


ROCKY MOUNTAIN HS-FRENCH FIELD

FRENCH FIELD PRESS BOOTH TENANT FINISH

Review of these documents shall not be considered as approval of any conditions shown on the plans that are in violation of the applicable adopted codes

Any rough-in and/or final plumbing & electrical inspections shall be performed by the State of Colorado Department of Regulatory Agencies (DORA). www.colorado.gov/dora/DPO_Electrical_Plumbing_Permits

Fire Inspection may be required for this project. Contact the local fire authority and/or DFPC (303)239 4100 for requirements. Approval from both entities may be required



COLORADO

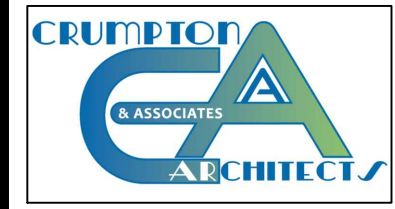
Division of Fire
Prevention & Control
Department of Public Safety

8 CCR 1507-30
Code Enforcement &
Certification of Inspectors
Public Schools, Charter
Schools, & Junior Colleges

Documents have been reviewed for compliance with adopted codes.

Review shall not relieve the applicant of the responsibility to comply with adopted codes.

P-32562



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526



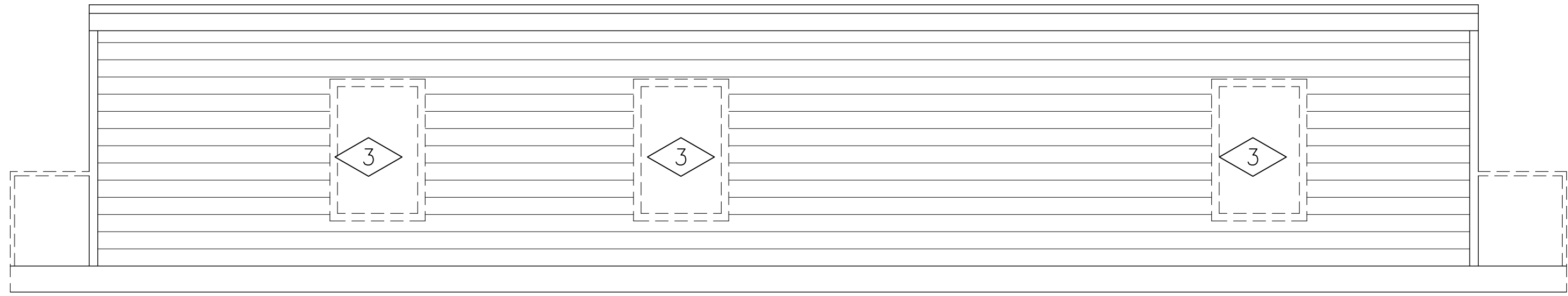
No.	Revision	Date
REV 1:	11/20/2020	

Sheet Title:

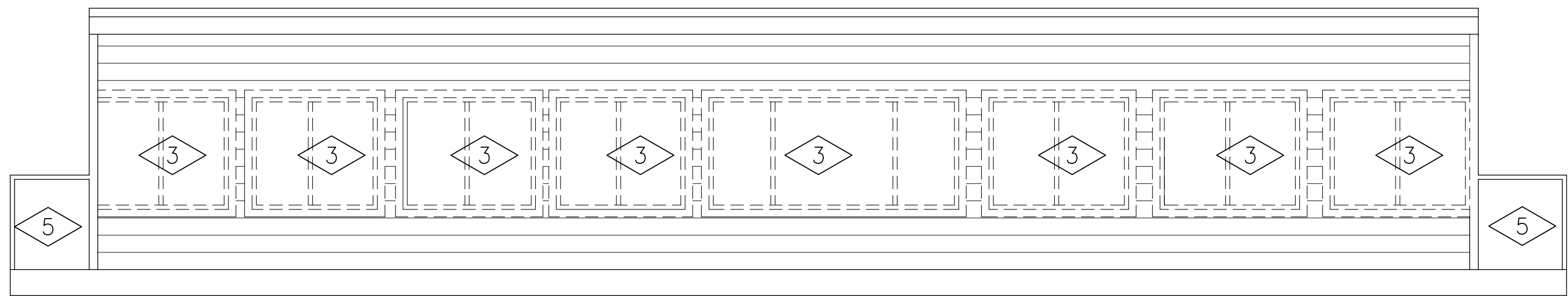
COVER

Project
PRESS BOOTH
CONSTRUCTION SET

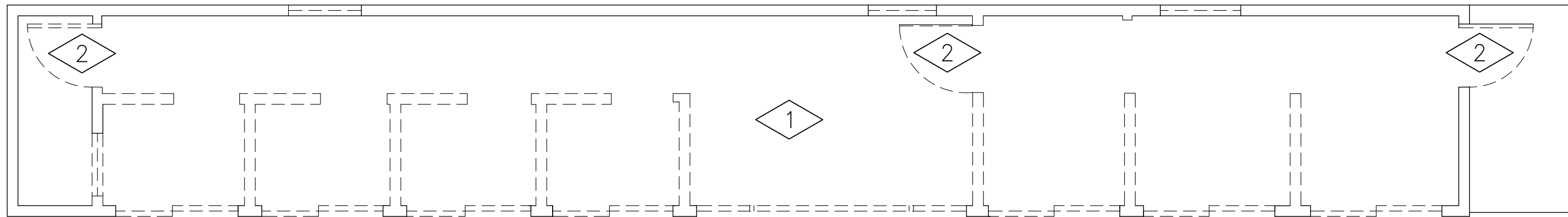
Date 08/03/2020	Sheet G000
Scale	



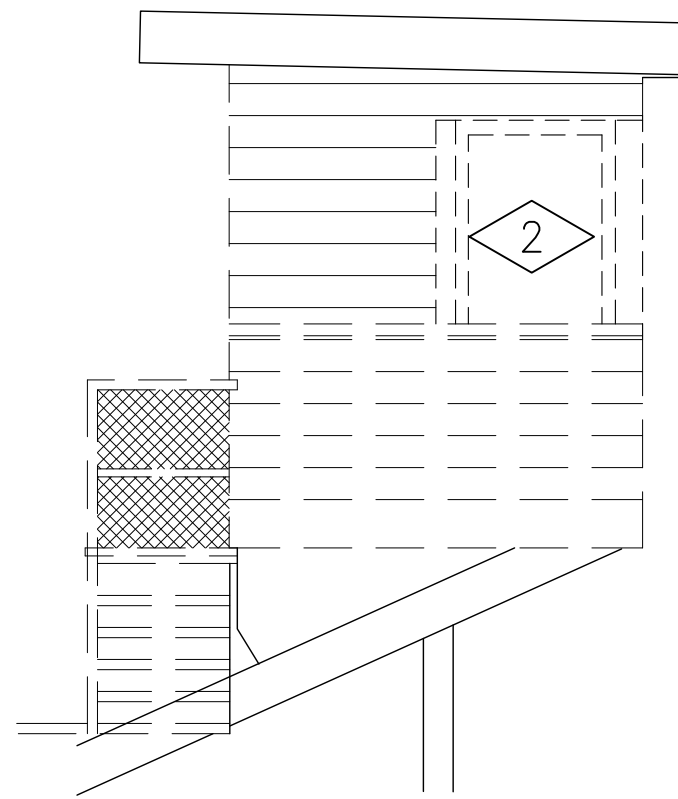
B WEST EXTERIOR ELEVATION
SCALE 1/4" = 1'-0"



A EAST EXTERIOR ELEVATION
SCALE 1/4" = 1'-0"



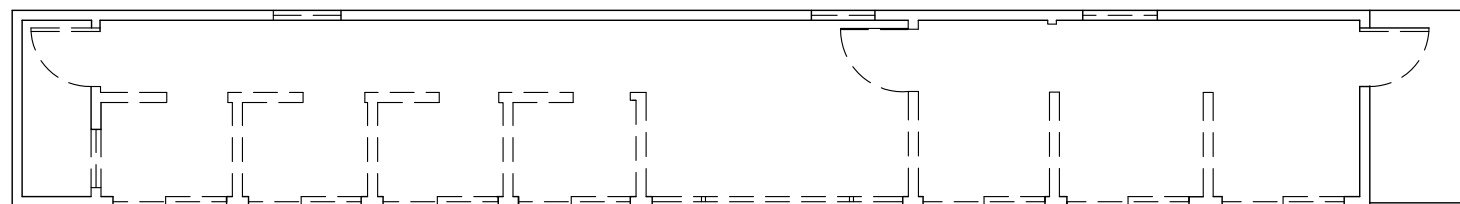
FLOOR PLAN
SCALE IN FEET
0 4 8 16



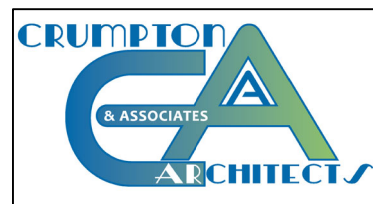
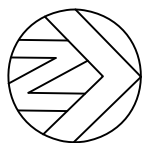
C NORTH AND SOUTH EXTERIOR ELEVATIONS
SCALE 1/4" = 1'-0"

KEY NOTES:

- 1 DEMO ALL INTERIOR WALLS
- 2 DEMO DOORS AND FRAMES DISCARD.
- 3 DEMO (E) WINDOWS/FRAMES/KNEE WALL/, DISCARD LEGALLY
- 4 DEMO CARPET AND COVE BASE
- 5 DEMO EXTERIOR ACCESS STAIRS/GUARDS AND RAILINGS REMOVE PORTIONS OF ALUMINUM SEATING AND KICK PLATE. SEE S SHEETS
- 6 DEMO ELECTRICAL POWER, LIGHTS AND DATA SEE E SHEETS. CARE SHOULD BE GIVEN TO DEMO BACK TO (E) JUNCTION BOXES WILL BE USED AS CONNECTION POINTS FOR NEW POWER, LIGHTS AND DATA.



KEY MAP
NTS



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526

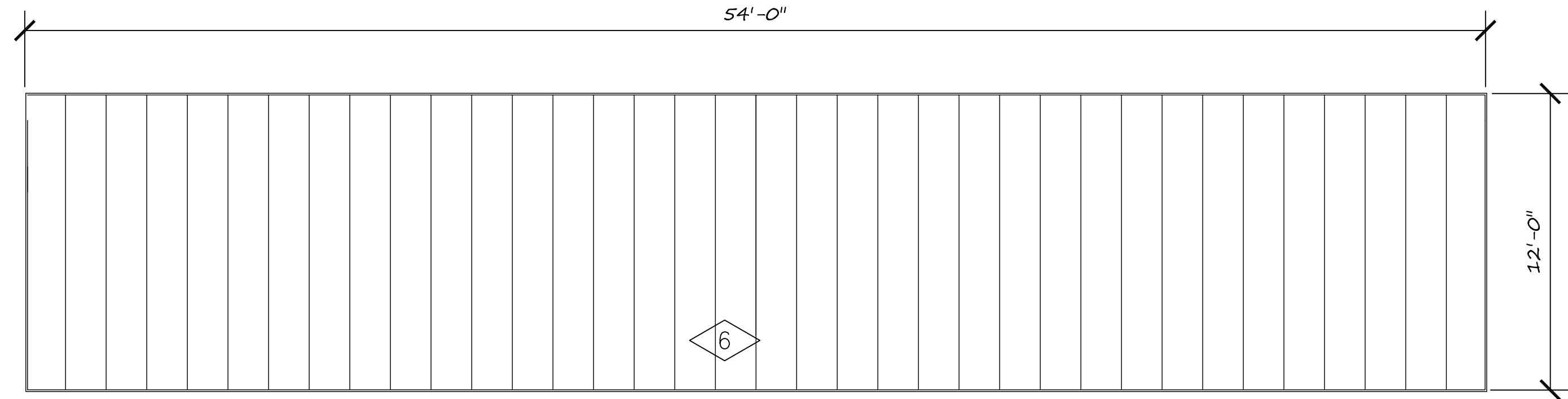


No.	Revision	Date

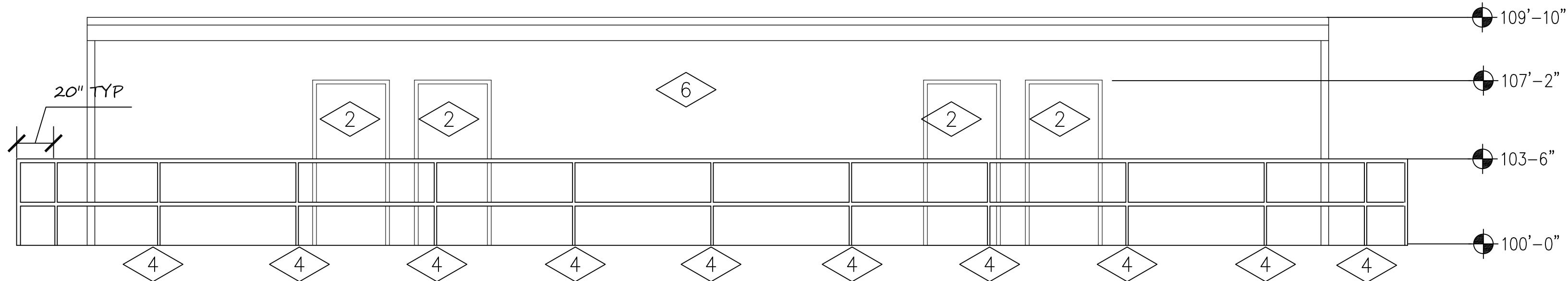
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DEMO

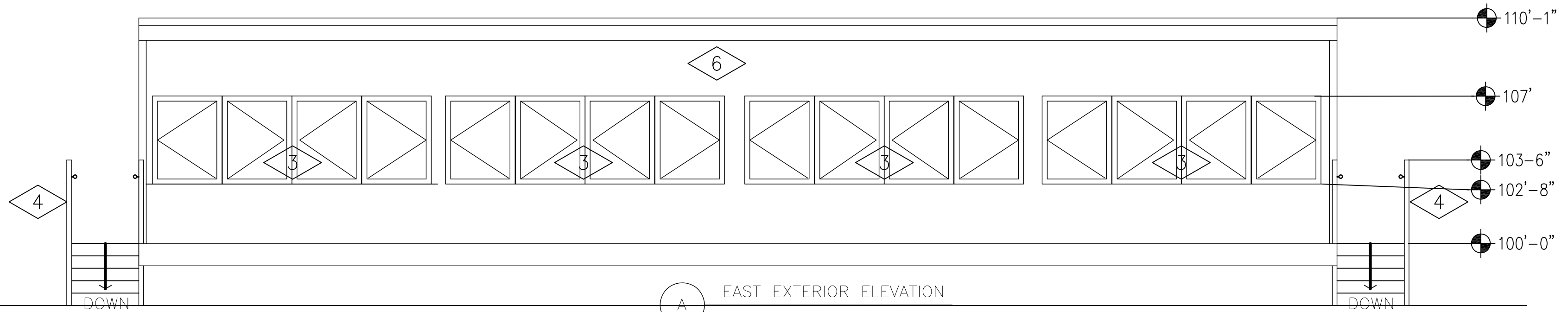
Project PRESS BOOTH	
CONSTRUCTION SET	
Date 08/03/2020	Sheet AD101
Scale 1/4"=1'-0"	



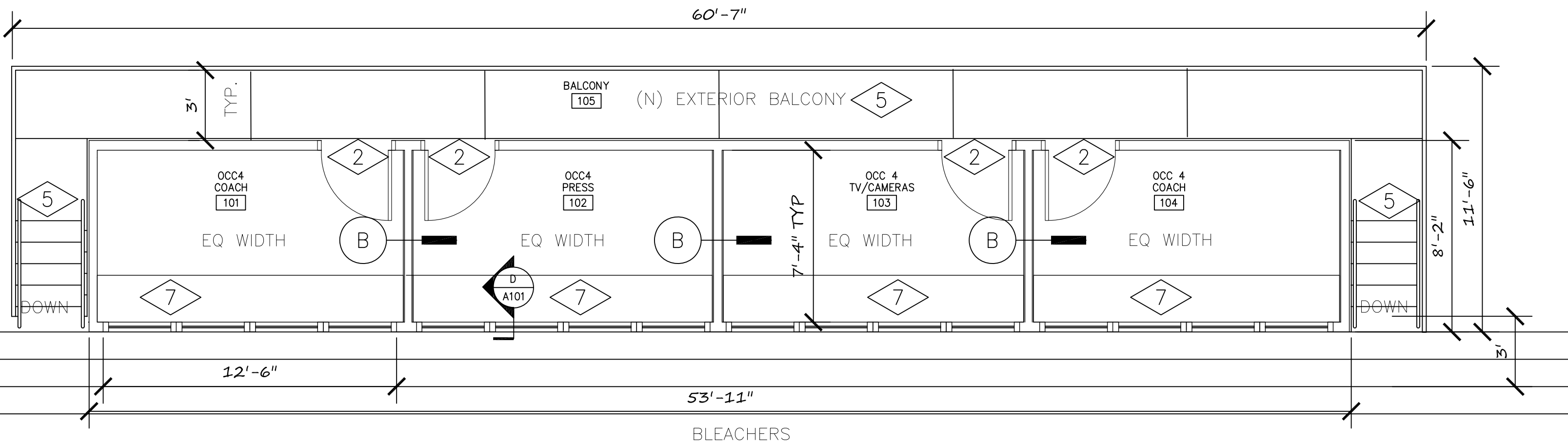
ROOF PLAN
SCALE IN FEET
0 4 8 16



WEST EXTERIOR ELEVATION
SCALE 1/4" = 1'-0"



