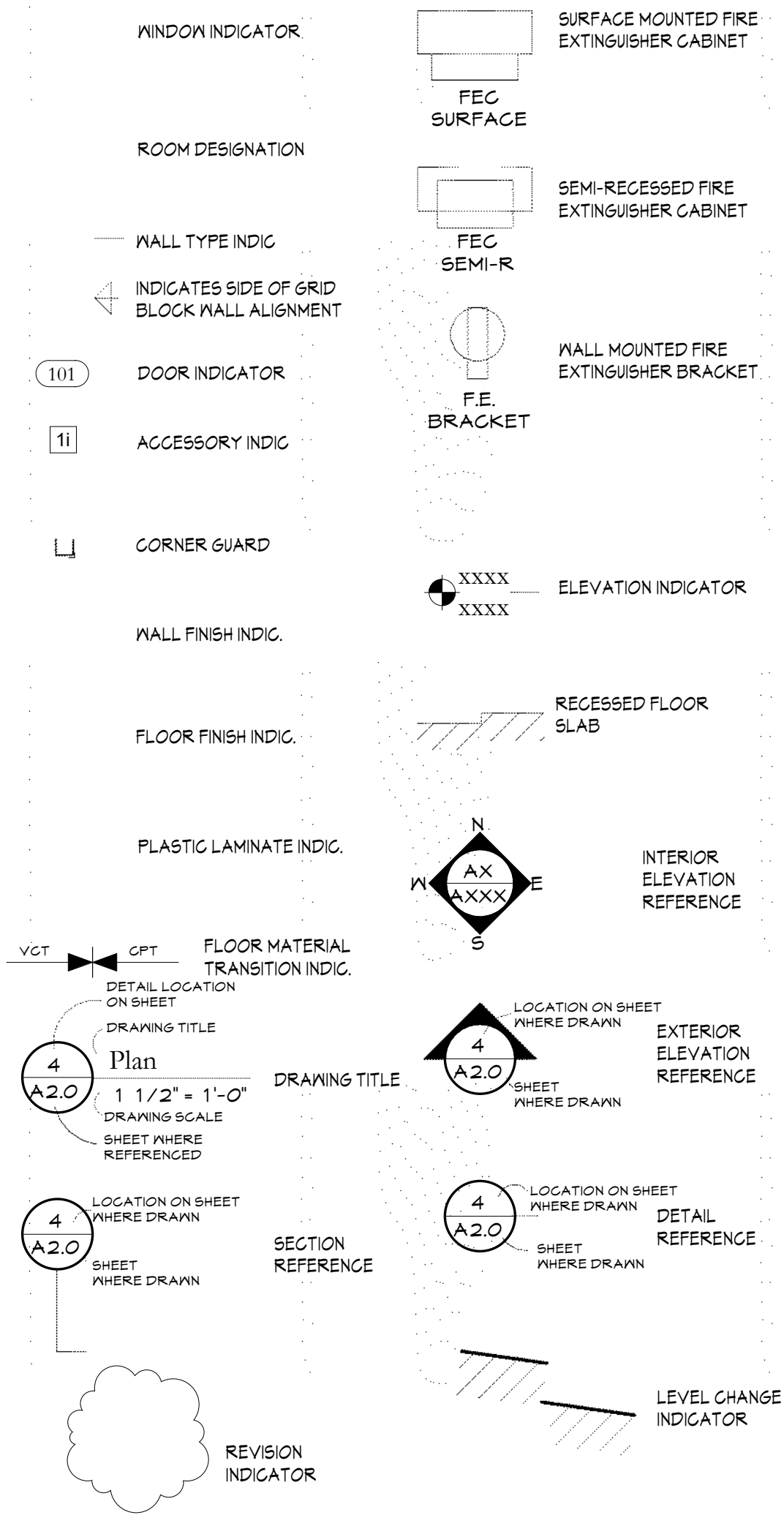




	EARTH/COMPACT FILL
	GRAVEL/POROUS FILL
	CONCRETE (PRECAST OR CAST IN PLACE)
	SAND/MORTAR/PLASTER/GROUT
	CONCRETE BLOCK
	STEEL
	ALUMINUM
	CONTINUOUS WOOD BLOCKING
	NON-CONTINUOUS WOOD BLOCKING
	WOOD FINISH
	PLYWOOD
	PARTICLEBOARD
	GYPSUM BOARD
	GLASS
	BATT/LOOSE FILL INSULATION (USE DTL COMPONENT MNGR. FOR INSUL.)
	RIGID INSULATION
	CARPET
	WOOD GLULAM
	BRICK VENEER

General Requirements

- ATTENTION ALL USERS OF THESE DRAWINGS, GENERAL CONTRACTORS, SUB-CONTRACTORS, MANUFACTURERS, SUPPLIERS, CAREFULLY AND THOROUGHLY REVIEW THESE GENERAL NOTES. IT IS YOUR RESPONSIBILITY TO KNOW AND ADHERE TO THESE REQUIREMENTS.
- THE DRAWINGS AND SPECIFICATIONS ARE SEPARATED INTO DISCIPLINES FOR THE CONVENIENCE OF THE ARCHITECT AND THE CONTRACTOR. THE SEPARATIONS USED HEREIN ARE USED ONLY FOR THE PURPOSES OF CONVENIENCE AND REFERENCE, AND IN NO WAY DO THEY DEFINE OR LIMIT THE SCOPE OR INTENT OF ANY PART OF THE DRAWINGS, OR OF THE DRAWINGS AND SPECIFICATIONS AS A WHOLE. THE FACT THAT THE DRAWINGS ARE SEPARATED IN NO WAY SUGGESTS THAT THE WORK IS NOT TO BE CONSTRUCTED AS A COMPLETE, INTEGRATED AND UNIFIED WHOLE.
- EVERY EFFORT HAS BEEN MADE TO MAKE THESE DOCUMENTS CONCISE AND COORDINATED, TO DEFINE WORK IN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. DO NOT PRESUME THAT YOUR SCOPE OF WORK IS SINGULARLY DEFINED. YOUR SCOPE OF WORK IS DEFINED THROUGHOUT THE ENTIRE SET OF DRAWINGS AND SPECIFICATIONS AND IS NOT CONTAINED IN JUST ONE SERIES OF DRAWINGS OR DIVISION OF SPECIFICATIONS. YOU MUST REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS TO DETERMINE YOUR SCOPE OF WORK.
- THE DRAWINGS AND SPECIFICATIONS, INCLUDING DRAWINGS PREPARED BY SPECIFIC ENGINEERING DISCIPLINES (SUCH AS CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, ETC.) ARE COMPLEMENTARY. ITEMS SHOWN IN ANY ONE LOCATION IN THE DRAWINGS SHALL BE CONSIDERED TO BE REQUIREMENTS OF THE CONTRACT FOR CONSTRUCTION. IN THE EVENT OF AN INCONSISTENCY BETWEEN THE DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT, THE CONTRACTOR SHALL SEEK CLARIFICATION OR INTERPRETATION FROM THE ARCHITECT PRIOR TO BIDDING. WHERE INCONSISTENCIES ARE NOT CLARIFIED PRIOR TO BIDDING, AND WHERE THE ACTUAL SOLUTION OR INTENT CANNOT BE REASONABLY INFERRED, THE CONTRACTOR SHALL PROVIDE THE BETTER QUALITY OR GREATER QUANTITY OF WORK.
- MECHANICAL AND ELECTRICAL DRAWINGS SHOW INFORMATION IN A DIAGRAMMATIC FASHION WITHOUT DIMENSIONS. THE GENERAL CONTRACTOR IS TO COORDINATE THE LOCATIONS OF ALL M.E. EQUIPMENT WITH RESPECT TO THE ARCHITECTURAL AND STRUCTURAL DETAILINGS OF SHAFTS, CHASES, AND SUCH.
- THE CONTRACTOR AND ALL SUB-CONTRACTORS SHALL VISIT THE SITE AND BECOME FAMILIAR WITH SITE CONDITIONS AS THEY MAY AFFECT CARRYING OUT THE WORK AS DESCRIBED IN THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INVESTIGATE, VERIFY, AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT, AND NOTIFY THE ARCHITECT OF ANY CONDITIONS THAT REQUIRE MODIFICATION BEFORE PROCEEDING WITH THE WORK.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITY LINES. LOCATIONS SHOWN ARE APPROXIMATE. REPAIR ALL DAMAGE TO UTILITY LINES CAUSED BY CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.
- ALL PERSONS DIRECTLY OR INDIRECTLY ASSOCIATED WITH THE PROJECT SHALL BE FAMILIAR WITH THE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT, AND IMPLEMENT THOSE RULES AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND SERVICES NECESSARY TO COMPLETE THE WORK.
- ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE BUILDING CODE & LOCAL AMENDMENTS.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL TRADES AND THE PREVENTION OF CONFLICT BETWEEN ALL TRADES.
- PRIOR TO BEGINNING ANY WORK, THE CONTRACTOR SHALL CONDUCT A WALK THROUGH INSPECTION WITH THE OWNER TO DETERMINE IN WRITING THE CONDITION OF THE WORK ALREADY IN PLACE. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING EQUIPMENT PRESENTLY IN PLACE THAT IS DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL SUBMIT CONFIRMATION OF ORDERED MATERIALS OR ITEMS NECESSARY TO COMPLETE THE PROJECT WITH PROJECTED DELIVERY DATE GREATER THAN FOUR WEEKS.
- ALL SUB-CONTRACTORS SHALL SUBMIT SHOP DRAWINGS AS REQUIRED FOR ARCHITECTS APPROVAL PRIOR TO COMMENCING ANY WORK.

Drawings and Dimensions

- DO NOT SCALE THE DRAWINGS.
- ALL DIMENSIONS ON PLANS ARE TO FACE OF BLOCK OR TO FACE OF STUD UNLESS NOTED OTHERWISE.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT IMMEDIATELY SHOULD ANY DISCREPANCIES BE FOUND IN THE DRAWINGS AND SPECIFICATIONS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL FIELD CONDITIONS AND DIMENSIONS AS THEY RELATE TO THIS PROJECT. SHOULD DISCREPANCIES EXIST BETWEEN THE DRAWINGS AND ALL OTHER FIELD CONDITIONS NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- ACTUAL CONTRACT LIMITS ARE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE OWNER BEFORE ACTUAL CONSTRUCTION WORK BEGINS. ANY INDICATION OF PROJECT LIMITS OR LINES OF DEMARCATION ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, AND ARE NOT TO BE TAKEN LITERALLY.
- SEE GENERAL NOTES ON ALL 'A' SERIES DRAWINGS FOR INFORMATION RELATED TO PLANS AND DETAILS ON THOSE SHEETS.
- THE TERM 'ALIGN' REFERS TO LOCATING DIFFERENT COMPONENTS OF CONSTRUCTION TO PROVIDE A FLUSH FINISH SURFACE.
- CONTRACTORS AND ALL SUB-CONTRACTORS SHALL FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION AND/OR ORDERING OF MATERIALS.
- USE OF THE WORD 'VERIFY' POINTS OUT A SITUATION WHICH MUST BE CONFIRMED PRIOR TO PROCEEDING WITH THE WORK. FABRICATION OF EQUIPMENT, OR ORDERING MATERIAL, NOTIFY THE ARCHITECT OF ANY DISCREPANCY.
- REFER TO THE REFLECTED CEILING PLAN WHEN PROVIDED FOR EXACT LOCATIONS OF ALL CEILING FIXTURES. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR COMPLETE CONSTRUCTION REQUIREMENTS.
- ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS SHOW WHERE EXPOSED DUCTWORK IS TO BE INSTALLED AT A SPECIFIC ELEVATION IN A CONTROLLED PATTERN. THE CONTRACTOR MUST RELY ON ALL OF THESE DISCIPLINES TO COMPLETE THE WORK AND SHOULD NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES INSTALLING THEIR RESPECTIVE EQUIPMENT IN THE CEILING PLENUMS, MECHANICAL, ELECTRICAL, STRUCTURAL, AND FIRE SPRINKLER SYSTEMS ALL SHARE THE SAME SPACE. EACH SUB CONTRACTOR IS TO REVIEW THE REQUIREMENTS OF THEIR WORK WITH THE AWARENESS OF THE OTHER TRADES THAT NEED TO SHARE THESE SPACES AND MUST NOT ASSUME THAT THEIR INSTALLATION HAS BEEN CONSIDERED IN THE DESIGN AND SHOP DRAWINGS OF THE OTHER TRADES.
- ALL DOORS TO BE LOCATED 4' OFF ADJACENT CMU OR METAL STUD WALL UNLESS DIMENSIONED OTHERWISE ON THE PLAN.

Partition Notes

- PROVIDE AND INSTALL ALL BLOCKING STIFFENERS, BRACING, BACK-UP PLATES AND SUPPORTING BRACKETS REQUIRED FOR THE INSTALLATION OF ALL CASEWORK AND OF ALL FLOOR MOUNTED OR SUSPENDED MECHANICAL AND ELECTRICAL EQUIPMENT.
- COORDINATE METAL STUD GAUGE WITH PRE-APPROVED EQUIPMENT ANCHORAGE, WHERE A DISCREPANCY OCCURS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.
- THERE SHALL BE NO BACK-TO-BACK ELECTRICAL TELEPHONE, OR OTHER OUTLETS, EXCEPT WHERE SPECIFICALLY SHOWN
- PROVIDE ACOUSTIC (SOUND) SEALANT AT NON-RATED WALLS AND FIRE-RATED SEALANT AT SMOKE PARTITION AND AS REQUIRED BY TEST NUMBER

Construction Notes

- DRAWINGS ARE PREPARED USING DIMENSIONS AND PRODUCT CONFIGURATIONS OR DETAILS OF SPECIFIC MANUFACTURERS (TYPICALLY THE FIRST MANUFACTURER LISTED UNDER "ACCEPTABLE MANUFACTURERS" IN THE SPECIFICATIONS). DIMENSIONS AND DETAILS FOR SPECIFIC PRODUCTS MAY CHANGE BEFORE THEY ARE ACTUALLY INCORPORATED INTO THE WORK, AND PRODUCTS BY OTHER MANUFACTURERS MAY ALSO BE ACCEPTABLE. THEREFORE, ACTUAL INSTALLATION DETAILS AND DIMENSIONS MAY DIFFER FROM THOSE SHOWN. CONTRACTOR SHALL VERIFY INSTALLATION REQUIREMENTS FOR ALL PRODUCTS TO BE INCORPORATED IN THE WORK (INCLUDING PARTITION THICKNESSES FOR RECESSED OR SEMI-RECESSED PRODUCTS), AND IS RESPONSIBLE FOR ACCOMMODATING AND COORDINATING CHANGES TO OTHER MATERIALS OR PRODUCTS THAT ARE NECESSARY BECAUSE OF THESE DIFFERENCES.
- PROVIDE SOLID BLOCKING WITHIN PARTITIONS AT ALL LOCATIONS WHERE ITEMS WILL BE MOUNTED ON PARTITIONS INCLUDING, BUT NOT LIMITED TO: ACCESSORIES, CASEWORK TRIM, FLASHING, WALL MOUNTED EQUIPMENT, TACK/BULLETIN/MARKER BOARDS, ETC.
- ALL WOOD BLOCKING SHALL BE FIRE-TREATED WOOD.
- MAINTAIN RATINGS AT ALL BLOCKOUTS FOR ALL FIRE EXTINGUISHERS AND TOILET ACCESSORIES THAT ARE TO BE INSTALLED IN RATED WALLS.
- PROVIDE 24" X 24" ACCESS PANELS IN PARTITIONS WHERE REQUIRED FOR MECHANICAL EQUIPMENT EXCEPT WHERE SIZES ARE OTHERWISE NOTED.
- PROVIDE GYPSUM BOARD CONTROL JOINTS IN PARTITIONS AND CEILINGS AT 30'-0" MAX SPACING. COORDINATE TO MEET FIRE RESISTIVE RATINGS OF THE ASSEMBLY. FIRESTOP JOINTS AT RATED PARTITIONS. SUB-CONTRACTOR MUST PROVIDE A SUBMITTAL FOR JOINT MATERIAL.
- CAULK ALL JOINTS OR CRACKS WHICH OCCUR WHERE DISSIMILAR MATERIALS INTERSECT PERPENDICULAR TO EACH OTHER AND WHERE THE INTERSECTION IS EXPOSED TO VIEW, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- FIREBLOCK ALL CONCEALED SPACES, SOFFITS, SHAFTS, CHASES AND CEILING AREAS PER REQUIREMENTS OF THE ADOPTED IBC AND THE LOCAL JURISDICTIONS AMENDMENTS.
- PROVIDE CONTINUOUS PERIMETER BUILDING INSULATION AT ALL EXTERIOR WALLS FROM SLAB TO ROOF DECK.
- THE ARCHITECTURAL AND STRUCTURAL DRAWINGS BOTH DESCRIBE VARIOUS FLOOR SLAB SLOPE REQUIREMENTS, RECESSES, AND EDGE CONDITIONS. USE BOTH SETS OF DRAWINGS WHEN INSTALLING THE FLOOR SLAB.
- PROVIDE SLIP JOINT CONNECTIONS AT PARTITIONS THAT EXTEND TO STRUCTURE ABOVE. PROVIDE BRACINGS ABOVE AS REQUIRED. REFER TO STRUCTURAL DRAWINGS AND TO SLIP JOINT DETAILS.
- ASSUME LEVEL 4 FINISH FOR ALL GYPSUM BOARD PARTITIONS, UNLESS NOTED OTHERWISE.
- IT IS THE INTENT OF THE DESIGN THAT ALL METAL STUD PARTITIONS BE OF SUFFICIENT WIDTH TO ADEQUATELY ENCLOSE PIPING, CONDUITS, AND RECESSED EQUIPMENT. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WITH THIS INTENT.
- ALL VERTICAL AND HORIZONTAL PIPES, CONDUITS, DUCTS, ETC. IN FINISHED ROOMS OR AREAS THROUGHOUT THE BUILDING SHALL BE FURRED IN TO MATCH THE ROOM FINISH, UNLESS OTHERWISE NOTED.
- SEAL AROUND ALL PENETRATIONS THROUGH EXISTING AND PROPOSED FIRE RATED PARTITIONS. PROVIDE UL APPROVED FIRESTOP SYSTEM TO MEET REQUIRED RATINGS. ADDITIONALLY ANY NON-PENETRATION OPENING MUST BE REPAIRED, FILLED, OR OTHERWISE RECONSTRUCTED TO RESTORE THE FIRE RESISTIVE AND PRESURE PERFORMANCE INTEGRITY OF RATED PARTITION

Vicinity Map



915 S. Tenth St.
Montrose, CO 81401
p: (970) 249-1980
www.motleyarc.com



STAMP 4/21/22
© Motley Architecture & Design

Bright Beginnings at Colorado Outdoors

Flex Buildings, Unit F101-102, Marfly Dr., Montrose, CO 81401

Sheet Index	
Sheet Number	Sheet Name
A2.3	Equipment Platforms
G0.1	Cover
G0.2	Life Safety Plan
C1	Civil
L1	Landscape
A1.1	Site Plan
A2.1	Floor Plan
A2.2	Reflected Ceiling Plan
A3.1	Ext Elevation, Storefront
A4.1	Building Sections
A5.1	Schedules & Details
A5.2	Interior Elevations
S1	Structural
M0-1	Mechanical Cover Sheet
M1-1	Mechanical Roof Plan
M1-2	Mechanical Details and Schedules
M2-1	Mechanical Details and Schedules
M3-1	Mechanical Controls and Flow Diagrams
M3-2	Mechanical Controls and Flow Diagrams
P0-1	Plumbing Cover Sheet
P1-1	Plumbing Floor Plan
P2-1	Plumbing Details and Schedules
E0-1	Electrical Cover Sheet
E1-1	Lighting Floor Plan
E2-1	Electrical Floor Plan
E3-1	Electrical Roof Plan
E3-2	Electrical Details and Schedules

REVISIONS

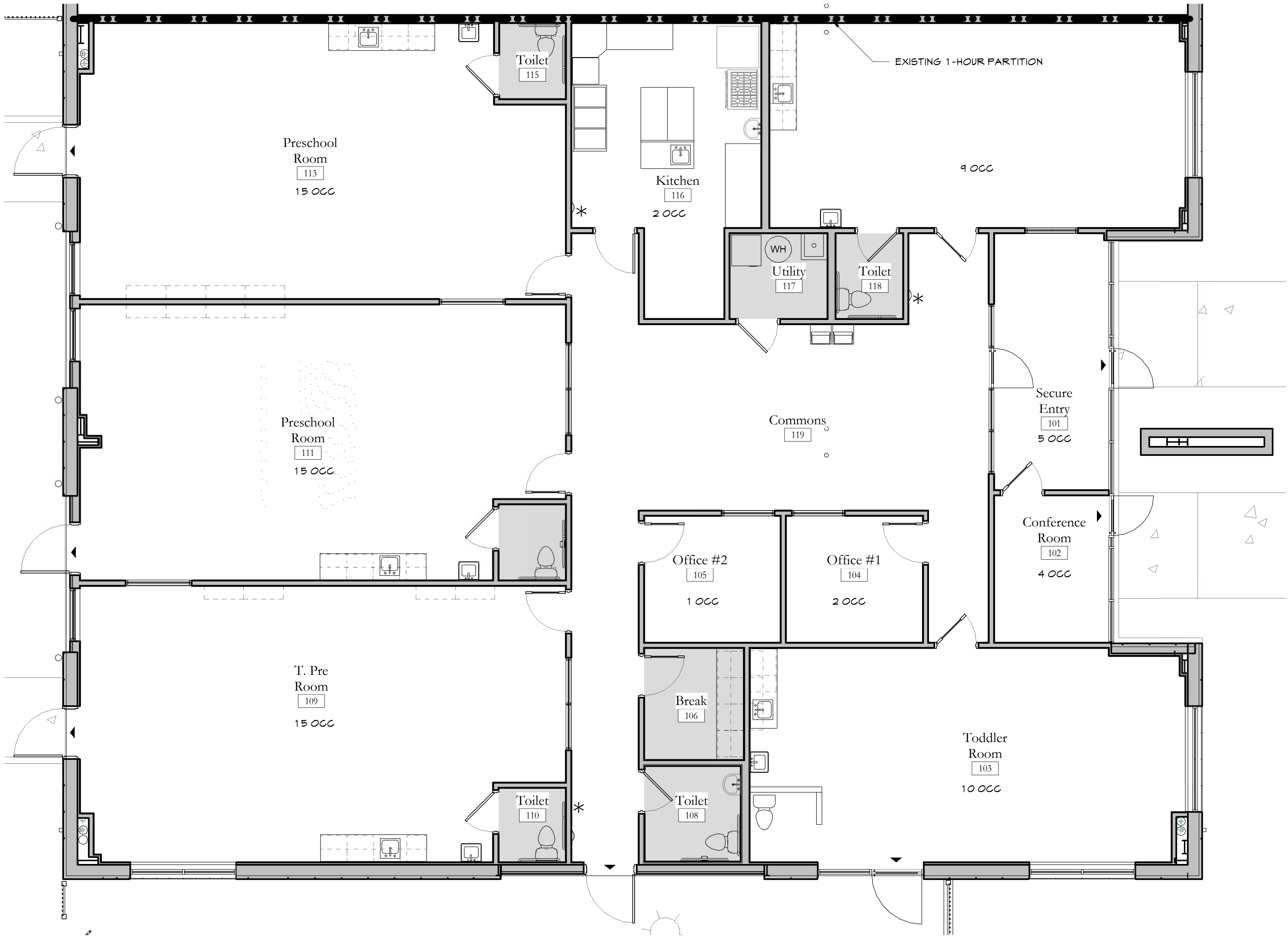
PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

Cover

SHEET NAME

G0.1
SHEET NUMBER

REFER TO CONSTRUCTION SPECIFICATION
INSTITUTE, UNIFORM DRAWING SYSTEM AND TO
PROJECT SPECIFICATIONS & ADDITIONAL ABBREVIATIONS



1 Floor Plan
3/16" = 1'-0"

Code Notes

PROJECT DESCRIPTION: Tenant improvements for a 5118 Childcare and Preschool space.

CODE AUTHORITY: City of Montrose Building Department

APPLICABLE ADOPTED CODES: 2003 IBC, IFC, IMC, IFGC, IPC, IECC, and current NEC

OCCUPANCY:
Education- Group E

OCCUPANT LOADS: (IBC Table 1004.1.2)
OCCUPANT LOAD: 78

CONSTRUCTION TYPE:
CONSTRUCTION TYPICAL OF: Type IIB (IBC Section 602.5)

AUTOMATIC SPRINKLER SYSTEM:
Shell building with sprinkler system

BUILDING AREA:
MAIN LEVEL AREA - MAIN BUILDING: 5118 s.f. rentable area

FIRE RESISTANCE RATING REQUIREMENTS:
(FOR TYPE IIB CONSTRUCTION, FULLY SPRINKLED) [IBC TABLES 601 & 602]
STRUCTURAL FRAME: 0 HRS (section 202)
NON-BEARING WALLS AND PARTITIONS: 0 (fire separation on all sides of the building exceeds 30')
BEARING WALLS, INTERIOR: 0 HRS
NON-BEARING WALLS, EXTERIOR: 0 HRS
NON-BEARING INTERIOR FIRE BARRIER WALLS BETWEEN OCCUPANCIES: 1 HRS
FLOOR CONSTRUCTION: 0 HRS
ROOF CONSTRUCTION: 0 HRS

EXIT TRAVEL DISTANCE:
FOR E OCCUPANCY GROUPS:
EXIT ACCESS TRAVEL DISTANCE: 250 ft with sprinkler system, IBC Table 1015.1
COMMON PATH OF EGRESS TRAVEL: 75 ft, IBC 1013.3

REQUIRED EXITS:
Two exits is required [IBC 1014.1]

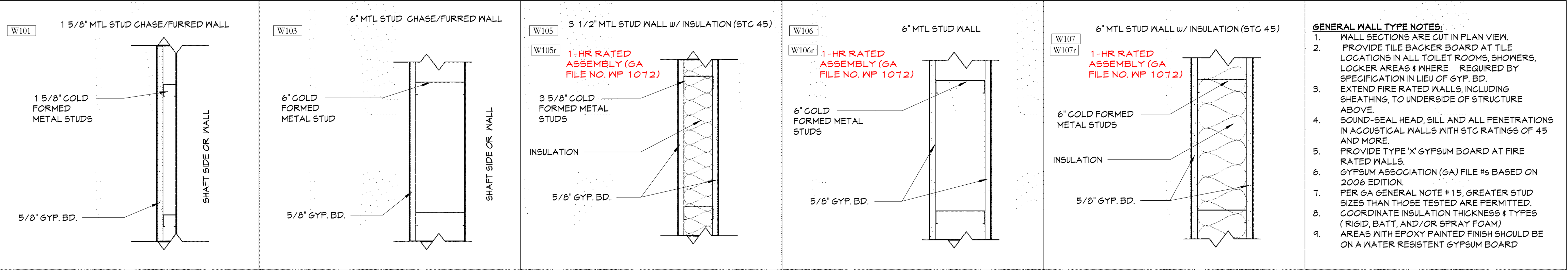
PLUMBING FIXTURE COUNT:

OCCUPANCY	TYPE	WCS		LAV		SS		DF	
		REQ'D	PROV	REQ'D	PROV	REQ'D	PROV	REQ'D	PROV
Occupants	78 (E)	2	5	2	5	1	1	0	0

Life Safety Legend

- EXTENT OF 1 HOUR FIRE RATING: [Symbol]
- EXIT LOAD: [Symbol]
- FIRE EXTINGUISHER: [Symbol]
- EXIT ARROW: [Symbol]
- SHADING INDICATES COMMON AREA WITH NO OCCUPANT LOAD: [Symbol]
- NOTE: SOME SYMBOLS SHOWN MAY NOT BE USED ON THIS PROJECT.

Floor Plan



- GENERAL WALL TYPE NOTES:**
- WALL SECTIONS ARE SHOWN IN PLAN VIEW.
 - PROVIDE TILE BACKER BOARD AT TILE LOCATIONS IN ALL TOILET ROOMS, SHOWERS, LOCKER AREAS & WHERE REQUIRED BY SPECIFICATION IN LIEU OF GYP. BD.
 - EXTEND FIRE RATED WALLS, INCLUDING SHEATHING, TO UNDERSIDE OF STRUCTURE ABOVE.
 - SOUND-SEAL HEAD, SILL AND ALL PENETRATIONS IN ACOUSTICAL WALLS WITH STC RATINGS OF 45 AND MORE.
 - PROVIDE TYPE 'X' GYPSUM BOARD AT FIRE RATED WALLS.
 - GYPSUM ASSOCIATION (GA) FILE #5 BASED ON 2006 EDITION.
 - PER GA GENERAL NOTE #15, GREATER STUD SIZES THAN THOSE TESTED ARE PERMITTED.
 - COORDINATE INSULATION THICKNESS & TYPES (RIGID, BATT, AND/OR SPRAY FOAM).
 - AREAS WITH EPOXY PAINTED FINISH SHOULD BE ON A WATER RESISTENT GYPSUM BOARD.

REVISIONS

MOTLEY ARCHITECTURE & DESIGN

915 S. 10th St.
Montrose, CO 81401
p: (970) 249-1980
motleyarc.com

Bright Beginnings
at Colorado
Outdoors

Flex Buildings, Unit F101-102, Mayfly Dr., Montrose, CO 81401



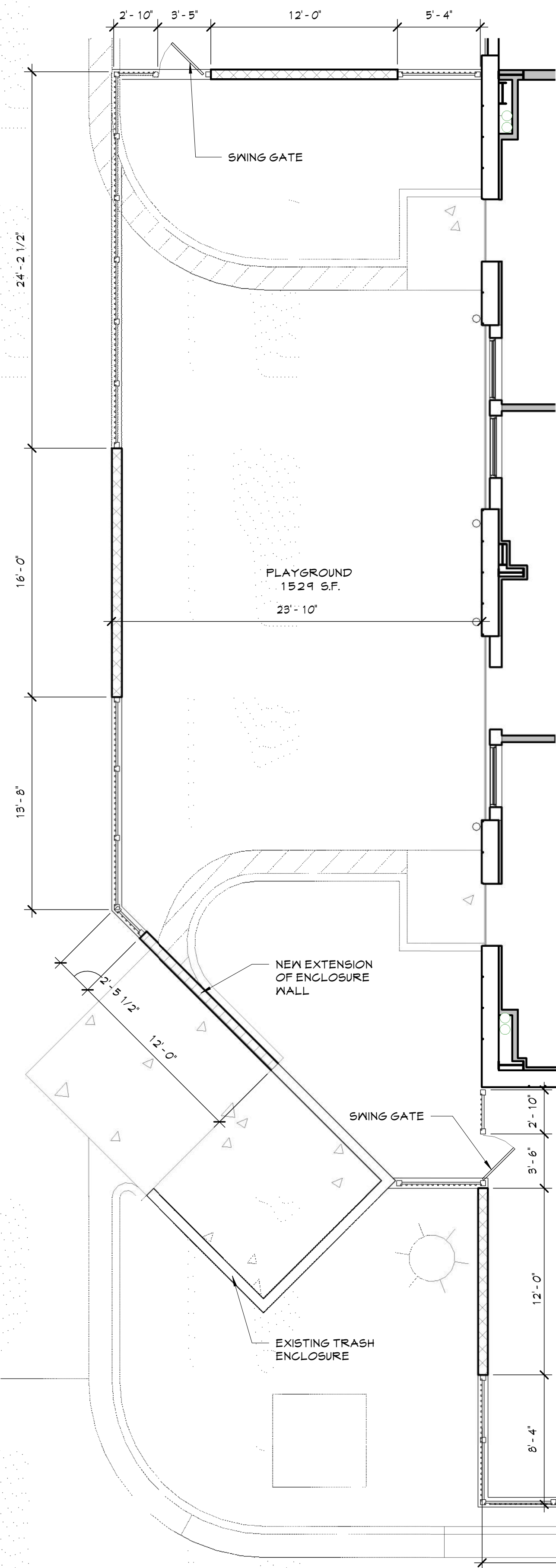
PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

Life Safety Plan

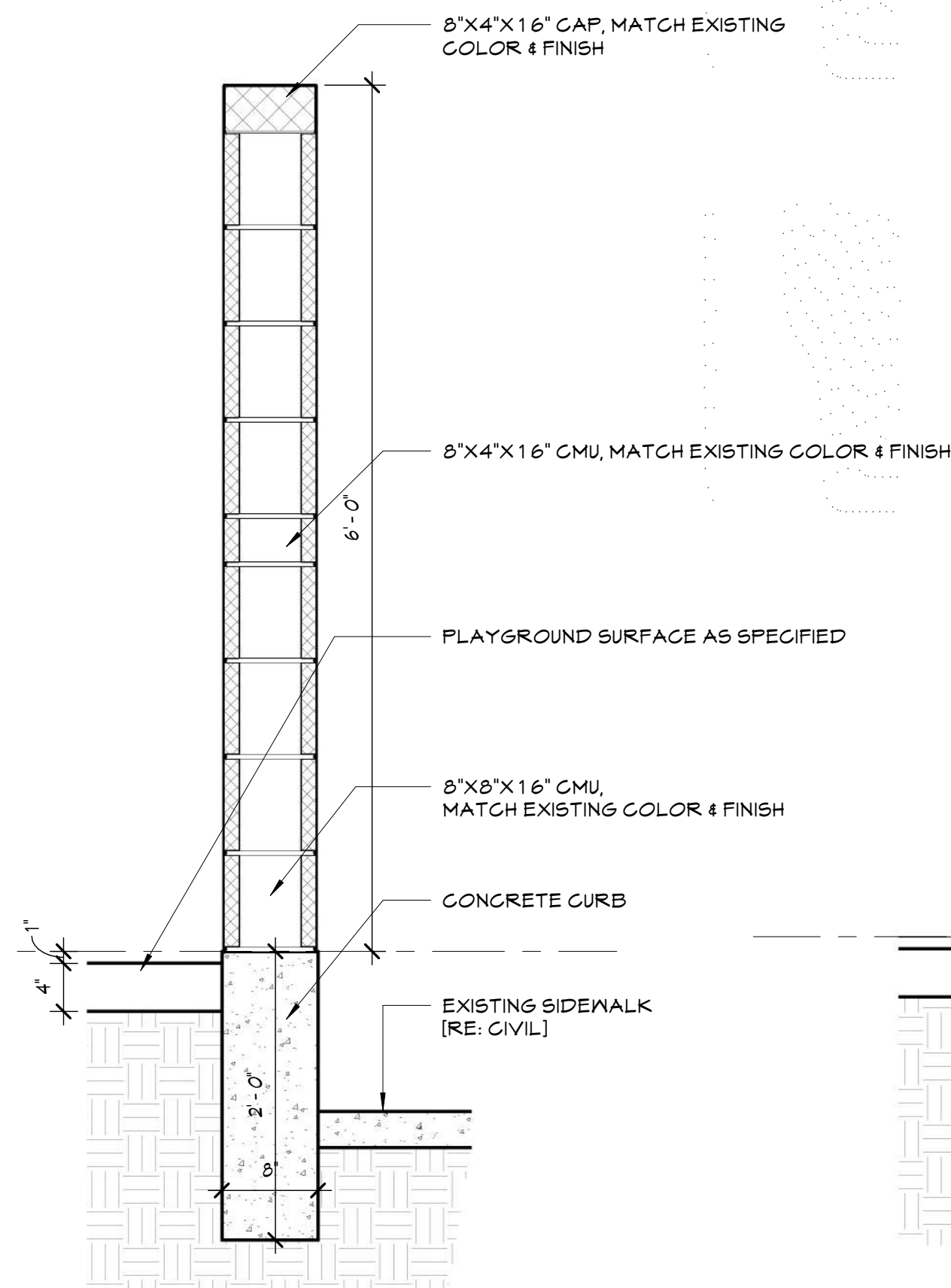
SHEET NAME

G0.2

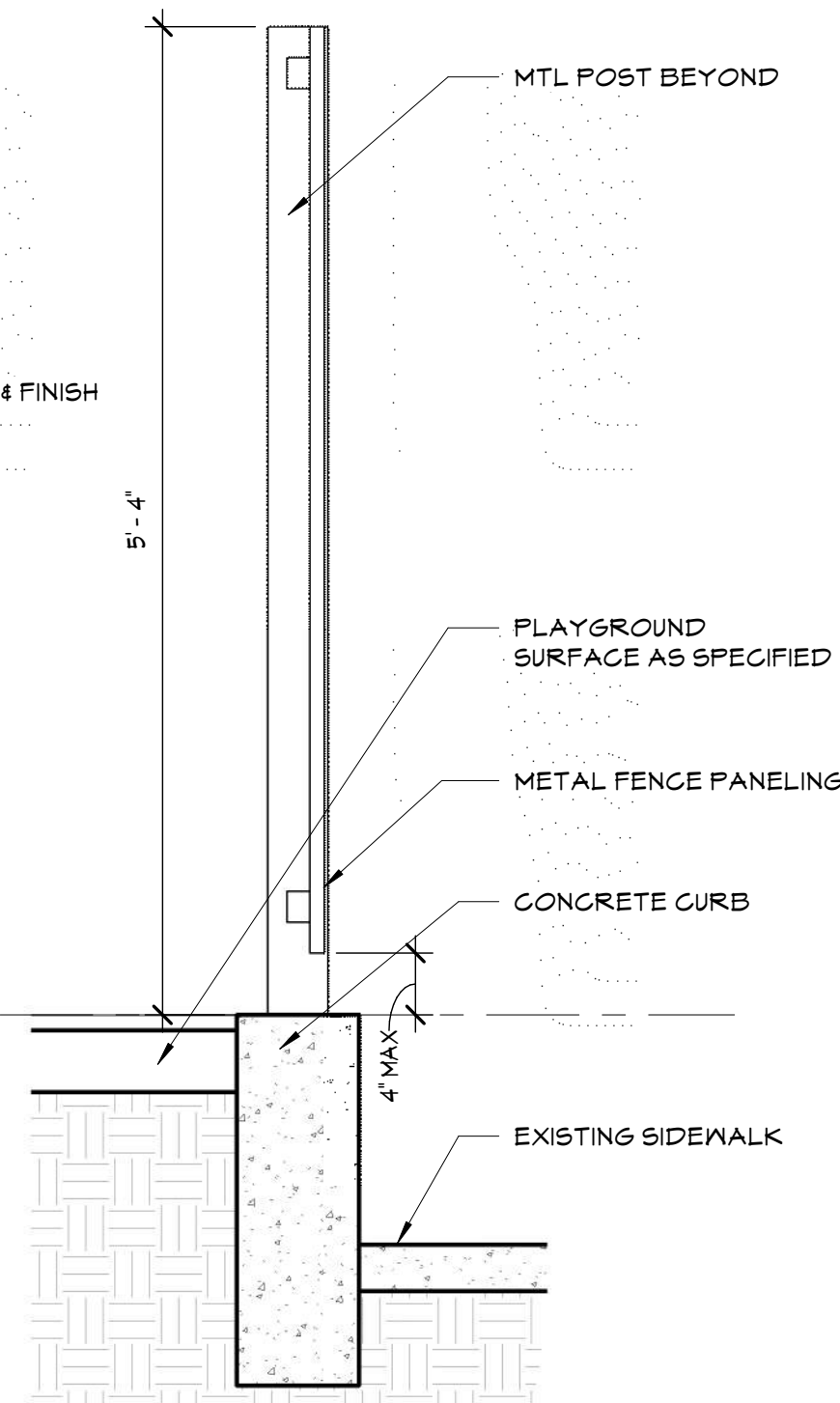
SHEET NUMBER



① Site Plan
3/16" = 1'-0"



