

TRAUT ELEMENTARY SCHOOL

EARLY CHILDHOOD RESTROOM PROJECTS



POUDRE SCHOOL DISTRICT
TRAUT ELEMENTARY SCHOOL
2515 TIMBERWOOD DRIVE
FORT COLLINS, CO 80528



No.	Revision	Date

Sheet Title:
COVER

Project
EC REST ROOMS
DD SET
Date
02/20/2020
Sheet
G000
Scale

ARCHITECT

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ELECTRICAL CONSULTANT

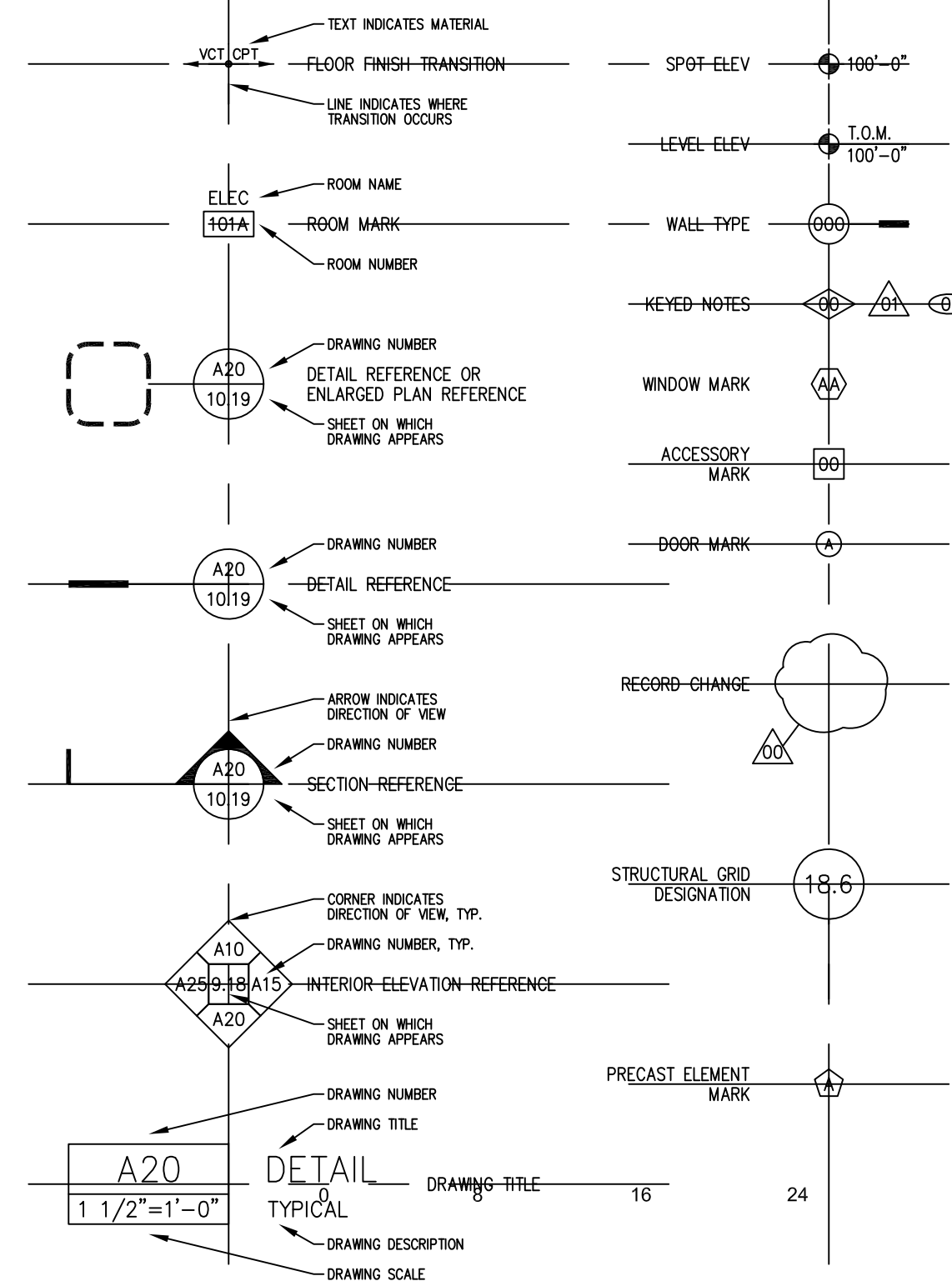
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FIRE ALARM CONSULTANT

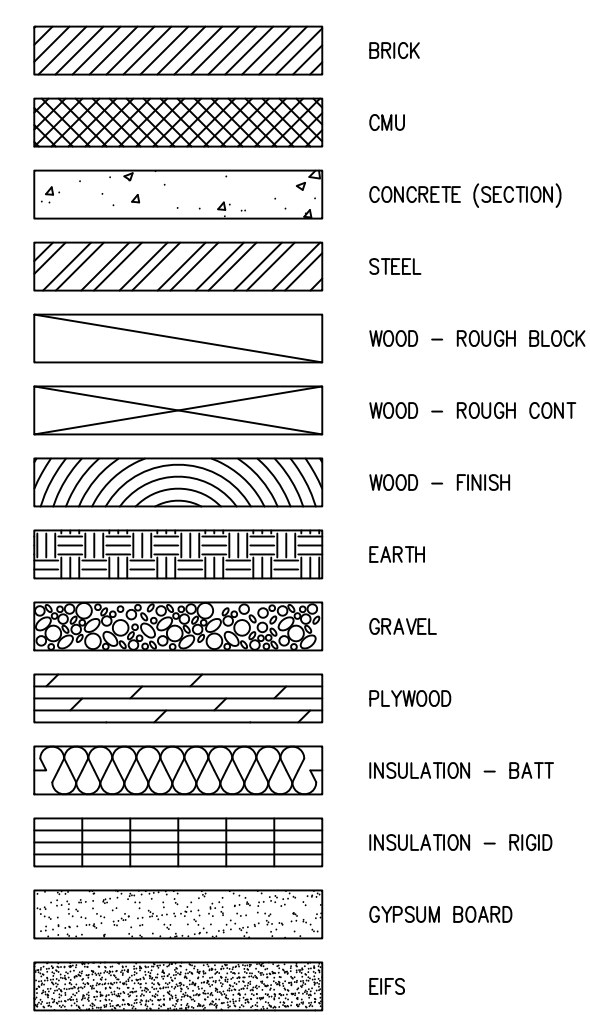
ABBREVIATIONS

A/C	AIR CONDITIONING	M	MINUTE
AB	ANCHOR BOLT	MAS	MASONRY
ACCESS	ACCESSIBLE	MAT	MATERIAL
ACT	ACCUSTICAL TILE	MAX	MAXIMUM
ADJ	ADJUSTABLE	MB	MARKER BOARD
ATF	ABOVE FINISHED FLOOR	MBM	METAL BUILDING MANUFACTURER
AL	ALUMINUM	MCH	MECHANICAL
ALT	ALTERNATE	MFR	MANUFACTURER
AND	AND/ED	MN	MINIMUM/MINUTE
APPROX	APPROXIMATE	MIR	MIRROR
ARCH	ARCHITECTURAL	MR/S	MIRROR W/ SHELF
ASB	ACOUSTIC SOUND BOARD	MSC	MISCELLANEOUS
AMP	ACOUSTICAL WALL PANELS	MEL	MELAMINE
		MO	MASONRY OPENING
		MT	MOUNTED
		MTL	METAL
		MULL	MULLION
BB	BULLETIN BOARD	(N)	NEW
BC	BASE CABINET	NA	NOT APPLICABLE
BD	BOARD	NI	NOT IN CONTRACT
BTWN	BETWEEN	NOM	NOMINAL
BL	BRICK LEDGE	NPS	NOMINAL PIPE SIZE
BLDG	BUILDING	NIS	NOT TO SCALE
BLNG	BLOCKING	OA	OVER/ON
BM	BENCH MARK/BEAM	OC	ON CENTER
BOM	BOTTOM OF MASONRY	OD	OUTSIDE DIAMETER
BOS	BOTTOM OF STEEL	OF	OVERFLOW LEADER
BOT	BOTTOM	OFR	OWNER FURNISHED
BRC	BEARING	OFR	OWNER FURNISHED CONTRACTOR INSTALLED
BRKT	BRACKET	OFR	OWNER INSTALLED
BS	BACKSPLASH	OFD	OVERFLOW DRAIN
BSMT	BASEMENT	OFD	OVERFLOW SCUPPER
BUR	BUILT-UP ROOF	OH	OVERHEAD/OPPOSITE HAND
		OPG	OPENING
		OPP	OPPOSITE
C	COURSE(S)	PBD	PARTICLE BOARD
(C)	COURSE(S)	PCC	PRECAST CONCRETE
CAB	CABINET	PCF	POUNDS PER CUBIC FOOT
CBD	CHALKBOARD	PE	POURED EPOXY
CB	CEMENT BOARD	PL	PLATE
CF	CUBIC FEET	PLM	PLASTIC LAMINATE
CG	CORNER GUARD	PLAS	PLASTER
C	CAST IRON	P	POUNDS PER LINEAR FOOT
CIP	CAST-IN-PLACE	PR	PAIR
CJ	CONTROL JOINT	PS	PROJECTION SCREEN
CLG	CENTERLINE	PS	PLASTIC FACED SAT
CLR	CLEAR/CLEARANCE	PSF	POUNDS PER SQUARE FOOT
CM	CEMENT MASONRY UNIT(S)	PSI	POUNDS PER SQUARE INCH
CMU	CONCRETE MASONRY UNIT(S)	PT	PAPER TOWEL DISPENSER
COL	COLUMN	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	PWMT	PAVED W/ MOUNT
CONSTR	CONSTRUCTION	PWD	PLYWOOD
CONT	CONTINUOUS/CONTRACTOR	QT	QUARRY TILE
CPT	CARPET	(R)	RELOCATE(ED)
CT	CERAMIC TILE	R	RISER/RADIUS/RATED
CTR	COUNTER/COUNTERTOP	RB	RUBBER BASE
CY	CUBIC YARD	RCMU	RIBBED CMU
D	DEEP/DEPTH	RD	ROOF DRAIN
(D)	DEMOLISHED	RDL	ROOF DRAIN LEADER
DB	DISPLAY BOARD	REF	REFER TO
DBL	DOUBLE	REV	REVERSED
DF	DRAINING FOUNTAIN	REINF	REINFORCING
DIAG	DIAGONAL	REQD	REQUIRED
DIA	DIAMETER	RFS	ROOM FINISH SCHEDULE
DNM	DOWN	RH	RIGHT HAND
DN	DOWN	RM	ROOM
DS	DOWNSPOUT	RO	ROUGH OPENING
DTL	DETAIL	ROW	RIGHT OF WAY
DWG	DRAWING	RSCMU	RIBBED & SPLIT CMU
		RT	RUBBER TILE OR TREAD
(E)	EXISTING	(S)	SALVAGE(D)
EA	EACH	SACMU	SOUND ABSORBING CMU
EFS	EXTERIOR INSULATION FINISH SYSTEM	SAT	SUSPENDED ACCOUSTICAL TILE
EJ	EXPANSION JOINT	SC	SOLID CORE
EL	ELEVATION	SCAT	SPRAYED CELLULOSE ACOUSTIC TREATMENT
ELEC	ELECTRICAL	SD	STORM DRAIN
ELEV	ELEVATION/ELEVATION	SDT	STATIC DISSIPATIVE TILE
EMER	EMERGENCY	SECT	SECTION
EPDM	ROOFING SYSTEM RE SPEC.	SFF	SQUARE FOOT
EPT	EPOXY PAINT	SFCMU	SPLIT FACE CMU
EQ	EQUAL	SGT	STRUCTURAL GLAZED TILE
EQUIP	EQUIPMENT	SHT	SHEET
EW	EACH WAY	SHTG	SHEATHING
EWC	ELECTRIC WATER COOLER	SM	SMILAR
EXH	EXHAUST	SHV	SHRELY/SHELVES/SHELVING
EXP	EXPANSION/EXPOSED	SM	SHEET METAL
EXT	EXTERIOR	SPECS	SPECIFICATIONS
FA	FIRE ALARM	SS	SANITARY SEWER/STAINLESS STEEL
FAP	FIRE ALARM PANEL	ST	STANDARD
FD	FLOOR DRAIN	STD	STANDARD
FE	FIRE EXTINGUISHER	STRUCT	STRUCTURAL
FEC	FIRE EXTINGUISHER CABINET	SUSP	SUSPENDED
FN	FINISHED	SV	SHEET VINYL
FL	FLOOR LINE	SYM	SYMMETRICAL
FLR	FLOOR/FLOORING	TD	TRAVEL DISTANCE
FND	FOUNDATION	TB	TACKBOARD
FNC	FACE OF CONCRETE	T&B	TOP AND BOTTOM
FOF	FACE OF FINISH	T&G	TONGUE AND GROOVE
FOM	FACE OF MASONRY	TEL	TELEPHONE
FOS	FACE OF STUD(S)	THK	THICK/THICKNESS
FR	FIRE-RESISTANT	TOB	TOP OF BEAM
FRP	FIBERGLASS REINFORCED PLASTIC/FLOOR SINK/FINISHED SURFACE	TOC	TOP OF CONCRETE/CURB
FS	FLOOR SINK/FINISHED SURFACE	TOM	TOP OF MASONRY
FTG	FOOT/FEET	TOW	TOP OF WALL
FUR	FURRING	TP	TOP PLATE
		TPD	TOILET PAPER DISPENSER
		TS	TUBE STEEL
		TRYP	TRYPICAL
		TV	TELEVISION
		UC	UPPER CABINET
		UGE	UNDERGROUND ELECTRICAL
		UNO	UNLESS NOTED OTHERWISE
		VB	VENTED BASE
		VCT	VINYL COMPOSITION TILE
		VERT	VERTICAL
		VEST	VESTIBULE
		VFB	VINYL FACED GYPSUM BOARD
		VF	VERIFY IN FIELD
		VWC	VINYL WALL COVERING
		W	WIDTH/WIDE
		W/	WITH
		W/O	WITHOUT
		WO	WHERE OCCURS
		WB	WOOD BASE
		WH	WATER HEATER/WALL HUNG
		WC	WATER CLOSET
		WN	WINDOW
		WO	WOOD
		WP	WATERPROOF
		WR	WATER RESISTANT
		WGT	WEIGHT
		WLF	WELED WIRE FABRIC

ARCHITECTURAL SYMBOLS



MATERIALS LEGEND



GENERAL NOTES

DEMOLITION WORK INCLUDES NOTES ON ALL SHEETS IN THE FOLLOWING DRAWING SET. THESE SHEETS ARE NOT INTENDED TO BE ALL INCLUSIVE OF THE COMPLETE SCOPE OF REQUIRED DEMOLITION. REMOVE EXISTING CONSTRUCTION REQUIRED FOR ALL WORK INCLUDING NEW MECHANICAL, ELECTRICAL AND PLUMBING SYSTEMS. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND ASSOCIATED PATCHING / FINISHING REQUIRED TO COMPLETE ALL PHASES OF WORK.

DO NOT SCALE DRAWINGS. FIELD VERIFY ALL DIMENSIONS. NOTIFY ARCHITECT IMMEDIATELY WHEN DISCREPANCIES ARE DISCOVERED.

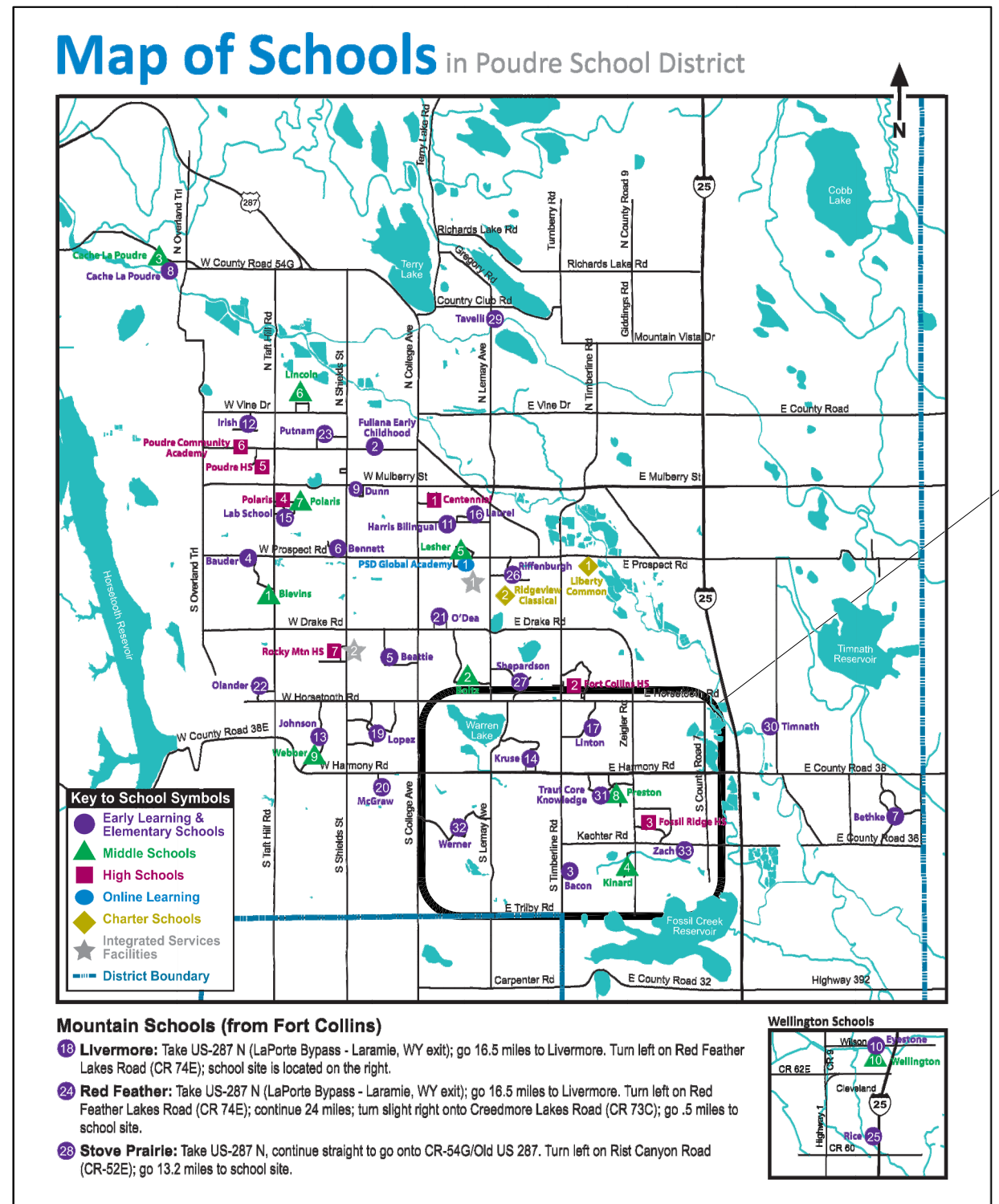
IT IS THE RESPONSIBILITY OF THE MECHANICAL AND THE ELECTRICAL SUBCONTRACTOR TO REVIEW ALL THE DRAWINGS, INCLUDING ARCHITECTURAL, FOR WORK UNDER THEIR RESPECTIVE CONTRACTS. ROOF PLANS AND REFLECTED CEILING PLANS DESCRIBE MECHANICAL AND ELECTRICAL WORK AS DO OTHER ARCHITECTURAL DRAWINGS. NO EXTRAS WILL BE ALLOWED FOR WORK SHOWN IN ANY PART OF THESE DRAWINGS.

INTERIOR DIMENSIONS ARE FROM FACE OF STUD, FACE OF MASONRY, OR FACE OF CONCRETE (UNLESS NOTED OTHERWISE). WHERE DIMENSION IS NOTED "CLEAR", DIMENSION IS TO FINAL FINISH.

