



IMPERIAL VALLEY COLLEGE

BUILDING 600 EXPANSION

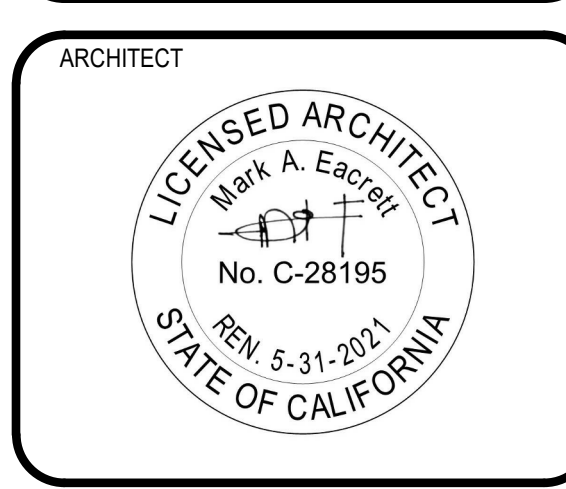
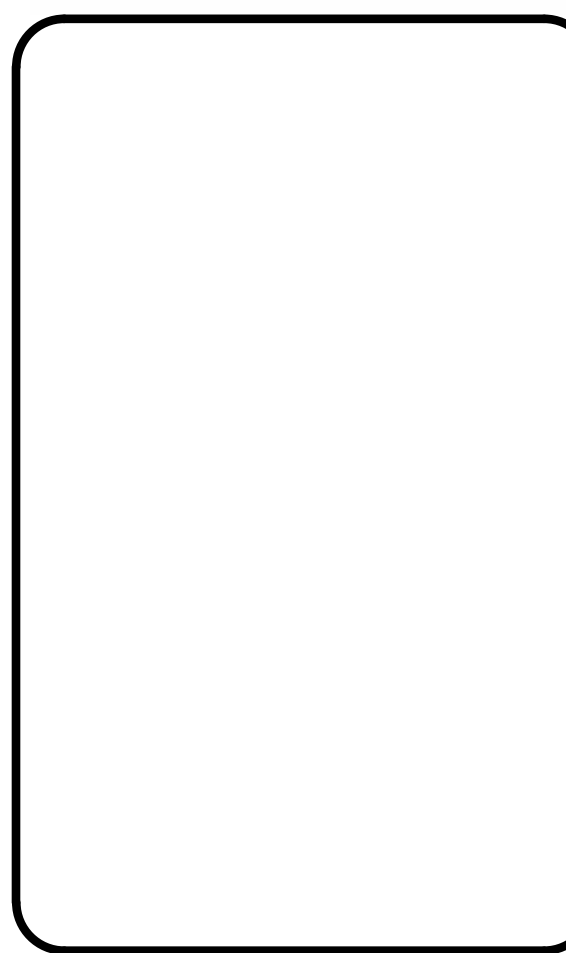
December 8, 2020



DSA FILE NO. 13-C1 AP 04-119487
 IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP: 04-119487 INC.
 REVIEWED FOR:
 SS FLS ACS
 DATE: 02/01/2021



ARCHITECTURE
 IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT
 380 E Aten Rd.
 Imperial, CA 92251
 DSA SUBMITTAL



CLIENT IMPERIAL VALLEY COLLEGE		
PROJECT NUMBER 20190		
DATE:	2020/12/08	
DRAWN BY:	Author	
CHECKED BY:	Checker	
REVISIONS		
No.	Description	Date
DSA SUBMITTAL		

COVER SHEET

GO.00

OWNER

IMPERIAL CC DISTRICT
 380 E ATEN ROAD
 IMPERIAL CA, 92251

T: 760-355-6241
 CONTACT: DEEDEE GARCIA

PROGRAM MANAGER

MAAS
 380 E ATEN ROAD
 IMPERIAL CA, 92251

T: 818-590-7429
 CONTACT: JOE JACKSON

ARCHITECT

PBK ARCHITECTS, INC.
 11455 EL CAMINO REAL
 SUITE 480
 SAN DIEGO, CA 92130

T: 619-695-0400
 CONTACT: CHUCK FORTE

CIVIL

LATITUDE 33
 9968 HIBERT STREET
 2ND FLOOR
 SAN DIEGO, CA 92131

T: 858 875-1702
 CONTACT: SEAN DRAKE

STRUCTURAL

SDSE STRUCTURAL ENGINEERS
 3838 CAMINO DEL RIO NORTH
 SUITE 110
 SAN DIEGO, CA. 92108

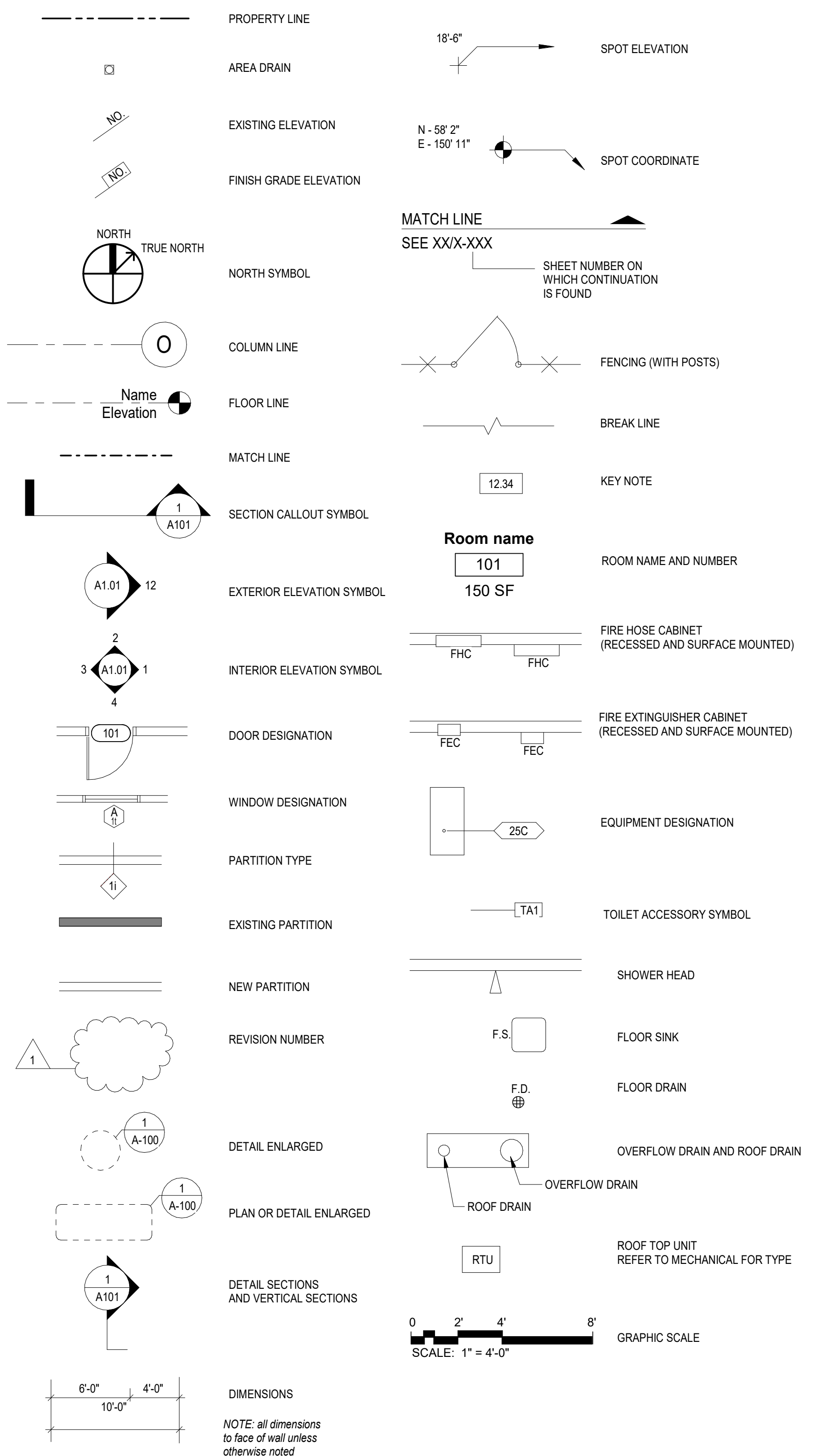
T: 619-297-2223
 CONTACT: CHRIS KAMP

MEPT

LEAF ENGINEERING
 3110 E GUASTI RD
 SUITE 300
 ONTARIO, CA 91761

T: 909-937-9200
 CONTACT: REX WANG

DRAWING CONVENTIONS



ABBREVIATIONS

Table of abbreviations with columns for symbol, description, and category. Includes terms like ABV, ACOUS, ACT, AD, ADJ, AFF, ALT, ALUM, APPROX, ARCH, B, B.O., BALC, BD, BET, BLDG, BLKS, BLW, BOT, BRKT, BULKHD, BUR, C, C.G., CAB, CALK, CEM, CER, CJ, CLG, CLOS, CLR, CO, COL, CONC, CONT, CPT, CT, D, DBL, DET, DIA, DIM, DN, DR, DS, DWG, E, EA, etc.

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS (Application No. 04-119487 File No. 13-01)

The drawings or sheets listed on the cover or index sheet (see asterisk *) This drawing, page of specifications/calculations have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

- 1) design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344 of Title 24, Part 1, (Title 24, Part 1, Section 4-317 (b))

Signature block for Mark Eacrett, Architect or Engineer designated to be in general responsible charge. Includes fields for Signature, Date (September 17, 2020), Print Name, License Number (C-28195), and Expiration Date (5-31-2021).

CODES & STANDARDS

Table listing applicable codes and standards including California Administrative Code (CAC), California Building Code (CBC), California Electrical Code (CEC), California Mechanical Code (CMC), California Plumbing Code (CPC), California Energy Code (CEC), California Fire Code (CFC), California Existing Building Code, California Green Building Standards Code (CAL Green), California Reference Standards Code, and various NFPA and UL standards.

SCOPE OF WORK

THE PROJECT CONSISTS OF A 3030 SF ADDITION TO THE SOUTH SIDE OF THE EXISTING B600 CAMPUS CENTER BUILDING. THE NEW ADDITION WILL BE USE AS A DINING HALL. MINOR UPGRADES TO THE WOMEN'S AND MEN'S RESTROOMS.
SITE WORK INCLUDED NEW SIDEWALKS, REPAIRED LANDSCAPING AND AN EXTENSION OF THE WATER LINE, RELOCATION OF THE EXISTING GAS LINE AND NEW ELECTRICAL TRANSFORMER.

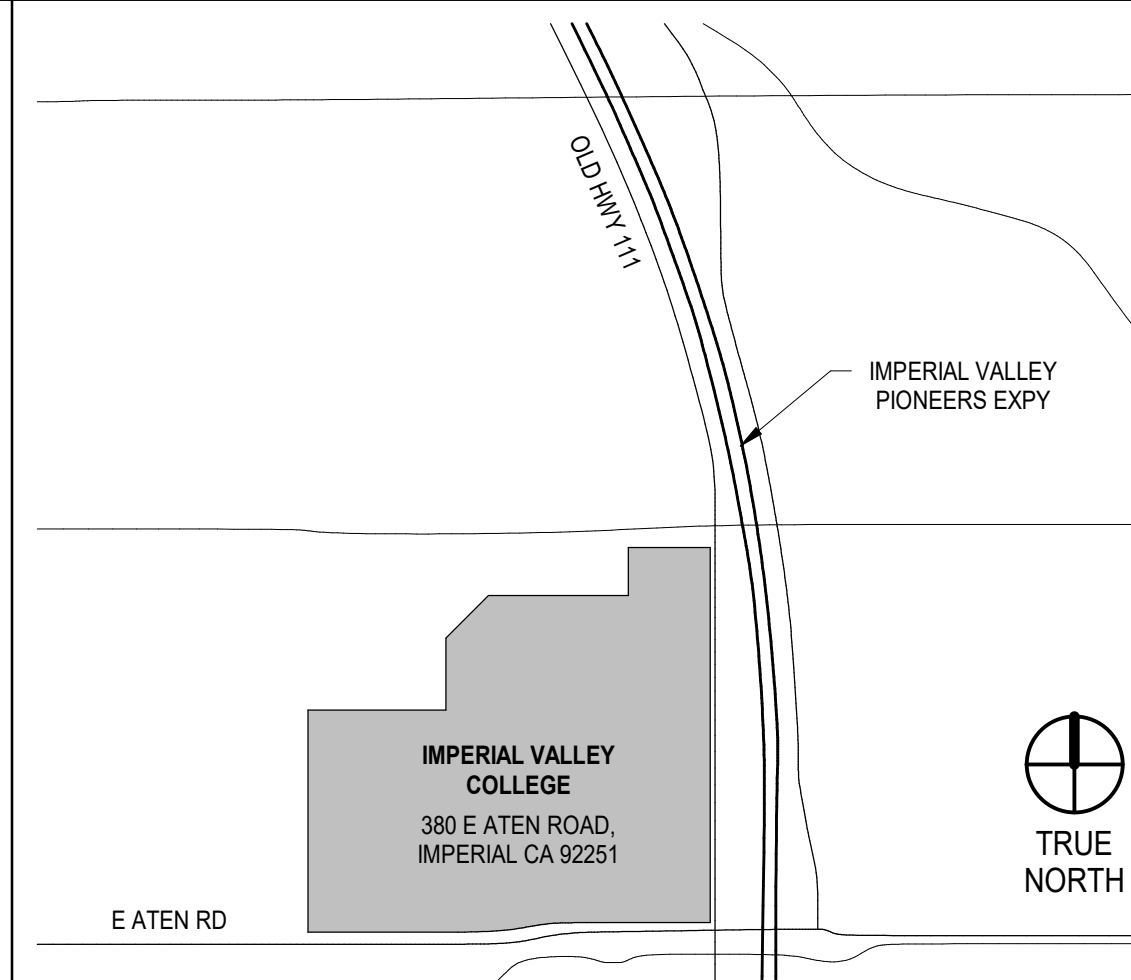
DEDUCTIVE ALTERNATIVES

- DA-1 DELETE DROPPED CEILING IN DINING HALL 140 REMOVE DROPPED ACOUSTIC TILE CEILING, FRAMING AND ASSOCIATED SEISMIC JOINT FROM DINING HALL 140 REFERENCE SHEETS: DA10.01, A6.02, A6.04, A10.01, M, E AND ASSOCIATED DETAILS
DA-2 DELETE EXPANSION OF (E) OPENINGS BETWEEN DINING HALL 140 AND STUDENT DINING 106 THE EXISTING OPENINGS IN THE MASONRY WALL WILL NOT BE ENLARGED. THE FOLDING PANEL PARTITION WALL WILL BE REDUCED IN SIZE TO ACCOMMODATE THE (E) OPENINGS REFERENCE SHEETS: D2.01, A2.01, A6.02, A10.01, S, M, E AND ASSOCIATED DETAILS

CALIFORNIA GREEN NOTES

- 5.106.10 STORM WATER DRAINAGE SEE SHEET C1.02 EROSION CONTROL PLAN
5.106.4.2 BICYCLE PARKING NO ANTICIPATED VISITOR TRAFFIC
5.410.1 RECYCLING AT TRASH ROOM 100
5.407.2.2.1 PRIMARY ENTRANCE PROTECTION 5' FOOT OVERHANG AT ENTRY DOOR
5.505.1 INDOOR MOISTURE PROTECT INT FLOORING: LVT EXT PAVING: CONCRETE WALLS: SEALED CMU VENEER
5.507.4 ACOUSTICAL CONTROL EXPOSED METAL ROOF: ACOUSTICAL ROOF DECK CEILING: ACOUSTIC CEILING TILE
5.506.1 VENTILATION SEE MECHANICAL PLANS

VICINITY MAP



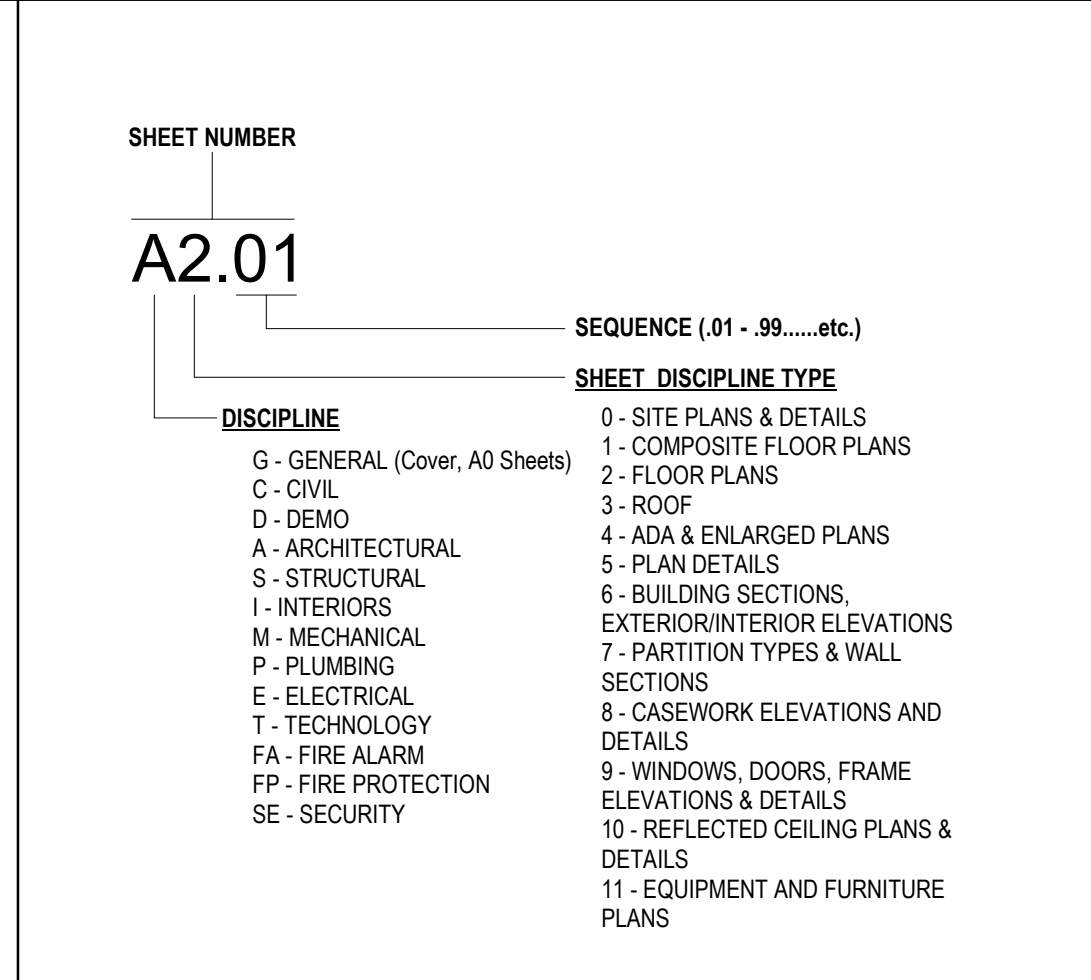
DRAWING INDEX

Table with columns for SHEET NUMBER and SHEET NAME. Lists architectural, structural, mechanical, plumbing, and electrical sheets including cover sheet, floor plans, elevations, sections, and details.

DSA PLAN NOTES

- 1. CHANGES TO THE DIVISION OF THE STATE ARCHITECT-APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENTS FOR CHANGES TO THE STRUCTURAL ACCESSIBILITY OR FIRE-SAFETY PORTIONS OF THE PROJECT. CHANGES SHALL BE SUBMITTED TO AND APPROVED BY DSA PRIOR TO THE COMMENCEMENT OF THE WORK SHOWN THEREON (CAC 4-338 (c))
2. THE CONTRACTOR SHALL COMPLY WITH CFC Ch 33 - FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION OF THE PROJECT
3. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK (CAC 4-317 (C))
4. MAINTAIN THE INTEGRITY OF ALL EXISTING RATED ASSEMBLIES U.O.N.

SHEET NUMBERING



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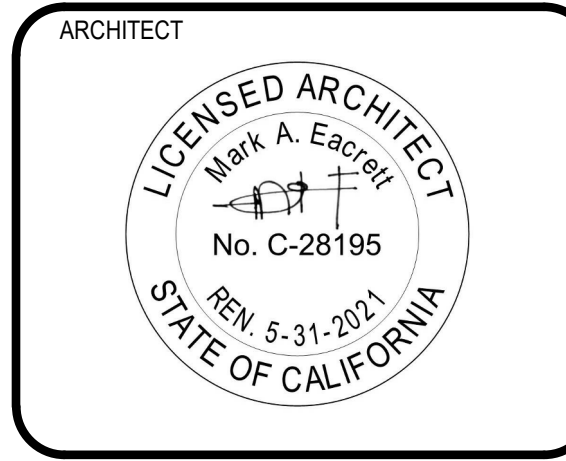


IVC - B600 COLLEGE CENTER EXPANSION PROJECT 380 E Aten Rd. Imperial, CA 92251 DSA SUBMITTAL



CONSULTANT

ENGINEER

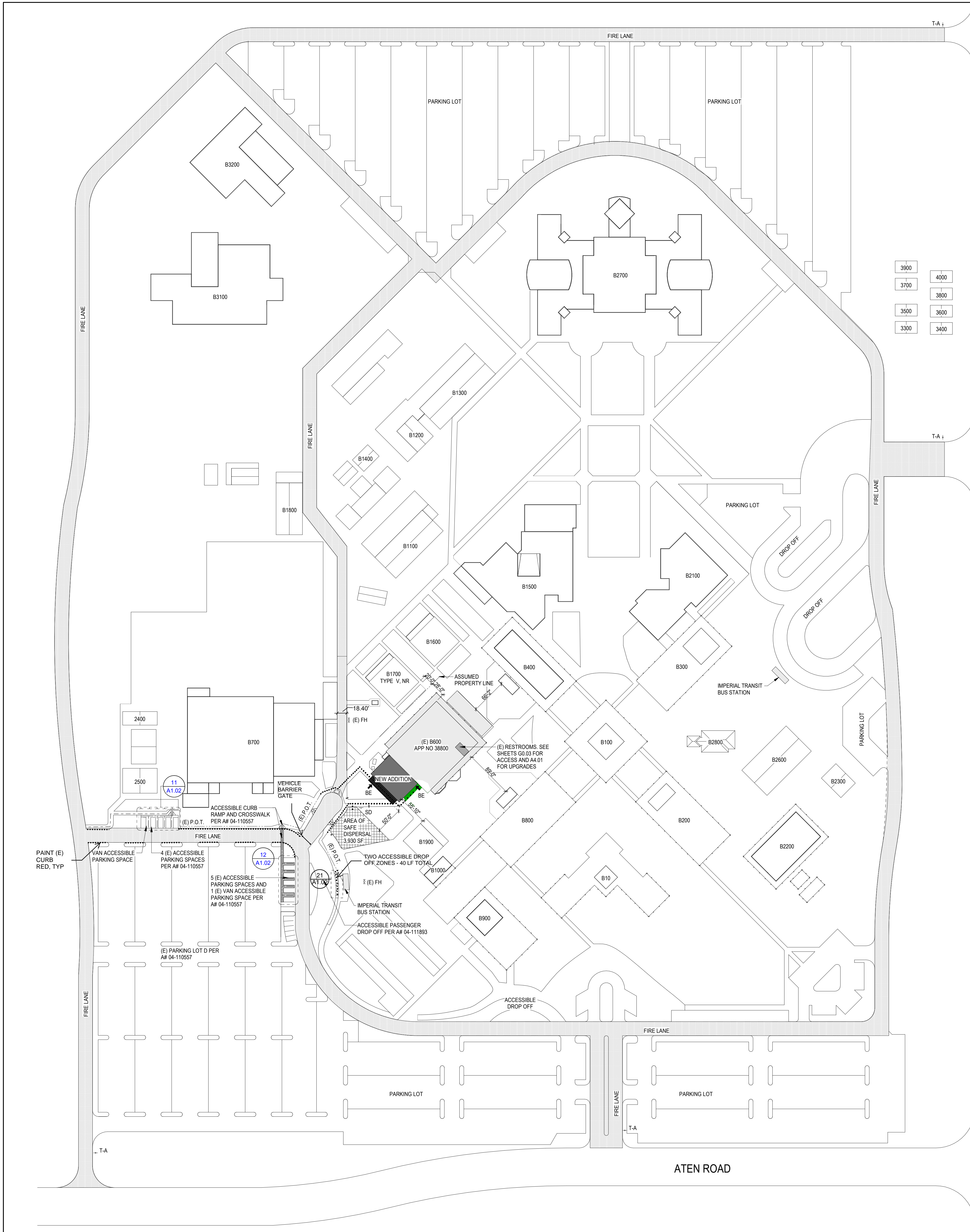


CLIENT IMPERIAL VALLEY COLLEGE PROJECT NUMBER 20190 DATE: 2020/12/08 DRAWN BY: Author CHECKED BY: Checker

Revisions table with columns for No., Description, and Date.

DSA SUBMITTAL SHEET INDEX, DRAWING CONVENTIONS, AND VICINITY MAP G0.01

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ROUTE 111

810 FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

Division of the State Architect (DSA) documents referenced within this publication are available on the DSA Forms or DSA Publications webpages.
To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new buildings, additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply. Information associated with compliance items 1 through 3 below is to be provided for all project types indicated above. Information associated with items 4 through 7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the Local Fire Authority (LFA) is only required when an alternate design means is being requested.

The Project Information and Fire & Life Safety Information sections are to be completed for all projects and imaged onto the fire access site plan. When an alternate design/means is proposed, all sections on pages 1 and 2 are to be completed and imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy PL 09-01: Fire Flow for Buildings.

PROJECT INFORMATION			
School District/Owner:	Imperial Community College District		
Project Name/School:	Imperial Valley College B600 Campus Center Expansion		
Project Address:	380 E. Aten Road, Imperial, CA 92251		
FIRE & LIFE SAFETY INFORMATION			
1. Has a fire hydrant flow test been performed within the past 12 months? (If yes, provide a copy of the test data.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
2. Was the fire hydrant water flow test performed as part of this LFA review?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
3. Is the project located within a designated fire hazard severity zone (FHSZ) as established by Cal-Fire? (If yes, indicate FHSZ classification below.)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Refer to the following website for FHSZ locations: http://legis.fire.ca.gov/FHSZ/	Moderate <input type="checkbox"/>	High <input type="checkbox"/>	Very High <input type="checkbox"/>
Wildland Interface Area (WIFA) (If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)			WIFA <input type="checkbox"/>

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DSA 810 FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

CONDITION MEANS AND METHODS RESOLUTION	ALTERNATE ACCEPTED			
	Yes	No	NA	N/A
4. Emergency vehicle access roadways do not meet CFC requirements.				
4a. Acceptable Alternate: Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Fire Hydrants: Number and spacing does not meet CFC requirements.				
5a. Acceptable Alternate: Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Fire Hydrants: Water flow and pressure are less than CFC minimum.				
6a. Acceptable Alternate: The available flow and pressure is acceptable for providing fire suppression and protection of life and property.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.				
7a. Acceptable Alternate: The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

School District Acceptance of Acceptable Design Alternates
By signing this form, the school district acknowledges and accepts the proposed design as an alternative to California Building Code (CBC) and California Fire Code (CFC) minimum requirements, as indicated by one or more of the conditions indicated at items 4a, 5a, 6a or 7a, for providing fire and life safety protection of life and property.

Accepted by: Josanna "Deedee" Garcia Title: V.P. for Administrative Services
Signature: [Signature] Date: 12/14/20

LOCAL FIRE AUTHORITY (LFA) INFORMATION			
LFA Agency Name:	Imperial County Fire Department		
LFA Review Official:	Robert Malek		
Title:	Deputy Fire Marshal		Work Phone: (442) 265-6000
Work Email:	robertmalek@co.imperial.ca.us		
LFA Reviewer's Signature:	<u>[Signature]</u> Date: <u>12/14/20</u>		

DGS DSA 810 (revised 01/30/20) DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA Page 2 of 4

4a. THE LOCAL FIRE AUTHORITY (IMPERIAL COUNTY FIRE DEPARTMENT) ACKNOWLEDGES AND ACCEPTS THAT THE EXISTING FIRE LANE WIDTH OF 18.4 FEET AT THE FIRE HYDRANT AND THE DISTANCE FROM THE FIRE HYDRANT TO ALL SIDES OF THE EXISTING BUILDING EXCEEDS 150 FEET.

ACCESSIBILITY LEGEND

- ACCESSIBLE PATH OF TRAVEL IN SCOPE
- (E) P.O.T. (E) ACCESSIBLE PATH OF TRAVEL PER DSA APPLICATION NUMBER 04-110557
- PROPERTY LINE
- ADDITION TO (E) BUILDING B600
- (E) BUILDING B600 TO BE MODERNIZED
- (E) FIRE LANE
- ⊗ (E) FH (E) FIRE HYDRANT
- T- TOW AWAY SIGN, SEE DETAIL 15 A1.02
- SD SAFE DISPERSAL AREA SIGN, SEE DETAIL 8 A1.02
- BE ACCESSIBLE BUILDING ENTRY
- PAINT (E) CURB RED

PATH OF TRAVEL

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS ARE FOUND TO BE NONCOMPLYING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

SITE PARKING NOTES

- THERE ARE NO ADDED OR REVISED PARKING SPACES ON THIS SITE FOR THIS PROJECT.
- ACCESSIBLE PARKING SPACES HAVE BEEN APPROVED UNDER DSA APPLICATION NUMBER 04-110557 AND DROP OFF ZONES HAVE BEEN APPROVED UNDER DSA APPLICATION NUMBER 04-111893.
- THE SITE IS NOT LOCATED IN THE WILDLAND URBAN INTERFACE AREA.
- TREES AND PLANTINGS SHALL BE TRIMMED AND MAINTAINED TO KEEP REQUIRED 13'-6" VERTICAL CLEARANCE AT FIRE LANE.

SAFE DISPERSAL NOTES

TOTAL OCCUPANCY B600 784 OCCUPANTS
DISPERSAL AREA FACTOR 5 SF PER OCCUPANT
SAFE DISPERSAL AREA 3,920 SF

CODE ANALYSIS SUMMARY

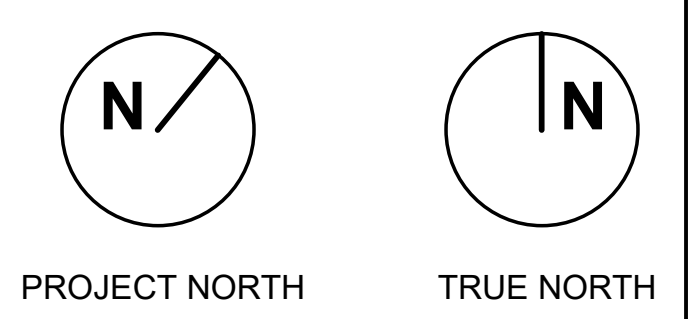
BUILDING TYPE: TYPE V-B
OCCUPANCY TYPE: A-2
AUTOMATIC FIRE-SPRINKLER SYSTEM: YES - ENTIRE BUILDING
BUILDING HEIGHT: 18'-0"
ALLOWABLE BUILDING HEIGHT: 60'-0"
STORIES: 1
ALLOWABLE STORIES: 2
BUILDING AREA (TOTAL (N) AND (E)): 19,831 SF
ALLOWABLE BUILDING AREA: 24,000 SF

APPLICATION NUMBERS

BUILDING	APPLICATION NUMBER(S)
100 ADMINISTRATION	21614
200 CLASSROOM	118720, 112585, 21614
300 CLASSROOM	118720, 112585, 21614
400 CLASSROOM	112585, 111262, 21614
600 CAMPUS CENTER	38800, 21614
700 GYMNASIUM	104120, 100778, 119344, 118942, 118941, 21614
800 CLASSROOM	118720
800 TECHNOLOGY	112788, 52343
1000 STUDENT AFFAIRS	119467
1100 INDUSTRIAL TECH	21616
1500 LIBRARY	102020
2100 NURSING	41726
2700 SCIENCE	108533
3100 CAREER TECH	112064
3200 CAREER TECH	112064

RELOCATABLE	APPLICATION NUMBER(S)
1	115279, 02-106166
1	101514, 03-101928
1	107053, 04-101748
1	118872
T800 OFFICE	119354
REL.0 80120	103704
CHILDCARE 36x40	100748

SITE	APPLICATION NUMBER(S)
BUS TERMINALS AND SITE (ACCESSIBLE DROP OFF)	111893
SITE LIGHTING AND FIELDS	118942
ACCESSIBLE PARKING (LOT D)	110557



DSA FILE NO. 13-C1 AF 04-119487

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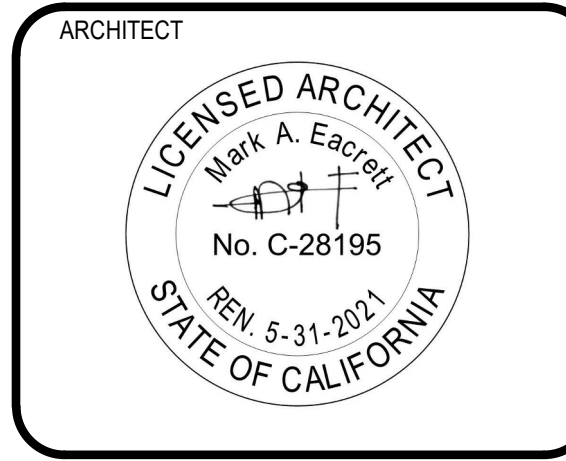


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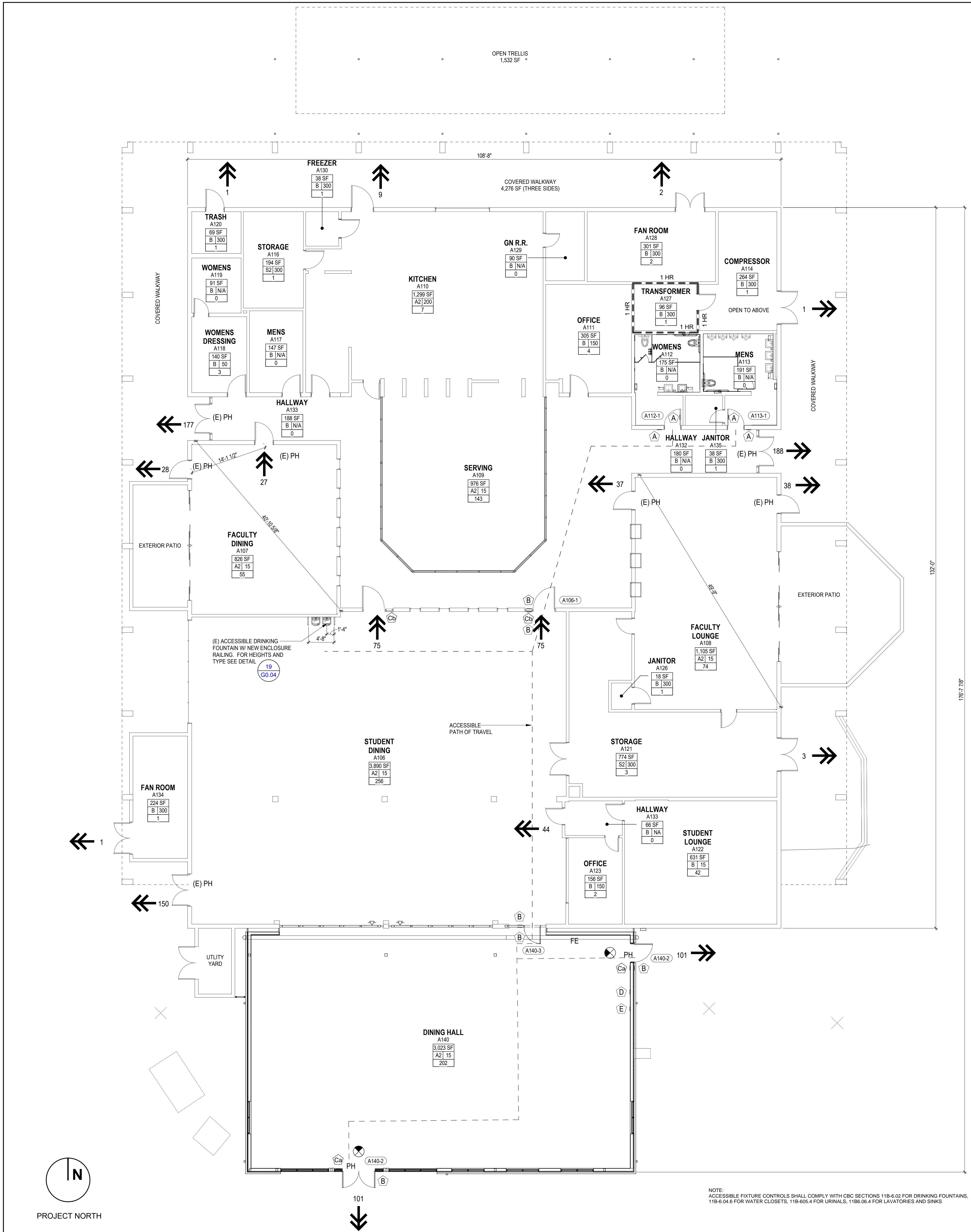
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DSA SUBMITTAL

FIRE AND ACCESSIBILITY SITE PLAN

G0.02

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NOTE:
ACCESSIBLE FIXTURE CONTROLS SHALL COMPLY WITH CBC SECTIONS 11B-6.02 FOR DRINKING FOUNTAINS,
11B-6.04.6 FOR WATER CLOSETS, 11B-6.05.4 FOR URINALS, 11B-6.06.4 FOR LAVATORIES AND SINKS

CODE PLAN LEGEND

- ILLUMINATED EXIT SIGN, SEE ELECTRICAL
- Name → ROOM NAME
101 → ROOM NUMBER
A → ROOM AREA (SQUARE FEET)
G (OLF) → OCCUPANCY LOAD FACTOR (2019 CBC)
OL → OCCUPANCY LOAD
OC → OCCUPANCY GROUP
- OL → OCCUPANCY LOAD
RW 36 → EXIT WIDTH
1 → REQUIRED EXIT WIDTH
- 36 → EXIT DISCHARGE
- 25 LF → ACCESSIBLE PATH WITH LENGTH
- PH / (E)PH → PANIC HARDWARE / EXISTING PANIC HARDWARE
- FE → FIRE EXTINGUISHER CABINET, SEE DETAIL 13 G0.04
- → ONE HOUR FIRE BARRIER, SEE DETAIL 24 A7.01
- A140-2 → DOOR NUMBER TAG, SEE DOOR SCHEDULE ON SHEET A8.02
- 1 HR → PAINT 3" HIGH LETTERS "FIRE BARRIER - PROTECT ALL OPENINGS" PER DETAIL 14IG0.04

SIGNAGE LEGEND

- A → RESTROOM DOOR AND WALL SIGNS 6 G0.04
- B → ROOM AND BUILDING ENTRANCE ID SIGNS 5 G0.04
- C → MAXIMUM OCCUPANT LOAD SIGN 16 G0.04
- D → MAXIMUM OCCUPANT LOAD SIGN 15 G0.04
- E → ASSISTIVE LISTENING DEVICE SIGN 20 G0.04

OCCUPANCY SCHEDULE

Room No.	Room Name	Exist (E) New (N)	Area (NET)	Occupancy	Number of Exiting
A106	STUDENT DINING	(E)	3,890 SF	256	
A107	FACULTY DINING	(E)	826 SF	55	
A108	FACULTY LOUNGE	(E)	1,105 SF	74	
A109	SERVING	(E)	976 SF	143	
A110	KITCHEN	(E)	1,299 SF	7	
A111	OFFICE	(E)	305 SF	4	
A112	WOMENS	(E)	175 SF	0	0
A113	MENS	(E)	191 SF	0	0
A114	COMPRESSOR	(E)	264 SF	1	1
A116	STORAGE	(E)	194 SF	1	1
A117	MENS	(E)	147 SF	0	0
A118	WOMENS DRESSING	(E)	140 SF	3	3
A119	WOMENS	(E)	91 SF	0	0
A120	TRASH	(E)	69 SF	1	1
A121	STORAGE	(E)	774 SF	3	
A122	STUDENT LOUNGE	(E)	631 SF	42	1
A123	OFFICE	(E)	156 SF	2	2
A126	JANITOR	(E)	18 SF	1	1
A127	TRANSFORMER	(E)	96 SF	1	1
A128	FAN ROOM	(E)	301 SF	2	2
A129	GN R.R.	(E)	90 SF	0	0
A130	FREEZER	(E)	38 SF	1	1
A132	HALLWAY	(E)	180 SF	0	0
A133	HALLWAY	(E)	66 SF	0	0
A133	HALLWAY	(E)	188 SF	0	0
A134	FAN ROOM	(E)	224 SF	1	1
A135	JANITOR	(E)	38 SF	1	1
A140	DINING HALL	(N)	3,023 SF	202	2
28			15,494 SF	784	

CODE ANALYSIS

BUILDING	OCCUPANCY CLASS	TYPE	FIRE SPRINKLER	ALLOW NO. OF STORIES	NO. OF STORIES	ALLOW. BLDG. HT.	BUILDING HEIGHT	SQ. FOOT ALLOWANCE	ACTUAL SQ. FOOTAGE
(E) BLDG 600 *	A2	V-1 HOUR	YES	2	1	50'-0"	16'-3"	-	13,636
(E) BLDG 600 OVERHANGS *	A2	V-1 HOUR	YES	2	1	50'-0"	16'-3"	-	2,138 (112 x 4,276)
(E) ADJACENT TRELLIS	A2	V-1 HOUR	YES	2	1	50'-0"	16'-3"	-	786 (112 x 1,532)
BLDG 600 ADDITION	A2	V-1 HOUR	YES	2	1	50'-0"	16'-3"	-	3,027
SINGLE BUILDING B600	A2	V-NON-RATED	YES	2	1	50'-0"	16'-3"	24,000	19,567

* THE EXISTING BUILDING B600 WAS MOST RECENTLY PERMITTED AS A TYPE V ONE HOUR BUILDING PER DSA APPLICATION NUMBER 38800, JANUARY 13, 1976

BUILDING TYPE: AUTOMATIC FIRE SPRINKLER SYSTEM
BUILDING HEIGHT: 16'-0"
ALLOWABLE BUILDING HEIGHT: 60'-0"
STORIES: 1
ALLOWABLE STORIES: 2
BUILDING AREA (TOTAL (N) AND (E)): 19,831 SF
ALLOWABLE BUILDING AREA: 24,000 SF

TYPE V-B
YES - ENTIRE BUILDING
16'-0"
60'-0"
1
2
19,831 SF
24,000 SF

EXIT WIDTH

	WIDTH	ECF	OCCUPANCY LOAD	REQUIRED WIDTH
SINGLE EXIT DOOR	36"	0.2'	177	35.4"
PAIR EXIT DOOR	72"	0.2'	188	37.6"

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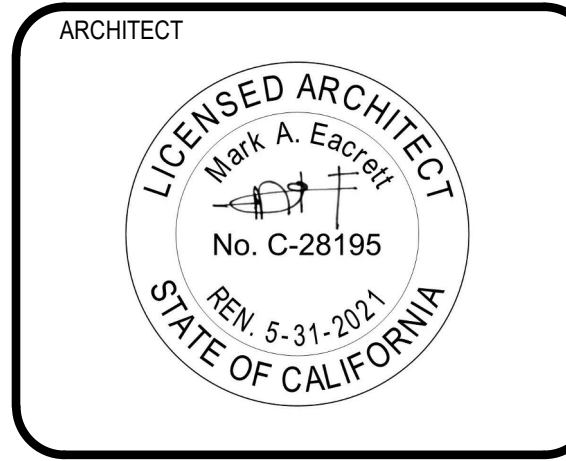


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CONSULTANT

ENGINEER

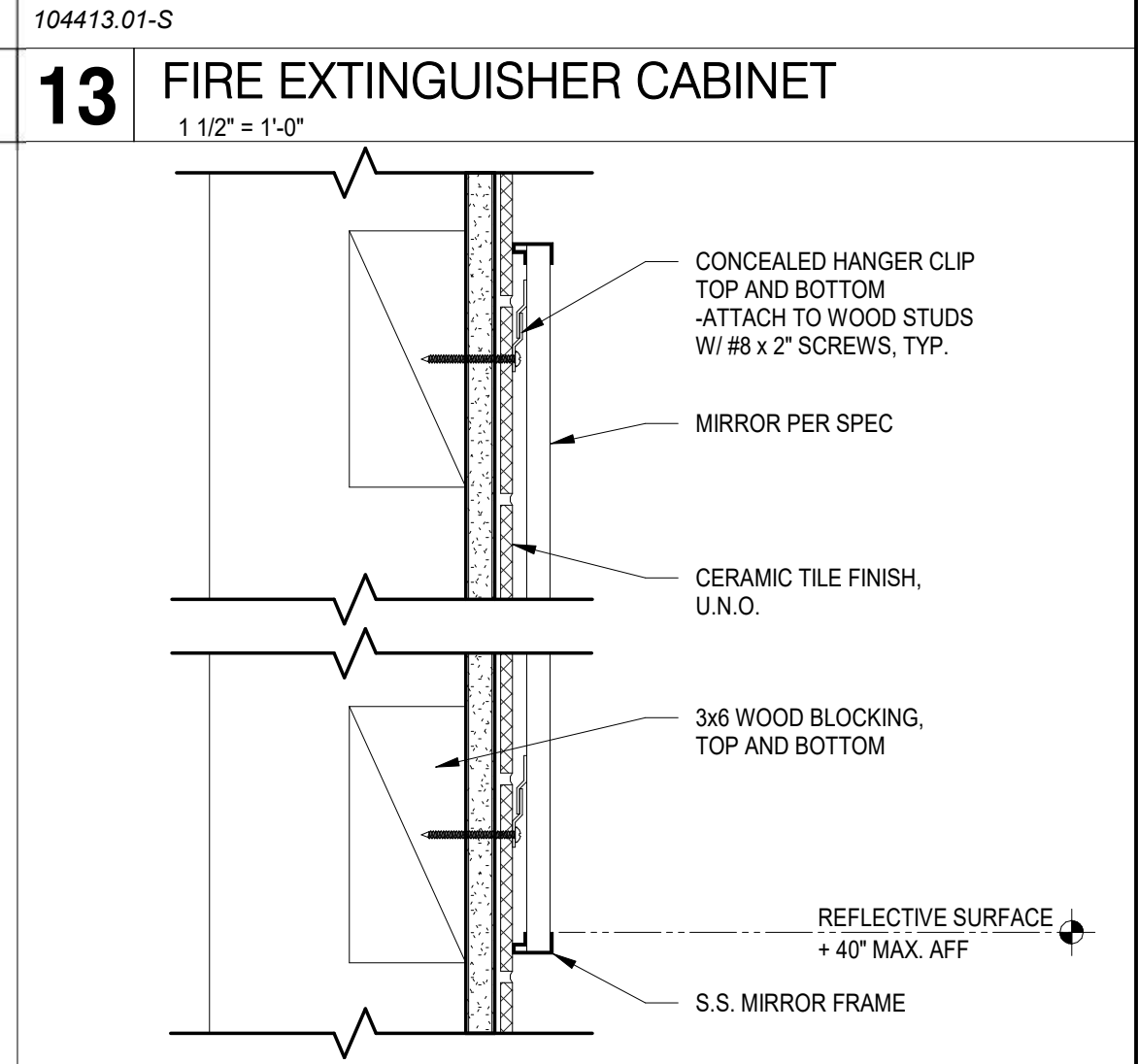
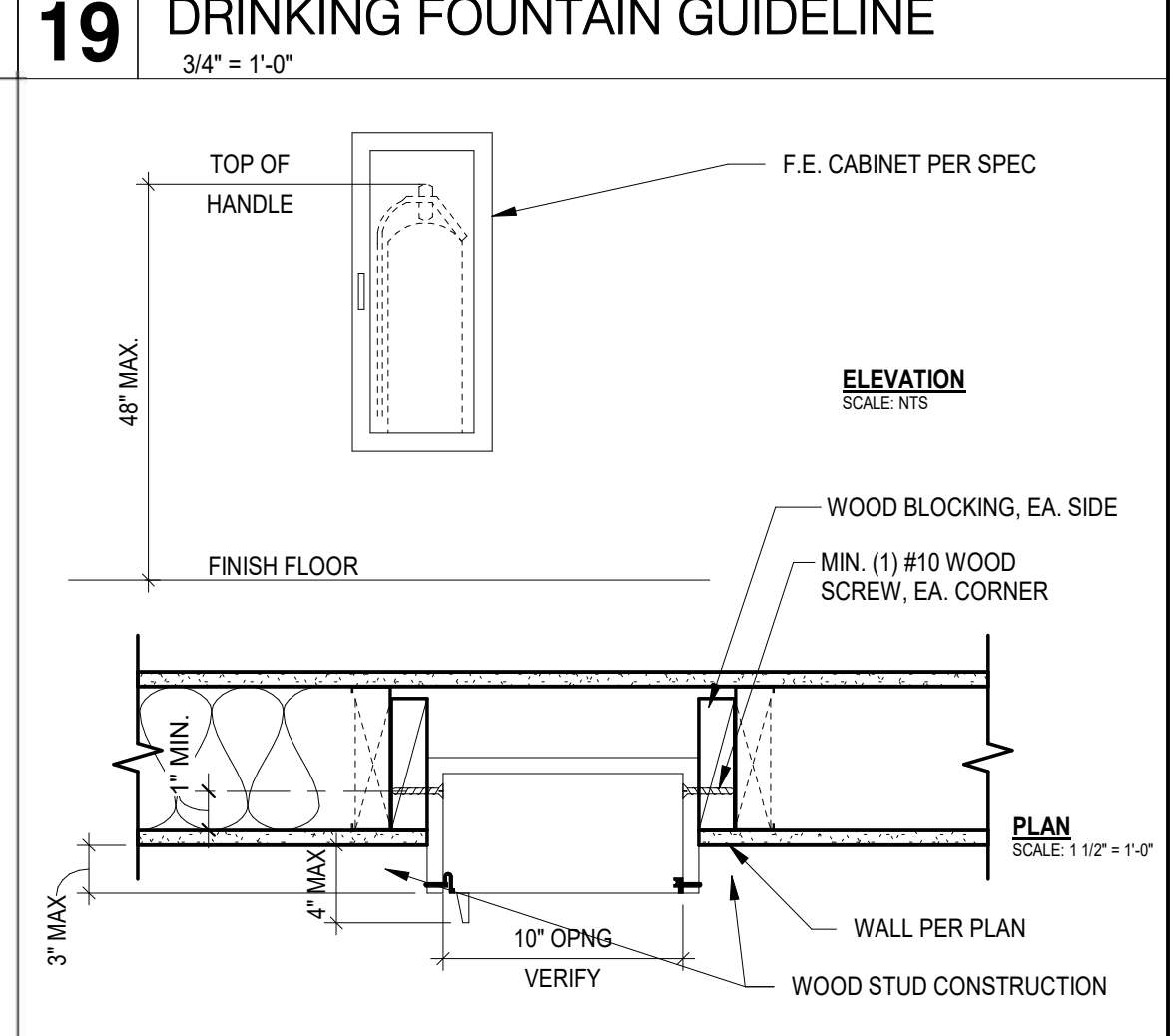
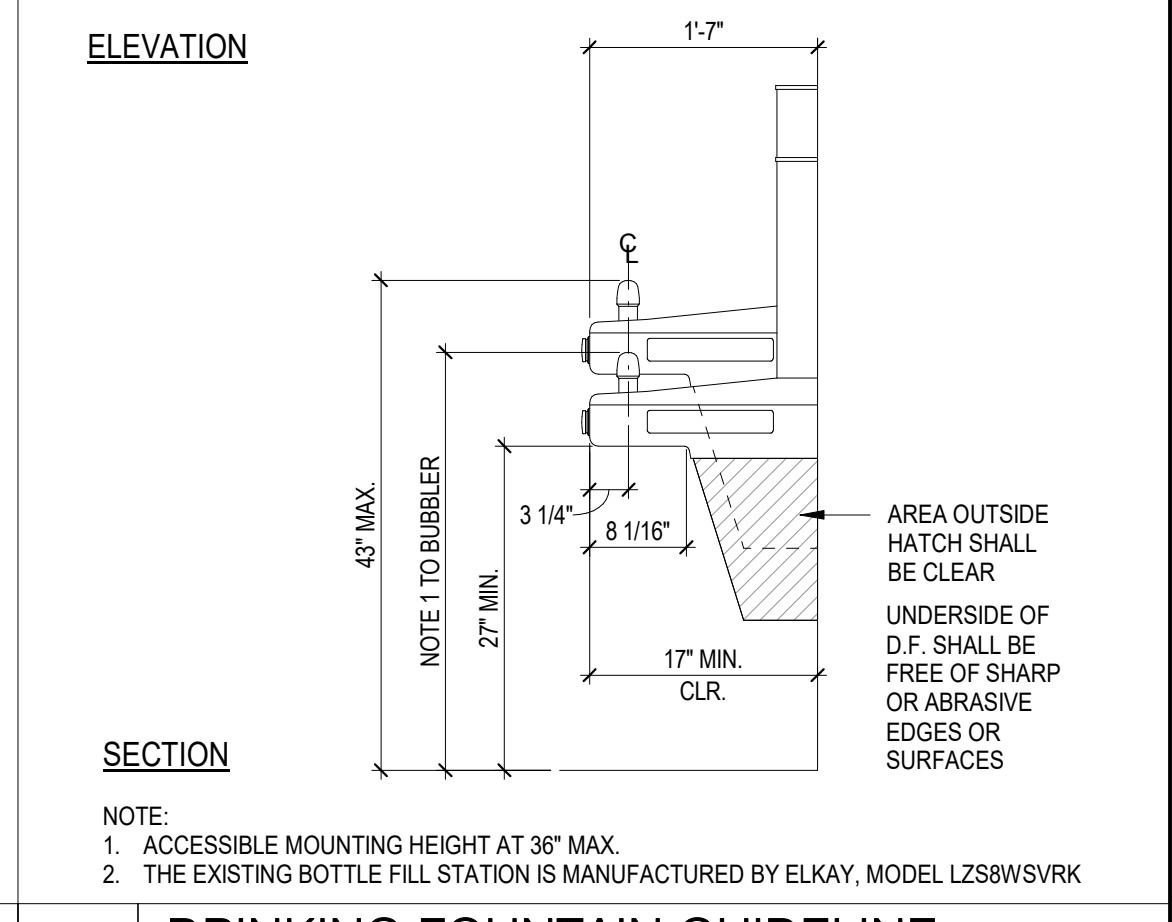
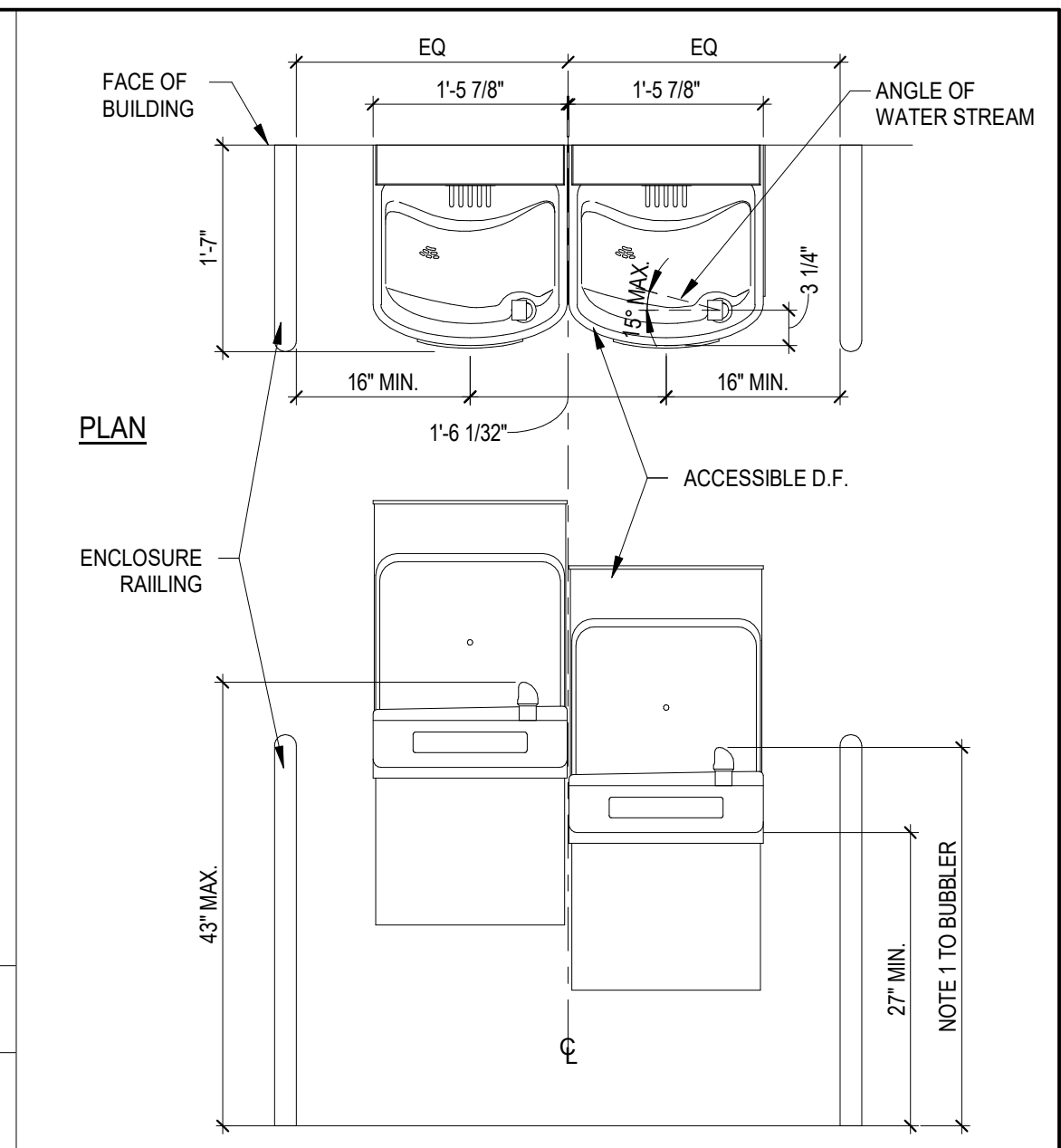


CLIENT
IMPERIAL VALLEY COLLEGE
PROJECT NUMBER
20190
DATE: 2020/12/08
DRAWN BY: Author
CHECKED BY: Checker
REVISIONS

No.	Description	Date

DSA SUBMITTAL
CODE AND SIGNAGE PLAN

G0.03



7 TOILET ROOM MIRROR MOUNTING
 12" = 1'-0"

LABEL	DESCRIPTION	REMARKS
TA-1	COMBO T.P. AND SEAT COVER DISPENSER AND S.N. DISPOSAL	
TA-2	T.P. DISPENSER	
TA-3	SEAT COVER DISPENSER	
TA-4	GRAB BARS AT TYPICAL ACCESSIBLE TOILET STALLS	
TA-5	SOAP DISPENSER	
TA-6	PAPER TOWEL DISPENSER	
TA-7	MIRROR (24"X36" U.N.O.)	
TA-8	PAPER TOWEL DISPENSER (EXISTING)	
TA-9	PAPER TOWEL DISPENSER (EXISTING)	
TA-10	WASTE RECEPTACLE	
TA-11	CLOTHES HOOK	

NOTE 5

NOTES:
 1. ALL TOILET ACCESSORIES SHALL BE CONTRACTOR FURNISHED AND INSTALLED UNLESS NOTED OTHERWISE.
 2. COORDINATE FINAL LOCATIONS WITH ARCHITECT PRIOR TO INSTALLATION.
 3. CONTRACTOR IS TO VERIFY ALL HEIGHTS OF ACCESSORIES TO COMPLY WITH ADA.
 4. REFER TO ALL FINISHES AND COLORS IN FINISH SCHEDULE VERIFY ALL PATTERNS WITH ARCHITECT.
 5. ONE HOOK INSIDE DOOR AT EACH TOILET PARTITION, ONE HOOK INSIDE DOOR AT SINGLE TOILET ROOMS AND ONE HOOK AT EACH SHOWER. MOUNTED AT 48" MAX AFF.

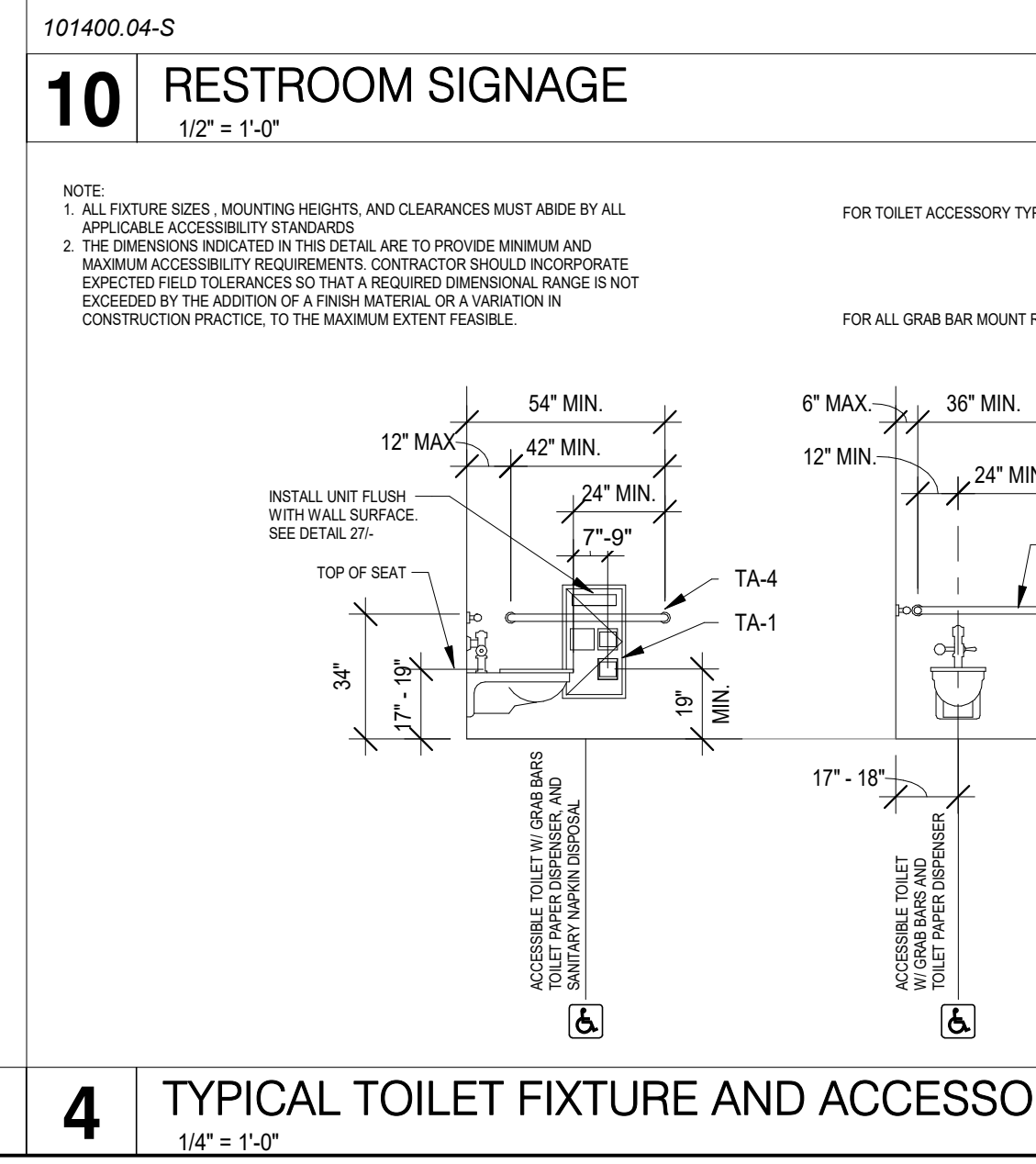
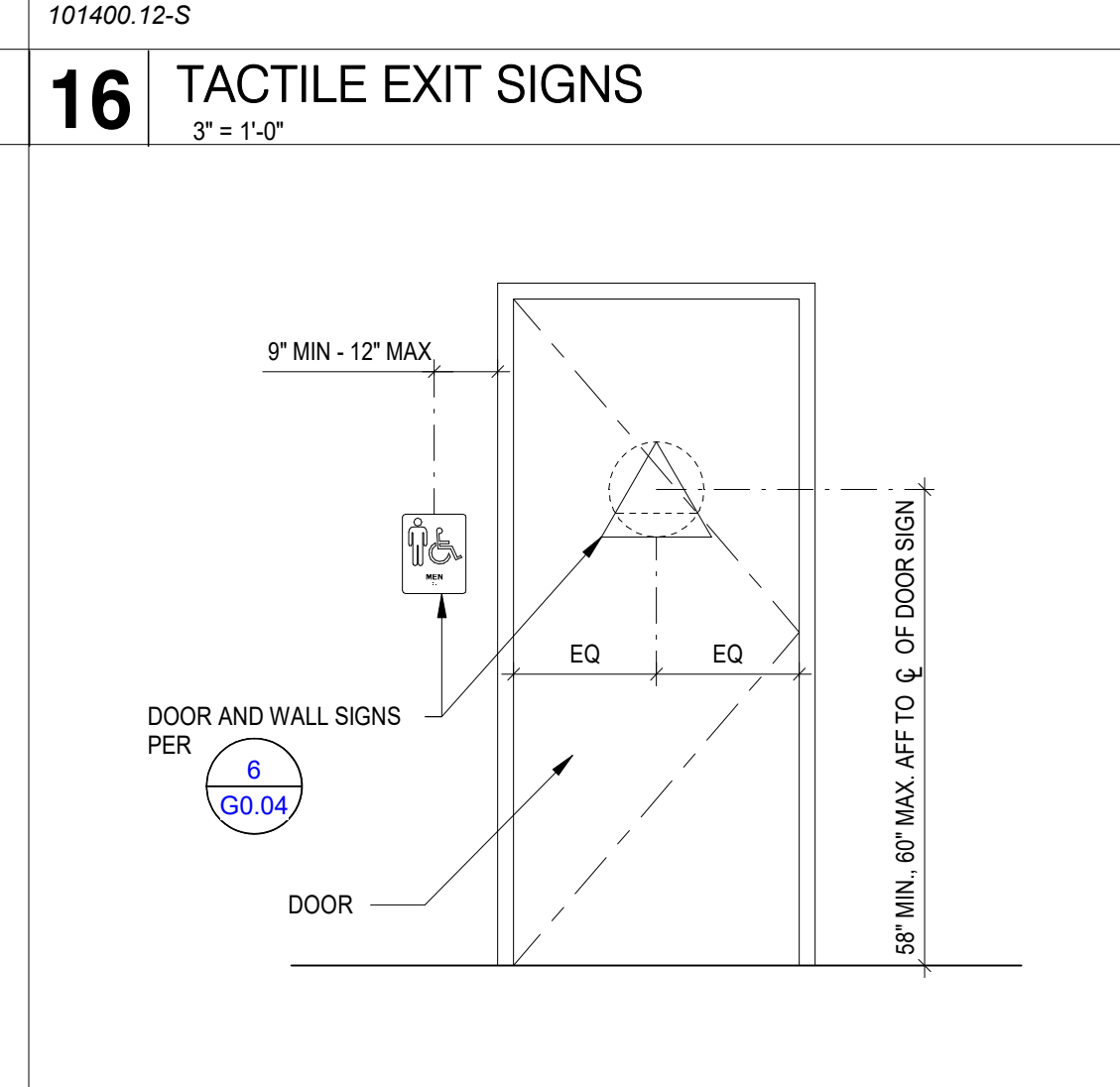
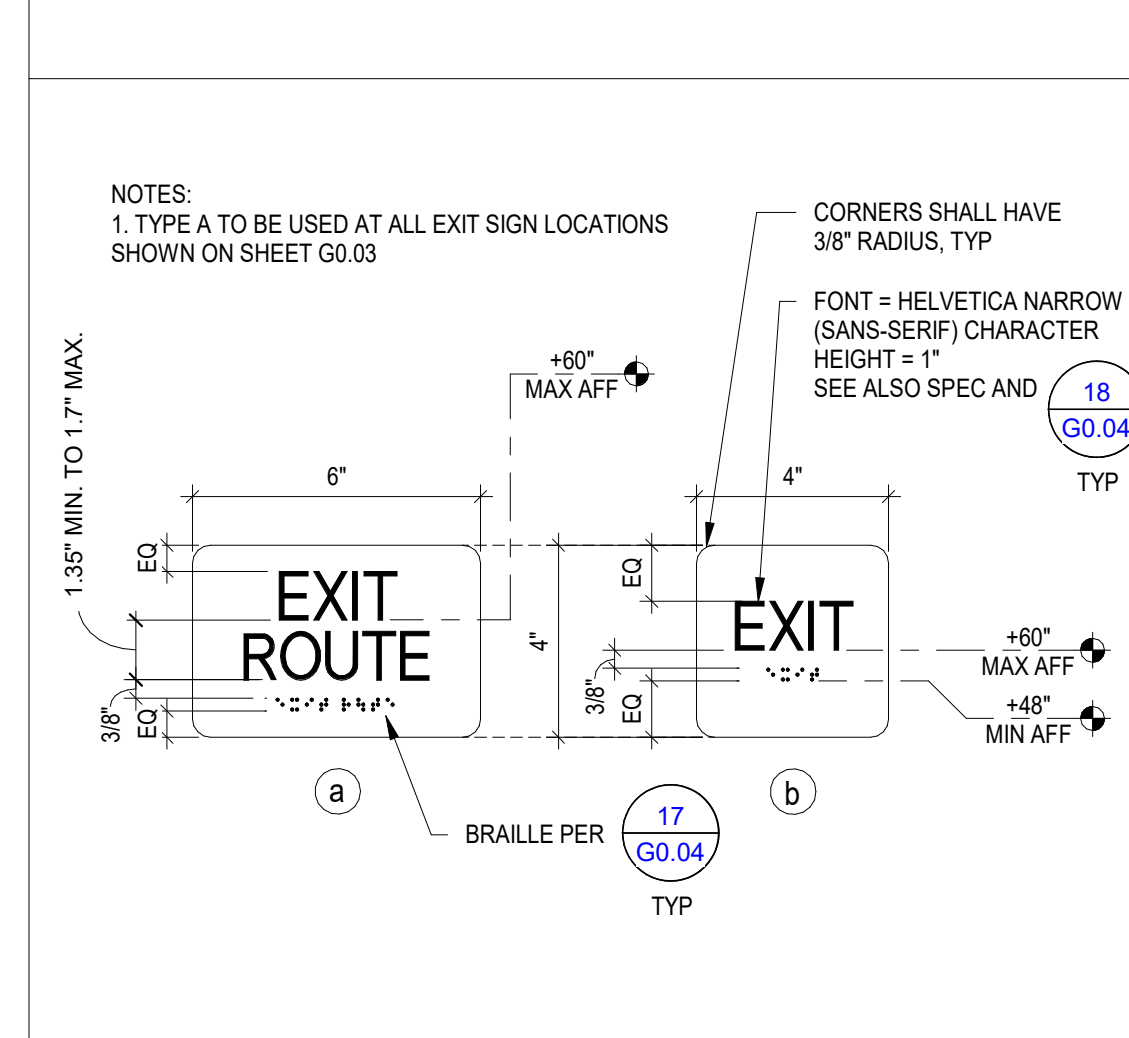
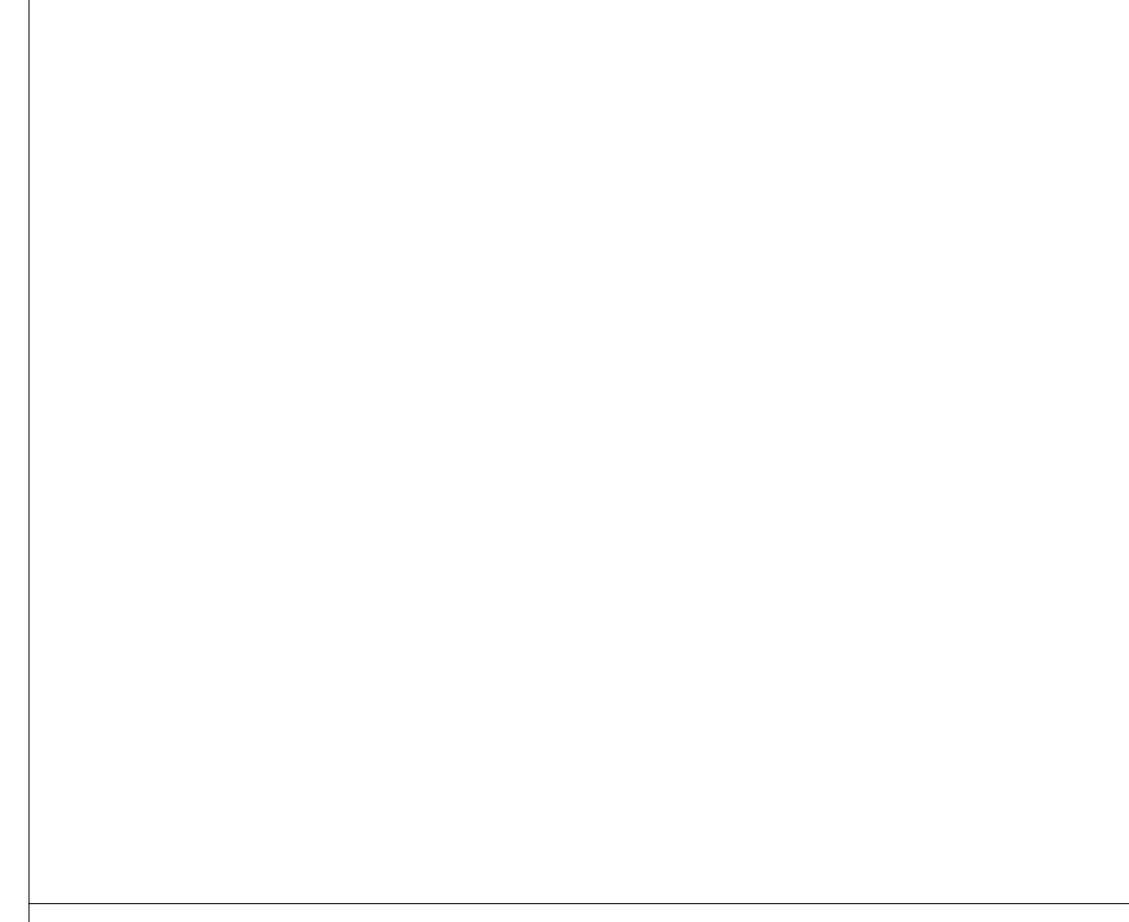
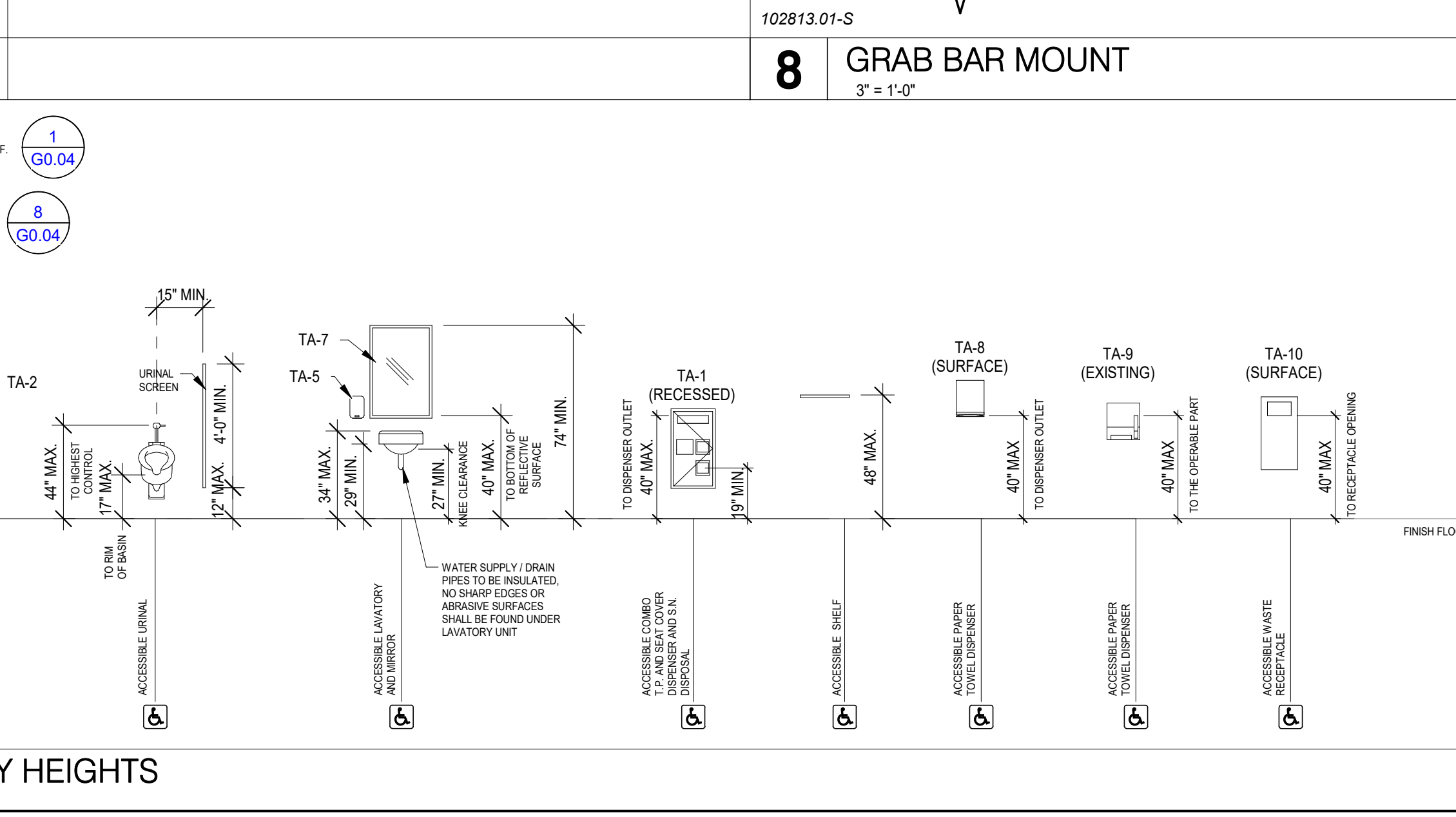
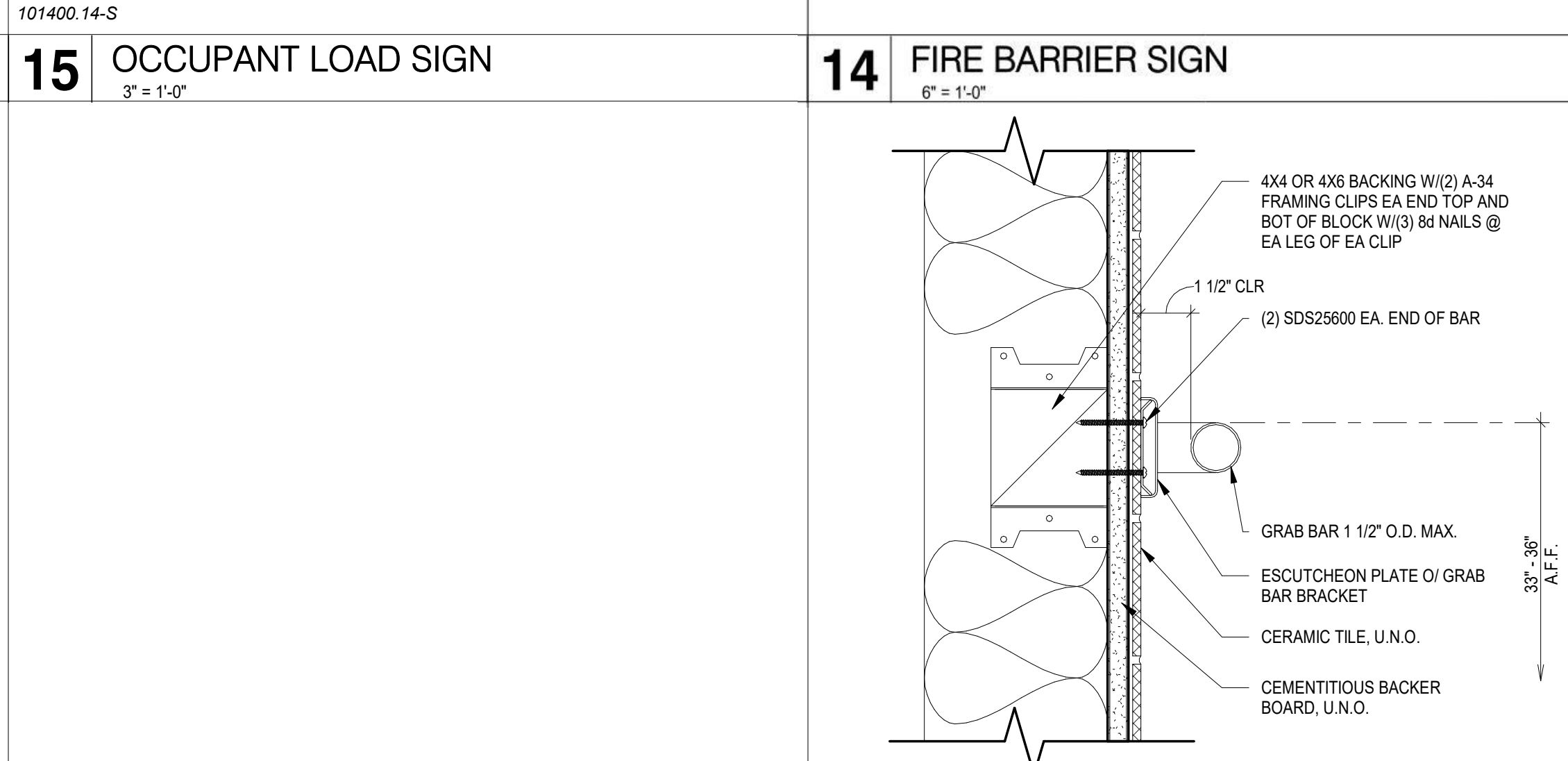
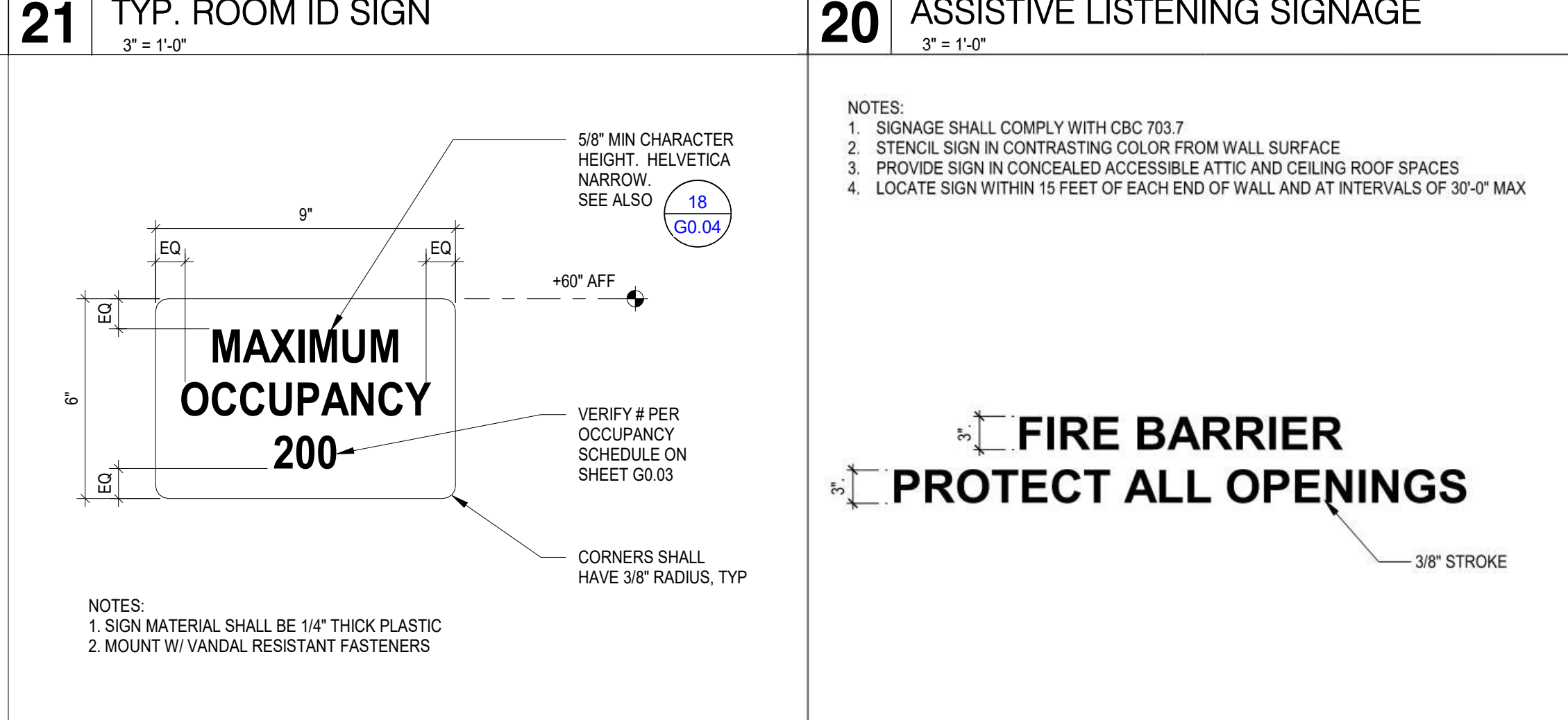
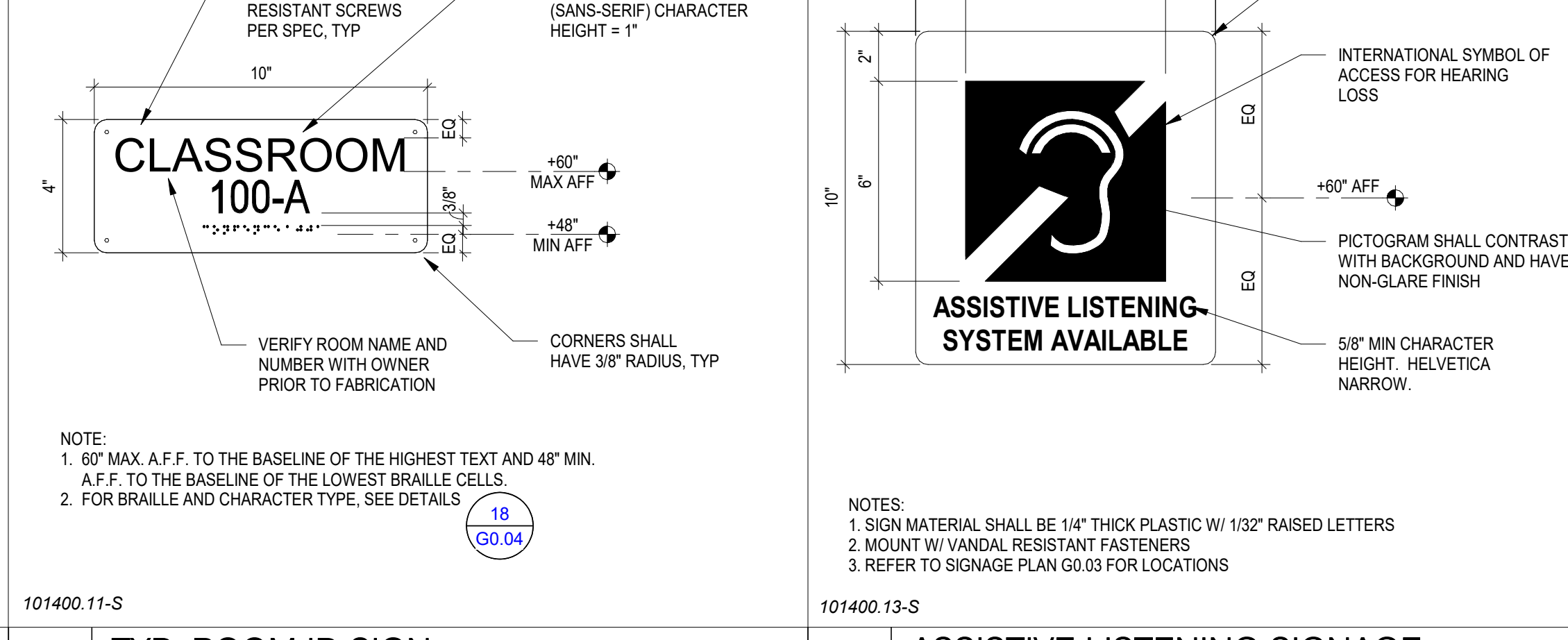
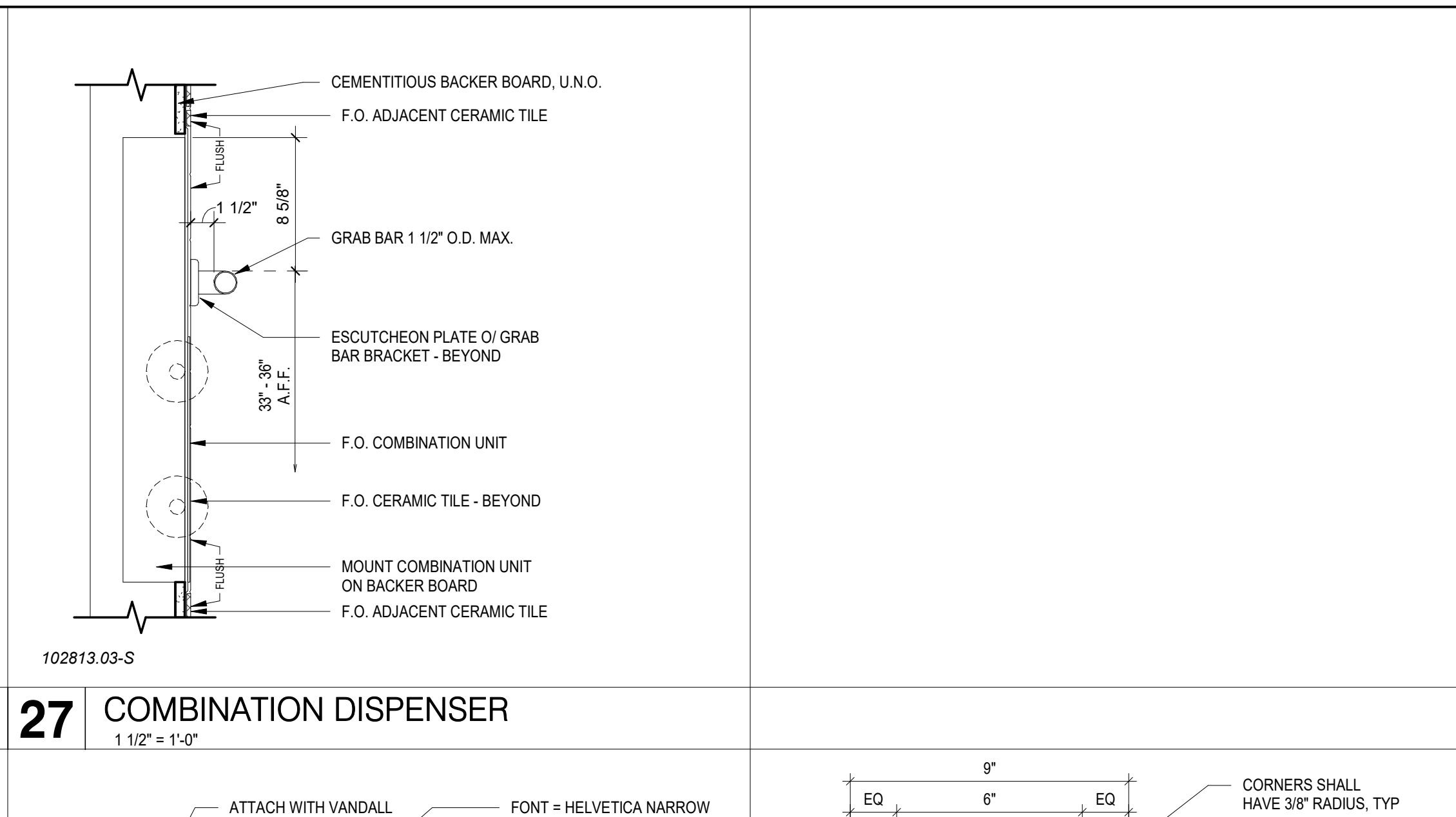
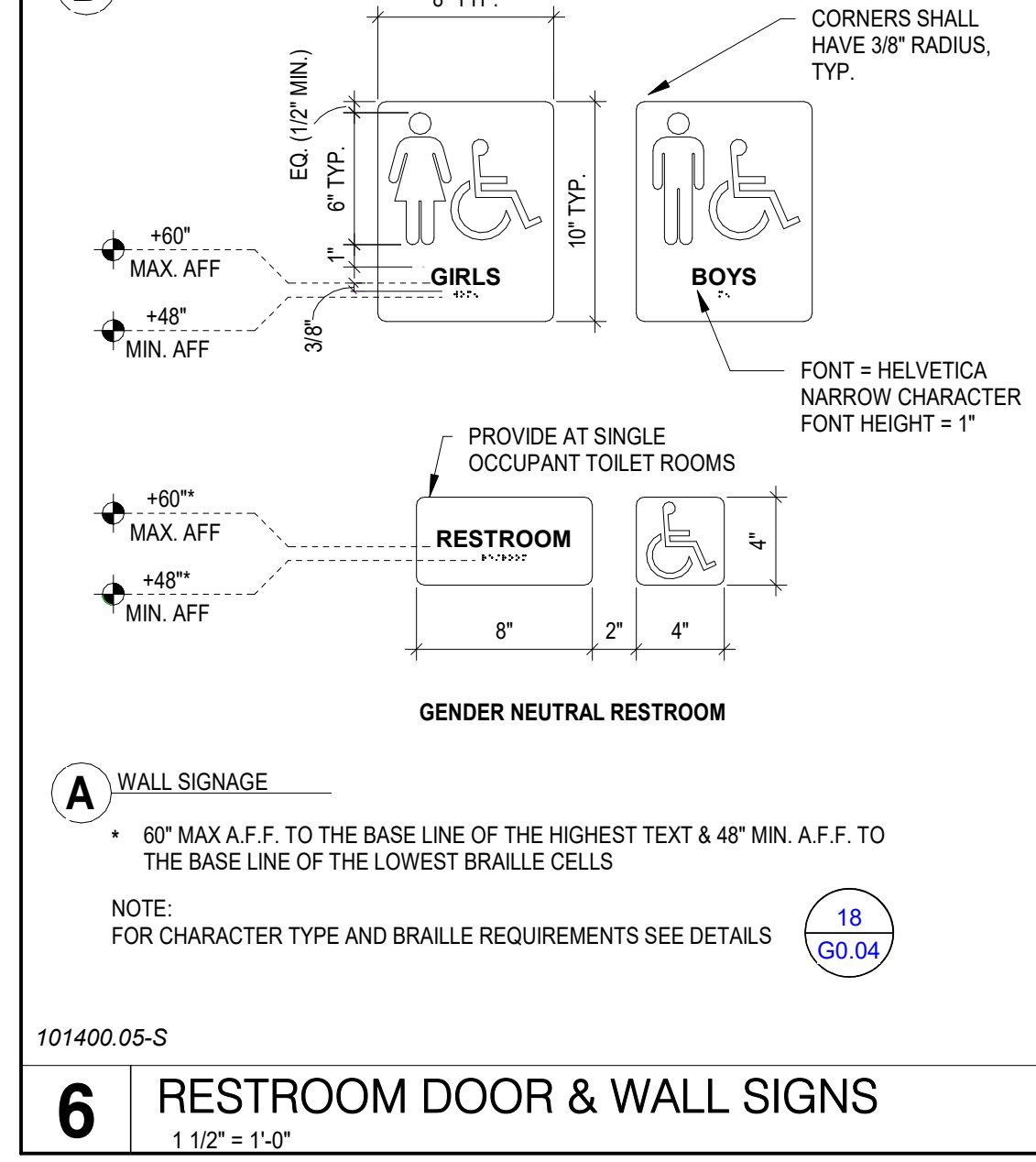
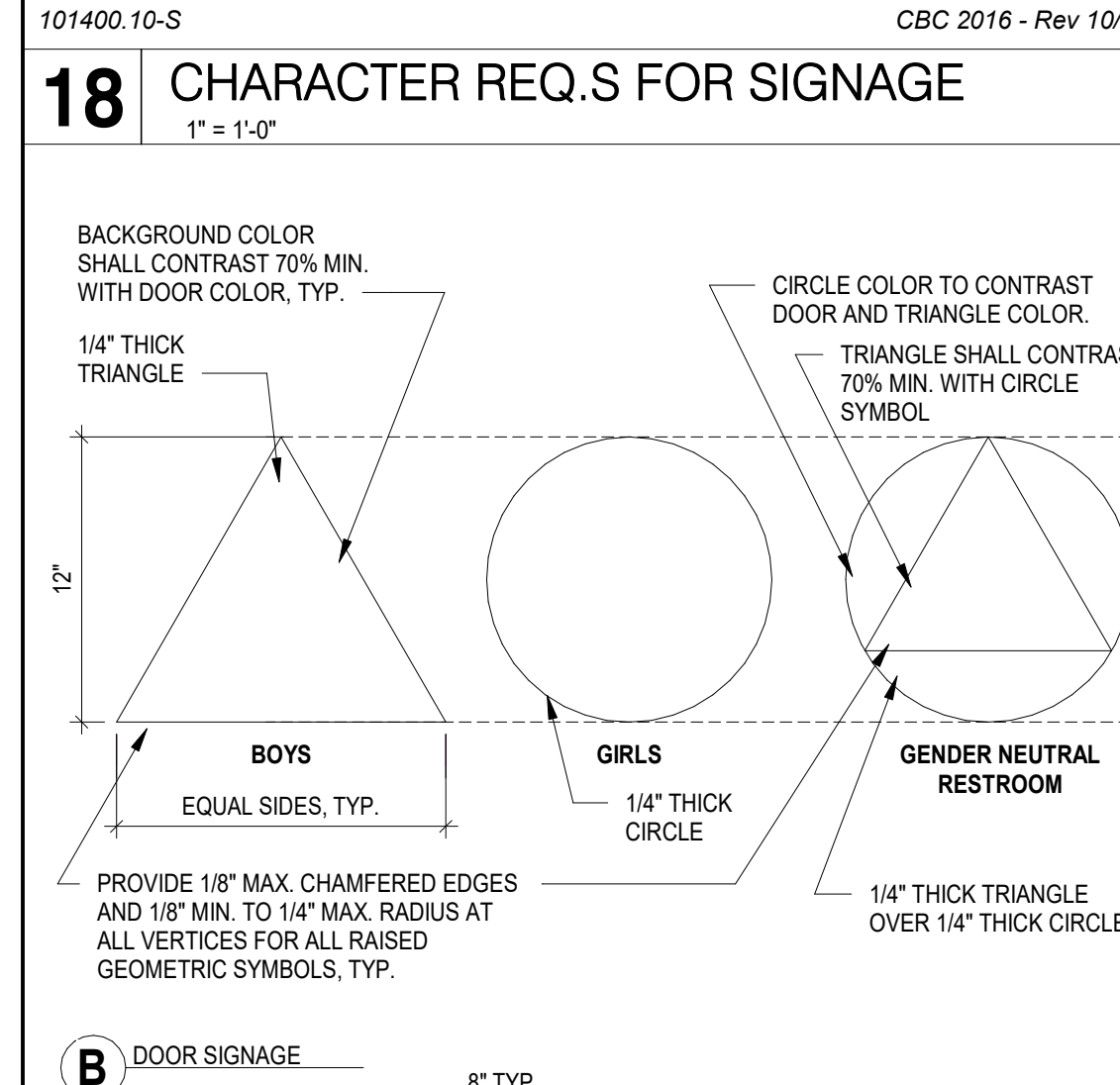
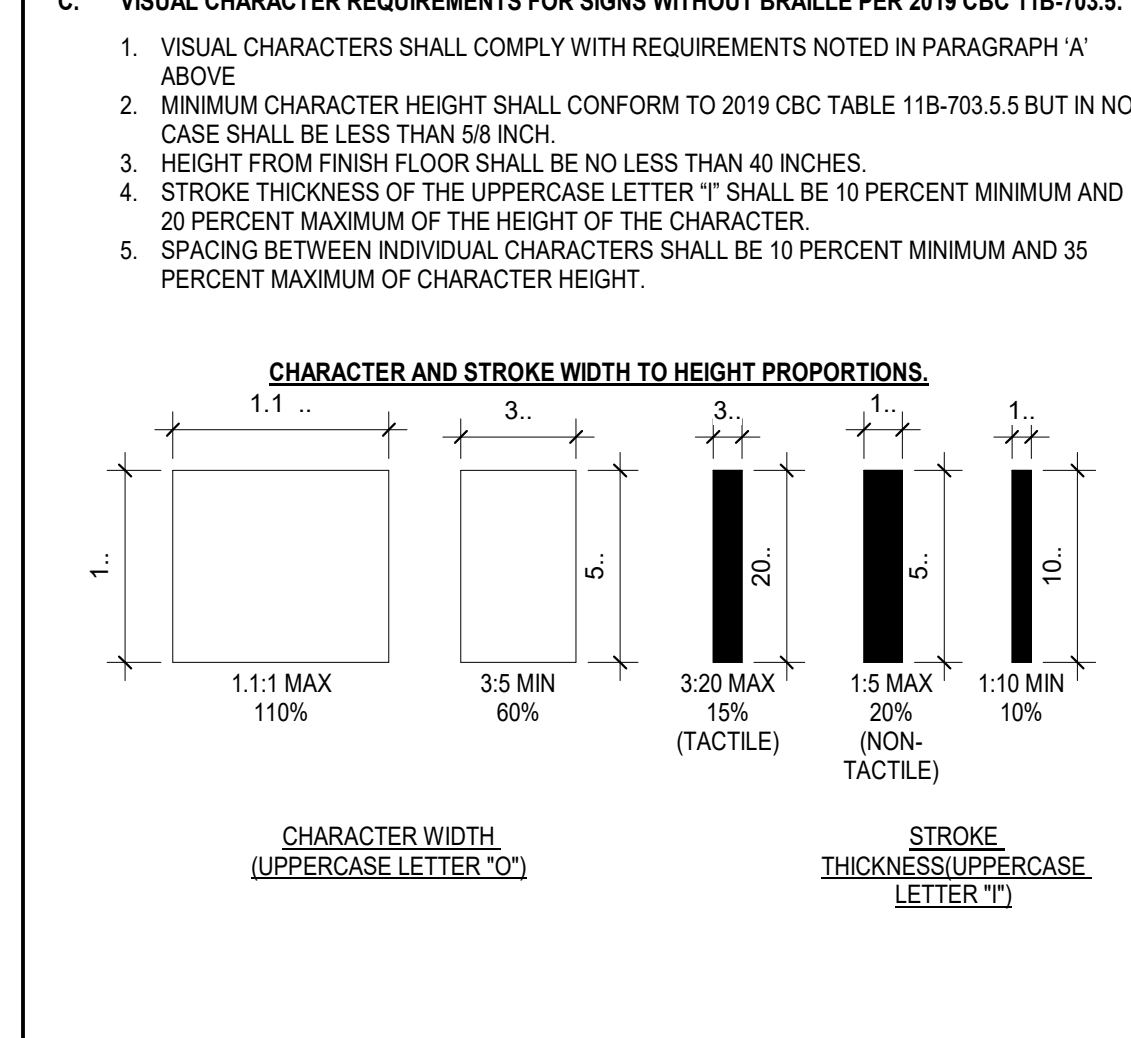
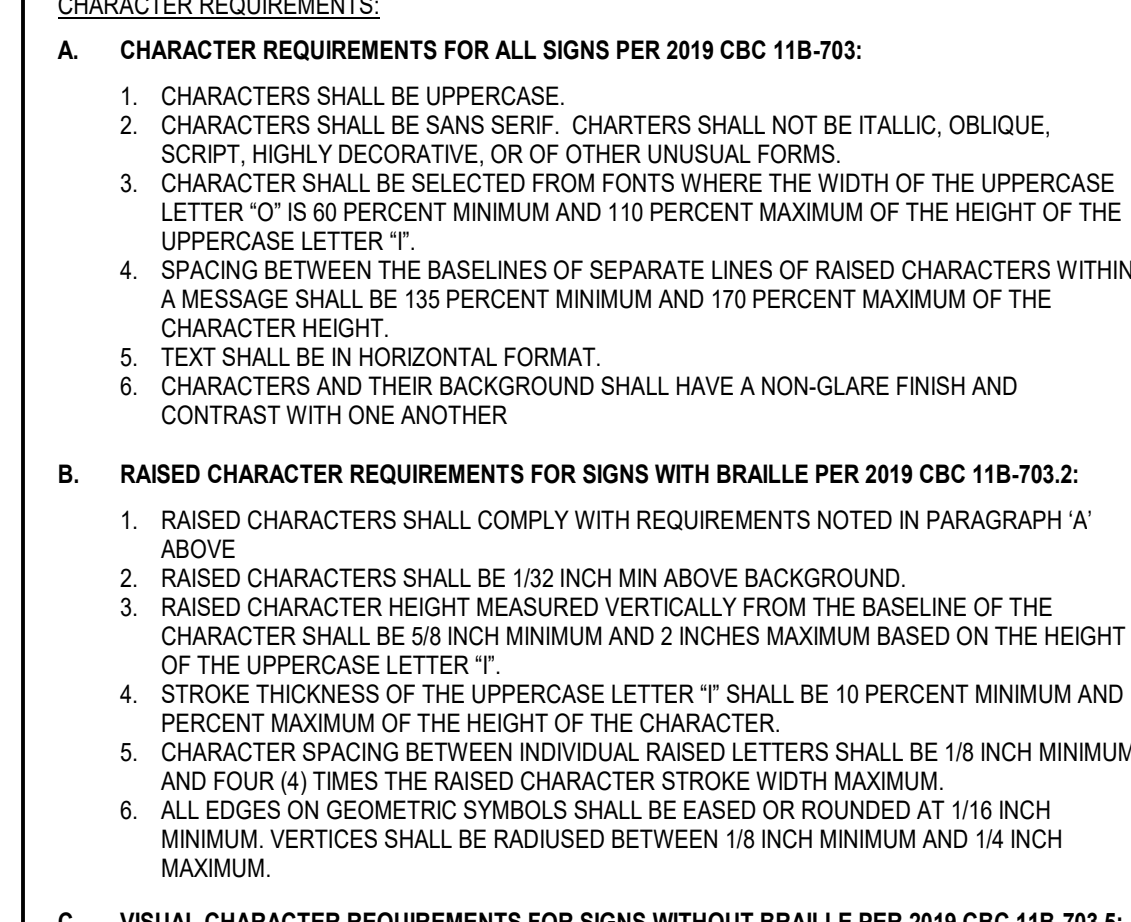
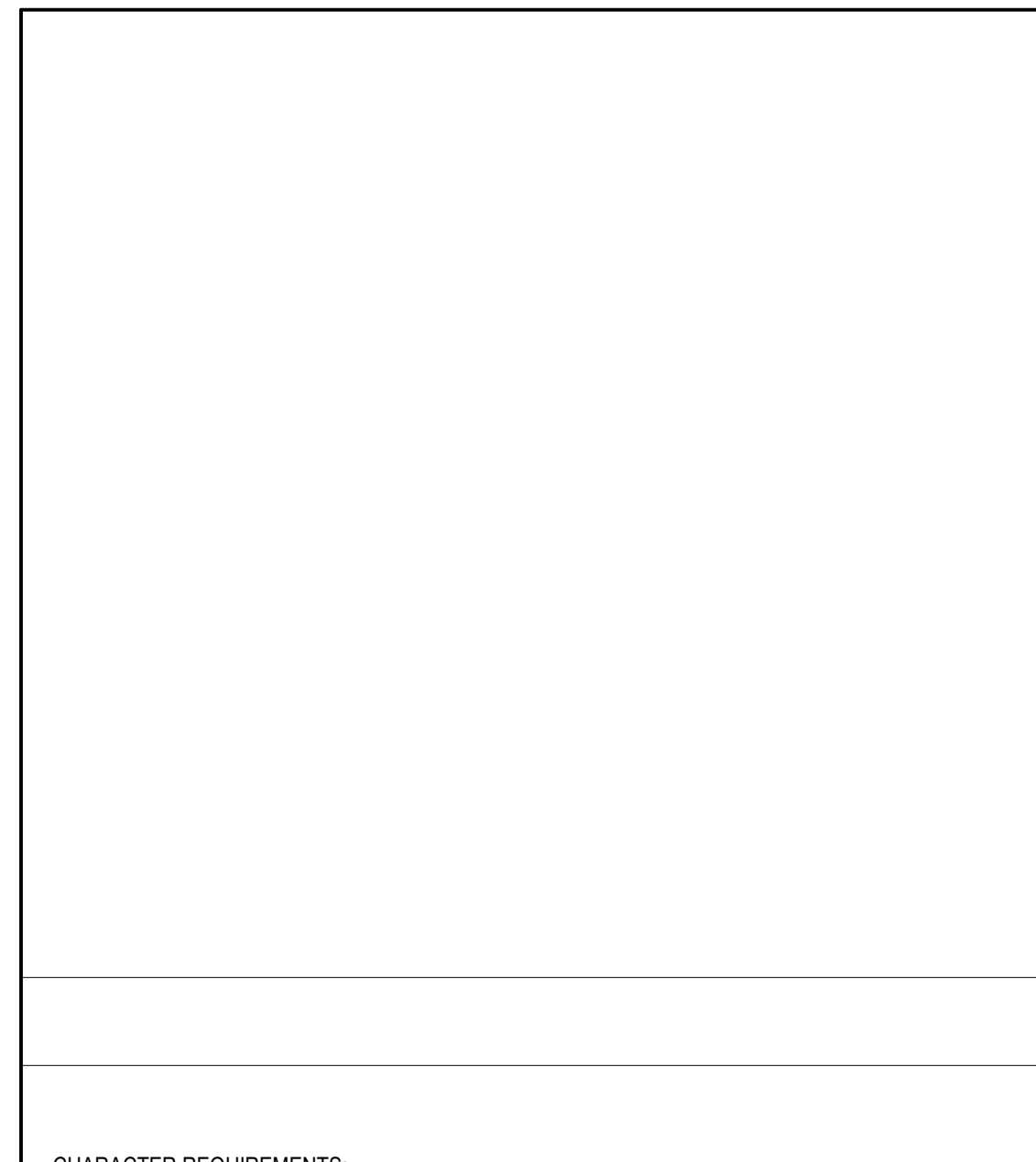
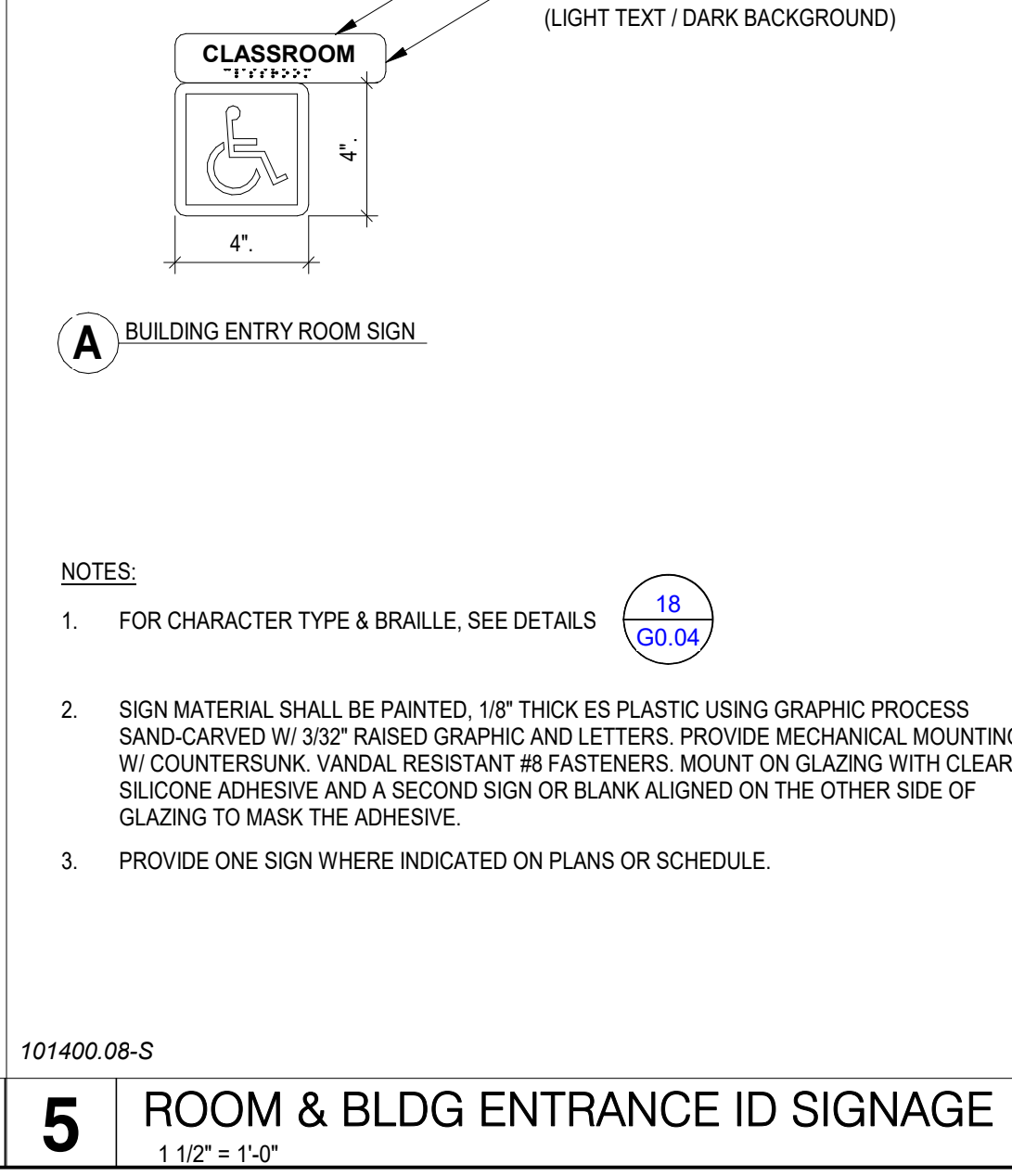
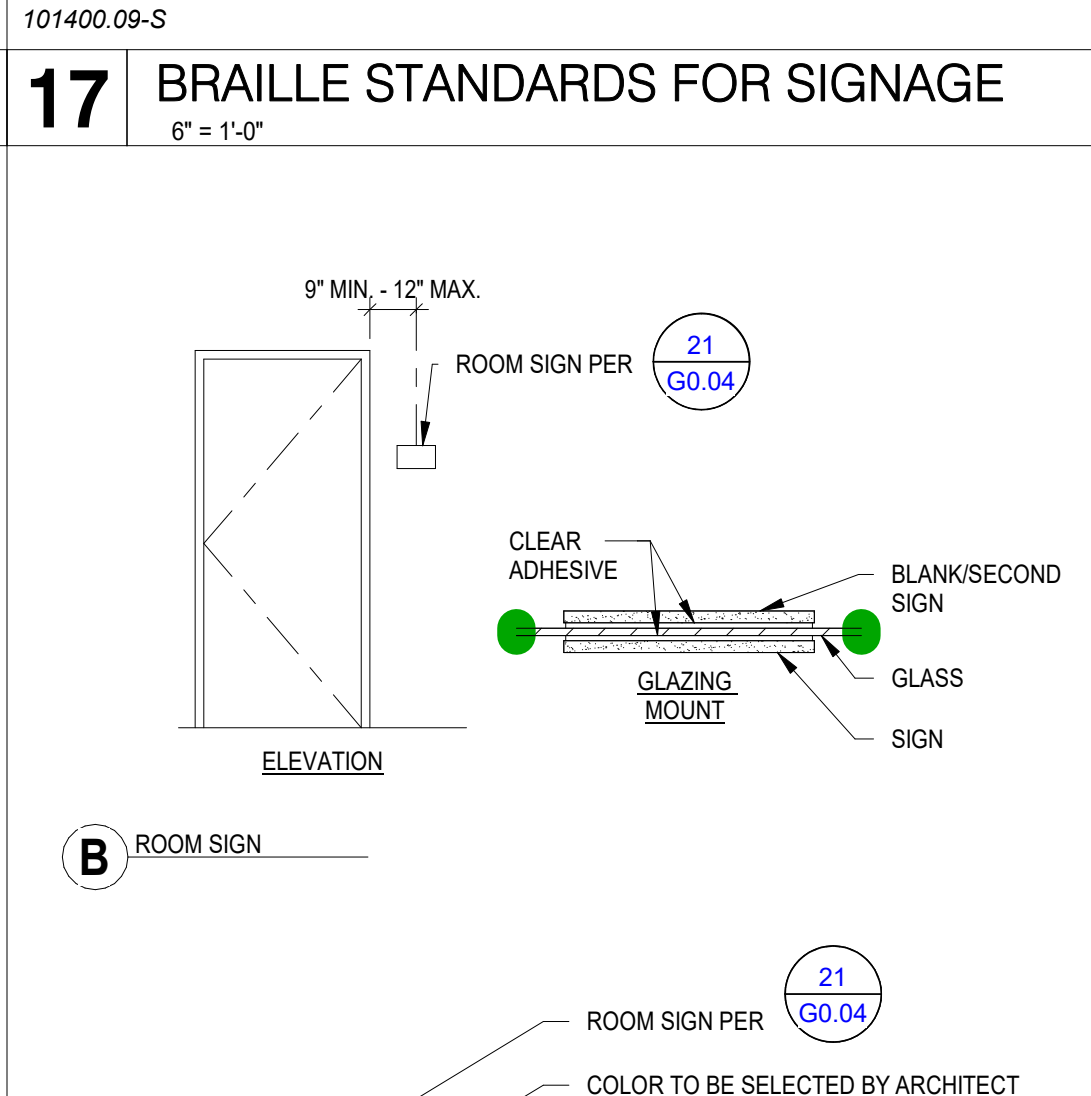
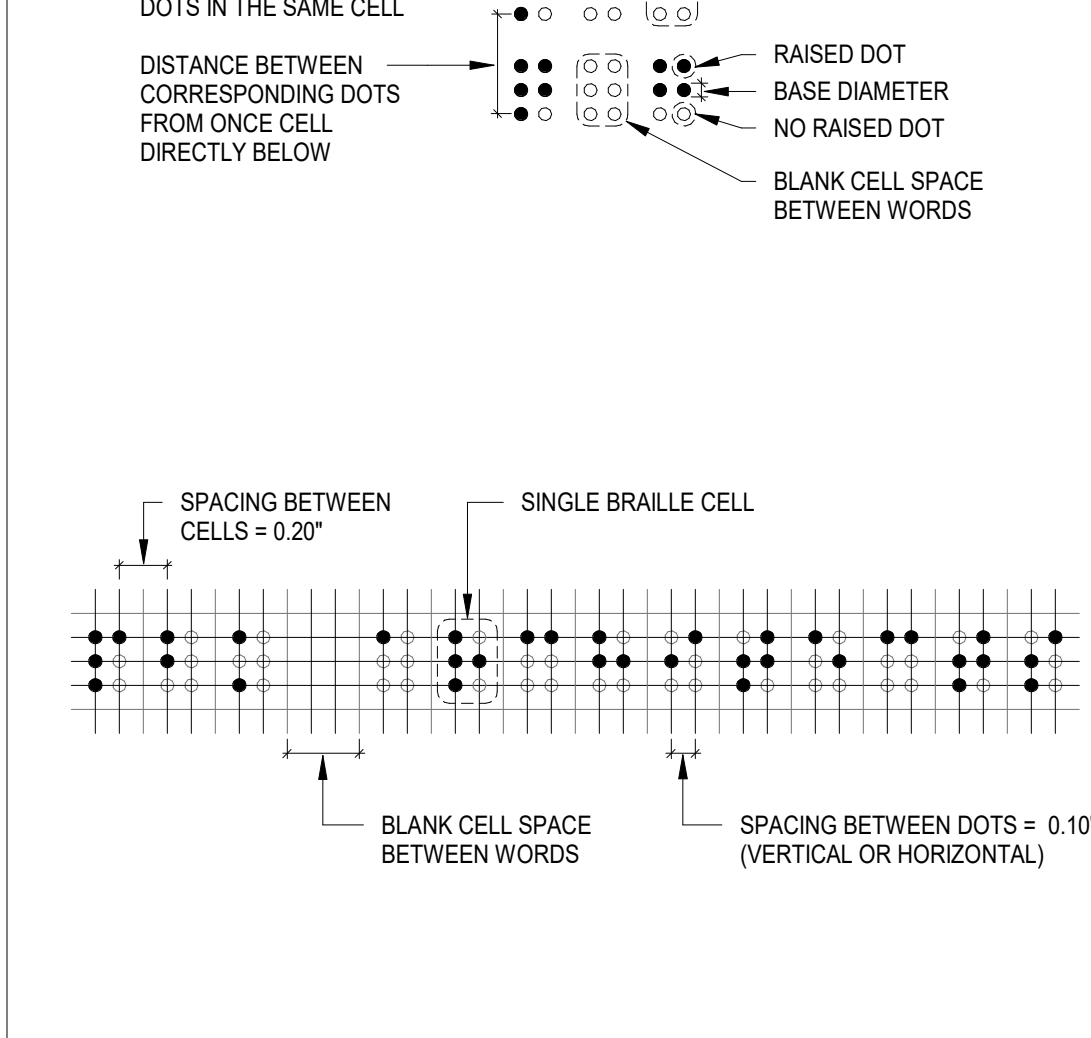
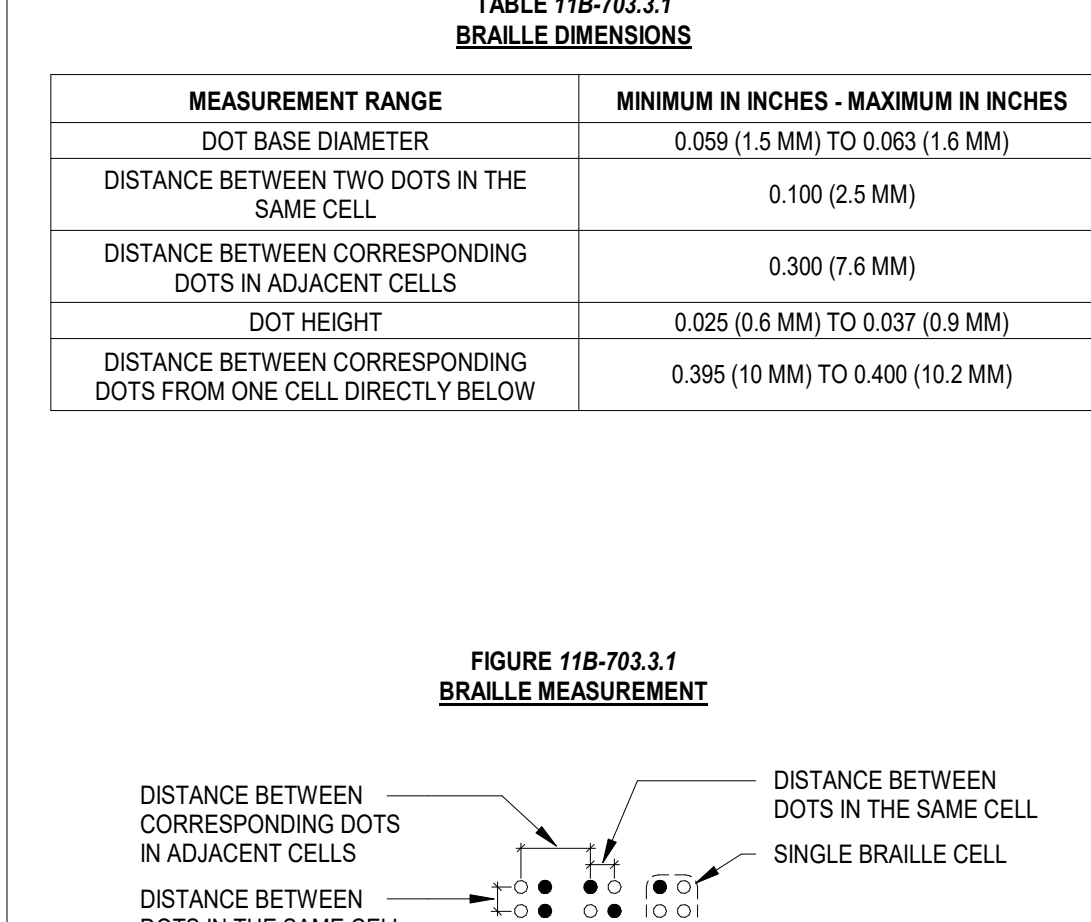
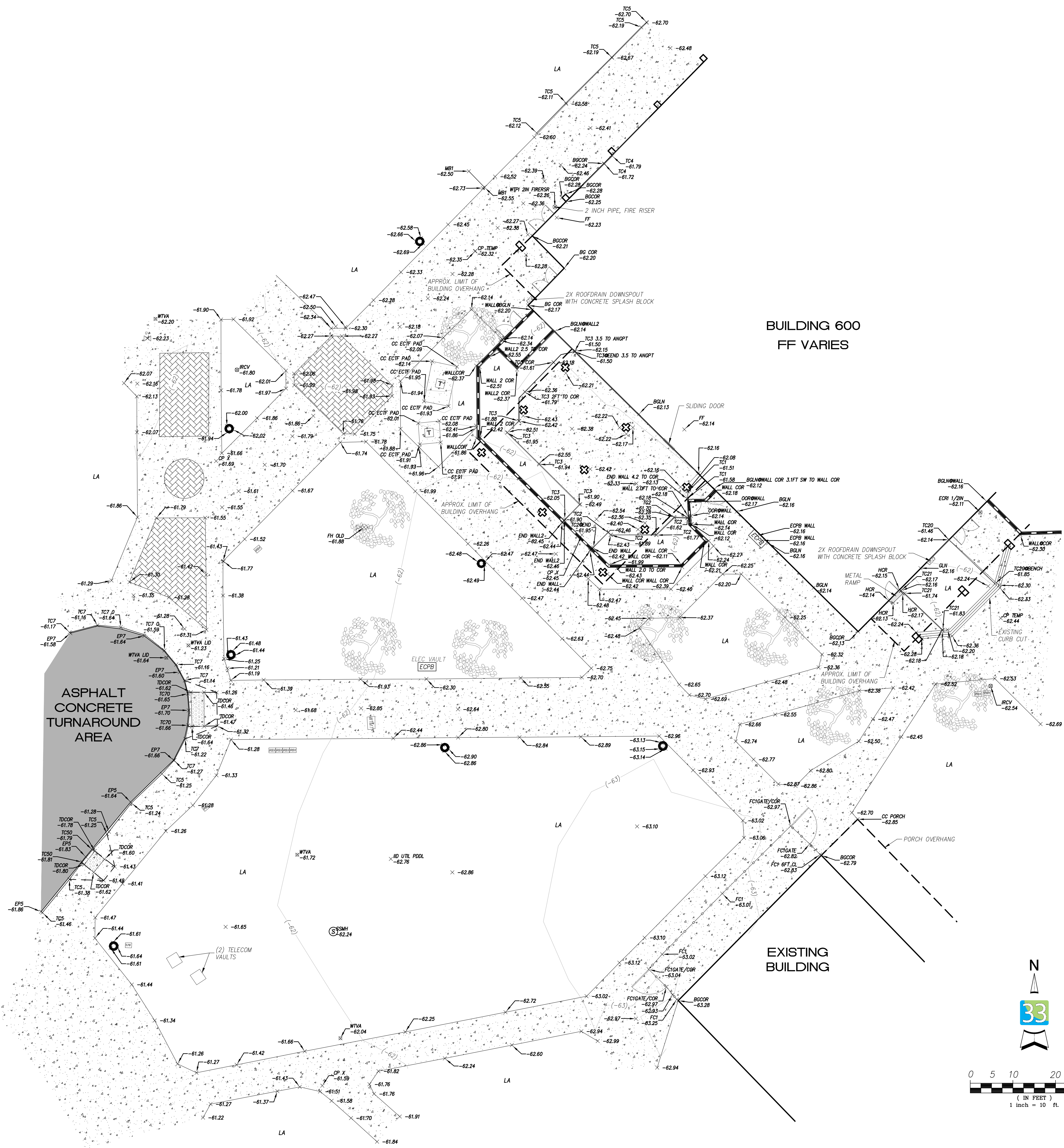


TABLE 11B-703.3.1 BRAILLE DIMENSIONS

MEASUREMENT RANGE	MINIMUM IN INCHES - MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059 (1.5 MM) TO 0.063 (1.6 MM)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL	0.100 (2.5 MM)
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS	0.300 (7.6 MM)
DOT HEIGHT	0.025 (0.6 MM) TO 0.037 (0.9 MM)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW	0.395 (10 MM) TO 0.400 (10.2 MM)





LEGEND

- * ALL ITEMS EXISTING
- BUILDING LIMITS
- CONCRETE PAVEMENT
- ASPHALT CONCRETE PAVEMENT
- DECORATIVE PAVERS
- DETECTABLE WARNINGS
- CONTOUR
- CURB
- CURB AND GUTTER
- SITE WALL
- GRADE BREAK
- TREES
- LIGHT AND POST
- PULLBOX
- SANITARY SEWER CLEANOUT / MANHOLE
- FIRE HYDRANT
- WATER VALVE
- WATER METER BOX
- IRRIGATION BOX
- GAS VALVE
- BENCH
- TRANSFORMER

ABBREVIATIONS

AC	ASPHALT CONCRETE	FF	FINISH FLOOR
BG	BUILDING	FL	FLOWLINE
BH	BENCH	GH	GREEN HOUSE
BW	BACK OF WALK	GV	GAS VALVE
COR	CORNER	ID	IMPERIAL IRRIGATION DISTRICT
CC	CORNER OF CONCRETE	IR	IRRIGATION
CCOL	CORNER OF COLUMN	MW	MOW BAND
CE	CONCRETE EDGE	PDDL	PEDESTAL
CO	CLEANOUT	RND GLTE	PLANTER GROUND LIGHT
CONC	CONCRETE	RW MSE	TOP FACE OF SHORT WALL
CS	CONCRETE SURFACE	SD SLOTT	SLOTT DRAIN
DDO	DOUBLE DOOR	SN	SIGN POST
DI	DROP INLET	SSMH	SANITARY SEWER MANHOLE
DO HNG	DOOR AT HINGE SIDE	SV	SPOT VALVE
DO K	DOOR AT KNOB SIDE	SWK	SIDEWALK
DO IN	DOOR SWINGS IN	TC	TOP OF CURB
EDPB	ELECTRICAL PULLBOX	TD	TRUNCATED DOME
ECIF	ELECTRICAL TRANSFORMER	WF	WATER FOUNTAIN WALL
EP	EDGE OF PAVEMENT	WTMT	WATER METER BOX
FC	FENCE	WTV	WATER VALVE

SOURCE OF TOPOGRAPHY

THE TOPOGRAPHY REPRESENTED HEREON IS BASED ON FIELD SURVEY CONDUCTED BY LATITUDE 33 PLANNING AND ENGINEERING ON JULY 30, 2020.