② Detail
1" = 1'-0"



③ Detail
1" = 1'-0"



④ Perspective View



MOTLEY ARCHITECTURE & DESIGN
915 S. 10th St.
Montrose, CO 81401
p: (970) 249-1980
motleyarc.com

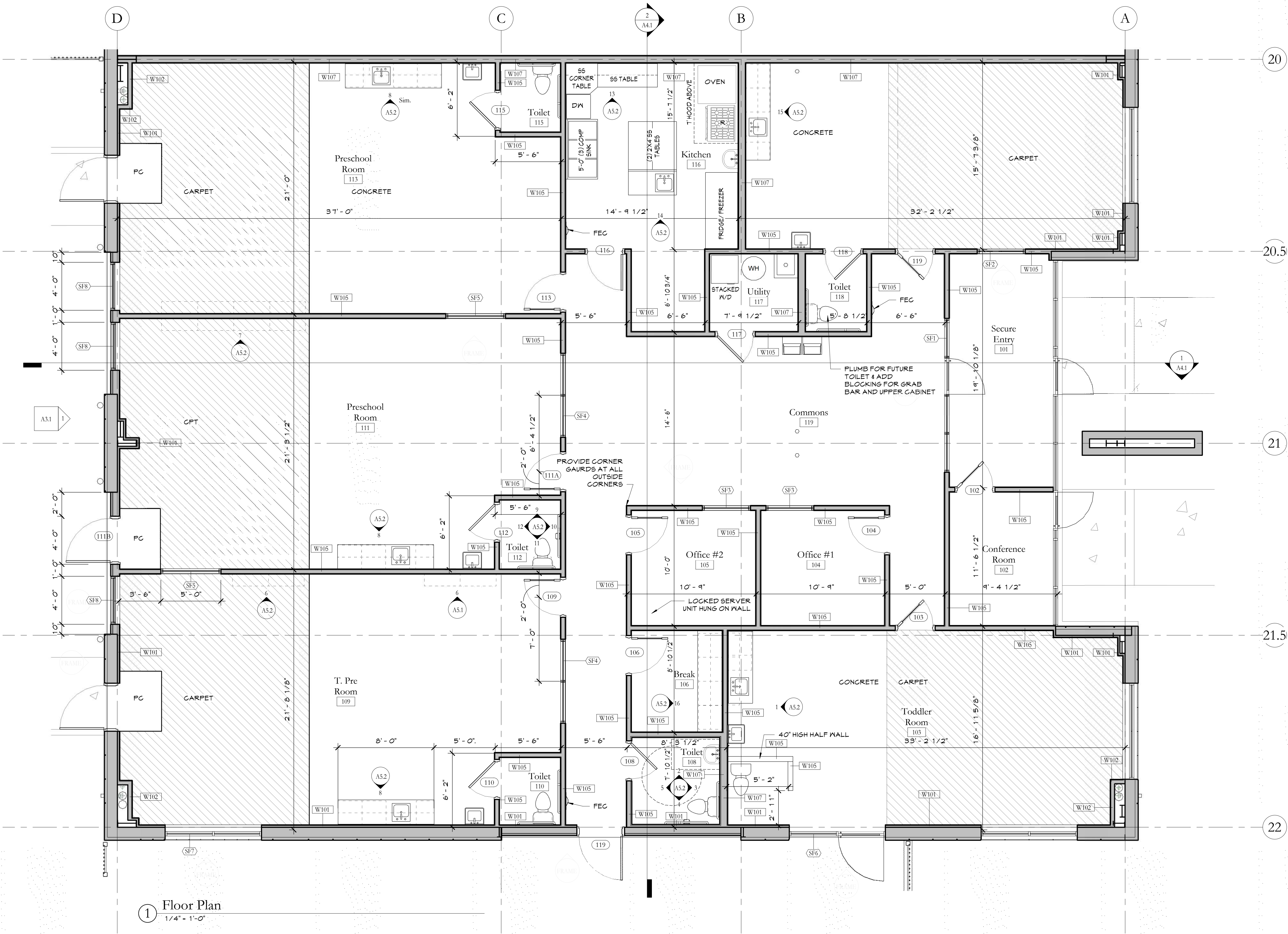
PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

Site Plan

SHEET NAME

Bright Beginnings
at Colorado
Outdoors
Flex Buildings, Unit F101-102, Mayfly
Dr., Montrose, CO 81401

A1.1
SHEET NUMBER



① Floor Plan
1/4" = 1'-0"

Bright Beginnings at
Colorado Outdoors

Flex Buildings, Unit F101-102, Marfly Dr., Montrose, CO 81401

PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

Floor Plan

SHEET NAME

A2.1
SHEET NUMBER



1 Reflected Ceiling Plan
1/4" = 1'-0"



STAMP
4/21/22
© Motley Architecture & Design

Bright Beginnings at Colorado Outdoors

Flex Buildings, Unit F101-102, Marfly Dr., Montrose, CO 81401

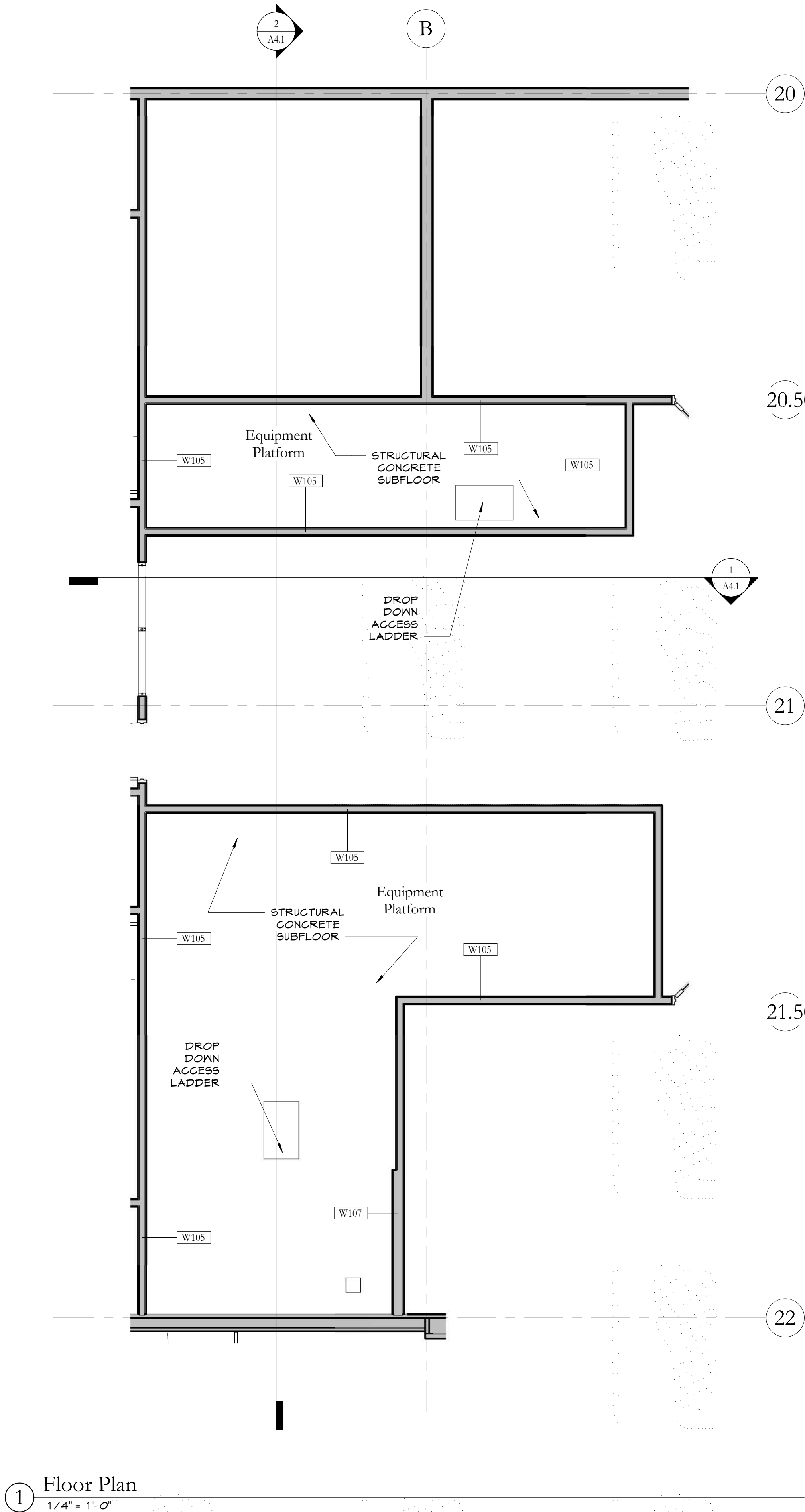
REVISIONS

PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

Reflected
Ceiling Plan

SHEET NAME

A2.2
SHEET NUMBER



① Floor Plan
1/4" = 1'-0"



STAMP 4/21/22
© Motley Architecture & Design

Bright Beginnings at Colorado Outdoors

Flex Buildings, Unit F101-102, Marfly Dr., Montrose, CO 81401

REVISIONS

PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

Equipment
Platforms

SHEET NAME

A2.3
SHEET NUMBER



STAMP 4/21/22
© Motley Architecture & Design

Bright Beginnings at Colorado Outdoors

Flex Buildings, Unit F101-102, Marfly Dr., Montrose, CO 81401

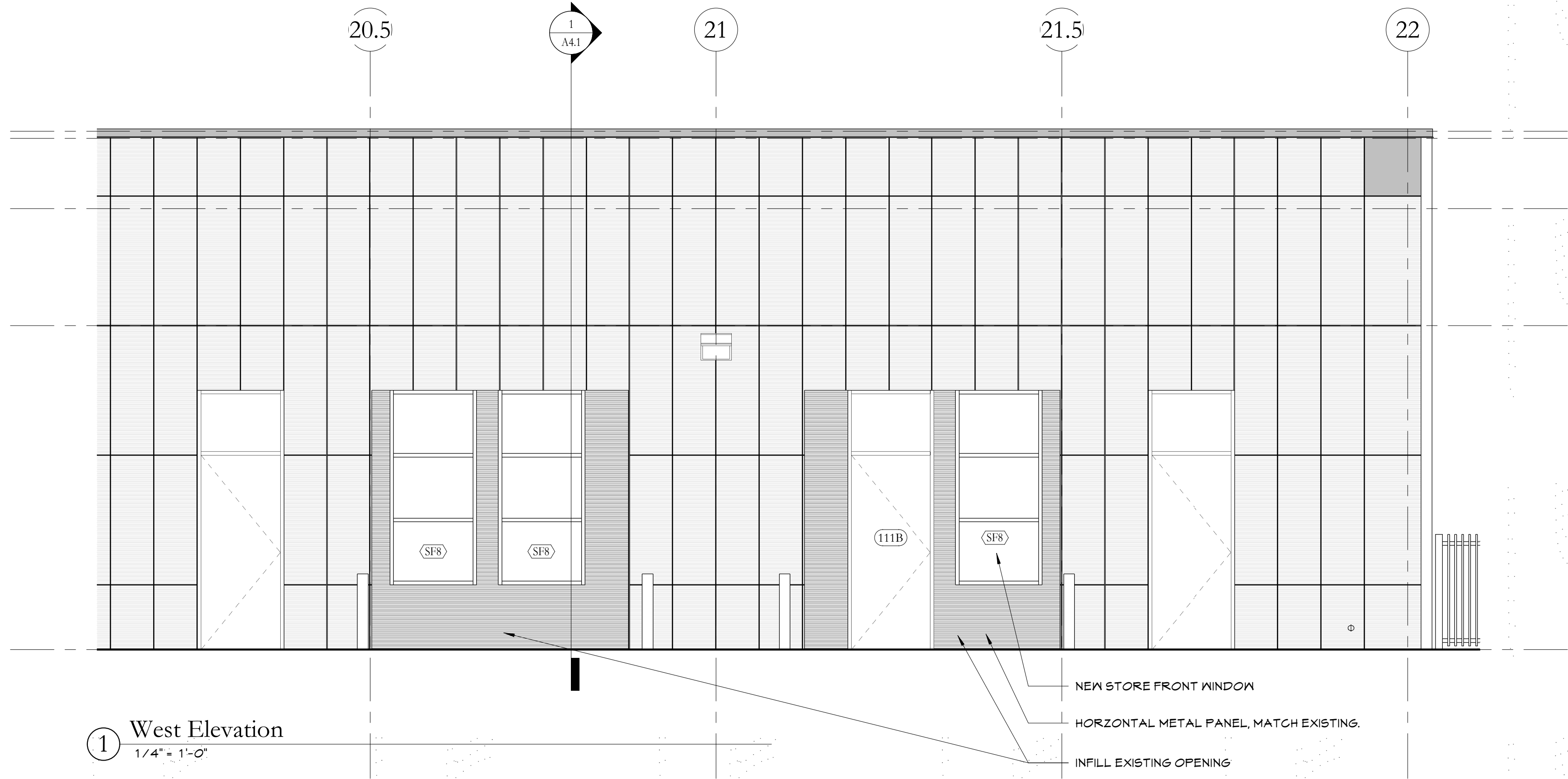
REVISIONS

PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

Ext Elevation,
Storefront

SHEET NAME

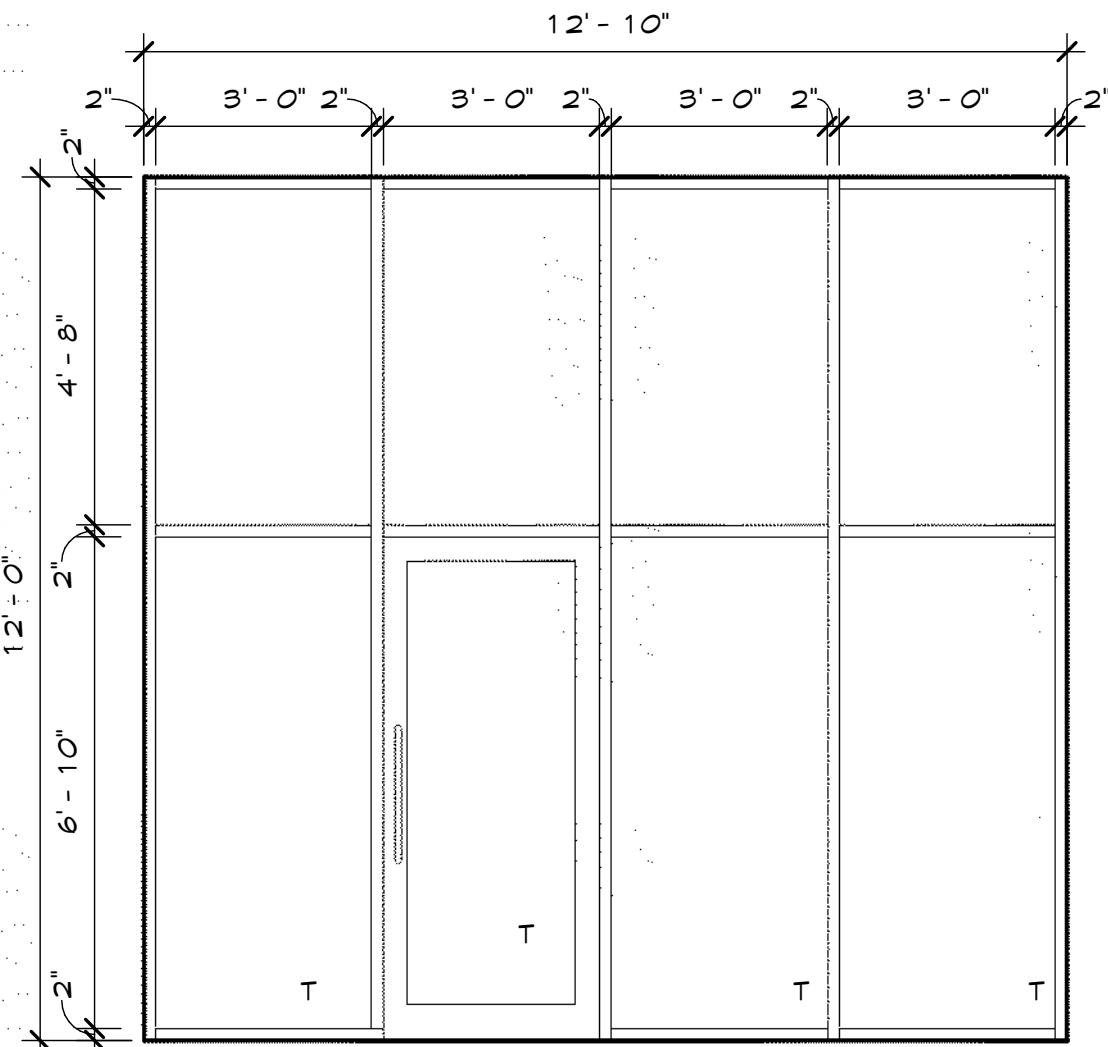
A3.1
SHEET NUMBER



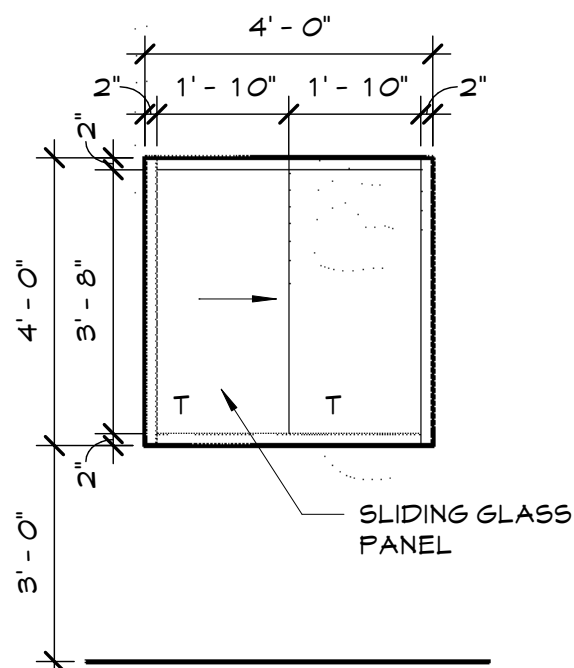
1 West Elevation
1/4" = 1'-0"

Storefront Types

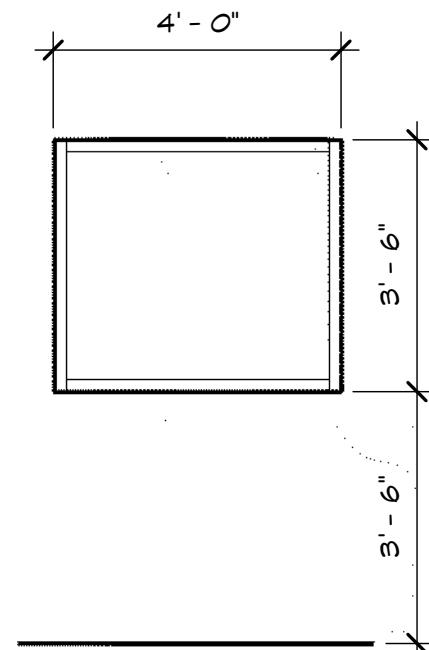
NOTE: TEMPER GLAZING UNITS NOTE AS 'T'



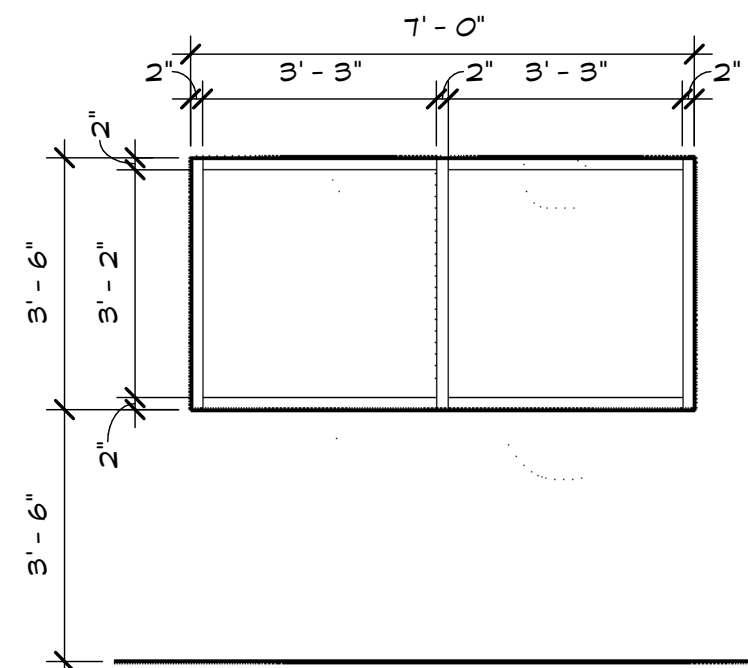
SF1



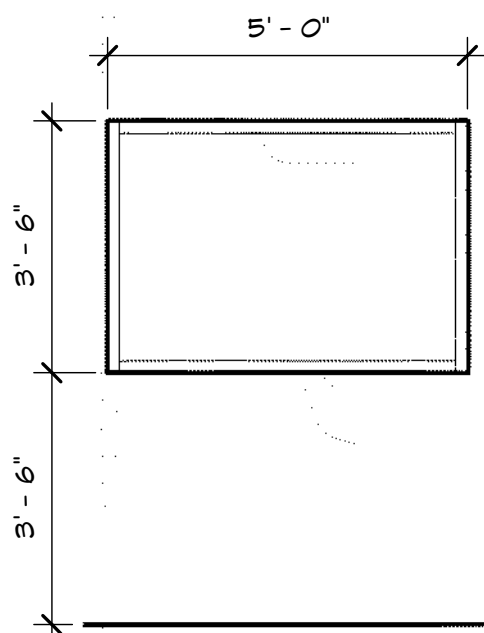
SF2



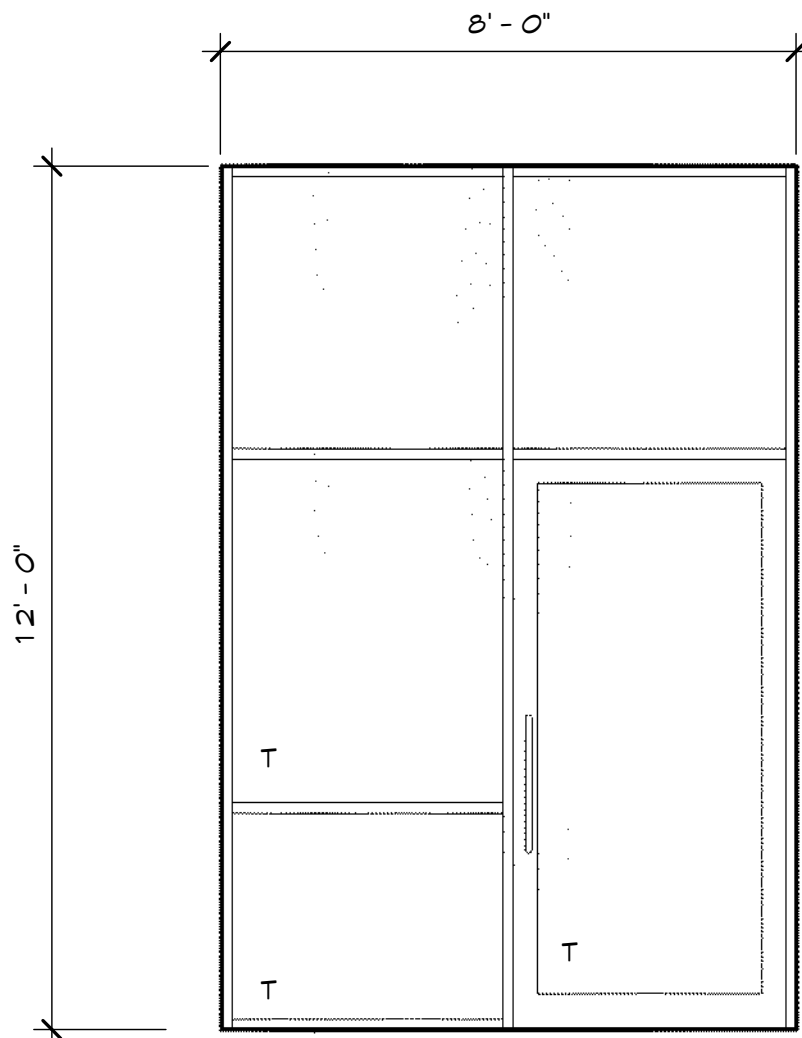
SF3



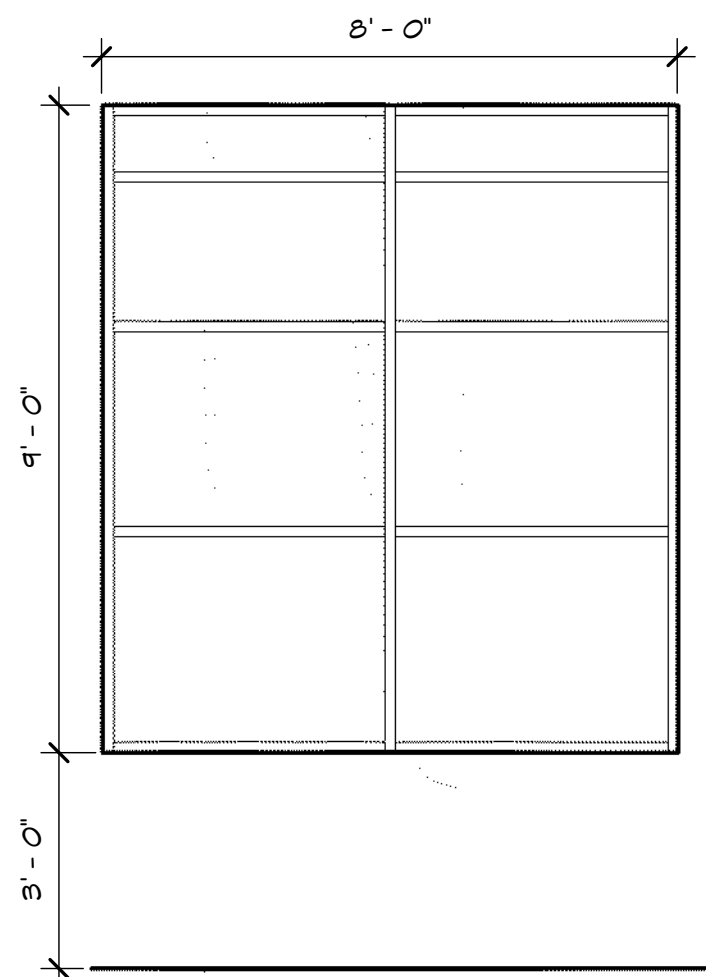
SF4



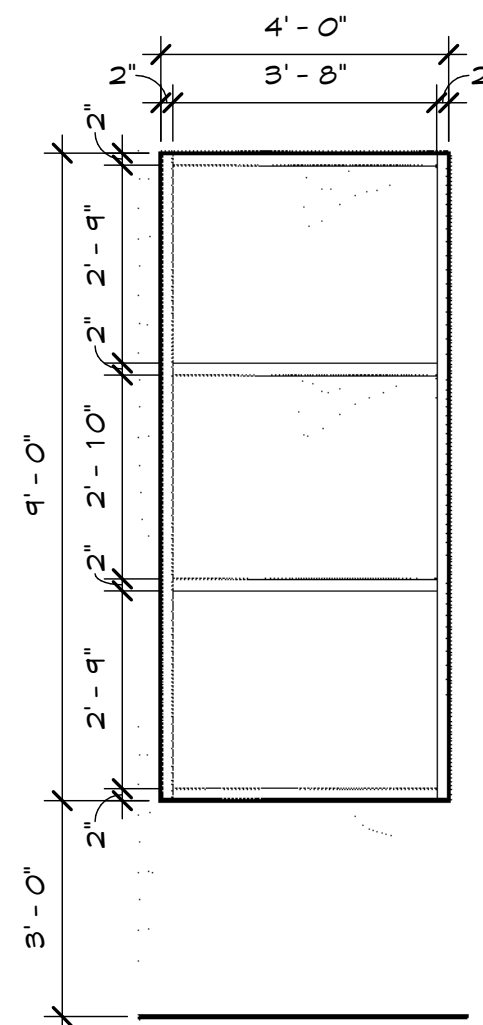
SF5



SF6



SF7



SF8



STAMP
© Motley Architecture & Design

Bright Beginnings at
Colorado Outdoors

Flex Buildings, Unit F101-102, Marfly Dr., Montrose, CO 81401

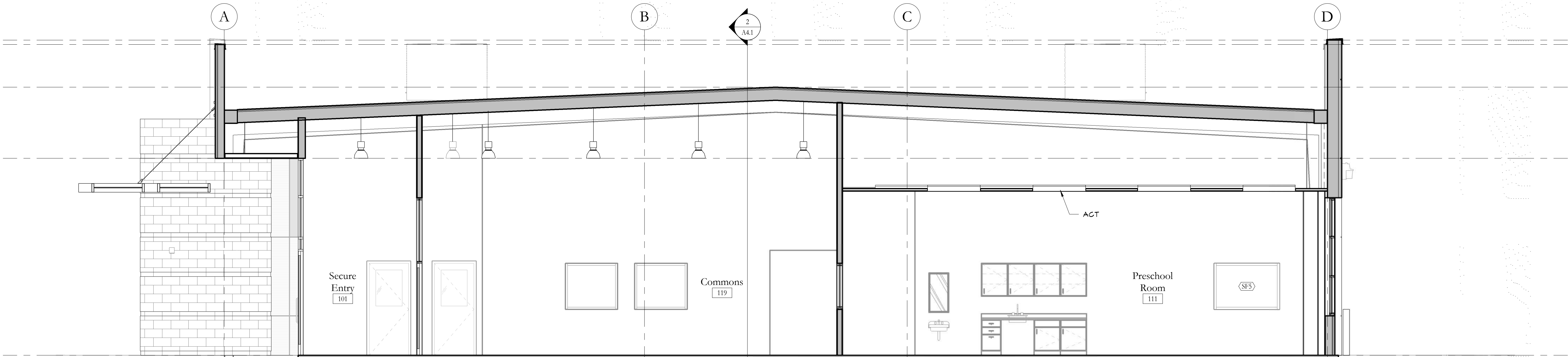
REVISIONS

PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

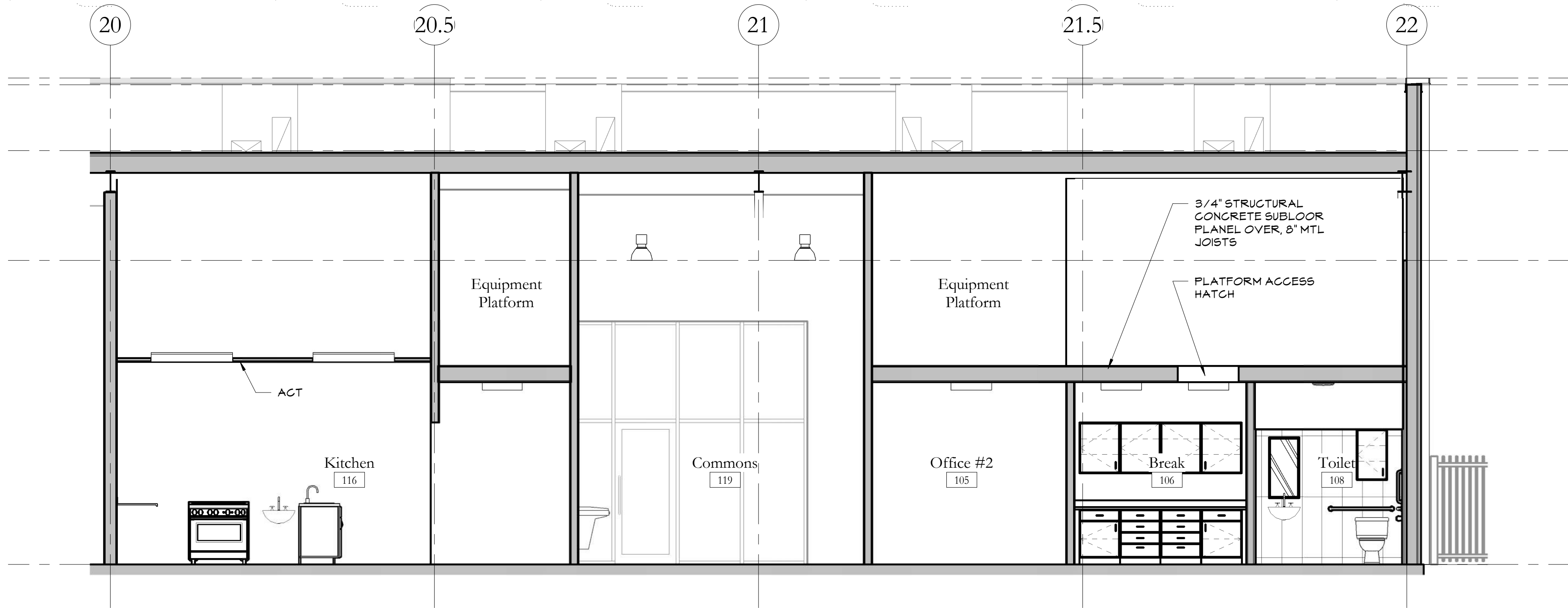
Building
Sections

SHEET NAME

A4.1
SHEET NUMBER



1 Building Section
1/4" = 1'-0"

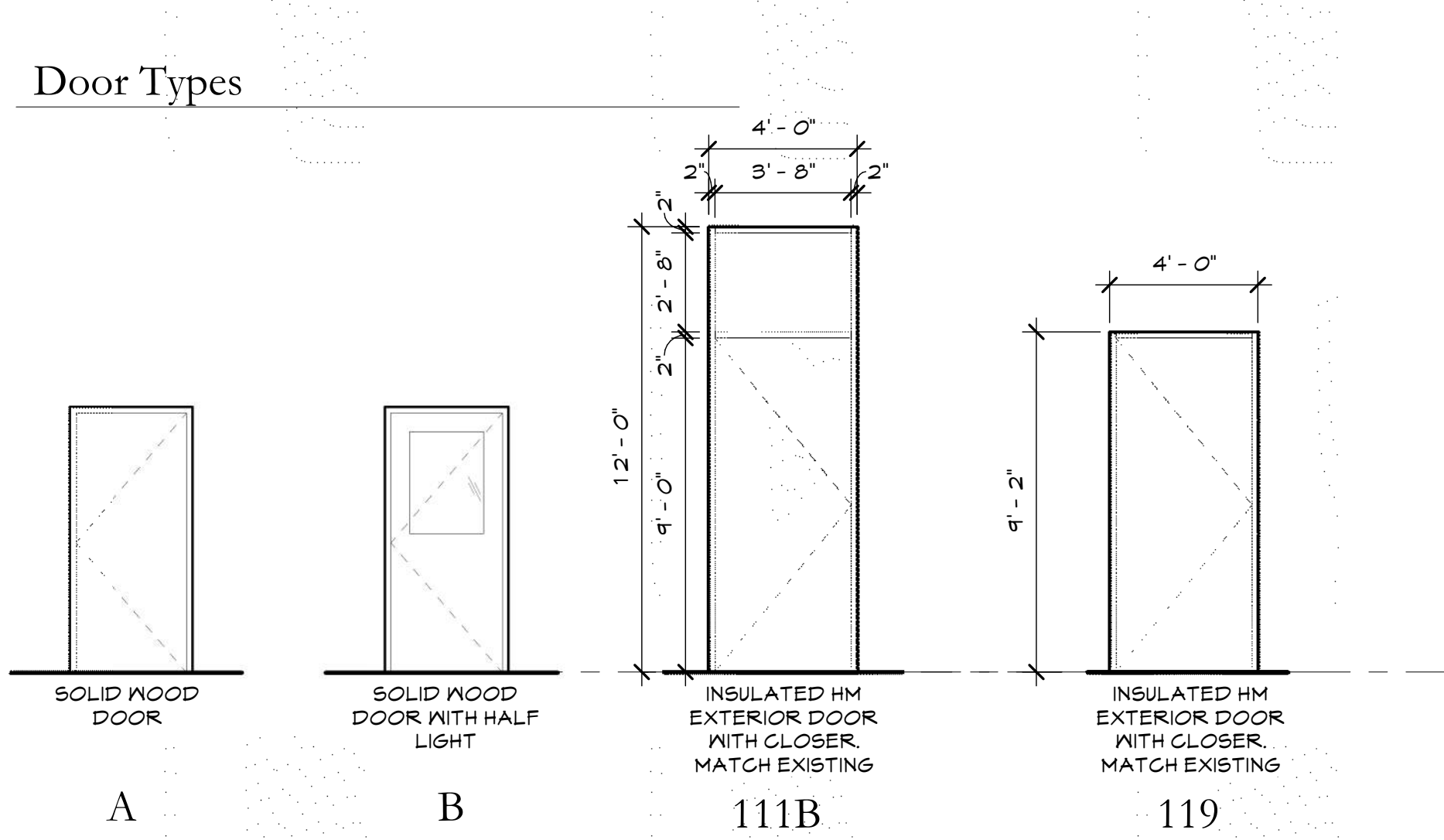


2 Building Section
1/4" = 1'-0"

Door Schedule									
Door #	Type Mark	Height	Width	Door Material	Panel Finish	Frame		Fire Rating	Comments
102	B	7'-0"	3'-0"	WD	STN	WD	FF		Half lite, passage lockset
103	B	7'-0"	3'-0"	WD	STN	STL	FF		
104	B	7'-0"	3'-0"	WD	STN	STL	FF		
105	B	7'-0"	3'-0"	WD	STN	STL	FF		
106	B	7'-0"	3'-0"	WD	STN	STL	FF		
108	A	7'-0"	3'-0"	WD	STN	STL	FF		Privacy lockset
109	B	7'-0"	3'-0"	WD	STN	STL	FF		
110	A	7'-0"	3'-0"	WD	STN	STL	FF		
111A	B	7'-0"	3'-0"	WD	STN	STL	FF		
112	A	7'-0"	3'-0"	MTL	PT	MTL	PT		
113	B	7'-0"	3'-0"	WD	STN	STL	FF		
115	A	7'-0"	3'-0"	WD	STN	STL	FF		
116	A	7'-0"	3'-0"	WD	STN	STL	FF		
117	A	7'-0"	3'-0"	WD	STN	STL	FF		
118	A	7'-0"	3'-0"	MTL	PT	STL	FF		
119	B	7'-0"	3'-0"	WD	STN	STL	FF		

