Issue Date: 09/28/2023

Revisions

No.	Description	Date
1	Pre-Bid RFC 1	10-27-23
2	Pre-Bid RFC 3	11-06-23

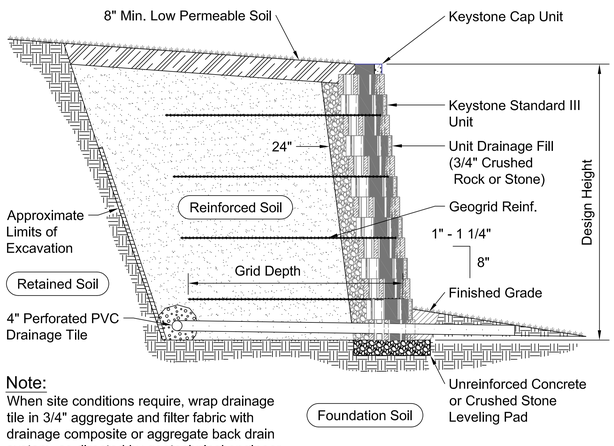
Drawing Title:

SITE DETAILS

Drawing Number:

C6.0

Drawn by: MMF
Checked by: DHM
Scale: Varies



Note:
When site conditions require, wrap drainage tile in 3/4" aggregate and filter fabric with drainage composite or aggregate back drain system, as directed by geotechnical engineer.

Typical Reinforced Wall Section

Scale: NTS
Standard III Unit - 1" Setback

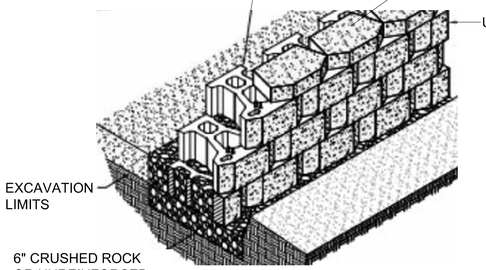
BASE LEVELING PAD NOTES:

1. THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE OR 2,000 PSI UNREINFORCED CONCRETE.

2. THE BASE FOUNDATION IS TO BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE LEVELING PAD.

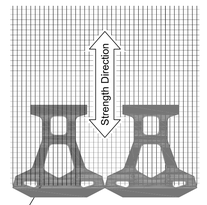
STANDARD III UNIT	
WIDTH:	18"
DEPTH:	18"
HEIGHT:	8"
WEIGHT:	86 LBS

CAP UNIT	
WIDTH:	18"
DEPTH:	10 1/2"
HEIGHT:	4"
WEIGHT:	45 LBS



Standard III Unit/Base Pad Isometric Section View

Scale: NTS
*Dimensions & Weight May Vary by Region

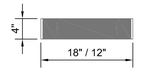


Geogrid is to be Placed on Level Backfill and Extended Over the Fiberglass Pins. Place Next Unit. Pull Grid Taught and Backfill. Stake as required.

Grid & Pin Connection

Standard III Elevation

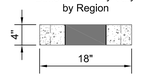
Standard III Plan



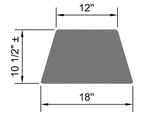
Cap Unit Elevation

Standard III Unit

* Dimensions May Vary by Region



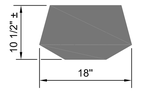
Cap Unit Elevation



Cap Unit Plan

Universal Cap Unit Option

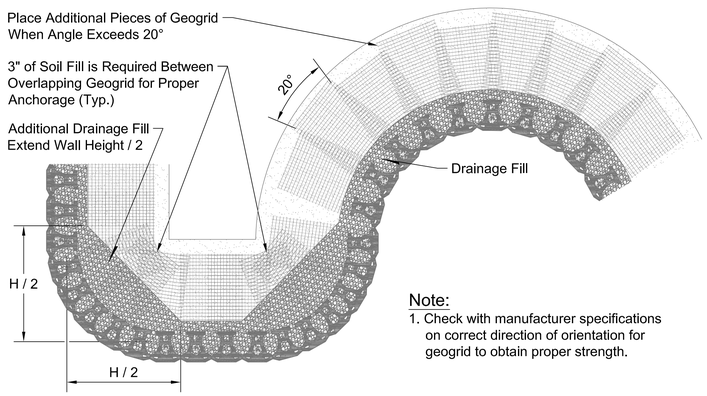
* Dimensions & Availability Will Vary by Region



Cap Unit Plan

3-Plane Split Cap Unit Option

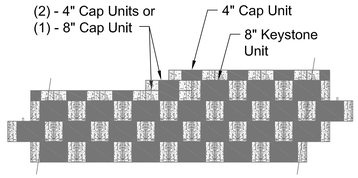
* Dimensions & Availability Will Vary by Region



Note:
1. Check with manufacturer specifications on correct direction of orientation for geogrid to obtain proper strength.

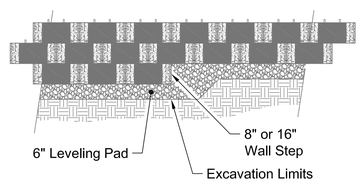
Geogrid Installation on Curves

Scale: NTS



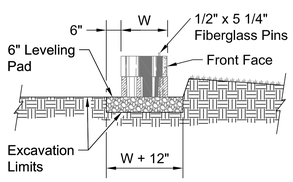
Note:
1. Secure all cap units with Keystone Kapseal or equal.

Top of Wall Steps



Elevation

Note:
1. The leveling pad is to be constructed of crushed stone or 2000 psi ± unreinforced concrete.



Section

Leveling Pad Detail

Scale: NTS

Project Architect:
MBA
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Project Name:
JACKSON MOB

Project Number: 22013.01
Project Location:
3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION PLANS
Issue Date: 09/28/2023

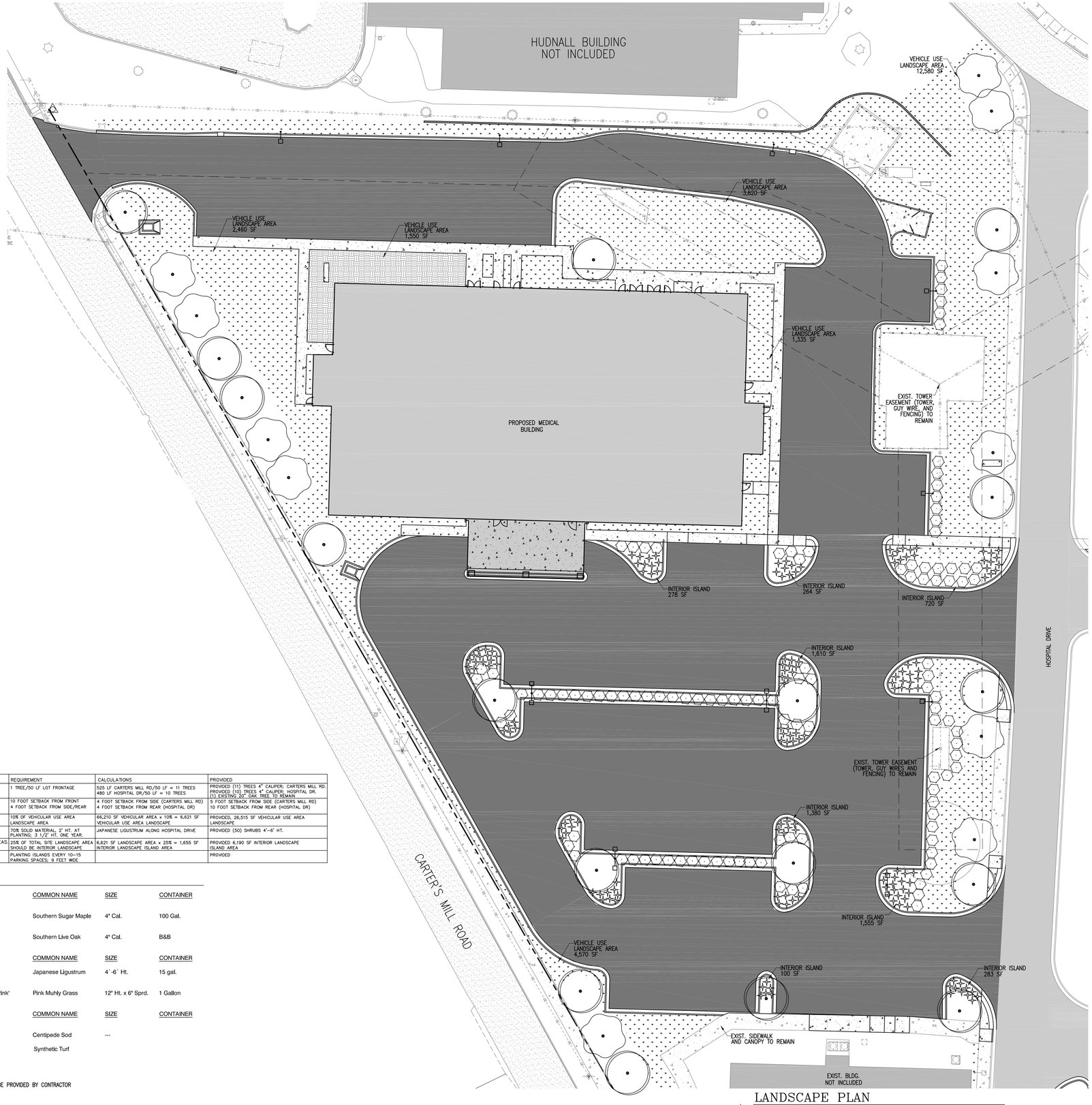
Revisions

No.	Description	Date
1	Pre-Bid RFC 1	10-27-23
2	Pre-Bid RFC 3	11-06-23

Drawing Title:
RETAINING WALL DETAILS

Drawing Number:
C7.0

Drawn by: MMF
Checked by: DHM
Scale: 1"=40'



LEGEND

- PROPERTY BOUNDARY
- EXISTING ASPHALT AREA
- EXISTING CONCRETE
- PROPOSED ASPHALT AREA
- PROPOSED CONCRETE
- EXIST. OVERHEAD ELECTRIC
- PROPOSED CHAINLINK FENCE
- SOD
- SYNTHETIC TURF

0 20
SCALE

LANDSCAPE CALCULATIONS:

REQUIREMENT	BRIEF DESCRIPTION	REQUIREMENT	CALCULATIONS	PROVIDED
LDC SEC.4-3.4	LANDSCAPE REQUIREMENTS FOR OFF-STREET PARKING AND VEHICULAR USE AREA.	1 TREE/50 LF LOT FRONTAGE	525 LF CARTERS MILL RD/50 LF = 11 TREES 480 LF HOSPITAL DR/50 LF = 10 TREES	PROVIDED (11) TREES 4" CALIPER; CARTERS MILL RD. PROVIDED (10) TREES 4" CALIPER; HOSPITAL DR. (1) EXISTING 20" OAK TREE TO REMAIN
		10 FOOT SETBACK FROM FRONT 4 FOOT SETBACK FROM SIDE/REAR	4 FOOT SETBACK FROM SIDE (CARTERS MILL RD) 4 FOOT SETBACK FROM REAR (HOSPITAL DR)	5 FOOT SETBACK FROM SIDE (CARTERS MILL RD) 10 FOOT SETBACK FROM REAR (HOSPITAL DR)
		10% OF VEHICULAR USE AREA LANDSCAPE AREA	66,210 SF VEHICULAR AREA x 10% = 6,621 SF VEHICULAR USE AREA LANDSCAPE	PROVIDED, 26,515 SF VEHICULAR USE AREA LANDSCAPE
	VISUAL SCREEN FOR VEHICULAR USE AREAS.	70% SOLID MATERIAL, 2' HT. AT PLANTING, 3 1/2' HT. ONE YEAR.	JAPANESE LIGUSTRUM ALONG HOSPITAL DRIVE	PROVIDED (50) SHRUBS 4'-6' HT.
	INTERIOR LANDSCAPE REQUIREMENTS FOR VEHICULAR USE AREAS.	25% OF TOTAL SITE LANDSCAPE AREA SHOULD BE INTERIOR LANDSCAPE	6,621 SF LANDSCAPE AREA x 25% = 1,655 SF INTERIOR LANDSCAPE ISLAND AREA	PROVIDED 6,190 SF INTERIOR LANDSCAPE ISLAND AREA
		PLANTING ISLANDS EVERY 10-15 PARKING SPACES, 9 FEET WIDE		PROVIDED

PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
	FM	11	Acer floridanum	Southern Sugar Maple	4" Cal.	100 Gal.
	LO	17	Quercus virginiana	Southern Live Oak	4" Cal.	B&B
SHRUBS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**
	LG	78	Ligustrum japonicum	Japanese Ligustrum	4`-6` Ht.	15 gal.
	LR	162	Muhlenbergia Capillaris 'Pink'	Pink Muhly Grass	12" Ht. x 6" Sprd.	1 Gallon
GROUND COVERS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**	**CONTAINER**
	SOD	25,000 SF	Eremochloa ophiuroides	Centipede Sod	---	
	SYN	1,550 SF	N/A	Synthetic Turf		

IRRIGATION NOTES:

1. SHOP DRAWINGS FOR THE POP-UP AUTOMATIC IRRIGATION SYSTEM SHALL BE PROVIDED BY CONTRACTOR TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL.

LANDSCAPE PLAN

1" = 20'

Project Architect:

MBA

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Drawing Title:

LANDSCAPE PLAN

Drawing Number:

L1

Drawn by: MMF
Checked by: DHM
Scale: 1"=20'

PLANTING NOTES:

SCOPE OF WORK:
THIS WORK SHALL CONSIST OF PERFORMING MINOR CLEARING AND GRUBBING AS NEEDED, SOIL PREPARATION, FINISH GRADING, TREE, SHRUB AND TURFGRASS INSTALLATION, INCLUDING ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, TESTING AND ANY APPROVALS, WARRANTY, MAINTENANCE AND OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT. PLANTING INSTALLATION SHALL CONFORM AT MINIMUM TO THE DETAILS PROVIDED WITHIN THESE PLANS.

1. ALL PLANTING AREAS ADJACENT TO PAVEMENT SHALL HAVE A FINISH GRADE OF SOIL NO LESS THAN 1" BELOW THE TOP PAVEMENT/CURB.

2. THOROUGHLY ERADICATE AND SPRAY TO KILL EXISTING NATIVE GRASSES AND WEEDS. HAND GRUB AND THOROUGHLY RAKE ALL PROPOSED GROUND COVER AND GRASS AREAS AS NEEDED TO ERADICATE WEED ROOTS. REFER TO THE CLEARING, GRUBBING AND THE PREPARATION NOTES.

3. ALL PLANT MATERIAL IS SUBJECT TO BEING INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE. ALL GRADABLE NURSERY PLANTS SHALL BE FLORIDA #1 OR BETTER AS DESCRIBED IN "GRADES AND STANDARDS FOR NURSERY PLANTS", STATE OF FLORIDA LATEST EDITION. CONTAINER GROWN PLANTS: A MIN. OF 80% OF THE CONTAINER ROOTBALL MUST BE BOUND BY THE ROOT SYSTEM. ENCIRCLING OR "RING" ROOTS ARE PROHIBITED AND PLANTS WILL BE REJECTED.
- PLANTING SIZE DETERMINATION:SHADE TREES: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.
- SHRUBS: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE AVERAGE HEIGHT OF THE TOP OF THE PLANT. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE SHRUB MASS. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH.

4. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE A MINIMUM OF 7 BUSINESS DAYS PRIOR TO DELIVERY OF TREES AND SHRUBS SO THAT A REPRESENTATIVE MAY BE PRESENT TO VERIFY PLANT MATERIALS MEET FLORIDA NO. 1 STANDARDS. DOCUMENT CONFORMANCE PER SECTION 580-2.1.1 SIZES SPECIFIED IN THE PLANT LIST ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE JUDGED. FAILURE TO MEET MINIMUM SIZE ON ANY PLANT WILL RESULT IN REJECTION OF THAT PLANT. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, WELL BRANCHED, FREE OF DISEASE, INSECT EGGS, AND LARVAE,AND SHALL HAVE ADEQUATE ROOT SYSTEMS.ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.ALL ROOT BOUND PLANTS SHALL BE REJECTED

5. ALL MATERIALS SHALL BE WARRANTED THROUGH FINAL ACCEPTANCE OF PROJECT. COST OF WARRANTED MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE OF THE MATERIAL UNLESS OTHERWISE INSTRUCTED AND INDICATED ON BID FORM.

6. NO SUBSTITUTIONS OF SPECIFIED PLANT MATERIALS WILL BE PERMITTED UNLESS APPROVED BY THE OWNERS REPRESENTATIVE LANDSCAPE ARCHITECT OR ASSIGNEES. IF ANY CHANGES ARE PROPOSED TO THE DESIGN (PLANT TYPES, SIZE, LOCATION OR SPACING, PLANT ARRANGEMENTS, BEDLINE DESIGN, ETC.) THE OWNER'S REP SHALL BE CONTACTED FOR APPROVAL.

7. LANDSCAPE CONTRACTOR SHALL WATER TREES WITH THE EQUIVALENT OF 10 GALLONS OF WATER PER TREE EVERY DAY UNTIL PROJECT ACCEPTANCE. DEEP THOROUGH WATERING IS SUPERIOR TO SHALLOW WATERING SINCE IT PENETRATES DOWN TO THE ROOTING AREA. WATER SHALL BE PROVIDED BY THE LANDSCAPE CONTRACTOR WHO SHALL ALSO FURNISH EQUIPMENT AND HOSES IF NECESSARY FOR THOROUGH WATERING OF PLANT MATERIAL. AT THE TIME OF PLANTING ALL PLANT MATERIAL SHALL BE THOROUGHLY WATERED BY SOAKING THE ENTIRE PLANT PIT AREA (PLANT, ROOTBALL AND PLANTING BACKFILL) DURING PLANTING AND AGAIN AFTER BACKFILLING AND TAMPING OF ROOT BALL AREA AROUND EACH AND EVERY PLANT.

8. A 100% COVERAGE IRRIGATION SYSTEM OF ALL PROPOSED PLANT MATERIAL MAY BE INSTALLED UPON THE ELECTION OF THE OWNER. CONTRACTOR SHALL CONSULT WITH OWNER UPON BIDDING TO DISCUSS AN IRRIGATION SYSTEM. AN AUTOMATED IRRIGATION SYSTEM MUST BE PROVIDED FOR PLANT MATERIAL IRRIGATION.

9. PLANTING BED PREPARATION:
a. STAKE LOCATIONS, LIMITS OF PLANTS AND PLANTING BEDS SHALL REFLECT PLANS TO THE GREATEST EXTENT POSSIBLE. COORDINATE WITH OWNER'S REPRESENTATIVE TO VIEW LAYOUT AND BED OUTLINES ONSITE. CONTRACTOR SHALL MAKE MODIFICATIONS AS MAY BE REQUESTED.
b. HERBICIDE APPLICATION: FOR PROPOSED TURF AREAS AND MULCH BED AREAS, BEGIN TURF SPRAYING PROCESS A MIN. OF 30 DAYS PRIOR TO PLANTING AS FOLLOWS: SPRAY AREAS TO BE KILLED WITH GLYPHOSATE PER MANUFACTURER'S RECOMMENDATIONS. 7 DAYS AFTER SPRAYING, CLOSE MOW TO 1" HEIGHT. 14 DAYS AFTER CLOSE MOWING, RE-SPRAY WITH GLYPHOSATE PER MANUFACTURER'S RECOMMENDATIONS. 7 DAYS AFTER RE-SPRAYING, PROCEED WITH TURF REMOVAL IN PROPOSED SOD AREAS. LEAVE KILLED TURF IN PLACE FOR PROPOSED MULCH BEDS. PROPOSED INDIVIDUAL TREE RINGS DO NOT REQUIRE HERBICIDE APPLICATION.
c. TURF AND OTHER MATERIAL SHALL BE THOROUGHLY REMOVED PRIOR TO THE PLANTING AND BACKFILL PROCESS.
d. EXCAVATE PLANTING PITS AT DIAMETER/SIZE DETAILED. THE DEPTH OF THE HOLE SHALL BE 2" SHALLOWER THAN THE ROOTBALL; THEN DIG DEEPER AROUND THE HOLE'S PERIMETER, CREATING A FIRM CENTRAL PLATEAU SO THAT EXCESS WATER WILL FLOW AWAY FROM ROOTBALL.
e. WHERE PLANTING BEDS ARE PROPOSED, CLEAR AND GRUB TO A MIN., DEPTH OF 4" AS NEEDED. REMOVE REMNANT PLANTS AND STUMPS/DEBRIS AS NEEDED. EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
f. PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANTING BEDS. THE HERBICIDE ACTIVE INGREDIENTS SHALL BE SUITABLE FOR CONTROL OF ANNUAL AND PERENNIAL BROADLEAF WEEDS AND GRASSES. THE HERBICIDE SHALL BE APPLIED BY HAND PER MANUFACTURER'S RECOMMENDATIONS FOR APPLICATION METHOD, TIMING AND APPLICATION RATE SHALL BE STRICTLY ADHERED TO.
g. PLACE THE ROOTBALL ON THE PLATEAU, MAKING SURE IT IS 2" HIGHER THAN THE SURROUNDING SOIL.
h. FILL IN PLANTING PIT WITH BLENDED SOIL BACKFILL MIXTURE. SEE THIS SHEET FOR SPECIFICS AND REQUIREMENTS.
i. FILL AND TAMP LIGHTLY AROUND EACH AND EVERY PLANT. FLUSH WITH WATER AND MAKE ADJUSTMENTS TO PROVIDE PROPERLY SET PLANT MATERIAL WITH THE TOP OF THE ROOTBALL EVEN WITH FINISHED GRADE AND WITH ROOT FLARE 1" ABOVE GRADE FOR TREES. INSTALL FERTILIZER PER MANUFACTURER RECOMMENDATIONS .
j. BUILD SAUCER TO CONTAIN WATER AROUND EACH PLANTING PIT. REMOVE EXCESS EXCAVATED SOIL FROM THE SITE.
k. ESTABLISH FINISHED PRE-MULCHED GRADE.
l. SPREAD PINE STRAW ACROSS ENTIRE BED TO A DEPTH OF 3". PINE STRAW SHALL BE FRESH SLASH OR LONGLEAF PINE STRAW. SHRUB BEDS AND TREE RINGS SHALL HAVE A 3"-4" STRAW DEPTH AFTER MANICURE AND COMPACTION; 1" AT CURB- PAVEMENT EDGES.
m. PROPOSED SOD AREAS SHALL BE RAKED SMOOTH, SPREAD TOPSOIL (AVG. 2" DEPTH) ACROSS PROPOSED SOD AREAS TO ESTABLISH PRE-FINISHED GRADE., PLACE SOD WITH STAGGERED JOINTS AND SEAMS TIGHTLY BUTTED TOGETHER. PEG IN PLACE WHERE MOVEMENT OR SLIPPAGE IS A CONCERN.

10. MULCH – SHALL BE FRESH SLASH OR LONGLEAF PINE STRAW. SHRUB BEDS AND TREE RINGS SHALL HAVE 3" PINE STRAW DEPTH AFTER MANICURE AND COMPACTION; 1" AT CURB. TAMP EDGES DOWN WITH FOOT OR HAND TAMPER.

11. "BLENDED SOIL" SHALL CONSIST OF ⅓ MUSHROOM COMPOST OR PEAT, ⅓ COMPOSTED COW MANURE AND ⅓ COMPOSTED BARK.

12. PLANTING BACKFILL MIXTURE FOR TREES AND SHRUBS/GRASSES SHALL CONSIST OF 30% "BLENDED SOIL AND 70% EXISTING SOIL. ALL PLANTING BACKFILL MIXTURES ARE SUBJECT TO OWNER'S REPRESENTATIVE APPROVAL. MIX THOROUGHLY PRIOR TO INSTALLATION. SOIL REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR. CONTRACTOR MUST LOAD, HAUL, AND SPREAD ALL TOPSOIL AND ANY OTHER SOIL ADDITIVES AS REQUIRED.

13. WHERE TREES ARE PLANTED IN ROWS OR LIKE-KIND GROUPS, THEY SHALL BE UNIFORM IN SIZE AND SHAPE.SHRUB MASSES AND GROUNDCOVERS SHALL BE TRIANGULARLY SPACED AT SPACING SHOWN ON PLANTING PLANS.

14. GROUPS OF SHRUBS SHALL BE PLACED IN A CONTINUOUS MULCH BED WITH SMOOTH CONTINUOUS LINES. ALL MULCHED BED EDGES SHALL BE CURVILINEAR IN SHAPE FOLLOWING THE CONTOUR OF THE PLANT MASS. TREES LOCATED WITHIN FOUR FEET OF SHRUB BEDS SHALL SHARE SAME MULCH BED.

15. ALL PLANT MATERIAL SHALL BE SPACED AND LOCATED PER PLAN. IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF AREA AND PLANS, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE OWNER OR LANDSCAPE ARCHITECT. FAILURE TO NOTIFY OF CONFLICTS SHALL RESULT IN CONTRACTOR'S LIABILITY TO RELOCATE MATERIAL.

16. CONTRACTOR TO SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS TO NOT IMPEDE DRAINAGE AWAY FROM BUILDINGS. IF SIGNIFICANT RELOCATIONS ARE REQUIRED, CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT FOR RESOLUTION. FAILURE TO MAKE SUCH RELOCATIONS KNOWN TO THE OWNER OR LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR'S LIABILITY OF PLANT MATERIALS.

17. TREE STAKING AND GUYING SHALL BE DONE PER DETAILS. CONTRACTOR SHALL ENSURE THAT TREES REMAIN VERTICAL AND UPRIGHT FOR THE DURATION OF THE GUARANTEE PERIOD. GUYS AND STRAPPING SHALL BE REMOVED AFTER ONE GROWING SEASON.

18. CROWN OF ROOT BALL SHALL BE HIGHER (AFTER SETTLING) THAN ADJACENT SOIL.

19. IF ANY PLANT MORTALITY OCCURS DURING PROJECT INSTALLATION, DEAD PLANTS ARE TO BE REMOVED FROM THE JOB BY THE CONTRACTOR WEEKLY. CONTRACTOR SHALL MAINTAIN AN UPDATED, COMPREHENSIVE LIST OF ALL DEAD MATERIALS REMOVED AND PRESENT A COPY OF THE LIST TO THE OWNER AND OWNER'S REPRESENTATIVE AT THE END OF EVERY MONTH DURING THE CONTRACT PERIOD.

20. TRUNK LOCATIONS OF LARGE MATURING TREES MUST BE A MIN. OF 25 FT FROM O.H. POWER LINES.

21. CONTRACTOR SHALL SUPPLY AMENDMENTS AND FERTILIZERS AS APPROPRIATE TO ENSURE PROPER ESTABLISHMENT AND THRIVING GROWTH OF PLANT MATERIAL.

GENERAL NOTES:

1. PLANS ARE INTENDED TO DEPICT THE RLA DESIGNER'S BEST DESIGN INTENT AND KNOWN SITE CONDITIONS. SOME MINOR ADJUSTMENTS MAY BE REQUIRED. IF FIELD ADJUSTMENTS ARE REQUIRED, CONTRACTOR SHALL NOTIFY OWNERS REPRESENTATIVE AND RECEIVE APPROVAL AND SUBSEQUENTLY ACCURATELY RECORD ADJUSTMENTS AND QUANTITIES ON AS-BUILT PLANS.

2. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY UNFORESEEN SITE CONDITIONS. (COMPACTED SOIL/SUBGRADE, DEBRIS, ROADWAY BASE, MATERIALS, POOR DRAINAGE, UTILITY CONFLICTS, ETC.) PRIOR TO PROCEEDING WITH LANDSCAPE INSTALLATION.

3. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHOULD NOTIFY THE GENERAL CONTRACTOR AND OWNERS REPRESENTATIVE.

4. ALL AREAS OUTSIDE THE CONSTRUCTION LIMITS THAT ARE DAMAGED OR DISTURBED BY THE LANDSCAPE CONTRACTORS OPERATIONS SHALL BE REPAIRED OR REPLACED BY THE LANDSCAPE CONTRACTOR AT THEIR EXPENSE.

5. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. THE CONTRACTOR SHALL NOT DISTURB OR STORE MATERIALS OR EQUIPMENT ON ANY WETLANDS, NATURAL ECOSYSTEM AREAS, OR WITHIN THE DRIPLINE OF EXISTING TREES.

6. THE CONTRACTOR SHALL RESTRICT PERSONNEL, THE USE OF EQUIPMENT AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION. ANY OFF-SITE STORAGE AREA WILL REQUIRE PRIOR APPROVAL BY THE OWNER'S REPRESENTATIVE.

7. CONTRACTOR SHALL NOT CAUSE CONDITIONS OF EROSION OR SEDIMENTATION DISCHARGE ON ROADWAY AT ANY TIME DURING CONSTRUCTION.

8. PRODUCT SAMPLES AND DATA SHEETS SHALL BE SUBMITTED FOR ALL PROPOSED MATERIALS, INCLUDING BUT NOT LIMITED TO STAKING AND BRACING KITS, MYCORRHIZAL SOIL INOCULANT, FERTILIZER, PINE STRAW MULCH, TOPSOIL AND BLENDED SOIL FOR REVIEW AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO DELIVERY TO SITE.

9. SUBMITTALS AND NOTIFICATIONS:
A.PLANT MATERIAL DELIVERY-CORRESPOND VIA EMAIL
B.UNFORESEEN SITE CONDITIONS-CORRESPOND VIA EMAIL
C.TREE CERTIFICATIONS-FROM NURSERY ASSURING CULTIVAR AND SPECIES- CORRESPOND VIA EMAIL
D.PRODUCT SAMPLES (MULCH, FERTILIZER, HERBICIDE, ADDITIVES) ETC- CORRESPOND VIA EMAIL
E.BACKFILL BLENDED SOIL MIXTURE ANALYSIS (COORDINATE WITH OWNER)
F. TREE STAKING MATERIALS (NOT REQUIRED)

11. ALL AREAS INADVERTENTLY DISTURBED AND NOT SPECIFICALLY DESIGNATED ON PLANS, SHALL BE RE-PLANTED AT THE COST OF THE CONTRACTOR. ALL DAMAGED AND/OR DISTURBED AREAS SHALL BE RESTORED TO PREVIOUS CONDITIONS OR BETTER. ANY DISTURBED AREAS TO RECEIVE TURF SHALL BE SMOOTHLY GRADED AND FIRM WITH POSITIVE DRAINAGE PRIOR TO THE INSTALLATION OF SOD.

12. THE CONTRACTOR IS REQUIRED TO COMPLY WITH THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL MANUAL. THE COST OF EROSION CONTROL SHALL BE INCLUDED IN THE COST OF THE PROJECT.

13. ALL CONTRACTORS SHALL BE REQUIRED TO COMPLETELY REMOVE ALL TRASH, DEBRIS AND EXCESS MATERIALS FROM THE WORK AREA AND THE PROPERTY (ESPECIALLY AT ALL CURB, GUTTERS AND SIDEWALKS) DAILY DURING INSTALLATION.

UTILITY NOTES:

1. THE LOCATION OF UNDERGROUND FACILITIES SHOWN IN THE PLANS IS BASED UPON INFORMATION PROVIDED BY OTHERS AT THE TIME OF THE PLANS PREPARATION, LOCATIONS SHOWN ARE APPROXIMATE, AND THIS INFORMATION SHOULD NOT BE ASSUMED TO BE COMPREHENSIVE.

2. THE LOCATIONS OF THE OVERHEAD UTILITIES SHOWN ON THE PLANS ARE BASED ON AVAILABLE INFORMATION AT THE TIME OF PLANS PREPARATION AND SHOULD BE FIELD VERIFIED.

3. THE CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND/OR ALL UTILITY COMPANIES (VIA SUNSHINE ONE CALL) PRIOR TO CONSTRUCTION AND NO UTILITY SHALL BE RELOCATED. RATHER, THE PROPOSED PLANTING LOCATIONS SHALL BE ADJUSTED TO ACCOMMODATE THE EXISTING UTILITY. THE OWNERS REPRESENTATIVE SHALL NEGOTIATE ANY UTILITY CONFLICTS.

4. THE LANDSCAPE CONTRACTOR SHALL VERIFY AND MAINTAIN THE VISIBLE LOCATION OF ALL UTILITIES DURING CONSTRUCTION. ALL EXCAVATION WITHIN 5 FT. OF UTILITIES SHALL BE DONE BY HAND. MAINTAIN SURFACE MARKINGS, FLAGS, ETC. OF UTILITY LOCATIONS, RE-LOCATE IF NEEDED. RECORD ACCURATELY ON AS-BUILT DRAWINGS WHEN NEAR PROJECT COMPONENTS.

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N

Drawing Title:

IRRIGATION PLAN

Drawing Number:

L2

Drawn by: MMF
Checked by: DHM
Scale: NTS

PLUMBING FIXTURE COUNT

FIRST FLOOR

FIXTURE COUNT (PER FBC TABLE 2902.1)	PROVIDED
OCCUPANT LOAD= 9 5 MEN OCCUPANTS 5 WOMEN OCCAPANTS	
MALE AND FEMALE WATER CLOSETS (1 PER 25 FOR FIRST 50) (1 PER 50 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
MALE AND FEMALE LAVATORIES (1 PER 40 FOR FIRST 80) (1 PER 80 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
DRINKING FOUNTAINS (1 PER 100) = 1 REQUIRED	2
SERVICE SINK = 0 REQUIRED	0

SECOND FLOOR

FIXTURE COUNT (PER FBC TABLE 2902.1)	PROVIDED
LOBBY, TOILETS, AND COMMON OCCUPANT LOAD= 16 8 MEN OCCUPANTS 8 WOMEN OCCAPANTS	
MALE AND FEMALE WATER CLOSETS (1 PER 25 FOR FIRST 50) (1 PER 50 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
MALE AND FEMALE LAVATORIES (1 PER 40 FOR FIRST 80) (1 PER 80 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
DRINKING FOUNTAINS (1 PER 100) = 1 REQUIRED	2
SERVICE SINK = 1 REQUIRED	1

LIFE SAFETY NOTES

A1-004
(011819)

1. ALL CORRIDOR WALLS AND CEILINGS ARE SMOKE-TIGHT TO DECK.
2. FOR APPLICABLE CODE REQUIREMENTS, SEE X1-1 DRAWING.
3. SEE DETAILS C1, C5, AND E1 ON A20-1 FOR STOREFRONT EXIT SIGN, PENDANT, AND PENDANT MOUNT.

LIFE SAFETY KEY NOTES

1. MECHANICAL DUCT OPENING THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS. PROVIDE FIRE DAMPER AT FLOOR.
2. ACCESS PANELS SEE DETAIL AD1/A13-1.1. COORDINATE WITH MECHANICAL.
3. RWL (RAIN WATER LEADER), SEE PLUMBING DRAWINGS, COORDINATED WITH STRUCTURAL.
4. SANITARY PIPING, TO BE ENCLOSED IN FUTURE TENANT BUILD-OUT, SEE PLUMBING DRAWINGS AND COORDINATE WITH STRUCTURAL.

PARTITION LEGEND

X1-partleg
(042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

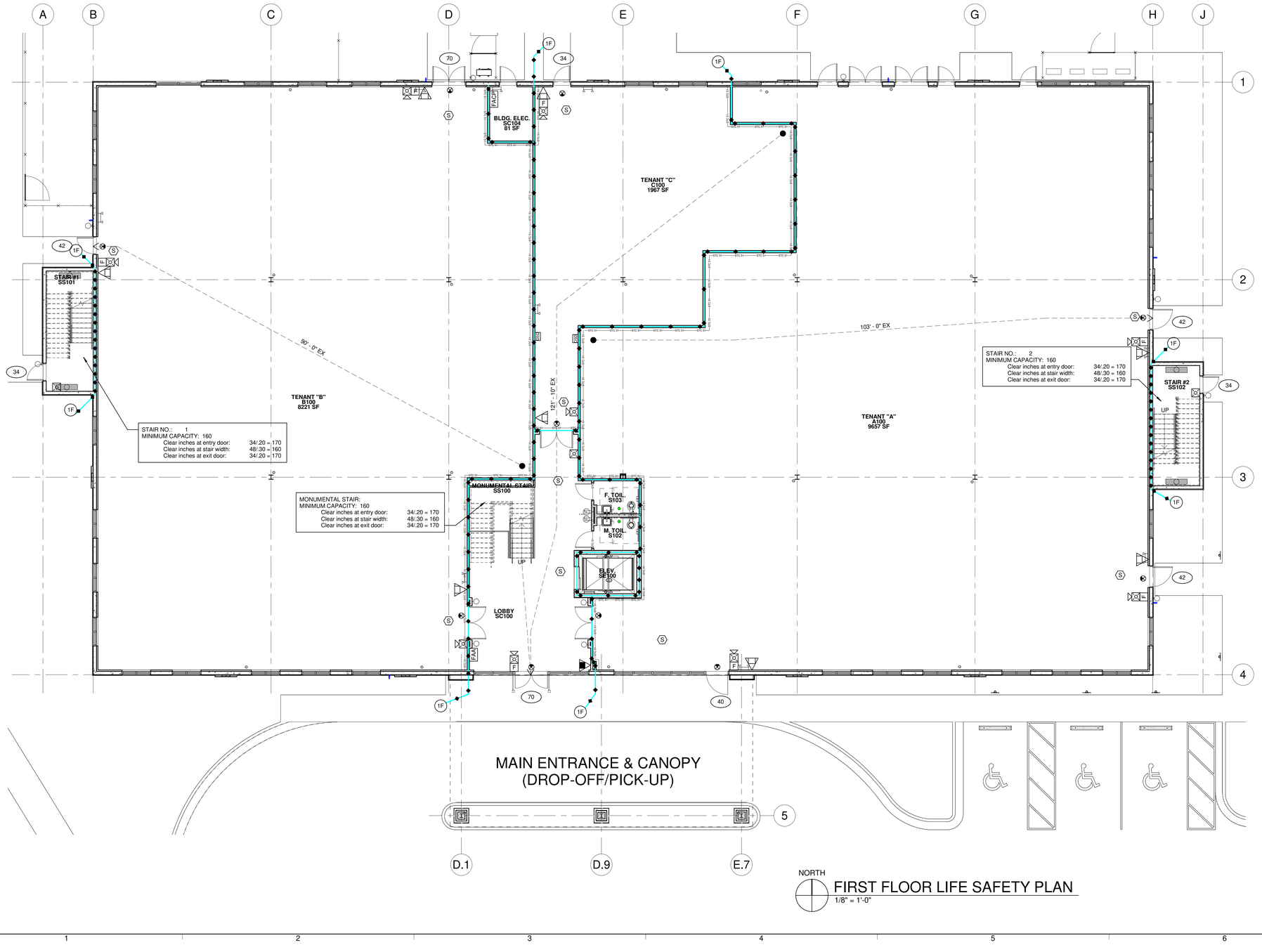
- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 51 — STC 51 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SW — SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SW2 — SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

FIRST FLOOR LIFE SAFETY CALCULATION

NAME	AREA	SQFT PER OCCUPANT	OCCUPANT LOAD	EXIT COMPONENT	EXIT WIDTH PER OCCUPANT (IN.)	REQUIRED CLEAR EXIT WIDTH (IN.)	PROVIDED CLEAR EXIT WIDTH (IN.)	OCCUPANT EXIT CAPACITY PROVIDED (PERSON)
LOBBY, TOILETS, AND COMMON	1071 SF	150 SF	8	LEVEL	0.2	2	70	350
TENANT "A"	9656 SF	150 SF	65	LEVEL	0.2	13	124	620
TENANT "B"	8220 SF	150 SF	55	LEVEL	0.2	11	112	560
TENANT "C"	1966 SF	150 SF	14	LEVEL	0.2	3	32	160
TOTALS	20913 SF		142			29	338	1690

SECOND FLOOR LIFE SAFETY CALCULATION

	AREA IN SQ. FEET	Sqft Per Occupant	Occupant Load	Exit Component	Exit Width Per Occupant (IN.)	Required Clear Exit Width (IN.)	Provided Clear Exit Width (IN.)	Occupant Exit Capacity Provided (PERSON)
FUTUTRE TENANT SPACE	19883 SF	150 SF	133	STAIRS	0.3	40	68	227
LOBBY, TOILETS, AND COMMON	1219 SF	150 SF	8	STAIRS	0.3	2	48	160
Totals	21103 SF		141			42	116	387



FIRST FLOOR LIFE SAFETY PLAN
1/8" = 1'-0"

LIFE SAFETY LEGEND

(031222)

- EXIT LIGHT
- AUDIBLE APPLIANCE AND STROBE
- AUDIBLE APPLIANCE
- STROBE
- F — FIRE ALARM PULL STATION
- FIRE HOSE CABINET
- FIRE HOSE CABINET WITH EXTINGUISHER
- FIRE VALVE CABINET
- FIRE VALVE CABINET WITH EXTINGUISHER
- EMERGENCY BATTERY LIGHT UNIT (REFER TO ELECTRICAL DRAWINGS).
- FIRE EXTINGUISHER SURFACE MOUNT
- FIRE EXTINGUISHER IN FLUSH CABINET
- S H — COMBINATION HEAT/SMOKE DETECTOR
- S — SMOKE DETECTOR
- H — HEAT DETECTOR
- CARBON DIOXIDE DETECTOR
- MAGNETIC DOOR HOLDER (SEE DETAIL HOGWB ON A13 SERIES OF DRAWINGS)
- STRONG MAGNETIC FIELD
- HAZARDOUS STORAGE
- FSA — FIRE SYSTEM ANNUNCIATOR
- FAA — FIRE ALARM ANNUNCIATOR
- FSCP — FIRE SYSTEM CONTROL PANEL
- FACP — FIRE ALARM CONTROL PANEL
- FDHV — FIRE DEPARTMENT - HOSE VALVE
- 35 — EGRESS WIDTH IN INCHES
- 000' _ EX — PATH OF TRAVEL IN FEET TO EXIT
- 000' _ EC — PATH OF TRAVEL IN FEET TO SMOKE COMP.
- 000' _ ES — PATH OF TRAVEL IN FEET TO SUITE
- SUITE
- AREA OF WORK

LIFE SAFETY NO. SYSTEM

SMOKE (SC) OR FIRE (FC) COMPARTMENT — SCG-A — COMPARTMENT LABEL / FLOOR LABEL

DESIGN CRITERIA

(011217)

NEW FACILITY IS A TWO-STORY BUILDING AND IS APPROXIMATELY 44,145 S.F. TOTAL BUILDING AREA, CONSTRUCTION TYPE II B, FULLY SPRINKLED PER FBC 2020, AND TYPE II, 000 PER NFPA.

OCCUPANCY - GROUP B BUSINESS PER FBC, AND
NEW BUSINESS PER NFPA 101, CHAPTER 38

FIRE RATINGS	FBC	NFPA
BEARING WALLS		
EXTERIOR	0	
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONE ROOF ONLY		0
INTERIOR	0	
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONE ROOF ONLY		0
STRUCTURAL FRAME	0	
COLUMNS		
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONLY A ROOF		0
BEAMS, GIRDERS, TRUSSES, ARCHES		
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING A ROOF		0
FLOORS CONSTRUCTION	0	0
ROOF CONSTRUCTION	0	0

EXTERIOR WALLS (BEARING AND NON-BEARING), GABLE ENDS

HORIZONTAL SEPARATION	RATING	MAX PROTECTED GLAZING	MAX UNPROTECTED GLAZING
0-3FT	1	NOT PERMITTED	NOT PERMITTED
3-5FT	1	15%	15%
5-10FT	1	25%	25%
10-15FT	0	45%	45%
15-20FT	0	75%	75%
20-25FT	0	NO LIMIT	NO LIMIT
25-30FT	0	NO LIMIT	NO LIMIT
OVER 30FT	0	NOT REQUIRED	NOT REQUIRED

MAXIMUM BUILDING AREA — 69,000 S.F. / MAXIMUM BUILDING AREA
MAXIMUM BUILDING HEIGHT — 75' - 4 STORIES MAXIMUM

Project Architect:

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRST FLOOR LIFE SAFETY PLAN

Drawing Number:

A1-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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PLUMBING FIXTURE COUNT

FIRST FLOOR

FIXTURE COUNT (PER FBC TABLE 2902.1)	PROVIDED
OCCUPANT LOAD= 9 5 MEN OCCUPANTS 5 WOMEN OCCAPANTS	
MALE AND FEMALE WATER CLOSETS (1 PER 25 FOR FIRST 50) (1 PER 50 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
MALE AND FEMALE LAVATORIES (1 PER 40 FOR FIRST 80) (1 PER 80 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
DRINKING FOUNTAINS (1 PER 100) = 1 REQUIRED	2
SERVICE SINK = 0 REQUIRED	0

SECOND FLOOR

FIXTURE COUNT (PER FBC TABLE 2902.1)	PROVIDED
LOBBY, TOILETS, AND COMMON OCCUPANT LOAD= 16 8 MEN OCCUPANTS 8 WOMEN OCCAPANTS	
MALE AND FEMALE WATER CLOSETS (1 PER 25 FOR FIRST 50) (1 PER 50 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
MALE AND FEMALE LAVATORIES (1 PER 40 FOR FIRST 80) (1 PER 80 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
DRINKING FOUNTAINS (1 PER 100) = 1 REQUIRED	2
SERVICE SINK = 1 REQUIRED	1

LIFE SAFETY NOTES

A1-004
(011819)

1. ALL CORRIDOR WALLS AND CEILINGS ARE SMOKE-TIGHT TO DECK.
2. FOR APPLICABLE CODE REQUIREMENTS, SEE X1-1 DRAWING.
3. SEE DETAILS C1, C5, AND E1 ON A20-1 FOR STOREFRONT EXIT SIGN, PENDANT, AND PENDANT MOUNT.

LIFE SAFETY KEY NOTES

1. MECHANICAL DUCT OPENING THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS. PROVIDE FIRE DAMPER AT FLOOR.
2. ACCESS PANELS SEE DETAIL AD1/A13-1.1. COORDINATE WITH MECHANICAL.
3. RWL (RAIN WATER LEADER), SEE PLUMBING DRAWINGS, COORDINATED WITH STRUCTURAL.
4. SANITARY PIPING, TO BE ENCLOSED IN FUTURE TENANT BUILD-OUT, SEE PLUMBING DRAWINGS AND COORDINATE WITH STRUCTURAL.

PARTITION LEGEND

X1-partleg
(042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

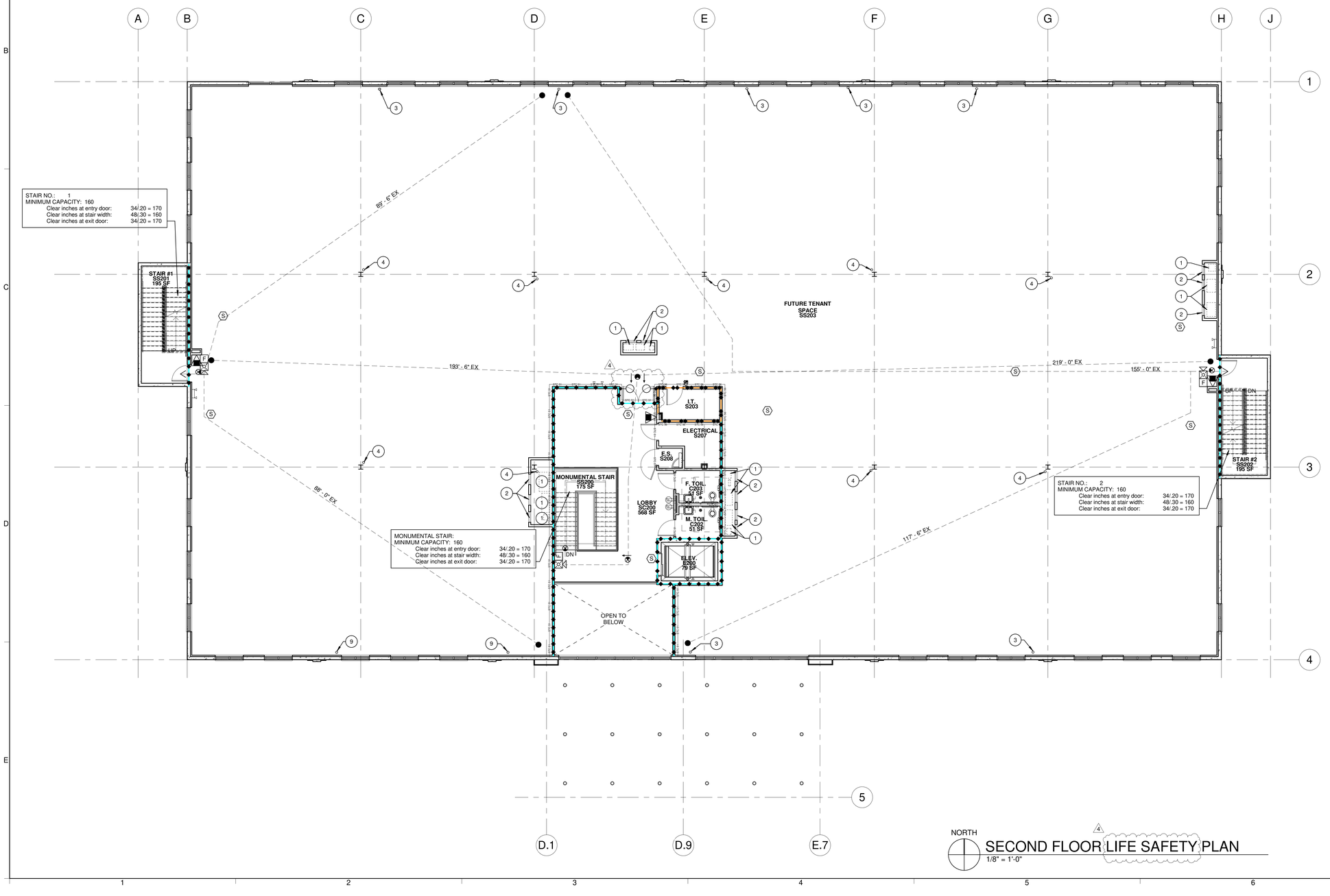
- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- SOUND ATTENUATION BATT (1 HOUR) (STC 51)
- SOUND ATTENUATION BATT (2 HOUR) (STC 56)
- SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR) (SW)
- SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR) (SW2)
- LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM) (1 MM)
- LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM) (2 MM)

FIRST FLOOR LIFE SAFETY CALCULATION

NAME	AREA	SQFT PER OCCUPANT	OCCUPANT LOAD	EXIT COMPONENT	EXIT WIDTH PER OCCUPANT (IN.)	REQUIRED CLEAR EXIT WIDTH (IN.)	PROVIDED CLEAR EXIT WIDTH (IN.)	OCCUPANT EXIT CAPACITY PROVIDED (PERSON)
LOBBY, TOILETS, AND COMMON	1071 SF	150 SF	8	LEVEL	0.2	2	70	350
TENANT "A"	9656 SF	150 SF	65	LEVEL	0.2	13	124	620
TENANT "B"	8220 SF	150 SF	55	LEVEL	0.2	11	112	560
TENANT "C"	1966 SF	150 SF	14	LEVEL	0.2	3	32	160
TOTALS	20913 SF		142			29	338	1690

SECOND FLOOR LIFE SAFETY CALCULATION

	AREA IN SQ. FEET	Sqft Per Occupant	Occupant Load	Exit Component	Exit Width Per Occupant (IN.)	Required Clear Exit Width (IN.)	Provided Clear Exit Width (IN.)	Occupant Exit Capacity Provided (PERSON)
FUTUTRE TENANT SPACE	19883 SF	150 SF	133	STAIRS	0.3	40	68	227
LOBBY, TOILETS, AND COMMON	1219 SF	150 SF	8	STAIRS	0.3	2	48	160
Totals	21103 SF		141			42	116	387



NORTH

4 SECOND FLOOR LIFE SAFETY PLAN
1/8" = 1'-0"

LIFE SAFETY LEGEND

(031222)

- EXIT LIGHT
- AUDIBLE APPLIANCE AND STROBE
- AUDIBLE APPLIANCE
- STROBE
- F — FIRE ALARM PULL STATION
- FIRE HOSE CABINET
- FIRE HOSE CABINET WITH EXTINGUISHER
- FIRE VALVE CABINET
- FIRE VALVE CABINET WITH EXTINGUISHER
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- FSA — FIRE SYSTEM ANNUNCIATOR
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- FSCP — FIRE SYSTEM CONTROL PANEL
- FACP — FIRE ALARM CONTROL PANEL
- FDHV — FIRE DEPARTMENT - HOSE VALVE
- 35 — EGRESS WIDTH IN INCHES
- 000' — EX — PATH OF TRAVEL IN FEET TO EXIT
- 000' — EC — PATH OF TRAVEL IN FEET TO SMOKE COMP.
- 000' — ES — PATH OF TRAVEL IN FEET TO SUITE
- SUITE
- AREA OF WORK

LIFE SAFETY NO. SYSTEM

SMOKE (SC) OR FIRE (FC) COMPARTMENT — SCG-A — COMPARTMENT LABEL; FLOOR LABEL

DESIGN CRITERIA

(011217)

NEW FACILITY IS A TWO-STORY BUILDING AND IS APPROXIMATELY 44,145 S.F. TOTAL BUILDING AREA, CONSTRUCTION TYPE II B, FULLY SPRINKLED PER FBC 2020, AND TYPE II, 000 PER NFPA.

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FIRE RATINGS	FBC	NFPA
BEARING WALLS		
EXTERIOR	0	
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONE ROOF ONLY		0
INTERIOR	0	
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONE ROOF ONLY		0
STRUCTURAL FRAME	0	
COLUMNS		
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING ONLY A ROOF		0
BEAMS, GIRDERS, TRUSSES, ARCHES		
SUPPORTING MORE THAN ONE FLOOR		0
SUPPORTING ONLY ONE FLOOR		0
SUPPORTING A ROOF		0
FLOORS CONSTRUCTION	0	0
ROOF CONSTRUCTION	0	0

EXTERIOR WALLS (BEARING AND NON-BEARING), GABLE ENDS

HORIZONTAL SEPARATION	RATING	MAX PROTECTED GLAZING	MAX UNPROTECTED GLAZING
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25-30FT	0	NO LIMIT	NO LIMIT
OVER 30FT	0	NOT REQUIRED	NOT REQUIRED

MAXIMUM BUILDING AREA	69,000 S.F. / MAXIMUM BUILDING AREA
MAXIMUM BUILDING HEIGHT	75' - 4 STORIES MAXIMUM

Project Architect:

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

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Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date
4	ASI #1	01/15/24

Drawing Title:

SECOND FLOOR LIFE SAFETY PLAN

Drawing Number:

A1-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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FLOOR PLAN GENERAL NOTES

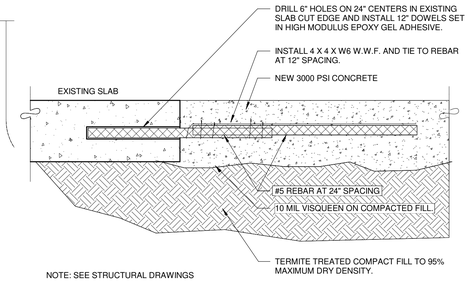
1. ALL CONSTRUCTION SHALL BE COORDINATED WITH THE OWNERS USAGE REQUIREMENTS FOR THIS SITE.
2. THE CONSTRUCTION SCHEDULE SHALL BE COORDINATED WITH THE REQUIREMENTS OF ALL OTHER CONSTRUCTION SERVICES TO OCCUR ON THIS SITE, WHETHER PART OF THIS PROJECT OR NOT, DURING THE DURATION OF THIS PROJECT.
3. ALL DIMENSIONS SHALL BE FIELD VERIFIED.

FLOOR PLAN KEY NOTES

1. NEW TILT-UP PANEL. SEE STRUCTURAL DRAWINGS
2. CONTRACTOR TO COORDINATE EDGE OF SLAB WITH CURTAIN WALL MANUFACTURER, TILT-WALL PANEL FABRICATION, DOORS, AND CONCRETE POUR. SEE DETAIL E6 & E7/A15-1
3. INSTALL 5/8" MOLD RESISTANT G.W.B. ON 2 1/2" METAL STUDS @ 24" O.C. WITH 2 1/2" UNFACED SEMI-RIGID INSULATION TO DECK ABOVE.
4. MECHANICAL DUCT OPENING THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS
5. DOOR SHALL HAVE AN AUTOMATIC DOOR OPERATOR (ADO)
6. PROVIDE 6" METAL STUDS.
7. SANITARY PIPING, TO BE ENCLOSED IN FUTURE TENANT BUILD-OUT, SEE PLUMBING DRAWINGS AND COORDINATE WITH STRUCTURAL.
8. CONCEALED SANITARY PIPING, SEE PLUMBING DRAWINGS, COORDINATED WITH STRUCTURAL.
9. RWL (RAIN WATER LEADER), SEE B2 & C2/A20-2, SEE PLUMBING DRAWINGS, COORDINATED WITH STRUCTURAL.
10. CHILLER LINE, TO BE ENCLOSED IN FUTURE TENANT BUILD-OUT, SEE MECHANICAL DRAWINGS.
11. WALL MOUNTED PUSH BUTTON OR PEDESTAL, SEE DETAIL E5/A14-1.
12. FD - FLOOR DRAIN, SEE PLUMBING DRAWINGS.
13. ALUMINUM RAIL PER MANUFACTURER, LENGTH OF RAIL SHALL BE THE WIDTH OF THE DOOR AT ENTRY.
14. SPANDREL GLASS TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS, SEE DRAWINGS A10-1 AND A15-1.
15. SEE B1 & C1/A20-2
16. COLUMN WITHIN WALL, SEE STRUCTURAL DRAWINGS AND UL DESIGN NO. X528 DETAIL E2/A13-2.2.
17. RECESSED CONCRETE SLAB, SEE TENANT "B" / IMAGING DRAWINGS.
18. FIRE EXTINGUISHER CABINET, SEE DETAIL C3/A13-1.
19. CONDENSING UNIT HP-E1, SEE MECHANICAL DRAWING M110.
20. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "B" IMAGING, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
20A. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "A" / ASC, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
20B. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "A" / ASC, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
21. PROVIDE OPENING IN WALL FOR FUTURE QUENCH TUBE, COORDINATE REQUIREMENTS WITH PROPOSED MRI IN TENANT "B" IMAGING.
22. SHELL CHILLER, SEE MECHANICAL DRAWINGS.
23. TENANT ENTRY FEATURE BELOW, SEE DETAILS B3 AND C3/A20-1.
24. F.S. FLOOR SINK, SEE PLUMBING DRAWINGS.
25. FINAL VENEER PLASTER COAT TO ACHIEVE STC-50 CAN BE APPLIED DURRING BUILDOUT OF TENANT SPACE.
26. ACCESS PANELS SEE DETAIL AD1/A13-1.1. COORDINATE WITH MECHANICAL.
27. SEE B3/A12-1 FOR FLOOR PLAN AT ROOF.
28. SEE B1/A12-1 FOR FLOOR PLAN AT ROOF.
29. COORDINATE LOCATION OF DOOR SWING AND WALL MOUNTED MECHANICAL EQUIPMENT
30. CONCRETE DRIVE BELOW CANOPY, SEE CIVIL DRAWINGS
31. DOOR SHALL HAVE CARD READER / KEYPAD ACCESS.

NORTH

FIRST FLOOR ARCHITECTURAL PLAN
1/8" = 1'-0"



NOTE: SEE STRUCTURAL DRAWINGS

E6 TYPICAL SLAB CONNECTION DETAIL
3" = 1'-0"

Project Architect:

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRST FLOOR ARCHITECTURAL PLAN

Drawing Number:

A5-1

Drawn by: MBA
Checked by: RB
Scale: As indicated

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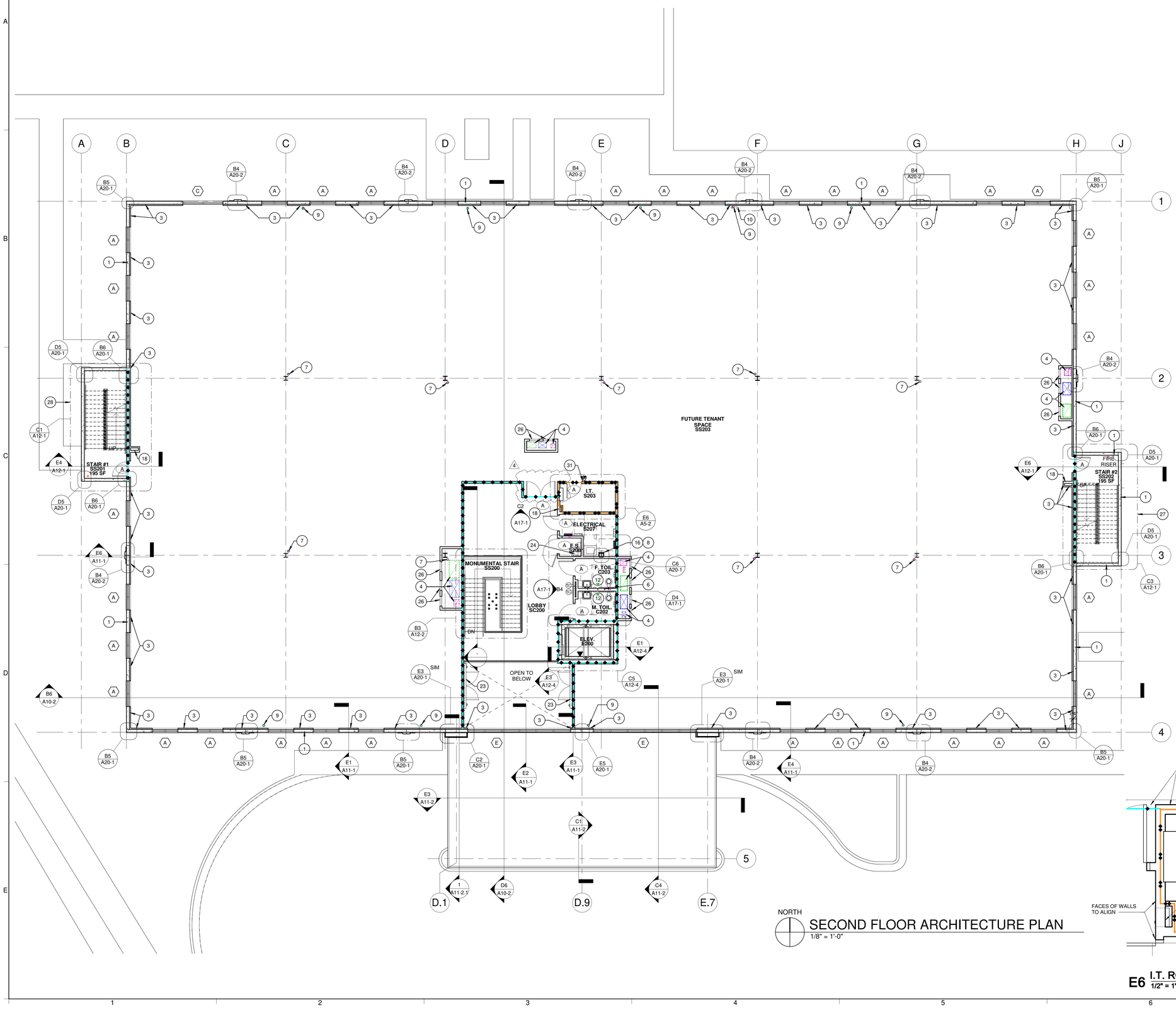
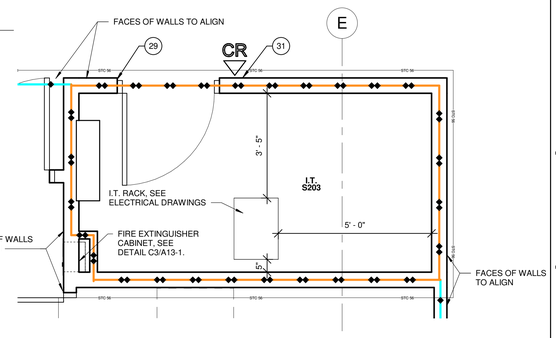


NORTH

SECOND FLOOR ARCHITECTURE PLAN

1/8" = 1'-0"



E6 I.T. ROOM S203 PLAN

1/2" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE COORDINATED WITH THE OWNERS USAGE REQUIREMENTS FOR THIS SITE.
2. THE CONSTRUCTION SCHEDULE SHALL BE COORDINATED WITH THE REQUIREMENTS OF ALL OTHER CONSTRUCTION SERVICES TO OCCUR ON THIS SITE, WHETHER PART OF THIS PROJECT OR NOT, DURING THE DURATION OF THIS PROJECT.
3. ALL DIMENSIONS SHALL BE FIELD VERIFIED.

FLOOR PLAN KEY NOTES

1. NEW TILT-UP PANEL. SEE STRUCTURAL DRAWINGS
2. CONTRACTOR TO COORDINATE EDGE OF SLAB WITH CURTAIN WALL MANUFACTURER, TILT-WALL PANEL FABRICATION, DOORS, AND CONCRETE POUR. SEE DETAIL E6 & E7/A15-1
3. INSTALL 5/8" MOLD RESISTANT G.W.B. ON 2 1/2" METAL STUDS @ 24" O.C. WITH 2 1/2" UNFACED SEMI-RIGID INSULATION TO DECK ABOVE.
4. MECHANICAL DUCT OPENING THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS
5. DOOR SHALL HAVE AN AUTOMATIC DOOR OPERATOR (ADO)
6. PROVIDE 6" METAL STUDS.
7. SANITARY PIPING, TO BE ENCLOSED IN FUTURE TENANT BUILD-OUT, SEE PLUMBING DRAWINGS AND COORDINATE WITH STRUCTURAL.
8. CONCEALED SANITARY PIPING, SEE PLUMBING DRAWINGS, COORDINATED WITH STRUCTURAL.
9. RWL (RAIN WATER LEADER), SEE B2 & C2/A20-2, SEE PLUMBING DRAWINGS, COORDINATED WITH STRUCTURAL.
10. CHILLER LINE, TO BE ENCLOSED IN FUTURE TENANT BUILD-OUT, SEE MECHANICAL DRAWINGS.
11. WALL MOUNTED PUSH BUTTON OR PEDESTAL, SEE DETAIL E5/A14-1.
12. FD - FLOOR DRAIN, SEE PLUMBING DRAWINGS.
13. ALUMINUM RAIL PER MANUFACTURER, LENGTH OF RAIL SHALL BE THE WIDTH OF THE DOOR AT ENTRY.
14. SPANDREL GLASS TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS, SEE DRAWINGS A10-1 AND A15-1.
15. SEE B1 & C1/A20-2
16. COLUMN WITHIN WALL, SEE STRUCTURAL DRAWINGS AND UL DESIGN NO. X528 DETAIL E2/A13-2.2.
17. RECESSED CONCRETE SLAB, SEE TENANT "B" / IMAGING DRAWINGS.
18. FIRE EXTINGUISHER CABINET, SEE DETAIL C3/A13-1.
19. CONDENSING UNIT HP-E1, SEE MECHANICAL DRAWING M110.
20. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "B" IMAGING, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
20A. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "A" / ASC, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
20B. 8' HIGH FENCE WITH GATE LOCATIONS FOR TENANT "A" / ASC, TO BE INCLUDED IN MOB SHELL SCOPE OF WORK, SEE SHEET AS3-1.1
21. PROVIDE OPENING IN WALL FOR FUTURE QUENCH TUBE. COORDINATE REQUIREMENTS WITH PROPOSED MRI IN TENANT "B" IMAGING.
22. SHELL CHILLER, SEE MECHANICAL DRAWINGS.
23. TENANT ENTRY FEATURE BELOW, SEE DETAILS B3 AND C3/A20-1.
24. F.S. FLOOR SINK, SEE PLUMBING DRAWINGS.
25. FINAL VENEER PLASTER COAT TO ACHIEVE STC-50 CAN BE APPLIED DURRING BUILDOUT OF TENANT SPACE.
26. ACCESS PANELS SEE DETAIL AD1/A13-1.1. COORDINATE WITH MECHANICAL.
27. SEE B3/A12-1 FOR FLOOR PLAN AT ROOF.
28. SEE B1/A12-1 FOR FLOOR PLAN AT ROOF.
29. COORDINATE LOCATION OF DOOR SWING AND WALL MOUNTED MECHANICAL EQUIPMENT
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31. DOOR SHALL HAVE CARD READER / KEYPAD ACCESS.

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SHELL

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REVISIONS

No.	Description	Date
4	ASI #1	01/15/24

Drawing Title:

SECOND FLOOR ARCHITECTURAL PLAN

Drawing Number:

A5-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

1/26/2024 9:57:55 AM
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DIMENSION PLAN NOTES

1. FIELD VERIFY ALL DIMENSIONS.
2. ALL DIMENSIONS ARE TAKEN FROM CENTERLINE OF WALL UNLESS NOTED OTHERWISE.
3. ALL NEW WALLS ARE 5" NOMINAL STUD WALLS UNLESS NOTED OTHERWISE.

DIMENSION PLAN KEY NOTES

1. COLUMN CENTER LINE.
1A. FACE OF WALL IS COLUMN CENTERLINE.
2. DIMENSION TAKEN FROM FACE OF TILT UP PANEL.
3. DIMENSION TAKEN FROM CENTERLINE OF WALL .
4. MECHANICAL DUCT OPENING THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS
5. COORDINATE WITH ELECTRICAL DRAWINGS.
6. PANEL JOINT.
7. DIMENSION TAKEN FROM FACE OF WALL TO FACE OF WALL.
8. DIMENSION TAKEN FROM FACE OF WALL.
9. PROVIDE 6" METAL STUDS.
10. SEE TENANT "A" / ASC MECHANICAL DRAWINGS FOR NUMBER AND SIZES OF OPENINGS REQUIRED.
11. SEE TENANT "B" / IMAGING MECHANICAL DRAWINGS FOR NUMBER AND SIZES OF OPENINGS REQUIRED.
12. SEE SHELL MECHANICAL DRAWINGS FOR NUMBER AND SIZES OF OPENINGS REQUIRED.

BLDG. ELEC. SC104
TENANT "C" C100
TENANT "B" B100
TENANT "A" A100
STAIR #1 SS101
STAIR #2 SS102
MONUMENTAL STAIR SS100
LOBBY SC100
F. TOIL. S103
M. TOIL. S102
ELEV. SE100
CLEAR
3 1/2" TYP. STRINGER
VWE

NORTH

FIRST FLOOR DIMENSION PLAN
1/8" = 1'-0"

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRST FLOOR DIMENSION PLAN

Drawing Number:

A6-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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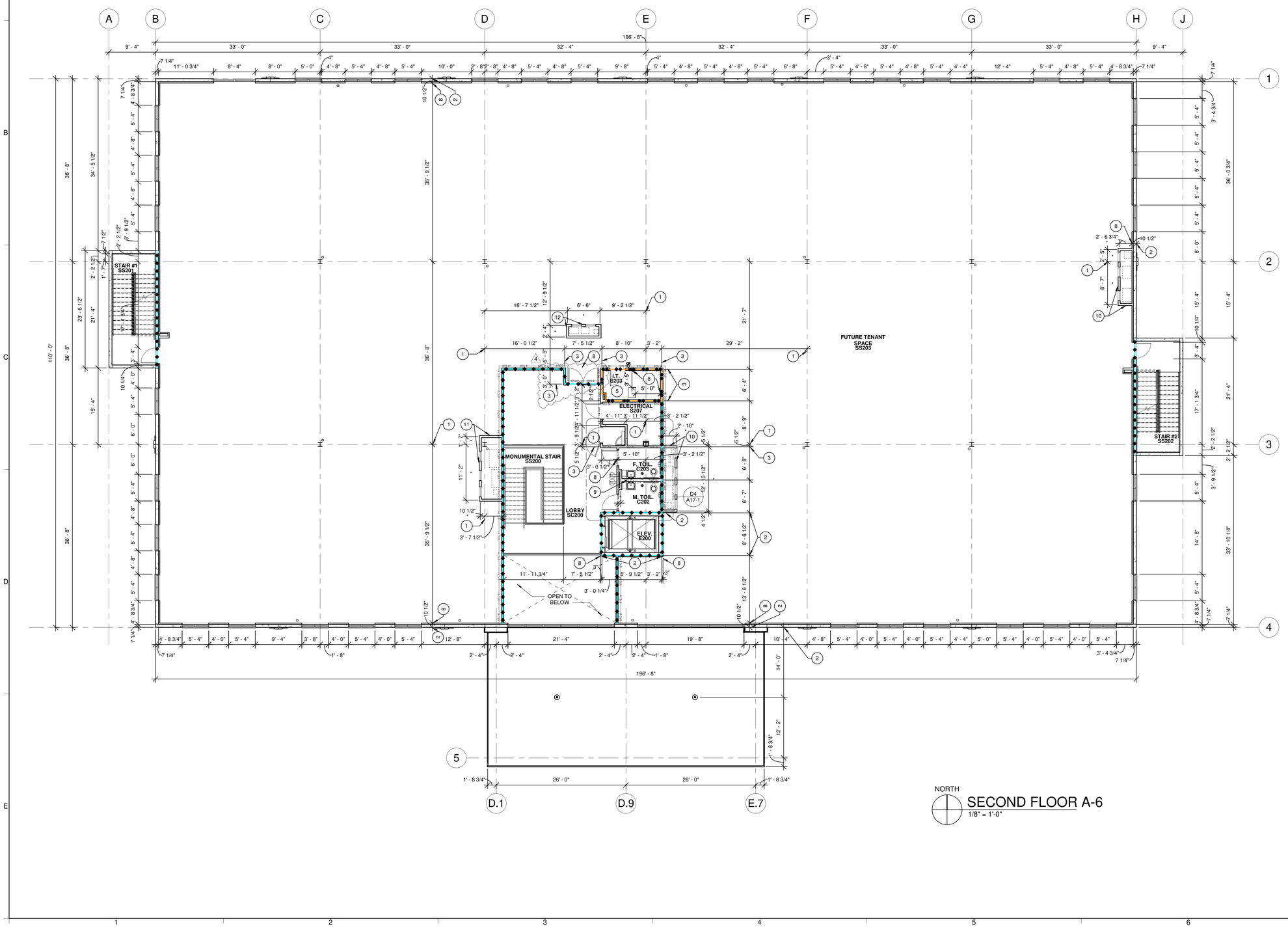

NORTH

SECOND FLOOR A-6

1/8" = 1'-0"

DIMENSION PLAN NOTES

1. FIELD VERIFY ALL DIMENSIONS.
2. ALL DIMENSIONS ARE TAKEN FROM CENTERLINE OF WALL UNLESS NOTED OTHERWISE.
3. ALL NEW WALLS ARE 5" NOMINAL STUD WALLS UNLESS NOTED OTHERWISE.

DIMENSION PLAN KEY NOTES

1. COLUMN CENTER LINE.
1A. FACE OF WALL IS COLUMN CENTERLINE.
2. DIMENSION TAKEN FROM FACE OF TILT UP PANEL.
3. DIMENSION TAKEN FROM CENTERLINE OF WALL .
4. MECHANICAL DUCT OPENING THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS
5. COORDINATE WITH ELECTRICAL DRAWINGS.
6. PANEL JOINT.
7. DIMENSION TAKEN FROM FACE OF WALL TO FACE OF WALL.
8. DIMENSION TAKEN FROM FACE OF WALL.
9. PROVIDE 6" METAL STUDS.
10. SEE TENANT "A" / ASC MECHANICAL DRAWINGS FOR NUMBER AND SIZES OF OPENINGS REQUIRED.
11. SEE TENANT "B" / IMAGING MECHANICAL DRAWINGS FOR NUMBER AND SIZES OF OPENINGS REQUIRED.
12. SEE SHELL MECHANICAL DRAWINGS FOR NUMBER AND SIZES OF OPENINGS REQUIRED.

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date
4	ASI #1	01/15/24

Drawing Title:

SECOND FLOOR
DIMENSION PLAN

Drawing Number:

A6-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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NORTH

FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

CEILING PLAN LEGEND

- 2X2 LAY-IN ACOUSTICAL CEILING (REFER TO FINISH SCHEDULE) ON GRID.
- 2X4 LAY-IN ACOUSTICAL CEILING (REFER TO FINISH SCHEDULE) ON GRID.
- 5/8" THICK GYPSUM WALLBOARD CEILING OR SOFFIT.
- STUCCO CEILING/SOFFIT (EXTERIOR OF BLDG.) ON GALVANIZED METAL LATH ON SUSPENDED SYSTEM. (REFER TO DETAILS).
- 2X4 RECESSED L.E.D. LUMINAIRE (REFER TO ELECTRICAL DRAWINGS).
- 2X2 RECESSED L.E.D. LUMINAIRE (REFER TO ELECTRICAL DRAWINGS).
- SURFACE MOUNTED L.E.D. LUMINAIRE (REFER TO ELECTRICAL DRAWINGS).
- SURFACE MOUNTED STRIP L.E.D. LUMINAIRE (REFER TO ELECTRICAL DRAWINGS).
- EMERGENCY BATTERY LIGHT UNIT (REFER TO ELECTRICAL DRAWINGS).
- RECESSED L.E.D. LUMINAIRE (REFER TO ELECTRICAL DRAWINGS).
- EXIT LIGHT (REFER TO ELECTRICAL DRAWINGS).
- (S) SMOKE DETECTOR, CEILING MOUNTED U.N.O. (REFER TO ELECTRICAL DRAWINGS).
- (H) HEAT DETECTOR (REFER TO ELECTRICAL DRAWINGS).
- (D) CALL DOME LIGHT (REFER TO ELECTRICAL DRAWINGS).
- DIFFUSER GRILLE (REFER TO MECH. DRAWINGS).
- RETURN AIR GRILLE (REFER TO MECHANICAL DRAWINGS).
- EXHAUST GRILLE (REFER TO MECH. DRAWINGS).
- AP ACCESS PANEL.
- PENDANT SPRINKLER HEAD EXISTING
- (D) PENDANT SPRINKLER HEAD EXISTING (D - DRY PENDENT)
- (U) PENDANT SPRINKLER HEAD EXISTING (U - UPRIGHT SPRINKLER HEAD)
- PENDANT SPRINKLER HEAD NEW
- (D) PENDANT SPRINKLER HEAD NEW (D - DRY PENDENT)
- (U) PENDANT SPRINKLER HEAD NEW (U - UPRIGHT SPRINKLER HEAD)
- RECESSED (CONCEALED) SPRINKLER HEAD EXISTING
- RECESSED (CONCEALED) SPRINKLER HEAD NEW
- SEMI-RECESSED SPRINKLER HEAD
- SIDE WALL SPRINKLER HEAD

CEILING GENERAL NOTES

1. WHERE IT IS NOT POSSIBLE TO INSPECT FIRE AND FIRE/SMOKE PARTITIONS BECAUSE OF THE FIRE-TEST MEMBRANE OF GYPSUM WALL BOARD CEILINGS, ACCESS PANELS SHALL BE INSTALLED ADJACENT TO EACH SIDE OF THE PARTITION AT INTERVALS NOT EXCEEDING 30 FEET AND IN SUCH LOCATIONS AS NECESSARY TO VIEW ALL SURFACES OF THE PARTITION. INSTALL FIRE RATED ACCESS PANELS IN ALL FIRE RATED CEILINGS AND FIRE-TESTED MEMBRANES.
2. CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL CEILING MOUNTED EQUIPMENT.
3. CONTRACTOR SHALL INCLUDE THE REMOVAL AND INSTALLATION OF EXISTING CEILINGS WHERE MECHANICAL, PLUMBING, FIRE PROTECTION, AND ELECTRICAL WORK OCCURS IN OTHER AREAS NOT SHOWN ON THIS DRAWING. WHERE NEW CEILINGS ARE INSTALLED OR REPAIRS ARE DONE, THE NEW WORK SHALL MATCH ADJACENT SURFACES.
4. SEE MECHANICAL DRAWINGS FOR CHILLER LINE LOCATIONS.

CEILING KEY NOTES

1. RELOCATE CEILING TILES AS NECESSARY.
2. AREA TO BE FIRE PROOFED, 1-HOUR SPRAY FIRE PROOFING PER DETAIL E7/A13-4.
3. STUCCO TYPICAL
4. CONTROL JOINT
5. 3" WIDE VENT
6. LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
7. TEMPORARY LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
8. SEE DETAILS C1, C5, AND E1 ON A20-1 FOR STOREFRONT EXIT SIGN, PENDANT, AND PENDANT MOUNT
9. MECHANICAL DUCT PENETRATION FROM ABOVE, SEE MECHANICAL AND STRUCTURAL DRAWINGS
10. MECHANICAL DUCT PENETRATION THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS
11. 5/8" GWB AT UNDERSIDE OF STAIRS AND PLATFORM
12. SEE B3 AND C3/A20-1

Project Architect:

MBA

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Marianna, FL 32446

CONSTRUCTION DOCUMENTS

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REVISIONS

No.	Description	Date

Drawing Title:

FIRST FLOOR REFLECTED CEILING PLAN

Drawing Number:

A8-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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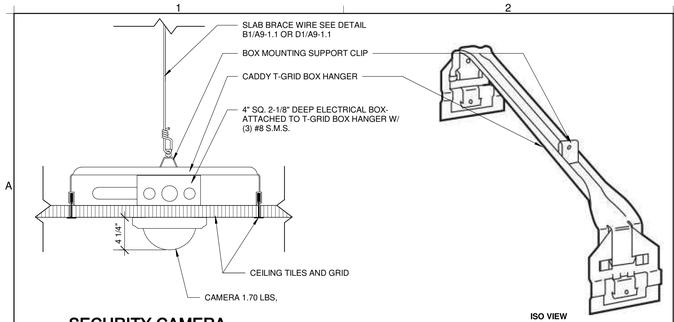
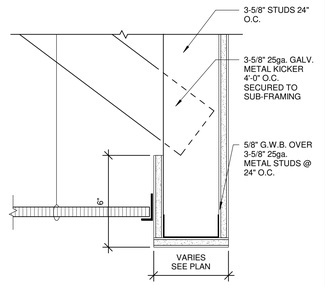
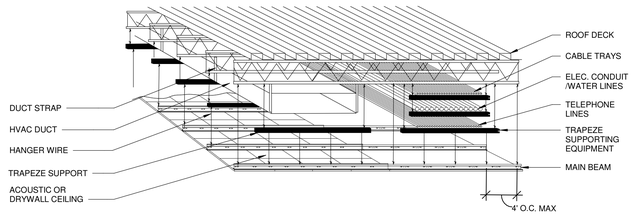


A1 SECURITY CAMERA
1 1/2" = 1'-0"



A3 CEILING DETAIL
3"=1'-0" A8-007 (121114)



A5 TRAPEZE SUPPORT FOR CEILINGS AT ROOF
1 1/2" = 1'-0" A8-041 (011915)

CEILING KEY NOTES

1. RELOCATE CEILING TILES AS NECESSARY.
2. AREA TO BE FIRE PROOFED, 1-HOUR SPRAY FIRE PROOFING PER DETAIL E7/A13-4.
3. STUCCO TYPICAL
4. CONTROL JOINT
5. 3" WIDE VENT
6. LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
7. TEMPORARY LIGHT FIXTURES, SEE ELECTRICAL DRAWINGS
8. SEE DETAILS C1, C5, AND E1 ON A20-1 FOR STOREFRONT EXIT SIGN, PENDANT, AND PENDANT MOUNT
9. MECHANICAL DUCT PENETRATION FROM ABOVE, SEE MECHANICAL AND STRUCTURAL DRAWINGS
10. MECHANICAL DUCT PENETRATION THROUGH SLAB, SEE MECHANICAL AND STRUCTURAL DRAWINGS
11. 5/8" GWB AT UNDERSIDE OF STAIRS AND PLATFORM
12. SEE B3 AND C3/A20-1

CEILING PLAN LEGEND

- 2X2 LAY-IN ACOUSTICAL CEILING (REFER TO FINISH SCHEDULE) ON GRID.
- 2X4 LAY-IN ACOUSTICAL CEILING (REFER TO FINISH SCHEDULE) ON GRID.
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- EXIT LIGHT (REFER TO ELECTRICAL DRAWINGS).
- (S) SMOKE DETECTOR, CEILING MOUNTED U.N.O. (REFER TO ELECTRICAL DRAWINGS).
- (H) HEAT DETECTOR (REFER TO ELECTRICAL DRAWINGS).
- (D) CALL DOME LIGHT (REFER TO ELECTRICAL DRAWINGS).
- DIFFUSER GRILLE (REFER TO MECH. DRAWINGS).
- RETURN AIR GRILLE (REFER TO MECHANICAL DRAWINGS).
- EXHAUST GRILLE (REFER TO MECH. DRAWINGS).
- AP ACCESS PANEL.
- PENDANT SPRINKLER HEAD EXISTING
- (D) PENDANT SPRINKLER HEAD EXISTING (D - DRY PENDENT)
- (U) PENDANT SPRINKLER HEAD EXISTING (U - UPRIGHT SPRINKLER HEAD)
- PENDANT SPRINKLER HEAD NEW
- (D) PENDANT SPRINKLER HEAD NEW (D - DRY PENDENT)
- (U) PENDANT SPRINKLER HEAD NEW (U - UPRIGHT SPRINKLER HEAD)
- RECESSED (CONCEALED) SPRINKLER HEAD EXISTING
- RECESSED (CONCEALED) SPRINKLER HEAD NEW
- SEMI-RECESSED SPRINKLER HEAD
- SIDE WALL SPRINKLER HEAD

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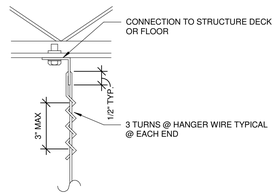
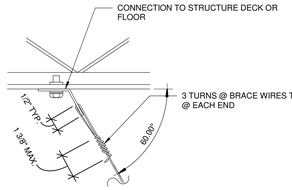
4. SEE MECHANICAL DRAWINGS FOR CHILLER LINE LOCATIONS.

NORTH

SECOND FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"



HANGER WIRE



BRACING WIRE

E7 BRACING & HANGER WIRE DETAIL
12" = 1'-0"

Project Architect:

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

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SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

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Drawing Title:

SECOND FLOOR REFLECTED CEILING PLAN

Drawing Number:

A8-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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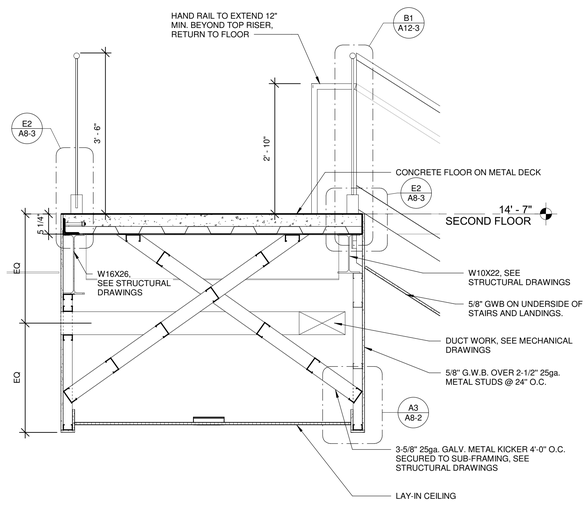
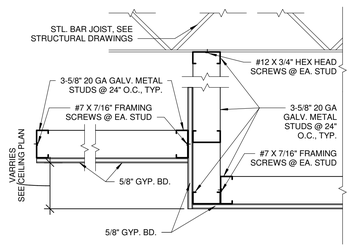
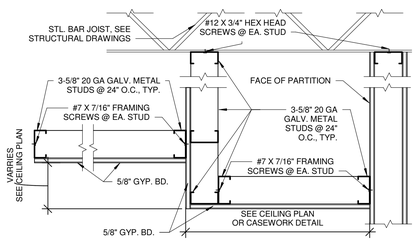


B1 FIRST FLOOR LOBBY SOFFIT
3/4" = 1'-0"

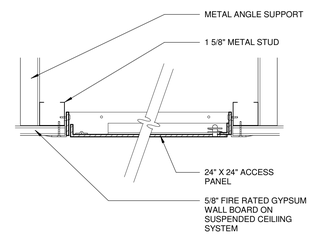


B3 TYPICAL SOFFIT DETAIL
3/4"=1'-0" A8-004 (063023)

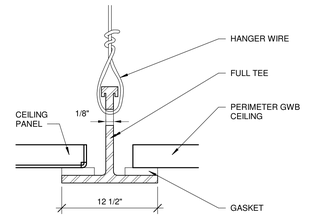


B4 TYPICAL SOFFIT DETAIL
3/4"=1'-0" A8-004 (062923)

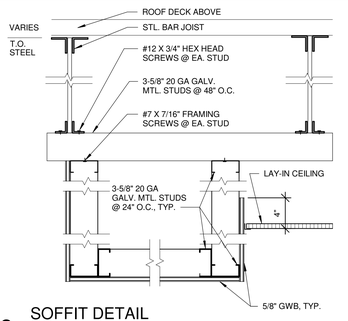
NOTE: ACCESS DOORS SHALL BE GASKET IN STERILE AREAS.



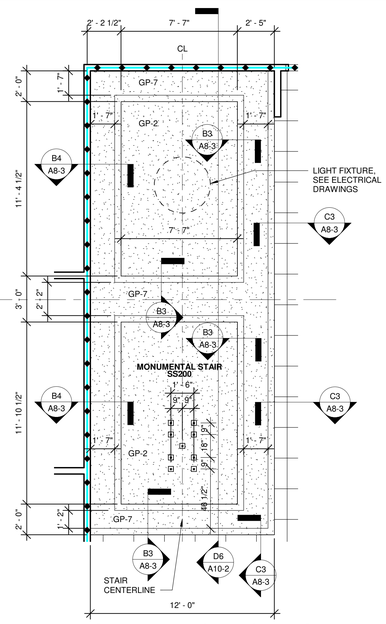
B7 ACCESS PANEL DETAIL
3" = 1'-0"



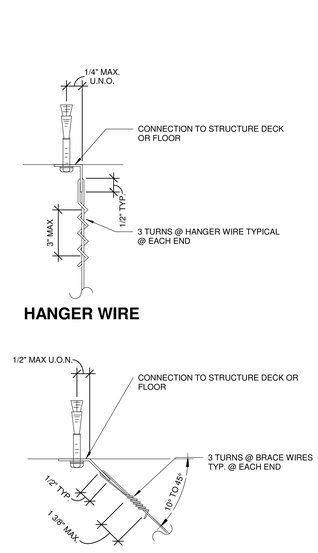
A2 HDCR GRID TO CEILING
1 1/2" = 1'-0"



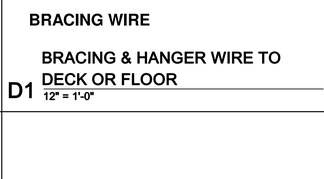
C3 SOFFIT DETAIL
1 1/2"=1'-0" A8-009 (121514)



D4 MONUMENTAL STAIR REFLECTED CEILING PLAN
1/4" = 1'-0"

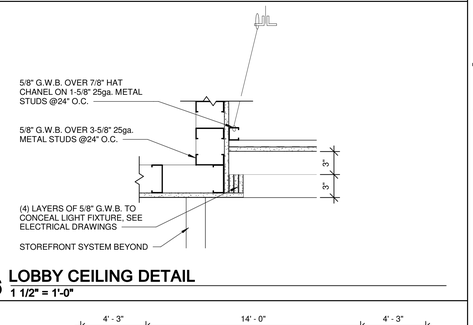


HANGER WIRE

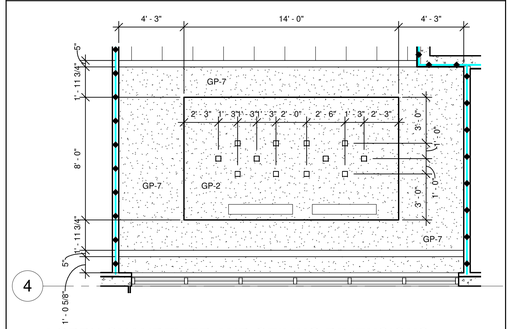


BRACING WIRE

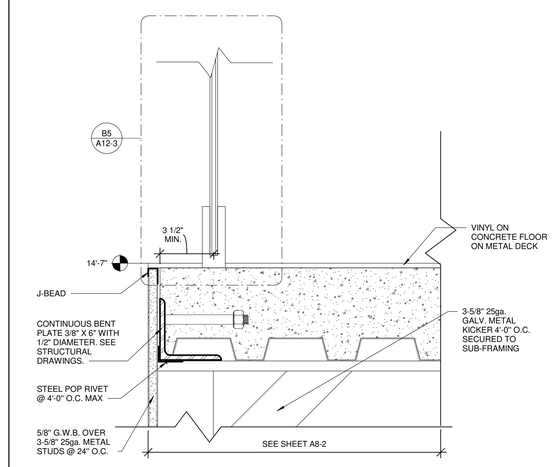
D1 BRACING & HANGER WIRE TO DECK OR FLOOR
12" = 1'-0"



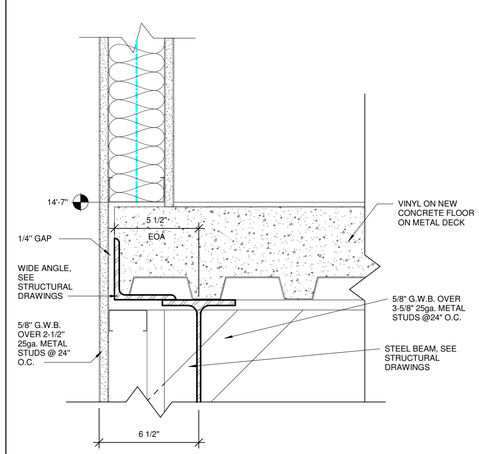
C6 LOBBY CEILING DETAIL
1 1/2" = 1'-0"



D6 LOBBY CHANDELIER AND CEILING DIMENSIONS
1/4" = 1'-0"

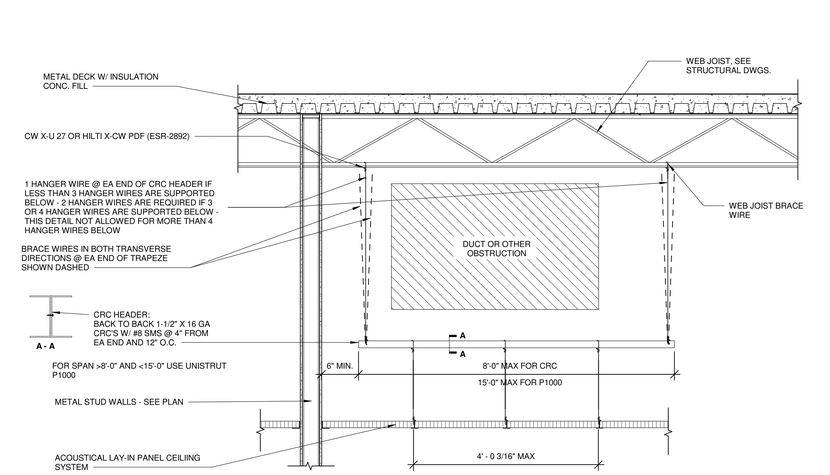


D2 SOFFIT DETAIL
3"=1'-0" A8-018 (011215)



E2 CEILING DETAIL AT GLASS RAILING
3" = 1'-0"

E4 CEILING DETAIL AT WALL
3" = 1'-0"



E5 CEILING TRAPEZE
3/4" = 1'-0"

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Drawing Title:

REFLECTED CEILING DEAILS

Drawing Number:

A8-3

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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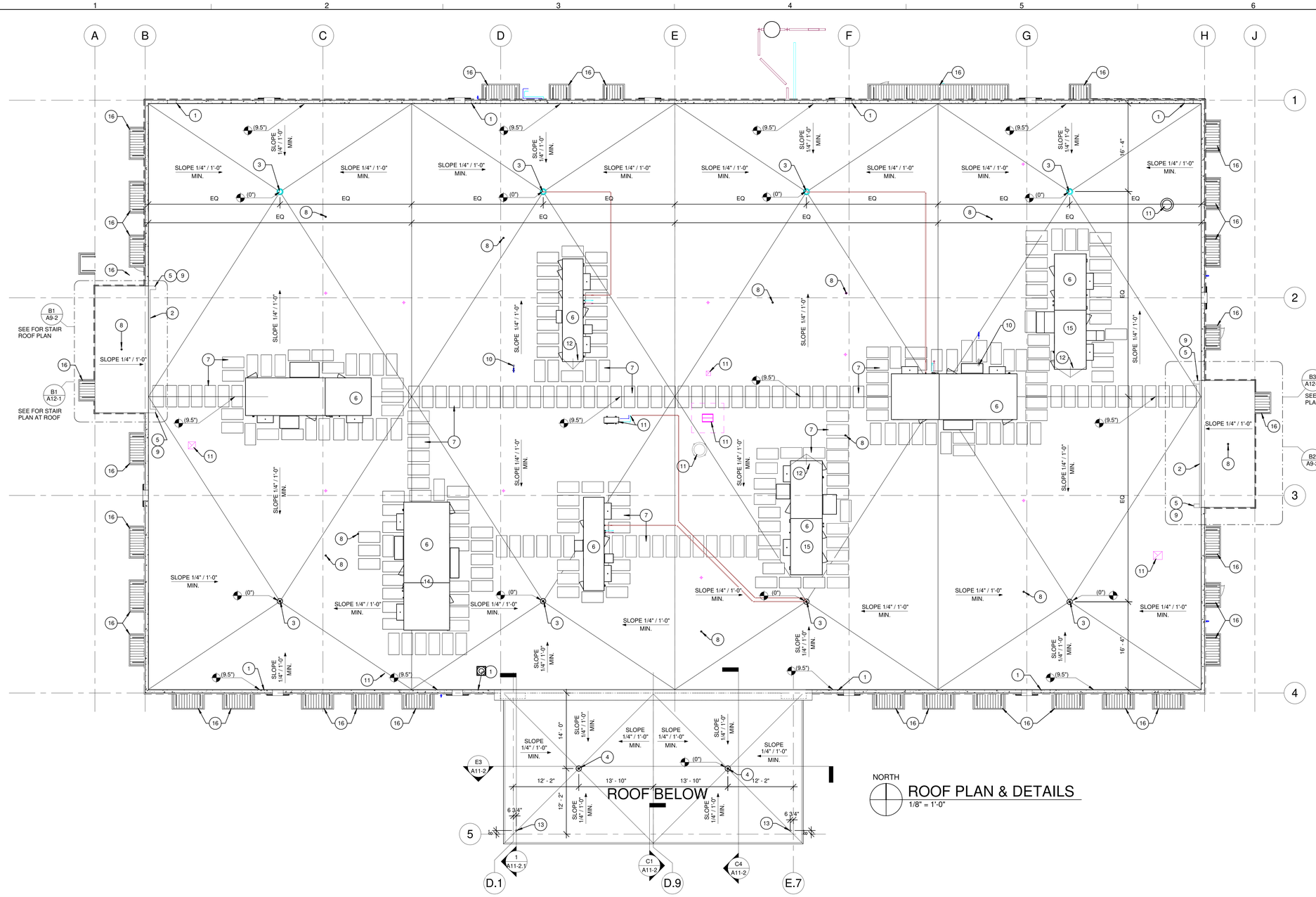


ROOF PLAN & DETAILS

1/8" = 1'-0"

ROOFING NOTES

IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO PROVIDE FOR A COMPLETE AND WEATHERTIGHT INSTALLATION OF ALL ROOF ITEMS, PENETRATIONS, ETC. THE CONTRACTOR SHALL PROVIDE ALL ROOF ACCESSORIES, FLASHING, SEALANT, SCUPPERS, DRAINS, LABOR, MATERIALS, EQUIPMENT, ETC. REQUIRED FOR COMPLETION OF A WEATHERTIGHT ROOF INSTALLATION. FOLLOW ALL RECOMMENDATIONS OF THE NRCA REGARDING INSTALLATION PROCEDURES, UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED.

1. GENERAL - REFER ALSO TO GENERAL NOTES ON SHEET X1-1.
2. COORDINATION - GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES TO ALLOW FOR TIMELY INCLUSION OF ALL REQUIRED ITEMS NECESSARY TO COMPLETE THE ROOF WORK.
3. ELEVATIONS - LOCATIONS THAT ARE NOTED THUS (+5") INDICATE THICKNESS OF ROOF INSULATION ABOVE ELEV. (0) AT ROOF DRAIN.
4. SLOPE- ROOF SURFACE SHALL HAVE A MIN. SLOPE OF 1/4" PER FOOT IN A PERPENDICULAR DIRECTION FROM THE ROOF EDGE DOWN TOWARD THE ROOF DRAINS AS INDICATED BY THE ARROWS DRAWN ON THE ROOF PLAN. WHERE REQUIRED TO FACILITATE DRAINAGE, PROVIDE VALLEYS, CRICKETS, RIDGES, ETC. OF REQUIRED SLOPE TO PROPERLY DRAIN ALL ROOF SURFACES.
5. ROOF DRAINS- ROOF DRAINS SHALL BE SIZED AS INDICATED ON THE PLUMBING DRAWINGS. LOCATE ALL ROOF DRAINS AS INDICATED AND TO AVOID RATED WALLS, BEAMS, COLUMNS, AND TRUSSES BELOW. INSTALL ALL REQUIRED FLASHING, COLLARS, STRAINERS, GRAVEL STOPS, PANS, SEALANT, ETC. AS REQUIRED FOR A COMPLETE AND WATERTIGHT INSTALLATION.
6. PENETRATIONS - PROPERLY FLASH, WATERPROOF, SECURE AND SEAL ALL ITEMS THAT PENETRATE THE ROOF MEMBRANE. DO NOT INSTALL ANY PITCH POCKETS, BUT RATHER FOLLOW GUIDELINES OF NRCA CONCERNING FLASHING AND WATERPROOFING ALL ROOF PENETRATIONS. SEE ALSO ROOF DETAILS.
7. ROOF EQUIPMENT - MOUNT ALL ROOF EQUIPMENT ON STRUCTURAL EQUIPMENT SUPPORT CURBS WITH INTEGRAL INSULATION. PROVIDE ALL CANT STRIPS, BASE FLASHING, COUNTERFLASHING AND ALL REQUIRED WATERPROOFING AS REQUIRED FOR A COMPLETE WATERTIGHT ROOF SYSTEM. WHERE EQUIPMENT IS RAISED ABOVE ROOF SURFACE, ALIGN SUPPORTS PARALLEL TO DIRECTION OF WATERFLOW TO FACILITATE DRAINAGE. VERIFY ALL REQUIREMENTS WITH EQUIPMENT AND CURB MANUFACTURERS. WHERE ROOF MEMBRANE EXTENDS BENEATH EQUIPMENT, MOUNT EQUIPMENT HIGH ENOUGH ABOVE THE ROOF SURFACE TO ALLOW FOR INSTALLATION OF ALL REQUIRED ROOFING COMPONENTS.
8. ROOF EDGES - WHERE INDICATED, PROVIDE ROOF EDGE CONDITION AS SHOWN ON DRAWINGS. MATERIAL AND COLOR SHALL MATCH EXST. COPINGS & BE COMPATIBLE WITH ROOFING MATERIAL.
9. SCUPPERS - INSTALL SCUPPERS OF SIZE, MATERIAL TO MATCH EXST. CONDITIONS AT EXST. LOCATION. IN PROJECT MANUAL OR AS OTHERWISE REQ'D BY CODE OR GVRNG AUTHORITIES. SCUPPERS SHALL BE CONT. FLASHED, SEALED AND INSTALLED WTHRTGHT. AT ALL LOCATIONS.
10. ROOF MEMBRANE - MATCH EXISTING. UTILIZE A THREE-PLY FULLY ADHERED MOD. BIT. ROOF MEMBRANE AS SPECIFIED AND PROVIDE ALL REQ'D ACCESSORIES, BASE PROJECT MANUAL. FLASHING, WATERPOORFING, SEALANT, NON-CORROSIVE MECH. FASTENERS, ETC. NECESSARY FOR A COMPLETE AND WEATHERTIGHT INSTALLATION. REINFORCE ALL CORNERS, BENDS, PARAPETS, ROOF EDGES, EXP. JOINTS, ETC. WITH AN ADDITIONAL LAYER OF FABRIC AND MASTIC EXTENDING A MIN. OF 2" EACH SIDE OF JOINT, CORNER OR ITEM. ROOF SYSTEM SHALL MEET ALL REQ'S. FOR FLORIDA PRODUCT APPROVAL AS SPECIFIED BY ROOF MANUFACTURER FOR ROOF INSTALLATION AND CONFORM TO U.L. REQS. FOR A CLASS "A" ROOF ASSEMBLY.
11. ENGINEERING ITEMS - REFER TO STRUCTURAL, MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFO ASSOCIATED WITH THE ROOF CONSTRUCTION.
12. ADD SUPPORT FOR HANGING CEILINGS, DUCTS, PIPES, ETC. AS REQUIRED. DO NOT HANG ANY ITEMS FROM THE ROOF METAL DECKING. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFO. CONTRACTOR SHALL PROVIDE SUPPORTS (AS APPROVED BY THE STRUCTURAL ENGINEER) FROM STRUCTURAL MEMBER TO STRUCTURAL MEMBER WHEN NECESSARY.

RAINAGE CALCULATION

1. USE THE FOLLOWING FORMULA TO DETERMINE G.P.M.:
   G.P.M. = .0104 x R x A
   G.P.M. = GALLONS PER MINUTE
   R = RAINFALL INTENSITY - INCHES/HOUR
   A = ROOF AREA - SQUARE FEET
   .0104 = CONVERSION FACTOR - G.P.M./SQ. FT. FOR 1" (ONE) INCH/HR. RAINFALL

2. **EXAMPLE:**
   A. 4" RAINFALL INCHES/HR.
   B. 100,000 SQ. FT. ROOF AREA
   C. G.P.M. = .0104 x 4" x 100,000 SQ. FT. = 4,160 G.P.M.

MAIN ROOF AREA = 21,231 SF + 264 SF + 264 SF = 21,759 SF

G.P.M. CALCULATION: MAIN ROOF
.0104 X 4.5 X 21,759 = 1,018.32 = 1,019 G.P.M

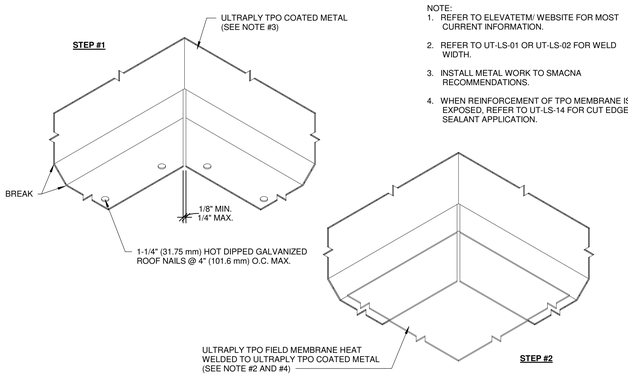
G.P.M. CALCULATION: CANOPY
.0104 X 4.5 X 1,573 = 73.62= 74 G.P.M.

ROOF PLAN GENERAL NOTES

1. CONTRACTOR AND ROOFING CONTRACTOR SHALL PROVIDE A COMPLETE AND WATER TIGHT ROOFING INSTALLATION.
2. ROOF SHALL BE A AVERAGE OF R=30.
3. BASIS-OF-DESIGN: ELEVATE ULTRAPLY TPO.

ROOF PLAN KEY NOTES

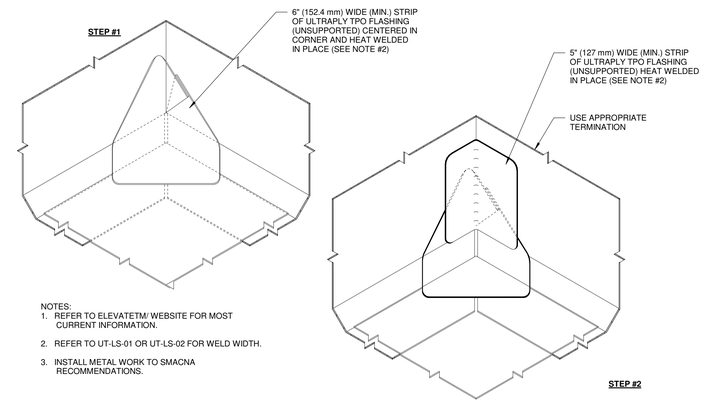
1. OVERFLOW SCUPPER
2. 4" x 4" GUTTER, SEE DETAIL A5/A9-1.1
3. ROOF DRAIN. SEE DETAIL E5/A9-1 AND PLUMBING DRAWINGS. COORDINATE WITH STRUCTURAL
4. ROOF DRAIN. SEE DETAIL E4/A9-1.1 AND PLUMBING DRAWINGS. COORDINATE WITH STRUCTURAL
5. SPLASH BLOCK
6. ROOF TOP UNIT, SEE MECHANICAL DRAWINGS
7. 2' X 4' ROOF WALKWAY PADS SPACED APART 6"
8. ROOF VENTS, SEE PLUMBING DRAWINGS
9. DOWNSPOUT, SEE DETAIL A5/A9-1.1
10. HOSE BIBB, SEE PLUMBING DRAWINGS
11. MECHANICAL PENETRATION, SEE MECHANICAL DRAWINGS
12. CRICKET, 1/2" / 1'-0" SLOPE
13. CONCEALED RAIN WATER LEADER IN COLUMN BELOW, SEE A11-2, A20-2, AND PLUMBINGS DRAWINGS
14. FUTURE TENANT "B" / IMAGING RTU, PROVIDE CURB AND CAP
15. FUTURE TENANT "A" / ASC RTU, PROVIDE CURB AND CAP
16. AWNING, SEE A10-1 AND DETAILS ON SHEET A9-2



NOTE:
1. REFER TO ELEVATETM/ WEBSITE FOR MOST CURRENT INFORMATION.
2. REFER TO UT-LS-01 OR UT-LS-02 FOR WELD WIDTH.
3. INSTALL METAL WORK TO SMACNA RECOMMENDATIONS.
4. WHEN REINFORCEMENT OF TPO MEMBRANE IS EXPOSED, REFER TO UT-LS-14 FOR CUT EDGE SEALANT APPLICATION.

E1 BASE FLASHING @ INSIDE CORNER 1,2 ELEVATE

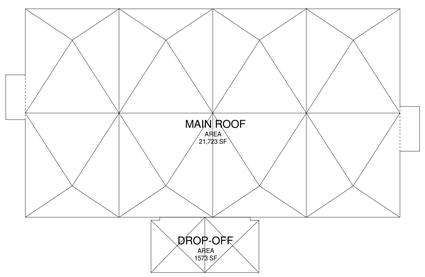
3" = 1'-0"



NOTES:
1. REFER TO ELEVATETM/ WEBSITE FOR MOST CURRENT INFORMATION.
2. REFER TO UT-LS-01 OR UT-LS-02 FOR WELD WIDTH.
3. INSTALL METAL WORK TO SMACNA RECOMMENDATIONS.

E3 BASE FLASHING @ INSIDE CORNER 3,4 ELEVATE

3" = 1'-0"



E5 ROOF KEY MAP

1/32" = 1'-0"

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ROOF PLAN & DETAILS

Drawing Number:

A9-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

9/29/2023 3:32:27 PM
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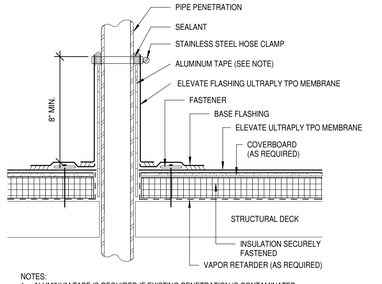
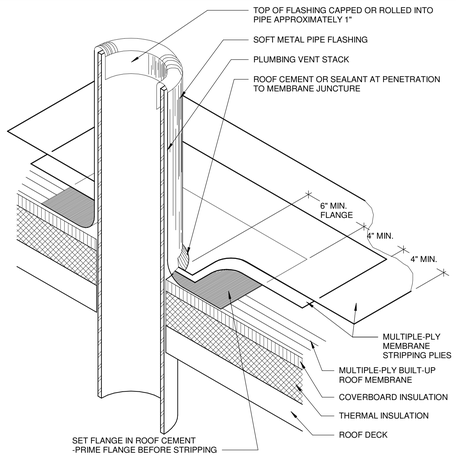
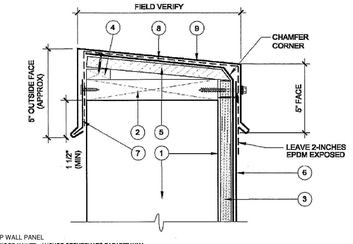


NOTES:
1. ALUMINUM TAPE IS REQUIRED IF EXISTING PENETRATION IS CONTAMINATED.
2. VAPOR RETARDER SHALL BE SEALED AT EDGES.

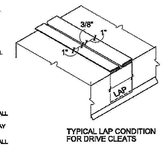
A1 PIPE PENETRATION FLASHING
3" = 1'-0" (072023)



A3 PLUMBING VENT
3" = 1'-0" A9-059 (112415)



1. TILT-UP WALL PANEL
2. 2X PT WOOD NAILER. ANCHOR SECURELY TO PARAPET WALL WITH SPECIFIED FASTENERS.
3. RE-ROOF W/O: INSTALL NEW 5/8 INCH PLYWOOD TO ALL PARAPET WALLS. ANCHOR SECURELY WITH SPECIFIED FASTENERS.
   NEW CONSTRUCTION: INSTALL BASE FLASHING DIRECTLY TO PARAPET WALL.
4. 1X PT WOOD NAILER (SPACER). ANCHOR SECURELY
5. 3/4-INCH PT PLYWOOD. CHAMFER CORNERS AS SHOWN. INSTALL TO SLOPE TOWARDS ROOF.
6. 2-PLY WALL (BASE) FLASHING SYSTEM. CONTINUE SMOOTH PLY MEMBRANE OVER TOP OF WALL, TYPICAL.
7. CONTINUOUS 0.063-INCH ALUMINUM COPING CLEAT. ANCHOR SECURELY TO NAILER WITH SPECIFIED FASTENERS 6-INCHES O.C.
8. CONTINUOUS SHEET OF 45 MIL EPDM. SEAL ALL LAPS WITH SPECIFIED ADHESIVE OR SEAM TAPE. EXTEND EPDM TO COVER ALL WOOD AND DOWN ROOF SIDE TO EXPOSE 2-INCHES (MINIMUM). ALTERNATE: AN APPROVED 40 MIL PEEL 'N' STICK MEMBRANE MAY ALSO BE USED.
9. CONTINUOUS 0.050-INCH ALUM. COPING CAP. SHOP FABRICATE ALL TRANSITIONS, CORNERS AND SEAMS 24" FROM EDGE. SOLDER SOLID (WELDING) ALL JOINTS. ENGAGE SECURELY TO COPING CLEAT AND FASTEN 12-INCHES O.C. IN SLOTTED HOLES. PROVIDE 3-INCH WIDE 0.040-INCH ALUM. DRIVE CLEATS AT LAPS. TURN DOWN DRIVE CLEAT TO COVER FACE OF COPING AND CRIMP METAL TO ENGAGE DRIP EDGE (BOTH SIDES).

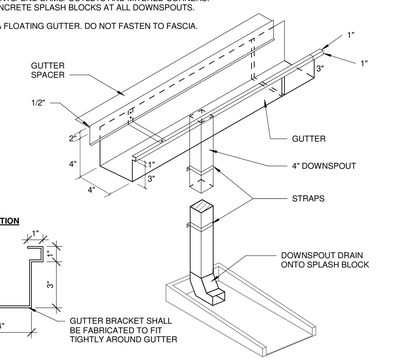


TYPICAL LAP CONDITION FOR DRIVE CLEATS

A4 PARAPET DETAIL
3" = 1'-0"

1. GUTTER TO BE FABRICATED FROM .050" MILL FIN. ALUM. AND IS TO BE SUPPORTED WITH 1/4" x 1" ALUM. BRACKETS, 3 PER 10 FT. LENGTH. FASTEN WITH ST.ST. SCREWS IN WOOD BLOCKING. GUTTER SPACERS TO BE FABRICATED FROM .062" MILL FIN. ALUM. AND RIVETED AT EACH END SPACED ALTERNATELY BETWEEN BRACKETS.
2. PROVIDE FOR 1/2" EXPANSION IN GUTTERS FOR EVERY 40 LIN. FT. INSTALLED. USE DAM OR SLIP JOINT METHOD. PROVIDE GUTTER CAPS AT ENDS.
3. DOWNSPOUTS TO BE 4" SQUARE AND FABRICATEDD FROM .050" MILL FIN. ALUM. AND ATTACHED WITH .062" x 1" ALUM. STRAPS 36" O.C. SECURE WITH ST.ST SCREWS AND INSERTS AS REQUIRED.
4. ALL DOWNSPOUTS TO HAVE A 45 DEG. ELBOW, UNLESS SPECIFIED OTHERWISE AND FABICATED FROM .050" MILL FIN. ALUM.
5. HELI-ARC JOINTS/ END DAMS/ OUTLETS AND MITERED CORNERS.
6. PROVIDE CONCRETE SPLASH BLOCKS AT ALL DOWNSPOUTS.

NOTE 1: THIS IS A FLOATING GUTTER. DO NOT FASTEN TO FASCIA.

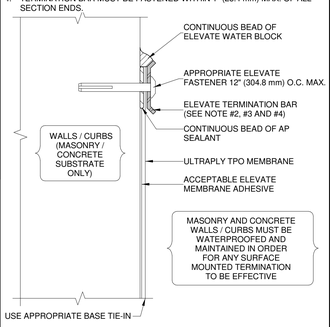


A5 GUTTER DETAIL
3" = 1'-0" (072123)

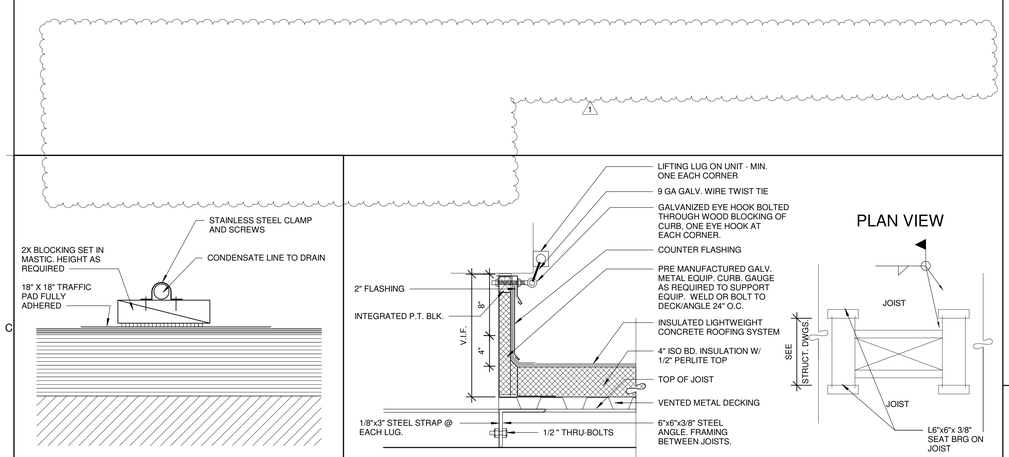
ROOF PLAN GENERAL NOTES

1. CONTRACTOR AND ROOFING CONTRACTOR SHALL PROVIDE A COMPLETE AND WATER TIGHT ROOFING INSTALLATION.
2. ROOF SHALL BE A AVERAGE OF R=30.
3. BASIS-OF-DESIGN: ELEVATE ULTRAPLY TPO.

NOTE:
1. REFER TO THE ELEVATE™ WEBSITE FOR MOST CURRENT INFORMATION.
2. INSTALL ELEVATE TERMINATION BAR WITH 1/4" (6.35 mm) GAP BETWEEN ADJOINING SECTIONS.
3. TERMINATION BAR MUST BE CUT AT INSIDE AND OUTSIDE CORNERS. DO NOT BEND AROUND CORNERS.
4. TERMINATION BAR MUST BE FASTENED WITHIN 1" (25.4 mm) MAX. OF ALL SECTION ENDS.

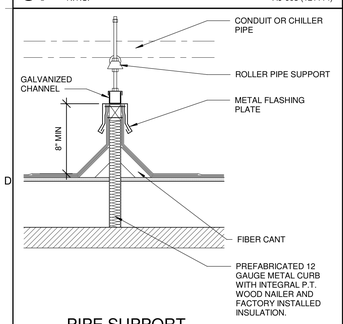


A7 TERMINATION
NOT TO SCALE

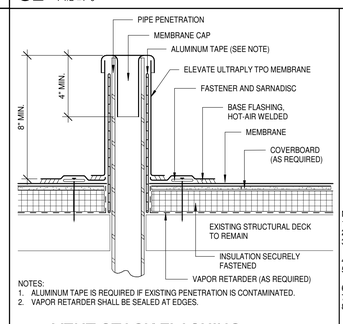


C1 CONDENSATE LINE SUPPORT
N.T.S. A9-005 (121114)

C2 ROOF CURB
1 1/2"=1'-0" A9-003D (121514)

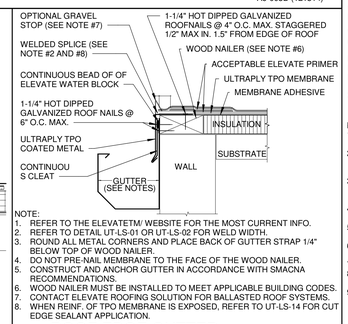


D1 PIPE SUPPORT
1 1/2"=1'-0" A9-004 (121114)



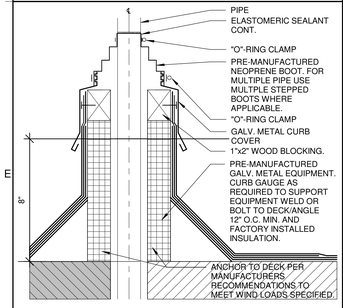
NOTES:
1. ALUMINUM TAPE IS REQUIRED IF EXISTING PENETRATION IS CONTAMINATED.
2. VAPOR RETARDER SHALL BE SEALED AT EDGES.

D2 VENT STACK FLASHING
3" = 1'-0"

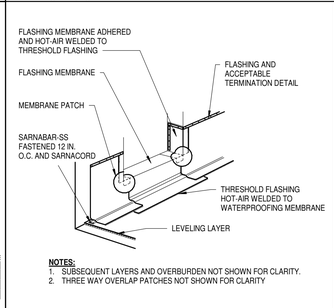


NOTE:
1. REFER TO THE ELEVATETM/ WEBSITE FOR THE MOST CURRENT INFO.
2. REFER TO DETAIL UT-LS-01 OR UT-LS-02 FOR WELD WIDTH.
3. ROUND ALL METAL CORNERS AND PLACE BACK OF GUTTER STRAP 1/4" BELOW TOP OF WOOD NAILER.
4. DO NOT PRE-NAIL MEMBRANE TO THE FACE OF THE WOOD NAILER.
5. CONSTRUCT AND ANCHOR GUTTER IN ACCORDANCE WITH SMACNA RECOMMENDATIONS.
6. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES.
7. CONTACT ELEVATE ROOFING SOLUTION FOR BALLASTED ROOF SYSTEMS.
8. WHEN REINF. OF TPO MEMBRANE IS EXPOSED, REFER TO UT-LS-14 FOR CUT EDGE SEALANT APPLICATION.

D3 ROOF EDGE GUTTER
NOT TO SCALE (072023)

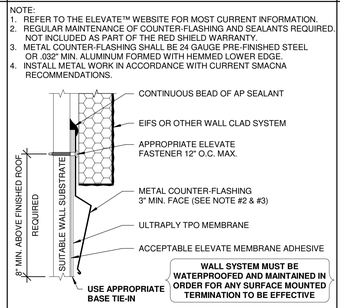


E1 PIPE PENTRATION
3"=1'-0" A9-004B (121114)



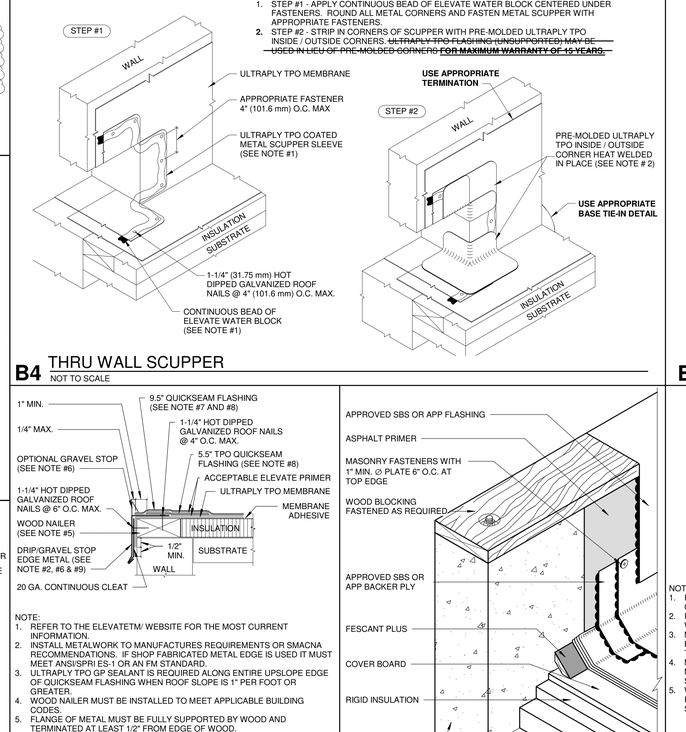
NOTES:
1. SUBSEQUENT LAYERS AND OVERBURDEN NOT SHOWN FOR CLARITY.
2. THREE WAY OVERLAP PATCHES NOT SHOWN FOR CLARITY

E2 ISOMETRIC THRESHOLD
NOT TO SCALE (072023)



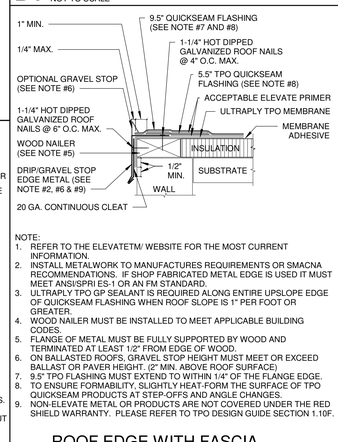
NOTE:
1. REFER TO THE ELEVATE™ WEBSITE FOR MOST CURRENT INFORMATION.
2. REGULAR MAINTENANCE OF COUNTER-FLASHING AND SEALANTS REQUIRED. NOT INCLUDED AS PART OF THE RED SHIELD WARRANTY.
3. METAL COUNTER-FLASHING SHALL BE 24 GAUGE PRE-FINISHED STEEL OR .032" MIN. ALUMINUM FORMED WITH HEMMED LOWER EDGE.
4. INSTALL METAL WORK IN ACCORDANCE WITH CURRENT SMACNA RECOMMENDATIONS.

E3 TERMINATION AT EIFS
NOT TO SCALE (072023)



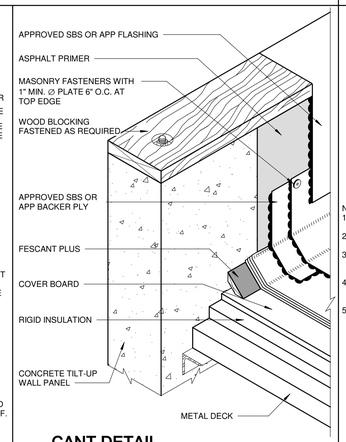
NOTE:
1. STEP #1 - APPLY CONTINUOUS BEAD OF ELEVATE WATER BLOCK CENTERED UNDER FASTENERS. ROUND ALL METAL CORNERS AND FASTEN METAL SCUPPER WITH APPROPRIATE FASTENERS.
2. STEP #2 - STRIP IN CORNERS OF SCUPPER WITH PRE-MOLDED ULTRAPLY TPO INSIDE / OUTSIDE CORNERS. ~~ULTRAPLY TPO FLASHING (UNSUPPORTED) MAY BE USED IN LIEU OF PRE-MOLDED CORNERS~~ ~~FOR MAXIMUM WARRANTY OF 15 YEARS.~~

B4 THRU WALL SCUPPER
NOT TO SCALE

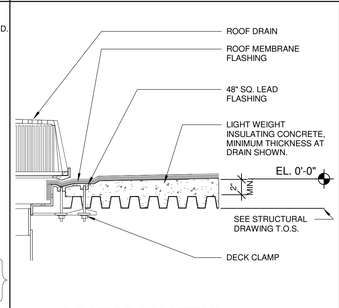


NOTE:
1. REFER TO THE ELEVATETM/ WEBSITE FOR THE MOST CURRENT INFORMATION.
2. INSTALL METALWORK TO MANUFACTURES REQUIREMENTS OR SMACNA RECOMMENDATIONS. IF SHOP FABRICATED METAL EDGE IS USED IT MUST MEET ANSI/SPRI ES-1 OR AN FM STANDARD.
3. ULTRAPLY TPO GP SEALANT IS REQUIRED ALONG ENTIRE UPSLOPE EDGE OF QUICKSEAM FLASHING WHEN ROOF SLOPE IS 1" PER FOOT OR GREATER.
4. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES.
5. FLANGE OF METAL MUST BE FULLY SUPPORTED BY WOOD AND TERMINATED AT LEAST 1/2" FROM EDGE OF WOOD.
6. ON BALLASTED ROOFS, GRAVEL STOP HEIGHT MUST MEET OR EXCEED BALLAST OR PAVER HEIGHT. (2" MIN. ABOVE ROOF SURFACE)
7. 9.5" TPO FLASHING MUST EXTEND TO WITHIN 1/4" OF THE FLANGE EDGE.
8. TO ENSURE FORMABILITY, SLIGHTLY HEAT-FORM THE SURFACE OF TPO QUICKSEAM PRODUCTS AT STEP-OFFS AND ANGLE CHANGES.
9. NON-ELEVATE METAL OR PRODUCTS ARE NOT COVERED UNDER THE RED SHIELD WARRANTY. PLEASE REFER TO TPO DESIGN GUIDE SECTION 1.10F.

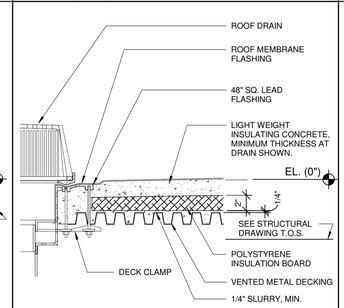
D4 ROOF EDGE WITH FASCIA
NOT TO SCALE (072023)



D5 CANT DETAIL
1 1/2" = 1'-0"

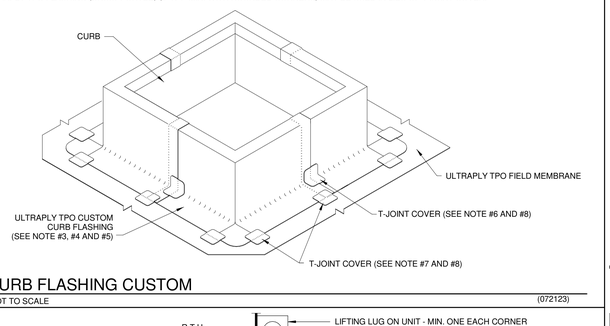


E4 ROOF DRAIN DETAIL
1 1/2"=1'-0"

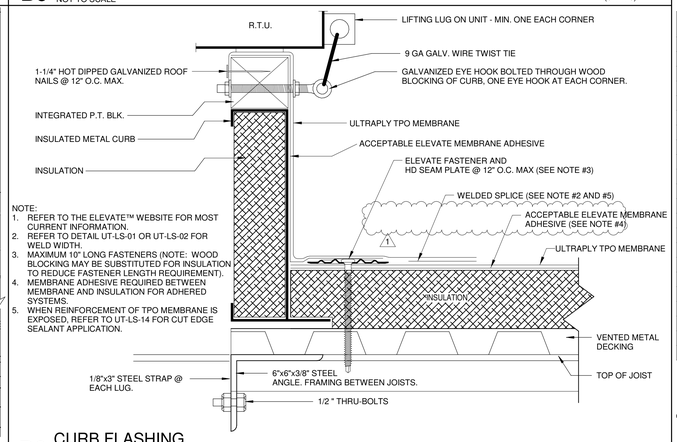


E5 ROOF DRAIN DETAIL
1 1/2"=1'-0" A9-019 (072123)

NOTE:
1. REFER TO ELEVATETM/ WEBSITE FOR MOST CURRENT INFORMATION.
2. ULTRAPLY TPO CUSTOM CURB FLASHING COMES IN CUSTOM SIZES TO FIT SPECIFIC CURB SIZES (SEE CHART TO LEFT).
3. REFER TO UT-LS-01 AND UT-LS-02 FOR WELD WIDTH.
4. BONDING ADHESIVE REQUIRED BETWEEN CURB AND CUSTOM CURB FLASHING.
5. WHEN REINFORCEMENT OF TPO MEMBRANE IS EXPOSED, REFER TO UT-LS-14 FOR CUT EDGE SEALANT APPLICATION.
6. T-JOINT COVERS REQUIRED AT ALL VERTICAL TRANSITIONS ON NON-FACTORY WELDS FOR ALL MEMBRANE THICKNESS.
7. T-JOINT COVERS REQUIRED AT ALL 60 MIL REINFORCED MEMBRANE OVERLAPS.
8. ULTRAPLY TPO FLASHING (UNSUPPORTED) (4" X 4" MIN. WITH ROUNDED CORNERS) MAY BE USED IN LIEU OF T-JOINT COVER.

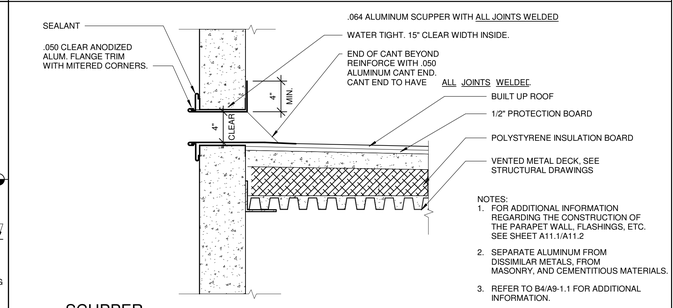


B6 CURB FLASHING CUSTOM
NOT TO SCALE (072123)



NOTE:
1. REFER TO THE ELEVATE™ WEBSITE FOR MOST CURRENT INFORMATION.
2. REFER TO DETAIL UT-LS-01 OR UT-LS-02 FOR WELD WIDTH.
3. MAXIMUM 10" LONG FASTENERS (NOTE: WOOD BLOCKING MAY BE SUBSTITUTED FOR INSULATION TO REDUCE FASTENER LENGTH REQUIREMENT).
4. MEMBRANE ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR ADHERED SYSTEMS.
5. WHEN REINFORCEMENT OF TPO MEMBRANE IS EXPOSED, REFER TO UT-LS-14 FOR CUT EDGE SEALANT APPLICATION.

D6 CURB FLASHING
NOT TO SCALE (080323)



NOTES:
1. FOR ADDITIONAL INFORMATION REGARDING THE CONSTRUCTION OF THE PARAPET WALL, FLASHINGS, ETC. SEE SHEET A11.1/A11.2
2. SEPARATE ALUMINUM FROM DISSIMILAR METALS, FROM MASONRY, AND CEMENTITIOUS MATERIALS.
3. REFER TO B4/A9-1.1 FOR ADDITIONAL INFORMATION.

E6 SCUPPER
1 1/2"=1'-0" A9-010 (012215)

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Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

#	REVISIONS	
No.	Description	Date
1	ADD #1	10/24/23

Drawing Title:

ROOF DETAILS

Drawing Number:

A9-1.1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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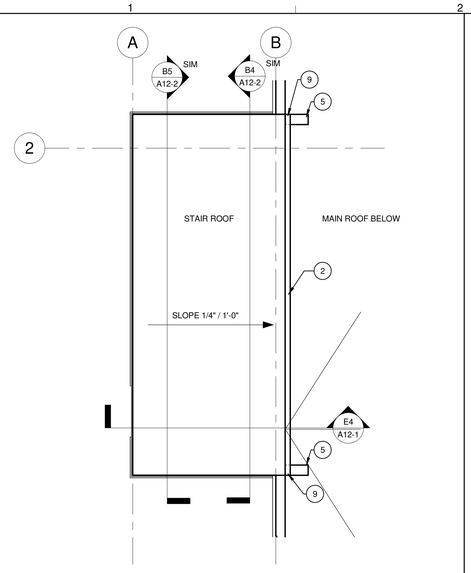
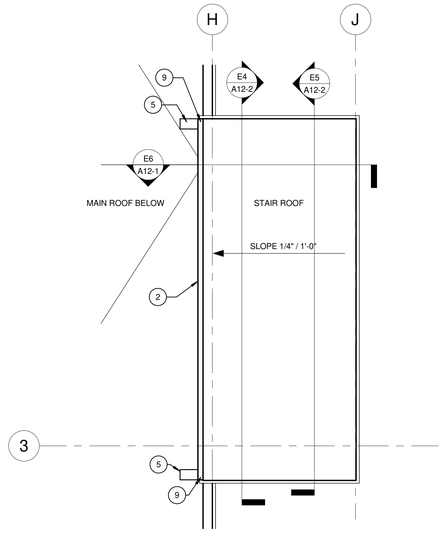
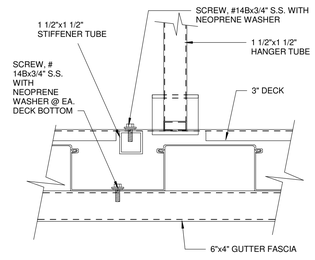


B1 STAIR SS101 ROOF CALLOUT
1/4" = 1'-0"

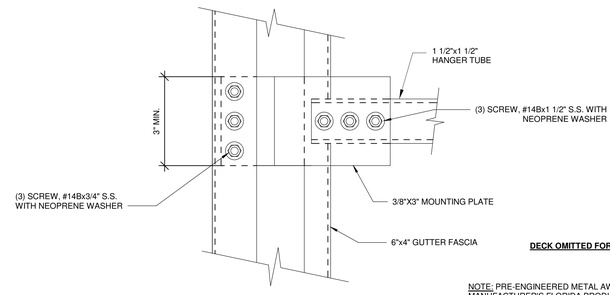


B2 STAIR SS102 ROOF CALLOUT
1/4" = 1'-0"



B4 ROD CONNECTION DETAIL
3" = 1'-0"

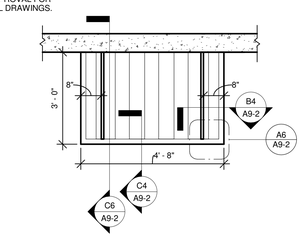
NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.



A6 ROD CONNECTION - TOP VIEW
3" = 1'-0"

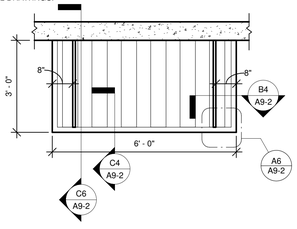
NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.

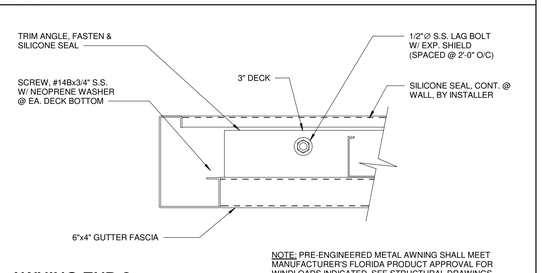


C1 AWNING PLAN - DOOR
1/2" = 1'-0"

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.

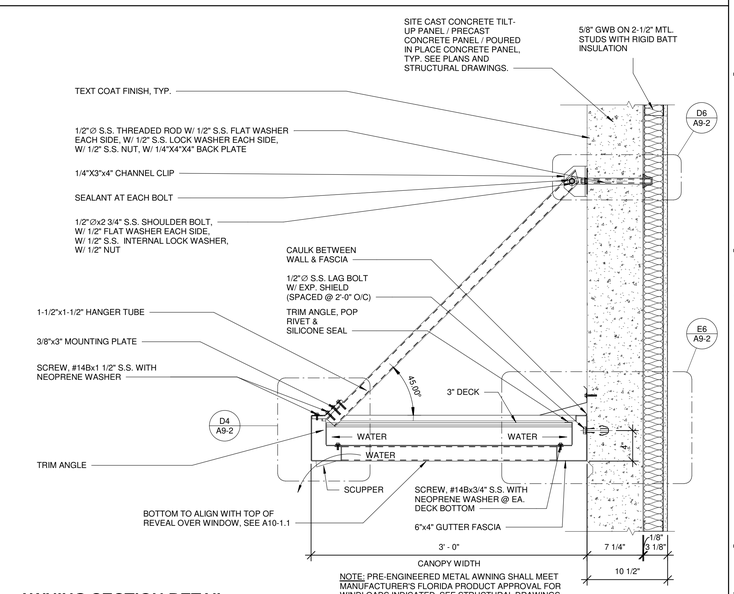


C2 AWNING PLAN - WINDOW
1/2" = 1'-0"



C4 AWNING END 2
3" = 1'-0"

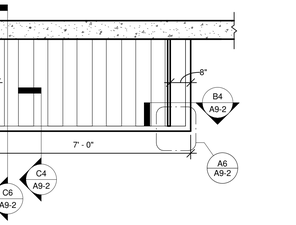
NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.



C6 AWNING SECTION DETAIL
1 1/2" = 1'-0"

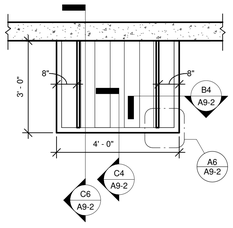
NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.

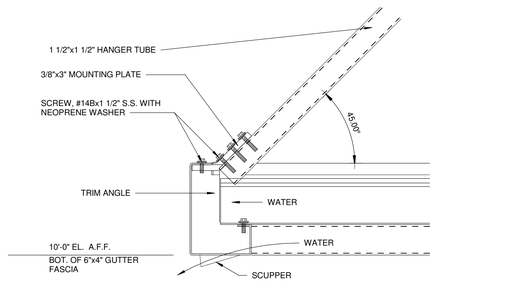


D1 AWNING PLAN - @ DOUBLE DOORS
1/2" = 1'-0"

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.

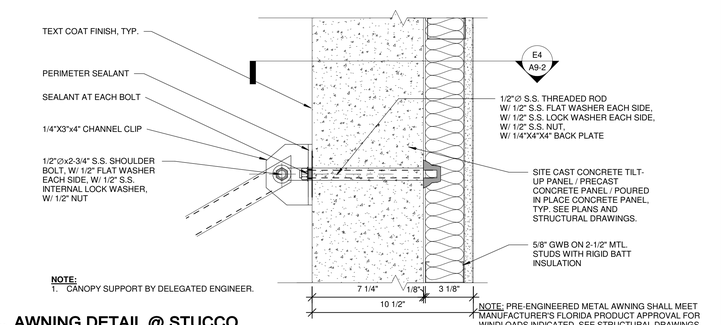


D2 AWNING PLAN - DOOR
1/2" = 1'-0"



D4 AWNING END
3" = 1'-0"

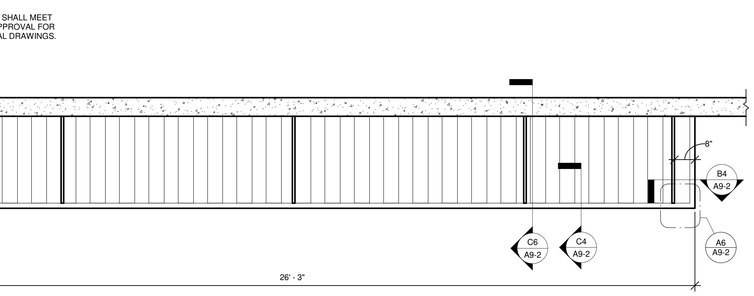
NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.



NOTE:
1. CANOPY SUPPORT BY DELEGATED ENGINEER.

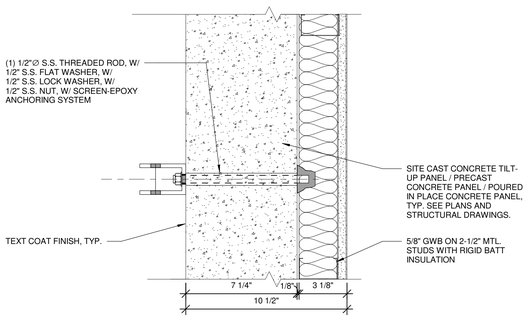
D6 AWNING DETAIL @ STUCCO
3" = 1'-0"

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.



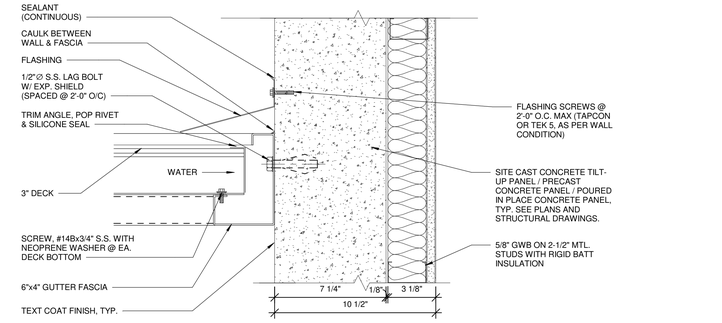
E1 AWNING PLAN - @ DOORS
1/2" = 1'-0"

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.



E4 AWNING DETAIL - TOP VIEW
3" = 1'-0"

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.



E6 AWNING DETAIL
3" = 1'-0"

NOTE: PRE-ENGINEERED METAL AWNING SHALL MEET MANUFACTURER'S FLORIDA PRODUCT APPROVAL FOR WINDLOADS INDICATED. SEE STRUCTURAL DRAWINGS.

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Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS		
No.	Description	Date

Drawing Title:

AWNING PLANS, SECTIONS, DETAILS & STAIR ROOF PLANS

Drawing Number:

A9-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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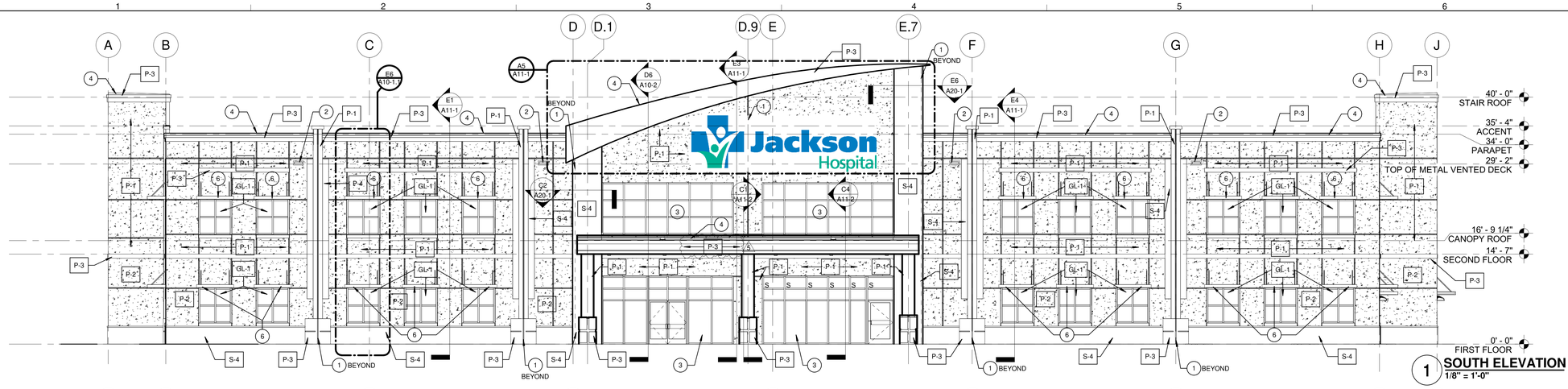
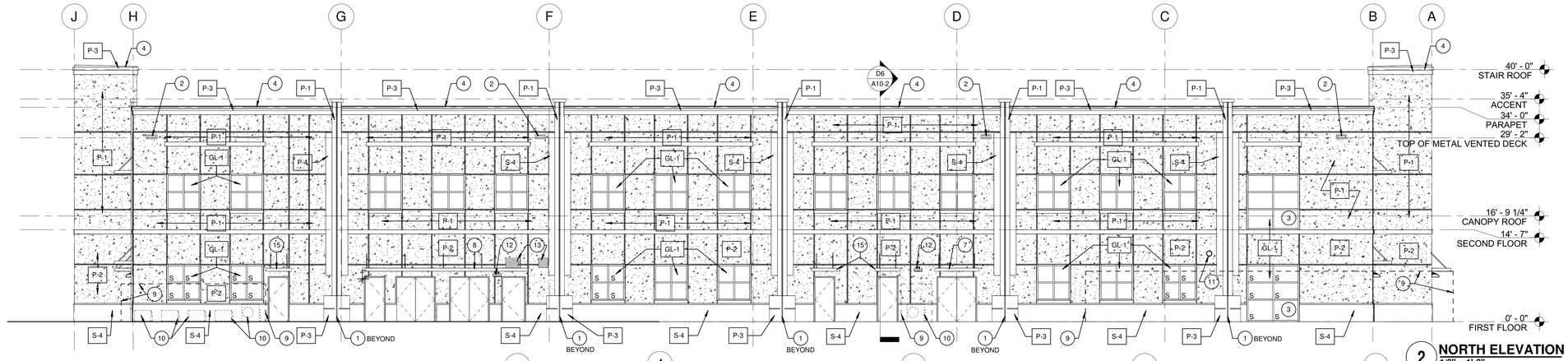
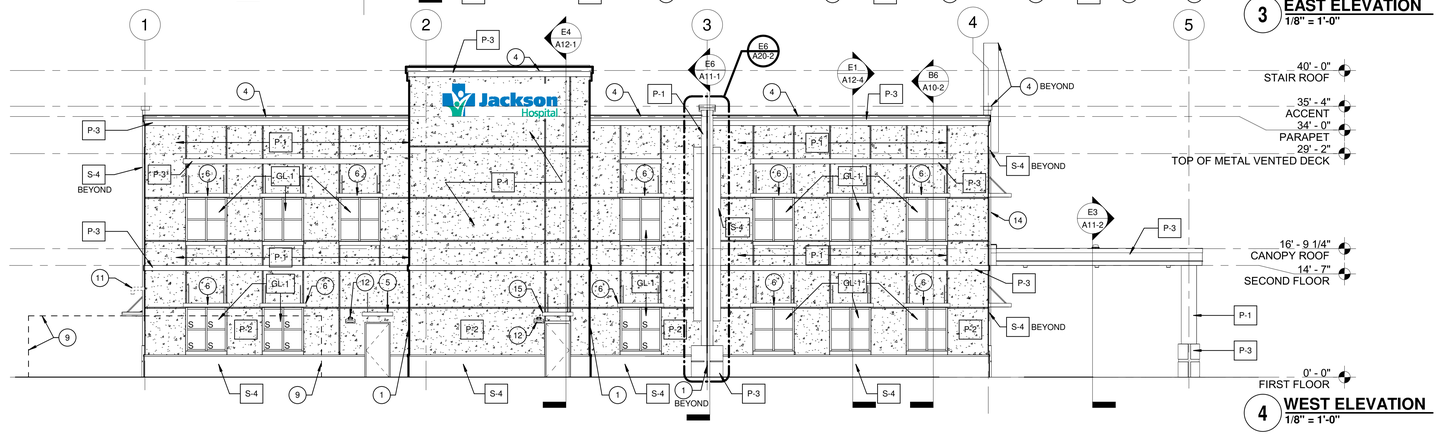


1 SOUTH ELEVATION
1/8" = 1'-0"



2 NORTH ELEVATION
1/8" = 1'-0"

3 EAST ELEVATION
1/8" = 1'-0"



4 WEST ELEVATION
1/8" = 1'-0"

COLOR KEY NOTES

HIGH PERFORMANCE COATING (TEX-COTE SUPER-COTE COOL WALLS) SHALL MATCH THE COLORS LISTED BELOW.

- P-1 — WALL TOP BASE: SW-7757 HIGH REFLECTIVE WHITE
- P-2 — WALL BOTTOM BASE: SW-7074 SOFTWARE
- P-3 — ACCENT GREY BANDS/FLASHING: SW-7058 MAGNETIC GRAY
- S-4 — BASIS OF DESIGN: TREK PRO-FIT TERRAIN LEDGESTONE AS MANUFACTURED BY CULTURED STONE WWW.CULTUREDTONE.COM
- GL-1 — INSULATED GLAZING SYSTEM TEMPERED OUTER GLASS WITH IMPACT RATED INNER GLASS, GREY IN COLOR - TBD AS MANUFACTURED BY VIRACON

ELEVATION GENERAL NOTES

1. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR BEFORE CONSTRUCTION. ARCHITECT SHALL BE NOTIFIED OF ANY AND ALL DISCREPANCIES.
2. GENERAL CONTRACTOR TO COORDINATE FINAL EXTERIOR COLOR SCHEME WITH ARCHITECT PREVIOUS TO PAINTING WORK. CONTRACTOR SHALL PAINT ALL CEMENTITIOUS EXTERIOR SURFACES WITH ELASTOMERIC COATING. CONTRACTOR SHALL INCLUDE THE PAINTING OF 4 DIFFERENT COLORS WITH ELASTOMERIC PAINT.
3. "S" INDICATES SPANDREL GLASS.
4. FILL VERTICAL RECESSED VOIDS WITH SILICONE SEALANT BEHIND AWNINGS, TYPICAL, ALL.