BASIS OF SURVEY

SURVEY CONTROL DATA FOR THE PROJECT SITE WAS NOT AVAILABLE AT THE TIME THAT THE SURVEY WAS PERFORMED; THEREFORE, CALIFORNIA STATE PLANE COORDINATES (SPC), ZONE 6, 2010.0 EPOCH, AND NAVD83 VERTICAL DATUM PER NATIONAL GEODETIC SURVEY (NGS) WERE USED AS THE BASIS OF THIS SURVEY.

IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP: 04-119487 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/01/2021



ARCHITECTURE
 SAN DIEGO
 11455 El Camino Real, Suite 480
 San Diego, CA 92130
 619-696-9400 P
 PBK.com

**IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT**
 380 E. Aten Road
 Imperial, CA. 92251



CONSULTANT
latitude 33
 PLANNING & ENGINEERING
 9968 Hibert Street, 2nd Floor, San Diego, CA 92131
 Tel 608.751.0833

ENGINEER / LAND SURVEYOR

ARCHITECT

CLIENT

PROJECT NUMBER	20190	
DATE:	08/06/2020	
DRAWN BY:	JMS, MAM	
CHECKED BY:	SDD	
REVISIONS		
No.	Description	Date
1	DRAFT SUBMITTAL	08/06/2020

TOPOGRAPHIC SURVEY

C01.00



ARCHITECTURE
**IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT**
 380 E Aten Rd.
 Imperial, CA 92251
 DSA SUBMITTAL

CONSULTANT
 N.T.S.

ENGINEER
 N.T.S.

ARCHITECT
 N.T.S.

CLIENT
 IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
 20190

DATE: 2020/09/17

DRAWN BY: Author

CHECKED BY: Checker

REVISIONS

No.	Description	Date

DSA SUBMITTAL
**EROSION
 CONTROL PLAN**

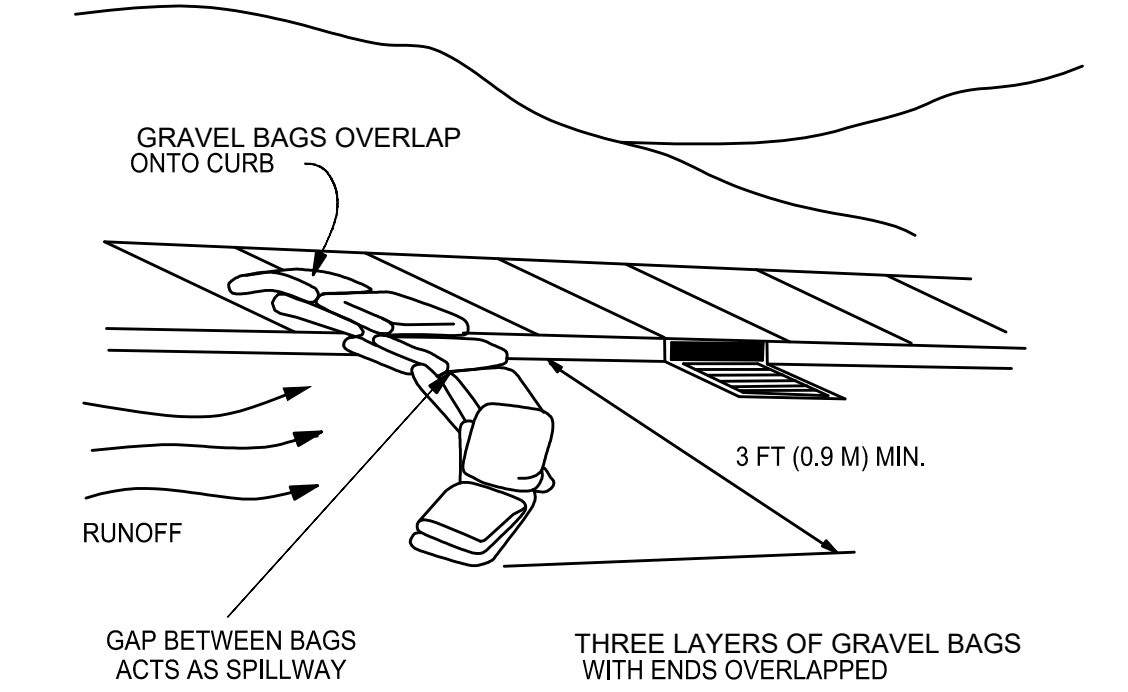
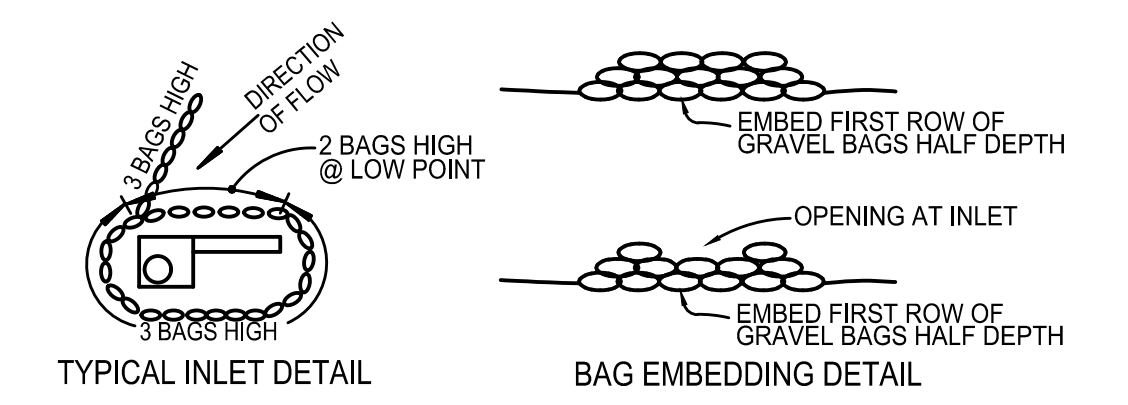
C1.02

BEST MANAGEMENT PRACTICES (BMPs) LEGEND

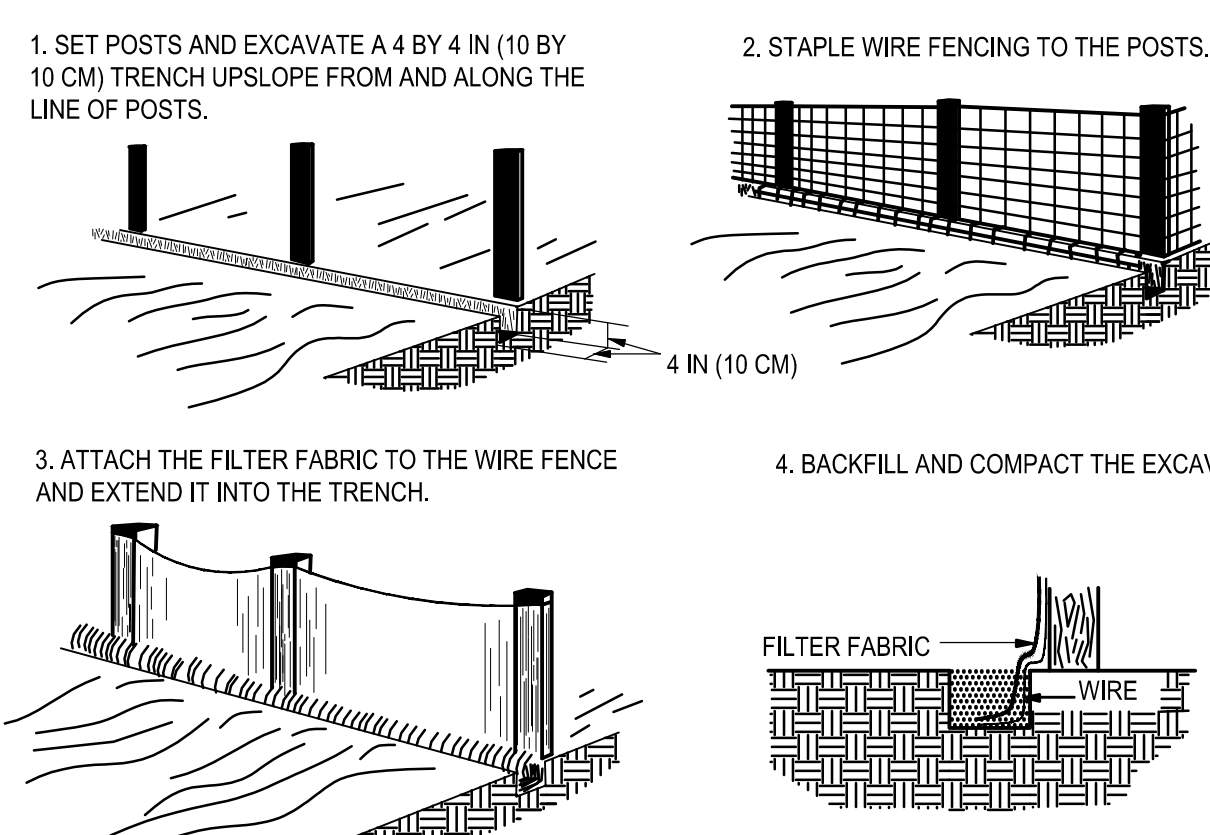
- LIMIT OF WORK
 - SILT FENCE PER SC-1
 - GRAVEL BAG PER SC-6
 - SC-7 STREET SWEEPING AND VACUUMING *
 - NS-3 PAVING & GRINDING OPERATIONS *
 - NS-12 CONCRETE CURING *
 - NS-14 CONCRETE FINISHING *
 - WM-1 MATERIAL DELIVERY AND STORAGE *
 - WM-2 MATERIAL USE *
 - WM-3 STOCKPILE MANAGEMENT *
 - WM-4 SPILL PREVENTION AND CONTROL *
 - WM-5 SOLID WASTE MANAGEMENT *
 - WM-6 HAZARDOUS WASTE MANAGEMENT *
 - WM-8 CONCRETE WASTE MANAGEMENT AND CONCRETE WASHOUT *
 - WM-9 SANITARY/SEPTIC WASTE MANAGEMENT *
- * TO BE NOTED ON PLAN BY CONTRACTOR

GRAVEL BAGGING ON STREETS

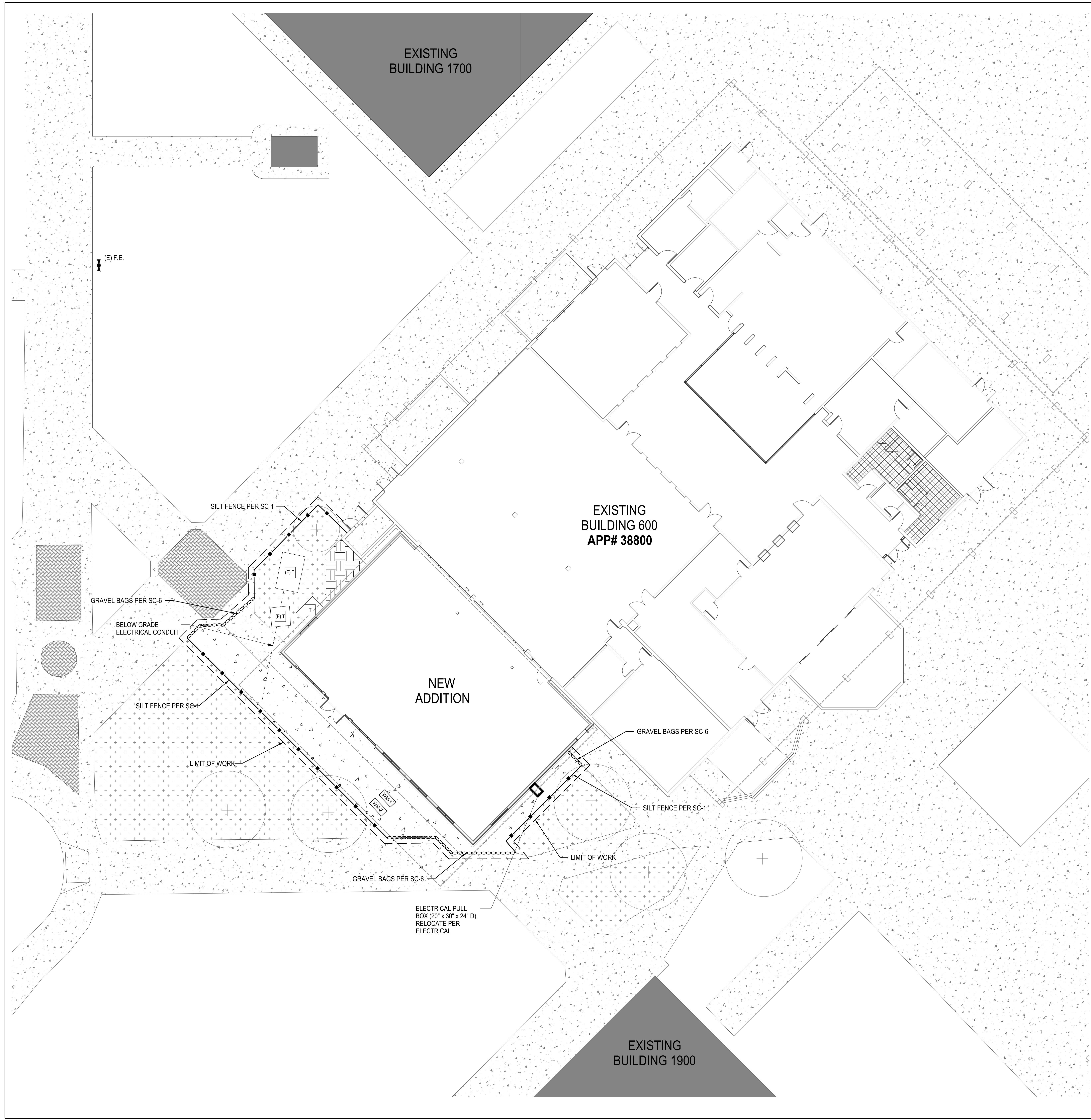
STREET GRADE	INTERVAL
LESS THAN 2%	200'
2% TO 4%	75'
4% TO 6%	40'
6% TO 8%	25'
8% TO 10%	25'



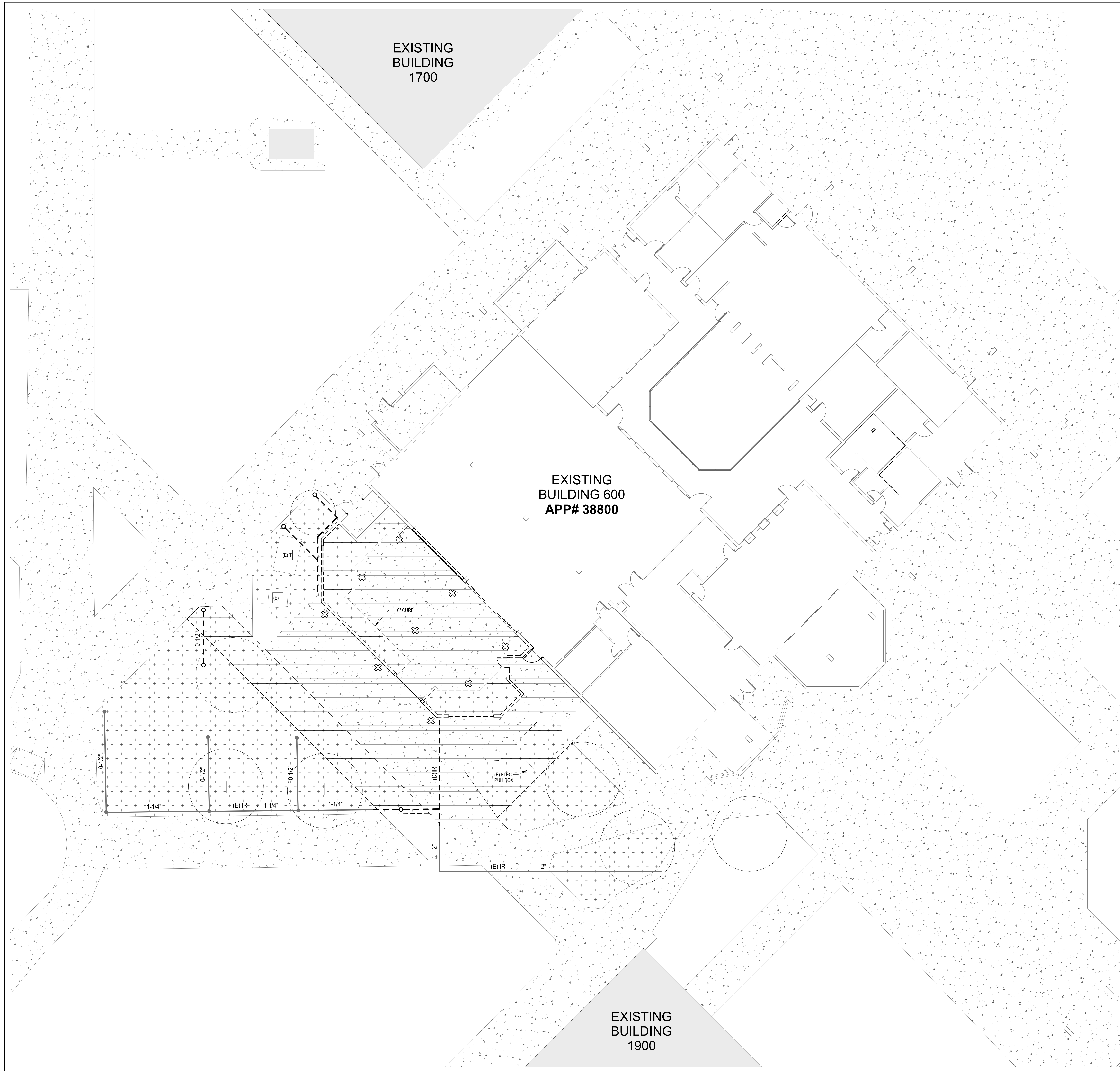
GRAVEL BAGS
 N.T.S.



SILT FENCE
 N.T.S.



C:_Revit\local\B600 dining hall expansion NEW 11302020_ elizabeth.seaver.rvt
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DEMOLITION NOTES

1. PRIOR TO DEMOLITION, AS-BUILT IRRIGATION SPRINKLERS IN LANDSCAPE AREAS TO BE REMOVED. REMOVE SPRINKLER HEADS AND IRRIGATION LINES TO THE OUTSIDE OF DEMOLITION AREA. SEE PLOT PLAN FOR NEW IRRIGATION LINES AND HEADS.
2. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING DEMOLITION WORK HAS BEEN APPROVED BY DSA.
3. RUN IRRIGATION SYSTEM AND LOCATE HEADS AND LINES PRIOR TO DEMOLITION.

DEMOLITION LEGEND

- (E) CONTEXT BUILDINGS
- (E) CONCRETE PAVING - PROTECT
- SAWCUT AND REMOVE (E) 5" THICK CONCRETE PAVING WITH REINFORCEMENT AT 18" O.C. E.W.
- (E) LANDSCAPE TO REMAIN - PROTECT
- (E) LANDSCAPE AND IRRIGATION TO BE REMOVED
- (E) TREE TO REMAIN - PROTECT
- (E) TREE TO BE REMOVED
- (E) TRANSFORMER - PROTECT
- (E) IRRIGATION HEAD
- (E) IRRIGATION HEAD TO BE REMOVED
- (E) IR (E) IRRIGATION LINE
- (D) IR (E) IRRIGATION LINE TO BE REMOVED

DSA FILE NO. 13-C1 AR 04-119487

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 DIV. OF THE STATE ARCHITECT
 APP: 04-119487 INC.
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 SS FLS ACS
 DATE: 02/01/2021



ARCHITECTURE

**IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT**
 380 E Aten Rd.
 Imperial, CA 92251

DSA SUBMITTAL

CONSULTANT

ENGINEER

ARCHITECT

LICENSED ARCHITECT
 Mark A. Estep
 No. C-28195
 REV. 5-31-2021
 STATE OF CALIFORNIA

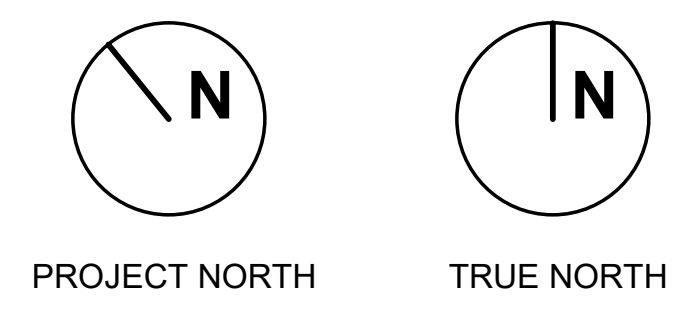
CLIENT
 IMPERIAL VALLEY COLLEGE

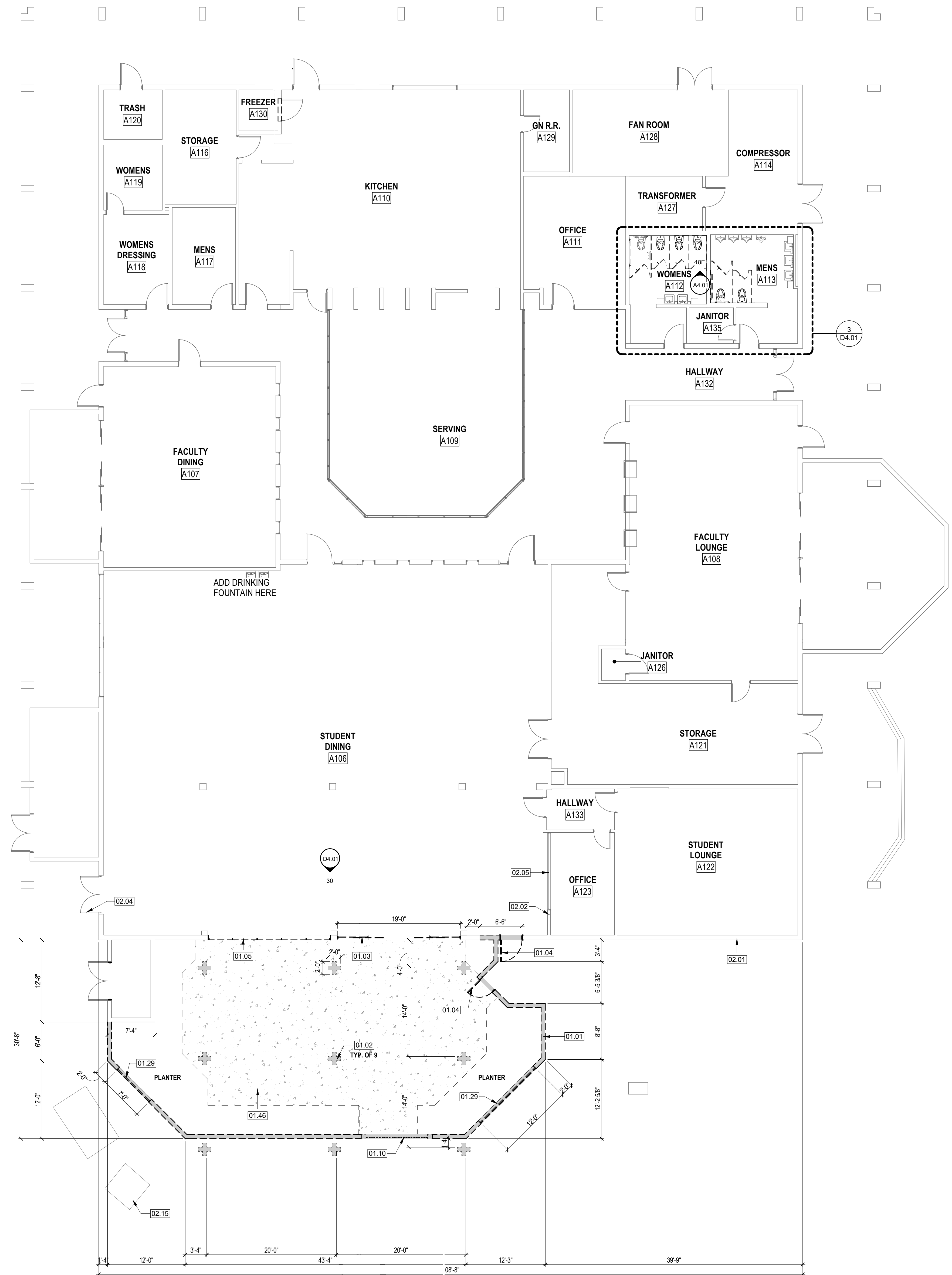
PROJECT NUMBER	20190	
DATE:	2020/12/08	
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CHECKED BY:	Checker	
REVISIONS		
No.	Description	Date

DSA SUBMITTAL

DEMOLITION PLOT PLAN

D1.01





KEYNOTE LEGEND	
NUMBER	DESCRIPTION
01.01	REMOVE (E) CMU WALL
01.02	REMOVE (E) CMU PLASTER
01.03	REMOVE (E) ALUMINUM STOREFRONT SLIDING DOORS AND WINDOW
01.04	REMOVE (E) H.M. DOOR AND FRAME
01.05	REMOVE (E) ALUMINUM STOREFRONT WINDOW
01.10	REMOVE (E) GATE AND FRAME
01.29	REMOVE (E) WOOD SLAT INFILL OPENING
01.46	REMOVE (E) CONCRETE PAVING
02.01	(E) CMU WALL
02.02	(E) INT METAL FRAMED WALL W/ 5/8" GYP WALLBOARD EACH SIDE
02.04	(E) H.M. DOOR AND FRAME
02.05	(E) H.M. WINDOW
02.15	(E) TRANSFORMER TO REMAIN, SEE ELECTRICAL

DEMOLITION FLOOR PLAN NOTES

1. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING DEMOLITION WORK HAS BEEN APPROVED BY DSA

DEMOLITION LEGEND

- REMOVE (E) SOLID GROUTED CMU WALLS, PLASTERS AND ASSOCIATED FOUNDATIONS
- SAWCUT AND REMOVE (E) 5" THICK CONCRETE PAVING WITH REINFORCEMENT AT 18" O.C. E.W.
- DEDUCTIVE ALTERNATE. SEE Q0.01 FOR DESCRIPTION.

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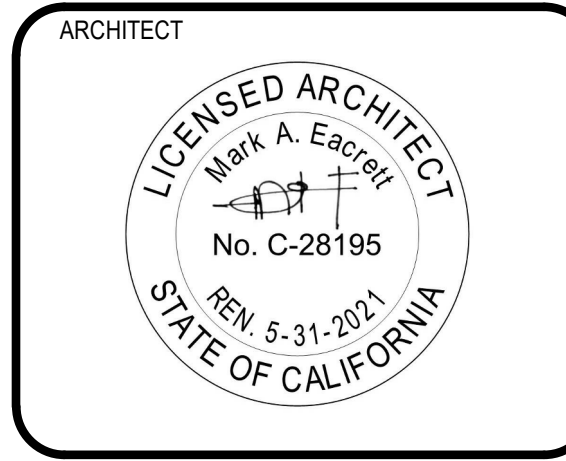


**IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT**
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 Imperial, CA 92251
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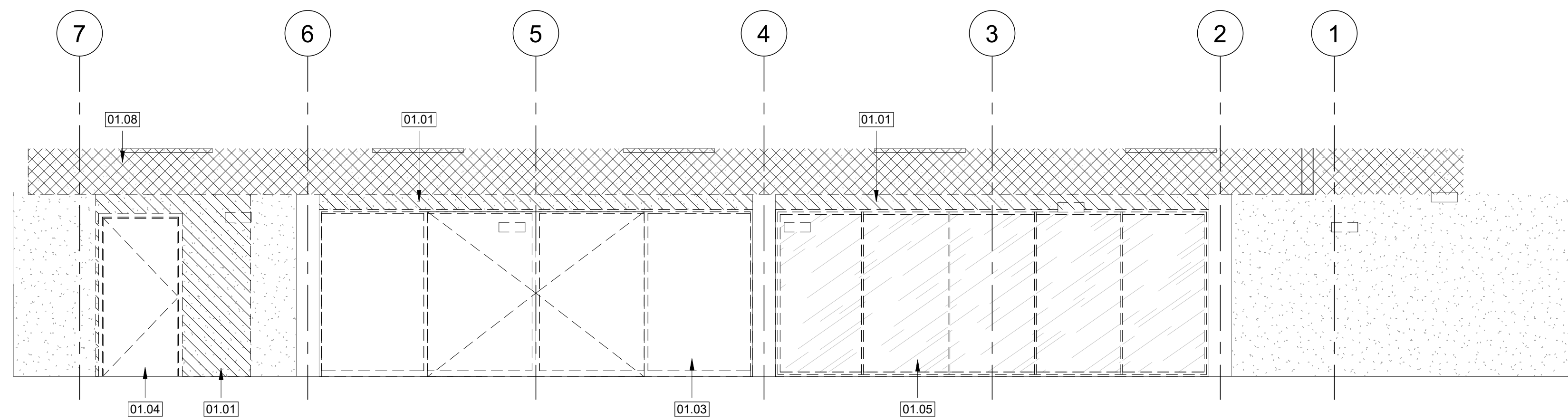
CLIENT	IMPERIAL VALLEY COLLEGE
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CHECKED BY:	Checker

REVISIONS		
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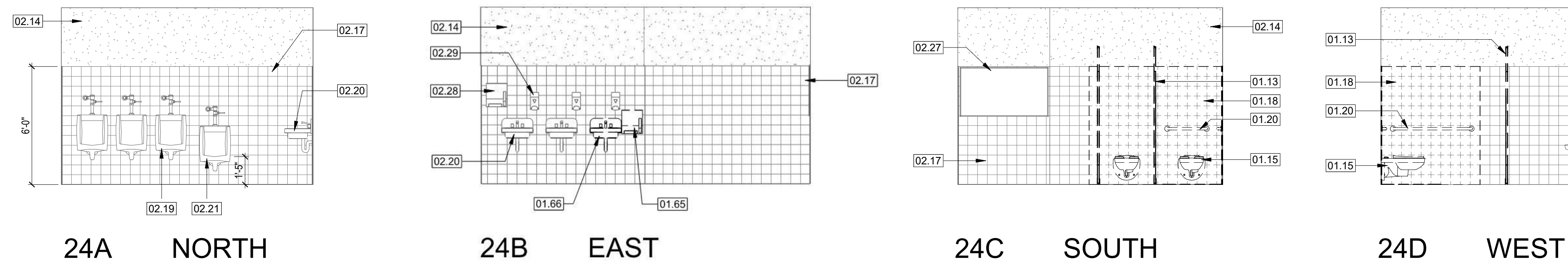
DSA SUBMITTAL
DEMOLITION FLOOR PLAN

D2.01

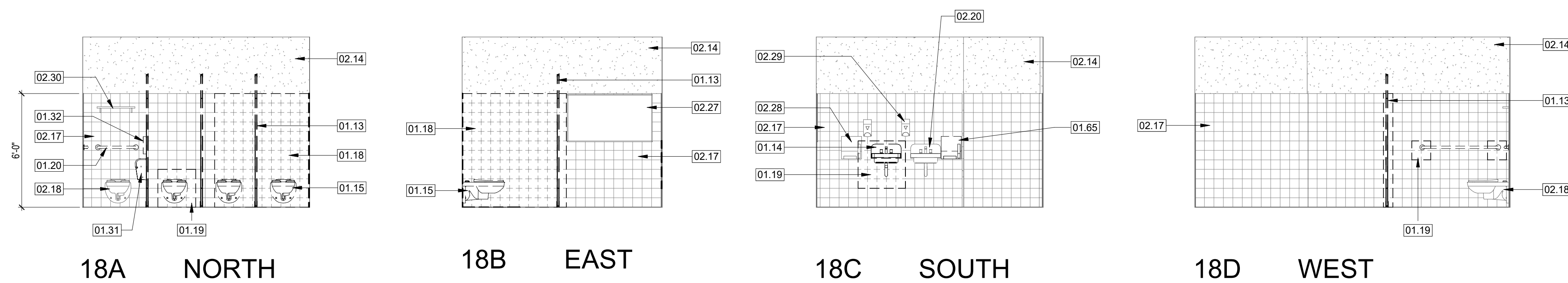




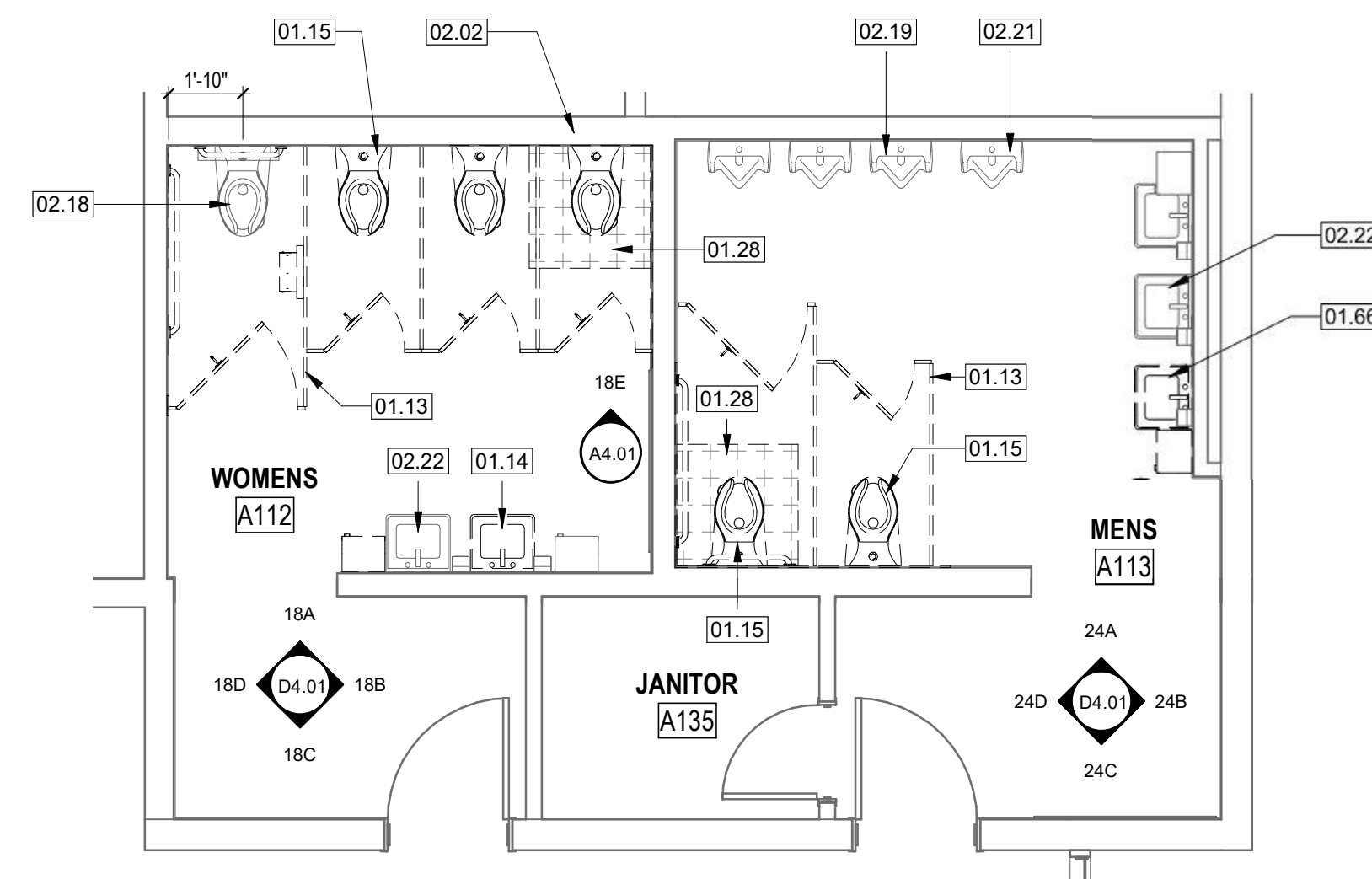
30 A106 STUDENT DINING SOUTH - DEMOLITION INTERIOR ELEVATION
1/4" = 1'-0"



24 A113 MEN'S TL - DEMOLITION INTERIOR ELEVATIONS
1/4" = 1'-0"



18 A112 WOMEN'S TL - DEMOLITION INTERIOR ELEVATIONS
1/4" = 1'-0"



3 DEMOLITION RESTROOM PLANS
1/4" = 1'-0"

KEYNOTE LEGEND

NUMBER	DESCRIPTION
01.01	REMOVE (E) CMU WALL
01.03	REMOVE (E) ALUMINUM STOREFRONT SLIDING DOORS AND WINDOW
01.04	REMOVE (E) H.M. DOOR AND FRAME
01.05	REMOVE (E) ALUMINUM STOREFRONT WINDOW
01.08	REMOVE (E) WOOD FRAMED GYPSUM WALLBOARD SOFFIT
01.13	REMOVE (E) TOILET PARTITION
01.14	REMOVE (E) SINK AND FAUCET
01.15	REMOVE (E) WATER CLOSET
01.18	REMOVE (E) TILE WAINSCOT AND GYPSUM WALLBOARD
01.19	REMOVE AND REINSTALL (E) 6x6 PORCELAIN TILE
01.20	REMOVE (E) GRAB BARS
01.28	REMOVE (E) 8x8 CERAMIC TILE FLOOR AND CONCRETE SLAB BELOW AS REQUIRED TO INSTALL (N) BELOW GRADE SEWER LINES, REINSTALL TILES
01.31	REMOVE AND REINSTALL (E) T.P. DISPENSER SEE A4.01 FOR LOCATION
01.32	REMOVE AND REINSTALL (E) SEAT COVER DISPENSER SEE A4.01 FOR LOCATION
02.02	(E) INT METAL FRAMED WALL W/ 8" GYP WALLBOARD EACH SIDE
02.14	(E) GYPSUM WALLBOARD
02.17	(E) TILE WAINSCOT
02.18	(E) WATER CLOSET
02.19	(E) URINAL
02.20	(E) SINK AND FAUCET
02.21	(E) ACCESSIBLE URINAL
02.22	(E) ACCESSIBLE SINK WITH PUSH BUTTON FAUCET
02.27	(E) 30x54 MIRROR
02.28	(E) PAPER TOWEL DISPENSER TA-9
02.29	(E) SOAP DISPENSER
02.30	(E) METAL SHELF
01.66	REMOVE (E) SINK AND REINSTALL AT THE LOCATION SHOWN ON 3/A4.01

DEMOLITION NOTES

- PRESERVE (E) TILE WAINSCOT, PATCH WHERE NECESSARY TO REMOVE AND REPLACE FIXTURES
- REMOVE (E) TOILET ACCESSORIES FASTENED TO TOILET PARTITIONS TO BE REMOVED
- NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING DEMOLITION WORK HAS BEEN APPROVED BY DSA

DEMOLITION LEGEND

	(E) 6x6 CERAMIC TILE WAINSCOT
	6x6 CERAMIC TILE WAINSCOT
	REMOVE (E) 8x8 CERAMIC FLOOR TILE OVER CONCRETE FILL
	(E) GYPSUM WALLBOARD OVER CMU WALL TO REMAIN
	REMOVE (E) GYPSUM WALLBOARD OVER CMU WALL
	REMOVE (E) WOOD FRAMED GYPSUM WALLBOARD SOFFIT

DSA FILE NO. 13-C1 A8 04-119487

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PRK

ARCHITECTURE

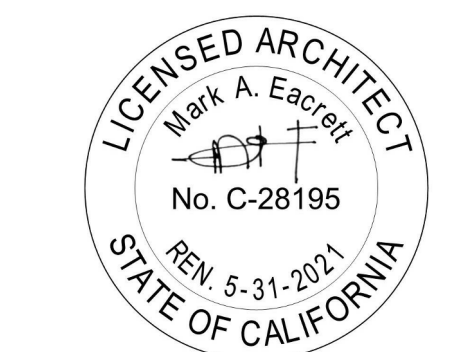
**IVC - B600 COLLEGE CENTER
EXPANSION PROJECT**
380 E Aten Rd.
Imperial, CA 92251
DSA SUBMITTAL



CONSULTANT

ENGINEER

ARCHITECT



CLIENT
IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
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CHECKED BY: Checker

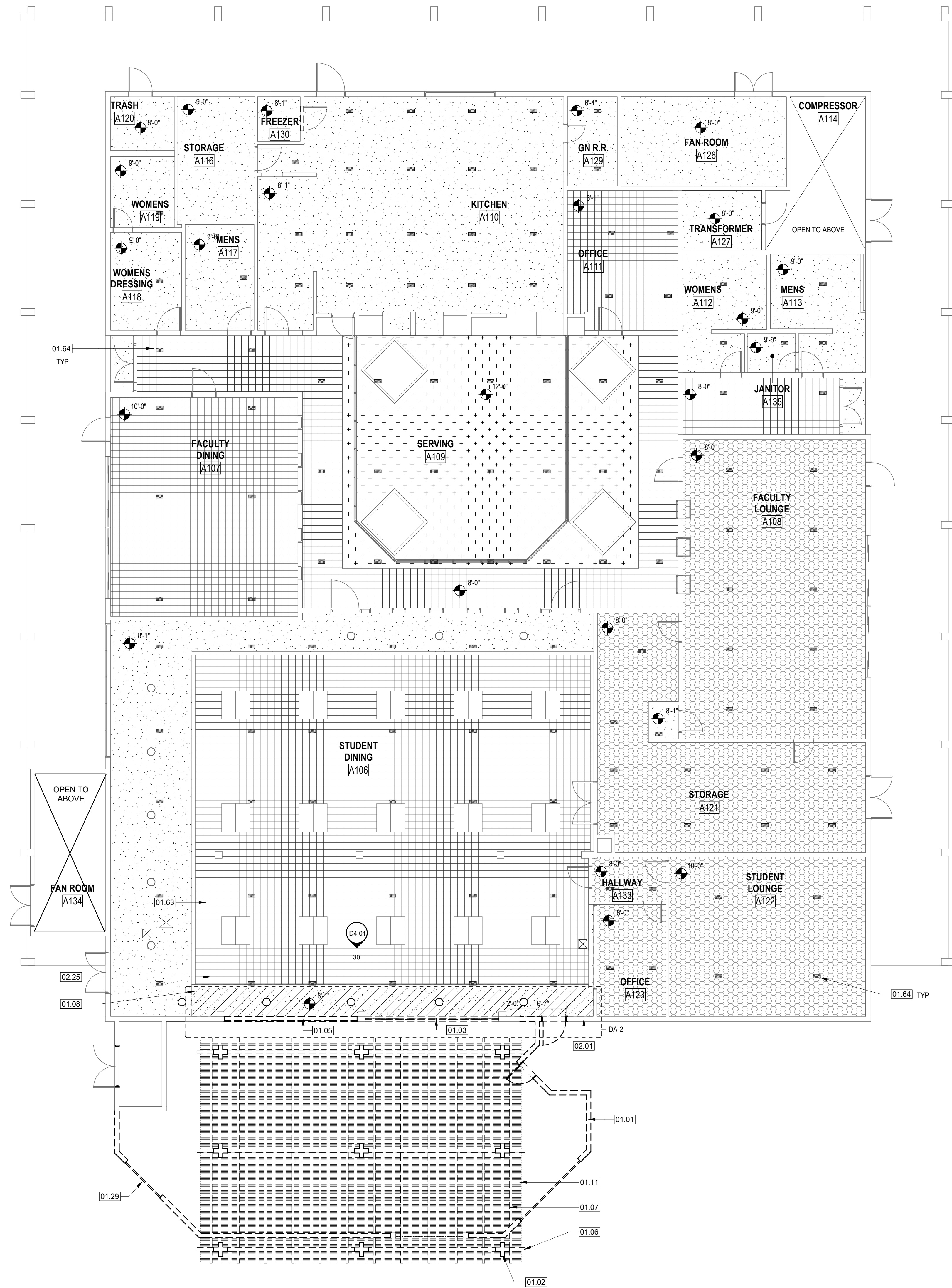
REVISIONS		
No.	Description	Date

DSA SUBMITTAL

**DEMOLITION
RESTROOM PLANS
AND ELEVATIONS**

D4.01

C:_Revit\local\B600 dining hall expansion NEW 11302020_ elizabeth.seaver.rvt
 12/7/2020 5:13:26 PM



KEYNOTE LEGEND	
NUMBER	DESCRIPTION
01.01	REMOVE (E) CMU WALL
01.02	REMOVE (E) CMU PLASTER
01.03	REMOVE (E) ALUMINUM STOREFRONT SLIDING DOORS AND WINDOW
01.05	REMOVE (E) ALUMINUM STOREFRONT WINDOW
01.06	REMOVE (E) 6x12 WOOD BEAM
01.07	REMOVE (E) 4x10 WOOD BEAM
01.08	REMOVE (E) WOOD FRAMED GYPSUM WALLBOARD SOFFIT
01.11	REMOVE (E) WOOD TRELLIS
01.29	REMOVE (E) WOOD SLAT INFILL OPENING
01.63	REMOVE (E) ACOUSTIC CEILING TILE AND GYPSUM WALLBOARD AS REQUIRED TO INSTALL (N) MECHANICAL DUCTS. SEE A3.01 AND MECHANICAL DRAWINGS FOR LOCATIONS AND SIZE
01.64	REMOVE (E) CEILING AS REQUIRED TO INSTALL (N) SPRINKLER HEADS AND LINES
02.01	(E) CMU WALL
02.25	(E) 12x12 SURFACE MOUNTED ACOUSTICAL CEILING PANEL SYSTEM

DEMOLITION NOTES

1. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING DEMOLITION WORK HAS BEEN APPROVED BY DSA

DEMOLITION LEGEND

- (E) 12 x 12 SURFACE MOUNTED ACOUSTICAL PANEL CEILING SYSTEM TO REMAIN
- (E) GYPSUM WALLBOARD CEILING TO REMAIN
- REMOVE (E) WOOD FRAMED GYPSUM WALLBOARD SOFFIT AND CEILING AND ALL ASSOCIATED LIGHT FIXTURES
- (E) 12 x 12 GLUE-ON ACOUSTICAL TILE CEILING AND GYPSUM WALL BOARD
- (E) SPRAY ON ACOUSTICAL CEILING TEXTURE OVER GYPSUM WALL BOARD
- (E) 12 x 12 GLUE-ON CORK TILE CEILING AND GYPSUM WALL BOARD
- DEDUCTIVE ALTERNATE. SEE G0.01 FOR DESCRIPTION.

DSA FILE NO. 13-C1-A8-04-119487

IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP: 04-119487 INC.
 REVIEWED FOR:
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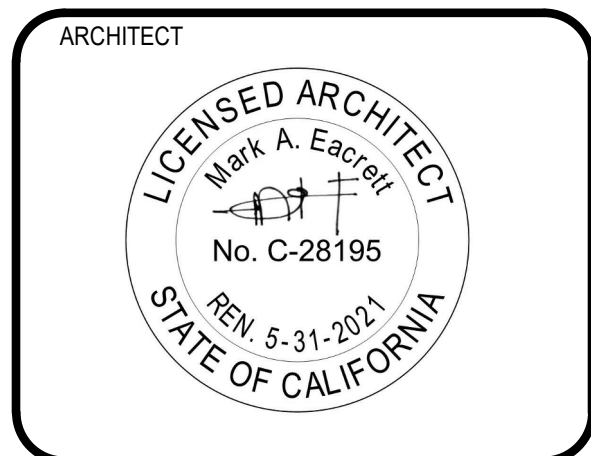
ARCHITECTURE

**IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT**
 380 E Aten Rd.
 Imperial, CA 92251
 DSA SUBMITTAL



CONSULTANT

ENGINEER

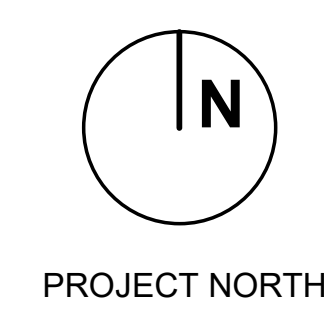


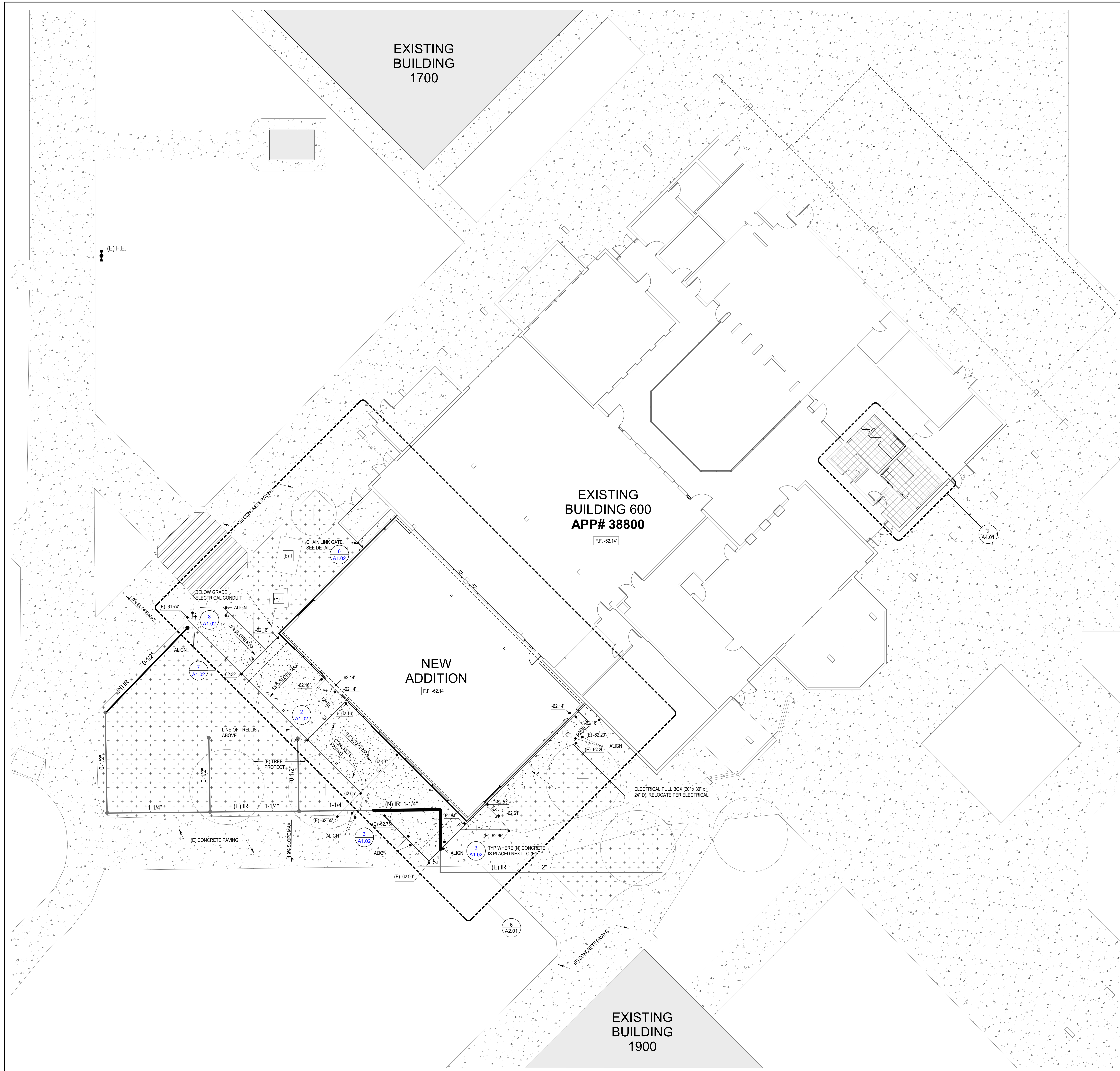
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PROJECT NUMBER 20190		
DATE:	2020/12/08	
DRAWN BY:	Author	
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No.	Description	Date

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**DEMOLITION
 CEILING PLAN**

D10.01





PLOT PLAN GENERAL NOTES

- SEE SHEET C01.00 FOR EXISTING CONCRETE PAVING AND GRADE ELEVATIONS
- TREES AND PLANTINGS SHALL BE TRIMMED BACK TO A HEIGHT OF 13'-6" CLEAR AT FIRE LANES. SEE SHEET G0.02 FOR FIRE LANE LOCATION

DSA FILE NO. 13-C1 AR 04-119487

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ARCHITECTURE

**IVC - B600 COLLEGE CENTER
EXPANSION PROJECT**
380 E Aten Rd.
Imperial, CA 92251

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PLOT PLAN LEGEND

- (E) CONTEXT BUILDINGS
- (E) CONCRETE PAVING - PROTECT
- (N) CONCRETE PAVING
- (E) LANDSCAPE TO REMAIN - PROTECT
- (N) SOD & EXTEND (E) IRRIGATION
- (E) TREE TO REMAIN - PROTECT
- (E) T (E) TRANSFORMER - PROTECT
- NEW TRANSFORMER
- EXPANSION JOINT, SEE DETAILS 2 AND 3
- (E) IRRIGATION HEAD
- IRRIGATION HEAD
- (E) IRRIGATION LINE
- IRRIGATION LINE
- NEW TOP OF CONCRETE PAVING ELEVATION
- EXISTING TOP OF CONCRETE PAVING ELEVATION
- ALIGN FLUSH (N) AND (E) CONCRETE PAVING SURFACES
- AREA SIZE IN INCHES
SURFACE OF AREA SHALL NOT EXCEED 1.9% SLOPE ON ALL DIRECTIONS

CONSULTANT

ENGINEER

ARCHITECT

CLIENT
IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
20190

DATE: 2020/12/08

DRAWN BY: Author

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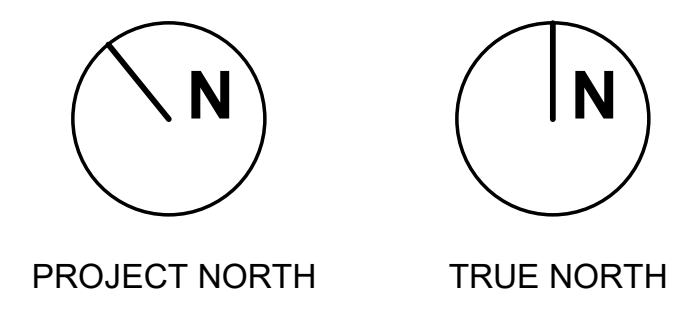
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No.	Description	Date

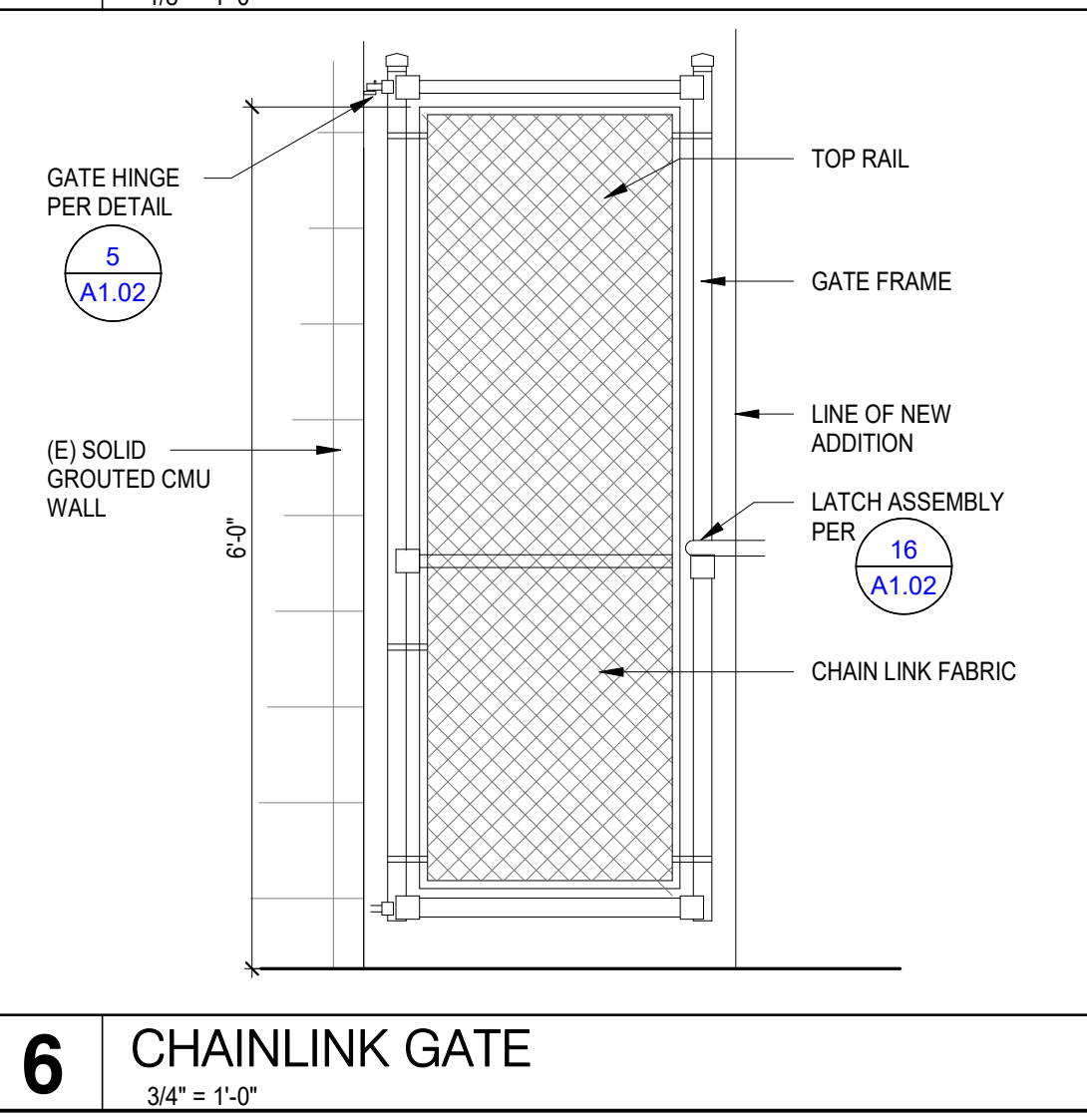
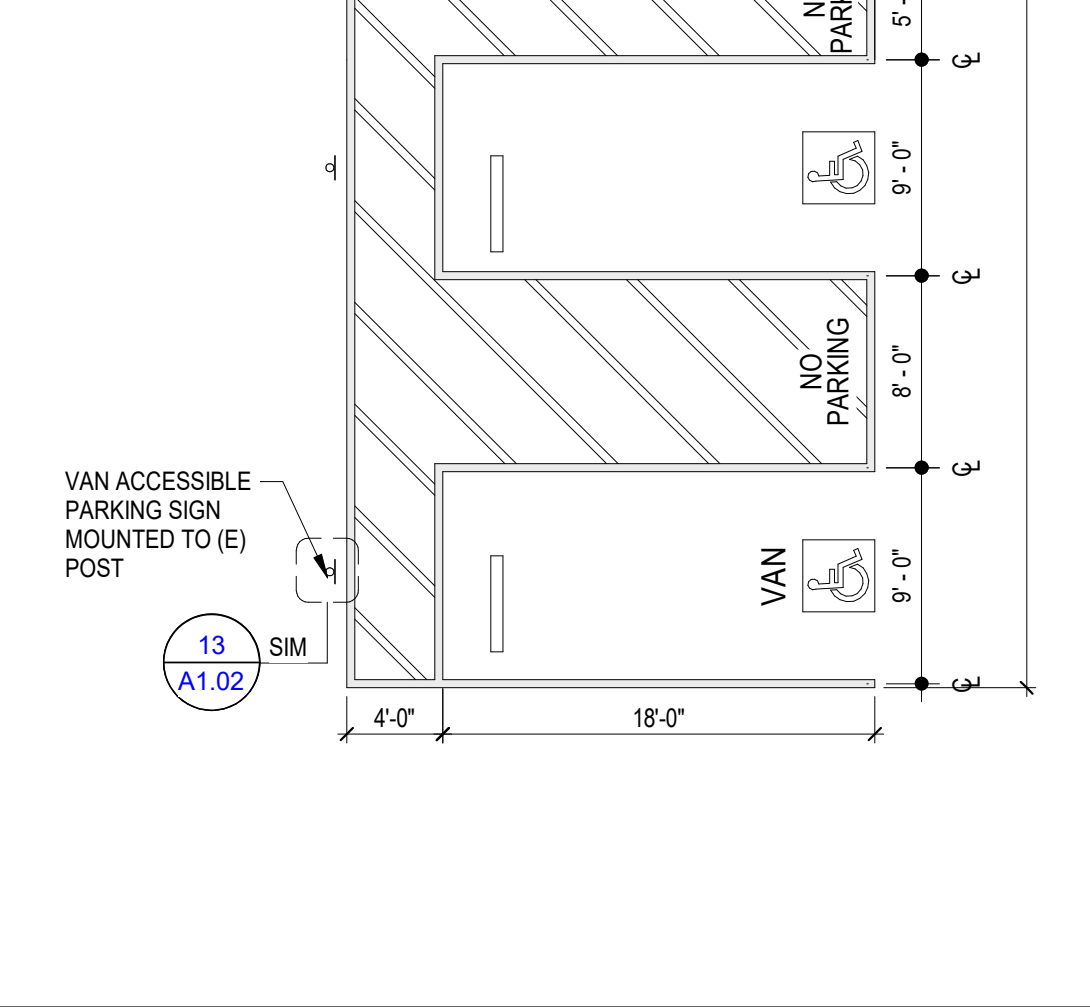
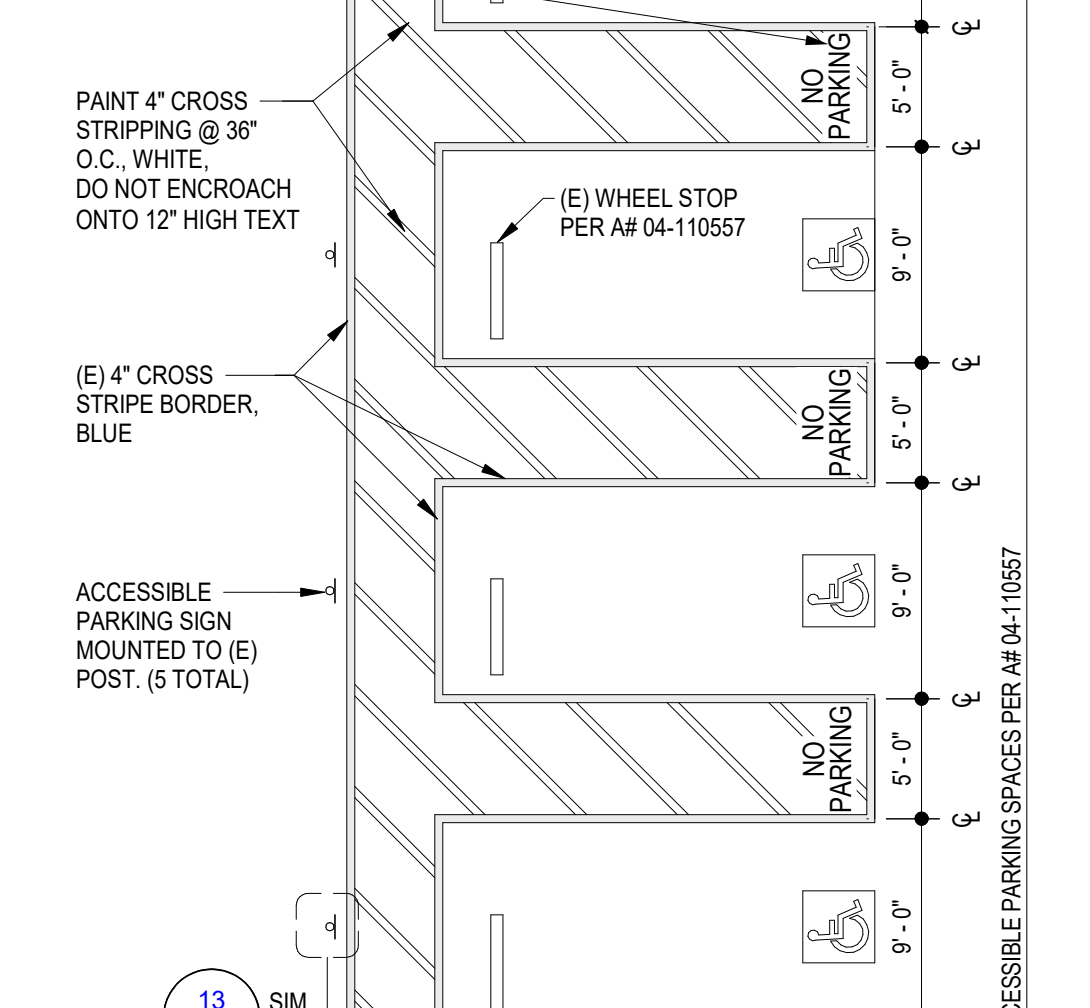
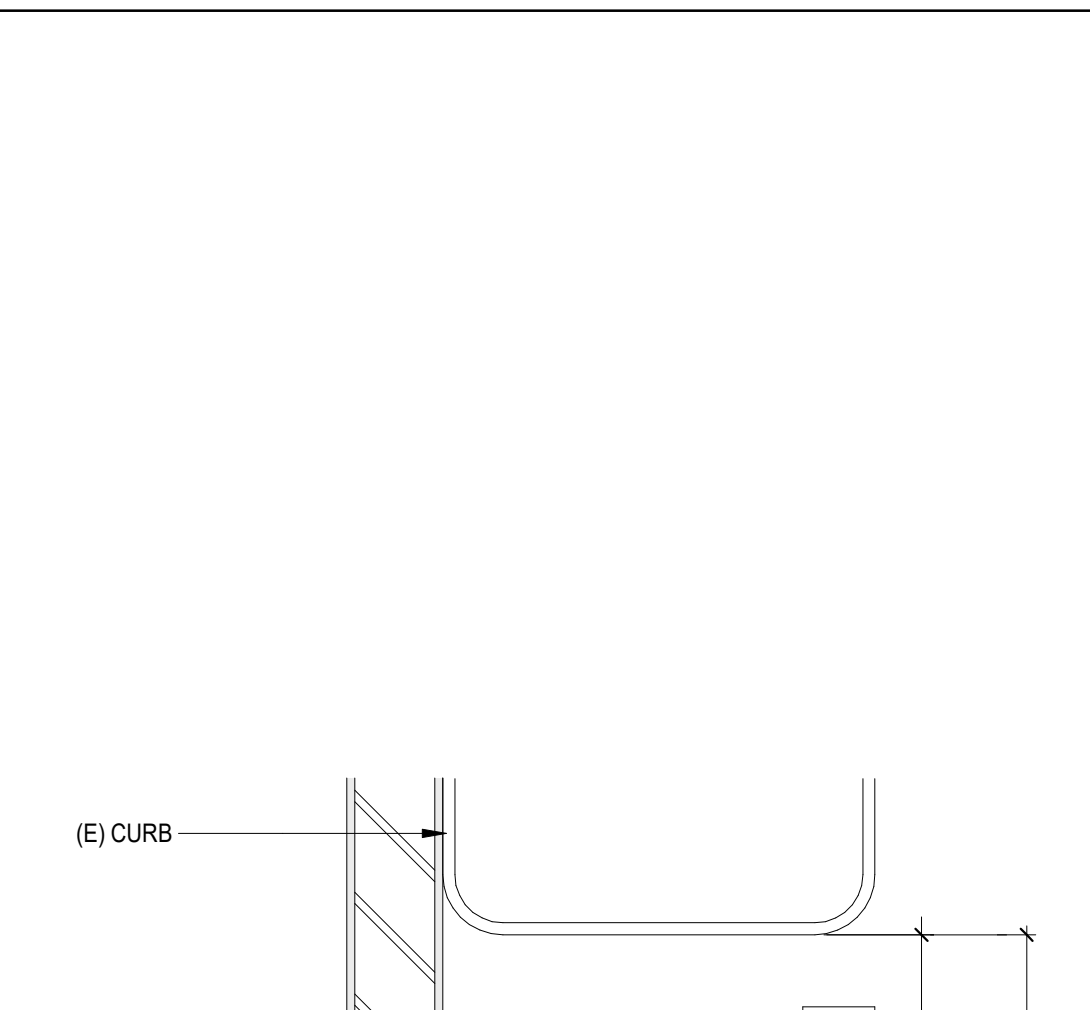
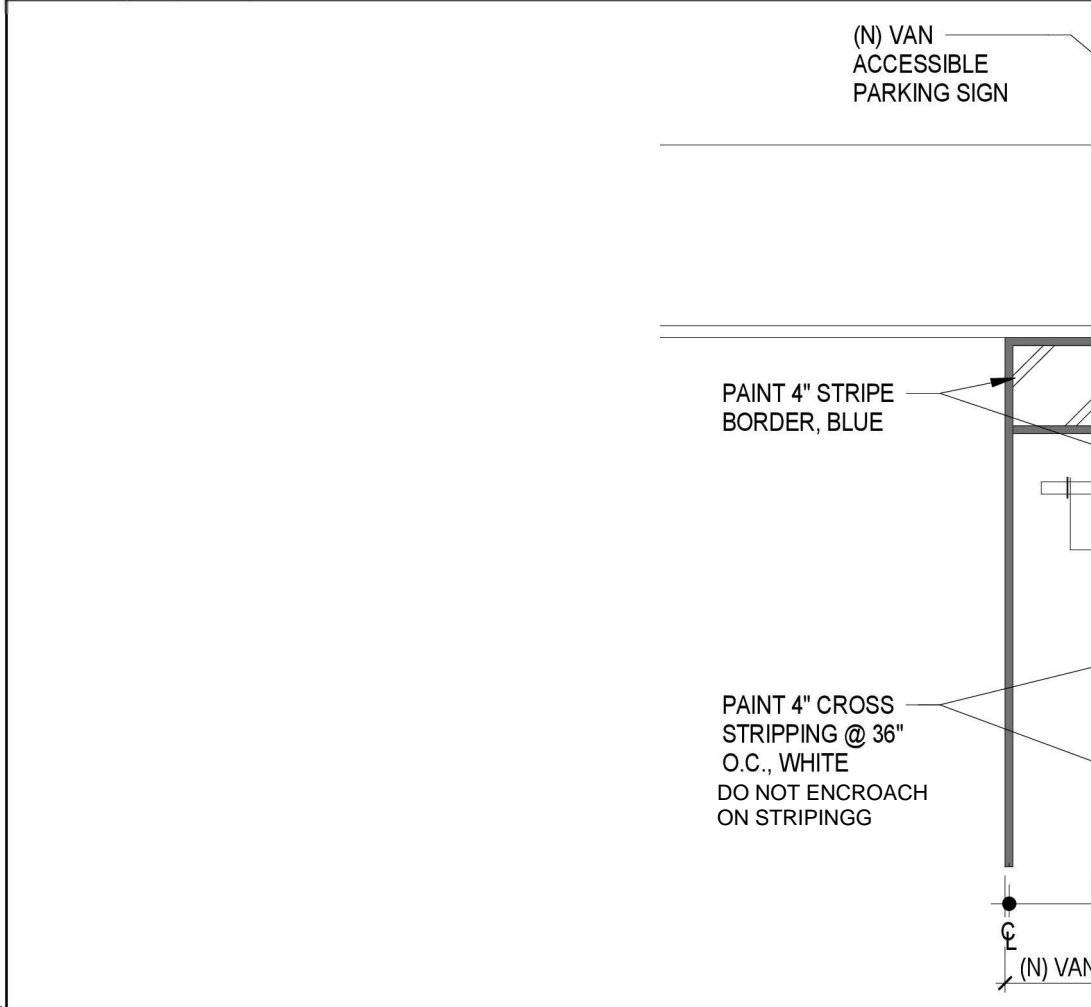
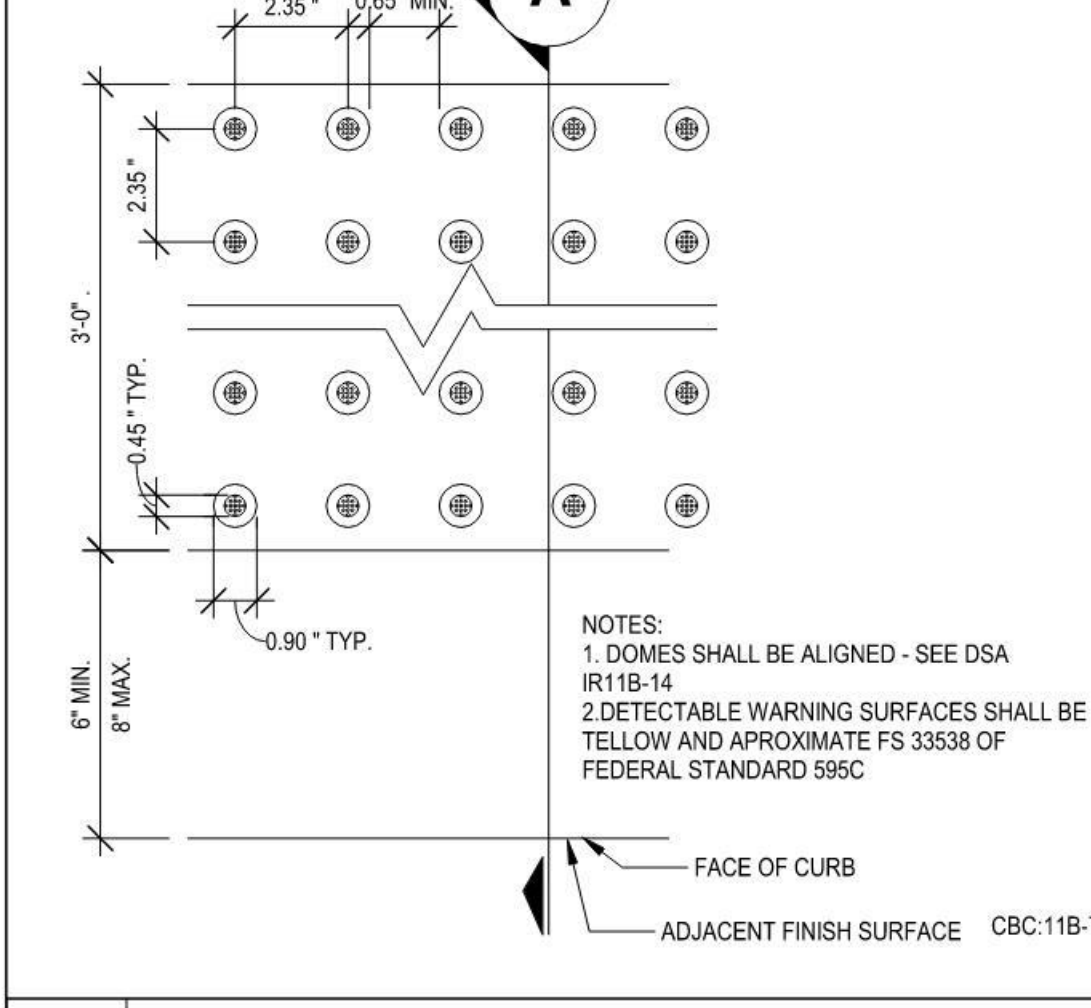
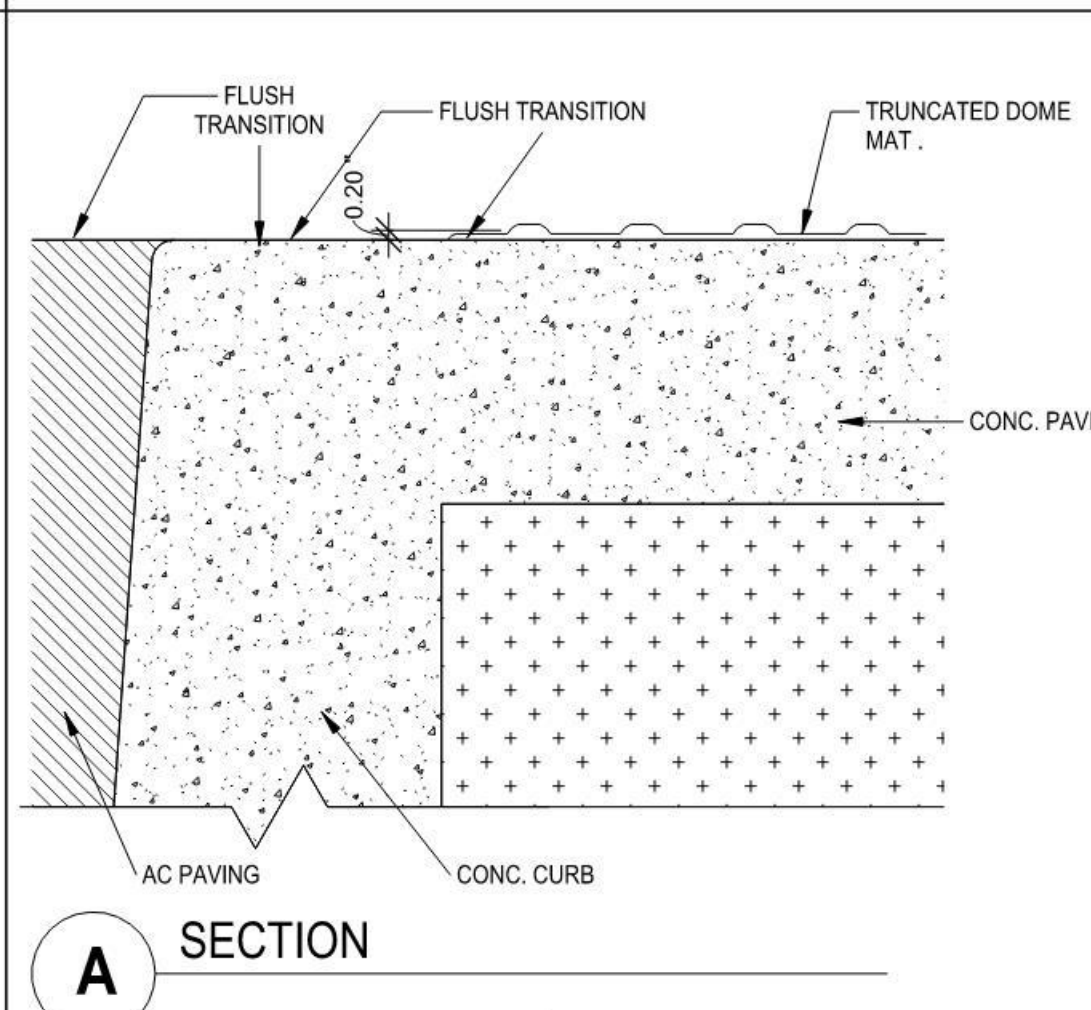
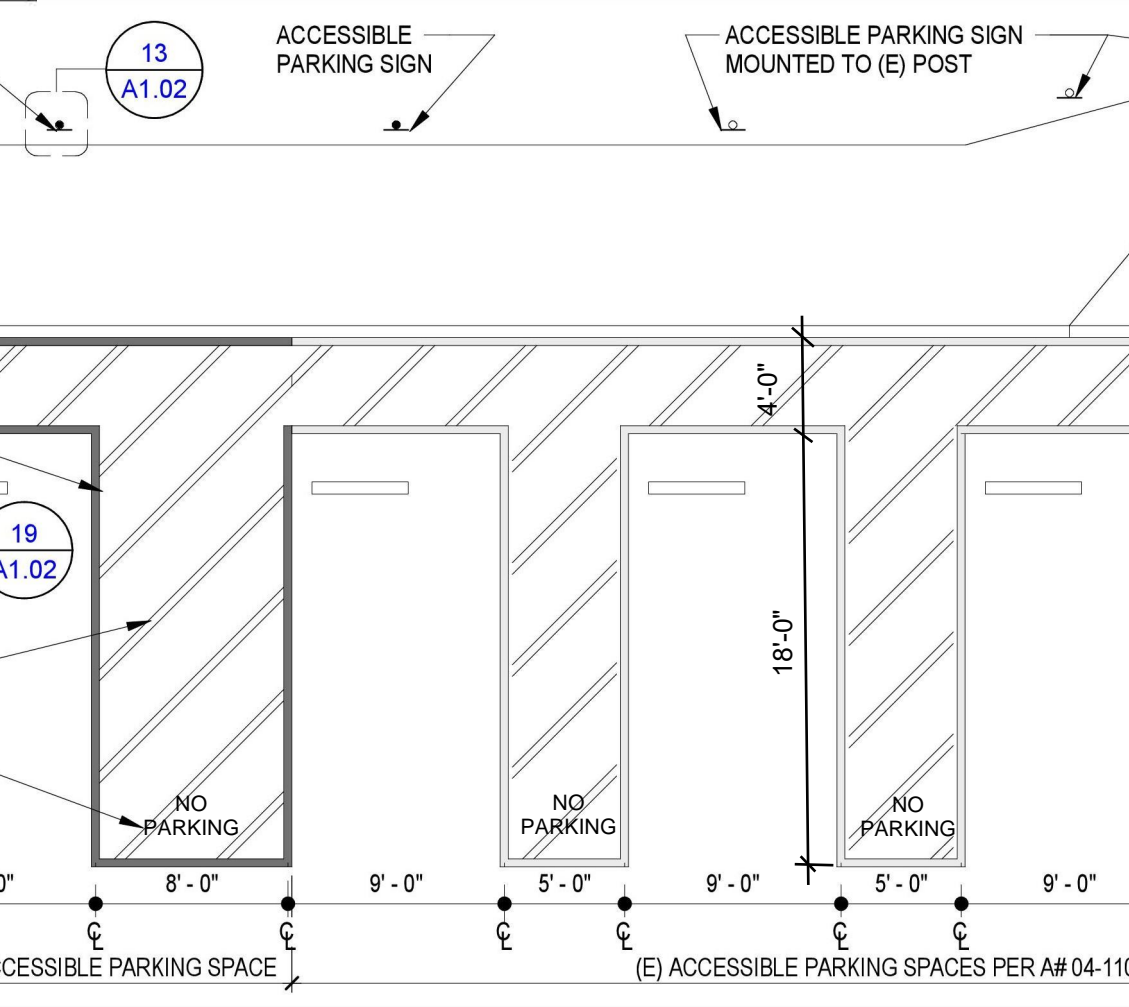
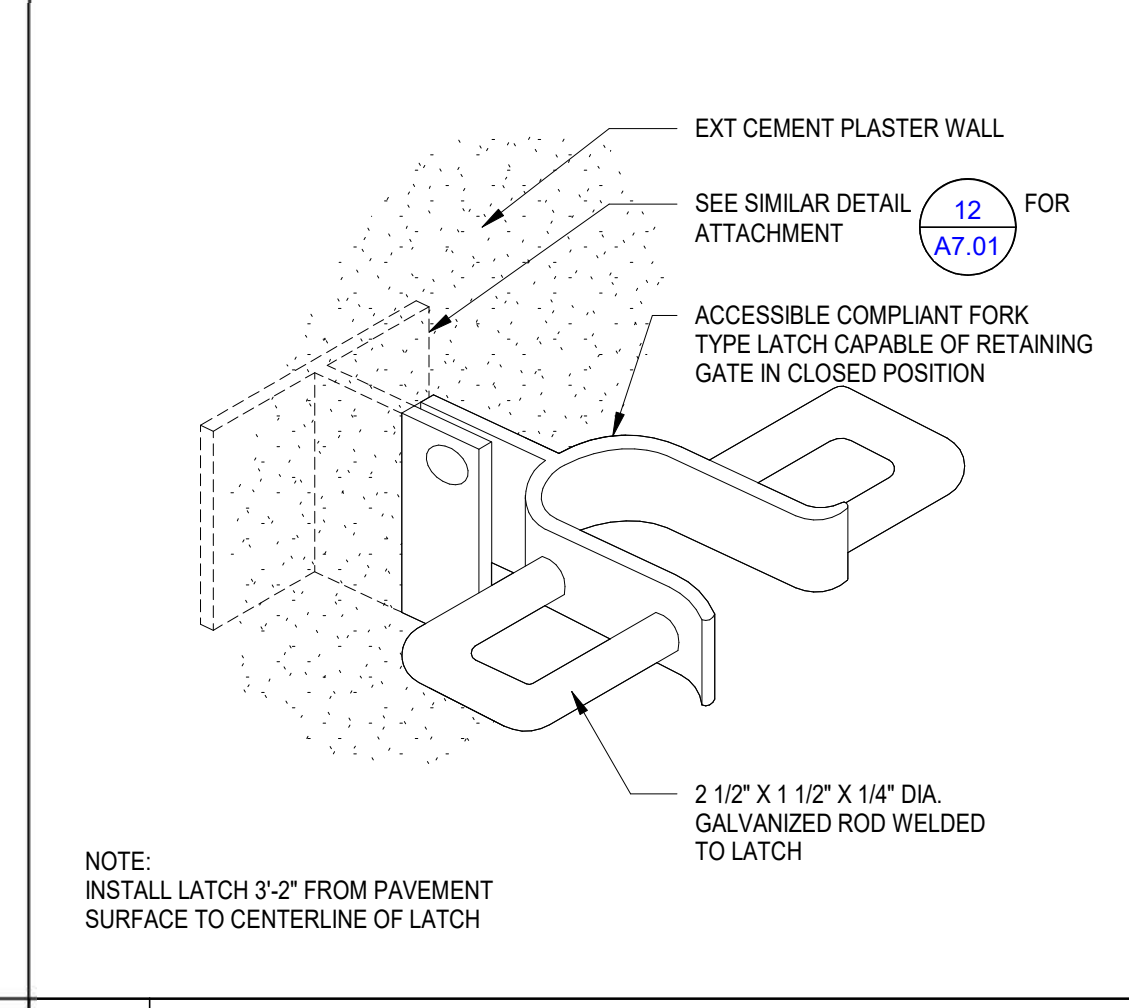
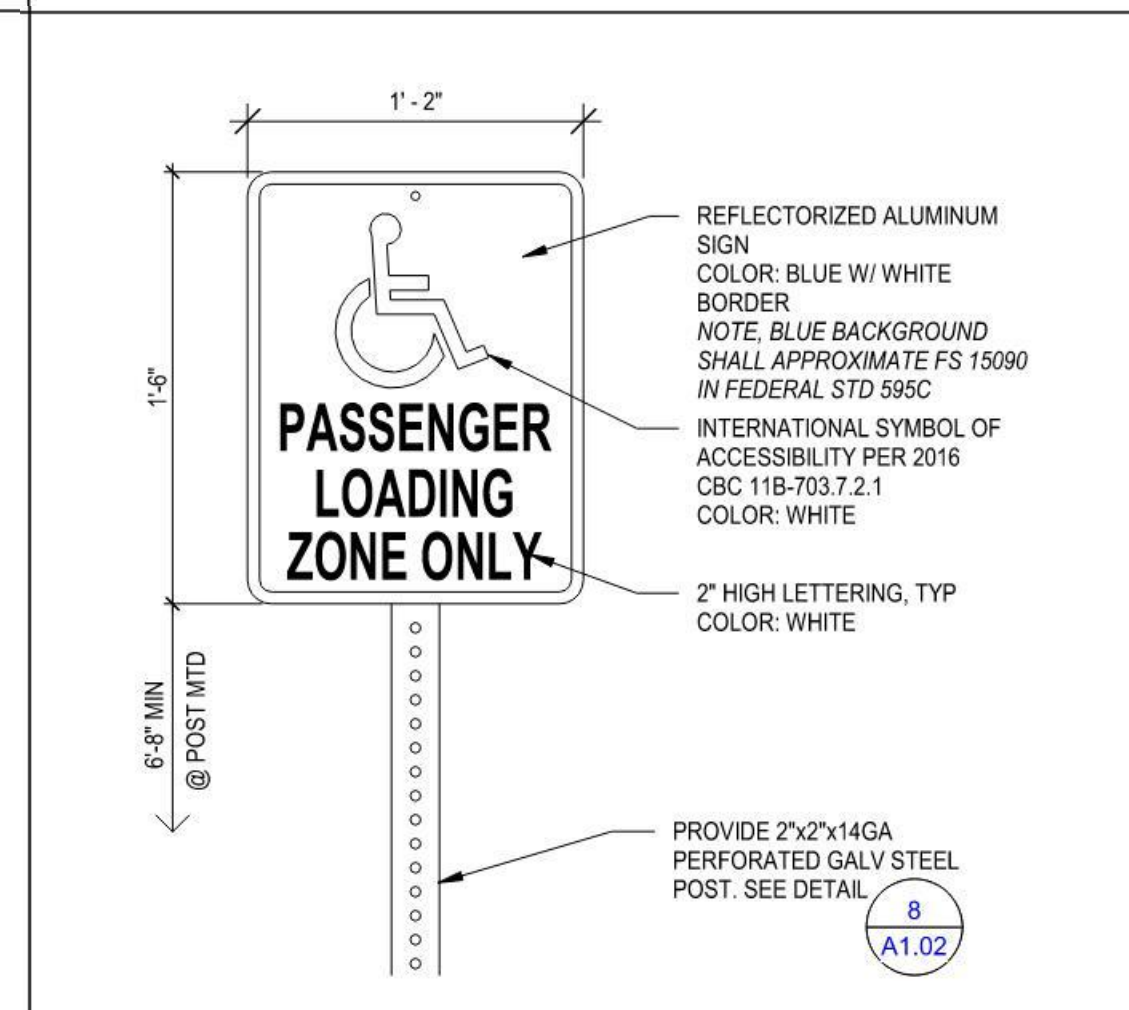
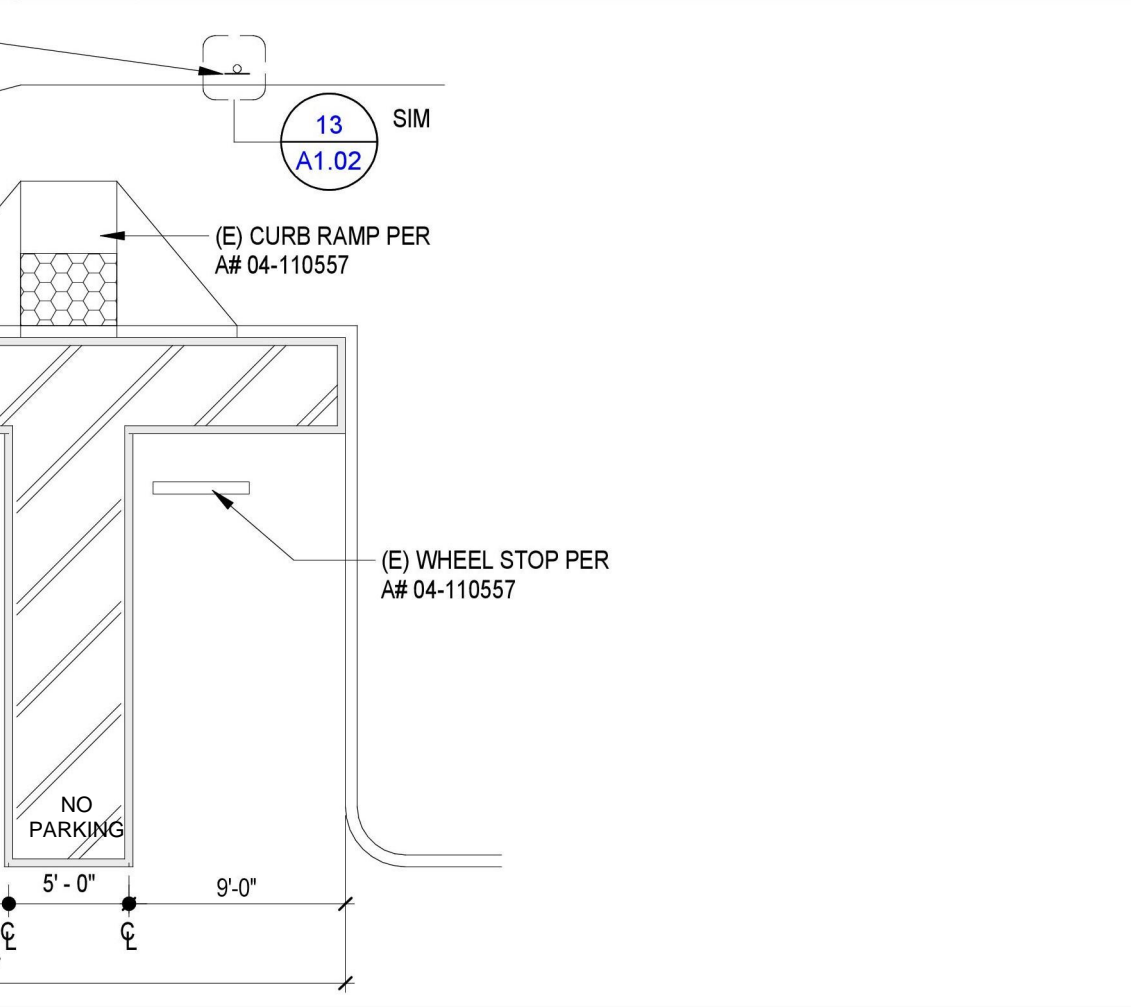
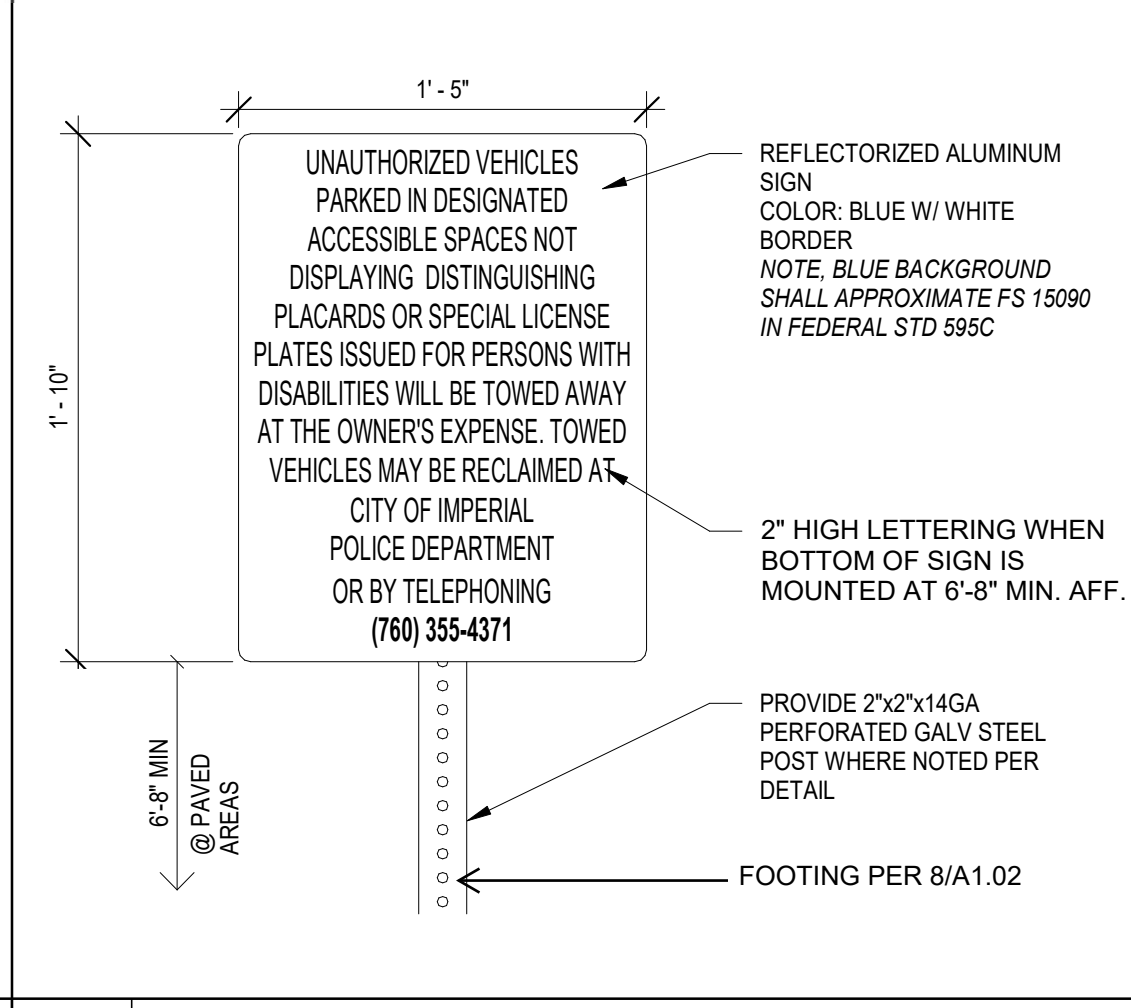
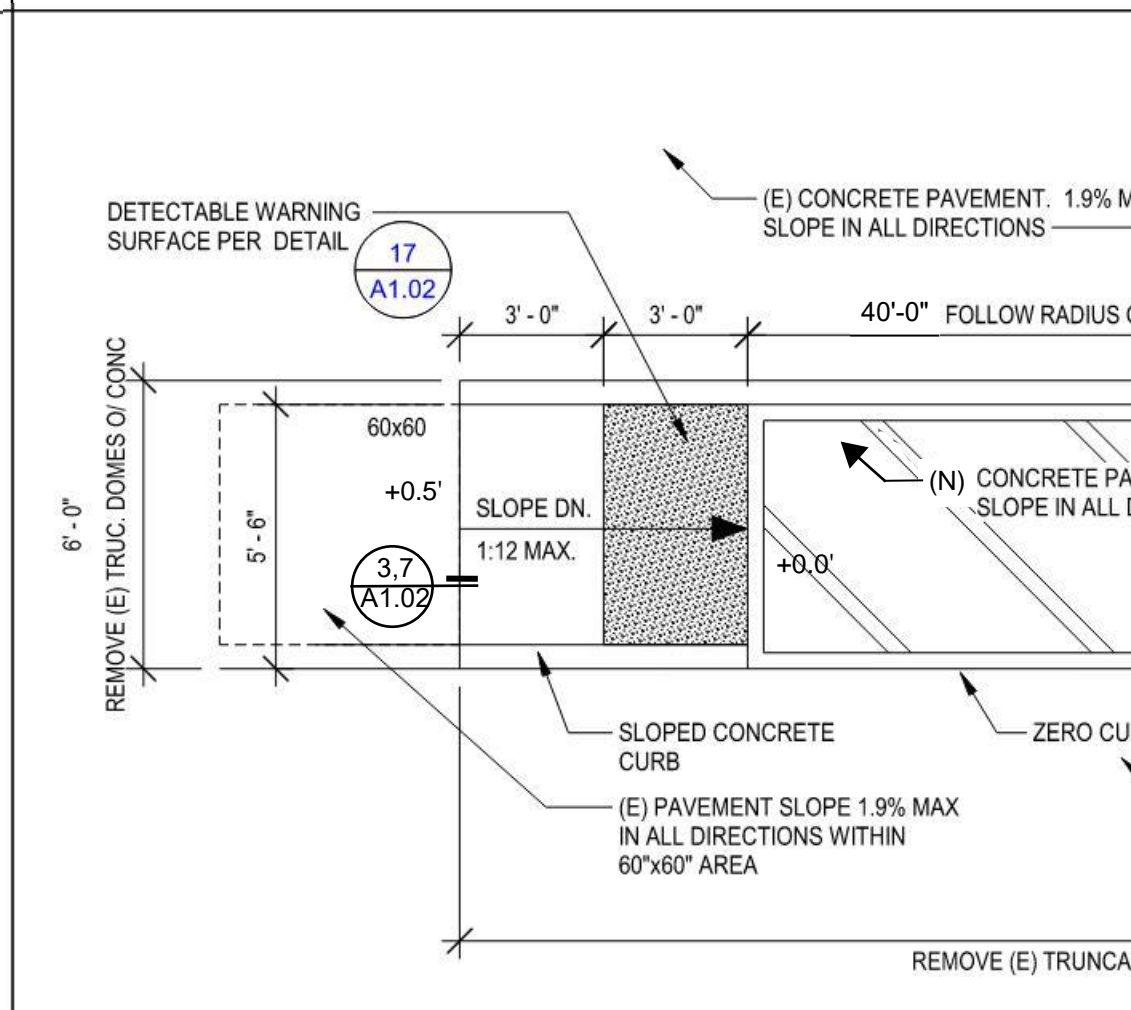
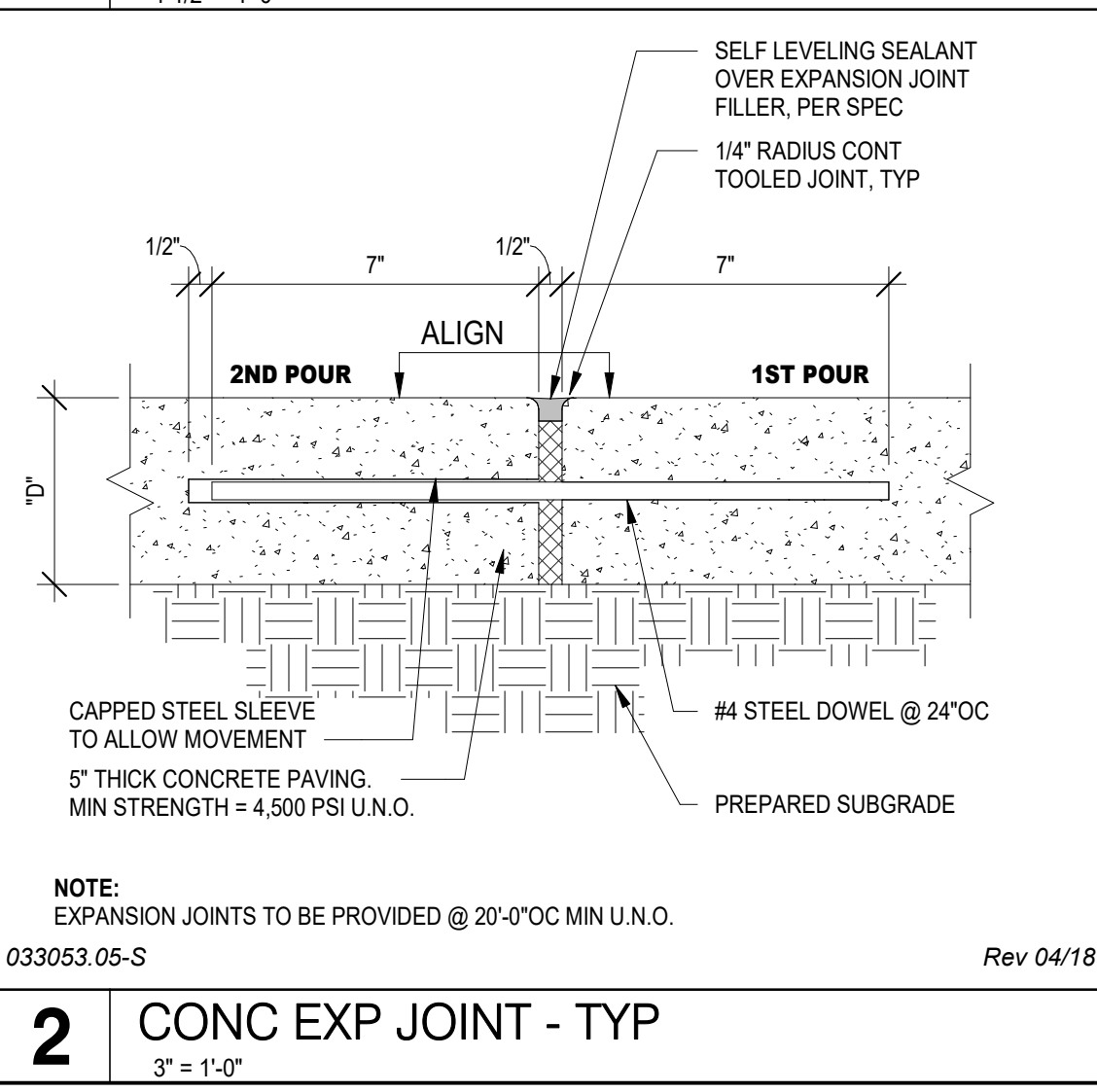
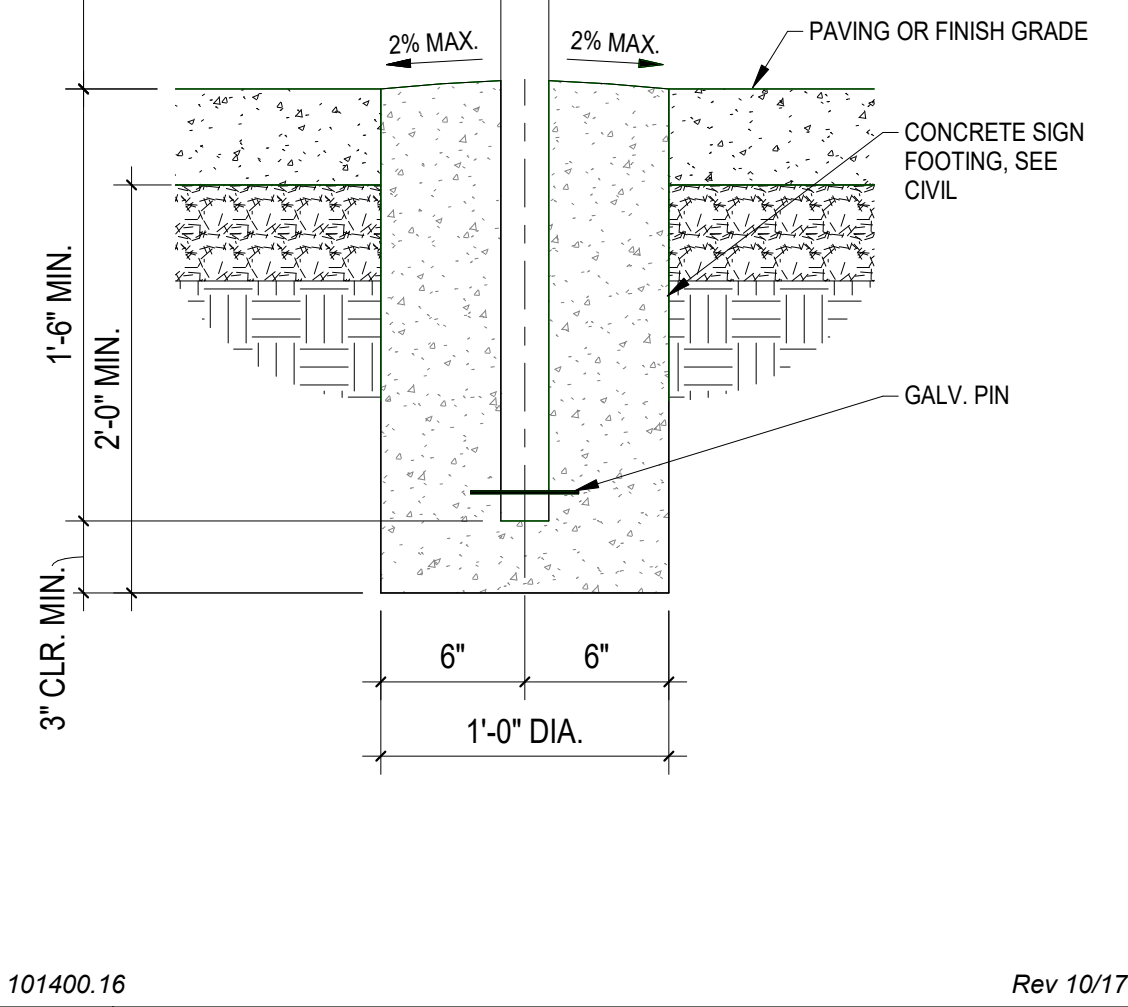
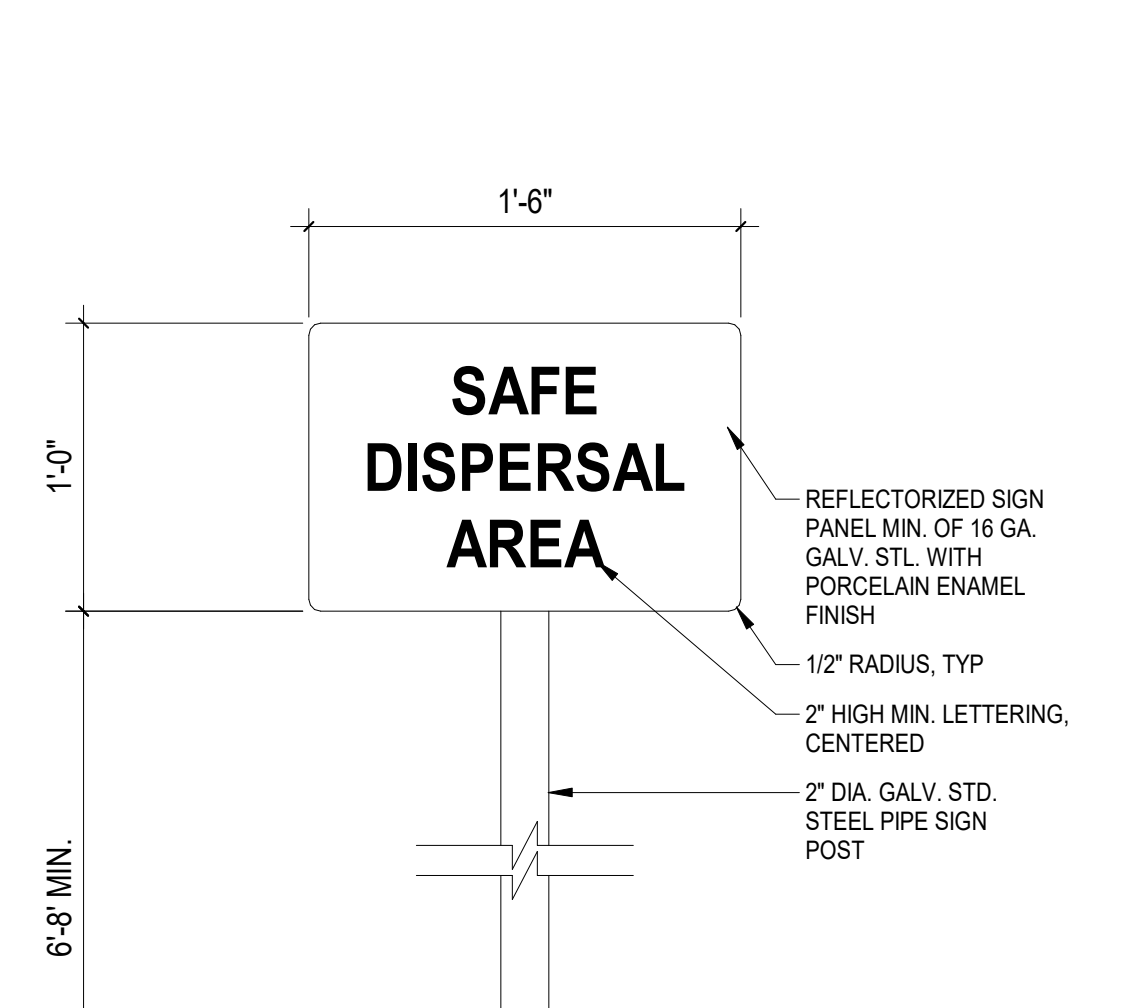
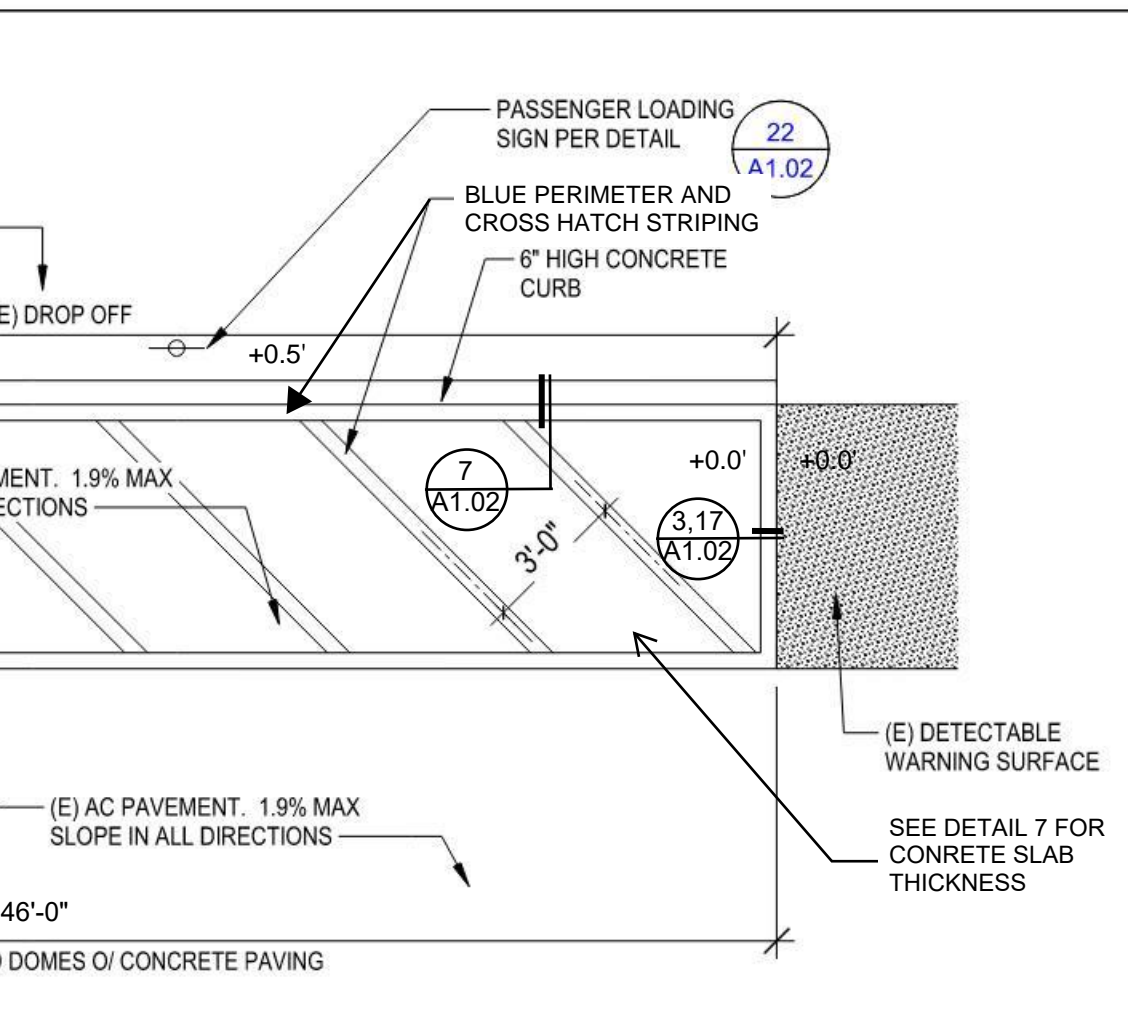
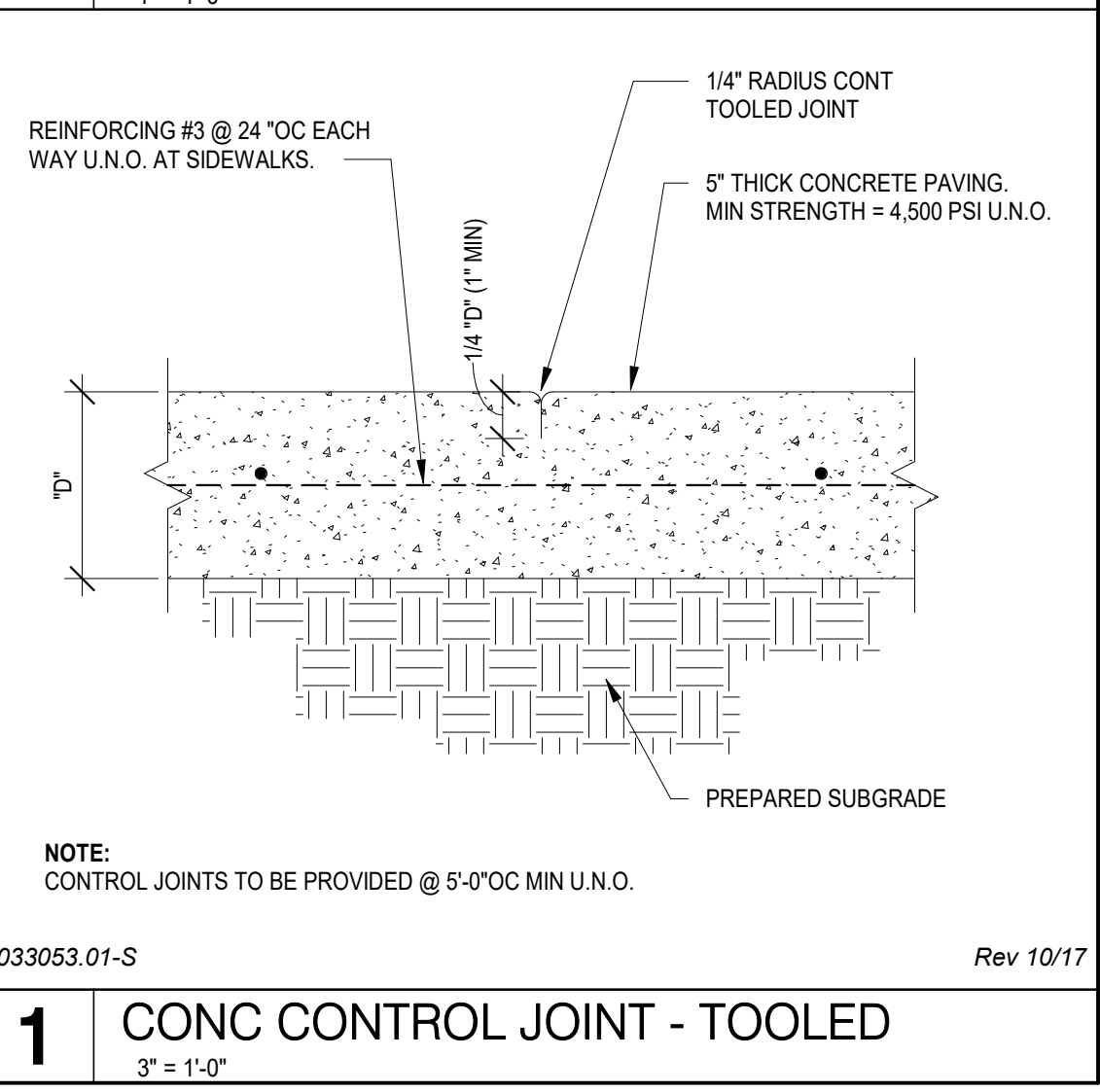
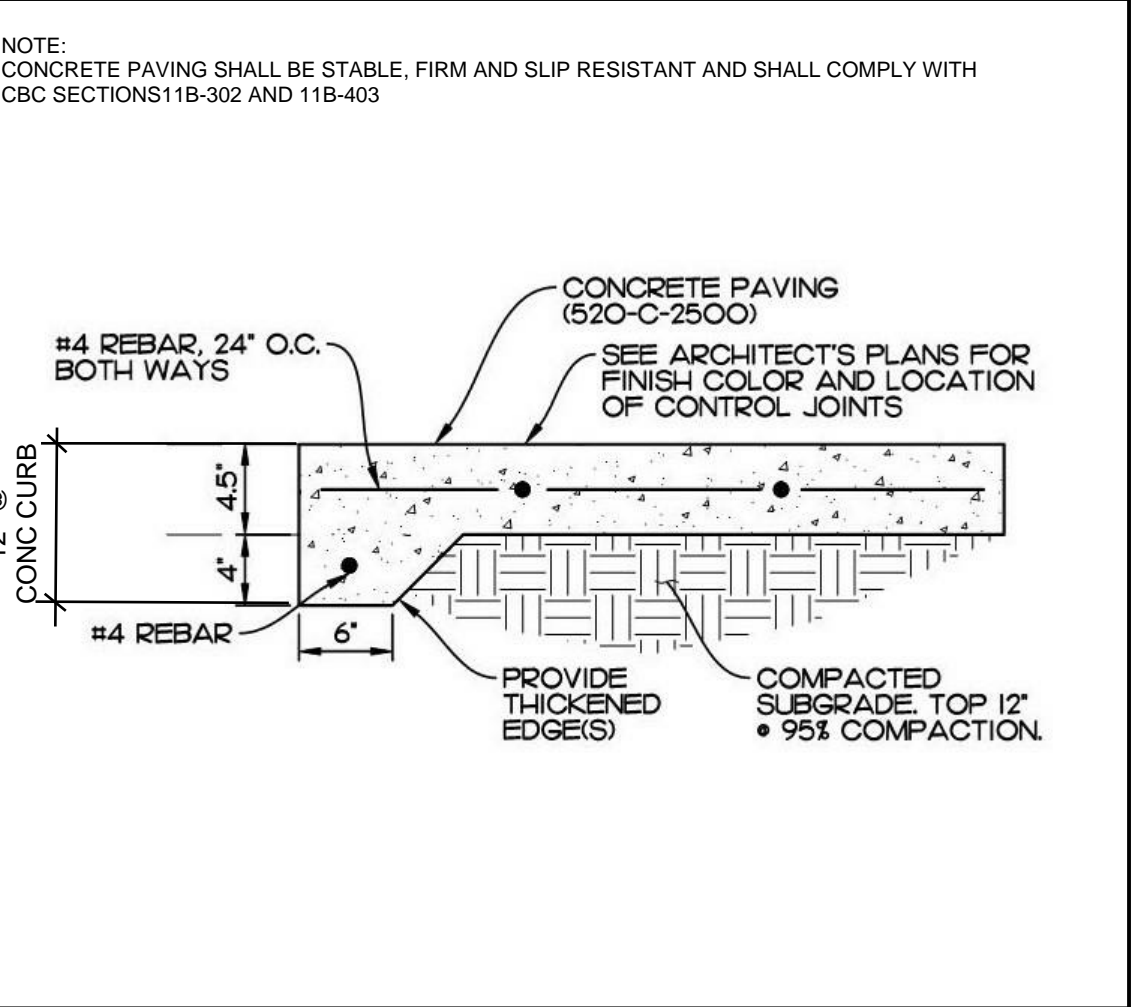
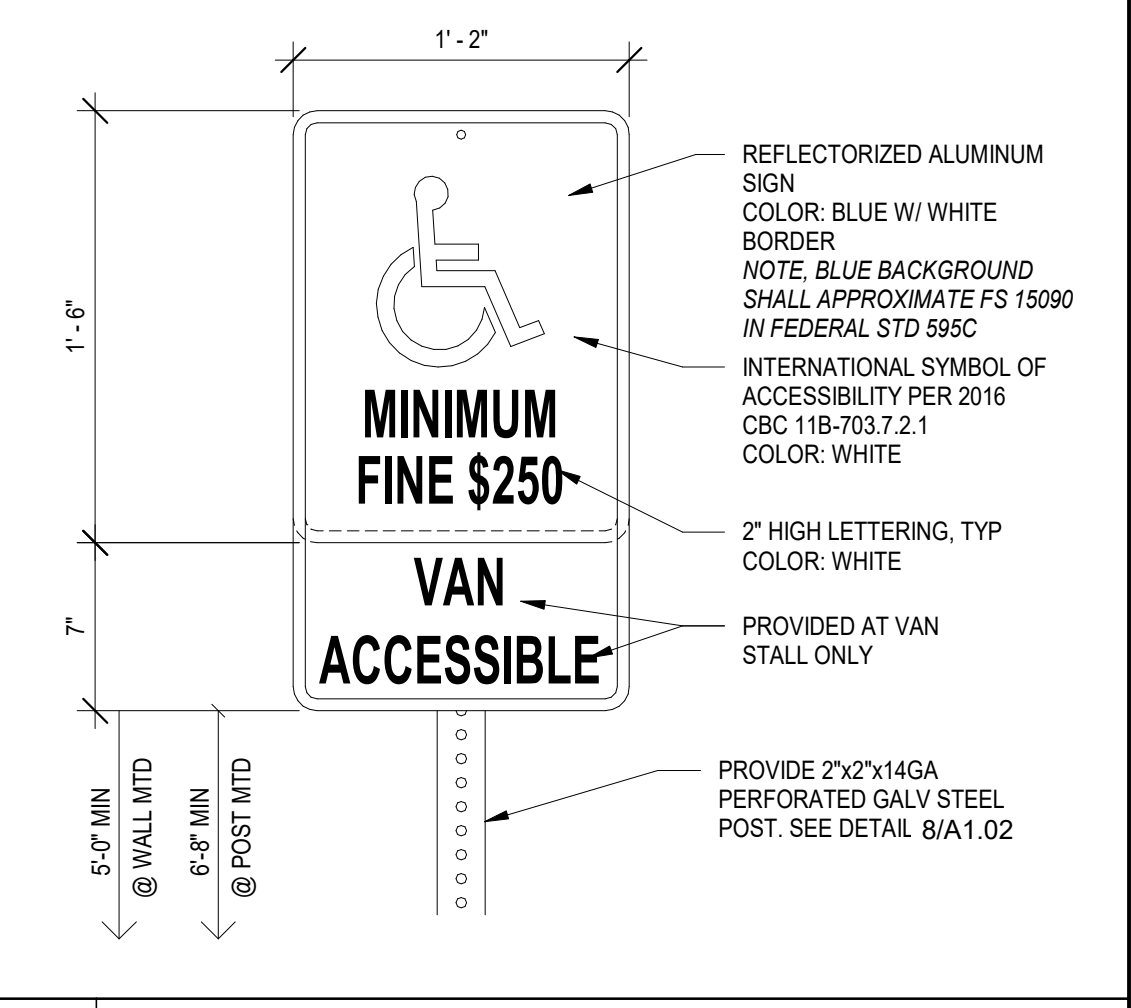
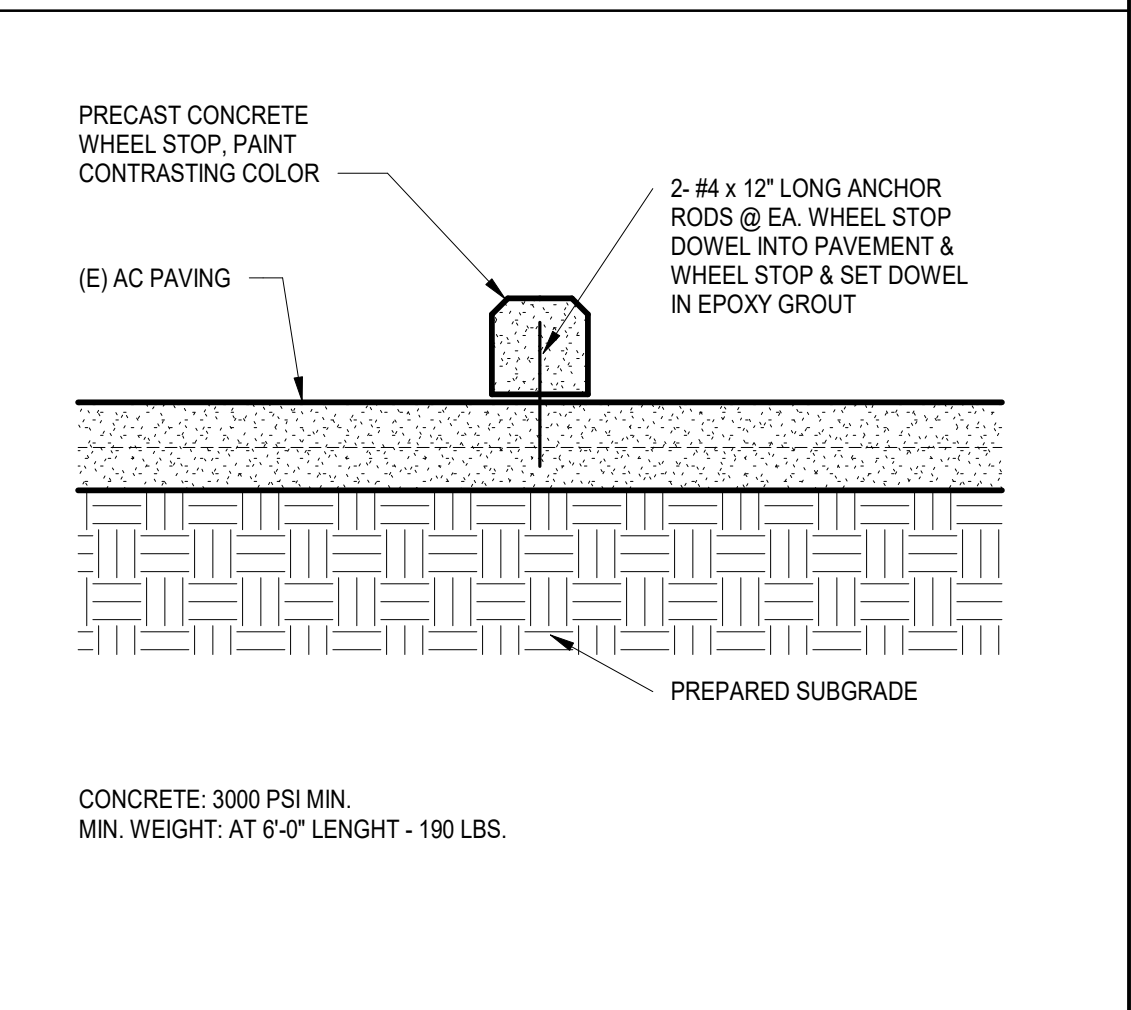
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PLOT PLAN