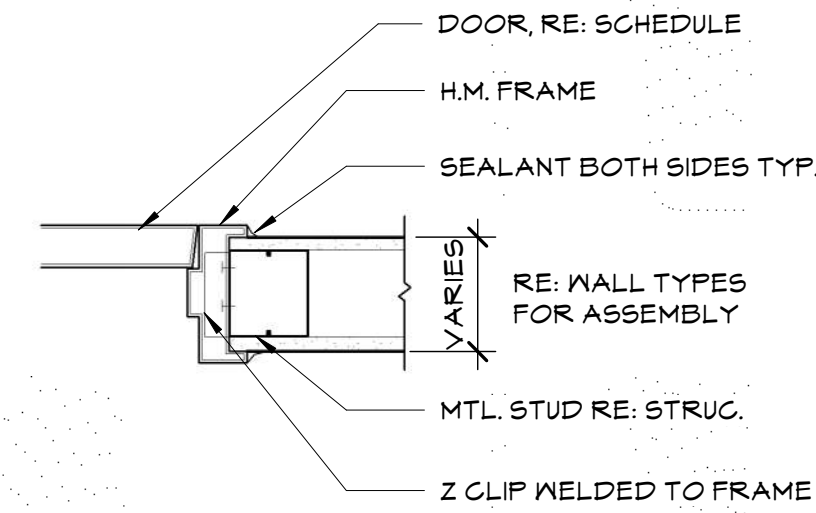
DOOR FINISH & MATERIAL LEGEND: AL - Aluminum, FF - Factory Finish, MTL - Insulated Hollow Metal, PT - Paint, STN - Stain, STL - Steel, WD - Wood

Door Types

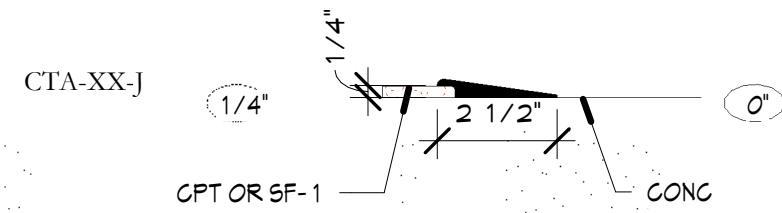


Room Finish Schedule										
Number	Name	Floors		Walls				Ceilings		Comments
		Floor Finish	Base Finish	North Wall	East Wall	South Wall	West Wall	Ceiling Material	Ceiling Finish	
101	Secure Entry	PC	RB	PT1	PT1	PT1	PT1	-	-	
102	Conference Room	PC	RB	PT1	PT1	PT1	PT1	-	-	
103	Toddler Room	PC/CPT	RB	PT1	PT1	PT1	PT1	ACT	FF	
104	Office #1	CPT	RB	PT1	PT1	PT1	PT1	GWB	PT1	
105	Office #2	CPT	RB	PT1	PT1	PT1	PT1	GWB	PT1	
106	Break	PC	RB	PT1	PT1	PT1	PT1	GWB	PT1	
108	Toilet	PC	CBT	PT1/CWT1	PT1/CWT1	PT1/CWT1	PT1/CWT1	GWB	PT1	
109	T. Pre Room	PC/CPT	RB	PT1	PT1	PT1	PT1	ACT	FF	
110	Toilet	PC	RB	PT1/FRP	PT1/FRP	PT1/FRP	PT1/FRP	GWB	PT1	
111	Preschool Room	PC/CPT	RB	PT1	PT1	PT1	PT1	ACT	FF	
112	Toilet	PC	RB	PT1/FRP	PT1/FRP	PT1/FRP	PT1/FRP	GWB	PT1	
113	Preschool Room	PC/CPT	RB	PT1	PT1	PT1	PT1	ACT	FF	
115	Toilet	PC	RB	PT1/FRP	PT1/FRP	PT1/FRP	PT1/FRP	GWB	PT1	
116	Kitchen	FAF	RB	FRP	FRP	FRP	FRP	GWB	PT1	
117	Utility	SC	RB	PT1/FRP	PT1/FRP	PT1/FRP	PT1/FRP	GWB	PT1	
118	Toilet	PC	RB	PT1/FRP	PT1/FRP	PT1/FRP	PT1/FRP	GWB	PT1	
119	Commons	PC	RB	PT1	PT1	PT1	PT1	-	-	
119	Infant Room	PC/CPT	RB	PT1	PT1	PT1	PT1	ACT	FF	

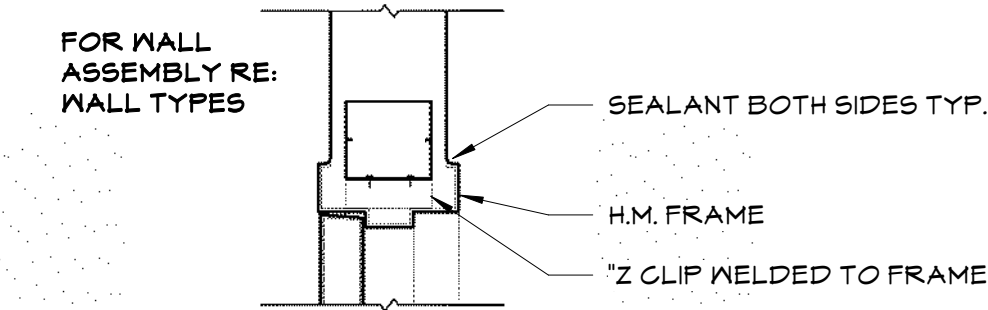
FINISHES LEGEND: ACT - Acoustical Ceiling Tile, CBT - Ceramic Base Tile, CPT - Carpet, CWT - Ceramic Wall Tile, FAF - Epoxy Fluid Applied Flooring, FF-Factory Finish, FRP - Fiber Reinforced Plastic, GWB - Gypsum Board, PT - Paint, PC - Polished Concrete, RB - Rubber Base, PC - Polished Concrete, WOM - Walk Off Mat



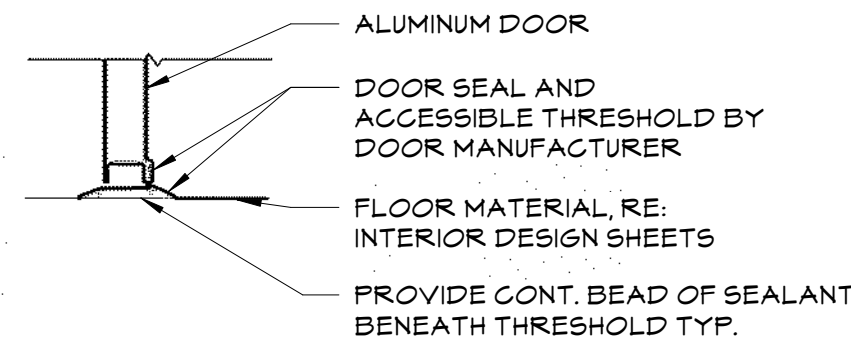
Typ H.M. Jamb @ Stud



Rubber Floor Transition

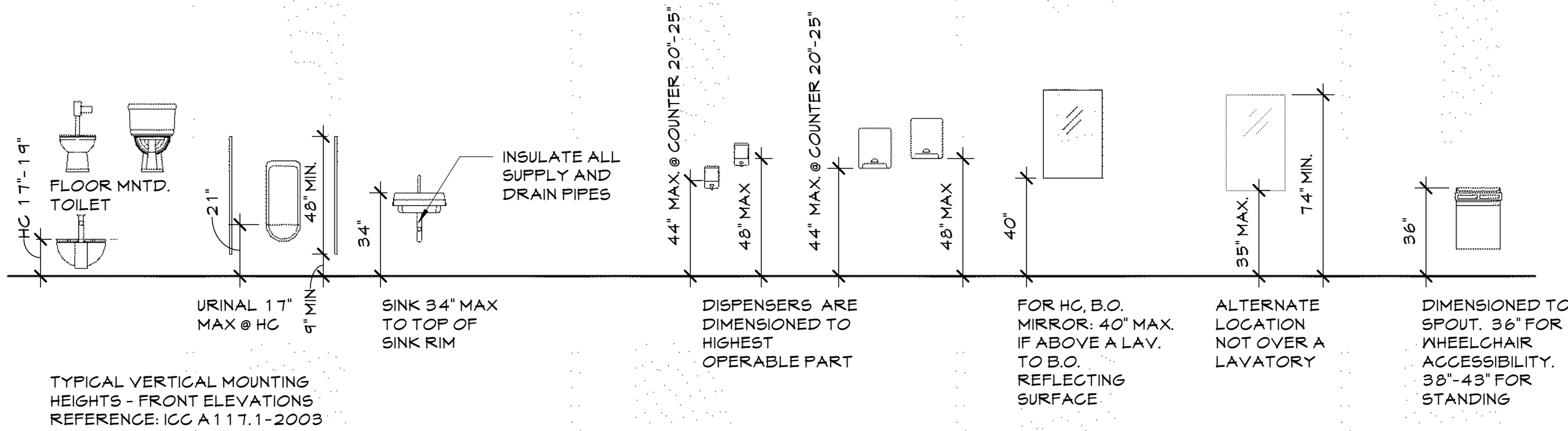


Typ. H.M. Head @ Stud

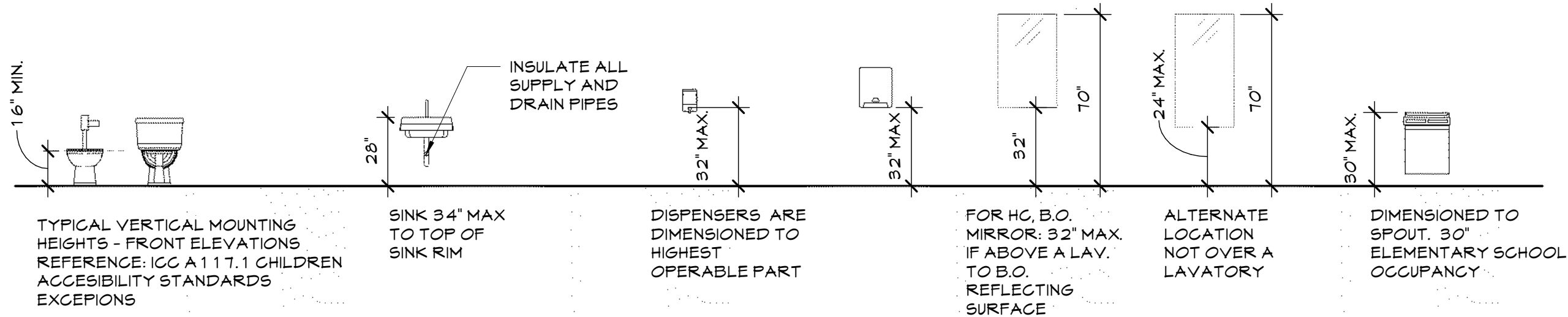


Typ. Door Threshold

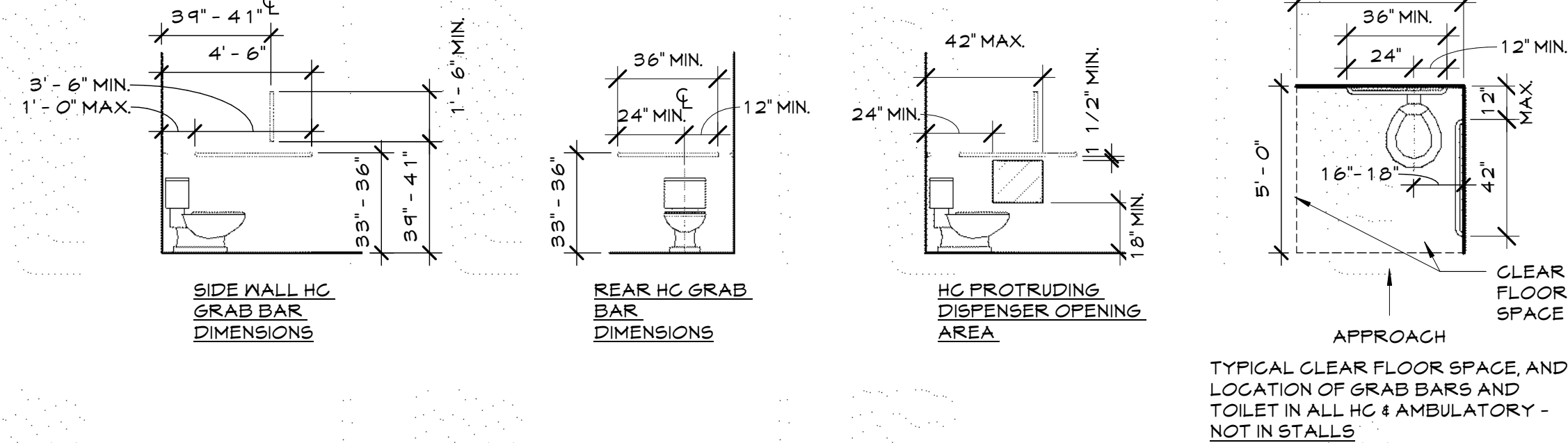
Vertical Accessory & Fixture Locations



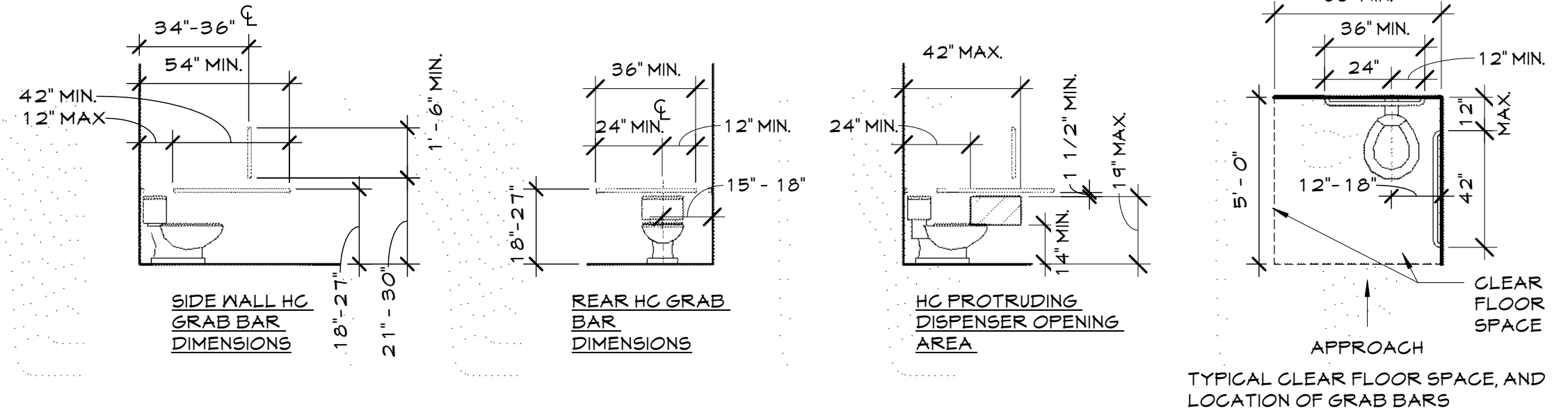
Child Vertical Accessory & Fixture Locations



Adult Toilet Accessibility Guidelines



Child Toilet Accessibility Guidelines



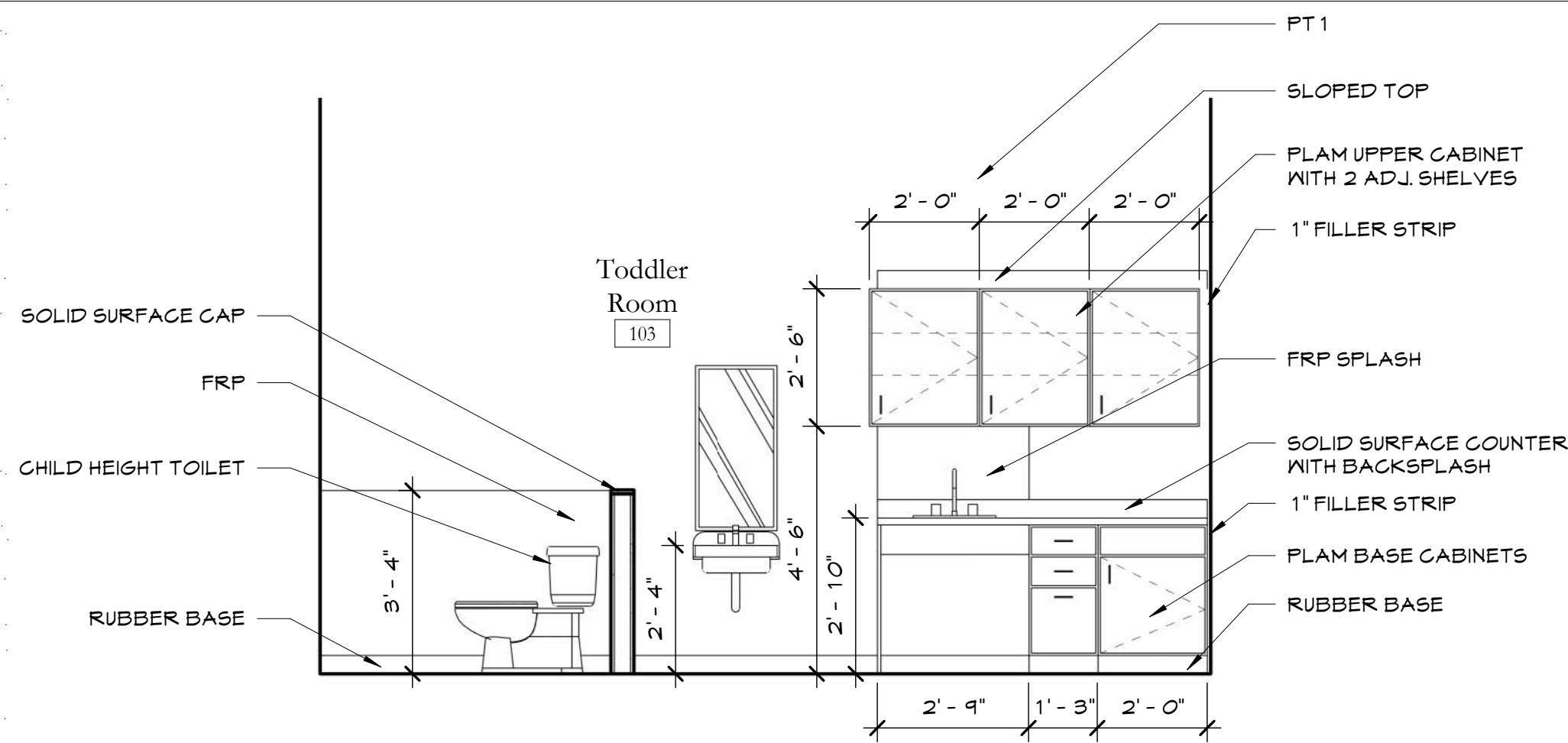
REVISIONS

PROJECT NO: 2117-F101
PHASE: Construction
ISSUE: Issue C
ISSUE DATE: 4/21/22

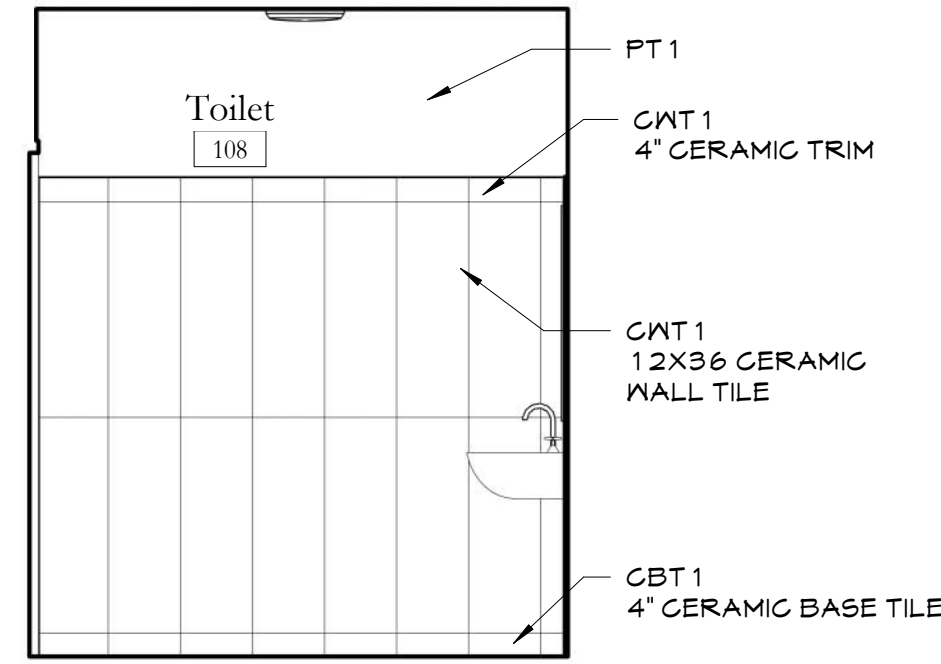
Schedules & Details

SHEET NAME

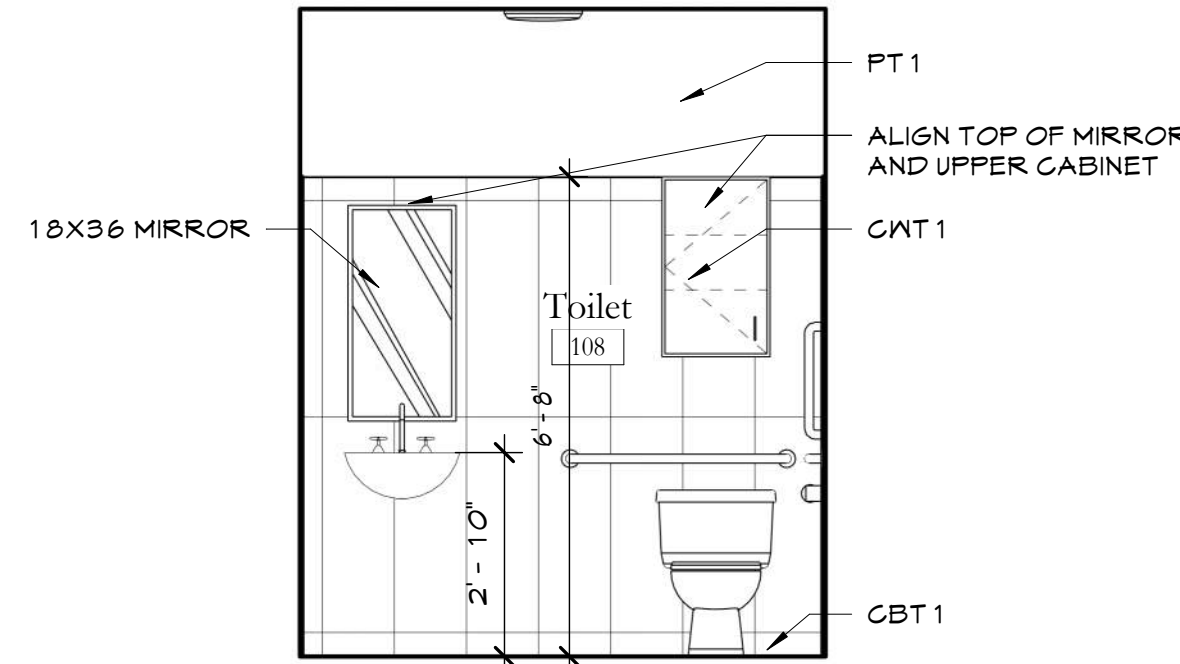
A5.1
SHEET NUMBER



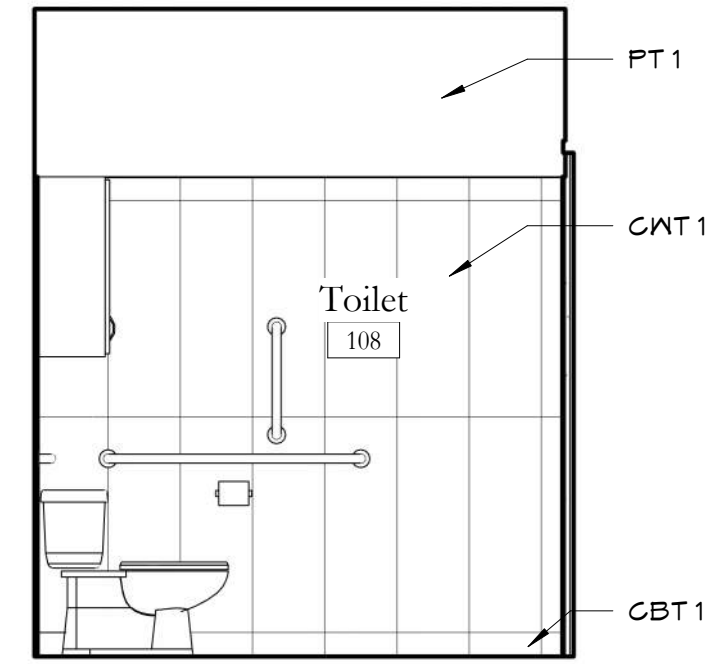
1 Int. Elevation
3/8" = 1'-0"



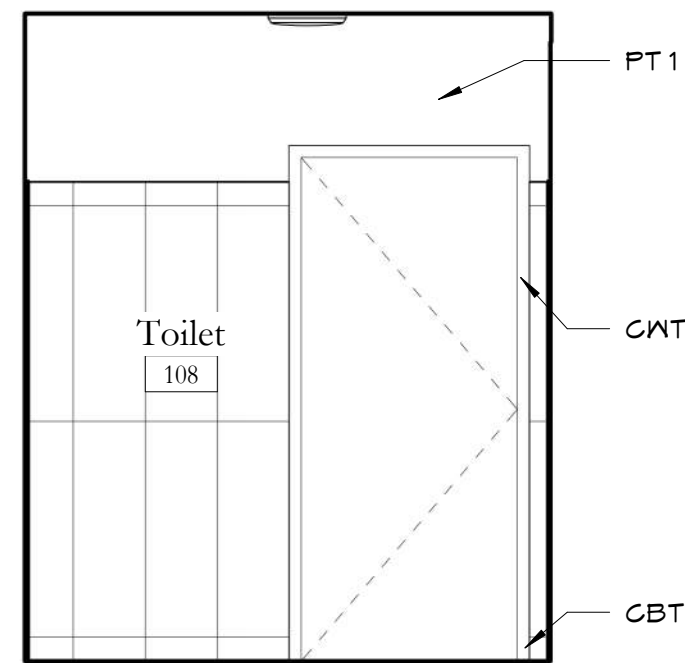
2 Int. Elevation
3/8" = 1'-0"



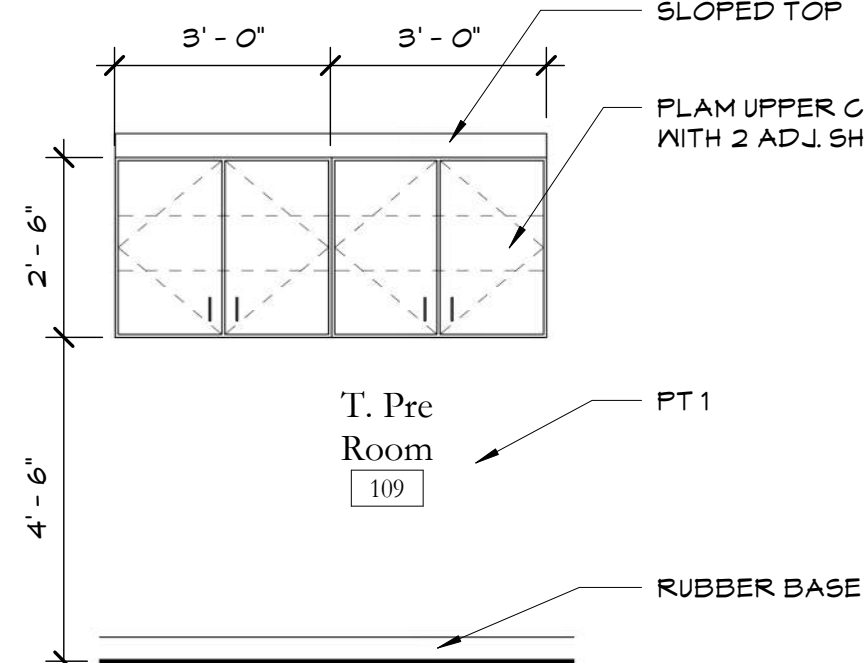
3 Int. Elevation
3/8" = 1'-0"



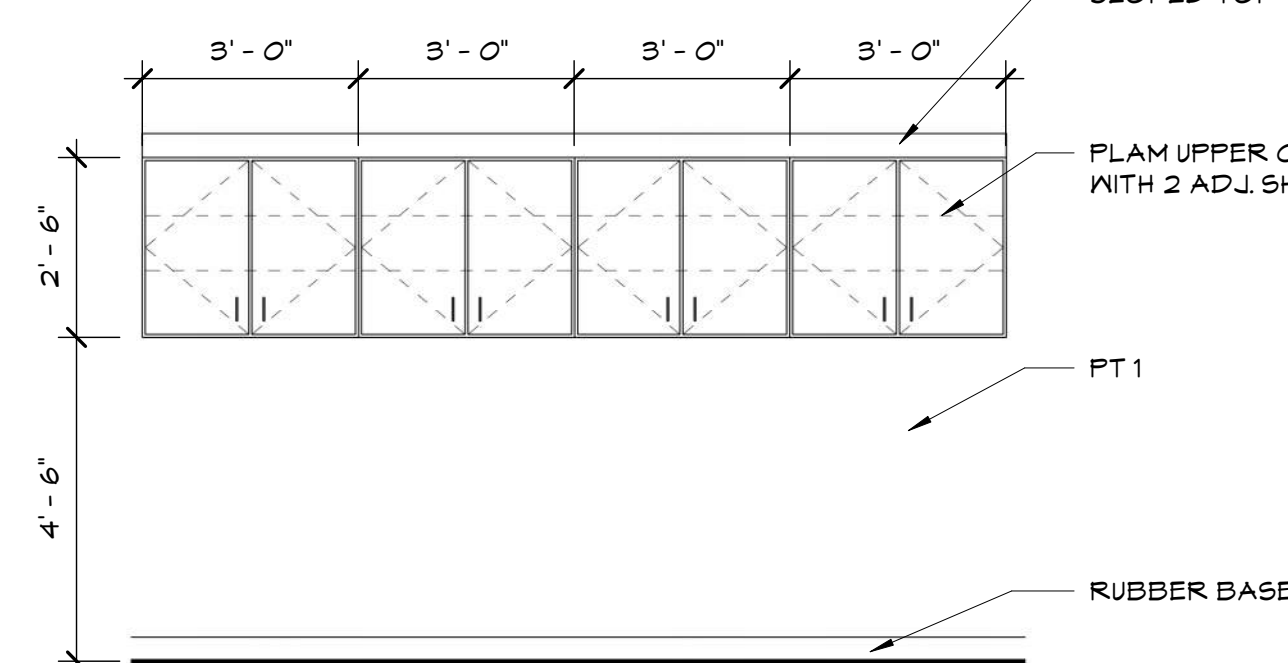
4 Int. Elevation
3/8" = 1'-0"



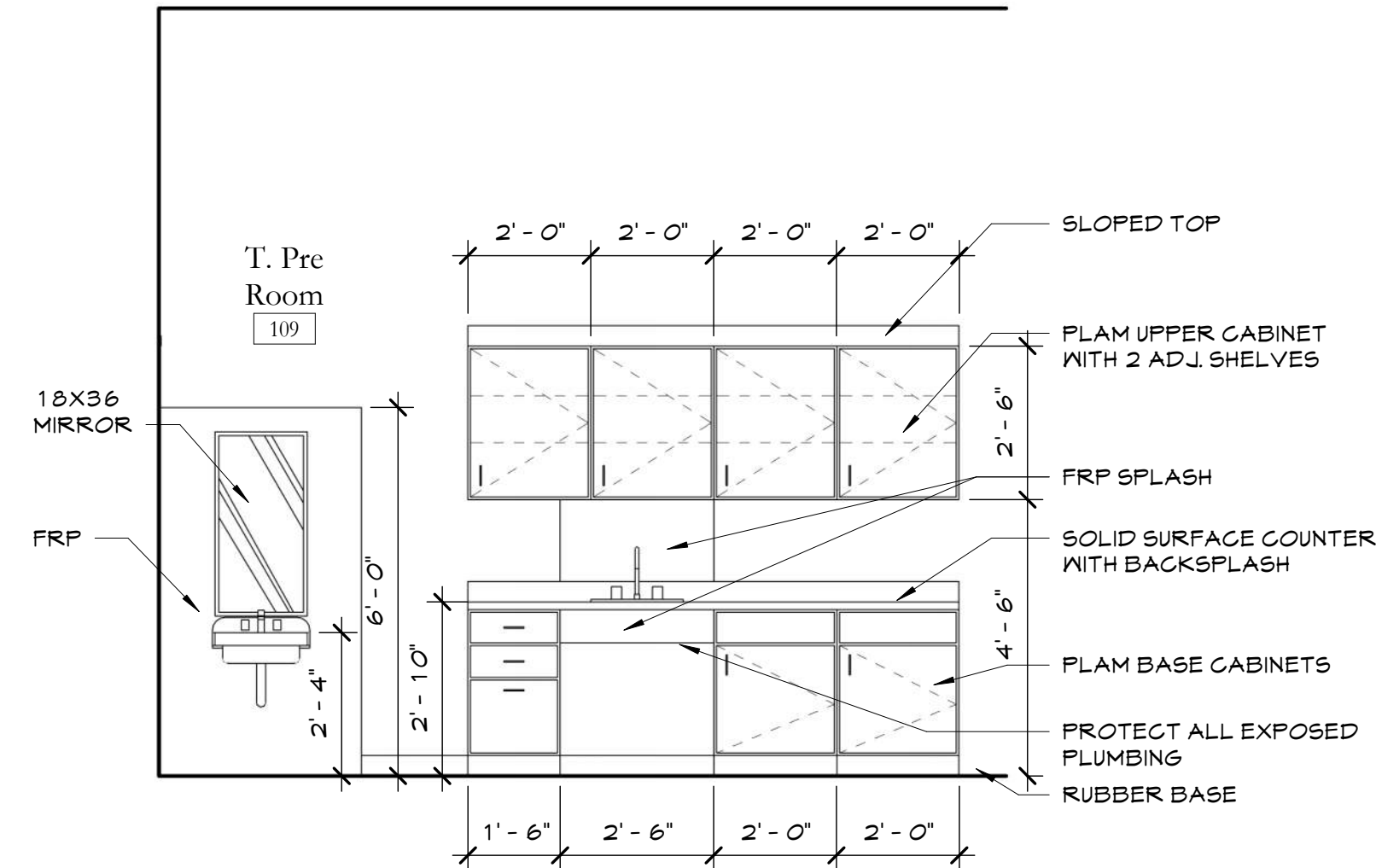
5 Int. Elevation
3/8" = 1'-0"



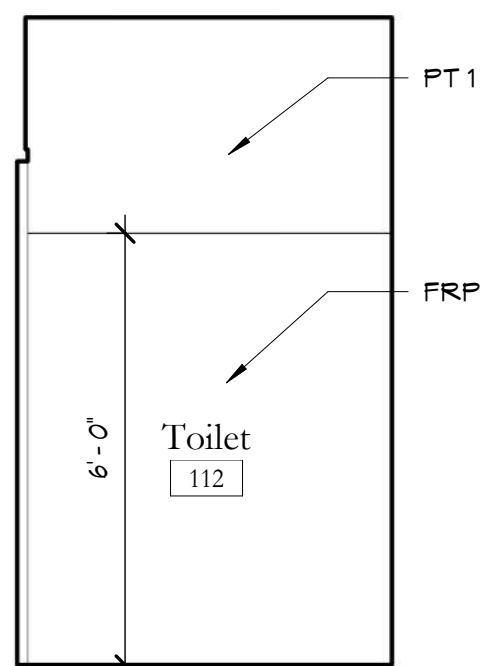
6 Int. Elevation
3/8" = 1'-0"