ELEVATION KEY NOTES

1. PANEL JOINT
2. OVERFLOW SCUPPER, SEE DETAIL E6/A9-1.1
3. STOREFRONT SYSTEM YHS 50 TU
4. COLORED ALUMINUM CAP FLASHING WITH CONTINUOUS CLEATS. COLOR SHALL BE AS INDICATED ON ELEVATIONS.
5. AWNING, SEE DETAIL C1/A9-2
6. AWNING, SEE DETAIL C2/A9-2
7. AWNING, SEE DETAIL D1/A9-2
8. AWNING, SEE DETAIL E1/A9-2
9. FENCE IN FOREGROUND, SEE AS3-1, ASC, AND IMAGING DRAWINGS
10. SEE MECHANICAL DRAWINGS FOR EQUIPMENT WITHIN 5'-0" OF BUILDING
11. PROVIDE OPENING IN WALL FOR FUTURE QUENCH TUBE. COORDINATE REQUIREMENTS WITH PROPOSED MRI IN TENANT "B" IMAGING
12. EXTERIOR LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
13. LOUVER, SEE MECHANICAL DRAWINGS
14. VERTICAL STONE ELEMENT BEYOND
15. AWNING, SEE DETAIL D2/A9-2

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Project Name:

JACKSON MOB

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

#	REVISIONS	
No.	Description	Date
5	ASI #2	1/28/25

Drawing Title:

EXTERIOR ELEVATIONS AND SECTIONS

Drawing Number:

A10-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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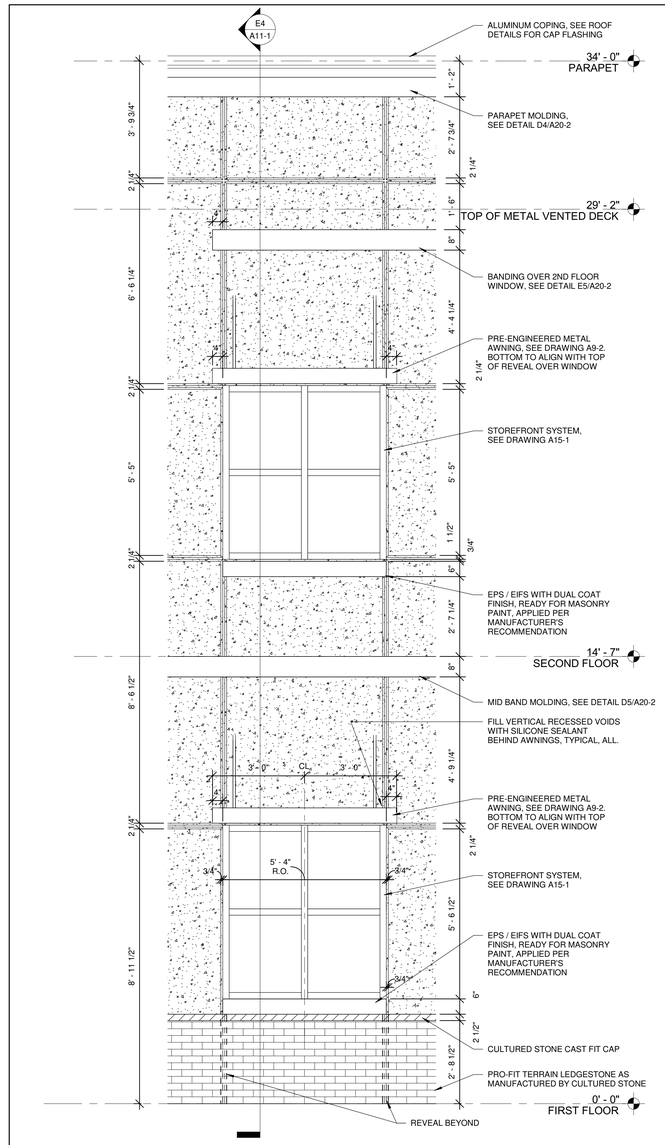

E6 TYPICAL REVEAL LOCATIONS

1/2" = 1'-0"

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3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

PANEL JOINT & REVEAL LOCATIONS

Drawing Number:

A10-1.1

Drawn by: Author
Checked by: Checker
Scale: 1/2" = 1'-0"

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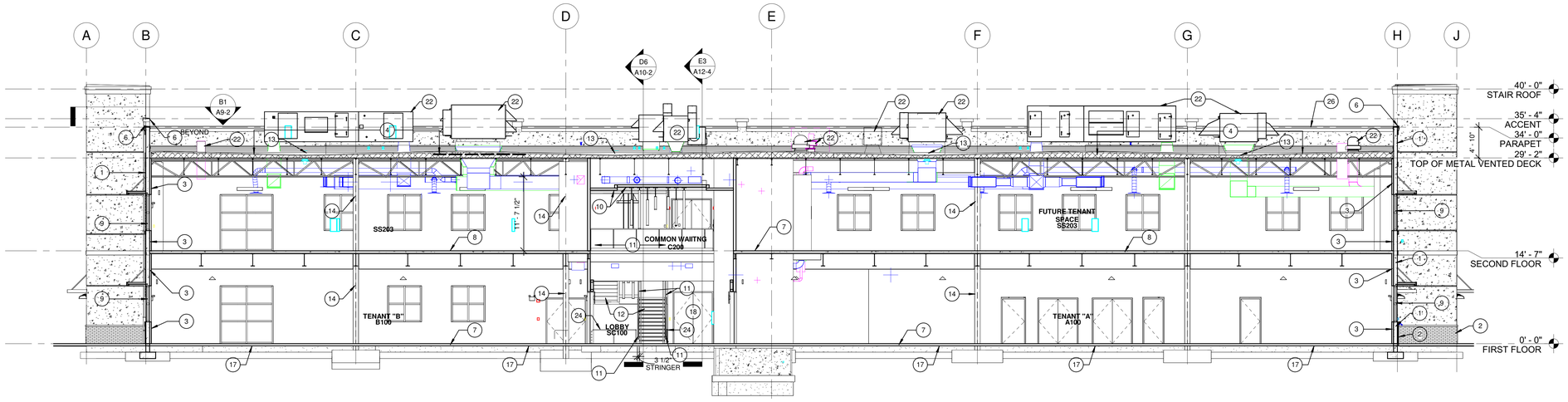
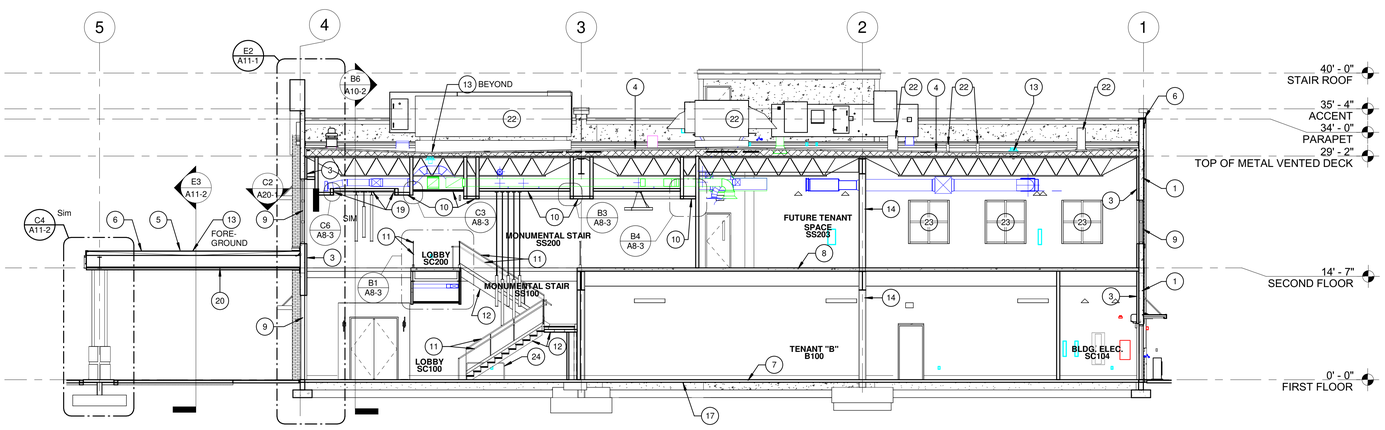


B6 **BUILDING SECTION**
1/8" = 1'-0"



D6 **BUILDING SECTION**
1/8" = 1'-0"

SECTION KEY NOTES

1. NEW 7 1/4" CONCRETE TILT-WALL PANEL, SEE STRUCTURAL DRAWINGS
2. CULTURED STONE ON VAPOR BARRIER
3. INSTALL 5/8" MOLD RESISTANT G.W.B. ON 2 1/2" METAL STUDS @ 24" O.C. WITH 2 1/2" UNFACED SEMI-RIGID INSULATION TO DECK ABOVE.
4. MEMBRANE ROOFING ON LIGHT WEIGHT INSULATING CONCRETE ON POLYSTYRENE INSULATION BOARDS OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS.
5. MEMBRANE ROOFING ON LIGHT WEIGHT CONCRETE OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS (CANOPY)
6. NEW ALUMINUM COPING WITH 2 x __ PRESSURE TREATED WOOD NAILER, TYP.
7. NEW CONCRETE SLAB, SEE STRUCTURAL DRAWINGS.
8. 5 1/4" COMPOSITE SYSTEM COMPOSED OF 2" DECK AND 3 1/4" CONCRETE THICKNESS ABOVE, SEE STRUCTURAL DRAWINGS.
9. STOREFRONT SYSTEM
10. CEILING, SEE FINISH SCHEDULE.
11. STAIR RAILING, SEE SHEET A12-2
12. 5/8" GWB ON UNDERSIDE OF STAIRS AND LANDINGS.
13. ROOF DRAIN, SEE PLUMBING DRAWINGS.
14. STEEL COLUMN, SEE STRUCTURAL DRAWINGS
15. STEEL BEAM, SEE STRUCTURAL DRAWINGS
16. SPRAY APPLIED FIRE PROOFING, REFER TO UL DESIGN ON DRAWING A13.X
17. VAPOR BARRIER OVER TERMITE TREATED 98% COMPACTED FILL.
18. DOORS BEYOND FOR PASSAGE SP100 TO TENANT "C" C100
19. LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
20. CEMENT PLASTER (STUCCO) INSTALLED PER SPECIFICATION SECTION 09 24 23.10.
21. NEW ALUMINUM COUNTER-FLASHING.
22. MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS.
23. STOREFRONT WINDOW SYSTEM BEYOND WITHIN "SHELL" SPACE.
24. PROTRUDING OBSTRUCTION TUBE RAIL MATCHING THE GLASS RAIL FINISH AND STILE, SEE DETAILS B7 AND C7/A12-3
25. STEEL POST TO SUPPORT STAIRS AND LANDING SEE DETAIL B1/A12-2 & STRUCTURAL DRAWING.
26. PARAPET BEYOND

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SHELL

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

BUILDING SECTIONS

Drawing Number:

A10-2

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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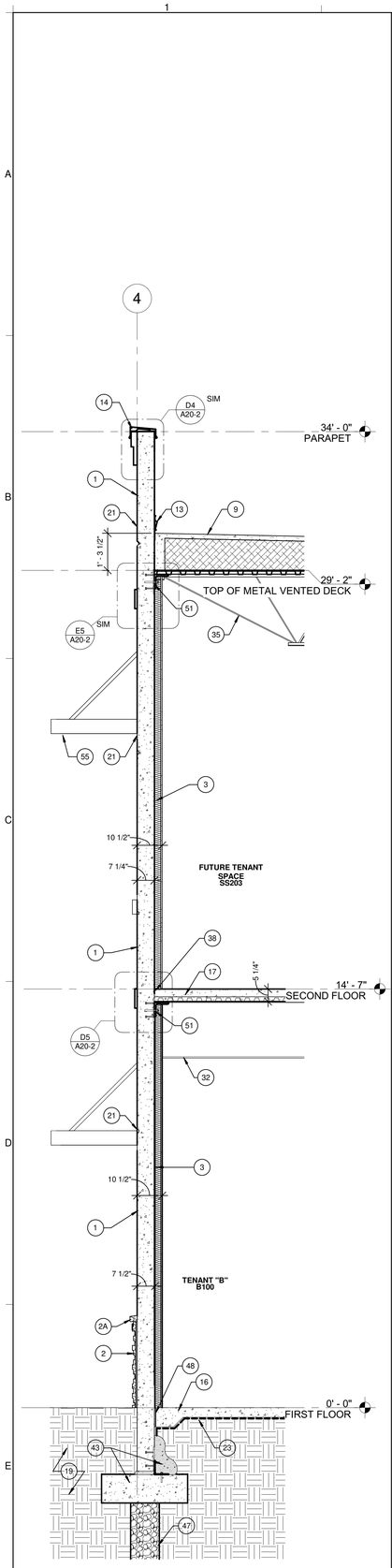
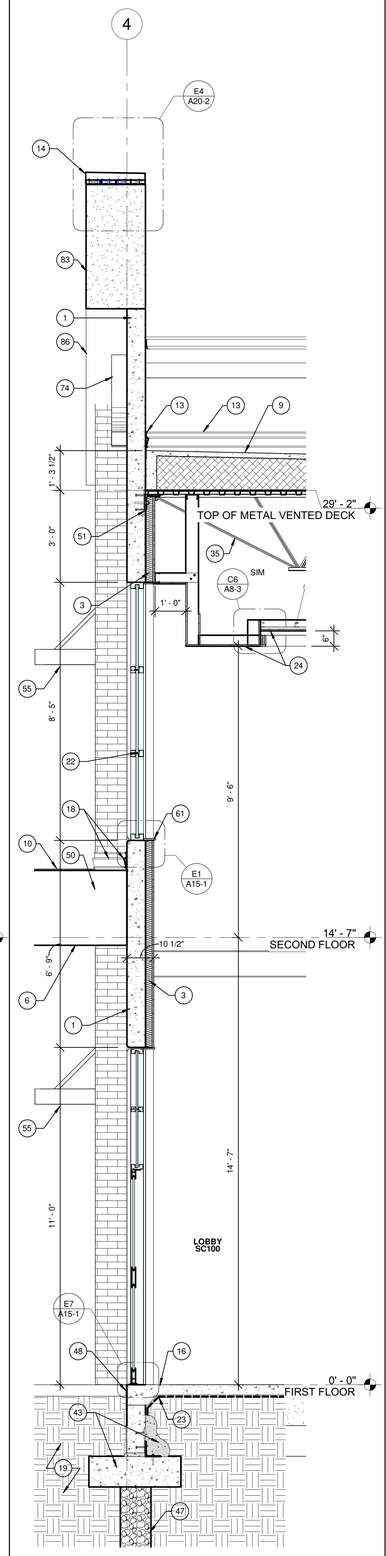


E1 WALL SECTION
1/2" = 1'-0"



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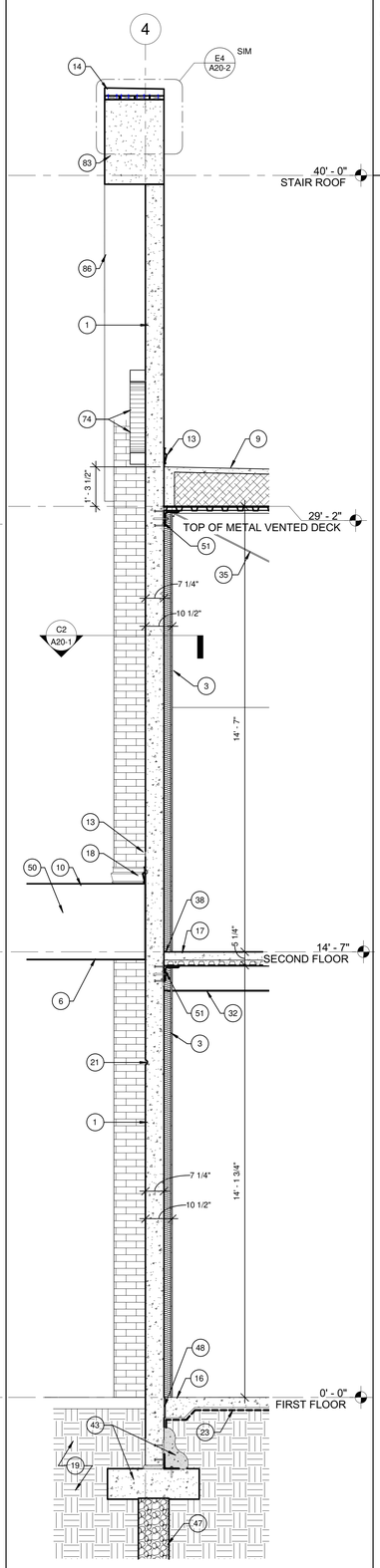
1/2" = 1'-0"



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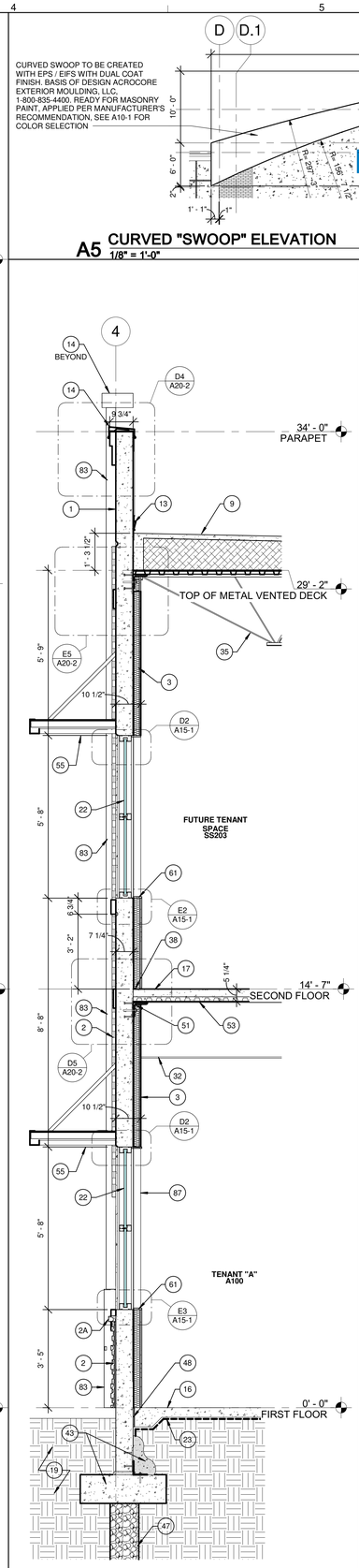
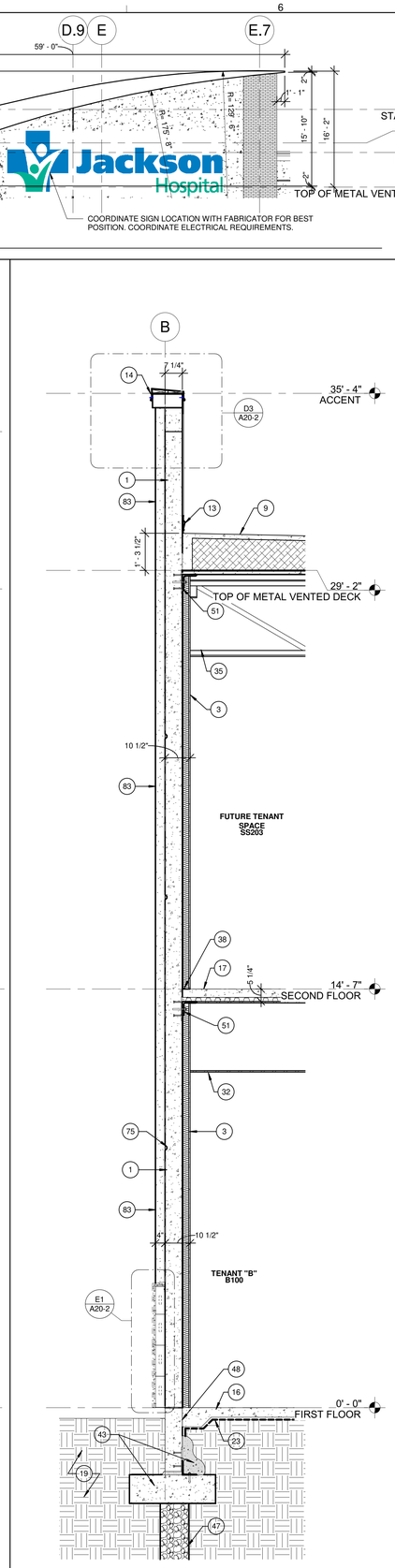
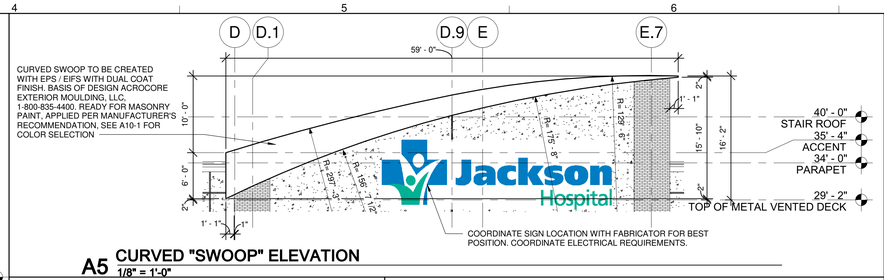
1/2" = 1'-0"



E4 WALL SECTION
1/2" = 1'-0"



E6 WALL SECTION
1/2" = 1'-0"



A5 CURVED "SWOOP" ELEVATION
1/8" = 1'-0"

SECTION KEY NOTES

1. 7 1/4" CONCRETE TILT-WALL PANEL, SEE STRUCTURAL DRAWINGS
2. APPLIED CULTURED STONE VENEER ON DRAIN-N-DRY LATHE OVER WATER RESISTENT BARRIER, BASIS OF DESIGN: CULTURED STONE PRO-FIT LEDGESTONE, COLOR TREK - 1 3/4" THICK
2A. BASIS OF DESIGN: CULTURED STONE CAST FIT, COLOR: CARBON, 2 1/2" X 18" X 36"
3. INSTALL 5/8" MOLD RESISTANT G.W.B. ON 2 1/2" METAL STUDS @ 24" O.C. WITH 2 1/2" UNFACED SEMI-RIGID INSULATION TO DECK ABOVE.
6. CEMENT PLASTER (STUCCO) INSTALLED PER SPECIFICATION SECTION 09 24 23.10
7. 5/8" GWB ON UNDERSIDE OF STAIRS AND LANDINGS
8. RUBBERIZED ASPHALT SHEET AIR/VAPOR BARRIER, SEE SPECIFICATION SECTION 09 24 23.10
9. SLOPED MEMBRANE ROOFING ON LIGHT WEIGHT INSULATING CONCRETE ON POLYSTYRENE INSULATION BOARDS OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS
10. MEMBRANE ROOFING ON LIGHT WEIGHT CONCRETE OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS (CANOPY)
11. SINGLE PLY MEMBRANE TPO
12. 2" LIGHT WEIGHT CONCRETE ON 22 GA. STEEL DECK
13. NEW ALUMINUM COUNTER-FLASHING
14. NEW ALUMINUM COPING WITH 2 x __ PRESSURE TREATED WOOD NAILER, TYP
15. MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
16. NEW CONCRETE SLAB. SEE STRUCTURAL DRAWINGS
17. 5 1/4" COMPOSITE SYSTEM COMPOSED OF 2" DECK AND 3 1/4" CONCRETE THICKNESS ABOVE, SEE STRUCTURAL DRAWINGS
18. CANT, SEE DETAIL D5/A9-1.1
19. COMPACTED FILL, SEE CIVIL DRAWINGS
20. ENGINEERED METAL PAN STAIR WITH PEA STONE CONCRETE FILL
21. CONCRETE TILT-WALL PANEL REVEAL, SEE ELEVATIONS AND DETAIL A5/A20-1
22. STOREFRONT SYSTEM, SEE DRAWING A15-1
23. VAPOR BARRIER OVER TERMITE TREATED 98% COMPACTED FILL
24. CEILING, SEE A8-1 RCP AND A19-1FINISH SCHEDULE
25. STAIR RAILING, SEE DETAIL C4/A12-3 OR E4/A12-3
26. CONCRETE PEDESTAL, SEE STRUCTURAL DRAWINGS
27. INSTALL SHEET LAYER BREAK METAL TO PREVENT RODENT ENTRY
28. 1/2" THICK TEMPERED GLASS GUARDRAIL, SEE DRAWING A12-3
29. 1 1/2" DIAMETER ALUMINUM HANDRAIL SEE DRAWING A12-3
30. 4" HIGH STAINLESS STEEL CLAD GUARDRAIL SUPPORT
31. 5/8" GWB ON UNDERSIDE OF STAIRS AND LANDINGS
32. WIDE FLANGE BEAM, SEE STRUCTURAL DRAWINGS
33. NEW ELEVATOR DOORS PROVIDED AND INSTALLED BY ELEVATOR MFG
34. ELEVATOR SUMP PIT - SEE STRUCTURAL DRAWINGS, COORDINATE WITH MANUFACTURER'S REQUIREMENTS
35. JOIST, SEE STRUCTURAL DRAWINGS
36. ELEVATOR HOIST BEAM, SEE STRUCTURAL DRAWINGS
37. KEY STYLE WATERSTOP AT BASE OF POURED CONCRETE WALL AROUND ELEVATOR PIT
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39. ROOF DRAIN, SEE PLUMBING DRAWINGS
40. CONCEALED DRAIN, SEE PLUMBING DETAIL
41. UNDERDRAIN, SEE CIVIL DRAWINGS
42. 8" METAL STUD, SEE STRUCTURAL DRAWINGS
43. FOUNDATION, SEE STRUCTURAL DRAWINGS
44. METAL STUD STRUCTURAL BRACING, SEE STRUCTURAL DRAWINGS
45. HSS STEEL TUBING, SEE STRUCTURAL DRAWINGS
46. EXPANSION JOINT
47. STONE COLUMN PILING BEYOND, SEE STRUCT. DRAWINGS
48. 1/2" ISOLATION JOINT
49. STEEL BEAM, SEE STRUCTURAL DRAWINGS
50. CANOPY, SEE STRUCTURAL DRAWINGS
51. TILT-WALL IMBEDDED STEEL CONNECTION, SEE STRUCTURAL DRAWINGS
52. FLASHING
53. SPRAY APPLIED FIRE PROOFING AT TENANT SPACE "A" AND "C" ONLY, REFER TO UL DESIGN ON A13 SERIES DRAWINGS
54. WATER PROOFING. GRACE PREPRUFE 300R
55. AWNING (BEYOND), SEE DETAILS ON A9-2
56. ELEVATOR CONTROLLER, COORDINATE WITH MANUFACTURER'S REQUIREMENTS
57. OIL INTERCEPT
58. CONCRETE WALKWAY AND VEHICULAR DRIVE
59. 15 MIL. VAPOR BARRIER.
60. LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
61. SOLID SURFACE SILL AS SELECTED BY ARCHITECT/OWNER, COORDINATE WITH SILL HEIGHT
62. 2 1/2" METAL STUD KICKER 24" O.C. MAX
63. SEE DETAIL A3/A8-2
64. SEE DETAIL E4/A8-3
65. FIRE RISER, SEE FIRE PROTECTION DRAWINGS
66. 3 1/2" GALV. METAL STUD 18 GA. 4' - 0" O.C. EACH DIRECTION
67. PROTRUDING OBSTRUCTION TUBE RAIL MATCHING THE GLASS RAIL FINISH AND STILE, SEE DETAILS B7 AND C7/A12-3
68. STL. COLUMNS, SEE STRUCTRAL DRAWINGS
69. ACCESS METAL LADDER TO PIT PROVIDED AND INSTALLED BY ELEVATOR MFG
70. 5/8" GWB ON 7/8" HAT CHANNELS, SEE DETAIL A3/A12-4
71. 1/2" HORIZONTAL REVEAL JOINT. SEE DETAIL C4/A20-2
72. SEE DETAIL A2/12-4 FOR SHAFT LINER FOR 1-HOUR RATING BEHIND PANEL
73. ROOF LADDER ACCESS & SHIPS LADDER, SEE DETAIL E5/A9-1.1
74. LOGO SIGNAGE, SEE ELECTRICAL DRAWINGS
75. REVEAL BEYOND, SEE ELEVATIONS
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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

#	REVISIONS	
No.	Description	Date

Drawing Title:

WALL SECTIONS

Drawing Number:

A11-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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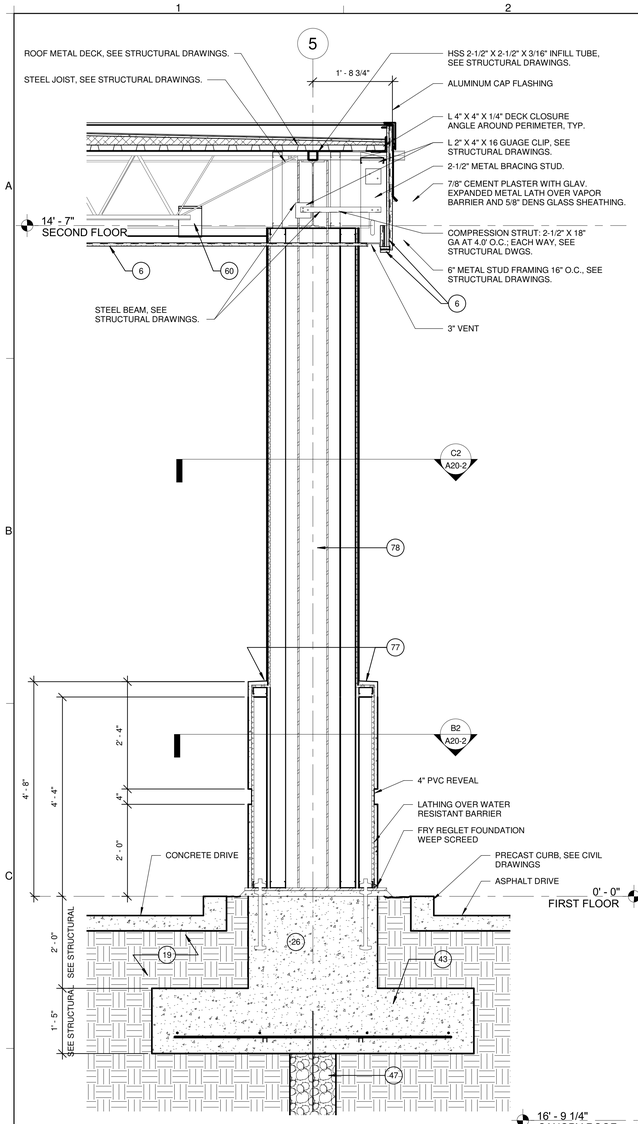
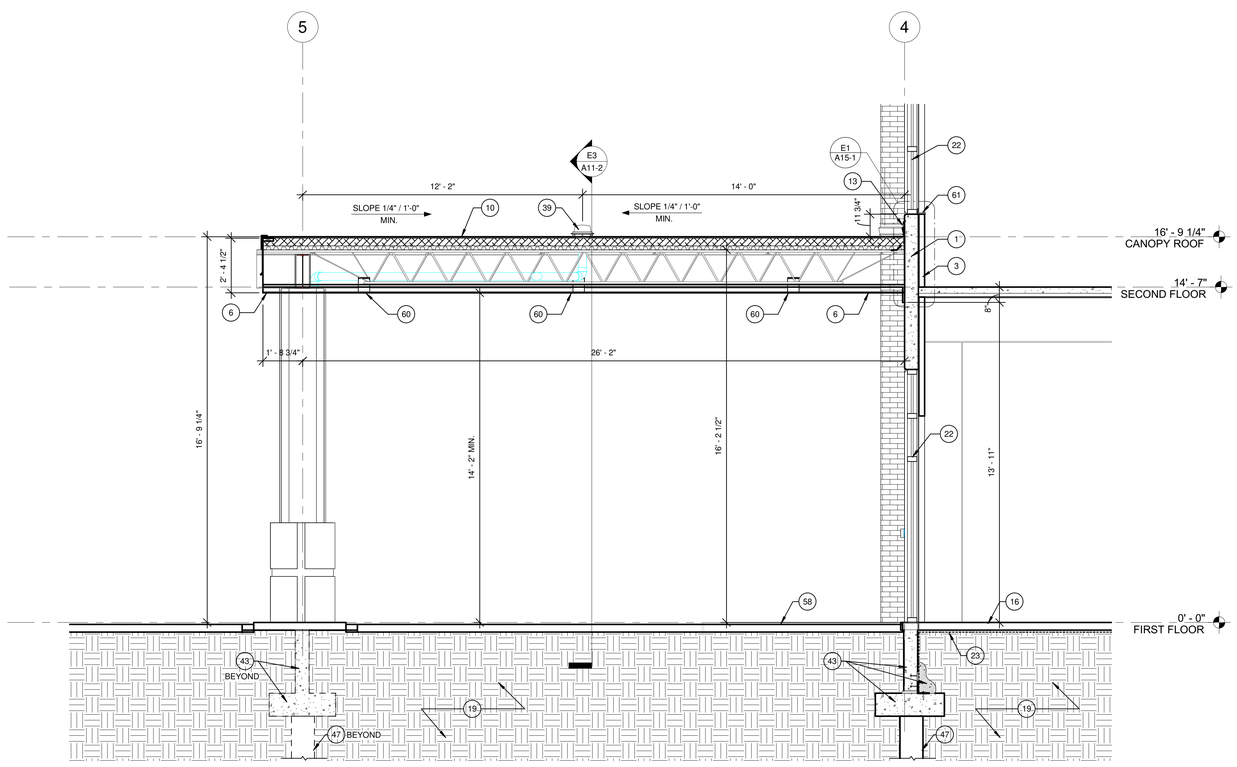
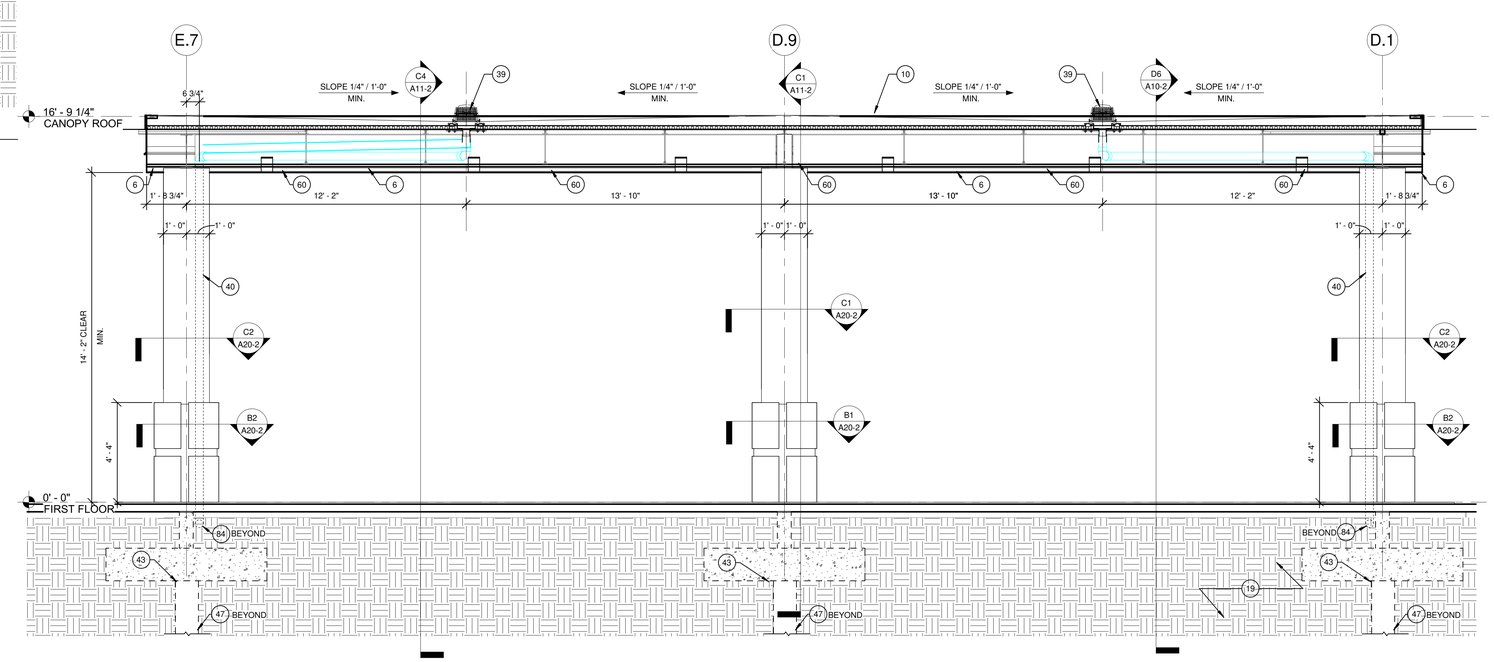


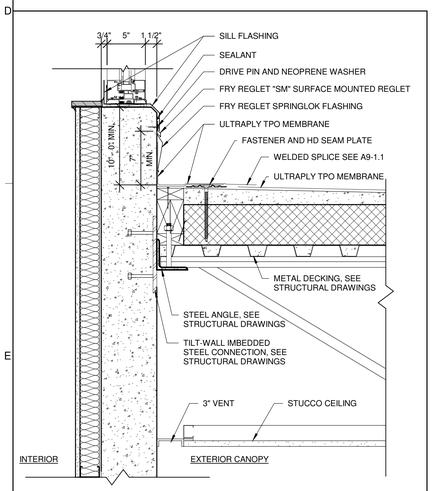
C1 CANOPY COLUMN SECTION
3/4" = 1'-0"



C4 CANOPY_SECTION
3/8" = 1'-0"



C2 CANOPY_SECTION
3/4" = 1'-0"



E1 CANOPY CONNECTION TO TILT-UP
1 1/2" = 1'-0"

E3 CANOPY SECTION
3/8" = 1'-0"

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Seal & Signature:

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

CANOPY SECTIONS

Drawing Number:

A11-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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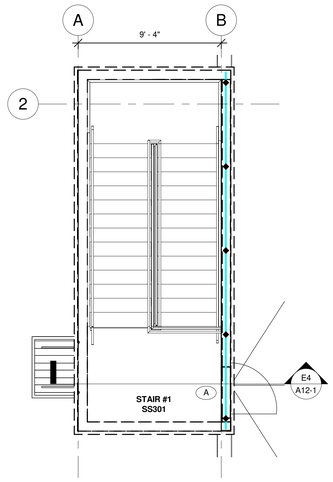
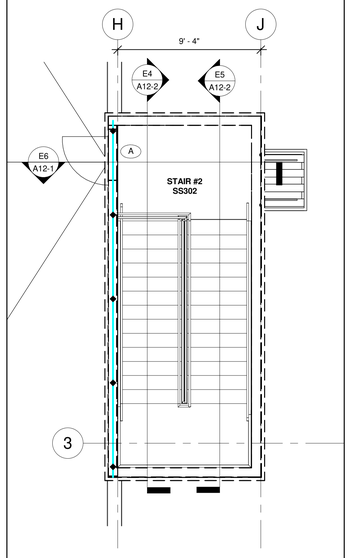
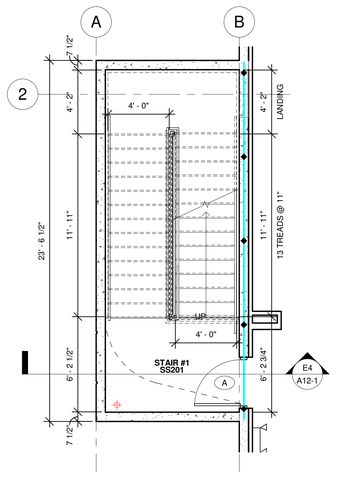


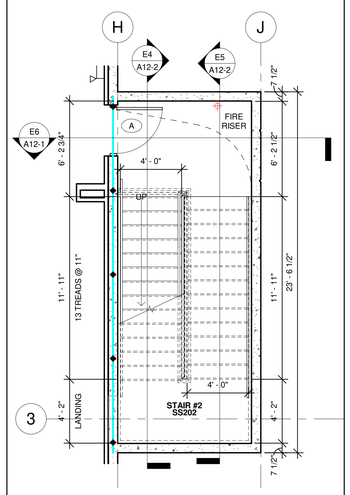
B1 ROOF FLOOR STAIR #1
1/4" = 1'-0"



B3 ROOF FLOOR STAIR#2
1/4" = 1'-0"



C1 SECOND FLOOR STAIR #1
1/4" = 1'-0"



C3 SECOND FLOOR STAIR #2
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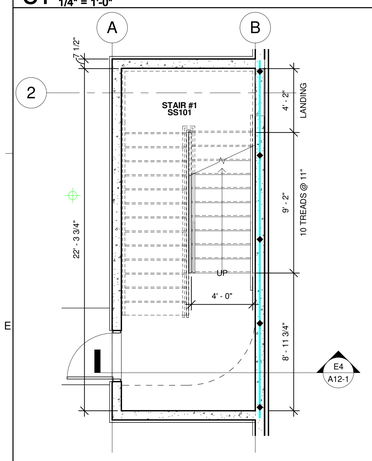

E1 FIRST FLOOR STAIR #1
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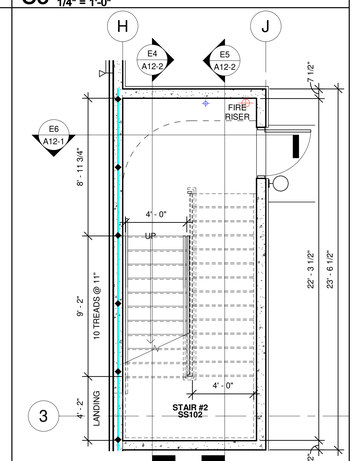
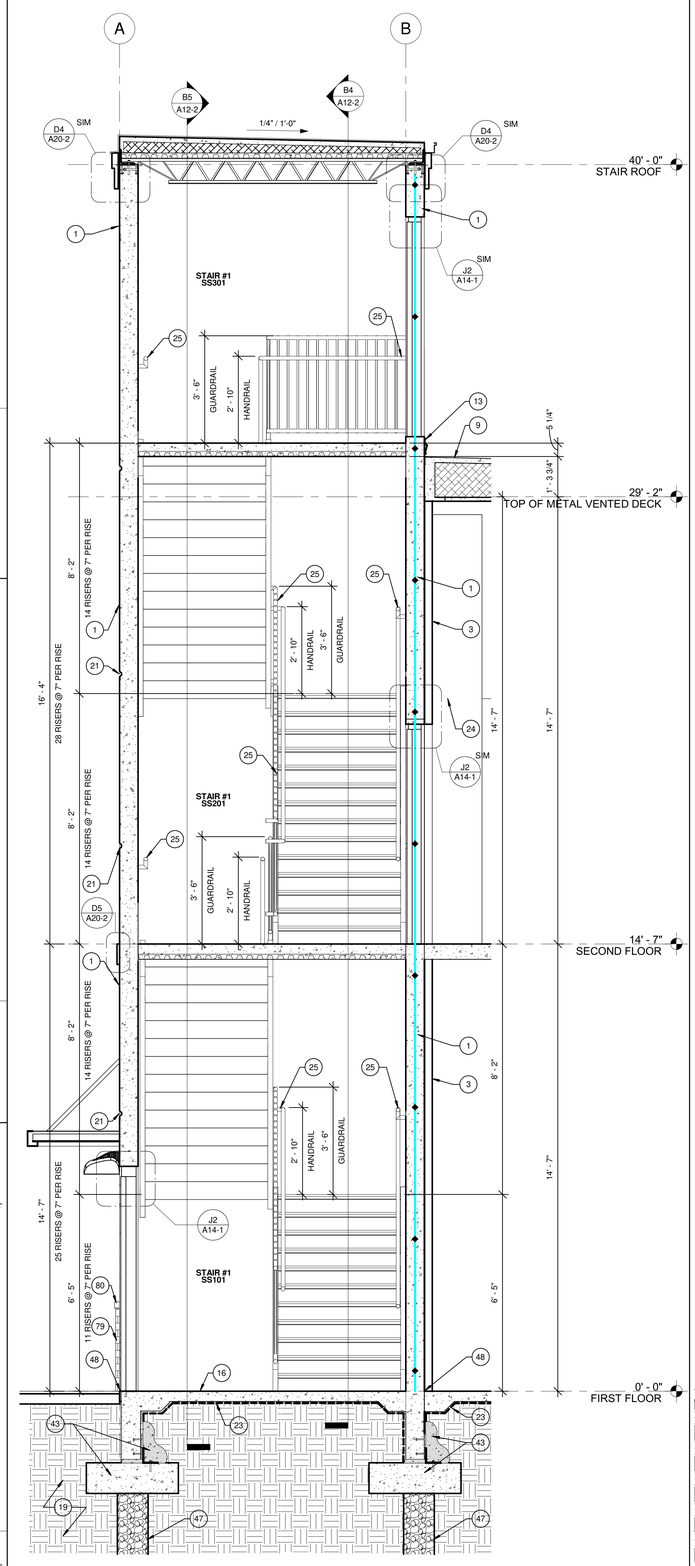
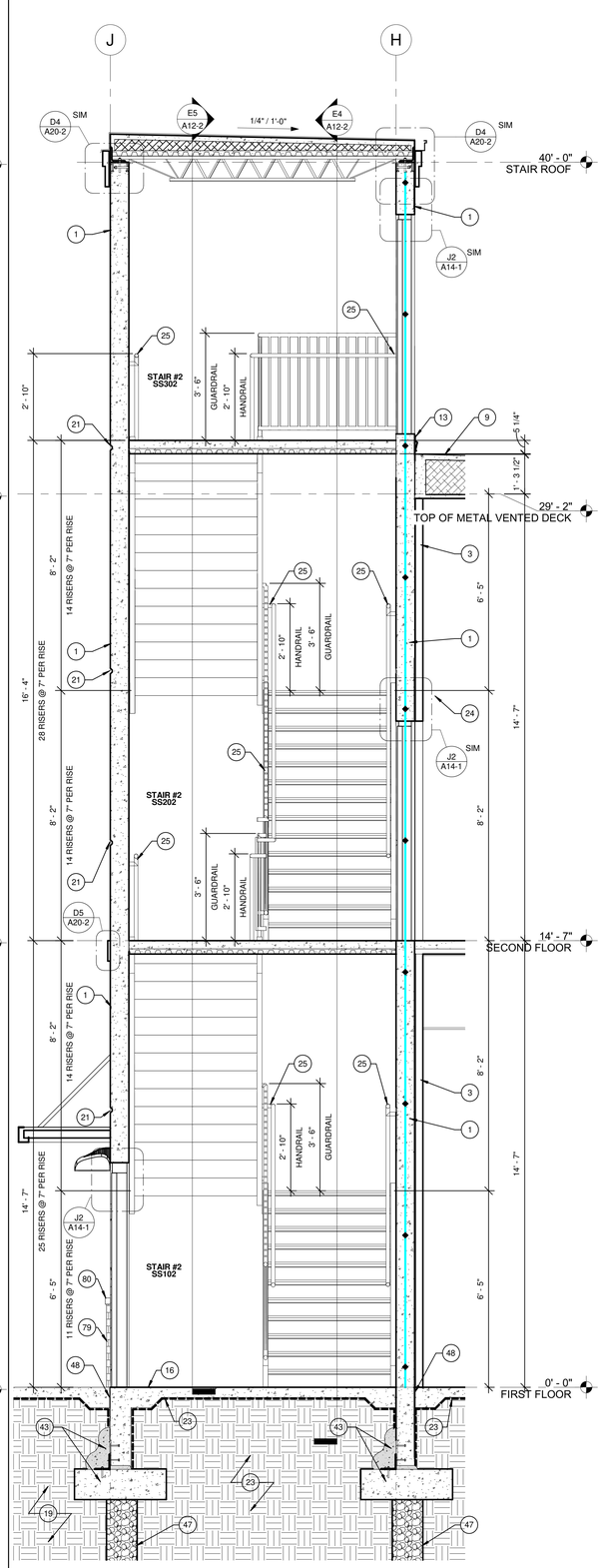


E3 FIRST FLOOR STAIR #2
1/4" = 1'-0"



E4 STAIR #1 SECTION
1/2" = 1'-0"



E6 STAIR #2 SECTION
1/2" = 1'-0"

STAIR PLANS, SECTIONS, DETAILS GENERAL NOTES

1. ALL EXTERIOR GUARDRAILS/HANDRAILS SHALL BE ALUMINUM.
2. ALL INTERIOR GUARDRAILS/HANDRAILS SHALL BE PAINTED STEEL.

SECTION KEY NOTES

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14. NEW ALUMINUM COPING WITH 2 x __ PRESSURE TREATED WOOD NAILER, TYP
15. MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
16. NEW CONCRETE SLAB. SEE STRUCTURAL DRAWINGS
17. 5 1/4" COMPOSITE SYSTEM COMPOSED OF 2" DECK AND 3 1/4" CONCRETE THICKNESS ABOVE, SEE STRUCTURAL DRAWINGS
18. CANT, SEE DETAIL D5/A9-1.1
19. COMPACTED FILL, SEE CIVIL DRAWINGS
20. ENGINEERED METAL PAN STAIR WITH PEA STONE CONCRETE FILL
21. CONCRETE TILT-WALL PANEL REVEAL, SEE ELEVATIONS AND DETAIL A5/A20-1
22. STOREFRONT SYSTEM, SEE DRAWING A15-1
23. VAPOR BARRIER OVER TERMITE TREATED 98% COMPACTED FILL
24. CEILING, SEE A8-1 RCP AND A19-1FINISH SCHEDULE
25. STAIR RAILING, SEE DETAIL C4/A12-3 OR E4/A12-3
26. CONCRETE PEDESTAL, SEE STRUCTURAL DRAWINGS
27. INSTALL SHEET LAYER BREAK METAL TO PREVENT RODENT ENTRY
28. 1/2" THICK TEMPERED GLASS GUARDRAIL, SEE DRAWING A12-3
29. 1 1/2" DIAMETER ALUMINUM HANDRAIL SEE DRAWING A12-3
30. 4" HIGH STAINLESS STEEL CLAD GUARDRAIL SUPPORT
31. 5/8" GWB ON UNDERSIDE OF STAIRS AND LANDINGS
32. WIDE FLANGE BEAM, SEE STRUCTURAL DRAWINGS
33. NEW ELEVATOR DOORS PROVIDED AND INSTALLED BY ELEVATOR MFG
34. ELEVATOR SUMP PIT - SEE STRUCTURAL DRAWINGS, COORDINATE WITH MANUFACTURER'S REQUIREMENTS
35. JOIST, SEE STRUCTURAL DRAWINGS
36. ELEVATOR HOIST BEAM, SEE STRUCTURAL DRAWINGS
37. KEY STYLE WATERSTOP AT BASE OF POURED CONCRETE WALL AROUND ELEVATOR PIT
38. FIRESTOP INTUMESCENT CAULK
39. ROOF DRAIN, SEE PLUMBING DRAWINGS
40. CONCEALED DRAIN, SEE PLUMBING DETAIL
41. UNDERDRAIN, SEE CIVIL DRAWINGS
42. 8" METAL STUD, SEE STRUCTURAL DRAWINGS
43. FOUNDATION, SEE STRUCTURAL DRAWINGS
44. METAL STUD STRUCTURAL BRACING, SEE STRUCTURAL DRAWINGS
45. HSS STEEL TUBING, SEE STRUCTURAL DRAWINGS
46. EXPANSION JOINT
47. STONE COLUMN PILING BEYOND, SEE STRUCT. DRAWINGS
48. 1/2" ISOLATION JOINT
49. STEEL BEAM, SEE STRUCTURAL DRAWINGS
50. CANOPY, SEE STRUCTURAL DRAWINGS
51. TILT-WALL IMBEDDED STEEL CONNECTION, SEE STRUCTURAL DRAWINGS
52. FLASHING
53. SPRAY APPLIED FIRE PROOFING AT TENANT SPACE "A" AND "C" ONLY, REFER TO UL DESIGN ON A13 SERIES DRAWINGS
54. WATER PROOFING. GRACE PREPRUFE 300R
55. AWNING (BEYOND), SEE DETAILS ON A9-2
56. ELEVATOR CONTROLLER, COORDINATE WITH MANUFACTURER'S REQUIREMENTS
57. OIL INTERCEPT
58. CONCRETE WALKWAY AND VEHICULAR DRIVE
59. 15 MIL. VAPOR BARRIER.
60. LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
61. SOLID SURFACE SILL AS SELECTED BY ARCHITECT/OWNER, COORDINATE WITH SILL HEIGHT
62. 2 1/2" METAL STUD KICKER 24" O.C. MAX
63. SEE DETAIL A3/A8-2
64. SEE DETAIL E4/A8-3
65. FIRE RISER, SEE FIRE PROTECTION DRAWINGS
66. 3 1/2" GALV. METAL STUD 18 GA. 4' - 0" O.C. EACH DIRECTION
67. PROTRUDING OBSTRUCTION TUBE RAIL MATCHING THE GLASS RAIL FINISH AND STILE, SEE DETAILS B7 AND C7/A12-3
68. STL. COLUMNS, SEE STRUCTRAL DRAWINGS
69. ACCESS METAL LADDER TO PIT PROVIDED AND INSTALLED BY ELEVATOR MFG
70. 5/8" GWB ON 7/8" HAT CHANNELS, SEE DETAIL A3/A12-4
71. 1/2" HORIZONTAL REVEAL JOINT. SEE DETAIL C4/A20-2
72. SEE DETAIL A2/12-4 FOR SHAFT LINER FOR 1-HOUR RATING BEHIND PANEL
73. ROOF LADDER ACCESS & SHIPS LADDER, SEE DETAIL E5/A9-1.1
74. LOGO SIGNAGE, SEE ELECTRICAL DRAWINGS
75. REVEAL BEYOND, SEE ELEVATIONS
76. FIRE RISER
77. 0.25/12 SLOPE
78. W8X31 STEEL COLUMN, SEE STRUCTURAL DRAWINGS
79. CULTURED STONE ON VAPOR BARRIER
80. APPLIED SILL/CAP ABOVE STONE VENEER
81. 3/4" ISOLATION JOINT
82. 8" CONCRETE TILT-WALL PANEL AT PIT, SEE STRUCTURAL DRAWINGS
83. VERTICAL EPS / EIFS ELEMENT BEYOND, SEE E6/A20-2
84. UNDERGROUND PIPE CONNECTION, SEE CIVIL DRAWINGS
85. COLUMN BELOW, SEE STRUCTURAL DRAWINGS FOR LANDING / STAIR COLUMN SUPPORT
86. UNDERSIDE OF CURVED SWOOP
87. WINDOW TO BE FRAMED OVER AT SPANDREL GLASS LOCATIONS

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Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

#	No.	Description	Date

Drawing Title:

STAIR PLANS, SECTIONS, DETAILS

Drawing Number:

A12-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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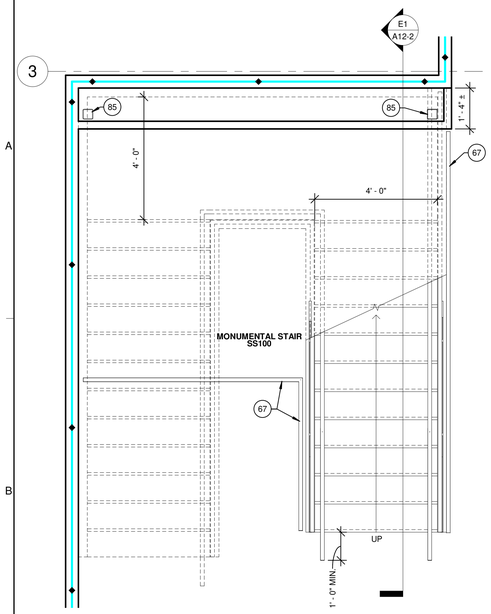
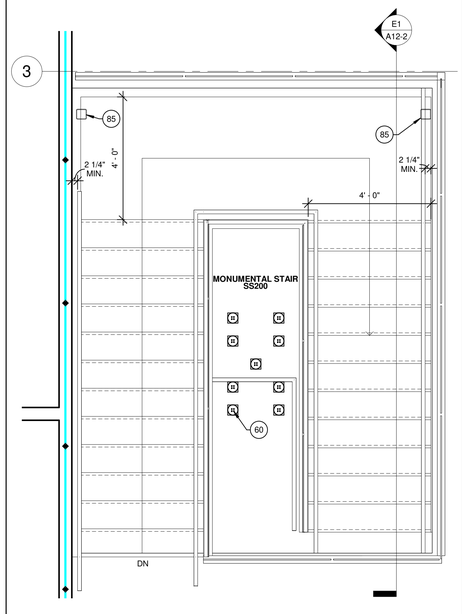
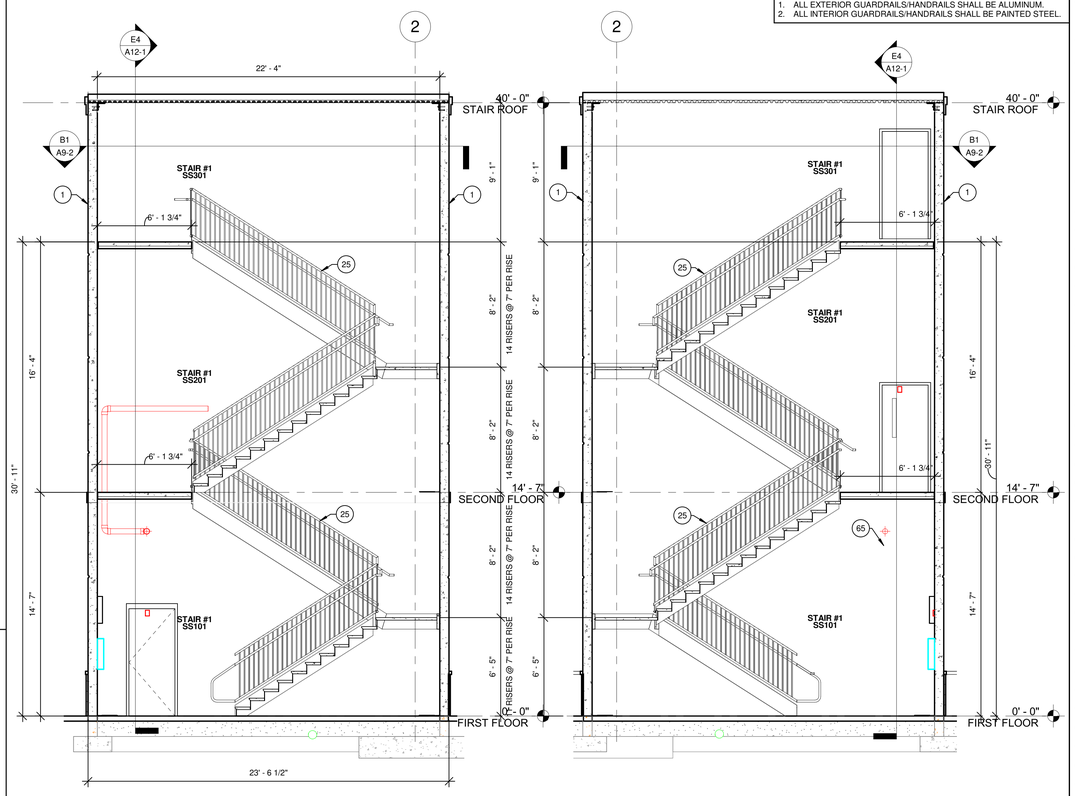


B1 FIRST FLOOR MONUMENTAL STAIR
1/2" = 1'-0"

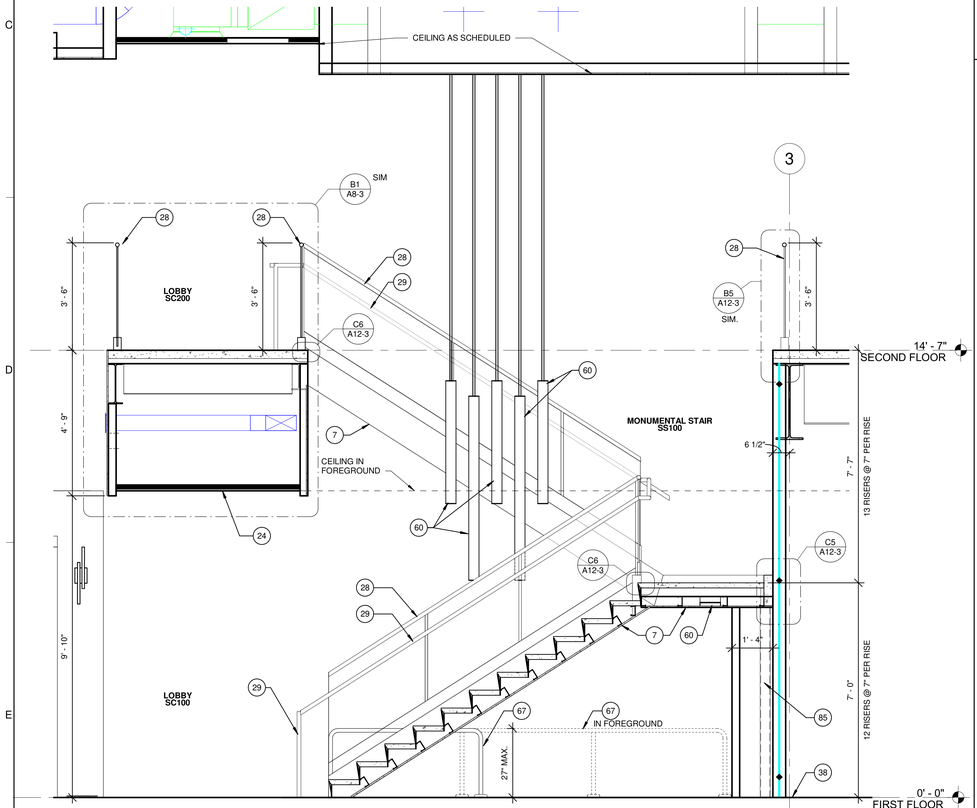


B3 SECOND FLOOR MONUMENTAL STAIR
1/2" = 1'-0"



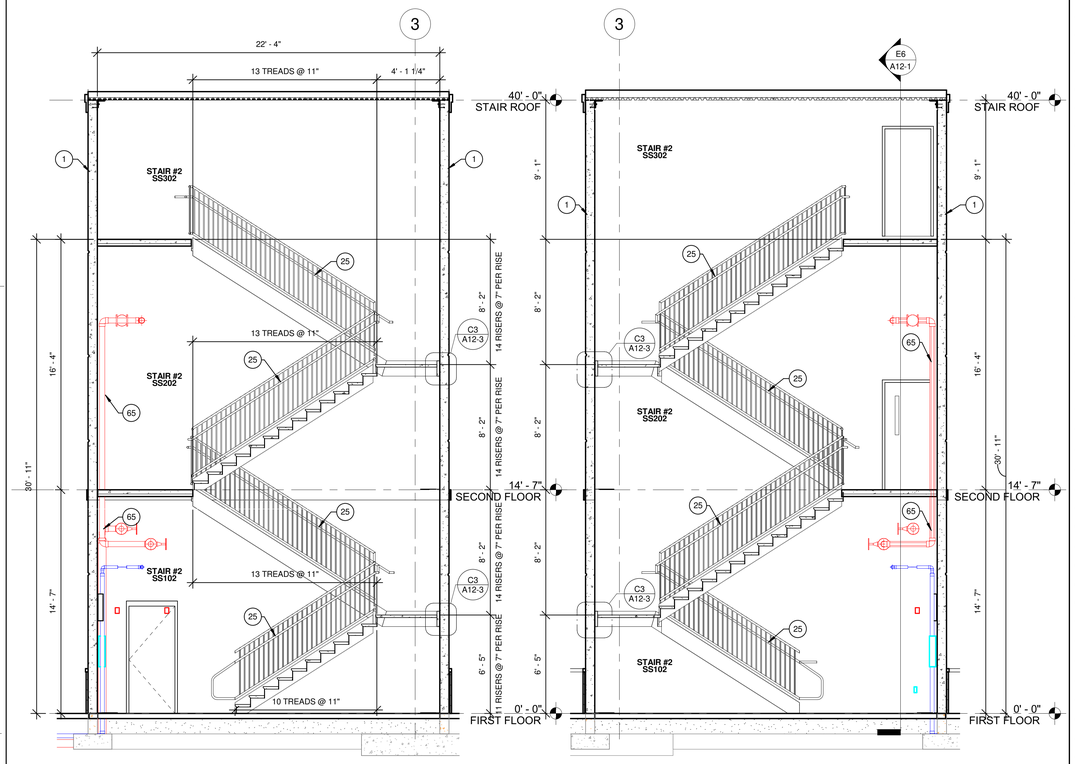
B4 STAIR #1 SECTION
1/4" = 1'-0"

B5 STAIR #1 SECTION
1/4" = 1'-0"



NOTE: STAIR RAILING BASIS OF DESIGN: CRL GRS LAMINATED GLASS RAILING SYSTEM WITH HRS HANDRAIL

E1 STAIR #1 SECTION
1/2" = 1'-0"



E4 STAIR #2 SECTION
1/4" = 1'-0"

E5 STAIR #2 SECTION
1/4" = 1'-0"

STAIR PLANS, SECTIONS, DETAILS GENERAL NOTES

1. ALL EXTERIOR GUARDRAILS/HANDRAILS SHALL BE ALUMINUM.
2. ALL INTERIOR GUARDRAILS/HANDRAILS SHALL BE PAINTED STEEL.

SECTION KEY NOTES

1. 7 1/4" CONCRETE TILT-WALL PANEL, SEE STRUCTURAL DRAWINGS
2. APPLIED CULTURED STONE VENEER ON DRAIN-N-DRY LATHE OVER WATER RESISTENT BARRIER, BASIS OF DESIGN: CULTURED STONE PRO-FIT LEDGESTONE, COLOR TREK - 1 3/4" THICK
2A. BASIS OF DESIGN: CULTURED STONE CAST FIT, COLOR: CARBON, 2 1/2" X 18" X 36"
3. INSTALL 5/8" MOLD RESISTANT G.W.B. ON 2 1/2" METAL STUDS @ 24" O.C. WITH 2 1/2" UNFACED SEMI-RIGID INSULATION TO DECK ABOVE.
6. CEMENT PLASTER (STUCCO) INSTALLED PER SPECIFICATION SECTION 09 24 23.10
7. 5/8" GWB ON UNDERSIDE OF STAIRS AND LANDINGS
8. RUBBERIZED ASPHALT SHEET AIR/VAPOR BARRIER, SEE SPECIFICATION SECTION 09 24 23.10
9. SLOPED MEMBRANE ROOFING ON LIGHT WEIGHT INSULATING CONCRETE ON POLYSTYRENE INSULATION BOARDS OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS
10. MEMBRANE ROOFING ON LIGHT WEIGHT CONCRETE OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS (CANOPY)
11. SINGLE PLY MEMBRANE TPO
12. 2" LIGHT WEIGHT CONCRETE ON 22 GA. STEEL DECK
13. NEW ALUMINUM COUNTER-FLASHING
14. NEW ALUMINUM COPING WITH 2 x __ PRESSURE TREATED WOOD NAILER, TYP
15. MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
16. NEW CONCRETE SLAB. SEE STRUCTURAL DRAWINGS
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19. COMPACTED FILL, SEE CIVIL DRAWINGS
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23. VAPOR BARRIER OVER TERMITE TREATED 98% COMPACTED FILL
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Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

#	REVISIONS	
No.	Description	Date

Drawing Title:

STAIR PLANS, SECTIONS, DETAILS

Drawing Number:

A12-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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STAIR PLANS, SECTIONS, DETAILS GENERAL NOTES

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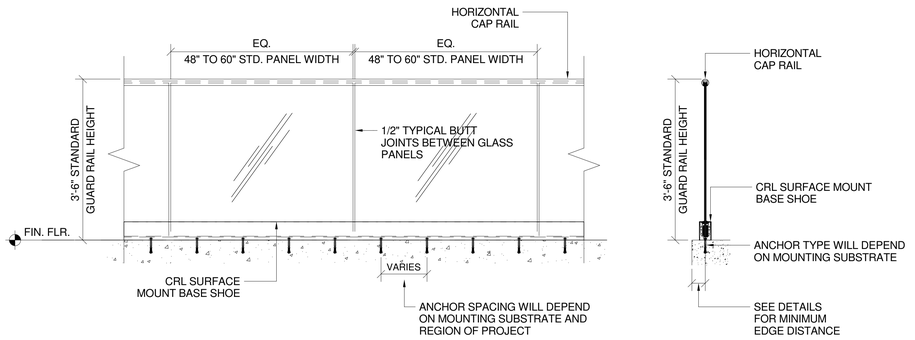
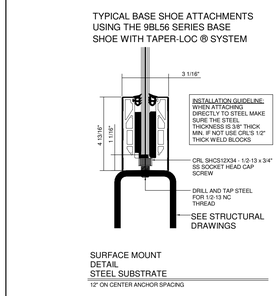


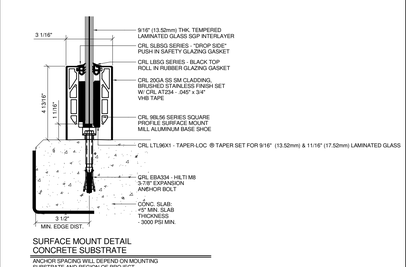
TYPICAL GRS LAMINATED GLASS RAILING ELEVATION VIEW - SURFACE MOUNT

BASIS OF DESIGN: C.R. LAURENCE DRY-GLAZED TAPER-LOC GLASS RAILING SYSTEM

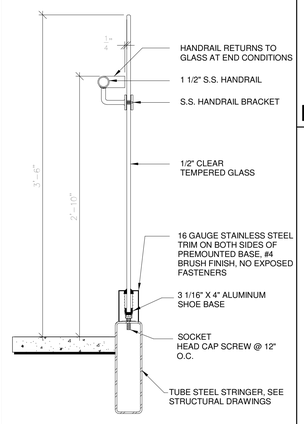
B1 CRL GLASS RAILING ELEVATION
3/4" = 1'-0"



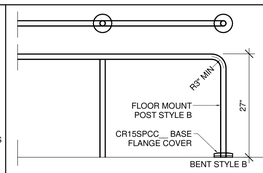
B4 BASE SHOE WITH TAPER-LOC ®
3" = 1'-0"



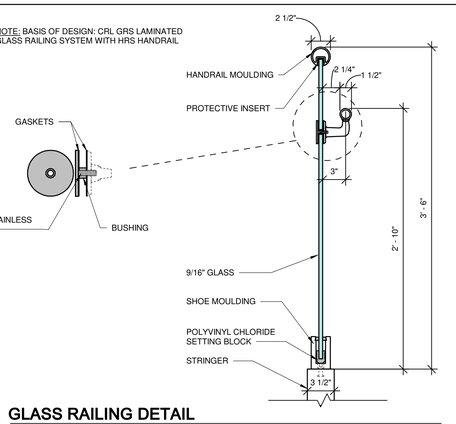
B5 BASE SHOE AT CONCRETE SUBSTRATE
3" = 1'-0"



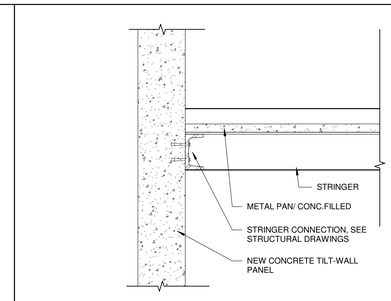
B6 GLASS STAIR RAILING
1 1/2" = 1'-0"



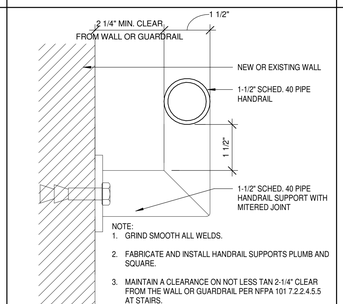
B7 HRS HAND RAILING SYSTEM
3/4" = 1'-0"



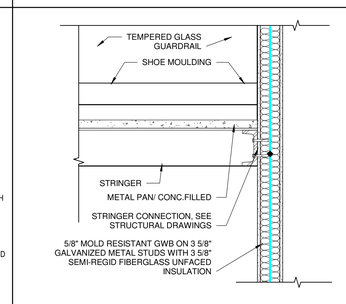
C1 GLASS RAILING DETAIL
1 1/2" = 1'-0"



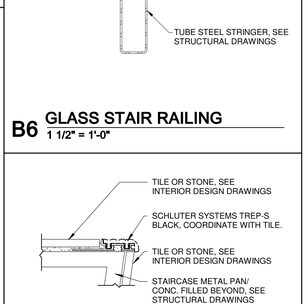
C3 LANDING CONNECTION DETAIL @ STAIR#1 AND #2
1" = 1'-0"



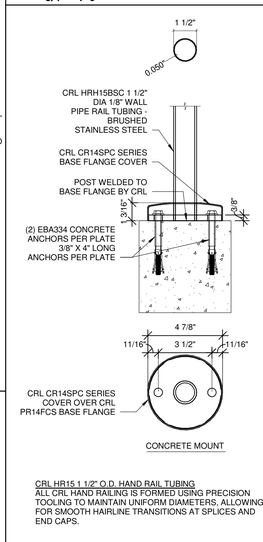
C4 HANDRAIL SUPPORT @ WALL
6" = 1'-0"



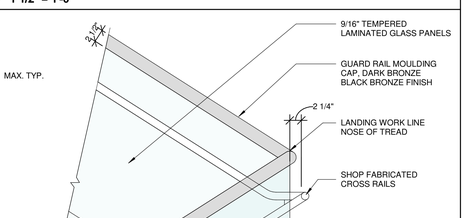
C5 LANDING DETAIL @ FIRE WALL
1" = 1'-0"



C6 SCHLUTER DETAIL
6" = 1'-0"

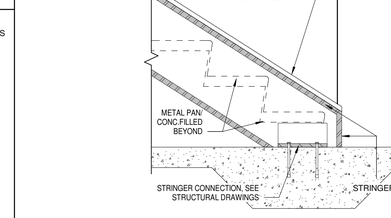


C7 HRS HAND RAILING MOUNT
3" = 1'-0"

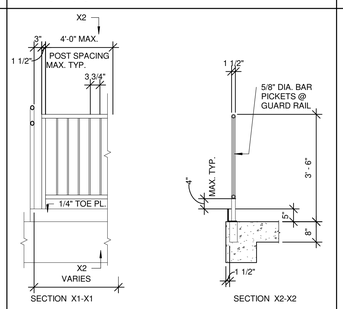


E1 LANDING RAIL DETAIL
1" = 1'-0"

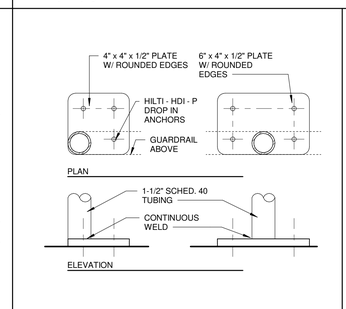
NOTE: BASIS OF DESIGN: CRL GRS LAMINATED GLASS RAILING SYSTEM WITH HRS HANDRAIL



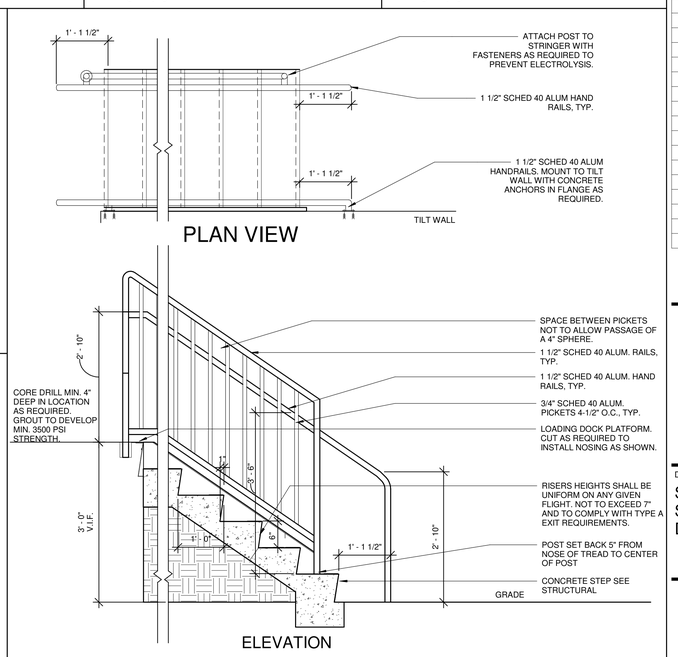
D3 STRINGER CONNECTION
1" = 1'-0"



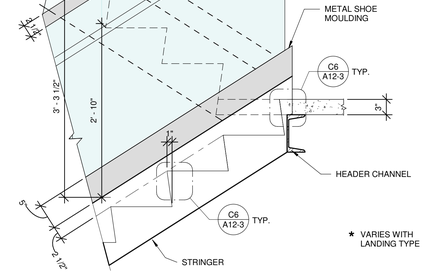
D4 GUARD RAIL DETAIL
1/2"=1'-0" A12-002 (121114)



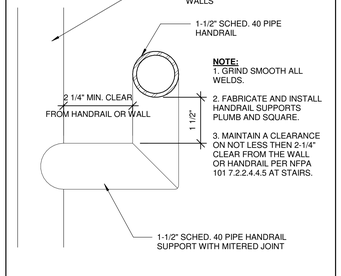
D5 CANE GUARDRAIL DETAIL
3" = 1'-0"



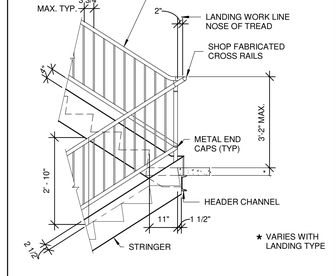
E6 CONCRETE STAIR DETAIL
3/4"=1'-0" A12-005 (011323)



E3 CONC. STAIR GUARDRAIL DETAIL
1/2" = 1'-0"



E4 HANDRAIL SUPPORT
6"=1'-0" A12-001 (032520)



E5 LANDING RAIL DETAIL
1/2"=1'-0" A12-003 (121114)

Project Architect:

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AR0013034
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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

# REVISIONS		
No.	Description	Date

Drawing Title:

STAIR, LADDERS, SECTIONS, DETAILS

Drawing Number:

A12-3

Drawn by: Author
Checked by: Checker
Scale: As indicated

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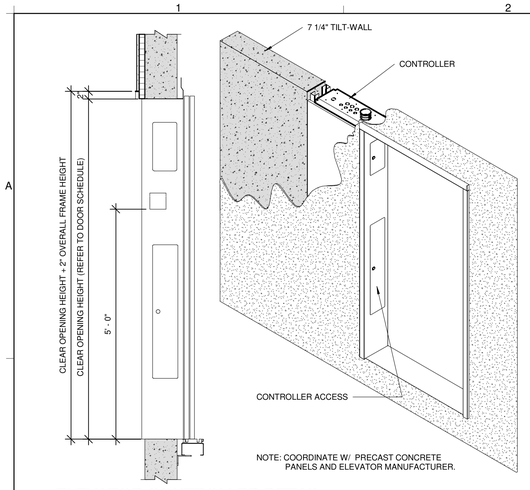
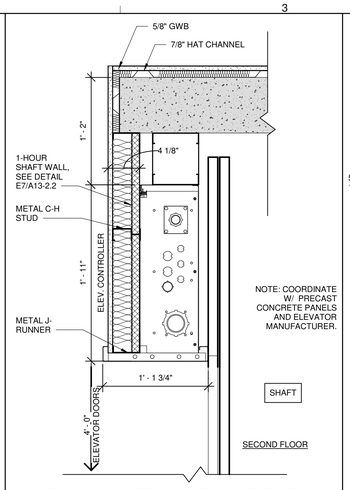
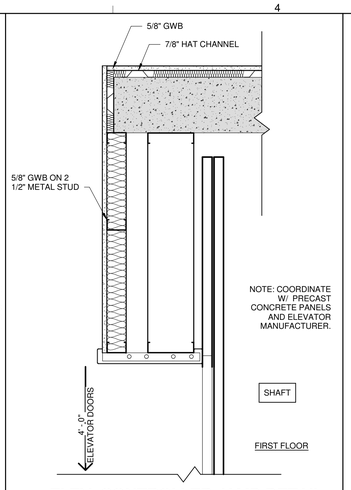


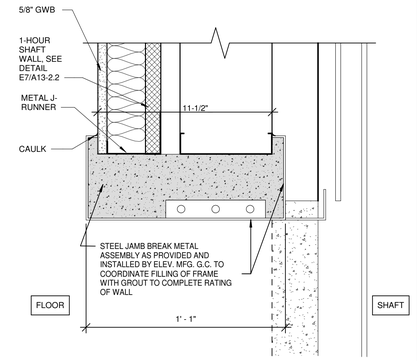
A1 ELEVATOR CONTROLLER DETAIL
3/4" = 1'-0"



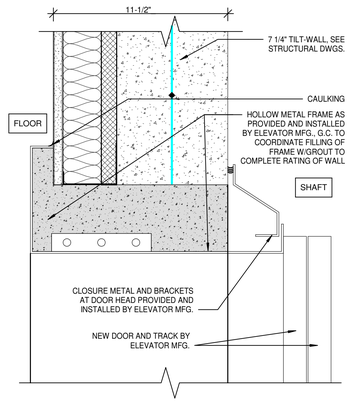
A2 ELEV. CONTROLLER JAMB DETAIL
1 1/2" = 1'-0"



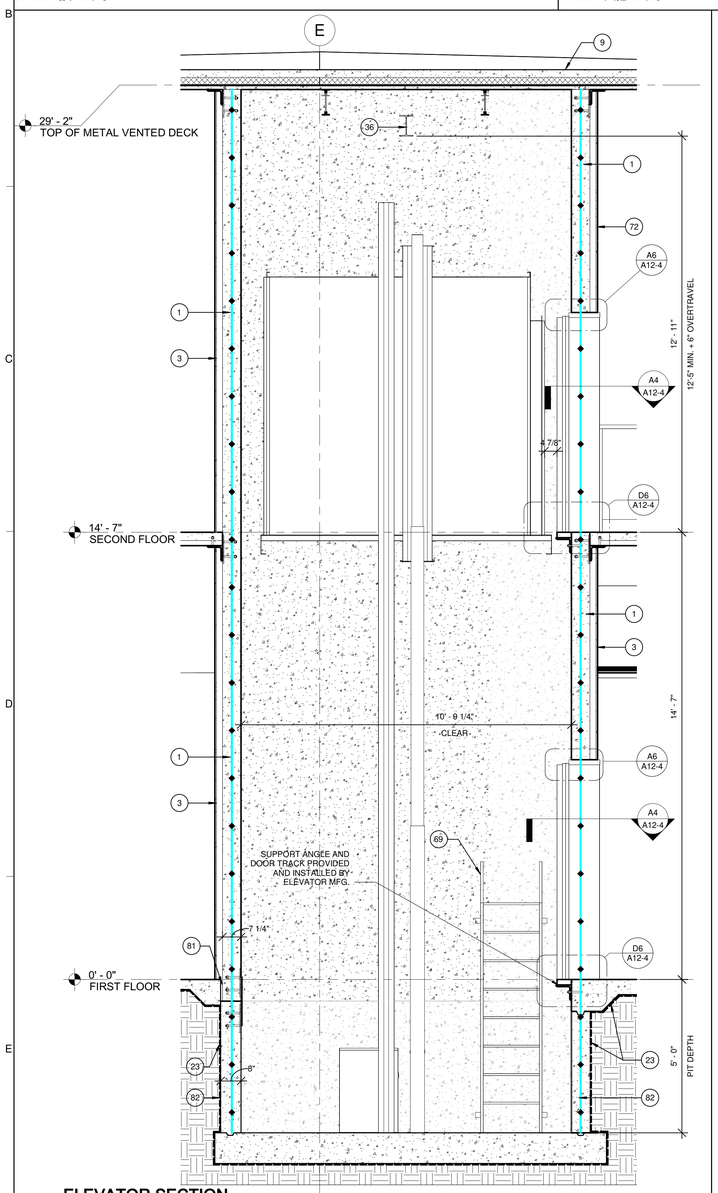
A3 ELEV. CONTROLLER JAMB DETAIL
1 1/2" = 1'-0"



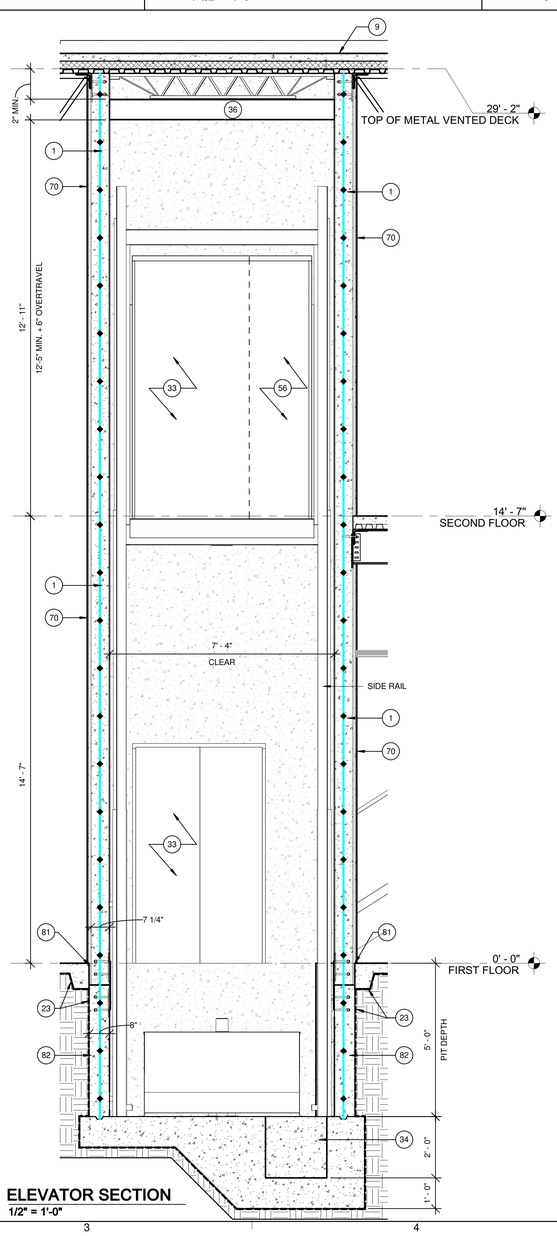
A4 ELEVATOR JAMB DETAIL-1
3" = 1'-0"



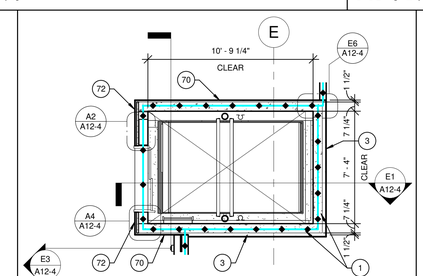
A6 ELEVATOR HEAD DETAIL
3" = 1'-0"



E1 ELEVATOR SECTION
1/2" = 1'-0"

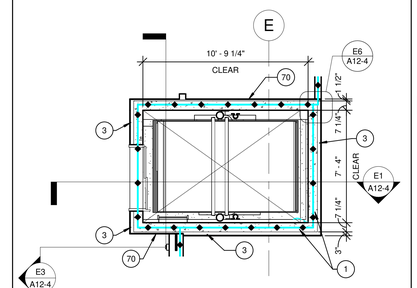


E3 ELEVATOR SECTION
1/2" = 1'-0"



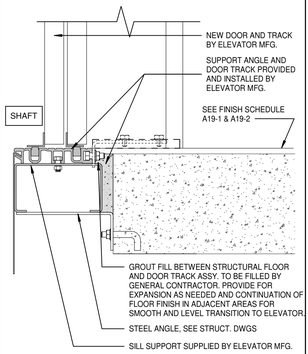
NOTE: SEE A19-2 FOR FINISH

C5 ELEVATOR SECOND FLOOR PLAN
1/4" = 1'-0"

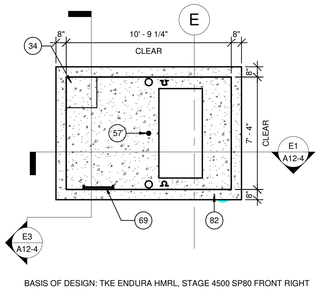


NOTE: SEE A19-1 FOR FINISH

D5 ELEVATOR FIRST FLOOR PLAN
1/4" = 1'-0"

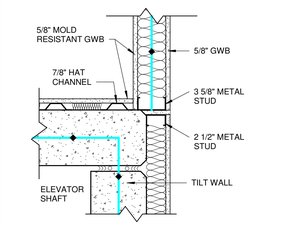


D6 ELEVATOR DETAIL
3" = 1'-0"



BASIS OF DESIGN: TKE ENDURA HMRL, STAGE 4500 SP80 FRONT RIGHT

E5 FIRST FLOOR ELEVATOR PIT PLAN
1/4" = 1'-0"



E6 FIRE WALL TO TILT WALL
1 1/2" = 1'-0"

SECTION KEY NOTES

1. 7 1/4" CONCRETE TILT-WALL PANEL, SEE STRUCTURAL DRAWINGS
2. APPLIED CULTURED STONE VENEER ON DRAIN-N-DRY LATHE OVER WATER RESISTENT BARRIER, BASIS OF DESIGN: CULTURED STONE PRO-FIT LEDGESTONE, COLOR TREK - 1 3/4" THICK
2A. BASIS OF DESIGN: CULTURED STONE CAST FIT, COLOR: CARBON, 2 1/2" X 18" X 36"
3. INSTALL 5/8" MOLD RESISTANT G.W.B. ON 2 1/2" METAL STUDS @ 24" O.C. WITH 2 1/2" UNFACED SEMI-RIGID INSULATION TO DECK ABOVE.
6. CEMENT PLASTER (STUCCO) INSTALLED PER SPECIFICATION SECTION 09 24 23.10
7. 5/8" GWB ON UNDERSIDE OF STAIRS AND LANDINGS
8. RUBBERIZED ASPHALT SHEET AIR/VAPOR BARRIER, SEE SPECIFICATION SECTION 09 24 23.10
9. SLOPED MEMBRANE ROOFING ON LIGHT WEIGHT INSULATING CONCRETE ON POLYSTYRENE INSULATION BOARDS OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS
10. MEMBRANE ROOFING ON LIGHT WEIGHT CONCRETE OVER VENTED METAL DECK, SEE STRUCTURAL DRAWINGS (CANOPY)
11. SINGLE PLY MEMBRANE TPO
12. 2" LIGHT WEIGHT CONCRETE ON 22 GA. STEEL DECK
13. NEW ALUMINUM COUNTER-FLASHING
14. NEW ALUMINUM COPING WITH 2 x __ PRESSURE TREATED WOOD NAILER, TYP
15. MECHANICAL EQUIPMENT, SEE MECHANICAL DRAWINGS
16. NEW CONCRETE SLAB. SEE STRUCTURAL DRAWINGS
17. 5 1/4" COMPOSITE SYSTEM COMPOSED OF 2" DECK AND 3 1/4" CONCRETE THICKNESS ABOVE, SEE STRUCTURAL DRAWINGS
18. CANT, SEE DETAIL D5/A9-1.1
19. COMPACTED FILL, SEE CIVIL DRAWINGS
20. ENGINEERED METAL PAN STAIR WITH PEA STONE CONCRETE FILL
21. CONCRETE TILT-WALL PANEL REVEAL, SEE ELEVATIONS AND DETAIL A5/A20-1
22. STOREFRONT SYSTEM, SEE DRAWING A15-1
23. VAPOR BARRIER OVER TERMITE TREATED 98% COMPACTED FILL
24. CEILING, SEE A8-1 RCP AND A19-1FINISH SCHEDULE
25. STAIR RAILING, SEE DETAIL C4/A12-3 OR E4/A12-3
26. CONCRETE PEDESTAL, SEE STRUCTURAL DRAWINGS
27. INSTALL SHEET LAYER BREAK METAL TO PREVENT RODENT ENTRY
28. 1/2" THICK TEMPERED GLASS GUARDRAIL, SEE DRAWING A12-3
29. 1 1/2" DIAMETER ALUMINUM HANDRAIL SEE DRAWING A12-3
30. 4" HIGH STAINLESS STEEL CLAD GUARDRAIL SUPPORT
31. 5/8" GWB ON UNDERSIDE OF STAIRS AND LANDINGS
32. WIDE FLANGE BEAM, SEE STRUCTURAL DRAWINGS
33. NEW ELEVATOR DOORS PROVIDED AND INSTALLED BY ELEVATOR MFG
34. ELEVATOR SUMP PIT - SEE STRUCTURAL DRAWINGS, COORDINATE WITH MANUFACTURER'S REQUIREMENTS
35. JOIST, SEE STRUCTURAL DRAWINGS
36. ELEVATOR HOIST BEAM, SEE STRUCTURAL DRAWINGS
37. KEY STYLE WATERSTOP AT BASE OF POURED CONCRETE WALL AROUND ELEVATOR PIT
38. FIRESTOP INTUMESCENT CAULK
39. ROOF DRAIN, SEE PLUMBING DRAWINGS
40. CONCEALED DRAIN, SEE PLUMBING DETAIL
41. UNDERDRAIN, SEE CIVIL DRAWINGS
42. 8" METAL STUD, SEE STRUCTURAL DRAWINGS
43. FOUNDATION, SEE STRUCTURAL DRAWINGS
44. METAL STUD STRUCTURAL BRACING, SEE STRUCTURAL DRAWINGS
45. HSS STEEL TUBING, SEE STRUCTURAL DRAWINGS
46. EXPANSION JOINT
47. STONE COLUMN PILING BEYOND, SEE STRUCT. DRAWINGS
48. 1/2" ISOLATION JOINT
49. STEEL BEAM, SEE STRUCTURAL DRAWINGS
50. CANOPY, SEE STRUCTURAL DRAWINGS
51. TILT-WALL IMBEDDED STEEL CONNECTION, SEE STRUCTURAL DRAWINGS
52. FLASHING
53. SPRAY APPLIED FIRE PROOFING AT TENANT SPACE "A" AND "C" ONLY, REFER TO UL DESIGN ON A13 SERIES DRAWINGS
54. WATER PROOFING. GRACE PREPRUFE 300R
55. AWNING (BEYOND), SEE DETAILS ON A9-2
56. ELEVATOR CONTROLLER, COORDINATE WITH MANUFACTURER'S REQUIREMENTS
57. OIL INTERCEPT
58. CONCRETE WALKWAY AND VEHICULAR DRIVE
59. 15 MIL. VAPOR BARRIER.
60. LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS
61. SOLID SURFACE SILL AS SELECTED BY ARCHITECT/OWNER, COORDINATE WITH SILL HEIGHT
62. 2 1/2" METAL STUD KICKER 24" O.C. MAX
63. SEE DETAIL A3/A8-2
64. SEE DETAIL E4/A8-3
65. FIRE RISER, SEE FIRE PROTECTION DRAWINGS
66. 3 1/2" GALV. METAL STUD 18 GA. 4' - 0" O.C. EACH DIRECTION
67. PROTRUDING OBSTRUCTION TUBE RAIL MATCHING THE GLASS RAIL FINISH AND STILE, SEE DETAILS B7 AND C7/A12-3
68. STL. COLUMNS, SEE STRUCTRAL DRAWINGS
69. ACCESS METAL LADDER TO PIT PROVIDED AND INSTALLED BY ELEVATOR MFG
70. 5/8" GWB ON 7/8" HAT CHANNELS, SEE DETAIL A3/A12-4
71. 1/2" HORIZONTAL REVEAL JOINT. SEE DETAIL C4/A20-2
72. SEE DETAIL A2/12-4 FOR SHAFT LINER FOR 1-HOUR RATING BEHIND PANEL
73. ROOF LADDER ACCESS & SHIPS LADDER, SEE DETAIL E5/A9-1.1
74. LOGO SIGNAGE, SEE ELECTRICAL DRAWINGS
75. REVEAL BEYOND, SEE ELEVATIONS
76. FIRE RISER
77. 0.25/12 SLOPE
78. W8X31 STEEL COLUMN, SEE STRUCTURAL DRAWINGS
79. CULTURED STONE ON VAPOR BARRIER
80. APPLIED SILL/CAP ABOVE STONE VENEER
81. 3/4" ISOLATION JOINT
82. 8" CONCRETE TILT-WALL PANEL AT PIT, SEE STRUCTURAL DRAWINGS
83. VERTICAL EPS / EIFS ELEMENT BEYOND, SEE E6/A20-2
84. UNDERGROUND PIPE CONNECTION, SEE CIVIL DRAWINGS
85. COLUMN BELOW, SEE STRUCTURAL DRAWINGS FOR LANDING / STAIR COLUMN SUPPORT
86. UNDERSIDE OF CURVED SWOOP
87. WINDOW TO BE FRAMED OVER AT SPANDREL GLASS LOCATIONS

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELEVATOR PLAN, SECTIONS AND DETAILS

Drawing Number:

A12-4

Drawn by: Author
Checked by: Checker
Scale: As indicated

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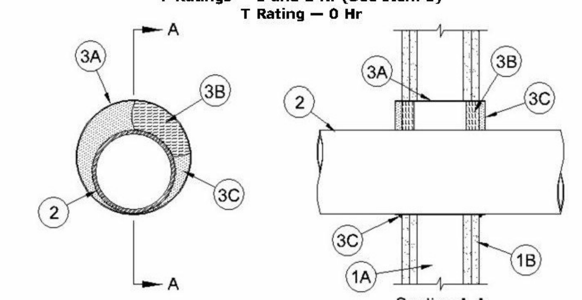
System No. W-L-1003

February 14, 2008

F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr



1. **Wall Assembly —** The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

   A. **Studs —** Wall framing may consist of either wood studs 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 3-1/2 in. (89 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick, 4 ft (1.2 m) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400 or V400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 15 in. (381 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through-Penetrant — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The space between pipes, conduits or tubing and the steel sleeve (Item 3A) shall be min of 0 in. (point contact) to max 2-3/8 in. (60 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 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

   B. Iron Pipe — Nom 12 in. (305 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.

3. Firestop System — Installed symmetrically on both sides of wall assembly. The details of the firestop system shall be as follows.

   A. **Steel Sleeve —** Cylindrical sleeve fabricated from min 0.019 in. thick (0.48 mm) galv sheet steel and having a min 2 in. (51 mm) lap along the longitudinal seam. Length of steel sleeve to be equal to thickness of wall plus 1 to 4 in. (25 to 102 mm) such that, when installed, the ends of the sleeve will project approx 1/2 to 2 in. (13 to 51 mm) beyond the surface of the wall on both sides of the wall assembly.

   A1. Sleeve installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the openings and releasing the coil to let it uncoil against the circular cutouts in the gypsum board layers.

   B. Packing Material — Min 1 in. (25 mm) thickness of mineral wool batt insulation firmly packed into steel sleeve on both sides of the wall assembly as permanent forms. Packing material to be recessed min 1/2 in. (13 mm) from end of steel sleeve (flush with or recessed into gypsum board surface) on both sides of wall assembly.

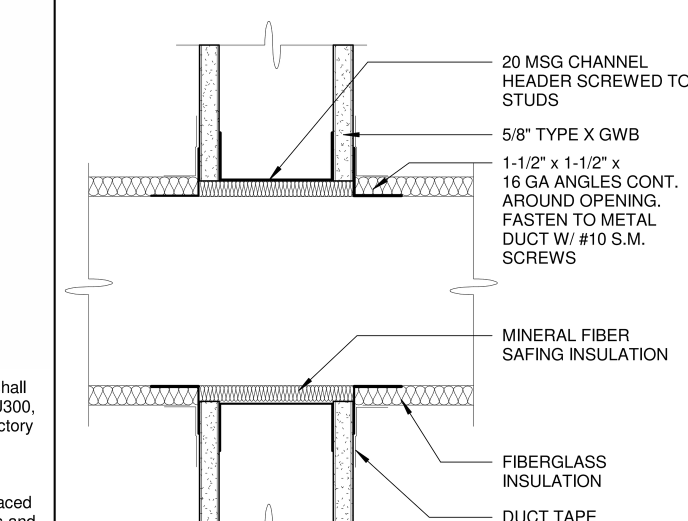
   B1. Packing Material — (Not shown) — As an alternate to Item B, nom 1 in. (25 mm) thick polyethylene backer rod may be used. The backer rod is to be recessed within the steel sleeve a min of 1 in. (25 mm) from each surface of wall.

   C. Fill, Void or Cavity Materials* — Caulk or Sealant — When mineral wool batt insulation is used, caulk or sealant applied to fill the steel sleeve to a min depth of 1/2 in. (13 mm) on both sides of wall assembly. When backer rod is used, a min thickness of 1 in. (25 mm) of caulk or sealant is required flush with both sides of wall. A nom 1/4 in. (6 mm) diam continuous bead of caulk or sealant shall be applied around the circumference of the steel sleeve at its egress from the gypsum board layers on both sides of the wall assembly.

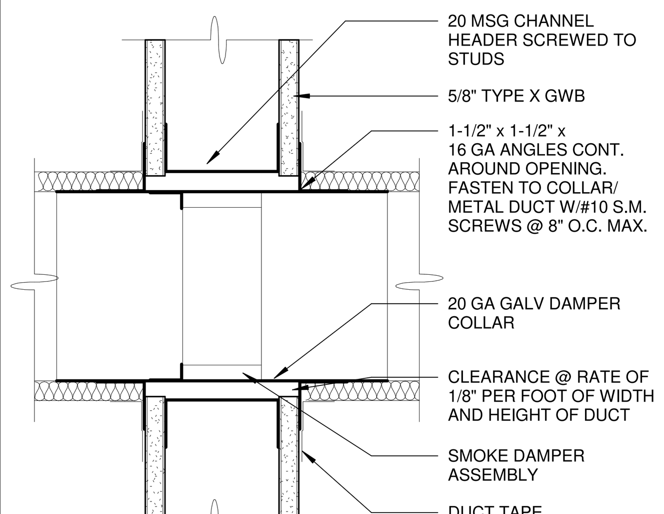
3M COMPANY — CP 25WB+, IC 15WB+ or FB-3000 WT

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2008-02-14, © 2015 UL LLC

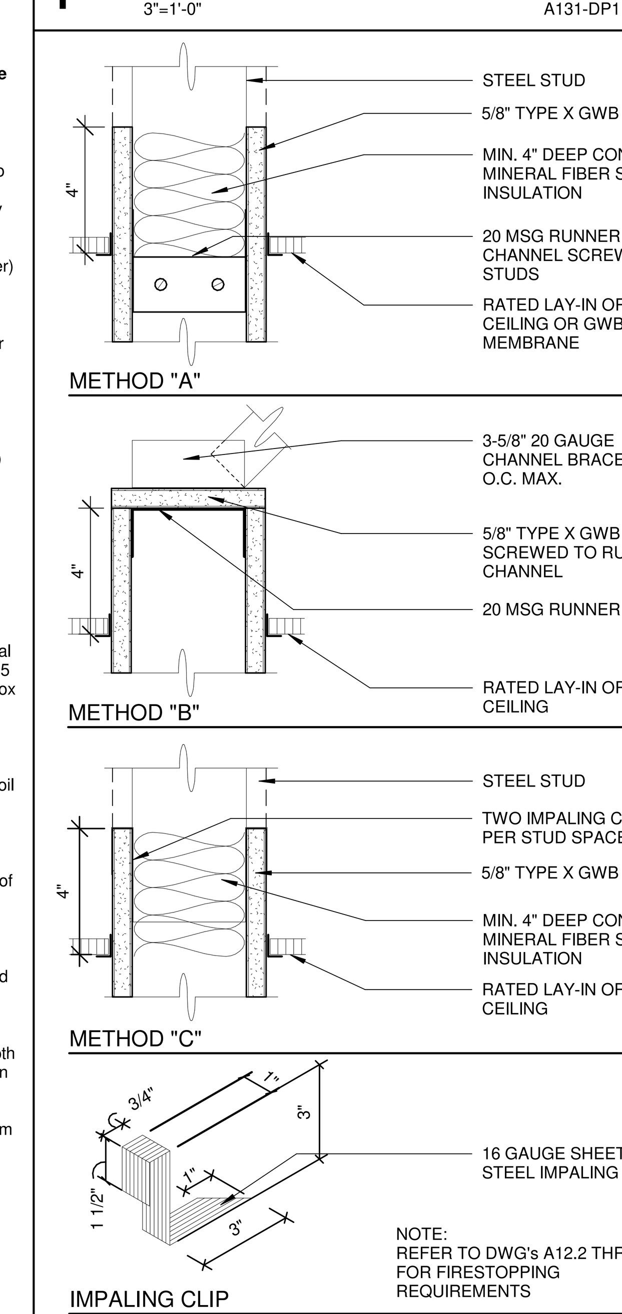
FP4 UNFP UL W-L-1003
FIRESTOP PIPE PENETRATION
A13-FP4 (080515)



DP 1 TYPICAL DUCT PENETRATION RATED WALL, NO DAMPER (607.1.3)
3"=1'-0" A131-DP1 (121114)

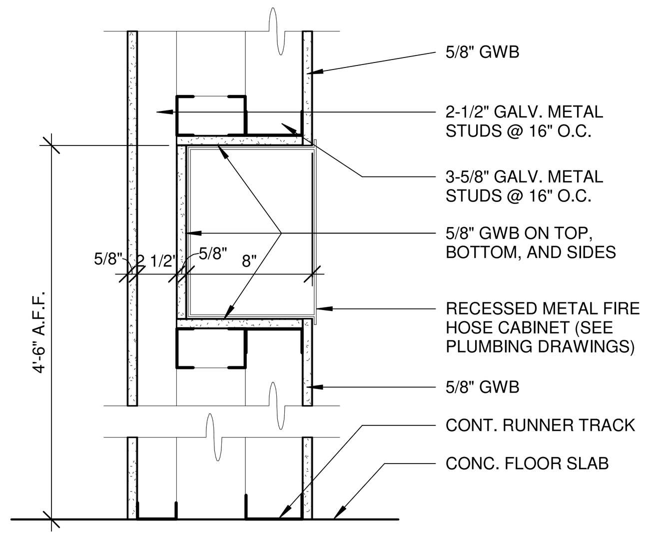


DP 2 TYPICAL DUCT PENETRATION RATED WALL, W/ DAMPER (607.1)
3"=1'-0" A131-DP2 (121014)

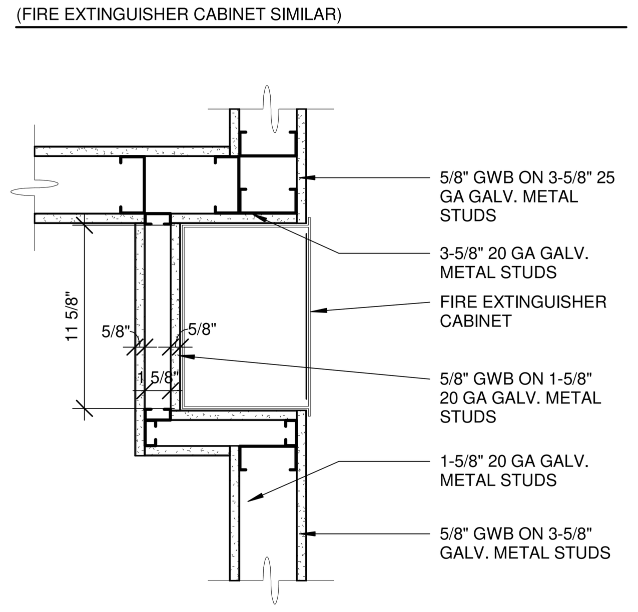


NOTE:
REFER TO DWG's A12.2 THRU A12.5 FOR FIRESTOPPING REQUIREMENTS

FS FIRESTOP DETAILS
3"=1'-0" A131-FS (121114)



FIRE HOSE CABINET SECTION DETAIL
(FIRE EXTINGUISHER CABINET SIMILAR)



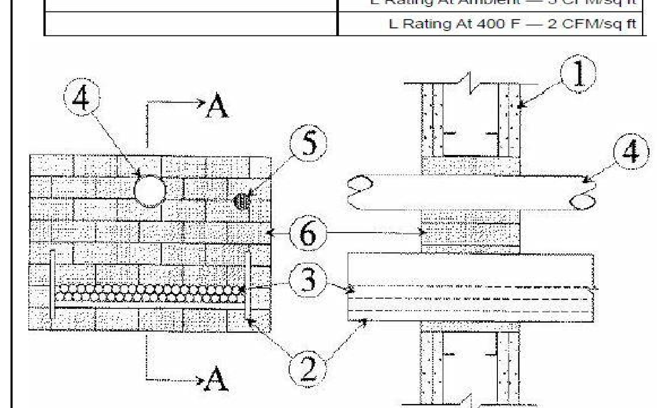
FIRE EXTINGUISHER CABINET PLAN DETAIL
(FIRE HOSE CABINET SIMILAR)

C3 FEC/FHC DETAIL
1 1/2"=1'-0" A131-D4 (121222)

System No. W-L-8013

July 12, 2016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1)	F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — 5 CFM/sq ft	FH Ratings — 1 and 2 Hr (See Item 1)
L Rating At 400 F — 2 CFM/sq ft	FTH Rating — 0 Hr
	L Rating At Ambient — 5 CFM/sq ft
	L Rating At 400 F — 2 CFM/sq ft



System tested with a pressure differential of 2.5 Pa between the exposed and the unexposed surfaces with the higher pressure on the exposed side.

1. **Wall Assembly** - The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and 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 or steel channel studs. Wood studs to consist of nom 2 in. (51 mm) by 4 in. (102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. Additional studs installed to completely frame the opening.

B. **Gypsum Board*** - 5/8 in. (16 mm) thick, 4 ft (1219 mm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max area of opening is 352 sq in. (2271 sq cm) with max dimension of 22 in. (559 mm) wide.

The hourly F and FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

2. **Cable Tray*** - Max 18 in. (457 mm) wide by max 6 in. (152 mm) deep open-ladder or solid-back cable tray with channel-shaped side rails formed of 0.065 in. (1.65 mm) thick aluminum or 0.060 in. (1.52 mm) thick steel and with 1-1/2 in. (38 mm) wide by 1 in. (25 mm) channel shape rungs spaced 9 in. (229 mm) OC or a 0.029 in. (0.74 mm) thick steel solid back, respectively. One cable tray to be installed in the opening. The max annular space between the cable tray and the periphery of the opening shall be min 1 in. (25 mm) to max 7 in. (178 mm) Cable tray to be rigidly supported on both sides of floor or wall assembly.

3. **Cables** - Aggregate cross-sectional area of cables in cable tray to be max 30 percent of the cross-sectional area of the cable tray. Any combination of the following types and sizes of copper conductor cables may be used:

A. 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and PVC jacket.

B. 100 pair - No. 24 AWG cable with PVC insulation and jacket.

C. 1/C, 750 kcmil (or smaller) with PVC insulation and jacket.

4. **Through-Penetrants** - One or more pipe or tube to be installed within the opening. The total number of through-penetrants is dependent on the size of the opening and types and sizes of the penetrants. Any combination of the penetrants described below may be used provided that the following parameters relative to the annular spaces and the spacings between the pipes are maintained. The space between the pipe or tube and the periphery of the opening shall be min 1-1/2 in. (38 mm) to max 9-1/4 in. (235 mm). Pipe or tube to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of non-metallic or metallic pipes, or tubes may be used:

A. **Polyvinyl Chloride (PVC) Pipe** - Max 3 in. (76 mm) diam Schedule 40 solid core PVC pipe (or smaller) for use in closed (process or supply) or vented (drain, waste or vent) piping system.

B. **Steel Pipe** - Nom 6 in. (152 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.

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

D. **Copper Pipe** - Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

E. **Copper Tube** - Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tube.

4A. **Pipe Covering** - (Not Shown) - Nom 1-1/2 in. (38 mm) thick hollow cylindrical heavy density (min 3.5 pcf) (56kg/m3) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See **Pipe and Equipment Covering and Materials** (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 may be used.

5. **Cables** - Max 1-1/2 in. (38 mm) diam tight bundle of cables installed within the opening and rigidly supported on both surfaces of wall. The space between the cables and periphery of the opening shall range from 1- 3/16 in. (30.2 mm) min to a max of 1-1/2 in. (38 mm). Any combination of the following types and sizes of cables may be used:

A. 7/C No. 12 AWG with polyvinyl chloride (PVC) insulation and jacket.

B. 25 pair - No. 24 AWG cable with PVC insulation and jacket.

C. Type R GU/59 coaxial cable with PVC outer jacket.

D. 24 fiber optic cable with PVC sub unit and outer jacket.

6. **Firestop System** – The firestop system shall consist of the following:

A. **Fill, Void or Cavity Material*** - Fire Blocks For walls incorporating max 3-5/8 in. (92 mm) steel studs or max 2 (51 mm) by 4 in. (102 mm) wood studs, fire block installed with 5 in. (127 mm) dimension projecting through and centered in opening. For walls constructed of larger steel or wood studs, fire block installed with long dimension passing through and centered in opening. Blocks may or may not be cut flush with both surfaces of wall. When multiple layers of gypsum board are used, blocks may be recessed 1/2 in. (13 mm) from surface of wall. Blocks to be firmly packed in opening. Either one or a combination of the block types specified below may be used.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - CFS-BL Firestop Block

B. **Fill, Void or Cavity Material* - Sealant or Putty** - Fill material to be forced into interstices of cables, between cables and cable trays, around each penetrant and where obvious voids are observed to max extent possible on both surfaces of the penetration.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-One Sealant, FS-ONE MAX Intumescent Sealant, CP 618 Putty Stick, CP 660 Firestop Foam or CP620 Fire Foam

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

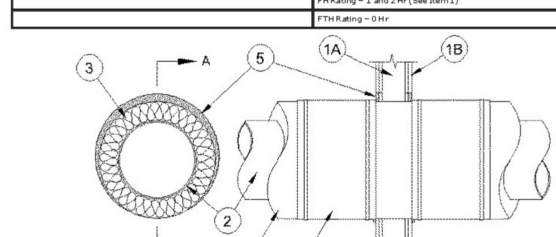
Last Updated on 2016-07-12

GP 1 SINGLE PIPE OR CONDUIT PENETRATION - RATED WALL
1"=1'-0" A131-GP1 (102119)

System No. W-L-5223

December 21, 2017

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating – 1 and 2 Hr (See Item 1)	F Rating – 1 and 2 Hr (See Item 1)
T Rating – 0 Hr	FT Rating – 0 Hr
	FH Rating – 1 and 2 Hr (See Item 1)
	FTH Rating – 0 Hr



1. Wall Assembly - The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.

A. Studs - Wall framing shall consist of either wood studs 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. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* - One or two layers of nom 5/8 in. (16 mm) thick gypsum board as specified in the individual Wall and Partition Design. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls and 20 in. (508 mm) for steel stud walls.

The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.

1. Through Penetrants - One metallic pipe or tubing to be installed within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:

A. Steel Pipe - Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

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

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

1. Pipe Covering Materials* - Cellular Glass Insulation - Nom 1-1/2 in. or 3 in. (38 to 76 mm) thick cellular glass pipe insulation sized to the outside diam of the pipe or tube and installed in accordance with the manufacturer's instructions. The annular space between the insulated pipe and the periphery of the opening shall be min 0 in. (point contact) to max 3/4 in. (19 mm).

2. Metal Jacket (Optional) - Min 12 in. (305 mm) long jacket formed of min 0.010 in. (0.25 mm) thick steel or aluminum sheet cut to wrap tightly around the pipe insulation with a min 2 in. (51 mm) lap. Jacket secured with min 1/2 in. (13 mm) wide stainless steel hose clamps or bands located within 2 in. (51 mm) of each end of the jacket and spaced a max of 10 in. (254 mm) OC. Jacket to be installed with abutting surface of sealant (Item 5) on both surfaces of wall. Metal jacket to be used in addition to any other jacketing material which may be required or desired on the pipe insulation.

3. Void or Cavity Material* - Sealant - Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point contact location, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe covering/gypsum board interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-ONE MAX Intumescent Sealant

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2017-12-21

GP 3 TYPICAL PIPE PENETRATION UL SYSTEM NO. W-L-5223
1 1/2"=1'-0" A131-GP3 (051818)

Wall-opening Protective Materials

See General Information for Wall- opening Protective Materials

3M COMPANY 3M FIRE PROTECTION PRODUCTS R9700
3M CENTER
ST PAUL, MN 55144 USA

Type MPP+ moldable putty pads for use with max 4-11/16 by 4-11/16 by 2-1/8 in. deep flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4-11/16 by 4-11/16 by 2 1/8 in. deep flush device UL Listed Metallic Outlet Boxes installed with steel or plastic cover plates for use in 1 hr or 2 hr fire rated gypsum board wall assemblies framed with min 5-1/2 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Metallic outlet boxes to be provided with steel attachment brackets which offset box min 1/4 in. from stud. Putty pad to be affixed to the back and all four sides of the box. Boxes may be installed back-to-back within the stud cavity. When back-to-back boxes are interconnected, a ball of putty is to be installed to plug the open end of each electrical metallic tube or conduit within the outlet boxes.

Type MPP+ moldable putty pads for use with max 4 by 4 by 2-1/8 in. deep flush device UL Listed Metallic Outlet Boxes installed with plastic cover plates for use in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 14 by 4 by 2-1/2 in. deep flush device UL Listed Metallic Outlet Boxes installed with steel cover plates for use in 1 or 2 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide steel studs and constructed as specified in the individual U400 or V400 Series Wall and Partition Designs in the fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 14 by 4-1/2 by 2-1/2 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made of PVC and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates, for use in 1 or 2 hr rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4 by 3-1/4 by 3-3/4 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Thomas & Betts Corp., made of polycarbonate, Type 234 or made of phenolic, Type 1052 and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates. For use in 1 hr fire rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood studs and constructed as specified in the individual U300 series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4 by 3-3/4 by 3 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Carlon Electrical Products, made of PVC and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance category in the Fire Resistance Directory. Boxes installed with plastic cover plates, for use in 1 hr rated gypsum board wall assemblies framed with min 3-1/2 in. wide wood studs and constructed as specified in the individual U300 Series Wall and Partition Designs in the Fire Resistance Directory.

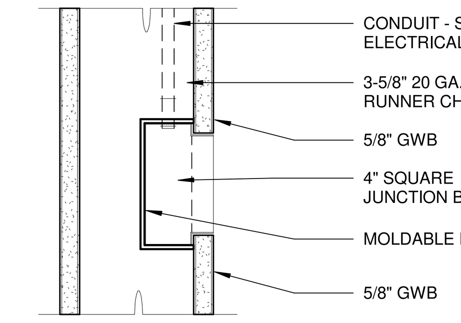
Type MPP+ moldable putty pads for use with max 4 by 3-1/4 by 3-3/4 in. deep UL Listed Nonmetallic Outlet Boxes manufactured by Thomas & Betts Corp., made of phenolic, Type 2002-738-C and bearing a 2 hr rating under the "Outlet Boxes and Fittings Classified for Fire Resistance" category in the Fire Resistance Directory. Boxes installed with steel cover plates. For use in 2 hr rated gypsum board wall assemblies framed with min 3-1/2 in. wide steel studs and constructed as specified in the individual U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory.

Type MPP+ moldable putty pads for use with max 4 by 4 by 1-1/2 in. deep flush device UL Listed Metallic Outlet Boxes installed with plastic cover plates for use in 1 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. wide steel studs and constructed as specified in the individual U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Boxes may be installed back-to-back within the stud cavity.

Type MPP+ moldable putty pads for use with max 5 by 5 by 2 7/8 in. deep flush device UL Listed Metallic Outlet Boxes or UL Listed Communications-Circuit Accessories manufactured by Randl Industries Inc for use in 1 hr or 2 hr fire rated gypsum board wall assemblies framed with min 3-5/8 in. wide wood or steel studs and constructed as specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the Fire Resistance Directory. Metallic outlet boxes to be provided with UL Listed Signal Appliance with steel cover plate manufactured by Cooper Wheelock Inc.

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 unless otherwise noted) including nailing tabs and to completely seal against the stud within the stud cavity. Multiple moldable putty pads may be installed on an outlet box to attain the required minimum thickness of putty material. Additional putty material used to seal around each conduit and/or cable fitting on the exterior of each box. A min 1/10 in. thickness of putty material is required on the exterior surfaces of flush device boxes in 1 and 2 hr fire rated Wall and Partition Designs. When the moldable putty pad outlet box protective material is used on boxes on both sides of wall as directed, the horizontal separation between outlet boxes on opposite sides of the wall may be less than 24 in. provided that the outlet boxes are not installed back to back, except as noted.

Last Updated on 2010-07-23, © 2015 UL LLC



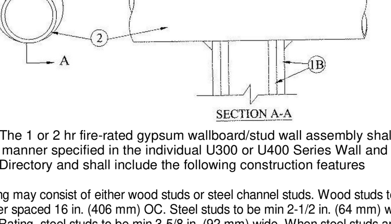
WALL OPENING PROTECTIVE MATERIAL PER UL DESIGN # R9700.

EN2 UL R9700
FIRESTOP ENCLOSURE
A13-EN2 (051716)

System No. W-L-1054

January 21, 2020

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings —1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating (Without Movement) at Ambient — Less Than 1 CFM/sq ft	FH Ratings —1 and 2 Hr (See Items 1 and 3)
L Rating (Without Movement) at 400°F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
M Rating (Movement) — See Table 1	FTH Rating — 0 Hr
	L Rating at Ambient — Less Than 5.1 L/s/m²
	L Rating at 204°C — Less Than 5.1 L/s/m²



1. **Wall Assembly** - The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and 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 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. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. For M Rating, steel studs to be min 3-5/8 in. (92 mm) wide. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.

B. **Gypsum Board*** - 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board 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 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly. The M Rating is applicable only to 1 hr rated walls.

2. **Through-Penetrants** - One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. 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 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. **Iron Pipe** - Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.

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

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.

3. **Fill, Void or Cavity Material*** - **Sealant** - Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE MAX Intumescent Sealant

The M Rating for the firestop system is dependent on the variables as noted in the Table 1 below.

Table 1

Movement Direction	Penetrant Item	Nominal Penetrant Diameter	Annular Space	Movement	Sealant Depth	F Rating	L Rating with Movement
Y	2A, 2C*	2 in.	Max 2-1/4 in.	5%	5/8 in.	1 hr	N/A
Z	2A, 2C*	2 in.	2-1/4 in.	0.25 in.	5/8 in.	1 hr	N/A

*** Rigid steel conduit**

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

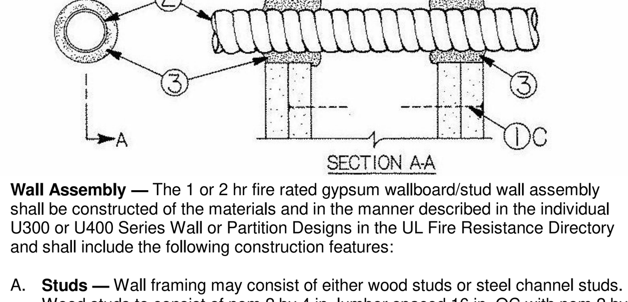
Last Updated on 2020-01-21

GP 2 SINGLE PIPE OR CONDUIT PENETRATION - RATED WALL
1 1/2"=1'-0" A131-GP2 (022122)

System No. W-L-1017

April 30, 1998

F Ratings — 1 and 2 Hr. (See Item 3)
T Rating — 0 Hr
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 or 2 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 or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

   B. Gypsum Board* — Nom 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, number of layers and sheet orientation shall be as specified in the individual Wall and Partition Design. Diam of circular through opening cut through gypsum wallboard on each side of wall assembly to be min 0 in. (point contact) to max 1 in. larger than outside diam of flexible metal conduit (Item 2) installed in through opening. Side edge of circular opening to be min 3 in. from nearest stud in wall cavity.

   C. Fasteners — When wood stud framing is employed, gypsum wallboard attached to studs with cement coated nails as specified in the individual Wall or Partition Design. When steel channel stud framing is employed, gypsum wallboard attached to studs with Type S self-drilling, self-tapping bugle-head steel screws as specified in the individual Wall or Partition Design.

2. Through Penetrating Product* — Flexible Metal Conduit — Nom 4 in. diam (or smaller) aluminum or steel **Flexible Metal Conduit+.** Max one flexible metal conduit to be installed near center of circular opening in gypsum wallboard. Flexible metal conduit to be rigidly supported on both sides of wall assembly.

AFC CABLE SYSTEMS INC

3. Fill, Void or Cavity Material* — Caulk — Caulk fill material forced into annular space around entire circumference of through penetrating product to completely fill opening in gypsum wallboard layers on each side of the wall assembly. A min 5/8 in. thickness of caulk is required for the 1 hr F Rating. A min 1-1/4 in. thickness of caulk is required for the 2 hr F Rating.

3M COMPANY — CP 25WB+

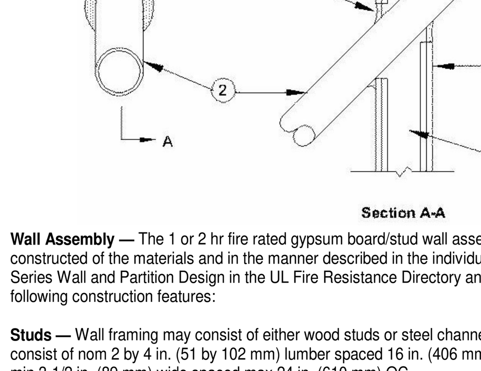
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 1998-04-30, © 2015 UL LLC

FP5 UNFP UL W-L-1017
FIRESTOP PIPE PENETRATION
A13-FP5 (080415)

System No. W-L-1340

May 23, 2005

F Ratings — 1 and 2 Hr (See Item 1)
T Rating — 0 Hr



1. **Wall Assembly —** The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300, U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Studs —** Wall framing may consist of either wood studs 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. Steel studs to be min 3-1/2 in. (89 mm) wide spaced max 24 in. (610 mm) OC.

   B. Gypsum Board* — The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300, U400 or V400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 12 in. (305 mm).

The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrants — One metallic pipe, conduit or tubing installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening to be min 0 in. (0 mm point contact) to max 3-1/2 in. (89 mm). The penetrant may be installed at an angle not greater than 45 degrees from perpendicular. Penetrant to be rigidly supported on both sides of wall. The following types and sizes of penetrants may be used:

   A. **Steel Pipe —** Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

   B. Iron Pipe — Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.

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

   D. Copper Tubing — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.

   E. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

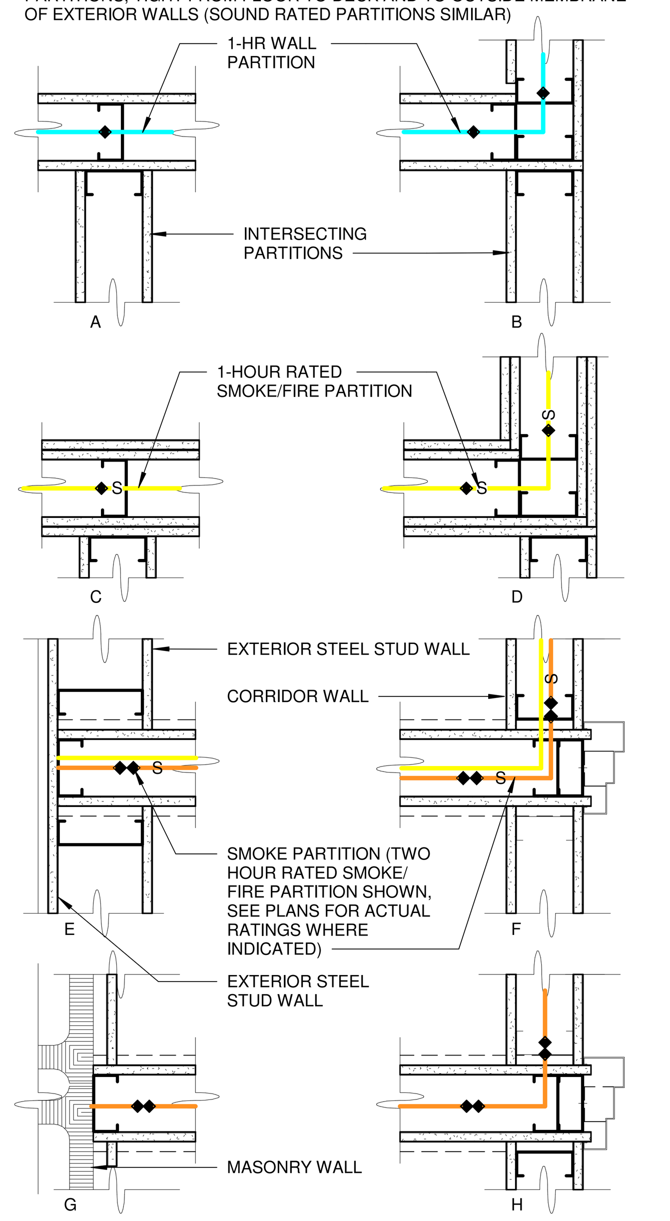
3. Fill, Void or Cavity Material* - Caulk or Sealant — Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with both surfaces of wall. Min 1/2 in. (13 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall.

3M COMPANY — IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2005-05-23, © 2015 UL LLC

FP6 UNFP UL W-L-1340
FIRESTOP PIPE PENETRATION
A13-FP6 (080415)

ONE AND TWO HOUR RATED FIRE/SMOKE PARTITIONS SHALL EXTEND WITH THE LAYERS OF GYPSUM WALL BOARD UNBROKEN THROUGH OTHER PARTITIONS, TIGHT FROM FLOOR TO DECK AND TO OUTSIDE MEMBRANE OF EXTERIOR WALLS (SOUND RATED PARTITIONS SIMILAR)



E3 PARTITION INTERSECTION DETAIL
1 1/2"=1'-0" A131-E5 (011923)

PARTITION NOTES

A131-NOT (022420)

IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO PROVIDE

SUBSTANTIAL FIRE RESISTIVE INSTALLATIONS CONFORMING TO REQUIREMENTS OF THE INDICATED FIRE TEST AND RECOMMENDATIONS OF UNDERWRITER'S LABORATORIES (U.L.), THE GYPSUM ASSOCIATION AND WALLBOARD MANUFACTURER. INSTALLATIONS NOT CONFORMING TO THOSE STANDARDS SHALL BE CORRECTED AT NO COST TO THE OWNER.

1. GENERAL- REFER TO DRAWING X1-1 GENERAL NOTES AND DESIGN CRITERIA FOR ADDITIONAL INFORMATION.
2. WALL TYPES- REFER TO PARTITION LEGEND. FURRED SPACES MAY USE 1-5/8" X 25 GA. METAL STUDS, UNLESS NOTED OTHERWISE. TYPICAL WALL CONSTRUCTION IS 5/8" THICK FIRE RESISTIVE U.L. CLASSIFIED GYPSUM WALLBOARD EACH SIDE OF 3-5/8" X 25 GA. GALV. METAL STUDS AT 16" O.C. CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND INSTALL STUDS PER MANUFACTURERS RECOMMENDATION.
3. CONSTRUCTION - CONTRACTOR SHALL AT ALL TIMES ENDEAVOR TO CONSTRUCT THE FACILITY IN STRICTEST ACCORDANCE TO SOUND PRACTICES OF FIRE RESISTIVE CONSTRUCTION. DEVIATIONS FROM RECOMMENDATIONS OF THE MANUFACTURER OR INDEPENDENT FIRE TESTS SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.
4. NON-RATED PARTITIONS- NON-RATED PARTITIONS SHALL BE FRAMED TO THE UNDERSIDE OF THE FLOOR OR ROOF DECK WITH THE WALLBOARD EXTENDING A MINIMUM OF 4" ABOVE THE FINISHED CEILING.
5. RATED PARTITIONS - TYPICAL ONE AND TWO HOUR FIRE OR FIRE/ SMOKE RATED PARTITIONS SHALL EXTEND TIGHT TO UNDERSIDE OF EXISTING OR NEW FLOOR OR ROOF DECK. WHERE PARTITIONS ABUT FLOOR OR ROOF DECK, VOIDS BETWEEN DECK AND RUNNER TRACK SHALL BE TIGHTLY PACKED WITH APPROVED FIRESTOPPING MATERIAL.
6. SMOKETIGHT PARTITIONS- TYPICAL SMOKE TIGHT PARTITIONS SHALL EXTEND 4" ABOVE CEILING SYSTEM AND PERIMETER OF CEILING GRID AT ACOUSTICAL LAY-IN CEILING SYSTEM (W.O.) SHALL BE SEALED CONTINUOUSLY. AT AREAS INDICATED ON LIFE SAFETY PLAN, FLOOR PLAN OR BY CODE THE SMOKETIGHT PARTITIONS SHALL BE FRAMED TO THE UNDERSIDE OF THE FLOOR OR ROOF DECK. GYPSUM WALLBOARD SHALL EXTEND TO THE DECK ON ONE SIDE (TYPICALLY CORRIDOR SIDE OF WALL). OPPOSITE LAYER OF WALLBOARD SHALL EXTEND 4" ABOVE FINISH CEILING, OR TO DECK IF NO CEILING. TAPE AND FINISH ALL JOINTS ABOVE CEILING, AND SEAL WALLBOARD TO DECK OR ABUT FIREPROOFING FOR SMOKETIGHT CONSTRUCTION. ALL SEALANTS SHALL BE RUBBERIZED OR CONTAIN ACRYLIC POLYMERS. THE ANNULAR SPACE BETWEEN A PENETRATING OBJECT AND THE SMOKETIGHT WALL SHALL NOT EXCEED 1/4 INCH.
7. RATED WALL INTERSECTIONS- ALL RATED WALLS SHALL EXTEND THROUGH THE INTERIOR LAYER OF WALLBOARD AND STUD CAVITY TIGHT TO THE BACK OF THE INSIDE FACE OF EXTERIOR MASONRY/CONCRETE WALLS. WHERE SUCH PARTITIONS INTERSECT LESSER RATED PARTITIONS, THE HIGHER RATED PARTITION'S LAYERS OF WALLBOARD SHALL CONTINUE UNINTERRUPTED THROUGH THE WALL OF LESSER FIRE RATING. REFER TO WALL PRIORITY LEGEND.
8. GYPSUM WALLBOARD- ALL GYPSUM WALLBOARD SHALL BE 5/8" THICK FIRE RESISTIVE U.L. CLASSIFIED MATERIAL APPLIED IN STRICT CONFORMANCE TO THE APPLICABLE FIRE TEST DESIGN, MANUFACTURER AND GYPSUM ASSOCIATION RECOMMENDATIONS WITH JOINTS ON OPPOSITE WALL FACES OFFSET FROM EACH OTHER AS FOLLOWS:

   A) VERTICAL JOINTS OFFSET 16" HORIZONTALLY, MIN.

   B) HORIZONTAL JOINTS OFFSET 24" VERTICALLY, MIN.

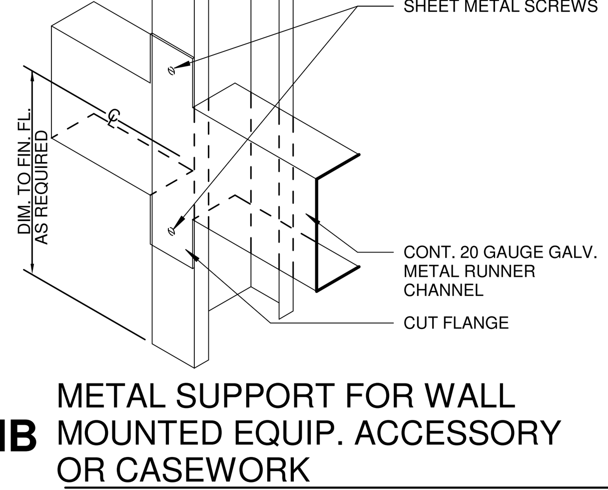
   ALL WALLBOARD JOINTS & SCREW HEADS SHALL BE TAPED AND FINISHED WITH JOINT COMPOUND, INCLUDING THOSE ABOVE CEILINGS. FASTENERS SHALL BE OF APPROVED TYPE AND INSTALLED IN ACCORDANCE WITH APPLICABLE FIRE TEST. WHERE GYPSUM WALLBOARD IS ATTACHED TO METAL STUDS, USE TYPE "S" SCREWS. WHERE BOARD IS LAMINATED TO BOARD, USE TYPE "G" SCREWS. LENGTH SHALL BE AS REQUIRED. SCREW SPACING SHALL BE AS REQUIRED PER SPECIFIED U.L. NUMBER FOR EACH SPECIFIED WALL RATING. IF NON-RATED PARTITION SCREW SPACING SHALL BE AS SPECIFIED BY MANUFACTURES RECOMMENDATIONS.
9. METAL FRAMING- UTILIZE 3-5/8" X 25 GA. GALV. METAL STUDS THROUGHOUT, UNLESS NOTED OTHERWISE. USE MINIMUM 20 GA. GALV. METAL STUDS OR RUNNER TRACKS FOR ALL BACK-UP AT WALL MOUNTED ITEMS, DOOR JAMBS & HEADS, DIAGONAL BRACING, OR AS OTHERWISE SHOWN OR REQUIRED. USE OTHER GAUGE MATERIAL WHERE SHOWN ON DRAWINGS OR AS REQUIRED IN PROJECT MANUAL OR BY MANUFACTURERS.
10. MOLD AND MOISTURE RESISTANT GYPSUM BOARD- ALL GYPSUM BOARD IN BATHROOMS, JANITORS CLOSETS, WALLS TO RECEIVE CERAMIC TILE, AND OTHER AREAS SUBJECT TO WETTING OR HUMIDITY SHALL BE 5/8" THICK MOLD AND MOISTURE RESISTANT FIRE RESISTIVE TYPE ON ALL WALLS. IN SHOWERS AND EXTENSIVE WETTING AREAS USE FIRE-RATED 5/8" CEMENT BOARD OR 5/8" DENS-SHIELD. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
    ALL EXTERIOR WALLS: THE GYPSUM WALLBOARD ON THE INTERIOR FACE OF THE EXTERIOR WALL SHALL BE MOLD AND MOISTURE RESISTANT AND SHALL EXTEND TO THE BOTTOM OF THE ROOF OR FLOOR DECK ABOVE. ALL JOINT SHALL BE TAPED AN FINISHED ABOVE CEILING AND SEAL WALLBOARD TO DECK OR ABUT FIRE PROOFING.
11. EXISTING RATED WALLS- EXISTING WALLS INDICATED TO BE FIRE OR SMOKE RATED WITHIN THE CONSTRUCTION LIMITS SHALL BE VERIFIED IN FIELD TO BE SO RATED. RENOVATE /REPAIR THOSE WALLS NOT SO RATED OR WITH IMPROPER PENETRATIONS OR OPENINGS TO MEET INDICATED RATING. SEAL ALL PENETRATIONS OF EXISTING WALLS TO MAINTAIN INDICATED RATING.
12. PENETRATIONS- WHERE PIPES, CONDUIT, BEAMS, OR ANY OTHER MATERIALS PENETRATE A FIRE RATED WALL OR PARTITION, OPENINGS SHALL BE TIGHTLY SEALED. OPENINGS IN C.M.U. WALLS SHALL BE SEALED WITH MINERAL FIBER SAFING INSULATION OR APPROVED FIRE RATED SEALANT AND ALLOW FOR PROPER DUCT EXPANSION AS REQUIRED BY MANUFACTURES INSTALLATION INSTRUCTIONS. PENETRATIONS FOR PIPES, CONDUIT, DUCTS, ETC. IN EXCESS OF 8" MAXIMUM DIMENSION SHALL BE FRAMED WITH RUNNER CHANNELS. PENETRATIONS IN METAL STUD PARTITIONS WIDER THAN 15", OR WHICH INTERSECT A STUD, SHALL BE FRAMED WITH 20 GA. GALV. RUNNER TRACK SILL AND HEADER SECURED TO METAL STUDS. PENETRATIONS FOR PIPES OR CONDUIT WHICH HAVE AN ANNULAR OPENING LESS THAN 1/8", SHALL BE SEALED TIGHT WITH DRYWALL COMPOUND. AS AN ALTERNATE, USE A FILLET BEAD OF FIRE RATED CAULK CONTINUOUS AROUND OPENING. PENETRATIONS FOR PIPES OR CONDUIT WHICH HAVE AN ANNULAR OPENING GREATER THAN 1/8", BUT LESS THAN 1/2", SHALL BE SEALED FULL DEPTH WITH FIRE RATED CAULK. PENETRATIONS FOR PIPES OR CONDUIT WHICH HAVE AN ANNULAR OPENING GREATER THAN 1/2" SHALL BE SEALED TIGHT WITH A BLOW-OUT PATCH MADE OF LAYERS OF GYPSUM WALLBOARD EQUAL TO THAT OF THE PARTITION CONSTRUCTION, CUT TO FIT TIGHT TO PENETRATIONS. REFER TO DETAILS.
13. RECESSED BOXES- WHERE DEVICES ARE INDICATED IN A SMOKE OR FIRE/SMOKE WALL ON THE DRAWINGS, THE MAXIMUM ALLOWABLE AREA OF INDIVIDUAL U.L. LISTED BACK BOXES PERMITTED IN THE WALL IS 16 SQ. IN. WITH A MAXIMUM AGGREGATE AREA OF 100 SQ. IN. FOR EACH 100 SQ. FT. OF WALL AREA. BACK BOXES ON OPPOSITE FACES OF SUCH WALLS SHALL BE OFFSET A MINIMUM HORIZONTAL DISTANCE OF 24". WHEN PENETRATIONS EXCEED THE ALLOWABLE AREAS, THE DEVICES SHALL BE SET IN A FURRED SPACE IN FRONT OF THE SMOKE OR FIRE/SMOKE WALL, OR THE DEVICE SHALL BE ENCLOSED IN A FIVE-SIDED ENCLOSURE THAT MAINTAINS THE REQUIRED RATING OF THE WALL (SEE "ENCLOSURES" BELOW). NOTIFY THE ARCHITECT PRIOR TO CONSTRUCTION OF ANY FURRED SPACE FOR APPROVAL.
14. DUCT PENETRATIONS- DUCT INSULATION SHALL NOT PENETRATE RATED WALLS. SPACE BETWEEN STUDS, HEADERS AND DUCT OR SLEEVE WHERE DAMPER IS REQUIRED SHALL BE OF THE PROPER CLEARANCE FOR THE SIZE OF THE DUCT, AND SHALL BE PACKED WITH APPROVED FIRESTOPPING MATERIAL. FIRE DAMPER SLEEVES SHALL BE INSTALLED AND SECURED IN ACCORDANCE WITH SMACNA STANDARDS AND MANUFACTURER'S REQUIREMENTS. FIRE DAMPERS SHALL BE INSTALLED IN THE PLANE OF THE RATED ASSEMBLY. AN ACCESS PANEL SHALL BE LOCATED IN THE DUCT ADJACENT TO EACH DAMPER.
15. PIPE PENETRATIONS- PIPE INSULATION SHALL NOT PENETRATE RATED WALLS. WHERE INSULATED PIPES PASS THRU RATED WALLS, USE FIRE RESISTIVE CELLULAR GLASS INSULATION ("FOAMGLAS"). EXTEND CELLULAR GLASS INSULATION A MINIMUM OF 1/4" BEYOND EACH FACE OF WALL SO AS TO BE VISIBLE FOR A.H.C.A. INSPECTION. CONSTRUCT THE PARTITION PENETRATION AS DESCRIBED IN "PENETRATIONS" ABOVE.
16. ENCLOSURES - COORDINATE INSTALLATION OF PLUMBING, VENT STACKS AND CONDUIT TO PERMIT INSTALLATION OF RECESSED TOILET ACCESSORIES, FIRE EXTINGUISHER CABINETS AND OTHER RECESSED EQUIPMENT. WHERE SUCH ITEMS ARE RECESSED IN FIRE OR FIRE/SMOKE WALLS, THEY SHALL BE INSTALLED IN OPENINGS LINED WITH 5/8" FIRE RESISTIVE GYPSUM BOARD SCREWED TO STUDS AND CHANNEL HEADERS ON TOP, BOTTOM, SIDES AND BACK OF RECESS IN LAYERS EQUAL TO THE RATING OF THE WALL IN WHICH THEY OCCUR, TO CREATE A FIVE SIDED ENCLOSURE. ALLOW FOR AN AIRSPACE BETWEEN THE BACK OF THE LAYERS OF WALLBOARD OF THE ENCLOSURE AND REVERSE SIDE OF THE WALL.
17. BEAM CONNECTIONS- WHERE FRAMING FOR PARTITIONS INTERSECTS OR ABUTS A FIREPROOFED STRUCTURAL MEMBER, FIREPROOFING INTEGRITY SHALL BE MAINTAINED BY ONE OF THE FOLLOWING METHODS:

    A) FRAMING SHALL STOP WITHIN 2" OF THE FIREPROOFING AND GYPSUM WALLBOARD SHALL EXTEND BEYOND THE FRAMING AND ABUT THE FIREPROOFING, COMPRESSING IT SLIGHTLY. THE WALLBOARD SHALL NOT OVERHANG THE FRAMING MORE THAN 2". REFER TO DETAILS.

    B) WHERE FRAMING REQUIRES ATTACHMENT TO THE STRUCTURAL MEMBERS FOR SUPPORT, A 20 GA. GALV. "Z" CLIP SHALL BE FASTENED TO THE STRUCTURAL MEMBER AT 24" O.C. AND SHALL BE SIZED TO PROJECT BEYOND THE FIRE PROOFING. RUNNER TRACKS SHALL BE FASTENED TO THE "Z" CLIPS AND WALLBOARD ABUT THE FIREPROOFING, COMPRESSING IT SLIGHTLY. FIREPROOFING SHALL BE REPAIRED AROUND "Z" CLIPS PRIOR TO INSTALLATION OF WALLBOARD. REFER TO DETAILS.
18. OBSTRUCTIONS- NO OBSTRUCTIONS SHALL OCCUR WITHIN 6" OF ANY FIRE RATED WALL. ALL RATED WALLS SHALL BE VIEWABLE FROM EACH SIDE OF THE WALL WITH NO OBSTRUCTION OF VIEW. AT AREAS WITH NON-ACCESSIBLE CEILINGS OR MEMBRANE PROTECTION, PROVIDE AN ACCESS PANEL WITH U.L. LABEL AS REQUIRED AT A MAXIMUM OF 30' O.C. OR BETWEEN EACH INTERSECTING WALL WHICH OBSTRUCTS CONTINUOUS VIEW OF THE RATED WALL.
19. WALL IDENTIFICATION- ABOVE THE CEILING ON ALL RATED WALLS, PROVIDE NEATLY STENCILED, PAINTED IDENTIFYING LABEL WITH 3" HIGH LETTERS AT 10'-0" O.C., BETWEEN EACH INTERSECTING WALL, AND IN EVERY SPACE ADJOINING THE WALL. SUGGESTED WORDING SHALL BE PER SPECIFICATION SECTION 09 21 16 - GYPSUM BOARD.

    IN ADDITION, PROVIDE A CONTINUOUS DASHED LINE FOR FIRE WALLS AND A CONTINUOUS SOLID LINE FOR SMOKE OR FIRE/SMOKE WALLS. PAINT COLOR FOR FIRE WALLS SHALL BE RED AND SMOKE WALLS SHALL BE BLACK OR AS REQUIRED BY CODE OFFICIALS. PROVIDE A VERTICAL PAINT LINE AT FIRE RATED WALL WHERE SAME WALL TURNS AND IS HIDDEN BEHIND ANOTHER WALL OF LESSER RATING.
20. OTHER PENETRATIONS- ANY LOW VOLTAGE OR COMMUNICATIONS WIRING WHICH IS NOT REQUIRED TO BE IN CONDUIT SHALL BE SLEEVED WHERE IT PENETRATES A FIRE RATED WALL AS FOLLOWS:

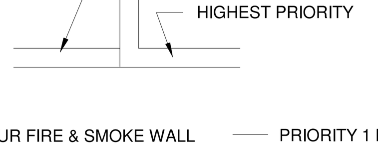
    A PIECE OF CONDUIT SHALL BE INSTALLED IN THE PARTITION AND FIRESTOPPED AS DESCRIBED IN ITEM ON PENETRATIONS. THE CONDUIT SHALL EXTEND 1" ON EACH SIDE OF THE PARTITION AND BE SECURELY ATTACHED TO THE PARTITION TO PREVENT IT FROM SLIDING OUT. APPROVED FIRESTOPPING MATERIAL SHALL BE PACKED TIGHTLY INTO EACH END OF THE SLEEVE TO FILL THE UNUSED CROSS SECTIONAL AREA. GROMMETS SHALL BE INSTALLED ON BOTH ENDS OF THE SLEEVE TO PREVENT DAMAGE TO THE CABLES.
21. CONTROL JOINTS- IN ALL CONTINUOUS, UNINTERRUPTED GYPSUM BOARD PARTITIONS, PROVIDE CONTROL JOINTS AT INTERVALS AS RECOMMENDED BY THE MANUFACTURER. VERIFY WITH THE ARCHITECT EXACT LOCATIONS OF ALL CONTROL JOINTS, UNLESS INDICATED ON THE DRAWINGS. REFER TO THE DRAWINGS FOR DETAILS. IF NO DETAIL IS SHOWN, USE MANUFACTURERS STANDARD DETAIL.



MB 1 METAL SUPPORT FOR WALL MOUNTED EQUIP. ACCESSORY OR CASEWORK
3"=1'-0" A131-MB1 (121114)

WALL PRIORITY

A131-WPR (012417)



Wall	Priority
TWO HOUR FIRE & SMOKE WALL	PRIORITY 1 HIGHEST
TWO HOUR FIRE WALL TWO HOUR FIRE SHAFT WALL	PRIORITY 2
ONE HOUR FIRE & SMOKE WALL ONE HOUR SMOKE/ SHAFT WALL	PRIORITY 3
ONE HOUR FIRE WALL ONE HOUR SHAFT WALL	PRIORITY 4

HAZARDOUS ROOM WALLS: HIGHEST PRIORITY
CORRIDOR WALLS: NEXT HIGHEST PRIORITY
ALL OTHER FIRE WALLS ARE LOWEST PRIORITY-

Wall	Priority
SMOKE TIGHT WALL	PRIORITY 5
NON-RATED WALL	PRIORITY 6

Project Architect:

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

INTERIOR PARTITION SECTIONS, NOTES, DETAILS

Drawing Number:

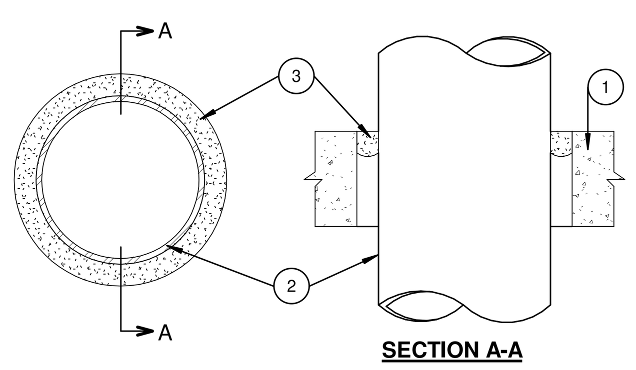
A13-1

Drawn by: AEC
Checked by: MBA
Scale: As indicated

System No. C-AJ-1027

January 22, 2008

F Rating - 3 Hr
T Rating - 0 Hr



1. Floor or Wall Assembly - Min 4-1/2 in. thick lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of through opening is 12-1/4 in.

See Concrete Blocks (CAZT) category in Fire Resistance Directory for names of manufacturers.

2. Through Penetrants - One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Min annular space between pipe, conduit or tubing and edge of opening is 0 in. (point contact). Max annular space is dependent on pipe, conduit or tubing type and size as well as the F Rating of the system, as shown in the table below. 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 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Conduit - Nom 6 in. diam (or smaller) rigid steel conduit.

C. Conduit - Nom 4 in. diam (or smaller) steel electrical metallic tubing or steel conduit.

D. Copper Tubing - Nom 3 in. diam (or smaller) Type L (or heavier) copper tubing.

E. Copper Pipe - Nom 3 in. diam (or smaller) Regular (or heavier) copper pipe.

F. Iron Pipe - Nom 10 in. diam (or smaller) cast or ductile iron pipe.

Pipe Conduit or Tubing Type	Max Nom Pipe Conduit or Tubing Diam In.	F Rating Hr	Max Annular Space In.
A or F	10	3	3/4
B	6	3	3/4
C	4	3	1-1/2
D and E	3	3	3/4
D and E	3	2	7/8

3. Fill, Void or Cavity Materials* - Putty - Moldable putty material kneaded by hand and applied to fill annular space to a min depth of 1 in., flush with top surface of floor. In wall assemblies, required putty thickness to be installed symmetrically on both sides of wall.

3M COMPANY - MPS-2+.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2008-01-22

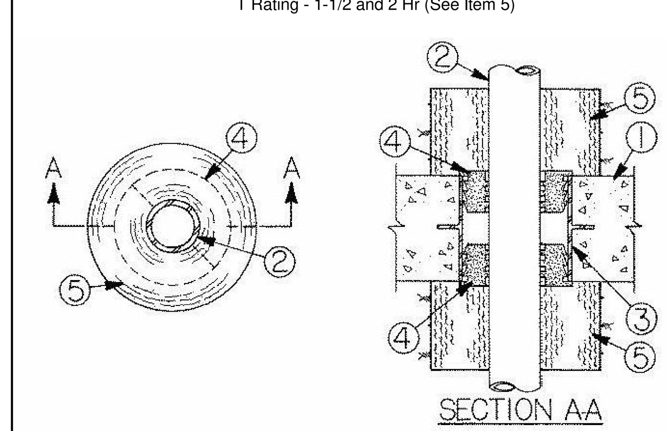
FP 1 FLOOR / WALL SECTION PIPE PENETRATION
1"=1'-0" A131-FP1 (022222)

System No. C-AJ-1094

April 25, 2014

F Rating - 2Hr

T Rating - 1-1/2 and 2 Hr (See Item 5)



1. Floor or Wall Assembly - Min 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*.
See Concrete Block (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Pipe or Conduit - Nom 3 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, iron pipe, steel conduit or steel electrical metallic tubing (EMT). One pipe or conduit centered within opening. Pipe or conduit to be rigidly supported on both sides of floor or wall assembly.

3. Firestop Device* - Steel Frame - Circular steel frame with anchor flange at its midheight. Device frame to be cast in place in floor or wall assembly in accordance with the accompanying installation instructions. Overall height of device frame to be equal to overall thickness of floor or wall assembly. Max size of device frame is 4.65 in. (118 mm) diam. Device frame to be used in conjunction with elastomeric sealing plugs (Item 4).

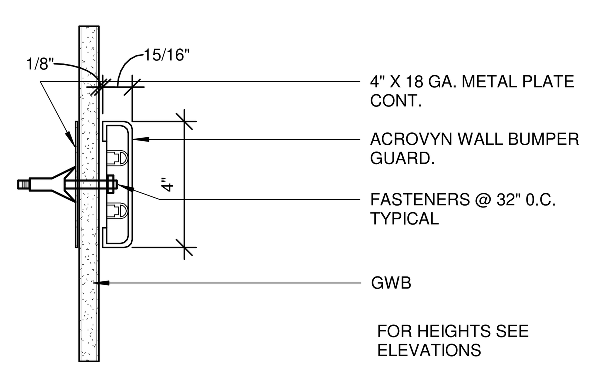
4. Firestop Device* - Elastomeric Sealing Plugs - Elastomeric sealing plugs sized to accommodate device frame (Item 3) and through- penetrating item. Sealing plugs installed in device frame on both sides of floor or wall assembly in accordance with the accompanying installation instructions.

5. Pipe Covering - Nom 3 in. thick, min 5 pcf density mineral wool batt insulation sized to fit pipe or conduit. Pipe covering to be secured to pipe or conduit with steel wire ties on each side of the floor or wall assembly. Pipe covering to be min 6 in. long for 1-1/2 hr T Rating and min 12 in. long for 2 hr T Rating. Pipe covering abutting underside of floor assembly to be mechanically secured to pipe or floor to prevent slippage.

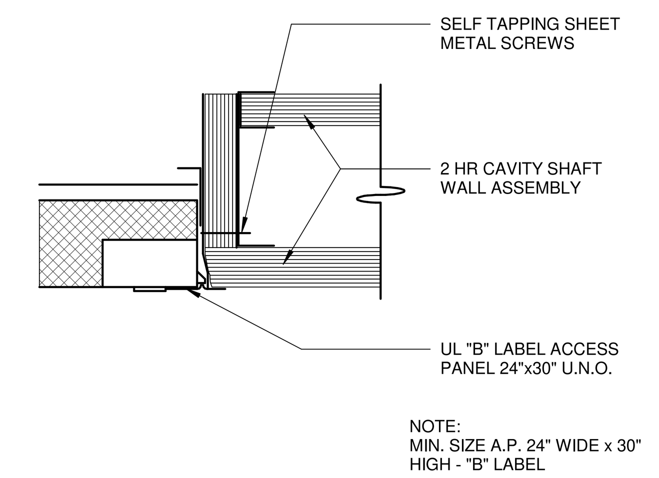
Note:
*Bearing the UL Classification Marking.

Last Updated on 2014-04-25

FP 2 FLOOR / WALL SECTION METALIC PIPE PENETRATION
1"=1'-0" A131-FP2 (072618)



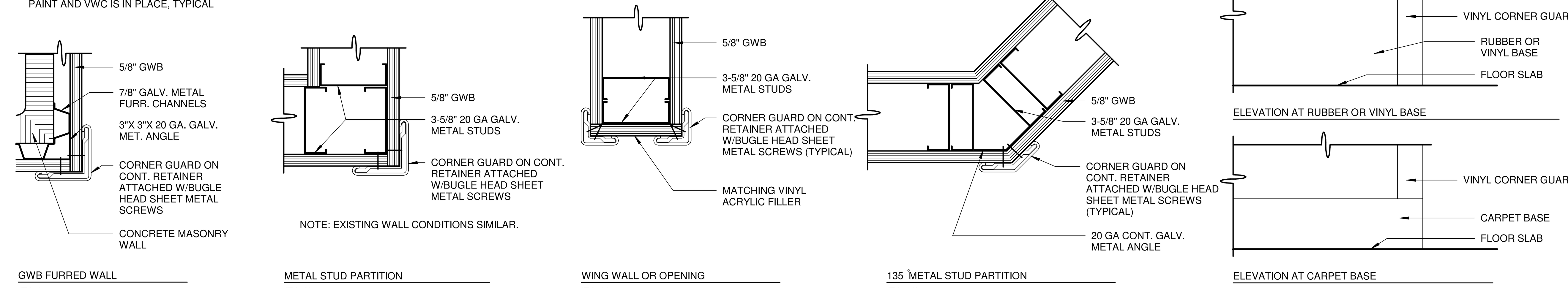
WB 1 SURFACE MOUNTED WALL BUMPER (TA-12)
3"=1'-0" A131-WB1 (011315)



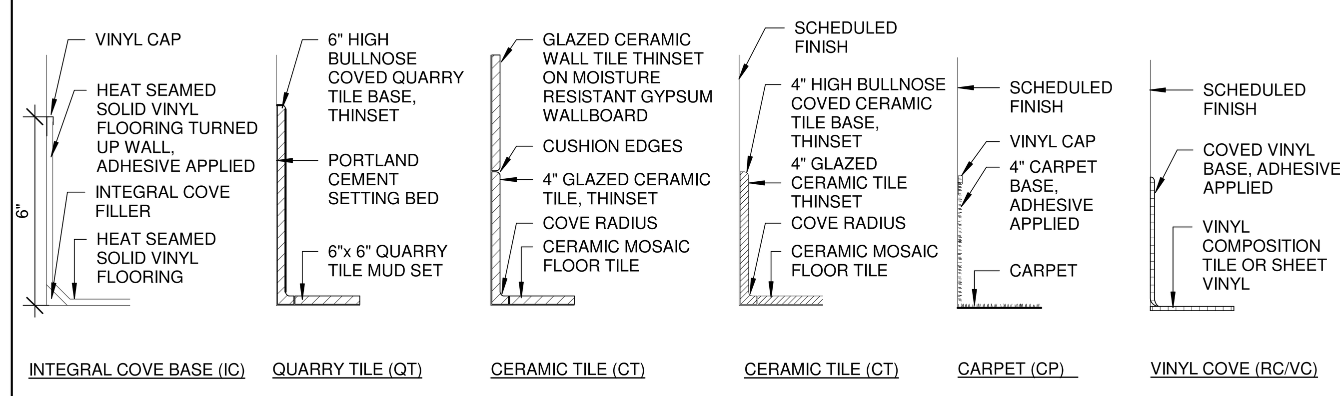
NOTE:
MIN. SIZE A.P. 24" WIDE x 30" HIGH - "B" LABEL

AD 1 TYPICAL ACCESS DOOR DTL. (INSUL. IN SHAFT WALL SHOWN, OTHERS SIMILAR)
3"=1'-0" A131-AD1 (011315)

NOTE: INSTALL CORNER GUARD FULL HEIGHT TO CEILING (SEE ELEVATION) AFTER PAINT AND VWC IS IN PLACE, TYPICAL



A3 CORNER GUARD DETAILS
3"=1'-0" A131-E1 (061915)

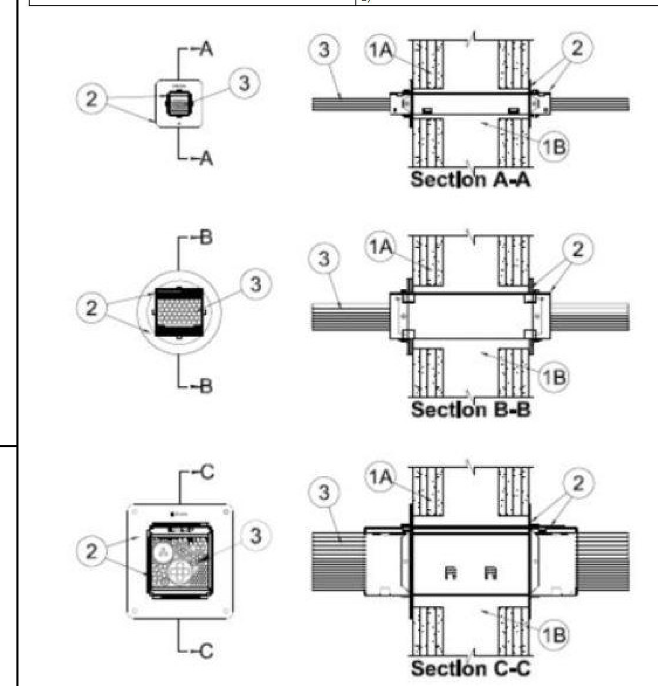


B3 BASE DETAILS
3"=1'-0" A131-D1 (041522)

System No. W-L-3377

April 12, 2016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)	F Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)
T Rating - 3/4, 1, 1-1/2 and 2 Hr (See Item 3)	FT Rating - 3/4, 1, 1-1/2 and 2 Hr (See Item 3)
L Rating At Ambient - Less than 1 to 7 CFM/Device Module (See Item 2)	FH Ratings - 1, 2, 3 and 4 Hr (See Items 1 and 3)
L Rating at 400 F - Less than 1 to 3 CFM/Device Module (See Item 2)	FTH Rating - 3/4, 1, 1-1/2 and 2 Hr (See Item 3)
	L Rating At Ambient - Less than 1 to 7 CFM/Device Module (See Item 2)
	L Rating at 400 F - Less than 1 to 3 CFM/Device Module (See Item 2)



1. Wall Assembly — The 1, 2, 3 or 4 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described within the individual U300, U400, V400 or W400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall incorporate the following construction features:

A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.

B. Gypsum Board* — Thickness, type, number of layers and fasteners as specified in the individual Wall and Partition Design. See Table for opening sizes.
The hourly F and FH Ratings are dependent upon the hourly rating of the wall in which it is installed.

2. Firestop Device* — Series 22 EZ Path device modules consist of a 1.4 by 1.4 by 10-1/2 in. (36 by 36 by 267 mm) long galv steel tube with an intumescent material lining. Series 33 EZ Path device modules consist of a 3 by 3 by 10-1/2 in. (76 by 76 by 267 mm) long galv steel tube with an intumescent material lining. Series 44+ EZ Path device modules consist of a 4 by 4-5/8 by 14 in. (102 by 118 by 356 mm) long galv steel tube with an intumescent material lining. Firestop device modules to be installed in accordance with the accompanying installation instructions. Firestop device modules secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device by means of steel screws provided with device. Firestop device module is to be installed with ends projecting an equal distance beyond each surface of the wall assembly. The annular space between the device and opening shall be min 0 in. (point contact) to max 1/8 in. (3 mm) for Series 22 device, max 1/2 in. (13 mm) for Series 33 device and max 1/4 in. (6 mm) for Series 44 device. The opening size and L Ratings for each device vary according to whether device module is blank (no cables) or loaded (with cables) and which cable type and size is used, as tabulated below:

Device	Max Cable Fill	Cable Type	L-Rating (CFM) Ambient	L-Rating (CFM) 400 °F	Opening Size - Diam or Dimensions, in. (mm)
Series 22	0%	—	1.4	1.4	2 (51) or 1-3/4 x 1-3/4 (44 x 44)
Series 22	1-25%	3A	Less Than 1	Less Than 1	2 (51) or 1-3/4 x 1-3/4 (44 x 44)
Series 22	26-50%	3A	Less Than 1	Less Than 1	2 (51) or 1-3/4 x 1-3/4 (44 x 44)
Series 22	51%-75%	3A	Less Than 1	Less Than 1	2 (51) or 1-3/4 x 1-3/4 (44 x 44)
Series 22	76-100%	3A	Less Than 1	Less Than 1	2 (51) or 1-3/4 x 1-3/4 (44 x 44)
Series 22	100%	3F	Less Than 1	Less Than 1	2 (51) or 1-3/4 x 1-3/4 (44 x 44)
Series 33	0%	—	Less Than 1	Less Than 1	4 (102) or 3-1/4 x 3-1/4 (82 x 82)
Series 33	100%	3A	4	3	4 (102) or 3-1/4 x 3-1/4 (82 x 82)
Series 33	100%	3F	1.3	Less Than 1	4 (102) or 3-1/4 x 3-1/4 (82 x 82)
Series 33	100%	3G, 3H	7	2	4 (102) or 3-1/4 x 3-1/4 (82 x 82)
Series 33	100%	3I	1.8	1.8	4 (102) or 3-1/4 x 3-1/4 (82 x 82)
Series 44+	0%	—	Less Than 1	Less Than 1	6 (152) or 4-1/8 x 4-3/4 (120 x 120)
Series 44+	1-25%	3A-3I	1.5	1.5	6 (152) or 4-1/8 x 4-3/4 (120 x 120)
Series 44+	26-50%	3A-3I	2.3	2.3	6 (152) or 4-1/8 x 4-3/4 (120 x 120)
Series 44+	51-75%	3A-3I	2.3	2.3	6 (152) or 4-1/8 x 4-3/4 (120 x 120)
Series 44+	76%-100%	3A-3I	2.3	2.3	6 (152) or 4-1/8 x 4-3/4 (120 x 120)

SPECIFIED TECHNOLOGIES INC — EZ PATH Series 22, 33 or 44+ Fire Rated Pathway

2A. Firestop Device* — Extension Module — (Optional, Not Shown) — Module attached to ends of Series 33, Series 44+ firestop device (Item 2) to increase its length to facilitate installation in thicker walls. Each module consists of a galv steel tube with an intumescent material lining. Extension module to be installed in accordance with the accompanying installation instructions. When module is used, firestop device (Item 2) and extension module(s) secured in place by means of steel wall plates installed with gasketing material supplied with product. Steel wall plates installed on both sides of wall and secured to each device or extension module(s) by means of steel screws provided with wall plates. Firestop device and extension module(s) assembly to be installed with ends projecting an equal distance beyond each surface of the wall assembly.

SPECIFIED TECHNOLOGIES INC — EZ PATH Series 33 or Series 44+ Extension

3. Cables — Cables may represent a 0 to max 100 percent visual fill within the loading area for the firestop device module. Cables to be rigidly supported on both sides of the wall assembly. Any combination of the following types of cables may be used:

A. Max 400 pair No. 24 AWG (or smaller) copper conductor telecommunication cable with polyvinyl chloride (PVC) or plenum-rated jacketing and insulation.
B. Max 750 kcmil single copper conductor power cable with XLPE jacket and insulation
C. Max 7/C No. 12 AWG copper conductor control cable with PVC or XLPE jacket and insulation.
D. Max 3/C No. 2/0 AWG metal clad or armored cable with steel or aluminum jacket.
E. Max 3/C No. 8 AWG NM cable (Romex) with PVC insulation and jacket.
F. Max four pair No. 22 AWG (or smaller) copper conductor data cable with PVC or plenum rated jacketing and insulation.
G. Coaxial cable with fluorinated ethylene or PVC insulation and jacketing having a max diam of 5/8 in. (16 mm).
H. Optical fiber cable with PVC or polyethylene (PE) jacket and insulation and having a max diam of 5/8 in. (16 mm).
I. Max RG6/U coaxial cable with fluorinated ethylene, polyethylene (PE), PVC or plenum rated jacketing and insulation.

When Series 22 EZ Path device modules are used and when the hourly rating of the wall assembly is 1 hr, the T, FT and FTH Ratings are 3/4 hr except that for Items 3F, 3G and 3H, the T, FT and FTH Ratings are 1 hr. When the hourly fire rating of the wall assembly is 2 hr or greater, the T, FT and FTH Ratings are 3/4 hr when cables are installed. When no cables are installed within the device module, the T, FT and FTH Ratings are 1 hr in 1 hr walls and 1-1/2 hr for 2, 3 and 4 hr walls. When Item 3A, 3B, 3C, 3D or 3E is used, the maximum F and FH Ratings are 2 hr. When max 200 pair No. 24 AWG telecommunication cable and/or 350 kcmil power cable is used or when Item 3F, 3G, 3H or 3I is used, the maximum F and FH Ratings are 4 hr.

When Series 33 EZ Path device modules are used and when the hourly rating of the wall assembly is 1 hr, the T, FT and FTH Ratings are 3/4 hr. When the hourly fire rating of the wall assembly is greater than 1 hr, the T, FT and FTH Ratings are 3/4 hr when Item 3A, 3B, 3C, 3D or 3E is used. Otherwise the T, FT and FTH Ratings are 1 hr. When Item 3A, 3B, 3C, 3D or 3E is used, the maximum F and FH Ratings are 2 hr. When max 200 pair No. 24 AWG telecommunication cable is used or when Item 3F, 3G, 3H or 3I is used, the maximum F and FH Ratings are 4 hr.

When Series 44 + EZ Path device modules are used and when Item 3A, 3B, 3C, 3D or 3E is used, the max F and FH Ratings are 3 hr and the T, FT and FTH Ratings are 1 hr. When Item 3F or 3G is used, the max F and FH Ratings are 4 hr and the T, FT and FTH Ratings are 1-1/2 hr. When Item 3H or 3I is used, the max F and FH Ratings are 4 hr and the T, FT and FTH Ratings are 2 hr. When device empty, the T, FT and FTH Ratings are 1-1/2 Hr.

+Bearing the UL Listing Mark

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2016-04-12

FP 7 THROUGH-PENETRATION FIRESTOP SYSTEMS
1 1/2"=1'-0" A131-FP7 (022222)

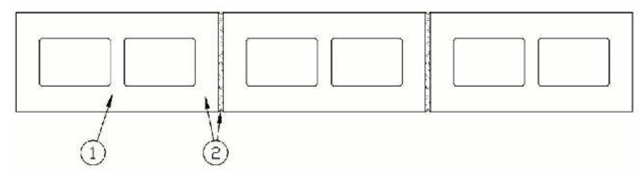
Design No. U937

August 24, 2012

Bearing Wall Rating — 2 or 4 Hr. (See Item #1)
Nonbearing Wall Rating — 2 or 4 Hr. (See Item #1)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



Horizontal Section

1. Concrete Blocks* — Nominal 8 by 8 by 16 in. or 12 by 8 by 16 in. concrete blocks. Classification 2 hr. and 4 hr.

CAROLINA PRESTRESS CORPORATION OF LAKE CITY INC — 8x8x16 Bottom Ash Fire Block, 12x8x16 Bottom Ash Fire Block

2. Mortar — Blocks laid in full bed of Type S mortar, nom. 3/8 in. thick. Vertical joints staggered.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

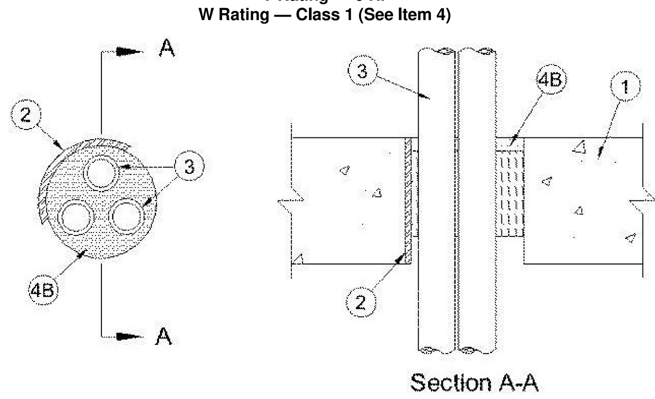
Last Updated on 2012-08-24

B7 UL DESIGN NO. 937
NTS UL 937 (022222)

System No. C-AJ-2378

May 19, 2005

F Rating — 2 Hr
T Rating — 0 Hr
W Rating — Class 1 (See Item 4)



1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1778 - 2400 kg/m3) concrete. Floor assembly may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening 5 in. (127 mm).
See **Concrete Blocks** (CAZT) and **Precast Concrete Units** (CFTV) categories in Fire Resistance Directory for names of manufacturers.

2. **Steel Sleeve** — (Optional) - Nom 5 in. (127 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Steel sleeve may be installed flush or may project max 2 in. (51 mm) beyond the floor or wall surfaces.

3. **Through-Penetrants** — One or more nonmetallic pipes, conduits or tubes installed concentrically or eccentrically within opening. Annular space between penetrants and periphery of opening or sleeve shall be min of 1/4 in. (6 mm) to max 2 in. (51 mm). The space between penetrants shall be min of 1/4 in. (6 mm) to max 2 in. (51 mm). Penetrants to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of penetrants may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Rigid Nonmetallic Conduit+** — Nom 1-1/2 in. (38 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1-1/2 in. (38 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

D. **Crosslinked Polyethylene (PEX) Tubing** — Nom 1 in. (38 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

4. **Firestop System** — The details of the firestop system shall be as follows:

A. **Packing Material** — Min 3 in. (76 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or top edge of sleeve or from both surfaces of wall or both ends of sleeve as required to accommodate the required thickness of fill material. In floors constructed of hollow-core concrete, packing material to be recessed from top and bottom surfaces of floor or sleeve as required to accommodate the required thickness of fill material.

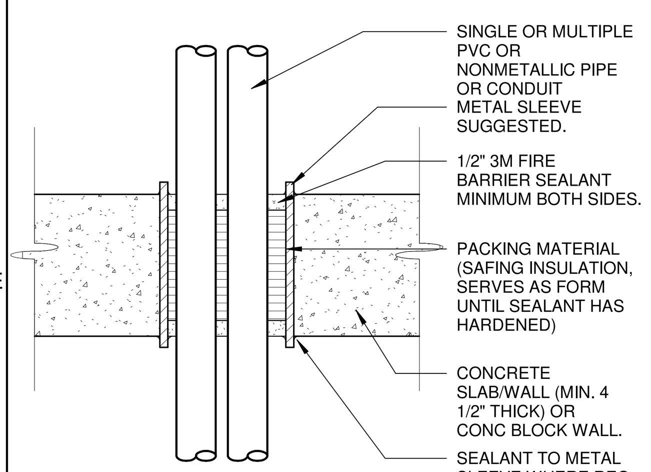
B. **Fill, Void or Cavity Materials*** - **Caulk or Sealant** — Min 1/2 in. (13 mm) thickness of caulk applied within the annulus, flush with top surface of floor or top edge of sleeve or with both surfaces of wall or both ends of sleeves. In floors constructed of hollow-core concrete, min 1/2 in. (13 mm) thickness of caulk applied within the annulus, flush with top and bottom surfaces of floor or sleeve. Min 1/4 in. (6 mm) diam bead of caulk applied to the penetrant/concrete or penetrant/sleeve interface at the point contact location on the top surface of floor or both surfaces of wall or hollow-core concrete.

3M COMPANY — IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant

(Note - W Rating applies only when FB-3000 WT is used. CP 25WB+ not suitable for use with CPVC pipes.)

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2005-05-19

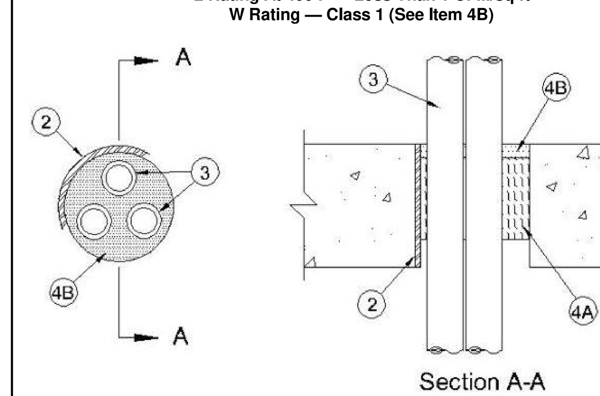


FP 3 PIPE OR CONDUIT PENETRATION NON-METALIC FOR SHAFTS & CHASES ONLY
3"=1'-0" A131-FP3 (022322)

System No. C-AJ-2586

December 08, 2008

F Rating — 2 Hr
T Rating — 2 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft
W Rating — Class 1 (See Item 4B)



1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete floor. Floor may also be constructed of any min 6 in. (152 mm) thick hollow-core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 4 in. (102 mm).

See **Concrete Blocks** (CAZT) or **Precast Concrete Units** (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

2. **Steel Sleeve** — (Optional) - Nom 4 in. (102 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe cast or grouted into floor or wall assembly, flush with floor or wall surfaces.

3. **Through Penetrant** — One or more nonmetallic pipes, conduits or tubes to be installed eccentrically or concentrically within the firestop system. The annular space between the pipe, conduit or tube and the periphery of the opening shall be min 1/4 in. (6 mm) to max 1-1/8 in. (29 mm). The space between the pipes, conduits or tubes shall be min 1/4 in. (6 mm). Pipes, conduits or tubing to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes, conduits and tubes may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 1-1/4 in. (32 mm) diam (or smaller) Schedule 40 polyvinyl chloride (PVC) pipe for use in closed (process or supply) piping systems.

B. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1-1/4 in. (32 mm) diam (or smaller) SDR17 chlorinated polyvinyl chloride (CPVC) pipe for use in closed (process or supply) piping systems.

C. **Rigid Nonmetallic Conduit+** — Nom 1-1/4 in. (32 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA 70).

D. **Cross Linked Polyethylene (PEX) Tubing** — Nom 1-1/4 in. (32 mm) diam (or smaller) SDR9 PEX tubing for use in closed (process or supply) piping systems.

4. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation compressed and tightly packed into opening. Packing material recessed from top surface of floor or both surfaces of wall to accommodate the required thickness of fill material. In floors constructed of precast hollow core units, packing material to extend for full thickness of floor flush with bottom of floor.

B. **Fill, Void or Cavity Material*** — **Sealant** — Min 1/2 in. (13 mm) thickness of fill material installed within annulus, flush with top surface of floor or both surfaces of wall assembly.

SPECIFIED TECHNOLOGIES INC — SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, Pensil 300 or SpecSeal Series SIL300 Sealant for floors or walls and Pensil 300 S/L Sealant or SpecSeal Series SIL300SL Sealant for floors only.

W Ratings apply when Pensil 300, SpecSeal Series SIL300, Pensil 300 S/L or SpecSeal Series SIL300SL Sealants are used.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

+Bearing the UL Listing Mark

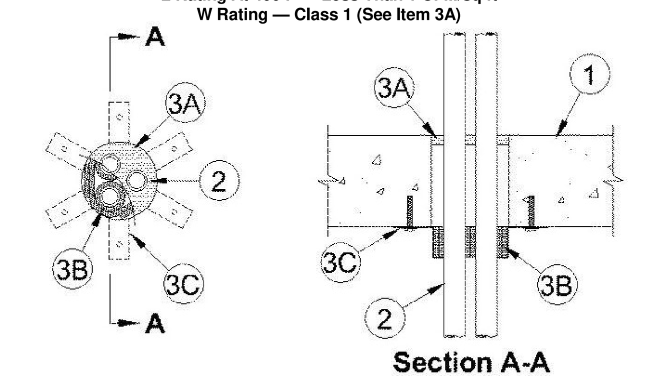
Last Updated on 2008-12-08

FP 3.2 PIPE OR CONDUIT PENETRATION NON-METALIC
3"=1'-0" A131-FP3.2 (022322)

System No. C-AJ-2092

December 08, 2008

F Rating — 3 Hr
T Rating — 3 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft
L Rating At 400 F — Less Than 1 CFM/sq ft
W Rating — Class 1 (See Item 3A)



1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units***. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 3-1/2 in. (89 mm).
See **Concrete Blocks** (CAZT) and **Precast Concrete Units (CFTV)** categories in the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants** — A max of three pipes or conduits to be installed within opening. The space between pipes or conduits shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). The space between pipes or conduits and periphery of opening shall be min 1/2 in. (13 mm) to max 3/4 in. (19 mm). Pipe or conduit to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 1 in. (25 mm) diam (or smaller) Schedule 40 PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Rigid Nonmetallic Conduit+** — Nom 1 in. (25 mm) diam (or smaller) Schedule 40 or 80 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 1 in. (25 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.

D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 1 in. (25 mm) diam (or smaller) Schedule 40 solid or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

E. **Fire Retardant Polypropylene (FRPP) Pipe** — Nom 1 in. (25 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

3. **Firestop System** — The firestop system shall consist of the following:

A. **Fill, Void or Cavity Material*** — **Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with top surface of floor and both surfaces of wall. After the installation of the wrap strip/steel collar assembly (Item Nos. 3B and 3C), additional caulk applied within the voids between the wrap strip/penetrant bundle and steel collar to max extent possible.
SPECIFIED TECHNOLOGIES INC — SpecSeal Series SSS Sealant, SpecSeal LCI Sealant, Pensil 300 Sealant or SpecSeal Series SIL300 Sealant for floors or walls and Pensil 300 S/L Sealant or SpecSeal Series SIL300SL Sealant for floors only.

W Rating applies only when Pensil 300, SpecSeal Series SIL300 , Pensil 300 S/L or SpecSeal Series SIL300SL Sealants are used.

B. **Fill, Void or Cavity Material*** — **Wrap Strip** — Nom 1/8 in. (3.2 mm) or 3/16 in. (4.8 mm) thick intumescent material faced on both sides with a plastic film and supplied in 2 in. (51 mm) wide strips or 1/4 in. (6 mm) thick intumescent material faced on both sides with a plastic film, supplied in 1-1/2 in. (38 mm) wide strips. Single layer of wrap strip shall be wrapped around each penetrant with butted ends and held in place with masking tape. A second layer of wrap strip shall be wrapped around the penetrant bundle and secured together by means of No. 18 AWG steel tie wire. After installation of the steel collar (Item 3C), additional pieces of wrap strip are installed within the annular space between the wrap strip/penetrant assembly and the steel collar. The upper edge of the wrap strips shall abut the bottom surface of the concrete floor. In floor assemblies, the wrap strips are installed on the bottom side of the concrete floor. In wall assemblies, the wrap strips are installed on each side of the concrete wall.
SPECIFIED TECHNOLOGIES INC — SpecSeal BLU Wrap Strip, SpecSeal BLU2 Wrap Strip or SpecSeal RED Wrap Strip

C. **Steel Collar** — Collar fabricated from coils of precut 0.016 in. (0.4 mm) thick galv sheet steel available from wrap strip manufacturer. Collar shall be 1-1/2 in. (38 mm) or 2 in. (51 mm) deep with min four 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the concrete floor or wall. Retainer tabs, 3/4 in. (19 mm) wide tapering down to 1/4 in. (6 mm) wide and located opposite the anchor tabs, are folded 90 degree toward pipe surface to maintain the annular space around the pipe and to retain the wrap strips. Steel collar wrapped around wrap strips and pipe with a 1 in. wide overlap along its perimeter joint and secured together by means of three No. 8 by 3/8 in. (10 mm) long steel screws. As an alternate to the steel screws, the steel collar can be secured together by means of a min 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel hose clamp installed at midheight of the collar. Collar secured to concrete surface with 1/4 in. (6 mm) diam by min 1-3/4 in. (45 mm) long concrete wedge anchors in conjunction with min 1/4 in. (6 mm) by 1-1/4 in. (32 mm) diam steel fender washers. In floor assemblies, one collar is used on the bottom side of the concrete floor. In wall assemblies, a collar is used on each side of the concrete wall.

+Bearing the UL Listing Mark

*Bearing the UL Classification Marking

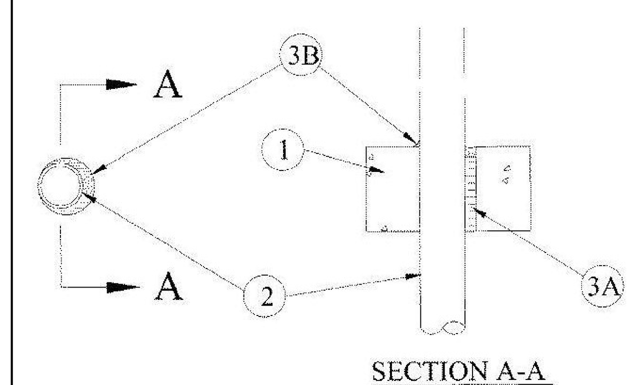
Last Updated on 2008-12-08

FP 4 PIPE OR CONDUIT PENETRATION NON-METALIC
3"=1'-0" A131-FP4 (022322)

System No. C-AJ-2299

November 20, 2009

F Rating — 2 Hr
T Rating — 2 Hr
W Rating — Class 1 (See Item 3)



1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600- 2400 kg/m3) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 3 in. (76 mm).

See **Concrete Blocks** (CAZT) in Volume 1 of the Fire Resistance Directory for names of manufacturers.

2. **Through Penetrants** — One nonmetallic pipe or conduit to be installed either concentrically or eccentrically within the firestop system. The annular space between the pipe or conduit and the periphery of the opening shall be min 0 in. (0 mm, point contact) to max 5/8 in. (16 mm). Pipe or conduit to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes or conduit may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) piping systems.

B. **Rigid Nonmetallic Conduit++** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 2 in. (51 mm) diam (or smaller) SDR11 CPVC pipe for use in closed (process or supply) piping system.

D. **Acrylonitrile Butadienne Styrene (ABS) Pipe** — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 solid core or cellular core ABS pipe for use in closed (process or supply) piping systems.

E. **Electrical Nonmetallic Tubing (ENT) ++** — Nom 1 in. (25 mm) diam (or smaller) ENT installed in accordance with the National Electric Code (NFPA No. 70).

See Rigid Nonmetallic Conduit (DZKT) and Electrical Nonmetallic Tubing (FKHU) categories in the Electrical Construction Equipment Directory for names of manufacturers.

3. **Firestop System** — The firestop system shall consist of the following:

A. **Packing Material** — Min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation packed into the opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall to accommodate the required thickness of caulk.

A1. **Forming Material*** — As an alternate to the packing material in Item 3A, nom 4 in. (102 mm) wide strips of min 1/2 in (13 mm) thick compressible mat to be stacked to a thickness greater than the width of the annular space and compression-fitted, edge-first, to fill the annular space to a min 4 in. (102 mm) depth. Top of forming material to be recessed from top surface of floor or from both surfaces of wall as necessary to accommodate the required thickness of caulk fill material.

3M COMPANY — Fire Barrier Packing Material

B. **Fill, Void or Cavity Materials*** — **Caulk or Sealant** — Min 1/2 in. (13 mm) thickness of caulk applied within the annulus, flush with top surface of floor or both surfaces of wall. An additional 1/2 in. (13 mm) diam bead of caulk applied at point contact location between penetrant/floor or penetrant/wall interface.

3M COMPANY — FireDam 150+, CP 25WB+, IC 15WB+ caulk or FB-3000 WT sealant

(Note - W Rating applies only when FB-3000 WT is used. CP 25WB+ and FireDam 150+ not suitable for use with CPVC pipes).

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively. ++Bearing the UL Listing Mark**

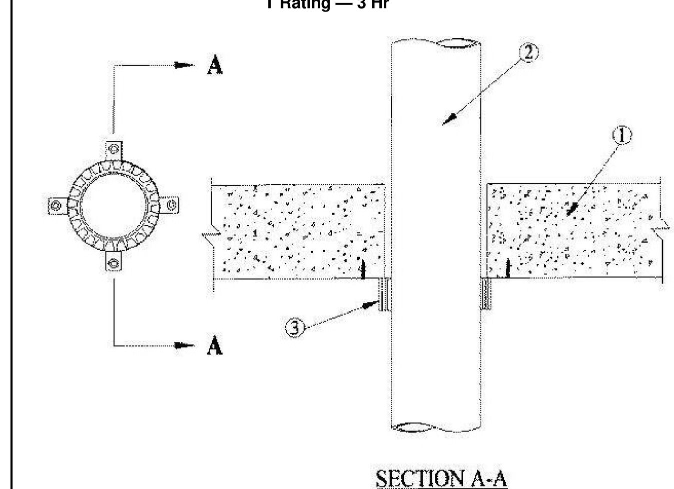
Last Updated on 2009-11-20

FP 5 PIPE OR CONDUIT PENETRATION NON-METALIC
3"=1'-0" A131-FP5 (022222)

System No. C-AJ-2226

November 20, 2009

F Rating — 3 Hr
T Rating — 3 Hr



1. **Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600 - 2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Floor may also be constructed of any min 6 in.(152 mm) thick UL Classified hollow-core **Precast Concrete Units***. Max diam of opening is 5 in. (127 mm).
See **Concrete Block** (CAZT) and Precast Concrete units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.

1A. **Steel Sleeve** — (Optional, Not Shown) — Nom 5 in. (127 mm) diam (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly.

2. **Through Penetrants** — One nonmetallic pipe or conduit to be centered within opening with a nom 1/4 in. (6 mm) annular space between pipe or conduit and periphery of opening. Pipe or conduit to be rigidly supported on both sides of the floor or wall assembly. The following types and sizes of nonmetallic pipes or conduits may be used:

A. **Polyvinyl Chloride (PVC) Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

B. **Rigid Nonmetallic Conduit++** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 of the National Electrical Code (NFPA No. 70).

C. **Chlorinated Polyvinyl Chloride (CPVC) Pipe** — Nom 4 in. (102 mm) diam (or smaller) SDR13.5 CPVC pipe for use in closed (process or supply) piping systems.

D. **Acrylonitrile Butadiene Styrene (ABS) Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid core or cellular core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

E. **Fire Retardant Polypropylene (FRPP) Pipe** — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

F. **Polyvinylidene Fluoride (PVDF) Pipe** — Nom 2 in. (51 mm) diam (or smaller) SDR 11, or nom 4 in. (102 mm) diam (or smaller) SDR 32.5 PVDF pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

3. **Firestop Device** — **Collar** — Collar to be installed in accordance with the accompanying installation instructions. Collar to be installed and latched around pipe and secured to underside of floor or on both sides of wall with 3M Ultra Fast Anchor Straps or with 1/4 in. (6 mm) diam by min 1-1/2 in. (38 mm) long steel expansion bolts in conjunction with steel nuts and min 1-1/4 in. (32 mm) diam steel fender washers. Min of two, three or four anchor straps or anchor bolts, symmetrically located, for nom 2 in. (51 mm) diam (and smaller), nom 3 in. (76 mm) diam and nom 4 in. (102 mm) diam pipes, respectively.

3M COMPANY — Ultra PPD 1.5, 2.0, 3.0 and 4.0

4. **Fill, Void or Cavity Materials*** — **Caulk, Sealant or Putty** — (Optional, Not Shown) — Min 1/4 in. thickness of caulk or putty applied within annular space, flush with top or bottom of floor on one or both sides of wall.
3M COMPANY — CP 25WB+ caulk, FB-3000 WT sealant, MP+ Stix putty, IC 15WB+ caulk or FireDam 150+ caulk. (Note: CP 25WB+ and FireDam 150+ not suitable for use with CPVC pipes.)

5. **Fill, Void or Cavity Materials***—**Sealant** — (Optional, Not Shown)—For floor assemblies, a min 1/2 in. (13 mm) thickness of sealant may be applied within the annular space flush with top surface of floor.
3M COMPANY — FB-1000 NS or FB-3000 WT

*Bearing the UL Classification Marking

++Bearing the UL Listing Mark

Last Updated on 2009-11-20

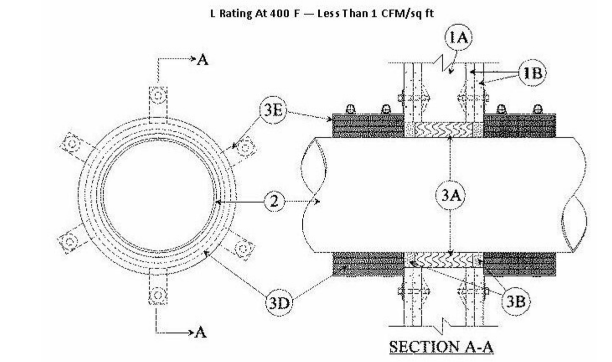
FP 6 PIPE OR CONDUIT PENETRATION NON-METALIC
3"=1'-0" A131-FP6 (022222)

System No. W-L-2079

October 14, 2003

F Ratings — 1 and 2 Hr (See Item 1B) T Rating — 0 Hr
L Rating At Ambient — 1 CFM/sq ft

L Rating At 400 F — Less Than 1 CFM/sq ft



Wall Assembly — The 1 or 2 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 Design in the UL Fire Resistance Directory and shall include the following construction features:

Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. OC (406 mm) with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.

Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (1219 mm) 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 10 in. (254 mm).

The hourly F rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

Through Penetrant — One nonmetallic pipe to be centered within the firestop system. A nom annular space of 11/16 in. (18 mm) is required within the firestop system. Pipe to be rigidly supported on both sides of the wall assembly. The following types and sizes of nonmetallic pipes may be used:

Polyvinyl Chloride (PVC) Pipe — Nom 8 in. (203 mm) diam (or smaller) Schedule 40 PVC pipe for use in closed (process or supply) vented (drain, waste, or vent) piping systems.

Flame Retardant Polypropylene (FRPP) Pipe — Nom 8 in. (203 mm) diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.

Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 8 in. (203 mm) diam (or smaller) SDR 17 13.5 CPVC pipe for use in closed (process or supply) piping systems.

Firestop System — The firestop system shall consist of the following:

Packing Material — Min 4 pcf (64 kg/m3) mineral wool insulation cut to size to fill the annulus within the opening and stud cavity. Mineral wool insulation wrapped around the outer circumference of the through penetrant and secured together by means of No. 24 AWG steel tie wire. Mineral wool insulation slid into annulus of opening and recessed from both surfaces of wall to accommodate the required thickness of fill material.

Fill, Void or Cavity Material* — Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall.

SPECIFIED TECHNOLOGIES INC — SpecSeal 100, 101, 102, 105, 120 or 129 Sealant

Aluminum Foil Tape — (Not Shown) — Nom 3 mil (0.8 mm) thick pressure sensitive aluminum foil tape wrapped around the outer circumference of the through penetrant with a 1 in. (25 mm) wide overlap along its perimeter joint. Foil tape shall abut against both surfaces of the wall and extend a min 5 in. (127 mm) beyond both surfaces of the wall.

Fill, Void or Cavity Material* — Wrap Strip — Nom 1/8 or 3/16 in. (3.2 or 4.8 mm) thick intumescent material faced on both sides with a plastic film, supplied in 2 in. (51 mm) wide strips. Two stacks of wrap strips, each consisting of four wrap strips are individually wrapped around the through penetrant with ends butted and held in place with masking tape. Butted ends in successive layers may be aligned or offset. The edge of the wrap strips shall abut each surface of the wall. Two stacks of wrap strips are installed on each side of the wall.

SPECIFIED TECHNOLOGIES INC — SpecSeal BLU Wrap Strip or SpecSeal BLU2 Wrap Strip

Steel Collar — Collar fabricated from coils of precut 0.029 in. (0.7 mm) thick (No. 22 MSG) galv sheet steel available from wrap strip manufacturer. Collar shall be nom 4 in. (102 mm) deep with min six 1 in. (25 mm) wide by 2 in. (51 mm) long anchor tabs for securement to the wall. Retainer tabs, 3/4 in. (19 mm) wide tapering down to 3/8 in. (10 mm) wide and located opposite the anchor tabs, are folded 90 degrees toward through penetrant surface to maintain the annular space around the pipe and to retain the wrap strips. Steel collar wrapped around wrap strips and through penetrant with 1 in. (25 mm) wide overlap along its perimeter joint. Steel collar tightened around wrap strips and through penetrant using min 1/2 in. (13 mm) wide by 0.028 in. (0.7 mm) thick stainless steel hose clamp spaced 2 in. (51 mm) OC. Collar secured to wall with 1/8 in. (3.2 mm) diam by min 1-3/4 in. (45 mm) long steel molly bolts in conjunction with min 1/4 in. (6 mm) by
1-1/4 in. (32 mm) diam steel fender washers. Steel collars are installed on each side of wall.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Last Updated on 2003-10-14
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FP 8 PIPE OR CONDUIT PENETRATION NON-METALIC
1"=1'-0" A131-FP8 (062817)

Project Architect:

MBA

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AR0013034
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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

INTERIOR PARTITION SECTIONS, NOTES, DETAILS

Drawing Number:

A13-1.1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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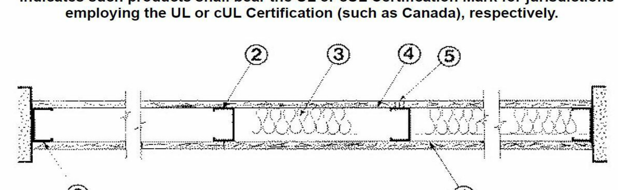
Design No. U465

October 02, 2019

Nonbearing Wall Rating — 1 HR.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners** - (Not Shown) - Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1A. **Framing Members*** - Floor and Ceiling Runners - (Not Shown) - As an alternate to Item 1 – Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

1B. **Framing Members*** - Floor and Ceiling Runners - Not Shown - In lieu of Item 1 - For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

1C. **Floor and Ceiling Runners** - (Not Shown) - For use with Item 2C
- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1D. **Framing Members* - Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 through 1C - For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CLARKDIETRICH BUILDING SYSTEMS - CD ProTRAK

DMFCWBS L L C - ProTRAK

MBA METAL FRAMING – ProTRAK

RAM SALES L L C - Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProTRAK

1E. **Framing Members*** - Floor and Ceiling Runners - Not Shown - In lieu of Items 1 through 1D - For use with Item 2E and 4I only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C - TRUE-TRACK™

1F. **Framing Members*** - Floor and Ceiling Runners - Not Shown - In lieu of Items 1 through 1E - For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
~~KIRII (HONG KONG) LTD — Type KIRII~~

1G. **Framing Members* - Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 through 1F - For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.
STUDCO BUILDING SYSTEMS - CROCSTUD Track

1H. **Floor and Ceiling Runners** - (Not Shown) - Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track VT100

FUSION BUILDING PRODUCTS - Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track VT100

1I. **Framing Members* - Floor and Ceiling Runners** - Not Shown - In lieu of Item 1 - For use with Item 2H, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C – Viper20™ Track

1J. **Framing Members* - Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 - For use with Item 2 L, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
STEEL INVESTMENT GROUP L L C - AlphaTRAK

1K. **Framing Members* - Floor and Ceiling Runners** - Not Shown - In lieu of Item 1 - For use with Item 2M, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X Track

1L. **Framing Members* - Floor and Ceiling Runners** - Not Shown - In lieu of Item 1 - For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CRACO MFG INC - SmartTrack20™

2. **Steel Studs** - Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members* - Steel Studs** - As an alternate to Item 2 - Channel shaped studs, min 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Framing Members* - Steel Studs** - Not Shown - In lieu of Item 2
- For use with Item 18, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™

CRACO MFG INC - SmartStud20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™

FUSION BUILDING PRODUCTS - Viper20

IMPERIAL MANUFACTURING GROUP INC - Viper20

2C. **Steel Studs** - (As an alternate to Item 2, For use with Item 1C) - Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height. See materials in Item(s) 4 that require Item 2C studs.

2D. **Framing Members* - Steel Studs** - As an alternate to Items 2 through 2C – For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS - CD ProSTUD

DMFCWBS L L C - ProSTUD

MBA METAL FRAMING – ProSTUD

RAM SALES L L C - Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2E. **Framing Members* - Steel Studs** - As an alternate to Items 2 through 2D – For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
TELLING INDUSTRIES L L C – TRUE-STUD

2F. **Framing Members* - Steel Studs** - As an alternate to Items 2 through 2E – For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
~~KIRII (HONG KONG) LTD — Type KIRII~~

2G. **Framing Members* - Steel Studs** - Not Shown - In lieu of Item 2 through 2F - For use with Item 1G. Proprietary channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height.
STUDCO BUILDING SYSTEMS - CROCSTUD

2H. **Framing Members* - Steel Studs** - Not Shown - In lieu of Item 2
- For use with Item 1I, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
TELLING INDUSTRIES L L C – Viper20

2I. **Framing Members* - Steel Studs** - In lieu of Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion- protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs cut 3/4 in. less than assembly height.
EB METAL INC – NITROSTUD

2J. **Framing Members* - Steel Studs** - In lieu of Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion- protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs cut 3/4 in. less than assembly height.
OLMAR SUPPLY INC - PRIMESTUD

2K. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1B (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced 24 in. OC max. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - StudRite

2L. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1J, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
STEEL INVESTMENT GROUP L L C - AlphaSTUD

2M. **Framing Members* - Steel Studs** - Not Shown - In lieu of Item 2 - For use with Item 1K, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/4 in. less in length than assembly height.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X

2N. **Framing Members* - Steel Studs** - Not Shown - In lieu of Item 2 - For use with Item 1L, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CRACO MFG INC - SmartStud20

3. **Batts and Blankets*** - (Optional) - Mineral wool or glass fiber batts partially or completely filling stud cavity.
ROCKWOOL – Type AFB, min. density 1.69 pcf / 27.0 kg/m3

See **Batts and Blankets** (BZJZ) category for names of Classified companies.

3A. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - (100% Borate Formulation) - Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C – INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only

3B. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC - Cellulose Insulation

3C. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3.
INTERNATIONAL CELLULOSE CORP - Celbar-RL

3D. **Batts and Blankets*** - For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the studs and floor and ceiling runners.

See **Batts and Blankets** (BZJZ) category for names of manufacturers.

3E. **Batts and Blankets*** - For use with Item 4P, 4R and 4S. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.

See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

3F. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft3.
APPLEGATE HOLDINGS L L C - Applegate Advanced Stabilized Cellulose Insulation

4. **Gypsum Board*** - 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to Items 6 (resilient channels) or 6A, 6B, 6C, 6O, or 6E (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.
CABOT MANUFACTURING ULC - Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO - Types AG-C, AGX-1, M-Glass, LightRoc

~~**BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** - Type DBX-1~~

CGC INC - Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CERTAINTEED GYPSUM INC - Types 1, EGRG, GlasRoc, Type X, Type X-1, Type C, 5/8" Easi-Lite Type X, Easi-Lite Type X-2

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types LGFC2A, LGFC6A, LGFC-C1A, LGFC-WD, LGLLX

GEORGIA-PACIFIC GYPSUM L L C – Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing-Type LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO - Types eXP-C, FSK, FSK-C, FSK-G, FSMR- C, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSL

~~**NATIONAL GYPSUM CO** – Riyadh, Saudi Arabia – Type FR, or WR~~

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Types PG-C, PG-9, PG-11, PGS-WRS

PANEL REY S A – Types GREX, GRIX, PRC, PRC2, PRX, RHX, MDX, ETX

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** – Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc Duraline, Gyproc Duraline MR, Gyproc Duraline M2TECH, Gyproc Duraline ACTIV'Air, Gyproc Duraline MR ACTIV'Air, Gyproc Duraline M2TECH ACTIV'Air~~

~~**SIAM GYPSUM INDUSTRY (SARABURI) CO LTD** – Type EX-1~~

~~**THAI GYPSUM PRODUCTS PCL** – Type X, Type C~~

UNITED STATES GYPSUM CO - Type AR, C, FRX-G, IP-AR, IP-X1, IP- X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC –Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

~~**USG MEXICO S A DE C V** – Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)~~

4A. **Gypsum Board*** - (As alternate to Item 4) - Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC - Type X, Type X-1, Type C, Type EGRG/ GlasRoc, Type GlasRoc-2, Type SilentFX, Type Easi-lite Type X-2

CGC INC - Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types IGFC2A, IGFC6A, IGFC-C/A, IGFC-WD

GEORGIA-PACIFIC GYPSUM L L C - Types DAP, DAPC, DGG, DS

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** – Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc Duraline, Gyproc Duraline MR, Gyproc Duraline M2TECH, Gyproc Duraline ACTIV'Air, Gyproc Duraline MR ACTIV'Air, Gyproc Duraline M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** – Type X, Type C~~

UNITED STATES GYPSUM CO - Types AR, C, FRX-G, IP-AR, IP-X1, IP- X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC – Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

~~**USG MEXICO S A DE C V** – Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)~~

4B. **Gypsum Board*** - (As an alternate to Items 4 or 4A) - Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in.
CGC INC –Types AR, IP-AR

UNITED STATES GYPSUM CO - Types AR, IP-AR

~~**USG MEXICO S A DE C V** - Types AR, IP-AR~~

4C. **Gypsum Board*** - As an alternate to Items 4, 4A, and 4B - Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing.
GEORGIA-PACIFIC GYPSUM L L C - Type 0GG, GreenGlass Type X

4D. **Gypsum Board*** - As an alternate to Items 4, 4A, 4B, and 4C - Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications. When used in widths other than 48 in., gypsum panels are to be installed horizontally.
NATIONAL GYPSUM CO - Types eXP-C, FSK, FSK-C, FSK-G, FSL, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C

4E. **Gypsum Board*** - (As an alternate to Items 4 through 40) - Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 12 in. OC.
NATIONAL GYPSUM CO - Type SBWB

4F. **Gypsum Board*** - (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
RAY-BAR ENGINEERING CORP - Type RB-LBG

4G. **Gypsum Board*** - (As an alternate to Items 4 through 4F) - For use with Items 10 and 20 only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly.
CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type LGFC6A, LGFC-C/A

NATIONAL GYPSUM CO - Types FSW

UNITED STATES GYPSUM CO – Type SCx

USG BORAL DRYWALL SFZ LLC - Type SCx

4H. **Gypsum Board*** - (As an alternate to Items 4 through 4G) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type QuietRock ES

4I. **Gypsum Board*** - (As an alternate to Items 4 through 4F) - For use with Items 1E and 2E only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly.
UNITED STATES GYPSUM CO – Type SCx

USG BORAL DRYWALL SFZ LLC - Type SCx

4J. **Gypsum Board*** - (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S- 12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A).
MAYCO INDUSTRIES INC - Type x-Ray Shielded Gypsum

4K. **Gypsum Board*** - (As an alternate to Item 4 and 4A, not for use with Items 1D, 1E, 2D and 2E) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4 and 4A.
CGC INC - Type ULX

UNITED STATES GYPSUM CO - Type ULX

~~**USG MEXICO S A DE C V** - Type ULX~~

4L. **Gypsum Board*** - (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

4M. **Gypsum Board*** - (For use with Item 8) - 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 8) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 8). Secured to outermost studs and floor and ceiling runners with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound.
AMERICAN GYPSUM CO - Type AG-C

CERTAINTEED GYPSUM INC - Type FRPC, Type C

CGC INC –Types C, IP-X2, IPC-AR

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type IGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C - Types 5, DAPC, TG-C

NATIONAL GYPSUM CO - Types eXP-C, FSK-C, FSW-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type PG-C

PANEL REY S A - Types PRC, PRC2

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** – Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc Duraline, Gyproc Duraline MR, Gyproc Duraline M2TECH, Gyproc Duraline ACTIV'Air, Gyproc Duraline MR ACTIV'Air, Gyproc Duraline M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** – Type C~~

UNITED STATES GYPSUM CO - Types C, IP-X2, IPC-AR

USG BORAL DRYWALL SFZ LLC - Type C

~~**USG MEXICO S A DE C V** - Types C, IP-X2, IPC-AR~~

4N. **Wall and Partition Facings and Accessories*** - (As an alternate to Item 4) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type QuietRock 527

4O. **Gypsum Board*** - As an alternate to Items 4, 4A, 48, and 4C - Two layers Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal joints on the same side need not be staggered. When applied horizontally, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC and staggered 4 in. OC between layers. When applied vertically, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field, staggered 4 in. OC between layers. Screws spaced a max 12 in. along the top and bottom edges of the wall.
NATIONAL GYPSUM CO – Type FSW

4P. **Gypsum Board*** - As an alternate to Item 4. For use with Item 3E, Batts and Blankets* - 5/8 in. thick, 4 ft wide, installed as described in Item 4.
UNITED STATES GYPSUM CO - Types ULIX

4Q. **Gypsum Board*** - 3/4 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track as described in Item 4 with screw length increased to min. 1- 1/8 in.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type PG-13

4R. **Gypsum Board*** - As an alternate to Item 40. For use with Item 3E, Batts and Blankets* - 5/8 in. thick, 4 ft wide, installed as described in Item 4.
NATIONAL GYPSUM CO - Type FSLX.

4S. **Gypsum Board*** - As an alternate to Item 4. For use with Item 3E, Batts and Blankets* - 5/8 in. thick, 4 ft wide, installed as described in Item 4A.
CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type CLLX.

4T. **Wall and Partition Facings and Accessories*** - (As an alternate to 5/8 in. thick board as outlined in Item 4) - Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type QuietRock 545

5. **Joint Tape and Compound** - Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

6. **Resilient Channel** - (Optional - Not Shown) - 25 MSG galv steel resilient channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 pan head steel screws. May not be used with Item 4F, 4J or 4L.

6A. **Steel Framing Members*** - (Not Shown) - As an alternate to Item 6, furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Not for use with Items 4F, 4J, or 4L.

b. **Framing Members*** - Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C – Types RSIC-1, RSIC-1 (2.75)

6B. **Framing Members*** - (Not Shown) - (Optional on one or both sides) -As an alternate to Item 6, furring channel and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - Used to attach furring channels (Item 68a) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1- 1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC –Type Genie Clip

6C. **Steel Framing Members*** - (Optional, Not Shown) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS - RESILMOUNT Sound Isolation Clips - Type A237R

6D. **Steel Framing Members*** - (Optional, Not Shown) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - UUsed to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC., and secured to studs with No.8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA - Type SonusClip

6E. **Steel Framing Members*** - (Optional, Not Shown) - Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels** - Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - Used to attach resilient channels (Item 6Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self- drilling screw.
KEENE BUILDING PRODUCTS CO INC - Type RC+Assurance Clip

7. **Wall and Partition Facings and Accessories*** - (Optional, Not Shown) - Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type QuietRock QR-500 and QR-510

8. **Mineral and Fiber Board*** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer (Item 4M) is to be installed over the Mineral and Fiber Boards. Batts and Blankets, Item 30, and Adhesive, Item 11, are required.
HOMASOTE CO - Homasote Type 440-32

8A. **Mineral and Fiber Board** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. Not evaluated for use with Item 4M.
BLUE RIDGE FIBERBOARD INC - SoundStop

8B. **Mineral and Fiber Board*** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer is to be installed over the Mineral and Fiber Boards and secured with length of fasteners increased by 1/2 in. over the length specified for installation of the gypsum boards. Batts and Blankets, Item 3, are optional unless otherwise required. Not for use with Items 4F, 4J, 4L and 4M.
HOMASOTE CO - Homasote Type 440-32

9.**Lead Batten Strips** - (Not Shown, For Use With Item 4E) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4E) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips** - (Not Shown, for use with Item 4J) - Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4J) and optional at remaining stud locations.

10. **Lead Discs or Tabs** - (Not Shown, For Use With Item 4E) - Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4E) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10A. **Lead Discs** - (Not Shown, for use with Item 4J) - Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

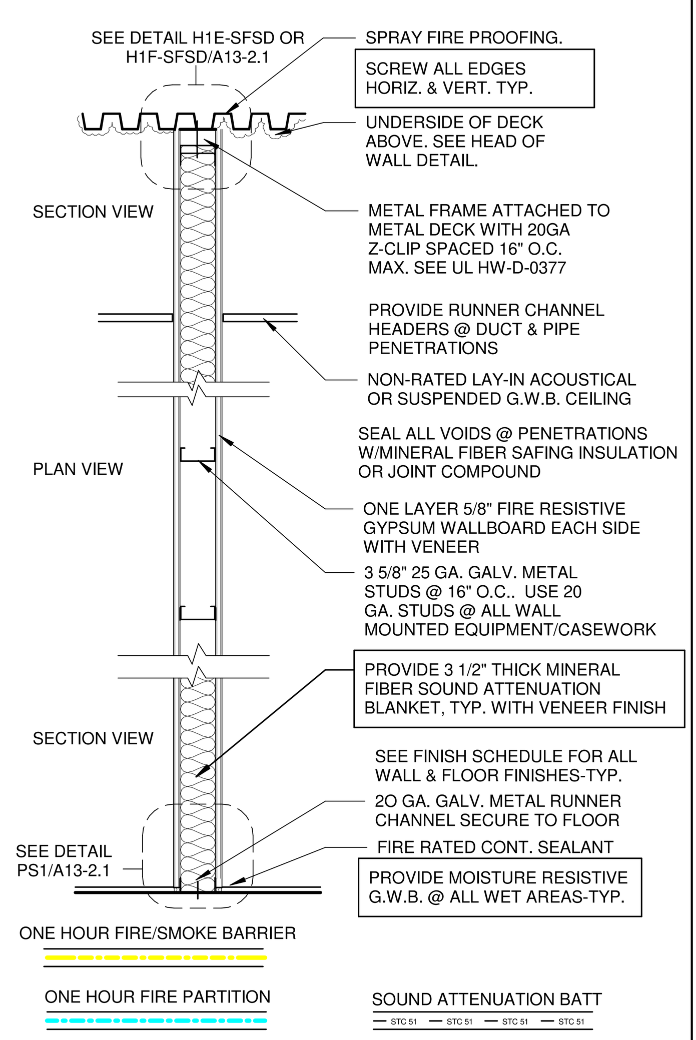
11. **Adhesive** - Not Shown - (For use with Item 8) - Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 8).

12.**Wall and Partition Facings and Accessories*** - (Optional, Not Shown) - For use with Items 1 to 1I, Items 2 to 2J, Item 3, Items 4 to 4I, Item 5 and Item 6. For maximum fire rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 4 to Item 4I), install RefleXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When RefleXor membrane is used an additional layer of Gypsum Board that is identical to the one used in the first layer and as specified in Item 4 to Item 4I shall be installed over the membrane. The additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 4 to Item 4I except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 3. On the other side of the wall, prior to the installation of the Gypsum Board, install Resilient Channels as per Item 6. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with drywall screws and washers spaced at 16 in. OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 4 to Item 4I with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
MSL - RefleXor membrane, SONOpan panel

13. **Barrier Mesh** - (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS - Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-10-02



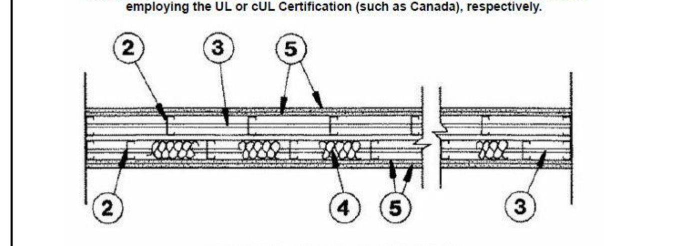
P1 UL U465
INTERIOR PARTITION AND SMOKE BARRIER DETAIL
1" = 1'-0" A132-ULP1G-u465-SF (102119)

Design No. U493

October 01, 2019

Nonbearing Wall Rating — 1 or 2 Hr. (See Items 5, 5A, 5B)

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners** - (For use with Item 5 and 5A) - Channel shaped, attached to floor and ceiling in two rows, a min 1 in. apart, with steel fasteners spaced 24 in. OC. Runners fabricated from min No. 25 MSG galv steel, 1-1/4 in. wide and 2-1/2 in. deep.

1A. **Floor and Ceiling Runners** - (As an alternate to Item 1, For use with Item 58 and 5C) - Channel shaped, attached to floor and ceiling in two rows, a min 1 in. apart. Runners fabricated from min No. 20 MSG galv steel, 1-3/16 in. wide and 2-9/16 in. deep.

1B. **Framing Members*** - Floor and Ceiling Runners - (Not shown for use with Item 28) - As an alternate to Item 1 - Channel shaped, min. 2- 1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

1C. **Framing Members*** – Floor and Ceiling Runners – (Not Shown) - As an alternate to Item 1 for a 2 hour rating only - For use with Item 2C, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS - CD ProTRAK

DMFCWBS L L C - ProTRAK

MBA METAL FRAMING – ProTRAK

RAM SALES L L C - Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProTRAK

1D. Framing Members* – Floor and Ceiling Runners – (Not Shown) - As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2- 1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

1E. **Framing Members*** - Floor and Ceiling Runners - (Not Shown) - As an alternate to Item 1 for a 2 hour rating only - For use with Item 2E, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper25™ Track

FUSION BUILDING PRODUCTS - Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper25™ Track

1F. **Framing Members*** - Floor and Ceiling Runners - Not Shown - As an alternate to Item 1 for use with Item 2F, proprietary channel shaped, min. 3-1/2 in. wide, fabricated from min. 0.018 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC max.
STEEL INVESTMENT GROUP L L C - AlphaTRAK

1G. **Framing Members*** – Floor and Ceiling Runners – (Not Shown) - As an alternate to Item 1 for use with Item 2G and for a 2 hour rating only. Channel shaped, min. 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D25

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D25

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D25

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D25

UNITED METAL PRODUCTS INC - Type SUPREME D25

2. **Steel Studs** - (For use with Item 5 and 5A) - Channel shaped, supplied with cutouts, friction -fitted into floor and ceiling runners and spaced a max 24 in. OC. Studs cut 1/2 in. less than assembly height and evenly staggered between the two rows of floor and ceiling runners. Studs fabricated from min No. 25 MSG galv steel, min 2-1/2 in. deep by 1-5/8 in. wide with 3/8 in. folded back return flange legs.

2A. **Steel Studs** - (As an alternate to Item 2, For use with Items 58, 5C, 5E, and 5F) - Channel shaped, supplied with cutouts, friction -fitted into floor and ceiling runners and spaced a max 16 in. OC. Studs cut 1/2 in. less than assembly height and staggered flush against the floor runners. Studs fabricated from min No. 20 MSG galv steel, min 2-1/2 in. deep x 1- 5/8 in. wide x 3/8 in. folded back return flange legs.

2B. **Framing Members*** - Steel Studs - As an alternate to Item 2 - Channel shaped studs, min. 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

OLMAR SUPPLY INC - PRIMESTUD

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

2C. **Framing Members*** - Steel Studs - As an alternate to Item 2 for a 2 hour rating only - For use with Item 1C, channel shaped studs, min 2- 1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS - CD ProSTUD

DMFCWBS L L C - ProSTUD

MBA METAL FRAMING – ProSTUD

RAM SALES L L C - Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2D. **Framing Members*** - Steel Studs - As an alternate to Item 2 - For use with Item 1D, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™

FUSION BUILDING PRODUCTS - Viper20™

IMPERIAL MANUFACTURING GROUP INC - Viper20™

2E. **Framing Members*** - Steel Studs - As an alternate to Item 2 for a 2 hour rating only - For use with Item 1E, channel shaped studs, min 2- 1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper25M

FUSION BUILDING PRODUCTS - Viper25M

IMPERIAL MANUFACTURING GROUP INC - Viper25M

2F. **Framing Members*** - Steel Studs - As an alternate to Item 2, for use with Item 1F, proprietary channel shaped studs, min. 3-1/2 in. wide, fabricated from min. 0.018 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
STEEL INVESTMENT GROUP L L C – AlphaSTUD

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME 025

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME 025

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME 025

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME 025

UNITED METAL PRODUCTS INC - Type SUPREME 025

3. **Lateral Bracing** - The bracing shall be in accordance with the SSMA Technical Note Dated March 2000 Referencing Unsheathed Flange Bracing.

3A. **Lateral Bracing** - (Not Shown) - Right angle- shaped, supplied with notches spaced 12, 16, or 24 in. OC., friction-fitted to the cutouts in steel studs, supplied in 7/8 in. by 7/8 in. by 50 in. lengths. Lateral bracing bars fabricated from min. 20 MSG galvanized steel. The bracing shall be located a maximum of 5 ft on center in accordance with the manufacturers published literature.
CLARKDIETRICH BUILDING SYSTEMS - TradeReady Spazzer 9200 bar

4.**Batts and Blankets** - Optional - Glass fiber batts may be friction- fitted to completely fill the stud cavities on one or both rows of studs.

See **Batts and Blankets** Category (BZJZ) for names of manufacturers.

4A. **Batts and Blankets** - For use with Item 5G. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.

See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies

5. **Gypsum Board*** - Nom 5/8 in. thick, 4 ft. wide, gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Single layer installed on each side of the steel studs for the 1-hr system, two layers installed on each side of the studs for the 2-hr system. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (2-hr system) staggered one stud cavity. Horizontal edge joints and horizontal butt joints need not be backed by framing. Horizontal edge joints and horizontal butt joints in adjacent layers (2-hr system) staggered a minimum of 6 in. For the single layer system: panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when applied vertically. For the double layer system: base layer panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 16 in., face layer panels attached to steel studs and floor runner with 1-5/8 in. long Type S steel screws spaced 12 in. When used in widths other than 48 in., gypsum panels to be installed horizontally.

When **Steel Framing Members*** (Item 7-7C) are used: For the 1-hr system, gypsum panels attached vertically to furring channels with 1 in. long Type S-12 screws spaced 12 in. OC. Vertical joints offset min 12 in. from layer on other side of wall. For the 2-hr system, inner layer of gypsum panels attached vertically to furring channels with 1 in. Type S-12 screws spaced 16 in. OC, outer layer with 1-5/8 in. Type S-12 screws spaced 12 in. OC. Inner layer to be applied vertically. Outer layer to be applied vertically with joints offset a minimum 12 in. from inner layer joints.

CGC INC – Type SCX, SHX, IP-X1, WRX, AR, IP-AR, C, WRC, IP-X2, or IPC-AR, USGX (Joint tape and compound, Item 6, optional for use with Type USGX)

UNITED STATES GYPSUM CO - Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, WRX, WRC, USGX (Joint tape and compound, Item 6, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC - Types C, SCX, SGX, USGX (Joint tape and compound, Item 6, optional for use with Type USGX)

~~**USG MEXICO S A DE C V** - Type SGX, SHX, IP-X1, WRX, AR, IP-AR, C, WRC, IP-X2, or IPC-AR, USGX (Joint tape and compound, Item 6, optional for use with Type USGX)~~

5A. **Gypsum Board*** - (As an alternate to Item 5) - Single layer installed on each side of the steel studs for the 1-hr system, two layers installed on each side of the studs for the 2-hr system. Nom 3/4 in. thick, 4 ft wide, installed as described in Item 5 with screw length increased to 1-1/4 in. for base layer (or for 1 hr. configuration) 2-1/4 in. for face layer.
CGC INC –Types AR, IP-AR

UNITED STATES GYPSUM CO - Types AR, IP-AR

~~**USG MEXICO S A DE C V** - Types AR, IP-AR~~

5B. **Gypsum Board*** - (As an alternate to Item 5 may be used as the base layer on one or both sides of wall, For direct attachment only) - Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over min 20 MSG galvanized steel studs and staggered min 1 stud cavity on opposite sides of studs. See Item 2A. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 8) or Lead Discs or Tabs (see Item 9).
RAY-BAR ENGINEERING CORP - Type RB-LBG

5C. **Gypsum Board*** - (As an alternate to Item 5 may be used as the base layer on one or both sides of wall, For direct attachment only) - Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
NEW ENGLAND LEAD BURNING CO INC, DBA NELCO - Nelco

5D. **Gypsum Board*** - (As an alternate to Item 5, not for use with Items 1C and 2C) - Nom. 5/8 in. thick, 4 ft. wide gypsum panels with beveled, square or tapered edges installed as described in Item 5.
CGC INC - Type ULX

UNITED STATES GYPSUM CO - Type ULX

~~**USG MEXICO S A DE C V** - Type ULX~~

5E. **Gypsum Board*** - (As an alternate to Item 5 may be used as the base layer on one or both sides of wall, For direct attachment only). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over min 20 MSG galvanized steel studs and staggered min 1 stud cavity on opposite sides of studs. See Item 2A. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

5F. **Gypsum Board*** - (As an alternate to Items 4) - For Direct Application to Studs Only - For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with #6 x 1-5/8 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grades "A, B, C or D". Fasteners for face layer gypsum panels (Items 5) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 5.
MAYCO INDUSTRIES INC - "X-Ray Shielded Gypsum"

5G. **Gypsum Board*** - For use with Item 4A, Batts and Blankets*, for the 1 hour rating. Nom 5/8 in. thick, 4 ft. wide, gypsum panels intstalled as described in Item 5.

UNITED STATES GYPSUM CO - Type ULIX

5H. **Gypsum Board*** - Nom 5/8 in. thick, 4 ft. wide, gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Single layer installed on each side of the steel studs for the 1-hr system, two layers installed on each side of the studs for the 2-hr system. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (2-hr system) staggered one stud cavity. Horizontal edge joints and horizontal butt joints need not be backed by framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (2-hr system) staggered a minimum of 6 in. For the single layer system: panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when applied vertically. For the double layer system: base layer panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 16 in., face layer panels attached to steel studs and floor runner with 1-5/8 in. long Type S steel screws spaced 12 in. When used in widths other than 48 in., gypsum panels to be installed horizontally. When **Steel Framing Members*** (Item 7-78) are used: For the 1-hr system, gypsum panels attached vertically to furring channels with 1 in. long Type S-12 screws spaced 12 in. OC. Vertical joints offset min 12 in. from layer on other side of wall. For the 2-hr system, inner layer of gypsum panels attached vertically to furring channels with 1 in. Type S-12 screws spaced 16 in. OC, outer layer with 1-5/8 in. Type S-12 screws spaced 12 in. OC. Inner layer to be applied vertically. Outer layer to be applied vertically with joints offset a minimum 12 in. from inner layer joints.

~~**NATIONAL GYPSUM CO** – Riyadh, Saudi Arabia – Type FR.~~

6. **Joint Tape and Compound** - (Not Shown) - Outer layer joints covered with joint compound and paper or mesh tape. Screw heads covered with joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

7. **Steel Framing Members*** - (Not Shown) - (Optional on one or both sides, not shown, for single or double layer systems) – Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 5. May not be used with items 58, 5C, 5E or 5F.

b. **Steel Framing Members*** - Used to attach furring channels (Item 7a) to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C – Types RSIC-1, RSIC-1 (2.75)

7A. **Steel Framing Members*** - (Optional, Not Shown) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 5. May not be used with items 58, 5C, 5E or 5F.

b. **Steel Framing Members*** - Used to attach furring channels (Item 7Aa) to studs. Clips spaced 48 in. OC., and secured to studs 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS - RESILMOUNT Sound Isolation Clips - Type A237R

7B. **Steel Framing Members*** - (Optional, Not Shown) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with a double strand of No. 18 AWG twisted steel wire. Gypsum board attached to furring channels as described in Item 5. May not be used with Items 58, 5C, 5E, or 5F.

b. **Steel Framing Members*** - Used to attach furring channels (Item 78a) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA - Type SonusClip

7C. **Steel Framing Members*** - (Optional, Not Shown) - Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels** - Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. May not be used with Items 58, 5C, 5E, or 5F.

b. **Steel Framing Members*** - Used to attach resilient channels (Item 7Ca) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC - Type RC+Assurance Clip

8. **Lead Batten Strips** - (Not Shown, For Use With Item 58) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 58) and optional at remaining stud locations. Required behind vertical joints.

9. **Lead Discs or Tabs** - (Not Shown, For Use With Item 58) - Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 58) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10. **Lead Batten Strips** - (Not Shown, For Use With Item 5C) - Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5C) and optional at remaining stud locations.

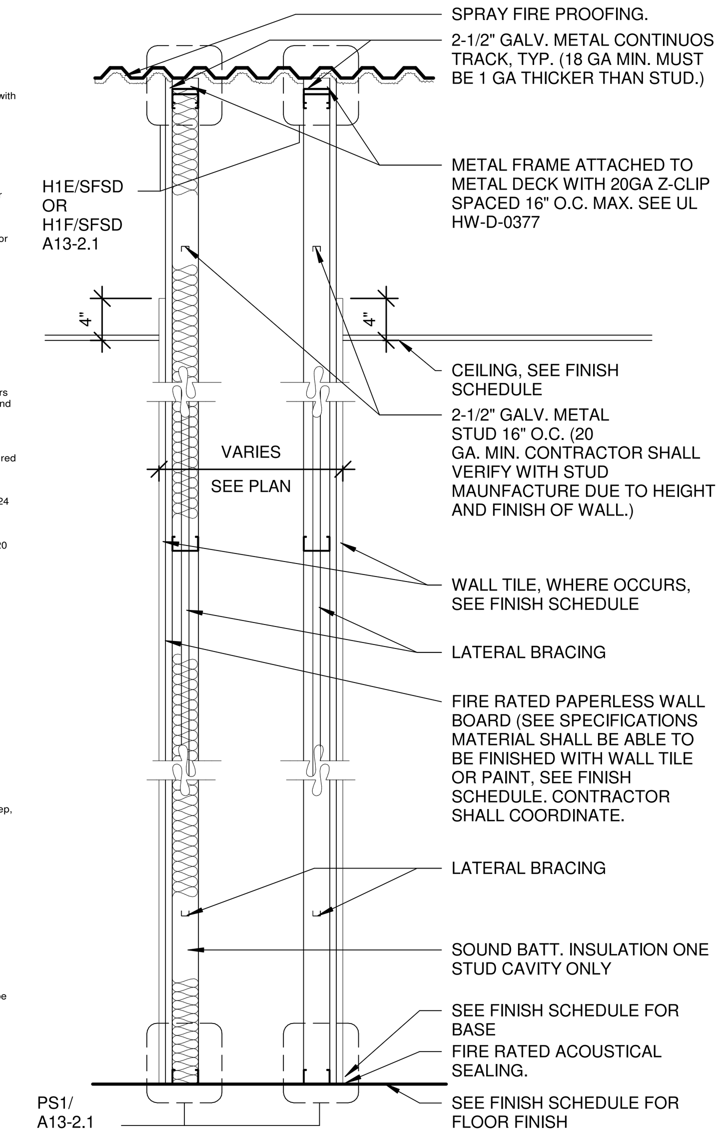
11. **Lead Tabs** - (Not Shown, For Use With Item 5C) - 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5C) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

12. **Wall and Partition Facings and Accessories*** - (Optional, Not Shown) - For use with Items 5 or 5A - Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type QuietRock QR-500 and QR-510

13. **Barrier Mesh** - (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS - Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-10-01



PC P1 STC - 52
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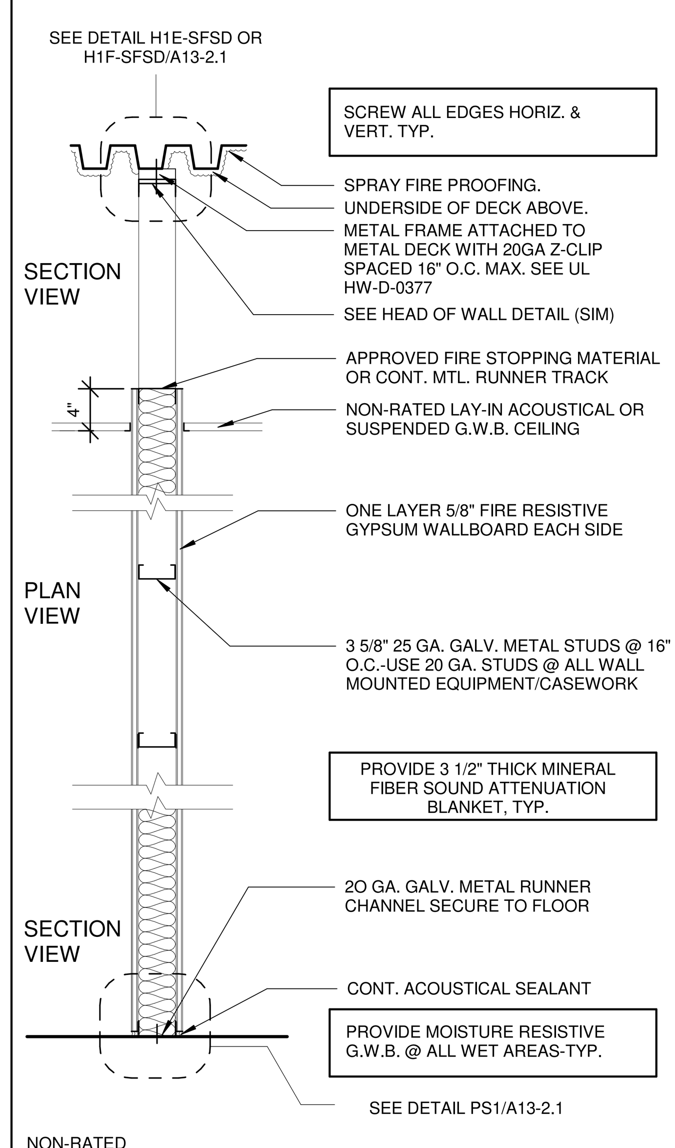

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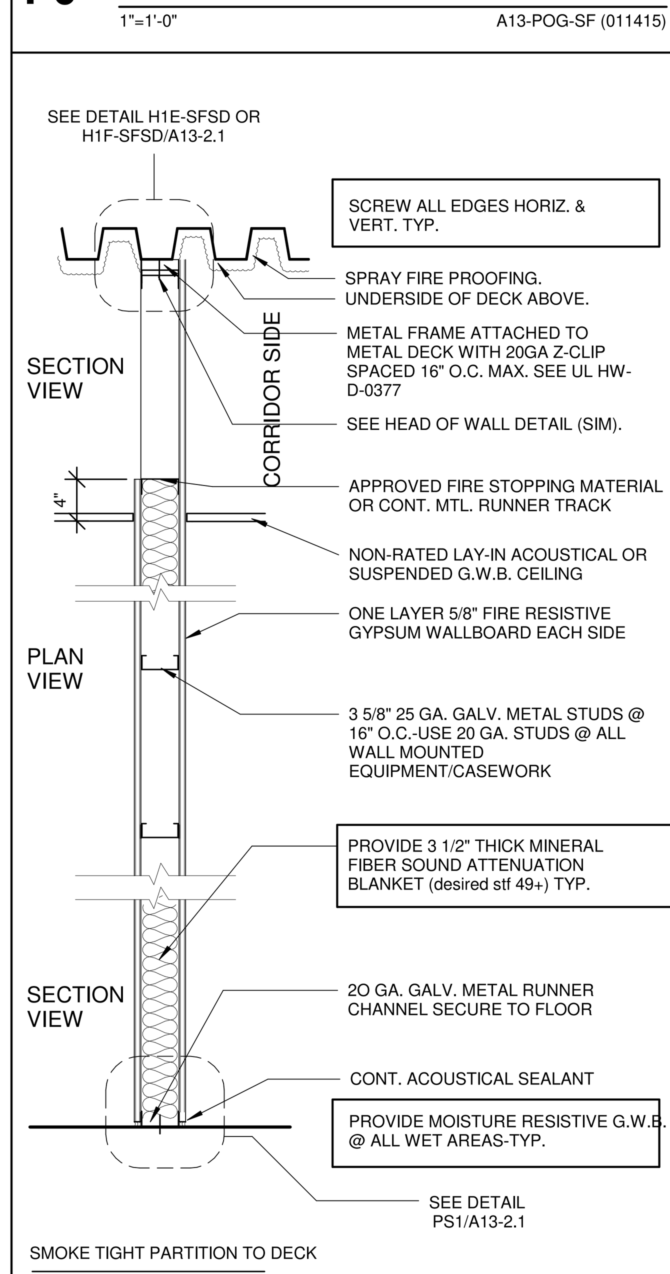


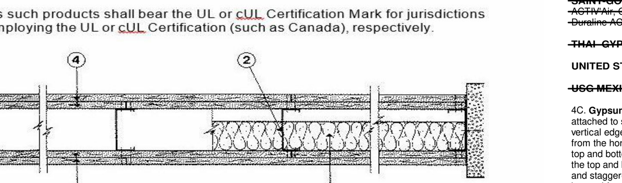
PS INTERIOR SMOKE PARTITION DETAIL
1"=1'-0" A13-PSG-SF (011415)

Design No. U411

October 02, 2019

Nonbearing Wall Rating – 2 Hr.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Floor and Ceiling Runner** - (Not Shown) - Min. 25 MSG galv steel, 1 in. return legs, 2-1/2 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members*** - **Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - For use with Item 2A, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREMED24/30EQD and Type SUPREME D20

CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™ Track

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

1B. **Floor and Ceiling Runners** - (Not Shown) - For use with Item 2B- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min width to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1C. **Framing Members* – Floor and Ceiling Runners –** (Not Shown)- As an alternate to Item 1 - For use with Item 2C, channel shaped, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
CLARKDIETRICH BUILDING SYSTEMS - CD ProTRAK

DMFCWBS L L C - ProTRAK

MBA METAL FRAMING – ProTRAK

RAM SALES L L C - Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProTRAK

1D. **Framing Members* – Floor and Ceiling Runners –** (Not Shown)
- As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2- 1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C - TRUE-TRACK™

1E. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - For use with Item 2E, channel shaped, min 2-1/2 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners 24 in. OC. max.
~~KIRII (HONG KONG) LTD — Type KIRII~~

1F. **Floor and Ceiling Runners** - (Not Shown) - Channel shaped, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track VT100

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

1G. **Framing Members* – Floor and Ceiling Runners –** (Not Shown) - As an alternate to Item 1 - For use with Item 2G, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
TELLING INDUSTRIES L L C – Viper20™ Track

1H. **Framing Members* – Floor and Ceiling Runners –** (Not Shown) - As an alternate to Item 1 - For use with Item 2J. Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
BAILEY METAL PRODUCTS LTD - Type PLATINUM PLUS

1I. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - For use with Item 2K, channel shaped, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners 24 in. OC. max.
STEEL INVESTMENT GROUP L L C - AlphaTRAK

1J. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - For use with Item 2L. Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.
OEG BUILDING MATERIALS - OEG Track

1K. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - For use with Item 2M, channel shaped, min 2- 1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners 24 in. OC. max.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X Track

1L. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - For use with Item 2N. Channel shaped, min. 2- 1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME 025

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME 025

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME 025

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME 025

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME 025

UNITED METAL PRODUCTS INC - Type SUPREME 025

1M. **Floor and Ceiling Runner** - (Not shown) - As an alternate to Item 1, For use with Items 2O and 4O - Min 25 MSG galv steel, 1-5/8 in. deep (min), attached to floor and ceiling with fasteners 24 in. OC max.

2. **Steel Studs** - Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME 024/30EQ0 and Type SUPREME 020

CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME 024/30EQ0 and Type SUPREME 020

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™

FUSION BUILDING PRODUCTS - Viper20™

IMPERIAL MANUFACTURING GROUP INC - Viper20™

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME 024/30EQ0 and Type SUPREME 020

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME 024/30EQ0 and Type SUPREME 020

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Steel Studs** - (As an alternate to Item 2, For use with Item 4D, 4H, and 4J) - Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2C. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1C, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.015 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CLARKDIETRICH BUILDING SYSTEMS - CD ProSTUD

DMFCWBS L L C - ProSTUD

MBA METAL FRAMING – ProSTUD

RAM SALES L L C - Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2D. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1D, channel shaped studs, min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C - TRUE-STUD™

2E. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1E, channel shaped studs, min 2-1/2 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
~~KIRII (HONG KONG) LTD — Type KIRII~~

2F. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1G, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
TELLING INDUSTRIES L L C – Viper20M

2G. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
EB METAL INC – NITROSTUD

2H. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
OLMAR SUPPLY INC - PRIMESTUD

2I. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1A (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced 24 in. OC max. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - StudRiteM

2J. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1H, channel shaped, min 3-5/8 in. wide, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
BAILEY METAL PRODUCTS LTD - Type PLATINUM PLUS

2K. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1I, channel shaped studs, min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
STEEL INVESTMENT GROUP L L C - AlphaSTUD

2L. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1J, channel shaped studs, Min 2-1/2 in. deep, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
OEG BUILDING MATERIALS - OEG Stud

2M. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1K, channel shaped studs, min 2-1/2 in. deep, formed of min. 25 MSG (0.018 in. min. bare metal thickness), spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X

2N. **Framing Members* - Steel Studs** - As an alternate to Item 2 - For use with Item 1L, channel shaped studs, min depth 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME 025

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME 025

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME 025

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME 025

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME 025

UNITED METAL PRODUCTS INC - Type SUPREME 025

2O. **Framing Members - Steel Studs** - (As an alternate to Item 2) For use with Items 1M and 4O - channel shaped studs min 1-5/8 in. deep, formed of 25 MSG galv steel, max stud spacing 24 in. OC. Studs cut 3/8 in. less than assembly height.

3. **Batts and Blankets*** - (Optional) - Mineral wool or glass fiber batts partially or completely filling stud cavity.
ROCKWOOL – Type AFB, min. density 1.69 pcf / 27.0 kg/m3

See **Batts and Blankets** (BZJZ) category for names of manufacturers.

3A. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - (100% Borate Formulation) - Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C – INS735, INS745 and INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

3B. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC - Cellulose Insulation

3C. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3.
INTERNATIONAL CELLULOSE CORP - Celbar-RL

3D. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft3.

APPLEGATE HOLDINGS L L C - Applegate Advanced Stabilized Cellulose Insulation

4. **Gypsum Board*** - 5/8 in. thick, outer layer paper, glass mat or vinyl surfaced. (Laminated System) Gypsum board applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints Outer layer gypsum board attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC.
Optional, (Direct Attached System). Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.

Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

CABOT MANUFACTURING ULC - Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO - Types AG-C, AGX-1, M-Glass, AGX-11, LightRoc

~~**BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** - Type DBX-1~~

CERTAINTEED GYPSUM INC - Types 1, FRPC, EGRG, GlasRoc, GlasRoc-2, Type X, Type X-1, Type C, or 5/8" Easi-Lite Type X

CGC INC - Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX, CLLX

GEORGIA-PACIFIC GYPSUM L L C – Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type- LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO - Types eXP-C, FSK, FSK-C, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSW-C, FSW-G, FSMR-C, FSL, Type SBWB

~~**NATIONAL GYPSUM CO** – Riyadh, Saudi Arabia – Type FR, or WR.~~

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type C, PG-3, PG-5, PG-9, PG-11, PG-C, PGS-WRS

PANEL REY S A – Types GREX, GRIX, PRX, RHX, MDX, ETX, PRC or PRC2

~~**SIAM GYPSUM INDUSTRY (SARABURI) CO LTD** – Type EX-1~~

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** – Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** – Type C or Type X~~

UNITED STATES GYPSUM CO - Type AR, C, FRX-G, IP-AR, IP-X1, IP- X2, IPC-AR, SCX, SGX, SHX, ULIX, USGX, WRC, WRX

USG BORAL DRYWALL SFZ LLC - Types C, SCX, SGX, USGX

~~**USG MEXICO S A DE C V** – Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX~~

4A. **Gypsum Board*** - (As an alternate to Item 4) - Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S screws for outer layer.
CGC INC – Types AR, IP-AR

UNITED STATES GYPSUM CO - Types AR, IP-AR

~~**USG MEXICO S A DE C V** - Types AR, IP-AR~~

4B. **Gypsum Board*** - (As an alternate to Items 4 and 4A) - 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC - Type X, Type C, Type GlasRoc

CGC INC - Type SHX

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** – Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc Duraline, Gyproc Duraline MR, Gyproc Duraline M2TECH, Gyproc Duraline ACTIV'Air, Gyproc Duraline MR ACTIV'Air, Gyproc Duraline M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** – Type X, Type C~~

UNITED STATES GYPSUM CO - Type SHX, FRX-G

~~**USG MEXICO S A DE C V** - Type SHX~~

4C. **Gypsum Board*** - (As an alternate to Items 4, 4A and 4B) - Two layers of 5/8 in. thick gypsum board applied horizontally or vertically. Inner layer attached to studs with No. 6 by 1 in. long Type S bugle head screws spaced 24 in. OC along the top and bottom tracks starting 2 in. and then 12 in. from the vertical edge. Inner layer screws spaced 24 in. OC along the studs, starting 2 in. and then 12 in. from the top and bottom of the studs and starting 1-1/4 in. from the horizontal joints when installed horizontally. Outer layer attached to studs with 1-5/8 in. long Type S bugle head screws spaced 16 in. OC along the top and bottom tracks starting 1- 3/4 in. from the vertical edge. Outer layer screws spaced 16 in. OC along the studs, starting 1-3/4 in. and then 8 in. from the top and bottom of the studs and starting 1-1/4 in. and then 8 in. from the horizontal joints when installed horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers staggered a min of 12 in. When outer layers are installed horizontally, vinyl or cassin, dry or premixed joint compound applied in two coats to joints and screw heads of outer layer. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.
GEORGIA-PACIFIC GYPSUM L L C – Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type- LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

4D. **Gypsum Board*** - (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S- 12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.
RAY-BAR ENGINEERING CORP - Type RB-LBG

4E. **Gypsum Board*** - (As an alternate to Items 4 through 4D) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Types QuietRock ES

4F. **Gypsum Board*** - (As an alternate to Items 4 through 4E) -5/8 in. thick, applied vertically or horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed horizontally.
CERTAINTEED GYPSUM INC - Type SilentFX

4G. **Gypsum Board*** - As an alternate to Item 4 - Nom. 5/8 in. thick, inner layer attached vertically to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs horizontally over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of outer layer must be taped. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard.
CABOT MANUFACTURING ULC - Type Blueglass Exterior Sheathing

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Types C, PG-11, PGS-WRS

4H. **Gypsum Board*** - (Not Shown) - (As an alternate to Items 4. For direct attachment only to steel studs Item 2B) – For Direct Application to Studs Only- For use as the base layer on one or both sides of the wall.
Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type S 12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Fasteners for face layer gypsum panels when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 4. To be used with Lead Batten Strips (see Item 5A) or Lead Discs (see Item 6A).
MAYCO INDUSTRIES INC - Type X-Ray Shielded Gypsum

4I. **Gypsum Board*** - (As an alternate to Item 4, not for use with Items 1C and 2C or 1L and 2N) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4.
CGC INC - Type ULX

UNITED STATES GYPSUM CO - Type ULX

~~**USG MEXICO S A DE C V** - Type ULX~~

4J. **Gypsum Board*** - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs.Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

4K. **Gypsum Board** - (As an alternate to Items 4 through 4J, not for use with Items 1C and 2C.) - Two layers of nominal 15 mm thick gypsum board applied vertically. Inner layer attached to studs with No. 3.5 x 1-3/8 in. long bugle head, self-drilling screws spaced 23-5/8 in. OC in the field and 15-3/4 in. OC in the perimeter, with the first screw 2 in. from the edge. Outer layer attached to the studs over the inner layer with No. 3.5 x 1-3/4 in. long bugle head, self-drilling screws spaced 11-13/16 in. OC in the field and 7-7/8 in. OC in the perimeter, with the first screw 3/4 in. from the edge. Outer layer vertical joints staggered from inner layer screws. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layer staggered one stud cavity. Self- adhesive fiberglass mesh (9x9 mesh) tape, nom 2 in. wide, applied over all joints of outer layer panels. Dry or premixed joint compound applied in two coats to joints over the mesh tape and screw heads of outer layer.
GYPSEMNA CO LLC – Types MRFW, FW, TF

4L. **Gypsum Board*** - (As an alternate to Items 4 through 4K) - Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with #6 x 1 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Outer layer attached to studs with #6 x 1-5/8 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Vertical joints are centered over studs and staggered between layers and on opposite sides of the wall. Horizontal joints on the face layer are staggered 12 in. from the base layer. Horizontal joints are not to be backed by steel framing.
CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

4M. **Wall and Partition Facings and Accessories*** - (As an alternate to Items 4 through 4L) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type QuietRock 527.

4N. **Gypsum Board*** - (As an alternate to Item 4 through 4M) - For direct application to studs only - Four layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. When applied horizontal, base layer secured to studs with 1 in. Type S screws spaced 24 in. OC. Second layer installed with joints offset 12 in. from base layer and secured with 1 in. Type S screws spaced 24 in. OC. Third layer installed with joints in line with base layer and secured with 1-1/2 in. Type S screws spaced 16 in. OC. Fourth layer installed with joints in line with second layer and secured with 1-5/8 in. Type S screws spaced 12 in. OC. For all layers, screws offset 4 in. from previous layer. When applied vertically, base layer secured with 1 in. Type S screws spaced 24 in. OC. Second layer secured with joints offset one stud cavity and secured with 1 in. Type S screws spaced 24 in. OC. Third layer installed with joints in line with base layer and secured with 1-1/2 in. Type S screws spaced 12 in. OC. Fourth layer secured with joints in line with second layer and secured with 1-5/8 in. Type S screws spaced 8 in. OC along vertical edges and 12 in. OC in the field. For all layers, screws offset 4 in. from previous layer.
NATIONAL GYPSUM CO – Type FSW

4O. **Gypsum Board*** - (As an alternate to Items 4 through 4N) - Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with 1 in. long Type S screws spaced 16 in. OC in the field and vertical edges and along top and bottom tracks. Outer layer attached to studs with 1-5/8 in. long Type S screws spaced 16 in. OC in the field and vertical edges and 12 in. OC along top and bottom tracks. Vertical joints are centered over studs and staggered between layers and on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing.Horizontal edge joints and horizontal butt joints in adjacent layers need not be staggered.
NATIONAL GYPSUM CO – Type FSLX

4P. **Wall and Partition Facings and Accessories*** - (As an alternate to Item 4) - Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC. Along the perimeter and 12 in. OC in the field.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM – Type QuietRock 545

5. **Lead Batten Strips** - (Not Shown, For Use With Item 40) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 40) and optional at remaining stud locations. Required behind vertical joints.

5A. **Lead Batten Strips** - (Not Shown, for use with Item 4H) - Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4H) and optional at remaining stud locations.

6. **Lead Discs or Tabs** - (Not Shown, For Use With Item 40) - Used in lieu of or in addition to the lead batten strips (Item 5) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 40) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6A. **Lead Discs** - (Not Shown, for use with Item 4H) - Max 5/16 in. diam by max0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

7. **Mineral and Fiber Board*** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
HOMASOTE CO - Homasote Type 440-32

7A. **Mineral and Fiber Board** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
BLUE RIDGE FIBERBOARD INC - SoundStop

8. **Furring Channels** - (Optional, Not Shown - not for use with Items 40, 4H, 4J, or 4N) - Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S- 12 steel screws.

8A. **Framing Members*** - (Optional on one or both sides, Not Shown - not for use with Items 40, 4H, 4J, or 4N) - As an alternate to Item 8, furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b.

b. **Steel Framing Members*** - Used to attach furring channels (Item 8Aa) to studs. Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self- drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C – Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)

8B. **Framing Members*** - (Optional on one or both sides, Not Shown - Not for use with Items 40, 4H, 4J, or 4N) - As an alternate to Item 8, furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members*** - Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS - RESILMOUNT Sound Isolation Clips - Type A237R

8C. **Steel Framing Members*** - (Optional on one or both sides, Not Shown - Not for use with Items 40, 4H, 4J, or 4N) - As an alternate to Item 8, furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 8Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4.

b. **Steel Framing Members*** - Used to attach furring channels (Item 8Ca) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA - Type SonusClip

8D. **Steel Framing Members*** - (Optional on one or both sides, Not Shown - Not for use with Items 40, 4H, 4J, or 4N) - As an alternate to Item 8, furring channels and Steel Framing Members as described below:

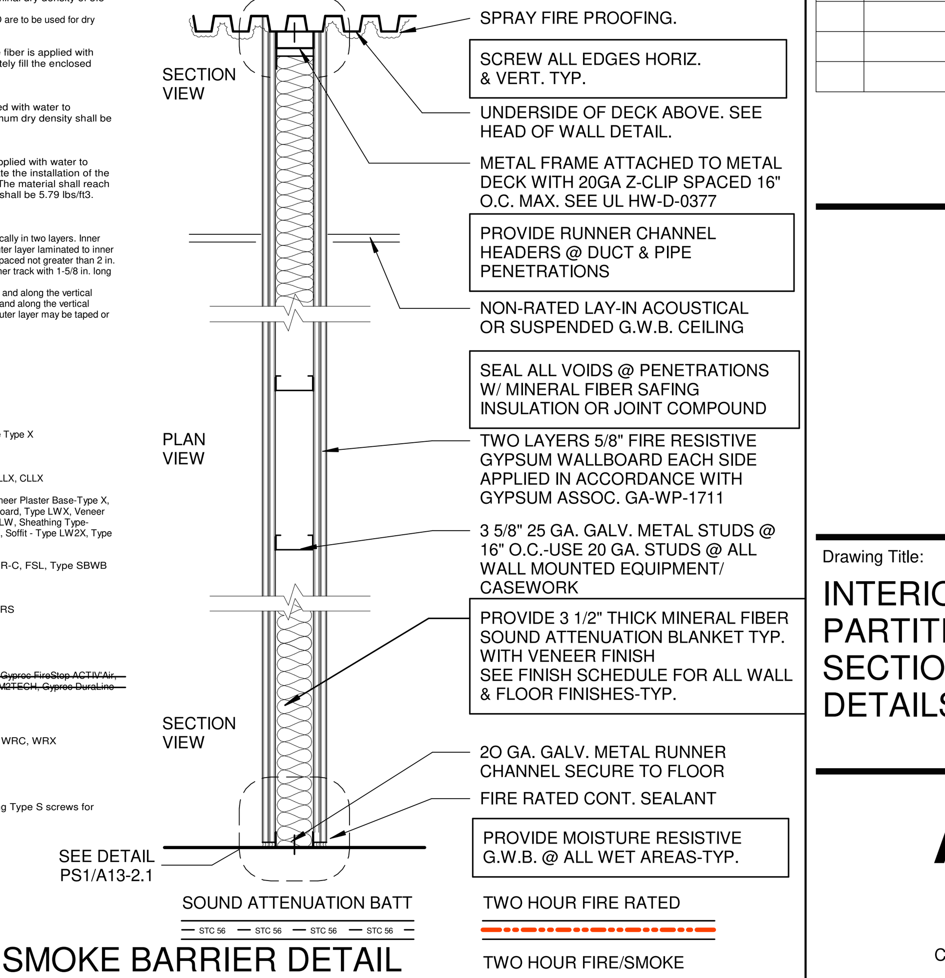
a. **Resilient Channels** - Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4.

b. **Steel Framing Members*** - Used to attach resilient channels (Item 80a) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC - Type RC+Assurance Clip

9. **Barrier Mesh** - (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS - Barrier Mesh, Barrier Mesh Clips.

***Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Late Updated on 2019-10-02



P2 UL U411
INTERIOR PARTITION AND SMOKE BARRIER DETAIL
1"=1'-0" A132-ULP2G-U411-SF (101619)

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

INTERIOR PARTITION SECTIONS, NOTES, DETAILS

Drawing Number:

A13-2

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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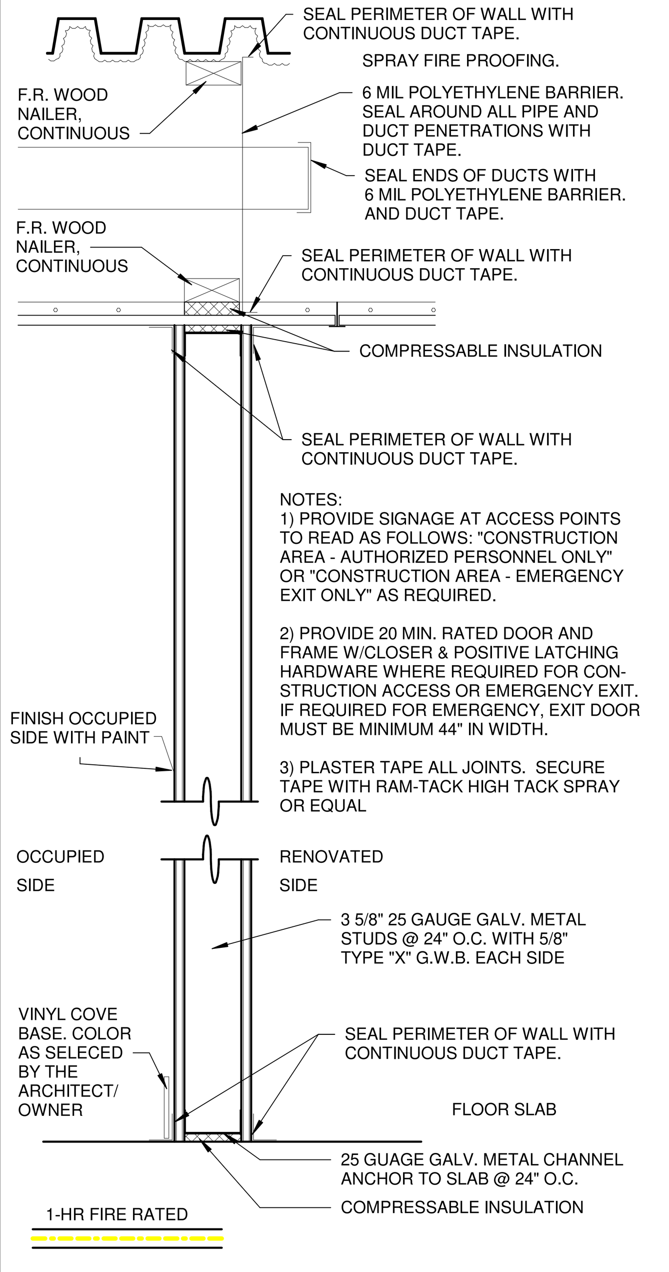


NOTES:

1) PROVIDE SIGNAGE AT ACCESS POINTS TO READ AS FOLLOWS: "CONSTRUCTION AREA - AUTHORIZED PERSONNEL ONLY" OR "CONSTRUCTION AREA - EMERGENCY EXIT ONLY" AS REQUIRED.

2) PROVIDE 20 MIN. RATED DOOR AND FRAME W/CLOSER & POSITIVE LATCHING HARDWARE WHERE REQUIRED FOR CONSTRUCTION ACCESS OR EMERGENCY EXIT. IF REQUIRED FOR EMERGENCY, EXIT DOOR MUST BE MINIMUM 44" IN WIDTH.

3) PLASTER TAPE ALL JOINTS. SECURE TAPE WITH RAM-TACK HIGH TACK SPRAY OR EQUAL

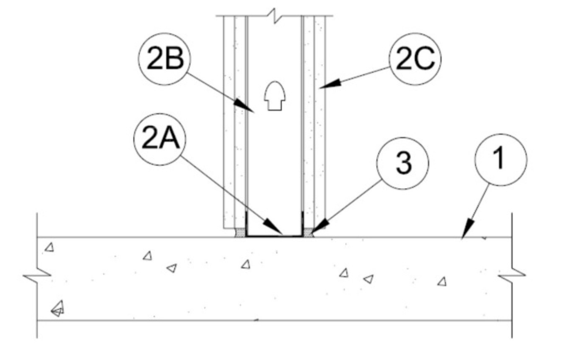
T1 TYPICAL 1-HR RATED TEMPORARY PARTITION

NTS — A13-T1G-SF (011415)

System No. BW-S-0013

May 18, 2012

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See	F Ratings — 1 and 2 Hr (See Item 2)
Joint Width - 5/8 In. Max	FT Ratings — 1 and 2 Hr (See Item 2)
	FH Ratings — 1 and 2 Hr (See Item 2)
	FTH Ratings — 1 and 2 Hr (See Item 2)
	Joint Width - 5/8 In. Max



1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) structural concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units*.**

See **Precast Concrete Units** (CFTV) category in the Fire Resistance Directory for names of manufactures.

2. **Wall Assembly —** The 1 or 2 h fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:

A. **Steel Floor Runner —** Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with nom 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced max 24 in. (610 mm) OC.

B. **Studs —** Min size as specified in the individual design. Studs cut 3/8 to 5/8 in. (10 to 16 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board* —** Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a nom 1/4 in. (6 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor.

The hourly ratings of the joint system are equal to the hourly fire rating of the wall.

3. **Fill, Void or Cavity Material* - Sealant —** Max separation between top of floor and bottom of gypsum board is 5/8 in. (16 mm). Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor.

UNITED STATES GYPSUM CO — Type A or AS

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2012-05-18, © 2015 UL LLC

PS1 UL BW-S-0013 JOINT SYSTEM DETAIL

NTS — A13-BW-S-0013 (011515)

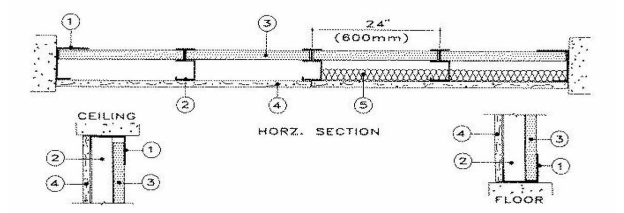
Design No. U469

October 01, 2019

Assembly Rating — 1 HR

Nonbearing Wall

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners** - "J" - shaped, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG steel required when Item 4A, 48, or 4C is used). Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs** - "C-H" shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from min 25 MSG galv steel (min 20 MSG steel required when Item 4A, 48, or 4C is used), spaced 24 in. or 600 mm OC (max 16 in. OC when Item 4A, 48, or 4C is used). Vertically restrained walls require studs to be cut 3/8 in. less than floor to ceiling height.

3. **Gypsum Board*** - 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. or 600 mm widths. Vertical edges inserted in "H" shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" runners with 1-5/8 in. long Type S head steel screws spaced not greater than 12 in. OC.
CERTAINTEED GYPSUM INC - Types Shaftliner, EGRG Shaftliner or GlasRoc Shaftliner

CGC INC - Type SLX.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type LGFCSL

GEORGIA-PACIFIC GYPSUM L L C - Types TP-6, DGUSL, and TRSL

UNITED STATES GYPSUM CO - Type SLX

USG BORAL DRYWALL SFZ LLC - Type SLX

~~**USG MEXICO S A DE C V** - Type SLX.~~

4. **Gypsum Board*** - 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.
CABOT MANUFACTURING ULC - 5/8 Type X, Type 8lueglass Exterior Sheathing

AMERICAN GYPSUM CO - Types AGX-1, M-Glass, AG-C, LightRoc.

CERTAINTEED GYPSUM INC - Type C, Type X, Type X-1.

CGC INC – Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types LGFC-C, LGFC-C/A, LGFC6A

GEORGIA-PACIFIC GYPSUM L L C - Types 5, DAPC, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type TG-C, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W, Type DGG, Type DAP, Type DS.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Types C, PG-11, PG-C, PGS-WRS.

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** - Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** - Type C.~~

UNITED STATES GYPSUM CO - Types C, FRX-G, IP-X1, IP-X2, IPC- AR, SCX, ULX or WRC.

USG BORAL DRYWALL SFZ LLC - Types C, SCX

~~**USG MEXICO S A DE C V** – Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.~~

4A. **Gypsum Board*** - Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1- 1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips (Item 6) required behind vertical joints.
RAY-BAR ENGINEERING CORP - Type RB-LBG

4B. **Gypsum Board*** - Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1- 1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints. To be used with Lead Batten Strips (see Item 6B) or Lead Discs (see Item 6C).
MAYCO INDUSTRIES INC - Type X-Ray Shielded Gypsum

4C. **Gypsum Board*** - (Not Shown - As an Alternate to Item 4.). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ- L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

4D. **Gypsum Board*** - For use with Item 5D, Batts and Blankets*and minimum stud depth increased to 4 in. - 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.
UNITED STATES GYPSUM CO - Type ULIX

5. **Batts and Blankets*** - (Optional) - Mineral wool batts partially or completely filling stud cavity.
ROCKWOOL – Type AFB, min. density 1.8 pcf / 28.8 kg/m3

THERMAFIBER INC - Type SAFB, SAFB FF

5A. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) - (100% Borate Formulation) - Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C – INS735, INS745 and INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

5B. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC - Cellulose Insulation

5C. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3.
INTERNATIONAL CELLULOSE CORP - Celbar-RL

5D. **Batts and Blankets*** - For use with Item 4D. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

5E. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft3.
APPLEGATE HOLDINGS L L C - Applegate Advanced Stabilized Cellulose Insulation

6. **Lead Batten Strips** - For Use with Item 4A - (Not Shown) - Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Strips, min 1- 1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

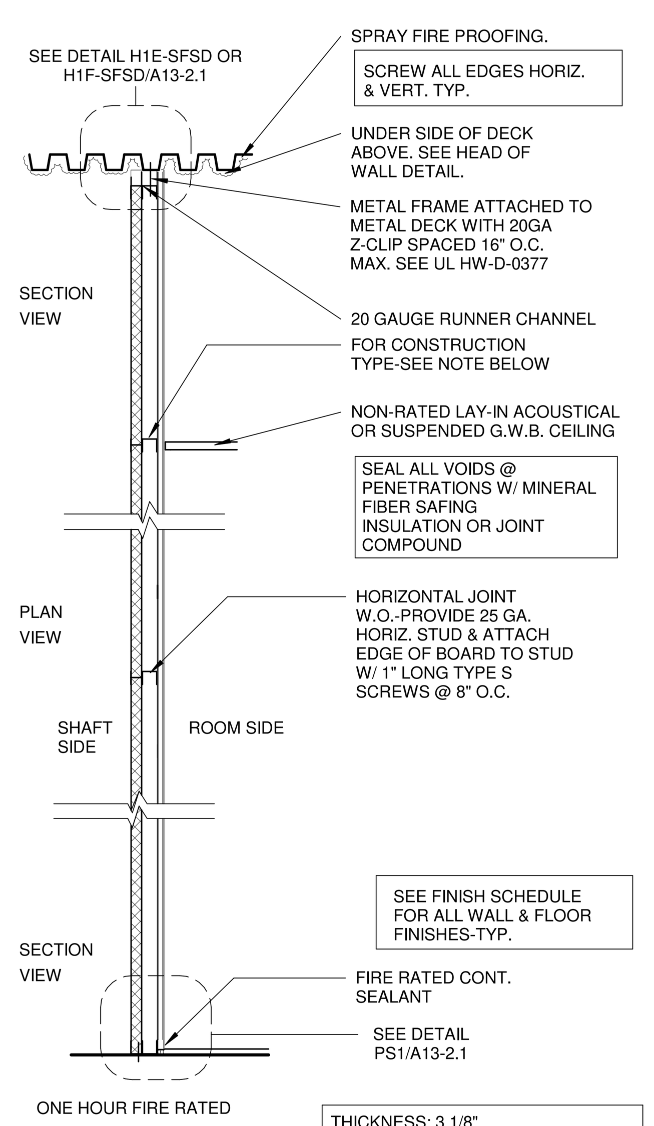
6A. **Lead Discs or Tabs** - (Not Shown) - Used in lieu of or in addition to the lead batten strips (Item 6) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6B. **Lead Batten Strips** - (Not Shown, for use with Item 4B) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D".

6C. **Lead Discs** - (Not Shown, for use with Item 4B) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-10-01



THICKNESS: 3 1/8"
LIMITING HEIGHT: REFER TO MFR.
APPROX. WEIGHT: 8 PSF
FIRE TEST: GET. 4-3-75

S1 UL U469 INTERIOR PARTITION DETAIL

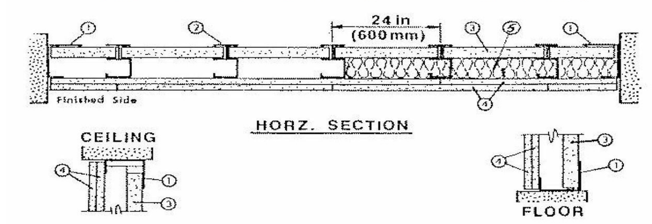
1"=1'-0" — A132-ULS1G-u469-SF (101819)

Design No. U428

October 02, 2019

Nonbearing Wall Rating — 2 Hr

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners** - "J" -shaped runners, min. 2-1/2 in. wide with unequal legs of 1 in. and 2-1/4 in., fabricated from min. 25 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not more than 2 in. from ends and not more than 24 in. OC.

1A. **Framing Members*** - Floor and Ceiling - Not shown - As an alternate to Item 1 – For use with Item 2A, proprietary "J" -shaped runners, galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not more than 2 in. from ends and not more than 24 in. OC.
RONDO BUILDING SERVICES PTY LTD - Type J Runner Track

1B. **Steel Framing Members (Floor, Side and Ceiling Runners)*** - As an alternate to Item 1. "J"-shaped runner, min 2-1/2 in. deep, with unequal legs of 1 in. and min 2-1/4 in. fabricated from min 25 MSG galv steel (0.0179 in. bare steel thickness). Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not more than 2 in. from ends and not greater than 24 in. OC. Runners may be supplied with securement tabs for gypsum liner panels (refer to Item 3).
SCAFCO STEEL STUD MANUFACTURING CO - I-Stud Shaftwall Steel Framing System

2. **Steel Studs** - "C-T" or "C-H" shaped studs 1-5/8 in. wide by min. 2-1/2 in. deep, fabricated from min. 25 MSG galv steel. Cut to lengths 3/4 in. less than floor to ceiling height and spaced 24 in. or 600 mm OC.

2A. **Framing Members* - Steel Studs** - As an alternate to Item 2 - Proprietary "C-H" shaped studs, galv steel. Cut to lengths 3/4 in. less than floor to ceiling height and spaced 24 in. or 600 mm OC.
RONDO BUILDING SERVICES PTY LTD - Type CH Stud

2B. **Steel Framing Members (Steel Studs)*** - As an alternate to Item 2. For use with Item 1B - "I"-shaped studs fabricated from min 25 MSG galv steel, min 2-1/2 in. deep, 1-1/2 in. wide. Studs contain 3/4 in. wide by 2-1/4 in. high holding tabs spaced 2-3/4 in. OC. Cut to lengths 5/8 in. less than floor-to-ceiling height and spaced 24 in.
SCAFCO STEEL STUD MANUFACTURING CO - I-Stud Shaftwall Steel Framing System

3. **Gypsum Board*** – 1 in. thick gypsum wallboard liner panels, supplied in nom. 24 in. or 600 mm (for metric spacing) widths. Panels cut 1 in. less in length than the floor to ceiling height. Vertical edges of the panels inserted into "T" shaped section of C-T studs or the "H" section of the C-H studs. Free edge of end panels secured to long leg of J-runner with tabs in runner or 1-5/8 in. long Type S self-tapping bugle head steel screws spaced not more than 12 in. OC. When J-shaped runners (Item 1B) are supplied with securement tabs, free edge of end panels may be secured by bending the securement tabs, max 12 in. OC, to a 90 degree angle to securely friction-fit panels into J-shaped runners.
AMERICAN GYPSUM CO - Types AG-S, M-Glass

CERTAINTEED GYPSUM INC - Types Shaftliner, EGRG Shaftliner, GlasRoc Shaftliner.

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type LGFCSL

GEORGIA-PACIFIC GYPSUM L L C - Types TP-6, DGUSL, and TRSL

NATIONAL GYPSUM CO - Types FSW, FSW-B, FSW-7, FSW-9

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Types PG-10 and PG-10G

~~**THAI GYPSUM PRODUCTS PCL** - Type Shaftliner~~

4. **Gypsum Board*** - 1/2 or 5/8 in. thick, 4 ft wide, applied in two layers. Base layer attached horizontally to studs and side "J" runners with 1 in. long Type S self-tapping steel screws starting at 2 in. from the floor and ceiling runners and spaced a maximum 24 in. OC along the vertical edges and in the field of the boards.
Face layer installed vertically to studs and side "J" runners and attached with 1-5/8 in. long Type S self-tapping steel screws, starting at 3 in. from the floor and ceiling runners and spaced a maximum 12 in. OC along the vertical edges and in the field of the boards. Face layer joints covered with paper tape and two coats of joint compound. Exposed screw heads covered with two coats of joint compound.

CABOT MANUFACTURING ULC - Type

AMERICAN GYPSUM CO - Types AG-C

CERTAINTEED GYPSUM INC - Type C

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types IGFC-C/A, IGFC6A

GEORGIA-PACIFIC GYPSUM L L C - Types DAPC, TG-C.

NATIONAL GYPSUM CO - Types eXP-C, FSK, FSI, FSMR-C, FSW-3, FSW-8, FSW-C, FSW-G.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C, 5/8 in. Type C.

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** - Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc Duraline, Gyproc Duraline MR, Gyproc Duraline M2TECH, Gyproc Duraline ACTIV'Air, Gyproc Duraline MR ACTIV'Air, Gyproc Duraline M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** - Type C~~

4A. **Gypsum Board*** - (As an alternate to Item 4) - Installed vertically only as described in Item 4. 5/8 in. thick, 4 ft. wide, paper surfaced.
NATIONAL GYPSUM CO - Type SBWB

5. **Batts and Blankets*** - (optional) - Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt material bearing the Ul Classification Marking as to Fire Resistance.

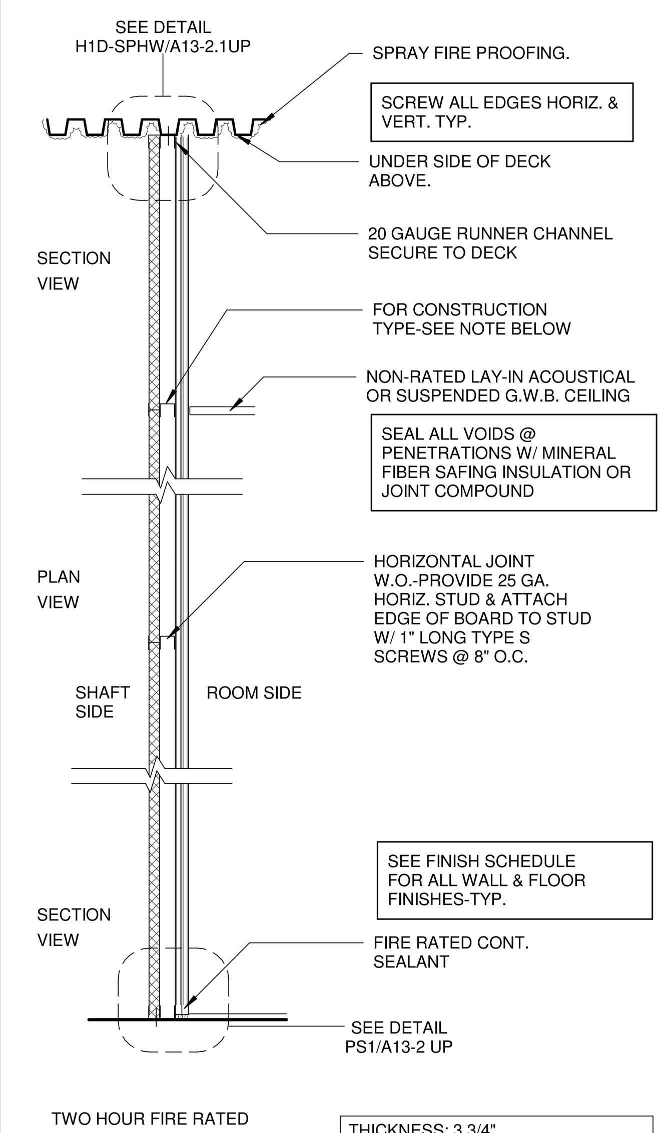
5A. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) - (100% Borate Formulation) - Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C – INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

5B. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC - Cellulose Insulation

5C. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3.
INTERNATIONAL CELLULOSE CORP - Celbar-RL

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-10-02



THICKNESS: 3 3/4"
LIMITING HEIGHT: REFER TO MFR.
APPROX. WEIGHT: 8 PSF
FIRE TEST: GET. 4-3-75

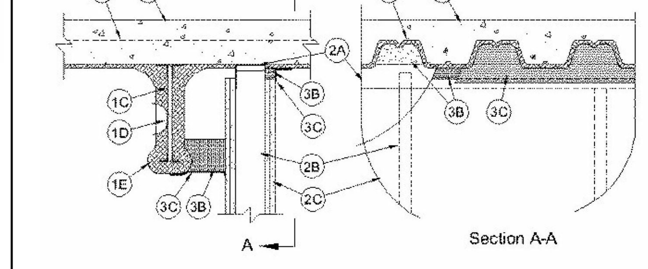
S2 UL U428 INTERIOR PARTITION DETAIL

1"=1'-0" — A132-ULS1G-u428-SF (101819)

System No. HW-D-0377

September 26, 2019

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities - 12.5% or 50% Compression or Extension (See Item 3)	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/sq ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400 F — Less Than 1 CFM/sq ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities - 12.5% or 50% Compression or Extension (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. **Floor Assembly** - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual 0700, 0800, or 0900 Series Floor-Ceiling 0esign in the UL Fire Resistance 0irectory. The hourly fire rating of the floor assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The floor assembly shall include the following construction features:

A. **Steel Floor and Floor Units*** - Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete** - Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Structural Steel Support** - Steel beam or open-web steel joist, as specified in the individual 0700, 0800, or 0900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and 1 to 6 in. (25 to 152 mm) from wall assembly.

D. **Steel Lath** - When structural steel support (Item 1C) consists of open-web steel joists, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be installed to completely cover one side of each joist which is located within 6 in. (152 mm) of wall assembly. The lath shall be secured with steel tie wire and shall be fully covered with spray applied fire resistive material.

E. **Spray-Applied Fire Resistive Material*** - After installation of the ceiling runner (Item 2A) or deflection track (Item 3A, if used), steel floor units and structural steel supports to be sprayed with the thickness of material specified in the individual 0700, 0800, or 0900 Series 0esign. The flutes of the steel floor units above the structural steel supports and above the ceiling runner (Item 2A) or deflection channel (Item 3A) shall be filled with spray-applied fire resistive material. As an alternate, the spray-applied fire resistive material in the flutes above the ceiling runner may be applied to follow the contour of the steel floor units. Excess material shall be removed from the flanges of the ceiling runner or deflection track beyond the required thickness of spray-applied fire resistive material on the steel floor units. For 0900 Series 0esigns structural steel supports, steel furring and steel lath only to be sprayed in accordance with the specifications in the individual 0900 Series Design.
ISOLATEK INTERNATIONAL - Type 300 or Type II

GCP APPLIED TECHNOLOGIES INC - Type MK-6/HY, MK-6/HYES, MK-65 and RG.

1A. **Roof Assembly** - (Not Shown) - As an alternate to the floor assembly (Item 1), a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P800 Series Roof-Ceiling 0esign in the UL Fire Resistance 0irectory. The hourly fire rating of the roof assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The roof assembly shall include the following construction features:

A. **Steel Roof Deck** - Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation** - Mineral and Fiber Board* - Min 3/4 in. (19 mm) thick boards applied in one or more layers directly over steel roof deck or over gypsum board sheathing laid atop steel roof deck.

C. **Roof Covering*** – Hot-mopped or cold-application materials compatible with mineral and fiber board insulation.

D. **Structural Steel Support** - Steel beam or open-web steel joist, as specified in the individual P700 or P800 Series Roof-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and 1 in. to 6 in. (25 to 152 mm) from wall assembly.

E. **Steel Lath** - When structural steel support (Item 1D) consists of open-web steel joists, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be installed to completely cover one side of each joist which is located within 6 in. (152 mm) of wall assembly. The lath shall be secured with steel tie wire and shall be fully covered with spray applied fire resistive material.

F. **Spray-Applied Fire Resistive Material*** - After installation of the ceiling runner (Item 2A) or deflection track (Item 3A, if used), steel roof deck and structural steel supports to be sprayed with a thickness of spray applied fire resistive material as specified in the individual P700 or P800, or P900 Series Roof-Ceiling design. The flutes of the steel deck above the structural steel supports and above the ceiling runner (Item 2A) or deflection channel (Item 3A) shall be filled with spray-applied fire resistive material. As an alternate, the spray-applied fire resistive material in the flutes above the ceiling runner may be applied to follow the contour of the steel roof deck. Excess material shall be removed from the flanges of the ceiling runner or deflection track beyond the required thickness of spray-applied fire resistive material on the steel roof deck. For P900 Series Designs structural steel supports, steel furring and steel lath only to be sprayed in accordance with the specifications in the individual P900 Series Design.
ISOLATEK INTERNATIONAL – Type 300 or Type II

GCP APPLIED TECHNOLOGIES INC - Type MK-6/HY, MK-6/HYES, MK-65 and RG.

2. **Wall Assembly** - The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners** - Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 28). Ceiling runner to be provided with min 2 in. (51 mm) to max 3 in. (76 mm) flanges. When deflection channel (Item 3A) is used, flange height of ceiling runner is to be equal to or greater than flange height of deflection channel and the ceiling runner is to nest within the deflection channel with a 1/2 in. (13 mm) to 1-1/4 in. (32 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width and ceiling runner is secured to steel floor units (Item 1A) with steel fasteners or welds spaced max 24 in. (610 mm) OC. Ceiling runner or deflection track to be installed parallel with structural steel support and located such that a max clearance of 6 in. (152 mm) is present between the finished wall and the spray-applied fire resistive material at the lowest elevation of the structural steel support.

A1. **Light Gauge Framing* –** Slotted Ceiling Runner - As an alternate to the ceiling runner in Item 2A, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 28). Ceiling runner secured to valleys with steel fasteners spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.
CALIFORNIA EXPANDED METAL PRODUCTS CO - CST

BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS - SLP-TRK

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Type SLT

A2. **Light Gauge Framing* –** Clipped Ceiling Runner - As an alternate to the ceiling runner in Items 2A and 2A1, clipped runner to consist of galv steel channel with clips preformed in track flanges which positively engage the inside flange of the steel studs (Item 28). Track sized to accommodate steel studs (Item 28). Track flanges to be min 2-1/2 in. (64 mm). Clipped ceiling runner secured with steel fasteners spaced max 24 in. (610 mm) OC. When clipped ceiling runner is used, deflection channel (Item 3A) shall not be used.
TOTAL STEEL SOLUTIONS L L C - Snap Trak

B. **Studs** - Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 in. to 1-1/4 in. (13 to 32 mm) less in length than assembly height with bottom nesting in and secured to floor runner. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When deflection channel (Item 3A) is used, steel studs attached to ceiling runner (Item 2A) with sheet metal screws located 1/2 in. (13 mm) below the bottom of the deflection channel. When deflection channel is not used, studs to nest in ceiling runner without attachment.

C. **Gypsum Board*** - Gypsum board sheets installed to a min total 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom plane of the spray applied fire resistive material on the steel deck. on both sides of the wall assembly. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner. No gypsum board attachment screws shall be driven into the ceiling runner or into the optional deflection channel. Where the top of the wall assembly is inaccessible above the lowest elevation of the structural steel support, the gypsum board attachment screws may be omitted.
The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

A3. **Light Gauge Framing*** - Slotted Ceiling Runner - As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges, sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to steel deck valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel shall not be used.
CALIFORNIA EXPANDED METAL PRODUCTS CO - CST

3. **Joint System - Max vertical separation between bottom plane of steel floor unit and top of gypsum board (at time of installation of joint system) is 1-1/2 in. (38 mm). Max horizontal separation between spray applied fire resistive material on structural support member and surface of wall is 6 in. (152 mm). The joint system is designed to accommodate a max 12.5 or 50 percent compression or extension from its installed width as measured between the bottom plane of the spray-applied fire resistive material on the steel floor unit and the top of the gypsum board. The movement capabilities are dependent on the horizontal separation between the spray applied fire resistive material on the structural support member and the surface of the wall. The joint will accommodate max 12. 5 percent compression or extension when the horizontal separation between the spray applied fire resistive material on the structural support member and the surface of the wall is max 3 in. (76 mm). The joint will accommodate max 50 percent compression or extension when the horizontal separation between the spray applied fire resistive material on the structural support member and the surface of the wall is greater than 3 in. (76 mm) up to a max of 6 in. (152 mm).** The joint system shall consist of forming and fill materials, with or without a deflection channel (Item 3A), as follows:

A. **Deflection Channel** - (Optional, Not Shown) - Max 2 in. (51 mm) deep min 24 gauge galv steel channel sized to accommodate ceiling runner (Item 2A). Deflection channel to be installed parallel with structural steel support and located such that a max clearance of 4 in. (102 mm) is present between the finished wall and the spray-applied fire resistive material at the lowest elevation of the structural steel support. Deflection channel secured to steel floor units with steel fasteners or welds spaced max 24 in. (610 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1/2 in. to 1-1/4 in. (13 to 32 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner nests inside the deflection channel without attachment.

B. **Forming Material*** - Nom 4 pcf (64 kg/m3) density mineral wool batt insulation. Sections of mineral wool batt cut to a width of 4 in. (102 mm) and stacked to attain a thickness which is 50 percent greater than the width of the linear gap between the spray applied fire resistive material on the structural steel member and the surface of the wall assembly. Stacked sections of mineral wool compressed 33 percent in thickness and installed cut edge first into linear gap until the bottom edge is flush with the bottom surface of the spray applied fire resistive material on the structural steel member. When the spray- applied fire resistive material in the flutes above the wall follows the contour of the steel deck, sections of mineral wool batt cut to the shape of the fluted deck and stacked to a min 6 in. (152 mm) thickness shall be installed in the flutes of the steel floor or roof deck between the top of the deflection channel and the spray-applied fire resistive material. The mineral wool batt insulation is to be installed flush with the gypsum board surface on the side of the wall opposite the structural steel support. Additional sections of mineral wool batt insulation are compressed 50 percent in thickness and are installed cut edge first to completely fill the gap above the top of the gypsum board.
INDUSTRIAL INSULATION GROUP L L C - MinWool- 1200 Safing

JOHNS MANVILLE - Safing

ROCK WOOL MANUFACTURING CO - Delta Board

ROCKWOOL MALAYSIA SDN BHD - SAFE

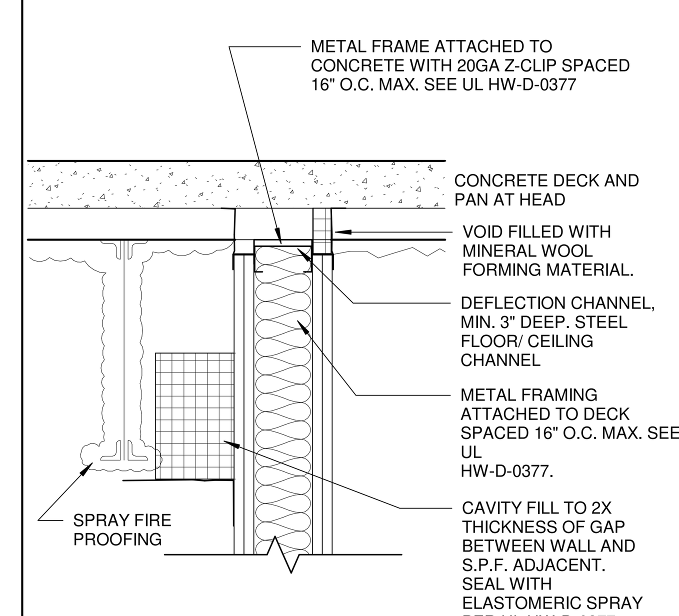
ROCKWOOL - SAFE

THERMAFIBER INC – Type SAF

C. **Fill, Void or Cavity Material*** - Sealant - Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material spray applied over the forming material on each side of the wall. Fill material to overlap a min of 1/2 in. (13 mm) onto the gypsum board and a min 2 in. (51 mm) onto the spray applied material (Item 1E or 1AE) on the steel floor unit or on the structural steel support member on each side of the wall. Overlap onto the steel floor or roof units may be decreased to 1/2 in. (13 mm) when spray applied material is omitted.
SPECIFIED TECHNOLOGIES INC - SpecSeal AS200 Elastomeric Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-09-26



H1E SFSD UL HW-D-0377 HEAD OF WALL DETAIL

1 1/2"=1'-0" — A132-H1g-d0377 (101819)

System No. HW-D-0267

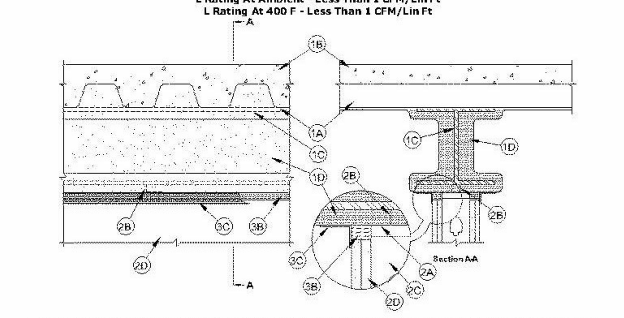
November 23, 2015

Assembly Rating — 1, 2 and 3 Hr (See Items 1, 1A and 2)

Nominal Joint Width — 1 in,

Class II Movement Capabilities — 19% Compression or Extension

L Rating At Ambient - Less Than 1 CFM/Lin Ft
L Rating At 400 F - Less Than 1 CFM/Lin Ft



1. Floor Assembly — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Floor and Floor Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.

B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. Structural Steel Support — Steel beam, as specified in the individual D700 or D900 Series Floor-Ceiling Design, used to support steel floor units. Steel beam centered over and parallel with wall assembly.

D. Spray-Applied Fire Resistive Material* — After installation of the steel attachment clips (Item 2B), steel floor units and structural steel support to be sprayed with the min thickness of material specified in the individual D700 or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. **Additional material shall be applied to the web of the steel beam on each side of the wall. The min total thickness of material applied to each side of the steel beam web shall be 13/16 in. (21 mm) for 1 hr fire rated assemblies, 1-3/8 in. (35 mm) for 2 hr fire rated assemblies and 1-9/16 in. (40 mm) for 3 hr fire rated assemblies.** For D700 Series Designs, all surfaces of the steel floor units to be sprayed with the thickness of material specified in the individual D700 Series Design. For D900 Series Designs structural steel supports only to be sprayed in accordance with the specifications in the individual D900 Series Design.

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY, MK-6/HYES, MK-65 and RG.

D1. **Spray-Applied Fire Resistive Material* —** After installation of the steel attachment clips (Item 2B), steel floor units and structural steel support to be sprayed with the min thickness of material specified in the individual D700 or D900 Series Design. The flutes of the steel floor units are to be filled with material across the entire top flange of the steel beam. **Additional material shall be applied to the web of the steel beam on each side of the wall. The min total thickness of material applied to each side of the steel beam web shall be 11/16 in. (18 mm) for 1 hr fire rated assemblies, 1-1/2 in. (38 mm) for 2 hr fire rated assemblies and 3 in. (76 mm) for 3 hr fire rated assemblies.** For D700 Series Designs, all surfaces of the steel floor units to be sprayed with the thickness of material specified in the individual D700 Series Design. For D900 Series Designs structural steel supports only to be sprayed in accordance with the specifications in the individual D900 Series Design.

ISOLATEK INTERNATIONAL — Type 300

The hourly fire rating of the floor assembly shall be equal to or greater than the hourly fire rating of the wall assembly.

1A. **Roof Assembly — (Not Shown) —** As an alternate to the floor assembly, a fire-rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 or P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. Roof Insulation — For P900 Series Designs, min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the roof deck. For P700 Series Designs, roof insulation shall be as specified in the individual design.

C. Structural Steel Support — Steel beam, as specified in the individual P700 or P900 Series Floor-Ceiling Design, used to support steel floor units. Steel beam centered over and parallel with wall assembly.

D. Spray-Applied Fire Resistive Material* — — (Not Shown) Prior to the installation of the joint system (Item 3) all surfaces of the roof deck to be sprayed with the thickness of material specified in the individual P700 Series Design. For D900 Series Designs structural steel supports only to be sprayed in accordance with the specifications in the individual P900 Series Design. The flutes of the steel roof deck are to be filled with material across the entire top flange of the steel beam. **Additional material shall be applied to the web of the steel beam on each side of the wall. The min total thickness of material applied to each side of the steel beam web shall be 13/16 in. (21 mm) for 1 hr fire rated assemblies, 1-3/8 in. (35 mm) for 2 hr fire rated assemblies and 1-9/16 in. (40 mm) for 3 hr fire rated assemblies.**

GCP APPLIED TECHNOLOGIES INC — Type MK-6/HY, MK-6/HY ES, RG and MK-6S

D1. **Spray-Applied Fire Resistive Material* —** (Not Shown) Prior to the installation of the joint system (Item 3) all surfaces of the roof deck to be sprayed with the thickness of material specified in the individual P700 Series Design. For D900 Series Designs structural steel supports only to be sprayed in accordance with the specifications in the individual P900 Series Design. The flutes of the steel roof deck are to be filled with material across the entire top flange of the steel beam. **Additional material shall be applied to the web of the steel beam on each side of the wall. The min total thickness of material applied to each side of the steel beam web shall be 11/16 in. (18 mm) for 1 hr fire rated assembly, 1-1/2 in. (38 mm) for 2 hr fire rated assemblies and 3 in. (76 mm) for 3 hr fire rated assemblies.**

ISOLATEK INTERNATIONAL — Type 300

The hourly fire rating of the roof assembly shall be equal or greater than the hourly fire rating of the wall assembly.

2. Wall Assembly — The 1, 2 or 3 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2C). Ceiling runner to be provided with min 2 in. (51 mm) flanges. When deflection channel (Item 3A) is used, flange height of ceiling runner is to be equal to or greater than flange height of deflection channel and the ceiling runner is to nest within the deflection channel with a 1/2 in. to 3/4 in. (13 to 19 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, ceiling runner is secured to steel beam (Item 1A) with steel attachment clips (Item 2B) spaced max 24 in. (610 mm) OC. Ceiling runner or deflection channel to be centered beneath and parallel with bottom flange of steel beam. A clearance equal to the required thickness of spray-applied fireproofing material (Item 1D) shall be maintained between the top of the ceiling runner or deflection channel and the bottom flange of the steel beam.

A1. **Light Gauge Framing* - Slotted Ceiling Runner —** As an alternate to the ceiling runner in Item 2A, slotted ceiling runner consisting of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C) may be used. Slotted ceiling runner secured to steel beam (Item 1A) with steel attachment clips (Item 2B) spaced max 16 in. (406 mm) OC. Ceiling runner or deflection channel to be centered beneath and parallel with bottom flange of steel beam. A clearance equal to the required thickness of spray-applied fireproofing material (Item 1D) shall be maintained between the top of the slotted ceiling runner and the bottom flange of the steel beam.

METAL-LITE INC — The System

B. Steel Attachment Clips — Z-shaped clips formed from 1 in. (25 mm) wide strips of min 20 ga galv steel. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom flange of the steel beam with 2 in. (51 mm) long upper and lower legs. Legs of clips fastened to bottom of beam (prior to application of spray-applied fire-resistive materials) and top of ceiling runner (or deflection channel) with steel fasteners or welds. Clips spaced max 16 in. (406 mm) OC.

C. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 in. to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and secured to floor runner. When deflection channel (Item 3A) is used, steel studs attached to ceiling runner (Item 2A) with sheet metal screws located 1/2 in. (13 mm) below the bottom of the deflection channel. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When deflection channel or slotted ceiling runner is not used, studs to nest in ceiling runner without attachment.

D. Gypsum Board* — Gypsum board sheets installed to a min total 5/8 in., 1-1/4 in. and 1-1/2 in. (16, 32 and 38 mm) thickness on each side of wall for 1, 2 and 3 hr fire rated assemblies, respectively. Wall to be constructed in accordance with the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a max 1 in. (25 mm) high gap shall be maintained between the top of the gypsum board and the bottom plane of the spray applied fire resistive material on the structural steel support member. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner. No gypsum board attachment screws shall be driven into the ceiling runner or into the optional deflection channel.

The hourly fire rating of the joint system is equal to the hourly rating of the wall.

3. Joint System — Max separation between spray applied fire resistive material on bottom of structural support member and top of gypsum board (at time of installation of joint system) is 1 in. (25 mm). The joint system is designed to accommodate a max 19 percent compression or extension from it's installed width as measured between bottom plane of the protective material on the steel beam and the top of the gypsum board. The joint system shall consist of forming and fill materials, with or without a deflection channel (Item 3A), as follows:

A. Deflection Channel — (Optional, Not Shown) - Max 2 in. (51 mm) deep min 24 gauge galv steel channel sized to accommodate ceiling runner (Item 2A). Deflection channel installed parallel with and centered beneath bottom flange of steel beam (Item 1C) and secured to steel beam with steel clips (Item 2B) spaced max 16 in. (406 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1/2 in. to 3/4 in. (13 to 19 mm) gap between the top of the ceiling runner and the top of the deflection channel. A clearance equal to the required thickness of spray-applied fireproofing material (Item 1D) shall be maintained between the top of the ceiling runner or deflection channel and the bottom flange of the steel beam. The ceiling runner nests inside the deflection channel without attachment.

B. Forming Material* — Sections of nom 4 pcf (64 kg/m^3) mineral wool batt insulation to be compressed 50 percent in thickness and installed cut edge first to completely fill the gap above the top of the gypsum board. The forming material shall be installed flush with both surfaces of wall.

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

JOHNS MANVILLE — Safing

ROCK WOOL MANUFACTURING CO — Delta Safing Board

ROCKWOOL MALAYSIA SDN BHD — SAFE

ROXUL INC — SAFE

THERMAFIBER INC — SAF

C. Fill, Void or Cavity Material* - Sealant — Min 1/8 in. (3.2 mm) wet thickness or 1/16 in. (1.6 mm) dry thickness of fill material spray applied over the forming material on each side of the wall. Fill material to overlap min 1/2 in. (13 mm) onto gypsum board and min 2 in. (51 mm) onto the spray applied material (Item 1D) on the steel beam on both sides of wall.

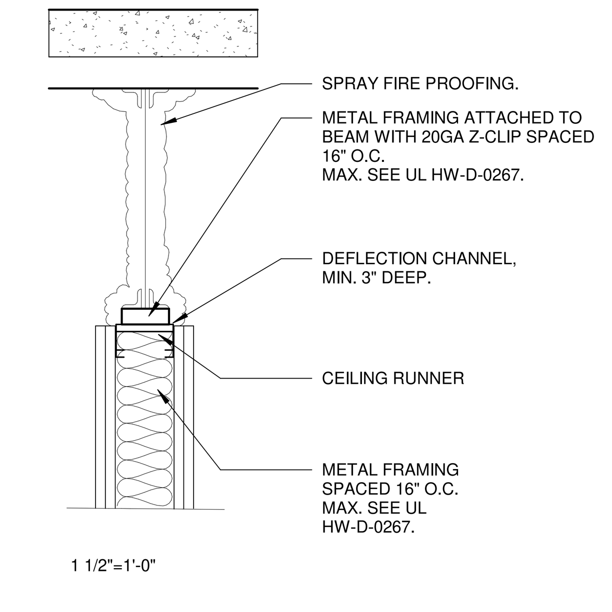
RECTORSEAL — FlameSafe FS3000, Metacaulk 1200, 1500 or Biostop 750, 800 Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2015-11-23

H1F SFSD UL HW-D-0267 HEAD OF WALL DETAIL

A132-H1g-d0267 (022717)



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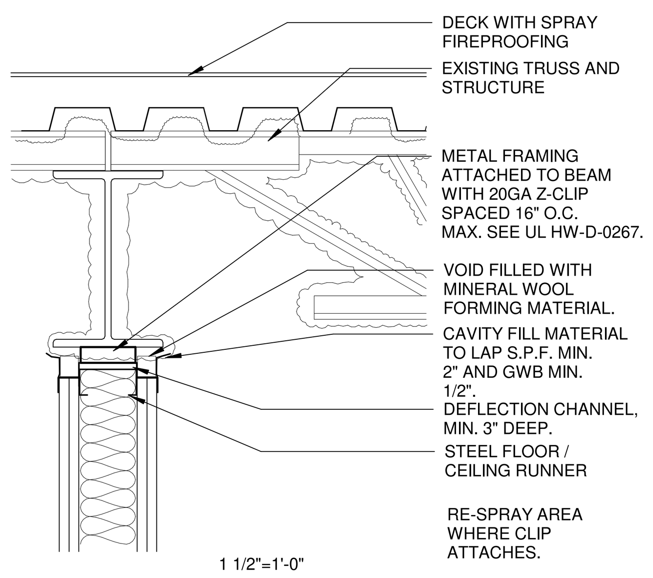

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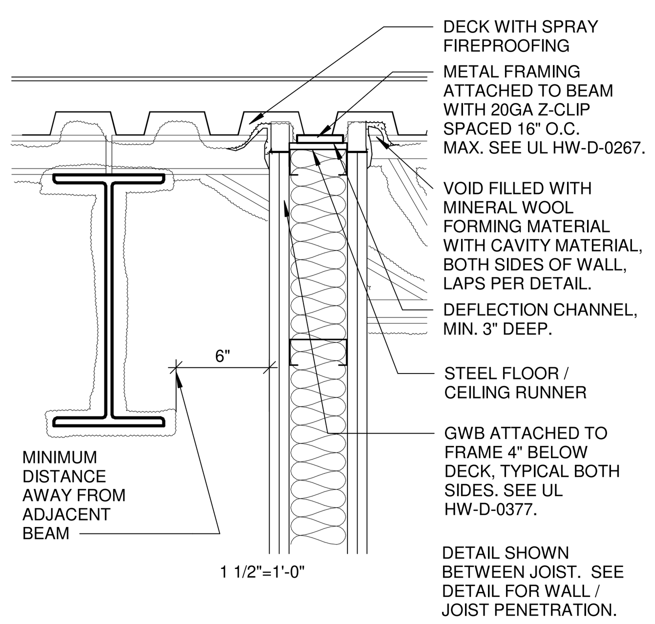

1 1/2"=1'-0"

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

INTERIOR PARTITION SECTIONS, NOTES, DETAILS

Drawing Number:

A13-2.1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

9/29/2023 3:33:14 PM
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UL Product iQ®

UL Solutions

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

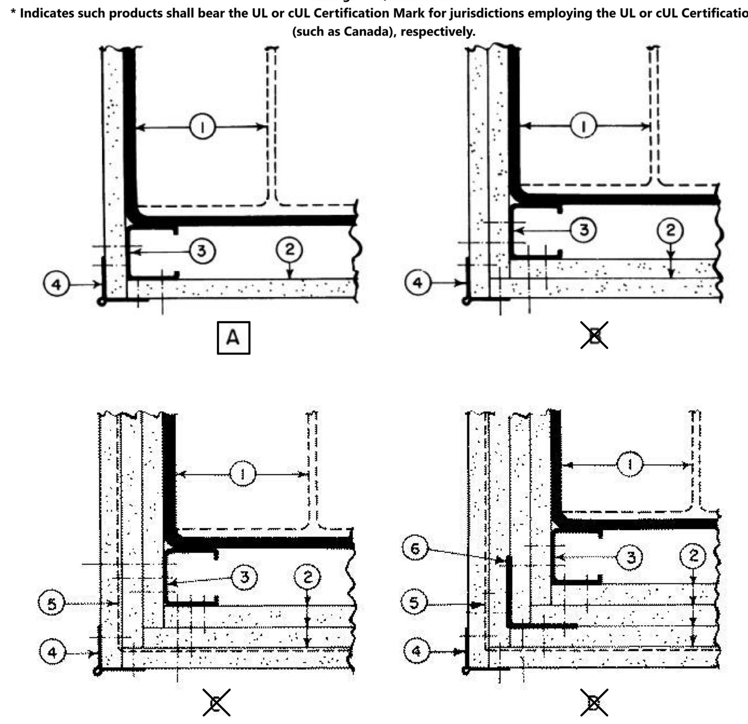
BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States
BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. **X528**

March 16, 2023

Ratings — 1, 2 and 3 Hr.
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



CORNER DETAILS OF WALLBOARD
SUPPORT SYSTEMS WITHOUT STEEL COVERS

1. **Steel Column —** Min sizes of W-shaped and tubular steel columns which appear in the AISC Steel Construction Manual as shown under Item 2.

2. **Gypsum Board* — Any 1/2 in. thick UL Classified Gypsum Board that is eligible for use in Design No. X515. Any 5/8 in. thick UL Classified Gypsum Board that is eligible for use in Design Nos. L501, G512 or U305.** Nom 1/2 in. or 5/8 in. thick gypsum board. Applied in layers as noted in the above illustrations. Boards are to be applied vertically without horizontal joints. Min total thickness of layers in inches for the various ratings and min column sizes are as follows:

W Shaped Column Min Column Size	Rating (Hr) 1	2	3	Corner Details For Various Rating 1 Hr	2 Hr	3 Hr
Total thickness (In.)						
W4x13	1	1-1/2	2-1/4	B	C	D
W6x15.5	1	1-1/2	2-1/4	B	C	D
W10x49	1/2	1-1/8	1-7/8	A	B	C
Tube Shaped columns						
TS 4 by 4						
by0.188	1	1-3/4	2-5/8	B	C	D
TS 8 by 8						
by 0.250	5/8	1-1/2	2-1/4	A	C	D

AMERICAN GYPSUM CO (View Classification) — CKNX.R14196

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO (View Classification) — CKNX.R19374

CABOT MANUFACTURING ULC (View Classification) — CKNX.R25370

CERTAINTEED GYPSUM INC (View Classification) — CKNX.R3660

CGC INC (View Classification) — CKNX.R19751

GEORGIA-PACIFIC GYPSUM L L C (View Classification) — CKNX.R2717

NATIONAL GYPSUM CO (View Classification) — eXP-C, CKNX.R3501

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM (View Classification) — CKNX.R7094

PANEL REY S A (View Classification) — CKNX.R21796

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD (View Classification) — CKNX.R19262

THAI GYPSUM PRODUCTS PCL (View Classification) — CKNX.R27517

THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO (View Classification) — CKNX.R40305

UNITED STATES GYPSUM CO (View Classification) — CKNX.R1319

USG BORAL DRYWALL SFZ LLC (View Classification) — CKNX.R38438

USG MEXICO S A DE C V (View Classification) — CKNX.R16089

2A. **Gypsum Board* —** As an alternate to Item 2- 3/4 in. thick gypsum wallboard. For 2 Hr rating, 1-1/2 in. total thickness, installed in accordance with corner detail B. For 3 Hr rating, 2-1/4 in. total thickness installed in accordance with corner detail C. Boards are to be applied vertically without horizontal joints.
CGC INC — Type IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — Type IP-X3 or ULTRACODE

USG BORAL DRYWALL SFZ LLC — Type ULTRACODE

USG MEXICO S A DE C V — Type IP-X3 or ULTRACODE

2B. **Gypsum Board* —** (As an alternate to Items 2 and 2A) — Nominal 5/8 in. thick panels. One of the layers of **Gypsum Board** (Item 2) used to obtain the minimum required thickness in Item 2 may be substituted with one layer and secured as described in Item 2.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES

2C. **Wall and Partition Facings and Accessories* —** (As an alternate to Item 2 through 2B) — Composite Gypsum Panel — Nominal 5/8 in. thick panels. One of the layers of **Gypsum Board** (Item 2) used to obtain the minimum required thickness in Item 2 may be substituted with one layer of composite gypsum panel and secured as described in Item 2.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR

2D. **Gypsum Board* —** (As an alternate to Item 2, For use with Item 4A) — 1/2 in. thick, installed as described in Item 2.

CERTAINTEED GYPSUM INC — Type C

3. **Steel Stud —** 1-5/8 in. wide with 1-5/16 and 1-7/16 in. legs having a 1/4- in. folded flange, fabricated from min. 0.0179 in. thick bare metal thickness steel. Length to be 1/2 in. less than the assembly height.

3A. **As an alternate to Item 3, Framing Members* —** galv. steel clips spaced 4 ft OC and 1-1/4 in. from top and bottom of column. A No. 28 MSG galv steel support angle with 1-1/4 in. length shall be placed over clips and secured with screws attaching the wallboard. The angle cut 1 in. less than assembly height splices in angle to occur over clips. The clips for use with wide flange columns only.
JOHN WAGNER ASSOCIATES INC, DBA GRABBER — Types CB, CB1Clips.

4. **Corner Beads —** No. 28 MSG galv steel, 1-1/4 in. legs to be attached to the wallboard with No. 6 by 1 in. screws spaced 12 in. OC max.

4A. **Corner Bead* —** (As an alternate to Item 4, For use with Item 2D) **—** 0.058 in. thick at shoulder thickness, 1-7/8 in. legs, attached to gypsum board using all-purpose ready mix joint compound.

CERTAINTEED GYPSUM INC — Types NC, NCPRO, NC450

5. **Tie Wire —** No. 18 SWG steel wire spaced 24 in. OC used with second layer of wallboard.

6. **Screws —** For attaching first layer of wallboard to steel studs, and third layer of wallboard to 2 in. by 2 in. steel angle (25 Ga) to be No. 6 by 1 in. (or 1-1/4 in. for 3/4 in. thick wallboard) Phillips head self-drilling, self-tapping double lead screws spaced 24 in. OC For attaching second layer of wallboard to steel studs and fourth layer of wallboard to 2 in. by 2 in. steel angle (25 Ga) to be No. 6 by 1-3/4 in. (or 2-1/4 in. for 3/4 in. thick wallboard) steel screws of the same type spaced 12 in. OC For attaching third layer of wallboard to steel studs to be No. 8 by 2-1/4 in. screws of the same type spaced 12 in. OC

7. **Finishing System —** (Not Shown) — Joint compound applied over corner beads to a thickness of 1/16 in.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2023-03-16

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Feedback

E2 UL DESIGN NO. X528
1" = 1'-0"

Pei Evaluation Service®

AER-09038

Pei **Evaluation Service®** is an accredited **ISO Standard 17065** Product Certifier, accredited by the IAS. This **Assembly Evaluation Report** represents a system that *Pei* **ES** has Evaluated. This **Assembly Evaluation Report** in no way implies warranty for these products or relieves United States Gypsum Company of their liabilities for their products and this system. This **AER** is an official document if it is within one year of the Initial or Re-Approval date.

Initial Approval	Re-Approved
April, 2009	February, 2019

See all Pei **ES** *Listings at: www.p-e-i.com*

Report Owner
United States Gypsum Company
550 West Adams Street
Chicago, IL 60661

Product
USG Shaft & Stair Wall Systems

For Evaluation Report Questions
usg4you@usg.com
USG Support: 800.USG4YOU

USG Contact: Manny Hurtado, Building Codes Manager
Phone: 847-970-5179
Email: mhurtado@usg.com

Assemblies Evaluated For
1. Non Axial Load Bearing Wall 2. Transverse Load Capacity 3. Fire Resistance 4. Abuse Resistance

Code Compliance

2012, 2015 & 2018 International Building Code		
Section 403.2.3	Section 707.3.2	Section 803.1
Section 703.2	Section 707.5	Section 2203
Section 703.2.1	Section 713.4	
Section 707.3.1	Section 713.12	

1. **USG Shaft & Stair Walls Systems** meet the requirements of 1-hour, 2-hour, and 3-hour fire resistive rated assemblies when tested in accordance with ASTM E119 and constructed in accordance with the requirements of the applicable UL Design Number (or equivalent).

2. Meets the requirements for structural integrity of exit enclosures and elevator hoist way enclosures for High-Rise Buildings (Section 403.2.3. of the 2012, 2015 and 2018 IBC) when installed in accordance with the abuse resistant assemblies listed on page two (2) of this **Assembly Evaluation Report (AER)**. Approved abuse resistant assemblies have been tested in accordance with ASTM C1629.

Component Descriptions
USG **Shaft & Stair Wall Systems** are generally constructed with the following components.

1. J-Runners
The metal framing members used in construction of USG **Shaft & Stair Wall Systems** are manufactured from cold roll-formed light gauge galvanized steel conforming to ASTM A653 SS Grade 33 for 24ga. minimum thickness and ASTM A653 SS Grade 40 for 20ga minimum thickness. The galvanization coating shall be a G40 minimum. The available sizes are 2-1/2-in, 4-in and 6-in deep and a length of 16-ft in 24 or 20 gauge. Position steel J-runners at floor and ceiling with the 1-in leg towards the finished side of the wall. Securely attach the runners to the structure supports with power actuated fasteners.

For attachment to steel framed construction install floor and ceiling J-runners and End wall J-Runners or E-Studs, on columns and beams before the steel is fireproofed, except where Z-Clips are used as in UL Design HW-D-0609.

2. Steel Studs
USG Steel C-H and E Studs are manufactured from cold roll-formed light gauge steel conforming to ASTM A653 SS Grade 33 for 25ga thickness and ASTM A653 SS Grade 40 for 20ga minimum thickness. The galvanization coating shall be a G40 minimum. The available sizes are 2-1/2-in, 4-in and 6-in deep and a length of 16-ft in 25 or 20 gauge.

Cut the C-H Studs 3/8-in to 5/8-in shorter than the floor-to-ceiling height. Install C-H Studs interlocked between the SHEETROCK® Brand Gypsum Liner Panels with the liner panels securely engaged. The C-H Studs must havea current product evaluation report for the **USG Shaft &Stair Wall Systems.**

Terminations: Install full length steel E-Studs or J-Runners vertically at T-Intersections, corners, door jambs and columns.
Openings: Frame with vertical E-Stud or J-Runner at vertical edges, horizontal J-runner at head or sill.
Control Joints: Install full length steel E-Stud or J-Runner at edges of control joints, to fully support gypsum panels.
C-H Studs: Based on stud size shown in Table 1 and Figure 7 of this **AER**.

AER-09038

Component Descriptions Continued

3. Gypsum Liner Panels
Tested for Composite Limiting Heights Tables 2, 3, & 4:
SHEETROCK® Brand Gypsum Liner Panels a high performance panel that is composed of a non-combustible gypsum core encased in a water resistant 100% recycled **green** face and back paper. Gypsum Liner Panels are a nominal thickness of 1-in x 24-in wide x 8-ft -- 14-ft long. Must meet the minimum requirements of ASTM C1396.

Alternatives for UL Fire Resistance:
SHEETROCK Brand Mold Tough™ Gypsum Liner Panels feature a non-combustible, moisture- and mold-resistant gypsum core encased in moisture and mold-resistant, 100% recycled **blue** face and back papers. Available 1-in thick, 24-in wide and in lengths up to 14-ft. Must meet the minimum requirements of ASTM C1396.

SHEETROCK Brand Glass-Mat Liner Panel have a noncombustible, moisture- and mold-resistant gypsum core that is encased in moisture- and mold-resistant glass mat. Available 1-in thick, 24-in wide, and lengths up to 14-ft. Must meet the minimum requirements of ASTM C1658.

Note: All of these panels should be cut 1-in shorter than the floor-to-ceiling height, to allow for the panel to be fitted between the top and bottom J-runners. Where shaft wall height exceeds the length of the liner panel; it must be butted together with meeting factory end cuts. The joints should be staggered and positioned in the upper or lower 1/3 of the wall. Panels must be UL/ULC classified for fire resistance and identified as Type SLX on the UL marking and UL Fire Resistance Directory.

4. Gypsum Wallboard
Tested for Composite Limiting Heights Tables 2, 3, & 4:
SHEETROCK Brand FIRECODE C Core Gypsum Panels have been tested generate the shaft/stairwall limiting heights for wall assemblies shown in Figures 1, 2, 3, 4, and 5. Panels are available in 1/2-in and 5/8-in thicknesses, 48-in wide and lengths up to 14-ft. Product must be UL Classified for fire-rated construction (Type C) and meet the requirements of ASTM C1396.

SHEETROCK Brand FIRECODE Core Gypsum Panels (Type X) have been tested generate the shaft/stairwall limiting heights for the wall assembly described by Figure 6. Panels are available 5/8-in thick, 48-in or 54-in wide and lengths up to 14-ft. Product must be UL Classified for fire-rated construction (Type SCX) and meet the requirements of ASTM C1396.

Alternatives for UL Fire Resistance and/or Abuse Resistance:
SHEETROCK Brand Mold Tough Gypsum Panels, have a non-combustible, moisture- and mold-resistant gypsum core encased in moisture- and mold-resistant, 100 percent recycled **green** face and **brown** back paper. Available in FIRECODE and FIRECODE C core formulations in the same widths, thicknesses and lengths listed above. The panels have been tested for use in abuse resistant assemblies in accordance with ASTM C 1629, Class 2 Impact Rating (Soft Body), Class 1 Impact Rating (Hard Body). Product must be UL Classified for fire-rated construction (Type C or Type SCX) and meet the requirements of ASTM C1396.

SHEETROCK Brand Mold Tough VHI (Very High Impact) Abuse Resistant Gypsum Panels have a non-combustible, moisture-resistant core encased in moisture- and mold-resistant, 100 percent recycled **green** face and **brown** back papers. A fiberglass reinforcing mesh is imbedded in the core adjacent to the back paper. Available in FIRECODE Core formulation in the same widths, thicknesses, and lengths listed above. The panels have been tested for use in abuse resistant assemblies in accordance with ASTM C 1629, Class 3 Impact Rating (Soft Body), Class 3 Impact Rating (Hard Body). Product must be UL Classified for fire-rated construction (Type AR) and meet the requirements of ASTM C1396.

FIBEROCK® Brand AR (Abuse-Resistant) Interior Panels (Type X) are high performance abuse resistant panels. Available panels are 5/8-in thick x 48-in wide and available in lengths up to 12-ft. The panels have been tested for use in abuse resistant assemblies in accordance with ASTM C 1629, Class 3 Impact Rating (Soft Body) and Class 2 Impact Rating (Hard Body) . Product must be UL Classified for fire-rated construction (Type FRX-G) and meet the requirements of ASTM C1278 as well as ASTM C473.

Tested Abuse Resistant Assemblies:
1. **Single layer of 5/8-in FIBEROCK VHI on 24-in o.c. 400CH20-34 Studs** - Passed ASTM C1629 Hard Body Impact Level 2.
2. **Single layer of 5/8-in SHEETROCK FIRECODE Core Face and Single layer of 5/8-in FIBEROCK VHI Base on 24-in o.c. 400CH20-34 Studs** - Passed ASTM C1629 Hard Body Impact Level 3 and Soft Body Impact Level 2.
3. **Two layers of 5/8-in FIBEROCK VHI on 24-in o.c. 400CH20-34 Studs** - Passed ASTM C1629 Hard Body Impact Level 3 and Soft Body Impact Level 2.

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~ Cavity Shaft Wall Systems ~

One-Hour Cavity Shaft Wall (Non-Load Bearing), **See Figure 1**
1. A minimum 2-1/2-in wide 24 gauge floor and ceiling J-runners, attached to structure as described above.
2. Apply one (1) layer, 5/8-in thick SHEETROCK Brand FIRECODE C Core Gypsum Panels (Type C), installed vertically with 1-in long Type S screws spaced 12-in o.c. in field and at edges for vertical application, and 8-in o.c. for horizontal application.
3. A minimum 2-1/2-in deep USG C-H Studs 25 gauge 24-in o.c., with the H-Section of C-H Stud towards the shaft side of the assembly. Screw attachment is not required to affix the stud to the runner, if Shaft Wall is less then 16-ft tall. E-shaped studs may be used for closure panels at end of the walls or columns. (If J-runners are used at end walls, the gypsum liner is fastened at the ends with 1-5/8-in long Type S Screws 12-in o.c.)
4. 1-in thick SHEETROCK Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.

Two-Hour Cavity Shaft Wall (Non-Load Bearing), **See Figure 2**
1. A minimum 2-1/2-in deep 24 gauge floor and ceiling J-runners, attached to structure as described above.
2. Apply two (2) layers, 1/2-in thick SHEETROCK® Brand FIRECODE® C Core Gypsum Panels. Apply base layer with 1-in long Type S screws 24-in o.c. in field and at the edges for vertical application and 16-in o.c. for horizontal applications. Apply face layer C-H studs and J-runners with 1-5/8-in long Type S screws. Space the screws 12-in o.c. at the edges and in the field when applied horizontally. All joints between the base and face layers must be staggered.
3. A minimum 2-1/2-in deep USG C-H studs 25 gauge, spaced 24-in o.c., with the H-Section of the C-H stud towards the shaft side of the assembly. Screw attachment is not required to affix the stud to the runner, if Shaft Wall is less then 16-ft tall. E-shaped studs may be used for closure panels at the end of walls or columns. (If J-runners are used at end walls, the gypsum liner needs to be fastened at the ends with 1-5/8-in long Type S screws that are spaced 12-in o.c.).
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of CH studs.

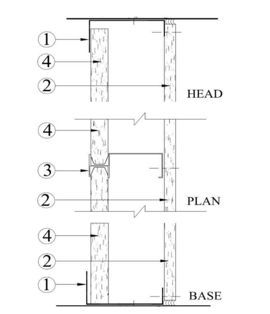

Figure 1 - 1-HR Cavity Shaft Wall (Non-Load Bearing)

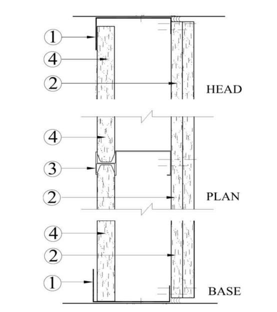

Figure 2 - 2-HR Cavity Shaft Wall (Non-Load Bearing)

AER-09038

Two-Hour Cavity Stair Wall (Non-Load Bearing), **See Figure 3**
1. A minimum 2-1/2-in deep, 24 gauge floor and ceiling J-runners, attached to the structure as described.
2. Apply one (1) layer of 1/2-in SHEETROCK® Brand FIRECODE® Gypsum Panels (Type C) to each side of the C-H stud. Attach the C-H stud with 1-in long Type S screws 12-in o.c. in the field and at the edges for a vertical application and 8-in o.c. center for a horizontal application.
3. A minimum of 2-1/2-in deep USG C-H studs 25 gauge, spaced 24-in o.c., with the H-section of the C-H stud towards the shaft side of the assembly, if the Shaft Wall is less than 16-ft tall. Screw attachment is not required to affix the stud to the runner, if Shaft Wall is less then 16-ft tall. E-shaped studs may be used for closure panels at the end of walls or columns. (If J-runners are used at end walls, the gypsum liner needs to be fastened at the ends with 1-5/8-in long Type S screws that are 12-in o.c.).
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.

Three-Hour Cavity Shaft Wall (Non-Load Bearing), **See Figure 4**
1. A minimum 2-1/12-in deep 24 gauge floor and ceiling J-runners, attached to the structure as described in the Figure 4.
2. Apply three (3) layers of 5/8-in thick SHEETROCK® Brand FIRECODE® C Core Gypsum Panels (Type C), vertically or horizontally to the room side of the C-H stud. First layer shall be attached with a 1-in long Type S screw placed 24-in o.c. in the field and at the edges when applied vertically, for horizontal applications the screws shall be spaced 16-in o.c. The second layer shall be applied with 1-5/8-in long Type S screws spaced 24-in o.c. when applied vertically or spaced 16-in o.c. when the applied horizontally. The Face layer shall be applied with 2-1/4-in long Type S screws that are spaced 16-in o.c. when the board is applied vertically, and spaced 12-in o.c. when the board is applied horizontally. All joints must be staggered a minimum of 24-in o.c. from the adjacent layers, where screws are offset a minimum of 6-in from the layer below.
3. A minimum 2-1/2-in USG C-H studs 25 gauge that are spaced 24-in o.c., with the H-section of the C-H stud towards the shaft side of the assembly. Screw attachment is not required to affix the stud to the runner, if Shaft Wall is less then 16-ft tall. E-shaped studs may be used for closure panels at the end of walls or columns. (If J-runners are used at the end walls, the gypsum liner needs to be fastened at the ends with 1-5/8-in Type S screws spaced 12-in o.c.)
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.

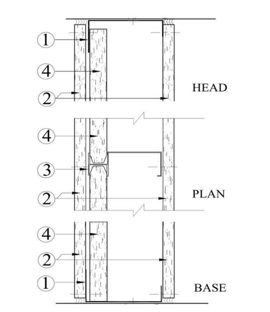

Figure 3 - 2-HR Cavity Stair Wall (Non-Load Bearing)

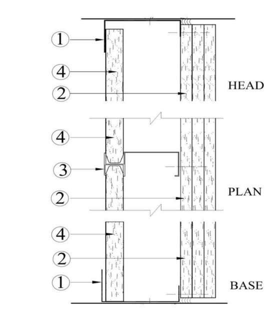

Figure 4 - 3-HR Cavity Shaft Wall (Non-Load Bearing)

E5 EVALUTION SERVICE
1"=1'-0"

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Three-Hour Cavity Stair Wall (Non-Load Bearing), **See Figure 5**
1. A minimum 2-1/2-in deep 24 gauge floor and ceiling J-runners attached to the structure as described above.
2. Apply two (2) layers of 5/8-in thick SHEETROCK® Brand FIRECODE® C Core Gypsum Panels (Type C), vertically or horizontally to the "room" side of the C-H stud. For vertical applications using a 1-in long Type S screw spaced 24-in o.c. in the field and at the edges. For vertical applications the gypsum panels need to be spaced 16-in o.c. and for horizontal applications they need to be spaced at 16-in o.c.
3. A minimum 2-1/2-in deep USG C-H Stud 25 gauge spaced 24-in o.c., where the H-section of the C-H stud faces the shaft. Screw attachment is not required to affix the stud to the runner, if Shaft Wall is less then 16-ft tall. E-shaped studs may be used for closure panels at the end of the walls or columns. (If J-runners are used at end walls, the gypsum liner should be fastened at the ends with a 1-5/8-in long Type S screw, spaced 12-in o.c.)
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.

Two-Hour Horizontal Stud Shaft Wall Assembly (Non-Load Bearing), **See Figure 6**
1. A minimum 4-in deep 20 gauge J-runner to be installed vertically, on the ends of the wall.
2. Apply two (2) layers of 5/8-in thick SHEETROCK® Brand FIRECODE® Core Gypsum Panels (Type X) vertically or horizontally to the room side of the C-H stud, with 1-in long Type S screws spaced 12 -in o.c. in the field and at the edges for the BASE layer. The FACE layer shall be installed with 1-5/8-in long Type S screws spaced 8-in o.c. All joints must be staggered a minimum of 24-in from the adjacent layers.
3. A minimum 4-in deep USG C-H stud or E Studs 20 gauge, are to be installed horizontally between the J-runners. The H-section of the C-H stud faces the shaft. C-H Studs should be attached to vertical J-runners with Type S fasteners.
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.
5. Horizontal Stud Wall Assembly - The wall width is limited to the length of the Gypsum Liner Panel.

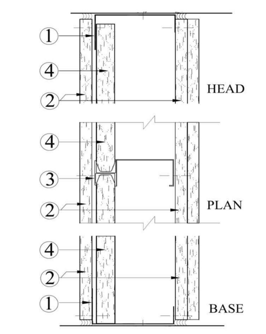

Figure 5 - 3-HR Cavity Stair Wall (Non-Load Bearing)

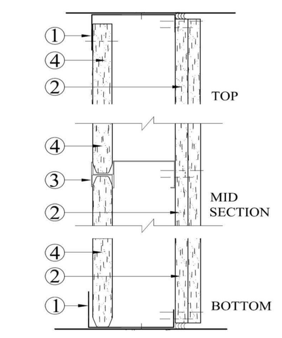

Figure 6 - 2-HR Horizontal Stud Shaft Wall Assembly (Non-Load Bearing)

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Table 1 - Nominal C-H Stud Dimensions[1] (inches)

Stud Designation	A	B	C	D	E	F[2]
212CH25-18	2 1/2	1 3/8	1 29/64	31/32	7/32	25ga
212CH20-34	2 1/2	1 3/8	1 29/64	31/32	7/32	20ga
400CH25-18	4	1 3/8	1 29/64	31/32	7/32	25ga
400CH20-34	4	1 3/8	1 29/64	31/32	7/32	20ga
600CH20-34	6	1 3/8	1 29/64	31/32	7/32	20ga

Notes:
1. Refer to Figure 7 for location of tabulated dimensions.
2. Dimension "F" refers to the minimum steel thickness and is shown as the minimum nominal gauge thickness of the material allowable.

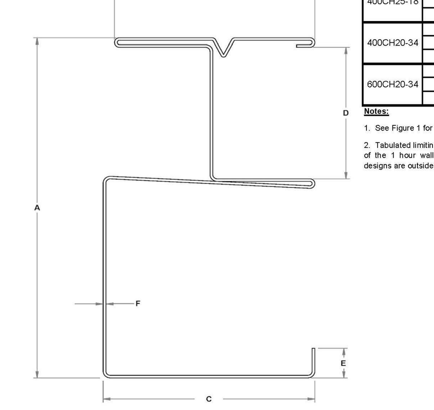

Figure 7 - Nominal C-H Stud Dimension Locations
(See Table 1 for Values)

Table 2 - Limiting Heights Vertical Shaft Walls[1,2]

Stud Description	Allowable Deflection	1-hr Shaft Wall / Stair Wall: 5psf design (ft - in)		7.5psf design (ft - in)		10psf design (ft - in)		15psf design (ft - in)	
212CH25-18	L/120	13	10	9	4	7	0	4	8
	L/240	11	0	9	4	7	0	4	8
	L/360	9	7	8	4	7	0	4	8
212CH20-34	L/120	16	0	14	0	12	9	11	1
	L/240	12	9	11	1	10	1	8	8
	L/360	11	1	9	8	8	8	7	5
400CH25-18	L/120	10	6	7	0	5	3	3	6
	L/240	10	6	7	0	5	3	3	6
	L/360	10	6	7	0	5	3	3	6
400CH20-34	L/120	22	3	19	5	17	8	14	3
	L/240	17	8	15	5	14	0	12	3
	L/360	15	5	13	6	12	3	10	8
600CH20-34	L/120	30	11	21	5	16	1	10	8
	L/240	24	6	21	5	16	1	10	8
	L/360	21	5	18	8	16	1	10	8

Notes:
1. See Figure 1 for vertical stud installation details within shaft/stair wall.
2. Tabulated limiting heights are based upon the tested composite behavior of the 1 hour wall assemblies described in this **AER** only. Alternative designs are outside the scope of this **AER**.

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Table 3 - Limiting Heights - Shaft Walls with Vertical & Horizontal Stud Orientation[1,2,3]

Stud Description	Allowable Deflection	2-hr Stair Wall: 5psf design (ft - in)		7.5psf design (ft - in)		10psf design (ft - in)		15psf design (ft - in)		2-hr Shaft Wall: 5psf design (ft - in)		7.5psf design (ft - in)		10psf design (ft - in)		15psf design (ft - in)	
212CH25-18	L/120	14	4	12	6	10	5	6	11	14	6	12	8	10	5	6	11
	L/240	11	4	9	11	9	0	6	11	11	6	10	0	9	1	6	11
	L/360	9	11	8	8	7	10	6	10	10	0	8	9	8	0	6	11
212CH20-34	L/120	19	0	16	7	14	7	12	3	17	1	14	11	13	6	11	10
	L/240	14	7	12	3	10	10	9	3	13	6	11	10	10	9	9	4
	L/360	12	3	10	4	9	3	7	10	11	10	10	4	9	4	7	10
400CH25-18	L/120	19	0	15	7	13	2	8	9	18	4	15	0	13	0	8	9
	L/240	17	4	14	7	12	11	8	9	16	1	14	1	12	9	8	9
	L/360	14	7	12	3	10	11	8	9	14	1	12	4	11	2	8	9
400CH20-34	L/120	23	0	23	0	21	0	17	4	23	0	21	0	19	1	16	5
	L/240	21	0	17	7	15	8	13	3	19	1	16	8	15	2	13	3
	L/360	17	7	14	11	13	3	11	3	16	8	14	7	13	3	11	7
600CH20-34	L/120	31	0	29	3	21	11	14	7	31	0	27	4	21	11	14	7
	L/240	28	0	23	10	21	4	14	7	25	8	22	5	20	5	14	7
	L/360	23	10	20	5	18	3	14	7	22	5	19	7	17	10	14	7

Notes:
1. See Figure 2 and 3 for vertical stud installation details within shaft/stair wall.
2. See Figure 6 for horizontal stud installation details within shaft/stair wall. The horizontal wall width is limited to the length of the Gypsum Liner Panel and only 400CH20-34 and 600CH20-34 steel studs are permitted for horizontal stud installations.
3. Tabulated limiting heights are based upon the tested composite behavior of the 2 hour wall assemblies described in this **AER** only. Alternative designs are outside the scope of this **AER**.

Table 4 - Limiting Heights Vertical Shaft Walls[1,2] - Applicable to Fig. 4 & 5

Stud Description	Allowable Deflection	3-hr Stair Wall: 5psf design (ft - in)		7.5psf design (ft - in)		10psf design (ft -in)		15psf design (ft - in)		3-hr Shaft Wall: 5psf design (ft - in)		7.5psf design (ft - in)		10psf design (ft - in)		15psf design (ft - in)	
212CH25-18	L/120	14	4	12	6	10	5	6	11	14	6	12	8	10	5	6	11
	L/240	11	4	9	11	9	0	6	11	11	6	10	0	9	1	6	11
	L/360	9	11	8	8	7	10	6	10	10	0	8	9	8	0	6	11
212CH20-34	L/120	19	0	16	7	14	7	12	3	17	1	14	11	13	6	11	10
	L/240	14	7	12	3	10	10	9	3	13	6	11	10	10	9	9	4
	L/360	12	3	10	4	9	3	7	10	11	10	10	4	9	4	7	10
400CH25-18	L/120	19	0	15	7	13	2	8	9	18	4	15	0	13	0	8	9
	L/240	17	4	14	7	12	11	8	9	16	1	14	1	12	9	8	9
	L/360	14	7	12	3	10	11	8	9	14	1	12	4	11	2	8	9
400CH20-34	L/120	23	0	23	0	21	0	17	4	23	0	21	0	19	1	16	5
	L/240	21	0	17	7	15	8	13	3	19	1	16	8	15	2	13	3
	L/360	17	7	14	11	13	3	11	3	16	8	14	7	13	3	11	7
600CH20-34	L/120	31	0	29	3	21	11	14	7	31	0	27	4	21	11	14	7
	L/240	28	0	23	10	21	4	14	7	25	8	22	5	20	5	14	7
	L/360	23	10	20	5	18	3	14	7	22	5	19	7	17	10	14	7

Notes:
1. See Figure 4 and 5 for vertical stud installation details within shaft/stair wall.
2. Tabulated limiting heights are based upon the tested composite behavior of the 3 hour wall assemblies described in this **AER** only. Alternative designs are outside the scope of this **AER**.

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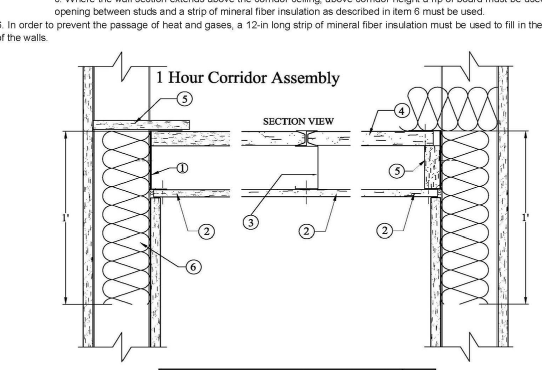
One Hour Corridor Ceiling or Underside Stair Applications, See Figure 8
1. A minimum 2-1/2-in deep 24 gauge J-runner attached horizontally to perimeter or boundary walls with a power actuated fasteners.
2. Gypsum Wall Board:
a. For a one (1) hour assembly: Attach one (1) layer of 5/8-in thick SHEETROCK® Brand FIRECODE® Core Gypsum Panel (Type X), to the underside of the "Corridor Ceiling" of the C-H stud and the perimeter J-runners. Use 1-in long Type S screws that are spaced 12-in o.c. in the field and at the edges.
3. Install the C-H studs perpendicular to the J-runner spaced 24-in o.c. with the C-section of the C-H stud facing downward towards the corridor side of the assembly with two (2) screws a minimum 1/2-in long Type S-12 screws, one on each side.
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.
5. Ripper Board:
a. Where the liner panel (item 4) is cut short to be installed, gaps must be filled by using a strip of 1-in thick SHEETROCK Brand Gypsum Liner Panel.
b. As an alternative you can use mineral fiber insulation to prevent exposure to the top leg of the J-runner that forms the ceiling.
c. Where the wall section extends above the corridor ceiling, above corridor height a rip of board must be used to cap the opening between studs and a strip of mineral fiber insulation as described in item 6 must be used.
6. In order to prevent the passage of heat and gases, a 12-in long strip of mineral fiber insulation must be used to fill in the stud cavity of the walls.



1-Hour Exit Corridor Ceiling and Stair Soffits[1]	
Single layer 5/8-in gypsum panels	Maximum Span
212CH25-18[<2>]	8-ft - 6-in
212CH20-34[<3>]	10-ft - 4-in
400CH25-18[<2>]	9-ft - 3-in
400CH20-34[<3>]	14-ft - 11-in
600CH20-34[<3>]	20-ft - 10-in

Notes:
1. Based on L/240 allowable deflection with studs at 24-in o.c. and JR24 runner.
2. J-Runner connection to wall/building must meet or exceed 189-lbs capacity at every stud location (24-in o.c.).
3. J-Runner connection to wall/building must meet or exceed 386-lbs capacity at every stud location (24-in o.c.).

Figure 8 - One Hour Corridor Ceiling or Underside Stair Assembly and Limiting Spans

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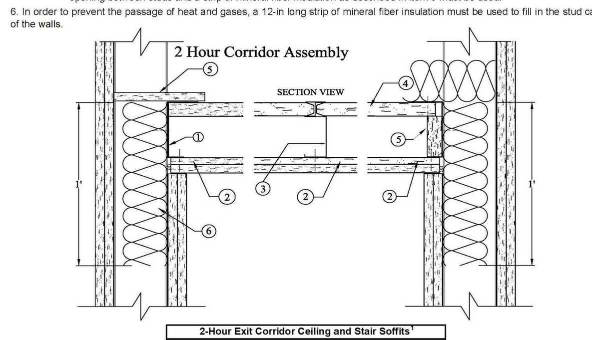
Two Hour Corridor Ceiling or Underside Stair Applications, See Figure 9
1. A minimum 2-1/2-in deep 24 gauge J-runner attached horizontally to perimeter or boundary walls with a power actuated fasteners.
2. Gypsum Wall Board:
a. For a two (2) hour assembly: Attached two (2) layers of minimum 1/2-in thick SHEETROCK® Brand FIRECODE® C Core Gypsum Panels (Type C) to the underside of the "Corridor Ceiling" of the C-H stud and the perimeter J-For the BASE layer, use a 1-in long Type S screw that is spaced 24-in o.c. along the perimeter and the edges. The FACE layer should be applied with a 1-5/8-in long Type S screw that is spaced 12-in o.c. in the field and perimeter. All joints must be staggered a minimum of 24-in o.c. from the adjacent layer.
3. Install the C-H studs perpendicular to the J-runner spaced 24-in o.c. with the C-section of the C-H stud facing downward towards the corridor side of the assembly with two (2) screws a minimum 1/2-in long Type S-12 screws, one on each side.
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.
5. Ripper Board:
a. Where the liner panel (item 4) is cut short to be installed, gaps must be filled by using a strip of 1-in thick SHEETROCK Brand Gypsum Liner Panel.
b. As an alternative you can use mineral fiber insulation to prevent exposure to the top leg of the J-runner that forms the ceiling.
c. Where the wall section extends above the corridor ceiling, above corridor height a rip of board must be used to cap the opening between studs and a strip of mineral fiber insulation as described in item 6 must be used.
6. In order to prevent the passage of heat and gases, a 12-in long strip of mineral fiber insulation must be used to fill in the stud cavity of the walls.



2-Hour Exit Corridor Ceiling and Stair Soffits[1]	
Double layer 1/2-in gypsum panels	Maximum Span
212CH25-18[<2>]	7-ft - 10-in
212CH20-34[<3>]	9-ft - 8-in
400CH25-18[<2>]	7-ft - 7-in
400CH20-34[<3>]	14-ft - 0-in
600CH20-34[<3>]	19-ft - 7-in

Notes:
1. Based on L/240 allowable deflection with studs at 24-in o.c. and JR24 runner.
2. J-Runner connection to wall/building must meet or exceed 189-lbs capacity at every stud location (24-in o.c.).
3. J-Runner connection to wall/building must meet or exceed 386-lbs capacity at every stud location (24-in o.c.).

Figure 9 - Two Hour Corridor Ceiling or Underside Stair Assembly and Limiting Spans

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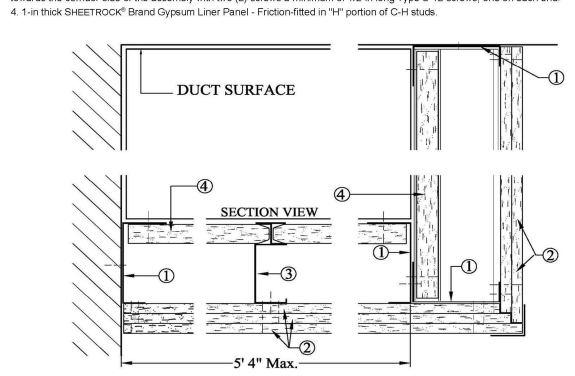
Two-Hour Horizontal Gypsum Duct Enclosure, See Figure 10
1. A minimum 2-1/2-in deep 24 gauge J-runners attached horizontally to the perimeter or boundary wall, with power actuated fasteners. Connection of the vertical C-H stud to the top J-runner and connection of the top J-runner to the structure shall be capable of carrying the weight of the duct enclosure and verified by a registered design professional.
2. Apply three (3) layers of 1/2-in (minimum) SHEETROCK® Brand FIRECODE® C Core Gypsum Panels to the underside "ceiling" side of the assembly. The base layer is attached with 1-in long Type S Screws that are spaced 24-in o.c. The second layer is attached with 1-5/8-in long Type S screws that are spaced 12-in o.c., with all the joints staggered 24in o.c. from the base layer. The face layer is attached perpendicular to the C-H Studs with 2-in long Type S screws that are spaced 12-in o.c. and the joints are staggered 24-in o.c. from the base layer.
3. Install the C-H studs perpendicular to the J-runners, spacing them 24-in o.c. with the C-section of the C-H stud facing downward towards the corridor side of the assembly with two (2) screws a minimum of 1/2-in long Type S-12 screws, one on each end.
4. 1-in thick SHEETROCK® Brand Gypsum Liner Panel - Friction-fitted in "H" portion of C-H studs.



2-Hour Horizontal Membrane or Metal Duct Enclosure[1,2]	
Triple layer 1/2-in gypsum panels	Maximum Span
All Stud Sizes	5-ft - 4-in

Notes:
1. Horizontal membrane maximum span based upon the maximum 5-ft - 4-in span tested in accordance with ASTM E119.
2. J-Runner connection to vertical C-H Stud shall consist of two #8 screws (or equivalent). J-Runner connection to wall/building shall meet the same requirments as the ceiling applications in Figures 8 and 9.

Figure 10 - Two Hour Horizontal Duct Enclosure Assembly and Limiting Spans

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General Product Usage and Limitations
1. These products shall be installed in accordance with ASTM C 840 *Standard Specification for Application and Finishing of Gypsum Board*, and in accordance with USG Product Literature.
2. The USG SHEETROCK® Brand Cavity Shaftwall system is designed to enclose stairwalls, elevator shafts, mechanical components and other vertical shafts.
3. For horizontal ceiling and ductwork applications, please see manufacturer's product brochure *SA926 Shaft Wall Systems*.
4. Non-load bearing and limited to fire-resistance only. Structural and other requirements shall be in accordance with pertinent building code and manufacturer's requirements.

Product Labeling
Each assembled USG Drywall Shaft Partition System that is covered by this **AER**, must be marked with the following information:

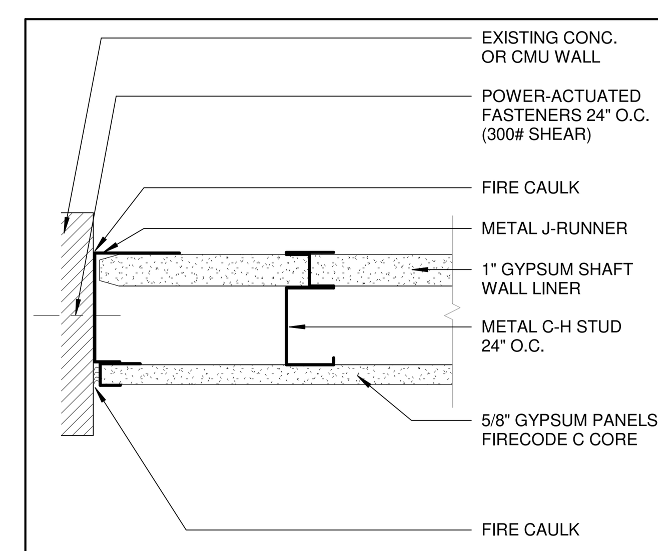
Gypsum Board & Liner Panels:
1. USG Name
2. Product Name
3. Plant Identifier & Date Code
4. UL Classification (or equivalent) label for Firecode Resistance, surface burning characteristics and non-combustibility.

Steel C-H Studs:
1. Each bundle of steel studs contains a label with the steel gauge and yield strength.
2. Each stud is identified at a maximum spacing of 96-in with the manufacturer name, product code, minimum thickness, and yield strength.

Tested to
ICC-ES (Formerly ICBO) AC86 (1995) - Acceptance Criteria for determining limiting height of composite walls constructed of gypsum and steel studs to revision - Date: July, 1995.
ASTM E330-97 - Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Differences, following procedure A. (Test Reports 2004-0329 B-L were based on this test method)
ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials
ASTM C473-10 - Standard Specification for Gypsum Board, Section 5 Gypsum Wallboard, Predecorated Gypsum Board and Laminated Gypsum Wallboard.
ASTM C1278-17 - Standard Specification for Fiber-Reinforced Gpysum Panel.

ASTM C1629-06 - Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.

Product Documentation
An Assembly Evaluation Service Agreement between *Pei* **Evaluation Service®** and United States Gypsum Company
USG Drywall Shaft Partition System Product Installation Guidelines - SA926-USA-ENG - Revised: 2/2017
Various Test Reports, Opinion Letters, & Third Party Product Listings Used as Verification of Fire Resistance, Abuse Resistance, and Transverse Load Capacity.
Various Engineering Calculations for Limiting Heights and Horizontal Spans.



E7 1-HR RATED HARD CEILING DETAIL
3"=1'-0"
A13M-013(031220)

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:
INTERIOR PARTITION SECTIONS, NOTES, DETAILS

Drawing Number:
A13-2.2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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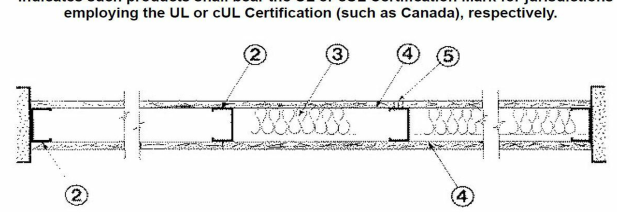
1 2 3 4 5 6 7

Design No. U465

Febraury 14, 2022

Nonbearing Wall Rating — 1 HR.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners** - (Not Shown) - Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1A. **Framing Members*** - **Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

1B. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Item 1 - For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

1C. **Floor and Ceiling Runners** - (Not Shown) - For use with Item 2C - Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1D. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 through 1C - For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max..
CLARKDIETRICH BUILDING SYSTEMS - CD ProTRAK

DMFCWBS L L C - ProTRAK

MBA METAL FRAMING - ProTRAK

RAM SALES L L C - Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProTRAK

1E. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 through 1D - For use with Item 2E and 4I only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C - TRUE-TRACK™

1F. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 through 1E - For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
~~**KIRII (HONG KONG) LTD** - Type KIRII~~

1G. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 through 1F - For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max.
STUDCO BUILDING SYSTEMS - CROCSTUD Track

1H. **Floor and Ceiling Runners** - (Not Shown) - Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track VT100

FUSION BUILDING PRODUCTS - Viper20™ Track VT100

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track VT100

1I. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Item 1 - For use with Item 2H, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

1J. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Items 1 - For use with Item 2 L, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C - AlphaTRAK

1K. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Item 1 - For use with Item 2M, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X Track

1L. **Framing Members*** - **Floor and Ceiling Runners** - Not Shown - In lieu of Item 1 - For use with Item 2N, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CRACO MFG INC - SmartTrack20™

2. **Steel Studs** - Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2A. **Framing Members*** - **Steel Studs** - As an alternate to Item 2 - Channel shaped studs, min 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.
ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

2B. **Framing Members*** - **Steel Studs** - Not Shown - In lieu of Item 2 - For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper20™

CRACO MFG INC - SmartStud20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™

FUSION BUILDING PRODUCTS - Viper20

IMPERIAL MANUFACTURING GROUP INC - Viper20

2C. **Steel Studs** - (As an alternate to Item 2, For use with Item 1C) - Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height. See materials in Item(s) 4 that require Item 2C studs.

2D. **Framing Members*** - **Steel Studs** - As an alternate to Items 2 through 2C - For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.

CLARKDIETRICH BUILDING SYSTEMS - CD ProSTUD

DMFCWBS L L C - ProSTUD

MBA METAL FRAMING - ProSTUD

RAM SALES L L C - Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2E. **Framing Members*** - **Steel Studs** - As an alternate to Items 2 through 2D - For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.

TELLING INDUSTRIES L L C - TRUE-STUD

2F. **Framing Members*** - **Steel Studs** - As an alternate to Items 2 through 2E - For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
~~**KIRII (HONG KONG) LTD** - Type KIRII~~

2G. **Framing Members*** - **Steel Studs** - Not Shown - In lieu of Item 2 through 2F - For use with Item 1G. Proprietary channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height.

STUDCO BUILDING SYSTEMS - CROCSTUD

2H. **Framing Members*** - **Steel Studs** - Not Shown - In lieu of Item 2 - For use with Item 1I, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™

2I. **Framing Members*** - **Steel Studs** - In lieu of Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.
EB METAL INC – NITROSTUD

2J. **Framing Members*** - **Steel Studs** - In lieu of Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.
OLMAR SUPPLY INC - PRIMESTUD

2K. **Framing Members*** - **Steel Studs** - As an alternate to Item 2 - For use with Item 1B (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC - StudRite

2L. **Framing Members*** - **Steel Studs** - As an alternate to Items 2 - For use with Item 1J, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.
RESCUE METAL FRAMING, L L C - AlphaSTUD

2M. **Framing Members*** - **Steel Studs** - Not Shown - In lieu of Item 2 - For use with Item 1K, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/4 in. less in length than assembly height.
CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X

2N. **Framing Members*** - **Steel Studs** - Not Shown - In lieu of Item 2 - For use with Item 1L, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.
CRACO MFG INC - SmartStud20

3. **Batts and Blankets*** - (Optional) - Mineral wool or glass fiber batts partially or completely filling stud cavity.
See **Batts and Blankets** (BZJZ) category for names of Classified companies.

ROCKWOOL – Type AFB, min. density 1.69 pcf / 27.0 kg/m3

3A. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - (100% Borate Formulation) - Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.
U S GREENFIBER L L C - INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only

3B. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC - Cellulose Insulation

3C. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lb/ft3.
INTERNATIONAL CELLULOSE CORP - Celbar-RL

3D. **Batts and Blankets*** - For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the studs and floor and ceiling runners.

See **Batts and Blankets** (BZJZ) category for names of manufacturers.

3E. **Batts and Blankets*** - For use with Item 4R and 4S. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.

See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

3F. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 3) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft3.
APPLEGATE HOLDINGS L L C - Applegate Advanced Stabilized Cellulose Insulation

3G. **Foamed Plastic*** - As an alternate to Batts and Blankets (Item 3), for use with Item 4U - Spray applied, foamed plastic insulation, at any thickness from partial fill to completely filling stud cavity. When foamed plastic is used, minimum stud depth shall be 3-1/2 in.
CARLISLE SPRAY FOAM INSULATION - Types SealTite Pro Closed Cell (CC), SealTite Pro Open Cell (OC), SealTite Pro OCX, SealTite Pro No Trim 21, SealTite Pro One Zero, Foamsulate Closed Cell, Foamsulate OCX, Foamsulate 70, and Foamsulate HFO.

4. **Gypsum Board*** - 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When Steel Framing Members* (Item 6 or any alternate clips) are used, gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC.
CABOT MANUFACTURING ULC - Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO - Types AG-C, AGX-1, M-Glass, LightRoc

~~**BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO** - Type DBX-1~~

CABOT MANUFACTURING ULC - Type X, 5/8 Type X, Type Blueglass Exterior Sheating

CGC INC - Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CERTAINTEED GYPSUM INC - Types EGRG, GlasRoc, Type X, Type X-1, Type C, 5/8" Easi-Lite Type X, Easi-Lite Type X-2

CERTAINTEED GYPSUM INC - Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX

GEORGIA-PACIFIC GYPSUM L L C - Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO - Types eXP-C, FSK, FSK-C, FSK-G, FSMR-C, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSL, RSX.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Types PG-C, PG-9, PG-11, PGS-WRS, PGI

PANEL REY S A - Types GREX, GRIX, PRC, PRC2, PRX, RHX, MDX, ETX, PRX2

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air~~

~~**SIAM GYPSUM INDUSTRY (SARABURI) CO LTD** — Type EX-1~~

~~**THAI GYPSUM PRODUCTS PCL** — Type X, Type C~~

UNITED STATES GYPSUM CO - Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX, (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC - Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX

~~**USG MEXICO S A DE C V** — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX).~~

4A. **Gypsum Board*** - (As alternate to Item 4) - Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.

CERTAINTEED GYPSUM INC - Type X, Type X-1, Type C, Type EGRG/ GlasRoc, GlasRoc-2, Type SilentFX, Easi-Lite Type X-2

CGC INC - Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

CERTAINTEED GYPSUM INC - Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD

GEORGIA-PACIFIC GYPSUM L L C - Types DAP, DAPC, DGG, DS

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** — Type X, Type C~~

UNITED STATES GYPSUM CO - Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC, WRX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC - Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

~~**USG MEXICO S A DE C V** — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULIX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX).~~

4B. **Gypsum Board*** - (As an alternate to Items 4 or 4A) - Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in.

CGC INC –Types AR, IP-AR

UNITED STATES GYPSUM CO - Types AR, IP-AR

~~**USG MEXICO S A DE C V** — Types AR, IP-AR~~

4C. **Gypsum Board*** - As an alternate to Items 4, 4A, and 4B - Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be staggered or backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing.

GEORGIA-PACIFIC GYPSUM L L C - Type DGG, GreenGlass Type X

4D. **Gypsum Board*** - As an alternate to Items 4, 4A, 4B, and 4C — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications. When used in widths other than 48 in., gypsum panels to be installed horizontally.

NATIONAL GYPSUM CO - Types eXP-C, FSK, FSK-C, FSK-G, FSL, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C

4E. **Gypsum Board*** - (As an alternate to Items 4 through 4D) - Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 12 in. OC.

NATIONAL GYPSUM CO - Type SBWB

4F. **Gypsum Board*** - (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

RAY-BAR ENGINEERING CORP - Type RB-LBG

4G. **Gypsum Board*** - (As an alternate to Items 4 through 4F) - For use with Items 1D and 2D only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.

CGC INC - Type SCX, ULIX

CERTAINTEED GYPSUM INC - Type LGFC6A, LGFC-C/A

NATIONAL GYPSUM CO - Types FSW

UNITED STATES GYPSUM CO – Type SCX, ULIX

USG BORAL DRYWALL SFZ LLC - Type SCx

4H. Gypsum Board* - (As an alternate to Items 4 through 4G) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM –Type QuietRock ES

4I. **Gypsum Board*** - (As an alternate to Items 4 through 4F) - 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter. When using ULIX, panels need not be staggered in horizontal applications and screw spacing can be increased to 12 in. OC in field and perimeter.

CGC INC - Types SCX, ULIX

UNITED STATES GYPSUM CO – Type SCX, ULIX

USG BORAL DRYWALL SFZ LLC - Type SCx

4J. **Gypsum Board*** - (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A).
MAYCO INDUSTRIES INC - Type x-Ray Shielded Gypsum

4K. **Gypsum Board*** - (As an alternate to Item 4 and 4A, not for use with Items 1D, 1E, 2D and 2E) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4 and 4A.
CGC INC - Type ULX

UNITED STATES GYPSUM CO - Type ULX

~~**USG MEXICO S A DE C V** — Type ULX~~

4L. **Gypsum Board*** - (Not Shown) - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

4M. **Gypsum Board*** - (For use with Item 8) - 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 8) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber Board (Item 8). Secured to outermost studs and floor and ceiling runners with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound.
AMERICAN GYPSUM CO - Type AG-C

CERTAINTEED GYPSUM INC - Type C

CGC INC –Types C, IP-X2, IPC-AR

CERTAINTEED GYPSUM INC - Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C - Types 5, DAPC, TG-C

NATIONAL GYPSUM CO - Types eXP-C, FSK-C, FSW-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type PG-C

PANEL REY S A - Types PRC, PRC2

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** — Type C~~

UNITED STATES GYPSUM CO - Types C, IP-X2, IPC-AR, ULIX

USG BORAL DRYWALL SFZ LLC - Type C

~~**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR~~

4N. **Wall and Partition Facings and Accessories*** - (As an alternate to Item 4) - Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4.
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM -Type QuietRock 527

4O. **Gypsum Board*** - As an alternate to Items 4, 4A, 4B, and 4C - Two layers Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal joints on the same side need not be staggered. When applied horizontally, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC and staggered 4 in. OC between layers. When applied vertically, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field, staggered 4 in. OC between layers. Screws spaced a max 12 in. along the top and bottom edges of the wall.

NATIONAL GYPSUM CO – Type FSW

4P. **Gypsum Board*** - As an alternate to Item 4. Nom 5/8 in. thick, 4 ft wide, Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and runners with 1 in. long Type S steel screws spaced 12 in. OC when applied horizontally or vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally.

UNITED STATES GYPSUM CO - Types ULIX

4Q. **Gypsum Board*** - 3/4 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track as described in Item 4 with screw length increased to min. 1- 1/8 in.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM -Type PG-13

4R. **Gypsum Board*** - As an alternate to Item 4D. For use with Item 3E, Batts and Blankets* - 5/8 in. thick, 4 ft wide, installed as described in Item 4.

NATIONAL GYPSUM CO - Type FSLX.

4S. **Gypsum Board*** - As an alternate to Item 4. For use with Item 3E, Batts and Blankets* - 5/8 in. thick, 4 ft wide, installed as described in Item 4A.
CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type CLLX.

4T. **Wall and Partition Facings and Accessories*** - (As an alternate to 5/8 in. thick board as outlined in Item 4) - Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type QuietRock 545

4U. **Gypsum Board***- (As an alternate to Item 4 when Foam Plastic insulation Item 3G is used) - Any 5/8 in. thick, 4 ft. wide, Gypsum Board listed in Item 4 above. Applied vertically with vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Gypsum panels secured to studs with 1 in. long Type S steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For 2 layer assemblies outer layer will be attached to studs over inner layer with the 1-5/8 in. long steel screws spaced 8 in. OC.

4V. **Gypsum Board*** - (As an alternate to Item 4, for 1 hr. rating) - Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications.

CERTAINTEED GYPSUM INC - Type X-1, SilentFX, GlasRoc, Type C

5. **Joint Tape and Compound** - Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

6. **Resilient Channel** - (Optional - Not Shown) - 25 MSG galv steel resilient channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 pan head steel screws. May not be used with Item 4F, 4J or 4L.

6A. **Steel Framing Members*** - (Optional, Not Shown, As an alternate to Item 6) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Not for use with Items 4F, 4J, or 4L.

b. **Framing Members*** - Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.
PAC INTERNATIONAL L L C – Types RSIC-1, RSIC-1 (2.75)

6B. **Framing Members*** - (Optional on one or both sides, Not Shown, As an alternate to Item 6) - Furring channel and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - Used to attach furring channels (Item 6Ba) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.
PLITEQ INC –Type Genie Clip

6C. **Steel Framing Members*** - (Optional, Not Shown, As an alternate to Item 6) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L

b. **Steel Framing Members*** - Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.
STUDCO BUILDING SYSTEMS - RESILMOUNT Sound Isolation Clips - Type A237R

6D. **Steel Framing Members*** - (Optional, Not Shown As an alternate to Item 6) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6Db. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - UUsed to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC, and secured to studs with No.8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.
REGUPOL AMERICA - Type SonusClip

6E. **Steel Framing Members*** - (Optional, Not Shown As an alternate to Item 6) - Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels** - Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - Used to attach resilient channels (Item 6Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.
KEENE BUILDING PRODUCTS CO INC - Type RC+Assurance Clip

6F. **Steel Framing Members*** - (Optional, Not Shown) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. **Steel Framing Members*** - Used to attach furring channels (Item 6Fa) to studs. Clips spaced 48 in. OC., and secured to studs with No. 10 x 2 in. screw through the center hole. Furring channels are friction fit into clips.
MASON INDUSTRIES INC - Type CWC-50

7. **Wall and Partition Facings and Accessories*** - (Optional, Not Shown) - Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type QuietRock QR-500 and QR-510

8. **Mineral and Fiber Board*** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer (Item 4M) is to be installed over the Mineral and Fiber Boards. Batts and Blankets, Item 3D, and Adhesive, Item 11, are required.
HOMASOTE CO - Homasote Type 440-32

8A. **Mineral and Fiber Board** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. Not evaluated for use with Item 4M.
BLUE RIDGE FIBERBOARD INC - SoundStop

8B. **Mineral and Fiber Board*** - (Optional, Not Shown) - For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer is to be installed over the Mineral and Fiber Boards and secured to studs with length of fasteners increased by 1/2 in. over the length specified for installation of the gypsum boards. Batts and Blankets, Item 3, are optional unless otherwise required. Not for use with Items 4F, 4J, 4L, and 4M.
HOMASOTE CO - Homasote Type 440-32

9. **Lead Batten Strips** - (Not Shown, For Use With Item 4E) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4E) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips** - (Not Shown, for use with Item 4J) - Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4J) and optional at remaining stud locations.

10. **Lead Discs or Tabs** - (Not Shown, For Use With Item 4E) - Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4E) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10A. **Lead Discs** - (Not Shown, for use with Item 4J) - Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

11. **Adhesive** - Not Shown - (For use with Item 8) - Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 8).

12. **Wall and Partition Facings and Accessories*** - (CLBV) (Optional, Not Shown) - For use with Items 1 to 1I, Items 2 to 2J, Item 3, Items 4 to 4I, Item 5 and Item 6. For maximum fire rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 4 to Item 4I), install RefleXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When RefleXor membrane is used an additional layer of Gypsum Board that is identical to the one used in the first layer and as specified in Item 4 to Item 4I shall be installed over the membrane. The additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 4 to Item 4I except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 3.
On the other side of the wall, prior to the installation of the Gypsum Board, install Resilient Channels as per Item 6. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with min. 1-1/4 in. long drywall screws and washers spaced at 16 in. OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 4 to Item 4I with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.
Alternately, on the other side of the wall prior to the installation of the Gypsum Board, install 3/4 in. thick SONOpan panels, secured to one side of studs either horizontally or vertically. Panels secured to each stud with min. 1-1/4 in. long drywall screws spaced 12 in. OC. Over the SONOpan, install 25 MSG galv steel, Resilient Channels, spaced vertically 24 in. OC. Resilient Channels fastened through panels to each stud with min. 2 in. long drywall screws or self-tapping screws. Over the Resilient Channels install Gypsum Board as specified in Item 4 to Item 4I with the specified drywall screws. Panels not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

MSL - RefleXor membrane, SONOpan panel

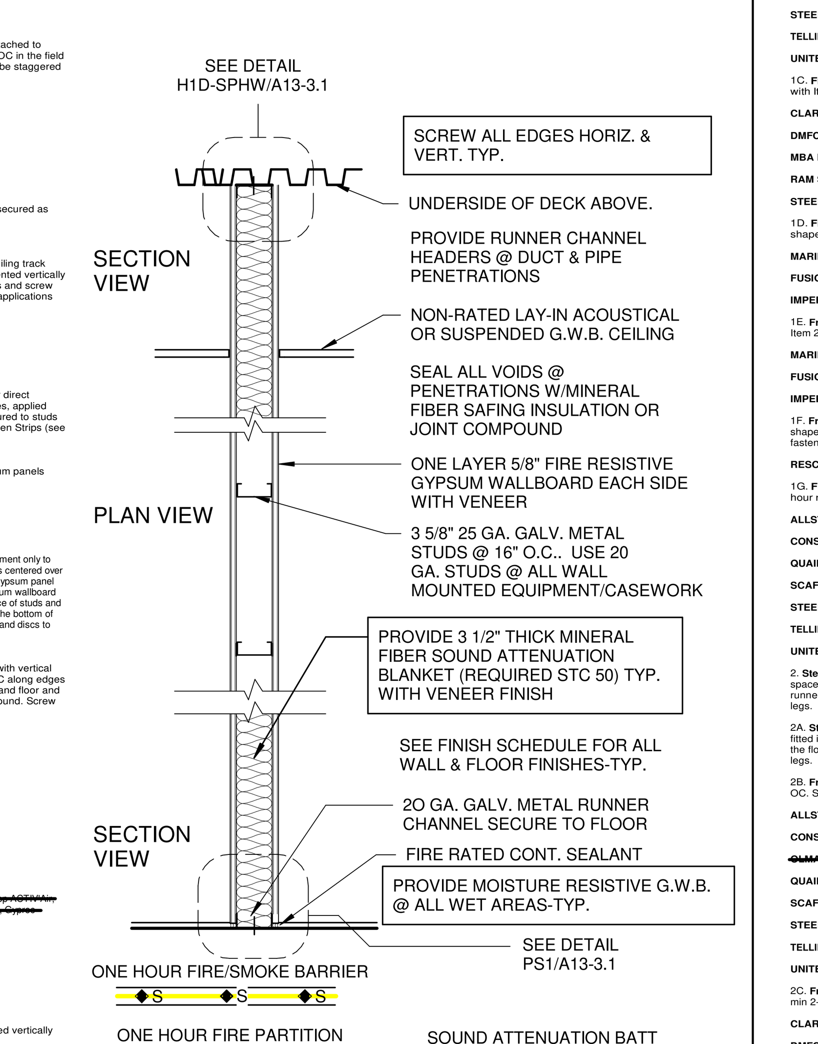
13. **Barrier Mesh** - (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.