A1.01



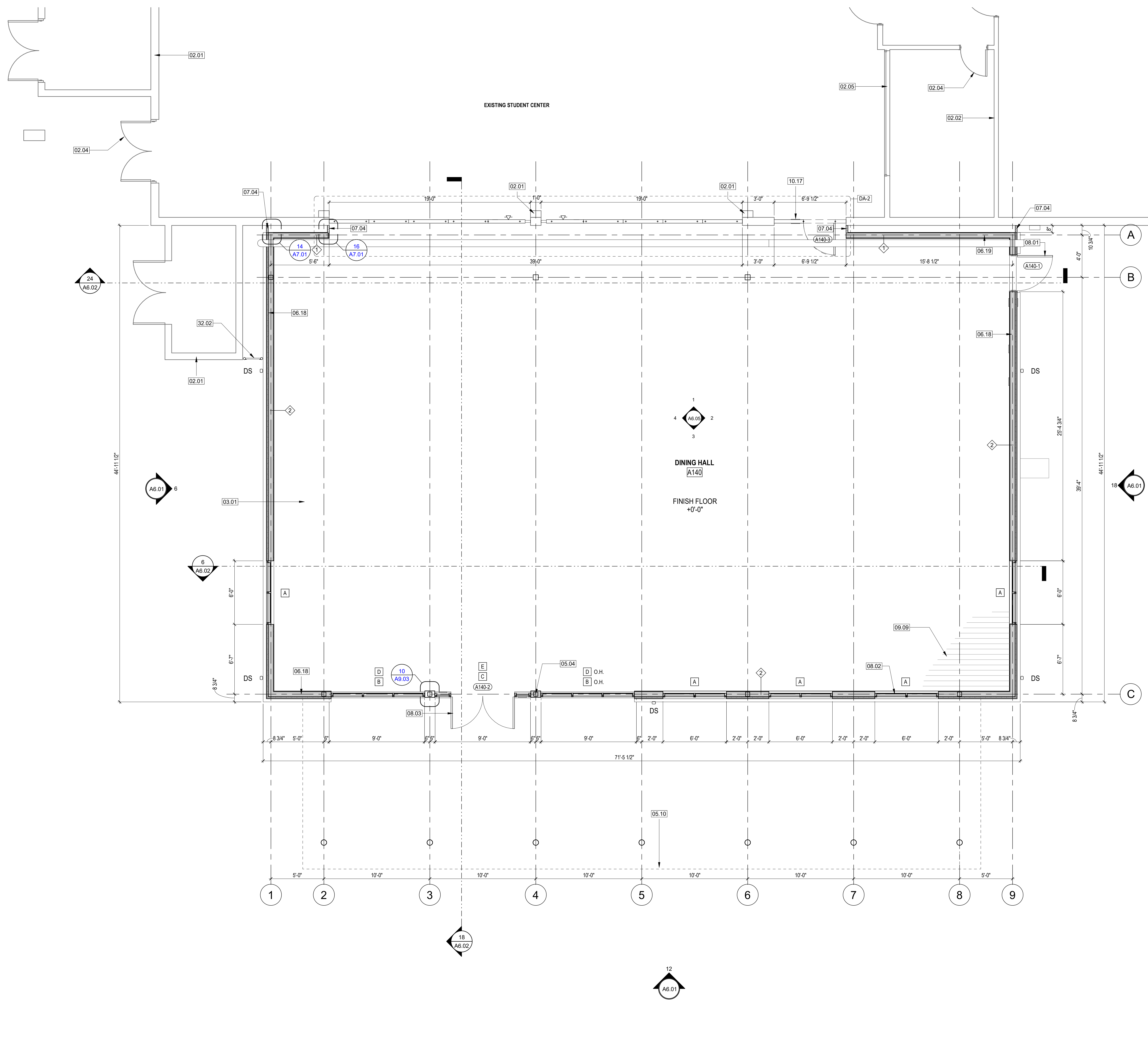
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6 LEVEL 1 - FLOOR PLAN
1/4" = 1'-0"



KEYNOTE LEGEND

NUMBER	DESCRIPTION
02.01	(E) CMU WALL
02.02	(E) INT METAL FRAMED WALL W/ 5/8" GYP WALLBOARD EACH SIDE
02.04	(E) H.M. DOOR AND FRAME
02.05	(E) H.M. WINDOW
03.01	CONCRETE FLOOR SLAB PER STRUCTURAL
05.04	HSS 5/8" COLUMN CLAD IN WOOD
06.10	LINE OF TRELLIS ABOVE
06.18	EXTERIOR WOOD STUD WALL W/ 4" CMU VENEER OF CEMENT PLASTER OR PLYWOOD EXT. 5/8" GYP BOARD INT.
06.19	INTERIOR WOOD STUD WALL W/ 5/8" GYPSUM WALL BOARD INT.
07.04	VERTICAL SEISMIC JOINT COVER
08.01	H.M. DOOR AND FRAME
08.02	ALUMINUM STOREFRONT WINDOW W/ ANODIZED FINISH
08.03	ALUMINUM STOREFRONT DOOR W/ ANODIZED FINISH
08.09	FLOOR FINISH PER SCHEDULE
10.17	(S) OR, SEE SHEET 03.03
32.02	CHAIN LINK GATE. SEE DETAIL 6/A1.02

CMU NOTES

1. ALL CMU VENEER SHALL BE PRECISION FACED, INTERGRAL COLOR BLOCK - SOLID GROUTED

INTERIOR FINISH SCHEDULE

SURFACE	MATERIAL	FINISH
FLOORS	LVT	FACTORY
WALL	CMU	PAINT SEMI-GLOSS
WALL	GYPSUM WALLBOARD	PAINT SEMI-GLOSS
CEILING	ACOUSTIC DECK	FACTORY FINISH
CEILING	ACOUSTIC TILE	FACTORY

1. ALL SCHEDULED DIRECTIONS (NORTH, EAST, SOUTH, WEST) ARE PER PLAN DIRECTIONS, NOT TRUE COMPASS DIRECTIONS.
2. ALL FINISH MATERIALS SHALL MEET FLAME SPREAD RATINGS PER THE BUILDING CODE.
3. PROTECT ALL FINISHED FLOORING SURFACES FROM DAMAGE DURING ALL CONSTRUCTION PHASES.
4. PAINT ALL NON-FACTORY FINISHED EXPOSED METAL.
5. PAINT ALL H.M. DOORS U.N.O.
6. PAINT ALL EXPOSED CEILING-RELATED ITEMS, INCLUDING BUT NOT LIMITED TO, STRUCT. MEMBERS, DUCTWORK, DIFFUSERS, PIPING, CONDUIT, EQUIP. HOUSINGS, CABLE SUPPORTS, CABLE TRAYS, EQUIP. SUPPORTS AND HANGERS. PAINT ALL EXPOSED CEILING-RELATED ITEMS WHITE
7. DO NOT PAINT ACOUSTICAL STRUCT. DECK

WALL SCHEDULE

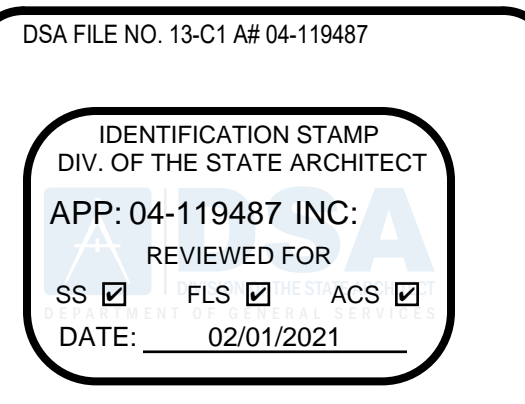
WALL TYPE	DESCRIPTION
1	2x6 WOOD FRAME, ONE SIDE 5/8" GYPSUM WALLBOARD INTERIOR, ONE SIDE PLYWOOD SHEATHING. SEE DETAIL 2/A1.01
2	4" CMU VENEER, EXTERIOR PLASTER, 1" RIGID INSULATION, PLYWOOD SHEATHING 2x6 WOOD FRAME, 5/8" GYPSUM WALL BOARD INTERIOR. SEE DETAIL 4/A1.01

CONSTRUCTION LEGEND

- EXISTING WALL / CONDITION
- NEW WALL
- WALL TYPE TAG. SEE SHEET A7.01
- DOOR NUMBER TAG
- WINDOW TYPE TAG. SEE SHEET A9.01
- DOWNSPOUT. SEE DETAIL 12/A7.01 FOR TOP, MIDPOINT AND BOTTOM ATTACHMENT
- DEDUCTIVE ALTERNATE. SEE G0.01 FOR DESCRIPTION

GENERAL ARCH PLAN NOTES

1. SEE PLAN 3/A4.01 FOR (E) ENLARGED RESTROOM PLANS AND INTERIOR ELEVATIONS
2. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS TAKE PRECEDENCE. CONTACT ARCH IF CLARIFICATION IS NECESSARY IN ORDER TO DETERMINE THE INTENT OF THE CONTRACT DOCUMENTS
3. DRAWINGS NOTED AS "N.T.S." OR "NTS" ARE NOT TO SCALE
4. ALL DIMENSIONS ARE TO STRUCTURAL COLUMN LINES OR THE SURFACE OF PARTITION ASSEMBLY U.N.O.
5. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE COMMENCING WORK. NOTIFY ARCH. OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH AFFECTED WORK
6. NOTES OR DIMENSIONS NOTED AS "TYPICAL" OR "TYP" OR "TYP" SHALL APPLY TO CONDITIONS THAT ARE THE SAME OR SIMILAR
7. DIMENSIONS NOTED AS "FIELD VERIFY" OR "V.I.F." OR "V.I.P." SHALL BE MEASURED AND CONFIRMED AT THE PROJECT SITE BY THE CONTRACTOR AND REVIEWED WITH THE ARCH. BEFORE INCORPORATING INTO THE WORK.
8. DIMENSIONS NOTED AS "CLEAR" OR "CLEAR INSIDE" REQUIRE SPECIFIC COORDINATION AMONG DISCIPLINES AND/OR MANUFACTURERS
9. REFER TO PARTITION TYPES ON SHEET A7.01
10. ALIGN FINISHED FACE OF WALLS WHERE WALL PARTITIONS OF DIFFERING THICKNESS ABUT AND OR ADJOIN IN THE SAME PLANE
11. PROVIDE AND INSTALL CONT. REVEAL TRIM AT JOINT WHERE GYPSUM BOARD WALL PARTITIONS ABUT AND/OR ADJOIN MASONRY WALL PARTITIONS IN THE SAME PLANE
12. ALL INTERIOR CMU OUTSIDE CORNERS SHALL HAVE BULLNOSE U.N.O.
13. ALL DOORS SHALL BE SET 6 INCHES OFF THE ADJACENT PERPENDICULAR WALL ON THE HINGE SIDE OF THE DOOR U.N.O. NOTIFY ARCH. OF ANY DOOR-RELATED CONFLICTS, INCLUDING BUT NOT LIMITED TO CONFLICTS CONCERNING ACCESSIBILITY STANDARDS
14. ALL DOOR THRESHOLDS AT ALL EXTERIOR DOORS SHALL BE SET IN FULL BED OF SEALANT
15. COORD. ALL ROOF DRAIN LEADER LOCATIONS WITH FLOOR PLAN PRIOR TO FLOOR SLAB CONSTRUCTION
16. ALL FLOOR SLOPES TO FLOOR DRAINS SHALL NOT EXCEED 1:48
17. PROVIDE AND INSTALL SELF-LEVELING UNDERLAYMENT WHERE UNEVEN FLOOR SLAB EXISTS PRIOR TO INSTALLATION OF FLOOR FINISHES
18. COORD. HOUSEKEEPING PAD LOCATIONS AND DIMENSIONS WITH EQUIPMENT TO BE INSTALLED
19. ALL FLOOR FINISH CHANGES SHALL OCCUR AT THE CENTERLINE OF DOORS U.N.O.
20. ALL FLOOR FINISH MATERIAL CHANGES SHALL HAVE REDUCER STRIPS
21. ALL REQUIRED ACCESSIBLE CLEARANCES FOR ALL ITEMS, INCLUDING BUT NOT LIMITED TO ALL COUNTER TOPS, ALL PLUMBING FIXTURES, ALL DRINKING FOUNTAINS, ALL ELECTRIC WATER COOLLERS, ALL LAVATORIES, ALL URINALS, ALL TOILETS SHALL BE STRICTLY ENFORCED
22. APPLY BITUMINOUS COATING TO ALL CONCEALED STRUCTURAL STEEL MEMBERS AT ALL EXTERIOR CANOPY LOCATIONS
23. REFER TO OTHER DISCIPLINE DOCUMENTS FOR ADDITIONAL SCOPE OF WORK
24. ASSISTIVE LISTENING SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 11B-119 AND SHALL COMPLY WITH CBC SECTION 11B-706. PROVIDE 9 RECEIVERS. 3 SHALL BE HEARING AID COMPATIBLE IN ACCORDANCE WITH CBC SECTION 11B-706.3

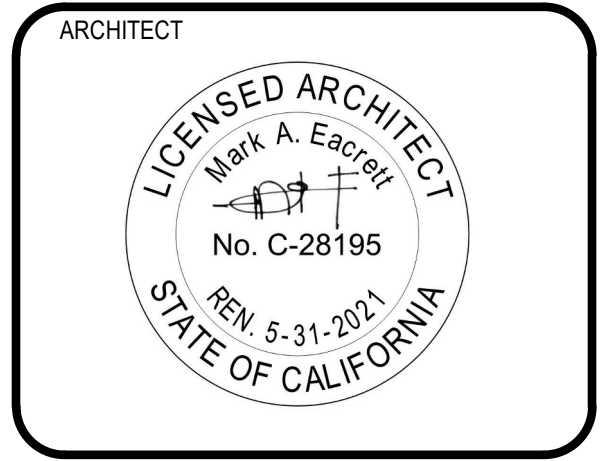


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CONSULTANT

ENGINEER



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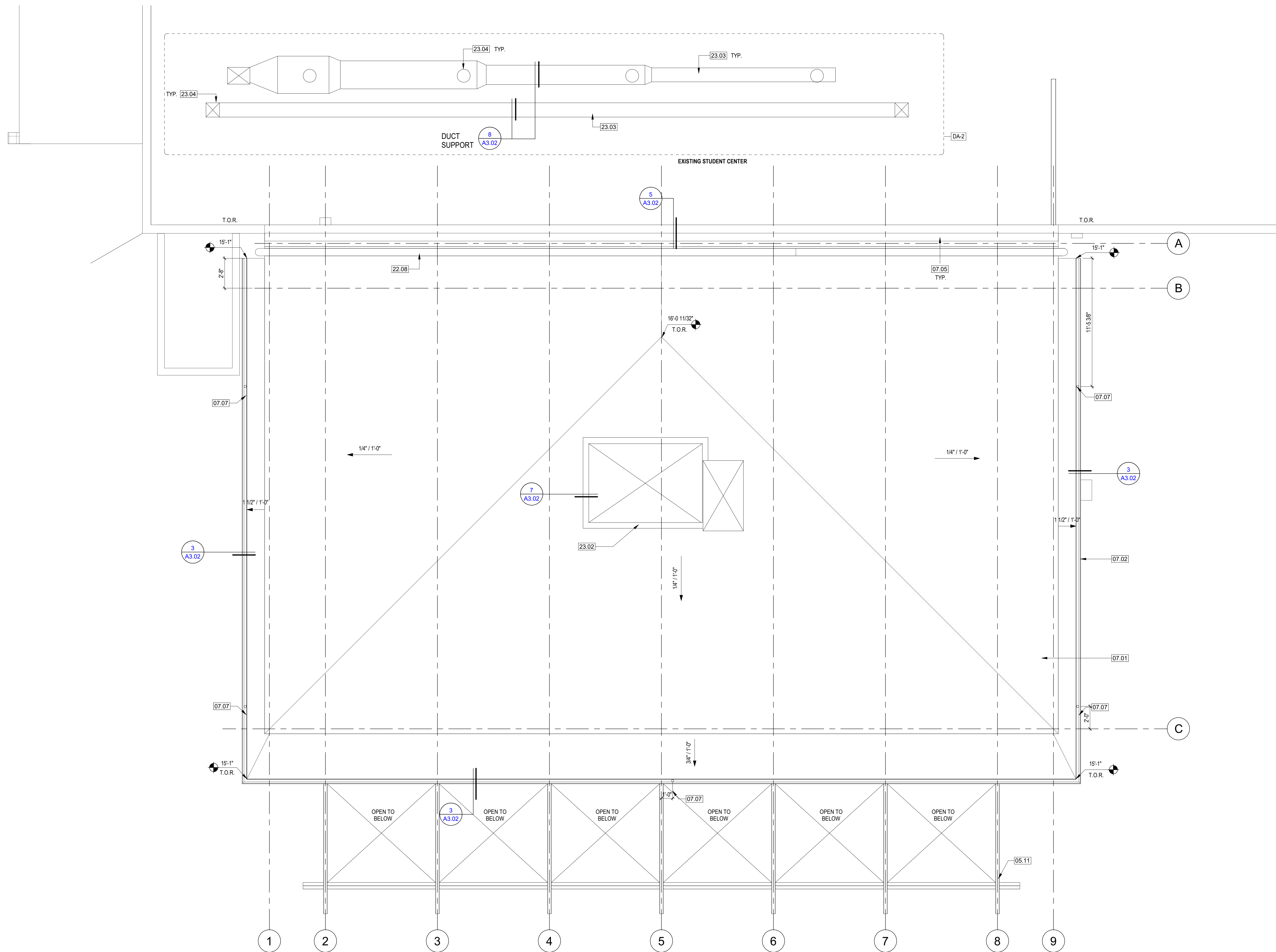
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FLOOR PLAN

A2.01

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6 ROOF PLAN
 1/4" = 1'-0"



KEYNOTE LEGEND

NUMBER	DESCRIPTION
07.01	PVC ROOF OVER COVER BOARD OVER SLOPED INSULATION
07.02	SHEET METAL GUTTER
07.03	ALUMINUM PARAPET COPING
07.05	SEISMIC JOINT ROOF COVER
07.07	DOWNSPOUT
22.08	EXTERIOR GAS LINE
23.02	ROOFTOP UNIT
23.03	ROOFTOP DUCTS
23.04	DUCT PENETRATIONS THROUGH ROOF

ROOF PLAN NOTES

- NEW AND EXISTING ROOFS ARE CLASS A ROOF ASSEMBLIES. SEE DETAIL [1](#) (A3.02)
- PIPE/CONDUIT PENETRATIONS THROUGH (E) AND (N) PVC ROOF. SEE DETAIL [10](#) (A3.02)

ROOF LEGEND

- T.O.R. TOP OF ROOF MEMBRANE
 DA-1 DEDUCTIVE ALTERNATE. SEE 00.01 FOR DESCRIPTION.

DSA FILE NO. 13-C1 AR 04-119487

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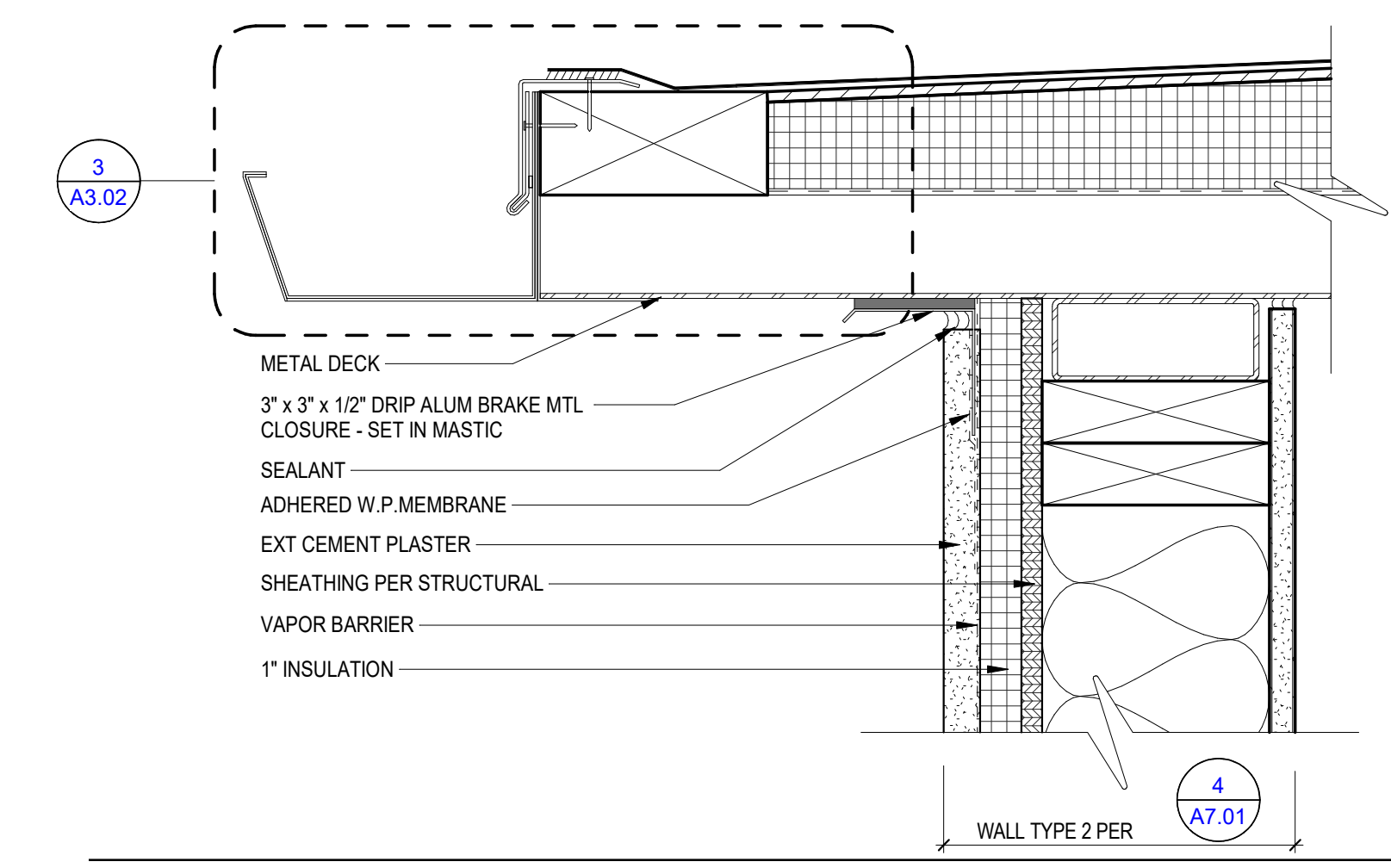
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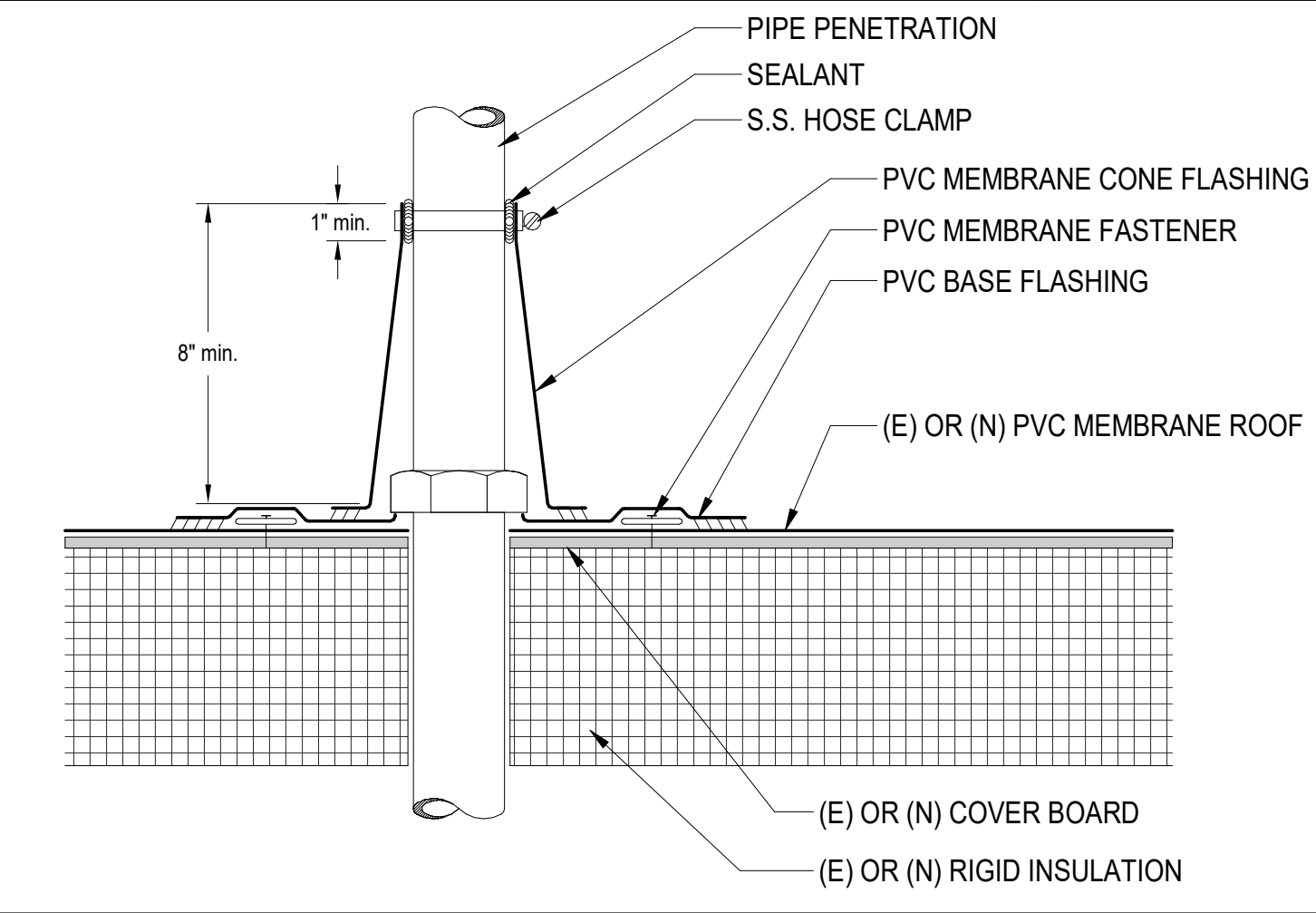
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ROOF PLAN

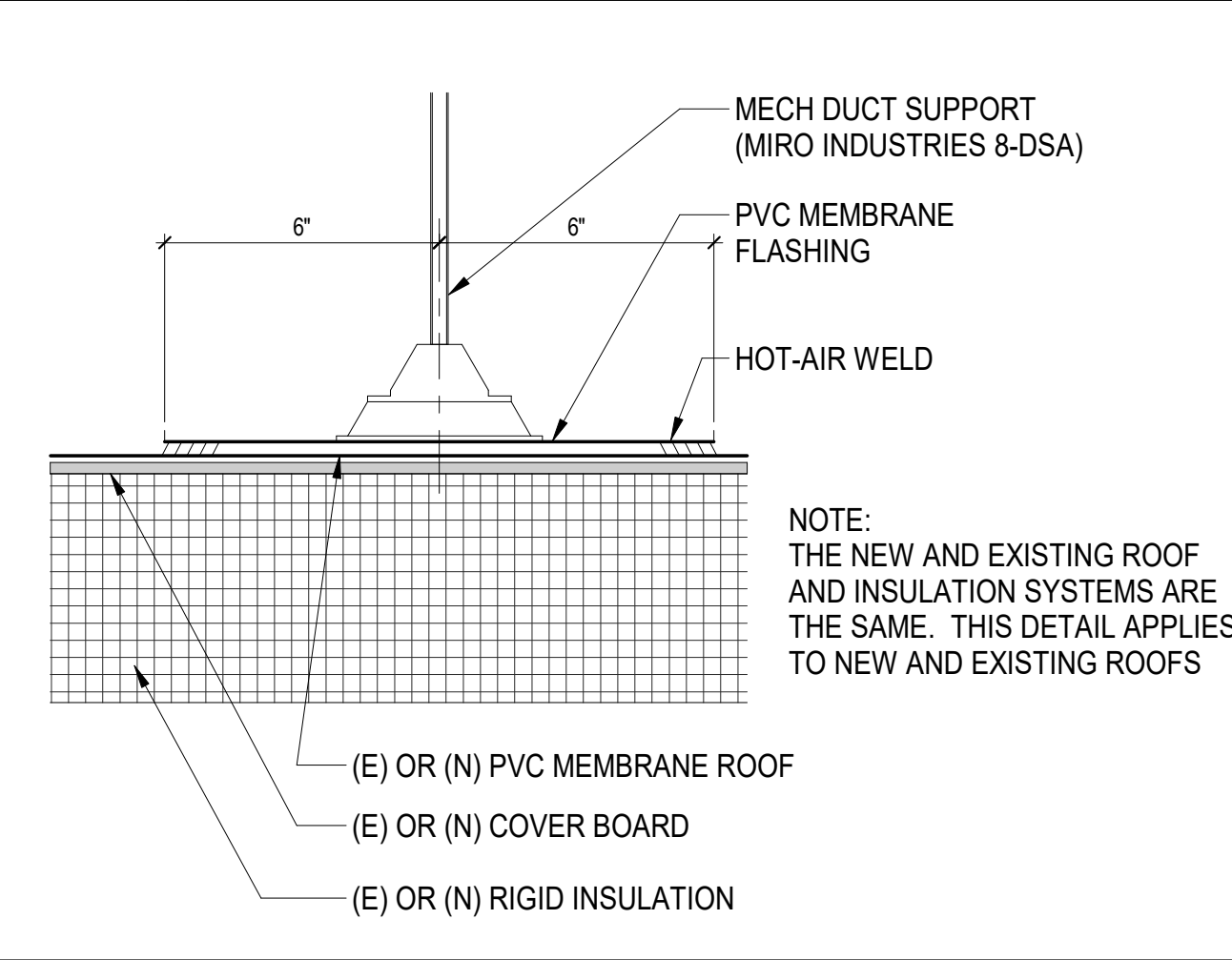
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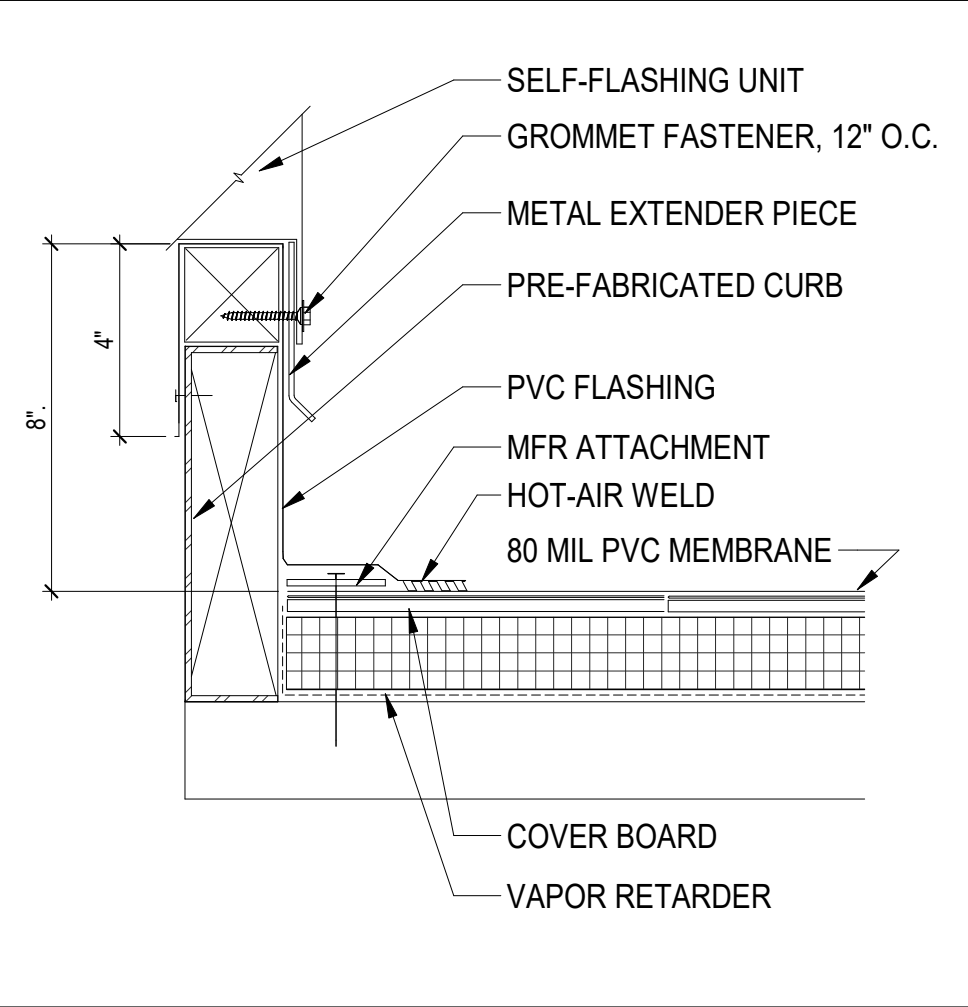
14 ROOF SOFFIT
 3" = 1'-0"



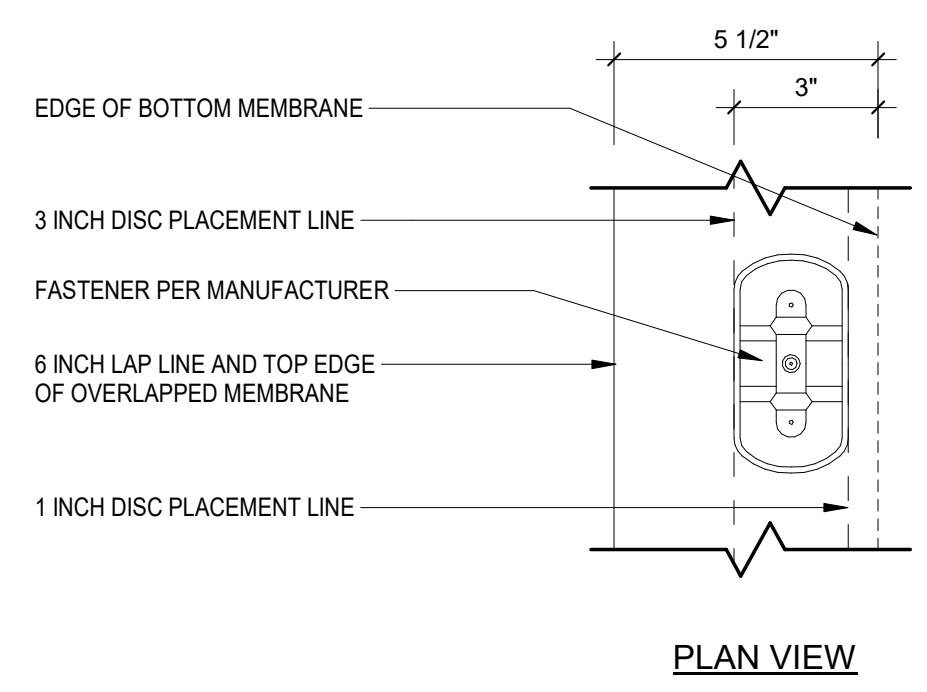
10 CONE FLASHING AT PENETRATION
 3" = 1'-0"



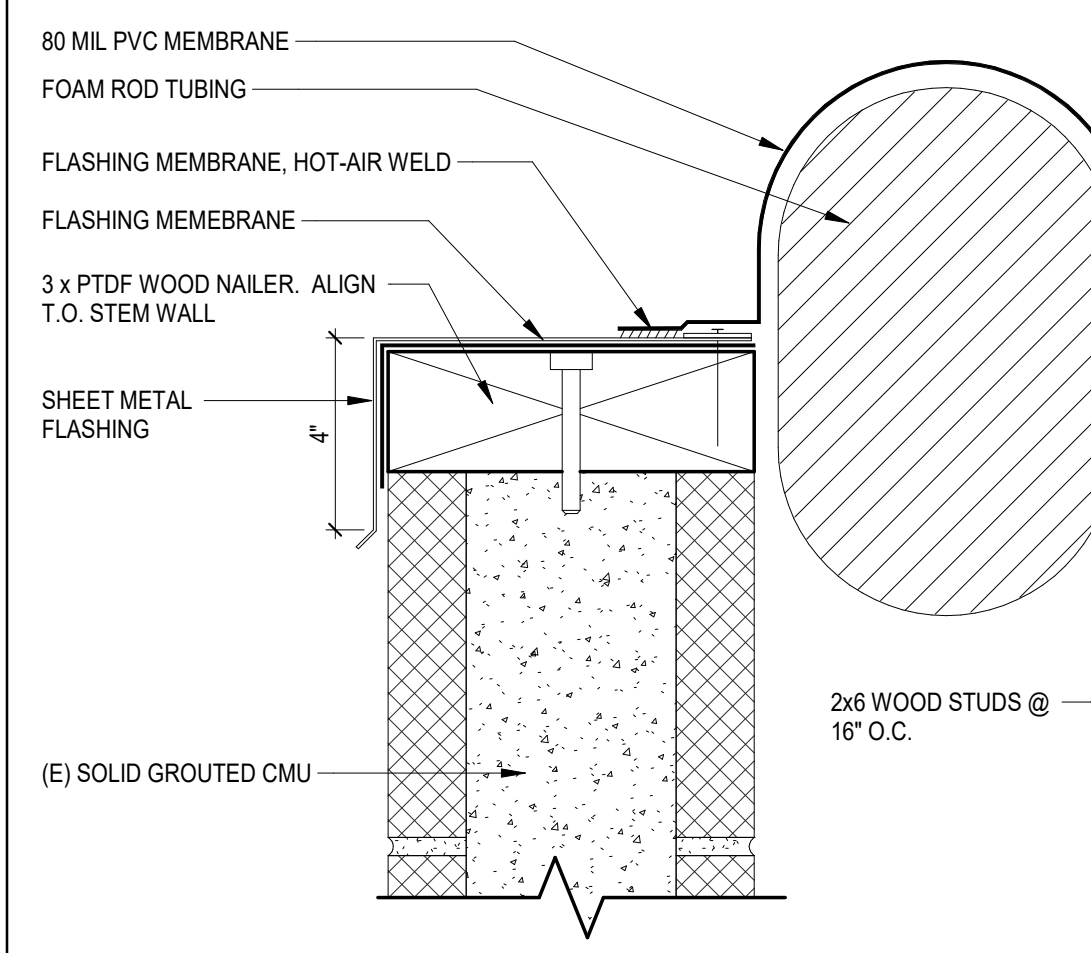
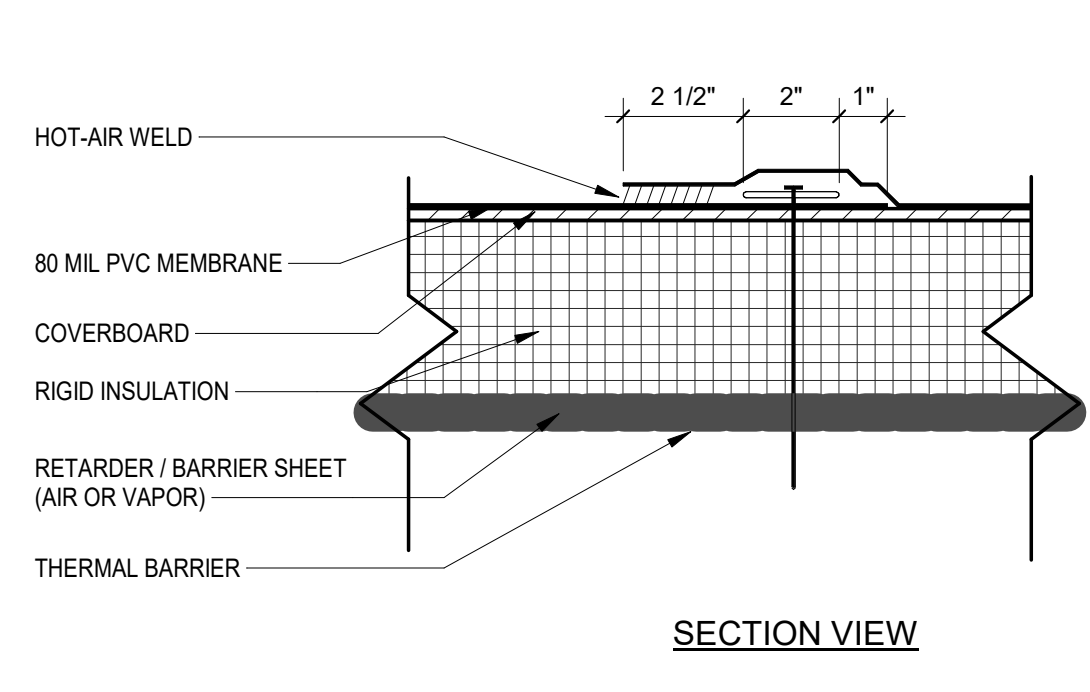
8 FLASHING AT DUCT SUPPORT
 3" = 1'-0"



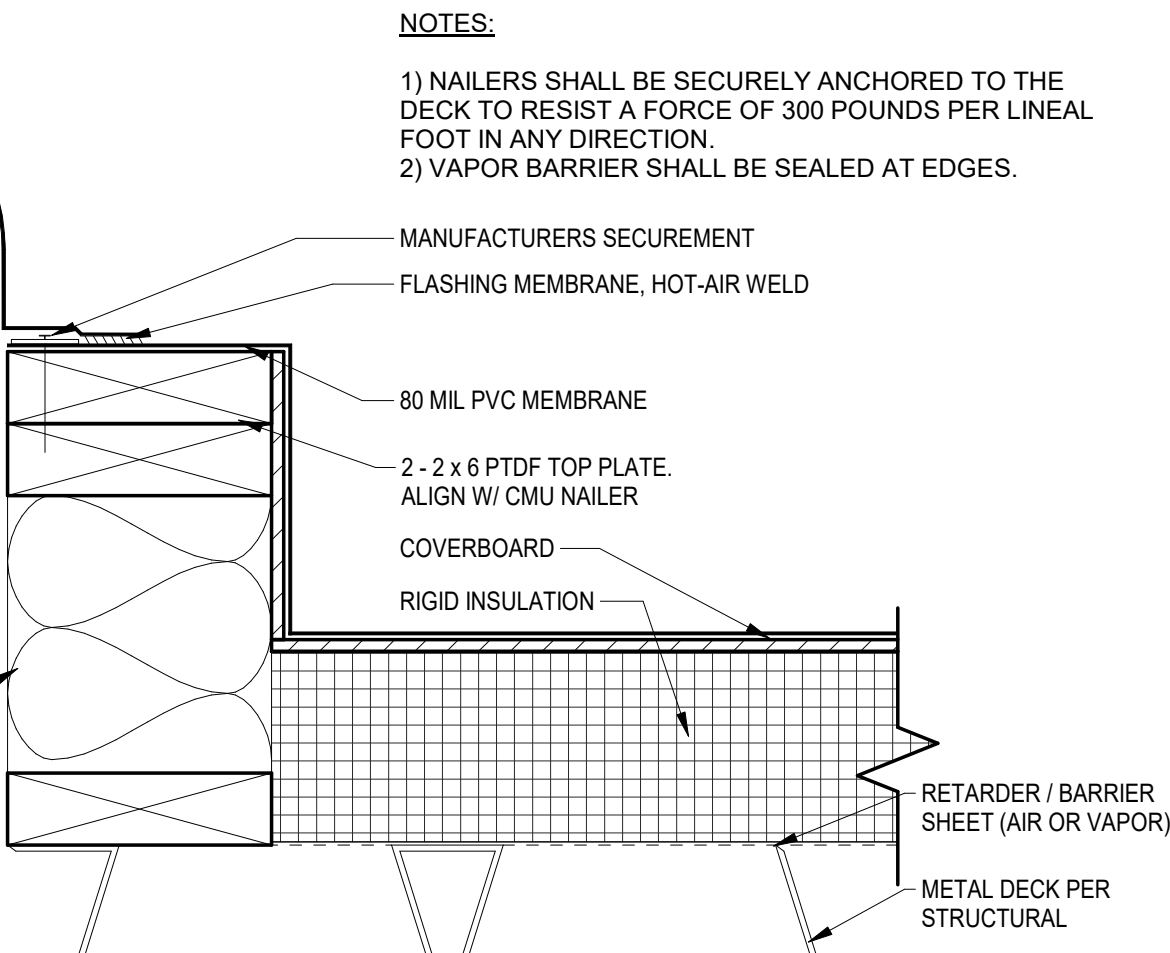
7 MECH CURB FLASHING
 3" = 1'-0"



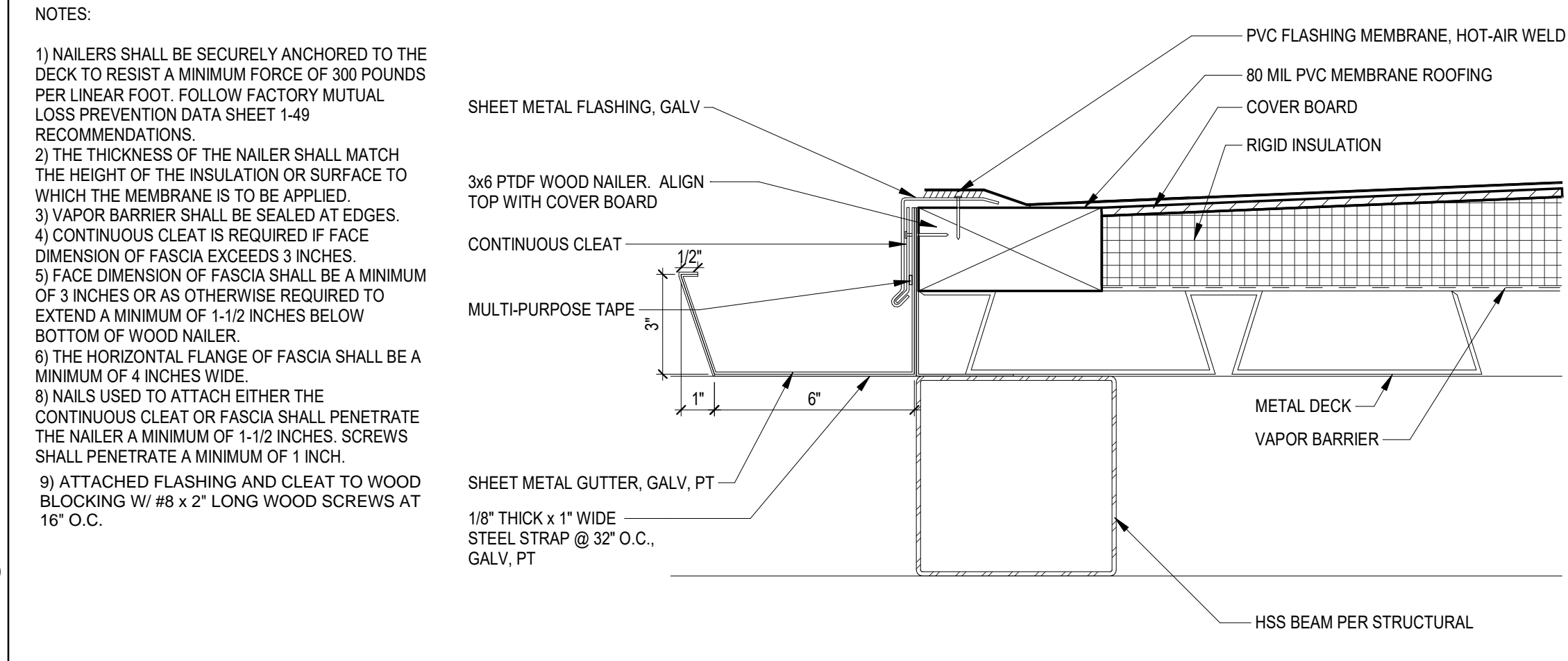
6 ROOF FASTENING
 3" = 1'-0"



5 ROOF EXPAN JOINT AT PARAPET
 3" = 1'-0"



3 ROOF EDGE
 3" = 1'-0"



1 ROOF ASSEMBLY
 3" = 1'-0"

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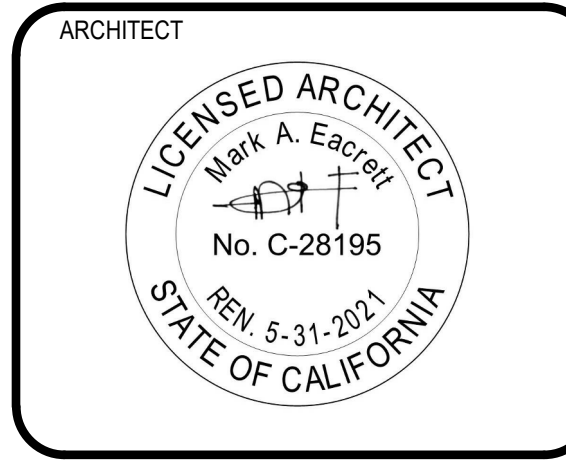


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**ENLARGED
 RESTROOM PLANS
 AND ELEVATIONS**

A4.01

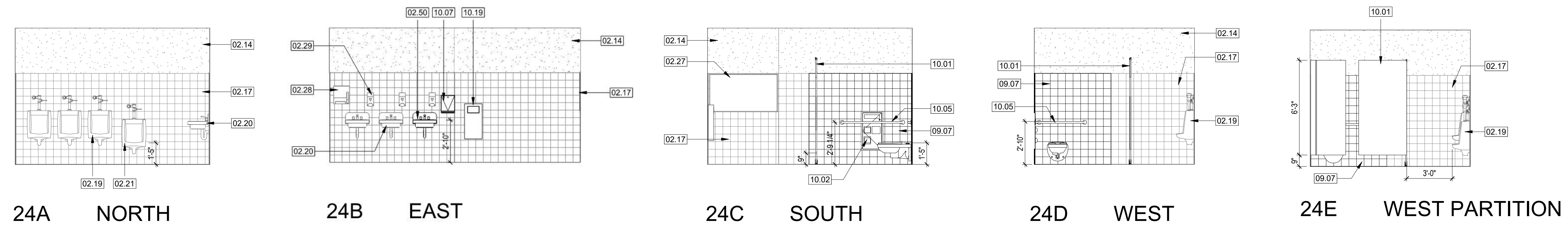
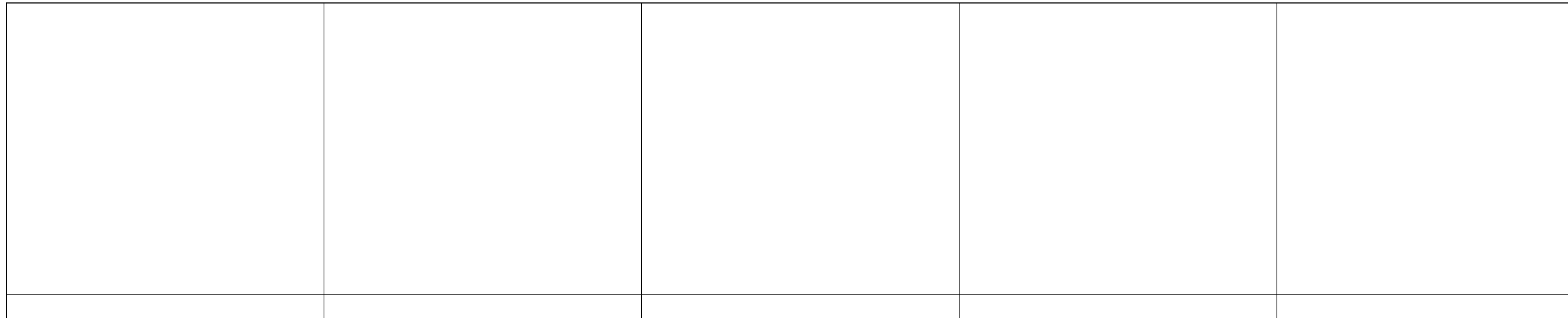
KEYNOTE LEGEND	
NUMBER	DESCRIPTION
02.14	(E) GYPSUM WALLBOARD
02.17	(E) TILE WAINSCOT
02.18	(E) WATER CLOSET
02.19	(E) URINAL
02.20	(E) SINK AND FAUCET
02.21	(E) ACCESSIBLE URINAL
02.22	(E) ACCESSIBLE SINK WITH PUSH BUTTON FAUCET
02.27	(E) 30x54 MIRROR
02.28	(E) PAPER TOWEL DISPENSER TA-9
02.29	(E) SOAP DISPENSER
02.30	(E) METAL SHELF
09.07	6x6 CERAMIC TILE WAINSCOT
09.08	8x8 CERAMIC TILE FLOOR
10.01	SOLID PHENOLIC OVERHEAD BRACED TOILET PARTITION
10.02	RECESSED T.P. AND SEAT COVER DISPENSER AND S.N DISPOSAL TA-1 SEE DETAIL 27/00.04 FOR MOUNTING
10.03	NEW LOCATION OF (E) PARTITION MOUNTED T.P. DISPENSER TA-2
10.04	NEW LOCATION OF (E) PARTITION MOUNTED SEAT COVER DISPENSER TA-3
10.05	GRAB BARS TA-4
10.07	PAPER TOWEL DISPENSER TA-8 4" MAX PROJECTION FROM F.O.F.
10.19	SURFACE MOUNTED WASTE RECEPTACLE TA-10 4" MAX PROJECTION FROM F.O.F.
22.01	SINK AND FAUCET
22.02	WATER CLOSET
02.50	NEW LOCATION OF (E) FENCE

CONSTRUCTION NOTES

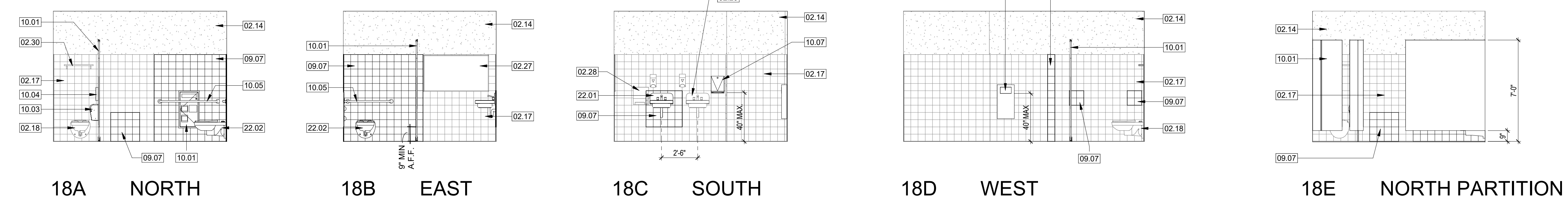
- REFER TO DETAIL 18 / A7.01 FOR WALL TILE INSTALLATION
- REFER TO DETAIL 17 / A7.01 FOR FLOOR TILE INSTALLATION
- REFER TO DETAILS 1 & 4/G0.04 FOR ACCESSORY HEIGHTS AND CLEARANCES
- ACCESSIBLE FIXTURE CONTROLS SHALL COMPLY WITH CBC SECTIONS 11B-6.0-4.6 FOR WATER CLOSETS, 11B-605.4 FOR URINALS, 11B6.06.4 FOR LAVATORIES AND SINKS

CONSTRUCTION LEGEND

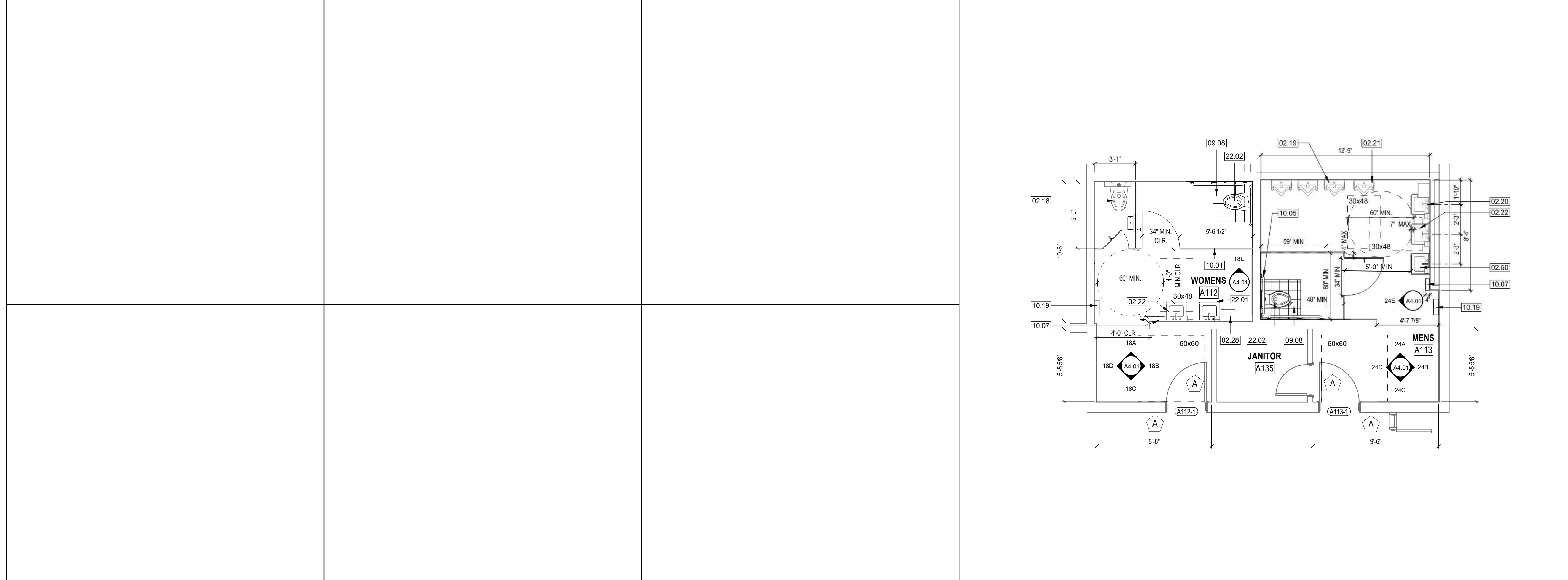
- (E) 6x6 CERAMIC TILE WAINSCOT
- 6x6 CERAMIC TILE WAINSCOT
- 8x8 CERAMIC FLOOR TILE OVER CONCRETE FILL
- (E) GYPSUM WALLBOARD
- RESTROOM DOOR AND WALL SIGNS 6
G0.04



24 A113 MEN'S TL - INTERIOR ELEVATIONS
 1/4" = 1'-0"



18 A112 WOMEN'S TL - INTERIOR ELEVATIONS
 1/4" = 1'-0"



3 ENLARGED RESTROOM PLANS
 1/4" = 1'-0"

DSA FILE NO. 13-C1 AR 04-119487

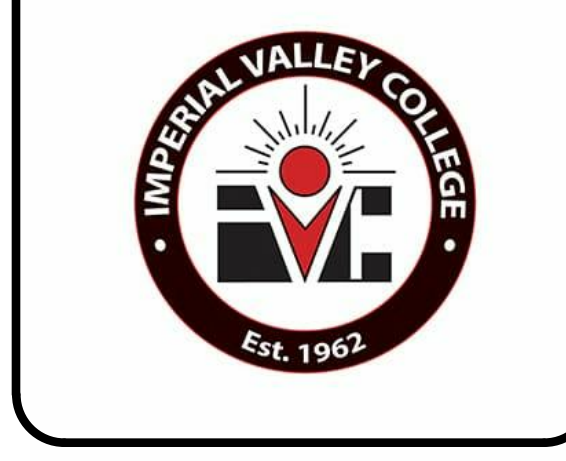
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ARCHITECTURE

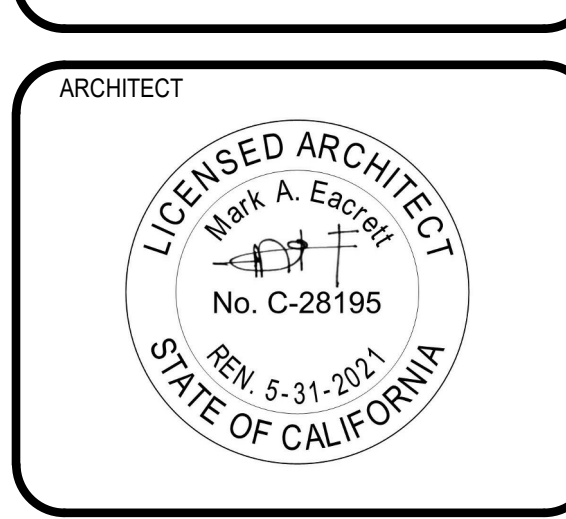
**IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT**
 380 E Aten Rd.
 Imperial, CA 92251

DSA SUBMITTAL



CONSULTANT

ENGINEER



CLIENT
 IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
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DATE: 2020/12/08

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**EXTERIOR
 ELEVATIONS**

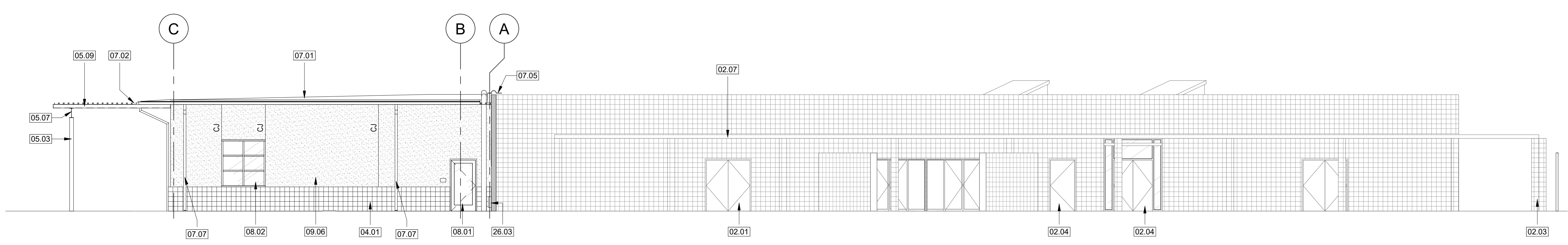
A6.01

KEYNOTE LEGEND

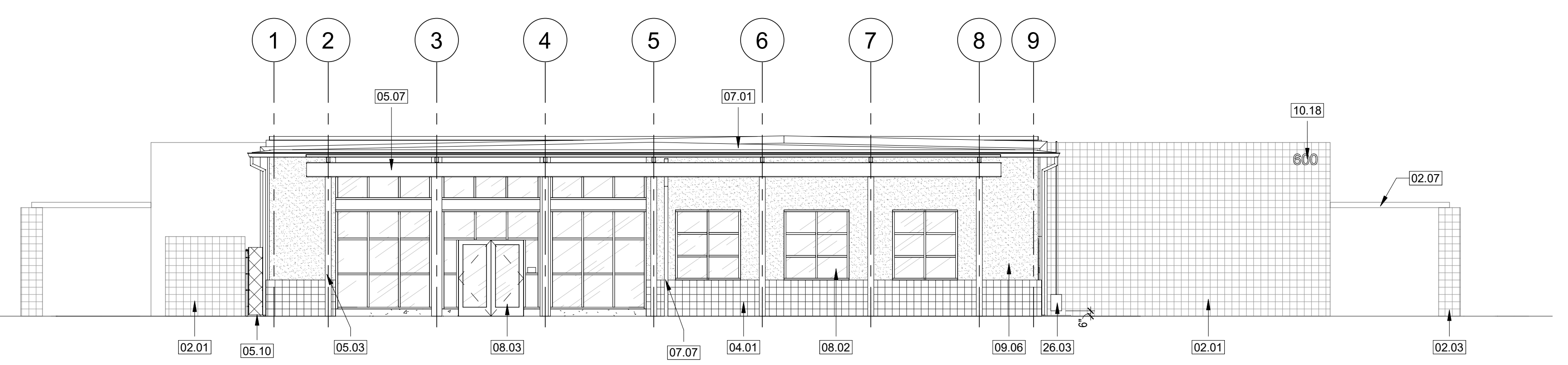
NUMBER	DESCRIPTION
02.01	(E) CMU WALL
02.03	(E) CMU PLASTER
02.04	(E) H.M. DOOR AND FRAME
02.05	(E) H.M. WINDOW
02.07	(E) PVC ROOF
04.01	1" CMU VENEER
05.03	HSS COLUMN PER STRUCTURAL
05.07	WIDE FLANGE BEAM PER STRUCTURAL
05.09	HSS BEAM PER STRUCTURAL
05.10	LINE OF TRELLIS ABOVE
07.01	PVC ROOF OVER COVER BOARD OVER SLOPED INSULATION
07.02	SHEET METAL GUTTER
07.05	SEISMIC JOINT ROOF COVER
07.07	DOWNSPOUT
08.01	H.M. DOOR AND FRAME
08.02	ALUMINUM STOREFRONT WINDOW W/ ANODIZED FINISH
08.03	ALUMINUM STOREFRONT DOOR W/ ANODIZED FINISH
09.06	EXTERIOR CEMENT PLASTER
10.18	12" HIGH ALUMINUM BUILDING NUMBERS, SEE SHEET G0.03
26.03	SURFACE MOUNTED ELECTRICAL BOX

EXTERIOR MATERIALS LEGEND

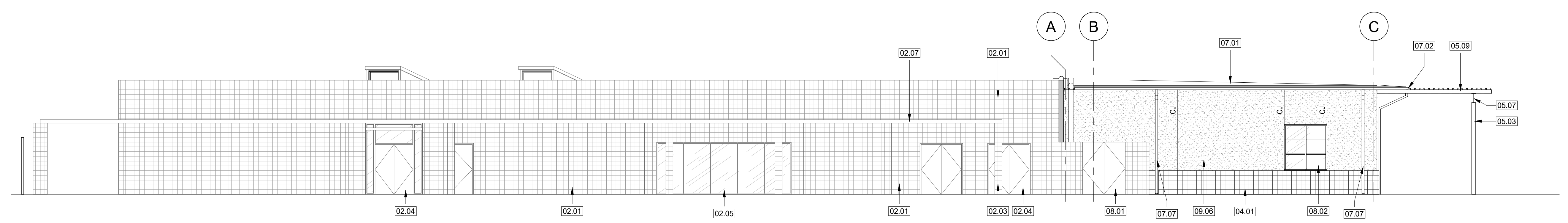
	EXTERIOR CEMENT PLASTER SYSTEM
	CMU VENEER
CJ	EXT CEMENT PLASTER CONTROL JOINT



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



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



6 WEST ELWVATION
 1/8" = 1'-0"

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BUILDING SECTION LEGEND

DA-1 DEDUCTIVE ALTERNATE. SEE 00.01 FOR DESCRIPTION

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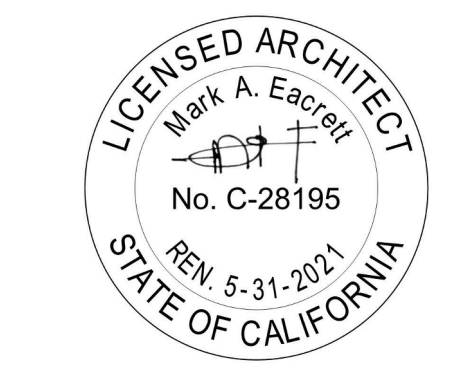
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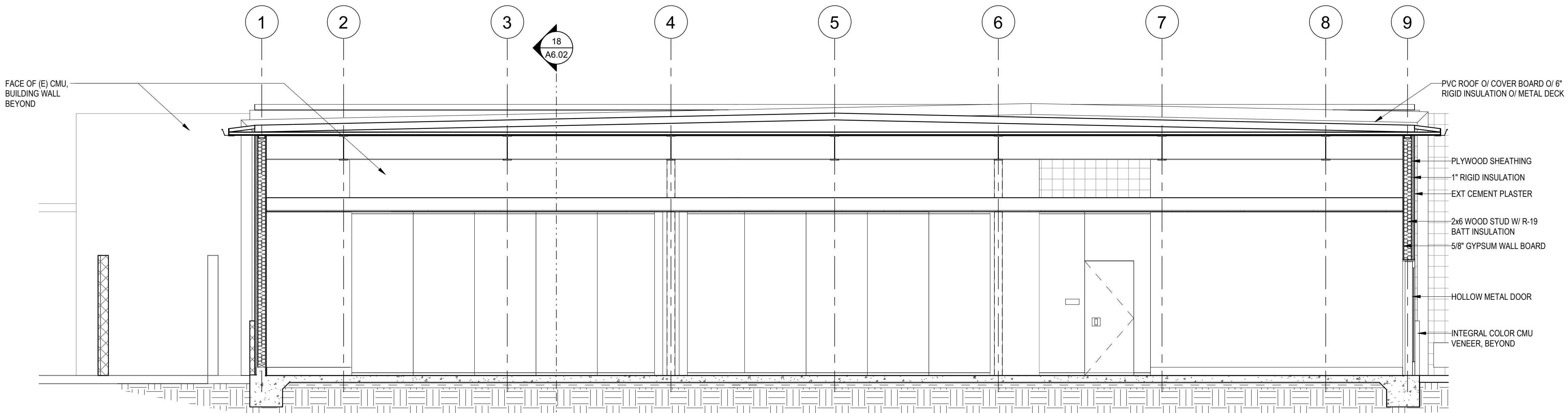
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No.	Description	Date

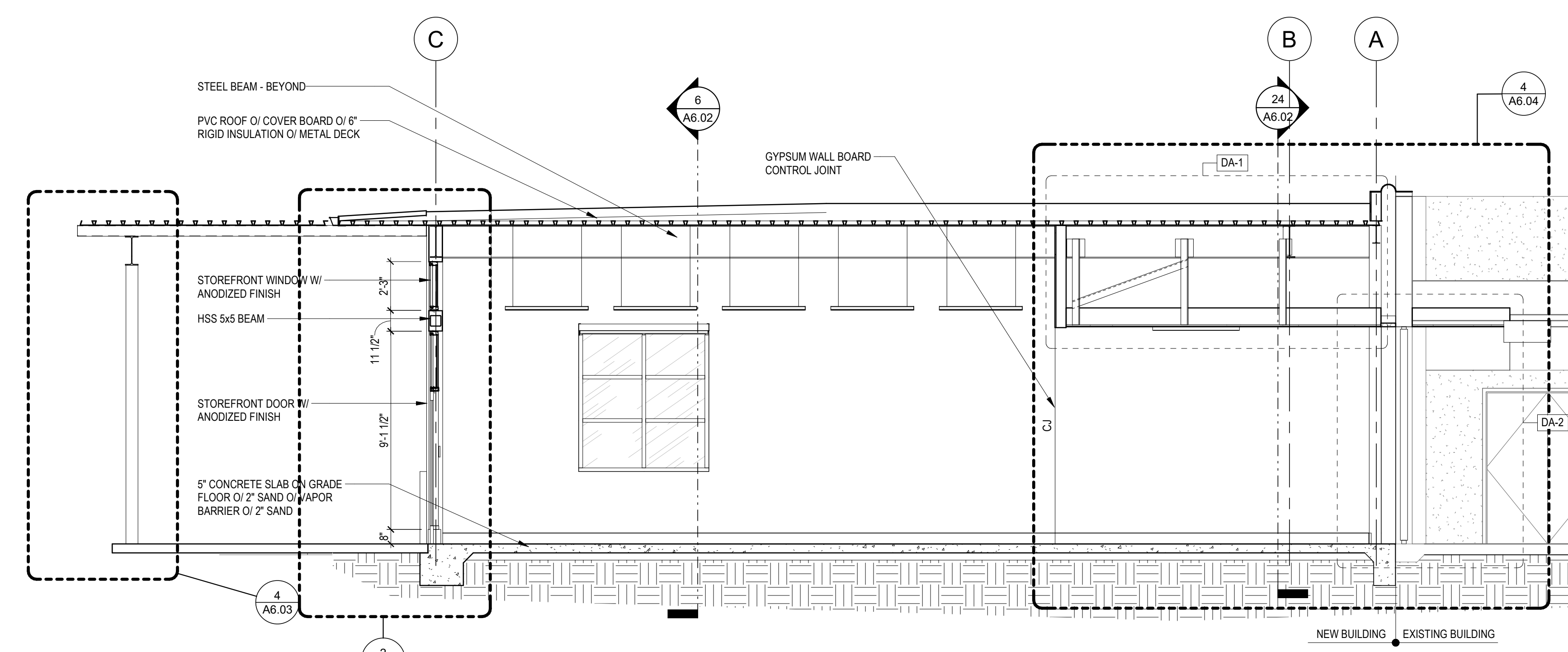
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**BUILDING
 SECTIONS**

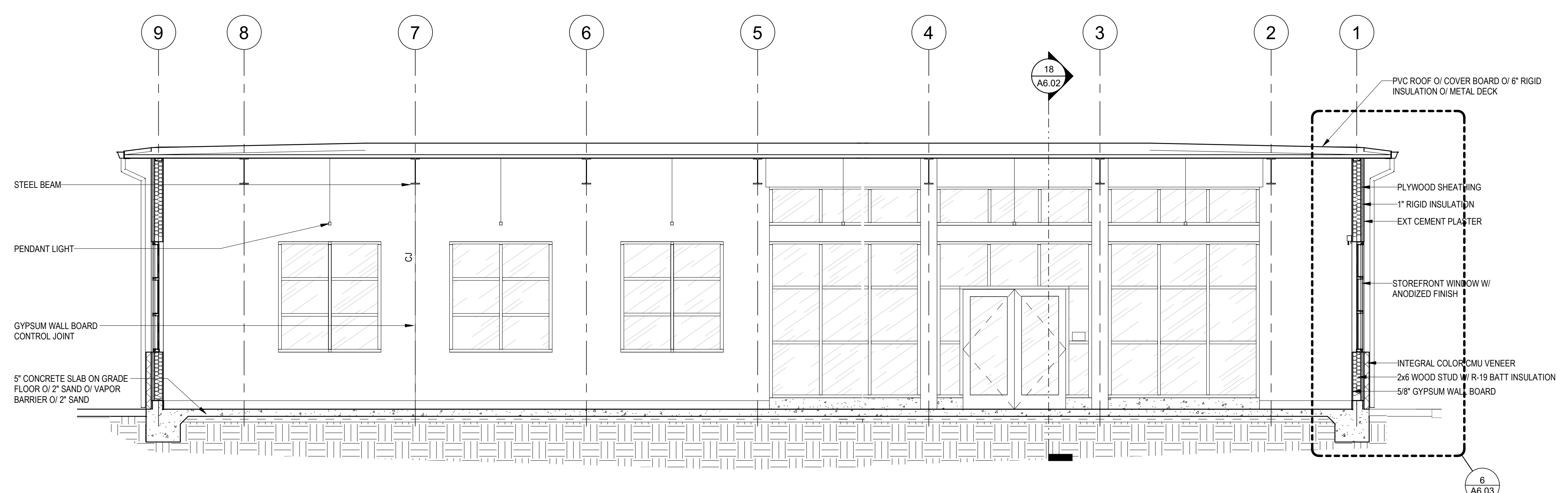
A6.02



24 BUILDING SECTION 3
 1/4" = 1'-0"



18 BUILDING SECTION 2
 1/4" = 1'-0"



6 BUILDING SECTION 1
 1/4" = 1'-0"



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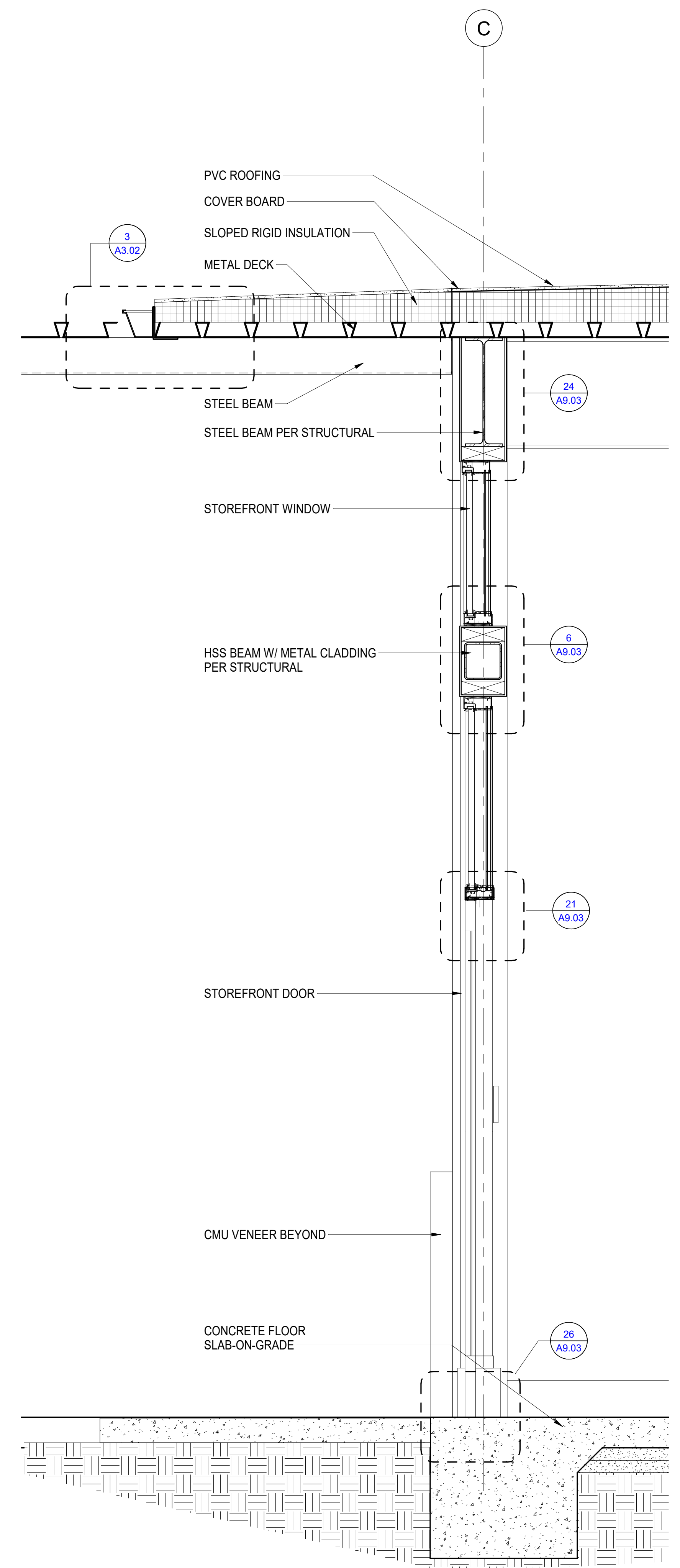
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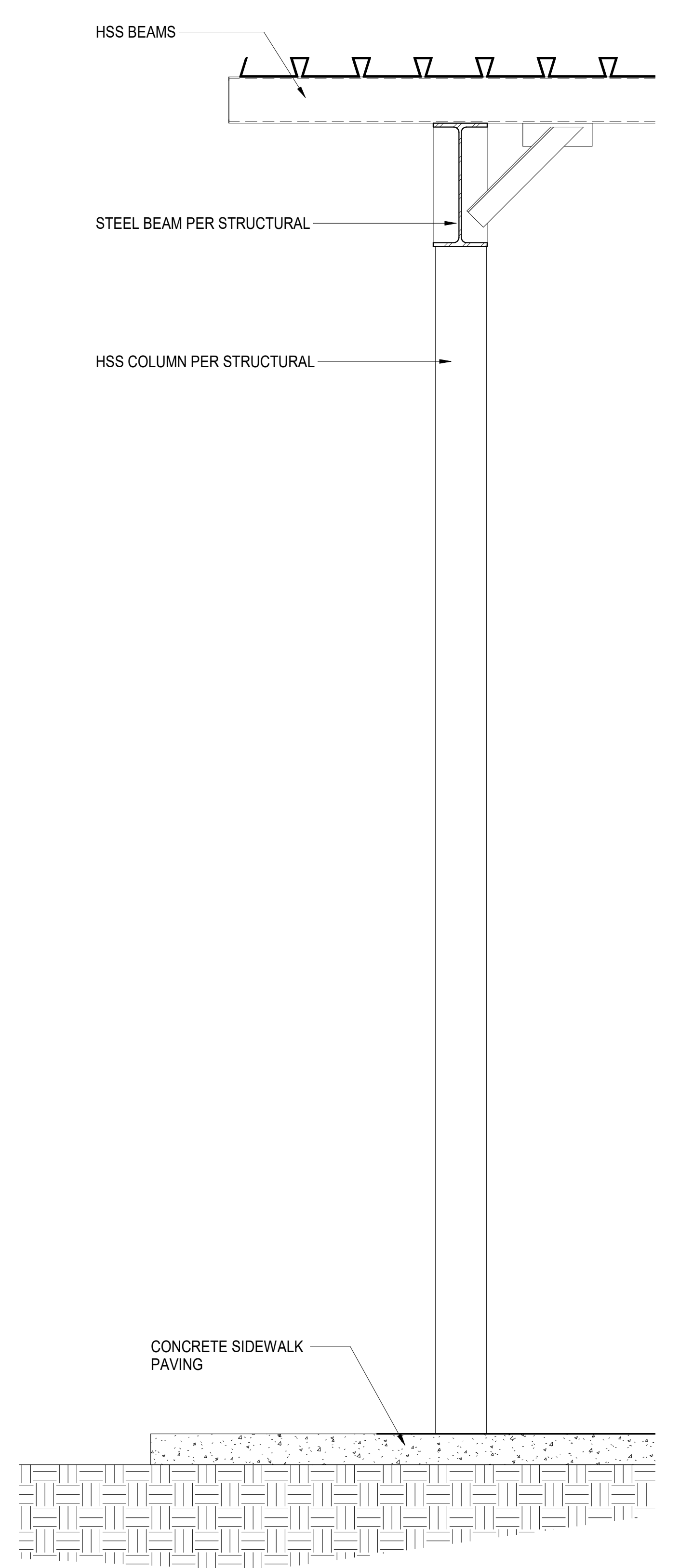
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WALL SECTIONS

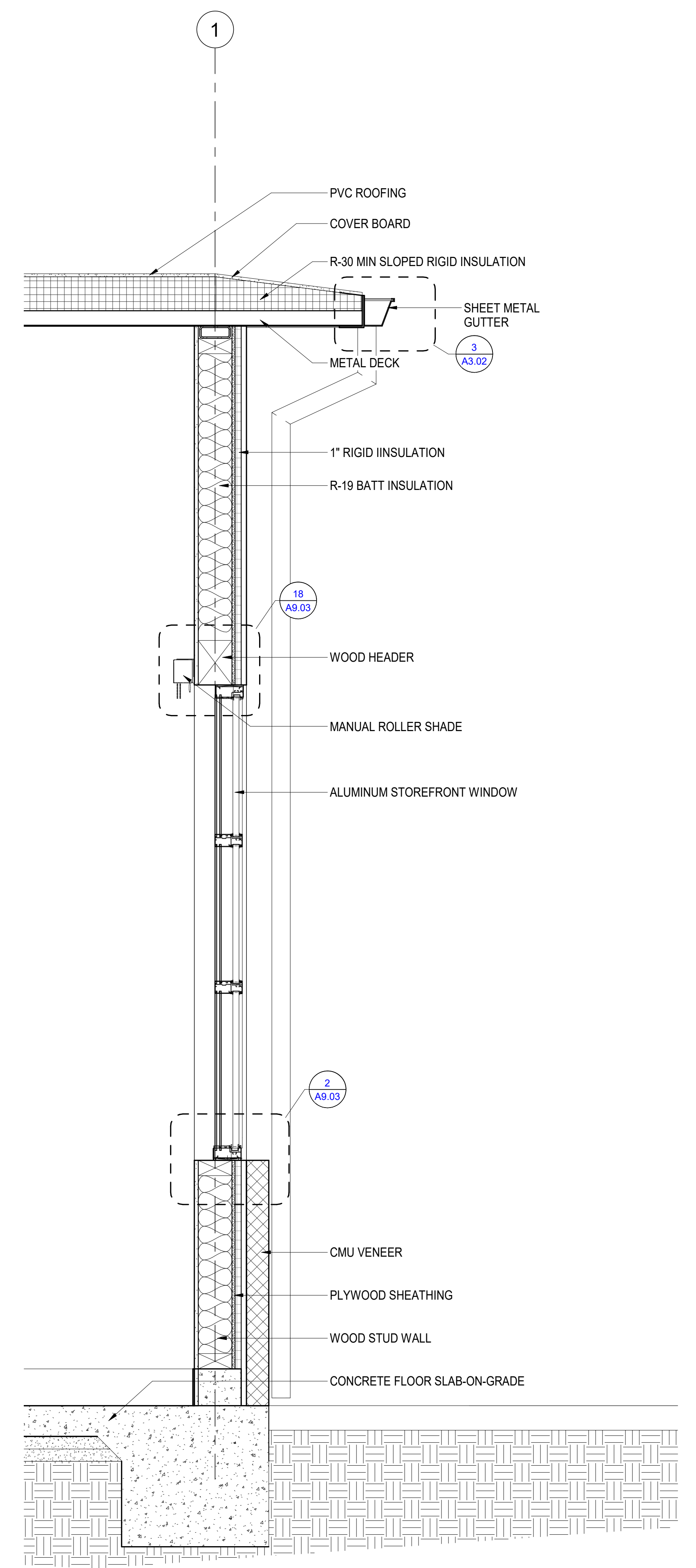
A6.03



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



4 WALL SECTION 2
 1" = 1'-0"




6 WALL SECTION 3
 1" = 1'-0"

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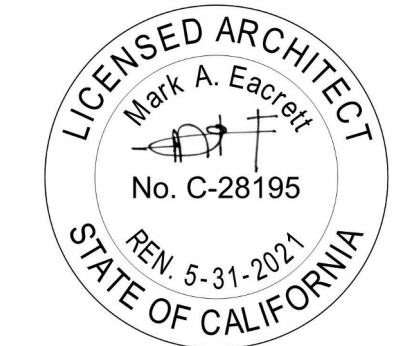


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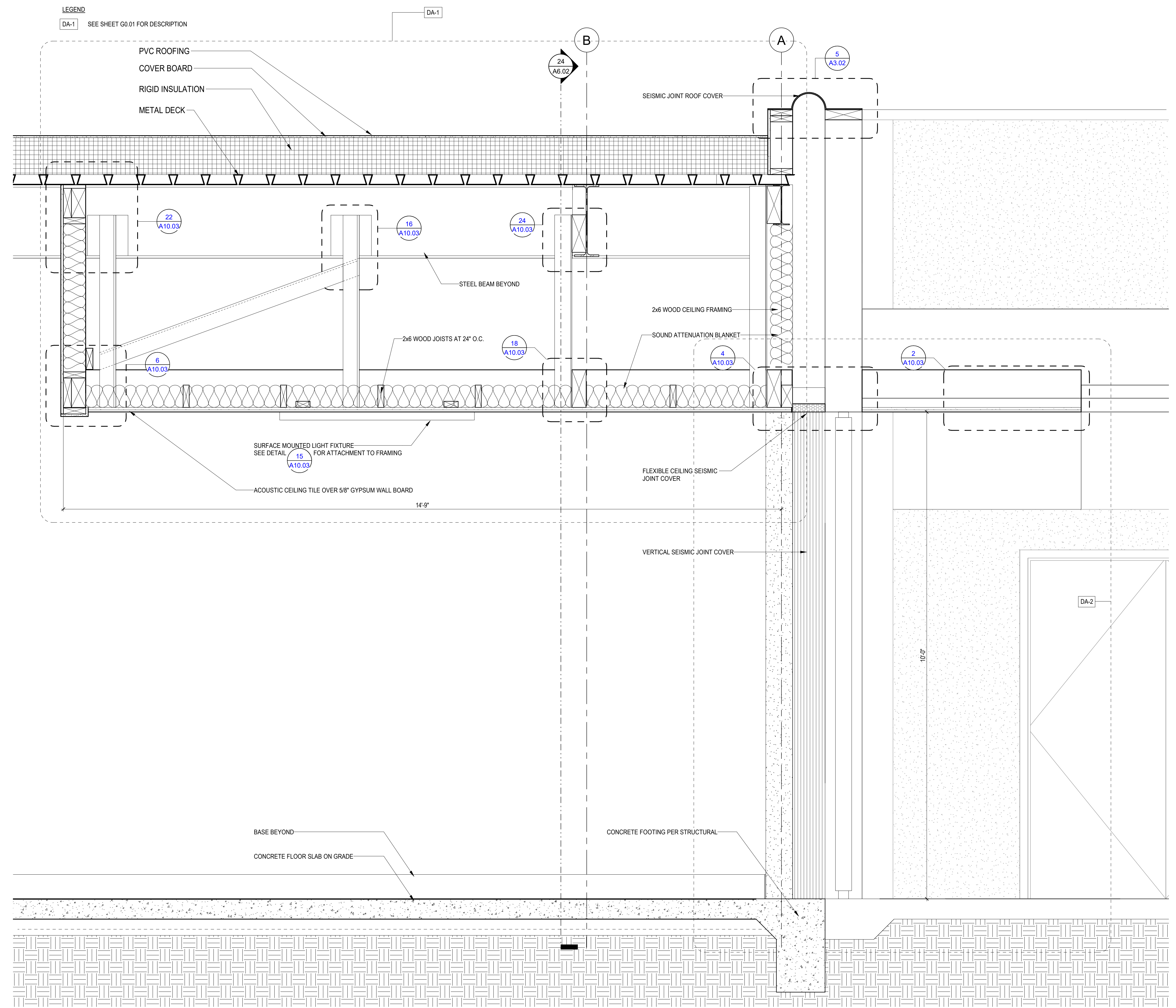
ENGINEER

ARCHITECT


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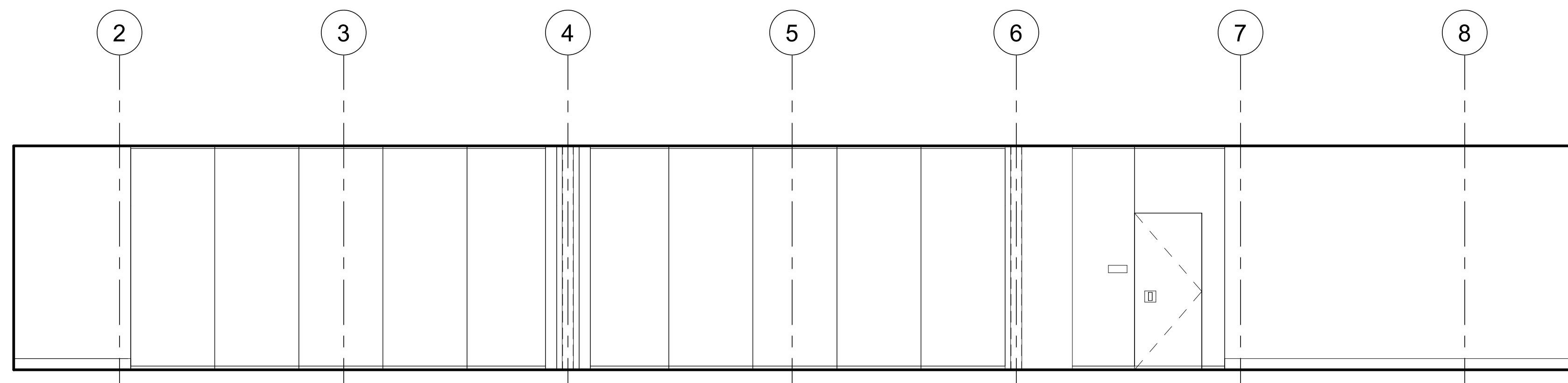
No.	Description	Date

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WALL SECTIONS
A6.04

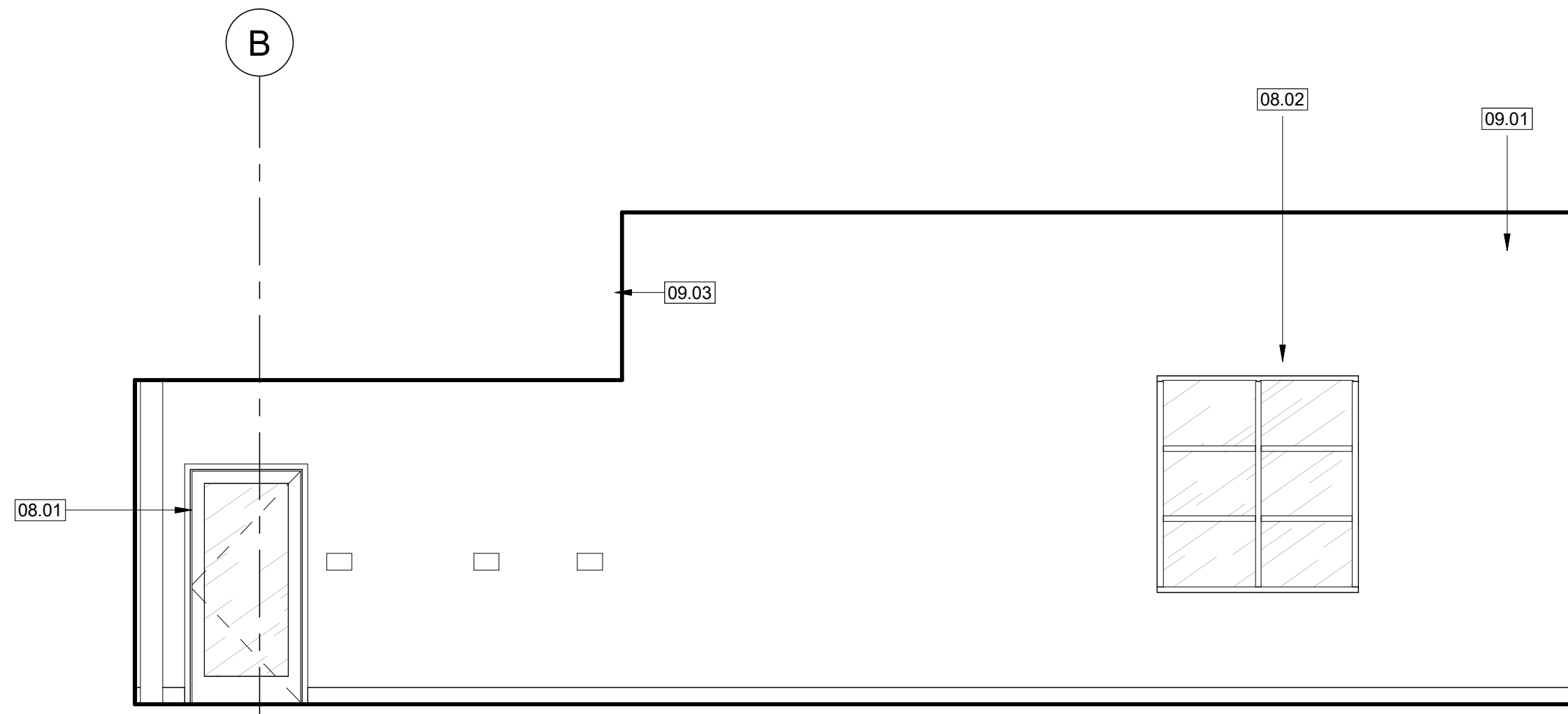


4 WALL SECTION 4
 1" = 1'-0"

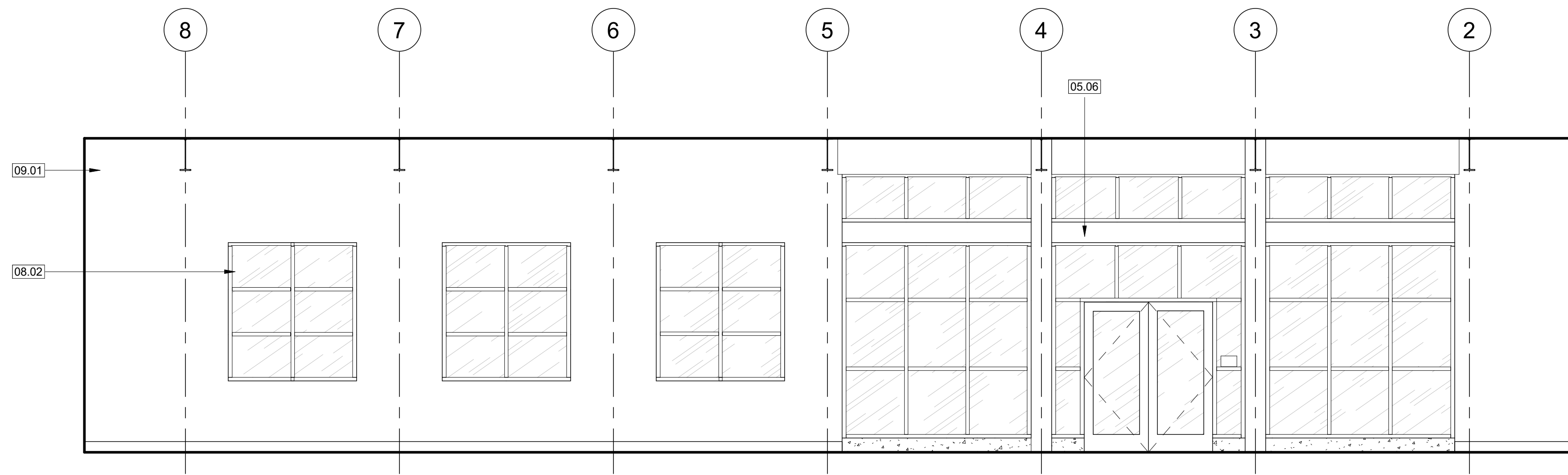
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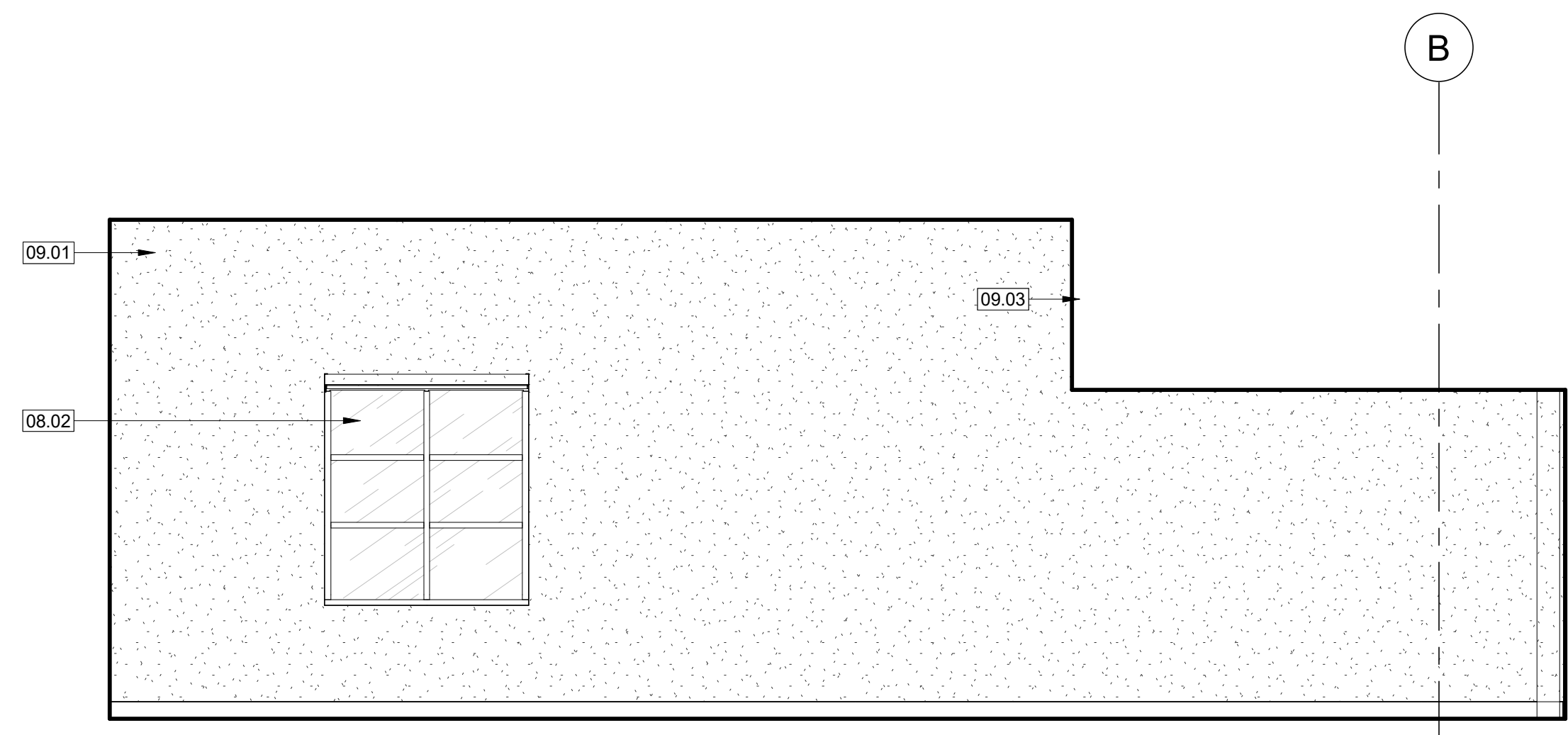
1 DINING HALL NORTH



2 DINING HALL EAST



3 DINING HALL SOUTH



4 DINING HALL WEST

KEYNOTE LEGEND

NUMBER	DESCRIPTION
05.06	HSS BEAM PER STRUCTURAL W/ ALUM COVER
08.01	H.M. DOOR AND FRAME
08.02	ALUMINUM STOREFRONT WINDOW W/ ANODIZED FINISH
09.01	GYPSUM WALL BOARD
09.03	SCOFFIT - GYPSUM WALLBOARD OVER WOOD STUD FRAMING

