



DEPARTMENT OF TRANSPORTATION
PROJECT # 21914
 SAP BUILDING NO # 1000/247

DATE	No.	DESCRIPTION
3/24/2017	1	65% CONSTRUCTION DOCUMENTS
4/12/2017	2	85% CONSTRUCTION DOCUMENTS
5/12/2017	3	99% CODE REVIEW
6/14/2017	4	100% BID SET
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LA JUNTA TRAINING ROOM
COLORADO DEPARTMENT OF TRANSPORTATION
REGION 2 - 28201 W. HWY 50
LA JUNTA, COLORADO 81050

CODE INFORMATION	DESIGN TEAM	DRAWING INDEX	SYMBOLS	VICINITY MAP
APPLICABLE BUILDING CODES THE FOLLOWING APPROVED BUILDING CODES AND STANDARDS HAVE BEEN ADOPTED BY STATE BUILDINGS PROGRAMS (SBP) AS THE MINIMUM REQUIREMENTS TO BE APPLIED TO ALL STATE-OWNED BUILDINGS AND PHYSICAL FACILITIES INCLUDING CAPITAL CONSTRUCTION AND CONTROLLED MAINTENANCE CONSTRUCTION PROJECTS. 2015 INTERNATIONAL BUILDING CODE (IBC) 2015 INTERNATIONAL FIRE CODE (IFC) 2015 INTERNATIONAL MECHANICAL CODE (IMC) 2015 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2014 NATIONAL ELECTRICAL CODE (NEC) 2015 INTERNATIONAL PLUMBING CODE (IPC) 2015 INTERNATIONAL FUEL GAS CODE (IFGC) THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS (NFPA) NFPA-1 (2006), 11 (2005), 12 (2005), 12A (2004), 13 (2002), 13D (2002), 13R (2002), 14 (2003), 15 (2001), 16 (2003), 17 (2002), 17A (2002), 20 (2003), 22 (2003), 24 (2002), 25 (2002), 72 (2002), 409 (2004), 423 (2004), 750 (2003) and 2001 (2004) THE 2009 EDITION OF ICC/ANSI A117.1, ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES ANSI/ASHRAE/IES STANDARD 90.1 - 2013 ENERGY STANDARD FOR BUILDINGS	ARCHITECT OF RECORD: COLORADO DEPARTMENT OF TRANSPORTATION ERIN LUCERO 15285 S GOLDEN RD, BLDG 47 GOLDEN, CO 80401 PH (303) 512-5535 FAX (303) 512-5550 MECHANICAL, ELECTRICAL, AND PLUMBING ENGINEER: MEP ENGINEERING, INC. KEVIN PRZYTARSKI 6402 TROY CIRCLE, SUITE 100 CENTENNIAL, CO 80111 PH (303) 936-1633 FAX (303) 934-3200 CIVIL ENGINEER: N/A STRUCTURAL ENGINEER: N/A GEOTECHNICAL ENGINEER: N/A BUILDING CODE REVIEW: CWEST CODE CONSULTANTS, INC. GARY NICKERSON 355 S. TELLER STREET SUITE 200 LAKEWOOD, CO 80226 PH: 303-205-7860 FX: 303-425-0094	COVER CODE INFORMATION & INDEX A0.1 GENERAL NOTES ELECTRICAL: E1.0 ELECTRICAL ONE-LINES, NOTES AND LEGEND E1.1 ELECTRICAL SCHEDULES E2.0 ELECTRICAL DEMOLITION PLAN E3.0 POWER AND LIGHTING PLANS ARCHITECTURAL: A1.0 DEMOLITION PLANS A2.0 CONSTRUCTION PLANS A3.1 INTERIOR ELEVATIONS MECHANICAL: M1.0 MECHANICAL LEGEND & DIAGRAMS M1.1 MECHANICAL SCHEDULES M2.0 MECHANICAL DEMOLITION PLAN M3.0 MECHANICAL PLAN PLUMBING: P1.0 LEGEND AND GENERAL NOTES P1.1 SCHEDULES AND DIAGRAMS P2.0 PLUMBING DEMO PLAN P3.0 PLUMBING PLAN P3.1 PLUMBING PLAN	DETAIL CALL-OUT ELEVATION CALL-OUT SECTION CALL-OUT WINDOW TYPE TAG WALL TYPE TAG DOOR NUMBER TAG KEYNOTE TAG	PROJECT LOCATION: 28201 W. HWY 50 LA JUNTA, CO 81020

STANDARD ABBREVIATIONS

A.B. ANCHOR BOLT	C.O. CLEAN OUT	EWH ELECTRIC WATER HEATER	GB GRAB BAR	JT JOINT	O.C. ON CENTER(S)	RM ROOM	T.O.W TOP OF WALL
A/C AIR CONDITIONING	COL COLUMN	EXH EXHAUST	GC GENERAL CONTRACTOR	OD OPPOSITE DIAMETER	ROW RIGHT OF WAY	TS STEEL TUBING	
ACT ACOUSTICAL CEILING TILE	CONC CONCRETE	EXIST EXISTING	GL GLASS	O.H. OPPOSITE HAND	S SOUTH	T-STAT THERMOSTAT	
ADD ADDENDUM	CONT CONTINUOUS	EXP EXPANSION, EXPOSED	GPM GALLONS PER MINUTE	OHD OVERHEAD	SAN SANITARY	UNFIN UNFINISHED	
ADD'L ADDITIONAL	CPT CARPET	EXT EXTERIOR	GSF GROSS SQUARE FEET	OPNG OPENING	SC SEALED CONCRETE	UL UNDERWRITER LABORATORY	
ADJ ADJACENT, ADJUSTABLE	CT CERAMIC TILE	FA FIRE ALARM	GYP BD GYPSUM BOARD	OPP OPPOSITE	SD SOAP DISPENSER	UON UNLESS OTHERWISE NOTED	
AFP ABOVE FINISHED FLOOR	C/W CURTAIN WALL	FACF FIRE ALARM CONTROL PANEL		O.T.S. OPEN TO STRUCTURE	SCHED SCHEDULE(D)	UR URINAL	
ALUM ALUMINUM	CW COLD WATER	FBO FURNISHED BY OTHERS		P/C PRECAST CONCRETE	SEC SECTION, SECOND		
ALT ALTERNATE		FD FLOOR DRAIN, FIRE DAMPER		PEMB PRE-ENGINEERED MTL BLDG	SF SQUARE FEET		
AOR ARCHITECT OF RECORD	D/B DESIGN/BUILD CONTRACTOR	FDN FOUNDATION		P/L PROPERTY LINE	SIM SIMILAR	V VOLT	
APPROX APPROXIMATE	DBL DOUBLE	FE FIRE EXTINGUISHER		PL PLATE	SOG SLAB ON GRADE	VAR VARIES, VARIABLE	
ARCH ARCHITECTURAL	DEMO DEMOLISH, DEMOLITION	FEC FIRE EXTINGUISHER CABINET		PLAM PLASTIC LAMINATE	SPECS SPECIFICATIONS	VCT VINYL COMPOSITION TILE	
AVG AVERAGE	DF DRINKING FOUNTAIN	FIXT FIXTURE		PLBG PLUMBING	SO SQUARE	VENT VENTILATION	
	DIA DIAMETER	F/L FLOW LINE		PLYWD PLYWOOD	SS STAINLESS STEEL	VIF VERIFY IN FIELD	
B/C BACK OF CURB	DN DOWN	FLR FLOOR		MFR MANUFACTURER	S/S SERVICE SINK	VTR VENT THROUGH ROOF	
BLDG BUILDING	DS DOWNSPOUT	FLUOR FLUORESCENT		PSF POUNDS PER SQUARE FOOT	STD STANDARD		
B.O. BOTTOM OF	DTL, DET DETAIL	FOC FACE OF CONCRETE		PSI POUNDS PER SQUARE INCH	STL STEEL		
BOT, BTM BOTTOM	DWG DRAWING	FOF FACE OF FINISH		PT PAINT	STOR STORAGE	W WEST, WIDE	
BRNZ BRONZE		FOM FACE OF MASONRY		PTD PAPER TOWEL DISPENSER	STRUCT STRUCTURE(AL)	W/ WITH	
BTWN BETWEEN	(E) INDICATES EXISTING	FOS FACE OF STUD		PVC POLYVINYL CHLORIDE	SUSP SUSPENDED	WC WATER CLOSET	
	EA EACH	FOW FACE OF WALL		QTY QUANTITY	TA TOILET ACCESSORY	WD WOOD	
CA COMPRESSED AIR	E.B. EXPANSION BOLT	FRP FIBER REINFORCED PLASTIC		R RISER	TBD TO BE DETERMINED	WH WATER HEATER	
CAB CABINET	E.J. EXPANSION JOINT	FT, FOOT, FEET		R/A RETURN AIR	TD TOILET PAPER DISPENSER	WO WHERE OCCURS	
CAP CAPACITY	EL ELEVATION	FTG FOOTING		RB RUBBER BASE	TEL TELEPHONE	W/O WITHOUT	
CFM CUBIC FEET PER MINUTE	ELEC ELECTRICAL	FPWH FREEZEPROOF WALL HYDRANT		RE REFERENCE	T&G TONGUE AND GROOVE	WP WATERPROOF(ING)	
CFM CUBIC FEET PER MINUTE	ELEV ELEVATION			REBAR REINFORCING BAR	THK THICK	WR WATER RESISTANT	
CIP CAST-IN-PLACE	ENCL ENCLOSE(URE)			RCPT RECEPTACLE	T.O. TOP OF	WT WEIGHT	
C.T. CONTROL JOINT,	EQ EQUAL			REIN REINFORCE(D)(ING)	T.O.C TOP OF CONCRETE	X TIMES OR BY	
CONSTRUCTION JOINT	EQUIP EQUIPMENT			REQ'D REQUIRED	T.O.S TOP OF STEEL		
C/L CENTERLINE	ESEW EMER. SHOWER & EYE WASH			RH RADIANT HEAT	T.O.S TOP OF SLAB		
CLG CEILING	EUH ELECTRIC UNIT HEATER						
CLR CLEAR(ANCE)	EWC ELECTRICAL WATER COOLER						
CMU CONCRETE MASONRY UNIT							

DOORTYPES

ROOM FINISH SCHEDULE

RM.	DESC.	FLR.	BASE	WALLS				CEILING		REMARKS	
				N	E	S	W	MATL	HT.		
101	VESTIBULE	LVT-1	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	9'-4"	NONE	
102	MECH ROOM	LVT-1	RB-1	PT-1	PT-1	PT-1	PT-1	ACT-1	9'-4"	FRP AROUND SINK, RE: FINISH SCHEDULE	
103	BREAK/ADMIN AREA	LVT-1	RB-1	PT-1	PT-1	PT-3	PT-1	ACT-1	9'-4"	NONE	
104	RESTROOM	LVT-1	CT-1	PT-1/1	PT-1/1	PT-1/1	PT-1/1	PT-1/1	PT-1	8'-0"	ALL WALLS TO RECEIVE 4'-0" TILE WAINSCOT, RE: ELEV FOR PATTERN.
105	RESTROOM	LVT-1	CT-1	PT-1/1	PT-1/1	PT-1/1	PT-1/1	PT-1/1	PT-1	8'-0"	ALL WALLS TO RECEIVE 4'-0" TILE WAINSCOT, RE: ELEV FOR PATTERN.
106	CLASSROOM	LVT-1	RB-1	PT-1	PT-3	PT-1	PT-1	ACT-1	9'-4"	NONE	

DOOR SCHEDULE

NO.	DESCRIPTION	TYPE	FINISH	WIDTH	HT	THK	HDWE	FRAME	FINISH	REMARKS
①	EXT. DOOR - ADMIN.	A	PT-2	3'-0"	7'-0"	1-3/4"	1	1	PT-2	KEYPAD LOCK AS SPECIFIED
②	VESTIBULE DOOR	C	PT-2	3'-0"	7'-0"	1-3/4"	2	1	PT-2	
③	MECH ROOM DOOR	B	PT-2	3'-0"	7'-0"	1-3/4"	3	1	PT-2	
④	RESTROOM DOOR	B	PT-2	3'-0"	7'-0"	1-3/4"	4	1	PT-2	
⑤	RESTROOM DOOR	B	PT-2	3'-0"	7'-0"	1-3/4"	5	1	PT-2	
⑥	CLASSROOM DOOR	C	PT-2	3'-0"	7'-0"	1-3/4"	6	1	PT-2	
⑦	EXT. DOOR - CLASSROOM	D	PT-2	6'-0"	7'-0"	1-3/4"	7	2	PT-2	DOUBLE DOOR, KEYPAD LOCK AS SPECIFIED

SCHEDULE OF COLORS AND FINISHES

COLORS ARE FOR REFERENCE, RE: SPECIFICATION SECTIONS INDICATED FOR OTHER APPROVED MANUFACTURERS

06400 ARCHITECTURAL WOODWORK PLAM-1 WILSONART4943-38 CLASSIC LINEN PLAM-2 WILSONART 4656-60 BRONZE LEGACY	09300 CERAMIC TILE CT-1 DAL TILE MATTE, K775 BISCUIT CT-2 DAL TILE MATTE, 0766 ELEMENTAL TAN GROUT: MAPEI 14 BISCUIT
06640 FIBER REINFORCED PLASTIC (FRP) FRP-1 .090" FRP PANEL AT SERVICE SINK, WHITE	09511 ACOUSTIC CEILING TILE ACT-1 ARMSTRONG, CORTEGA 24X48 LAY-IN
07400 METAL PANELS MP-1 EXTERIOR METAL PANEL, R-PROFILE, COLOR AS SELECTED BY ARCHITECT FROM MFR STANDARD COLOR RANGE TO MATCH EXISTING PANELS	09650 RESILIENT FLOOR AND BASE RB-1 ROPPE PINNACLE 140 FAWN LVT-1 KARNDEN KP91, VICTORIAN OAK
08110 DOOR GLAZING GL-1 3/4" CLEAR INSULATED TEMPERED GLASS GL-2 1/4" CLEAR TEMPERED GLASS	09900 PAINTING PT-1 WALLS / CEILING, SHERWIN WILLIAMS SW7002 DOWNY WHITE PT-2 DOORS AND FRAMES, SHERWIN WILLIAMS SW7032 WARM STONE PT-3 ACCENT WALL IN CLASSROOM AND BREAK AREA, SHERWIN WILLIAMS SW6887 NAVEL

* ALL METAL PANEL TRIM & ACCESSORIES TO MATCH ADJACENT PANEL OR AS SELECTED BY ARCHITECT
 * ALL FIRE RATED SURFACES TO MEET CLASS C RATING, MINIMUM, PER IBC 2015 TABLE 803.9.

GENERAL NOTES	
1. ALL WALLS AND PARTITIONS ARE TO BE BUILT PER PARTITION TYPES SHOWN ON THIS SHEET AND CALLED OUT IN THE PLANS AND SPECIFICATIONS.	
2. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS SHALL ESTABLISH LOCATION OF ALL PARTITIONS, OPENINGS, EQUIPMENT, ETC.	
3. LARGER SCALE DRAWINGS AND DETAILS HAVE PRIORITY OVER SMALLER SCALE DRAWINGS.	
4. CONTRACTOR SHALL NOTIFY THE CDOT REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS IN THE DRAWINGS AND/OR SPECIFICATIONS TO REQUEST AND RECEIVE AN INTERPRETATION OR CLARIFICATION FROM CDOT REPRESENTATIVE BEFORE PROCEEDING WITH CONSTRUCTION.	
5. CONTRACTOR SHALL VERIFY FIELD CONDITIONS BEFORE PROCEEDING WITH CONSTRUCTION.	
6. DISTANCE FROM PERPENDICULAR WALL TO INSIDE FACE OF DOOR JAMB SHALL BE 6" UNLESS OTHERWISE NOTED.	
7. AT ROOMS WITH FLOOR DRAINS (TOILET ROOMS, MECHANICAL ROOMS, ETC.), FLOOR SHALL SLOPE TO DRAIN. SLOPE FLOOR TO DRAIN AT 1/4 INCH PER FOOT FROM DRAIN. DO NOT EXCEED SLOPE FOR ACCESSIBILITY PER ICC A117.1.	
8. PROVIDE FULLY TEMPERED OR LAMINATED SAFETY GLASS WHERE REQUIRED BY ALL APPLICABLE CODES, REGULATIONS AND/OR LAWS.	
9. GYP BD IS 5/8 INCH THICKNESS U.O.N., PROVIDE TYPE "X" FIRE RATED GYP BD AT TESTED FIRE ASSEMBLIES.	
10. DO NOT PLACE MECHANICAL AND/OR ELECTRICAL DEVICES BACK TO BACK IN SOUND BARRIER PARTITIONS. ALL DEVICES TO BE PLACED IN SEPARATE STUD SPACES WITH 8" O.C. MIN. SEPARATION.	
11. PROVIDE CEMENTITIOUS TILE BACKER BOARD AT ALL WALLS IN DIRECT CONTACT WITH WATER AND AT ALL WALLS SCHEDULED TO RECEIVE SCHEDULED CERAMIC OR STONE TILE. AT HUMID SPACES INCLUDING BUT NOT LIMITED TO TOILET ROOM WALLS, KITCHEN WALLS AND WALLS ADJACENT TO WATER FEATURES WHERE TILE IS NOT SCHEDULED PROVIDE MOISTURE RESISTANT GYPSUM BOARD.	
12. UON, PARTITIONS ARE DIMENSIONED TO FACE OF GYP BD, FACE OF MASONRY AND TO FACE OF EXISTING CONSTRUCTION. ANY INTERIOR PARTITIONS DIMENSIONED TO FACE OF METAL STUD ARE NOTED - "FOS" (FACE OF STUD).	
13. DIMENSIONS TO DOORS ARE TO THE CENTERLINE OF THE OPENING. REFER TO DOOR SCHEDULE FOR SIZE OF DOORS AND FRAMES.	
14. PARTITIONS ARE PERPENDICULAR AND/OR PARALLEL TO COLUMN GRID U.O.N.	
15. NOTES TO "ALIGN" MEAN TO ALIGN FINISHED FACE OF PARTITION UNLESS OTHERWISE NOTED AND SHALL HAVE PRIORITY OVER DIMENSIONED LOCATIONS.	
16. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING OR 20 GAUGE METAL BLOCKING AS SHOWN OR AS REQUIRED FOR ATTACHMENT OF WALL MOUNTED HARDWARE, TOILET ACCESSORIES, CASEWORK, MILLWORK, FINISH CARPENTRY ETC. AS MAY BE REQUIRED FOR THE SECURE ATTACHMENT OF ADJOINING WORK.	
17. PROVIDE STUDS OF GAUGE AND SPACING ADEQUATE TO SUPPORT APPLIED LOADS INCLUDING HAND-RAILS, KNEE WALLS, GRAB BARS, WALL-MOUNTED FIXTURES, ETC.	
18. REFER TO GYPSUM BOARD ASSEMBLIES SPECIFICATION SECTION FOR ADDITIONAL REQUIREMENTS FOR GYPSUM BOARD ASSEMBLIES INCLUDING, BUT NOT LIMITED TO FIRE RATED CONSTRUCTION, SOUND RATED CONSTRUCTION, MATERIALS AND TOLERANCES.	
19. EXTERIOR ENVELOPE SHALL BE INSULATED TO MEET REQUIREMENTS OF ASHRAE 90.1 - 2013 STANDARDS IN ACCORDANCE WITH THE INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2015 FOR CLIMATE ZONE 4B. COMPLIANCE SHALL BE THROUGH A BUILDING ENVELOPE COMCHECK.	
20. SOUND INSULATED WALLS SHALL HAVE MINIMUM 3-1/2" SOUND ATTENUATION BATTS AND SHALL FILL CAVITY WALL COMPLETELY.	
21. MAINTAIN 80" HEAD CLEARANCE BELOW ALL DUCTS AND SOFFITS THROUGHOUT THE BUILDING.	

HATCH LEGEND	
TYPE	DESCRIPTION
	EARTH/COMPACTED SOIL
	GRAVEL FILL
	CAST-IN-PLACE CONCRETE
	MASONRY
	GROUT FILLED MASONRY
	STAINLESS STEEL
	STEEL
	METAL ROOF PANEL
	METAL WALL PANEL
	METAL WALL PANEL, BEYOND
	WOOD WORK
	CONTINUOUS FRAMING MEMBER
	DISCONTINUOUS FRAMING MEMBER
	BATT INSULATION
	RIGID INSULATION
	EXISTING TO BE DEMOLISHED
	EXISTING WALL TO REMAIN

PARTITION TYPES		
TYPE	DETAIL	DESCRIPTION
W1		FURRING OUT AT EXISTING EXTERIOR WALL: EXISTING EXTERIOR METAL PANEL EXISTING VERTICAL METAL STUDS @ 16" O.C. NEW MIN R-13 UNFACED METAL BLDG BLANKET FIBER GLASS INSULATION, FILL CAVITY 2" (R-10) XPS RIGID INSULATION 2 1/2" METAL STUDS VAPOR BARRIER INSTALLED ON INSIDE FACE OF STUDS 5/8" GYPSUM WALL BOARD, PROVIDE KNOCK DOWN FINISH WALL TYPE DESIGNATED "SIM" AT INFILL AREAS, PROVIDE NEW EXTERIOR METAL PANEL, MP-1, AND VERTICAL METAL STUDS AT 16" O.C. TO MATCH EXISTING CONSTRUCTION
W2		TYPICAL INTERIOR PARTITION: 1-LAYER 5/8" GYPSUM WALL BOARD 3-5/8" LT. GA. MTL. STUDS AT DOORS, PROVIDE 16 GAUGE KING STUDS SOUND BATT INSULATION AT TOILET ROOM WALLS. FILL CAVITY, R-19 MIN 1-LAYER 5/8" GYPSUM WALL BOARD AT TOILET ROOM, PROVIDE 1-LAYER 5/8" CEMENTITIOUS BOARD AND CERAMIC TILE TO HEIGHT OF WAINSCOT, 1 LAYER 5/8" GYPSUM WALL BOARD ABOVE.
W2A		PLUMBING WALL PARTITION: 1-LAYER 5/8" GYPSUM WALL BOARD 6" LT. GA. MTL. STUDS SOUND BATT INSULATION AT TOILET ROOM WALLS. FILL CAVITY, R-19 MIN 1-LAYER 5/8" GYPSUM WALL BOARD AT TOILET ROOM, PROVIDE 1-LAYER 5/8" CEMENTITIOUS BOARD AND CERAMIC TILE TO HEIGHT OF WAINSCOT, 1 LAYER 5/8" GYPSUM WALL BOARD ABOVE.
W3		FURRING WALL AT STEEL STRUCTURE AND PILASTERS 2 1/2" METAL STUD FRAMING AROUND STRUCTURAL PILASTER 2" (R-10) XPS RIGID INSULATION TO PROVIDE CONTINUOUS THERMAL BARRIER AT EXT WALL 1 LAYER 5/8" GYPSUM WALL BOARD AIR SPACE STEEL STRUCTURE
ROOF INSULATION DETAIL		NEW INSULATION AT ROOF EXISTING METAL ROOFING PANEL EXISTING ROOF PURLINS NEW MIN R-25 UNFACED BATT INSULATION INSTALLED PARALLEL TO PURLINS NEW VAPOR BARRIER LINER INSTALLED ON INSIDE FACE OF PURLINS WITH STRAPS HOLDING INSULATION IN PLACE

CODE ANALYSIS

CODE DIAGRAM

----- TRAVEL PATH

CLIMATE ZONE PER 2015 IECC: 4B
COUNTY: OTERO
ENERGY REQUIREMENTS COMPLIED WITH USING BUILDING ENVELOPE COMCHECK USING ASHRAE 90.1 - 2013 STANDARDS

DESCRIPTION OF WORK: THIS PROJECT REMODELS AN EXISTING CDOT MAINTENANCE FACILITY IN LA JUNTA, COLORADO INTO A NEW TRAINING FACILITY. DEMOLITION INCLUDES DEMOLISHING EXISTING PLUMBING FIXTURES, LIGHTING FIXTURES, TWO EXTERIOR MAN DOORS, AND TWO OVERHEAD DOORS. NEW CONSTRUCTION INCLUDES REPLACING EXISTING INSULATION IN THE EXTERIOR WALLS, AND PROVIDING A NEW TRAINING ROOM WITH ASSOCIATED HVAC SYSTEM, RESTROOMS, BREAK AREA, MECH ROOM, AND VESTIBULE. THE ENTIRE BUILDING SHALL RECEIVE NEW FIXTURES AND FINISHES.

CODE INFORMATION:

B OCCUPANCY PER IBC 304.1 TRAINING AND ADMINISTRATION CONSTRUCTION TYPE - VB, NOT SPRINKLERED AREA AND HEIGHT
ALLOWABLE AREA - B: 9,000
STORIES ALLOWED - B: 2
ALLOWABLE HEIGHT - B: 40'
ACTUAL AREA - 1870 SQUARE FEET GROSS
HEIGHT - 18'-0"
NUMBER OF STORIES - 1

EXIT DISTANCE ALLOWED:
B- 200' ACTUAL IS 65'
EXITS REQUIRED - 2. EXITS PROVIDED - 2
TRAINING ROOM OCC LOAD FACTOR 20, 1100/20 = 55 OCC, 2 EXITS
B OCC LOAD FACTOR 100, 770/100 = 8 OCC, 1 EXIT
TOTAL OCCUPANTS IN BUILDING: 63

EXITS PROVIDED - 1 FROM TRAINING ROOM, 1 FROM ADMIN (2 ACCESSIBLE)

PLUMBING CALCULATIONS: TOTAL OCCUPANTS - 63
WC REQUIRED - 2; WC PROVIDED - 1 WOMENS, 2 MENS (1 URINAL)
1 DRINKING FOUNTAIN PROVIDED WITH GLASS FILLER; 1 MOP SINK PROVIDED

PER 2015 IFC TABLE 906.3(1) PROVIDE ONE FIRE EXTINGUISHER FOR EVERY 1,500 SQ FT FOR NORMAL HAZARD. 1,870 SF = TWO NEW FIRE EXTINGUISHERS. LOCATE PER PLANS AND AS SPECIFIED BY AUTHORITY HAVING JURISDICTION.

IN ADDITION TO ALL REQUIRED ILLUMINATED EXIT SIGNAGE, GC TO PROVIDE BRAILLE EXIT SIGN ADJACENT TO ALL DOORS MARKED AS EXITS. SIGN TO SAY "EXIT" IN RAISED LETTERS AND BRAILLE IN COMPLIANCE WITH ANSI A117.1 AND TO BE MOUNTED ON THE LEVER SIDE, ADJACENT TO THE DOOR, IN THE DIRECTION OF TRAVEL, AT A HEIGHT AT A MINIMUM OF 48" AND MAXIMUM OF 60"

NOTE: PROVIDE OCCUPANCY SIGN AT CLASSROOM STATING, "MAXIMUM OCCUPANCY NOT TO EXCEED 55 PERSONS."

MAIN LEVEL FLOOR PLAN
3/32" = 1'-0"

UTILITIES

GAS:	BLACK HILLS ENERGY 101 S 12TH STREET ROCKY FORD, CO 81067 PH: (800) 694-8989
ELECTRICITY:	CITY OF LA JUNTA 601 COLORADO AVE LA JUNTA, CO 81050 PH: (719) 384-8454
WATER:	CITY OF LA JUNTA 601 COLORADO AVE LA JUNTA, CO 81050 PH: (719) 384-7358
SEWER:	CITY OF LA JUNTA 601 COLORADO AVE LA JUNTA, CO 81050 (719) 384-2546
FIRE:	LA JUNTA FIRE DEPARTMENT 601 COLORADO AVE LA JUNTA, CO 81050 (719) 384-2323 FIRE CAPTAIN: JOEY GACNIK

DESCRIPTION	No.	DATE
85% CONSTRUCTION DOCS	1	03/24/2017
85% CONSTRUCTION DOCS	2	04/12/2017
89% CD/CODE REVIEW	3	05/12/2017
100% BID SET	4	06/14/2017

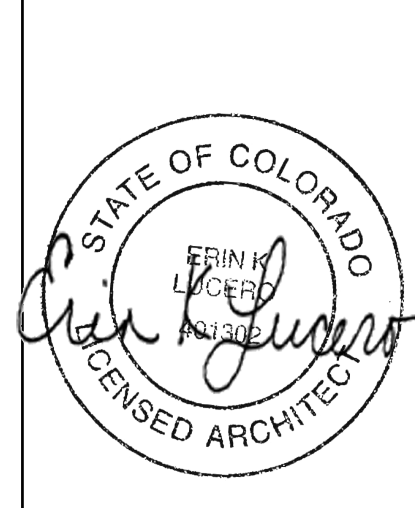
Colorado Department of Transportation

15285 SOUTH GOLDEN ROAD
BUILDING 47
GOLDEN, CO 80401
Phone: 303-512-5505 FAX: 303-512-5550

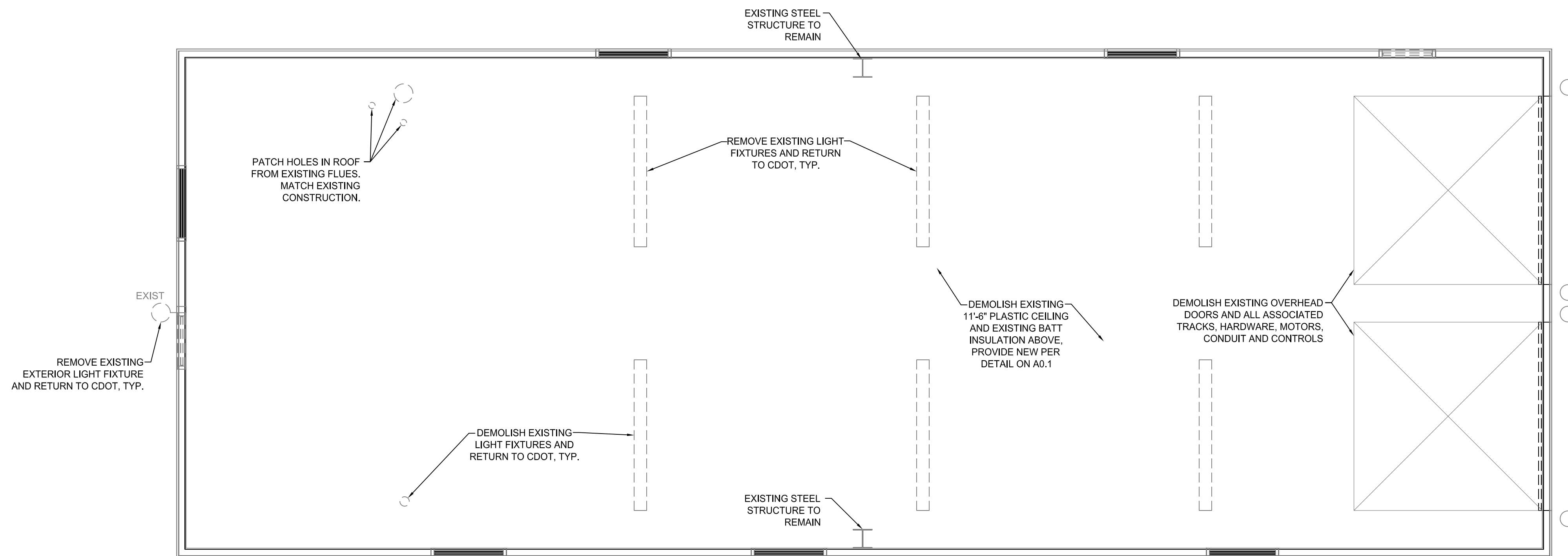
GENERAL NOTES

LA JUNTA TRAINING ROOM

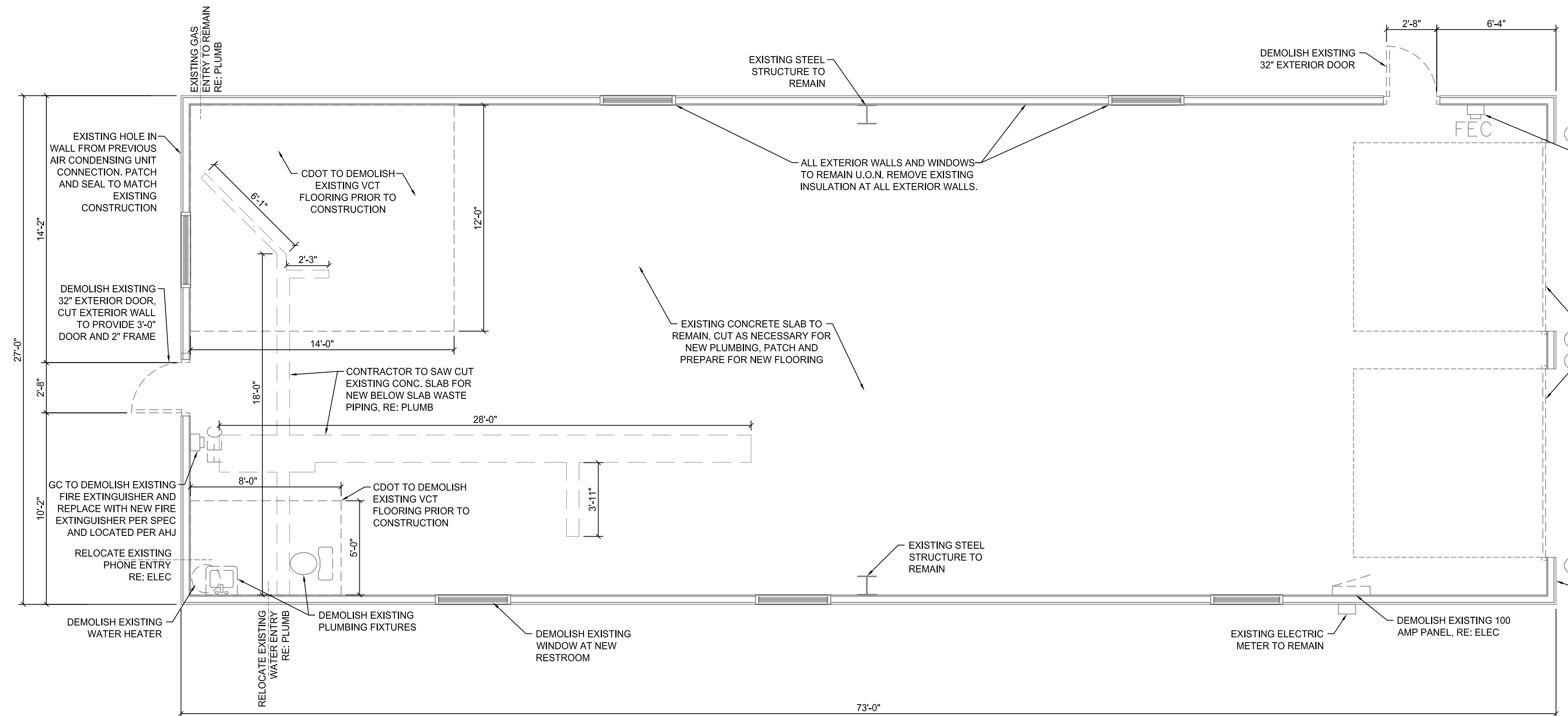
28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81050