DRAWING INDEX

- COVER
 G000 COVER SHEET/CODE PLAN
 G100 SYMBOLS
- GENERAL
- CIVIL NOT USED
- STRUCTURAL
 S1 NOT USED
- ARCHITECTURAL
 AD101 DEMO
 A101 PARTIAL FLOOR PLAN
 A301 SCHEDULES AND DETAILS
 A202.1 NOT USED
- ELECTRICAL
 ED101 LEGENDS/NOTES
 ED101 DEMO PLAN
 E101 ELECTRICAL PLAN
- FIRE
 NOT USED
- MECHANICAL
 M001 NOTES AND LEGENDS
 M101 MECHANICAL FLOOR PLAN
 P001 NOTES AND LEGENDS
 P101 PLUMBING FLOOR PLAN
 P301 PLUMBING SCHEDULES AND DETAILS

CODE ANALYSIS:
 CONSTRUCTION II B
 OCCUPANCY IS E
 FULLY SPRINKLED
 CODES USED 2015 IEBC LEVEL II, IBC, IFC,
 NEC, AND ANSI 117.1/2009

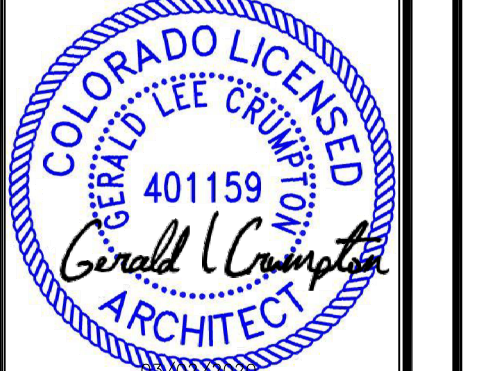


VICINITY MAP

WORK LOC



POUDRE SCHOOL DISTRICT
 TRAUT ELEMENTARY SCHOOL
 2515 TIMBERWOOD DRIVE
 FORT COLLINS, CO 80528



No.	Revision	Date

Sheet Title:
 GRAPHICS

Project
 EC REST ROOMS
 CONSTRUCTION SET
 Date 03/02/2020 Sheet G100
 Scale



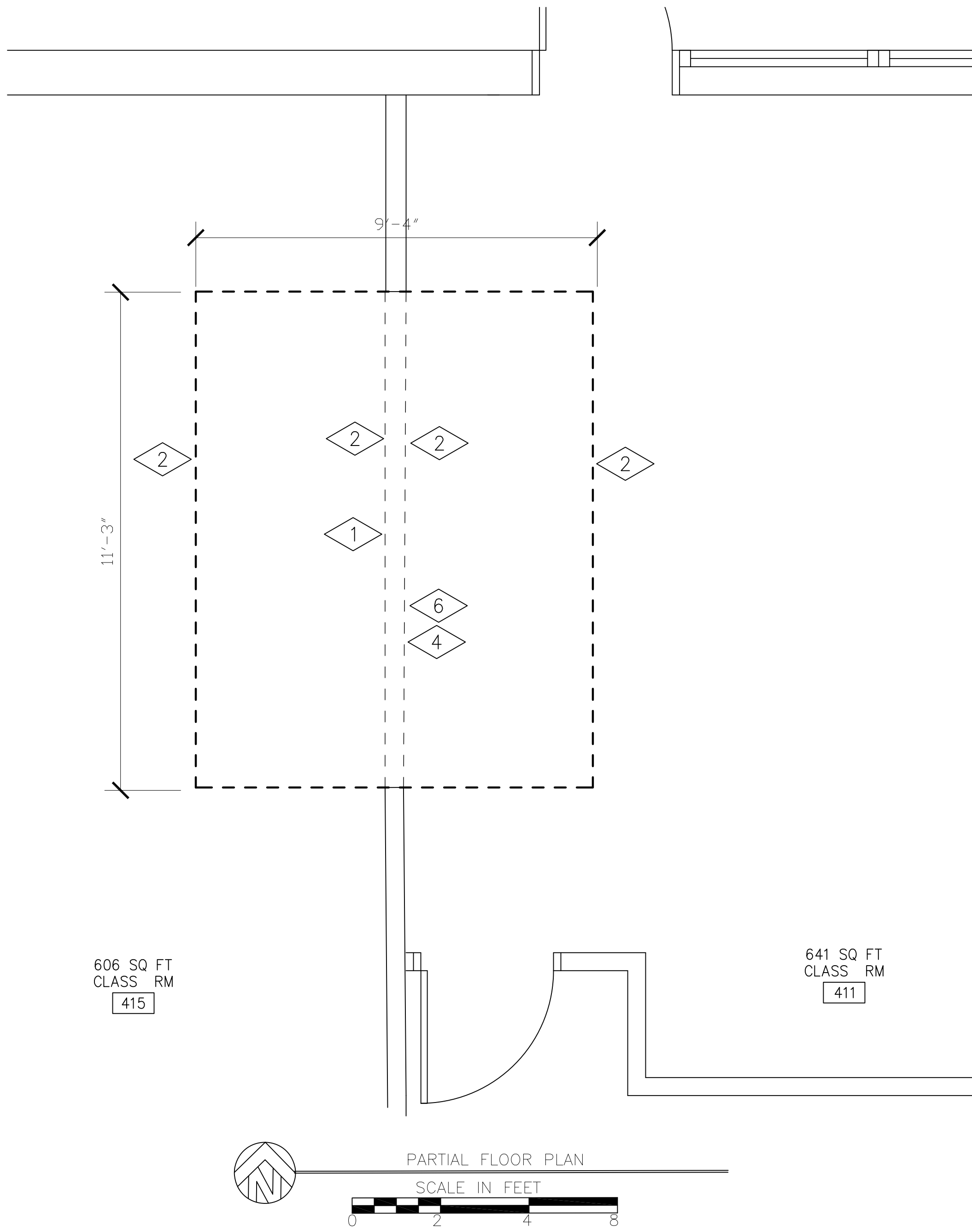
POUDRE SCHOOL DISTRICT
 TRAUT ELEMENTARY SCHOOL
 2515 TIMBERWOOD DRIVE
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No.	Revision	Date

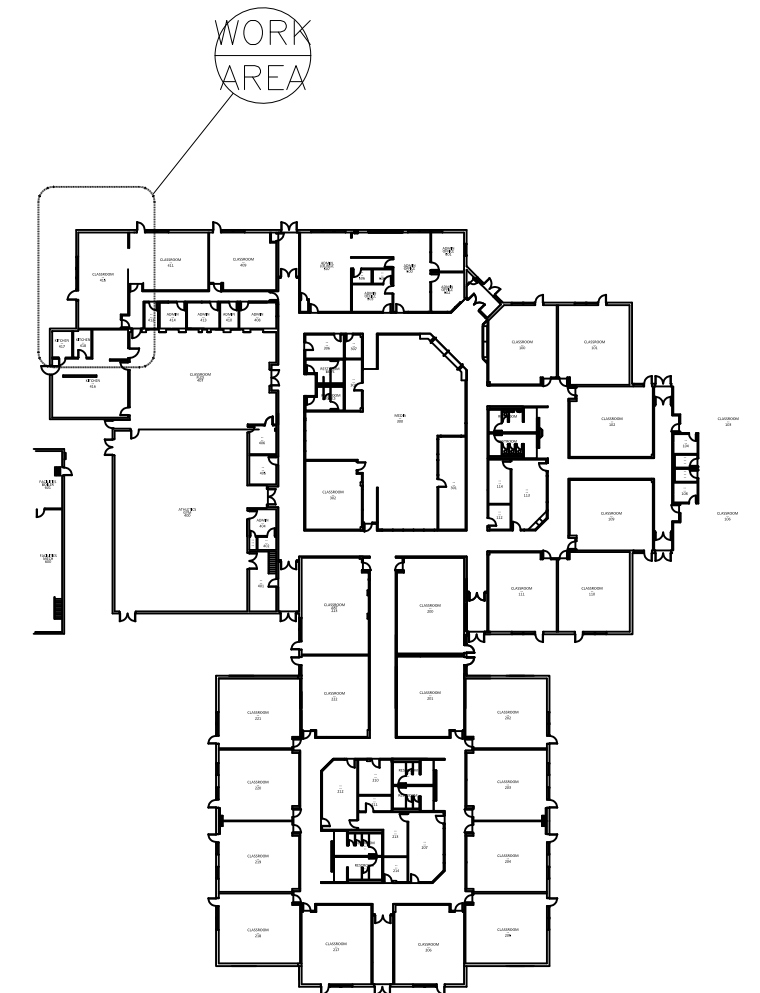
Sheet Title:
 PLAN VIEW

Project EC REST ROOMS	
SD SET	
Date 01/19/2020	Sheet A101
Scale 1/4" = 1'-0"	

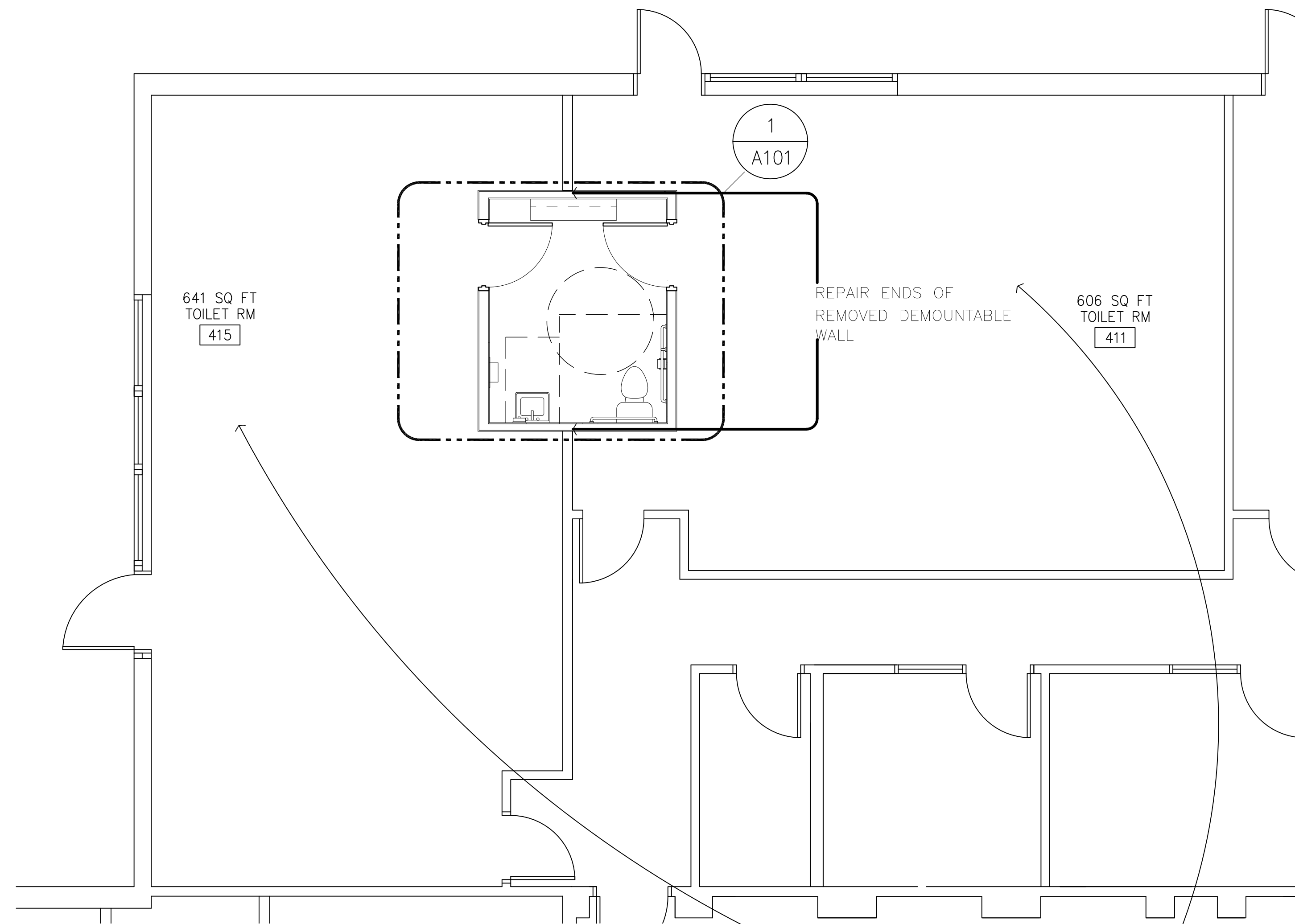


KEY DEMO NOTES:

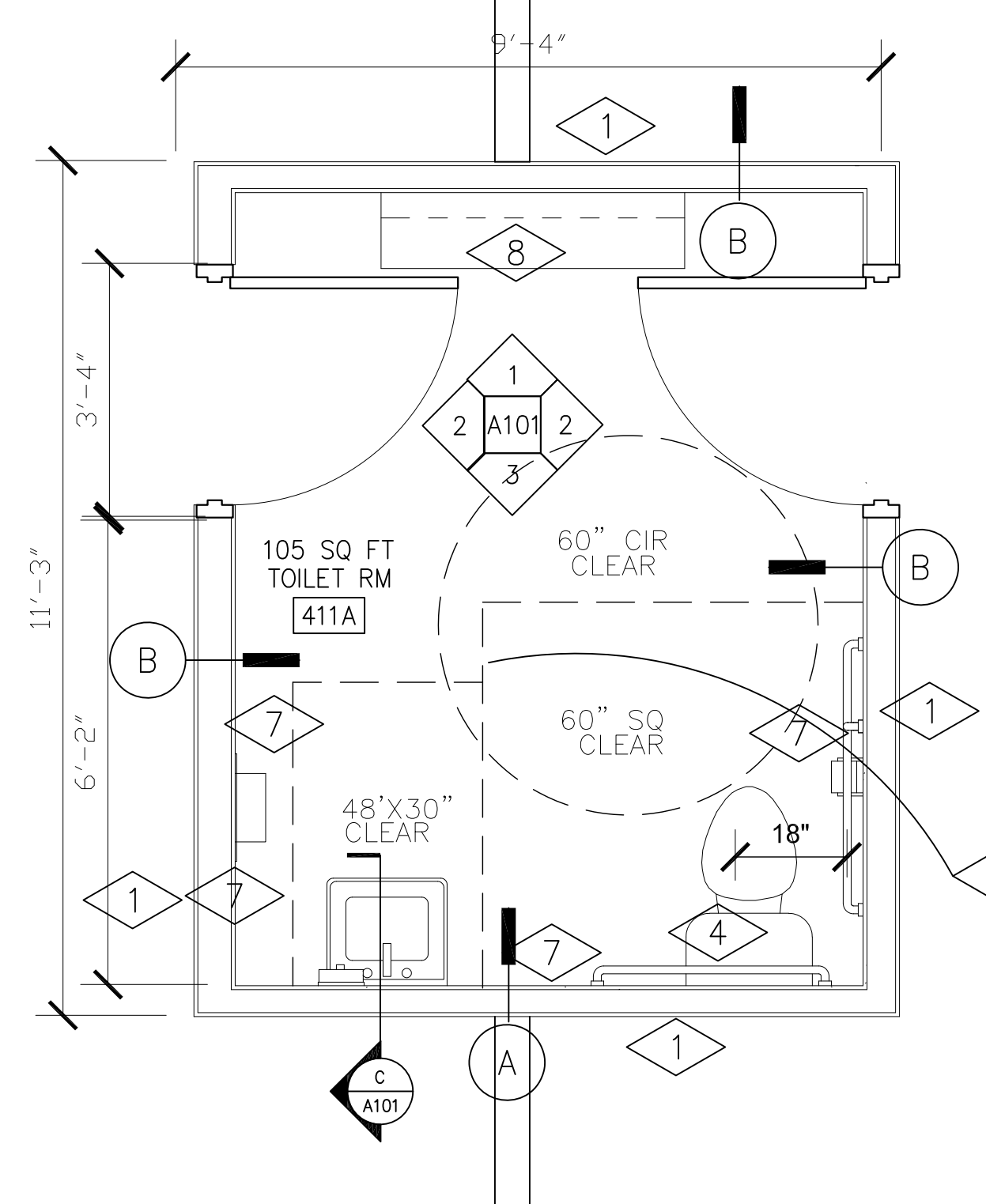
- 1 WALL PARTITION, DEMO TO HARD SOFFIT
- 2 R&R SOFT CEILING TO ACCOMMODATE (N) WALLS
- 3 R&R TACK BOARDS AND CHALK BOARDS
- 4 DEMO FLOOR FOR SANITARY DRAIN SEE P SHEETS
- 5 DEMO ELECTRICAL/LIGHTS SEE E SHEETS
- 6 CUT ROOF DECK FOR EF./SOIL STACK REPAIR SEE G1/A301 & H1/A301 AND M SHEETS
- 7 NOT USED
- 8 DEMO CARPET SALVAGE TO REPAIR CONSTRUCTION DAMAGE.
- 9 ADD (N) FIRE SPRINKLER HEAD TO INSIDE OF (N) TOILET ROOM. THIS IS DESIGN BUILD GC RESPONSIBILITY



KEY PLAN
 NTS



PARTIAL FLOOR PLAN
SCALE IN FEET



1
A101
ENLARGED FLOOR PLAN
SCALE IN FEET

- KEY NOTES:
- 1 NEW WALLS
 - 2 INSTALL 2 (N) WHITE BOARDS LOC TBD
 - 3 NEW HARD GYP CEILING INSULATE WITH SOUND ATTENUATION BATTS
 - 4 PATCH CONCRETE REPAIR FLOOR COVERING MATCH (E)
 - 5 NEW POURED ACRYLIC FLOORS AND INTEGRAL 4" COVE BASE
 - 6 MEETS ANSI 117.1/2009 305, 404, AND 606
 - 7 RFP GLASBOARD SANITARY PANELS SEC 068316
4"x6"x48" CERAMIC WALL TILE ALL WALLS MAN. TBD ALTERNATE 2
 - 8 FOLDING DIAPER TABLE AND LOCKABLE STORAGE CABINETS
 - 9 NEW GYP WALL ASSEMBLY 6" ABOVE SOFT CEILING.

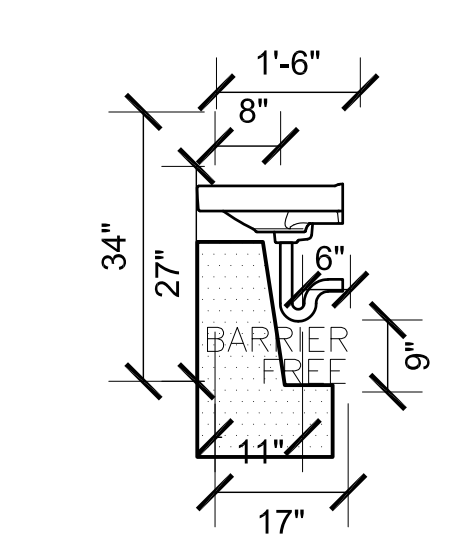
WALL TYPE PLUMBING _____ **A**

PLUMBING WALL ASSEMBLY: 7" NOMINAL WALL, 5/8"GYP, SOUND ATTENUATION INSULATION AND METAL 20 GA STUDS 16" OC. TAPE DRYWALL TO A LEVEL 4, PRIME AND PAINT. COLOR TBD.

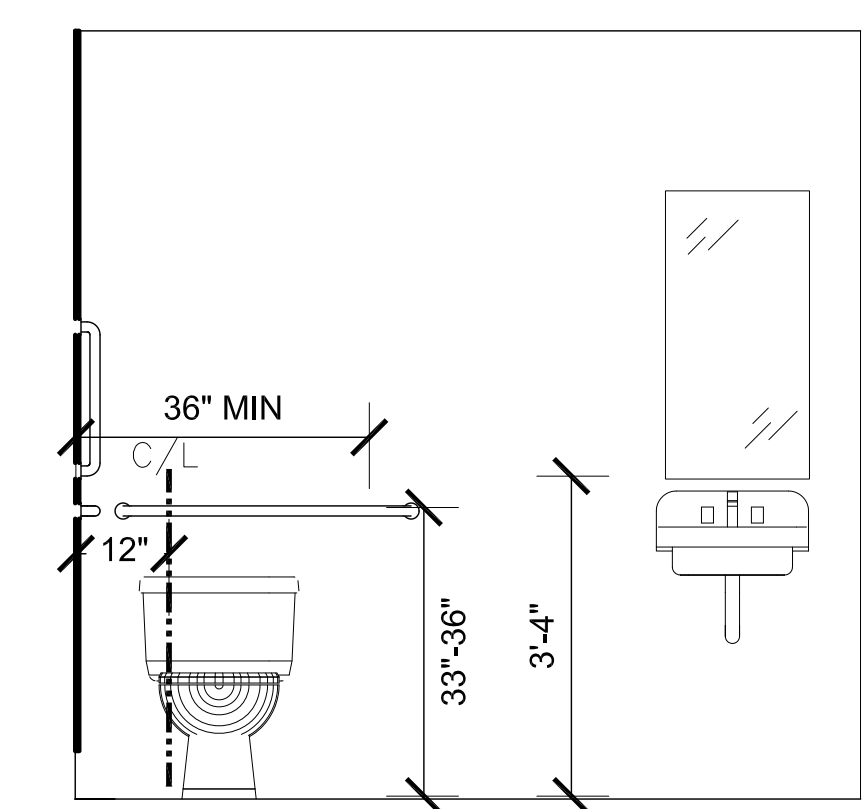
WALL AND CEILING TYPE _____ **B**

WALL ASSEMBLY: 5" NOMINAL WALL, 5/8"GYP, SOUND ATTENUATION INSULATION AND METAL 20 GA STUDS 16" OC. TAPE DRYWALL TO A LEVEL 4, PRIME AND PAINT. COLOR TBD. CEILING REQUIRES GYP ONE SIDE ONLY.

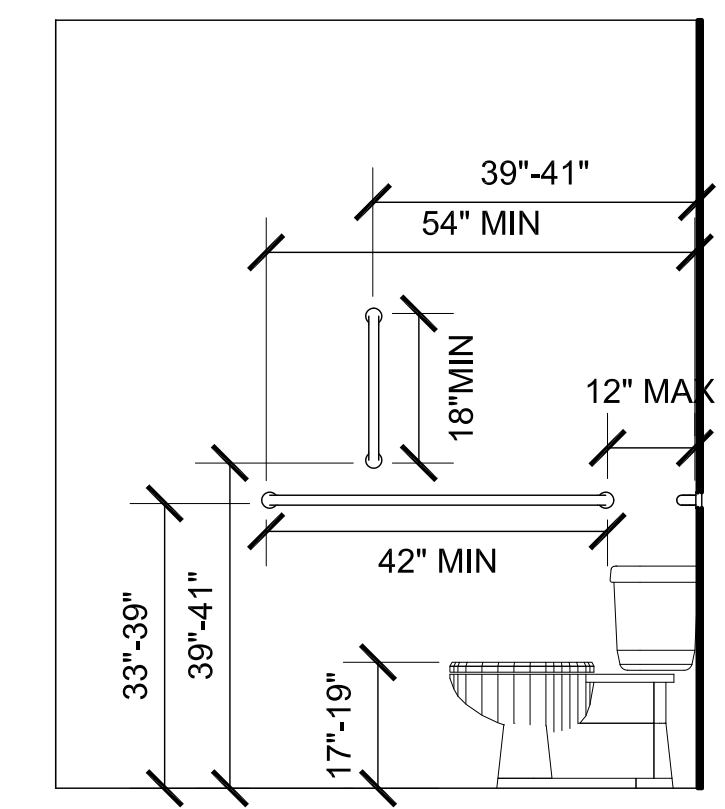
- FORBO LOCATIONS: STAFF TOILETS, CLINIC, CAFETERIA, ECE ROOMS.
- 1. LINOLEUM FORBO ONLY
 - 2. EXTRA MATERIALS: RESILIENT FLOORING: PROVIDE THE OWNER AT THE COMPLETION OF THE PROJECT THE FOLLOWING ITEMS:
A. BASE: 2 PERCENT IN EACH COLOR USED, MINIMUM 100 LINEAL FEET.
B. ONE GALLON OF EACH TYPE ADHESIVE USED.
C. LEFTOVER roll remnants over 6 feet long? MINIMUM 1 REMNANT EACH TYPE AND COLOR.
 - 3. BACKING: ORGANIC.
 - 4. TOTAL THICKNESS: 2.0 MM MINIMUM.
 - 5. WELDING ROD. SOLID BEAD PRODUCED BY MANUFACTURER OF LINOLEUM FLOORING FOR HEAT WELDING SEAMS, IN COLOR MATCHING FIELD COLOR.
 - 6. PLACE RESILIENT EDGE STRIPS TIGHTLY BUTTED TO FLOORING AND SECURE WITH ADHESIVE. INSTALL EDGING STRIPS AT EDGES OF RUNNING TRACK.