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ARCHITECTURE

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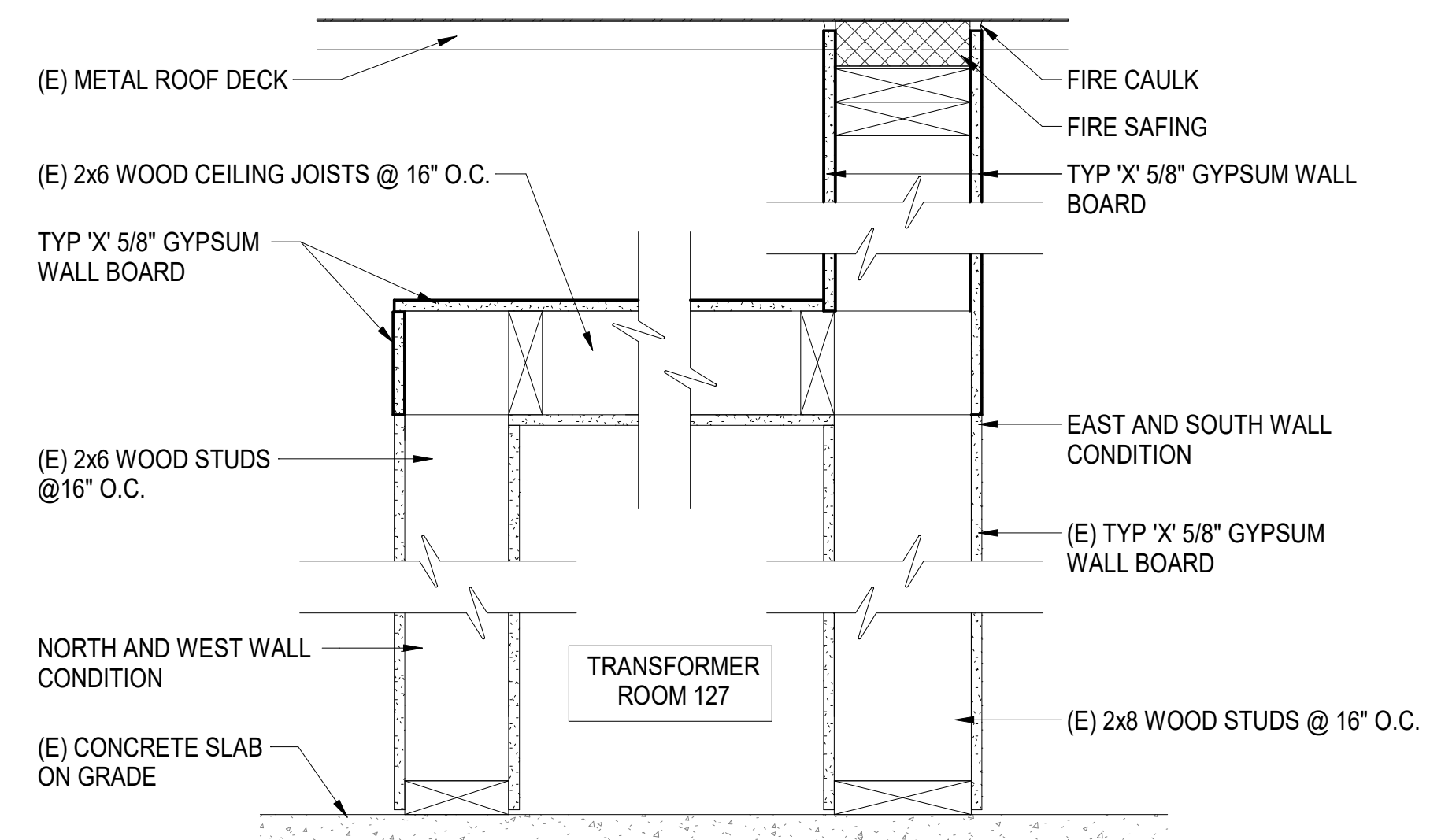
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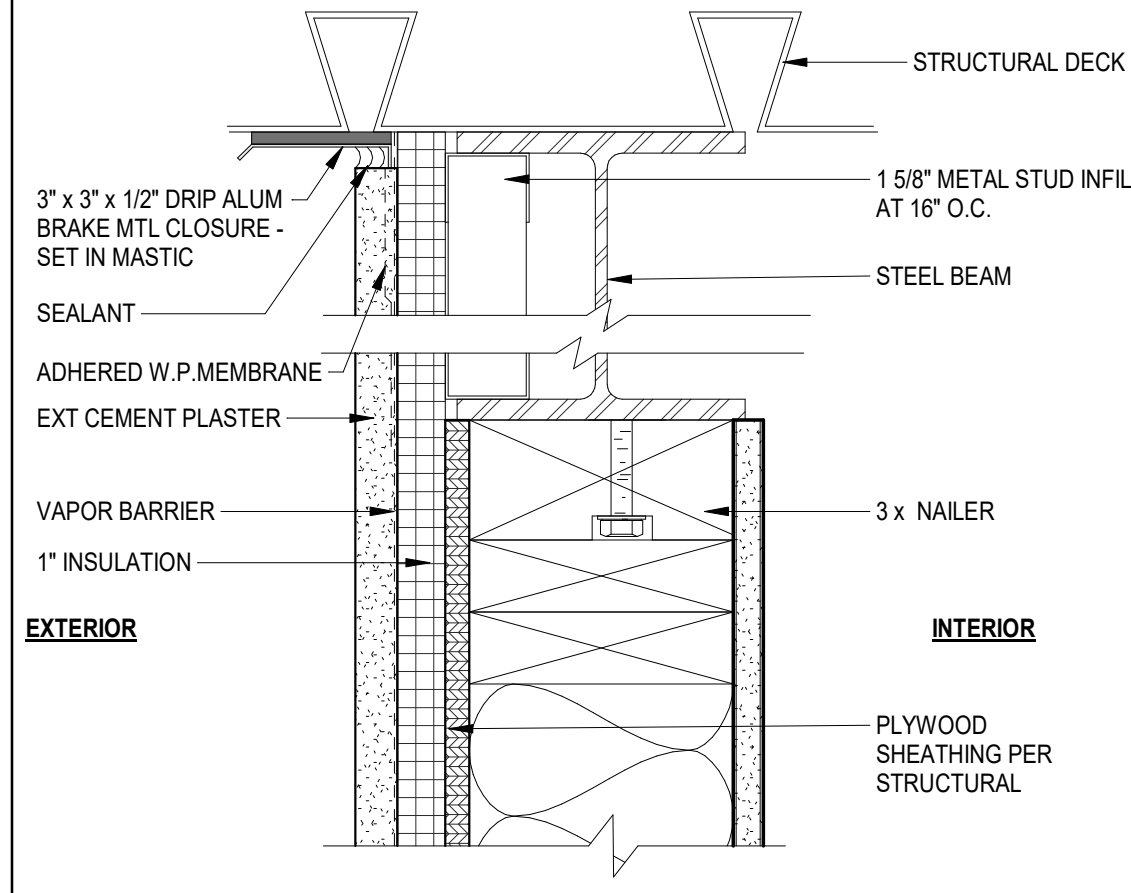
INTERIOR
ELEVATIONS

A6.05

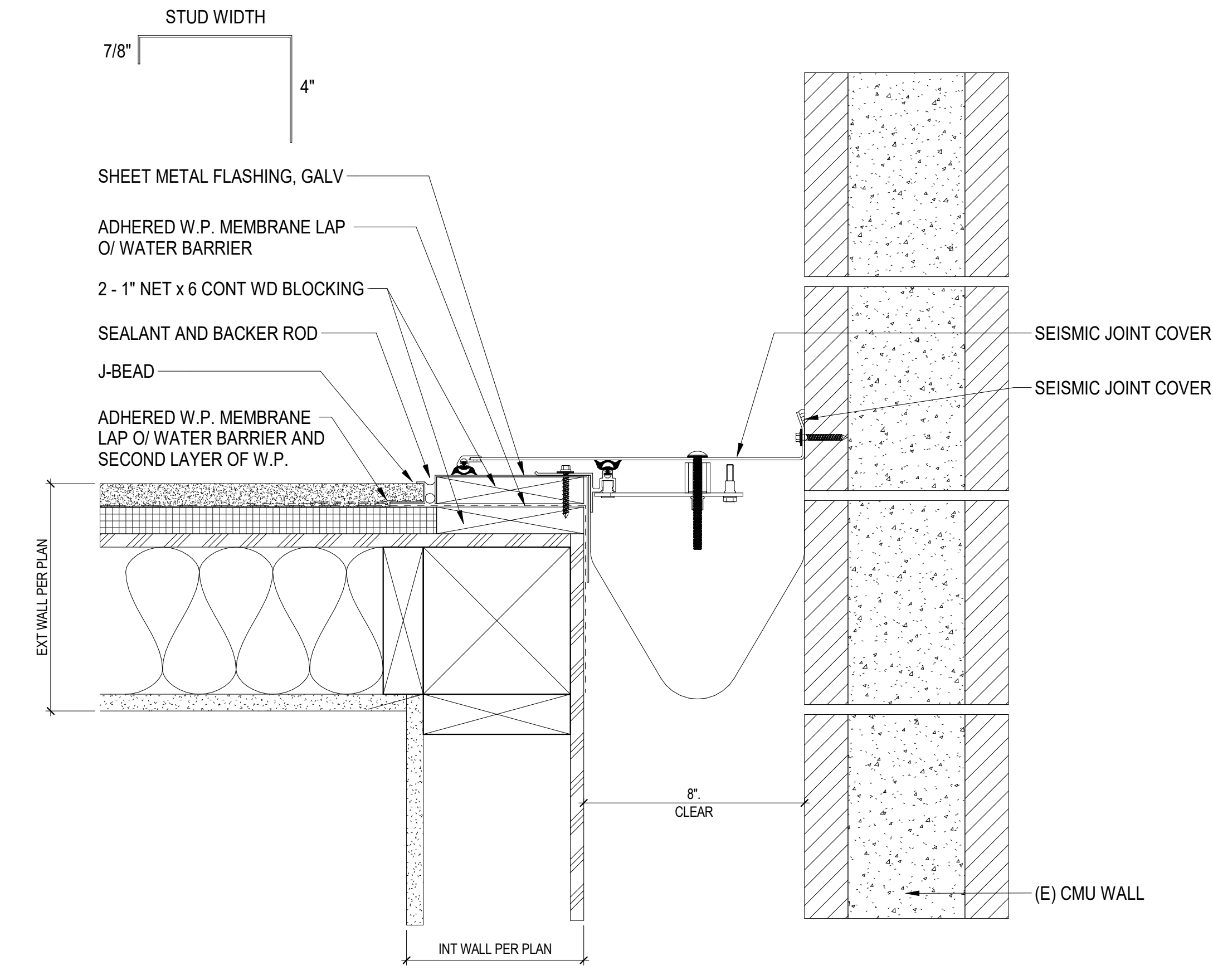
NOTE:
 1. ONE HOUR FIRE RATING UL U305



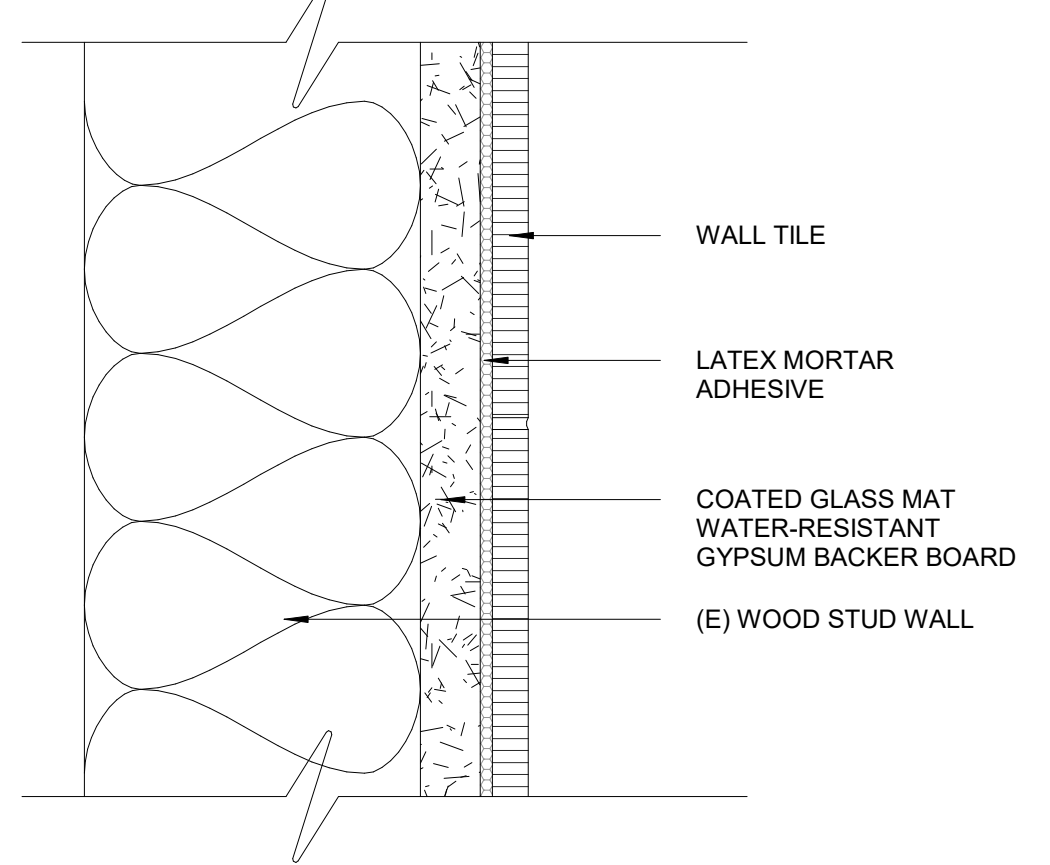
24 ONE HOUR RATED ENCLOSURE
 1 1/2" = 1'-0"



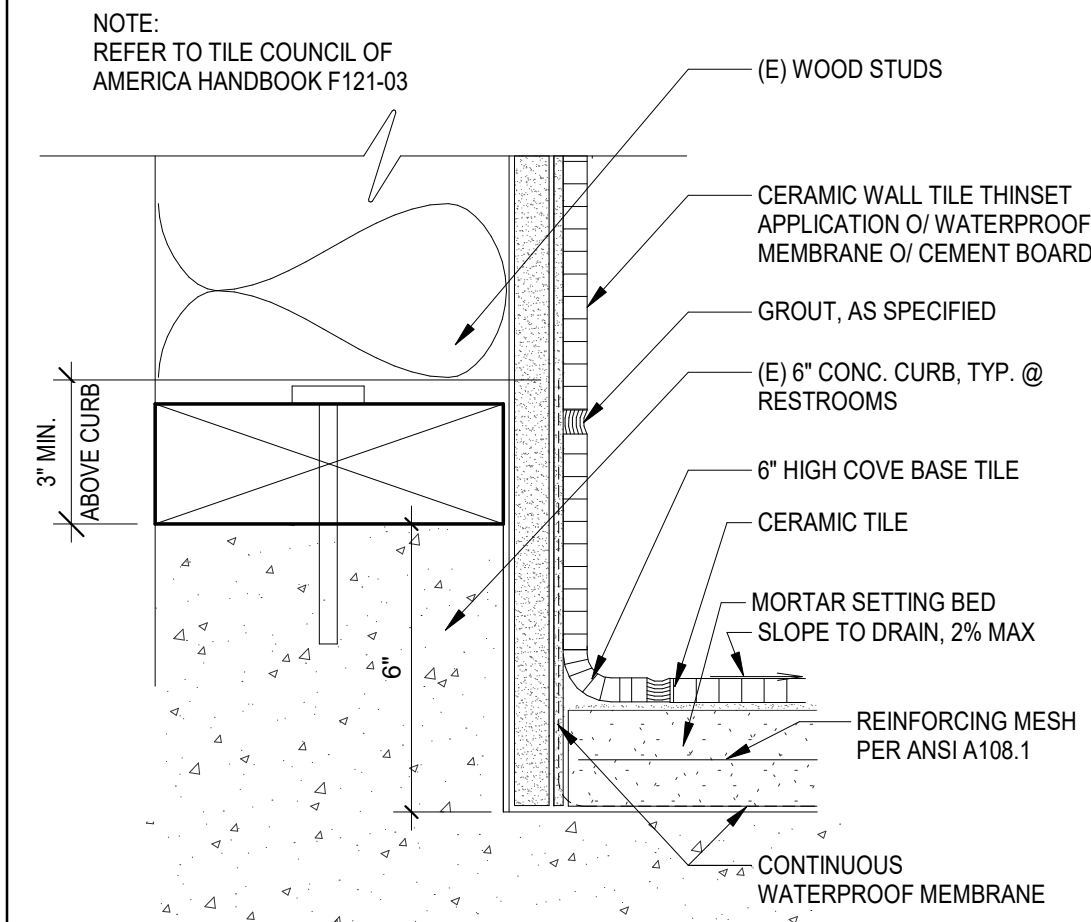
21 TOP OF WALL AT STEEL BEAM
 3" = 1'-0"



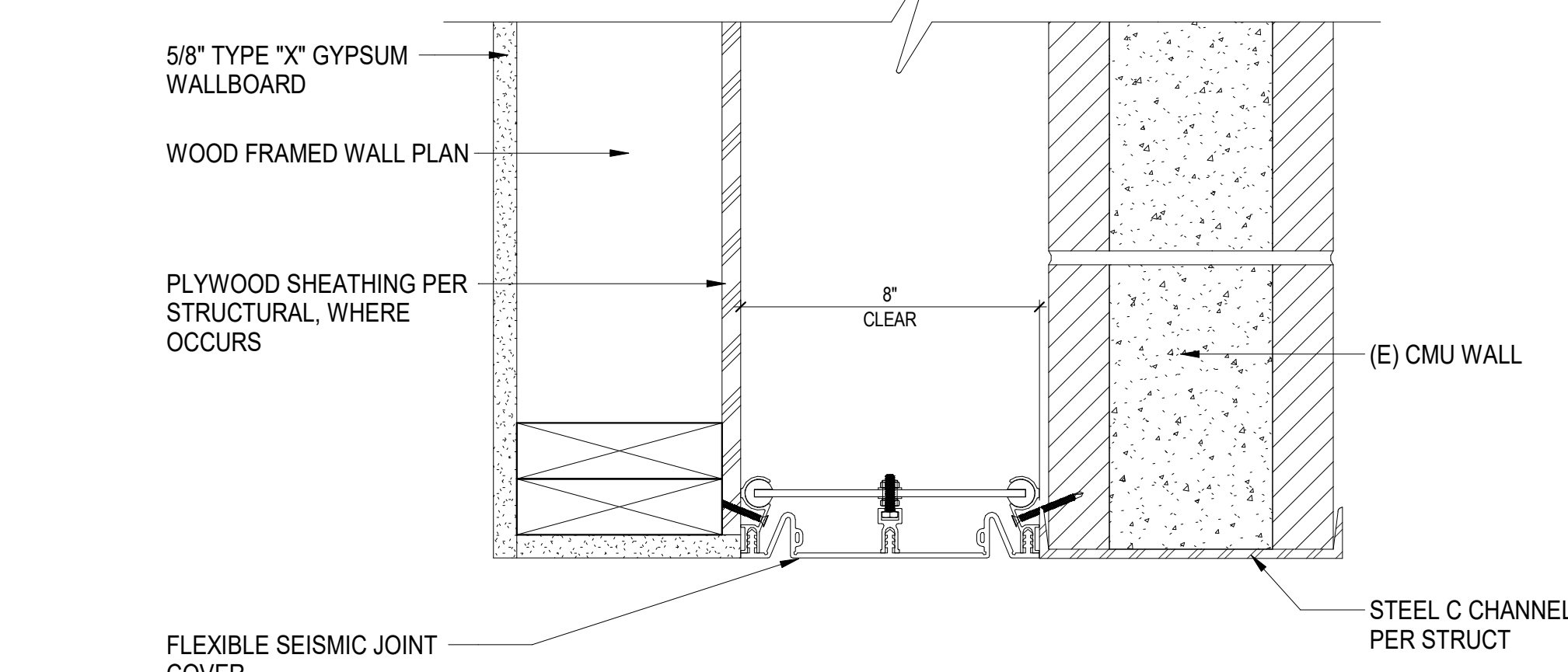
14 EXT WALL SEISMIC JOINT COVER
 3" = 1'-0"



18 THIN-SET WALL TILE
 6" = 1'-0"

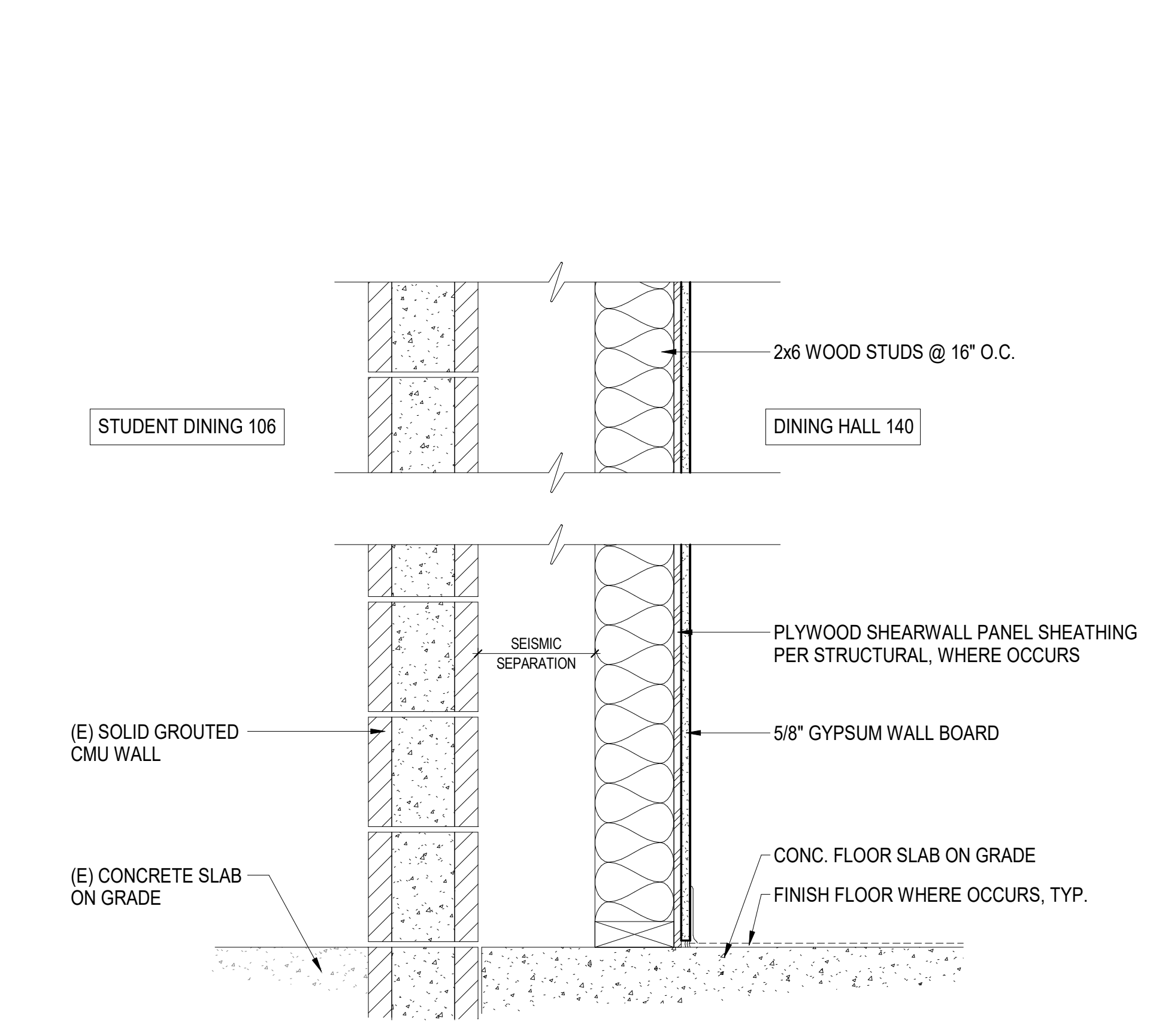


17 RESTROOM TILE OVER MORTAR BED
 3" = 1'-0"



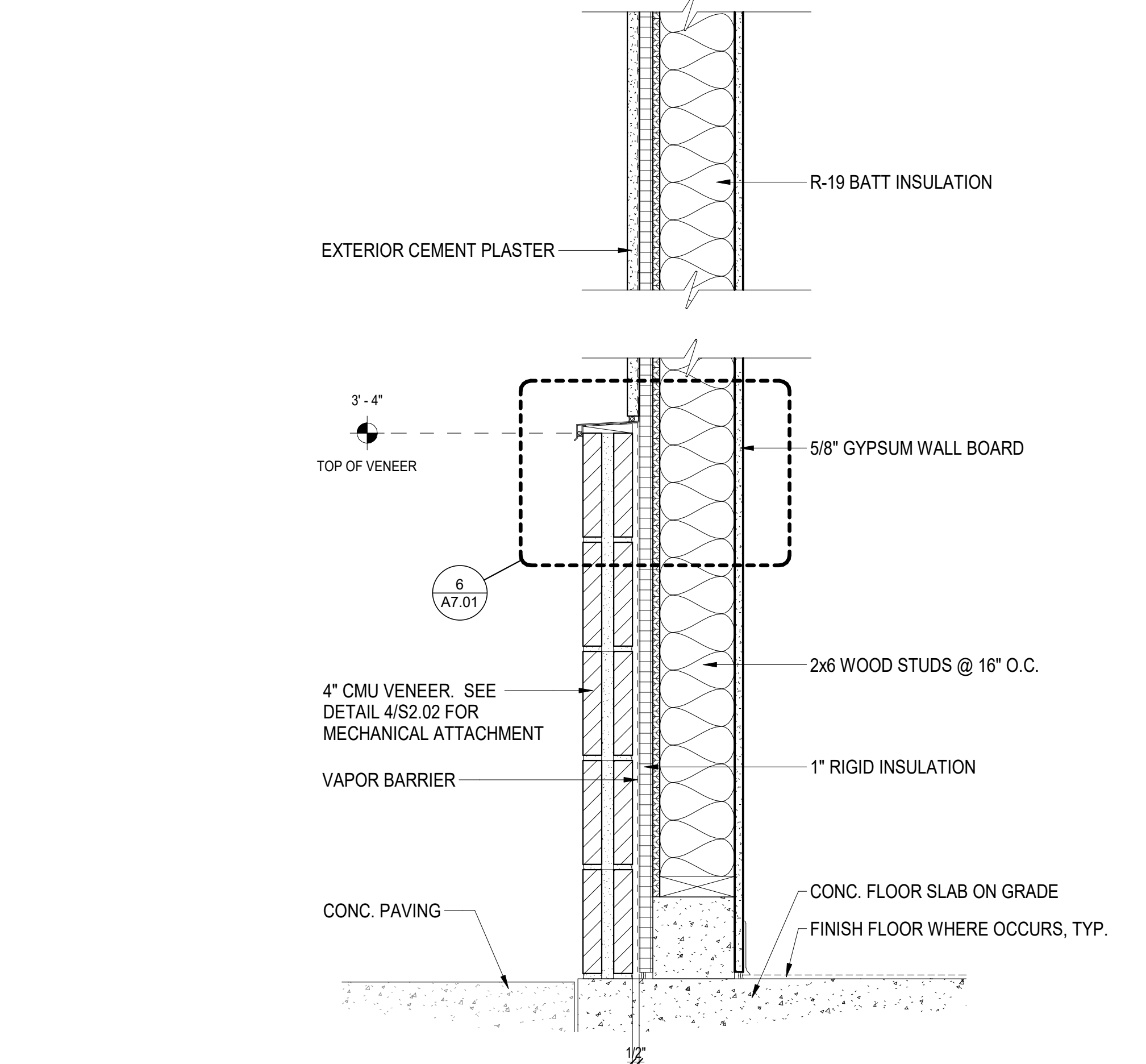
16 INT WALL SEISMIC JOINT COVER
 3" = 1'-0"

NOTE:
 1. SEE DETAIL 6 FOR TOP OF WALL CONDITION

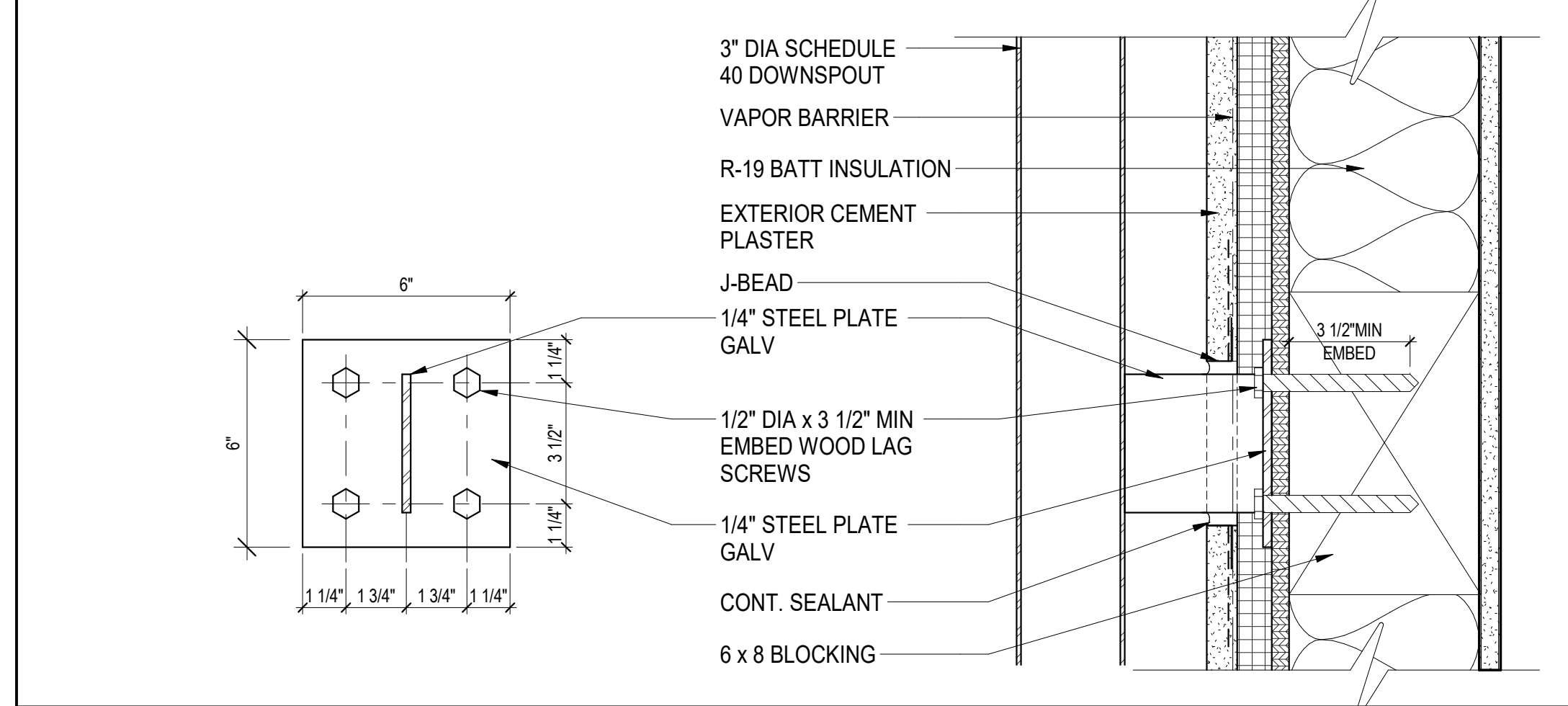


2 WALL TYPE 1
 1 1/2" = 1'-0"

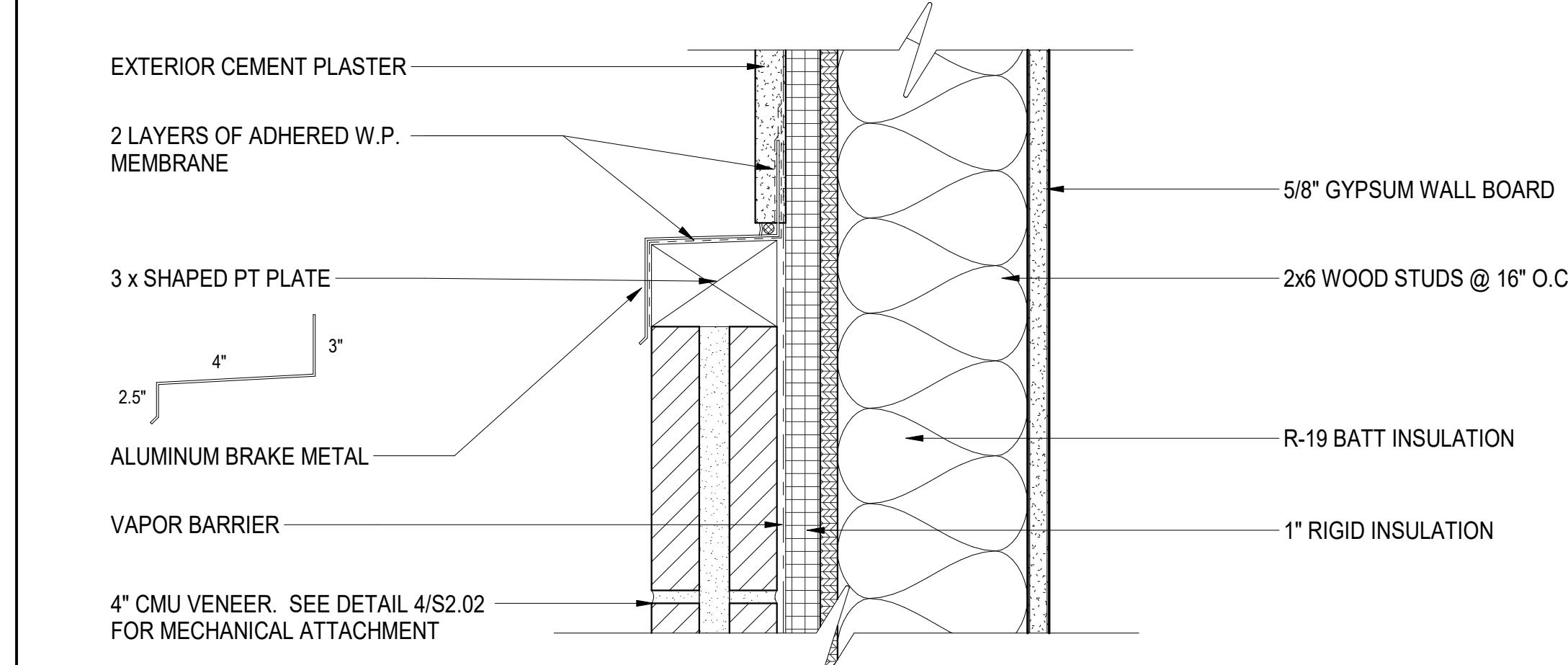
NOTE:
 1. SEE DETAILS 21, 14, 6 FOR TOP OF WALL CONDITIONS



4 WALL TYPE 2
 1 1/2" = 1'-0"



12 DOWNSPOUT WALL CONNECTION
 3" = 1'-0"



6 TOP OF CMU VENEER
 3" = 1'-0"

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STOREFRONT SCHEDULE NOTES

- FOR TYPICAL SYMBOL AND ABBREVIATIONS, REFER TO SHEET 00.01.
- WINDOW SCHEDULE DIMENSIONS INDICATE FRAME DIMENSIONS. CONTRACTOR SHALL FIELD VERIFY AND MEASURE ALL OPENINGS PRIOR TO FABRICATION.
- INSTALL DUAL ROLLER SHADES ABOVE ALL WINDOWS.
- REFER TO FLOOR PLAN ON SHEET A2.01 FOR BASE-BID VS. ADDITIONAL ALTERNATE WINDOW UNITS.

STOREFRONT SCHEDULE LEGEND

- 1" INSULATED GLAZING OUTBOARD LIGHT SOLAR BRONZE (WARM-BRONZE) INBOARD LIGHT SOLARBAN 60. MANUFACTURER: PPG INDUSTRIES. THERMAL TRANSMITTANCE: U-VALUE: 0.29. SOLAR HEAT GAIN COEFFICIENT: 0.32.
- A** STOREFRONT TYPE TAG
- T** DENOTES TEMPERED GLASS

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ARCHITECTURE

**IVC - B600 COLLEGE CENTER
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 380 E Aten Rd.
 Imperial, CA 92251
 DSA SUBMITTAL

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ENGINEER

ARCHITECT

LICENSED ARCHITECT
 Mark A. Eastery
 No. C-28195
 REV. 5-31-2021
 STATE OF CALIFORNIA

CLIENT
 IMPERIAL VALLEY COLLEGE

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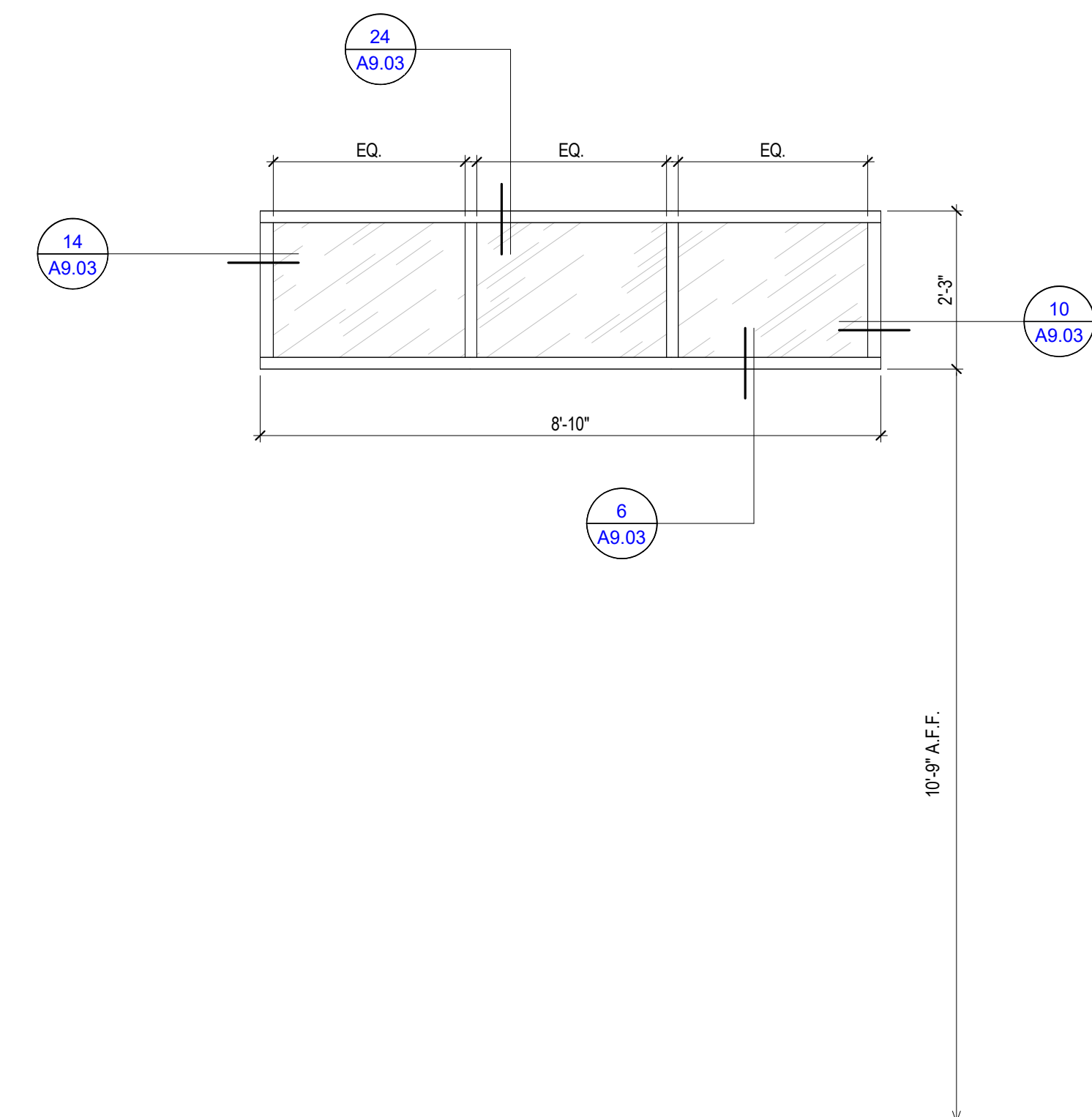
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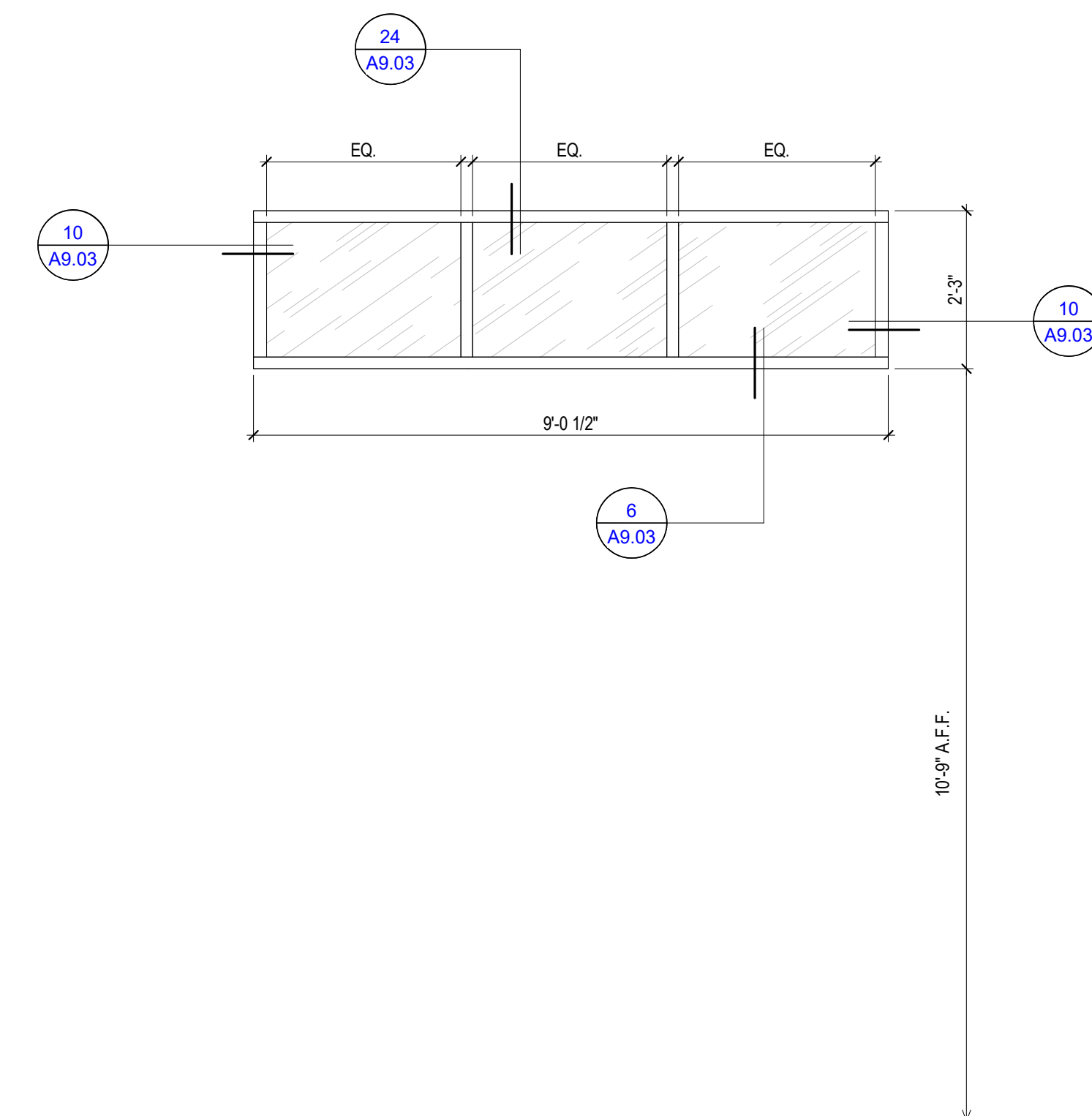
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**STOREFRONT
 WINDOW
 SCHEDULE**

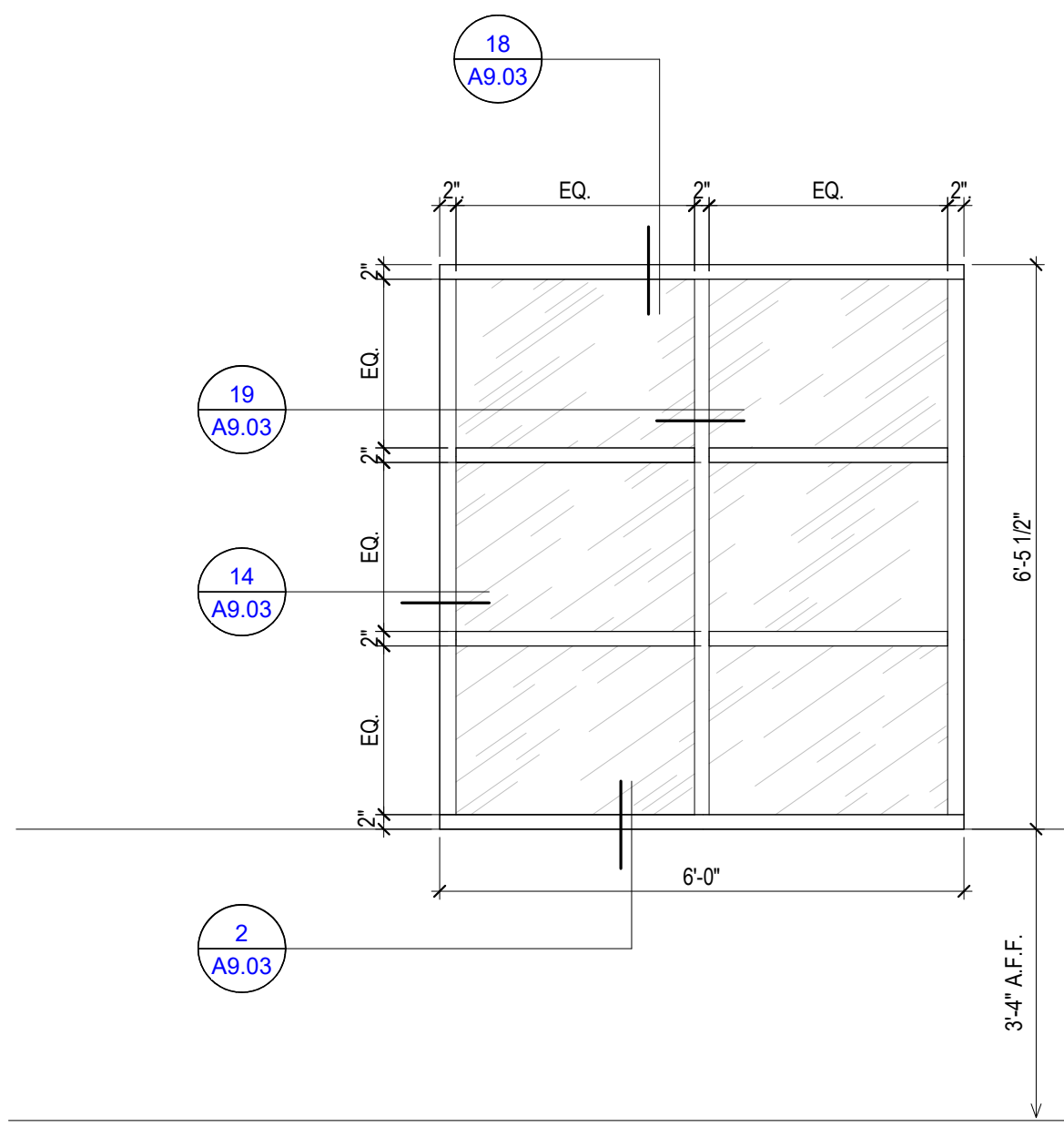
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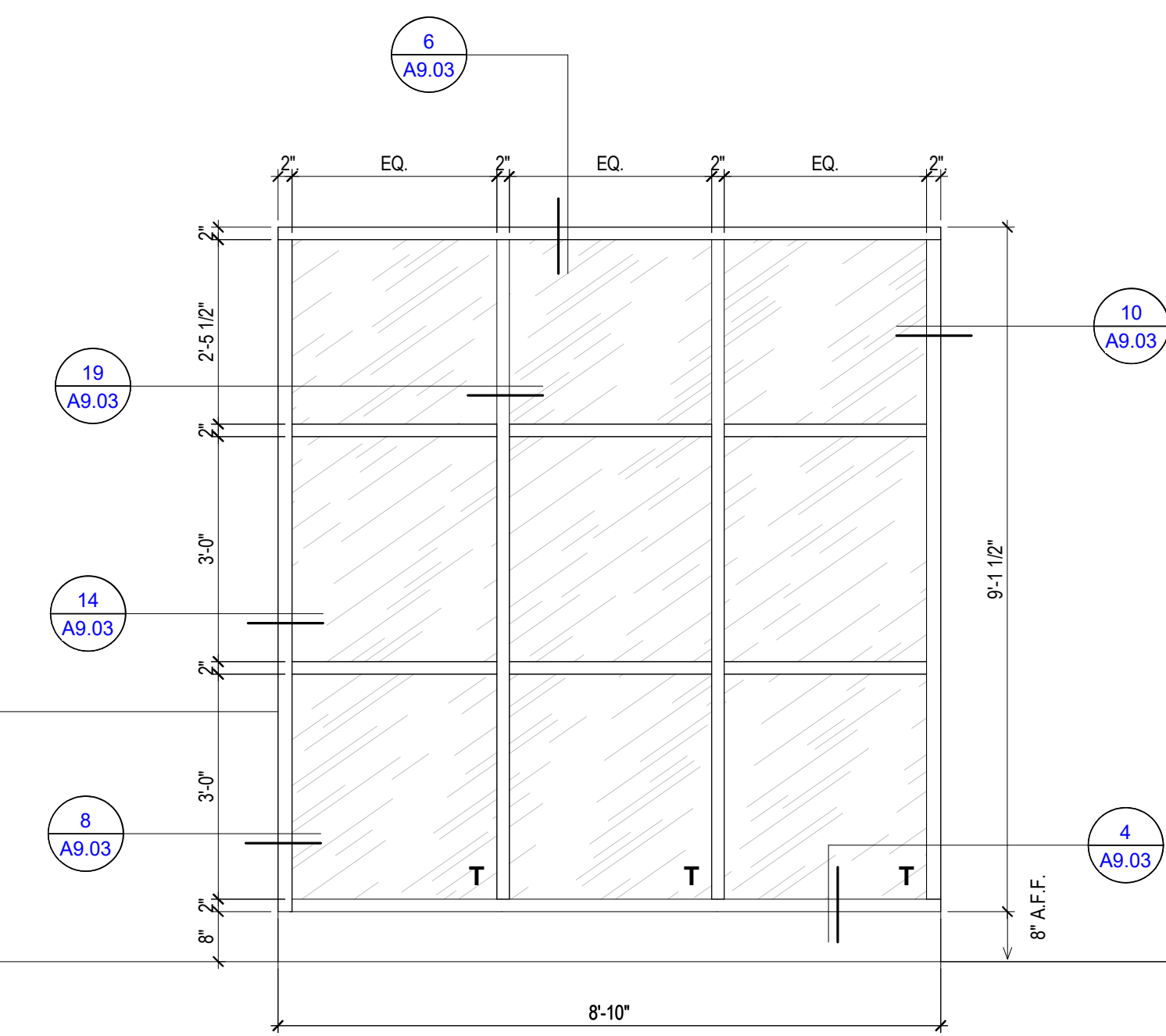


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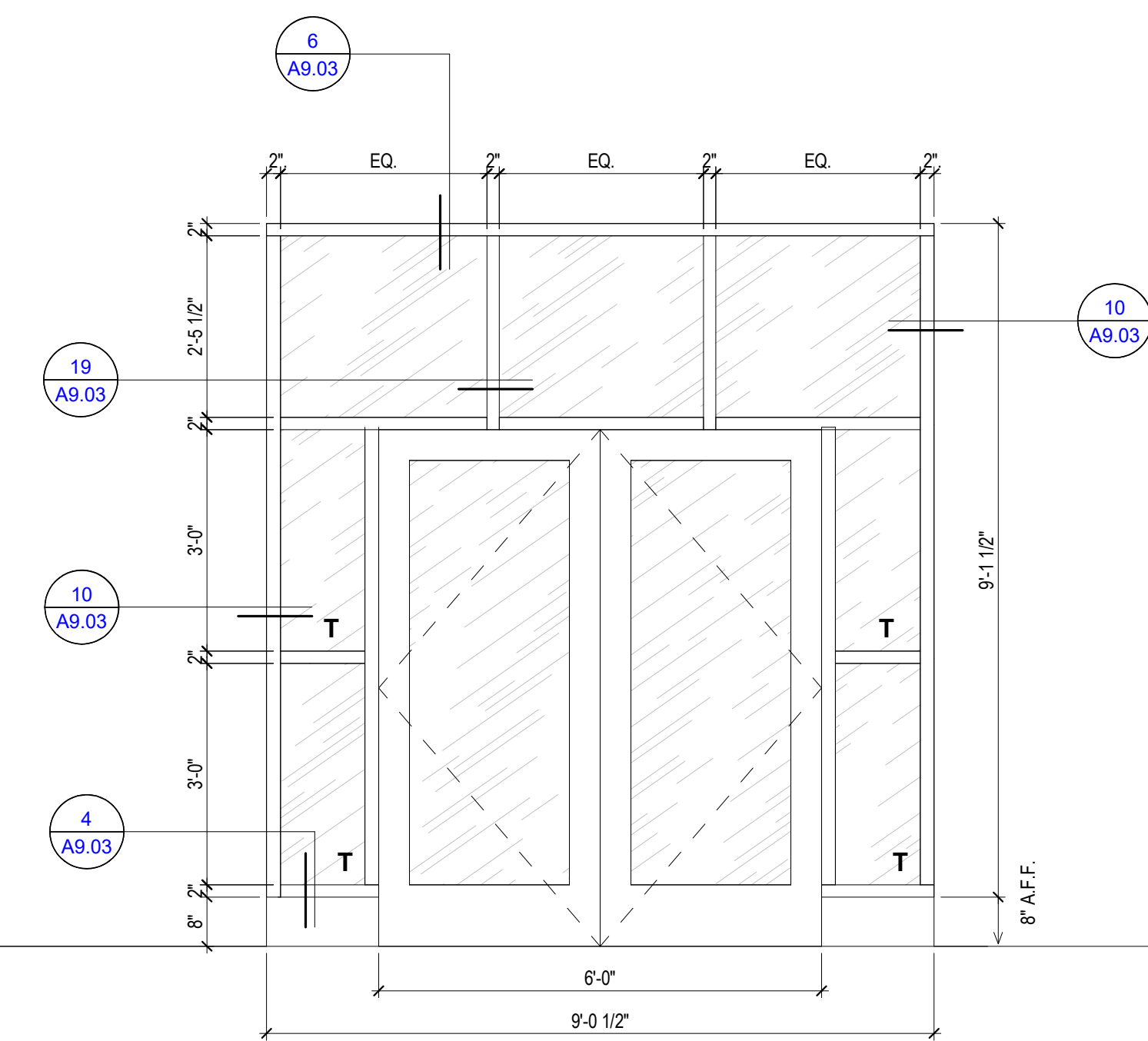


A

PLASTER ABOVE
 CMU BELOW



B



C

DOOR SCHEDULE

DOOR SCHEDULE																		
DOOR #	LOCATION	TYPE	PHASE CREATED	PAIR / SINGLE	DOOR				FRAME			THRESHOLD	JAMB	HEAD	HARDWARE SET	PANIC HARDWARE	FIRE RATING	COMMENTS
					SIZE		MATERIAL	FINISH	TYPE	MATERIAL	FINISH							
					WIDTH	HEIGHT												
A106-1	A106 - STUDENT DINING	FG	Existing	S	4'-0"	7'-0"	(E) AL/GL	FA	(E) 1	(E) AL	FA	N/A	N/A	N/A	E1	NO	NR	2, 3
A112-1	A112 - WOMEN'S RESTROOM	F	Existing	S	3'-0"	7'-0"	(E) HM	(E) PE	(E) 1	(E) HM	(E) PE	N/A	N/A	N/A	E1	NO	NR	
A113-1	A113 - MEN'S RESTROOM	F	Existing	S	3'-0"	7'-0"	(E) HM	(E) PE	(E) 1	(E) HM	(E) PE	N/A	N/A	N/A	E1	NO	NR	
A140-1	A140 - DINING HALL	FG	New Construction	S	3'-4"	7'-0"	HM / GL	PS	1	HM	PS	26 / A9.03	28 / A9.03	30 / A9.03	1	YES	NR	
A140-2	A140 - DINING HALL	FG	New Construction	P	6'-0"	7'-0"	AL / GL	AN	C, see storefront schedule	AL	AN	20 / A9.03		21 / A9.03	2	YES	NR	1
A140-3	A140 - DINING HALL	F	New Construction	S	3'-0"	7'-0"	OPD	FA	1	PER MFR	FA	N/A	N/A	N/A	3	NO	NR	

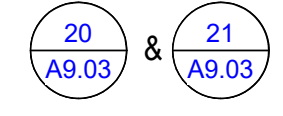
DOOR SCHEDULE NOTES

- EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 42 INCHES ABOVE THE FINISHED FLOOR. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED. THE UNLATCHING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION.
- DOORS SHALL BE 1 3/4" THICK U.N.O. OR SPECIFIED
- ALL DOORS WITHOUT PANIC HARDWARE SHALL HAVE ACCESSIBLE LEVER HARDWARE.
- CONTRACTOR IS TO FIELD MEASURE ALL OPENINGS PRIOR TO FABRICATION.
- REFER TO SPECIFICATIONS AND SHEET G0.04 FOR SIGNAGE FABRICATION.
- MAXIMUM EFFORT TO OPERATE DOOR SHALL NOT EXCEED THE FOLLOWING:
 - INTERIOR DOORS - 5 POUNDS
 - EXTERIOR DOORS - 5 POUNDS
- INDIVIDUAL DOOR LEAVES ARE TO BE EQUAL IN SIZE, U.N.O.
- PROVIDE TEMPERED GLASS AT ALL DOOR LOCATIONS, U.N.O.

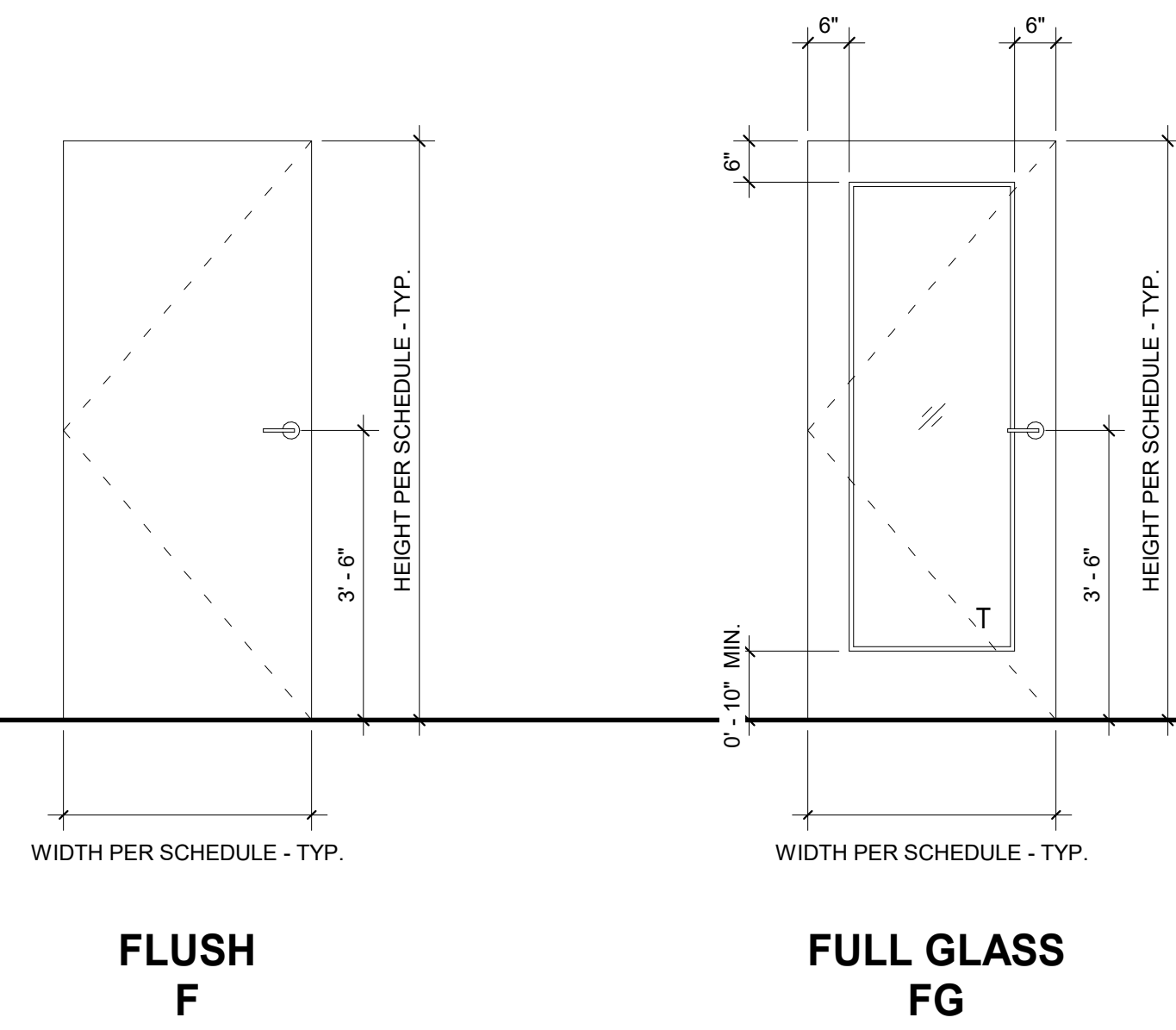
DOOR LEGEND

- DOOR TYPES**
- F FLUSH
 - FG FULL GLASS
- DOOR / FRAME MATERIAL**
- AL ALUMINUM
 - GL GLASS
 - HM HOLLOW METAL
- DOOR / FRAME FINISH**
- AN ANODIZED
 - PE PAINT - EGGSHELL
 - PS PAINT - SEMI GLOSS
 - PH PANIC HARDWARE
 - NR NON-RATED
 - (E) EXISTING
 - T TEMPERED

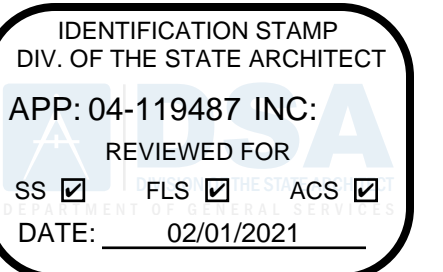
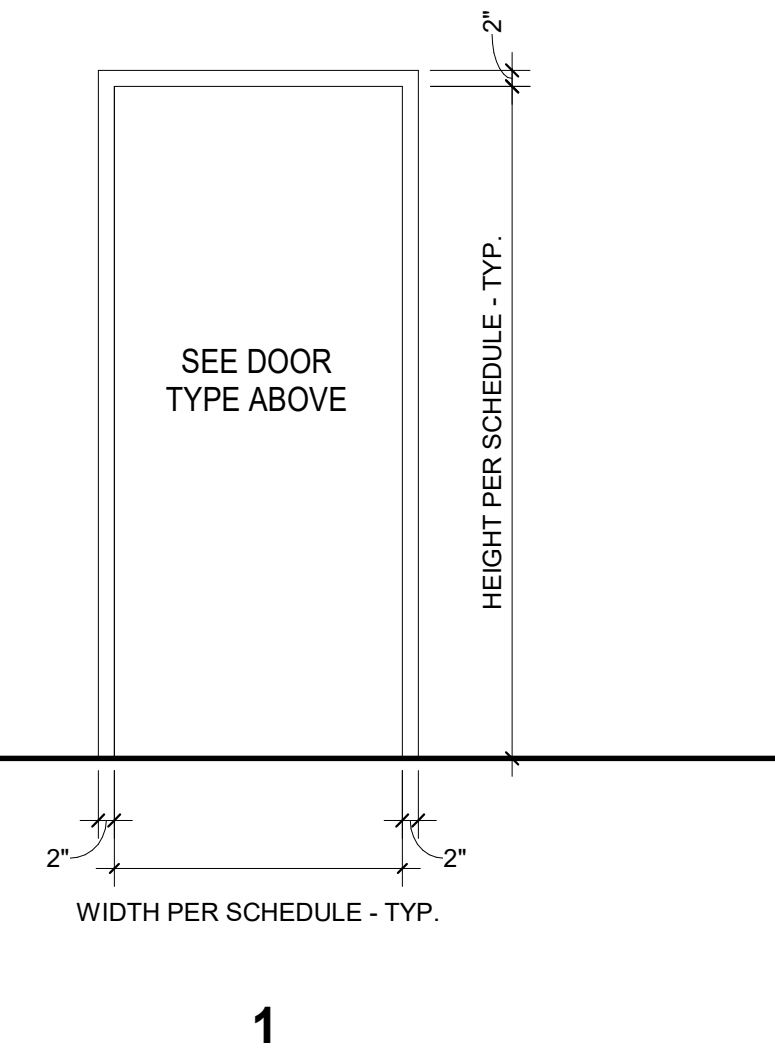
DOOR COMMENTS

- INCLUDE ROLLER SHADES PER DETAILS

- REPLACE CLOSER ONLY
- (E) SIGN OVER DOOR READS "THIS DOOR SHALL REMAIN UNLOCKED DURING BUSINESS HOURS"

DOOR TYPES



DOOR FRAME TYPES



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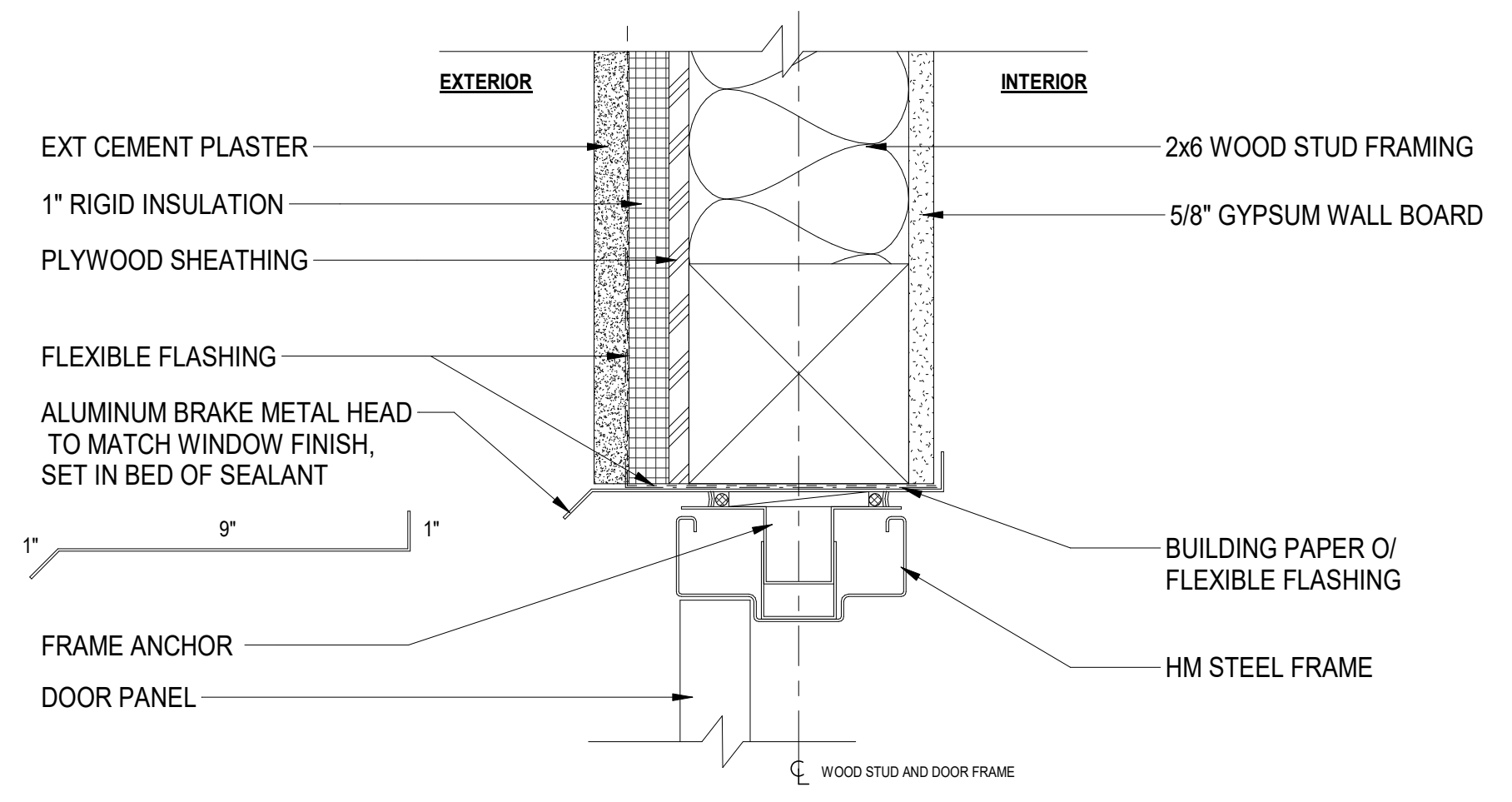
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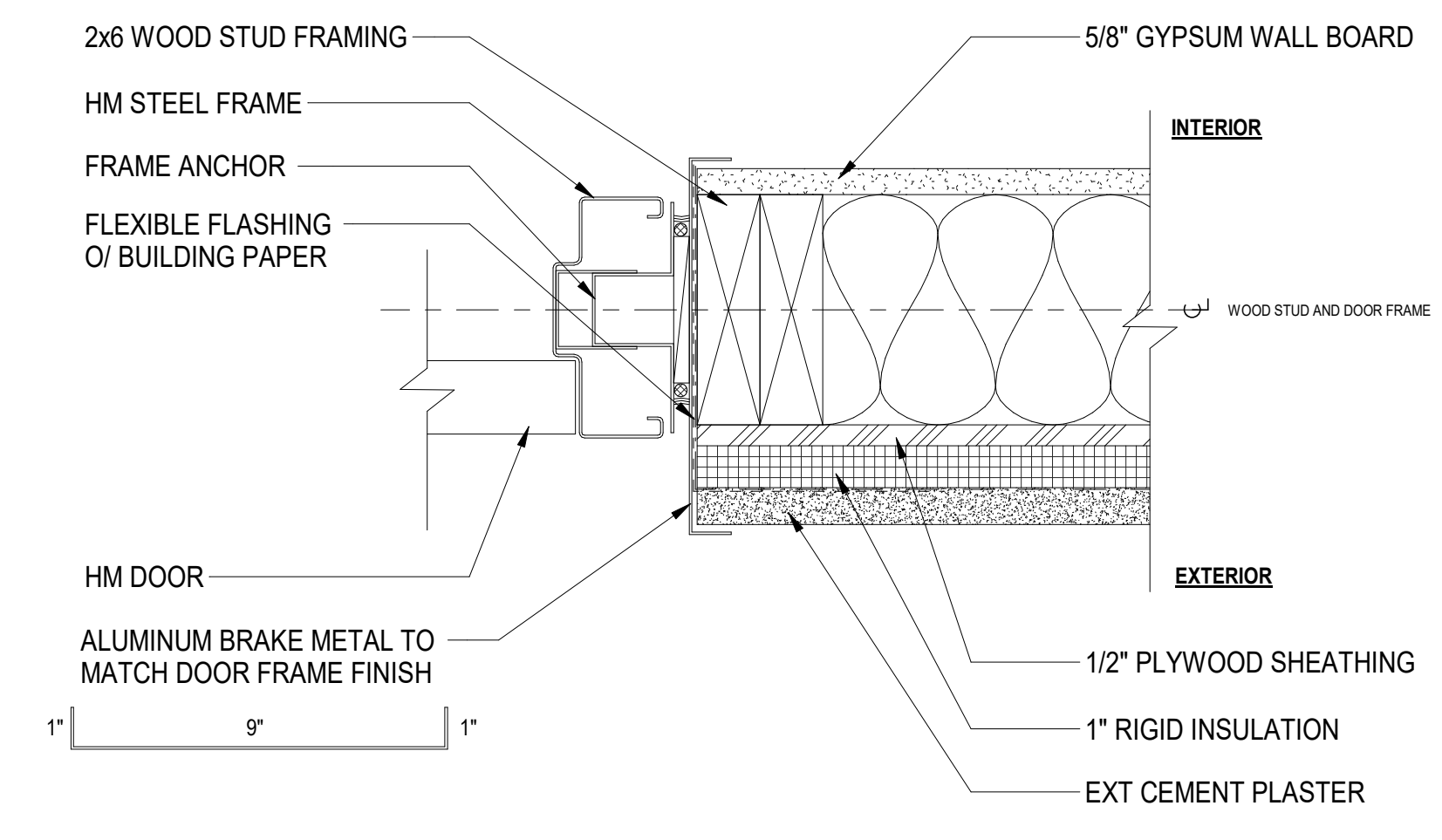
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DOOR SCHEDULE

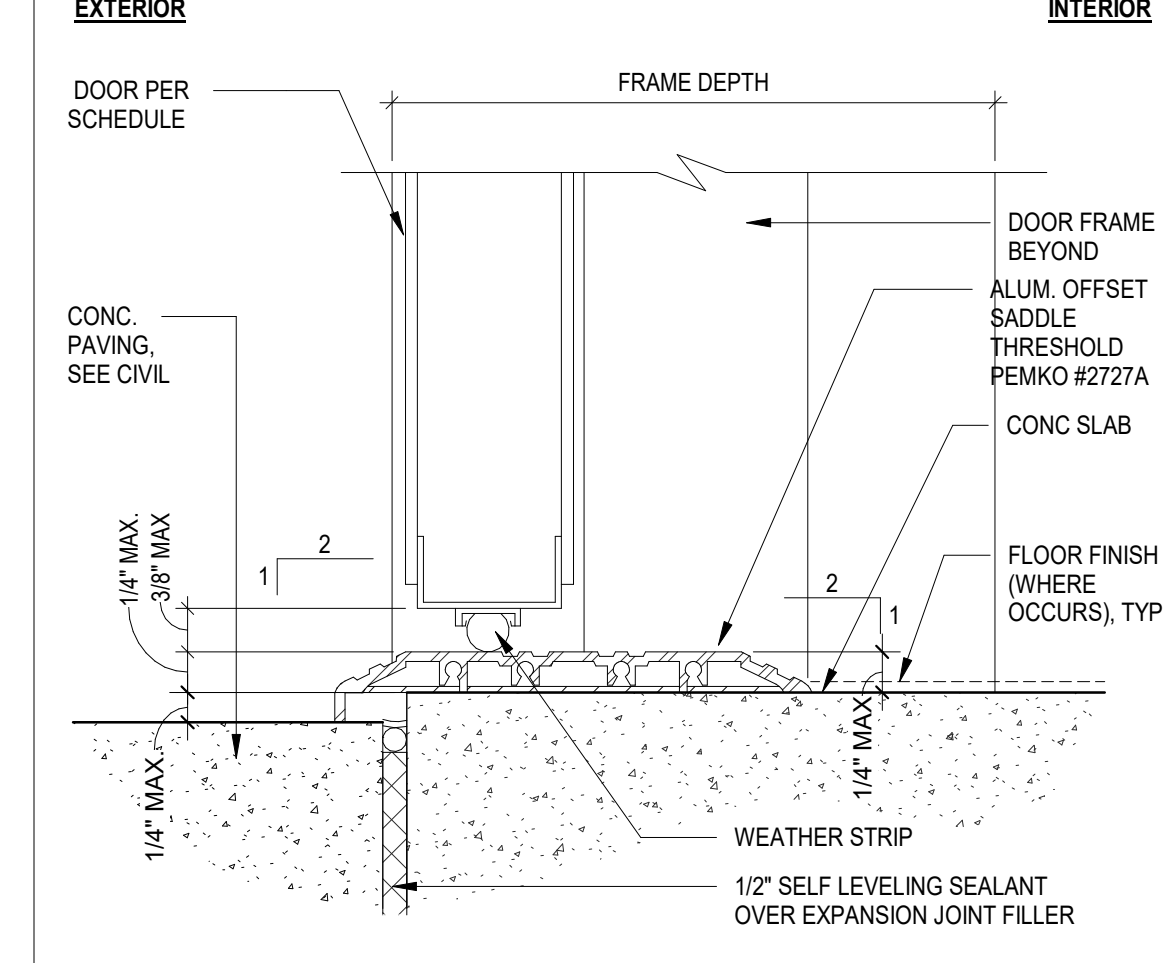
A9.02



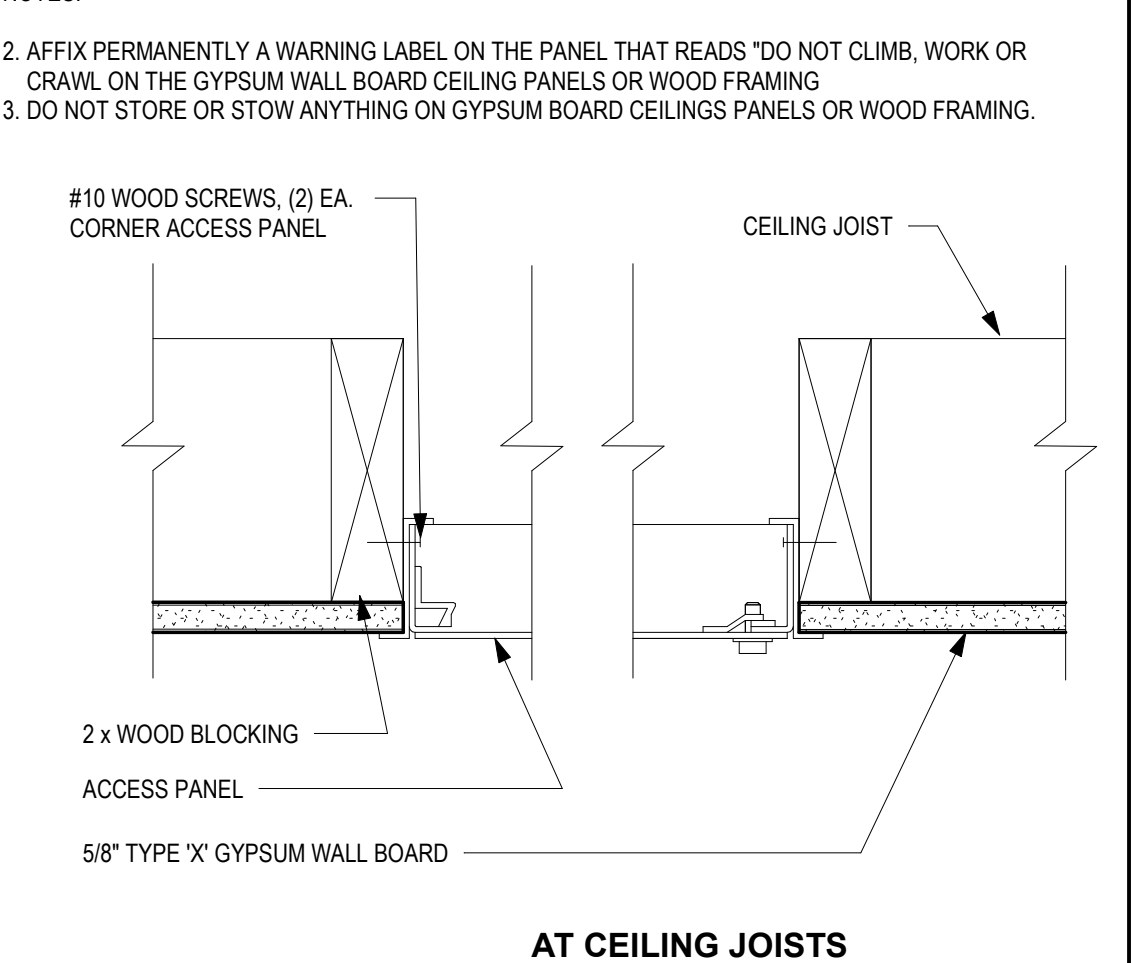
30 EXTERIOR HM DOOR HEAD
3" = 1'-0"



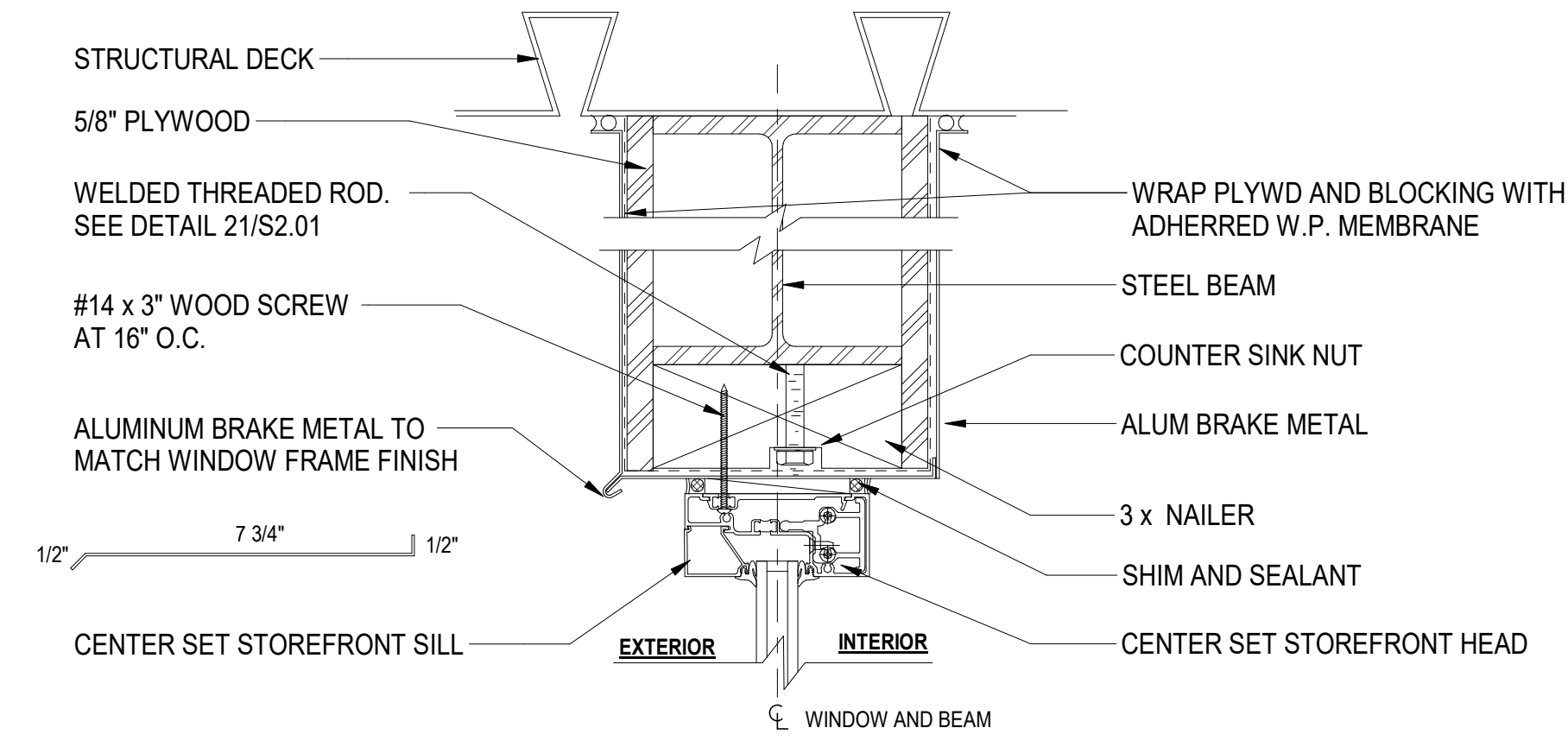
28 EXTERIOR HM DOOR JAMB
3" = 1'-0"



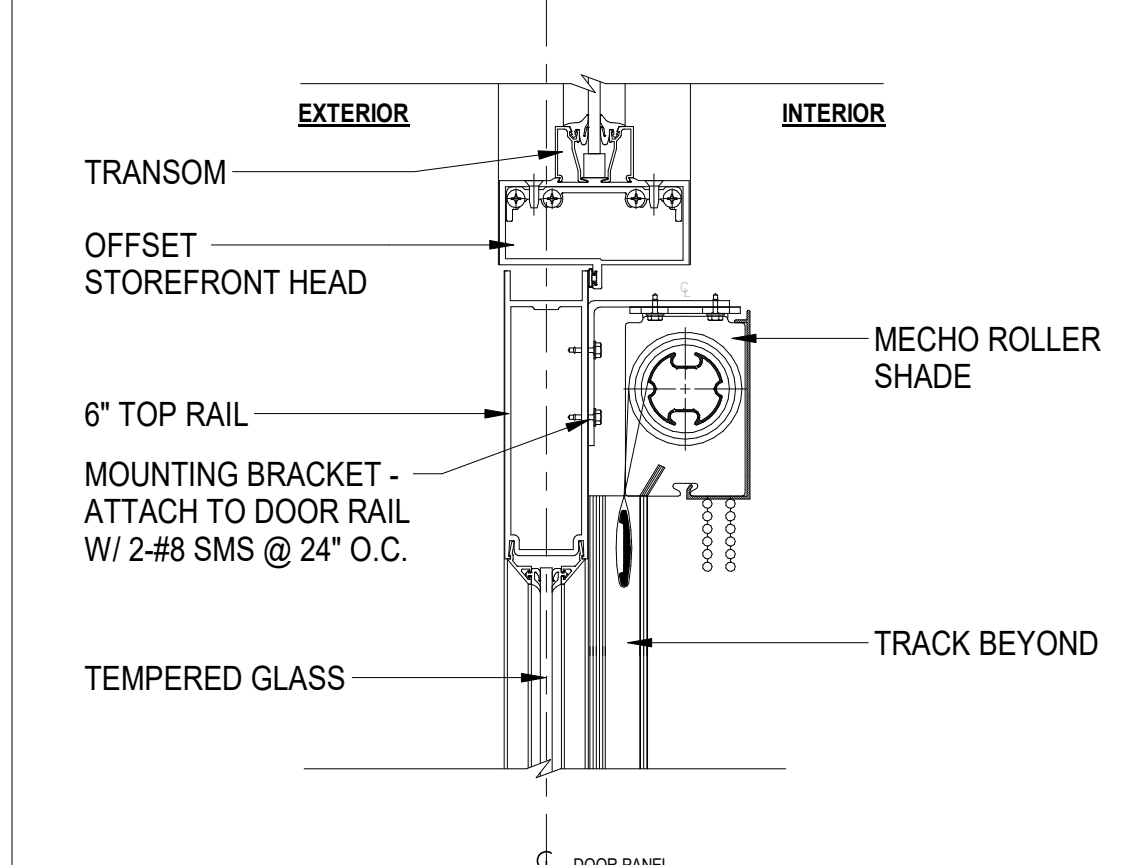
26 EXTERIOR DOOR THRESHOLD
6" = 1'-0"



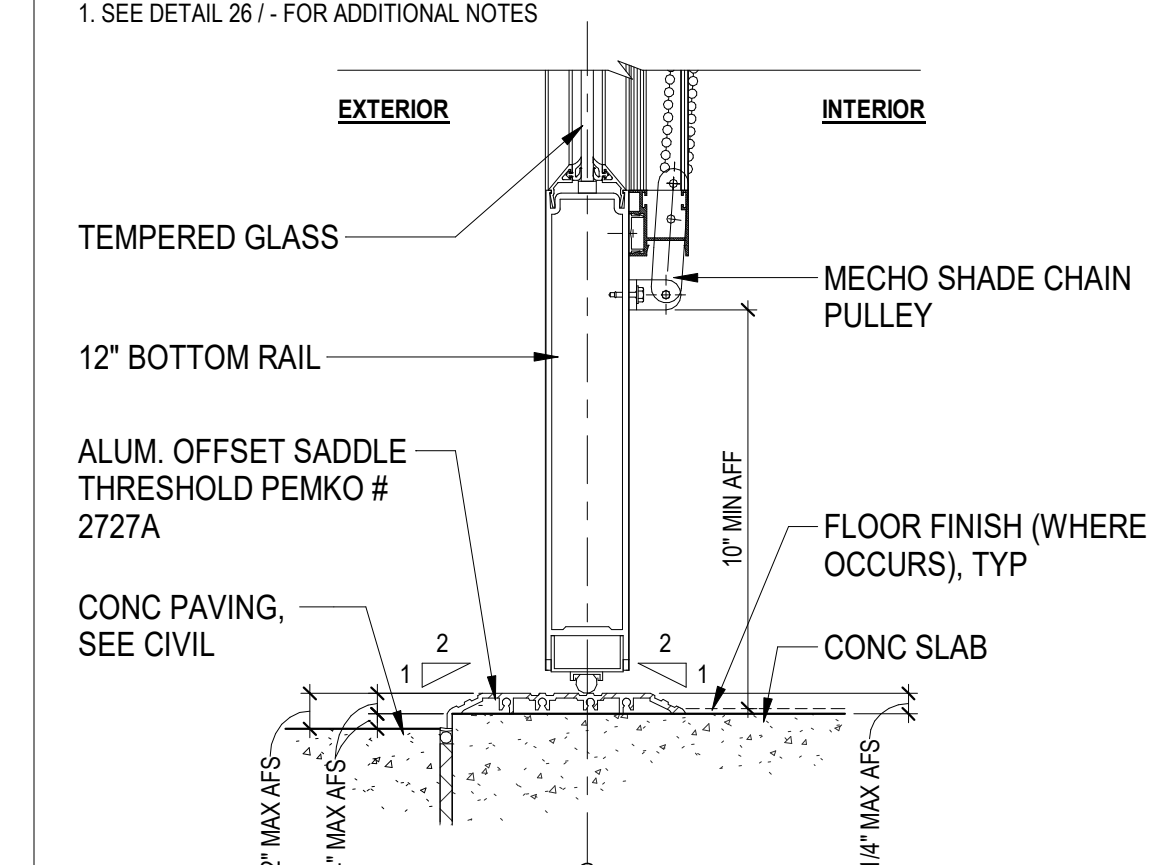
25 ACCESS PANEL @ GYP. BD. CEILING
3" = 1'-0"



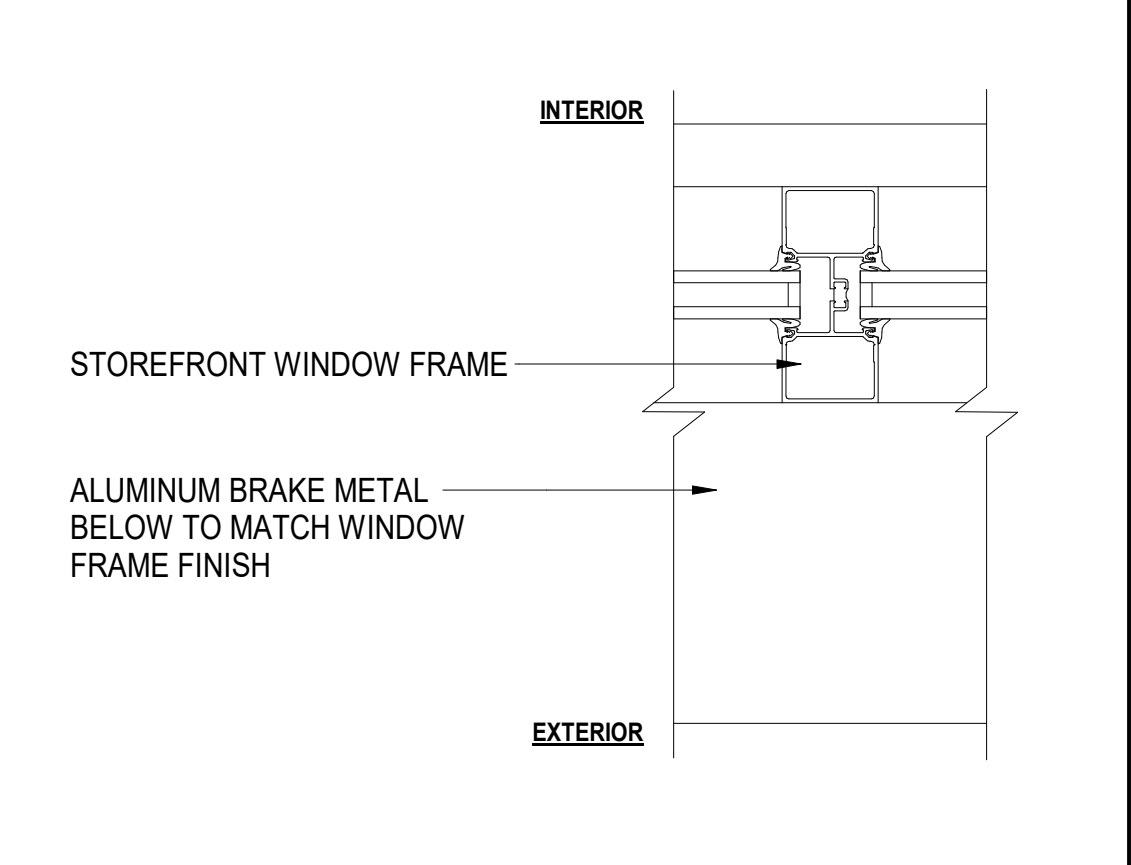
24 EXTERIOR STOREFRONT WINDOW HEAD AT STEEL BEAM
3" = 1'-0"



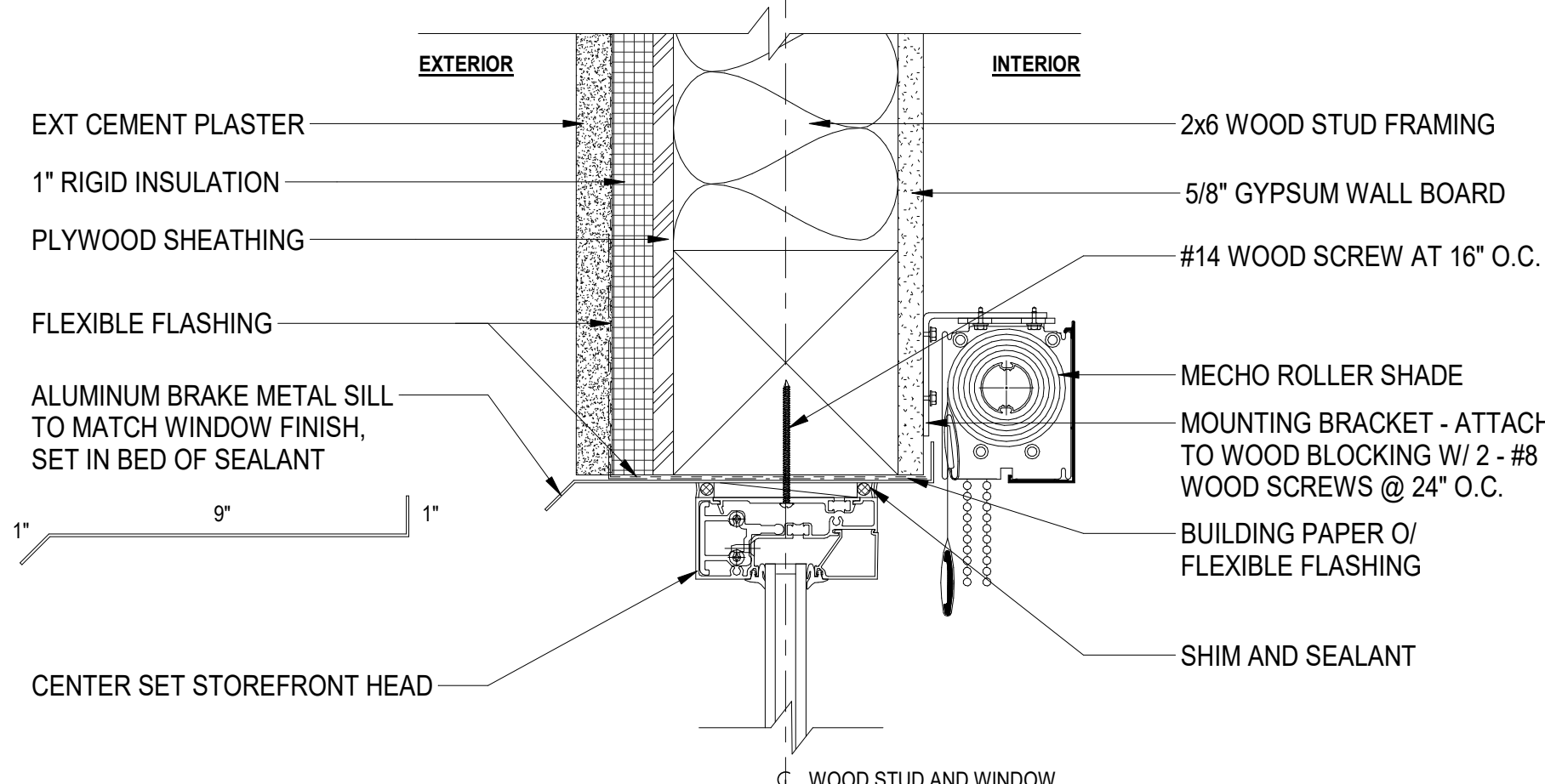
21 EXT STOREFRONT DOOR HEAD
3" = 1'-0"



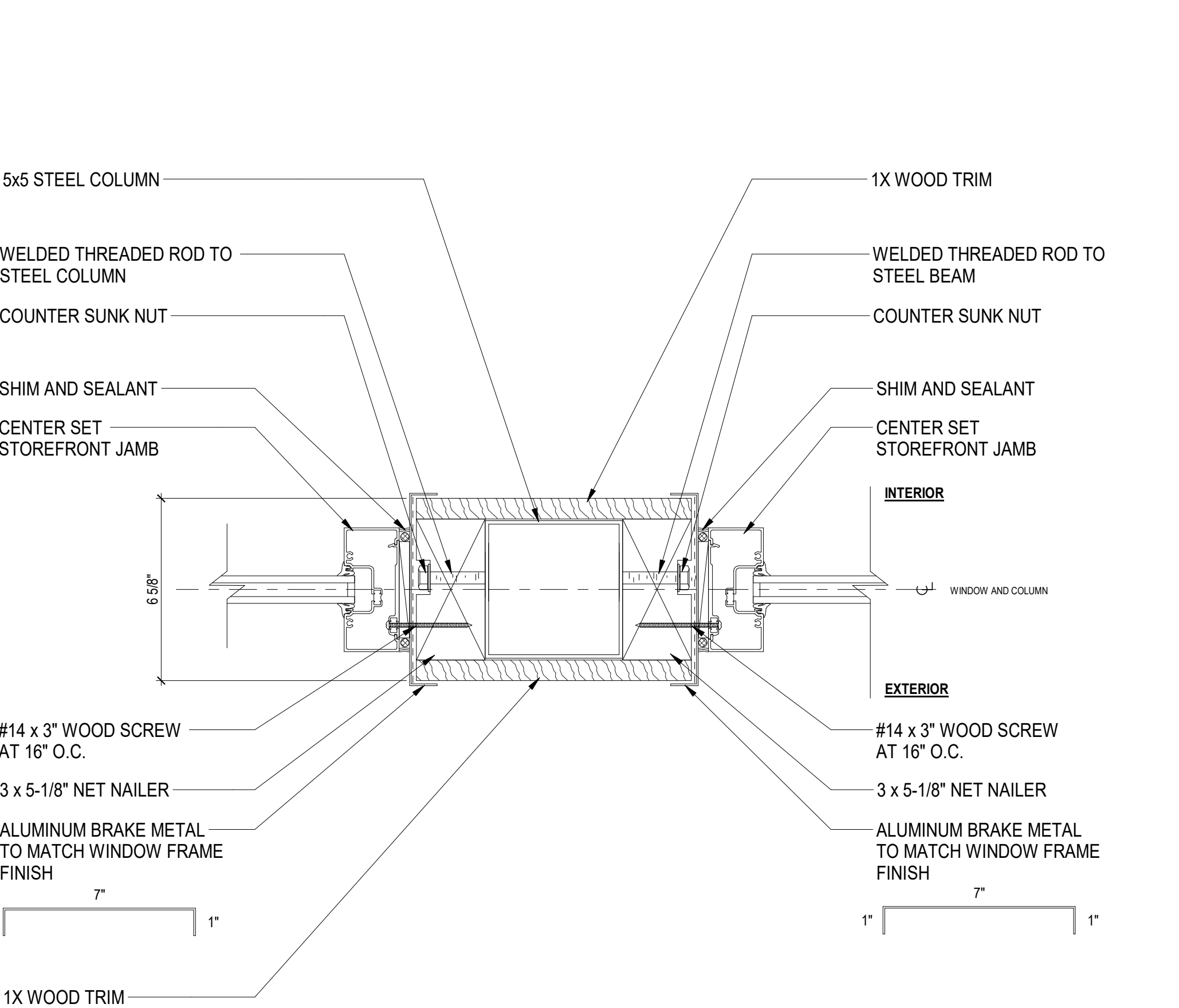
20 EXT STOREFRONT DOOR THRESHOLD
3" = 1'-0"



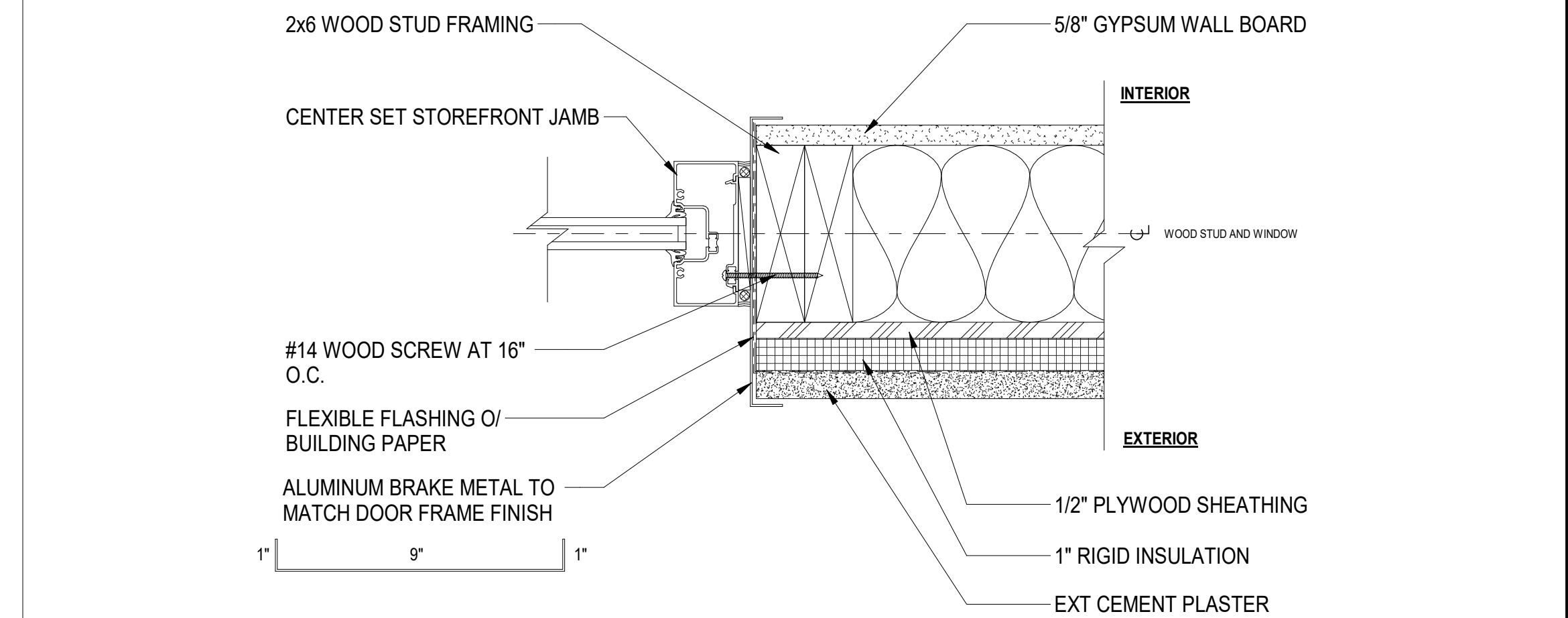
19 EXT STOREFRONT WDW INTERMEDIATE
3" = 1'-0"



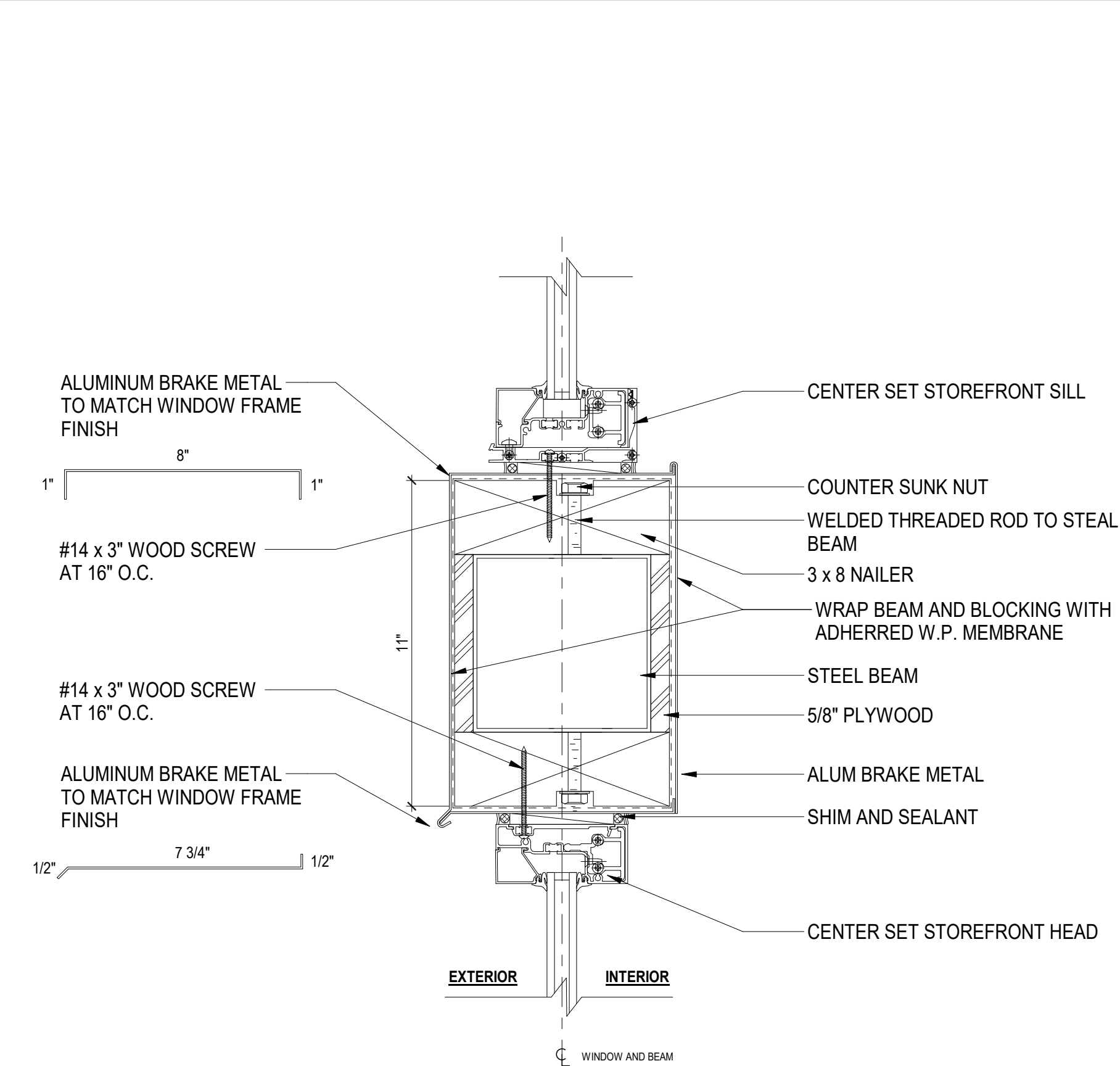
18 EXTERIOR STOREFRONT WINDOW HEAD
3" = 1'-0"



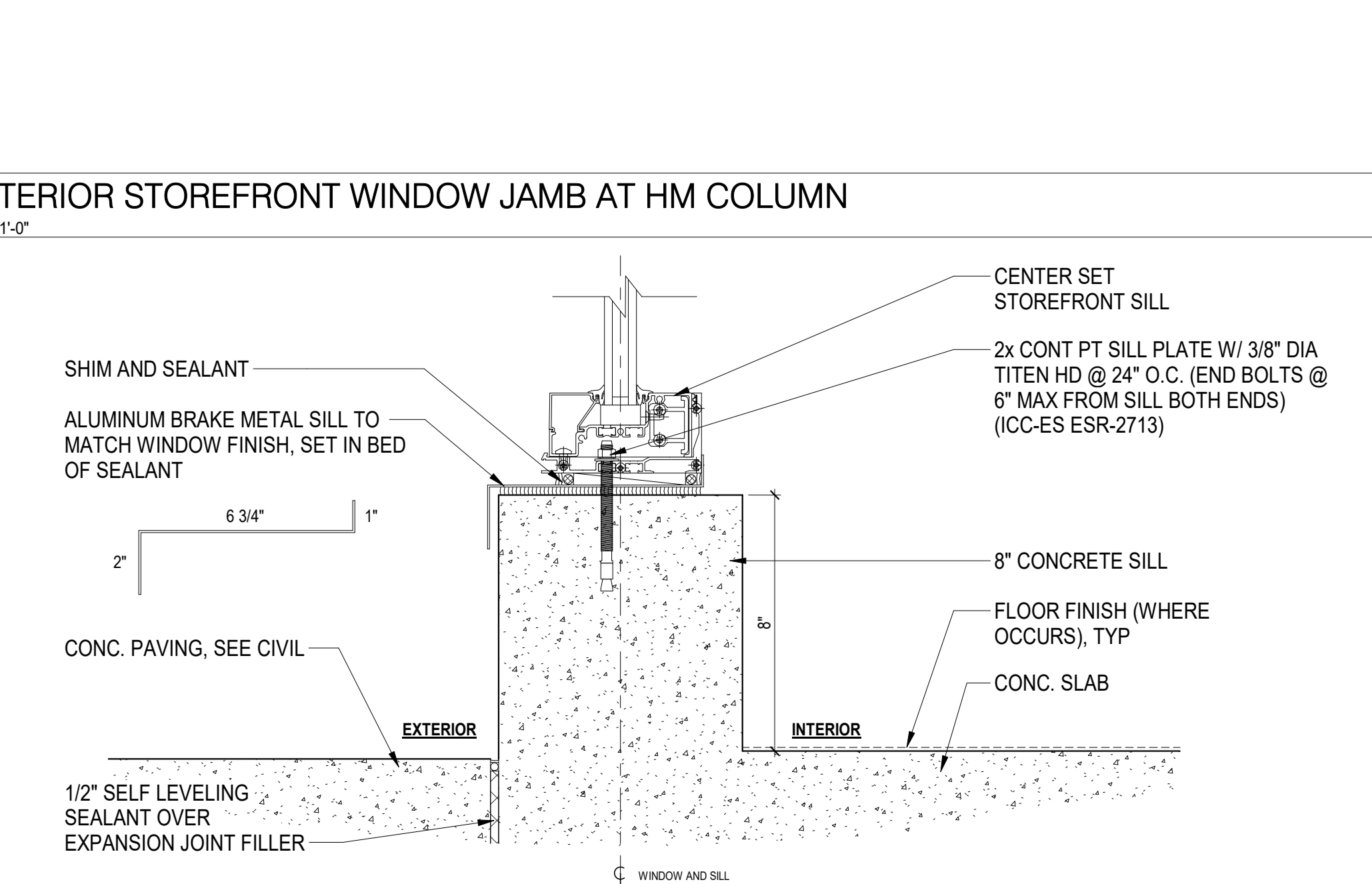
10 EXTERIOR STOREFRONT WINDOW JAMB AT HM COLUMN
3" = 1'-0"



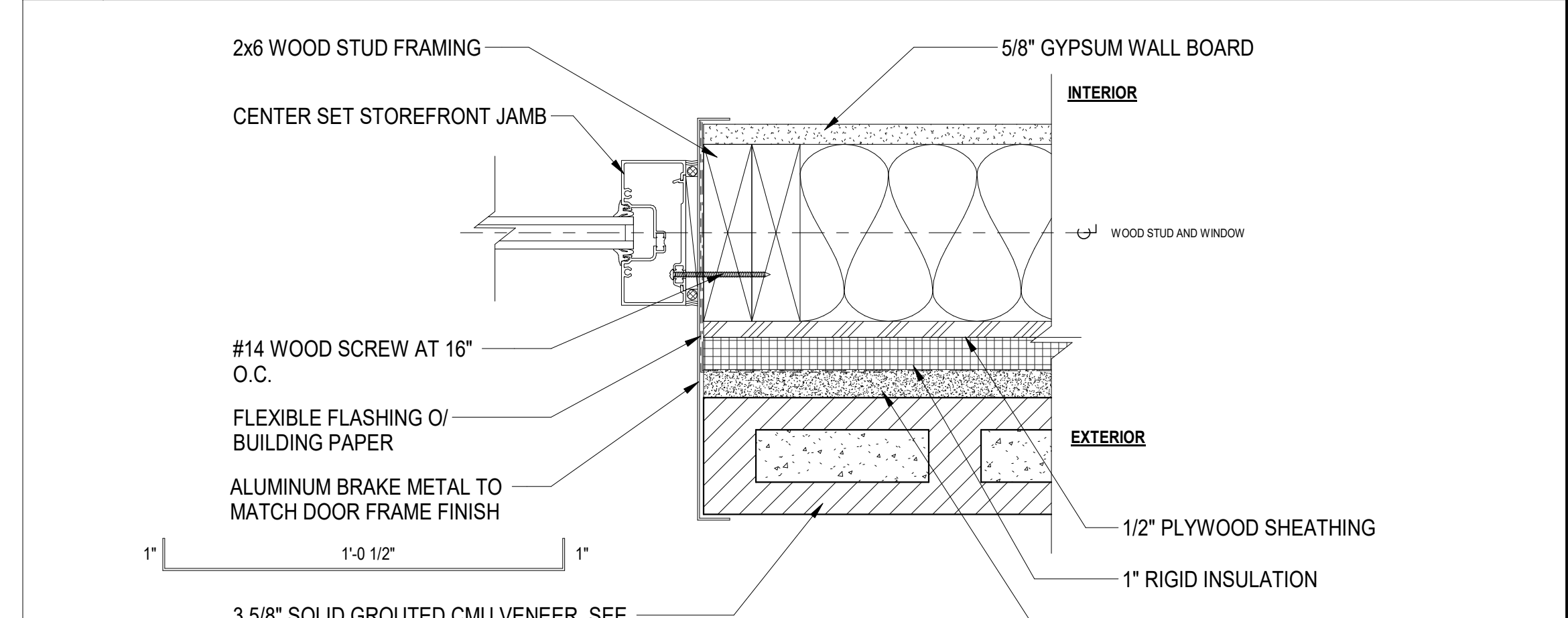
14 EXTERIOR STOREFRONT WINDOW JAMB
3" = 1'-0"



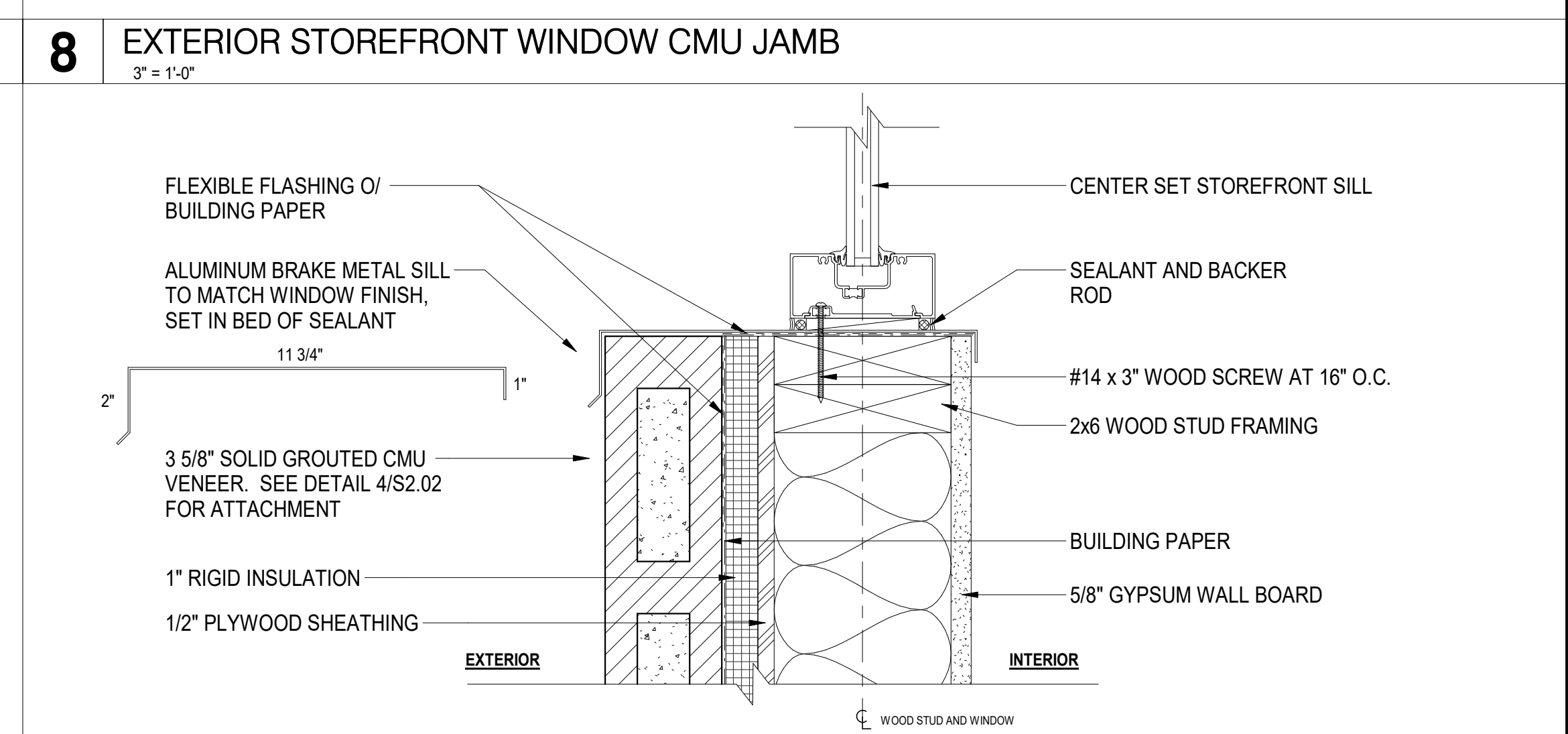
6 EXTERIOR STOREFRONT WINDOW HEAD AND SILL CONDITION AT STEEL BEAM
3" = 1'-0"



4 EXTERIOR STOREFRONT WINDOW CONCRETE SILL
3" = 1'-0"



8 EXTERIOR STOREFRONT WINDOW CMU JAMB
3" = 1'-0"



2 EXTERIOR STOREFRONT WINDOW CMU SILL
3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119487 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/01/2021

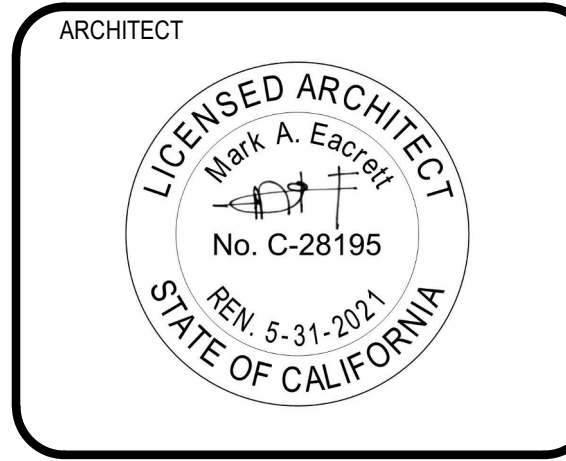


IVC - B600 COLLEGE CENTER
EXPANSION PROJECT
380 E Aten Rd.
Imperial, CA 92251
DSA SUBMITTAL



CONSULTANT

ENGINEER

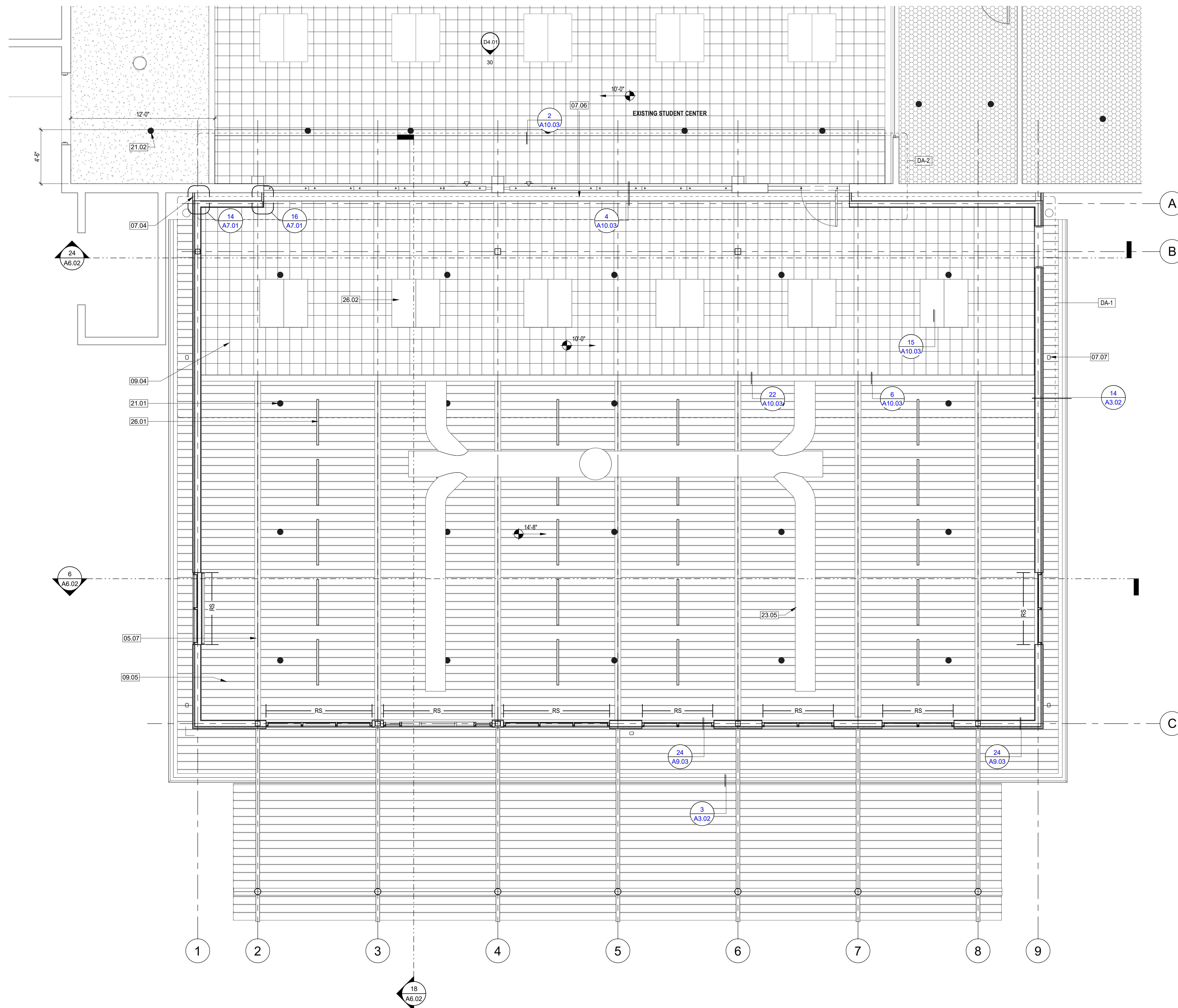


CLIENT IMPERIAL VALLEY COLLEGE		
PROJECT NUMBER 20190		
DATE: 2020/12/08		
DRAWN BY: Author		
CHECKED BY: Checker		
REVISIONS		
No.	Description	Date

DSA SUBMITTAL
DOOR AND WINDOW DETAILS

A9.03

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KEYNOTE LEGEND	
NUMBER	DESCRIPTION
06.07	WIDE FLANGE BEAM PER STRUCTURAL
07.04	VERTICAL SEISMIC JOINT COVER
07.06	CEILING SEISMIC JOINT COVER
07.07	DOWNSPOUT
08.04	12x12 GLUE ON ACOUSTICAL TILE OVER 5/8" GYP BOARD
08.05	ACOUSTICAL DECK
21.01	FIRE SPRINKLER HEAD
21.02	FIRE SPRINKLER HEAD: PATCH CEILING TO MATCH EXISTING
26.01	PENDANT LED LIGHT FIXTURE
26.02	SURFACE MOUNTED LED LIGHT FIXTURE

CEILING PLAN LEGEND

- (E) 12 x 12 GLUE ON ACOUSTICAL TILE CEILING
- 12 x 12 GLUE ON ACOUSTICAL TILE CEILING
- ACOUSTICAL DECK
- ROLLER SHADE PER &
- DEDUCTIVE ALTERNATE. SEE 00.01 FOR DESCRIPTION.