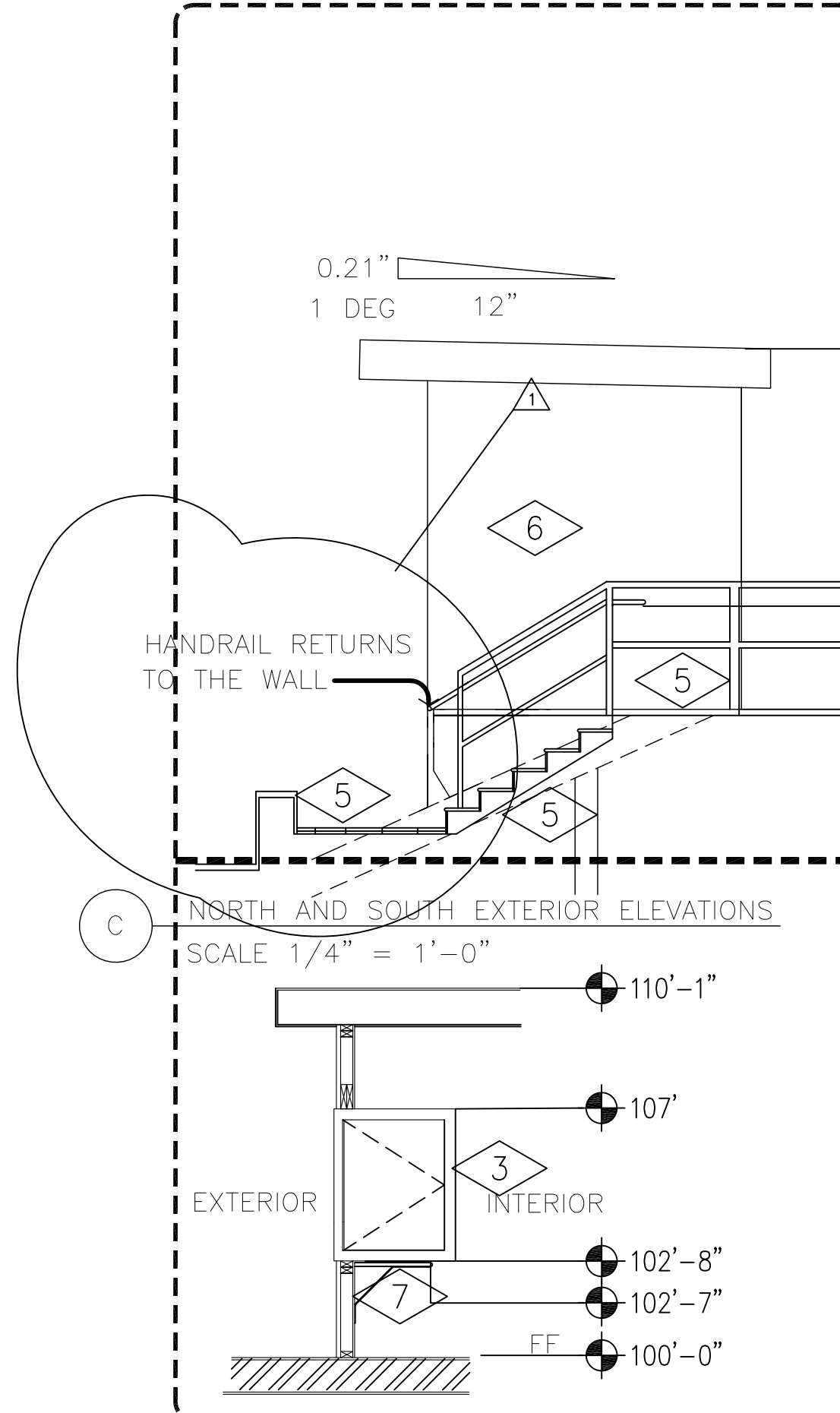
EAST EXTERIOR ELEVATION
SCALE 1/4" = 1'-0"



FLOOR PLAN
SCALE IN FEET
0 4 8 16

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, EQUALLY SPACED, PRIME AND PAINT. COLOR SEE A301.



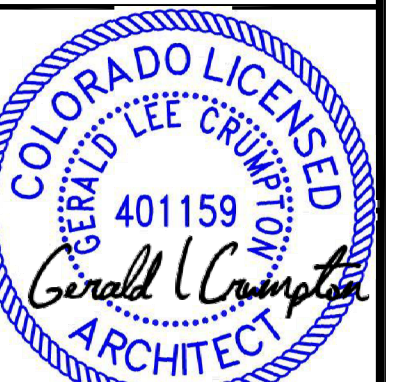
INSWING CASEMENT SECTION
SCALE 1/4" = 1'-0"

KEY NOTES:

- (N) WALLS ARE TYPE B, ROPPE STRAIGHT 4" COVE 643 MIMOSA
- (N) DOORS AND FRAMES HM/HARDWARE SEE A301
- IN-SWING CASEMENT WINDOWS, GLASS SIZE 32"WX42"H BOYD WINDOWS 2400 SERIES, CUSTOM GOLD FINISH OR APPROVED EQUAL 800.737.2800, USE DUPONT TYVEK BUILDING WRAP ON WALLS; STRAIGHT AND FLEX WRAP AROUND WINDOW AND DOOR OPENINGS. GRACE ICE AND WATER SHIELD OVER (E) ROOF
- (N) GUARD RAIL. POSTS ARE 6' MAX OC.U.N. SEE S SHEETS
- (N) EXTERIOR BALCONY/STAIRS. UPPER AND LOWER LANDING ARE 36" SQ. 6 RISERS @ 6.5", 5 TREADS @11" WITH 1" NOSE SEE A301 & S SHEETS
- METAL WALL AND ROOF SIDING. AMERICAN BUILDING COMPONENTS, SEMCO PBR-R ROOF AND WALL PANELS 26 GA BARN RED OR APPROVED EQ,
- (N) P-LAM COUNTER TOP, WILSONART D307 HOLLEYBERRY OR APPROVE EQUAL
- PATCH DEMO WALLOPENINGS TO MAKE SURE SHEATHING IS FLUSH BEFORE SIDING IS APPLIED.



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526



No.	Revision	Date
REV 1:	11/20/2020	

Sheet Title:

FLOOR
PLAN/ELEV

Project

PRESS BOOTH

CONSTRUCTION SET

Date

08/03/2020

Scale

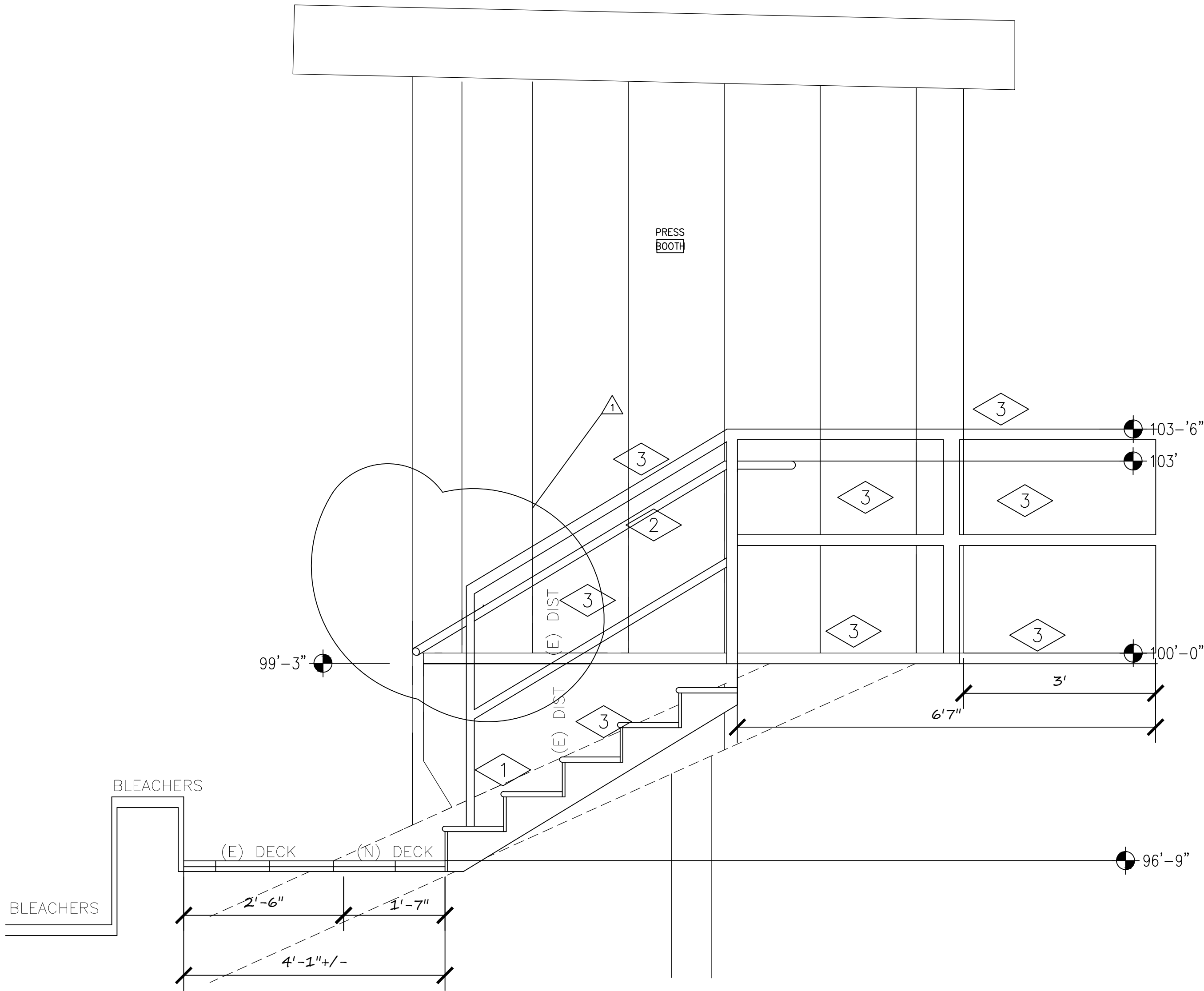
1/4"=1'-0"

Sheet

A102

KEY NOTES:

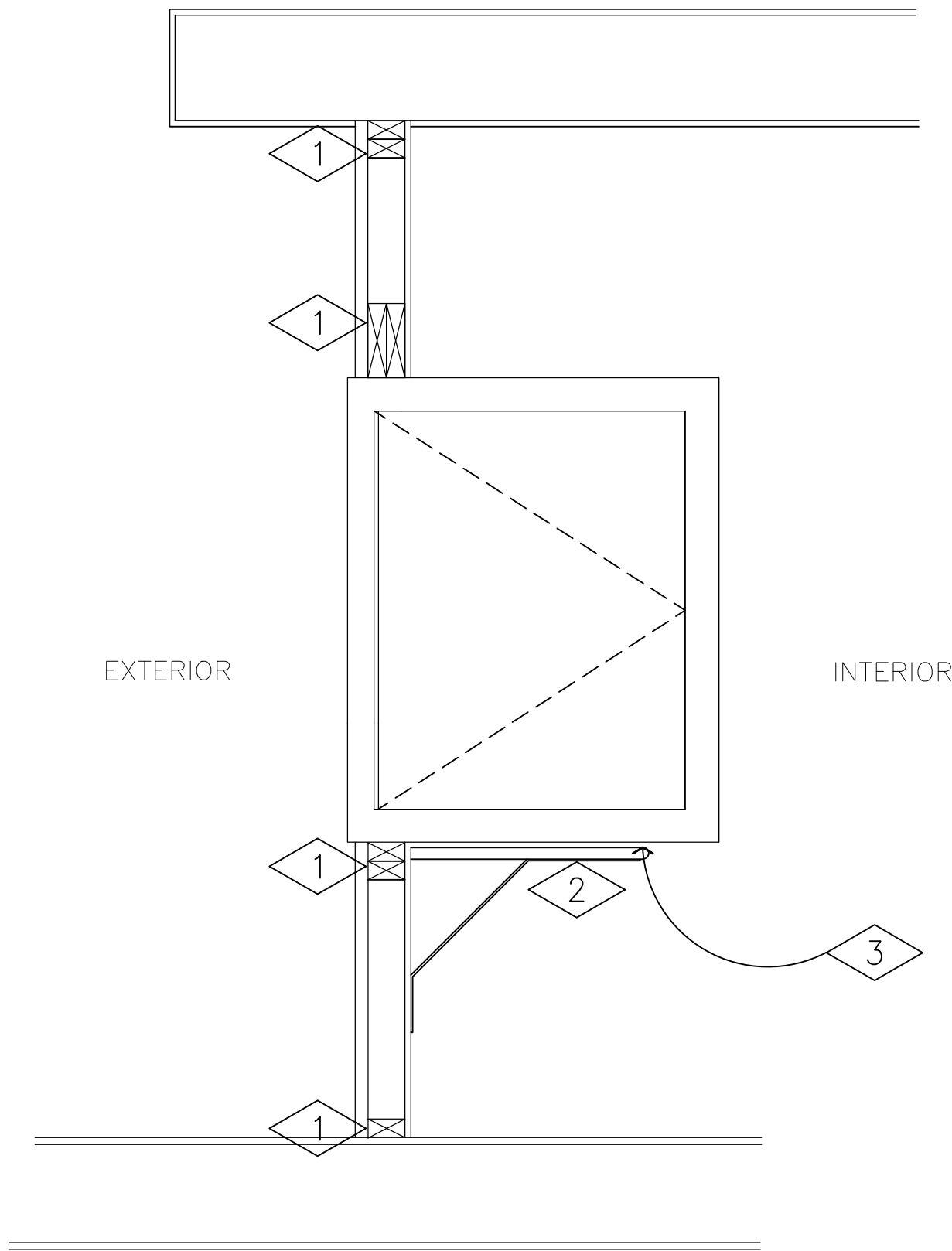
- 1
- (N) STAIRS: 11" RUN AND 6.5" RISE SEE S SHEETS
- 2
- (N) HANDRAIL 1.5" OD, HANDRAIL EXTENSIONS ARE PARALLEL 11" TOP OF STAIR, 11" BEYOND THE LAST TREAD SLOPE MATCHES HANDRAIL. SEE S SHEETS
- 3
- 42" 9 GA 2" GALVANIZED FENCE FABRIC TO BE ATTACHED TO THE OUTSIDE OF THE MEZZANINE RAILINGS INCLUDING THE 42" STAIR GUARD. TYP ALL THREE SIDES.



D ENLARGED STAIR SECTION
SCALE 3/4" = 1'-0"

KEY NOTES:

- 1
- MAINTAIN (E) WOOD FRAME 2X8 HEADER AND 2X4 PLATES/MODIFY AS NEEDED FOR NEW WINDOWS
- 2
- PROVIDE P-LAM 25" COUNTER TOP, POST FORMED, NO BACK-SPLASH CUT TO FIT WALL TO WALL. CAULK WHERE CABINET INTERSECTS GYP BOARD. PROVIDE METAL "L" SHAPED SUPPORT BRACKETS 4' OC STARTING IN THE MIDDLE OF THE COUNTER TOP.
- 3
- FOLLOW WINDOW MANUFACTURERS INSTALLATION INSTRUCTIONS. CARE SHOULD BE TAKEN THAT THE TOP OF THE COUNTER IS LOWER THAN THE IN-SWINGING CASEMENT WINDOWS.



E CASEMENT ENLARGED SECTION
SCALE 3/4" = 1'-0"

ROOM FINISH SCHEDULE

ROOM NO.	NAME	FLOOR	BASE	WALLS	NORTH	EAST	SOUTH	WEST	CEILING	REMARKS
101	OFFICE	CPT-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-1	(E) GYP	DIMOND VOGEL D51637
102	OFFICE	CPT-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-1	(E) GYP	DIMOND VOGEL D51637
103	OFFICE	CPT-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-1	(E) GYP	DIMOND VOGEL D51637
104	OFFICE	CPT-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-1	(E) GYP	DIMOND VOGEL D51637
105	BALCONY	STEEL	-	PT2	PT2	PT2	PT2	-	-	PINACLE/FINUM DTM-AT ACRYLIC

COLOR/MATERIAL SCHEDULE

ABBREV.	FINISH	MATERIAL	DESCRIPTION	REMARKS
CPT-1	MANNINGTON SQUARES	MANNINGTON BENCHMARK III SPRITE 4304 24X24 SQ CARPET TILES		
RB-1	RESILIENT BASE	ROPPE STRAIGHT BASE 4" PINNACLE 661		USE COVE BASE IN ALL OFFICE AREAS
PT-1	DIAMOND VOGEL	ASSURE 1055 EGGSHELL WHITE		GYP BD. WALLS AND CEILINGS
PT-2	DIAMOND VOGEL	PINNACLE FINIUM DTM AT ACRYLIC TWO COATS		BALCONY ALL STEEL SURFACES