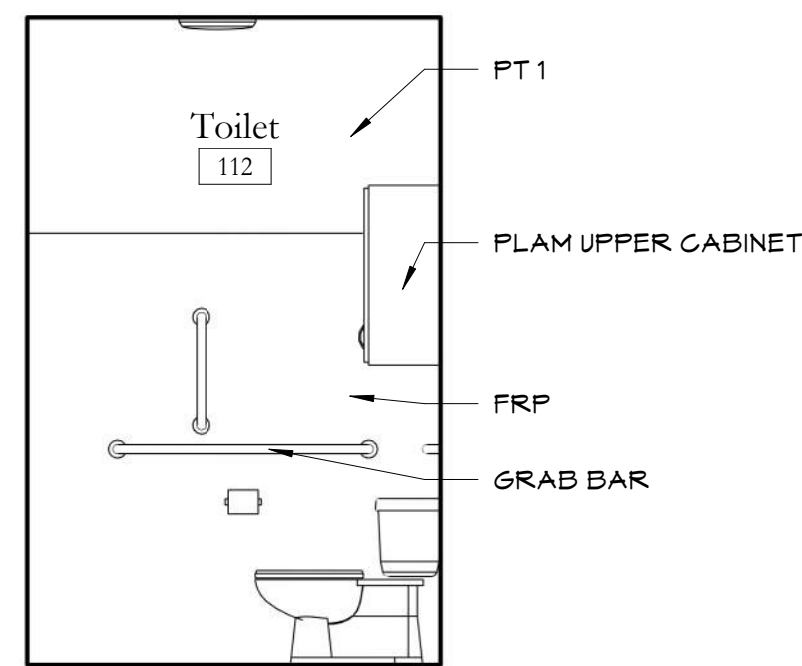
7 Int. Elevation
3/8" = 1'-0"



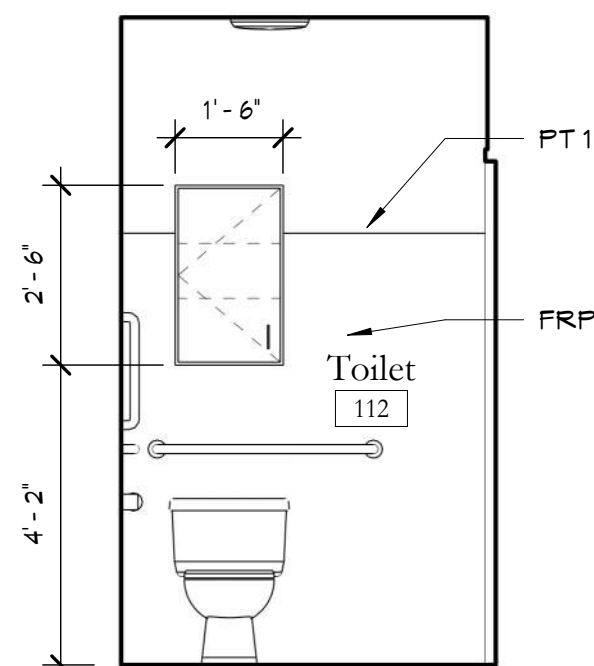
8 Int. Elevation
3/8" = 1'-0"



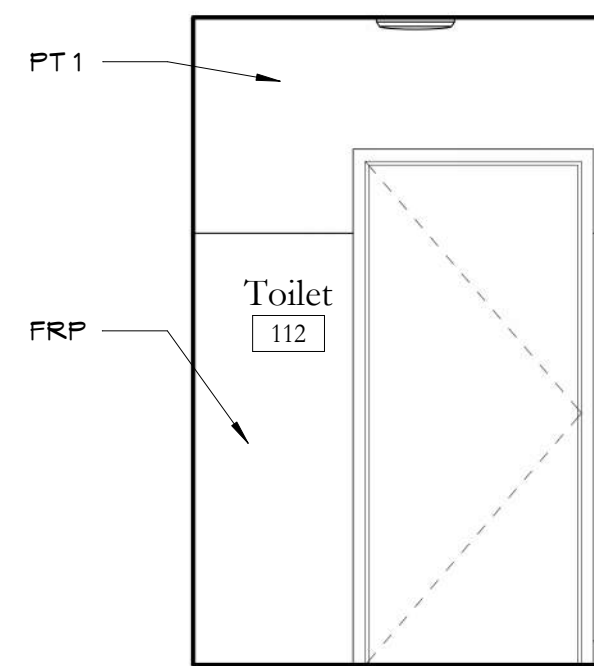
9 Int. Elevation
3/8" = 1'-0"



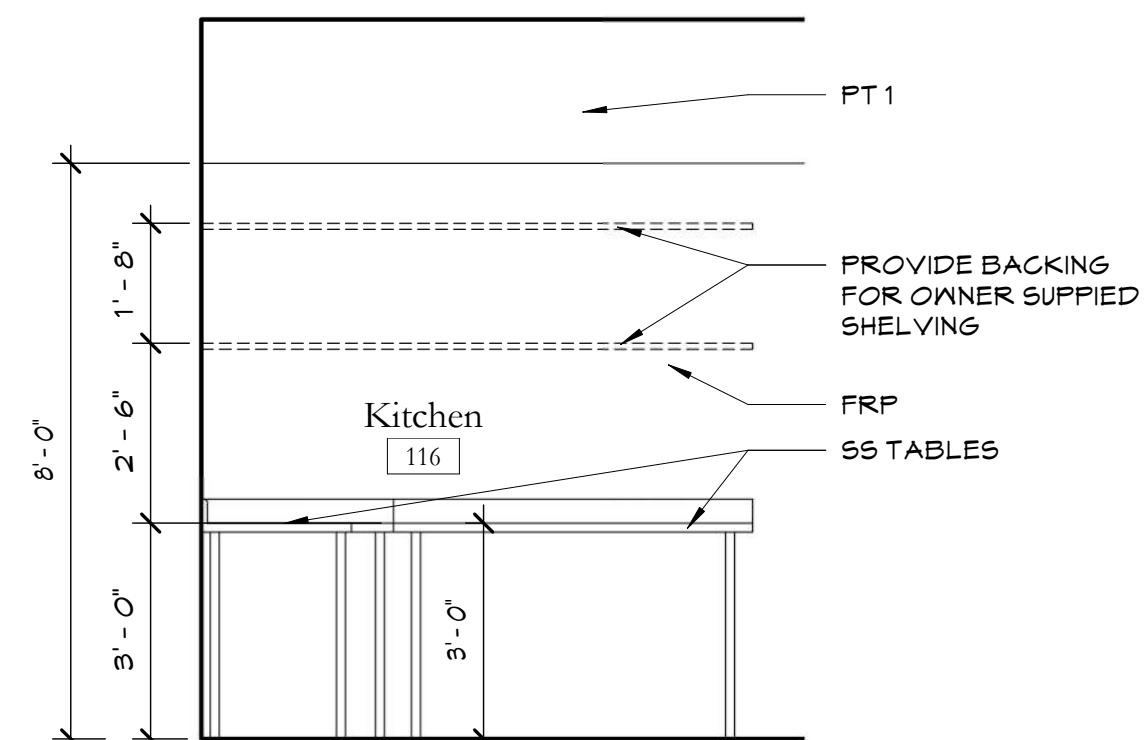
10 Int. Elevation
3/8" = 1'-0"



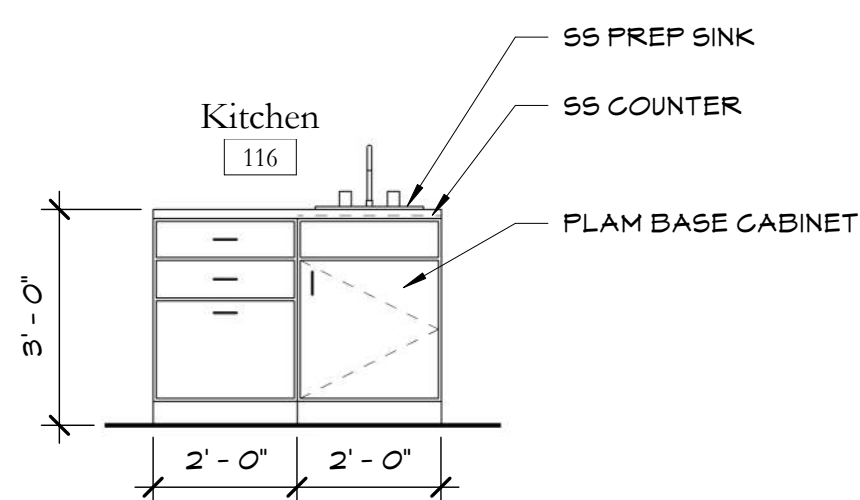
11 Int. Elevation
3/8" = 1'-0"



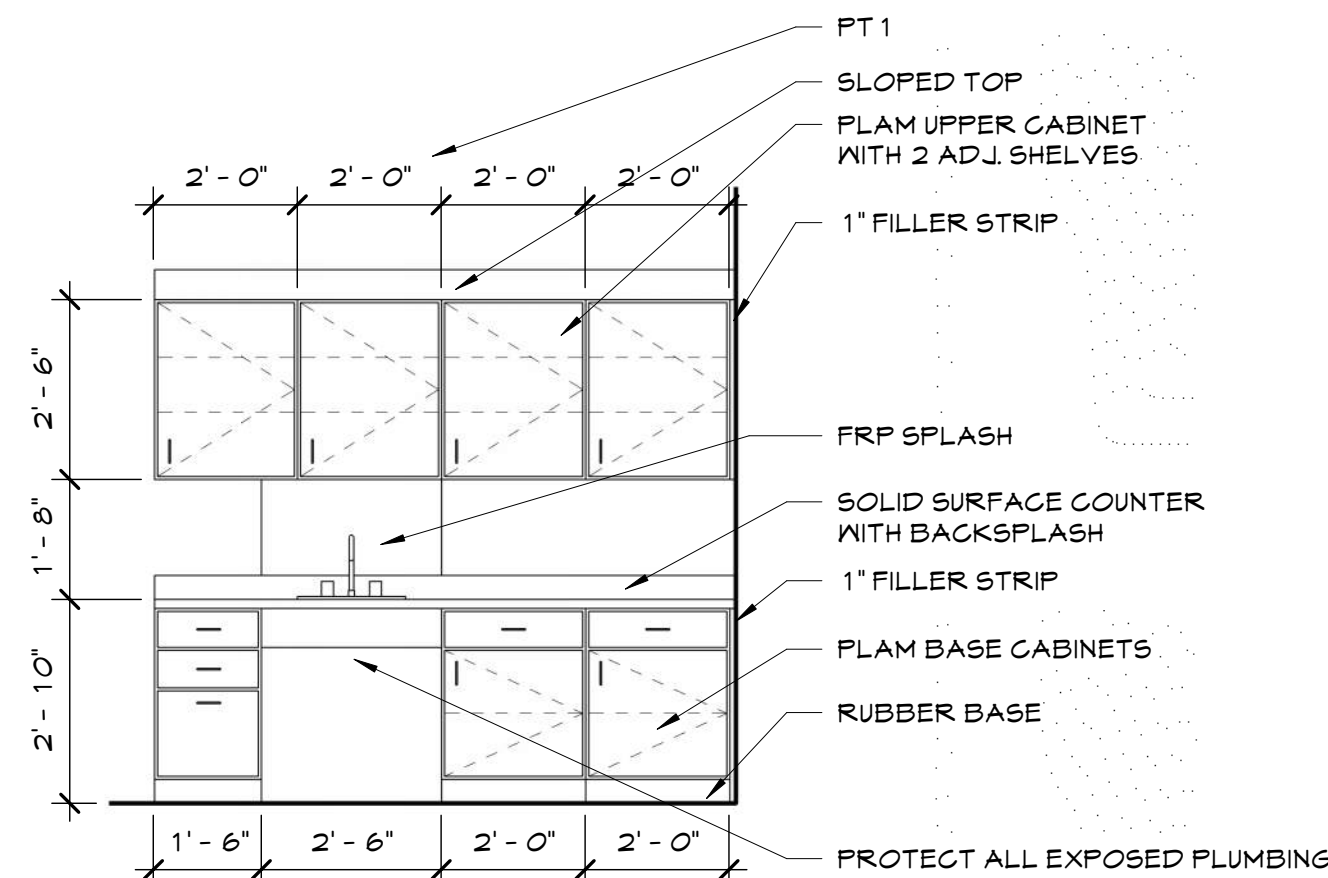
12 Int. Elevation
3/8" = 1'-0"



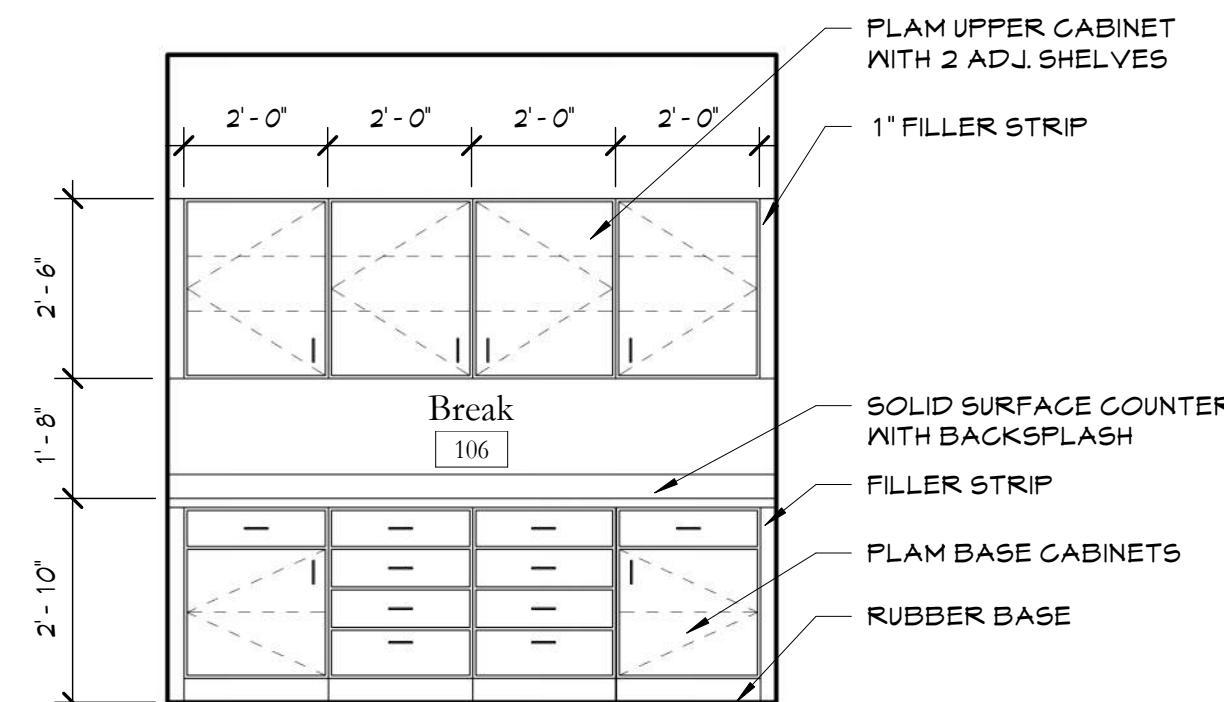
13 Int. Elevation
3/8" = 1'-0"



14 Int. Elevation
3/8" = 1'-0"



15 Int. Elevation
3/8" = 1'-0"



16 Int. Elevation
3/8" = 1'-0"

MECHANICAL ELEMENTS / VALVING			
	EXISTING EQUIPMENT OR PIPE TO BE REMOVED.		RELIEF/SAFETY VALVE
	GATE VALVE		GAS COCK
	GLOBE VALVE		AUTOMATIC FILL VALVE
	PLUG VALVE		MANUAL AIR VENT
	BUTTERFLY VALVE		AUTOMATIC AIR VENT (EXTEND DISCHARGE TO DRAIN)
	BALL VALVE		FLOW METER-VENTURI
	SWING CHECK VALVE		FLOW METER-ORIFICE
	LIFT CHECK VALVE		DIRECTION OF FLOW
	GATE VALVE, ANGLE		DIRECTION OF PITCH-RISE OR DROP
	GLOBE VALVE, ANGLE		STRAINER
	DIAPHRAGM VALVE		STRAINER WITH BLOW OFF VALVE
	BALANCING VALVE		PIPE RISING UP
	CIRCUIT SETTING BALANCING VALVE		PIPE DROPPING DOWN
	THREE WAY CONTROL VALVE		CONCENTRIC REDUCER
	TWO WAY CONTROL VALVE		ECCENTRIC REDUCER
	SOLENOID VALVE		UNION - SCREWED OR FLANGED
	PRESSURE REDUCING VALVE (PRV)		STEAM LEAK DETECTOR
	TEMPERATURE/PRESSURE RELIEF VALVE		FIRE SMOKE DAMPER
	HYDRAULIC SEPARATOR		CARBON MONOXIDE
			CARBON DIOXIDE
			AIR SEPARATOR

HVAC & DUCTWORK SYMBOLS	
	SECTION THROUGH RETURN DUCT
	SECTION THROUGH EXHAUST AIR DUCT
	SECTION THROUGH SUPPLY OR OUTSIDE AIR DUCT
	FIRE / SMOKE DAMPER
	SMOKE DAMPER
	SUPPLY OR OUTSIDE AIR DUCT
	ACCESS DOOR (BOTTOM OR SIDE)
	ACOUSTICALLY LINED DUCT
	FIRE DAMPER, SMOKE DAMPER, FIRE/SMOKE DAMPER
	MANUAL VOLUME DAMPER
	INCLINED DROP IN DIRECTION OF ARROW
	INCLINED RISE IN DIRECTION OF ARROW
	TRANSITION, RECTANGULAR TO ROUND
	FLEXIBLE DUCT
	IN-LINE FAN
	TRANSITION, RECTANGULAR
	SPIN-IN COLLAR INTO ADAPTER ON TOP OF DUCT
	CEILING SUPPLY AIR REGISTER/GRILLE
	SIDEWALL SUPPLY AIR REGISTER (SR)
	ELBOW TURNED DOWN
	ELBOW TURNED UP
	ELBOW, RADIUS TYPE
	ELBOW, SQUARE OR RECTANGULAR TYPE WITH AIRFOIL TURNING VANES
	CEILING RETURN AIR REGISTER (RR)
	SIDEWALL RETURN AIR REGISTER (RR)
	OPEN END DUCT
	FLEXIBLE CONNECTION

LINE DESIGNATION SYMBOLS	
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CA	COMPRESSED AIR
CR	CONDENSER WATER RETURN
CS	CONDENSER WATER SUPPLY
D	DRAIN
HPR	HEAT PUMP RETURN
HPS	HEAT PUMP SUPPLY
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
G	NATURAL GAS
RH	REFRIGERANT HIGH PRESSURE VAPOR
R	REFRIGERANT LIQUID AND VAPOR LINE
RS	REFRIGERANT SUCTION / VAPOR
SMR	SNOWMELT RETURN
SMS	SNOWMELT SUPPLY
V	VENT PIPING

RESPONSIBLE DIVISION:

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
EQUIPMENT	23	23	26	--
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23(1)	26	26(2)	23
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	--
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

SUBSCRIPT FOOTNOTES:

- MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.
- IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23, CONNECT UNDER DIVISION 26.

ABBREVIATIONS:

44" MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE	DIFF DIFFERENTIAL	HR HOUR	PT PRESSURE TRANSMITTER
A AMPS	DISCH DISCHARGE	HT HEIGHT	PTAC PACKAGED TERMINAL AIR CONDITIONER
A.D. ACCESS DOOR	DIV DIVISION	HTR HEATER	PV PLUG VALVE
AAV AIR ADMITTANCE VALVE	DN DOWN	HWR HEATING WATER RETURN	PVC POLYVINYL CHLORIDE
ABV ABOVE	DS DUCT SILENCER	HWS HEATING WATER SUPPLY	QTY QUANTITY
AC AIR CONDITIONING UNIT	DWG DRAWING	HX HEAT EXCHANGER	RA RETURN AIR GRILLE / REGISTER
AC ABOVE COUNTER	DX DIRECT EXPANSION	HZ HERTZ	RCP REFLECTED CEILING PLAN
AD AREA DRAIN (SEE SYMBOLS)	(E) EXISTING	ID INSIDE DIAMETER	RD ROOF DRAIN
A.F.C. ABOVE FINISHED CEILING	EA EXHAUST AIR GRILLE/REGISTER	IG ISOLATED GROUND	REL RELIEF
A.F.G. ABOVE FINISHED GRADE	EAT ENTERING AIR TEMPERATURE	INV INVERT	REQD REQUIRED
AIC AMPERE INTERRUPTING CAPACITY	EC ELECTRICAL CONTRACTOR	JBOX JUNCTION BOX	RF RETURN FAN
A.F.F. ABOVE FINISHED FLOOR	ECC ECCENTRIC	K KELVIN	RH RELATIVE HUMIDITY
AHU AIR HANDLING UNIT	EF EXHAUST FAN	KW KILOWATT	RHC REHEAT COIL
ALUM ALUMINUM	EFF EFFICIENCY	KVA KILO VOLT - AMPS	RLA RATED LOAD AMPS
AP ACCESS PANEL OR DOOR	EL ELEVATION	L LENGTH	RM ROOM
ATS AUTOMATIC TRANSFER SWITCH	ELEC ELECTRIC	LAT LEAVING AIR TEMPERATURE	RPM REVOLUTIONS PER MINUTE
AV AUDIO / VIDEO	ELEV ELEVATOR	LV LAVATORY	SA SUPPLY AIR GRILLE / REGISTER
AVG AVERAGE	EM EMERGENCY FUNCTION	LB POUND	SC SHORT CIRCUIT
AWG AMERICAN WIRE GAGE	ENT ENTERING	LD LINEAR DIFFUSER	SCA SHORT CIRCUIT AVAILABLE
BAS BUILDING AUTOMATION SYSTEM	EMT ELECTRIC METALLIC TUBE	LF LINEAR FEET	SCCR SHORT CIRCUIT CURRENT RATING
BB BASEBOARD	EQ EQUAL	LIN LINEAR	SCH SCHEDULE
BD BACK DRAFT DAMPER	EQUIP EQUIPMENT	LIQ LIQUID	SD SMOKE DAMPER
BFP BACK FLOW PREVENTOR	EQUIV EQUIVALENT	LM LUMEN	SEF SMOKE EXHAUST FAN
BL BOILER	ES END SWITCH	LRA LOCKED ROTOR AMPS	SF SUPPLY FAN
BLDG BUILDING	ESP EXTERNAL STATIC PRESSURE	LV LOUVER	SH SENSIBLE HEAT
BLW BELOW	ET EXPANSION TANK	LVG LEAVING	SH SHOWER
BOB BOTTOM OF BEAM	EWC ELECTRIC WATER COOLER	LWT LEAVING WATER TEMPERATURE	SP STATIC PRESSURE
BOD BOTTOM OF DUCT	EWV ENTERING WATER TEMPERATURE	MBH THOUSANDS OF BTU PER HOUR	SPD SURGE PROTECTION DEVICE
BOP BOTTOM OF PIPE	EX EXHAUST	MC MECHANICAL CONTRACTOR	SPEC SPECIFICATION
BSMT BASEMENT	EXPAN EXPANSION	MCA MINIMUM CIRCUIT AMPACITY	SQ SQUARE
BTU BRITISH THERMAL UNIT	EXT EXTERNAL	MCB MAIN CIRCUIT BREAKER	SS STAINLESS STEEL
C CHILLER	F DEGREES FAHRENHEIT	MD MOTORIZED DAMPER	SS SAFETY SHOWER
C CAPACITY	FA FREE AREA	MDP MAIN DISTRIBUTION PANEL	STD STANDARD
CB CIRCUIT BREAKER	FC FAN COIL UNIT	MED MEDIUM	STL STEEL
CBV CIRCUIT BALANCING VALVE	FOOTCANDLE	MFR MANUFACTURER	SYS SYSTEM
CCT CORRELATED COLOR TEMPERATURE	FCV FLOW CONTROL VALVE	MIN MINIMUM	TEMP TEMPERATURE
CKT CIRCUIT	FD FIRE DAMPER	MISC MISCELLANEOUS	TR TRANSFER GRILLE / REGISTER
CFM CUBIC FEET PER HOUR	FD FLOOR DRAIN	MLO MAIN LUG ONLY	TR TAMPER RESISTANT
CFM CUBIC FEET PER MINUTE	FIN FINISHED	MOCP MAXIMUM OVERCURRENT PROTECTION	TT TEMPERATURE TRANSMITTER
CHWR CHILLED WATER RETURN	FLA FULL LOAD AMPS	MTD MOUNTED	TB TELECOMMUNICATIONS TERMINAL BACKBOARD
CHWS CHILLED WATER SUPPLY	FLEX FLEXIBLE	MUA MAKE-UP AIR UNIT	TYP TYPICAL
CI CAST IRON	FLR FLOOR	N NEUTRAL	TX TRANSFORMER
CL CENTER LINE	FOB FLAT ON BOTTOM	NC NORMALLY CLOSED	UC UNDERCUT DOOR
CLG CEILING	FOT FLAT ON TOP	NEG NEGATIVE	UH UNIT HEATER
CMU CONCRETE MASONRY UNIT	FP FIRE PROTECTION	NIC NOT IN CONTRACT	UNO UNLESS NOTED OTHERWISE
CO CLEAN OUT	FP FIRE PUMP	NL NIGHT / SECURITY LIGHT - DO NOT SWITCH	UNOCC UNOCCUPIED
COL COLUMN	FPM FEET PER MINUTE	NO NORMALLY OPEN	UR URINAL
COMP COMPRESSOR	FPS FEET PER SECOND	NOM NOMINAL	V VOLTS
CONC CONCRETE	FS FLOW SWITCH	NTS NOT TO SCALE	VA VOLT AMPERE
COND CONDENSATE	FSD FIRE/SMOKE DAMPER	OA OUTSIDE AIR	VA VALVE
CONN CONNECTION	FT FEET	OBD OPPOSED BLADE DAMPER	VAV VARIABLE AIR VOLUME UNIT
CONT CONTINUATION	GND GROUND	OC ON CENTER	VFD VARIABLE FREQUENCY DRIVE
CONTR CONTRACTOR	GA GAUGE	OCC OCCUPIED	VRF VARIABLE REFRIGERANT FLOW
CRI COLOR RENDERING INDEX	GAL GALLON	OCP OVER CURRENT PROTECTION	VOLT VOLTAGE
CT COOLING TOWER	GALV GALVANIZED	OD OUTSIDE DIAMETER	VTR VENT THROUGH ROOF
CT CURRENT TRANSFORMER	GEC GROUND ELECTRODE CONDUCTOR	OL OVERLOAD	W WIDTH
CU CONDENSING UNIT	GFCI / GFI GROUND FAULT CIRCUIT INTERRUPTER	ORD OVERFLOW ROOF DRAIN	W WATTS
CU COPPER	GC GENERAL CONTRACTOR	OZ OUNCE	W/ WITH
CUH CABINET UNIT HEATER	GPH GALLONS PER HOUR	PBD PARALLEL BLADE DAMPER	W/O WITHOUT
CVB CONSTANT VOLUME BOX	GPM GALLONS PER MINUTE	PD PRESSURE DROP	WB WET BULB
CWR CONDENSER WATER RETURN	GRS/LB GRAINS PER POUND	PH PHASE	WC WATER COLUMN
CWS CONDENSER WATER SUPPLY	H2O WATER	POS POSITIVE PRESSURE	WC WATER CLOSET
DB DRY BULB	HB HOSE BIBB	POS POINT OF SALES	WG WATER GAUGE
DEPT DEPARTMENT	HD HEAD (SEE SCHEDULES)	PRV PRESSURE REDUCING VALVE	WP WEATHERPROOF
DF DRINKING FOUNTAIN	HP HEAT PUMP	PS PRESSURE SWITCH	WPIU WEATHERPROOF IN-USE
DIA DIAMETER	HP HORSEPOWER	PSI POUNDS PER SQUARE INCH	WSR WITHSTAND RATING
DIAG DIAGRAM			XFMR TRANSFORMER

SUBSTITUTIONS:

A. SUBSTITUTIONS: SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS.

EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS:

- EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS.
- EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME.
- DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS.
- THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL PLUMBING CODES AND THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS.
- WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.



915 S. Tenth St.
Montrose, CO 81401
p: (970) 249-1980
www.moleycarc.com

STAMP
© Motley Architecture & Design

Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Mechanical
Cover Sheet

SHEET NAME

M0-1
SHEET NUMBER

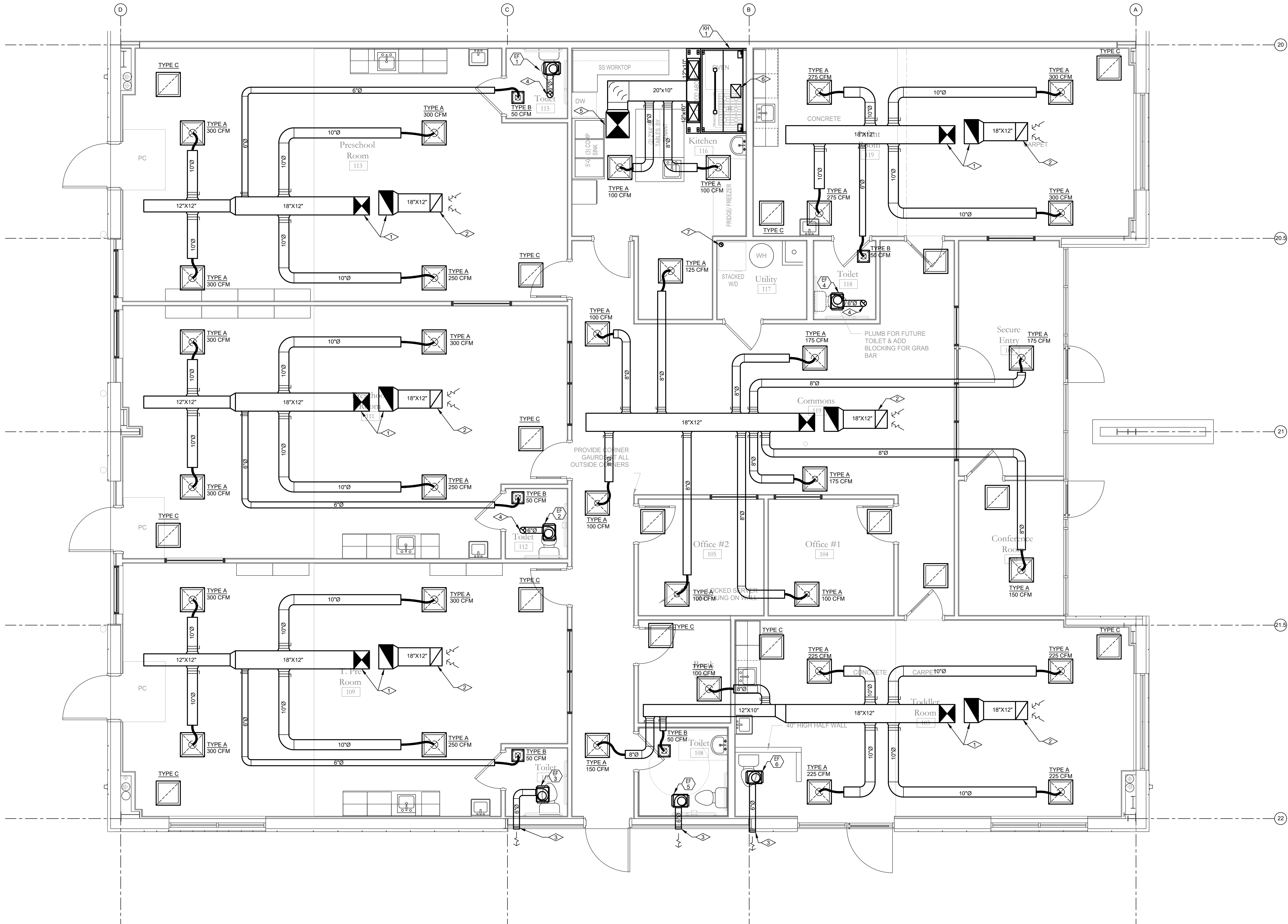
Bright Beginnings at Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Mechanical
Floor Plan

SHEET NAME

M1-1
SHEET NUMBER

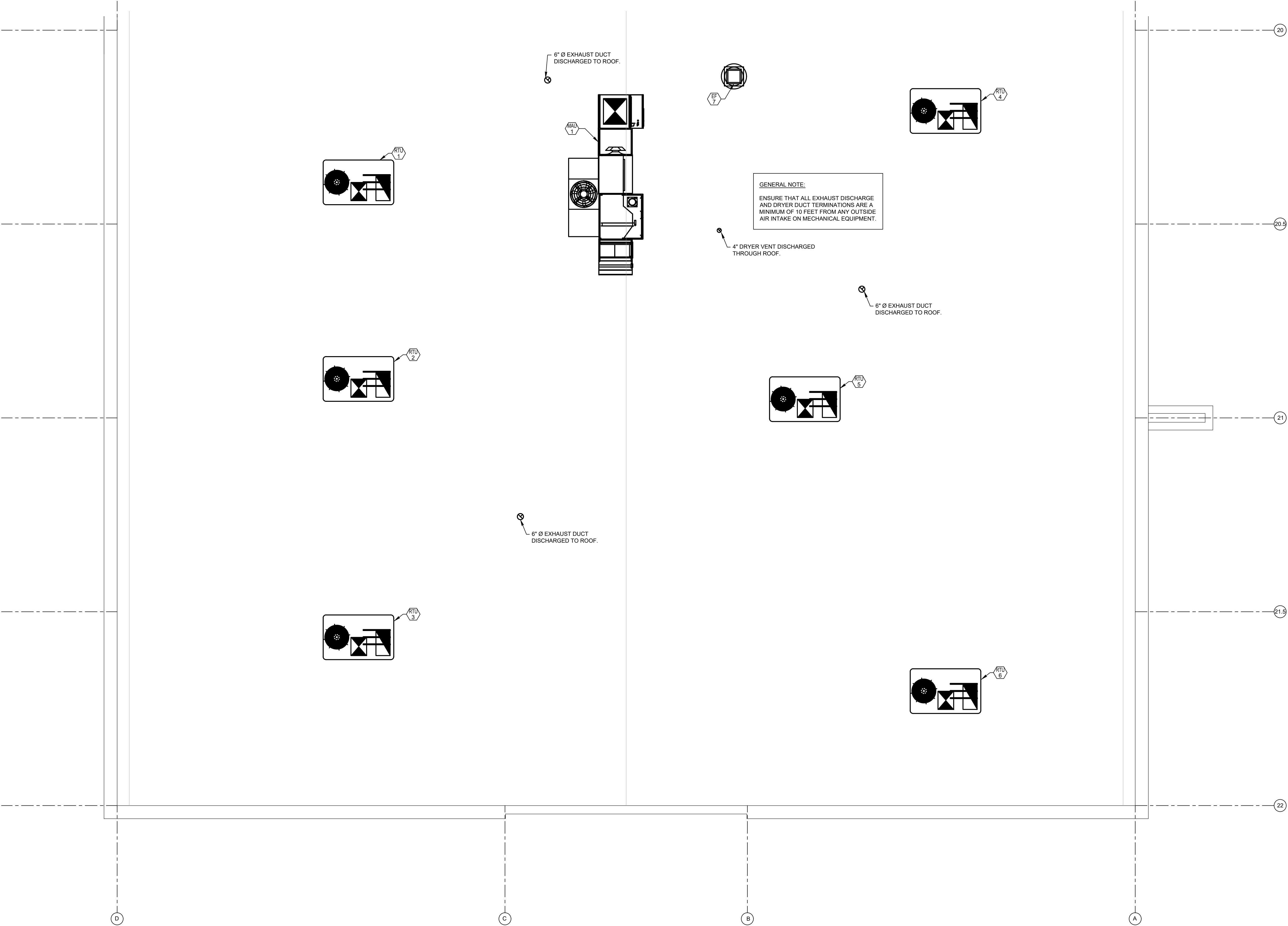


- MECHANICAL FLAG NOTES:
- 1 SUPPLY AND RETURN DUCT DOWN FROM ROOFTOP UNIT. COORDINATE WITH STRUCTURE.
 - 2 RETURN DUCT TO OPEN END IN PLENUM. SEE DETAIL ON SHEET M2-1 FOR MORE INFORMATION.
 - 3 EXHAUST DUCT TO EXTERIOR WALL. PROVIDE WITH BACKDRAFT DAMPER AND WALL CAP. CONTRACTOR TO FIELD COORDINATE EXACT DISCHARGE LOCATION AND MAINTAIN CODE REQUIRED CLEARANCES FROM BUILDING OPENINGS AND MECHANICAL AIR INTAKES.
 - 4 EXHAUST DUCT TO ROOF. PROVIDE WITH BACKDRAFT DAMPER AND WALL CAP. CONTRACTOR TO FIELD COORDINATE EXACT DISCHARGE LOCATION AND MAINTAIN CODE REQUIRED CLEARANCES FROM BUILDING OPENINGS AND MECHANICAL AIR INTAKES.
 - 5 SUPPLY DUCT DOWN FROM MAKEUP AIR UNIT. COORDINATE WITH STRUCTURE.
 - 6 GREASE DUCT FROM KITCHEN HOOD TO EF-7 ON ROOF. PROVIDE WITH CLEANOUTS. KITCHEN HOOD BY OTHERS. COORDINATE CONNECTIONS. REFER TO DETAIL ON M2-1 FOR MORE INFORMATION.
 - 7 4" DRYER VENT TO ROOF. MAINTAIN ALL CODE REQUIRED CLEARANCES FROM MECHANICAL AIR INTAKES. DUCT NOT TO EXCEED MAXIMUM LENGTH ALLOWED BY MANUFACTURER.



MECHANICAL - FLOOR PLAN

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



Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023

PHASE: FOR CONSTRUCTION

ISSUE: C

ISSUE DATE: 4/21/2022

Mechanical
Roof Plan

SHEET NAME

M1-2

SHEET NUMBER

MECHANICAL PROVISIONS

1. SCOPE OF WORK

- A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
- C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY EFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.
- D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED EQUAL" BY THE ENGINEER OR ARCHITECT.