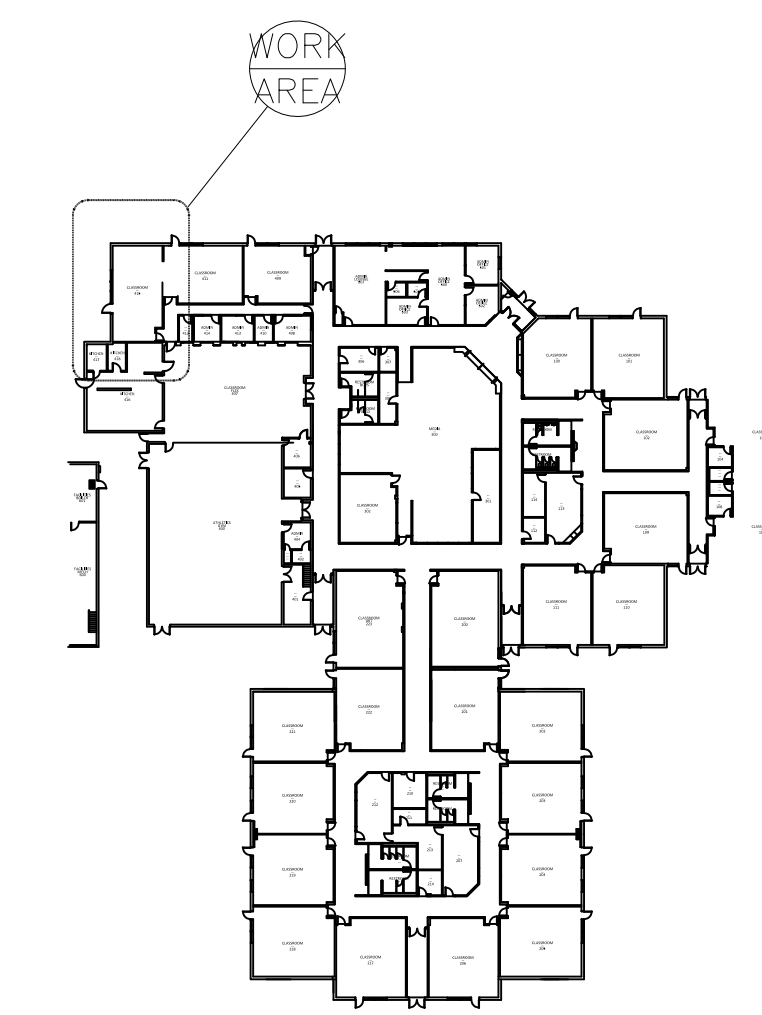
C WALL HUNG SINK SECTION
SCALE 1/2" = 1'-0"



3 WALL ELEVATION
SCALE 1/2" = 1'-0"



2 WALL ELEVATION
SCALE 1/2" = 1'-0"



KEY PLAN
NTS



POUDRE SCHOOL DISTRICT
TRAUT ELEMENTARY SCHOOL
2515 TIMBERWOOD DRIVE
FORT COLLINS, CO 80528



No.	Revision	Date

Sheet Title:
PLAN VIEW

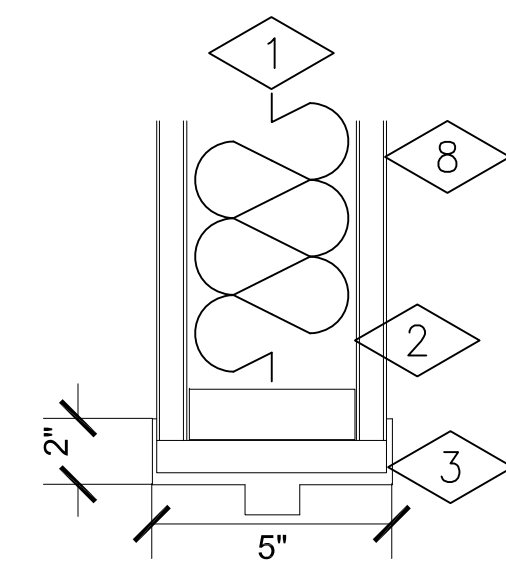
Project
EC REST ROOMS
DD SET
Date
02/20/2020
Sheet
A101

FINISH SCHEDULES

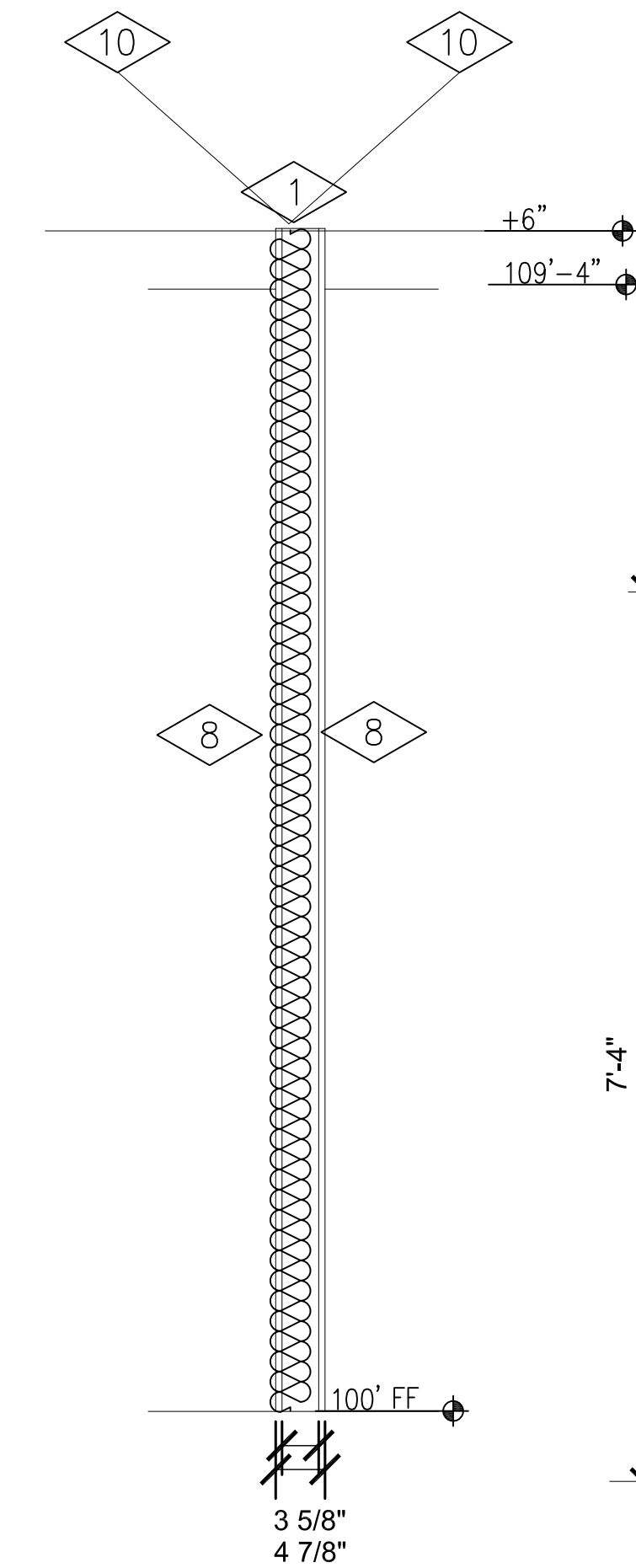
NUM.	ROOM NAME	DOOR TYPES							FRAME TYPES			DETAILS	REMARKS	
		TYPE	MAT'L	LABEL	HEIGHT	WIDTH	THICK	TYPE	MAT'L	LABEL	THROAT			
415A	TOILET	(2)NEW	WD	NR	7'-0"	3'-0"	1 3/4"	F1	HM	NR	5"	16 GA	NEW DOOR, FRAME AND HARDWARE	
DOOR HARDWARE														
		LOCK SET			HINGES			DOOR STOP			KICK PLATE		SILENCERS	
415A	TOILET	(2) EA PRIVACY LOCKSET ND40SRH 0626, 6 PIN CORE			(6) EA HINGES SBBL US32D IVE			(2) EA WALL STOP WS407 CCV US32D IVE			(2) EA KICK-PLATE 8400 10"X34" US32D IVE		TWO SETS	
WALL PAINT														
415A	TOILET	ONE COAT OF WHITE PRIMER DU-1507 PRO MAX, TWO COATS SEMI-GLOSS LAYTEX BASED DS1695 HEALTH KOTE OR APPROVED EQUAL												
CARPET														
415/411	CR'S	TANDUS, MANNINGTON OR MOHAWK ARE APPROVED MANUFACTURERS : MATCH EXISTING. MATERIAL MAY BE SHEET GOODS												

KEYED NOTES

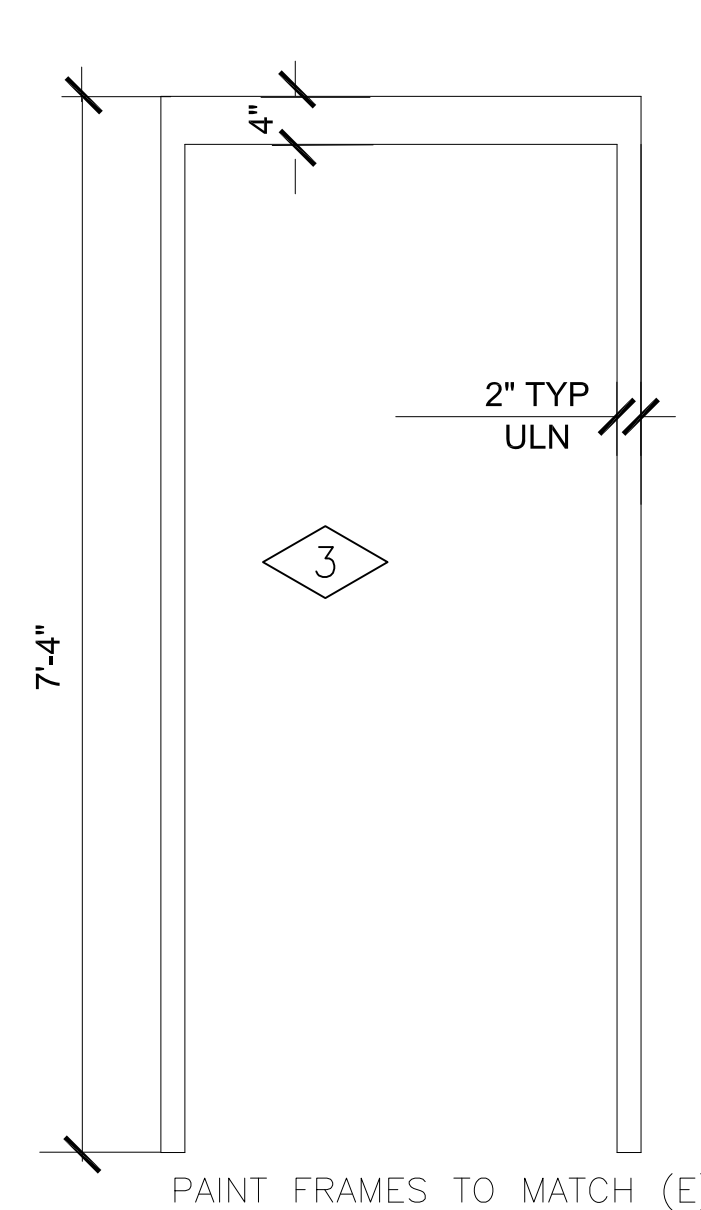
- 1 SOUND ATTENUATING INSULATION 3.5" . OWENS CORNING QUIETZONE
- 2 20 GA METAL STUD
- 3 HM FRAME 16 GA
- 4 PRE-FINISHED CLEAR MAPLE WOOD DOOR 1 3/4" THICK
- 5 PAINT TO MATCH EXISTING FRAME COLOR
- 6 PRIME AND PAINT AND WORK IMPACTED BY CONSTRUCTION
- 7 RFP GLASBOARD SANITARY PANELS SEC 068316
ALTERNATE 1 4"X12" CERAMIC WALL TILES. DAL TILE, WALL COLOR ARTIC WHITE 0190, OCEAN BLUE 1049 BULL NOSE CAPS.
- 8 5/8" TYPE X GYP



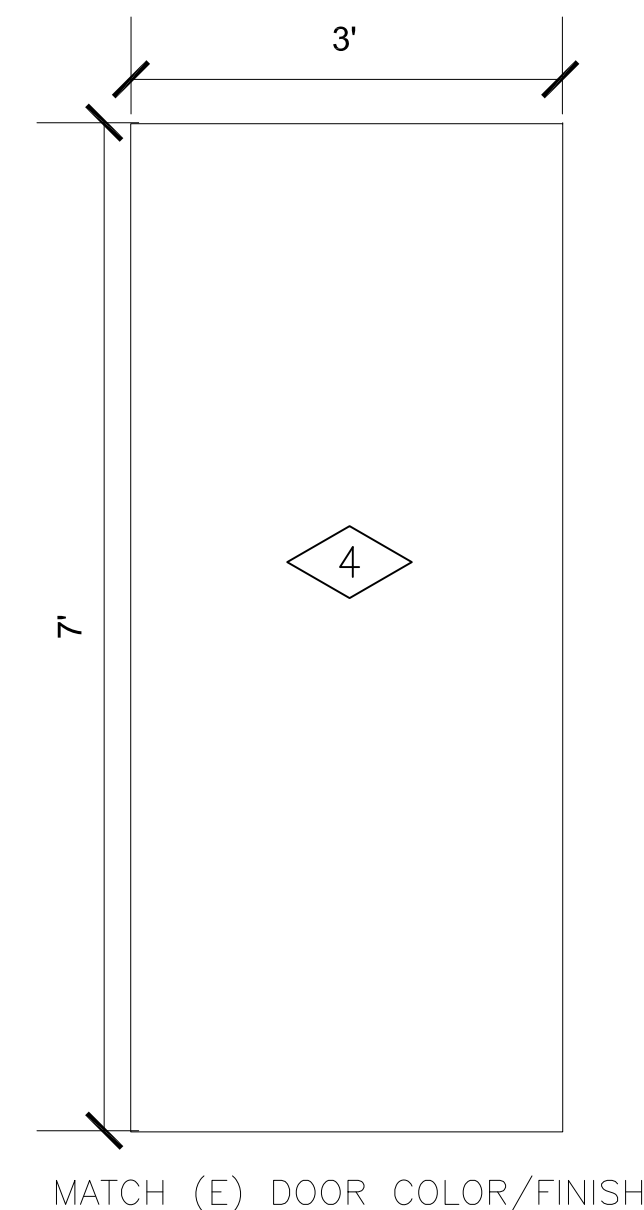
F1 JAMB PROFILE
SCALE 3" = 1'-0"



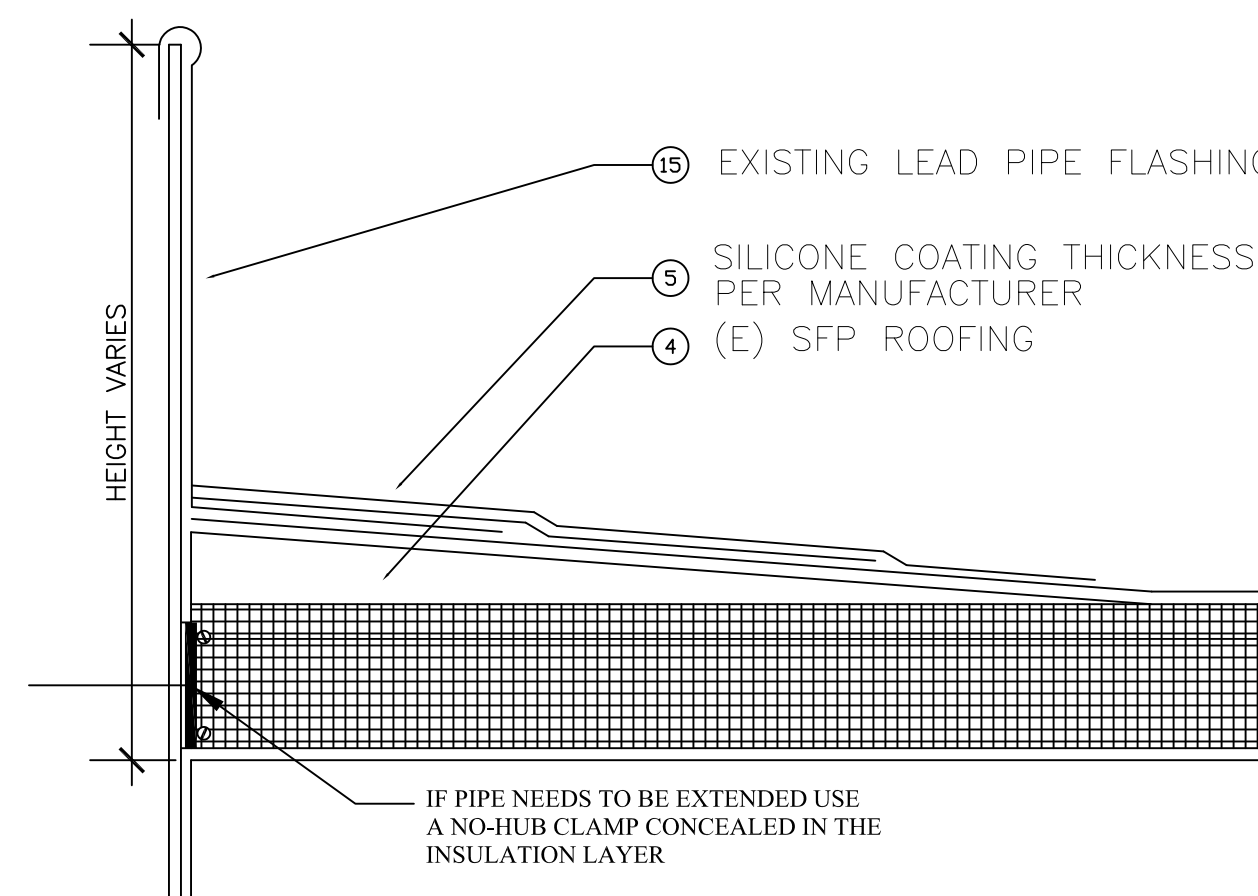
B NEW WALL/SECTION TYP
SCALE 3/4" = 1'-0"



F1 PAINT FRAMES TO MATCH (E)
SCALE 3/4" = 1'-0"



WD MATCH (E) DOOR COLOR/FINISH
SCALE 3/4" = 1'-0"



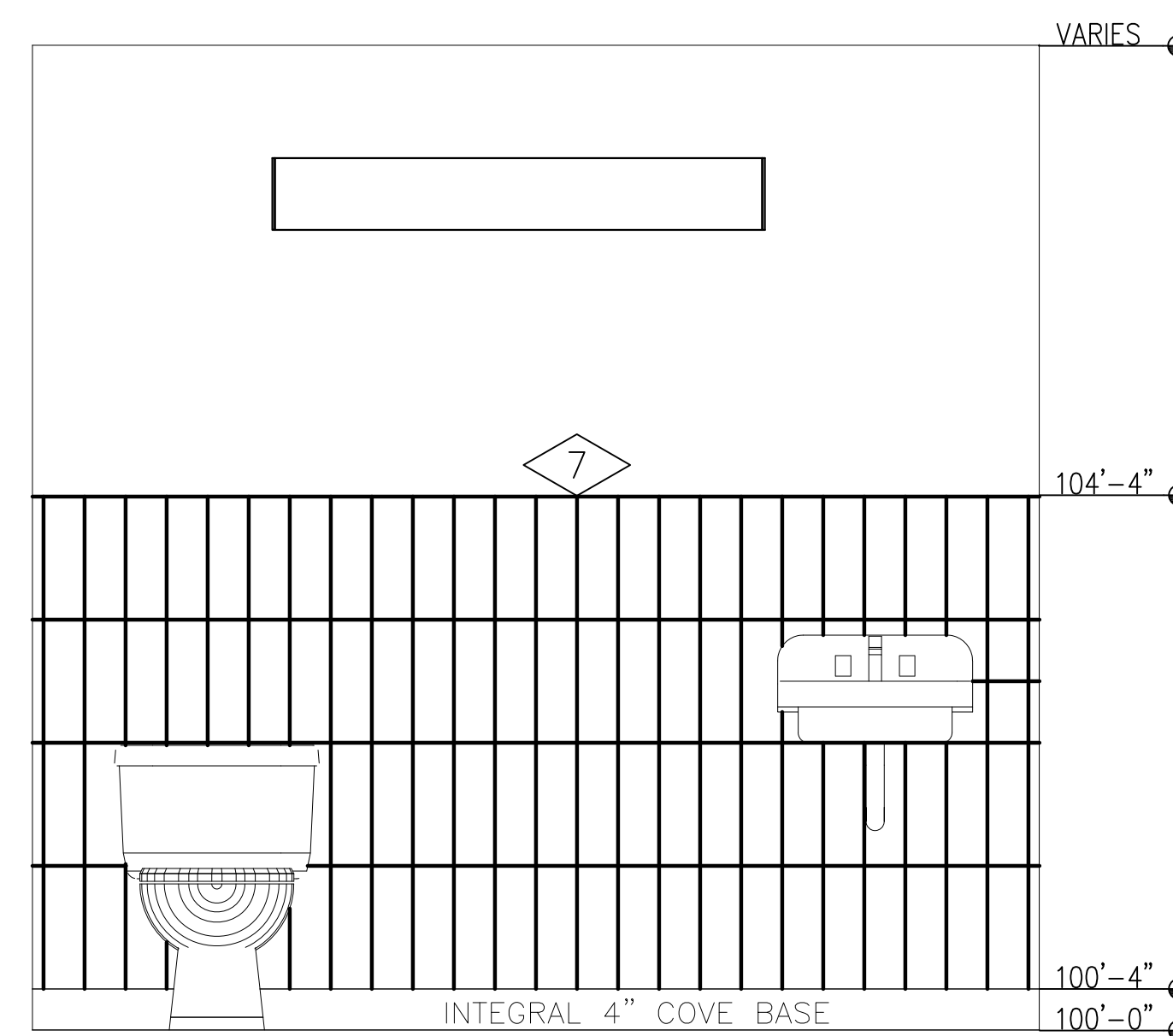
G1 SPF ROOF VENT DETAIL
SCALE 3" = 1'-0"

4) TAPERED EDGE SET IN HOT ASPHALT OR MECHANICALLY FASTENED.