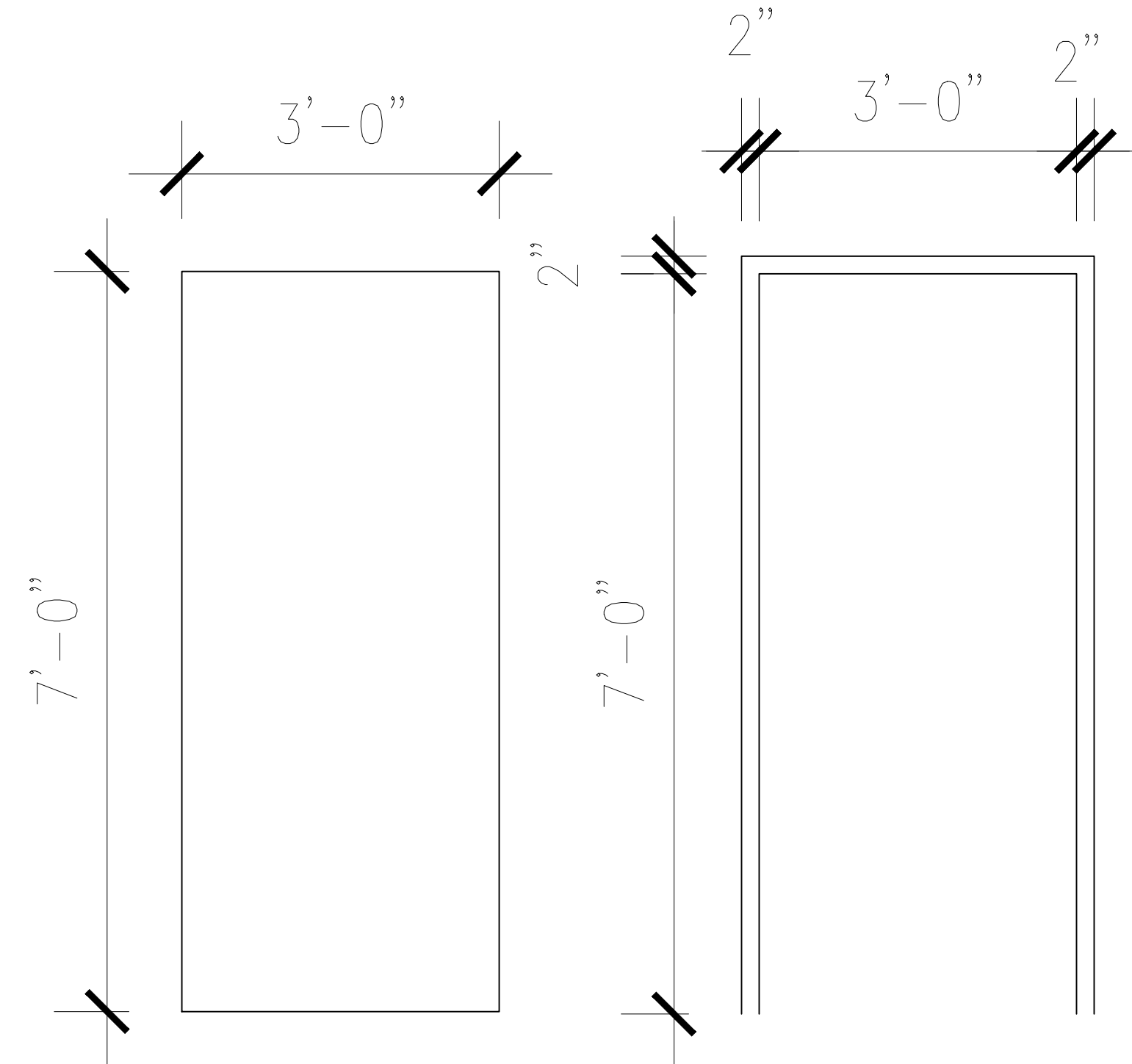
DOOR SCHEDULE

OPENING			DOOR						FIRE LABEL		HDWR. GROUP	GLAZ. TYPE	REMARKS		
NO.	QTY	W	TYPE	MAT'L	FINISH	TYPE	MAT'L	FINISH	NR	FM	PAINT	NR		FM	PAINT
101	1	3'-0" x 7'-0" x 1'-3/4"	HM	SCWD	PAINT	NR	HM	PAINT	NR	NR	NR	NR	NR	NR	PREFINISH DR/FRAME*
102	1	3'-0" x 7'-0" x 1'-3/4"	HM	SCWD	PAINT	NR	HM	PAINT	NR	NR	NR	NR	NR	NR	PREFINISH DR/FRAME*
103	1	3'-0" x 7'-0" x 1'-3/4"	HM	SCWD	PAINT	NR	HM	PAINT	NR	NR	NR	NR	NR	NR	PREFINISH DR/FRAME*
104	1	3'-0" x 7'-0" x 1'-3/4"	HM	SCWD	PAINT	NR	HM	PAINT	NR	NR	NR	NR	NR	NR	PREFINISH DR/FRAME*
FRAMES/DOORS MATCH GOLD IN LOGO*															

HARDWARE SCHEDULE

ALL DOORS

IVES 3 HINGES 58B1HW 4.5" 630NRP
SCHLAGE LOCKSET 1001 JD RHD 626
SCHLAGE EVEREST CYLINDER 23-030 626
LON CLOSER 4011 AL
IVES STOP/HOLDER WS40
PEMKO SWEEP 345ANB 36"
PEMKO WEATHER STRIPING 45041 NAB 1 @ 36" 2 @ 84"
PEMKO THRESHOLD 171A 36"
PEMKO RAIN DRIP 346C
PEMKO STOP STRIP 184 AV



NR FLUSH HM DR/FRAME 14 GA



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526



No.	Revision	Date
REV 1:	11/20/2020	

Sheet Title:
SECTIONS
DETAILS

Project PRESS BOOTH	
CONSTRUCTION SET	
Date 08/03/2020	Sheet A301
Scale 3/4"=1'-0"	

STRUCTURAL GENERAL NOTES

BUILDING CODE:

International Building Code, IBC 2015
American Society of Civil Engineers, ASCE 7-10

DESIGN CRITERIA:

Design live loads:

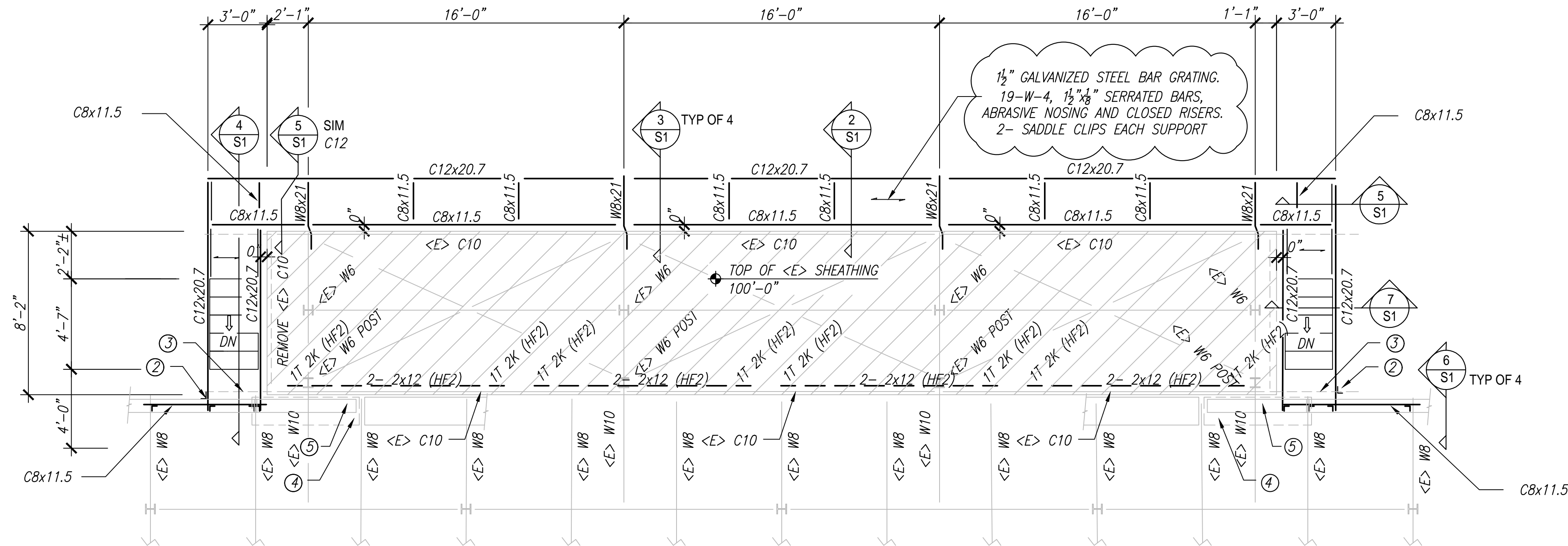
Snow: Ground snow load, Pg: 30 psf
Uniform design load: 30 psf
Wind: Basic Wind Speed, Risk Category II, Vult (3sg): 140 mph
Exposure: B
Live: Stair and walkway: 100 psf

FIELD VERIFICATION OF EXISTING CONDITIONS:

The Contractor shall thoroughly inspect and survey existing structure to verify conditions that affect the work shown on the drawings. The Contractor shall report any variations or discrepancies to the Engineer before proceeding.

STRUCTURAL STEEL:

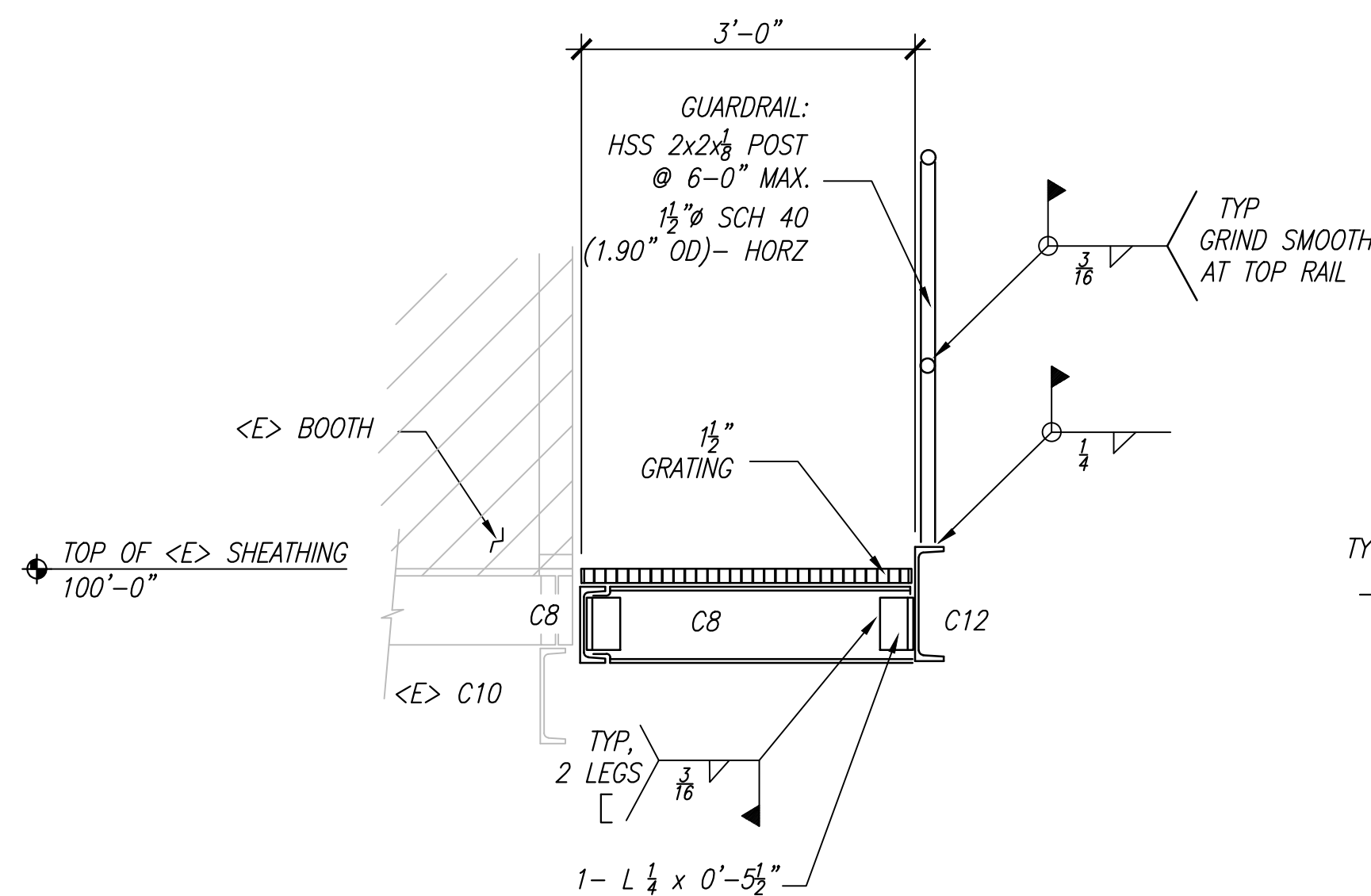
1. Structural steel shall be detailed, fabricated, and erected in accordance with the American Institute of Steel Construction (AISC) Specifications, 13th Edition, and Code of Standard Practice.
2. Wide flange beams and columns shall conform to ASTM A992, 50 ksi yield. Structural steel rolled shapes, including plates and angles shall conform to ASTM A36. Tube shapes shall conform to ASTM A500, Grade B, 46 ksi yield. Pipe shapes shall conform to ASTM A53 Grade B.
3. Except as noted, framed beam connections shall be bearing-type with A325-N bolts, detailed in conformance with Part 10, of the AISC Manual. Install bolts in accordance with AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts". Bolts may be installed to "snug tight" condition.
4. Welding shall be done by certified welders according to the latest edition of AWS D1.1 specifications and recommendations using E70 electrodes.
5. Shop drawings shall be submitted for approval.
6. The Owner shall employ inspectors during construction to provide inspections of field welding. These inspectors shall be qualified according to IBC, Chapter 17, section 1704.



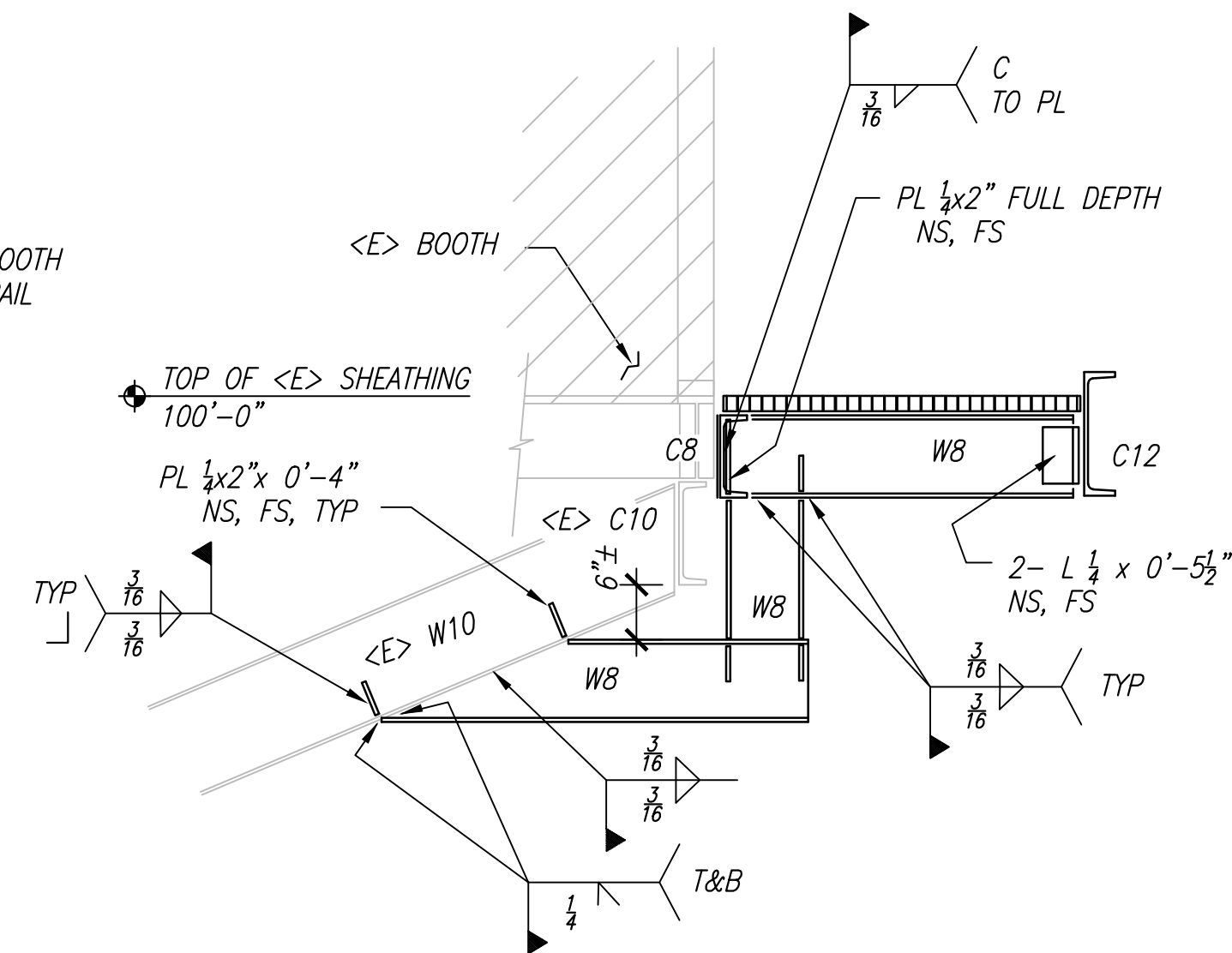
1 FRAMING PLAN
SCALE: 1/4" = 1'-0"

SHEET NOTES:

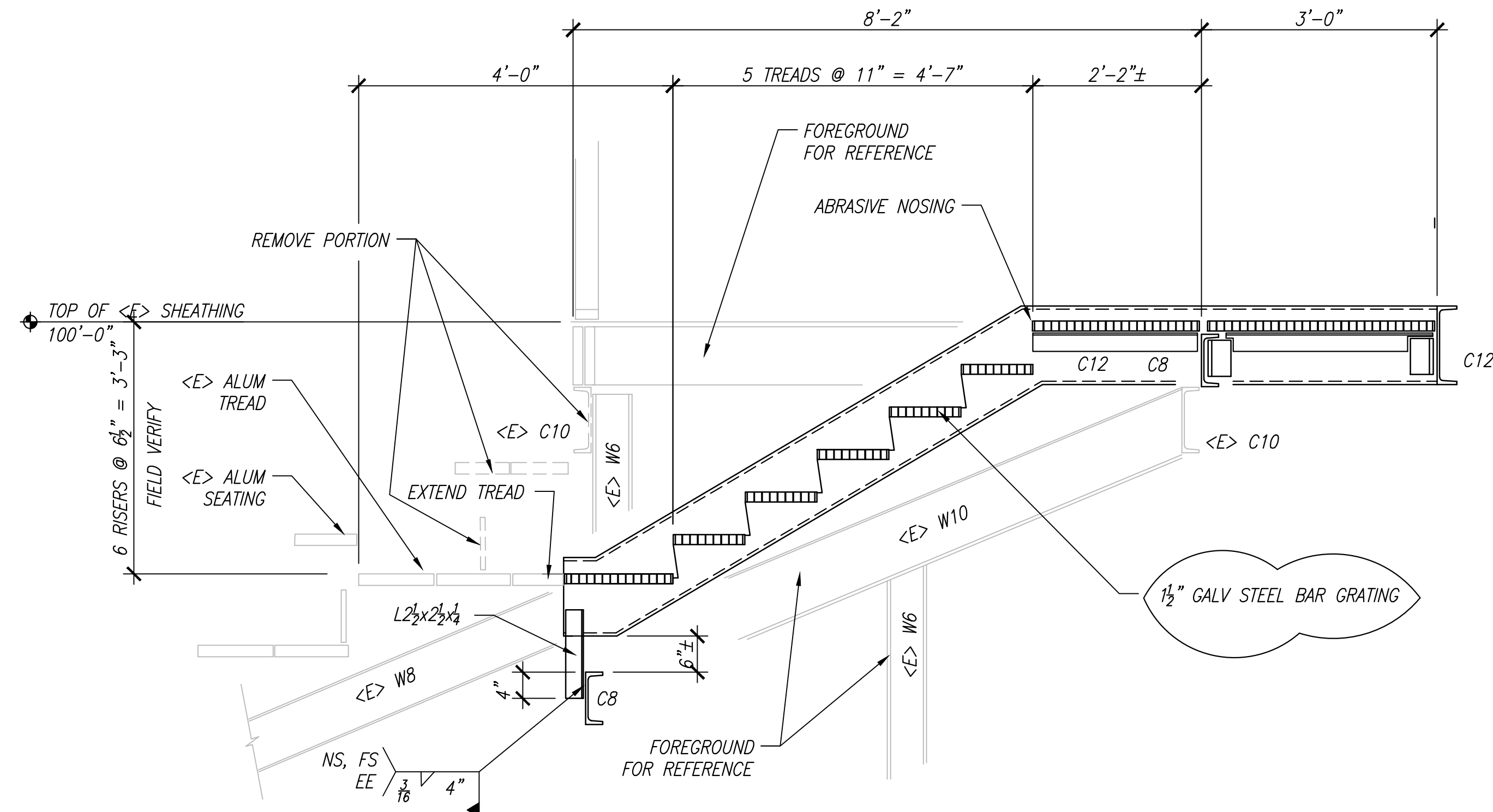
1. REFER TO SHEET AD101 FOR DEMO
2. REMOVE CHAINLINK GUARDRAIL POST, REPLACE AND ATTACH TO C12 STRINGER. PATCH CHAINLINK
3. REMOVE PORTION OF <E> C10
4. REMOVE PORTION OF ALUM SEATING AND KICKPLATE
5. EXTEND 8" SECTION OF ALUM TREAD
6. TYPICAL WOOD FRAME OPENING (UNO): 2- 2x8 HEADER, 1T,1K SUPPORT, ALL HF2



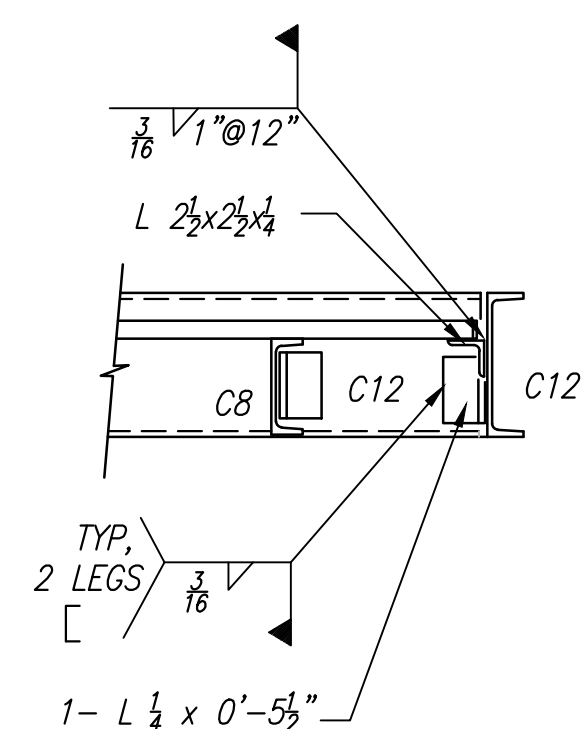
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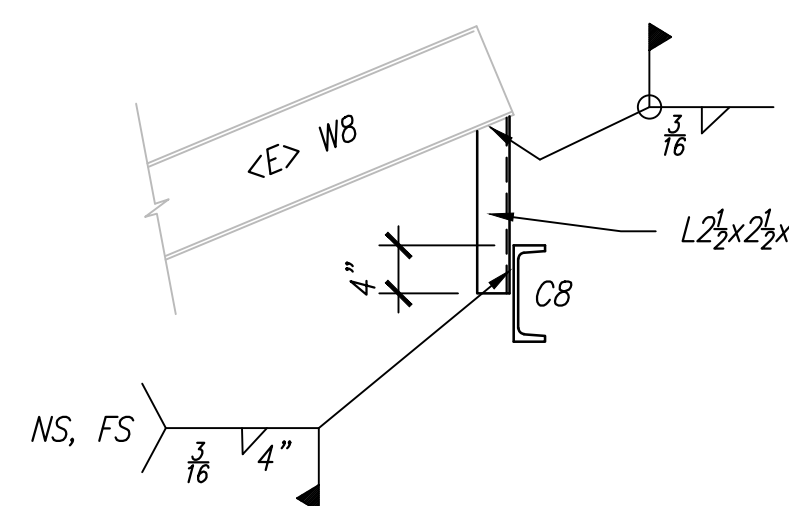
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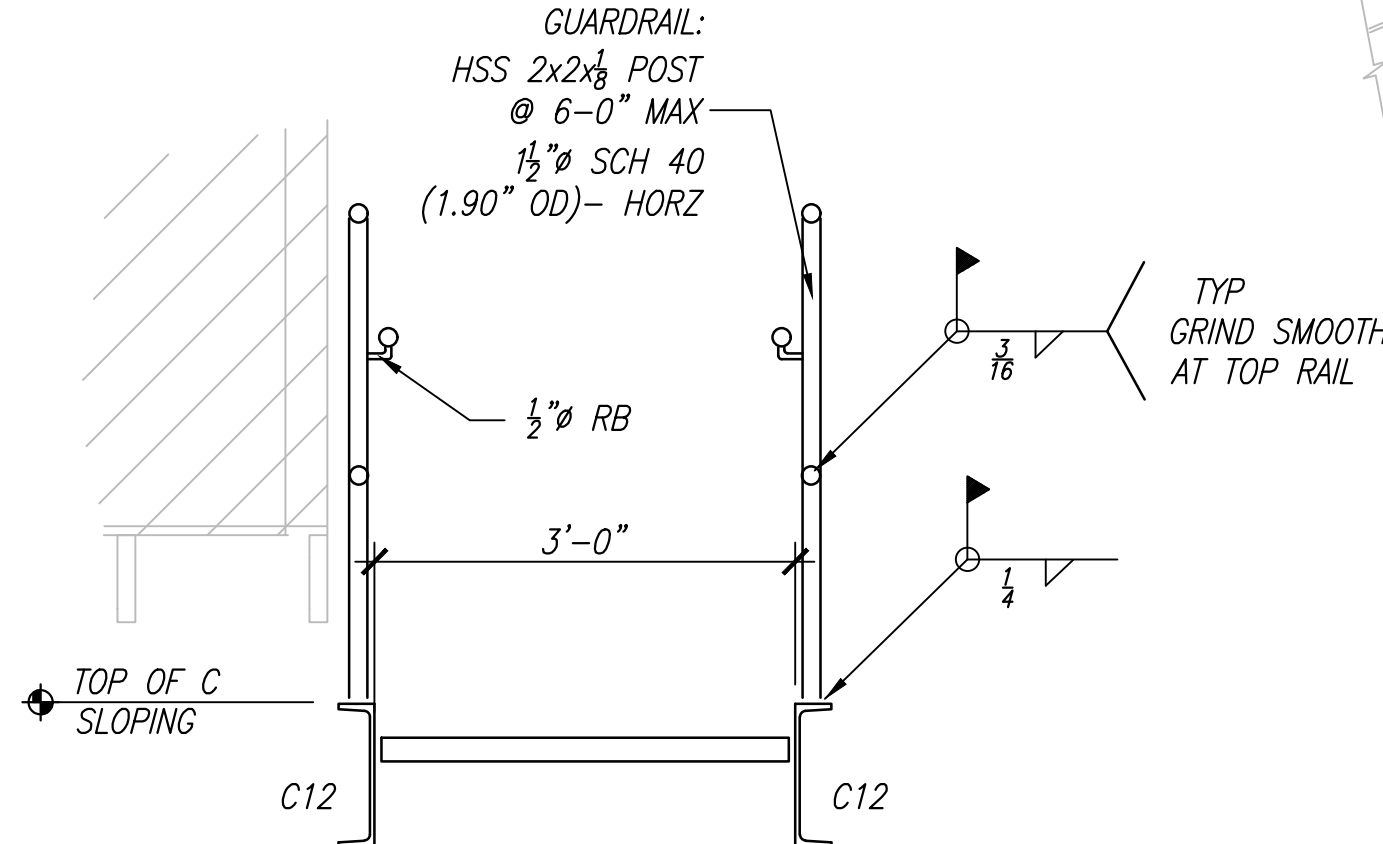
4 SECTION
SCALE: 3/4" = 1'-0"



5 SECTION
SCALE: 3/4" = 1'-0"



6 SECTION
SCALE: 3/4" = 1'-0"



7 SECTION
SCALE: 3/4" = 1'-0"



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW ROAD
FORT COLLINS, CO 80526



No.	Revision	Date

Sheet Title:
STRUCTURAL

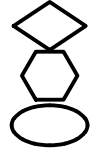









































































































Project FRENCH PRESS BOOTH	Sheet S101
REVISION 1	
Date 11/20/2020	
Scale 1/4" = 1'-0"	

GENERAL CONSTRUCTION NOTES	
1. ALL PHASES OF THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE OWNER. WORK SHALL BE DONE IN A FASHION TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO THE OWNER.	19. 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.
2. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO REVIEW ALL DRAWINGS FOR WORK UNDER THIS CONTRACT. ROOF PLANS AND REFLECTED CEILING PLANS DESCRIBE ELECTRICAL WORK. NO EXTRAS WILL BE ALLOWED FOR WORK SHOWN ON MECHANICAL AND ARCHITECTURAL DRAWINGS.	20. LIGHT FIXTURES AND DEVICES RECESSED 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.
3. THE ELECTRICAL CONTRACTOR SHALL BE ON SITE DURING ALL ELECTRICAL INSPECTIONS. NO ADDITIONAL FEES OR OVERTIME WILL BE PAID FOR AFTER HOURS INSPECTIONS.	21. 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.
4. 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 EMT OR GRC.	22. 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.
5. 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.	23. 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.
6. NM (ROMEX CABLE) OR AC CONDUIT WILL NOT BE ALLOWED ON THIS PROJECT. ENT WILL NOT BE ALLOWED ON THIS PROJECT. FLEX CONDUIT OR FIXTURE WHIPS, LONGER THAN SIX FEET, WILL NOT BE ALLOWED ON THIS PROJECT. WIRE SPLICES IN CONDUIT BODIES ARE NOT ALLOWED ON THIS PROJECT.	24. 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.
7. MC CABLE WILL BE ALLOWED ON THIS PROJECT, EXCEPT FOR THE FOLLOWING: A: IN EXPOSED AREAS. B: ALL FEEDERS AND MECHANICAL CIRCUITS (SHALL BE IN CONDUITS.) C: AS PROHIBITED BY N.E.C.	25. 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.
8. 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.	26. PHASE PROTECTION: ALL MOTORS USING 3 PHASE POWER AND ALL 3 PHASE AIR CONDITIONING UNITS SHALL HAVE PROTECTION FOR PHASE REVERSAL, LOSS OF PHASE OR PHASE UNBALANCE OF 10% VOLTAGE DROP OR GREATER ON ANY ONE PHASE. MANUFACTURED BY TIME MARK SERIES 2644.
9. 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.	27. 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 2011 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.
10. COORDINATE WITH MECHANICAL CONTRACTOR LOCATION AND INSTALLATION OF ANY ELECTRICAL CONTROLS FOR MECHANICAL UNITS. PROVIDE UNSWITCHED 120 VOLT CIRCUIT AS REQUIRED.	28. 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.
11. ELECTRICAL CONTRACTOR SHALL VERIFY ELECTRICAL DEVICE LOCATIONS IN ALL CASEWORK WITH ARCHITECTURAL CASEWORK DETAILS PRIOR TO ANY ROUGH-IN.	29. 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 N.E.C.
12. THE CONTRACTOR SHALL COORDINATE ALL ELECTRICAL DEVICE LOCATIONS WITH THE ARCHITECTURAL PLANS, ELEVATIONS, AND DIAGRAMS.	30. 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.
13. 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.	31. 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.
14. FEED THROUGH GFCI PROTECTION OF RECEPTACLES IS ACCEPTABLE ONLY WHERE RECEPTACLES ARE IN SAME ROOM AND DRAWINGS DO NOT INDICATE OTHERWISE.	32. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHT FIXTURES.
15. PROVIDE BLANK COVER PLATES AND INSTALL THEM ON ALL UNUSED ROUGH-INS.	
16. INSTALL 6" PITGAIL AT ALL RECEPTACLES FOR FINAL CONNECTIONS.	
17. 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.	
18. THE 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.).	

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	MCS	MOLDED CASE SWITCH
AL	ALUMINUM	MECH	MECHANICAL
ANN	ANNUNCIATOR	MLO	MAIN LUG ONLY
ARCH	ARCHITECT	MTD	MOUNTED
BFG	BELOW FINISHED GRADE	N.F.	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	PHOTOCELL
CASA	COLOR AS SELECTED BY ARCHITECT	PH	PHASE
CATV	CABLE TELEVISION	PNL	PANEL
CB	CIRCUIT BREAKER	PT	POTENTIAL TRANSFORMER
CKT	CIRCUIT	PWR	POWER
CLG	CEILING	RECEPT, RCPT, REC	RECEPTACLE
CT	CURRENT TRANSFORMER	RL	RELOCATE
CU	COPPER	RT	RAIN TIGHT, NEMA 3R
DISC	DISCONNECT	SCA	SHORT CIRCUIT AVAILABLE
DN	DOWN	SPC	SPACE
DPDT	DOUBLE POLE DOUBLE THROW	SPD	SURGE PROTECTION DEVICE
DPST	DOUBLE POLE SINGLE THROW	SPDT	SINGLE POLE DOUBLE THROW
EB	ELECTRONIC BALLAST	SPST	SINGLE POLE SINGLE THROW
EC	ELECTRICAL CONTRACTOR	SPR	SPARE
ELEC	ELECTRICAL	SW	SWITCH
EM	EMERGENCY	T-STAT	THERMOSTAT
EMT	ELECTRICAL METALLIC TUBING	TBD	TO BE DETERMINED
EWC	ELECTRICAL WATER COOLER	TC	TIME CLOCK
EXIST,EX	EXISTING	TTB	TELEPHONE TERMINAL BACKBOARD
F.	FUSED	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
FLR	FLOOR	TYP	TYPICAL
FLUOR	FLUORESCENT	U.O.N.	UNLESS OTHERWISE NOTED
GC	GENERAL CONTRACTOR	UC	UNDER COUNTER
GFI	GROUND FAULT INTERRUPTER	V	VOLTS
GRC	GALVANIZED RIGID CONDUIT	VA	VOLT-AMPERES
GRD	GROUND	VAC	VOLTS-ALTERNATING CURRENT
HOA	HAND-OFF-AUTO	VFD	VARIABLE FREQUENCY DRIVE
HT	HEAT TRACE	VS	VACANCY SENSOR
IG	ISOLATED GROUND	W	WATTS
J-BOX	JUNCTION BOX	W/	WITH
LED	LIGHT EMITTING DIODE	W/O	WITHOUT
LOC	LOCATION	WG	WIRE GUARD
LTG	LIGHTING	WP	WEATHERPROOF
LTF	LIQUID TIGHT FLEXIBLE CONDUIT	XFMR	TRANSFORMER
LTS	LIGHTS		

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
E100	ELECTRICAL SITE PLAN
E200	LIGHTING PLANS
E300	POWER PLANS
E500	ELECTRICAL ONE-LINE
E600	ELECTRICAL SPECIFICATION