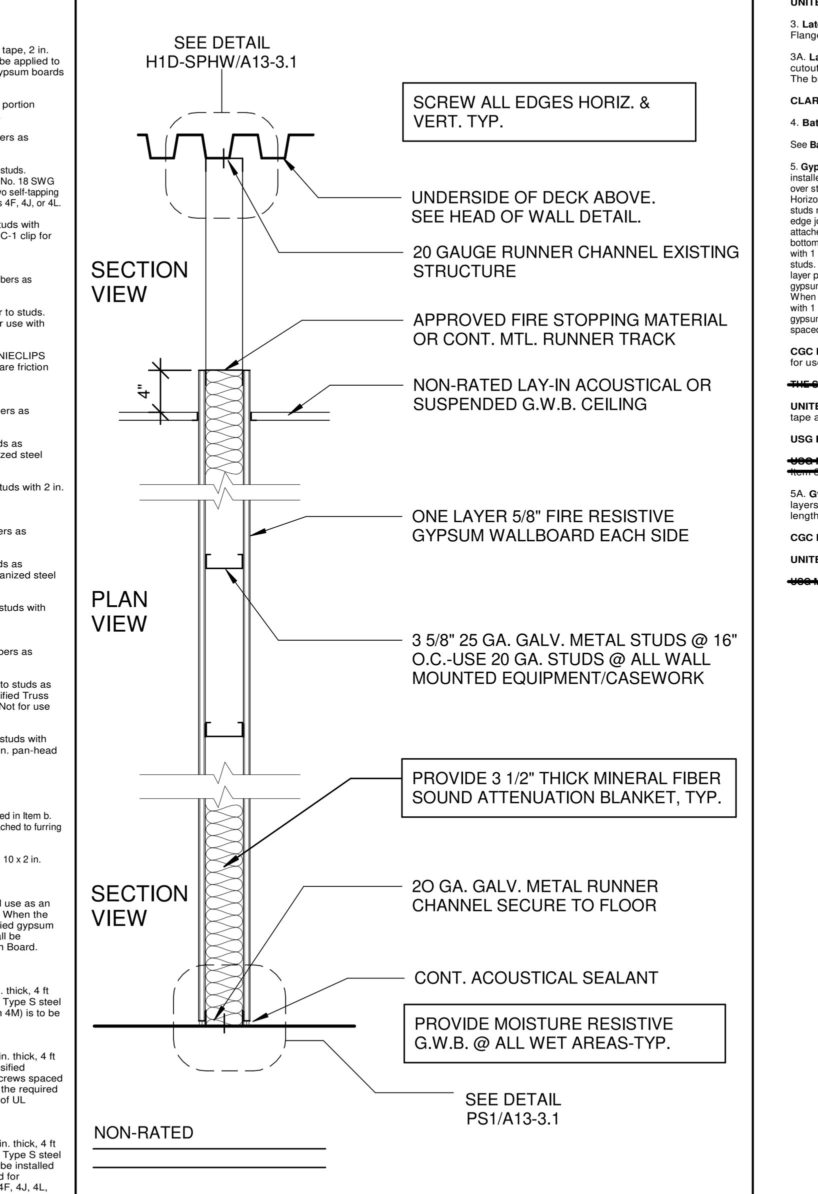
CLARKDIETRICH BUILDING SYSTEMS - Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2022-02-14

P1 UL U465
INTERIOR PARTITION AND SMOKE BARRIER DETAIL
1" = 1'-0" A132-ULP1G-u465-SF (031522)



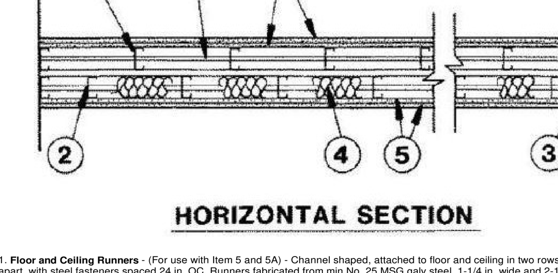


P0 INTERIOR PARTITION DETAIL
1"=1'-0" A13-POG (012015)

Design No. U493

February 14, 2022

Nonbearing Wall Rating — 1 or 2 Hr. (See Items 5, 5A, 5B)
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners** - (For use with Item 5 and 5A) - Channel shaped, attached to floor and ceiling in two rows, a min 1 in. apart, with steel fasteners spaced 24 in. OC. Runners fabricated from min No. 25 MSG galv steel, 1-1/4 in. wide and 2-1/2 in. deep.

1A. **Floor and Ceiling Runners** - (As an alternate to Item 1, For use with Item 5B and 5C) - Channel shaped, attached to floor and ceiling in two rows, a min 1 in. apart. Runners fabricated from min No. 20 MSG galv steel, 1-3/16 in. wide and 2-9/16 in. deep.

1B. **Framing Members*** - Floor and Ceiling Runners - (Not shown for use with Item 2B) - As an alternate to Item 1 - Channel shaped, min. 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

1C. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 for a 2 hour rating only — For use with Item 2C, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

CLARKDIETRICH BUILDING SYSTEMS - CD ProTRAK

DMFCWBS L L C - ProTRAK

MBA METAL FRAMING - ProTRAK

RAM SALES L L C - Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProTRAK

1D. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 - For use with Item 2D, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

FUSION BUILDING PRODUCTS - Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper20™ Track

1E. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 for a 2 hour rating only - For use with Item 2E, channel shaped, min 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper25™ Track

FUSION BUILDING PRODUCTS - Viper25™ Track

IMPERIAL MANUFACTURING GROUP INC - Viper25™ Track

1F. **Framing Members* - Floor and Ceiling Runners** - Not Shown - As an alternate to Item 1 for use with Item 2F, proprietary channel shaped, min. 3-1/2 in. wide, fabricated from min. 0.018 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC max.

RESCUE METAL FRAMING, L L C - AlphaTRAK

1G. **Framing Members* - Floor and Ceiling Runners** - (Not Shown) - As an alternate to Item 1 for use with Item 2G and for a 2 hour rating only. Channel shaped, min. 2-1/2 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D25

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D25

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D25

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D25

TELLING INDUSTRIES L L C - Type SUPREME D25

UNITED METAL PRODUCTS INC - Type SUPREME D25

2. **Steel Studs** - (For use with Item 5 and 5A) - Channel shaped, supplied with cutouts, friction -fitted into floor and ceiling runners and spaced a max 24 in. OC. Studs cut 1/2 in. less than assembly height and evenly staggered between the two rows of floor and ceiling runners. Studs fabricated from min No. 25 MSG galv steel, min 2-1/2 in. deep by 1-5/8 in. wide with 3/8 in. folded back return flange legs.

2A. **Steel Studs** - (As an alternate to Item 2, For use with Items 5B, 5C, 5E, and 5F) - Channel shaped, supplied with cutouts, friction -fitted into floor and ceiling runners and spaced a max 16 in. OC. Studs cut 1/2 in. less than assembly height and staggered flush against the floor runners. Studs fabricated from min No. 20 MSG galv steel, min 2-1/2 in. deep x 1-5/8 in. wide x 3/8 in. folded back return flange legs.

2B. **Framing Members*** - Steel Studs - As an alternate to Item 2 - Channel shaped studs, min. 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

~~**OLMAR SUPPLY INC** - PRIMESTUD~~

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D24/30EQD and Type SUPREME D20

TELLING INDUSTRIES L L C - Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC - Type SUPREME D24/30EQD and Type SUPREME D20

2C. **Framing Members* - Steel Studs** - As an alternate to Item 2 for a 2 hour rating only — For use with Item 1C, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

CLARKDIETRICH BUILDING SYSTEMS - CD ProSTUD

DMFCWBS L L C - ProSTUD

MBA METAL FRAMING - ProSTUD

RAM SALES L L C - Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2D. **Framing Members* - Steel Studs** - As an alternate to Item 2 — For use with Item 1D, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™

FUSION BUILDING PRODUCTS - Viper20™

IMPERIAL MANUFACTURING GROUP INC - Viper20™

2E. **Framing Members* - Steel Studs** - As an alternate to Item 2 for a 2 hour rating only - For use with Item 1E, channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper25M

FUSION BUILDING PRODUCTS - Viper25M

IMPERIAL MANUFACTURING GROUP INC - Viper25M

2F. **Framing Members* — Steel Studs** — As an alternate to Item 2, for use with Item 1F, proprietary channel shaped studs, min. 3-1/2 in. wide, fabricated from min. 0.018 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

RESCUE METAL FRAMING, L L C - AlphaSTUD

2G. **Framing Members* - Steel Studs** - As an alternate to Item 2 for use Item 1G and for a 2 hour rating only - Channel shaped studs, min 2-1/2 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALLSTEEL & GYPSUM PRODUCTS INC - Type SUPREME D25

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME 025

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME 025

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME 025

TELLING INDUSTRIES L L C Type SUPREME D25

UNITED METAL PRODUCTS INC - Type SUPREME 025

3. **Lateral Bracing** - The bracing shall be in accordance with the SSMA Technical Note Dated March 2000 Referencing Unsheathed Flange Bracing.

3A. **Lateral Bracing** - (Not Shown) - Right angle- shaped, supplied with notches spaced 12, 16, or 24 in. OC., friction-fitted to the cutouts in steel studs, supplied in 7/8 in. by 7/8 in. by 50 in. lengths. Lateral bracing bars fabricated from min. 20 MSG galvanized steel. The bracing shall be located a maximum of 5 ft on center in accordance with the manufacturers published literature.

CLARKDIETRICH BUILDING SYSTEMS - TradeReady Spazzer 9200 bar

4. **Batts and Blankets** - Optional - Glass fiber batts may be friction-fitted to completely fill the stud cavities on one or both rows of studs.

See **Batts and Blankets** Category (BZJZ) for names of manufacturers.

5. **Gypsum Board*** - Nom 5/8 in. thick, 4 ft. wide, gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Single layer installed on each side of the steel studs for the 1-hr system, two layers installed on each side of the studs for the 2-hr system. Vertical joints in adjacent layers (2-hr system) staggered one stud cavity. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints need not be backed by framing. Horizontal edge joints and horizontal butt joints in adjacent layers (2-hr system) staggered a minimum of 6 in. Horizontal edge joints and horizontal butt joints in adjacent layers (2-hr system) need not be staggered with Type ULIX. For the single layer system: panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when applied vertically. When using ULIX, panels need not be staggered on opposite sides of studs. For the single layer system with ULIX, panels attached to steel studs and floor runners with 1 in. long Type S steel screws spaced 12 in. OC when applied vertically or horizontally. Horizontal joints need not be staggered on opposite sides of studs. For the double layer system: base layer panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 16 in., face layer panels attached to steel studs and runner with 1-5/8 in. long Type S steel screws spaced 12 in. When used in widths other than 48 in., gypsum panels to be installed horizontally.
When **Steel Framing Members*** (Item 7 or any alternate clips) are used: For the 1-hr system, gypsum panels attached vertically to furring channels with 1 in. long Type S-12 screws spaced 12 in. OC. Vertical joints offset min 12 in. from layer on other side of wall. For the 2-hr system, inner layer of gypsum panels attached vertically to furring channels with 1 in. Type S-12 screws spaced 16 in. OC, outer layer with 1-5/8 in. Type S-12 screws spaced 12 in. OC. Inner layer to be applied vertically. Outer layer to be applied vertically with joints offset a minimum 12 in. from inner layer joints.

CGC INC - Type SCX, SHX, IP-X1, WRX, AR, IP-AR, C, WRC, IP-X2, IPC-AR, ULIX, USGX (Joint tape and compound, Item 6, optional for use with Type USGX)

~~**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Types C and SCX~~

UNITED STATES GYPSUM CO - Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, USGX, WRX, WRC (Joint tape and compound, Item 6, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC - Types C, SCX, SGX, USGX (Joint tape and compound, Item 6, optional for use with Type USGX)

~~**USG MEXICO S A DE C V** — Type SCX, SHX, IP-X1, WRX, AR, IP-AR, C, WRC, IP-X2, or IPC-AR, USGX (Joint tape and compound, Item 6, optional for use with Type USGX)~~

5A. **Gypsum Board*** — (As an alternate to Item 5) — Single layer installed on each side of the steel studs for the 1-hr system, two layers installed on each side of the studs for the 2-hr system. Nom 3/4 in. thick, 4 ft wide, installed as described in Item 5 with screw length increased to 1-1/4 in. for base layer (or for 1 hr. configuration) 2-1/4 in. for face layer.

CGC INC –Types AR, IP-AR

UNITED STATES GYPSUM CO - Types AR, IP-AR

~~**USG MEXICO S A DE C V** — Types AR, IP-AR~~

5B. **Gypsum Board*** - (As an alternate to Item 5 may be used as the base layer on one or both sides of wall, For direct attachment only) — Nom 5/8 in. or 3/4 in. thick lead backed gypsum panels with beveled, square, or tapered edges, applied vertically. Vertical joints centered over min 20 MSG galvanized steel studs and staggered min 1 stud cavity on opposite sides of studs. See Item 2A. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 8) and Lead Discs or Tabs (see Item 9).

RAY-BAR ENGINEERING CORP - Type RB-LBG

5C. **Gypsum Board*** - (As an alternate to Item 5 may be used as the base layer on one or both sides of wall, For direct attachment only) — Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or #6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

NEW ENGLAND LEAD BURNING CO INC, DBA NELCO - Nelco

5D. **Gypsum Board*** - (As an alternate to Item 5, not for use with Items 1C and 2C) - Nom. 5/8 in. thick, 4 ft. wide gypsum panels with beveled, square or tapered edges installed as described in Item 5.

CGC INC - Type ULX

UNITED STATES GYPSUM CO - Type ULX

5E. **Gypsum Board*** - (As an alternate to Item 5 may be used as the base layer on one or both sides of wall, For direct attachment only). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over min 20 MSG galvanized steel studs and staggered min 1 stud cavity on opposite sides of studs. See Item 2A. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

5F. **Gypsum Board*** - (As an alternate to Items 4) - For Direct Application to Studs Only - For use as the base layer or as the face layer. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and in the field when applied as the base layer. When applied as the face layer screw length to be increased to 2-1/2 in. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 10 ft long with a max thickness of 0.140 in. placed on the face of studs and attached to the stud with two 1 in. long Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, max 5/16 in. diam by max 0.140 in. thick compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grades "A, B, C or D". Fasteners for face layer gypsum panels (Items 5) when installed over lead backed board to be min 2-1/2 in. Type S-12 bugle head steel screws spaced as described in Item 5.

MAYCO INDUSTRIES INC - "X-Ray Shielded Gypsum"

5H. **Gypsum Board*** - Nom 5/8 in. thick, 4 ft. wide, gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Single layer installed on each side of the steel studs for the 1-hr system, two layers installed on each side of the studs for the 2-hr system. Vertical joints centered over studs and staggered one stud cavity. Vertical joints in adjacent layers (2-hr system) staggered one stud cavity. Horizontal edge joints and horizontal butt joints need not be backed by framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (2-hr system) staggered a minimum of 6 in. For the single layer system: panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when applied vertically. For the double layer system: base layer panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 16 in., face layer panels attached to steel studs and runner with 1-5/8 in. long Type S steel screws spaced 12 in. When used in widths other than 48 in., gypsum panels to be installed horizontally.
When **Steel Framing Members*** (Item 7-7B) are used: For the 1-hr system, gypsum panels attached vertically to furring channels with 1 in. long Type S-12 screws spaced 12 in. OC. Vertical joints offset min 12 in. from layer on other side of wall. For the 2-hr system, inner layer of gypsum panels attached vertically to furring channels with 1 in. Type S-12 screws spaced 16 in. OC, outer layer with 1-5/8 in. Type S-12 screws spaced 12 in. OC. Inner layer to be applied vertically. Outer layer to be applied vertically with joints offset a minimum 12 in. from inner layer joints.

NATIONAL GYPSUM CO – Riyadh, Saudi Arabia – Type FR.

6. **Joint Tape and Compound** - (Not Shown) - Outer layer joints covered with joint compound and paper or mesh tape. Screw heads covered with joint compound. Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges.

7. **Steel Framing Members*** - (Not Shown) - (Optional on one or both sides, not shown, for single or double layer systems) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 5. May not be used with items 5B, 5C, 5E or 5F.

b. **Steel Framing Members*** - Used to attach furring channels (Item 7a) to studs (Item 2). Clips spaced max. 48 in. OC., and secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

PAC INTERNATIONAL L L C – Types RSIC-1, RSIC-1 (2.75)

7A. **Steel Framing Members*** - (Optional, Not Shown, As an alternate to Item 7) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 5. May not be used with items 5B, 5C, 5E or 5F.

b. **Steel Framing Members*** - Used to attach furring channels (Item 7Aa) to studs. Clips spaced 48 in. OC., and secured to studs 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.

STUDCO BUILDING SYSTEMS - RESILMOUNT Sound Isolation Clips - Type A237R

7B. **Steel Framing Members*** - (Optional, Not Shown, As an alternate to Item 7) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with a double strand of No. 18 AWG twisted steel wire. Gypsum board attached to furring channels as described in Item 5. May not be used with Items 5B, 5C, 5E, or 5F.

b. **Steel Framing Members*** - Used to attach furring channels (Item 7Ba) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

REGUPOL AMERICA - Type SonusClip

7C. **Steel Framing Members*** - (Optional, Not Shown, As an alternate to Item 7) - Resilient channels and Steel Framing Members as described below:

a. **Resilient Channels** - Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 5. May not be used with Items 5B, 5C, 5E, or 5F.

b. **Steel Framing Members*** - Used to attach resilient channels (Item 7Ca) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.

7D. **Steel Framing Members*** - (Optional, Not Shown, As an alternate to Item 7) - Furring channels and Steel Framing Members as described below:

a. **Furring Channels** - Formed of No. 25 MSG galv steel. 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 5.

b. **Steel Framing Members*** - Used to attach furring channels (Item 7Da) to studs. Clips spaced maximum 48 in. OC. Clips secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.

CLARKDIETRICH BUILDING SYSTEMS - Type ClarkDietrich Sound Clip

8. **Lead Batten Strips** - (Not Shown, For Use With Item 5B) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind vertical joints.

9. **Lead Discs or Tabs** - (Not Shown, For Use With Item 5B) - Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10. **Lead Batten Strips** - (Not Shown, For Use With Item 5C) - Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5C) and optional at remaining stud locations.

11. **Lead Tabs** - (Not Shown, For Use With Item 5C) - 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5C) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

12. **Wall and Partition Facings and Accessories*** - (Optional, Not Shown) - For use with Items 5 or 5A - Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

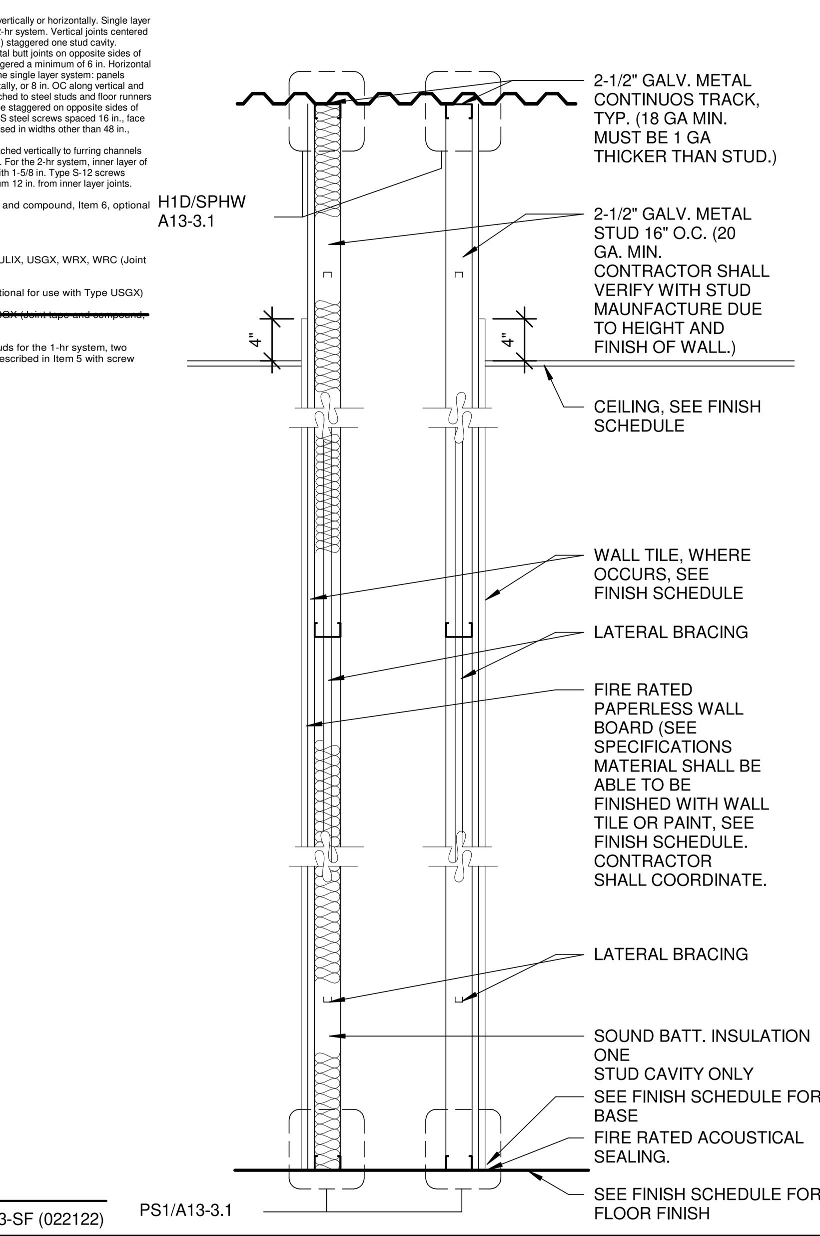
PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type QuietRock QR-500 and QR-510

13. **Barrier Mesh** - (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.

CLARKDIETRICH BUILDING SYSTEMS - Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2022-02-14

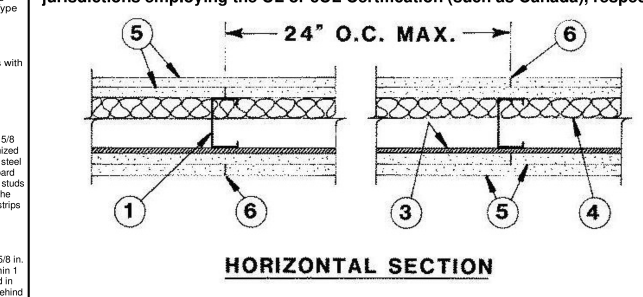


PC P1 STC - 52
UL DESIGN NO. U493
1"=1'-0" A13-U493-SF (022122)

Design No. U454

December 23, 2020

Nonbearing Wall Rating — 2 HR.
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Studs** — Channel-shaped min 2-1/2 in. wide by 1-1/4 in. deep with 5/16 in. folded back return flange legs. Fabricated from No. 25 MSG galv steel. Max stud spacing 24 in. OC. Studs to be cut 1 in. less than assembly height.

1A. **Framing Members*** — **Steel Studs** — Not Shown - In lieu of Item 1 — For use with Item 2A, proprietary channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 1 in. less in length than assembly height. Max stud spacing 24 in. OC.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

FUSION BUILDING PRODUCTS — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

1B. **Framing Members*** — **Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2B, channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 1 in. less in length than assembly height. Max stud spacing 24 in. OC.
CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram ProSTUD

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProSTUD

1C. **Framing Members*** — **Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2C, proprietary channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 1 in. less in length than assembly height. Max stud spacing 24 in. OC.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

1D. **Framing Members*** — **Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2D, channel shaped steel studs, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 1 in. less in length than assembly height. Max stud spacing 24 in. OC.
TELLING INDUSTRIES L L C — TRUE-STUD™

1E. **Framing Members*** — **Steel Studs** — As an alternate to Item 1 — For use with Item 2A (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™

1F. **Framimg Members*** — **Steel Studs** — Not Shown — In lieu of item 1-For use with item 2E- proprietary channel shaped steel studs, min 2-1/2 in. wide by 1-1/4 in. deep. Fabricated from No. 25 MSG galv steel. Max stud spacing 24 in. OC. Studs to be cut 1 in. less than assembly height.
~~**KIRII (HONG KONG) LTD** — Type KIRII~~

1G. **Framing Members*** — **Steel Studs** — Not Shown — In lieu of Item 1 — For use with Item 2F, channel shaped steel studs, 1-1/4 in. deep by min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel. Studs cut 1 in. less in length than assembly height. Max stud spacing 24 in. OC.
RESCUE METAL FRAMING, L L C — AlphaSTUD

2. **Floor and Ceiling Runners** — (Not Shown) — Channel-shaped runners, 2-1/2 in. wide by 1-1/4 in. deep, fabricated from No. 25 MSG galv steel. Attached to floor and ceiling with fasteners, 24 in. OC, max.

2A. **Framing Members** — **Floor and Ceiling Runner*** — Not Shown — In lieu of Item 2 — For use with Item 1A, proprietary channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

FUSION BUILDING PRODUCTS — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

2B. **Framing Members*** — **Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1B, channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

2C. **Framing Members** — **Floor and Ceiling Runner*** — Not Shown — In lieu of Item 2 — For use with Item 1C, proprietary channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track

2D. **Framing Members*** — **Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1D, channel shaped runners, 1-1/4 in. deep by min 2-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
TELLING INDUSTRIES L L C — TRUE-TRACK™

2E. **Framing Members*** — **Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1E- proprietary channel shaped runners, 2-1/2 in. wide by 1-1/4 in. deep, fabricated from No. 25 MSG galv steel. Attached to floor and ceiling with fasteners, 24 in. OC, max.
~~**KIRII (HONG KONG) LTD** — Type KIRII~~

2F. **Framing Members*** — **Floor and Ceiling Runners** — Not Shown — In lieu of Item 2 — For use with Item 1G, channel shaped runners, 1-1/4 in. deep by min 3-1/2 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
RESCUE METAL FRAMING, L L C — AlphaTRAK

3. **Furring Channel** — Resilient 25 MSG galv steel furring channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 pan head steel screws.

4. **Batts and Blankets*** — Min 1 in. thick mineral wool attached to base layer of gypsum board which is directly attached to steel studs. Fasten each batt with min 9/16 in. long staples. Use five staples for each 4 ft long piece. Drive one staple in the center of each piece and a staple at each corner, approx 3 in. from edges.
INDUSTRIAL INSULATION GROUP L L C — Type SAFB

JOHNS MANVILLE — Type SAFB

ROCKWOOL — Type AFB, min. density 1.8 pcf / 28.8 kg/m3

THERMAFIBER INC — Type SAFB, SAFB FF

5. **Gypsum Board** — 1/2 in. thick, 4 ft wide. Attached to furring channels, base layer with 1 in. type S steel screws spaced 24 in. OC, face layer with 1-5/8 in. Type S screws spaced 12 in. OC. Gypsum board on direct attached side, base layer attached with 1 in. long type S-12 steel screws 24 in. OC, face layer attached with 1-5/8 in. type S-12 steel screws spaced 12 in. OC. Gypsum board joints oriented vertically, located over studs and offset between layers.
AMERICAN GYPSUM CO — Types AG-C.

CABOT MANUFACTURING ULC — Type C

CERTAINTEED GYPSUM INC — Type C.

CGC INC — Type C, IP-X2, IPC-AR or WRC.

CERTAINTEED GYPSUM INC — Type LGFC-C/A .

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C.

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C, FSMR-C.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C.

PANEL REY S A — Type PRC

~~**SAINT-GOBAIN GYPROC MIDDLE EAST FZE** — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air~~

~~**THAI GYPSUM PRODUCTS PCL** — Type C~~

~~**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Type C~~

UNITED STATES GYPSUM CO — Type C, IP-X2, IPC-AR or WRC.

USG BORAL DRYWALL SFZ LLC — Type C

~~**USG MEXICO S A DE C V** — Type C, IP-X2, IPC-AR or WRC.~~

5A. **Gypsum Board*** — (As an alternate to Item 5) — 5/8 in. thick, 4 ft wide. Attached to furring channels and steel studs as described in Item 5.
CGC INC — Type AR, IP-AR or SCX.

GEORGIA-PACIFIC GYPSUM L L C — Types DAP, DD, DA, DGG, DS, LS, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W.

CGC INC — Type ULIX.

NATIONAL GYPSUM CO — Type FSMR-C.

NATIONAL GYPSUM CO — Riyadh, Saudi Arabia — Type FR, or WR.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PGI

~~**THE SIAM GYPSUM INDUSTRY (SONGKHLA) CO** — Type SCX~~

UNITED STATES GYPSUM CO — Type AR, IP-AR, SCX or ULIX.

USG BORAL DRYWALL SFZ LLC — Type SCX

~~**USG MEXICO S A DE C V** — Type AR, IP-AR or SCX.~~

5B. **Gypsum Board*** — (As an alternate to Item 5) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 5 with screw length increased to 1-1/4 in. for base layer and 2-1/4 in. for face layer.
CGC INC — Types AR, IP-AR.

UNITED STATES GYPSUM CO — Types AR, IP-AR.

~~**USG MEXICO S A DE C V** — Types AR, IP-AR.~~

5C. **Gypsum Board*** — (As an alternate to Item 5A, not for use with Items 1B and 2B) — Nom. 5/8 in. thick, 4 ft. wide gypsum panels with beveled, square or tapered edges installed as described in Item 5A.
CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX

~~**USG MEXICO S A DE C V** — Type ULX~~

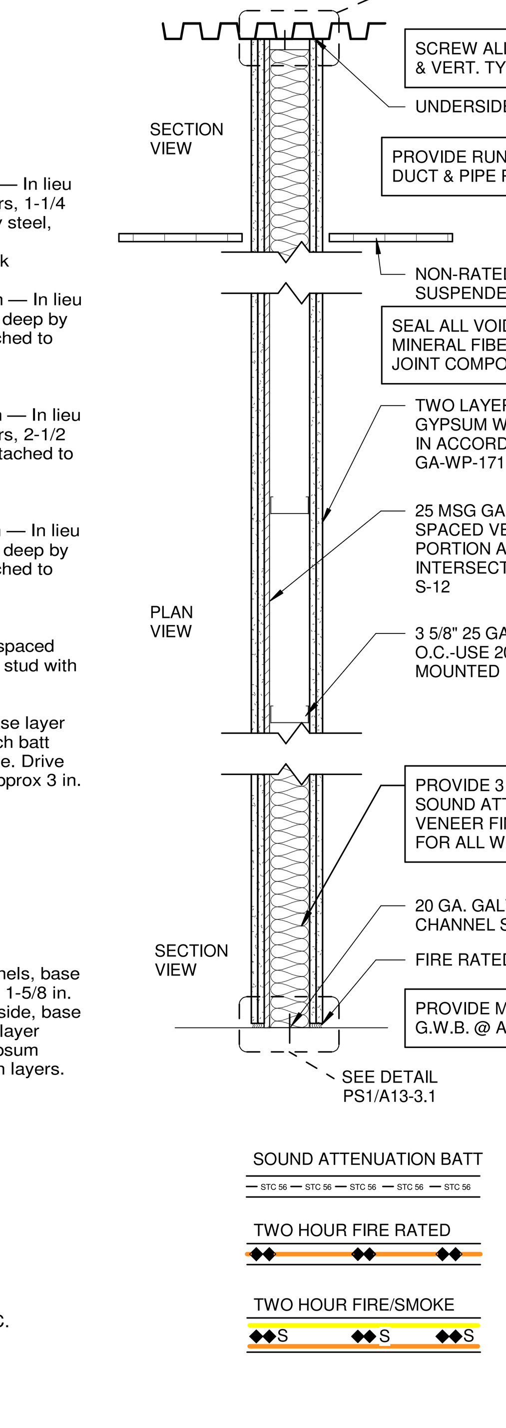
6. **Joint Tape and Compound** — Vinyl, dry or premixed joint compound, applied to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

7. **Caulking and Sealants*** — (Optional, Not Shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.
UNITED STATES GYPSUM CO — Type AS.

8. **Barrier Mesh** — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 5) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally. Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.
CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2020-12-23



P2 UL U454
INTERIOR PARTITION AND SMOKE BARRIER DETAIL
1"=1'-0" A132-ULP2G-U454-SF (031522)

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

INTERIOR PARTITION SECTIONS, NOTES, DETAILS

Drawing Number:

A13-3

Drawn by: MBA
Checked by: Checker
Scale: As indicated

9/29/2023 3:33:18 PM
C:\Users\MBlazek\Documents\22013.01_Shell_Central_330_mblazek5A38V.rvt

A B C D E

Design No. U469

December 29, 2020

Assembly Rating — 1 HR
Nonbearing Wall
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

1. **Floor and Ceiling Runners** — "J" - shaped, 2-1/2 in. wide with unequal legs of 1 in. and 2 in., fabricated from 24 MSG galv steel (min 20 MSG steel required when Item 4A, 4B, or 4C is used). Runners attached to structural supports with steel fasteners located not greater than 2 in. from ends and not greater than 24 in. OC.

2. **Steel Studs** — "C-H" shaped studs, 2-1/2 in. wide by 1-1/2 in. deep, fabricated from min 25 MSG galv steel (min 20 MSG steel required when Item 4A, 4B, or 4C is used), spaced 24 in. or 600 mm OC (max 16 in. OC when Item 4A, 4B, or 4C is used). Vertically restrained walls require studs to be cut 3/8 in. less than floor to ceiling height.

3. **Gypsum Board*** — 1 in. thick gypsum wallboard liner panels, supplied in nominal 24 in. or 600 mm widths. Vertical edges inserted in "H" shaped section of "C-H" studs. Free edge of end panels attached to long leg of "J" runners with 1-5/8 in. long Type S head steel screws spaced not greater than 12 in. OC.
CERTAINTEED GYPSUM INC — Types Shaftliner, EGRG Shaftliner or GlasRoc Shaftliner

CGC INC — Type SLX.

CERTAINTEED GYPSUM INC — Type LGFCSL

GEORGIA-PACIFIC GYPSUM L L C — Types TP-6, DGUSL, and TRSL

UNITED STATES GYPSUM CO — Type SLX

USG BORAL DRYWALL SFZ LLC — Type SLX

~~USG MEXICO S A DE C V — Type SLX.~~

4. **Gypsum Board*** — 5/8 in. thick, 4 ft or 1200 mm wide, applied vertically and attached to studs with 1 in. long Type S steel screws spaced 12 in. OC along the edges and in the field of the boards.
AMERICAN GYPSUM CO — Types AGX-1, M-Glass, AG-C, LightRoc.

CABOT MANUFACTURING ULC — 5/8 Type X, Type Blueglass Exterior Sheathing

CERTAINTEED GYPSUM INC — Type C, Type X, Type X-1.

CGC INC — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULIX, ULX, or WRC.

CERTAINTEED GYPSUM INC — Types LGFC-C, LGFC-C/A, LGFC6A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, Type TG-C, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type- DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W, Type DGG, Type DAP, Type DS.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types C, PG-11, PG-C, PGS-WRS, PGI

~~SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air~~

~~THAI GYPSUM PRODUCTS PCL — Type C.~~

UNITED STATES GYPSUM CO — Types C, FRX-G, IP-X1, IP-X2, IPC-AR, SCX, ULIX, ULX or WRC.

USG BORAL DRYWALL SFZ LLC — Types C, SCX

~~USG MEXICO S A DE C V — Types C, IP-X1, IP-X2, IPC-AR, SCX, ULX, or WRC.~~

4A. **Gypsum Board*** - Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips (Item 6) required behind vertical joints
RAY-BAR ENGINEERING CORP - Type RB-LBG

4B. **Gypsum Board*** - Not Shown - As an Alternate to Item 4. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints. To be used with Lead Batten Strips (see Item 6B) or Lead Discs (see Item 6C).
MAYCO INDUSTRIES INC - Type X-Ray Shielded Gypsum

4C. **Gypsum Board*** - (Not Shown - As an Alternate to Item 4.). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywall

5. **Batts and Blankets*** - (Optional) - Mineral wool batts partially or completely filling stud cavity.
ROCKWOOL - Type AFB, min. density 1.8 pcf / 28.8 kg/m3

THERMAFIBER INC - Type SAFB, SAFB FF

5A. **Fiber, Sprayed*** - As an alternate to Batts and Blankets (Item 5) - (100% Borate Formulation) - Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.
US GREENFIBER L L C - INS735, INS745 and INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

5B. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NU-WOOL CO INC — Cellulose Insulation

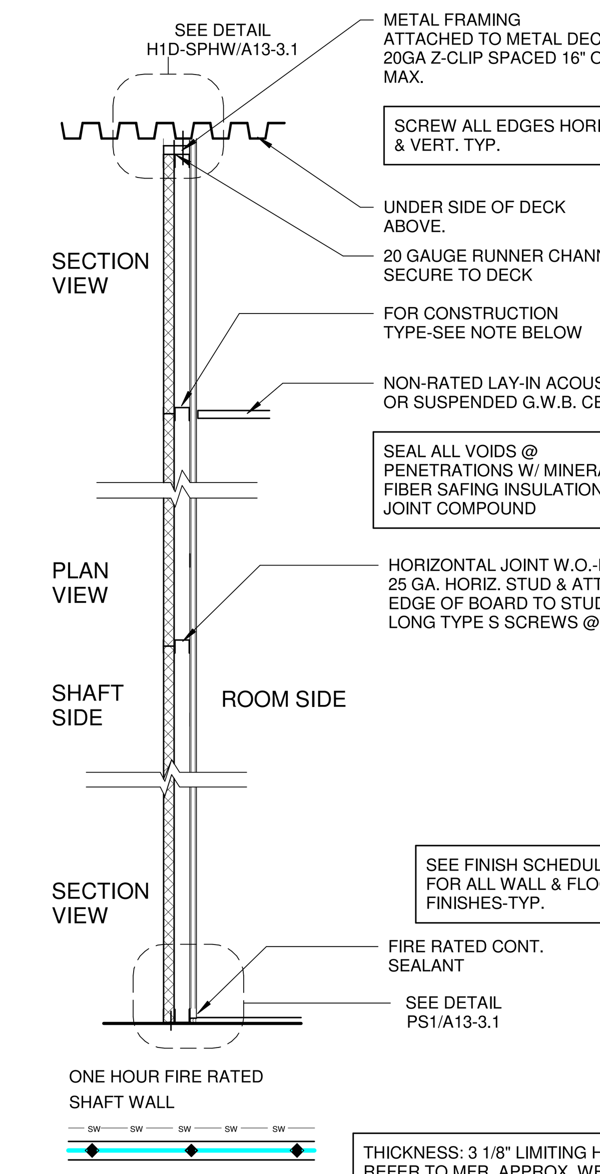
5C. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3.
INTERNATIONAL CELLULOSE CORP — Celbar-RL

5E. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) - Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft3.
APPLEGATE HOLDINGS L L C — Applegate Advanced Stabilized Cellulose Insulation

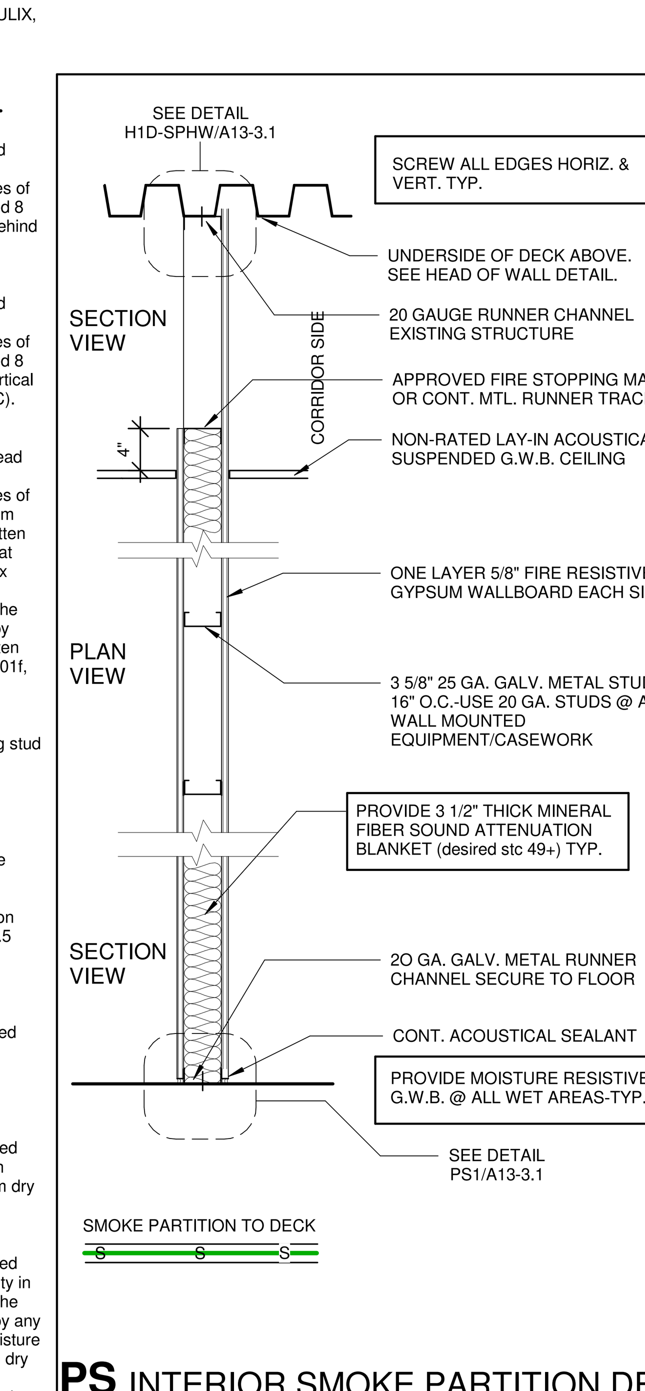
6. **Lead Batten Strips** — For Use with Item 4A - (Not Shown) — Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4A) and optional at remaining stud locations. Strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
6A. Lead Discs or Tabs — (Not Shown) - Used in lieu of or in addition to the lead batten strips (Item 6) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
6B. Lead Batten Strips — (Not Shown, for use with Item 4B) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D".
6C. Lead Discs — (Not Shown, for use with Item 4B) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

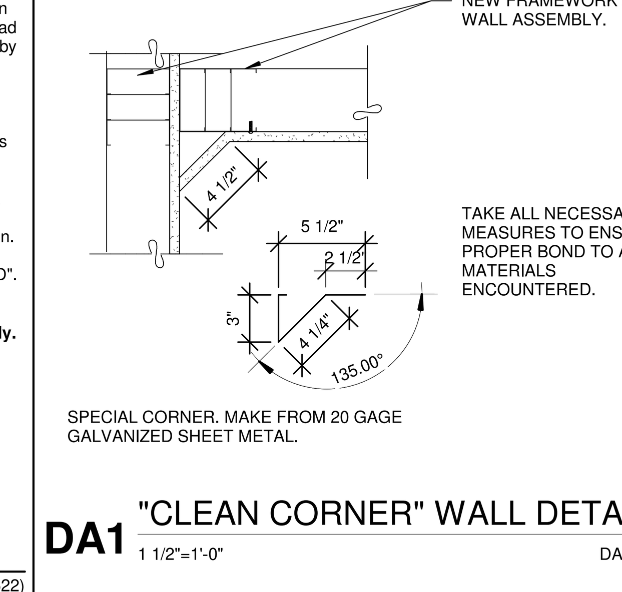
Last Updated on 2020-12-29



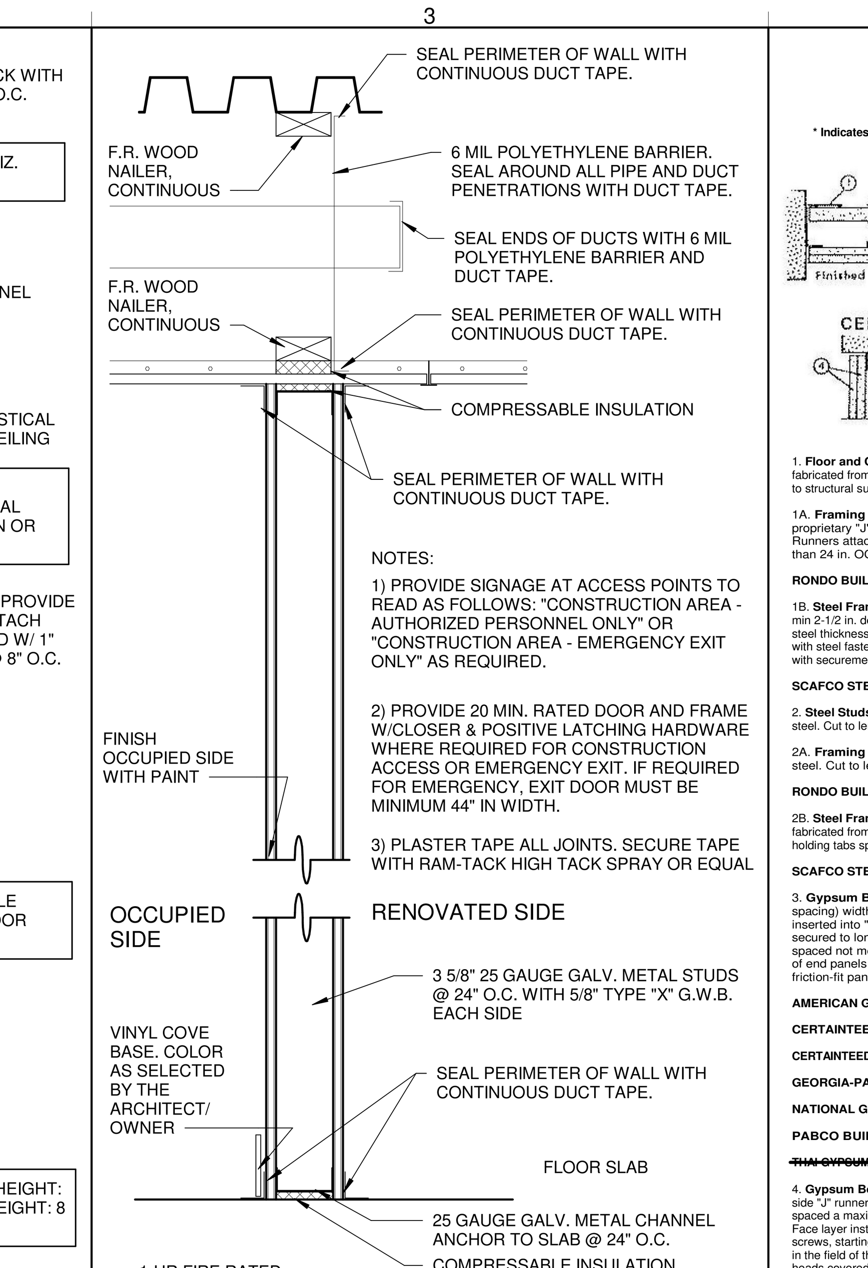
S1 UL U469
INTERIOR PARTITION DETAIL
12"=1'-0" A132-ULS1G-u469-SF (031522)



PS INTERIOR SMOKE PARTITION DETAIL
1"=1'-0" A13-PSG (031522)



DA1 "CLEAN CORNER" WALL DETAIL
1 1/2"=1'-0" DA13-007B

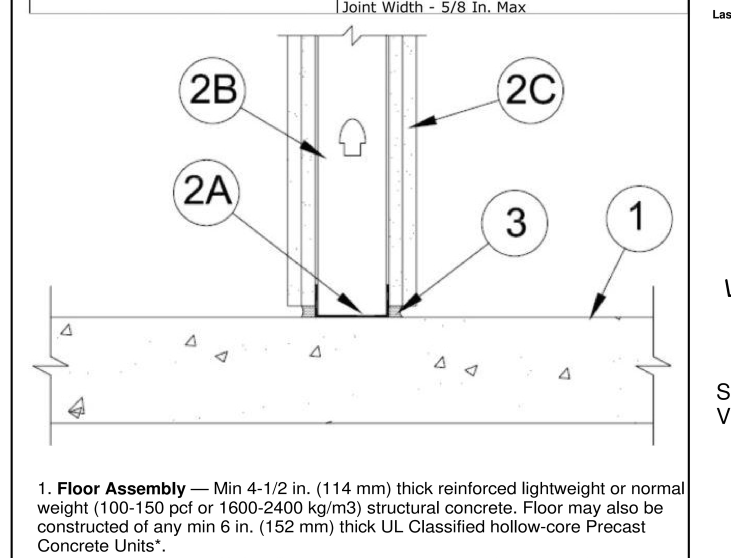


T1 TYPICAL 1-HR RATED
TEMPORARY PARTITION
NTS A13-T1G (012015)

System No. BW-S-0013

May 18, 2012

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Joint Width - 5/8 In. Max	FT Ratings — 1 and 2 Hr (See Item 2)
	FH Ratings — 1 and 2 Hr (See Item 2)
	FTH Ratings — 1 and 2 Hr (See Item 2)
	Joint Width - 5/8 In. Max



1. **Floor Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) structural concrete. Floor may also be constructed of any min 6 in. (152 mm) thick UL Classified hollow-core Precast Concrete Units*.
See **Precast Concrete Units** (CFTV) category in the Fire Resistance Directory for names of manufactures.

2. **Wall Assembly** — The 1 or 2 h fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features:

A. **Steel Floor Runner** — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with nom 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced max 24 in. (610 mm) OC.

B. **Studs** — Min size as specified in the individual design. Studs cut 3/8 to 5/8 in. (10 to 16 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC.

C. **Gypsum Board*** — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall for a 1 or 2 hr rated wall, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that a nom 1/4 in. (6 mm) gap shall be maintained between the bottom of gypsum board and top of concrete floor.
The hourly ratings of the joint system are equal to the hourly fire rating of the wall.

3. **Fill, Void or Cavity Material*** - **Sealant** — Max separation between top of floor and bottom of gypsum board is 5/8 in. (16 mm). Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor.
UNITED STATES GYPSUM CO — Type A or AS

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

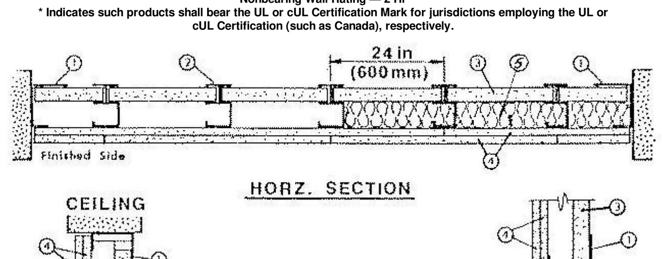
Last Updated on 2012-05-18

PS1 UL BW-S-0013
JOINT SYSTEM DETAIL
NTS A13-BW-S-0013 (022222)

Design No. U428

March 12, 2020

Nonbearing Wall Rating — 2 Hr
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Floor and Ceiling Runners** — "J" -shaped runners, min. 2-1/2 in. wide with unequal legs of 1 in. and 2-1/4 in., fabricated from min. 25 MSG galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not more than 2 in. from ends and not more than 24 in. OC.

1A. **Framing Members*** — Floor and Ceiling — Not shown — As an alternate to Item 1 — For use with Item 2A, proprietary "J" -shaped runners, galv steel. Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not more than 2 in. from ends and not more than 24 in. OC.

RONDO BUILDING SERVICES PTY LTD - Type J Runner Track

1B. **Steel Framing Members (Floor, Side and Ceiling Runners)*** — As an alternate to Item 1. "J"-shaped runner, min 2-1/2 in. deep, with unequal legs of 1 in. and min 2-1/4 in. fabricated from min 25 MSG galv steel (0.0179 in. bare steel thickness). Runners positioned with short leg toward finished side of wall. Runners attached to structural supports with steel fasteners located not more than 2 in. from ends and not greater than 24 in. OC. Runners may be supplied with securement tabs for gypsum liner panels (refer to Item 3).

SCAFCO STEEL STUD MANUFACTURING CO - I-Stud Shaftwall Steel Framing System

2. **Steel Studs** — "C-T" or "C-H" shaped studs 1-5/8 in. wide by min. 2-1/2 in. deep, fabricated from min. 25 MSG galv steel. Cut to lengths 3/4 in. less than floor to ceiling height and spaced 24 in. or 600 mm OC.

2A. **Framing Members*** — Steel Studs — As an alternate to Item 2 — Proprietary "C-H" shaped studs, galv steel. Cut to lengths 3/4 in. less than floor to ceiling height and spaced 24 in. or 600 mm OC.

RONDO BUILDING SERVICES PTY LTD - Type CH Stud

2B. **Steel Framing Members (Steel Studs)*** — As an alternate to Item 2. For use with Item 1B - "I"-shaped studs fabricated from min 25 MSG galv steel, min 2-1/2 in. deep, 1-1/2 in. wide. Studs contain 3/4 in. wide by 2-1/4 in. high holding tabs spaced 2-3/4 in. OC. Cut to lengths 5/8 in. less than floor-to-ceiling height and spaced 24 in.

SCAFCO STEEL STUD MANUFACTURING CO - I-Stud Shaftwall Steel Framing System

3. **Gypsum Board*** — 1 in. thick gypsum wallboard liner panels, supplied in nom. 24 in. or 600 mm (for metric spacing) widths. Panels cut 1 in. less in length than the floor to ceiling height. Vertical edges of the panels inserted into "T" shaped section of C-T studs or the "H" section of the C-H studs. Free edge of end panels secured to long leg of J runner with tabs in runner or 1-5/8 in. long Type S self-tapping bugle head steel screws spaced not more than 12 in. OC. When J-shaped runners (Item 1B) are supplied with securement tabs, free edge of end panels may be secured by bending the securement tabs, max 12 in. OC, to a 90 degree angle to securely friction-fit panels into J-shaped runners.

AMERICAN GYPSUM CO - Types AG-S, M-Glass

CERTAINTEED GYPSUM INC - Types Shaftliner, EGRG Shaftliner, GlasRoc Shaftliner.

CERTAINTEED GYPSUM INC — Type LGFCSL

GEORGIA-PACIFIC GYPSUM L L C - Types TP-6, DGUSL, and TRSL

NATIONAL GYPSUM CO - Types FSW, FSW-B, FSW-7, FSW-9

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Types PG-10 and PG-10G

~~THAI GYPSUM PRODUCTS PCL — Type Shaftliner~~

4. **Gypsum Board*** — 1/2 or 5/8 in. thick, 4 ft wide, applied in two layers. Base layer attached horizontally to studs and side "J" runners with 1 in. long Type S self-tapping steel screws starting at 2 in. from the floor and ceiling runners and spaced a maximum 24 in. OC along the vertical edges and in the field of the boards.
Face layer installed vertically to studs and side "J" runners and attached with 1-5/8 in. long Type S self-tapping steel screws, starting at 3 in. from the floor and ceiling runners and spaced a maximum 12 in. OC along the vertical edges and in the field of the boards. Face layer joints covered with paper tape and two coats of joint compound. Exposed screw heads covered with two coats of joint compound.

AMERICAN GYPSUM CO - Types AG-C

CABOT MANUFACTURING ULC — Type C

CERTAINTEED GYPSUM INC - Type C

CERTAINTEED GYPSUM INC — Types LGFC-C/A, LGFC6A

GEORGIA-PACIFIC GYPSUM L L C - Types DAPC, TG-C.

NATIONAL GYPSUM CO - Types eXP-C, FSK, FSL, FSMR-C, FSW-3, FSW-8, FSW-C, FSW-G.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C, 5/8 in. Type C.

~~SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air~~

~~THAI GYPSUM PRODUCTS PCL — Type C~~

4A. **Gypsum Board*** — (As an alternate to Item 4) - Installed vertically only as described in Item 4. 5/8 in. thick, 4 ft. wide, paper surfaced.
NATIONAL GYPSUM CO - Type SBWB

5. **Batts and Blankets*** — (optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Any mineral wool or glass fiber batt material bearing the UL Classification Marking as to Fire Resistance.

5A. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product.

U S GREENFIBER L L C –INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry application only.

5B. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) and Item 5A - Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

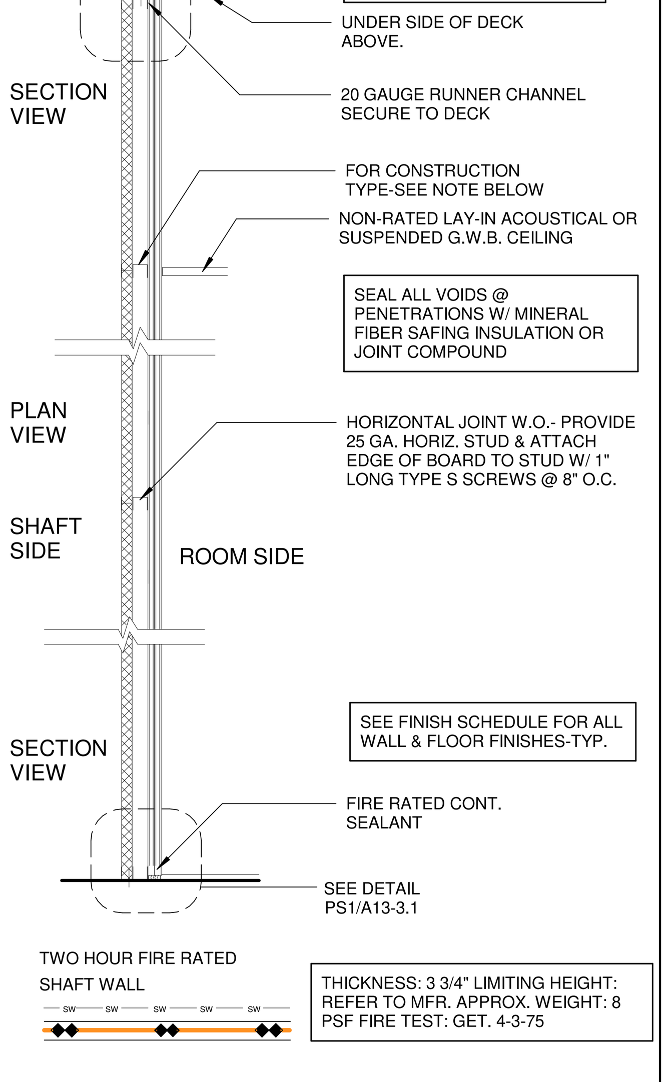
NU-WOOL CO INC - Cellulose Insulation

5C. **Fiber, Sprayed*** — As an alternate to Batts and Blankets (Item 5) - Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3.

INTERNATIONAL CELLULOSE CORP - Celbar-RL

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2020-03-12

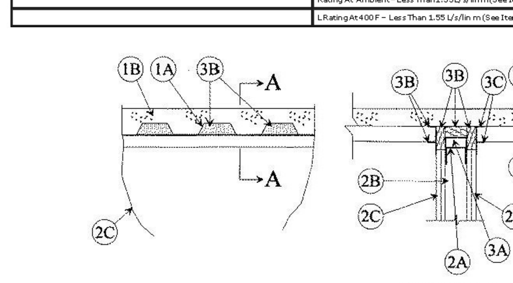


S2 UL U428
INTERIOR PARTITION DETAIL
12"=1'-0" A132-ULS1G-u428-SF (031522)

System No. HW-D-0020

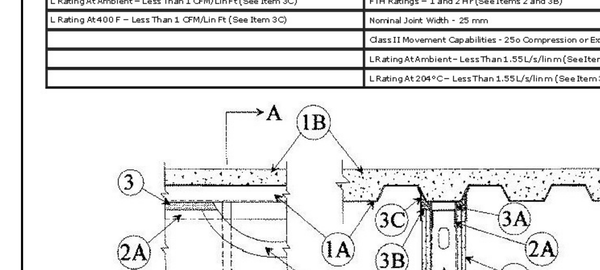
January 23, 2018

ANSI/UL2079	CAN/ULC S115
Assembly Ratings – 1 and 2 Hr (See Items 2 and 3B)	F Ratings – 1 and 2 Hr (See Items 2 and 3B)
Nominal Joint Width - 1 In.	FT Ratings – 1 and 2 Hr (See Items 2 and 3B)
Class II Movement Capabilities - 25% Compression or Extension	FH Ratings - 1 and 2 Hr (See Items 2 and 3B)
L Rating At Ambient – Less Than 1 CFM/sq ft (See Item 3C)	FTH Ratings – 1 and 2 Hr (See Items 2 and 3B)
L Rating At 400 F – Less Than 1 CFM/sq ft (See Item 3C)	Nominal Joint Width - 25 mm
	Class II Movement Capabilities - 25% Compression or Extension L
	Rating At Ambient – Less Than 1.55L/s/lin m (See Item 3C)
	L Rating At 400 F – Less Than 1.55 L/s/lin m (See Item 3C)



System No. HW-D-0029
January 23, 2018

ANSI/UL2079	CAN/ULC S115
Assembly Ratings – 1 and 2 Hr (See Items 2 and 3B)	F Ratings – 1 and 2 Hr (See Items 2 and 3B)
Nominal Joint Width - 1 In.	FT Ratings – 1 and 2 Hr (See Items 2 and 3B)
Class II Movement Capabilities - 25% Compression or Extension	FH Ratings- 1 and 2 Hr (See Items 2 and 3B)
L Rating At Ambient – Less Than 1 CFM/Lin Ft (See Item 3C)	FTH Ratings – 1 and 2 Hr (See Items 2 and 3B)
L Rating At 400 F – Less Than 1 CFM/Lin Ft (See Item 3C)	Nominal Joint Width - 25 mm
	Class II Movement Capabilities - 25% Compression or Extension
	L Rating At Ambient – Less Than 1.55L/s/lin m (See Item 3C)
	L Rating At 204°C – Less Than 1.55L/s/lin m (See Item 3C)



1. **Floor Assembly** - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Floor and Form Units* - Max 3 in. (76 mm) deep galv steel fluted floor deck.

A1. Spray Applied Fire Resistive Material* - (Optional, Not Shown) - Prior to the installation of the Deflective Channel, Forming Material and Fill, Void or Cavity Materials (Items 3A and 3B), the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 11/16 in. (18 mm) thickness of fire resistive material.

GCP APPLIED TECHNOLOGIES INC - Type MK-6/HY.

B. Concrete - Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

1A. Roof Assembly - (Not Shown) - As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:

A. Steel Roof Deck - Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. Roof Insulation - Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

2. Wall Assembly - The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400- Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. Steel Floor And Ceiling Runners - Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B). When deflection channel (Item 3A) is used, ceiling runner to be provided with 3 in. (76 mm) flanges. Ceiling runner installed within the deflection channel with 1 in. (25 mm) gap maintained between the top of ceiling runner and top of deflection channel. When deflection channel is not used, flange height of ceiling runner shall be min 3/4 in. (19 mm) greater than nom joint width. Ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, and secured with steel masonry anchors or by welds spaced max 24 in. (610 mm) OC. When optional spray- applied fire resistive material is used on the steel deck and when deflection channel is not used, ceiling runner secured through spray-applied material to valley of floor steel deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.

A1. Light Gauge Framing* - Slotted Ceiling Runner - As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, and secured to valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied fire resistive material is used on the steel floor slotted ceiling runner secured through spray-applied material to valley of steel deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.

BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS - SLP-TRK

CALIFORNIA EXPANDED METAL PRODUCTS CO - CST

CLARKDIETRICH BUILDING SYSTEMS - Type SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Type SLT

METAL-LITE INC - The System

RAM SALES L L C - RAM Slotted Track

SCAFCO STEEL STUD MANUFACTURING CO

STEELER INC - Steeler Slotted Ceiling Runner

TELLING INDUSTRIES L L C - True-Action Deflection Track

A2. Light Gauge Framing - Floor and Ceiling Runners - As an alternate to the ceiling and floor runners in Item 2A, 2A1 and 2A2, floor and ceiling runners to consist of galv steel channel sized to accommodate the Light Gauge Framing* Slotted Stud (Item 2B1) or Light Gauge Framing* Slider C-Clip System (Item 2B2). Floor and ceiling runners to be provided with min 1-1/4 in. and 3 in. (32 and 76 mm) flanges, respectively. Ceiling runner installed parallel to direction of steel deck, centered beneath valley, and secured with steel masonry anchors spaced max 12 in. (305 mm) OC. When ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied fire resistive material is used on steel deck, ceiling runner secured through spray-applied material to valley of the steel deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.

STEELER INC - Floor and Ceiling Runners

A3. Light Gauge Framing* - Notched Ceiling Runner - As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed parallel to direction of steel centered on valley, and secured with steel masonry anchors spaced max 24 in. (610 mm) OC. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied fire resistive material is used on the steel deck, ceiling runner secured through spray-applied material to valley of deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.

OLMAR SUPPLY INC - Type SCR

A4. Light Gauge Framing* - Floor and Ceiling Runners - As an alternate to the ceiling and floor runners in Item 2A, through 2A4, floor and ceiling runners to consist of galv steel channel sized to accommodate the Light Gauge Framing* Steel Studs (Item 2B3). Floor and ceiling runners to be provided with min 1-3/4 in. flanges. Ceiling runner installed parallel to direction of steel deck, centered beneath valley, and secured to valleys with steel masonry anchors spaced max 12 in. (305 mm) OC. When ceiling runner is used, deflection channel (Item 3A) shall not be used. When optional spray-applied fire resistive material is used on the steel deck, ceiling runner is secured through spray-applied material to each valley of steel deck with min 3/16 in. (5 mm) diam steel masonry anchors spaced max 12 in. (305 mm) OC.

CALIFORNIA EXPANDED METAL PRODUCTS CO - ViperTrack™

B. Studs - Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC.

B1. Light Gauge Framing* - Slotted Studs - Slotted steel stud to be used in conjunction with Light Gauge Framing* - Floor and Ceiling Runners (Item 2A3). Slotted steel studs to be min 3-1/2 in. (89 mm) wide. Slotted studs cut 1 in. (25 mm) less in length than assembly height with bottom nesting in and secured to both ceiling and floor runners. Ceiling runner secured to preformed slot within steel stud by means of No. 10 by 3/4 in. (19 mm) long low profile head steel screw. Floor runner attached to bottom of steel stud by means of No. 8 by 1/2 in. (13 mm) long pan head steel screw. Slotted stud spacing not to exceed 24 in. (610 mm) OC.

STEELER INC - Slotted Stud

B2. Light Gauge Framing* - Slider C-Clip System - As an alternate to the Light Gauge Framing* - Slotted Steel Studs (Item 2B1), a Slider C-Clip System consisting of a C shaped steel clip with a slotted opening and a steel stud to be used in conjunction with Light Gauge Framing - Floor and Ceiling Runners (Item 2A3). Steel clips and studs to be min 3-1/2 in. (89 mm) wide. Steel clip inserted into inside flange of steel stud without attachment. Total length of steel stud cut 1 in. (25 mm) less than assembly height with bottom of steel stud nesting in and secured to floor runner. Floor runner attached to bottom of steel stud by means of No. 8 by 1/2 in. (13 mm) long pan head steel screw. Ceiling runner secured to steel C-Clip by means of No. 10 by 3/4 in. (19 mm) long pan head steel screw located 3/8 in. (10 mm) below top of ceiling runner. Top row of gypsum board screws shall be centered within the preformed slot of the C-Clip. Steel stud and steel clips spacing not to exceed 24 in. (610 mm) OC.

STEELER INC - Slider C Clip System

B3. Light Gauge Framing* - Steel Studs - Steel Studs to be used in conjunction with Light Gauge Framing* - Floor and Ceiling Runners (Item 2A5). Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in (610 mm) OC.

CALIFORNIA EXPANDED METAL PRODUCTS CO - ViperStud™

C. Gypsum Board* - Gypsum board sheets installed to a min total thickness of 5/8 in. and 1-1/4 in. (16 and 32 mm) on each side of wall for 1 and 2 hr rated assemblies, respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel floor or roof deck and the top row of screws shall be installed into the studs 3-1/2 in. (89 mm) below the lower surface of the floor. The hourly ratings of the joint system are equal to the hourly fire rating of the wall.

3. Joint System - Max separation between bottom of floor or roof and top of wall is 1 in. (25 mm). The joint system is designed to accommodate a max 25 percent compression or extension from its installed width. The joint system consists of an optional deflection channel, forming material and a fill material, as follows:

A. Deflection Channel - (Optional) - A nom 3-5/8 in. (92 mm) wide by 3 in. (76 mm) deep min 24 ga steel U-shaped channel. Deflection channel installed parallel to direction of steel deck, centered beneath valley and secured with steel masonry anchors or by welds spaced max 24 in. (610 mm) OC. When optional spray- applied fire resistive material is used on the steel deck, deflection channel secured through spray- applied material to valley of steel deck with min 1-1/2 in. (38 mm) long by min 3/16 in. (5 mm) diam steel masonry anchors spaced a max 24 in. (610 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1 in. (25 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner is not fastened to the deflection channel.

B. Forming Material* - Min 4 pcf (64 kg/m3) mineral wool batt insulation to be cut a min of 20 percent wider than the gap between the top of the gypsum board and bottom of the steel floor or roof deck . The mineral wool is to be compressed and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor or roof deck on both sides of the wall and shall be min 3/4 in. (19 mm) thick for 1 hr Rated Design and min 1-1/2 in. (38 mm) thick for 2 hr Rated Design.

INDUSTRIAL INSULATION GROUP L L C - MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO - Delta Board or Delta-8

ROCKWOOL MALAYSIA SDN BHD - Type Safe

ROCKWOOL - Type Safe

THERMAFIBER INC - Type SAF

C. Fill, Void or Cavity Material* - Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material sprayed or brushed on each side of the wall between the top of the gypsum board and the bottom of the steel floor or roof deck to completely cover mineral wool and overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on both sides of wall. When the steel deck is coated with spray applied Material (Item A1), the fill material shall overlap min 2 in. (51 mm) onto the spray applied material.

3M COMPANY - Fire Dam™ Spray 200

C1. Fill, Void or Cavity Material* - Tape - As an alternate to Item C, Tape cut to size and press applied within fluted areas of joint to completely cover mineral wool lapping min 1 in. (25 mm) onto the contour of the steel floor units, or min 2 in. (51 mm) onto the spray applied fire resistive material (Item 1A1) on the steel floor units, and extending to lap min 1 in. (25 mm) onto the gypsum wall. Additional pieces of Tape are applied along the joint to completely cover the remaining mineral wool between bottom of steel deck and top edge of wall along length of joint, lapping min 1 in. (25 mm) onto the contour of the steel floor units, or min 2 in. (51 mm) onto the spray applied fire resistive material (Item 1A1) on the steel floor units, and min 1 in. (25 mm) onto gypsum wall. Adjoining lengths of Tape shall overlap min 1/2 in. (13 mm). Tape shall be applied at both sides of wall.

3M COMPANY - 3M Fire and Water Barrier Tape

L Ratings apply only when FireDam™ Spray 200 is used.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2018-01-23

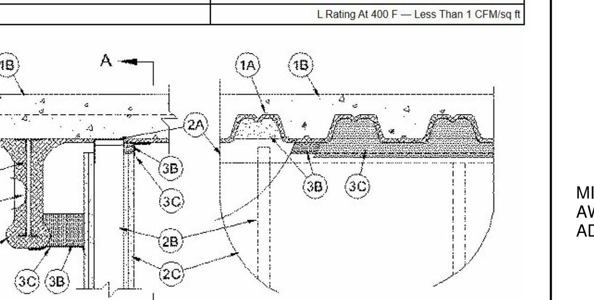
NOTE: SEE DETAILS PH/UP1 OR PH/UP2 AND H1E/SPSD.

H1D SPHW UL HW-D-0020/0029
HEAD OF WALL DETAIL
1:1 A132-H1g-d0020 (022222)

System No. HW-D-0377

September 26, 2019

ANSI/UL2079	CAN/ULC S115
Assembly Ratings — 1 and 2 Hr (See Item 2)	F Ratings — 1 and 2 Hr (See Item 2)
Nominal Joint Width - 1-1/2 In.	FT Ratings — 1 and 2 Hr (See Item 2)
Class II Movement Capabilities - 12.5% or 50% Compression or Extension (See Item 3)	FH Ratings — 1 and 2 Hr (See Item 2)
L Rating At Ambient — Less Than 1 CFM/sq ft	FTH Ratings — 1 and 2 Hr (See Item 2)
L Rating At 400 F — Less Than 1 CFM/sq ft	Nominal Joint Width - 1-1/2 In.
	Class II Movement Capabilities - 12.5% or 50% Compression or Extension (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. **Floor Assembly** - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual 0700, 0800, or 0900 Series Floor-Ceiling Design in the UL Fire Resistance Directory. The hourly fire rating of the floor assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The floor assembly shall include the following construction features:

A. **Steel Floor and Floor Units*** - Max 3 in. (76 mm) deep galv steel fluted floor units.

B. **Concrete** - Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Structural Steel Support** - Steel beam or open-web steel joist, as specified in the individual 0700, 0800, or 0900 Series Floor-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and 1 to 6 in. (25 to 152 mm) from wall assembly.

D. **Steel Lath** - When structural steel support (Item 1C) consists of open-web steel joists, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be installed to completely cover one side of each joist which is located within 6 in. (152 mm) of wall assembly. The lath shall be secured with steel tie wire and shall be fully covered with spray applied fire resistive material.

E. **Spray-Applied Fire Resistive Material*** - After installation of the ceiling runner (Item 2A) or deflection track (Item 3A, if used), steel floor units and structural steel supports to be sprayed with the thickness of material specified in the individual 0700, 0800, or 0900 Series 0esign. The flutes of the steel floor units above the structural steel supports and above the ceiling runner (Item 2A) or deflection channel (Item 3A) shall be filled with spray-applied fire resistive material. As an alternate, the spray-applied fire resistive material in the flutes above the ceiling runner may be applied to follow the contour of the steel floor units. Excess material shall be removed from the flanges of the ceiling runner or deflection track beyond the required thickness of spray-applied fire resistive material on the steel floor units. For 0900 Series 0esigns structural steel supports, steel furring and steel lath only to be sprayed in accordance with the specifications in the individual 0900 Series Design.
ISOLATEK INTERNATIONAL - Type 300 or Type II

GCP APPLIED TECHNOLOGIES INC - Type MK-6/HY, MK-6/HYES, MK-65 and RG.

1A. **Roof Assembly** - (Not Shown) - As an alternate to the floor assembly (Item 1), a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 or P800 Series Roof-Ceiling 0esign in the UL Fire Resistance 0irectory. The hourly fire rating of the roof assembly shall be equal to or greater than the hourly fire rating of the wall assembly. The roof assembly shall include the following construction features:

A. **Steel Roof Deck** - Max 3 in. (76 mm) deep galv steel fluted roof deck.

B. **Roof Insulation** - Mineral and Fiber Board* - Min 3/4 in. (19 mm) thick boards applied in one or more layers directly over steel roof deck or over gypsum board sheathing laid atop steel roof deck.

C. **Roof Covering*** – Hot-mopped or cold-application materials compatible with mineral and fiber board insulation.

D. **Structural Steel Support** - Steel beam or open-web steel joist, as specified in the individual P700 or P800 Series Roof-Ceiling Design, used to support steel floor units. Structural steel support oriented parallel to and 1 in. to 6 in. (25 to 152 mm) from wall assembly.

E. **Steel Lath** - When structural steel support (Item 1D) consists of open-web steel joists, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9 to 1.8 kg/m2) shall be installed to completely cover one side of each joist which is located within 6 in. (152 mm) of wall assembly. The lath shall be secured with steel tie wire and shall be fully covered with spray applied fire resistive material.

F. **Spray-Applied Fire Resistive Material*** - After installation of the ceiling runner (Item 2A) or deflection track (Item 3A, if used), steel roof deck and structural steel supports to be sprayed with a thickness of spray applied fire resistive material as specified in the individual P700 or P800, or P900 Series Roof-Ceiling design. The flutes of the steel deck above the structural steel supports and above the ceiling runner (Item 2A) or deflection channel (Item 3A) shall be filled with spray-applied fire resistive material. As an alternate, the spray-applied fire resistive material in the flutes above the ceiling runner may be applied to follow the contour of the steel roof deck. Excess material shall be removed from the flanges of the ceiling runner or deflection track beyond the required thickness of spray-applied fire resistive material on the steel roof deck. For P900 Series Designs structural steel supports, steel furring and steel lath only to be sprayed in accordance with the specifications in the individual P900 Series Design.
ISOLATEK INTERNATIONAL – Type 300 or Type II

GCP APPLIED TECHNOLOGIES INC - Type MK-6/HY, MK-6/HYES, MK-65 and RG.

2. **Wall Assembly** - The 1 or 2 hr fire rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners** - Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 28). Ceiling runner to be provided with min 2 in. (51 mm) to max 3 in. (76 mm) flanges. When deflection channel (Item 3A) is used, flange height of ceiling runner is to be equal to or greater than flange height of deflection channel and the ceiling runner is to nest within the deflection channel with a 1/2 in. (13 mm) to 1-1/4 in. (32 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width and ceiling runner is secured to steel floor units (Item 1A) with steel fasteners or welds spaced max 24 in. (610 mm) OC. Ceiling runner or deflection track to be installed parallel with structural steel support and located such that a max clearance of 6 in. (152 mm) is present between the finished wall and the spray-applied fire resistive material at the lowest elevation of the structural steel support.

A1. **Light Gauge Framing*** – Slotted Ceiling Runner - As an alternate to the ceiling runner in Item 2A, ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 28). Ceiling runner secured to valleys with steel fasteners spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.
CALIFORNIA EXPANDED METAL PRODUCTS CO - CST

BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS - SLP-TRK

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Type SLT

A2. **Light Gauge Framing*** – Clipped Ceiling Runner - As an alternate to the ceiling runner in Items 2A and 2A1, clipped runner to consist of galv steel channel with clips preformed in track flanges which positively engage the inside flange of the steel studs (Item 28). Track sized to accommodate steel studs (Item 28). Track flanges to be min 2-1/2 in. (64 mm). Clipped ceiling runner secured with steel fasteners spaced max 24 in. (610 mm) OC. When clipped ceiling runner is used, deflection channel (Item 3A) shall not be used.
TOTAL STEEL SOLUTIONS L L C - Snap Trak

B. **Studs** - Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 in. to 1-1/4 in. (13 to 32 mm) less in length than assembly height with bottom nesting in and secured to floor runner. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 (13 mm) long wafer head steel screws at midheight of slot on each side of wall. When deflection channel (Item 3A) is used, steel studs attached to ceiling runner (Item 2A) with sheet metal screws located 1/2 in. (13 mm) below the bottom of the deflection channel. When deflection channel is not used, studs to nest in ceiling runner without attachment.

C. **Gypsum Board*** - Gypsum board sheets installed to a min total 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness on each side of wall for 1 and 2 hr fire rated assemblies, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom plane of the spray applied fire resistive material on the steel deck. on both sides of the wall assembly. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner. No gypsum board attachment screws shall be driven into the ceiling runner or into the optional deflection channel. Where the top of the wall assembly is inaccessible above the lowest elevation of the structural steel support, the gypsum board attachment screws may be omitted.
The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

A3. **Light Gauge Framing*** - Slotted Ceiling Runner - As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges, sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to steel deck valleys with steel masonry anchors spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel shall not be used.
CALIFORNIA EXPANDED METAL PRODUCTS CO - CST

3. **Joint System - Max vertical separation between bottom plane of steel floor unit and top of gypsum board (at time of installation of joint system) is 1-1/2 in. (38 mm). Max horizontal separation between spray applied fire resistive material on structural support member and surface of wall is 6 in. (152 mm). The joint system is designed to accommodate a max 12.5 or 50 percent compression or extension from its installed width as measured between the bottom plane of the spray-applied fire resistive material on the steel floor unit and the top of the gypsum board. The movement capabilities are dependent on the horizontal separation between the spray applied fire resistive material on the structural support member and the surface of the wall. The joint will accommodate max 12. 5 percent compression or extension when the horizontal separation between the spray applied fire resistive material on the structural support member and the surface of the wall is max 3 in. (76 mm). The joint will accommodate max 50 percent compression or extension when the horizontal separation between the spray applied fire resistive material on the structural support member and the surface of the wall is greater than 3 in. (76 mm) up to a max of 6 in. (152 mm).** The joint system shall consist of forming and fill materials, with or without a deflection channel (Item 3A), as follows:

A. **Deflection Channel** - (Optional, Not Shown) - Max 2 in. (51 mm) deep min 24 gauge galv steel channel sized to accommodate ceiling runner (Item 2A). Deflection channel to be installed parallel with structural steel support and located such that a max clearance of 4 in. (102 mm) is present between the finished wall and the spray-applied fire resistive material at the lowest elevation of the structural steel support. Deflection channel secured to steel floor units with steel fasteners or welds spaced max 24 in. (610 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1/2 in. to 1-1/4 in. (13 to 32 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner nests inside the deflection channel without attachment.

B. **Forming Material*** - Nom 4 pcf (64 kg/m3) density mineral wool batt insulation. Sections of mineral wool batt cut to a width of 4 in. (102 mm) and stacked to attain a thickness which is 50 percent greater than the width of the linear gap between the spray applied fire resistive material on the structural steel member and the surface of the wall assembly. Stacked sections of mineral wool compressed 33 percent in thickness and installed cut edge first into linear gap until the bottom edge is flush with the bottom surface of the spray applied fire resistive material on the structural steel member. When the spray- applied fire resistive material in the flutes above the wall follows the contour of the steel deck, sections of mineral wool batt cut to the shape of the fluted deck and stacked to a min 6 in. (152 mm) thickness shall be installed in the flutes of the steel floor or roof deck between the top of the deflection channel and the spray-applied fire resistive material. The mineral wool batt insulation is to be installed flush with the gypsum board surface on the side of the wall opposite the structural support. Additional sections of mineral wool batt insulation are compressed 50 percent in thickness and are installed cut edge first to completely fill the gap above the top of the gypsum board.
INDUSTRIAL INSULATION GROUP L L C - MinWool- 1200 Safing

JOHNS MANVILLE - Safing

ROCK WOOL MANUFACTURING CO - Delta Board

ROCKWOOL MALAYSIA SDN BHD - SAFE

ROCKWOOL - SAFE

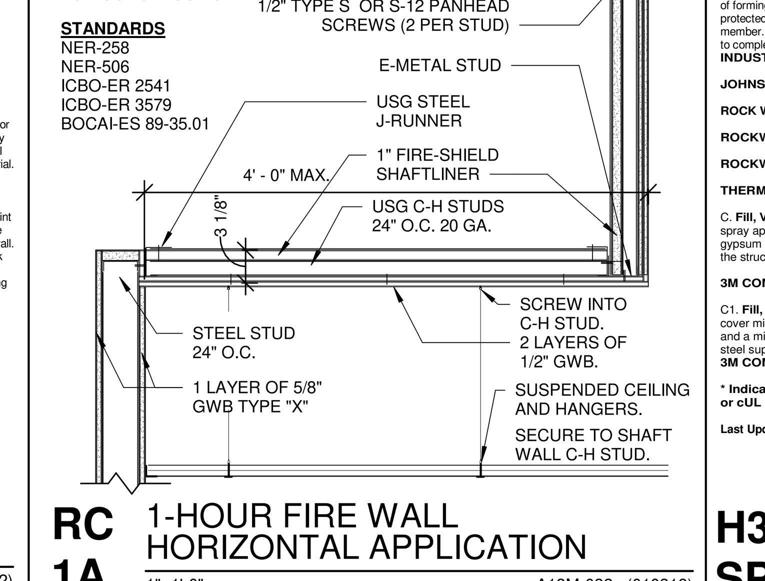
THERMAFIBER INC – Type SAF

C. **Fill, Void or Cavity Material*** - Sealant - Min 1/8 in. (3.2 mm) wet thickness (min 1/16 in. or 1.6 mm dry thickness) of fill material spray applied over the forming material on each side of the wall. Fill material to overlap a min of 1/2 in. (13 mm) onto the gypsum board and a min 2 in. (51 mm) onto the spray applied material (Item 1E or 1AE) on the steel floor unit or on the structural steel support member on each side of the wall. Overlap onto the steel floor or roof units may be decreased to 1/2 in. (13 mm) when spray applied material is omitted.
SPECIFIED TECHNOLOGIES INC - SpecSeal AS200 Elastomeric Spray

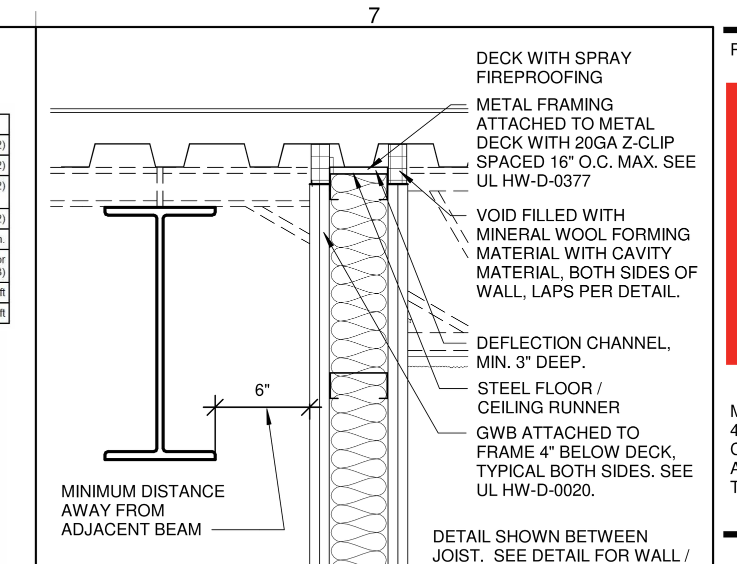
*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2019-09-26

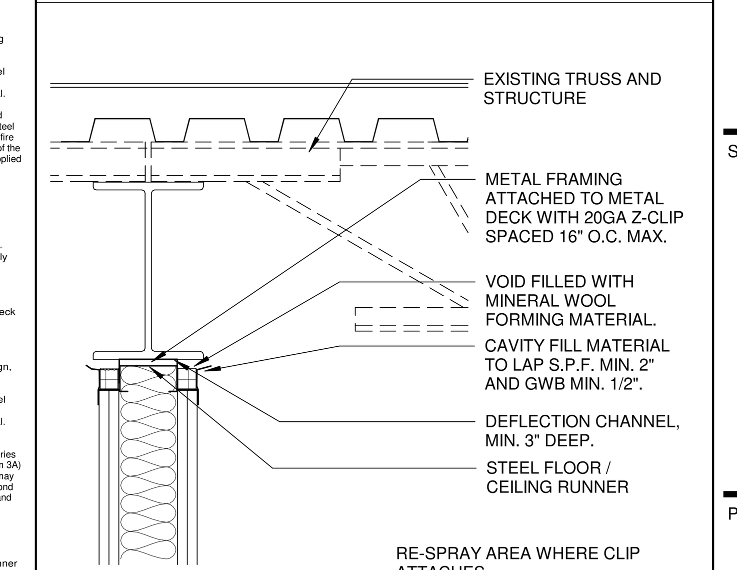
H1E SFSD UL HW-D-0377
HEAD OF WALL DETAIL
1:1 A132-H1g-d0377 (101819)



RC 1A 1-HOUR FIRE WALL
HORIZONTAL APPLICATION
1"=1'-0" A13M-032a (010318)



PH UP1 ONE OR TWO HOUR RATED
PARTITION ADJACENT & PARALLEL
TO BEAM/ JOIST
1 1/2"=1'-0" A13-UP1G-S1 (012015)

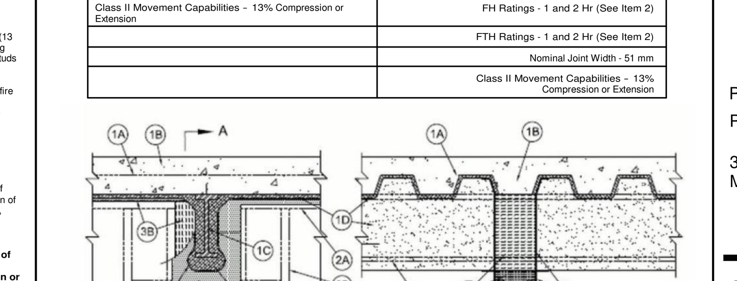


PH UP2 ONE OR TWO HOUR RATED
PARTITION IN LINE TO BEAM/ JOIST
1 1/2"=1'-0" A13-UP2G-S2

System No. HW-D-0192

January 26, 2018

ANSI/UL2079	CAN/ULC S115
Assembly Ratings - 1 and 2 Hr (See Item 2)	F Ratings - 1 and 2 Hr (See Item 2)
Nominal Joint Width - 2 In.	FT Ratings - 1 and 2 Hr (See Item 2)
Class II Movement Capabilities – 13% Compression or Extension	FH Ratings - 1 and 2 Hr (See Item 2)
	FTH Ratings - 1 and 2 Hr (See Item 2)
	Nominal Joint Width - 51 mm
	Class II Movement Capabilities – 13% Compression or Extension



1. **Floor Assembly** - The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual 0700 or 0900 Series Floor-Ceiling 0esign in the UL Fire Resistance 0irectory and shall include the following construction features:

A. **Steel Floor and Floor Units*** - Max 3 in. (76 mm) deep galv steel fluted floor units

B. **Concrete** - Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.

C. **Structural Steel Support** - (Optional) -Steel beam or open-web steel joist, as specified in the individual 0700 or 0900 Series Floor-Ceiling 0esign, used to support steel floor units. Structural steel support oriented perpendicular to wall assembly. Where open-web steel joists pass through the fire rated wall, 3/8 in. (10 mm) diamond mesh expanded steel lath having a nom weight of 1.7 to 3.4 lb per sq yd (0.9-1.8 kg/m2) shall be secured to one side of each joist with steel tie wire and the lath shall be fully covered with spray applied fire resistive material with no min thickness requirement.

D. **Spray-Applied Fire Resistive Material*** - After installation of the ceiling runner (Item 2A) or deflection track (Item 3A, if used), steel floor units and structural steel supports to be sprayed in accordance with the specifications in the individual 0700 Series 0esign or the structural steel supports to be sprayed in accordance with the specifications in the individual 0900 Series Design .

GCP APPLIED TECHNOLOGIES INC - Type MK-6/HY

2. **Wall Assembly** - The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners** - Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 28). Ceiling runner to be provided with min 1-1/4 in. (32 mm) to max 3 in. (76 mm) flanges. When deflection channel (Item 3A) is used, the ceiling runner is to nest within the deflection channel with a 1/2 in. to 1 in. (13 to 25 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, ceiling runner to be provided with min 3 in. (76 mm) flanges and secured to steel floor units (Item 1A) with steel fasteners or welds spaced max 24 in. (610 mm) OC. Ceiling runner to be centered beneath and parallel with valley of steel floor unit. A clearance of 1 to 1-1/4 in. (25 to 32 mm) shall be maintained between the end of the ceiling runner or deflection channel and the spray applied fire resistive material on the structural steel support members.

B. **Studs** - Steel studs to be min 3-5/8 in. (92 mm) wide. Studs cut 1/2 in. to 1 in. (13 to 25 mm) less in length than assembly height with bottom nesting in and secured to floor runner. When deflection channel (Item 3A) is used, steel studs attached to ceiling runner (Item 2A) with sheet metal screws. When deflection channel is not used, studs to nest in ceiling runner without attachment. A framed opening shall be constructed around each structural steel support member. A min clearance of 1 in. (25 mm) to a max clearance of 3 in. (76 mm) shall be maintained between the framing and the spray applied fire resistive material on the two sides of the structural support member. The clearance between the framing and the spray applied fire resistive material on the bottom of the structural steel support member shall be 1 in. (25 mm)

C. **Gypsum Board*** - Gypsum board sheets installed to a min total 5/8 in. (16 mm) or 1-1/4 in. (32 mm) thickness on each side of wall for 1 and 2 hr fire-rated assemblies, respectively. Wall to be constructed as specified in the individual U400, V400 or W400 Series Design in the UL Fire Resistance Directory, except that a max 2 in. (51 mm) gap shall be maintained between the top of the gypsum board and the spray applied fire resistive material on the steel floor units when D700 series assembly is used or between the top of the gypsum board the steel floor units when D900 series assembly is used. Also, a 1 in. (25 mm) gap shall be maintained between the top edge of the gypsum board and the spray applied fire resistive material on the structural steel support member. The screws attaching the gypsum board to the studs along the top of the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner or the optional deflection channel. No gypsum board attachment screws shall be driven into the ceiling runner or into the optional deflection channel.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

3. **Joint System - Max separation between bottom of the spray applied fire resistive material on the steel floor units and top of gypsum board (at time of installation of joint system) is 2 in. (51 mm) when 0700 series assembly is used. Max separation between bottom of the steel floor units and top of gypsum board (at time of installation of joint system) is 2 in. (51 mm) when 0900 series assembly is used. Max separation between spray applied fire resistive material on bottom of structural support member and framed opening in top of wall is 1 in. (25 mm). The joint system is designed to accommodate a max 13 percent compression or extension from it's installed width as measured between the spray applied fire resistive material on the steel floor units and the top of the gypsum board**. The joint system shall consist of forming and fill materials, with or without a deflection channel (Item 3A), as follows:

A. **Deflection Channel** - (Optional, Not Shown) - Min 24 gauge galv steel channel, 3 in. (76 mm) deep, sized to accommodate ceiling runner (Item 2A). Deflection channel to be centered beneath and parallel with valley of steel floor unit and secured to steel floor unit with steel fasteners or welds spaced max 24 in. (610 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1/2 to 1 in. (13 to 25 mm) gap between the top of the ceiling runner and the top of the deflection channel. A clearance of 1 to 1-1/4 in. (25 to 32 mm) shall be maintained between the end of the deflection channel and the spray applied fire resistive material on the structural steel support members. The ceiling runner nests inside the deflection channel without attachment.

B. **Forming Material*** - Nom 4 pcf (64 kg/m3) mineral wool batt insulation cut to a length approx the same as the overall thickness of wall and inserted cut edge first into the spaces between the spray applied fire resistive material on the structural steel member and the framed notch at the top of the wall, flush with the gypsum board surface on both sides of the wall. The thickness of forming material shall be sufficient to attain a min compression of 25 percent between the sides of the framed notch and the protected structural steel member between the bottom of the framed notch and the bottom of the protected structural steel member. Additional sections of mineral wool batt insulation are compressed 25 percent in thickness and are installed cut edge first to completely fill the gap above the top of the gypsum board, flush with both surfaces of wall.
INDUSTRIAL INSULATION GROUP L L C - MinWool-1200 Safing

JOHNS MANVILLE - Safing

ROCK WOOL MANUFACTURING CO - Delta Board

ROCKWOOL MALAYSIA SDN BHD - Type Safe

ROCKWOOL – Type Safe

THERMAFIBER INC – Type SAF

C. **Fill, Void or Cavity Material*** - Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material spray applied over the forming material on each side of the wall. Fill material to overlap a min of 1/2 in. (13 mm) onto the gypsum board and a min 2 in. (51 mm) onto the deck or the spray applied material (Item 1C) on the steel floor unit and on the structural steel support member on both sides of wall.

3M COMPANY – FireDamM Spray 200

C1. **Fill, Void or Cavity Material*** - Tape - As an alternate to Item C, Tape cut to size and press applied to completely cover mineral wool between bottom of floor and top of wall. Tape to overlap a min of 1 in. (25 mm) onto the gypsum board and a min 2 in. (51 mm) onto the deck or the spray applied material (Item 1C) on the steel floor unit and on the structural steel support member on both sides of wall. All adjoining lengths of Tape shall overlap min 1/2 in. (13 mm).
3M COMPANY – 3M Fire and Water Barrier Tape

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2018-01-26

H3D SPHW UL HW-D-0192
BEAM/JOIST PENETRATION DET.
1:1 A132-H3G-d0192 (101719)

Project Architect:

MBA

Mason Blau & Associates
4625 E Bay Drive, #228,
Clearwater, FL 33764
AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

INTERIOR PARTITION SECTIONS, NOTES, DETAILS

Drawing Number:

A13-3.1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

9/29/2023 3:33:20 PM
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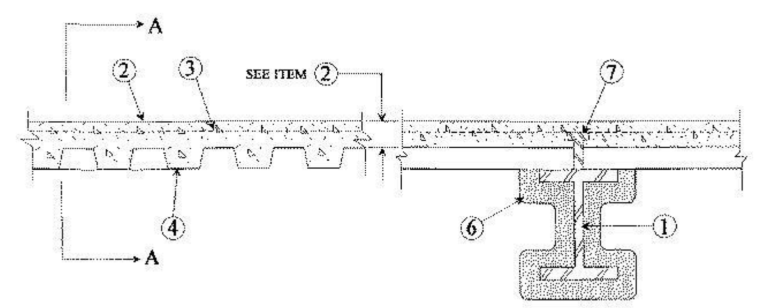
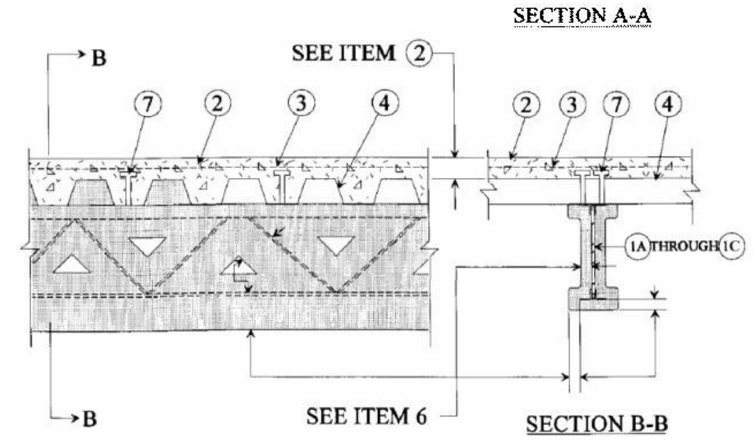
Design No. D902

Restrained Assembly Ratings — 1, 1-1/2, 2 and 3 Hr.
Unrestrained Assembly Ratings — 0, 1, 1-1/2, 2 or 3 Hr. (See Items 4 & 6)
Unrestrained Beam Ratings — 1, 1-1/2, 2 and 3 Hr.
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



SECTION A-A



SECTION B-B

1. **Beam —** W8X28, W8x24, W6x12 or W6x9, min size, see Items 6 through 6F.

1A. **Steel Joists —** (Not Shown) — As an alternate to Item 1 — Composite or non-composite min 8k1 or min depth and weight shall be 8 in. and 4.9 lb/ft respectively. May be uncoated or provided with a shop coat of paint. Designed per S.J.I. specifications for a max design stress of 30, 000 psi (30 ksi). Welded or bolted to end supports. The top chords shall consist of two angles measuring 1-1/4 by 1-1/4 by 0.127 in. thick. Bottom chords shall consist of two round bars measuring 0.566 in. in diam. or two angles measuring 1 by 1 by 0.125 in. thick. Bearing plates shall consist of two angles measuring 1-1/2 by 2 by 0.188 in. thick and 5-1/16 in. long. Web members shall consist of 0.565 in. diam bars.

1B. **Steel Joists —** (Not Shown) — As an alternate to Item 1 — Composite or non-composite min 12k5 or min depth and weight shall be 12 in. and 7.1 lb/ft respectively. May be uncoated or provided with a shop coat of paint. Designed per S.J.I. specifications for a max design stress of 30, 000 psi (30 ksi). Welded or bolted to end supports. Top chords shall consist of two angles measuring 1-1/2 by 1-1/2 by 0.156 in. thick. Bottom chords shall consist of two round bars measuring 0.675 in. in diam. or two angles measuring 1 by 1 by 0.125 in. thick. Bearing plates shall consist of two angles measuring 2 by 2 by 0.192 in. thick and shall be min 4-15/16 in long. The second web member at each end shall consist of 0.654 in. diam round bar. All remaining web members, including the end web members, shall consist of 0.774 in. diam round bars. Bridging per S.J.I. specifications is required when non-composite joists are used.

1C. **Steel Joists —** (Not Shown) — As an alternate to Item 1 — Composite or non-composite min 12k5 or min depth and weight shall

design stress of 30, 000 psi (30 ksi). Welded or bolted to end supports. Top chords shall consist of two angles measuring 1-1/2 by 1-1/2 by 0.156 in. thick. Bottom chord shall consist of two round bars measuring 0.675 in. in diam. or two nangles measuring 1 by 1 by 0.125 in. thick. The second web member at each end shall consist of 0.654 in. diam round bar. All remaining web members, including the end web members, shall consist of 0.774 in. diam round bars. Bridging per S.J.I. specifications is required when non-composite joists are used.
Note: Additional beams or joists from the N series designs may be substituted for the listed beam (item 1) or joist (item 1A) respectively. When joists are substituted, the restrained rating of the joist must be equal to or greater than the restrained rating of the assembly. Additional beam and joist substitution requirements are in the front of the Fire Resistance Directory - III. FLOOR-CEILINGS AND ROOF-CEILING, item 7 -Steel Joist or IV. BEAMS.

2. **Normal Weight or Light Weight Concrete —** Normal weight concrete, carbonate or siliceous aggregate, 3500 psi compressive strength, vibrated. Light weight concrete, expanded shale or slate aggregate by rotary-kiln method or expanded clay aggregate by rotary-kiln or sintered-grate method, or pelletized expanded blast furnace slag aggregate, 3000 psi compressive strength, vibrated, 4 to 7 per cent entrained air.

Restrained Assembly Rating Hr	Concrete (Type)	Concrete Unit Weight pcf	Concrete Thkns In.
1	Normal Weight	147-153	3-1/2
1-1/2	Normal Weight	147-153	4
2	Normal Weight	147-153	4-1/2
3	Normal Weight	147-153	5-1/4
1	Light Weight	107-113	2-1/2
1	Light Weight	107-120	2-5/8
1-1/2	Light Weight	107-113	3
2	Light Weight	107-113	3-1/4
2	Light Weight	107-116	3-1/4*
2	Light Weight	114-120	3-1/2
3	Light Weight	107-113	4-3/16
3	Light Weight	114-120	4-7/16

* With 2 and 3 in. deep steel floor units only.

3. **Welded Wire Fabric —** 6x6 - W1.4xW1.4.

3A. **Negative Reinforcement —** (Optional, Not Shown) Used in lieu of Item 3 and with Items 3B or 3C. For floor spans with concrete cast continuous over the supporting beams. Deformed bars designed to resist the support moments of the concrete slab in accordance with the latest ACI Building Code Specifications.

3B. **Fiber Reinforcement* —** (Not Shown) — Required with Item 3A. Engineered synthetic fibers added to concrete mix to control shrinkage cracks in concrete. Fibers added to concrete mix at rate of 1 lb of fiber for each cubic yard of concrete.
PROPEX OPERATING COMPANY L L C — Fibermesh 150 and Fibermesh 300.

3C. **Fiber Reinforcement* —** (Not Shown) — Required with Item 3A. Any fiber reinforcement bearing the UL Classification Marking for Fire Resistance, Classified for use in lieu of welded wire fabric.
See **Fiber Reinforcement** (CBXQ) Category for names of manufacturers.

4. **Steel Floor and Form Units* —** Composite or non-composite, 1-1/2, 1-5/8 , 2 or 3 in. deep galv units or 4-1/2 in. deep non-composite galv units. Fluted units may be phos/ptd. Min gauges are 22 MSG for fluted and 20/20 for cellular and partial cellular units. The following combinations of units may be used:
(1) All 24, 26, 28 or 36 in. wide cellular or partial cellular.

(2) All fluted.

(3) One or two 3 in. deep, 12 in. wide, 18/18 MSG min cellular alternating with 3 in. deep fluted or other cellular.

(4) Any blend of fluted and 24, 26, 28 or 36 in. wide cellular or partial cellular.

(5) Corrugated, nom 1-5/16 or 2 in. deep, 30 in. wide, 24 MSG min galv units with shear wires factory welded to deck corrugations. Welded to supports 12 in. OC through welding washers. For shear wire spacing of 8 in. or less the steel deck stress shall not exceed 20 KSI. For shear wire spacing greater than 8 in. OC but less than or equal to 12 in. OC steel deck stress shall not exceed 12 KSI.

ASC STEEL DECK, DIV OF ASC PROFILES L L C — 32 in. wide Types NH-32, NHN-32, NHF-32; 36 in. wide, Types BH-36, BHN-36, BHN-35-1/4, BHF-36, BHF-36A, 2WH-36, 2WHS-36, 2WHF-36, 2WHF-36A, 3WxH-36, 3WxHF-36, 3WxHF-36A, 3WH-36, 3WHF-36, 3WHF-36A, 3W-36, 3WF-36, DG3W-36, DG3WF-36. All units may be galvanized or Prime Shield. Non-cellular decks may be vented designated with a "V" suffix to the product name. Cellular deck top and bottom sections may be riveted together (designated with "Fr") vs. arc spot welded, "F"

CANAM GROUP INC — 24 in. wide Type P-2432 composite or 36 in. wide Type P-3623, P-3606, P-3615 and 24 in wide Type P-2432 composite, Type P-3606 and P-3615 non-composite; 24 or 36 in. wide Type 3 in. LOK-Floor; 36 in. wide Types 1.5B, 1.5BI, 1.5BL and 1.5BL.

CANAM STEEL CORP — 24 in. wide Type P-2432 composite or 36 in. wide Type P-3623, P-3606, P-3615 and 24 in wide Type P-2432 composite, Type P-3606 and P-3615 non-composite

CANAM STEEL CORP — 12 or 24 in. wide, Types 1-1/2, 2, or 3 in. LOK-Floor and LOK-Floor Cell; 36 in. wide, Types 2 or 3 in. LOK-Floor and LOK-Floor Cell; 24, 30 or 36 in. wide, Type 1-1/2 in. B-LOK and B-LOK Cell; 24 in. wide, Types N-LOK and N-LOK Cell

CENTRIA, A DIVISION OF NCI GROUP, INC — QL Types, 24 in. wide, 3 or 3 inverted, UKX, 21 or 21 inverted, 2 in. 99, 121, AKX, NKX, TKX; 24 or 30 in. wide GKX, GKXH, GKX-A; 36 in. wide 2 in. 99, AKX, WKX; 12 in. wide NKC, TKC; 12 in. wide non-composite Sec 12. Side joints of 99, 121, TKC, TKX, WKX may be welded together 60 in. OC. Side joints of 99, AKX, WKX, GKX, GKX-A, TKX may be fastened together with min 1 in. long No. 12x14 self-drilling, self-tapping steel screws 36 in. OC

CHIA TEH CONSTRUCTION MATERIAL CO LTD — 24 or 36 in. wide Mac-Lok 3; 24 in. wide CFD-3

DECK WEST INC — 36 in. wide Type B-DW, Inverted B-DW, BA-DW, Inverted BA-DW, 2-DW or 3-DW. Side joints of Type 2-DW and 3-DW may be fastened together with min 1 in. long No. 12 x 14 self-drilling, self-tapping steel screws 36 in. OC

DESIGN ASSISTANCE CONSTRUCTION SYSTEMS INC — 36 in. wide Type DACS1.5CD, or 24 in. wide Type DACS2.0CD, or DACS3.0CD

EPIC METALS CORP — 24 in. wide Types EC150, EC150 inverted, EC300, EC366, ECP150, ECP300, ECP366, ECA; 30 in. wide Types ECB150, ECBR150; 36 in. wide Types EC156, EC266, ECP266

KAM INDUSTRIES LTD, DBA CORDECK — 24 in. wide, Types 2 or 3 in. WDR

MARLYN STEEL DECKS INC — Type 1.5 CF, 2.0 CF or 3.0 CF

NEW MILLENNIUM BUILDING SYSTEMS L L C — 24 or 36 in. wide Types 2.0CD, 3.0CD, 2.0CFD, 3.0CFD, 3.0CFDES; 24, 30 or 36 in. wide Types 1.5CD, 1.5CDI, 1.5CDR, 1.5CFD. Fluted units may be phos/painted or galvanized.

ROOF DECK INC — 36 in. wide Types LOK-1-1/2, LOK-1-1/2R; 24 in. wide Types LOK-2, LOK-3

STEEL MASTERS INTERNATIONAL DEPENDABLE STEEL — 36 in. wide Types 2WH-36, 3WH-36. Units may be phos/painted or galvanized.

VALLEY JOIST+DECK — 24 or 36 in. wide Types WVC 1-1/2 or WVC 2

VERCO DECKING INC - A NUCOR CO — FORMLOK™ deck types PLB, B, BR, PLN3, N3, PLN, N, PLW2, W2, PLW3, W3. Units are min 24 in. wide and may be galvanized, phos./ptd., or mill finish. Units may be cellular or acoustical cellular, with the suffix "CD" or "CD-AC" added to the product name, respectively. All non-cellular deck may be vented or non-vented. 12 in. wide PLW2, W2, PLW3 or W3 units may be blended with 24 or 36 in. wide PLW2, W2, PLW3 or W3 units, respectively; or Types PLN3-CD, N3-CD, PLN3, N3.

VULCRAFT, DIV OF NUCOR CORP — 24, 30 or 36 in. wide Types 1.5VL, 1.5VLI, 1.5PLVLI, 1.5VLP, 1.5 VLR, 1.5PLVLP; 24 or 36 in. wide Types 1.5VLPA, 1.5PLVLPA, 2VLI, 2.0PLVLI, 2VLJ, 3VLI, 3.0PLVLI, 3VLJ, 2VLP, 2.0PLVLP, 3VLP, 3.0PLVLP, 2VLPA, 2.0PLVLPA, 3VLPA, 3.0PLVLPA. Types 1.5VL, 1.5VLI, 1.5PLVLI, 1.5 VLR, 1.5VLPA, 1.5PLVLPA, 2VLI, 2.0PLVLI, 2VLJ, 3VLI, 3.0PLVLI, 3VLJ units may be phos/ptd. 24 or 36 in. wide Types 2VLJ, 3VLJ units ++ may be used for max 2 hr Restrained Assembly Rating. 36 in. wide Types 1.5 SB, 1.5 SBR; 24 or 36 in wide Types 2.0 SB, 3.0 SB, 36 in. wide Type High Strength 1.5 SBI, 36 in. wide Type High Strength 1.5 SBN; Units may be phos/ptd

Spacing of welds attaching units to supports shall be 12 in. OC for 12, 24, 36 in. wide units, four welds per sheet for 30 in. wide units. 6 in. OC for 18 in. wide and Sec. 12 units. Unless specified otherwise for specific units types, adjacent units button-punched or welded together 36 in. OC along side joints. For **3 Hr Rating**, units with overlapping type side joints welded together 24 in. OC max.

When a superimposed load of 250 PSF is desired the spacing of welds or button-punches shall not exceed 24 in. OC along side joints.

++ Side joints of Types 2VLJ or 3VLJ units may be fastened together with No. 8-3/4 in. long self-drilling Tek screws driven diagonally from the top side through the joint of the units at 36 in. O. C. max.

Alternate Construction — Non-composite units of the same type listed above may be used provided allowable loading is calculated on the basis of non-composite design.

The Unrestrained Assembly Rating is equal to the Unrestrained Beam Rating (See Item 6) for a max 3 Hr and is limited to the following units and limitations:

(a) 1-1/2, 2 and 3 in. deep, 24 or 36 in. wide, 22 MSG or thicker fluted with clear spans not more than 7 ft, 8 in.

(b) 1-1/2, 2 and 3 in. deep, 24 or 36 in. wide, 20 MSG or thicker fluted with clear spans not more than 8 ft, 8 in.

(c) 1-1/2 and 2 in. deep, 24 or 36 in. wide, 16 MSG or thicker fluted and 18/18 MSG or thicker cellular with clear spans not more than 9 ft, 11 in.

(d) 3 in. deep, 36 in. wide, 18 MSG or thicker fluted and 24 in. wide, 20/18 MSG or thicker cellular with clear spans not more than 13 ft, 2 in.
For assemblies utilizing 3-1/4 in. light weight concrete topping with a max Restrained Assembly Rating of 2 Hr, the Unrestrained Assembly Rating is equal to the Unrestrained Beam Rating (See Item 6) and is limited to the following floor units and spans:

(a) 1-1/2, 2 and 3 in. deep, 24 or 36 in. wide, 22 MSG fluted and 20/20 MSG cellular with clear spans not more than 9 ft, 6 in.

(b) 2 and 3 in. deep, 24 or 36 in. wide, 20 MSG fluted and 20/20 MSG cellular with clear spans not more than 10 ft, 0 in.

(c) 3 in. deep, 24 in. wide, 20 MSG fluted and 20/20 MSG cellular with clear spans not more than 13 ft, 2 in.

4A. **Steel Floor and Form Units* —** As an alternate to Item 4. Nom 8 or 9 in. deep composite, galv steel units. Min thickness 0.0375 inch (20 MSG). Side joints of adjacent units fully overlapping, fastened together by using 1-1/4 in. long self-drilling, self-tapping steel screws driven through Shear-Bond Clips (not shown) at 13-3/4 in. OC. Steel end closures flashings (not shown) made of min 0.056 inch thick (16 MSG) galv steel, fixed to the steel work before decking is placed.
In addition to the Steel Floor and Form Units, the following components are required:

(a) Welded Wire Fabric — 6 X 6 - Min wire thickness W2.9 X W2.9 slab reinforcement. As an alternate, max # 4 bars spaced 12-in. OC in both directions shall be used. When re-bars are used, the concrete slab thickness shall be increased a minimum 5/16 in.

(b) Rib Reinforcement —Min. #4 rebar. Min concrete cover below the steel reinforcement shall be 1-9/16 in. Reinforcement support chairs spaced at max 41-1/2 inches OC.

The flute areas above the beam/joist are to be : (1) filled with concrete, (2) filled with Spray-Applied Fire Resistive Material or (3) the beam/joist coated with Spray-Applied Fire Resistive Material installed as described in the design to thickness required when all cellular Steel Floor and Form Units are used.

See Design No. D989 for a typical illustration of the components. Consult the deck manufacturer for comprehensive load tables and design parameters referencing UL Design D989.

BAILEY METAL PRODUCTS LTD — Type COMSLAB™ 210 and COMSLAB™ 225, Steel End Closure Flashing

5. **Joint Cover —** (Use with fluted units optional — Not Shown) — 2 in. wide cloth adhesive tape applied following the contour of the units.

6. **Spray-Applied Fire Resistive Materials* —** Applied by spraying with water to the final thicknesses shown below. When fluted steel deck is used and the fire protection thickness selected is based on all fluted deck, the area between the steel deck and the top flange of the steel beam shall be filled. When fluted steel deck is used and the steel beam is sprayed with the thicknesses applicable to cellular of blended units, the area between the steel deck and the top flange of the steel beam shall be plugged. Beam surfaces must be clean and free of dirt, loose scale, and oil. Min average density of 13 pcf with min. individual density of 11 pcf for Types II, II HS, or DC/F. Min average and min individual densities of 22 pcf and 19 pcf, respectively, for type HP. For method of density determination, refer to Design Information Section. The thickness of the Spray-Applied Fire Resistive Materials on the Structural Members (Item 1, 1A, or 1B) shall be as follows:

Min Thkns Spray Applied Resistive Mtl, In

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Concrete Type	W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	W8x28 When Deck Is Blend or All Cellular	Joist Item 1A When Deck Is Fluted Cellular or Blend	Joist Item 1B When Deck Is Fluted Cellular or Blend
1	1	NW	9/16,15/16*	9/16, 1*	3/8,5/8*	3/8,11/16*	1+	—
1-1/2	1	NW	9/16,15/16*	9/16, 1*	3/8,5/8*	3/8,11/16*	1-9/16	—
2	1	NW	9/16,15/16*	9/16, 1*	3/8,5/8*	3/8,11/16*	2-1/16	—
2	2	NW	1-1/8	1-3/16	3/4	13/16	2-1/16	—
2	3	NW	1-3/4	1-7/8	1-3/16	1-5/16	—	3-1/4
3	1-1/2	NW	3/4	3/4	1/2	1/2	—	3-1/4
3	2	NW	1-1/8	1-3/16	3/4	13/16	—	3-1/4
3	3	NW	1-3/4	1-7/8	1-3/16	1-5/16	—	3-1/4
1	1	LW	9/16,15/16*	5/8, 1*	3/8,5/8*	7/16,11/16*	1-1/8+	—
1-1/2	1	LW	9/16,15/16*	5/8, 1*	3/8,5/8*	7/16,11/16*	1-3/4	—
2	1	LW	9/16,15/16*	5/8, 1*	3/8,5/8*	7/16,11/16*	2-1/4	—
2	2	LW	1-7/16	1-7/16	1	1	2-1/4	—
2	3	LW	2-1/4	2-5/16	1-9/16	1-5/8	—	3-1/4
3	1-1/2	LW	15/16	1	5/8	11/16	—	3-1/4
3	2	LW	1-7/16	1-7/16	1	1	—	3-1/4
3	3	LW	2-1/4	2-5/16	1-9/16	1-5/8	—	3-1/4

* This thickness applies when optional Item 12 or 13 are used over 3-1/4 in. light weight concrete topping.

** This thickness applies when optional Item 12 or 13 are used over 3-1/4 in. light weight concrete topping.

+ When bottom chords consist of 1 by 1 by 0.125 in. thick steel angles, the thickness of spray-applied fire resistive material shall be increased by 1/4 in. on the bottom chord only.

ISOLATEK INTERNATIONAL — Type D-C/F, HP, II or Type II HS. Investigated for exterior use. Type EBS or Type X adhesive/surface sealer optional.

6A. **Spray-Applied Fire Resistive Materials* —** Alternate to Item 6. See table below for appropriate thicknesses. When fluted steel deck is used and the fire protection thickness selected is based on all fluted deck, the area between the steel deck and the top flange of the steel beam shall be filled. When fluted steel deck is used and the steel beam is sprayed with the thicknesses applicable to cellular or blended units, the area between the steel deck and the top flange of the steel beam shall be plugged. Prepared by mixing with water and spray-applied in one or more coats to beam surfaces which must be clean and free of dirt, loose scale and oil. Min average density of 17.5 pcf with min individual value of 17.0 pcf. For method of density determination, see Design Information Section, Sprayed Material.

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Min Thkns Applied Resistive Mtl, In — W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	W8x28 When Deck Is Blend or All Cellular
1, 1-1/2, 2	1	1/2, 5/8*	1/2, 5/8*	5/16, 7/16*	5/16, 7/16*
2	2	1	1-3/16	11/16	13/16
2	3	1-9/16	1-7/8	1-1/16	1-5/16
3	1-1/2	3/4	13/16	1/2	9/16
3	2	1	1-3/16	11/16	13/16
3	3	1-9/16	1-7/8	1-1/16	1-5/16

* This thickness applies when optional Items 12, 13 are used over 3-1/4 in. light weight concrete topping.

ISOLATEK INTERNATIONAL — Type 280

6B. **Spray-Applied Fire Resistive Materials* —** Alternate to Items 6 and 6A. Prepared by mixing with water. Spray-applied in one or more coats to beam surfaces to a min final thickness as shown in the tables below. Beam surfaces must be clean and free of dirt, loose scale and oil. When fluted steel deck is used and the fire protection thickness selected is based on all fluted deck, the area between the steel deck and the top flange of the steel beam shall be filled. When fluted steel deck is used and the steel beam is sprayed with the thicknesses applicable to cellular or blended units, the area between the steel deck and the top flange of the steel beam shall be plugged.
Min average and min individual density of 15 pcf and 14 pcf respectively for Types 300, 300AC, 300 ES, 300 HS, 300 N, 3000, 3000ES, and SB. For Types 400, 400 AC and 400 ES min average and min individual density of 22 pcf and 19 pcf respectively. Min avg density of 44 pcf with min ind value of 40 pcf for Types M-II and TG. Min avg density of 47 pcf, with min individual value of 43 pcf for Type M-II/P. The thickness of the material on the Structural Members (Item 1 and 1C) shall be as follows:

Min Thkns Spray Applied Resistive Mtl, In

Restrained Assembly Rating Hr	Unrestrained Beam Rating Hr	W6x9 When Deck Is All Fluted	W6x9 When Deck Is Blend or All Cellular	W8x28 When Deck Is All Fluted	W8x28 When Deck Is Blend or All Cellular	Joist (Item 1C) When Deck Is Fluted Cellular or Blend
1	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	9/16+
1-1/2	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	1
2	1	1/2 , 5/8*	1/2 , 5/8*	5/16, 7/16*	5/16, 7/16*	1-3/8
2	2	1	1-3/16	11/16	13/16	1-3/8
2	3	1-9/16	1-7/8	1-1/16	1-5/16	2-1/4
3	1-1/2	3/4	13/16	1/2	9/16	2-1/4
3	2	1	1-3/16	11/16	13/16	2-1/4
3	3	1-9/16	1-7/8	1-1/16	1-5/16	2-1/4

* This thickness applies when optional Item 12 or 13 are used over 3-1/4 in. light weight concrete topping.

+ When bottom chords consist of 1 in. by 1 in. by 0.125 in. thick steel angles, the thickness of spray-applied fire resistive material shall be increased by 1/4 in. on the bottom chord only.

BERLIN CO LTD — Types 300, 300ES, 300N, SB, or 400; Type M-II, TG and M-II/P

GREENTECH ASIA PACIFIC SDN BDH — Types 300, 300ES, 300HS, or 400; Type M-II, or M-II/P

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Types 300, 300AC, 400, or 400AC; Type M-II, TG and M-II/P

ISOLATEK INTERNATIONAL — Types 300, 300AC 300ES, 300HS, 300N, SB, 400, 400AC, 400ES, 3000 or 3000ES; Type M-II, TG and M-II/P

NEWKEM PRODUCTS CORP — Types 300, 300ES, 300N, 400, or SB; Type M-II, TG and M-II/P

6C. **Intumescent Fire-resistive Materials * —** As an alternate to Items 6 through 6B. For use with fluted steel floor and form units only. Min. size W8x24 or W6x12 beams shall be primed with a phenolic modified alkyd primer, a metal alkyd primer, an acrylic primer or an epoxy primer at a nominal thickness of 2 mil. Coating spray or brush applied in accordance with the manufacturer's instructions at the min dry thickness as shown in the table below. The thickness shown below includes the primer thickness. Flutes above beam to be completely filled with minimum 6 pcf mineral wool insulation, or the top flange of the beam to be protected with the same thickness of coating as required on the beam.

Minimum Dry Thickness mils	Minimum Dry Thickness mm	Beam Size	Unrestrained Beam Rating Hr	Restrained Assembly Rating Hr
53	1.34	W8x24	1	2
95	2.41	W8x24	1-1/2	3
73	1.83	W6x12	1	2
123	3.10	W6x12	1-1/2	3

BERLIN CO LTD — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB4, Investigated for Exterior Use with top coat as described in Item 6E

GREENTECH ASIA PACIFIC SDN BDH — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB4, Investigated for Exterior Use with top coat as described in Item 6E

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB4, Investigated for Exterior Use with top coat as described in Item 6E

ISOLATEK INTERNATIONAL — Type SprayFilm-WB 3 and Type WB 3. Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB 4, Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB4, Investigated for Exterior Use with top coat as described in Item 6E

NEWKEM PRODUCTS CORP — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB4, Investigated for Exterior Use with top coat as described in Item 6E

6D. **Intumescent Fire-resistive Materials * —** As an alternate to Items 6 through 6C. For use with normal weight concrete. Min. size W8x28 beams shall be primed with a phenolic modified alkyd primer a metal alkyd primer, an acrylic primer or an epoxy primer at a nominal thickness of 2 mil. Coating spray or brush applied in accordance with the manufacturer's instructions at the min dry thickness as shown in the table below. The thickness shown below includes the primer thickness. The top surface of the top flange where fluted units are used must be protected with the coating material at the same min dry thickness at a min distance of 1 in. (25 mm) inward from the flange tip on both sides of the beam. Mineral wool insulation optional above top surface of the beam.

Minimum Dry Thickness mils	Minimum Dry Thickness mm	Steel Floor Units	Unrestrained Beam Rating Hr	Restrained Assembly Rating Hr
103	2.62	Fluted or Cellular	1-1/2	2
179	4.55	Cellular	1-1/2	3
341	8.67	Cellular	2	3

BERLIN CO LTD — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Exterior Use with top coat as described in Item 6E

GREENTECH ASIA PACIFIC SDN BDH — Type WB 3, Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Exterior Use with top coat as described in Item 6E

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type WB 3, Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB 4, Investigated for Exterior Use with top coat as described in Item 6E

ISOLATEK INTERNATIONAL — Type SprayFilm-WB 3 and Type WB 3. Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB 4, Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB 4, Investigated for Exterior Use with top coat as described in Item 6E

NEWKEM PRODUCTS CORP — Type WB 3. Investigated for Interior General Purpose. Type WB 4, Investigated for Interior General Purpose. Type WB4, Investigated for Exterior Use with top coat as described in Item 6E

6E. **Top Coat —** Type SprayFilm — TOPSEAL and Type TOPSEAL required for Exterior Use, applied at a minimum dry thickness of 14 mils (0.34 mm) over the intumescent material.
See Classification information in the **Mastic and Intumescent Coating** (CDWZ) category, Isolatek International, for mixing requirements.

6F. **Intumescent Fire-resistive Materials * —** As an alternate to Items 6 through 6D. For use with normal weight or light weight concrete and fluted steel floor and form units only. Min size W8x24 beams shall be primed with a phenolic modified alkyd primer at a thickness of 2 mils or a epoxy primer at a nominal thickness of 1 mil. Coating spray or brush applied in accordance with the manufacturer's instructions at the thicknesses shown below. The thickness includes the thickness of primer. The top surface of the top flange where fluted units are used must be protected with the coating material at the same min dry thickness or filled with nominal 4 pcf mineral wool.

Minimum Dry Thickness mils	Minimum Dry Thickness mm	Beam Size	Unrestrained Beam Rating Hr	Restrained Assembly Rating Hr
35	0.88	W8x24	1	2
66	1.68	W8x24	1-1/2	3

GREENTECH ASIA PACIFIC SDN BDH — Type WB-5. Investigated for Interior General Purpose

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type WB-5. Investigated for Interior General Purpose

ISOLATEK INTERNATIONAL — Type WB-5. Investigated for Interior General Purpose

NEWKEM PRODUCTS CORP — Type WB 5, Investigated for Interior Conditioned Space and Interior General Purpose.

6G. **Sprayed Fiber Insulation* —** (Optional, Not Shown) — Spray applied fiber insulation applied over Spray-Applied Fire Resistive Material (Item 6) on both steel floor and form units (Item 4) and supports (Item 1). Sprayed fiber insulation may be over Spray-Applied Fire Resistive Material (Item 6) according to the following tables:

Allowable Spray-Applied Fiber Insulation Thickness Over Beam

Installed SFRM Thickness (in.) on Beam	SFRM Density (pcf) 13	15	17.5	22	22 (Type HP)	44	47
3/8	6-3/4	4	4-11/16	5-7/8	8	8	8
7/16	6-1/2	3-3/4	4-3/8	5-1/2	8	8	8
1/2	6-1/4	3-1/2	4-1/16	5-1/8	8	8	8
9/16	6-1/16	3-3/16	3-3/4	4-11/16	8	8	8
5/8	5-13/16	2-15/16	3-7/16	4-5/16	8	8	8
11/16	5-9/16	2-11/16	3-1/8	3-15/16	8	8	8
3/4	5-5/16	2-7/16	2-13/16	3-9/16	8	8	8
13/16	5-1/8	2-1/8	2-1/2	3-1/8	8	8	8
1	4-7/16	1-5/16	1-9/16	1-15/16	7-7/16	6-5/16	6-11/16
1-1/16	4-3/16	1-1/16	1-1/4	1-9/16	7-1/16	5-1/2	5-7/8
1-3/16	3-11/16	9/16	5/8	13/16	6-5/16	3-15/16	4-3/16
1-5/16	3-1/4	0	0	0	5-1/2	2-3/8	2-1/2
1-9/16	2-5/16	0	0	0	3-15/16	0	0
1-5/8	2-1/16	0	0	0	3-9/16	0	0

Allowable Spray-Applied Fiber Insulation Thickness Over Joist

Installed SFRM Thickness (in.) on Joist	SFRM Density (pcf) 13	15	22	22 (Type HP)	44	47
9/16	8	8	8	8	8	8
13/16	8	8	8	8	8	8
1	8	8	8	8	8	8
1-1/8	7-7/8	7-1/2	8	8	8	8
1-1/4	7-7/16	6-15/16	8	8	8	8
1-3/8	6-15/16	6-7/16	8	8	8	8
1-9/16	6-1/4	5-5/8	8	8	8	8
1-3/4	5-9/16	4-13/16	7-1/16	8	8	8
2-1/16	4-7/16	3-1/2	5-1/8	7-7/16	8	8
2-1/4	3-11/16	2-11/16	3-15/16	6-5/16	7-7/8	8
3-1/4	0	0	0	0	0	0

INTERNATIONAL CELLULOSE CORP — Type K13, URE-K, or Sonospray FC

6H. **Sprayed Fiber Insulation* —** (Optional, Not Shown) — Spray applied fiber insulation, Classified for Noncombustible Building Materials (BICW), having a maximum applied density of 3.5 pcf, applied over Spray-Applied Fire Resistive Material (Item 6) on both steel floor and form units (Item 4) and supports (Item 1). Sprayed fiber insulation may be over Spray-Applied Fire Resistive Material (Item 6) according to the following tables:

Allowable Spray-Applied Fiber Insulation Thickness Over Beam

Installed SFRM Thickness (in.) on Beam	SFRM Density (pcf) 13	15	17.5	22	22 (Type HP)	44	47
5/16	5	5	5	5	5	5	5
3/8	5	5	5	5	5	5	5
7/16	5	5	5	5	5	5	5
1/2	5	5	5	5	5	5	5
9/16	5	5	5	5	5	5	5
5/8	5	5	5	5	5	5	5
11/16	5	5	5	5	5	5	5
3/4	5	4 13/16	5	5	5	5	5
13/16	5	4 9/16	5	5	5	5	5
15/16	5	4	4 11/16	5	5	5	5
1	4 7/8	3 3/4	4 3/8	5	5	5	5
1 1/16	4 5/8	3 1/2	4 1/16	5	5	5	5
1 1/8	4 7/16	3 3/16	3 3/4	4 11/16	5	5	5
1 3/16	4 3/16	2 15/16	3 7/16	4 5/16	5	5	5
1 5/16	3 11/16	2 7/16	2 13/16	3 9/16	5	5	5
1 7/16	3 1/4	1 7/8	2 3/16	2 3/4	5	5	5
1 9/16	2 13/16	1 5/16	1 9/16	1 15/16	4 11/16	3 15/16	4 3/16
1 5/8	2 9/16	1 1/16	0	1 9/16	4 5/16	3 1/8	3 3/8
1 3/4	2 1/16	9/16	0	13/16	3 9/16	1 9/16	1 11/16
1 7/8	1 5/8	0	0	0	2 3/4	0	0
2 1/4	1/4	0	0	0	3/8	0	0
2 5/16	0	0	0	0	0	0	0

Allowable Spray-Applied Fiber Insulation Thickness Over Joist

Installed SFRM Thickness (in.) on Joist	SFRM Density (pcf) 13	15	22	22 (Type HP)	44	47
9/16	5	5	5	5	5	5
13/16	5	5	5	5	5	5
1	5	5	5	5	5	5
1 1/8	5	4 13/16	5	5	5	5
1 1/4	5	4 5/16	5	5	5	5
1 3/8	5	3 3/4	5	5	5	5
1 9/16	5	2 15/16	4 5/16	5	5	5
1 3/4	5	2 1/8	3 1/8	5	5	5
2 1/16	5	13/16	1 3/16	5	5	5
2 1/4	5	0	0	5	5	5
3 1/4	0	0	0	0	0	0

THERMACOUSTICS IND — Type TC-417

7. **Shear Connector Studs —** (Optional) — Studs, 3/4 in. diam by 3 in. long, for 1-1/2 in. deep form units to 5-1/4 in. long for 3 in. deep form units, headed type or equivalent per AISC specifications. Welded to the top flange of the beam through the steel form units.

8. **Lath Hanger —** (Optional, Not Shown) For use in caged beams with Items 6, 6A or 6B Galv steel 6 SWG min diam spaced 27 in. O. C.

9. **Clips —** (Optional, Not Shown) For use in caged beams with Items 6, 6A or 6B No. 24 MSG spring steel pushed on to top and bottom flanges of beam spaced 6 in. O. C. max.

10. **Metal Lath —** (Optional, Not Shown) — For use in caged beams with Items 6, 6A or 6B 3/8 in. diamond mesh or rib lath, 3.4 lbs per sq yd expanded steel attached to beam with clips spaced 6 in. OC max; or tied to lath hangers with 18 SWG galv steel wire spaced 6 in. OC max.

11. **Electrical Inserts* —** (Not Shown) — Classified as "Outlet Boxes and Fittings Classified for Fire Resistance".

12. **Mineral and Fiberboards* —** (Optional, Not Shown. Not for use with Item 4A) — Applied over concrete floor with no restriction on board thickness. When mineral and fiber boards are used, the unrestrained beam rating shall be increased by a minimum of 1/2 hr.
See **Mineral and Fiber Board** (CERZ) category for names of manufacturers.

13. **Foamed Plastic* —** (Optional, Not Shown. Not for use with Item 4A) — Consisting of polyisocyanurate or urethane roof insulations. Applied over concrete floor with no restrictions on thickness. When polyisocyanurate or urethane insulation is used, the unrestrained beam rating shall be increased by a minimum of 1/2 hr.
See **Foamed Plastic** (CCVW) for list of manufacturers.

14. **Insulating Concrete —** (Optional, Not Shown) — Various types of insulating concrete prepared and applied as follows:
A. Vermiculite Concrete - Blend 6 to 8 cu ft of **Vermiculite Aggregate*** to 94 lb Portland cement and air entraining agent. Min thickness of 2 in. as measured to the top surface of the structural concrete or foamed plastic (Item 15) when it is used. See **Vermiculite Aggregate** (CJZZ) category for names of Classified companies.

B. Cellular **Concrete-Roof Topping Mixture*** - Concentrate mixed with water and Portland cement per manufacturer's specifications. Min. thickness of 2-in. as measured to the top surface of the structural concrete or foamed plastic (Item 15 and 15A) when used. Cast dry density and 28-day min compressive strength of 190 psi as determined with ASTM C495-66.

AERIX INDUSTRIES — Cast dry density of 37 (+ or -) 3.0 pcf

CELCORE INC — Type Celcore with cast dry density of 31 (+ or - 3.0) pcf or Type Celcore MF with cast dry density of 29 (+ or - 3.0) pcf

ELASTIZELL CORP OF AMERICA — Type II, with a cast dry density of 39 (+ or - 3.0) pcf

SIPLAST INC — Mix #1, Cast dry density of 32 (+ or -) 3 pcf

SIPLAST INC — Mix #2, Cast dry density of 36 (+ or -) 3 pcf

C. Cellular **Concrete-Roof Topping Mixture*** - Foam concentrate mixed with water, Portland cement and UL Classified Vermiculite Aggregate per manufacture's application instructions. Cast dry density of 33 (+ or -) 3 pcf and 28 day compressive strength of min 250 psi as determined in accordance with ASTM C495-86.

AERIX INDUSTRIES — Mix #3

ELASTIZELL CORP OF AMERICA — Type II. Mix #1 of cast dry density 39 (+ or -) 3.0 pcf, Mix #2 of cast dry density 40 (+ or -) 3.0 pcf, Mix #3 of cast dry density 47 (+ or -) 3.0 pcf

SIPLAST INC — Mix #3

D. Perlite Concrete - 6 cu ft of **Perlite Aggregate*** to 94 lb of Portland Cement and 1-1/2 pt air entraining agent. Min thickness 2 in. as measured to the top surface of structural concrete or foamed plastic (Item 15A) when it is used.

See **Perlite Aggregate** (CFFX) in Fire Resistance Directory for names of Classified companies.

15. **Foamed Plastic* —** (Optional, Not Shown) — For use only with vermiculite (Item 14A) or cellular (Item 14B) concretes-Rigid polystyrene foamed plastic insulation having slots and/or holes sandwiched between vermiculite concrete slurry which is applied to the normal or light weight concrete surface and vermiculite concrete topping (Item 14A).
See **Foamed Plastic*** (BRYX) category in Building Materials Directory or **Foamed Plastic*** (CCVW) Category in Fire Resistance Directory for list of Classified companies.

15A. **Foamed Plastic* —** (Not Shown) — For use only with cellular or perlite concrete. Nominal 24 by 48 in. polystyrene foamed plastic insulation boards having a density of 1.0 (+ or - 0.1) pcf, encapsulated within concrete topping. Each insulation board shall contain six nominal 3 in. diameter holes oriented in two rows of three holes each with the holes spaced 12 in. OC transversely and 16 in. OC longitudinally.
See **Foamed Plastic*** (BRYX) category in Building Materials Directory or Foamed Plastic* (CCYW) category in Fire Resistance Directory for list of Classified companies.

16. **Roof Covering Materials* —** (Optional, Not Shown) — Consisting of materials compatible with insulations described herein which provide Class A, B or C coverings.
See Built-Up Roof Covering Materials in Building Materials Directory.

17. **Insulated Concrete —** (Optional, Not Shown) — various types of insulated concrete prepared and applied in the thickness indicated.
A. **Vermiculite Concrete —** Mix consists of 6 cu ft of Vermiculite Aggregate*, 94 lbs of Portland cement and 6 ox of air entraining agent. Thickness to be 2 in min from the top plane of steel roof deck.
ELASTIZELL CORP OF AMERICA — Types MS16-U, MSV 200.

B. **Perlite Concrete —** Mix consists of 6.2 cu ft **Perlite Aggregate*** to 94 lbs of Portland cement and 1-1/2 pt air entraining agent. Compressive strength 80 psi min.
See **Perlite Aggregate** (CFFX) category for names of Classified companies.

18. **Wall and Partition Facings and Accessories —** (Optional, Not Shown) Sound barrier for use with Items 19, 20 or 21: Acoustic Sleeper Pads stapled or adhered to the underside of the subflooring panels spaced 24 in. OC.
STC ARCHITECTURAL PRODUCTS L L C DBA STC SOUND CONTROL — Acoustic Sleeper

19. **Structural Cement Fiber Units* —** (Optional, Not Shown) - (For use with item 18) - Min 3/4 in. thick tongue and groove non-combustible structural cement fiber board loosely laid over concrete.
CORNERSTONE INNOVATIVE SPECIALTIES, LLC — Versaroc

ECTEK INTERNATIONAL INC — Armoroc Panel

UNITED STATES GYPSUM CO — USG Structural Panel

20. **Building Units* —** (Optional, Not Shown) - (For use with item 18) - Panels loosely laid over concrete.
DRAGONBOARD USA L L C — Type DragonBoard, DragonBoard Flooring

HUBER ENGINEERED WOODS L L C — Type 3/4 in. Shiplap Edge Exacor™ Board, 5/8 in. Tapered Edge Exacor™ Board, 1/2 in. Tapered Edge Exacor™ Board.

21. **Wood Structural Panels —** (Optional, Not Shown) - (For use with Item 18) - Min 23/32 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor," loosely laid over concrete, as one layer or as two layers.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2021-05-12

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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E7 **BEAM ASSEMBLY**
3" = 1'-0"

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Seal & Signature:
Robert H. Blau, AIA

Project Name:
JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:
3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

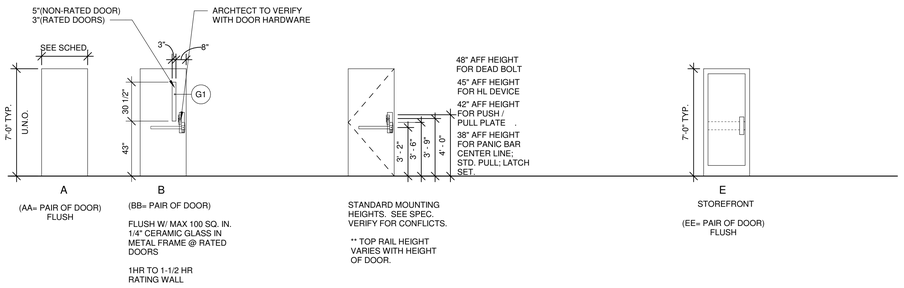
REVISIONS

No.	Description	Date

Drawing Title:
INTERIOR PARTITION SECTIONS, NOTES, DETAILS

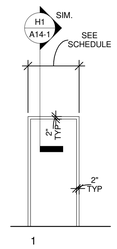
Drawing Number:
A13-4

Drawn by: Author
Checked by: Checker
Scale: 3" = 1'-0"



A1 DOOR ELEVATIONS

1/4"=1'-0" A14DOOR (120814)



A4 DOOR FRAME ELEVATIONS

1/4"=1'-0" A14FRAME (020317)

FIRST FLOOR DOOR SCHEDULE

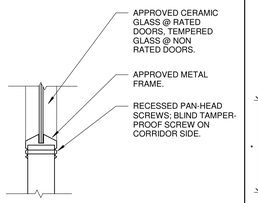
ROOM #	ROOM NAME	MARK	LABEL	ELEV.	MAT/FIN	WIDTH	FRM. ELEV.	HEAD	JAMB	SILL	REMARKS
A100	TENANT "A"	C	--	A	HM/P	3' - 8"	1	H2	H2	--	8,12,13
A100	TENANT "A"	A	45	AA	SW/S	3' - 0"	1	H1	J1	S3B	1,8,11,13
A100	TENANT "A"	D	--	A	HM/P	3' - 8"	1	H2	--	--	8,12,13
A100	TENANT "A"	F	--	A	HM/P	3' - 0"	1	H2	H2	--	8,13
A100	TENANT "A"	B	--	E		4' - 0"	--	--	--	--	12
A100	TENANT "A"	G	--	AA	HM/P	3' - 0"	1	H2	H2	--	8
A100	TENANT "A"	E	--	A	HM/P	3' - 0"	1	H2	H2	--	8,13
A100	TENANT "A"	I	--	A	HM/P	3' - 6"	1	H2	H2	--	8,13
A100	TENANT "A"	H	--	AA	HM/P	3' - 0"	1	H2	H2	--	8
B100	TENANT "B"	B	--	AA	HM/P	3' - 0"	1	H2	H2	--	12,13
B100	TENANT "B"	A	45	AA	SW/S	3' - 0"	1	H1	J1	S3B	1,8,11,13
B100	TENANT "B"	C	--	A	HM/P	3' - 0"	1	H2	H2	--	8,12,13
C100	TENANT "C"	A	45	AA	SW/S	3' - 0"	1	H1	J1	S3B	1,8,11,13
C100	TENANT "C"	B	--	A	HM/P	3' - 0"	1	H2	H2	--	8,13
S102	M. TOIL.	A	--	A	SW/S	3' - 0"	1	H1	J1	--	2,4,8
S103	F. TOIL.	A	--	A	SW/S	3' - 0"	1	H1	J1	--	2,4,8
SC100	LOBBY	A	--	EE	--	6' - 0"	--	--	--	--	
SC104	BLDG. ELEC.	A	--	A	HM/P	3' - 0"	1	H2	H2	--	8,13
SS101	STAIR #1	A	--	A	HM/P	3' - 0"	1	J2	J2	--	8,13
SS102	STAIR #2	A	--	A	HM/P	3' - 0"	1	J2	J2	--	8,13

SECOND FLOOR DOOR SCHEDULE

ROOM #	ROOM NAME	MARK	LABEL	ELEV.	MAT/FIN	WIDTH	FRM. ELEV.	HEAD	JAMB	SILL	REMARKS
C202	M. TOIL.	A	4	A	SW/S	3' - 0"	1	H1	J1	--	2,4
C203	F. TOIL.	A		A	SW/S	3' - 0"	1	H1	J1	--	2,4
S203	I.T.	A	90	A	SW/S	3' - 0"	1	H1B	H1B	S3B	4,12
S207	ELECTRICAL	A		A	SW/S	3' - 0"	1	H1	J1	S3B	4,13
S208	E.S.	A	--	A	SW/S	3' - 0"	1	H1	J1	--	2,4
SC200	LOBBY	A	45	A	SW/S	6' - 0"	1	H1	J1	--	1,3,13
SS201	STAIR #1	A	60	B	SW/S	3' - 0"	1	H1	J1	--	4,13
SS202	STAIR #2	A	60	B	SW/S	3' - 0"	1	H1	J1	--	4,13

ROOF TOP DOOR SCHEDULE

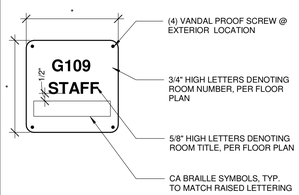
ROOM #	ROOM NAME	MARK	LABEL	ELEV.	MAT/FIN	WIDTH	FRM. ELEV.	HEAD	JAMB	SILL	REMARKS
SS301	STAIR #1	A	--	A	HM/P	3' - 0"	1	J2	J2		
SS302	STAIR #2	A	--	A	HM/P	3' - 0"	1	J2	J2		



G1 GLAZING DETAIL

3"=1'-0" A14-G1 (121114)

NOTE:
* SEE SPECIFICATION SECTION 10 14 23 FOR SIGNAGE DIMENSIONS.



G2 ROOM SIGNAGE

3" = 1'-0"

NOTES:
NFPA 101:
7.10.1.3 EXIT DOOR TACTILE SIGNAGE - TACTILE SIGNAGE SHALL BE PROVIDED TO MEET ALL OF THE FOLLOWING CRITERIA, UNLESS OTHERWISE PROVIDED IN **7.10.1.4**:
(1) TACTILE SIGNAGE SHALL BE LOCATED AT EACH EXIT DOOR REQUIRING AN EXIT SIGN.
(2) TACTILE SIGNAGE SHALL READ AS FOLLOWS: **EXIT**.
(3) TACTILE SIGNAGE SHALL COMPLY WITH **ICC/ANSI A117.1**, *AMERICAN NATIONAL STANDARD FOR ACCESSIBLE AND USABLE BUILDING AND FACILITIES.*

FBC 2020 - ACCESSIBILITY - CHAPTER 2
216.4.1 EXIT DOORS - DOORS AT EXIT PASSAGEWAYS, EXIT DISCHARGE, AND EXIT STAIRWAYS SHALL BE IDENTIFIED BY *TACTILE* SIGNS COMPLYING WITH **703.1, 703.2**, AND **703.5**.

FBC 2020 - ACCESSIBILITY - CHAPTER 7
1. SIGNAGE IS NOT IN CONTRACT, HOWEVER MUST BE PROVIDED PRIOR TO OCCUPANCT. SIGNAGE MUST MEET THE MIN. REQUIRMENTS. NOT HERE AND IN THE FAC **SECT. 703**.

703.2.3 STYLE - CHARACTERS SHALL BE CONVENTIONAL IN FORM. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

703.2.4 CHARACTER WIDTH - THE UPPERCASE LETTER "O" SHALL BE USED TO DETERMINE THE ALLOWABLE WIDTH OF ALL CHARACTERS OF A FONT. THE WIDTH OF THE UPPERCASE LETTER "O" OF THE FONT SHALL BE 55 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE "I" OF THE FONT. SEE **TABLE 703.2.4**.

703.2.5 CHARACTER HEIGHT - THE UPPER LETTER "I" SHALL BE USED TO DETERMINE THE ALLOWABLE HEIGHT OF ALL CHARACTERS OF A FONT. THE UPPERCASE LETTER "I" OF THE FONT SHALL HAVE A MINIMUM HEIGHT COMPLYING WITH TABLE **703.2.4**. VIEWING DISTANCE SHALL BE MEASURED AS THE HORIZONTAL DISTANCE BETWEEN THE CHARACTER AND AN OBSTRUCTION PREVENTING FURTHER APPOARCH TOWARDS THE SIGN.

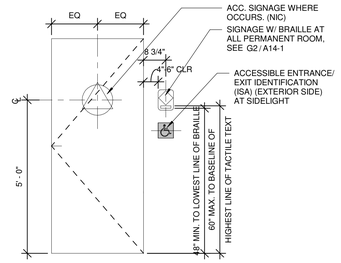
703.3 BRAILLE - SHALL COMPLY WITH **703.3** AND **703.4**.

703.4.1 MOUNTING HEIGHT - BRAILLE SHALL BE 48 INCHES MINIMUM AND 60 INCHES MAXIMUM ABOVE THE FLOOR, MEASURED TO THE BASELINE OF THE BRAILLE CELLS.

703.5.1 FINISH AND CONTRAST - CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NONGLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND, OR DARK CHARACTERS ON A LIGHT BACKGROUND.

703.6 PICTOGRAMS

703.6.1 PICTROGRAM FIELD - PICTOGRAMS SHALL HAVE A FIELD 6 INCHES MINIMUM IN HEIGHT. CHARACTERS OR BRAIL SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.



G4 ACCESS - DOOR SIGNAGE

1/2" = 1'-0"

X ASTRAGAL DETAIL

12" = 1'-0"

THE DOOR SYMBOL IS LOCATED IN THE ROOM THAT THE DOOR IS ASSOCIATED WITH.

B4 DOOR SYMBOL ASSOCIATION

1/4"=1'-0" A14ASSOC (121114)

H2 HEAD DETAIL (JAMB SIMILAR)

3" = 1'-0"

H1A DOOR HEAD

3"=1'-0" A14-H1A (020717)

H1 DOOR HEAD

3"=1'-0" A14-H1 (022717)

J2 JAMB DETAIL (HEAD SIMILAR)

3" = 1'-0"

H1B DOOR HEAD (JAMB SIMILAR)

3" = 1'-0"

J1B JAMB DETAIL

3"=1'-0" A14-J1B (121114)

J1A DOOR JAMB (HEAD SIMILAR)

3"=1'-0" A14-J1A (121114)

J1 DOOR JAMB (HEAD SIMILAR)

3"=1'-0" A14-J1 (020717)

DOOR SCHEDULE LEGEND

FIELD	DEFINITION
ROOM #	NUMBER OF ROOM DOOR IS ASSOCIATED WITH; SEE "DOOR SYMBOL ASSOCIATION"
ROOM NAME	NAME OF ROOM DOOR IS ASSOCIATED WITH; SEE "DOOR SYMBOL ASSOCIATION"
MARK	IDENTIFICATION OF SPECIFIC DOOR WITHIN A ROOM. DOORS MARKED 'E' ARE EXISTING.
LABEL	REQUIRED FIRE RESISTANCE LABEL FOR DOOR AND FRAME ASSEMBLY
ELEV.	ELEVATION; SEE "DOOR ELEVATIONS"
MAT./FINISH	MATERIAL AND FINISH; SEE BELOW FOR ABBREVIATIONS
WIDTH	WIDTH OF DOOR IN FEET AND INCHES
FRAME ELEV.	FRAME ELEVATION; SEE "DOOR AND HOLLOW METAL WINDOW ELEVATIONS"
HEAD	REFER TO INDICATED HEAD DETAIL
JAMB	REFER TO INDICATED JAMB DETAIL
SILL	REFER TO INDICATED SILL DETAIL
REMARKS	REFER TO REMARKS LEGEND
*	SEE REMARKS

LABEL	DEFINITION
3	3 HOUR RATED ASSEMBLY (180 MINUTE)
90	90 MINUTE RATED ASSEMBLY. 450° MAX. TEMP. RISE ON ALL DOORS IN STAIRS AND EXIT PASSAGEWAYS
60	60 MIN. RATED ASSEMBLY. 450° MAX. TEMP. RISE ON ALL DOORS IN STAIRS AND EXIT PASSAGEWAYS
45	45 MINUTE RATED ASSEMBLY
20	20 MINUTE RATED ASSEMBLY
20C	20 MINUTE CERTIFIED FIRE DOOR AND FRAME FOR ACROSS CORRIDOR SMOKE DOORS, PATIENT ROOM DOORS AND EMERGENCY RELEASE DOORS

MATERIALS	DEFINITION
AL	ALUMINUM
CL	CHAIN LINK
HM	HOLLOW METAL
HW	HOLLOW CORE WOOD
PW	PANEL WOOD
SW	SOLID CORE WOOD
X	EXISTING

FINISH	DEFINITION
A	ANODIZED ALUMINUM
C	CLEAR SEALED
K	SPECIAL COATING; SEE REMARKS
L	PLASTIC LAMINATE
P	PAINT
S	STAINED AND SEALED
X	EXISTING

DOOR SCHEDULE REMARKS

1. DOOR TO BE 8' - 0" HIGH.
2. UNDERCUT DOOR 3/4".
3. MAGNETIC DOOR HOLDER.
4. DELAYED ACTION CLOSER.
5. AUTOMATIC DOOR OPERATOR.
6. FOR FRAME ELEVATION, HEAD, JAMB, AND SILL SEE DWG. A15-1.
7. BUTT DETAIL SHALL BE SIMILAR TO J1A, STRIKE DETAIL SHALL BE J1.
8. DOOR SHALL HAVE SOUND/ LIGHT SEAL GASKETS ALL AROUND. SEE HARDWARE SPECIFICATION SECTION 087100.
9. DOOR SHALL BE SOUND RATED. SEE WOOD DOOR SPECIFICATION SECTION 082100.
10. SEE DRAWINGS A6 AND A17 FOR DOOR LOCATION.
11. SEE DETAILS B3 AND C3/A20-1 FOR BUILD-OUT CASEWORK ON LOBBY SIDE OF DOOR.
12. CARD READER / KEYPAD ACCESS.
13. DOOR SHALL HAVE SINGLE OPERATION EGRESS HARDWARE.
14. DOOR SHALL HAVE ASTRAGAL, SEE DETAIL X/A14-1.

S13 METAL DOOR FRAME SILL DETAIL

3"=1'-0" A14-S13 (071423)

S3B TILE TO SEALED CONCRETE

3"=1'-0" A14-S3B (020717)

S4b2 EXTERIOR THRESHOLD

3"=1'-0" A14-S4b2 (020415)

S3 CONCRETE TO VINYL

3"=1'-0" A14-S3(030215)

E5 ACCESSIBILE PUSH PANEL - BOLLARD DETAIL

3"=1'-0" AS3-008 (030415)

Project Architect:

MBA

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AR0013034
T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date
4	ASI #1	01/15/24

Drawing Title:

DOOR SCHEDULE, ELEVATIONS, DETAILS, NOTES

Drawing Number:

A14-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

1/26/2024 9:56:03 AM
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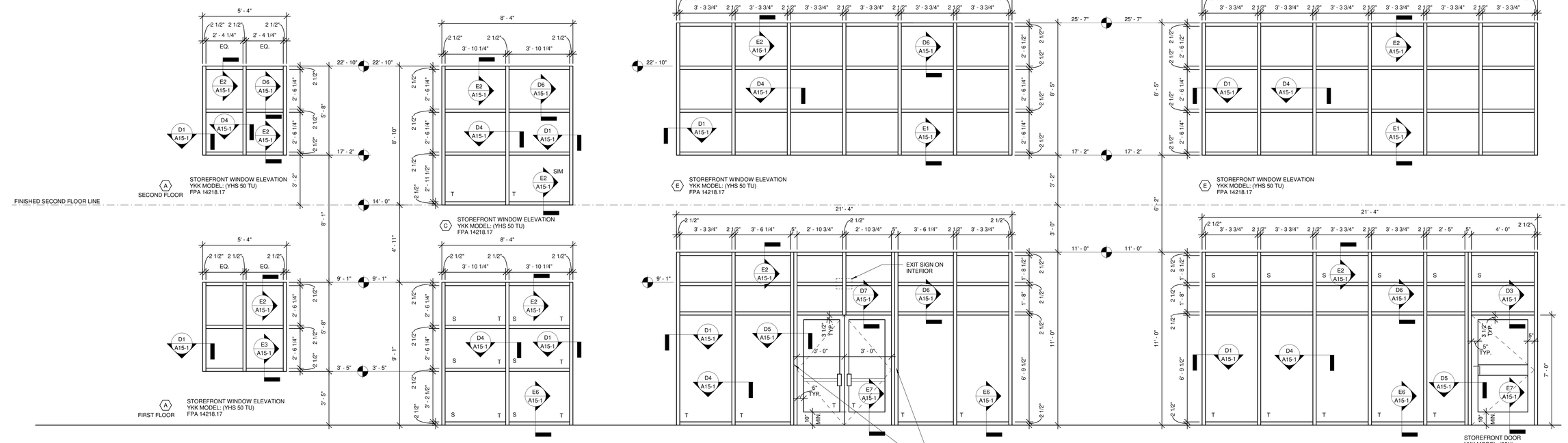
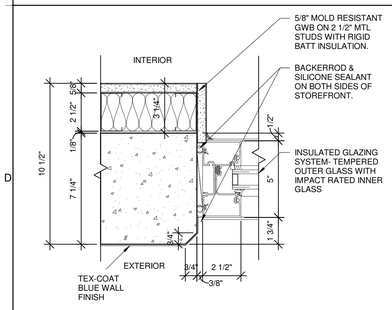
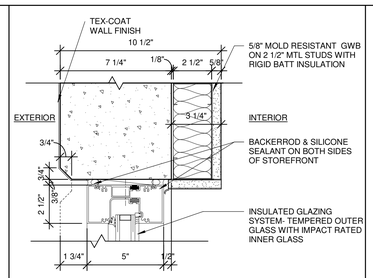


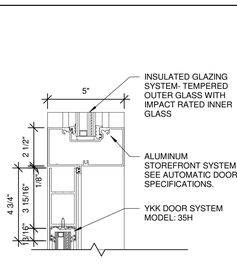
C1 STOREFRONT ELEVATIONS
3/8" = 1'-0"



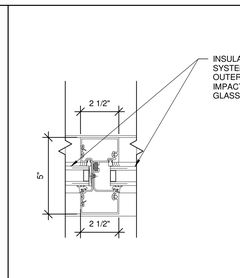
D1 STOREFRONT JAMB DETAIL
3" = 1'-0" — YKK MODEL: (YHS 50 TU)



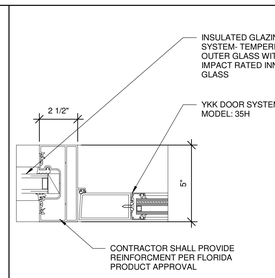
D2 EXTERIOR STOREFRONT HEAD
3" = 1'-0" — BWS = 150 MPH (Vult)



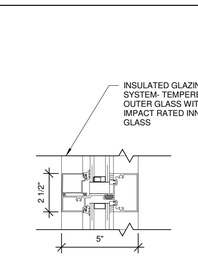
D3 STOREFRONT DOOR HEAD
3" = 1'-0" — YKK MODEL: (YHS 50 TU)



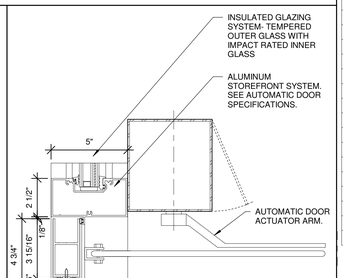
D4 STOREFRONT TYP. VERT. MULLION
3" = 1'-0" — YKK MODEL: (YHS 50 TU)



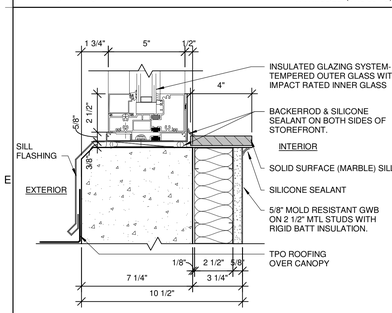
D5 STOREFRONT DOOR JAMB
3" = 1'-0" — YKK MODEL: (YHS 50 TU)



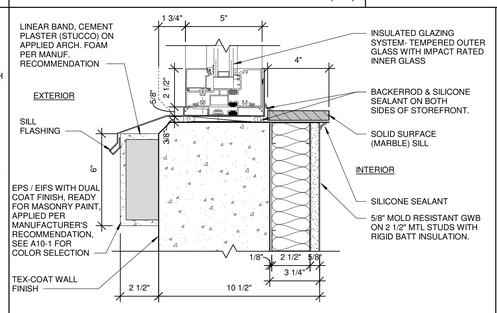
D6 STOREFRONT TYP. HORIZ. MULLION
3" = 1'-0" — YKK MODEL: (YHS 50 TU)



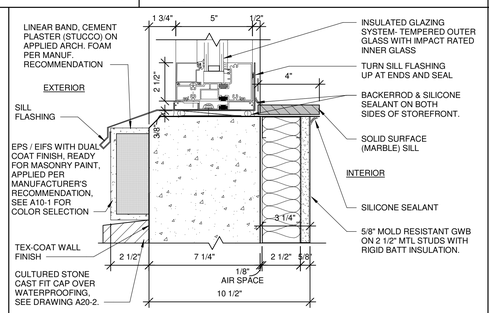
D7 STOREFRONT WINDOW/DOOR HEAD
3" = 1'-0" — YKK MODEL: (YHS 50 TU)



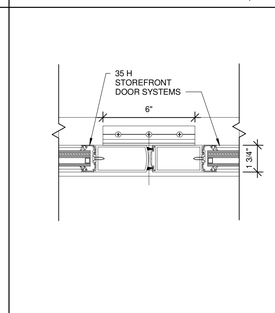
E1 EXTERIOR STOREFRONT SILL AT CANOPY
3" = 1'-0" — BWS = 150 MPH (Vult)



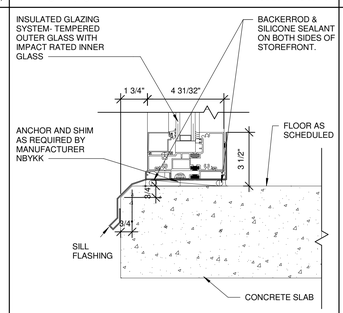
E2 EXTERIOR STOREFRONT WINDOW DETAIL
3" = 1'-0" — BWS = 150 MPH (Vult)



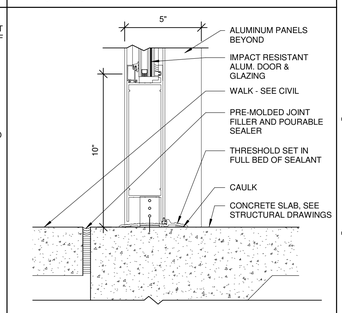
E3 EXTERIOR STOREFRONT WINDOW DETAIL
3" = 1'-0" — BWS = 150 MPH (Vult)



E5 DOUBLE DOOR DETAIL
3" = 1'-0" — YKK MODEL: (35 H)



E6 STOREFRONT SILL ON SLAB
3" = 1'-0" — YKK MODEL: YHS 50 TU



E7 STOREFRONT DOOR AT FLOOR
3" = 1'-0" — YKK MODEL: (35H)

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Project Architect:

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

WINDOW / STOREFRONT ELEVATIONS, DETAILS, NOTES

Drawing Number:

A15-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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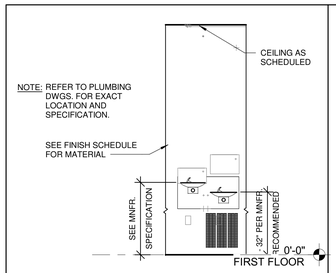
INT. ELEVATION KEY NOTES

1. E.W.C. SHALL MEET ADA REQUIREMENTS.
2. NOT USED
3. FD - FLOOR DRAIN, SEE PLUMBING DRAWINGS.
4. PROTRUDING OBSTRUCTION TUBE RAIL MATCHING THE GLASS RAIL FINISH AND STILE, SEE DETAILS B7 AND C7/A12-3
5. FURRED OUT WALL TO ENCLOSE COLUMNS SUPPORTING STAIR LANDING, SEE STRUCTURAL DRAWINGS FOR LANDING / STAIR COLUMN SUPPORT
6. MECHANICAL DUCT CHASE BEHIND WALL, SEE MECHANICAL DRAWINGS.



B4 Typical HC EWC Elevation
3/8" = 1'-0"

TOILET ACCESSORY SCHEDULE

MARK	DESCRIPTION	MFR. NUMBER	MOUNT HEIGHT	MOUNT TYPE	REMARKS
TA1	42" GRAB BAR	B6806.99	34" C.L.	SURF	1
TA2	36" GRAB BAR	B6806.99	36" C.L.	SURF	1
TA3	PAPER TOWEL DISP.	(GEORGIA PACIFIC)	40" B	SURF	*
TA4	TOILET PAPER DISP.	B6867	19" C.L.	SURF	1,3,8
TA5	MIRROR	B2908-24x36	40"	SURF	5
TA6	SOAP DISP.	B-4112	40" B	SURF	1,2,4
TA8	MOP & BROOM RACK	B239-34	72" T	SURF	1

TOILET ACCESSORY REMARKS

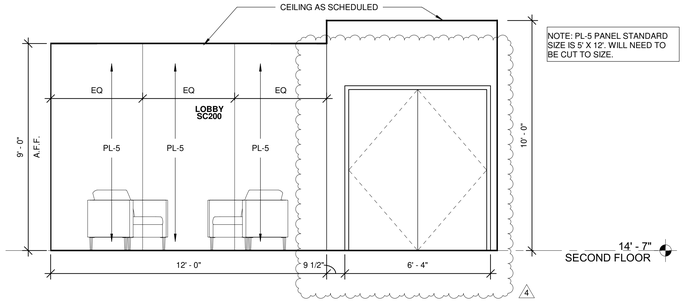
1. PROVIDE 20 GAUGE GALVANIZED STUDS AS BACK-UP FOR MOUNTING ACCESSORIES. WHERE ANCHORAGE OCCURS BETWEEN STUDS, PROVIDE A 20 GAUGE RUNNER CHANNEL BETWEEN 20 GAUGE VERTICAL STUDS. RUNNER CHANNEL FLANGES SHALL BE CUT AND BENT TO CLEAR STUDS AND THEN SECURED TO STUDS.
2. HEIGHT VARIES. SEE ELEVATIONS.
3. SEAL ALL AROUND WITH CLEAR SEALANT.
4. LOCATION SHALL BE AS APPROVED BY OWNER AND RECOMMENDED BY THE MANUFACTURER AND SHALL MEET A.D.A. REQUIREMENTS.
5. HEIGHT IS TO BOTTOM OF REFLECTIVE SURFACE.
6. SEE DETAILS ON DRAWING A13-1.
7. FULL LENGTH FROM WALL TO WALL UNLESS NOTED OTHERWISE.
8. WITH THEFT RESISTANT SPINDLE.
9. SEE ELEVATIONS FOR MOUNTING HEIGHTS.

MANUFACTURERS

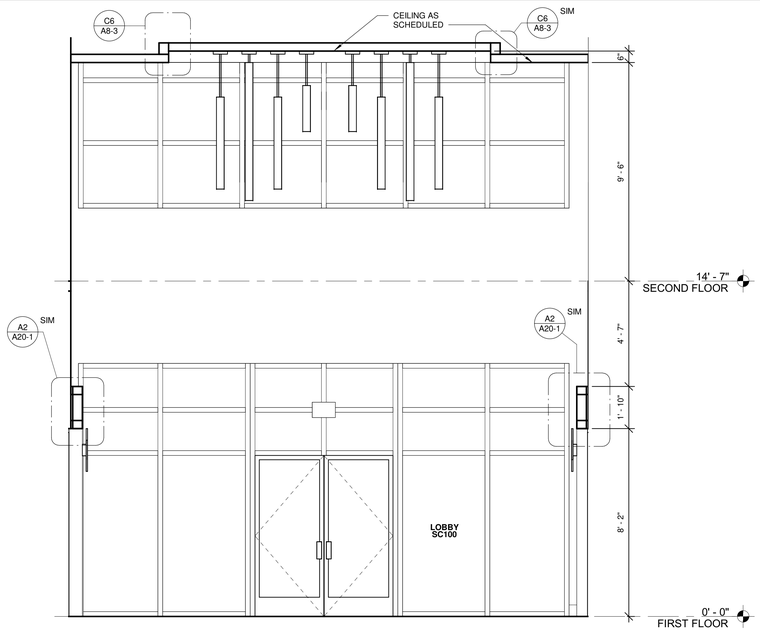
* ITEM SUPPLIED BY OWNER AND INSTALLED BY CONTRACTOR
A AMERICAN SPECIALTIES, INC.
B BOBRICK WASHROOM EQUIPMENT, INC.
C CONSTRUCTION SPECIALTIES, INC.
C/S C/S GROUP

MOUNTING HEIGHT

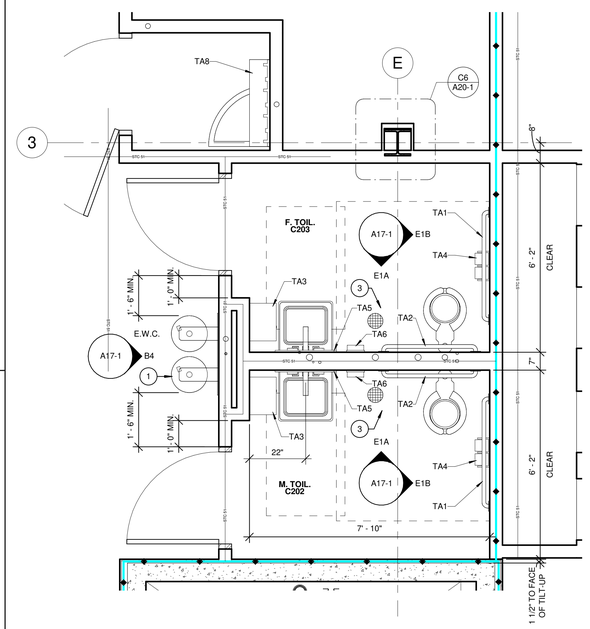
T TOP
B AT DISPENSOR OF PRODUCT
C.L. CENTER LINE



C2 SECOND FLOOR ELEVATION
3/8" = 1'-0"

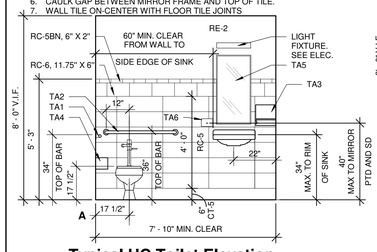


E2 LOBBY AT ENTRANCE
3/8" = 1'-0"

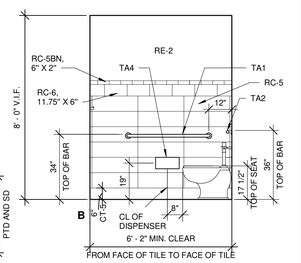


D4 SECOND FLOOR MALE AND FEMALE TOILET ROOMS
1/2" = 1'-0"

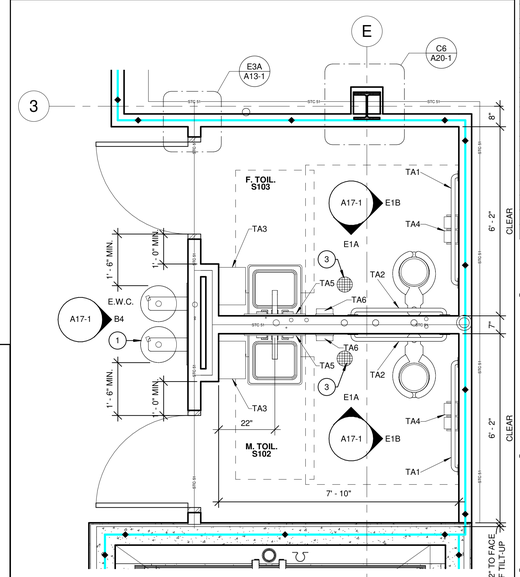
NOTES:
1. REFER TO TOILET ACCESSORY SCHEDULE FOR ADDITIONAL INFORMATION.
2. REFER TO ROOM FINISH SCHEDULE FOR WALL FINISHES.
3. REFER TO PLANS FOR ADDITIONAL CRITICAL DIMENSIONS.
4. FLUSH HANDLE ON WATER CLOSET SHALL BE ON SIDE CLOSEST TO SINK.
5. * ALL DIMENSIONS GIVEN ARE FROM FACE OF FINISH (TILE, GWB, ETC).
6. CAULK GAP BETWEEN MIRROR FRAME AND TOP OF TILE.
7. WALL TILE ON-CENTER WITH FLOOR TILE JOINTS



E1/A Typical HC Toilet Elevation
3/8" = 1'-0"
A17-ELTOILA (082218)



E1/B TYPICAL HC Toilet Elevation
3/8" = 1"-0"
NOTE: FOR TILE, COLOR, ETC., SEE ID DRAWINGS.



E7 FIRST FLOOR MALE AND FEMALE TOILET ROOMS
1/2" = 1'-0"

Project Architect:

MBA

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date
4	ASI #1	01/15/24

Drawing Title:

INTERIOR ELEVATIONS

Drawing Number:

A17-1

Drawn by: MBA
Checked by: Checker
Scale: As indicated

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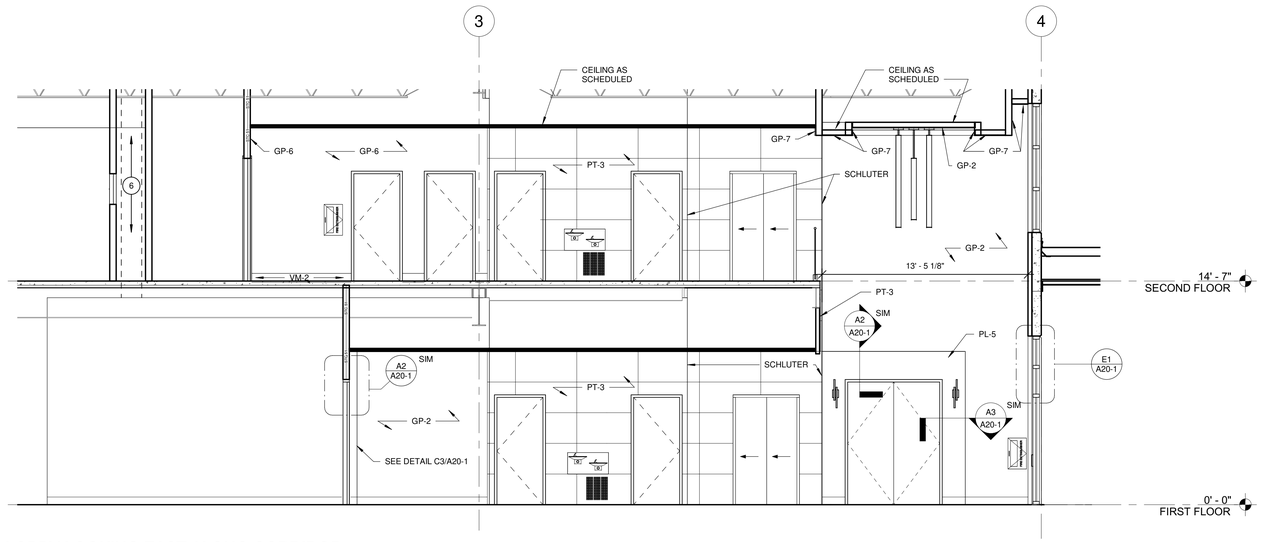
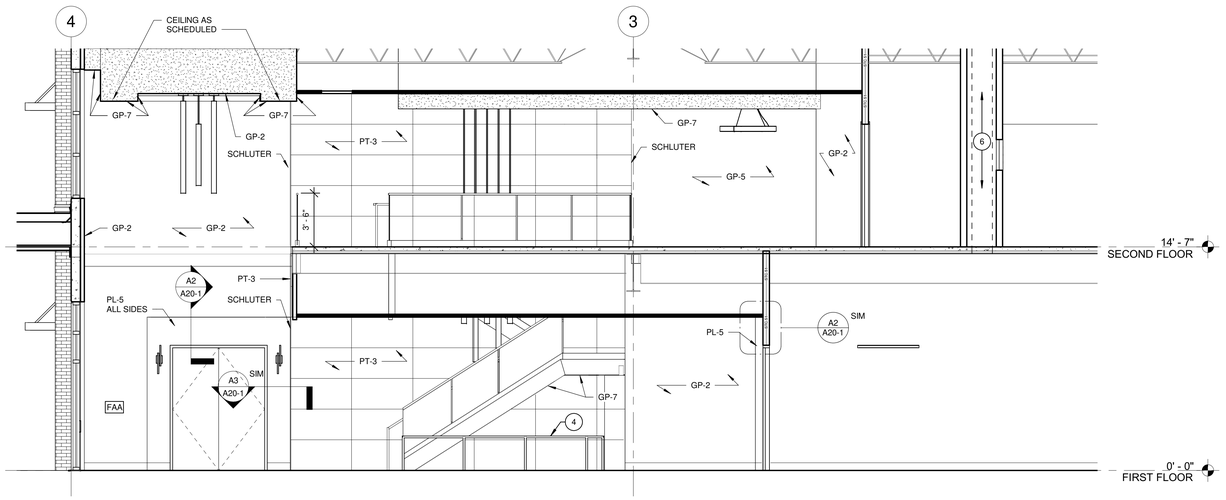
INT. ELEVATION KEY NOTES

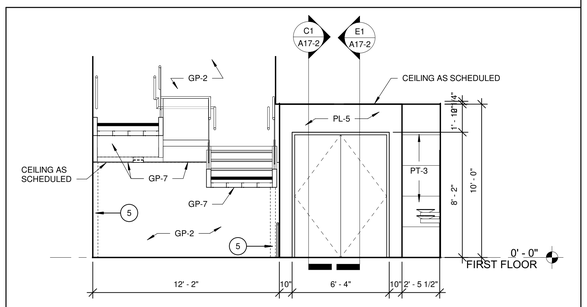
1. E.W.C. SHALL MEET ADA REQUIREMENTS.
2. NOT USED
3. FD - FLOOR DRAIN, SEE PLUMBING DRAWINGS.
4. PROTRUDING OBSTRUCTION TUBE RAIL MATCHING THE GLASS RAIL FINISH AND STILE, SEE DETAILS B7 AND C7/A12-3
5. FURRED OUT WALL TO ENCLOSE COLUMNS SUPPORTING STAIR LANDING, SEE STRUCTURAL DRAWINGS FOR LANDING / STAIR COLUMN SUPPORT
6. MECHANICAL DUCT CHASE BEHIND WALL, SEE MECHANICAL DRAWINGS.