RCP PLAN NOTES

1. REFER TO AND COORD. WITH ROOM FINISH SCHEDULES FOR SPECIFIC CEILING TYPES.
2. ALL SCHEDULED CEILING HEIGHTS ARE FROM THE MAIN FLOOR LEVEL WITHIN THE ROOM AND OR SPACE, AND ARE NOT FROM AN ELEVATED FLOOR LEVEL, AND ARE NOT FROM A RECESSED FLOOR LEVEL.
3. NO FIRE SPRINKLER HEADS ARE SHOWN ON ARCH. CEILING PLANS. ALL SPRINKLER HEADS SHALL BE CENTERED WITHIN CEILING TILES U.N.C.
4. ONLY CEILING MOUNTED FIXTURES AND EQUIP. IS SHOWN ON ARCH. CEILING PLANS. REFER TO INTERIOR ELEVATIONS FOR WALL MOUNTED FIXTURES. REFER TO MEPT DOCUMENTS FOR ADDITIONAL INFORMATION CONCERNING CEILING MOUNTED FIXTURES AND OR WALL MOUNTED FIXTURES.
5. CEILING MOUNTED LIGHT FIXTURES ARE SHOWN FOR LOCATION PURPOSES ONLY. COORD. WITH ELEC. DOCUMENTS FOR LIGHT FIXTURE DESIGNATIONS.
6. VERIFY LOCATIONS OF ALL CEILING ACCESS PANELS WITH MEPT DOCUMENTS. COORD. LOCATIONS OF CEILING ACCESS PANELS WITH ARCH. PRIOR TO INSTALLATION.
7. REFER TO WALL SECTIONS FOR WALL-CEILING INTERFACE.
8. SEE DETAIL FOR TRAPEZE PIPE SUPPORT.

DSA FILE NO. 13-C1 AR 04-119487

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DIV. OF THE STATE ARCHITECT
APP: 04-119487 INC.
REVIEWED FOR:
SS FLS ACS
DATE: 02/01/2021



ARCHITECTURE

**IVC - B600 COLLEGE CENTER
EXPANSION PROJECT**
380 E Aten Rd.
Imperial, CA 92251
DSA SUBMITTAL

CONSULTANT

ENGINEER

ARCHITECT

LICENSED ARCHITECT
Mark A. Estep
No. C-28195
REV. 5-31-2021
STATE OF CALIFORNIA

CLIENT		
IMPERIAL VALLEY COLLEGE		
PROJECT NUMBER		
20190		
DATE:	2020/12/08	
DRAWN BY:	Author	
CHECKED BY:	Checker	
REVISIONS		
No.	Description	Date

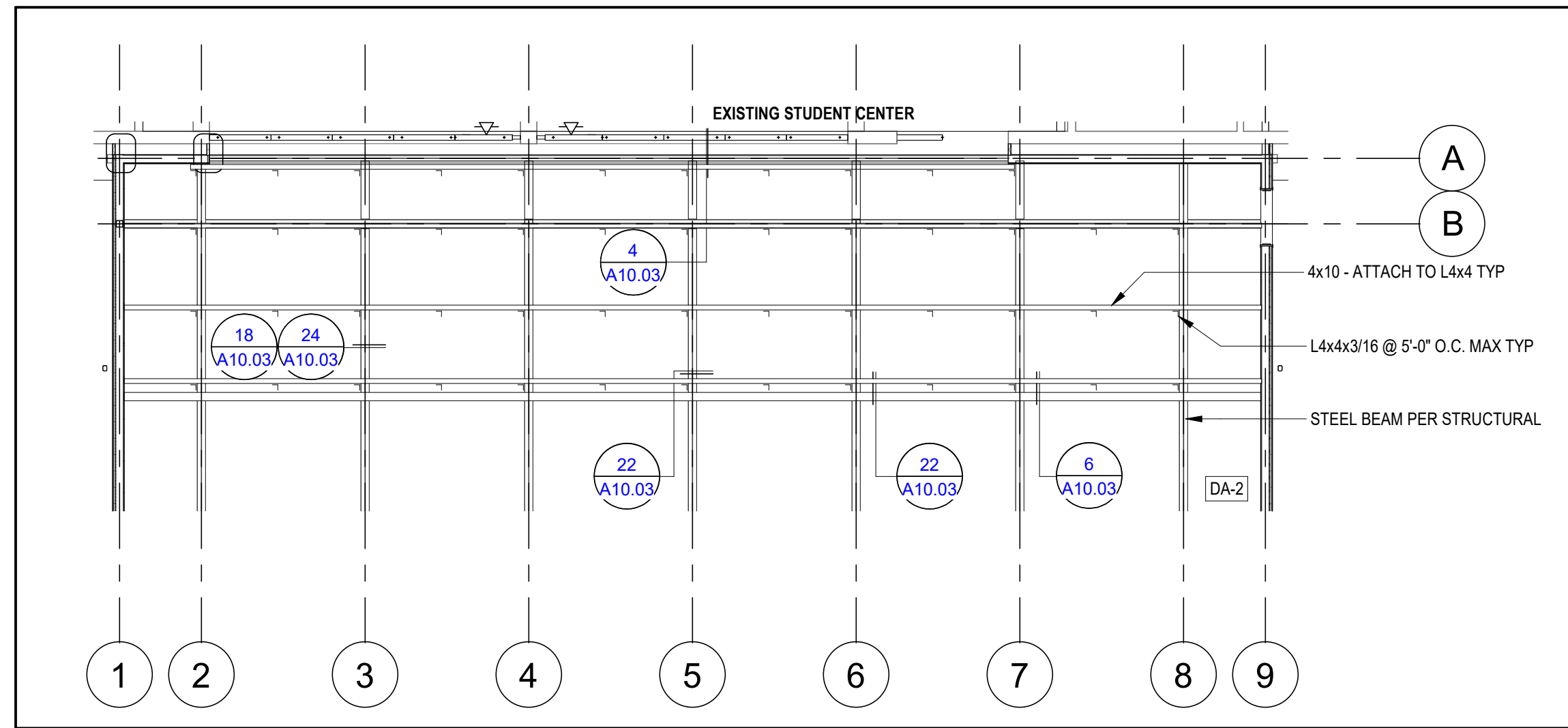
DSA SUBMITTAL

**REFLECTED
CEILING PLAN**

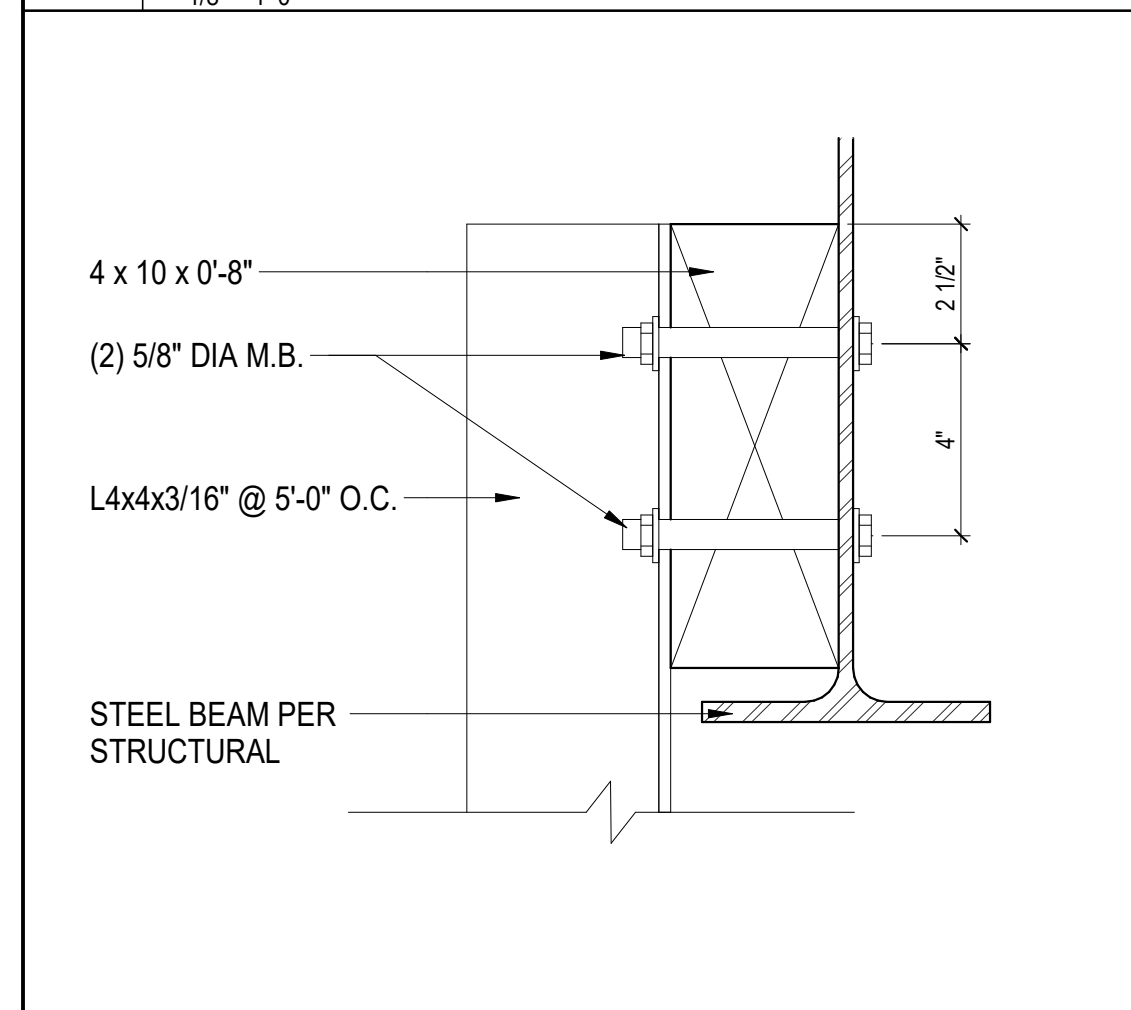
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6 REFLECTED CEILING PLAN
1/4" = 1'-0"

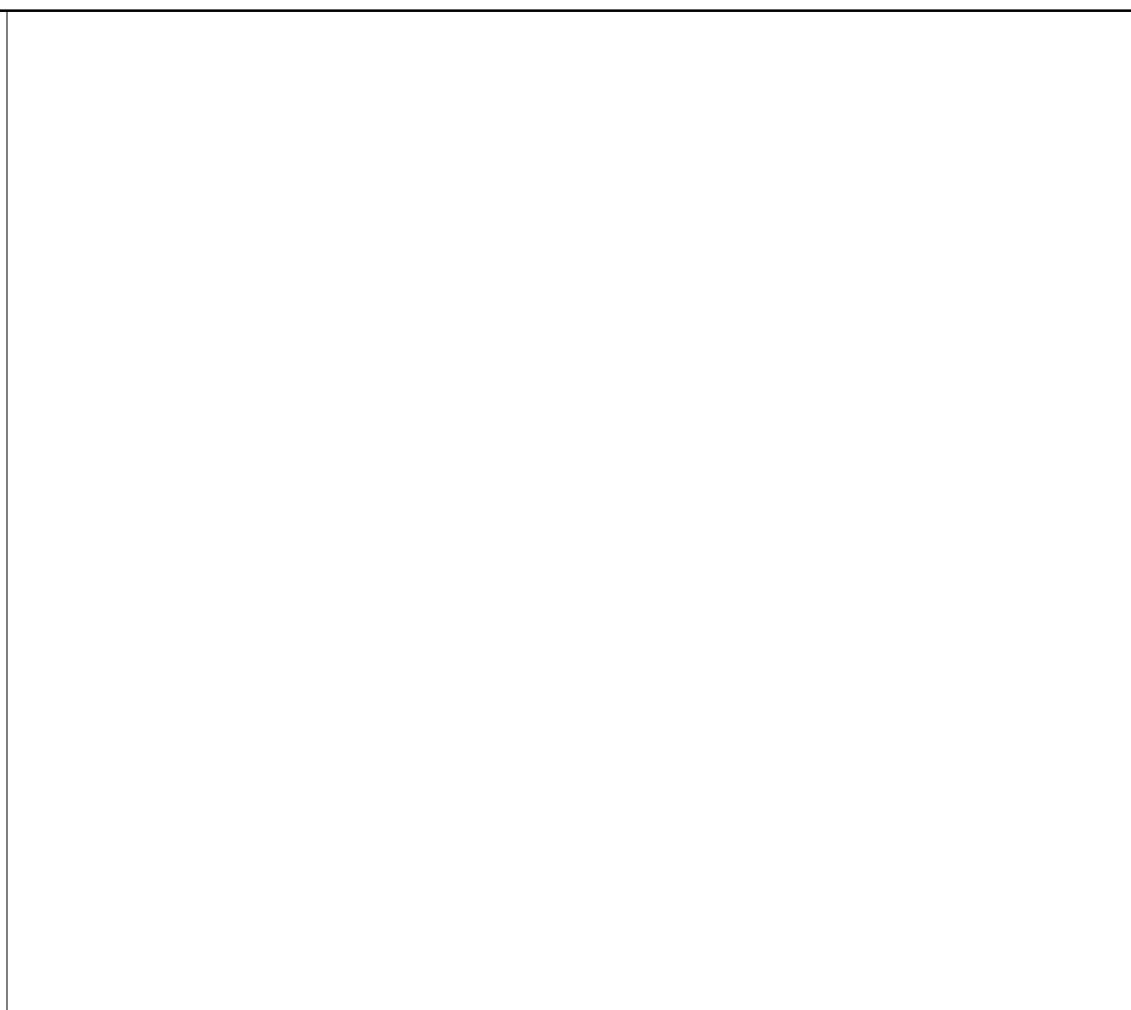




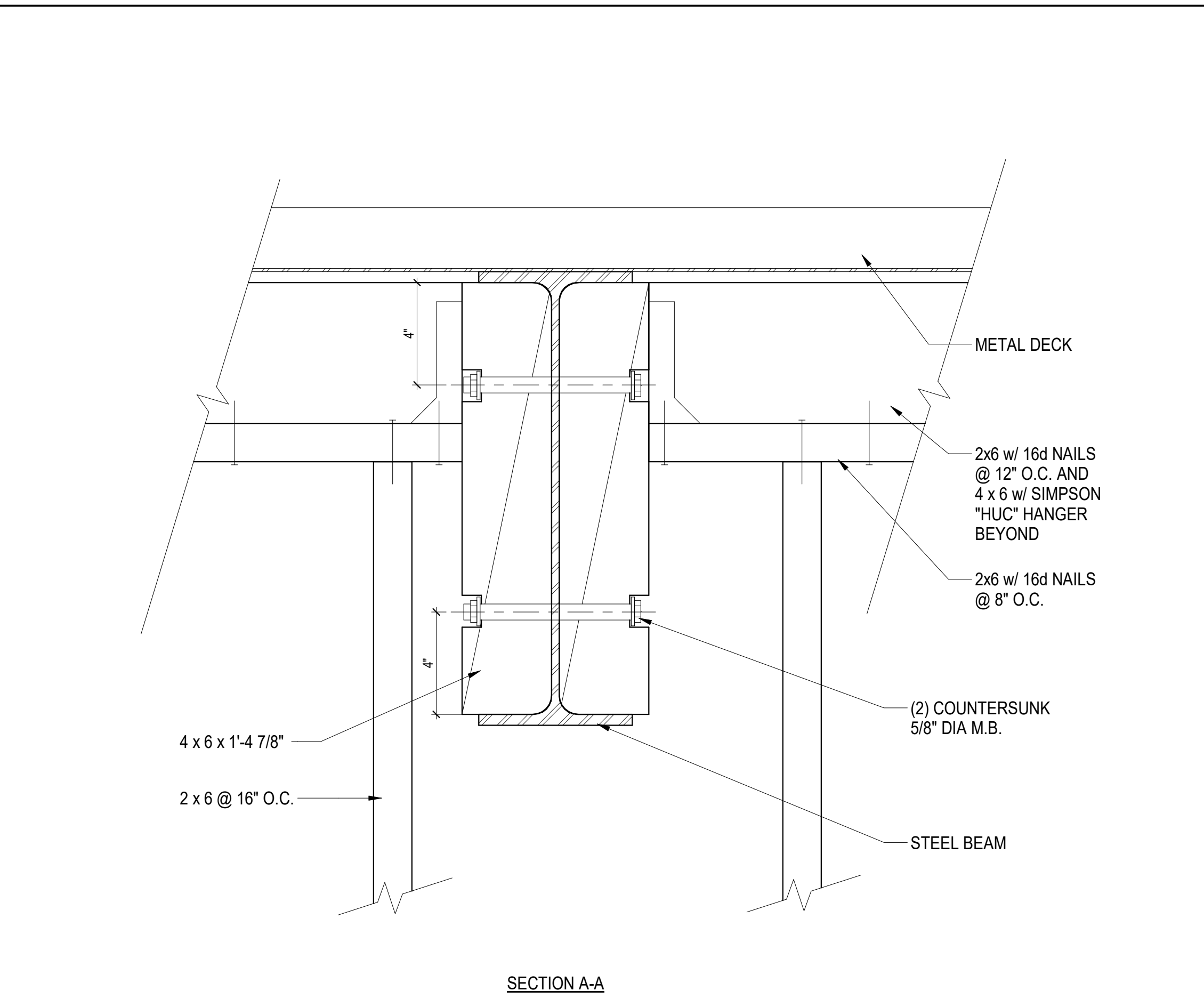
30 DROPPED CEILING FRAMING PLAN
 1/8" = 1'-0"



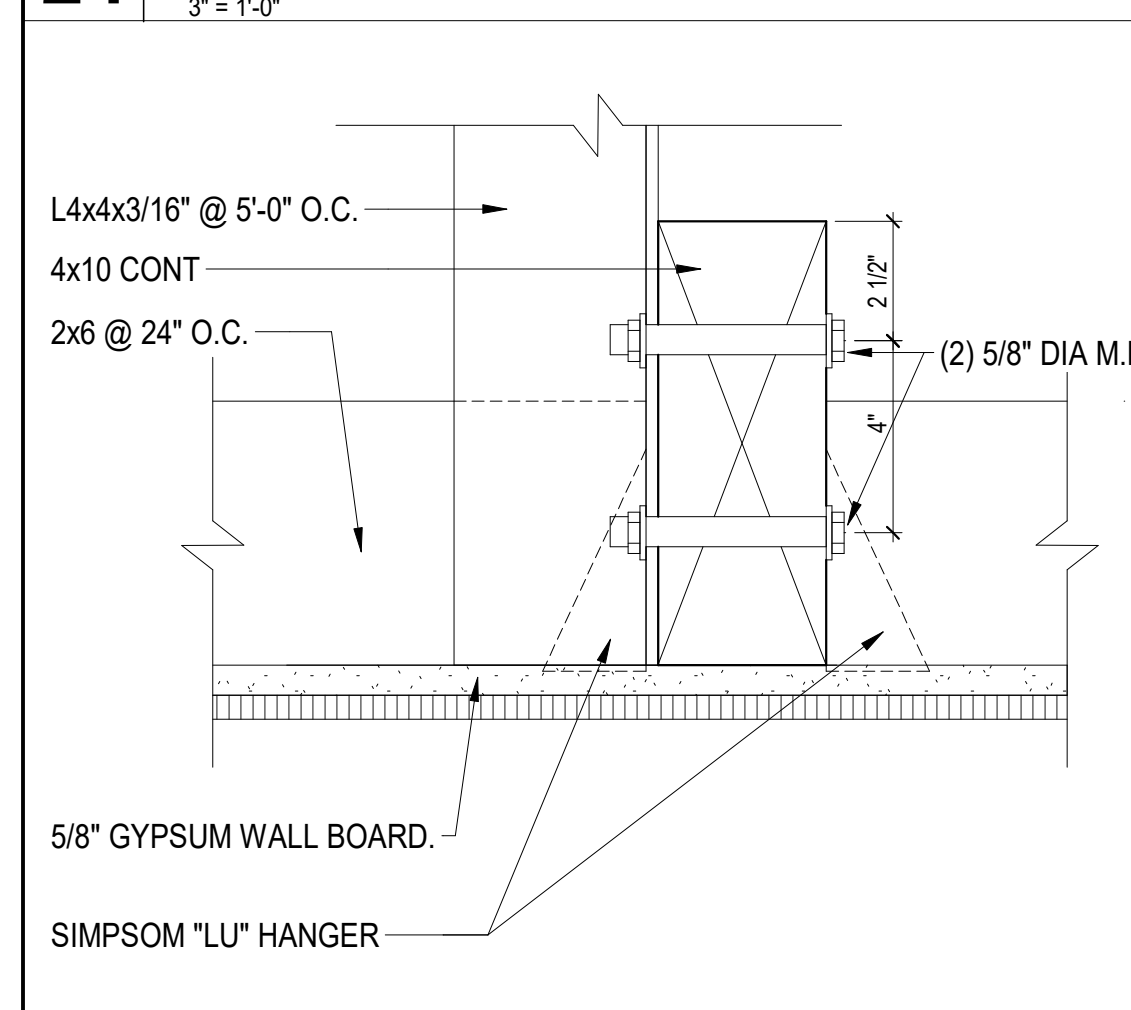
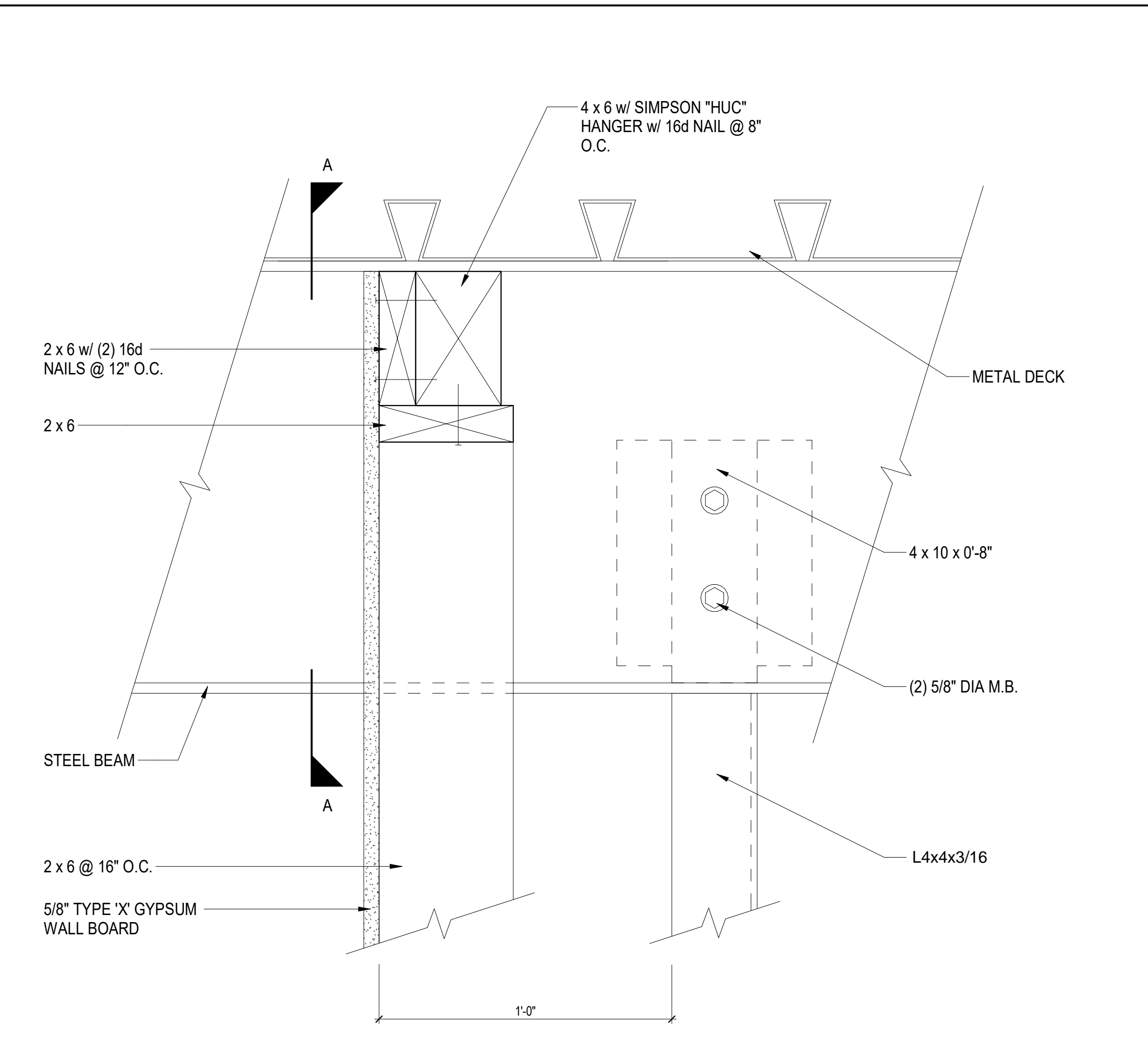
24 FRAMING @ BEAM
 3" = 1'-0"



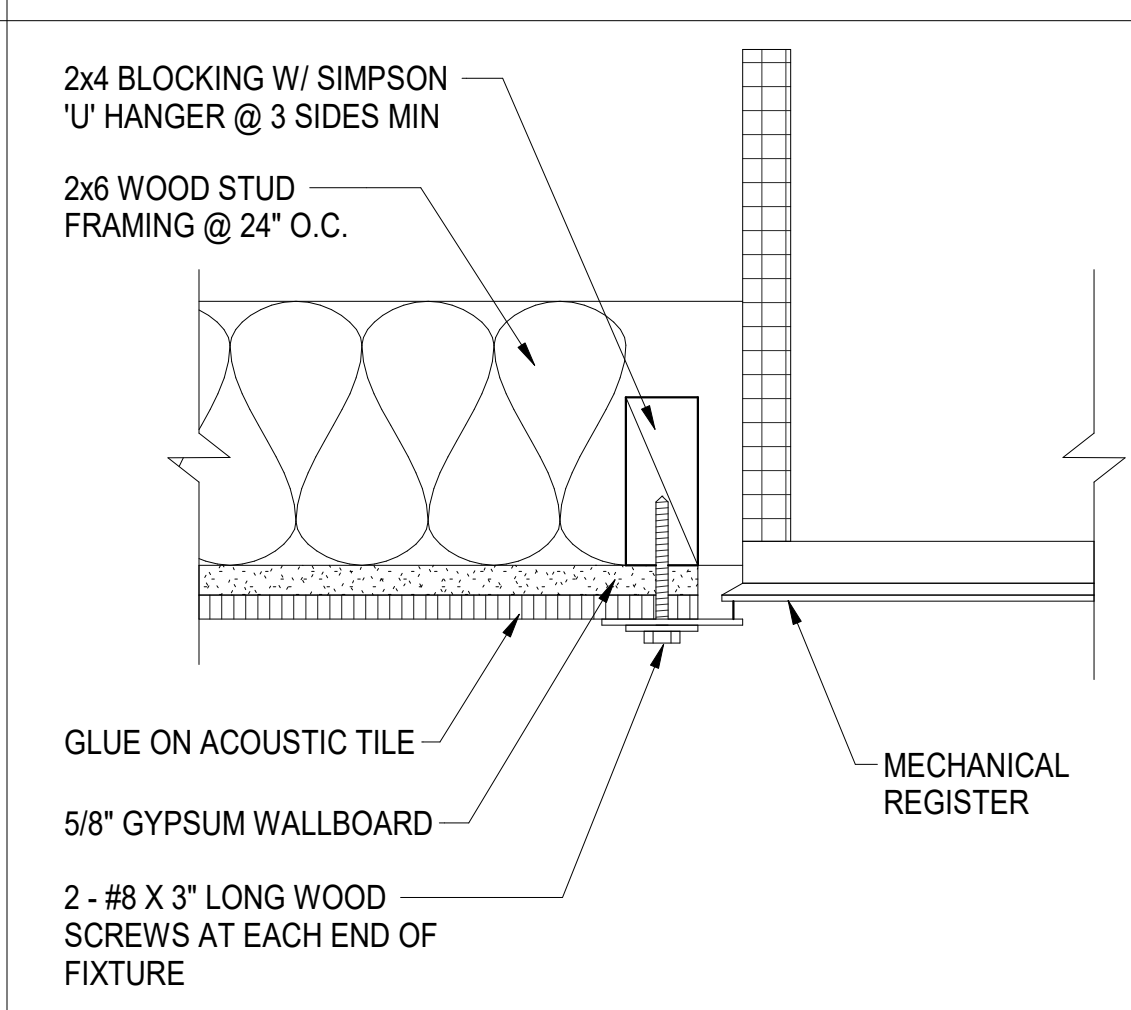
22 WALL FRAMING @ BEAM
 3" = 1'-0"



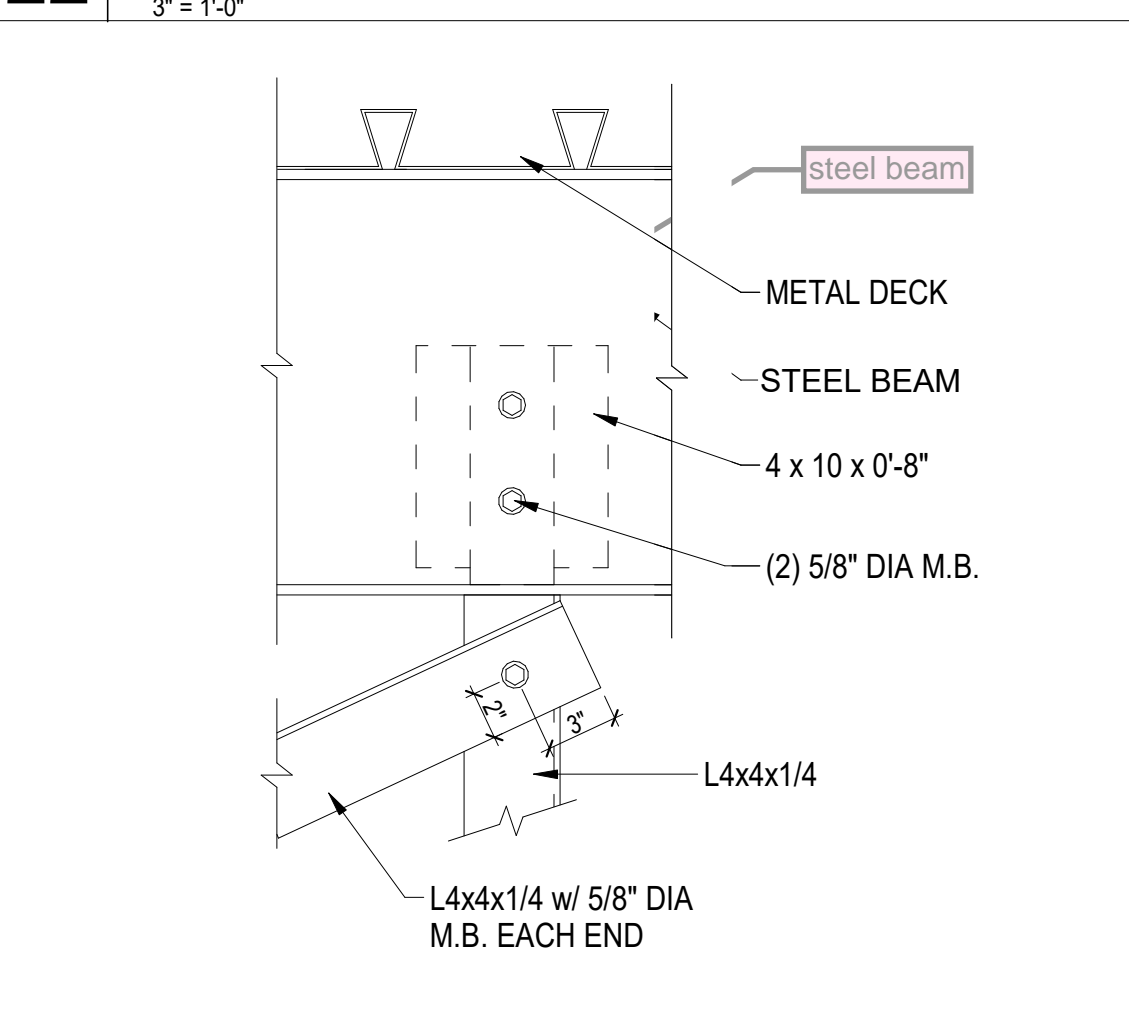
SECTION A-A



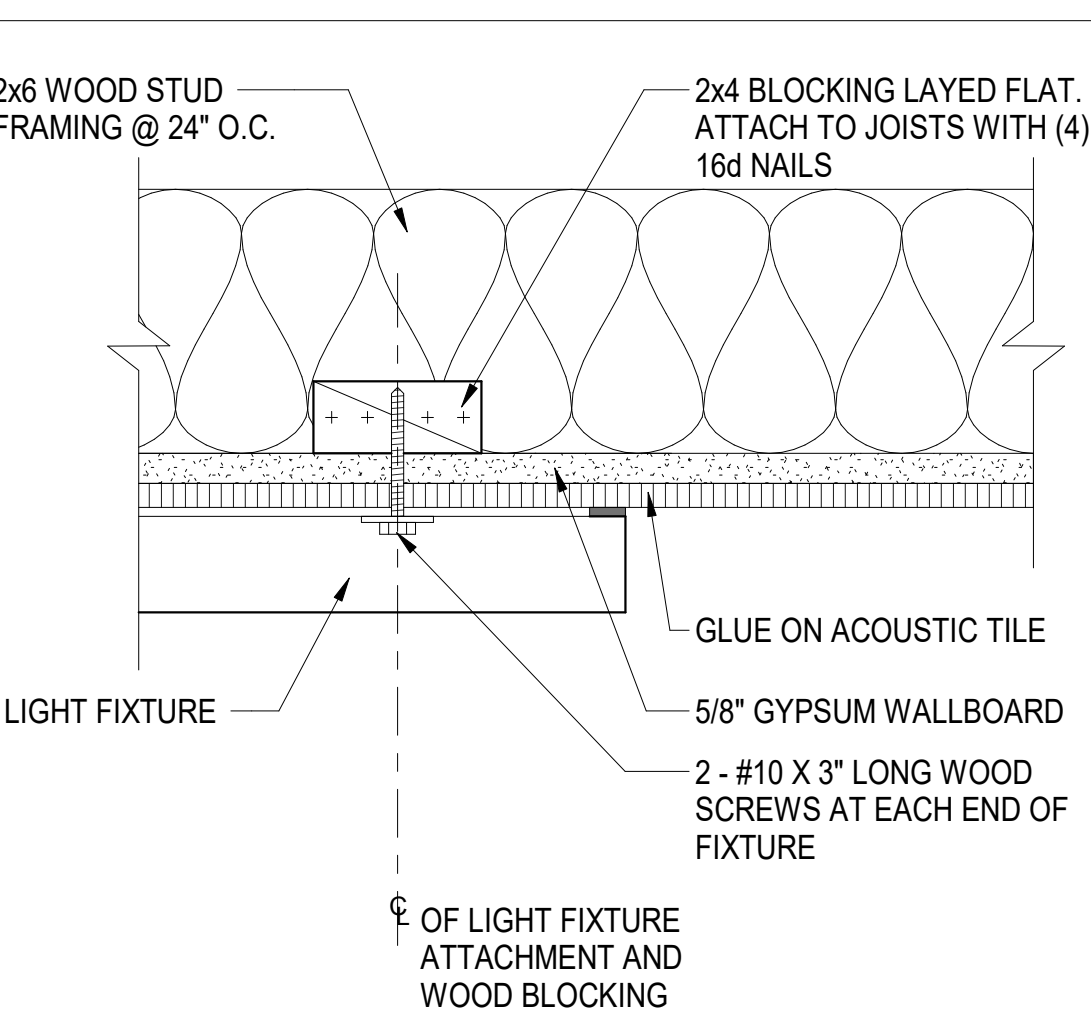
18 FRAMING @ CEILING
 3" = 1'-0"



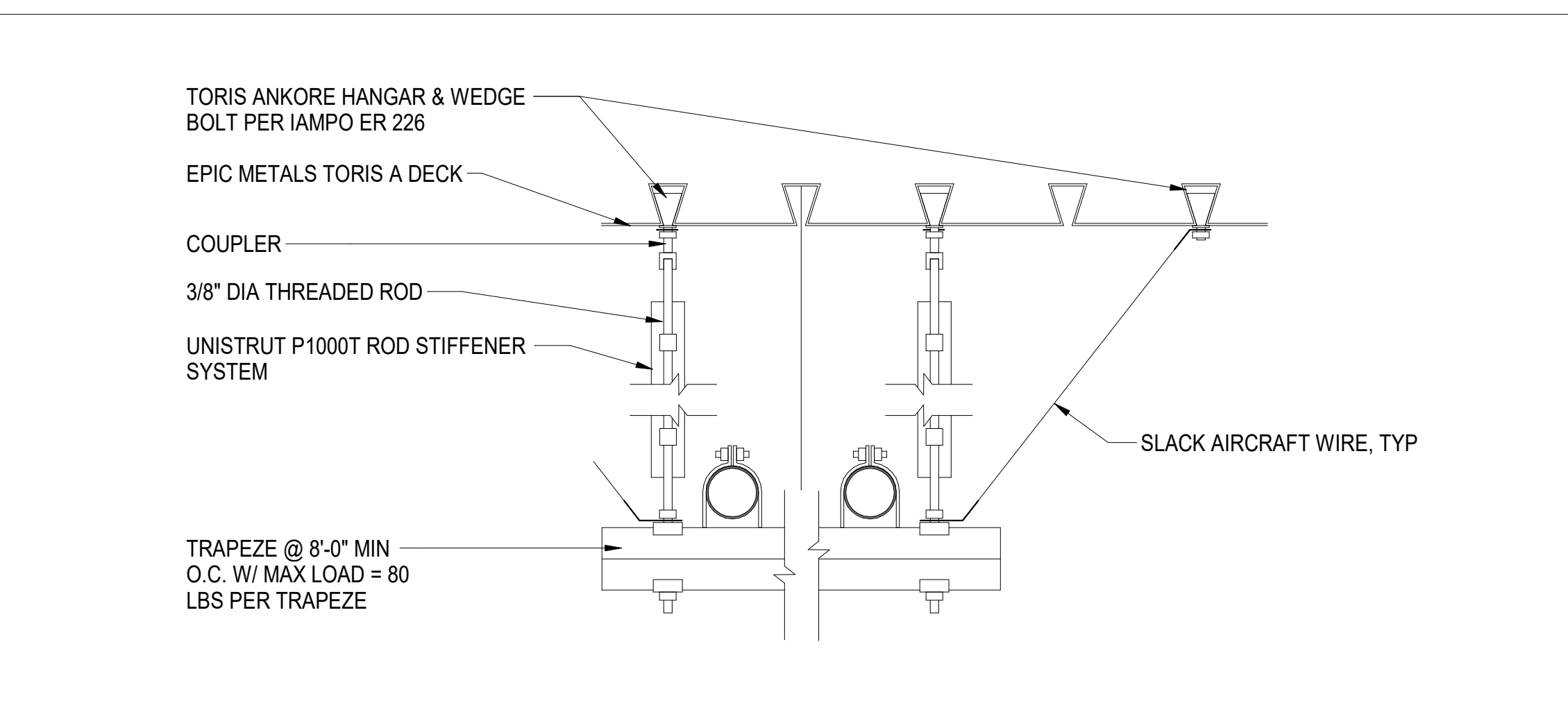
17 SOFFIT FRAMING @ DUCT
 3" = 1'-0"



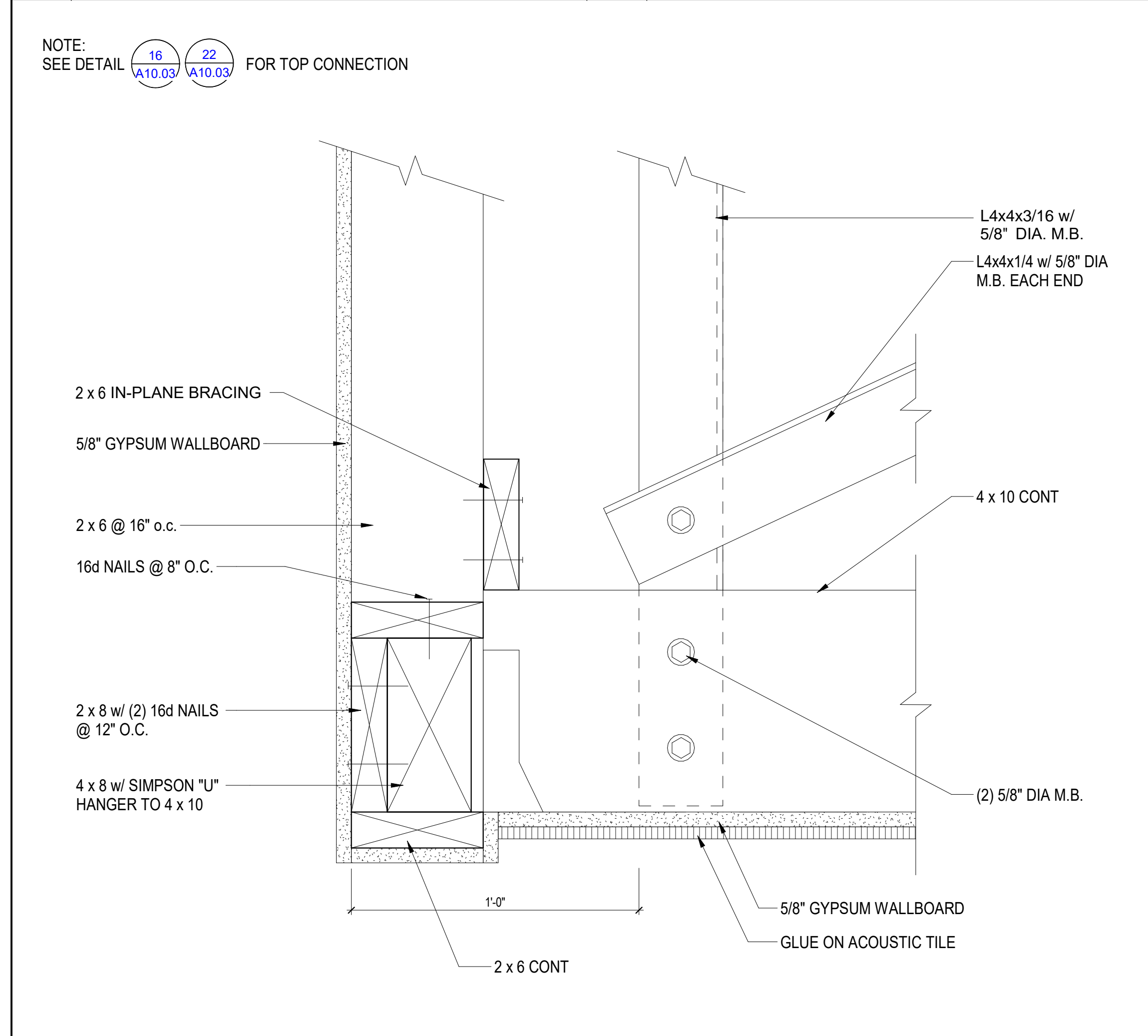
16 BRACE SUPPORT
 1 1/2" = 1'-0"



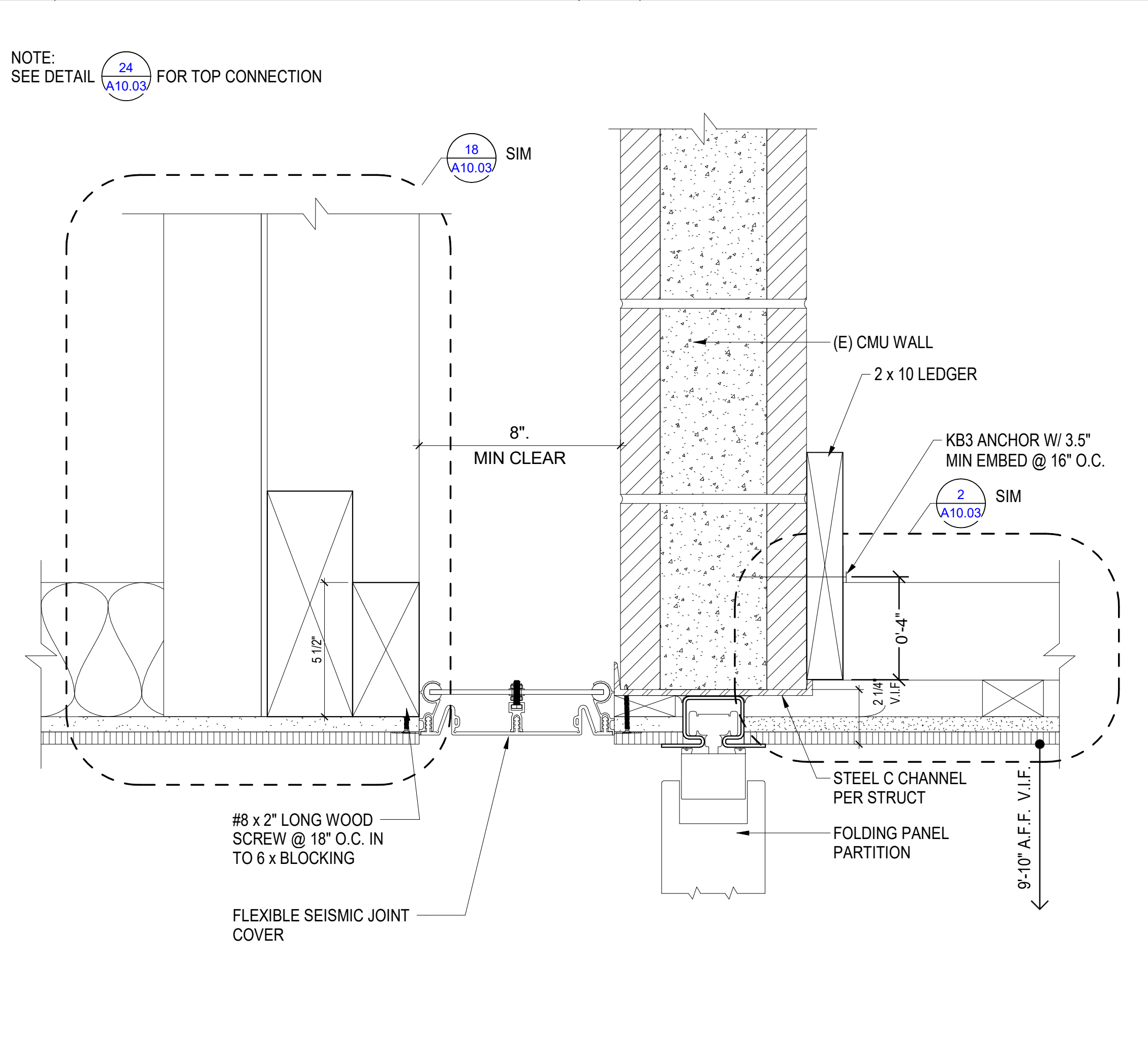
15 SOFFIT FRAMING @ LIGHT FIXTURE
 3" = 1'-0"



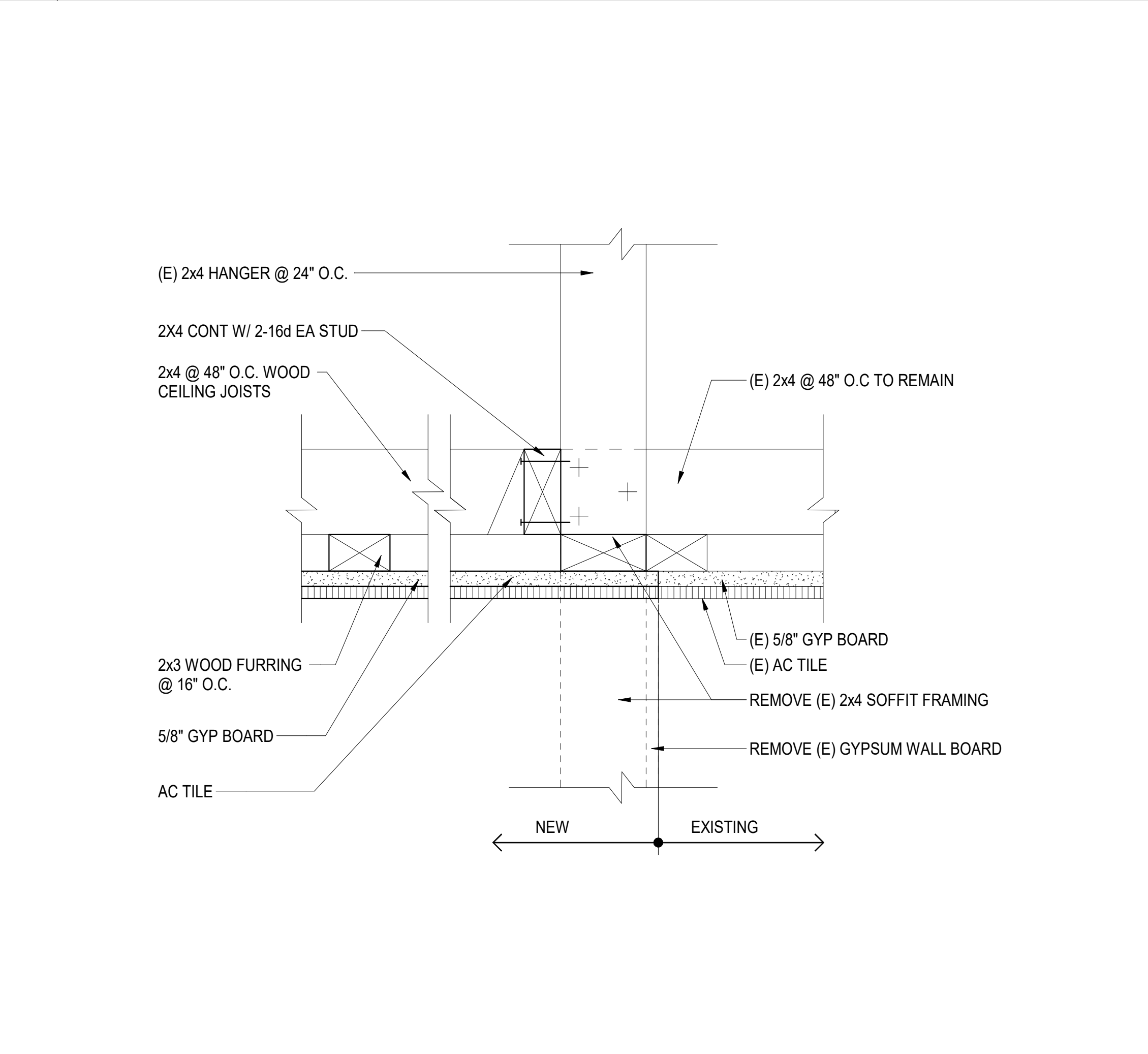
14 PIPE SUPPORT
 1 1/2" = 1'-0"



6 INTERIOR SOFFIT FRAMING
 3" = 1'-0"



4 INT CEILING SEISMIC JOINT COVER
 3" = 1'-0"



2 INT CEILING AT EXISTING
 3" = 1'-0"

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GENERAL REQUIREMENTS

- 1. VERIFICATION: VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. CONFLICTS: NOTES AND DETAILS ON THE DRAWINGS TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS IN CASE OF CONFLICT.
3. CODES: ALL MATERIALS AND WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2, 2019 CALIFORNIA BUILDING CODE (CBC).
4. ALTERATION, REHABILITATION OR RECONSTRUCTION: TO BE IN ACCORDANCE WITH THE CBC. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH THE CBC, CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
5. SUBSTITUTIONS: PROVIDE MANUFACTURER'S ICC REPORTS AND A LIST OF ALL PROPOSED SUBSTITUTIONS TO THE ENGINEER AND DSA FOR REVIEW AND APPROVAL BEFORE FABRICATION. SUBMITTAL TO DSA MUST BE AS AN ADDENDUM OR CCD.
6. SIMILAR WORK: WHERE CONSTRUCTION DETAILS ARE NOT SHOWN OR NOTED FOR ANY PART OF THE WORK, SUCH DETAILS SHALL BE THE SAME AS FOR SIMILAR WORK SHOWN ON THE DRAWINGS.
7. PIPES, DUCTS, SLEEVES, CHASES, ETC.: SHALL NOT BE PLACED IN SLABS, BEAMS, OR WALLS UNLESS SPECIFICALLY SHOWN OR NOTED ON STRUCTURAL DRAWINGS NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC., UNLESS SPECIFICALLY SHOWN ON STRUCTURAL DRAWINGS. OBTAIN PRIOR WRITTEN APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC.
8. EXCAVATIONS: LOCATE AND PROTECT UNDERGROUND OR CONCEALED CONDUIT, PLUMBING OR OTHER UTILITIES WHERE NEW WORK IS BEING PERFORMED.
9. CONSTRUCTION LOADS: MATERIALS SHALL BE EVENLY DISTRIBUTED IF PLACED ON FRAMED FLOORS OR ROOFS. LOADS SHALL NOT EXCEED THE ALLOWABLE LOADING FOR THE SUPPORTING MEMBERS AND THEIR CONNECTIONS.
10. THE STRUCTURAL DRAWINGS ILLUSTRATE THE NEW STRUCTURAL MEMBERS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS WHICH REQUIRE SPECIAL PROVISIONS DURING THE CONSTRUCTION OF THE STRUCTURAL MEMBERS.
11. REFER TO ARCHITECTURAL PLANS FOR FLOOR DEPRESSIONS, SLOPES, DRAINS, CURBS, PADS, EMBEDDED ITEMS, NON-BEARING PARTITIONS, ETC. REFER TO MECHANICAL AND ELECTRICAL PLANS FOR SLEEVES AND HANGERS FOR PIPES, DUCTS AND EQUIPMENT.
12. CONSTRUCTION METHODS AND PROJECT SAFETY: THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE METHODS, PROCEDURES OR SEQUENCE OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE DURING CONSTRUCTION. NEITHER THE OWNER, ARCHITECT NOR ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING, AND BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
13. ANY DEVIATION FROM THE APPROVED SET OF STRUCTURAL DRAWINGS SHALL ONLY BE MADE AFTER WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.
14. STRUCTURAL PLANS INDICATE ONLY THE APPROXIMATE LOCATION OF MECHANICAL, ELECTRICAL AND OTHER EQUIPMENT, AS WELL AS THE RELATED AUXILIARY FRAMING NECESSARY TO SUPPORT SUCH EQUIPMENT. THE FINAL POSITIONING OF THESE ITEMS IS DEPENDENT UPON THE EQUIPMENT PROVIDED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK BETWEEN SUBCONTRACTORS AND CRAFTS IN THIS REGARD, AND PROVIDING NECESSARY DIMENSIONS IN A TIMELY MANNER TO ALL PARTIES INVOLVED.
15. CONTRACTOR RESPONSIBILITY: EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND/SEISMIC FORCE RESISTING SYSTEM, INSTALLATION OF EQUIPMENT/COMPONENTS REQUIRING SPECIAL SEISMIC CERTIFICATION OR A WIND/SEISMIC RESISTING COMPONENT SHALL SUBMIT A WRITTEN "STATEMENT OF RESPONSIBILITY" TO DSA AND THE ARCHITECT PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT PER CBC SECTION 1704A.4. THE CONTRACTOR'S "STATEMENT OF RESPONSIBILITY" SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.

DESIGN CRITERIA

- 1. DEAD LOADS: FLAT ROOF.....14 PSF
2. LIVE LOADS: (REDUCIBLE UON) ROOF (BASIC LIVE LOAD).....20 PSF
3. LATERAL LOADS: A) SEISMIC SHORT PERIOD SPECTRAL RESPONSE.....Ss = 2.230 g ONE - SECOND PERIOD SPECTRAL RESPONSE.....S1 = 0.793 g SITE CLASSIFICATION.....D SITE COEFFICIENT.....Fa = 1.0 SITE COEFFICIENT.....Fv = 1.7 ADJUSTED SPECTRAL RESPONSE.....Sms = 2.230 g ADJUSTED SPECTRAL RESPONSE.....Sm1 = 1.348 DESIGN SPECTRAL RESPONSE.....SDS = 1.487 g (2/3 Sms) DESIGN SPECTRAL RESPONSE.....SD1 = 0.899 RISK CATEGORY: III rho = 1.0 I = 1.25 SEISMIC DESIGN CATEGORY.....E LATERAL SYSTEM: LIGHT FRAME WOOD WALLS WITH WOOD STRUCTURAL PANELS R = 6.5 OVERSTRENGTH FACTOR-OMEGA = 3.0 DEFLECTION AMPLIFICATION FACTOR Cd = 4.0 Cs = 0.34 V = CsW = 0.34W (STRENGTH) HORIZONTAL STRUCTURAL IRREGULARITIES - NONE VERTICAL STRUCTURAL IRREGULARITIES - NONE BASE ELEVATION = FINISH FLOOR ELEVATION PROJECT IS NOT LOCATED IN A FLOOD ZONE LOWEST ANTICIPATED SERVICE TEMP (LAST) = 50 DEGREES FAHRENHEIT B) WIND V = 104 mph (ULTIMATE) EXPOSURE C

FOUNDATION

- 1. GEOTECHNICAL INVESTIGATION: #00 BUILDING EXPANSION IMPERIAL VALLEY COLLEGE LCI REPORT NO. LE20129 PREPARED BY LANDMARK CONSULTANTS, INC. DATED SEPTEMBER 16, 2020.
2. FOUNDATION MATERIAL: SILTY CLAY OF MEDIUM EXPANSION POTENTIAL.
3. MINIMUM FOUNDED DEPTH AND WIDTH OF FOOTINGS: BELOW LOWEST ADJACENT FINISHED GRADE.....18" WIDTH (CONTINUOUS WALL FOOTING).....12" WIDTH (SPREAD FOOTINGS).....24"
4. FOUNDING OF FOOTINGS AND SLABS: PER GEOTECHNICAL REPORT.

FOUNDATION CONT.

- 5. SOIL PRESSURES: SOIL BEARING.....2,000 PSF COEFFICIENT OF FRICTION.....0.35 PASSIVE PRESSURE.....300 PCF
6. SOIL REMOVAL AND RECOMPACTION: PER GEOTECHNICAL INVESTIGATION AND THE CONTRACT DOCUMENTS. SOILS WORK SHALL BE OBSERVED AND TESTED BY THE GEOTECHNICAL ENGINEER.
7. GEOTECHNICAL ENGINEER: SHALL OBSERVE FOOTINGS BEFORE PLACEMENT OF REINFORCING OR CONCRETE. FOOTING OBSERVATION AND COMPACTION REPORTS SHALL BE SENT TO THE ENGINEER AND DSA.
8. ROOF AND AREA DRAINAGE: SHALL BE DIRECTED AWAY FROM THE FOUNDATIONS.

REINFORCED CONCRETE (CBC CHAPTER 19A)

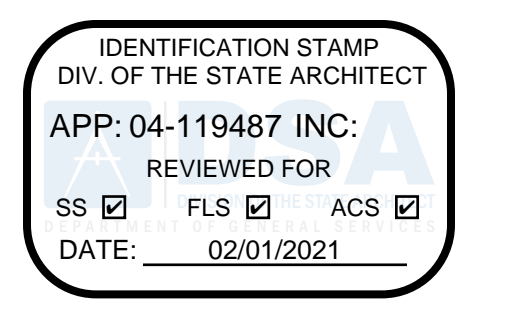
- 1. MATERIALS: CEMENT.....ASTM C150 TYPE V AGGREGATE.....ASTM C33 CRUSHED ROCK REINFORCEMENT.....ASTM A615 GRADE 60 TYPICAL REINFORCEMENT.....ASTM A706 GRADE 60 WELDED ANCHOR RODS.....ASTM F1554 HEADED ANCHOR BOLTS, GRADE 36 NUTS.....ASTM A563 HEAVY HEX, GRADE A WASHERS.....ASTM F436 UON
2. CONCRETE STRENGTHS: THE CONCRETE STRENGTHS SHOWN IN THE FOLLOWING TABLE ARE THE MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS AND THE WATER/CEMENT RATIO IS THE MAXIMUM. THE SPECIFIED SLUMP IS THE MAXIMUM PRIOR TO THE ADDITION OF ADMIXTURES. CONCRETE SHALL BE STANDARD WEIGHT CONCRETE (145 PCF).
ITEM OF CONSTRUCTION STRENGTH (PSI) AGG (IN) SLUMP (IN) WATER/CEMENT (LB/LB)
FOUNDATIONS.....4,500 1 4 0.45
STEM WALLS.....4,500 1 4 0.45
SLABS-ON-GRADE.....4,500 1 4 0.45
3. CONCRETE SHALL BE PROPORTIONED SUCH THAT 7 DAY STRENGTHS ARE A MINIMUM OF SEVENTY PERCENT OF THE SPECIFIED 28 DAY STRENGTH FOR ANY CONCRETE CONSTRUCTION REQUIRING SHORING, BRACING OR TO RECEIVE CONSTRUCTION LOADS. IN ADDITION, SLABS-ON-GRADE SHALL HAVE A COMPRESSIVE STRENGTH OF AT LEAST 1,800 PSI AT THREE DAYS IF SUBJECT TO CONSTRUCTION TRAFFIC.
4. REINFORCEMENT: A) SHOP DRAWINGS, FABRICATION AND PLACING: SHALL CONFORM TO ACI 315 AND ACI 318. SHOP DRAWINGS REVIEWED BY THE ENGINEER BEFORE FABRICATION. B) MINIMUM CONCRETE COVER: EXPOSED TO EARTH.....3" EXPOSED TO WEATHER.....2" NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: SLABS, WALLS, JOISTS.....1" BEAMS, COLUMNS (TIES, STIRRUPS, SPIRALS).....1-1/2" C) CHAIRS, SPACERS AND SAND PLATES: AS REQUIRED TO MAINTAIN CONCRETE COVER. D) VERTICAL REINFORCEMENT: SHALL BE DOVELED TO SUPPORTING MEMBERS WITH THE SAME SIZE AND SPACING OF REINFORCEMENT AS SHOWN IN THE DRAWINGS AND GENERAL NOTES. E) HORIZONTAL REINFORCEMENT: ALL BARS ENDING AT THE FACE OF A WALL, COLUMN OR BEAM SHALL EXTEND TO WITHIN 2" OF THE FAR FACE AND HAVE A 90 DEGREE HOOK UNLESS OTHERWISE SHOWN. F) SPACING: CLEAR DISTANCE BETWEEN PARALLEL REINFORCEMENT OR PARALLEL REINFORCING BARS BUNDLED IN CONTACT TO ACT AS A UNIT IN A LAYER SHALL NOT BE LESS THAN 1-1/2 TIMES THE NOMINAL DIAMETER OF THE REINFORCEMENT, OR 1-1/3 TIMES MAXIMUM SIZE AGGREGATE, NOR LESS THAN 1-1/2" NOMINAL DIAMETER FOR A UNIT OF BUNDLED BARS SHALL BE THE EQUIVALENT DIAMETER OF THE COMBINED AREAS OF THE BARS BUNDLED. G) TACK WELDING, WELDING, HEATING OR CUTTING OF BARS: NOT PERMITTED UON. H) SLAB CORNERS: PROVIDE 2-#4 X 4'-0" AT RE-ENTRANT CORNERS AND EACH CORNER OF RECTANGULAR HOLES IN SLABS. PLACE BARS DIAGONALLY. I) SPLICES (LAPS) UON: i) FOR BARS #6 AND SMALLER: a) 60 DIAMETERS FOR BOTTOM BARS OF FOOTINGS AND BEAMS, SLABS LESS THAN 12" THICK, COMPOSITE TOPPING, AND SLAB-ON-GRADE REINFORCING. b) 75 DIAMETERS FOR ALL OTHER CONDITIONS. ii) FOR #7 BARS AND LARGER: a) 72 DIAMETERS FOR BOTTOM BARS OF FOOTINGS AND BEAMS, SLABS LESS THAN 12" THICK, AND SLAB-ON-GRADE REINFORCING. b) 94 DIAMETERS FOR ALL OTHER CONDITIONS. iii) IN NO CASE SHALL LAPS BE LESS THAN 24 INCHES LONG. iv) STAGGER CONTINUOUS FOOTING BOTTOM SPLICES AT LEAST 6'-0" FROM SPLICES IN OTHER BOTTOM REINFORCEMENT; STAGGER SPLICES FOR TOP REINFORCEMENT SIMILARLY. v) INDIVIDUAL SPLICES OF BARS IN A BUNDLE SHALL BE STAGGERED AT LEAST 87 EQUIVALENT BAR DIAMETERS FOR BOTTOM BUNDLES AND 119 EQUIVALENT BAR DIAMETERS FOR TOP BUNDLES, WHERE THE EQUIVALENT DIAMETER IS BASED UPON THE COMBINED AREAS OF THE BARS BUNDLED. LAP LENGTHS FOR BARS IN BUNDLES OF 4 OR MORE BARS SHALL BE INCREASED AN ADDITIONAL 11 PERCENT. vi) WHERE CLASS "A" LAP SPLICES ARE NOTED ON THESE DRAWINGS, THE LAP SPLICES NOTED ABOVE MAY BE REDUCED BY A FACTOR OF 0.77. J) WELDED REINFORCEMENT: ASTM A706, QUALIFIED WELDERS. WELD PER AWS D1.4. i) A706 BAR TO A706 BAR.....E80XX ELECTRODES A706 BAR TO A36 OR A992 STEEL.....E70XX ELECTRODES K) ALL REINFORCING BARS SHALL BE DEFORMED BARS UNLESS OTHERWISE NOTED.
5. ANCHOR BOLTS, DOWELS AND HOLD-DOWN ANCHORS: SECURELY HELD IN PLACE PRIOR TO FOUNDATION INSPECTION BY THE INSPECTOR OF RECORD AND OBSERVATION BY THE ENGINEER.
6. PIPES, SLEEVES AND DUCTS: NOT TO BE PLACED IN WALLS, BEAMS, SLABS, FOOTINGS OR COLUMNS UNLESS SPECIFICALLY DETAILED.
7. CHAMFER: 3/4 INCH ON EXPOSED CORNERS.
8. ADMIXTURES: REVIEWED BY ENGINEER, NO CALCIUM CHLORIDE.

REINFORCED CONCRETE (CBC CHAPTER 19A) CONT.

- 9. CONSTRUCTION JOINTS: HEAVY SANDBLAST (1/4 INCH AMPLITUDE MINIMUM). LOCATION OF JOINTS TO BE REVIEWED BY THE ENGINEER. WAIT 48 HOURS BETWEEN POURS.
10. SLAB-ON-GRADE JOINTS: LOCATION OF ALL CONSTRUCTION, CONTROL AND WEAKENED PLANE JOINTS NOT SPECIFICALLY INDICATED ON THE DRAWINGS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO THE PLACING OF REINFORCEMENT.
11. CONCRETE CURING: SEE SPECIFICATIONS. ALL CONCRETE WORK SHALL BE CURED IN ACCORDANCE WITH ACI 308.1-98. CURING METHOD ON UNFORMED SURFACES SHALL BE BY MOISTURE RETENTION IN ACCORDANCE WITH SECTIONS 2, 3, 4, 5 OR 7 OF ACI 308.1-98.
12. FOUNDATIONS TO RECEIVE CONCRETE: A) ABRASIVELY CLEAN AND ROUGHEN TOPS OF FOOTINGS.
13. CAST-IN-PLACE BOLTS IN CONCRETE: MINIMUM EMBEDMENT SHALL BE PER IBC TABLE 1901.3, BUT NOT LESS THAN 7-INCHES UNLESS OTHERWISE NOTED.

STRUCTURAL STEEL (CBC CHAPTER 22A)

- 1. CODES: AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION FOR STRUCTURAL STEEL FOR BUILDINGS; MANUAL OF STEEL CONSTRUCTION (14TH EDITION); STRUCTURAL WELDING CODE AWS D1.1, AWS D1.4 AND AWS D1.8.
2. IDENTIFICATION: ROLLED STRUCTURAL STEEL SHAPES SHALL BE IDENTIFIED WITH MILL IDENTIFICATION MARKS IN CONFORMANCE WITH ASTM A6. PIPES SHALL BE IDENTIFIED WITH MILL IDENTIFICATION IN ACCORDANCE WITH ASTM A53 AND TUBE SHAPES IN ACCORDANCE WITH ASTM A1085.
3. MATERIALS: STRUCTURAL SHAPES WIDE FLANGE.....ASTM A992GRADE 50 CHANNELS.....ASTM A36 GRADE 36 ANGLES, PLATES AND BARS.....ASTM A36 GRADE 36 HSS SHAPES (TUBE COLUMNS).....ASTM A500 GRADE B PIPE COLUMNS.....ASTM A53 TYPE E OR S, GRADE B NUTS.....ASTM A307 GRADE A MACHINE BOLTS (MB).....ASTM A563HEX, GRADE A HIGH STRENGTH BOLTS (HSB).....ASTM A325OR F1852 NUTS.....ASTM A563HEAVY HEX, GRADE C OR DH WASHERS.....ASTM F436 NON-SHRINK GROUT.....ASTM C1107 7,000 PSI (NON-METALLIC)
4. WELDED HEADED STUDS AND THREADED ANCHORS: STUDS SHALL CONFORM TO ASTM A29 GRADES 1010 THROUGH 1020. HEADED-TYPE ANCHORS SHALL MEET MECHANICAL PROPERTIES FOR 'TYPE B'. ALL WELDING SHALL CONFORM TO AWS D1.1, CHAPTER 7.
5. WELDING: ALL WELDING SHALL BE IN CONFORMANCE WITH AWS D1.1. A) ELECTRODES.....CLASS E 70 XX SERIES, LOW HYDROGEN, NOTCH TOUGHNESS OF 20 FT/LBS AT 40 DEGREES FAHRENHEIT. B) WELDERS.....QUALIFIED PER AWS D1.1 SECTION 4.2.2. C) GROOVE AND BUTT.....COMPLETE JOINT PENETRATION (CJP) WELDS UON. D) FILLET WELDS.....SIZES SPECIFIED ARE MINIMUM STRUCTURAL WELDS. INCREASE AS REQUIRED BY AISC SPECIFICATION TABLE J2.4. E) FIELD WELDING.....MAY BE REQUIRED TO FACILITATE CONSTRUCTION. F) TERMINATION.....WELDS TERMINATING AT ENDS OR SIDES, WHEREVER PRACTICABLE, SHALL BE RETURNED CONTINUOUSLY AROUND CORNERS A DISTANCE 2 TIMES THE NOMINAL SIZE OF THE WELD PER AISC SPECIFICATION SECTION J2.2B. G) LENGTHS.....WHERE LENGTH IS NOT SPECIFIED, IT SHALL BE THE FULL LENGTH OF THE JOINT. H) SPECIFICATION.....THE CONTRACTOR SHALL SUBMIT A WELDING PROCEDURE SPECIFICATION (WPS), DEVELOPED BY THE FABRICATOR, IN CONFORMANCE WITH AWS D1.1 FOR REVIEW BY THE ENGINEER. ALL WELDS SHALL BE PRE-QUALIFIED SHALL INCLUDE THE WELDING PARAMETERS ELECTRODE MANUFACTURER.
6. SHOP DRAWINGS: REVIEWED BY THE ENGINEER IN ADVANCE OF FABRICATION, IN ACCORDANCE WITH AISC 360 SECTION M1.
7. BOLT HOLES: TYPICAL.....DIAMETER + 1/16 INCH ANCHOR.....DIAMETER + 3/16 INCH SLOTTED.....DIAMETER + 1/16 INCH BY 2.5 TIMES DIAMETER
8. EXPOSED STEEL: HOT DIP GALVANIZED.
9. ELEMENTS THAT ARE NOT STRUCTURAL STEEL INCLUDING STEEL DECK, CONCRETE SLABS, WALLS AND COLUMNS, MASONRY WALLS AND COLUMNS, WOOD FRAMING, AND PLYWOOD WALL, ROOF, AND FLOOR SHEATHING ARE EMPLOYED TO INTERACT WITH THE STEEL FRAMING TO PROVIDE STABILITY AND BRACING TO THE OVERALL STRUCTURE. THE STEEL ERECTOR SHALL FURNISH AND INSTALL ALL NECESSARY TEMPORARY SUPPORTS AND BRACING REQUIRED FOR THE STABILITY OF THE STRUCTURAL STEEL FRAMING IN ACCORDANCE WITH SECTION 7.10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES (AISC 303-16). ALL TEMPORARY SUPPORTS AND BRACING SHALL NOT BE REMOVED OR MODIFIED UNTIL THE SUPPORTING STEEL DECK, CONCRETE SLABS, WALLS AND COLUMNS, MASONRY WALLS AND COLUMNS, WOOD FRAMING, AND PLYWOOD WALL, ROOF, AND FLOOR SHEATHING ARE COMPLETELY INSTALLED AND HAVE ACHIEVED THEIR DESIGN STRENGTH.



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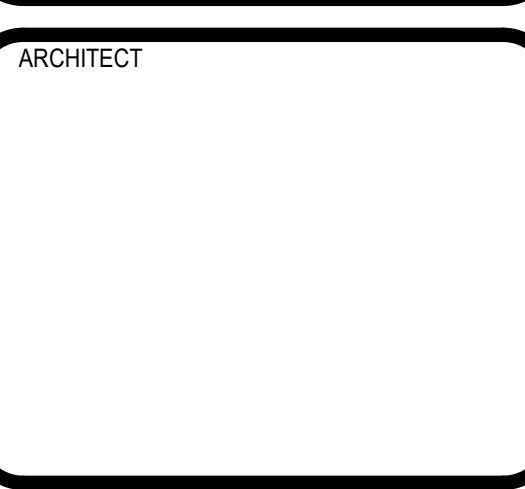
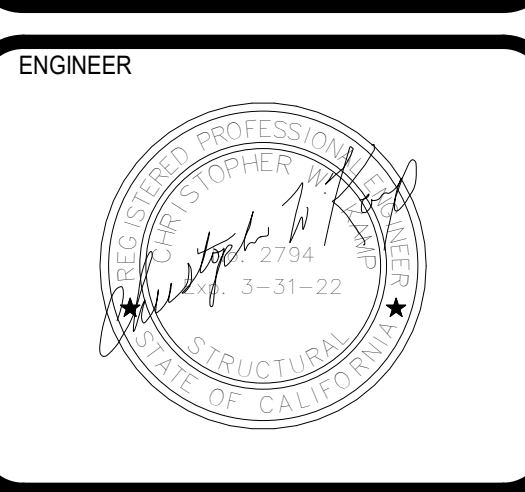
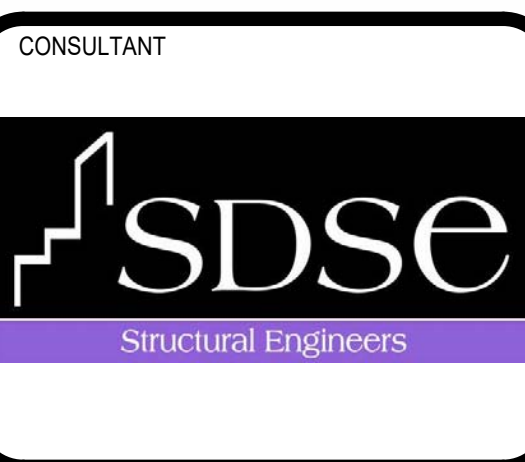


Table with columns: No., Description, Date. Includes project number 20190, date 2020/09/17, and revision table.

DSA SUBMITTAL

GENERAL NOTES

S1.01

METAL DECKING

1. PROVIDE METAL DECKING BY MANUFACTURER INDICATED ON DRAWINGS OR APPROVED EQUAL. ALL DECKS SHALL BE IN CONFORMANCE WITH ASTM A653 OR ASTM A1063, GRADE 50 (Fy = 50 KSI).
2. ROOF DECKING:
 - A) METAL ROOF DECKING AND CLOSURE ANGLES DESIGNED TO COMPLY WITH ICC ESR-1735P AND GALVANIZED WITH G60 COMMERCIAL COATING. WHERE UNDERSIDE OF DECKING IS PAINTED, IN LIEU OF GALVANIZING, PROVIDE DECKING AND CLOSURE ANGLES COMPLYING WITH ASTM A611, GRADE C.
 - B) DO NOT SUSPEND PIPING, DUCTS, WORK UTILITIES OR OTHER LOADS WITH EXCEPTION OF SUSPENDED ACOUSTICAL CEILINGS WITH INTEGRALLY SUPPORTED LIGHT FIXTURES FROM ROOF DECKING.
3. BEAR DECKING AT LEAST 2 INCHES AT SUPPORTS. LAP DECKING AT ENDS AT LEAST 2 INCHES AND CENTER LAPS OVER SUPPORTS. CENTER LAPS OVER ONE TOP CHORD ANGLE AT OPEN-WEB STEEL JOISTS.
4. WELD METAL DECKING IN COMPLIANCE WITH ANSI/AWS D1.3 AND CBC CHAPTER 22A, USING A MINIMUM OF E60XX ELECTRODES. WELDERS SHALL BE CERTIFIED AS REQUIRED BY THE GOVERNING CODE AUTHORITY.
5. SUBMIT COMPLETE METAL DECKING SHOP DRAWINGS TO ENGINEER FOR REVIEW. SHOP DRAWINGS SHALL INDICATE ICC ESR REPORT NUMBER, LOAD/SPAN CAPACITIES AND DIAPHRAGM CAPACITY.
6. ALL STEEL DECK SHALL BE CONTINUOUS OVER AT LEAST TWO SPANS UNLESS OTHERWISE NOTED ON THE DRAWINGS.

WOOD (CBC CHAPTER 23)

1. GRADE STAMPED DOUGLAS FIR/LARCH (SEE LUMBER GRADES).
2. NAILS: COMMON WIRE UNLESS OTHERWISE NOTED. PENETRATION SHALL BE EQUAL TO 11 NAIL DIAMETERS. DISTANCES TO THE EDGE OR END OF THE WOOD SHALL NOT BE LESS THAN ONE-HALF THE REQUIRED PENETRATION. THE CENTER TO CENTER NAIL SPACING SHALL NOT BE LESS THAN THE REQUIRED PENETRATION. HOLES FOR NAILS, WHERE NECESSARY TO PREVENT SPLITTING, SHALL BE SUB-DRILLED TO A DIAMETER NOT MORE THAN 3/4 OF THE NAIL DIAMETER.
3. MACHINE BOLTS AND ANCHOR BOLTS SHALL BE PROVIDED WITH FULL DIAMETER BODIES AS NOTED BELOW:

NOMINAL SIZE (INCHES)	BODY DIAMETER (INCHES)	OR SHANK (INCHES)
	MAX.	MIN.
1/2	0.5000	0.482
5/8	0.6250	0.605
3/4	0.7500	0.729
7/8	0.8750	0.852
1	1.0000	0.976

NOTES: 1) ADOPTED FROM ASME B18.2.1 AND ASME B18.2.6.

2) FOR BOLT DIAMETERS NOT INDICATED, REFER TO ASME B18.2.1 AND 18.2.6.3.

3) THE BODY OR SHANK OF A BOLT IS THE SMOOTH PORTION BETWEEN THE HEAD AND THE THREADS.

4. SILL BOLTS: PROVIDE 5/8 INCH DIAMETER BY 12 INCH LONG ANCHOR BOLTS WITH A MINIMUM OF 7 INCHES EMBEDMENT INTO THE CONCRETE AND WITHIN 9 INCHES OF EACH END OF EACH SILL PLATE. SPACE ANCHORS AT 48 INCHES ON CENTER UNON WITH A MINIMUM OF 3 ANCHORS IN EACH SILL PLATE. ANCHOR BOLT HOLES 1/32 TO 1/16 INCH LARGER THAN THE ANCHOR BOLT DIAMETER.
5. BOLTS: NOT LESS THAN 7 BOLT DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER. BOLT HOLES 1/32 TO 1/16 INCH LARGER THAN THE BOLT DIAMETER. ALL NUTS SHALL BE TIGHTENED WHEN INSTALLED AND RE-TIGHTENED AT THE COMPLETION OF WORK OR BEFORE CLOSING IN. THREAD PROJECTION SHALL BE 1/16 INCH MINIMUM. BOLTS IN HOLES SPECIFIED TO BE SLOTTED, SHALL BE CENTERED IN THE SLOT UNON.
6. LAG SCREWS: PRE-DRILL WITH A BIT SIZE 40% TO 70% OF THE SHANK DIAMETER FOR THE THREADED PORTION. LEAD HOLE TO BE THE SAME LENGTH AND DIAMETER AS THE UN-THREADED SHANK. LUBRICATE LAGS AND SCREW INTO PLACE.
7. SQUARE STEEL PLATE WASHERS (PW): ANCHOR BOLTS, BOLTS, LAGS AND NUTS, NOTED PW, SHALL BE FITTED WITH SQUARE STEEL PLATE WASHERS:

BOLT DIAM (IN)	THICKNESS (IN)	SIZE (IN)
1/2	3/16	2 X 2
5/8	1/4	2 1/2 X 2 1/2
3/4	5/16	2 3/4 X 2 3/4
7/8	5/16	3 X 3
1	3/8	3 1/2 X 3 1/2
8. CUT STEEL WASHERS: BOLTS, LAGS AND NUTS FITTED WITH CUT STEEL WASHERS UNON.
9. FRAMING CONNECTORS: SIMPSON STRONG-TIE, CATALOG C-C-2020. ICC APPROVED AND INSTALLED ACCORDINGLY. BEFORE USING EQUIVALENT CONNECTORS, SUBMIT LOAD COMPARISONS WITH CATALOG AND ICC REPORTS TO THE ENGINEER FOR REVIEW. USE SLOPED JOIST HANGERS FOR ROOF SLOPE GREATER THAN 1/4:12.
10. SCREWED HOLDOWN ANCHORS: INSTALL PER MANUFACTURER'S APPROVED (ICC) PRODUCT EVALUATION REPORT. INSTALL HOLDOWNS 1/2 INCH MINIMUM ABOVE THE PLATE TO ALLOW FOR TIGHTENING ANCHOR BOLT. THE HOLDOWN SHALL BE INSTALLED TIGHT TO THE HOLD DOWN POST WITHOUT FILLERS OR DAPPING. DO NOT BEND HOLDOWN ANCHOR BOLTS.
11. BOLTED HOLDOWN ANCHORS: INSTALL HOLDOWNS 1/2 INCH ABOVE THE SILL PLATE. TIGHTEN ANCHOR BOLT BEFORE TIGHTENING STUD BOLTS. USE EXTRA CARE IN BORING STUD BOLT HOLES (1/32 TO 1/16 OVERSIZED). THE HOLDOWN SHALL BE INSTALLED TIGHT TO THE HOLDOWN STUD WITHOUT FILLERS OR DAPPING INTO THE STUD. THE STUD BOLTS SHALL NOT BE COUNTERSUNK. DO NOT BEND HOLDOWN ANCHOR BOLTS.
12. PRESERVATIVE TREATED WOOD: FOUNDATION PLATES AND SILLS ON A CONCRETE SLAB OR FOUNDATION, WHICH IS IN DIRECT CONTACT WITH EARTH, SHALL BE TREATED WOOD COMPLYING WITH THE APPLICABLE REQUIREMENTS OF AWPA U1, USE CATEGORY UC2. WATERBORNE PRESERVATIVES SHALL HAVE A MINIMUM RETENTION LEVEL OF 0.25 LB./CU.FT. AND NOT CONTAIN CHROMIUM, COPPER, OR ARSENATE. NEWLY EXPOSED SURFACES RESULTING FROM FIELD CUTTING, BORING OR HANDLING SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA M-4.
13. TOP PLATES: TWO PIECES, SAME SIZE AS STUDS, STAGGER SPLICES 4'-0" MINIMUM. CENTER SPLICES OVER STUDS.
14. SOLID BLOCKING: TWO INCH FULL WIDTH BLOCKING (FIRE STOPS) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10-FOOT INTERVALS BOTH VERTICAL AND HORIZONTAL.
15. CUTTING AND NOTCHING: DO NOT CUT, BORE, COUNTERSINK OR NOTCH WOOD MEMBERS EXCEPT WHERE SHOWN IN THE DETAILS. HOLES THROUGH SILLS, PLATES, STUDS AND DOUBLE PLATES IN WALLS SHALL NOT EXCEED 1/3 THE MEMBER WIDTH AND SHALL BE LOCATED IN THE CENTER OF THE MEMBER.
16. EXTERIOR EXPOSED CONNECTORS: HOT-DIPPED GALVANIZED OR STAINLESS STEEL WITH HOT-DIPPED GALVANIZED OR STAINLESS STEEL FASTENERS.
17. FASTENERS, NAILS AND CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED WOOD SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS G185 HOT DIPPED ZINC COATED GALVANIZED OR SHALL BE STAINLESS STEEL.

LUMBER GRADES DOUGLAS FIR/LARCH (CBC CHAPTER 23A) COMPLY WITH SECTION CBC 2303 AND NDS-2018 (NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION) FOR WESTERN LUMBER. 19% MAXIMUM MOISTURE CONTENT AT TIME OF PLACEMENT.

1. LIGHT FRAMING: BLOCKING.....2' TO 4" THICK, 2' TO 4" WIDE; CONSTRUCTION
2. LIGHT FRAMING: STUDS,.....2' TO 4" THICK, 2' TO 4" JOISTS AND RAFTERS WIDE; NO.1
3. JOISTS AND PLANKS:.....2' TO 4" THICK, 5' AND STUDS, BLOCKING, WIDER; NO.1 JOISTS AND RAFTERS
4. BEAMS AND STRINGERS:.....5" AND THICKER, WIDTH MORE THAN 2" GREATER THAN THICKNESS; NO.1
5. POSTS AND TIMBERS:.....5" BY 5" AND LARGER, WIDTH NOT MORE THAN 2" GREATER THAN THICKNESS; NO.1

STRUCTURAL USE PANELS/PLYWOOD - PS 1-09 AND PS 2-10 (EXPOSURE 1), APA RATED (CBC CHAPTER 23). FABRICATION AND INSTALLATION IN ACCORDANCE WITH THE APA SPECIFICATIONS

1. WALL SHEATHING.....STRUCTURAL I, 5 PLY 1/2 OR 15/32 INCH SPAN RATING 32/16
2. BLOCKING: ALL UNSUPPORTED JOINTS SHALL BE BLOCKED SOLID WITH 2x BLOCKING FOR WALL SHEATHING AND 3x4 FLAT BLOCKING FOR FLOOR AND ROOF SHEATHING UNLESS OTHERWISE SPECIFIED.
3. NAILING: COMMON WIRE NAILS. NAIL HEADS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING. FIELD NAILING SHALL BE 12 INCHES ON CENTER. NAIL PENETRATION SHALL BE IN ACCORDANCE WITH TABLE 2306.3.1 AND 2306.3.2 OF THE CBC.
4. MACHINE NAILING: SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION FOR THIS PROJECT AND REVIEW BY THE ENGINEER. THE USE OF MACHINE NAILING IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. IF NAIL HEADS PENETRATE THE OUTER PLY OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY AND MACHINE NAILING SHALL BE DISCONTINUED.
5. SHEATHING: WHERE ADJACENT WALLS ARE SHEATHED, PLYWOOD SHALL BE INSTALLED OVER AND UNDER OPENINGS.

FASTENING SCHEDULE - TABLE 2304.10.1, (CBC CHAPTER 23)

THE CONNECTIONS LISTED ARE THE MINIMUM PERMISSIBLE. USE COMMON WIRE NAILS FOR ALL NAILED CONNECTIONS. WHERE POSSIBLE, NAILS DRIVEN PERPENDICULAR TO THE GRAIN SHALL BE USED INSTEAD OF TOE NAILS.

JOIST OR RAFTERS TO SILL OR GIRDER, TOENAIL.....	3-8d
BRIDGING TO JOIST, TOENAIL EACH END.....	2-8d
1" X 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL.....	2-8d
WIDER THAN 1" X 8" SUBFLOOR TO EACH JOIST, FACE NAIL.....	3-8d
2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL.....	2-16d
SOLE PLATE TO JOIST OR BLOCKING:	
FACE NAIL.....	16d AT 16"
BRACED WALL PANELS.....	3-16d d PER 16"
TOP PLATE TO STUD, END NAIL.....	2-16d
STUD TO SOLE PLATE: TOENAIL.....	4-8d
END NAIL.....	2-16d
DOUBLE STUDS, TYPICAL FACE NAIL.....	16d AT 16"
DOUBLED TOP PLATES: FACE NAIL.....	16d AT 16"
LAP SPLICE (EACH SIDE OF JOINT).....	8-16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE,	
TOENAIL.....	3-8d
RIM JOIST TO TOP PLATE, TOENAIL.....	8d AT 6"
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL.....	2-16d
CONTINUOUS HEADER, TWO PIECES (ALONG EACH EDGE).....	16d AT 16"
CEILING JOISTS TO PLATE, TOENAIL.....	3-8d
CONTINUOUS HEADER TO STUD, TOENAIL.....	4-8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL.....	3-16d
CEILING JOISTS TO PARALLEL RAFTERS AND LAPS, FACE NAIL.....	3-16d
JOIST OR RAFTER AT ALL BEARINGS, TOENAIL EACH SIDE.....	2-10d
1" BRACE TO EACH STUD AND PLATE, FACE NAIL.....	2-8d
1" X 8" SHEATHING OR LESS TO EACH BEARING, FACE NAIL.....	2-8d
WIDER THAN 1" X 8" SHEATHING TO EACH BEARING, FACE NAIL.....	3-8d
BUILT UP CORNER STUDS.....	16d AT 16"
BUILT UP GIRDERS AND BEAMS.....	20d AT 32"
AT TOP AND BOTTOM STAGGERED.....	2-20d AT ENDS AND AT EACH SPLICE
2" PLANKS, EACH END AND EACH BEARING.....	2-16d
BLOCKING BETWEEN JOISTS OR RAFTERS, TOENAIL	
EACH SIDE EACH END.....	2-10d
BLOCKING BETWEEN STUDS, EACH END, TOENAIL.....	2-10d

POWDER DRIVEN (LOW VELOCITY) FASTENERS/ SHOT PINS

1. THE USE OF POWDER DRIVEN FASTENERS FOR TENSION LOADS IS LIMITED TO SUPPORT OF MINOR LOADS, SUCH AS ACOUSTICAL CEILINGS, DUCTWORK, CONDUIT, ETC.
2. POWDER DRIVEN FASTENERS SHALL NOT BE USED IN CURBS.
3. ALLOWABLE TENSION LOADS SHALL BE LIMITED TO 100 POUNDS, OR 80% OF THE ICC APPROVED VALUES, WHICHEVER IS LESS.
4. QUALIFICATION FOR USE OF ALL POWER ACTIVATED TOOLS SHALL MEET ANSI A10.3 STANDARD AS REQUIRED BY THE MANUFACTURER AND SHALL MEET OSHA REQUIREMENTS.
5. THE OPERATOR, TOOL, AND FASTENERS SHALL BE PREQUALIFIED BY THE PROJECT INSPECTOR. HE SHALL OBSERVE THE TESTING OF THE FIRST (10) FASTENER INSTALLATIONS. A "PULL OUT" TEST LOAD OF 200 POUNDS SHALL BE APPLIED TO THE PIN IN SUCH A MANNER AS NOT TO RESIST THE SPALLING TENDENCY OF THE CONCRETE SURROUNDING THE PIN. THEREAFTER RANDOM TESTS, UNDER THE PROJECT INSPECTOR'S SUPERVISION, SHALL BE MADE OF APPROXIMATELY (1) IN (10) PINS. IF ANY PIN FAILS TESTING, TEST ALL PINS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL (20) CONSECUTIVE PINS PASS, THEN RESUME INITIAL TESTING FREQUENCY.

EXCEPTION: TESTING NOT REQUIRED FOR FASTENERS USED TO ATTACH TRACKS OF INTERIOR NON-SHEAR WALL PARTITIONS FOR SHEAR ONLY, WHERE THERE ARE AT LEAST THREE FASTENERS PER SEGMENT OF TRACK.
6. FASTENERS SHALL HAVE ICC ER APPROVAL FOR THE TYPE OF CONCRETE INTO WHICH THE FASTENERS ARE INSTALLED.
7. WHEN INSTALLING POWDER DRIVEN PINS, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING REINFORCING BARS. MAINTAIN A MINIMUM OF ONE INCH CLEARANCE BETWEEN THE REINFORCING BAR AND THE PIN.

EXPANSION ANCHORS-CONCRETE

1. THE USE OF TORQUE CONTROLLED EXPANSION ANCHORS SHALL BE LIMITED TO LOCATIONS SPECIFIED ON THE APPROVED CONTRACT DRAWINGS.
2. THE ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS PUBLISHED INSTALLATION INSTRUCTIONS AND A VALID ICC-ES EVALUATION REPORT. IN CASE OF CONFLICT THE REPORT GOVERNS. SEE [ICC ESR-1917 FOR HILTI KWIK BOLT TZ ANCHORS] [ICC ESR-3037 FOR SIMPSON STRONG BOLT 2 ANCHORS].
3. MATERIALS:
 - CARBON STEEL ANCHORS.....W/ZINC PLATING PER ICC ESR REPORT
 - NUTS.....ASTM A-563 HEX, GRADE A
 - WASHERS.....ASTM F-844
 - CONCRETE (MIN).....F'c = 2,500 PSI (STONE AGGREGATE)

*PROVIDE AISI TYPE 316 STAINLESS STEEL ANCHORS WHERE ANCHORS ARE USED IN WET, HARSH OR EXTERIOR CONDITIONS. AISI TYPE 316 STAINLESS STEEL WASHERS AND ASTM F594, TYPE 316 HEX NUTS, CONFORMING TO THE ICC ESR EVALUATION REPORT SHALL BE PROVIDED.
4. INSTALLATION:
 - A) CARBIDE-TIPPED DRILL BITS COMPLYING WITH ANSI B212.15-1994. DRILL BIT SIZE IS ANCHOR DIAMETER.
 - B) HOLES CLEANED OF DUST AND DEBRIS. HOLE DEPTH AS REQUIRED PER ICC ESR REPORT.
 - C) MINIMUM HOLE DIAMETER IN THE FIXTURE OR FASTENED PART SHALL BE THE ANCHOR DIAMETER + 1/16".
 - D) SETTING DETAILS:

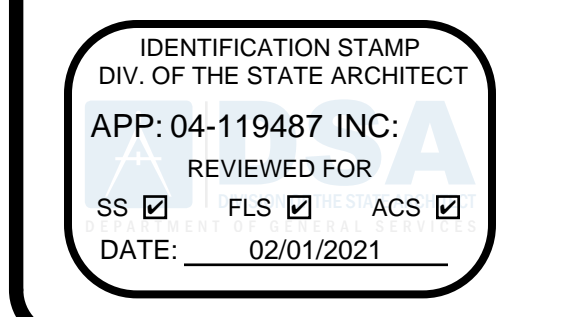
INSTALLATION ITEMS	UNITS	HILTI KWIK BOLT TZ (ESR-1917)			
		ANCHOR DIAMETER (IN)			
		3/8	1/2	5/8	3/4
NOMINAL EMBED (h nom)	IN	2-5/16	3-5/8	4-7/16	5-5/16
MIN EDGE DIST. (UON)	IN	4-3/8	7-1/2	8-3/4	9
MIN SPACING (UON)	IN	5	5-3/4	5-7/8	8-7/8
MIN CONC THICKNESS	IN	4	6	6	8
INSTALL TORQUE	FT-LB	25	40	60	110

5. TEST LOADS AND FREQUENCY: REQUIRED TEST LOAD SHALL BE EQUIVALENT TO THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE AS SHOWN ABOVE.
 - A) ALL ANCHORS SHALL BE TESTED, UNON HEREIN.
 - B) SILL BOLTS: TEST 10% OF ANCHORS.
 - C) NONSTRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE: TEST 50% OF ANCHORS OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP.
 - D) IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.
6. TEST EQUIPMENT INCLUDING TORQUE WRENCHES ARE TO BE CALIBRATED USING AN APPROVED TESTING LABORATORY. THEY MUST BE CALIBRATED BY A STANDARD TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST).
7. TEST ACCEPTANCE CRITERIA:
 - A) TORQUE WRENCH METHOD: ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH MUST ATTAIN THE SPECIFIED TORQUE WITH 1/2 TURN OF THE NUT.
8. DO NOT INSTALL EXPANSION ANCHORS IN CONCRETE THAT IS LESS THAN 7 DAYS OLD.
9. EXPANSION ANCHORS ARE PROHIBITED FOR RESISTING VIBRATIONAL LOADS AND FOR USE WITH FIRE-RESISTANT CONSTRUCTION (UNLESS PROTECTED BY APPROVED FIRE-RESISTANCE-RATED-MATERIALS).
10. PERIODIC SPECIAL INSPECTION IS REQUIRED UNLESS UNON IN TABLE 1705A.3 "REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION" INCLUDED WITHIN THESE GENERAL NOTES. INITIAL INSPECTION IS REQUIRED FOR EACH DIFFERENT SUBCONTRACTOR. THE SPECIAL INSPECTOR SHALL VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT SIZE, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, CONCRETE THICKNESS, ANCHOR EMBEDMENT, TIGHTENING TORQUE AND MANUFACTURER'S PUBLISHED INSTALLATION PROCEDURE. ANY CHANGE IN THE ANCHOR PRODUCT BEING INSTALLED OR THE PERSONNEL PERFORMING THE INSTALLATION WILL REQUIRE AN INITIAL INSPECTION.
11. TEST LOADS AND FREQUENCY: SPECIFIC TEST LOADING CRITERIA SHALL BE AS SHOWN BELOW.
 - A) ALL ANCHORS SHALL BE TESTED, UNON HEREIN.
 - B) SILL BOLTS: TEST 10% OF ANCHORS.
 - C) NONSTRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE: TEST 50% OF ANCHORS OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP.
 - D) IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.
12. TEST ACCEPTANCE CRITERIA:
 - A) TORQUE WRENCH METHOD: TORQUE-CONTROLLED ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH SHALL ATTAIN THE SPECIFIED TORQUE WITHIN 1/4 TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.

EXPANSION ANCHORS-MASONRY (GROUT-FILLED)

1. THE USE OF EXPANSION ANCHORS SHALL BE LIMITED TO LOCATIONS SPECIFIED ON THE APPROVED CONTRACT DOCUMENTS.
2. THE ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS PUBLISHED INSTALLATION INSTRUCTIONS AND A VALID EVALUATION REPORT. [SEE ICC ESR-1385 FOR HILTI KWIK BOLT 3 ANCHORS][SEE IAPMO ER-240 FOR SIMPSON STRONG-BOLT 2 ANCHORS].
3. MATERIALS:
 - CARBON STEEL ANCHORS...W/ZINC PLATING
 - NUTS.....ASTM A-563 HEX, GRADE A
 - WASHERS.....ASTM F-844
 - CMU.....F'm = 1,500 PSI (MIN) .ASTM C-90
 - GROUT.....F'g = 2,000 PSI.....COARSE GROUT
 - MORTAR.....COMPRESSIVE STRENGTH = 1,500 PSI (MIN)

DSA FILE NO. 37-C2 A# 04-119030



PRK

ARCHITECTURE

**IVC - B600 COLLEGE CENTER
EXPANSION PROJECT**

380 E Aten Rd.
Imperial, CA. 92251

DSA SUBMITTAL

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ENGINEER

ARCHITECT

CLIENT
IMPERIAL VALLEY COLLEGE

PROJECT NUMBER	20190	
DATE:	2020/09/17	
DRAWN BY:	RD	
CHECKED BY:	CK	
REVISIONS		
No.	Description	Date
	PLAN CHECK REVIEW	12-08-2020

DSA SUBMITTAL

GENERAL NOTES

S1.02

EXPANSION ANCHORS-MASONRY (GROUT-FILLED) CONT.

- 4. INSTALLATION:
 - A) CARBIDE-TIPPED DRILL BITS COMPLYING WITH ANSI-B212.15-1994. DRILL BIT SIZE IS ANCHOR DIAMETER. DRILLED HOLE MUST EXCEED THE DEPTH OF ANCHOR EMBEDMENT BY AT LEAST ONE ANCHOR DIAMETER.
 - B) HOLES CLEANED OF DUST AND DEBRIS. ANCHOR MUST BE HAMMERED INTO THE PRE-DRILLED HOLE UNTIL AT LEAST SIX THREADS ARE BELOW THE FIXTURE SURFACE. THE NUT MUST BE TIGHTENED AGAINST THE WASHER UNTIL THE TORQUE VALUES SPECIFIED ARE ATTAINED.
 - C) "FACE OF" GROUT-FILLED CMU SETTING DETAILS:

HILTI KWIK BOLT 3 (ESR-1385) *		ANCHOR DIAMETER (IN)					
INSTALLATION ITEMS	UNITS	1/4	3/8	1/2	5/8	3/4	
MIN EMBED (UON)	IN	2	2-1/2	3-1/2	4	4-3/8	
MIN EDGE DIST (UON)	IN	12	12	12	12	12	
MIN SPACING (UON)	IN	8	8	8	8	8	
ALLOWABLE TENSION	LBS	432	626	724	1035	1368	
ALLOWABLE SHEAR	LBS	342	1054	1853	2123	2267	
INSTALL TORQUE	FT-LB	4	15	25	65	120	

* ANCHORS MUST BE INSTALLED A MINIMUM OF 1 3/8" FROM VERT MORTAR JTS

SIMPSON STRONG-BOLT 2 (ER-240) *		ANCHOR DIAMETER (IN)				
INSTALLATION ITEMS	UNITS	1/4	3/8	1/2	5/8	3/4
MIN EMBED (UON)	IN	1-3/4	2-5/8	3-1/2	4-3/8	5-1/4
MIN EDGE DIST (UON)	IN	12	12	12	20	20
MIN SPACING (UON)	IN	8	8	8	8	8
ALLOWABLE TENSION	LBS	230	435	530	890	1050
ALLOWABLE SHEAR	LBS	300	775	1010	1765	2627
INSTALL TORQUE	FT-LB	4	20	35	55	100

* ANCHORS MUST BE INSTALLED A MINIMUM OF 1 1/4" FROM VERT MORTAR JTS

- D) "TOP OF" GROUT-FILLED CMU SETTING DETAILS:

HILTI KWIK BOLT 3 (ESR-1385) (TOP OF CMU)		ANCHOR DIAMETER (IN)	
INSTALLATION ITEMS	UNITS	1/2	5/8
MIN EMBED (UON)	IN	3	3-1/2
MIN EDGE DIST (UON)	IN	1-3/4	1-3/4
MIN END DIST (UON)	IN	12	12
MIN SPACING (UON)	IN	8	8
ALLOWABLE TENSION	LBS	517	682
ALLOW SHEAR PERP TO WALL	LBS	249	249
ALLOW SHEAR PARALLEL TO WALL	LBS	491	491
INSTALL TORQUE	FT-LB	25	65

SIMPSON STRONG-BOLT 2 (ER-240) (TOP OF CMU)		ANCHOR DIAMETER (IN)	
INSTALLATION ITEMS	UNITS	1/2	5/8
MIN EMBED (UON)	IN	3-1/2	4-3/8
MIN EDGE DIST (UON)	IN	1-3/4	1-3/4
MIN END DIST (UON)	IN	12	12
MIN SPACING (UON)	IN	8	8
ALLOWABLE TENSION	LBS	415	640
ALLOW SHEAR PERP TO WALL	LBS	235	275
ALLOW SHEAR PARALLEL TO WALL	LBS	670	770
INSTALL TORQUE	FT-LB	35	55

- 5. TEST LOADS AND FREQUENCY: REQUIRED TEST LOAD SHALL BE EQUIVALENT TO THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE AS SHOWN ABOVE.
 - A) ALL ANCHORS SHALL BE TESTED, UON HEREIN.
 - B) SILL BOLTS: TEST 10% OF ANCHORS.
 - C) NONSTRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE: TEST 50% OF ANCHORS OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP.
 - D) IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.
- 6. TEST EQUIPMENT INCLUDING TORQUE WRENCHES ARE TO BE CALIBRATED USING AN APPROVED TESTING LABORATORY. THEY MUST BE CALIBRATED BY A STANDARD TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST).
- 7. TEST ACCEPTANCE CRITERIA:
 - A) TORQUE WRENCH METHOD: ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH MUST ATTAIN THE SPECIFIED TORQUE WITH 1/2 TURN OF THE NUT.
- 8. ALLOWABLE LOADS MAY BE INCREASED 33-1/3 PERCENT FOR WIND OR SEISMIC LOADS WHEN USING ALTERNATIVE BASIC LOAD COMBINATIONS PER CBC 1605A.3.2.
- 9. PERIODIC SPECIAL INSPECTION IS REQUIRED UNLESS OTHERWISE NOTED IN TABLE 1705A.3 "REQUIRED VERIFICATION AND INSPECTION OF MASONRY CONSTRUCTION" INCLUDED WITHIN THESE GENERAL NOTES.

CONCRETE SCREW ANCHORS

- 1. THE USE OF SCREW ANCHORS SHALL BE LIMITED TO LOCATIONS SPECIFIED ON THE APPROVED CONTRACT DRAWINGS.
- 2. THE ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS PUBLISHED INSTALLATION INSTRUCTIONS AND A VALID ICC-ES EVALUATION REPORT. IN CASE OF CONFLICT THE REPORT GOVERNS. SEE [ICC ESR-3027 FOR HILTI KWIK HUS-EZ SCREW ANCHORS][ICC ESR-2713 FOR SIMPSON TITEN HD SCREW ANCHORS].
- 3. MATERIALS:
 - CARBON STEEL ANCHORS.....W/ZINC COATING PER ICC ESR REPORT W/HEX WASHER HEAD
 - CONCRETE (MIN).....F'c = 3,000 PSI (STONE AGGREGATE)

CONCRETE SCREW ANCHORS CONT.

- 4. INSTALLATION:
 - A) CARBIDE-TIPPED DRILL BITS COMPLYING WITH ANSI B212.15-1994. DRILL BIT SIZE IS ANCHOR DIAMETER.
 - B) HOLES CLEANED OF DUST AND DEBRIS. HOLE DEPTH AS REQUIRED PER ICC ESR REPORT.
 - C) MINIMUM HOLE DIAMETER IN THE FIXTURE OR FASTENED PART SHALL BE THE ANCHOR DIAMETER + 1/8".
 - D) SETTING DETAILS:

HILTI KWIK HUS-EZ & HUS-EZ I (ESR-3027)**		ANCHOR DIAMETER (IN)					
INSTALLATION ITEMS	UNITS	1/4	3/8	1/2	5/8	3/4	
MIN NOMINAL EMBED	IN	1-5/8	2-1/2	3	3-1/4	4	
MIN EDGE DIST (UON)	IN	2	2.92	3-3/4	3.63	4.41	
MIN SPACING (UON)	IN	3	3	3	4	4	
MIN CONC THICKNESS	IN	3-1/4	4	4-3/4	5	6	
MAX INSTALL TORQUE	FT-LB	18	40	45	85	115	

** A CLOSER SPACING OR EDGE DISTANCE, MAY BE ALLOWED WHERE SPECIFICALLY DETAILED ON THE CONTRACT DOCUMENTS OR IN ACCORDANCE WITH THE EVALUATION REPORT AS APPROVED BY THE STRUCTURAL ENGINEER.

- 5. TEST LOADS AND FREQUENCY: REQUIRED TEST LOAD SHALL BE EQUIVALENT TO THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE AS SHOWN ABOVE.
 - A) ALL ANCHORS SHALL BE TESTED, UON HEREIN.
 - B) SILL BOLTS: TEST 10% OF ANCHORS.
 - C) NONSTRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE: TEST 50% OF ANCHORS OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP.
 - D) IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.
- 6. TEST EQUIPMENT INCLUDING TORQUE WRENCHES ARE TO BE CALIBRATED USING AN APPROVED TESTING LABORATORY. THEY MUST BE CALIBRATED BY A STANDARD TRACEABLE TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST).
- 7. TEST ACCEPTANCE CRITERIA:
 - A) TORQUE WRENCH METHOD: ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH MUST ATTAIN THE SPECIFIED TORQUE WITH 1/4 TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.
- 8. DO NOT INSTALL SCREW ANCHORS IN CONCRETE THAT IS LESS THAN 7 DAYS OLD.
- 9. ANCHORS ARE LIMITED TO USE IN DRY, INTERIOR LOCATIONS.
- 10. SCREW ANCHORS ARE PROHIBITED FOR RESISTING FATIGUE OR SHOCK LOADING AND ARE NOT PERMITTED TO SUPPORT FIRE-RESISTANCE-RATED CONSTRUCTION.
- 11. PERIODIC SPECIAL INSPECTION IS REQUIRED UNLESS UON IN TABLE 1705A.3 "REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION" INCLUDED WITHIN THESE GENERAL NOTES. INITIAL INSPECTION IS REQUIRED FOR EACH DIFFERENT SUBCONTRACTOR. THE SPECIAL INSPECTOR SHALL VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT SIZE, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, CONCRETE THICKNESS, ANCHOR EMBEDMENT, TIGHTENING TORQUE AND MANUFACTURER'S PUBLISHED INSTALLATION PROCEDURE. ANY CHANGE IN THE ANCHOR PRODUCT BEING INSTALLED OR THE PERSONNEL PERFORMING THE INSTALLATION WILL REQUIRE AN INITIAL INSPECTION.
- 12. TEST LOADS AND FREQUENCY: SPECIFIC TEST LOADING CRITERIA SHALL BE AS SHOWN BELOW.
 - A) ALL ANCHORS SHALL BE TESTED, UON HEREIN.
 - B) SILL BOLTS: TEST 10% OF ANCHORS.
 - C) NONSTRUCTURAL APPLICATIONS SUCH AS EQUIPMENT ANCHORAGE: TEST 50% OF ANCHORS OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP.
 - D) IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.
- 13. TEST ACCEPTANCE CRITERIA:
 - A) TORQUE WRENCH METHOD: TORQUE-CONTROLLED ANCHORS TESTED WITH A CALIBRATED TORQUE WRENCH SHALL ATTAIN THE SPECIFIED TORQUE WITHIN 1/4 TURN OF THE SCREW AFTER INITIAL SEATING OF THE SCREW HEAD.

EPOXY ADHESIVE ANCHORED REINFORCEMENT-CONCRETE

- 1. THE USE OF EPOXY ADHESIVE REINFORCEMENT SHALL BE LIMITED TO LOCATIONS SPECIFIED ON THE APPROVED CONTRACT DRAWINGS.
- 2. THE EPOXY ADHESIVE REINFORCEMENT MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS PUBLISHED INSTALLATION INSTRUCTIONS AND A VALID ICC-ES EVALUATION REPORT. SEE [ICC ESR-3814 FOR HILTI HIT-RE 500-VE ADHESIVE ANCHORS][ICC ESR-3187 FOR HILTI HIT-HY 200 ADHESIVE ANCHORS][ICC ESR-2508 FOR SIMPSON SET-XP EPOXY ADHESIVE ANCHORS].
- 3. MATERIALS:
 - HILTI HIT-RE 500-VE.....EPOXY ADHESIVE
 - HILTI HIT-HY 200.....EPOXY ADHESIVE
 - SIMPSON SET-XP.....EPOXY ADHESIVE
 - REINFORCEMENT.....ASTM A-615 GRADE 60
 - CONCRETE (MIN).....F'c = 2,500 PSI (STONE AGGREGATE)
- 4. INSTALLATION:
 - A) PREDRILL HOLES NORMAL TO THE SURFACE USING A CARBIDE-TIPPED DRILL BIT COMPLYING WITH ANSI B212.15-1994.
 - B) HOLES CLEANED OF DUST AND DEBRIS PER MANUFACTURERS PUBLISHED INSTALLATION INSTRUCTIONS.
 - C) SETTING DETAILS:

HILTI HIT-RE 500-V3 ADHESIVE (ESR-3814) **		DEFORMED REINFORCING BAR (REBAR)					
INSTALLATION ITEMS	UNITS	# 3	# 4	# 5	# 6	# 7	# 8
DRILL BIT DIA	IN	1/2	5/8	3/4	7/8	1	1-1/8
MIN EMBED (UON)	IN	7-1/2	10	12-1/2	15	17-1/2	20
MIN EDGE DIST (UON)	IN	4-1/2	6	7-1/2	9	10-1/2	12
MIN SPACING (UON)	IN	4-1/2	6	7-1/2	9	10-1/2	12
MIN CONC THK	IN	EMBED + 1-1/4"		EMBED + (2 x HOLE DIAMETER)			
TENSION TEST LOAD (UON)	LBS	5300	9420	14725	21200	28860	37690

** A SHALLOWER EMBEDMENT OR CLOSER SPACING, MAY BE ALLOWED WHERE SPECIALLY DETAILED ON THE CONTRACT DOCUMENTS OR IN ACCORDANCE WITH THE EVALUATION REPORT AS APPROVED BY THE STRUCTURAL ENGINEER.

EPOXY ADHESIVE ANCHORED REINFORCEMENT-CONCRETE CONT.

- 5. TEST LOADS AND FREQUENCY: SPECIFIC TEST LOADING CRITERIA SHALL BE AS SHOWN BELOW.
 - A) ALL ANCHORS SHALL BE TESTED, UON HEREIN.
 - B) REINFORCING DOWEL BARS: TEST 25% IF ALL (3) OF THE FOLLOWING CONDITIONS ARE MET. THE DOWELS ARE USED EXCLUSIVELY TO TRANSMIT SHEAR FORCES, THE NUMBER OF DOWELS IN ANY ONE MEMBER EXCEEDS 12, AND THE DOWELS ARE UNIFORMLY DISTRIBUTED ACROSS THE ELEMENT.
 - C) SHEAR DOWELS ACROSS COLD JOINTS IN SLABS ON GRADE: NO TESTING REQUIRED WHERE THE SLAB IS NOT PART OF THE LATERAL FORCE RESISTING SYSTEM.
 - D) IF ANY ANCHOR FAILS TESTING, ALL ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TESTING FREQUENCY.
- 6. TEST ACCEPTANCE CRITERIA:
 - A) HYDRAULIC RAM METHOD: ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICES SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNABLE MOVEMENT DURING THE TENSION TEST, E.G., AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT. THE TESTING DEVICE SHALL NOT RESTRICT THE CONCRETE SHEAR CONE TYPE FAILURE MECHANISM FROM OCCURRING.
- 7. DO NOT INSTALL EPOXY ADHESIVE ANCHORS IN CONCRETE THAT IS LESS THAN 7 DAYS OLD.
- 8. THE USE OF EPOXY ADHESIVE ANCHORS SUBJECTED TO FATIGUE OR SHOCK LOADING IS PROHIBITED.
- 9. EPOXY ADHESIVE SHALL BE FULLY CURED BEFORE THE APPLICATION OF TENSION.
- 10. PERIODIC SPECIAL INSPECTION IS REQUIRED UNLESS UON IN TABLE 1705A.3 "REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION" INCLUDED WITHIN THESE GENERAL NOTES. INITIAL INSPECTION IS REQUIRED FOR EACH DIFFERENT SUBCONTRACTOR. THE SPECIAL INSPECTOR SHALL VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT SIZE, ADHESIVE IDENTIFICATION AND EXPIRATION DATE, HOLE DIMENSIONS, HOLE CLEANING PROCEDURES, ANCHOR SPACING, EDGE DISTANCES, CONCRETE THICKNESS, ANCHOR EMBEDMENT, TIGHTENING TORQUE AND MANUFACTURER'S PUBLISHED INSTALLATION PROCEDURE. ANY CHANGE IN THE ANCHOR PRODUCT BEING INSTALLED OR THE PERSONNEL PERFORMING THE INSTALLATION WILL REQUIRE AN INITIAL INSPECTION.
- 11. TENSION LOAD TESTING IS REQUIRED FOR EPOXY ADHESIVE ANCHORS. TEST LOADS ARE BASED ON EITHER 80% OF STEEL YIELD OR TWICE THE MAXIMUM ALLOWABLE TENSION LOAD OR 1-1/4 TIMES THE MAXIMUM DESIGN STRENGTH OF THE ANCHOR.

SPECIAL INSPECTION/INSPECTOR REQUIREMENTS (CBC 1704A) REQUIREMENTS FOR SPECIAL INSPECTION:

- 1. PROJECT INSPECTOR/INSPECTOR OF RECORD: IN ACCORDANCE WITH TITLE 24, PART I, SECTIONS 4-333 AND 4-342.
- 2. CERTIFIED SPECIAL INSPECTOR: EMPLOYED BY THE DISTRICT AND APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER AND DSA.
- 3. REPORTS: PREPARED BY THE SPECIAL INSPECTOR AND SIGNED BY A CIVIL ENGINEER. SUBMITTED TO THE DSA, THE INSPECTOR OF RECORD, THE ARCHITECT, AND ENGINEER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION; THEN, IF NOT CORRECTED, TO THE ARCHITECT, ENGINEER AND THE DSA (CBC 1704A.2.4), PRIOR TO THE COMPLETION OF THAT PHASE OF WORK.
- 4. THE SPECIAL INSPECTION IS TO BE CONTINUOUS DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED.

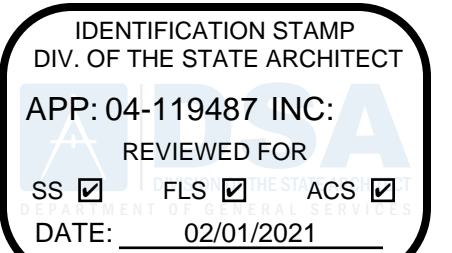
STATEMENT OF STRUCTURAL TESTS AND SPECIAL INSPECTIONS

THE CONSTRUCTION INSPECTIONS LISTED ARE IN ADDITION TO THE INSPECTIONS REQUIRED BY CBC, SECTION 110. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY THE BUILDING OFFICIAL. SPECIFICALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL AND THE SPECIAL INSPECTOR IS SUBJECT TO REOPENING OR EXPOSURE.

- 1. RESPONSIBILITY: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION.
- 2. FABRICATION: SPECIAL INSPECTION OF FABRICATION OF STRUCTURAL LOAD-BEARING MEMBERS SHALL BE PROVIDED AS REQUIRED PER CBC SECTION 1704A.2.5 UNLESS DONE IN AN APPROVED FABRICATOR'S SHOP.
- 3. SOILS: SPECIAL INSPECTIONS OF THE EXISTING SOIL CONDITIONS, FILL PLACEMENT AND LOAD-BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTION 1705A.6 AND TABLE 1705A.6.
- 4. CONCRETE: SPECIAL INSPECTION FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY CBC SECTION 1705A.3 AND TABLE 1705A.3.
- 5. STEEL: SPECIAL INSPECTION FOR STRUCTURAL STEEL ELEMENTS SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE PLAN REQUIREMENTS OF AISC 341 AND AS REQUIRED BY CBC SECTION 1705A.2 AND TABLE 1705A.2.1.
- 6. WELDING: WELDING INSPECTORS ARE TO BE AWS Q.C-1 CERTIFIED. WELDING INSPECTION SHALL BE IN ACCORDANCE WITH CBC SECTION 1705A.2.5.
 - A) STRUCTURAL STEEL: WELDING INSPECTION AND WELDING INSPECTOR QUALIFICATION FOR STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH AWS D1.1.
 - B) COLD-FORMED STEEL: WELDING INSPECTION AND WELDING INSPECTOR QUALIFICATION FOR COLD FORMED STEEL SHALL BE IN ACCORDANCE WITH AWS D1.3.
 - C) REINFORCING STEEL: WELDING INSPECTION AND WELDING INSPECTOR QUALIFICATION FOR REINFORCING STEEL SHALL BE IN ACCORDANCE WITH AWS 1.4 AND ACI 318.
- 7. HIGH STRENGTH BOLTING: INSTALLATION OF HIGH STRENGTH BOLTING SHALL BE IN ACCORDANCE WITH AISC 360 AND TABLE 1705A.2.1.