ELECTRICAL LEGEND	
	FLAG NOTE
	MECHANICAL EQUIPMENT SYMBOL
	SPECIAL EQUIPMENT SYMBOL
	INDICATES AIMING DIRECTION
	INDICATES EXISTING DEVICE TO BE REMOVED
	EXISTING CIRCUIT RUN TO REMAIN
	EXISTING CIRCUIT RUN TO BE REMOVED
	CIRCUIT RUN: EXPOSED
	CIRCUIT RUN: UNDERFLOOR
	CIRCUIT RUN: UNDERGROUND
	CIRCUIT RUN: WALLS OR CEILING
	CIRCUIT TURNS UP
	CIRCUIT TURNS DOWN
	GROUND BUS
	SURFACE RACEWAY
	PLUG STRIP AS NOTED
	LOW VOLTAGE CIRCUIT
	MOISTURE OR EXPLOSION PROOF SEAL
	HOME RUN
	A - PANEL DESIGNATION
	1,3,5 - CIRCUIT NUMBER, 6 CONDUCTORS U.O.N.
	TRANSFORMER
	MAIN DISTRIBUTION PANEL
	SWITCH AND FUSE
	CIRCUIT BREAKER
	METER
	CT'S
	PT'S
	GROUND
	ELECTRICAL PANEL
	TELEPHONE TERMINAL BOARD
	SURGE PROTECTION DEVICE
	CONTACT - NORMALLY CLOSED (NC)
	CONTACT - NORMALLY OPEN (NO)
	LIGHTING OUTLET: CEILING RECESSED
	LIGHTING OUTLET: CEILING SURFACE
	LIGHTING OUTLET: WALL MOUNTED
	SPOT LIGHT
	PORCELAIN KEYLESS 26W SCREW-IN PL WITH GU24 BASE - pc (PULL CHAIN)
	FLUORESCENT/LED FIXTURE: SURFACE
	FLUORESCENT/LED FIXTURE: RECESSED IN DRYWALL
	FLUORESCENT/LED FIXTURE: RECESSED IN GRID
	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 LAMPS
	LIGHTING CONTROL STATION
	OCCUPANCY SENSOR (AUTO ON)
	VACANCY SENSOR (MANUAL ON)
	VACANCY SENSOR (D-DIMMABLE)
	PHOTO CELL - ELECTRIC
	POWER PACK - ELECTRIC
	ROOM CONTROLLER
	CONTACT
	RELAY
	NOTE: ALL SWITCHES SHALL BE MOUNTED AT 48" AFF TO TOP OF BOX (U.O.N.)
	SINGLE POLE SWITCH, 20 AMP U.O.N.
	DOUBLE POLE SWITCH, 20 AMP U.O.N.
	3 - WAY SWITCH, 20 AMP U.O.N.
	3 - THREE WAY, a - SWITCHING
	4 - WAY SWITCH, 20 AMP U.O.N.
	KEYED SWITCH, 20 AMP U.O.N.
	PILOT SWITCH, 20 AMP U.O.N. SWITCH ON, LIGHT ON
	SWITCH WITH THERMAL OVERLOAD, 20 AMP U.O.N.
	DIGITAL TIMER SWITCH, 20 AMP U.O.N.
	SWITCH VARIABLE SPEED
	SWITCH LOW VOLTAGE
	DIMMER SWITCH AS NOTED, 20 AMP U.O.N.
	COMBINATION SWITCH/RECEPTACLE
	SINGLE RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	DUPLEX RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	DUPLEX RECEPTACLE, INDIVIDUAL GROUND FAULT RECEPTACLE
	DOUBLE DUPLEX RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	DUPLEX RECEPTACLE, SPLIT WIRED
	DUPLEX RECEPTACLE, CEILING MOUNTED
	DOUBLE DUPLEX RECEPTACLE, CEILING MOUNTED
	SPECIAL PURPOSE OUTLET AS NOTED, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	COMBINATION CCTV/CATV WITH DUPLEX RECEPTACLE, + 72" AFF TO BOTTOM OF BOX (U.O.N.)
	TELEVISION OUTLET, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	COMBINATION CATV/DATA WITH 1"C, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	TELEPHONE OUTLET, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	W - WALL OUTLET, + 54" AFF (U.O.N.)
	P - PAYPHONE, + 40" AFF (U.O.N.)
	X DENOTES # OF JACKS
	DATA OUTLET, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	X DENOTES # OF JACKS
	DATA/VOICE OUTLET, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	FLUSH FLOOR TELEPHONE OUTLET
	S - SURFACE PEDESTAL
	POWER POLE
	PHASE MONITOR
	FLUSH FLOOR DUPLEX OUTLET
	S - SURFACE PEDESTAL
	MULTI-CELL FLOOR BOX
	J-BOX: CEILING
	J-BOX: WALL
	TIME CLOCK
	PUSH BUTTON STATION
	THERMOSTAT
	MOTOR OUTLET AND CONNECTION
	MAGNETIC STARTER OR CONTACTOR
	DISCONNECT SWITCH
	DISCONNECT SWITCH
	NF - NON-FUSED



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526

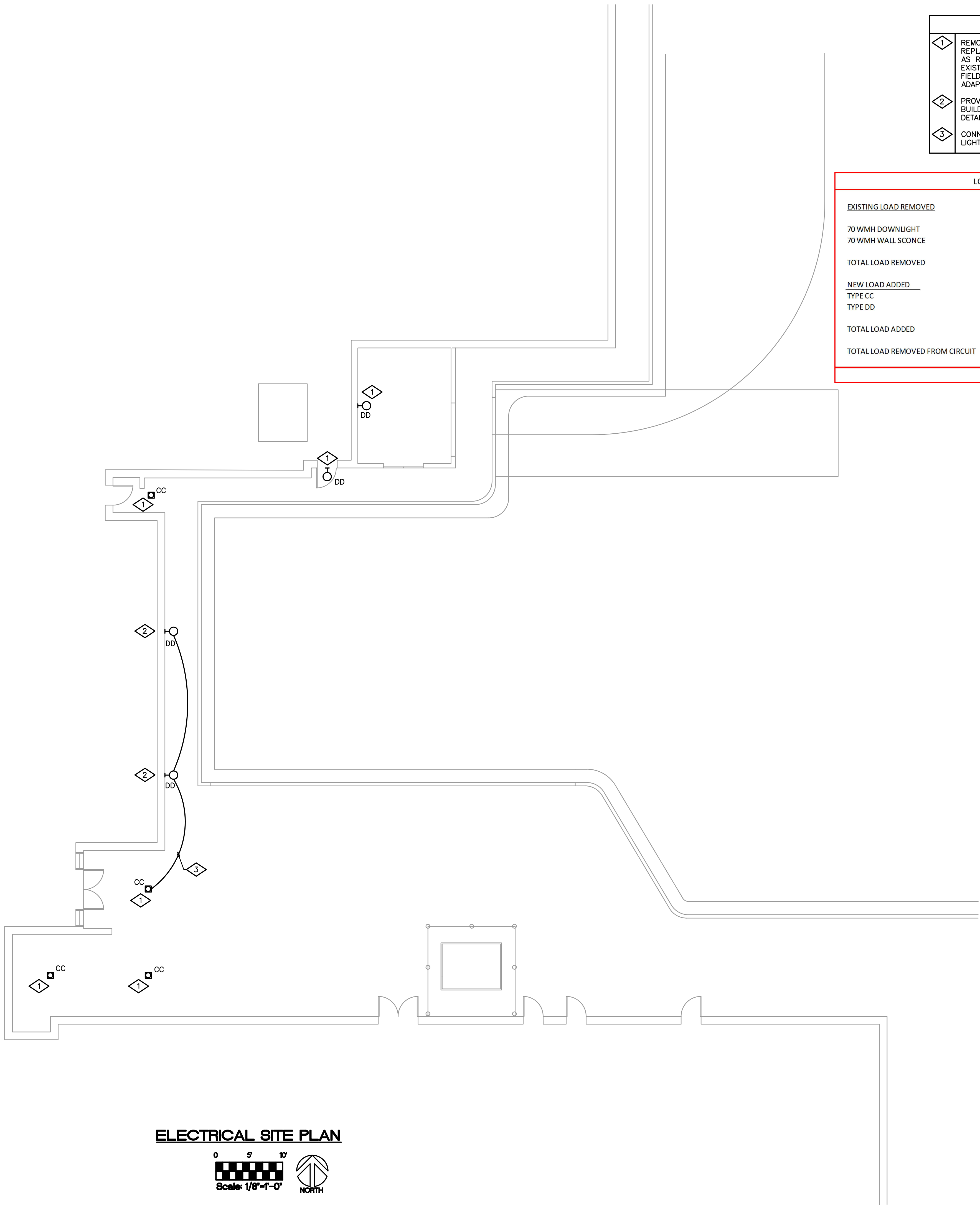


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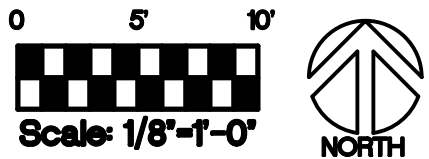
Sheet Title:
GENERAL
CONSTRUCTION
NOTES AND
LEGEND

Project PRESS BOOTH	
PERMIT SET	
Date 08/03/2020	Sheet E001
Scale REF. SHEET VIEWS	

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ELECTRICAL SITE PLAN



- FLAG NOTES - THIS SHEET ONLY
- 1 REMOVE EXISTING METAL HALIDE FIXTURE AND REPLACE WITH NEW LED FIXTURE. PAINT AND PATCH AS REQUIRED. COORDINATE WITH ARCHITECT. REUSE EXISTING CIRCUITING AND CONTROLS. EC SHALL FIELD VERIFY MOUNTING BACKBOX AND PROVIDE ADAPTOR AS REQUIRED.
 - 2 PROVIDE NEW LED FIXTURE SURFACE MOUNTED ON BUILDING FACE. COORDINATE WITH ARCHITECTURAL DETAILS AND ELEVATIONS.
 - 3 CONNECT NEW FIXTURES TO EXISTING BUILDING LIGHTING CIRCUITING AND CONTROLS.

LOAD SUMMARY				
EXISTING LOAD REMOVED				
	LOAD	QTY		TOTAL
70 WMH DOWNLIGHT	95 W	4	=	380.00 W
70 WMH WALL SCNCE	95 W	2	=	190.00 W
TOTAL LOAD REMOVED				= -570.00 W
NEW LOAD ADDED				
TYPE CC	27 W	4	=	108.00 W
TYPE DD	25 W	4	=	100.00 W
TOTAL LOAD ADDED				= 208 W
TOTAL LOAD REMOVED FROM CIRCUIT				= -362 W



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526



No.	Revision	Date

Sheet Title:
ELECTRICAL
SITE PLAN

Project
PRESS BOOTH
PERMIT SET

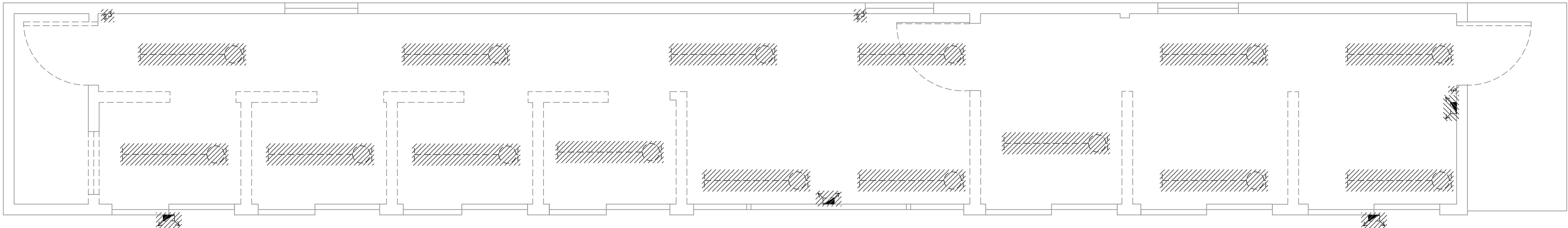
Date
08/03/2020

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RE: SHEET VIEWS

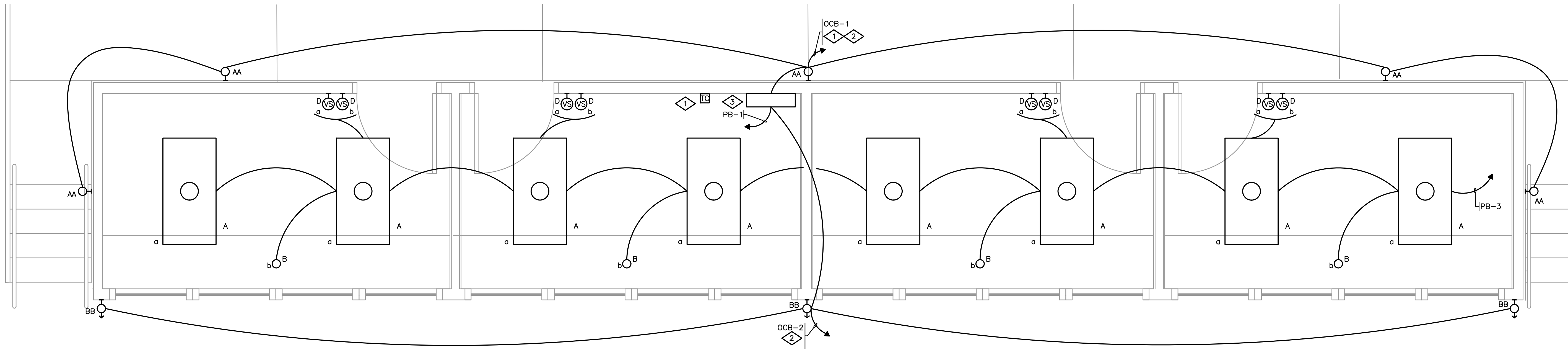
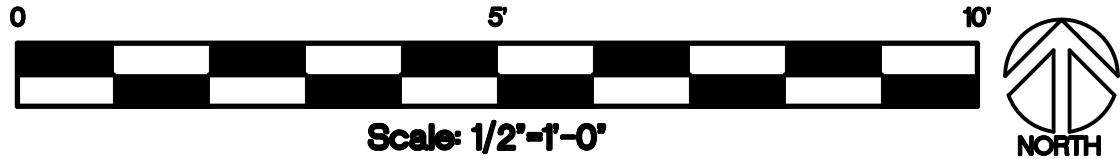
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E100

LIGHTING FIXTURE SCHEDULE								
TYPE	LAMPS	DESCRIPTION	FINISH	MOUNTING	MANUFACT.	CATALOG #	VOLT.	NOTES
A	41.4W LED 4591 LUMENS 3500K	SURFACE MOUNTED LED FLAT PANEL 2X4 WITH 0-10V DIMMING. PROVIDE WITH SURFACE MOUNTING KIT.	BWE	SURFACE	METALUX	24FP4735C-FPSURF24	120	
B	14.8W LED 1200 LUMENS 3500K	6" ROUND SURFACE MOUNTED LED DOWNLIGHT WITH WHITE TRIM AND FLAT LENS. 0-10V DIMMING DRIVER.	WHITE	SURFACE	HALO	SLD612-835-WH-UNV-JB	120	
AA	18W LED 1997 LUMENS 3000K	WALL MOUNTED LED DOWNLIGHT, WET LISTED FULL CUTOFF. DIE-CAST ALUMINUM BODY WITH IMPACT-RESISTANT TEMPERED GLASS LENS	CASA	WALL-COORD W/ ARCH.	LUMARK	XTOR2B-Y-CASA	UNV.	
BB	26W LED 2799 LUMENS 3000K	LED FLOOD LIGHT, KNUCKLE MOUNT WITH WIRE GUARD.	CASA	WALL-COORD W/ ARCH.	LUMARK	NFFLD-S-C70-D-UNV-33-KNC-CASA-7030-WGLW-NFFLD	UNV.	
CC	27W LED 3300 LUMENS 3000K	12" SQUARE RECESSED LED DOWNLIGHT WITH IMPACT RESISTANT TEMPERED GLASS LENS. EC SHALL FIELD VERIFY AVAILABLE VOLTAGE PRIOR TO ORDER.	WHITE	RECESSED	ATLANTIC LIGHTING	LRF12X12-SYL33-3K-2-WH-GS	277 EC SHALL VERIFY	
DD	25W LED 3036 LUMENS 3000K	WALL MOUNTED ARCHITECTURAL LED DOWNLIGHT. WET LISTED, FULL CUTOFF. DIE-CAST ALUMINUM BODY WITH IMPACT-RESISTANT TEMPERED GLASS LENS. TYPE 3 DISTRIBUTION WITH SPILL CONTROL.	CASA	WALL-COORD W/ ARCH.	INVUE	VWM-E01-LED-D1-SL3-CASA-7030	UNV.	
NOTES: 1.								

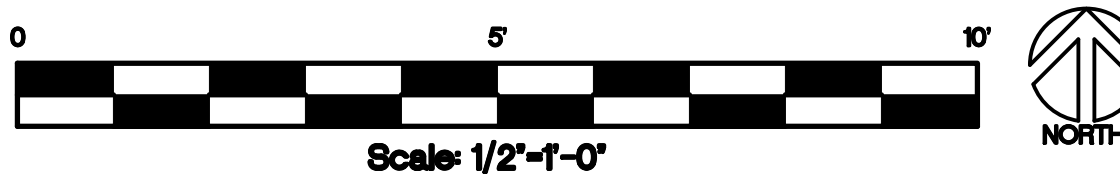
FLAG NOTES - THIS SHEET ONLY	
1	EXTERIOR LIGHTING CONTROL BY DIGITAL ASTRONOMICAL TIMECLOCK, TORK DWZ100B OR EQUAL. "ON" AT 15 MINUTES PRIOR TO DUSK, "OFF" 1 HR AFTER EVENT FINISHES, ONLY ON DAYS OF STADIUM OCCUPANCY. COORDINATE TIMER SETTINGS WITH OWNER.
2	ROUTE VIA OUTPUT CIRCUIT BREAKER IN LIGHTING INVERTER. REFER TO DETAIL, SHEET E-500 FOR FURTHER INFORMATION.
3	250 WATT LIGHTING INVERTER. REFER TO DETAIL, SHEET E500, FOR FURTHER INFORMATION.