C1 LOBBY LOOKING EAST ALONG CORRIDOR
1/4" = 1'-0"



E1 LOBBY LOOKING WEST ALONG CORRIDOR
1/4" = 1'-0"



E2 LOBBY LOOKING NORTH
1/4" = 1'-0"

Project Architect:

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

#	REVISIONS	
No.	Description	Date

Drawing Title:

INTERIOR ELEVATIONS

Drawing Number:

A17-2

Drawn by: MBA
Checked by: RB
Scale: As indicated

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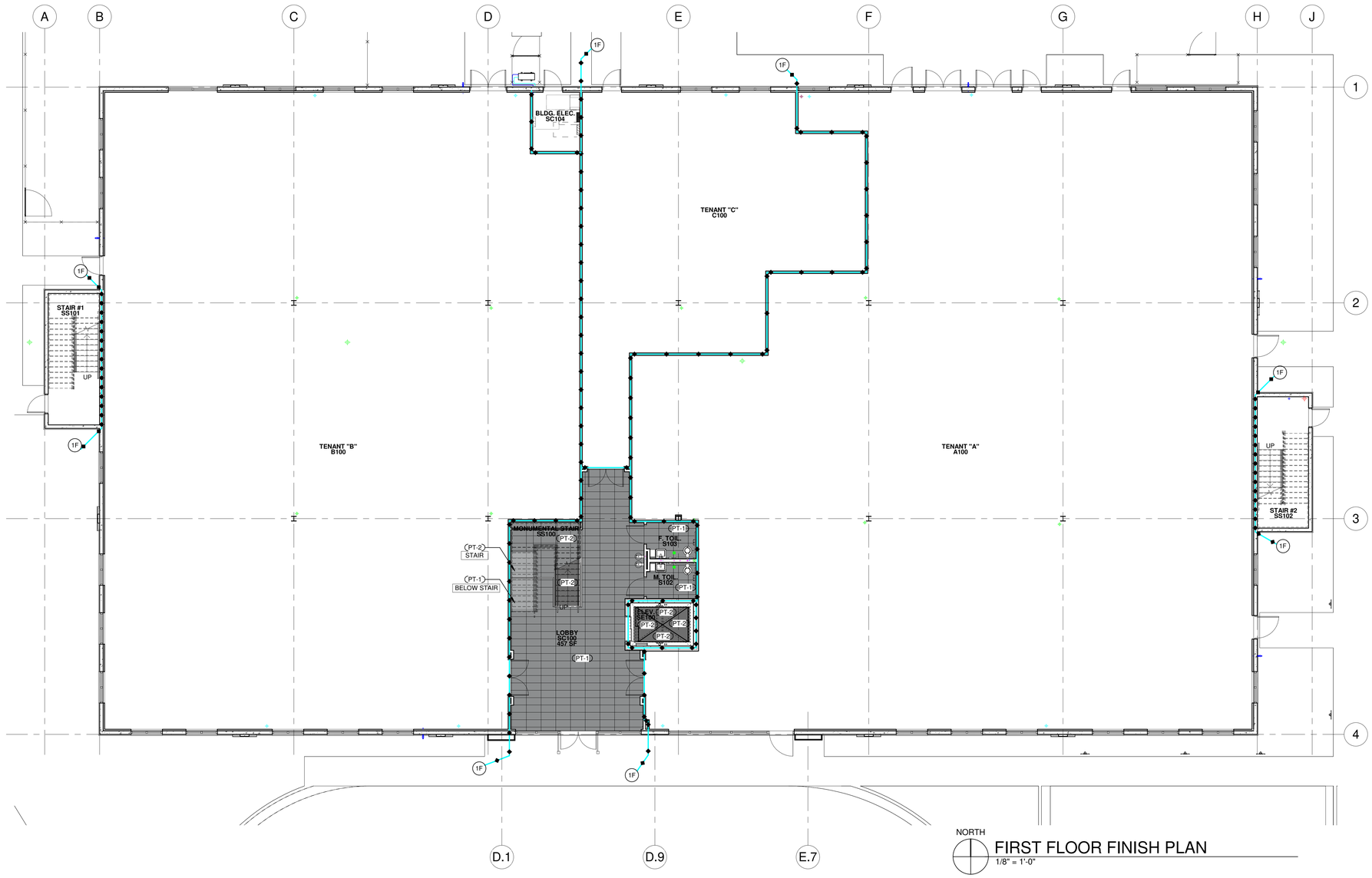

NORTH

FIRST FLOOR FINISH PLAN

1/8" = 1'-0"

FIRST FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	WALL FINISH NORTH	WALL FINISH EAST	WALL FINISH SOUTH	WALL FINISH WEST	CEILING	HEIGHT	REMARKS
A100	TENANT "A"	CS	--	GP-1	GP-1	GP-1	GP-1	ES	8'-0"	--
B100	TENANT "B"	CS	--	GP-1	GP-1	GP-1	GP-1	ES	8'-0"	--
C100	TENANT "C"	CS	--	GP-1	GP-1	GP-1	GP-1	ES	8'-0"	--
S102	M. TOIL.	PT-1	CT-5	*	*			LA1	8'-0"	1,3
S103	F. TOIL.	PT-1	CT-5	*	*	*	*	LA1	8'-0"	1,3
SC100	LOBBY	PT-1	VM-2	*	*	GP-2	*	LA2	10'-0"	1,3
SC104	BLDG. ELEC.	CS	--	GP-1	GP-1	GP-1	GP-1	ES	8'-0"	--
SE100	ELEV.	PT-2	--	--	--	--	--	LA1	8'-0"	--
SS100	MONUMENTAL STAIR	PT-2	VM-2	GP-2	--	--	--	ES/GP-7	14'-0"	--
SS101	STAIR #1	CS	VC-2	GP-1	GP-1	GP-1	GP-1	ES	14'-7"	--
SS102	STAIR #2	CS	VC-2	GP-1	GP-1	GP-1	GP-1	ES	14'-0"	--

BASE

CT-5	MANUF: AMERICAN OLEAN PATTERN: COLOR STORY WALL COVE BASE COLOR: MATTE BALANCE 0034 (1) GROUT: LATICRETE 09 FROSTY SIZE: 6" X 6" CONTACT: SAVANNAH RESCH 727.417.3966
VC-2	MANUF: TARKETT/JOHNSITE PATTERN: COVE BASE COLOR: 63 BURNT UMBER SIZE: 4" HIGH CONTACT: ALISON SHAW 941.932.3245
VM-2	MANUF: TARKETT PATTERN: MILLWORK BASE - MANDALAY MW-63-H6 COLOR: 63 BURNT UMBER SIZE: 6" HIGH CONTACT: ALISON SHAW 941.932.3245

FLOOR MATERIALS

CS	CONCRETE, SEALED
CP-1	MANUF: SHAW CONTRACT PATTERN: STONEWORK TILE 5T484 COLOR: GRAPHITE 84580 SIZE: 24" X 24" INSTALL: MONOLITHIC CONTACT: PAUL CLEVELAND 813.760.6894 / TRAVIS SWILLING 813.599.0805
LV-2	MANUF: SHAW CONTRACT PATTERN: COMPOUND 5.0 MM 4077V COLOR: ELEVATE 77518 SIZE: 24" X 24" INSTALL: QUARTER TURN CONTACT: PAUL CLEVELAND 813.760.6894/ TRAVIS SWILLING 813.599.0805
PT-1	MANUF: DALTILE PATTERN: ENLITE COLOR: TRANSCEND EL64 GROUT: MAPEI 107 IRON, 1/8" THICKNESS MAX SIZE: 30" X 15" CONTACT: SAVANNAH RESCH 727.417.3966
PT-2	MANUF: DALTILE PATTERN: PANORAMIC COLOR: HEARTH SMOKE MATTE CM08 GROUT: MAPEI 107 IRON, 1/8" THICKNESS MAX SIZE: SLAB 63" X 126" RECTIFIED CONTACT: SAVANNAH RESCH 727.417.3966

WALL AND CEILING MATERIALS

GP-1	MANUF: SHERWIN WILLIAMS COLOR: ZURICH WHITE (SW 7626)
GE-1	MANUF: SHERWIN WILLIAMS COLOR: ZURICH WHITE (SW 7626)
GP-2	MANUF: SHERWIN WILLIAMS COLOR: MILD BLUE (SW 6533)
GP-5	MANUF: SHERWIN WILLIAMS COLOR: WINDY BLUE (SW 6240)
GP-6	MANUF: SHERWIN WILLIAMS COLOR: ZIRCON (SW 7667)
GP-7	MANUF: SHERWIN WILLIAMS COLOR: CEILING BRIGHT WHITE (SW 7007)
PL-5	MANUF: WILSONART PATTERN: SOLANO WALNUT 17018K-67 FINISH: ALIGNED SHEET SIZE: 5' X 12' INSTALLED VERTICALLY NOTE: TERESA FINCH 813.293.0588
PT-3	MANUF: TILEBAR PATTERN: ANGELA HARRIS INSPIRA COLOR: LIGHT SILVER INSTALLATION: STRAIGHT STACK - HORIZONTALLY GROUT: LATICRETE 09 FROSTY, 1/8" THICKNESS MAX SHEET SIZE: 48" X 24" NOTE: NATALIE APRILE 813.293.0588
RC-5	MANUF: AMERICAN OLEAN PATTERN: COLOR STORY WALL GLAZED CERAMIC COLOR: MATTE BALANCE 0034 (1) INSTALLATION: STRAIGHT STACK GROUT: LATICRETE 09 FROSTY SHEET SIZE: 24" X 8" NOTE: SAVANNAH RESCH 727.417.3966
RC-5BN	MANUF: DALTILE PATTERN: COLOR STORY WALL GLAZED CERAMIC COLOR: MATTE BALANCE 0034 (1) INSTALLATION: STRAIGHT STACK GROUT: LATICRETE 09 FROSTY SHEET SIZE: 6" X 2" NOTE: SAVANNAH RESCH 727.417.3966
RC-6	MANUF: ELYSIUM PATTERN: CASALE SHELL GLASS THINSET COLOR: BLUE MO1042 INSTALLATION: HORIZONTAL - REFER TO ELEVATION GROUT: LATICRETE 09 FROSTY SHEET SIZE: 11.75" X 11.75" NOTE: SAVANNAH RESCH 727.417.3966

MISCELLANEOUS

DOORS VENEER 2 - STAINED	MANUF: VT INDUSTRIES SPECIES: BIRCH NATURAL COLOR: ONYX CONTACT: VT DOORS 800.827.1615	ME	MANUF: BRUNNER ENTERPRISES PATTERN: ALUMINUM ANGLE A208 COLOR: SATIN ANODIZED CONTACT: BRUNNER ENTERPRISES 877.299.2622
DOOR FRAME AND STAIR STRINGER PAINT 2	MANUF: SHERWIN WILLIAMS COLOR: BLACK MAGIC - SW 6991	SCH	MANUF.: SCHLUTER. PATTERN: SCHIENE COLOR: SATIN ANODIZED NOTE: BRUNNER ENTERPRISES 877.299.2622
		ALL RAILS	CRL DARK BRONZE BLACK BRONZE FINISH #GR25CSM

FINISH SCHEDULE REMARKS

1. FINISH SHALL BE PORCEILAIN TILE & EPOXY PAINT ON MOISTURE RESISTANT GWB. SEE ELEVATIONS ON THE A17 SERIES OF DRAWINGS.
2. SEE REFLECTED CEILING PLAN.
3. SEE ROOM ELEVATIONS FOR OTHER FINISHES ON A17 DRAWINGS.
4. INSTALL VINYL WALL PROTECTION 36" HIGH BY LENGTH OF WALL, ON WALLS THAT THE MOP SINK ABUTS.
5. SEE SPECIFICATIONS FOR PENETRATING CONCRETE SEALER.
6. PER MANUFACTURER SPECIFCATIONS & OWNER'S SELECTIONS.

FINISH SCHEDULE LEGEND

A19-001 (041522)

FLOOR MATERIALS

MX MATCH EXISTING
X EXISTING TO REMAIN
CP CARPET
CS CONCRETE SEALED
CT CERAMIC MOSAIC TILE
HV HEAT SEAM SHEET VINYL
LV LUXURY VINYL
PT PORCELAIN TILE
PV PAVER TILE
TC CARPET TILE
QT QUARRY TILE
SV SHEET VINYL
VT VINYL COMPOSITION TILE
VW VINYL WOOD PLANKS
WD WOOD

BASE MATERIALS

MX MATCH EXISTING
X EXISTING TO REMAIN
-- NO BASE REQUIRED
CP CARPET
CT CERAMIC TILE
IC COVE INTEGRAL WITH FLOOR FINISH
QT QUARRY TILE
RC RUBBER COVED
VC VINYL COVED
WD WOOD BASE 4" HIGH STAINED - SEE INTERIOR DESIGN DRAWINGS

* SEE INTERIOR ELEVATIONS FOR FINISHES

WALL MATERIALS

X EXISTING TO REMAIN
CP CONCRETE PAINTED
CT CERAMIC TILE
GA ACOUSTICAL WALLPAPER ON GYPSUM WALLBOARD
GE GYPSUM WALLBOARD, EPOXY PAINTED
GP GYPSUM WALLBOARD, PAINTED
GV VINYL WALL COVERING ON GYPSUM WALLBOARD
ME MASONRY WALL, EPOXY PAINTED
MP MASONRY WALL, PAINTED
PT PORCELAIN TILE
RE M.R. GWB EPOXY PAINTED
RC M.R. GWB, CERAMIC TILE
RP M.R. GWB, PAINTED
RV M.R. GWB., VINYL WALL COVERING
XP EXISTING WALL, PAINTED
XV EXISTING VINYL WALL COVERING

CEILING MATERIALS

X EXISTING TO REMAIN
EP EXPOSED STRUCTURE, PAINTED
ES EXPOSED STRUCTURE, NO CEILING
GP GYPSUM WALLBOARD, PAINTED
GE GYPSUM WALLBOARD, EPOXY PAINTED

LA1 LAY-IN ACOUSTICAL PANEL ARMSTRONG CIRRUS, BEVELED TEGULAR EDGE, 2'X2'X3/4" WITH 9/16" WHITE GRID, OR USG MILLENNIA CLIMAPLUS, FINELINE BEVEL EDGE, 2'X2'X3/4" WITH 9/16" WHITE GRID.

LA2 LAY-IN ACOUSTICAL PANEL ARMSTRONG FINE FISSURED, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID, OR USG RADAR, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID.

LM1 LAY-IN ACOUSTICAL PANEL ARMSTRONG CLEAN ROOM VL, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID AND CLOSED CELL FOAM GASKETS, OR USG CLEAN ROOM CLIMAPLUS CLASS 100, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID AND CLOSED CELL FOAM GASKETS.

Project Architect:

MBA

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AR0013034
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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

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3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FINISH SCHEDULE AND NOTES

Drawing Number:

A19-1

Drawn by: MBA
Checked by: RHB
Scale: As indicated

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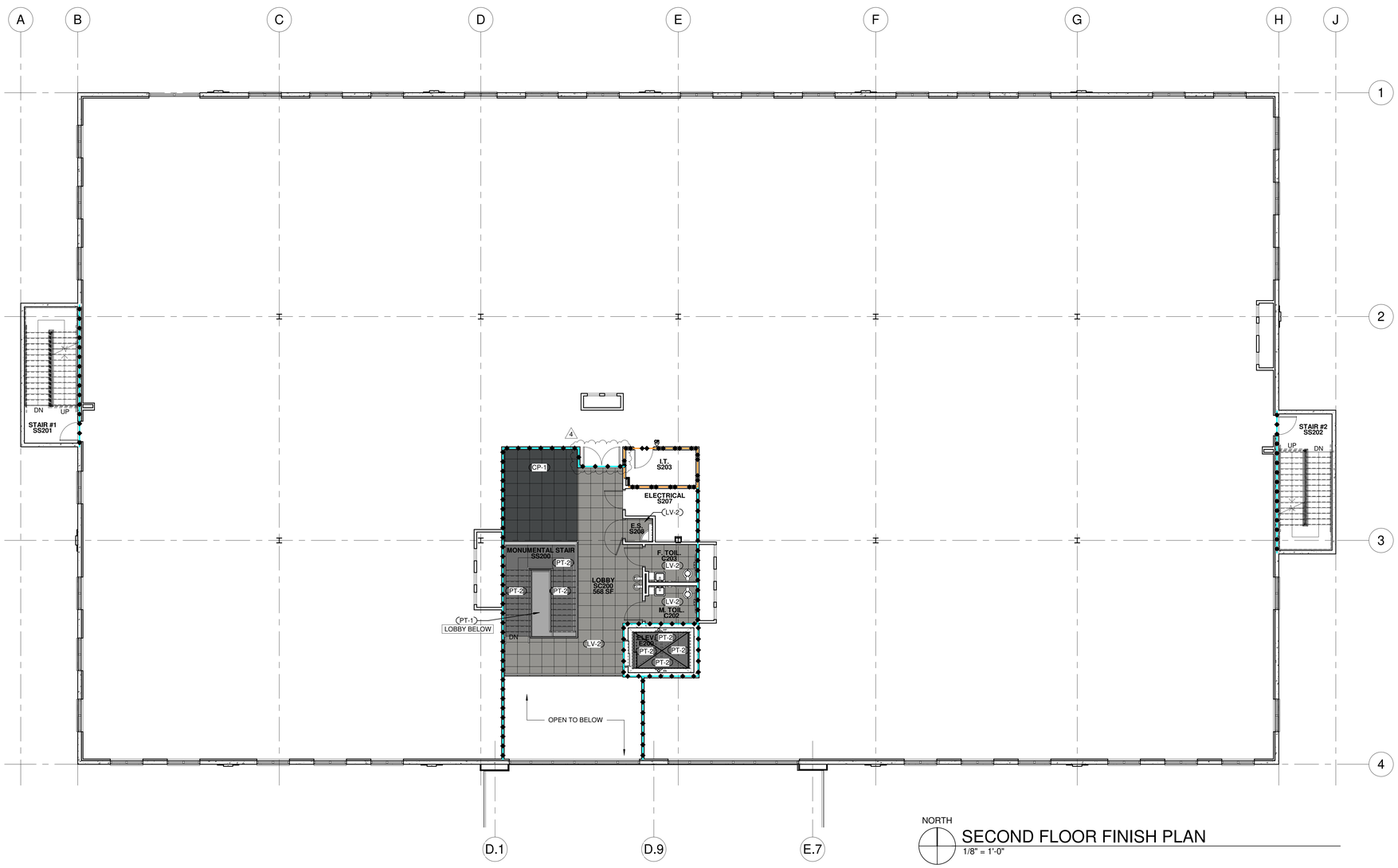

NORTH

SECOND FLOOR FINISH PLAN

1/8" = 1'-0"

SECOND FLOOR FINISH SCHEDULE

ROOM #	ROOM NAME	FLOOR	BASE	WALL FINISH NORTH	WALL FINISH EAST	WALL FINISH SOUTH	WALL FINISH WEST	CEILING	HEIGHT	REMARKS
C202	M. TOIL.	PT-1	CT-5	*	*	*	*	LA1	8'-0"	1,3
C203	F. TOIL.	PT-1	CT-5	*	*	*	*	LA1	8'-0"	1,3
E200	ELEV.	PT-2	--	--	--	--	--	LA1	8'-0"	--
S203	I.T.	CS	VC-2	GP-1	GP-1	GP-1	GP-1	LA1	8'-0"	--
S207	ELECTRICAL	CS	VC-2	GP-1	GP-1	GP-1	GP-1	LA1	8'-0"	--
S208	E.S.	LV-2	VC-2	GP-1	GP-1	GP-1	GP-1	LA1	8'-0"	--
SC200	LOBBY	CP-1/LV-2	VM-2	PL-5	*	GP-5	*	LA1/GP-2/7	10'-0"	1,4
SS200	MONUMENTAL STAIR	PT-2	VM-2	GP-2	--	--	--	GP-2/7	10'-0"	--
SS201	STAIR #1	CS	VC-2	GP-1	GP-1	GP-1	GP-1	ES	16'-4"	--
SS202	STAIR #2	CS	VC-2	GP-1	GP-1	GP-1	GP-1	ES	8'-0"	--
SS203	FUTURE TENANT SPACE	CS							8'-0"	

BASE

CT-5	MANUF: AMERICAN OLEAN PATTERN: COLOR STORY WALL COVE BASE COLOR: MATTE BALANCE 0034 (1) GROUT: LATICRETE 09 FROSTY SIZE: 6" X 6" CONTACT: SAVANNAH RESCH 727.417.3966
VC-2	MANUF: TARKETT/JOHNSITE PATTERN: COVE BASE COLOR: 63 BURNT UMBER SIZE: 4" HIGH CONTACT: ALISON SHAW 941.932.3245
VM-2	MANUF: TARKETT PATTERN: MILLWORK BASE - MANDALAY MW-63-H6 COLOR: 63 BURNT UMBER SIZE: 6" HIGH CONTACT: ALISON SHAW 941.932.3245

FLOOR MATERIALS

CS	CONCRETE, SEALED
CP-1	MANUF: SHAW CONTRACT PATTERN: STONEWORK TILE 5T484 COLOR: GRAPHITE 84580 SIZE: 24" X 24" INSTALL: MONOLITHIC CONTACT: PAUL CLEVELAND 813.760.6894 / TRAVIS SWILLING 813.599.0805
LV-2	MANUF: SHAW CONTRACT PATTERN: COMPOUND 5.0 MM 4077V COLOR: ELEVATE 77518 SIZE: 24" X 24" INSTALL: QUARTER TURN CONTACT: PAUL CLEVELAND 813.760.6894/ TRAVIS SWILLING 813.599.0805
PT-1	MANUF: DALTILE PATTERN: ENLITE COLOR: TRANSCEND EL64 GROUT: MAPEI 107 IRON, 1/8" THICKNESS MAX SIZE: 30" X 15" CONTACT: SAVANNAH RESCH 727.417.3966
PT-2	MANUF: DALTILE PATTERN: PANORAMIC COLOR: HEARTH SMOKE MATTE CM08 GROUT: MAPEI 107 IRON, 1/8" THICKNESS MAX SIZE: SLAB 63" X 126" RECTIFIED CONTACT: SAVANNAH RESCH 727.417.3966

WALL AND CEILING MATERIALS

GP-1	MANUF: SHERWIN WILLIAMS COLOR: ZURICH WHITE (SW 7626)
GE-1	MANUF: SHERWIN WILLIAMS COLOR: ZURICH WHITE (SW 7626)
GP-2	MANUF: SHERWIN WILLIAMS COLOR: MILD BLUE (SW 6533)
GP-5	MANUF: SHERWIN WILLIAMS COLOR: WINDY BLUE (SW 6240)
GP-6	MANUF: SHERWIN WILLIAMS COLOR: ZIRCON (SW 7667)
GP-7	MANUF: SHERWIN WILLIAMS COLOR: CEILING BRIGHT WHITE (SW 7007)
PL-5	MANUF: WILSONART PATTERN: SOLANO WALNUT 17018K-67 FINISH: ALIGNED SHEET SIZE: 5' X 12' INSTALLED VERTICALLY NOTE: TERESA FINCH 813.293.0588
PT-3	MANUF: TILEBAR PATTERN: ANGELA HARRIS INSPIRA COLOR: LIGHT SILVER INSTALLATION: STRAIGHT STACK - HORIZONTALLY GROUT: LATICRETE 09 FROSTY, 1/8" THICKNESS MAX SHEET SIZE: 48" X 24" NOTE: NATALIE APRILE 813.293.0588
RC-5	MANUF: AMERICAN OLEAN PATTERN: COLOR STORY WALL GLAZED CERAMIC COLOR: MATTE BALANCE 0034 (1) INSTALLATION: STRAIGHT STACK GROUT: LATICRETE 09 FROSTY SHEET SIZE: 24" X 8" NOTE: SAVANNAH RESCH 727.417.3966
RC-5BN	MANUF: DALTILE PATTERN: COLOR STORY WALL GLAZED CERAMIC COLOR: MATTE BALANCE 0034 (1) INSTALLATION: STRAIGHT STACK GROUT: LATICRETE 09 FROSTY SHEET SIZE: 6" X 2" NOTE: SAVANNAH RESCH 727.417.3966
RC-6	MANUF: ELYSIUM PATTERN: CASALE SHELL GLASS THINSET COLOR: BLUE MO1042 INSTALLATION: HORIZONTAL - REFER TO ELEVATION GROUT: LATICRETE 09 FROSTY SHEET SIZE: 11.75" X 11.75" NOTE: SAVANNAH RESCH 727.417.3966

MISCELLANEOUS

DOORS VENEER 2 - STAINED	MANUF: VT INDUSTRIES SPECIES: BIRCH NATURAL COLOR: ONYX CONTACT: VT DOORS 800.827.1615	ME	MANUF: BRUNNER ENTERPRISES PATTERN: ALUMINUM ANGLE A208 COLOR: SATIN ANODIZED CONTACT: BRUNNER ENTERPRISES 877.299.2622
DOOR FRAME AND STAIR STRINGER PAINT 2	MANUF: SHERWIN WILLIAMS COLOR: BLACK MAGIC - SW 6991	SCH	MANUF.: SCHLUTER. PATTERN: SCHIENE COLOR: SATIN ANODIZED NOTE: BRUNNER ENTERPRISES 877.299.2622
		ALL RAILS	CRL DARK BRONZE BLACK BRONZE FINISH #GR25CSM

FINISH SCHEDULE LEGEND

A19-001 (041522)

FLOOR MATERIALS

MX MATCH EXISTING
X EXISTING TO REMAIN
CP CARPET
CS CONCRETE SEALED
CT CERAMIC MOSAIC TILE
HV HEAT SEAM SHEET VINYL
LV LUXURY VINYL
PT PORCELAIN TILE
PV PAVER TILE
TC CARPET TILE
QT QUARRY TILE
SV SHEET VINYL
VT VINYL COMPOSITION TILE
VW VINYL WOOD PLANKS
WD WOOD

BASE MATERIALS

MX MATCH EXISTING
X EXISTING TO REMAIN
-- NO BASE REQUIRED
CP CARPET
CT CERAMIC TILE
IC COVE INTEGRAL WITH FLOOR FINISH
QT QUARRY TILE
RC RUBBER COVED
VC VINYL COVED
WD WOOD BASE 4" HIGH STAINED - SEE INTERIOR DESIGN DRAWINGS

* SEE INTERIOR ELEVATIONS FOR FINISHES

WALL MATERIALS

X EXISTING TO REMAIN
CP CONCRETE PAINTED
CT CERAMIC TILE
GA ACOUSTICAL WALLPAPER ON GYPSUM WALLBOARD
GE GYPSUM WALLBOARD, EPOXY PAINTED
GP GYPSUM WALLBOARD, PAINTED
GV VINYL WALL COVERING ON GYPSUM WALLBOARD
ME MASONRY WALL, EPOXY PAINTED
MP MASONRY WALL, PAINTED
PT PORCELAIN TILE
RE M.R. GWB EPOXY PAINTED
RC M.R. GWB, CERAMIC TILE
RP M.R. GWB, PAINTED
RV M.R. GWB., VINYL WALL COVERING
XP EXISTING WALL, PAINTED
XV EXISTING VINYL WALL COVERING

CEILING MATERIALS

X EXISTING TO REMAIN
EP EXPOSED STRUCTURE, PAINTED
ES EXPOSED STRUCTURE, NO CEILING
GP GYPSUM WALLBOARD, PAINTED
GE GYPSUM WALLBOARD, EPOXY PAINTED

LA1 LAY-IN ACOUSTICAL PANEL ARMSTRONG CIRRUS, BEVELED TEGULAR EDGE, 2'X2'X3/4" WITH 9/16" WHITE GRID, OR USG MILLENNIA CLIMAPLUS, FINELINE BEVEL EDGE, 2'X2'X3/4" WITH 9/16" WHITE GRID.

LA2 LAY-IN ACOUSTICAL PANEL ARMSTRONG FINE FISSURED, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID, OR USG RADAR, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID.

LM1 LAY-IN ACOUSTICAL PANEL ARMSTRONG CLEAN ROOM VL, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID AND CLOSED CELL FOAM GASKETS, OR USG CLEAN ROOM CLIMAPLUS CLASS 100, SQUARE EDGE, 2'X2'X5/8" WITH 15/16" WHITE GRID AND CLOSED CELL FOAM GASKETS.

FINISH SCHEDULE REMARKS

1. FINISH SHALL BE PORCEILAIN TILE & EPOXY PAINT ON MOISTURE RESISTANT GWB. SEE ELEVATIONS ON THE A17 SERIES OF DRAWINGS.
2. SEE REFLECTED CEILING PLAN.
3. SEE ROOM ELEVATIONS FOR OTHER FINISHES ON A17 DRAWINGS.
4. INSTALL VINYL WALL PROTECTION 36" HIGH BY LENGTH OF WALL, ON WALLS THAT THE MOP SINK ABUTS.
5. SEE SPECIFICATIONS FOR PENETRATING CONCRETE SEALER.
6. PER MANUFACTURER SPECIFCATIONS & OWNER'S SELECTIONS.

Project Architect:

MBA

Mason Blau & Associates
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T: 727.530.0570

Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date
4	ASI #1	01/15/24

Drawing Title:

FINISH SCHEDULE AND NOTES

Drawing Number:

A19-2

Drawn by: Author
Checked by: Checker
Scale: As indicated

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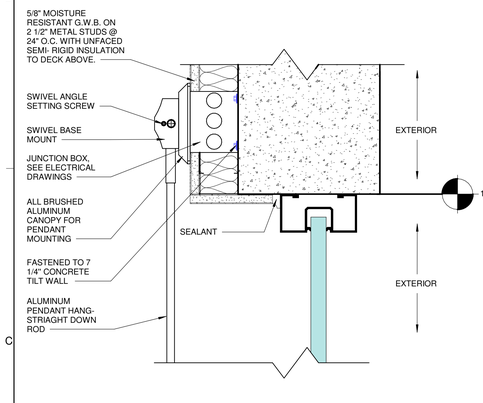
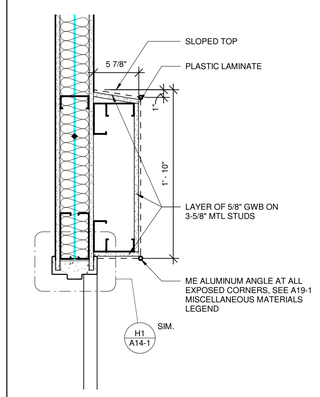
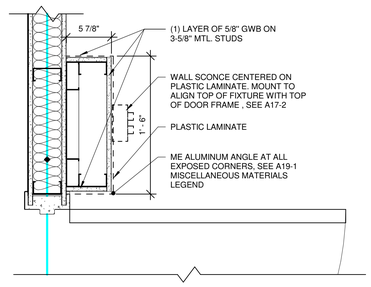


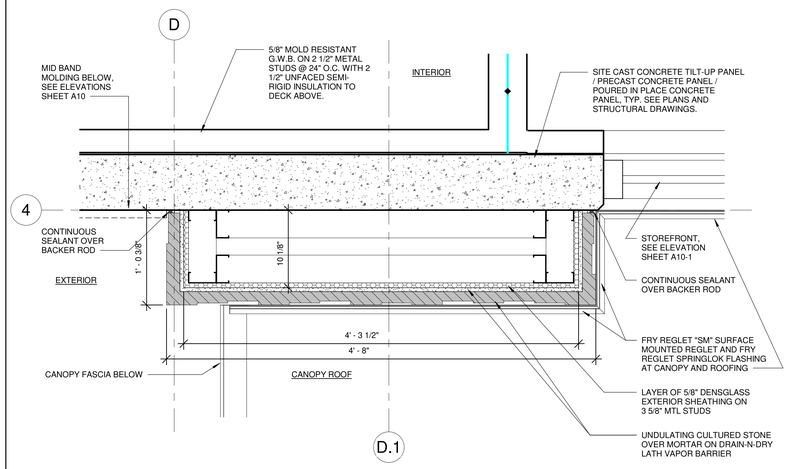
C1 STOREFRONT PENDANT MOUNT
3" = 1'-0"



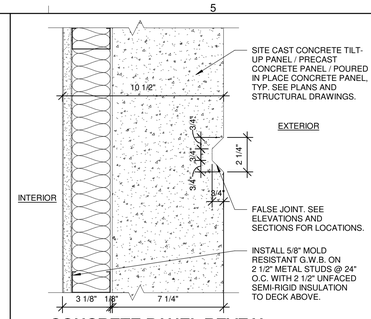
A2 ENTRY SURROUND HEAD
1 1/2" = 1'-0"



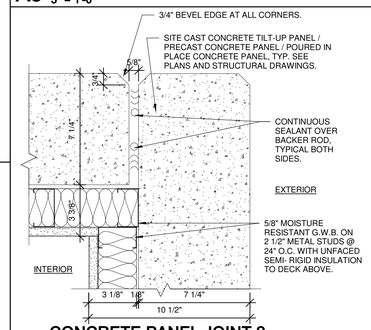
A3 LOBBY SC100 CALLOUT
1 1/2" = 1'-0"



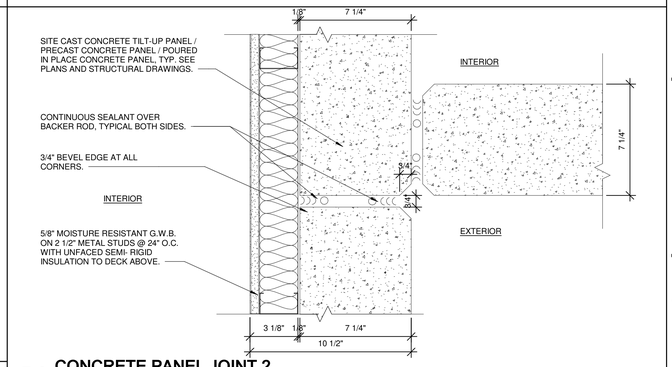
C2 VERTICAL ENTRY ELEMENT DETAIL AT CANOPY
1 1/2" = 1'-0"



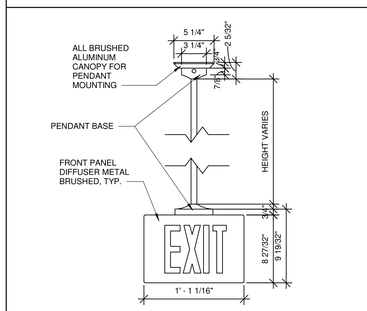
A5 CONCRETE PANEL REVEAL
3" = 1'-0"



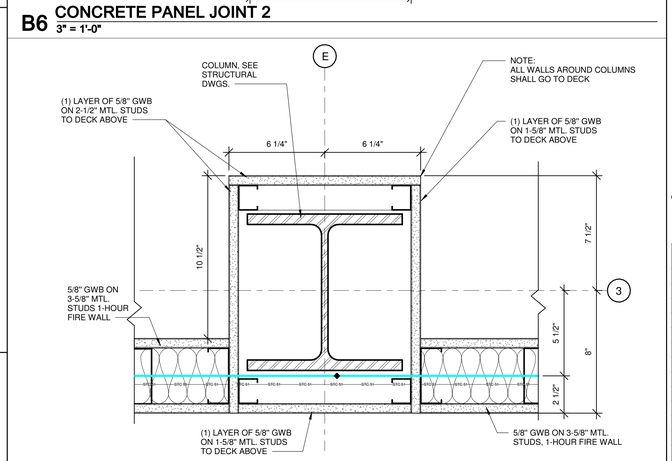
B5 CONCRETE PANEL JOINT 2
3" = 1'-0"



B6 CONCRETE PANEL JOINT 2
3" = 1'-0"

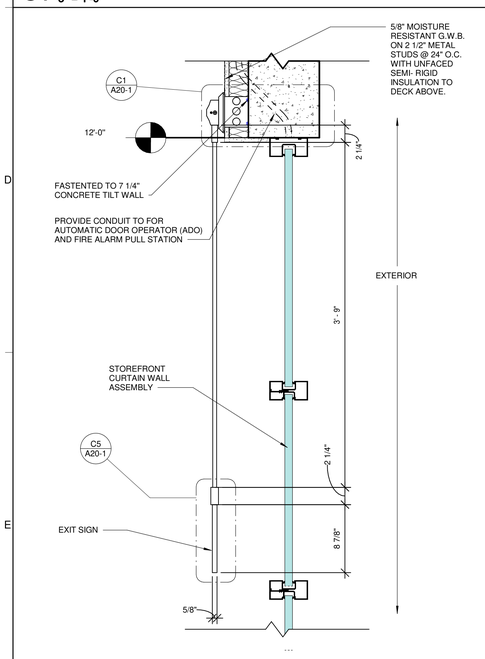


C5 PENDANT EXIT SIGN1
1 1/2" = 1'-0"

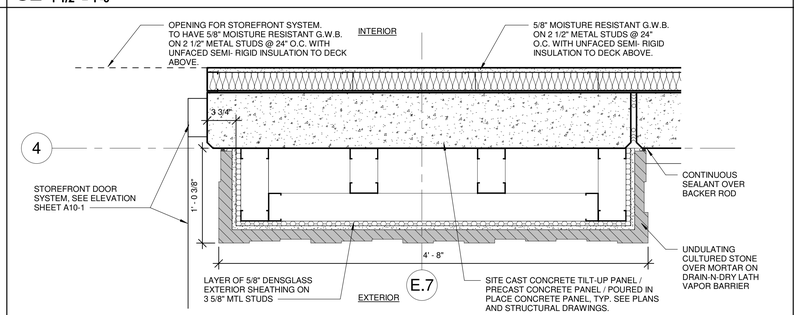


C6 COLUMN DETAIL
3" = 1'-0"

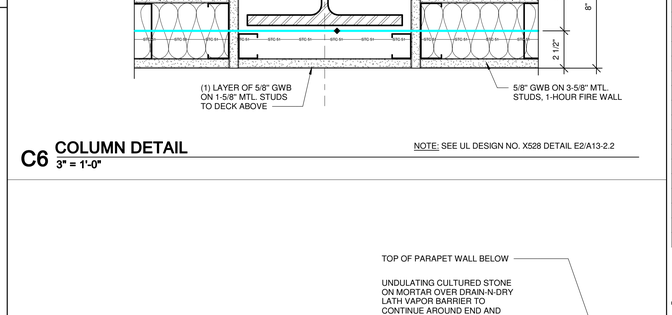
NOTE: SEE UL DESIGN NO. X528 DETAIL E2/A13-2.2



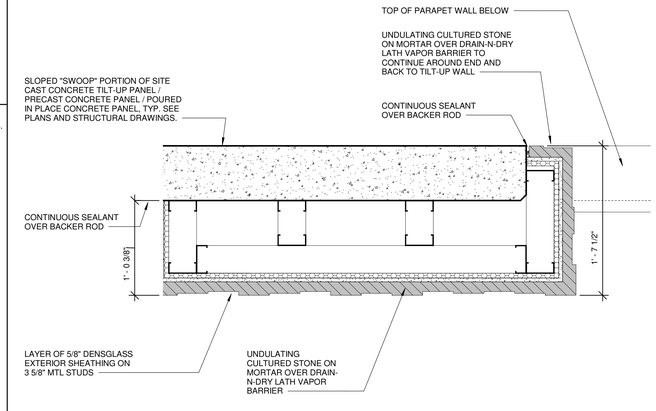
E1 STOREFRONT EXIT PENDANT
1 1/2" = 1'-0"



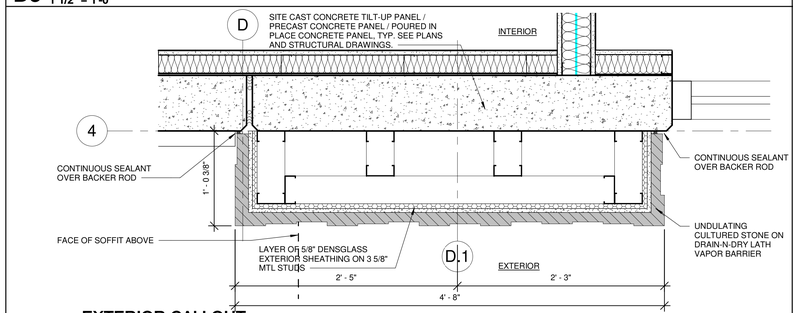
D3 EXTERIOR CALLOUT
1 1/2" = 1'-0"



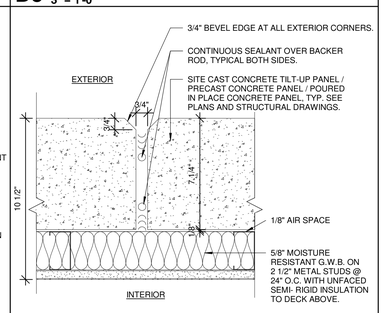
D5 CONCRETE PANEL JOINT 6
3" = 1'-0"



E6 VERTICAL ENTRY ELEMENT DETAIL
1 1/2" = 1'-0"



E3 EXTERIOR CALLOUT
1 1/2" = 1'-0"



E5 CONCRETE PANEL JOINT 1
3" = 1'-0"

Project Architect:

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Seal & Signature:

Robert H. Blau, AIA

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

MISCELLANEOUS DETAILS

Drawing Number:

A20-1

Drawn by: MBA
Checked by: Checker
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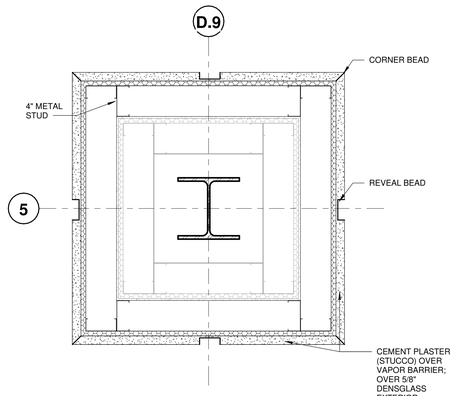
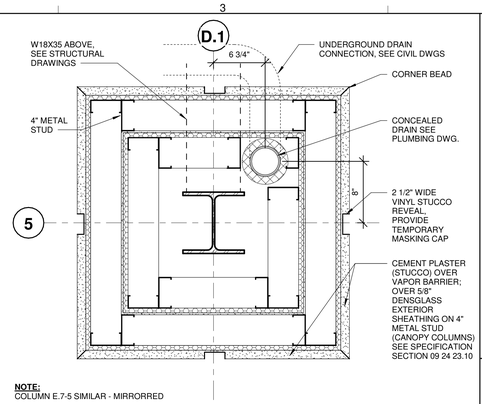
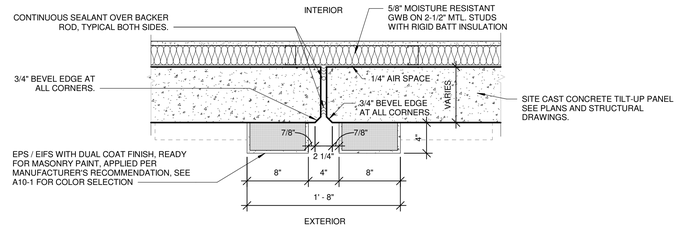


B1 CANOPY COLUMN - LOWER PORTION
1 1/2" = 1'-0"

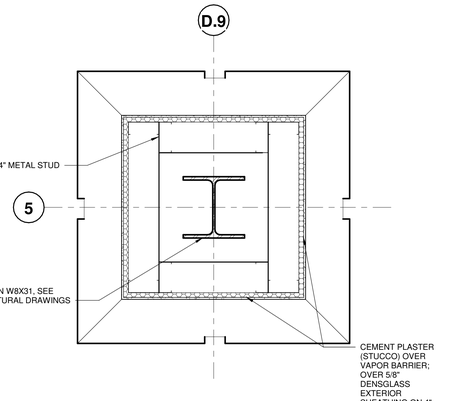


NOTE:
COLUMN E.7-5 SIMILAR - MIRRORRED

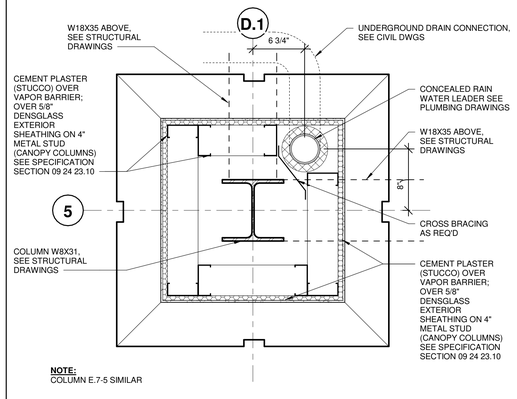
B2 CANOPY COLUMN - LOWER PORTION W/ ROOF DRAIN
1 1/2" = 1'-0"



A4 PILASTER SECTION A
1 1/2" = 1'-0"

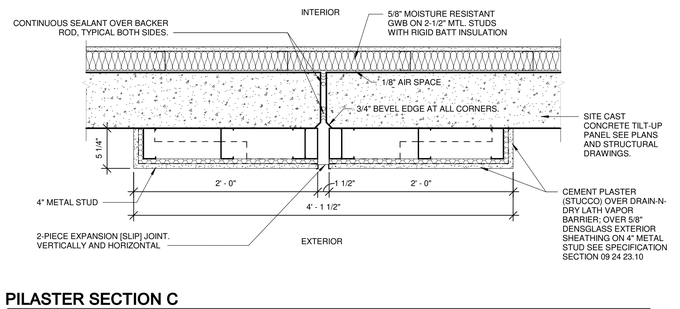


C1 CANOPY COLUMN - UPPER PORTION
1 1/2" = 1'-0"

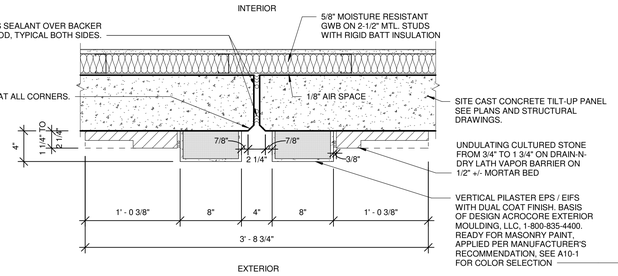


NOTE:
COLUMN E.7-5 SIMILAR

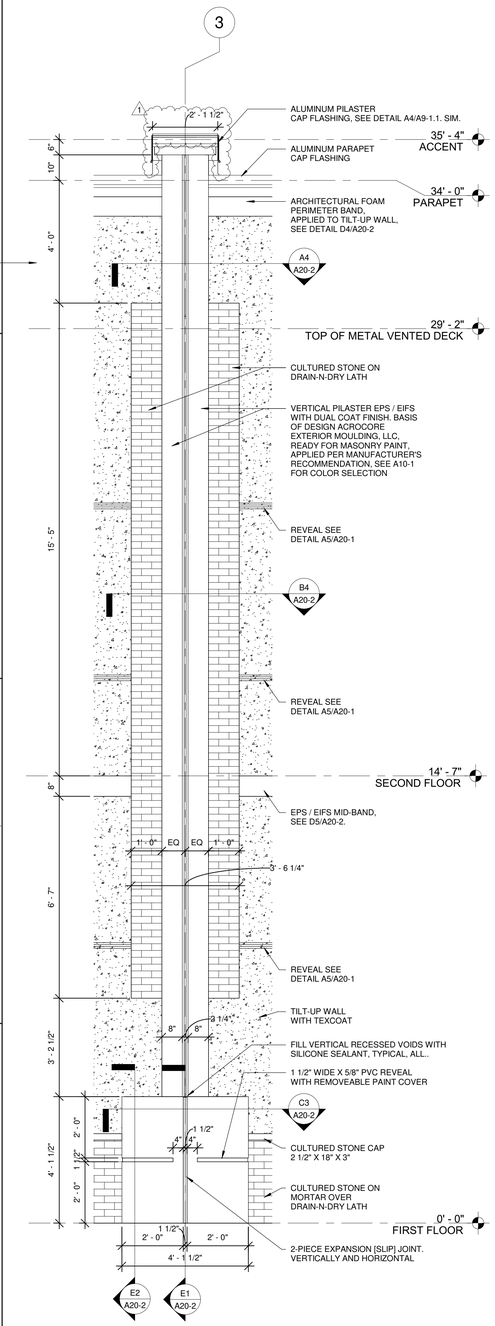
C2 CANOPY COLUMN - UPPER PORTION W/ ROOF DRAIN
1 1/2" = 1'-0"



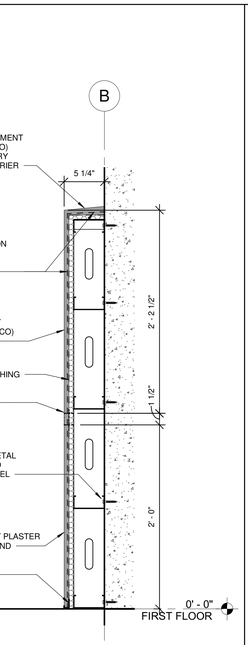
C3 PILASTER SECTION C
1 1/2" = 1'-0"



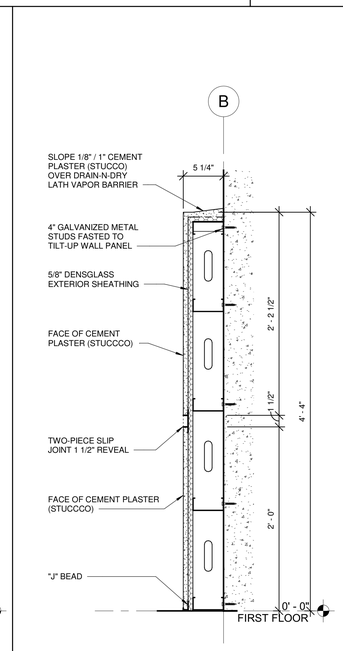
B4 PILASTER SECTION B
1 1/2" = 1'-0"



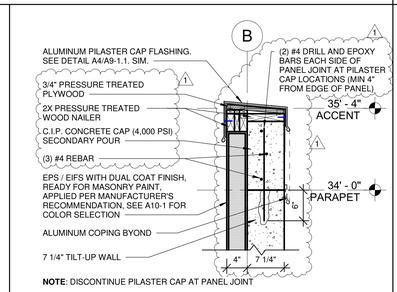
E6 TYPICAL PILASTER COLUMN
1/2" = 1'-0"



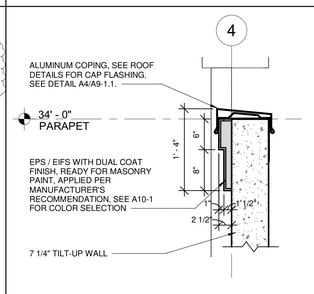
E1 PILASTER COLUMN BASE
1 1/2" = 1'-0"



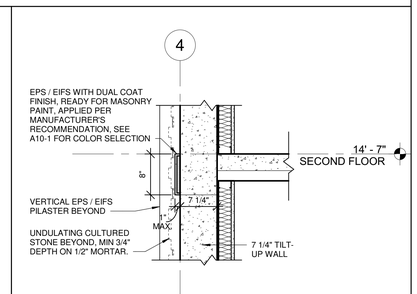
E2 PILASTER COLUMN BASE
1 1/2" = 1'-0"



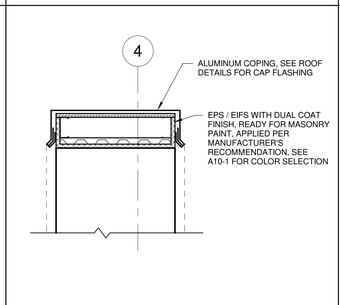
D3 ACCENT PILASTER CAP
1" = 1'-0"



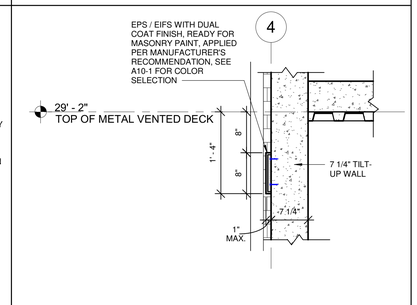
D4 PARAPET MOLDING DETAIL
1" = 1'-0"



D5 MID BAND MOLDING DETAIL
1" = 1'-0"



E4 TOP OF WALL CURVED
1" = 1'-0"



E5 BANDING OVER 2ND FLOOR WINDOW
1" = 1'-0"

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MBA

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Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date
1	ADD #1	10/24/23

Drawing Title:

MISCELLANEOUS DETAILS

Drawing Number:

A20-2

Drawn by: MBA
Checked by: Checker
Scale: As indicated

10/24/2023 1:48:06 PM
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STRUCTURAL SPECIFICATIONS

MISCELLANEOUS

1. THE STRUCTURAL SYSTEM IS UNSTABLE UNTIL ALL CONNECTIONS HAVE BEEN MADE AND ALL CONCRETE HAS REACHED ITS MINIMUM DESIGN STRENGTH, AS SHOWN IN THE STRUCTURAL DOCUMENTS.

2. CONTRACTOR IS RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION TO ENSURE THE SAFETY OF THE BUILDING UNTIL STRUCTURAL SYSTEM IS COMPLETED. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, SHORING, GUYS OR TIE-DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.

3. CONTRACTOR TO SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE BUILDING DURING CONSTRUCTION.

4. APPLICABLE BUILDING CODE: 7TH EDITION (2020) FLORIDA BUILDING CODE.

5. GRAVITY DESIGN LOADS:

AREA	SUPERIMPOSED LIVE LOAD	TOTAL DEAD LOAD
ROOF	20 PSF	35 PSF
2nd FLOOR	100 PSF	65 PSF
STORAGE	125 PSF	65 PSF
MECHANICAL	150 PSF	65 PSF
DRIVE-THRU CANOPY ROOF	20 PSF	25 PSF

6. WIND DESIGN CRITERIA:
ULTIMATE WIND SPEED: V_{ULT} = 150 MPH (3 SECOND GUST)
EQUIVALENT NOMINAL BASIC WIND SPEED V_{ASD} = 116 MPH (3 SECOND GUST)
RISK CATEGORY = II
EXPOSURE CATEGORY = C
ENCLOSED BUILDING INTERNAL PRESSURE COEFFICIENT, GC_{PI}= +/-0.18
WIND BORNE DEBRIS REGION

7. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REFERENCED BUILDING CODE.

8. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. DO NOT SCALE DRAWINGS.

9. CONTACT ENGINEER WITH ANY QUESTIONS OR DISCREPANCIES FOUND ON DRAWINGS.

10. SECTIONS AND DETAILS ARE REFERENCED IN TYPICAL LOCATIONS BUT ALSO APPLY TO ALL OTHER SIMILAR CONDITIONS.

11. CONTRACTOR TO VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, AND CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.

12. SUBMIT SHOP DRAWINGS AS REQUIRED HEREIN. ALLOW FOR TWO WEEKS REVIEW TIME AFTER RECEIPT OF SUBMITTALS BY THIS FIRM. ALL SUBMITTALS SHALL BE CHECKED AND SIGNED BY THE GENERAL CONTRACTOR AND SIGNED/SEALED BY THE DELEGATED ENGINEER, WHERE SPECIFIED HEREIN.

13. CONTRACTOR SHALL NOT BE RELIEVED FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS OR MIX DESIGNS BY THE ENGINEER'S REVIEW THEREOF.

14. ANY CHANGES TO THE STRUCTURE SHALL HAVE BEEN REVIEWED AND APPROVED IN WRITING BY THE ENGINEER PRIOR TO COMMENCING WORK ON ITEMS AFFECTED.

15. CONTRACTOR SHALL NOTIFY THIS OFFICE WHEN THE STRUCTURAL SYSTEM IS SUBSTANTIALLY COMPLETED, AND BEFORE SHEATHING, CEILINGS, OR ROOFING IS INSTALLED.

DELEGATED ENGINEER

1. WHERE NOTED HEREIN, A LICENSED PROFESSIONAL (DELEGATED) ENGINEER SHALL BE RETAINED TO DESIGN THE PRODUCT OR ASSEMBLY.

2. THE DELEGATED ENGINEER SHALL BE EXPERIENCED IN THE DESIGN OF THE REFERENCED PRODUCT OR ASSEMBLY.

3. THE DELEGATED ENGINEER MUST BE PROVIDED WITH A COPY OF THESE DRAWINGS AND SPECIFICATIONS.

4. IT IS THE DELEGATED ENGINEER'S RESPONSIBILITY TO REVIEW THE ENGINEER OF RECORD'S WRITTEN ENGINEERING REQUIREMENTS AND AUTHORIZATION FOR THE DELEGATED ENGINEERING DOCUMENT TO DETERMINE THE APPROPRIATE SCOPE OF ENGINEERING.

5. THE DELEGATED ENGINEERING DOCUMENT SHALL COMPLY WITH THE WRITTEN ENGINEERING REQUIREMENTS RECEIVED FROM THE ENGINEER OF RECORD. THEY SHALL INCLUDE THE PROJECT IDENTIFICATION AND THE CRITERIA USED AS A BASIS FOR ITS PREPARATION. IF A DELEGATED ENGINEER DETERMINES THERE ARE DETAILS, FEATURES OR UNANTICIPATED PROJECT LIMITS WHICH CONFLICT WITH THE WRITTEN ENGINEERING REQUIREMENTS PROVIDED BY THE ENGINEER OF RECORD, THE DELEGATED ENGINEER SHALL TIMELY CONTACT THE ENGINEER OF RECORD FOR RESOLUTION OF CONFLICTS.

6. THE DELEGATED ENGINEER SHALL FORWARD THE DELEGATED ENGINEERING DOCUMENT TO THE ENGINEER OF RECORD FOR REVIEW. ALL FINAL DELEGATED ENGINEERING DOCUMENTS REQUIRE THE IMPRESSED SEAL AND SIGNATURE OF THE DELEGATED ENGINEER AND INCLUDE:
A) DRAWINGS INTRODUCING ENGINEERING INPUT SUCH AS DEFINING THE CONFIGURATION OR STRUCTURAL CAPACITY OF STRUCTURAL COMPONENTS AND/OR THEIR ASSEMBLY INTO STRUCTURAL SYSTEMS.
B) CALCULATIONS.

DEFERRED SUBMITTALS BY DELEGATED ENGINEERS

1. IN ACCORDANCE WITH FBC 107.3.4.1, THE FOLLOWING PRE-ENGINEERED SPECIALITY ITEMS FOR PORTIONS OF THE BUILDING WILL NOT BE SUBMITTED AT THE TIME OF BUILDING PERMIT APPLICATION BUT WILL BE DEFERRED UNTIL AFTER THE PERMIT HAS BEEN ISSUED:
A) METAL CANOPIES
B) EXTERIOR NON-LOAD BEARING WALL ENCLOSURES
C) RAILING FOR STAIRS AND LANDINGS
D) METAL STUD FRAMING
E) STEEL BAR JOISTS

2. THESE ELEMENTS ARE PERFORMANCE-BASED DESIGN. THE CONTRACTOR SHALL CONTRACT FOR THE DESIGN AND CONSTRUCTION OF THESE ELEMENTS DURING THE CONSTRUCTION PHASE. THE SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED AND SIGNED BY A LICENSED FLORIDA DELEGATED PROFESSIONAL ENGINEER PER FLORIDA STATUTES. THEY SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

SITE WORK

1. A SUBSURFACE INVESTIGATION HAS BEEN COMPLETED AT THE PROJECT SITE BY UNIVERSAL ENGINEERING SCIENCES. SOIL BORING LOGS AND SITE PREPARATION PROCEDURES ARE INCLUDED IN THE PROJECT SOILS REPORT NO. 1992560, DATED JANUARY 10, 2023, WHICH IS AN INTEGRAL PART OF THESE CONTRACT DOCUMENTS.

2. SITE WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE PROJECT SOILS REPORT.

3. CONTRACTOR SHALL REVIEW THE SOILS REPORT AND VERIFY THAT TEST BORINGS HAVE BEEN DONE UNDER ALL BUILDING(S) PRIOR TO BEGINNING EARTHWORK.

4. INFORMATION FROM GEOTECHNICAL REPORT:
A) DESIGN SOIL BEARING PRESSURE = 6000 PSF. (VIBRO IMPROVEMENT)
B) ESTIMATED MAXIMUM SETTLEMENT = 1 INCH.
C) ESTIMATED DIFFERENTIAL SETTLEMENT = 1/2 INCH.

5. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING MINIMUM TESTS. REFER TO SOILS REPORT FOR ANY ADDITIONAL TESTING.
A) ONE DENSITY TEST FOR EACH 2,000 SQUARE FEET OF COMPACTED SUBGRADE AND COMPACTED FILL.
B) ONE DENSITY TEST AT EACH COLUMN FOOTING.
C) ONE DENSITY TEST PER 50 FEET OF WALL FOOTING.

6. ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.

7. FOUNDATION WALLS THAT RETAIN EARTH SHALL BE BRACED AGAINST BACKFILLING PRESSURES UNTIL FLOOR SLABS AT TOP AND BOTTOM ARE IN PLACE.

8. THE SIDES OF FOOTINGS MAY BE EARTH-FORMED IF THE EXCAVATION CAN BE KEPT VERTICAL, CLEAN, AND STABLE, OTHERWISE, PLYWOOD FORMS MUST BE USED.

9. EXERCISE CARE WHEN COMPACTING NEAR ADJACENT STRUCTURES. FOLLOW THE RECOMMENDATIONS IN THE SOILS REPORT AND DOCUMENT EXISTING CONDITIONS WITH PHOTOGRAPHS PRIOR TO STARTING WORK.

10. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITY LINES, TANKS, ETC. WITHIN THE CONSTRUCTION AREA AND RELOCATE THEM AS DIRECTED BY THE CIVIL ENGINEER.

CAST IN PLACE CONCRETE

1. ALL CAST-IN-PLACE CONCRETE WORK INCLUDES REINFORCING STEEL AND RELATED WORK SHOWN INCLUDING FORMWORK, SETTING ANCHOR BOLTS, PLATES, FRAMES, DOWELS FOR MASONRY OR OTHER ITEMS EMBEDDED IN CONCRETE.

2. APPLICABLE STANDARDS

ACI NUMBER	TITLE
117	STANDARD SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION
226	GROUND GRANULATED BLAST-FURNACE SLAG
301	STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS
302	GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION
304	GUIDE FOR MEASURING MIXING, TRANSPORTING AND PLACING CONCRETE
304.2R	PLACING CONCRETE BY PUMPING METHODS.
305R	HOT WEATHER CONCRETING
306R	COLD WEATHER CONCRETING
308	STANDARD PRACTICE FOR CURING CONCRETE
309R	GUIDE FOR CONSOLIDATION OF CONCRETE
315	MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES
318	BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
347	RECOMMENDED PRACTICE FOR CONCRETE FORMWORK

CRSI NUMBER	TITLE
63	RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS

3. CONCRETE MATERIALS
A) PORTLAND CEMENT - ASTM C 150, TYPE I
B) AGGREGATES - NORMAL WEIGHT CONCRETE, COARSE AND FINE, ASTM C33. STRUCTURAL LIGHT WEIGHT ASTM C330.
C) AIR-ENTRAINING - ASTM C260
D) WATER REDUCING - ASTM C494, TYPE A
E) WATER - FRESH, CLEAN AND POTABLE
F) NO ACCELERATORS, RETARDERS OR ADMIXTURES CONTAINING CHLORIDES WILL BE PERMITTED
G) FLY-ASH - ASTM C618, CLASS F, 20% MAXIMUM OF CEMENTITIOUS MATERIAL BY WEIGHT. DO NOT USE FOR EXPOSED SLABS OR ARCHITECTURAL CONCRETE.
H) SUPER PLASTICIZER - ASTM C494, TYPE F OR G, WHERE AUTHORIZED BY THE ENGINEER.
I) GROUND GRANULATED BLAST-FURNACE SLAG CEMENT – ASTM C989, 50% MAXIMUM BY WEIGHT.
J) MAXIMUM AGGREGATE SIZE - FOOTINGS = #57, OTHERS #67

4. REINFORCING MATERIALS
A) DEFORMED BARS - ASTM A615, GRADE 60
B) SMOOTH DOWELS - ASTM A615, PLAIN BARS, MINIMUM YIELD STRENGTH OF 60,000 PSI.
C) CORROSION RESISTANT UNCOATED STEEL (MMFX-2) – ASTM A615, GRADE 75 AND ASTM A1035 LOW-CARBON (8% MINIMUM) CHROMIUM BY MMFX OR EQUAL.
D) WELDED WIRE FABRIC - ASTM A1064, PLAIN WIRE FABRIC IN FLAT SHEETS ONLY.
E) ACCESSORIES TO CONFORM TO ACI 315.
F) WHERE CONCRETE SURFACES ARE EXPOSED, MAKE THOSE PORTIONS OF ALL ACCESSORIES IN CONTACT WITH THE CONCRETE SURFACE OR WITHIN 1/2 INCH THEREOF, OF PLASTIC OR STAINLESS STEEL.

5. PROVIDE THE FOLLOWING MINIMUM CONCRETE STRENGTHS AT 28 DAYS:
A) FOOTINGS, SLAB-ON-GRADE--------------------3000 PSI
B) REGULAR/LIGHTWEIGHT FILL ON METAL DECK-----3000 PSI
C) FORMED COLUMNS, WALLS, BEAMS & SLABS-------4000 PSI

6. CONCRETE MUST BE BATCHED, MIXED AND TRANSPORTED IN ACCORDANCE WITH THE SPECIFICATIONS FOR READY-MIXED CONCRETE ASTM C94.

7. REQUIRED SLUMP = 4 PLUS OR MINUS ONE INCH.

8. CONCRETE MUST BE PLACED WITHIN 90 MINUTES OF BATCH TIME. WHEN AIR TEMPERATURE IS BETWEEN 85 AND 90 DEGREES F, REDUCE MIXING AND DELIVERY TIME TO 75 MINUTES. WHEN AIR TEMPERATURE IS HIGHER THAN 90 DEGREES F, REDUCE MIXING AND DELIVERY TIME TO 60 MINUTES.

9. DO NOT ADD WATER AT THE JOB SITE WITHOUT APPROVAL OF THE PROJECT SUPERINTENDENT. DO NOT EXCEED THE SLUMP LIMITATION. USE ONLY COLD WATER FROM THE TRUCK TANK. ANY ADDED WATER MUST BE INDICATED ON THE DELIVERY TICKET PLUS THE NAME OF THE PERSON AUTHORIZING. TEST CYLINDERS SHALL BE TAKEN AFTER THE ADDITION OF WATER.

10. LAP SPLICE REINFORCING PER CONCRETE LAP SCHEDULE MINIMUM UNLESS OTHERWISE SHOWN OR NOTED.

11. PROVIDE CORNER BARS AT ALL WALL FOOTING, WALL AND BEAM CORNERS. SIZE AND NUMBER TO MATCH HORIZONTAL BARS.

12. PROVIDE FOUNDATION DOWELS TO MATCH SIZE AND NUMBER OF VERTICAL BARS. EMBED DOWELS TO:
A) 3" ABOVE BOTTOM OF FOOTINGS

13. REINFORCEMENT SHALL BE FASTENED AND SECURED TOGETHER TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR THE PLACING OF CONCRETE.

14. REINFORCING BAR COVER
A) FOOTINGS 2" (TOP), 3" (SIDES AND BOTTOM)
B) COLUMNS AND BEAMS 1-1/2"
C) SLABS 3/4" (INTERIOR), 1-1/2" (EXTERIOR)

15. WHERE BAR LENGTHS ARE GIVEN ON THE DRAWINGS, LENGTH OF HOOK, IF REQUIRED, IS NOT INCLUDED.

16. SELECT PROPORTIONS IN ACCORDANCE WITH ACI 301 TO PROVIDE CONCRETE CAPABLE OF BEING PLACED WITHOUT EXCESSIVE SEGREGATION AND WITH ACCEPTABLE FINISHING PROPERTIES, DURABILITY, SURFACE HARDENERS, APPEARANCE, AND STRENGTH REQUIREMENTS REQUIRED BY THESE SPECIFICATIONS.

17. CHAIR WELDED WIRE FABRIC REINFORCING AT 3'-0" ON CENTER MAXIMUM IN EACH DIRECTION.

18. MAXIMUM WATER TO CEMENT RATIO WHEN NO BACK-UP DATA IS AVAILABLE:
A) 4000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.44 MAXIMUM (NON-AIR-ENTRAINED), 0.36 MAXIMUM (AIR-ENTRAINED).
B) 3000 PSI, 28-DAY COMPRESSIVE STRENGTH; W/C RATIO, 0.58 MAXIMUM (NON-AIR-ENTRAINED), 0.47 MAXIMUM (AIR-ENTRAINED).

19. DATA TO BE SUBMITTED:
A) INTENDED USAGE AND LOCATION FOR EACH TYPE
B) MIX DESIGN FOR EACH TYPE
C) CEMENT CONTENT IN POUNDS-PER-CUBIC YARD
D) COARSE AND FINE AGGREGATE IN POUNDS/CUBIC YARD
E) WATER CEMENT RATIO BY WEIGHT
F) CEMENT TYPE AND MANUFACTURER
G) SLUMP RANGE
H) AIR CONTENT
I) ADMIXTURE TYPE AND MANUFACTURER
J) PERCENT ADMIXTURE BY WEIGHT
K) STRENGTH TEST DATA REQUIRED TO ESTABLISH MIX DESIGN.
L) COMPLETE DETAIL AND PLACING SHOP DRAWINGS FOR ALL REINFORCING STEEL INCLUDING ACCESSORIES THAT HAVE BEEN REVIEWED AND STAMPED BY THE GENERAL CONTRACTOR. INCLUDE ALL REQUIRED DIMENSIONS AND ELEVATIONS (IE. TOP OF CONCRETE)

20. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CONSTRUCTION OF FORMWORK, SHORING AND RE-SHORING IN ACCORDANCE WITH ACI 347.
A) FORM AND SHORING DESIGN BY A P.E. REGISTERED IN THE STATE OF FLORIDA.

21. SUBMIT FORM WORK AND SHORING DRAWINGS TO LOCAL BUILDING DEPARTMENT WHEN REQUIRED BY FLORIDA THRESHOLD LAW.

22. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWINGS MUST BE MADE AND LOCATED TO LEAST IMPAIR THE STRENGTH OF THE STRUCTURE.
A) NO HORIZONTAL CONSTRUCTION JOINTS WILL BE PERMITTED IN BEAMS, GIRDERS AND SLABS.
B) LOCATION OF ANY CONSTRUCTION JOINT NOT SHOWN IS SUBJECT TO REVIEW AND ACCEPTANCE BY ENGINEER.

23. INTERNAL VIBRATION, PROPERLY APPLIED IS THE REQUIRED METHOD OF CONSOLIDATING PLASTIC CONCRETE.

24. PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS AND WALLS UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.

25. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, SLEEVES, AND SLAB RECESSES AS REQUIRED BY OTHER TRADES BEFORE CONCRETE IS PLACED. NO SLEEVE, OPENINGS, OR INSERT MAY BE PLACED IN BEAMS, JOISTS, OR COLUMN UNLESS APPROVED BY THE ENGINEER.

26. CONTRACTOR SHALL VERIFY EMBEDDED ITEMS INCLUDING, BUT NOT LIMITED TO, ANCHOR BOLTS, BOLT CLUSTERS, WELD PLATES, ETC., BEFORE PLACING CONCRETE. NOTIFY ENGINEER OF ANY CONFLICTS WITH REBAR.

27. ALL EXPOSED CONCRETE SURFACES TO BE IN ACCORDANCE WITH ACI 301 SECTION 5.3.3.(C), INCLUDING SURFACE TOLERANCE CLASS A AS SPECIFIED IN ACI 117.U.N.O.

28. SEE ARCHITECTURAL DRAWINGS FOR REQUIRED CONCRETE FINISHES.

29. SLOPE WALKWAYS AND BALCONIES TO DRAIN AWAY FROM THE BUILDING.

30. BUILDING FLOOR AND SITE SLABS-ON-GRADE SHALL BE 4" MINIMUM THICKNESS, UNLESS NOTED OTHERWISE.
A) REINFORCED WITH 6X6 - W1.4 X W1.4 W.W.F.
B) PLACED ON 10 MIL POLYETHYLENE VAPOR RETARDER. LAP 6" AND TAPE ALL JOINTS.
C) SAW-CUT CONTROL JOINTS @ LESS THAN OR EQUAL TO 15'-0" EACH WAY.
D) PROVIDE HOUSEKEEPING PADS AS REQUIRED.
E) SEE DRAWINGS FOR ANY ADDITIONAL CONDITIONS.

31. TESTING
A) A QUALIFIED TESTING LAB SHALL BE RETAINED TO PERFORM QUALITY CONTROL WORK AND ON-SITE TESTING.
B) SLUMP TEST - ASTM 143
C) MOLD AND CURE TEST CYLINDERS (ASTM C-31) AND TEST CYLINDERS FOR STRENGTH (ASTM C39). TAKE ONE TEST - THREE CYLINDERS FOR EACH DAYS POUR OF 100 CUBIC YARDS, OR FRACTION THEREOF. TEST ONE CYLINDER AT 7 DAYS, TWO AT 28 DAYS. TEST CYLINDER SAMPLES SHALL BE TAKEN AT THE POINT OF DISCHARGE WHEN USING A PUMP.
D) ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO THE OWNER, ENGINEER, ARCHITECT AND GENERAL CONTRACTOR.

32. CONTRACTOR SHALL PROVIDE FLATNESS AND LEVELNESS IN CONCRETE SLABS PER ACI 302.1R, FIG. 10.7 MINIMUM REQUIRED "F" NUMBERS FOR TYPE OF SLAB USE. REFER TO ACI 117 FOR FLOOR TOLERANCES.

33. REPAIR ANY CRACKS OR DEFECTIVE AREAS THAT WILL RESTORE THE AFFECTED SURFACE OR AREAS TO THEIR FULL DESIGN STRENGTH AND APPEARANCE. CONTACT THE STRUCTURAL ENGINEER FOR ADVICE AND EVALUATION.

34. ACCEPTANCE OF THE STRUCTURE WILL BE MADE IN CONFORMANCE WITH ACI 301.

35. ALL CAST-IN-PLACE CONCRETE MUST BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT A RELATIVELY CONSTANT TEMPERATURE FOR A MINIMUM OF 7 DAYS FOLLOWING THE PLACING OF THE CONCRETE BY THE USE OF A WATER SPRAY, WATER SATURATED FABRIC, MOISTURE RETAINING MEMBRANE OR LIQUID CURING COMPOUND.

36. CURE SLABS-ON-GRADE FOR THE FIRST 72 HOURS BY THE USE OF:
A) FOG SPRAYING
B) PONDING
C) SPRINKLING
D) CONTINUOUSLY WET ABSORPTIVE MATS OR FABRIC
E) CONTINUE CURING BY USE OF MOISTURE RETAINING COVER UNTIL CONCRETE HAS OBTAINED ITS SPECIFIED 28 DAY COMPRESSIVE STRENGTH.
F) OR LIQUID CURING COMPOUND AFTER FINISHING PROCESS IS COMPLETED.
G) CONCRETE WET CURE TIME TO BE 7 DAYS MINIMUM AT 50 DEGREES MINIMUM TEMPERATURE.

37. SUBMIT MATERIALS AND METHOD OF CURING FOR REVIEW.

38. DO NOT USE MOISTURE RETAINING CURING COMPOUNDS FOR CURING SURFACES TO RECEIVE CARPET, FLEXIBLE FLOORING, CERAMIC TILED FLOORS OR OTHER SPECIFIED FLOOR SYSTEMS, UNLESS IT HAS BEEN DEMONSTRATED THAT SUCH COMPOUNDS WILL NOT PREVENT BOND.

39. DO NOT PERMIT CONCRETE NOT FULLY CURED TO BE EXPOSED TO EXCESSIVE TEMPERATURE CHANGES OR HIGH WINDS.

40. POUR ALL GROUND SLABS ON 10 MIL MINIMUM VAPOR RETARDER IN COMPLIANCE WITH ASTM E1745, LAPPED 6" MINIMUM AND FULLY TAPED.

41. EQUIPMENT MADE OF ALUMINUM OR ALUMINUM ALLOYS, SHALL NOT BE USED FOR PUMP LINES, TREMIES, OR CHUTES OTHER THAN SHORT CHUTES SUCH AS THOSE USED TO CONVEY CONCRETE FROM A TRUCK MIXER.

42. THE CODE PROHIBITS THE USE OF ALUMINUM (CONDUIT, PIPES, ETC.) IN STRUCTURAL CONCRETE UNLESS IT IS EFFECTIVELY COATED OR COVERED.

TILT-UP CONCRETE PANELS

1. A LICENSED DELEGATED ENGINEER SHALL BE RETAINED TO DESIGN THE ENTIRE TILT-UP PANEL SYSTEM IN ACCORDANCE WITH THE TILT-UP CONSTRUCTION ASSOCIATION (TCA) INCLUDING, BUT NOT LIMITED TO, PANEL REINFORCING, EMBEDDED STEEL CONNECTION ASSEMBLIES AND PANEL LIFTING INSERTS.

2. THE DELEGATED ENGINEER SHALL SUBMIT SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS INDICATING PANEL DIMENSIONS, OPENINGS, REINFORCEMENT, EMBEDDED STEEL CONNECTION ASSEMBLIES DETAILS, LOCATIONS OF ITEMS CAST INTO PANELS, LIFTING DEVICES, AND OTHER PERTINENT INFORMATION NECESSARY TO CONSTRUCT AND ERECT ALL TILT-UP PANELS.

3. CONCRETE TO BE NORMAL WEIGHT WITH A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.

4. MINIMUM CONCRETE STRENGTH AT LIFTING TO BE 3000 PSI UNLESS SPECIFIED OTHERWISE BY DELEGATED ENGINEER.

5. SEE DRAWINGS FOR MINIMUM PANEL THICKNESS.

6. ERECTOR SHALL HAVE AT LEAST TWO (2) YEARS OF EXPERIENCE IN ERECTION OF TILT-UP WALL PANELS.

7. COORDINATE INSTALLATION OF INSERTS AND ANCHORAGES REQUIRED TO BE SET INTO CONCRETE SLABS PRIOR TO CASTING PANELS.

8. CAST PANELS INDIVIDUALLY ON BUILDING FLOOR SLAB, OR TEMPORARY CASTING PLATFORM, AT CONTRACTOR'S OPTION.

9. PANELS SHALL BE CAST WITH INTERIOR FACE UP.

10. MINIMUM REBAR COVER = 3/4 INCHES.

11. SEE ARCHITECTURAL DRAWINGS FOR CHAMFERS, REVEALS, AND ANY EMBEDDED ITEMS.

12. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CORNERS OF COLUMNS, BEAMS, AND WALLS UNLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS.

13. PANELS SHALL BE ERECTED AND BRACED BY A COMPETENT AND EXPERIENCED ERECTION CREW WHICH ALSO ERECT THOSE PORTIONS OF THE STEEL THAT CONNECT THE PANELS TO THE BRACED SECTIONS OF THE FRAME.

14. LIFT PANELS IN ACCORD WITH RECOMMENDATIONS OF LIFTING HARDWARE SUPPLIER.

15. PANELS SHALL BE ACCURATELY SET AND PLUMBED. STEEL SHIMS AND WEDGES SHALL BE USED TO PLUMB THE PANELS IN A VERTICAL POSITION. SHIMS AND WEDGES SHALL BE PLACED AT THE PANEL THIRD POINTS OR AT 10'-0" MAXIMUM. AS PANELS ARE ERECTED AND PLUMBED, THE BASE SHALL BE GROUTED AT THE FOUNDATION WITH A READY MIX NON-SHRINK GROUT U.N.O.

16. AFTER PLACING, PROVIDE TEMPORARY BRACES AND SUPPORTS TO SECURELY HOLD PANELS IN POSITION. MAINTAIN BRACES AND SUPPORTS IN PLACE, UNDISTURBED UNTIL SLABS, CLOSURES, COLUMNS OR OTHER SUPPORTING STRUCTURES HAVE BEEN INSTALLED AND ARE CAPABLE OF RECEIVING PANELS.

17. PATCH HOLES IN PANEL SURFACES CAUSED BY LIFTING AND BRACING DEVICES WITH A PREMIXED NON-SHRINK EPOXY GROUT.

18. CAUTION! SLAB HAS NOT BEEN DESIGNED FOR CRANE LOADS. IF PANEL ERECTOR INTENDS TO LIFT ANY OF THE TILT-UP PANELS FROM THE SLAB, CRANE INFORMATION MUST BE SUBMITTED TO PENNONI ASSOCIATES INC. PRIOR TO CONSTRUCTION FOR USE IN THE ANALYSIS AND POSSIBLE REDESIGN OF THE SLAB.

19. AN INDEPENDENT QUALIFIED INSPECTOR SHALL BE RETAINED TO CERTIFY THAT THE CONTROL OF FORM DIMENSIONS, PLACING OF REINFORCEMENT AND EMBEDDED STEEL ASSEMBLIES AND QUALITY CONTROL OF AND CURING PROCEDURE IS EQUAL TO THAT NORMALLY EXPECTED FOR ELEMENTS MANUFACTURED UNDER PLANT CONTROL CONDITIONS.

DRILL-IN BOLTS, SCREWS AND DOWELS

1. ADHESIVE DOWELING RODS/BOLTS SHALL BE CARBON STEEL THREADED ROD CONFORMING TO ISO 898 5.8 WITH A MINIMUM TENSILE STRENGTH OF 72.5 KSI (500MPa) AND A MINIMUM YIELD OF 58 KSI (400MPa). THREADED RODS WITH NUTS AND WASHERS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

2. ANCHORING ADHESIVE SHALL BE A TWO-COMPONENT SYSTEM SUPPLIED IN MANUFACTURER'S STANDARD SIDE-BY-SIDE FOIL PACKAGE AND DISPENSED THROUGH A STATIC-MIXING NOZZLE SUPPLIED BY THE MANUFACTURER. ADHESIVE SHALL BE TESTED AND APPROVED TO MEET THE MINIMUM REQUIREMENTS OF ACI 355.4 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION. PROVIDE HILTI HY 200 SAFE SET (ESR 3187) OR RE 500 V3 (ESR 3814) ANCHORS BY HILTI OR EQUAL (E.G. SIMPSON SET-XP, ATC ULTRABOND 365CC)UNLESS SPECIFIED OTHERWISE IN THE STRUCTURAL DOCUMENT.

3. DRILL-IN REBAR DOWELS SHALL BE SET USING A TWO-PART ADHESIVE AS DESCRIBED ABOVE.

4. EXPANSION BOLTS SHALL BE HILTI KB TZ (ESR 1917) OR EQUAL. BOLT SHALL MEET DUCTILITY REQUIREMENTS OF ACI 318 SECTION D1.

5. EXPANSION BOLTS SHALL HAVE CARBON STEEL ANCHOR BODY AND NUT AND WASHER SHALL BE ELECTROPLATED ZINC COATING CONFORMING TO ASTM B633 TO A MINIMUM OF 5μM. THE STAINLESS STEEL ANCHOR BODY, NUT AND WASHER, AND EXPANSION SLEEVE SHALL CONFORM TO TYPE 316 STAINLESS STEEL. EXPANSION ANCHORS SHALL MEET THE MINIMUM REQUIREMENTS OF ACI 355.2 FOR CRACKED AND UNCRACKED CONCRETE. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

6. MASONRY SCREWS SHALL BE 1/4" DIAMETER WITH 1-5/8" MINIMUM EMBEDMENT INSTALLED IN DRILLED HOLES USING AN APPROPRIATE BIT DIAMETER.

7. SCREWS SHALL HAVE A BODY MADE OF CARBON STEEL AND SHALL BE HEAT TREATED AND SHALL HAVE 8μM ZINC COATING IN ACORDANCE WITH EN ISO 4042. PROVIDE HUS EZ (ESR 3027) SCREWS BY HILTI OR EQUAL.

8. HEAVY-DUTY CONCRETE AND MASONRY SCREWS SHALL BE TESTED AND APPROVED TO MEET THE MINIMUM REQUIREMENTS OF ACI 355.2. HILTI KWICK HUS EZ (ESR-3027 FOR CONCRETE, ESR-3056 FOR GROUT FILLED MASONRY). HEAVY DUTY SCREWS BY HILTI OR EQUAL.

9. THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THE ANCHORING PRODUCTS SPECIFIED. PENNONI TO RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO ARE TO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLATION.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO THE AISC "SPECIFICATION FOR BUILDINGS", LATEST EDITION.

2. WELDED CONNECTIONS SHALL CONFORM TO THE LATEST REVISED CODE OF THE AMERICAN WELDING SOCIETY, AWS D1.1. ALL WELDING SHALL BE PERFORMED USING E70XX, LOW HYDROGEN ELECTRODES. ELECTRODES ARE TO BE PROTECTED FROM MOISTURE.

3. CONNECTIONS TO BE DOUBLE ANGLE FRAMED BEAM CONNECTION PER AISC UNLESS NOTED OTHERWISE. ALL BOLTS TO BE 3/4" DIAMETER UNLESS NOTED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED. WELDS ARE TO BE EQUAL IN STRENGTH TO BOLTS. ALL FIELD CONNECTIONS ARE TO BE BOLTED WITH ASTM A325N OR A490 BOLTS (BEARING TYPE BOLTS WITH THREADS IN THE SHEAR PLANE) INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS. ALL BOLTS SHALL BE TIGHTENED SNUG TIGHT UNLESS OTHERWISE NOTED. DESIGN CONNECTIONS FOR THE LARGER OF EITHER THE SHEAR SHOWN ON THE DRAWINGS, (INDICATED AS "V =K" AT ENDS OF MEMBER) OR 55% OF THE MAXIMUM LOAD(IN KIPS) LISTED IN THE TABLES FOR "MINIMUM TOTAL FACTORED UNIFORM LOADS IN KIPS FOR BRACED, SIMPLE SPAN BEAMS BENT ABOUT THE STRONG AXIS" OF THE LATEST EDITION OF THE AISC "MANUAL OF STEEL CONSTRUCTION".

4. SIZE AND USE OF HOLES: SEE AISC TABLE J3.3.
A) LARGER HOLES ARE PERMITTED IN STANDARD COLUMN BASE PLATES. MAXIMUM HOLE DIAMETER = BOLT DIAMETER + 3/8". HARDENED WASHERS, TO COVER THE LARGER HOLE, SHALL BE PROVIDED.
B) LARGER HOLES ARE NOT PERMITTED IN WIND FRAME COLUMN BASE PLATES. MAXIMUM HOLE DIAMETER = BOLT DIAMETER + 1/16".
C) SLOTTED HOLES: A PLATE WASHERS OR A CONTINUOUS BAR WITHSTANDARD HOLES, HAVING A SIZE SUFFICIENT TO COMPLETELY COVER THE SLOT AFTER INSTALLATION, AND A MIN. OF 5/16" THICK SHALL BE PROVIDED. TACK WELD NUT TO BOLT AFTER ERECTION.

5. STEEL BEAMS SHALL BE FABRICATED WITH THE NATURAL CAMBER (WITHIN THE MILL TOLERANCE) LOCATED ABOVE THE HORIZONTAL CENTERLINE BETWEEN THE END CONNECTIONS.

6. VERIFY THE EXACT SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS FOR MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION OF MATERIALS.

7. SHOP PRIME STEEL SURFACES EXCEPT THE FOLLOWING:
A) SURFACES EMBEDDED IN CONCRETE OR MORTAR. EXTEND PRIMING OF PARTIALLY EMBEDDED MEMBERS TO A DEPTH OF 2 INCHES.
B) SURFACES TO BE FIELD WELDED.
C) SURFACES TO BE HIGH-STRENGTH BOLTED WITH SLIP-CRITICAL CONNECTIONS.
D) SURFACES TO RECEIVE SPRAYED FIRE-RESISTIVE MATERIALS.
E) GALVANIZED SURFACES.

8. SURFACE PREPARATION: CLEAN SURFACES TO BE PAINTED. REMOVE LOOSE RUST AND MILL SCALE AND SPATTER, SLAG, OR FLUX DEPOSITS. PREPARE SURFACES ACCORDING TO THE FOLLOWING SPECIFICATIONS AND STANDARDS.

9. PRIMING: IMMEDIATELY AFTER SURFACE PREPARATION, APPLY PRIMER ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND AT RATE RECOMMENDED BY SSPC TO PROVIDE A DRY FILM THICKNESS OF NOT LESS THAN 1.5 MILS. USE PRIMING METHODS THAT RESULT IN FULL COVERAGE OF JOINTS, CORNERS, EDGES, AND EXPOSED SURFACES.
A) STRIPE PAINT CORNERS, CREVICES, BOLTS, WELDS, AND SHARP EDGES.
B) APPLY TWO COATS OF SHOP PAINT TO INACCESSIBLE SURFACES AFTER ASSEMBLY OR ERECTION. CHANGE COLOR OF SECOND COAT TO DISTINGUISH IT FROM FIRST.

10. PRIME AND PAINT ALL FIELD WELDS AFTER INSPECTION.

11. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO PERFORM THE FOLLOWING TESTS.
A) VISUALLY INSPECT ALL STEEL MEMBERS AND CONNECTIONS.
B) TEST 50 PERCENT OF FULL PENETRATION WELDS.

12. ONE COPY OF ALL TEST REPORTS SHALL BE SENT DIRECTLY TO OWNER, ARCHITECT, STRUCTURAL ENGINEER, AND GENERAL CONTRACTOR.

13. STEEL SHALL CONFORM TO:
WIDE FLANGE (WF)(WT)------ASTM A992 (50 KSI)
SHAPES (S, L, C, MC)---------ASTM A36
HOLLOW STRUCTURAL SECTIONS (HSS)---ASTM A500 GRADE C (RECTANGULAR 50 KSI; ROUND 46 KSI)
ANCHOR RODS---------------ASTM F1554 (55 KSI W/S1 SUPPLEMENT)
ANCHOR BOLTS--------------ASTM A307
FRAMING BOLTS-------------ASTM A325N OR A490N
SHEAR STUDS---------------ASTM A108
WELDING ELECTRODES--------E70XX

14. FASTENERS AND MATERIALS USED FOR WELDING OR OTHERWISE SECURING COMPONENTS ONE TO ANOTHER SHALL BE OF DOMESTIC (USA MADE) MANUFACTURE. SIMILARLY, ALL MATERIALS USED IN THE MANUFACTURING PROCESS SHALL BE FROM A DOMESTIC SOURCE.

15. OPENINGS THROUGH STEEL BEAMS SHALL BE PROVIDED AS DETAILED ON THE DRAWINGS. ALL SUCH OPENINGS SHALL BE MACHINE CUT IN THE SHOP. ALL RECTANGULAR OPENINGS SHALL HAVE A CORNER RADIUS OF 2 TIMES THE WEB THICKNESS, 1/2" MINIMUM.

16. SHOP AND FIELD WELDS SHALL BE DONE BY A.W.S. CERTIFIED WELDERS. PROVIDE CURRENT CERTIFICATES UPON REQUEST.

17. NO SPLICES SHALL BE PERMITTED IN ANY STRUCTURAL STEEL MEMBER UNLESS SHOWN ON APPROVED SHOP DRAWINGS.

18. STEEL STAIRS AND/OR LADDERS SHALL BE DESIGNED FOR 100 PSF LIVE LOAD BY A LICENSED DELEGATED ENGINEER, WHO SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS. SHOP DRAWINGS SHALL SPECIFY ALL DESIGN LOADS.

19. SUBMITTALS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING ALL STRUCTURAL STEEL LAYOUTS AND DETAILS, SIZES OF MEMBERS, TYPE OF STEEL, CONNECTION DETAILS, WELDS, BOLTS, ETC., AS REQUIRED TO FABRICATE AND ERECT ALL STRUCTURAL STEEL FRAMING. ALL CONNECTIONS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE DESIGNED BY THE DETAILER AND SUBMITTED ON SHOP DRAWINGS, SIGNED AND SEALED BY A REGISTERED FLORIDA DELEGATED ENGINEER.

20. NON-SHRINK GROUT SHALL BE: NONMETALLIC SHRINKAGE-RESISTANT GROUT, PREMIXED, NON-CORROSIVE, NON-STAINING PRODUCT CONTAINING SELECTED SILICA SANDS, PORTLAND CEMENT, SHRINKAGE COMPENSATING AGENTS, PLASTICIZING AND WATER-REDUCING AGENTS, COMPLYING WITH CRD-C621, CORPS OF ENGINEERS.

21. IF NOT SPECIFIED ON THE DRAWINGS, THE THROAT SIZE OF ANY FILLET WELD SHALL BE EQUAL TO 1/16" LESS THAN THE THINNEST CONNECTION COMPONENT.

22. NO FIELD WELDING OF GALVANIZED MEMBERS IS PERMITTED UNLESS IN A WELL VENTILATED AREA.

23. MINIMUM EMBEDMENT DEPTH OF ANCHOR BOLTS:
A) BEAMS, COLUMNS, WALLS = 6"
B) FOOTINGS = 3" FROM BOTTOM

24. ERECTION
A) BEFORE ERECTION, THE CONTRACTOR IS TO REMOVE ALL MUD, DIRT OR OTHER FOREIGN MATTER, WHICH ACCUMULATES DURING HANDLING AND STORAGE.
B) DRIFTING TO ENLARGE UNFAIR HOLES WILL NOT BE PERMITTED. DRILL SUCH HOLES TO ACCOMMODATE THE NEXT LARGER SIZE FASTENER, WHERE POSSIBLE.
C) AFTER ERECTION, CLEAN FIELD WELDS, BOLTED CONNECTIONS, AND ABRADED AREAS WHERE SHOP COAT HAS BEEN DAMAGED. SPOT AND PRIME AREAS USING SAME MATERIAL AS SHOP COAT.
D) SET ALL MEMBERS SO THAT, IN THEIR FINAL LOCATION, LEVEL, PLUMBNESS AND ALIGNMENT ARE WITHIN THE TOLERANCES PRESCRIBED BY AISC CODE.
E) DOUBLE CONNECTIONS THROUGH COLUMN WEBS OR AT BEAMS THAT FRAME OVER THE TOPS OF COLUMNS MUST BE DESIGNED TO HAVE AT LEAST ONE INSTALLED BOLT REMAIN IN PLACE TO SUPPORT THE FIRST BEAM WHILE THE SECOND BEAM IS BEING ERECTED. ALTERNATIVELY, THE FABRICATOR MUST SUPPLY A SEAT OR EQUIVALENT DEVICE WITH A MEANS OF POSITIVE ATTACHMENT TO SUPPORT THE FIRST BEAM WHILE THE SECOND BEAM IS BEING ERECTED.

OPEN WEB STEEL JOISTS AND JOIST GIRDERS (NOTED "JOISTS" HEREIN)

1. STEEL JOIST MANUFACTURER SHALL BE A MEMBER OF THE STEEL JOIST INSTITUTE.

2. STEEL JOISTS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE AISC STANDARD SPECIFICATIONS FOR OPEN WEB STEEL JOISTS K, LH, OR DLH SERIES (SEE PLAN), AND OSHA STEEL ERECTION STANDARD.

3. JOISTS, GIRDERS, AND ALL ACCESSORIES SHALL BE DESIGNED BY A LICENSED DELEGATED ENGINEER WHO SHALL PREPARE DESIGN CALCULATIONS AND SUPERVISE THE PREPARATION OF SHOP DRAWINGS.

4. VERIFY THE EXACT LOCATION AND WEIGHT OF ALL MECHANICAL EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION OF JOISTS.

5. ALL HANGERS TO SUPPORT MECHANICAL EQUIPMENT, ETC., TO BE SUPPORTED BY THE TOP OR BOTTOM CHORD OF JOISTS SHALL BE LOCATED AT THE PANEL POINT OF THE JOIST. IF HANGERS MUST BE LOCATED IN BETWEEN PANEL POINTS, PROVIDE JOIST STIFFENER AS INDICATED IN DETAILS. ALL HANGERS TO BE LOCATED AT THE CENTERLINE OF THE BOTTOM CHORD MEMBER.

6. NO MODIFICATION THAT AFFECTS THE STRENGTH OF A STEEL JOIST SHALL BE MADE WITHOUT THE APPROVAL OF THE DELEGATED ENGINEER.

7. DELEGATED ENGINEER SHALL DESIGN JOISTS AND BRIDGING FOR GRAVITY LOADS AND WIND LOAD UPLIFT PRESSURES INDICATED ON THE DRAWINGS.

8. JOIST BRIDGING SHALL BE FURNISHED AND INSTALLED TO MEET THE DESIGN AND SPACING REQUIREMENTS OF THE SJI STANDARD SPECIFICATIONS. ALL BRIDGING AND BRIDGING ANCHORS SHALL BE COMPLETELY INSTALLED BEFORE CONSTRUCTION LOADS ARE PLACED ON THE JOISTS.

9. WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH SOLID WEB BEAMS, A STEEL JOIST SHALL BE FIELD-BOLTED AT THE COLUMN TO PROVIDE LATERAL STABILITY DURING ERECTION.

10. A 6"X6" MINIMUM VERTICAL STABILIZER PLATE TO RECEIVE THE JOIST BOTTOM CHORD MUST BE PROVIDED AT COLUMNS. THE STABILIZER PLATE MUST HAVE A 13/16 INCH HOLE FOR THE ATTACHMENT OF GUYING OR PLUMBING CABLES.

11. JOISTS AND ACCESSORIES SHALL HAVE ONE SHOP COAT OF PAINT MEETING THE MINIMUM PERFORMANCE REQUIREMENTS OF THE LATEST SJI SPECIFICATIONS. SEE ARCHITECT FOR PREFERRED COLOR.

12. SEE PLAN FOR ANY CONCENTRATED LOADS OR UNUSUAL CONDITIONS. ALL JOISTS SUBJECT TO SPECIAL LOADS OR CONDITIONS SHALL BE CONSIDERED "SPECIAL JOISTS", (SP).

13. CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING JOISTS, BRIDGING, AND ALL CONNECTIONS. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE DELEGATED ENGINEER.

14. THE DELEGATED ENGINEER MUST BE PROVIDED WITH A COPY OF THESE DRAWINGS AND SPECIFICATIONS.

15. UNLESS PANELIZED, ALL JOISTS 40 FOOT LONG AND LONGER AND THEIR BEARING MEMBERS MUST HAVE HOLES TO ALLOW FOR INITIAL CONNECTIONS BY BOLTING.

16. PROVIDE ONE ROW UPLIFT BRIDGING AT THE FIRST PANEL POINT FROM EACH SUPPORT.

17. A ROW OF BOLTED DIAGONAL BRIDGING MUST BE PROVIDED NEAR MIDSPAN OF ALL JOISTS SHOWN IN SJI TABLES A & B. DO NOT RELEASE HOISTING CABLES UNTIL THIS BRIDGING IS INSTALLED.

18. FOR JOIST SPANS OVER 60 FEET, ALL ROWS OF BRIDGING SHALL BE BOLTED DIAGONAL BRIDGING. DO NOT RELEASE HOISTING CABLES UNTIL THE TWO ROWS NEAR THE THIRD POINTS ARE INSTALLED.

19. FOR JOIST SPANS OVER 100 FEET THRU 144 FEET, ALL ROWS OF BRIDGING SHALL BE BOLTED DIAGONAL BRIDGING. DO NOT RELEASE HOISTING CABLES UNTIL ALL ROWS OF BRIDGING ARE INSTALLED.

20. PROVIDE ONE ROW DIAGONAL BRIDGING AT THE SUPPORTS OF ALL FULL DEPTH BEARING JOISTS. DO NOT RELEASE HOISTING CABLES UNTIL THE SUPPORT BRIDGING IS INSTALLED.

21. DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL PROVIDE MEANS FOR ADEQUATE DISTRIBUTION OF CONCENTRATED LOADS SO THAT THE CARRYING CAPACITY OF ANY JOIST IS NOT EXCEEDED.

22. ONE END OF ALL JOISTS SHALL BE ATTACHED TO ITS SUPPORT IN ACCORDANCE WITH SJI SPECIFICATIONS BEFORE ALLOWING THE WEIGHT OF AN ERECTOR ON THE JOISTS.

23. IN THE CASE OF BOTTOM CHORD BEARING JOISTS, THE ENDS OF THE JOIST MUST BE RESTRAINED LATERALLY BEFORE RELEASING THE HOISTING CABLES.

24. SEE STANDARD JOIST SPECIFICATIONS FOR CAMBER REQUIREMENTS.

25. SUBMIT COMPLETE SHOP DRAWINGS FOR ALL JOISTS AND ACCESSORIES, AND A LETTER, SIGNED AND SEALED BY THE DELEGATED ENGINEER, CONFIRMING COMPLIANCE WITH THE DESIGN CRITERIA AND ALL APPLICABLE CODES.

METAL DECKING

1. METAL DECK WORK SHALL CONFORM TO THE REQUIREMENTS OF THE STEEL DECK INSTITUTE.

2. METAL ROOF DECK SHALL BE 50 KSI, 1 1/2" DEEP (VENTED), WIDE RIB TYPE B AND GALVANIZED. (VULCRAFT OR EQUIVALENT.)

3. FASTEN ROOF DECK AS INDICATED ON PLANS.

4. METAL FLOOR DECK SHALL BE 2" DEEP, 18 GAUGE GALVANIZED COMPOSITE DECK DESIGNED AS UN-SHORED. (VULCRAFT 2VLI18 OR EQUIVALENT.)

5. FASTEN FLOOR DECK TO EACH INTERMEDIATE SUPPORT WITH (2) 5/8" DIAMETER PUDDLE WELDS AND (3) 5/8" DIAMETER PUDDLE WELDS TO EACH END LAP SUPPORT PER 36 INCH WIDTH. SIDELAPS SHALL BE FASTENED WITH #12TEK SCREWS AT 36" ON CENTER MAXIMUM.

6. MINIMUM FASTENING AT BUILDING PERIMETER OF DECK SHALL BE 5/8" DIAMETER PUDDLE WELDS AT 6" O.C.

7. METAL DECK AND SHEET METAL COATING DESIGNATION:
A. WITH STRUCTURAL CONCRETE OR INSULATING CONCRETE TOPPING – G90
B. WITHOUT STRUCTURAL CONCRETE OR INSULATING CONCRETE TOPPING – G60

8. INSTALL ALL DECKING 3 SPAN CONTINUOUS.

9. USE WELD WASHERS FOR ALL DECKING 24 GA. AND THINNER.

10. DO NOT HANG OR ATTACH DUCTWORK, CONDUIT, PIPING, EQUIPMENT, CEILINGS, ETC. FROM METAL DECKING.

11. ROOF DECK OPENINGS 12" DIAMETER OR LARGER ARE TO HAVE SUPPORT ANGLES PER TYPICAL DECK OPENING DETAIL, INCLUDING OPENINGS FOR ROOF SUMP PANS.

12. PRIME AND PAINT ALL FIELD WELDS AFTER INSPECTION WITH A GALVANIZED TOUCH-UP PAINT. (SEE NOTE BELOW)

13. SUBMITTALS: CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS SHOWING LAYOUT OF DECK, TYPE OF DECK, ALL CONNECTIONS INCLUDING END WELDS, SEAM WELDS, INTERMEDIATE WELDS, AND ALL ACCESSORY MATERIAL SUCH AS CLOSURES, SUMPS FOR DRAINS, ETC.

14. A QUALIFIED TESTING LABORATORY SHALL BE RETAINED TO VISUALLY INSPECT ALL DECK WELDS AND FASTENERS.

VIBRO IMPROVEMENT (STONE COLUMNS)

1. DENSIFICATION OF THE SUBSURFACE SOILS SHALL BE UNDERTAKEN UTILIZING VIBRO IMPROVEMENT TECHNIQUES.

2. A DESCRIPTION OF THE VIBRO IMPROVEMENT PROCESS AND SPECIFICATION HAVE BEEN INCLUDED IN THE PROJECT SOILS REPORT, WHICH IS INCOPORATED BY REFERENCE HEREIN.

3. VIBRO IMPROVEMENT (STONE COLUMN) METHODOLOGY CONSISTS OF INSERTING A PROBE INTO THE SOIL THROUGH A COMBINATION OF VIBRATION AND WATER JETTING. ONCE THE PROBE HASREACHED REFUSAL, AT ITS FINAL DEPTH, GRAVEL IS MOUNTED ON THE EXTERIOR OF THE PROBE. AS THE PROBE IS SLOWLY WITHDRAWN, THE GRAVEL MIGRATES TO THE BOTTOM OF THE PROBE AND LEAVES A VERTICAL COLUMN OF GRAVEL. THE PROBE IS TYPICALLY WITHDRAWN IN INCREMENTS OF 1 TO 3 FEET AND REINSERTED INTO THE GRAVEL RESULTING IN THE COMPACTION AND DISPLACEMENT OF THE SURROUNDING SOILS.

4. SOILS UNDER THE FOUNDATION SHOULD BE DENSIFIED BY MEANS OF VIBRO IMPROVEMENT TO OBTAIN AN AVERAGE STANDARD PENETRATION TEST "N" VALUE AS PROVIDED IN THE SPECIFICATION.

5. PROBE SPACING AND PATTERN SHOULD BE BASED UPON BACKFILL TYPE, WITHDRAWAL PROCEDURE AND CHARACTERISTICS OF THE EQUIPMENT USED, IN ACCORDANCE WITH THE SPECIFICATIONS.

6. THE STONE COLUMN CONTRACTOR SHALL PROVIDE A PROBE LOCATION PLAN AND PROCEDURAL DESCRIPTION FOR REVIEW BY THE ARCHITECT/ENGINEER AND THE GEOTECHNICAL ENGINEER PRIOR TO BEGINNING WORK.

7. INITIAL COMPACTION PROBES SHALL BE MADE AT PRODUCTION LOCATIONS, AND A TEST PROGRAM CONSISTING OF STANDARD PENETRATION TEST BORINGS PLACED BETWEEN COMPACTION TEST PROBES SHALL BE INITIATED TO VERIFY THAT THE DESIRED COMPACTION IS BEING ACHIEVED TO THE DEPTH REQUIRED.

8. AFTER VERIFICATION OF THE CONTRACTOR'S PROCEDURE, THE REMAINING VIBRO IMPROVEMENT PROBES MAY BE COMPLETED.

9. DURING THE TIME IN WHICH THE CONTRACTOR IS PERFORMING COMPACTION PROBES, THE GEOTECHNICAL ENGINEER SHALL OBSERVE THE CONTRACTOR'S PROCEDURE TO VERIFY PENETRATION DEPTH, WITHDRAWAL RATE, MONITOR VOLUME OF BACKFILL AND ELECTRONIC OR HYDRAULIC BUILD UP OF EQUIPMENT USED.

10. IN ADDITION TO VIBRO IMPROVEMENT OF THE DEEP STRATA, COMPACTION OF SURFICIAL SANDS SHOULD ALSO BE UNDERTAKEN WITH STANDARD VIBRATORY COMPACTION EQUIPMENT.

DRAWING INDEX

SHEET NUMBER	SHEET NAME
S0-1	STRUCTURAL SPECIFICATIONS
S0-2	SCHEDULES & WIND TABLES
S1-1	FOUNDATION PLAN
S1-2	SECOND FLOOR FRAMING PLAN
S1-3	ROOF FRAMING PLANS
S2-1	FOUNDATION DETAILS
S2-2	FOUNDATION DETAILS
S3-1	FLOOR FRAMING DETAILS
S4-1	ROOF FRAMING DETAILS
S5-1	STEEL FRAMING DETAILS
S6-1	TILT-UP PANEL DETAILS
S7-1	WALL SECTIONS
S7-2	WALL SECTIONS
S8-1	ISOMETRIC VIEW

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SHELL

Project Number: 22013.01
Project Location:
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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

Revisions

No.	Description	Date

Drawing Title:
STRUCTURAL SPECIFICATIONS

Drawing Number:
S0-1

Drawn by: NM
Checked by: JWD
Scale:

9/29/2023 9:37:48 AM
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VERTICAL REINFORCEMENT BAR LAP SCHEDULE			
BAR SIZE	CLASS "B" TENSION LAP		
	3,000 PSI	4,000 PSI	5,000 PSI
# 5	36"	31"	28"
# 6	43"	37"	33"
# 7	63"	54"	49"
# 8	72"	62"	55"
# 9	81"	70"	63"
# 10	91"	79"	70"

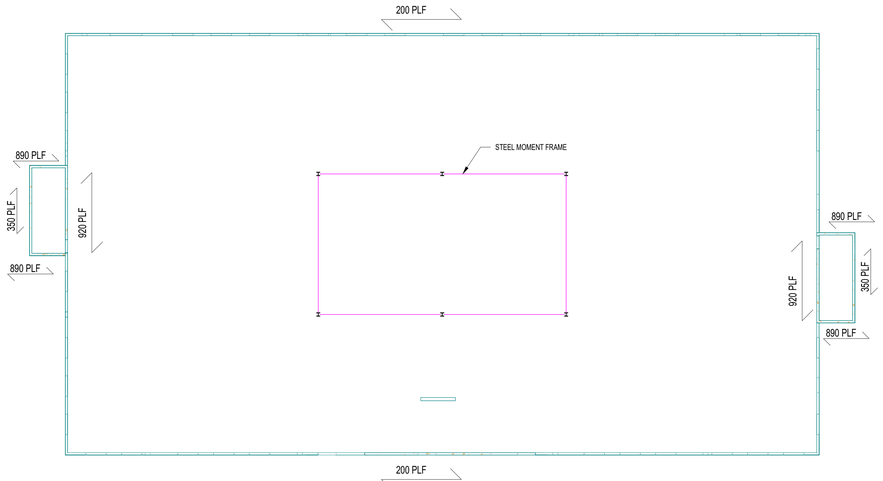
NOTES:
1. BASED ON NORMAL WEIGHT CONCRETE & GRADE 60 REINFORCING BARS.

VERTICAL REINFORCEMENT BAR LAP SCHEDULE - CONCRETE 1

CONCRETE BEAM TENSION LAP SPLICE SCHEDULE				
BAR SIZE	LOCATION	CONCRETE STRENGTH		
		3,000 PSI	4,000 PSI	5,000 PSI
# 4	TOP BARS	37"	32"	29"
	OTHER BARS	29"	25"	22"
# 5	TOP BARS	47"	40"	36"
	OTHER BARS	36"	31"	28"
# 6	TOP BARS	56"	48"	43"
	OTHER BARS	43"	37"	33"
# 7	TOP BARS	81"	70"	63"
	OTHER BARS	63"	54"	49"
# 8	TOP BARS	93"	80"	72"
	OTHER BARS	72"	62"	55"
# 9	TOP BARS	105"	91"	81"
	OTHER BARS	81"	70"	63"
# 10	TOP BARS	118"	102"	91"
	OTHER BARS	91"	79"	70"

NOTES:
1. BASED ON NORMAL WEIGHT CONCRETE & GRADE 60 REINFORCING BARS.
2. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
3. FOR LIGHTWEIGHT AGGREGATE, MULTIPLY ABOVE VALUES BY 1.3.

CONCRETE BEAM TENSION LAP SPLICE SCHEDULE 2

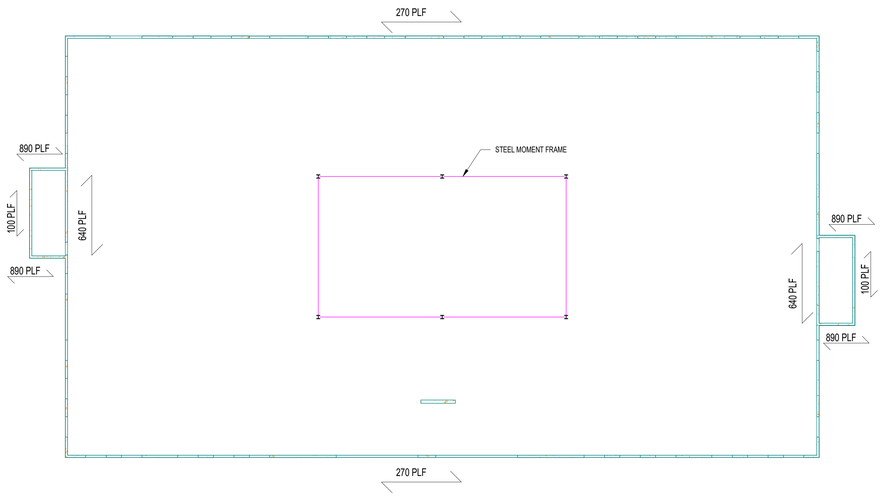


NORTH

ROOF DIAPHRAGM WIND SHEAR LOADS (MWFRS)

1/16" = 1'-0"

NOTES: 1. THE SHEAR LOADS SHOWN ARE APPLIED SHEAR LOADS AT EACH LEVEL AND ARE NOT CUMULATIVE.
2. LOADS PROVIDED ARE ULT. UNFACTORED LOADS. IN THE PRIMARY X & Y DIRECTION PER ASCE 7-16. THESE REPRESENT LOAD CASE 1, SEE FIGURE 27.3-8 IN ASCE 7-16 FOR ADDITIONAL REQUIREMENT.



NORTH

SECOND FLOOR DIAPHRAGM WIND SHEAR LOADS (MWFRS)

1/16" = 1'-0"

NOTES: 1. THE SHEAR LOADS SHOWN ARE APPLIED SHEAR LOADS AT EACH LEVEL AND ARE NOT CUMULATIVE.
2. LOADS PROVIDED ARE ULT. UNFACTORED LOADS. IN THE PRIMARY X & Y DIRECTION PER ASCE 7-16. THESE REPRESENT LOAD CASE 1, SEE FIGURE 27.3-8 IN ASCE 7-16 FOR ADDITIONAL REQUIREMENT.

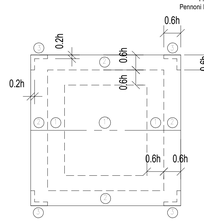
MAIN BUILDING

GROSS ULTIMATE WIND LOADS MAIN ROOF ROOFING MATERIALS				
COMPONENTS AND CLADDING	ROOF ZONE			
	1 '	1	2	3
PRESSURE (psf)	22.7	22.7	55.9	55.9
SUCTION (psf)	(-) 51.2	(-) 89.1	(-) 117	(-) 117

GROSS ULTIMATE WIND LOADS OVERHANGS AND CANOPIES ROOFING MATERIALS				
COMPONENTS AND CLADDING	ROOF ZONE			
	1 '	1	2	3
PRESSURE (psf)	22.7	22.7	55.9	55.9
SUCTION (psf)	(-) 51.2	(-) 89.1	(-) 117	(-) 117

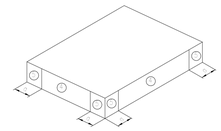
GROSS ULTIMATE WIND LOADS MAIN ROOF JOISTS				
COMPONENTS AND CLADDING	ROOF ZONE			
	1 '	1	2	3
PRESSURE (psf)	18.0	18.0	42.0	42.0
SUCTION (psf)	(-) 28.8	(-) 56.7	(-) 75.8	(-) 75.8

GROSS ULTIMATE WIND LOADS OVERHANGS AND CANOPIES JOISTS				
COMPONENTS AND CLADDING	ROOF ZONE			
	1 '	1	2	3
PRESSURE (psf)	18.0	18.0	42.0	42.0
SUCTION (psf)	(-) 69.4	(-) 97.3	(-) 117	(-) 117



FLAT ROOF

ULTIMATE WIND PRESSURES (PSF) EXTERIOR DOORS, WINDOWS, WALLS				
EFFECTIVE AREA (ft²)	ZONE 4		ZONE 5	
	PRESSURE	SUCTION	PRESSURE	SUCTION
1 TO 20	51.2	(-) 55.4	51.2	(-) 68.2
21 TO 50	48.7	(-) 53.0	48.7	(-) 63.4
51 TO 100	45.8	(-) 50.1	45.8	(-) 57.6
101 TO 150	43.6	(-) 47.9	43.6	(-) 53.1
151 TO 250	42.3	(-) 46.5	42.3	(-) 50.5
251 TO 500	40.6	(-) 44.9	40.6	(-) 47.1
501 + ABOVE	38.4	(-) 42.6	38.4	(-) 42.6



DOORS, WINDOWS AND WALLS

COMPONENTS AND CLADDING LOADING DIAGRAM NOTES

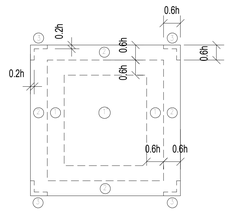
1. h = MEAN ROOF HEIGHT = 29'-2"
2. a = 11'-0"
3. THIS BUILDING IS DESIGNED AS AN ENCLOSED STRUCTURE. ALL EXTERIOR COMPONENTS (DOORS, WINDOWS, ETC.) MUST BE DESIGNED TO WITHSTAND THE WIND LOADINGS SPECIFIED FOR THE DESIGN OF COMPONENTS AND CLADDING IN THE TABLES. IN ADDITION, ALL AREAS OF EXTERIOR GLAZING MUST BE CERTIFIED FOR MISSILE IMPACT OR PROTECTED BY WIND-BORNE DEBRIS BY A SCREEN BARRIER.
4. TO CONVERT THE (ASCE 7-16) ULTIMATE WIND PRESSURES IN THE TABLES ABOVE TO (ASD) WIND PRESSURES, MULTIPLY EACH VALUE BY 0.6.

WIND LOAD TABLES

DRIVE-THRU CANOPY

GROSS ULTIMATE WIND LOADS DRIVE-THRU CANOPY ROOFING MATERIALS				
COMPONENTS AND CLADDING	ROOF ZONE			
	1 '	1	2	3
PRESSURE (psf)	19.9	19.9	19.9	19.9
SUCTION (psf)	(-) 44.9	(-) 78.1	(-) 103	(-) 140

GROSS ULTIMATE WIND LOADS DRIVE-THRU CANOPY JOISTS				
COMPONENTS AND CLADDING	ROOF ZONE			
	1 '	1	2	3
PRESSURE (psf)	15.8	15.8	15.8	15.8
SUCTION (psf)	(-) 32.2	(-) 53.7	(-) 71.6	(-) 77.6



FLAT ROOF

COMPONENTS AND CLADDING LOADING DIAGRAM NOTES

1. h = EAVE HEIGHT = 14'-0"
2. THIS BUILDING IS DESIGNED AS A PARTIALLY OPEN STRUCTURE. ALL EXTERIOR COMPONENTS (DOORS, WINDOWS, ETC.) MUST BE DESIGNED TO WITHSTAND THE WIND LOADINGS SPECIFIED FOR THE DESIGN OF COMPONENTS AND CLADDING IN THE TABLES. IN ADDITION, ALL AREAS OF EXTERIOR GLAZING MUST BE CERTIFIED FOR MISSILE IMPACT OR PROTECTED BY WIND-BORNE DEBRIS BY A SCREEN BARRIER.
3. TO CONVERT THE (ASCE 7-16) ULTIMATE WIND PRESSURES IN THE TABLES ABOVE TO (ASD) WIND PRESSURES, MULTIPLY EACH VALUE BY 0.6.

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Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

Revisions

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Drawing Title:

SCHEDULES & WIND TABLES

Drawing Number:

S0-2

Drawn by: NM
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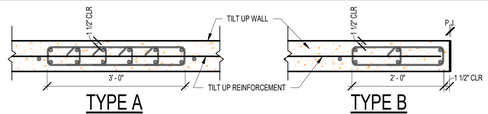
WALL COLUMN SCHEDULE							
	DIMENSIONS		REINFORCING				
			LONGITUDINAL		TIES		
	WIDTH	DEPTH	QUANTITY	SIZE	SIZE	SPACING	REMARKS
WC1	3' - 0"	7 1/4"	12	6	3	7"	TYPE A
WC2	2' - 0"	7 1/4"	6	6	3	7"	TYPE B

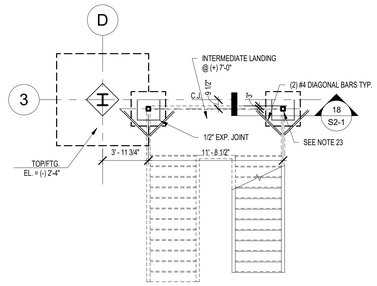


TYPE A

NOTE: CAST COLUMN WITH TILTUP WALL

TYPE B

NOTE: CAST COLUMN WITH TILTUP WALL

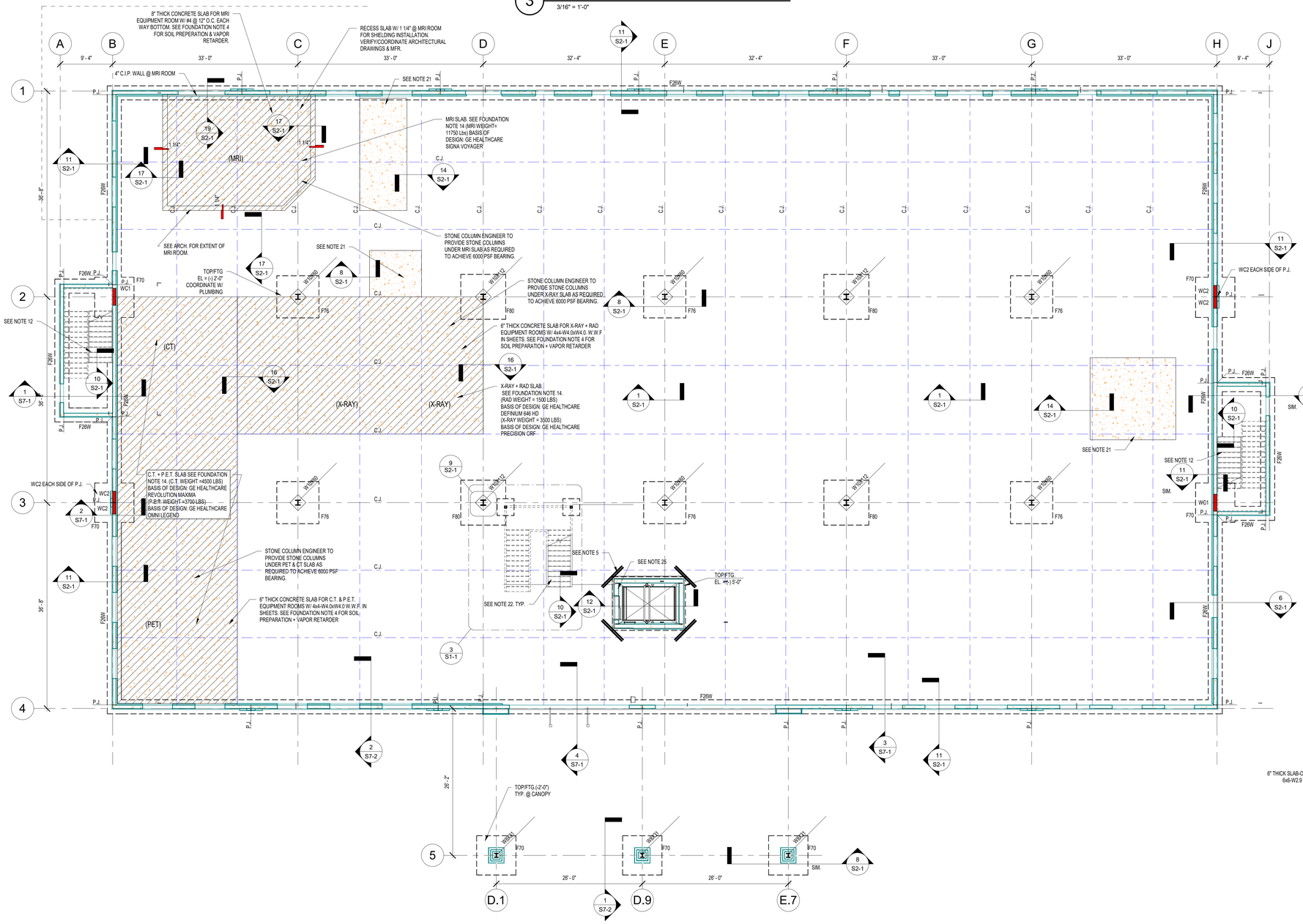


MONUMENTAL STAIR FOUNDATION PLAN

3 — 3/16" = 1'-0"

WALL FOOTING SCHEDULE							
	DIMENSIONS		REINFORCING				
			LONGITUDINAL		TRANSVERSE		
MARK	WIDTH	DEPTH	QUANTITY	SIZE	SIZE	SPACING	NOTES
F26W	2' - 6"	1' - 0"	4	5	5	1' - 0"	
F40W	4' - 0"	1' - 0"	5	5	5	10"	

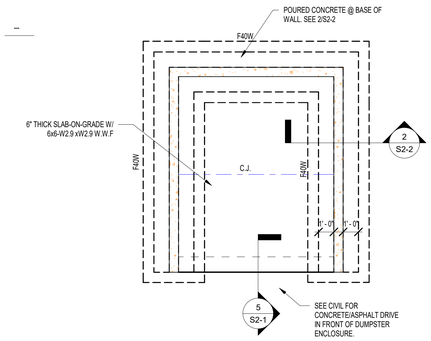
COLUMN FOOTING SCHEDULE						
	DIMENSIONS			REINFORCING		
				EACH WAY		
MARK	WIDTH	LENGTH	DEPTH	QUANTITY	SIZE	NOTES
F30M	3' - 0"	3' - 0"	1' - 0"	3	5	MONOLITHIC FOOTING
F70	7' - 0"	7' - 0"	1' - 5"	6	6	TOP & BOT. BARS
F76	7' - 6"	7' - 6"	2' - 0"	9	6	
F80	8' - 0"	8' - 0"	2' - 0"	10	6	



NORTH

FOUNDATION PLAN

1/8" = 1'-0"



DUMPSTER ENCLOSURE

2 — 1/4" = 1'-0"

NOTES: 1. REFER TO ARCH FOR LOCATION.

FOUNDATION PLAN NOTES:

1. TOP OF SLAB ELEVATION = 0'-0"
2. TOP OF FOOTING ELEVATION = (-) 1'-4" U.N.O.
   TOP OF INTERIOR COLUMN FOOTING ELEVATION = (-) 1'-0" U.N.O.
3. CENTER ALL FOOTING UNDER COLUMNS AND WALLS. U.N.O.
4. SLAB-ON-GRADE SHALL BE 4" THICK CONCRETE REINFORCED WITH 6X6-W1.4xW1.4 W.W.F. U.N.O. ON 10 MIL VAPOR RETARDER. LAP AND TAPE SEAMS OVER 6" MIN. CRUSHED ROCK BASE (CAPILLARY WATER BARRIER) OVER COMPACTED SOIL. REFER TO GEOTECH FOR RECOMMENDED CRUSHED ROCK BASE MATERIAL.
5. (2) #4 x 5'-0" DIAGONAL BARS MID-DEPTH OF SLAB TYPICAL
6. SEE ARCHITECTURAL AND PLUMBING DRAWINGS FOR DETAILS AND LOCATIONS OF FLOOR DRAINS AND OTHER FEATURES.
7. REFER TO S0-1 FOR SPECIFICATIONS.
8. REFER TO S2-1 FOR FOUNDATION DETAILS.
9. REFER TO S1-1 FOR FOOTING SCHEDULE.
10. REFER TO S0-2 FOR ALL LAP SCHEDULES.
11. GENERAL CONTRACTOR TO PROVIDE A MINUMUM OF 12" SOIL COVERAGE OVER THE TOP OF THE FOOTING & 12" EMBEDMENT OF MONOLITHIC FOOTING. STEP FOOTING AS REQUIRED PER 3/S2-1
12. PRE-ENGINEERED METAL PAN STAIRS: (LL = 100 PSF) BY DELEGATED FLORIDA ENGINEER. SUBMIT SIGNED AND SEALED SHOP DWGS. AND CALCULATIONS FOR APPROVAL INCLUDING CONNECTION TO STRUCTURE.
13. ▭ INDICATES 7 1/4" THICK CONCRETE TILT UP WALLS, U.N.O.. ALL TILT UP WALLS TO BE f'c= 4000 PSI CONCRETE & DESIGNED BY THE CONTRACTORS DELEGATED ENGINEER. ENGINEER TO SUBMIT SIGNED & SEALED CALCULATIONS & SHOP DRAWINGS FOR APPROVAL.
14. FLOOR FLATNESS & LEVELNESS SHALL CONFORM TO THE FOLLOWING AT EQUIPMENT LOCATIONS. REFER TO ARCH FOR EQUIPMENT LOCATION. G.C. TO CONFIRM W/ EQUIPMENT MFR PRIOR TO POURING SLAB.
    A) CT EQUIPMENT SHALL BE FLAT & LEVEL WITHIN 1/4" IN 10'-0"
    B) MRI EQUIPMENT SHALL BE FLAT & LEVEL WITHIN 1/8" IN 10'-0"
    C) PET EQUIPMENT SHALL BE FLAT & LEVEL WITHIN 1/4" IN 10'-0"
    D) RAD EQUIPMENT SHALL BE FLAT & LEVEL WITHIN 3/16" IN 10'-0"
15. CAUTION! SLAB HAS NOT BEEN DESIGNED FOR CRANE LOADS. IF PANEL ERECTOR INTENDS TO LIFT ANY OF THE TILT UP PANELS FROM THE SLAB, CRANE INFORMATION MUST BE SUBMITTED TO PENNONI AND ASSOCIATES, PRIOR TO CONSTRUCTION FOR USE IN THE ANALYSIS AND POSSIBLE REDESIGN OF THE SLAB.
16. G.C. CONFIRM MEDICAL EQUIPMENT WEIGHTS W/ FURNISHED UNITS.
17. P.J.= PANEL JOINT (COORDINATE LOCATION W/ ARCH.)
    C.J.= CONTRACTION/CONSTRUCTION JOINT (SEE 1&2/S2-1)
18. ALL FOOTING REINFORCING TO BE BOTTOM BARS. U.N.O.
19. VERIFY ALL DIMENSIONS & ELEVATIONS W/ ARCHITECT PRIOR TO FABRICATION & CONSTRUCTION.
20. PANEL TO PANEL CONNECTIONS REQUIRED AT ALL TILT UP WALL INTERSECTIONS PER S6-1
21. SLAB-ON-GRADE @ STORAGE ROOMS TO BE 5" THICK, 3000 PSI CONC. REINF. W/ 6x6-W2.9 xW2.9 W.W.F. U.N.O. ON 10 MIL VAPOR RETARDER . LAP AND TAPE SEAMS 6" MIN. OVER CRUSHED ROCK BASE. (CAPILLARY WATER BARRIER) OVER COMPACTED SOIL. COORDINATE LOCATION OF STORAGE ROOMS W/ ARCHITECT.
22. PRE-ENGINEERED MONUMENTAL METAL STAIRS: (LL = 100 PSF) BY DELEGATED FLORIDA ENGINEER. SUBMIT SIGNED AND SEALED SHOP DWGS. AND CALCULATIONS. COORDINATE STAIR LAYOUT & MIN. STRINGER SIZES & CONFIGURATIONS W/ ARCHITECT TO ALLOW FOR PROPER ATTACHMENT OF GLASS RAILINGS. DEFLECTION LIMITS SHALL NOT EXCEED L/360 FOR ANY COMPONENTS.
23. DELEGATED STAIR ENGINEER TO PROVIDE COLUMNS @ INTERMEDIATE LANDING SUPPORT AS REQUIRED. COORDINATE LOCATION W/ ARCHITECT & FIREWALL. G.C. TO PROVIDE F30M MONOLITHIC FOOTING @ COLUMN LOCATIONS. STAIR COLUMNS ON PLAN ARE SCHEMATIC. COORDINATE FINAL DESIGN W/ FINAL STAIR DRAWINGS.
24. VIBRO IMPROVEMENT/STONE COLUMNS SHALL BE UNDER ALL LOAD BEARING FOOTINGS U.N.O. REFER TO SPECS & DELEGATED VIBRO IMPROVEMENT ENGINEER FOR MORE INFORMATION.
25. REFER TO ARCH. FOR EXTENT OF IN-WALL ELEVATOR CONTROL PANEL.

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SHELL

Project Number: 22013.01
Project Location:

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CONSTRUCTION DOCUMENTS
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Revisions

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Drawing Title:

FOUNDATION PLAN

Drawing Number:

S1-1

Drawn by: NM
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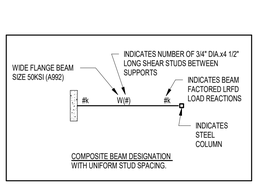
SECOND FLOOR FRAMING PLAN NOTES:

1. FLOOR SLAB SHALL BE 5 1/4" LIGHTWEIGHT STRUCTURAL CONCRETE (120 PCF) ON 2" (18 GA.) COMPOSITE METAL DECK (TOTAL THICKNESS = 5 1/4") U.N.O. SLAB SHALL BE REINFORCED WITH 6x6- W2.1xW2.1 W.W.F. U.N.O.
   ⟿ INDICATES DIRECTION OF DECK SPAN.
2. INSTALL DECK IN (3) SPAN CONDITION, MIN.
3. TOP OF 2nd FLOOR SLAB EL. = (+) 1'4-7" U.N.O.
   TOP OF 2nd FLOOR STEEL BEAM EL. = (+) 14'-1 3/4" U.N.O.
4. (+) INDICATES TOP OF MEMBER ELEVATION.
5. COMPOSITE BEAMS ARE EQUALLY SPACED BETWEEN SUPPORTS. U.N.O.
6. REFER TO SHEETS S3-1 & S5-1 FOR FRAMING DETAILS.
7. REFER TO ARCH. FOR ANY DIMENSIONS OR ELEVATIONS MISSING OR DISCREPANCIES. VERIFY PRIOR TO FABRICATION AND INSTALLATION.
8. SEE ARCH. AND MEP DRAWINGS FOR ALL FLOOR PENETRATIONS. FRAME OPENINGS PER DETAILS 3, 4 & 5/S3-1.
9. PRE-ENGINEERED METAL PAN STAIRS TO BE DESIGNED BY A FLORIDA LICENSED DELEGATED ENGINEER FOR 100 PSF LIVE LOAD. SUBMIT SIGNED & SEALED CALCULATIONS & SHOP DRAWINGS INCLUDING CONNECTION TO STRUCTURE.
10. (2) #4x4'-0" @ SLAB MID. POINT
11. ▭ INDICATES 7 1/4" THICK CONCRETE TILT UP WALLS, U.N.O. ALL TILT UP WALLS TO BE f'c= 4000 PSI CONCRETE & DESIGNED BY THE CONTRACTORS DELEGATED ENGINEER. ENGINEER TO SUBMIT SIGNED & SEALED CALCULATIONS & SHOP DRAWINGS FOR APPROVAL.
    SEE TILT-UP PANEL DETAILS ON S6-1.
12. REFER TO SHEET S1-1 FOR CONCRETE COLUMN SCHEDULE.
13. ▶ INDICATES STEEL MOMENTCONNECTION.
    SEE DETAILS ON S5-1.
14. REFER TO ARCH. FOR EXTENT OF IN-WALL ELEVATOR CENTOL PANEL.
15. DUCT PENETRATIONS THROUGH SLAB. SEE MECHANICAL FOR EXTENT & COORDINATE W/ MFR. MIN. SPACING BETWEEN FLOOR PENETRATIONS SHALL NOT BE CLOSER THAN 1'-4". REFER TO 4/S3-1 FOR FLOOR OPENING DETAIL.
16. PRE-ENGINEERED MONUMENTAL METAL STAIRS: (LL = 100 PSF) BY DELEGATED FLORIDA ENGINEER. SUBMIT SIGNED AND SEALED SHOP DWGS. AND CALCULATIONS. COORDINATE STAIR LAYOUT & MIN. STRINGER SIZES & CONFIGURATIONS W/ ARCHITECT TO ALLOW FOR PROPER ATTACHMENT OF GLASS RAILINGS. DEFLECTION LIMITS SHALL NOT EXCEED L/360 FOR ANY COMPONENTS.



NORTH

SECOND FLOOR FRAMING PLAN

1/8" = 1'-0"

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CONSTRUCTION DOCUMENTS
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Revisions

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Drawing Title:
SECOND FLOOR FRAMING PLAN

Drawing Number:
S1-2

Drawn by: NM
Checked by: JWD
Scale: 1/8" = 1'-0"

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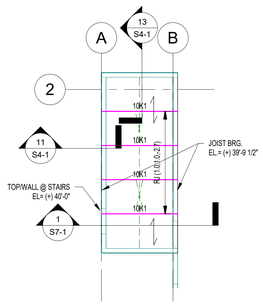
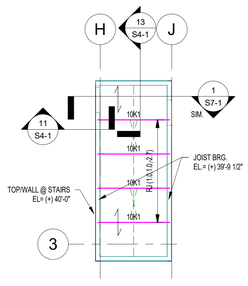


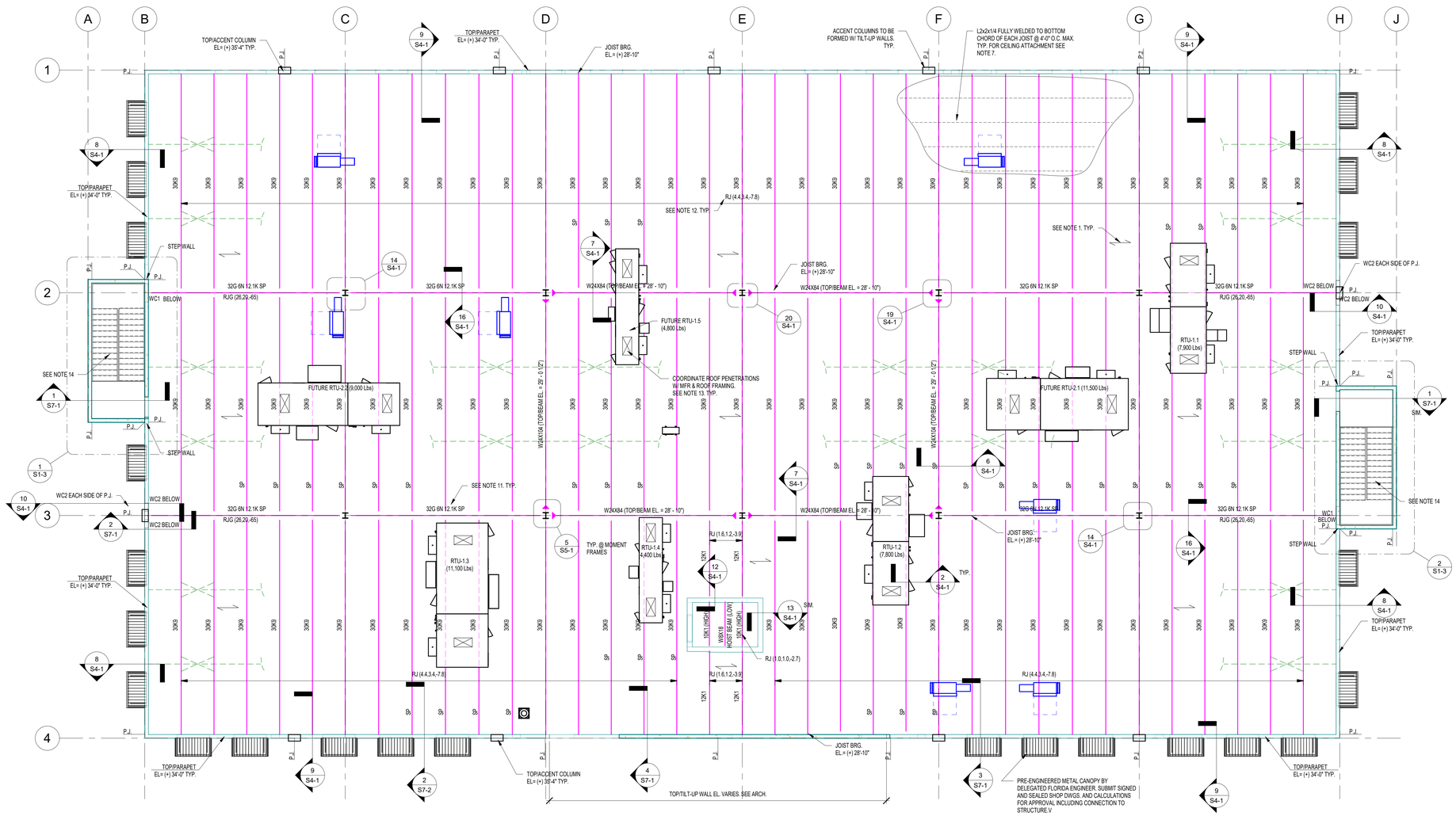


1 WEST STAIR ROOF PLAN

1/8" = 1'-0"

2 EAST STAIR ROOF PLAN

1/8" = 1'-0"



NORTH

ROOF FRAMING PLAN

1/8" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. METAL ROOF DECK TO BE 1 1/2" DP. (18) GA., VENTED METAL DECL GALVANIZED TYPE "B". INSTALLED (3) SPAN MIN., FASTEN DECK (7) 5/8" DIA. PUDDLE WELD PATTERN AT EACH SUPPORT AND (10) #10 TEK SIDELAP FASTENERS FOR 36" WIDE DECKING. SEE 3/S4-1.
2. ROOF SLOPE, SEE ARCHITECTURAL PLAN.
3. SEE SHEET S4-1 AND S5-1 FOR ROOF FRAMING DETAILS & STEEL FRAMING DETAILS.
4. ▶ INDICATES STEEL MOMENT CONNECTION. SEE DETAIL ON S5-1.
5. (+) INDICATES TOP OF STEEL BEAM, U.N.O.
6. ▭ INDICATES 7 1/4" THICK CONCRETE TILT UP WALLS, U.N.O. ALL TILT UP WALLS TO BE f'c= 4000 PSI CONCRETE & DESIGNED BY THE CONTRACTORS DELEGATED ENGINEER. ENGINEER TO SUBMIT SIGNED & SEALED CALCULATIONS & SHOP DRAWINGS FOR APPROVAL.
7. GC SHALL NOT MAKE ATTACHMENTS OR PENETRATIONS TO ROOF DECK U.N.O. CEILING + MEP CONDUITS TO ATTACH TO ANGLES PROVIDED ON PLAN.
8. LIGHTWEIGHT INSULATING CONCRETE TO BE 35 PCF MAX.
9. ⟋ INDICATES DIRECTION OF DECK SLAB.
10. SP= JOIST ENGINEER TO DESIGN A SPECIAL JOIST OR DOUBLE JOIST AT RTU LOCATIONS. REFER TO MECHANICAL DRAWINGS FOR UNIT DIMENSIONS. JOIST ENGINEER TO INCLUDE 1,500 LB ALLOWANCE FOR UNIT CURB IN ADDITION TO THE UNIT WEIGHT SHOWN ON PLANS.
11. JOIST GIRDER LOADING DOES NOT INCLUDE WEIGHT OF RTU's. JOIST DELEGATED ENGINEER SHALL ACCOUNT FOR ADDITIONAL LOAD. JOIST GIRDER LOAD DESIGNATIONS ARE UNFACTORED (ASD)
12. RJ (#.#,#) ROOF JOIST REACTIONS (DEAD, LIVE, GROSS UPLIFT) IN KIPS (FACTORED)
    RJG (#.#,#) ROOF JOIST GIRDER REACTIONS (DEAD, LIVE, GROSS UPLIFT) IN KIPS (FACTORED)
    RB (#.#,#) ROOF BEAM REACTIONS (DEAD, LIVE, GROSS UPLIFT) IN KIPS (FACTORED)
13. DUCT PENETRATIONS THROUGH SLAB. SEE MECHANICAL FOR EXTENT & COORDINATE W/ MFR.
14. PRE-ENGINEERED METAL PAN STAIRS TO BE DESIGNED BY A FLORIDA LICENSED DELEGATED ENGINEER FOR 100 PSF LIVE LOAD. SUBMIT SIGNED & SEALED CALCULATIONS & SHOP DRAWINGS INCLUDING CONNECTION TO STRUCTURE.

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ROOF FRAMING PLANS

Drawing Number:

S1-3

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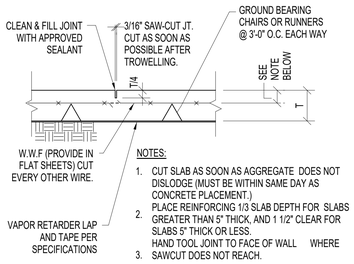
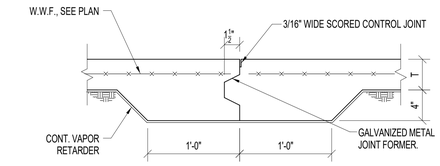
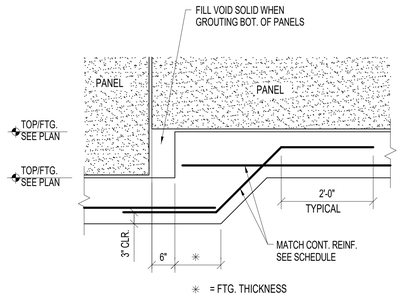


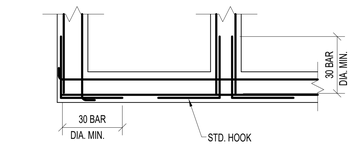
1 CONTRACTION JOINT W WWF



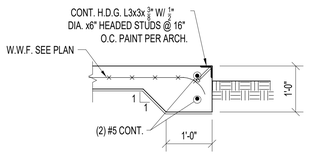
2 CONSTRUCTION JOINT



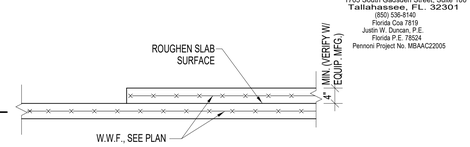
3 DETAIL AT STEP FOOTING



4 TYPICAL FTG. REINF. INTERSECTIONS

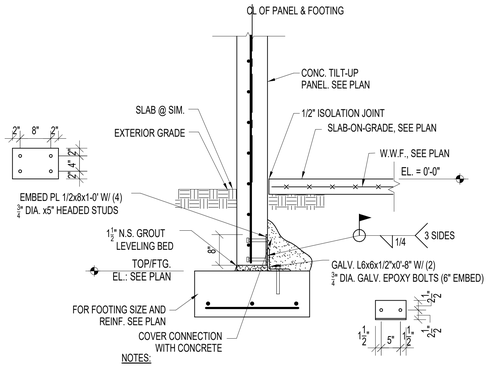


5 THICKENED SLAB EDGE

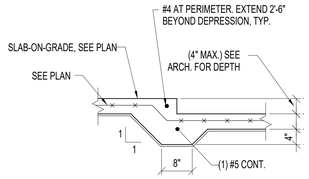


NOTE: SEE ELEC./MECH. DRAWINGS FOR 6" PAD LOCATIONS.

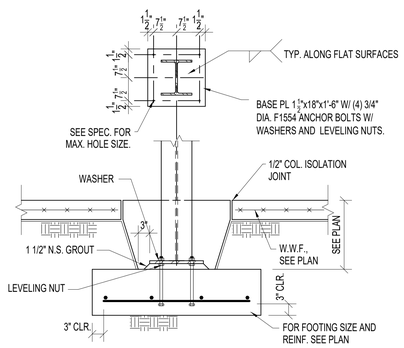
6 TYP. HOUSEKEEPING PAD



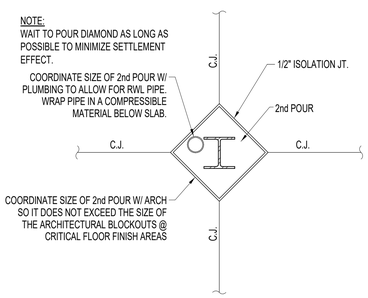
11 PANEL TO FOOTING CONNECTION



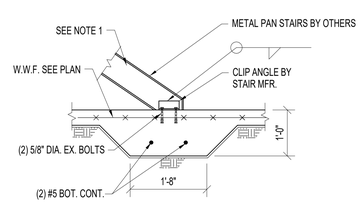
7 SLAB RECESS



8 COLUMN FOOTING

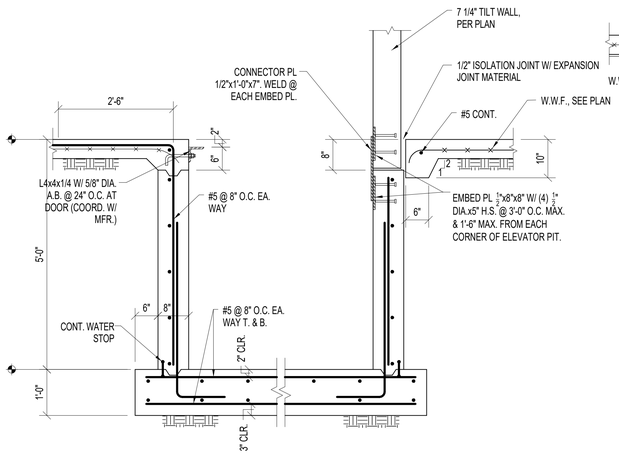


9 COLUMN ISOLATION JOINT

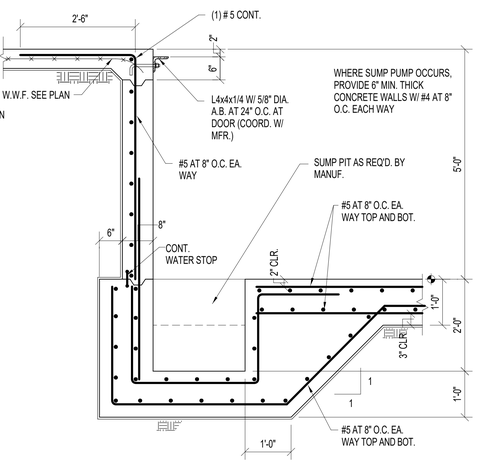


10 BASE OF METAL STAIRS

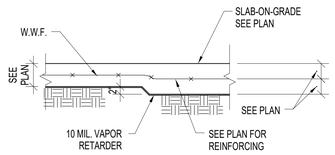
NOTES: 1. REFER TO ARCH. FOR EXTENT OF MONUMENTAL STAIRS & REQUIRED STRINGER SIZES FOR CUSTOM GLASS HANDRAIL ATTACHMENT.



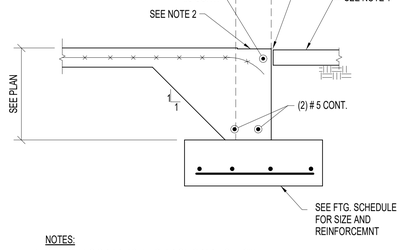
12 ELEVATOR PIT



13 ELEVATOR PIT (SUMP)

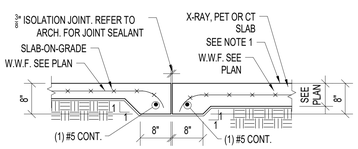


14 SLAB THICKNESS TRANSITION



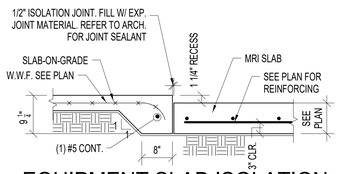
NOTES:
1. SITE PAVING OR ADJACENT SLAB-ON-GRADE, SEE CIVIL.
2. SEE ARCH FOR DEPRESSION DEPTH AND SLOPE AS REQUIRED.

15 TILT-UP BEARING SECTION @ DOOR STOREFRONT



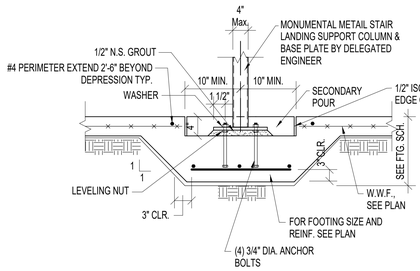
16 EQUIPMENT SLAB ISOLATION
3/4" = 1'-0"

NOTE 1: REFER TO FOUNDATION PLANS FOR FLATNESS REQUIREMENTS.

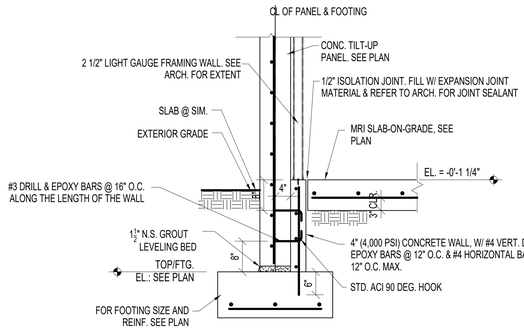


17 EQUIPMENT SLAB ISOLATION
3/4" = 1'-0"

NOTE 1: REFER TO FOUNDATION PLANS FOR FLATNESS REQUIREMENTS.



18 RECESSED MONOLITHIC FOOTING
3/4" = 1'-0"



19 PANEL TO FOOTING CONNECTION @ MRI ROOM
3/4" = 1'-0"

Pennoni
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Tallahassee, FL. 32301
(850) 536-8140
Florida Coa 7819
Justin W. Duncan, P.E.
Florida P.E. 78524
Pennoni Project No. MBAAC22005

Project Architect:
MBA
Mason Blau & Associates
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Seal & Signature:
Justin W. Duncan, PE
Florida P.E. 78524

Project Name:
JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:
3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

Revisions

No.	Description	Date

Drawing Title:
FOUNDATION DETAILS

Drawing Number:
S2-1

Drawn by: NM
Checked by: JWD
Scale: 3/4" = 1'-0"

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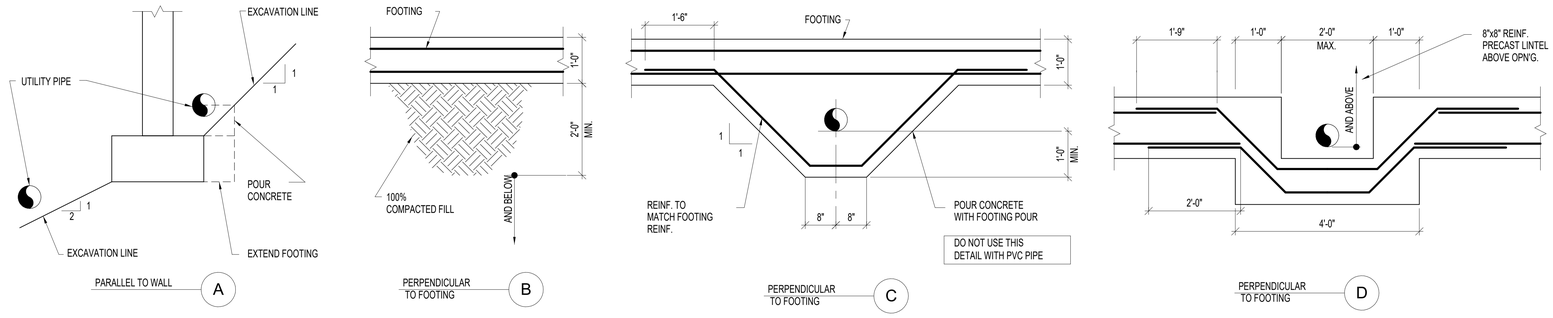
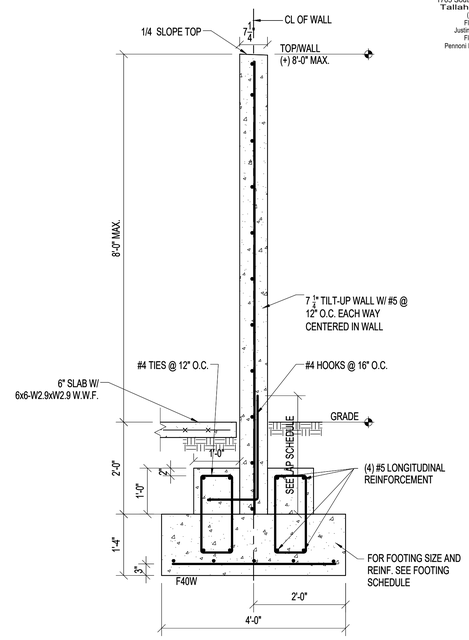


1 FOOTING FOR PIPES PASSING UNDER OR ADJACENT TO WALLS



2 DUMPSTER ENCLOSURE FOUNDATION DETAIL

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Florida Coa 7819
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Florida P.E. 78524
Pennoni Project No. MBAAC22005

Project Architect:

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SHELL

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Marianna, FL 32446

CONSTRUCTION DOCUMENTS

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Revisions

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Drawing Number:

S2-2

Drawn by: NM
Checked by: JWD
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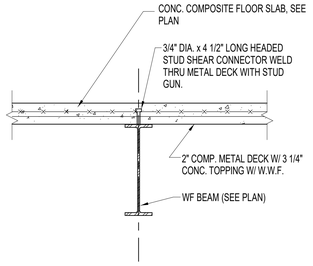
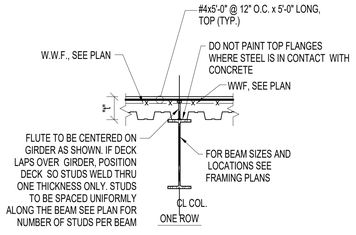


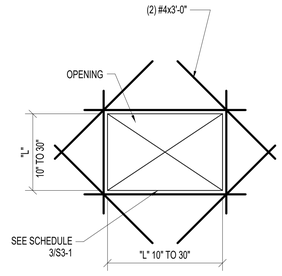
1 COMPOSITE BEAM



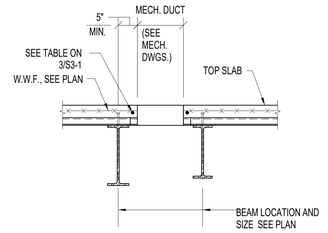
2 TYPICAL STUD PLACEMENT ON GIRDERS

FLOOR OPENING SCHEDULE	
L ✳	REINFORCEMENT
TO 10"	FORM OPENING TO EXCLUDE CONCRETE AND CUT DECK AFTER CONC. HAS ATTAINED 75% OF ITS DESIGN STRENGTH. NO REBARS.
10" TO 16"	(2) #5
16" TO 24"	(3) #5
24" TO 30"	(4) #5
OVER 30"	REQUIRES STRUCTURAL STEEL FRAME.
✳ L- IS MEASURED AT RIGHT ANGLE TO FLOOR DECK SPAN	

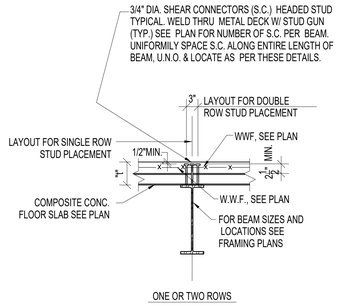
3 FLOOR OPENING REINFORCEMENT SCHEDULE



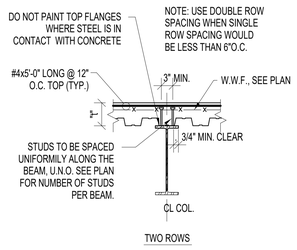
4 FLOOR OPENING REINFORCEMENT PLAN



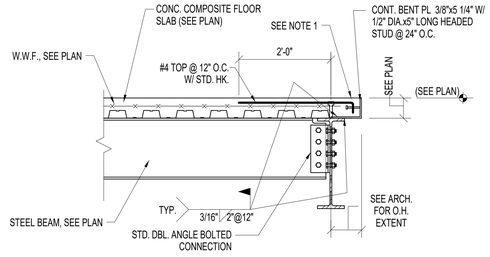
5 SECTION THRU SLAB OPENING



6 TYPICAL STUD PLACEMENT ON BEAMS

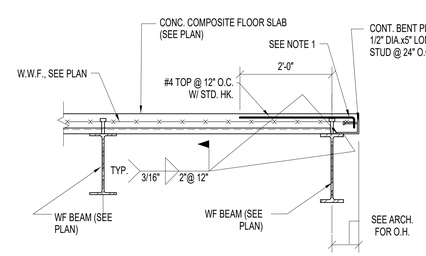


7 TYPICAL STUD PLACEMENT ON GIRDERS



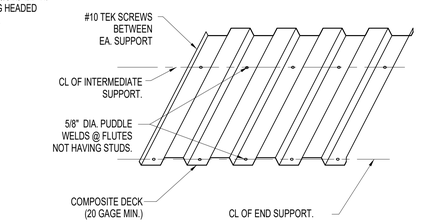
8 EDGE OF SLAB

NOTE 1: AT HAND RAIL LOCATIONS CORE SLAB FOR RAILINGSOR CAST SLEEVE W/ CONCRETE POUR.

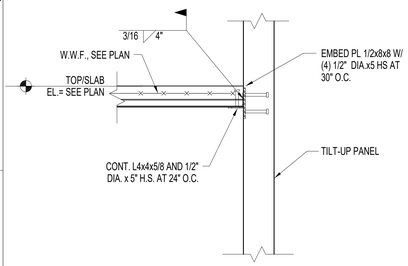


9 EDGE OF SLAB

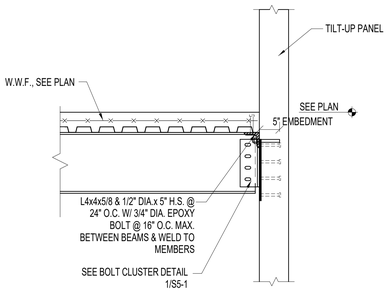
NOTE 1: AT HAND RAIL LOCATIONS CORE SLAB FOR RAILINGSOR CAST SLEEVE W/ CONCRETE POUR.



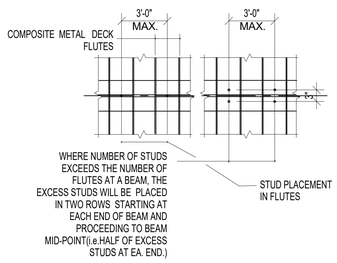
10 TYPICAL COMPOSITE DECK ATTACHMENT



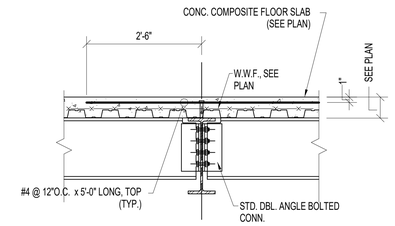
11 DECK BEARING FLOOR



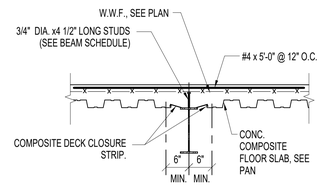
12 DECK BEARING FLOOR



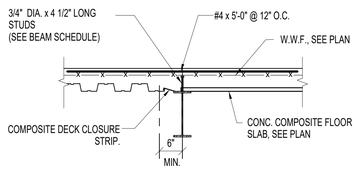
13 TYPICAL STUD PLACEMENT ON BEAMS



14 COMPOSITE GIRDER



15 TYPICAL CLOSURE DETAIL



16 TYPICAL CLOSURE DETAIL

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Pennoni Project No. MBAAC22005

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SHELL

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CONSTRUCTION DOCUMENTS

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FLOOR FRAMING DETAILS

Drawing Number:

S3-1

Drawn by: NM
Checked by: JWD
Scale: 3/4" = 1'-0"

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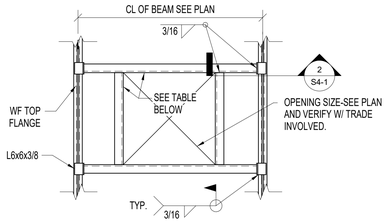
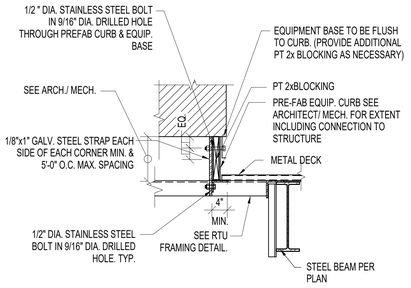


1. LOCATE ANGLES BELOW ALL EQUIP. CURBS AND AROUND ALL ROOF OPENINGS.
2. CONTRACTOR SHALL VERIFY LOCATION & SIZE OF OPENINGS PRIOR TO STEEL FABRICATION.
3. FRAME IS REQ'D FOR OPENING 1'-0" & GREATER.

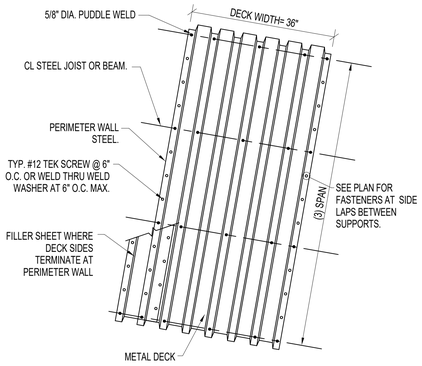
UNIT WEIGHT	ANGLE SIZE
0 - 675 lbs.	L4x4x1/4
676 - 1500 lbs.	L4x4x5/16
1501 - 3000 lbs.	L6x4x3/8 L.L.V.
3001 - 6000 lbs	L6x6x3/8

1 OPENING RTU FRAMING



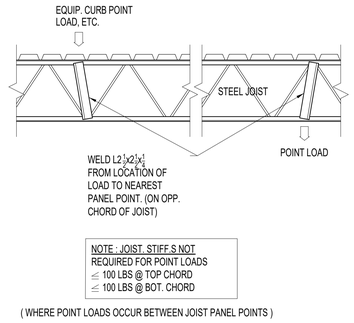
LOCATE 2 @ EACH CORNER & @ 5'-0" O.C. MAX. IN BETWEEN.

2 RTU HOLD-DOWN



WHEN DECK STARTER SHEET LOW LIP IS WELDED TO PERIMETER AT 1'-0" O.C. STEEL FILLER SHEET IS NOT REQUIRED.

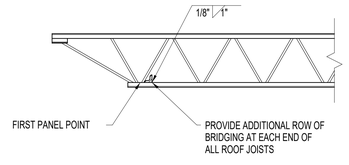
3 ROOF DECK FASTENERS



NOTE : JOIST, STIFF S NOT REQUIRED FOR POINT LOADS
≤ 100 LBS @ TOP CHORD
≤ 100 LBS @ BOT. CHORD

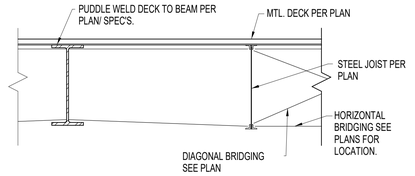
(WHERE POINT LOADS OCCUR BETWEEN JOIST PANEL POINTS)

4 JOIST STIFFENER

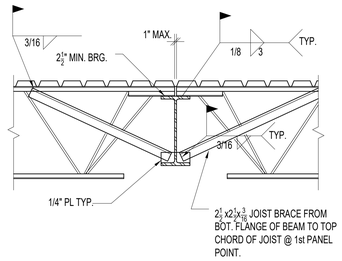


(ROOF JOISTS ONLY)

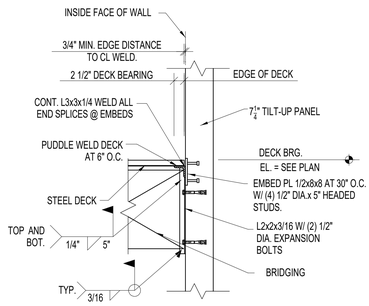
5 UPLIFT BRIDGING



6 DECK BEARING

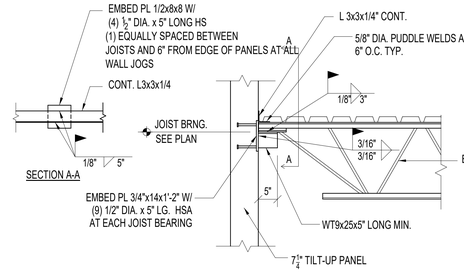


7 JOIST BEARING AT STEEL BEAM



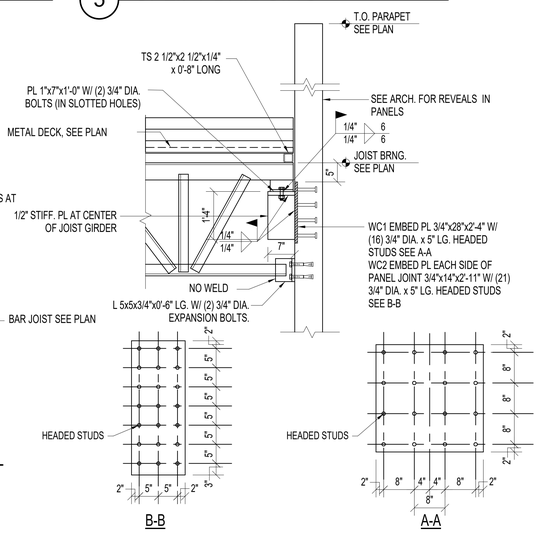
3/4" = 1'-0"

8 DECK BEARING

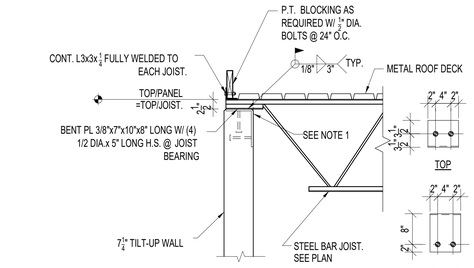


3/4" = 1'-0"

9 BAR JOIST BEARING SECTION



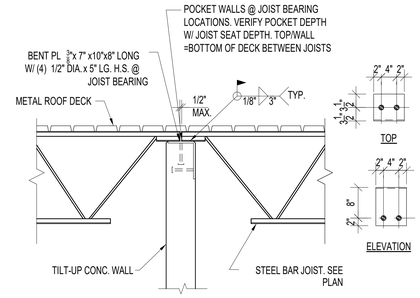
10 JOIST GIRDER CONN. TO PANEL



11 STAIR TOWER ROOF DETAIL

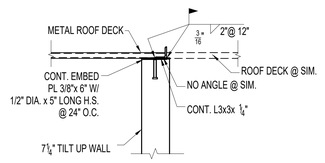
3/4" = 1'-0"

NOTES: 1. NOTCH TOP OF WALL 2 1/2" @ EACH JOIST BEARING LOCATION. (WIDTH TO MATCH EMBED PL) DO NOT DROP ENTIRE WALL.



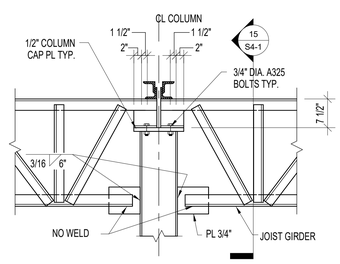
12 JOIST BEARING

3/4" = 1'-0"



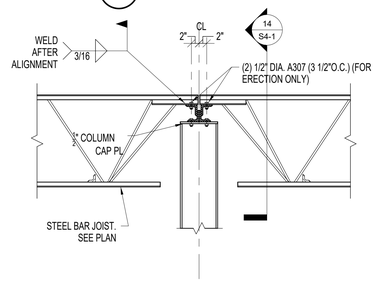
13 DECK BRG AT TILT UP WALL

3/4" = 1'-0"



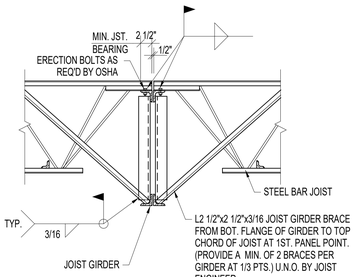
14 GIRDER TO COLUMN

3/4" = 1'-0"



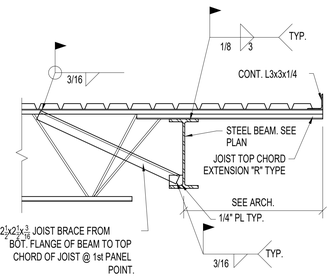
15 JOIST TO GIRDER AT COLUMN

3/4" = 1'-0"



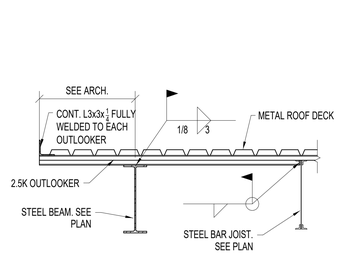
16 JOIST TO GIRDER

3/4" = 1'-0"



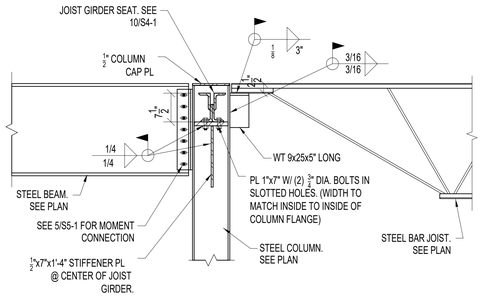
17 JOIST BEARING AT STEEL BEAM

3/4" = 1'-0"



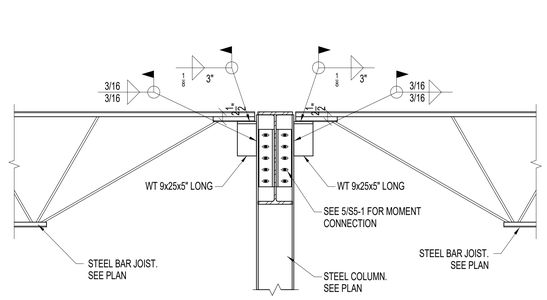
18 OUTLOOKER DETAIL

3/4" = 1'-0"



19 FRAMING DETAIL

3/4" = 1'-0"



20 FRAMING DETAIL

3/4" = 1'-0"

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Seal & Signature:

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Florida P.E. 78524

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

Revisions		
No.	Description	Date

Drawing Title:

ROOF FRAMING DETAILS

Drawing Number:

S4-1

Drawn by: NM
Checked by: JWD
Scale: 3/4" = 1'-0"

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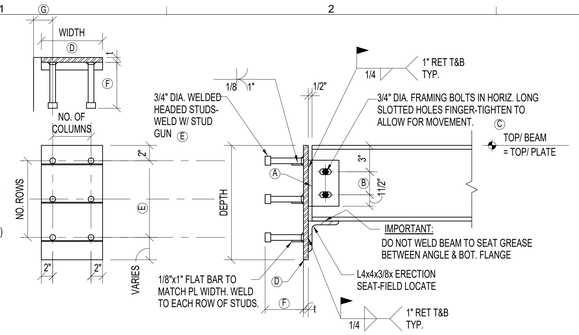
NOTES:

1. EMBED IN CONCRETE.
2. SEE PLATE SIZE FOR MIN. DEPTH CONC. INCREASE TIE BEAM DEPTH AS REQUIRED TO ACCOMODATE FULL PLATE DEPTH. PROVIDE 24" MIN. LENGTH.