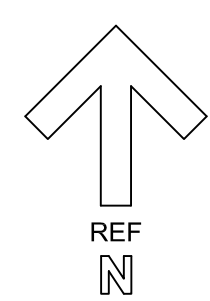
DRAWN BY: KMC
CDOT PROJECT NO. 21914 SAP BUILDING # 1000247
DRAWING NUMBER A0.1



2 DEMOLITION REFLECTED CEILING PLAN
1/4" = 1'-0"

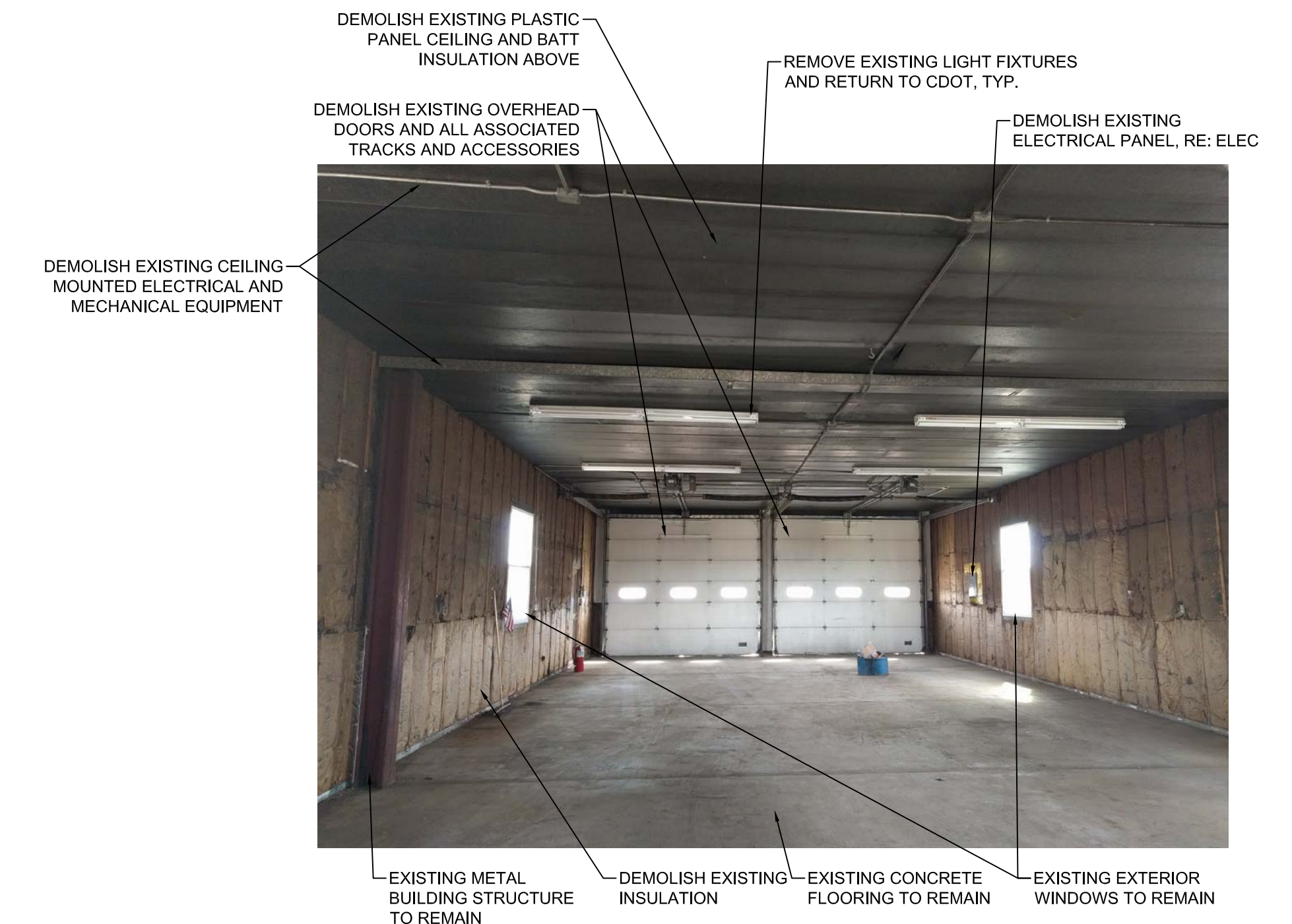


1 DEMOLITION PLAN
1/4" = 1'-0"



DEMOLITION PLAN NOTES

1. DEMOLISH AND REMOVE ALL ASSEMBLIES, MATERIALS AND DEBRIS AS INDICATED WITH A DASHED LINE.
2. ALL EXISTING EQUIPMENT, MATERIALS AND FIXTURES NOT SCHEDULED FOR RE-USE SHALL BE DISPOSED OF PROPERLY AND RECYCLED IF POSSIBLE. COORDINATE WITH THE OWNER'S REPRESENTATIVE AND COMPLY WITH ALL REGULATIONS AND/OR REQUIREMENTS PERTAINING TO THE REMOVAL, SALVAGE, AND STORAGE OF MATERIALS TO BE DEMOLISHED AS SCHEDULED.
3. EXISTING ELECTRICAL WIRING NOT SCHEDULED FOR RE-USE SHALL BE REMOVED ENTIRELY, INCLUDING HANGARS, SUPPORTS, TERMINALS, CONDUIT AND JUNCTIONS FROM THE SOURCE TO THE POINT OF TERMINATION. MAINTAIN CIRCUIT AND/OR TRANSMISSION CONTINUITY TO REMAINING DEVICES WHERE NECESSARY.
4. ALL PIPES AND CONDUIT SCHEDULED FOR DEMOLITION SHALL BE REMOVED IN THEIR ENTIRETY, WHEN NOT IN USE AND/OR SCHEDULED FOR RELOCATION COORDINATE ACCORDINGLY.
5. WHERE EXISTING PLUMBING FIXTURES ARE SCHEDULED TO BE REMOVED, REMOVE COMPLETE WITH ALL ACCESSORIES AND TRIM. REPAIR PIPING AS REQUIRED FOR NEW FIXTURES.
6. WHERE EXISTING FLOORING IS INDICATED TO BE REMOVED, REMOVE FLOORING, ADHESIVE AND MASTIC TO CONCRETE SUBSTRATE BELOW. IF CONCRETE OR SUBSTRATE COMES UP WITH THE FLOORING, PROVIDE LEVELING AND/OR PATCHING FOR SMOOTH SURFACE.



3 PHOTOS
N.T.S.

NO.	DESCRIPTION	DATE
1	85% CONSTRUCTION DOCS	03/24/2017
2	85% CONSTRUCTION DOCS	04/12/2017
3	99% CD/CODE REVIEW	05/12/2017
4	100% BID SET	06/14/2017

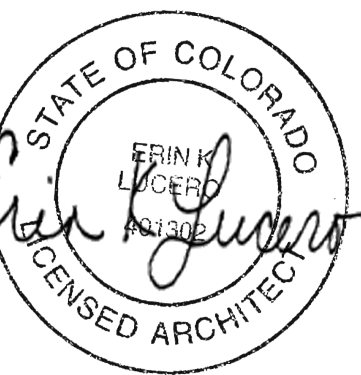
Colorado Department of Transportation

15285 SOUTH GOLDEN ROAD
BUILDING 47
GOLDEN, CO 80401
Phone: 303-512-5505 FAX: 303-512-5550



DEMOLITION PLANS
LA JUNTA TRAINING ROOM

28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81050



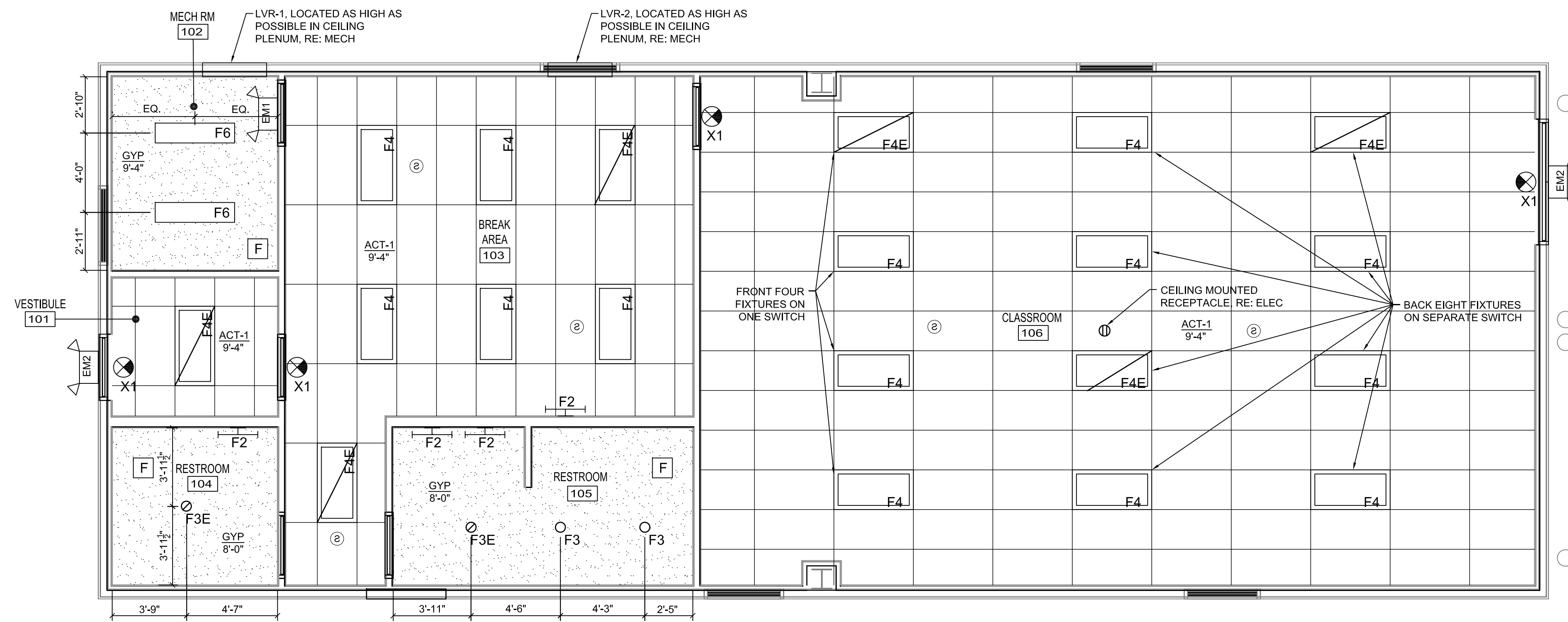
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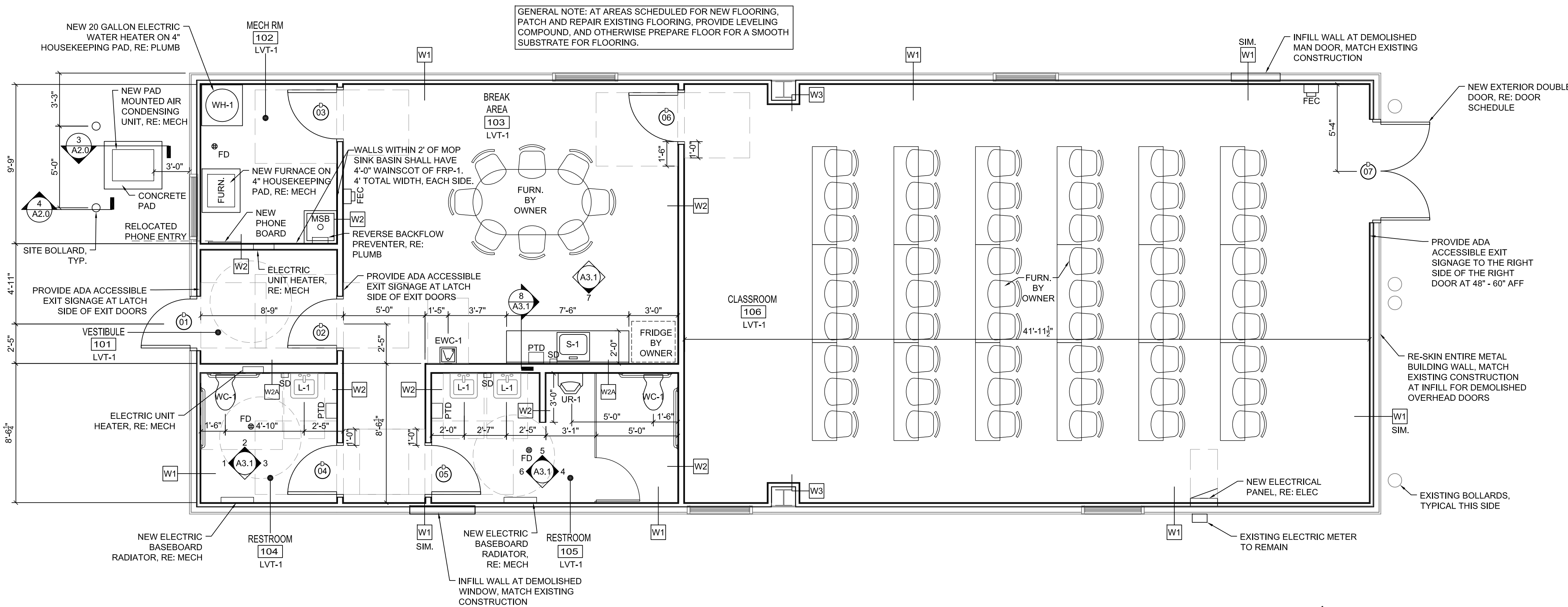
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A1.0

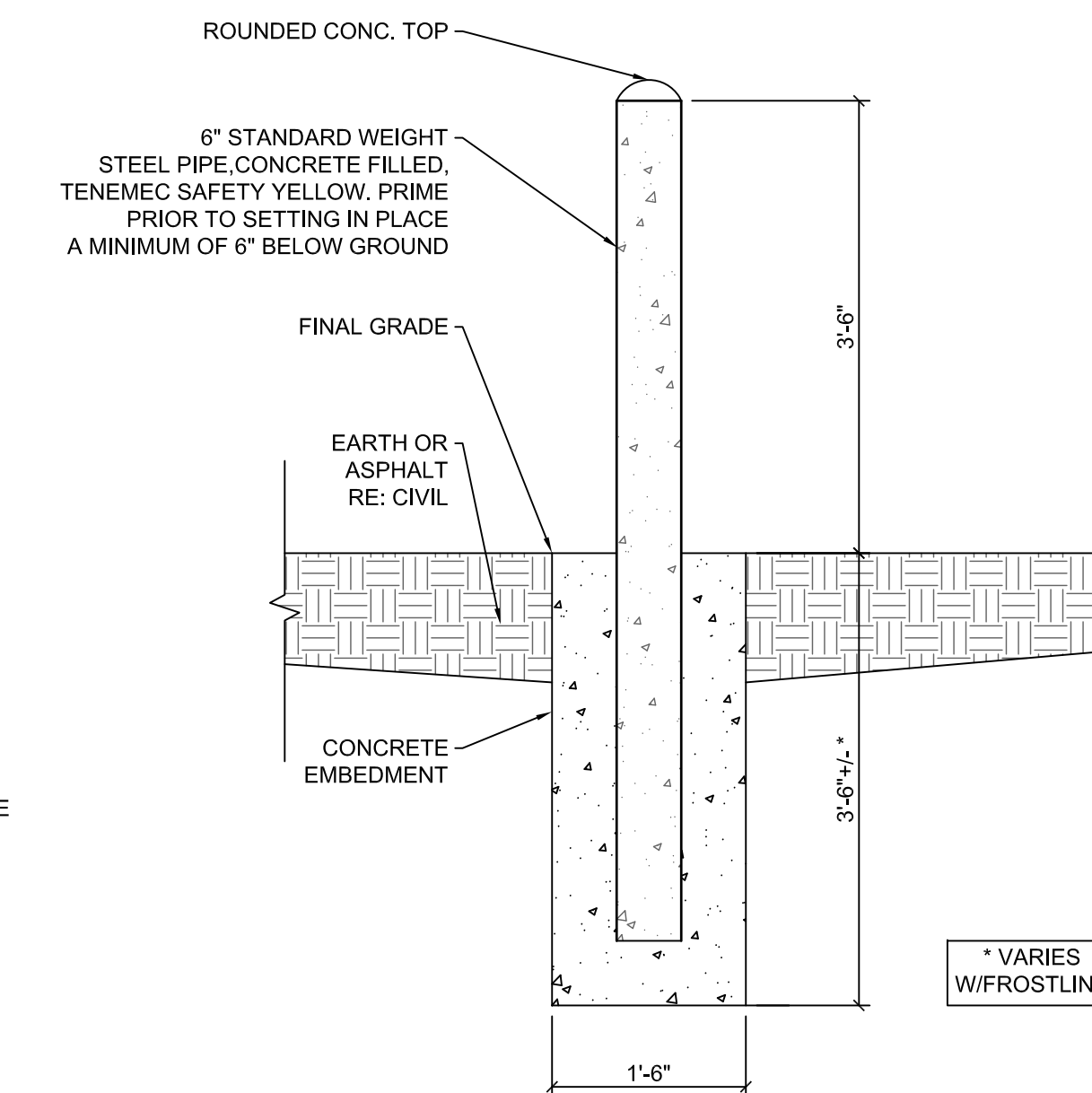
LEGEND	
	6" DIA RECESSED DOWNLIGHT
	4"X48" FIXTURE HUNG/SURFACE
	2X4 FIXTURE
	EMERGENCY FIXTURE
	EMERGENCY LIGHTING
	EMERGENCY EXIT LIGHT
	2' WALL MOUNTED FIXTURE
	EXHAUST FAN
	HARDWIRED COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR



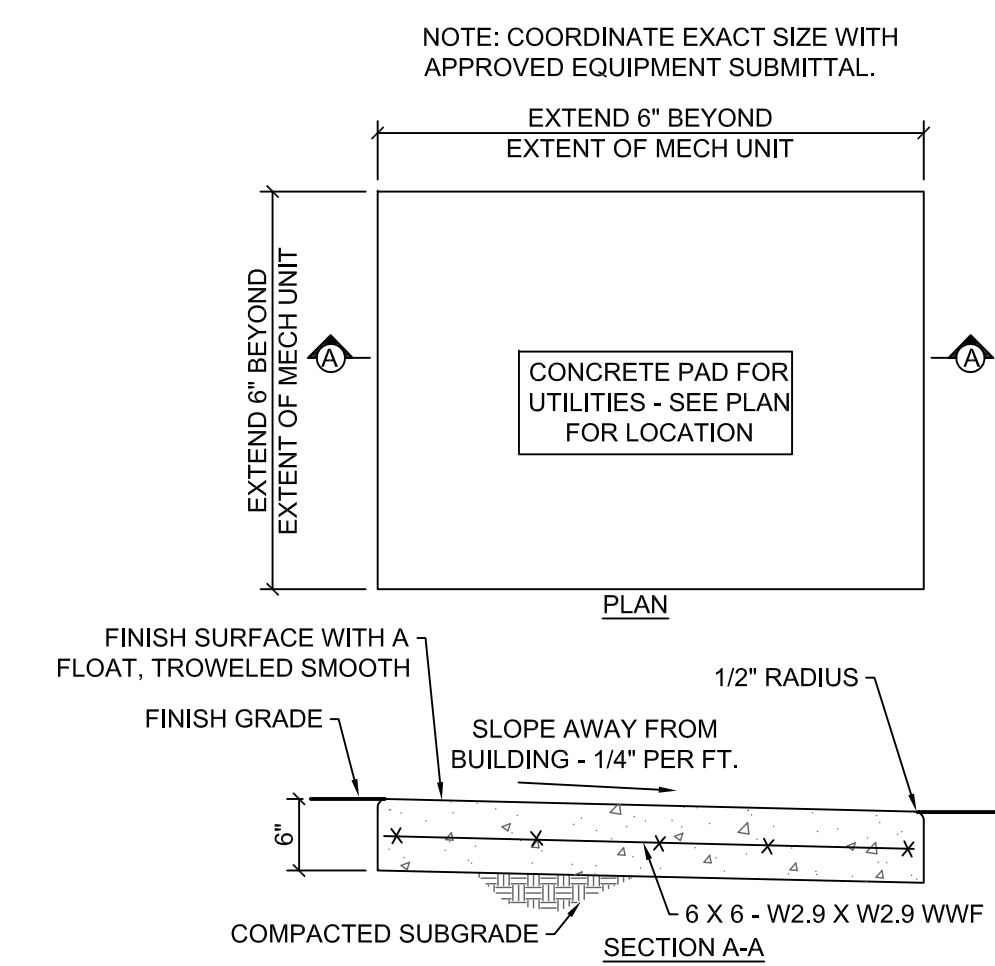
2 REFLECTED CEILING PLAN
1/4" = 1'-0"



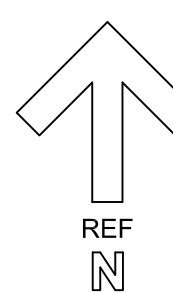
1 CONSTRUCTION PLAN
1/4" = 1'-0"



4 SITE BOLLARD DETAIL, TYP.
3/4" = 1'-0"



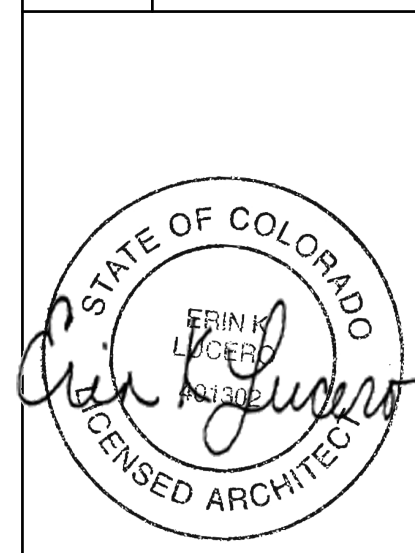
3 CONCRETE PAD DETAIL
3/4" = 1'-0"



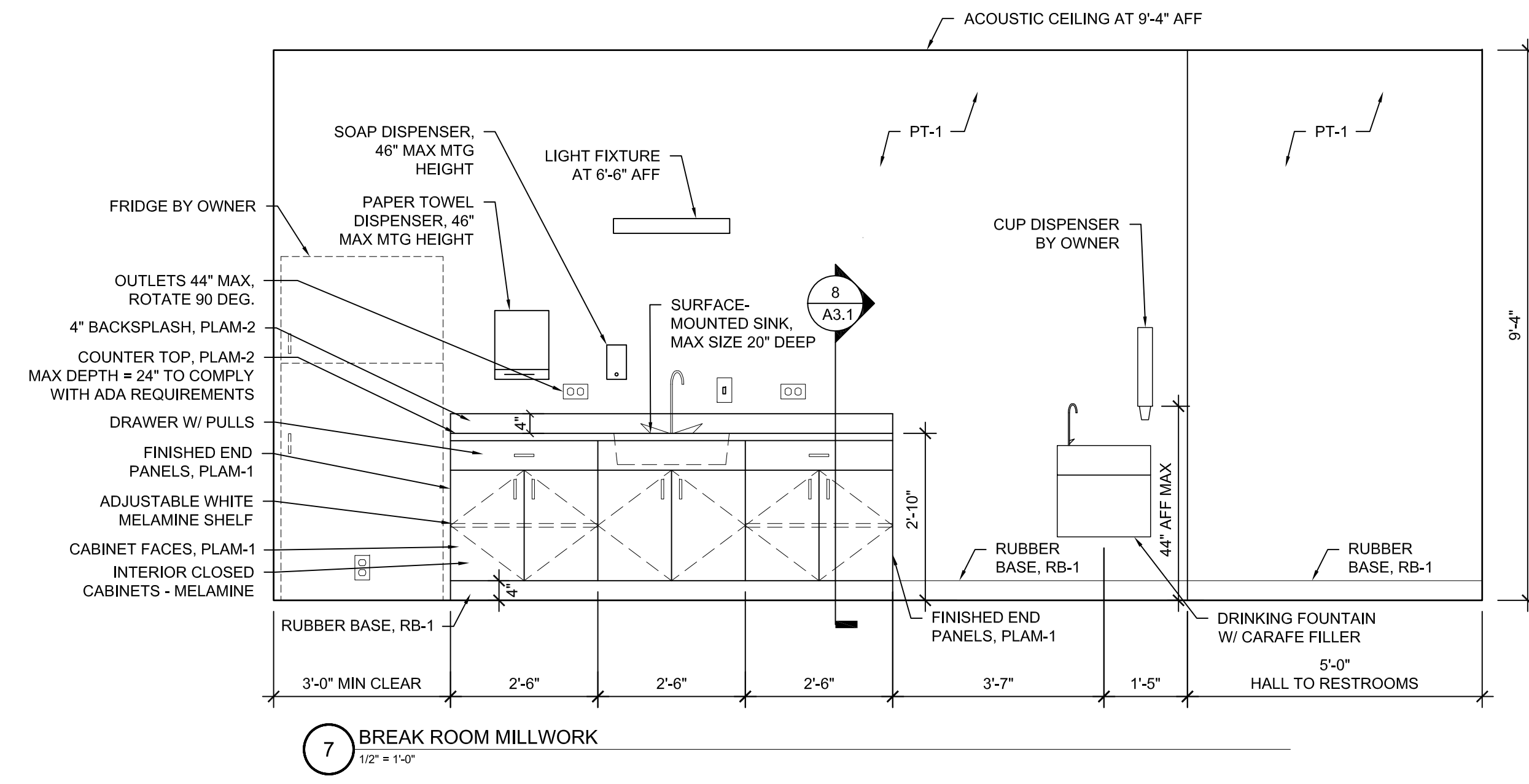
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06/14/2017	4	100% BID SET

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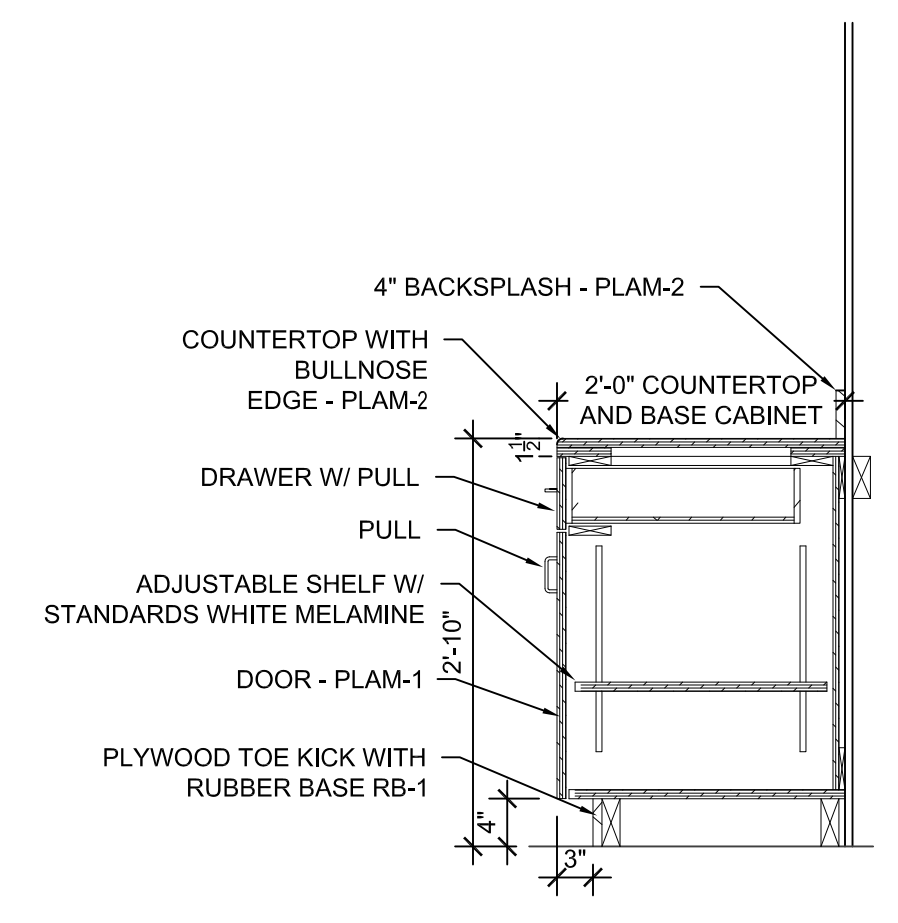
CONSTRUCTION PLANS
LA JUNTA TRAINING ROOM
28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81050



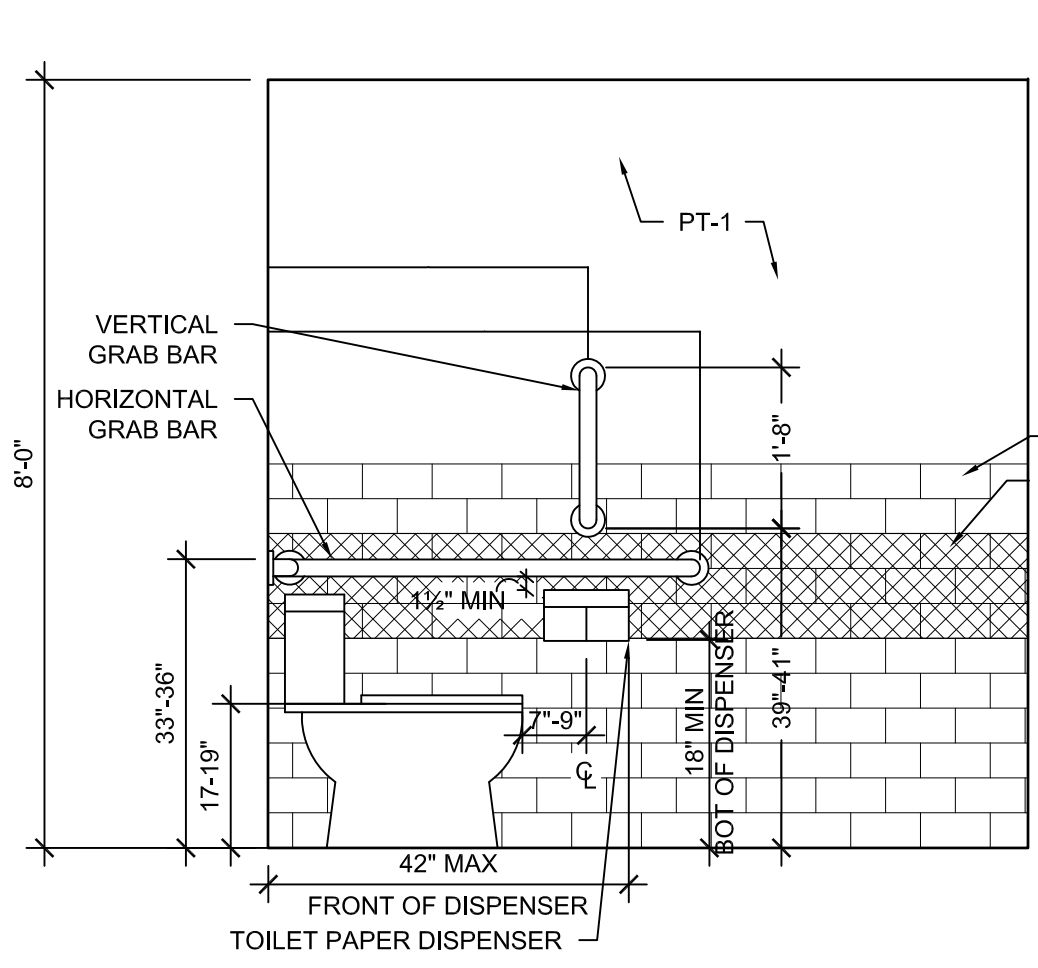
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SAP BUILDING # 1000247
DRAWING NUMBER
A2.0