DEMO LIGHTING PLAN



LIGHTING PLAN



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526

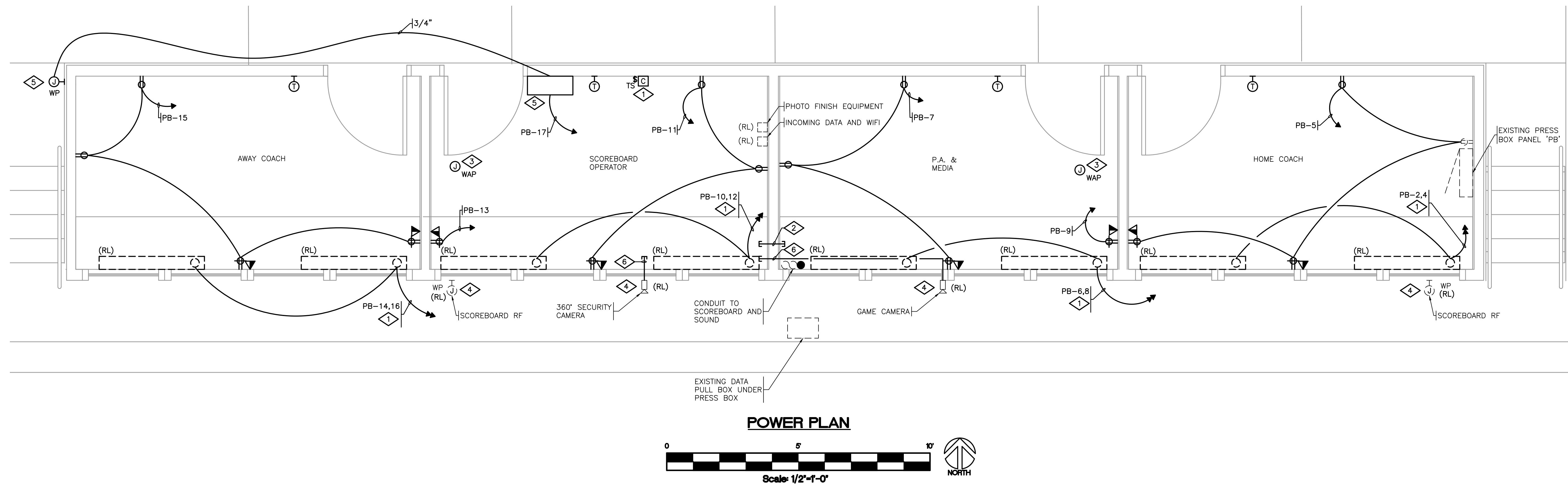
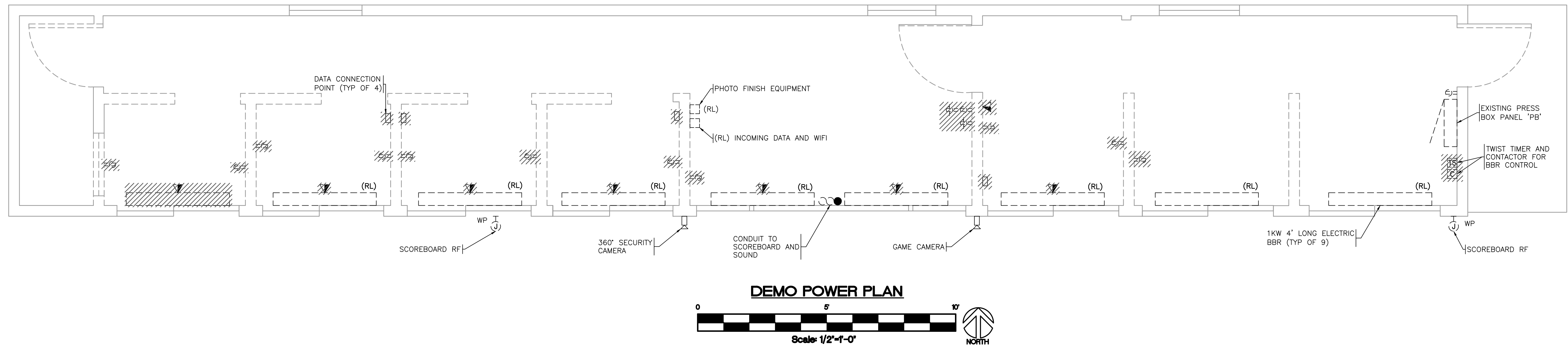


No.	Revision	Date

Sheet Title:
LIGHTING
PLANS

Project PRESS BOOTH PERMIT SET	
Date 08/03/2020	Sheet E200
Scale RE: SHEET VIEWS	

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FLAG NOTES - THIS SHEET ONLY	
1	ROUTE RELOCATED ELECTRIC BASEBOARD HEATERS VIA NEW ELECTRIC HEAT CONTACTOR AND TIMER SWITCH. REFER TO DETAIL, SHEET E500 FOR FURTHER INFORMATION.
2	4" C SLEEVE FOR EXISTING SCOREBOARD, SOUND, DATA, ETC.
3	PROVIDE JUNCTION BOX IN CEILING FOR WIRELESS ACCESS POINT FOR WIFI IN PRESS BOOTH.
4	RELOCATE EXTERIOR EQUIPMENT IN PLACE FOR NEW BUILDING FACE.
5	LIGHTING DETECTION SYSTEM. PROVIDE WP J-BOX AT ROOF FOR ANTENNA. COORDINATE EXACT LOCATION WITH SYSTEM INSTALLER. PROVIDE DEDICATED 120V CIRCUIT TO CONTROL PANEL LOCATED IN SCOREBOARD OPERATOR ROOM.
6	PROVIDE 3/4" C STUBBED INTO SCOREBOARD OPERATOR ROOM FOR CAMERA CABLING. COORDINATE WITH OWNER.



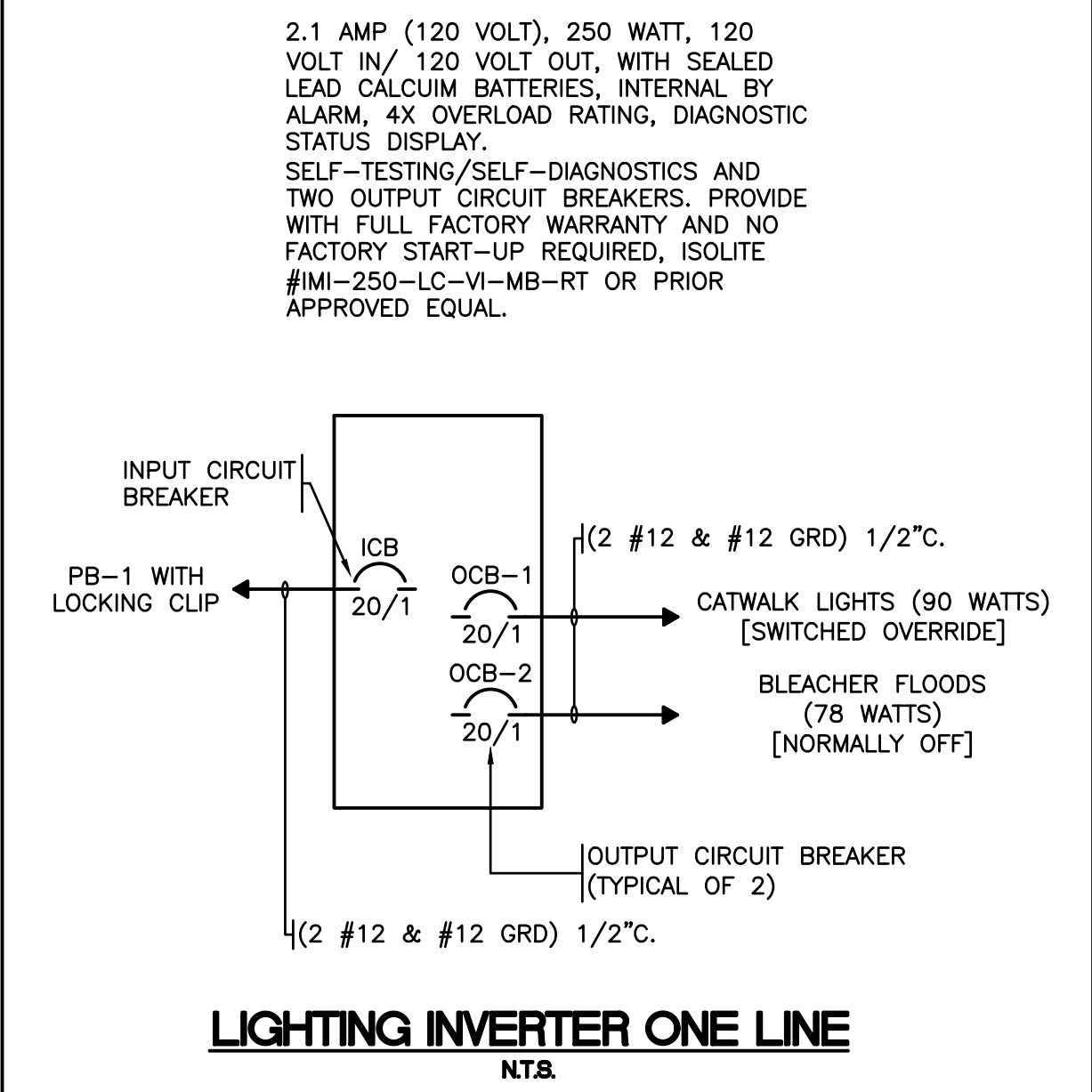
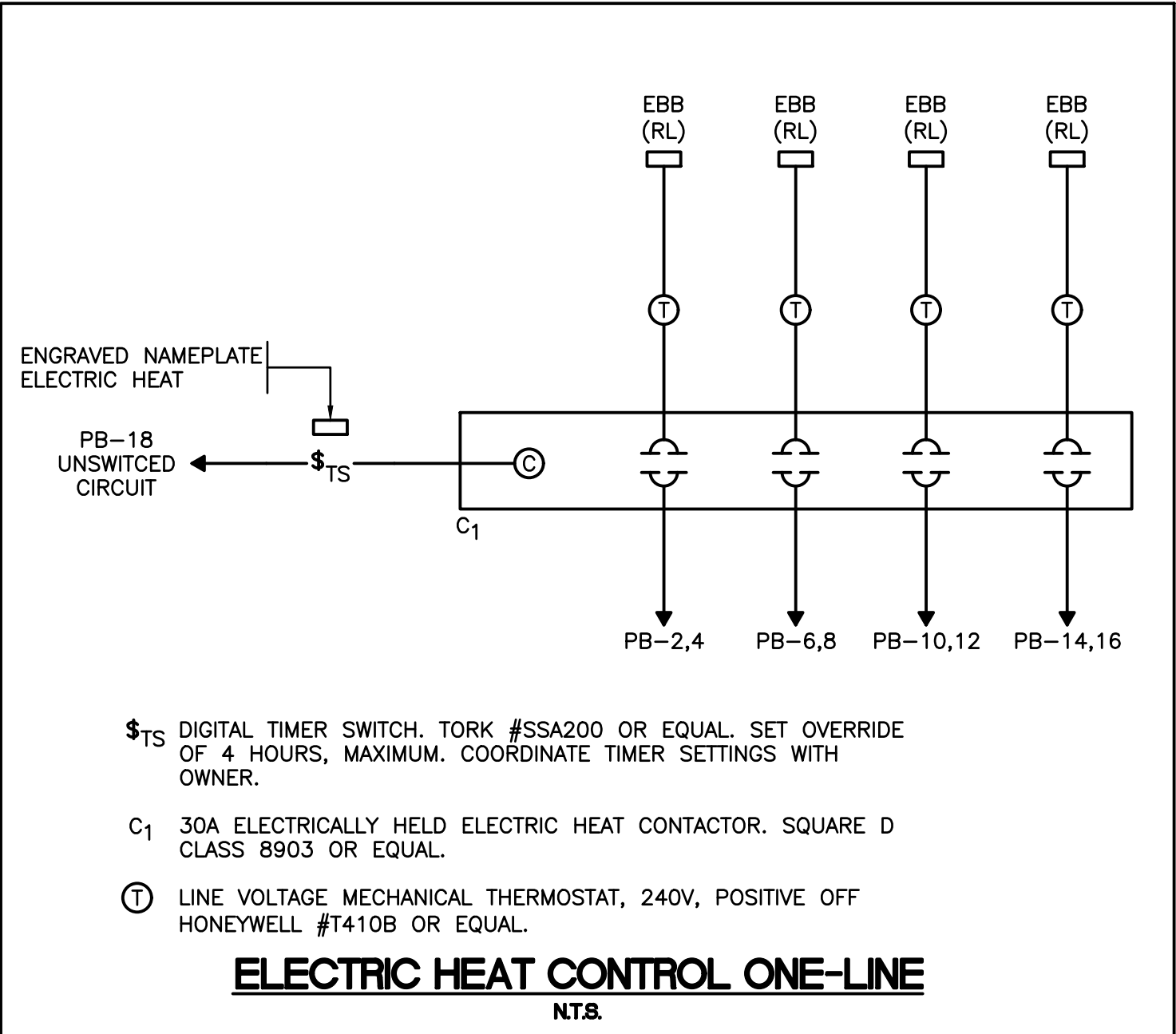
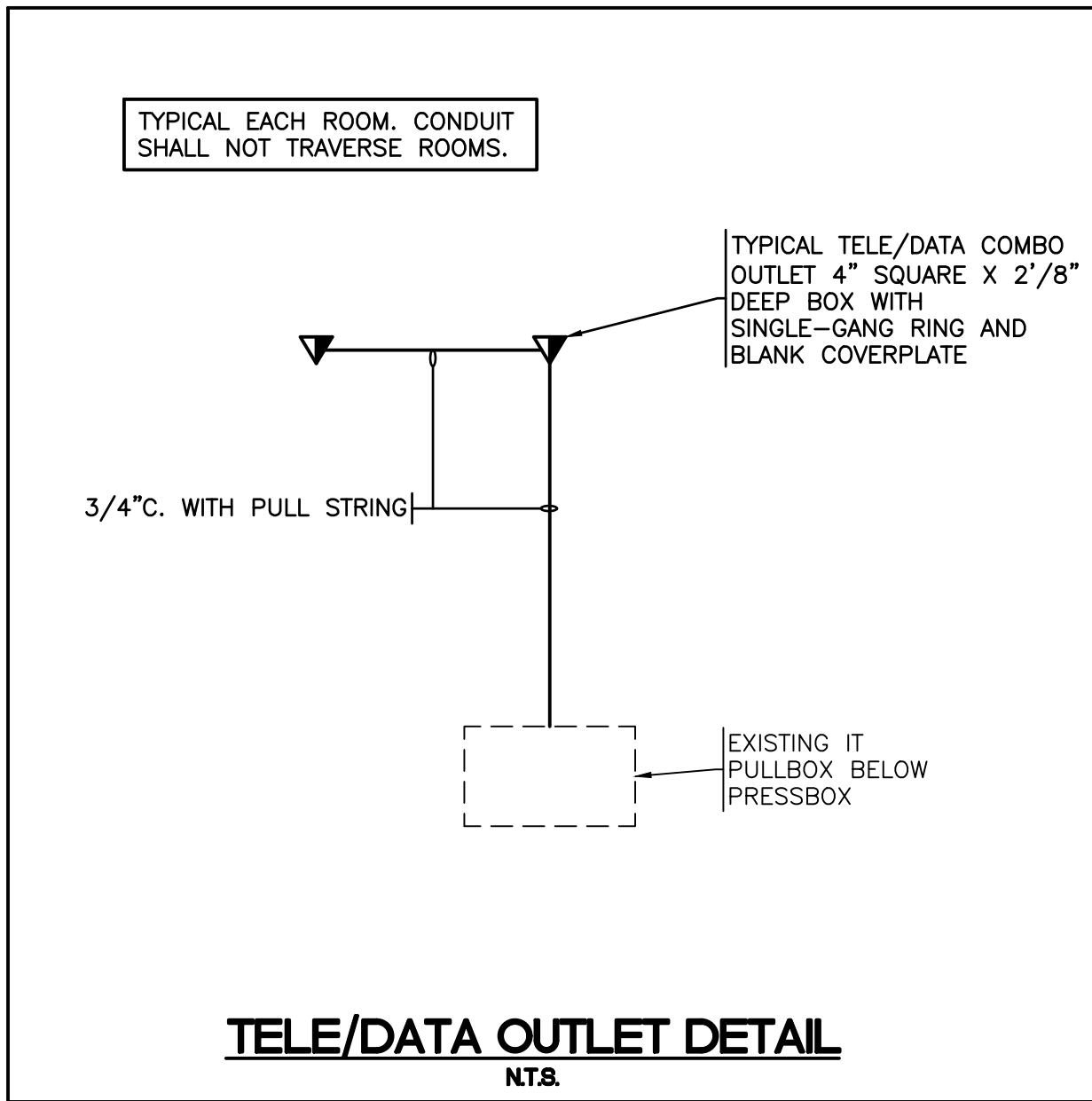
POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526



No.	Revision	Date

Sheet Title:
POWER
PLANS

Project PRESS BOOTH	
PERMIT SET	
Date 08/03/2020	Sheet E300
Scale RE: SHEET VIEWS	