2. PERMITS

- A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

- A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. FLEXIBLE DUCT WORK

- A. FLEXIBLE TYPE DUCT SHALL BE OF TWO ELEMENT SPIRAL CONSTRUCTION COMPOSED OF A CORROSION RESISTANT METAL SUPPORTING SPIRAL AND COATED FABRIC WITH A MINERAL BASE. FLEXIBLE DUCT CONNECTORS SHALL BE LISTED BY U.L., CLASS 1 DUCTS, AND SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50.
- B. USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO NO MORE THAN 6 LINEAR FEET PER RUN.
- C. CONTRACTOR SHALL BE CAREFUL SO AS NOT TO KINK OR COLLAPSE FLEXIBLE DUCT.

5. REFRIGERANT

- A. PIPING CONTRACTOR SHALL PROVIDE AND INSTALL REFRIGERANT PIPING IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND IN SUCH A WAY AS TO BE INCONSPICUOUS AND FREE FROM ANY POSSIBLE CONDENSATION.
- B. INSULATE REFRIGERANT LINES WITH ARMOUR-FLEX TYPE INSULATION, SHALL BE TYPE "K" COPPER TUBING, WITH WROUGHT COPPER SOLDER TYPE FITTINGS SUITABLE FOR CONNECTION WITH SILVER SOLDER

6. DUCTWORK

- A. THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE "SMACNA" APPLICABLE MANUALS.
- B. ALL DUCTWORK SHALL BE THE LOW VELOCITY TYPE, UNLESS SPECIFIED OTHERWISE.
- C. CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, OR AS OTHERWISE SHOWN ON DRAWINGS.
- D. ALL BRANCH DUCTS TO HAVE VOLUME DAMPERS. SMOOTH TURN RADIUS DUCTWORK OR TURNING VANES SHALL BE USED THROUGHOUT WHERE FLOW EXCEEDS 150 CFM.
- E. ALL DUCT JOINTS TO BE SEALED IN ACCORDANCE WITH "SMACNA" STANDARDS AND ACCEPTED GOOD PRACTICE.
- F. ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED SO LONG AS THE NET FREE FACE AREA IS MAINTAINED.
- G. ALL CONCEALED DUCTWORK SHALL BE INSULATED WITH 1-1/2" FIBERGLASS INSULATING BLANKET WITH ALUMINUM FOIL FACING.
- H. ALL SUPPLY AND RETURN DUCTWORK 15 FEET DOWNSTREAM OF THE HVAC UNIT SHALL BE INTERNALLY LINED WITH A 1/2" ACOUSTICAL DUCT LINER UNLESS OTHERWISE NOTED ON THE DRAWINGS.

7. DRAINAGE PIPING

- A. (CONDENSATE) SHALL BE SCHEDULE 40 PVC PIPE WITH SOLVENT JOINTS. PITCH HORIZONTAL LINES 1" IN 10'-0". CONDENSATE DRAINS SHALL BE ROUTED TO FLOOR DRAIN, ROOF DRAIN OR INDIRECT WASTE DRAIN.

8. HVAC CONTROLS

- A. CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.

9. ELECTRICAL

- A. CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF WIRING FOR EACH HVAC UNIT.

10. PIPE SUPPORTS

- A. ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE OR METAL STRAP TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL NOT EXCEED 8 FEET FOR ALL PIPING. PLASTIC PIPING TO BE SUPPORTED EVERY 4 FEET.

11. GAS PIPING

- A. PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH MALLEABLE IRON FITTINGS.
- WHERE GAS PIPE CONNECTS TO EQUIPMENT, IT SHALL BE PROVIDED WITH A DRIP LEG THE FULL SIZE OF THE RUNOUT. A 100% SHUT-OFF VALVE AND A UNION. GAS PIPING CONTAINING PRESSURE GREATER THAN 9" W.G. SHALL BE SCHEDULE 40 BLACK STEEL PIPE WITH WELDED JOINTS.

12. MISCELLANEOUS

- A. ALL EXTERIOR OPENINGS TO BE PROPERLY CAULKED AND SEALED WITH A SEALANT OF HIGH QUALITY AND LONG LIFE. TO PREVENT INFILTRATION OF OUTSIDE AIR INTO CONDITIONED SPACE.
- B. COORDINATE INSTALLATION OF ALL ROOF FLASHING AT ROOF PENETRATION.
- C. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS.
- D. VERIFY ALL FIGURES, CONDITIONS, AND DIMENSIONS AT THE JOB SITE.
- E. THE MECHANICAL PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT.
- F. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT IN THE AVAILABLE SPACE.
- G. PEX TUBING, IF PEX TUBING IS USED AS AN APPROVED ALTERNATE FOR APPLICATIONS WHERE METALLIC PIPING IS THE BASIS OF DESIGN. THE PEX MANUFACTURER SHALL SUBMIT SHOP DRAWINGS CLEARLY INDICATING THAT THE DESIGN HAS BEEN ANALYZED AND MODIFIED, AS REQUIRED TO MAINTAIN SCHEDULED HYDRONIC SYSTEM PARAMETERS. ANY DESIGN RESULTING IN INCREASED SYSTEM PRESSURE DROP AS A RESULT OF IMPROPER PEX SIZING OR DESIGN SHALL NOT BE PERMITTED.

13. TESTING AND BALANCING

- A. THE HVAC SYSTEM SHALL BE TESTED AND BALANCED BY AN INDEPENDENT AGENCY, UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER. A SEALED TYPE WRITTEN REPORT SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.

14. GUARANTEE

- A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE(1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
- B. FOR THE SAME PERIOD, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

ROOFTOP AIR HANDLING UNIT SCHEDULE																
EQUIPMENT NO.	SERVICE	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	E.S.P. (IN. W.G.)	COOLING	HEATING			FILTERS	FAN MOTOR POWER (HP)	ELECTRICAL			UNIT WEIGHT (LBS.)	MANUFACTURER & MODEL	OPTIONS /ACCESSORIES
					NOM. (TONS)	GAS (CFH)	INPUT (MBH)	OUTPUT (MBH)			V./PH./HZ.	MCA (A)	MOCP (A)			
RTU-1	Preschool Room 113	1,200	360	0.75	3	129.9	60-80-100	48-64-80	2" MERV 8	3/4	460/3/60	7	15	615	TRANE - YZC036E3RV	NOTE-1
RTU-2	Preschool Room 111	1,200	360	0.75	3	129.9	60-80-100	48-64-80	2" MERV 8	3/4	460/3/60	7	15	615	TRANE - YZC036E3RV	NOTE-1
RTU-3	T. Pre Room 109	1,200	360	0.75	3	129.9	60-80-100	48-64-80	2" MERV 8	3/4	460/3/60	7	15	615	TRANE - YZC036E3RV	NOTE-1
RTU-4	Infant Room 119	1,200	360	0.75	3	129.9	60-80-100	48-64-80	2" MERV 8	3/4	460/3/60	7	15	615	TRANE - YZC036E3RV	NOTE-1
RTU-5	Commons 118	1,200	360	0.75	3	129.9	60-80-100	48-64-80	2" MERV 8	3/4	460/3/60	7	15	615	TRANE - YZC036E3RV	NOTE-1
RTU-6	Toddler Room 103	1,200	360	0.75	3	129.9	60-80-100	48-64-80	2" MERV 8	3/4	460/3/60	7	15	615	TRANE - YZC036E3RV	NOTE-1

NOTE:

1. PROVIDE WITH VIBRATION ISOLATION ROOF CURB, COIL GUARDS, 100% MODULATING ECONOMIZER, MODULATING GAS FURNACE SECTION, BAROMETRIC RELIEF VENT, FACTORY UNITARY CONTROLS, HIGH ALTITUDE KIT, POWERED CONVENIENCE OUTLET AND CO2 DEMAND CONTROLLED VENTILATION SENSOR AND SEQUENCE. UNIT IS TO BE A SINGLE ZONE VAV, E-FLEX HIGH EFFICIENCY UNIT.

OUTDOOR GAS FIRED MAKE-UP AIR UNIT SCHEDULE															
EQUIPMENT NO.	SERVICE	SUPPLY AIR (CFM)	E.S.P.(IN. W.G.)	COOLING CAPACITY (MBH)	HEATING SECTION			ELECTRIC			MANUFACTURER & MODEL		OPTIONS/ACCESSORIES		
					INPUT (MBH)	OUTPUT (MBH)	CFH	A.F.U.E.	HP	RPM					
MAU-1	KITCHEN HOOD	1300	0.5	50.0	82.1	65.7	106.6	80%	3/4	1725	460/60/3	13.6	20	GREENHECK IGX-P112-H12-MF-5-C	NOTE-1

NOTE:
1. PROVIDE HIGH ALTITUDE KIT SIZED PER LOCATION ELEVATION, MERV 8 FILTERS, DX COOLING COIL, INDIRECT GAS FURNACE SECTION, FREEZE PROTECTION CONTROLS, VFD FAN MOTOR, VERTICAL STACK VENT, ROOM THERMOSTAT, ROOF CURB. UNIT TO BE CONFIGURED FOR END INTAKE, DOWN DISCHARGE.

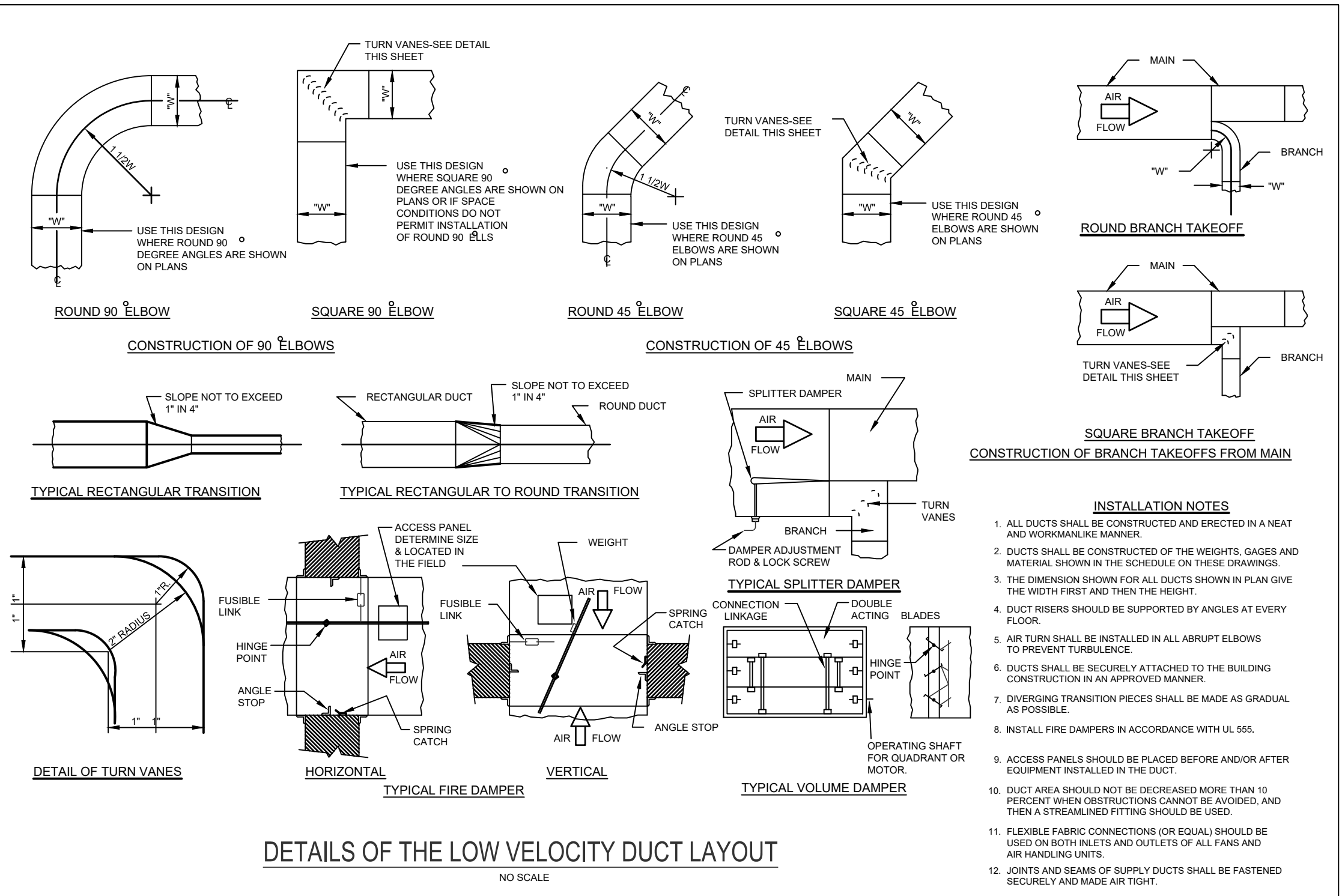
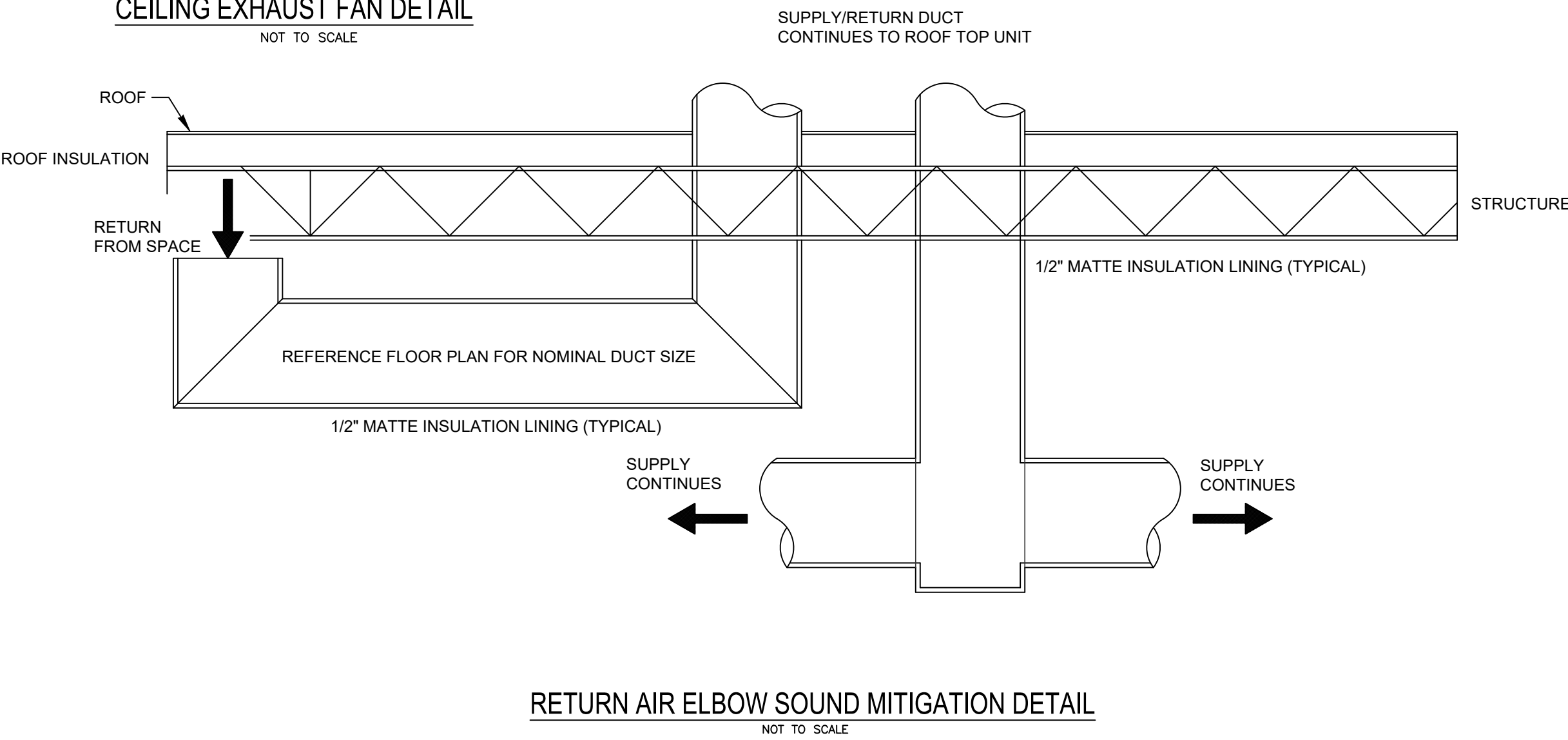
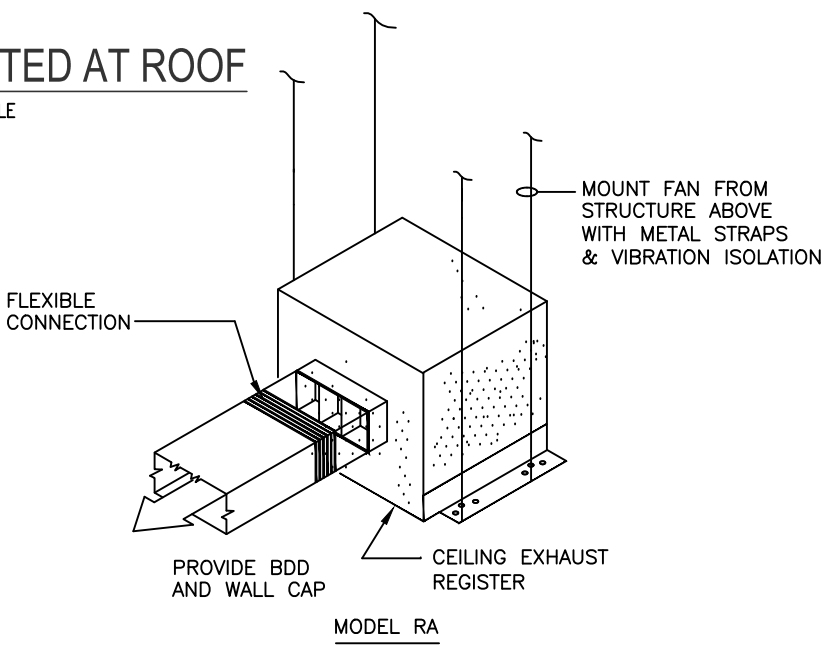
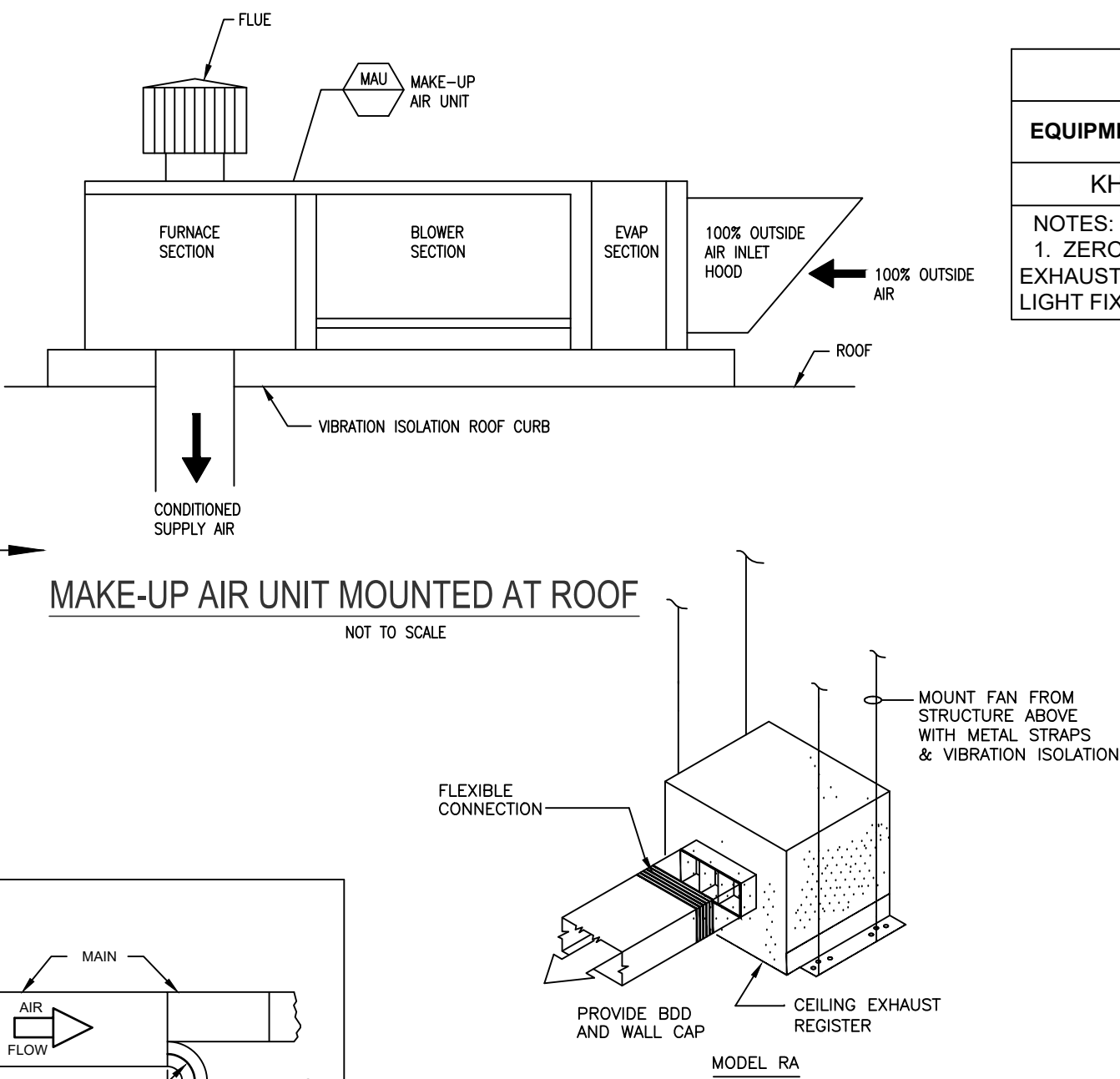
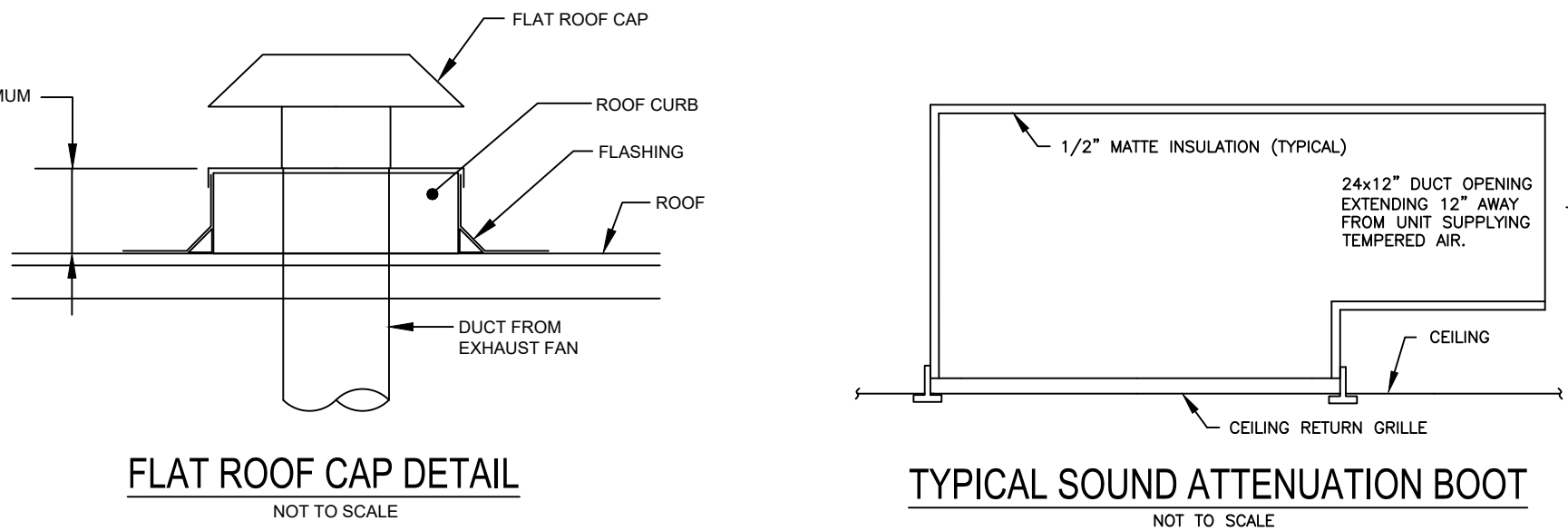
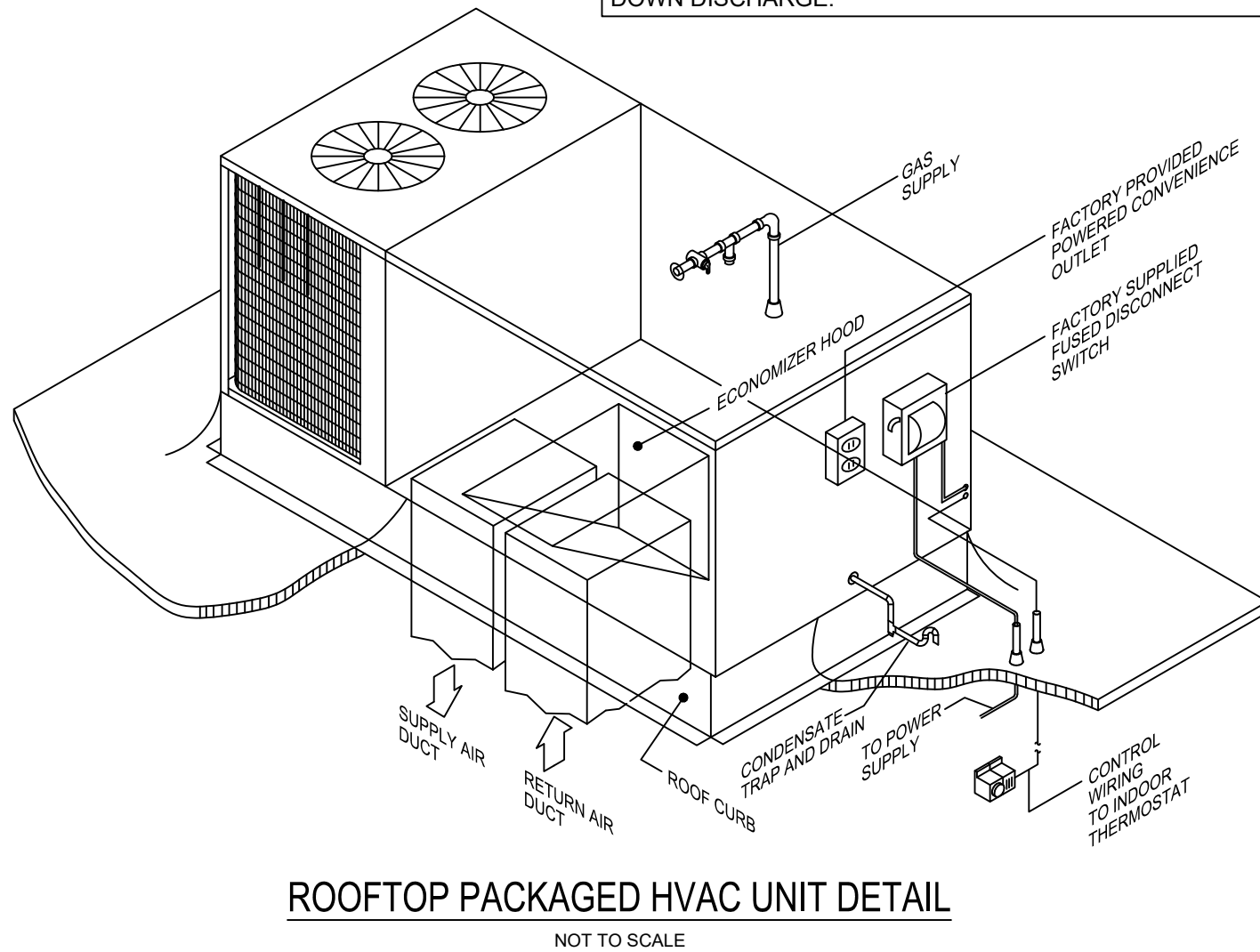
EXHAUST FAN SCHEDULE											
EQUIPMENT NO.	SERVICE	LOCATION	CFM	E.S.P. (IN. W.G.)	MOTOR				MANUFACTURER & MODEL	OPTIONS/ACCESSORIES	
					WATTS	HP	RPM	VOLT/PH/HZ			
EF-1	RESTROOM EXHAUST	CEILING	50-80	0.25	9.6	-	1113	120/1/60	PANASONIC - FV-0511VK2	NOTE-1	
EF-2	RESTROOM EXHAUST	CEILING	50-80	0.25	9.6	-	1113	120/1/60	PANASONIC - FV-0511VK2	NOTE-1	
EF-3	RESTROOM EXHAUST	CEILING	50-80	0.25	9.6	-	1113	120/1/60	PANASONIC - FV-0511VK2	NOTE-1	
EF-4	RESTROOM EXHAUST	CEILING	50-80	0.25	9.6	-	1113	120/1/60	PANASONIC - FV-0511VK2	NOTE-1	
EF-5	RESTROOM EXHAUST	CEILING	50-80	0.25	9.6	-	1113	120/1/60	PANASONIC - FV-0511VK2	NOTE-1	
EF-6	RESTROOM EXHAUST	CEILING	50-80	0.25	9.6	-	1113	120/1/60	PANASONIC - FV-0511VK2	NOTE-1	
EF-7	KITCHEN HOOD	ROOF	1379	0.65	-	1/2	1506	120/1/60	GREENHECK CUE-120-VG	NOTE-2	
NOTES: 1. PROVIDE WITH CEILING MOUNTING KIT, BACKDRAFT DAMPER, WALL SWITCH, AND SPEED CONTROLLER. 2. PROVIDE WITH MOTOR STARTER, POWER DISCONNECT, AND BELT DRIVEN VFD MOTOR. INTERLOCK WITH KITCHEN HOOD AND MAU-1.											