SPECIAL STRUCTURAL OBSERVATIONS BY ENGINEER (CBC 1704A.6)

- 1. NOTIFICATION: 48 HOURS BEFORE OBSERVATION. DELINQUENT NOTIFICATION MAY REQUIRE DEMOLITION OF COVERING MATERIALS TO FACILITATE OBSERVATION.
- 2. OBSERVATIONS BY ENGINEER
 - A) REINFORCEMENT BEFORE CONCRETE PLACEMENT. (PAD FOOTINGS & GRADE BEAMS PRIOR TO FIRST POUR)
 - B) COMPLETION OF ROUGH FRAMING.
- 3. WRITTEN STATEMENT (CBC 1704A.6): THE ENGINEER RESPONSIBLE FOR THE STRUCTURAL DESIGN SHALL SUBMIT TO DSA VERIFICATION REPORTS THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.



ARCHITECTURE

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CONSULTANT



ENGINEER



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CLIENT
IMPERIAL VALLEY COLLEGE

No.	Description	Date
1	PLAN CHECK REVIEW	12-08-2020

DSA SUBMITTAL

GENERAL NOTES

S1.03

CBC TABLE 1705A.6 REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS		
VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

TABLE 1705A.3 REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD (a)	CBC CHAPTER 19A REFERENCE
1. INSPECTION OF REINFORCING STEEL AND VERIFY PLACEMENT.	-	X	ACI 318: Ch. 20, 25.2, 25.3, 26.5.1-26.5.3	1908.4
2. INSPECTION OF REINFORCING STEEL WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706. b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16". c. INSPECT ALL OTHER WELDS.	- X	X X	AWS D1.4, ACI 318: 26.6.4	-
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	-
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. (b)(c) a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	X -	- X	ACI 318: 17.8.2.4 ACI 318: 17.8.2	-
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C 172, ATSM C 31, ACI 318: 26.4, 26.12	1908.10
7. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3 - 26.5.5	1908.9
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2 (b)	-

FOR SI: 1 INCH = 25.4 mm

- (a) WHERE APPLICABLE, SEE ALSO SECTION 1707A.12, SPECIAL INSPECTION FOR SEISMIC RESISTANCE.
 (b) SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH ACI 17.8.2 IN ACI 318 OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO COMMENCEMENT OF THE WORK.
 (c) INSTALLATION OF ALL ADHESIVE ANCHORS IN HORIZONTAL AND UPWARDLY INCLINED POSITIONS SHALL BE PERFORMED BY AN ACI/CRSI CERTIFIED ADHESIVE ANCHOR INSTALLER, EXCEPT WHERE THE FACTORED DESIGN TENSION ON THE ANCHORS IS LESS THAN 100 LBS AND THOSE ANCHORS ARE CLEARLY NOTED ON THE APPROVED CONSTRUCTION DOCUMENTS OR WHERE THE ANCHORS ARE SHEAR DOWELS ACROSS COLD JOINTS IN SLABS ON GRADE WHERE THE SLAB IS NOT PART OF THE LATERAL FORCE-RESISTING SYSTEM.

PERIODIC VERIFICATION AND INSPECTION OF NON-STRUCTURAL COMPONENTS			
VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	CBC REFERENCE
3. MECHANICAL/ELECTRICAL COMPONENTS: b. ELECTRICAL EQUIPMENT ANCHORAGE. e. VIBRATION ISOLATION SYSTEMS REQUIRING CLEARANCE OF 1/4 INCH OR LESS BETWEEN EQUIPMENT SUPPORT AND FRAME.	-	X	1705A.12.6, 1705A.13.2

TABLE 1705A.2.1 REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION				
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD (a)	CBC REFERENCE
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS: a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	X	AISC 360, SECTION A3.3 AND APPLICABLE ASTM MATERIAL STANDARDS	-
2. INSPECTION OF HIGH STRENGTH BOLTING: a. SNUG-TIGHT JOINTS. b. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION. c. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	-	X	AISC 360, SECTION M2.5	-
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK: a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360. b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. c. MANUFACTURER'S CERTIFIED TEST REPORTS.	-	X	AISC 360, SECTION A3.1 APPLICABLE ASTM MATERIAL STANDARDS	2202A.1
4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS: a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS. b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	X	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS	-
5. INSPECTION OF WELDING: a. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK: 1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS. 2) MULTIPASS FILLET WELDS. 3) SINGLE-PASS FILLET WELDS > 5/16" 4) PLUG AND SLOT WELDS. 5) SINGLE-PASS FILLET WELDS ≤ 5/16" 6) FLOOR AND ROOF DECK WELDS.	X	-	AWS D1.1 AWS D1.8 AWS D1.3	1705A.2.1

FOR SI: 1 INCH = 25.4 mm

- (a) WHERE APPLICABLE, SEE ALSO SECTION 1705A.12, SPECIAL INSPECTION FOR SEISMIC RESISTANCE.

ABBREVIATIONS

AB ANCHOR BOLT	EXP EXPANSION	OWSJ OPEN WEB STEEL JOIST
ABV ABOVE	F.D. FLOOR DRAIN	PC PRECAST
ADDL ADDITIONAL	FDN FOUNDATION	PERP PERPENDICULAR
ADJ ADJACENT	FF FINISHED FLOOR	PL PLATE
AESS ARCHITECTURAL EXPOSED STRUCTURAL STEEL	FG FINISHED GRADE	PLCS PLACES
ALT ALTERNATE	FJ FLOOR JOIST	PLYMD PLYWOOD
ARCH ARCHITECTURAL/ARCHITECT	FLG FLANGE	PP PARTIAL PENETRATION
(B) BOTTOM	FLR FLOOR	PT POST TENSIONED
BLK BLOCK	FN FIELD NAIL	PTDF PRESSURE TREATED
BLKG BLOCKING	FO FACE OF	RD DOUGLAS FIR
BLW BELOW	F.O.C FACE OF CONCRETE	R PLATE WASHER
BM BEAM	F.O.M FACE OF MASONRY	R RADIUS
BN BOTTOM OF FOOTING	FOS FACE OF STUD	REF REFERENCE
B.O.F BOTTOM	FRMG FRAMING	REIN REINFORCEMENT
BOTT BOTTOM	FS FAR SIDE	REQD REQUIRED
BP BASE PLATE	FTG FOOTING	RJ ROOF JOIST
BRG BEARING	GA GAUGE	RTN RETURN
BTWN BETWEEN	GALV GALVANIZED	S.C. SLIP CRITICAL
C CAMBER	GLB GLUED LAMINATED BEAM	SCHED SCHEDULE
CB CARRIAGE BOLTS	GR GRADE	SEP SEPARATION
CF COLD FORMED	(H) HORIZONTAL	SFRS SEISMIC FORCE RESISTING SYSTEM
CIP CAST-IN-PLACE	HD HOLDOWN	SHTG SHEATHING
CJ CONSTRUCTION JOINT	HDR HEADER	SIM SIMILAR
CJ CEILING JOIST	HGR HANGER	SIMP SIMPSON
CL CENTER LINE	HORIZ HORIZONTAL	SMS SHEET METAL SCREW
CLR CLEAR	HSB HIGH STRENGTH BOLT	SPEC SPECIFICATION
CMU CONCRETE MASONRY UNIT	HSR HORIZONTALLY SLOTTED HOLES	SO SQUARE
COL COLUMN	HSS HOLLOW STRUCTURAL SECTION	SS STAINLESS STEEL
CONC CONCRETE	HT HEIGHT	STD STANDARD
CONN CONNECTION	I.D. INSIDE DIAMETER	STGR STAGGER
CONST CONSTRUCTION	I.F INSIDE FACE	STIFF STIFFENERS
CONT CONTINUOUS	JST JOIST	STL STEEL
CP COMPLETE PENETRATION	JT JOINT	STRUCT STRUCTURAL
CSK COUNTER SINK	KP KING POST	(T) TOP
CTRD CENTERED	LDGR LEDGER	T&B TOP AND BOTTOM
CVN CHARPY V-NOTCH	LLV LONG LEG VERTICAL	TG TAPERED GIRDER
DBL DOUBLE	LOC LOCATION	THK THICKNESS/THICK
DC DEMAND CRITICAL	LT GA LIGHT GAGE	THRD THREADED
DF DOUGLAS FIR/LARCH	LT WT LIGHTWEIGHT	TN TOENAIL
DIA DIAMETER	MATL MATERIAL	T.O.C TOP OF CONCRETE
DIM DIMENSION	MAX MAXIMUM	T.O.F TOP OF FOOTING
DIST DISTANCE	MB MACHINE BOLT	T.O.M TOP OF MASONRY
DN DOWN	MECH MECHANICAL	T.O.P TOP OF PARAPET
DO DITTO (REPEAT)	MEZZ MEZZANINE	T.O.S TOP OF STEEL
DP DEEP	MFR MANUFACTURER	T.O.SH TOP OF SHEATHING
DWG DRAWING	MIN MINIMUM	T.O.W TOP OF WALL
DWL DOWEL	MISC MISCELLANEOUS	TS TUBE STRUCTURAL
(E) EXISTING	MTL METAL	TSW TOP SEAM WELD
EA EACH	(N) NEW	TYP TYPICAL
EF EACH FACE	NIC NOT IN CONTRACT	UON UNLESS OTHERWISE NOTED
EL ELEVATION	NS NEAR SIDE	(V) VERTICAL
ELECT ELECTRICAL	NTS NOT TO SCALE	VERT VERTICAL
ELEV ELEVATOR	O.C. ON CENTER	V.I.F. VERIFY IN FIELD
EMBED EMBEDMENT	O.D. OUTSIDE DIAMETER	VSH VERTICAL SLOTTED HOLES
EN EDGE NAIL	O.F. OUTSIDE FACE	W/ WITH
EQ EQUAL OR EQUIVALENT	OH OPPOSITE HAND	W/O WITHOUT
ES EACH SIDE	OPNG OPENING	WD WOOD
ES EDGE SCREW	OPP OPPOSITE	WP WATER PROOF/WORK POINT
		WPJ WEAKENED PLANE JOINT
		WT WEIGHT
		WWF WELDED WIRE FABRIC

DSA FILE NO. 37-C2 AS 04-11930

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ARCHITECTURE

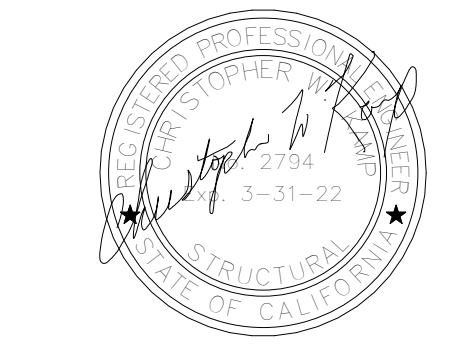
IVC - B600 COLLEGE CENTER
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ENGINEER



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 IMPERIAL VALLEY COLLEGE

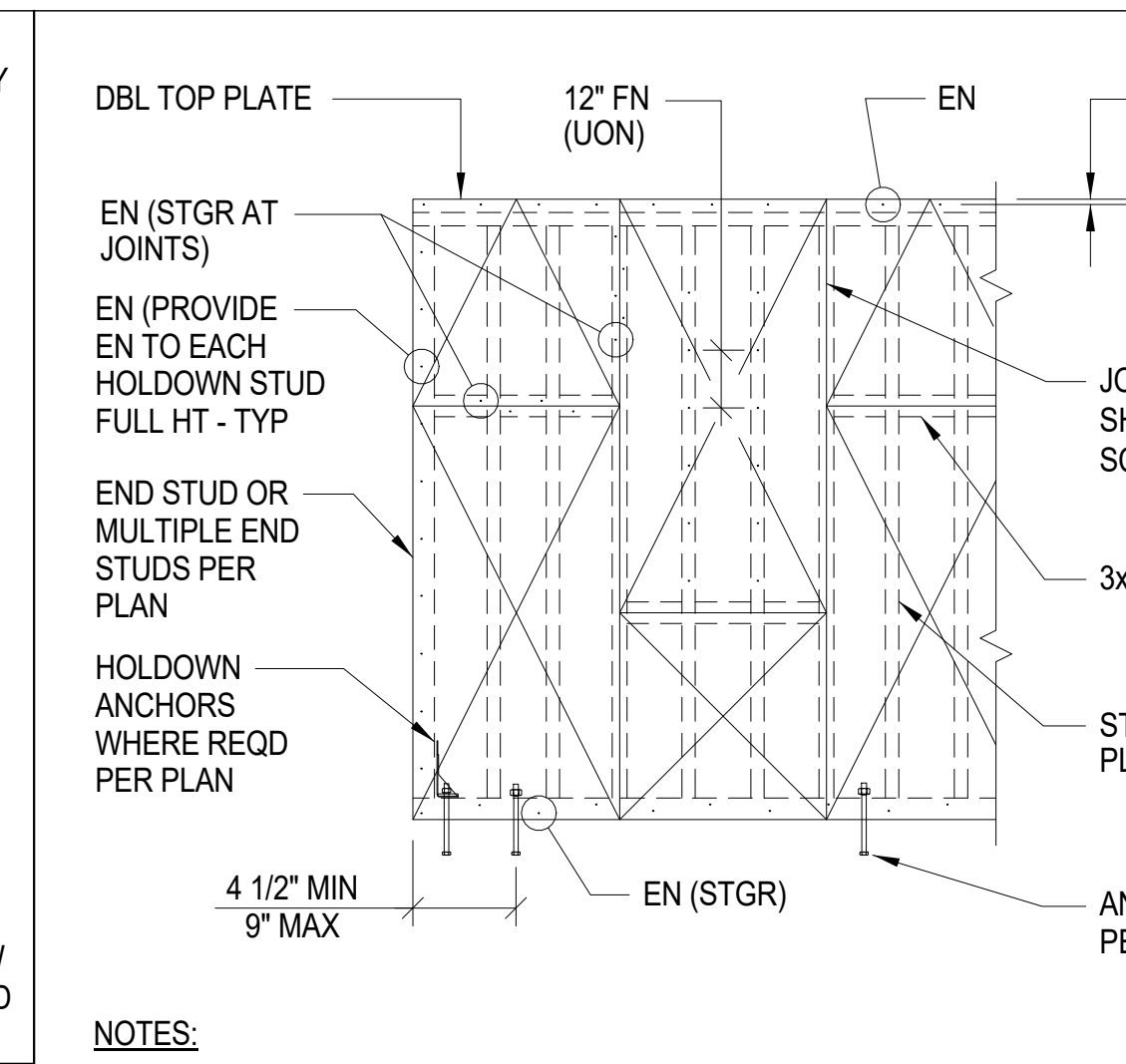
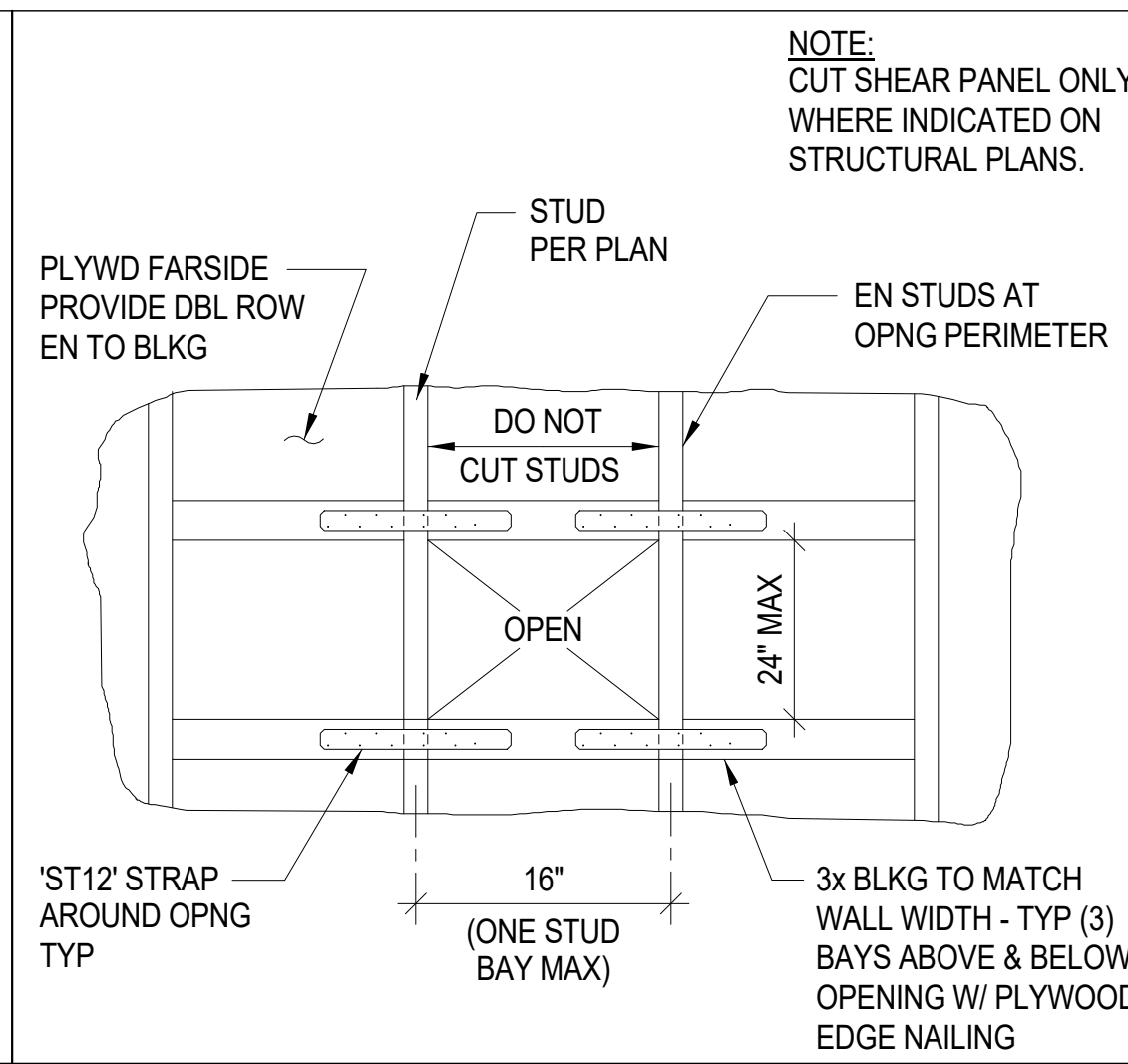
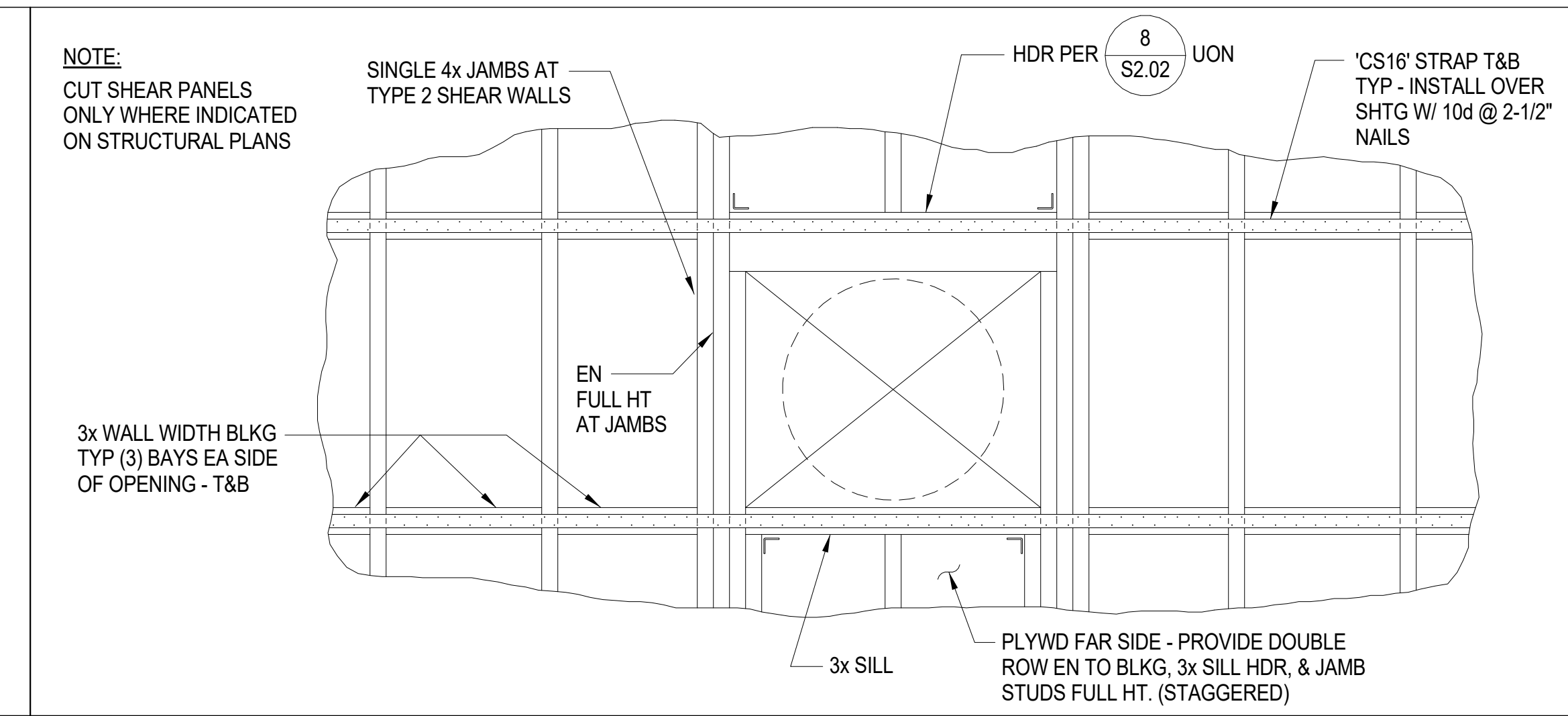
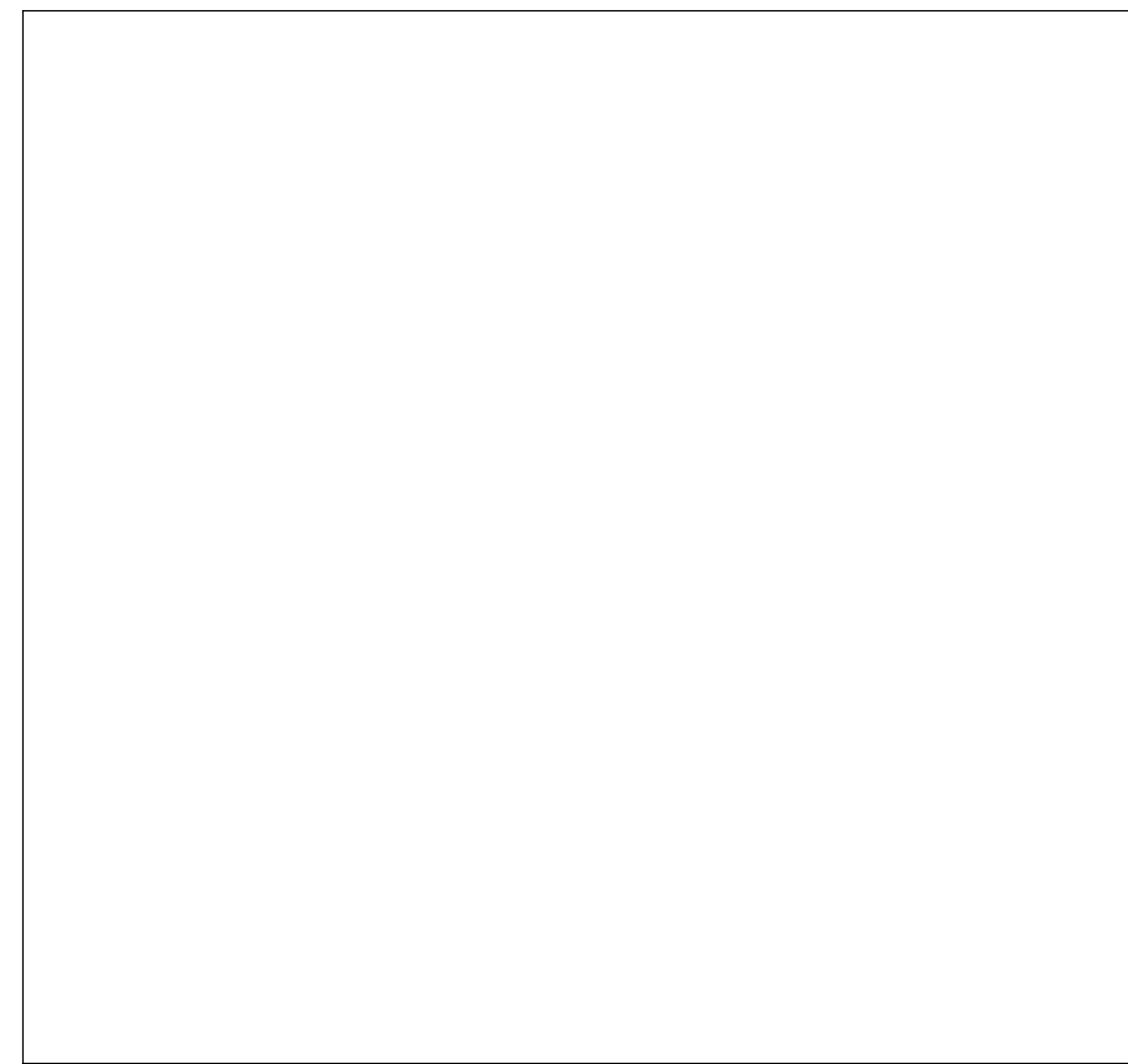
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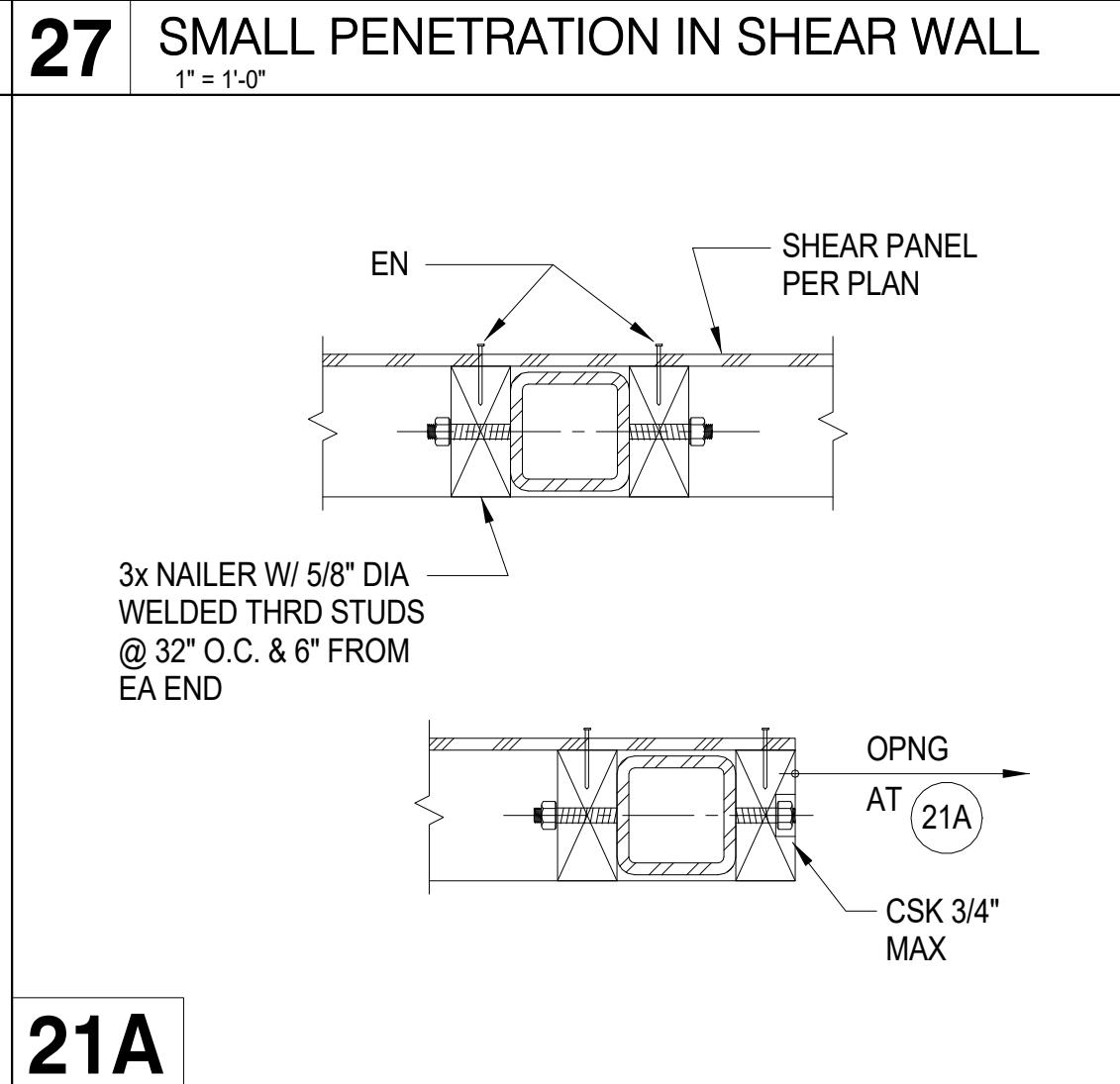
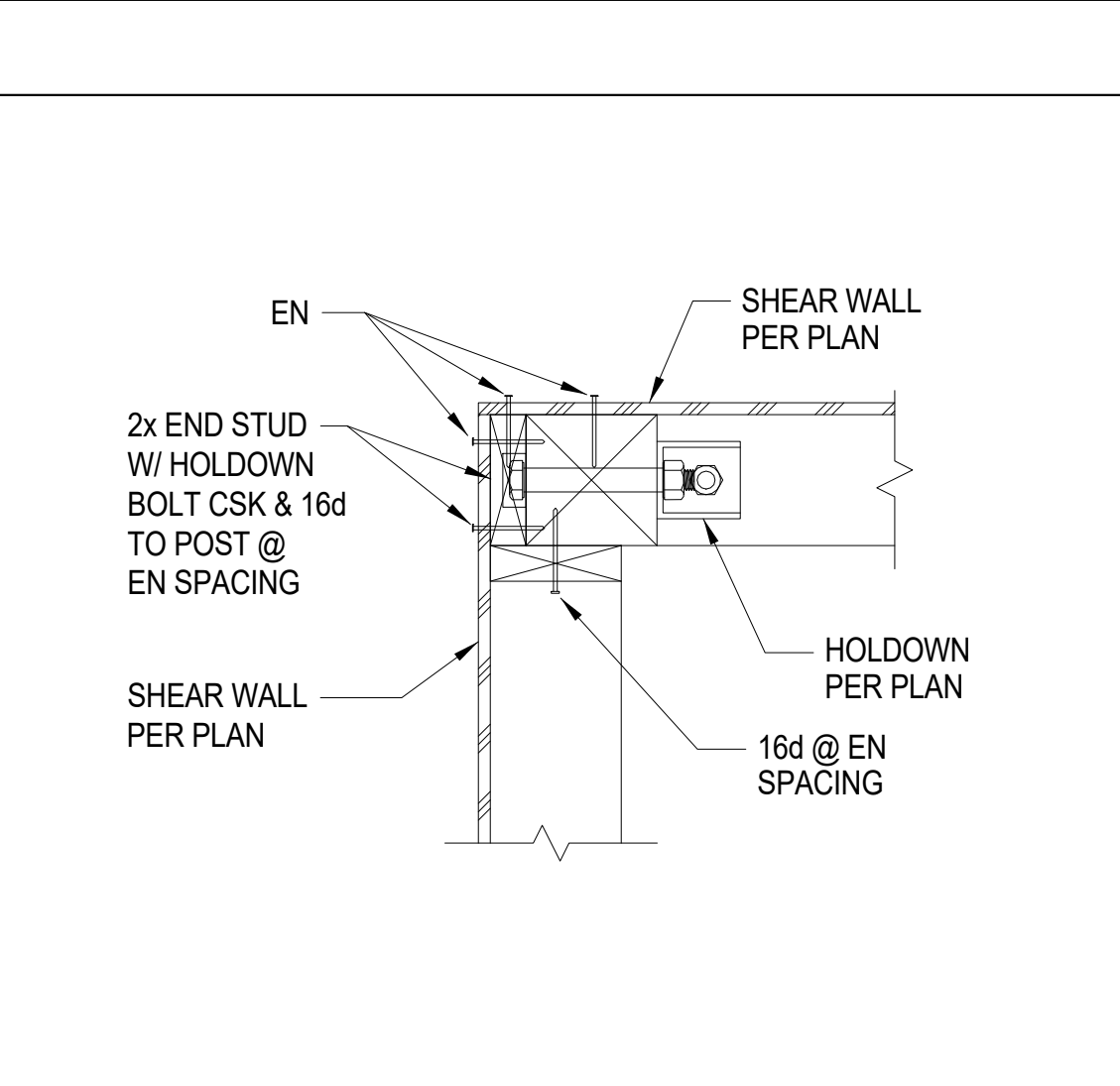
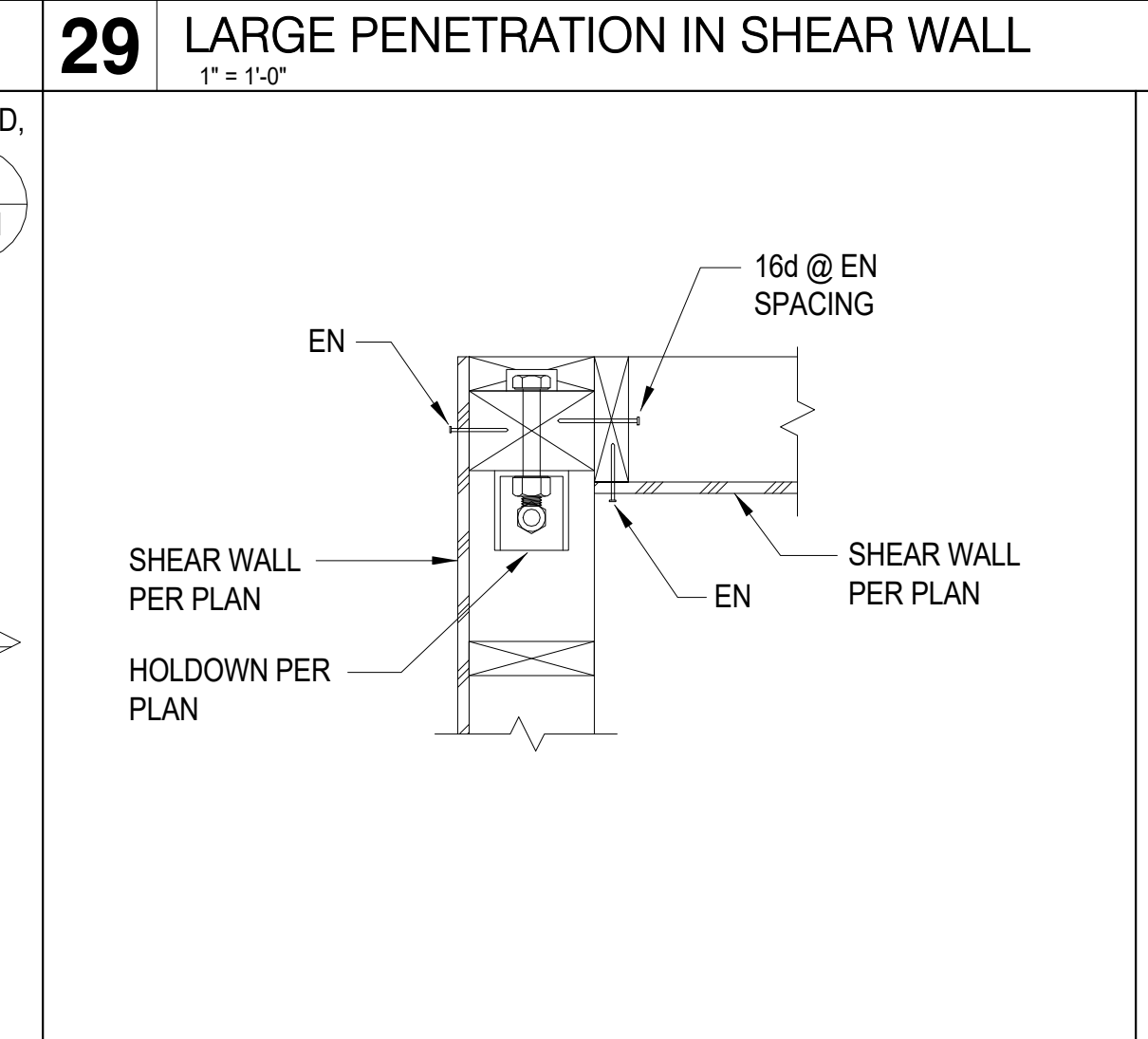
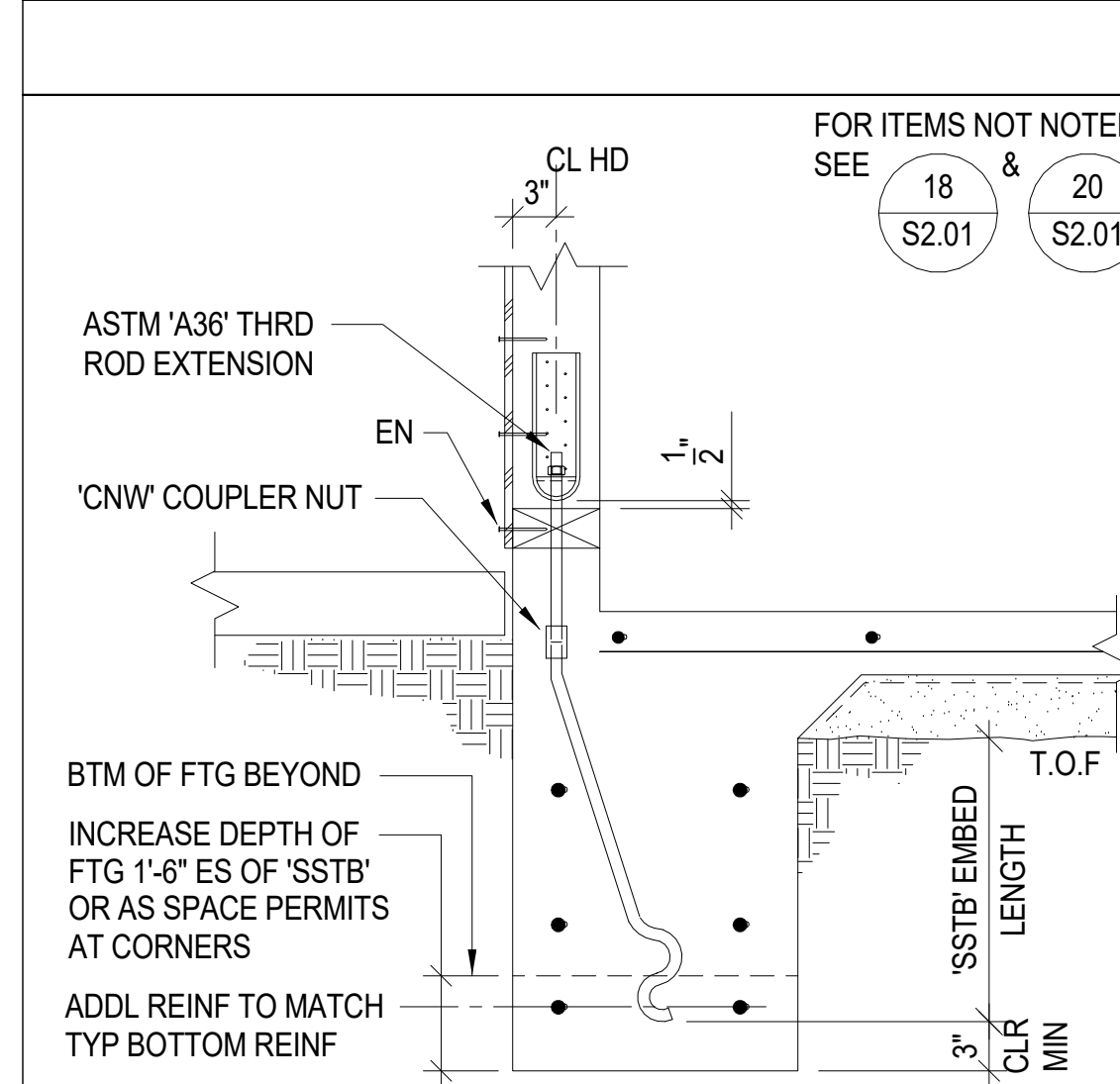
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GENERAL NOTES

S1.04

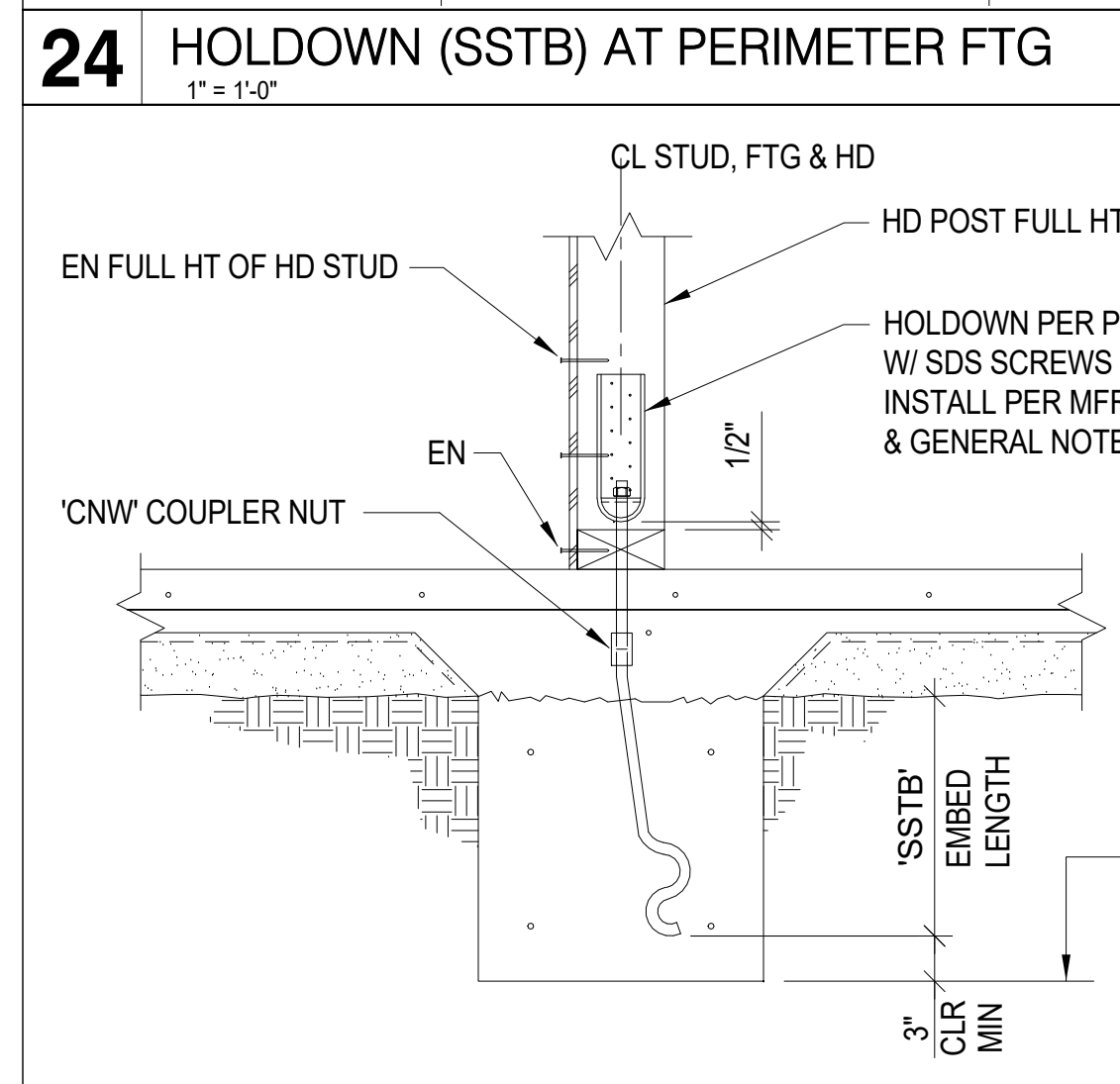


- 6 1/2" PLYWD
10d @ 6" EN, 10d @ 12" FN
3x STUDS @ PANEL EDGES
SILL PLATE BOLTING: 3x PTFDF W/ 5/8" DIA AB @ 32"
W/ PW 1/4x3x0-3"
- 4 1/2" PLYWD
10d @ 4" EN, 10d @ 12" FN
3x STUDS @ PANEL EDGES
SILL PLATE BOLTING: 3x PTFDF W/ 5/8" DIA AB @ 16"
W/ PW 1/4x3x0-3"
- 3 1/2" PLYWD
10d @ 3" EN, 10d @ 12" FN
3x STUDS @ PANEL EDGES
(STAGGER EN @ TOP PLATES & SILL PLATE)
SILL PLATE BOLTING: 3x PTFDF W/ 5/8" DIA AB @ 16"
W/ PW 1/4x3x0-3"
- 2 1/2" PLYWD
10d @ 2" EN, 10d @ 12" FN
4x STUDS @ PANEL EDGES
(STAGGER EN @ TOP PLATES & SILL PLATE)
SILL PLATE BOLTING: 3x PTFDF W/ 5/8" DIA AB @ 12"
W/ PW 1/4x3x0-3"
- SILL PLATE NAILING: 2x W/ 16d @ 3"
ASD : 340 PLF SEISMIC, 475 PLF WIND
- SILL PLATE NAILING: 2x W/ 16d @ 4"
ASD : 510 PLF SEISMIC, 715 PLF WIND
- SILL PLATE NAILING: 2x W/ 16d @ 3"
ASD : 665 PLF SEISMIC, 930 PLF WIND
- 2 1/2" PLYWD
10d @ 2" EN, 10d @ 12" FN
4x STUDS @ PANEL EDGES
(STAGGER EN @ TOP PLATES & SILL PLATE)
SILL PLATE BOLTING: 3x PTFDF W/ 5/8" DIA AB @ 12"
W/ PW 1/4x3x0-3"
- SILL PLATE NAILING: 2x W/ 16d @ 2"
ASD : 870 PLF SEISMIC, 1217 PLF WIND



- NOTES:
- MINIMUM PLYWOOD DIMENSION IS 1'-0".
 - MAINTAIN 1/8" CLEAR SPACES BETWEEN PLYWOOD SHEETS.
 - NO PENETRATIONS ARE ALLOWED IN SHEAR PANELS UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.
 - BOTH VERTICAL AND HORIZONTAL INTERIOR JOINTS ON OPPOSITE SIDES OF DOUBLE SIDED SHEAR WALL SHALL BE STAGGERED.
 - THE PLYWOOD ON ONE SIDE OF THE SHEAR WALL MUST BE NAILED COMPLETELY BEFORE THE FRAME INSPECTION. THE PLYWOOD ON THE OTHER SIDE MUST BE INSTALLED AND INSPECTED PRIOR TO INSTALLATION OF WALL SURFACE COVERING.
 - THE HOLE IN PLATE WASHERS (PW) IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/16" LARGER THAN THE BOLT DIAMETER AND A SLOT LENGTH NOT EXCEEDING 1 3/4" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT.
 - ALL FASTENERS, NAILS, AND CONNECTORS (INCLUDING OF ANCHOR BOLTS AND PLATE WASHERS) IN CONTACT WITH PRESERVATIVE TREATED WOOD SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS B185 HOT DIPPED ZINC COATED GALVANIZING OR SHALL BE STAINLESS STEEL.
 - THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) WITH SHEATHING.

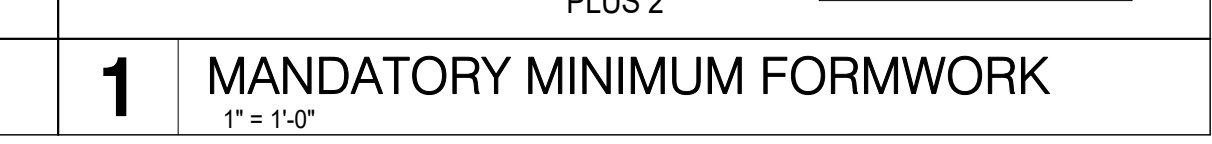
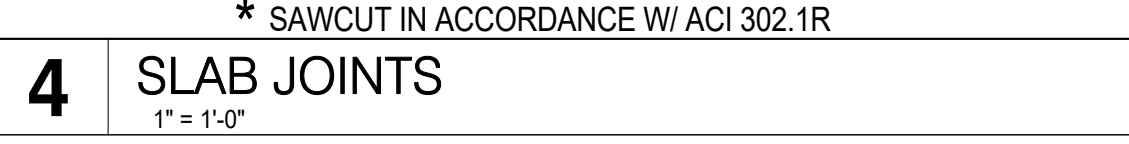
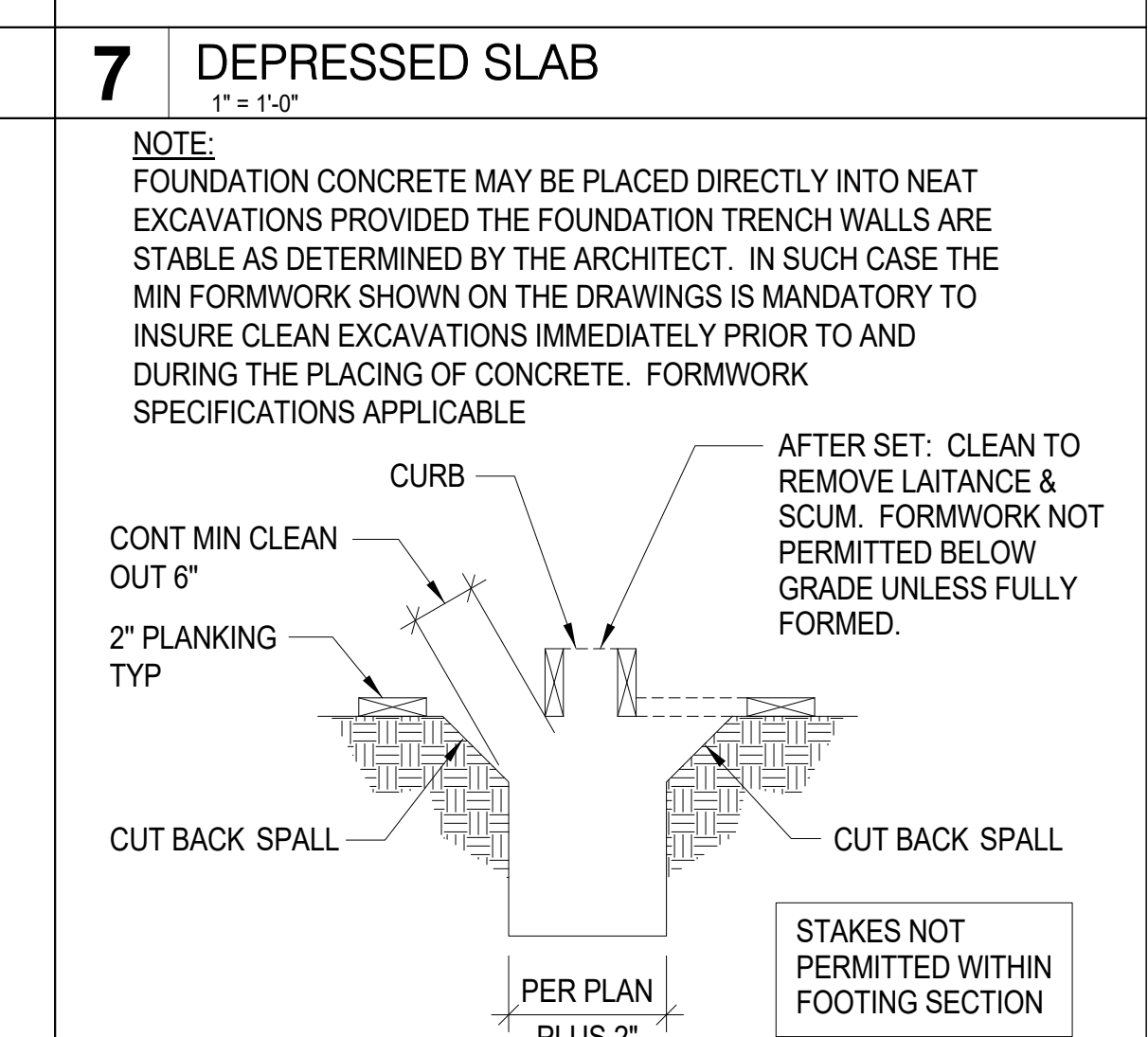
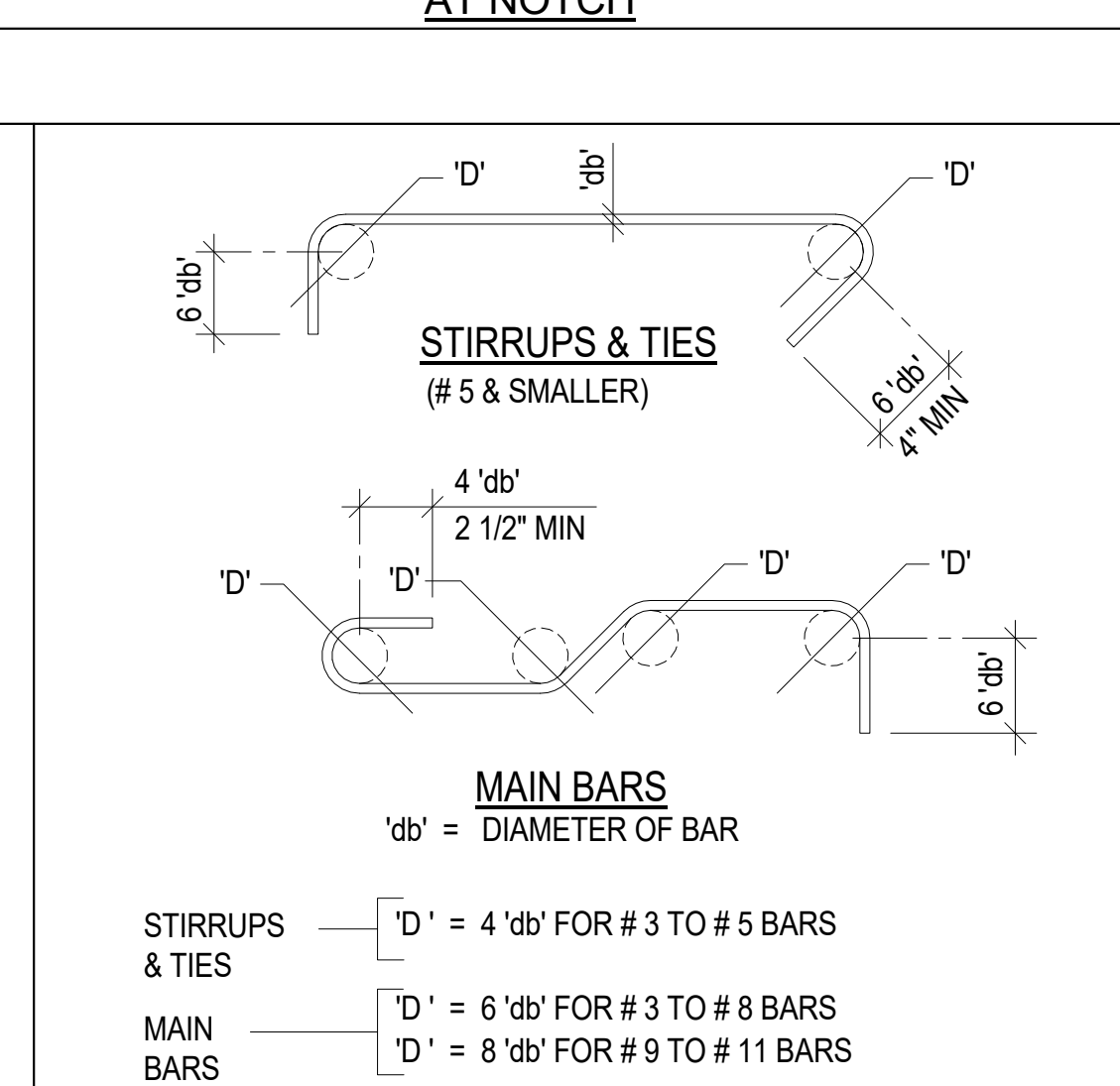
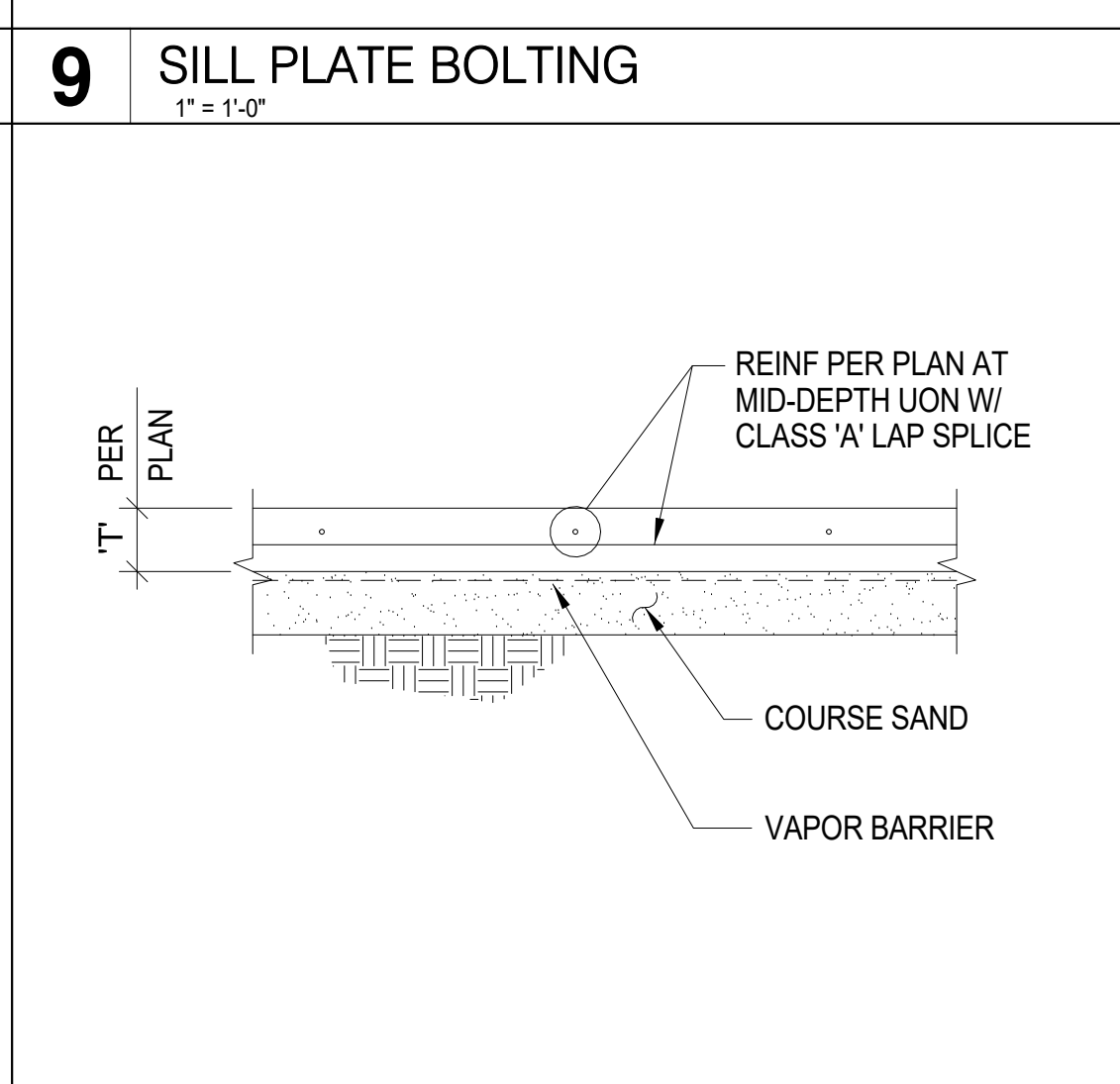
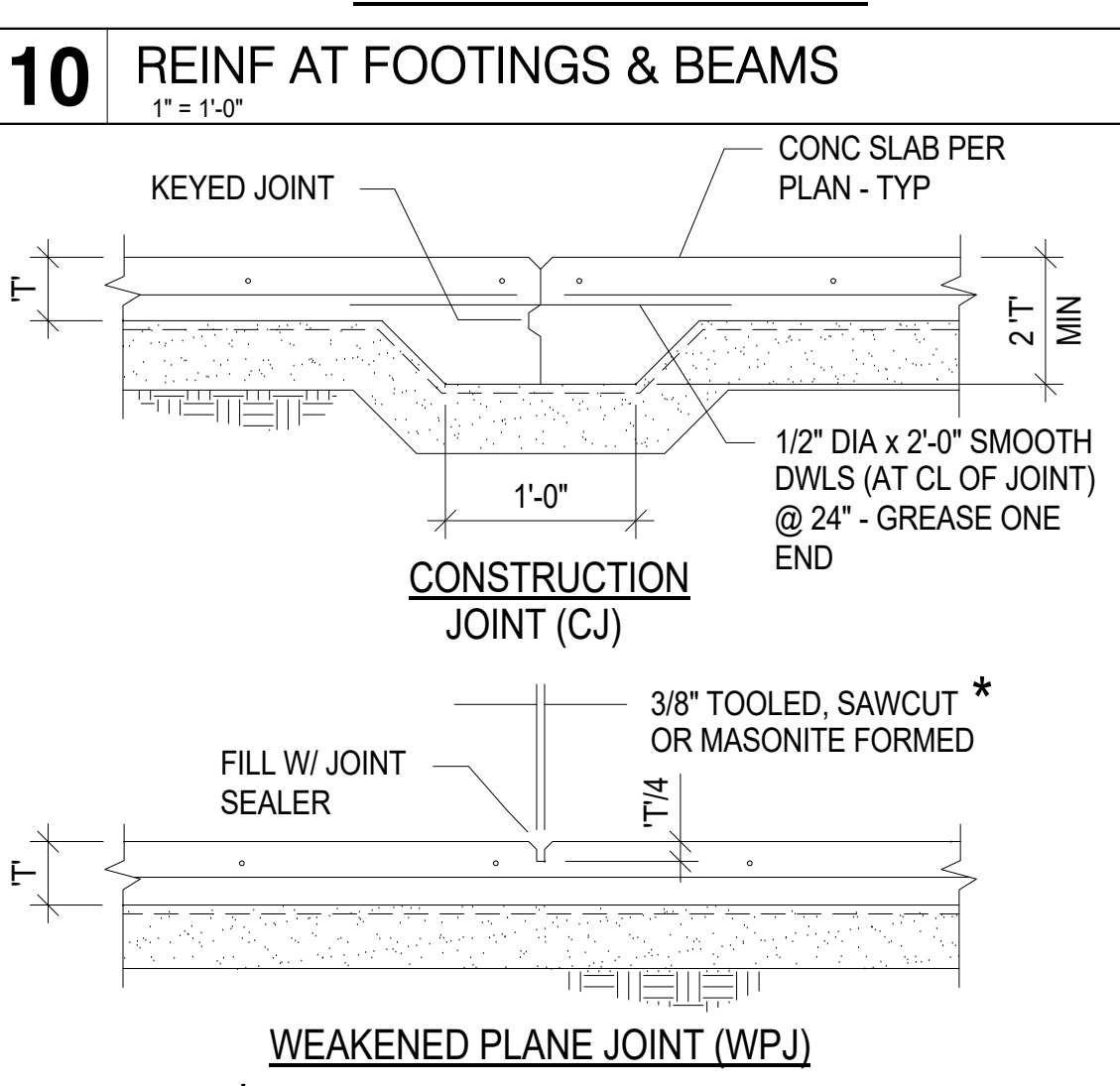
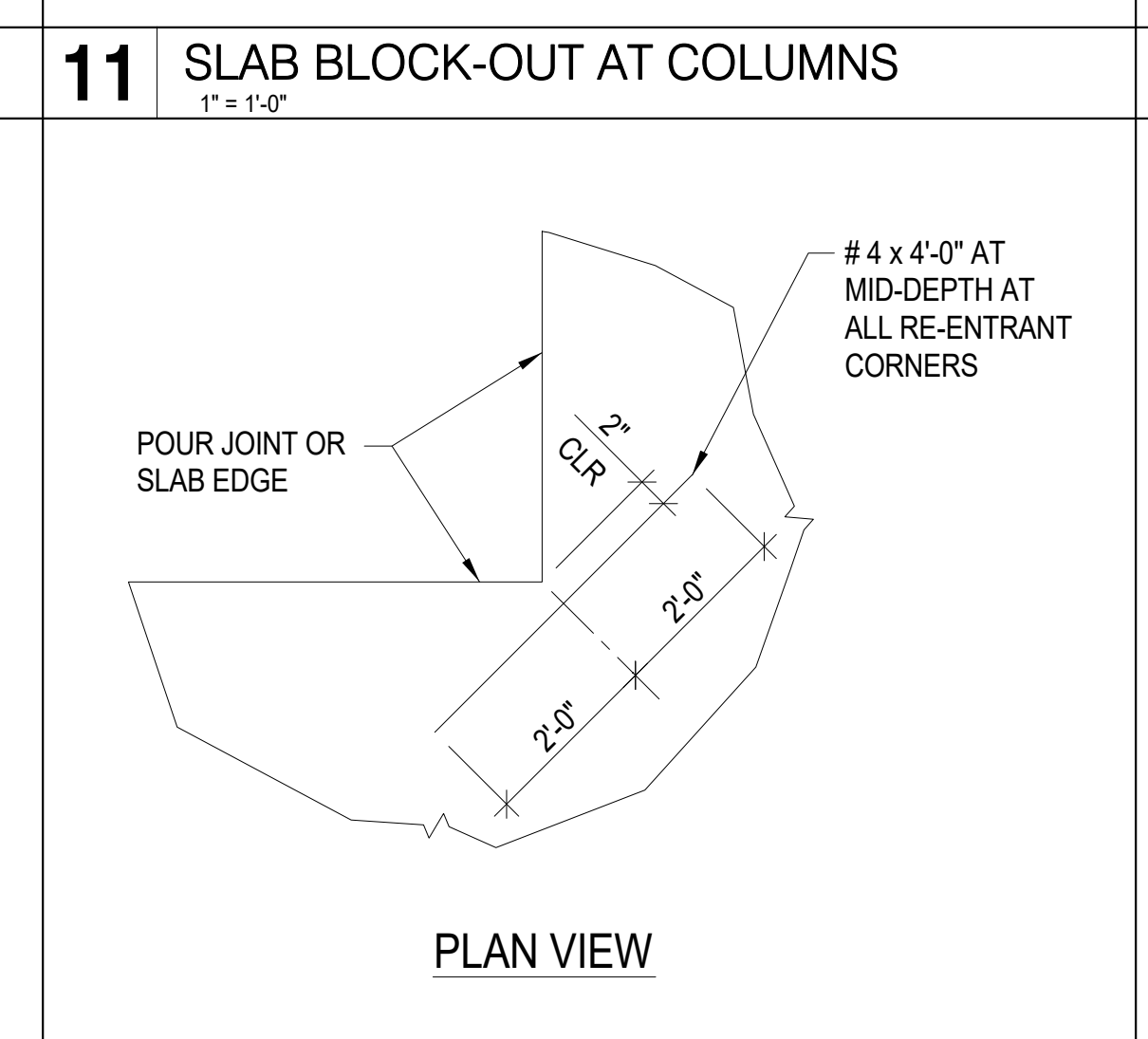
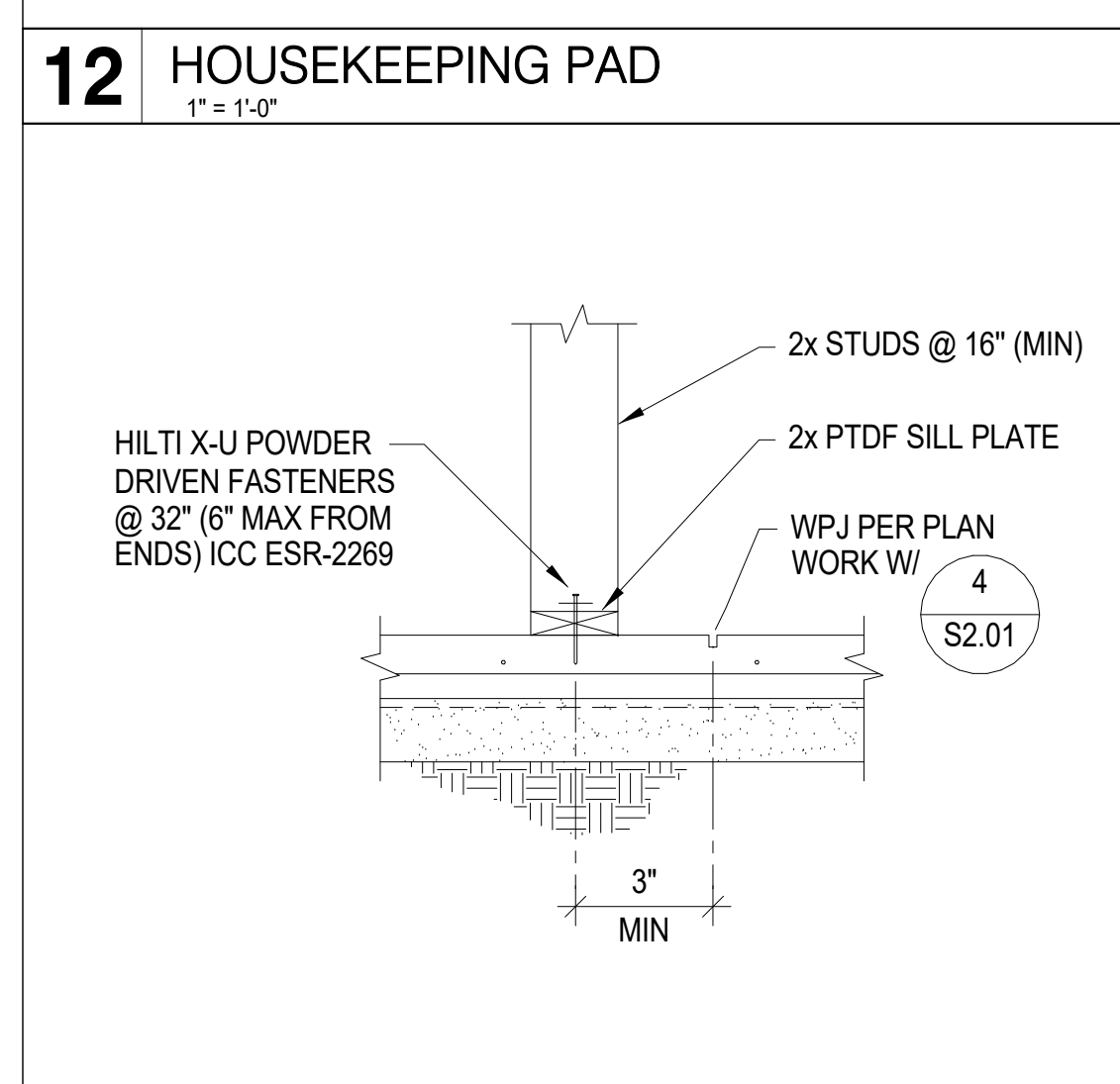
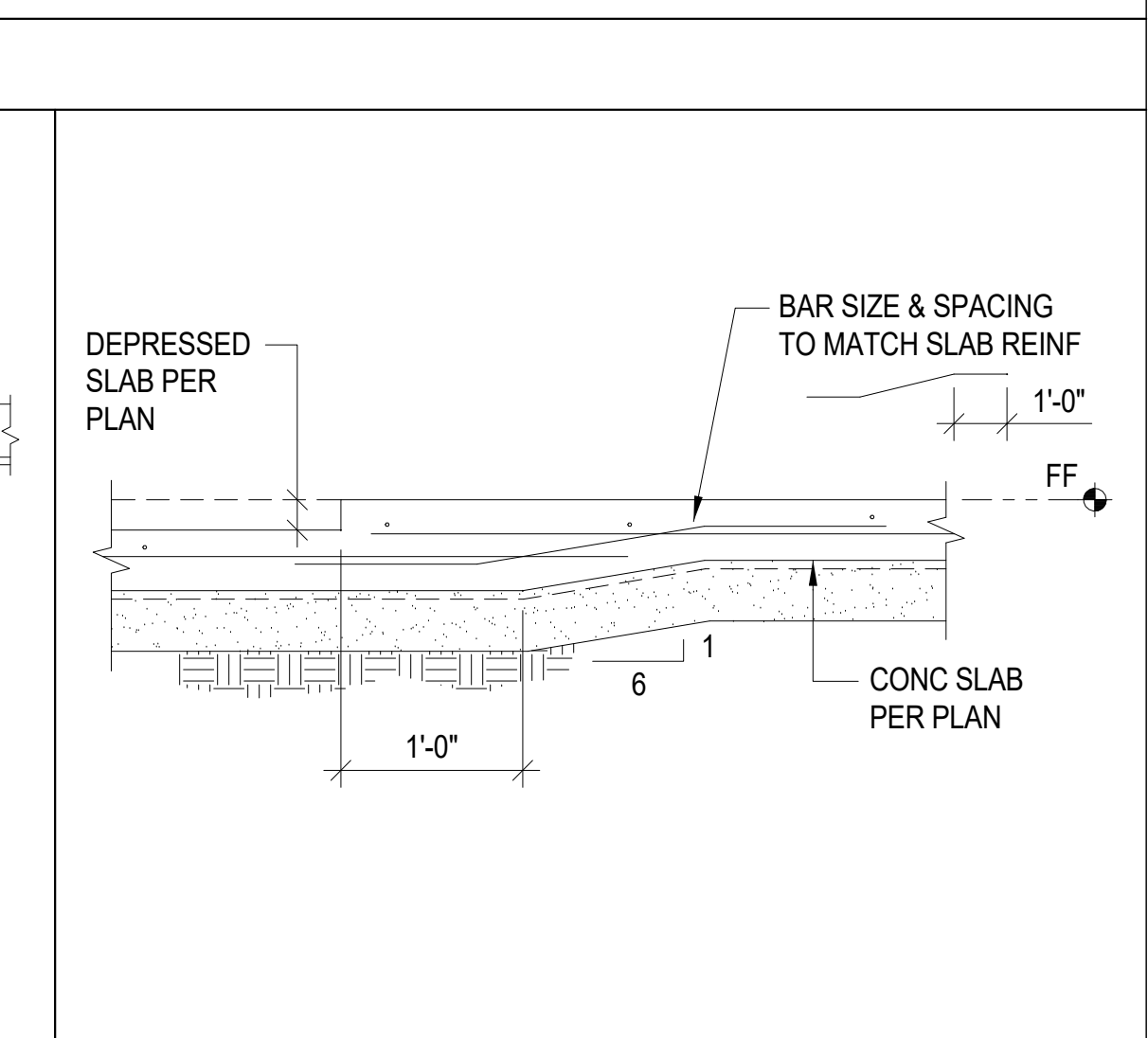
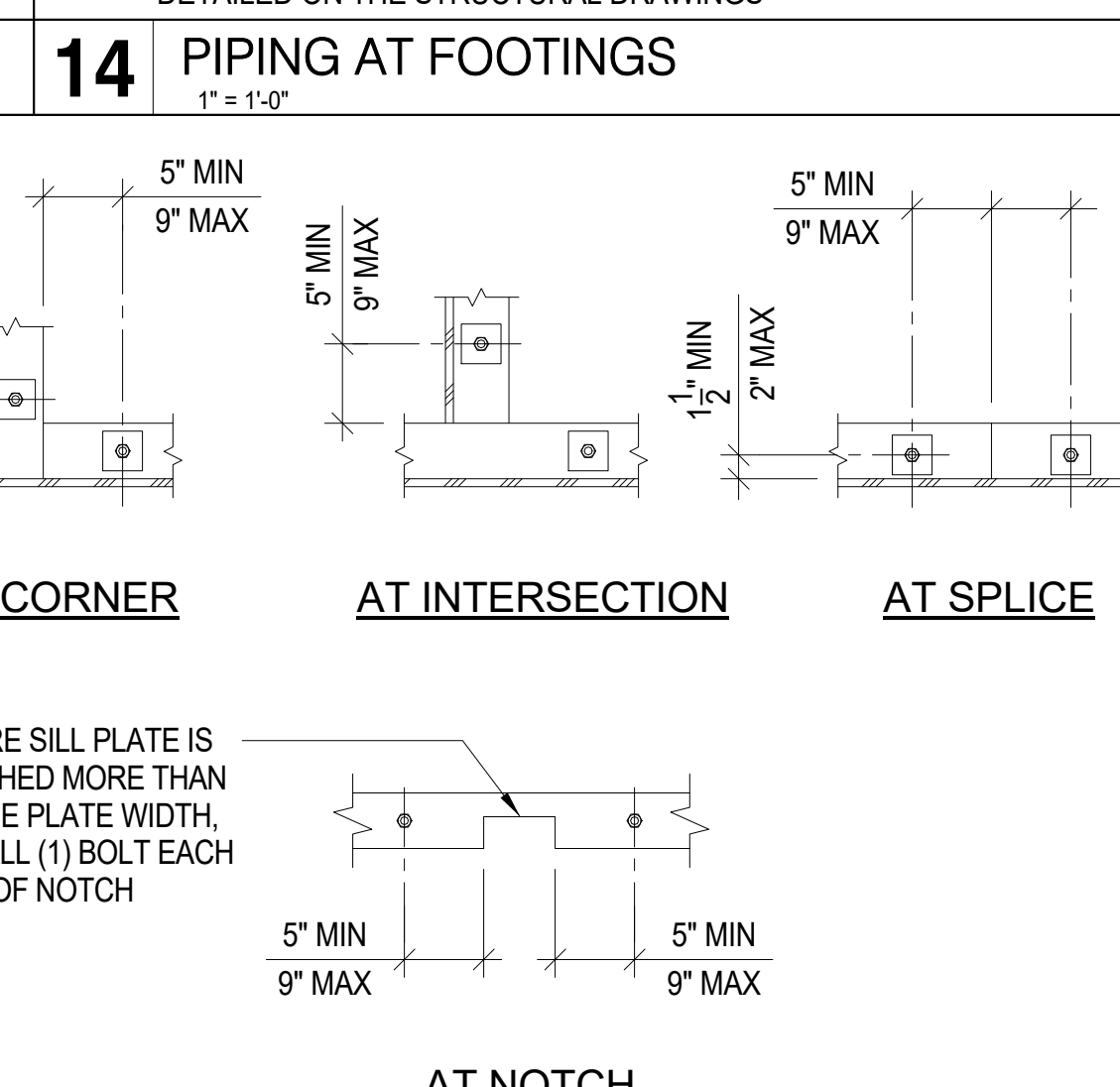
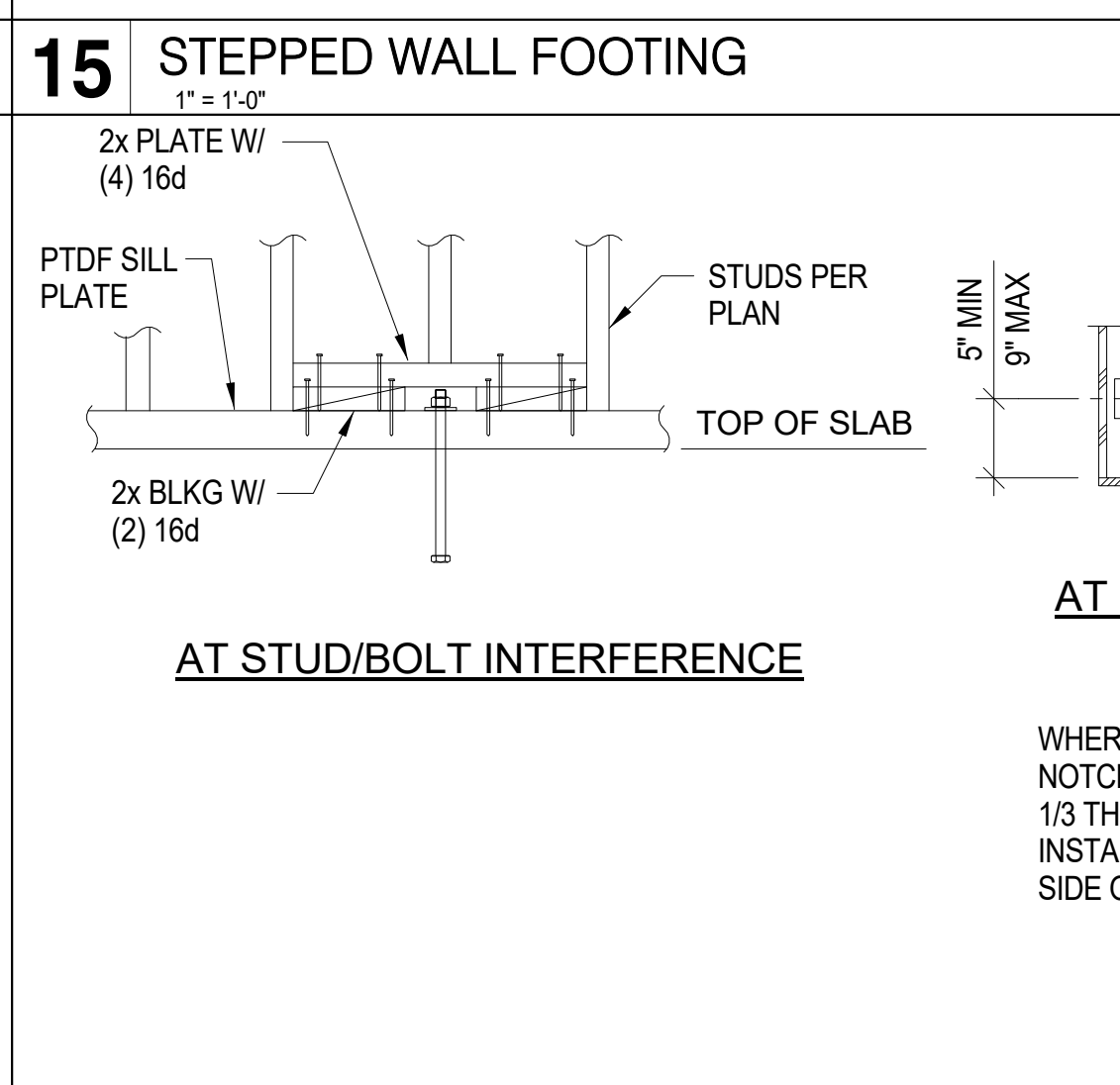
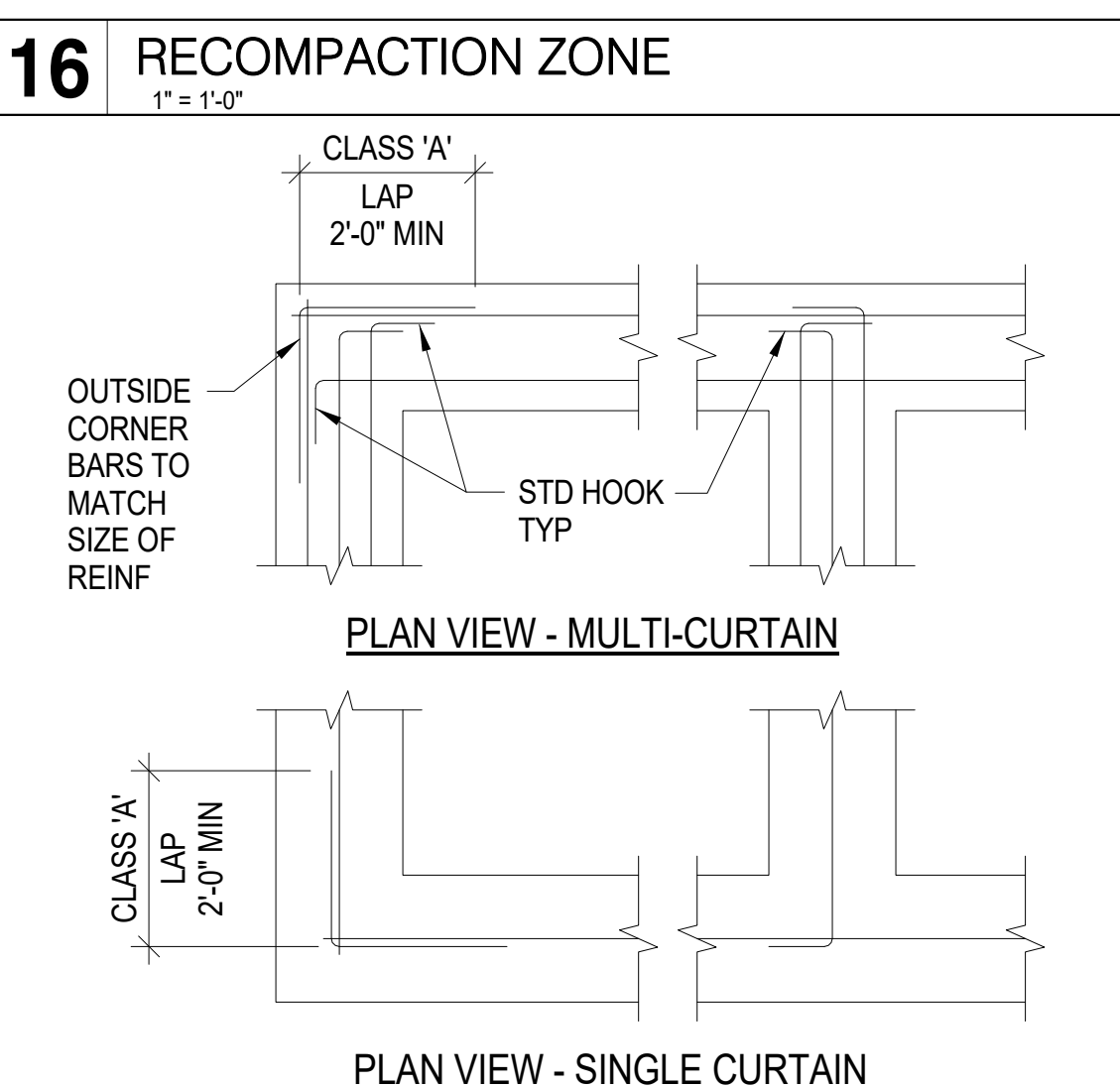
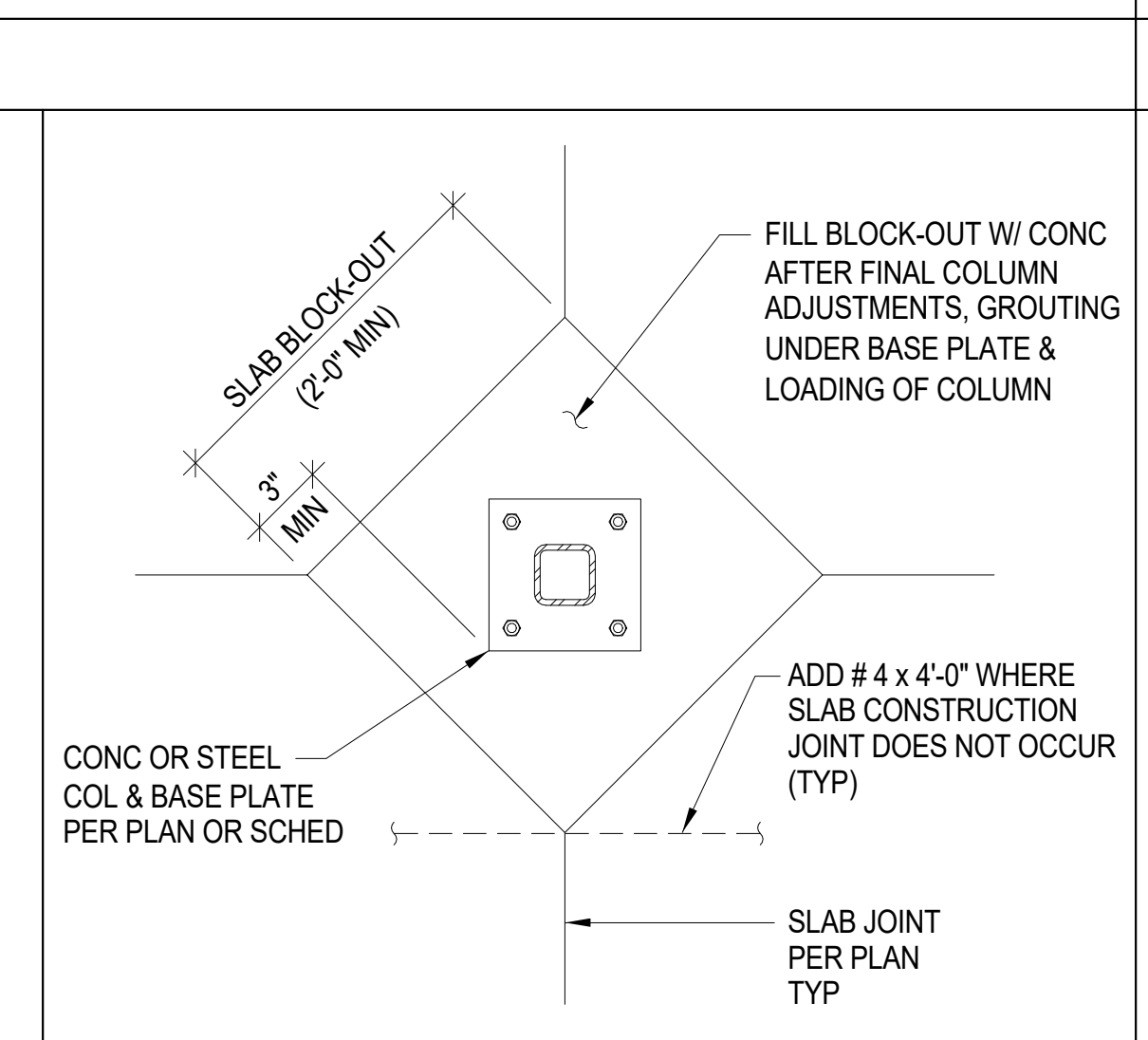
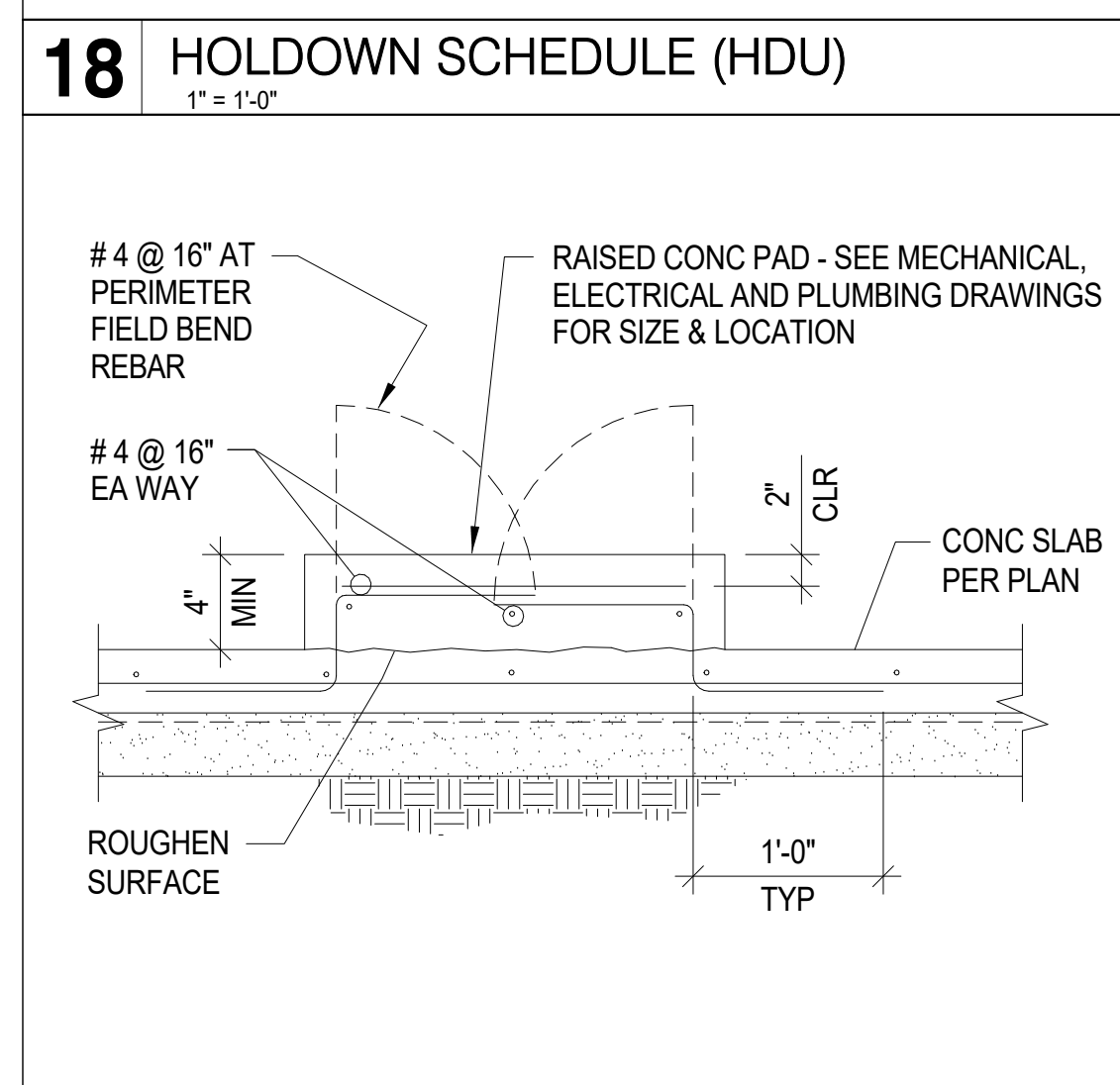
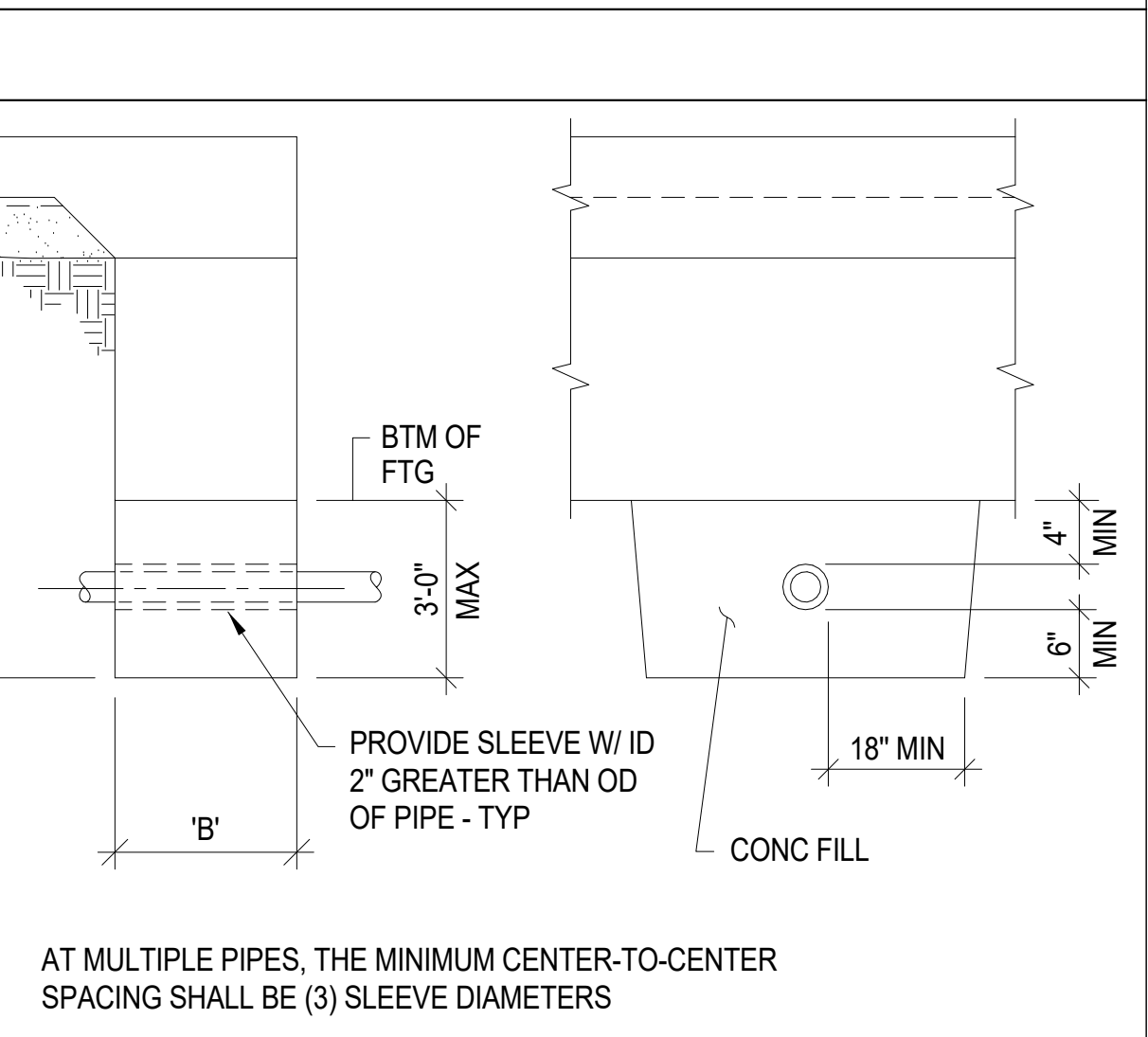
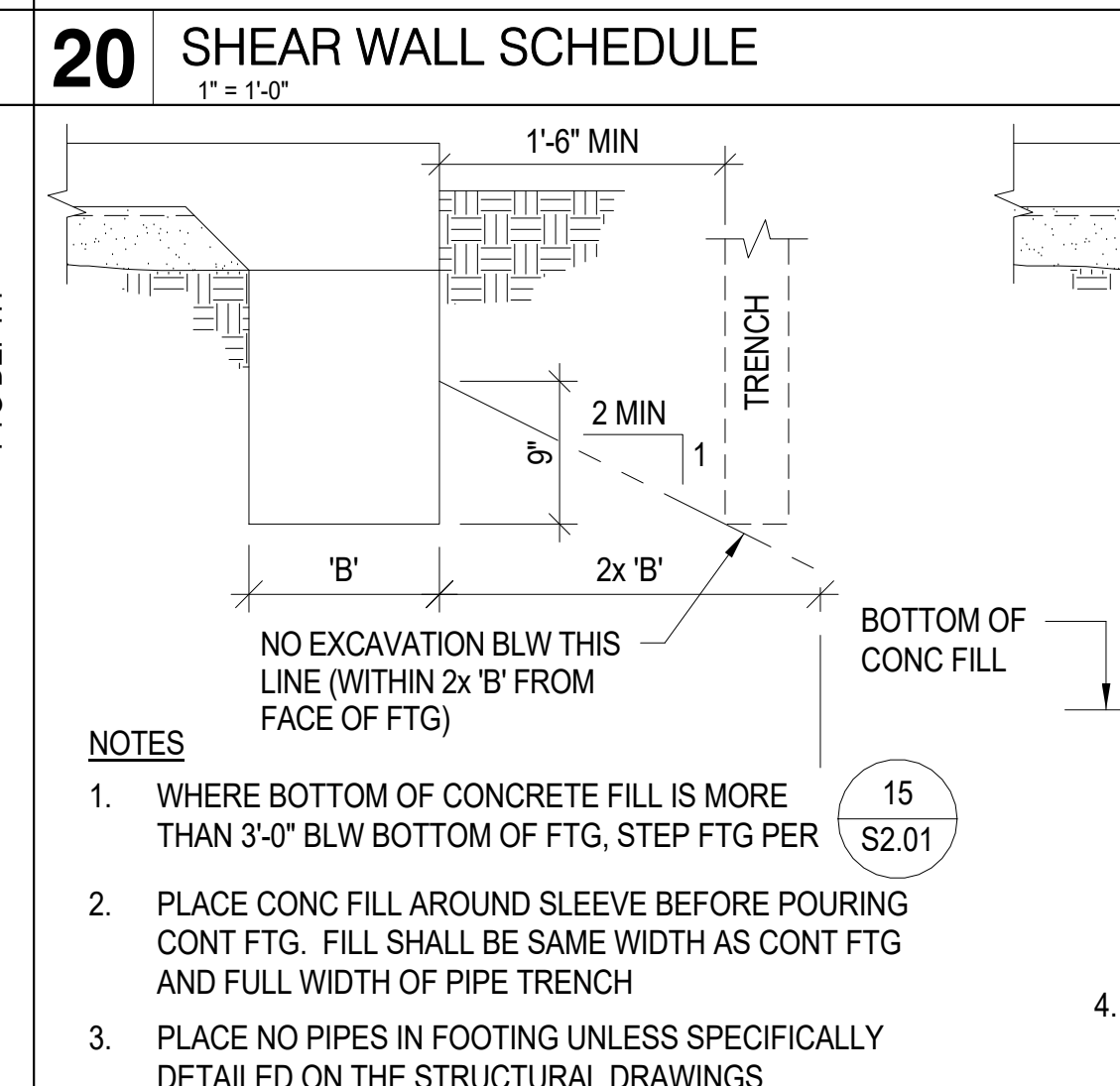
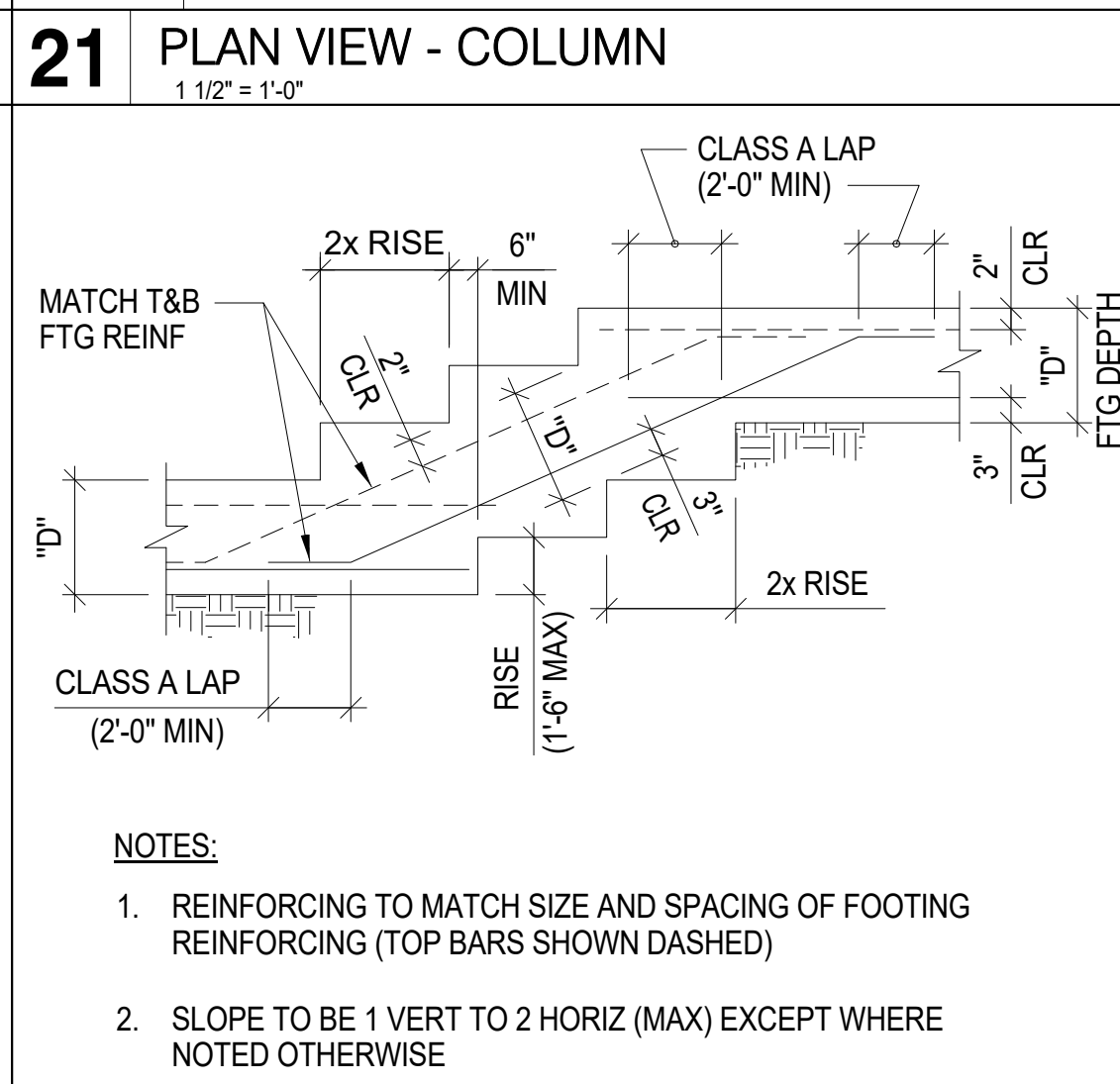
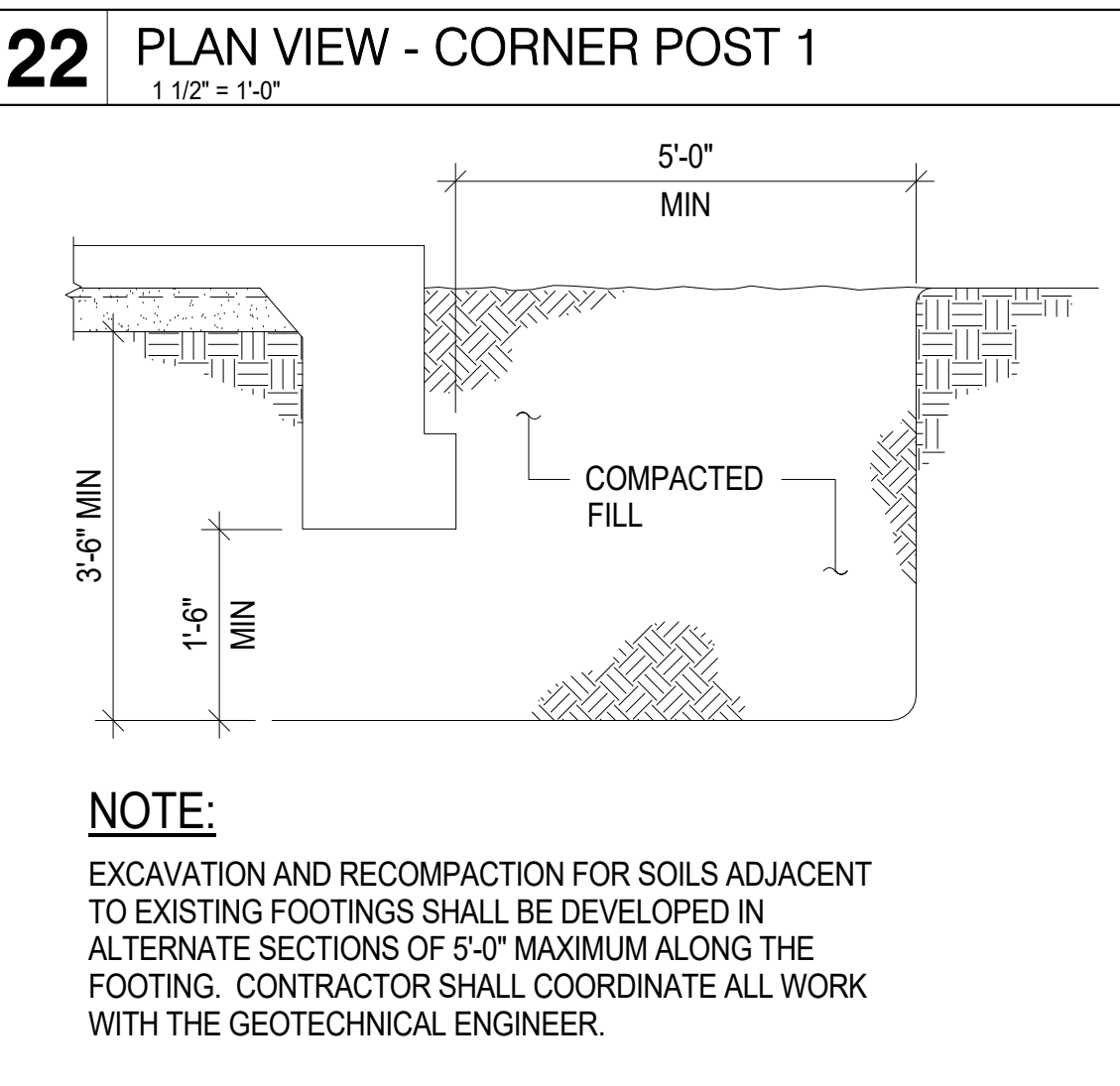
- 15 S2.01
1. EXCAVATION AND RECOMPACTION FOR SOILS ADJACENT TO EXISTING FOOTINGS SHALL BE DEVELOPED IN ALTERNATE SECTIONS OF 5'-0" MAXIMUM ALONG THE FOOTING. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE GEOTECHNICAL ENGINEER.



23 PLAN VIEW - CORNER POST 2
1 1/2" = 1'-0"

MARK	SDS SCREWS	HOLDOWN ANCHOR	EMBED LENGTH	HD POST UON	ALLOWABLE TENSION (LBS)
HDU2-SDS2.5	6	SSTB24	20 5/8"	4x	3075
HDU4-SDS2.5	10	SSTB24	20 5/8"	4x	3325 *
HDU8-SDS2.5	20	SSTB28	24 7/8"	6x	7870 *

* CAPACITY GOVERNED BY 'SSTB' ANCHOR



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23 BEAM TO BEAM MOMENT CONNECTION

1" = 1'-0"

SHEAR PLATE, BOLTS & WELDS PER
21
S2.02

22 FULL HEIGHT STIFFENER PLATE

1" = 1'-0"

1/4" FULL HT STIFF PLATE
21
S2.02

FULL HT SHEAR TAB

21 BEAM TO BEAM CONNECTION

1" = 1'-0"

CONNECTION SCHEDULE

BEAM	BOLT SIZE	BOLTS	SHEAR PL	WELD
W 6, 8, 10	7/8" DIA	2	1/4"	3/16"
W 12	7/8" DIA	3	1/4"	3/16"
W 14	7/8" DIA	3	3/8"	1/4"
W 16	7/8" DIA	4	3/8"	1/4"
W 18	7/8" DIA	5	3/8"	1/4"

NOTES:
1. ALL BOLTS SHALL BE A325N
2. FOR CHANNELS, USE BEAM SCHED WITH SIMILAR DEPTHS.

26 BEAM TO COLUMN CONNECTION

1" = 1'-0"

4 BEAM INTERSECTION

MAX SLOT SIZE = SHEAR PL T + 1/16"

CONN AT ROOF

BEAM PER PLAN

COLUMN PER PLAN

BEAM SCHEDULE

BEAM	BOLT SIZE	BOLTS	SHEAR WELD PLATE	W
W 6, 8, 10	7/8" DIA	2	1/4"	3/16"
W 12	7/8" DIA	3	1/4"	3/16"
W 14	7/8" DIA	3	3/8"	1/4"
W 16	7/8" DIA	4	3/8"	1/4"
W 18	7/8" DIA	5	3/8"	1/4"

NOTE:
ALL BOLTS SHALL BE A325N
UNON ON PLANS

20 BEAM TO BEAM CONNECTION

1" = 1'-0"

DECK REINF PER (B) (C)

NO REINF REQD FOR HOLES CUTTING NO WEBS

CONSIDER OPNG GROUP AS A SINGLE OPENING

DECK WITH OR WITHOUT CONCRETE TOPPING

DECK WITHOUT CONCRETE TOPPING

DECK WITH OR WITHOUT CONCRETE TOPPING

16 NON-COMPOSITE DECK WELDING

1" = 1'-0"

LONGITUDINAL SECTION

TRANSVERSE SECTION

1-1/2" SIDE LAP SEAM WELD AT SPACING 'B'

1/2" BRG TYP

ANGLE OR BM

NOTE:
1. DECK SHALL HAVE MIN OF 2 SPANS PER SHEET.
2. ALL FIELD APPLIED 3/4" DIA PLUG WELDS TO BE 1/2" DIA EFFECTIVE.
3. ROOF DECK BASED ON EPIC METALS, TORIS A DECK (APMO ER-226)

DECKING		MIN. SECTION PROPERTIES			SPACING		SPAN	ALLOWABLE DIAPHRAGM SHEAR
'd'	GA	I (IN ⁴)	+ S (IN ³)	- S (IN ³)	'A'	'B'		
2 1/2"	20	0.73	0.47	0.42	12"	12"	10'-0"	q = 1020 PLF (ASD)

14 DECK SUPPORT AT SMALL OPENINGS

1" = 1'-0"

20 GA GALV SHEET MTL (AT UNDERSIDE OF MTL DECK)

D = 1'-0" MAX SQ OR ROUND OPENING

TACK WELD EACH FLUTE EACH END

TACK WELD 3 PLACES EACH SIDE

EXTEND MIN 2 UNINTERRUPTED FLUTES EA SIDE

DECK WITH OR WITHOUT CONCRETE TOPPING

10 TYPICAL BACKING BLOCKING

1" = 1'-0"

PAPER OVER SHGT PER SPECIFICATIONS

ANCHORED VENEER

CONT # 9 WIRE W/ 4" LAP SPLICES LOCATE IN MIDDLE 1/3 OF THE WIDTH OF VENEER

16 GA x 1" GALV ANCHORS @ 16" MAX HORIZ & @ 12" MAX VERT

2x6 STUDS AT VENEER

ANCHOR DETAIL

NOTE:
1. ANCHORS SHALL HAVE A MINIMUM 1.5 OZ OF ZINC PER SQ FT OF SURFACE AREA.

8 HEADER FRAMING

1" = 1'-0"

SHEATHING PER PLAN

STRAP PER ELEVATION

(2) 10d @ 3 1/2" AT HEADER

EN TO HEADER

WINDOW OPENING

7 TOP PLATE SPLICE

1" = 1'-0"

WINDOW OR MECH DUCT OPENING

STRAP PER PLAN (CTR'D ON SILL PLATES)

(2) 10d @ 3 1/2" AT SILL

EN TO SILL PLATES

SHEATHING PER PLAN

4 VENEER ATTACHMENT TO WOOD STUD

1" = 1'-0"

GALV #12 x 2-1/2" WOOD SCREW TO STUD

3 5/8" MAX

1"

1/4"

ANCHOR DETAIL

NOTE:
1. ANCHORS SHALL HAVE A MINIMUM 1.5 OZ OF ZINC PER SQ FT OF SURFACE AREA.