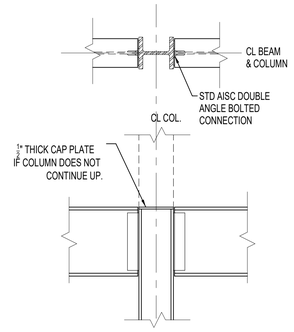
   MIN. CONC. TIE BEAM REINF. WHEN
3. NOT EMBEDDED IN CONC. COL.: 8" WIDE BEAM- (2) #5 @ 8" O.C. 12" WIDE BEAM- (2) #6 @ 8" O.C. & (3) #3 TIES



EMBED PLATE SCHEDULE

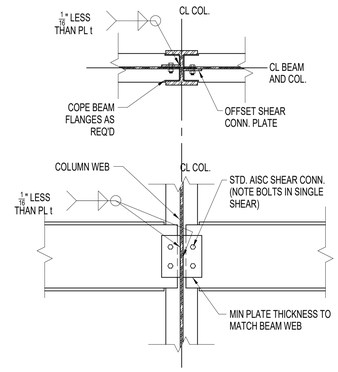
BEAM SERIES	MAX REACT. (KIPS)	FRAMING ANGLES	NO. BOLTS	BOLT TYPE	PLATE SIZE (t x W x D)	NO. OF SHEAR STUDS			STUD LENGTH	MIN. EDGE DISTANCE
						COLUMNS	ROWS	TOTAL		
		A	B	C	D	E			F	G
W8	29K	(2) L4x4x3/8x6"	2@ 3" O.C.	A325-N	1/2x10x1'-1"	2@ 6" O.C.	2@ 5" O.C.	4	5"	2 1/2"
W10	30K	(2) L4x4x3/8x6"	2@ 3" O.C.	A325-N	1/2x10x1'-4"	2@ 6" O.C.	3@ 5" O.C.	6	5"	2 1/2"
W12	52K	(2) L4x4x3/8x9"	3@ 3" O.C.	A325-N	1/2x14x1'-6"	3@ 5" O.C.	3@ 5" O.C.	9	5"	2 1/2"
W14	55K	(2) L4x4x3/8x9"	3@ 3" O.C.	A325-N	1/2x14x1'-7"	3@ 5" O.C.	3@ 5" O.C.	9	5"	2 1/2"
W16	74K	(2) L4x4x3/8x12"	4@ 3" O.C.	A325-N	5/8x14x1'-10"	3@ 5" O.C.	4@ 5" O.C.	12	5"	2 1/2"
W18	92K	(2) L4x4x3/8x15"	5@ 3" O.C.	A325-N	5/8x14x2'-0"	3@ 5" O.C.	5@ 5" O.C.	15	5"	2 1/2"
W21	111K	(2) L4x4x3/8x18"	6@ 3" O.C.	A325-N	5/8x14x2'-3"	3@ 5" O.C.	5@ 5" O.C.	15	5"	2 1/2"
W24	130K	(2) L4x4x3/8x21"	7@ 3" O.C.	A325-N	5/8x14x2'-6"	3@ 5" O.C.	6@ 5" O.C.	18	5"	2 1/2"
W27	130K	(2) L4x4x3/8x21"	7@ 3" O.C.	A325-N	3/4x14x2'-9"	3@ 5" O.C.	6@ 5" O.C.	18	5"	2 1/2"
W30	148K	(2) L4x4x3/8x24"	8@ 3" O.C.	A325-N	3/4x14x2'-11"	3@ 5" O.C.	7@ 5" O.C.	21	5"	2 1/2"

2 BEAM TO COLUMN FLANGE CONNECTION



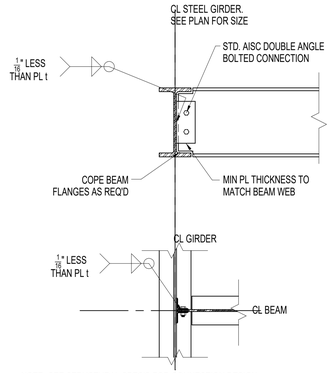
NOTE: SEE STRUCTURAL SPEC'S FOR CONNECTION DESIGN

3 BEAM TO COLUMN WEB CONNECTION



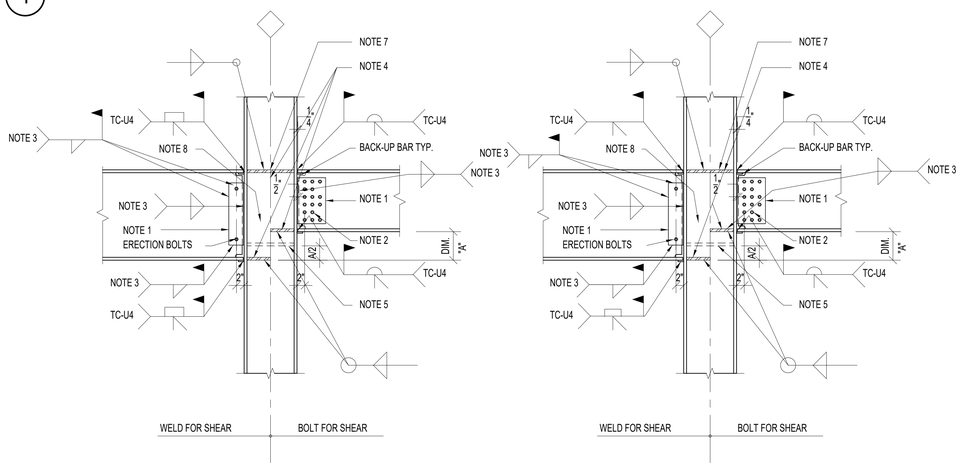
NOTE: SEE STRUCTURAL SPEC'S FOR CONNECTION DESIGN

4 BEAM TO GIRDER WEB CONNECTION



NOTE: SEE STRUCTURAL SPEC'S FOR CONNECTION DESIGN

1 BOLT CLUSTER DETAIL



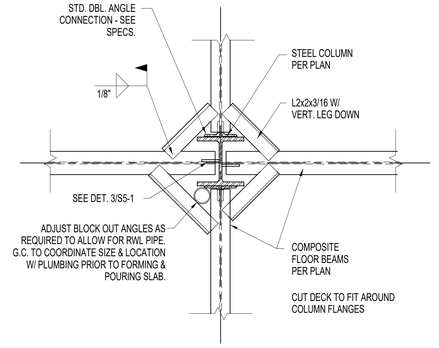
BEAM TO COLUMN FLANGE

BEAM TO COLUMN WEB

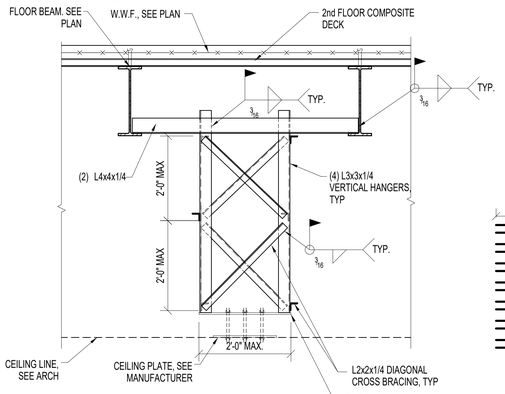
NOTES :

1. SHEAR PLATE ONE SIDE ONLY, SIZE AS REQUIRED. OFFSET PLATE SO THAT CL OF BEAM AND COLUMN COINCIDE.
2. A325 FRICTION TYPE BOLTS. SIZE AND QUANTITY AS REQUIRED TO TRANSFER SHEAR. PROVIDE CLASS A FRICTION FINISH AT CONNECTING SURFACES. SHORT SLOTTED HOLES ARE PERMITTED IN SHEAR PLATE ONLY. BEAMS NOT REQUIING ALL ROWS TO BE COMPLETELY FILLED SHALL HAVE BOLTED OMITTED AT GAGE MOST DISTANT FROM COLUMN FACE. ALL OPEN HOLES SHALL BE FILLED WITH BOLTS.
3. SIZE WELD TO TRANSFER SHEAR INCLUDING EFFECT OF ECCENTRICITY.
4. PROVIDE STIFFENER PLATES AS REQUIRED TO FULLY DEVELOP CAPACITY OF BEAM FLANGES.
5. WHERE "A" IS 3" OR LESS, PROVIDE A SINGLE STIFFENER PLATE WITH CAPACITY EQUAL OR GREATER THAN LARGER BEAM FLANGE.
6. STIFFENER PLATE THICKNESS SHALL BE INCREASED AS NECESSARY.MATCHING BEAM FLANGE TO ACCOMODATE MILL TOLERANCE IN BEAM DEPTH AND OUT-OF-SQUARE.
7. AT TOP OF COLUMN, CAP PLATE MAY BE SUBSTITUTED FOR STIFFENER PLATES. REQUIREMENTS OF NOTE 6 AND 8 SHALL APPLY.
8. PROVIDE DOUBLER PLATE IF REQUIRED.
9. DELEGATE ENGINEER TO SUBMIT SIGNED AND SEALED CALCULATIONS AND SHOP DRAWINGS OF ALL MOMENT CONNECTIONS.

6 TYP. DECK SUPPORT ANGLES



5 TYP. BEAM TO COLUMN MOMENT CONNECTIONS

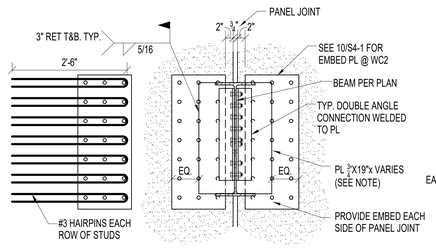


7 O.R. LIGHT MOUNTING DETAIL

3/4" = 1'-0"

NOTES:

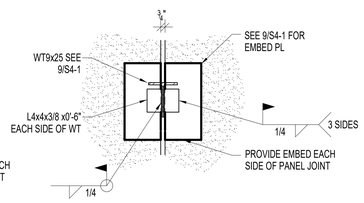
1. O.R. LIGHT BASIS OF DESIGN= FUTURE HEALTH CONCEPT MODEL LS2D-2
2. SEE AMBULATORY SURGERY CENTER DRAWINGS FOR LOCATION(S).
3. THE STEEL FRAMING FOR THE O.R. LIGHT SUPPORT SHALL BE PRICED WITH THE ASC DRAWING PACKAGE.



NOTE: PLATE DEPTH TO MATCH EMBED PLATE DEPTH MINUS 6"

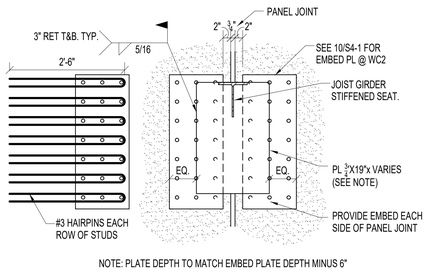
8 BEAM AT PANEL JOINT

3/4" = 1'-0"



9 JOIST AT PANEL JOINT

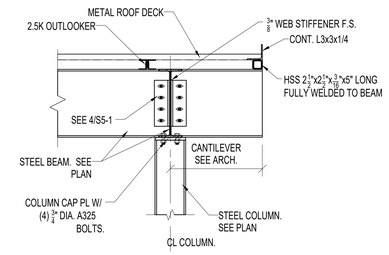
3/4" = 1'-0"



NOTE: PLATE DEPTH TO MATCH EMBED PLATE DEPTH MINUS 6"

10 JOIST GIRDER AT PANEL JOINT

3/4" = 1'-0"



11 DRIVE-THRU FRAMING DETAIL

3/4" = 1'-0"

NOTES: 1. LIGHT GAUGE FRAMING NOT SHOWN FOR CLARITY. SEE WALL SECTIONS.

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Florida P.E. 78524

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

Revisions

No.	Description	Date

Drawing Title:

STEEL FRAMING DETAILS

Drawing Number:

S5-1

Drawn by: NM
Checked by: JWD
Scale: 3/4" = 1'-0"

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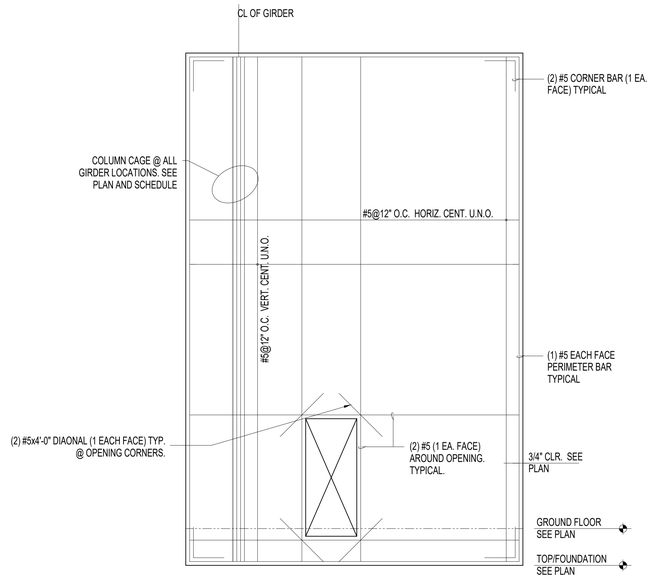
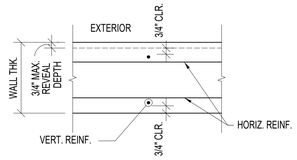
TILT-UP PANEL NOTES:

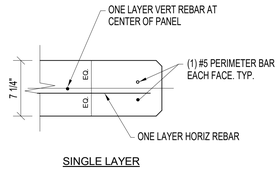
1. PANEL REINFORCING SHOWN ON DRAWINGS IS FOR PRELIMINARY PRICING ONLY. ACTUAL REINFORCING IS TO BE DESIGNED BY THE CONTRACTOR'S DELEGATED ENGINEER WHO IS LICENSED IN THE STATE OF FLORIDA. SUBMIT SIGNED & SEALED SHOP DRAWINGS AND CALCULATIONS FOR REVIEW.
2. PANEL THICKNESS PER PLAN.
3. PANEL CONCRETE COMPRESSIVE STRENGTH IS TO BE 4000 PSI AT 28 DAYS.
4. VERIFY ALL DIMENSIONS AND LOCATIONS OF PANEL OPENINGS WITH ARCH.
5. GENERAL CONTRACTOR SHALL REVIEW LIFTING DWGS. FOR ADDITIONAL STEEL REQUIRED FOR LIFTING.
6. SEE PLAN & ARCH DRAWINGS FOR LOCATIONS OF PANEL JOINTS.
7. SEE ARCHITECTURAL FOR REVEAL SIZES AND LOCATION.
8. ALL REVEALS ARE TO BE ALIGNED WITH EACH OTHER AND OPENINGS WHERE APPLICABLE.
9. MAX. REVEAL DEPTH = 3/4", U.N.O.
10. REFER TO ARCHITECTURAL DWGS. FOR CHAMFERS AT OPENINGS.
11. MINIMUM CONCRETE COVER = SEE DETAILS 2/S6-1 AND 3/ S6-1 FOR COVER REQUIREMENTS.
12. SEE ARCH. DRAWING FOR LOCATIONS OF ALL PRE-ENGINEERED CANOPIES. CONNECTION OF PRE-ENGINEERED CANOPIES, INCLUDING EMBED SHALL BE DESIGNED BY THE CANOPY ENGINEER. SIGNED AND SEALED SHOP DRAWINGS & CALCS SHALL BE SUBMITTED FOR REVIEW PRIOR TO CONSTRUCTION.
13. TILT-UP DELEGATED ENGINEER TO DESIGN PANELS FOR A DEFLECTION LIMIT NOT TO EXCEED L/240.
14. PANEL TO PANEL CONNECTIONS REQUIRED AT ALL WALL INTERSECTIONS, SEE DETAILS 4/S6-1 FOR ALL CONDITIONS U.N.O.
15. COORDINATE ALL PANEL OPENINGS W/ ARCHITECTURAL & MECHANICAL DRAWINGS
16. ALL PANEL TO PANEL CONNECTIONS SHALL BE ON THE INSIDE FACE OF THE WALLS. NO EMBED PLATES SHALL BE INSTALLED ON THE EXTERIOR FACE OF WALLS U.N.O.



1 7 1/4" PANEL REINFORCING WITH OPENING

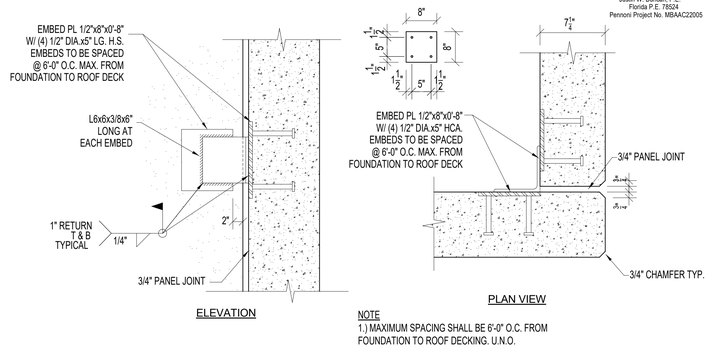


2 TILT-UP WALL REINF. DOUBLE LAYER



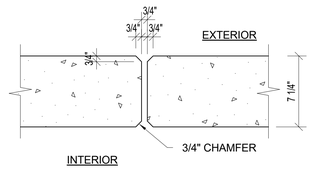
SINGLE LAYER

3 REINFORCEMENT PLACING DETAIL



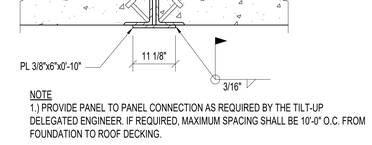
NOTE
1.) MAXIMUM SPACING SHALL BE 6'-0" O.C. FROM FOUNDATION TO ROOF DECKING. U.N.O.

4 CORNER PANEL TO PANEL CONNECTION DETAIL



5 END TO END PANEL DETAIL

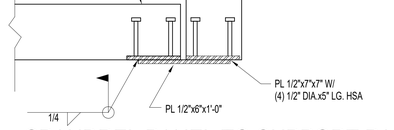
3/4" = 1'-0"



NOTE
1.) PROVIDE PANEL TO PANEL CONNECTION AS REQUIRED BY THE TILT-UP DELEGATED ENGINEER. IF REQUIRED, MAXIMUM SPACING SHALL BE 10'-0" O.C. FROM FOUNDATION TO ROOF DECKING.

6 PANEL TO PANEL CONNECTION

3/4" = 1'-0"



7 SPANDREL PANEL TO SUPPORT PANEL CONNECTION

3/4" = 1'-0"

NOTE: TO BE USED FOR ELEVATOR SHAFT.

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Pennoni Project No. MBAAC22005

Project Architect:

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Seal & Signature:

Justin W. Duncan, PE
Florida P.E. 78524

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

Revisions

No.	Description	Date

Drawing Title:

TILT-UP PANEL DETAILS

Drawing Number:

S6-1

Drawn by: NM
Checked by: JWD
Scale: As indicated

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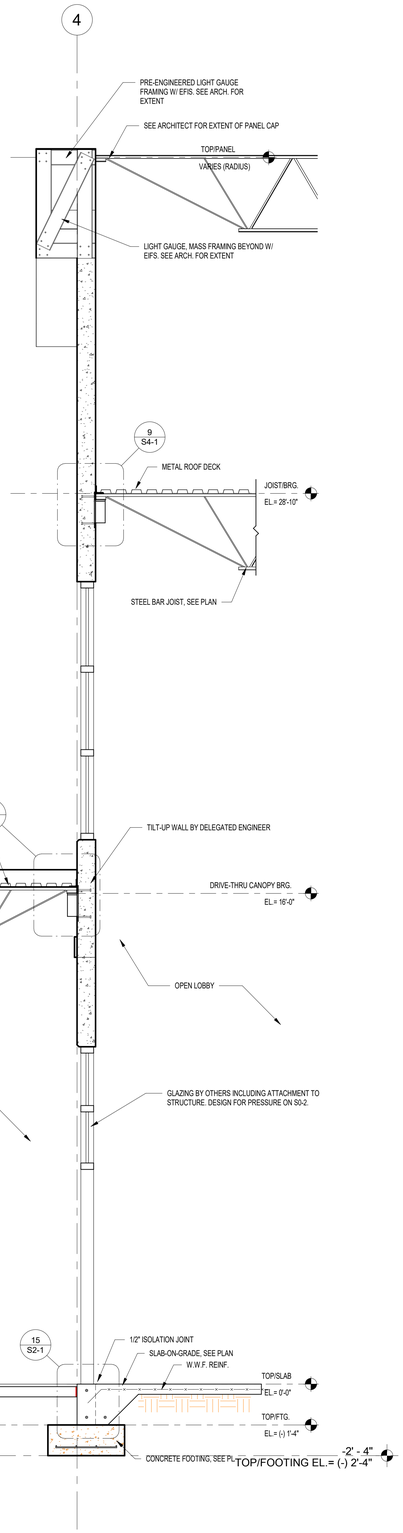
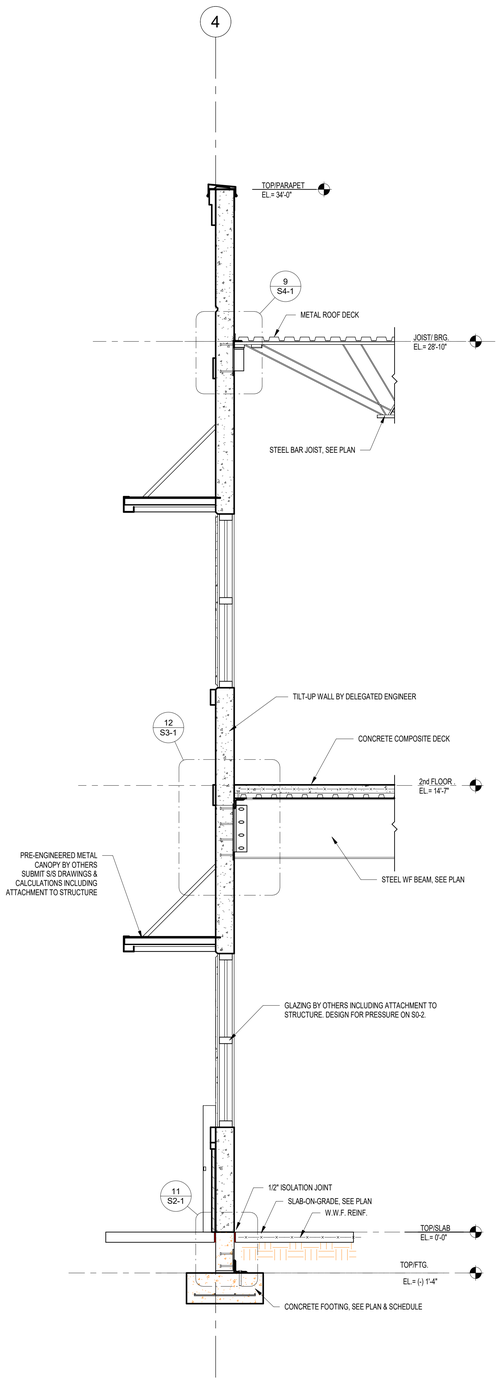


4 WALL SECTION



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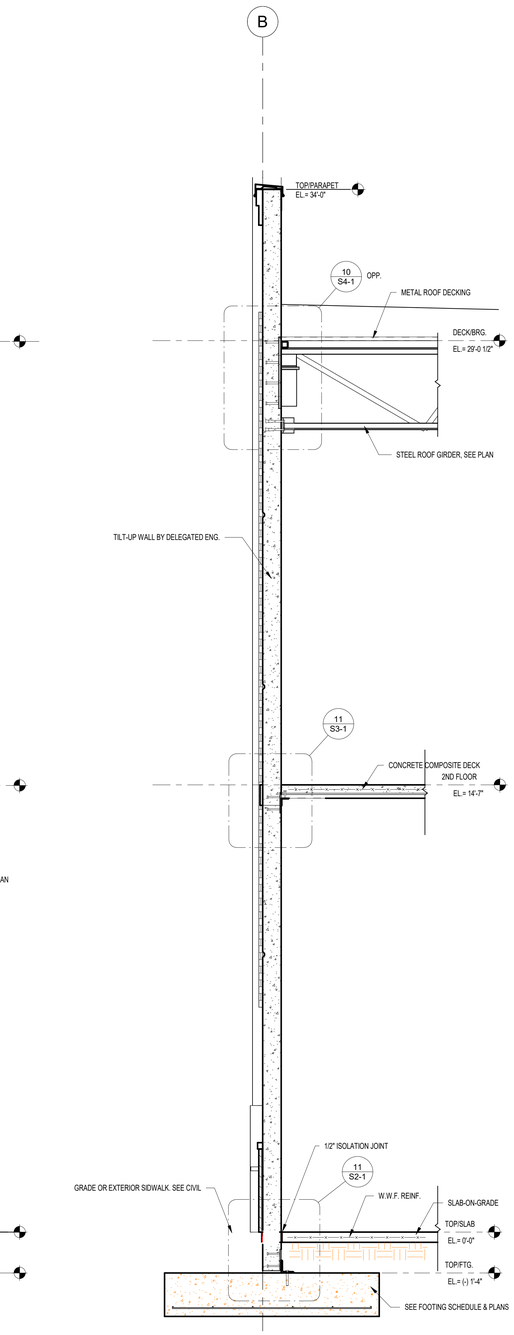
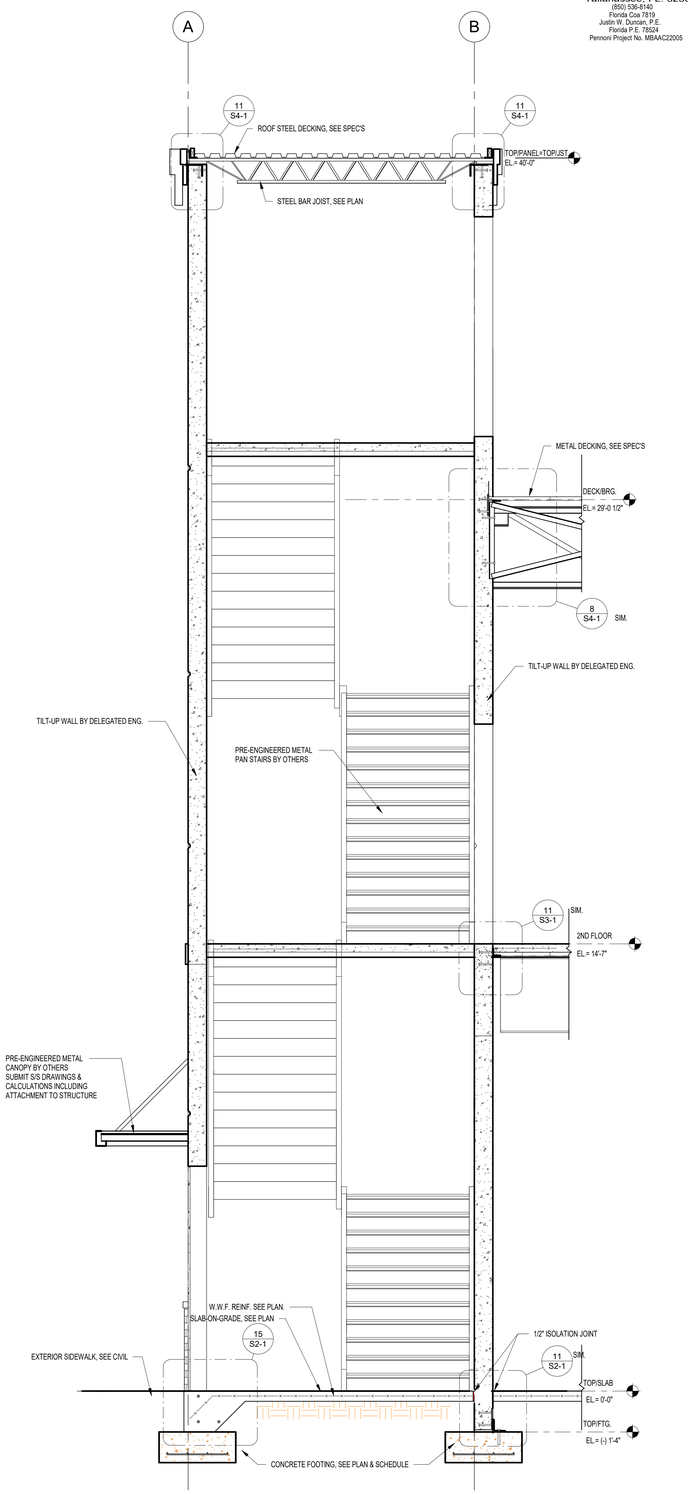


2 WALL SECTION



1 WALL SECTION

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CONSTRUCTION DOCUMENTS
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Revisions

No.	Description	Date

Drawing Title:

WALL SECTIONS

Drawing Number:

S7-1

Drawn by: NM
Checked by: JWD
Scale: 1/2" = 1'-0"

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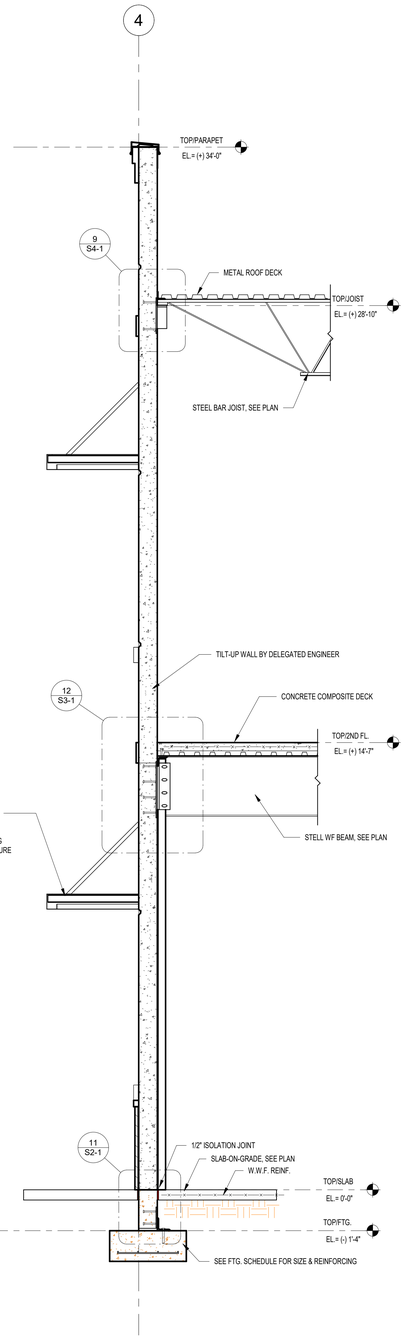
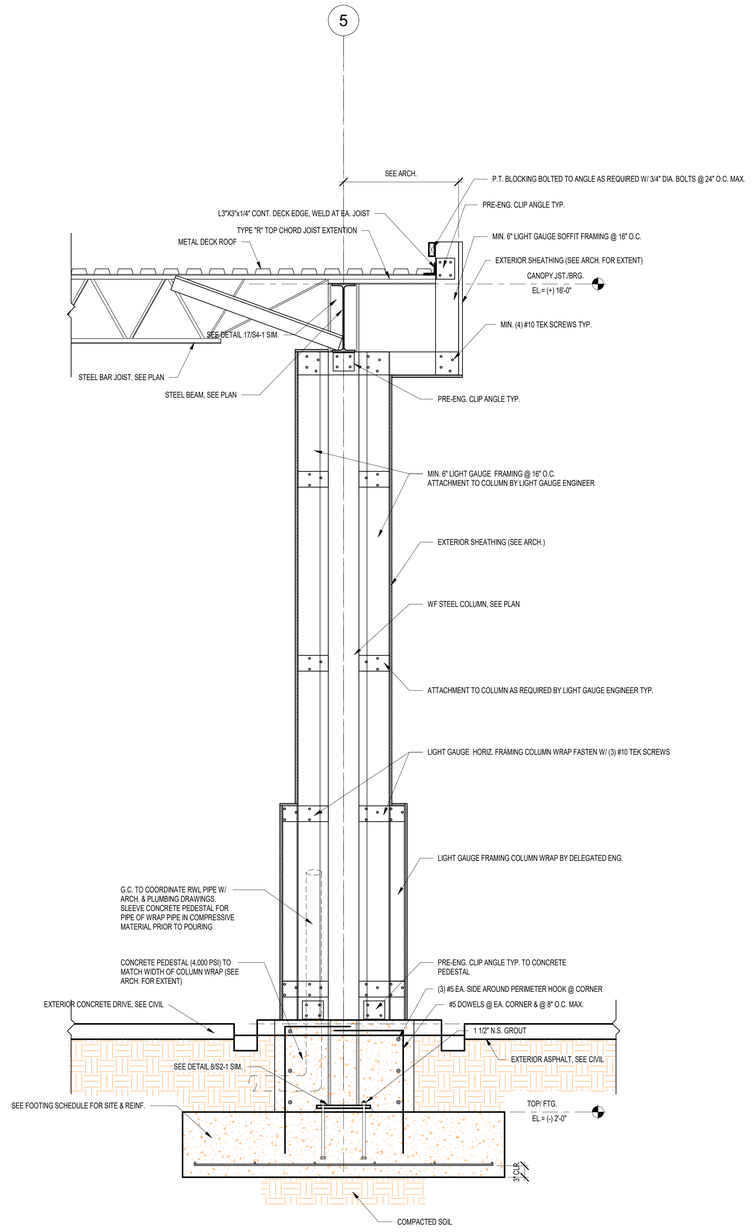


2 WALL SECTION



1 CANOPY COLUMN SECTION

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

Revisions

No.	Description	Date

Drawing Title:

WALL SECTIONS

Drawing Number:

S7-2

Drawn by: NM
Checked by: JWD
Scale: As indicated

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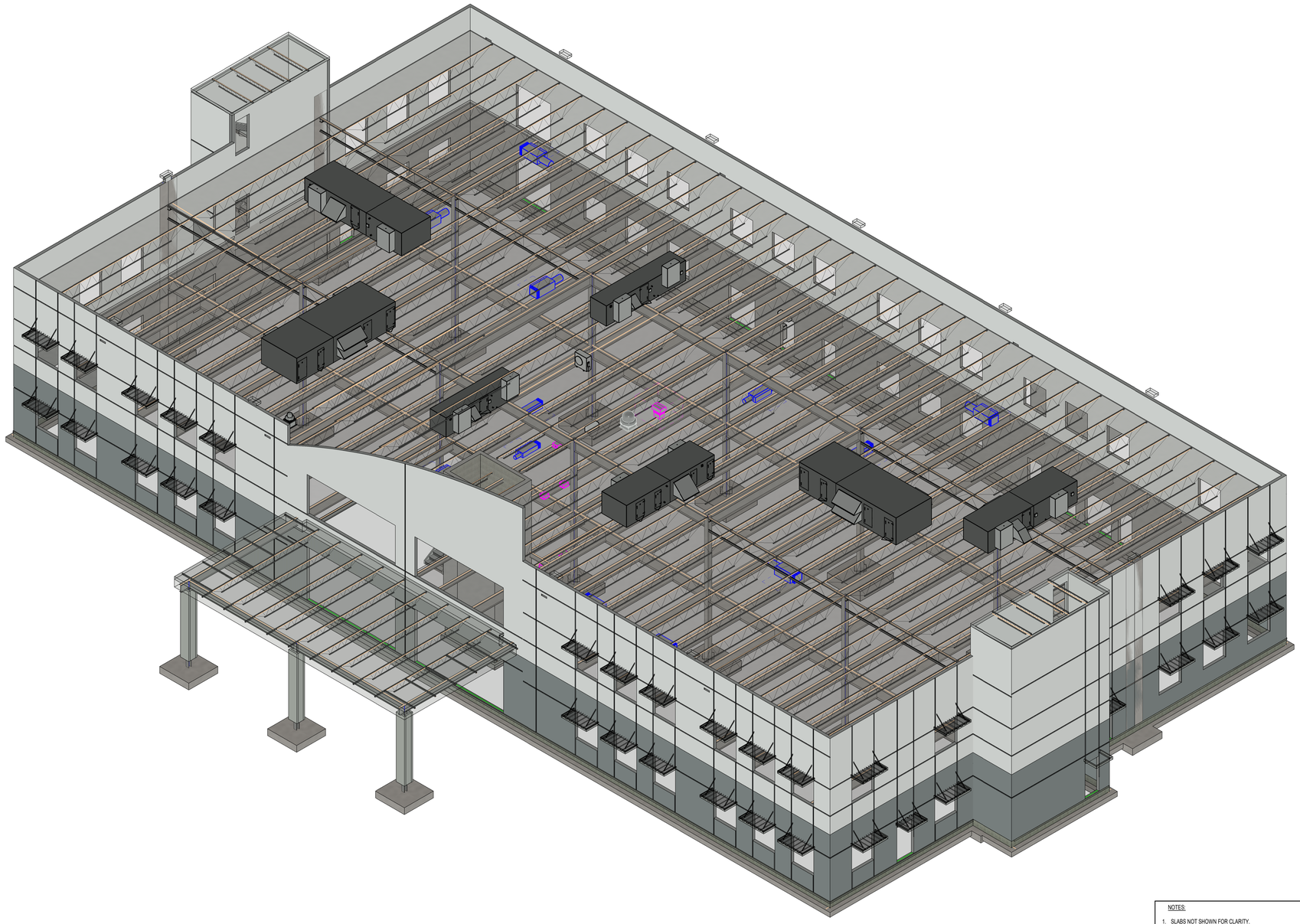

NOTES:

1. SLABS NOT SHOWN FOR CLARITY.
2. ISOMETRIC VIEW SHOWN TO PROVIDE ADDITIONAL CLARITY FOR GENERAL ARRANGEMENT OF STRUCTURE.

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Issue Date: 09/29/2023

Revisions

No.	Description	Date

Drawing Title:

ISOMETRIC VIEW

Drawing Number:

S8-1

Drawn by: NM
Checked by: JWD
Scale: 1/8" = 1'-0"

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PIPING LEGEND:

CD	MOISTURE CONDENSATE DRAIN LINE
R	REFRIGERANT LINES
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
	TEE
	PIPE TURNING DOWN
	PIPE TURNING UP
	PIPE SHUT OFF VALVE

DIMENSIONED DRAWINGS NOTE:

CONTRACTOR SHALL PROVIDE TO THE ENGINEER OF RECORD DIMENSIONED PLANS INDICATING EQUIPMENT SIZES AND ALL MANUFACTURER CLEARANCES OF ACTUAL SUBMITTED EQUIPMENT IN ALL MECHANICAL, EQUIPMENT, VACUUM PUMP, WATER TREATMENT, MEDICAL GAS, AND WATER HEATER ROOMS PRIOR TO ROUGH-IN FOR REVIEW AND APPROVAL.

CODE CRITERIA: (BUSINESS)

NOTE:
A. THIS LIST IS NOT INCLUSIVE OF ALL CODES AND STANDARDS THAT MAY OR MAY NOT APPLY TO THIS PROJECT.

B. PERFORM WORK SPECIFIED IN SPECIFICATIONS IN ACCORDANCE WITH STANDARDS LISTED BELOW INCLUDING AMENDMENTS OR REVISIONS. WHEN THESE SPECIFICATIONS ARE MORE STRINGENT, THEY TAKE PRECEDENCE. IN CASE OF CONFLICT, OBTAIN A DECISION FROM THE DESIGNER.

NFPA-13 (2016)
INSTALLATION OF SPRINKLER SYSTEMS

NFPA-54 (2018)
NATIONAL FUEL GAS CODE

NFPA-70 (2017)
NATIONAL ELECTRICAL CODE

NFPA-72 (2016)
NATIONAL FIRE ALARM CODE

NFPA-90A (2018)
INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS

NFPA-90B (2018)
INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS

NFPA-91 (2015)
EXHAUST SYSTEMS FOR AIR CONVEYING OF VAPORS, GASES, MISTS, AND NON-COMBUSTIBLE PARTICULATE SOLIDS

NFPA-96 (2017)
VENTILATION CONTROL AND FIRE PREVENTION OF COMMERCIAL COOKING OPERATIONS.

THE FLORIDA SPECIFIC EDITION OF NFPA 101. THE LIFE SAFETY CODE (2018 EDITION) [69A-3.012(1) FAC] [69A-53.004 FAC]

NFPA-110 (2016)
EMERGENCY AND STANDBY POWER SYSTEMS

NFPA-241 (2013) STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS.

NFPA-780 (2017)
LIGHTNING PROTECTION CODE

FLORIDA BUILDING CODE, BUILDING 7TH EDITION (2020)

FLORIDA BUILDING CODE, MECHANICAL 7TH EDITION (2020)

FLORIDA BUILDING CODE, PLUMBING 7TH EDITION (2020)

FLORIDA BUILDING CODE, TEST PROTOCOLS FOR HIGH WIND HURRICANE ZONES 7TH EDITION (2020)

FLORIDA BUILDING CODE, FUEL GAS 7TH EDITION (2020)

FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020)

FLORIDA ACCESSIBILITY CODE 7TH EDITION (2020)

FLORIDA BUILDING CODE, ENERGY EFFICIENCY 7TH EDITION (2020)

STATE OF FLORIDA ADMINISTRATIVE CODE NO. 69A-3.012 AND 69A-60.

NOTE: WHERE THERE ARE DIFFERENCES BETWEEN SECTIONS OF THE "BUILDING" AND "MECHANICAL" OR "PLUMBING" CODES, IT WILL BE ASSUMED THAT THE BUILDING CODE TAKES PRECEDENCE.

MECHANICAL LEGEND:

	MEDIUM PRESSURE TEE
	RECTANGULAR DUCT TURNING DOWN
	ROUND DUCT TURNING DOWN
	DUCT TURNING DOWN TO SIDEWALL REGISTER
	DOUBLE LINE TO DUCTWORK
	DUCT LINER IN LOW PRESSURE DUCT OR DOUBLE WALL INSULATED MEDIUM PRESSURE DUCT
	BRANCH TAP OFF MAIN W/45° BOOT FITTING OR SPIN-IN FITTING W/DAMPER (LOW PRESSURE)
	TRANSITION IN DUCT (NOT DIRECTION OF AIRFLOW)
	REGISTER TAPPING INTO BOTTOM OF DUCT
FD	FIRE DAMPER
FSD	FIRE/SMOKE DAMPER
	DUCT MOUNTED SMOKE DETECTOR WITH ACCESS DOOR
CO	CO2 SENSOR
H	HUMIDISTAT
P	DUCT MOUNTED PRESSURE SENSOR
T	THERMOSTAT
MD	MOTORIZED DAMPER
	SUPPLY DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE
EA 100	INDICATES A SIZE "A" EXHAUST REGISTER SET FOR 100 CFM
RB 200	INDICATES A SIZE "B" RETURN REGISTER SET FOR 200 CFM
SB 200	INDICATES A SIZE "B" SUPPLY DIFFUSER SET FOR 200 CFM
	DUCT TERMINATION
	45° FULL RADIUS TURN
	SQUARE ELBOW W/TURNING VANES
	FULL RADIUS TURN
MVD	MANUAL VOLUME DAMPER
	UNDERCUT DOOR 3/4" UNLESS OTHERWISE NOTED
	CONNECT TO EXISTING
	DEMOLITION POINT

AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BAS	BUILDING AUTOMATION CONTROL SYSTEM
BFF	BELOW FINISHED FLOOR
DPA	DIFFERENTIAL PRESSURE ALARM / MONITOR
DSD	DUCT MOUNTED SMOKE DETECTOR
VAV	VARIABLE AIR VOLUME BOX
VFD	VARIABLE FREQUENCY DRIVE

PROJECT COORDINATION NOTES:

THE CONSTRUCTION PHASING OF THIS PROJECT IS OF THE UTMOST IMPORTANCE. ALL CONTRACTORS FOR ALL DIVISIONS OF THE WORK SHALL GUARANTEE THAT THEIR WORK IS IN ACCORD WITH THE PHASING PLANS SHOWN IN THE ARCHITECTURAL CONTRACT DOCUMENTS. SHOULD IT BE NECESSARY TO ACCOMPLISH WORK IN AREAS WHICH ARE NOT INCLUDED IN THE PHASING PLANS, SUCH WORK SHALL BE DONE WITH THE MINIMUM OF DISTURBANCES THAT IS POSSIBLE AND WITHOUT CAUSING THE INTERRUPTION OF EXISTING SERVICES. ALL SERVICE INTERRUPTIONS THAT ARE ESSENTIAL TO THE WORK SHALL BE SCHEDULED WITH THE ARCHITECT AND, THEREBY, WITH THE OWNER. ALL CONTRACTORS FOR ALL TRADES SHALL COOPERATE AND COORDINATE THEIR WORK TO ALLOW THE COMPLETION OF ALL WORK WITH THE LEAST POSSIBLE NUMBER ON INTERFERENCE'S WITH THE SERVICES OF THE EXISTING BUILDING.

THE DESIGN DRAWINGS OF ALL CATEGORIES AND TRADES (ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE PROTECTION, MEDICAL GAS, MECHANICAL, HEATING, VENTILATING AND AIR CONDITIONING AND ELECTRICAL) AND ALL SPECIFICATIONS AND SHOP DRAWINGS MUST BE COORDINATED AND BE VIEWED IN CONNECTION AND CONJUNCTION WITH EACH OTHER TO INSURE THE PROPER LOCATION OF ALL DEVICES AND EQUIPMENT. MAKE PARTICULAR NOTE OF LOCATIONS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL FLOOR PLANS AND ELEVATIONS.

MECHANICAL GENERAL NOTES:

CONTRACT REQUIREMENTS AFFECTING ALL TRADES:

IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR AND EACH SUBCONTRACTOR TO REVIEW ALL DRAWINGS TO ASSURE COORDINATION OF ALL WORK AFFECTING EACH TRADE.

1. FIBERGLASS DUCT INSULATION SHALL NOT PENETRATE RATED WALLS. SPACE BETWEEN STUDS, HEADERS AND DUCT SHALL BE PACKED WITH MINERAL FIBER SAFING INSULATION. WHERE A FIRE DAMPER IS REQUIRED THE SPACE BETWEEN THE SLEEVE AND THE STUDS OR HEADERS SHALL BE OF THE PROPER CLEARANCE FOR THE SIZE OF THE DUCT IN ACCORDANCE WITH SMACNA REQUIREMENTS. FIRE DAMPER SLEEVES SHALL BE INSTALLED AND SECURED IN ACCORDANCE WITH SMACNA STANDARDS. FIRE DAMPERS SHALL BE INSTALLED IN THE PLANE OF THE RATED ASSEMBLY AND BE U.L. LISTED AS AN ASSEMBLY COMPLYING WITH U.L. 555.

2. CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS IN WALLS, NON-ACCESSIBLE CEILINGS, DUCTWORK AS REQUIRED AND ELSEWHERE AS INDICATED ON CONTRACT DOCUMENTS WHERE SERVICE ADJUSTMENT TO MECHANICAL, PLUMBING OR ELECTRICAL EQUIPMENT IS REQUIRED.

3. COORDINATE INSTALLATION OF PLUMBING, VENT STACKS AND CONDUIT TO PERMIT INSTALLATION OF RECESSED TOILET ACCESSORIES, FIRE EXTINGUISHER CABINETS AND OTHER RECESSED EQUIPMENT. WHERE SUCH ITEMS ARE RECESSED IN CORRIDOR, SMOKE OR FIRE/SMOKE WALLS THEY SHALL BE INSTALLED IN A FIVE-SIDE ENCLOSURE.

4. THE CONTRACTOR SHALL ASSEMBLE A LOG OF CERTIFICATES AND INSPECTIONS REQUIRED IN C.S.I. FORMAT PRIOR TO FINAL INSPECTION INCLUDING MANUFACTURER'S CERTIFICATION OF FLAME SPREAD, SMOKE AND RADIANT PANEL TEST, AND CERTIFICATE OF TESTS FOR MEDICAL GAS, RADIATION SHIELDING, HVAC TEST AND BALANCE, FIRE ALARM, FIRE PUMP, EMERGENCY GENERATOR, ETC. AS APPLICABLE TO THE PROJECT AND MAKE AVAILABLE AT FINAL INSPECTION.

5. CONTRACTOR SHALL VERIFY CONSTRUCTION IS COMPLETE AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS PRIOR TO FINAL INSPECTION. NOTIFY THE DESIGNER PRIOR TO INSPECTION OF ANY DEFICIENCIES OBSERVED.

6. CONTRACTOR SHALL SEAL ALL METAL JOINTS WITH GLASSFAB AND MASTIC PRIOR TO INSTALLATION OF INSULATION AND PRESSURE TEST DUCTWORK FOR LEAKAGE.

7. MANUAL VOLUME DAMPERS SHALL BE PROVIDED AT ALL RUNOUTS TO SUPPLY AIR DIFFUSERS, RETURN AIR REGISTERS, EXHAUST AIR REGISTERS, DIVISIONS IN DUCTWORK (SUPPLY, RETURN AND EXHAUST), AND ELSEWHERE NOTED ON PLANS AND IN SPECIFICATIONS FOR BALANCING SYSTEM. DAMPERS IN REGISTERS GRILLES AND DIFFUSERS ARE PROVIDED FOR FINAL ADJUSTMENTS DURING TEST AND BALANCING. DO NOT RELY ON DISTRIBUTION DEVICE DAMPERS FOR SYSTEM BALANCING.

8. COORDINATION OF ALL TRADES IS OF THE UTMOST IMPORTANCE. CEILING SPACE TO ROUTE WORK IN IS MINIMAL AT BEST. CONTRACTOR SHALL LAY OUT SYSTEMS IN CONJUNCTION WITH ALL TRADES TO AVOID CONFLICTS PRIOR TO INSTALLATION OF WORK.

9. PLUMBING VENT STACKS AND HVAC EXHAUST SHALL BE KEPT A MINIMUM OF 25' FROM ANY OUTSIDE AIR INTAKE. OUTSIDE AIR INTAKE MAY BE AS CLOSE AS 10' AWAY FROM EXHAUST AND PLUMBING VENTS FOR NON-HEALTHCARE FACILITIES.

10. CONTRACTOR SHALL REVIEW PLACEMENT OF ALL HVAC EQUIPMENT ON ROOF WITH STRUCTURAL DRAWINGS PRIOR TO INSTALLATION.

11. PROVIDE SEALED ROOF CURB AROUND ALL DUCTWORK AND PIPING PENETRATIONS THRU ROOF.

12. CONTRACTOR SHALL MAINTAIN A MINIMUM OF 6" CLEARANCE BETWEEN DUCTWORK, PIPING, AND ANY PRIORITY WALLS (TWO HOUR FIRE, TWO HOUR FIRE/SMOKE, ONE HOUR SMOKE).

13. PROVIDE ACCESS DOORS IN DUCTWORK FOR FIRE DAMPERS, REHEAT COILS, DUCT MOUNTED SMOKE DETECTORS, AND ELSEWHERE WHERE SERVICE OR ADJUSTMENT TO MECHANICAL, PLUMBING OR ELECTRICAL EQUIPMENT IS REQUIRED.

14. PROVIDE "YOUNG" REMOTE VOLUME REGULATOR FOR ALL DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FINISH SCHEDULE FOR CEILING TYPES.

15. ALL OUTSIDE AIR INTAKES ON ROOF SHALL BE KEPT A MINIMUM OF 36" ABOVE ROOF FOR HEALTHCARE FACILITIES, 12" FOR NON-HEALTHCARE. PROVIDE DUCTWORK OR CURB EXTENSIONS AS NECESSARY TO PROVIDE CLEARANCE.

16. FOR AIR HANDLERS WITH DESIGN AIRFLOW ABOVE 2000 CFM, INSTALL SMOKE DETECTORS IN RETURN AIR DUCTWORK (PRIOR TO DILUTION OF OUTSIDE AIR) AND SUPPLY AIR DUCTWORK WITH SAMPLING TUBES IN AIRSTREAM ACCORDING TO MANUFACTURER'S INSTALLATION REQUIREMENTS. FOR ALL DUCT MOUNTED SMOKE DETECTORS PROVIDE AN AIR DIFFERENTIAL TEST ACROSS DETECTOR SAMPLING TUBES, RELOCATE OR ADJUST THE SAMPLING TUBES WHERE NECESSARY TO PROVIDE AN AIR DIFFERENTIAL WITHIN THE ACCEPTABLE RANGE ESTABLISHED BY THE MANUFACTURER. RESULTANT TEST DATA SHALL BE MADE AVAILABLE AT THE FINAL SURVEY AND WILL BE INCLUDED IN LOG OF CERTIFICATES. DUCT MOUNTED SMOKE DETECTORS TO BE FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.

17. MAINTAIN THE CLEAR SPACES AROUND, OVER AND UNDER EQUIPMENT, ELECTRICAL PANELS, SYSTEMS AND SYSTEM COMPONENTS IN CEILING CAVITIES NECESSARY FOR CONVENIENT OBSERVATION, OPERATION AND MAINTENANCE. PAY SPECIAL ATTENTION TO ACCESS TO FIRE DAMPERS, FIRE AND SMOKE DAMPERS, DUCT SMOKE DETECTORS, ELECTRIC DUCT HEATER CONTROLS, FILTER ACCESS DOORS, MEDICAL GAS VALVES, FIRE PROTECTION SYSTEM VALVES, ETC. DO NOT INSTALL DUCTWORK OR PIPING OF ANY KIND ABOVE ELECTRICAL PANELS PER NEC. COORDINATE AND FIELD VERIFY FINAL LOCATION OF ELECTRICAL PANELS WITH ELECTRICAL CONTRACTOR BEFORE INSTALLATION OF DUCTWORK AND PIPING.

18. DO NOT INSTALL EQUIPMENT, SYSTEMS OR SYSTEM COMPONENTS WHERE THEY MAY ENCROACH ON THE CLEAR SPACES NECESSARY FOR OPERATION OR MAINTENANCE OF ITEMS INSTALLED BY OTHER TRADES WITHOUT CONFIRMING THAT THE CLEAR SPACE REQUIREMENTS OF THE OTHER TRADE WILL BE MAINTAINED.

19. WHERE THE WORK OF OTHER TRADES MAY ENCROACH ON CLEAR SPACES REQUIRED FOR WORK INSTALLED UNDER THESE SECTIONS, COORDINATE WITH THE OTHER TRADES AND THE GENERAL CONTRACTOR TO MAINTAIN THE REQUIRED CLEAR SPACES.

20. MECHANICAL EQUIPMENT AND PIPING INSTALLED ON ROOF SHALL BE SECURED TO MEET FBC WIND LOADING REQUIREMENTS.

MECHANICAL GENERAL NOTES:

21. PROVIDE COMMISSIONING OF HVAC SYSTEMS OVER 40 TON TOTAL CAPACITY PER FLORIDA ENERGY EFFICIENCY CODE. CONSTRUCTION DRAWINGS AND AN OPERATING AND MAINTENANCE MANUAL SHALL BE PROVIDED TO THE OWNER WITHIN 90 DAYS OF THE DATE OF RECEIPT OF CERTIFICATE OF OCCUPANCY.

22. MECHANICAL EQUIPMENT SHALL NOT BE INSTALLED IN A LOCATION WHERE SUBJECT TO MECHANICAL DAMAGE UNLESS PROTECTED BY APPROVED BARRIERS. MECHANICAL EQUIPMENT AND SUPPORTS THAT ARE EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURES IN ACCORDANCE WITH FLORIDA BUILDING CODE.

23. PROVIDE DUCT ACCESS PANELS PER NFPA 90A.

24. PROVIDE EMERGENCY SHUT OFF FOR HVAC SYSTEMS PER NFPA 90A.

25. ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO CONDENSING UNITS, CONTROL PANELS, AIR HANDLING UNIT EQUIPMENT, AND VARIABLE FREQUENCY DRIVES SHALL HAVE SCCR (SHORT CIRCUIT CURRENT RATING) GREATER THAN OR EQUAL TO THE AMPERE INTERRUPTING CAPACITY (AIC) RATING OF THE ELECTRICAL DISTRIBUTION SYSTEM SERVING THE EQUIPMENT. COORDINATE AIC AND SCCR REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING ELECTRICAL EQUIPMENT. ANY EQUIPMENT FOUND ON SITE WITH SCCR RATING LESS THAN REQUIRED WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.

26. DAMPERS EQUIPPED WITH FUSIBLE LINKS, INTERNAL OPERATORS OR BOTH SHALL BE PROVIDED WITH AN ACCESS DOOR NO LESS THAN 12" SQUARE OR PROVIDED WITH A REMOVABLE DUCT SECTION. DUCT SERVICE OPENINGS SHALL BE IDENTIFIED WITH LETTERS 1/2" MINIMUM IN HEIGHT TO INDICATE THE PROTECTION DEVICE WITHIN.

HIGH WIND PROTECTION OF EQUIPMENT:

IN COMPLIANCE WITH FMC-301.15; MECHANICAL EQUIPMENT, APPLIANCES AND SUPPORTS THAT ARE EXPOSED TO WIND SHALL BE DESIGNED AND INSTALLED TO RESIST THE WIND PRESSURES DETERMINED IN ACCORDANCE WITH FBC. EXCEPTION: EXPOSED MECHANICAL EQUIPMENT OR APPLIANCES FASTENED TO A ROOF OR INSTALLED ON THE GROUND IN COMPLIANCE WITH THE CODE USING RATED STANDS, PLATFORMS, CURBS, SLABS, WALLS, OR OTHER MEANS ARE DEEMED TO COMPLY WITH THE WIND RESISTANCE REQUIREMENTS OF THE FLORIDA BUILDING CODE, AS AMENDED. FURTHER SUPPORT OR ENCLOSURE OF SUCH MECHANICAL EQUIPMENT OR APPLIANCES IS NOT REQUIRED BY A STATE OR LOCAL OFFICIAL HAVING AUTHORITY TO ENFORCE THE FLORIDA BUILDING CODE.

APPLIANCES SHALL NOT BE INSTALLED IN A LOCATION WHERE SUBJECT TO MECHANICAL DAMAGE UNLESS PROVIDED WITH PROTECTION FROM DAMAGE IN ACCORDANCE WITH FBC-451.3.6.6.

GENERATOR FUEL OIL TANK ENCLOSURE, PIPING, VALVES, AND OTHER APPURTENANCES SHALL BE SECURED AND PROTECTED FOR CONTINUED OPERATION AND BE DESIGNED TO COMPLY WITH THE FBC WIND ZONE MAPS FOR THE AREA.

PRIOR TO FINAL ACCEPTANCE OF PROJECT, GENERAL CONTRACTOR SHALL PROVIDE WIND RESISTANCE DESIGN DOCUMENTS THAT ARE SIGNED, SEALED, AND DATED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA IN COMPLIANCE WITH FBC.

THE ULTIMATE DESIGN WIND SPEED FOR THIS BUILDING SHALL BE 150 MPH. ALL MECHANICAL EQUIPMENT, APPLIANCES AND SUPPORTS THAT ARE EXPOSED TO WIND SHALL BE DESIGNED TO RESIST THE WIND PRESSURE NOTED ABOVE IN LIEU OF CODE MINIMUM REQUIREMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR REFERENCE.

MECHANICAL SCOPE OF WORK:

THIS PROJECT INVOLVES THE CONSTRUCTION OF A NEW TWO-STORY MEDICAL OFFICE BUILDING. THE DESIGN CONSISTS OF A CORE AND SHELL BUILDOUT.

THE SHELL SPACES WILL BE SERVED BY ONE NEW GROUND-MOUNTED CHILLER. THREE NEW ROOF-MOUNTED CHILLED WATER AIR HANDLING UNITS WILL BE INSTALLED TO SERVE THE LOBBY, TENANT AC (1ST FLOOR), AND THE TENANTS ON THE 2ND FLOOR. A ROOF CURB FOR A FUTURE RUT SERVING THE 2ND FLOOR WILL BE PROVIDED AND TEMPORARILY CAPPED UNTIL THAT TENANT SUITE IS BUILT OUT. THE CHILLER WILL BE SIZED ACCORDINGLY TO SERVE THE LOBBY RUT AS WELL AS THE REMAINING TENANTS THROUGHOUT THE BUILDING, EXCEPT FOR THE AC.

ALL NEW ROOF-MOUNTED EQUIPMENT WILL BE HIGH WIND RATED TO MEET FBC IMPACT REQUIREMENTS. NEW EXHAUST SYSTEMS WILL ALSO BE INSTALLED. NEW CONSTANT AIR VOLUME/VARIABLE AIR VOLUME BOXES WITH ELECTRIC REHEAT, DUCTWORK, AIR DEVICES, DUCT HEATERS, AND CONTROLS WILL BE INSTALLED TO ACCOMMODATE PROJECT NEEDS.

MECHANICAL SHEET LIST

SHEET NUMBER	SHEET NAME
M000	MECHANICAL LEGEND
M110	HVAC FIRST FLOOR PLAN
M120	HVAC SECOND FLOOR PLAN
M130	HVAC ROOF PLAN
M220	HVAC CONTROLS & PIPING SECOND FLOOR PLAN
M310	HVAC ISOMETRIC PLAN
M320	HVAC PIPING ISOMETRIC PLAN
M700	MECHANICAL SCHEDULES
M701	MECHANICAL SCHEDULES
M800	MECHANICAL DETAILS
M801	MECHANICAL DETAILS
M802	MECHANICAL DETAILS
M803	MECHANICAL DETAILS
M900	MECHANICAL CONTROLS
M901	MECHANICAL CONTROLS

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

MECHANICAL LEGEND

Drawing Number:

M000

Drawn by: OA
Checked by: DN
Scale: 1/8" = 1'-0"

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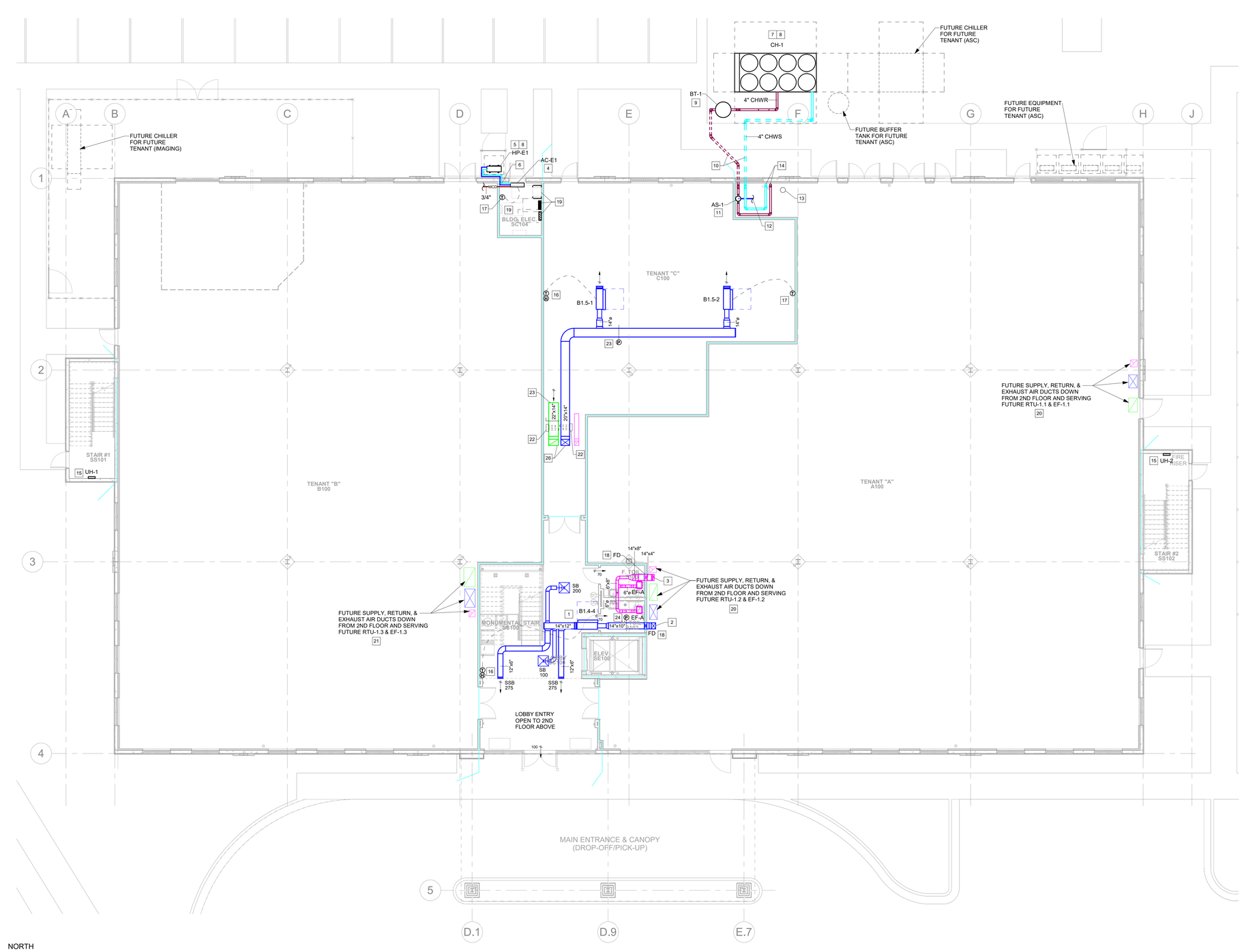

NORTH

HVAC - FIRST FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. PROVIDE PERMANENT LABEL AT CEILING FOR ALL NEW AND EXISTING DAMPERS AND VALVES LOCATED ABOVE CEILING IN AREAS THAT ARE ACCESSED DURING CONSTRUCTION.

B. REFER TO CHILLER DETAIL FOR PIPING CONNECTION TO HYDRONIC SPECIALTIES.

C. PROVIDE SAFE, ADEQUATE AND PRACTICAL ACCESS TO ALL APPLIANCES AND DEVICES ABOVE THE CEILING AND BEHIND WALLS FOR COMPLETE INSPECTION, TESTING AND MAINTENANCE WITHOUT DISTURBING ANY BUILDING SYSTEM OR DEVICE EXCEPT FOR ACCESS DOORS AND/OR REMOVABLE CEILING TILES.

D. PROVIDE AN ACCESSIBLE MANUAL VOLUME DAMPER WITH LOCKING QUADRANT ON ALL RUNOUTS TO AIR DISTRIBUTION DEVICES. TYPICAL.

E. CLOSELY COORDINATE INSTALLATION AND ROUTING OF DUCTWORK WITH ALL OTHER TRADES. INSTALL LARGER DUCTWORK SUPPLY AND RETURN MAINS AS HIGH AS POSSIBLE AND TIGHT TO STRUCTURAL AS MUCH AS POSSIBLE. INSTALL DUCTWORK AS REQUIRED TO MAKE ALL BRANCH CONNECTIONS. FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS. TYPICAL.

F. FIRE AND SMOKE DAMPERS SHALL BE PROVIDED WITH AN APPROVED MEANS OF ACCESS THAT IS LARGE ENOUGH TO PERMIT INSPECTION AND MAINTENANCE OF THE DAMPER AND ITS OPERATING PARTS. DAMPERS EQUIPPED WITH FUSIBLE LINKS, INTERNAL OPERATORS OR BOTH SHALL BE PROVIDED WITH AN ACCESS DOOR THAT IS NOT LESS THAN 12 INCHES SQUARE OR PROVIDED WITH A REMOVABLE DUCT SECTION. ACCESS POINTS SHALL BE PERMANENTLY IDENTIFIED ON THE EXTERIOR OF A LABEL HAVING LETTERS NOT LESS THAN 1/2 INCH IN HEIGHT READING: FIRE/SMOKE DAMPER, SMOKE DAMPER OR FIRE DAMPER.

G. ALL DUCTWORK PENETRATIONS OF RATED WALLS SHALL BE PROTECTED BY AN APPROVED U.L. LISTED FIRE DAMPER AND/OR COMBINATION SMOKE/FIRE DAMPER AS APPROPRIATE. ALL PIPING AND CONDUIT PENETRATIONS OF THE SAME WALLS SHALL ALSO BE APPROPRIATELY PROTECTED. REFER TO WALL FIRE RATING KEY ON THIS SHEET.

H. THERE SHALL BE A MINIMUM CLEARANCE OF 6" BETWEEN ALL CONDUIT, PIPING, AND DUCTWORK THAT IS PARALLEL OR ADJACENT TO ALL FIRE AND FIRE/SMOKE RATED WALLS TO FACILITATE THE INSPECTION OF THESE WALLS (FBC 449.3.4.8, 7TH ED. 2020).

CODED NOTES:

1. CAV/VAV BOX WITH ELECTRIC REHEAT. PROVIDE MINIMUM 3'-0" CLEAR ACCESS IN FRONT OF HEATER PER NEC, TYPICAL. PROVIDE ACCESS PANELS IN HARD CEILINGS, IF APPLICABLE. COORDINATE EXACT LOCATION WITH ARCHITECTURAL CEILING PLAN.

2. 14"x10" SUPPLY AIR DUCT DOWN FROM 2ND FLOOR. PROVIDE FIRE DAMPER IN SUPPLY DUCT AT 2ND FLOOR SLAB. REFER TO HVAC SECOND FLOOR PLAN FOR DUCTWORK CONTINUATION.

3. 14"x4" EXHAUST AIR DUCT DOWN FROM 2ND FLOOR. PROVIDE FIRE DAMPER IN EXHAUST DUCT AT 2ND FLOOR SLAB. REFER TO HVAC SECOND FLOOR PLAN FOR DUCTWORK CONTINUATION.

4. WALL-MOUNTED MINI SPLIT. MOUNT UNIT ABOVE DOOR AS SHOWN. MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND AIR FLOW. ROUTE REFRIGERANT PIPING TO OUTDOOR UNIT AS SHOWN. ROUTE PUMPED CONDENSATE DRAIN TO RAIN WATER LEADER AS SHOWN. COORDINATE FINAL LOCATION IN FIELD. CONDENSATE DRAIN SHALL INCLUDE TRAP OR IN-LINE CHECK VALVE PER FPC 314.2.4.1. CONDENSATE PIPING SHALL BE INSULATED COPPER.

5. OUTDOOR HEAT PUMP. MOUNTED AND INSTALLED ON 6" CONCRETE PAD (PROVIDED BY GENERAL CONTRACTOR). MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND AIR FLOW. COORDINATE FINAL LOCATION IN FIELD. PROVIDE 1" INSULATION ON ALL EXTERIOR REFRIGERANT PIPING WITH PVC JACKET WITH UV COATING ON EXPOSED PIPING (TYPICAL). SUPPORT REFRIGERANT PIPING FROM CONCRETE USING UNISTRUT STANDS.

6. ROUTE REFRIGERANT PIPING TO CORNER OF ELECTRICAL ROOM AND DOWN TO FLOOR. REFRIGERANT PIPING SHALL PENETRATE EXTERIOR WALL LOW AND NEAR THE GROUND.

7. AIR-COOLED CHILLER. MOUNTED AND INSTALLED ON 6" CONCRETE PAD (PROVIDED BY GENERAL CONTRACTOR). MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND AIR FLOW. PROVIDE ISOLATION BALL VALVES AT CHILLER CONNECTIONS. PROVIDE STRAINER AT CHILLER RETURN INLET. CHILLED WATER SYSTEM TO BE CHARGED WITH 20% GLYCOL/WATER MIXTURE.

8. SECURE MECHANICAL EQUIPMENT TO THE SLAB PER FBC WIND LOAD REQUIREMENTS (150 MPH MINIMUM).

9. BUFFER TANK. FACTORY INSULATED OR INSULATED PER SPECIFICATION SECTION 230710. INCLUDE UV PROTECTIVE COATING AS REQUIRED. SECURE MECHANICAL EQUIPMENT TO THE STRUCTURE PER FBC WIND LOAD REQUIREMENTS.

10. 4" CHILLED WATER SUPPLY & RETURN PIPING FROM CH-1. EXTEND CHILLED WATER PIPING UNDERGROUND AND UP INTO MECHANICAL ROOM AS SHOWN. COORDINATE EXACT ROUTING AND LOCATION OF RISERS WITH MECHANICAL EQUIPMENT, DUCTWORK, LOUVERS, AND ALL OTHER TRADES. SLEEVE AND CAULK WALL AND FLOOR PENETRATIONS AS REQUIRED. AUTOMATIC AIR BLEEDER VALVES MUST BE INSTALLED AT HIGHEST POINTS IN THE PIPING TO ALLOW AIR TO VENT FROM PIPING. PROVIDE CLOSED CELL INSULATION WITH ALL SERVICE JACKET (INDOOR PIPING) OR ALUMINUM JACKET (OUTDOOR PIPING).

11. AIR SEPARATOR. INSTALLED HIGH NEAR CEILING. COORDINATE FINAL LOCATION IN FIELD.

12. 1" MAKEUP WATER ASSEMBLY WITH BFP. CONNECT TO TOP OF AIR SEPARATOR AS SHOWN. REFER TO DETAIL AND TO PLUMBING PLANS FOR SERVICE LINE FROM BUILDING.

13. CHEMICAL SHOT FEEDER. COORDINATE FINAL LOCATION IN FIELD.

14. 4" CHWS&R UP TO 2ND FLOOR. FIRE STOP FLOOR PENETRATIONS AS REQUIRED.

15. UNIT HEATER MOUNTED 6'-0" A.F.F. MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND AIR FLOW.

16. WALL-MOUNTED THERMOSTAT/HUMIDISTAT. PROVIDE LOCKING COVER FOR PUBLIC AREAS.

17. WALL-MOUNTED THERMOSTAT. PROVIDE LOCKING COVER FOR PUBLIC AREAS.

18. FIRE DAMPER. ENSURE FIRE DAMPER IS VISIBLE AND REACHABLE WITHIN 18" FROM ACCESSIBLE SIDE. PROVIDE CEILING ACCESS PANEL FOR DUCT ACCESS DOORS THAT ARE INSTALLED ABOVE HARD CEILINGS.

19. CONTRACTOR SHALL CONFIRM THAT ANY DUCTWORK OR PIPING IS NOT ROUTED OVER ANY ELECTRICAL PANEL.

20. LOCATIONS RESERVED FOR FUTURE DUCTWORK SERVING FUTURE RTU'S. PROVIDE SUFFICIENT CLEARANCE AROUND THESE LOCATIONS. REFER TO ASC MECHANICAL DRAWINGS FOR EXACT DUCT SIZES.

21. LOCATIONS RESERVED FOR FUTURE DUCTWORK SERVING FUTURE RTU'S. PROVIDE SUFFICIENT CLEARANCE AROUND THESE LOCATIONS. REFER TO IMAGING MECHANICAL DRAWINGS FOR EXACT DUCT SIZES.

22. DUCT MOUNTED SMOKE DETECTOR WITH ACCESS DOOR. PROVIDE ACCESS PANELS IN HARD CEILINGS, IF APPLICABLE. COORDINATE EXACT LOCATION WITH ARCHITECTURAL CEILING PLAN. TYPICAL.

23. PROVIDE OPEN RETURN DUCT WITH 1/2" METAL MESH AND MANUAL VOLUME DAMPER AS SHOWN.

24. DUCT STATIC PRESSURE SENSOR FOR SUPPLY FAN SPEED CONTROL. REFER TO SEQUENCE OF OPERATION. COORDINATE FINAL LOCATION IN FIELD.

25. PLAECHOLDER FOR FUTURE EXHAUST DUCT DROP SERVING FUTURE TENANT. DUCTWORK IS NOT MEANT TO BE INSTALLED AS PART OF SHELL PACKAGE.

26. 20"x14" SUPPLY AIR DUCT AND 22"x14" RETURN AIR DUCT UP TO 2ND FLOOR AND THEN UP TO RTU-1.5 ON ROOF. PROVIDE FIRE DAMPER IN EACH DUCT AT 2ND FLOOR SLAB. REFER TO HVAC SECOND FLOOR PLAN FOR DUCTWORK CONTINUATION.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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Seal & Signature:

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SHELL

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

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Drawing Title:

HVAC FIRST FLOOR PLAN

Drawing Number:

M110

Drawn by: OA
Checked by: DN
Scale: As indicated

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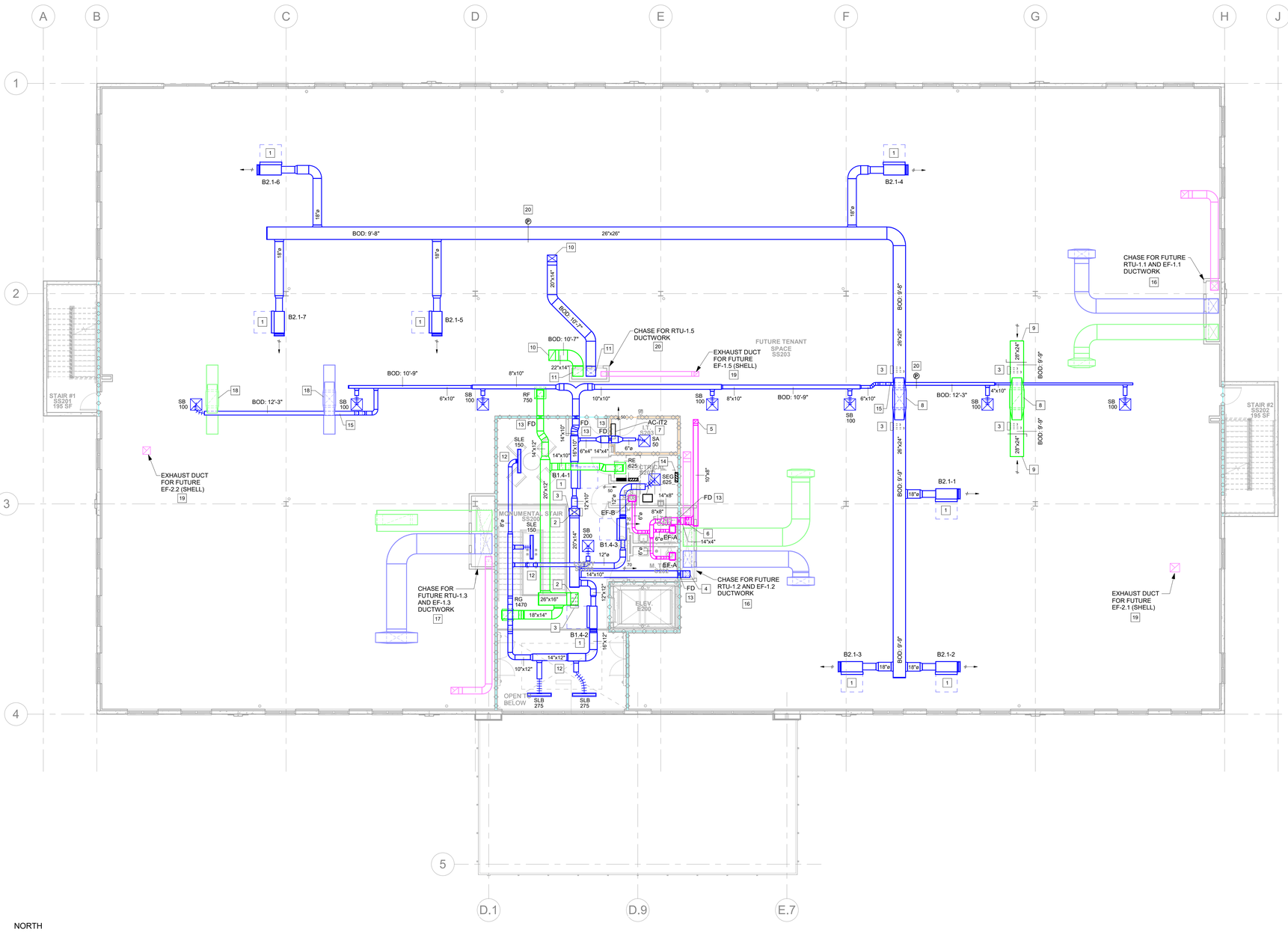

NORTH

HVAC - SECOND FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. PROVIDE PERMANENT LABEL AT CEILING FOR ALL NEW AND EXISTING DAMPERS AND VALVES LOCATED ABOVE CEILING IN AREAS THAT ARE ACCESSED DURING CONSTRUCTION.

B. PROVIDE SAFE, ADEQUATE AND PRACTICAL ACCESS TO ALL APPLIANCES AND DEVICES ABOVE THE CEILING AND BEHIND WALLS FOR COMPLETE INSPECTION, TESTING AND MAINTENANCE WITHOUT DISTURBING ANY BUILDING SYSTEM OR DEVICE EXCEPT FOR ACCESS DOORS AND/OR REMOVABLE CEILING TILES.

C. PROVIDE AN ACCESSIBLE MANUAL VOLUME DAMPER WITH LOCKING QUADRANT ON ALL RUNOUTS TO AIR DISTRIBUTION DEVICES. TYPICAL.

D. CLOSELY COORDINATE INSTALLATION AND ROUTING OF DUCTWORK WITH ALL OTHER TRADES. INSTALL LARGER DUCTWORK SUPPLY AND RETURN MAINS AS HIGH AS POSSIBLE AND TIGHT TO STRUCTURAL AS MUCH AS POSSIBLE. INSTALL DUCTWORK AS REQUIRED TO MAKE ALL BRANCH CONNECTIONS. FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS. TYPICAL.

E. FIRE AND SMOKE DAMPERS SHALL BE PROVIDED WITH AN APPROVED MEANS OF ACCESS THAT IS LARGE ENOUGH TO PERMIT INSPECTION AND MAINTENANCE OF THE DAMPER AND ITS OPERATING PARTS. DAMPERS EQUIPPED WITH FUSIBLE LINKS, INTERNAL OPERATORS OR BOTH SHALL BE PROVIDED WITH AN ACCESS DOOR THAT IS NOT LESS THAN 12 INCHES SQUARE OR PROVIDED WITH A REMOVABLE DUCT SECTION. ACCESS POINTS SHALL BE PERMANENTLY IDENTIFIED ON THE EXTERIOR OF A LABEL HAVING LETTERS NOT LESS THAN 1/2 INCH IN HEIGHT READING: FIRE/SMOKE DAMPER, SMOKE DAMPER OR FIRE DAMPER.

F. ALL DUCTWORK PENETRATIONS OF RATED WALLS SHALL BE PROTECTED BY AN APPROVED U.L. LISTED FIRE DAMPER AND/OR COMBINATION SMOKE/FIRE DAMPER AS APPROPRIATE. ALL PIPING AND CONDUIT PENETRATIONS OF THE SAME WALLS SHALL ALSO BE APPROPRIATELY PROTECTED. REFER TO WALL FIRE RATING KEY ON THIS SHEET.

CODED NOTES: ☐

1. CAV/VAV BOX WITH ELECTRIC REHEAT. PROVIDE MINIMUM 3'-0" CLEAR ACCESS IN FRONT OF HEATER PER NEC, TYPICAL. PROVIDE ACCESS PANELS IN HARD CEILINGS, IF APPLICABLE. COORDINATE EXACT LOCATION WITH ARCHITECTURAL CEILING PLAN.

2. 20"x18" SUPPLY AIR DUCT AND 26"x16" RETURN AIR DUCT UP TO RTU-1.4 ON ROOF. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH STRUCTURAL.

3. DUCT MOUNTED SMOKE DETECTOR WITH ACCESS DOOR. PROVIDE ACCESS PANELS IN HARD CEILINGS, IF APPLICABLE. COORDINATE EXACT LOCATION WITH ARCHITECTURAL CEILING PLAN. TYPICAL.

4. 14"x10" SUPPLY AIR DUCT DOWN TO 1ST FLOOR. PROVIDE FIRE DAMPER IN SUPPLY DUCT AT 2ND FLOOR SLAB. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH STRUCTURAL.

5. 10"x8" EXHAUST AIR DUCT UP TO GRV-1 ON ROOF. PROVIDE TRANSITION AS REQUIRED. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH STRUCTURAL.

6. 14"x4" EXHAUST AIR DUCT DOWN TO 1ST FLOOR. PROVIDE FIRE DAMPER IN EXHAUST DUCT AT 2ND FLOOR SLAB. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH STRUCTURAL.

7. WALL-MOUNTED MINI SPLIT. MOUNT UNIT AT MINIMUM 6'-6" A.F.F. AS SHOWN. MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND AIR FLOW.

8. 38"x28" SUPPLY AIR DUCT AND 38"x30" RETURN AIR DUCT UP TO RTU-2.1 ON ROOF. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH STRUCTURAL.

9. PROVIDE OPEN RETURN DUCT WITH 1/2" METAL MESH AND MANUAL VOLUME DAMPER AS SHOWN.

10. 20"x14" SUPPLY AIR DUCT AND 22"x14" RETURN AIR DUCT UP TO RTU-1.5 ON ROOF. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH STRUCTURAL.

11. 20"x14" SUPPLY AIR DUCT AND 22"x14" RETURN AIR DUCT DOWN TO 1ST FLOOR. PROVIDE FIRE DAMPER IN EACH DUCT AT 2ND FLOOR SLAB. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH STRUCTURAL.

12. PROVIDE REMOTE VOLUME DAMPER CONTROL AT CEILING FOR ALL VOLUME DAMPERS LOCATED ABOVE HARD CEILINGS. TYPICAL FOR ALL HARD CEILINGS. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF HARD CEILINGS. COORDINATE WITH ARCHITECT AND OWNER EXACT FINAL LOCATION OF VOLUME DAMPER CONTROLS.

13. FIRE DAMPER. ENSURE FIRE DAMPER IS VISIBLE AND REACHABLE WITHIN 18" FROM ACCESSIBLE SIDE. PROVIDE CEILING ACCESS PANEL FOR DUCT ACCESS DOORS THAT ARE INSTALLED ABOVE HARD CEILINGS.

14. CONTRACTOR SHALL CONFIRM THAT ANY DUCTWORK OR PIPING IS NOT ROUTED OVER ANY ELECTRICAL PANEL.

15. ROUTE SUPPLY DUCT HIGH AND THROUGH BAR JOIST WEBBING TO AVOID LARGE DUCT MAINS IN CORRIDOR.

16. SHAFTS RESERVED FOR FUTURE DUCTWORK SERVING FUTURE EQUIPMENT. PROVIDE SUFFICIENT CLEARANCE AROUND THESE LOCATIONS. REFER TO ASC MECHANICAL DRAWINGS FOR EXACT DUCT SIZES. DUCTWORK IS NOT MEANT TO BE INSTALLED AS PART OF SHELL PACKAGE.

17. SHAFTS RESERVED FOR FUTURE DUCTWORK SERVING FUTURE EQUIPMENT. PROVIDE SUFFICIENT CLEARANCE AROUND THESE LOCATIONS. REFER TO IMAGING MECHANICAL DRAWINGS FOR EXACT DUCT SIZES. DUCTWORK IS NOT MEANT TO BE INSTALLED AS PART OF SHELL PACKAGE.

18. PLACEHOLDER FOR FUTURE DUCT DROPS SERVING FUTURE RTU-2.2 (SHELL). DUCTWORK IS NOT MEANT TO BE INSTALLED AS PART OF SHELL PACKAGE.

19. PLACEHOLDER FOR FUTURE EXHAUST DUCT DROP SERVING FUTURE TENANT. DUCTWORK IS NOT MEANT TO BE INSTALLED AS PART OF SHELL PACKAGE.

20. DUCT STATIC PRESSURE SENSOR FOR SUPPLY FAN SPEED CONTROL. REFER TO SEQUENCE OF OPERATION. COORDINATE FINAL LOCATION IN FIELD.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
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- SMOKE PARTITION TO DECK
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- STC 50 — SOUND ATTENUATION BATT (1 HOUR)
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- SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
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- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

HVAC SECOND FLOOR PLAN

Drawing Number:

M120

Drawn by: OA
Checked by: DN
Scale: As indicated

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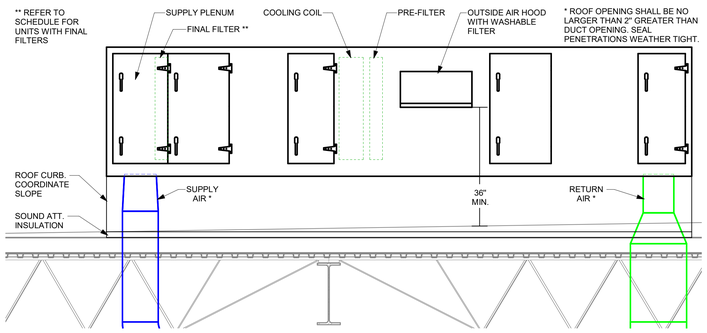
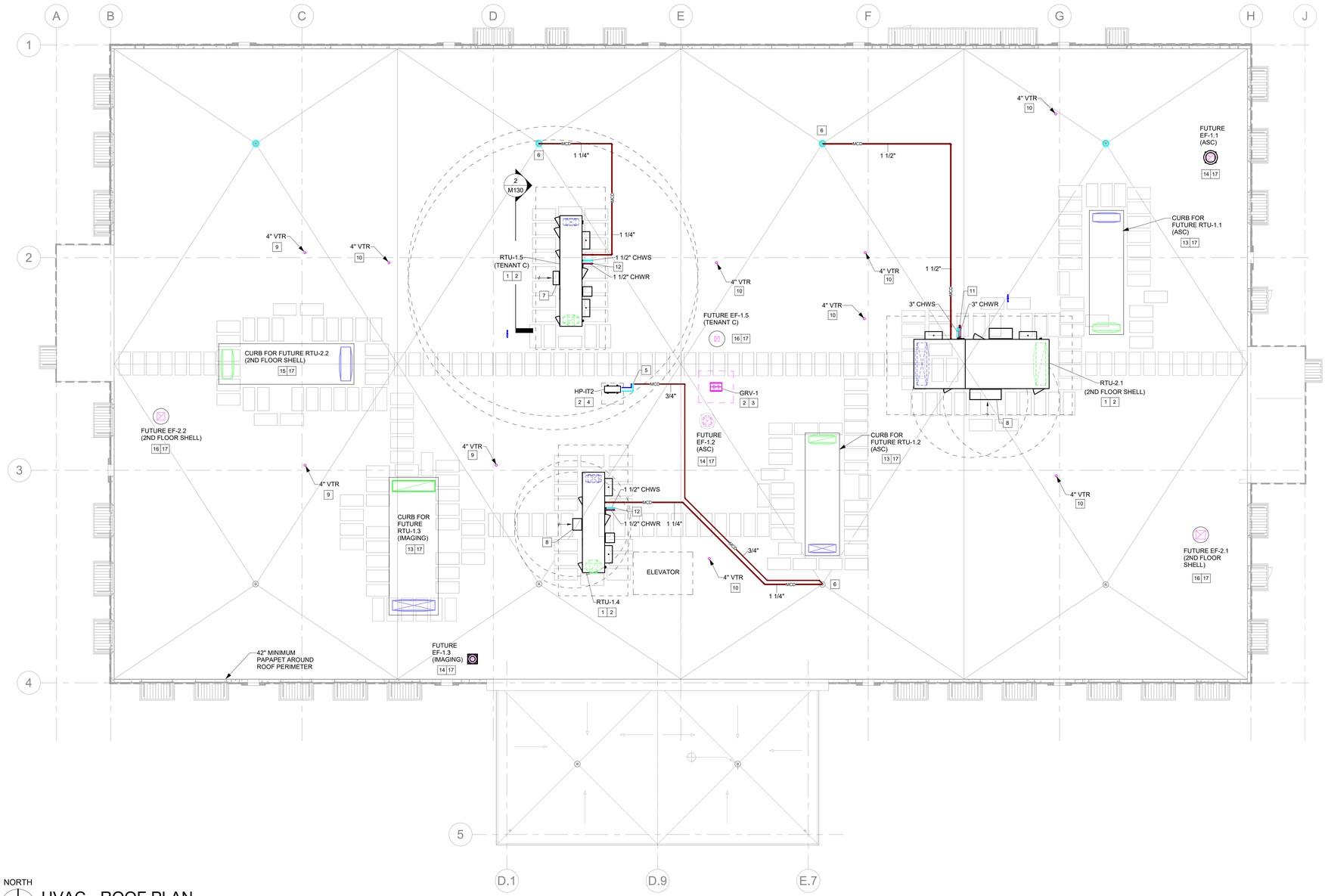


2 TYPICAL RTU SECTION VIEW

1/2" = 1'-0"



NORTH

HVAC - ROOF PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. PROVIDE SAFE, ADEQUATE AND PRACTICAL ACCESS TO ALL APPLIANCES AND DEVICES ON ROOF FOR COMPLETE INSPECTION, TESTING AND MAINTENANCE WITHOUT DISTURBING ANY BUILDING SYSTEM OR DEVICE EXCEPT FOR ACCESS DOORS.

B. ROOF-MOUNTED EQUIPMENT SHALL BE SECURED TO CURB AND STRUCTURE IN COMPLIANCE WITH FBC WIND LOAD REQUIREMENTS. WIND LOAD CALCULATIONS AND SECUREMENT DETAILS SHALL BE SIGNED AND SEALED BY A FLORIDA REGISTERED ENGINEER AND PROVIDED BY THE CONTRACTOR IN A DEFERRED SUBMITTAL.

CODED NOTES:

1. CHILLED WATER ROOFTOP UNIT. MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND ACCESS. COORDINATE PLACEMENT OF UNIT ON ROOF CURB WITH STRUCTURAL ENGINEER. OUTSIDE AIR INTAKE SHALL BE MINIMUM 36" ABOVE FINISHED ROOF WITH 1/2" METAL MESH SCREEN. SUPPLY AND RETURN DUCT FULL SIZE OF UNIT DISCHARGE WITH TRANSITION TO DUCT SIZE ABOVE CEILING. EXTEND PVC CONDENSATE DRAIN WITH TRAP AT UNIT TO NEAREST ROOF DRAIN WITH MINIMUM SLOPE AT 1/8" PER FOOT. SUPPORT CONDENSATE PIPING WITH 1"x8"x12" CONCRETE PAVERS SPACED AT 6'-0" O.C. SECURE PIPING TO PAVERS WITH 1" WIDE 24 GAUGE STAINLESS STEEL STRAPS. SECURE STRAPS TO PAVERS WITH 1/4"x1" TAPCONS. TYPICAL.

2. ATTACH THE MECHANICAL ROOFTOP EQUIPMENT TO THE STRUCTURE TO MEET THE REQUIREMENTS OF THE FLORIDA MECHANICAL CODE CHAPTER 301.15 (150 MPH MINIMUM).

3. 10"x8" EXHAUST AIR DUCT THRU ROOF. CONNECT TO GRAVITY VENTILATOR GRV-1 (RELIEF). LOCATION FOR GRV-1 HAS BEEN CLOSELY COORDINATED WITH ASC DRAWINGS TO ENSURE GRV-1 IS AT LEAST 25'-0" FROM THE FRESH AIR INTAKE OF FUTURE RTU-1.2.

4. HEAT PUMP, MOUNTED AND INSTALLED ON FULL PERIMETER ROOF CURB (14" HEIGHT, MINIMUM), MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND AIR FLOW.

5. REFRIGERANT PIPING AND PUMPED CONDENSATE DRAIN PIPING UP FROM 2ND FLOOR AND THRU PIPE CURB. SEAL ROOF PENETRATIONS AS REQUIRED.

6. ROUTE CONDENSATE DRAIN PIPING TO NEAREST ROOF DRAIN. COORDINATE FINAL LOCATION IN FIELD. SUPPORT CONDENSATE PIPING WITH 1"x8"x12" CONCRETE PAVERS SPACED AT 6'-0" O.C. SECURE PIPING TO PAVERS WITH 1" WIDE 24 GAUGE STAINLESS STEEL STRAPS. SECURE STRAPS TO PAVERS WITH 1/4"x1" TAPCONS. TYPICAL.

7. MAINTAIN MINIMUM 25'-0" SEPARATION FROM FRESH AIR INTAKE (ASC UNITS ONLY) AND ALL EXHAUST FANS. TYPICAL.

8. MAINTAIN MINIMUM 10'-0" SEPARATION FROM FRESH AIR INTAKE AND ALL EXHAUST FANS. TYPICAL.

9. VTR. MAINTAIN MINIMUM 10'-0" SEPARATION FROM FRESH AIR INTAKE AND ALL PLUMBING VENTS THRU ROOF. COORDINATE WITH PLUMBING.

10. VTR. MAINTAIN MINIMUM 25'-0" SEPARATION FROM FRESH AIR INTAKE (ASC UNITS ONLY) AND ALL PLUMBING VENTS THRU ROOF. COORDINATE WITH PLUMBING.

11. 3" CHWS&R PIPING UP FROM 2ND FLOOR AND THRU PIPE CURB. SEAL ROOF PENETRATIONS AS REQUIRED.

12. 1-1/2" CHWS&R PIPING UP FROM 2ND FLOOR AND THRU PIPE CURB. SEAL ROOF PENETRATIONS AS REQUIRED.

13. ROOF CURB FOR FUTURE RTU. PROVIDE AND INSTALL WEATHERPROOF CURB CAP UNTIL FUTURE RTU CAN BE INSTALLED. REFER TO ASC/IMAGING MECHANICAL DRAWINGS FOR EXACT SIZE.

14. ROOF CURB FOR FUTURE EXHAUST FAN. PROVIDE AND INSTALL WEATHERPROOF CURB CAP UNTIL FUTURE RTU CAN BE INSTALLED. REFER TO ASC/IMAGING MECHANICAL DRAWINGS FOR EXACT SIZE.

15. ROOF CURB FOR FUTURE RTU. PROVIDE AND INSTALL WEATHERPROOF CURB CAP UNTIL FUTURE RTU CAN BE INSTALLED.

16. ROOF CURB FOR FUTURE EXHAUST FAN SERVING FUTURE TENANT. PROVIDE 20"x20" CURB AND INSTALL WEATHERPROOF CURB CAP UNTIL FUTURE EXHAUST FAN CAN BE INSTALLED.

17. ATTACH THE CURB TO THE STRUCTURE TO MEET THE REQUIREMENTS OF THE FLORIDA MECHANICAL CODE CHAPTER 301.15 (150 MPH MINIMUM).

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

HVAC ROOF PLAN

Drawing Number:

M130

Drawn by: OA
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Scale: As indicated

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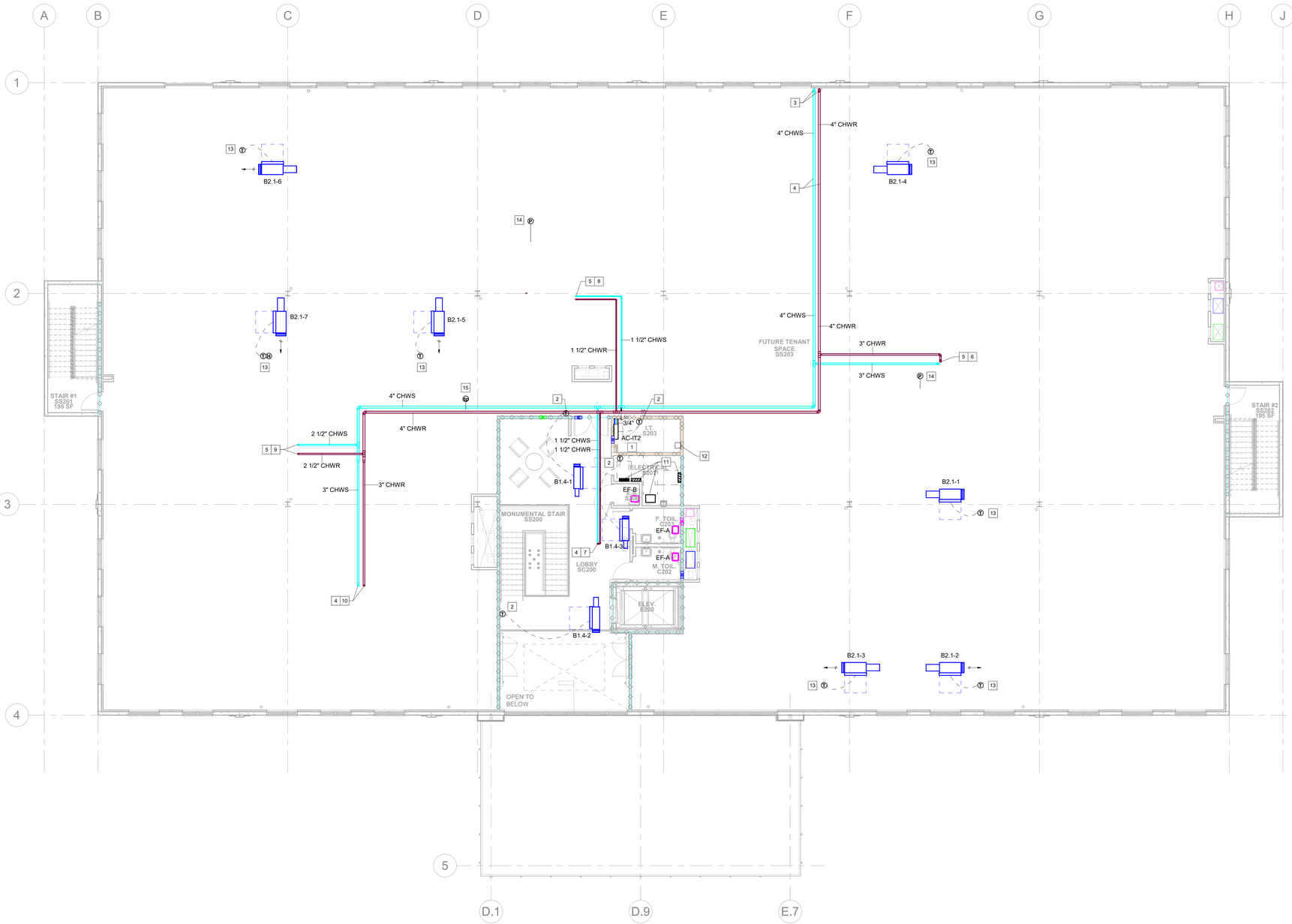

NORTH

CONTROLS & PIPING - SECOND FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. PROVIDE PERMANENT LABEL AT CEILING FOR ALL NEW AND EXISTING DAMPERS AND VALVES LOCATED ABOVE CEILING IN AREAS THAT ARE ACCESSED DURING CONSTRUCTION.

B. PROVIDE SAFE, ADEQUATE AND PRACTICAL ACCESS TO ALL APPLIANCES AND DEVICES ABOVE THE CEILING AND BEHIND WALLS FOR COMPLETE INSPECTION, TESTING AND MAINTENANCE WITHOUT DISTURBING ANY BUILDING SYSTEM OR DEVICE EXCEPT FOR ACCESS DOORS AND/OR REMOVABLE CEILING TILES.

C. ALL DUCTWORK PENETRATIONS OF RATED WALLS SHALL BE PROTECTED BY AN APPROVED U.L. LISTED FIRE DAMPER AND/OR COMBINATION SMOKE/FIRE DAMPER AS APPROPRIATE. ALL PIPING AND CONDUIT PENETRATIONS OF THE SAME WALLS SHALL ALSO BE APPROPRIATELY PROTECTED. REFER TO WALL FIRE RATING KEY ON THIS SHEET.

D. THERE SHALL BE A MINIMUM CLEARANCE OF 6" BETWEEN ALL CONDUIT, PIPING, AND DUCTWORK THAT IS PARALLEL OR ADJACENT TO ALL FIRE AND FIRE/SMOKE RATED WALLS TO FACILITATE THE INSPECTION OF THESE WALLS (FBC 449.3.4.8, 7TH ED. 2020).

CODED NOTES:

1. WALL-MOUNTED MINI SPLIT. MAINTAIN ALL MANUFACTURER'S RECOMMENDED CLEARANCES FOR SERVICE AND AIR FLOW. ROUTE REFRIGERANT PIPING AND PUMPED CONDENSATE DRAIN UP TO ROOF AS SHOWN. COORDINATE FINAL LOCATION IN FIELD. CONDENSATE DRAIN SHALL INCLUDE TRAP OR IN-LINE CHECK VALVE PER FPC 314.2.4.1. CONDENSATE PIPING SHALL BE INSULATED COPPER.
2. WALL-MOUNTED THERMOSTAT. PROVIDE LOCKING COVER FOR PUBLIC AREAS.
3. 4" CHWS&R UP FROM 1ST FLOOR. FIRE STOP FLOOR PENETRATIONS AS REQUIRED.
4. ROUTE CHILLED WATER PIPING HIGH AND TIGHT TO BOTTOM OF DECK.
5. ROUTE CHILLED WATER PIPING THROUGH BAR JOIST WEBBING AND TIGHT TO BOTTOM OF DECK.
6. 3" CHWS&R PIPING UP TO RTU-2.1 ON ROOF. SEAL ROOF PENETRATIONS AS REQUIRED.
7. 1.5" CHWS&R PIPING UP TO RTU-1.4 ON ROOF. SEAL ROOF PENETRATIONS AS REQUIRED.
8. 1.5" CHWS&R PIPING UP TO RTU-1.5 ON ROOF. SEAL ROOF PENETRATIONS AS REQUIRED.
9. 2.5" CHWS&R BRANCH PIPING FOR FUTURE RTU-2.2 (SHELL). CAP BRANCH PIPING AS REQUIRED. PROVIDE ISOLATION BALL VALVES UNTIL FUTURE RTU-2.2 CAN BE INSTALLED.
10. 3" CHWS&R BRANCH PIPING FOR FUTURE RTU-1.3 (IMAGING). CAP BRANCH PIPING AS REQUIRED. PROVIDE ISOLATION BALL VALVES UNLESS RTU-1.3 INSTALLATION TO BE CONCURRENT WITH SHELL CONSTRUCTION.
11. CONTRACTOR SHALL CONFIRM THAT ANY DUCTWORK OR PIPING IS NOT ROUTED OVER ANY ELECTRICAL PANEL.
12. HVAC CONTROL PANEL. COORDINATE FINAL LOCATION IN FIELD.
13. THERMOSTAT OR THERMOSTAT/HUMIDISTAT. THERMOSTAT TO BE TEMPORARILY MOUNTED ON SIDE OF VAV BOX UNTIL TENANT SUITE IS BUILT OUT.
14. DUCT STATIC PRESSURE SENSOR FOR SUPPLY FAN SPEED CONTROL. REFER TO SEQUENCE OF OPERATION. COORDINATE FINAL LOCATION IN FIELD.
15. PIPE DIFFERENTIAL PRESSURE SENSOR FOR CHILLED WATER PUMP CONTROL. REFER TO SEQUENCE OF OPERATION. COORDINATE FINAL LOCATION IN FIELD.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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Drawing Title:

HVAC CONTROLS & PIPING SECOND FLOOR PLAN

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M220

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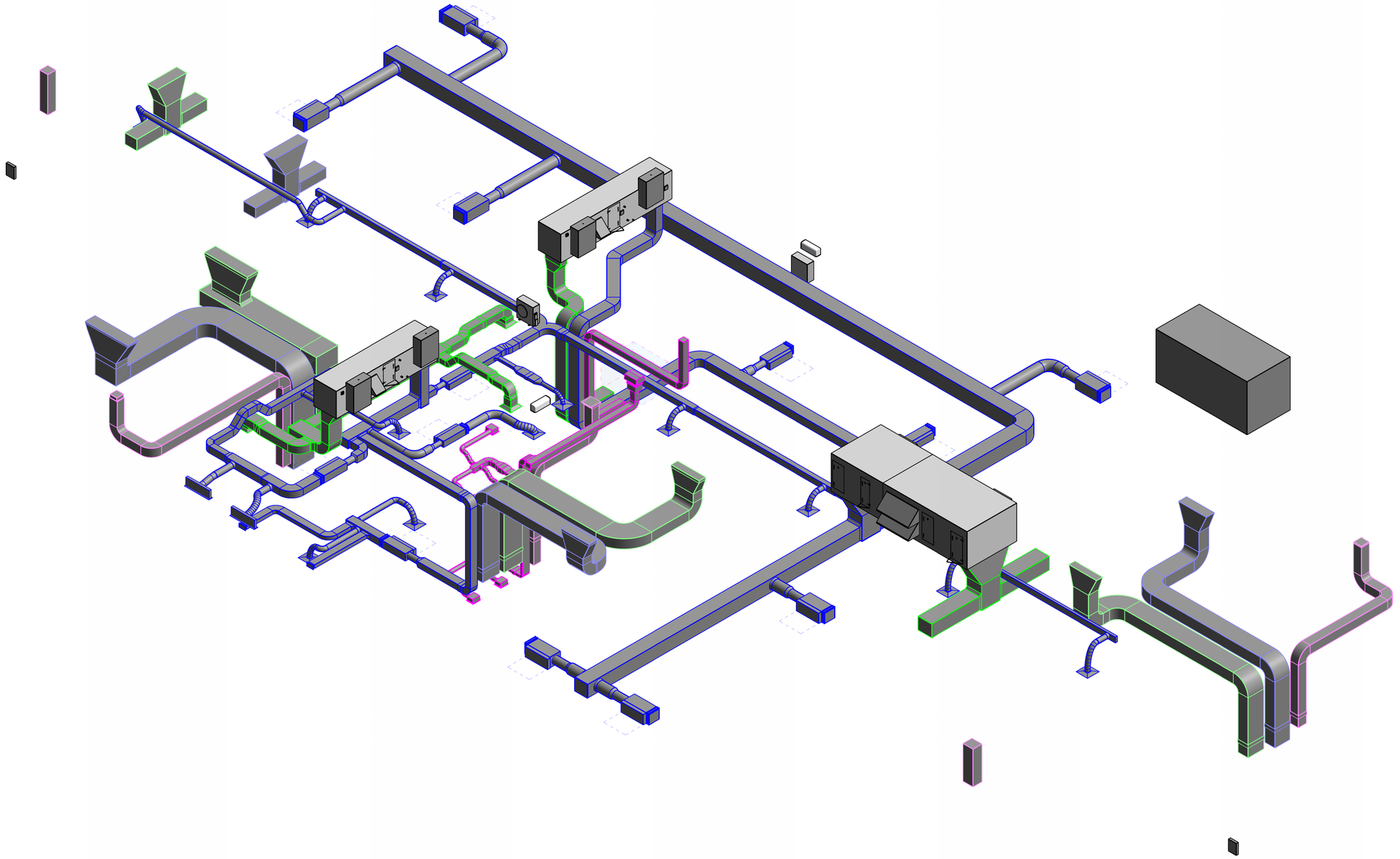

NORTH

HVAC ISOMETRIC PLAN

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Drawing Title:

HVAC ISOMETRIC PLAN

Drawing Number:

M310

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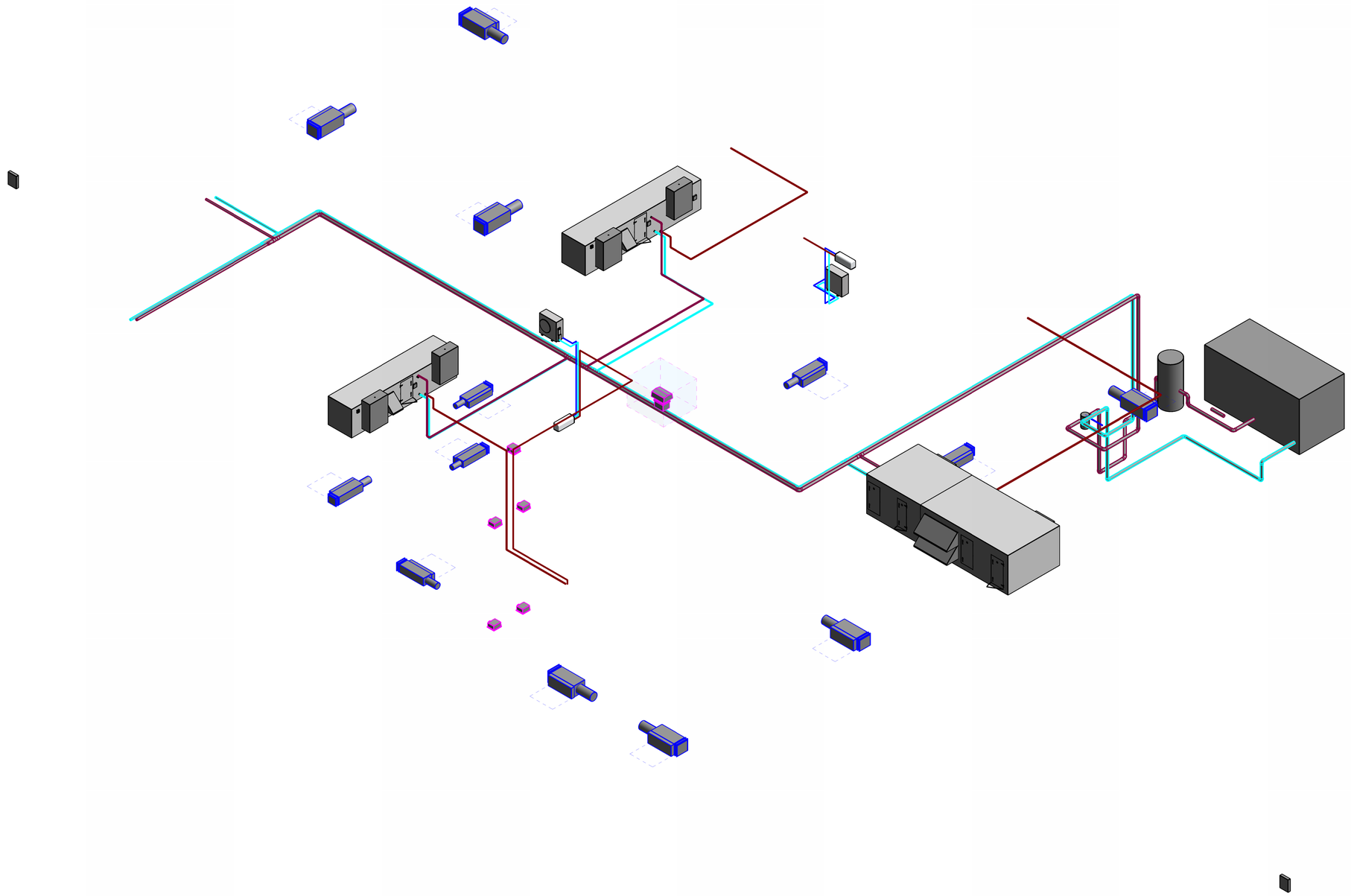

NORTH

HVAC PIPING ISOMETRIC PLAN

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Project Name:

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SHELL

Project Number: 22013.01

Project Location:

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CONSTRUCTION DOCUMENTS

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No.	Description	Date

Drawing Title:

HVAC PIPING ISOMETRIC PLAN

Drawing Number:

M320

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VARIABLE AIR VOLUME BOX SCHEDULE
WITH ELECTRIC HEAT

MARK	B1.4-1	B1.4-2	B1.4-3	B1.4-4	B1.5-1	B1.5-2
AREA SERVED	CORRIDOR	2ND FLOOR LOBBY	ELECTRICAL	1ST FLOOR LOBBY	TENANT C	TENANT C
AIR CFM - MAXIMUM	750	1050	625	850	1225	1225
AIR CFM - MIN. OCCUPIED	350	450	300	450	650	650
AIR CFM - MIN. UNOCCUPIED	350	450	300	450	650	650
MANUFACTURER	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC
MAX. UNIT PD IN. WC	0.8	0.8	0.8	0.8	0.8	0.8
MIN. INLET SP IN. WC	0.06	0.04	0.04	0.03	0.06	0.06
ENTERING AIR TEMP °F	55	55	55	55	53	53
LEAVING AIR TEMP °F HEAT	80	85	55	85	80	80
HEATING CAPACITY - KW	3	5	NONE	5	5	5
STEPS CONTROL	SCR	SCR	N/A	SCR	SCR	SCR
ELECTRICAL - V/PH	277/1	480/3	N/A	480/3	480/3	480/3
AMPS	10.83	6.02	N/A	6.02	6.02	6.02

MARK	B2.1-1	B2.1-2	B2.1-3	B2.1-4	B2.1-5	B2.1-6	B2.1-7
AREA SERVED	2ND FLR SHELL	2ND FLR SHELL	2ND FLR SHELL	2ND FLR SHELL	2ND FLR SHELL	2ND FLR SHELL	2ND FLR SHELL
AIR CFM - MAXIMUM	2000	2000	2000	2000	2000	2000	2000
AIR CFM - MIN. OCCUPIED	1000	1000	1000	1000	1000	1000	1000
AIR CFM - MIN. UNOCCUPIED	1000	1000	1000	1000	1000	1000	1000
MANUFACTURER	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC	ENVIRO-TEC
MAX. UNIT PD IN. WC	0.8	0.8	0.8	0.8	0.8	0.8	0.8
MIN. INLET SP IN. WC	0.05	0.05	0.05	0.05	0.05	0.05	0.05
ENTERING AIR TEMP °F	55	55	55	55	55	55	55
LEAVING AIR TEMP °F HEAT	85	85	85	85	85	85	85
HEATING CAPACITY - KW	10	10	10	10	10	10	10
STEPS CONTROL	SCR	SCR	SCR	SCR	SCR	SCR	SCR
ELECTRICAL - V/PH	480/3	480/3	480/3	480/3	480/3	480/3	480/3
AMPS	12.03	12.03	12.03	12.03	12.03	12.03	12.03

9/28/23 10:17 AM

SCHEDULE NOTES:
BASIS OF DESIGN:
ENVIRO-TEC MODEL SDR-EH PRESSURE INDEPENDENT

DOUBLE WALL CONSTRUCTION W/ 3/4" 4LB/FT3 INSULATION TOP AND BOTTOM ACCESS PLATES

COORDINATE WITH CONTROL SYSTEM INSTALLER FOR APPROPRIATE SELECTION OF THERMOSTATS AND COORDINATE WITH TEMPERATURE CONTROL SYSTEM FOR DDC OPERATION.

CONTROL SYSTEM SUPPLIER WILL PROVIDE DDC CONTROLLERS FOR FACTORY INSTALLATION.

PROVIDE NECESSARY CLEARANCE FOR MAINTENANCE.

WHERE RUNOUT SIZE IS SHOWN ON DRAWING, FOLLOW DRAWING OTHERWISE PROVIDE MIN. CONNECTION SIZE SHOWN. EQUIVALENT RECTANGULAR DUCT SIZES MAY BE USED INSTEAD.

ELECTRIC UNIT HEATER SCHEDULE

MARK	UH-1	UH-2
TYPE	WALL MOUNT	WALL MOUNT
HEATING CAPACITY KW	2	2
ELECTRICAL V/PH/HZ	208/3/60	208/3/60
POWER TYPE	NORMAL	NORMAL
DIMENSIONS H x W x D (IN.)	21 x 16 x 4	21 x 16 x 4
MANUFACTURER	TRANE	TRANE
MODEL NUMBER	UHAA02	UHAA02
AREA SERVED	STAIR #1	STAIR #2

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SCHEDULE NOTES:
1. U.L. LISTED FAN-FORCED ELECTRIC HEATER.
2. PROVIDE UNIT MOUNTED T'STAT AND SURFACE MOUNTING ADAPTER FOR WALL MOUNT HEATER.

ROOF-MOUNTED GRAVITY VENTILATOR SCHEDULE

MARK		GRV-1		
APPLICATION	---	EXHAUST		
AIRFLOW (MAX)	CFM	330		
THROAT DIAMETER	IN.	8 x 12		
HEIGHT (EXCL. CURB)	IN.	14		
PRESSURE DROP	IN. WG	0.04		
MANUFACTURER	---	GREENHECK		
MODEL	---	FGR		
NOA #	---	19-0808.02		

NOTES
1. SPUN ALUMINUM GRAVITY HOOD WITH 1/2" METAL MESH BIRDSCREEN.
2. NOA RATED FOR FBC WIND-LOAD REQUIREMENTS.
3. 12" HIGH INSULATED ROOF CURB.

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DUCTLESS HEAT PUMP UNIT SCHEDULE

INDOOR UNIT	AC-E1	AC-IT2
AREA SERVED	BLDG. ELEC SC104	IT S203
MANUFACTURER	GREE	GREE
MODEL NO.	3VIR18HP230V1BH	3VIR12HP230V1BH
TYPE	WALL-MOUNTED	WALL-MOUNTED
TOTAL CFM (MAX.)	618	424
O.A. CFM	0	0
FAN POWER	60	15
DIMENSIONS LxWxH (IN.)	39 x 9 x 12	33 x 8 x 12
WEIGHT LB.	35	25
OUTDOOR UNIT	**HP-E1**	**HP-IT2**
MODEL NO.	3VIR18HP230V1BO	3VIR12HP230V1BO
HEATING CAP. @17°F BTUH	11,000	7,000
HSPF	9.0	9.0
COOL CAP TOTAL BTUH	18,000	12,000
COOL CAP SENSIBLE BTUH	14,040	9,360
ENERGY EFFICIENCY (SEER)	23.5	24.0
O.A.D.B. °F	95	95
LINE SET SIZE (LIQUID - GAS) (IN.)	1/4 - 5/8	1/4 - 1/2
MAX. LINE SET LENGTH (FT)	82	66
ELECTRICAL (V/PH/HZ)	208/1/60	208/1/60
MCA	14	10
MAX FUSE	20	15
DIMENSIONS LxWxH (IN.)	38 x 16 x 26	32 x 14 x 22
WEIGHT LB.	107	76
NOTES	1,2,3,4,5,6,7,8,10,11	1,2,3,4,5,6,7,9,10,11

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SCHEDULE NOTES:
1. PROVIDE UNIT WITH WALL MOUNTED 7-DAY PROGRAMMABLE THERMOSTAT.
2. PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION AT OUTDOOR UNIT. ELECTRICAL CONTRACTOR TO RUN POWER FROM OUTDOOR UNIT TO INTERIOR UNIT AS REQUIRED BY MANUFACTURER.
3. CONDENSATE PUMP WITH OVERFLOW PROTECTION. COORDINATE POWER.
4. REFRIGERANT TYPE R410A.
5. UNIT PERFORMANCE SHALL MEET MINIMUM ENERGY EFFICIENCY REQUIREMENTS OF ASHRAE 90.1.
6. WASHABLE FILTER.
7. PROVIDE WALL BRACKET FOR MOUNTING OF INDOOR WALL UNIT AND CONDENSATE PUMP.
8. OUTDOOR UNIT SHALL BE MOUNTED ON CONCRETE PAD.
9. OUTDOOR UNIT SHALL BE ATTACHED TO 14" ROOF CURB PER MANUFACTURER DETAILS IN COMPLIANCE WITH FBC WINDLOAD REQUIREMENTS.
10. PROVIDE OUTDOOR UNIT WITH NEMA-3R DISCONNECT SWITCH. PROVIDE INDOOR UNIT WITH TOGGLE DISCONNECT SWITCH.
11. VERIFY REFRIGERANT LINE SIZE WITH MANUFACTURER PER FINAL REFRIGERANT RUN. SUCTION AND LIQUID LINES ARE TO BE INSULATED.

EXHAUST FAN SCHEDULE

MARK	---	EF-A	EF-B
AREA SERVED	---	SHELL TOILET	SHELL E/S
AIR QUANTITY	CFM	70	50
E.S.P.	IN. H20	0.5	0.5
FAN TYPE	---	CEILING	CEILING
FAN SPEED	RPM	641	578
DRIVE TYPE	---	DIRECT	DIRECT
INTERLOCK	---	WALL SWITCH	WALL SWITCH
SOUND CRITERIA	SONES	2.5	3.0
MOTOR POWER	HP	30 WATTS	30 WATTS
ELECTRICAL	V/PH/HZ	115/1/60	115/1/60
UNIT LOCATION	---	CEILING	CEILING
DUCT CONNECTION	IN.	6	6
ROOF OPENING	IN.	NA	NA
WEIGHT (EXCL. CURB)	LB.	10	10
UNIT MANUFACTURER	---	GREENHECK	GREENHECK
UNIT MODEL NO.	---	SP-B110ES	SP-B110ES
NOA NUMBER	---	NA	NA
FL PRODUCT APPROVAL NO.	---	NA	NA

8/2/23 1:19 PM

SCHEDULE NOTES:
1. PROVIDE WITH INTEGRAL BACKDRAFT DAMPER AND EXHAUST GRILLE. PROVIDE WITH FAN ISOLATION KIT, FAN SPEED CONTROLLER, AND DISCONNECT SWITCH.
2. INTERLOCK FAN WITH LIGHT SWITCH. COORDINATE SWITCH POWER WITH ELECTRICAL.

ROOFTOP UNIT SCHEDULE

MARK		RTU-1.4	RTU-1.5	RTU-2.1
AREA SERVED		LOBBY	TENANT C	TENANT D & E
LOCATION		ROOF	ROOF	ROOF
MANUFACTURER		TEMTROL	TEMTROL	TEMTROL
MODEL NUMBER		ITF	ITF	ITF
PRE-FILTER TYPE 1		NONE	MERV-8	NONE
PRE-FILTER TYPE 2		MERV-13	NONE	MERV-13
FINAL FILTER		NONE	MERV-14	NONE
SUPPLY FAN				
SUPPLY AIR	CFM	3,275	2450	14,000
OUTSIDE AIR (MAX./DESIGN)	CFM	3275 / 430	2450 / 490	14000 / 2800
SUPPLY FAN QUANTITY	---	1	1	4
STATIC PRESSURE (EXTERNAL/TOTAL)	IN. H2O	1.28 / 3.65	1.51 / 4.40	1.52 / 4.70
SUPPLY FAN MOTOR POWER (EACH/TOTAL)	HP	4.0 / 4.0	3.5 / 3.5	5.0 / 20
SUPPLY FAN SPEED	RPM	3674	3349	3669
SUPPLY FAN ELECTRICAL	V/PH/HZ	460/3/60	460/3/60	460/3/60
SUPPLY PLENUM	---	YES	YES	YES
RETURN FAN				
RETURN AIRFLOW (MAX./DESIGN)	CFM	2,845	1960	11,200
RETURN FAN QUANTITY	---	1	1	2
STATIC PRESSURE (EXTERNAL/TOTAL)	IN. H2O	0.61 / 0.75	0.58 / 0.7	0.89 / 1
RETURN FAN MOTOR POWER (EACH/TOTAL)	HP	2.0 / 2	1.0 / 1	2.5 / 5
RETURN FAN SPEED	RPM	3477	1719	1600
RETURN FAN ELECTRICAL	V/PH/HZ	460/3/60	460/3/60	460/3/60
ECONOMIZER AND RELIEF AIR SECTION	---	YES	YES	YES
CHILLED WATER COOLING COIL				
TOTAL CAPACITY	BTUH	101,900	90,700	464,300
SENSIBLE CAPACITY	BTUH	84,200	69,400	368,800
COOLING COIL (MIN/MAX)	ROWS/FPI	4 / 11	6 / 8	4 / 10
MAX. FACE VELOCITY	FPM	476	413	460
MAX. AIR PRESSURE DROP	IN. H2O	0.53	0.46	0.46
COIL ENTERING AIR TEMP.	°F/°F	78.7 / 64.9	79.2 / 65.4	79.2 / 65.4
COIL LEAVING AIR TEMP.	°F/°F	54.9 / 54.3	52.9 / 52.6	54.8 / 54.1
CHILLED WATER FLOW	GPM	18.1	16.1	82.5
WATER TEMP. ENT./LVG.	°F/°F	42/54	42/54	42/54
MAX. WATER PRESSURE DROP	FT. H2O	9.26	6.33	12.04
COIL CONNECTION HANDING	---	RIGHT	RIGHT	RIGHT
CHILLED WATER CONTROL VALVE	---	2-WAY	2-WAY	3-WAY
ELECTRICAL DATA				
ELECTRICAL	V/PH/HZ	460/3/60	460/3/60	460/3/60
CIRCUIT #1 MCA (SUPPLY FAN)	AMPS	8	7	27
CIRCUIT #1 MOCP (SUPPLY FAN)	AMPS	15	15	35
CIRCUIT #2 MCA (RETURN FAN)	AMPS	5	4	10
CIRCUIT #2 MOCP (RETURN FAN)	AMPS	15	15	15
CONNECTION TYPE		VFD / DISC.	VFD / DISC.	VFD / DISC.
CONNECTION QUANTITY		2	2	2
MINIMUM SCCR	kA	5	5	5
POWER TYPE		NORMAL	NORMAL	NORMAL
DIMENSIONAL & WEIGHT DATA				
UNIT DIMENSIONS LxWxH (INCL. BASE RAIL)	IN.	208 x 46 x 52	229 x 46 x 55	280 x 102 x 72
TOTAL UNIT WEIGHT (EXCLUDING CURB)	LBS.	4,311	4741	11,469

9/28/23 10:31 AM

SCHEDULE NOTES:
1. MODULAR ROOF MOUNTED UNIT WITH 6" BASE RAIL SUITABLE FOR OUTDOOR INSTALLATION.
2. SOLID INTERIOR LINER, DOUBLE WALL CONSTRUCTION THROUGHOUT. 3" R-24 INSULATION.
3. OUTSIDE AIR INTAKE HOOD WITH WASHABLE FILTER. CD50 MODULATING ALUMINUM DAMPER AND TRANSDUCER. ACTUATOR AND CONTROLS BY CONTROLS CONTRACTOR.
4. SUPPLY AND RETURN PLENUM WITH BOTTOM DISCHARGE AND INTAKE.
5. FRONT LOADED PRE-FILTERS UPSTREAM OF COOLING COIL (RTU-1.4 AND RTU-2.1 ONLY). SUPPLY PLENUM AND FRONT LOADING FINAL FILTERS DOWNSTREAM OF COOLING COIL (RTU-1.5 ONLY).
6. 4" MERV-13 FILTER (RTU-1.4 AND RTU-2.1 ONLY). 2" MERV-8 AND 4" MERV-14 FILTERS (RTU-1.5 ONLY). UNIT MOUNTED MAGNEHELIC GAUGE AND OUTPUT TO BAS (ALL UNITS).
7. CHILLED WATER COOLING COIL SECTION WITH STAINLESS STEEL DRAIN PAN AND CASING.
8. FLOAT SWITCH WITH ALARM TO BAS FOR CONDENSATE OVERFLOW.
9. ACCESS DOORS IN EACH SECTION.
10. RIGID MOUNT SUPPLY FAN AND MOTOR SECTION (BALANCED TO BV-5). FACTORY MOUNTED VFD WITH MANUAL BYPASS IN NEMA 3R ENCLOSURE (ONE VFD FOR SUPPLY FAN SECTION). FAN SELECTION WILL INCLUDE FULLY LOADED FILTERS. SUPPLY AIR FLOW MONITORING (SINGLE FAN) WITH MAGNESENSE FLOW SENSOR (4-20mA SIGNAL TO BE CONVERTED TO BACNET BY CONTROLS CONTRACTOR).
11. RIGID MOUNT RETURN FAN AND MOTOR SECTION (BALANCED TO BV-5). FACTORY MOUNTED VFD WITH MANUAL BYPASS IN NEMA 3R ENCLOSURE (ONE VFD FOR RETURN FAN SECTION). RETURN AIR FLOW MONITORING (SINGLE FAN) WITH MAGNESENSE FLOW SENSOR (4-20mA SIGNAL TO BE CONVERTED TO BACNET BY CONTROLS CONTRACTOR).
12. MINIMUM 24"H INSULATED VIBRATION ISOLATION ROOF CURB SUCH THAT OUTSIDE AIR INTAKE IS MINIMUM 36" ABOVE FINISHED ROOF. MANUFACTURER TO PROVIDE TIE-DOWN DETAILS IN COMPLIANCE WITH FBC WINDLOAD REQUIREMENTS. INSULATION SHALL EXTEND UNDERNEATH ENTIRE ROOF CURB.
13. UNIT MOUNTED CONTROLS WITH BACNET INTERFACE TO BAS.
14. ECONOMIZER AND RELIEF HOODS WITH LOW LEAK DAMPERS AND 1/2" METAL MESH SCREEN. ACTUATOR AND CONTROLS BY CONTROLS CONTRACTOR.
15. 115V FACTORY WIRED CONVENIENCE OUTLET.
16. CHILLED WATER SYSTEM SHALL BE CHARGED WITH 20% ETHYLENE GLYCOL. RTU'S ARE SELECTED WITH THIS FLUID AS THE WORKING FLUID.
17. FACTORY INSTALLED PRESSURE SENSOR PORTS ON THE ACCESS DOORS.

AIR-COOLED CHILLER SCHEDULE

MARK		CH-1
TYPE		SCROLL-HERMETIC
LOCATION		GROUND
MANUFACTURER		QUANTECH
MODEL NUMBER		QTC3129THE46XFB
CAPACITY (NOMINAL/ACTUAL)	TON	129 / 121.2
AMBIENT TEMP	DEG F	96.5
REFRIGERANT CIRCUITS		2
MINIMUM EER @ DESIGN CONDITIONS	EER	10.13
MINIMUM IPLV @ DESIGN CONDITIONS	EER	18.18
COOLER		
WATER FLOWRATE (DESIGN/MINIMUM)	GPM	253.2 / 138.0
ETHYLENE GLYCOL QUANTITY	%	20
EWT	°F	54
LWT	°F	42
FOULING FACTOR	°F SF/BTUH	0.0001
MAX PRESSURE DROP	FT WC	18.8
NO. OF COMPRESSORS		6
CONDENSER		
NO. OF FANS		8
ELECTRICAL DATA		
ELECTRICAL	V/PH/HZ	460/3/60
MCA	A	287
MOCP	A	300
SCCR	kA	65
CONNECTION TYPE		STARTER / DISCONNECT
CONNECTION QUANTITY		SINGLE POINT
POWER TYPE		NORMAL
UNIT INFORMATION		
MAX SOUND PRESSURE PER ARI 370 *	dB LWA	92
ACOUSTICS AT 100% LOAD	dB @ 63HZ	95
	dB @ 125HZ	94
	dB @ 250HZ	90
	dB @ 500HZ	90
	dB @ 1KHZ	87
	dB @ 2KHZ	83
	dB @ 4KHZ	80
	dB @ 8KHZ	77
UNIT DIMENSIONS LxWxH	IN.	188 x 89 x 94
UNIT WEIGHT (OPERATING)	LB.	8563
AREA SERVED		SHELL BUILDOUT

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SCHEDULE NOTES:
1. AIR-COOLED SCROLL TYPE COMPRESSOR WITH VARIABLE SPEED CONDENSER FANS.
2. SP CIRCUIT BREAKER WITH LOCKABLE DISCONNECT AND ACROSS THE LINE STARTER PROVIDED BY MANUFACTURER.
3. PHASE LOSS PROTECTION.
4. PROVIDE MICROPROCESSOR BASED CONTROL WITH BACNET INTERFACE TO BE FULLY INTEGRATED WITH NEW BAS.
5. ACOUSTIC SOUND BLANKET AND ULTRA QUIET FANS WITH VSD.
6. PROVIDE START-UP BY FACTORY PERSONNEL.
7. PROVIDE CURRENT FAULT PROTECTION TO WITHSTAND 26kA IN CONFORMANCE WITH ELECTRICAL FAULT STUDY.
8. PROVIDE WITH DUAL PUMP PACKAGE (PRIMARY/STANDBY PUMPS): 50 FT HEAD WITH VFD POWERED THROUGH CHILLER STARTER. 150 PSI WORKING PRESSURE. PUMP DISCHARGE CHECK VALVES. GAGE TAPPINGS AT SUCTION AND DISCHARGE DRAIN PORTS.
9. FACTORY INSTALLED EXPANSION TANK UNDERNEATH CHILLER.
10. REFER TO SPECIFICATIONS AND DETAILS FOR ACCESSORIES AND PIPING CONNECTIONS.
11. ACCESSORIES INCLUDE DOUBLE THICK INSULATION, POST-COATED DIPPED COILS (ENVIRONMENT GUARD PREMIUM), SERVICE ISOLATION VALVES, LOW/HIGH AMBIENT KIT WITH SUNSHIELD (TO PERMIT CHILLER OPREATION DOWN TO 0 °F, WIRE/LOUVERED ENCL PANELS, HOT GAS BYPASS (1 CIRCUIT), PUMP KIT S, SC-EQUIP BOARD, ELECTRONIC EXPANSION VALVES.
12. VICTAULIC FLANGES PROVIDED WITH CHILLER AND INSTALLED BY MECHANICAL CONTRACTOR.
13. ONE YEAR PARTS, LABOR, AND REFRIGERANT WARRANTY. FIVE YEAR COMPRESSOR PARTS AND LABOR WARRANTY.
14. R410A REFRIGERANT.

* PER ARI 370 AT 30'

AIR TERMINAL SCHEDULE

SYMBOL	ADAPTER / NECK SIZE	FACE SIZE	SLOT WIDTH	NO. OF SLOTS	MAX CFM	MAX NC	MAX SP	THROW	RUNOUT SIZE	MANUFACTURER/MODEL NO.
RE	14"x14"	24"x24"	---	---	700	28	.07	---	14"Ø/18"x8"	TITUS 50-F WITH EGG-CRATE CORE
RF	18"x18"	24"x24"	---	---	1250	27	.07	---	16"Ø/24"x10"	TITUS 50-F WITH EGG-CRATE CORE
RG	22"x22"	24"x24"	---	---	1600	25	.06	---	18"Ø/24"x12"	TITUS 50-F WITH EGG-CRATE CORE
SA	6"Ø/6"x6"	12"x12"	---	---	75	20	.07	4-WAY BLOW	6"Ø/8"x4"	TITUS TDC
SB	8"Ø/9"x9"	24"x24"	---	---	230	20	.07	4-WAY BLOW	8"Ø/10"x6"	TITUS TDC
SEG	12"Ø/15"x15"	24"x24"	---	---	650	26	.09	---	12"Ø/18"x8"	TITUS 50-F WITH EGG-CRATE CORE
SLB	10"Ø	48"x8"	1"	4	360	25	.65	SLOT	10"Ø	TITUS ML-39
SLE	8"Ø	48"x8"	1"	2	220	25	.65	SLOT	8"Ø	TITUS ML-39
SSB	12"x6"	12"x6"	---	---	275	23		22.5° DEFLECTION	12"x6"	TITUS 300FL

AIR TERMINAL PERFORMANCE NOTES:
1. CONTRACTOR TO USE DUCT SPIN-IN FITTINGS WITH MANUAL VOLUME DAMPER EQUIVALENT TO GENFLEX MODEL SM-2DEL OR APPROVED EQUIVALENT.
2. FACE SIZE FOR CEILING MOUNTED AIR TERMINALS SHALL BE 24"x24" IN ALL LAY IN CEILING LOCATIONS TO FIT WITHIN GRIDS UNLESS OTHERWISE SPECIFIED.
3. ALL LINEAR SLOT DIFFUSERS SHALL BE CONCEALED MOUNT TYPE WITH ADJUSTABLE DISCHARGE.
4. PROVIDE INSULATED PLENUM - MPI-39 FOR ALL LINEAR SLOT DIFFUSERS.
5. FOR HARD CEILING APPLICATIONS, FACE SIZE SHALL EQUAL NECK SIZE. COORDINATE WITH ARCHITECTURAL CEILING PLAN.

BUFFER TANK SCHEDULE

MARK	APPLICATION	TYPE	TANK VOLUME (GAL.)	PIPE CONNECTIONS IN/OUT (IN.)	UNIT DIMENSIONS H x DIA. (IN.)	WEIGHT (DRY) (LB.)	BASIS OF DESIGN MANUF.	BASIS OF DESIGN MODEL
BT-1	CHW SYSTEM	VERTICAL	300	4	81 x 36	753	AMTROL	CWBT300-4-125

NOTES:
1. CARBON STEEL BUFFER TANK WITH BAFFLE TO PROMOTE TEMPERATURE STRATIFICATION.
2. ASME SECTION VIII DIVISION I DESIGN AND CONSTRUCTION.
3. 125 PSI MAXIMUM WORKING PRESSURE.
4. 450 DEG. F MAXIMUM WORKING TEMPERATURE.

AIR SEPARATOR SCHEDULE

MARK	APPLICATION	MAXIMUM FLOWRATE DESIGN (GPM)	WATER PRESS. DROP MAX / DESIGN (FT. WTR.)	INLET SIZE (IN.)	OUTLET SIZE (IN.)	UNIT WEIGHT (DRY) (LB.)	BASIS OF DESIGN MANUF.	BASIS OF DESIGN MODEL
AS-1	SHELL CHW SYSTEM	300	0.5	4.0	4.0	80	WESSELS	SPA-4

NOTES:
1. ASME VORTEX AIR SEPARATOR WITHOUT STRAINER.
2. CARBON STEEL CONSTRUCTION, NPT/FLANGED TANGENTIAL CONNECTIONS.
3. 125 PSI MAXIMUM WORKING PRESSURE.
4. 220 DEG. F MAXIMUM WORKING TEMPERATURE.
5. ASME CODE SECTION VIII, DIV. 1 - U STAMPED.

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FLORIDA #54888
ELECTRICAL ENGINEER
PHILIP GARRETT, P.E.
FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

MECHANICAL SCHEDULES

Drawing Number:

M700

Drawn by: OA
Checked by: DN
Scale: 1" = 1'-0"

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JACKSON HOSPITAL - SHELL PACKAGE — **VENTILATION AND AIR BALANCE TABLE**

RTU-1.4

SA SOURCE	ROOM NUMBER	ROOM DESCRIPTION	FUNCTION OF SPACE	AREA SF	CEILING HEIGHT FT.	ROOM VOLUME CU. FT.	ASHRAE STD 170 (2017) VENTILATION AND AIR CHANGE REQUIREMENTS: MINIMUM OA ACH	MINIMUM TOTAL ACH	PRESSURE RELATION TO ADJ RM	ALL AIR EXHAUSTED OUT	MIN. REQUIRED O.A. CFM	MIN. REQ. ACH ACHIEVED?	ACTUAL AIR CHNGS AC/HR	AIR CHNGS MIN. SUP. CFM	CFM / SF MIN. SUP. CFM	ACTUAL CFM / SF	ASHRAE 62.1 (2016) VENTILATION: OCCUPANCY PEOPLE/ 1000 SF	OCCUPANCY NUMBER OF PEOPLE	VENTILATION RATE CFM/ PERSON	VENTILATION RATE CFM/ SF	MINIMUM OA REQ CFM	DESIGN SUPPLY CFM	DESIGN RETURN CFM	DESIGN EXHAUST CFM	ROOM DESCRIPTION
RTU-1.4	SC100	LOBBY	MAIN ENTRY LOBBIES	371	10	3710	NR	NR	NR	NR	NR	NR	5	NR	0	0.8	10	3.71	5	0.06	51.0	300	110		LOBBY
RTU-1.4	SC100	LOBBY OPEN ENTRY	MAIN ENTRY LOBBIES	298	24	7152	NR	NR	NR	NR	NR	NR	9	NR	0	3.7	10	3	5	0.06	41.1	1100	1100		LOBBY OPEN ENTRY
RTU-1.4	S102	M. TOILET	TOILET ROOM	51	8	408	NR	10	NEGATIVE	YES	NR	OK	10	68	0	0.0	N/A	N/A	N/A	N/A	N/A			70	M. TOILET
RTU-1.4	S103	F. TOILET	TOILET ROOM	51	8	408	NR	10	NEGATIVE	YES	NR	OK	10	68	0	0.0	N/A	N/A	N/A	N/A	N/A			70	F. TOILET
RTU-1.4	S200	LOBBY	MAIN ENTRY LOBBIES	589	10	5890	NR	NR	NR	NR	NR	NR	4	NR	0	0.6	10	6	5	0.06	81.7	350	110		LOBBY
RTU-1.4	S202	M. TOILET	TOILET ROOM	50	8	400	NR	10	NEGATIVE	YES	NR	OK	11	67	0	0.0	N/A	N/A	N/A	N/A	N/A			70	M. TOILET
RTU-1.4	S203	F. TOILET	TOILET ROOM	50	8	400	NR	10	NEGATIVE	YES	NR	OK	11	67	0	0.0	N/A	N/A	N/A	N/A	N/A			70	F. TOILET
RTU-1.4	S208	E.S.	JANITOR'S CLOSET	17	10	170	NR	10	NEGATIVE	YES	NR	OK	18	28	0	0.0	N/A	N/A	N/A	N/A	N/A			50	E.S.
RTU-1.4	S207	ELECTRICAL	ELECTRICAL ROOM	78	10	780	NR	NR	NR	NR	NR	NR	48	NR	0	8.0	N/A	N/A	N/A	N/A	N/A	625	625		ELECTRICAL
RTU-1.4	S203	I.T.	ELECTRICAL ROOM	69	10	690	NR	NR	NR	NR	NR	NR	4	NR	0	0.7	N/A	N/A	N/A	N/A	N/A	50			I.T.
RTU-1.4	S205	CORRIDOR	CORRIDOR (PATIENT)	1170	9	10530	NR	2	NR	NR	NR	OK	4	351	585	0.6	N/A	N/A	N/A	N/A	N/A	700	750		CORRIDOR
RTU-1.4	SS200	MONUMENTAL STAIR	CORRIDOR (PATIENT)	177	24	4248	NR	2	NR	NR	NR	OK	2	142	0	0.8	N/A	N/A	N/A	N/A	N/A	150	150		MONUMENTAL STAIR
		TOTAL		2971					ASHRAE 170 OA =		0								*ASHRAE 62.1 OA (Voz) =*			174	3275	2845	330	

Ez= 0.8 — PRESSURIZATION TAKES PRECEDENCE OVER AIRFLOW

SUM OF ASHRAE 170 + 62.1 OA REQUIREMENTS = 174

OA PROVIDED = 430

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NR = No Requirement

AIR BALANCE SCHEDULE - MAX/MIN AND OCCUPIED/UNOCCUPIED

MARK	OUTSIDE AIR (CFM)	EXHAUST (CFM)	AIR BALANCE (CFM)
RTU-1.4	430		
RTU-1.5	490	390	
RTU-2.1	2800	2600	
EF-A (QTY. = 4)		280	
EF-B		50	
TOTAL	3720	3320	400

EF-A WILL HAVE INTERMITTENT OPERATION AND IS CONTROLLED BY A WALL SWITCH.
EF-B WILL HAVE INTERMITTENT OPERATION AND IS CONTROLLED BY A WALL SWITCH.
OUTSIDE AIR SHALL BE MAINTAINED AT CONSTANT AIRFLOW WITH AIR MONITOR AT RTU.
RTU-1.5 & RTU-2.1 WILL UTILIZE BAROMETRIC RELIEF TO PREVENT BUILDING OVER PRESSURIZATION.

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MECHANICAL SYSTEMS SUMMARY SHEET

(IN LIEU OF CALCULATIONS AS PERMITTED BY C403.2.1 EXCEPTION)

PROJECT NAME:	JACKSON MOB & ASC SHELL		
PROJECT OWNER:	JACKSON HOSPITAL		
PROJECT ADDRESS:	3035 Hospital Dr. Marianna, Florida 32446 (CLIMATE ZONE 2A)		
TOTAL BLDG AREA:	44,030	SQ. FT.	
COMMON AREAS:	3,060	SQ. FT.	
DESIGN CRITERIA			
OUTDOOR AIR SUMMER TEMP DB/WB	96.5/75.8	°F	
OUTDOOR AIR WINTER TEMP DB/WB	28.0	°F	
ELEVATION	167	FT	
ALL OCCUPIED AREAS			
INDOOR AIR TEMP DB	75	°F	
INDOOR HUMIDITY	50	%RH	
LIGHTING	0.9	W/SF	
BUILDING ENVELOPE			
WALL: TILT UP WITH SEMI-RIGID INSULATION	R- 10.1		
ROOF: BUILT UP MODIFIED BITUMEN	R- 30		
WINDOW, INSULATED TINTED GLASS	U- 0.5		
WINDOW SHADING COEFFICIENT	SHGC- 0.25		
OPAQUE DOOR	U- 0.61		
ENVELOPE DESIGN CONDITIONS ARE FOR REFERENCE ONLY. REFER TO ARCHITECTURAL PLANS FOR ACTUAL BUILDING CONSTRUCTS.			
SIZING METHOD	ASHRAE COMPUTER PROGRAM + SUPPLEMENTAL CALCULATIONS		
TOTAL COOLING REQUIRED WITH OUTSIDE AIR	647,200	BTUH	
TOTAL SENSIBLE GAIN	514,100	BTUH	
TOTAL LATENT GAIN	133,100	BTUH	
TOTAL GRAINS WATER (DIFFERENCE)	9.4	GRAINS	
HEATING	93.0	KW	
TOTAL HEATING REQUIRED WITH OUTSIDE AIR	317,409	BTUH	

REFER TO EQUIPMENT SCHEDULES FOR SPECIFIC ZONE COOLING

9/13/23 1:06 PM

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

MECHANICAL SCHEDULES

Drawing Number:

M701

Drawn by: OA
Checked by: DN
Scale:

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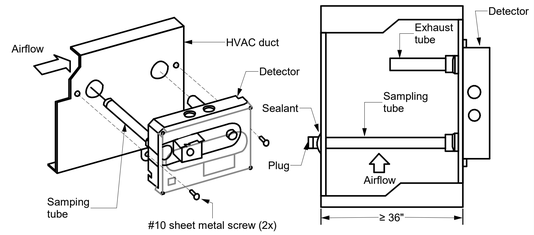
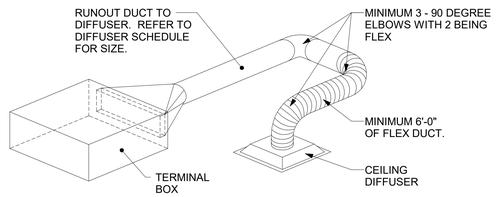


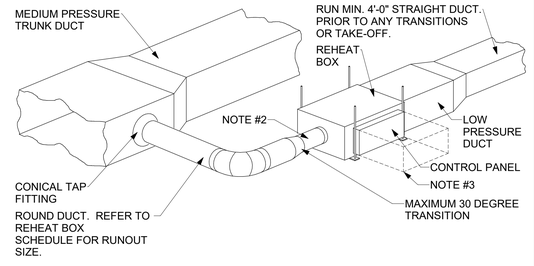
1. INSTALL DUCT MOUNTED SMOKE DETECTOR IN ACCESSIBLE LOCATION.
2. SAMPLING TUBE SHALL EXTEND AT LEAST TWO-THIRDS ACROSS THE WIDTH OF THE DUCT. FOR DUCT WIDTHS GREATER THAN 36", USE A SAMPLING TUBE THAT IS LONGER THAN THE WIDTH OF THE DUCT.
NOTE: SAMPLING TUBES LONGER THAN 36" MUST BE SUPPORTED AT BOTH ENDS OF THE DUCT.
3. IF USING AN AIR SAMPLING TUBE THAT IS LONGER THAN THE WIDTH OF THE DUCT, DRILL A 3/4" HOLE ON THE OPPOSITE SIDE OF THE DUCT FOR TUBE TO PASS THROUGH. SEAL THE OPENING AROUND THE TUBE WITH AN APPROVED DUCT SEALANT.
4. MOUNT THE DUCT SMOKE DETECTOR ON THE HVAC DUCT AND SECURE IT USING TWO #10 SHEET METAL SCREWS.
5. DUCT MOUNTED SMOKE DETECTORS SHALL BE WIRED IN ACCORDANCE WITH NFPA 72 AND SUPERVISED BY THE FIRE ALARM SYSTEM. VERIFY THAT ALL FIELD WIRING IS FREE OF OPENS, SHORTS, AND GROUND FAULTS.
6. INSTALL DUCT ACCESS PANEL IN ACCESSIBLE LOCATION TO ALLOW FOR INSPECTION AND CLEANING OF SAMPLING TUBE.
7. VERIFY THE AIR PRESSURE DIFFERENTIAL VALUE FALLS WITHIN THE SPECIFIED OPERATING RANGE OF THE DETECTOR.
8. TEST THE DETECTOR TO ENSURE IT IS OPERATING CORRECTLY.
9. PROVIDE REMOTE INDICATOR FOR DETECTORS LOCATED MORE THAN 10FT ABOVE FINISHED FLOOR OR ABOVE HARD CEILING.

DUCT MOUNTED SMOKE DETECTOR DETAIL
No Scale — MD-2036



NOTES:
1. 90 DEGREE ELBOWS IN FLEX DUCT TO HAVE NOT LESS THAN ONE DUCT DIAMETER CENTERLINE RADIUS.

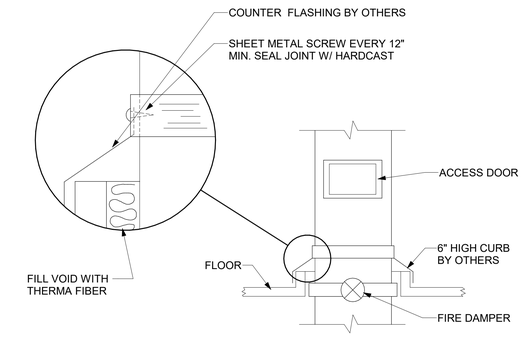
BOX SERVING ONE DIFFUSER DETAIL
No Scale — MD-2031



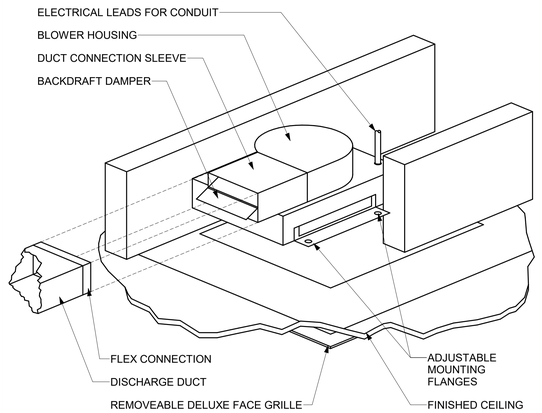
NOTES

1. BOXES 1,400 CFM OR LESS TO BE SUPPORTED WITH 1/2"x1/2"x1" GALANIVED BAND IRON ON FOUR CORNERS BOXES GREATER THAN 1,400 CFM SHALL HAVE TRAPEZE SUPPORT OF REINFORCING ANGLE WITH 3/8" GALVANIZED ALL THREAD ROD HANGERS.
2. PROVIDE A MINIMUM LENGTH OF 2 INLET DIAMETER OF STRAIGHT RIGID SHEETMETAL FROM THE DUCT TRANSITION PIECE TO THE VAV BOX INLET.
3. BOXES WITH ELECTRICAL REHEAT COILS TO HAVE 3'-6" MINIMUM WORKING CLEARANCE ON TERMINAL BOX SIDE.

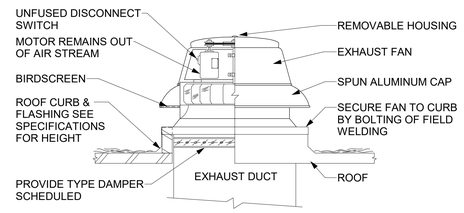
VARIABLE VOLUME BOX CONNECTION DETAIL
No Scale — MD-2901



DETAIL OF DUCT THRU FLOOR SLAB
No Scale — MD-2008

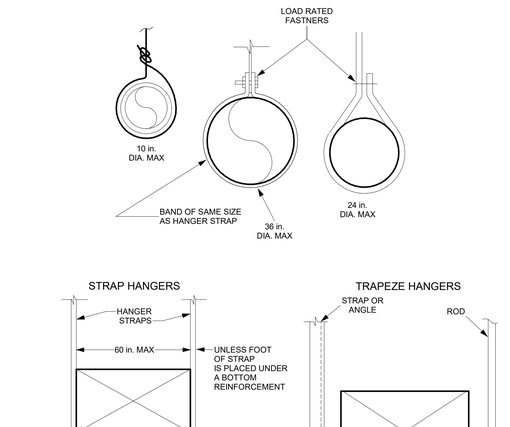


TOILET EXHAUST FAN
No Scale — MD-2500

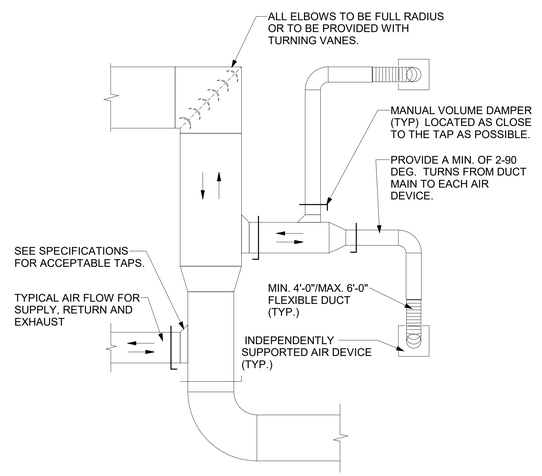


NOTES:
1. PROVIDE RUBBER VIBRATION ISOLATORS TO PREVENT MOTOR AND BEARING NOISE FROM TRANSMITTING TO THE FAN HOUSING.
2. ROUTE POWER LEADS TO FAN INSIDE CORNER OF CURB.
3. BELT DRIVEN CENTRIFUGAL EXHAUST FAN SHOWN. DETAIL IS SIMILAR FOR DIRECT DRIVE CENTRIFUGAL EXHAUST FAN.
4. SUPPORT CURB TO BE PERMANENTLY ATTACHED TO BUILDING STRUCTURE BY BOLTING OR WELDING.

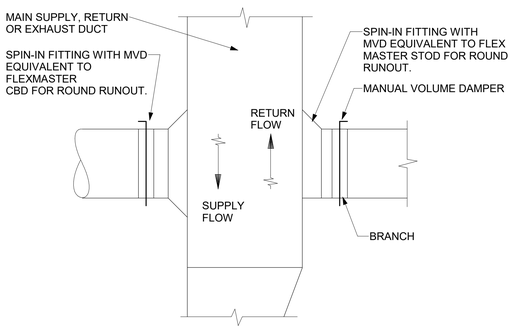
CENTRIFUGAL EXHAUST FAN
No Scale — MD 2400



SMACNA DUCT HANGER AND SUPPORT
No Scale — MD 2035



TYPICAL LOW PRESSURE SUPPLY, RETURN AND EXHAUST DUCT DETAIL
No Scale — MD 2032



LOW PRESSURE ROUND BRANCH DUCT RUNOUT
No Scale — MD 2001

TYPICAL INSTALLATION DETAILS

(A) RETAINING ANGLES:
MINIMUM 11/2"x11/2"x0.054 (16 GA.) RETAINING ANGLES MUST LAP STRUCTURAL OPENING 1" MINIMUM AND COVER CORNERS OF OPENINGS.
SINGLE SIDED RETAINING ANGLES ARE ACCEPTABLE.

(B) CLEARANCE 1/8" PER LINEAR FOOT BOTH DIMENSIONS (SEE NOTE #1 BELOW.)

(C) STEEL SLEEVE: GAUGE AS REQUIRED BY MANUFACTURER'S INSTRUCTIONS.

(D) APPROVED FIRE DAMPER (CURTAIN OR BLADE TYPE)

(E) SECURE RETAINING ANGLES TO SLEEVE ONLY, ON 8" CENTERS WITH:
1. 1/2" LONG WELDS, OR
2. 1/4" BOLTS AND NUTS, OR
3. NO. 10 STEEL SCREWS, OR
4. MINIMUM 3/16" STEEL RIVETS

(F) SECURE DAMPER TO SLEEVE ON 8" CENTERS WITH:
1. 1/2" LONG WELDS, OR
2. 1/4" " BOLTS AND NUTS, OR
3. NO. 10 STEEL SCREWS, OR
4. MINIMUM 3/16" STEEL RIVETS

(G) CONNECT DUCT TO SLEEVE AS REQUIRED BY THE MANUFACTURER.

(H) INSTALL ACCESS DOOR OR PANEL FOR SERVICE AND INSPECTION. DOOR MUST BE LARGE ENOUGH TO CHANGE LINK.

NOTES:

1. FIRE DAMPER SLEEVE CLEARANCE WITHIN WALL OPENING.

2. CLEARANCE REQUIREMENTS FOR DAMPER SLEEVES WITHIN A WALL OPENING IS BASED ON 1/8" INCH PER FOOT OF WIDTH (OR HEIGHT) UNLESS OTHERWISE STATED IN THE LISTING OF THE ASSEMBLY. THE SLEEVE MAY REST ON THE BOTTOM OF THE OPENING, AND NEED NOT BE CENTERED. (FRACTIONAL DIMENSIONS SHALL BE TAKEN AS THE NEXT LARGEST WHOLE FOOT.)

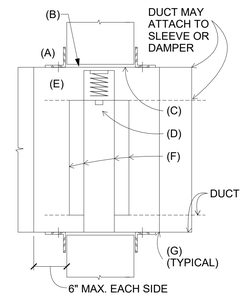
EXAMPLE: A 30 INCH X 24 INCH FIRE DAMPER SLEEVE IS INSTALLED IN A WALL OPENING. THE OPENING SHALL BE 30 3/8 INCHES WIDE (1/8 INCH x3 FEET) BY 24 1/4 INCHES HIGH (1/8 INCH x2 FEET.)

3. THE SLEEVE IS RETAINED IN THE WALL OPENING BY THE USE OF STEEL RETAINING ANGLES (A). THESE MUST OVER-LAP THE EDGE OF THE FRAMING BY A MINIMUM OF ONE (1) INCH OVER AND BEYOND ALL MATERIAL IN THE OPENING. THIS MEANS THAT THE MINIMUM WIDTH OF THE RETAINING ANGLE WOULD BE 1 3/8 INCHES (GOOD PRACTICE CALLS FOR AN ADDITIONAL SAFETY FACTOR BY MAKING THE ANGLE IN THIS CASE 1 1/2 INCHES WIDE.) THE DIMENSIONS REQUIRED FOR THE OPENING SHALL BE THOSE REMAINING AFTER THE OPENING HAS BEEN FRAMED AND FIRE RESISTIVE MATERIALS PROVIDED WHERE REQUIRED. THE FIRE RESISTIVE MATERIALS SHALL BE EQUAL TO THE REQUIREMENTS FOR FIRE RESISTIVE MATERIALS USED IN THE CONSTRUCTED WALL SO THAT A CONTINUOUS RATING EXISTS AT THE WALL PENETRATION.

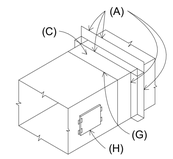
MANUFACTURERS' INSTALLATION DETAILS

THE FIRE DAMPER MANUFACTURERS' INSTALLATION DETAILS AND INSTRUCTIONS AS TESTED AND APPROVED BY U.L. MUST BE USED IN LIEU OF THESE DETAILS WHERE APPLICABLE.

NOTE:
NO CAULKING IS REQUIRED ON FIRE DAMPERS OR FIRE DAMPER RETAINING ANGLES.



VERTICAL POSITION IS SHOWN, HORIZONTAL INSTALLATION IS SIMILAR. FOLLOW INSTALLATION INSTRUCTION FOR FUSIBLE LINKS. LINKS TO BE 165° F.



NOTE:
A DUCT MOUNTED SMOKE DETECTOR SHALL BE INSTALLED IN THE DUCTWORK WITHIN FIVE FEET OF A COMBINATION FIRE/SMOKE DAMPER. SMOKE DETECTOR TO BE PROVIDED BY ELECTRICAL CONTRACTOR INSTALLED BY MECHANICAL CONTRACTOR.

PROVIDE A COPY OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AT THE AHCA INSPECTION.

FIRE & FIRE/SMOKE DAMPERS
No Scale — MD 2033

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FIRM CERTIFICATE OF AUTHORIZATION
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ELECTRICAL ENGINEER
PHILIP GARRETT, P.E.
FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

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Marianna, FL 32446

CONSTRUCTION DOCUMENTS
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No.	Description	Date

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MECHANICAL DETAILS

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M800

Drawn by: OA
Checked by: DN
Scale: 1/8" = 1'-0"

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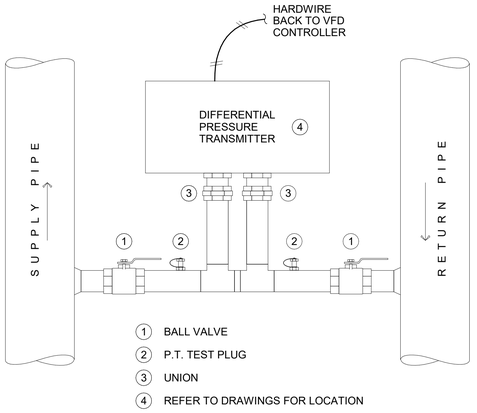
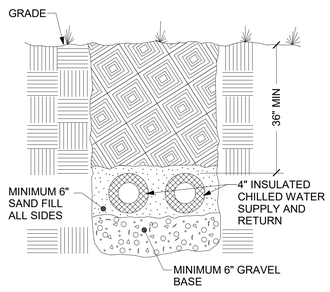
DIFFERENTIAL PRESSURE SENSOR DETAIL

No Scale — MD-0501



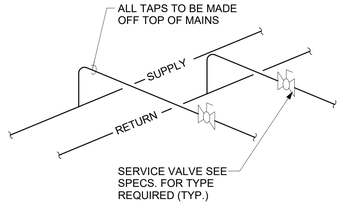
UNDERGROUND CHILLED WATER PIPING DETAIL

No Scale — MD-0808



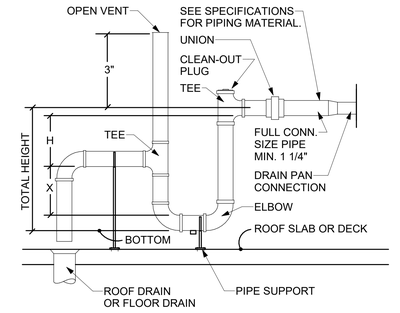
DETAIL OF PIPING AT BRANCH TAKE-OFF

No Scale — MD 0809



CONDENSATE DRAIN TRAP

No Scale — MD-0812



NOTE:
SLOPE DRAIN LINE MINIMUM OF 1/8" PER FOOT TO ROOF RECEPTOR.
TOTAL HEIGHT OF TRAP= X+H+ (1 1/2 x PIPE DIAMETER)

FOR DRAW THRU UNITS
X= MIN. 1/2 H (PREFERRED X=H)
H= NEGATIVE STATIC PRESSURE +1"

TYPICAL VENT DETAIL FOR CHILLED AND HOT WATER PIPING

No Scale — MD-0813

CHILLED OR CONDENSER WATER ENTRANCE

No Scale — MD-0817

DIAPHRAM EXPANSION TANK DETAIL

No Scale — MD-0902

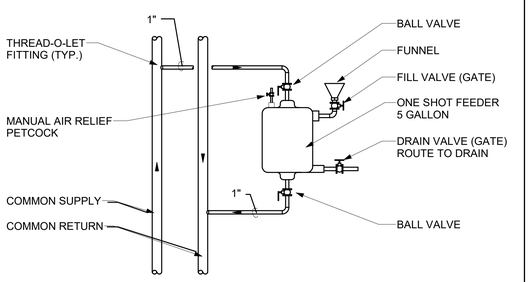
NOTES:
SEE EXPANSION TANK SCHEDULE FOR RELIEF VALVE AND PRV SETTINGS AND TANK SIZE.

TERMINATION DETAIL OF MOISTURE CONDENSATE LINE

No Scale — MD-0814

ONE-SHOT FEEDER DETAIL

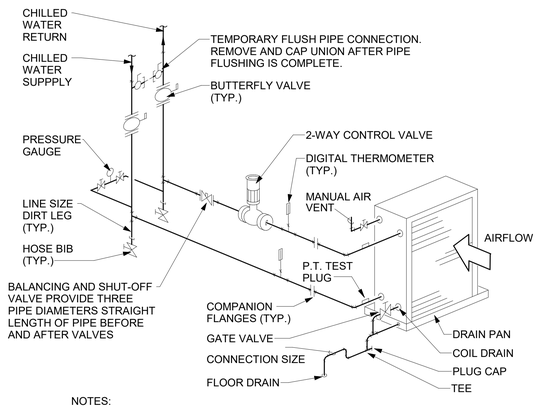
No Scale — MD-1700



NOTE:
COORDINATE FINAL LOCATION WITH END USER AND CHEMICAL VENDOR.

PIPING AT COOLING COIL (2-WAY VALVE)

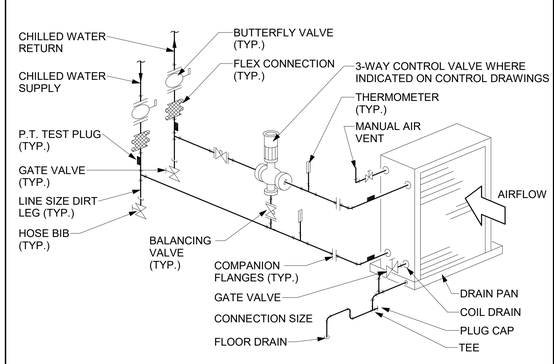
No Scale — MD-4300



NOTES:
1. PROVIDE MANUAL AIR VENT AT HIGH POINT OF RETURN LINE.
2. WATER TO ENTER COIL ON AIR LEAVING SIDE FOR COIL TO OPERATE CORRECTLY.
3. PROVIDE STAINLESS STEEL DRAINPAN SLOPED FOR POSITIVE DRAINAGE.
4. PROVIDE PT PLUGS AT EACH EMS TEMPERATURE SENSOR.

PIPING AT COOLING COIL (3-WAY VALVE)

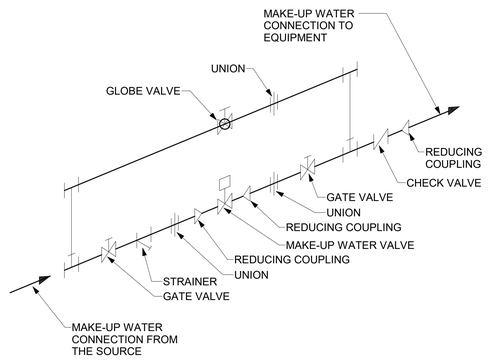
No Scale — MD-4301



NOTES:
1. PROVIDE MANUAL AIR VENT AT HIGH POINT OF RETURN LINE.
2. WATER TO ENTER THE COIL ON THE AIR LEAVING SIDE FOR COIL TO OPERATE CORRECTLY.
3. PROVIDE STAINLESS STEEL DRAIN PAN SLOPED FOR POSITIVE DRAINAGE.

PIPING SCHEMATIC FOR MAKE-UP WATER LINE

No Scale — MD-4003



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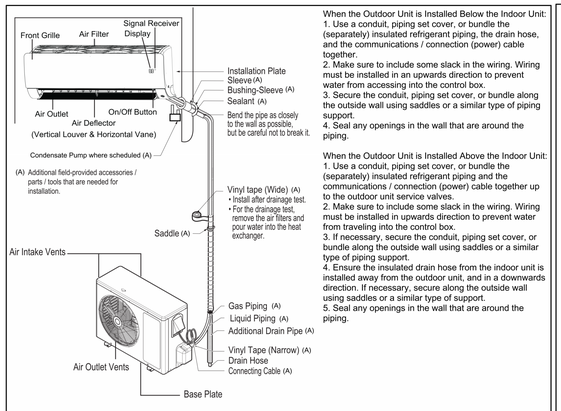
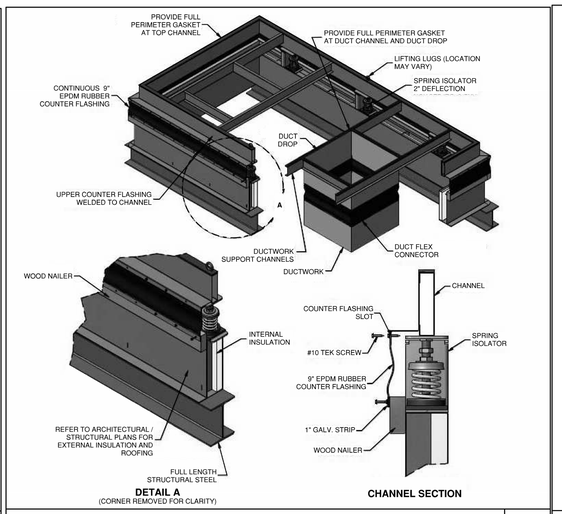


When the Outdoor Unit is Installed Below the Indoor Unit:
1. Use a conduit, piping set cover, or bundle the (separately) insulated refrigerant piping, the drain hose, and the communications / connection (power) cable together.
2. Make sure to include some slack in the wiring. Wiring must be installed in an upwards direction to prevent water from accessing into the control box.
3. Secure the conduit, piping set cover, or bundle along the outside wall using saddles or a similar type of piping support.
4. Seal any openings in the wall that are around the piping.