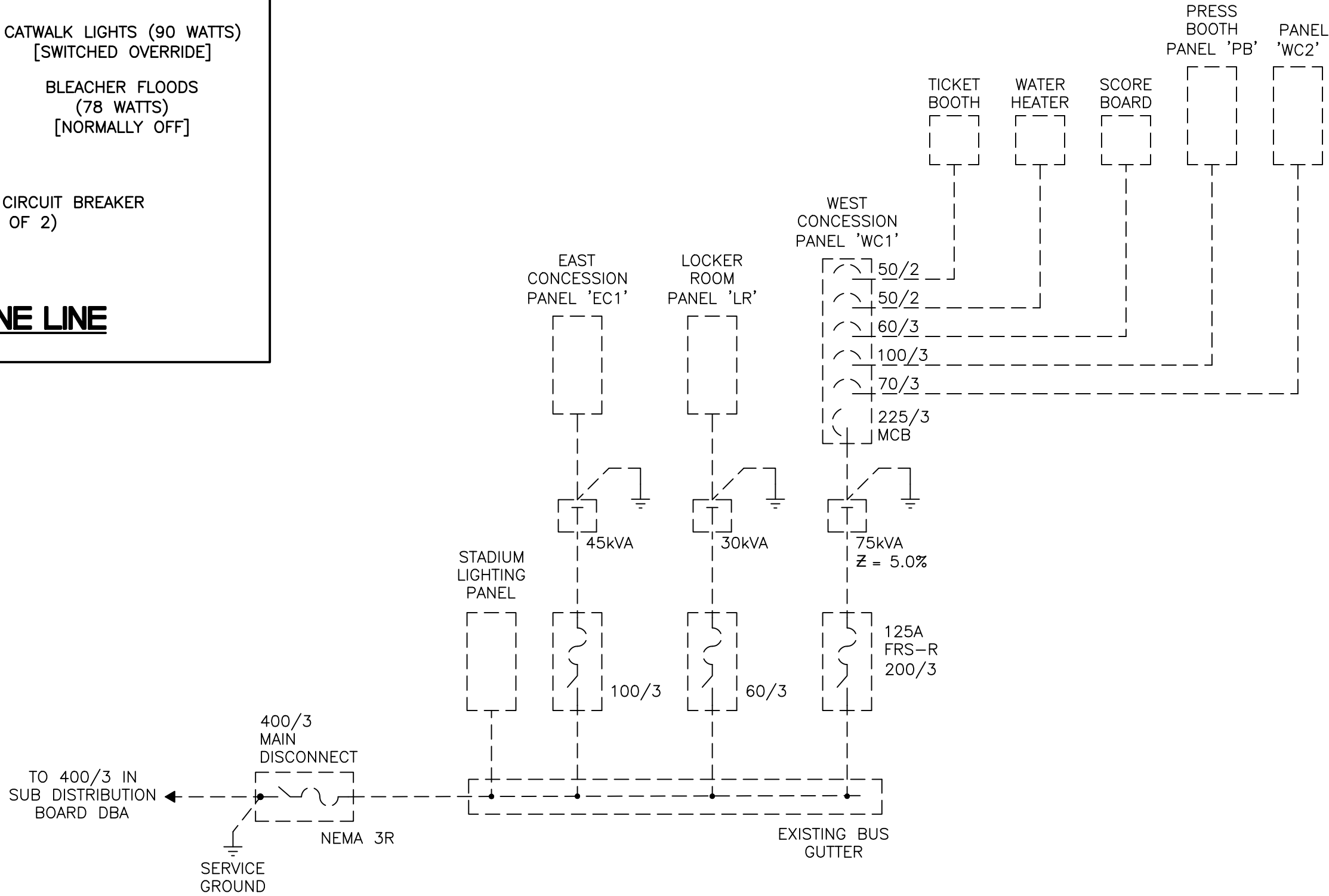
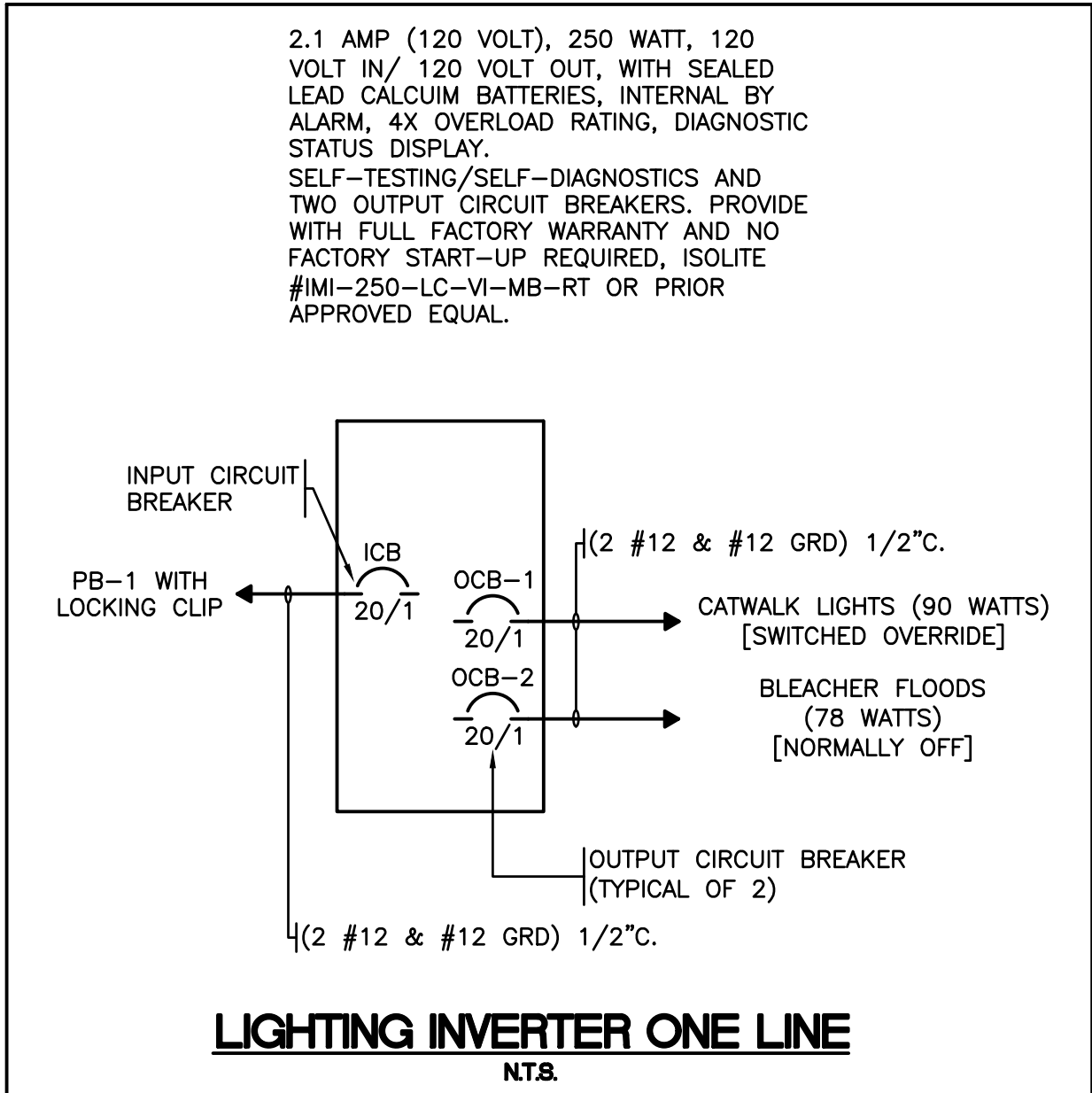


120/208 Voltage	Panel	Exist: 'PB'		Surface	Mountings			
3 Phase, 4 Wire	A/C	10000 @ 240V		100A MLO	Mains			
NEMA 1 Enclosure Rating				100%	Neutral Rating			
				No	Isolated Ground Bar			
Description	Load (kW)	BKR.	CKT #	PH.	CKT #	BKR.	Load (kW)	Description
EXT. LGT/INVERTER	0.25	20*1	1	A	2	20/2	2.00	EBB-RM1
INT. LIGHTING	0.40	20/1	3	B	4	/2		
HOME COACH RCPT	1.08	20/1	5	C	6	20/2	2.00	EBB-RM2
MEDIA RCPT	0.72	20/1	7	A	8	/2		
MEDIA RCPT	0.36	20/1	9	B	10	20/2	2.00	EBB-RM3
SCOREBOARD RCPT	0.72	20/1	11	C	12	/2		
SCOREBOARD RCPT	0.36	20/1	13	A	14	20/2	2.00	EBB-RM4
AWAY COACH RCPT	1.08	20*1	15	B	16	/2		
LIGHTNING PROTECTION	0.50	20/1	17	C	18	20/1	0.25	ELEC HEAT CONT.
SPACE			19	A	20	20/1		SPARE
SPACE			21	B	22	20/1		SPARE
SPACE			23	C	24			SPARE

Lighting	1.15	kW	AT	125	% Demand =	1.43	kW
Receptacle	4.32	kW	AT	100	% Demand =	4.32	kW
Misc.	8.25	kW	AT	100	% Demand =	8.25	kW

* - LOCKING CLIP ON BREAKER							
Total Demand =	14.00	kWAT	90	% PF=	15.6	kVA	
Feeder Size	15.6	kVA DIVIDED BY VLL x SQRT(3) =			43.2	AMPS	
		25% SPARE CAPACITY =			10.8	AMPS	
					54.0	AMPS TOTAL	

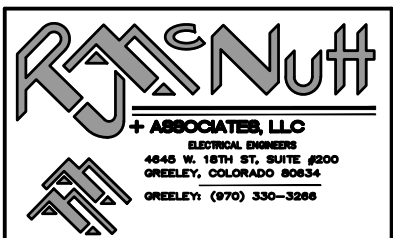
OVERCURRENT PROTECTION: 100A



EXISTING ELECTRICAL ONE-LINE
NTS

SECONDARY VOLTAGE
277/480V, 3PH, 4W

THIS DRAWING HAS BEEN PREPARED, IN PART, BASED UPON INFORMATION FURNISHED BY OTHER. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, THE DESIGN PROFESSIONAL CANNOT ASSURE ITS ACCURACY, AND THUS IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS DRAWING OR FOR ANY ERRORS OR OMISSIONS, WHICH MAY HAVE BEEN INCORPORATED INTO IT AS A RESULT. THOSE RELYING ON THIS DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE APPLYING IT FOR ANY PURPOSE.



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526



No.	Revision	Date

Sheet Title:
ELECTRICAL ONE-LINE

Project PRESS BOOTH	
PERMIT SET	
Date 08/03/2020	Sheet E500
Scale RE: SHEET VIEWS	

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.
- 1.2 CODES AND REGULATIONS:
- A. Comply with all applicable state and local codes, regulations and ordinances, and the latest applicable requirements of the National Electrical Code (NEC) of the NFPA, as interpreted by the local inspection authority that shall have final jurisdiction (AHJ). The AHJ on this project is the State of Colorado.
- B. Comply also with all OSHA requirements and directives.

1.3 EXAMINATION OF PREMISES:

- A. Examine the premises prior to bidding and become fully familiar with existing conditions.

1.4 PERMITS:

- A. Secure and pay for all permits, fees, taxes, licenses and inspections in connection with the electrical work.

1.5 DRAWINGS AND SPECIFICATIONS:

- A. Drawings are diagrammatic and indicate general arrangement of electrical work. Locations are approximate and shall be subject to minor modifications as directed by Engineer.
- B. Contractor shall be responsible for exact fitting of all materials, equipment, etc., in building. All dimensions shall be verified on the job.
- C. Refer to Architectural, Structural, and Mechanical Drawings and Specifications, as part of this set, and be responsible for all information contained therein as affects the electrical work.
- D. Instructions such as "provide..." shall mean "Contractor shall be responsible for the furnishing and installing of new..., complete in every respect."

PART 2 – PRODUCTS

2.1 STANDARDS:

- 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. Damaged or defective materials shall be replaced. All materials shall comply with the latest NEMA standards.

PART 3 – EXECUTION

3.1 SHOP DRAWINGS:

- A. Furnish electronic (pdf) sets of Shop Drawings to Architect for the following:

1. Control Equipment.
2. Distribution Equipment.
3. Light Fixtures
- B. All materials and equipment shall be approved prior to beginning work.
- C. Receipt within 30 days after award of contract.
- D. Shop Drawings, including:
1. Catalog data specifically for equipment to be used.
2. See shop drawing requirements in General Provisions.

- Electrical Contractor shall provide shop drawing approval stamps on all equipment supplied by them prior to Engineer's shop drawing approval. The Electrical Contractor to check for conformance with the design of the project and compliance with the information given in the contract documents. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site; fabrication process and techniques of construction.

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.
- B. Electrical Contractor shall provide architect at completion of project a complete set of as-built drawings showing all changes in work marked there on including all system wiring diagrams.

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. Provide competent workmen who are skilled as electricians.

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.
- B. All patching and painting shall be done by Contractor.

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 stadium grounds is available from the Rocky Mountain High School electric service. This service is 400A, 3 phase, 4 wire, 277/480 volt, 60 Hertz alternating current for normal power and lighting requirements. Service to Press Booth is available from a 100A, 120/208V, 3PH, 4W feed from subpanel. General arrangement of the service equipment is shown on drawings. Equipment shall be as specified herein.

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. Symbols which are dashed and are crosshatched indicate devices which are to be removed. Devices which are to be removed may require reworking conduit and wiring in order to maintain service to other devices. If removed devices are on walls or ceilings which are to remain, blank coverplates are to be installed on outlet boxes.
- B. Where remodeling interferes with circuits in areas which are otherwise undisturbed, circuits shall be reworked as required.
- C. Existing devices and circuiting which are shown are indicated only for informational purposes. Electrical Contractor shall visit the site and shall verify conditions as they exist and shall remove, relocate and/or rework any electrical equipment or circuits affected (whether indicated or not) due to removal or reworking of existing walls, ceilings, etc. Electrical Contractor shall familiarize himself with all work to be done by other trades by studying Architectural, Structural, Mechanical and Plumbing Drawings.
- D. Coordinate routing of all conduits with Mechanical and Plumbing Contractors in order to avoid conflicts with ducts, pipes, etc.
- E. All equipment, fixtures, devices, etc., which are removed shall be delivered to Owner for disposition. All items which are removed and not wanted by Owner and which are not reused shall become the property of Electrical Contractor and shall be removed from site.
- F. The cost of cutting and patching necessary for the installation or removal of electrical work shall be included in the Electrical Contract. Coordinate with General Contractor.
- G. Electrical Contractor shall protect all conduits feeding scoreboard, sound, etc. to remain. Reuse existing raceway.

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. Should Contractor propose to furnish materials and equipment other than those specified as permitted by "or approved equal" clauses, he or she shall submit a written request in duplicate, at least five calendar days prior to bidding date, for any or all substitutions. Request shall be accompanied with complete descriptive and technical data and all other information deemed necessary by Engineer for evaluation. Substitutions submitted for approval shall list items as specified with the alternate substitution.
- B. Where substitutions alter the design, conduit, wiring or space requirements indicated on drawings, Contractor shall include items of cost for the revised design and construction.
- C. Substitutions sent by fax machine will not be acceptable and will not be reviewed.

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. All outage time and scheduling of same shall be as approved by Owner and shall conform to Owner's schedules.

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.
- B. Where materials are indicated to be furnished by others to Contractor for installation, these materials shall be checked and their delivery properly receipted. Assume full responsibility for the storage and safe keeping of said materials from time of delivery until final acceptance.

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.

1.2 BALANCING

- A. The complete system shall be load balanced to within 10 to 15 percent per phase.

1.3 METERING EQUIPMENT

- A. Provide for metering equipment as indicated on drawings and in accordance with the requirements of the utility company serving the project. Provide all necessary details.

1.4 PHASE ROTATION

- A. Electrical Contractor shall assure and be responsible for proper phase rotation of all motors, compressors, and other three phase equipment prior to energizing equipment.
- B. Electrical Contractor shall be responsible and coordinate proper phase rotation connections made by the serving utility company prior to energizing main service equipment.

PART 2 – PRODUCTS

2.1 SAFETY SWITCHES:

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

2.2 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. Verify actual load current of all motors prior to ordering fuses and provide fuses of sizes as recommended by Manufacturer. Generally, motor fuses shall be the dual element type and shall be set at 110 percent of full load amps, or 125 percent where required for heavy duty usage or high ambient temperatures. Fuses shall be the power voltage rating to match circuit characteristics in which installed. Fuses indicated on drawings are those of Busmann Co., equal by Gould Shawmut or Littell Fuse.

2.3 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.

2.4 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. Nameplates shall be permanently attached to equipment with two stainless steel screws. Provide blank nameplates for all spares.
- B. Multiple Gang Light Switches: Provide engraved coverplates 1/8 inch lettering black filled on all switch plates two and more ganged. Lettering shall indicate area served.
- C. Light switches/receptacles (all): Provide panel and circuit Kroy labels on front of coverplate and label with marker on inside panel cover and circuit also.
- D. Label all mechanical equipment, safety switches, and starters, etc., with raised letter tape. Nameplates and labels shall indicate the general areas and type of electrical load served by each circuit.
- E. Neatly label all Junction box coverplates as to their function. Use a permanent ink pen. Labeling shall be lights, smoke detector power, elevator control, fire alarm, receptacles, etc. Labeling shall be done on J-boxes that are above accessible ceiling and in storage rooms and maintenance areas, etc. Do not label J-boxes in public view.

2.5 NM–NONMETALLIC SHEATHED CABLE NOT ALLOWED ON THIS PROJECT:

2.6 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. Conductors shall be of sizes and types as indicated, and as required by NEC for specific uses. Where quantities of conductors in a raceway system are not specifically indicated, provide number as required to maintain function, control and number of circuits as indicated. All conductors shall be UL listed and approved, and shall conform to the following:
1. Minimum wire size shall be #12 AWG copper except for control or signal circuits which may be #14 AWG copper.
2. Unless otherwise indicated, all wiring for branch circuits shall be copper #12 AWG in 1/2" conduit, protected by 20 ampere circuit breakers. See Voltage Drop.
3. Voltage Drop: If distance from panel to first outlet is 75 feet or greater (for 120V circuits), #10 shall be installed from circuit breaker to every device in circuit.
4. Wire sizes #10 AWG copper and smaller shall be solid; #8 AWG copper and larger shall be stranded.
5. The following insulation standards shall apply:
- a. All feeder conductors shall be type THWN, XHHW or RHW.
- b. Other conductors shall be per NEC THHN/THWN copper unless noted otherwise, Article 310.
- c. Type THHN/THWN copper for exterior runs in conduit.
6. Motor wiring for power shall be stranded.
- B. Aluminum conductors shall not be used on this project.
- C. The use of AC (Armored Cable), NM cable (Romex), or flexible conduit shall not be used for branch circuits or feeders. MC (Metal Clad) cable shall be allowed for branch circuits as noted on drawings.