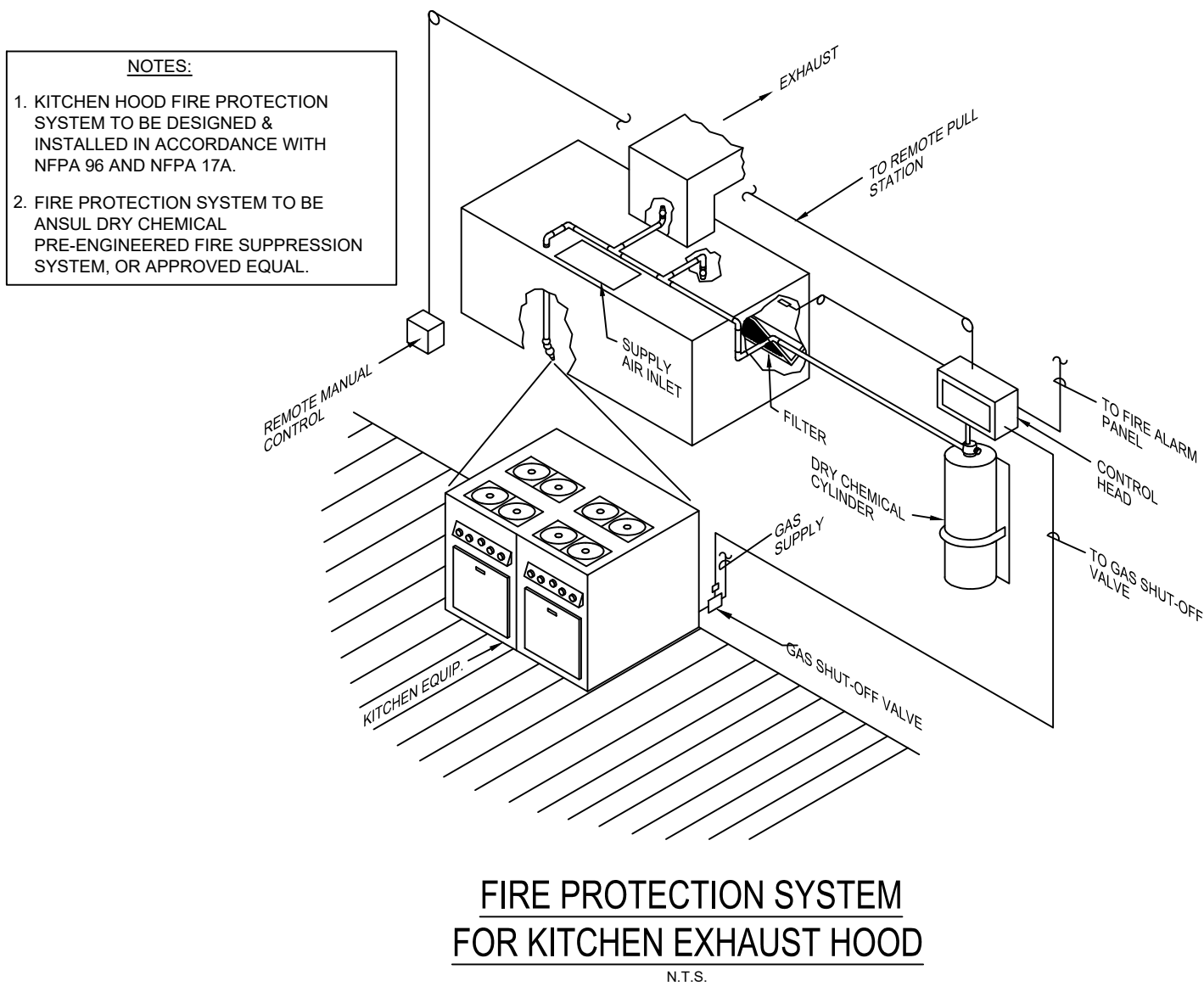
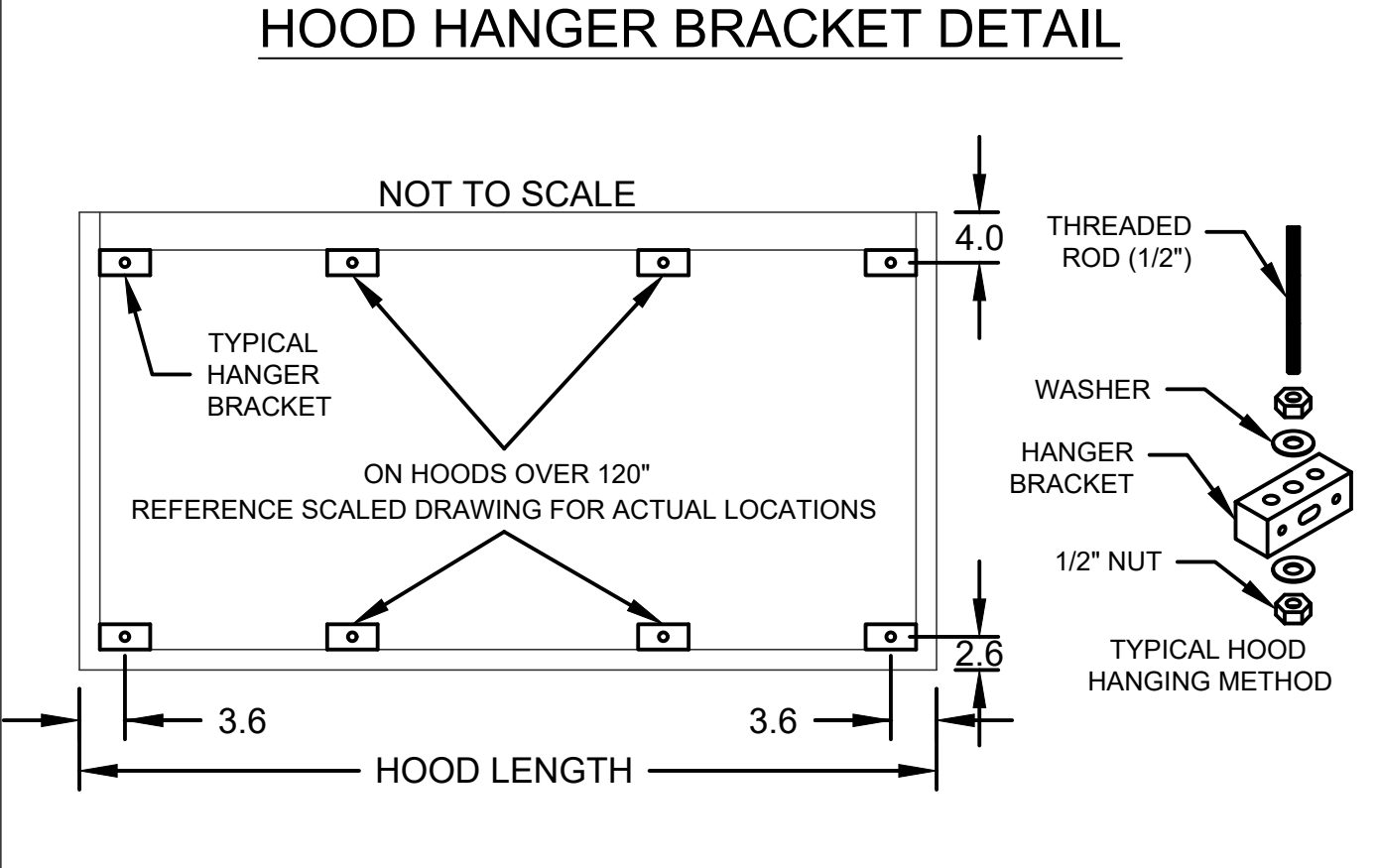
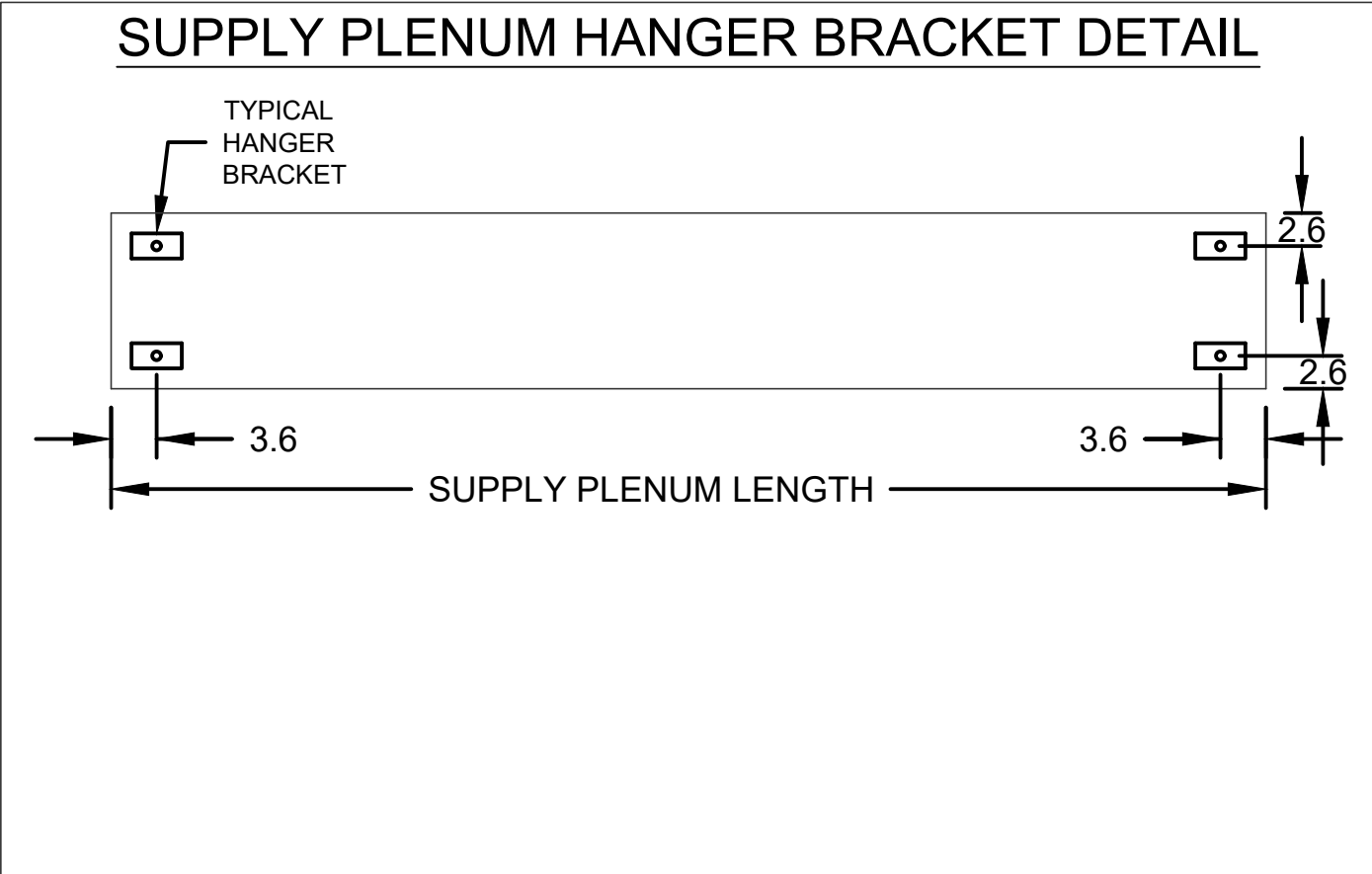
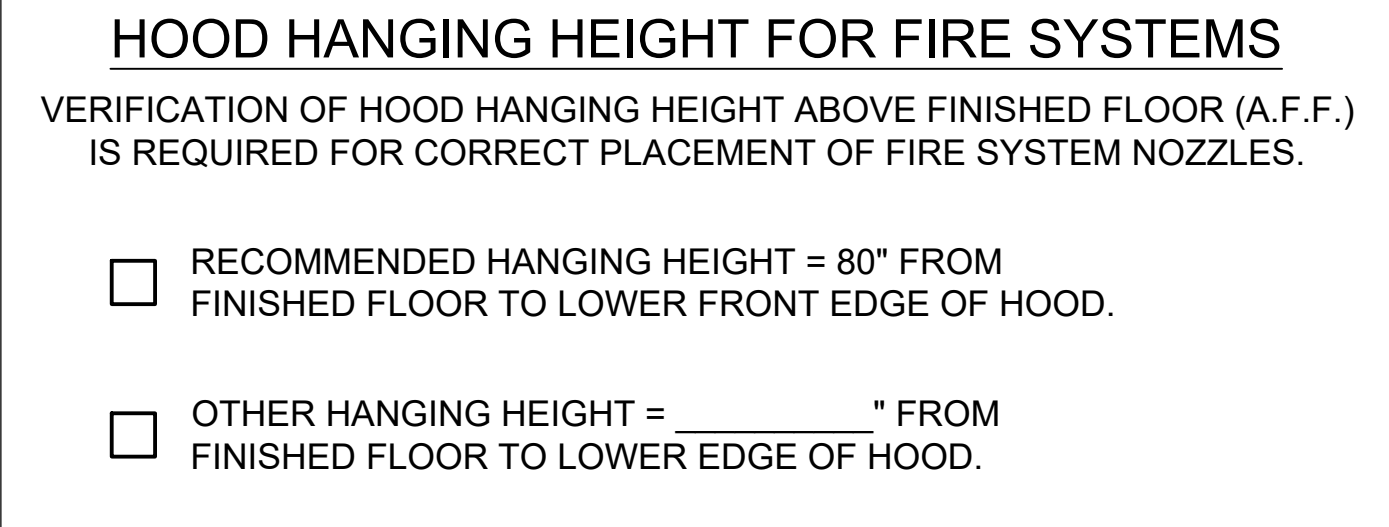
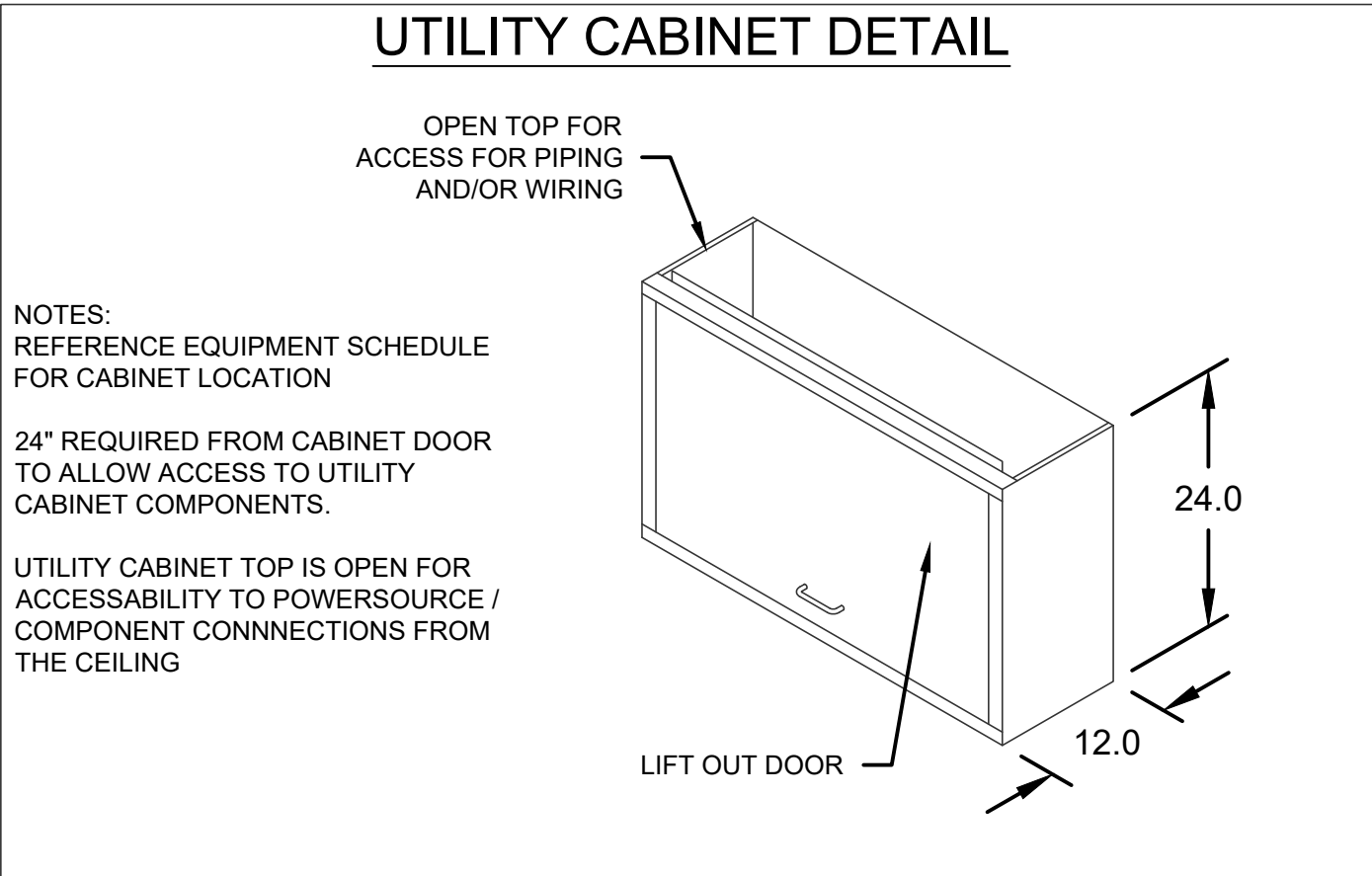
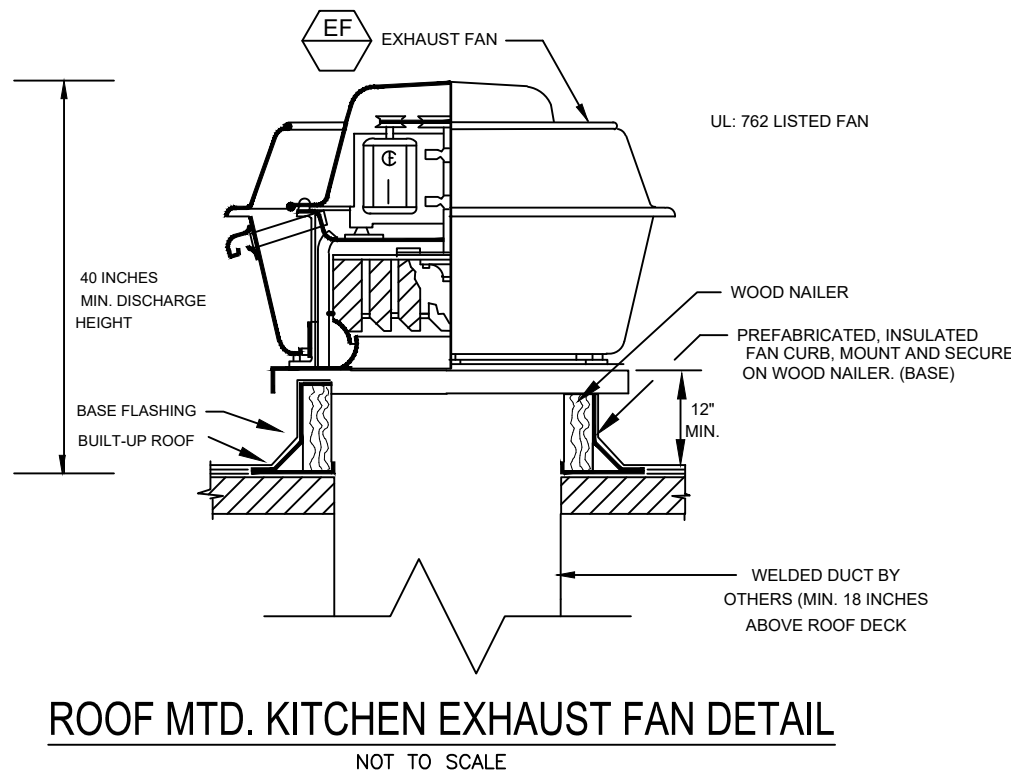
INTAKE AND RELIEF HOOD SCHEDULE					
EQUIPMENT NO.	HOOD LENGTH	HOOD WIDTH	TYPE	MANUFACTURER & MODEL	OPTIONS/ACCESSORIES
KH-1	84"	44"	1	GREENHECK - GHEW-84-S	NOTE-1

NOTES:
1. ZERO CLEARANCE HOOD ON BACK AND LEFT SIDE. PROVIDE WITH WALL UTILITY CABINET, FACTORY MOUNTED EXHAUST COLLAR, HANGER BRACKETS, INTEGRAL SUPPLY PLENUM, STAINLESS STEEL BAFFLE FILTER, UL LISTED LIGHT FIXTURES AND PERFORMANCE ENHANCING LIP.

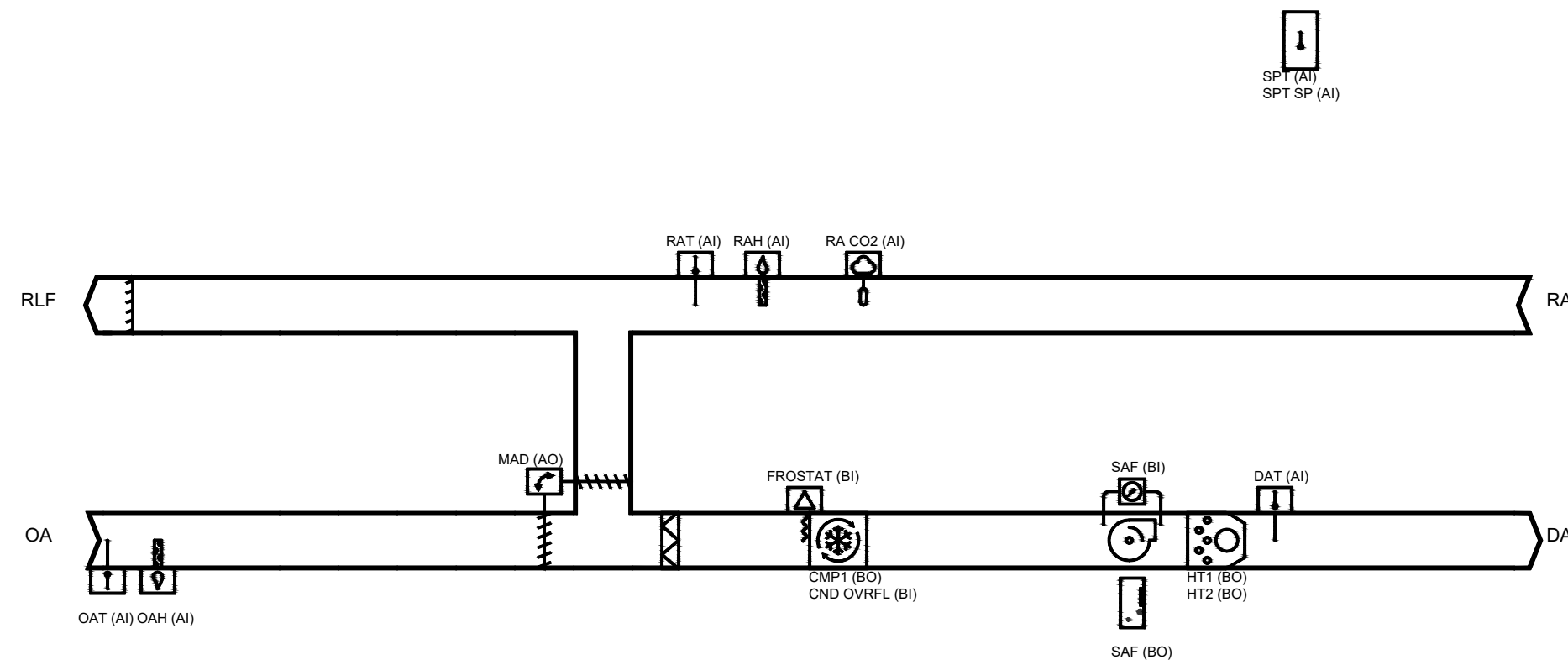
GRILLE-REGISTER-DIFFUSER SCHEDULE						
EQUIPMENT NO.	SIZE	MODEL	MANUFACTURER	FINISH	OPTIONS/ACCESSORIES	
A	24"X24"	SPD	PRICE	WHITE	NOTE-1	
B	12"X12"	SPD	PRICE	WHITE	NOTE-1	
C	24"X24"	80	PRICE	WHITE	NOTE-2	

NOTES:
1. SQUARE PLAQUE DIFFUSER. COORDINATE MOUNTING WITH CEILING. PROVIDE WITH OBD.
2. EGGCRATE RETURN GRILLE. COORDINATE MOUNTING WITH CEILING. PROVIDE WITH SOUND ATTENUATION BOOT. FINAL COLOR SELECTION BY ARCHITECT.





Flow Diagram: PACKAGED RTU [QTY: 6]



Sequence of Operation: PACKAGED RTU [QTY: 6]

Building Automation System Interface:

The Building Automation System (BAS) shall send the controller Occupied Bypass, Morning Warm-up/Pre-Cool, Occupied/Unoccupied and Heat/Cool modes. If a BAS is not present, or communication is lost with the BAS the controller shall operate using default modes and setpoints.

Occupied:

During occupied periods, the supply fan shall run continuously and the mixed air dampers shall open to maintain minimum ventilation requirements. Upon a call for DX cooling, the unit controller shall enable the fixed speed compressor. The compressor shall be cycled on and off to maintain the active space temperature setpoint. If economizing is enabled, the outdoor air or mixed air dampers shall modulate to maintain the discharge air temperature setpoint and the relief air dampers shall track the mixed air dampers. The discharge air temperature setpoint shall be dynamically reset based on the deviation of actual space temperature from the active space temperature setpoint. If the discharge air temperature sensor fails, the DX cooling and the gas heat shall control to maintain the active space temperature setpoint and an alarm shall annunciate at the BAS. If the discharge air temperature sensor and the space temperature sensor fail, the DX cooling shall be disabled, the gas heat shall be disabled, and an alarm shall annunciate at the BAS.

Unoccupied:

When the space temperature is below the unoccupied heating setpoint of 60.0 deg. F (adj.) the supply fan shall be commanded on, the outside air damper shall remain closed and the gas heat shall be enabled. When the space temperature rises above the unoccupied heating setpoint of 60.0 deg. F (adj.) plus the unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop and the gas heat shall be disabled. When the space temperature is above the unoccupied cooling setpoint of 85.0 deg. F (adj.) the supply fan shall be commanded on, the outside air damper shall open if economizing is enabled and remain closed if economizing is disabled and the DX cooling shall be enabled. When the space temperature falls below the unoccupied cooling setpoint of 85.0 deg. F minus the Unoccupied differential of 4.0 deg. F (adj.) the supply fan shall stop, the DX cooling shall be disabled and the outside air damper shall close.

Optimal Start:

The BAS shall monitor the scheduled occupied time, occupied space setpoints and space temperature to calculate when the optimal start occurs

Morning Warm-Up Mode:

During optimal start, if the space temperature is below the occupied heating setpoint a morning warm-up mode shall be activated. When morning warm-up is initiated the unit shall enable the heating and fan(s). The outside air damper shall remain closed. When the space temperature reaches the occupied heating setpoint (adj.), the unit shall transition to the occupied mode.

Pre-Cool Mode:

During optimal start, if the space temperature is above the occupied cooling setpoint, pre-cool mode shall be activated. When pre-cool is initiated the unit shall enable the fan and cooling or economizer. The outside air damper shall remain closed, unless economizing. When the space temperature reaches occupied cooling setpoint (adj.), the unit shall transition to the occupied mode.

Optimal Stop:

The BAS shall monitor the scheduled unoccupied time, occupied setpoints and space temperature to calculate when the optimal stop occurs. When the optimal stop mode is active the unit controller shall maintain the space temperature to the space temperature offset setpoint. Outside air damper shall remain enabled to provide minimum ventilation.

Occupied Bypass:

The BAS shall monitor the status of the ON and CANCEL buttons of the space temperature sensor. When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoints (adj.).

Heat/Cool Mode:

When the space temperature rises above the occupied cooling setpoint the mode shall transition to cooling. When the space temperature falls below the occupied heating setpoint the mode shall transition to heating. When the space temperature is above the occupied cooling setpoint or below the occupied heating setpoint the mode shall remain in its last state. If the space temperature sensor fails the mode shall remain in its last state and an alarm shall annunciate at the BAS. If the local and communicated setpoints fail the controller shall disable the supply fan and an alarm shall annunciate at the BAS.

Economizer:

ENABLE (Comparative Enthalpy): Outside air (OA) enthalpy shall be compared with Return air (RA) enthalpy point. The economizer shall enable when OA enthalpy is less than RA enthalpy - 2.0 BTU/LB. The economizer shall disable when OA enthalpy is greater than RA enthalpy.

OPERATION: The unit shall measure the bulb supply air temperature and dry bulb outdoor air temperature and economizer shall be enabled when the outdoor air temperature is below the dry bulb change over setpoint. When economizing is enabled and the unit is operating in the cooling mode, the economizer damper shall be modulated between its minimum position and 100% to maintain the discharge air temperature setpoint. The economizer damper shall modulate toward minimum position in the event the discharge air temperature falls below the discharge low limit temperature setpoint. Compressors shall be delayed from operating until the economizer has opened to 100%.

Demand Control Ventilation (DCV):

If the return air CO2 level is greater than or equal to the Design Minimum CO2 Setpoint, the outdoor air damper shall open to the Design Minimum Outdoor Air Damper Setpoint. If there is a call for economizer cooling, the damper may be opened further to satisfy the cooling request.

If the return air CO2 level is less than or equal to the DCV Minimum CO2 Setpoint, the outdoor air damper shall close to the DCV Minimum Outdoor Air Damper Setpoint. If there is a call for economizer cooling, the damper may be opened further to satisfy the cooling request.

If the return air CO2 level is greater than the DCV Minimum CO2 Setpoint and less than the Design Minimum CO2 Setpoint, the outdoor air damper position shall be modulated proportionally to the space CO2 level relative to a target position between the DCV Minimum CO2 Setpoint and the Design Minimum CO2 Setpoint. If there is a call for economizer cooling, the damper may be opened further to satisfy the cooling request.

Supply Fan:

The supply fan shall be enabled while in the occupied mode and cycled on during the unoccupied mode.

Relief Air and Building Pressure Control:

The barometric relief dampers shall open with increased building pressure. As the building pressure increases, the pressure in the unit return section also increases opening the dampers and relieving air.

Filter Timer:

The fan-run time (hrs) shall be compared to the filter maintenance timer setpoint. Once the setpoint is reached a filter timer alarm diagnostic shall annunciate at the BAS. When the diagnostic is cleared, the filter-maintenance timer is reset to zero, and the timer begins accumulating fan-run time again.

Condensate Overflow Shutdown:

The unit shall shut down in response to a signal from the condensate overflow sensor. The sensor shall be interlocked to the unit cooling controller for immediate shutdown of cooling.

Points List: PACKAGED RTU [QTY: 6]

System Point Description	POINTS										ALARMS				
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY	LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
COMPRESSOR 1 COMMAND CMP1	X				X										
CONDENSATE OVERFLOW DETECTION LOCAL CND OVRFL	X		X									X			
COOLING OUTPUT COMMAND CLG	X			X											
DISCHARGE AIR TEMPERATURE DAT	X	X												X	
DX COIL FROST STAT FROSTAT	X		X									X			
HEATING OUTPUT 1 HT1	X				X										
HEATING OUTPUT 2 HT2	X				X										
MIXED AIR DAMPER MAD	X			X											
OUTSIDE AIR DAMPER COMMAND OAD	X			X											
OUTSIDE AIR HUMIDITY LOCAL OAH	X	X												X	
OUTSIDE AIR TEMPERATURE LOCAL OAT	X	X												X	
RETURN AIR CO2 LOCAL RA CO2			X							X				X	
RETURN AIR HUMIDITY LOCAL RAH	X	X												X	
RETURN AIR TEMPERATURE LOCAL RAT	X	X												X	
SPACE TEMPERATURE LOCAL (WIRED) SPT	X	X								X	X				
SPACE TEMPERATURE SETPOINT LOCAL (WIRED) SPT SP	X	X													
SUPPLY FAN START/STOP SAF	X				X										
SUPPLY FAN STATUS LOCAL SAF	X		X												
APPLICATION MODE APP MODE						X									
BAS COMMUNICATION STATE BAS COM						X									X
COMPRESSOR ENABLE CMP ENA	X				X										
COMPRESSOR LOCKOUT STATUS CMP LCK						X									
COOL OUTPUT CLG						X									
ECONOMIZER ENABLE ECON ENA						X									
ECONOMIZER MINIMUM POSITION SETPOINT ECON MIN POS SP	X					X									
FAN MODE COMMAND FAN MODE						X									
FILTER TIMER HOURS FIL HRS						X									
HEAT / COOL MODE REQUEST H/C REQ	X					X									
HEAT OUTPUT HTG						X									
OCCUPANCY OCC	X					X									
OCCUPIED COOLING SETPOINT OCC CLG SP	X					X									
SPACE CO2 HIGH LIMIT SP CO2 HL						X									
TIMED OVERRIDE STATUS TOV						X									
UNOCCUPIED COOLING SETPOINT UNOCC CLG SP	X					X									
UNOCCUPIED HEATING SETPOINT UNOCC HTG SP	X					X									

MOTLEY
ARCHITECTURE &
DESIGN

915 S. Tenth St.
Montrose, CO 81401
p: (970) 249-1980
www.motleyarc.com

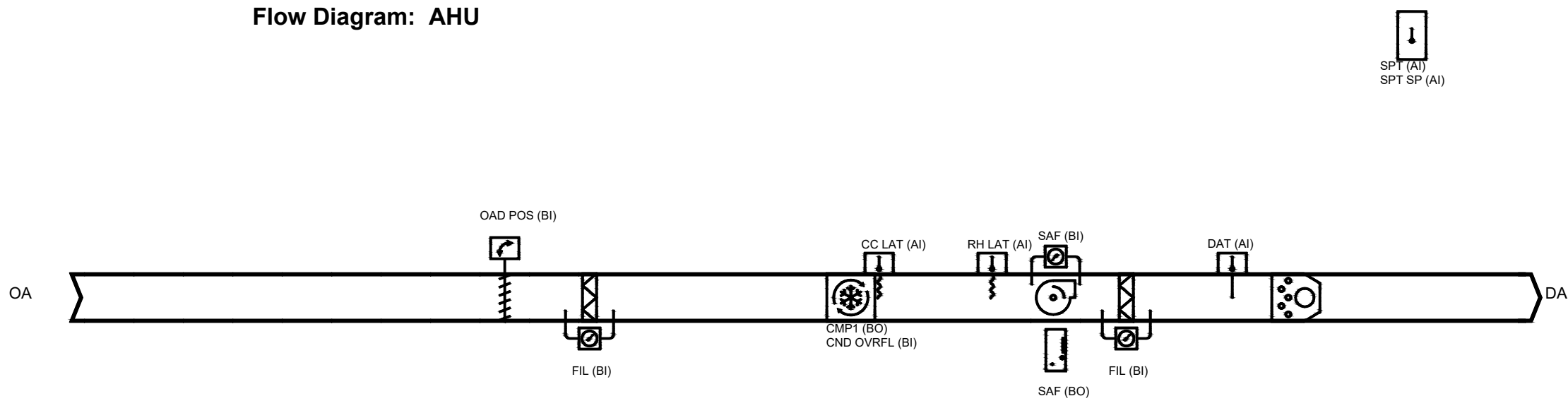
STAMP
© Motley Architecture & Design

Bright Beginnings at Colorado Outdoors

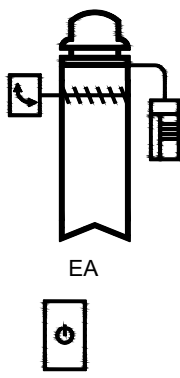
PROJECT NO:	22-023
PHASE:	FOR CONSTRUCTION
ISSUE:	C
ISSUE DATE:	4/21/2022

Mechanical Controls and Flow Diagrams

M3-1
SHEET NUMBER



Flow Diagram: FAN



Sequence of Operation: FAN

Operation:

The exhaust fan shall be controlled by a on/off switch. The damper end switch shall prove fully open prior to fan start. When the exhaust fan is disabled, the exhaust air damper shall close.

Sequence of Operation: AHU

Occupied:

During occupied periods, the supply fan shall run continuously and the outdoor air damper shall open fully before the fan starts.

The DX cooling and the gas heat shall control to maintain the active discharge air temperature setpoint. The discharge air temperature setpoint shall be dynamically reset based on the deviation of actual space temperature from the active space temperature setpoint. If the discharge air temperature sensor fails, the DX cooling and the gas heat shall control to maintain the active space temperature setpoint. If the discharge air temperature sensor and the space temperature sensor fail, the DX cooling and gas heat shall be disabled.

Unoccupied:

During unoccupied periods the supply fan shall be disabled, the outside air damper shall close, the DX cooling and gas heat shall be disabled.

Morning Warm-Up Mode:

When morning warm-up is initiated the unit shall enable the heating and fan(s). When the space temperature reaches the occupied heating setpoint (adj.), the unit shall transition to the occupied mode.

Pre-Cool Mode:

When pre-cool is initiated the unit shall enable the fan and cooling. When the space temperature reaches occupied cooling setpoint (adj.), the unit shall transition to the occupied mode.

Occupied Bypass:

When an occupied bypass request is received from a space sensor, the unit shall transition from its current occupancy mode to occupied bypass mode and the unit shall maintain the space temperature to the occupied setpoints (adj.).

Heat/Cool Mode:

When the space temperature rises above the occupied cooling setpoint the mode shall transition to cooling. When the space temperature falls below the occupied heating setpoint the mode shall transition to heating. When the space temperature is above the occupied cooling setpoint or below the occupied heating setpoint the mode shall remain in its last state. If the space temperature sensor fails the mode shall remain in its last state. If the local and communicated setpoints fail the controller shall disable the supply fan.

Supply Fan:

The supply fan shall be off in the unoccupied mode. The supply fan shall be on if the control is heating or cooling in the unoccupied mode. When the controller is in the occupied mode, the supply fan shall operate continuously.

Filter Status:

A differential pressure switch shall monitor the differential pressure across the filter(s) when the fan is running. If the switch closes during normal operation a dirty filter alarm shall alert at the unit controls

Condensate Overflow Monitoring:

If the condensate level reaches the trip point, to prevent the condensate drain pan from overflowing and causing water damage to the building the fan shall be disabled and the DX cooling shall be disabled.

Points List: AHU

System Point Description	POINTS										ALARMS			
	GRAPHIC	ANALOG HARDWARE INPUT (AI)	BINARY HARDWARE INPUT (BI)	ANALOG HARDWARE OUTPUT (AO)	BINARY HARDWARE OUTPUT (BO)	SOFTWARE POINT (SFT)	HARDWARE INTERLOCK (HDW)	WIRELESS (WLS)	NETWORK (NET)	HIGH ANALOG LIMIT	LOW ANALOG LIMIT	BINARY LATCH DIAGNOSTIC	SENSOR FAIL	COMMUNICATION FAIL
COMPRESSOR 1 COMMAND CMP1	X				X									
CONDENSATE OVERFLOW DETECTION LO CND OVRFL	X	X										X	X	
COOLING COIL LEAVING TEMPERATURE CC LAT	X	X								X	X		X	
DISCHARGE AIR TEMPERATURE DAT	X	X								X	X		X	
FINAL FILTER STATUS FIL	X		X											
FILTER STATUS FIL	X		X									X		
HEAT ENABLE HT ENA	X				X									
OUTDOOR AIR DAMPER COMMAND OAD	X			X										
OUTDOOR AIR DAMPER POSITION STATUS OAD POS	X		X											
REHEAT LEAVING COIL TEMPERATURE LOCAL RH LAT	X	X								X	X		X	
SPACE TEMPERATURE LOCAL SPT	X	X								X	X		X	
SPACE TEMPERATURE SETPOINT LOCAL SPT SP	X	X												
SUPPLY FAN START STOP COMMAND SAF	X				X									
SUPPLY FAN STATUS SAF	X		X											
BAS COMMUNICATION STATE BAS COM					X									X
DISCHARGE AIR COOLING SETPOINT DA CL SP					X									
DISCHARGE AIR HEATING SETPOINT DA HT SP					X									
MAINTENANCE REQUIRED MNT REQ					X							X		
OCCUPIED COOLING SETPOINT OCC CLG SP	X				X									
OCCUPIED HEATING SETPOINT OCC HTG SP	X				X									
SUPPLY FAN FAILURE SF FAIL	X				X							X		
UNOCCUPIED COOLING SETPOINT UNOCC CLG SP	X				X									
UNOCCUPIED HEATING SETPOINT UNOCC HTG SP	X				X									



915 S. Tenth St.
Montrose, CO 81401
p: (970) 249-1980
www.motleyarc.com

STAMP
© Motley Architecture & Design

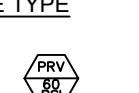
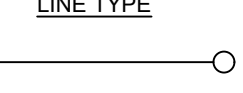
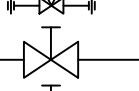
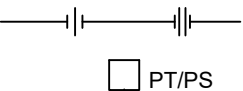
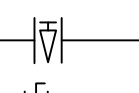
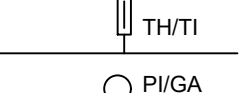
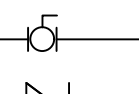
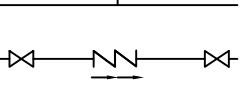
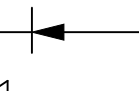
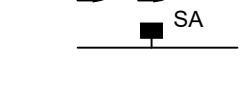
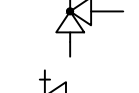
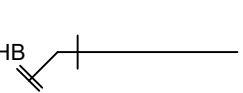
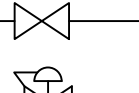
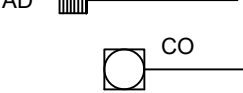
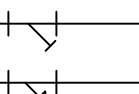
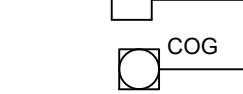
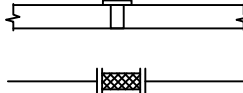
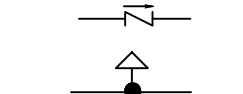
Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Mechanical
Controls and
Flow Diagrams
SHEET NAME

M3-2
SHEET NUMBER

PLUMBING PIPE DESIGNATIONS	
LINE TYPE	DESCRIPTION
— 140 —	HIGH TEMPERATURE (140°) WATER PIPE
— — —	COLD WATER PIPE (CW)
— CA —	COMPRESSED AIR
— DC —	DECONTAMINATION PIPING
— DER —	DEIONIZED WATER RETURN
— DES —	DEIONIZED WATER SUPPLY
— DIS —	DISTILLED WATER SUPPLY
— DIR —	DISTILLED WATER RETURN
— CD —	EQUIPMENT CONDENSATE DRAIN
— FP —	FIRE MAIN
— GW —	GREASE WASTE PIPE
— HE —	HELIUM
— HPS —	HIGH PRESSURE STEAM
— HPC —	HIGH PRESSURE CONDENSATE
— — —	HOT WATER RECIRCULATION (HWR)
— — —	HOT WATER PIPE (HW)
— H2 —	HYDROGEN
— LPC —	LOW PRESSURE CONDENSATE
— LPS —	LOW PRESSURE STEAM
— MA —	MEDICAL AIR
— G —	NATURAL GAS PIPE
— N2 —	NITROGEN
— N2O —	NITROUS OXIDE
— ORD —	OVERFLOW STORM WATER PIPE
— O2 —	OXYGEN
— PG —	PROPANE GAS
— RD —	ROOF DRAIN PIPE
— — —	SOIL OR WASTE PIPE
— S/O —	SOIL / OIL WASTE PIPE
— TWR —	TOWER WATER RETURN
— TWS —	TOWER WATER SUPPLY
— VAC —	VACUUM
— — —	VENT PIPE (V)

PLUMBING ELEMENTS / VALVING			
LINE TYPE	DESCRIPTION	LINE TYPE	DESCRIPTION
	PRESSURE REDUCING VALVE (PRV)		PIPE RISING UP
	GATE VALVE		PIPE DROPPING DOWN
	GLOBE VALVE		UNION - SCREWED OR FLANGED
	PLUG VALVE		PRESSURE TRANSMITTER OR PRESSURE SWITCH
	BUTTERFLY VALVE		THERMOMETER/TEMPERATURE INDICATOR
	BALL VALVE		GAUGE WITH GAUGE COCK/ PRESSURE INDICATOR
	SWING CHECK VALVE		BACKFLOW PREVENTOR (REDUCED ZONE)
	LIFT CHECK VALVE		BACKFLOW PREVENTOR (DOUBLE CHECK VALVE ASSEMBLY)
	GATE VALVE, ANGLE		WATER HAMMER ARRESTER
	GLOBE VALVE, ANGLE		CIRCUIT SETTING
	TEMPERATURE AND PRESSURE RELIEF VALVE		HOSE BIBB
	RELIEF/SAFETY VALVE		ROOF DRAIN
	GAS COCK		FLOOR DRAIN
	GAS PRESSURE REGULATOR		AREA DRAIN
	STRAINER		FLOOR CLEAN OUT
	STRAINER WITH BLOW OFF VALVE		FLOOR SINK
	WATER HEATER		CLEAN OUT TO GRADE
	WATER METER		WALL CLEAN OUT
	PRESSURE GAGE		FLEXIBLE-CONNECTION
	TEMPERATURE GAGE		CHECK VALVE
			VACUUM BREAKER

RESPONSIBLE DIVISION:

UNLESS OTHERWISE INDICATED ALL HEATING, VENTILATING, AIR CONDITIONING, PLUMBING, AND OTHER MECHANICAL EQUIPMENT, MOTORS, AND CONTROLS SHALL BE FURNISHED, SET IN PLACE AND WIRED AS FOLLOWS:

ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23	23	26	--
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	23(1)	26	26(2)	23
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

- SUBSCRIPT FOOTNOTES:
- MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS.
 - IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23. CONNECT UNDER DIVISION 26.