3 HEADER

1 1/2" = 1'-0"

SHEATHING PER PLAN

STRAP PER ELEVATION

(2) 10d @ 3 1/2" AT HEADER

EN TO HEADER

WINDOW OPENING

2 BLOCKING

1 1/2" = 1'-0"

SHEATHING PER PLAN

STRAP PER ELEVATION (STRAP PER HEADER OR SILL DETAIL)

CONT 4x BLKG & STRAP

1 SILL

1 1/2" = 1'-0"

WINDOW OR MECH DUCT OPENING

STRAP PER PLAN (CTR'D ON SILL PLATES)

(2) 10d @ 3 1/2" AT SILL

EN TO SILL PLATES

SHEATHING PER PLAN

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119487 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/01/2021

PBK

ARCHITECTURE

**IVC - B600 COLLEGE CENTER
EXPANSION PROJECT**
380 E Aten Rd.
Imperial, CA. 92251
DSA SUBMITTAL

CONSULTANT

sdse
Structural Engineers

ENGINEER

ARCHITECT

CLIENT
IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
20190
DATE: 2020/09/17
DRAWN BY: RD
CHECKED BY: CK
REVISIONS

No.	Description	Date
	PLAN CHECK REVIEW	12-08-2020

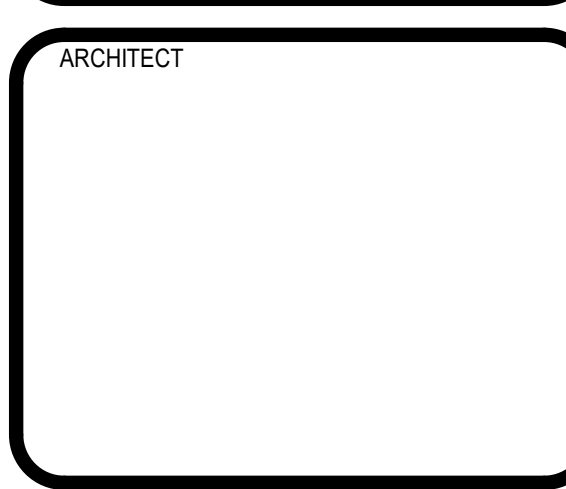
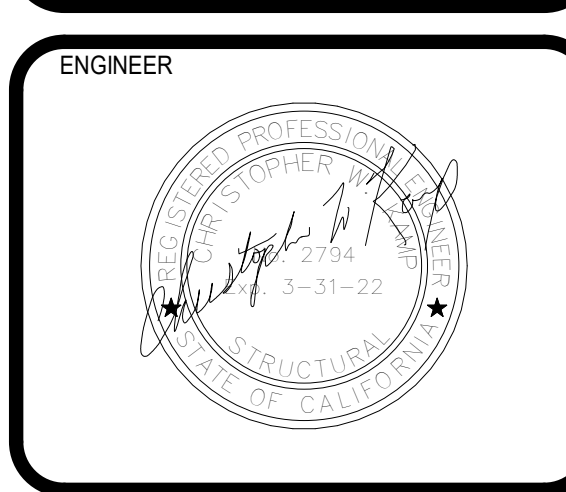
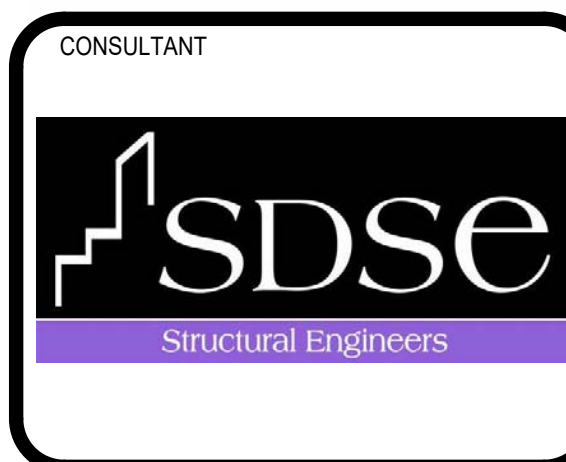
DSA SUBMITTAL

TYPICAL DETAILS

S2.02



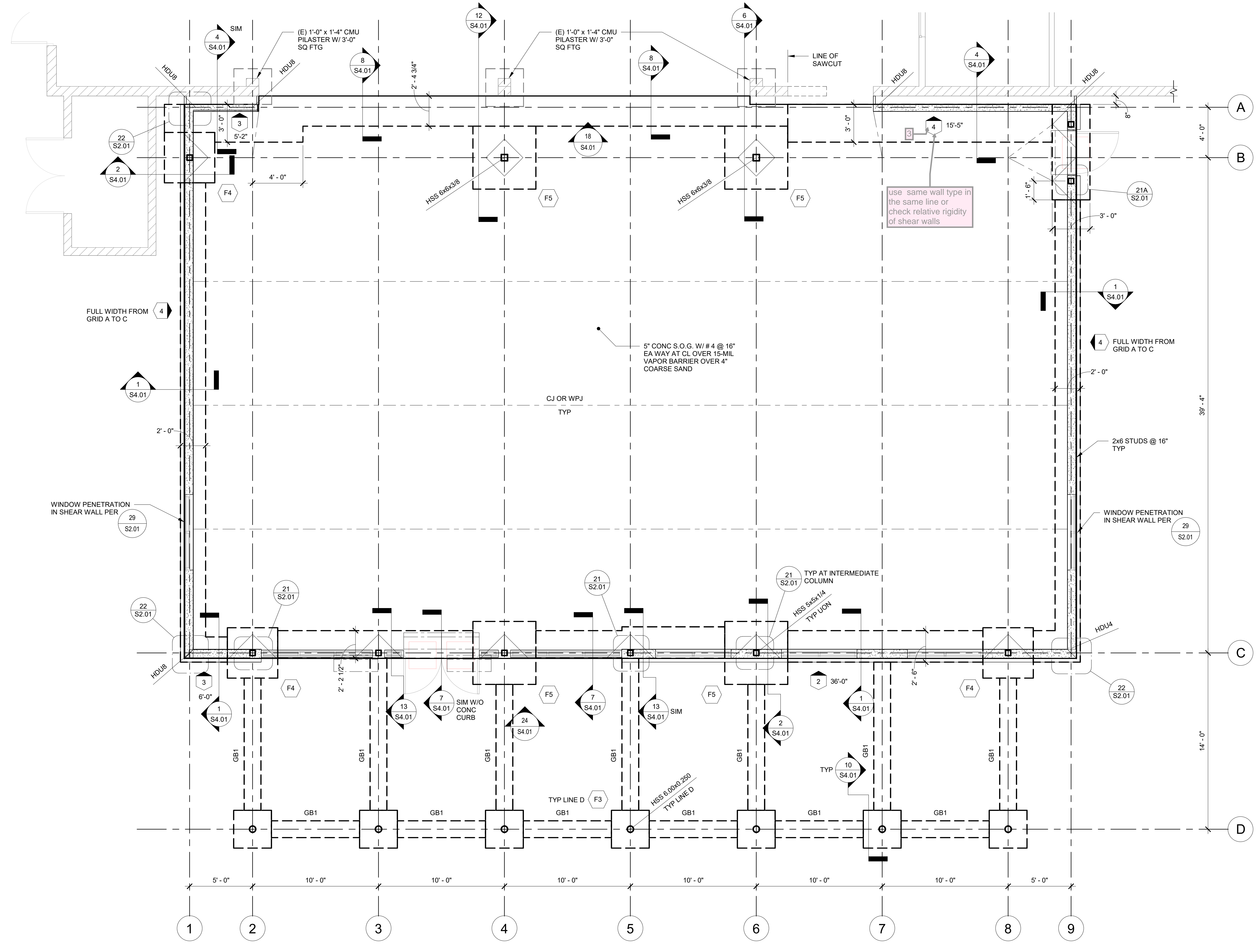
ARCHITECTURE
**IVC - B600 COLLEGE CENTER
EXPANSION PROJECT**
380 E Aten Rd.
Imperial, CA. 92251
DSA SUBMITTAL



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IMPERIAL VALLEY COLLEGE

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	PLAN CHECK REVIEW	12-08-2020

FOUNDATION PLAN
S3.01



SPREAD FOOTING SCHEDULE

MARK	FOOTING SIZE	THICK T MIN	REINFORCING
F3	3'-0" x 3'-0"	1'-4"	(4) # 4 EA WAY (B)
F4	4'-0" x 4'-0"	1'-6"	(4) # 4 EA WAY T&B
F5	5'-0" x 5'-0"	1'-6"	(5) # 6 EA WAY T&B

LEGEND

	- INDICATES SHEAR WALL PER SCHED		20 S2.01
	- INDICATES SLAB JOINT PER		4 S2.01
HDU4	- INDICATES HOLDOWN PER		18 S2.01
GB1	- INDICATES 1'-4" SQ CONC GRADE BEAM W/ (4) # 6 CONT & # 3 TIES @ 12" PER		14 S4.01

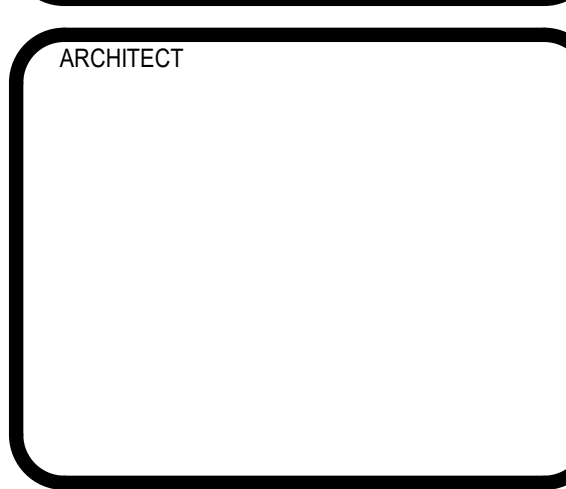
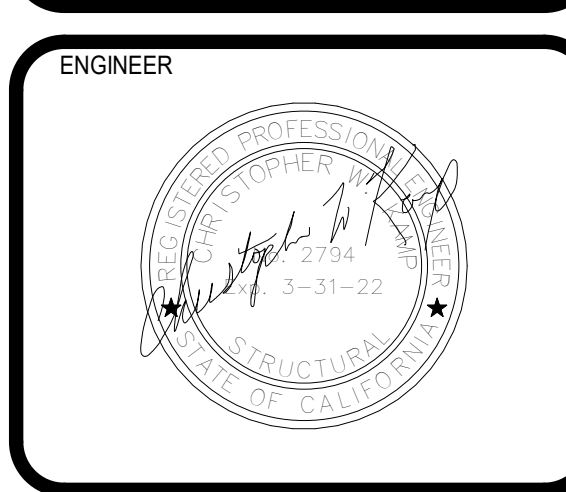
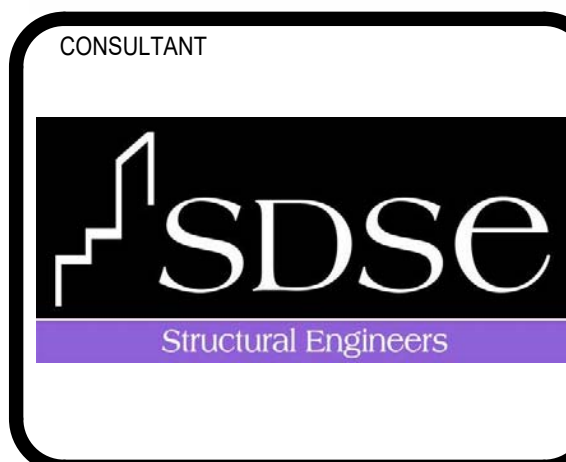
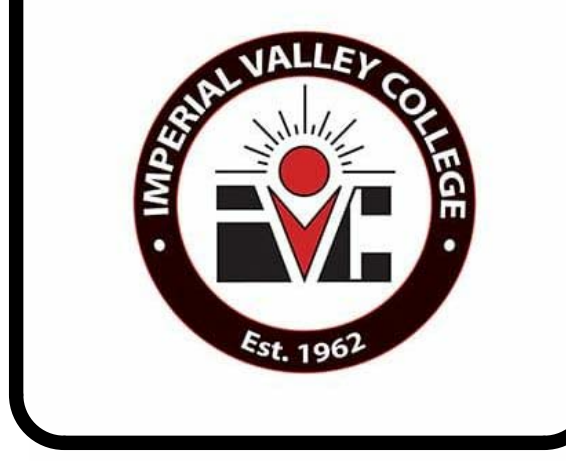
NOTE:
THE EXPOSED SURFACE SOIL WITHIN THE BUILDING ADDITION AREA SHOULD BE REMOVED TO A MINIMUM DEPTH OF 3 FEET BELOW THE BOTTOM OF THE PROPOSED BUILDING PAD ELEVATION OR EXISTING NATURAL SURFACE GRADE (WHICHEVER IS LOWER), AND SHOULD EXTEND 5 FEET BEYOND ALL EXTERIOR WALL/COLUMN LINES (INCLUDING CONCRETED AREAS ADJACENT TO THE BUILDING). A SAW-TOOTH OR SLOT-CUT EXCAVATION METHOD SHOULD BE UTILIZED ALONG THE EXISTING FOUNDATION TO PREVENT UNDERMINING OF THE EXISTING FOOTINGS AS DESCRIBED IN SECTION 5.5



PROJECT NORTH



ARCHITECTURE
**IVC - B600 COLLEGE CENTER
 EXPANSION PROJECT**
 380 E Aten Rd.
 Imperial, CA. 92251
 DSA SUBMITTAL



CLIENT
 IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
 20190

DATE: 2020/09/17

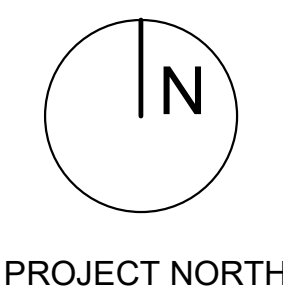
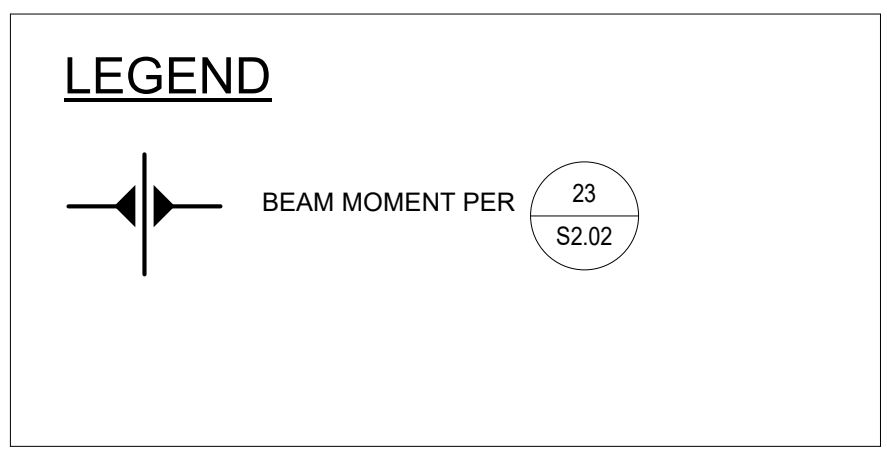
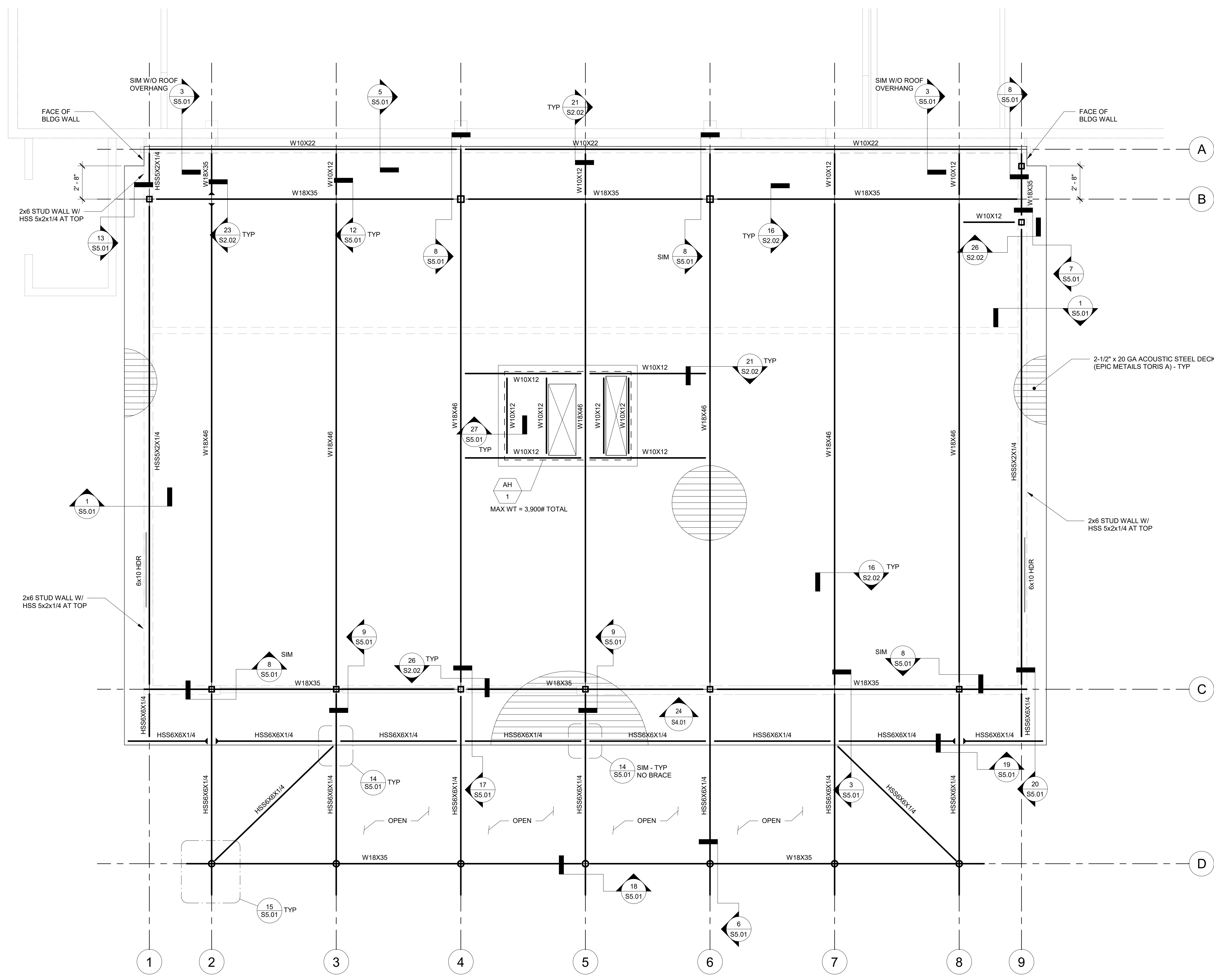
DRAWN BY: RD

CHECKED BY: CK

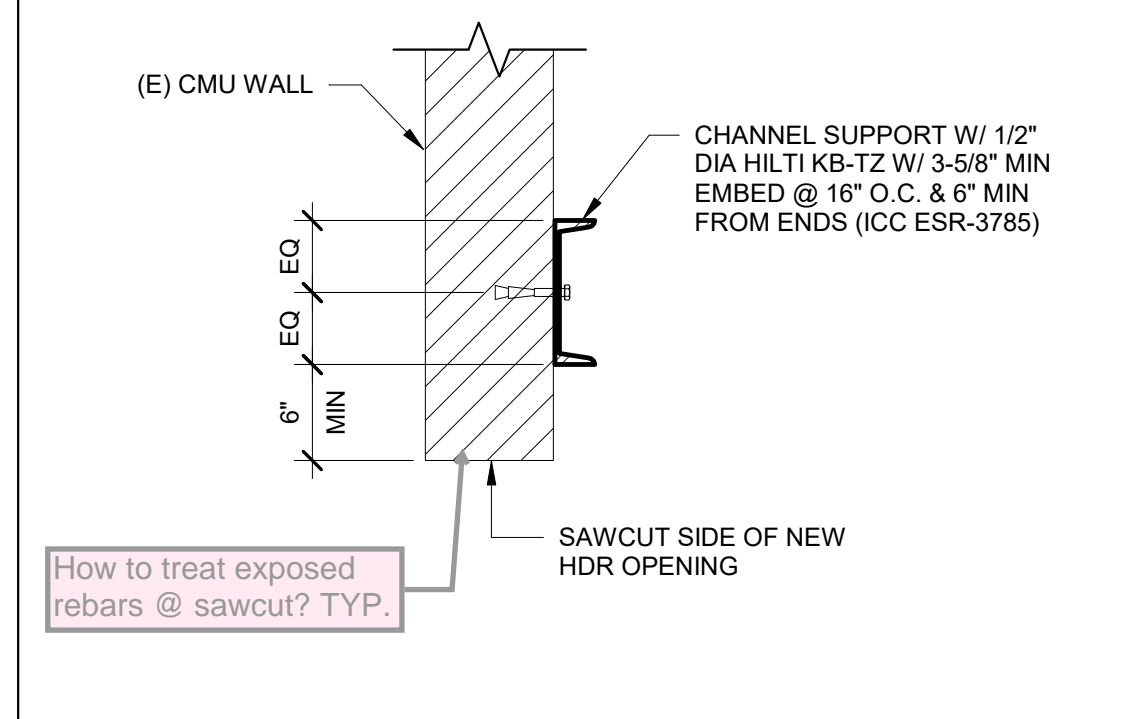
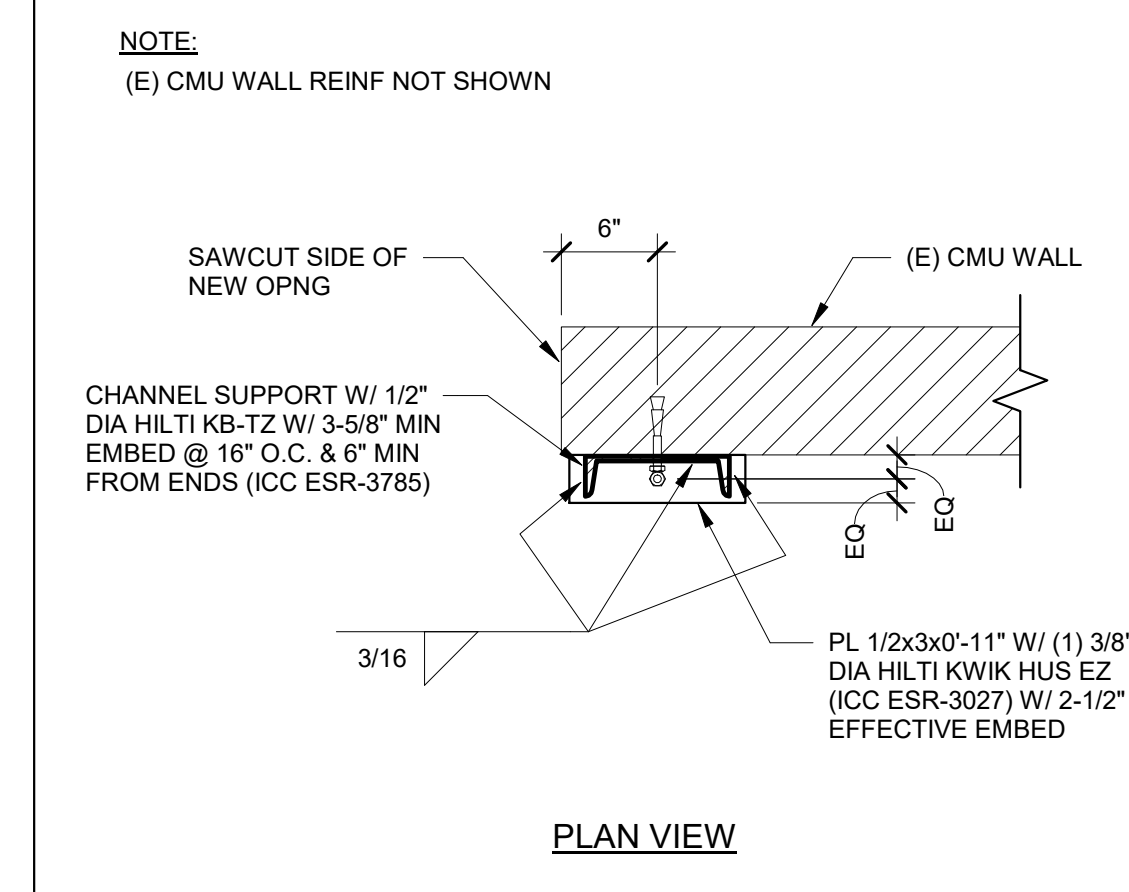
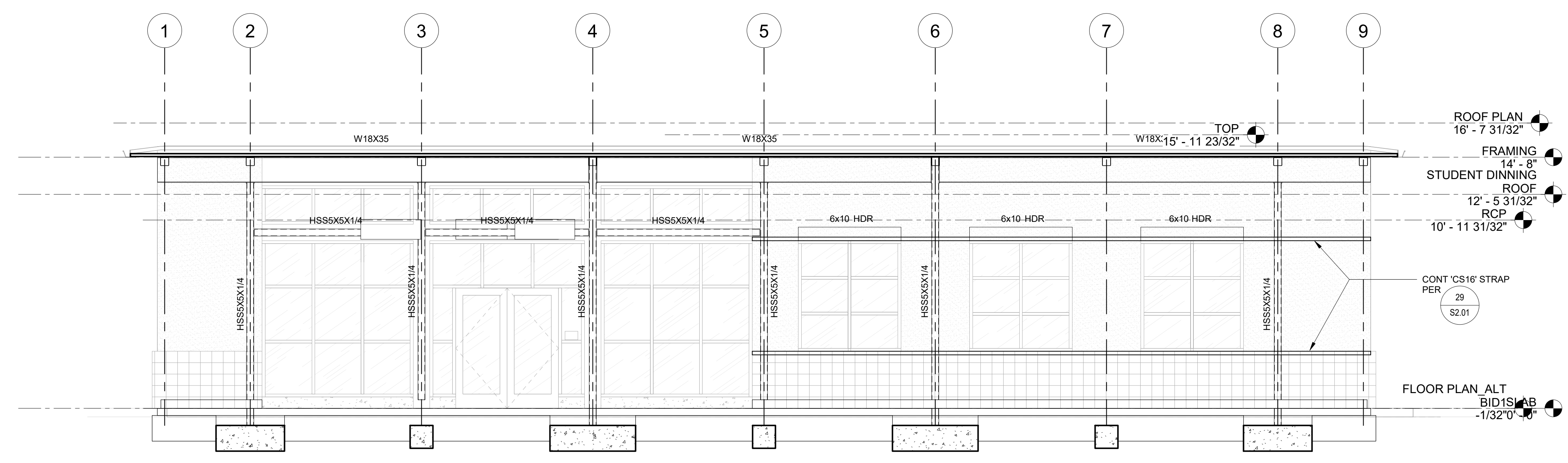
REVISIONS

No.	Description	Date
1	PLAN CHECK REVIEW	12-08-2020

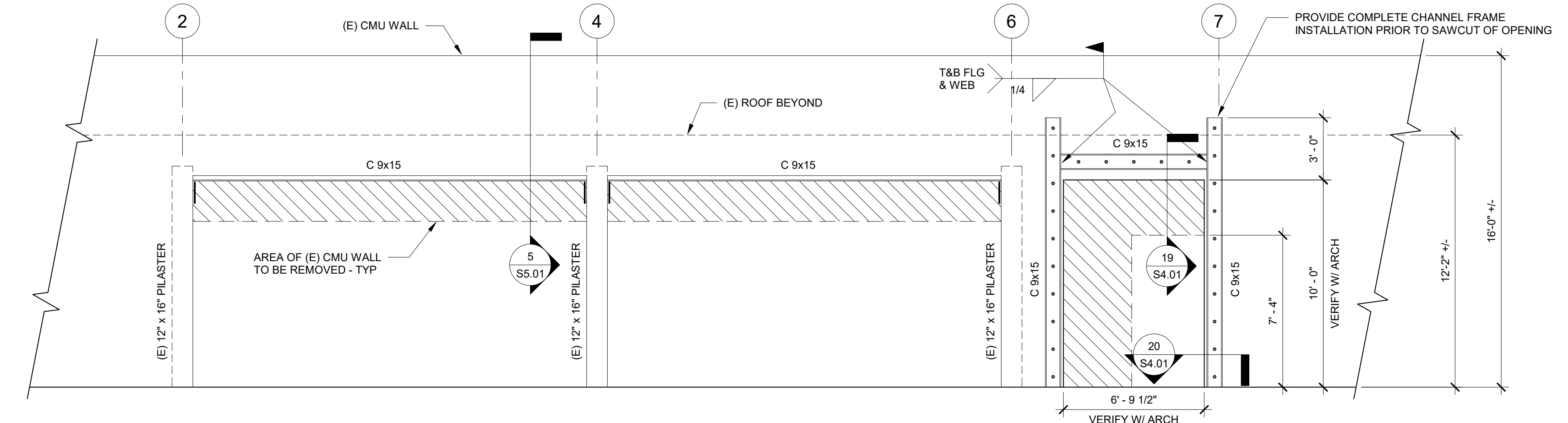
DSA SUBMITTAL
**ROOF FRAMING
 PLAN**
S3.02



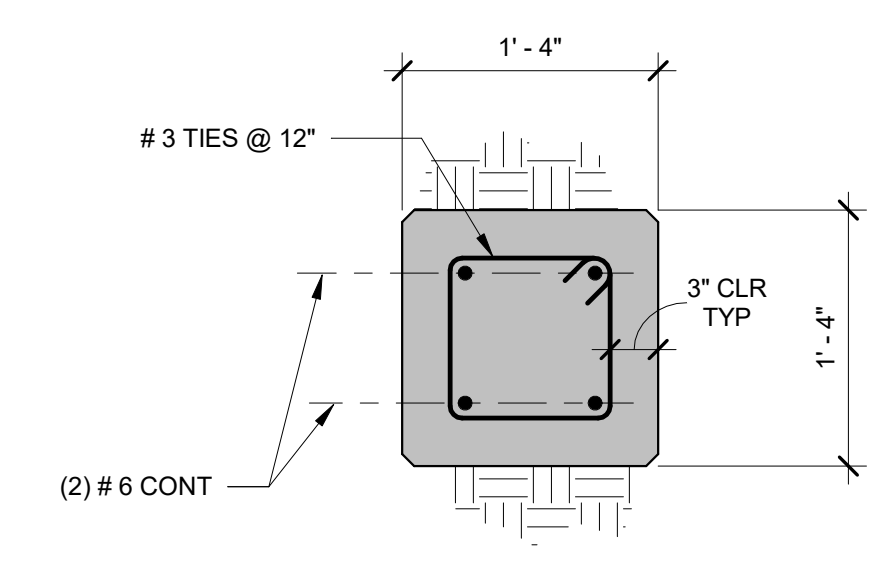
PROJECT NORTH



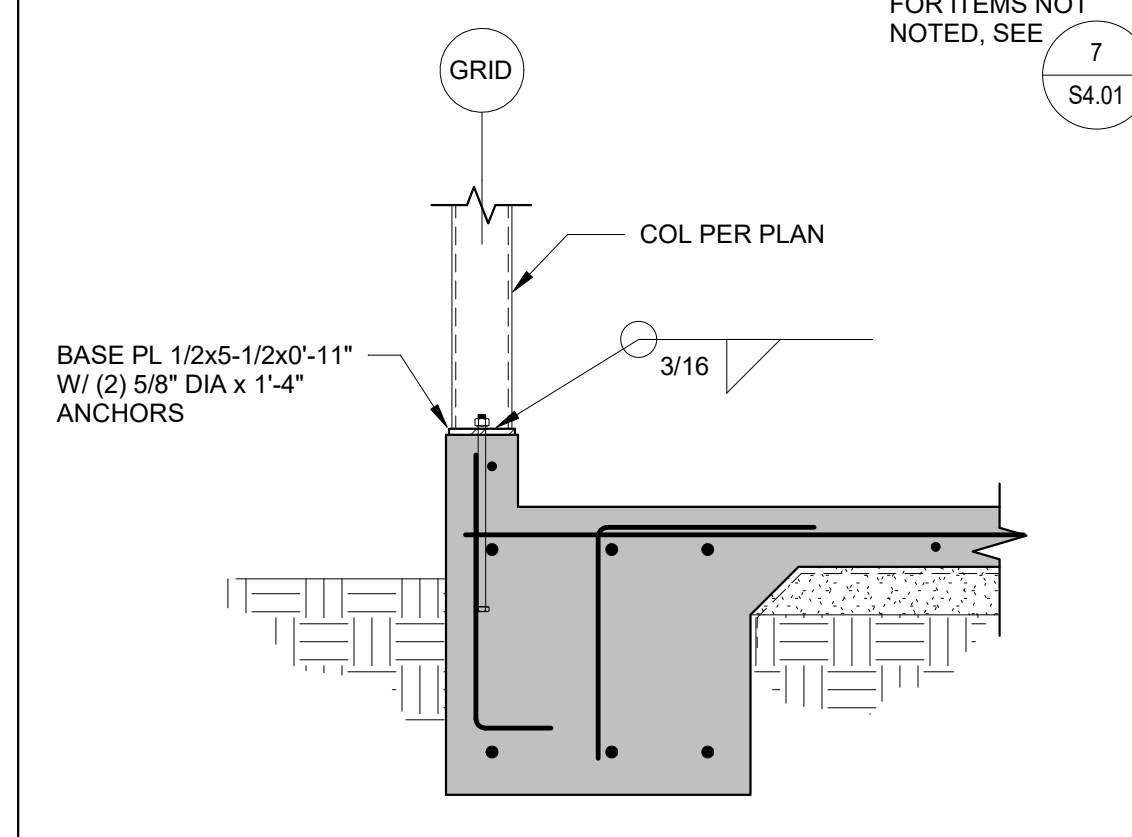
24 EXTERIOR WALL ELEVATION LINE C
1/8" = 1'-0"



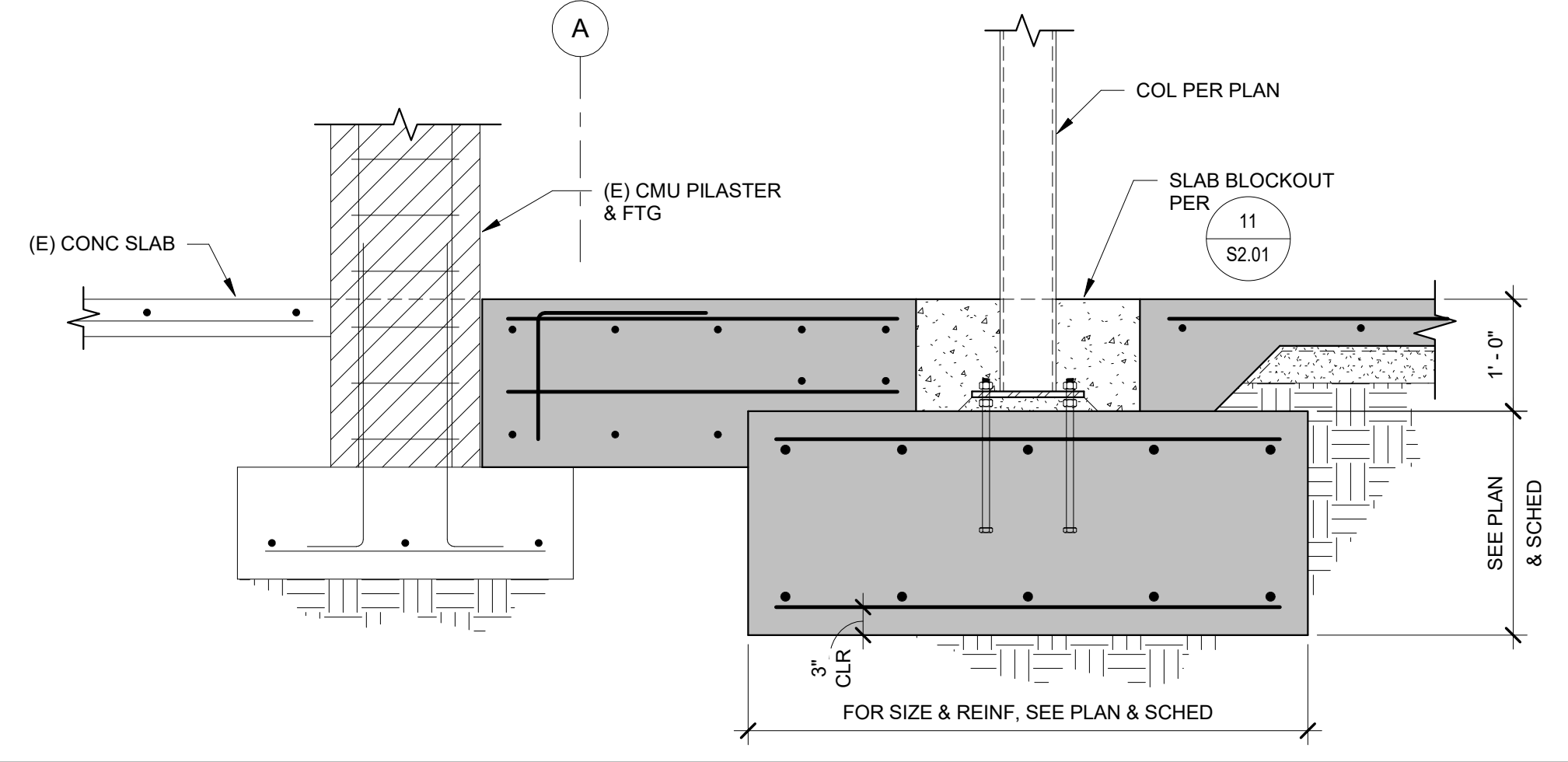
20 DETAIL 02
1" = 1'-0"



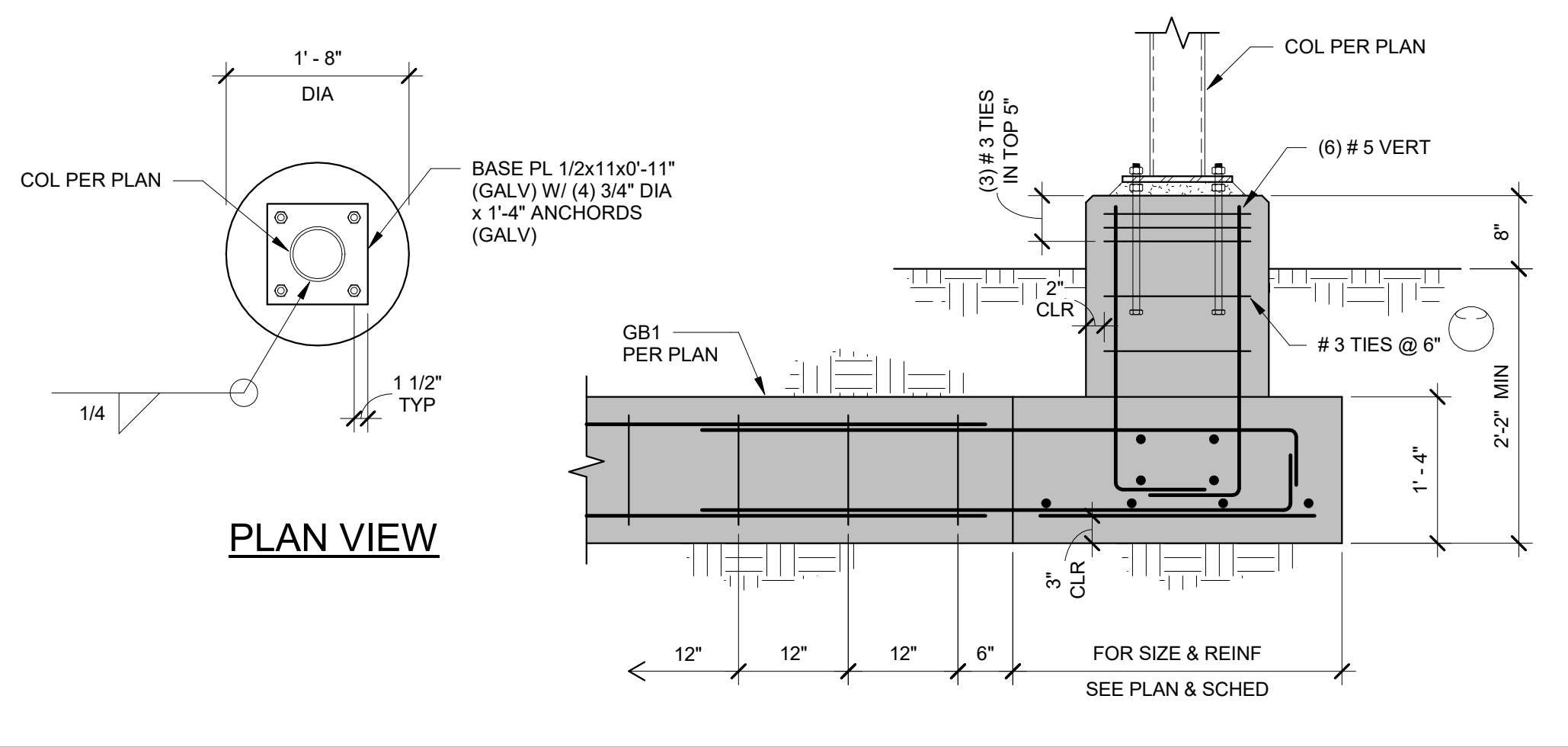
19 DETAIL 01
1" = 1'-0"



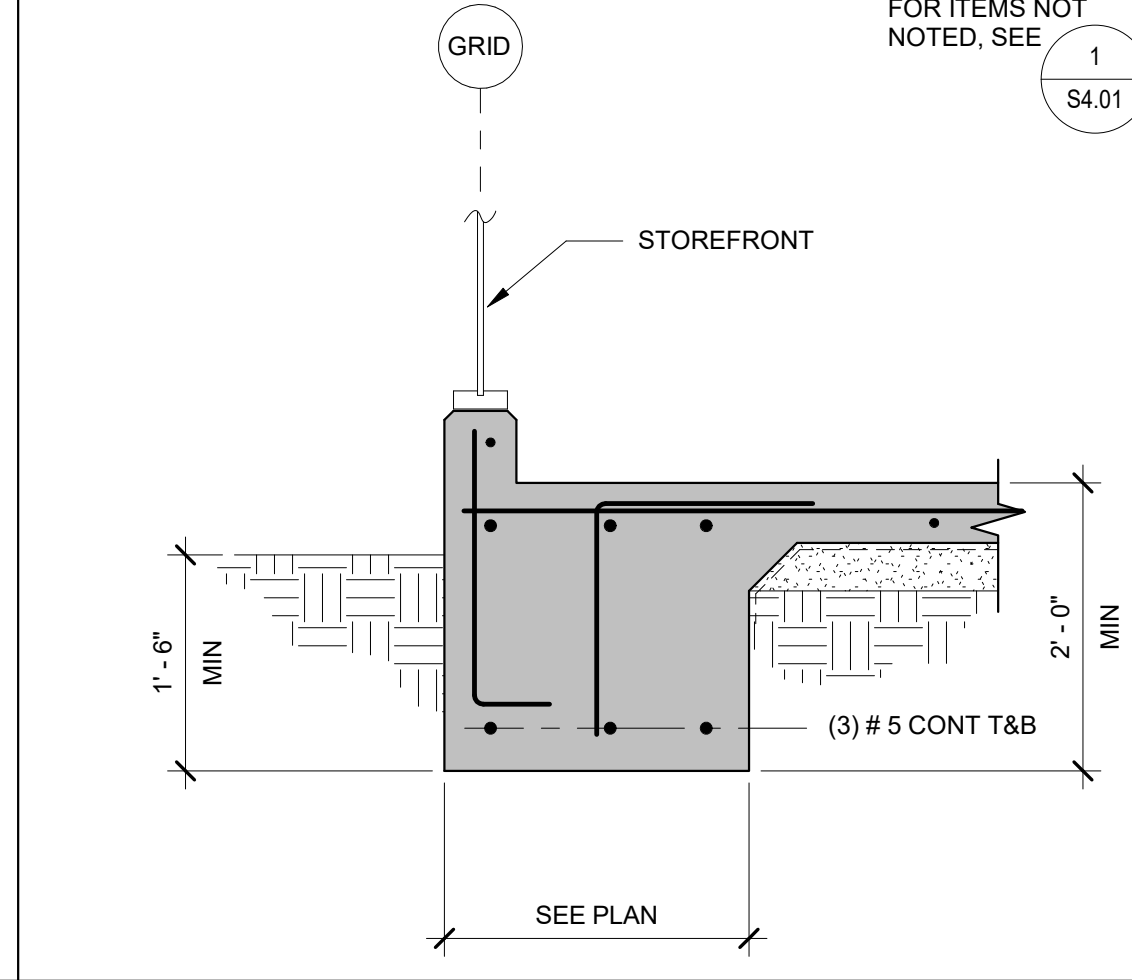
18 EXISTING WALL ELEVATION
1/8" = 1'-0"



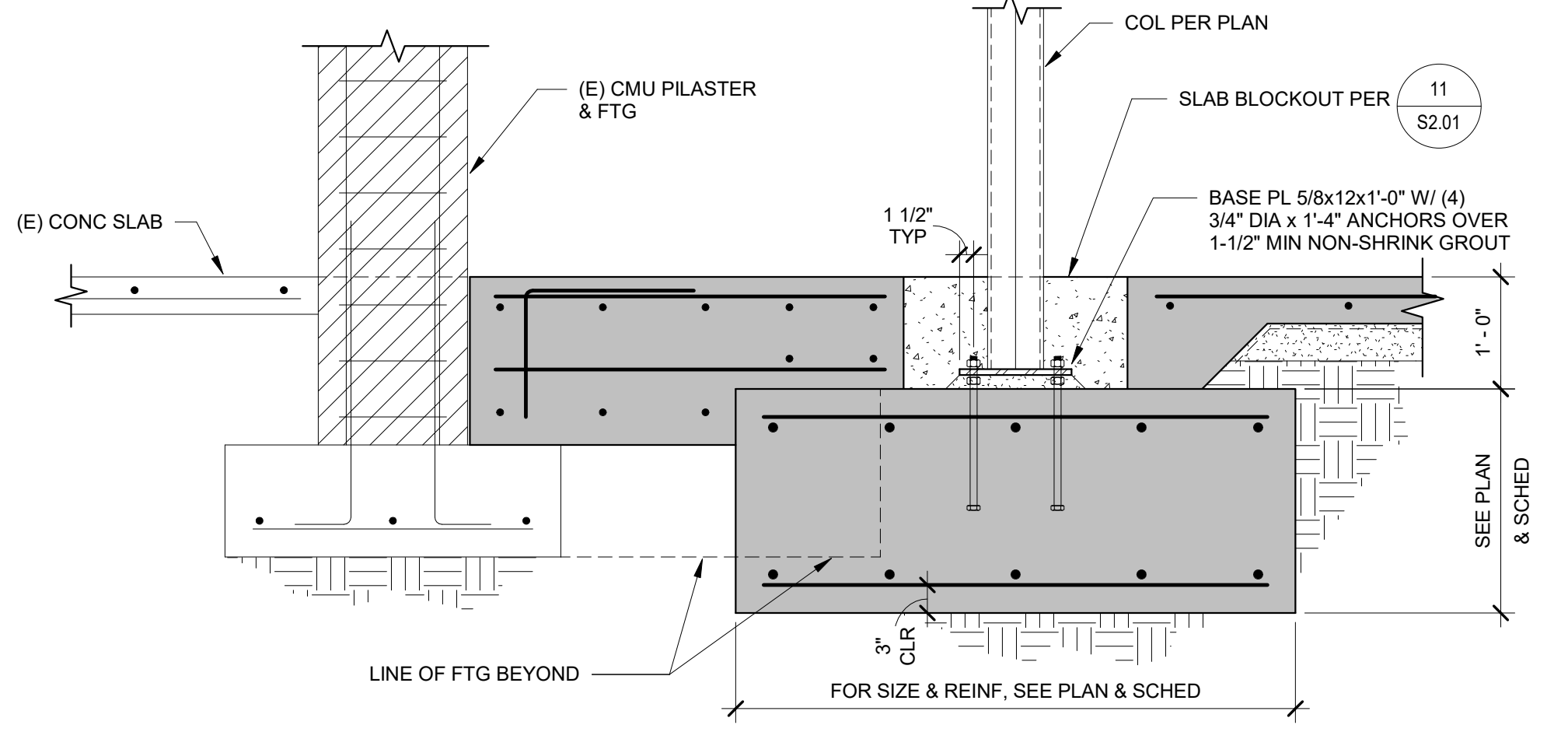
14 GB1 - GRADE BEAM SECTION
1" = 1'-0"



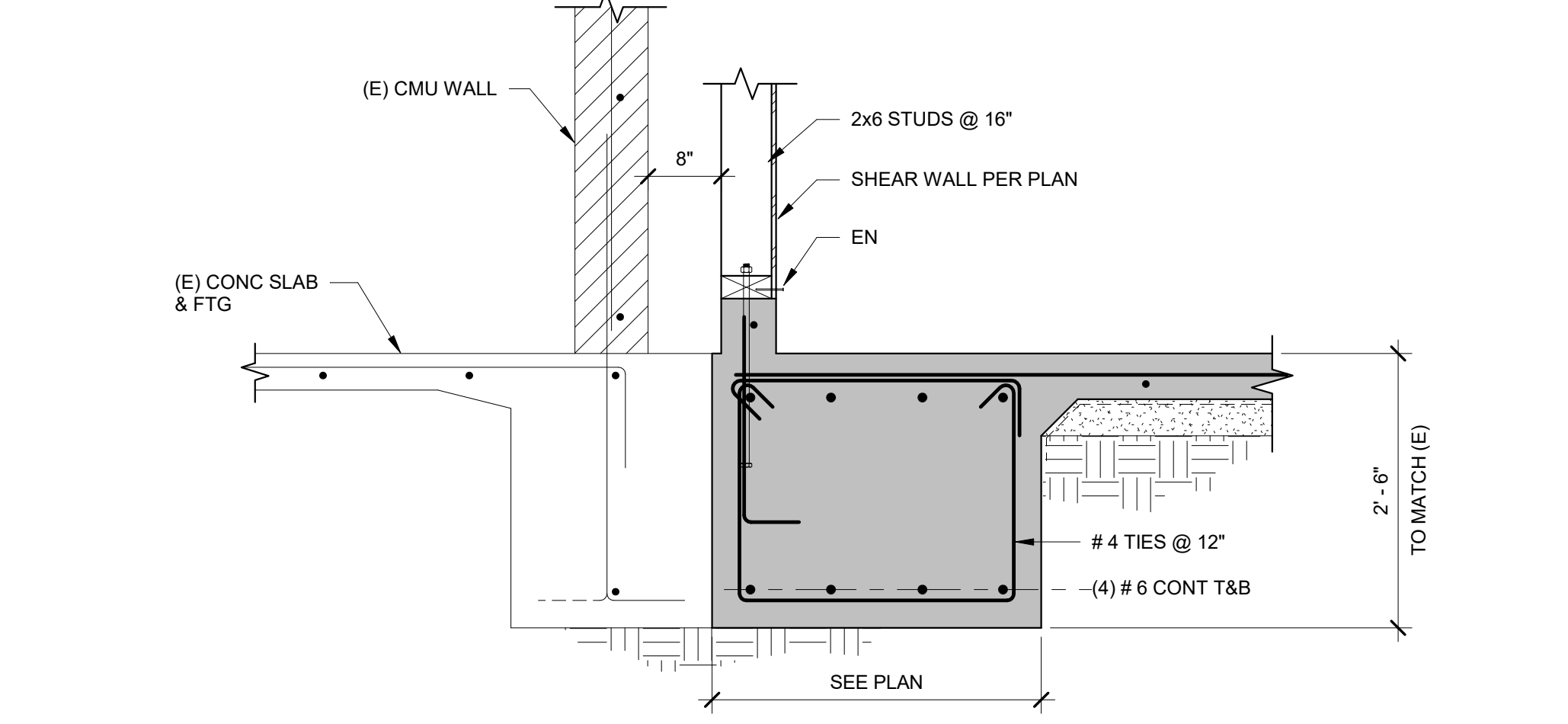
13 F09
3/4" = 1'-0"



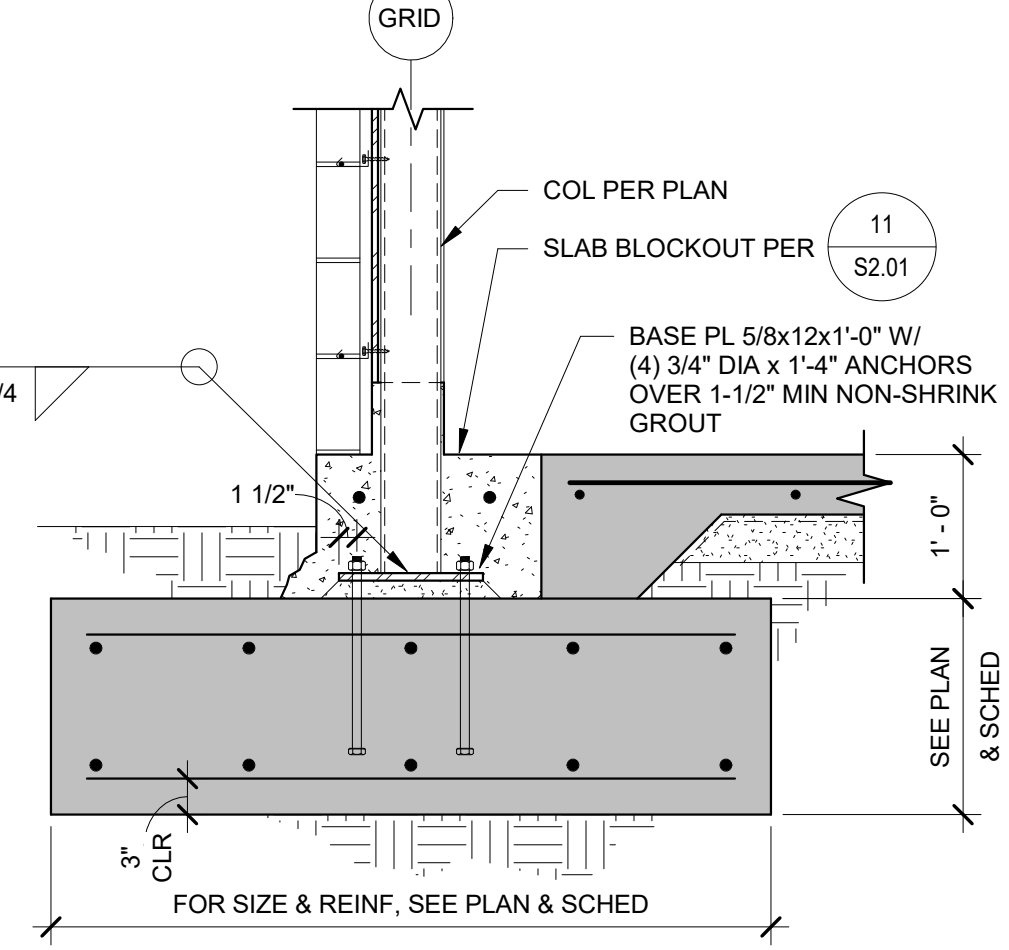
12 F06
3/4" = 1'-0"



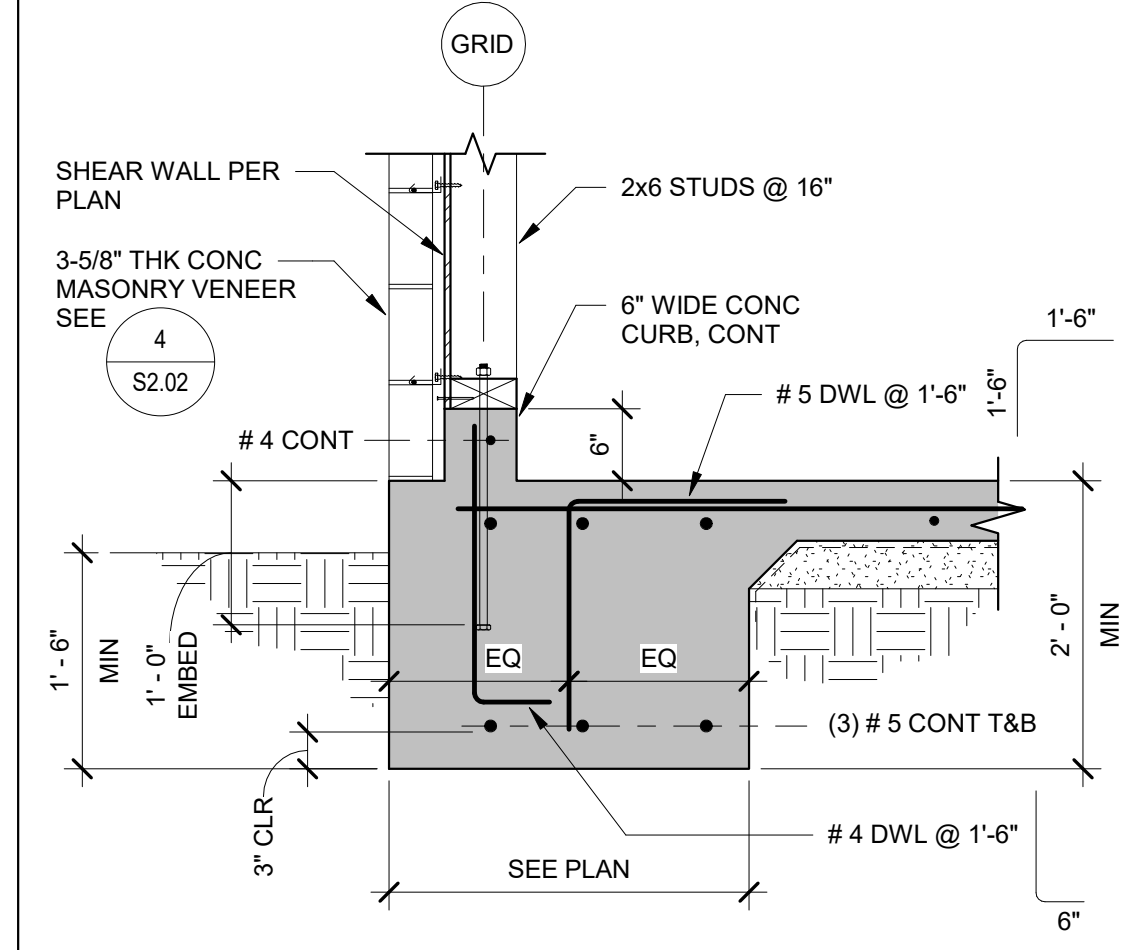
10 F08
3/4" = 1'-0"



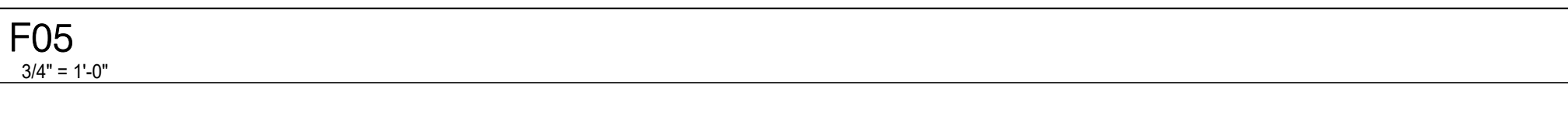
8 F07
3/4" = 1'-0"



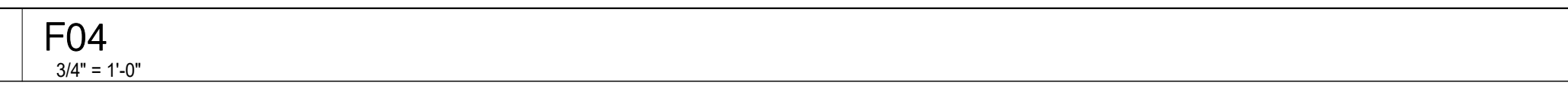
7 F03
3/4" = 1'-0"



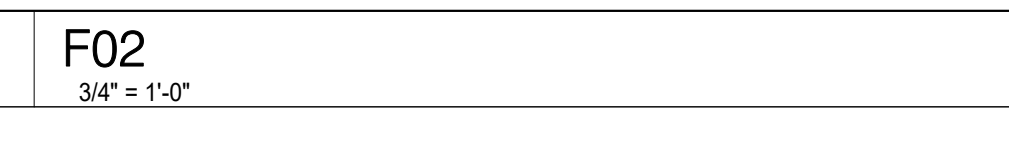
6 F05
3/4" = 1'-0"



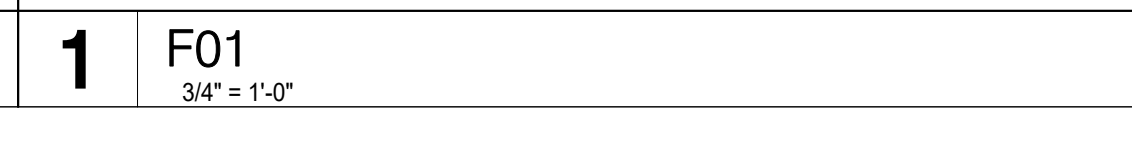
4 F04
3/4" = 1'-0"



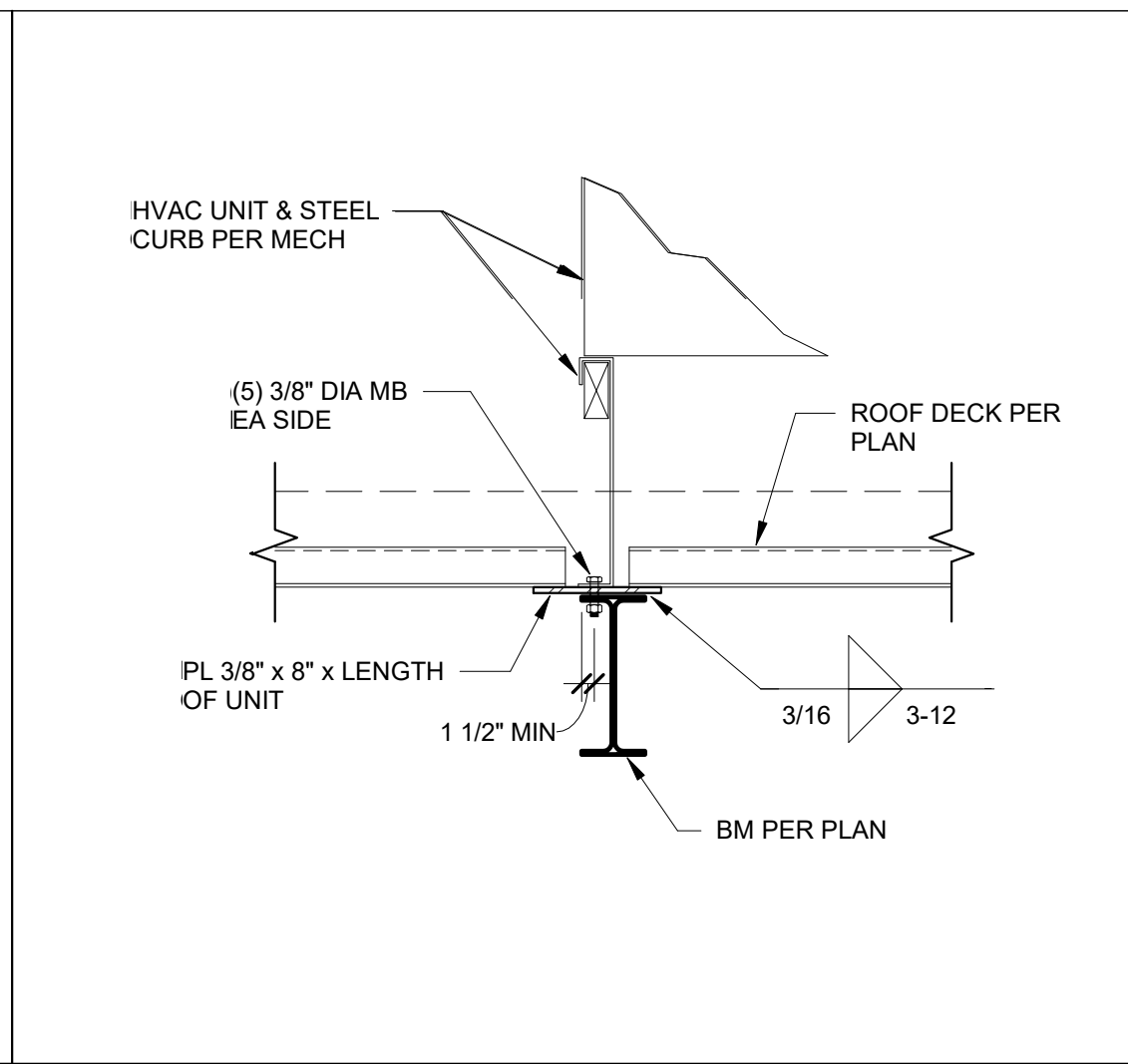
2 F02
3/4" = 1'-0"



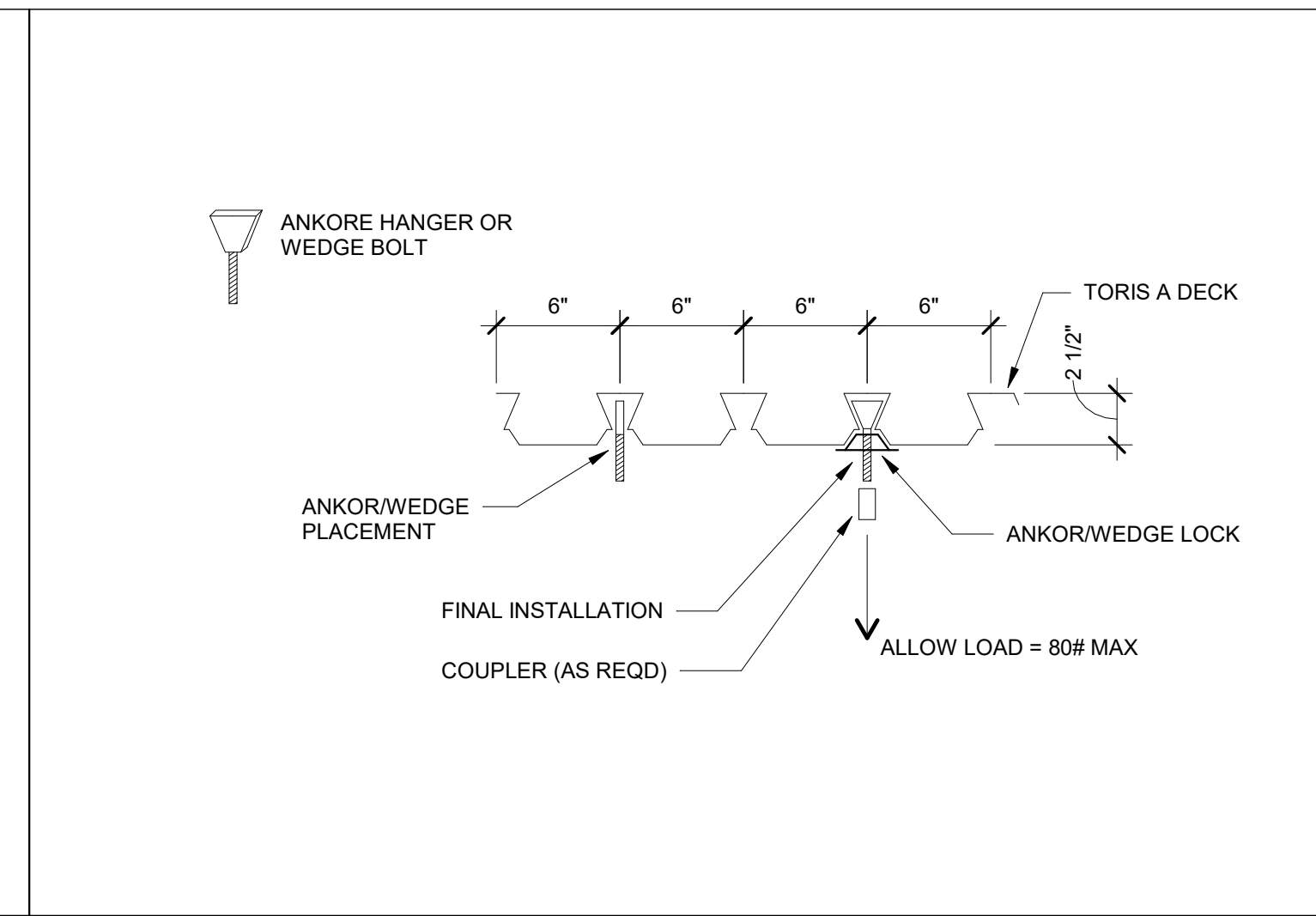
1 F01
3/4" = 1'-0"



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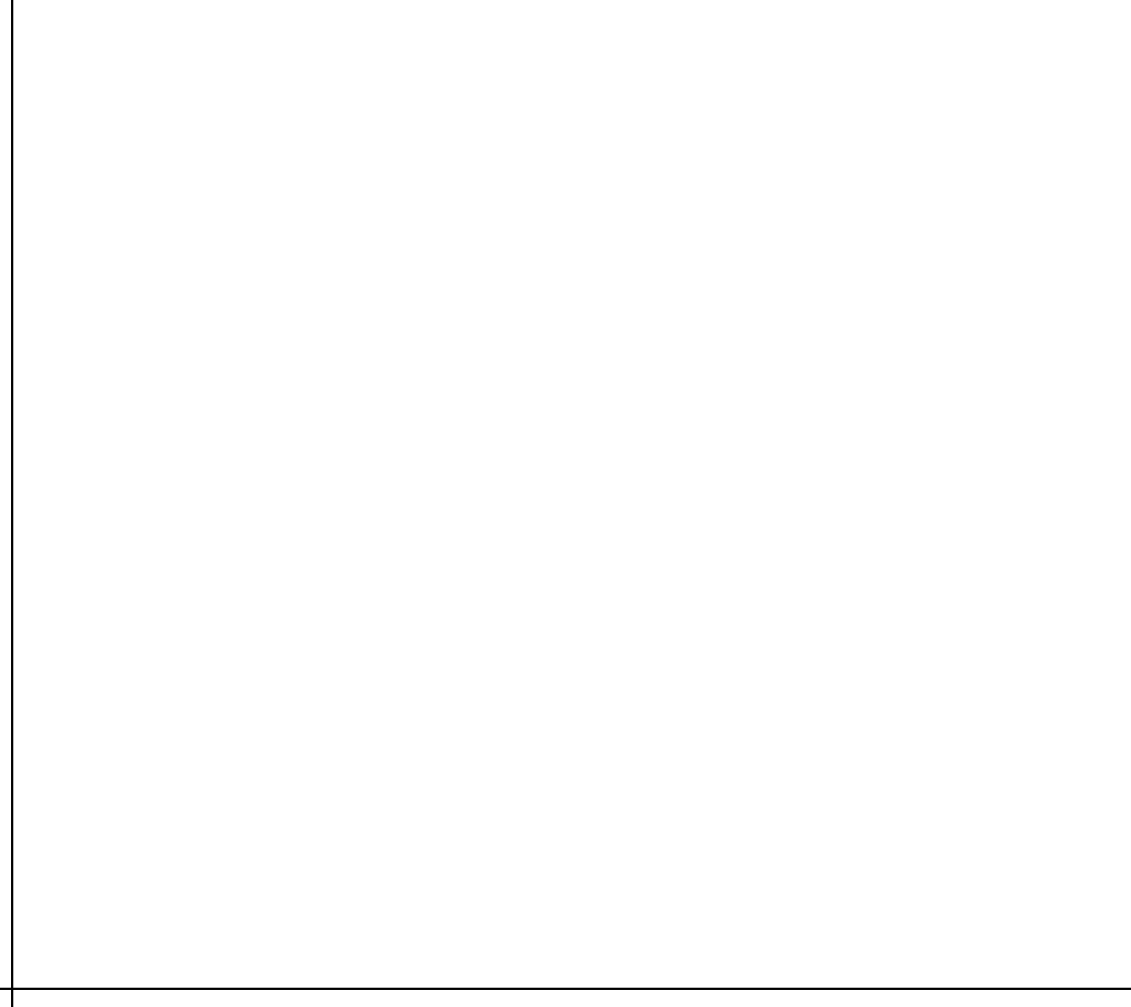


27 R16
1" = 1'-0"

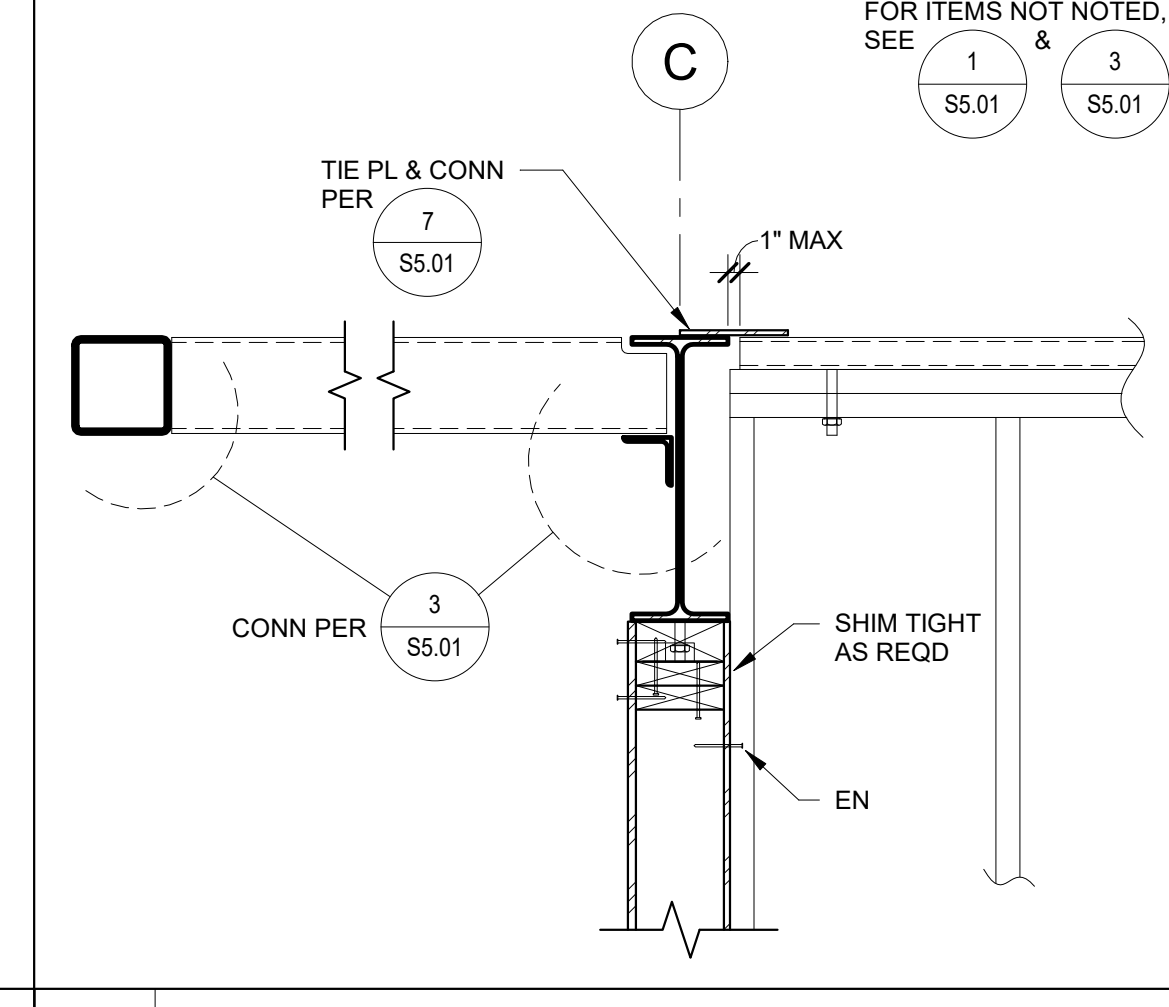


26 EPIC METALS CORP TORIS A HANGER ANCHORAGE
1" = 1'-0"

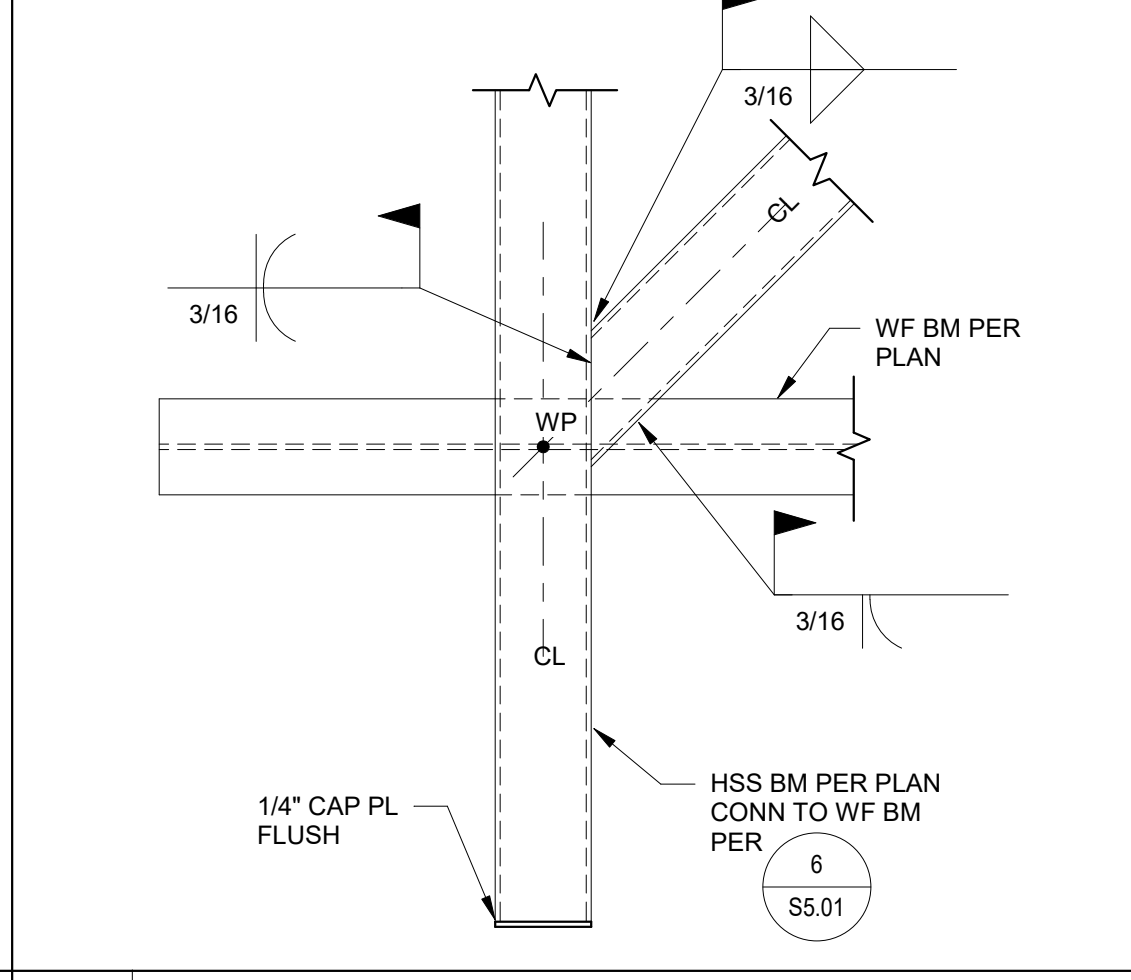
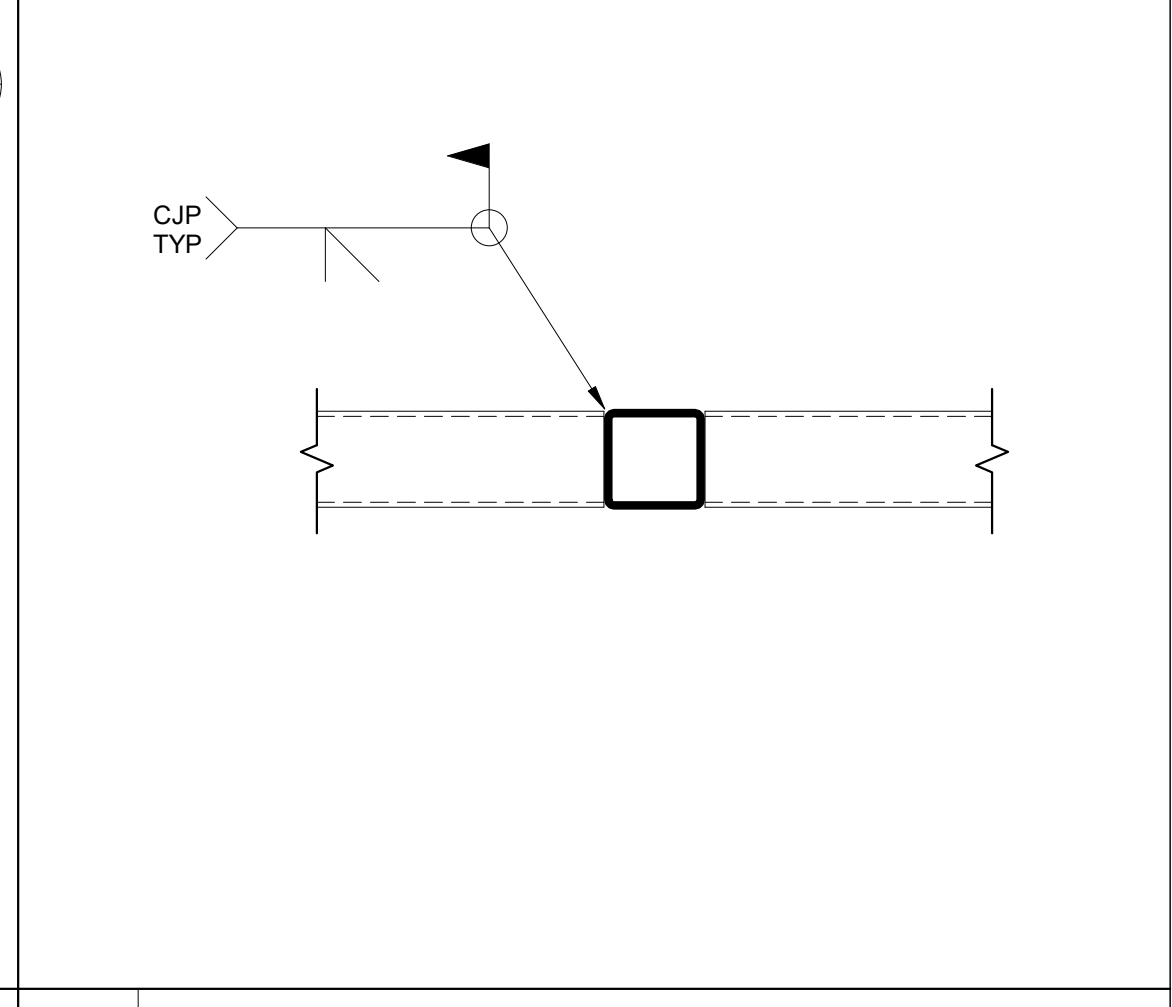
NOTES:
1. TORIS A DECK AMD ANCHORAGE PER IAFMO ER-226.
2. ANCHOR SPACING TO BE 2'-0" MINIMUM AND (2) ANCHORS MAX PER SPAN.



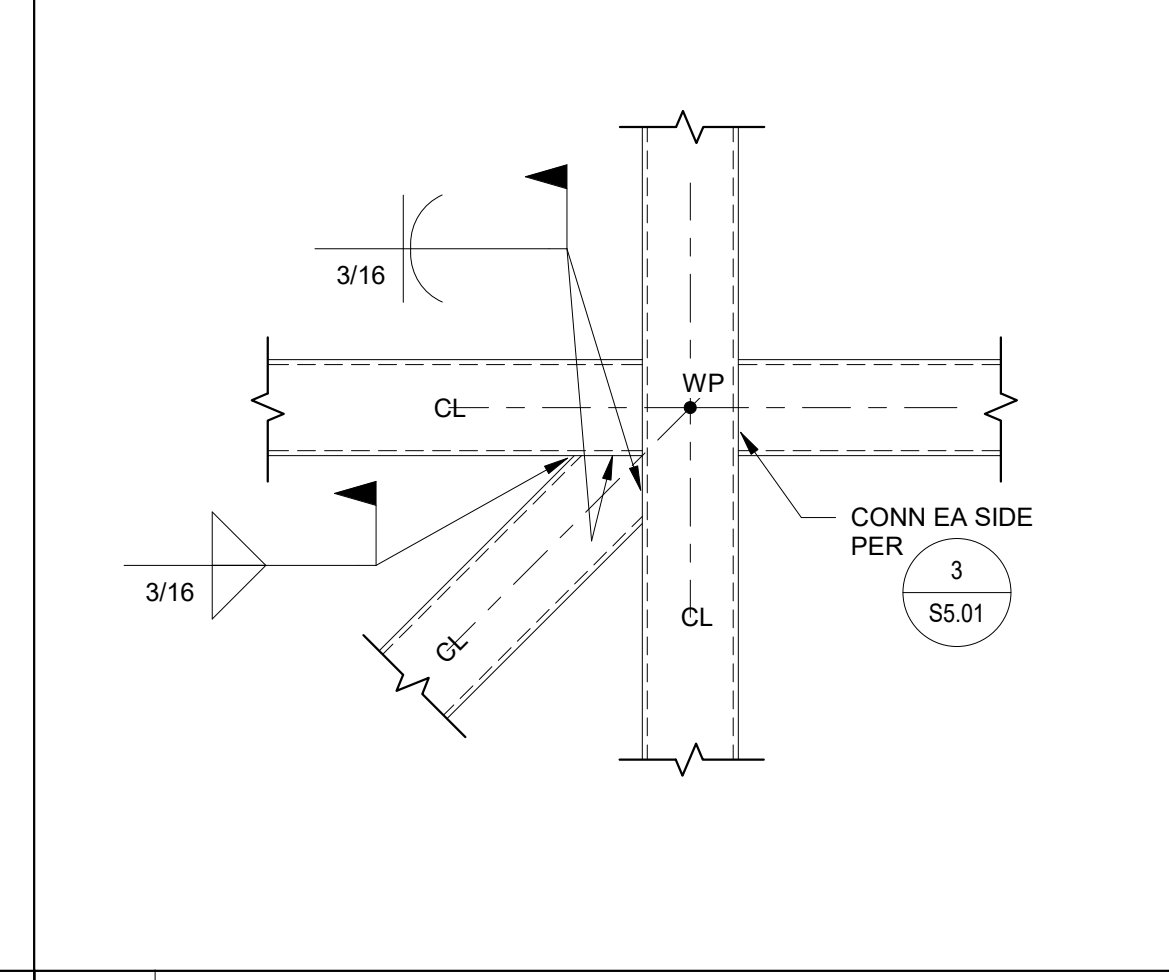
20 R15
1" = 1'-0"



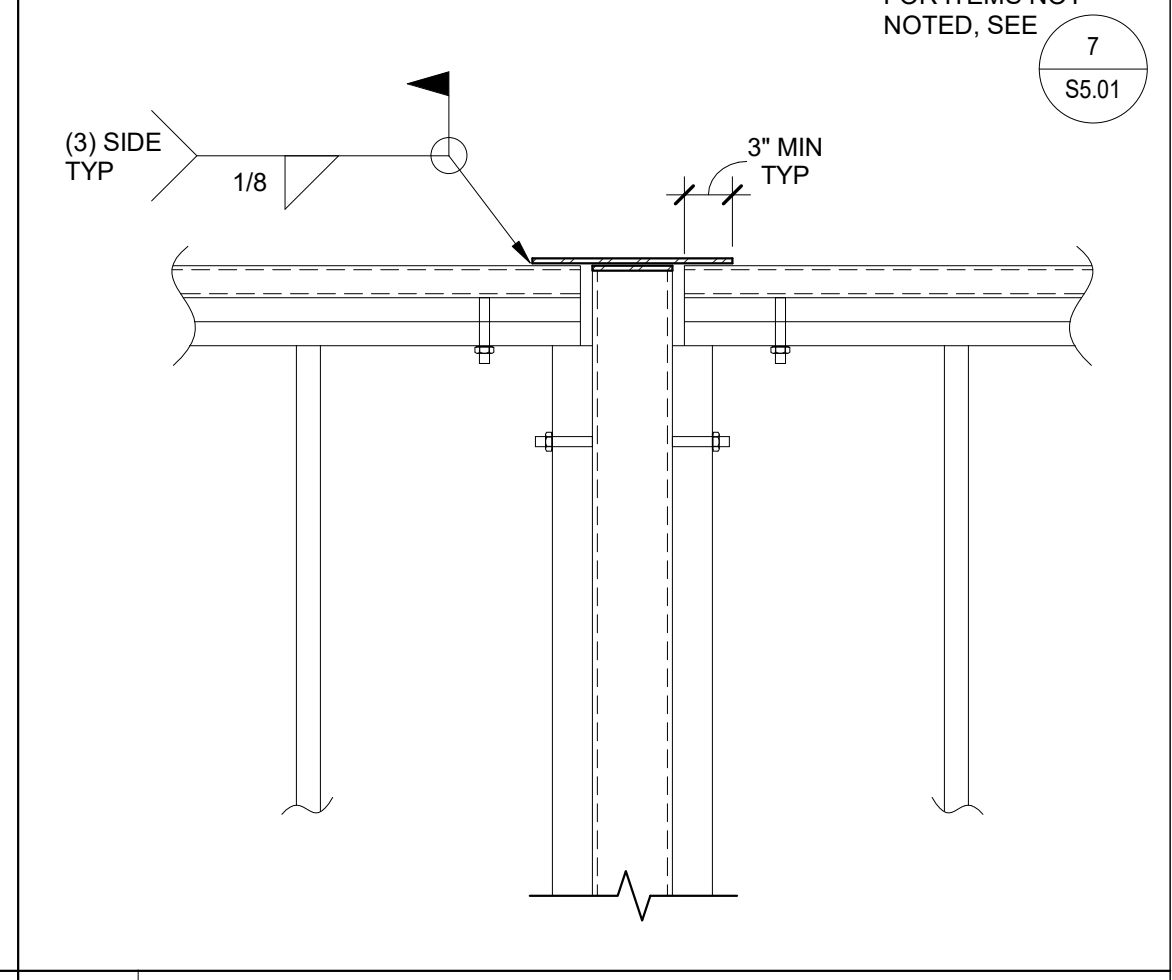
19 R14
1" = 1'-0"



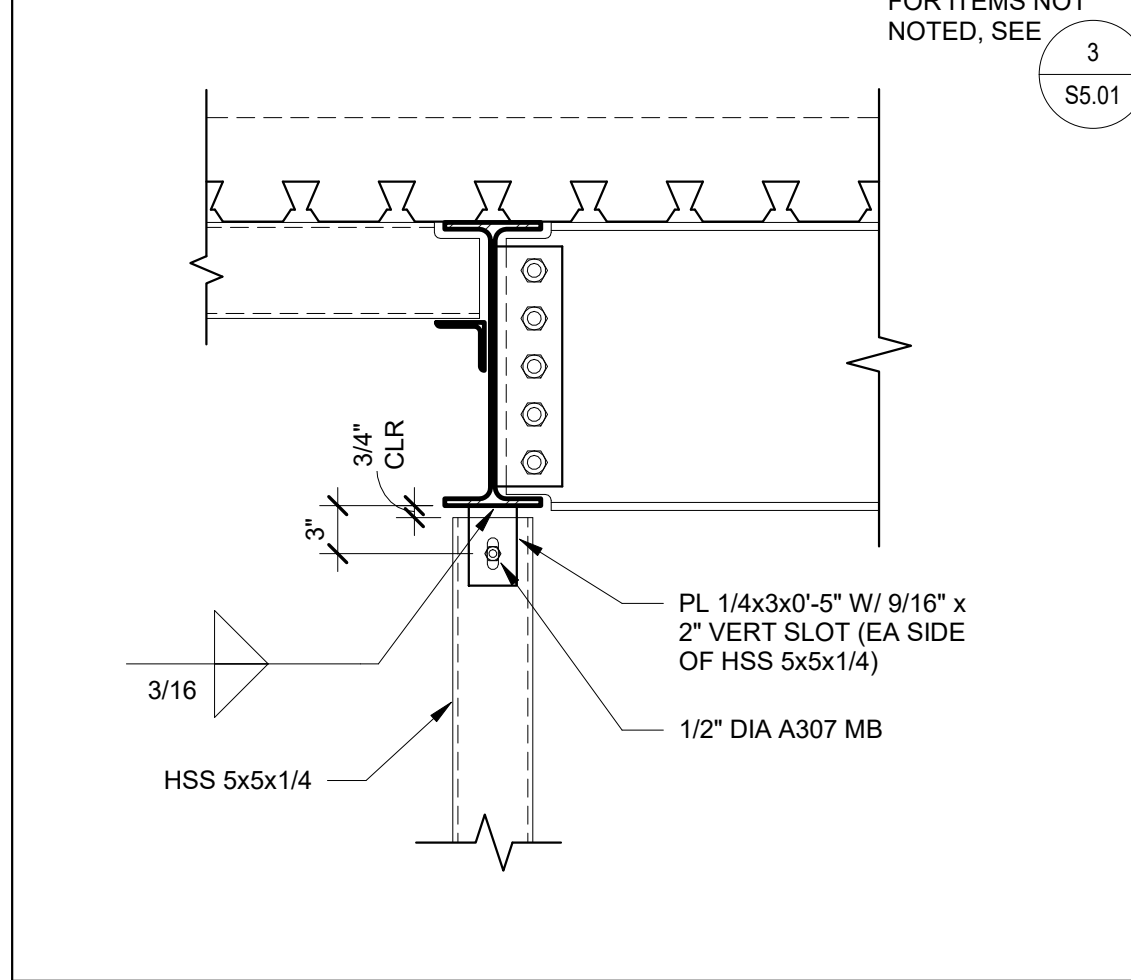
17 R10
1" = 1'-0"



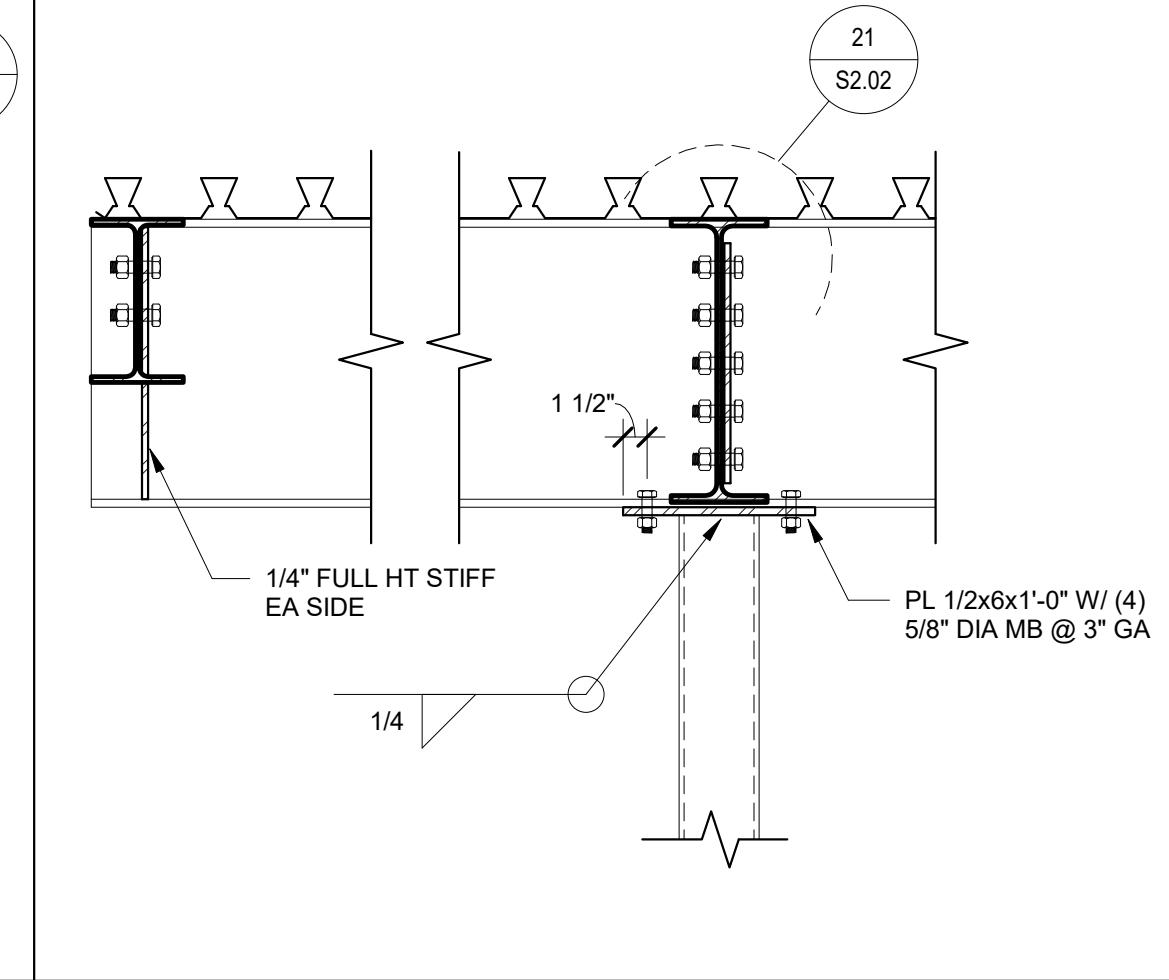
15 R12 - PLAN VIEW
1" = 1'-0"



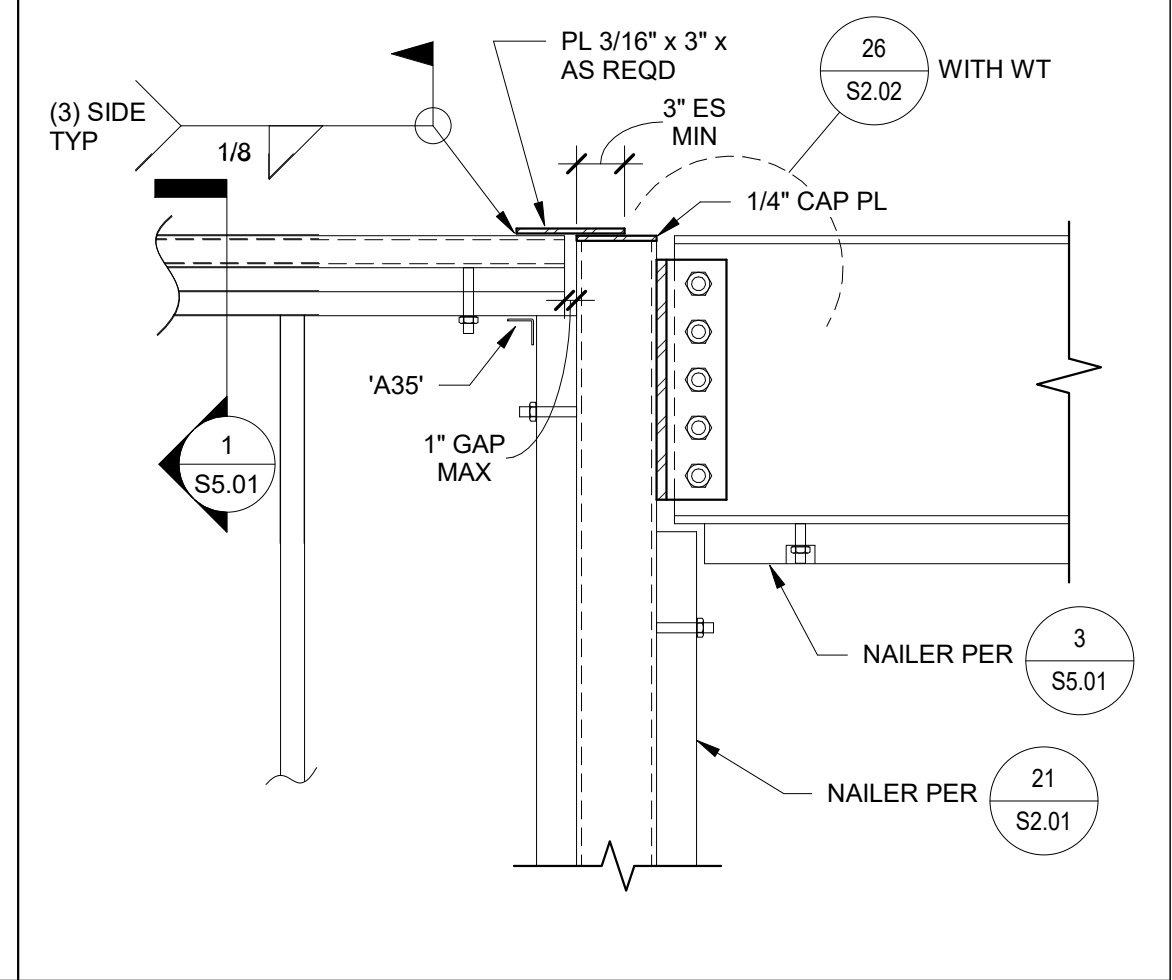
14 R11 - PLAN VIEW
1" = 1'-0"



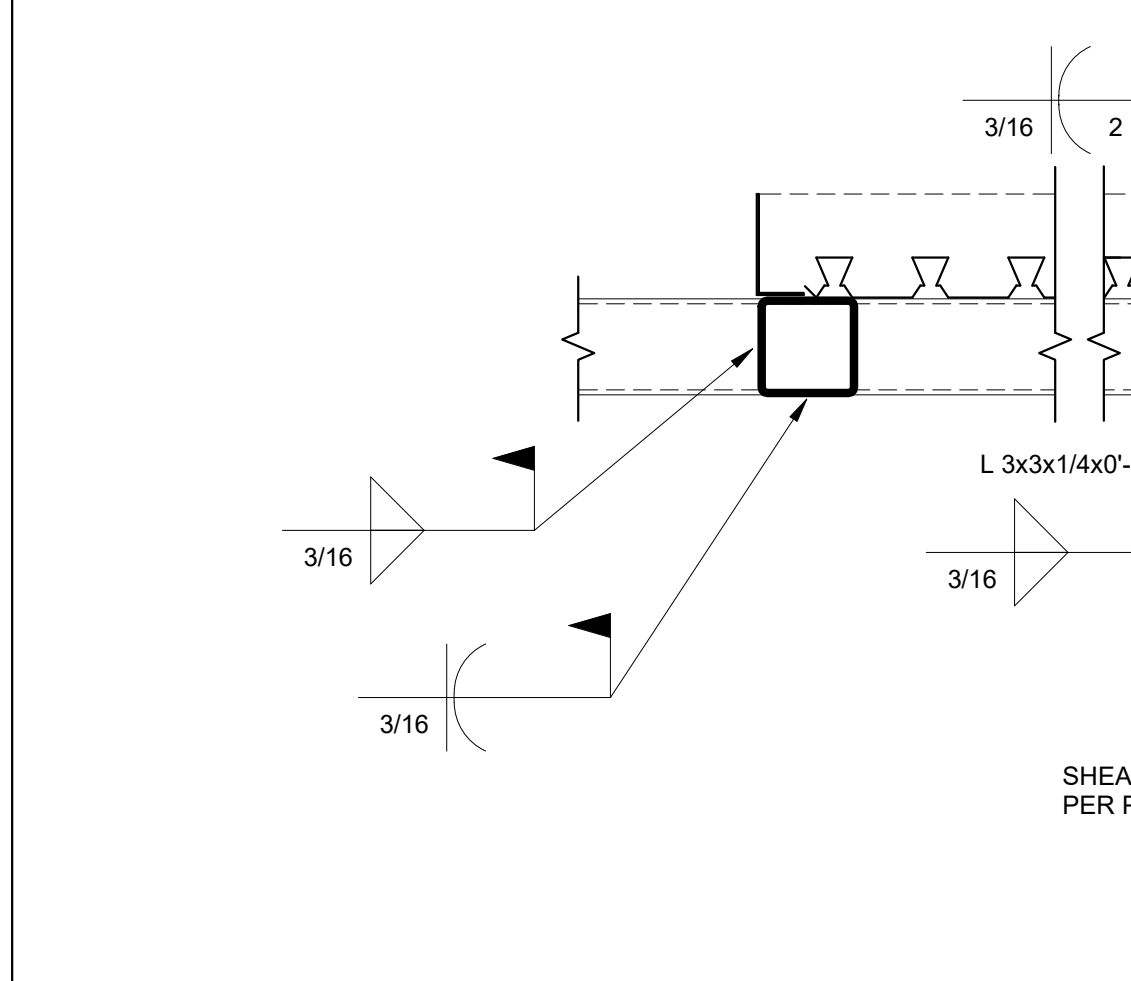
13 R09
1" = 1'-0"



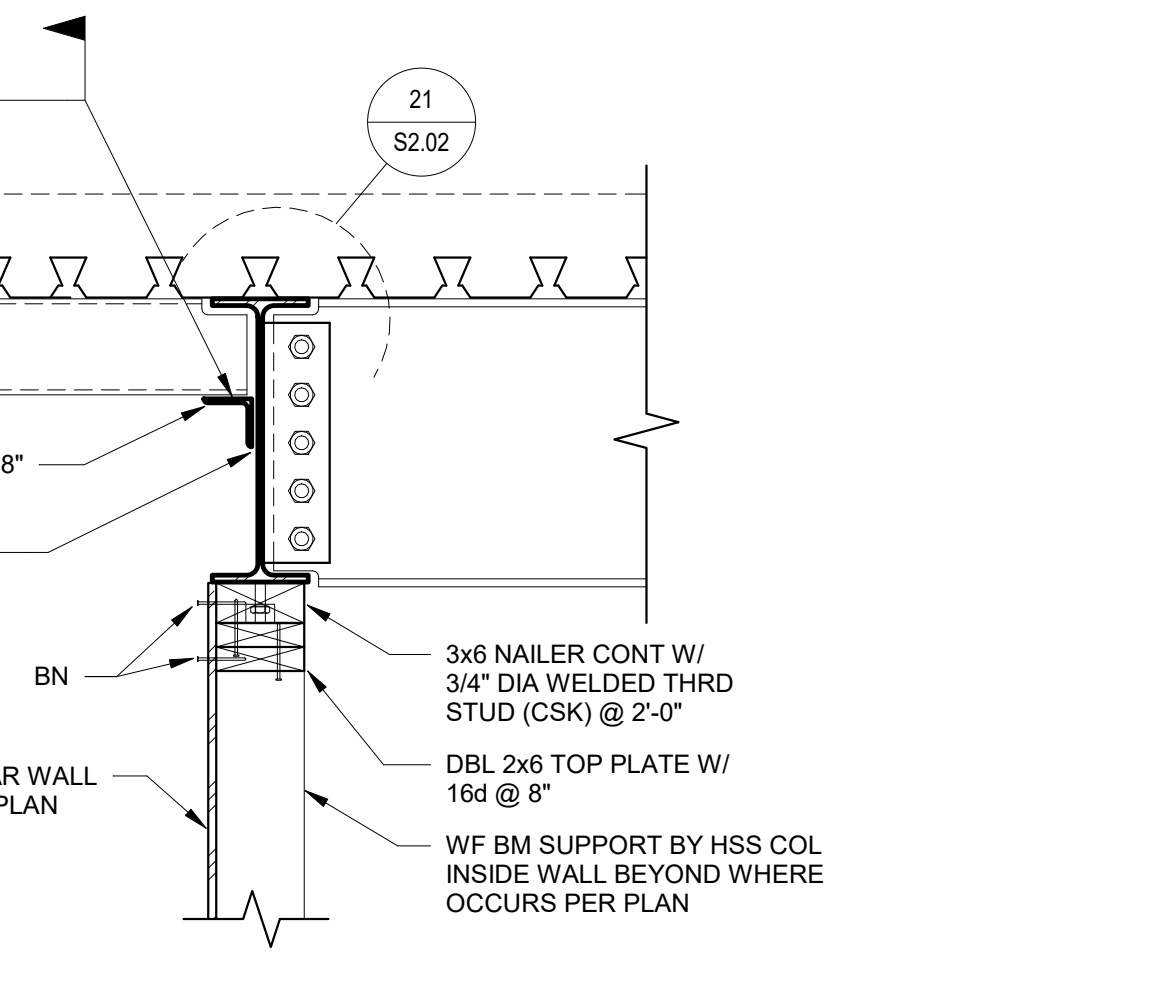
12 R07
1" = 1'-0"



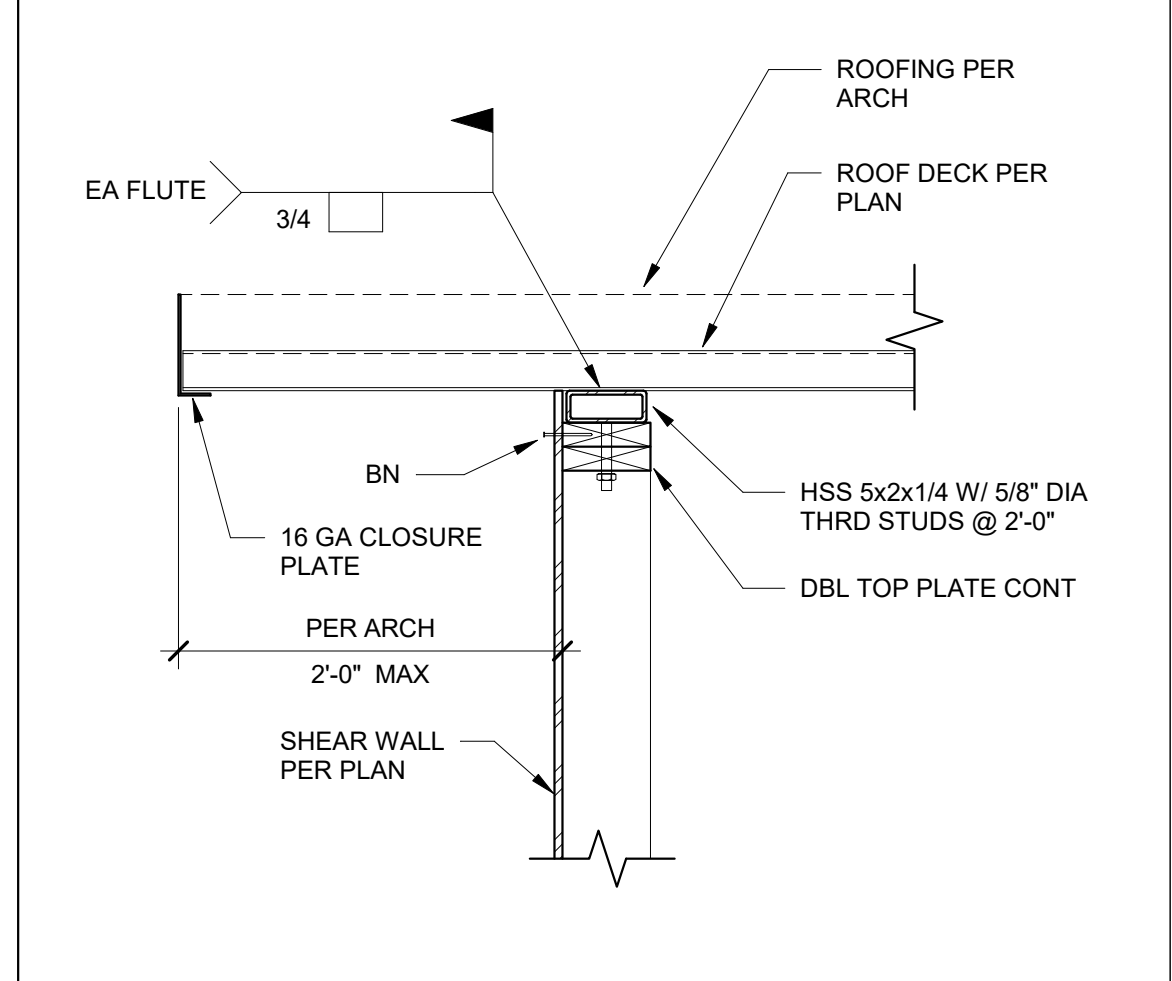
9 R05
1" = 1'-0"



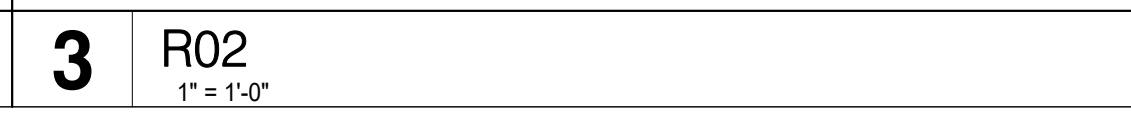
8 R06
1" = 1'-0"



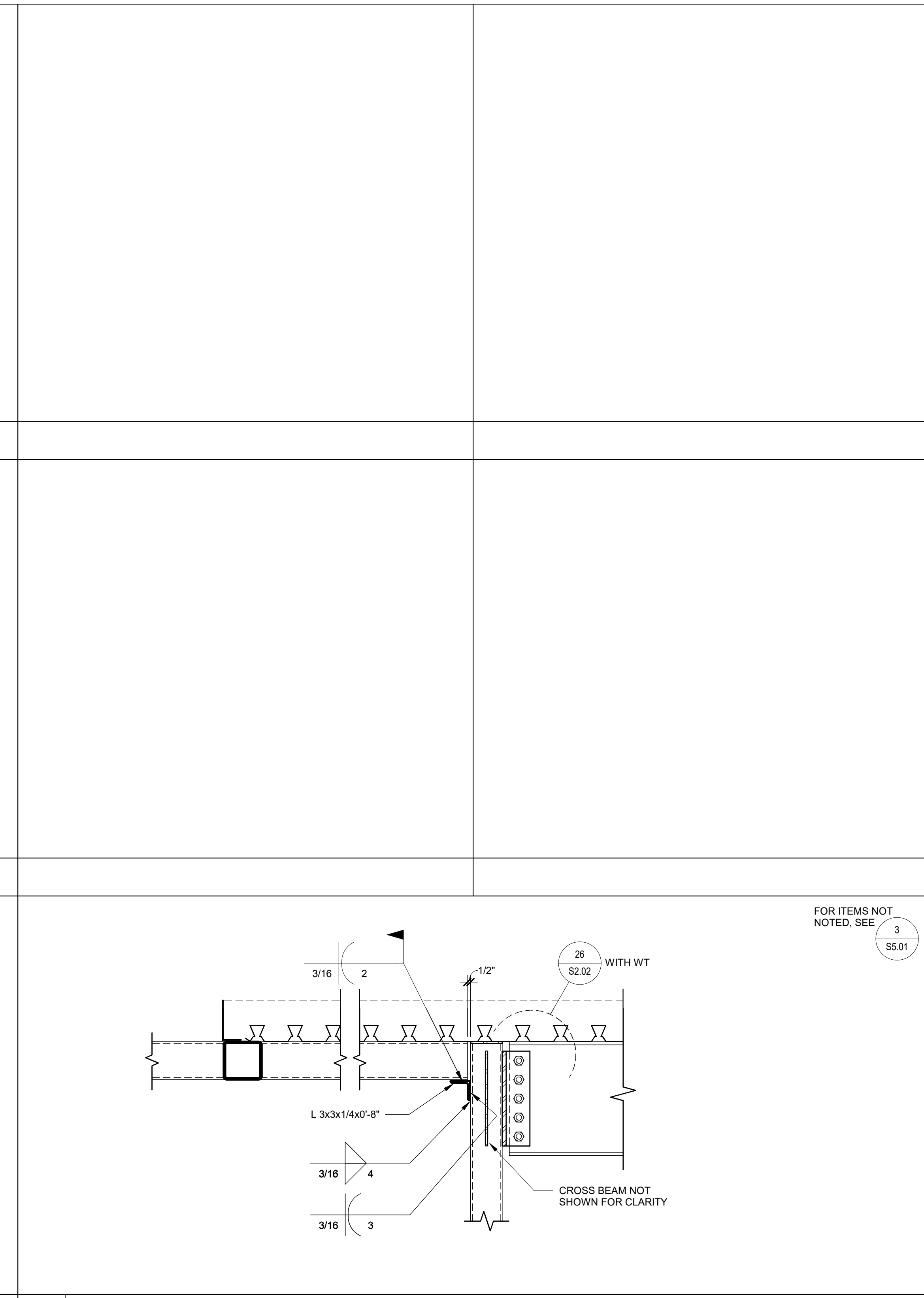
7 R08
1" = 1'-0"



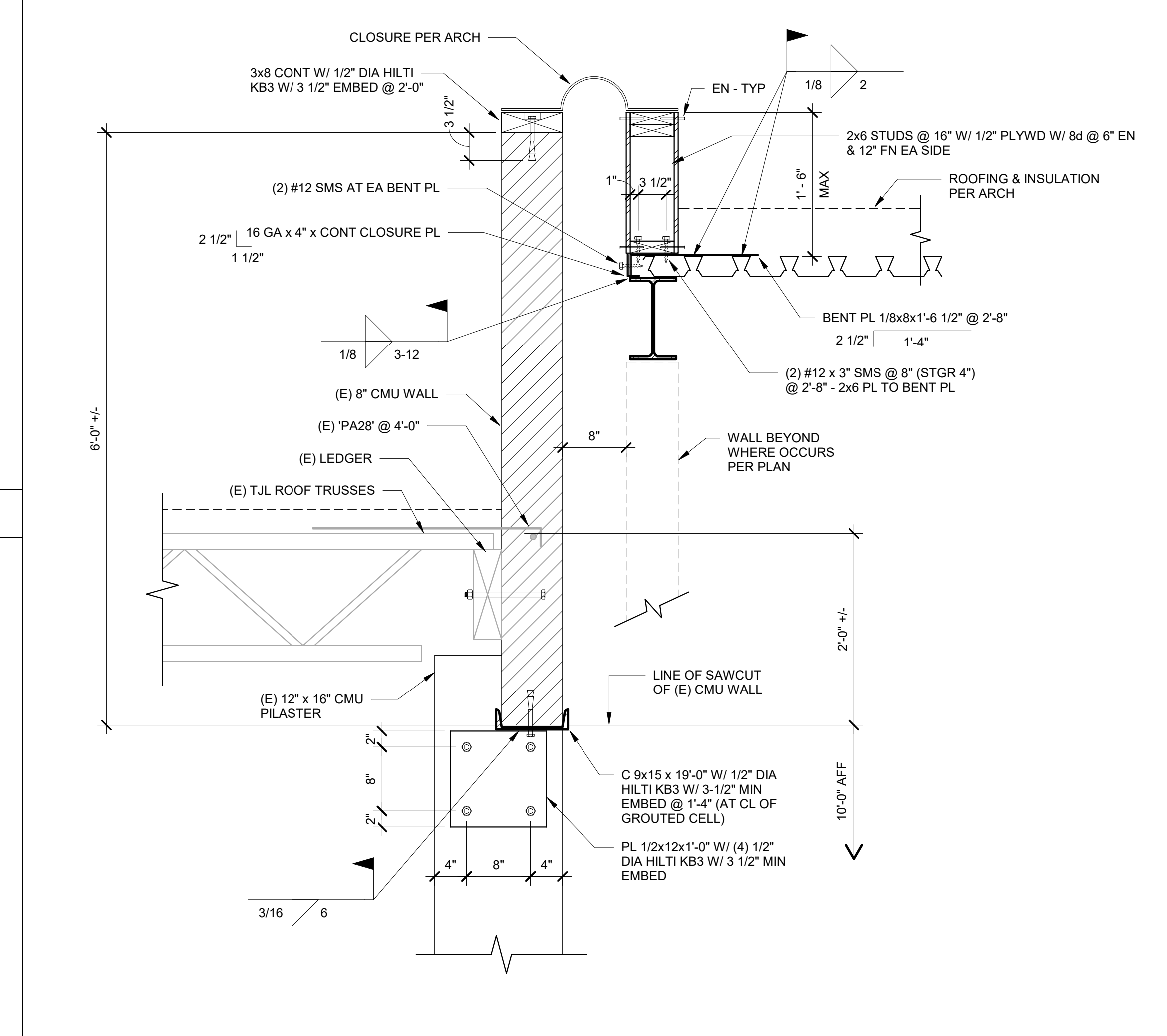
6 R04
1" = 1'-0"



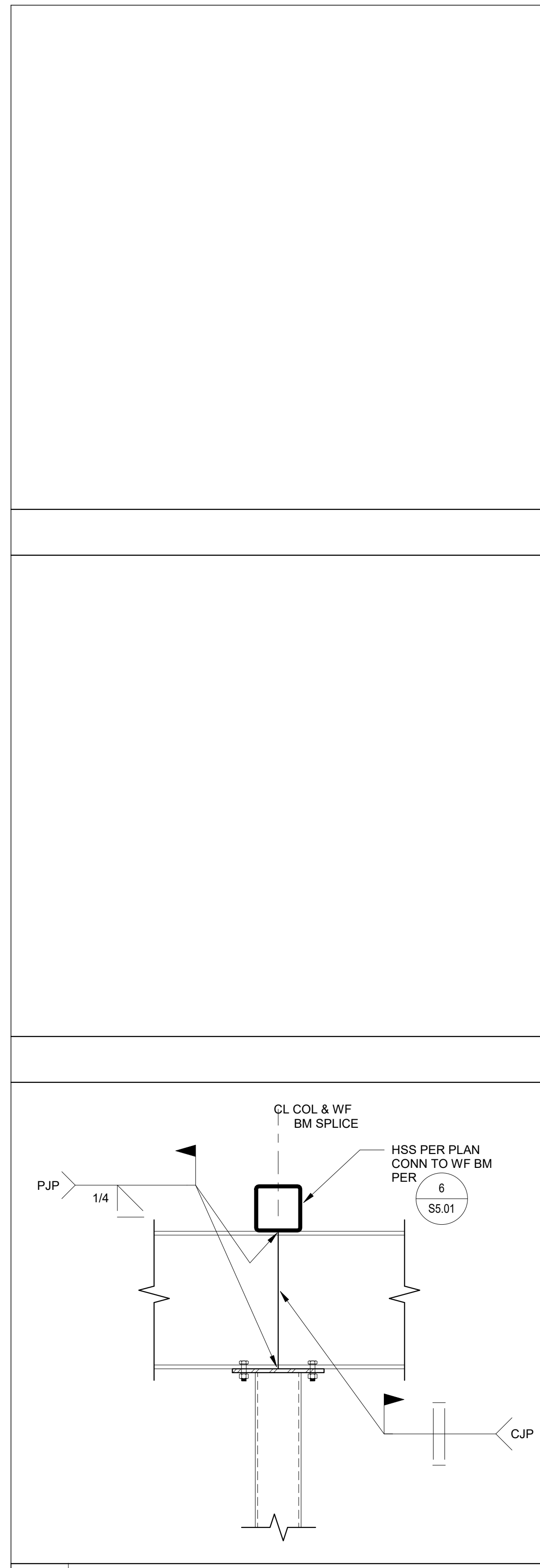
5 R03
1" = 1'-0"



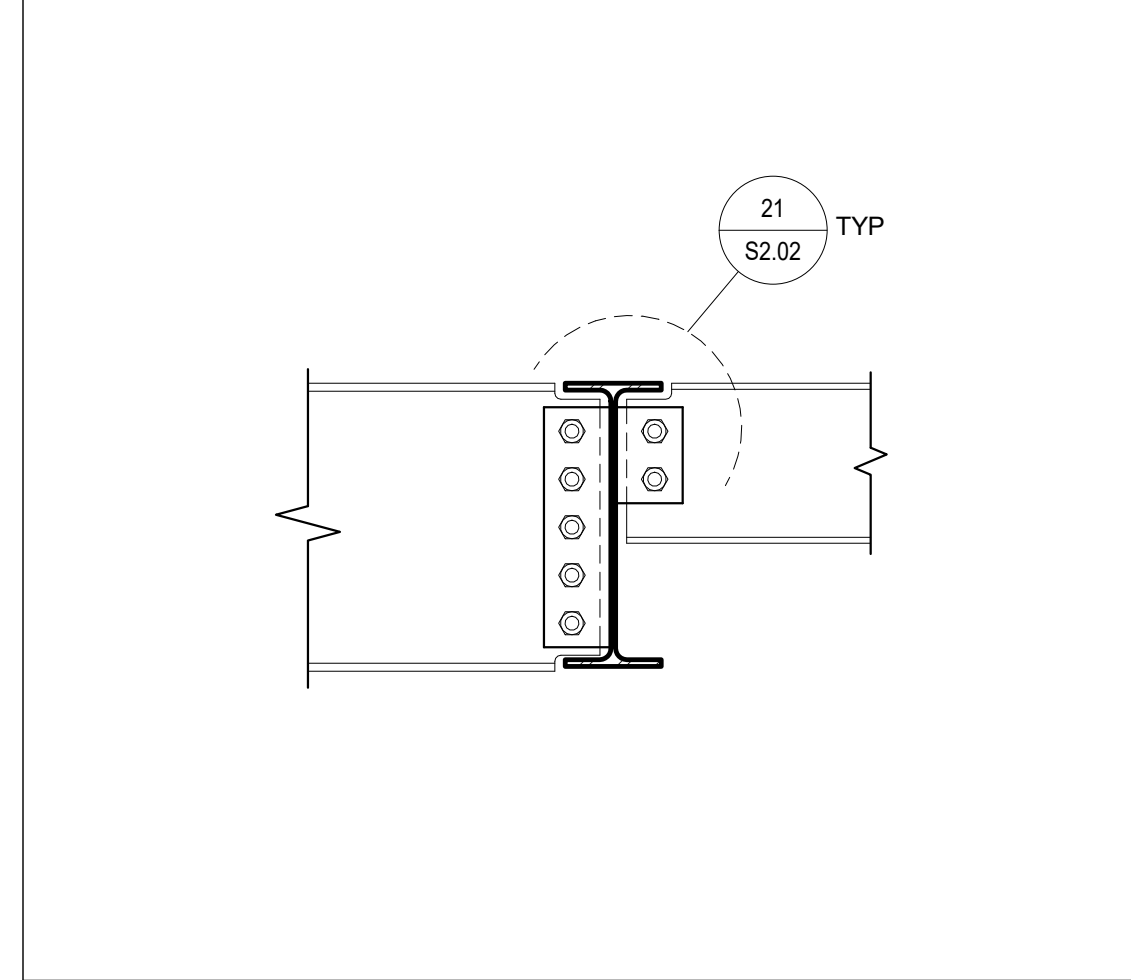
3 R02
1" = 1'-0"



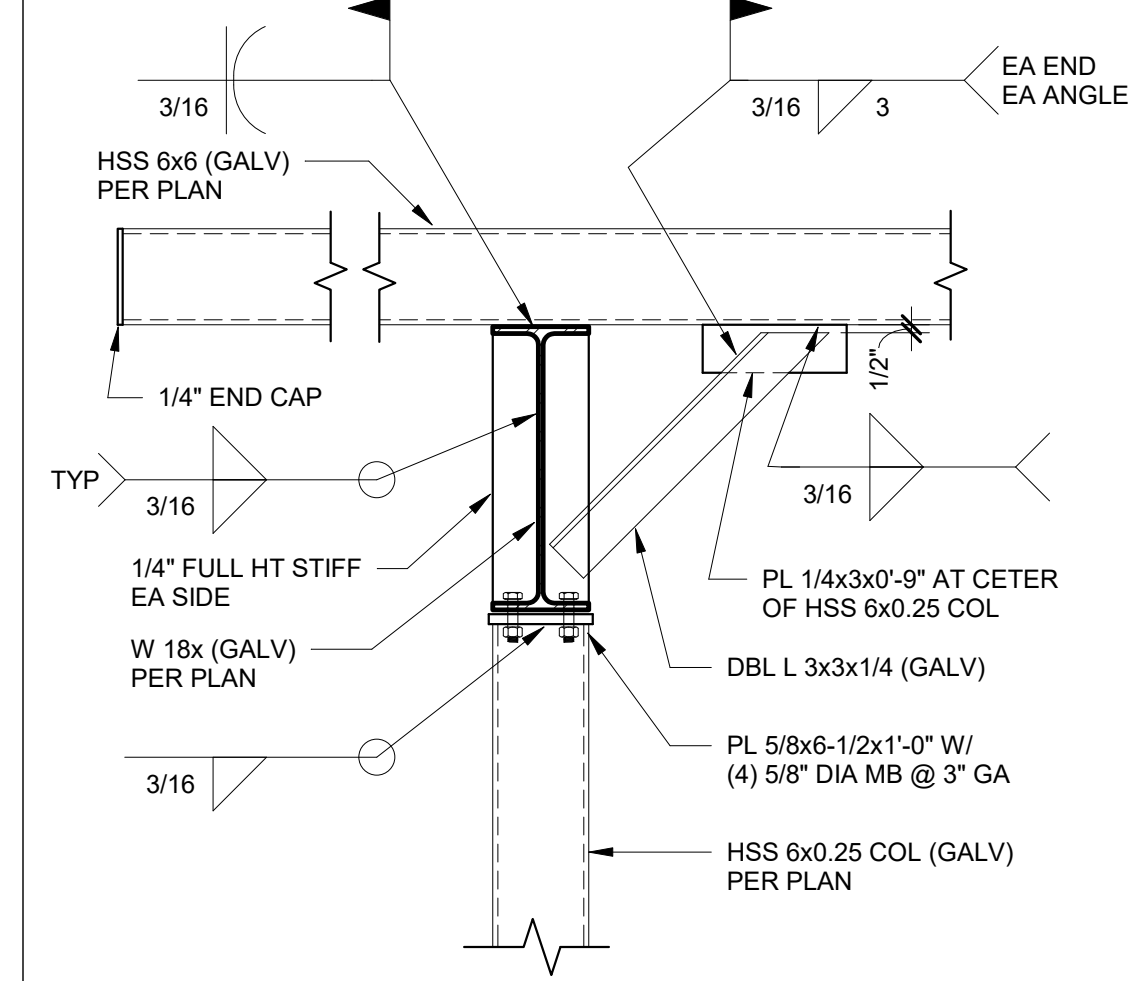
1 R01
1" = 1'-0"



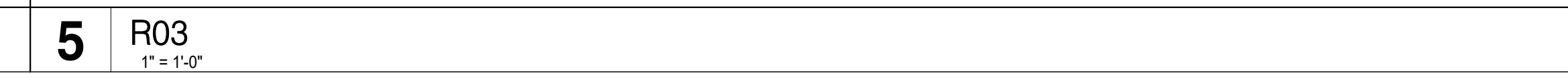
18 R13
1" = 1'-0"



17 R10
1" = 1'-0"



15 R12 - PLAN VIEW
1" = 1'-0"



14 R11 - PLAN VIEW
1" = 1'-0"

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TITLE 24 NOTES

THE FOLLOWING SHALL BE REQUIRED WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED IN DRAWINGS AND/OR SPECIFICATIONS. 1. EQUIPMENT SHALL MEET EFFICIENCY REQUIREMENTS OF TABLES 110.2.4 THROUGH 110.2.4.1...