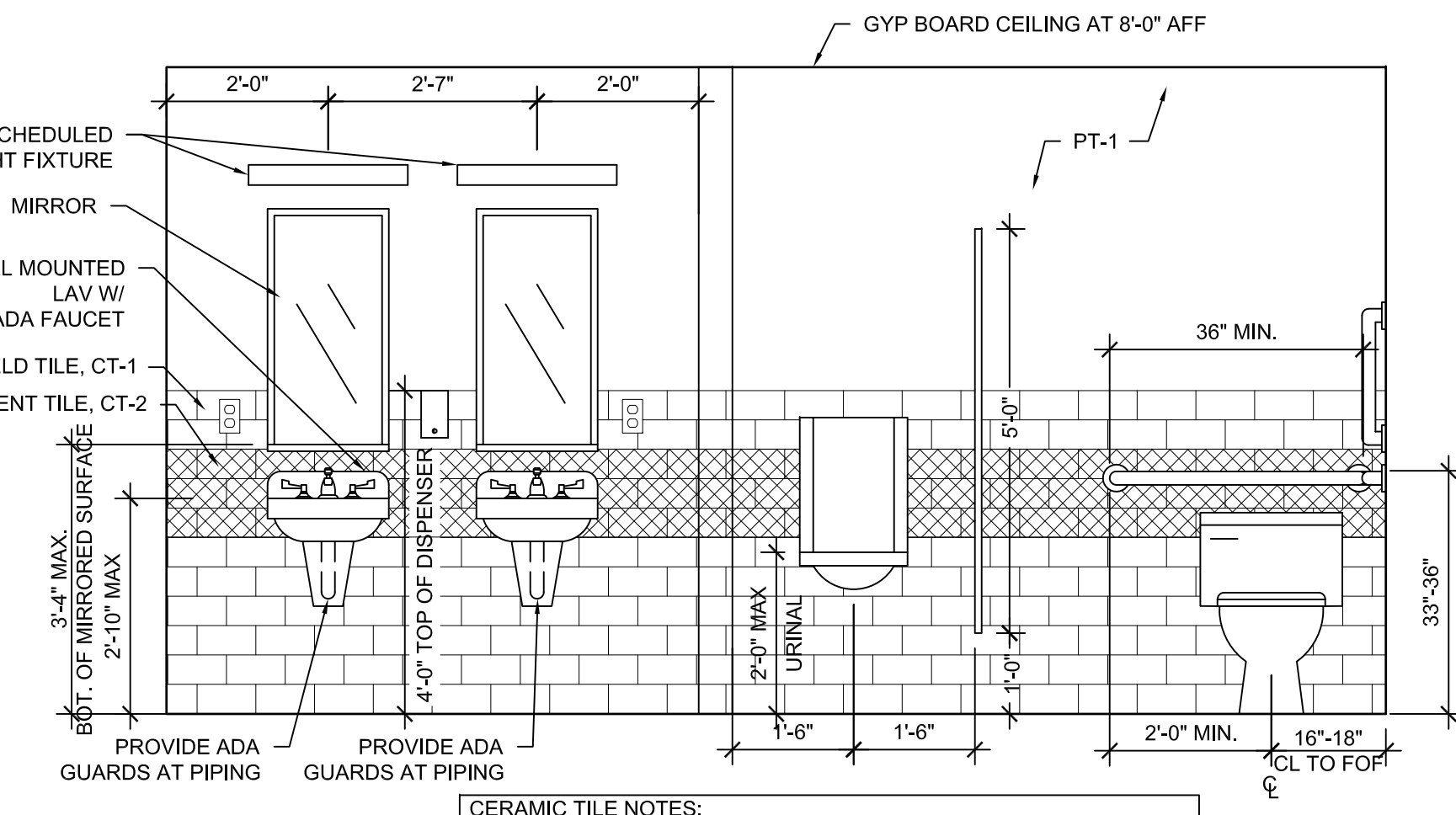
7 BREAK ROOM MILLWORK
1/2" = 1'-0"



8 BREAK ROOM CASEWORK SECTION
3/4" = 1'-0"

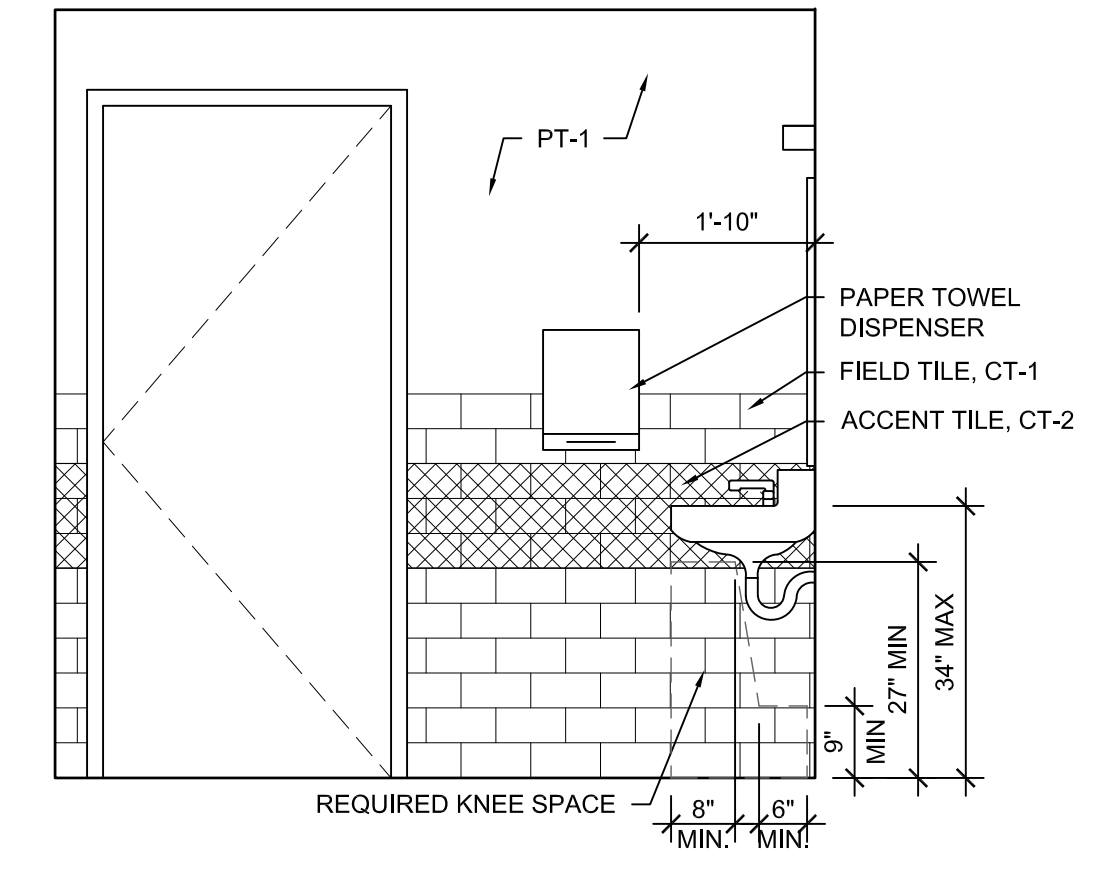


4 INTERIOR ELEVATION - MEN'S ROOM
1/2" = 1'-0"

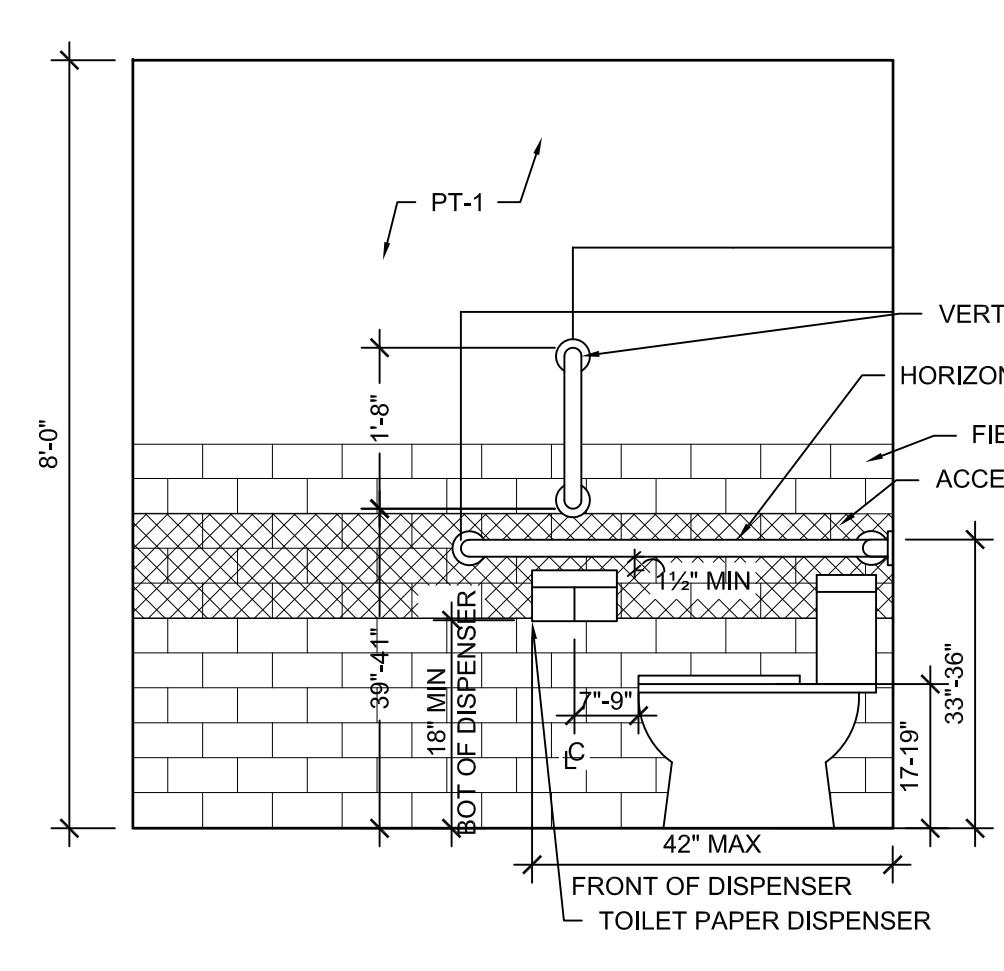


5 INTERIOR ELEVATION - MEN'S ROOM
1/2" = 1'-0"

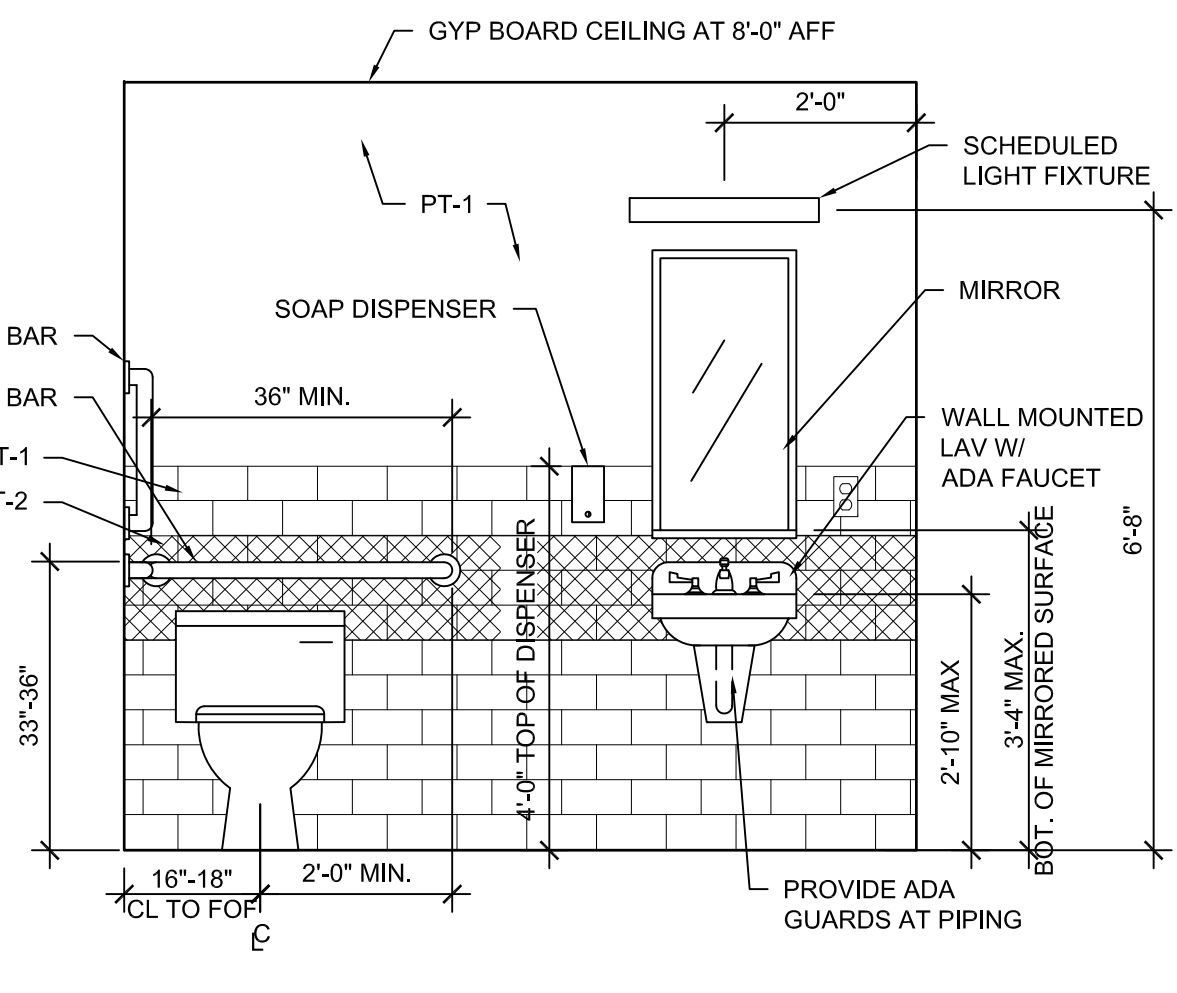
- CERAMIC TILE NOTES:
1. REFER TO FINISH SCHEDULE FOR MATERIAL SELECTIONS.
 2. ALL EDGE TILES SHALL BE BULLNOSED AS SPECIFIED.
 3. BASE TILES SHALL BE COVE BASE, AS SPECIFIED.
 4. PREP TOILET ROOM WALLS FOR SMOOTH FINISH.
 5. ALL WALLS IN RESTROOM TO RECEIVE CERAMIC TILE WAINSCOT



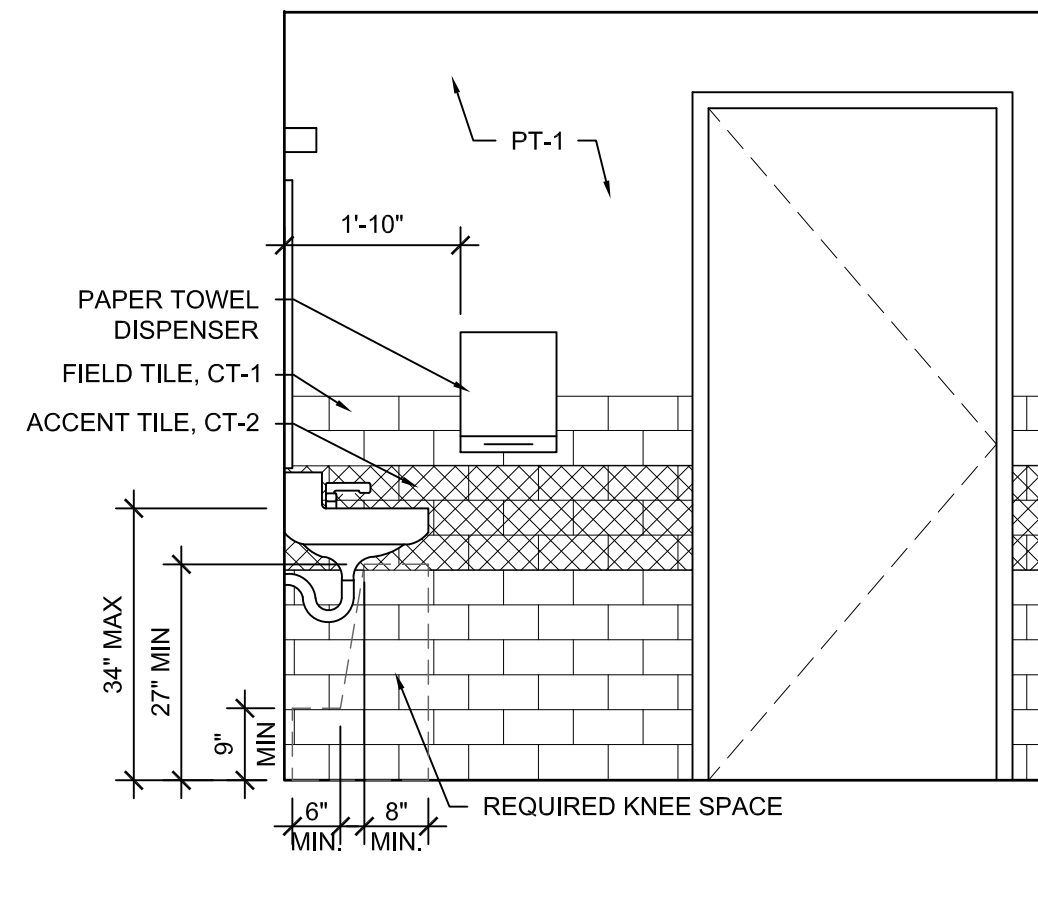
6 INTERIOR ELEVATION - MEN'S ROOM
1/2" = 1'-0"



1 INTERIOR ELEVATION - WOMEN'S ROOM
1/2" = 1'-0"



2 INTERIOR ELEVATION - WOMEN'S ROOM
1/2" = 1'-0"

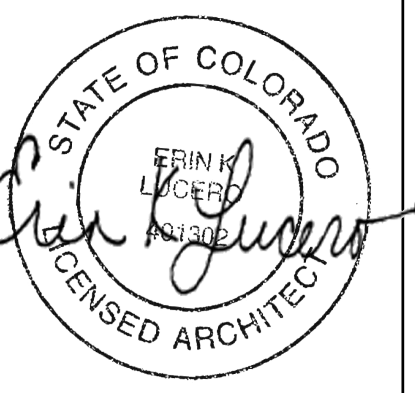


3 INTERIOR ELEVATION - WOMEN'S ROOM
1/2" = 1'-0"

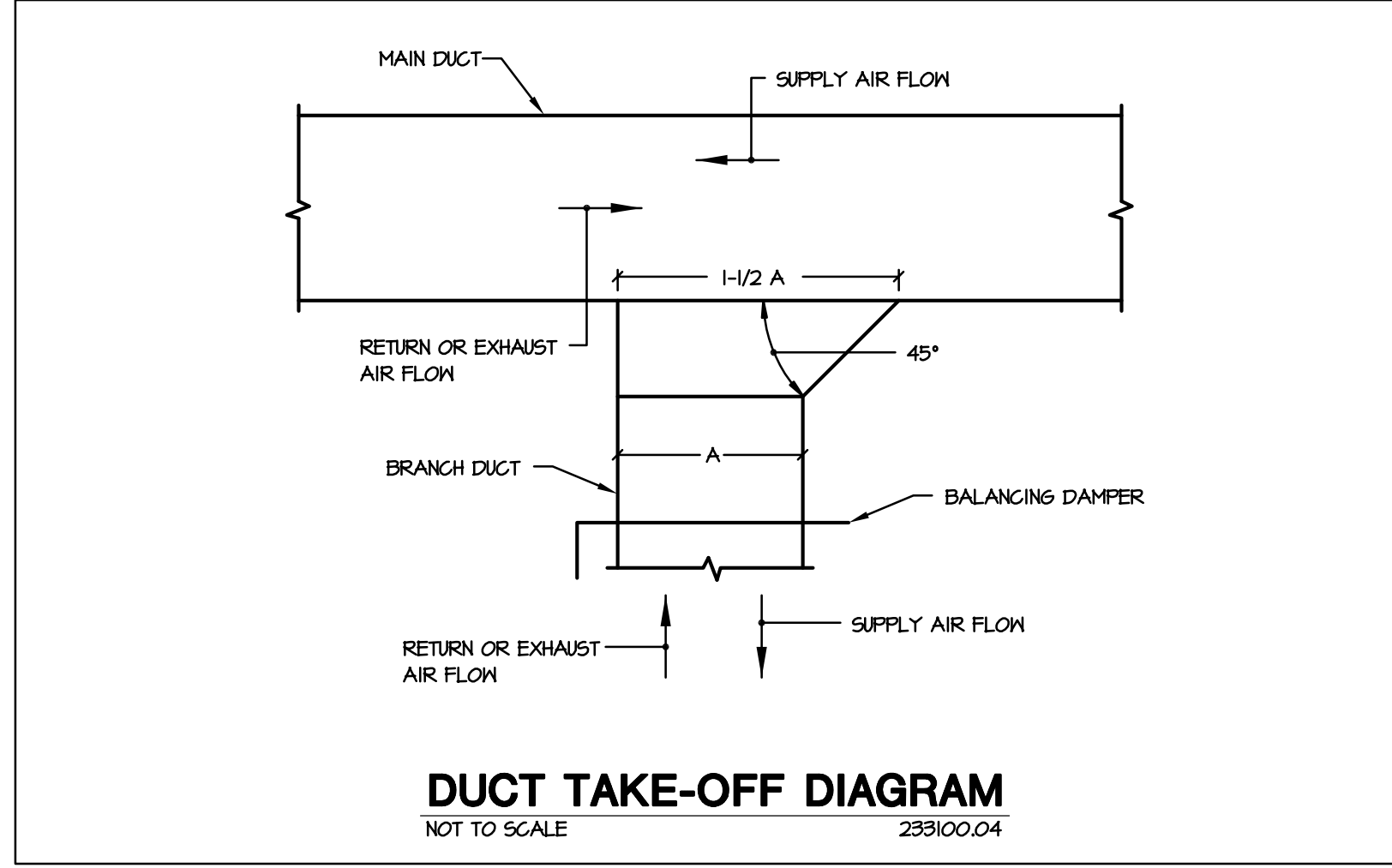
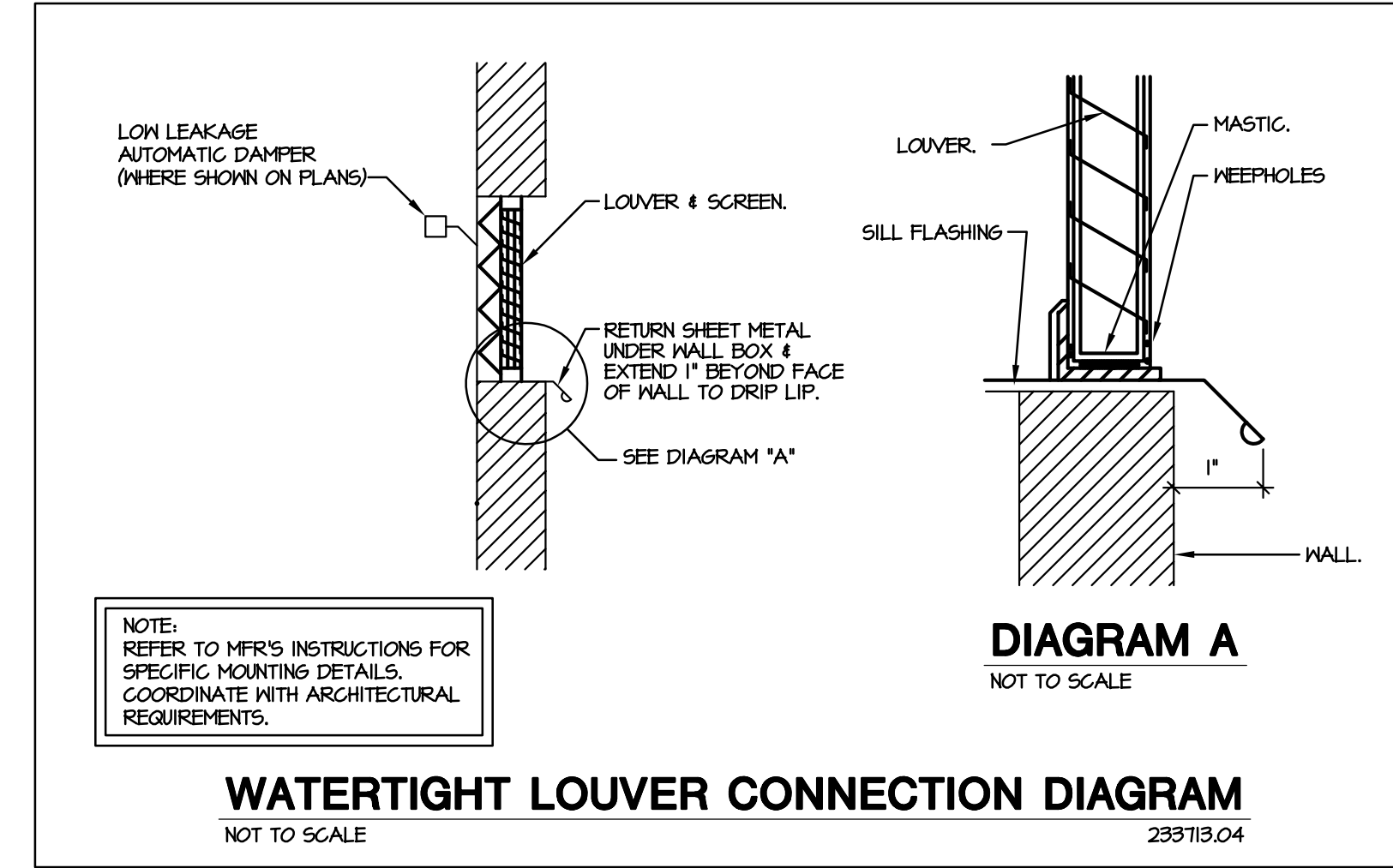
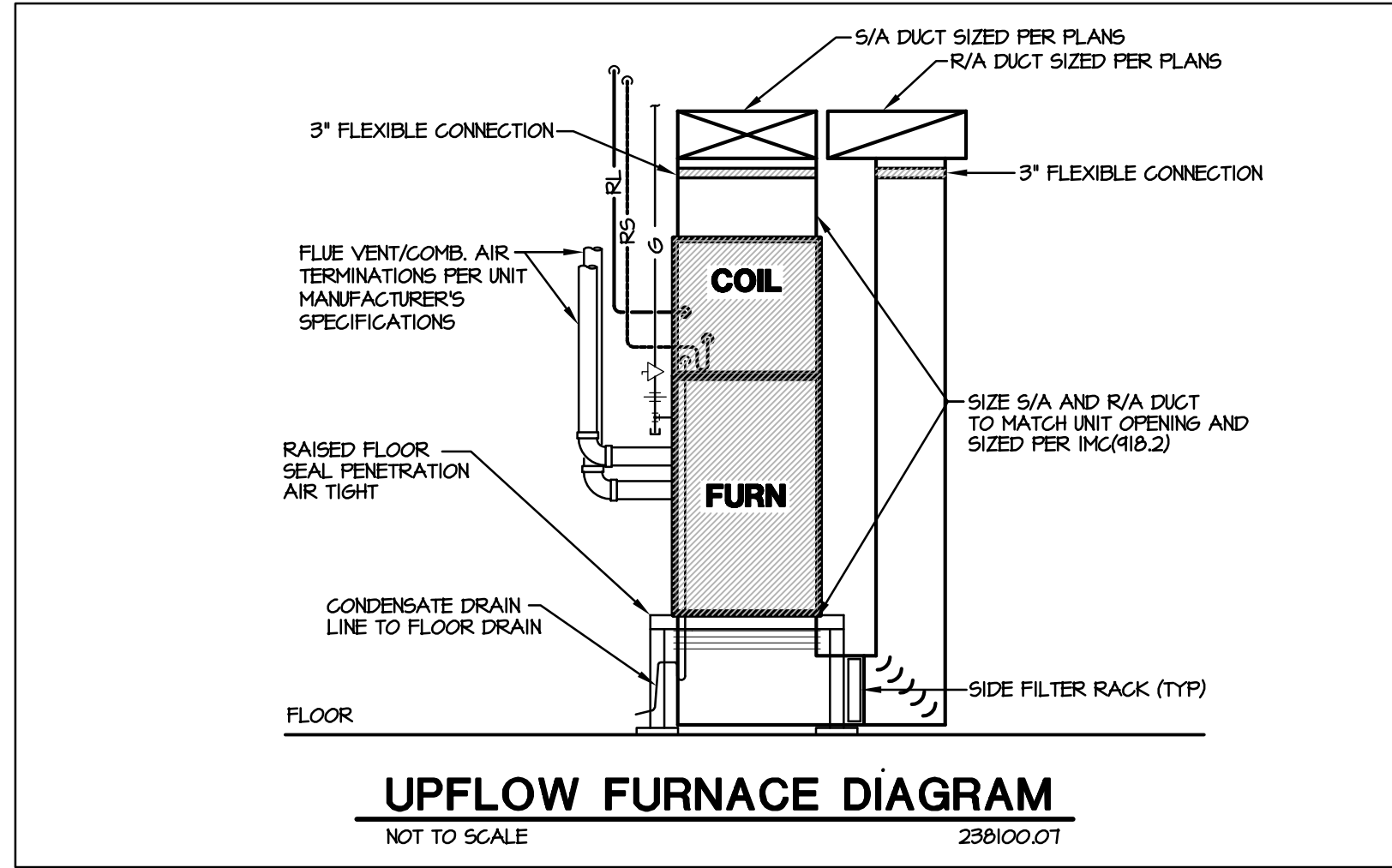
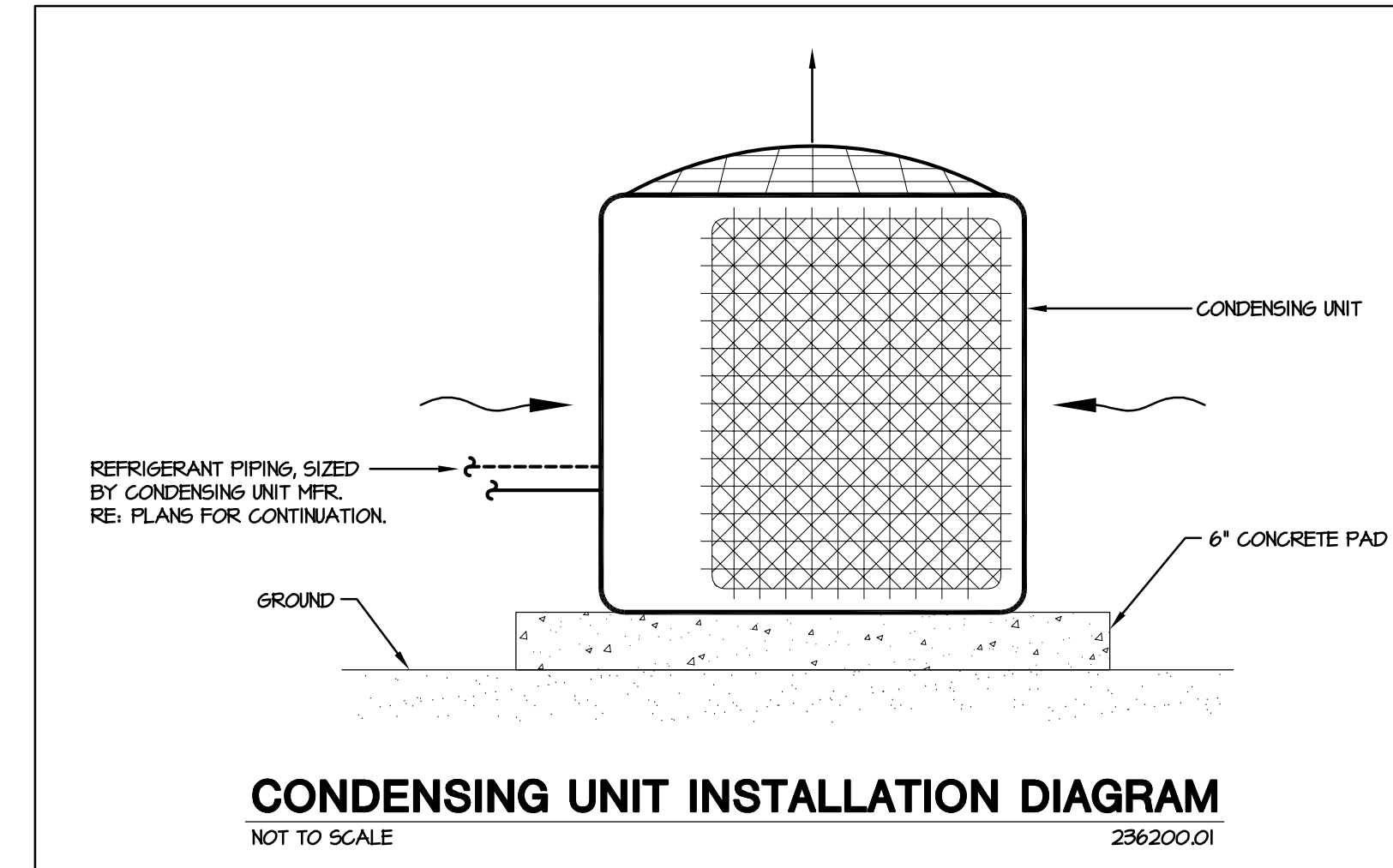
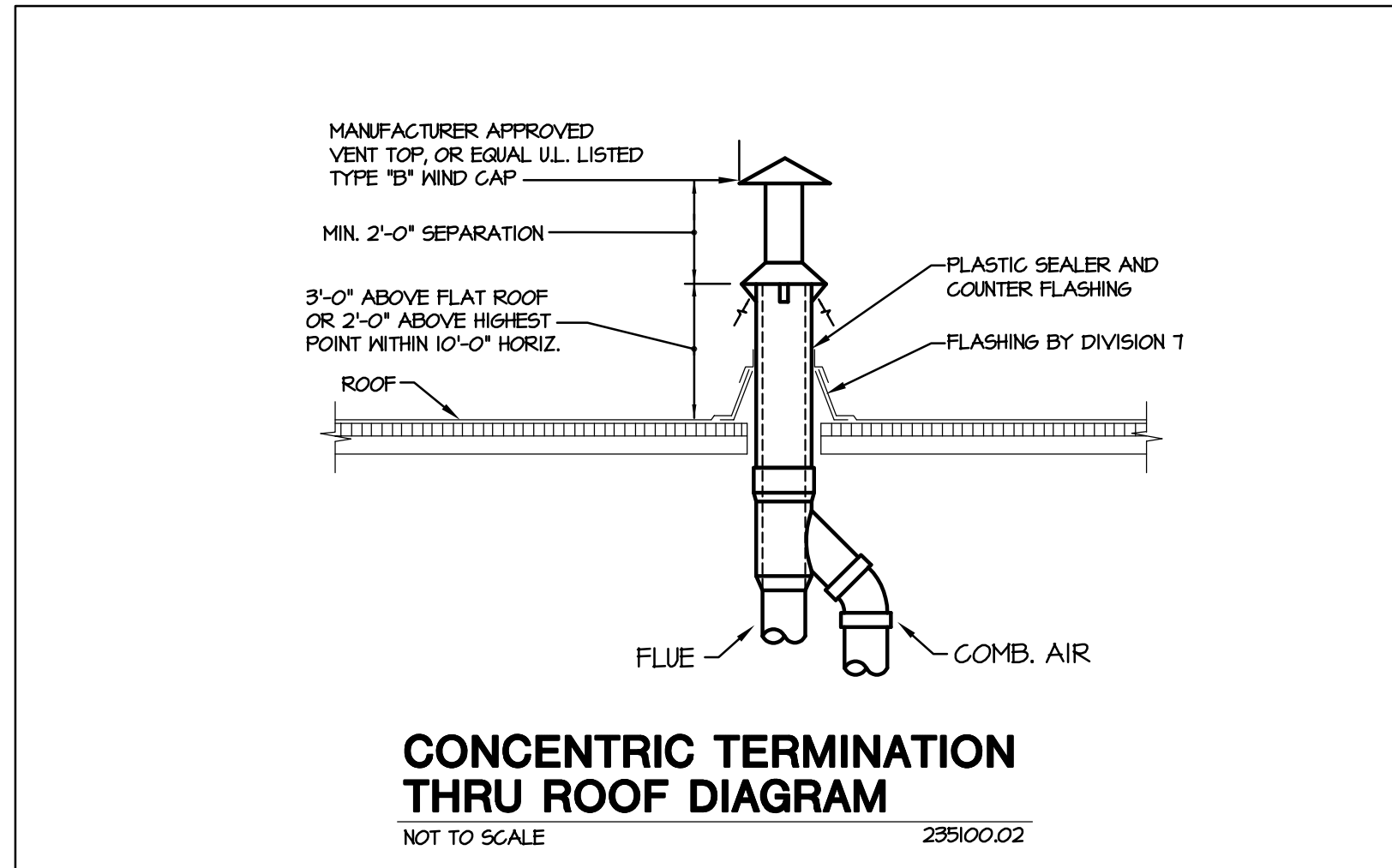
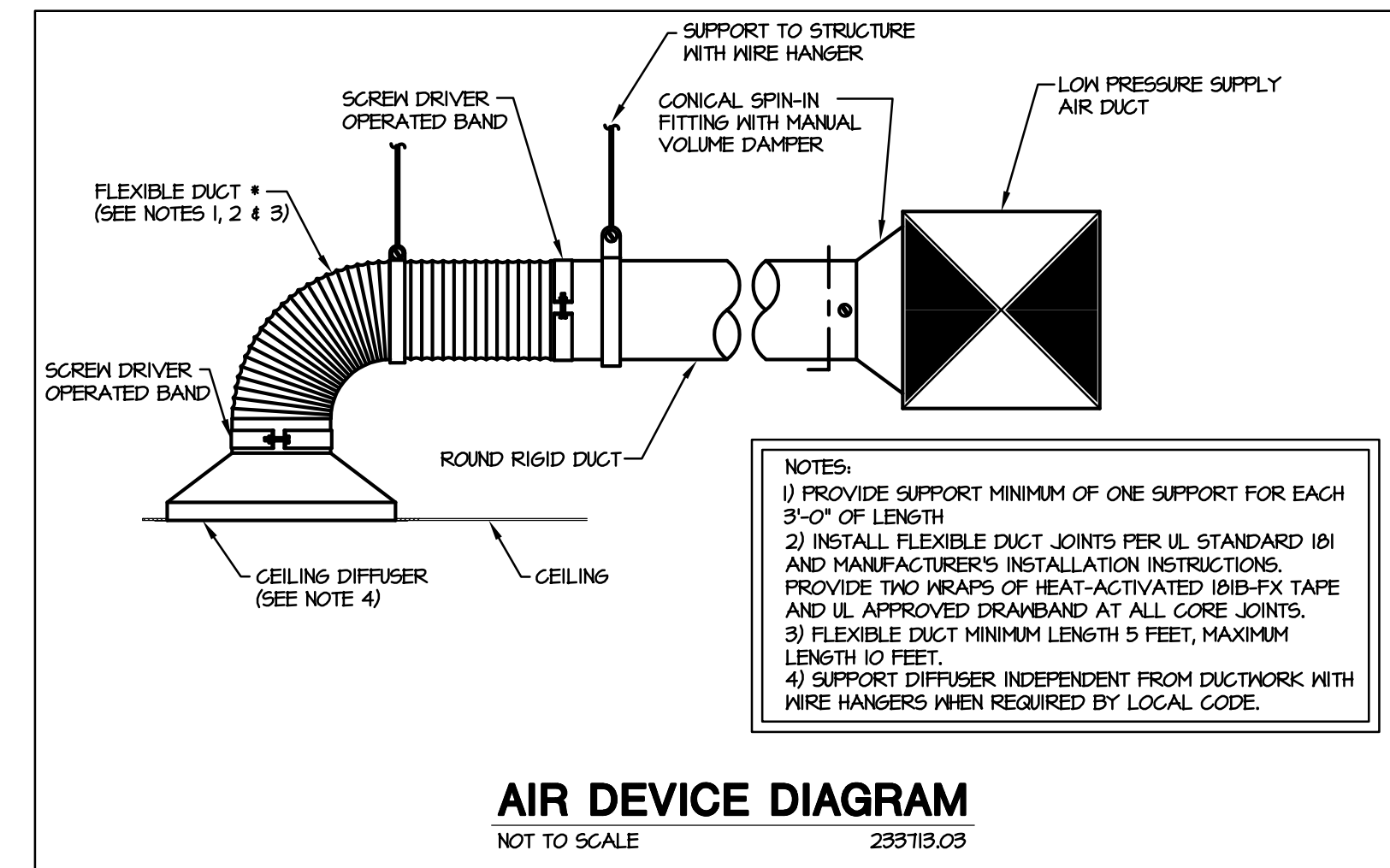
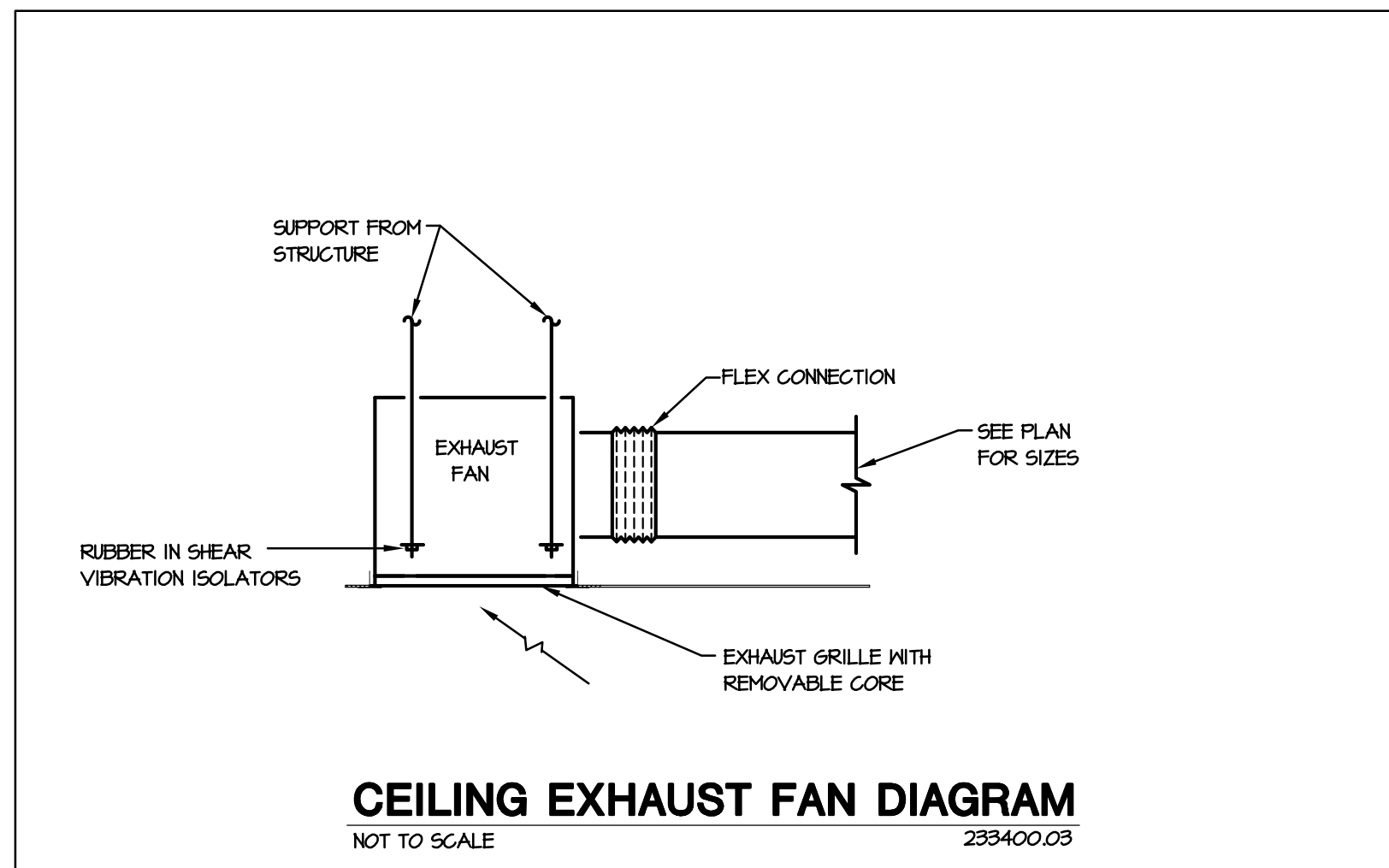
DATE	NO.	DESCRIPTION
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05/12/2017	3	99% CD/CODE REVIEW
06/14/2017	4	100% BID SET