ABBREVIATIONS:

44" MOUNTING HEIGHT ABOVE FINISHED FLOOR TO CENTER OF DEVICE	DIFF DIFFERENTIAL	HR HOUR	PT PRESSURE TRANSMITTER
A AMPS	DISCH DISCHARGE	HT HEIGHT	PTAC PACKAGED TERMINAL AIR CONDITIONER
A.D. ACCESS DOOR	DIV DIVISION	HTR HEATER	PV PLUG VALVE
AAV AIR ADMITTANCE VALVE	DN DOWN	HWR HEATING WATER RETURN	PVC POLYVINYL CHLORIDE
ABV ABOVE	DS DUCT SILENCER	HWS HEATING WATER SUPPLY	QTY QUANTITY
AC AIR CONDITIONING UNIT	DWG DRAWING	HX HEAT EXCHANGER	RA RETURN AIR GRILLE / REGISTER
AC ABOVE COUNTER	DX DIRECT EXPANSION	ID INSIDE DIAMETER	RCP REFLECTED CEILING PLAN
AD AREA DRAIN (SEE SYMBOLS)	(E) EXISTING	IG ISOLATED GROUND	RD ROOF DRAIN
A.F.C. ABOVE FINISHED CEILING	EA EXHAUST AIR GRILLE/REGISTER	IN INCHES	REL RELIEF
A.F.G. ABOVE FINISHED GRADE	EAT ENTERING AIR TEMPERATURE	INV INVERT	REQD REQUIRED
AIC AMPERE INTERRUPTING CAPACITY	EC ELECTRICAL CONTRACTOR	JBOX JUNCTION BOX	RF RETURN FAN
A.F.F. ABOVE FINISHED FLOOR	ECC ECCENTRIC	K KELVIN	RH RELATIVE HUMIDITY
AHU AIR HANDLING UNIT	EF EXHAUST FAN	KW KILOWATT	RHC REHEAT COIL
ALUM ALUMINUM	EFF EFFICIENCY	KVA KILO VOLT - AMPS	RLA RATED LOAD AMPS
AP ACCESS PANEL OR DOOR	EL ELEVATION	L LENGTH	RM ROOM
ATS AUTOMATIC TRANSFER SWITCH	ELEC ELECTRIC	LAT LEAVING AIR TEMPERATURE	RPM REVOLUTIONS PER MINUTE
AV AUDIO / VIDEO	ELEV ELEVATOR	LV LAVATORY	SA SUPPLY AIR GRILLE / REGISTER
AVG AVERAGE	EM EMERGENCY FUNCTION	LB POUND	SC SHORT CIRCUIT
AWG AMERICAN WIRE GAGE	ENT ENTERING	LD LINEAR DIFFUSER	SCA SHORT CIRCUIT AVAILABLE
BAS BUILDING AUTOMATION SYSTEM	EMT ELECTRIC METALLIC TUBE	LF LINEAR FEET	SCCR SHORT CIRCUIT CURRENT RATING
BB BASEBOARD	EQ EQUAL	LIN LINEAR	SCH SCHEDULE
BD BACK DRAFT DAMPER	EQUIP EQUIPMENT	LIQ LIQUID	SD SMOKE DAMPER
BFP BACK FLOW PREVENTOR	EQUIV EQUIVALENT	LM LUMEN	SEF SMOKE EXHAUST FAN
BL BOILER	ES END SWITCH	LRA LOCKED ROTOR AMPS	SF SUPPLY FAN
BLDG BUILDING	ESP EXTERNAL STATIC PRESSURE	LV LOUVER	SH SENSIBLE HEAT
BLW BELOW	ET EXPANSION TANK	LVG LEAVING	SH SHOWER
BOB BOTTOM OF BEAM	EWC ELECTRIC WATER COOLER	LWT LEAVING WATER TEMPERATURE	SP STATIC PRESSURE
BOD BOTTOM OF DUCT	EWI ENTERING WATER TEMPERATURE	MBH THOUSANDS OF BTU PER HOUR	SPD SURGE PROTECTION DEVICE
BOP BOTTOM OF PIPE	EX EXHAUST	MC MECHANICAL CONTRACTOR	SPEC SPECIFICATION
BSMT BASEMENT	EXPAN EXPANSION	MCA MINIMUM CIRCUIT AMPACITY	SQ SQUARE
BTU BRITISH THERMAL UNIT	EXT EXTERNAL	MCB MAIN CIRCUIT BREAKER	SS STAINLESS STEEL
C CHILLER	F DEGREES FAHRENHEIT	MD MOTORIZED DAMPER	SS SAFETY SHOWER
CAP CAPACITY	FA FREE AREA	MDP MAIN DISTRIBUTION PANEL	STD STANDARD
CB CIRCUIT BREAKER	FC FAN COIL UNIT	MED MEDIUM	STL STEEL
CBV CIRCUIT BALANCING VALVE	FC FOOTCANDLE	MFR MANUFACTURER	SYS SYSTEM
CCT CORRELATED COLOR TEMPERATURE	FCV FLOW CONTROL VALVE	MIN MINIMUM	TEMP TEMPERATURE
CKT CIRCUIT	FD FIRE DAMPER	MISC MISCELLANEOUS	TR TRANSFER GRILLE / REGISTER
CFH CUBIC FEET PER HOUR	FD FLOOR DRAIN	MLO MAIN LUG ONLY	TR TAMPER RESISTANT
CFM CUBIC FEET PER MINUTE	FIN FINISHED	MOCP MAXIMUM OVERCURRENT PROTECTION	TT TEMPERATURE TRANSMITTER
CHWR CHILLED WATER RETURN	FLA FULL LOAD AMPS	MTD MOUNTED	TTB TELECOMMUNICATIONS TERMINAL BACKBOARD
CHWS CHILLED WATER SUPPLY	FLEX FLEXIBLE	MUA MAKE-UP AIR UNIT	TYP TYPICAL
CI CAST IRON	FLR FLOOR	N NEUTRAL	TX TRANSFORMER
CL CENTER LINE	FOB FLAT ON BOTTOM	NC NORMALLY CLOSED	UC UNDERCUT DOOR
CLG CEILING	FOT FLAT ON TOP	NEG NEGATIVE	UH UNIT HEATER
CMU CONCRETE MASONRY UNIT	FP FIRE PROTECTION	NIC NOT IN CONTRACT	UNO UNLESS NOTED OTHERWISE
CO CLEAN OUT	FP FIRE PUMP	NL NIGHT / SECURITY LIGHT - DO NOT SWITCH	UNOCC UNOCCUPIED
COL COLUMN	FPM FEET PER MINUTE	NO NORMALLY OPEN	UR URINAL
COMP COMPRESSOR	FPS FEET PER SECOND	NOM NOMINAL	V VOLTS
CONC CONCRETE	FS FLOW SWITCH	NTS NOT TO SCALE	VA VOLT AMPERE
COND CONDENSATE	FSD FIRE/SMOKE DAMPER	OA OUTSIDE AIR	VA VALVE
CONN CONNECTION	FT FEET	OBD OPPOSED BLADE DAMPER	VAV VARIABLE AIR VOLUME UNIT
CONT CONTINUATION	FXC FLEXIBLE CONNECTION	OC ON CENTER	VFD VARIABLE FREQUENCY DRIVE
CONTR CONTRACTOR	GND GROUND	OCC OCCUPIED	VRF VARIABLE REFRIGERANT FLOW
CRI COLOR RENDERING INDEX	GA GAUGE	OCF OVER CURRENT PROTECTION	VOLT VOLTAGE
CT COOLING TOWER	GAL GALLON	OD OUTSIDE DIAMETER	VTR VENT THROUGH ROOF
CT CURRENT TRANSFORMER	GALV GALVANIZED	OL OVERLOAD	W WIDTH
CU CONDENSING UNIT	GEC GROUND ELECTRODE CONDUCTOR	ORD OVERFLOW ROOF DRAIN	W WATTS
CU COPPER	GFCI / GFI GROUND FAULT CIRCUIT INTERRUPTER	OZ OUNCE	W WITH
CUH CABINET UNIT HEATER	GC GENERAL CONTRACTOR	PBD PARALLEL BLADE DAMPER	W/O WITHOUT
CVB CONSTANT VOLUME BOX	GPH GALLONS PER HOUR	PD PRESSURE DROP	WB WET BULB
CWR CONDENSER WATER RETURN	GPM GALLONS PER MINUTE	PH PHASE	WC WATER COLUMN
CWS CONDENSER WATER SUPPLY	GRS/LB GRAINS PER POUND	POS POSITIVE PRESSURE	WC WATER CLOSET
DB DRY BULB	H 2O WATER	POS POINT OF SALES	WG WATER GAUGE
DEPT DEPARTMENT	HB HOSE BIBB	PRV PRESSURE REDUCING VALVE	WP WEATHERPROOF
DF DRINKING FOUNTAIN	HD HEAD (SEE SCHEDULES)	PS PRESSURE SWITCH	WPIU WEATHERPROOF IN-USE
DIA DIAMETER	HP HEAT PUMP	PSI POUNDS PER SQUARE INCH	WSR WITHSTAND RATING
DIAG DIAGRAM	HP HORSEPOWER		XFMR TRANSFORMER



915 S. Tenth St.
Montrose, CO 81401
p: (970) 249-1980
www.motleyarc.com

STAMP
© Motley Architecture & Design

Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Plumbing
Cover Sheet

SHEET NAME

P0-1
SHEET NUMBER

Bright Beginnings at Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

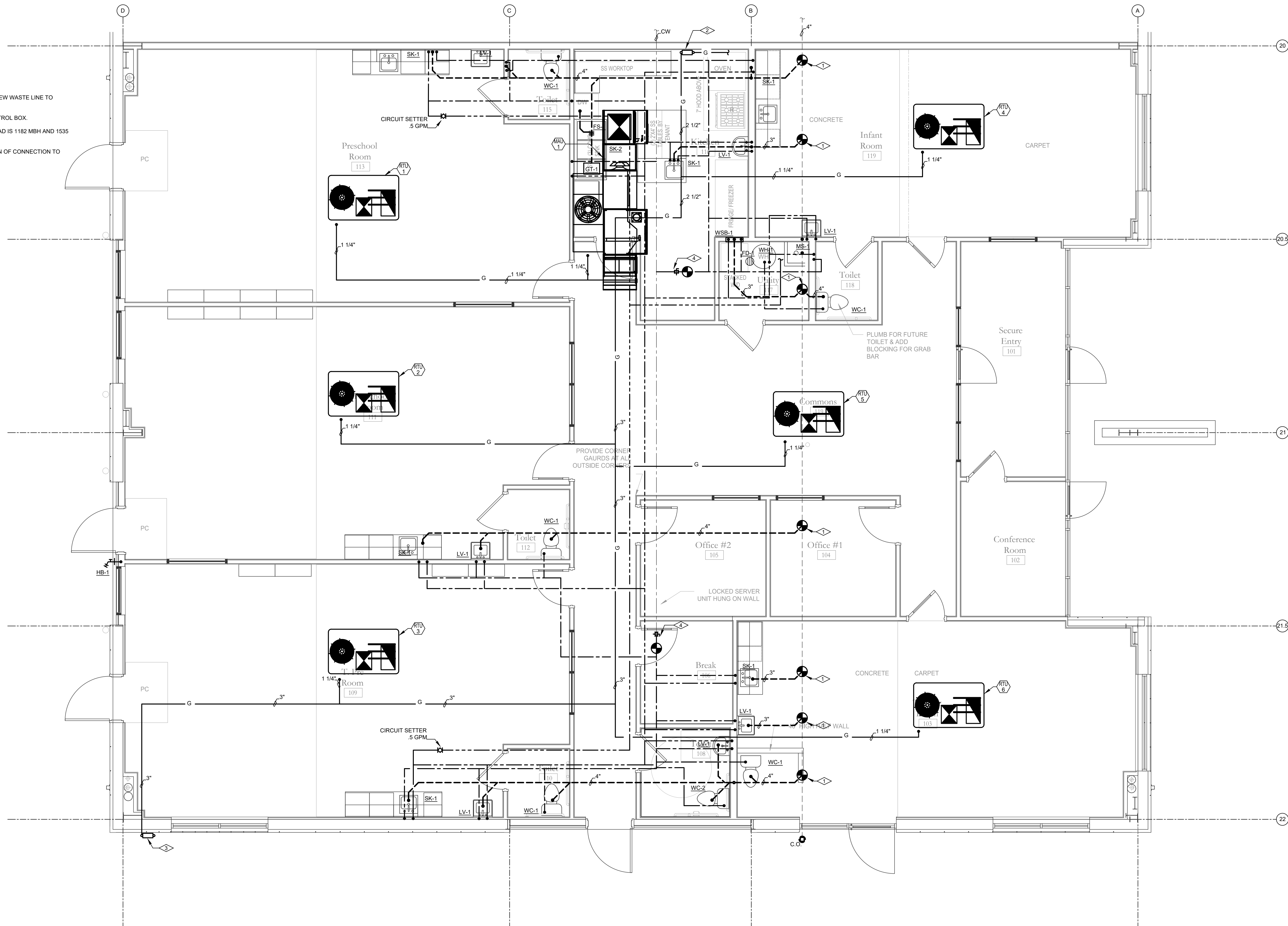
Plumbing
Floor Plan

SHEET NAME

P1-1
SHEET NUMBER

FLAG NOTES:

1. FIELD COORDINATE LOCATION OF CONNECTION FROM NEW WASTE LINE TO EXISTING WASTE LINE.
2. ROUTE GAS LINE TO SPACE BELOW TO SERVE GAS CONTROL BOX.
3. GAS METER PROVIDED BY UTILITY. CONNECTED GAS LOAD IS 1182 MBH AND 1535 CFH.
4. EXISTING VALVE AND CAP. FIELD COORDINATE LOCATION OF CONNECTION TO EXISTING.



PLUMBING - FLOOR PLAN

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

PLUMBING SPECIFICATION

1. SCOPE OF WORK

A. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK, MATERIALS, AND LABOR TO SATISFY A COMPLETE WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.

B. ALL WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION). ALL LOCAL CODES AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.

C. THE CONTRACTOR SHALL, BEFORE SUBMITTING ANY PROPOSAL, EXAMINE THE PROPOSED SITE AND SHALL DETERMINE FOR HIMSELF THE CONDITIONS THAT MAY AFFECT THE WORK. NO ALLOWANCE SHALL BE MADE IF THE CONTRACTOR FAILS TO MAKE SUCH EXAMINATIONS.

D. ALL EQUIPMENT AND MATERIALS SHALL BE AS SPECIFIED OR "APPROVED AS EQUAL" BY THE ENGINEER OR ARCHITECT.

2. PERMITS

A. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES.

3. SHOP DRAWINGS

A. SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ARCHITECT/ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL SUBMIT FIVE SETS OF SHOP DRAWINGS AND THEY SHALL BE CLEARLY LABELED.

4. DOMESTIC WATER SUPPLY PIPING

A. UNDERGROUND: PROVIDE TYPE "K" SOFT DRAWN COPPER TUBING WITH BRAZED CONNECTIONS.

B. ABOVE GROUND: PROVIDE TYPE "L" HARD DRAWN COPPER TUBING WITH 125 PSI SOLDER JOINTS, COPPER OR BRASS FITTINGS. ALL SOLDER TO BE "NO LEAD" TYPE.

C. ALL HOT WATER PIPING TO BE INSULATED WITH 1" FIBERGLASS INSULATION.

D. ALL COLD WATER PIPING TO BE INSULATED WITH ½" FOAM INSULATION.

5. SANITARY/STORM DRAINAGE AND VENT PIPING

A. ABOVE GRADE:

-2" BELOW: SCHEDULE 40 GALV. STEEL PIPE WITH SCREWED ENDS OR SOLID CORE SCHEDULE 40 PVC WITH SOLVENT JOINTS OR DWV COPPER WITH SOLDER JOINTS. ALL SOLDER TO BE "NO LEAD" TYPE.

-3" AND ABOVE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SOLID CORE SCHEDULE 40 PVC WITH SOLVENT JOINTS.

B. BELOW GRADE: SERVICE WT. CAST IRON WITH NO-HUB OR BELL AND SPIGOT JOINTS; OR SOLID CORE SCHEDULE 40 PVC WITH SOLVENT JOINTS.

C. PVC PIPING SHALL NOT BE USED IN AIR PLENUM CEILINGS AND SHALL NOT CROSS FIRE RATED WALLS, CEILINGS, OR FLOORS.

D. DRAINAGE PIPING SHALL BE RUN AS STRAIGHT AS POSSIBLE AND SHALL HAVE LONG TURN FITTINGS.

E. DRAINAGE PIPING 3" SIZE AND SMALLER SHALL RUN AT A UNIFORM GRADE OF AT LEAST ¼" PER FOOT, AND PIPING LARGER THAN 3" SHALL BE RUN AT A GRADE OF NO LESS THAN ⅛" PER FOOT.

F. ALL VENT PIPING SHALL BE SLOPED TO DRAIN BACK TO FIXTURES.

G. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FLASHING OF THE VENT PIPING RUN THROUGH THE ROOF.

H. PVC USED TO BE SOLID CORE TYPE SCHEDULE 40 PVC.

7. PIPE SUPPORTS

A. ABOVE GRADE: ALL PIPE SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE IN A NEAT AND WORKMANLIKE MANNER. THE USE OF WIRE AND PERFORATED METAL TO SUPPORT PIPES WILL NOT BE PERMITTED. SPACING OF PIPE SUPPORTS SHALL BE AS SPECIFIED IN INTERNATIONAL PLUMBING CODE (LATEST EDITION).

B. BELOW GRADE: EARTH SHALL BE EXCAVATED TO A MINIMUM DEPTH WITH AN EVEN SURFACE TO INSURE SOLID BEARING OF PIPE FOR ITS ENTIRE LENGTH.

-INTERIOR: THE PIPE SHALL BE INSTALLED (UNLESS OTHERWISE SPECIFIED) A MINIMUM OF 4 INCHES BELOW THE BOTTOM OF THE SLAB AND SHALL NOT BE IN ANY DIRECT CONTACT WITH THE CONCRETE AT ANY POINT.

-EXTERIOR: THE WATER PIPE SHALL HAVE A MINIMUM OF 60" OF COVER AND THE SANITARY WASTE PIPE SHALL HAVE A MINIMUM OF 24" OF COVER.

8. MISCELLANEOUS

A. COORDINATE INSTALLATION OF ALL ROOFS FLASHING AT ROOF PENETRATIONS.

B. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS AND DIMENSIONS AT THE JOB SITE.

C. THE PLUMBING PLANS ARE INTENDED TO BE DIAGRAMMATIC AND ARE BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION. THE EXACT DIMENSIONS OR ALL THE DETAILS OF THE EQUIPMENT. THE CONTRACTOR SHALL VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO ENSURE THAT THE EQUIPMENT WILL FIT THE AVAILABLE SPACE.

9. TESTING

A. PLUMBING SYSTEM SHALL BE FLOW AND PRESSURE TESTED IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE (LATEST EDITION).

10. GUARANTEE

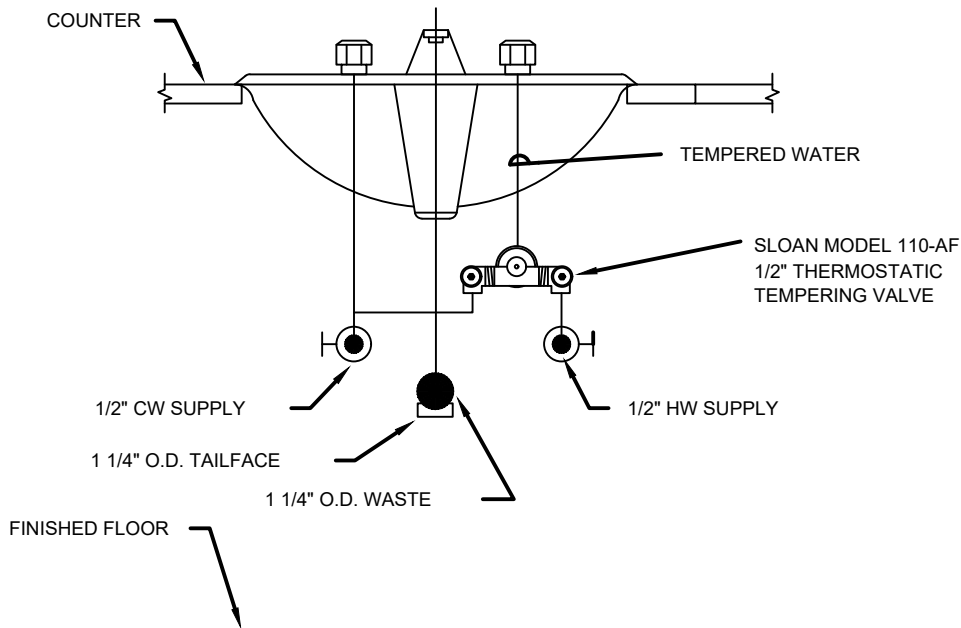
A. MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTORS EXPENSE.

B. FOR THE SAME PERIOD THE PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

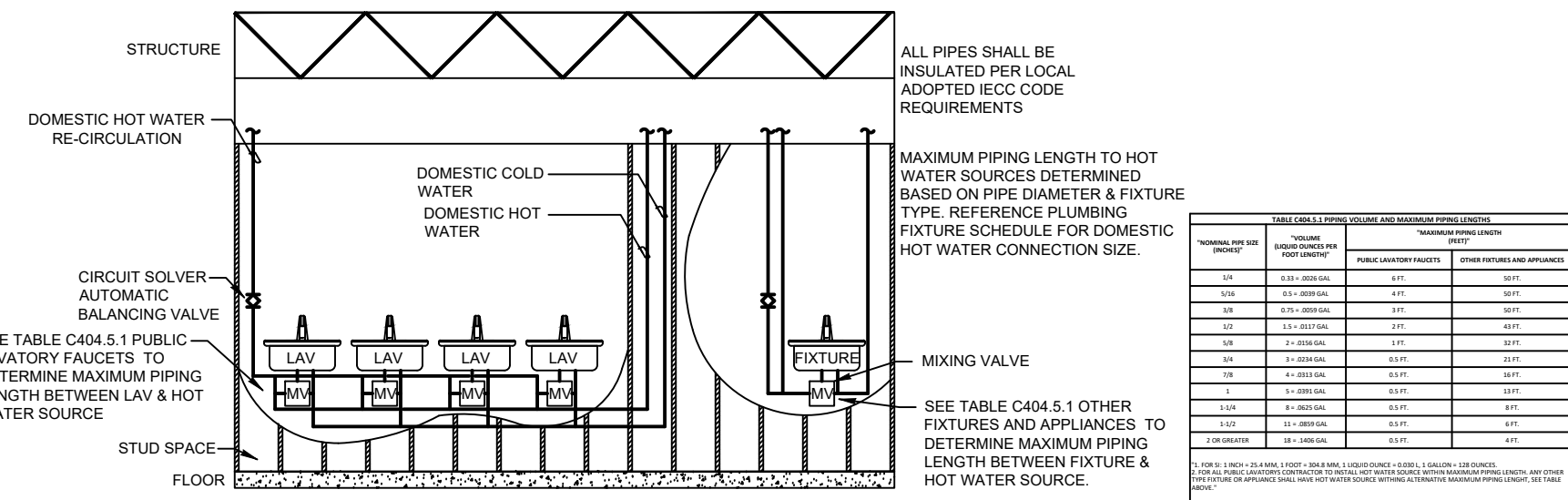
PLUMBING FIXTURE SCHEDULE									
FIXTURE NO.	DESCRIPTION	MANUFACTURER	MODEL	TRIM	PIPING CONNECTIONS				OPTIONS-ACCESSORIES
					S/W	VENT	C.W.	HW	
FD-1	FLOOR DRAIN	ZURN	Z415-SZ1		3"	2"	-	-	PROVIDE NICKEL BRONZE STRAINER
FS-1	FLOOR SINK	ZURN	1900		3"	2"			
HB-1	FREEZE PROOF HOSE BIB	WOODFORD	B67		-	-	3/4"	-	PROVIDE LOCKING BOX WITH ANTI-SIPHON
LV-1	WALL MOUNTED BATHROOM SINK	AMERICAN STANDARD	0356	SELETRONIC FAUCET #7020255.002	1 1/2"	1 1/2"	1/2"	1/2"	GRID DRAIN K-7129-A-CP
MS-1	MOP SERVICE SINK	FIAT	MSB2424	FAUCET #830AA WITH TOP BRACE	3"	1-1/2"	1/2"	1/2"	TERRAZO BASIN, FRONT DROPS, SS CAP, FLAT GRID DRAIN, VACUUM BREAKER, WALL GUARDS.
SK-1	1 COMPARTMENT SINK	ELKAY	LRAD252165PD	FAUCET MODEL LK402T4	1 1/2"	1 1/2"	1/2"	1/2"	KOHLER # K-8801 SINK STRAINER
SK-2	3 COMPARTMENT SINK	BY OTHERS	BY OTHERS	FAUCET BY OTHERS	2"	2"	3/4"	3/4"	
GT-1	GREASE INTERCEPTOR	ZURN	GT2700		4"	2"	-	-	
WSB-1	WASHER SUPPLY BOX	OATEY	38995		2"	-	1/4"	1/4"	WATER HAMMER ARRESTOR, PRESSURE SHOCK ARRESTORS, QUICK CLOSING VALVES.
WC-1	BABY HEIGHT WATER CLOSET	AMERICAN STANDARD	2315228.02	1.28 GPF TANK TYPE	4"	2"	1-1/2"	-	VACUUM BREAKER, PROVIDE SEAT.
WC-2	ADA FLOOR MOUNTED WATER CLOSET	AMERICAN STANDARD	215AA	1.28 GPF TANK TYPE	4"	2"	1-1/2"	-	VACUUM BREAKER, PROVIDE SEAT .

GAS FIRED WATER HEATER SCHEDULE							
EQUIPMENT NO.	CAPACITY	RECOVERY @ 90 DEG F. RISE	BTU PER HR.	GAS CONN.	WATER CONN.	MANUFACTURER & MODEL	OPTIONS/ACCESSORIES
WH-1	120	121	100,000	1/2"	3/4"	RHEEM HE120-100	NOTE-1

NOTES:
1. ASME RELIEF VALVE, HIGH ALTITUDE KIT SIZED PER LOCATION ELEVATION.

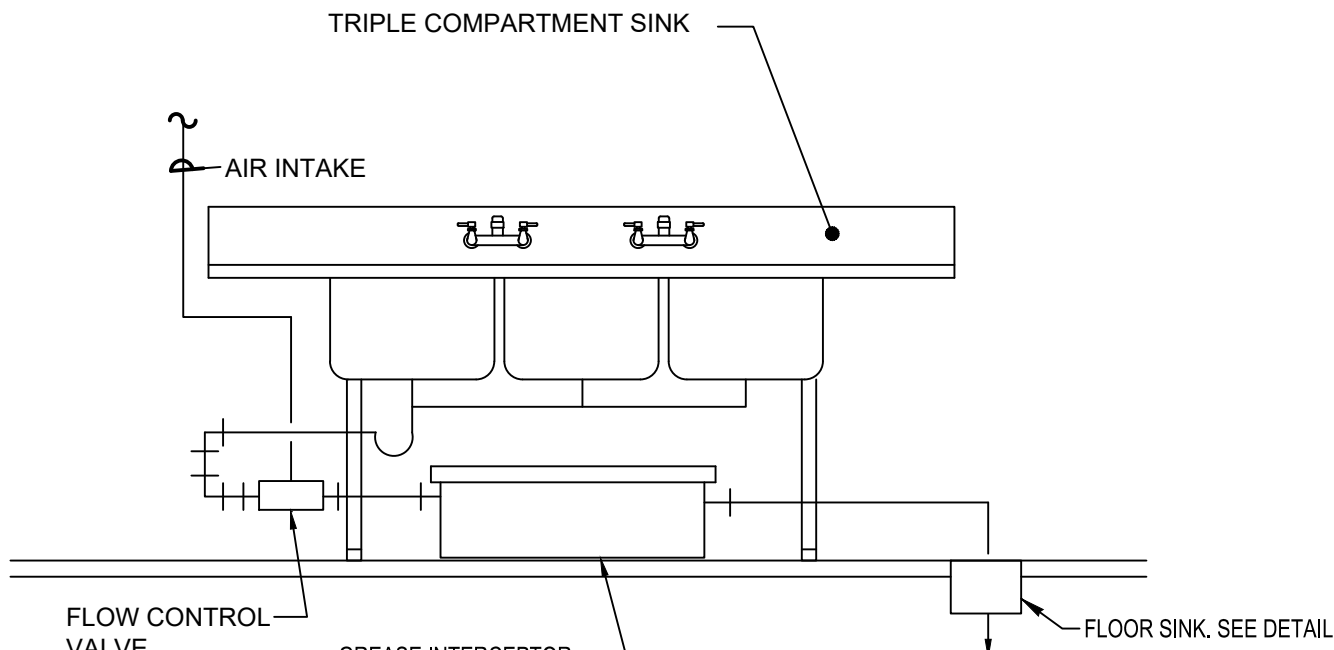


LOCAL MIXING VALVE DETAIL



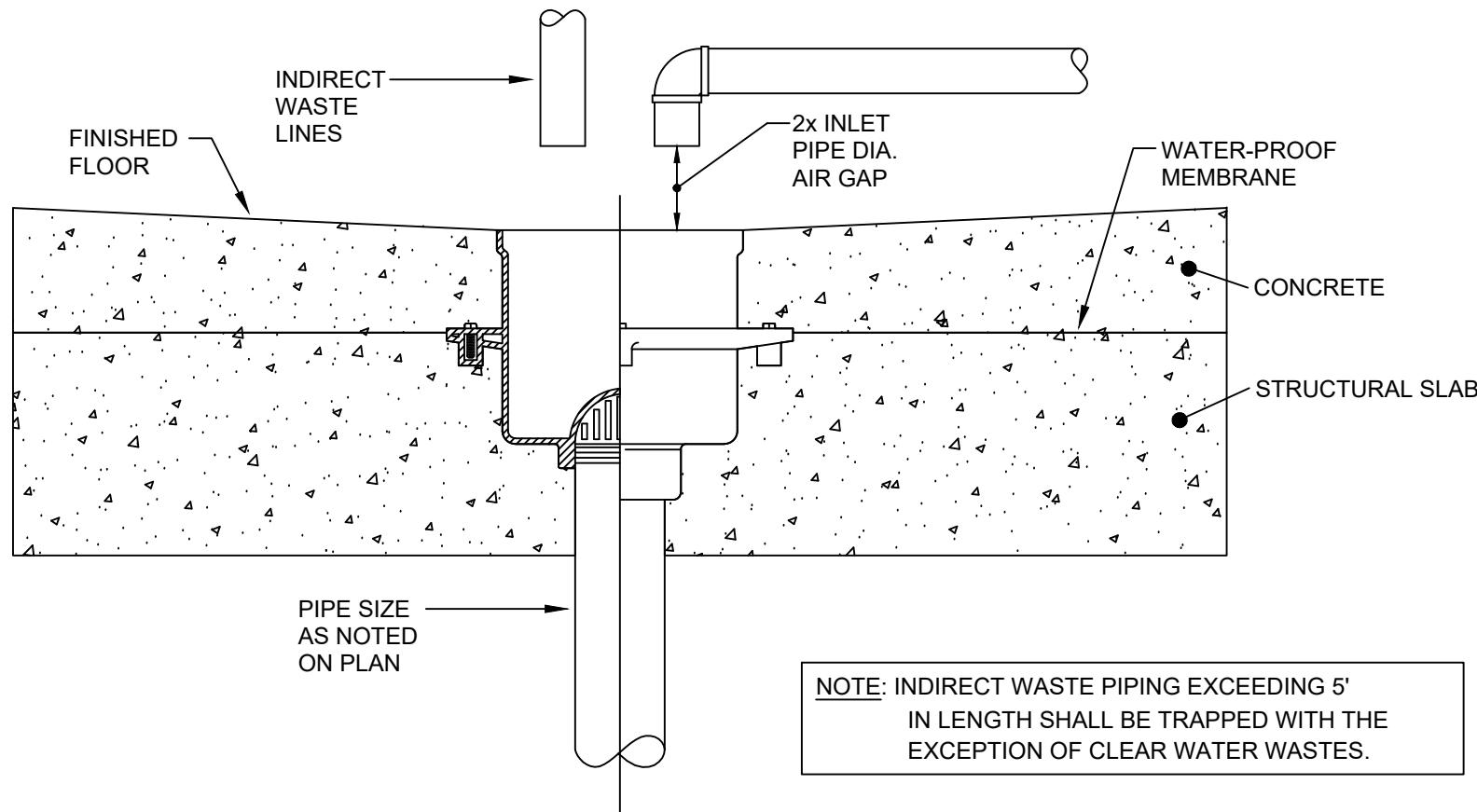
PLUMBING FIXTURE DOMESTIC HOT WATER RE-CIRCULATION DETAIL

NOT TO SCALE



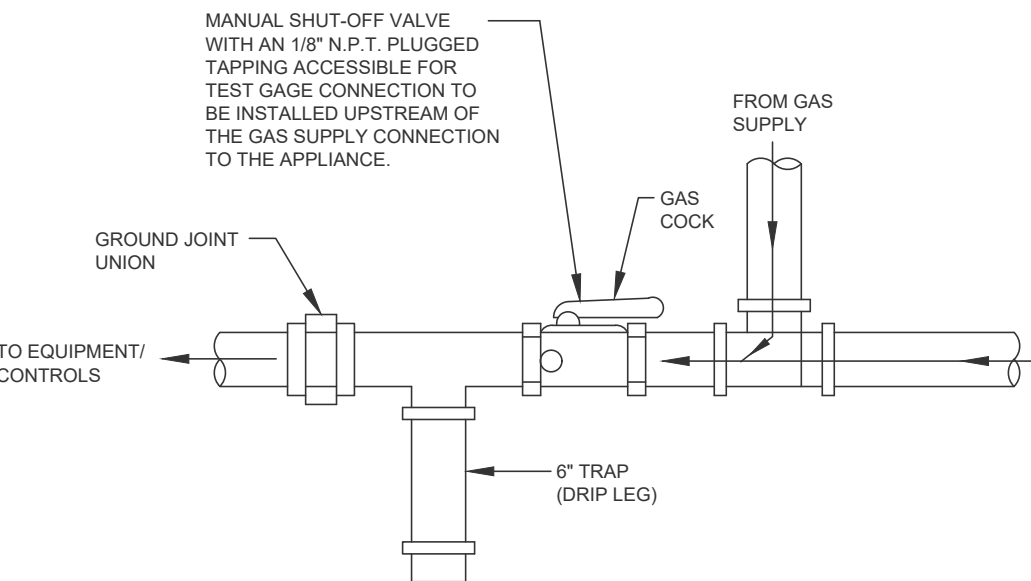
GREASE INTERCEPTOR DETAIL

NOT TO SCALE



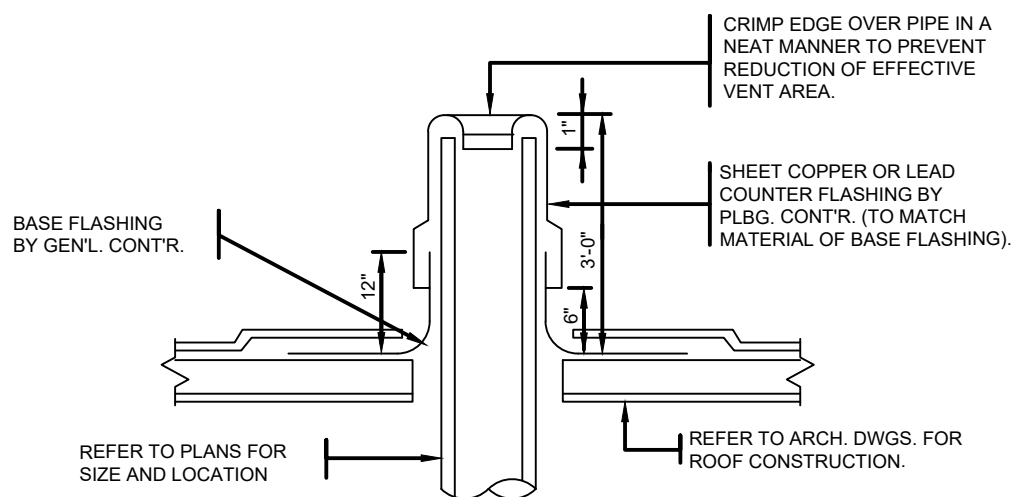
FLOOR SINK DETAIL

NOT TO SCALE



GAS CONNECTION TO EQUIPMENT DETAIL

NOT TO SCALE



PLUMBING VENT THROUGH FLAT ROOF DETAIL

NOT TO SCALE



915 S. Tenth St.
Montrose, CO 81401
p: (970) 249-1980
www.motleyarc.com

STAMP

© Motley Architecture & Design

Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Plumbing
Details and
Schedules

SHEET NAME

P2-1

SHEET NUMBER

FIRE ALARM EQUIPMENT LEGEND	
	SMOKE ALARM - PHOTOELECTRIC
	CARBON MONOXIDE DETECTOR
OPERATION: PHYSICALLY INTERCONNECT THE SMOKE ALARMS SUCH THAT THE ACTUATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE DWELLING.	

COMMUNICATION LEGEND	
	CLOCK ONLY
	CLOCK / PA SPEAKER WALL MOUNTED
	ROUND CEILING MOUNTED SPEAKER
	SQUARE SPEAKER
	INTERCOM PUSH TO CALL SWITCH
	WIRELESS ACCESS POINT ABOVE THE CEILING
	ABOVE THE CEILING PROJECTOR CONNECTION
	WALL MOUNTED HDMI
	PLAIN DATA OUTLET
	PLAIN DATA OUTLET WITH MOUNTING HEIGHT
	COMBINATION DATA/TELEPHONE
	CEILING MOUNTED COMBINATION DATA/TELEPHONE
	TELEVISION OUTLET

SECURITY SYSTEM LEGEND	
	SECURITY CAMERA
	ADA DOOR OPERATOR PUSH BUTTON
	ELECTRIC DOOR STRIKE
	CARD READER FOR DOOR OPERATOR

LIGHTING LEGEND	
NOTES: SYMBOLS SHOWN ARE STANDARD. VARIATION AND/OR COMBINATIONS MAY BE USED ON THE PLANS. THIS LIST SHOWS STANDARD SYMBOLS AND ALL MAY NOT APPEAR ON THE PROJECT DRAWINGS; HOWEVER, WHEREVER THE SYMBOL ON THE PROJECT DRAWINGS OCCUR, THE ITEM SHALL BE PROVIDED AND INSTALLED. VARIATION AND/OR COMBINATION MAY BE USED ON THE PLANS. A NUMBER NEXT TO A RECEPTACLE OR DEVICE INDICATES A CIRCUIT NUMBER. AN UPPER CASE LETTER NEXT TO A SWITCH INDICATES THE FUNCTION OF THE SWITCH. A LOWER CASE LETTER INDICATES THE SWITCH CIRCUIT. AN UPPER CASE LETTER NEXT TO A LIGHT FIXTURE INDICATES THE TYPE OF FIXTURE. REFER TO THE LUMINAIRE SCHEDULE FOR FIXTURE SPECIFICATIONS. A LOWER CASE LETTER NEXT TO A LIGHT CORRESPONDS TO THE SWITCH DESIGNATION.	