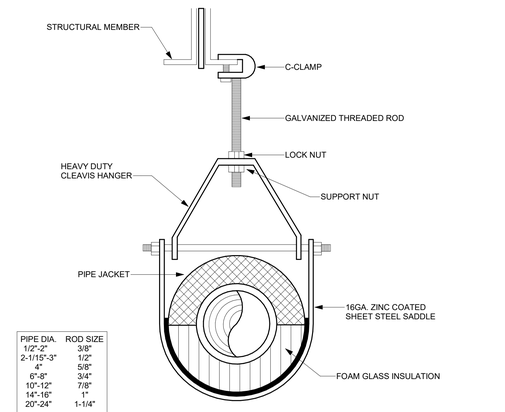
When the Outdoor Unit is Installed Above the Indoor Unit:
1. Use a conduit, piping set cover, or bundle the (separately) insulated refrigerant piping and the communications / connection (power) cable together up to the outdoor unit service valves.
2. Make sure to include some slack in the wiring. Wiring must be installed in upwards direction to prevent water from traveling into the control box.
3. If necessary, secure the conduit, piping set cover, or bundle along the outside wall using saddles or a similar type of piping support.
4. Ensure the insulated drain hose from the indoor unit is installed away from the outdoor unit, and in a downwards direction. If necessary, secure along the outside wall using saddles or a similar type of support.
5. Seal any openings in the wall that are around the piping.

MOUNT INDOOR UNIT A MINIMUM OF 6'-6" ABOVE FLOOR, 12" FROM CEILING, AND 4" FROM SIDE WALL.
OUTDOOR UNIT MAY BE PAD MOUNTED, WALL MOUNTED, OR ROOF MOUNTED. REFER TO MANUFACTURER DETAILS FOR SECUREMENT TO PAD, WALL BRACKET, OR EQUIPMENT RAILS.
EQUIPMENT RAIL ELEVATION SHALL COMPLY WITH FBC TABLE 1510.10.
ALLOW 12" CLEARANCE FROM BACK OF OUTDOOR UNIT TO WALL AND 24" CLEARANCE BETWEEN UNITS MOUNTED SIDE BY SIDE OR BACK TO BACK.
REFER TO EQUIPMENT SCHEDULE FOR MAXIMUM ALLOWABLE REFRIGERANT LINE LENGTH.
REFER TO FLOOR PLANS FOR ROUTING OF CONDENSATE DRAIN PIPING.

DUCTLESS SPLIT DX UNIT INSTALLATION
No Scale — MD-5202



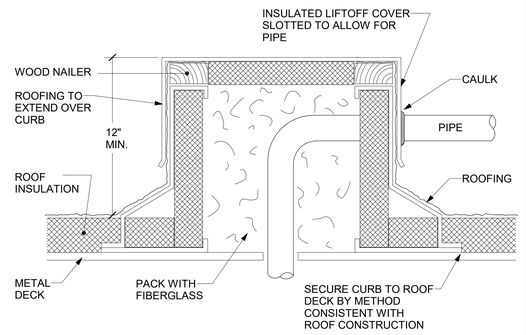
VIBRATION ISOLATION CURB DETAIL
No Scale — MD-0316



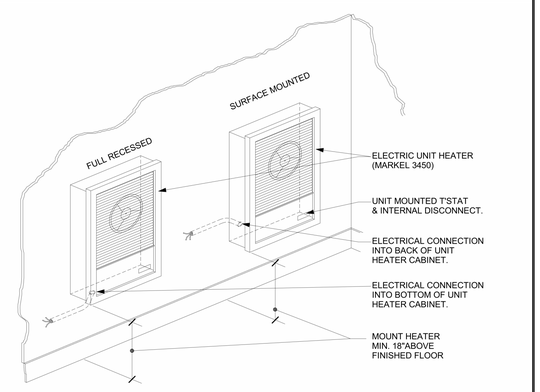
PIPE DIA.	ROD SIZE
1/2"-2"	3/8"
2-1/15"-3"	1/2"
4"	5/8"
6"-8"	3/4"
10"-12"	7/8"
14"-16"	1"
20"-24"	1-1/4"

TRAPEZE HANGERS ALSO ACCEPTABLE

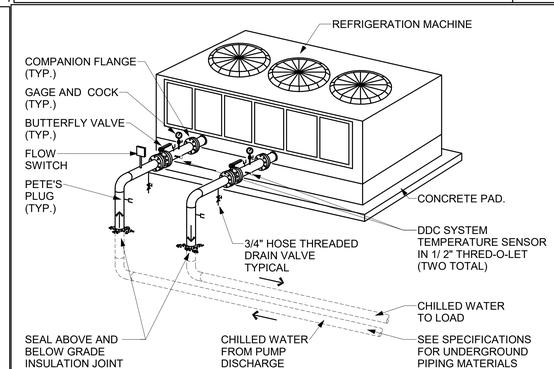
PIPE SUPPORT DETAIL
No Scale — MD 0000



PIPE THRU ROOF DETAIL
No Scale — MD-0315

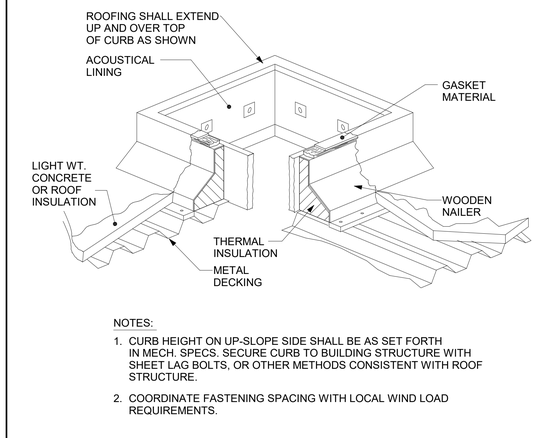


ELECTRIC UNIT HEATER MOUNTING DETAIL
No Scale — 12



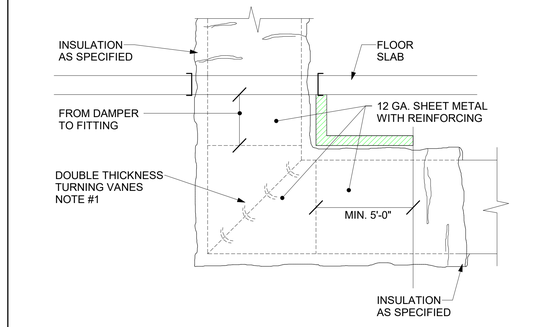
NOTES:
1. CONNECT CHILLED WATER PIPING TO COOLER WITH FLANGES OR COUPLING TO ALLOW CLEANING OR REMOVAL OF COOLER WITHOUT NEED TO REMOVE PIPING.
2. INSULATION COVERED WITH ALUMINUM JACKET PER SPECIFICATION SECTION FOR ABOVE GRADE PIPING.

AIR COOLED CHILLER ON GRADE
No Scale — MD-4002



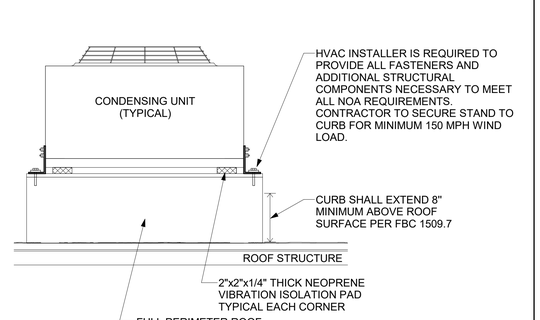
NOTES:
1. CURB HEIGHT ON UP-SLOPE SIDE SHALL BE AS SET FORTH IN MECH. SPECS. SECURE CURB TO BUILDING STRUCTURE WITH SHEET LAG BOLTS, OR OTHER METHODS CONSISTENT WITH ROOF STRUCTURE.
2. COORDINATE FASTENING SPACING WITH LOCAL WIND LOAD REQUIREMENTS.

ROOF CURB ON METAL DECK DETAIL
No Scale — MD-0302

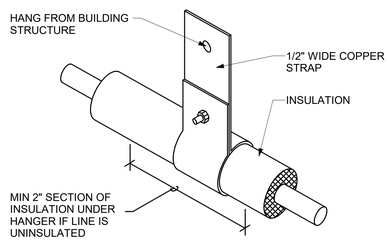


NOTES:
1. CONTRACTOR TO PROVIDE FULL RADIUS ELBOW WHERE CLEARANCE WILL ALLOW.

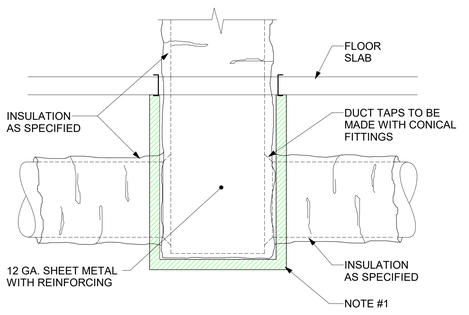
BOTTOM OF RISER DUCT DROP WITH 90º ELBOW
No Scale — MD-2005



CONDENSING UNIT ON ROOF WITH TIE-DOWN
No Scale — MD-0316

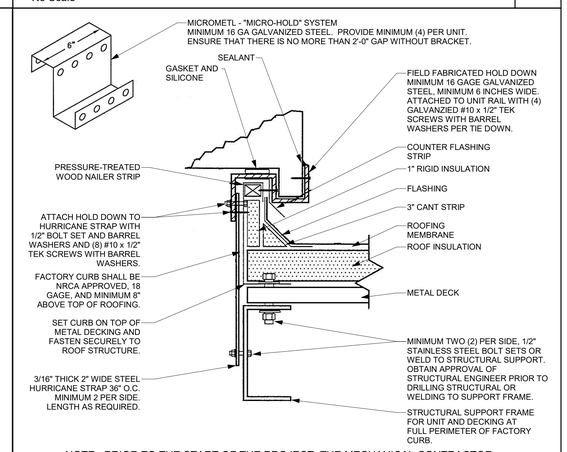


DETAIL FOR REFRIGERANT LINE HANGER
No Scale — MD-1602



NOTES:

BOTTOM OF RISER DUCT DROP WITH TAPS ON BOTH SIDES
No Scale — MD-2004



NOTE: PRIOR TO THE START OF THE PROJECT, THE MECHANICAL CONTRACTOR SHALL PROVIDE THE SERVICES OF A STRUCTURAL ENGINEER, LICENSED IN THE STATE OF FLORIDA, WHO SHALL VERIFY THE CORRECT INSTALLATION AND ATTACHMENT OF EACH ITEM OF ROOF MOUNTED EQUIPMENT TO THE STRUCTURE IN ORDER TO WITHSTAND CODE REQUIRED WINDLOADS.

ROOFTOP CURB MOUNTING DETAIL
No Scale — 8

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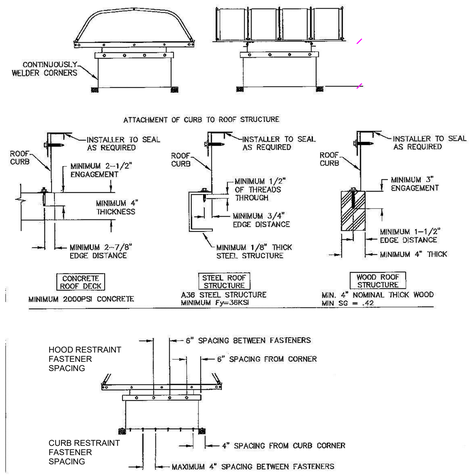

NOTES :

INSTALLATION DETAILS ARE PRESENTED AS A BASIS OF DESIGN ONLY. CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE SPECIFIC DESIGN/INSTALLATION DRAWINGS, SIGNED AND SEALED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.

1. HOOD IS TO INCLUDE A CURB CAP BASE TO FACILITATE MOUNTING OF THE HOOD TO A CURB. THE CURB WILL BE ADEQUATELY ATTACHED TO THE BUILDING STRUCTURE TO SUSTAIN ALL FORCES WHICH MAY BE PRODUCED BY THE PRESCRIBED ENVIRONMENTAL FORCES EXERTED ON THE FAN AND CURB. THE CURB MUST BE ATTACHED TO A STRUCTURAL MEMBER OF THE BUILDING.

CONCRETE DECK: ATTACH CURB WITH WEDGE TYPE CONCRETE ANCHOR - MINIMUM 3/8" DIAMETER CARBON STEEL - HILTI KWIK BOLT 3 OR EQUIVALENT. MINIMUM 2-1/2" OF ENGAGEMENT IN 2000 PSI MINIMUM CONCRETE. MINIMUM DECK THICKNESS IS 4 INCHES.

STEEL ROOF STRUCTURE: ATTACH CURB WITH SELF-DRILLING STEEL SCREWS MINIMUM NOMINAL SIZE OF 1/4" DIAMETER AND SCREWS SHALL PASS THROUGH STEEL AT LEAST 1/2".

WOOD ROOF STRUCTURE: ATTACH CURB WITH STEEL LAG BOLTS NOMINAL SIZE OF 3/8" DIAMETER. WOOD IS TO BE 4" NOMINAL SIZE OR GREATER. THE BOLTS SHALL HAVE MINIMUM OF 3 INCH OF THREAD ENGAGEMENT.

2. THE ROOF CURB SHALL HAVE CONTINUOUSLY WELDED CORNERS AND SHALL BE CONSTRUCTED OF G-90 GALVANIZED STEEL OR 5052H-34 ALUMINUM OR STAINLESS STEEL. THE CURB MATERIAL THICKNESS SHALL BE 18GA OR GREATER AND HAVE MINIMUM 30 KSI YIELD STRENGTH.

3. THE HOOD SHALL BE ATTACHED TO THE CURB WITH ONE OF THE FOLLOWING METHODS INSTALLED ON THE FOUR SIDES OF THE CURB CAP. THE FASTENERS SHALL BE 6" FROM EACH CORNER OF THE BASE AND SPACED NO GREATER THAN 6" THEREAFTER.

A. #12 x 2" THICK WASHER HEAD SELF-DRILLING SCREW.

B. ALTERNATE FASTENER - .25" DIAMETER HEX HEAD BOLT AND WASHER WITH COMPANION NUT INSTALLED ON THE INTERIOR OF THE CURB.

4. ALL FASTENERS ARE TO BE HIGH-QUALITY CORROSION RESISTANT STEEL OR STAINLESS STEEL. ALL ALUMINUM SHALL BE PROTECTED FROM CONTACT WITH DISSIMILAR METALS PER FBC 2003.8.4. BY APPLYING BITUMINOUS OR RUBBERIZED GASKETS BETWEEN SURFACES WHEN INSTALLING VENTS.

5. ANY GAP BETWEEN THE CURB AND CURB CAP SHALL BE FILLED BY THE INSTALLING CONTRACTOR WITH A SUITABLE CORROSION RESISTANT MATERIAL THAT ALLOWS THE FASTENERS TO BE INSTALLED WITHOUT CAUSING EXCESSIVE DISTORTION OF THE UNIT FLANGES.

6. THE INSTALLER IS RESPONSIBLE FOR CHECKING THAT ALL FASTENERS ARE PROPERLY INSTALLED AND ALL ACCESS PANELS ARE IN PLACE BEFORE PUTTING THE UNIT INTO SERVICE.

7. ALL FASTENERS AND ACCESS PANELS MUST BE PROPERLY INSTALLED AFTER MAINTENANCE OPERATIONS FOR UNIT TO MAINTAIN CODE COMPLIANCE.

ROOF MOUNTED RELIEF HOOD DETAIL

No Scale

6

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

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Drawing Title:

MECHANICAL DETAILS

Drawing Number:

M803

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Checked by: DN
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SEQUENCE OF OPERATION FOR USE WITH RTU-1.4, 1.5, 2.1, AND FUTURE RTU'S ONLY

1. SUPPLY AIR AND RETURN AIR FANS

A. SUPPLY AIR AND RETURN AIR FANS SHALL BE ENERGIZED/DE-ENERGIZED FROM THE VFD IN HAND POSITION OR THE DDC SYSTEM WHEN IN AUTO MODE. THE DDC CONTROL SYSTEM SHALL SENSE WHEN THE FAN IS IN HAND POSITION BY THE FAN STATUS VERIFICATION AND INITIATE THE UNIT CONTROL SEQUENCE.

B. IN HAND MODE OR AUTO MODE THE TWO-POSITION MINIMUM OUTSIDE AIR DAMPER (D-MIN) SHALL OPEN. ONCE THE DAMPER IS OPEN AND THE END SWITCH CONTACT IS MADE, THE SUPPLY FAN SHALL START, AND THE DDC SYSTEM SHALL SIGNAL THE ASSOCIATED RETURN AND EXHAUST FANS TO START.

C. FANS SHALL SHUT DOWN FROM A SIGNAL FROM:
1. THE FIRE ALARM PANEL THRU THE F/A RELAY.
2. THE SUPPLY AIR SMOKE DETECTOR(S) (SD-SA).
3. THE RETURN AIR SMOKE DETECTOR(S) (SD-RA).
4. FREEZE STAT, (TS-FRZ).
5. THE HIGH/LOW LIMIT STATIC PRESSURE SWITCHES (SPS-SHI & RLO).
6. MIXED AIR LOW LIMIT (TT-MAT).

D. WHEN THE SUPPLY FAN SHUTS DOWN THE FOLLOWING SHALL OCCUR:
1. THE MINIMUM OUTSIDE AIR DAMPER (D-MIN) SHALL CLOSE.
2. THE ECONOMIZER OUTSIDE AIR DAMPER (D-EOA) SHALL CLOSE.
3. THE RELIEF DAMPER (D-REL) SHALL CLOSE.
4. THE RETURN DAMPER (D-RET) SHALL OPEN.
5. THE CHILLED WATER VALVE (V-CHW) SHALL CLOSE.
6. THE RETURN FAN AND THE ASSOCIATED EXHAUST FANS SHALL SHUTDOWN.

2. SUPPLY FAN SPEED CONTROL

A. THE SUPPLY FANS VARIABLE FREQUENCY DRIVE (VFD) SHALL BE CONTROLLED BY A DUCT MOUNTED DIFFERENTIAL STATIC PRESSURE TRANSMITTER (SPT-SA) MODULATING THE VFD TO MAINTAIN A SUPPLY DUCT STATIC PRESSURE AT THE LOWEST SET POINT POSSIBLE AS DETERMINED BY THE TAB CONTRACTOR. FOR MULTIPLE STATIC PRESSURE TRANSMITTERS, THE DDC SYSTEM SHALL PROVIDE A SEPARATE SET POINT FOR EACH STATIC PRESSURE TRANSMITTER, AND SELECT THE STATIC PRESSURE TRANSMITTER THAT IS FARTHEST BELOW ITS SET POINT TO CONTROL THE SPEED OF THE VFD. THE VFD SHALL OUTPUT THE % FULL SPEED TO THE DDC SYSTEM THROUGH THE NETWORK INTERFACE.

B. ON A FALL IN DIFFERENTIAL PRESSURE SENSED BY SPT-SA, THE DDC SYSTEM SHALL SPEED UP THE SUPPLY FANS VFD TO MAINTAIN SPT-SA AT SET POINT. ON A RISE IN DIFFERENTIAL PRESSURE SENSED BY SPT-SA, THE DDC SYSTEM SHALL SLOW DOWN THE SUPPLY FANS VFD TO MAINTAIN SPT-SA AT SET POINT. SPT-SA SHALL ALARM THE DDC SYSTEM IF ITS MEASURED PRESSURE IS 10% (ADJ.) ABOVE OR BELOW SETPOINT.

C. STATIC PRESSURE SENSOR, SPS-SHI, SHALL SHUTDOWN THE FANS WHENEVER IT SENSES A HIGH STATIC PRESSURE, ALARM THE DDC SYSTEM, AND REQUIRE A LOCAL MANUAL RESET TO RESTART THE FAN. SPS-RLO SHALL SHUTDOWN THE FANS WHENEVER IT SENSES A LOW STATIC PRESSURE AND ALARM THE DDC SYSTEM AND REQUIRE A LOCAL MANUAL RESET TO RESTART THE FAN

3. VOLUMETRIC TRACKING

THE RETURN AIR FAN VFD SHALL BE CONTROLLED FROM AN OUTSIDE AIR QUANTITY SOFTWARE SET POINT (SCHEDULED OUTSIDE AIR QUANTITY, ADJ.) USING AIRFLOW MEASURING DEVICES AND TRANSMITTERS AM-SA AND AM-RA INSTALLED AT THE INLET OF THE SUPPLY AND RETURN FANS. AM-SA SHALL MEASURE THE TOTAL AIRFLOW OF THE SUPPLY FANS AND AM-RA SHALL MEASURE THE TOTAL AIRFLOW OF THE RETURN FANS. THE AIRFLOW MEASURING TRANSMITTERS SHALL OUTPUT THE TOTAL CFM READING TO THE DDC SYSTEM. THE DDC SYSTEM SHALL CALCULATE THE DIFFERENCE OF THE TOTAL SUPPLY AIR AND THE TOTAL RETURN AIR TO MAKE AN OUTSIDE AIR QUANTITY SOFTWARE POINT. THE DDC SYSTEM SHALL MODULATE THE SPEED OF THE RETURN AIR FAN VFD TO MAINTAIN THE CALCULATED OUTSIDE AIR QUANTITY WITHIN 2% OF THE OUTSIDE AIR QUANTITY SET POINT.

4. STATIC PRESSURE RESET

A. THE SUPPLY AIR STATIC PRESSURE SHALL BE RESET BASED ON THE TERMINAL BOX AIR DAMPER POSITION. THE STATIC PRESSURE CONTROL LOOP SHALL POLL ALL TERMINAL BOXES IN THE SYSTEM AND REDUCE STATIC PRESSURE OVER AN ADJUSTABLE TRANSITION TIME UNTIL ANY TERMINAL BOX AIR DAMPER HAS OPENED TO 95% (ADJ.). STATIC PRESSURE WILL INCREASE IN THE SAME MANNER WHEN ANY TERMINAL BOX IN THE SYSTEM IS ABOVE 95%. ANY TERMINAL BOX IN THE SYSTEM MAY BE ADDED TO AN EXCEPTION LIST AND ELIMINATED FROM THE STATIC PRESSURE RESET CONTROL LOOP.

B. UPON RTU SHUTDOWN, CAV/VAV BOXES SHALL BE DRIVEN TO FULL OPEN POSITION TO PREVENT DUCT OVER PRESSURIZATION DURING RTU START-UP IF REQUIRED.

5. DISCHARGE AIR TEMPERATURE RESET

A. WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW 65°F THE DISCHARGE AIR TEMPERATURE RESET CONTROL LOOP SHALL START. WHEN OUTDOOR AIR TEMPERATURE IS ABOVE 65°F THE RESET LOOP WILL BE OFF AND SYSTEM WILL REVERT BACK TO ORIGINAL DISCHARGE TEMPERATURE SETPOINT.

B. THE DISCHARGE AIR TEMPERATURE IS RESET UP TO A MAXIMUM OF 60°F (ADJ.) WHEN ALL TERMINAL BOX REHEAT COILS ARE ABOVE 5% OPEN (ADJ.). IF ANY TERMINAL BOX REHEAT COIL IS BELOW 5% FOR AN ADJUSTABLE TRANSITION TIME THE DISCHARGE AIR TEMPERATURE WILL RESET DOWN. THE TEMPERATURE RESET LOOP WILL MAKE 1DEG INCREMENTAL CHANGES OVER A 1 HOUR (ADJ.) TIME PERIOD.

ANY TERMINAL BOX IN THE SYSTEM MAY BE ADDED TO AN EXCEPTION LIST AND ELIMINATED FROM THE DISCHARGE TEMPERATURE RESET CONTROL LOOP.

6. AIR HANDLER OPERATING STATES

THE AIR HANDLING UNIT SHALL OPERATE IN THREE DISTINCT STATES. CRITERIA TO TRANSITION BETWEEN STATES ARE INDICATED BELOW. TO TRANSITION BETWEEN STATES THE SPECIFIED CRITERIA SHALL BE MET FOR AN ADJUSTABLE MINIMUM PERIOD OF TIME REFERRED TO AS "TRANSITION TIME". EACH INDIVIDUAL OPERATING STATE TO HAVE AN INDIVIDUAL PID CONTROL LOOP FOR THAT STATE.

A. STATE 1 – FULL COOLING COIL

ECONOMIZER OUTSIDE AIR DAMPERS SHALL BE CLOSED. THE COOLING COIL CONTROL VALVE, V-CHW, SHALL BE CONTROLLED BY A CONTROL LOOP WITH THE DISCHARGE TEMPERATURE TRANSMITTER, TT-DAT, AS THE INPUT, AND A SET POINT EQUAL TO THE DISCHARGE AIR SET POINT OF (55°F, ADJ.). ON A RISE IN TEMPERATURE ABOVE TT-DAT SET POINT, THE VALVE SHALL MODULATE OPEN. ON A FALL IN TEMPERATURE BELOW TT-DAT SET POINT, THE VALVE SHALL MODULATE CLOSED. TT-DAT SHALL ALARM THE DDC SYSTEM WHENEVER THE DISCHARGE TEMPERATURE IS TOO HIGH OR LOW. THE COOLING COIL CONTROL LOOP SHALL CONTROL THE LEAVING AIR TEMPERATURE WITHIN +/- 0.5°F.

B. TRANSITION FROM STATE 1 TO STATE 2 (FULL ECONOMIZER WITH COOLING COIL)

THERE SHALL BE AN ADJUSTABLE OUTSIDE AIR ECONOMIZER ENABLE TEMPERATURE (65°F) AND AN ADJUSTABLE DEAD BAND (+/-2°F). THE UNIT SHALL TRANSITION FROM STATE 1 TO STATE 2 WHENEVER THE OUTSIDE AIR TEMPERATURE IS BELOW THE ECONOMIZER ENABLE TEMPERATURE LESS THE DEAD BAND (65°F – 2°F = 63°F) FOR AN ADJUSTABLE TRANSITION TIME (5 MINUTES).

C. TRANSITION FROM STATE 2 TO STATE 1:

THE UNIT SHALL TRANSITION FROM STATE 2 TO STATE 1 WHENEVER THE OUTSIDE AIR TEMPERATURE IS ABOVE THE ECONOMIZER ENABLE TEMPERATURE PLUS THE DEAD BAND (65°F + 2°F = 67°F) FOR AN ADJUSTABLE TRANSITION TIME (5 MINUTES).

D. STATE 2 – FULL ECONOMIZER WITH COOLING COIL

ECONOMIZER OUTSIDE AIR DAMPERS SHALL BE FULLY OPEN. THE COOLING COIL CONTROL VALVE, V-CHW, SHALL BE CONTROLLED BY A CONTROL LOOP WITH THE DISCHARGE TEMPERATURE TRANSMITTER, TT-DAT , AS THE INPUT, AND A SET POINT EQUAL TO THE DISCHARGE AIR SET POINT OF (55°F, ADJ.).

E. TRANSITION FROM STATE 2 TO STATE 3 (FREE COOLING):

THE UNIT SHALL TRANSITION FROM STATE 2 TO STATE 3 WHENEVER THE FOLLOWING OCCURS. THE COOLING COIL CONTROL LOOP HAS A COOLING VALUE OUTPUT OF 0% OPEN FOR AN ADJUSTABLE TRANSITION TIME (5 MINUTES).

F. TRANSITION FROM STATE 3 TO STATE 2:

THE UNIT SHALL TRANSITION FROM STATE 3 TO STATE 2 WHENEVER THE FOLLOWING OCCURS. THE ECONOMIZER DAMPER CONTROL LOOP HAS AN OUTPUT OF 100% OPEN FOR AN ADJUSTABLE TRANSITION TIME (10 MINUTES).

G. STATE 3 – FREE COOLING:

THE COOLING COIL VALVE SHALL REMAIN CLOSED AND THE ECONOMIZER AIR DAMPER (D-EOA), RELIEF AIR DAMPER (D-REL), AND THE RETURN AIR DAMPER (D-RET) SHALL MODULATE TO MAINTAIN THE DISCHARGE AIR TEMPERATURE AT THE DISCHARGE AIR TEMPERATURE SET POINT.

THE DISCHARGE AIR TEMPERATURE CONTROL LOOP SHALL HAVE THE UNIT DISCHARGE AIR TEMPERATURE TRANSMITTER (TT-DAT) AS THE INPUT AND A SET POINT EQUAL TO THE COOLING COIL SET POINT (55°F). ON A RISE IN DISCHARGE AIR TEMPERATURE THE ECONOMIZER OUTSIDE AIR AND RELIEF AIR DAMPERS SHALL MODULATE OPEN AND THE RETURN AIR DAMPER SHALL MODULATE CLOSED. ON A FALL IN DISCHARGE AIR TEMPERATURE THE ECONOMIZER OUTSIDE AIR DAMPER AND RELIEF AIR DAMPER SHALL MODULATE CLOSED AND THE RETURN AIR DAMPER SHALL MODULATE OPEN. DAMPERS SHALL MAINTAIN DAT TO WITHIN +/- ½ °F OF SET POINT.

H. MIXED AIR LOW LIMIT CONTROL

THE MIXED AIR LOW LIMIT CONTROL LOOP SHALL BE OPERATIVE AT ALL TIMES WHEN THE UNIT IS IN ANY STATE, INCLUDING WHEN THE UNIT IS DE-ENERGIZED, TO MAINTAIN A MINIMUM MIXED AIR TEMPERATURE. THE MIXED AIR LOW LIMIT CONTROL LOOP SHALL HAVE THE MIXED AIR TEMPERATURE TRANSMITTER (TT-MAT) AS INPUT. AT A MIXED AIR TEMPERATURE OF 40°F (ADJ.) THE BAS SHALL ALARM, DISABLE/CLOSE THE ECONOMIZER DAMPERS REVERTING TO MINIMUM OUTSIDE AIR OPERATION, FULLY OPEN THE CHILLED WATER VALVE, OPEN THE CHILLER'S CHILLED WATER ISOLATION VALVE, AND START THE APPROPRIATE CHILLED WATER PUMP(S) TO MOVE CHILLED WATER THROUGH THE COIL. IF THE CHILLED WATER PUMP IS CONTROLLED BY A VFD, THE PUMP(S) SHALL BE OPERATED TO MAINTAIN THE DIFFERENTIAL PRESSURE SET POINT. SOFTWARE RESET BY THE MAINTENANCE STAFF SHALL BE REQUIRED TO RETURN TO NORMAL OPERATION.

7. FREEZESTAT

A. WHENEVER FREEZE STAT, TS-FZ, SENSES A TEMPERATURE BELOW 36°F (ADJ.), DDC SYSTEM SHALL PERFORM THE FOLLOWING:
1. THE SUPPLY FAN, RETURN FAN, AND THE ASSOCIATED EXHAUST FANS SHALL SHUTDOWN.
2. THE MINIMUM OUTSIDE AIR DAMPER (D-MIN) SHALL CLOSE.
3. THE ECONOMIZER OUTSIDE AIR DAMPER (D-EOA) SHALL CLOSE.
4. THE RELIEF DAMPER (D-REL) SHALL CLOSE.
5. THE RETURN DAMPER (D-RET) SHALL OPEN.
6. FULLY OPEN THE CHILLED WATER VALVE (V-CHW).
7. OPEN THE LEAD CHILLER CHILLED WATER ISOLATION VALVE, IF APPLICABLE.
8. ISSUE A UNIQUE ALARM.
9. COMMAND "ON" THE VARIABLE PRIMARY OR SECONDARY CHILLED WATER PUMP AND CONTROL SPEED TO MAINTAIN THE DIFFERENTIAL PRESSURE SET POINT.
10. A MANUAL RESET AT THE AHU SHALL BE REQUIRED TO RESTART AN RTU THAT HAS AUTOMATICALLY SHUT DOWN FROM A FREEZE STAT TRIP.

8. FILTERS

A. ALL FILTERS SHALL HAVE A DIFFERENTIAL PRESSURE SWITCH (DPS-FIL & DPS-PFL) MEASURING THE PRESSURE DROP ACROSS THE FILTER BANKS. EACH SHALL ALARM THE DDC SYSTEM WHENEVER THE PRESSURE DROP ACROSS THE FILTER IS EXCESSIVE (DIRTY FILTER) (ADJ.).

9. FIRE ALARM SHUTDOWN

WHENEVER THE FIRE ALARM SYSTEM SENSES SMOKE/FIRE, THE FIRE ALARM SYSTEM SHALL SIGNAL THE DDC SYSTEM. THE DDC SYSTEM IS TO DE-ENERGIZE THE UNIT AND SHALL PERFORM THE FOLLOWING:
1. SHUTDOWN THE SUPPLY AIR FAN.
2. SHUTDOWN THE RETURN AIR FAN.
3. SHUTDOWN THE ASSOCIATED EXHAUST FANS.
4. CLOSE CHILLED WATER VALVE V-CHW.
5. CLOSE THE RELIEF AIR DAMPER (D-REL).
6. CLOSE THE OUTSIDE AIR DAMPER (D-MIN).
7. CLOSE THE ECONOMIZER DAMPER (D-EOA).
8. OPEN THE RETURN AIR DAMPER (D-RET).

10. PROGRAM DESIGN

WHEN THE SUPPLY FAN IS STARTED, THE RTU SHALL ALWAYS GO TO STATE 1 WITHOUT ENABLING THE CHILLED WATER PLANT. THE UNIT SHALL OPERATE IN STATE 1 FOR A 4 MINUTE TIME PERIOD (ADJ.). AFTER THE 4 MINUTE TIMER HAS EXPIRED ONE OF THE FOLLOWING SHALL OCCUR:
1. IF THE OAT IS EQUAL TO OR GREATER THAN 52°F (ADJ.) THE UNIT SHALL REMAIN IN STATE 1 UNTIL IT TRANSITIONS TO ANOTHER OPERATING STATE PER THE DETAILED SEQUENCES ABOVE OR,
2. IF THE OAT IS LESS THAN 52°F (ADJ.) THE UNIT SHALL TRANSITION TO STATE 3 AND REMAIN IN STATE 3 UNTIL IT TRANSITIONS TO ANOTHER OPERATING STATE PER THE DETAILED SEQUENCES ABOVE.

IF THE FACILITY'S CHILLED WATER PLANT IS NOT REQUIRED TO OPERATE CONTINUOUSLY THROUGHOUT THE YEAR, AN OUTDOOR AIR TEMPERATURE SHALL BE ESTABLISHED, T-DISABLE, TO PREVENT THE PLANT FROM BEING INADVERTENTLY STARTED. THE CHILLED WATER PLANT SHALL NOT BE ACTIVATED BELOW OUTDOOR TEMPERATURES EQUAL TO OR LESS THAN T-DISABLE; FOR EXAMPLE 44°F (ADJ.).

THIS RTU SEQUENCE OF OPERATION SHALL INITIATE THE OPERATION OF THE CHILLED WATER PLANT, IF IT IS NOT ALREADY IN OPERATION, IF BOTH OF THE FOLLOWING OCCUR:
1. THE OAT EXCEEDS THE T-DISABLE SET POINT FOR THE CHILLED WATER PLANT AND,
2. THE AHU TRANSITIONS FROM STATE 3 TO STATE 2.

ALL TIMERS AND OTHER SPECIFIED PARAMETERS ARE TO BE INDEPENDENTLY ADJUSTABLE.

SOFTWARE STATUS POINTS SHALL BE CREATED FOR THE FOLLOWING LOCKOUTS AND FINITE STATES. THE CURRENT STATUS OF THE SOFTWARE LOCKOUT POINTS, ENABLED OR DISABLED, SHALL BE DISPLAYED AT THE BAS/FMS FRONT END:
1. CHILLED WATER CONTROL VALVE FULLY CLOSED LOCKOUT
2. ECONOMIZER DAMPERS FULLY OPEN LOCKOUT
3. ECONOMIZER DAMPERS FULLY CLOSED LOCKOUT
4. STATE #1
5. STATE #2
6. STATE #3

THE RTU SHALL RESTART AUTOMATICALLY AFTER A MOMENTARY POWER FAILURE OR AFTER TRANSFER TO AN ALTERNATE POWER SOURCE AND OPERATE IN THE SAME STATE IT WAS IN PRIOR TO THE POWER FAILURE OR TRANSFER OF POWER.

11. EXHAUST FANS

CEILING EXHAUST FANS SERVING THE SHELL SPACE SHALL BE CONTROLLED LOCALLY BY A WALL SWITCH.

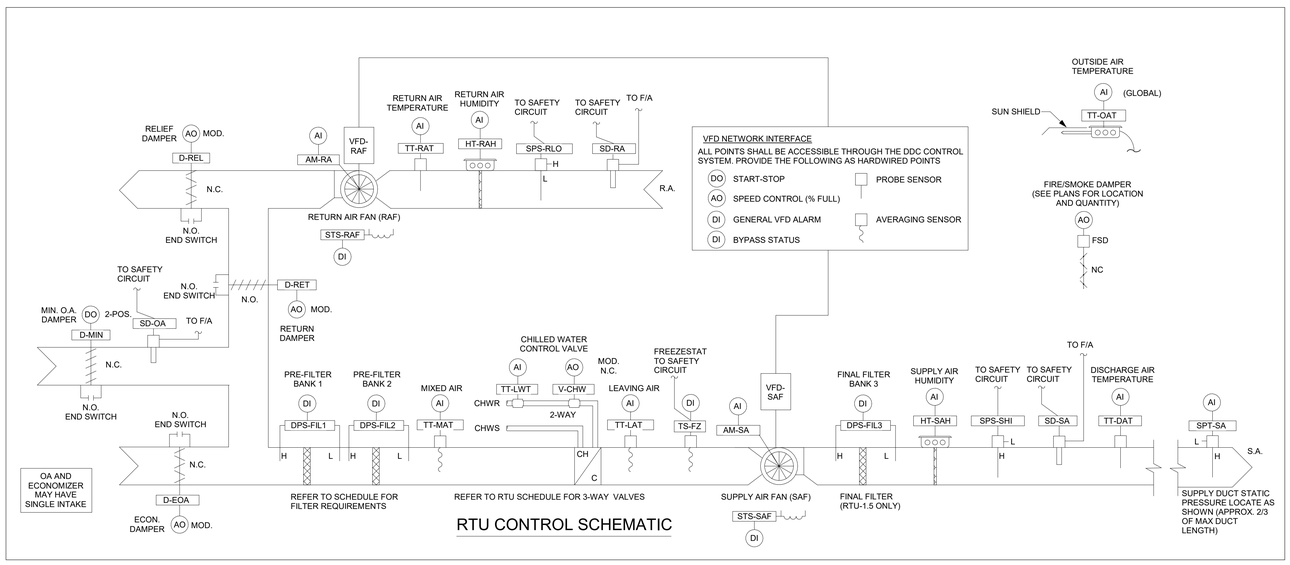
FUTURE EXHAUST FANS SERVING THE TENANT BUILDOUTS SHALL BE INTERLOCKED WITH THEIR RESPECTIVE RTU. INTERLOCKED EHAUST FANS SHALL BE ENERGIZED WHEN RESPECTIVE SUPPLY AIR FAN IS ENERGIZED.

12. DIAL OUT ALARMS

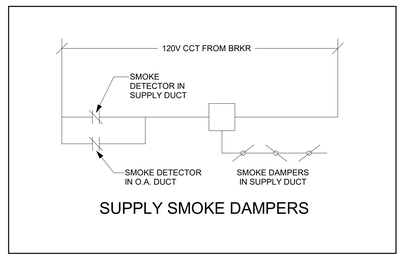
CONTROL SYSTEM SHALL PROVIDE DIAL OUT ON THE FOLLOWING CRITICAL ALARMS:

1. SUPPLY FAN FAILURE
2. RETURN FAN FAILURE
3. EXHAUST FAN FAILURE
5. HIGH HUMIDITY
6. LOW HUMIDITY
7. DISCHARGE AIR TEMPERATURE ABOVE OR BELOW 5°F OF SETPOINT

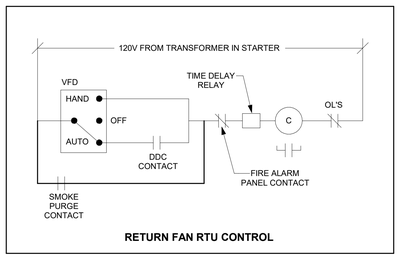
13. ELECTRIC REHEAT COIL - REFER TO CAV/VAV SEQUENCE.



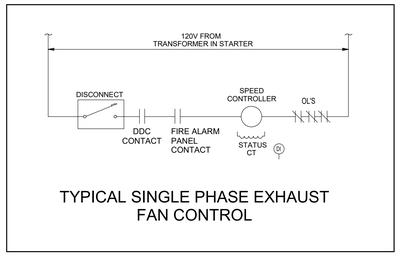
RTU CONTROL SCHEMATIC



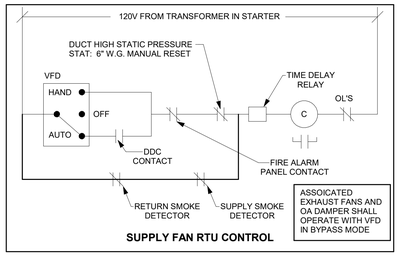
SUPPLY SMOKE DAMPERS



RETURN FAN RTU CONTROL



TYPICAL SINGLE PHASE EXHAUST FAN CONTROL



SUPPLY FAN RTU CONTROL

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SHELL

Project Number: 22013.01

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CONSTRUCTION DOCUMENTS

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No.	Description	Date

Drawing Title:

MECHANICAL CONTROLS

Drawing Number:

M900

Drawn by: OA
Checked by: DN
Scale: 1/8" = 1'-0"

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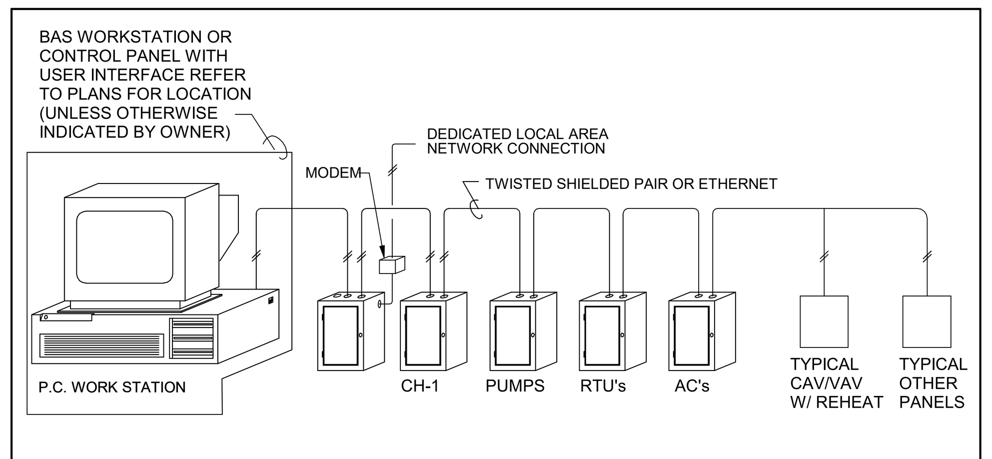
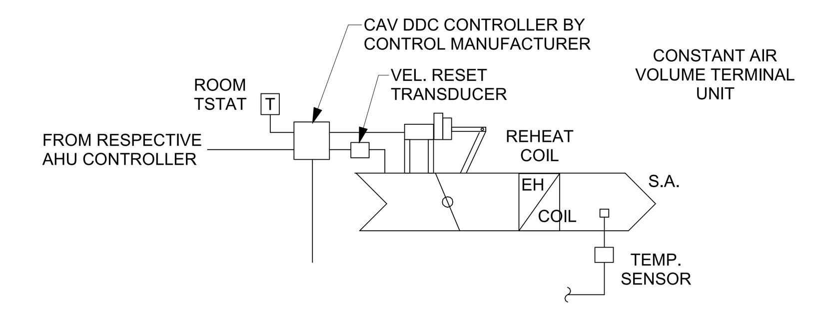
CONTROLS SYSTEM SHALL BE NON-PROPRIETARY OPEN PROTOCAL.
ALL CONTROL COMPONENTS AND POINTS SHALL BE NON-PROPRIETARY PROVIDED BY THE CONTROLS CONTRACTOR INCLUDING ALL ROOM THERMOSTATS, EXTERNAL RELAYS, WIRING, SENSORS, AND SOFTWARE. CONTROLS CONTRACTOR SHALL COORDINATE WITH RTU MANUFACTURER AND MECHANICAL CONTRACTOR TO PROVIDE A COMPLETE SYSTEM. ROOM TEMPERATURE AND HUMIDITY SENSORS SHALL BE ADJUSTABLE WITH DIGITAL DISPLAY. COORDINATE WITH ELECTRICAL FOR EMERGENCY POWER TO ALL CONTROL COMPONENTS.



ENERGY MANAGEMENT SYSTEM NETWORK WIRING SCHEMATIC



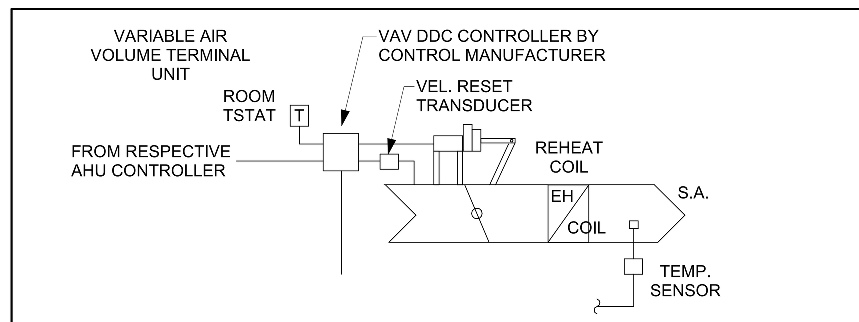
CONSTANT AIR VOLUME BOX SEQUENCE OF OPERATION

1. DAMPER SHALL MAINTAIN CONSTANT AIRFLOW AT SCHEDULED SETPOINT.

2. ON A DROP IN SPACE TEMPERATURE BELOW THERMOSTAT SET POINT, ELECTRIC HEAT SHALL MODULATE AS REQUIRED TO MAINTAIN SPACE TEMPERATURE.

3. OCCUPIED SETPOINTS SHALL BE:
72-75°F / 50% RH ALL ROOMS

4. DURING UNOCCUPIED PERIOD DAMPER SHALL MAINTAIN CONSTANT AIRFLOW AT UNOCCUPIED SETTING. UNOCCUPIED SETPOINTS SHALL BE:
78°F / 50% RH ALL ROOMS



VARIABLE AIR VOLUME BOX SEQUENCE OF OPERATION

1. ON A RISE IN SPACE TEMPERATURE ABOVE THERMOSTAT SET POINT, ELECTRIC HEATER IS CYCLED OFF. ON A FURTHER RISE IN SPACE TEMPERATURE, VARIABLE VOLUME TERMINAL BOX AIRFLOW IS INCREASED FROM MINIMUM TO MAXIMUM AS SCHEDULED ON DRAWINGS.

2. ON A DROP IN SPACE TEMPERATURE BELOW THERMOSTAT SET POINT, VARIABLE VOLUME TERMINAL BOX AIRFLOW IS MODULATED FROM MAXIMUM TOWARD MINIMUM (UNOCCUPIED MINIMUM WHEN IN UNOCCUPIED MODE). ON A FURTHER DROP IN SPACE TEMPERATURE THE ELECTRIC DUCT HEATER IS MODULATED AS REQUIRED TO MAINTAIN SETPOINT.

3. OCCUPIED SETPOINTS SHALL BE:
72-75°F / 50% RH ALL ROOMS

4. UNOCCUPIED SETPOINTS SHALL BE:
78°F / 50% RH ALL ROOMS

INPUT/OUTPUT SUMMARY

CHW ROOFTOP UNIT

INPUTS

		ANALOG														DIGITAL								
		MEASURED									CALC.													
	TAG	TEMPERATURE	PRESSURE	HUMIDITY (RH)	AIR FLOW	AIR QUALITY	KW	DDC GATEWAY	VALVE POSITION	CURRENT SENSOR (AMPS)	KWH	ENTHALPY	RUN TIME	EFFICIENCY	AIR FLOW (CFM)	STATUS (DIFF. PRESS.)	STATUS (CURRENT SWITCH)	SMOKE	LOW TEMP.	AIR FLOW	END SWITCH	FIRE ALARM	PRESSURE	ON-OFF
O.A. TEMPERATURE	TT-OAT	●																						
LOW STATIC	SPS-RLO		●																				●	
RETURN AIR HUMIDITY	HT-RAH			●																				
RETURN AIR TEMPERATURE	TT-RAT	●																						
RETURN FAN VFD	VFD-RAF						●	●																
RETURN FAN STATUS	STS-RAF																●							
RETURN AIR FLOW	AM-RA				●			●																
RELIEF DAMPER	D-REL																				●			
RETURN DAMPER	D-RET																				●			
MIN. O.A. DAMPER	D-MIN																				●			
ECONOMIZER DAMPER	D-EOA																				●			
PRE-FILTER 1 STATUS	DPS-FIL1															●								
MIXED AIR TEMPERATURE	TT-MAT	●																						
CHILLED WATER VALVE	V-CHW								●															
FREEZESTAT	TS-FZ																							
SUPPLY FAN VFD	VFD-SAF						●	●																
SUPPLY FAN STATUS	STS-SAF																●							
SUPPLY AIR FLOW	AM-SA				●			●																
PRE-FILTER 2 STATUS	DPS-FIL2															●								
O.A. FLOW	---														●									
HI STATIC	SPS-SHI																						●	
UNIT DISCHARGE TEMPERATURE	TT-DAT	●																						
SUPPLY STATIC	SPT-SA		●																					
FINAL FILTER 3 STATUS	DPS-FIL3															●								
RETURN SMOKE DETECTOR	SD-RA																					●		
OUTDOOR AIR SMOKE DETECTOR	SD-OA																					●		
SUPPLY SMOKE DETECTOR	SD-SA																					●		
FIRE ALARM	---																					●		
SMOKE DAMPER (TYP.)	---																							
EXHAUST FAN START/STOP (TYP.)	SS-EF																							●
EXHAUST FAN STATUS (TYP.)	STS-EF									●														
LEAVING AIR TEMPERATURE	TT-LAT	●																						
LEAVING CH. WATER TEMPERATURE	TT-LWT	●																						

OUTPUTS / SYSTEM FEATURES / GENERAL

	OUTPUTS DIGITAL			OUTPUTS ANALOG				SYSTEM FEATURES ALARMS							SYSTEM FEATURES PROGRAMS							GENERAL
	OFF-AUTO-ON	OFF-HIGH-LOW	OPEN-CLOSE	DAMPER POSI.	VALVE POSI.	SET POINT ADJ.	4-20 mA	HI ANALOG	LOW ANALOG	HI BINARY	LOW BINARY	PROOF	MANUAL RESET	AUTO RESET	TIME SCHEDULING	DEMAND LIMITING	START/STOP OPTIM.	ENTHALPY OPTIM.	SMOKE CONTROL	TREND	ALARM INSTRUCTION	
O.A. TEMPERATURE																				●		
LOW STATIC											●		●							●	●	
RETURN AIR HUMIDITY																				●		
RETURN AIR TEMPERATURE																				●		
RETURN FAN VFD	●						●													●	●	
RETURN FAN STATUS												●		●						●	●	
RETURN AIR FLOW																				●		
RELIEF DAMPER				●								●		●						●	●	
RETURN DAMPER				●								●		●						●	●	
MIN. O.A. DAMPER			●									●		●						●	●	
ECONOMIZER DAMPER				●								●		●						●	●	
PRE-FILTER 1 STATUS										●				●						●	●	
MIXED AIR TEMPERATURE									●					●						●	●	
CHILLED WATER VALVE					●															●		
FREEZESTAT											●		●							●	●	
SUPPLY FAN VFD	●						●													●	●	
SUPPLY FAN STATUS												●		●						●	●	
SUPPLY AIR FLOW																				●		
PRE-FILTER 2 STATUS										●				●						●	●	
O.A. FLOW								●	●											●	●	
HI STATIC										●				●						●	●	
UNIT DISCHARGE TEMPERATURE								●	●					●						●	●	
SUPPLY STATIC								●	●											●	●	
FINAL FILTER 3 STATUS										●				●						●	●	
RETURN SMOKE DETECTOR													●							●	●	
OUTDOOR AIR SMOKE DETECTOR													●							●	●	
SUPPLY SMOKE DETECTOR													●							●	●	
FIRE ALARM													●							●	●	
SMOKE DAMPER (TYP.)			●																	●		
EXHAUST FAN START/STOP (TYP.)																				●		
EXHAUST FAN STATUS (TYP.)																				●	●	
LEAVING AIR TEMPERATURE									●					●						●	●	
LEAVING CH. WATER TEMPERATURE																				●		

REMARKS:

1. PROVIDE TEMPERATURE SENSOR ON DISCHARGE OF EACH VAV TERMINAL BOX. (REFER TO PLANS FOR NUMBER REQUIRED)
2. PROVIDE SEPARATE O.A. TEMP. READOUT FOR EACH RTU.
3. REFER TO DRAWINGS FOR NUMBER OF EXHAUST FANS INTERLOCKED WITH EACH RTU.

DDC CONTROL POINT SCHEDULE

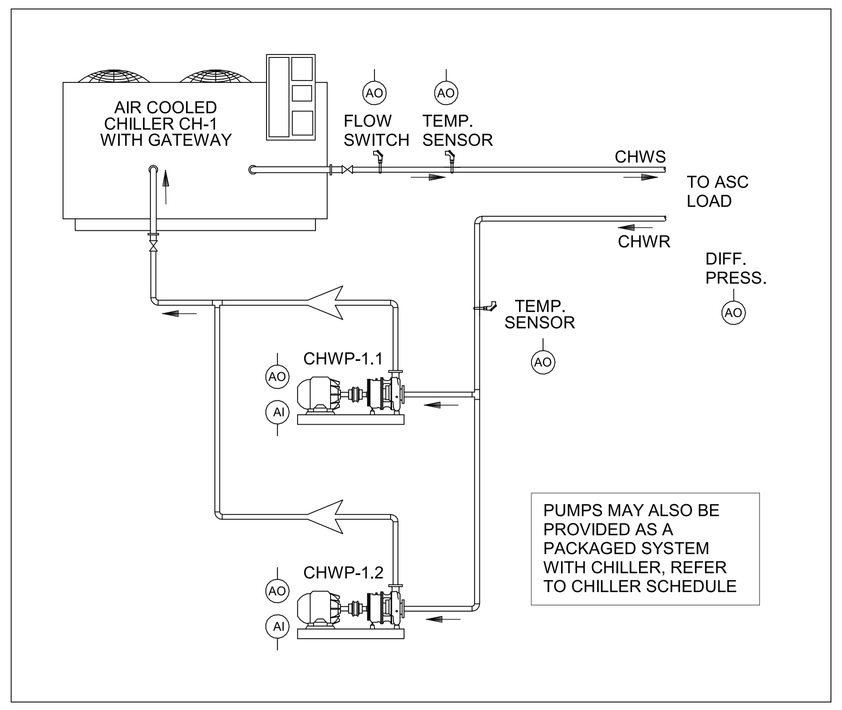
MISCELLANEOUS EMS POINT SUMMARY

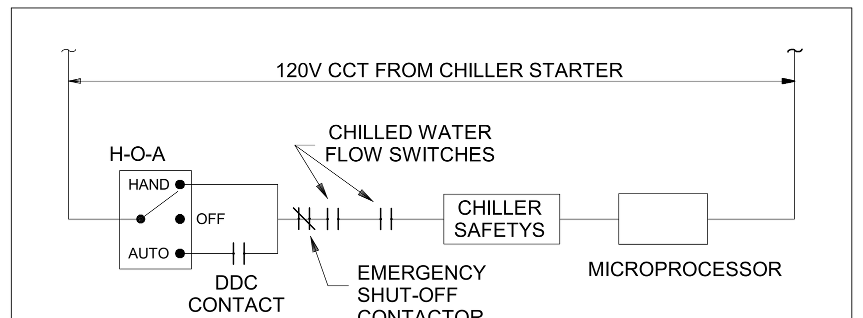
INPUTS

	ANALOG MEASURED								ANALOG CALC.						BINARY								
	TEMPERATURE	PRESSURE	RH	AIR FLOW	AIR QUALITY	KW	WATER FLOW	VOLTAGE	KWH	ENTHALPY	RUN TIME	EFFICIENCY	SYS. CAP. (TONS)	BACNET INTERFACE	STATUS	FILTER	SMOKE	LOW TEMP.	AIR FLOW	METER	CURRENT SWITCH	FIRE ALARM	PRESSURE
CHILLERS:																							
CH-1 W/GATEWAY	●					●					●	●	●	●	●								
CHILLED WATER SYSTEM:																							
CHWP-1.1 STATUS															●						●		
CHWP-1.2 STATUS															●						●		
CHW RETURN WATER TEMP. (SYS)	●																						
CHW LEAVING WATER TEMP. (SYS)	●																						
CHW AUTOMATIC CONTROL VALVE (TYPICAL)																							
DIFFERENTIAL PRESSURE		●																					

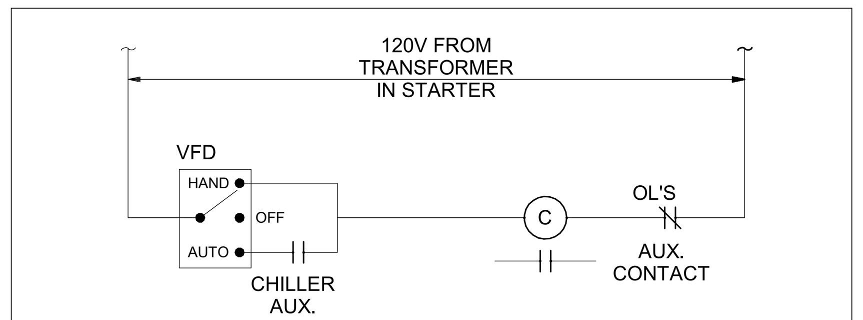
OUTPUTS / SYSTEM FEATURES

	DIGITAL						ANALOG				ALARMS						PROGRAMS							
	ON-OFF	OFF-AUTO-ON	OFF-HIGH-LOW	OPEN-CLOSE	2-POSITION VALVES	3-WAY CONTROL VALVE	DAMPER POSITION	VALVE POSI.	SET POINT ADJ.	4-20 mA	HI ANALOG	LOW ANALOG	HI BINARY	LOW BINARY	BINARY	PROOF	TIME SCHEDULING	DEMAND LIMITING	START/STOP OPTIM.	VFD CONTROL	HOT WATER RESET	ALARM INSTRUCTION	LEAD/ LAG CONTROL	TRENDS
CHILLERS:																								
CH-1 W/GATEWAY	●																●	●	●				●	●
CHILLED WATER SYSTEM:																								
CHWP-1.1 STATUS																								●
CHWP-1.2 STATUS																							●	●
CHW RETURN WATER TEMP. (SYS)																								●
CHW LEAVING WATER TEMP. (SYS)																								●
CHW AUTOMATIC CONTROL VALVE (TYPICAL)					●	●																		●
DIFFERENTIAL PRESSURE											●	●								●				●





CHILLER CONTROL CIRCUIT



CHILLED WATER PUMP

CHILLER SEQUENCE OF OPERATION

1. FACILITY SHALL BE SERVED BY AN AIR COOLED CHILLER, UTILIZING VARIABLE FLOW PUMPING.

2. TWO CHILLED WATER PUMPS WILL BE PROVIDED TO SUPPLY WATER TO THE SYSTEM. ONE PUMP WILL BE REDUNDANT. EACH PUMP IS SIZED FOR MAXIMUM CHILLED WATER FLOW THROUGH THE CHILLER.

3. THE CHILLER SHALL ENERGIZE UPON A CALL FOR COOLING THROUGH THE CHILLER CONTROL PANEL AND UPON PROOF OF FLOW AS SENSED BY THE FLOW SWITCH.

4. THE CHILLER CONTROL PANEL SHALL STAGE THE COMPRESSORS AS REQUIRED TO MAINTAIN LEAVING WATER TEMPERATURE AT 42 DEG F (ADJ.).

5. THE TWO AND THREE-WAY CONTROL VALVES SHALL VARY THE FLOW TO THE AHU COOLING COILS AS REQUIRED TO MAINTAIN DISCHARGE AIR SETPOINT. CONTROLS CONTRACTOR SHALL VERIFY MINIMUM CHILLER FLOW WITH SUBMITTAL DATA.

6. LEAD CHILLED WATER PUMP SHALL VARY THE FLOW TO MAINTAIN THE PRESSURE IN THE CHILLED WATER SYSTEM AS MEASURED BY THE DIFFERENTIAL PRESSURE SENSOR.

7. LEAD LAG CONTROL OF PUMPS SHALL BE ALTERNATED ON A WEEKLY BASIS.

8. IF THE LEAD PUMP FAILS, THE LAG PUMP SHALL START IMMEDIATELY, AND ALARM SHALL SIGNAL AT THE BAS.

9. THE BAS SHALL MONITOR THE POSITION OF THE CHILLED WATER VALVES THROUGHOUT THE SYSTEM TO DETERMINE WHICH IS IN THE WIDEST OPEN POSITION. THIS SHALL BE DESIGNATED AS THE CRITICAL ZONE (CZ) VALVE. THE BAS SHALL RESET THE PRIMARY SUPPLY CHILLED WATER TEMPERATURE BY INCREASING THE CHILLED WATER TEMPERATURE SETPOINT UP 0.5 DEG. F EVERY 15 MINUTES AND RECHECKING THE CZ VALVE POSITION. THIS PROCESS IS TO BE REPEATED CONTINUALLY UNTIL THE MAXIMUM CHILLED WATER TEMPERATURE OF 48˚F (ADJ.) IS REACHED OR THE CZ CHILLED WATER VALVE POSITION IS GREATER THAN 85% (ADJ.) OPEN FOR 10 MIN. (ADJ.)

10. PUMPS SHALL CYCLE AS REQUIRED FOR FREEZE PREVENTION.

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:
MECHANICAL CONTROLS

Drawing Number:
M901

Drawn by: OA
Checked by: DN
Scale: 1/8" = 1'-0"

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PLUMBING ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	MEDICAL GAS AIR LINE	MGA	MEDICAL GAS MASTER ALARM PANEL
ADA	AMERICANS WITH DISABILITIES ACT	MECH	MECHANICAL
AFF	ABOVE FINISHED FLOOR	MTD	MOUNTED
AVTR	ACID VENT THROUGH ROOF	N	MEDICAL GAS NITROGEN LINE
BF	BARRIER FREE	N2O	MEDICAL GAS NITROUS OXIDE LINE
BPW	BED PAN WASHER	NMCA	NON-MEDICAL COMPRESSED AIR LINE
CLG	CEILING	O2	MEDICAL GAS OXYGEN LINE
CONT	CONTINUATION	OFE	OWNER FURNISHED EQUIPMENT
COORD	COORDINATION	PAT	PATIENT
CO	CLEAN OUT	PUB	PUBLIC
CO2	MEDICAL GAS CARBON DIOXIDE LINE	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
CW	COLD WATER LINE		
DN	DOWN	RWL	RAINWATER PIPING
DWG	DRAWING	SAN	SANITARY SEWER PIPING
EA	EACH	SD	UNDERGROUND STORM PIPING
ECO	EXTERIOR CLEAN OUT	SF	SQUARE FOOT
FCO	FLOOR CLEAN OUT	SS	SOLID SURFACE
FM	FLOOR MOUNTED	TMP	TEMPERATURE
FPD	FIRE PROTECTION DRY PIPE	TMV	THERMOSTATIC MIXING VALVE
FPW	FIRE PROTECTION WET PIPE	TYP	TYPICAL
FT	FLUSH TANK	V	MEDICAL VACUUM PIPING
FV	FLUSH VALVE	VTR	VENT THROUGH ROOF
GN	GOOSENECK	W/	WITH
GPM	GALLONS PER MINUTE	WB	WRIST BLADE
HW	HOT WATER LINE	WC	WATER CLOSET
HWR	HOT WATER RETURN	WCO	WALL CLEAN OUT
LAV	LAVATORY	WH	WALL HUNG

PLUMBING FIXTURE CONNECTION SCHEDULE

TYPE	DESCRIPTION	WASTE	VENT	CW	HW
P-1	ROOF DRAIN (SEE PLANS FOR SIZE)	---	---	---	---
P-3	JANITORS SINK	3"	1-1/2"	1/2"	1/2"
P-15	WATER COOLER, HI-LO (WH, ADA/BF)	1-1/2"	1-1/4"	1/2"	---
P-17	WATER CLOSET (FM, FV, ADA/BF)	4"	2"	1-1/4"	---
P-19	ROOF HYDRANT (EXTERIOR)	---	---	3/4"	---
P-20	WALL HYDRANT (EXTERIOR)	---	---	3/4"	---
P-23	FLOOR DRAIN (RESTROOM)	3"	2"	---	---
P-25	LAVATORY (WH, ADA/BF)	2"	1-1/2"	1/2"	---

NOTES:

1. ALL WALL MOUNTED FIXTURES SHALL BE PROVIDED WITH FLOOR MOUNTED, CONCEALED ARM WALL CARRIER.
2. ALL EXPOSED P-TRAPS SHALL BE PROVIDED W/LAV SHIELDS.
3. PROVIDE BACKFLOW PREVENTER AT CONNECTION TO OWNER FURNISHED EQUIPMENT PER FPC.
4. PROVIDE AND INSTALL TRAP PRIMERS FOR ALL FLOOR DRAINS. TRAP PRIMER SUPPLY TO BE 1-1/4" CW OR SMALLER.
5. IN ADDITION TO SERVICE VALVES SHOWN ON PLANS, PROVIDE AND INSTALL ISOLATION VALVES ON HOT AND COLD WATER SUPPLY PIPING TO EACH PLUMBING FIXTURE, INCLUDING TRAP PRIMERS.
6. PROVIDE OFFSET GRID DRAINS AT BARRIER FREE LOCATIONS.
7. COORDINATE EXACT LOCATIONS OF FLOOR DRAINS AND HOSE BIBBS (WHERE APPLICABLE) WITH MECHANICAL EQUIPMENT.
8. REFER TO SPECIFICATIONS SECTION 224313 FOR ADDITIONAL REQUIREMENTS.

DRAINAGE FIXTURE UNITS PER 2020 FPC TABLE 709.1

FIXTURE TYPE	WFU	QUANTITY	SUM
DRINKING FOUNTAIN	0.5	2	1
FLOOR DRAIN	4	4	16
LAVATORY	1	4	4
SERVICE SINK	2	1	2
WATER CLOSET PRIVATE 1.6 GPF	4	4	16
TOTAL DRAINAGE FIXTURE UNITS:			39

WATER SUPPLY FIXTURE UNITS PER 2020 FPC TABLE E103.3(2)

FIXTURE TYPE	CWFU	HWFU	TWFU	QUANTITY	SUM
DRINKING FOUNTAIN	0.25	0	0.25	2	0.5
HOSE BIBB	1	0	1	8	8
LAVATORY PRIVATE	0.5	0.5	0.7	4	2.8
SERVICE SINK	2.25	2.25	3	1	3
WATER CLOSET PRIVATE FV	6	0	6	4	24
TOTAL WATER SUPPLY FIXTURE UNITS:					38.3

PRIVATE FIXTURE APPLY TO FIXTURES INTENDED FOR UTILIZATION BY AN INDIVIDUAL.
PUBLIC FIXTURES APPLY TO FIXTURES WHERE A NUMBER OF FIXTURES ARE INSTALLED SO THAT THEIR UTILIZATION IS SIMILARLY UNRESTRICTED.

PLUMBING FIXTURE COUNT

FIRST FLOOR

FIXTURE COUNT (PER FBC TABLE 2902.1)	PROVIDED
OCCUPANT LOAD= 9 5 MEN OCCUPANTS 5 WOMEN OCCAPANTS	
MALE AND FEMALE WATER CLOSETS (1 PER 25 FOR FIRST 50) (1 PER 50 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
MALE AND FEMALE LAVATORIES (1 PER 40 FOR FIRST 80) (1 PER 80 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
DRINKING FOUNTAINS (1 PER 100) = 1 REQUIRED	2
SERVICE SINK = 0 REQUIRED	0

SECOND FLOOR

FIXTURE COUNT (PER FBC TABLE 2902.1)	PROVIDED
LOBBY, TOILETS, AND COMMON OCCUPANT LOAD= 16 8 MEN OCCUPANTS 8 WOMEN OCCAPANTS	
MALE AND FEMALE WATER CLOSETS (1 PER 25 FOR FIRST 50) (1 PER 50 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
MALE AND FEMALE LAVATORIES (1 PER 40 FOR FIRST 80) (1 PER 80 FOR REMAINDER) = 1 REQUIRED/ EACH GENDER	2
DRINKING FOUNTAINS (1 PER 100) = 1 REQUIRED	2
SERVICE SINK = 1 REQUIRED	1

SUMP PUMP SCHEDULE

MARK		SP-1
MANUFACTURER		EBARA
MODEL NO.		ESS100-EPD5MS1
CAPACITY	GPM	50
TOTAL HEAD	FT H2O	20
ELECTRICAL	V/PH/HZ	115/1/60
POWER	HP	1/2
SPEED	RPM	3600

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SCHEDULE NOTES:

1. STAINLESS STEEL SUBMERSIBLE SIMPLEX SUMP PUMP.
2. OIL SENSOR, ALARMS, AND PUMP CONTROL PACKAGE IN COMPLIANCE WITH ASME A17.1.

INSTANTANEOUS WATER HEATER SCHEDULE

MARK		IWH-1
MANUFACTURER		EEMAX
MODEL NO.		SP4277
STORAGE	GALLONS	NONE
RECOVERY @ 72 °F TEMP. RISE	GPH	28° @ 1GPM
ELECTRICAL	V/PH	277/1
TOTAL KW	KW	4.1
WEIGHT	LB	4

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SCHEDULE NOTES:

1. REFER TO PLUMBING PLANS FOR LOCATION.

PLUMBING LEGEND:

SYMBOL	DESCRIPTION
	P TRAP
	BALL VALVE
	CONNECTION TO EXISTING
	DEMOLITION POINT
	FLOOR DRAIN
P- No.	PLUMBING FIXTURE DESIGNATION
	END CAP
CW	COLD WATER SUPPLY
HW	HOT WATER SUPPLY
HWR	HOT WATER RETURN
TW	TEMPERED WATER SUPPLY
140 HW	140° HOT WATER SUPPLY
140 HWR	140° HOT WATER RETURN
SV	SANITARY VENT
SS	SANITARY WASTE
DP	DRIP PAN
AW	ACID WASTE
AV	ACID VENT
RWL	RAIN WATER LEADER
ORD	OVERFLOW ROOF DRAIN
SD	STORM DRAIN
G	NATURAL GAS LINE

PROJECT COORDINATION NOTES:

THE CONSTRUCTION COORDINATION OF THIS PROJECT IS OF THE UTMOST IMPORTANCE. ALL CONTRACTORS FOR ALL DIVISIONS OF THE WORK SHALL GUARANTEE THAT THEIR WORK IS IN ACCORD WITH THE ARCHITECTURAL CONTRACT DOCUMENTS. IF APPLICABLE, SHOULD IT BE NECESSARY TO ACCOMPLISH WORK IN AREAS WHICH ARE NOT INCLUDED IN THE DESIGNATED PROJECT SCOPE, SUCH WORK SHALL BE DONE WITH THE MINIMUM OF DISTURBANCES POSSIBLE AND WITHOUT CAUSING THE INTERRUPTION OF EXISTING SERVICES. ALL SERVICE INTERRUPTIONS THAT ARE ESSENTIAL TO THE WORK SHALL BE SCHEDULED, IN WRITING, WITH THE ARCHITECT AND, THEREBY, WITH THE OWNERIFACILITY. ALL CONTRACTORS FOR ALL TRADES SHALL COOPERATE AND COORDINATE THEIR WORK TO ALLOW THE COMPLETION OF ALL WORK WITH THE LEAST POSSIBLE NUMBER ON INTERFERENCE'S WITH THE SERVICES OF THE EXISTING BUILDING.

THE DESIGN DRAWINGS OF ALL CATEGORIES AND TRADES (ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE PROTECTION, MEDICAL GAS, MECHANICAL, HEATING, VENTILATING AND AIR CONDITIONING AND ELECTRICAL) AND ALL SPECIFICATIONS AND SHOP DRAWINGS MUST BE COORDINATED AND BE VIEWED IN CONNECTION AND CONJUNCTION WITH EACH OTHER TO INSURE THE PROPER LOCATION OF ALL DEVICES AND EQUIPMENT. MAKE PARTICULAR NOTE OF LOCATIONS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL FLOOR PLANS AND ELEVATIONS.

CODE CRITERIA: (BUSINESS)

NOTE:
A. THIS LIST IS NOT INCLUSIVE OF ALL CODES AND STANDARDS THAT MAY OR MAY NOT APPLY TO THIS PROJECT.

B. PERFORM WORK SPECIFIED IN SPECIFICATIONS IN ACCORDANCE WITH STANDARDS LISTED BELOW INCLUDING AMENDMENTS OR REVISIONS. WHEN THESE SPECIFICATIONS ARE MORE STRINGENT, THEY TAKE PRECEDENCE. IN CASE OF CONFLICT, OBTAIN A DECISION FROM THE DESIGNER.

NFPA-13 (2016)
INSTALLATION OF SPRINKLER SYSTEMS

NFPA-54 (2018)
NATIONAL FUEL GAS CODE

NFPA-70 (2017)
NATIONAL ELECTRICAL CODE

NFPA-72 (2016)
NATIONAL FIRE ALARM CODE

NFPA-90A (2018)
INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS

NFPA-90B (2018)
INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS

NFPA-91 (2015)
EXHAUST SYSTEMS FOR AIR CONVEYING OF VAPORS, GASES, MISTS, AND NON-COMBUSTIBLE PARTICULATE SOLIDS

NFPA-96 (2017)
VENTILATION CONTROL AND FIRE PREVENTION OF COMMERCIAL COOKING OPERATIONS.

THE FLORIDA SPECIFIC EDITION OF NFPA 101. THE LIFE SAFETY CODE (2018 EDITION) [69A-3.012(1) FAC] [69A-53.004 FAC]

NFPA-110 (2016)
EMERGENCY AND STANDBY POWER SYSTEMS

NFPA-241 (2013) STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS.

NFPA-780 (2017)
LIGHTNING PROTECTION CODE

FLORIDA BUILDING CODE, BUILDING 7TH EDITION (2020)

FLORIDA BUILDING CODE, MECHANICAL 7TH EDITION (2020)

FLORIDA BUILDING CODE, PLUMBING 7TH EDITION (2020)

FLORIDA BUILDING CODE, TEST PROTOCOLS FOR HIGH WIND HURRICANE ZONES 7TH EDITION (2020)

FLORIDA BUILDING CODE, FUEL GAS 7TH EDITION (2020)

FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020)

FLORIDA ACCESSIBILITY CODE 7TH EDITION (2020)

FLORIDA BUILDING CODE, ENERGY EFFICIENCY 7TH EDITION (2020)

STATE OF FLORIDA ADMINISTRATIVE CODE NO. 69A-3.012 AND 69A-60.

NOTE: WHERE THERE ARE DIFFERENCES BETWEEN SECTIONS OF THE "BUILDING" AND "MECHANICAL" OR "PLUMBING" CODES, IT WILL BE ASSUMED THAT THE BUILDING CODE TAKES PRECEDENCE.

PLUMBING GENERAL NOTES:

1. PROVIDE AND INSTALL TRAP PRIMERS FOR ALL FLOOR DRAINS. TRAP PRIMER SUPPLY LINE TO CONNECT TO 1-1/4" CW LINE MAXIMUM. PROVIDE SERVICE VALVE. TRAP GUARDS SHALL NOT BE ACCEPTED.
2. IN ADDITION TO VALVES SHOWN ON PLANS, PROVIDE ACCESSIBLE SERVICE VALVE(S) IN EACH WATER LINE SERVING EACH PLUMBING FIXTURE OR OWNER FURNISHED EQUIPMENT, IN ADDITION TO STOPS. FOR HEALTHCARE FACILITIES, PROVIDE SHUTOFF VALVES IN EACH WATER MAIN, BRANCH MAIN, RISER AND BRANCH TO A GROUP OF FIXTURES PER SECTION 2.1-8.4.2.3(2) OF THE APPLICABLE EDITION OF THE FGI GUIDELINES.
3. BV-## DENOTES BALANCING VALVE AND GPM SETTING.
4. CONNECT ALL NEW PLUMBING FIXTURES TO SANITARY SEWER MAINS AS INDICATED OR NOTED ON THE PLANS.
5. COLLECT AND ROUTE ALL NEW SANITARY SEWER VENT PIPING FROM NEW PLUMBING FIXTURES TO SANITARY VENTS AS INDICATED OR NOTED ON THE PLANS.
6. ROUTE ALL NEW CW AND HW PIPING FROM NEW PLUMBING FIXTURES TO MAINS AS INDICATED OR NOTED ON THE PLANS.
7. COORDINATE ALL PLUMBING PIPING WITH NEW AND EXISTING MECHANICAL DUCTWORK. SPECIAL ATTENTION SHALL BE PAID TO PIPING UNDERGROUND OR ON OTHER FLOORS NOT WITHIN THE DIRECT SCOPE OF THE PROJECT.
8. PROVIDE CLEAN-OUTS ON SANITARY SEWER AND RAIN WATER LEADER PIPING AT ALL CHANGES IN DIRECTION GREATER THAN 45 DEGREES AND AT THE BASE OF EACH STACK.
9. AS MUCH AS POSSIBLE, ROUTE PLUMBING WITHIN STRUCTURAL JOIST SPACE.
10. CONTRACTOR TO PROVIDE A SHOCKTROL AT ALL WATER CLOSETS, URINALS, CLINICAL SINKS, OR WHERE ANY QUICK-CLOSING VALVES ARE UTILIZED. SHOCKTROL TO BE ZURN SERIES Z-1700 OR EQUIVALENT. SHOCKTROL SIZE TO BE A #100 FOR SINGLE FIXTURES AND A #200 FOR BACK TO BACK FIXTURES. INSTALL SHOCK ARRESTORS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS. PROVIDE ACCESS TO ALL SHOCKTROLS THRU ACCESS PANELS, LAY-IN CEILINGS, WALL IN CHASE.
11. THESE DOCUMENTS SHALL FOLLOW THE ADA GUIDELINES FOR ACCESSIBILITY TO PLACES OF PUBLIC ACCOMMODATION AND COMMERCIAL FACILITIES BY INDIVIDUALS WITH DISABILITIES. THESE GUIDELINES ARE TO BE APPLIED DURING DESIGN, CONSTRUCTION AND ALTERATION OF SUCH BUILDING AND FACILITIES TO THE EXTENT REQUIRED BY REGULATIONS ISSUED BY FEDERAL AGENCIES, INCLUDING THE DEPARTMENT OF JUSTICE, UNDER THE AMERICANS WITH DISABILITIES ACT (ADA). THE REQUIREMENTS OF ANSI A117.1, THE FLORIDA BUILDING AND THE FLORIDA ACCESSIBILITY CODE. THE MOST STRINGENT OF THESE REQUIREMENTS AND CODES SHALL TAKE PRECEDENCE.
12. THE SIZE AND LOCATION OF EXISTING PIPING IS SHOWN ACCORDING TO RECORDED INFORMATION. THE PLUMBING CONTRACTOR SHALL MAKE AN APPROPRIATE PRE-BID SITE INSPECTION IN ORDER TO ASCERTAIN EXISTING CONDITIONS AND SHALL INCLUDE IN HIS BID THE COST OF ALL WORK RESULTING FROM EXISTING CONDITIONS, WHETHER THIS WORK IS SHOWN OR NOT ON THESE DRAWINGS.
13. PRIOR TO ANY EXCAVATION OR DEMOLITION THIS CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES, THE FACILITY MAINTENANCE DEPARTMENT AND ANY OTHER AVAILABLE SOURCE OF INFORMATION AS TO ABOVE OR BELOW GROUND SERVICES THAT SHALL BE AVOIDED. CONTRACTOR SHALL INFORM THE OWNER ONE WEEK IN ADVANCE OF ANY DISRUPTION OF SERVICES TO THE FACILITY AND SHALL NOT PROCEED WORK WITHOUT WRITTEN APPROVAL FROM THE OWNER. CONTRACTOR SHALL REPAIR ANY SERVICES (ABOVE OR BELOW GROUND) DAMAGED BY WORK THE CONTRACTOR PERFORMED. REPAIRS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
14. CEILING TILES, FIXTURES AND GRID THAT ARE REQUIRED TO BE REMOVED AFTER INSTALLATION IS COMPLETE, IN ORDER TO FACILITATE ADDITIONAL WORK SHALL BE PERFORMED BY THE GENERAL CONTRACTOR.
15. CUT AND PATCH AS REQUIRED FOR INSTALLATION.
16. ALL PIPING SHALL BE INSTALLED AS CLOSE TO PLANS AS POSSIBLE. REVISIONS TO PIPING SHALL BE MADE ONLY WHEN A CONFLICT WITH OTHER TRADES OCCURS AND SHALL BE APPROVED BY THE ARCHITECT/ENGINEER.
17. THE LOCATION OF ALL CLEANOUTS, VALVES, GAUGES, ETC. SHALL BE LOCATED FOR ACCESS OR SERVICE IN REFERENCE TO THE FINISHED BUILDING. REFER TO THE DRAWINGS FOR APPLICABLE DETAILS. WALL CLEANOUTS SHALL BE 18" A.F.F. AND FLOOR CLEANOUTS SHALL BE LOCATED WITHIN 12" OF AN ADJACENT WALL.
18. WHERE PLUMBING SERVICES ARE REQUIRED FOR EQUIPMENT FURNISHED UNDER OTHER SECTIONS OR PROVIDED BY THE OWNER (OFCI), THE CONTRACTOR SHALL DETERMINE ACCURATE ROUGHING REQUIREMENTS IN ADVANCE OF WORK. SET EQUIPMENT IN PLACE, MAKE NECESSARY SERVICE CONNECTIONS AND PROVIDE ACCESSORIES AS REQUIRED. REFER TO "EQUIPMENT SCHEDULE (OFCI)", KITCHEN EQUIPMENT DRAWINGS, AND WATER TREATMENT / DI TYPE SYSTEMS VENDOR DRAWINGS, WHERE APPLICABLE.
19. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION AND ROUGH-IN DIMENSIONS OF ALL PLUMBING FIXTURES, DRAINS, ETC...
20. ALL FLOOR DRAINS SHALL BE SERVED BY AN APPROVED TRAP PRIMER. EXCEPTION: SHOWER AND KITCHEN DRAINS.
21. ALL HOSE BIBBS, WALL HYDRANTS AND HOSE END CONNECTIONS BE EQUIPPED WITH AN APPROVED INTEGRAL VACUUM BREAKER.
22. DIELECTRIC UNIONS SHALL BE INSTALLED AT ALL CONNECTIONS OF DISSIMILAR METALS (SUCH AS COPPER TO GALVANIZED STEEL).
23. ALL VENT PENETRATIONS THRU THE ROOF SHALL BE LOCATED A MINIMUM OF 25'-0" FROM ALL FRESH AIR INTAKES.
24. UNLESS OTHERWISE NOTED, ALL WALL HYDRANTS AND HOSE BIBBS SHALL BE INSTALLED 24" ABOVE FINISHED FLOORS OR GRADE. COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS AND EXTERIOR CULTURED STONE BASE.
25. PVC PIPING SHALL NOT BE INSTALLED WITHIN RETURN AIR PLENUM.
26. ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO CONDENSING UNITS, CONTROL PANELS, AIR HANDLING UNIT EQUIPMENT, AND VARIABLE FREQUENCY DRIVES SHALL HAVE SCCR (SHORT CIRCUIT CURRENT RATING) GREATER THAN OR EQUAL TO THE AMPERE INTERRUPTING CAPACITY (AIC) RATING OF THE ELECTRICAL DISTRIBUTION SYSTEM SERVING THE EQUIPMENT. COORDINATE AIC AND SCCR REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING ELECTRICAL EQUIPMENT. ANY EQUIPMENT FOUND ON SITE WITH SCCR RATING LESS THAN REQUIRED WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.
27. ALL PUBLIC SINKS AND LAVATORIES SHALL BE PROVIDED WITH A THERMOSTATIC MIXING VALVE TO INSURE THAT HOT WATER TEMPERATURE DOES NOT EXCEED 110°F. VALVE TO BE ASSE 1070 COMPLIANT. VALVE TO BE EQUIVALENT TO SYMMONS S-210CK, ZURN TMV-1, WILKINS 38-ZW3870-T OR WILKINS 38-ZW-1070-C.

PLUMBING SHEET LIST

SHEET NUMBER	SHEET NAME
P000	PLUMBING LEGENDS
P100	PLUMBING UNDERGROUND PLAN
P110	PLUMBING FIRST FLOOR PLAN
P120	PLUMBING SECOND FLOOR PLAN
P130	PLUMBING ROOF PLAN
P600	PLUMBING ISOMETRIC DIAGRAMS
P800	PLUMBING DETAILS

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

PLUMBING LEGENDS

Drawing Number:

P000

Drawn by: DG
Checked by: DN
Scale: 1/8" = 1'-0"

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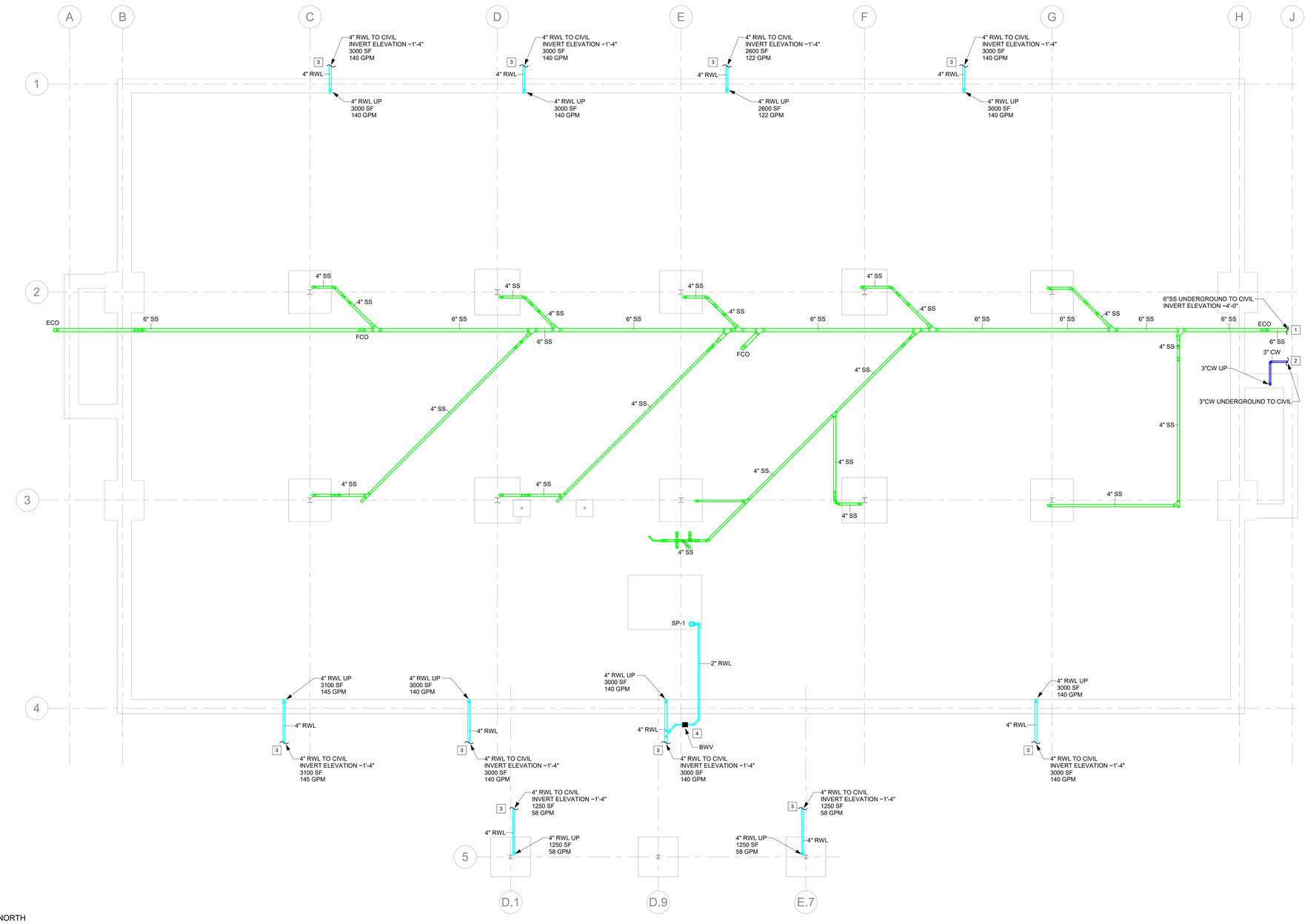

NORTH

PLUMBING - UNDERGROUND PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. FIELD VERIFY EXACT SIZE AND ROUTING OF EXISTING SANITARY AND DOMESTIC WATER PIPING.

B. SLOPE 3" - 6" SANITARY PIPING AT MINIMUM 1/8" PER FOOT. SLOPE 2" SANITARY PIPING AT MINIMUM 1/4" PER FOOT. FIELD VERIFY EXISTING EXACT INVERT ELEVATIONS.

C. REFER TO PLUMBING LEGEND SHEET AND PLUMBING ISOMETRIC DIAGRAMS FOR FIXTURE NUMBERS.

D. PRIOR TO ROUGH-IN, STRICTLY COORDINATE FLOOR SINK AND DRAIN LOCATIONS WITH VENDOR EQUIPMENT DRAWINGS AND MECHANICAL EQUIPMENT.

E. CLOSELY COORDINATE INSTALLATION AND ROUTING OF PIPING WITH ALL OTHER TRADES. DO NOT RUN ANY PIPING OVER ELECTRICAL PANELS OR EQUIPMENT. FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS. TYPICAL.

F. PROVIDE BACKFLOW PREVENTER AT ALL EQUIPMENT.

G. REFER TO ASC AND IMAGING DRAWINGS FOR ADDITIONAL CLEAN OUT LOCATIONS.

CODED NOTES:

1. 6" SANITARY UNDERGROUND. REFER TO CIVIL PLAN FOR CONTINUATION. PRIOR TO CONSTRUCTION COORDINATE EXACT LOCATION AND INVERT ELEVATION.

2. 3" DOMESTIC WATER UNDERGROUND. REFER TO CIVIL PLAN FOR CONTINUATION. PRIOR TO CONSTRUCTION COORDINATE EXACT LOCATION AND INVERT ELEVATION.

3. 4" RAIN WATER UNDERGROUND. REFER TO CIVIL PLAN FOR CONTINUATION. PRIOR TO CONSTRUCTION COORDINATE EXACT LOCATION AND INVERT ELEVATION.

4. INSTALL ACCESSIBLE BACKWATER VALVE PRIOR TO SUMP DISCHARGE CONNECTION TO STORM DRAIN.

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Seal & Signature:

Project Name:

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SHELL

Project Number: 22013.01

Project Location:

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

PLUMBING UNDERGROUND PLAN

Drawing Number:

P100

Drawn by: DG
Checked by: DN
Scale: 1/8" = 1'-0"

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GENERAL NOTES:

A. FIELD VERIFY EXACT SIZE AND ROUTING OF EXISTING SANITARY AND DOMESTIC WATER PIPING.

B. SLOPE 3" - 6" SANITARY PIPING AT MINIMUM 1/8" PER FOOT. SLOPE 2" SANITARY PIPING AT MINIMUM 1/4" PER FOOT. FIELD VERIFY EXISTING EXACT INVERT ELEVATIONS.

C. REFER TO PLUMBING LEGEND SHEET AND PLUMBING ISOMETRIC DIAGRAMS FOR FIXTURE NUMBERS.

D. PRIOR TO ROUGH-IN, STRICTLY COORDINATE FLOOR SINK AND DRAIN LOCATIONS WITH VENDOR EQUIPMENT DRAWINGS AND MECHANICAL EQUIPMENT.

E. CLOSELY COORDINATE INSTALLATION AND ROUTING OF PIPING WITH ALL OTHER TRADES. DO NOT RUN ANY PIPING OVER ELECTRICAL PANELS OR EQUIPMENT. FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS. TYPICAL.

F. PROVIDE BACKFLOW PREVENTER AT ALL EQUIPMENT.

G. REFER TO SPECIFICATIONS FOR INSULATION OF RAIN WATER LEADERS, HOT WATER, AND SANITARY SEWER PIPING.

CODED NOTES:

1. 3" DOMESTIC WATER DOWN TO UNDERGROUND. PROVIDE SHUT OFF VALVE. FIELD VERIFY EXACT LOCATION. REFER TO SHEET P100 FOR CONTINUATION. SLAB PENETRATION SHALL BE SLEEVED AND SEALED.

2. 4" SANITARY VENT PIPING UP. REFER TO SHEET P120 FOR CONTINUATION. FIELD VERIFY EXACT LOCATION AND ROUTING TO ROOF.

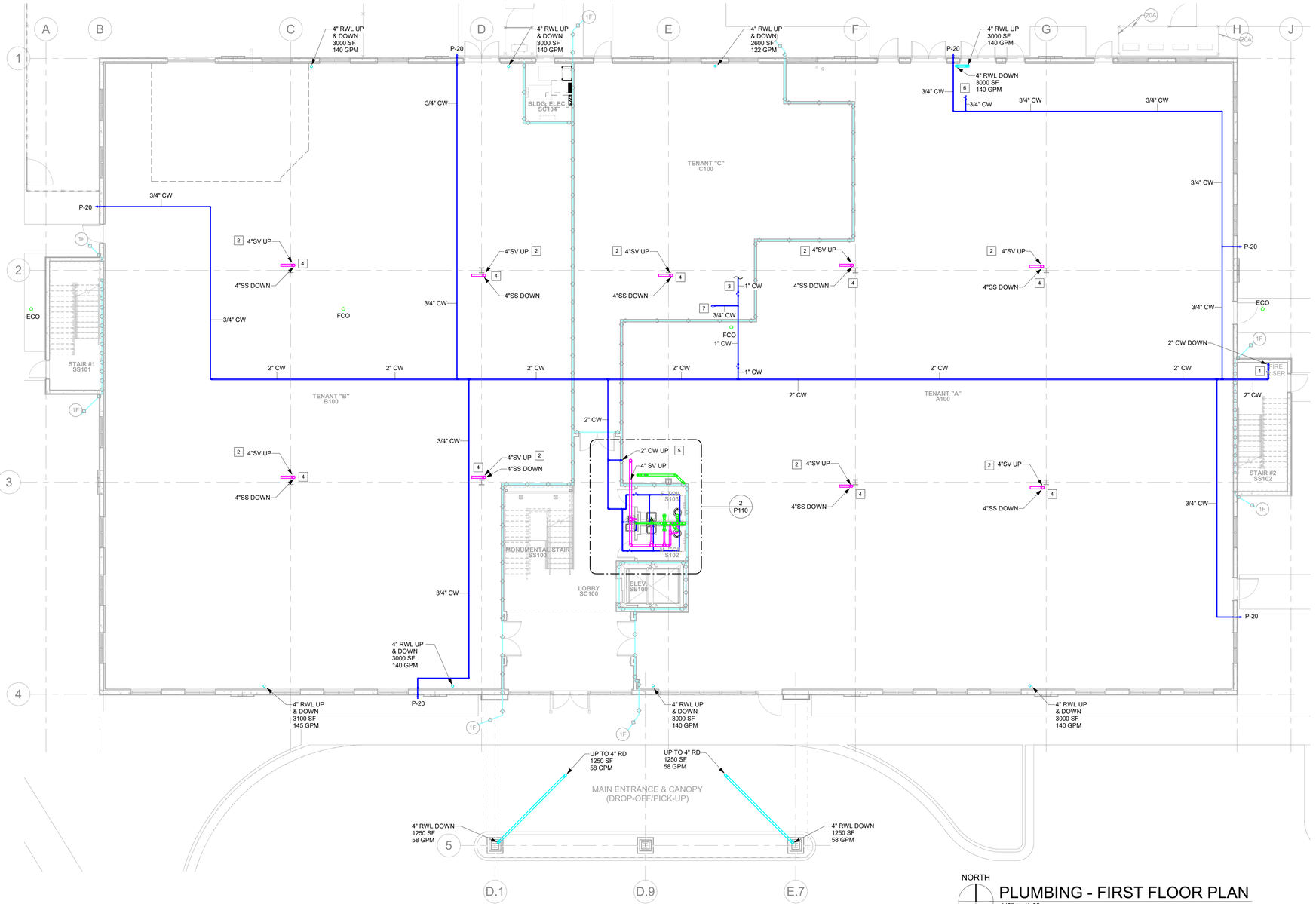
3. EXTEND 1" CW WITH SHUTOFF VALVE TO MAKE-UP WATER ASSEMBLY FOR MAIN BUILDING CHILLED WATER SYSTEM. PRIOR TO ROUGH-IN, FIELD VERIFY EXACT TIE-IN LOCATION TO CHILLED WATER SYSTEM.

4. PROVIDE CLEAN OUT AT BASE OF SANITARY RISER. CLEAN OUT SHALL NOT BE INSIDE OF FUTURE OPERATING ROOM.

5. 2" DOMESTIC WATER UP. FIELD VERIFY EXACT LOCATION. REFER TO SHEET P120 FOR CONTINUATION.

6. 3/4" CW VALVED AND CAPPED TO FUTURE ASC MAKE-UP WATER ASSEMBLY FOR CHILLED WATER SYSTEM.

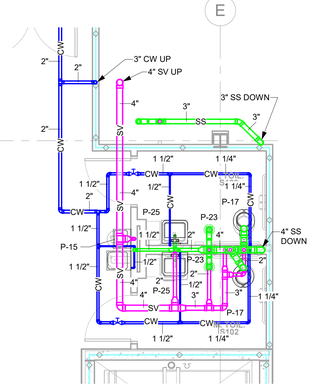
7. 3/4" CW VALVED AND CAPPED TO FUTURE MRI MAKE-UP WATER ASSEMBLY FOR MRI CHILLED WATER SYSTEM.



NORTH

PLUMBING - FIRST FLOOR PLAN

1/8" = 1'-0"



NORTH

ENLARGED PLUMBING FIRST FLOOR PLAN

1/4" = 1'-0"

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

	FOUR HOUR FIRE / SMOKE BARRIER
	FOUR HOUR FIRE WALL
	TWO HOUR FIRE / SMOKE BARRIER
	TWO HOUR FIRE WALL
	ONE HOUR FIRE / SMOKE BARRIER
	ONE HOUR FIRE WALL
	SMOKE PARTITION TO DECK
	NON-RATED PARTITION
STC 50 STC 50	SOUND ATTENUATION BATT (1 HOUR)
STC 56 STC 56	SOUND ATTENUATION BATT (2 HOUR)
SW SW SW	SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
SW2 SW2 SW2	SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
1 MM	LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
2 MM	LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

PLUMBING FIRST FLOOR PLAN

Drawing Number:

P110

Drawn by: DG
Checked by: DN
Scale: As indicated

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GENERAL NOTES:

A. FIELD VERIFY EXACT SIZE AND ROUTING OF EXISTING SANITARY AND DOMESTIC WATER PIPING.

B. SLOPE 3" - 6" SANITARY PIPING AT MINIMUM 1/8" PER FOOT. SLOPE 2" SANITARY PIPING AT MINIMUM 1/4" PER FOOT. FIELD VERIFY EXISTING EXACT INVERT ELEVATIONS.

C. REFER TO PLUMBING LEGEND SHEET AND PLUMBING ISOMETRIC DIAGRAMS FOR FIXTURE NUMBERS.

D. PRIOR TO ROUGH-IN, STRICTLY COORDINATE FLOOR SINK AND DRAIN LOCATIONS WITH VENDOR EQUIPMENT DRAWINGS AND MECHANICAL EQUIPMENT.

E. CLOSELY COORDINATE INSTALLATION AND ROUTING OF PIPING WITH ALL OTHER TRADES. DO NOT RUN ANY PIPING OVER ELECTRICAL PANELS OR EQUIPMENT. FIELD VERIFY EXACT LOCATIONS AND REQUIREMENTS. TYPICAL.

F. PROVIDE BACKFLOW PREVENTER AT ALL EQUIPMENT.

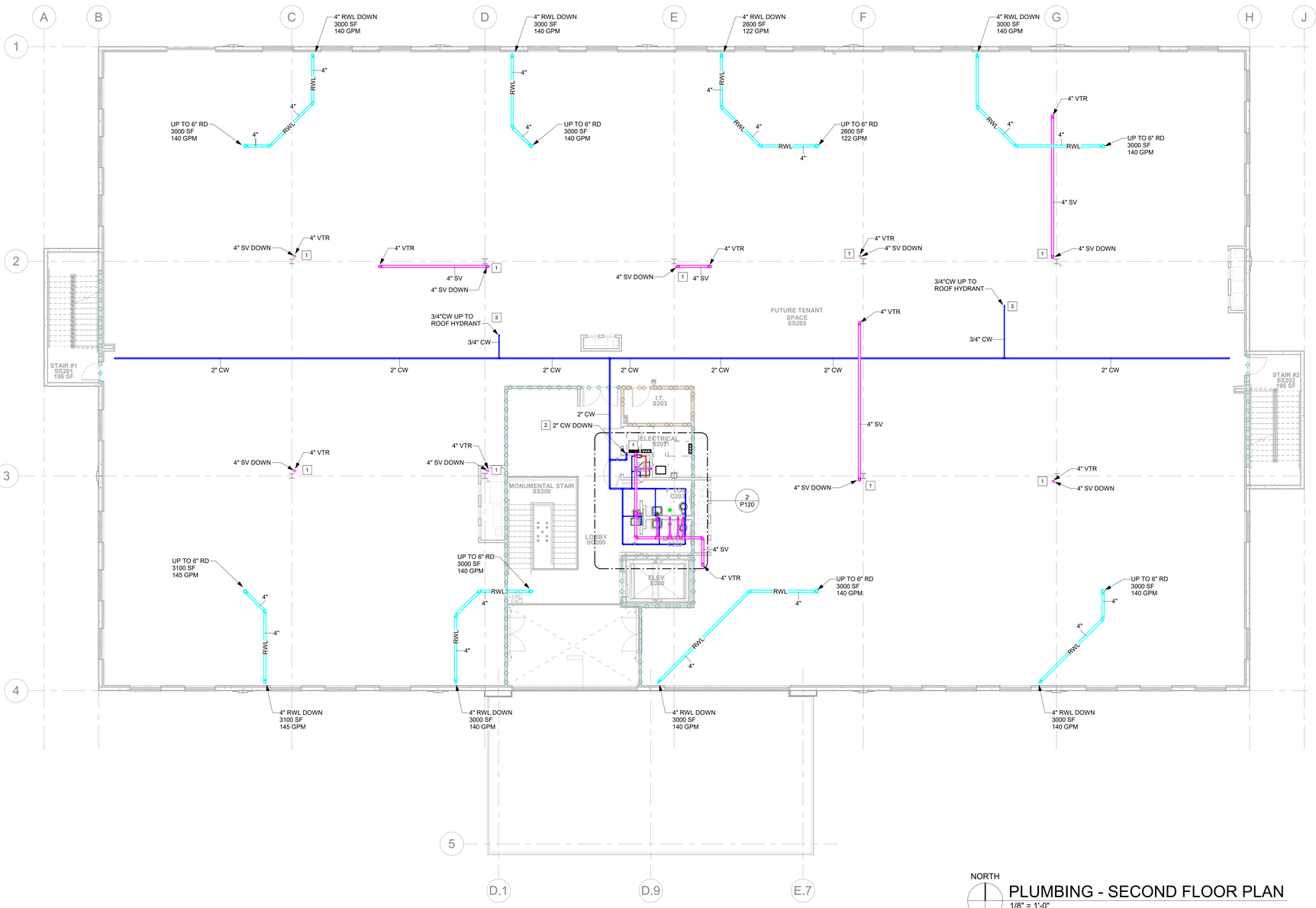
G. REFER TO SPECIFICATIONS FOR INSULATION OF RAIN WATER LEADERS, HOT WATER, AND SANITARY SEWER PIPING.

CODED NOTES:

1. 4" SANITARY VENT PIPING DOWN. REFER TO SHEET P110 FOR CONTINUATION. FIELD VERIFY EXACT LOCATION.

2. 2" DOMESTIC WATER DOWN. FIELD VERIFY EXACT LOCATION. REFER TO SHEET P110 FOR CONTINUATION.

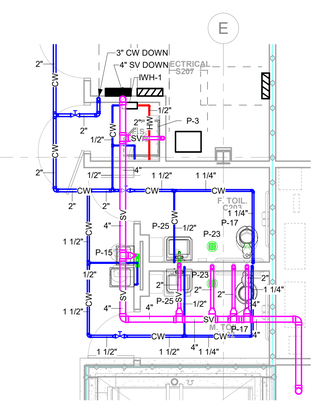
3. 3/4" COLD WATER UP TO ROOF HYDRANT AS REQUIRED PER PLUMBING CODE SECTION 609.7. REFER TO HVAC ROOF PLAN ON SHEET M120. PRIOR TO ROUGH-IN, COORDINATE EXACT LOCATION WITH MECHANICAL EQUIPMENT AND MAINTAIN ALL CLEARANCES FOR EQUIPMENT.



NORTH

PLUMBING - SECOND FLOOR PLAN

1/8" = 1'-0"



NORTH

ENLARGED PLUMBING SECOND FLOOR PLAN

1/4" = 1'-0"

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

PLUMBING SECOND FLOOR PLAN

Drawing Number:

P120

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Scale: As indicated

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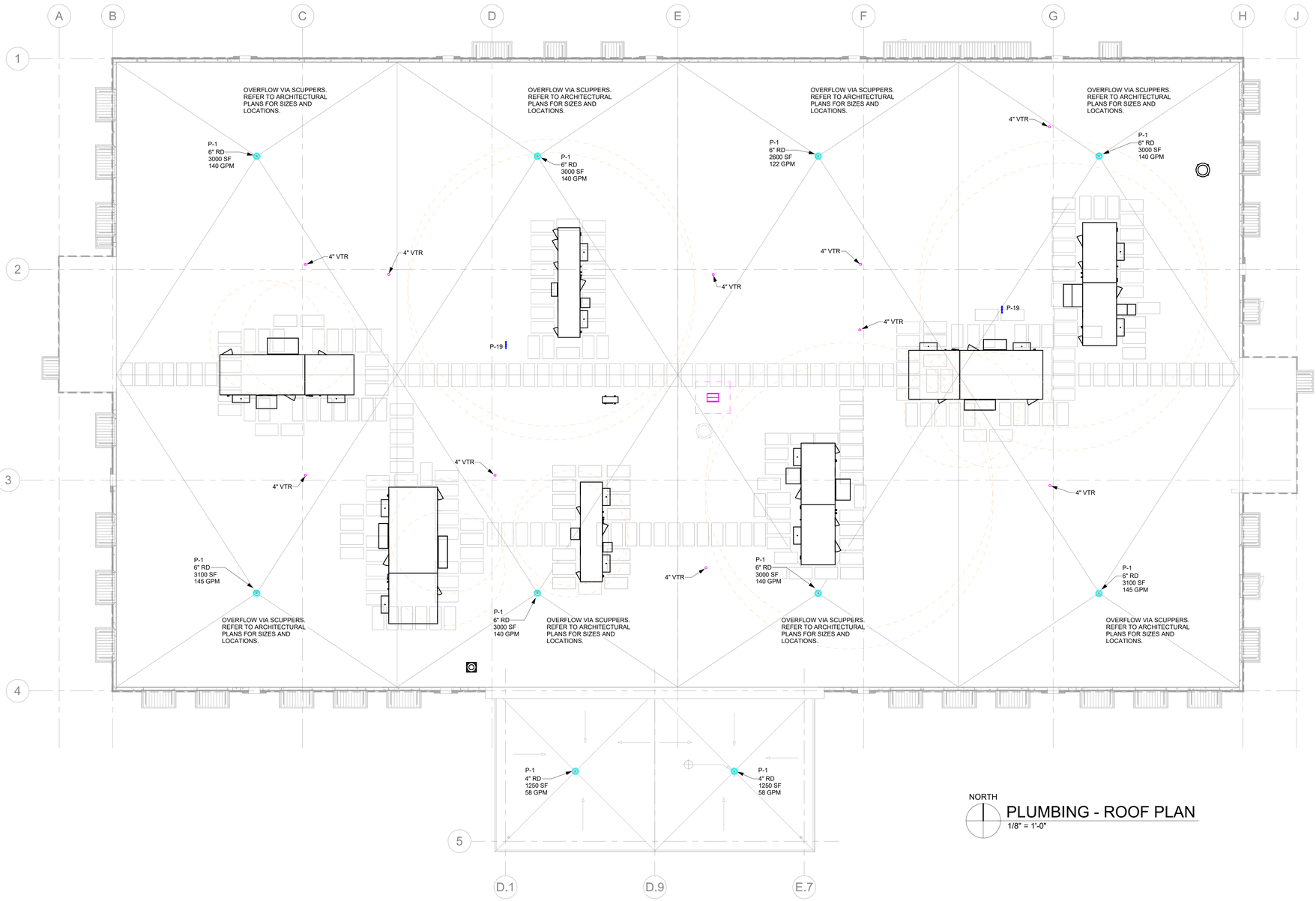

NORTH

PLUMBING - ROOF PLAN

1/8" = 1'-0"

ROOF DRAIN CALCULATION PER IBC/FBC 2017	
DESIGN ROOF SQUARE FOOTAGE:	2600
RAINFALL RATE FOR PROJECT SITE:	4.5
ROOF DRAIN SIZE (IN.)	**6**
VERTICAL RISER SIZE (IN.)	**4**
1/8 SLOPE HORIZ. PIPE SIZE (IN.)	**6**
1/4 SLOPE HORIZ. PIPE SIZE (IN.)	**4**
1/2 SLOPE HORIZ. PIPE SIZE (IN.)	**4**
MINIMUM SCUPPER DIMENSION (IN.)	**19"x4"**
TOTAL GPM	**122**

ROOF DRAIN CALCULATION PER IBC/FBC 2017	
DESIGN ROOF SQUARE FOOTAGE:	3000
RAINFALL RATE FOR PROJECT SITE:	4.5
ROOF DRAIN SIZE (IN.)	**6**
VERTICAL RISER SIZE (IN.)	**4**
1/8 SLOPE HORIZ. PIPE SIZE (IN.)	**6**
1/4 SLOPE HORIZ. PIPE SIZE (IN.)	**4**
1/2 SLOPE HORIZ. PIPE SIZE (IN.)	**4**
MINIMUM SCUPPER DIMENSION (IN.)	**19"x4"**
TOTAL GPM	**140**

ROOF DRAIN CALCULATION PER IBC/FBC 2017	
DESIGN ROOF SQUARE FOOTAGE:	3100
RAINFALL RATE FOR PROJECT SITE:	4.5
ROOF DRAIN SIZE (IN.)	**6**
VERTICAL RISER SIZE (IN.)	**4**
1/8 SLOPE HORIZ. PIPE SIZE (IN.)	**6**
1/4 SLOPE HORIZ. PIPE SIZE (IN.)	**4**
1/2 SLOPE HORIZ. PIPE SIZE (IN.)	**4**
MINIMUM SCUPPER DIMENSION (IN.)	**19"x4"**
TOTAL GPM	**145**

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

PLUMBING ROOF PLAN

Drawing Number:

P130

Drawn by: DG
Checked by: DN
Scale: 1/8" = 1'-0"

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GENERAL NOTES:

A. REFER TO FLOOR PLANS AND FIXTURE CONNECTION SCHEDULE ON PLUMBING LEGEND SHEET FOR ADDITIONAL SIZES.

B. PROVIDE CLEAN-OUTS ON SANITARY SEWER PIPING AT ALL CHANGES IN DIRECTION GREATER THAN 45 DEGREES AND METHOD OF CLEANOUT AT THE BASE OF EACH STACK AND AT EACH PLUMBING FIXTURE.

C. PROVIDE P-TRAPS ON ALL FLOOR DRAINS AND FLOOR SINKS, TYPICAL. PROVIDE AND INSTALL TRAP PRIMERS FOR ALL FLOOR DRAINS AND FLOOR SINKS. REFER TO GENERAL NOTES ON PLUMBING LEGEND SHEET FOR ADDITIONAL REQUIREMENTS.

D. PRIOR TO ROUGH-IN, STRICTLY COORDINATE FLOOR SINK AND DRAIN LOCATIONS WITH VENDOR EQUIPMENT DRAWINGS AND MECHANICAL EQUIPMENT.

WATER-HAMMER ARRESTOR NOTES:

A WATER-HAMMER ARRESTOR SHALL BE INSTALLED WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER-HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. WATER-HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010.

VALVES:

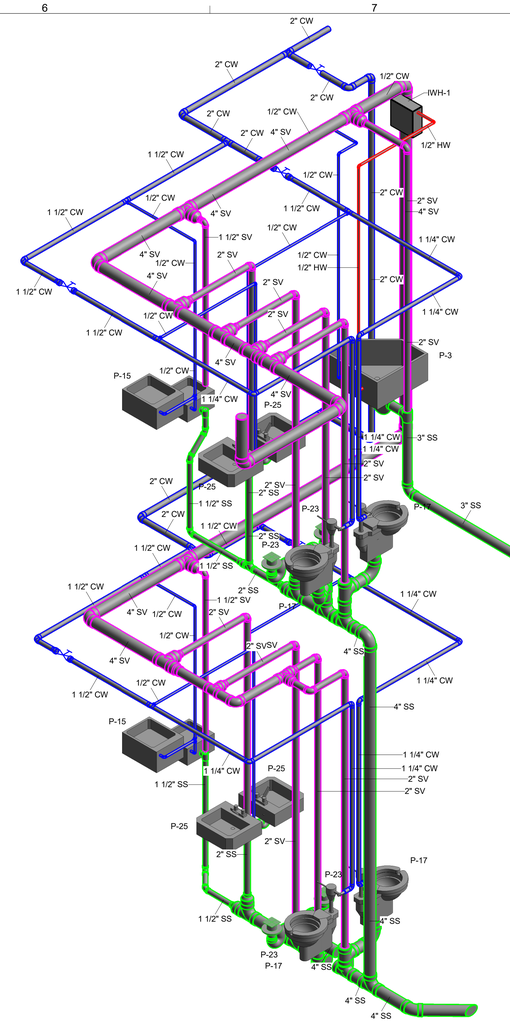
FULL-OPEN VALVES SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
1. ON THE BUILDING WATER SERVICE PIPE FROM THE PUBLIC WATER SUPPLY NEAR THE CURB.
2. ON THE WATER DISTRIBUTION SUPPLY PIPE AT THE ENTRANCE INTO THE STRUCTURE.
3. ON THE DISCHARGE SIDE OF EVERY WATER METER.
4. ON THE BASE OF EVERY WATER RISER PIPE IN OCCUPANCIES OTHER THAN MULTIPLE-FAMILY RESIDENTIAL OCCUPANCIES THAT ARE TWO STORIES OR LESS IN HEIGHT AND IN ONE- AND TWO-FAMILY RESIDENTIAL OCCUPANCIES.
5. ON THE TOP OF EVERY WATER DOWN-FEED PIPE IN OCCUPANCIES OTHER THAN ONE- AND TWO-FAMILY RESIDENTIAL OCCUPANCIES.
6. ON THE ENTRANCE TO EVERY WATER SUPPLY PIPE TO A DWELLING UNIT, EXCEPT WHERE SUPPLYING A SINGLE FIXTURE EQUIPPED WITH INDIVIDUAL STOPS.
7. ON THE WATER SUPPLY PIPE TO A GRAVITY OR PRESSURIZED WATER TANK.
8. ON THE WATER SUPPLY PIPE TO EVERY WATER HEATER.

SHUT OFF VALVE NOTES:

SHUTOFF VALVES SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS:
1. ON THE FIXTURE SUPPLY TO EACH PLUMBING FIXTURE OTHER THAN BATHTUBS AND SHOWERS IN ONE- AND TWO-FAMILY RESIDENTIAL OCCUPANCIES, AND OTHER THAN IN INDIVIDUAL SLEEPING UNITS THAT ARE PROVIDED WITH UNIT SHUTOFF VALVES IN HOTELS, MOTELS, BOARDING HOUSES AND SIMILAR OCCUPANCIES.
2. ON THE WATER SUPPLY PIPE TO EACH SILLCOCK.
3. ON THE WATER SUPPLY PIPE TO EACH APPLIANCE OR MECHANICAL EQUIPMENT. ACCESS SHALL BE PROVIDED TO ALL FULL-OPEN VALVES AND SHUTOFF VALVES. SERVICE AND HOSE BIBB VALVES SHALL BE IDENTIFIED. ALL OTHER VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE OR APPLIANCE SHALL BE IDENTIFIED, INDICATING THE FIXTURE OR APPLIANCE SERVED.

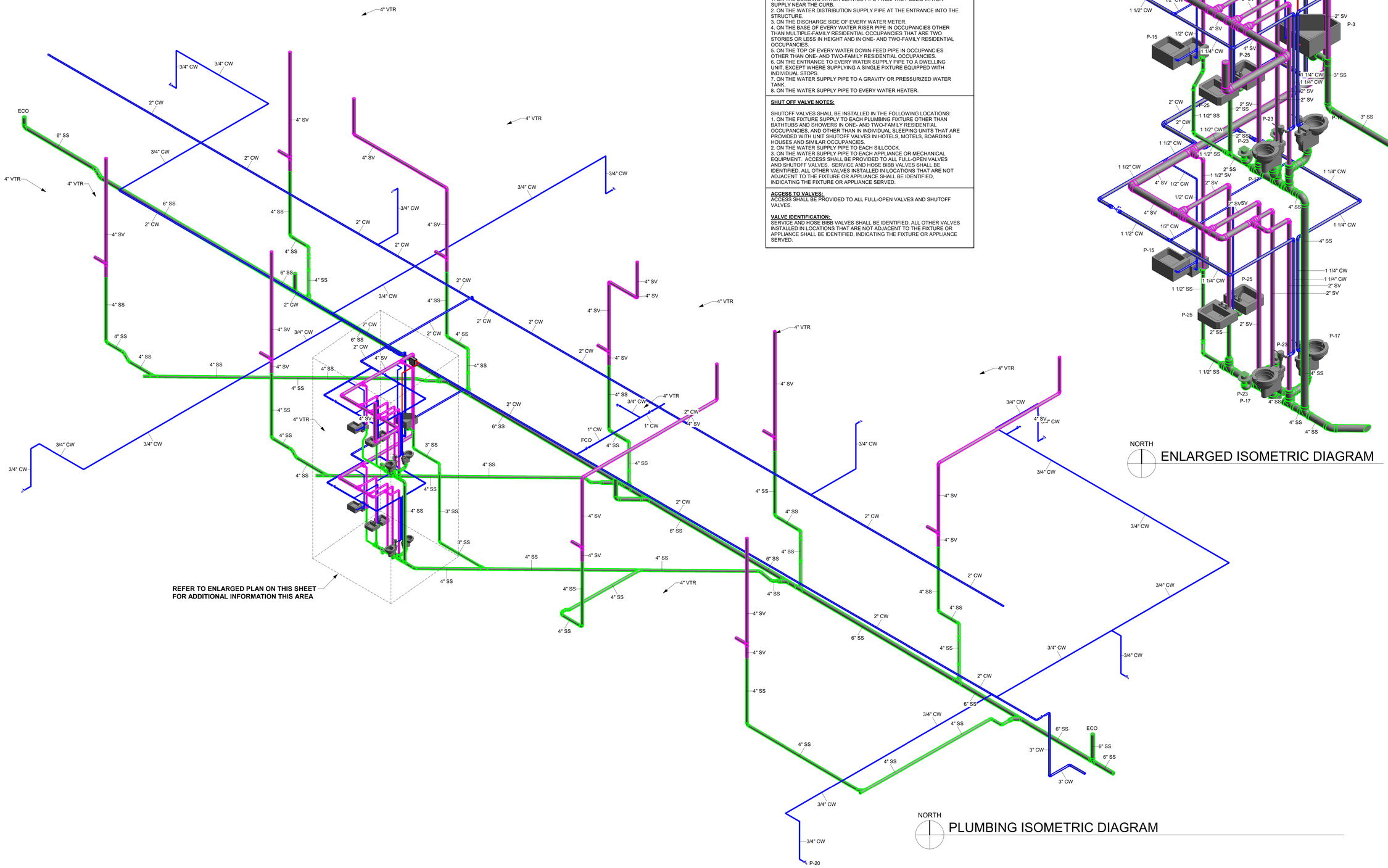
ACCESS TO VALVES:
ACCESS SHALL BE PROVIDED TO ALL FULL-OPEN VALVES AND SHUTOFF VALVES.

VALVE IDENTIFICATION:
SERVICE AND HOSE BIBB VALVES SHALL BE IDENTIFIED. ALL OTHER VALVES INSTALLED IN LOCATIONS THAT ARE NOT ADJACENT TO THE FIXTURE OR APPLIANCE SHALL BE IDENTIFIED, INDICATING THE FIXTURE OR APPLIANCE SERVED.



NORTH

ENLARGED ISOMETRIC DIAGRAM



NORTH

PLUMBING ISOMETRIC DIAGRAM

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FIRM CERTIFICATE OF AUTHORIZATION
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ELECTRICAL ENGINEER
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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issued Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

PLUMBING ISOMETRIC DIAGRAMS

Drawing Number:

P600

Drawn by: DG
Checked by: DN
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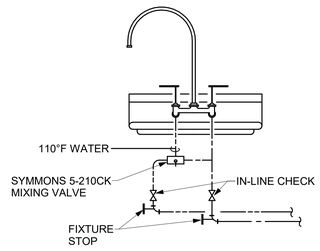
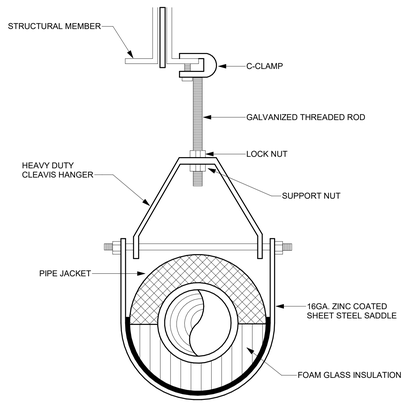


NOTE:
ALL PUBLIC SINKS AND LAVATORIES SHALL BE PROVIDED WITH A THERMOSTATIC MIXING VALVE TO INSURE THAT HOT WATER TEMPERATURE DOES NOT EXCEED 110°F. VALVE TO BE ASSE 1070 COMPLIANT. VALVE TO BE EQUIVALENT TO SYMMONS S-210CK, ZURN TMV-1, WILKINS 38-ZW3870-T OR WILKINS 38-ZW-1070-C.

PIPING DETAIL AT PUBLIC LAVATORIES AND SINKS

No Scale

PD 000 1

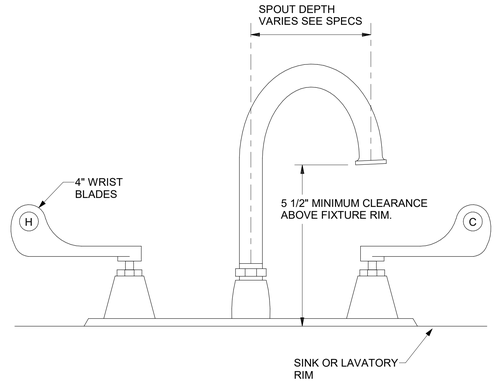


TRAPEZE HANGERS ALSO ACCEPTABLE

PIPE SUPPORT DETAIL

No Scale

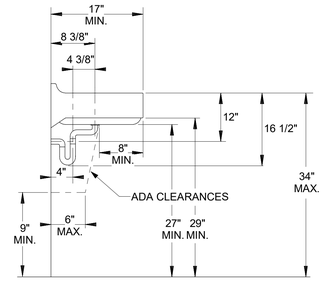
PD 0000



TYPICAL GOOSENECK FAUCET REQUIREMENTS

No Scale

PD 2506

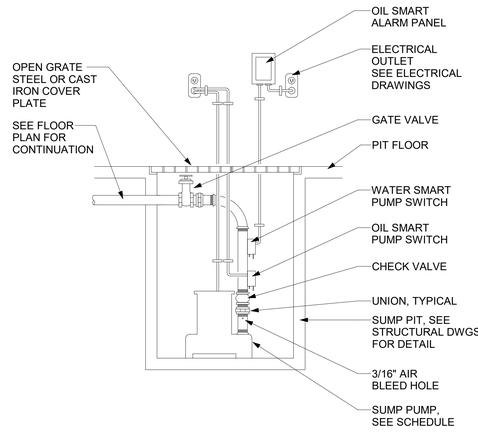


NOTE:
CONTRACTOR TO FIELD MODIFY P-TRAP AND OFFSET DRAIN TO EXACT SIZES AS SHOWN.

HANDICAPPED LAVATORY INSTALLATION DETAIL

No Scale

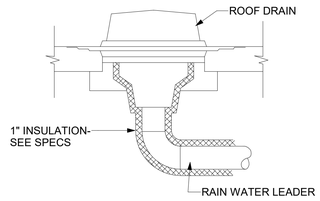
PD 2404



SUMP PUMP DETAIL

No Scale

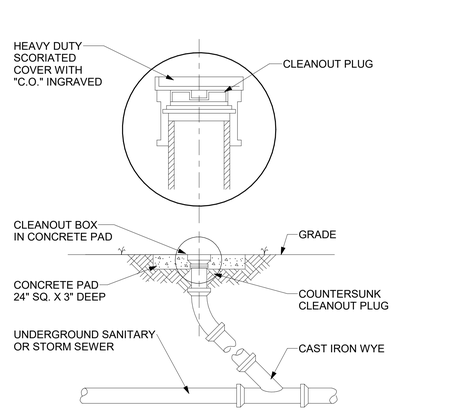
PD 1201



ROOF DRAIN INSULATION DETAIL

No Scale

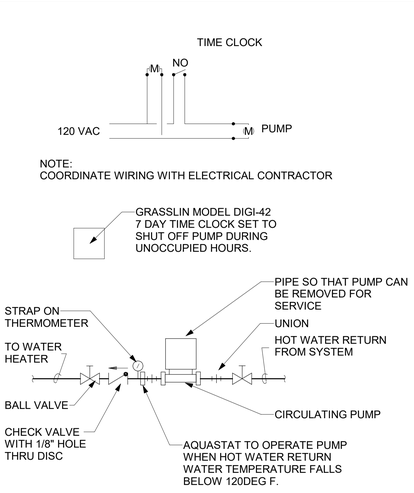
PD 1002



EXTERIOR CLEANOUT DETAIL

No Scale

PD 0701

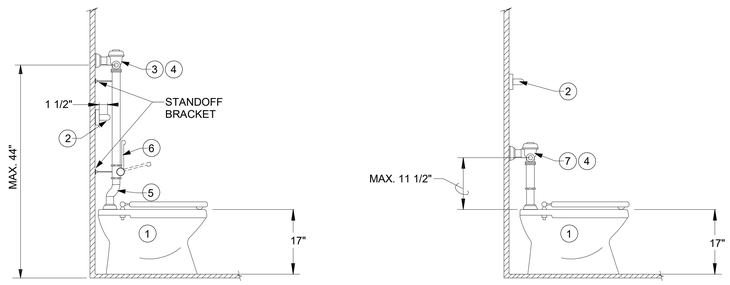


NOTE:
COORDINATE WIRING WITH ELECTRICAL CONTRACTOR

IN-THE-LINE CIRCULATING PUMP DETAIL

No Scale

PD 0500

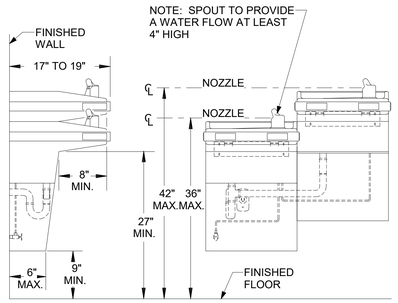


1. FLOOR MOUNTED WATER CLOSET. TOP OF SEAT SHALL BE 17"-19" IN CONFORMANCE WITH A.D.A. GUIDELINES.
2. HANDICAP GRAB BAR. MOUNT BETWEEN 33" AND 36" AFF. TO CONFORM WITH A.D.A. GUIDELINES. SEE ARCHITECTURAL.
3. FLUSH VALVE HANDLE : MOUNT @ A MAXIMUM OF 44" A.F.F.
4. HANDLE OF FLUSH VALVE SHALL BE MOUNTED ON WIDE SIDE OF ROOM.
5. PROVIDE OFFSET IN MAIN TUBE TO CLEAR GRAB BAR.
6. IF SPECIFIED, PROVIDE BED PAN WASHER WHICH ACCOMMODATES THE OFFSET MAIN TUBE.
7. FLUSH VALVE. MOUNT @ 27 5/8" TO CENTER OF HANDLE.

FLOOR MOUNTED HANDICAPPED, WATER CLOSET DETAIL

No Scale

PD 2403



NOTE:
REFER TO ARCHITECHURAL PLAN FOR ALCOVE, RECESS DIMENSIONS OR CLEAR FLOOR AREA.

ACCESSIBLE COOLER DETAIL

No Scale

PD 2400

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PLUMBING DETAILS

Drawing Number:

P800

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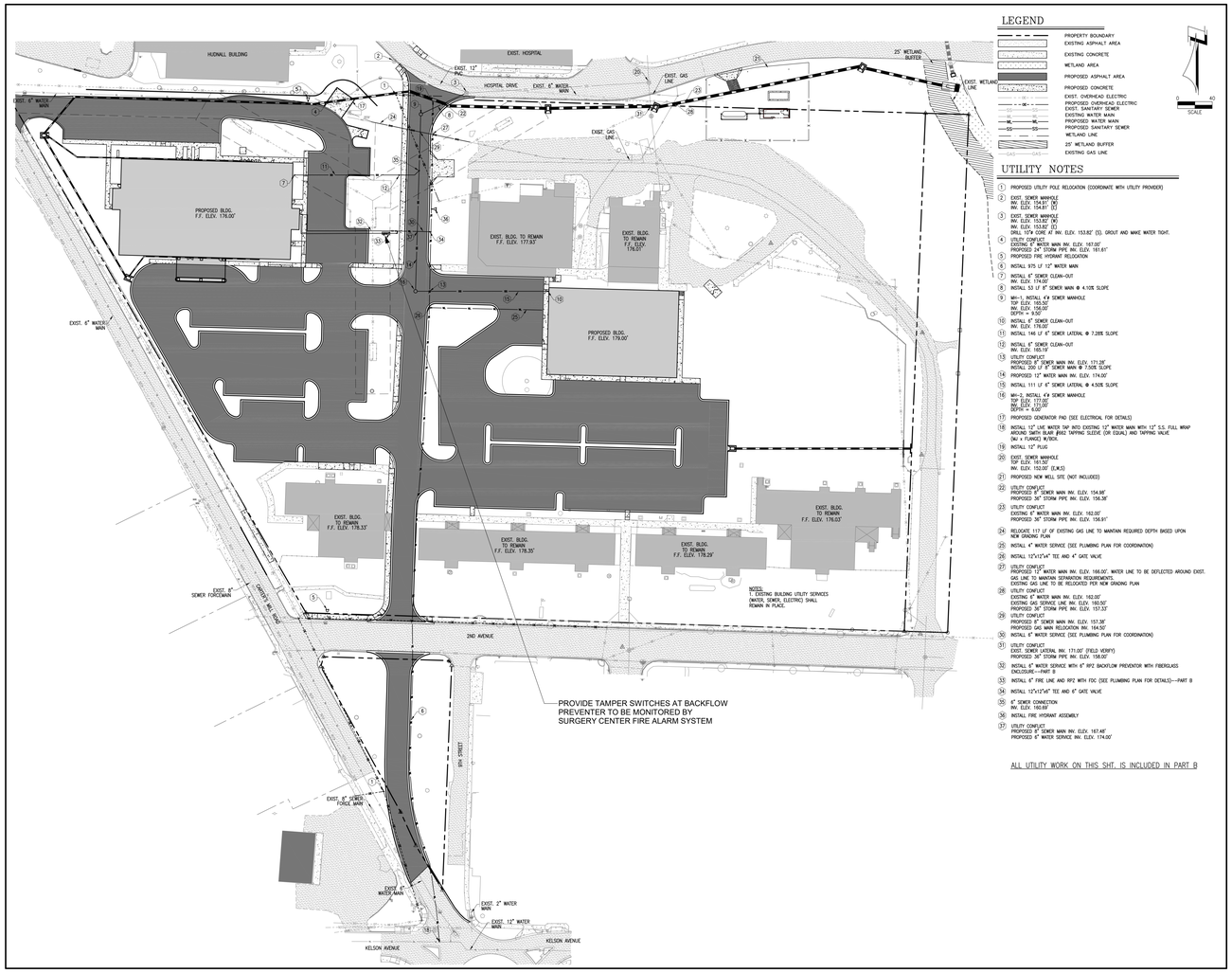
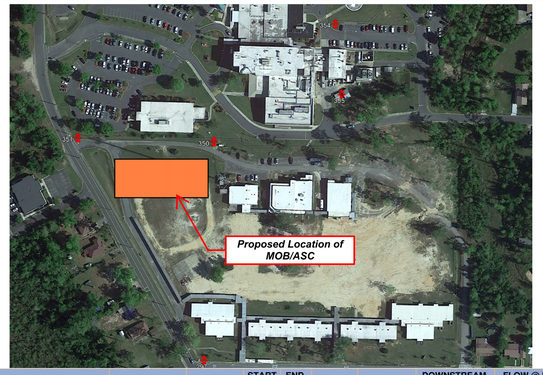


FIRE PROTECTION SITE PLAN - FOR REFERENCE ONLY

NOT TO SCALE



HYD. ID	ADDRESS	LOCATION	TEST DATE	START TIME	END TIME	STATIC	RESIDUAL	DOWNSTREAM (HYD. ID)	FLOW @ DES. PRESS	PITOT PRESSURE	DISTRICT
355	4250 hospital DR at Loading Docks Marianna, FL 32446	Jackson Hospital (Loading Docks)	05/10/2022	9:41		80 PSI	70 PSI	1353 GPM (341)	3560 @ 20 PSI	65	ST15
Flow Test Results: Pass		Remarks:						**TESTED BY:**	O'Bryan, Jeremy		
355	4250 hospital DR at Loading Docks Marianna, FL 32446	Jackson Hospital (Loading Docks)	06/28/2022	11:40		65 PSI	60 PSI	1186 GPM (354)	3884 @ 20 PSI	50	ST15
Flow Test Results: Pass		Remarks: Hydrant is laid over.						**TESTED BY:**	O'Bryan, Jeremy		
350	2nd ave at School Cafeteria Marianna, FL 32446	Golson Elementary (School Cafeteria)	06/28/2022	11:39		65 PSI	60 PSI	993 GPM (355)	3252 @ 20 PSI	35	ST16
Flow Test Results: Pass		Remarks:						**TESTED BY:**	O'Bryan, Jeremy		
351	3032 Carter's Mill RD at Golson Elementary (Rear Entran Marianna, FL 32446	Carters Mill Rd. and Golson Elementary (Back Entrance)	06/28/2022	11:38		65 PSI	60 PSI	993 GPM (355)	3252 @ 20 PSI	35	ST16

DHM MELVIN ENGINEERING

Jackson Hospital - MOB Addition
Hydrant Flow Data From City of Marianna FD

FIRE PROTECTION LEGEND:

SYMBOL	DESCRIPTION
FPW	FIRE SPRINKLER WET PIPING
FPD	FIRE SPRINKLER DRY PIPING
	CONNECT TO EXISTING
	DEMOLITION POINT

SPRINKLER HEAD SCHEDULE

SYMBOL	DESCRIPTION	TEMP F	K- FACTOR
●	FULLY CONCEALED	155	5.6
◉	RECESSED	155	5.6
◉	SURFACE	155	5.6
○	BRASS UPRIGHT	155	5.6
△	SIDEWALL	155	5.6

NOTES:

1. ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE (QRS).
2. FULLY CONCEALED HEADS TO BE WHITE UNLESS NOTED OTHERWISE.
3. FINAL LOCATION OF ALL SPRINKLER HEADS TO BE COORDINATED WITH FINAL ARCHITECTURAL CEILING LAYOUT.
4. ALL SPRINKLER HEADS RUN-OUTS SHALL BE A MINIMUM OF 1" DIAMETER.
5. PROVIDE UPLIFT RESTRAINTS FOR ALL NEW & EXISTING SPRINKLER HEADS ACCESSED DURING CONSTRUCTION.

PROJECT COORDINATION NOTES:

THE CONSTRUCTION PHASING OF THIS PROJECT IS OF THE UTMOST IMPORTANCE. ALL CONTRACTORS FOR ALL DIVISIONS OF THE WORK SHALL GUARANTEE THAT THEIR WORK IS IN ACCORD WITH THE PHASING PLANS SHOWN IN THE ARCHITECTURAL CONTRACT DOCUMENTS. SHOULD IT BE NECESSARY TO ACCOMPLISH WORK IN AREAS WHICH ARE NOT INCLUDED IN THE PHASING PLANS, SUCH WORK SHALL BE DONE WITH THE MINIMUM OF DISTURBANCES THAT IS POSSIBLE AND WITHOUT CAUSING THE INTERRUPTION OF EXISTING SERVICES. ALL SERVICE INTERRUPTIONS THAT ARE ESSENTIAL TO THE WORK SHALL BE SCHEDULED WITH THE ARCHITECT AND, THEREBY, WITH THE OWNER. ALL CONTRACTORS FOR ALL TRADES SHALL COOPERATE AND COORDINATE THEIR WORK TO ALLOW THE COMPLETION OF ALL WORK WITH THE LEAST POSSIBLE NUMBER ON INTERFERENCE'S WITH THE SERVICES OF THE EXISTING BUILDING.

THE DESIGN DRAWINGS OF ALL CATEGORIES AND TRADES (ARCHITECTURAL, STRUCTURAL, PLUMBING, FIRE PROTECTION, MEDICAL GAS, MECHANICAL, HEATING, VENTILATING AND AIR CONDITIONING AND ELECTRICAL) AND ALL SPECIFICATIONS AND SHOP DRAWINGS MUST BE COORDINATED AND BE VIEWED IN CONNECTION AND CONJUNCTION WITH EACH OTHER TO INSURE THE PROPER LOCATION OF ALL DEVICES AND EQUIPMENT. MAKE PARTICULAR NOTE OF LOCATIONS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL FLOOR PLANS AND ELEVATIONS.

CODE CRITERIA: (BUSINESS)

NOTE:
A. THIS LIST IS NOT INCLUSIVE OF ALL CODES AND STANDARDS THAT MAY OR MAY NOT APPLY TO THIS PROJECT.

B. PERFORM WORK SPECIFIED IN SPECIFICATIONS IN ACCORDANCE WITH STANDARDS LISTED BELOW INCLUDING AMENDMENTS OR REVISIONS. WHEN THESE SPECIFICATIONS ARE MORE STRINGENT, THEY TAKE PRECEDENCE. IN CASE OF CONFLICT, OBTAIN A DECISION FROM THE DESIGNER.

NFPA-13 (2016)
INSTALLATION OF SPRINKLER SYSTEMS

NFPA-54 (2018)
NATIONAL FUEL GAS CODE

NFPA-70 (2017)
NATIONAL ELECTRICAL CODE

NFPA-72 (2016)
NATIONAL FIRE ALARM CODE

NFPA-90A (2018)
INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS

NFPA-90B (2018)
INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS

NFPA-91 (2015)
EXHAUST SYSTEMS FOR AIR CONVEYING OF VAPORS, GASES, MISTS, AND NON-COMBUSTIBLE PARTICULATE SOLIDS

NFPA-96 (2017)
VENTILATION CONTROL AND FIRE PREVENTION OF COMMERCIAL COOKING OPERATIONS.

THE FLORIDA SPECIFIC EDITION OF NFPA 101. THE LIFE SAFETY CODE (2018 EDITION) [69A-3.012(1) FAC] [69A-53.004 FAC]

NFPA-110 (2016)
EMERGENCY AND STANDBY POWER SYSTEMS

NFPA-241 (2013) STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS.

NFPA-780 (2017)
LIGHTNING PROTECTION CODE

FLORIDA BUILDING CODE, BUILDING 7TH EDITION (2020)

FLORIDA BUILDING CODE, MECHANICAL 7TH EDITION (2020)

FLORIDA BUILDING CODE, PLUMBING 7TH EDITION (2020)

FLORIDA BUILDING CODE, TEST PROTOCOLS FOR HIGH WIND HURRICANE ZONES 7TH EDITION (2020)

FLORIDA BUILDING CODE, FUEL GAS 7TH EDITION (2020)

FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020)

FLORIDA ACCESSIBILITY CODE 7TH EDITION (2020)

FLORIDA BUILDING CODE, ENERGY EFFICIENCY 7TH EDITION (2020)

STATE OF FLORIDA ADMINISTRATIVE CODE NO. 69A-3.012 AND 69A-60.

NOTE: WHERE THERE ARE DIFFERENCES BETWEEN SECTIONS OF THE "BUILDING" AND "MECHANICAL" OR "PLUMBING" CODES, IT WILL BE ASSUMED THAT THE BUILDING CODE TAKES PRECEDENCE.

FIRE PROTECTION GENERAL NOTES:

ALL FIRE PROTECTION DEVICES INDICATED ON THESE ENGINEERING DOCUMENTS ARE ONLY FOR INFORMATIONAL PURPOSES ONLY TO REPRESENT THE MINIMUM DESIGN CONCEPT. THIS NOTE IS TO SATISFY STATE OF FL ADMINISTRATIVE CODE 61G15-30.003(3).

REFER TO PROJECT SPECIFICATIONS AND SUBMIT SHOP DRAWINGS UNDER THE SUPERVISION OF A FLORIDA LICENSED PROFESSIONAL ENGINEER AND STATE LICENSED FIRE ALARM CONTRACTOR AS A DEFERRED SUBMITTAL.

THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE AUTOMATIC SPRINKLER SYSTEM FOR THE RENOVATED AREA. ALL SPRINKLERS SHALL BE INSTALLED ACCORDING TO THEIR LISTING. THE SPRINKLER SYSTEM SHALL BE A WET SYSTEM HYDRAULICALLY CALCULATED USING THE FOLLOWING CRITERIA:

A. ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE, WITH /TEMPERATURE RATINGS AS CONDITIONS DICTATE. COORDINATE SPRINKLER COVER CUSTOM COLOR FINISHES WITH ARCHITECT ASSOCIATED SPRINKLER PIPING SHALL BE RUN IN FURRED SPACES, CHASES, ETC., TO COMPLETELY CONCEAL ALL PIPING.

B. ALL SPRINKLER HEADS IN AREAS WITHOUT FINISHED CEILINGS SHALL BE BRASS UPRIGHT HEADS WITH TEMPERATURE RATINGS AS CONDITIONS DICTATE. ASSOCIATED SPRINKLER PIPING SHALL BE RUN EXPOSED AND PAINTED TO MATCH ADJOINING AREAS.

C. SPRINKLERS ARE TO BE SUPPLIED FROM AUTOMATIC SPRINKLER RISER ASSEMBLY WHICH SHALL BE FURNISHED COMPLETE WITH STANDARD TRIM AND THE NECESSARY COMPONENTS (A FLAPPER TYPE FLOW SWITCH) TO INTERLOCK WITH THE BUILDING FIRE ALARM SYSTEM. SWITCH BY SPRINKLER CONTRACTOR. WIRING BY ELECTRICAL CONTRACTOR.

D. RETURN BENDS SHALL BE USED THROUGHOUT NEW FIRE ZONES.

E. THE SPRINKLER CONTRACTOR SHALL COORDINATE THE LOCATION OF PIPING AND HEADS WITH LIGHT FIXTURES, DIFFUSERS, DUCTWORK, PLUMBING LINES, ETC., AND MAKE MINOR ADJUSTMENTS IN THE SPRINKLER LAYOUT WHERE REQUIRED OR DEEMED NECESSARY BY THE ARCHITECT.

F. ALL SPRINKLER HEADS SHALL BE LOCATED SYMMETRICALLY IN ALL AREAS AND CENTERED IN CEILING TILES.

G. SPRINKLER CONTRACTOR SHALL INSTALL WIRE GUARDS ON SPRINKLER HEADS IN MECHANICAL, ELECTRICAL, COMMUNICATIONS, MEDICAL GAS AND VACUUM PUMP ROOMS.

H. FIRE PROTECTION SYSTEM TO CONFORM TO ALL REQUIREMENTS OF NFPA 10, 13, AND 25, ALL LOCAL COUNTY AND STATE REGULATIONS, AS WELL AS THE INSURANCE UNDERWRITER. COORDINATE WITH ELECTRICAL CONTRACTOR FOR WIRING OF THE TAMPER AND FLOW SWITCHES.

I. FOR EXISTING SYSTEMS, THE SPRINKLER CONTRACTOR SHALL INSPECT, TEST AND MODIFY THE SPRINKLER SYSTEM AS NEEDED TO COMPLY WITH CURRENT NFPA AND LOCAL CODES. CONTRACTOR SHALL PROVIDE A LETTER OF ACCEPTANCE FOR THE EXISTING BUILDING.

J. ALL SPRINKLER PIPING FROM "EXISTING RISERS" USED FOR SPRINKLER OR STANDPIPE SYSTEM SHALL BE INSTALLED BY A REGISTERED SPRINKLER CONTRACTOR. UNDERGROUND WATER MAINS AND HYDRANTS MUST BE INSTALLED AND IN SERVICE PRIOR TO STARTING CONSTRUCTION.

K. PROVIDE DRAIN VALVES AS REQUIRED BY NFPA.

L. ALL SPRINKLER HEADS SHALL HAVE 5.6 K FACTOR.

M. PROVIDE 165 DEGREE F. SPRINKLER HEADS WITH /LISTED GUARDS IN MECHANICAL ROOMS, EXCEPT MECHANICAL ROOMS PROVIDED WITH AIR CONDITIONING.

N. SPRINKLER CONTRACTOR SHALL INSTALL TAMPER SWITCHES ON ALL EXTERIOR VALVES. COORDINATE WITH ELECTRICAL CONTRACTOR.

O. PROVIDE FIRE EXTINGUISHER CABINETS SO THAT ALL AREAS OF BUILDING CAN BE REACHED WITHIN 75 FEET OF AN EXTINGUISHER. PROVIDE WALL HUNG, CO2 TYPE EXTINGUISHERS IN ELECTRICAL & COMMUNICATION ROOMS. PROVIDE WALL HUNG, ABC TYPE EXTINGUISHERS IN MECHANICAL ROOMS. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS.

P. PROVIDE HORIZONTAL, DRY TYPE, QUICK RESPONSE HEADS AT EXTERIOR OVERHANGS CONSTRUCTED OF COMBUSTIBLE MATERIAL OR WHERE THERE IS POTENTIAL FOR STORAGE OF COMBUSTIBLE MATERIAL BENEATH.

Q. FOR SYSTEMS OVER 100 PSI PROVIDE SOLID UPLIFT RESTRAINT (ALL-THREAD TO TOP OF PIPE) ON THE NEAREST HANGER FOR CEILING-MOUNTED PENDANT SPRINKLERS AND AT THE LOCATION OF A HANGER WITHIN 12 INCHES HORIZONTAL DEVELOPED LENGTH ON END-OF-BRANCH LINES AND ARM-OVERS. APPLIES TO BOTH NEW AND EXISTING PIPING WITHIN AREA OF WORK AND/OR ANY AREA WHERE CEILING IS REMOVED AND/OR REPLACED DURING CONSTRUCTION.

R. IF EXISTING FIRE SPRINKLER SYSTEMS ARE OUT OF SERVICE FOR ANY EXTENDED PERIOD OF TIME (GREATER THAN FOUR HOURS IN A 24-HOUR PERIOD) IN PROJECT WORK AREA (DURING DEMOLITION OR CONSTRUCTION), AN APPROVED FIRE WATCH TO BE PROVIDED FOR ALL PORTIONS LEFT UNPROTECTED BY THE FIRE PROTECTION SYSTEM SHUTDOWN (OR THE AHJ SHALL BE PERMITTED TO REQUIRE THE BUILDING TO BE EVACUATED) UNTIL THE FIRE PROTECTION SYSTEM HAS BEEN RETURNED TO SERVICE. PER NFPA 101, 3.3.104 AND 9.6.1.6 MAINTAIN FIRE WATCH IN ALL ZONES AFFECTED DURING CONSTRUCTION PERIOD WHEN SPRINKLER SYSTEM IS OUT OF SERVICE.

S. SAFEGUARDS FOR CONSTRUCTION SHALL BE IN PLACE IN ACCORDANCE WITH NFPA 241, STANDARD FOR SAFE GUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS.

T. PROVIDE PRIOR WRITTEN NOTICE AND COORDINATE ANY TEMPORARY SHUT DOWN OF EXISTING FIRE SUPPRESSION SYSTEMS WITH OWNER.

U. PROVIDE 165 DEGREE F. SPRINKLER HEADS IN STERILIZER ROOMS.

V. ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO CONDENSING UNITS, CONTROL PANELS, AIR HANDLING UNIT EQUIPMENT, AND VARIABLE FREQUENCY DRIVES SHALL HAVE SCCR (SHORT CIRCUIT CURRENT RATING) GREATER THAN OR EQUAL TO THE AMPERE INTERRUPTING CAPACITY (AIC) RATING OF THE ELECTRICAL DISTRIBUTION SYSTEM SERVING THE EQUIPMENT. COORDINATE AIC AND SCCR REQUIREMENTS WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING ELECTRICAL EQUIPMENT. ANY EQUIPMENT FOUND ON SITE WITH SCCR RATING LESS THAN REQUIRED WILL BE CORRECTED AT CONTRACTOR'S EXPENSE.

W. ALL SPRINKLER HEADS IN OPERATING ROOMS, PROCEDURE ROOMS, AND ALL OTHER CLEAN / STERILE SPACES SHALL BE FULLY CONCEALED, QUICK RESPONSE TYPE, WITH GASKETED ESCUTCHEONS AND TEMPERATURE RATINGS AS CONDITIONS DICTATE. COORDINATE SPRINKLER COVER CUSTOM COLOR FINISHES WITH ARCHITECT. ASSOCIATED SPRINKLER PIPING SHALL BE RUN IN FURRED SPACES, CHASES, ETC., TO COMPLETELY CONCEAL ALL PIPING. PROVIDE AIR AND DUST SEAL IN ALL STERILE WORK, STERILE STORAGE, PATIENT PROCEDURE ROOMS, DECONTAMINATION, COMPOUNDING PHARMACY, AND DIETARY.

FIRE PROTECTION SHEET LIST

SHEET NUMBER	SHEET NAME
FP000	FIRE PROTECTION LEGEND
FP110	FIRE PROTECTION FIRST FLOOR PLAN
FP120	FIRE PROTECTION SECOND FLOOR PLAN
FP800	FIRE PROTECTION DETAILS
FP801	FIRE PROTECTION DETAILS

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FLORIDA #54888
ELECTRICAL ENGINEER
PHILIP GARRETT, P.E.
FLORIDA #62289

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRE PROTECTION LEGEND

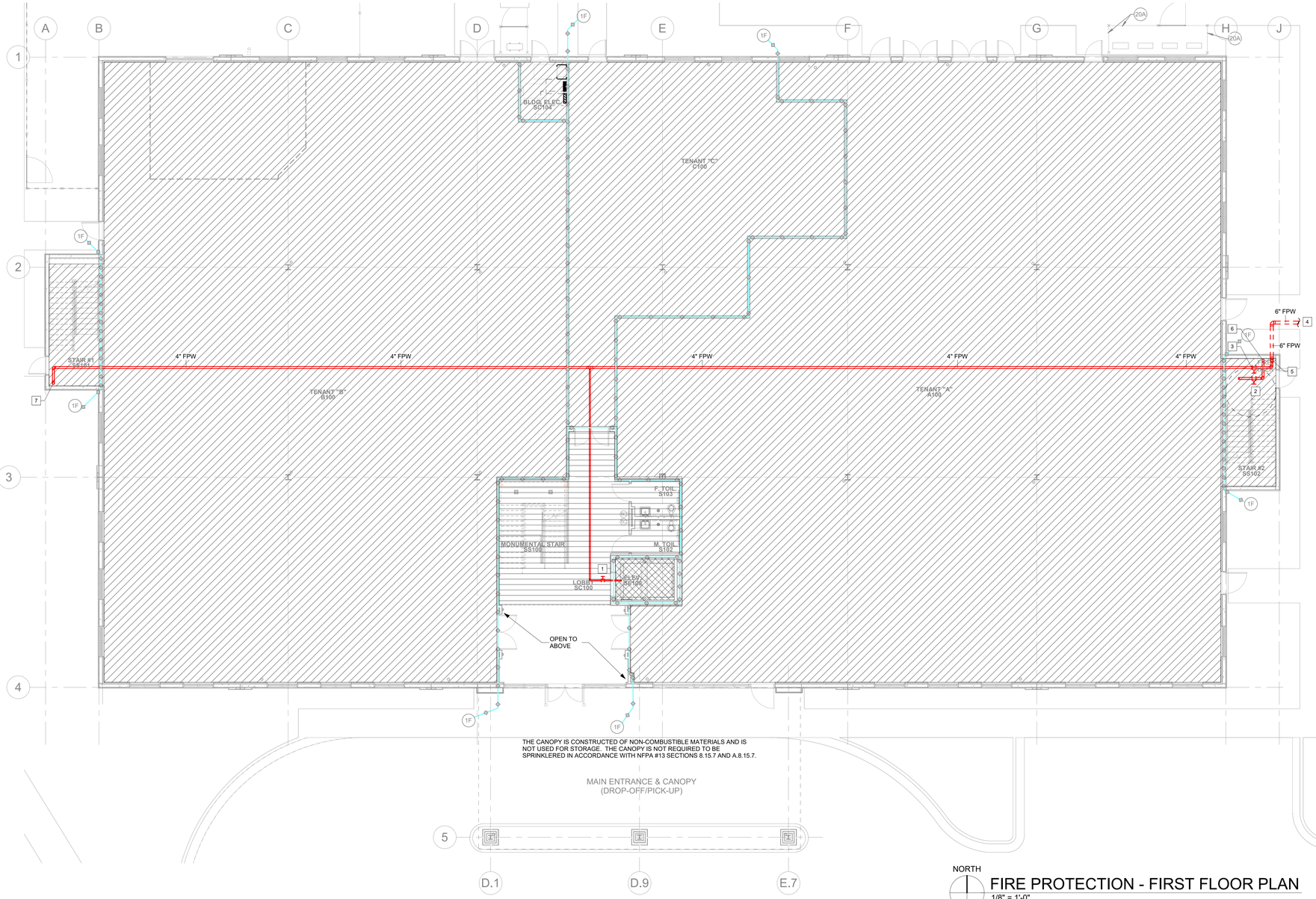
Drawing Number:

FP000

Drawn by: DG
Checked by: DN
Scale: 1/8" = 1'-0"

9/29/2023 2:48:30 PM
C:\Revit Projects\ICT-220557-SHELL-MEP22-CENTRAL_dgunter@icthomasson.com.rvt

SPRINKLER DESIGN SCHEDULE FOR AREAS CLASSIFIED AS BUSINESS											
IDENTIFICATION PATTERN	SYSTEM TYPE	SPRINKLER INFORMATION					NFPA 13 AREA HAZARD CLASSIFICATION	PROTECTIVE AREA (MAX SQ FT) PER SPRINKLER	DENSITY (GPM/SQ. FT.)	HYDRAULIC AREA (SQ. FT.)	REMARKS
		MODEL, TYPE & DEFLECTOR ORIENTATION	COVERAGE TYPE	RESPONSE TYPE	TEMPERATURE RATING	FINISH					
	WET	UPRIGHT TYCO TY-FRB	STANDARD	QUICK	ORDINARY	BRASS / BRONZE	LIGHT	225	0.10	1,500	F.M. APP. OPTIONS ONLY
	WET	CONCEALED PENDENT TYCO RF II	STANDARD	QUICK	ORDINARY	BY ARCHITECT	LIGHT	225	0.10	1,500	F.M. APP. OPTIONS ONLY
	WET	RECESSED TYCO TY-FRB	STANDARD	QUICK	ORDINARY	CHROME	LIGHT	225	0.10	1,500	F.M. APP. OPTIONS ONLY
	WET	HORIZONTAL SIDEWALL TYCO FRB	STANDARD	QUICK	ORDINARY	BRASS / BRONZE	ORDINARY GROUP 1	196	0.15	1,500	F.M. APP. OPTIONS ONLY
	WET	UPRIGHT TYCO TY-FRB	STANDARD	QUICK	ORDINARY	BRASS / BRONZE	ORDINARY GROUP 1	196	0.15	1,500	F.M. APP. OPTIONS ONLY



NORTH

FIRE PROTECTION - FIRST FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO AND COORDINATE WITH ARCHITECTURAL DRAWINGS FOR SPRINKLER PIPING AT ALL STAIRWELLS AND UNDER ALL LANDINGS. REFER TO ARCHITECTURAL DETAILS.

B. COORDINATE ALL WORK WITH ALL TRADES.

C. THE FIRE PROTECTION CONTRACTOR SHALL PATCH AND FIRE-PROOF ALL OPENINGS IN FIRE RATED FLOORS AND WALLS.

D. VERIFY ALL GOVERNING DIMENSIONS, PIPE SIZES AND LOCATIONS AT THE BUILDING.

E. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT. FIRE PROTECTION CONTRACTOR TO FIELD VERIFY ALL LOCATIONS AND REQUIREMENTS.

CODED NOTES:

1. PROVIDE DEDICATED CONTROL VALVES ABOVE CEILING WITH FLOW AND TAMPER SWITCHES TO ELEVATOR AT THIS LOCATION.

2. PROVIDE 4" DEDICATED ZONE CONTROL VALVE WITH FLOW AND TAMPER SWITCHES, FOR THE FUTURE AMBULATORY SURGERY CENTER. LABEL CONTROL VALVES TO INDICATE AREA SERVED. CAP PIPING FOR FUTURE EXTENSION. PROVIDE ACCESS PANEL IF REQUIRED AND COORDINATE WITH ELECTRICAL AND ARCHITECTURAL DRAWINGS.

3. PROVIDE 4" DEDICATED FLOOR CONTROL VALVE FOR ALL FIRST FLOOR SPACES OUTSIDE THE SCOPE OF THE FUTURE ASC AND THE SHELL SPACE OF THE FUTURE ASC. CONFIRM INSTALLATION LOCATION COMPLIES WITH EGRESS PATH CLEARANCE REQUIREMENTS.

4. NEW 6" FIRE MAIN UNDERGROUND. REFER TO CIVIL PLANS FOR CONTINUATION AND EXACT LOCATION OF BFP AND FDC.

5. MAIN 6" FIRE RISER CONTROL OS&Y VALVE WITH FLOW & TAMPER SWITCHES. COORDINATE WITH ELECTRICAL AND ARCHITECTURAL DRAWINGS. REFER TO DETAIL. CONFIRM INSTALLATION LOCATION COMPLIES WITH EGRESS PATH CLEARANCE REQUIREMENTS.

6. 4" FIRE PROTECTION COMBO RISER / STANDPIPE UP.

7. 4" FIRE PROTECTION STANDPIPE UP.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

Project Architect:

MBA

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ICT PROJECT NO. 220557.00
FIRM CERTIFICATE OF AUTHORIZATION
FLORIDA REG. #CA-0001276
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FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRE PROTECTION FIRST FLOOR PLAN

Drawing Number:

FP110

Drawn by: DG
Checked by: DN
Scale: As indicated

9/28/2023 2:48:34 PM
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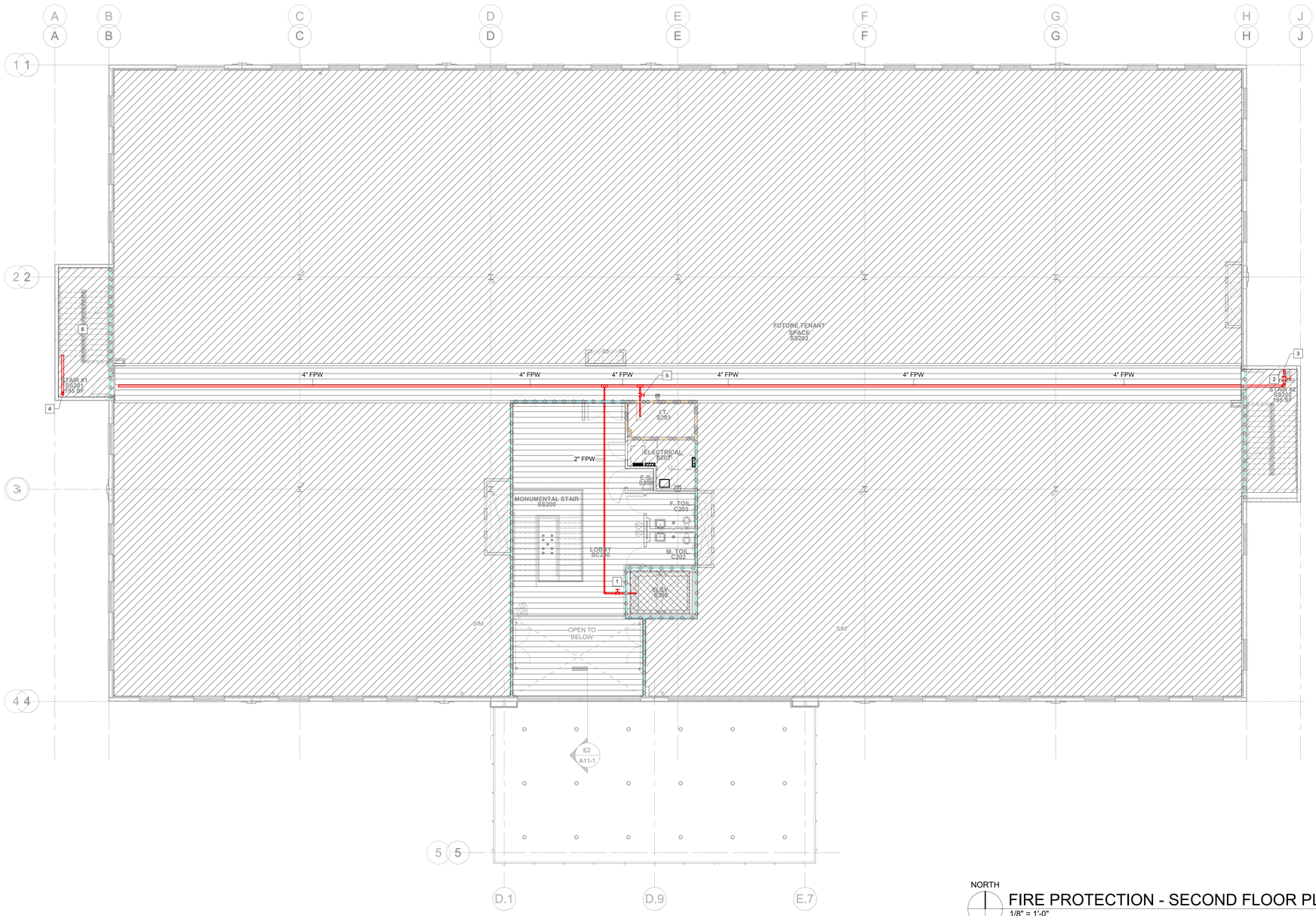
SPRINKLER DESIGN SCHEDULE FOR AREAS CLASSIFIED AS BUSINESS

IDENTIFICATION PATTERN	SYSTEM TYPE	SPRINKLER INFORMATION					NFPA 13 AREA HAZARD CLASSIFICATION	PROTECTIVE AREA (MAX SQ FT) PER SPRINKLER	DENSITY (GPM/SQ. FT.)	HYDRAULIC AREA (SQ. FT.)	REMARKS
		MODEL, TYPE & DEFLECTOR ORIENTATION	COVERAGE TYPE	RESPONSE TYPE	TEMPERATURE RATING	FINISH					
	WET	UPRIGHT TYCO TY-FRB	STANDARD	QUICK	ORDINARY	BRASS / BRONZE	LIGHT	225	0.10	1,500	F.M. APP. OPTIONS ONLY
	WET	CONCEALED PENDENT TYCO RF II	STANDARD	QUICK	ORDINARY	BY ARCHITECT	LIGHT	225	0.10	1,500	F.M. APP. OPTIONS ONLY
	WET	RECESSED TYCO TY-FRB	STANDARD	QUICK	ORDINARY	CHROME	LIGHT	225	0.10	1,500	F.M. APP. OPTIONS ONLY
	WET	HORIZONTAL SIDEWALL TYCO FRB	STANDARD	QUICK	ORDINARY	BRASS / BRONZE	ORDINARY GROUP 1	196	0.15	1,500	F.M. APP. OPTIONS ONLY
	WET	UPRIGHT TYCO TY-FRB	STANDARD	QUICK	ORDINARY	BRASS / BRONZE	ORDINARY GROUP 1	196	0.15	1,500	F.M. APP. OPTIONS ONLY



NORTH

FIRE PROTECTION - SECOND FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. REFER TO AND COORDINATE WITH ARCHITECTURAL DRAWINGS FOR SPRINKLER PIPING AT ALL STAIRWELLS AND UNDER ALL LANDINGS. REFER TO ARCHITECTURAL DETAILS.

B. COORDINATE ALL WORK WITH ALL TRADES.

C. THE FIRE PROTECTION CONTRACTOR SHALL PATCH AND FIRE-PROOF ALL OPENINGS IN FIRE RATED FLOORS AND WALLS.

D. VERIFY ALL GOVERNING DIMENSIONS, PIPE SIZES AND LOCATIONS AT THE BUILDING.

E. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT. FIRE PROTECTION CONTRACTOR TO FIELD VERIFY ALL LOCATIONS AND REQUIREMENTS.

CODED NOTES:

1. PROVIDE DEDICATED CONTROL VALVES ABOVE CEILING WITH FLOW AND TAMPER SWITCHES TO ELEVATOR AT THIS LOCATION.

2. PROVIDE 4" DEDICATED FLOOR CONTROL VALVE FOR ALL SECOND FLOOR SPACES. CONFIRM INSTALLATION LOCATION COMPLIES WITH EGRESS PATH CLEARANCE REQUIREMENTS.

3. 4" FIRE PROTECTION COMBO RISER / STANDPIPE DOWN.

4. 4" FIRE PROTECTION STANDPIPE DOWN.

5. PROVIDE SUPERVISED ISOLATION VALVE FOR FIRE PROTECTION PIPING BRANCH SERVING THE DATA ROOM PER 2013 NFPA 13 SECTION 22.14.2.

6. PROVIDE SPRINKLER COVERAGE AT TOP OF STAIRWELL FOR ROOF ACCESS.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SW — SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SW2 — SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

Project Architect:

MBA

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DAN A. NEEMAN, P.E.
FLORIDA #54888
ELECTRICAL ENGINEER
PHILIP GARRETT, P.E.
FLORIDA #62289

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRE PROTECTION SECOND FLOOR PLAN

Drawing Number:

FP120

Drawn by: DG
Checked by: DN
Scale: As indicated

9/29/2023 2:48:39 PM
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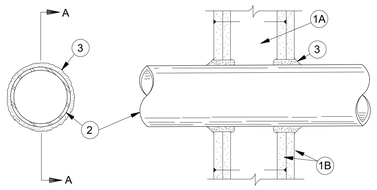
SYSTEM NO. W-L-1001
JUNE 15, 2005
F RATINGS - 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS - 0, 1, 2, 3, AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT
L RATING AT 400 F - LESS THAN 1 CFM/SQ FT



SECTION A-A

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 OR†IN. (13 OR 16 MM) THICK, 4 FT. (122 H 1/20CM) 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 OFFLOOR OR WALL ASSEMBLY. GASTITE, 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 ¼ IN. (6 MM) DIAM BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OFWALL. 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:

Maximum Pipe or Conduit Diameter Inches	F Rating Hours	F Rating Hours
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 LAST UPDATED ON 2005-06-15

UL LISTED AND CLASSIFIED PRODUCTS UL RECOGNIZED COMPONENTS PRODUCTS CERTIFIED FOR CANADA

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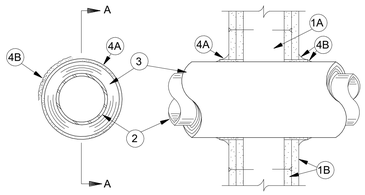
THROUGH-PENETRATION FIRESTOP SYSTEMS W-L-1001

No Scale

PD 0112

SYSTEM NO. W-L-5001
MAY 19, 2005
F RATINGS - 1 AND 2 HR (SEE ITEM 1)
T RATINGS - 3/4 , 1 AND 1 1/2 HR (SEE ITEM 3)
L RATING AT AMBIENT - 2 CFM/SQ FT
L RATING AT 400 F - LESS THAN 1 CFM/SQ FT



SECTION A-A

1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

   A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS 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 5/8 IN. (16 MM) THICK, 4 FT (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 14-1/2 (368MM) IN FOR WOOD STUD WALLS AND 18 IN. (457 MM) FOR STEEL STUD WALLS.
   THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS 1 HR WHEN INSTALLED IN A 1 HR FIRE RATED WALL AND 2 HR WHEN INSTALLED IN A 2 HR FIRE RATED WALL.

2. THROUGH PENETRANTS - ONE METALLIC PIPE OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. PIPE OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR TUBING MAY BE USED:

   A. STEEL PIPE - NOM 12 IN. (305 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

   B. COPPER TUBING - NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

   C. COPPER PIPE - NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

3. PIPE COVERING* - NOM 1 OR 2 IN. (25 OR 51 MM) THICK HOLLOW CYLINDRICAL HEAVY DENSITY (MIN 3.5 PCF OR 56 KG/M3) GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKET. LONGITUDINAL JOINTS SEALED WITH METAL FASTENERS OR FACTORY-APPLIED SELF-SEALING LAP TAPE. TRANSVERSE JOINTS SEALED WITH METAL FASTENERS OR WITH BUTT STRIP TAPE SUPPLIED WITH THE PRODUCT. WHEN NOM 1 IN. (25 MM) THICK PIPE COVERING IS USED, THE ANNULAR SPACE BETWEEN THE PIPE COVERING AND THE CIRCULAR CUTOUT IN THE GYPSUM WALLBOARD LAYERS ON EACH SIDE OF THE WALL SHALL BE MIN 1/4 IN. (6 MM) TO MAX 3/8 IN. (10 MM) WHEN NOM 2 IN. (51 MM) THICK PIPE COVERING IS USED, THE ANNULAR SPACE BETWEEN THE PIPE COVERING AND THE CIRCULAR CUTOUT IN THE GYPSUM BOARD LAYERS ON EACH SIDE OF THE WALL SHALL BE MIN 1/2 IN. (13 MM) TO MAX 3/4 IN. (19 MM)
   SEE PIPE AND EQUIPMENT COVERING MATERIALS (BRGU) CATEGORY IN BUILDING MATERIALS DIRECTORY FOR NAMES OF MANUFACTURERS. ANY PIPE COVERING MATERIAL MEETING THE ABOVE SPECIFICATIONS AND BEARING THE UL CLASSIFICATION MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.
   THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS 3/4 HR WHEN NOM 1 IN. (25 MM) THICK PIPE COVERING IS USED. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS 1 HR AND 1-1/2 HR WHEN NOM 2 IN. (52 MM) THICK PIPE COVERING IS USED WITH 1 HR AND 2 HR FIRE RATED WALLS, RESPECTIVELY.

4. FIRESTOP SYSTEM - INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS:

   A. FILL, VOID OR CAVITY MATERIALS* - WRAP STRIP - NOM 1/4 IN. (6 MM) THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2 IN. (51 MM) WIDE STRIPS. NOM 2 IN. (51 MM) WIDE STRIP TIGHTLY WRAPPED AROUND PIPE COVERING (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO ANNULAR SPACE APPROX 1-1/4 IN. (32 MM) SUCH THAT APPROX 3/4 IN. (19 MM) OF THE WRAP STRIP WIDTH PROTRUDES FROM THE WALL SURFACE. ONE LAYER OF WRAP STRIP IS REQUIRED WHEN NOM 1 IN. (25 MM) THICK PIPE COVERING IS USED. TWO LAYERS OF WRAP STRIP ARE REQUIRED WHEN NOM 2 IN. (51 MM) THICK PIPE COVERING IS USED.