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INTERIOR ELEVATIONS
 LA JUNTA TRAINING ROOM
 28201 WEST HIGHWAY 50
 LA JUNTA, COLORADO 81050



DRAWN BY: KMC
 CDOT PROJECT NO. 21914
 SAP BUILDING # 10002/47
 DRAWING NUMBER
A3.1



MECHANICAL LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF MECHANICAL DRAWINGS

DOUBLE LINE DUCTWORK		GENERAL	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	RECTANGULAR SUPPLY AIR DUCT UP		MECHANICAL/ELECTRICAL EQUIPMENT DESIGNATION
	RECTANGULAR SUPPLY AIR DUCT DOWN		REMOVE EXISTING
	RECTANGULAR RETURN AIR / EXHAUST DUCT UP		UNDERCUT DOOR
	RECTANGULAR RETURN AIR / EXHAUST DUCT DOWN		CONNECT NEW TO EXISTING
	ROUND DUCT UP	PIPING	
	ROUND DUCT DOWN	SYMBOL	ABBV. DESCRIPTION
	BRANCH DUCT 45° TAKE-OFF	PC	PC PUMPED CONDENSATE
	RECTANGULAR DUCT ELBOW WITH TURNING VANES	D	D EQUIPMENT DRAIN
	RADIUS ELBOW RECTANGULAR/ROUND DUCT	RL	RL REFRIGERANT LIQUID
	DUCT TRANSITION	RS	RS REFRIGERANT SUCTION
	FLEX CONNECTION	PIPING SYMBOLS	
CONTROL DEVICES AND DAMPERS		SYMBOL	DESCRIPTION
	HUMIDISTAT		ARROW IN LINE INDICATES DIRECTION OF FLOW
	PRESSURE SENSOR		INDICATES PIPE SLOPE DOWN
	WALL MOUNTED THERMOSTAT		BOTTOM PIPE CONNECTION
	UNIT MOUNTED THERMOSTAT		PIPING UP
	SWITCH		PIPING DOWN
	FIRE DAMPER		PIPING CAP OR PLUG
	COMBINATION FIRE AND SMOKE DAMPER		PUMP
	MANUAL VOLUME DAMPER	SINGLE LINE DUCTWORK	
	MOTORIZED DAMPER	SYMBOL	DESCRIPTION
ABBREVIATIONS			RECTANGULAR DUCT ELBOW WITH TURNING VANES
AFF	ABOVE FINISHED FLOOR		RADIUS ELBOW RECTANGULAR/ROUND DUCT
AP	ACCESS PANEL		DUCT TRANSITION
C	COMMON		CONICAL SPIN-IN FITTING
E	EXISTING		CONICAL SPIN-IN FITTING W/DAMPER
EL	ELECTRICAL CONTRACTOR		FLEXIBLE DUCT
ELEV	ELEVATION	ABBREVIATIONS	
EQ	EQUIPMENT	MC	MECHANICAL CONTRACTOR
GC	GENERAL CONTRACTOR	NI	NEW
		NC	NORMALLY CLOSED
		NIC	NOT IN CONTRACT
		NO	NORMALLY OPEN
		NTS	NOT TO SCALE
		OA	OUTSIDE AIR
		FRV	PRESSURE REDUCING VALVE
		RA	RETURN AIR
		RE	REFER TO
		SA	SUPPLY AIR
		SRV	SAFETY RELIEF VALVE
		TCC	TEMPERATURE CONTROL CONTRACTOR
		TYP	TYPICAL

NO.	DESCRIPTION	DATE
1	85% CONSTRUCTION DOCS	03/17/2017
2	85% CONSTRUCTION DOCS	04/12/2017
3	89% CD/CODE REVIEW	05/12/2017
4	100% BID SET	06/14/2017

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MECHANICAL LEGEND & DIAGRAMS
LA JUNTA TRAINING ROOM
28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81020

MEP PROJECT # 17066
DESIGNED BY: AAF CHECKED BY: MBJ/MCS



MEP
ENGINEERING INC.
CLIENT CENTRIC CONSULTING

6402 S. Troy Circle, Suite 100 (W) 303.936.1633
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DRAWN BY: KMC

CDOT PROJECT NO. 21914
SAP BUILDING # 1000247

DRAWING NUMBER

M1.0

ELECTRIC UNIT HEATER SCHEDULE										
SYMBOL	MANUFACTURER	MODEL	ARRANGEMENT	KH	MEH	CFM	VOLTAGE	MOCP	HEIGHT (LBS)	REMARKS
							PHASE			
EUH-1	MARLEY	MH8350FC	VERT	1.5	514.5	100	120/1	12.5	22	1, 2
EUH-2	MARLEY	MH8350FC	VERT	1.5	514.5	100	120/1	12.5	22	1, 2

REMARKS:
1. ACCEPTABLE MANUFACTURERS INCLUDE: BERKO, BRASH, INDECO, MARKEL, G-MARK, CHROMALOX, SINGER AND TRANE.
2. PROVIDE WITH WALL MOUNTED THERMOSTAT

ELECTRIC BASEBOARD RADIATION SCHEDULE											
SYMBOL	MANUFACTURER	MODEL	LOCATION	TOTAL LENGTH	WATTS PER LF ELEM	TOTAL WATTS	VOLT/ PHASE	DIMENSIONS (IN)			REMARKS
								H	D	L	
EBBR-1	BERKO	2500	MENS RESTROOM	24'	200	400	240/1	6.75	3	24	1, 2
EBBR-2	BERKO	2500	WOMENS RESTROOM	24'	200	400	240/1	6.75	3	24	1, 2

REMARKS:
1. ACCEPTABLE MANUFACTURERS INCLUDE: BERKO, BRASH, CHROMALOX, INDECO, MARKEL, G-MARK.
2. PROVIDE WITH WALL MOUNTED THERMOSTAT, MOUNTED AT ADA ACCESSIBLE HEIGHT

LOUVER SCHEDULE													
SYMBOL	MANUFACTURER	MODEL	SERVICE	SIZE (IN)		CFM	MIN. FREE AREA (SQ FT)	VELOCITY	PRESSURE DROP	MATERIAL	FRAME STYLE	DEPTH (IN)	REMARKS
				HEIGHT	WIDTH								
LVR-1	GREENECK	ESD-635	INTAKE	22	34	1000	3.04	700	0.06	ALUMINUM	EXTRUDED	6	1, 2, 3
LVR-2	GREENECK	ESD-635	EXHAUST	22	34	1000	3.04	700	0.06	ALUMINUM	EXTRUDED	6	1, 2, 3

REMARKS:
1. ACCEPTABLE MANUFACTURERS INCLUDE GREENECK, LOUVERS AND DAMPERS AND RUSKIN.
2. PROVIDE 1/4" MESH 18 GAUGE GALVANIZED STEEL WIRE SCREEN.
3. PROVIDE WITH 24V MOTORIZED DAMPER.

FAN SCHEDULE																
SYMBOL	MANUFACTURER	MODEL	FAN TYPE	SERVICE	CFM @ 4000'	S.P. IN K.G. @ 5L	ELECTRICAL DATA			DRIVE TYPE	DAMPER TYPE	SONES	ROOF OPENING	HEIGHT (LBS)	HEIGHT (INCLUDING CURB)	REMARKS
							VOLT/ PHASE	RPM	HP/ WATTS							
EF-1	GREENECK	SP-B10	CEILING	RESTROOM	70	0.5	115	450	80W	DIRECT	GRAVITY	3.5	6"RD	12	7"	1, 2, 3
EF-2	GREENECK	SP-A250	CEILING	RESTROOM	100	0.5	115	1000	80W	DIRECT	GRAVITY	4.5	6"RD	26	11.25"	1, 2, 3
EF-3	GREENECK	SP-B10	CEILING	MOP SINK	70	0.5	115	450	80W	DIRECT	GRAVITY	3.5	6"RD	12	7"	1, 2, 3

REMARKS:
1. EQUIPMENT SCHEDULE BASED ON GREENECK. ACCEPTABLE MANUFACTURERS INCLUDE: ACM, CARNES, COOK, GREENECK, PENN, SOLER & PALAU, AND THIN CITY.
2. PROVIDE GRAVITY BACKDRAFT DAMPER
3. PROVIDE SOLID STATE SPEED CONTROL

SEQUENCE OF OPERATION (EF-1 & EF-2):
A. FAN TO RUN VIA OCCUPANCY SENSOR, REFER TO ELECTRICAL FOR MORE INFORMATION.

SEQUENCE OF OPERATION (EF-3):
A. FAN TO RUN CONTINUOUSLY

AIR DEVICE SCHEDULE									
SYMBOL	TYPE	MANUFACTURER	MODEL	FRAME	MATERIAL	FINISH	DAMPER TYPE	ACCESSORIES	REMARKS
SR-1	SUPPLY REGISTER	PRICE	520	SURFACE	STEEL	WHITE PONDOR COAT	OPD	NONE	DOUBLE DEFLECTION, 3/4" SPACINGS, SEE PLANS FOR GRILLE SIZE
GD-1	SUPPLY DIFFUSER	PRICE	SGD	LAY-IN	STEEL	WHITE PONDOR COAT	NONE	NONE	4-WAY PATTERN 24" x 24" FACE, NECK SIZE PER PLANS
RS-1	RETURN GRILLE	PRICE	PDDR	LAY-IN	STEEL	WHITE PONDOR COAT	NONE	NONE	24" x 24" FACE SIZE

NOTES:
1. EQUIPMENT SCHEDULE BASED ON PRICE. ACCEPTABLE MANUFACTURERS: CARNES, KRASER, METAL-AIRE, PRICE, TITUS
2. MAX NC RATINGS 30, PROVIDE NECESSARY FRAME AND TRIM FOR CEILING APPLICATION.

AIR PURIFICATION SCHEDULE									
SYMBOL	FLOW (CFM)	MANUFACTURER	MODEL NUMBER	QUANTITY	MOUNTING LOCATION	PRESSURE DROP (IN WG)	ELECTRICAL		REMARKS
							VOLTAGE	WATTS	
AP-1	1400	GLOBAL PLASMA SOLUTIONS	GPS-RN	1	F-1	0.05	24	2	1, 2, 3, 4, 5

NOTES:
1. BASIS OF DESIGN: GLOBAL PLASMA SOLUTIONS. APPROVED EQUALS BY AIRGENICS AND BIOGEN SUBJECT TO SPECIFICATION COMPLIANCE
2. MOUNT BI-POLAR ION GENERATOR IN THE SUPPLY AIR DUCT POWERED FROM AND INTERLOCKED WITH FURNACE
3. IF CONTRACTOR SUBSTITUTES BASIS OF DESIGN WITH ANOTHER MANUFACTURER, CONTRACTOR SHALL COORDINATE ALL ELECTRICAL AND MECHANICAL CHANGES
4. BI-POLAR IONIZATION SYSTEMS REQUIRING PERISHABLE GLASS TUBES ARE NOT ACCEPTABLE
5. ALL MANUFACTURERS MUST PASS UL-867-2007 OZONE CHAMBER TESTING BY EITHER UL OR ETL

FURNACE SCHEDULE																					
SYMBOL	MANUFACTURER	MODEL	SUPPLY FAN DATA			HEAT EXCHANGER DATA			COOLING COIL DATA			ELECTRICAL			FLUE SIZE (IN)	HEIGHT (LBS)	DIMENSIONS LxWxH (IN)	REMARKS			
			CFM TOTAL @ 4000'	CFM OA @ 4000'	ESP IN HG @ 5L	EAT F	LAT F	MEH INPUT @ 5L	MEH OUTPUT @ 4000'	MODEL	EAT F	LAT F	MEH TOTAL @ 5L	VOLTS/ PHASE					MCA	MOCP	
F-1	CARRIER	5965GA20V	1400	315	0.5	1	50.3	110	120	117	GNVY6124M	45	55	61.65	115A	14.6	20	4	106	26.5x24.5x35	1, 2, 3, 4

REMARKS:
1. ACCEPTABLE MANUFACTURERS: TRANE, CARRIER, LENOX, YORK
2. COOLING COIL CAPACITY BASED ON ENTERING AIR TEMPERATURE SHOWN IN SCHEDULE AND 45 F AMBIENT AT CONDENSER.
3. BURNER SHALL BE DESIGNED TO FIRE ON NATURAL GAS, T' NG.
4. PROVIDE FURNACE WITH DUCT SMOKE DETECTOR MOUNTED IN RETURN DUCT. MECHANICAL CONTRACTOR SHALL PROVIDE INSTALLATION, ELECTRICAL CONTRACTOR SHALL PROVIDE THE DUCT SMOKE DETECTOR AND WIRING TO FACP.

SEQUENCE OF OPERATION: FUR-1

A. A SMOKE DETECTOR LOCATED IN THE RETURN AIR DUCT AT THE UNIT SHALL STOP THE SUPPLY FAN IF IT SENSES SMOKE. COORDINATE WITH FIRE ALARM CONTRACTORS. INTERLOCK WITH FIRE ALARM SYSTEM.
B. HEATING-OCCUPIED CYCLE: ON DEMAND FOR HEATING, THE THERMOSTAT SHALL CYCLE FAN AND HEATING SYSTEM TO MAINTAIN SPACE TEMPERATURE.
C. COOLING-OCCUPIED CYCLE: ON DEMAND FOR COOLING, THE THERMOSTAT SHALL CYCLE FAN AND REFRIGERATION SYSTEM TO MAINTAIN SPACE TEMPERATURE.
D. ECONOMIZER: THE CONTROLLER THE ECONOMIZER DAMPERS SHALL MODULATE IN SEQUENCE TO MAINTAIN A 60 DEG. F. (ADJ) SUPPLY AIR TEMPERATURE SETPOINT. THE ECONOMIZER SHALL BE ENABLED WHENEVER THE OUTSIDE AIR TEMPERATURE IS LESS THAN 65 DEG.F. (ADJ). THE OUTSIDE AIR DAMPER SHALL NEVER CLOSE BEYOND ITS MINIMUM POSITION DURING OCCUPIED HOURS.
E. FAN SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS
F. HEATING-UNOCCUPIED CYCLE: UPON A DROP IN SPACE TEMPERATURE BELOW THE 5 DEGREE SETBACK TEMPERATURE, THE THERMOSTAT SHALL CYCLE FAN AND HEATING SYSTEM TO MAINTAIN SPACE TEMPERATURE.
G. COOLING-UNOCCUPIED CYCLE: UPON A RISE IN SPACE TEMPERATURE ABOVE THE 5 DEGREE SETBACK TEMPERATURE, THE THERMOSTAT SHALL CYCLE FAN AND ECONOMIZER TO MAINTAIN SPACE TEMPERATURE.

AIR COOLED CONDENSING UNIT SCHEDULE																
SYMBOL	MANUFACTURER	MODEL	MATCHED SYSTEM COMPONENT	NOMINAL TONS	MEH COOLING TOTAL @ 5L	NUMBER OF COMPRESSORS	STEP CAPACITY CONTROL	AMB TEMP (F)	ELECTRICAL			SEER	LOW AMB. CONTROL (F)	DIMENSIONS LxWxH (IN)	HEIGHT (LBS)	REMARKS
									VOLTAGE/ PHASE	MCA	MOCP					
CU-1	CARRIER	24AAA	F-1	5	60	1	SCROLL	45	230/1	20	40	16	0	35x46x24	272	1, 2, 3, 4

REMARKS:
1. ACCEPTABLE MANUFACTURERS: TRANE, CARRIER, LENOX, YORK
2. PROVIDE WITH 6" TALL CONCRETE HOUSEKEEPING PAD.
3. PROVIDE WITH MANUFACTURER SIZED REFRIGERANT LINE SET
4. PROVIDE WITH LOW AMBIENT KIT TO 0 DEG. F.

VENTILATION SUMMARY SCHEDULE (2015 IMC)													
ROOM NUMBER	ROOM NAME	OCCUPANCY CLASSIFICATION 2015 IMC, TABLE 403.3	AREA OF OCCUPANCY (SQ FT)	OCCUPANCY LOAD (PER 1,000 SQ FT)	NUMBER OF PEOPLE	OUTDOOR AIR PER OCCUPANCY (CFM PER PERSON)	OUTDOOR AIR PER SQ. FT. (CFM)	EXHAUST RATE (CFM/5F)	ZONE AIR DISTRIBUTION EFFECTIVENESS	OUTDOOR AIR REQUIRED (CFM)	PRIMARY AIRFLOW (CFM)	PRIMARY FRACTION, Zp	REMARKS
106	CLASSROOM	EDUCATION	1100	35	34	10	0.12	---	0.8	---	1400	IAQP - 6P5	
108	ADMIN AREA	OFFICES	520	5	3	5	0.06	---	0.8	54	230	0.26	
101	VESTIBULE	PUBLIC SPACES	64	---	---	---	0.06	---	0.8	5	100	0.05	
104	WOMENS	PUBLIC SPACES	121	---	---	---	---	50/10	0.8	---	70	---	
105	MENS	PUBLIC SPACES	121	---	---	---	---	50/10	0.8	---	100	---	

SUMMARY
OA REQUIRED: 64 CFM, SA PROVIDED: 1400 CFM, OA PERCENTAGE: 15%, OA PROVIDED: 265 CFM, MAX Zp: 0.26, EVZ: 1.00, AREA TOTAL CFM/SQFT: 1.946, 0.98

THE AMOUNT OF OUTSIDE AIR PROVIDED EXCEEDS THE CODE REQUIRED MINIMUM.

NOTES:
1. SCHEDULE BASED ON INTERNATIONAL MECHANICAL CODE, 2015 EDITION, CHAPTER 4 VENTILATION.
2. CALCULATIONS REPRESENT ONLY AREAS WHERE WORK IS EXPECTED.
3. ZONE AIR DISTRIBUTION EFFECTIVENESS DETERMINED USING TABLE 403.3.1.2.
4. SYSTEM VENTILATION EFFICIENCY DETERMINED USING TABLE 403.3.2.3.2. INTERPOLATION UTILIZED.
5. OCCUPANT DIVERSITY ASSUMED TO BE NEGLIGIBLE.



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VERSION 1.0 during ASHRAE 62.1-2013

Zone Tag	Facility Type	Zone Use	Zone Floor Area (square ft)	Zone Max Occupancy	Table 6.1 OA per Occupant	Table 6.1 cfm/ft ² OA	Pz * Rp	Az * Ra	Table 6.2 Ventilation Effectiveness	Outdoor Air to Zone (CFM) with Eq correction (WDEZ)
Classrooms	Educational Facilities	Classrooms (AGE 9+)	1,100.0	39.0	10.0	0.12	390	132	0.8	653

Zone Height (feet): 12
Desired Outside Air (Vol) IAGP: 250
Supply Air (Vol): 1190
Return Air (Vol): 1190
Recirc. Rate Factor (Rf): 0.82
Ventilation Effectiveness (Ez): 0.8
Level of Physical Activity: Standing (desk work)
Filter Location: 0
HVAC Flow Type: Constant
Outdoor Air Flow Type: Constant

Air Changes Per Hour: 6.4
Outside Air Per Person: 653 CFM
Outside Air Per Area: 250 CFM
Outside Air Savings: 403 CFM
Water Heating Savings: 0.0
OA Winter Draft: 0.1
OA Summer Wetbulb: 78.0
Supply Air DB Setpoint (F): 65
Cooling Load by Drybulb: 55.0
kW Saved Winter: 38.0
Cooling Load by Wetbulb: 55.0
kW Saved Summer: 11.1
OA - Outside Air
*ASHRAE, NIOSH & WHO most conservative values use
<http://www.cdc.gov/niosh/topics/iaq/>

Carbon dioxide**
Bar chart showing CO2 levels: 1017, 1017, 1017. Legend: Carbon dioxide**

Indoor Contaminants: Table with columns for Contaminant, Maximum Threshold Value (PPM), Steady State Using the VPM Method (Predicted OA), Steady State Using the Aq Method (Reduced OA), Is Steady State Level Acceptable at Reduced OA Level?, Contaminant Generation Rate (PPM), Filtration Effectiveness, Designator Authority.

Building materials and furnishings assumed to have no VOCs and off-gassing is complete. All yellow shaded boxes require user input or review.

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IMC 2006 & later allows for ASHRAE 62 IAQP through the engineered exception found in Section 403.2
Exhaust flow rates may differ from Table 6.1 based on ASHRAE 62 IAQP via Section 6.2.2

Date:	5/11/2017
Job Name:	1709 CDOT LA JUNTA TRAINING ROOM
Representative:	
Engineer:	MEP ENGINEERING INC.
Contractor:	

MEP PROJECT # 17066
DESIGNED BY: AAF CHECKED BY: MBJ/MCS



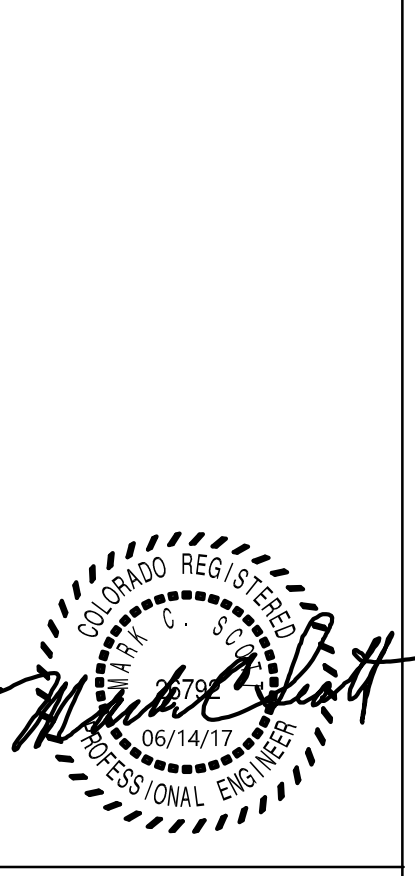
MEP ENGINEERING INC.
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No.	DESCRIPTION	DATE
1	85% CONSTRUCTION DOCS	03/17/2017
2	85% CONSTRUCTION DOCS	04/12/2017
3	89% CD/CODE REVIEW	05/12/2017
4	100% BID SET	06/14/2017

Colorado Department of Transportation
15285 SOUTH GOLDEN ROAD
BUILDING 47
GOLDEN, CO 80401
Phone: 303-512-5505 FAX: 303-512-5550

MECHANICAL SCHEDULES
LA JUNTA TRAINING ROOM
28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81020

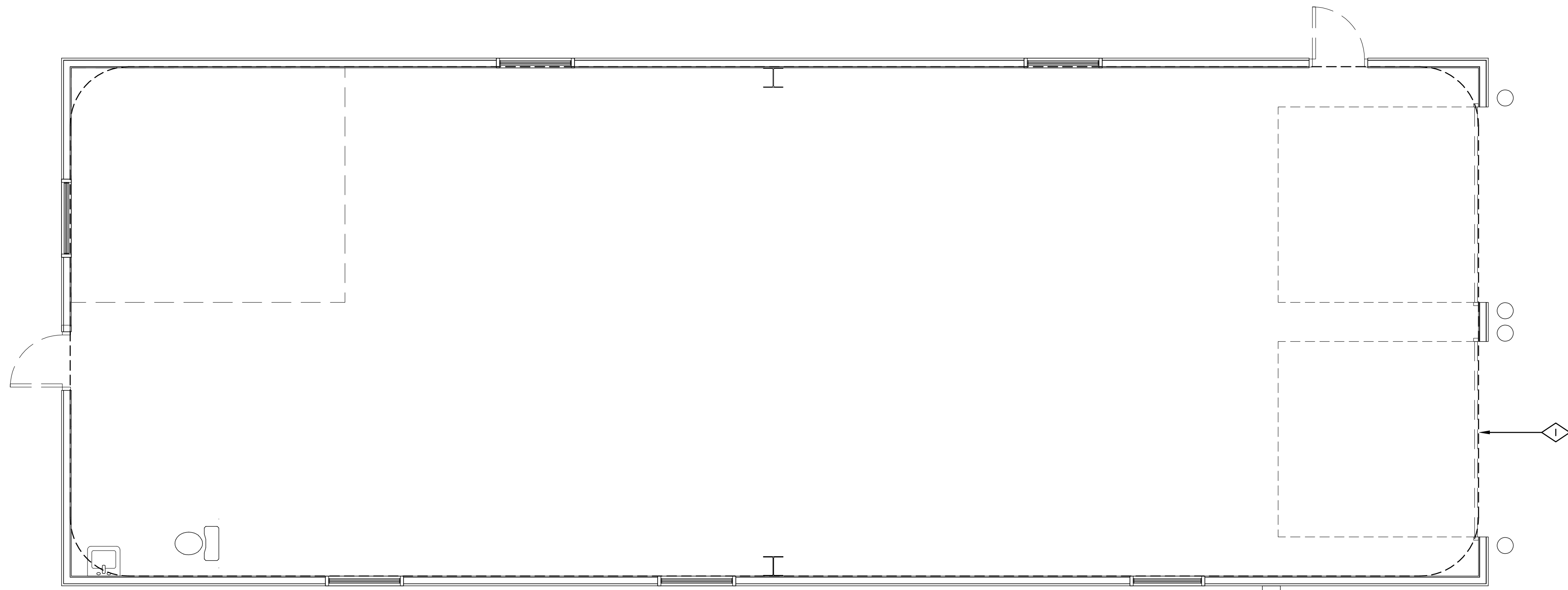


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CDOT PROJECT NO. 21914
SAP BUILDING # 1000247

DRAWING NUMBER

M1.1



MECHANICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. REFERENCE DIAGRAMS FOR INSTALLATION OF HVAC EQUIPMENT AND DEVICES.
2. PLANS ARE DIAGRAMMATIC. FIELD COORDINATE LOCATION OF NEW DUCTWORK, EQUIPMENT, ETC WITH STRUCTURE, LIGHTS, AND PLUMBING.
3. ALL DUCT DIMENSIONS SHOWN ARE SHEET METAL DIMENSIONS.
4. NOT ALL DUCT TRANSITIONS AND OFFSETS ARE SHOWN. CONTRACTOR SHALL PROVIDE THE NECESSARY FITTING REQUIRED AND INSTALL ACCORDINGLY.
5. COORDINATE THERMOSTAT LOCATIONS WITH FURNITURE LAYOUT, INSTALL ACCORDINGLY. VERIFY FURNITURE LAYOUT WITH ARCHITECTURAL DRAWINGS.
6. CONTRACTOR SHALL PROVIDE NECESSARY CODE COMPLYING CLEARANCES FOR ALL EQUIPMENT INSTALLED.
7. THERMOSTATS SHALL BE INSTALLED ON INTERIOR WALLS OR COLUMNS WHERE POSSIBLE. FOR THERMOSTATS INSTALLED ON EXTERIOR WALLS, PROVIDE INSULATED AND VENTILATED MOUNTING BOX BEHIND THERMOSTAT, SEE DIAGRAM.
8. ALL DUCTWORK LOCATED IN ATTIC SPACES SHALL BE INSULATED WITH A MINIMUM R-12 DUCT LINER OR NEAP.