SWITCHES	
	SINGLE POLE SWITCH
	TWO POLE SWITCH
	THREE-WAY SWITCH
	FOUR-WAY SWITCH
	DIMMER SWITCH
	3 WAY DIMMER SWITCH - (4D INDICATES A 4WAY DIMMER)
	DOOR ACTIVATED SWITCH
	WALL MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR SWITCH
	LOW VOLTAGE LIGHT SWITCH
	MANUAL MOTOR STARTER
	PILOT LIGHT SWITCH
	AUTO ON / AUTO OFF LIGHT SWITCH
	DUAL TECHNOLOGY MOTION / OCCUPANCY SENSOR LIGHT SWITCH
	MANUAL ON / AUTO OFF DIMMING LIGHT SWITCH
	KEY OPERATED LIGHT SWITCH
	MANUAL ON - TIMED OFF LIGHT SWITCH
	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR SWITCH
	CEILING MOUNTED DUAL TECHNOLOGY MANUAL ON / AUTO OFF VACANCY SENSOR
	SCENE CONTROL STATION
	UNIT LIGHTING MANAGEMENT CONTROL STATION.

LIGHT FIXTURES	
	1'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	2'x4' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	2'x2' LED TROFFER OR DIRECT/INDIRECT TYPE FIXTURE GRID, FLANGE OR SURFACE MOUNTED
	OPEN STRIP FIXTURE
	WALL BRACKET LINEAR FIXTURE
	WALL MOUNTED SCONCE LIGHT FIXTURE
	RECESSED DOWNLIGHT CAN FIXTURE
	SURFACE CEILING OR PENDANT MOUNTED FIXTURE
	EX2:  DOUBLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
	EX1:  SINGLE FACE EXIT SIGN, WALL AND CEILING MOUNTED
	EM  WALL MOUNTED EMERGENCY LIGHT
	EMR  EMERGENCY EXTERIOR EGRESS FIXTURE

GENERAL ELECTRICAL NOTES: 1. ALL ELECTRICAL WORK TO COMPLY WITH LATEST EDITION OF NEC, IECC AND ALL APPLICABLE GOVERNING CODES. 2. FIELD COORDINATION DURING CONSTRUCTION IS IMPERATIVE. CONTRACTORS BIDDING THIS WORK MUST MAKE REASONABLE ALLOWANCES FOR UNFORESEEN CONTINGENCIES. 3. ELECTRIC UTILITY TO ADVISE OWNER AND/OR THE ELECTRICAL ENGINEER PRIOR TO SERVICE MODIFICATION REQUIRING COST TO THE OWNER.	
WIRING: 1. ALL WIRING IS SHOWN DIAGRAMMATICALLY ON DRAWING. FIELD VERIFY ALL CONDITIONS PRIOR TO ROUGH-IN. 2. ALL CONDUITS AND CONVEYANCES SHALL BE CONCEALED. IN THE EVENT THAT A NEW DEVICE IS BEING INSTALLED IN AN EXISTING DRYWALL PARTITION, PROVIDE A CUT IN TYPE BOX AND FISH FLEXIBLE CONDUIT DOWN INSIDE THE WALL FROM ABOVE THE CEILING AND REPAIR THE DRYWALL AROUND THE CONDUIT. TRANSITION TO EMT ONCE ABOVE THE CEILING. 3. SIZES OF WIRE AND CABLES ARE BASED UPON COPPER CONDUCTORS, UNLESS OTHERWISE INDICATED. ALL CIRCUITS SHALL CONTAIN (2) #12 AWG WITH (1) #12 GND IN 1/2" CONDUIT UNLESS NOTED OTHERWISE. 4. ALL BRANCH CIRCUITS WITH HOME RUNS OVER 50 FEET, WILL BE SIZED ONE SIZE LARGER. 5. ALL PENETRATIONS IN OR THROUGH FIRE RATED PARTITIONS SHALL BE FIRE STOPPED IN SUCH A WAY THAT THE PENETRATION MATCHES THE FIRE RATING OF THE WALL. 6. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN THE APPROPRIATE DISCIPLINES AND CONTRACTORS. 7. COORDINATE ALL DEVICE, FIXTURE AND HARDWARE COLOR SELECTIONS WITH THE ARCHITECT PRIOR TO MAKING SHOP DRAWING SUBMITTALS. 8. COORDINATE THE MOUNTING HEIGHTS OF ALL RECEPTACLES MOUNTED ABOVE COUNTERS, CASEWORK AND APPLIANCE RECEPTACLES WITH ARCHITECTURAL ELEVATIONS. 9. BRANCH CIRCUIT AND SPECIAL SYSTEMS WIRING FOR DEVICES ON WALLS IN FINISHED AREAS WHICH CANNOT BE CONCEALED SHALL BE INSTALLED IN SURFACE MOUNTED RACEWAY. 10. ALL EXPOSED CONDUITS, BOXES, ETC. IN ROOMS TO BE PAINTED SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE. EXPOSED CONDUITS, BOXES, ETC. IN ROOMS WHICH ARE NOT PAINTED MAY BE LEFT UN-PAINTED. EXPOSED CONDUIT, BOXES, ETC. ON THE EXTERIOR OF BUILDINGS SHALL BE PAINTED TO MATCH THE SURROUNDING SURFACE AS CLOSELY AS POSSIBLE. 11. THE CONTRACTOR IS RESPONSIBLE FOR PATCHING, PAINTING, REPAIRING OR REPLACEMENT OF ALL WALLS, CEILING OR OTHER BUILDING ELEMENTS WHICH ARE DISTURBED AS PART OF THE DEMOLITION AND/OR INSTALLATION OF ELECTRICAL WORK. 12. PROVIDE ELECTRICAL CONNECTION TO ALL FIRE, SMOKE, AND FIRE / SMOKE DAMPERS INCLUDING POWER AND FIRE ALARM. VERIFY EXACT SIZE AND FINAL LOCATION OF ALL DAMPERS WITH THE MECHANICAL CONTRACTOR. ALL ROOFTOP UNITS RATED AT MORE THAN 2000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN THE RETURN DUCT. ALL ROOFTOP UNITS RATED AT MORE THAN 15000 CFM WILL BE OUTFITTED WITH A DUCT DETECTOR IN BOTH THE SUPPLY AND RETURN DUCT AT ROOFTOP LEVEL AND IN THE RETURN DUCT AT EVERY LEVEL THAT IS SERVED. ELECTRICAL CONTRACTOR WILL PROVIDE A REMOTE TEST STATION AND ALL WIRING NECESSARY TO COMPLETE INSTALLATION. 13. REFER TO THE MECHANICAL EQUIPMENT SCHEDULE FOR ADDITIONAL REQUIREMENTS ASSOCIATED WITH PLUMBING AND HVAC EQUIPMENT AND OWNER/GENERAL CONTRACTOR FURNISHED EQUIPMENT.	

ELECTRICAL EQUIPMENT LEGEND	
	BRANCH CIRCUIT PANELBOARD
	TELEPHONE TERMINAL BOARD
	ELECTRIC MOTOR
	FUSED SAFETY SWITCH / DISCONNECT COMBINATION
	MOTOR STARTER
	CONTACTOR
	CIRCUITRY HOMERUN: PANEL LA - CIR. #7
	CONDUIT OR WIRE CONCEALED IN WALL/CLG. (SOLID LINE TYPE)
	CONDUIT OR WIRE UNDERFLOOR/UNDERGND. (CENTER LINE TYPE)

MAIN DISTRIBUTION GEAR	
	CIRCUIT BREAKER IN A PANEL BOARD
	PAD MOUNTED UTILITY TRANSFORMER
	FUSED DISCONNECT 100A = AMP RATING 2P = NUMBER OF POLES
	2 POLE FUSED DISCONNECT
	ELECTRICAL METER SHOWN ON ONE-LINE DIAGRAMS
	ELECTRICAL POWER PANEL WITH MAIN LUG OR MAIN BREAKER PPT= PANEL NAME 225A MLO = MAIN LUG OR BREAKER SIZE 120/208V = PANEL VOLTAGE 3PH, 4 WIRE = PANEL PHASE, DISTRIBUTION TYPE
	PP1 225A MCB 120/208V 3PH, 4W
	PP1 225A MLO 120/208V 3PH, 4W

ELECTRICAL DEVICE LEGEND	
	CEILING JUNCTION BOX - SURFACE/FLUSH
	WALL JUNCTION BOX - SURFACE/FLUSH
	DUPLEX RECEPTACLE
	FLOOR MOUNTED RECEPTACLE
	SPLIT WIRED DUPLEX RECEPTACLE
	CEILING MOUNTED DUPLEX RECEPTACLE
	FOURPLEX RECEPTACLE
	FLOOR MOUNTED FOURPLEX RECEPTACLE
	APPLIANCE RECEPTACLE - 3 WIRE
	GROUND FAULT CIRCUIT INTERRUPTER
	RECEPTACLE WITH USB CHARGING CAPABILITIES
	RECEPTACLE MOUNTED ABOVE COUNTER
	RECEPTACLE MOUNTED IN CASEWORK
	ELECTRIC HAND DRYER
	THERMOSTAT
	OPEN/CLOSE/STOP PUSH BUTTON
	DRAWING KEY NOTES
	ROOM DESIGNATION
	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE WITH A WEATHER PROOF COVER
	GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE MOUNTED AT 44" ABOVE FINISHED FLOOR

LUMINAIRES: 1. COORDINATE THE LOCATION OF ALL LIGHTING EQUIPMENT INCLUDING BUT NOT LIMITED TO THE LUMINAIRES, SWITCHES WITH THE ARCHITECTURAL, STRUCTURAL AND MECHANICAL DRAWINGS AND ALL OTHER TRADES AS REQUIRED. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLANS FOR DIMENSIONAL LOCATION OF LIGHT FIXTURES. 2. LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE AND SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID. 3. THE ELECTRICAL CONTRACTOR IS TO CONFIRM THE LIGHT FIXTURES ORDERED WILL BE COMPATIBLE WITH THE CEILING TYPES AS SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLANS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING THE FIXTURES. 4. VERIFY LUMINAIRE MOUNTING REQUIREMENTS AND OVERALL HEIGHT OF ALL PENDANT MOUNTED FIXTURES PRIOR TO ORDERING. 5. ALL LIGHT FIXTURES NEED TO BE COMPATIBLE WITH THE SWITCHES AND CONTROLS BEING PROVIDED. 6. THE LIGHTING PACKAGE SHALL BE APPROVED BY BOTH THE ARCHITECT AND ENGINEER AS APPROVED EQUAL BEFORE BID. NO LIGHT FIXTURE SHALL BE ORDERED UNTIL THE LIGHT FIXTURE SUBMITTAL PACKAGE HAS BEEN APPROVED IN WRITING BY THE ARCHITECT, GENERAL CONTRACTOR AND ELECTRICAL ENGINEER. 7. COORDINATE LUMINAIRE MOUNTING REQUIREMENTS PRIOR TO PLACING ORDER.	
--	--

RESPONSIBLE DIVISION:				
ITEM	FURNISHED	SET	POWER WIRED	CONTROL WIRED
COMBINATION MAGNETIC MOTOR STARTERS, MAGNETIC MOTOR STARTERS, VFD'S AND CONTACTORS	23	23	26	--
FUSED AND UNFUSED DISCONNECT SWITCHES, THERMAL OVERLOAD SWITCHES AND HEATERS, MANUAL MOTOR STARTERS	26	26	26	--
MANUAL-OPERATING AND MULTI-SPEED SWITCHES	23	26	26	26
CONTROLS, RELAYS, TRANSFORMERS	23	23	26	23
THERMOSTATS (LOW VOLTAGE) AND TIME SWITCHES	23	23	26	23
THERMOSTATS (LINE VOLTAGE)	23	23	26	26
TEMPERATURE CONTROL PANELS	23	23	26	23
MOTOR AND SOLENOID VALVES, DAMPER MOTORS, PE & EP SWITCHES	23	23(2)	--	23(2)
PUSH-BUTTON STATIONS AND PILOT LIGHTS	23	23(2)	--	23(2)
HEATING, COOLING, VENTILATION AND AIR CONDITIONING CONTROLS	23	23	26	23
EXHAUST FAN SWITCHES	23	26	26	23(2)

SUBSCRIPT FOOTNOTES: 1. MOTOR STARTER TO INCLUDE CONTROL TRANSFORMER, HOA SWITCH, (1) NO AND (1) NC AUXILIARY CONTACT, AND "ON" AND "OFF" PILOT LIGHTS. 2. IF ITEM IS FOR LINE VOLTAGE, SET IN PLACE AND CONNECT UNDER DIVISION 26. WHERE FACTORY MOUNTED ON EQUIPMENT OR ATTACHED TO PIPING OR DUCTS AND USING LINE VOLTAGE FURNISH AND SET UNDER DIVISION 23. CONNECT UNDER DIVISION 26.	
---	--

ABBREVIATIONS:	
44" FINISHED FLOOR TO CENTER OF DEVICE	DIFF DIFFERENTIAL
A AMPS	DISCH DISCHARGE
A.D. ACCESS DOOR	DIV DIVISION
ABV ABOVE	DN DOWN
AAV AIR ADMITTANCE VALVE	DS DUCT SILENCER
AC ABOVE COUNTER	DWG DRAWING
AD AREA DRAIN (SEE SYMBOLS)	DX DIRECT EXPANSION
A.F.C. ABOVE FINISHED CEILING	(E) EXISTING
A.F.G. ABOVE FINISHED GRADE	EA EXHAUST AIR GRILLE/REGISTER
AIC AMPERE INTERRUPTING CAPACITY	EAT ENTERING AIR TEMPERATURE
A.F.F. ABOVE FINISHED FLOOR	EC ELECTRICAL CONTRACTOR
AHU AIR HANDLING UNIT	ECC ECCENTRIC
ALUM ALUMINUM	EFF EFFICIENCY
AP ACCESS PANEL OR DOOR	EF EXHAUST FAN
ATS AUTOMATIC TRANSFER SWITCH	EL ELEVATION
AV AUDIO / VIDEO	ELEC ELECTRIC
AVG AVERAGE	ELEV ELEVATOR
AWG AMERICAN WIRE GAGE	EMF ELECTRIC METALLIC TUBE
BAS BUILDING AUTOMATION SYSTEM	EQ EQUAL
BB BASEBOARD	EQUIP EQUIPMENT
BD BACK DRAFT DAMPER	EQUIV EQUIVALENT
BFP BACK FLOW PREVENTOR	ES END SWITCH
BL BOILER	ESP EXTERNAL STATIC PRESSURE
BLDG BUILDING	EX EXPANSION TANK
BLW BELOW	EW ELECTRIC WATER COOLER
BOB BOTTOM OF BEAM	EWT ENTERING WATER TEMPERATURE
BOD BOTTOM OF DUCT	EX EXHAUST
BOP BOTTOM OF PIPE	EXPAN EXPANSION
BSMT BASEMENT	EXT EXTERNAL
BTU BRITISH THERMAL UNIT	F DEGREES FAHRENHEIT
C CHILLER	FA FREE AREA
CAP CAPACITY	FC FAN COIL UNIT
CB CIRCUIT BREAKER	FD FOOTCANDLE
CBV CIRCUIT BALANCING VALVE	FCV FLOW CONTROL VALVE
CCT CORRELATED COLOR TEMPERATURE	FD FIRE DAMPER
CKT CIRCUIT	FLA FULL LOAD AMPS
CFH CUBIC FEET PER HOUR	FIN FINISHED
CFM CUBIC FEET PER MINUTE	FLR FLOOR
CHWR CHILLED WATER RETURN	FLEX FLEXIBLE
CHWS CHILLED WATER SUPPLY	FOB FLAT ON BOTTOM
CI CAST IRON	FOT FLAT ON TOP
CL CENTER LINE	FP FIRE PROTECTION
CLG CEILING	FP FIRE PUMP
CMU CONCRETE MASONRY UNIT	FPM FEET PER MINUTE
CO CLEAN OUT	FPS FEET PER SECOND
COL COLUMN	FS FLOW SWITCH
COMP COMPRESSOR	FSO FIRE/SMOKE DAMPER
CONC CONCRETE	FT FEET
COND CONDENSATE	FXC FLEXIBLE CONNECTION
CONN CONNECTION	GND GROUND
CONT CONTINUATION	GA GAUGE
CONTR CONTRACTOR	GAL GALLON
CRI COLOR RENDERING INDEX	GALV GALVANIZED
CT COOLING TOWER	GEC GROUND ELECTRODE CONDUCTOR
CT CURRENT TRANSFORMER	OL OVERLOAD
CU CONDENSING UNIT	ORD OVERFLOW ROOF DRAIN
CU COPPER	OZ OUNCE
CUH CABINET UNIT HEATER	PBD PARALLEL BLADE DAMPER
CVB CONSTANT VOLUME BOX	PD PRESSURE DROP
CWR CONDENSER WATER RETURN	PH PHASE
CWS CONDENSER WATER SUPPLY	POS POSITIVE PRESSURE
DB DRY BULB	POS POINT OF SALES
DEPT DEPARTMENT	PRV PRESSURE REDUCING VALVE
DF DRINKING FOUNTAIN	PS PRESSURE SWITCH
DIA DIAMETER	PSI POUNDS PER SQUARE INCH
DIAG DIAGRAM	

SUBSTITUTIONS: A. SUBSTITUTIONS. SUBSTITUTION OF SPECIFIED EQUIPMENT WILL BE ALLOWED THROUGH A PRIOR APPROVAL PROCESS INITIATED BY THE CONTRACTOR. CONTRACTOR SHALL SUBMIT INTENDED SUBSTITUTION AT LEAST FIVE DAYS PRIOR TO BID FOR APPROVAL FROM ENGINEER. SUBMITTAL SHALL INCLUDE CAPACITIES, DIMENSIONS AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT. SUBSTITUTION SHALL OCCUR AT NO COST TO THE OWNER. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF APPROVED SUBSTITUTION AND SHALL INCUR ALL COSTS ASSOCIATED WITH THE SUBSTITUTION INCLUDING STRUCTURAL MODIFICATIONS, SPACE LAYOUT AND REDESIGN COSTS. SEE ALSO DIVISION I GENERAL REQUIREMENTS. EXAMINATION OF SITE, DRAWINGS, SPECIFICATIONS: A. EXAMINE CAREFULLY THE SITE AND CONDITIONS OF THE SITE. PROVIDE ALL NECESSARY EQUIPMENT AND LABOR TO INSTALL A COMPLETE WORKING SYSTEM WITHIN THE SITE CONDITIONS. B. EXAMINE THE DRAWINGS AND SPECIFICATIONS AND 5 DAYS PRIOR TO BIDDING REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES, AND CONFLICTS TO THE ENGINEER TO BE REMEDIED IN AN ADDENDUM TO THE PROJECT PRIOR TO BID TIME. C. DRAWINGS ARE DIAGRAMMATIC AND CATALOG NUMBERS GIVEN ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE CAPACITY OF THE EQUIPMENT MEETS THE DRAWING REQUIREMENTS AND SHALL NOT DIMENSION FROM THE MECHANICAL, PLUMBING, OR PIPING DRAWINGS. D. THE LATEST ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODES SHALL BE USED AS REQUIRED. THIS WILL ALSO INCLUDE THE LATEST ADOPTED VERSIONS OF THE MECHANICAL, PLUMBING CODES AND THE 2009 INTERNATIONAL ENERGY CONSERVATION CODE. ALL METHODS AND MATERIALS REQUIRED BY THESE CODES SHALL BE REQUIRED BY THESE SPECIFICATIONS UNLESS INDICATED OTHERWISE. OTHER APPLICABLE LOCAL CODES AND ORDINANCES SHALL BE AS REQUIRED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE KNOWLEDGEABLE OF THESE REQUIREMENTS. E. WHERE INSTALLATION PROCEDURES OR ANY PART THEREOF ARE REQUIRED TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER OF THE MATERIAL BEING INSTALLED, PRINTED COPIES OF THESE RECOMMENDATIONS SHALL BE FURNISHED TO THE ENGINEER PRIOR TO INSTALLATION. INSTALLATION OF THE ITEM WILL NOT BE ALLOWED TO PROCEED UNTIL THE RECOMMENDATIONS ARE RECEIVED. FAILURE TO FURNISH THESE RECOMMENDATIONS CAN BE CAUSE FOR REJECTION OF THE MATERIAL.	
--	--



915 S. Tenth St.
Montrose, CO 81401
p: (970) 249-1980
www.moleycarc.com

STAMP

© Motley Architecture & Design

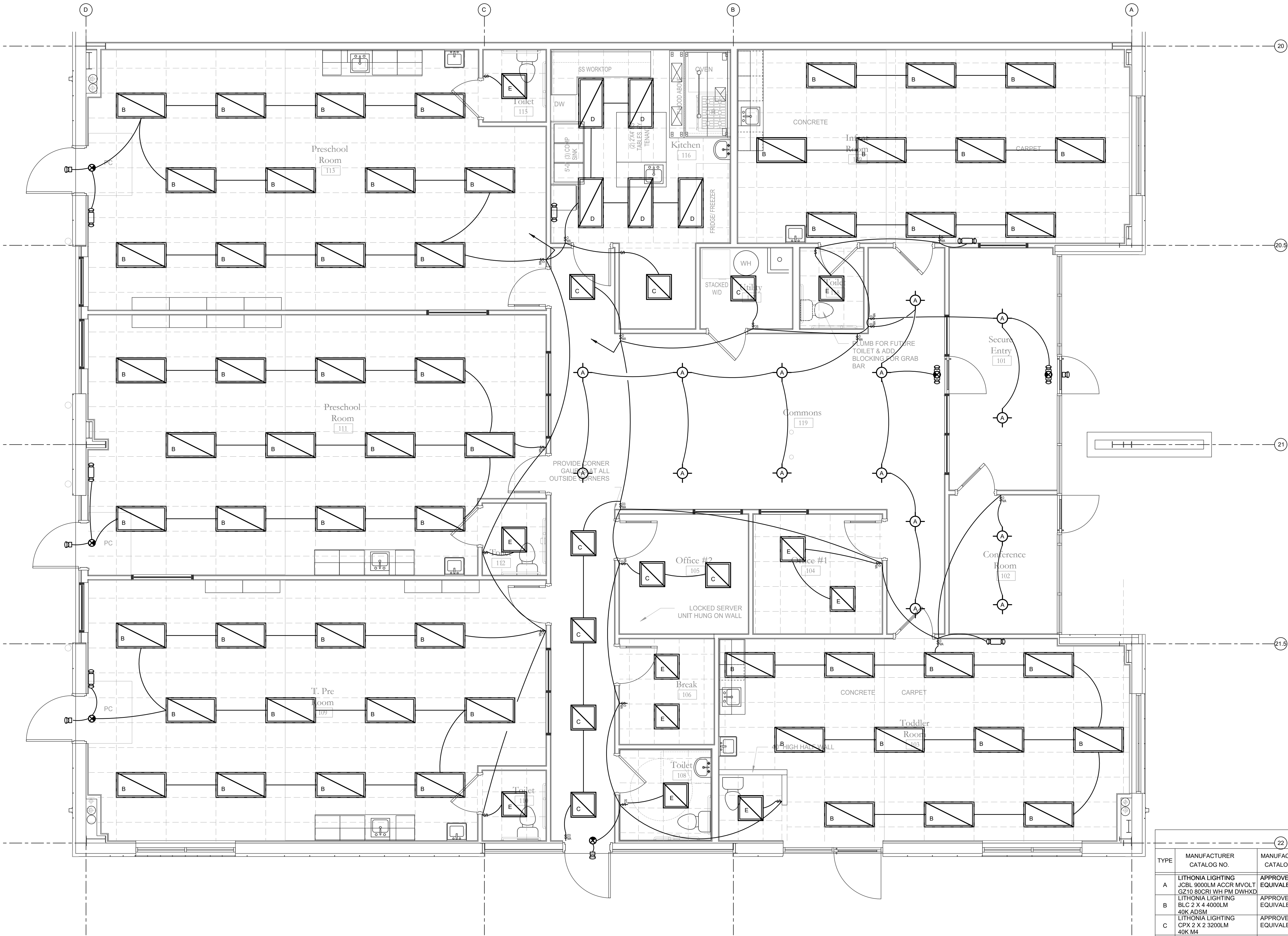
Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Electrical
Cover Sheet

SHEET NAME

E0-1
SHEET NUMBER



LIGHTING - FLOOR PLAN
SCALE: 1/4"=1'-0"

22 LUMINAIRE SCHEDULE					
TYPE	MANUFACTURER CATALOG NO.	MANUFACTURER CATALOG NO.	VOLTAGE MOUNTING # OF LAMPS	BALLAST LAMP TYPE LAMP CAT. #	DESCRIPTION
A	LITHONIA LIGHTING J0BL 9000LM ACCR MVOLT GZ10 80CRI WH PM DWXHD	APPROVED EQUIVALENT	277 PENDENT	WITH FIXTURE LED 63W 10,046 LM 50K	16" ROUND HIGH BAY LED FIXTURE WITH CLEAR ACRYLIC DIFFUSER, ALUMINUM HEAT SINK 10,046 LUMENS AND 50K LEADS
B	LITHONIA LIGHTING BLC 2 X 4 4000LM 40K ASDM	APPROVED EQUIVALENT	277 RECESS CEILING	WITH FIXTURE LED 32W 4000LM 40K	2' X 4' RECESSED LED TROFFER WITH CURVED SMOOTH DIFFUSER 4000 LUMENS 40K LEADS
C	LITHONIA LIGHTING CPX 2 X 2 3200LM 40K M4	APPROVED EQUIVALENT	277 CEILING SURFACE	WITH FIXTURE LED 31.5W 3659 LM 40K	2' X 2' FLAT PANEL SURFACED MOUNTED LED FIXTURE WITH SATIN WHITE LENS 3659 LUMENS 40K LEADS
D	LITHONIA LIGHTING 2GTL 4 60L A12125 EZ1 LP840	APPROVED EQUIVALENT	277 RECESS CEILING	WITH FIXTURE LED 48W 6000LM 40K	2' X 4' RECESSED LED TROFFER WITH .125" ACRYLIC LENS TURNED OVER SMOOTH SIDE DOWN. 6000 LUMENS 40K LEADS
E	LITHONIA LIGHTING BLC 2 X 2 3300LM 40K ASDM	APPROVED EQUIVALENT	277 RECESS CEILING	WITH FIXTURE LED 30W 3300LM 40K	2' X 2' RECESSED LED TROFFER WITH CURVED SMOOTH DIFFUSER 3300 LUMENS 40K LEADS
F	LITHONIA 6ELM2NH	APPROVED EQUIVALENT	120/277 SURFACE WALL	NONE REQUIRED HALOGEN	16.25"Wx5-3/8"Dx5"H IMPACT RESISTANT POLYCARBONATE HOUSING 8W HALOGEN LAMPS NICKEL CADMIUM BATTERY
G	LITHONIA LHQMSW1G120/277ELN SEE NOTE 4	APPROVED EQUIVALENT	120/277 WALL/CEILING	NONE REQUIRED LED	12-1/4"Wx7-1/2"Hx2"D, WHITE POLYCARB. HOUSING W/ GREEN LETTERING, NICAD BATTERY
H	LITHONIA LHQMSW1G120/277 RO/ELN SEE NOTE 5	APPROVED EQUIVALENT	120/277 WALL/CEILING	NONE REQUIRED LED	12-1/4"Wx7-1/2"Hx2"D, WHITE POLYCARB. HOUSING W/GREEN LETTERING, NICAD BATTERY W/ REMOTE HEAD
I	LITHONIA ELA-W-H0806	APPROVED EQUIVALENT	120/277 WALL/CEILING	NONE REQUIRED INCANDESCENT WITH UNIT	4.75"Wx7.75"Hx4.5"D WHITE SEALED REMOTE MOUNTED FIXTURE, 6 VOLT, 8 WATT LAMP, VERIFY COMPATIBILITY WITH EMERGENCY FIXTURE

NOTES:
1. ALL LIGHTING FIXTURES DENOTED WITH "EM" OR HALF SHADED SHALL BE PROVIDED WITH AN ENGINEER APPROVED EMERGENCY DRIVER.
2. GRID TROFFER TYPE LIGHTING FIXTURES SHALL NOT BE SUPPORTED FROM THE T-BAR CEILING GRID.
3. THE SYMBOL USED IN THIS SCHEDULE IS A GENERIC SYMBOL TO INDICATE AN EXIT LIGHT FIXTURE. REFER TO THE PLANS FOR THE NUMBER OF FACES REQUIRED AT EACH EXIT. INSTALL THE NUMBER OF FACES REQUIRED AT EACH EXIT. FIELD ADJUST THE LOCATION OF THE EXIT SIGNS FOR THE BEST VISIBILITY POSSIBLE.
4. THIS EXIT SIGN REQUIRES THE EXTRA BATTERY CAPACITY TO OPERATE THE REMOTELY LOCATED EMERGENCY HEAD FOR EGRESS AWAY FROM THE BUILDING.

Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Lighting
Floor Plan

SHEET NAME

E1-1
SHEET NUMBER

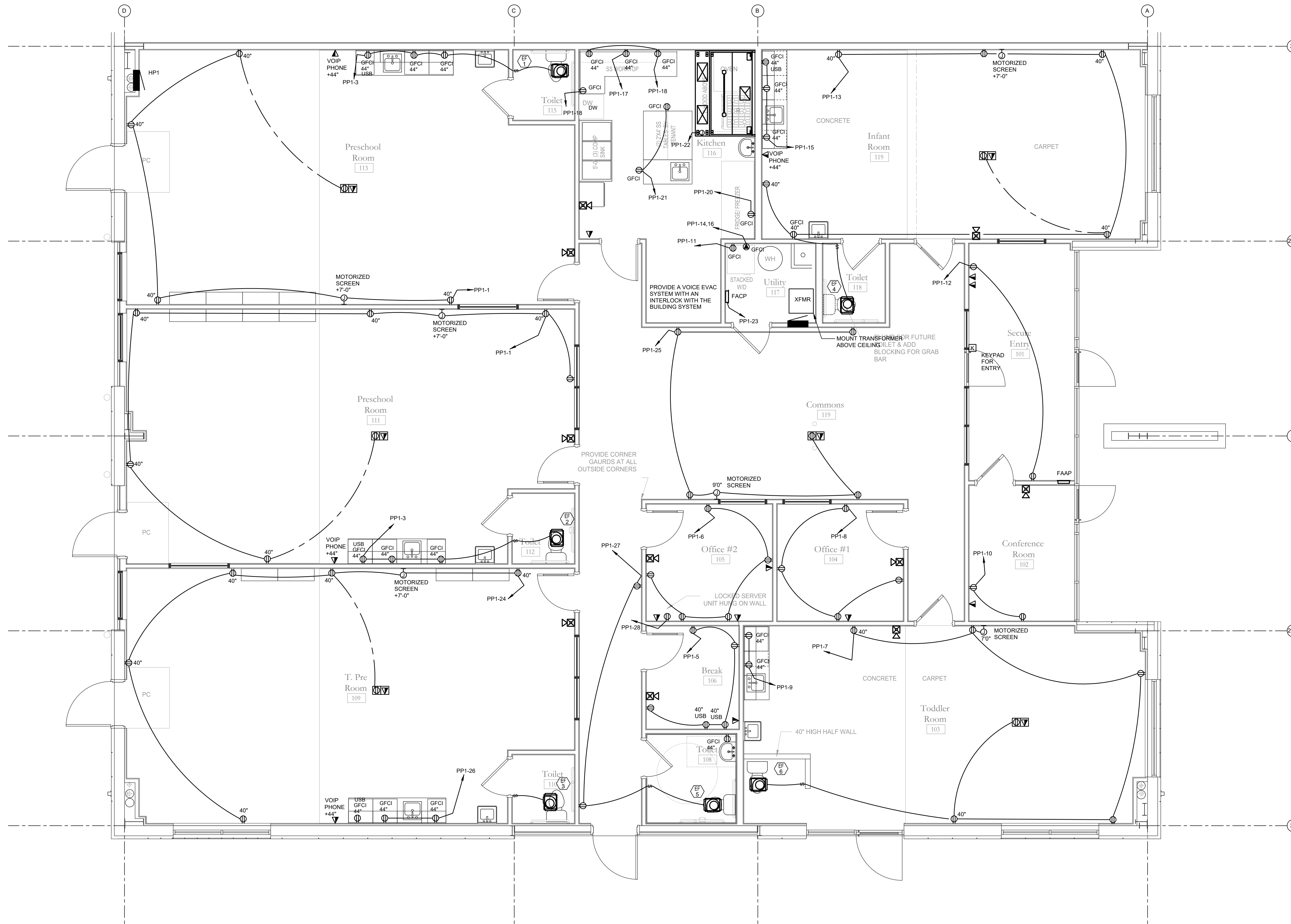
Bright Beginnings at
Colorado Outdoors

PROJECT NO: 22-023
PHASE: FOR CONSTRUCTION
ISSUE: C
ISSUE DATE: 4/21/2022

Electrical
Floor Plan

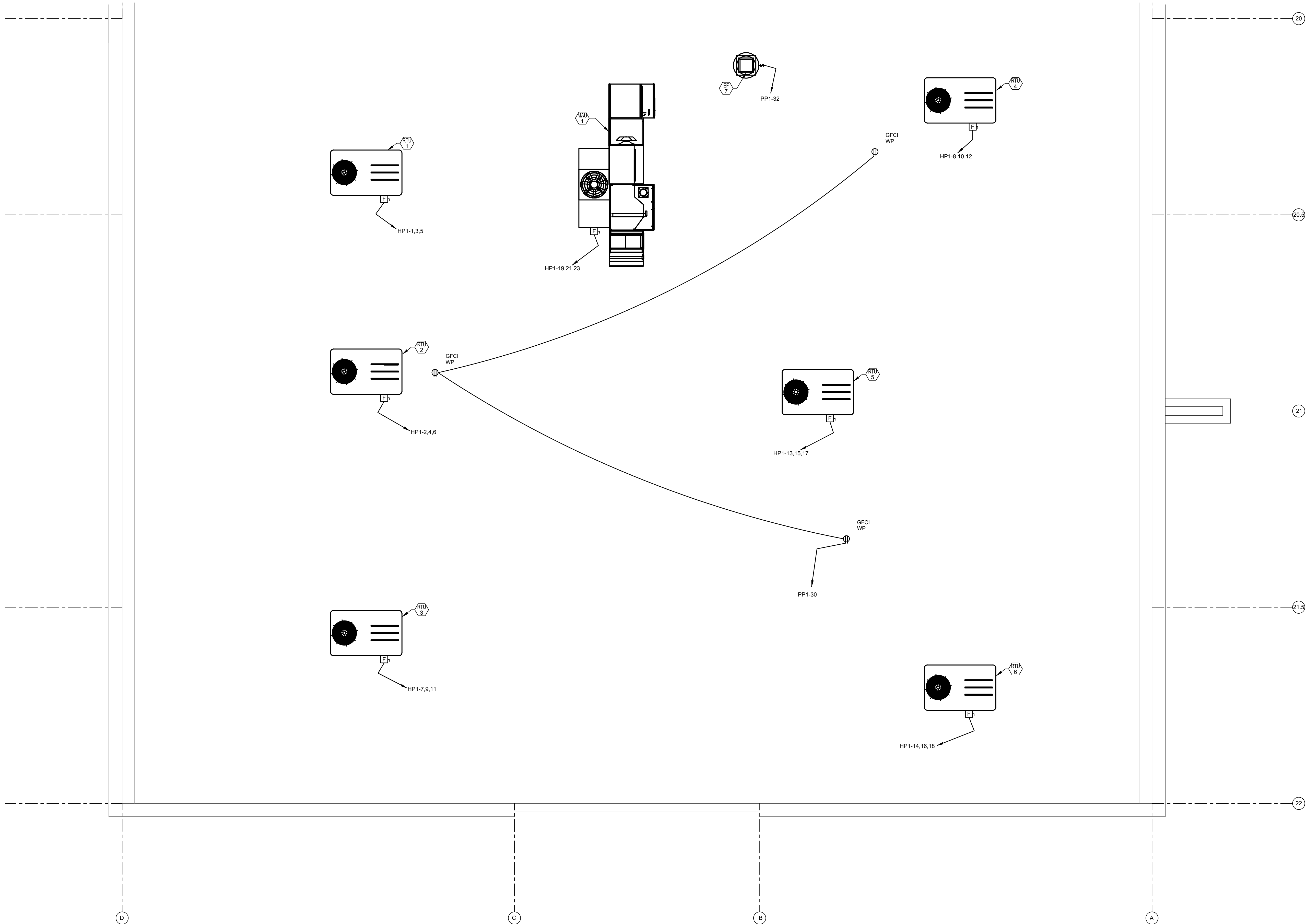
SHEET NAME

E2-1
SHEET NUMBER



ELECTRICAL - FLOOR PLAN

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



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

Bright Beginnings at
Colorado Outdoors

Bright Beginnings at Colorado Outdoors

Electrical Details and Schedules

E3-1
SHEET NUMBER

NOTES:

1. THE LARGEST CONNECTED MOTOR LOAD IS INCLUDED IN MECHANICAL, PROCESS, OR MOTOR LOADS.

MECHANICAL EQUIPMENT SCHEDULE

1. THE LARGEST CONNECTED MOTOR LOAD IS INCLUDED IN MECHANICAL, PROCESS, OR MOTOR LOADS.



NOT TO SCALE