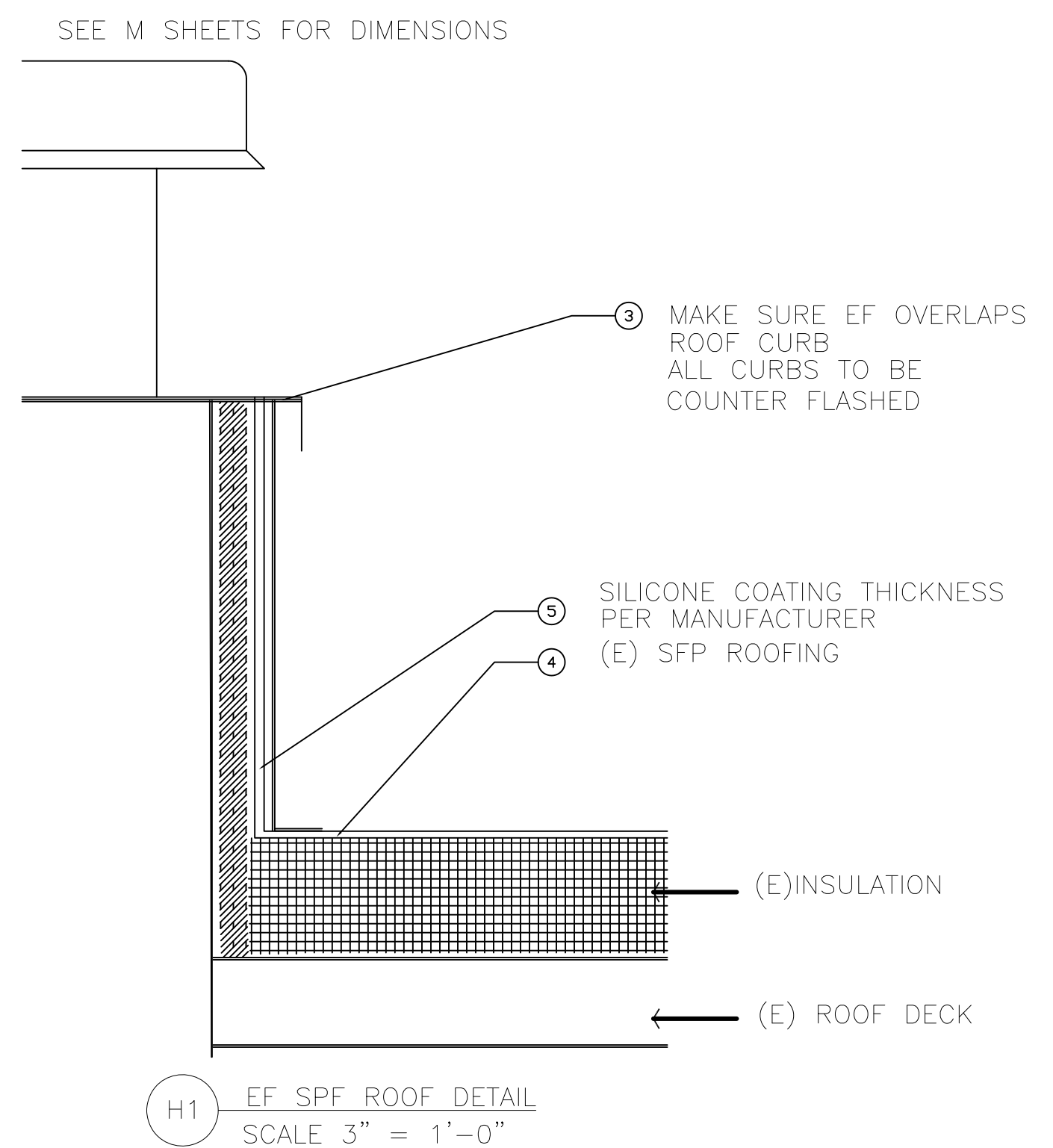
5) 5 COURSE STRIPPING (PLASTIC CEMENT, FABRIC, PLASTIC CEMENT, FABRIC, PLASTIC CEMENT).

15) LEAD JACK, PRIME, SET IN PLASTIC CEMENT, STRIP IN WITH COTTON FABRIC AND PLASTIC CEMENT 5 COURSE STYLE.

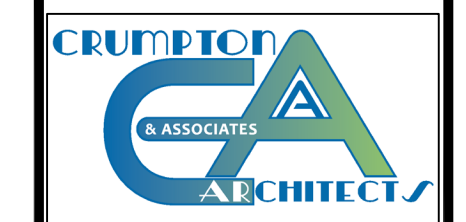
CONTRACTOR TO COORDINATE AND VERIFY ROOF PENETRATION OCCURS IN THE FLAT PORTION OF THE ROOF



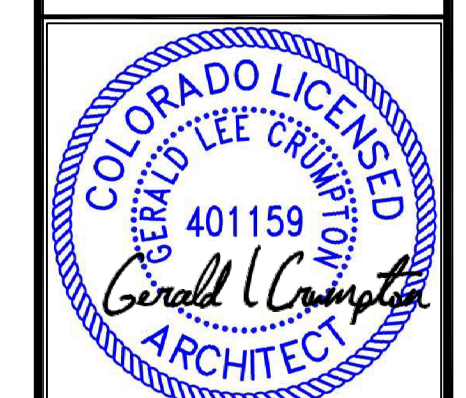
1 2 3 4 TYP WALL ELEVATIONS(4)
SCALE 3/4" = 1'-0"



H1 EF SPF ROOF DETAIL
SCALE 3" = 1'-0"



POUDRE SCHOOL DISTRICT
TRAUT ELEMENTARY SCHOOL
2515 TIMBERWOOD DRIVE
FORT COLLINS, CO 80525



No.	Revision	Date

Sheet Title:
SCHEDULES
DETAILS

Project
EC REST ROOMS
DD SET
Date
02/20/2020
Sheet
A301
Scale
VARIES

GENERAL CONSTRUCTION NOTES

- THE ELECTRICAL CONTRACTOR SHALL VERIFY THAT ALL ELECTRICAL ITEMS TO REMAIN OR BE RELOCATED AND REUSED ARE IN WORKING ORDER PRIOR TO ANY DEMOLITION WORK. IF THE EXISTING MATERIAL IS FOUND TO BE INOPERABLE, CONTRACTOR SHALL INFORM THE OWNER. ONCE ANY DEMOLITION WORK HAS BEGUN, ANY INOPERABLE OR DAMAGED MATERIAL SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- VERIFICATION OF EXISTING CONDITIONS. "IN AS MUCH AS THE REMODELING AND/OR REHABILITATION OF THE EXISTING BUILDING REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS MAY NOT BE VERIFIABLE WITHOUT DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE BUILDING, THE GENERAL CONTRACTOR AGREES THAT, EXCEPT FOR NEGLIGENCE ON THAT PART OF THE DESIGN PROFESSIONAL THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE DESIGN PROFESSIONAL FROM AND AGAINST ANY AND ALL CLAIMS ARISING OUT OF THE PROFESSIONAL SERVICES PROVIDED."
- ANY ELECTRICAL ITEMS SHOWN OR NOT SHOWN ON THE PLANS, OR WHERE CIRCUITS ARE REMOVED BY DEMOLITION, SHALL UPON COMPLETION OF REMODEL WORK BE LEFT IN WORKING CONDITION.
- ALL PHASES OF THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE ARCHITECT. WORK SHALL BE DONE IN A FASHION TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO THE OWNER.
- IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REVIEW ALL DRAWINGS FOR WORK UNDER THIS CONTRACT. NO EXTRAS WILL BE ALLOWED FOR WORK SHOWN ON MECHANICAL AND ARCHITECTURAL DRAWINGS.
- ELECTRICAL DEVICES NOTED TO BE REMOVED SHALL BE REMOVED BACK TO A POINT WHERE EXISTING CONDUIT CAN BE ABANDONED IN CONCEALED SPACES. REMOVE ALL WIRING FROM ABANDONED CONDUIT. ALL BOXES TO BE REMOVED SHALL BE TAKEN OUT OF WALLS AND HAVE HOLES REFINISHED TO MATCH WALL FINISH.
- ELECTRICAL CONTRACTOR SHALL NOT DEFACE ANY AREAS OF THE BUILDING WHERE REMODELING IS NOT BEING DONE.
- THE ELECTRICAL CONTRACTOR SHALL BE ON SITE DURING ALL ELECTRICAL INSPECTIONS. NO ADDITIONAL FEES OR OVERTIME WILL BE PAID FOR AFTER HOURS INSPECTIONS.
- RACEWAYS: ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. CONDUIT SHALL NOT BE EXPOSED IN FINISHED AREAS (EXCLUDES MECHANICAL ROOMS, STORAGE CLOSETS, AND SIMILAR AREAS). EXPOSED RACEWAYS SHALL BE SURFACE RACEWAYS PER SPECIFICATIONS.
- ROUTING OF EXISTING CONCEALED CONDUIT NOT KNOWN. LOCATION DETERMINED BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL RECURVE AS NOTED UTILIZING ANY EXISTING CONDUIT. HE SHALL REMOVE EXISTING WIRE AND REFULL NEW. ALL NEW CONDUIT ADDED SHALL BE CONCEALED WHEREVER POSSIBLE.
- SURFACE RACEWAY: WHEREVER CONCEALED CONDUIT IN FINISHED AREAS IS NOT POSSIBLE, ELECTRICAL CONTRACTOR SHALL INSTALL SURFACE MOUNTED RACEWAYS EQUAL TO WIREMOLD. RUN SURFACE RACEWAYS IN CORNER OF WALL AND CEILING. ALL RACEWAYS THAT ARE EXPOSED SHALL BE APPROVED BY ARCHITECT PRIOR TO ROUGH-IN.
- TERMINATING AND SPLICING: MAKE ALL JOINTS AND SPLICES IN BRANCH CIRCUIT WIRING WITH APPROVED SOLDERLESS TOOL APPLIED OR TWIST-ON CONNECTORS, IN THE VARIOUS BOXES, GUTTERS, AND SIMILAR LOCATIONS, BUT NOT IN RACEWAYS. LEAVE SUFFICIENT SLACK TO PERMIT TWO (2) OR MORE SPLICES OR JOINTS TO BE REMADE IN CASE OF FAULT.
- NM (ROMEX CABLE) WILL NOT BE ALLOWED ON THIS PROJECT.
- ELECTRICAL CONTRACTOR SHALL RECEIVE, FROM SYSTEM SUPPLIERS, ALL WIRING DIAGRAMS FOR ALL EQUIPMENT, PRIOR TO ANY ROUGH-IN, TO ASSURE PROPER ELECTRICAL CHARACTERISTICS ARE PROVIDED. ELECTRICAL CONTRACTOR SHALL PROVIDE ARCHITECT WRITTEN NOTIFICATION PRIOR TO ROUGH-IN, THAT ALL WIRING DIAGRAMS HAVE BEEN RECEIVED AND REVIEWED FOR CORRECTNESS. ANY INCORRECT WIRING OR DEVICES INSTALLED BY ELECTRICAL CONTRACTOR WITHOUT WIRING DIAGRAMS SHALL BE CORRECTED AT ELECTRICAL CONTRACTOR'S EXPENSE.
- ELECTRICAL CONTRACTOR SHALL RECEIVE, FROM MECHANICAL CONTRACTOR, ALL WIRING DIAGRAMS AND SHOP DRAWINGS FOR ALL MECHANICAL EQUIPMENT, PRIOR TO ANY ROUGH-IN, TO ASSURE PROPER ELECTRICAL CHARACTERISTICS, VOLTAGE, PHASE, HORSEPOWER, AMPERE, KILOWATTS AND ETC. ARE PROVIDED. ELECTRICAL CONTRACTOR SHALL PROVIDE ARCHITECT WRITTEN NOTIFICATION PRIOR TO ANY ROUGH-IN, THAT ALL WIRING DIAGRAMS AND SHOP DRAWINGS HAVE BEEN RECEIVED AND REVIEWED FOR CORRECTNESS. ANY INCORRECT WIRING OR DEVICES INSTALLED BY ELECTRICAL CONTRACTOR WITHOUT WIRING DIAGRAMS SHALL BE CORRECTED AT ELECTRICAL CONTRACTOR'S EXPENSE.
- COORDINATE WITH MECHANICAL CONTRACTOR LOCATION AND INSTALLATION OF ANY ELECTRICAL CONTROLS FOR MECHANICAL UNITS AND PROVIDE 120V CIRCUIT AS REQUIRED.
- ALL EXISTING AND NEW SMOKE DETECTORS IN OR NEAR AREAS BEING REMODELED SHALL BE BAGGED OR REMOVED. IF REMOVED, STORE IN A SEALED BAG UNTIL ALL REMODELING WORK IS COMPLETE. IF SMOKE DETECTORS ARE NOT BAGGED OR REMOVED THEY SHALL BE REPLACED WITH NEW DETECTORS AT CONTRACTOR'S EXPENSE WHEN THE PROJECT IS COMPLETED.
- EXACT ELECTRICAL DEMOLITION REQUIREMENTS NOT SHOWN ON THE DRAWINGS. ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXACT DEMOLITION WORK TO BE DONE AND SHALL INCLUDE ALL DEMOLITION COSTS IN THEIR BID.
- ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL DEVICE LOCATIONS IN ALL CASEWORK WITH ARCHITECTURAL CASEWORK DETAILS PRIOR TO ANY ROUGH-IN.
- THE CONTRACTOR SHALL COORDINATE ALL ELECTRICAL DEVICE LOCATIONS WITH THE ARCHITECTURAL PLANS, ELEVATIONS, AND DIAGRAMS.

- ELECTRICAL CONTRACTOR SHALL VERIFY FINAL LOCATIONS OF ALL SINKS WITH PLUMBING CONTRACTOR PRIOR TO ROUGH-IN. ANY ELECTRICAL DEVICES LOCATED ABOVE COUNTER AND BEHIND FINAL SINK LOCATIONS SHALL BE SHIFTED A MINIMUM OF 6" TO EITHER SIDE OF SINK. ANY ELECTRICAL DEVICES LEFT BEHIND SINK AT TIME OF FINAL ELECTRICAL OBSERVATION SHALL BE RELOCATED AT ELECTRICAL CONTRACTOR'S EXPENSE.
- BACK TO BACK RECEPTACLES ARE NOT PERMITTED. MAINTAIN SEPARATION OF AT LEAST ONE STUD - REFER TO ARCHITECTURAL ACOUSTICAL DETAILS. IF BOXES ARE WITHIN 24" OF EACH OTHER IN A FIRE RATED WALL A FIRE BARRIER MOLDABLE PUTTY (3M OR EQUIVALENT) SHALL BE USED.
- FEED THROUGH GFCI PROTECTION OF RECEPTACLES IS ACCEPTABLE ONLY WHERE RECEPTACLES ARE IN SAME ROOM AND DRAWINGS DO NOT INDICATE OTHERWISE.
- PROVIDE BLANK COVER PLATES AND INSTALL THEM ON ALL UNUSED ROUGH-INS.
- INSTALL PIGTAIL AT ALL RECEPTACLES FOR FINAL CONNECTIONS.
- ALL NEW ELECTRICAL ITEMS SHOWN ON EXISTING WALLS AND CEILINGS SHALL BE FLUSH MOUNTED UNLESS NOTED OTHERWISE. CUT AND PATCH EXISTING WALLS AND CEILINGS TO CONCEAL ALL MOUNTING BOXES AND CONDUITS.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH GC TO MAINTAIN FIRE RATINGS FOR ALL CONDUIT PENETRATIONS, INCLUDING CONDUIT SLEEVES, THROUGH FIRE RATED CONSTRUCTION. THIS INCLUDES SEALING ALL SPARE CONDUITS (SPECIAL SYSTEMS, ETC.).
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO MEASURE THE HORIZONTAL AND VERTICAL DIMENSIONS OF HIS WORK BEFORE INSTALLATION AND COORDINATE THESE DIMENSIONS WITH OTHER CONTRACTORS IMMEDIATELY. IF CEILING HEIGHTS ARE AFFECTED, NOTIFY THE OTHER CONTRACTORS AND THE ARCHITECT IMMEDIATELY. FAILURE TO DO SO WILL RESULT IN REJECTION OF INSTALLED WORK AND REINSTALLATION OF PROPERLY LOCATED AND COORDINATED WORK WILL BE AT THIS CONTRACTOR'S EXPENSE.
- LIGHT FIXTURES AND DEVICES IN 1-HOUR FIRE RATED CEILINGS MUST BE 'TENTED'. TENTING WILL BE PERFORMED BY OTHERS (EC TO COORDINATE WITH GC). COORDINATE HEIGHT REQUIRED FOR ADDITIONAL TENTING WITH CEILING AND MECHANICAL CONTRACTORS. REFER TO ARCHITECTURAL DRAWINGS.
- FIXTURE WHIPS SHALL BE SUPPORTED ABOVE ACCESSIBLE CEILING. LAYING FIXTURE WHIPS ON TOP OF THE GRID OR SUPPORTING USING THE FIXTURE HANGERS IS NOT ALLOWED. FIXTURE WHIPS SHALL NOT CONTACT PLUMBING.
- RELOCATIONS: OWNER RESERVES THE RIGHT TO RELOCATE ANY ELECTRICAL DEVICE, UP TO A DISTANCE OF 12'-0", BEFORE INSTALLATION WITHOUT EXTRA CHARGE FROM ELECTRICAL CONTRACTOR.
- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH OTHER TRADES PRIOR TO ANY INSTALLATION. WHERE EXACT LOCATIONS ARE NECESSARY, THEY ARE DIMENSIONED ON THESE DRAWINGS. WHERE THERE IS A QUESTION OF ADEQUATE CLEARANCE OR COORDINATION BETWEEN TRADES, THIS CONTRACTOR SHALL PREPARE SHOP DRAWINGS FOR ENGINEER'S REVIEW. ON ALL SPECIAL SYSTEMS REQUIRING DRAWINGS BY LICENSED INSTALLATION CONTRACTORS, SUCH AS FIRE PROTECTION, SUCH DRAWINGS SHALL BE SUBMITTED WITHIN 30 DAYS AFTER AWARD OF CONTRACT.
- EMT CONDUIT FITTINGS: DRY LOCATIONS ALL EMT COUPLERS AND CONNECTORS SHALL BE STEEL SET SCREW TYPE. DIE CAST FITTINGS SHALL NOT BE USED ON THIS PROJECT. DAMP/WET LOCATIONS, USE STEEL COMPRESSION GLAND TYPE COUPLER AND CONNECTORS.
- ALL WIRING INCLUDING SPECIAL SYSTEMS/LOW VOLTAGE THAT IS IN AN EXPOSED CEILING AREA SHALL BE IN CONDUIT. ALL SPLICES SHALL BE IN J-BOXES.
- ACCESS PANELS REQUIRED BY THE ELECTRICAL CONTRACTOR SHALL BE PROVIDED BY THE ELECTRICAL BID CONTRACTOR, THEN TURNED OVER TO THE APPROPRIATE TRADE FOR INSTALLATION. SEE ARCHITECTURAL SPECIFICATION.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE GENERAL CONTRACTOR TO OBTAIN ACTUAL ROOM NAMES AND NUMBERS, DESIGNATED BY THE OWNER/ARCHITECT AT THE COMPLETION OF THE PROJECT. ACTUAL ROOM NAMES AND NUMBERS SHALL BE USED ON ALL PANEL SCHEDULES, COMPUTER PROGRAMMING, GRAPHIC PLAQUES, SOUND SYSTEMS, TELEPHONE SYSTEM, INTERCOMS, FIRE ALARMS, SECURITY SYSTEMS, CATV SYSTEMS, AND SIMILAR.
- CONTRACTOR SHALL NOT FASTEN, ATTACH OR HANG ANY MATERIAL FROM THE ROOF DECK. ALL CONDUITS, JUNCTION BOXES, FIXTURES, DEVICES AND EQUIPMENT SHALL BE HUNG FROM THE STRUCTURAL STEEL FRAME AND SHALL BE PLACED WITH A MINIMUM CLEARANCE PER 2017 NEC BELOW THE ROOF DECK. WIRING AND CONDUITS SHALL NOT BE PLACED WITHIN THE RIBS OF THE ROOF DECK. CONTRACTOR SHALL NOT LOOSEN, REMOVE OR CUT ANY ROOFING SYSTEM FASTENERS PROTRUDING THROUGH THE ROOF DECK.
- ALL ELECTRICAL DEVICES, CONDUIT, J-BOXES, CABLE SUPPORTS, ETC. THAT ARE REQUIRED TO BE SUPPORTED ABOVE THE GRID CEILINGS SHALL BE SUPPORTED FROM THE STRUCTURE VIA THREADED RODS, ALL AREAS.
- MULTI-WIRE BRANCH CIRCUITS ARE NOT PERMITTED U.O.N. ON DRAWINGS. WHERE THEY ARE INSTALLED THEY SHALL BE COMMON TRIP OR HAVE HANDLE TIES AS REQUIRED BY 2017 N.E.C.
- SWITCHES AND RECEPTACLES SHALL BE IDENTIFIED AS TO PANEL AND CIRCUIT BREAKER FED FROM. LABEL COVERPLATE ON FRONT PER SPECIFICATION AND ON BACK WITH PERMANENT INK ENSURE NO BLEED THROUGH.
- THESE DRAWINGS ARE SUBJECT TO AN APPROVAL OF THE BUILDING DEPARTMENT, FIRE MARSHAL, UTILITY COMPANY, AND OTHER AGENCIES AUTHORITY HAVING JURISDICTION (AHJ). BY THE ACT OF SUBMITTING A BID PROPOSAL FOR WORK, THE CONTRACTOR HAS REVIEWED THE PLANS THOROUGHLY AND ACCEPTS FULL RESPONSIBILITY OF PLAN CORRECTIONS AND ASSOCIATED CONSTRUCTION COSTS REQUIRED BY AHJ.
- SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHT FIXTURES.
- FIRE ALARM IS DESIGN BUILT BY CONTRACTOR, PROVIDE COLORADO PE STAMPED FIRE ALARM DRAWINGS ACCORDINGLY.