DRAWING NOTES

1. ALL EXISTING MECHANICAL EQUIPMENT SUCH AS DUCTWORK, FANS, THERMOSTATS, HEATERS AND ETC. SHALL BE REMOVED. REFER TO PHOTOS ON ARCHITECTURAL SHEETS.

MEP PROJECT # 17066
DESIGNED BY: AAF CHECKED BY: MBJ/MCS



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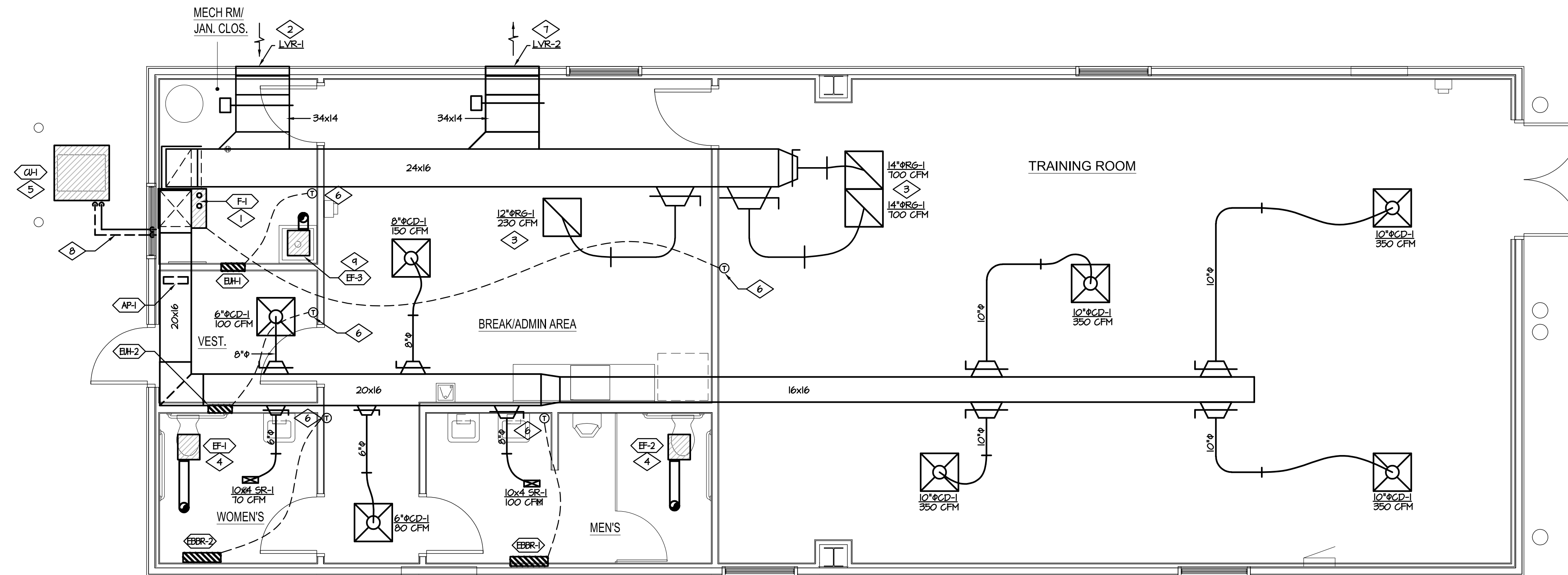
CDOT PROJECT NO. 21914
SAP BUILDING # 10002147

DRAWING NUMBER
M2.0

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GOLDEN, CO 80401
Phone: 303-512-5505 FAX: 303-512-5550

MECHANICAL DEMOLITION PLAN
LA JUNTA TRAINING ROOM
28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81020

DATE	NO.	DESCRIPTION
03/17/2017	1	85% CONSTRUCTION DOCS
04/12/2017	2	85% CONSTRUCTION DOCS
05/12/2017	3	99% CD/CODE REVIEW
06/14/2017	4	100% BID SET



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

GENERAL NOTES

1. REFERENCE DIAGRAMS FOR INSTALLATION OF HVAC EQUIPMENT AND DEVICES.
2. PLANS ARE DIAGRAMMATIC. FIELD COORDINATE LOCATION OF NEW DUCTWORK, EQUIPMENT, ETC WITH STRUCTURE, LIGHTS, AND PLUMBING.
3. ALL DUCT DIMENSIONS SHOWN ARE SHEET METAL DIMENSIONS.
4. NOT ALL DUCT TRANSITIONS AND OFFSETS ARE SHOWN. CONTRACTOR SHALL PROVIDE THE NECESSARY FITTING REQUIRED AND INSTALL ACCORDINGLY.
5. COORDINATE THERMOSTAT LOCATIONS WITH FURNITURE LAYOUT. INSTALL ACCORDINGLY. VERIFY FURNITURE LAYOUT WITH ARCHITECTURAL DRAWINGS.
6. CONTRACTOR SHALL PROVIDE NECESSARY CODE COMPLYING CLEARANCES FOR ALL EQUIPMENT INSTALLED.
7. THERMOSTATS SHALL BE INSTALLED ON INTERIOR WALLS OR COLUMNS WHERE POSSIBLE. FOR THERMOSTATS INSTALLED ON EXTERIOR WALLS, PROVIDE INSULATED AND VENTILATED MOUNTING BOX BEHIND THERMOSTAT, SEE DIAGRAM.
8. ALL DUCTWORK LOCATED IN ATTIC SPACES SHALL BE INSULATED WITH A MINIMUM R-12 DUCT LINER OR WRAP.

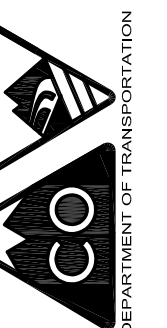
DRAWING NOTES

1. MOUNT FURNACE ON 4" CONCRETE HOUSEKEEPING PAD. ROUTE 3"Ø COMBUSTION AIR AND 3"Ø FLUE OUT THROUGH ROOF. PROVIDE MANUFACTURER APPROVED CONCENTRIC VENT TERMINATION.
2. OUTSIDE AIR LOUVER LVR-1 SHALL BE INSTALLED AS HIGH AS POSSIBLE IN CEILING FLENN. SEE ARCHITECTURAL PLANS FOR ELEVATION. PROVIDE FULL SIZE FLENN AND ROUTE 34x14 OUTSIDE AIR DUCT INTO MECHANICAL ROOM TO RETURN DUCTWORK. MOTORIZED DAMPER TO BE CONTROLLED BY ECONOMIZER CONTROLLER. REFER TO FURNACE SCHEDULE FOR OPERATION AND BALANCING.
3. PROVIDE LAY-IN RETURN GRILL IN CEILING AND TRANSITION TO RETURN DUCTWORK.
4. CEILING MOUNTED EXHAUST FAN. ROUTE 6"Ø EXHAUST DUCT AS HIGH AS POSSIBLE. PROVIDE HOODED ROOF CAP AND BIRDSCREEN AT PENETRATION. INTERLOCK FAN WITH OCCUPANCY SENSOR. REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
5. INSTALL QH1 ON 6" CONCRETE PAD. PROVIDE MANUFACTURER RECOMMENDED CLEARANCE ON ALL SIDES. ROUTE REFRIGERANT PIPING LINE SET TO E.L. COORDINATE FINAL CONDENSING UNIT LOCATION WITH GAS AND ELECTRICAL UTILITY ENTRY POINTS INTO BUILDING.
6. MOUNT THERMOSTAT 48" AFF. TO COMPLY WITH ADA REQUIREMENTS. COORDINATE EXACT LOCATION WITH ALL OTHER TRADES.
7. RELIEF LOUVER LVR-2 TO BE INSTALLED AS HIGH AS POSSIBLE IN CEILING FLENN. SEE ARCHITECTURAL PLANS FOR ELEVATION. ROUTE 30x14 DUCTWORK TO RETURN AIR DUCTWORK AS INDICATED. MOTORIZED DAMPER TO BE CONTROLLED BY ECONOMIZER CONTROLLER. REFER TO FURNACE SCHEDULE FOR OPERATION AND BALANCING.
8. EXTERIOR REFRIGERANT PIPE SHALL BE INSULATED WITH ALUMINUM UV PROTECTION HARD PLASTIC JACKET.
9. CEILING MOUNTED EXHAUST FAN. ROUTE 6"Ø EXHAUST DUCT AS HIGH AS POSSIBLE. PROVIDE HOODED ROOF CAP AND BIRDSCREEN AT PENETRATION. INTERLOCK FAN WITH TIME CLOCK.

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GOLDEN, CO 80401
Phone: 303-512-5505 FAX: 303-512-5550



MECHANICAL PLAN
LA JUNTA TRAINING ROOM

28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81020

MEP PROJECT # 17066
DESIGNED BY: AAF CHECKED BY: MBJ/MCS



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DRAWN BY: KMC

CDOT PROJECT NO.
21914
SAP BUILDING #
1000/247

DRAWING NUMBER
M 3.0

PLUMBING GENERAL NOTES

- IF MANUFACTURER'S MATERIAL OR EQUIPMENT IS LISTED IN SCHEDULES OR ON DRAWINGS, THEY ARE TYPES TO BE PROVIDED FOR ESTABLISHMENT OF SIZE, CAPACITY, GRADE, AND QUALITY. IF OTHER ACCEPTABLE MANUFACTURERS ARE USED, COST OF ANY CHANGE IN CONSTRUCTION REQUIRED BY THEIR USE SHALL BE BORNE BY CONTRACTOR.
- EQUIPMENT SHALL CONFORM TO ENERGY CONSERVATION CODE OR STANDARDS.
- WORK SHALL COMPLY WITH RULES AND REGULATIONS OF LOCAL UTILITY COMPANIES. INCLUDE COST OF VALVES, VALVE BOXES, METER BOXES, METERS, ACCESSORY EQUIPMENT REQUIRED FOR PROJECT.
- IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO RESULT IN A COMPLETE PLUMBING INSTALLATION IN ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
- DRAWINGS ARE DIAGRAMMATIC IN CHARACTER AND DO NOT NECESSARILY INDICATE EVERY REQUIRED PIPE, OFFSET, TRANSITION, ETC. ITEMS NOT SPECIFICALLY MENTIONED IN THE SPECIFICATION OR NOTED ON THE DRAWINGS, BUT WHICH ARE NECESSARY TO MAKE A COMPLETE WORKING INSTALLATION, SHALL BE INCLUDED.
- DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. WHATEVER IS CALLED FOR IN EITHER IS BINDING AS THOUGH CALLED FOR IN BOTH. IF THERE IS A CONFLICT IN THE CONTRACT DOCUMENTS, THE MORE DEMANDING AND COSTLY DESIGN SHALL BE SELECTED FOR BIDDING PURPOSES. THE CONTRACTOR SHALL IMMEDIATELY PRESENT THE CONFLICT FOUND IN THE CONTRACT DOCUMENTS TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
- DRAWINGS SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR USED AS SHOP DRAWINGS. WHERE DRAWINGS ARE REQUIRED FOR THESE PURPOSES OR HAVE TO BE MADE FROM FIELD MEASUREMENTS, TAKE THE NECESSARY MEASUREMENTS AND PREPARE THE DRAWINGS.
- BEFORE ANY WORK IS INSTALLED, DETERMINE THAT EQUIPMENT WILL PROPERLY FIT THE SPACE. THAT REQUIRED CLEARANCES CAN BE MAINTAINED AND THAT EQUIPMENT CAN BE LOCATED WITHOUT INTERFERENCES BETWEEN SYSTEMS, WITH STRUCTURAL ELEMENTS, OR WITH THE WORK OF OTHER TRADES.
- IF CONFLICTS ARE DISCOVERED IN CONTRACT DOCUMENTS, SUBMIT A SET OF DRAWINGS MARKED WITH RED PENCIL SHOWING RECOMMENDED MODIFICATIONS TO THE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
- CONTRACTOR SHALL COORDINATE ROUGH-IN REQUIREMENTS WITH OWNER SUPPLIED EQUIPMENT PRIOR TO ROUGH-IN. ENSURE ALL EQUIPMENT CONNECTIONS ARE PROVIDED FOR AND THAT THE INSTALLATION WILL MEET ALL LOCAL AND NATIONAL CODE REQUIREMENTS.
- CONFIR, COOPERATE AND COORDINATE WORK WITH OTHER TRADES. COORDINATE CEILING CAVITY SPACE CAREFULLY WITH ALL TRADES. IN EVENT OF CONFLICT, INSTALL MECHANICAL AND ELECTRICAL SYSTEMS WITHIN CAVITY SPACE.
- ARRANGE AND PAY FOR ALL INSPECTIONS, PERMITS, LICENSES, CERTIFICATES, AND FEES REQUIRED IN CONNECTION WITH WORK.
- SUBMITTALS SHALL INCLUDE CATALOG CUT-SHEETS AND MANUFACTURER'S DATA SHEETS.
- PRIOR TO ORDERING EQUIPMENT OR BEGINNING INSTALLATION, ASSEMBLE, PREPARE, AND FURNISH SUBMITTALS AND SHOP DRAWINGS REQUIRED FOR PROJECT. FURNISH SUBMITTALS AND SHOP DRAWINGS AS REQUIRED BY INDIVIDUAL SECTIONS OF SPECIFICATIONS.
- CONTRACTOR SHALL THOROUGHLY CHECK SUBCONTRACTORS' OR VENDORS' SUBMITTALS AND SHOP DRAWINGS AND, AFTER APPROVING THEM, SUBMIT THEM FOR REVIEW. SUBMITTALS AND SHOP DRAWINGS THAT DO NOT BEAR CONTRACTOR'S REVIEW STAMP WILL BE RETURNED NOT REVIEWED.
- IF DISCREPANCIES BETWEEN SUBMITTALS, SHOP DRAWINGS, AND CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SUBMITTALS AND SHOP DRAWINGS ARE REVIEWED, REQUIREMENTS OF CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE. SUBMITTALS AND SHOP DRAWINGS WHICH ARE SUBMITTED, BUT WHICH ARE NOT REQUIRED BY CONTRACT DOCUMENTS, WILL BE RETURNED NOT REVIEWED.
- KEEP IN CUSTODY DURING ENTIRE PERIOD OF CONSTRUCTION, A CURRENT SET OF DOCUMENTS INDICATING CHANGES THAT HAVE BEEN MADE TO THE CONTRACT DOCUMENTS.
- UPON COMPLETION OF WORK, SUBMIT THE COMPLETE SET OF RECORD DOCUMENTS TO THE ARCHITECT.
- PROTECT MATERIALS AND EQUIPMENT FROM PHYSICAL DAMAGE, CONSTRUCTION DIRT, AND THE ELEMENTS FROM TIME OF SHIPMENT TO TIME INSTALLATION IS ACCEPTED BY OWNER.
- GUARANTEE MATERIALS, WORKMANSHIP, AND OPERATION OF EQUIPMENT INSTALLED FOR PERIOD OF ONE YEAR FROM DATE OF ACCEPTANCE OF ENTIRE WORK. REPAIR OR REPLACE ANY PART OF WORK WHICH SHOWS DEFECT DURING THAT TIME.
- BE RESPONSIBLE FOR DAMAGE TO PROPERTY OF OWNER OR TO WORK OF OTHER CONTRACTORS DURING CONSTRUCTION AND GUARANTEE PERIOD.
- FURNISH EQUIPMENT WARRANTIES TO OWNER.
- DO NOT COVER UP OR ENCLOSE WORK UNTIL INSPECTED, TESTED, AND APPROVED. ANY WORK ENCLOSED OR COVERED UP BEFORE SUCH APPROVAL SHALL BE UNCOVERED, TESTED, AND APPROVED.
- FURNISH HINGED STEEL ACCESS DOORS WITH CONCEALED LATCH, WHETHER SHOWN OR NOT, IN WALLS AND PLASTER OR GYPSUM BOARD CEILINGS FOR ACCESS TO CONCEALED VALVES, SHOCK ARRESTERS, AIR VENTS, MOTORS, FANS, BALANCING VALVES, OR OTHER OPERATING DEVICES REQUIRING ADJUSTMENT OR SERVICING.
- ACCESS DOOR SHALL BE SIZE OF EQUIPMENT TO BE REMOVED OR 24" BY 24" IF USED FOR SERVICE ONLY.
- APPEARANCE OF WORK SHALL BE OF EQUAL IMPORTANCE TO ITS MECHANICAL OPERATION. LACK OF QUALITY WORKMANSHIP SHALL BE REASON FOR REJECTION OF SYSTEM IN PART OR IN WHOLE.
- INSTALL SO THAT ALL VALVES AND EQUIPMENT CAN BE EASILY ACCESSED AND SERVICED BY ADEQUATE CLEARANCE, INSTALLATION OF ACCESS DOORS, UNIONS IN PIPING, OR OTHER METHODS.
- COMPLETE INSTALLATION SHALL FUNCTION SMOOTHLY AND NOISELESSLY.
- INSTALL EQUIPMENT AND MATERIALS PER MANUFACTURERS' RECOMMENDATIONS AND LOCAL CODES OR REGULATIONS.
- FLUSH PIPES FREE OF FOREIGN SUBSTANCES BEFORE INSTALLING VALVES OR MAKING FINAL CONNECTIONS. CLEAN ALL PIPING AND EQUIPMENT.
- CLEAN INSULATION COVERINGS, PIPES, EQUIPMENT, AND ACCESSORIES TO RECEIVE PRIME COAT OF PAINT. CLEAN EQUIPMENT RECEIVED WITH PRIME COAT TO RECEIVE FINAL COAT.
- INSTRUCT OWNER IN OPERATION AND MAINTENANCE OF PLUMBING SYSTEMS. MINIMUM PARTICIPANTS SHALL INCLUDE PLUMBING CONTRACTOR AND CONTROLS CONTRACTOR REPRESENTATIVES.
- AFTER TESTS AND ADJUSTMENTS HAVE BEEN MADE AND SYSTEMS PRONOUNCED SATISFACTORY FOR PERMANENT OPERATION, REFINISH DAMAGED FINISH AND LEAVE EVERYTHING IN PROPER WORKING ORDER AND APPEARANCE.
- ON COMPLETION OF WORK, REMOVE TOOLS, SCAFFOLDING, DEBRIS, ETC., FROM GROUNDS AND LEAVE PREMISES CLEAN.

PLUMBING LEGEND

NOT ALL ITEMS LISTED BELOW ARE USED ON THIS SET OF PLUMBING DRAWINGS

PLUMBING PIPING		PIPING SYMBOLS	
SYMBOL	ABBV. DESCRIPTION	SYMBOL	DESCRIPTION
	GH DOMESTIC COLD WATER		WALL HYDRANT
	HW DOMESTIC HOT WATER		HOSE BIBB
	HC DOMESTIC HOT WATER CIRCULATION		BALL VALVE
	HW DOMESTIC HOT WATER AT TEMP. SHOWN		CALIBRATED BALANCING VALVE
	T TEMPERED WATER		GATE VALVE
	TR TEMPERED WATER CIRCULATION		CHECK VALVE
	W SOIL OR WASTE		SOLENOID VALVE
	GH GREASE WASTE		PRESSURE REDUCING VALVE
	SOD SEDIMENT & OIL DRAIN		FLUSH VALVE
	FM FORCE MAIN DRAINAGE		PUMP
	D DRAIN		ATMOSPHERIC VACUUM BREAKER
	V SANITARY VENT		STRAINER
	GV GREASE VENT		RELIEF VALVE
	SD STORM DRAIN		DOWNSPOUT NOZZLE
	OD OVERFLOW STORM DRAIN		WATER HAMMER ARRESTER
	F FIRE SPRINKLER		UNION
	FDC FIRE DEPT. CONNECTION		REDUCER
	G NATURAL GAS		WATER METER
	MPG NATURAL GAS LOW PRESSURE		GAS METER
	LPG PROPANE GAS		PRESSURE GAUGE
	CA COMPRESSED AIR		THERMOMETER

PLUMBING PIPING SYMBOLS	
SYMBOL	DESCRIPTION
	ARROW IN LINE INDICATES DIRECTION OF FLOW
	INDICATES PIPE SLOPE DOWN
	REMOVE EXISTING
	BOTTOM PIPE CONNECTION
	PIPING UP
	PIPING DOWN
	FIXTURE TRAP OR DRAIN TRAP
	PIPING CAP OR FLUSH
	BALL VALVE IN VERTICAL PIPE DROP
	GATE VALVE IN VERTICAL PIPE DROP

ABBREVIATIONS					
AFF	ABOVE FINISHED FLOOR	FFE	FINISHED FLOOR ELEVATION	NC	NOT IN CONTRACT
AFG	ABOVE FINISHED GRADE	FFC	FIRE PROT. CONTRACTOR	NO	NORMALLY OPEN
AP	ACCESS PANEL	GC	GENERAL CONTRACTOR	NTS	NOT TO SCALE
BFP	BACKFLOW PREVENTER	IE	INVERT ELEVATION	SCO	SURFACE CLEAN OUT
DNE	DOWNSPOUT NOZZLE	LCO	LINE CLEAN OUT	TYP	TYPICAL
(E)	EXISTING	MC	MECHANICAL CONTRACTOR	VTR	VENT THROUGH ROOF
EG	ELECTRICAL CONTRACTOR	MH	MANHOLE	MCO	MALL CLEAN OUT
EL	ELEVATION	(N)	NORMALLY CLOSED		
FCO	FLOOR CLEAN OUT				

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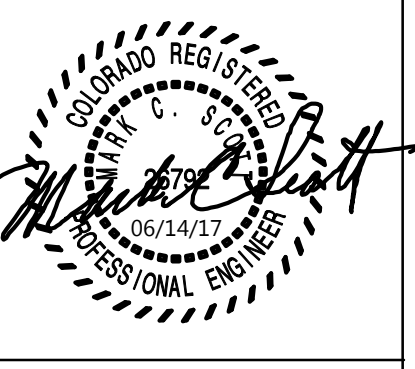
LEGEND AND GENERAL NOTES
 LA JUNTA TRAINING ROOM
 28201 WEST HIGHWAY 50
 LA JUNTA, COLORADO 81020

MEP PROJECT # 17066
 DESIGNED BY: DKC CHECKED BY: MAB/MCS



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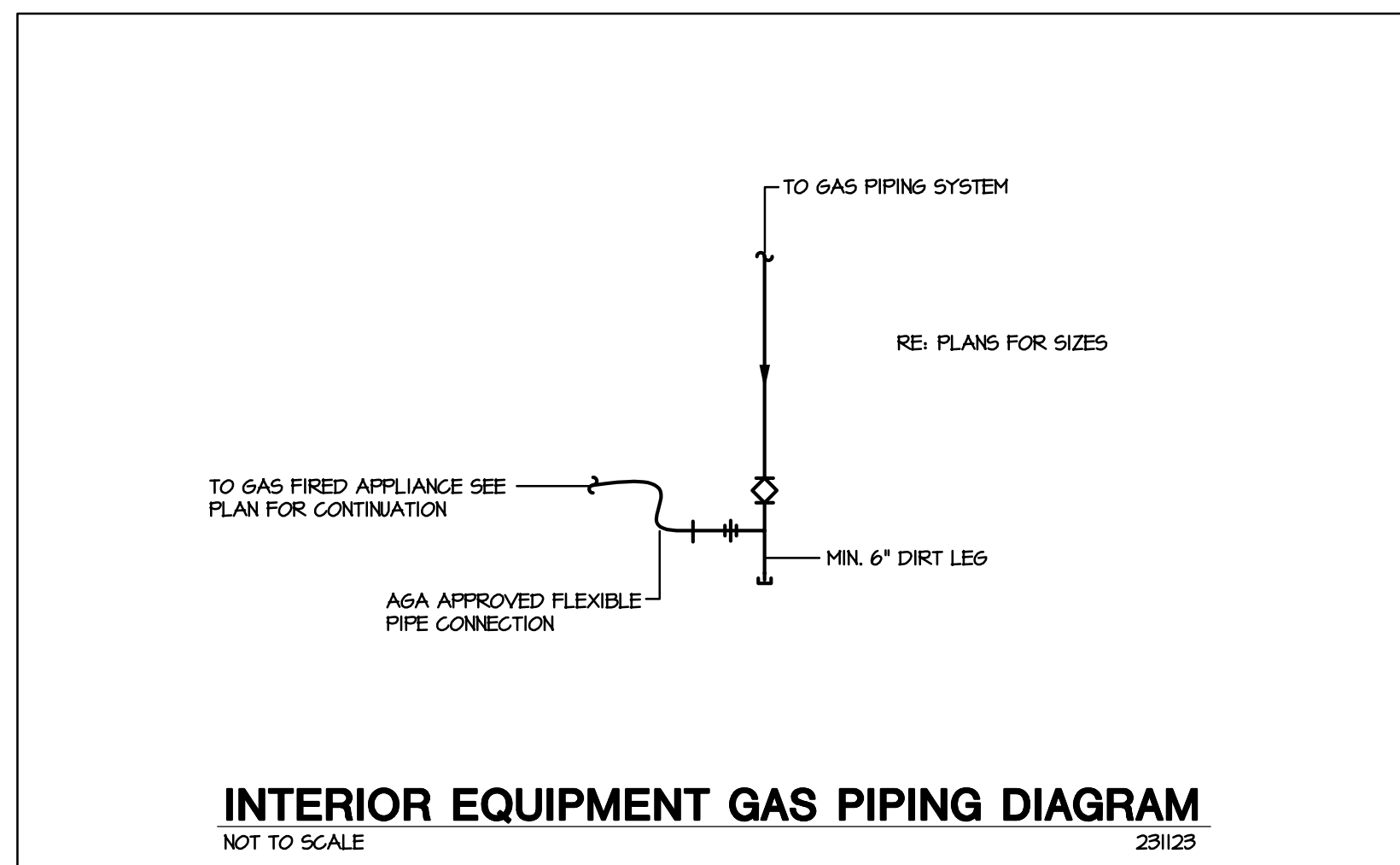
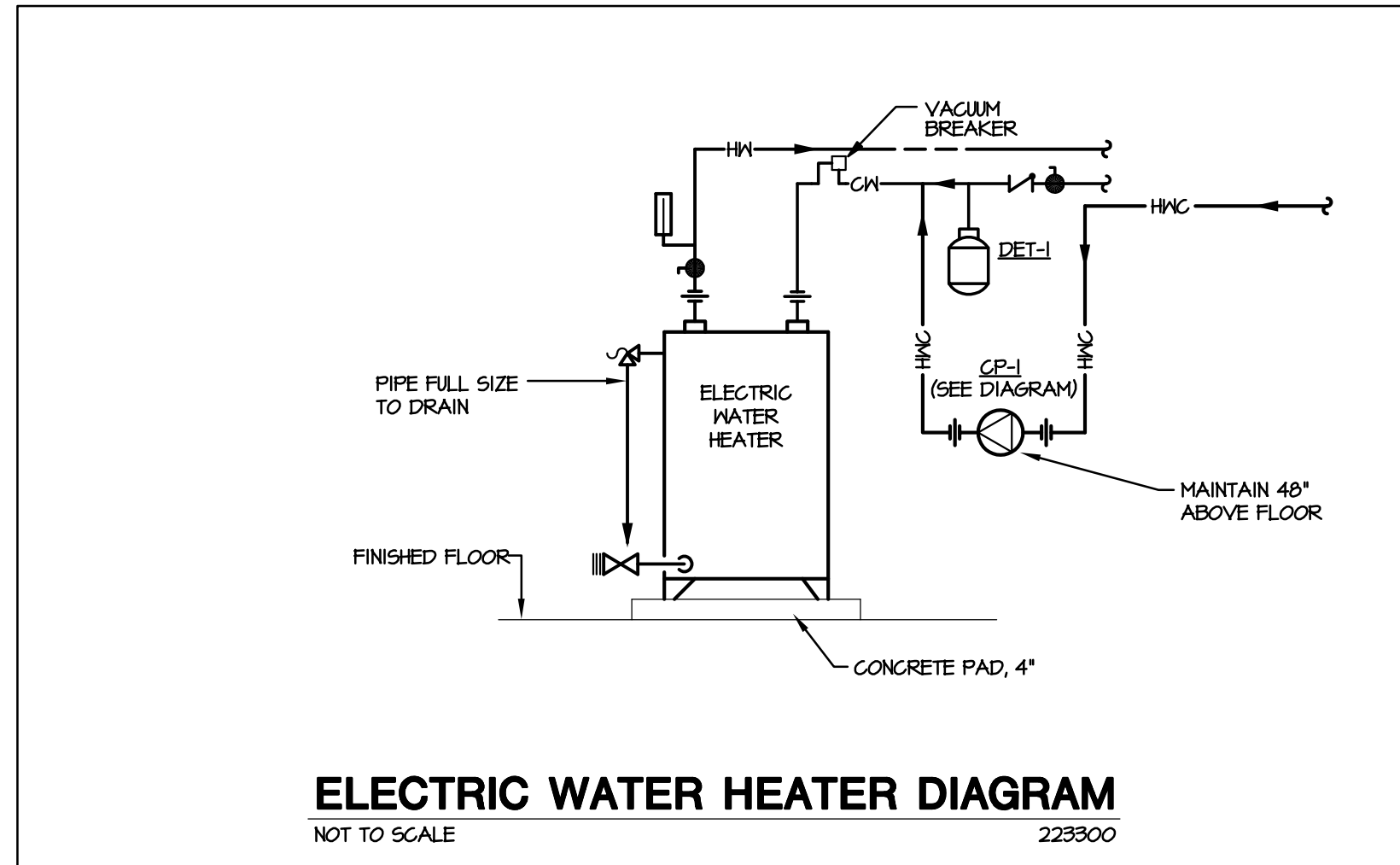
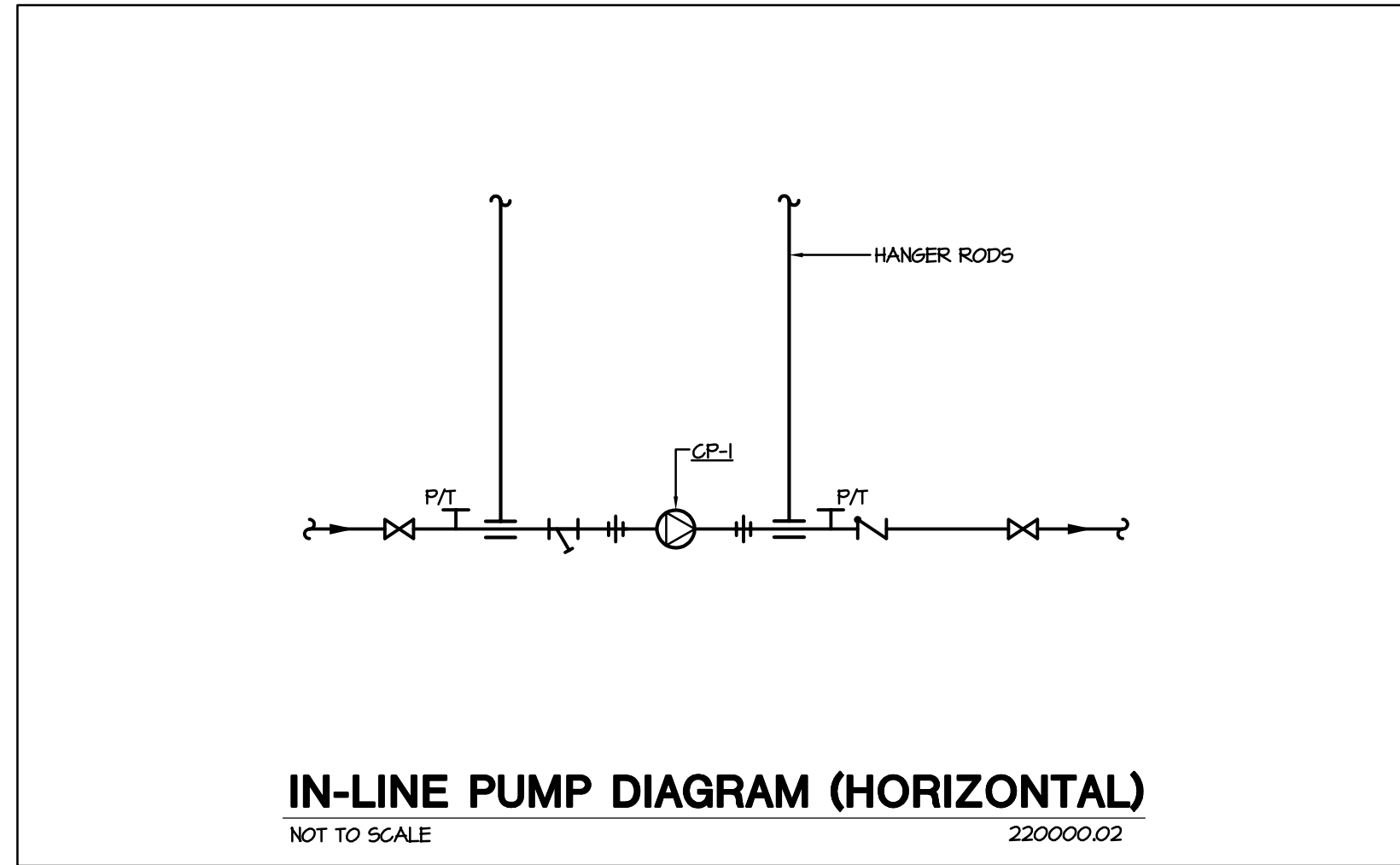
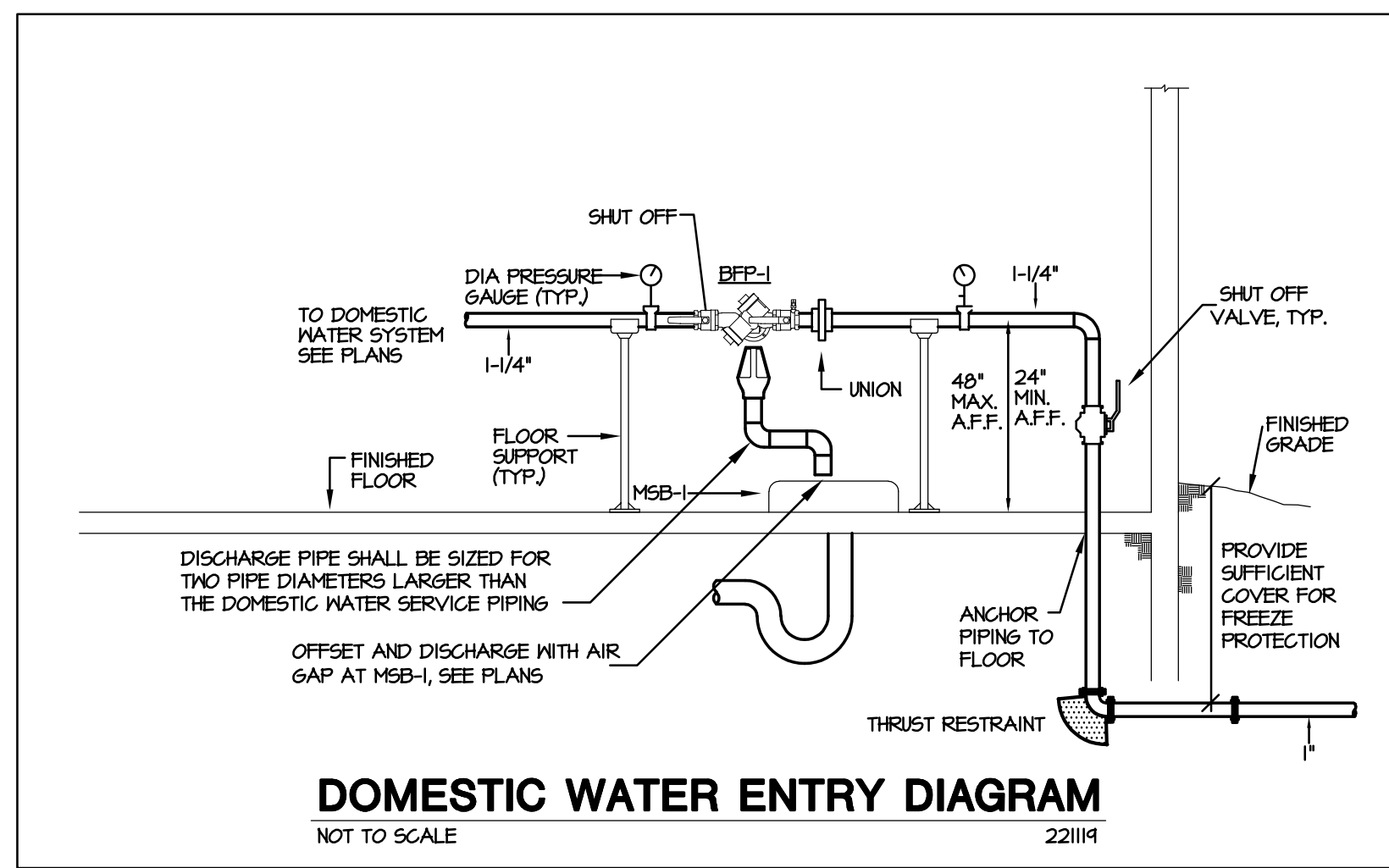
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DRAWN BY:

CDOT PROJECT NO. 21914
 SAP BUILDING # 1000247

DRAWING NUMBER
P1.0



PLUMBING FIXTURE SCHEDULE																	
SYMBOL	TYPE	ADA	ACCESSORIES	FINISH	MANUFACTURER & MODEL NUMBER	FAUCET TRIM MANUFACTURER & MODEL NUMBER	ACCEPTABLE MANUFACTURERS	REMARKS	ROUGH IN CONNECTION SIZING				FIXTURE UNIT COUNT (2008 IFC)				
									WASTE (INCHES)	VENT (INCHES)	HOT (INCHES)	COLD (INCHES)	# OF FIXTURES	MS.F.U. EACH	MS.F.U. TOTAL	D.F.U. EACH	D.F.U. TOTAL
WC-1	WATER CLOSET - FLOOR MOUNTED, TANK TYPE, 17" HIGH, 120 GPF, ELONGATED BOWL, 12" ROUGH-IN	YES	HEAVY DUTY SEAT, COLOR SHALL MATCH FIXTURE	VITREOUS CHINA	TOTO CST144EL	N/A	AMERICAN STD. CRANE KOHLER	TRIP LEVER SHALL BE INSTALLED ON OPEN SIDE OF WATER CLOSET PER ADA STANDARDS	4	2	--	1/2	2	5	10	4	8
UR-1	URINAL - WALL MOUNTED, MANUALLY OPERATED FLUSH VALVE, 0.5 GPF, 3/4" TOP INLET SPUD, FLUSHING RIM, 2" OUTLET	YES	FLOOR MOUNTED CARRIER WITH HANGER LEGS	VITREOUS CHINA	TOTO UT44TE	N/A	AMERICAN STD. CRANE KOHLER	COORDINATE MOUNTING HEIGHT PER ARCHITECTURAL ELEVATIONS	2	2	--	3/4	1	5	5	4	4
L-1	LAVATORY - 20"x30" CONCEALED ARM WALL MOUNTED, 4" CENTERSET FAUCET WITH ONE HANDLE CONTROL & 4-3/4" SPOUT	YES	METAL DRAIN ASSEMBLY	VITREOUS CHINA CHROME FAUCETS	TOTO LT30T	--	AMERICAN STD. CRANE KOHLER	PROVIDE WITH 0.5GPM AERATOR AND FLOOR MOUNTED CARRIER LEAD FREE FAUCET AND SUPPLY KIT	2	2	1/2	1/2	3	2	6	1	3
S-1	SINK - 20"x20" O.D. SINGLE COMPARTMENT, SURFACE MOUNTED, METAL CABINET, DECK MOUNT FAUCET	YES	SIDE SPRAY FAUCET, OFFSET DRAIN OPENING FOR ADA COMPLIANCE	STAINLESS STEEL CHROME FAUCETS	KOHLER	DELTA 300-55-DST-L	JUST STAND/NE	COORDINATE FAUCET LOCATION WITH ARCH. PLANS.	2	2	1/2	1/2	1	1.4	1.4	2	2
D-1	DISPOSER - 1/2 HP, 120-1-60 AUTOMATIC REVERSING STAINLESS STEEL ELEMENTS	N/A	MOTOR OVERLOAD PROTECTION, PLUG AND CORD	--	IN SINK ERATOR BADGER 5	--	NATIONAL WASTE KING	1-YEAR WARRANTY	--	--	--	--	1	--	--	--	--
WB-1	WALL BOX - ICE MACHINE 1/2" NPT BOTTOM INLET 1/4" COMPRESSION OUTLET	N/A	--	--	6UY GRAY BMB75	--	LSP PRODUCTS OATEY	--	--	--	1/2	1	0.25	0.25	--	--	--
BWC-1	SURFACE MOUNT ELECTRIC WATER COOLER, FLEXI-GUARD BUBBLER, FRONT AND SIDE PUSH BAR VALVES	YES	CAPACITY: 8.0 GPH, 50°F OUTLET WATER 1.1 GPM BOTTLE FILLER LK110	STAINLESS STEEL	ELKAY EBABFB	--	SUNROK HAVS OASIS JOSAM	COORDINATE MOUNTING HEIGHT, WALL LOAD BEARING REQUIREMENTS WITH ARCHITECT	2	2	--	1/2	1	0.25	0.25	0.5	0.5
WCO-1	FLOOR CLEANOUT WITH COUNTERSINK PLUG STAINLESS STEEL COVER PLATE	N/A	--	NICKLE BRONZE	ZURN CO2410	--	JR. SMITH MADE/MATTS	INSTALL AS CLOSE TO FLOOR AS POSSIBLE	--	--	--	--	--	--	--	--	--
FCO-1	FLOOR CLEANOUT TEE WITH COUNTERSINK PLUG HEAVY DUTY SECURED COVER	YES	--	NICKLE BRONZE	ZURN CO2452	--	JR. SMITH MADE/MATTS	--	--	--	--	--	--	--	--	--	--
SCO-1 AND SCO-2	ROUND CAST IRON BODY BRONZE DOUBLE FLANGED HOUSING HEAVY DUTY SECURED COVER	YES	VANDAL RESISTANT SCREWS TAPER THREAD BRONZE PLUG	NICKLE BRONZE	ZURN ZH14-N-VP	--	JR. SMITH MADE/MATTS	PROVIDE 2-WAY CLEANOUT AT EACH SCO-2 TWO COVERS REQUIRED	--	--	--	--	--	--	--	--	--
FD-1	FLOOR DRAIN - 6" ROUND TOP, ROUND CAST IRON BODY, FLASHING COLLAR, ADJUSTABLE STRAINER HEAD, SECURED GRATE	YES	TRAP GUARD CONNECTION T6-1 BELOW	NICKLE BRONZE	ZURN Z415B	--	JR. SMITH MADE/MATTS	FOR FINISHED FLOOR AREAS	NOTED ON PLANS	2	--	--	3	--	--	2	6
BFP-1	REDUCED PRESSURE TYPE BACKFLOW PREVENTER ASSE APPROVED	N/A	--	BRONZE	FEBCO LF 860	--	CONBRACO MATTS MILKINS	LEAD FREE ASSEMBLY	--	--	--	--	1	--	--	--	--
T6-1	INSERT-TYPE TRAP GUARD NEOPRENE CONSTRUCTION	N/A	--	--	ZURN TRAPGUARD	--	JR. SMITH MADE/MATTS	COORDINATE MODEL WITH DRAIN SIZE	--	--	--	--	--	--	--	--	--
MSB-1	3" STAINLESS STEEL DRAIN & STRAINER	NO	10" SPOUT WITH WALL BRACE & PAIL HOOK, 3/4" MALE HOSE THREAD OUTLET, VACUUM BREAKER	PLASTIC CONSTRUCTION BRASS FAUCETS	FLORESTONE HSR2424	FIAT 830-AA	ARGO FLORESTONE WILLIAMS	PROVIDE WITH HEAVY DUTY 30" FLEX HOSE & BRACKET, STAINLESS STEEL MOP BRACKET	3	2	1/2	1/2	1	3	3	3	3
TMV-1	POINT OF USE THERMOSTATIC MIXING VALVE WITH HIGH TEMPERATURE LIMIT STOP, INTEGRAL CHECK VALVES	N/A	MINIMUM FLOW 0.5 GPM, MAXIMUM FLOW 1 GPM, LOCKING TEMPERATURE CONTROL	BRONZE	LEONARD #210-LF	--	LAVLER POWERS SYMONS	SET MAXIMUM TEMPERATURE TO 110° LEAD FREE ASSEMBLY	--	--	--	--	--	--	--	--	--

NOTE: ALL CONNECTIONS TO POTABLE WATER SYSTEM SHALL CONFORM TO NSF/ANSI-61 AND NSF/ANSI-312 EFFECTIVE 01/04/2014.

TOTAL FIXTURE UNITS: (TOTAL GPM) 25.4 21.4 26.5

ELECTRIC DOMESTIC WATER HEATER SCHEDULE												
SYMBOL	MODEL	STORAGE TANK (GAL)	WATTS PER ELEMENT	NUMBER OF ELEMENTS	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	RECOVERY RATE (GPH)	ELEC.	DIAMETER (IN)	HEIGHT (IN)	OPERATING WEIGHT (LBS)	NOTES
EW-1	DEL-20	20	3000	1	40	140	12	120-1	21-3/4"	22-1/4"	240	1, 2, 3, 4

NOTES:
1. EQUIPMENT SCHEDULE BASED ON: AO SMITH.
2. ACCEPTABLE MANUFACTURERS INCLUDE: BRADFORD WHITE, LOGHIN/AR, RHEEM/RUID, AND STATE.
3. WATER HEATER SHALL BE PROVIDED WITH MANUFACTURER SUPPLIED, INTEGRAL HEAT TRAP ON SUPPLY AND DISCHARGE CONNECTIONS.
4. NON-SIMULTANEOUS ELEMENT OPERATION.

SPECIFICATION:
UL LISTED ELECTRIC WATER HEATER CONSTRUCTED FOR WORKING PRESSURE OF 150 PSIG, WITH MAGNESIUM ANODE ROD, GLASS, POLY OR EPOXY LINING ON INTERNAL SURFACES EXPOSED TO WATER. PROVIDE COMPLETE WITH HEATING ELEMENTS OF LOW WATT DENSITY WITH ZINC PLATED COPPER SHEATH, FACTORY WIRED CONTROLS WITH INDIVIDUAL THERMOSTAT FOR EACH ELEMENT, INSULATED TANK WITH VERMIN-PROOF GLASS FIBER OR FOAM INSULATION, OUTER STEEL JACKET WITH BAKED ENAMEL FINISH, BRASS DRAIN VALVE, 3/4" ASME T & P RELIEF VALVE, AND COLD WATER DIP TUBE. WATER HEATER SHALL BE LISTED AND LABELED BY MANUFACTURER FOR SPACE HEATING APPLICATIONS PER IMC SECTION 1002.2 AND IFGC SECTION 624.2.

TOTAL CONNECTED GAS LOAD SCHEDULE					
EQUIPMENT	QTY.	INPUT EACH (BTUH @ 5L)	INPUT TOTAL (BTUH @ 5L)	INLET PRESSURE	NOTES
F-1	1	120,000	120,000	7" WC	1, 2, 3
TOTAL NEW LOAD=			120,000		

NOTES:
1. FARTHEST CONNECTED DEVICE DISTANCE BASED ON 50'.
2. PIPE SIZING BASED ON PRESSURE AT METER OUTLET OF 1 INCHES WATER COLUMN. CONTRACTOR TO FIELD VERIFY OUTLET PRESSURE PRIOR TO STARTING WORK.
3. MODIFICATIONS TO GAS METER AND/OR SERVICE PIPING SHALL BE PERFORMED BY THE GAS COMPANY. SUBMIT REQUIRED GAS SERVICE APPLICATION TO GAS COMPANY IN A TIMELY MANNER TO MEET THE CONSTRUCTION SCHEDULE.

DOMESTIC EXPANSION TANK SCHEDULE						
SYMBOL	MODEL	CAPACITY (GAL)	DIAMETER (IN)	HEIGHT (IN)	OPERATING WEIGHT (LBS)	SYSTEM CONNECTION (IN)
DET-1	ST-5	2	8	13	12.5	3/4"

NOTES:
1. EQUIPMENT SCHEDULE BASED ON: AMTROL.
2. ACCEPTABLE MANUFACTURERS INCLUDE: TACO AND MATTS.

SPECIFICATION:
HYDRO-PNEUMATIC EXPANSION TANK, CONSTRUCTION IN ACCORDANCE WITH SECTION VII OF THE ASME BOILER AND PRESSURE VESSEL CODE. ALL WELDS SHALL CONFORM TO ASME. MAXIMUM OPERATING PRESSURE OF 150 PSIG. ALL INTERNAL COMPONENTS SHALL COMPLY WITH FDA REGULATIONS, SUITABLE FOR POTABLE WATER.

WATER HAMMER ARRESTOR SCHEDULE					
SYMBOL	MODEL	FDI SYMBOL	CONNECTION SIZE	FIXTURE UNIT RATING	NOTES
WHA-A	1250-A	A	3/4"	I-II	1, 2

NOTES:
1. EQUIPMENT SCHEDULE BASED ON: ZURN.
2. ACCEPTABLE MANUFACTURERS INCLUDE: JR. SMITH, SIOUX CHIEF, P.P.P. AND MILKINS.

SPECIFICATION:
STAINLESS STEEL PISTON TYPE WITH DOUBLE "O" RING SEAL, MALE THREAD INLET.

DOMESTIC CIRCULATION PUMP SCHEDULE											
SYMBOL	SERVICE	PUMP TYPE	MODEL	GPM	HEAD (FT WC)	MIN HP	RPM	ELEC.	SUCTION SIZE (IN)	DISCH. SIZE (IN)	NOTES
CP-1	DOMESTIC HOT WATER	INLINE	FR SERIES	3	16	1/6	1750	120-1	3/4"	3/4"	1, 2

NOTES:
1. EQUIPMENT SCHEDULE BASED ON: BELL & GOSSET.
2. ACCEPTABLE MANUFACTURERS INCLUDE: ARMSTRONGS, AURORA, PACO, AND TACO.

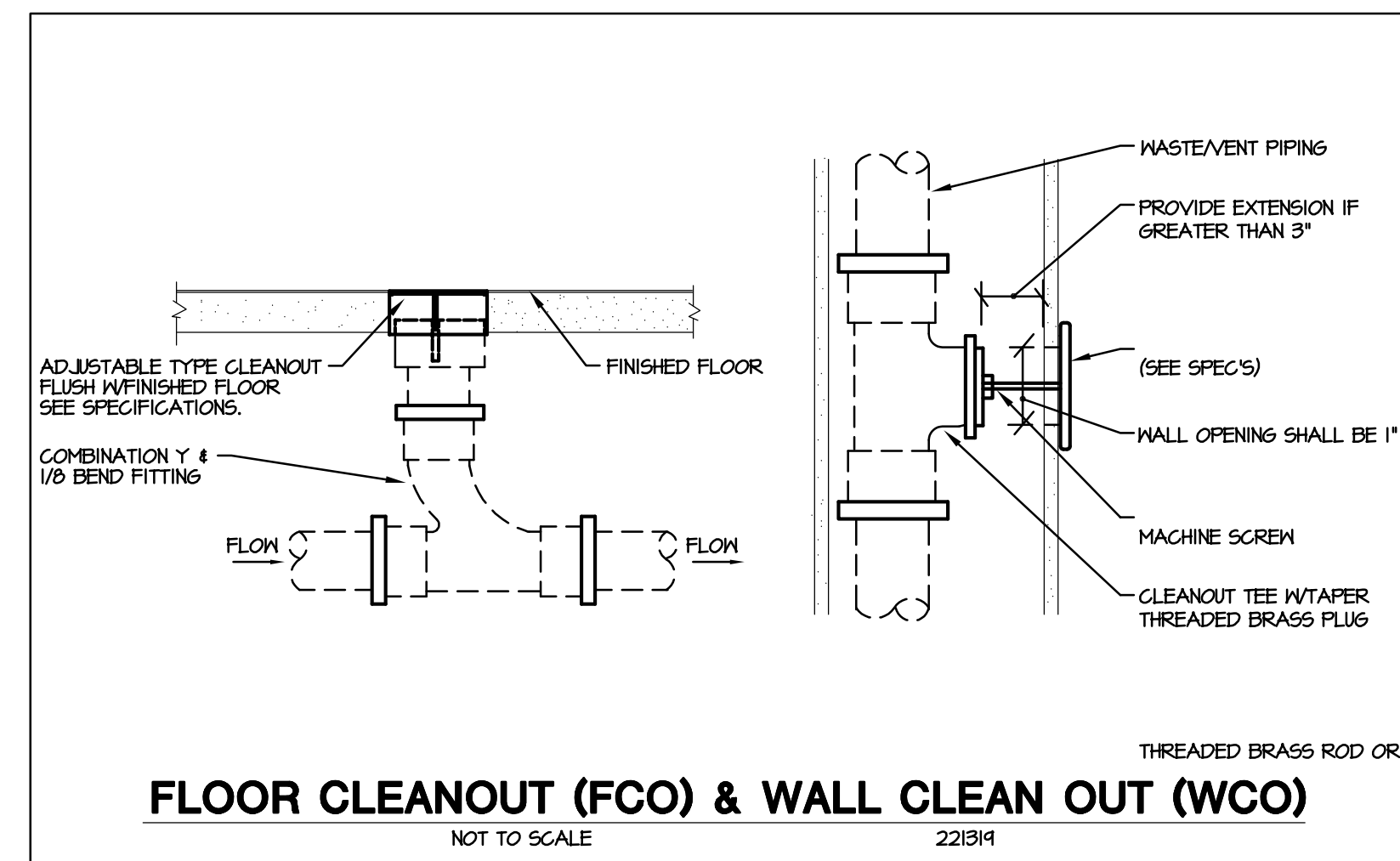
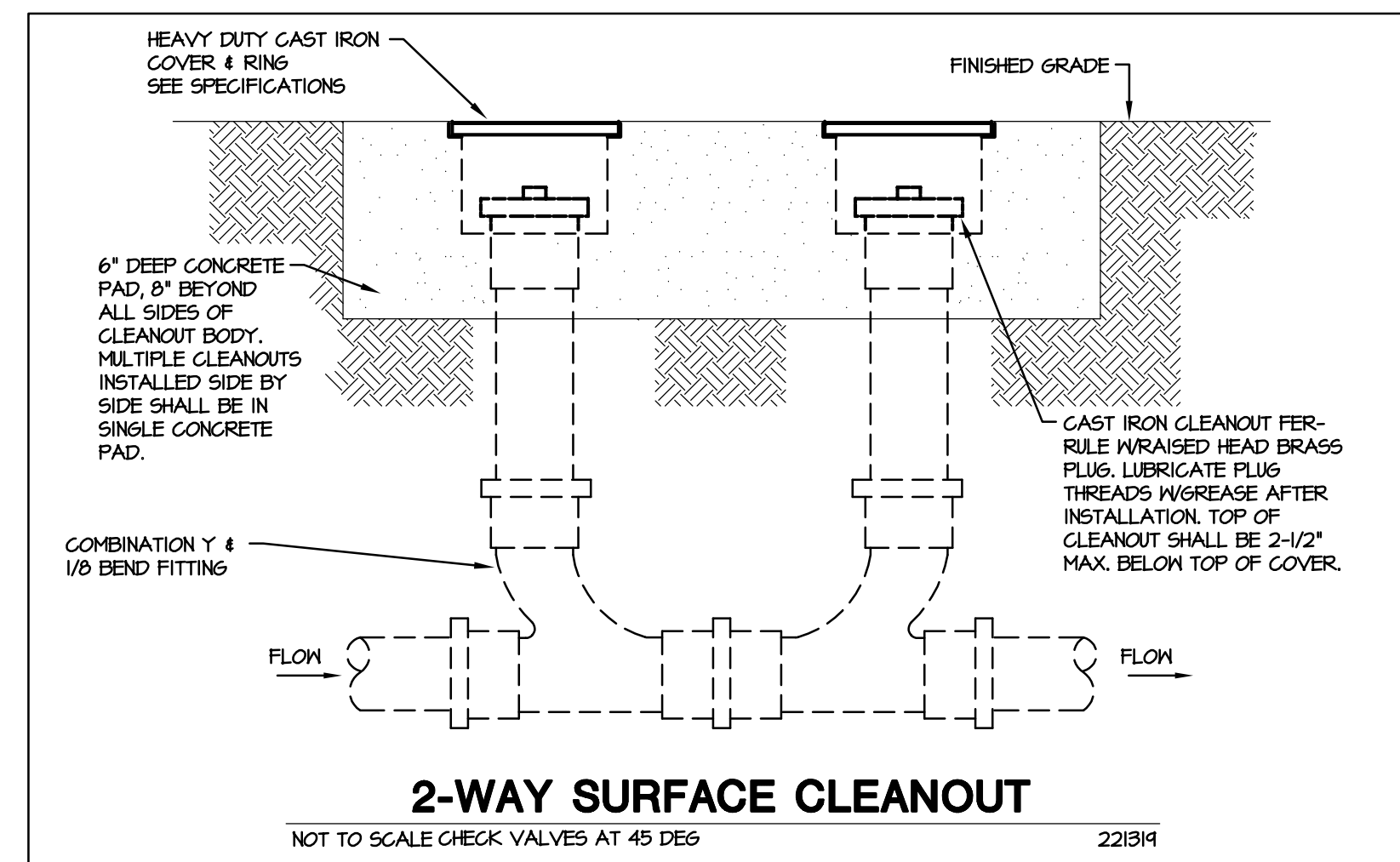
SPECIFICATION:
BRONZE NET ROTOR CIRCULATOR PUMP. PROVIDE COMPLETE WITH 100% LEAD FREE BRONZE PUMP BODY, POLYPROPYLENE IMPELLER, CERAMIC SHAFT AND DOUBLE-SINTERED CARBON BEARINGS, 10 MONTH WARRANTY.

IFGC PIPE SIZING CALCULATOR FOR NATURAL GAS PRESSURES LESS THAN 15 PSI		
METER DISCHARGE PRESSURE =	7	(%LC)
ALLOWABLE PRESSURE DROP =	0.5	(%LC)
TOTAL EQUIVALENT LENGTH OF PIPE =	50	FEET
ALTITUDE CORRECTION FACTOR =	850	BTU/CFH @ ALT.
NOMINAL SCHED. 40 STEEL PIPE SIZE	CAPACITY (CFH)	CAPACITY (MBH)
1/2"	12	62
3/4"	31	124
1"	284	242
1-1/4"	503	496
1-1/2"	873	743
2"	1681	1430
2-1/2"	2680	2276
3"	4758	4028
4"	8663	8214
5"	13482	14860
6"	28520	24262

PIPE CAPACITY IS CALCULATED USING FORMULA FOR LOW PRESSURE GAS (15 PSI AND LESS) LOCATED IN IFGC APPENDIX A

$$G = 29.92 \cdot 2.62 \cdot (H/G) \cdot (L/D)^{0.541}$$

G = CAPACITY (CFH)
D = INSIDE PIPE DIAMETER
H = ALLOWABLE PRESSURE DROP (%LC)
G = FACTOR FOR VISCOSITY, DENSITY AND TEMPERATURE = 6064
L = LENGTH OF PIPE (FEET)



MEP PROJECT # 17066
DESIGNED BY: DKC CHECKED BY: MAB/MCS

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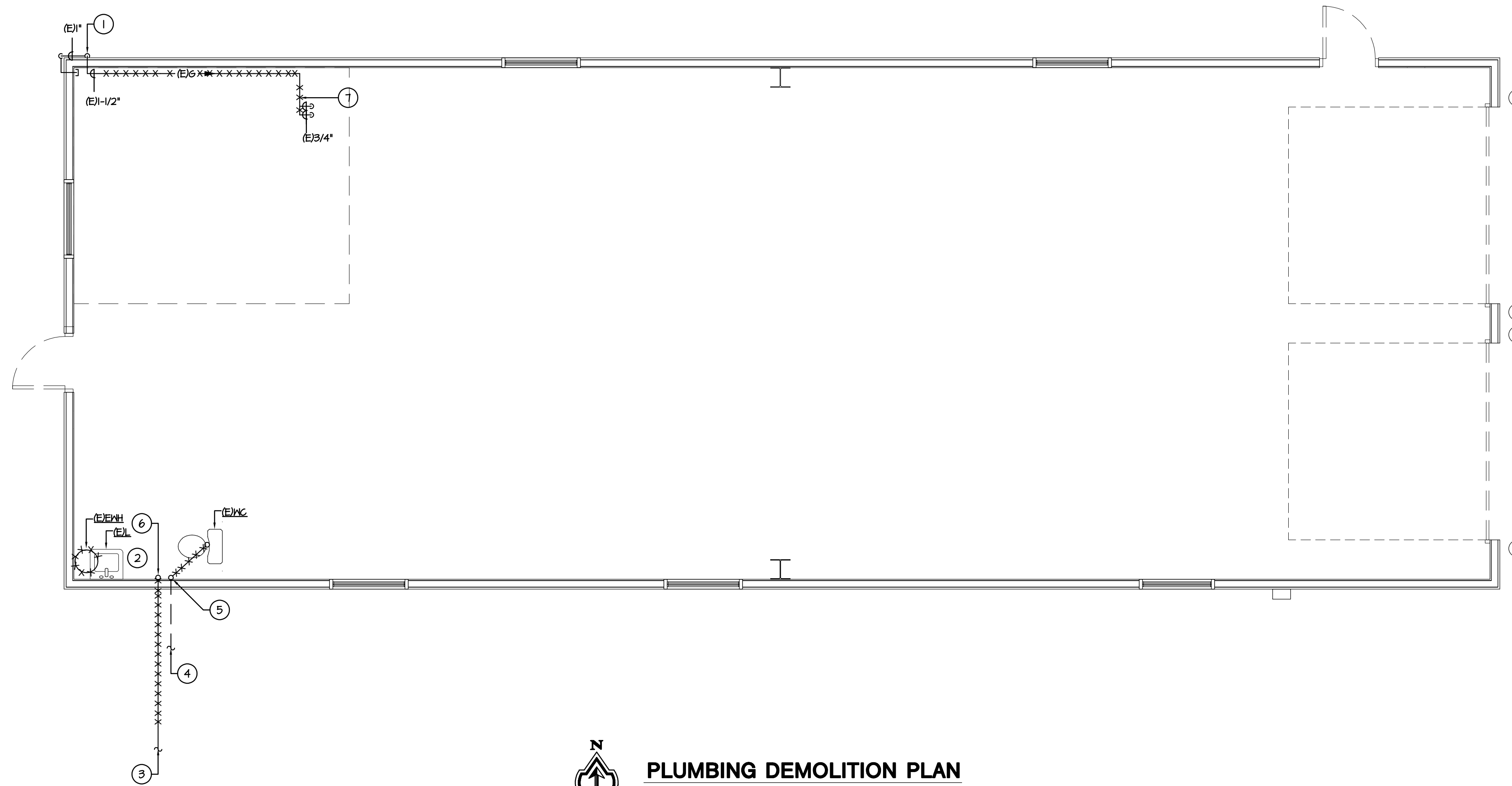
SCHEDULES & DIAGRAMS
LA JUNTA TRAINING ROOM
28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81020

CDOT REG. ISTE 00000000
PROFESSIONAL ENGINEER
05/14/17

DRAWN BY:

CDOT PROJECT NO. 21914
SAP BUILDING # 1000/247

DRAWING NUMBER
P1.1



PLUMBING DEMOLITION PLAN

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

DRAWING NOTES

1. EXISTING GAS SERVICE TO REMAIN.
2. REMOVE EXISTING PLUMBING FIXTURES & ELECTRIC WATER HEATERS. REMOVE WASTE AND VENT BACK TO MAINS.
3. EXISTING WATER SERVICE FROM METER PIT ACROSS HIGHWAY ON CEMETERY PROPERTY. EXISTING WATER METER TO REMAIN. CONTRACTOR TO FIELD VERIFY LOCATION, DEPTH AND MATERIAL OF WATER SERVICE PIPE.
4. EXISTING SANITARY. FIELD VERIFY INVERT ELEVATION & DIRECTION OF FLOW PRIOR TO START OF CONSTRUCTION.
5. REMOVE EXISTING 3" WASTE STACK VENT.
6. REMOVE EXISTING 1/2" WATER ENTRY UP THROUGH SLAB WITH SHUT OFF VALVE.
7. REMOVE GAS PIPING BACK TO MAIN AND CAP.