2.7 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. Type IMC may be used in lieu of GRC where permitted. Use EMT for all other runs. Provide approved couplings and connectors for all connections. Final connections to motors and other vibrating or rotating equipment shall be made in flexible conduit.
- B. Heavywall, type II, rigid, Schedule 40 PVC:
1. For all wiring runs in or under the floor slab which is in contact with the ground.
2. For all wiring runs buried underground, unless otherwise indicated.
3. Do not use Schedule 40 or 80 PVC above ground. Conduit sizes 1" and smaller use schedule 80 PVC elbows and conduit sizes 1 1/4" and larger use GRC tar coated elbows to max. 6" above grade then change to EMT conduit. Note: Provide expansion joints in accordance with Manufacturer's recommendations.
- C. Use approved type couplings and connectors in all conduit runs and make all joints tight. Provide insulated bushings for all terminations in pipe size 1 1/4" and larger. Provide all steel set screw couplings and connectors for all other conduits. Provide expansion fitting and bonding conductors for all runs which cross building expansion joints. Provide waterproof steel compression gland couplings and connections for all runs in wet locations such as exposed to weather, buried in slabs, etc.

2.8 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 or wall brackets as manufactured by Unistrut or acceptable equal. Provide steel hanger rods securely fastened to or through the building structure for all trapezes, etc. Do not suspend from mechanical piping or ductwork. Perforated plumber's straps or wire will not be permitted.
- B. Obtain Architect's approval for the use of powder powered fasteners and use only in locations as he may direct.

2.9 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. Boxes are to be 4" square or octagonal, 2 1/8" Depth minimum. Provide plaster or tile rings for all flush outlets installed where wood, drywall, tile, plaster, etc., types of finishes are applied. All outlets for exterior application shall be cast, weatherproof type, with gasket and case coverplate. Tile boxes of extra depth may be used for interior, dry applications where masonry block or brick walls constitute the finished wall surface. In any event, provide outlet boxes of proper type and design for the particular fixture or device to be installed. Boxes shall be as manufactured by Unistrut or acceptable equal.
- B. Surface mounted boxes shall be cast metal, weatherproof, with grounding terminal, threaded hubs, and shall be similar and equal to Crouse-Hinds design Type FD or FS.
- C. Pull Boxes: Provide pull boxes in raceway runs as required by NEC and job conditions. Install in accessible locations.
- D. Surface Raceway: Surface raceway boxes same manufacturer as surface raceway.

2.10 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. Install all equipment in a secure and substantial manner, and in full accord with Manufacturer's recommendations. Provide all such miscellaneous installation equipment such as support, hangers, yokes, flanges, etc., as is necessary. Provide 1–1/2 inch spacer, finished, factory approved type, between tops of fluorescent fixtures and combustible ceiling materials as required by code. Provide for aiming of all adjustable lighting fixtures as directed by Architect; exterior fixtures shall be adjusted at night.
- B. Fixtures (Luminaires): All fixtures exposed to weather or cold temperatures shall be weatherproof and suitable for efficient operation at temperatures and conditions concerned. All fixtures shall bear UL label for its particular application, or as indicated; install surface or pendant mounted luminaires true and straight. Provide plaster frames or similar type devices compatible with ceiling construction for all recessed fixtures.
- C. Dual/three level lighting fixtures shall be provided with 4 wire flex and lead conductors.
- D. Electronic Drivers:
1. Separate electronic drivers shall be provided in order to provide dual/three level lighting as shown on plans.
2. Drivers shall bear the CBM, UL, and ETL labels certifying the ballasts comply with these specifications and standards.

2.11 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.
1. Devices:
- a. 20A– 3W, grd, duplex dedicated outlet
ToyMac–503–S1G, A4
For GFI ToyMac S2G44
Leviton–6899–White
- b. W.P. lift lid, duplex
2. Switches:
- a. 20A switches
b. 3–way switches
3. Coverplates:
- a. Finished and unfinished areas are to provide .040 smooth nylon White finished coverplates.
- b. Stainless steel in Kitchen area.

PART 3 – EXECUTION

3.1 SAFETY SWITCHES

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

3.2 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. The joint insulation value shall equal that of the conductor. Splices and connections shall be made in an approved manner.
- B. Install wiring in the raceway systems only after the conduit run has been completed and after such time as conduits have been thoroughly cleaned and dried.
- C. Enclose underground/exterior conductors in conduit schedule 40 PVC. All secondary and exterior branch circuit conductors to be buried a minimum of 30 inches below finished grade. Provide 2 inches of sand fill above and below conductors and install electrical marker tape 6 inches above all runs.
- D. Wire and cable No. 6 and smaller shall be factory color coded. Where factory color is not available, or where on short runs factory color coding is not practical, mark conductors on each end and in J–boxes or pull boxes with 1" band of colored pressure sensitive plastic tape or by the use of brilliant waterproof lacquer properly applied. Colors for each phase and the neutral shall be consistent throughout the system.
1. The following color code prevails for all service, feeder and branch circuits:
- Neutral White for 120V, Grey 277V
- Ground Green
- Phase A Black for 120/208V, Brown for 277/480V
- Phase B Red for 120/208V, Orange for 277/480V
- Phase C Blue for 120/208V, Yellow for 277/480V
- E. Wire and cable shall be the proper size to fit under lug landings in accordance with UL listing. Where larger wire and cable is used for voltage drop, etc., and will not fit under UL lug listings, Electrical Contractor shall provide proper wire and cable size under lugs and either pigtail to larger wire and cable or use power tap blocks. Provide insulation value equal to the wire and cable being used.
- F. High Compression Termination: Provide high compression terminations for connecting smaller conductors to larger for voltage drop issues as shown on drawings. H–type compression tap connectors shall be for copper combinations, sized for correct conductor installation using 15 ton and 12 ton head tools per manufacturer UL listed. Manufacturer Thomas and Betts. Compression taps series 63100 with high compression tool. Provide shop drawings. Provide interlocking insulating hard covers and secure with tape sealant per manufacturer, UL listed. Manufacturer Thomas and Betts Series HTCX00 (H–Tap Insulating Hard Covers), and HSTS25 Series. Provide shop drawings.

G. Terminations Exterior

1. Terminations shall be silicone filled safety connectors. Connector body shall consist of color-coded shell of non–hygroscopic material, with ribs or wings for easy grip and vibration–absorbing retention fingers. Inside shall be a non–setting, non–conductive, fire–retardant silicone sealant that eliminates the possibility of corrosion and flashover. The connector shall have a plated, conical, square–wire spring to draw in conductors securely as torque is applied.
2. Connectors shall be King Technology's Model King–1, 2, 3, 4, 5, 6, and/or 9 wire connectors for pressure–type locations or accepted equal.
- H. Provide cable wraps (nylon tie wraps) around branch circuit bundles and feeder bundles in all switchboards, panelboards, and loadcenters.

3.3 CONDUCTOR NEUTRAL APPLICATIONS

- A. Neutrals: Copper, same size as phase conductor, derating neutrals not allowed.
- B. Provide separate Neutral conductors for each 15 or 20 amp (120 or 277V) single pole breaker, the following application:
1. Lighting circuits.
2. Receptacle circuits.
3. Computer circuits.
4. Kitchen circuits.
5. Mechanical circuits.
6. Electronic equipment.
7. All circuits using common raceway or provide tie handles on branch circuit breaker per NEC.

3.4 CONDUITS:

- A. Slab on grade: Conduits shall not be located in slab but 6" below, thus cutting of slab will not damage conductors and conduit.
- B. All conduits shall be installed concealed in finished areas. Exposed conduits will be permitted only at surface cabinets, in mechanical equipment rooms, and as otherwise permitted by Architect.
- C. Route all conduits either parallel or perpendicular to walls and structural members, always avoiding proximity to sources of heat such as flues, hot water lines, etc. Runs which are buried below the floor slab or underground may be run direct (angular) to fullest practical extent. Locate raceways so as not to endanger the strength of any structural members. All runs pertinent to the building structural system shall be installed only when and in manner as approved by Architect. Actual conduit runs are not necessarily indicated, but are to be installed in the most feasible manner compatible with building construction and work of other crafts. Outlets shown connected together must be wired on the same circuit.
- D. All bends to be made by the use of an approved bending tool. Cut all conduits square and ream all cuts to remove burrs. Exercise all necessary precautions during the construction period to prevent entry or accumulation of moisture, dust, concrete, and all foreign matter into the raceway system. Clean and dry all raceways prior to pulling conductors.
- E. Secure all raceway systems in building structure in a rigid and secure manner using approved type fasteners such as "Caddy Clips" or similar type of other manufacturer. The use of wire, plumber's straps, etc., will not be permitted. Locations and spacing of fasteners shall be as required by NEC.
- F. Conduit hangers, clamps, light fixtures, supports, nails, etc., shall be fastened to joists or beams only. Do not support from bottom of roof decking or mechanical ductwork.
- G. Notching of wood studs (where used) for conduit routing shall not be allowed. Drill center of studs if hole gets closer than 1" to face of studs. Provide 3/16" steel protective plates.
- H. All roof penetrations done by Electrical Contractor must conform to General Contractor's standard criteria and shall be subject to his authorized Roofing Contractor. General Contractor shall pay all such costs directly to Roofing Contractor upon demand.
- I. Conduits penetrating through fire-rated walls and floor slabs shall be sealed against the spread of fire and products of combustion with smoke–rating of the floor or wall through which conduits pass. See Drawings for additional requirements.

3.5 WIRING ABOVE SUSPENDED CEILINGS

- A. Approved Class II wiring systems such as controls, telephone, intercom, TV, Fire Alarm, etc., may be routed without conduit on brndl rings, (5 feet on center and neatly trained) where above suspended accessible ceiling systems unless otherwise indicated. Where wiring runs occur in inaccessible construction such as underlaid in walls, above gypsum board ceilings, etc., provide all necessary outlets and conduits stubbed into nearest accessible suspended ceiling space. Wiring in all exposed areas shall be routed in conduit such as, exposed ceiling, surface mounted on walls and etc. All conduit stubs shall be tagged. Where suspended ceiling plenums are used for transportation of environmental air and where required by local inspection authority, all Class II wiring runs shall be enclosed in an approved raceway system or approved return plenum cable on brndl ring system. This shall include all systems such as telephone, data, etc., even though this Contractor is not providing the cables or conductors. Refer to Article 300–22 of NEC.
- B. Where suspended ceiling plenums are used for transportation of environmental air and where required by local inspection authority, all Class II wiring runs shall be enclosed in an approved raceway system or Teflon cable approved for return air plenum application. This shall include all systems such as telephone, etc., even though this Contractor is not providing cables or conductors. Refer to Article 300–22 of NEC.

3.6 OUTLETS:

- A. Provide all outlets in a secure and substantial manner and locate so as to be compatible with space, construction and equipment requirements, and with the work of other trades. Verify final outlet locations with Architect prior to installation. Install all outlets plumb and in accessible locations. Flush outlets are to be installed with front of box or ring flush with finished surface. All outlets are to be installed flush unless used in conjunction with exposed conduit system or unless otherwise indicated. If outlets are not installed plumb, flush, level or in approved locations, relocate or reset and refinish at no additional cost to Owner.
- B. Lighting outlets: Install flush wall or ceiling outlets to accommodate type of fixture to be installed. Provide 3/8" no–bolt fixture stud in all outlets where required by weight of fixture.
- C. Mount all weatherproof (WP) outlets vertically.
- D. J–boxes shall not be stacked atop or use of multiple extension rings on each other to form single J–boxes. Single J–boxes shall be used of proper size per NEC.

3.7 LIGHTING EQUIPMENT

- A. Recessed fixtures shall be connected from a J–box recessed in the gyp–board 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. Cut openings in ceilings for recessed J–box so that fixture or trim completely covers the openings when installed.

3.8 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. Install plates with holes sized to accommodate cable to be installed for all telephone and computer outlets.
- B. Provide blank coverplate for all unused outlet boxes, i.e. voice, data, and power outlets at time of final observation.

3.9 FIRE PENETRATIONS:

- A. Provide fire rated stops to maintain fire ratings of walls, ceilings and floors.
- B. Conduits may penetrate the walls, ceilings, floors or partitions provided fire stopping is provided per current International Building Code.

END OF SECTION 16100

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

2.1 EMERGENCY LIGHTING SYSTEM:

- A. Provide battery powered emergency standby lighting system as indicated.

2.2 GROUNDING SYSTEM:

- A. Ground the entire electrical distribution system, including all raceways, outlets, fixtures, equipment, etc., in full accord with NEC.
- B. Provide separate grounding conductor in all raceways.
- C. Provide separate grounding jumper from the grounding screw of all receptacle devices to the metallic box in which mounted. Jumper may attach to box with a separate grounding screw or clip device. Jumpers may be eliminated if approved self–grounding devices are used.
- D. Provide separate bonding conductor, bare copper, for runs of flexible conduit where required by NEC.
- E. Provide separate grounding conductor in all runs to exterior lighting standards, such as post lights, signs, etc.
- F. All conductors used for grounding and bonding purposes shall be copper, insulated green, no exceptions.

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. Any costs to Owner for clean–up of the site will be charged against Contractor.
- B. Clean all electrical equipment and materials of all foreign matter. Clean all light fixtures using only methods and materials as recommended by Manufacturer.

3.2 ACCEPTANCE DEMONSTRATION:

- A. Upon completion of the work, at a time to be designated by Architect, Contractor shall demonstrate to Owner the operation of the entire electrical installation, including any and all special systems provided under this contract.

3.3 TEMPORARY WIRING:

- A. Remove all temporary wiring, outlets, etc., complete.

3.4 DRAWINGS:

- A. Deliver Record Drawings to Owner.

END OF SECTION 16900



POUDRE SCHOOL DISTRICT
FRENCH PRESS BOOTH TENANT FINISH
1300 SWALLOW DRIVE
FORT COLLINS, CO 80526



No.	Revision	Date

Sheet Title:
ELECTRICAL SPECIFICATION

Project PRESS BOOTH PERMIT SET	
Date 08/03/2020	Sheet E600
RE: SHEET VIEWS	



Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: RMHS Press Booth Remodel
Project Type: Alteration

Construction Site:
1300 Swallow Dr.
Fort Collins, CO 80526

Owner/Agent:
Crumpton & Associates
12891 Jackson Cir.
Thornton, CO 80241

Designer/Contractor:
Ben Garritson
RJ McNutt & Associates
4645 W. 18th St
Suite 200
Greeley, CO 80634

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B X C)
1-Press Booth (Common Space Types:Office - Enclosed)	400	1.11	444
Total Allowed Watts =			444

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Press Booth (Common Space Types:Office - Enclosed 400 sq.ft.)				
LED 1: A: Flat Panel: Other:	1	8	41	331
LED 2: B: Downlight: Other:	1	4	15	59
Total Proposed Watts =				390

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.3.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Ben Garritson

11/17/2020

Name - Title

Signature

Date



Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: RMHS Press Booth Remodel
Project Type: Alteration
Exterior Lighting Zone: 2 (Neighborhood business district)

Construction Site:
1300 Swallow Dr.
Fort Collins, CO 80526

Owner/Agent:
Crumpton & Associates
12891 Jackson Cir.
Thornton, CO 80241

Designer/Contractor:
Ben Garritson
RJ McNutt & Associates
4645 W. 18th St
Suite 200
Greeley, CO 80634

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
North Walkway (Walkway >= 10 feet wide)	180 ft2	0.14	Yes	25
West Stairway (Stairway)	27 ft2	1	Yes	27
East Stairway (Stairway)	27 ft2	1	Yes	27
Total Tradable Watts (a) =				79
Total Allowed Watts =				79
Total Allowed Supplemental Watts (b) =				600

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.

(b) A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

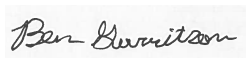
Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
<u>North Walkway (Walkway >= 10 feet wide 180 ft2): Tradable Wattage</u>				
LED 1: AA: Downlight: Other:	1	3	18	54
<u>West Stairway (Stairway 27 ft2): Tradable Wattage</u>				
LED 2: AA: Downlight: Other:	1	1	18	18
<u>East Stairway (Stairway 27 ft2): Tradable Wattage</u>				
LED 3: AA: Downlight: Other:	1	1	18	18
Total Tradable Proposed Watts =				90

Exterior Lighting PASSES**Exterior Lighting Compliance Statement**

Compliance Statement: The proposed exterior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.3.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Ben Garritson



11/17/2020

Name - Title

Signature

Date



Inspection Checklist

Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C103.2 [PR8] ¹	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 [EL15] ¹	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.1 [EL18] ¹	Occupancy sensors installed in required spaces.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.1, C405.2.2, 3 [EL23] ²	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.2.1 [EL22] ²	Automatic controls to shut off all building lighting installed in all buildings.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.3 [EL16] ²	Daylight zones provided with individual controls that control the lights independent of general area lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	
C405.2.3, C405.2.3.1, C405.2.3.2 [EL20] ¹	Primary sidelighted areas are equipped with required lighting controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	
C405.2.3, C405.2.3.1, C405.2.3.3 [EL21] ¹	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	
C405.2.4 [EL4] ¹	Separate lighting control devices for specific uses installed per approved lighting plans.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.2.4 [EL8] ¹	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input checked="" type="checkbox"/> Not Applicable	
C405.2.5 [EL25] ^{null}	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.3 [EL6] ¹	Exit signs do not exceed 5 watts per face.	<input checked="" type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17] ³	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C405.4.1 [FI18] ¹	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<i>See the Interior Lighting fixture schedule for values.</i>
C405.5.1 [FI19] ¹	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	<i>See the Exterior Lighting fixture schedule for values.</i>
C408.2.5.1 [FI16] ³	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	
C408.3 [FI33] ¹	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	<input type="checkbox"/> Complies <input type="checkbox"/> Does Not <input type="checkbox"/> Not Observable <input type="checkbox"/> Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)
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