ELECTRICAL ABBREVIATIONS

AC	ABOVE COUNTER	MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR	MCB	MAIN CIRCUIT BREAKER
AFG	ABOVE FINISHED GRADE	MDP	MAIN DISTRIBUTION PANEL
AIC	AMP. INTERRUPTING CAPACITY	MECH	MECHANICAL
AL	ALUMINUM	MLO	MAIN LUG ONLY
ANN	ANNUNCIATOR	MTD	MOUNTED
ARCH	ARCHITECT	(N)	NEW
BFG	BELOW FINISHED GRADE	NF	NON FUSED
BKR	BREAKER	N.T.S.	NOT TO SCALE
BTM	BOTTOM	NL	NIGHT LIGHT
BWE	BAKED WHITE ENAMEL	PB	PUSH BUTTON
C	CONDUIT	PC	PHOTO CELL
CASA	COLOR AS SELECTED BY ARCHITECT	PH	PHASE
CATV	CABLE TELEVISION	PNL	PANEL
CKT	CIRCUIT	PT	POTENTIAL TRANSFORMER
CLG	CEILING	PWR	POWER
CT	CURRENT TRANSFORMER	RECEPT, RCPT, REC	RECEPTACLE
CU	COPPER	RL	RELOCATE
DISC	DISCONNECT	DOWN	DOWN
DN	DOWN	RT	RAIN TIGHT, NEMA 3R
DPDT	DOUBLE POLE DOUBLE THROW	SCA	SHORT CIRCUIT AVAILABLE
DPST	DOUBLE POLE SINGLE THROW	SPC	SPACE
EC	ELECTRICAL CONTRACTOR	SPD	SURGE PROTECTION DEVICE
ELEC	ELECTRICAL	SPDT	SINGLE POLE DOUBLE THROW
EM	EMERGENCY	SPST	SINGLE POLE SINGLE THROW
EMT	ELECTRICAL METALLIC TUBING	SPR	SPARE
EW	ELECTRICAL WATER COOLER	SSL	SOLID-STATE LIGHTING
EXIST, EX. (E)	EXISTING	SW	SWITCH
F.	FUSED	T-STAT	THERMOSTAT
FLR	FLOOR	TBD	TO BE DETERMINED
FLUOR	FLUORESCENT	TC	TIME CLOCK
GC	GENERAL CONTRACTOR	TTB	TELEPHONE TERMINAL BACKBOARD
GFI	GROUND FAULT INTERRUPTER	TYP	TYPICAL
GRC	GALVANIZED RIGID CONDUIT	U.O.N.	UNLESS OTHERWISE NOTED
GRD	GROUND	UC	UNDER COUNTER
HOA	HAND-OFF-AUTO	V	VOLTS
HT	HEAT TRACE	VA	VOLT-AMPERES
IG	ISOLATED GROUND	VAC	VOLTS-ALTERNATING CURRENT
J-BOX	JUNCTION BOX	VFD	VARIABLE FREQUENCY DRIVE
LED	LIGHT-EMITTING DIODE	W	WATTS
LOC	LOCATION	W/	WITH
LTG	LIGHTING	W/O	WITHOUT
LTF	LIQUID TIGHT FLEXIBLE CONDUIT	WG	WIRE GUARD
LTS	LIGHTS	WP	WEATHERPROOF
		XFMR	TRANSFORMER

NOTE: THIS IS A COMPREHENSIVE LEGEND AND ABBREVIATIONS LIST AND ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS.

ELECTRICAL DRAWING INDEX

E001	GENERAL CONSTRUCTION NOTES AND LEGEND
ED101	ELECTRICAL DEMO PLANS
E101	ELECTRICAL PLAN
E201	ELECTRICAL SPECIFICATIONS

ELECTRICAL LEGEND

	FLAG NOTE	\$	NOTE: ALL SWITCHES SHALL BE MOUNTED AT 48" AFF TO TOP OF BOX (U.O.N.)
	MECHANICAL EQUIPMENT SYMBOL	\$	SINGLE POLE SWITCH, 20 AMP U.O.N.
	SPECIAL EQUIPMENT SYMBOL	\$2	DOUBLE POLE SWITCH, 20 AMP U.O.N.
	INDICATES AIMING DIRECTION	\$3	3 - WAY SWITCH, 20 AMP U.O.N.
	INDICATES EXISTING DEVICE TO REMAIN	\$30	SINGLE POLE SWITCH, 20 AMP U.O.N. 3 - THREE WAY, a - SWITCHING
	INDICATES EXISTING DEVICE TO BE REMOVED	\$4	4 - WAY SWITCH, 20 AMP U.O.N.
	EXISTING CIRCUIT RUN TO REMAIN	\$K	KEYED SWITCH, 20 AMP U.O.N.
	EXISTING CIRCUIT RUN TO BE REMOVED	\$P	PILOT SWITCH, 20 AMP U.O.N. SWITCH ON, LIGHT ON
	CIRCUIT RUN: EXPOSED	\$TO	SWITCH WITH THERMAL OVERLOAD, 20 AMP U.O.N.
	CIRCUIT RUN: UNDERFLOOR	\$TS	DIGITAL TIMER SWITCH
	CIRCUIT RUN: UNDERGROUND	\$VS	SWITCH VARIABLE SPEED
	CIRCUIT RUN: WALLS OR CEILING	\$LV	SWITCH LOW VOLTAGE
	CIRCUIT TURNS UP	\$D	DIMMER SWITCH AS NOTED, 20 AMP U.O.N.
	CIRCUIT TURNS DOWN	\$P	COMBINATION SWITCH/RECEPTACLE
	UNDERGROUND TELEPHONE RUN	\$	SINGLE RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	UNDERGROUND SECONDARY OR PRIMARY SERVICE	\$	DUPLEX RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	GROUND BUS	\$GFI	DUPLEX RECEPTACLE, INDIVIDUAL GROUND FAULT RECEPTACLE
	SURFACE RACEWAY	\$	DOUBLE DUPLEX RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	PLUG STRIP AS NOTED	\$	DUPLEX RECEPTACLE, SPLIT WIRED
	LOW VOLTAGE CIRCUIT	(X) \$	TELEPHONE OUTLET, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	MOISTURE OR EXPLOSION PROOF SEAL	W-P	W - WALL OUTLET, + 54" AFF (U.O.N.)
	HOME RUN (PROVIDE DEDICATED NEUTRALS MULTI-WIRE BRANCH CIRCUITS NOT ALLOWED)	X	X DENOTES # OF JACKS
	A - PANEL DESIGNATION	(X) \$	DATA OUTLET, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	1,3,5 - CIRCUIT NUMBER, 6 CONDUCTORS U.O.N.	\$	DATA/VOICE OUTLET, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	TRANSFORMER	\$	SPECIAL PURPOSE OUTLET AS NOTED, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	WEATHERHEAD	\$	FLUSH FLOOR TELEPHONE OUTLET S - SURFACE PEDESTAL
	MAIN DISTRIBUTION PANEL	\$	FLUSH FLOOR DUPLEX OUTLET S - SURFACE PEDESTAL
	SWITCH AND FUSE	\$	MULTI-CELL FLOOR BOX
	CIRCUIT BREAKER	\$	J-BOX: CEILING
	CT'S	\$	J-BOX: WALL
	PT'S	\$	EMERGENCY POWER OFF (MUSHROOM HEAD)
	GROUND	\$	MOTOR OUTLET AND CONNECTION
	METER	\$	MAGNETIC STARTER OR CONTACTOR
	ELECTRICAL PANEL	\$	DISCONNECT SWITCH
	TELEPHONE TERMINAL BOARD	\$	DISCONNECT SWITCH NF - NON-FUSED
	CONTACT - NORMALLY CLOSED (NC)	\$	FIRE-SMOKE DAMPER/SMOKE DAMPER
	CONTACT - NORMALLY OPEN (NO)	\$	LIGHTING CONTROL STATION
	LIGHTING OUTLET: CEILING RECESSED	\$	OCCUPANCY SENSOR
	LIGHTING OUTLET: CEILING SURFACE	\$	VACANCY SENSOR
	LIGHTING OUTLET: WALL MOUNTED	\$	PHOTO CELL - ELECTRIC
	SPOT LIGHT	\$	CONTACTOR
	PORCELAIN KEYLESS P&S110 W/150W A21 LAMP - pc (PULL CHAIN)	\$	RELAY
	FLUORESCENT/LED FIXTURE: SURFACE		
	FLUORESCENT/LED FIXTURE: SUSPENDED DIRECT/INDIRECT		
	FLUORESCENT/LED FIXTURE: RECESSED IN DRYWALL		
	FLUORESCENT/LED FIXTURE: RECESSED IN GRID DIRECT/INDIRECT		
	FLUORESCENT/LED FIXTURE: RECESSED IN GRID PARABOLIC (U.O.N.)		
	FLUORESCENT/LED FIXTURE: WALL MOUNTED		
	FLUORESCENT/LED STRIP		
	TRACK LIGHTING FIXTURE		
	INDICATES NIGHT LIGHT OR EMERGENCY CIRCUIT		
	INDICATES NIGHT LIGHT OR EMERGENCY CIRCUIT		
	EXIT SIGN: CEILING MOUNTED		
	EXIT SIGN: WALL MOUNTED		
	EMERGENCY BATTERY WITH NO LAMPS(HEADS)		
	EMERGENCY BATTERY WITH LAMPS		
	REMOTE EMERGENCY LIGHTS		
	REMOTE INDICATING LIGHT		



POUDRE SCHOOL DISTRICT
 TRAUT ELEMENTARY SCHOOL
 2515 TIMBERWOOD DRIVE
 FORT COLLINS, CO 80528



No.	Revision	Date

Sheet Title:
 GENERAL CONSTRUCTION NOTES AND LEGEND

Project EC REST ROOMS	
CONSTRUCTION SET	
Date 03/02/2020	Sheet E001
Scale AS NOTED	



LOAD SUMMARY - LOAD REMOVED		
EXISTING LOAD REMOVED	QTY	LOAD
RECEPTACLE	2	360 W



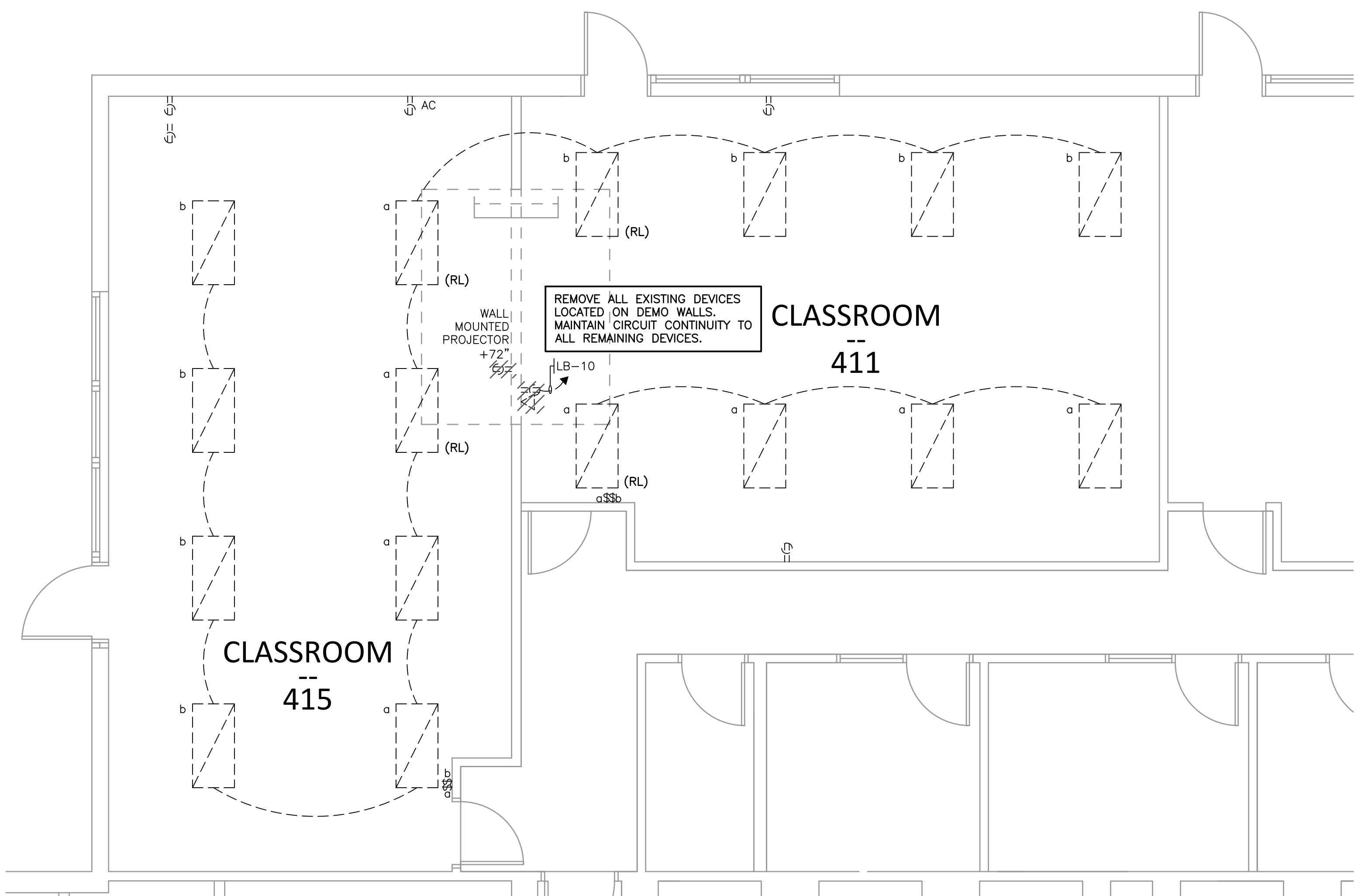
POUDRE SCHOOL DISTRICT
 TRAUT ELEMENTARY SCHOOL
 2515 TIMBERWOOD DRIVE
 FORT COLLINS, CO 80528



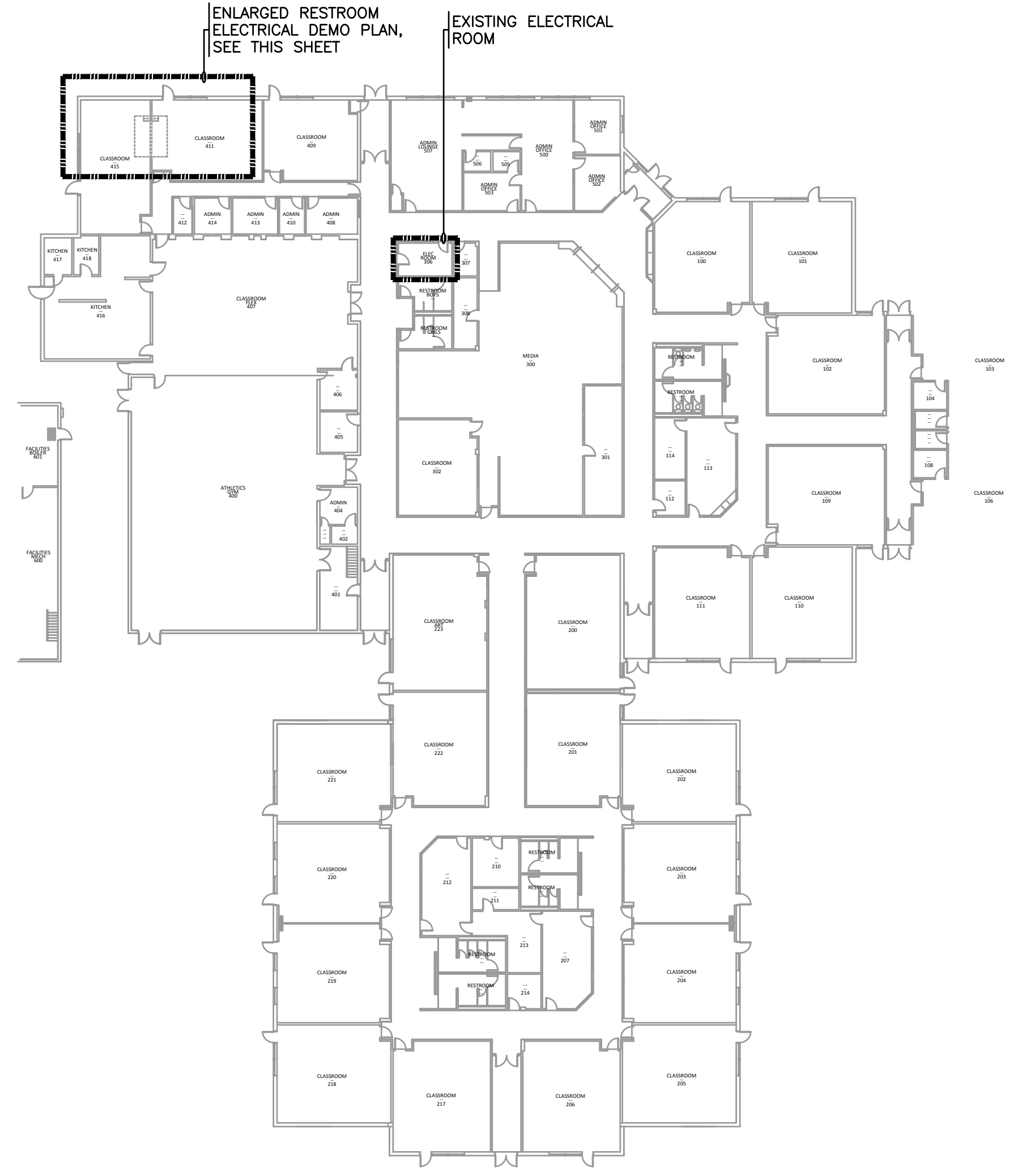
No.	Revision	Date

Sheet Title:
 ELECTRICAL DEMO PLANS

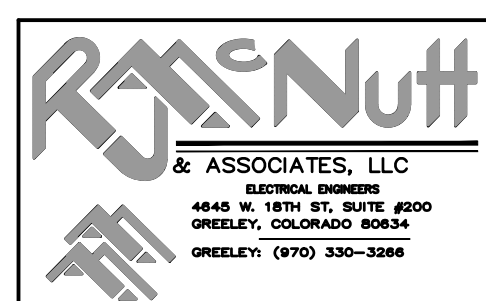
Project	
EC REST ROOMS	
CONSTRUCTION SET	
Date	Sheet
03/02/2020	ED101
Scale	AS NOTED



ENLARGED RESTROOM ELECTRICAL DEMO PLAN
 Scale: 1/4"=1'-0" NORTH



OVERALL PLAN
 Scale: 1"=30' NORTH



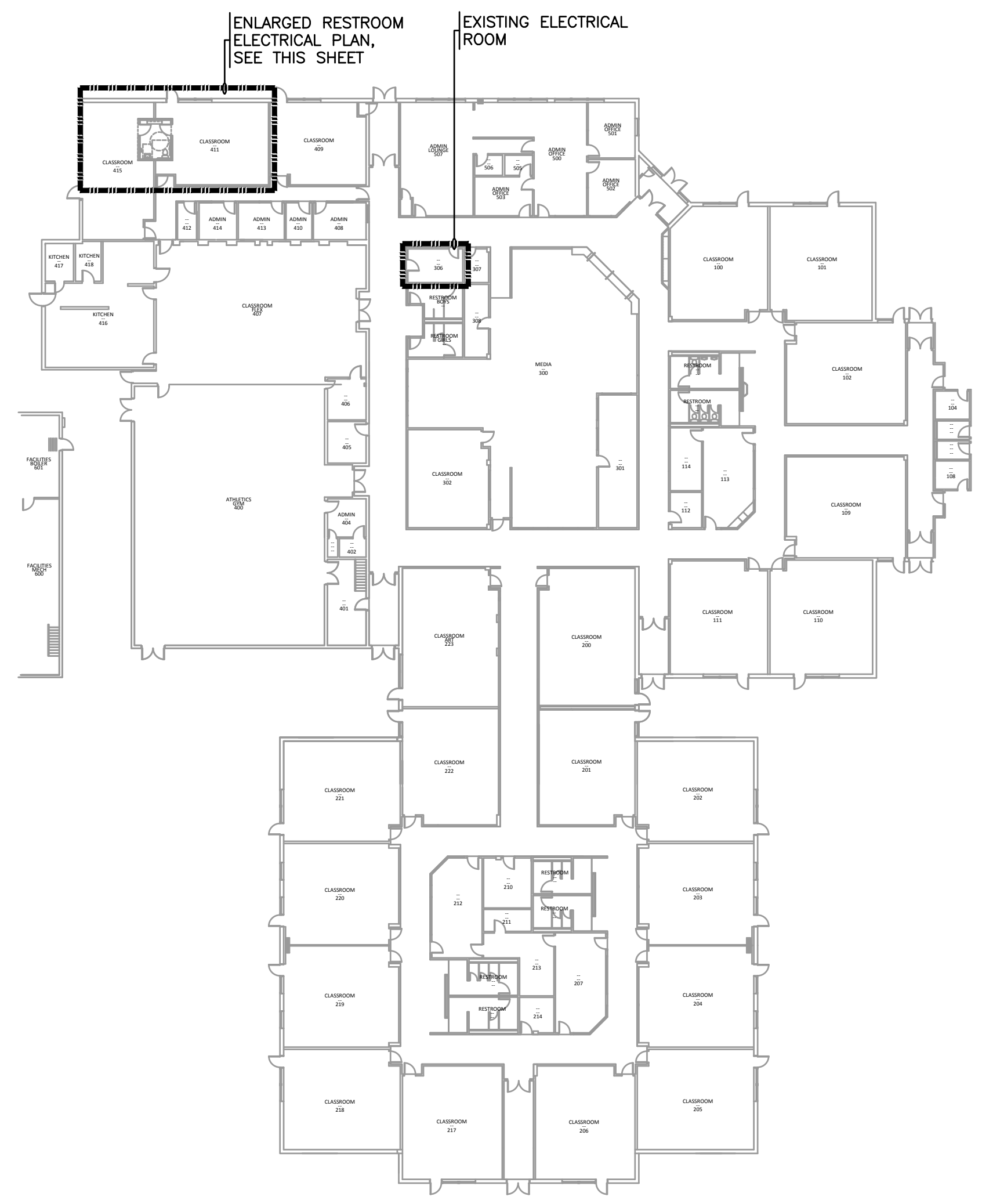
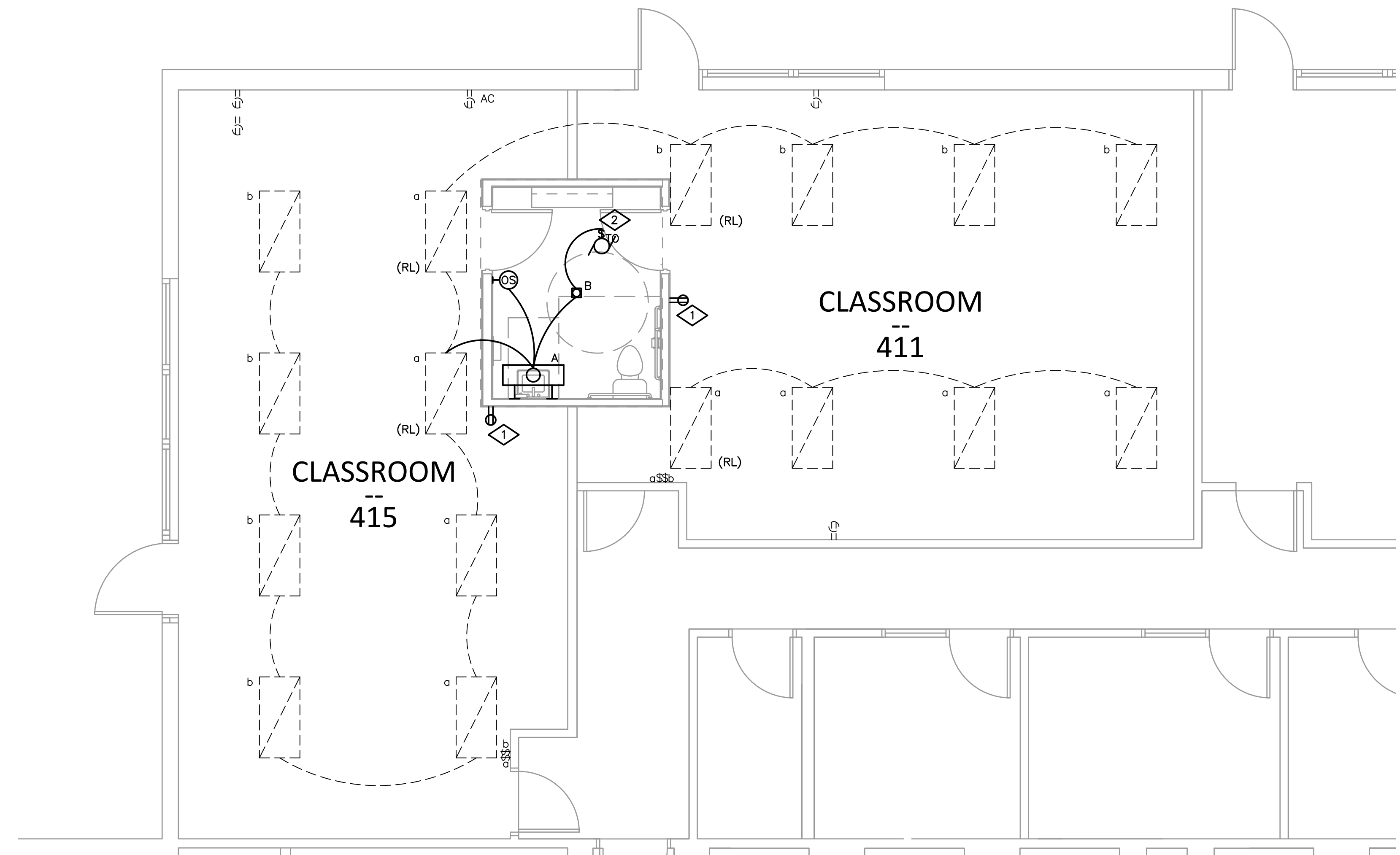
LOAD SUMMARY - LOAD ADDED	
NEW LOAD ADDED	
<u>LIGHTING</u>	
TYPE 'A'	29 WATTS
TYPE 'B'	14 WATTS
TOTAL	43 WATTS
<u>EXHAUST FAN</u>	12 WATTS
<u>RECEPTACLE</u>	
QTY 2	360 WATTS
TOTAL LOAD ADDED	415 WATTS