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PLUMBING DEMO PLAN
LA JUNTA TRAINING ROOM

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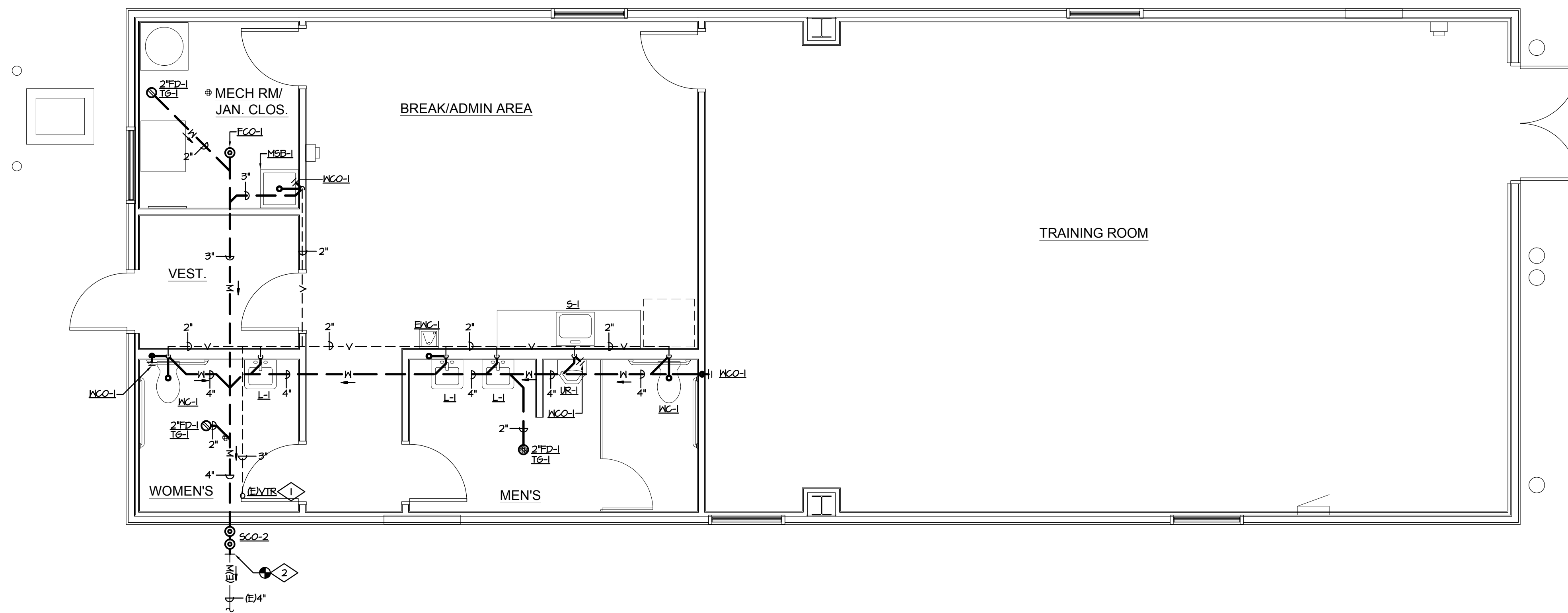


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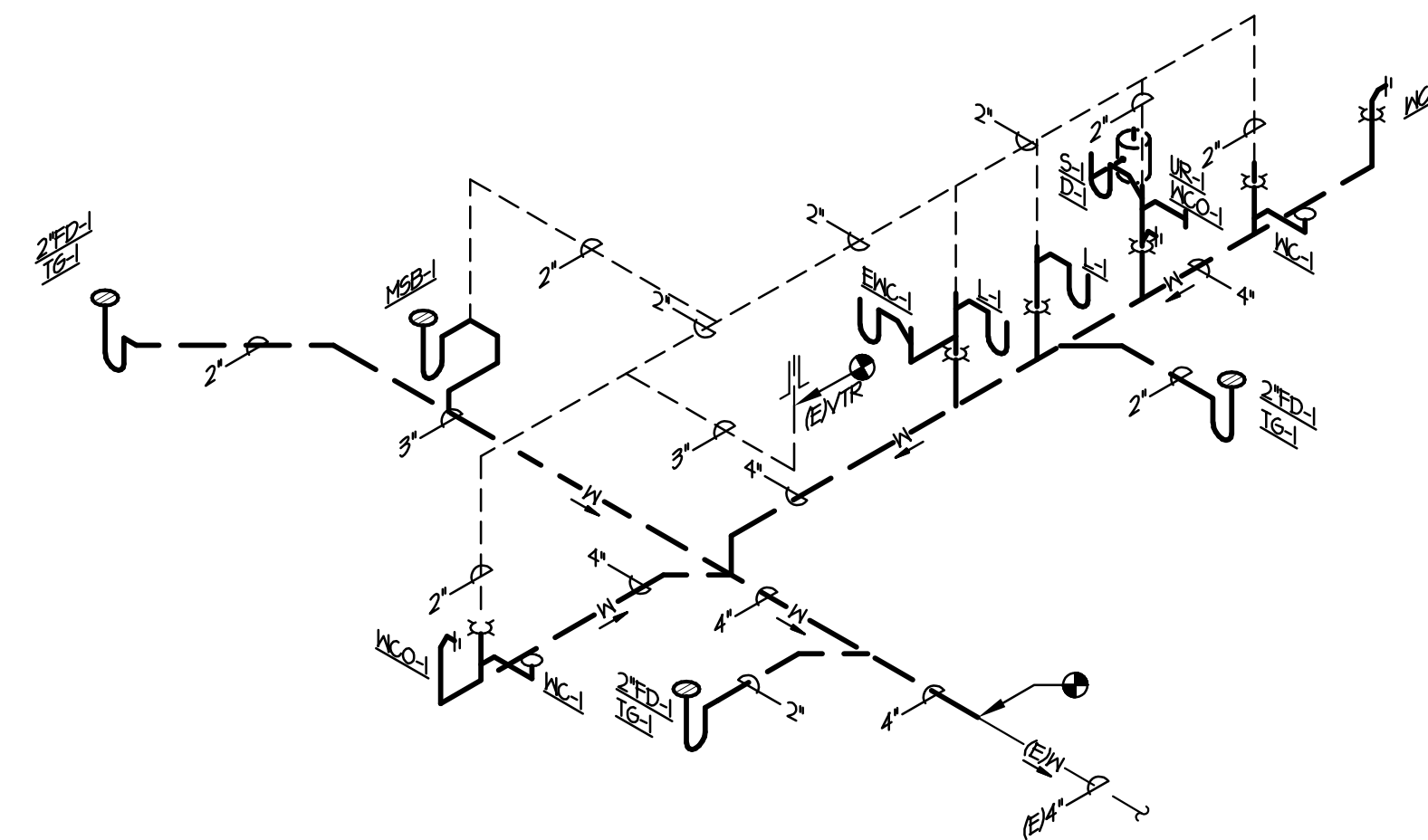
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WASTE AND VENT PLUMBING PLAN

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



WASTE AND VENT ISOMETRIC

SCALE: N.T.S.

GENERAL NOTES

- ALL NEW BELOW GRADE WASTE PIPING WILL REQUIRE MODIFICATION OF EXISTING SLAB ON GRADE. REPAIR AFFECTED SLAB TO MATCH EXISTING.

DRAWING NOTES

- ROUTE 3" VENT PIPING TO EXISTING ROOF PENETRATION. MODIFY EXISTING VENT PENETRATION AS REQUIRED.
- CONTRACTOR SHALL FIELD VERIFY INVERT ELEVATION AND DIRECTION OF FLOW FOR THE EXISTING SANITARY SYSTEM PRIOR TO START OF CONSTRUCTION.

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PLUMBING PLAN
LA JUNTA TRAINING ROOM

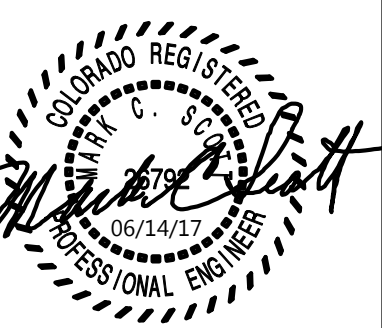
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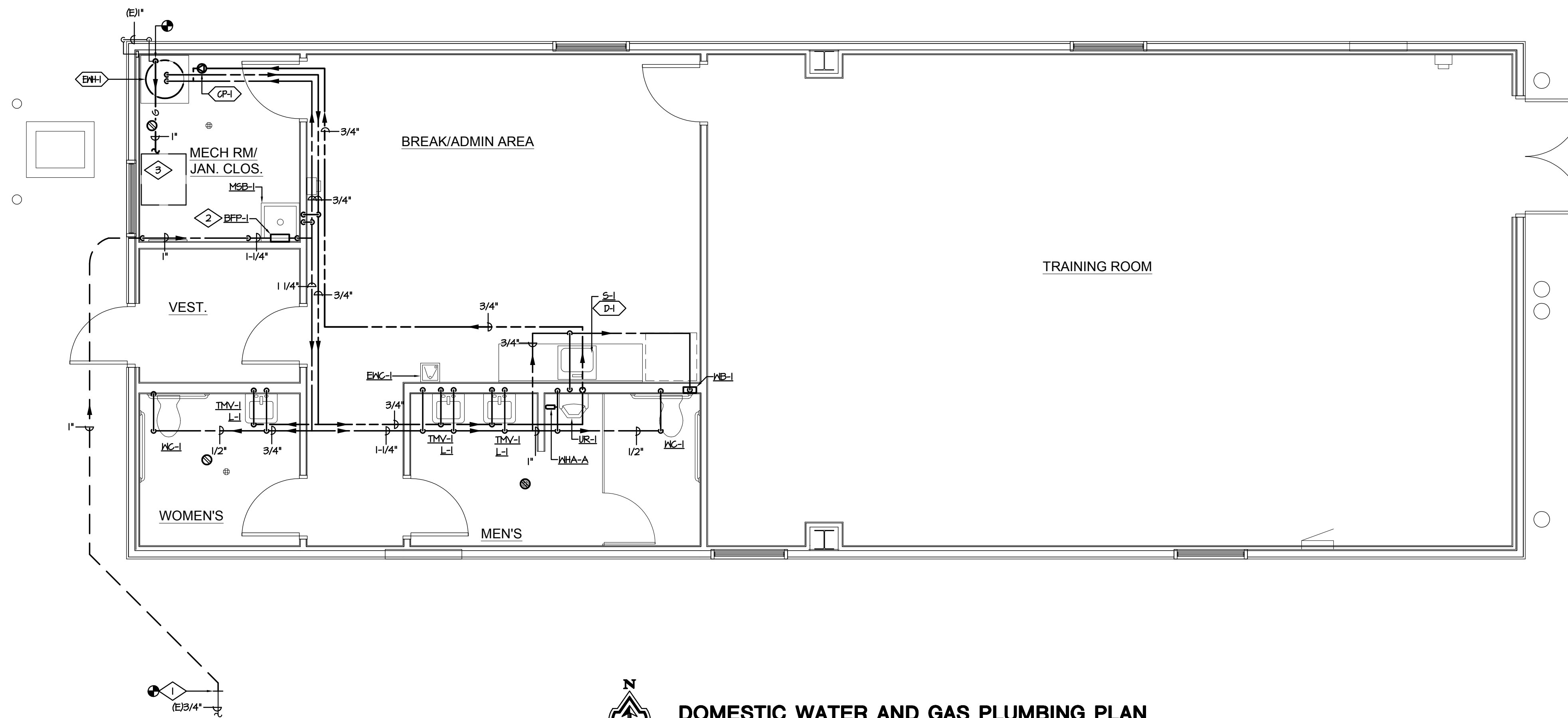
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DATE	NO.	DESCRIPTION
03/17/2017	1	85% CONSTRUCTION DOCS
04/12/2017	2	85% CONSTRUCTION DOCS
05/12/2017	3	99% CD/CODE REVIEW
06/14/2017	4	100% BID SET



DOMESTIC WATER AND GAS PLUMBING PLAN

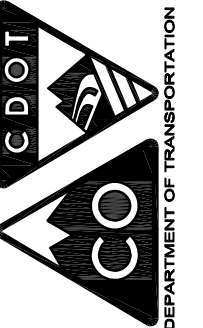
SCALE: 1/4" = 1'-0"

DRAWING NOTES

- CONTRACTOR TO FIELD VERIFY LOCATION OF WATER SERVICE PIPE AND PIPE MATERIAL. CONNECT AND MATCH NEW 1" DOMESTIC WATER PIPING TO EXISTING 3/4" PIPE. ROUTE PIPING AS SHOWN WITH NO JOINTS BELOW GRADE.
- MOUNT BFP-1 ABOVE MSB-1. PIPE DISCHARGE FROM BFP-1 TO MSB-1 WITH AIR GAP. SEE DIAGRAM ON P. 11.
- 1" GAS TO GAS FIRED FURNACE. REFER TO MECHANICAL PLANS. CONNECT TO APPLIANCE PER DIAGRAMS.

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PLUMBING PLAN

LA JUNTA TRAINING ROOM

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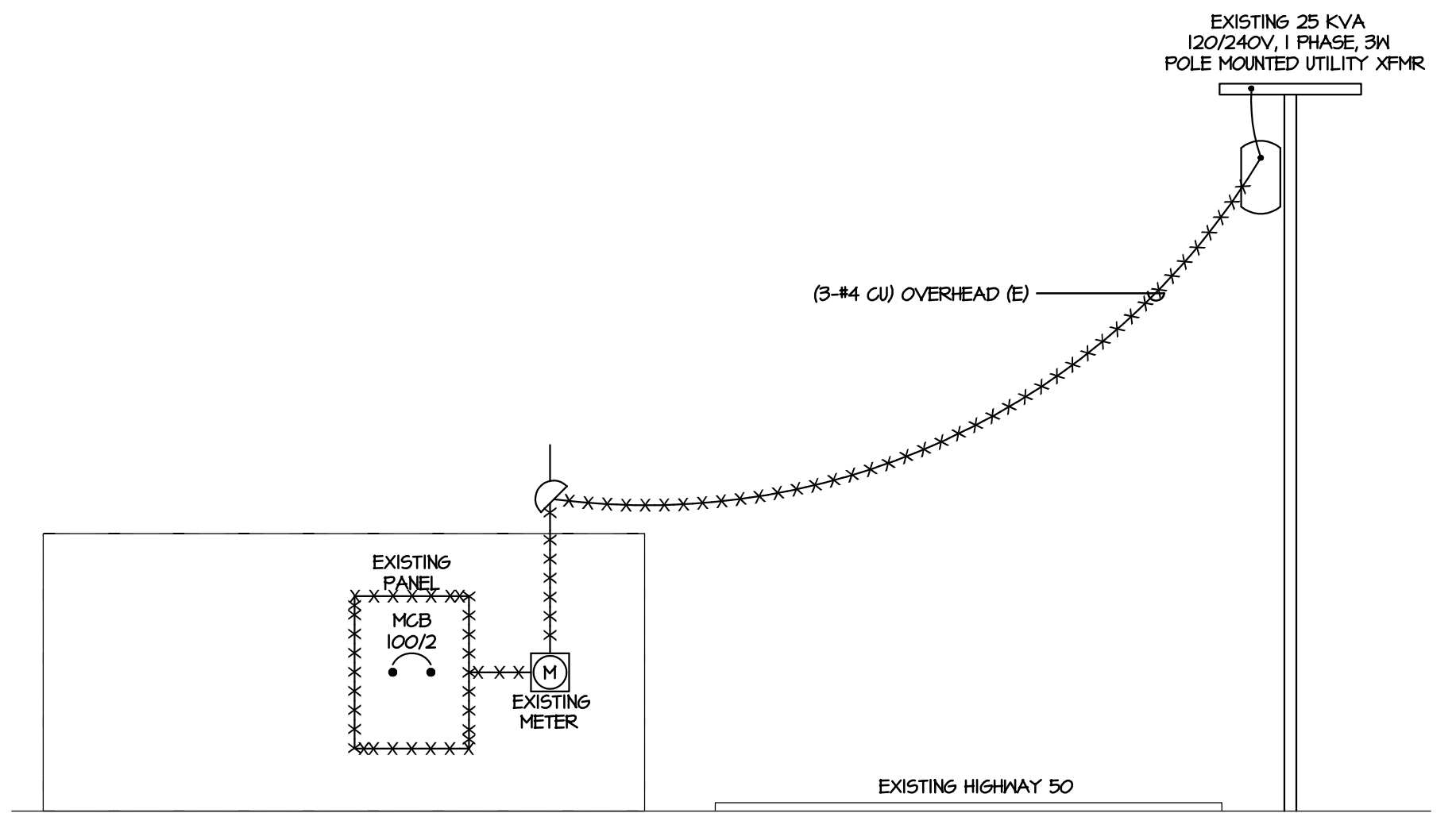
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ELECTRICAL GENERAL NOTES

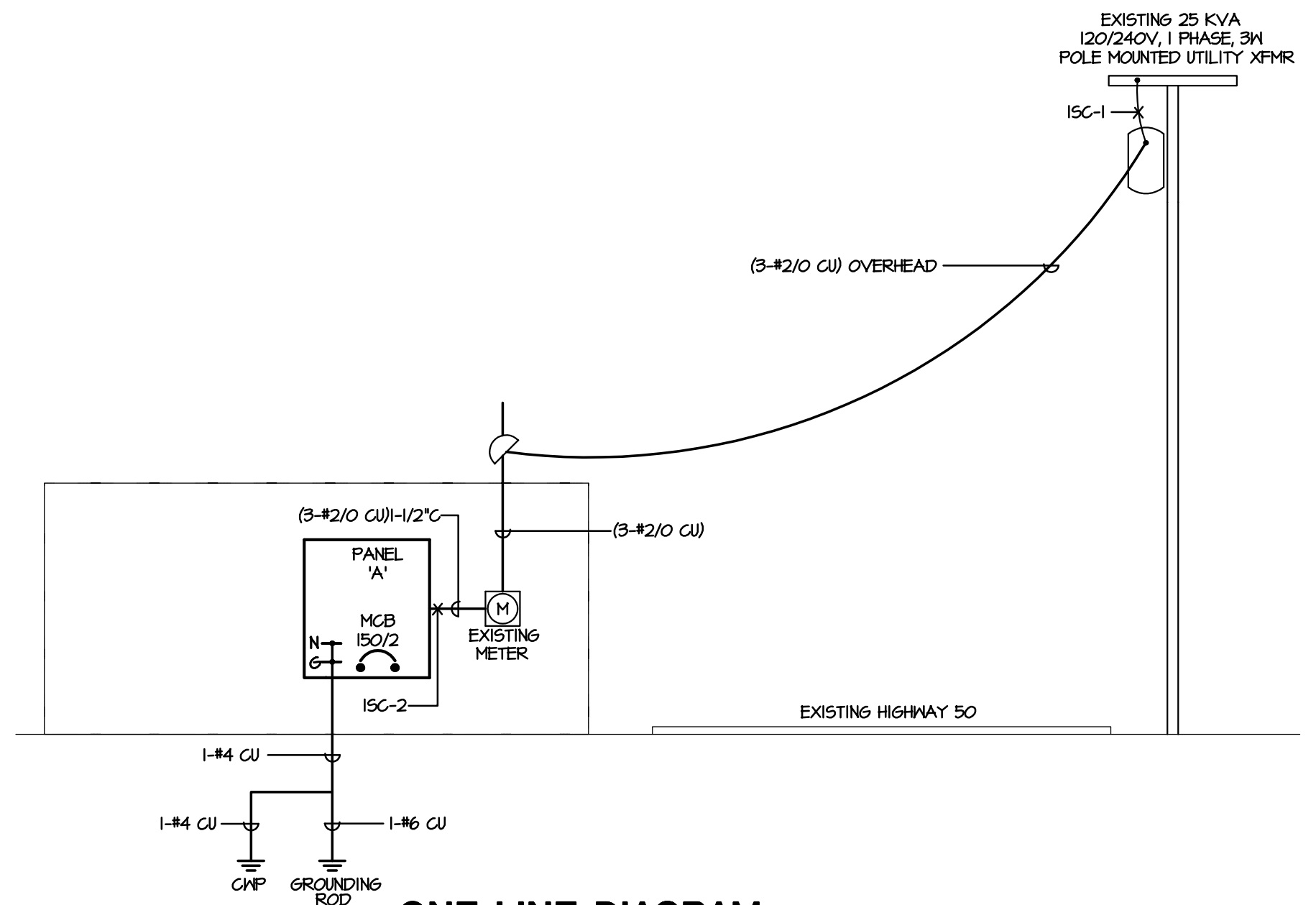
- PRIOR TO SUBMITTING BIDS, THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING ELECTRICAL EQUIPMENT CONDITIONS AND DIFFICULTIES THAT WILL AFFECT EXECUTION OF THE WORK. NOTIFY THE ARCHITECT AND ENGINEER OF ANY EXISTING CONDITIONS WHICH MODIFY THE SCOPE OF WORK AS SHOWN ON THE CONSTRUCTION DOCUMENTS. SUBMISSION OF A BID PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR MOBILIZATION, LABOR, EQUIPMENT, AND/OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
- ELECTRICAL CONTRACTOR SHALL FULLY COORDINATE WITH OWNER REPRESENTATIVES. ALL ELECTRICAL WORK PERFORMED UNDER THIS CONTRACT SHALL CONFORM WITH LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE, NFPA 70E, INTERNATIONAL BUILDING CODE OR INTERNATIONAL BUILDING CODE, LOCAL BUILDING AND FIRE DEPARTMENT REQUIREMENTS. PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS OF OWNER REPRESENTATIVES.
- ELECTRICAL CONTRACTOR SHALL MAINTAIN ON THE JOB AN UP TO DATE SET OF WORKING DRAWINGS, MARKED UP TO SHOW ELECTRICAL SYSTEMS AS INSTALLED. PROVIDE TENANT REPRESENTATIVES WITH ONE SET OF REPRODUCIBLES WITH "AS BUILT" PROJECT RECORD INFORMATION CLEARLY INDICATED. ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL LOCAL FEES, PERMITS AND SERVICES OF INSPECTION AUTHORITIES REQUIRED BY ELECTRICAL WORK FOR THIS ELECTRICAL CONSTRUCTION.
- REFER TO ARCHITECTURAL AND MECHANICAL EQUIPMENT DRAWINGS FOR EXACT LOCATIONS OF ELECTRICAL DEVICES AND LIGHT FIXTURES. DO NOT SCALE FROM THE ELECTRICAL PLANS. ADDITIONAL ELECTRICAL REQUIREMENTS ON ARCHITECTURAL PLANS, AND MECHANICAL PLANS SHALL BE INCLUDED IN THE ELECTRICAL CONTRACTOR'S BID.
- THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF ELECTRICAL WORK. LOCATIONS ARE APPROXIMATE AND SHALL BE SUBJECT TO MINOR MODIFICATIONS AS DIRECTED BY THE GENERAL CONTRACTOR AND OWNER REPRESENTATIVES. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE EXACT FITTING OF ALL MATERIALS, EQUIPMENT, ETC., IN THE BUILDING. ALL DIMENSIONS SHALL BE VERIFIED ON THE JOB. ELECTRICAL CONTRACTOR SHALL CUT, CHANNEL, CHASE, AND/OR DRILL FLOORS, WALLS, PARTITIONS, CEILING, OR OTHER SURFACES AS REQUIRED FOR INSTALLATION, SUPPORT, ANCHORAGE, ETC., OF WORK.
- ELECTRICAL CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER OF ANY CHANGES REQUIRED BY THE BUILDING MANAGEMENT AND TENANT REPRESENTATIVES.
- PROVIDE UPDATED, COMPLETE AND ACCURATE TYPED PANELBOARD CIRCUIT DIRECTORIES AT THE COMPLETION OF WORK. CLEAN EXPOSED PANELBOARD SURFACES AND CHECK TIGHTNESS OF ELECTRICAL CONNECTIONS. REPLACE DAMAGED CIRCUIT BREAKERS AS REQUIRED AND PROVIDE FILLER PLATES FOR VACANT SPACES.
- PROVIDE UPDATED LABELING OF ALL NEW AND RELOCATED ELECTRICAL EQUIPMENT IN SCOPE OF WORK INCLUDING BUT NOT LIMITED TO, ENGINE TRANSFORMERS, SWITCHGEAR, SWITCHBOARDS, PANELBOARDS, AND DISCONNECTS TO INDICATE THE AMPERE RATINGS, VOLTAGE RATINGS, PHASE, CONDUCTOR COLOR CODING WITHIN THE EQUIPMENT AND APPLICABLE AIC RATINGS.
- WIRING DEVICES SHALL BE SPECIFICATION GRADE, 20 AMP FOR GENERAL APPLICATION, 20 AMP OR GREATER FOR DEDICATED CIRCUITS AND AS REQUIRED BY CIRCUIT LOAD. LEVITON #562 RECEPTACLES, #362-16 (ORANGE) ISOLATED GROUND RECEPTACLES, AND #221 SWITCHES (OR EQUAL). PROVIDE (WHITE) COLOR UNLESS OTHERWISE NOTED. PROVIDE MATCHING COLOR NYLON COVER PLATES FOR ALL OUTLETS. ELECTRICAL CONTRACTOR SHALL VERIFY ALL OUTLETS WITH ARCHITECTURAL PLANS AND TENANT BEFORE ORDERING AND PURCHASING OF MATERIALS, TYPICAL.
- ALL 15 AMPERE AND 20 AMPERE, 125 VOLT AND 250 VOLT NON-LOCKING RECEPTACLES INSTALLED IN DAMP OR WET LOCATIONS SHALL BE LISTED AS WEATHER-RESISTANT PER 2014 NEC, ARTICLE 406.4 (A) AND (B). ALL RECEPTACLES MOUNTED IN WET LOCATIONS AS REFERENCED ABOVE SHALL HAVE AN "IN-USE" WEATHERPROOF COVER.
- ALL 125 VOLT, SINGLE PHASE, 15 AND 20 AMPERE RECEPTACLES INSTALLED IN THE FOLLOWING AREAS: BATHROOMS, KITCHENS (AREAS WITH A SINK AND PREPARATION AND COOKING), ROOFTOPS, OUTDOORS AND WITHIN 6 FEET FROM THE OUTSIDE EDGE OF SINKS, SHALL HAVE GFCI PROTECTION FOR PERSONNEL PER 2014 NEC 210.8 (D).
- ALL WALL MOUNTED OUTLETS SHALL BE OFFSET SO THEY ARE NOT BACK TO BACK FOR SOUND TRANSMISSION PURPOSES. A HORIZONTAL DISTANCE OF AT LEAST 24 INCHES SHALL SEPARATE OUTLET BOXES ON OPPOSITE SIDES OF WALLS AND PARTITIONS. GANG MOUNT ELECTRICAL AND COMMUNICATIONS OUTLETS ON WALLS AS CLOSE TOGETHER AS POSSIBLE, TYPICAL.
- ALL CONDUCTORS SHALL BE THIRTYTHIN INSULATED COPPER UNLESS OTHERWISE NOTED ON THE DRAWINGS. #12 AWG FOR 120 VOLT, 20 AMPERE CIRCUITS, 15 FEET OR LESS; #12 AWG FOR 277 VOLT, 20 AMPERE CIRCUITS, 150 FEET OR LESS TO FIRST DEVICE, TYPE THIN OR THIN INSULATION. PROVIDE WIRE COLOR CODING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. ALL WIRING SHALL BE RUN CONCEALED AND IN EMT CONDUIT. ALL HOMERUNS SHALL BE IN EMT CONDUIT. ELECTRICAL CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FROM DESIGN ENGINEER AND PROPERTY MANAGEMENT FOR USE OF "MC" AND "AC" TYPE CABLING. "MC" AND "AC" TYPE CABLE SHALL BE PERMITTED FOR BRANCH CIRCUIT WIRING IN APPROVED LOCATIONS ONLY AND INSTALLED PER NATIONAL ELECTRICAL CODE AND LOCAL BUILDING DEPARTMENT REQUIREMENTS. USE APPROVED TYPE COUPLINGS AND CONNECTORS. PROVIDE CONDUIT SUPPORTS AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AS A MINIMUM. ALL EMPTY CONDUITS INDICATED ON THE DRAWINGS SHALL BE SUPPLIED WITH NYLON PULL LINES.
- ELECTRICAL CONTRACTOR SHALL USE #10 AWG CU WIRE WHEN LENGTH OF CONDUCTOR EXCEEDS 15 FEET FOR 120 VOLT, 20 AMP CIRCUITS AND 150 FEET FOR 277 VOLT, 20 AMP CIRCUITS. SIZE CONDUCTORS FOR MINIMUM VOLTAGE DROP ALLOWED PER THE NATIONAL ELECTRICAL CODE.
- ELECTRICAL CONTRACTOR SHALL USE #8 AWG CU WIRE WHEN LENGTH OF CONDUCTOR EXCEEDS 150 FEET FOR 120 VOLT, 20 AMP CIRCUITS AND 300 FEET FOR 277 VOLT, 20 AMP CIRCUITS. SIZE CONDUCTORS FOR MINIMUM VOLTAGE DROP ALLOWED PER THE NATIONAL ELECTRICAL CODE.
- ALL JUNCTION BOX COVERS SHALL BE INDELIBLY LABELED WITH PANEL DESIGNATION AND BRANCH CIRCUIT NUMBER OF EACH WIRE WITHIN THE JUNCTION BOX. ALL HOME RUNS SHALL BE IN EMT CONDUIT, TYPICAL.
- NEUTRALS, RACEWAYS, AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN FULL ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. PROVIDE HARD WIRED GROUND CONNECTIONS TO ALL DEVICES AND SEPARATE INSULATED GROUND WIRE CONTINUOUS IN EACH CIRCUIT (#12 AWG CU MINIMUM "GREEN" TRACER GROUND).
- CIRCUITS FOR COMPUTERS, COPIERS, AND PRINTERS, WHICH ARE SEMI-DEDICATED, DEDICATED, OR ISOLATED, SHALL HAVE A SEPARATE NEUTRAL AND GROUND CONDUCTORS RUN FROM THE BRANCH CIRCUIT PANEL BOARD.
- ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY FROM STRUCTURE. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF LIGHT FIXTURES AND ELECTRICAL DEVICES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF LIGHTING FIXTURES IN MECHANICAL ROOMS/SPACES WITH MECHANICAL DUCT WORK. INSTALLER PRIOR TO ROUGH IN. LOCATE BELOW DUCT WORK (8'-0" AFF. MIN) CENTERED IN ROOM AS MUCH AS POSSIBLE. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL MECHANICAL EQUIPMENT LOCATIONS AND REQUIREMENTS WITH MECHANICAL PLANS, MECHANICAL CONTRACTOR, AND ACTUAL MECHANICAL EQUIPMENT SUPPLIED. INCLUDE ALL REQUIRED OUTLETS, HEAVY DUTY DISCONNECT SWITCHES, FUSES, CONTROLS, CONTROL WIRING AND ALL CONNECTIONS IN THE ELECTRICAL BID.
- ALL NEW LIGHT SWITCHES, RECEPTACLE OUTLETS, TELEPHONE OUTLETS, FIRE ALARM DEVICES, AND COMMUNICATIONS DATA OUTLETS SHALL MEET THE REQUIREMENTS FOR AMERICANS WITH DISABILITIES (ADA) AND ANSI A117.1 REQUIREMENTS FOR MOUNTING HEIGHTS AND ORIENTATIONS, TYPICAL UNLESS OTHERWISE NOTED. RECEPTACLES SHALL BE A MINIMUM OF 15" A.F.F. AND SWITCHES A MAXIMUM OF 48" A.F.F. TO CENTERLINE, TYPICAL UNLESS OTHERWISE NOTED.
- COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL ELECTRICAL DEVICES LOCATED WITHIN, ABOVE, OR NEAR MILLWORK WITH ARCHITECTURAL DRAWINGS, APPROVED "SHOP DRAWINGS", AND MILLWORK CONTRACTOR. MAINTAIN CONSISTENT MOUNTING PRACTICES FOR A UNIFORM APPEARANCE. VERIFY ALL OUTLET REQUIREMENTS PRIOR TO ROUGH IN.
- MINIMUM WORKING CLEARANCES PER THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE SHALL BE PROVIDED AROUND AND IN FRONT OF ALL ELECTRICAL EQUIPMENT.
- ALL CIRCUIT BREAKER LUGS SHALL BE RATED FOR A MINIMUM OF 75 DEGREE CELSIUS.
- ALL NEW AND FLUORESCENT LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS EITHER INTERNAL OR EXTERNAL TO EACH LUMINAIRE PER 2014 NEC, ARTICLE 410.10(G)(1).
- ALL NEW ELECTRICAL EQUIPMENT, SUCH AS SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS, METER SOCKET ENCLOSURES, AND MOTOR CONTROL CENTERS, THAT ARE IN OTHER THAN DWELLING OCCUPANCIES, AND ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT PER NEC 2014, ARTICLE 110.16.
- BUILDING POWER AND LIGHTING ENERGY COMPLIANCE SHALL BE IN ACCORDANCE WITH THE 2015 IECC (INTERNATIONAL ENERGY CONSERVATION CODE), SUBMIT COMPLIANCE CERTIFICATE (COMCHECK VERSION 3.1.2) WITH ALL SELECTION BOXES MARKED.
- ALL EQUIPMENT, MATERIALS, AND INSTALLATION SHALL COMPLY WITH THE 2014 NEC, 2002 NFPA 72, 2015 INTERNATIONAL CODES, AND ALL OTHER REGULATORY ADOPTIONS OF COLORADO STATE BUILDING PROGRAMS.
- WHERE PROVIDED, ELECTRICAL SUBMITTAL SHALL INCLUDE CONDUCTOR SIZES FOR 30A BRANCH FEEDERS FOR DEDICATED RECEPTACLE CIRCUITS PER 2014 NEC 210.19 AND 210.20.
- PROVIDE COMPLIANCE WITH 2014 NEC ARTICLE 511 AND INDICATE ANY CLASSIFIED LOCATIONS ON ELECTRICAL DRAWINGS. ALL EQUIPMENT, WIRING AND DEVICES SHALL COMPLY WITH 2014 NEC ARTICLE 511.
- ELECTRICAL SUBMITTAL SHALL INCLUDE ALL REQUIRED GROUNDING TO COMPLY WITH 2014 NEC.
- PROVIDE WEATHERPROOF RECEPTACLES WHERE REQUIRED PER 2014 NEC.
- PROVIDE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION WHERE REQUIRED PER 2014 NEC 210.8(B), (I).
- INDICATE THE HEIGHT OF RECEPTACLE LOCATIONS AND PROVIDE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL PER 2014 NEC 511.2.
- WHEN APPLICABLE, PROVIDE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR RECEPTACLES LOCATED WITHIN 6 FEET OF THE OUTER EDGE OF THE UTILITY SINK.
- PROVIDE OCCUPANCY SENSORS IN OFFICES, STORAGE AREAS, RESTROOM AND AREAS REQUIRED BY 2015 IECC 505.2.2.1
- WHEN APPLICABLE, PROVIDE EXIT SIGNS THAT COMPLY WITH 2015 IECC 505.4; SIGNS SHALL NOT EXCEED 34" PER SIDE.
- PROVIDE REQUIRED EMERGENCY EGRESS LIGHTING ON EMERGENCY BATTERY POWER PER 2014 NEC 700.16 AND 2014 NEC 700.12 (F).
- MECHANICAL HEATING, COOLING, AND VENTILATION CIRCUIT REQUIREMENTS SHALL BE SHOWN ON ELECTRICAL SUBMITTAL.
- ELECTRICAL CONDUIT TO BE LOCATED IN SLAB TO ALLOW CLEARANCE FROM FOOTINGS, STEMWALLS, COLUMN BASES AND WALL FINISH WITHOUT UNNECESSARY ELBOWS AND JOINTS.
- CONTRACTOR TO PROVIDE VOICE (CAT 5E) AND DATA (CAT 6E) DROPS TO LOCATIONS INDICATED ON DRAWINGS. ALL DROPS HOMERUN TO EXISTING TELECOM DEMARK, IF EXISTING DEMARK DOES NOT SUPPORT CAT 6 PROVIDE CATS ONLY.
- TRIM ALL OUTLETS AND ENDPOINTS, LABEL EACH OUTLET COVERPLATE AND LABEL EACH HOMERUN AT THE DEMARK AND TERMINATE IN A 32-PORT PATCH PANEL.
- PATCH PANEL AND CABLING WILL BE PART OF GENERAL CONTRACTORS SCOPE OF WORK. GENERAL CONTRACTOR TO COORDINATE WITH CDOT REPRESENTATIVE FOR SCHEDULING OF FINAL CONNECTIONS AT DEMARK.
- CONTRACTOR TO PROVIDE WHITE CAT 5E FOR PHONE LINES AND BLUE CAT 6E FOR DATA. ALL BOXES AND CONDUIT SHALL BE RECESSED IN WALLS.