   3M COMPANY - FS-195+

   B. FILL, VOID OR CAVITY MATERIALS* - CAULK OR SEALANT 15/32 MIN 1/4 IN. (6 MM) DIAM CONTINUOUS BEAD APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYER APPROX 3/4 IN. (19 MM) FROM THE WALL SURFACE.
   3M COMPANY - CP 25WB+, IC 15WB+, FIREDAM 150+ CAULK OR FB-3000 WT SEALANT

   *BEARING THE UL CLASSIFICATION MARK LAST UPDATED ON 2005-05-19

   UL LISTED AND CLASSIFIED PRODUCTS UL RECOGNIZED COMPONENTS PRODUCTS CERTIFIED FOR CANADA

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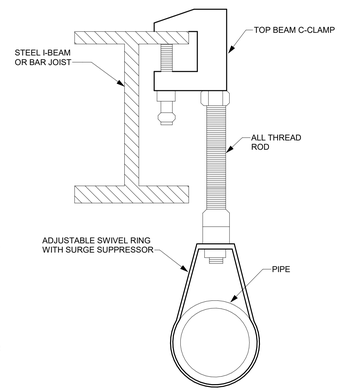
THROUGH-PENETRATION FIRESTOP SYSTEMS W-L-5001

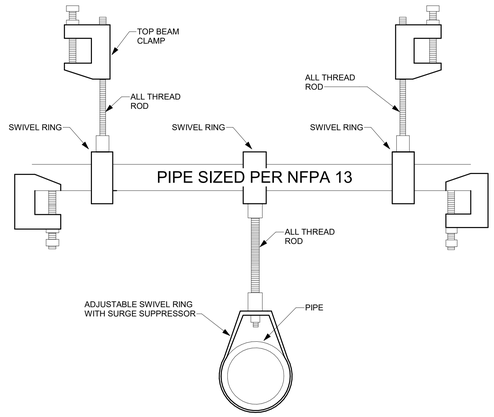
No Scale

PD 0113

TYPICAL HANGER FOR ATTACHMENT TO STEEL



TRAPEZE HANGER PIPE/TOP BEAM C-CLAMPS



GENERAL NOTES:

1. ON STEEL END-OF-BRANCH AND ARM-OVER LINES OVER 12 INCHES CUMULATIVE HORIZONTAL LENGTH INSTALL A HANGER WITHIN 12 INCHES OF EACH CEILING-MOUNTED PENDANT SPRINKLER PER NFPA 13 SECTION 9.2.3.4.4.1 AND .2

   A. WHERE NEEDED THE LINE SHALL BE EXTENDED BEYOND THE SPRINKLER AND SUPPORTED BY AN ADDITIONAL HANGER.

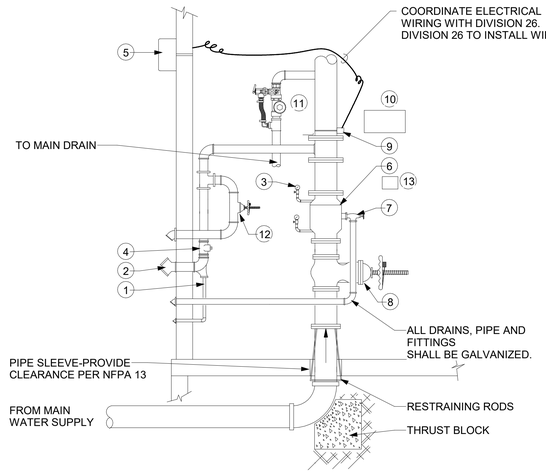
2. PROVIDE A MEANS OF COMPLETE UPLIFT RESTRAINT ON THE HANGER NEAREST TO EACH CEILING-MOUNTED PENDANT SPRINKLER PER NFPA 13 SECTION 9.2.3.4.4.1 INCLUDING ANY TRAPEZE SUPPORT CONNECTIONS. FOR ALL NEW AND EXISTING SPRINKLER HEADS IN THE PROJECT AREA

3. EXISTING SPRINKLERS IN BOTH NEW AND EXISTING CEILING AREAS ACCESSED DURING CONSTRUCTION ACTIVITIES SHALL BE PROVIDED WITH THE APPLICABLE HANGERS AND RESTRAINTS.

PIPE SUPPORT DETAIL

No Scale

FP 0000



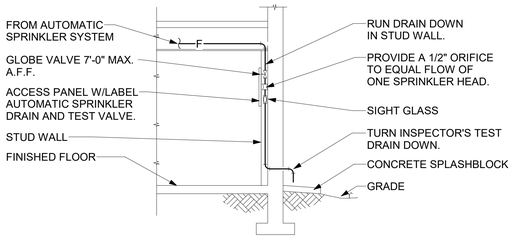
1. BALL DRIP
2. FIRE DEPARTMENT CONNECTION (MAY ALSO BE REMOTE. REFER TO CIVIL SITE PLANS)
3. WATER GAUGE
4. CHECK VALVE
5. ELECTRIC BELL
6. WET PIPE ALARM VALVE
7. MAIN DRAIN
8. O.S.&Y GATE VALVE WITH TAMPER SWITCH.
9. FLOW SWITCH (FIRE ALARM CONNECTION BY OTHERS)
10. SPARE SPRINKLER CABINET
11. INSPECTOR TEST AND DRAIN WITH SIGHT GLASS
12. FORWARD FLOW TEST OS&Y GATE VALVE WITH TAMPER SWITCH. VALVE SHALL BE IN NORMALLY CLOSED POSITION.
13. RISER NAME PLATE

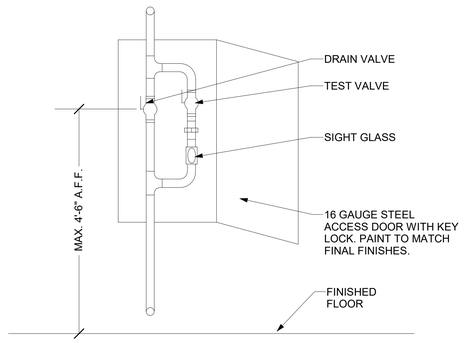
✳✳ NOTE:
CONTRACTOR HAS OPTION TO PROVIDE WATER MOTOR GONG. PROVIDE PIPING, RETARDING CHAMBER, VALVES, ETC. AS REQUIRED FOR A FUNCTIONING SYSTEM AT NO ADDITIONAL COST TO OWNER.

WET SPRINKLER RISER DIAGRAM WITH ELECTRIC BELL

No Scale

FP 0401





INSPECTOR'S TEST CONNECTION AND DRAIN WITH RECESSED CABINET

No Scale

FP 0418

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JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRE PROTECTION DETAILS

Drawing Number:

FP800

Drawn by: DG
Checked by: DN
Scale: 1/8" = 1'-0"

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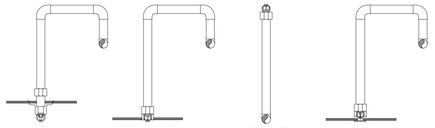


NOTES:

1. WHERE PENDANT STYLE HEADS ARE INDICATED AND AN ACOUSTICAL TILE CEILING IS TO BE INSTALLED, INSTALL PENDANT HEADS CENTERED IN BOTH DIRECTIONS.

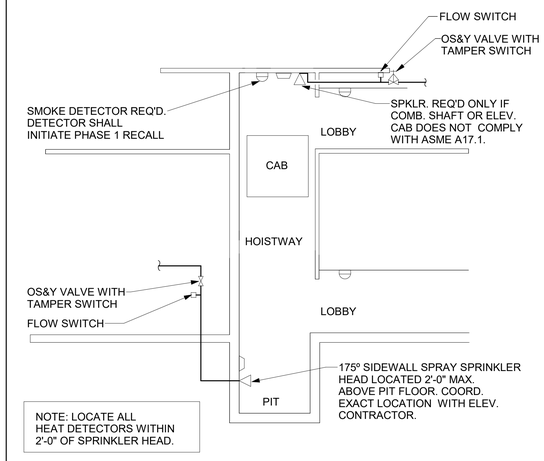
2. ARMOVERS WHICH EXCEED 2' - 0" SHALL INCLUDE HANGERS TO STRUCTURE. IF SYSTEM PRESSURE EXCEEDS 100 PSI, ARMOVERS WHICH EXCEED 1'-0" SHALL INCLUDE HANGERS TO STRUCTURE.

3. CONTRACTOR HAS OPTION OF PROVIDING FLEXIBLE CONNECTIONS PER SPECIFICATION SECTION 21 13 13.

SPRINKLER HEAD DETAILS

No Scale

FP 0110



ELEVATOR SPRINKLER DETAIL

No Scale

FP 0414

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Project Location:

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

FIRE PROTECTION DETAILS

Drawing Number:

FP801

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Checked by: DN
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SYMBOLS GENERAL NOTES:

A. ALL MOUNTING HEIGHTS GIVEN IN THE LEGEND, SCHEDULES, PLANS, AND DRAWING NOTES ARE TO THE CENTERLINE OF THE DEVICE, UNLESS OTHERWISE NOTED.

B. INSTALL ALL SWITCHES AT A CENTERLINE HEIGHT OF 46" A.F.F. UNLESS OTHERWISE NOTED. WHERE SWITCHES OR RECEPTACLES ARE MOUNTED ABOVE CASEWORK OR MILLWORK, LOCATE AT A HEIGHT OF 3'-8" MAX. ABOVE FINISH FLOOR OR 3" ABOVE BACKSPLASH TO CENTERLINE.

C. WHERE COVERPLATES CONFLICT WITH CASEWORK OR MILLWORK, SLIGHTLY ADJUST THE MOUNTING HEIGHTS OF THE WIRING DEVICES TO MAKE THE COVERPLATES CLEAR THE COUNTERTOP OR BACKSPLASH BY 1".

D. ADDITIONAL SYMBOLS MAY BE SHOWN OR DENOTED ON OTHER SHEETS.

E. ALL SYMBOLS, NOTES, AND ABBREVIATIONS SHOWN ON THE LEGEND ARE NOT NECESSARILY USED IN THIS SET OF CONTRACT DOCUMENTS.

F. NUMERICAL SUBSCRIPT ADJACENT TO DEVICE FIXTURE, EQUIPMENT OR JUNCTION BOX SYMBOL ON THE DRAWINGS DENOTES THE PANELBOARD CIRCUIT NUMBER TO WHICH DEVICE, FIXTURE, EQUIPMENT OR WIRING IN JUNCTION BOX IS CONNECTED.

CODE CRITERIA: (BUSINESS)

NOTE:
A. THIS LIST IS NOT INCLUSIVE OF ALL CODES AND STANDARDS THAT MAY OR MAY NOT APPLY TO THIS PROJECT.

B. PERFORM WORK SPECIFIED IN SPECIFICATIONS IN ACCORDANCE WITH STANDARDS LISTED BELOW INCLUDING AMENDMENTS OR REVISIONS. WHEN THESE SPECIFICATIONS ARE MORE STRINGENT, THEY TAKE PRECEDENCE. IN CASE OF CONFLICT, OBTAIN A DECISION FROM THE DESIGNER.

NFPA-13 (2016)
INSTALLATION OF SPRINKLER SYSTEMS

NFPA-54 (2018)
NATIONAL FUEL GAS CODE

NFPA-70 (2017)
NATIONAL ELECTRICAL CODE

NFPA-72 (2016)
NATIONAL FIRE ALARM CODE

NFPA-90A (2018)
INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS

NFPA-90B (2018)
INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS

NFPA-91 (2015)
EXHAUST SYSTEMS FOR AIR CONVEYING OF VAPORS, GASES, MISTS, AND NON-COMBUSTIBLE PARTICULATE SOLIDS

NFPA-96 (2017)
VENTILATION CONTROL AND FIRE PREVENTION OF COMMERCIAL COOKING OPERATIONS.

THE FLORIDA SPECIFIC EDITION OF NFPA 101. THE LIFE SAFETY CODE (2018 EDITION) [69A-3.012(1) FAC] [69A-53.004 FAC]

NFPA-110 (2016)
EMERGENCY AND STANDBY POWER SYSTEMS

NFPA-241 (2013) STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS.

NFPA-780 (2017)
LIGHTNING PROTECTION CODE

FLORIDA BUILDING CODE, BUILDING 7TH EDITION (2020)

FLORIDA BUILDING CODE, MECHANICAL 7TH EDITION (2020)

FLORIDA BUILDING CODE, PLUMBING 7TH EDITION (2020)

FLORIDA BUILDING CODE, TEST PROTOCOLS FOR HIGH WIND HURRICANE ZONES 7TH EDITION (2020)

FLORIDA BUILDING CODE, FUEL GAS 7TH EDITION (2020)

FLORIDA FIRE PREVENTION CODE 7TH EDITION (2020)

FLORIDA ACCESSIBILITY CODE 7TH EDITION (2020)

FLORIDA BUILDING CODE, ENERGY EFFICIENCY 7TH EDITION (2020)

STATE OF FLORIDA ADMINISTRATIVE CODE NO. 69A-3.012 AND 69A-60.

NOTE: WHERE THERE ARE DIFFERENCES BETWEEN SECTIONS OF THE "BUILDING" AND "MECHANICAL" OR "PLUMBING" CODES, IT WILL BE ASSUMED THAT THE BUILDING CODE TAKES PRECEDENCE.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO CENTERLINE
	CLOCK SYSTEM	UON
I-C	PRIMEX GPS WIRELESS CLOCK (14159) 12.5" ANALOG	7'-0"
C	SINGLE FACE WIRELESS MASTER CLOCK (SEE SPECIFICATIONS)	SEE SPEC'S
C F	DOUBLE FACE WIRELESS MASTER CLOCK (SEE SPECIFICATIONS)	SEE SPEC'S
C T	INTERVAL TIMER - SIMPLEX #6306-9103 FURNISHED BY ELECTRICAL (INCLUDE CONTROLLER)	SEE DETAIL
IT	INTERVAL TIMER CONTROL SWITCH - SIMPLEX #6303-9202 FURNISHED BY ELECTRICAL	
MC	MASTER CLOCK (GPS PRIMEX WIRELESS CLOCK SYSTEM)	———
MCP	MASTER CLOCK &-PROGRAMMER	———
PB C	PROGRAM BELL	7'-0"
MC	MASTER CLOCK SYSTEM JUNCTION BOX	
	FIRE ALARM SYSTEM	
	ALL STROBE UNITS MUST BE MOUNTED 80" AFF TO BOTTOM OF LAMP NOT DEVICE.	
L	FLASHING LIGHT	80"
L S	SPEAKER/FLASHING LIGHT COMBINATION (CONNECT TO EXISTING AUDIO SYSTEM)	80"
L S	SPEAKER/FLASHING LIGHT COMBINATION (PROVIDE TONE GENERATOR FOR USE WITH SPEAKER)	80"
L H	HORN/FLASHING LIGHT COMBINATION	80"
F	MANUAL PULL STATION	46"
DSD	DUCT-SMOKE DETECTOR (SUPPLY)	———
DSR	DUCT-SMOKE DETECTOR (RETURN)	———
S	SMOKE DETECTOR	CEILING
S	SMOKE DETECTOR WITH LOCAL ALARM	CEILING
BD	BEAM TYPE SMOKE DETECTOR	
DSD	DUCT-SMOKE DETECTOR (DAMPER) OR (EXHAUST)	———
I-L	DUCT-SMOKE DETECTOR INDICATOR LIGHT (WALL MOUNTED 10"BELOW CEILING)	———
HD	AUTOMATIC HEAT DETECTOR (RATE OF RISE TYPE)	———
SDK	SYSTEM CONNECTED SMOKE DETECTOR	CEILING
SDK	SYSTEM CONNECTED SMOKE DETECTOR FOR FIREMAN'S RECALL	CEILING
D	FIRE SMOKE DAMPER	18"
SH	SMOKE DOOR HOLDER	6'-0"
TS	TAMPER SWITCH	———
FL	FLOW SWITCH	CEILING
FJ	FIREMAN'S PHONE JACK	46"
SP	DWELLING UNIT FIRE SPEAKER	———
L H	FLASHING LIGHT SPEAKER SIGNAL STATION	80"
FACP	CONTROL PANEL	———
FAPC	PULL CABINET	———
FAA	REMOTE ANNUNCIATOR	———
FR	FIRESTAT (PROVIDED BY OTHERS) MONITOR WITH FIRE ALARM SYSTEM	———
FAPU	CENTRAL PROCESSING UNIT	———
FACC	COMMAND CENTER	———
FAAT	TRANSPONDER	———
FS	FIRE ALARM SPEAKER	———
R	FIRE ALARM RELAY	
	NURSE CALL & CODE BLUE SYSTEMS	
NM	NURSE MASTER STATION	44"
POE	NURSE CALL "POWER OVER ETHERNET" TERMINAL CABINET	44"
NCT	NURSE CALL TERMINAL CABINET	44"
CB	CODE BLUE EMERGENCY CALL STATION	CEILING
S	STAFF ASSIST EMERGENCY CALL STATION	CEILING
PB	TWO BUTTON (CODE BLUE & STAFF ASSIST) EMERGENCY CALL STATION	
SP	SINGLE PATIENT STATION WITH CALL CORD	
D	STAFF DUTY STATION	
C	NURSE CALL DOME LIGHT	
Z	NURSE CALL ZONE LIGHT	
EP	EMERGENCY PULL CORD (CORD WITHIN 6" AFF)	
	ACCESS CONTROL SYSTEM/LOCKS	
CR	ACCESS CONTROL CARD READER (SEE SPECIFICATIONS)	
KP	ACCESS CONTROL DOOR KEYPAD	
DPB	ACCESS CONTROL DOOR PUSH PLATE	
RB	ACCESS CONTROL DOOR PUSH BUTTON	
	MISCELLANEOUS	
MGA	MEDICAL GAS ALARM	———
LPA	LINE PRESSURE ALARM	———
RGA	REMOTE GENERATOR ANNUNCIATOR	———
BBA	BLOOD BANK ALARM	
MSA	MOISTURE SENSOR ALARM	
DPA	ROOM DIFFERENTIAL PRESSURE ALARM (COORDINATE W/DIVISION 15)	
VIC	VARIABLE LIGHT INTENSITY CONTROLLER (BY OTHERS) FOR EXAM LIGHT	
	VOICE/DATA CABLING	
X	DATA ONLY OUTLET(S) WITH "X" NUMBER OF CATEGORY 6 CABLE(S)	18"
X/Y	VOICE/DATA OUTLET(S) WITH "X" VOICE AND "Y" DATA CATEGORY 6 CABLE(S)	18"
X	VOICE ONLY OUTLET(S) WITH "X" VOICE CATEGORY 6 CABLE(S)	18"
X	ABOVE COUNTER DATA ONLY OUTLET(S) WITH "X" NUMBER OF CATEGORY 6 CABLE(S)	6"ABC OR 46"AFF
X/Y	ABOVE COUNTER VOICE/DATA OUTLET(S) W/ "X" VOICE & "Y" DATA CATEGORY 6 CABLE(S)	6"ABC OR 46"AFF
X	ABOVE COUNTER VOICE ONLY OUTLET(S) WITH "X" VOICE CATEGORY 6 CABLE(S)	6"ABC OR 46"AFF
(P#)	CABLE(S) INTENDED FOR USE BY PATIENT MONITORING SYSTEM	———
(MED)	CABLE(S) INTENDED FOR USE BY AUTOMATED MEDICATION DISPENSER	———
W	VOICE ONLY WALL PHONE OUTLET	46"
	HILTI SPEED SLEEVE OR EQUIVALENT (SIZE PER CABLE QUANTITY)	
	ABBREVIATIONS	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
ABV	MOUNT ABOVE COUNTER	
ABC	ABOVE CEILING	
CC	CRASH CART	
CM	COFFEE MAKER	
DF	DRINKING FOUNTAIN	
EDF	ELECTRIC DRINKING FOUNTAIN	
FBE	FURNISHED & INSTALLED BY ELECTRICAL CONTRACTOR	
FBO	FURNISHED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR	
GFI	GROUND-FAULT CIRCUIT INTERRUPTER (SEE SPECS)	
GND	GROUND	
ICE	ICE MAKER	
MW	MICROWAVE	
REF	REFRIGERATOR	
S	RECEPTACLE TAMPER RESISTANT / SAFETY TYPE	
U	USB	
UON	UNLESS OTHERWISE NOTED	
WC	WARMING CABINET	
WH	WATER HEATER	
WP	WEATHER PROOF, NEMA 3R	

SYMBOL	DESCRIPTION	MOUNTING HEIGHT TO CENTERLINE
	CONDUIT CONCEALED IN WALL OR CEILING	
	CONDUIT CONCEALED IN FLOOR (OR BELOW GRADE ON SITE PLAN)	
	CONDUIT EXPOSED ON WALL OR CEILING.	
	HOMERUN CONDUIT, 2 CIRCUIT 3#12 AWG	
	TELEPHONE CONDUIT CONCEALED UON (MIN ¾%131").	
	DICTATION SYSTEM CONDUIT CONCEALED UON (MIN ¾%131").	
	INTERNAL WIRING FURNISHED ON PRE-FAB PARTITION (FBO)	
	INTERNAL TELEPHONE RACEWAY FURNISHED WITH PRE-FAB PARTITION (FBO)	
	CONDUIT TURNING UP	
	CONDUIT TURNING DOWN	
	SURFACE MOUNTED LED OR HID LIGHT FIXTURE ON NORMAL BRANCH CIRCUIT	
	SURFACE MOUNTED LED OR HID LIGHT FIXTURE (SWITCHED)	
	SURFACE MOUNTED LED OR HID LIGHT FIXTURE(UN-SWITCHED)	
	RECESSED LED OR HID LIGHT FIXTURE ON NORMAL BRANCH CIRCUIT	
	RECESSED LED OR HID LIGHT FIXTURE (SWITCHED)	
	RECESSED LED OR HID LIGHT FIXTURE (UN-SWITCHED)	
	SURFACE MOUNTED WALL LED OR HID LIGHT FIXTURE ON NORMAL BRANCH CIRCUIT	
	SURFACE MOUNTED WALL LED OR HID LIGHT FIXTURE (SWITCHED)	
	SURFACE MOUNTED WALL LED OR HID LIGHT FIXTURE (UN-SWITCHED)	
	RECESSED WALL LED OR HID LIGHT FIXTURE ON NORMAL BRANCH CIRCUIT	
	RECESSED WALL LED OR HID LIGHT FIXTURE (SWITCHED)	
	RECESSED WALL LED OR HID LIGHT FIXTURE (UN-SWITCHED)	
	SURFACE MOUNTED LED LIGHT FIXTURE ON NORMAL BRANCH CIRCUIT	
	SURFACE MOUNTED LED LIGHT FIXTURE (SWITCHED)	
	SURFACE MOUNTED LED LIGHT FIXTURE (UN-SWITCHED)	
	RECESSED LED LIGHT FIXTURE ON NORMAL BRANCH CIRCUIT	
	RECESSED LED LIGHT FIXTURE (UN-SWITCHED)	
	RECESSED LED LIGHT FIXTURE (SWITCHED)	
	SURFACE MOUNTED LED FIXTURE CONNECTED TO NORMAL BRANCH CIRCUIT	AS NOTED
	SURFACE MOUNTED LED FIXTURE(SWITCHED)	AS NOTED
	SURFACE MOUNTED LED FIXTURE(UN-SWITCHED)	AS NOTED
	EXIT LIGHT, CEILING MOUNTED	
	EXIT LIGHT, WALL MOUNTED	
	TWO HEAD BATTERY POWERED EMERGENCY EGRESS LIGHT	
EMP	REMOTE EMERGENCY BATTERY PACK	
"#"	LIGHTING FIXTURE TYPE DESIGNATION-SEE LIGHTING FIXTURE SCHEDULE	
	AREA OR STREET LIGHT FIXTURE	
	AREA OR STREET LIGHT FIXTURE	
	FACTORY WIRED CONTROLLER OR EQUIPMENT CONNECTION, FBO (DISCONNECTS FBE AS REQUIRED)	
	MOTOR CONTROLLER OR CONTACTOR, F.B.O. W/DISCONNECT, F.B.O. W/EQUIPMENT	
	COMBINATION MOTOR STARTER DISCONNECT	
	DISCONNECT SWITCH, NON-FUSIBLE	
	DISCONNECT SWITCH, FUSIBLE	
RT	DISCONNECT SWITCH, NON-FUSIBLE RT DENOTES NEMA-3R	
RT	DISCONNECT SWITCH, FUSIBLE RT DENOTES NEMA-3R	
	MOTOR CONNECTION WITH APPROXIMATE HORSE-POWER SHOWN	
T	THERMOSTAT (FBO). (SEE MECH.)	
SV	SOLENOID VALVE	
PEC	PHOTO-ELECTRIC SWITCH	
TC	ON-OFF TIME CLOCK	
PS	PRESSURE SWITCH	
FT	FLOAT SWITCH	
FL	FLOW SWITCH	
TR	TRANSFORMER	
J	JUNCTION BOX	
PB	PULL BOX	
	LIGHTING PANELBOARD	
	MAIN SWITCHBOARD OR DISTRIBUTION PANEL	
	ENCLOSED CIRCUIT BREAKER	
OM	WALL MOUNTED PIR OCCUPANCY SENSOR - FURNISHED BY ELECTRICAL - WATTSTOPPER NO. PW-100	46"
OC	CEILING MOUNTED OCCUPANCY SENSOR - FURNISHED BY ELECTRICAL - WATTSTOPPER NO. LMDC-100	CEILING
LVS	WALL MOUNTED LOW VOLTAGE SWITCH - FURNISHED BY ELECTRICAL - WATTSTOPPER NO. LMSW-101 (MANUAL ON/AUTO OFF)	46"
LVS	WALL MOUNTED LOW VOLTAGE TWO BUTTON SWITCH - BY ELECTRICAL - WATTSTOPPER NO. LMSW-102 (AUTO-50%/MANUAL 100%/AUTO OFF)	46"
DOC	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR - FURNISHED BY ELECTRICAL - WATTSTOPPER NO. DW-100 (AUTO ON/AUTO OFF)	46"
DOC	THREE WAY WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR - BY ELECTRICAL - WATTSTOPPER NO. DW-103 (MANUAL ON/AUTO OFF)	46"
WP	WEATHER RESISTANT CEILING MOUNTED OCCUPANCY SENSOR - FURNISHED BY ELECTRICAL - WATTSTOPPER NO. CB-100	
PE	PHOTOELECTRIC SENSOR	
ROOM	WEATHER RESISTANT WALL MOUNTED OCCUPANCY SENSOR - FURNISHED BY ELECTRICAL	46"
S	SINGLE POLE SWITCH-(SEE SPECS)	46"
S2	TWO POLE SWITCH-(SEE SPECS)	46"
S3	THREE-WAY SWITCH-(SEE SPECS)	46"
S4	FOUR WAY SWITCH-(SEE SPECS)	46"
SD	SINGLE POLE DIMMER SWITCH 600 WATT	46"
SW	WALL MOUNTED PROGRAMMABLE COUNTDOWN TIMER SWITCH - FURNISHED BY ELECTRICAL - WATTSTOPPER NO. RT-100	46"
SDO	THREE-WAY DIMMER SWITCH 600 WATT	46"
S1	THERMAL MOTOR SWITCH-(FBE)	46"
STWP	THERMAL MOTOR SWITCH, WEATHERPROOF-(FBE)	46"
STPI	THERMAL MOTOR SWITCH, WITH PILOT LIGHT (FBE)	46"
SK	KEY OPERATED SWITCH	46"
SPI	SINGLE POLE SWITCH WITH PILOT LIGHT	46"
SWP	SINGLE POLE SWITCH, WEATHERPROOF	46"
SDS	SINGLE POLE, DOUBLE THROW, CENTER OFF SWITCH (RED) - DARK ROOM	46"
SVC	VARIABLE INTENSITY CONTROL, F.B.O. WITH FIXTURES - SEE O.F.E. BROCHURE FOR INSTALLATION (SEE DETAIL)	BOTTOM 46"
S	SINGLE POLE SWITCH ON EMERGENCY BRANCH CIRCUIT (RED)	46"
S2	DOUBLE POLE SWITCH ON EMERGENCY BRANCH CIRCUIT (RED)	46"
S3	THREE-WAY SWITCH ON EMERGENCY BRANCH CIRCUIT (RED)	46"
SE	SINGLE POLE SWITCH WITH PILOT LIGHT ON EMERGENCY BRANCH CIRCUIT	46"
	SINGLE RECEPTACLE, AMPERAGE, VOLTAGE, NEMA CONFIGURATION AS REQUIRED BY EQUIP. SUPPLIER OR AS NOTED	18"
1	120V. DUPLEX RECEPTACLE (SEE SPECS)	18"
E	120V. DUPLEX RECEPTACLE ON EMERGENCY BRANCH CIRCUIT (RED)	18"
	120V. DUPLEX RECEPTACLE ABOVE COUNTER (SEE SPECS)	AS SPECIFIED
E	120V. DUPLEX RECEPTACLE ABOVE COUNTER ON EMERGENCY BRANCH CIRCUIT (RED)	AS SPECIFIED
TV	120V. DUPLEX RECEPTACLE FOR TV POWER (SEE SPECS) ✳ CENTERLINE OF TV (COORDINATE WITH ARCHITECT)	AS NOTED ✳
M	120V. DUPLEX RECEPTACLE-(SEE SPECS) OCCUPANCY SENSOR CONTROLLED	
2	120V. QUADRAPLEX RECEPTACLE-(SEE SPECS)	18"
E	120V. QUADRAPLEX RECEPTACLE ON EMERGENCY BRANCH CIRCUIT-(RED)	18"
	120V. QUADRAPLEX RECEPTACLE-(SEE SPECS)	AS SPECIFIED
E	120V. QUADRAPLEX RECEPTACLE ON EMERGENCY BRANCH CIRCUIT-(SEE SPECS)	AS SPECIFIED
T	SINGLE RECEPTACLE-TWISTLOCK TYPE (120V.-20A. UNLESS OTHERWISE SPECIFIED)	18"
	120V. DUPLEX RECEPTACLE IN CONSOLE-(SEE SPECS)	SEE DETAIL
E	120V. DUPLEX RECEPTACLE IN CONSOLE ON EMERGENCY BRANCH CIRCUIT (RED).	SEE DETAIL
	120V. DUPLEX RECEPTACLE IN CONSOLE-(SEE SPECS)(AMPERES, VOLTAGE, & NEMA CONFIGURATION AS SPECIFIED)	SEE DETAIL
E	120V. DUPLEX RECEPTACLE IN CONSOLE ON EMERGENCY BRANCH CIRCUIT-(RED)(AMPERES, VOLTAGE, & NEMA CONFIGURATION AS SPECIFIED)	SEE DETAIL
T	120V. TWISTLOCK RECEPTACLE IN CONSOLE-(SEE SPECS)(AMPERES, VOLTAGE, & NEMA CONFIGURATION AS SPECIFIED)	SEE DETAIL
	120V. SQUARE OR ROUND FLOOR BOX WITH (1) DUPLEX RECEPTACLE-(SEE SPECS)	FLOOR BOX
E	120V. SQUARE OR ROUND FLOOR BOX WITH (1) DUPLEX RECEPTACLE EMERGENCY-(RED)	FLOOR BOX
	TWO GANG FLOOR BOX WITH ONE DUPLEX RECEPTACLE AND ONE TELEPHONE OUTLET	FLOOR BOX
DATA	THREE GANG FLOOR BOX WITH ONE DUPLEX RECEPTACLE, ONE TELEPHONE OUTLET, & ONE DICTATION OUTLET	FLOOR BOX
	THREE GANG FLOOR BOX WITH TWO DUPLEX RECEPTACLES, & ONE TELEPHONE OUTLET	FLOOR BOX
PM	120V. DUPLEX RECEPTACLE (INTENDED FOR USE BY PATIENT MONITORING SYSTEM - COORDINATE WITH ARCHITECT)	———
	SINGLE RECEPTACLE NON-EXPLOSION PROOF (HUBBELL 23000 HG)	BOTTOM 61"
	DUPLEX RECEPTACLE 20 AMP 120 VOLT	18"
E	DUPLEX RECEPTACLE ON EMERGENCY BRANCH CIRCUIT 20 AMP 120 VOLT-(RED)	18"
	DUPLEX RECEPTACLE 20 AMP 120 VOLT-(MOUNTED ABOVE COUNTER)	46"
SW	DUPLEX RECEPTACLE AND SINGLE POLE SWITCH UNDER COMMON PLATE	
	PORTABLE C-ARM OUTLET HUBBELL #2610	BOTTOM 61"
R	120V. DUPLEX FOR RADIO EQUIPMENT POWER	18"
IG	DUPLEX RECEPTACLE, ISOLATED GROUNDING.	18"
IG	DUPLEX RECEPTACLE, ISOLATED GROUNDING, INSTALL ABOVE COUNTER	46"
IG	QUADRAPLEX RECEPTACLE, ISOLATED GROUNDING	18"
W	WIREMOLD	
	PLUGMOLD #3000 WITH HUBBELL 5262 DUPLEX RECEPTACLES 24" ON CENTER	46"
	PLUGMOLD #2100 WITH 2121 GA RECEPTACLES 24" ON CENTER	46"
TP	TELE/POWER WALL OUTLET FOR CONNECTION TO PRE-FAB PARTITIONS. PROVIDE FLUSH MOUNTED JB & CONNECTIONS FOR POWER & TELEPHONE SERVICE	BOTTOM 1"
	TELE/POWER POLE CLG. OUTLET FOR CONNECTION TO PRE-FAB PARTITION. PROVIDE JB AND CONNECTIONS FOR POWER AND TELEPHONE SERVICE (POLE FBO)	———
IM	REMOTE LINE ISOLATION MONITOR WITH MILLIMETER	SEE DETAIL
RJ	REMOTE RECEPTACLE GROUND JACK MODULE (ROOM GROUND POINT) SEE DETAIL	SEE DETAIL
RJ	REMOTE RECEPTACLE GROUND JACK MODULE (PATIENT GROUND POINT) SEE DETAIL	SEE DETAIL
P	ISOLATION PANEL (FLUSH MOUNTED)	———
PB	PUSHBUTTON, FLUSH MOUNTED (SQ-D #KR-24B WITH KA-2 CONTACT BLOCK & KN-200 LEGEND PLATE WITH ID NOTED)	46"
PBW	PUSHBUTTON, WEATHERPROOF, FLUSH MOUNTED, (SQ-D #KR-24B WITH KA-2 CONTACT BLOCK & KN-200 LEGEND PLATE WITH ID NOTED)	46"
	BUZZER, 120 V., FLUSH MOUNTED SIMPLEX #4001-12 (FBE)	7'-0"
	PUSHPAD FOR AUTOMATIC DOORS (F.B.O.)	

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER	MODEL NO.	LAMP	VOLTAGE	LOAD	MOUNT	REMARKS
7	LITHONIA	2VTL4 30L ADP EZ1 LP835	LED	120 V	24 VA	RECESSED	2'x4' LED DIRECT/INDIRECT TROFFER (CENTER BASKET)
7E	LITHONIA	2VTL4 30L ADP EZ1 LP835 E10WLCP	LED	120 V	24 VA	RECESSED	2'x4' LED DIRECT/INDIRECT TROFFER (CENTER BASKET) W/ BATTERY BACKUP
'17'	LITHONIA	CLX L48 5000LM SEF SBLW RDL MVOLT35K 80CRI HC36	LED	120 V	35 VA	RECESSED	LED UTILITY STRIP FIXTURE
'18'	LITHONIA	ZL1N L46 7000LM L/LENS MVOLT 40K 80CRI WH	LED	120 V	52 VA	SURFACE	ELEVATOR PIT LIGHT (7000LM)
'19'	LITHONIA	WL2 22L LP835	LED	120 V	21 VA	SURFACE	2' LED WALL MOUNTED LIGHT
'33E'	LITHONIA	WL4 40L LP835 E10WLCP	LED	120 V	40 VA	SURFACE	STAIRWELL LIGHT W/ BATTERY BACKUP
'51'	TECH LIGHTING	700BCMET Y S LED 90 CRI 3000K 120V	LED	120 V	19 VA	SURFACE	DECORATIVE VANITY SCONCE (BRUSHED NICKEL)
'63'	GOTHAM	EVO6SQ 35/35 ARWD LSS MVOLT	LED	120 V	40 VA	RECESSED	6" LENSED SQUARE DOWNLIGHT (3500 LUMENS)
'63E'	GOTHAM	EVO6SQ 35/35 ARWD LSS MVOLT E10WCP	LED	120 V	40 VA	RECESSED	6" LENSED SQUARE DOWNLIGHT (3500 LUMENS) W/ BATTERY BACKUP
'70E'	LITHONIA	LRP W 1RC 120/277 EL N	LED	120 V	2 VA	UNIVERSAL	SINGLE SIDED EDGE LIT WALL MOUNT EXIT SIGN W/ BATTERY BACKUP
'71E'	LITHONIA	LRP W 1RC 120/277 EL N	LED	120 V	2 VA	UNIVERSAL	SINGLE SIDED EDGE LIT CEILING MOUNT EXIT SIGN W/ BATTERY BACKUP
'72E'	LITHONIA	LRP W 2RMR 120/277 EL N	LED	120 V	2 VA	UNIVERSAL	DOUBLE SIDED EDGE LIT CEILING MOUNT EXIT SIGN W/ BATTERY BACKUP
'75E'	LITHONIA	ELM6L UVOLT LTP	LED	120 V	15 VA	SURFACE	EMERGENCY BATTERY BACKUP LIGHTS WALL MOUNTED
'80'	MODA LIGHT	STARFLEX INTERIOR 3500K HCRI/MP88	LED	120 V	100 VA	COVE	ARCHITECT SPECIFIED COVE LIGHT
81	OCL	TB3-P1CB-XX-MW-WTP-LED2/35K-WF/LED1/35K-UNV-XXX	LED	120 V	100 VA	PENDANT	ARCHITECTURAL CYLINDER PENDANT - COORDINATE SIZE, CABLE LENGTHS, AND QUANTITY WITH INTERIOR DESIGNER
82	LIGHTART	LA2-ESS-ZERO-44D-4H-CUST-835-WPC-WH	LED	120 V	39 VA	PENDANT	DRUM LIGHT PENDANT (44" DIAMETER)
'86'	KICHLER	83703 BRUSHED NICKEL	LED	120 V	40 VA	SURFACE	CONTEMPORY WALL SCONCE
E2	ACUITY BRANDS	LLP4 40LM 40K MVOLT G4 80CRI ZT P WH WET	LED	120 V	41 VA	RECESSED	RECESSED LED CANOPY LIGHT (DAMP LABEL)
E2E	ACUITY BRANDS	LLP4 40LM 40K MVOLT G4 80CRI ZT P BR WH WET	LED	120 V	41 VA	RECESSED	RECESSED LED CANOPY LIGHT (DAMP LABEL) W/ BATTERY BACKUP
'E10'	LITHONIA	ASW1 LED 42C 530 40K SR2 MVOLT PE DDBXD	LED	120 V	75 VA	SURFACE	LED PERFORMANCE WALL PACK W/ PHOTOCELL
'EP3'	LITHONIA	DSX1 LED P6 40K T3M MVOLT DBLXD	MH	208 V	167 VA	POLE	LED PARKING LIGHT (DISTRIBUTION TYPE III MEDIUM)
'EP4'	LITHONIA	DSX1 LED P6 40K TFTM MVOLT DBLXD	MH	208 V	167 VA	POLE	LED PARKING LIGHT (DISTRIBUTION FORWARD THROW MEDIUM)
OC	NLIGHT	NCM9 RJB	N/A	120 V	1 VA	SURFACE	CEILING MOUNTED OCCUPANCY SENSOR
PE	TORK	SEE SPECIFICATIONS	N/A		1 VA	SURFACE	PHOTO ELECTRIC SENSOR

ELECTRICAL SHEET LIST

SHEET NUMBER	SHEET NAME
E000	ELECTRICAL LEGENDS
E001	ELECTRICAL SITE PLAN
E002	LIGHTING SITE PLAN
E003	ELECTRICAL SITE DETAILS
E110	LIGHTING FIRST FLOOR PLAN
E120	LIGHTING SECOND FLOOR PLAN
E210	ELECTRICAL FIRST FLOOR PLAN
E220	ELECTRICAL SECOND FLOOR PLAN
E320	ELECTRICAL ROOF PLAN
E600	ELECTRICAL RISER DIAGRAM
E601	ELECTRICAL ONE-LINE DIAGRAM
E700	ELECTRICAL SCHEDULES
E800	ELECTRICAL DETAILS
E801	ELECTRICAL DETAILS

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL LEGENDS

Drawing Number:

E000

Drawn by: MC
Checked by: PGG
Scale: 1/8" = 1'-0"

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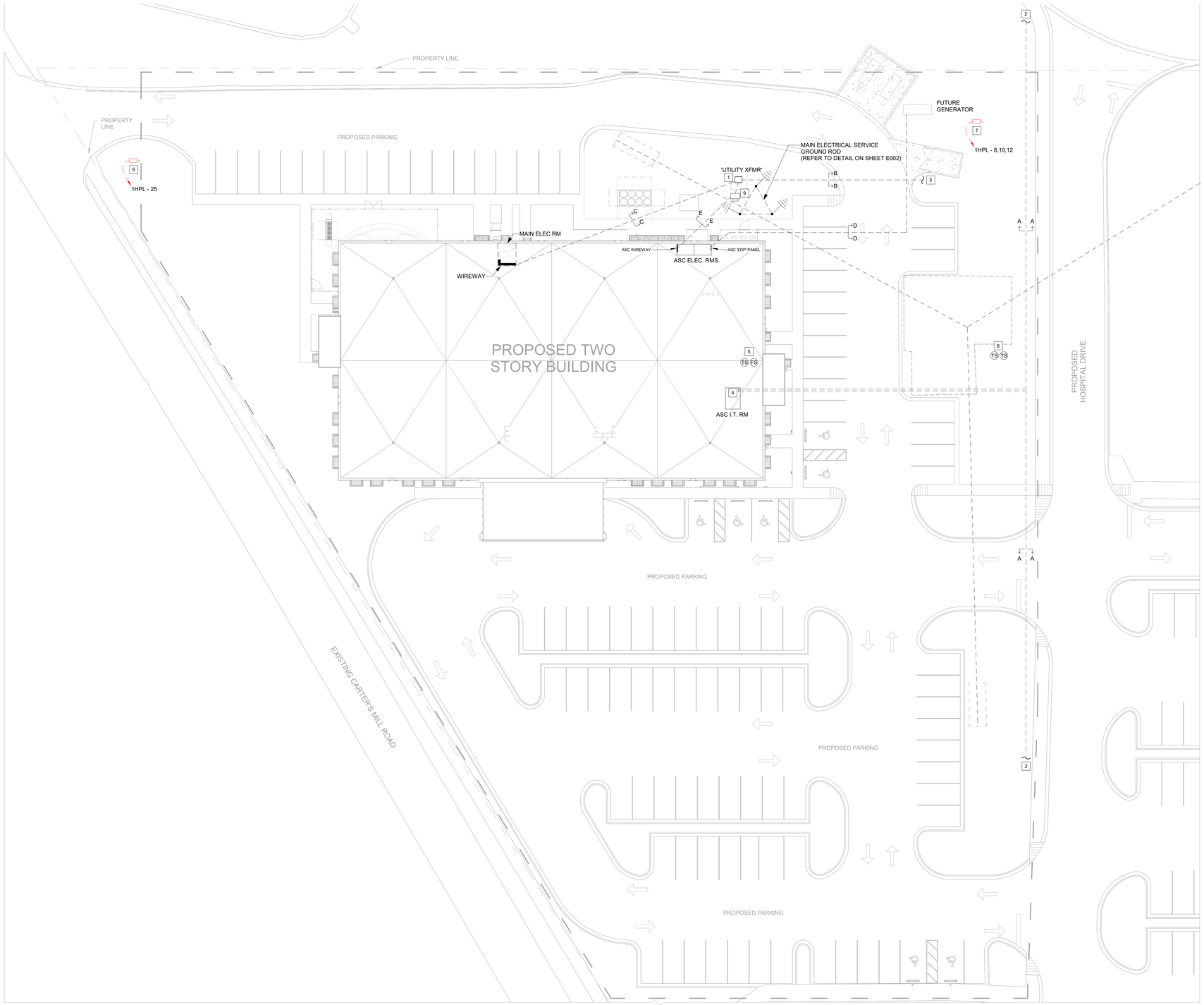

NORTH

POWER - SITE PLAN

1" = 20'-0"

GENERAL NOTES:

A. REFER TO CIVIL PLANS FOR THE EXACT ROUTING AND ELEVATION OF ALL NEW AND EXISTING UTILITY SERVICES. ALL ITEMS SHOWN ON THESE PLANS ARE DIAGRAMMATIC AND THE CIVIL PLANS SHOULD BE USED FOR EXACT PLACEMENT.

B. REFER TO CIVIL PLANS FOR ANY STRUCTURES THAT MUST BE AVOIDED (EX: FENCE, RETAINING WALL, AND STORM BASIN) AND FIELD COORDINATE ROUTING AS REQUIRED.

CODED NOTES:

1. LOCATION OF UTILITY TRANSFORMER AND FEEDERS LENGTH ARE FOR REFERENCE ONLY. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION OF UTILITY TRANSFORMER.

2. COORDINATE THE EXACT LOCATION OF THE TELEPHONE/INTERNET/CABLE UTILITY SERVICE ENTRANCE AND CONNECTION POINT WITH OWNER SELECTED UTILITY PROVIDER. PROVIDE A MINIMUM OF (3) 2" CONDUITS AND (1) 4" CONDUIT. CONDUITS TO BE ROUTED TO THE COMM. ROOM. INDICATED ON ARCHITECTURAL PLANS.

3. COORDINATE THE EXACT LOCATION OF THE PRIMARY CONDUCTORS UTILITY SERVICES TO BE ROUTED TO SERVICE UTILITY POLE IDENTIFIED BY UTILITY COMPANY. ALL ITEMS ARE TO BE INSTALLED PER UTILITY SERVICE STANDARDS.

4. COORDINATE MAIN TELEPHONE/CABLE/UTILITY SERVICE WITH LOCATION OF ASC I.T. ROOM ON FIRST FLOOR BEFORE ROUTING SERVICE TO MAIN BUILDING I.T. ROOM ON SECOND FLOOR.

5. PROVIDE TAMPER SWITCH AND FLOW SWITCH AT THE CONTROL VALVE. COORDINATE LOCATION WITH FIRE PROTECTION CONTRACTOR.

6. PROVIDE WEATHERPROOF FUSED DISCONNECT SWITCH FOR CONNECTION TO MONUMENT SIGN. VERIFY EXACT LOCATION AND FUSE SIZE WITH THE SIGN VENDOR SPECIFICATION. USE 2#8, 1#10GND., 3/4" CONDUIT. PROVIDE PHOTOELECTRIC SWITCH FOR CONTROL OF SIGN LIGHTING.

7. PROVIDE WEATHERPROOF 60A/3P/F30A/208V FUSED DISCONNECT SWITCH FOR CONNECTION TO IRRIGATION WELL. VERIFY EXACT LOCATION, ELECTRICAL REQUIREMENTS AND FUSE SIZE WITH THE CIVIL ENGINEER'S SPECIFICATION. USE 2#6, 1#10GND., 1"C.

8. PROVIDE TAMPER SWITCHES AT THE BACKFLOW PREVENTER. REFER TO CIVIL AND FIRE PROTECTION DRAWINGS FOR EXACT LOCATION.

9. PROVIDE CONCRETE SERVICE PEDESTAL FOR THE INSTALLATION OF FUTURE ASC CT CABINET AND METER. SERVICE DISCONNECT TO BE LOCATED NEXT TO METER AND GROUNDED AS INDICATED ON THE RISER DIAGRAM. COORDINATE EXACT LOCATION WITH UTILITY SERVICE PROVIDER.

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL SITE PLAN

Drawing Number:

E001

Drawn by: MC
Checked by: PGG
Scale: 1" = 20'-0"

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NORTH

LIGHTING - SITE PLAN

1" = 20'-0"

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CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

#	REVISIONS	
No.	Description	Date

Drawing Title:

LIGHTING SITE PLAN

Drawing Number:

E002

Drawn by: MC
Checked by: PGG
Scale: 1" = 20'-0"

D-Series Size 1
LED Area Luminaire

DLC DLC PREMIUM DLC DLC HORTICULTURAL UL LISTED

dsseries

Catalog Number

Notes

Type

Tailor this key or mouse over the page to see all selectable elements.

Specifications

EPA: 0.69 ft² (0.06 m²)

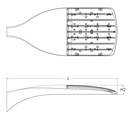
Length: 32.71" (83.1 cm)

Width: 14.26" (36.2 cm)

Height H1: 7.88" (20.0 cm)

Height H2: 2.73" (6.9 cm)

Weight: 34 lbs (15.4 kg)



Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX1 LED

Series	LEDs	Color temperature[1]	Color Rendering Index[1]	Distribution	Voltage	Mounting
DSX1 LED	**Forward optics** P1 P6 P2 P7 P3 P8 P4 P9 P5 **Rotated optics** P10[1] P12[1] P11[1] P13[1]	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare[1] T4M Type IV medium T4LG Type IV low glare[1] T5TM Forward throw medium T5M Type V medium T5LG Type V low glare T5W Type V wide BLC3 Type III backlight control[1] BLC4 Type IV backlight control[1] LCCO Left corner cutoff[1] RCCO Right corner cutoff[1]	MVOLT (120V-277V)[2] HVOLT (347V-480V)[1,2] XVOLT (277V - 480V)[1,2]	**Shipped included** SPA Square pole mounting (4ft drilling) RPA Round pole mounting (4ft drilling) SPA5 Square pole mounting (5ft drilling)[3] RPA5 Round pole mounting (5ft drilling)[3] SPABN Square narrow pole mounting (4ft drilling) WBA Wall bracket[4]

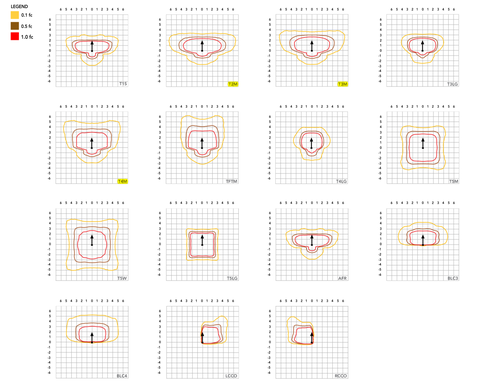
Control options		Other options	Finish (required)
Shipped installed NLTAIR2 PIRHN sc;ight AIR gen 2 enabled with bi-level motion / ambient sensor, 8–40' mounting height, ambient sensor enabled at 2fc.[5,6,7,8,9] PIR High/low, motion/ambient sensor, 8–40' mounting height, ambient sensor enabled at 2fc.[5,6,8] PER NEMA twist-lock receptacle only (controls ordered separate)[10] PERS Five-pin receptacle only (controls ordered separate)[6,10]	PER7 Seven-pin receptacle only (controls ordered separate)[6,10] FAO Field adjustable output[6,11] BL30 Bi-level switched dimming, 30%[6,8,11] BL50 Bi-level switched dimming, 50%[6,8,11] DMG 0–10v dimming wires pulled outside fixture (for use with an external control, ordered separately) DS Dual switching[6,8,11]	**Shipped installed** SPD20KV 20kV surge protection HS Houseside shield (black finish standard)[12] L90 Left rotated optics[1] R90 Right rotated optics[1] CCE Coastal Construction[13] **Shipped separately** EGSR External Glare Shield (reversible, field install required, matches housing finish) BSDB Bird Spikes (field install required)	DDBXD Dark Bronze DBLXD Black DNAXD Natural Aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's homepage.

Isofootcandle plots for the DSX1 LED P7 40K 70CRI. Distances are in units of mounting height (25').

LEGEND
0.1 fc
0.5 fc
1.0 fc



RTA — Round Tapered Aluminum Pole

No Arm — Direct Buried

Satin Aluminum or Powder Coated Finish per Customer Specification.

C Butt Dia.	D Tip Dia.
5	3
6	4.5
7	4.5
8	4.5
9	4.5
10	6

C and D Dimensions in Inches

Pole

The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated to produce a T6 temper.

Handhole

5" Butt Diameter *- 2-1/2" x 5" Handhole with curved Lap-Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision is provided as part of the handhole.*
6" Butt Diameter *- Reinforced, 3" x 5" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. A Grounding Provision incorporating a 3/8" diameter hole is provided opposite the Handhole.*
7" + Butt Diameters *- Reinforced, 4" x 6" curved Cast Aluminum Frame (Alloy 356-T6) with Aluminum Door and two (2) SS Hex Head Screws. Reinforced Frame will contain a tapped 3/8"-16NC Grounding Provision.*

Embed Detail

Direct Buried Pole bottom section on 6" + butt diameter poles will be partially flattened into an anti-rotational, oval cross section. Wire access will be provided 24" below ground line. Soil conditions vary by site. Foundation requirements should be determined by a qualified Structural Engineer with knowledge of jobsite soil conditions.

Vibration Damper

When determined necessary by Hapco, a Vibration Damper will be factory-installed inside the pole shaft. Customer specification of the damper is available.

Mounting Designation

Side Drill Mount
For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.

Tenon Mount - Welded or Spun
For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.). Tenon style is factory option. Welded Tenon can be specified.

A Nom. Ht.	B Wall Thk.	C Butt Dia.	E Embed Dorm	Total Len.	Maximum EPA 120	130	140	150	160	170	180	Old Catalog Number	Catalog Number
10	0.125	5	4	110	9.9	8.2	6.9	5.9	5.0	4.4	3.9	50-065	RTA10S5BD_**
12	0.125	5	4	85	7.7	6.3	5.2	4.4	3.7	3.1	2.7	50-066	RTA12S5BD_**
14	0.125	5	4	70	6.0	4.8	3.9	3.2	2.6	2.2	1.9	50-067	RTA14S5AD_**
16	0.125	5	4	50	4.6	3.6	2.8	2.2	1.7	1.4	1.1	50-068	RTA16S5AD_**
18	0.125	5	4	40	3.3	2.4	1.8	1.3	0.9	0.6	**	50-069	RTA18S5AD_**
18	0.156	5	4	55	4.6	3.6	2.8	2.1	1.7	1.3	1.0		RTA18S5AD_**
20	0.125	5	4	40	2.2	1.5	0.9						RTA20S5AD_**
20	0.125	6	5	100	8.6	7.0	5.8	4.9	4.2	3.6	3.1	50-001	RTA20S6BD_**
20	0.156	6	6	135	11.5	9.4	7.9	6.8	5.8	5.0	4.4	50-002	RTA20C6BD_**
20	0.188	6	6	170	14.3	11.9	10.0	8.6	7.4	6.5	5.7	50-003	RTA20D6BD_**
20	0.156	7	6	210	17.3	14.4	12.2	10.5	9.1	8.0	7.0	50-004	RTA20C7BD_**
20	0.188	7	7	260	21.4	17.8	15.2	13.1	11.4	9.9	8.8	50-005	RTA20D7BD_**
20	0.156	8	7	295	24.1	20.2	17.2	14.9	12.9	11.3	10.0	50-006	RTA20C8BD_**
20	0.188	8	8	300	29.7	25.0	21.3	18.4	16.1	14.1	12.5	50-007	RTA20D8BD_**
25	0.156	6	6	85	7.0	5.5	4.5	3.8	3.2	2.7	2.2	50-062	RTA25C6BD_**
25	0.188	6	6	110	9.2	7.4	6.2	5.2	4.4	3.7	3.2	50-063	RTA25D6BD_**
25	0.156	7	6	140	11.6	9.4	7.9	6.7	5.7	4.9	4.3	50-064	RTA25C7BD_**
25	0.188	7	7	175	14.7	12.1	10.2	8.7	7.5	6.5	5.6	50-065	RTA25D7BD_**
25	0.156	8	7	205	16.9	14.0	11.8	10.1	8.7	7.6	6.6	50-066	RTA25C8BD_**
25	0.188	8	7	255	21.0	17.5	14.8	12.7	11.0	9.6	8.4	50-067	RTA25D8BD_**
25	0.219	8	8	300	24.9	20.8	17.7	15.2	13.2	11.6	10.2	50-068	RTA25E8BD_**
25	0.250	8	8	300	28.9	24.2	20.6	17.8	15.5	13.5	11.9	50-069	RTA25F8BD_**
30	0.156	7	6	90	7.5	5.9	4.8	3.9	3.3	2.7	2.3	50-124	RTA30C7BD_**
30	0.188	7	7	120	10.0	8.0	6.6	5.5	4.6	3.9	3.4	50-125	RTA30D7BD_**
30	0.156	8	7	140	11.8	9.5	7.9	6.7	5.7	4.9	4.2	50-126	RTA30C8BD_**
30	0.188	8	7	180	15.1	12.4	10.4	8.8	7.6	6.5	5.6	50-127	RTA30D8BD_**
30	0.219	8	8	220	18.2	15.0	12.7	10.8	9.3	8.1	7.0	50-128	RTA30E8BD_**
30	0.250	8	8	260	21.3	17.6	14.9	12.8	11.0	9.6	8.4	50-129	RTA30F8BD_**
30	0.188	9	8	255	20.9	17.4	14.7	12.6	10.9	9.4	8.2	50-131	RTA30D9BD_**
30	0.250	9	9	300	29.1	24.4	20.8	17.9	15.5	13.5	11.9	50-133	RTA30F9BD_**
30	0.188	10	9	300	27.7	23.3	19.8	17.0	14.7	12.8	11.1	50-139	RTA30D10D_**
35	0.156	8	7	95	7.9	6.2	5.0	4.1	3.4	2.8	2.3	50-186	RTA35C8BD_**
35	0.188	8	7	130	10.6	8.5	7.0	5.8	4.9	4.1	3.5	50-187	RTA35D8BD_**
35	0.219	8	8	160	13.2	10.7	8.9	7.5	6.4	5.4	4.7	50-188	RTA35E8BD_**
35	0.250	8	8	190	15.8	12.9	10.8	9.1	7.8	6.7	5.8	50-189	RTA35F8BD_**
35	0.188	9	8	190	15.5	12.7	10.7	9.0	7.7	6.6	5.8	50-191	RTA35D9BD_**
35	0.250	9	9	270	22.2	18.4	15.6	13.3	11.4	9.9	8.6	50-193	RTA35F9BD_**
35	0.188	10	9	255	21.1	17.7	14.9	12.7	10.9	9.3	8.0	50-199	RTA35D10D_**
35	0.219	10	9	300	25.4	21.3	18.1	15.4	13.3	11.5	9.9	50-200	RTA35E10D_**
35	0.250	10	9	300	29.7	25.0	21.2	18.2	15.7	13.6	11.9	50-201	RTA35F10D_**
35	0.312	10	10	300	38.1	32.2	27.4	23.6	20.5	17.8	15.6	50-202	RTA35G10D_**
40	0.188	8	7	90	7.1	5.4	4.3	3.4	2.8	2.2	1.8	50-247	RTA40D8BD_**
40	0.219	8	8	115	9.3	7.3	5.9	4.8	4.0	3.3	2.7	50-248	RTA40E8BD_**
40	0.250	8	8	140	11.5	9.1	7.5	6.2	5.2	4.4	3.7	50-249	RTA40F8BD_**
40	0.188	9	8	135	11.3	9.1	7.5	6.2	5.2	4.3	3.6	50-251	RTA40D9BD_**
40	0.250	9	9	205	16.9	13.9	11.6	9.8	8.3	7.1	6.1	50-253	RTA40F9BD_**
40	0.188	10	9	190	16.1	13.4	11.2	9.4	7.9	6.7	5.6	50-259	RTA40D10D_**
40	0.219	10	9	240	19.7	16.4	13.8	11.7	10.0	8.5	7.2	50-260	RTA40E10D_**
40	0.250	10	9	280	23.3	19.4	16.4	14.0	12.0	10.3	8.8	50-261	RTA40F10D_**
40	0.312	10	10	300	30.4	25.5	21.6	18.5	15.9	13.8	12.0	50-262	RTA40G10D_**

Catalog Number System

The catalog number for Hapco poles utilizes the following identification system.

MOUNTING HEIGHT	BUTT DIA.	BASE STYLE
RTA		D
SHAFT ASSEMBLY	WALL THICK.	TOP DIA.	FINISH

Catalog Number Example -
RTA 30 D 8 B D – 01

Round Tapered Aluminum, 30' Mounting Height, .188" Wall Thickness, 8" Butt Diameter, 4.5" Top Diameter, FBC Direct Buried, Satin Aluminum Finish.

Wall Thickness
B = .125"
C = .156"
D = .188"
E = .219"
F = .250"
G = .312"

Butt Diameter
5 = 5"
6 = 6"
7 = 7"
8 = 8"
9 = 9"
1 = 10"

Top Diameter
A = 3"
B = 4.5"
C = 6"

Base Style
D = FBC Direct Buried

Finish
01 = Satin Aluminum
BA = Black Powder Coat
BH = White Powder Coat
BM = Dark Bronze Powder Coat
BV = Dark Green Powder Coat
GC = Gray Powder Coat
** = Specify Finish

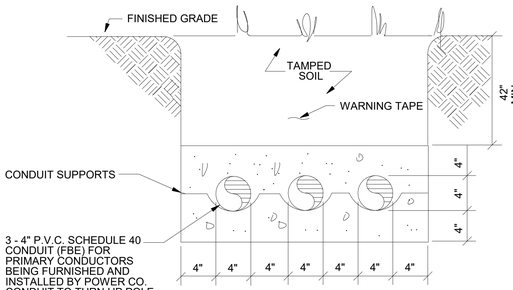
EPA Note:
EPA's based on symmetrically placed side mounted fixture(s) not exceeding height of the pole.

Embed Note:
Embed depths shown are calculated using the weight and EPA combination corresponding to the maximum windspeed available per pole. The calculation uses the assumption of a Class 3 soil type with a 12" diameter augered hole that is to be back-filled preferably with chloride-free concrete or high density polyurethane foam). Embed depths are subject to change if the loading changes or if the wind speed changes. Please contact Hapco for help in determining an appropriate embed depth.

RTA – Round Tapered Aluminum Pole

No Arm

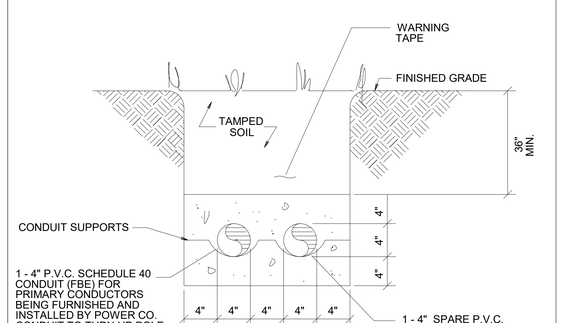
Direct Buried



TELEPHONE DEMARCATION "A-A"

No Scale

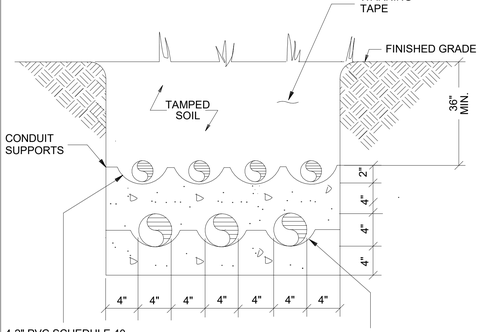
ED 0404



PRIMARY UTILITY SECTION "B-B"

No Scale

ED 0401



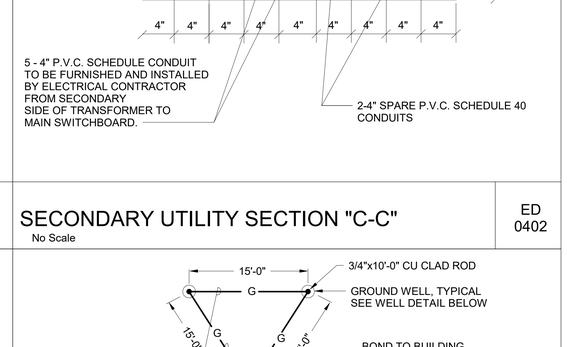
4-2" PVC SCHEDULE 40 CONDUIT.

3-4" PVC SCHEDULE 40 CONDUIT.

GENERATOR CONDUIT "D-D"

No Scale

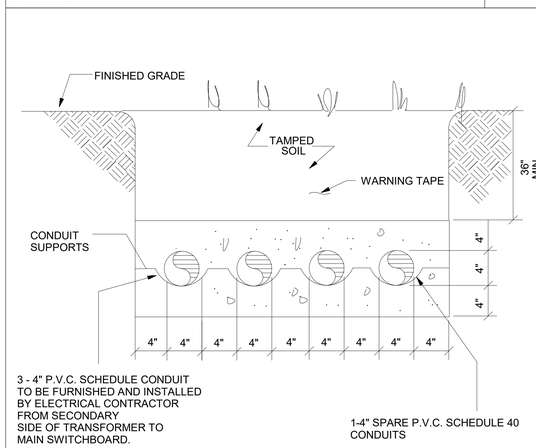
ED 0403



SECONDARY UTILITY SECTION "C-C"

No Scale

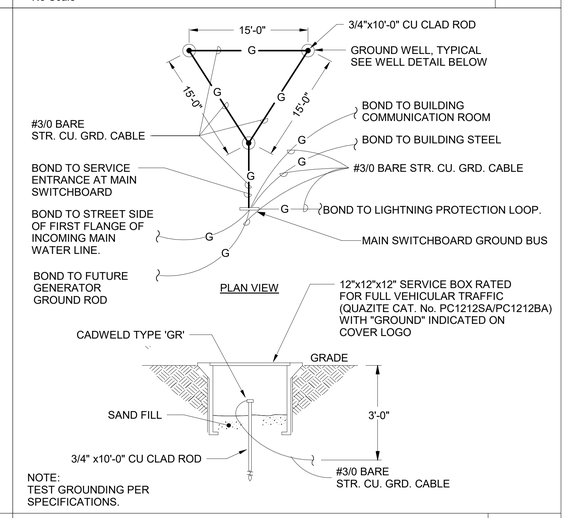
ED 0402



SECONDARY UTILITY SECTION "E-E"

No Scale

ED 0402



MAIN ELECTRICAL SERVICE GROUND ROD WELL DETAIL

No Scale

ED 0206

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PHILIP GARRETT, P.E.
FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

No.	Description	Date
	REVISIONS	

Drawing Title:

ELECTRICAL SITE DETAILS

Drawing Number:

E003

Drawn by: MC
Checked by: PGG
Scale: 1/8" = 1'-0"

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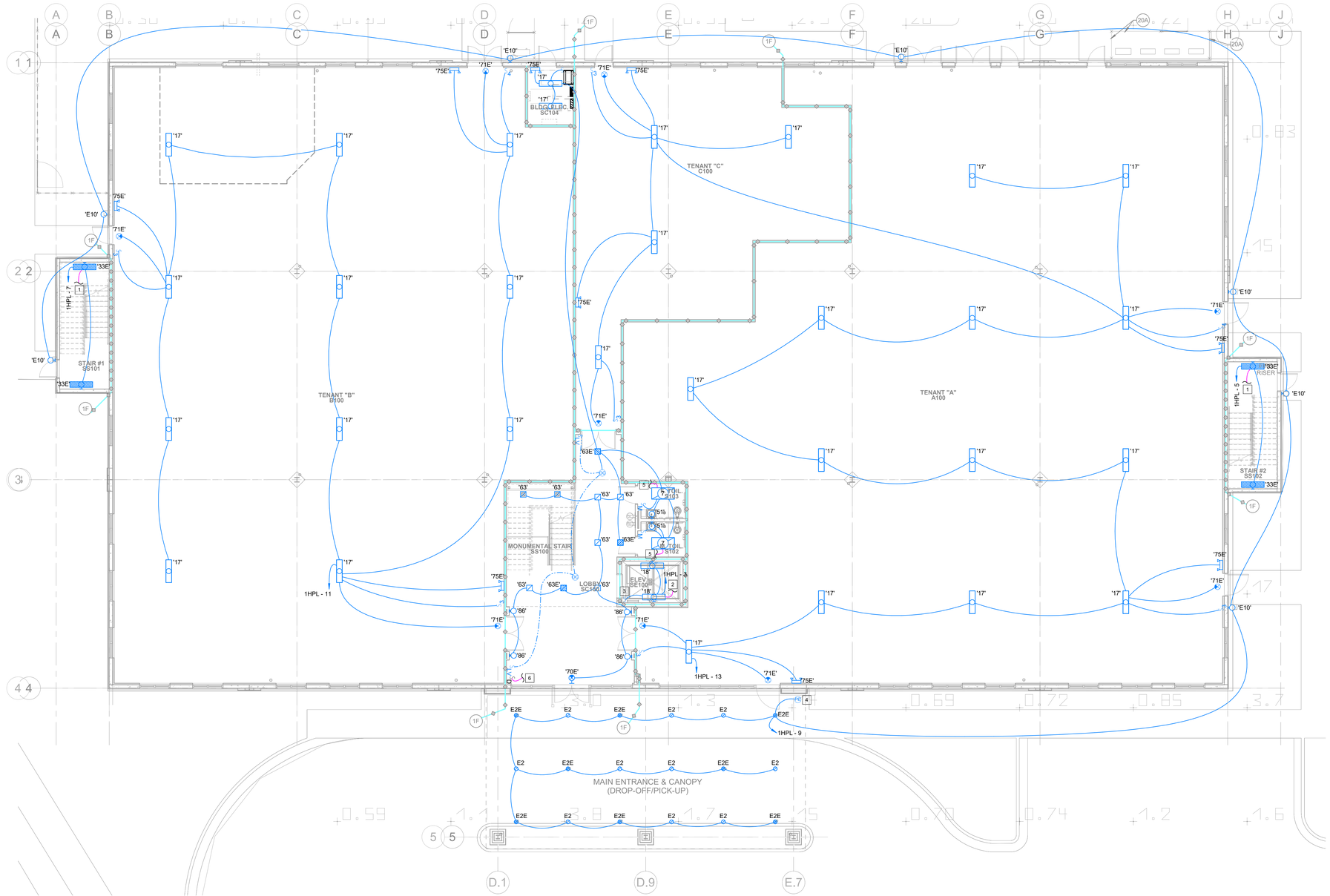

NORTH

LIGHTING - FIRST FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. ALL NEW OR MODIFIED CIRCUITS WILL BE REQUIRED TO BE PROVIDED A DEDICATED NEUTRAL. THE USE OF A SHARED NEUTRAL IS NOT PERMITTED.

B. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED DEVICES. PROVIDE ALL ACCESSORIES AS REQUIRED FOR THE PROPER CEILING TYPE SPECIFIED INCLUDING FLANGE KITS.

C. ALL FIXTURES WITH EMERGENCY BATTERY BALLASTS ARE TO BE PROVIDED WITH A CONTINUOUS "HOT" CIRCUIT FOR CHARGING OF BATTERY.

D. LIGHTING CONTROLS "AUTO-ON" OPTION MUST BE TURNED ON AT ALL PUBLIC SPACES.

CODED NOTES: ☐

1. CIRCUIT SUPPLIES ALL FIXTURES IN STAIRWAY. REFER TO SHEET E120 FOR CONTINUATION OF CIRCUIT.
2. ELEVATOR PIT LIGHTS AND ELEVATOR SHAFT LIGHTS TO BE ON SAME CIRCUIT. REFER TO SHEET E120 FOR CONTINUATION OF CIRCUIT.
3. FIELD COORDINATE THE EXACT LOCATION OF ELEVATOR PIT LIGHTING AND SWITCH WITH ELEVATOR CONTRACTOR AS REQUIRED FOR MAINTENANCE OF THE ELEVATOR PIT.
4. PROVIDE PHOTOELECTRICAL SWITCH CONCEALED ABOVE CANOPY FOR CONTROL OF EXTERIOR CANOPY LIGHTS AND WALL PACKS.
5. EXHAUST FANS IN THE RESTROOMS TO BE CONNECTED TO THE SAME CIRCUIT AS THE LIGHTING OCCUPANCE SENSORS AND SHOULD ONLY TURN ON WHEN THE ROOM IS OCCUPIED.
6. REFER TO SHEET E120 FOR CONTINUATION OF CIRCUIT.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SW — SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SW2 — SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

Project Architect:

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PHILIP GARRETT, P.E.
FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

LIGHTING FIRST FLOOR PLAN

Drawing Number:

E110

Drawn by: MC
Checked by: PGG
Scale: 1/8" = 1'-0"

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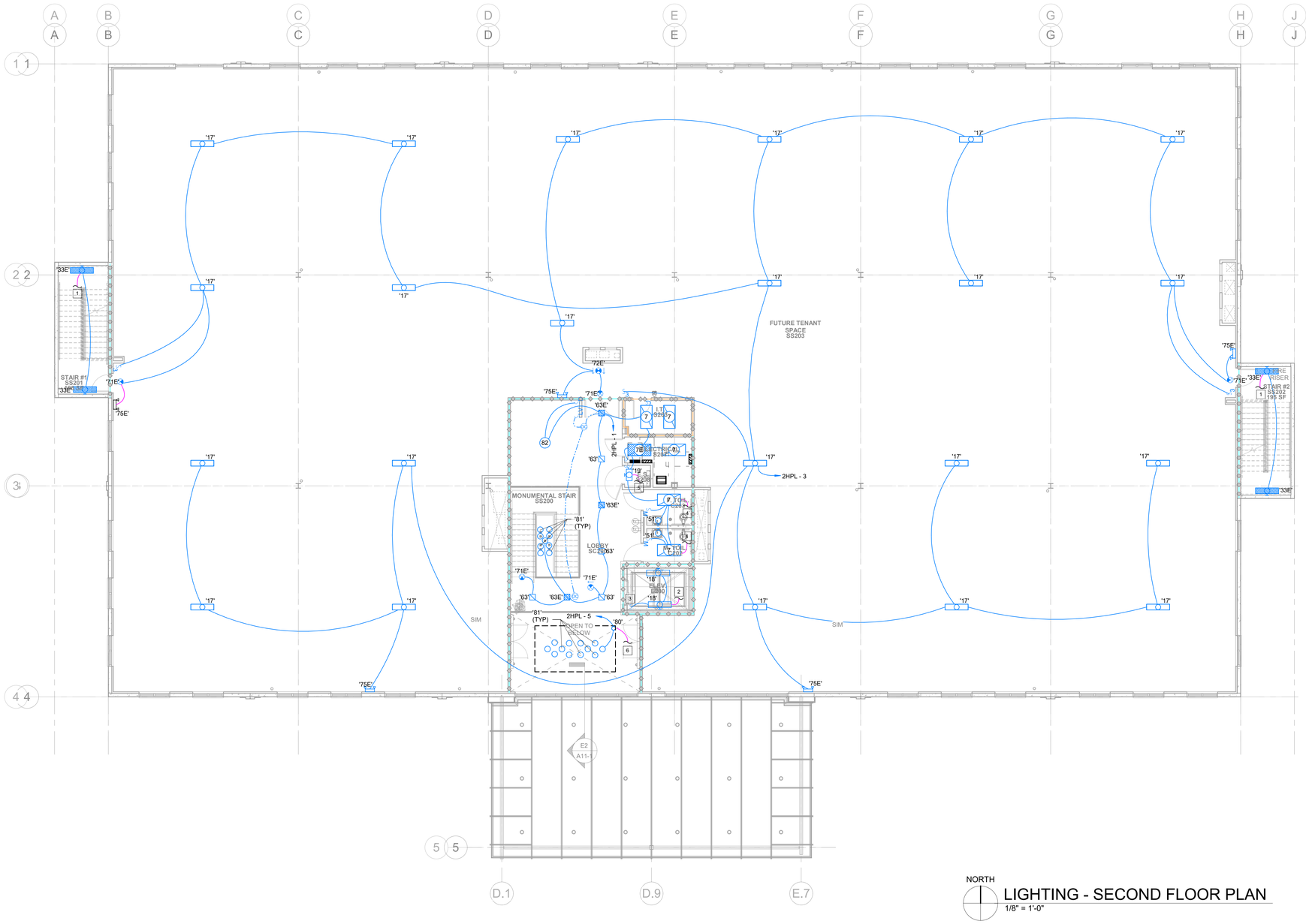

NORTH

LIGHTING - SECOND FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. ALL NEW OR MODIFIED CIRCUITS WILL BE REQUIRED TO BE PROVIDED A DEDICATED NEUTRAL. THE USE OF A SHARED NEUTRAL IS NOT PERMITTED.

B. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED DEVICES. PROVIDE ALL ACCESSORIES AS REQUIRED FOR THE PROPER CEILING TYPE SPECIFIED INCLUDING FLANGE KITS.

C. ALL FIXTURES WITH EMERGENCY BATTERY BALLASTS ARE TO BE PROVIDED WITH A CONTINUOUS "HOT" CIRCUIT FOR CHARGING OF BATTERY.

D. LIGHTING CONTROLS "AUTO-ON" OPTION MUST BE TURNED ON AT ALL PUBLIC SPACES.

CODED NOTES:

1. CIRCUIT SUPPLIES ALL FIXTURES IN STAIRWAY. REFER TO SHEET E110 FOR CONTINUATION OF CIRCUIT.

2. ELEVATOR PIT LIGHTS AND ELEVATOR SHAFT LIGHTS TO BE ON SAME CIRCUIT. REFER TO SHEET E110 FOR CONTINUATION OF CIRCUIT.

3. FIELD COORDINATE THE EXACT LOCATION OF ELEVATOR SHAFT LIGHTING AND SWITCH WITH ELEVATOR CONTRACTOR AS REQUIRED FOR MAINTENANCE OF THE ELEVATOR SHAFT.

4. EXHAUST FANS IN THE RESTROOMS TO BE CONNECTED TO THE SAME CIRCUIT AS THE LIGHTING OCCUPANCE SENSORS AND SHOULD ONLY TURN ON WHEN THE ROOM IS OCCUPIED.

5. EXHAUST FANS IN THE JANITOR CLOSET TO BE CONNECTED TO THE SAME CIRCUIT AS THE LIGHTING SWITCH AND SHOULD ONLY TURN ON WHEN THE LIGHT IS ON.

6. REFER TO SHEET E110 FOR LIGHTING CONTROLS.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SW — SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SW2 — SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

LIGHTING SECOND FLOOR PLAN

Drawing Number:

E120

Drawn by: MC
Checked by: PGG
Scale: 1/8" = 1'-0"

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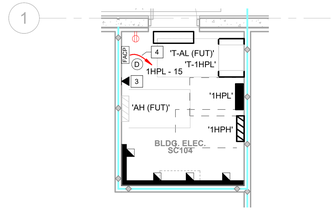
NORTH

ELECTRICAL - FIRST FLOOR PLAN

1/8" = 1'-0"



NORTH

FIRST FLOOR PLAN - ELEC RM

1/4" = 1'-0"

GENERAL NOTES:

A. ALL NEW OR MODIFIED CIRCUITS ARE TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS. THE USE OF SHARED NEUTRALS SHALL NOT BE PERMITTED.

B. REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK SHOP DRAWINGS FOR THE LOCATION OF ALL ELECTRICAL DEVICES.

C. FIELD COORDINATE THE LOCATION OF ALL DISCONNECT SWITCHES TO PROVIDE SAFE AND ADEQUATE SPACE FOR MAINTENANCE AND TESTING. PROVIDE FUSE PER MANUFACTURER NAMEPLATE RATING.

D ALL FIRE ALARM DEVICES INDICATED ON THESE ENGINEERING DOCUMENTS ARE ONLY FOR INFORMATIONAL PURPOSES ONLY TO REPRESENT THE MINIMUM DESIGN CONCEPT. THIS NOTE IS TO SATISFY STATE OF FL ADMINISTRATIVE CODE 61G15-30.003(3).

E. REFER TO PROJECT SPECIFICATIONS AND SUBMIT SHOP DRAWINGS UNDER THE SUPERVISION OF A FLORIDA LICENSED PROFESSIONAL ENGINEER AND STATE LICENSED FIRE ALARM CONTRACTOR AS A DEFERRED SUBMITTAL.

F. WHENEVER THE FIRE ALARM SYSTEM SENSES SMOKE/FIRE, THE FIRE ALARM SYSTEM SHALL COMPLETE THE FOLLOWING:

- THE FIRE ALARM SYSTEM IS TO DE-ENERGIZE THE UNIT AND SHALL PERFORM THE FOLLOWING.
  - * SHUTDOWN THE SUPPLY AIR FAN
  - * SHUTDOWN THE RETURN AIR FAN
  - * SHUTDOWN THE ASSOCIATED EXHAUST FANS
- THE DCC SYSTEM UIS TO PERFORM THE FOLLOWING UPON A LOSS OF SUPPLY FAN STATUS.
  - * CLOSE CHILLED WATER VALVE V-CHW
  - * CLOSE THE OUTSIDE AIR DAMPER (D-MIN)
  - * OPEN THE RETURN AIR DAMPER (D-RET)

CODED NOTES:

1. PROVIDE 20A/1P GFCI BREAKER FOR CIRCUIT FEEDING THE WATER FOUNTAIN.

2. EXHAUST FANS IN THE RESTROOMS TO BE CONNECTED TO THE SAME CIRCUIT AS THE LIGHTING OCCUPANCY SENSORS AND SHOULD ONLY TURN ON WHEN THE ROOM IS OCCUPIED.

3. PROVIDE A DEDICATED PHONE LINE AND BACKUP CELLULAR PHONE CONNECTION FOR THE FIRE ALARM CONTROL PANEL TO THE REMOTE MONITORING STATION. COORDINATE WITH THE FIRE ALARM CONTRACTOR.

4. PROVIDE SPD (TVSS) EQUIVALENT TO DKT-120HW.

5. PROVIDE 30A/3P/F15A/480V FUSED DISCONNECT SWITCH FOR CONNECTION TO VAV. USE 3#10,#10G., 3/4"C.

6. REFER TO ELEVATOR VENDOR DRAWINGS FOR EXACT LOCATION OF THE GFCI RECEPTACLE IN THE ELEVATOR PIT.

7. PROVIDE FIRE ALARM RELAY TO DISENGAGE THE AUTODOOR OPERATOR AND RELEASE LOCKING HARDWARE IN THE EVENT OF A FIRE ALARM.

8. PROVIDE TAMPER SWITCH AND FLOW SWITCH AT THE CONTROL VALVE. COORDINATE LOCATION WITH FIRE PROTECTION CONTRACTOR.

9. THE ELECTRICAL CONTRACTOR SHALL PROVIDE 120V POWER TO THE SPRINKLER SYSTEM "ELECTRIC BELL" AS INDICATED ON THE FIRE PROTECTION DRAWINGS. COORDINATE WITH FIRE PROTECTION VENDOR.

10. PROVIDE SWITCH FOR CONNECTION TO AUTO DOOR OPERATOR. REFER TO ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF PUSH PLATES AND FOR THE DOOR HARDWARE SCHEDULE. PROVIDE FIRE ALARM RELAY TO RELEASE THE "HOLD OPEN" FEATURE AND TO DISENGAGE THE AUTO OPERATOR.

11. PROVIDE 400A/3P/F300A/480V WEATHERPROOF DISCONNECT FOR CH-1. USE 4#500MCM,1#3G.,2-1/2"C.

12. PROVIDE 30A/3P/F15A/208V FUSED DISCONNECT SWITCH FOR CONNECTION TO UH. USE 3#10,#10G., 3/4"C.

13. PROVIDE TWO 4" CONDUITS STUBBED UP INTO THE SECOND FLOOR COMMUNICATIONS ROOM ROUTED CONTINUOUS TO THE ASC IT ROOM. PROVIDE JUNCTION BOXES/PULL BOXES ARE REQUIRED TO ALLOW FOR FUTURE LOW VOLTAGE CABLE INSTALLATION.

14. PROVIDE TWO 4" CONDUITS STUBBED UP INTO THE FIRST FLOOR IMAGING SUITE FOR CONTINUATION OF CONDUIT IN THE IMAGING TENANT IMPROVEMENT PACKAGE. CONDUITS ARE TO BE ROUTED CONTINUOUS TO THE ASC IT ROOM. PROVIDE JUNCTION BOXES/PULL BOXES ARE REQUIRED TO ALLOW FOR FUTURE LOW VOLTAGE CABLE INSTALLATION.

15. REFER TO MECHANICAL PLANS FOR EXACT LOCATION AND QUANTITY OF DUCT MOUNTED SMOKE DETECTORS.

16. PROVIDE SWITCH FOR CONNECTION TO CARD READER OPERATOR. REFER TO ARCHITECTURAL PLANS FOR THE EXACT LOCATION OF SWIPER DEVICES AND FOR THE DOOR HARDWARE SCHEDULE. PROVIDE FIRE ALARM RELAY TO RELEASE THE "HOLD OPEN" FEATURE AND TO DISENGAGE THE AUTO OPERATOR.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

	FOUR HOUR FIRE / SMOKE BARRIER
	FOUR HOUR FIRE WALL
	TWO HOUR FIRE / SMOKE BARRIER
	TWO HOUR FIRE WALL
	ONE HOUR FIRE / SMOKE BARRIER
	ONE HOUR FIRE WALL
	SMOKE PARTITION TO DECK
	NON-RATED PARTITION
STC 50 STC 50	SOUND ATTENUATION BATT (1 HOUR)
STC 56 STC 56	SOUND ATTENUATION BATT (2 HOUR)
SW SW SW	SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
SW2 SW2 SW2	SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
1 MM	LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
2 MM	LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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ICT PROJECT NO. 220557.00
FIRM CERTIFICATE OF AUTHORIZATION
FLORIDA REG. #CA-0001276
MECHANICAL ENGINEER
DAN A. NEIMAN, P.E.
FLORIDA #54888
ELECTRICAL ENGINEER
PHILIP GARRETT, P.E.
FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL FIRST FLOOR PLAN

Drawing Number:

E210

Drawn by: MC
Checked by: PGG
Scale: As indicated

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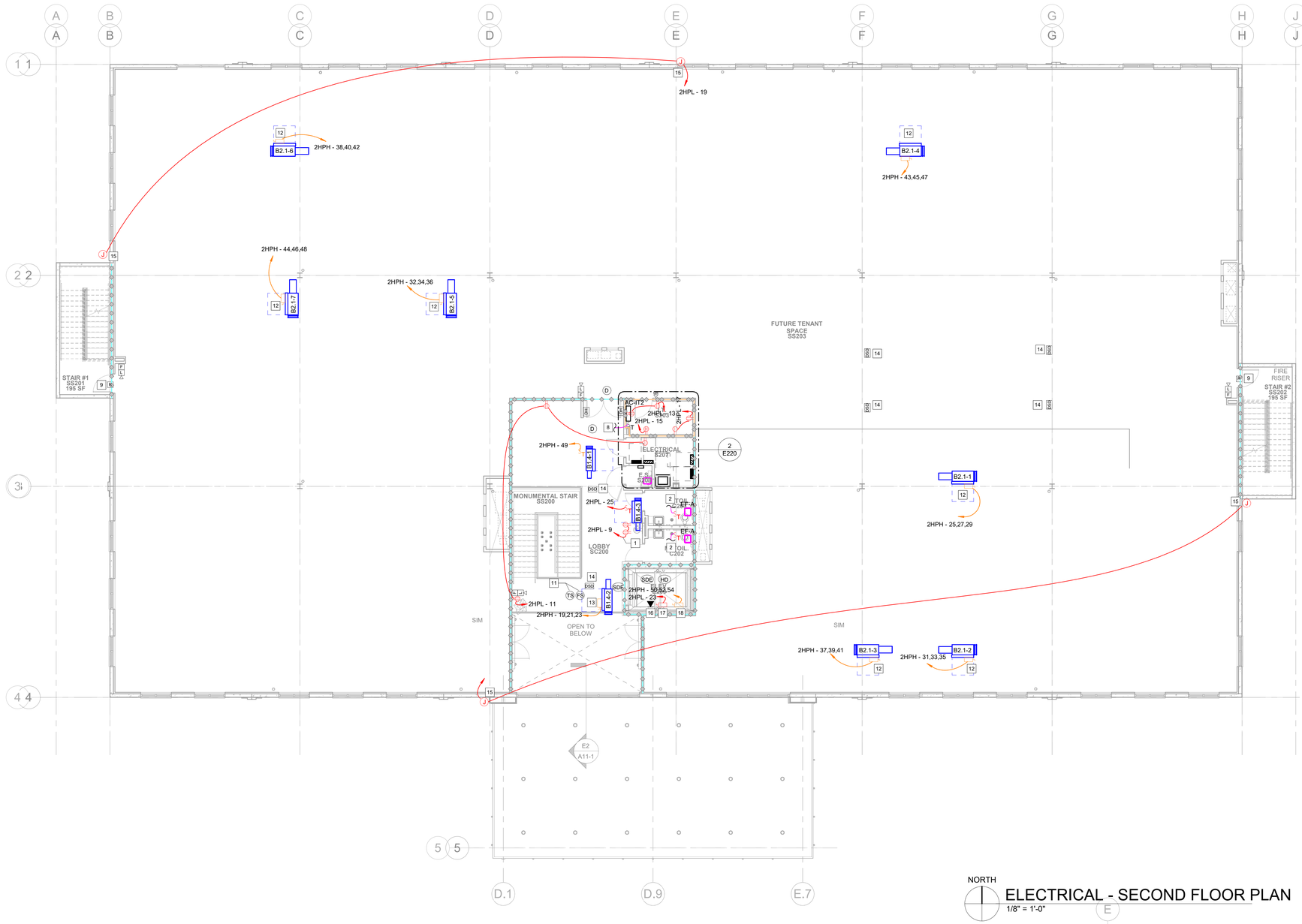
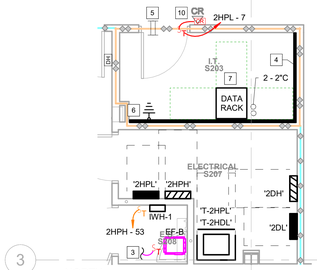


NORTH

ELECTRICAL - SECOND FLOOR PLAN

1/8" = 1'-0"



NORTH

SECOND FLOOR PLAN - 2ND FLOOR ELEC RM

1/4" = 1'-0"

GENERAL NOTES:

A. ALL NEW OR MODIFIED CIRCUITS ARE TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS. THE USE OF SHARED NEUTRALS SHALL NOT BE PERMITTED.

B. REFER TO ARCHITECTURAL ELEVATIONS AND CASEWORK SHOP DRAWINGS FOR THE LOCATION OF ALL ELECTRICAL DEVICES.

C. FIELD COORDINATE THE LOCATION OF ALL DISCONNECT SWITCHES TO PROVIDE SAFE AND ADEQUATE SPACE FOR MAINTENANCE AND TESTING. PROVIDE FUSE PER MANUFACTURER NAMEPLATE RATING.

D. ALL FIRE ALARM DEVICES INDICATED ON THESE ENGINEERING DOCUMENTS ARE ONLY FOR INFORMATIONAL PURPOSES ONLY TO REPRESENT THE MINIMUM DESIGN CONCEPT. THIS NOTE IS TO SATISFY STATE OF FL ADMINISTRATIVE CODE 61G15-30.003(3).

E. REFER TO PROJECT SPECIFICATIONS AND SUBMIT SHOP DRAWINGS UNDER THE SUPERVISION OF A FLORIDA LICENSED PROFESSIONAL ENGINEER AND STATE LICENSED FIRE ALARM CONTRACTOR AS A DEFERRED SUBMITTAL.

F. WHENEVER THE FIRE ALARM SYSTEM SENSES SMOKE/FIRE, THE FIRE ALARM SYSTEM SHALL COMPLETE THE FOLLOWING:

- THE FIRE ALARM SYSTEM IS TO DE-ENERGIZE THE UNIT AND SHALL PERFORM THE FOLLOWING.
  - * SHUTDOWN THE SUPPLY AIR FAN
  - * SHUTDOWN THE RETURN AIR FAN
  - * SHUTDOWN THE ASSOCIATED EXHAUST FANS
- THE DCC SYSTEM UIS TO PERFORM THE FOLLOWING UPON A LOSS OF SUPPLY FAN STATUS.
  - * CLOSE CHILLED WATER VALVE V-CHW
  - * CLOSE THE OUTSIDE AIR DAMPER (D-MIN)
  - * OPEN THE RETURN AIR DAMPER (D-RET)

CODED NOTES:

1. PROVIDE 20A/1P GFCI BREAKER FOR CIRCUIT FEEDING THE WATER FOUNTAIN.

2. EXHAUST FANS IN THE RESTROOMS TO BE CONNECTED TO THE SAME CIRCUIT AS THE LIGHTING OCCUPANCY SENSORS AND SHOULD ONLY TURN ON WHEN THE ROOM IS OCCUPIED.

3. EXHAUST FANS IN THE JANITOR CLOSET TO BE CONNECTED TO THE SAME CIRCUIT AS THE LIGHTING SWITCH AND SHOULD ONLY TURN ON WHEN THE LIGHT IS ON.

4. PROVIDE ¾"FIRE TREATED PLYWOOD BACKBOARD FOR TELEPHONE AND TV TERMINATIONS.

5. CABLING CONTRACTOR SHALL INSTALL SLEEVES OF SUFFICIENT SIZE AND QUANTITY FOR PATHWAY THROUGH WALL. SLEEVES SHALL BE HILTI SPEED SLEEVE PART NUMBERS CP-653-2 AND CP-653-4. CABLING CONTRACTOR SHALL INSTALL ALL SLEEVES PER MANUFACTURER INSTRUCTIONS.

6. INSTALL GROUND BAR IN THE TELECOMMUNICATIONS AND BOND IT JUMPER TO THE DATA RACK.

7. PROVIDE WALL MOUNTED DATA RACK WITH HINGED BACK. COORDINATE WITH VENDOR AND ARCHITECT.

8. CONNECT AIR CONDITIONING UNIT TO ITS RESPECTIVE CONDENSING UNIT LOCATED ON THE ROOF.

9. PROVIDE FIRE ALARM RELAY TO RELEASE THE LOCKING MECHANISM IN THE EVENT OF A FIRE ALARM.

10. PROVIDE SWITCH FOR CONNECTION TO ACCESS CONTROL CARD READER/KEYPAD.

11. PROVIDE TAMPER SWITCH AND FLOW SWITCH AT THE CONTROL VALVE. COORDINATE LOCATION WITH FIRE PROTECTION CONTRACTOR.

12. PROVIDE 30A/3P/F20A/480V FUSED DISCONNECT SWITCH FOR CONNECTION TO VAV. USE 3#10,#10G., 3/4"C.

13. PROVIDE 30A/3P/F15A/480V FUSED DISCONNECT SWITCH FOR CONNECTION TO VAV. USE 3#10,#10G., 3/4"C.

14. REFER TO MECHANICAL PLANS FOR EXACT LOCATION AND QUANTITY OF DUCT MOUNTED SMOKE DETECTORS.

15. PROVIDE A WEATHERPROOF JUNCTION FOR CONNECTIONS TO THE BUILDING SIGN. REFER TO VENDOR AND OWNER FOR EXACT LOCATION AND ELECTRICAL REQUIREMENTS.

16. REFER TO ELEVATOR VENDOR DRAWINGS FOR EXACT LOCATION OF DEDICATED PHONE LINE TERMINATING AT THE ELEVATOR CONTROL CABINET.

17. PROVIDE 30A/1P/F15A/120V DISCONNECT FOR ELEVATOR CAB LIGHTS AND ALARMS . VERIFY EXACT LOCATION WITH ELEVATOR VENDOR. USE 2#10, 1#10 GND., 3/4" C.

18. PROVIDE 60A/3P/F15A/480V DISCONNECT FOR ELEVATOR MOTOR. VERIFY FUSE SIZE AND EXACT LOCATION WITH ELEVATOR VENDOR. USE 3#10, 1#10GND., 1"C.

PARTITION LEGEND

X1-partleg (042622)

NOTE: SEE A13 SERIES OF DRAWINGS FOR CONSTRUCTION REQUIREMENTS OF PARTITIONS.

- FOUR HOUR FIRE / SMOKE BARRIER
- FOUR HOUR FIRE WALL
- TWO HOUR FIRE / SMOKE BARRIER
- TWO HOUR FIRE WALL
- ONE HOUR FIRE / SMOKE BARRIER
- ONE HOUR FIRE WALL
- SMOKE PARTITION TO DECK
- NON-RATED PARTITION
- STC 50 — SOUND ATTENUATION BATT (1 HOUR)
- STC 56 — SOUND ATTENUATION BATT (2 HOUR)
- SW — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (1 HOUR)
- SW2 — SHAFT WALL ASSEMBLY (RATING WITHIN WALL) (2 HOUR)
- 1 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)
- 2 MM — LEAD LINED PARTITION (LEAD THICKNESS INDICATED IN MM)

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL SECOND FLOOR PLAN

Drawing Number:

E220

Drawn by: MC
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Scale: As indicated

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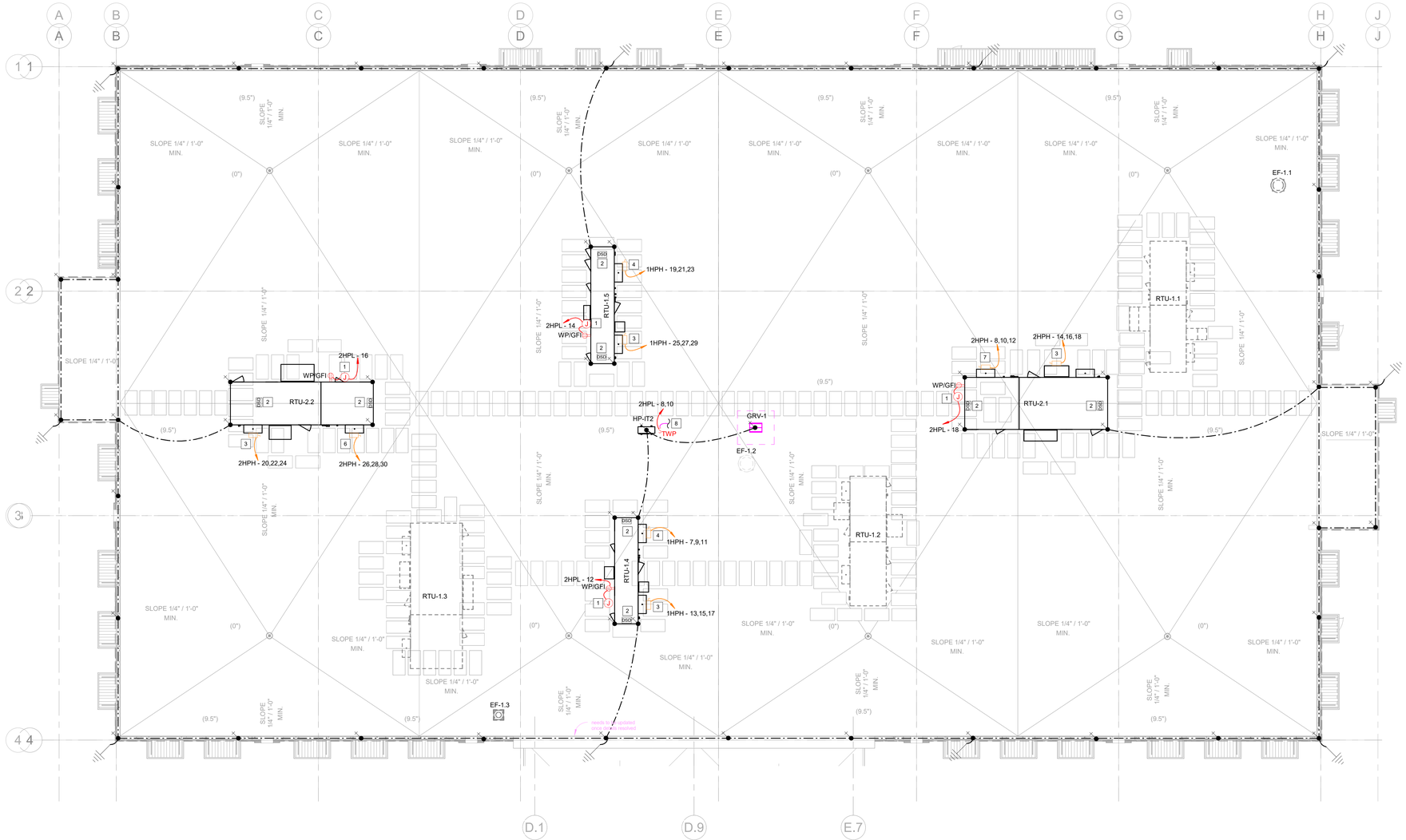

NORTH

ELECTRICAL - ROOF PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. ALL NEW OR MODIFIED CIRCUITS ARE TO BE PROVIDED WITH DEDICATED NEUTRAL CONDUCTORS. THE USE OF SHARED NEUTRALS SHALL NOT BE PERMITTED.

B. FIELD VERIFY ALL FUSES WITH THE MANUFACTURER NAMEPLATE RATING OF THE EQUIPMENT PROVIDED. ALL FUSES SHALL MATCH THE MOCP AS LISTED.

C. ALL CONDUITS SHALL BE ROUTED BELOW THE ROOF. MINIMIZE THE ROOF PENETRATIONS WHEN POSSIBLE.

CODED NOTES:

1. PROVIDE WEATHERPROOF JUNCTION BOX FOR RTU PLENUM LIGHTS, CONTROLS AND ACCESSORIES.

2. REFER TO MECHANICAL PLANS FOR EXACT QUANTATY AND LOCATION OF DUCT MOUNTED SMOKE DETECTORS.

3. PROVIDE 30A/3P/F15A/480V WEATHERPROOF DISCONNECT FOR RTU RETURN FANS. USE 3#10, 1#10G, 3/4"C.

4. PROVIDE 30A/3P/F15A/480V WEATHERPROOF DISCONNECT FOR RTU SUPPLY FANS. USE 3#10, 1#10G, 3/4"C.

5. PROVIDE 30A/3P/F20A/480V WEATHERPROOF DISCONNECT FOR RTU SUPPLY FANS. USE 3#10, 1#10G, 3/4"C.

6. PROVIDE 30A/3P/F25A/480V WEATHERPROOF DISCONNECT FOR RTU SUPPLY FANS. USE 3#10, 1#10G, 3/4"C.

7. PROVIDE 30A/3P/F35A/480V WEATHERPROOF DISCONNECT FOR RTU SUPPLY FANS. USE 3#8, 1#10G, 3/4"C.

8. CONNECT CONDENSING UNIT TO ITS RESPECTIVE AIR CONDITIONING UNIT LOCATED ON THE SECOND FLOOR.

LIGHTNING PROTECTION SYSTEM GENERAL INSTALLATION NOTES

1. THE DESIGN LAYOUT AND INSTALLATION DETAILS SHOWN HEREON SHALL MEET THE REQUIREMENTS OF NFPA 780 AND UNDERWRITERS' LABORATORIES STANDARD 96A FOR MASTER LABELED LIGHTNING PROTECTION SYSTEMS, THE ACTUAL MASTER LABEL WILL BE DELIVERED UPON COMPLETION OF INSTALLATION.

2. METAL BODIES OF INDUCTANCE LOCATED ABOUT THE ROOF SUCH AS: METAL FLASHINGS, GRAVEL STOPS, ROOF DRAINS, SOIL PIPE VENTS, INSULATION VENTS, LOUVERS AND DOOR FRAMES SITUATED WITHIN 6'-0" OF A LIGHTNING CONDUCTOR OR BONDED METAL BODY SHALL BE INTERCONNECTED TO THE LIGHTNING CONDUCTOR SYSTEM.

3. NO BEND OF A CONDUCTOR SHALL FORM A FINAL INCLUDED ANGLE OF LESS THAN 90 DEGREES NOR SHALL HAVE A RADIUS OF BEND OF LESS THAN 8".

4. CONDUCTORS SHALL INTERCONNECT ALL AIR TERMINALS AND SHALL FORM A TWO WAY PATH FROM EACH AIR TERMINAL HORIZONTALLY OR DOWNWARD TO CONNECTIONS WITH GROUND TERMINALS.

5. ALL LIGHTNING PROTECTION CONDUCTORS SHALL BE FASTENED NOT MORE THAN 3'-0" MAXIMUM SPACING.

6. CONNECTIONS TO GROUND ROD OR GROUND LOOP CONDUCTOR SHALL BE MADE AT A POINT NOT LESS THAN 1'-0" BELOW GRADE AND 2'-0" AWAY FROM FOUNDATION WALL.

7. ACTUAL JOBSITE CONDITIONS MAY NECESSITATE SLIGHT ALTERATIONS IN AIR TERMINAL AND GROUND ROD LOCATIONS.

8. AIR TERMINALS SHALL BE PLACED AT ALL UNPROTECTED OUTSIDE CORNERS AND LOCATED INTERMEDIATELY ON 20'-0" MAXIMUM SPACING AROUND THE ROOF PERIMETER OR RIDGE AND WITHIN 2'-0" OF OUTSIDE EDGE.

9. TELEPHONE AND/OR ELECTRICAL SERVICE ENTRANCE GROUNDS SHALL BE INTERCONNECTED TO ONE LIGHTNING PROTECTION GROUND OR WATER PIPE.

10. BOND ALL METALLIC PIPES INCLUDING WATER, FIRE, GAS, SEWER, STORM, ETC. WHICH ENTER THE STRUCTURE TO THE NEAREST DOWNLEAD, GROUND ROD OR GROUND LOOP. BOND AT BOTTOM AND TOP.

11. BARE COPPER LIGHTNING PROTECTION MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM ROOF OR SIDING OR OTHER ALUMINUM SURFACES AND VICE VERSA, ALUMINUM LIGHTNING PROTECTION MATERIALS SHALL NOT BE INSTALLED ON COPPER ROOFING OR COPPER SIDING OR OTHER COPPER SURFACES.

12. THE LIGHTNING PROTECTION SYSTEM SHALL BE INSTALLED IN A NEAT AND INCONSPICUOUS MANNER SO THAT ALL COMPONENTS WILL BLEND IN WITH THE APPEARANCE OF THE BUILDING.

13. EACH INDIVIDUAL ITEM OF THE LIGHTNING PROTECTION SYSTEM LAYOUT HAS NOT BEEN DESIGNATED BY A DETAIL TYPE. THE ITEMS LABELED TYPICAL ARE TYPICAL FOR SIMILAR AREAS & CONDITIONS WHICH OCCUR THROUGHOUT THE SYSTEM ALL MATERIALS ARE TO BE CLASS I.

14. BOND DOWN CONDUCTORS TO TOP AND BOTTOM OF STRUCTURAL STEEL COLUMNS OR TO REBARS OF CONCRETE COLUMNS WHERE DOWN CONDUCTORS ARE INSTALLED TO COLUMNS.

15. BOND ALL METALLIC SERVICE ENTRANCE CONDUIT AND PIPE TO THE LIGHTNING PROTECTION SYSTEM.

16. BOND NEW SYSTEM TO EXISTING SYSTEM IF APPLICABLE.

17. ALL CATALOG NUMBERS INDICATED ARE THOSE OF A-C LIGHTNING SECURITY, INC.

18. ADHESIVE ATTACHMENT OF LIGHTNING PROTECTION DEVICES SHALL BE BY AN ADHESIVE WHICH FUSES WITH THE ROOF STRUCTURE. ATTACHMENT MUST BE STRUCTURALLY SOUND TO THE POINT WHERE REMOVAL WOULD CAUSE DESTRUCTION OF THE ROOF ASSEMBLY.

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SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL ROOF PLAN

Drawing Number:

E320

Drawn by: MC
Checked by: PGG
Scale: 1/8" = 1'-0"

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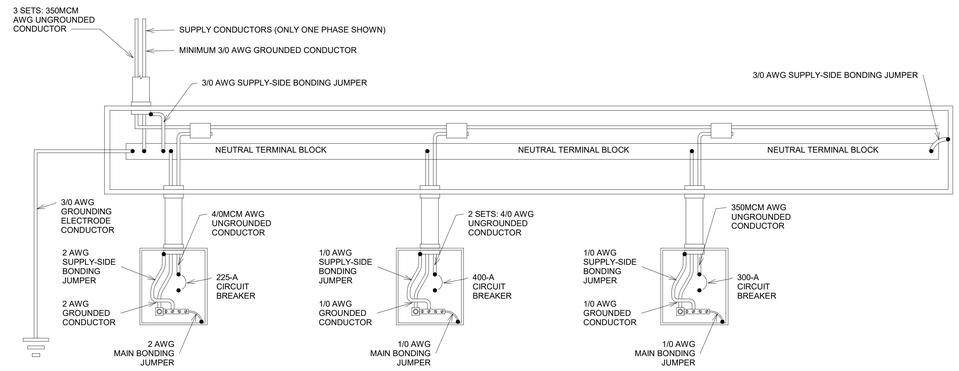
CONDUIT AND WIRE DESIGNATION SCHEDULE

WIRE/BKR MAX AMPS	DESIG. #	DESCRIPTION	WIRE/BKR MAX AMPS	DESIG. #	DESCRIPTION
20	1	2#12, 1/2"C	200	32	2#3/0, 1#6G,2"C
20	2	2#12, 1#12G, 1/2"C	200	33	3#3/0, 1#6G, 2"C
20	3	3#12,1#12G, 1/2"C	200	34	4#3/0, 1#6G, 2"C
20	4	4#12, 1#12G, 1/2"C	230	35	2#4/0, 1#4G,2"C
30	5	2#10, 1#10G, 3/4"C	230	36	3#4/0, 1#4G, 2"C
30	6	3#10, 1#10G, 3/4"C	230	37	4#4/0, 1#4G,2-1/2"C
30	7	4#10, 1#10G, 3/4"C	255	38	3#250MCM,1#4G, 2-1/2"C
40	8	2#8, 1#10G, 3/4"C	255	39	4#250MCM, 1#4G,2-1/2"C
40	9	3#8, 1#10G, 3/4"C	285	40	3#300MCM, 1#4G,2-1/2"C
40	10	4#8, 1#10G, 3/4"C	285	41	4#300MCM,1#4G,3"C
55	11	2#6, 1#10G, 3/4"C	310	42	3#350MCM,1#3G, 2-1/2"C
55	12	3#6, 1#10G, 3/4"C	310	43	4#350MCM, 1#3G, 3"C
55	13	4#6, 1#10G, 1"C	380	44	3#500MCM, 1#3G, 3"C
70	14	2#4, 1#8G, 1"C	380	45	4#500MCM,1#3G,3-1/2"C
70	15	3#4, 1#8G, 1"C	460	46	2 SETS,EA:4#4/0,1#2G,.2-1/2"C
70	16	4#4, 1#8G, 1-1/4"C	510	47	2 SETS,EA:4#250MCM,1#1G,2-1/2"C
85	17	2#3, 1#8G, 1-1/4"C	620	48	2 SETS,EA: 4#350MCM,1#1/0G,3"C
85	18	3#3, 1#8G, 1-1/4"C	760	49	2 SETS,EA: 4#500MCM, 1#1/0G,3-1/2"C
85	19	4#3, 1#8G, 1-1/4"C	855	50	3 SETS, EA: 4#300MCM,1#2/0G,3"C
95	20	2#2, 1#8G, 1-1/4"C	930	51	3 SETS, EA: 4#350MCM,1#2/0G,3"C
95	21	3#2, 1#8G, 1-1/4"C	1005	52	3 SETS, EA: 4#400MCM,1#3/0G,3"C
95	22	4#2, 1#8G, 1-1/4"C	1140	53	3 SETS,EA:4#500MCM,1#3/0G,3-1/2"C
130	23	2#1, 1#6G, 1-1/4"C	1240	54	4 SETS,EA: 4#350MCM,1#4/0G,3"C
130	24	3#1, 1#6G, 1-1/4"C	1675	55	5 SETS,EA:4#400MCM,1#250MCMG,3"C
130	25	4#1, 1#6G, 1-1/2"C	1900	56	5 SETS,EA:4#500MCM,1#250MCMG,3-1/2"C
150	26	2#1/0, 1#6G, 1-1/2"C	2010	57	6 SETS,EA:4#400MCM,1#350MCMG,3-1/2"C
150	27	3#1/0, 1#6G,1-1/2"C	2280	58	6 SETS,EA:4#500MCM,1#350MCMG,3-1/2"C
150	28	4#1/0, 1#6G, 2"C	2660	59	7 SETS,EA:4#500MCM,1#400MCMG,3-1/2"C
175	29	2#2/0, 1#6G, 1-1/2"C	3040	60	8 SETS, EA:4#500MCM,1#500MCMG,3-1/2"C
175	30	3#2/0, 1#6G,1-1/ 2"C	4180	61	11 SETS, EA:4#500MCM,1#600MCMG,3-1/2"C
175	31	4#2/0, 1#6G, 2"C			

CONDUIT SIZE BASED ON COPPER THHN/THWN 40% FILL CALCULATION
WIRE SIZE BASED ON NEC 310-15 (B)(16) WITH 60°C AMPACITY TABLES FOR 20A THRU 100 AMPS
AND 75°C AMPACITY TABLES FOR VALUES > 100 AMPS.

NOTE!
IN GENERAL, THE ACTUAL BREAKER AMPERAGE SHALL BE EQUAL TO OR NEXT STANDARD SIZE SMALLER THAN THE MAXIMUM WIRE AMPS. EXCEPTIONS SHALL BE MOTOR AND SPECIAL EQUIPMENT BREAKERS WHICH SHALL BE SIZED PER N.E.C. AND VENDOR REQUIREMENTS. OMIT GROUND CONDUCTORS ON SERVICE ENTRANCE FEEDERS (TYPICAL). USE #12 WIRE U.O.N. PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE BREAKER AND WIRING WITH ACTUAL REQUIREMENTS OF EQUIPMENT BEING FURNISHED FOR THIS SPECIFIC PROJECT.

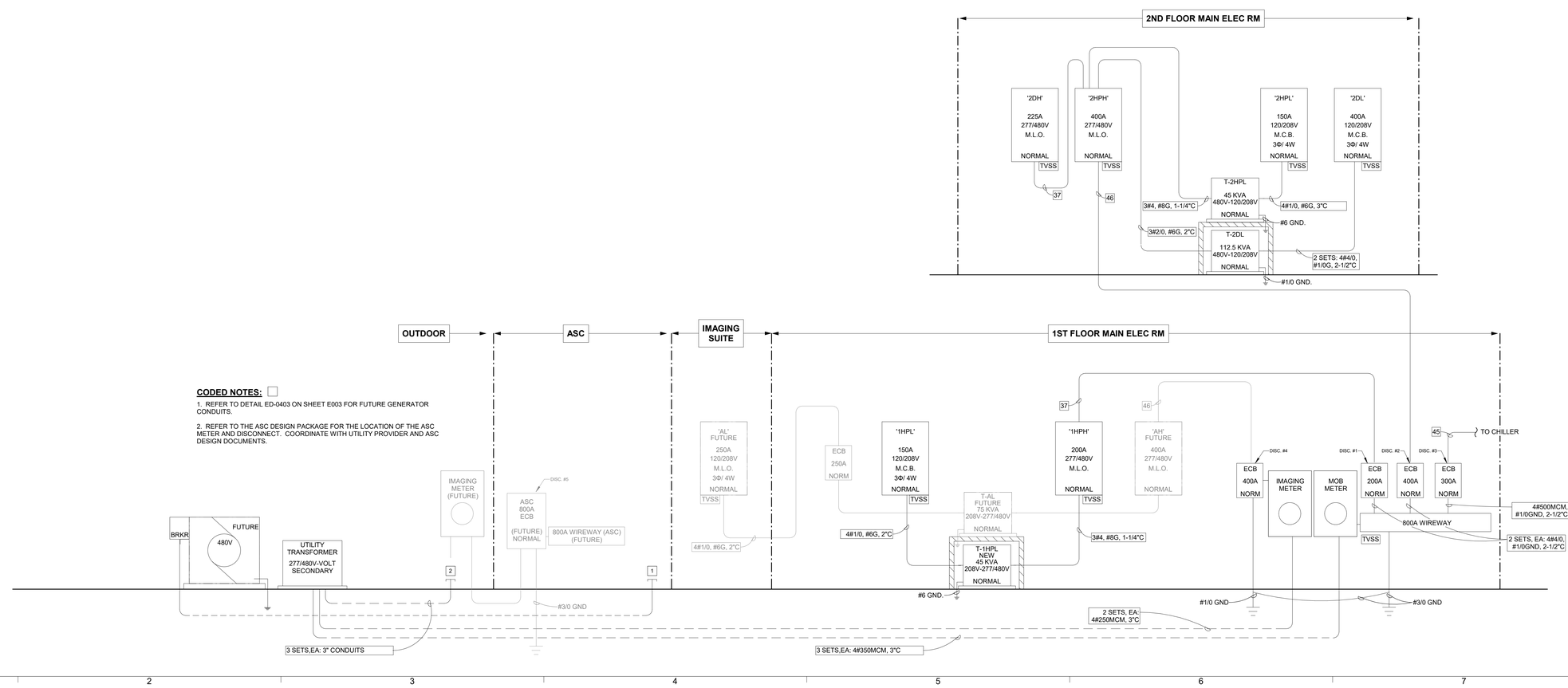
UNLESS NOTED OTHERWISE ALL 20A., 1P. BREAKERS TO UTILIZE #12 CONDUCTORS. EXCEPT WHERE BRANCH CIRCUIT IS IN EXCESS OF 90 LINEAR FEET CONDUCTORS TO BE #10 AND OVER 175 FEET LINEAR FEET CONDUCTORS TO BE #8.



BONDING REQUIREMENTS FOR SERVICE EQUIPMENT DETAIL

No Scale

1



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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL RISER DIAGRAM

Drawing Number:

E600

Drawn by: MC
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Scale: 1/8" = 1'-0"

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JACKSON MOB & ASC

ICT

Available Fault Current Calculation

Utility Fault Current ____ amperes kVA = 1000
E = 480
trans. FLA = 1203

I = kVA x 1000 = trans. FLA
E x 1.732

I_{sca} = **trans. FLA x 100 x PF** = PF = 80%
transformer Z Z = 3.80%

I_{sca} = ampere short-circuit current RMS symmetrical. I_{sca} = 39,567 amperes

Point to Point Method

Three Phase 480/277

Length (distance) FEET L = 1 Copper in Nonmetallic Raceway
(ASC) I_{sca} = 39,567

'f ' factor = **1.732 x L x I** / **N x C x E L-N**
conductors per phase N = 8
Phase conductor constant C = 22,737 **Phase Conductor** 350 kcmil
Volt Line to Line E L - L = **480** Volt
f = 0.001
Neutral conductor constant C = 11,368 **Neutral Conductor** AWG
Multiplier Volt Line to Neutral E L - N = **277** Volt
f = 0.004

M = 1 / 1 + f
Line to Line M = 0.999
Line to Neutral M = 0.996

Fault Current at Service Equipment

I_{sca} **x M =** fault current at terminals of main disconnect **L- L =** → **39,536 amperes**
I_{sca} **x M =** fault current at terminals of main disconnect **L- N =** → **39,407 amperes**

UTILITY SERVICE XFMR
Rated Voltage 480 V
X/R 3P 3.8000
InitSymRMS 3P 39536.00 A
InitSymRMS SLG 39407.00 A

UTIL - SECONDARY
NominalSysVoltage 480.0 V
InitSymRMS 3P 39536.00 A
InitSymRMS SLG 39407.00 A

MOB SERVICE WIREWAY FDR
CableSize 350 kcmil
QtyPerPhase 4
Length 120.0 ft
ConductorType Copper

IMAGING CENTER FDR
CableSize 250 kcmil
QtyPerPhase 2
Length 120.0 ft
ConductorType Copper

800A MOB WIREWAY
NominalSysVoltage 480.0 V
InitSymRMS 3P 31663.02 A
InitSymRMS SLG 28460.09 A

IMAGING SERVICE DISCONNECT
NominalSysVoltage 480.0 V
InitSymRMS 3P 25192.89 A
InitSymRMS SLG 20556.21 A

300A CHILLER BKR
Description LL 400AS
InterruptingRating 65.0 kA
Manufacturer SQUARE D
Type PowerPact L-Frame, 3.3
Frame/Model LJ
Frame/Rating 400.0 A
Sensor/Trip 400.0 A
Plug 400.0 A
Settings
Ir (125-400A); tr (0.5-16s) 300 (300A); 16
Ii (1.5 - 12 x In) 12 (4800A)

200A PNL '1HPH' BKR
Description LL 250AS
InterruptingRating 65.0 kA
Manufacturer SQUARE D
Type PowerPact J-Frame, 3.2
Frame/Model JJ
Frame/Rating 250.0 A
Sensor/Trip 250.0 A
Plug 250.0 A
Settings
Ir (70-250A); tr (0.5-16s) 200 (200A); 16
Ii (1.5 - 12 x In) 10 (2500A)
INST OR Fixed (3062A)

400A PNL '2HPH' BKR
Description LL 400AS
InterruptingRating 65.0 kA
Manufacturer SQUARE D
Type PowerPact L-Frame, 3.3
Frame/Model LJ
Frame/Rating 400.0 A
Sensor/Trip 400.0 A
Plug 400.0 A
Settings
Ir (125-400A); tr (0.5-16s) 400 (400A); 16
Ii (1.5 - 12 x In) 12 (4800A)

400A IMAGING SERVICE DISC
Description LL 400AS
InterruptingRating 65.0 kA
Manufacturer SQUARE D
Type PowerPact L-Frame, 3.3
Frame/Model LJ
Frame/Rating 400.0 A
Sensor/Trip 400.0 A
Plug 400.0 A
Settings
Ir (125-400A); tr (0.5-16s) 400 (400A); 16
Ii (1.5 - 12 x In) 12 (4800A)

CHILLER FDR
CableSize 500 kcmil
QtyPerPhase 1
Length 80.0 ft
ConductorType Copper

PNL '1HPH' FDR
CableSize 4/0 AWG
QtyPerPhase 1
Length 50.0 ft
ConductorType Copper

PNL '2HPH' FDR
CableSize 4/0 AWG
QtyPerPhase 2
Length 100.0 ft
ConductorType Copper

CHILLER
NominalSysVoltage 480.0 V
InitSymRMS 3P 21174.86 A
InitSymRMS SLG 16811.75 A

PNL '1HPH'
NominalSysVoltage 480.0 V
InitSymRMS 3P 22426.07 A
InitSymRMS SLG 17660.98 A

PNL '2HPH'
NominalSysVoltage 480.0 V
InitSymRMS 3P 22426.07 A
InitSymRMS SLG 17660.98 A

70A 'T-1HPH' BKR
Description 15-150A
InterruptingRating 35.0 kA
Manufacturer SQUARE D
Type HG
Frame/Model HG
Frame/Rating 70.0 A
Sensor/Trip 70.0 A
Plug 70.0 A
Settings
Fixed

70A 'T-2HPH' BKR
Description 15-150A
InterruptingRating 35.0 kA
Manufacturer SQUARE D
Type HG
Frame/Model HG
Frame/Rating 70.0 A
Sensor/Trip 70.0 A
Plug 70.0 A
Settings
Fixed

175A 'T-2DL' BKR
Description 150-250A, UL
InterruptingRating 35.0 kA
Manufacturer SQUARE D
Type J-Frame, Powerpact
Frame/Model JG
Frame/Rating 250.0 A
Sensor/Trip 175.0 A
Plug 175.0 A
Settings
Thermal Curve
INST (5-10 x Trip) 7 (1225A)

225A PNL '2DH' BKR
Description LL 250AS
InterruptingRating 35.0 kA
Manufacturer SQUARE D
Type PowerPact L-Frame, 3.3
Frame/Model LG
Frame/Rating 250.0 A
Sensor/Trip 250.0 A
Plug 250.0 A
Settings
Ir (70-250A); tr (0.5-16s) 225 (225A); 16
Ii (1.5 - 12 x In) 12 (3000A)

35A RTU (LGST SUPPLY) BKR
Description 15-150A
InterruptingRating 35.0 kA
Manufacturer SQUARE D
Type HG
Frame/Model HG
Frame/Rating 35.0 A
Sensor/Trip 35.0 A
Plug 35.0 A
Settings
Fixed

'T-1HPL' FDR
CableSize 4 AWG
QtyPerPhase 1
Length 50.0 ft
ConductorType Copper

'T-2HPL' FDR
CableSize 4 AWG
QtyPerPhase 1
Length 50.0 ft
ConductorType Copper

'T-2DL' FDR
CableSize 2/0 AWG
QtyPerPhase 1
Length 50.0 ft
ConductorType Copper

PNL '2DH' FDR
CableSize 4/0 AWG
QtyPerPhase 1
Length 20.0 ft
ConductorType Copper

RTU (LGST SUPPLY) FDR
CableSize 8 AWG
QtyPerPhase 1
Length 100.0 ft
ConductorType Copper

'T - 1HPL'
Nominal kVA 45 kVA
Pri RatedVoltage 480 V
Sec RatedVoltage 208 V

'T - 2HPL'
Nominal kVA 45 kVA
Pri RatedVoltage 480 V
Sec RatedVoltage 208 V

'T - 2DL'
Nominal kVA 112.5 kVA
Pri RatedVoltage 480 V
Sec RatedVoltage 208 V

PNL '2DH'
NominalSysVoltage 480.0 V
InitSymRMS 3P 19982.40 A
InitSymRMS SLG 15224.31 A

RTU-1.3 (SUPPLY)
NominalSysVoltage 480.0 V
InitSymRMS 3P 3169.88 A
InitSymRMS SLG 1842.53 A

PNL '1HPL' FDR
CableSize 1/0 AWG
QtyPerPhase 1
Length 30.0 ft
ConductorType Copper

PNL '2HPL' FDR
CableSize 1/0 AWG
QtyPerPhase 1
Length 20.0 ft
ConductorType Copper

PNL '2DL' FDR
CableSize 4/0 AWG
QtyPerPhase 2
Length 50.0 ft
ConductorType Copper

150A PNL '1HPL' MCB
Description 70-250A
InterruptingRating 10.0 kA
Manufacturer SQUARE D
Type QB
Frame/Model QB
Frame/Rating 150.0 A
Sensor/Trip 150.0 A
Plug 150.0 A
Settings
Fixed

150A PNL '2HPL' MCB
Description 70-250A
InterruptingRating 10.0 kA
Manufacturer SQUARE D
Type QB
Frame/Model QB
Frame/Rating 150.0 A
Sensor/Trip 150.0 A
Plug 150.0 A
Settings
Fixed

400A PNL '2DL' BKR
Description LL 400AS
InterruptingRating 25.0 kA
Manufacturer SQUARE D
Type PowerPact L-Frame, 3.3
Frame/Model LD
Frame/Rating 400.0 A
Sensor/Trip 400.0 A
Plug 400.0 A
Settings
Ir (125-400A); tr (0.5-16s) 400 (400A); 16
Ii (1.5 - 12 x In) 12 (4800A)

15A RTU (LGST RETURN) BKR
Description 15-150A
InterruptingRating 35.0 kA
Manufacturer SQUARE D
Type HG
Frame/Model HG
Frame/Rating 15.0 A
Sensor/Trip 15.0 A
Plug 15.0 A
Settings
Fixed

PNL '1HPL'
NominalSysVoltage 208.0 V
InitSymRMS 3P 2904.18 A
InitSymRMS SLG 2829.28 A

PNL '2HPL'
NominalSysVoltage 208.0 V
InitSymRMS 3P 3090.03 A
InitSymRMS SLG 3047.01 A

PNL '2DL'
NominalSysVoltage 208.0 V
InitSymRMS 3P 5339.49 A
InitSymRMS SLG 5318.73 A

RTU (LGST RETURN) FDR
CableSize 10 AWG
QtyPerPhase 1
Length 100.0 ft
ConductorType Copper

RTU (RETURN)
NominalSysVoltage 480.0 V
InitSymRMS 3P 2206.33 A
InitSymRMS SLG 1298.79 A

30A PNL '1HPL' LGST
Description 15-100A
InterruptingRating 10.0 kA
Manufacturer SQUARE D
Type QO, 3-Pole
Frame/Model QO
Frame/Rating 30.0 A
Sensor/Trip 30.0 A
Plug 30.0 A
Settings
Fixed (730-5, 30A)

20A PNL '2HPL' LGST
Description 15-70A
InterruptingRating 10.0 kA
Manufacturer SQUARE D
Type QO, 1-Pole
Frame/Model QO
Frame/Rating 20.0 A
Sensor/Trip 20.0 A
Plug 20.0 A
Settings
Fixed (730-3)

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Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01

Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS

Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL
ONE-LINE DIAGRAM

Drawing Number:

E601

Drawn by: MC
Checked by: PGG
Scale:

Branch Panel: 1HPH

Location: MAIN ELEC RM
Supply From: MOB WIREWAY
Mounting: Surface
Enclosure: Type 1
Electrical Branch: NORMAL

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65000 A
Fault Current: 33451 A
Mains Type: MLO
Mains Rating: 200 A
Overcurrent Protection: 200 A

Notes:

NEW PANEL

CKT	Circuit Description	Demand Code	TRIP	P	A	B	C	P	TRIP	Demand Code	Circuit Description	CKT
1		Motor; REC; HEAT;...			7949	0						2
3	T-1HPL		70 A	3		6194	0	3	30 A	--	TVSS	4
5							6423	0				6
7					1667	1667						8
9	RTU-1.4 (SUPPLY FAN)	HVAC	15 A	3		1667	1667	3	15 A	HEAT	HEAT B1.4-4	10
11							1667	1667				12
13					1667	1667						14
15	RTU-1.4 (RETURN FAN)	HVAC	15 A	3		1667	1667	3	15 A	HEAT	HEAT B1.5-1	16
17							1667	1667				18
19					1663	1667						20
21	RTU-1.5 (SUPPLY FAN)	HVAC	15 A	3		1663	1667	3	15 A	HEAT	HEAT B1.5-2	22
23							1663	1667				24
25					1109	--		1	--	--	SPACE ONLY	26
27	RTU-1.5 (RETURN FAN)	HVAC	15 A	3		1109	--	1	--	--	SPACE ONLY	28
29							1109	--	1	--	--	SPACE ONLY	30
31	SPACE ONLY	--	--	1	--	--		1	--	--	SPACE ONLY	32
33	SPACE ONLY	--	--	1		--	--	1	--	--	SPACE ONLY	34
35	SPACE ONLY	--	--	1			--	--	1	--	--	SPACE ONLY	36
37	SPACE ONLY	--	--	1	--	--		1	--	--	SPACE ONLY	38
39	SPACE ONLY	--	--	1		--	--	1	--	--	SPACE ONLY	40
41	SPACE ONLY	--	--	1			--	--	1	--	--	SPACE ONLY	42
			Total Load:		19052 VA	17299 VA	17527 VA					
			Total Amps:		69 A	62 A	63 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	18314 VA	70.00%	12820 VA		
LTS	6024 VA	100.00%	6024 VA	**Total Conn. Load:**	53877 VA
Motor	2810 VA	70.00%	1967 VA	**Total Est. Demand:**	39104 VA
HEAT	19000 VA	60.00%	11400 VA	**Total Conn. Current:**	65 A
EQUIP	3500 VA	80.00%	2800 VA	**Total Est. Demand Current:**	**47 A**
REC	3560 VA	100.00%	3560 VA		
GEN	680 VA	80.00%	544 VA		

Notes:

Branch Panel: 2DH

Location: 2ND FLR ELEC RM
Supply From: 2HPH
Mounting: Surface
Enclosure: Type 1
Electrical Branch: TENANT

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 35000 A
Fault Current:
Mains Type: MLO
Mains Rating: 225 A
Overcurrent Protection: 225 A

Notes:

TENANT PANEL

CKT	Circuit Description	Demand Code	TRIP	P	A	B	C	P	TRIP	Demand Code	Circuit Description	CKT
1					--	0						2
3	100A PROVISIONAL SPACE	--	--	3		--	0	3	30 A	--	TVSS	4
5							--	0				6
7					--	--						8
9	100A PROVISIONAL SPACE	--	--	3		--	--	3	--	--	60A PROVISIONAL SPACE	10
11							--	--				12
13					--	--						14
15	100A PROVISIONAL SPACE	--	--	3		--	--	3	--	--	60A PROVISIONAL SPACE	16
17							--	--				18
19					--	--						20
21	100A PROVISIONAL SPACE	--	--	3		--	--	3	--	--	60A PROVISIONAL SPACE	22
23							--	--				24
25					--	--						26
27	100A PROVISIONAL SPACE	--	--	3		--	--	3	--	--	60A PROVISIONAL SPACE	28
29							--	--				30
31					--	--						32
33	100A PROVISIONAL SPACE	--	--	3		--	--	3	--	--	60A PROVISIONAL SPACE	34
35							--	--				36
37					--	--						38
39	100A PROVISIONAL SPACE	--	--	3		--	--	3	--	--	60A PROVISIONAL SPACE	40
41							--	--				42
			Total Load:		0 VA	0 VA	0 VA					
			Total Amps:		0 A	0 A	0 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
				Total Conn. Load:	0 VA
				Total Est. Demand:	0 VA
				Total Conn. Current:	0 A
				Total Est. Demand Current:	**0 A**

Notes:

Branch Panel: MOB WIREWAY

Location: MAIN ELEC RM
Supply From: UTILTY XFMR (SERVICE #1)
Mounting: Surface
Enclosure: Type 1
Electrical Branch: NORMAL

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65000 A
Fault Current: 33451 A
Mains Type: MLO
Mains Rating: 800 A
Overcurrent Protection: 800 A

Notes:

NEW PANEL

CKT	Circuit Description	Demand Code	TRIP	P	A	B	C	P	TRIP	Demand Code	Circuit Description	CKT
1		HVAC; Motor; REC;...			19052	49569				HVAC; Motor; REC;...		2
3	PNL '1HPH'		200 A	3		17299	45742	3	400 A		PNL '2HPH'	4
5							17527	59681				6
7					60977	0						8
9	CH-1	EQUIP	300 A	3		60977	0	3	60 A	--	TVSS	10
11							60977	0				12
			Total Load:		129597 VA	124018 VA	138185 VA					
			Total Amps:		471 A	448 A	502 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	61296 VA	70.00%	42907 VA		
LTS	9661 VA	100.00%	9661 VA	**Total Conn. Load:**	391799 VA
Motor	4594 VA	70.00%	3216 VA	**Total Est. Demand:**	291702 VA
HEAT	97360 VA	60.00%	58416 VA	**Total Conn. Current:**	471 A
EQUIP	191252 VA	80.00%	153002 VA		
REC	6980 VA	100.00%	6980 VA	**Total Est. Demand Current:**	**351 A**
GEN	680 VA	80.00%	544 VA		

Notes:

DO NOT PROVIDE A PANELBOARD. THIS SCHEDULE IS FOR LOAD CALCULATIONS ONLY

Branch Panel: 2HPH

Location: 2ND FLOOR ELEC RM
Supply From: MOB WIREWAY
Mounting: Surface
Enclosure: Type 1
Electrical Branch: NORMAL

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 65000 A
Fault Current: 27276 A
Mains Type: MLO
Mains Rating: 400 A
Overcurrent Protection: 400 A

Notes:

NEW PANEL

CKT	Circuit Description	Demand Code	TRIP	P	A	B	C	P	TRIP	Demand Code	Circuit Description	CKT
1		Motor; REC; HEAT;...			3909	0						2
3	T-2HPL		70 A	3		3091	0	3	30 A	--	TVSS	4
5							12920	0				6
7					0	5737						8
9	T-2DL	Spare	175 A	3		0	5737	3	35 A	HVAC	RTU-2.1 (SUPPLY) FUTURE ASC	10
11							0	5737				12
13					0	1663						14
15	PNL '2HPH'	Spare	225 A	3		0	1663	3	15 A	HVAC	RTU-2.1 (RETURN) FUTURE ASC	16
17							0	1663				18
19					1667	2217						20
21	HEAT B1.4-2	HEAT	15 A	3		1667	2217	3	15 A	HVAC	RTU-2.1 (RETURN FAN)	22
23							1667	2217				24
25					3333	4711						26
27	HEAT B2.1-1	HEAT	20 A	3		3333	4711	3	25 A	HVAC	RTU-2.1 (SUPPLY FAN)	28
29							3333	4711				30
31					3333	3333						32
33	HEAT B2.1-2	HEAT	20 A	3		3333	3333	3	20 A	HEAT	HEAT B2.1-5	34
35							3333	3333				36
37					3333	3333						38
39	HEAT B2.1-3	HEAT	20 A	3		3333	3333	3	20 A	HEAT	HEAT B2.1-6	40
41							3333	3333				42
43					3333	3333						44
45	HEAT B2.1-4	HEAT	20 A	3		3333	3333	3	20 A	HEAT	HEAT B2.1-7	46
47							3333	3333				48
49	HEAT B1.4-1	HEAT	15 A	1	3000	3333						50
51	SPARE	--	20 A	1		0	3333	3	20 A	ELEV	ELEV MOTOR	52
53	IWH-1	EQUIP	20 A	1			4100	3333				54
55	SPACE ONLY	--	--	1	--	--		1	--	--	SPACE ONLY	56
57	SPACE ONLY	--	--	1		--	--	1	--	--	SPACE ONLY	58
59	SPACE ONLY	--	--	1			--	--	1	--	--	SPACE ONLY	60
			Total Load:		49569 VA	45742 VA	59681 VA					
			Total Amps:		181 A	165 A	218 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	42982 VA	70.00%	30087 VA		
LTS	3638 VA	100.00%	3638 VA	**Total Conn. Load:**	154992 VA
Motor	1784 VA	70.00%	1249 VA	**Total Est. Demand:**	106254 VA
HEAT	78360 VA	60.00%	47016 VA	**Total Conn. Current:**	186 A
EQUIP	4820 VA	80.00%	3856 VA	**Total Est. Demand Current:**	**128 A**
REC	3420 VA	100.00%	3420 VA		

Notes:

Branch Panel: 1HPL

Location: MAIN ELEC RM
Supply From: T-1HPL
Mounting: Surface
Enclosure: Type 1
Electrical Branch: NORMAL

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 25000 A
Fault Current: 4780 A
Mains Type: M.C.B.
Mains Rating: 150 A
Overcurrent Protection: 150 A

Notes:

NEW PANEL

CKT	Circuit Description	Demand Code	TRIP	P	A	B	C	P	TRIP	Demand Code	Circuit Description	CKT
1	LTS - LOBBY	LTS	20 A	1	792	0						2
3	LTS - ELEVATOR PIT & SHAFT	LTS	20 A	1		208	0	3	30 A	--	TVSS	4
5	LTS - EAST STAIRS	LTS	20 A	1			160	0				6
7	LTS - WEST STAIR	LTS	20 A	1	160	1000						8
9	LTS - EXTERIOR	LTS	20 A	1		1264	1000	3	30 A	EQUIP	IRRIGATION WELL	10
11	LTS - TENANT	LTS	20 A	1			444	1000				12
13	LTS - TENANT	LTS	20 A	1	699	667						14
15	FACP (LOCK ON)	GEN	20 A	1		500	667	3	15 A	HEAT	UH-1	16
17	REC - LOBBY	REC	20 A	1			720	667				18
19	REC - WATER FTN (GFI)	REC	20 A	1	360	667						20
21	REC - TENANT	REC	20 A	1		540	667	3	15 A	HEAT	UH-2	22
23	REC - TENANT	REC	20 A	1			1080	667				24
25	MONUMENT SIGN	EQUIP	20 A	1	500	1169						26
27	REC - ELEV - SUMP PUMP	REC	20 A	1		180	1169	2	20 A	LTS	LTG - SITE LIGHTING	28
29	FIRE ALARM BELL	GEN	20 A	1			180	1165	2	20 A	Motor	AC/HP-E1	30
31	CHILLER REC/CONTROLS	REC	20 A	1	680	1165						32
33	CARD REDERS (TENANT 'B')	Motor	20 A	1		0	0	1	20 A	--	SPARE	34
35	CARD READERS (TENANT 'A')	Motor	20 A	1			360	0	1	20 A	--	SPARE	36
37	AUTODOOR	Motor	20 A	1	120	0			1	20 A	--	SPARE	38
39	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	40
41	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	42
			Total Load:		7949 VA	6194 VA	6423 VA					
			Total Amps:		67 A	52 A	54 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LTS	6024 VA	100.00%	6024 VA		
Motor	2810 VA	70.00%	1967 VA	**Total Conn. Load:**	20565 VA
HEAT	4000 VA	60.00%	2400 VA	**Total Est. Demand:**	17287 VA
EQUIP	3500 VA	80.00%	2800 VA	**Total Conn. Current:**	57 A
REC	3560 VA	100.00%	3560 VA	**Total Est. Demand Current:**	**48 A**
GEN	680 VA	80.00%	544 VA		

Notes:

Branch Panel: 2DL

Location: 2ND FLOOR ELEC RM
Supply From: T-2HDL
Mounting: Surface
Enclosure: Type 1
Electrical Branch: NORMAL

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 25000 A
Fault Current: 5437 A
Mains Type: M.C.B
Mains Rating: 400 A
Overcurrent Protection: 400 A

Notes:

NEW PANEL

CKT	Circuit Description	Demand Code	TRIP	P	A	B	C	P	TRIP	Demand Code	Circuit Description	CKT
1					0	0						2
3	SPARE (FUTURE TENANT)	--	100 A	3		0	0	3	30 A	--	TVSS	4
5							0	0				6
7					0	--						8
9	SPARE (FUTURE TENANT)	--	100 A	3		0	--	3	--	--	225A PROVISIONAL SPACE	10
11							0	--				12
13					0	--						14
15	SPARE (FUTURE TENANT)	--	100 A	3		0	--	3	--	--	225A PROVISIONAL SPACE	16
17							0	--				18
19					0	--						20
21	SPARE (FUTURE TENANT)	--	100 A	3		0	--	3	--	--	150A PROVISIONAL SPACE	22
23							0	--				24
25	SPACE ONLY	--	--	1	--	--		1	--	--	SPACE ONLY	26
27	SPACE ONLY	--	--	1		--	--	1	--	--	SPACE ONLY	28
29	SPACE ONLY	--	--	1			--	--	1	--	--	SPACE ONLY	30
31	SPACE ONLY	--	--	1	--	--		1	--	--	SPACE ONLY	32
33	SPACE ONLY	--	--	1		--	--	1	--	--	SPACE ONLY	34
35	SPACE ONLY	--	--	1			--	--	1	--	--	SPACE ONLY	36
37	SPACE ONLY	--	--	1	--	--		1	--	--	SPACE ONLY	38
39	SPACE ONLY	--	--	1		--	--	1	--	--	SPACE ONLY	40
41	SPACE ONLY	--	--	1			--	--	1	--	--	SPACE ONLY	42
			Total Load:		0 VA	0 VA	0 VA					
			Total Amps:		0 A	0 A	0 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
				Total Conn. Load:	0 VA
				Total Est. Demand:	0 VA
				Total Conn. Current:	0 A
				Total Est. Demand Current:	**0 A**

Notes:

Branch Panel: 2HPL

Location: 2ND FLOOR ELEC RM
Supply From: T-2HPL
Mounting: Surface
Enclosure: Type 1
Electrical Branch: NORMAL

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 25000 A
Fault Current: 4710 A
Mains Type: M.C.B.
Mains Rating: 150 A
Overcurrent Protection: 150 A

Notes:

NEW PANEL

CKT	Circuit Description	Demand Code	TRIP	P	A	B	C	P	TRIP	Demand Code	Circuit Description	CKT
1	LTS - LOBBY	LTS	20 A	1	1517	0						2
3	LTS - TENANT	LTS	20 A	1		849	0	3	30 A	--	TVSS	4
5	LTS - OPEN TO BELOW LIGHTS	LTS	20 A	1			1300	0				6
7	CARD READER (IT ROOM)	Motor	20 A	1	120	832						8
9	REC - WATER FOUNTAIN (GFI)	REC	20 A	1		360	832	2	15 A	Motor	AC/HP-IT2	10
11	REC - LOBBY	REC	20 A	1			540	360	1	20 A	REC	RTU-1.4 (CNTRLS)	12
13	REC - I.T.	REC	20 A	1	360	360			1	20 A	REC	RTU-1.5 (CNTRLS)	14
15	REC - I.T.	REC	20 A	1		360	360		1	20 A	REC	RTU-2.2 (CNTRLS)	16
17	REC - I.T.	REC	20 A	1			360	360	1	20 A	REC	RTU-2.2 (CNTRLS)	18
19	BUILDING SIGNS	EQUIP	20 A	1	360	0			1	20 A	--	SPARE	20
21	BUILDING SIGNS	EQUIP	20 A	1		360	0		1	20 A	--	SPARE	22
23	ELEV (CAB LIGHTS & ALARMS)	ELEV	15 A	1			10000	0	1	20 A	--	SPARE	24
25	B1.4-3	HEAT	20 A	1	360	0			1	20 A	--	SPARE	26
27	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	28
29	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	30
31	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	32
33	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	34
35	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	36
37	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	38
39	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	40
41	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	42
			Total Load:		3909 VA	3091 VA	12920 VA					
			Total Amps:		34 A	26 A	109 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
LTS	3638 VA	100.00%	3638 VA		
Motor	1784 VA	70.00%	1249 VA	**Total Conn. Load:**	19912 VA
HEAT	360 VA	60.00%	216 VA	**Total Est. Demand:**	17589 VA
EQUIP	720 VA	80.00%	576 VA	**Total Conn. Current:**	55 A
REC	3420 VA	100.00%	3420 VA	**Total Est. Demand Current:**	**49 A**

Notes:

Project Architect:

MBA

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ICT PROJECT NO. 220557.00
FIRM CERTIFICATE OF AUTHORIZATION
FLORIDA REG. #CA-0001276
MECHANICAL ENGINEER
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FLORIDA #54888
ELECTRICAL ENGINEER
PHILIP GARRETT, P.E.
FLORIDA #63289

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

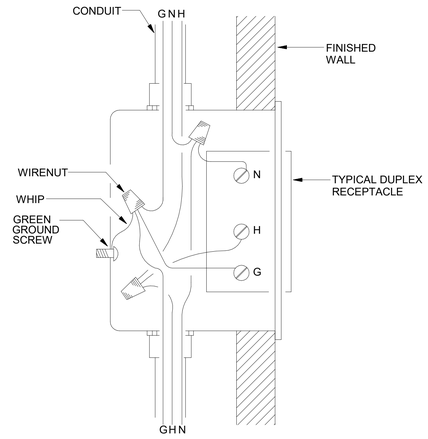
ELECTRICAL SCHEDULES

Drawing Number:

E700

Drawn by: MC
Checked by: PGG
Scale:

9/29/2023 3:56:35 PM
C:\Users\mcruz\Documents\ICT-220557-SHELL-MEP22-CENTRAL_mcruzHR2E.rvt

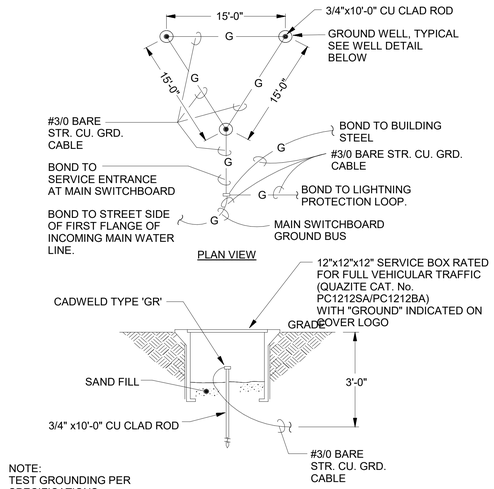


NOTE:
NO REMOVAL OF ANY DEVICE SHALL INTERRUPT CONTINUITY OF GROUND CONDUCTORS.

RECEPTACLE GROUND

No Scale

ED 0208

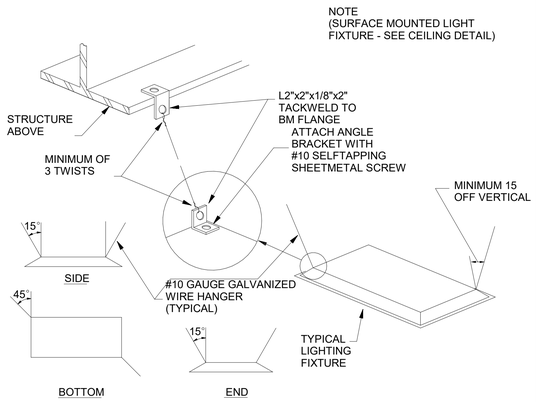


NOTE:
TEST GROUNDING PER SPECIFICATIONS.

MAIN ELECTRICAL SERVICE GROUND ROD WELL DETAIL

No Scale

ED-0206

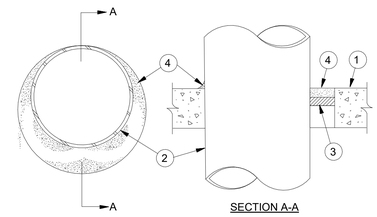


TYPICAL 2'x4' & 2'x2' LIGHT FIXTURE HANGING DETAIL

No Scale

ED 0510

SYSTEM NO. C-AJ-1001
MARCH 05, 2007
F RATING - 3 HR
T RATING - 0 HR
W RATING - CLASS 1 (SEE ITEM 4)



1. FLOOR OR WALL ASSEMBLY - MIN 4-1/2 IN. (114 MM) THICK LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400 KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS*. MAX DIAM OF CIRCULAR THROUGH OPENING IS 32-1/2 IN. (826 MM).

SEE CONCRETE BLOCKS (CAZT) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.

1A. STEEL SLEEVE - (OPTIONAL, NOT SHOWN) - NOM 12 IN. (305 MM) DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE SLEEVE CAST INTO CONCRETE FLOOR OR WALL. SLEEVE TO BE FLUSH WITH OR PROJECT MAX 2 IN. (51 MM) FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL.

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 1-3/8 IN. (35 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 30 IN. (762 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

A1. IRON PIPE - NOM 30 IN. (762 MM) DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.

B. CONDUIT - NOM 6 IN. (152 MM) DIAM (OR SMALLER) RIGID STEEL CONDUIT.

C. CONDUIT - NOM 4 IN. (152 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.

3. PACKING MATERIAL - POLYETHYLENE BACKER ROD OR NOM 1 IN. (25 MM) THICKNESS OF TIGHTLY-PACKED CERAMIC (ALUMINA SILICA) FIBER BLANKET, MINERAL WOOL BATT OR GLASS FIBER INSULATION MATERIAL USED AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF SOLID CONCRETE OR CONCRETE BLOCK WALL AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4). AS AN ALTERNATE WHEN MAX PIPE SIZE IS 10 IN. (254 MM) DIAM AND WHEN MAX ANNULAR SPACE IS 1 IN. (25 MM), A MIN 1 IN. (25 MM) THICKNESS OF TIGHTLY-PACKED CERAMIC FIBER BLANKET OR MINERAL WOOL BATT PACKING MATERIAL MAY BE RECESSED MIN 1/2 IN. (13 MM) FROM BOTTOM SURFACE OF FLOOR OR FROM EITHER SIDE OF SOLID CONCRETE WALL.

4. FILL, VOID OR CAVITY MATERIALS* - CAULK - APPLIED TO FILL THE ANNULAR SPACE TO THE MIN THICKNESS SHOWN IN THE FOLLOWING TABLE:

Maximum Pipe Diameter Inches	Maximum Annular Space Inches	Packing Material Type (a)	Minimum Caulk Thickness Inches
10 (254)	1 (25)	BR, CF, GF or MW	1/2 (13) (B)
10 (254)	1 (25)	CF or MW	1/2 (13) (C)
30 (762)	2 1/2 (64)	BR, CF, GF or MW	1 (25) (B)

(A) BR=POLYETHYLENE BACKER ROD.
CF=CERAMIC FIBER BLANKET.
GF=GLASS FIBER INSULATION.
MW=MINERAL-WOOL BATT.
(B) CAULK INSTALLED FLUSH WITH TOP SURFACE OF FLOOR OR BOTH SURFACES OF WALL
(C) CAULK INSTALLED FLUSH WITH BOTTOM SURFACE OF FLOOR OR ONE SURFACE OF SOLID (NON-CONCRETE BLOCK) WALL

3M COMPANY - TYPE CP 25WB+ OR FB-3000 WT

(NOTE - W RATING APPLIES ONLY WHEN FB-3000 WT IS USED.)

*BEARING THE UL CLASSIFICATION MARK LAST UPDATED ON 2007-03-05

UL LISTED AND CLASSIFIED PRODUCTS UL RECOGNIZED COMPONENTS PRODUCTS CERTIFIED FOR CANADA

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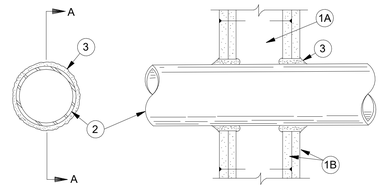
THROUGH-PENETRATION FIRESTOP SYSTEMS C-AJ-1001

No Scale

ED 0300

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 .OR†IN. (13 OR 16 MM) THICK, 4 FT. (122 H 1/20CM) 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 OFF FLOOR OR WALL ASSEMBLY. GASTITE, 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 ¼ 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:

Maximum Pipe or Conduit Diameter Inches	F Rating Hours	F Rating Hours
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 LAST UPDATED ON 2005-06-15

UL LISTED AND CLASSIFIED PRODUCTS UL RECOGNIZED COMPONENTS PRODUCTS CERTIFIED FOR CANADA

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THROUGH-PENETRATION FIRESTOP SYSTEMS W-L-1001

No Scale

ED 0305

Project Architect:

MBA

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ICT PROJECT NO. 220557.00
FIRM CERTIFICATE OF AUTHORIZATION
FLORIDA REG. #CA-0001276
MECHANICAL ENGINEER
IVAN A. NEIMAN, P.E.
FLORIDA #54888
ELECTRICAL ENGINEER
PHILIP GARRETT, P.E.
FLORIDA #62209

Seal & Signature:

Project Name:

JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

3035 Hospital Drive
Marianna, FL 32446

CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL DETAILS

Drawing Number:

E800

Drawn by: MC
Checked by: PGG
Scale: 1/8" = 1'-0"

9/29/2023 3:56:39 PM
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61G-15.008 FIRE ALARM AND DETECTION REQUIREMENTS

YES ■	NO ☐	N/A ☐	(1) Fire alarms and detection systems include fire protection supervision, emergency alarm circuits, activation of life safety system controls and remote signaling of emergency conditions. Items to be considered in the design or analysis of fire alarm and detection systems are, as applicable to the particular project: occupancy and classification, monitoring, control and communication, cabling and supervision requirements, installation requirements, interoperability and performance requirements.
YES ■	NO ☐	N/A ☐	(2) The design specifications shall be based on the Florida Building Code, the Florida Fire Prevention Code, or as required by the local authority having jurisdiction. The Florida Building Code and the Florida Fire Prevention Code are incorporated by reference in rule 61G15-18.011, F.A.C.
YES ■	NO ☐	N/A ☐	(3) For systems below the threshold requirements for mandatory use of professional engineering services, the Engineer of Record may specify the minimum system requirements only. Does the proposed system exceed the $5,000 threshold?
			(4) To ensure minimum design quality of Fire Alarm and Detection Systems Engineering Documents, said documents shall include as a minimum the following information when applicable:
	YES ■	NO ☐	N/A ☐ (a) The documents shall be clear, with a symbols legend, system riser diagram showing all initiation and notification components, and cabling requirements. The documents shall indicate locations where fire ratings are required as determined by the system's survivability requirements, and shall identify the general occupancy of the protected property and each room and area unless it is clear from features shown.
	YES ■	NO ☐	N/A ☐ (b) Locate initiation and notification devices and connections to related systems on the floor plans and sections when needed for clarity. Related systems include elevator controls, smoke control systems, dampers, door release, any other systems or elements directly or indirectly controlled or monitored.
	YES ■	NO ☐	N/A ☐ (c) Strobe intensity and speaker output ratings for all notification devices.
	YES ■	NO ☐	N/A ☐ (d) Identify the Class of circuits as listed in NFPA 72, which is contained within and incorporated into the Florida Fire Prevention Code.
	YES ■	NO ☐	N/A ☐ (e) Identify the functions required by the alarm and control systems including the transmission of emergency signals being monitored or annunciated.
	YES ■	NO ☐	N/A ☐ (f) Indicate whether the fire alarm is conventional or addressable, and indicate all zoning.
	YES ■	NO ☐	N/A ☐ (g) Locate surge protective devices and required protective features.
	YES ■	NO ☐	N/A ☐ (h) Identify and locate system devices that are subject to environmental factors, and indicate requirements for the protection of equipment from temperature, humidity or corrosive atmospheres, including coastal salt air.
	YES ■	NO ☐	N/A ☐ (i) The documents shall include a site plan of the immediate area around the protected building, structure or equipment when alarm devices are required outside the structure.
	YES ☐	NO ☐	N/A ■ (j) In buildings where smoke detection will be obstructed by walls, beams or ceiling features, the Engineer of Record shall provide applicable design and details to direct the installer to mitigate the obstructions. In buildings with smoke detection under a pitched roof, the plans shall indicate the roof pitch and a building section shall be provided as part of the Engineering Design Documents
	YES ☐	NO ☐	N/A ■ (k) For fire detection systems utilizing smoke detection in situations where smoke stratification is anticipated, the design shall provide the necessary criteria to mitigate the detection problems.
	YES ■	NO ☐	N/A ☐ (l) Systems designed using Performance Based criteria shall be identified and referenced to design guides or standards approved by the local authority having jurisdiction consistent with standards adopted by the Florida Fire Prevention Code and the Florida Building Code.
	YES ■	NO ☐	N/A ☐ (m) The system design must indicate if the system is to provide a general evacuation signal or a zoned evacuation for all high-rise buildings or multi-tenanted properties as defined in section 2 of the Florida Building Code, Building.
	YES ☐	NO ■	N/A ☐ (n) Wiring requirements for underground, wet locations, campus style wiring, protection against damage and burial depth shall be specified or indicated on the engineering design documents.
	YES ■	NO ☐	N/A ☐ (o) Requirements for operations and maintenance procedures, manuals, system documentation, and instruction of Owner's operating personnel, as needed to operate the systems as intended over time.
YES ☐	NO ☐	N/A ■	(5) In the event that the Engineer of Record elects to specify specific equipment and to show the required wiring, battery and voltage drop (circuit analysis) calculations shall be completed. The calculations shall be completed using the equipment manufacture's data and applicable NFPA 72 procedures.
YES ■	NO ☐	N/A ☐	(6) System test requirements shall be noted on the Engineering Design Documents.
YES ■	NO ☐	N/A ☐	(7) When the Engineer of Record determines that special requirements are required by the owner, insurance underwriter or local fire code amendments these requirements shall be documented or referenced on the Engineering Design Documents.

PROJECT SPECIFIC INFORMATION:

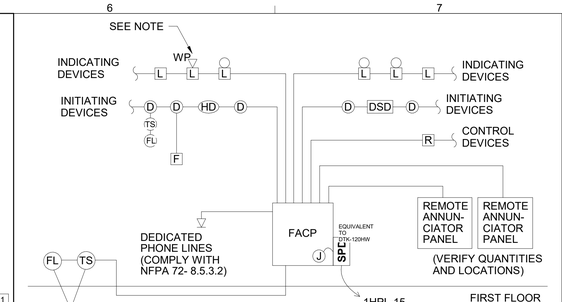
Occupancy Type(s): B Business Group
Sprinkler Protection: Building is Fully Sprinklered
Project Scope: Provide and Install a New Automatic and Manual Fire Alarm System as Shown on Drawings.
Wiring is Class B for Notification Appliance Circuits, Class A for Initiating Device Circuits, and Signaling Line Circuits.
Automatic Fire Alarm System shall transmit the alarm, supervisory and trouble signals to an approved supervising station. The supervising station shall be listed as either UUFX or UUJS underwriters laboratory or shall meet the requirement of factory mutual research approval standard 2011. Supervision of system and leased telephone lines shall be arranged by the owner.

FIRE ALARM AND DETECTION REQUIREMENTS — No Scale — ED 1706

SYSTEM OUTPUTS / SYSTEM INPUTS

	SYSTEM INPUTS	ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE APPROPRIATE LOCATION INDICATOR	ACTUATE ALL AUDIBLE EVACUATION SIGNALS	ACTUATE ALL VISIBLE EVACUATION SIGNALS	DISPLAY CHANGE OF STATUS	TRANSMIT ALARM SIGNAL TO SUPERVISING STATION	TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION	TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION	RELEASE MAGNETICALLY HELD SMOKE DOORS	RELEASE ELEVATOR RECALL DOORS	RELEASE ELEVATOR FIRE DOORS	ELEVATOR SHUNT TRIP	MAIN FLOOR ELEVATOR RECALL	ALTERNATE FLOOR ELEVATOR RECALL	ELEVATOR HAT FLASH	DAMPER SHUTDOWN	REMOTELY DISPLAY ACTIVE STATUS	
		CNTL	UNIT	ANNUN.					NOTIFICATION						FIRE SAFETY CONTROL										
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
1	SMOKE SENSOR/DETECTOR	●	●					●		●	●	●	●				●	●						●	●	●	1
2	MANUAL PULL STATION	●	●					●		●	●	●	●													●	2
3	HEAT SENSOR/ DETECTOR	●	●					●		●	●	●	●													●	3
4	DUCT SENSOR/ DETECTOR (AHU) - SUPERVISORY			●	●			●			●		●												●	●	4
5	DUCT SENSOR/ DETECTOR (DAMPERS) - SUPERVISORY			●	●			●			●		●												●	●	5
6	MAIN FLR. ELEVATOR LOBBY SMOKE DETECTOR	●	●					●		●	●	●	●				●	●	●		●		●		●	●	6
7	ELEV. LOBBY SMOKE DETECTOR (EXC. MAIN FLR.)	●	●					●		●	●	●	●				●	●	●	●			●		●	●	7
8	ELEV. MECH ROOM HEAT DETECTOR	●	●					●		●	●	●	●							●						●	8
9	ELEV. MECH ROOM SMOKE DETECTOR	●	●					●		●	●	●	●				●	●		●						●	9
10	ELEV. SHAFT HEAT DETECTOR	●	●					●		●	●	●	●								●					●	10
11	ELEV. SHAFT SMOKE DETECTOR	●	●					●		●	●	●	●				●	●			●					●	11
12	ELEVATOR POWER MONITOR			●	●			●			●		●													●	12
13	WATERFLOW SWITCH	●	●					●		●	●	●	●				●	●								●	13
14	TAMPER SWITCH			●	●			●			●		●													●	14
15	GENERATOR RUNNING			●	●			●			●		●													●	15
16	GENERATOR FAULT					●	●	●			●			●												●	16
17	FIRE ALARM AC POWER FAILURE					●	●				●			●			●	●								●	17
18	FIRE ALARM SYSTEM LOW BATTERY					●	●				●			●												●	18
19	OPEN CIRCUIT OR GROUND FAULT					●	●				●			●												●	19
20	CLASS B NOTIFICATION CIRCUIT (NAC) - SHORT					●	●				●			●												●	20

FIRE ALARM SEQUENCE OF OPERATION — No Scale — ED 1705



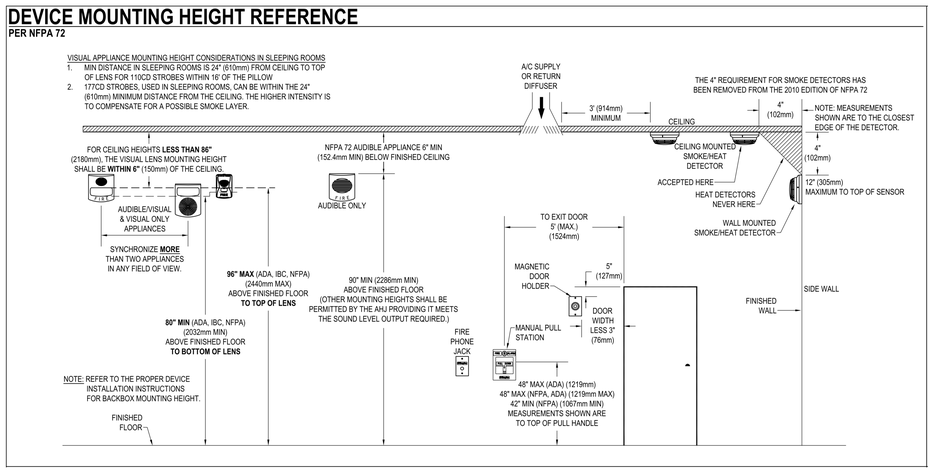
NOTES:
1. PROVIDE BUILDING MAP AT THE FACP LOCATIONS AND ANNUNCIATOR THAT INDICATES ZONES AND DEVICES.
2. PROVIDE WEATHERPROOF DEVICES WHERE SHOWN OR AS REQUIRED BASED ON THE LOCATION OF THE DEVICE.
3. RECORD AND SHOP DRAWINGS SHALL INDICATE EXACT ROUTING AND LOCATIONS OF ALL DEVICES, CONDUITS (TYPES AND SIZES), CONDUCTORS (TYPES AND SIZES) AND ALL PERTINENT INSTALLATION INFORMATION.
4. USE FINAL ACTUAL ROOMS NAMES AND NUMBERS BASED IN THE INSTALLATION OF SIGNAGE AND NOT THE ARCHITECTURAL ROOM NAMES WHEN PROGRAMMING THE FINAL SYSTEM.

FIRE ALARM RISER DIAGRAM
(TYPICAL INSTALLATION REPRESENTED)

FIRE ALARM RISER DIAGRAM — No Scale — ED 1702

DEVICE MOUNTING HEIGHT REFERENCE

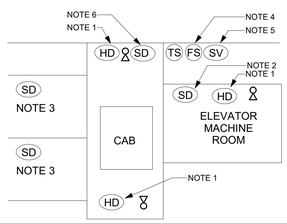
PER NFPA 72



FIRE ALARM MOUNTING HEIGHTS — No Scale — FA 1713

GENERAL NOTE:

ALL DETECTION ASSOCIATED WITH ELEVATOR RECALL AND ELEVATOR SHUTDOWN SHALL BE CONNECTED AND SUPERVISED THROUGH THE BUILDING FIREALARM SYSTEM IN ACCORDANCE WITH NFPA 72, 3-9.3.1. CONTROL CIRCUITS TO SHUT DOWN ELEVATOR POWER SHALL BE MONITORED IN ACCORDANCE WITH NFPA 72, 3-9.4.4.



LEGEND	
SD	SMOKE DETECTOR
FS	FLOW SWITCH
TS	TAMPER SWITCH
HD	HEAT DETECTOR
SV	SOLENOID VALVE
	SPRINKLER HEAD

ELEVATOR FIRE ALARM SYSTEM — No Scale — ED 1700

FIRE ALARM WIRING STANDARD LEGEND

	CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES: FPLR	FPLP	THHN	TFFN	OUTDOOR	C.I.
B	RUI + COMMUNICATION	UTP SOLID	18 AWG	58PF/FT. MAX. CAPACITANCE, 35.5 Ω TOTAL LINE RESISTANCE	●	●				
K	REMOTE TEST SWITCH/LED	(2) 2 COND. SOLID	14 AWG		●	●				
A	AUDIBLE/VISUAL SIGNAL	2 COND. SOLID	14 AWG		●	●				
D	DOOR HOLDER	2 COND. SOLID	14 AWG		●	●	●			
M	I.D.NET	UTP SOLID	18 AWG	60μF MAX TOTAL LINE CAPACITANCE	●	●				
P	POWER	2 COND. SOLID	14 AWG				●	●		
R	RELAY	2 COND. SOLID	14 AWG		●	●	●	●		
Z	ZONE CIRCUIT	2 COND. SOLID	14 AWG		●	●	●	●		

CONDUIT SIZE	MAX. CONDUCTOR AREA	CONDUIT SIZE	MAX. CONDUCTOR AREA
1/2"	0.12 SQ INCH*	1-1/4"	0.598 SQ INCH*
3/4"	0.213 SQ INCH*	1-1/2"	0.814 SQ INCH*
1"	0.346 SQ INCH*	2"	1.342 SQ INCH*

* 40% CONDUIT FILL PER N.E.C.

STP=SHIELDED TWISTED PAIR / UTP=UNSHIELDED TWISTED PAIR

FIRE ALARM WIRING STANDARD LEGEND — No Scale — ED 1704

Table 18.5.5.4.1(b) Room Spacing for Ceiling-Mounted Visible Appliances

Maximum Room Size		Maximum Lens Height*		Minimum Required Light Output (Effective Intensity); One Light (cd)
ft	m	ft	m	
20 × 20	6.1 × 6.1	10	3.0	15
30 × 30	9.1 × 9.1	10	3.0	30
40 × 40	12.2 × 12.2	10	3.0	60
44 × 44	13.4 × 13.4	10	3.0	75
20 × 20	6.1 × 6.1	20	6.1	30
30 × 30	9.1 × 9.1	20	6.1	45
44 × 44	13.4 × 13.4	20	6.1	75
46 × 46	14.0 × 14.0	20	6.1	80
20 × 20	6.1 × 6.1	30	9.1	55
30 × 30	9.1 × 9.1	30	9.1	75
50 × 50	15.2 × 15.2	30	9.1	95
53 × 53	16.2 × 16.2	30	9.1	110
55 × 55	16.8 × 16.8	30	9.1	115
59 × 59	18.0 × 18.0	30	9.1	135
63 × 63	19.2 × 19.2	30	9.1	150
68 × 68	20.7 × 20.7	30	9.1	177
70 × 70	21.3 × 21.3	30	9.1	185

*This does not preclude mounting lens at lower heights.

FIRE ALARM CEILING-MOUNTED DEVICES — No Scale — ED 1710

Table 18.5.5.4.1(a) Room Spacing for Wall-Mounted Visible Appliances

Maximum Room Size		Minimum Required Light Output [Effective Intensity (cd)]	
ft	m	One Light per Room	Four Lights per Room (One Light per Wall)
20 × 20	6.10 × 6.10	15	NA
28 × 28	8.53 × 8.53	30	NA
30 × 30	9.14 × 9.14	34	NA
40 × 40	12.2 × 12.2	60	15
45 × 45	13.7 × 13.7	75	19
50 × 50	15.2 × 15.2	94	30
54 × 54	16.5 × 16.5	110	30
55 × 55	16.8 × 16.8	115	30
60 × 60	18.3 × 18.3	135	30
63 × 63	19.2 × 19.2	150	37
68 × 68	20.7 × 20.7	177	43
70 × 70	21.3 × 21.3	184	60
80 × 80	24.4 × 24.4	240	60
90 × 90	27.4 × 27.4	304	95
100 × 100	30.5 × 30.5	375	95
110 × 110	33.5 × 33.5	455	135
120 × 120	36.6 × 36.6	540	135
130 × 130	39.6 × 39.6	635	185

NA: Not allowable.

FIRE ALARM WALL-MOUNTED DEVICES — No Scale — ED 1709

FIRE ALARM LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	WIRE TYPE
FACP	FIRE ALARM CONTROL PANEL	66" AFF TO TOP OF PNL	N/A
FAA	FIRE ALARM ANNUNCIATOR	52" AFF	B/P
FNAC	FIRE ALARM NOTIFICATION APPLIANCE CIRCUIT (NAC) PANEL	PER VENDOR	M
D	SMOKE DETECTOR (ADDRESSABLE PHOTOELECTRIC)	CEILING	M
HD	HEAT DETECTOR (ADDRESSABLE PHOTOELECTRIC)	CEILING	M
SDE	SMOKE DETECTOR ELEVATOR (ADDRESSABLE PHOTOELECTRIC)	CEILING	M
F	MANUAL PULL STATION (ADDRESSABLE DOUBLE ACTION)	48" AFF	M
DSD	DUCT SMOKE DETECTOR WITH RELAY (ADDRESSABLE)	REF TO MECH	M/P
R	FIRE ALARM RELAY	FIELD LOCATE	A
L	NOTIFICATION STROBE ONLY *	80" AFF TO LENS	A
L◁	NOTIFICATION HORN / STROBE *	80" AFF TO LENS	A
L◯	NOTIFICATION CHIME / STROBE *	80" AFF TO LENS	A
L◁	NOTIFICATION SPEAKER / STROBE *	80" AFF TO LENS	A
SPD	SURGE PROTECTIVE DEVICE (SPD)		
TS	TAMPER SWITCH		Z
FL	WATER FLOW SWITCH		Z

* ALL STROBE LIGHTS ARE 15cd UNLESS OTHERWISE NOTED ON PLANS

FIRE ALARM LEGEND — No Scale — ED 1708

FIRE ALARM

		FFPC 6TH EDITION
SYSTEM	■ POWER LIMITED	MIXED OCCUPANCY
	NON-POWER LIMITED	11 SPECIAL STRUCTURE & HIGH RISE
	■ ADDRESSABLE	12 NEW ASSEMBLY OCCUPANCY
	CONVENTIONAL/ZONED	13 EXISTING ASSEMBLY
	OTHER AS DESCRIBED:	14 NEW EDUCATIONAL
CIRCUITS	CIRCUIT CLASS A	15 EXISTING EDUCATIONAL
	■ CIRCUIT CLASS B	16 NEW DAY-CARE OCCUPANCY
	OTHER AS DESCRIBED:	17 EXISTING DAY-CARE OCCUPANCY
	■ PATHWAY SURVIVABILITY LEVEL 0	■ 18 NEW HEALTH CARE
	PATHWAY SURVIVABILITY LEVEL 1	19 EXISTING HEALTHCARE
	PATHWAY SURVIVABILITY LEVEL 2	20 NEW AMBULATORY HEALTH CARE
	PATHWAY SURVIVABILITY LEVEL 3	21 EXISTING AMBULATORY HEALTH CARE
	FULL RACEWAY	22 NEW DETENTION AND CORRECTIONAL
	■ PARTIAL RACEWAY	23 EXISTING DETENTION AND CORRECTIONAL
	FREE WIRED	26 LOADING AND ROOMING HOUSES
	NOTE:	28 NEW HOTEL AND DORM
POWER	STANDBY POWER FOR 24 HOURS/ 5 MINUTES ALARM	29 EXISTING HOTEL AND DORM
	■ STANDBY POWER FOR 24 HOURS/ 15 MINUTES ALARM	30 NEW APARTMENT BUILDINGS
	OTHER AS DESCRIBED:	31 EXISTING APARTMENT BUILDINGS
NOTIFICATION	■ GENERAL EVACUATION	32 NEW RESIDENTIAL BOARD AND CARE
	SELECTIVE EVACUATION/RELOCATION	33 EXISTING RESIDENTIAL BOARD AND CARE
	OTHER AS DESCRIBED:	36 NEW MERCHANTILE OCCUPANCY
	■ PUBLIC MODE NOTIFICATION	37 EXISTING MERCHANTILE OCCUPANCY
	PRIVATE MODE NOTIFICATION	38 NEW BUSINESS OCCUPANCY
REPORT	PRECTECTED PREMISE LOCAL	39 EXISTING BUSINESS OCCUPANCY
	CENTRAL STATION SERVICE	40 INDUSTRIAL OCCUPANCY
	■ REMOTE SUPERVISING STATION	42 STORAGE OCCUPANCY
	PROPRIETERY SUPERVISING STATION	43 REHABILITATION
NOTES	SYSTEM WILL HAVE VOICE EVACUATION	43.3 REPAIRS
	■ SYSTEM WILL HAVE HORN EVACUATION	43.4 RENOVATIONS
	SYSTEM WILL HAVE CHIME EVACUATION	43.5 MODIFICATIONS
	ALL CEILINGS WITH DEVICES LESS THAN 10' AFF	43.6 RECONSTRUCTION
		43.1 HISTORIC

FIRE ALARM — No Scale — ED 1707

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JACKSON MOB

SHELL

Project Number: 22013.01
Project Location:

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CONSTRUCTION DOCUMENTS
Issue Date: 09/29/2023

REVISIONS

No.	Description	Date

Drawing Title:

ELECTRICAL DETAILS

Drawing Number:

E801

Drawn by: MC
Checked by: PGG
Scale: 1/8" = 1'-0"

9/28/2023 3:56:42 PM
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