LOAD SUMMARY - Traut ES	
MAX DEMAND PER XCEL @ 125% PER NEC	113.00 kW 141.25 kW
LOAD ADDED THIS PROJECT	0.415 kW
LOAD REMOVED THIS PROJECT	0.360 kW
NEW TOTAL LOAD	141.31 kW
@ 90% POWER FACTOR	157.01 kVA
@ 208V 3PH	436 AMPS

FLAG NOTES - THIS SHEET ONLY

1 CONNECT NEW RECEPTACLE TO SAME CIRCUIT EXISTING RECEPTACLE WAS REMOVED FROM.

2 EXHAUST FAN, 120V, 12W. COORDINATE CONTROLS WITH MECHANICAL.



POUDRE SCHOOL DISTRICT
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 ELECTRICAL PLANS

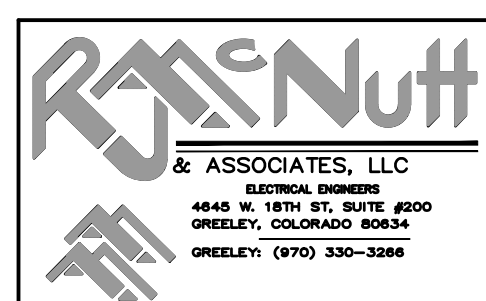
Project
 EC REST ROOMS

CONSTRUCTION SET

Date
 03/02/2020

Sheet
 E101

Scale
 AS NOTED



G:\Projects_2019\PSD_Early Childhood Education In Classroom Restrooms (W) - 19097\Drawings\Traut\19097-E101.dwg Mar 02, 2020 - 7:38pm bibe

PLUMBING GENERAL NOTES AND SPECIFICATIONS:

- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE CODES INCLUDING BUT NOT LIMITED TO THE 2015 INTERNATIONAL BUILDING, FIRE, MECHANICAL, PLUMBING, FUEL GAS, AND ENERGY CONSERVATION CODES (IBC, IFC, IMC, IPC, IFGC, IFCC) WITH LOCAL AMENDMENTS.
- CONTRACTOR AND SUB-CONTRACTORS SHALL PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT TO COMPLETE ALL WORK SHOWN ON PLANS, CALLED FOR IN SPECIFICATIONS, OR REASONABLY IMPLIED FOR A COMPLETE INSTALLATION.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON DRAWINGS WITH ACTUAL FIELD CONDITIONS. COORDINATE DRAWINGS WITH ACTUAL FIELD CONDITIONS. COORDINATE WORK LAYOUTS AND LOCATIONS OF OPENINGS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WITH DRAWINGS OR OTHER REQUIREMENTS. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO FABRICATION OR CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- PLUMBING DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE REQUIRED OFFSETS, FITTINGS, ETC. DO NOT SCALE DRAWINGS, USE DIMENSIONS ONLY. ALL DIMENSIONS/LAYOUTS SHOWN ARE APPROXIMATE, FIELD VERIFY ALL WORK PRIOR TO ORDERING MATERIALS OR INSTALLING WORK
- KEEP SITE AND BUILDING ACCESSIBLE AND SAFE TO CONTRACTOR'S PERSONNEL, OWNER'S EMPLOYEES AND PUBLIC AT ALL TIMES. CONTRACTOR SHALL ENSURE SAFETY OF PERSONNEL, OWNER AND PUBLIC DURING ALL WORK AND COMPLY WITH ALL APPLICABLE REGULATIONS AND ORDINANCES PERTAINING TO SAFETY OF PERSONS AND PROPERTY.
- INSTALL ALL WORK IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, ANCHORING ALL COMPONENTS PLUMB, LEVEL, SQUARE, AND FIRMLY INTO PLACE IN FIRST CLASS MANNER AND WORKMANSHIP ACCORDING TO STANDARD CONSTRUCTION PRINCIPLES & AS APPROVED BY ENGINEER.
- THROUGHOUT THE WORK, CAULK AND SEAL ALL JOINTS REQUIRED TO PROVIDE A POSITIVE BARRIER AGAINST THE PASSAGE OF AIR AND MOISTURE.
- PROTECT EXISTING OR ADJACENT SITE IMPROVEMENTS, EXISTING FLOOR, WALL, CEILING AND ROOF FINISHES, FURNISHINGS AND EQUIPMENT TO REMAIN DURING CONSTRUCTION. REPLACE OR REPAIR ANY DAMAGED IMPROVEMENTS, MATERIALS, FINISHES, FURNISHINGS OR EQUIPMENT TO SATISFACTION OF ARCHITECT/ENGINEER.
- REPLACE OR REPAIR ANY DAMAGED SURFACES, FILL AND PATCH HOLES, ETC., TO MATCH ADJACENT SURFACES AFTER ALL ALTERATIONS AND OTHER WORK IS COMPLETED, TO SATISFACTION OF ARCHITECT/ENGINEER.
- PRIOR TO THE DEMOLITION OF ANY EXISTING EQUIPMENT, COORDINATE WITH THE OWNER TO DETERMINE WHAT EQUIPMENT THEY MAY WANT TO KEEP. ANY EQUIPMENT NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE GENERAL CONTRACTOR AND SUBCONTRACTORS AND SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A LAWFUL MANNER.
- THE ENGINEER HAS ENDEAVORED TO LOCATE AND IDENTIFY THE PLUMBING EQUIPMENT AND PIPING IN THE SCOPE OF WORK INCLUDING IDENTIFYING SIZES. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. THE CONTRACTOR SHALL INCLUDE IN THEIR BID ADDITIONAL MINOR MECHANICAL WORK THAT MAY NOT BE SHOWN IN ORDER TO PROVIDE A COMPLETE AND WORKING SYSTEM.
- ASBESTOS MAY BE ENCOUNTERED DURING MECHANICAL WORK INCLUDING BUT NOT LIMITED TO PIPE INSULATION. IF THE CONTRACTOR DURING CONSTRUCTION ENCOUNTERS WHAT IS BELIEVED TO BE ASBESTOS CONTAINING MATERIALS, NOTIFY THE ENGINEER IMMEDIATELY.
- WHERE THE CEILING SPACE IS TO BE USED AS A RETURN AIR PLENUM, THE MECHANICAL CONTRACTOR SHALL VERIFY WITH OTHER TRADES TO ENSURE THAT ALL MATERIALS ARE NON-COMBUSTIBLE AND HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 - REFER TO MECHANICAL PLANS.
- COORDINATE WITH THE G.C. TO PROVIDE ACCESS PANELS AS REQUIRED TO ACCESS VALVES, PLUMBING ACCESSORIES, ETC. REQUIRED FOR THE PROPER MAINTENANCE OF THE PLUMBING SYSTEMS.
- COORDINATE WITH G.C. TO PATCH ROOFING, ROOF DECK, AND FLASHINGS AS REQ'D WITH NEW MATERIALS AND FLASHINGS FOR ALL NEW ROOF PENETRATIONS.
- DO NOT RUN PIPES ABOVE ELECTRICAL PANELS OR EQUIPMENT. COORDINATE WITH THE E.C. FOR LOCATIONS PRIOR TO THE START OF WORK.
- SEE THE PLUMBING FIXTURE CONNECTION SCHEDULE FOR MINIMUM PIPE SIZES TO THE FIXTURES. PROVIDE AN INCREASER/REDUCER AS REQUIRED AT THE FIXTURE CONNECTION.
- DOMESTIC WATER PIPING SHALL BE TYPE 'L' COPPER ASTM B88 WITH ASME B16.18 CAST COPPER OR ASME B16.22 WROUGHT COPPER FITTINGS, JOINTS SHALL BE MADE WITH LEAD-FREE SOLDER.
- PIPING INSULATION SHALL BE INSTALLED BY A QUALIFIED INSULATION CONTRACTOR WITH A MINIMUM OF 3-YEARS DOCUMENTED EXPERIENCE. INSULATION WORK SHALL BE COMPLETE WITH ALL EDGES SEALED, PER INDUSTRY STANDARDS, AND TO THE SATISFACTION OF THE ENGINEER. SEE THE FOLLOWING PARAGRAPHS FOR INSULATION REQUIREMENTS.
- COPPER DOMESTIC WATER PIPES SHALL BE INSULATED WITH FIBERGLASS PIPE INSULATION JACKETED WITH A REINFORCED VAPOR RETARDER FACING WITH A FACTORY LONGITUDINAL ACRYLIC ADHESIVE CLOSURE SYSTEM. OVERSIZE HANGERS FOR INSULATION SO NO PENETRATION OF THE VAPOR BARRIER OCCURS. PROVIDE INSERTS AND SADDLES AS REQUIRED TO PREVENT INSULATION DAMAGE FROM SUPPORTS. JOHNS MANVILLE MICRO-LOK OR EQUAL BY KNAUF OR OWENS CORNING.
 - DOMESTIC COLD WATER: 0.5" THICK (PIPES 1/4" AND SMALLER), 1" THICK (PIPES 1/2" AND LARGER)
 - DOMESTIC HOT WATER: 1" THICK (PIPES 1/4" AND SMALLER), 1 1/2" THICK (PIPES 1/2" TO 4")
 - DOMESTIC HOT WATER RECIRC: 1" THICK (ALL SIZES).
- PROVIDE AND INSTALL PIPE HANGERS IN ACCORDANCE WITH MSS SP-58. PIPE HANGERS SHALL HAVE A GALVANIZED INSULATION SADDLE (1/2" AND SMALLER) OR PIPE INSERT (2" AND LARGER) TO PROTECT INSULATION.
- WASTE & VENT PIPING (EXCEPT IN RETURN AIR PLENUM-RE: MECHANICAL):
 - SOLID CORE SCHEDULE 40 PVC, ASTM D2665. FITTINGS SHALL BE ASTM D2665. JOINTS SHALL BE ASTM D2855 SOLVENT WELD WITH ASTM D2564 SOLVENT CEMENT. CELLULAR CORE IS NOT ACCEPTABLE
 - USE PURPLE PVC PRIMER. CLEAR PRIMER NOT ACCEPTABLE.
- WASTE AND VENT PIPING (IN RETURN AIR PLENUM-RE: MECHANICAL):
 - CAST IRON PIPE, CISPI 301, HUB-LESS, SERVICE WEIGHT. FITTINGS SHALL BE CAST IRON, CISPI 301. JOINTS SHALL BE CISPI 310, NEOPRENE GASKETS AND STAINLESS STEEL CLAMP-AND-SHIELD ASSEMBLIES.
- DOMESTIC WATER PIPING MAY NOT BE INSTALLED IN ANY EXTERIOR WALLS.
- ACCEPTABLE VALVE MANUFACTURERS MANUFACTURERS: APOLLO VALVE, CRANE VALVE, HAMMOND VALVE, MILWAUKEE VALVE COMPANY, NIBCO, STOCKHAM VALVES AND FITTINGS OR PRIOR APPROVED EQUAL.
- ALL VALVES USED ON DOMESTIC WATER SYSTEMS SHALL BE LEAD FREE AND NSF RATED.
- BALL VALVES 2" AND SMALLER: NSF 61 COMPLIANT, MSS SP110, 600 PSI WOG, TWO PIECE BRONZE BODY, CHROME PLATED BRASS BALL, FULL PORT, TEFLON SEATS, BLOW-OUT PROOF STEM, SOLDER OR THREADED ENDS, EXTENDED LEVER HANDLE AS REQUIRED FOR OPERATION WITH PIPING INSULATION.
- MANUAL BALANCING VALVES: NSF 61 COMPLIANT, 400 PSI AT 250F. BALL TYPE VALVE WITH CALIBRATED NAMEPLATE AND MEMORY STOP. LEAD-FREE BRASS BODY WITH THREADED ENDS. DIFFERENTIAL PRESSURE READOUT PORTS WITH INTERNAL CHECK VALVES. STAINLESS STEEL BALL, TEFLON SEAT RINGS, AND EPDM O-RING. 1/4" TAPPED DRAIN/PURGE PORT.
- HORIZONTAL SWING CHECK VALVES 2" AND SMALLER: NSF 61 COMPLIANT, MSS SP 80, CLASS 125, BRONZE BODY AND CAP, Y-PATTERN, BRONZE REGRINDING DISC, SOLDER OR THREADED ENDS.
- SPRING LOADED CHECK VALVES 2" AND SMALLER: NSF 61 COMPLIANT, MSS SP 80, CLASS 125, BRONZE BODY, IN-LINE SPRING LIFT CHECK, SILENT CLOSING, BUNA-N DISC, INTEGRAL SEAT, SOLDER OR THREADED ENDS.
- PROVIDE BALL VALVES ON ALL BRANCH WATER LINES WHETHER SHOWN ON THE PLANS OR NOT.
- REFERENCE ARCHITECTURAL PLANS FOR EXACT FIXTURE LOCATIONS. EXAMINE ROUGH-IN FOR WATER AND WASTE PIPING. USE MANUFACTURER'S ROUGH-IN DIMENSIONS. ADJUST EXISTING AS REQUIRED. REFER TO THE ARCHITECTURAL PLANS FOR EXACT FIXTURE LOCATION DIMENSIONS.
- OFFSET FLANGES AND CROSS FITTINGS ARE NOT PERMITTED.
- INSTALL PLUMBING FIXTURES LEVEL AND PLUMB. SEAL AROUND FIXTURES TO WALL OR FLOOR WITH SEALANT TO MATCH FIXTURE. CLEAN ALL FIXTURES BEFORE TURNING OVER TO THE OWNER.
- PROVIDE A QUARTER TURN STOP ON THE WATER SUPPLY TO EACH PLUMBING FIXTURE. INSTALL STOPS SO THAT THEY ARE EASILY ACCESSIBLE. ALL SUPPLIES AFTER THE STOPS TO BE RIGID CHROME PLATED.
- ALL PIPE PENETRATIONS THROUGH THE FLOORS AND WALLS SHALL BE SLEEVED WITH GALVANIZED STEEL. SLEEVES SHALL BE LARGE ENOUGH TO ALLOW FOR INSULATION TO BE CONTINUOUS THROUGH THE SLEEVE. SEAL AROUND SLEEVES AND PROVIDE CHROME PLATED ESCUTCHEONS IN FINISHED SPACES.
- WHERE PIPES PENETRATE A FIRE RATED ASSEMBLY PACK THE VOID WITH BACKING MATERIAL AND SEAL WITH UL LISTED FIRE CAULK TO MEET THE FIRE RATING OF ASSEMBLY PENETRATED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND TYPES OF FIRE RATED ASSEMBLIES.
- INSTALL TRAP AND VENT ON THE DRAIN OUTLET OF EACH FIXTURE TO BE DIRECTLY CONNECTED TO THE SANITARY SEWER SYSTEM. EXPOSED P-TRAPS LOCATED UNDER SINKS TO BE 17 GA. CHROME WITH CLEANOUT.
- WALL CLEANOUTS IN FINISHED AREAS SHALL BE LINE TYPE WITH ROUND STAINLESS STEEL ACCESS COVER SECURED WITH MACHINE SCREWS.
- FLOOR AND GRADE CLEANOUTS IN FINISHED AREAS SHALL BE LINE TYPE, CAST IRON BODY WITH ADJUSTABLE RISER, NO-HUB OUTLET. CAST IRON FRAME AND GRATE COVER AND INTERNAL PLUG.
- PLUMBING VENTS THROUGH THE ROOF SHALL BE 3" MINIMUM. WHERE THE CONNECTING PIPE IS SMALLER, THE PIPE SHALL TRANSITION A MINIMUM OF 12" BELOW THE ROOF STRUCTURE AND THEN EXTEND THROUGH THE ROOF AS A 3" PIPE.
- COORDINATE EXACT LOCATION OF EQUIPMENT AND ROUTES TO AND FROM EQUIPMENT WITH STRUCTURE AND CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR OFFSETS OF PIPING TO AVOID CONFLICTS. NOT ALL OFFSETS, FITTINGS, EXTENSIONS SHOWN THAT MAY BE REQUIRED DURING CONSTRUCTION
- LABEL ALL DOMESTIC WATER, WASTE, VENT, AND GAS PIPES WITH NAMES AND FLOW ARROWS. LABELS SHALL BE NOT MORE THAN 10'-0" APART AND SHALL BE LOCATED AT ALL ACCESS LOCATION TO CONCEALED SPACES. EXTERIOR GAS PIPING TO HAVE STENCIL PAINT LABELS AND FLOW ARROWS.
- TEST ALL WATER, WASTE, AND VENT PIPING IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE AND PER THE LOCAL AUTHORITY HAVING JURISDICTION. ALL TESTS, INSPECTIONS, AND PIPE FLUSHING TO BE WITNESSED BY THE PSD PLUMBING DEPARTMENT.
- ALL DOMESTIC HOT WATER RECIRCULATION SYSTEMS SHALL BE BALANCED TO THE QUANTITIES SHOWN. THE BALANCING FIRM SHALL EITHER BE AABC OR NEBB CERTIFIED AND SHALL SUBMIT A BALANCE REPORT TO THE ENGINEER FOR REVIEW.
- THE PLUMBING CONTRACTOR SHALL PROVIDE PRODUCT DATA SUBMITTALS FOR ALL THE PLUMBING EQUIPMENT SCHEDULED, PLUMBING FIXTURES, PIPING, PIPE INSULATION, AND VALVES. ALL EQUIPMENT SUBMITTALS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH (1) FULL SIZE SET OF THE AS-BUILT PLUMBING DRAWINGS WHICH SHALL SHOW THE ACTUAL LOCATIONS OF PIPES, VALVES, FIXTURES, AND ACCESSORIES OR ANY OTHER DEVIATIONS FROM THE DESIGN DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH (1) COPY OF ALL OPERATIONAL AND MAINTENANCE (O&M) MANUALS FOR EACH PIECE OF EQUIPMENT. THE MANUAL SHALL INCLUDE: THE CONTRACTOR'S CONTACT INFORMATION, THE MANUFACTURER'S PUBLISHED O&M INSTRUCTIONS, THE APPROVED SUBMITTAL DRAWINGS, AND THE FINAL APPROVED TEST AND BALANCE REPORT. COMBINE ALL THE MANUALS IN A 3-RING BINDER INDEXED FOR EACH PIECE OF EQUIPMENT. ALSO PROVIDE THE OWNER A CD WITH THE ENTIRE O&M MANUAL IN PDF FORMAT.
- THE CONTRACTOR SHALL PROVIDE OWNER TRAINING ON THE OPERATION AND MAINTENANCE OF THE PLUMBING EQUIPMENT.