Isc CALCULATION - SINGLE PHASE

Point #1 - At The Utility Transformer	
Isc(L-L) =	7400
Isc(L-N) =	10900
Point #2 - At Panel 'A'	
f =	$\frac{2000 \times \text{length} \times \text{Isc(L-L)}}{1 \times 11423 \times 240}$
f =	2.024
M =	1/(1+f)
M =	0.331
Isc(L-L) =	Isc(L-L, prev) X M
Isc(L-L) =	2447



DEMOLITION ONE LINE DIAGRAM
NOT TO SCALE



ONE LINE DIAGRAM
NOT TO SCALE

ELECTRICAL SYMBOLS LEGEND

DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
HOMERUN, SOLID 120/208 V, OPEN 277/480 V		RECESSED FLUORESCENT FIXTURE	
CONDUIT RISER, TURNED UP, TURNED DOWN		SURFACE/PENDANT FLUORESCENT FIXTURE	
JUNCTION BOX, CEILING OR WALL		FLUORESCENT STRIP FIXTURE	
JUNCTION BOX, WITH COVER PLATE		DOWNLIGHT/PENDANT FIXTURE	
SIMPLEX RECEPTACLE		WALL MOUNTED FIXTURE	
DUPLEX RECEPTACLE		WALLWASH FIXTURE	
DOUBLE DUPLEX RECEPTACLE		EXIT SIGN WITH "FROG EYE"	
DUPLEX RECEPTACLE ON DEDICATED CIRCUIT		TRACK LIGHTING	
SPECIAL RECEPTACLE - AS NOTED ON PLANS		EXIT SIGN	
TELEPHONE OUTLET, SINGLE GANG BOX, 3/4" CONDUIT STUB TO ACCESSIBLE CEILING		EMERGENCY BATTERY PACK, "FROG EYE"	
DATA OUTLET, SINGLE GANG BOX, 3/4" CONDUIT STUB TO ACCESSIBLE CEILING		POLE MOUNTED OUTDOOR FIXTURE	
COMBINATION TELE/DATA OUTLET, SINGLE GANG BOX, 3/4" CONDUIT, STUB TO ACCESSIBLE CEILING		SWITCH, SINGLE POLE	
COMBINATION POWER/COMMUNICATIONS FLOOR BOX		TWO POLE SWITCH	
POKE THRU DEVICE		THREE WAY SWITCH	
COMBINATION TELEPHONE/DATA FLOOR BOX		FOUR WAY SWITCH	
TELEPHONE FLOOR BOX		KEYED SWITCH	
WATER HEATER		DIMMER SWITCH	
PANELBOARD		THERMAL OVERLOAD SWITCH	
SWITCHBOARD		SWITCH WITH PILOT LIGHT	
DISCONNECT SWITCH, NON-FUSED		FIRE HORN WITH STROBE LIGHT	
DISCONNECT SWITCH, FUSED		MANUAL PULL STATION/FLOW AND TAMPER	
TRANSFORMER		SMOKE DETECTOR	
MOTOR STARTER		SMOKE DETECTOR / STROBE	
CARD READER/KEY PAD		CEILING MOUNTED FIRE ALARM SPEAKER	
MOTOR		CEILING MOUNTED FIRE ALARM SPEAKER/STROBE	
PULLBOX		CEILING/WALL MOUNTED FIRE ALARM STROBE	
TIME CLOCK		REMOTE LAMP	
METER		DUCT DETECTOR	
DISCONNECT SWITCH & FUSE (DIAGRAMMATIC)		FIRE/SMOKE DAMPER	
CURRENT TRANSFORMER, CTS (DIAGRAMMATIC)		WALL MOUNTED OCCUPANCY SENSOR	
CIRCUIT BREAKER (DIAGRAMMATIC)		CEILING MOUNTED OCCUPANCY SENSOR	
PHOTOCELL		CO2/NO2 SENSOR	
TELEVISION CABLE OUTLET		THERMOSTAT	

AC	ABOVE COUNTER	GFI/GFCI	GROUND FAULT CIRCUIT INTERRUPTER	T/D	TELE/DATA JUNCTION BOX
AFF	ABOVE FINISHED FLOOR	NL	NIGHT LIGHT	TR	TAMPER RESISTANT
EMH	ELECTRIC WATER HEATER	RL	RELOCATED DEVICE OR EQUIPMENT	WP	WEATHER PROOF
GND	GROUND	SM	SURFACE MOUNT		

LIGHTING SYSTEM CONTROLS COMMISSIONING:
CONTRACTOR TO PROVIDE COMMISSIONING OF LIGHTING SYSTEM CONTROLS AS PER IECC 2015 C408.3

DEFERRED SUBMITTALS:
THE ELECTRICAL CONTRACTOR SHALL PROVIDE FULLY ENGINEERED FIRE ALARM SHOP DRAWINGS FOR REVIEW BY THE LOCAL BUILDING AND FIRE DEPARTMENT. THE FIRE ALARM SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A REGISTERED PROFESSIONAL ENGINEER IN THE PROJECT'S STATE. DEFERRED SUBMITTALS SHALL BE IN COMPLIANCE WITH 2015 IBC 107.2.2 and 107.3.4.1.
FIRE ALARM WIRING SHALL BE IN ACCORDANCE WITH NEC ARTICLE 760.
SEE SPECIFICATION SECTION 16721-FIRE ALARM

MEP PROJECT # 17066
DESIGNED BY: ELR CHECKED BY: DGM



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100% BID SET	4	06/14/2017

Colorado Department of Transportation

15285 SOUTH GOLDEN ROAD
BUILDING 47
GOLDEN, CO 80401
Phone: 303-512-5505 FAX: 303-512-5550

ELECTRICAL ONE-LINES, NOTES & LEGENDS

LA JUNTA TRAINING ROOM

28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81020

DRAWN BY: KMC

CDOT PROJECT NO. 21914
SAP BUILDING # 10002/47

DRAWING NUMBER
E1.0

LIGHTING FIXTURE SCHEDULE						
TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	MOUNTING	LAMPS	NOTES
EM1	DUAL-LITE	EV-2-1	BATTERY POWERED EM LIGHTING SELF DIAGNOSTICS	WALL MOUNT	INCLUDED	
EM2	DUAL-LITE	P6Z-HTR	EXTERIOR BATTERY POWERED EMERGENCY FIXTURE, UL LISTED MET LOCATION, DARK BRONZE, WITH NORMAL AND BATTERY BACK UP OPERATION. COLD WEATHER RATED BATTERY TO BE INSTALLED/LOCATED IN BUILDING INTERIOR.	WALL MOUNT	INCLUDED	
F2	LITHONIA	M1.2 22L EZLP840	2 FOOT LONG LED SURFACE MOUNT INTERIOR INTEGRAL DRIVER	SURFACE	21W LED 120V 3500K	
F3	LITHONIA	LDN6-35/5 LOGAR-TRH-120	6" LED DOWNLIGHT, CLEAR DIFFUSE REFLECTOR, INTEGRAL DRIVER	RECESSED	26W LED 120V 3500K	
F3E	LITHONIA	LDN6 35/5 LOGAR TRH 120 EL	6" LED DOWNLIGHT, CLEAR DIFFUSE REFLECTOR, INTEGRAL DRIVER EMERGENCY BATTERY PACK WITH INTEGRAL TEST SWITCH AND INDICATOR LIGHT	RECESSED	26W LED 120V 3500K	
F4	LITHONIA	2AVL4 40L HDR MVOLT EZI LP840	2'X4' LED LUMINAIRES, METAL DIFFUSER 0-10V DIMMING	RECESSED	48W LED 120V 4000K	
F4E	LITHONIA	2AVL4 40L HDR MVOLT EZI LP840 EL TL	2'X4' LED LUMINAIRES, METAL DIFFUSER 0-10V DIMMING WITH EMERGENCY BATTERY PACK	RECESSED	48W LED 120V 4000K	
F6	LITHONIA	ZLIN L40 3000LM FST MVOLT 40K 80CRI WH	1'X4' LED LINEAR STRIP FIXTURE FOR MET LOCATIONS	SURFACE	42W LED 120V	
XI	DUAL LITE	LX88BE	LED EMERGENCY EXIT SIGN (50 to 104 DEGREES F)	SURFACE	INCLUDED	

MECHANICAL EQUIPMENT SCHEDULE												
DESIGNATION	DESCRIPTION	VOLTAGE	PH	HP	KVA	FLA (MCA)	CONDUCTORS	CONDUIT	SWITCH	CB	FUSE SIZE /TYPE	REMARKS
AP-1	AIR PURIFICATION	24V	-	-	-	-	-	-	-	-	-	4
CP-1	CIRC. PUMP	120	1	1/6	-	-	(2#12, #12 GND)	1/2"	TOGGLE	20/1	-	-
CU-1	CONDENSING UNIT	240	1	-	-	(2B)	(2#10, #10 GND)	3/4"	60/2	40/2	40A FRN-R	-
D-1	DISPOSAL	120	1	1/2	1.13	9.8	(2#12, #12 GND)	1/2"	TOGGLE	20/1	-	-
EBBR-1	BASEBOARD HEAT	240	1	-	0.40	-	(2#12, #12 GND)	1/2"	STO	20/2	-	2B
EBBR-2	BASEBOARD HEAT	240	1	-	0.40	-	(2#12, #12 GND)	1/2"	STO	20/2	-	2B
EF-1	EXHAUST FAN	120	1	-	0.080	-	(2#12, #12 GND)	1/2"	STO	20/1	-	1B
EF-2	EXHAUST FAN	120	1	-	0.083	-	(2#12, #12 GND)	1/2"	STO	20/1	-	1B
EF-3	EXHAUST FAN	120	1	-	0.080	-	(2#12, #12 GND)	1/2"	STO	15/1	-	5B
EUH-1	ELECTRIC UNIT HEATER	120	1	-	1.5	-	(2#12, #12 GND)	1/2"	STO	20/1	-	2B
EUH-2	ELECTRIC UNIT HEATER	120	1	-	1.5	-	(2#12, #12 GND)	1/2"	STO	20/1	-	2B
EW-1	ELECTRIC WATER HEATER	120	1	-	3.0	25	(2#8, #10 GND)	3/4"	60/1	40/1	40A FRN-R	-
F-1	FURNACE	120	1	-	-	(4.6)	(2#12, #12 GND)	1/2"	STO	20/1	-	6
LVR-1	LOUVER	24V	-	-	-	-	-	-	-	-	-	4
LVR-1	LOUVER	24V	-	-	-	-	-	-	-	-	-	4

1. FAN TO BE CONTROLLED VIA LIGHTING CONTROL OCCUPANCY SENSOR.
2. CONTROLLED VIA WALL MOUNTED THERMOSTAT
3. 24V LOW VOLTAGE MOTOR AND TRANSFORMER PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. ELECTRICAL CONNECTIONS BY ELECTRICAL CONTRACTOR. REQUIRES SEPARATE CIRCUIT.
4. 24V LOW VOLTAGE TRANSFORMER PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. ELECTRICAL CONNECTIONS BY ELECTRICAL CONTRACTOR. AP-1 INTERLOCKED AND POWERED BY F-1
5. FAN SHALL RUN CONTINUOUSLY
6. PROVIDE THERMAL OVERLOAD SWITCH WITH BUSSMAN INLINE FUSES.

PANEL 'A'		NE1		VOLTAGE 120 / 240 V		1 # 3 W					
FLUSH X		MAIN 150/3		MLO							
SURFACE		BUS 225A		FEED THRU		A.I.C. 10/200					
TYPE	DESCRIPTION	BKR	CIR	LOAD (VA/S)		CIR	BKR	DESCRIPTION	TYPE		
				A #	B #						
R	RCPT-TRAINING CL6	20	1	500	900		2	20	RCPT-TRAINING	R	
R	RCPT-TRAINING	20	3			400	360	4	20	RCPT-BREAK/ADMIN	R
K	RCPT-BREAK/ADMIN-DISP.	20	5	1176	750			6	20	RCPT-BREAK/ADMIN-REF.	K
R	RCPT-BREAK/ADMIN	20	7			400	100	8	20	RCPT-BREAK/ADMIN-DP	R
R	RCPT-PHONE BOARD	20	9	360	360			10	20	RCPT-EXTERIOR	R
L	LT6-TRAINING RM	20	11			576	540	12	20	RCPT-RESTROOMS	R
L	LT6-EXTERIOR POLE	20	13	200	798			14	20	LT6-ADMIN/REF-2	LH
M	CP-1	20	15			50	3360	16	40	CU-1	M
6	EBBR-1	20	17	200	3360			18	2	-	M
6	-	2	19			200	200	20	20	EBBR-2	6
6	EBH-1	40	21	3000	200			22	2	-	6
6	F-1	20	23			1752	1500	24	20	EUH-1	6
6	LOWERS	20	25	200	1500			26	20	EUH-2	6
6	SMOKE/CO SENSORS	20	27			400	80	28	15	EF-3	M
	SPARE	20	29	0	0			30	20	SPARE	
	SPARE	20	31	0	0	0	0	32	20	SPARE	
	SPACE		33	0	0			34		SPACE	
	SPACE		35	0	0	0	0	36		SPACE	
	SPACE		37	0	0			38		SPACE	
	SPACE		39	0	0	0	0	40		SPACE	
	SPACE		41	0	0			42		SPACE	
				E9504		I197B					
LOAD TYPE		CONNECTED KVA		TOTAL		FACTOR		DEMAND KVA		TOTAL	
		A#	B#	ALL #S				A#	B#	ALL #S	
LIGHTING		0.9	0.6	1.4		125%		1.0	0.7	1.8	
RECEPTACLE (10KVA OR LESS)		2.1	2.1	4.2		100%		2.1	2.1	4.2	
RECEPTACLE (OVER 10KVA)		0.0	0.0	0.0		50%		0.0	0.0	0.0	
HVAC/MOTOR		9.5	4.0	15		100%		9.5	4.0	15	
MOTOR (LARGEST)		0.0	0.0	0.0		125%		0.0	0.0	0.0	
KITCHEN EQUIPMENT		1.9	0.7	2.6		100%		1.9	0.7	2.6	
MISCELLANEOUS		5.1	4.1	9.2		100%		5.1	4.1	9.2	
TOTAL KVA		13.5	12.0	25.5				14.3	12.1	25.8	
				TOTAL AMPERES		114.3	121.0	114.3			
LEGEND		L = LIGHTING		R = RECEPTACLE		M = HVAC / MOTOR		K = KITCHEN		6 = MISCELLANEOUS	

NO.	DESCRIPTION	DATE
1	85% CONSTRUCTION DOCS	03/17/2017
2	85% CONSTRUCTION DOCS	04/12/2017
3	89% CD/CODE REVIEW	05/12/2017
4	100% BID SET	06/14/2017

Colorado Department of Transportation
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GOLDEN, CO 80401
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ELECTRICAL SCHEDULES
LA JUNTA TRAINING ROOM
28201 WEST HIGHWAY 50
LA JUNTA, COLORADO 81020

MEP PROJECT # 17066
DESIGNED BY: ELR CHECKED BY: DGM



MEP
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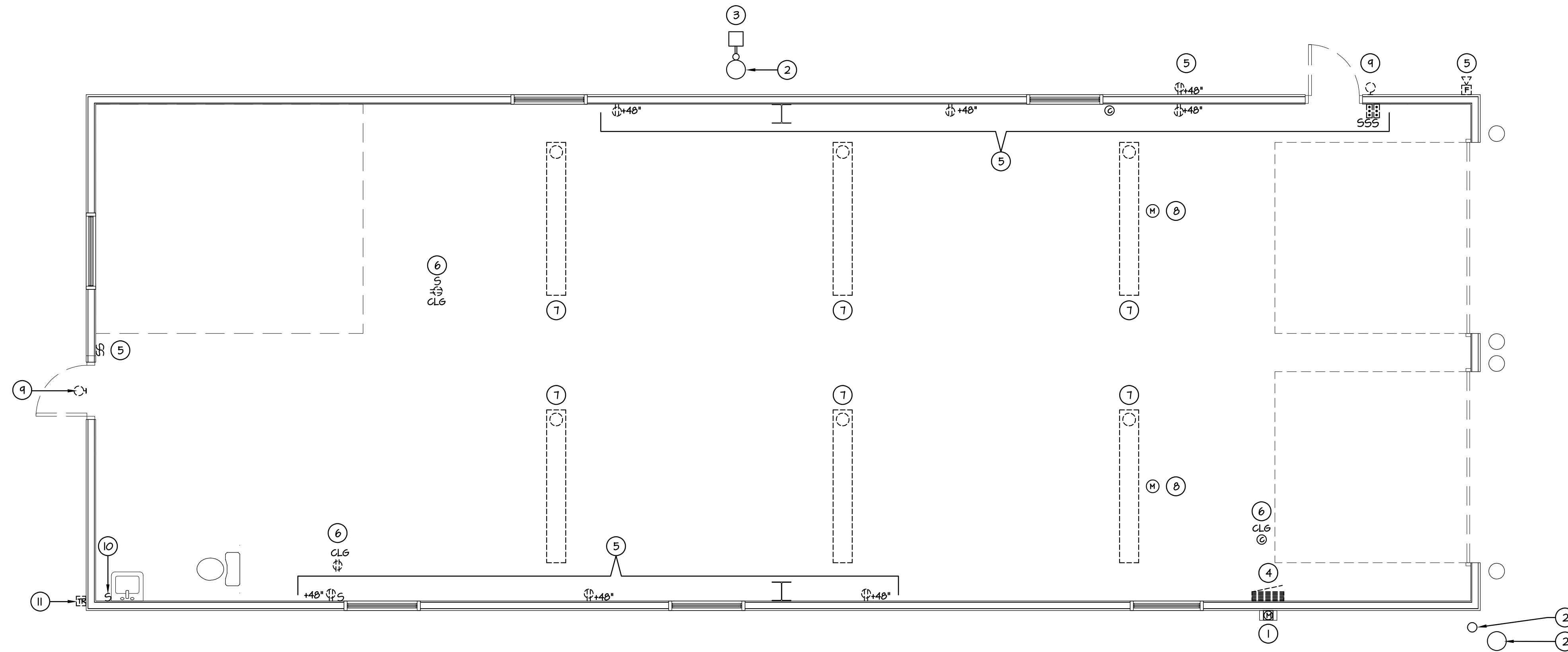
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DRAWN BY: KMC

CDOT PROJECT NO.
21914
SAP BUILDING #
1000/247

DRAWING NUMBER
E1.1



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

DRAWING NOTES

- I. EXISTING METER TO REMAIN.
- II. EXISTING POWER POLES TO REMAIN.
- III. EXISTING EXTERIOR LIGHT FIXTURE TO REMAIN. RECONNECT AND REWIRING. SEE SHEET E3.0 FOR ADDITIONAL INFORMATION.
- IV. REMOVE EXISTING PANEL.
- V. REMOVE EXISTING WALL MOUNTED DEVICES AND ASSOCIATED CONDUIT AND WIRE.
- VI. REMOVE EXISTING CEILING MOUNTED DEVICES AND ASSOCIATED CONDUIT AND WIRE.
- VII. REMOVE EXISTING INTERIOR LIGHT FIXTURES AND ASSOCIATED CONDUIT AND WIRE.
- VIII. REMOVE EXISTING OVERHEAD DOOR CONTROLLER, MOTOR AND ASSOCIATED CONDUIT AND WIRE.
- IX. REMOVE EXISTING EXTERIOR LIGHT FIXTURE AND ASSOCIATED CONDUIT AND WIRE.
- X. REMOVE EXISTING WATER HEATER CONNECTION AND ASSOCIATED CONDUIT AND WIRE.
- XI. REMOVE EXISTING TELEPHONE RISER.

DATE	NO.	DESCRIPTION
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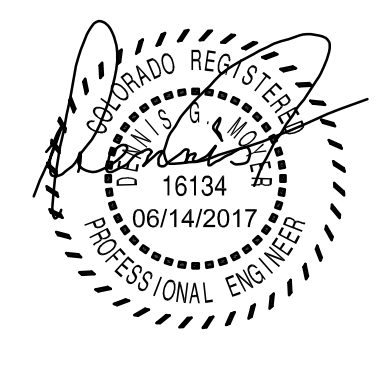
ELECTRICAL DEMOLITION PLAN
LA JUNTA TRAINING ROOM
 28201 WEST HIGHWAY 50
 LA JUNTA, COLORADO 81020

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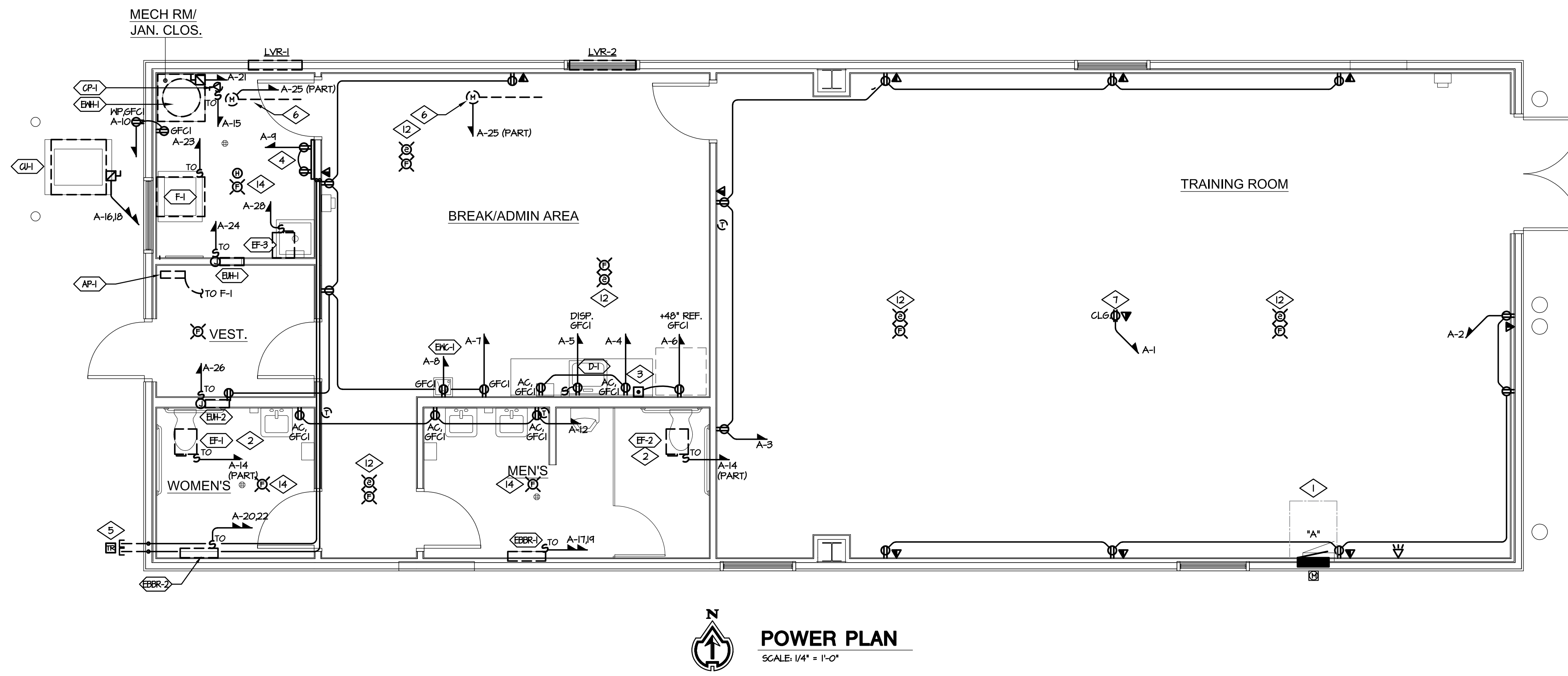
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CDOT PROJECT NO. 21914
 SAP BUILDING # 1000/247

DRAWING NUMBER
E2.0

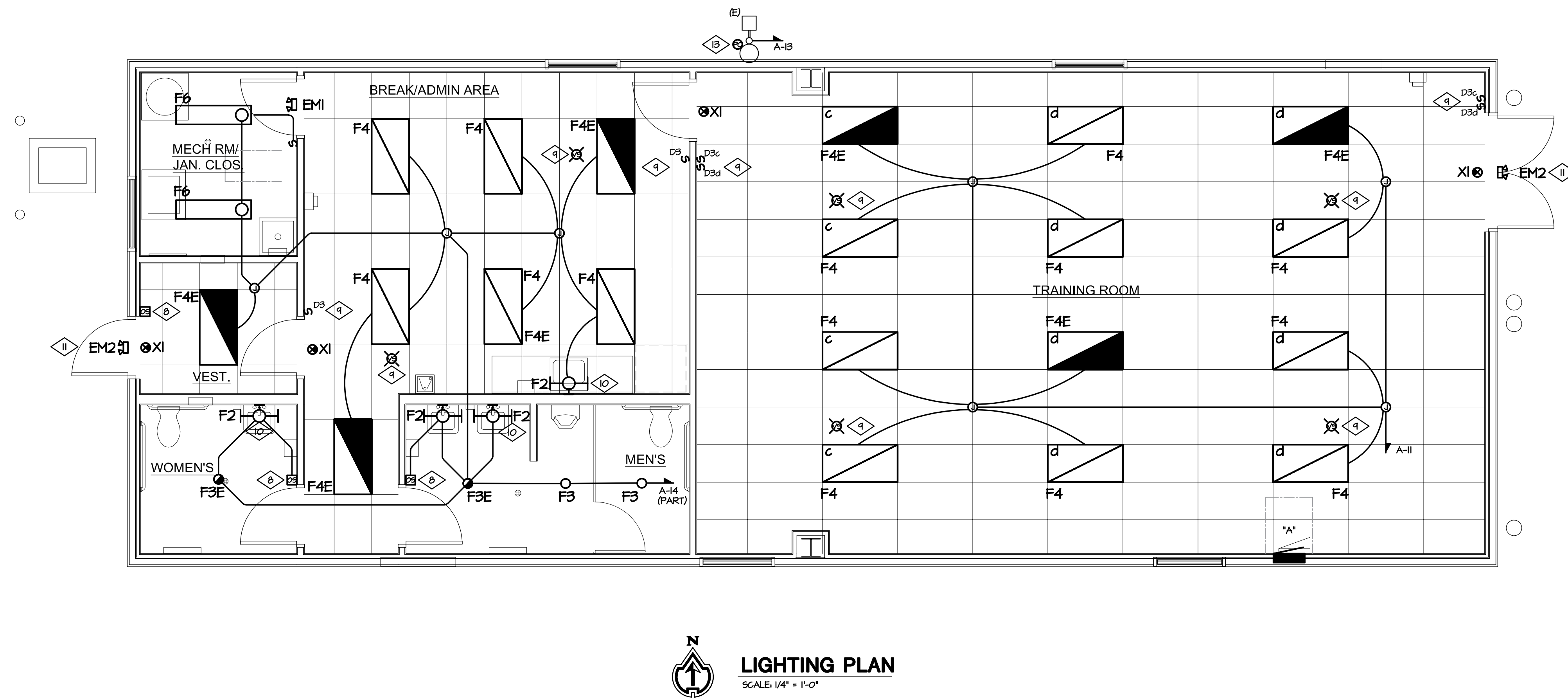


GENERAL NOTES

1. ALL EMERGENCY SIGN LIGHT FIXTURES AND BATTERY PACKS TO BE CONNECTED TO NEAREST UNSWITCHED LEG OF LOCAL LIGHTING CIRCUIT.
2. ALL ELECTRICAL WORK SHALL COMPLY WITH 2014 NEC REQUIREMENTS.

DRAWING NOTES POWER PLAN

1. COORDINATE EXACT PANEL LOCATION WITH OWNER PRIOR TO INSTALLATION.
2. CONNECT EXHAUST FAN TO OCCUPANCY SENSOR / SWITCH CONTROLLED LIGHTING CIRCUIT SERVING THIS ROOM.
3. CONTRACTOR TO PROVIDE REMOTE GFCI RESET BUTTON.
4. PROVIDE 48" X 48" X 3/4" TELEPHONE BOARD WITH (2) NEMA 5-20R, 30A, DEDICATED RECEPTACLES MOUNTED AT 480" AFF. PROVIDE (1) #6 CU ANS GND IN 1/2" CONDUIT TO NEAREST COLD WATER PIPE OR BUILDING STEEL FOR EQUIPMENT GROUND. SEE SPECIFICATION SECTION 16121 FOR ADDITIONAL REQUIREMENTS.
5. PROVIDE (2) 4" CONDUIT FOR TELEPHONE AND DATA. INSTALL 3 EACH 1-1/4" CONDUIT INTERDUCTS IN ONE OF THE 4" CONDUITS. COORDINATE EXACT ROUTING WITH ARCHITECT AND CIVIL ENGINEER PRIOR TO INSTALLATION. PROVIDE A MINIMUM OF EIGHT (8) PAIRS OF TELEPHONE LINES REQUIRED TO SERVE THE BUILDING. SEE SPECIFICATION SECTION 16121 FOR ADDITIONAL REQUIREMENTS.
6. CONNECT 24V DAMPER MOTOR TO 120V CIRCUIT INDICATED.
7. CEILING MOUNTED DUPLEX RECEPTACLE AND DATA PORT FOR CEILING MOUNTED PROJECTOR. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN. COORDINATE EQUIPMENT REQUIREMENTS WITH OWNER/VENDOR PRIOR TO ROUGH-IN. PROJECTOR TO BE PROVIDED AND INSTALLED BY OWNER.
8. PROVIDE WALL MOUNTED PASSIVE DUAL TECHNOLOGY WALL SWITCH SENSOR. SENSOR SWITCH YES FDT 1/4" OR EQUAL.
9. PROVIDE CEILING MOUNTED, PASSIVE DUAL TECHNOLOGY, LINE VOLTAGE VACUANCY SENSOR. SENSOR SWITCH 1/2" OR APPROVED EQUAL. PROVIDE SENSOR OVERRIDE SWITCH AS SHOWN.
10. COORDINATE FIXTURE MOUNTING HEIGHT WITH CDDT PRIOR TO ROUGH-IN AND INSTALLATION. REFER TO ARCHITECTURAL ELEVATIONS.
11. BATTERY FOR EM2 FIXTURES TO BE INSTALLED LOCATED WITHIN BUILDING INTERIOR. COORDINATE LOCATION OF BATTERY WITH OWNER PRIOR TO INSTALLATION.
12. HARD-WIRED CEILING MOUNTED COMBINATION SMOKE AND CARBON MONOXIDE DETECTOR WITH BATTERY BACK-UP, KIDDE 900-0114A OR EQUAL, TO CIRCUIT A-21. PROVIDE CEILING MOUNTED FIRE STROBE KIDDE SLITTI OR EQUAL. INTERLOCK FIRE STROBES TO SMOKE/CARBON MONOXIDE DETECTORS.
13. LOCATION OF PHOTOCCELL TO CONTROL EXISTING EXTERIOR LIGHT FIXTURE.
14. PROVIDE CEILING MOUNTED FIRE STROBE KIDDE SLITTI OR EQUAL. INTERLOCK FIRE STROBES TO SMOKE/CARBON MONOXIDE DETECTORS.



NO.	DESCRIPTION
1	85% CONSTRUCTION DOCS
2	85% CONSTRUCTION DOCS
3	99% CD/CODE REVIEW
4	100% BID SET

Colorado Department of Transportation
 15285 SOUTH GOLDEN ROAD
 BUILDING 47
 GOLDEN, CO 80401
 Phone: 303-512-5505 FAX: 303-512-5550

POWER & LIGHTING PLANS
LA JUNTA TRAINING ROOM
 28201 WEST HIGHWAY 50
 LA JUNTA, COLORADO 81020



MEP PROJECT # 17066
DESIGNED BY: ELR CHECKED BY: DGM



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DRAWN BY: KMC

CDOT PROJECT NO. 21914
SAP BUILDING # 1000247

DRAWING NUMBER
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