SHEET INDEX:

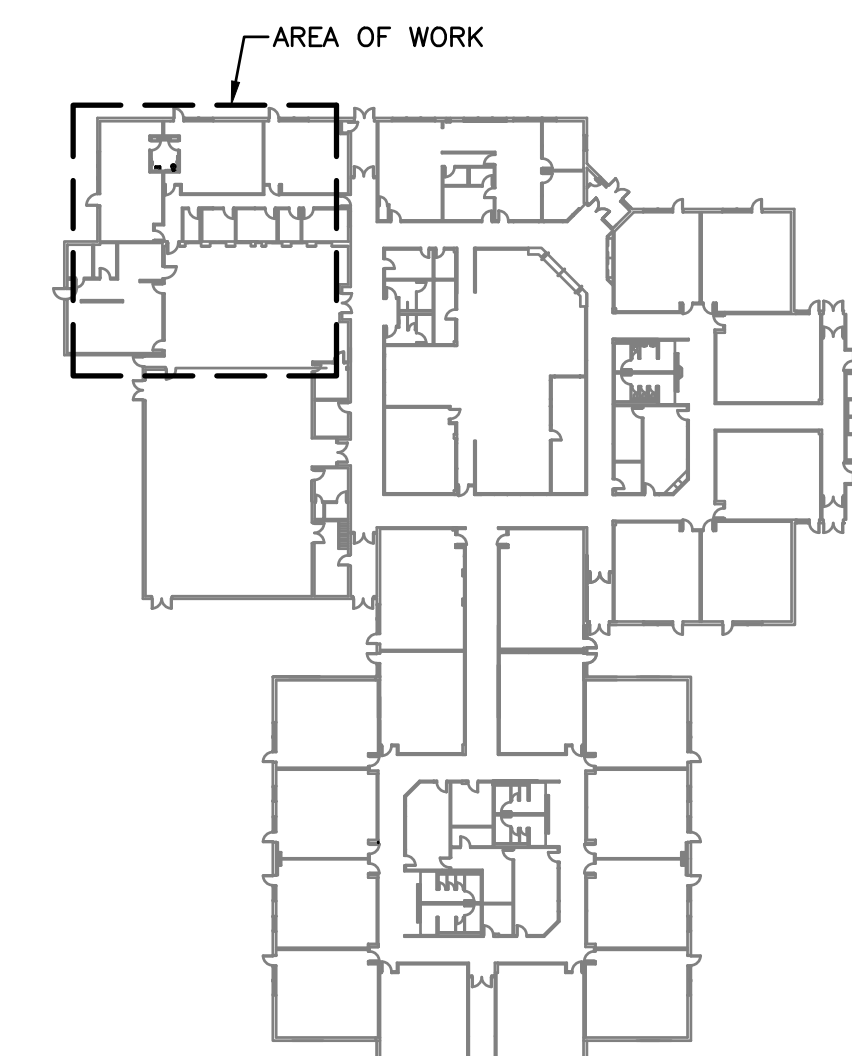
P001	PLUMBING NOTES & LEGEND
P101	PLUMBING PLANS
P301	PLUMBING SCHEDULES & DETAILS

PLUMBING LEGEND

	EXISTING PIPE
	PIPE DEMOLITION
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER
	WASTE PIPE (DASHED BELOW GROUND)
	WASTE PIPE (SOLID ABOVE GROUND)
	VENT PIPE
	BALL VALVE, PRESSURE REDUCING VALVE
	CONTROL VALVE, CHECK VALVE
	UNION OR FLANGE, REDUCER/INCREASER
	PIPE ELBOW UP, PIPE ELBOW DOWN
	TEE UP, TEE DOWN
	POINT OF CONNECTION
	LIMIT OF DEMOLITION

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE
AFF	ABOVE FINISHED FLOOR
BLW	BELOW
CLG	CEILING
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
DHWC	DOMESTIC HOT WATER CIRCULATION
DWH	DOMESTIC WATER HEATER
DN	DOWN
(E)	EXISTING
EC	ELECTRICAL CONTRACTOR
FCO	FLOOR CLEANOUT
FDC	FIRE DEPARTMENT CONNECTION
FD	FLOOR DRAIN
FS	FLOOR SINK
FSS	FIRE SPRINKLER CONTRACTOR
GCO	GRADE CLEANOUT
IFGC	INTERNATIONAL FUEL GAS CODE
IMC	INTERNATIONAL MECHANICAL CODE
IPC	INTERNATIONAL PLUMBING CODE
LAV	LAVATORY
(N)	NEW
NC	NORMALLY CLOSED
POC	POINT OF CONNECTION
(REL)	RELOCATED
SL	SEA LEVEL
TYP	TYPICAL
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET



KEY PLAN
SCALE: NONE



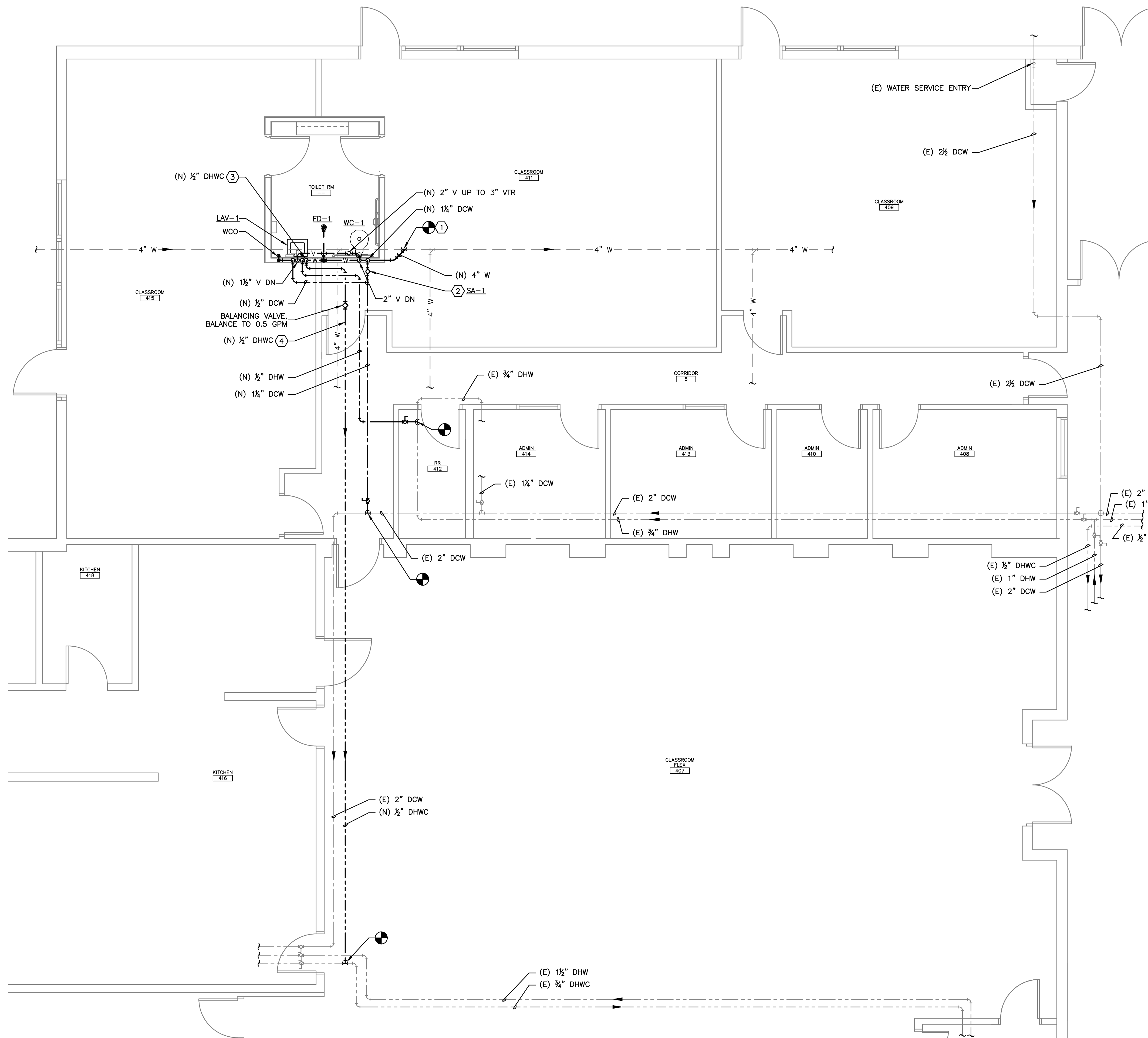
POUDRE SCHOOL DISTRICT
 TRAUT ELEMENTARY SCHOOL
 2515 TIMBERWOOD DRIVE
 FORT COLLINS, CO 80528



No.	Revision	Date

Sheet Title:
PLUMBING NOTES & LEGEND

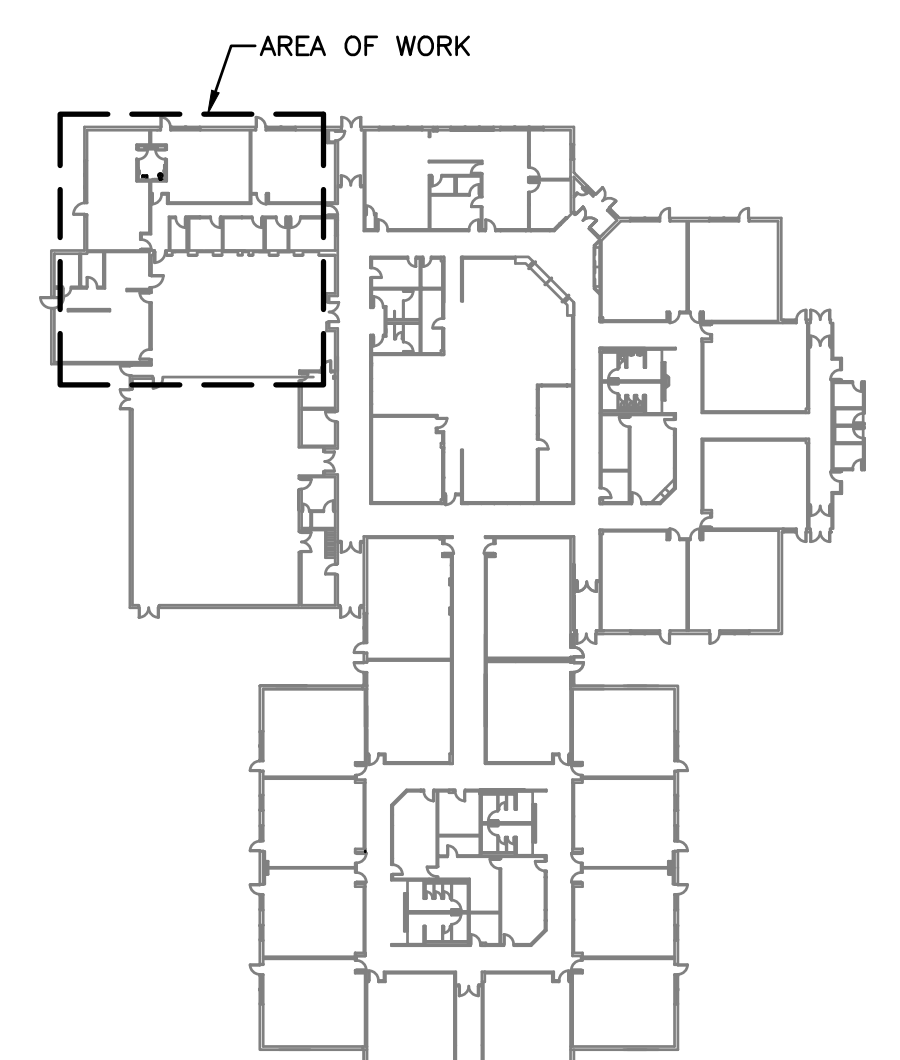
Project EC REST ROOMS	
CONSTRUCTION SET	
Date 5/2/2020	Sheet P001
Scale	



FLAG NOTES:

1. CONNECT TO EXISTING 4" W BELOW THE FLOOR IN THIS AREA. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT ELEVATION PRIOR TO THE START OF WORK. COORDINATE W/ G.C. FOR FLOOR CUTTING AND PATCHING.
2. INSTALL SHOCK ABSORBER WITH SHUTOFF VALVE FOR FUTURE MAINTENANCE. INSTALL IN PLUMBING WALL. SHOWN OFFSET FOR CLARITY. COORDINATE W/ THE G.C. TO PROVIDE A PAINTED ACCESS PANEL IN THE WALL ABOVE THE TILE, RE: ARCHITECTURAL. COLOR BY ARCHITECT.
3. EXTEND DHWC PIPE DOWN TO CONNECT TO DHW PIPE WITHIN 24" OF THE LAVATORY FIXTURE CONNECTION PER THE 2018 IECC.
4. ROUTE NEW 1/2" DHWC PIPE BACK TO EXISTING DHWC LOOP AS SHOWN ON THE PLANS.

PLUMBING REMODEL PLAN
 SCALE: 1/4" = 1'-0"



KEY PLAN
 SCALE: NONE



POUDRE SCHOOL DISTRICT
 TRAUT ELEMENTARY SCHOOL
 2515 TIMBERWOOD DRIVE
 FORT COLLINS, CO 80528



NOT VALID UNLESS SIGNED & DATED

No.	Revision	Date

Sheet Title:
PLUMBING PLAN

Project:
EC REST ROOMS

CONSTRUCTION SET
 Date: 5/2/2020
 Sheet: P101
 Scale:

PLUMBING FIXTURE SCHEDULE

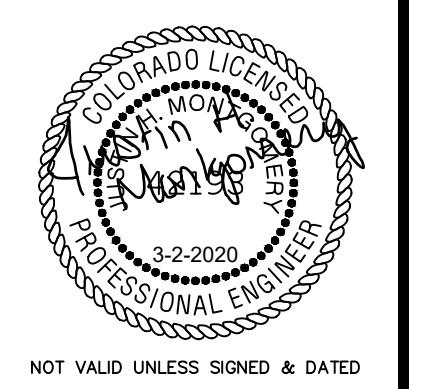
TAG	FIXTURE INFORMATION			FAUCET OR FLUSH VALVE INFORMATION			PIPE RUNOUT SIZES				REMARKS
	MAKE	MODEL	DESCRIPTION	MAKE	MODEL	DESCRIPTION	DCW	DHW	W	V	
FD-1	ZURN	Z415B	EPOXY COATED CAST IRON FLOOR DRAIN WITH ANCHOR FLANGE, REVERSIBLE CLAMPING COLLAR WITH PRIMARY AND SECONDARY WEEPHOLES, ADJUSTABLE 5" ROUND HEEL PROOF NICKEL BRONZE STRAINER, AND NO-HUB OUTLET.	--	--	--	--	--	2"	1½"	4
LAV-1	AMERICAN STANDARD	LUCERNE #0355.012	WALL HUNG LAVATORY SINK, WHITE VITREOUS CHINA WITH SELF-DRAINING DECK AREA, 5" BACKSPASH, AND FRONT OVERFLOW. 4" CENTER SET FAUCET HOLES. PROVIDE WITH PERFORATED STRAINER AND CHROME-PLATED BRASS 1-1/4" OFFSET TAILPIECE. ADA COMPLIANT.	CHICAGO	802-VE2805ABCP	HEAVY DUTY CAST BRASS DECK FAUCET WITH 4" CENTERS, CHROME FINISH, TWO QUARTER-TURN LEVER HANDLES, AND 0.5 GPM NON-AERATING SPRAY OUTLET. ADA COMPLIANT.	½"	½"	2"	1½"	1-3
SA-1	ZURN	SHOKTROL Z1700-200	TYPE 304 STAINLESS STEEL WATER HAMMER ARRESTOR WITH STAINLESS STEEL NESTING BELLOWS AND THREADED PIPE CONNECTION. PDI SIZE B. ASSE 1010.	--	--	--	¾"	--	--	--	NONE
TMV-1	LEONARD	170A-LF	ASSE 1070 LISTED THERMOSTATIC MIXING VALVE. 0.25 GPM MIN. INTEGRAL INLET FILTER WASHERS AND CHECK VALVES. LEAD FREE. PROVIDE WITH COLD WATER BYPASS AND MOUNTING BRACKET. SET OUTLET TEMP. TO 110° F.	--	--	--	½"	½"	--	--	NONE
WC-1	AMERICAN STANDARD	MADERA #3043.001	FLOOR MOUNTED FLUSHOMETER WATER CLOSET W/ ELONGATED BOWL. 1½" TOP SPUD. WHITE VITREOUS CHINA. 16½" BOWL HEIGHT. 1.28 GPF. PROVIDE WITH OPEN FRONT SOLID PLASTIC SEAT.	SLOAN	ROYAL 111-1.28	EXPOSED MANUAL FLUSHOMETER VALVE FOR TOP SPUD WATER CLOSET. POLISHED CHROME FINISH. 1.28 GPF. ADA COMPLIANT. LOCATE HANDLE TO THE OPEN SIDE OF THE ROOM.	1¼"	--	4"	2"	NONE

NOTES:
 1.) PROVIDE WITH UNDER SINK PIPE INSULATION, TRUEBRO LAV GUARD 2. 2.) PROVIDE WITH THERMOSTATIC MIXING VALVE TMV-1. 3.) PROVIDE WITH FLOOR MOUNTED CONCEALED ARM CARRIER 4.) PROVIDE WITH ASSE 1072 TRAP SEAL PROTECTION DEVICE

ACCEPTABLE MANUFACTURERS:
 LAVATORY & WATER CLOSET – KOHLER OR AMERICAN STANDARD, FLOOR DRAIN & WATER HAMMER ARRESTOR – JOSAM, JR SMITH, WATTS, OR ZURN, THERMOSTATIC MIXING VALVE – LEONARD, WATTS, OR ZURN



POWDRE SCHOOL DISTRICT
 TRAUT ELEMENTARY SCHOOL
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No.	Revision	Date

Sheet Title:
PLUMBING SCHEDULES

Project:
EC REST ROOMS

CONSTRUCTION SET

Date: 5/2/2020 *Sheet:* P301
Scale:

MECHANICAL GENERAL NOTES AND SPECIFICATIONS:

- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE CODES INCLUDING BUT NOT LIMITED TO THE 2015 INTERNATIONAL BUILDING, FIRE, MECHANICAL, PLUMBING, FUEL GAS, AND ENERGY CONSERVATION CODES (IBC, IFB, IMC, IPC, IFGC, IECC) WITH LOCAL AMENDMENTS.
- CONTRACTOR AND SUB-CONTRACTORS SHALL PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT TO COMPLETE ALL WORK SHOWN ON PLANS, CALLED FOR IN SPECIFICATIONS, OR REASONABLY IMPLIED FOR A COMPLETE INSTALLATION.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON DRAWINGS WITH ACTUAL FIELD CONDITIONS. COORDINATE DRAWINGS WITH ACTUAL FIELD CONDITIONS. COORDINATE WORK LAYOUTS AND LOCATIONS OF OPENINGS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WITH DRAWINGS OR OTHER REQUIREMENTS. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO FABRICATION OR CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
- MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DO NOT SCALE DRAWINGS, USE DIMENSIONS ONLY. ALL DIMENSIONS/LAYOUTS SHOWN ARE APPROXIMATE, FIELD VERIFY ALL WORK PRIOR TO ORDERING MATERIALS OR INSTALLING WORK
- KEEP SITE AND BUILDING ACCESSIBLE AND SAFE TO CONTRACTOR'S PERSONNEL, OWNER'S EMPLOYEES AND PUBLIC AT ALL TIMES. CONTRACTOR SHALL ENSURE SAFETY OF PERSONNEL, OWNER AND PUBLIC DURING ALL WORK AND COMPLY WITH ALL APPLICABLE REGULATIONS AND ORDINANCES PERTAINING TO SAFETY OF PERSONS AND PROPERTY.
- INSTALL ALL WORK IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, ANCHORING ALL COMPONENTS PLUMB, LEVEL, SQUARE, AND FIRMLY INTO PLACE IN FIRST CLASS MANNER AND WORKMANSHIP ACCORDING TO STANDARD CONSTRUCTION PRINCIPLES & AS APPROVED BY ENGINEER.
- THROUGHOUT THE WORK, CAULK AND SEAL ALL JOINTS AS REQUIRED TO PROVIDE A POSITIVE BARRIER AGAINST THE PASSAGE OF AIR AND MOISTURE.
- PROTECT EXISTING OR ADJACENT SITE IMPROVEMENTS, EXISTING FLOOR, WALL, CEILING AND ROOF FINISHES, FURNISHINGS AND EQUIPMENT TO REMAIN DURING CONSTRUCTION. REPLACE OR REPAIR ANY DAMAGED IMPROVEMENTS, MATERIALS, FINISHES, FURNISHINGS OR EQUIPMENT TO SATISFACTION OF ARCHITECT/ENGINEER. [Edit as required per project. Typically only for remodels or additions]
- REPLACE OR REPAIR ANY DAMAGED SURFACES, FILL AND PATCH HOLES, ETC., TO MATCH ADJACENT SURFACES AFTER ALL ALTERATIONS AND OTHER WORK IS COMPLETED, TO SATISFACTION OF ARCHITECT/ENGINEER.
- PRIOR TO THE DEMOLITION OF ANY EXISTING EQUIPMENT, COORDINATE WITH THE OWNER TO DETERMINE WHAT EQUIPMENT THEY MAY WANT TO KEEP. ANY EQUIPMENT NOT WANTED BY THE OWNER SHALL BECOME THE PROPERTY OF THE GENERAL CONTRACTOR AND SUBCONTRACTORS AND SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A LAWFUL MANNER.
- CONTRACTOR MUST COORDINATE THE WORK SO AS NOT TO EXTENSIVELY DISRUPT OWNERS OCCUPANCY OF ADJACENT AREAS AS APPROVED BY OWNER.
- THE ENGINEER HAS ENDEAVORED TO LOCATE AND IDENTIFY THE MECHANICAL EQUIPMENT AND PIPING IN THE SCOPE OF WORK INCLUDING IDENTIFYING SIZES. HOWEVER, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID. THE CONTRACTOR SHALL INCLUDE IN THEIR BID ADDITIONAL MINOR MECHANICAL WORK THAT MAY NOT BE SHOWN IN ORDER TO PROVIDE A COMPLETE AND WORKING SYSTEM.
- ASBESTOS MAY BE ENCOUNTERED DURING MECHANICAL WORK INCLUDING BUT NOT LIMITED TO PIPE INSULATION. IF THE CONTRACTOR DURING CONSTRUCTION ENCOUNTERS WHAT IS BELIEVED TO BE ASBESTOS CONTAINING MATERIALS, NOTIFY THE ENGINEER IMMEDIATELY.
- WHERE THE CEILING SPACE IS TO BE USED AS A RETURN AIR PLENUM, THE MECHANICAL CONTRACTOR SHALL VERIFY WITH OTHER TRADES TO ENSURE THAT ALL MATERIALS ARE NON-COMBUSTIBLE AND HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50.
- COORDINATE WITH THE G.C. TO PROVIDE ACCESS PANELS AS REQUIRED TO ACCESS VALVES, DAMPERS, CONTROL DEVICES, ETC. REQUIRED FOR THE PROPER MAINTENANCE OF THE MECHANICAL SYSTEMS.
- COORDINATE WITH G.C. TO PATCH ROOFING, ROOF DECK, AND FLASHINGS AS REQ'D WITH NEW MATERIALS AND FLASHINGS FOR ALL NEW ROOF PENETRATIONS.
- PATCH OPENINGS IN DUCTS WHICH ARE TO REMAIN ACTIVE AND HAVE HAD SECTION REMOVED. ALSO REPAIR DUCT INSULATION SO THAT IT IS CONTINUOUS.
- DO NOT RUN DUCTWORK ABOVE ELECTRICAL PANELS OR EQUIPMENT. COORDINATE WITH THE E.C. FOR LOCATIONS PRIOR TO THE START OF WORK.
- THERMOSTATS, TEMPERATURE SENSORS, SWITCHES, OR OTHER CONTROL DEVICES SHALL BE MOUNTED AT 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE.
- PROVIDE PLASTIC LAMINATED EQUIPMENT LABELS FOR THE NEW EQUIPMENT. LABEL ALL THE THERMOSTATS, SWITCHES, MOTOR STARTERS, ETC. INDICATING WHICH SYSTEM THEY CONTROL.
- ALL DUCTWORK SHALL BE 24 GAUGE GALVANIZED SHEET METAL MINIMUM. WORK SHALL BE IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL DUCTWORK SHALL BE 2 IN WG PRESSURE CLASS MINIMUM.
- ALL DUCTWORK JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, SHALL BE SEALED WITH WELDS, GASKETS, OR MASTIC ADHESIVE. MASTICS SHALL BE LISTED IN ACCORDANCE WITH UL 181A.
- FLEXIBLE DUCTWORK SHALL BE INSULATED AND SHALL BE TESTED IN ACCORDANCE WITH UL 181 LISTED. FLEXIBLE DUCTWORK SHALL NOT EXCEED 6'-0" IN LENGTH. PROVIDE WRAPPED RIGID ROUND DUCTWORK FOR TAKEOFFS IN EXCESS OF 6'-0".
- DUCTWORK DIMENSIONS LISTED ON THE DRAWINGS ARE CLEAR, INSIDE DIMENSIONS. WHERE DUCT LINER IS SPECIFIED, INCREASE THE OUTSIDE SHEET METAL DIMENSIONS TO PROVIDE THE CLEAR INSIDE DIMENSIONS SPECIFIED.
- ALL BRANCH DUCT TAKEOFFS SHALL BE 45° HIGH-EFF. TYPE AND SHALL HAVE A HEAVY DUTY MANUAL BALANCING DAMPER WITH MINIMUM 1/4" ROD AND LOCKING INDICATING QUADRANT. ACCEPTABLE MANUFACTURERS INCLUDE GREENHECK, POTTORFF, AND RUSKIN. LIGHT-DUTY DAMPERS THAT ARE INTEGRAL TO TAKE-OFF FITTINGS ARE NOT ACCEPTABLE.
- DUCTWORK INSULATION SHALL BE INSTALLED BY A QUALIFIED INSULATION CONTRACTOR WITH A MINIMUM OF 3-YEARS DOCUMENTED EXPERIENCE. INSULATION WORK SHALL BE COMPLETE WITH ALL EDGES SEALED, PER INDUSTRY STANDARDS, AND TO THE SATISFACTION OF THE ENGINEER.
- ALL CONCEALED ROUND SUPPLY, RETURN, OR OUTSIDE AIR DUCTS SHALL BE INSULATED WITH DUCT WRAP FIBERGLASS INSULATION WITH FSK VAPOR BARRIER FACING. JOHN'S MANVILLE MICROLITE XG OR EQUAL BY KNAUF OR OWENS CORNING.
• IN A CONDITIONED SPACE: 1.5" THICK (R-4.5)
- PROVIDE FLEXIBLE DUCT CONNECTIONS TO THE SUPPLY AND RETURN OF ALL MOTOR DRIVEN EQUIPMENT.
- PROVIDE DUCT TRANSITIONS AS REQUIRED TO CONNECT THE DUCTS TO THE EQUIPMENT CONNECTIONS.
- ELBOWS SHALL HAVE A MINIMUM RADIUS OF 1-1/2 TIMES CENTERLINE DUCT WIDTH. WHERE RECTANGULAR ELBOWS ARE USED, PROVIDE TURNING VANES.
- PROVIDE DUCT TRANSITIONS AS REQUIRED TO CONNECT THE DUCTS TO THE EQUIPMENT CONNECTIONS. INCREASE DUCT SIZES GRADUALLY, NOT EXCEEDING 15° DIVERGENCE WHEREVER POSSIBLE; MAXIMUM 30° DIVERGENCE UPSTREAM OF EQUIPMENT AND 45° CONVERGENCE DOWNSTREAM.
- ALL PENETRATIONS THROUGH THE FLOORS AND WALLS SHALL BE SLEEVED WITH GALVANIZED STEEL. SLEEVES SHALL BE LARGE ENOUGH TO ALLOW FOR INSULATION TO BE CONTINUOUS THROUGH THE SLEEVE. APPLY SEALANT TO BOTH SIDES OF PENETRATION TO COMPLETELY FILL ANNULAR SPACE.
- WHERE DUCTS PENETRATE A FIRE RATED ASSEMBLY PACK THE VOID WITH BACKING MATERIAL AND SEAL WITH UL LISTED FIRE CAULK TO MEET THE FIRE RATING OF ASSEMBLY PENETRATED. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS AND TYPES OF FIRE RATED ASSEMBLIES.
- ALL AIR SYSTEMS SHALL BE BALANCED TO THE QUANTITIES SHOWN. THE BALANCING FIRM SHALL EITHER BE AABC OR NEBB CERTIFIED AND SHALL SUBMIT A BALANCE REPORT TO THE ENGINEER FOR REVIEW.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE PRODUCT DATA FOR ALL THE MECHANICAL EQUIPMENT SCHEDULED, BALANCING DAMPERS, CONTROLS, DAMPERS, AND DUCT INSULATION. SUBMITTALS SHALL BE IN ELECTRONIC PDF FORMAT AND SENT VIA EMAIL TO THE ENGINEER. IF THE CONTRACTOR WANTS TO USE A MANUFACTURER NOT LISTED, THEY SHALL PROVIDE DOCUMENTATION TO THE ENGINEER FOR APPROVAL. ALL EQUIPMENT SUBMITTALS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH (1) COPY OF ALL OPERATIONAL AND MAINTENANCE (O&M) MANUALS FOR EACH PIECE OF MECHANICAL EQUIPMENT. THE MANUAL SHALL INCLUDE: THE CONTRACTOR'S CONTACT INFORMATION, THE MANUFACTURER'S PUBLISHED O&M INSTRUCTIONS, THE APPROVED SUBMITTAL DRAWINGS, AND THE FINAL APPROVED TEST & BALANCE REPORT. COMBINE ALL THE MANUALS IN A 3-RING BINDER INDEXED FOR EACH PIECE OF EQUIPMENT. ALSO PROVIDE THE OWNER A CD WITH THE ENTIRE O&M MANUAL IN PDF FORMAT.
- THE CONTRACTOR SHALL PROVIDE THE OWNER WITH (1) FULL SIZE SET OF THE AS-BUILT MECHANICAL DRAWINGS WHICH SHALL SHOW THE ACTUAL LOCATIONS OF DUCTWORK, DAMPERS, GRDs, OR ANY OTHER DEVIATIONS FROM THE DESIGN DRAWINGS.
- THE CONTRACTOR SHALL PROVIDE OWNER TRAINING ON THE OPERATION AND MAINTENANCE OF THE MECHANICAL EQUIPMENT INCLUDING CONTROLS. PROVIDE NEW FILTERS IN THE EQUIPMENT AT THE END OF THE PROJECT.

SHEET INDEX:

M001	MECHANICAL NOTES, LEGENDS, & SCHEDULES
M101	MECHANICAL PLANS

MECHANICAL LEGEND

	EXISTING DUCTWORK
	DUCTWORK DEMOLITION
	NEW DUCTWORK (SHADED)
	FLEX DUCTWORK
	DUCT ELBOW DN, DUCT ELBOW UP
	DUCT RISERS (SUPPLY, RETURN, EXHAUST)
	90° ELBOW W/ TURNING VANES AND 45° HIGH-EFF TAKE-OFF
	MANUAL BALANCING DAMPER
	TEMPERATURE SENSOR
	POINT OF CONNECTION
	LIMIT OF DEMOLITION

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BLW	BELOW
CD	CEILING DIFFUSER
CLG	CEILING
DN	DOWN
(E)	EXISTING
EA	EXHAUST AIR
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
IFGC	INTERNATIONAL FUEL GAS CODE
IMC	INTERNATIONAL MECHANICAL CODE
IPC	INTERNATIONAL PLUMBING CODE
(N)	NEW
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
POC	POINT OF CONNECTION
RA	RETURN AIR
(REL)	RELOCATED
RG	RETURN GRILLE
SA	SUPPLY AIR
SD	SIDEWALL DIFFUSER
TA	TRANSFER AIR
TAB	TEST & BALANCE CONTRACTOR
TSTAT	THERMOSTAT
TYP	TYPICAL
W/	WITH
W/O	WITHOUT

EXHAUST FAN SCHEDULE

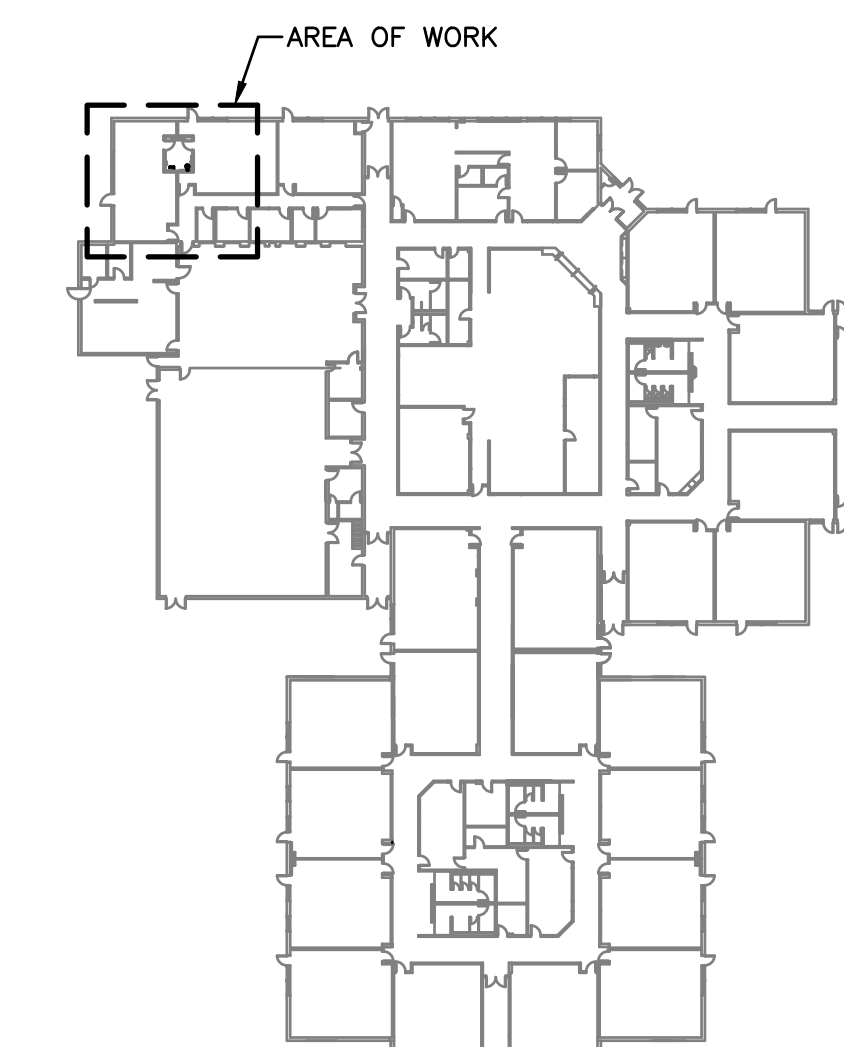
TAG	MAKE & MODEL	CFM	SP (IN WC)	DD/BD	FRPM	VOLTAGE	WATTS	WEIGHT (LBS)	SPEED CONTROL	CONTROL	REMARKS
EF-1	GREENHECK SP-A110	100	0.125	DD	925	115/60/1	12	26	YES	A	ALL

1.) UL-507 LISTED 2.) MOTOR WITH THERMAL OVERLOADS 3.) INTEGRAL BACKDRAFT DAMPER 4.) ISOLATION KIT 5.) ROUND DUCT CONNECTOR 6.) CURB CAP W/ 18" TALL ROOF CURB AND BIRD SCREEN 7.) OR EQUAL BY LOREN COOK OR TWIN CITY FAN

A.) BASE BID: ON WITH LIGHTS, COORDINATE W/ E.C. FOR WIRING BID ALTERNATE #3: EXHAUST FAN TO BE CONTROLLED BY THE EXISTING BAS. SEE BID ALTERNATE SUMMARY, SHEET M001.

BID ALTERNATE NOTES:

- A. BASE BID: NEW RESTROOM EXHAUST FAN TO BE CONTROLLED ON WITH THE LIGHTS.
- B. BID ALTERNATE #3:
- B.1. NEW RESTROOM EXHAUST FAN TO BE CONTROLLED BY THE BUILDING DDC SYSTEM IN LIEU OF THE STAND-ALONE SWITCHES.
- B.2. EXISTING BUILDING DDC SYSTEM IS A SCHNEIDER ELECTRIC SYSTEM. APPROVED VENDOR IS LONG BUILDING TECHNOLOGIES.



KEY PLAN
SCALE: NONE



POUDRE SCHOOL DISTRICT
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FORT COLLINS, CO 80528



NOT VALID UNLESS SIGNED & DATED

No.	Revision	Date

Sheet Title:
**MECHANICAL
NOTES,
LEGEND, &
SCHEDULES**

Project
EC REST ROOMS

CONSTRUCTION SET

Date
5/2/2020

Sheet
M001

Scale

Electrical Specifications

SECTION 16010 - GENERAL PROVISIONS

PART 1 - GENERAL

1.1 CONDITIONS:

- A. All work under this Section shall be governed by project general conditions, along with all supplements and amendments thereto, as published by Owner.

PART 2 - PRODUCTS

- A. All material shall be new and shall be listed by Underwriters Laboratories Incorporated (UL listed) for the purpose intended and shall bear the UL label.

PART 3 - EXECUTION

- 3.1 SHOP DRAWINGS: A. Furnish electronic (pdf) sets of Shop Drawings to Architect for the following: 1. Control Equipment.

3.2 RECORD DRAWINGS:

- A. Maintain a complete set of Electrical Drawings at the job site with all changes in the work marked thereon in a contrasting color.

3.3 COORDINATION:

- A. Order the progress of the work so as to conform to the progress of other trades. Coordinate all electrical installations and rough-ins as required.

3.4 WORKMANSHIP:

- A. Provide a competent foreman on the job at all times. All work shall be accomplished in a manner which is neat, workmanlike, of first quality, and compatible with good commercial practices and standards.

3.5 INSTALLATION:

- A. Install all equipment and materials in accordance with information as indicated on drawings and in full accord with Manufacturer's recommendations.

3.6 CUTTING AND PATCHING:

- A. Provide all cutting, channeling, chasing, drilling, etc., operations as may be required for electrical work. In general, all such operations shall be held to a minimum.

3.7 CONSTRUCTION POWER AND LIGHTING:

- A. Provide construction power and lighting for construction as required. Energy costs will be paid by Owner. All temporary facilities shall be properly grounded, shall comply with NEC and OSHA requirements, and shall have ground fault protection.

3.8 SECONDARY SERVICE:

- A. Power for distribution within the building is available from the secondary side of a pad mount transformer supplied by the local power company. This service shall be 3 phase, 4 wire, 120/208 volt, 60 Hertz alternating current for normal power and lighting requirements.

3.9 REMODEL WORK:

- A. Electrical Contractor shall remove all wiring devices, light fixtures, etc., which are indicated to be removed. In general, symbols which are dashed indicate existing devices which are to remain.

3.10 GUARANTEE:

- A. Guarantee all materials, labor, workmanship and successful operation of all equipment installed under this contract for a period of one year from date of final acceptance. Repair or replace, at no expense to Owner, all defects which may arise during this time due to inferior or defective materials, equipment, or workmanship.

3.11 SUBSTITUTIONS:

- A. The intent of Specifications is to establish quality standards of materials and equipment installed. Specific items are identified by Manufacturer, trade name or catalog designation.

3.12 OUTAGES:

- A. Coordinate all electrical service outages with Owner and General Contractor. Plan all work so that duration of outage is kept to an absolute minimum. Provide temporary wiring as necessary and as required in order to maintain continuous service for Owner's operation where outage must be accomplished during a time when power is deemed necessary by Owner, or when outage is to be of an extended duration, maximum 6 hours.

3.13 DELIVERY AND STORAGE OF MATERIALS:

- A. Make provisions for delivery and safe storage of all materials and make the required arrangements with other Contractors on the job for the introduction into the building of equipment too large to pass through finished openings.

3.14 AVAILABLE TO OWNER:

- A. Electrical Contractor shall be available to Owner for additional hook up to lights, equipment, etc., on time and material.

END OF SECTION 16010

SECTION 16100 - BASIC MATERIALS AND METHODS

PART 1 - GENERAL

1.1 STANDARDS:

- A. All materials shall be new, shall be UL listed for the purpose intended, and shall bear the UL label. Damaged or defective materials shall be replaced. All materials shall comply with latest NEMA standards.

PART 2 - PRODUCTS

- 2.4 SAFETY SWITCHES: A. Provide fusable and non-fusable heavy duty type disconnect switches where shown and required. Switches shall be horsepower rated, quick make, and quick-break, by same manufacturer as panelboards.

2.7 FUSES:

- A. Provide sizes, classes and types of fuses as indicated for all fused safety switches. All fuses 0-600 amps shall have the Class "R" rejection feature.

2.8 SPARE FUSES:

- A. Provide three spare fuses of each size and type installed. Place in a metal cabinet adjacent to main distribution equipment. Cabinet shall be wall mounted, shall have a hinged door and latch, and shall be labeled "SPARE FUSES" on cover.

2.9 NAMEPLATES:

- A. Provide 1 x 3 inch laminated plastic nameplates (1/4 inch high white letters; black background for normal power equipment, red background for emergency power equipment) for all switches, panelboards, controllers, etc., in main distribution switchboards and sub-distribution panelboards.

2.10 NM-NONMETALLIC SHEATHED CABLE NOT ALLOWED ON THIS PROJECT:

2.11 CONDUCTORS:

- A. Provide a complete system of conductors for all raceway systems. All conductors shall be rated 600V, and shall be of a manufacturer subscribing to applicable IPCEA and NEMA standards and practices.

2.12 CONDUITS:

- A. Conduits shall be provided for all wiring runs as shown and specified. All sizes shall be per NEC. Use GRC where required by code, utility company, for mechanical protection and as shown.

2.13 SUPPORTS AND HANGERS:

- A. Provide supports and hangers as necessary and as required to insure a good and substantial installation. Support raceways, fixtures, cabinets, boxes, etc., on approved types of trapeze hangers and wall brackets as manufactured by Unistrut or acceptable equal.

2.14 OUTLETS:

- A. Outlets shall be galvanized steel or zinc pressed steel outlet boxes for all locations except where otherwise indicated or where cast metal boxes are required by NEC.

2.15 LIGHTING EQUIPMENT

- A. General: Provide all lighting equipment and lamps as shown on drawings and as called for in these Specifications. Provide all such equipment fully complete and prewired.

2.16 DEVICES AND PLATES:

- A. Receptacles: Provide the following flush receptacle devices where indicated and required. Verify color with Architect prior to installation. All devices to be Specification Grade with screw type terminals. Provide as shown or acceptable equal.

PART 3 - EXECUTION

- A. All exterior mounted disconnects 12 feet and less above finished grade shall have padlocks; master laminated minimum 3/16 inch shafts, master keyed, to lock disconnect doors

3.4 CONDUCTORS:

- A. Conductors shall be continuous from outlet to outlet or J-box. Splices shall be held to a minimum. Where necessary, splice in readily accessible pull box, J-box, or outlet box.

E. Wire and cable shall be the proper size to fit under lug landings in accordance with UL listing.

- 1. The following color code prevails for all service, feeder and branch circuits: Neutral White for 120V Ground Green Phase A Black for 120/208V Phase B Red for 120/208V Phase C Blue for 120/208V

3.5 CONDUCTOR NEUTRAL APPLICATIONS:

- A. Neutrals: Copper, same size as phase conductor, derating neutrals not allowed.

3.6 CONDUTIS:

- A. Slab on grade: Conduits shall not be located in slab but 6" below, thus cutting of slab will not damage conductors and conduit.

3.7 WIRING ABOVE SUSPENDED CEILING:

- A. Approved Class II wiring systems such as controls, telephone, intercom, TV, Fire Alarm, etc., may be routed without conduit on bridle rings. (5 feet on center and neatly trained) where above suspended accessible ceiling systems unless otherwise indicated.

3.8 OUTLETS:

- A. Install all outlets in a secure and substantial manner and locate so as to be compatible with space, construction and installation requirements, and with the work of other trades.

3.9 LIGHTING EQUIPMENT:

- A. Recessed fixtures shall be connected from a J-box above the ceiling with flexible conduit. The supply conductors to recessed fixtures shall be in accordance with Manufacturer's label or as specified, whichever is more stringent.

3.10 COVERPLATES:

- A. Install oversized or "mistake plates" for any outlet where standard sized plate will not cover rough in opening. Provide ganged plates for combination devices and multiple device installation as required.

3.11 FIRE PENETRATIONS:

- A. Provide fire rated stops to maintain fire ratings of walls, ceilings and floors.

3.12 OUTLETS:

- A. Install all outlets in a secure and substantial manner and locate so as to be compatible with space, construction and installation requirements, and with the work of other trades.

3.13 DELIVERY AND STORAGE OF MATERIALS:

- A. Make provisions for delivery and safe storage of all materials and make the required arrangements with other Contractors on the job for the introduction into the building of equipment too large to pass through finished openings.

3.14 AVAILABLE TO OWNER:

- A. Electrical Contractor shall be available to Owner for additional hook up to lights, equipment, etc., on time and material.

SECTION 16400 - ELECTRICAL SYSTEMS

PART 1 - GENERAL

- 1.1 FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON DRAWINGS AND SPECIFICATIONS.

PART 2 - PRODUCTS

- 2.2 GROUNDING SYSTEM: A. Ground the entire electrical distribution system, including all raceways, outlets, fixtures, equipment, etc., in full accord with NEC.

END OF SECTION 16400

SECTION 16900 - ELECTRICAL COMPLETION

PART 1 - GENERAL

- 1.1 GENERAL: A. The entire electrical system shall be left in first-class workable operating condition and all work shall be complete.

PART 2 - PRODUCTS

- 2.1 DIRECTORY CARDS: A. Provide labels and neatly typed directory cards for all new and existing panelboards and loadcenters. Directory cards shall indicate the general area and type of electrical load served by each circuit.

PART 3 - EXECUTION

- 3.1 CLEAN UP: A. Remove all materials, scrap, etc., relative to the electrical installation and leave the premises in a clean, orderly condition.

END OF SECTION 16900



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FORT COLLINS, CO 80528



03/02/2020

Table with 3 columns: No., Revision, Date

Sheet Title: ELECTRICAL SPECIFICATIONS
Project: EC REST ROOMS
CONSTRUCTION SET
Date: 03/02/2020
Sheet: E201
Scale: AS NOTED