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH CURRENT CALIFORNIA CODE OF REGULATIONS TITLE 24. ALL OTHER APPLICABLE CODES AND REGULATIONS, SMACNA AND ASHRAE GUIDELINES, AND LOCAL CODES. 2. ALL HVAC EQUIPMENT SHALL BE COMPLIANT WITH EFFICIENCY STANDARDS PER TABLE 24. PART 8...

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA-APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1-1.6...

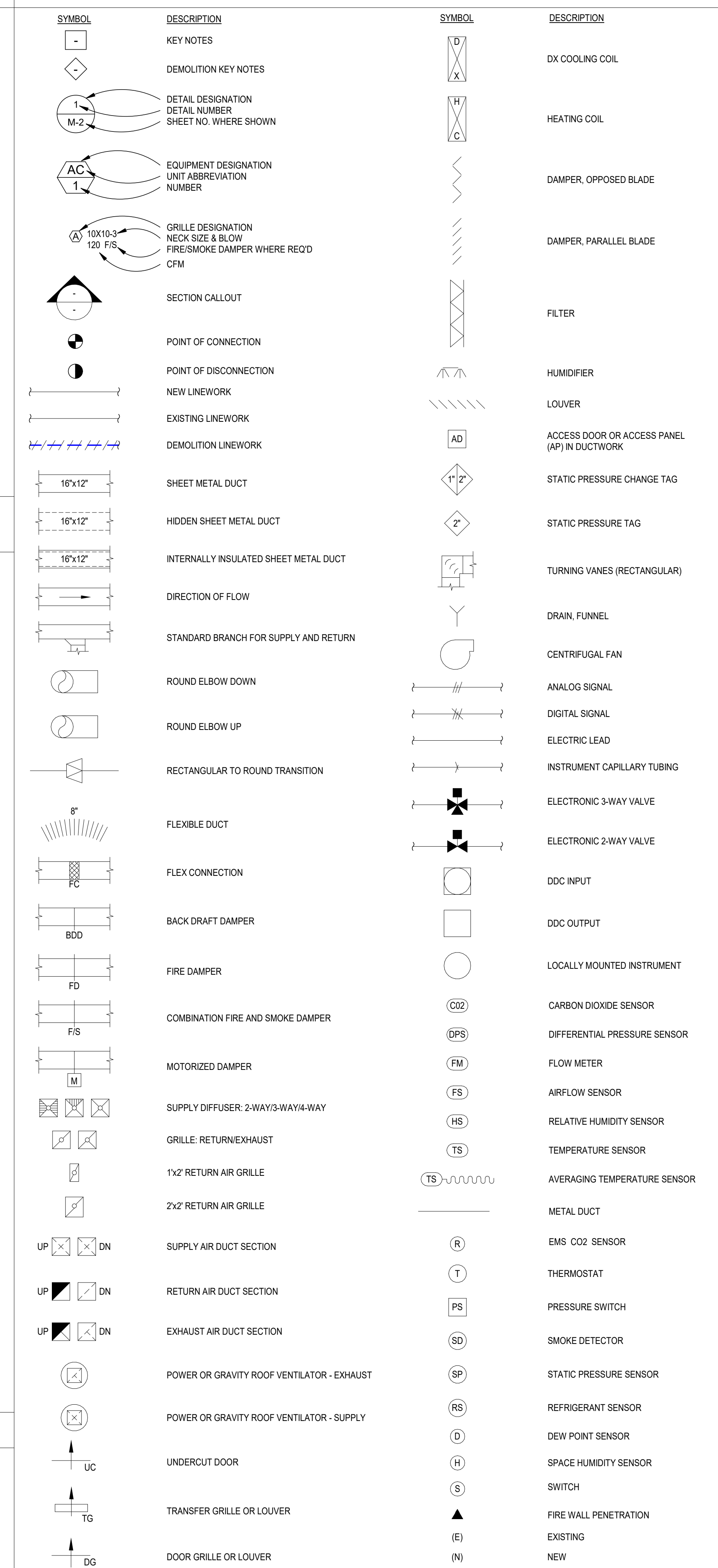
PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3.4.5 AND SECTION 13.3.4.6...

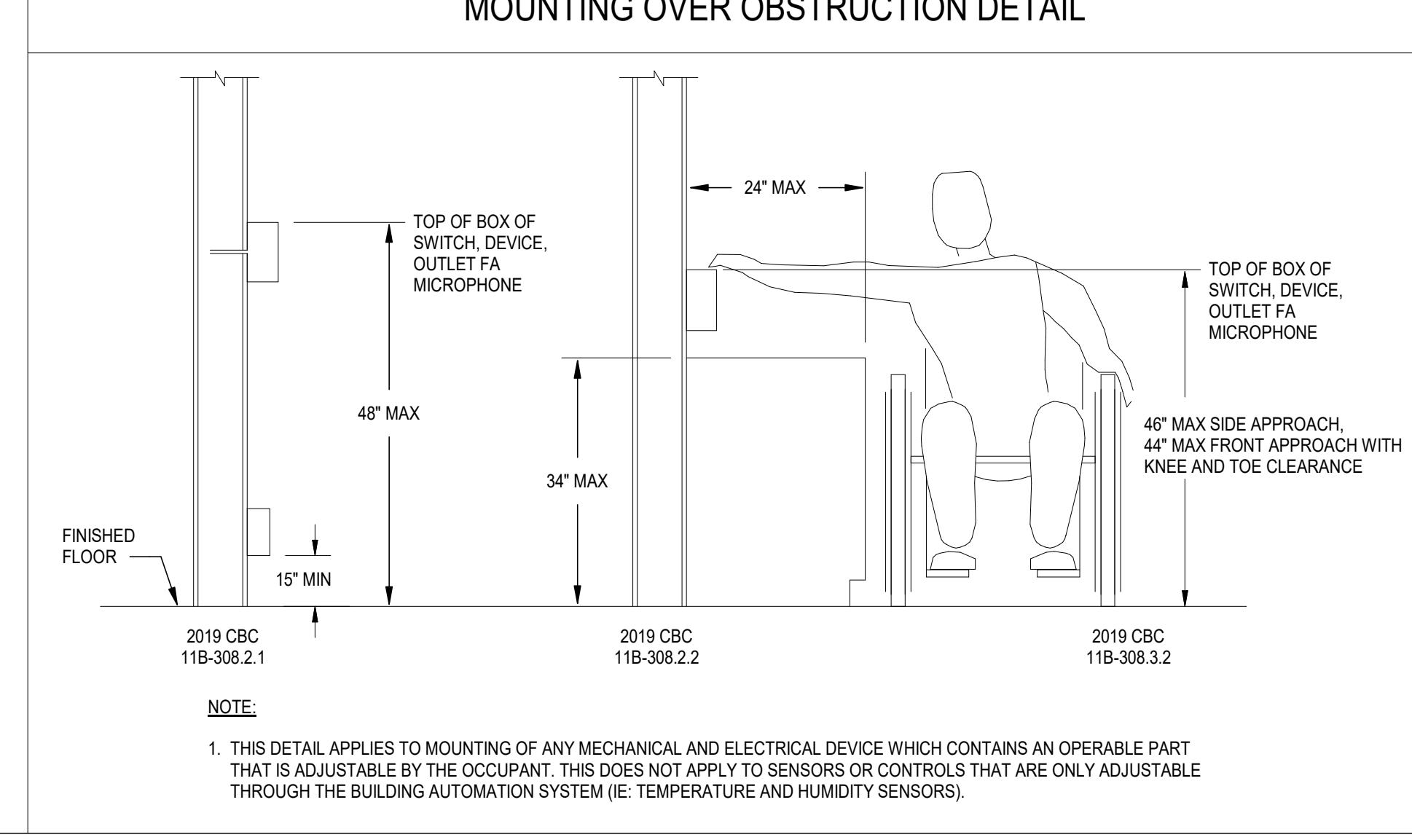
CAL GREEN NOTES

1. TESTING AND ADJUSTING. TESTING AND ADJUSTING OF SYSTEMS SHALL BE REQUIRED FOR NEW BUILDING LESS THAN 10,000 SQUARE FEET OR NEW SYSTEMS TO SERVE AN ADDITION OR ALTERATION SUBJECT TO SECTION 303.1.

MECHANICAL LEGEND



MOUNTING OVER OBSTRUCTION DETAIL



DRAWING INDEX

Table with columns SHEET and DESCRIPTION. SHEET: M0.01, M0.02, M0.03, M0.04, M0.05, M0.01, M0.02, M0.03. DESCRIPTION: MECHANICAL INDEX, LEGEND AND NOTES, TITLE 24, TITLE 24, MECHANICAL DEMOLITION FLOOR PLANS, MECHANICAL FLOOR PLANS, MECHANICAL ROOF PLANS, MECHANICAL SCHEDULES, MECHANICAL DETAILS, MECHANICAL DETAILS.

ARCHITECTURE SAN DIEGO 11455 El Camino Real, Suite 480 San Diego, CA 92130 619-695-4000 P&K.com ENGINEERS LEAF ENGINEERS ARCHITECTURE 3110 E Grand Blvd, Suite 300 Oceanside, CA 92051 IMPERIAL VALLEY COLLEGE - B600 EXPANSION - 380 E Aten Rd. Imperial, CA 92251 DSA SUBMITTAL

ABBREVIATIONS

Table with columns ABBREVIATION and DESCRIPTION. ABBREVIATION: NI, AAV, ANV, LD, LF, AF, AHU, AI, ALUM, AO, B, BDD, BEL, BFC, BFP, BG, BHP, BLDG, BOB, BOP, C, CDM, CFC, CL, CCL, CNG, CP, CPT, CQ, CU, CV, D, DEG, DA, DD, DN, DO, DS, DR, EA, EC, EFF, EG, EJ, EL, EQ, ES, ET, EWC, EXIST, FA, FB, FC, FD, FE, FLA, FLR, FOB, FP, FPI, FPM, FT, FX, GA, GALV, GC, GM, GP, HOSE, HO, HD, HP, HT, HW, HWR, HWS, HZ, IC, IOW, IN, IW. DESCRIPTION: NEW, AUTOMATIC AIR VENT, ABOVE, AIR CONDITIONING UNIT, ACCESS DOOR, ABOVE FINISHED FLOOR, AIR HANDLING UNIT, ANALOG INPUT, ALUMINUM, ANALOG OUTPUT, ACCESS PANEL, BOILER, BACK DRAFT DAMPER, BELOW, BELOW FINISHED CEILING, BACK FLOW PREVENTER, BLAST GATE, BREAK HORSEPOWER, BUILDING, BOTTOM OF BEAM, BOTTOM OF PIPE, BASEMENT, BREASTHERMAL UNIT, CEILING DIFFUSER, ON CENTER, OUTSIDE DIAMETER, CAST IRON, CENTER LINE, CEILING, CLEANOUT, CLOG, COLUMN, PHASE, CONDENSATE PUMP, COOLING TOWER, CONDENSING UNIT, CONSTANT VOLUME BOX, DRAIN, DRY BULB, DEGREES, DIGITAL INPUT, DIAMETER, DOOR LOUVER, RETURN AIR REGISTER, ROOF DRAIN, DIFFERENTIAL PRESSURE, DUCT SILENCER, DIRECT EXPANSION, EACH, ENTERING AIR TEMPERATURE, ELECTRICAL CONTRACTOR, EXHAUST FAN, EFFICIENCY, EGROGATE GRILLE, EXPANSION JOINT, ELEVATION, EQUAL, EXHAUST REGISTER, EXTERIOR STATIC PRESSURE, EXPANSION TANK, ELECTRIC WATER COOLER, EXISTING, FREE AREA, FAN COIL UNIT, FIRE DAMPER, FILTER GRILLE, FULL LOAD AMPS, TEMPERATURE, FLOOR, FLAT ON BOTTOM, FLAT ON TOP, FIRE PUMP, FINS PER INCH, FEET PER MINUTE, FLOW SWITCH, FEET FOOT, FLEXIBLE CONNECTION, GAUGE, GALVANIZED, GENERAL CONTRACTOR, GALLONS PER HOUR, GALLONS PER MINUTE, VOLUME DAMPER, VARIABLE FREQUENCY DRIVE, TOTAL ENCLOSED FAN COOLER, TEMPERATURE, TRANSFER GRILLE, TEMPERATURE INDICATOR, TOTAL MBH, TSP, FIRE PUMP, TYPICAL, UNDERCUT, UNDERCUT, UNIT HEATER, UP THROUGH ROOF, VOLTS, DAMPER/VOLUME ACTUATOR, EXTERIOR STATIC PRESSURE, VOLUME DAMPER, VARIABLE FREQUENCY DRIVE, VELOCITY, VENT THROUGH ROOF, WITH, WITHOUT, WT Bulb, WATER COLUMN, WATER GAUGE, WEIGHT, DEGREES FAHRENHEIT.

DSA FILE NO. 37-C2 AB 04-11930 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 04-119487 INC. REVIEWED FOR DATE: 02/01/2021 ARCHITECTURE SAN DIEGO 11455 El Camino Real, Suite 480 San Diego, CA 92130 619-695-4000 P&K.com ENGINEERS LEAF ENGINEERS ARCHITECTURE 3110 E Grand Blvd, Suite 300 Oceanside, CA 92051 IMPERIAL VALLEY COLLEGE - B600 EXPANSION - 380 E Aten Rd. Imperial, CA 92251 DSA SUBMITTAL CONSULTANT ENGINEER REGISTERED PROFESSIONAL ENGINEER REG. NO. 38155 Exp. 09-30-2022 ARCHITECT CLIENT IMPERIAL VALLEY COLLEGE PROJECT NUMBER 20190 DATE 12/08/2020 DRAWN BY MD CHECKED BY RW REVISIONS No. Description Date DSA SUBMITTAL MECHANICAL INDEX, LEGEND AND NOTES M0.01

Project Name:	B600 Dining Hall	NRCC-PRF-01-E	Page 10 of 15						
Project Address:	380 E. Aten Road Imperial 92251	Calculation Date/Time:	18:42, Tue, Sep 01, 2020						
Input File Name:	IVC - B600 Expansion (1-25 Ton)-R.cibd19x								
N14. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS § 130.4									
Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).									
Test Description	# of units	Indoor				Outdoor		Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTI-02-A	Pass	Fail	Pass	Fail
Equipment Requiring Testing or Verification		Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls				
Demand Responsive	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Controls	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04282020-6206 Report Generated at: 2020-09-01 18:42:37

Project Name:	B600 Dining Hall	NRCC-PRF-01-E	Page 13 of 15		
Project Address:	380 E. Aten Road Imperial 92251	Calculation Date/Time:	18:42, Tue, Sep 01, 2020		
Input File Name:	IVC - B600 Expansion (1-25 Ton)-R.cibd19x				
P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE					
Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/					
Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Mechanical	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-03-A Constant Volume Single Zone HVAC	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-04(a)-H Air Distribution Duct Leakage - HERS Verification required	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-04(b)-H Air Distribution Duct Leakage - ATT only	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-05-A Air Economizer Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-08-A Valve Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-11-A Automatic Demand Shed Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-16-A Supply Air Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-17-A Condenser Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-18 Energy Management Control Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-19 Occupancy Sensor Controls	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04282020-6206 Report Generated at: 2020-09-01 18:42:37

STATE OF CALIFORNIA				CALIFORNIA ENERGY COMMISSION			
Process Systems				Process Systems			
NRCC-PRF-C				NRCC-PRF-E			
CERTIFICATE OF COMPLIANCE		Report Page:		CERTIFICATE OF COMPLIANCE		Report Page:	
Project Name:		IVC - B600 Expansion		Project Name:		IVC - B600 Expansion	
Project Address:		380 E. Aten Road		Project Address:		380 E. Aten Road	
		Date Prepared: 9/2/2020				Date Prepared: 9/2/2020	
A. GENERAL INFORMATION							
01 Project Location (City)	Imperial	04 Total Conditioned Floor Area			2997		
02 Climate Zone	15	05 Total Unconditioned Floor Area			0		
03 Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)				1	
<input type="checkbox"/> Office	<input type="checkbox"/> Retail	<input type="checkbox"/> Non-refrigerated Warehouse					
<input type="checkbox"/> Hotel/ Motel	<input type="checkbox"/> School	<input type="checkbox"/> Healthcare Facility					
<input type="checkbox"/> High-Rise Residential	<input type="checkbox"/> Relocatable Class Bldg	<input checked="" type="checkbox"/> Other (write in)					
B. PROJECT SCOPE							
This table includes process systems that are within the scope of the permit application and are demonstrating compliance with mandatory requirements in §120.6 or prescriptive requirements in §140.9.							
My project consists of: (check all that apply):							
01		02		03		04	
<input type="checkbox"/> Refrigerated Spaces <3,000 ft ² Total (no Title 24, P16 requirements)	<input type="checkbox"/> Elevator Lighting & Ventilation Controls (mandatory §120.6(f))						
<input type="checkbox"/> Refrigerated Spaces >=3,000 ft ² Total (mandatory §120.6(a))	<input type="checkbox"/> Escalator & Moving Walkway Speed Controls (mandatory §120.6(g))						
<input type="checkbox"/> Food Stores >8,000 ft ² cfa (mandatory §120.6(b))	<input type="checkbox"/> Computer Rooms >20 W/ ft ² Power Density (prescriptive §140.9(a)) ¹						
<input type="checkbox"/> Enclosed Parking Garage Exhaust >=10,000 cfm (mandatory §120.6(c))	<input type="checkbox"/> Commercial Kitchen Ventilation/Exhaust (prescriptive §140.9(b)) ¹						
<input type="checkbox"/> Newly Installed Process Boilers (mandatory §120.6(d))	<input type="checkbox"/> Laboratory Exhaust/Factory Exhaust & Fume Hood (prescriptive §140.9(c)) ¹						
<input type="checkbox"/> Compressed Air Systems Combined HP >= 25 (mandatory §120.6(e))							
¹ FOOTNOTES: These building features can comply using the performance method. If using the performance method for these features, compliance should be demonstrated on the NRCC-PRF-E.							

Registration Number: Registration Date/Time: Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2020-09-02 12:01:33
Schema Version: rev 20190401

Project Name:	B600 Dining Hall	NRCC-PRF-01-E	Page 11 of 15		
Project Address:	380 E. Aten Road Imperial 92251	Calculation Date/Time:	18:42, Tue, Sep 01, 2020		
Input File Name:	IVC - B600 Expansion (1-25 Ton)-R.cibd19x				
Q. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION					
Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents must be retained and provided to the building inspector during construction and can be found online at: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/					
Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Envelope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-ENV-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-MCH-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PLB-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-02-E - Must be submitted for high-rise residential and hotel/ motel central hot water distribution systems to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-PLB-03-E - Must be submitted for high-rise residential and hotel/ motel single dwelling unit hot water system distribution systems to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PLB-21-E - Must be HERS verified for central systems in high-rise residential hotel/ motel application	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PLB-22-E - Must be HERS verified for single dwelling unit systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PLB-23-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application	<input type="checkbox"/>	<input type="checkbox"/>
Indoor Lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-STH-01-E - Must be submitted for solar hot water heating systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS) to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
Covered Process	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PRC-01-E - Must be submitted for all Covered Processes	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04282020-6206 Report Generated at: 2020-09-01 18:42:37

Project Name:	B600 Dining Hall	NRCC-PRF-01-E	Page 14 of 15
Project Address:	380 E. Aten Road Imperial 92251	Calculation Date/Time:	18:42, Tue, Sep 01, 2020
Input File Name:	IVC - B600 Expansion (1-25 Ton)-R.cibd19x		
R. UNMET LOAD HOURS			
This Section Does Not Apply			

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04282020-6206 Report Generated at: 2020-09-01 18:42:37

STATE OF CALIFORNIA				CALIFORNIA ENERGY COMMISSION						
Process Systems				Process Systems						
NRCC-PRF-C				NRCC-PRF-E						
CERTIFICATE OF COMPLIANCE		Report Page:		CERTIFICATE OF COMPLIANCE		Report Page:				
Project Name:		IVC - B600 Expansion		Project Name:		IVC - B600 Expansion				
Project Address:		380 E. Aten Road		Project Address:		380 E. Aten Road				
		Date Prepared: 9/2/2020				Date Prepared: 9/2/2020				
C. COMPLIANCE RESULTS										
Results in this table are automatically calculated from data input and calculations in Tables F through O. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see applicable Table referenced below.										
01	02	03	04	05	06	07	08	09	10	11
Refrigerated Warehouse/ Space §120.6(a) (See Table F)	Commercial Refrigeration §120.6(b) (See Table G)	Parking Garage Exhaust §120.6(c) (See Table H)	Process Boilers §120.6(d) (See Table I)	Compressed Air Systems §120.6(e) (See Table J)	Elevators §120.6(f) (See Table K)	Escalators & Moving Walkways §140.9(a) (See Table L)	Computer Rooms §140.9(a) (See Table M)	Commercial Kitchens §140.9(b) (See Table N)	Laboratory/Factory Exhaust §140.9(c) (See Table O)	Compliance Results
										COMPLIES
D. EXCEPTIONAL CONDITIONS										
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.										
E. ADDITIONAL REMARKS										
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.										
F. REFRIGERATED WAREHOUSES/SPACES										
This section does not apply to this project.										
G. COMMERCIAL REFRIGERATION										
This section does not apply to this project.										
H. ENCLOSED PARKING GARAGE EXHAUST										
This section does not apply to this project.										
I. PROCESS BOILER										
This section does not apply to this project.										
J. COMPRESSED AIR SYSTEMS										
This section does not apply to this project.										

Registration Number: Registration Date/Time: Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2020-09-02 12:01:33
Schema Version: rev 20190401

Project Name:	B600 Dining Hall	NRCC-PRF-01-E	Page 12 of 15		
Project Address:	380 E. Aten Road Imperial 92251	Calculation Date/Time:	18:42, Tue, Sep 01, 2020		
Input File Name:	IVC - B600 Expansion (1-25 Ton)-R.cibd19x				
P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE					
Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/					
Building Component	YES	NO	Form/Title	Field Inspector	
				Pass	Fail
Envelope	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-ENV-02-F - NRFC label verification for fenestration	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-ENV-03-F - Daylighting Design PAFs	<input type="checkbox"/>	<input type="checkbox"/>
Indoor Lighting	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-LTI-02-A - Occupancy Sensors and Automatic Time Switch Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-LTI-03-A - Automatic Daylight Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-LTI-04-A - Demand Responsive Lighting Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-LTI-05-A - Institutional Tuning Power Adjustment Factor (PAF)	<input type="checkbox"/>	<input type="checkbox"/>
Covered Process	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-02-F - Kitchen Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-03-F - Garage Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-12-F - Elevator Lighting and Ventilation Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-13-F - Escalator and Moving Walkways Speed Control	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-14-F - Lab Exhaust Ventilation System	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-PRC-15-F - Fume Hood Automatic Sash Closures System	<input type="checkbox"/>	<input type="checkbox"/>	

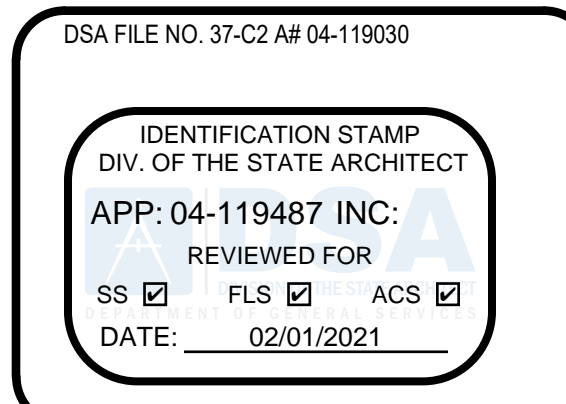
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04282020-6206 Report Generated at: 2020-09-01 18:42:37

Project Name:	B600 Dining Hall	NRCC-PRF-01-E	Page 15 of 15
Project Address:	380 E. Aten Road Imperial 92251	Calculation Date/Time:	18:42, Tue, Sep 01, 2020
Input File Name:	IVC - B600 Expansion (1-25 Ton)-R.cibd19x		
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT			
I certify that this Certificate of Compliance documentation is accurate and complete.			
Documentation Author Name: Maher Dandachi		Signature:	
Company: Leaf Engineers		Signature Date: 2020-09-01	
Address: 3110 East Guasti Rd, Ste 300		CEA/ HERS Certification Identification (if applicable): Energy Pro 8	
City/State/Zip: Ontario California 91761		Phone: 9099303111	
RESPONSIBLE PERSON'S DECLARATION STATEMENT			
I certify the following under penalty of perjury, under the laws of the State of California:			
1. The information provided on this Certificate of Compliance is true and correct.			
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).			
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.			
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.			
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.			
Responsible Envelope Designer Name:		Signature:	
Company:		Date Signed: 2020-09-02	
Address:		City/State/Zip:	
Phone:		Title: License #:	
Responsible Lighting Designer Name:		Signature:	
Company:		Date Signed:	
Address:		City/State/Zip:	
Phone:		Title: License #:	
Responsible Mechanical Designer Name: Rex Wang		Signature:	
Company: LEAF Engineers		Date Signed:	
Address: 3110 E. Guasti Road, Suite 300		City/State/Zip: Ontario California 91761	
Phone: (909) 937-9200		Title: License #: M-36155	

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: NRCC-PRF-01-E-04282020-6206 Report Generated at: 2020-09-01 18:42:37

STATE OF CALIFORNIA				CALIFORNIA ENERGY COMMISSION			
Process Systems				Process Systems			
NRCC-PRF-C				NRCC-PRF-E			
CERTIFICATE OF COMPLIANCE		Report Page:		CERTIFICATE OF COMPLIANCE		Report Page:	
Project Name:		IVC - B600 Expansion		Project Name:		IVC - B600 Expansion	
Project Address:		380 E. Aten Road		Project Address:		380 E. Aten Road	
		Date Prepared: 9/2/2020				Date Prepared: 9/2/2020	
K. ELEVATOR LIGHTING AND VENTILATION							
This section does not apply to this project.							
L. ESCALATORS AND MOVING WALKWAYS SPEED CONTROLS							
This section does not apply to this project.							
M. COMPUTER ROOM SYSTEM SUMMARY							
This section does not apply to this project.							
N. COMMERCIAL KITCHEN EXHAUST AND VENTILATION							
This section does not apply to this project.							
O. LABORATORY AND FACTORY EXHAUST AND FUME HOODS							
This section does not apply to this project.							
P. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION							
Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/							
Yes	No	Form/Title	Field Inspector				
			Pass	Fail			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-PRC-01-E - Covered Process	<input type="checkbox"/>	<input type="checkbox"/>			

Registration Number: Registration Date/Time: Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Report Generated: 2020-09-02 12:01:33
Schema Version: rev 20190401



SAN DIEGO
11455 El Camino Real, Suite 480
San Diego, CA 92130
619-696-0400 P
PBK.com



3110 E. Guasti Road, Suite 300
Ontario, CA 91761

IMPERIAL VALLEY COLLEGE
- B600 EXPANSION
380 E Aten Rd.
Imperial, CA 92251
DSA SUBMITTAL



CONSULTANT



ARCHITECT

CLIENT		
IMPERIAL VALLEY COLLEGE		
PROJECT NUMBER 20190		
DATE: 12/08/2020		
DRAWN BY: MD		
CHECKED BY: RW		
REVISIONS:		
No.	Description	Date
DSA SUBMITTAL		
TITLE 24		
MO.03		

STATE OF CALIFORNIA
Process Systems
 NRC-PRC-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRC-PRC-E
 Project Name: IVC - B600 Expansion Report Page: (Page 4 of 5)
 Project Address: 380 E. Aten Road Date Prepared: 9/2/2020

Q. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/ttcc24/attcp/providers.htm>

Yes	No	Form/Title	Field Inspector	
			Pass	Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-01-F Compressed Air Systems	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-02-F Kitchen Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-03-F Garage Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-04-F Refrigerated Warehouses - Evaporator Fan Motor Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-05-F Refrigerated Warehouses - Evaporative Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-06-F Refrigerated Warehouses - Air Cooled Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-07-F Refrigerated Warehouses - Variable Speed Compressor	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-08-F Refrigerated Warehouses - Electric Resistance Underslab Heating System	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-12-F Elevator Lighting & Ventilation Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-13-F Escalators & Moving Walkways Speed Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-14-F Lab Exhaust Ventilation Systems	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-PRC-15-F Fume Hood Automatic Sash Closure Systems	<input type="checkbox"/>	<input type="checkbox"/>

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2020-09-02 12:01:33

STATE OF CALIFORNIA
Process Systems
 NRC-PRC-E CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRC-PRC-E
 Project Name: IVC - B600 Expansion Report Page: (Page 5 of 5)
 Project Address: 380 E. Aten Road Date Prepared: 9/2/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Maher Dandachi
 Signature Date: 2020-09-02
 Company: Leaf Engineers
 Address: 3110 East Guasti Rd, Ste 300
 City/State/Zip: Ontario California 91761
 Phone: 9093903111

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 3 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation of building provides to the building owner at occupancy.

Responsible Designer Name: Rex Wang
 Signature Date: 2020-09-02
 Company: Leaf Engineers
 Address: 3110 E. Guasti Road, Suite 300
 City/State/Zip: Ontario California 91761
 License: M-38155
 Phone: (909) 937-9200

Registration Number: CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance
 Registration Date/Time: Report Version: 2019.1.003 Schema Version: rev 20190401
 Registration Provider: Energysoft
 Report Generated: 2020-09-02 12:01:33

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name: IVC - B600 Expansion Date: 9/2/2020
 System Name: Rooftop Package AC Unit (Gas Heat) Floor Area: 2,997

ENGINEERING CHECKS	SYSTEM LOAD	COIL COOLING PEAK		COIL HTG. PEAK		
		CFM	Sensible	Latent	CFM	Sensible
Number of Systems: 1	Total Room Loads	5,350	106,853	54,945	796	30,039
Heating System	Return Vented Lighting		0			
Output per System: 200,000	Return Air Ducts		5,343			1,502
Output (Btu/hqft): 66.7	Return Fan		0			0
Cooling System	Ventilation	1,499	57,499	-7,254	1,499	71,113
Output per System: 259,386	Supply Fan		16,173			-16,173
Output (Btu/hqft): 259,386	Supply Air Ducts		5,343			1,502
Total Output (Tons): 21.4	TOTAL SYSTEM LOAD			191,210	47,681	87,884
Total Output (Btu/hqft): 69.5						
Total Output (eq/ftTon): 138.7						

Air System
 CFM per System: 9,000
 Airflow (cfm): 9,000
 Airflow (cfm/hqft): 3.00
 Airflow (cfm/Ton): 416.4
 Outside Air (%): 16.7%
 Outside Air (cfm/hqft): 0.50

HVAC EQUIPMENT SELECTION
 TRANE YHD300
 231,400
 0
 200,000

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)
 Note: values above given at ARI conditions. TIME OF SYSTEM PEAK: Aug 3 PM, Jan 1 AM
 28°F / 63°F
 64°F
 105°F
 105°F
 70°F
 ROOM

COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)
 110 / 72°F
 80 / 64°F
 82 / 65°F
 55 / 53°F
 56 / 54°F
 52.9%
 74 / 63°F
 ROOM

DSA FILE NO. 37-C2 A8 04-119030

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CONSULTANT

ENGINEER
 REGISTERED PROFESSIONAL ENGINEER
 REX DAVID WANG
 No. M 38155
 Exp. 09-30-2022
 HEWANTON
 STATE OF CALIFORNIA

ARCHITECT

CLIENT
 IMPERIAL VALLEY COLLEGE

PROJECT NUMBER: 20190
 DATE: 12/08/2020
 DRAWN BY: MD
 CHECKED BY: RW

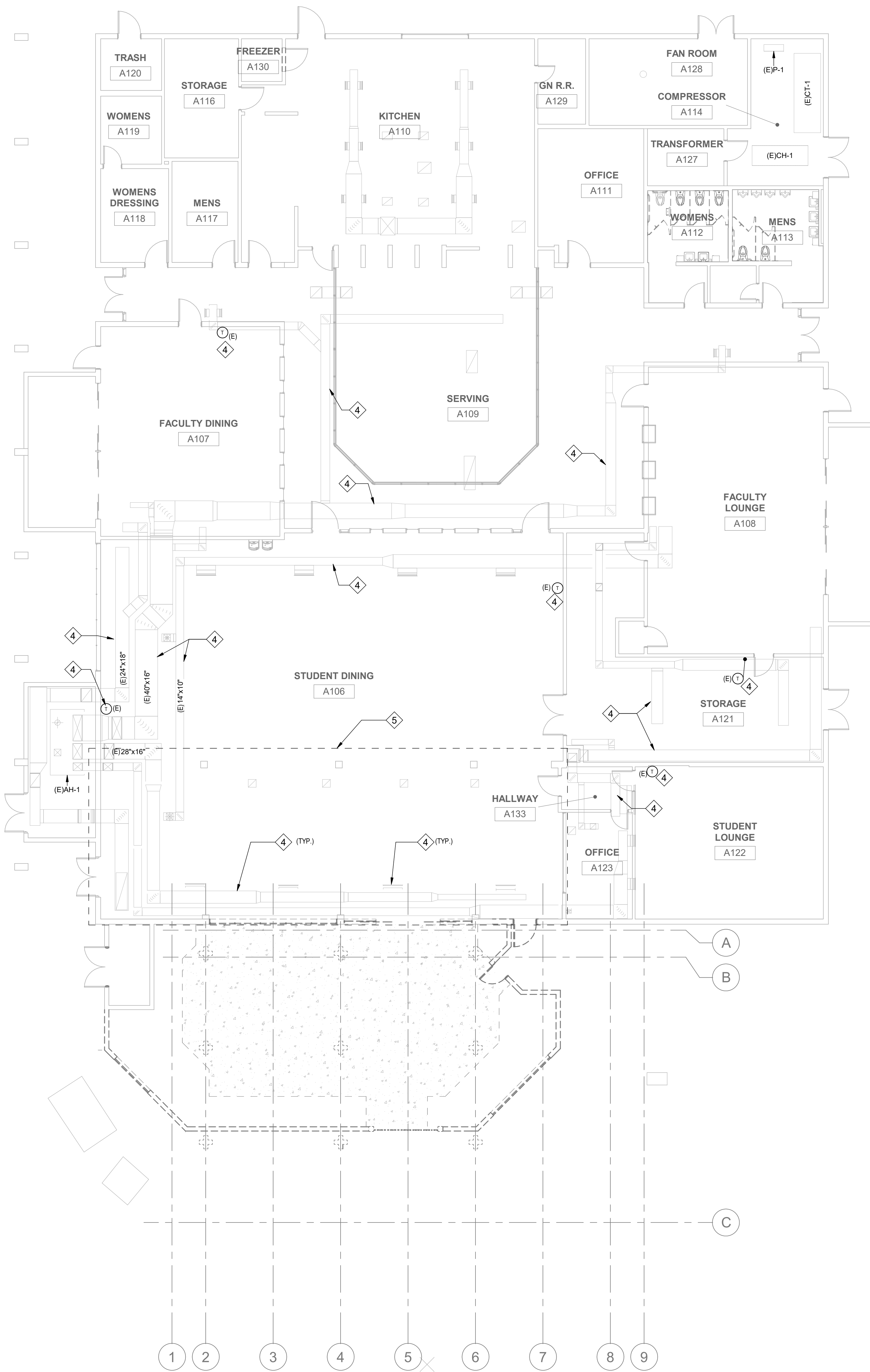
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No.	Description	Date

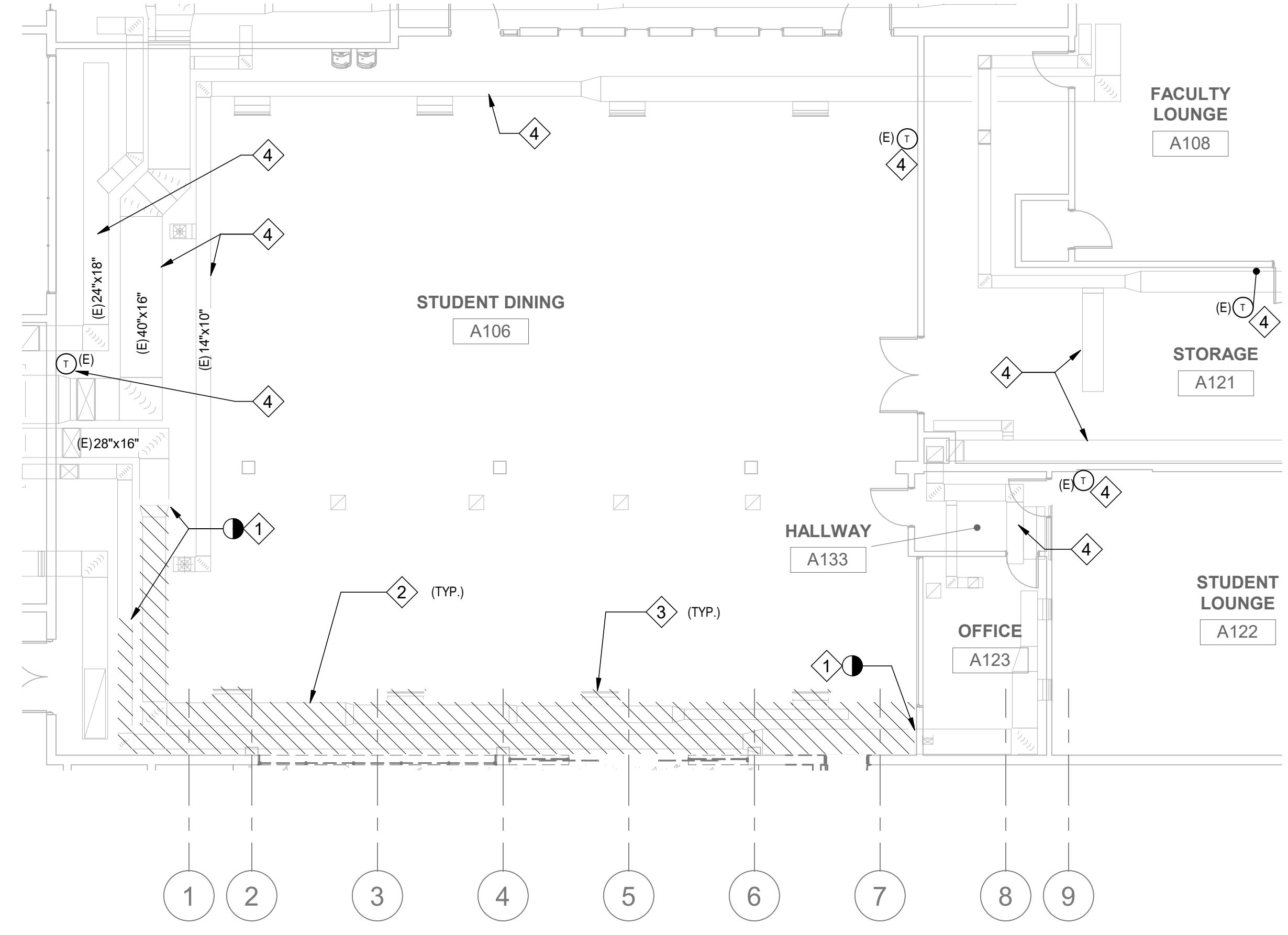
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TITLE 24

M0.04



1 MECHANICAL DEMOLITION FLOOR PLAN
1/8" = 1'-0"



2 MECHANICAL DEMOLITION FLOOR PLAN (BID ALT 2)
1/8" = 1'-0"

- DEMOLITION KEY NOTES:**
- 1 DISCONNECT EXISTING DUCT AT POINT OF DISCONNECTION, AS SHOWN.
 - 2 EXISTING SUPPLY AIR DUCT TO BE REMOVED WITH ALL DAMPERS, ACCESSORIES, ETC.
 - 3 EXISTING SUPPLY AIR SIDEWALL GRILLE TO BE REMOVED WITH ALL DAMPERS, ACCESSORIES, ETC.
 - 4 EXISTING DUCTWORK TSTAT, ETC. TO REMAIN.
 - 5 CONTRACTOR SHALL PROVIDE BID ALT 2 TO INCLUDE REMOVING (DEMOLISHING) EXISTING DUCTWORK, GRILLES, ACCESSORIES, ETC. AS SHOWN. REFER TO MECHANICAL DEMOLITION FLOOR PLAN (BID ALT 2) #2 THIS SHEET.

BID ALT 1:
DELETE DROPPED CEILING IN NEW DINING HALL.

BID ALT 2:
DELETE ENLARGEMENT OF EXISTING OPENINGS.
INCLUDES DEMO OF EXISTING CEILING, MECHANICAL DUCTS AND SAWCUT OF (E) CMU WALL.
INCLUDES CEILING PATCH, NEW DUCTS ON ROOF AND STRUCTURE SUPPORT.

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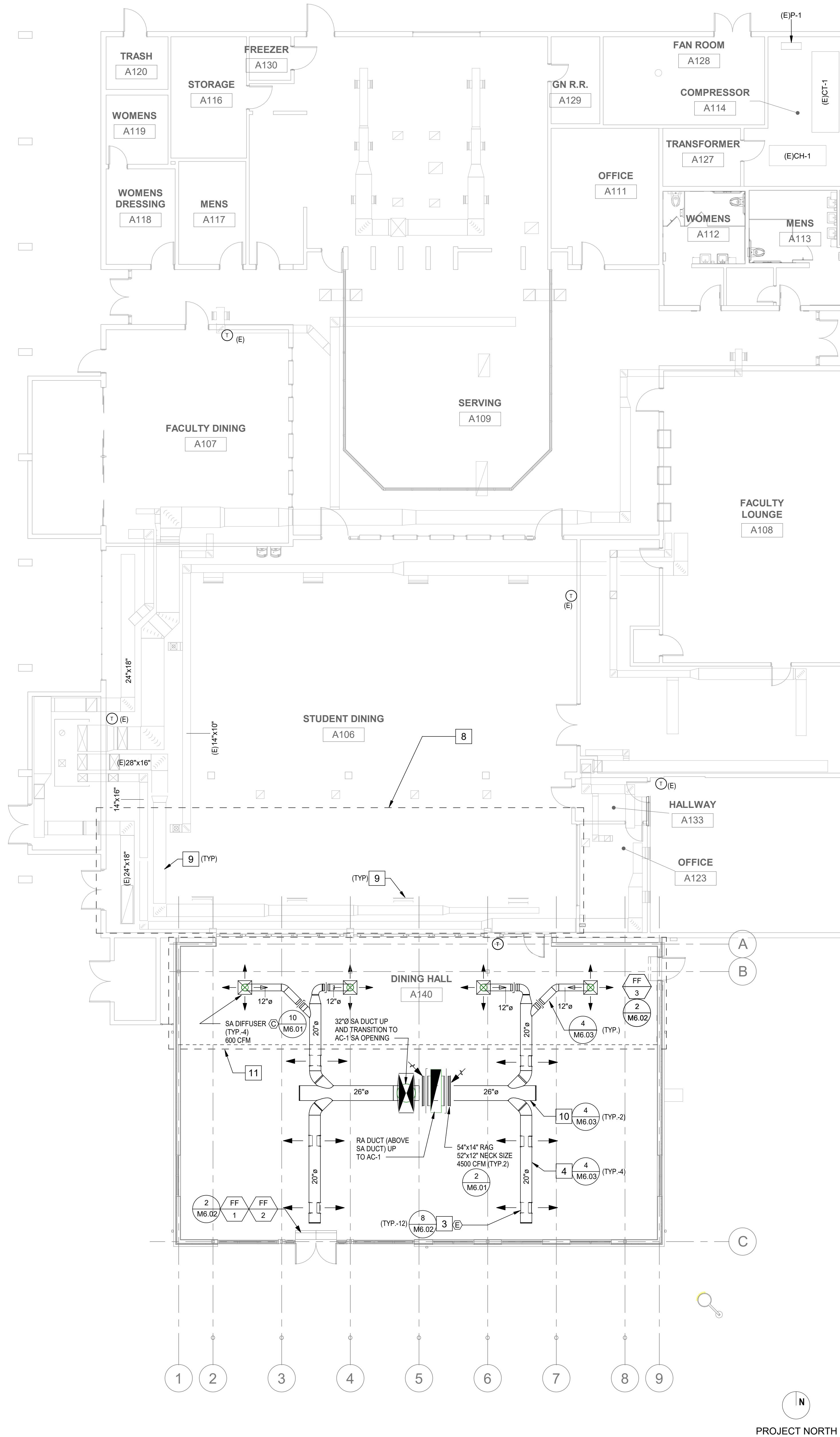
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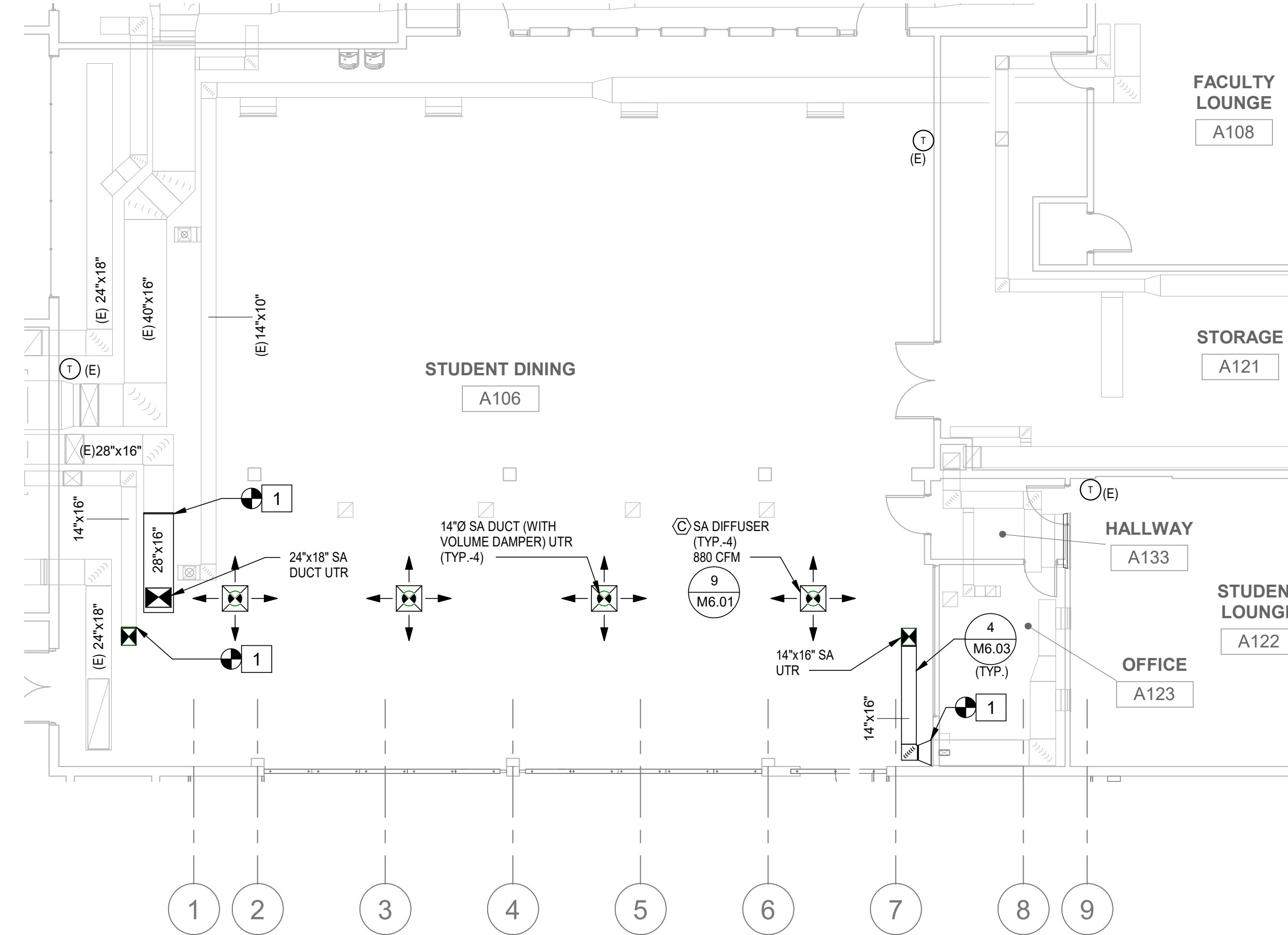
No.	Description	Date

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MECHANICAL DEMOLITION FLOOR PLANS

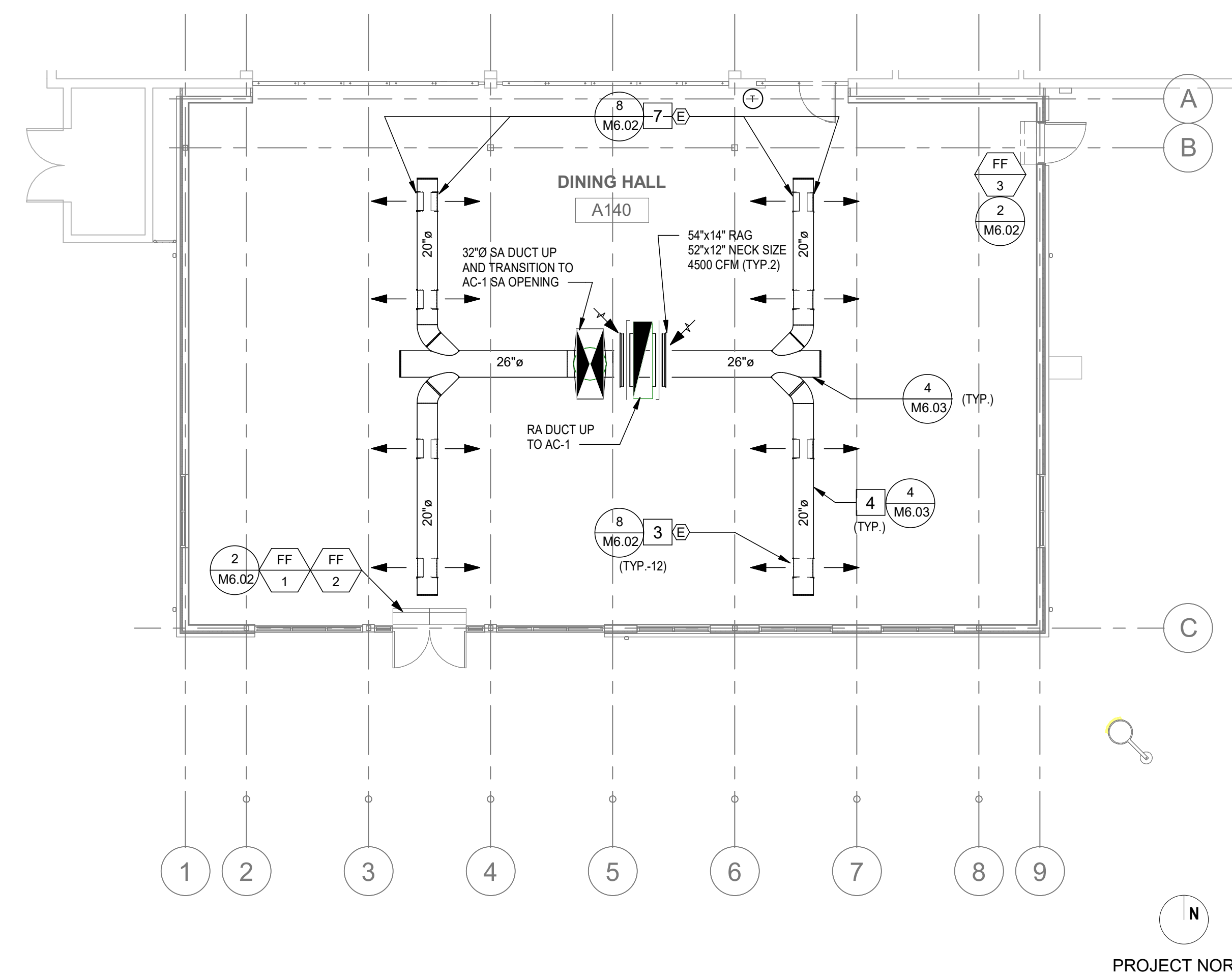
MD2.01



1 MECHANICAL FLOOR PLAN
1/8" = 1'-0"



3 MECHANICAL FLOOR PLAN (BID ALT 2)
1/8" = 1'-0"



2 MECHANICAL FLOOR PLAN (BID ALT 1)
1/8" = 1'-0"

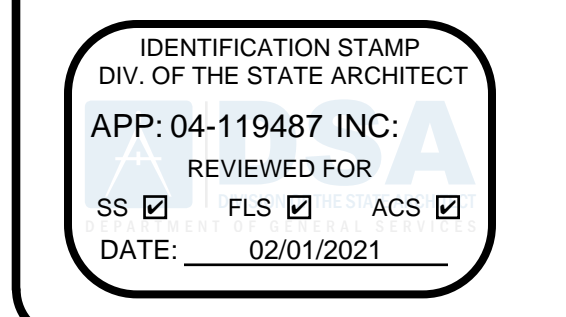
KEY NOTES:

- 1 CONNECT EXISTING DUCT TO NEW DUCT AT POINT OF CONNECTION, AS SHOWN.
- 2 28"x20" RA SIDEWALL GRILLE, 3300 CFM, BOTTOM OF GRILLE = 13'-3".
- 3 18"x10" SA SPIRAL DUCT MOUNTED GRILLE WITH AIR SCOOP DAMPER (ASD), 550 CFM.
- 4 EXPOSED SA DUCT, BOTTOM OF DUCT = 11'-0".
- 5 30"x30" SA DUCT UTR, SEE ROOF PLAN M3.01 FOR CONTINUATION.
- 6 14"x10" RA DUCT UTR (WITH VOLUME DAMPER).
- 7 18"x12" SA SPIRAL DUCT MOUNTED GRILLE WITH AIR SCOOP DAMPER (ASD), 600 CFM.
- 8 CONTRACTOR SHALL PROVIDE BID ALT 2 TO INCLUDE ADDING NEW DUCTWORK, DIFFUSERS, ACCESSORIES, ETC. AS SHOWN. REFER TO MECHANICAL FLOOR PLAN (BID ALT 2) #3 THIS SHEET.
- 9 (E) DUCTWORK, AIR DISTRIBUTION, ACCESSORIES, ETC. TO REMAIN.
- 10 EXPOSED SA DUCT, BOTTOM OF DUCT = 10'-9".
- 11 CONTRACTOR SHALL PROVIDE BID ALT 1 TO INCLUDE REMOVING DROP CEILING WITH ALL ASSOCIATED DIFFUSERS, DUCTWORK, ACCESSORIES, ETC. AND ADDING NEW DUCTWORK, GRILLES, ACCESSORIES, ETC. AS SHOWN. REFER TO MECHANICAL FLOOR PLAN (BID ALT 1) #2 THIS SHEET.

BID ALT 1:
DELETE DROPPED CEILING IN NEW DINING HALL.

BID ALT 2:
DELETE ENLARGEMENT OF EXISTING OPENINGS.
* INCLUDES DEMO OF EXISTING CEILING, MECHANICAL DUCTS AND SAWCUT OF (E) CMU WALL.
* INCLUDES CEILING PATCH, NEW DUCTS ON ROOF AND STRUCTURE SUPPORT.

DSA FILE NO. 37-C2 AR 04-119030



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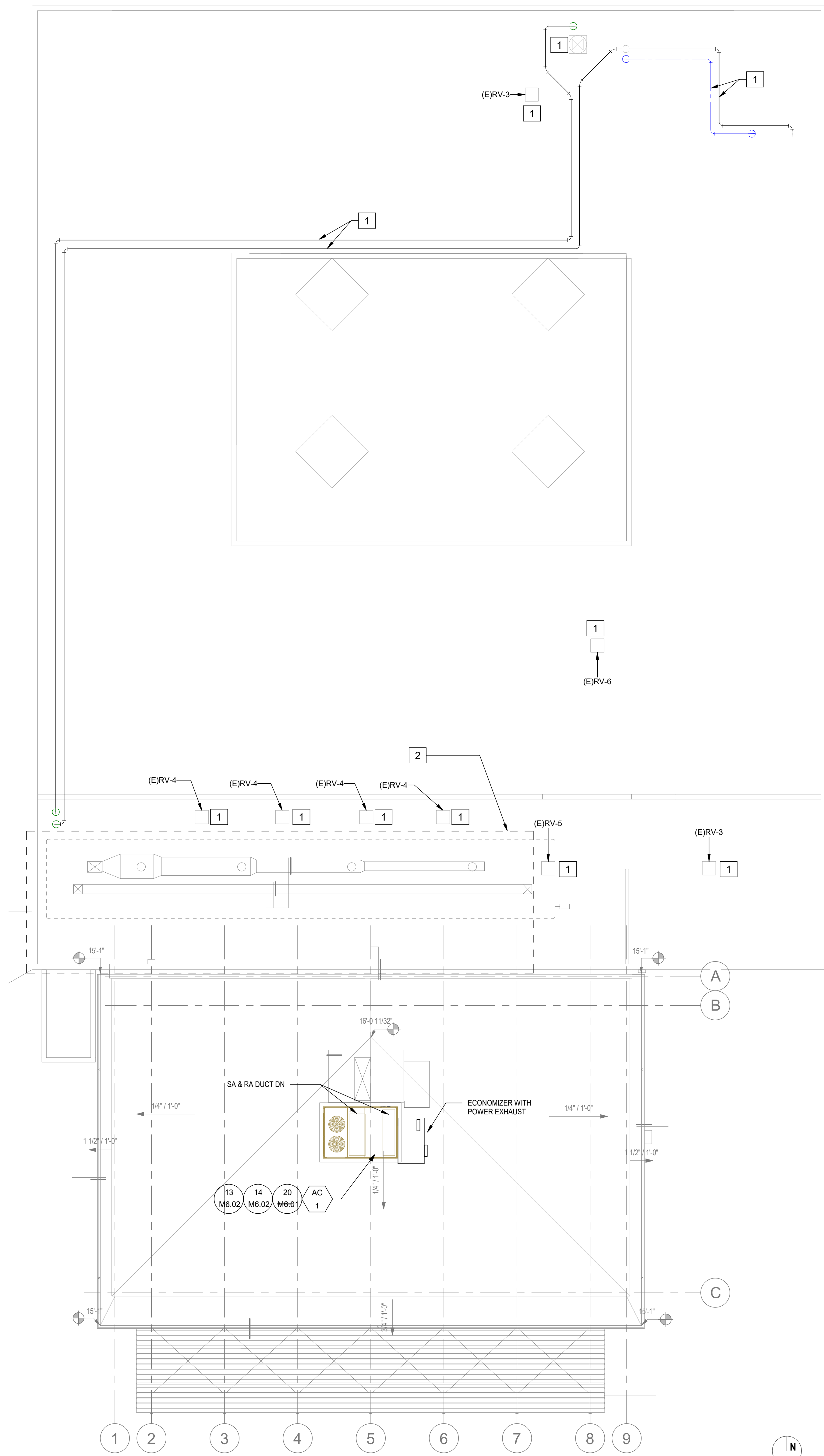
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MECHANICAL FLOOR PLANS

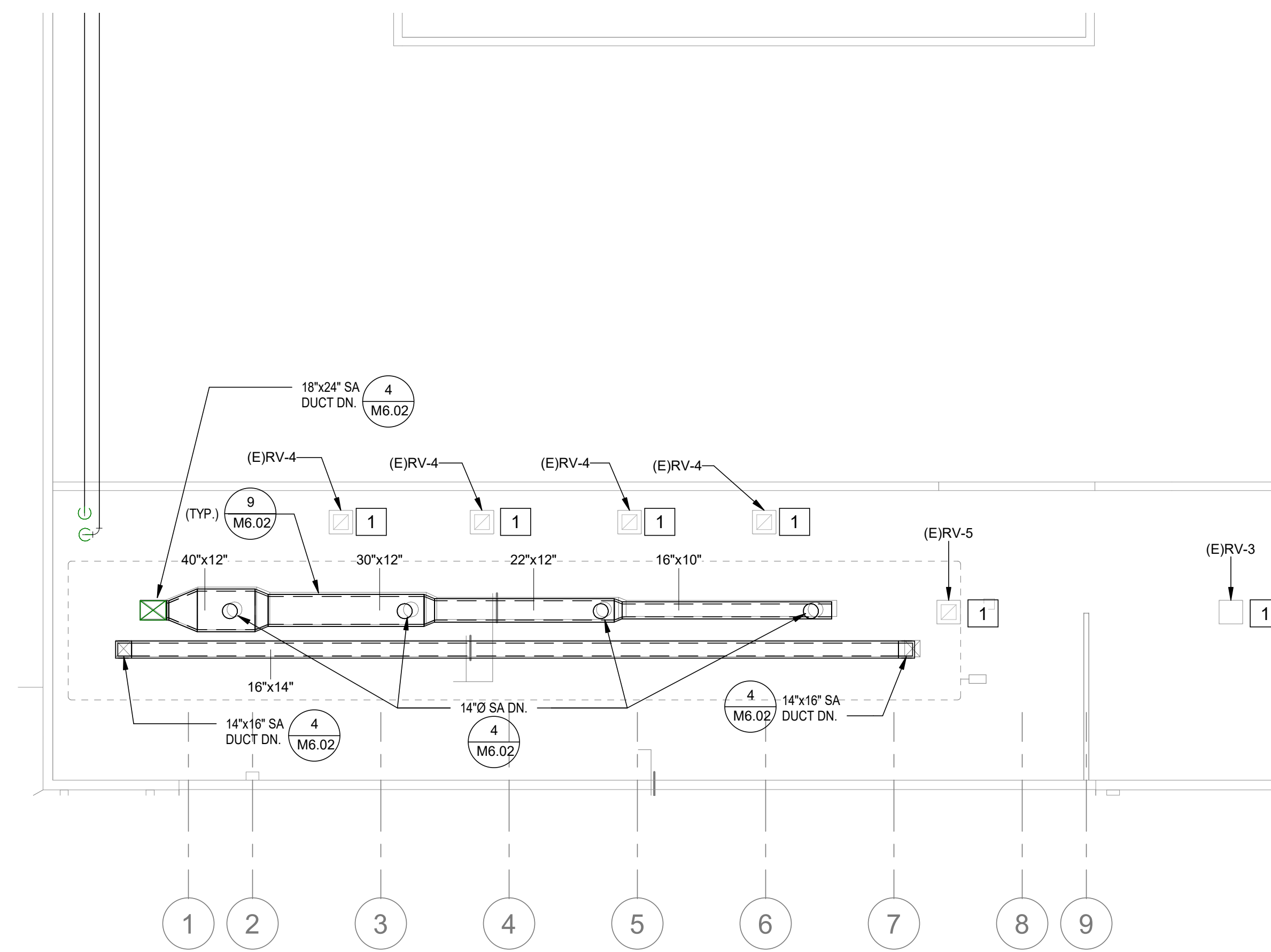
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12/4/2020 1:25:36 PM

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1 MECHANICAL ROOF PLAN
1/8" = 1'-0"



2 MECHANICAL ROOF PLAN (BID ALT 2)
1/8" = 1'-0"

KEY NOTES:

- 1 (E) MECHANICAL EQUIPMENT, RELIEF VENTS (RV), PIPING, ETC. TO REMAIN.
- 2 CONTRACTOR SHALL PROVIDE BID ALT 2 TO INCLUDE ADDING NEW DIFFUSERS, DUCTWORK, DUCT/ROOF PENETRATIONS, CURBS, ACCESSORIES, ETC. AS SHOWN. REFER TO MECHANICAL ROOF PLAN (BID ALT 2) #2 THIS SHEET.

BID ALT 1:
DELETE DROPPED CEILING IN NEW DINING HALL.

BID ALT 2:
DELETE ENLARGEMENT OF EXISTING OPENINGS.
* INCLUDES DEMO OF EXISTING CEILING, MECHANICAL DUCTS AND SAWCUT OF (E) CMU WALL.
* INCLUDES CEILING PATCH, NEW DUCTS ON ROOF AND STRUCTURE SUPPORT.

DSA FILE NO. 37-C2 AR 04-119030

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MECHANICAL ROOF PLANS

M3.01



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MECHANICAL SCHEDULES

M5.01

PACKAGED AIR CONDITIONING UNIT SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	CFM	TONNAGE	ESP (IN. WG)	COOLING CAP (MBH)		EVAP. ENT. AIR TEMP. (°F)		EVAP. LEAV. AIR TEMP. (°F)		ENT. COND. TEMP. (°F)			HEATING CAPACITIES			AFUE (%)	INDOOR FAN				COMPRESSOR		POWER EXHAUST							ELECTRICAL							FILTERS (IN.) 30% EFF.	OPER. WT. (LBS)	OSA CFM	REMARKS									
					TOTAL	SENS.	DB	WB	DB	WB	DB	WB	DB	WB	DB	STAGES		INPUT (MBH)	OUTPUT (MBH)	NO.	RPM	HP/BHP	DRIVE	NO.	RLA	PART #	CFM	HP	FLA	MCA	MCCP	V	PHASE	HZ	OPER. WT. (LBS)	OFM NO.	IFM (FLA)					COMBUSTION BLOWER MOTOR (FLA)	V	PHASE	HZ	UNIT MCA	UNIT MCCP			
					DB	WB	DB	WB	DB	WB	DB	WB	DB	WB	DB	WB		DB	WB	DB	WB	DB	WB	DB	WB	DB	WB	DB	WB	DB	WB	DB	WB	DB	WB	DB	WB					DB	WB	DB	WB	DB	WB	DB	WB	
AC 1	TRANE YHD300	9,000	25	0.75	259.38	206.62	80.0	67.0	58.74	57.75	111.0	73.0	35.0	10.6	15.0	2	250.0/175.0	200.0/140.0	80.0	1	773	7.5/5.65	BELT	3	19.6	19.6	38.63	6114	9,000	5.0	13.4	16.75	30.5	208	3	60	736	2	4.8 EACH	24.2	0.8	208	3	60	119.0	150.0	(8) 20"x20"x2" (4) 20"x18"x2"	3,005	1,500	

- NOTES:
- SCHEDULED LOADS INCLUDE FAN AND MOTOR HEAT.
 - PROVIDE ANTI-RECYCLE TIMER, CRANKCASE HEATER, LOW AMBIENT KIT AND HIGH CAPACITY FILTER RACK.
 - PROVIDE FACTORY "MICROMETL" MODULATING ECONOMIZER WITH POWER EXHAUST. AC UNIT SHALL HAVE CO2 CONTROL. PROVIDE WITH LOCKING MESH COVER. POWER EXHAUST SHALL BE PROVIDED WITH A SEAPARTE DISCONNECT SWITCH, FIELD WIRED BY ELECTRICAL.
 - PROVIDE 14" HIGH FACTORY PITCHED ISOLATOR CURBS.
 - BYPASS UNIT ANTI-RECYCLE TIMER WHEN ANTI-RECYCLE FUNCTION IS INCLUDED IN THE THERMOSTAT.
 - OVERALL SMOKE DETECTION SYSTEM PROVIDED BY ELECTRICAL FOR ALL UNITS TO SHUT-OFF UPON DETECTION OF SMOKE AND SIGNAL THE FIRE ALARM SYSTEM. INSTALL IN STRICT ACCORDANCE WITH THE 2019 CALIFORNIA MECHANICAL CODE, SECTION 608. REFER TO ELECTRICAL PLANS AND MECHANICAL TO CONNECT TO ELECTRICAL RELAY. PRIOR TO MECHANICAL PERMIT FINAL, A SMOKE DETECTOR SYSTEM SHUT-OFF TEST WILL BE REQUIRED.
 - PROVIDE WITH FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH.
 - PROVIDE FACTORY CONDENSER COIL GUARDS.
 - PROVIDE T-24 COMPLIANT WIFI PROGRAMMABLE THERMOSTAT, PELICAN MODEL TS200 OR TS250 WITH CO2 CONTROL.
 - HORIZONTAL DISCHARGE DUCT CONNECTIONS TO UNIT SHALL BE PROVIDED WITH DUCT FLEX CONNECTIONS.
 - DOWN DISCHARGE UNITS SHALL HAVE DUCT FLEX CONNECTIONS INSTALLED WITHIN ROOF CURB.
 - ALL AC UNITS SHALL HAVE R-410A REFRIGERANT.
 - PROVIDE FLUE EXTENSION UP TO TOP OF UNIT.
 - PROVIDE WITH FACTORY MOUNTED NON-POWERED CONVENIENT OUTLET.
 - OPERATING WEIGHT SHOWN DOES NOT INCLUDE WEIGHT OF VIBRATION ISOLATION ROOF CURB.

FLY FAN SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	SERVICE	CFM	MAX. VELOCITY (FPM)	MOTOR					OPER. WT. (LBS)	REMARKS
					HP	FLA	VOLT	PH	HZ		
FF 1	MARS LPV236	DINING HALL A105	900	1800	1/6	2.4	115	1	60	32	
FF 2	MARS LPV236	DINING HALL A105	900	1800	1/6	2.4	115	1	60	32	
FF 3	MARS LPV242	DINING HALL A105	1,050	1800	1/6	2.4	115	1	60	35	

- NOTES:
- PROVIDE WITH DOOR MICROSWITCH.
 - PROVIDE FACTORY MOUNTING BRACKET ASSEMBLY.

AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	MAKE & MODEL	DESCRIPTION
A	CEILING SUPPLY	TITUS MODEL MCD-3	MODULAR CORE DIFFUSER WITH FRAME FOR LAY-IN T-BAR CEILING, FLUSH FACE MOUNTING.
B	CEILING RETURN	TITUS MODEL PAR-3	PERFORATED FACE DIFFUSER WITH FRAME FOR LAY-IN T-BAR CEILING, FLUSH FACE MOUNTING.
C	CEILING SUPPLY	TITUS MODEL MCD-1	MODULAR CORE DIFFUSER WITH RAPID-MOUNT FRAME MODEL TRM FOR SURFACE MOUNTING.
D	CEILING RETURN/EXHAUST	TITUS MODEL 50F	EGG CRATE GRILLE DIFFUSER WITH RAPID-MOUNT FRAME MODEL TRM FOR SURFACE MOUNTING.
E	SPIRAL DUCT MOUNTED SUPPLY	TITUS MODEL S300FS	DOUBLE DEFLECTION SUPPLY GRILLE MOUNTED AT 30° ANGLE WITH RADIUS END CAP, 3/4" SPACING WITH FRONT BLADES PARALLEL TO SHORT DIMENSION, AND AIR SCOOPIER DAMPER.
F	SIWALL RETURN	TITUS MODEL 1700	DOUBLE DEFLECTION HORIZONTAL 5" DOWN FRONT GRILLE WITH 1/2" BLADE SPACING, FRAME FOR WALL MOUNTING.

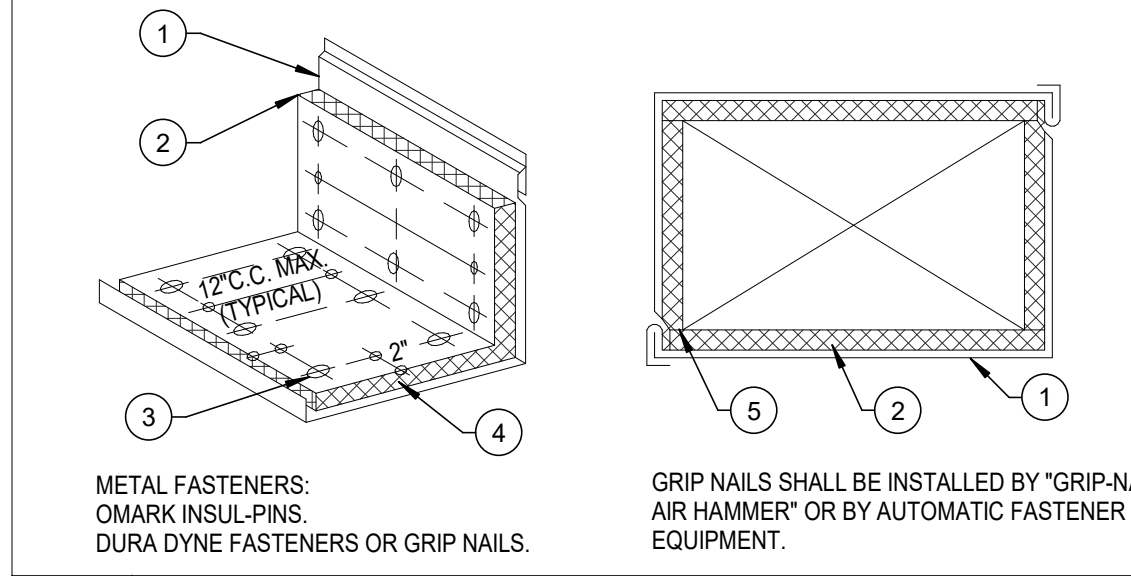
- NOTES:
- EQUIVALENT MODELS OF KRUEGER, ANEMOSTAT, PRICE OR J&J ARE ACCEPTABLE.
 - REFER TO THE FLOOR PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN AND FIRED/DAMPER, IF REQUIRED.
 - PROVIDE AIR CONTROL GRID FOR ALL CEILING SUPPLY DIFFUSERS SET AT 90°.
 - INTERIOR OF ALL GRILLES SHALL BE PAINTED FLAT BLACK.

DUCT CONSTRUCTION STANDARDS

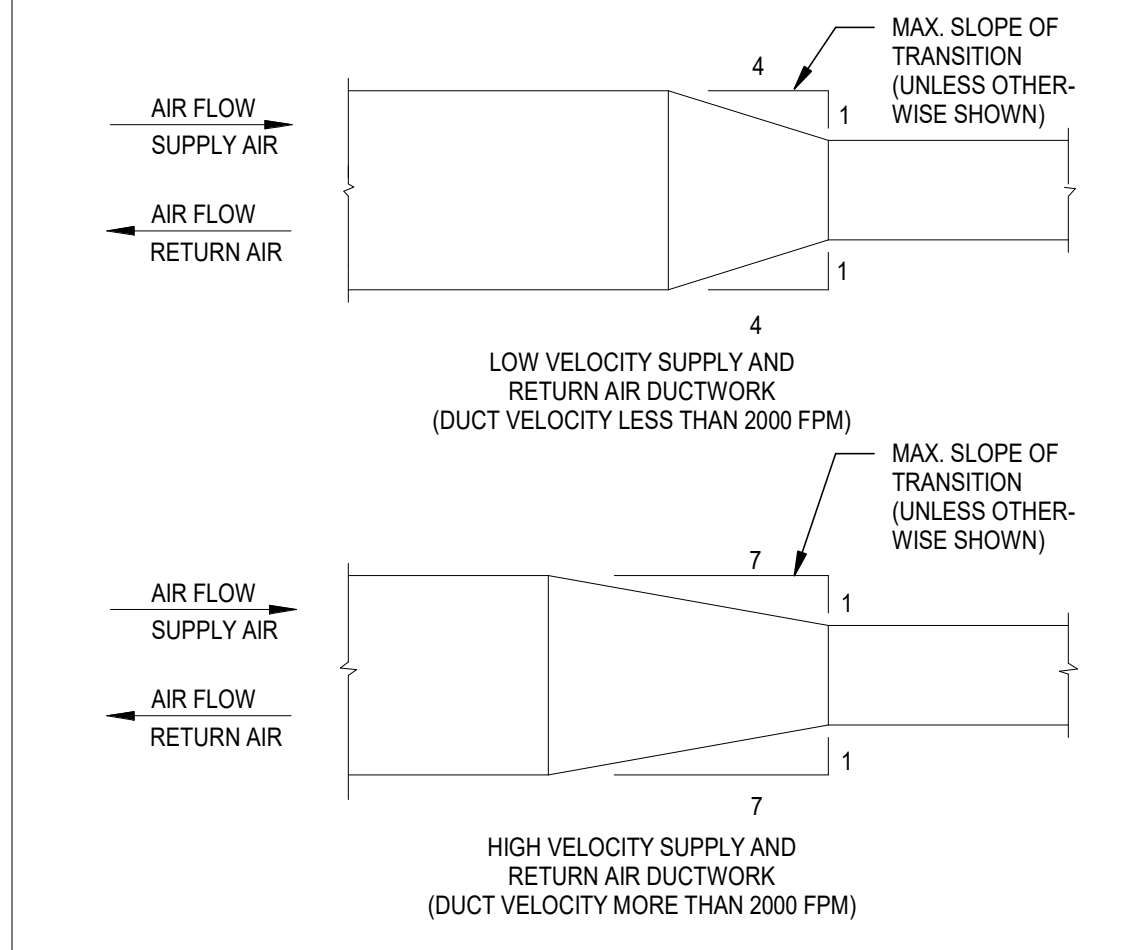
DIMENSION OF LONGEST SIDE, INCHES	SHEET METAL GAGE (ALL FOUR SIDES)	MINIMUM REINFORCING ANGLE SIZE AND MAXIMUM LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS & OR INTERMEDIATE REINFORCING	TRANSVERSE REINFORCING (1)				
			AT JOINTS				
			MIN. HT. IN.	DRIVE SLIP PLAIN S SLIP	HEMMED S SLIP	ALTERNAT BAR SLIP REINFORCED BAR SLIP	
			RECOM-MENDED GAGE	RECOM-MENDED GAGE	RECOM-MENDED GAGE	RECOM-MENDED GAGE	
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13 - 18	24	NONE REQUIRED	1	24	24	24	24
19 - 30	24	1" X 1" X 1/8" @ 60 IN.	1		24	24	24
31 - 42	22	1" X 1" X 1/8" @ 60 IN.	1		22	22	22
43 - 60	20	1" X 1" X 1/8" @ 60 IN.	1			20	20
61 & ABOVE	18	1" X 1" X 1/8" @ 60 IN.	1				18

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED.

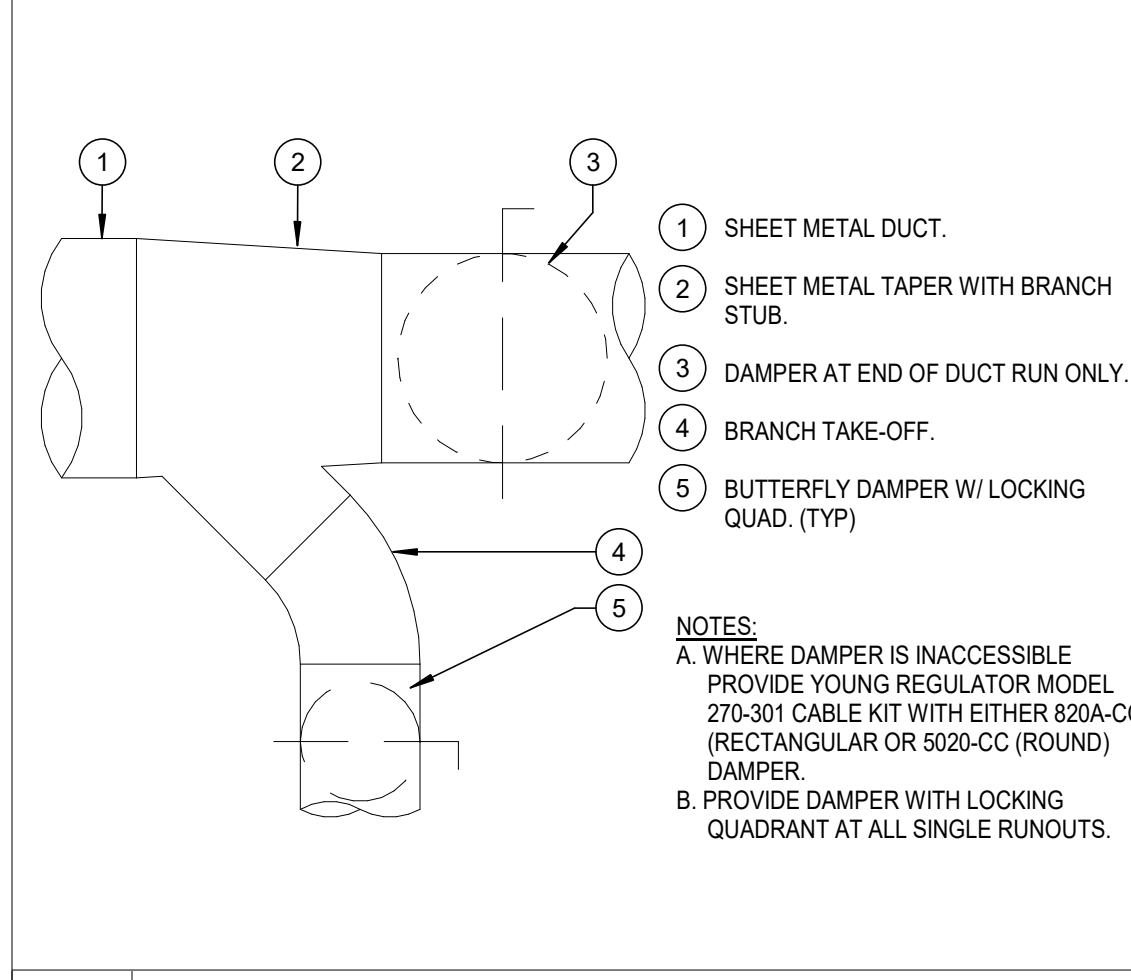
NOTES:
 1 GALVANIZED SHEET METAL DUCT.
 2 2" THICK ACOUSTIC DUCT LINER. LINER TO BE ADHERED TO DUCT WITH 100% ADHESIVE. (MIRACLE PF98)
 3 NOT MORE THAN 2" FROM EDGE OF DUCT LINER.
 4 ALL ENDS OF LINER TO BE COATED WITH ADHESIVE. (MIRACLE PF98) ENDS OF LINER SHALL BE BUTTED FIRMLY TOGETHER.
 5 TOP AND BOTTOM SECTIONS OF LINER SHALL OVERLAP THE SIDES.



27 ACOUSTIC LINED DUCTS DETAIL
 NOT TO SCALE

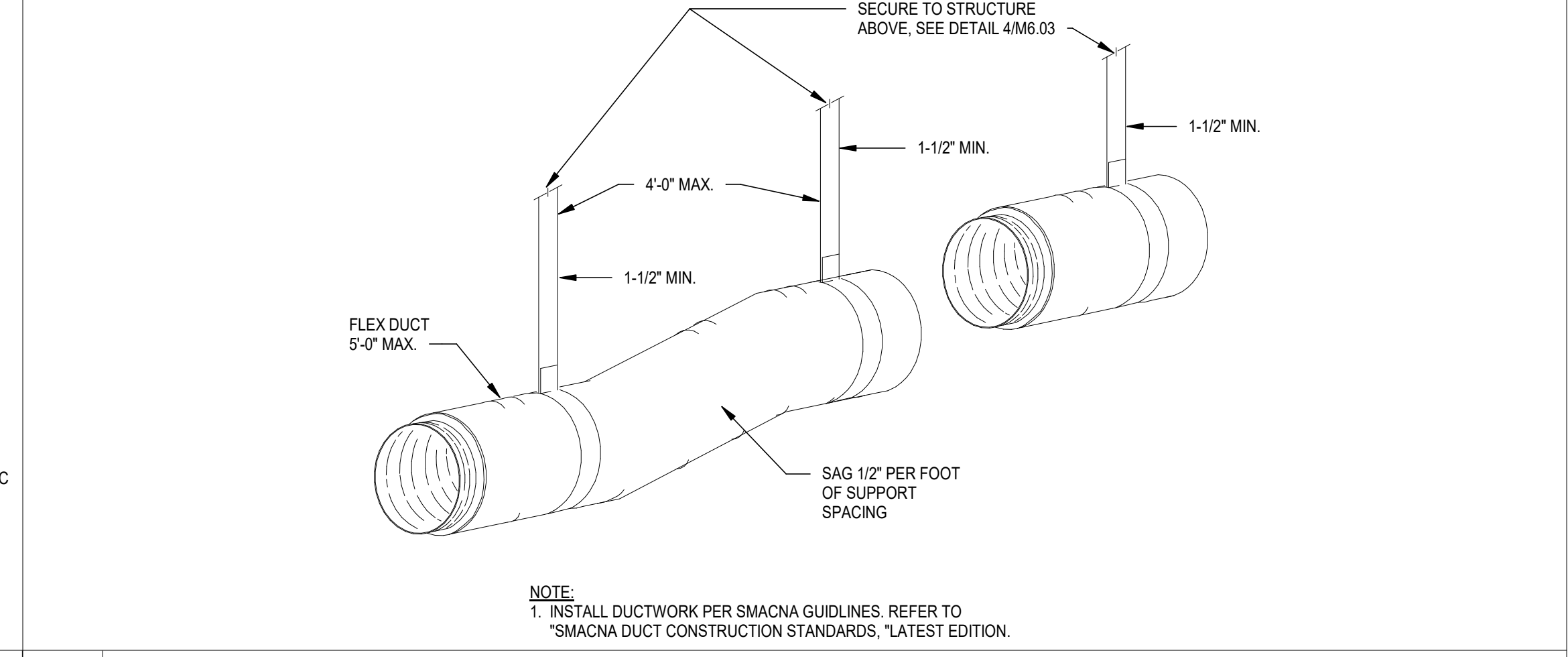


21 RECTANGULAR DUCT TRANSITION DETAIL
 NOT TO SCALE

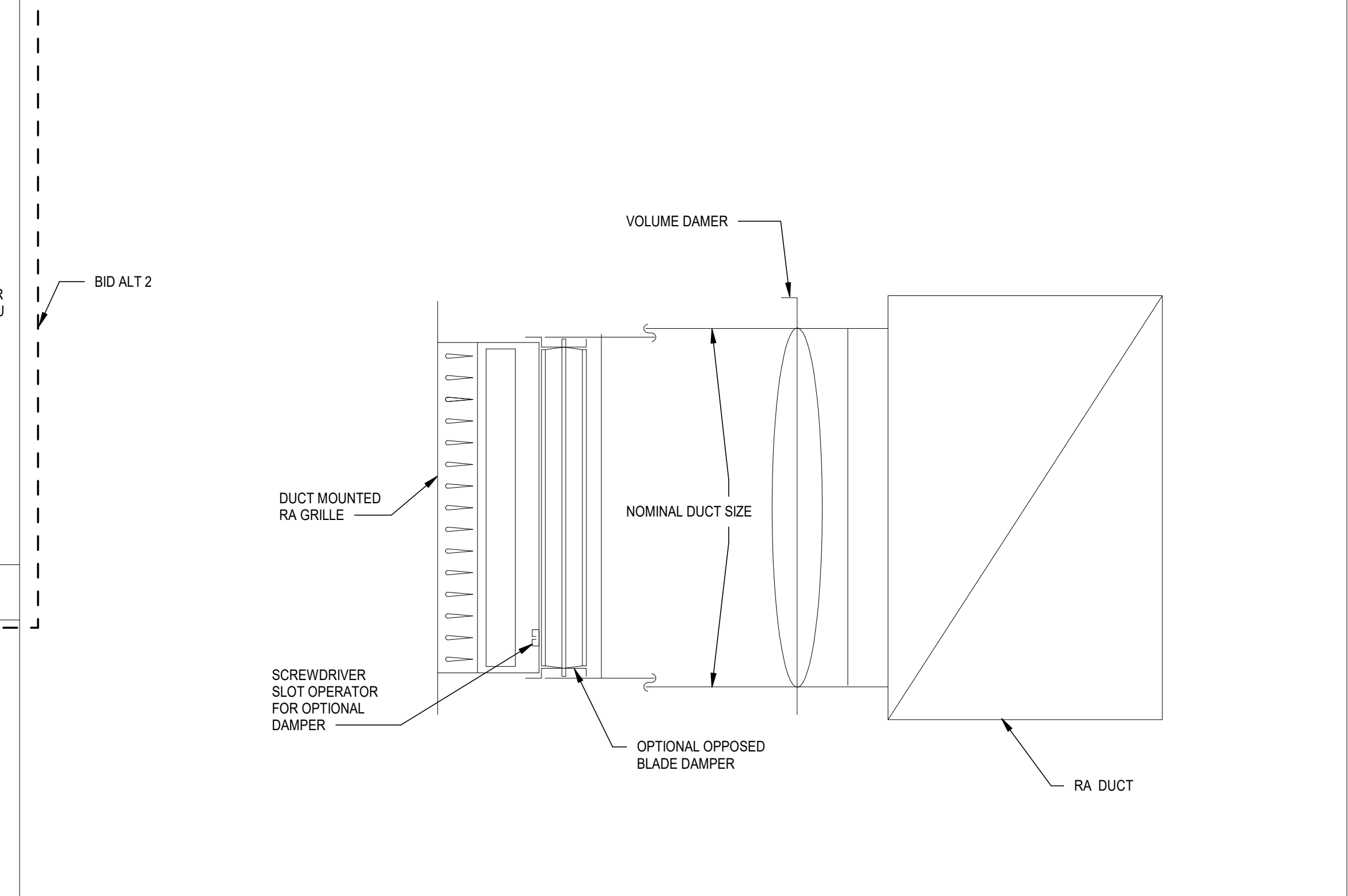


16 BRANCH DUCT DAMPER DETAIL
 NOT TO SCALE

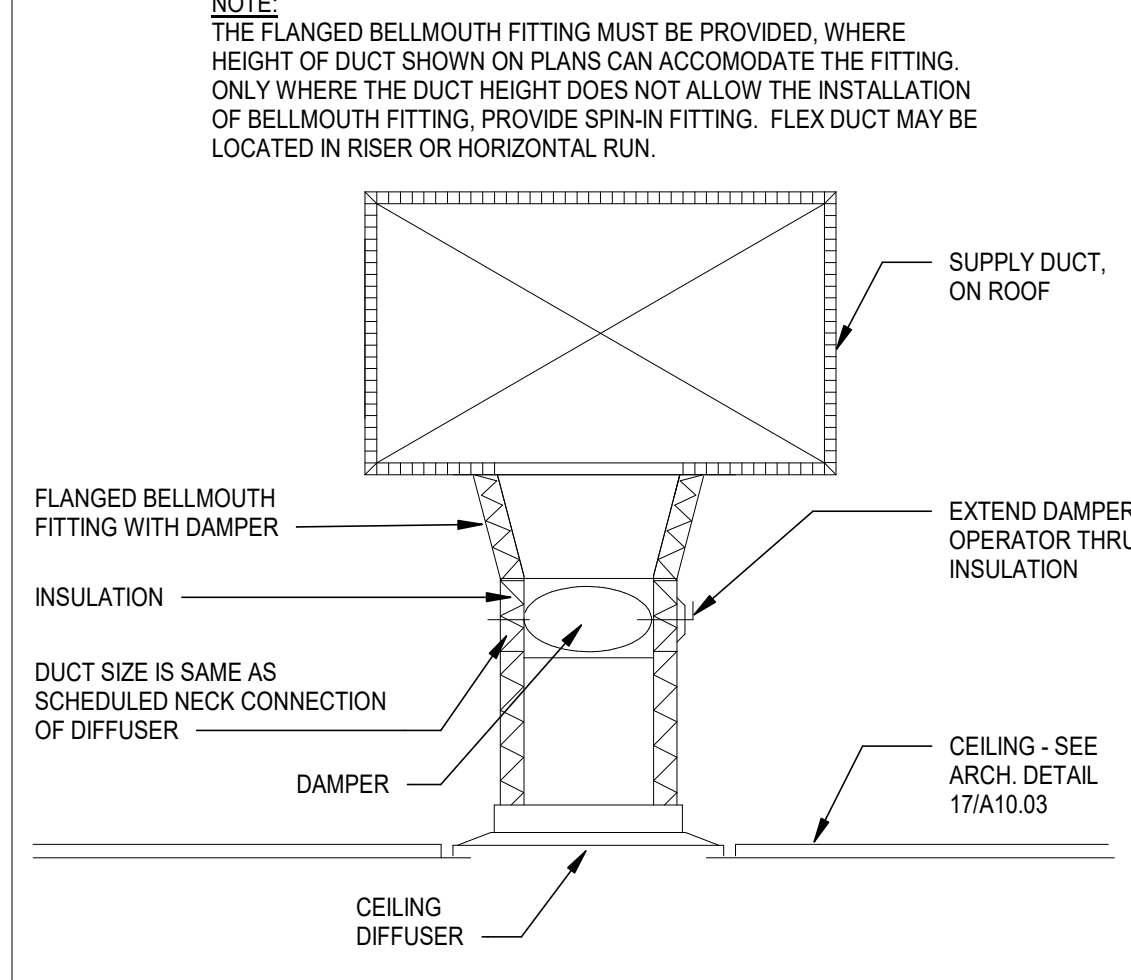
20 ROOF TOP UNIT DETAIL (AC-1)
 NOT TO SCALE



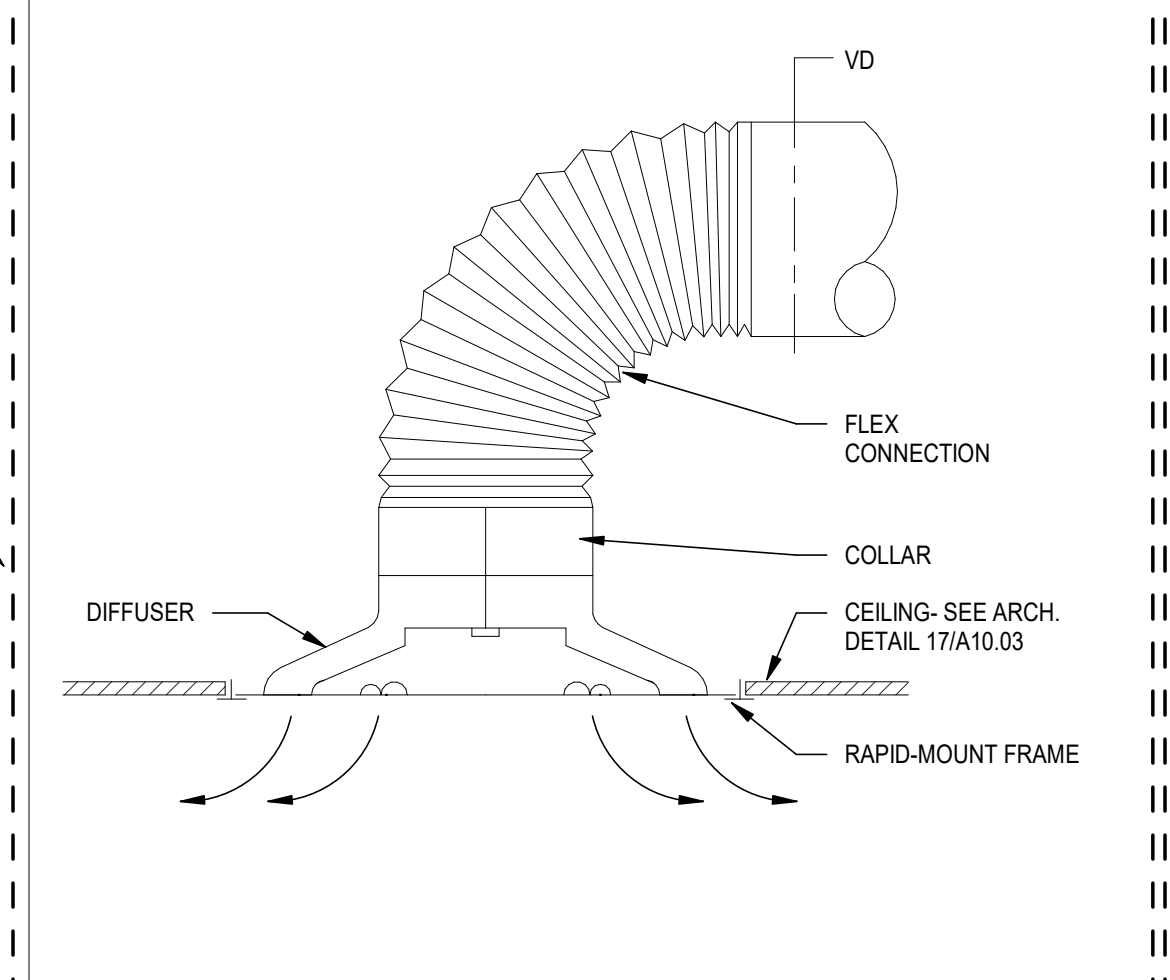
14 FLEXIBLE DUCTWORK HANGER DETAIL
 NOT TO SCALE



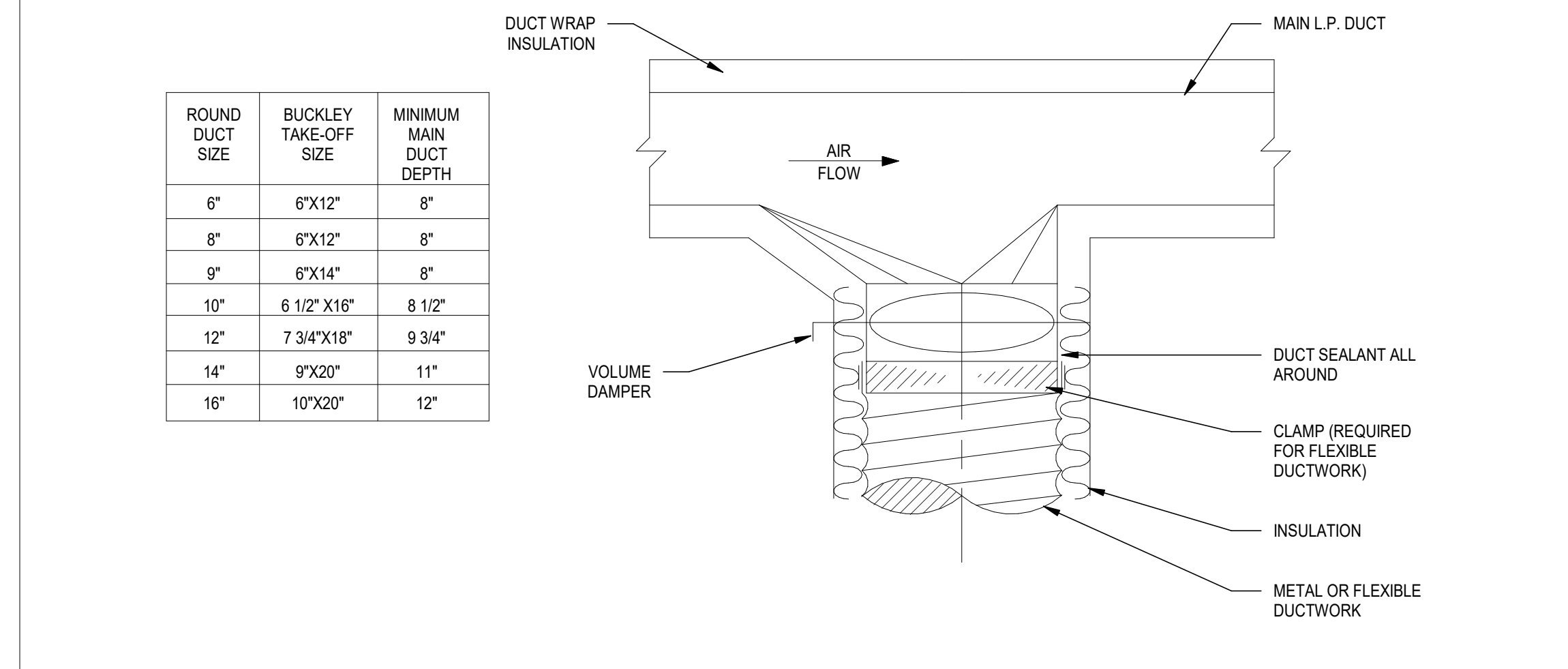
2 DUCT MOUNTED RETURN AIR GRILLE DETAIL
 NOT TO SCALE



9 CEILING DIFFUSER CONNECTION DETAIL
 NOT TO SCALE

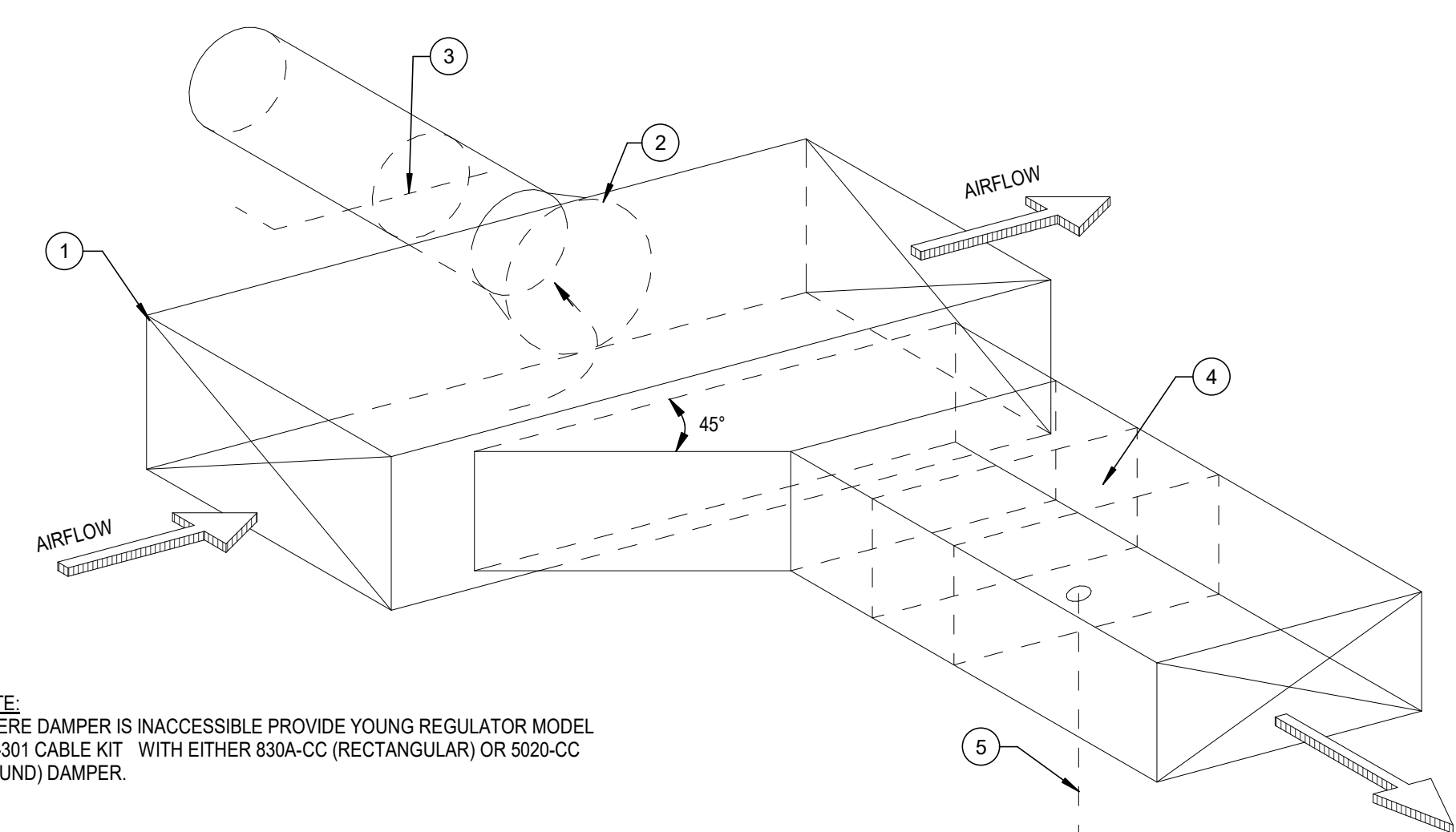


10 TYPICAL DIFFUSER CONNECTION DETAIL
 NOT TO SCALE



4 RECTANGULAR TO ROUND TRANSITION TAKE-OFF DETAIL
 NOT TO SCALE

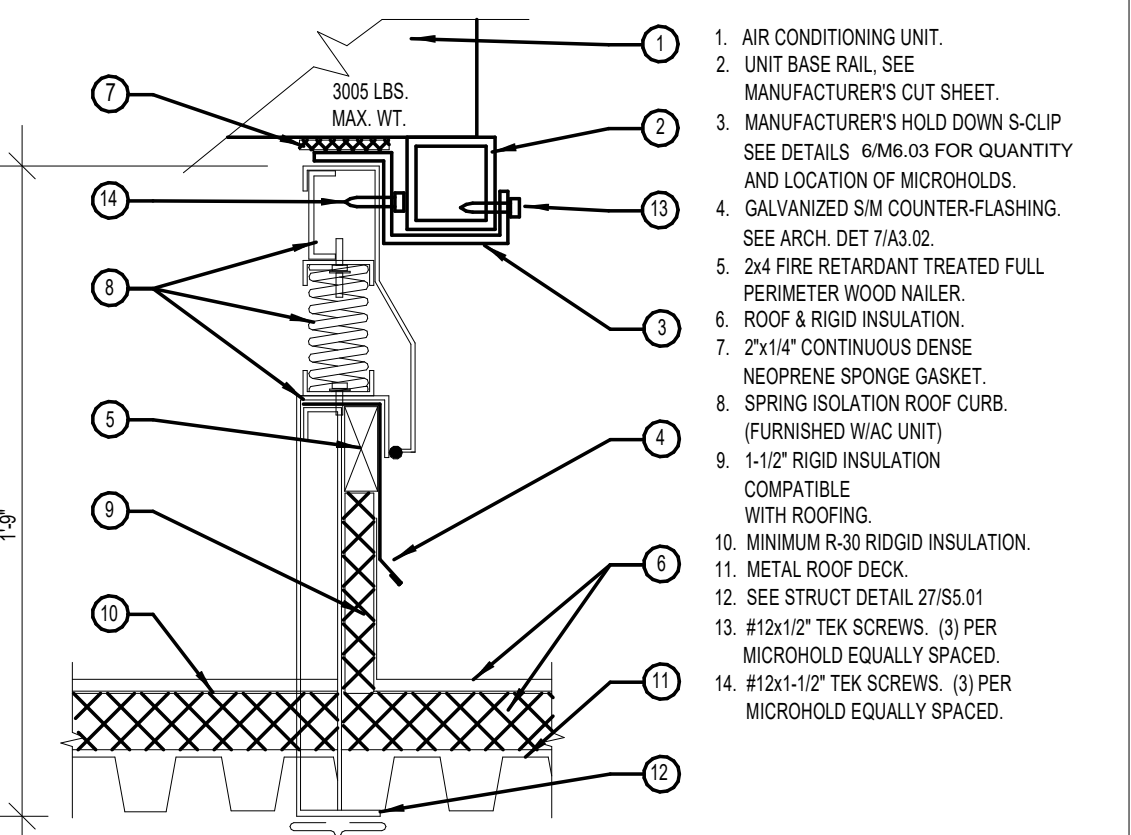
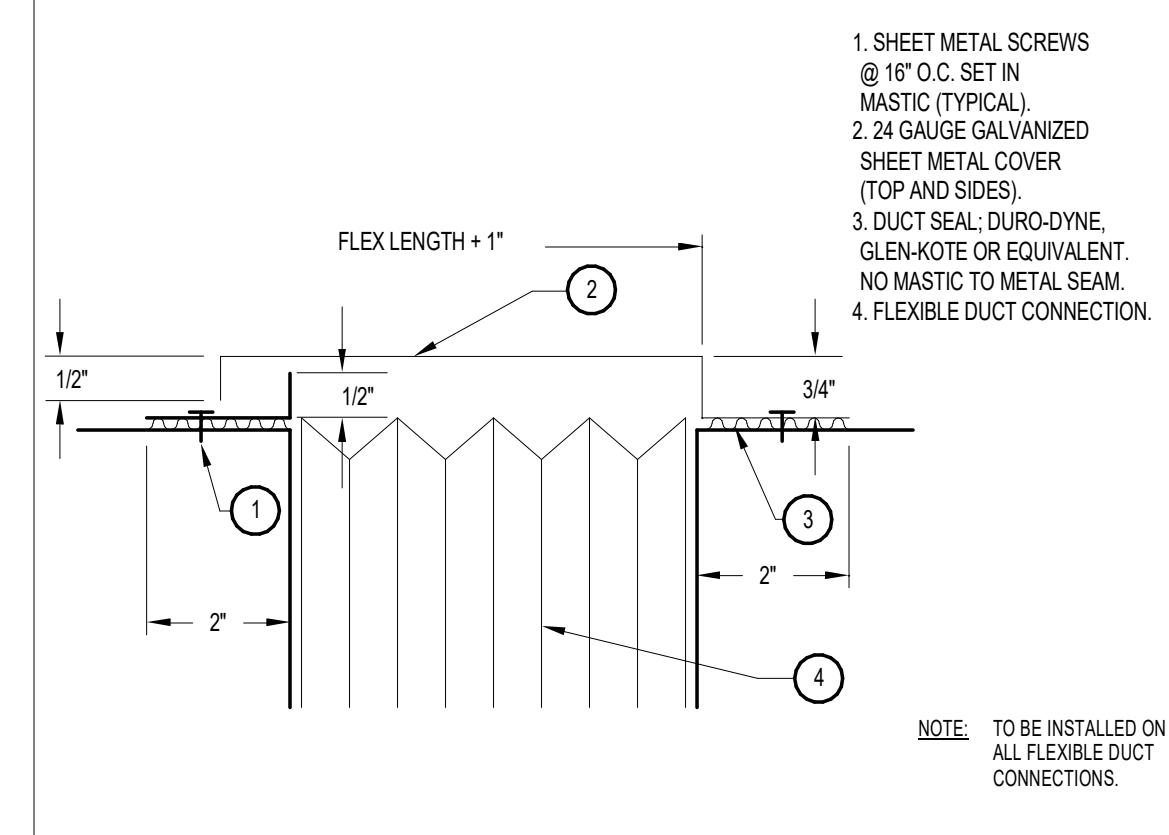
ROUND DUCT SIZE	BUCKLEY TAKE-OFF SIZE	MINIMUM MAIN DUCT DEPTH
6"	6"x12"	8"
8"	6"x12"	8"
9"	6"x14"	8"
10"	6 1/2"x16"	8 1/2"
12"	7 3/4"x18"	9 3/4"
14"	9"x20"	11"
16"	10"x20"	12"



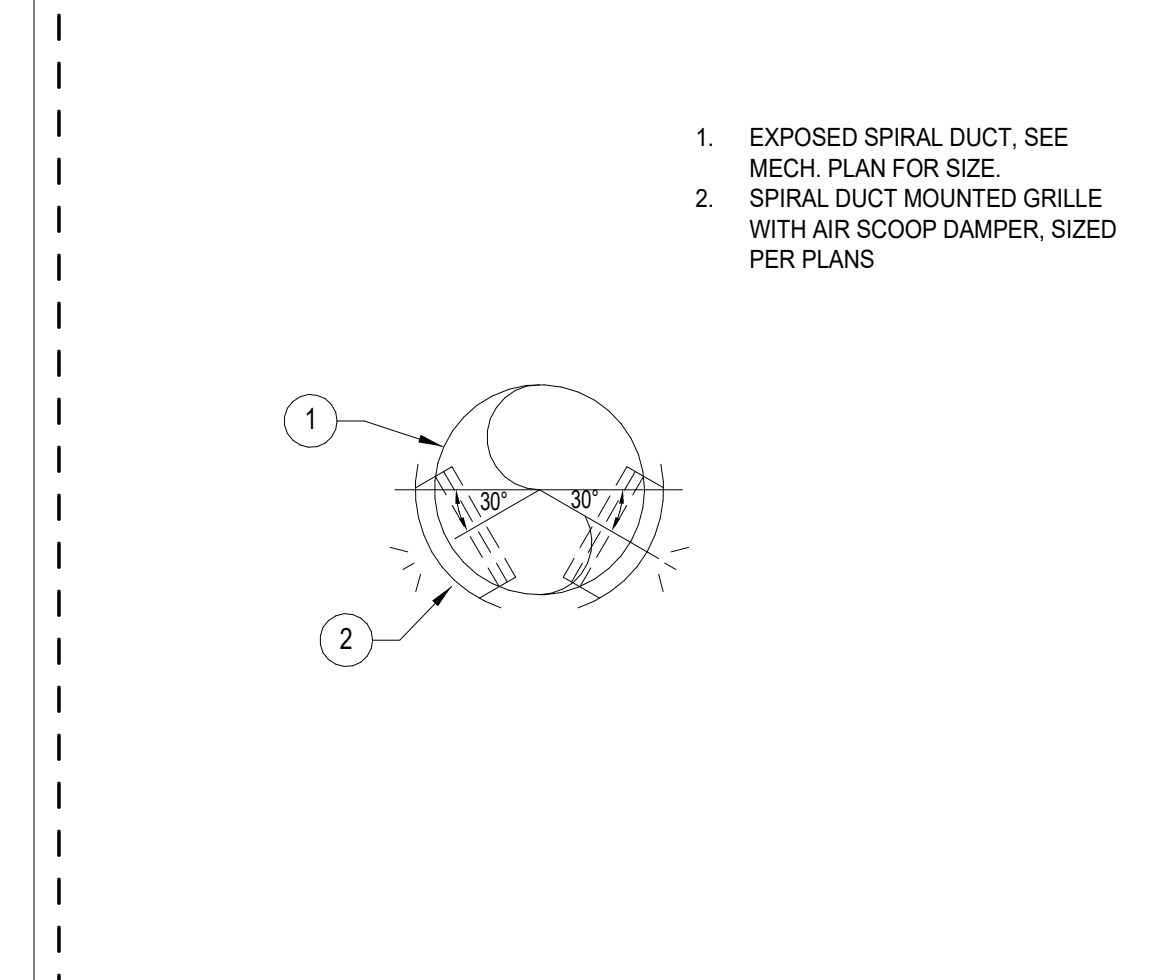
NOTE:
 WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR MODEL 270-301 CABLE KIT WITH EITHER 830A-CC (RECTANGULAR) OR 5020-CC (ROUND) DAMPER.

- 1 RECTANGULAR GALVANIZED SHEET METAL SUPPLY AIR DUCT - SEE MECHANICAL PLAN FOR SIZE.
- 2 CUT OPENING ACCURATELY FOR SPIN IN (FLARED) FITTING - WHERE POSSIBLE.
- 3 BUTTERFLY DAMPER W/ LOCKING QUAD. (TYP)
- 4 VOLUME CONTROL DAMPER WITH LOCKING QUADRANT.
- 5 DAMPER REGULATOR

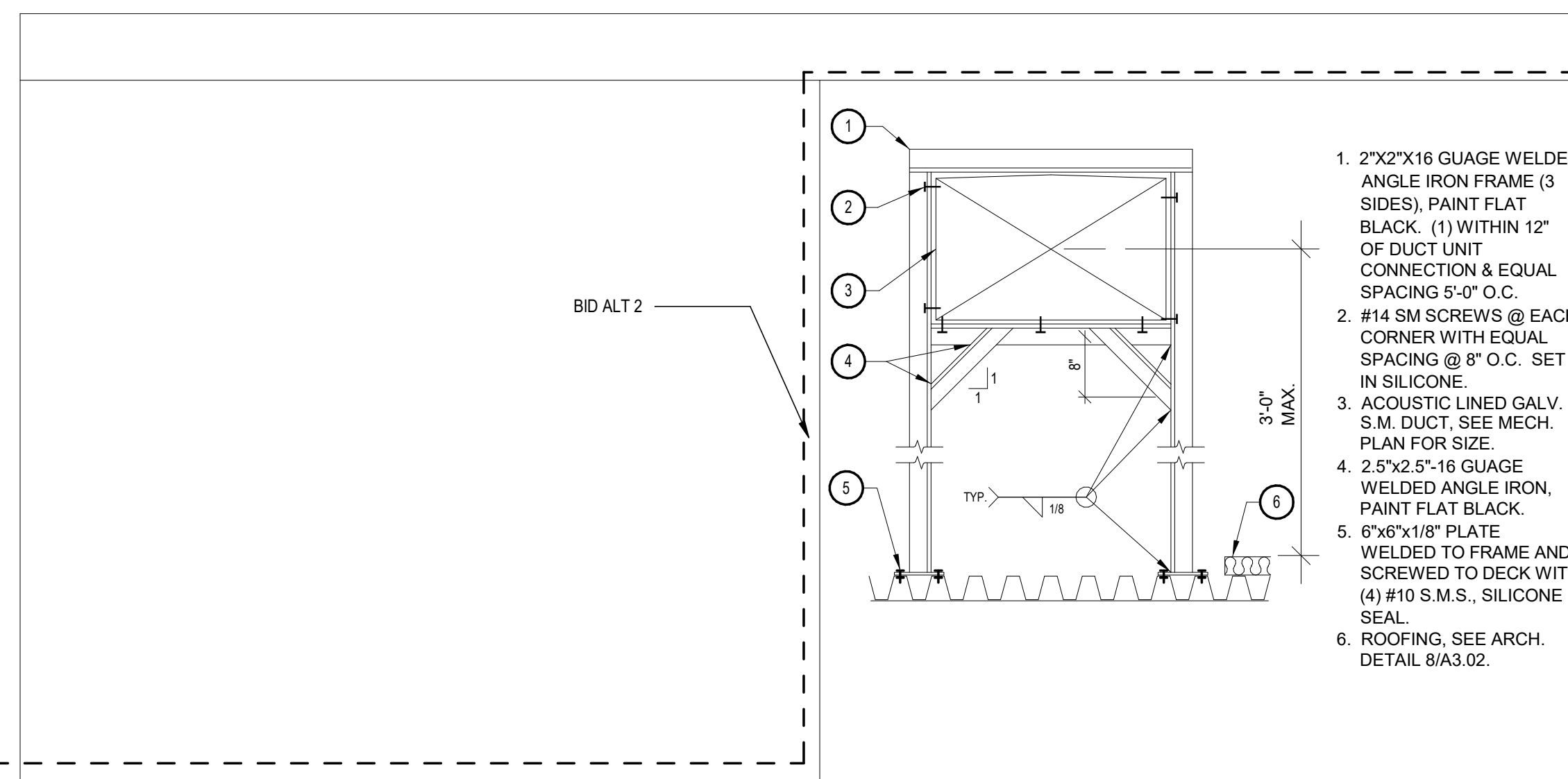
20 BRANCH DUCT TAKE-OFF & DMP. DETAIL
 NOT TO SCALE



14 FLEX CONNECTOR
 NOT TO SCALE

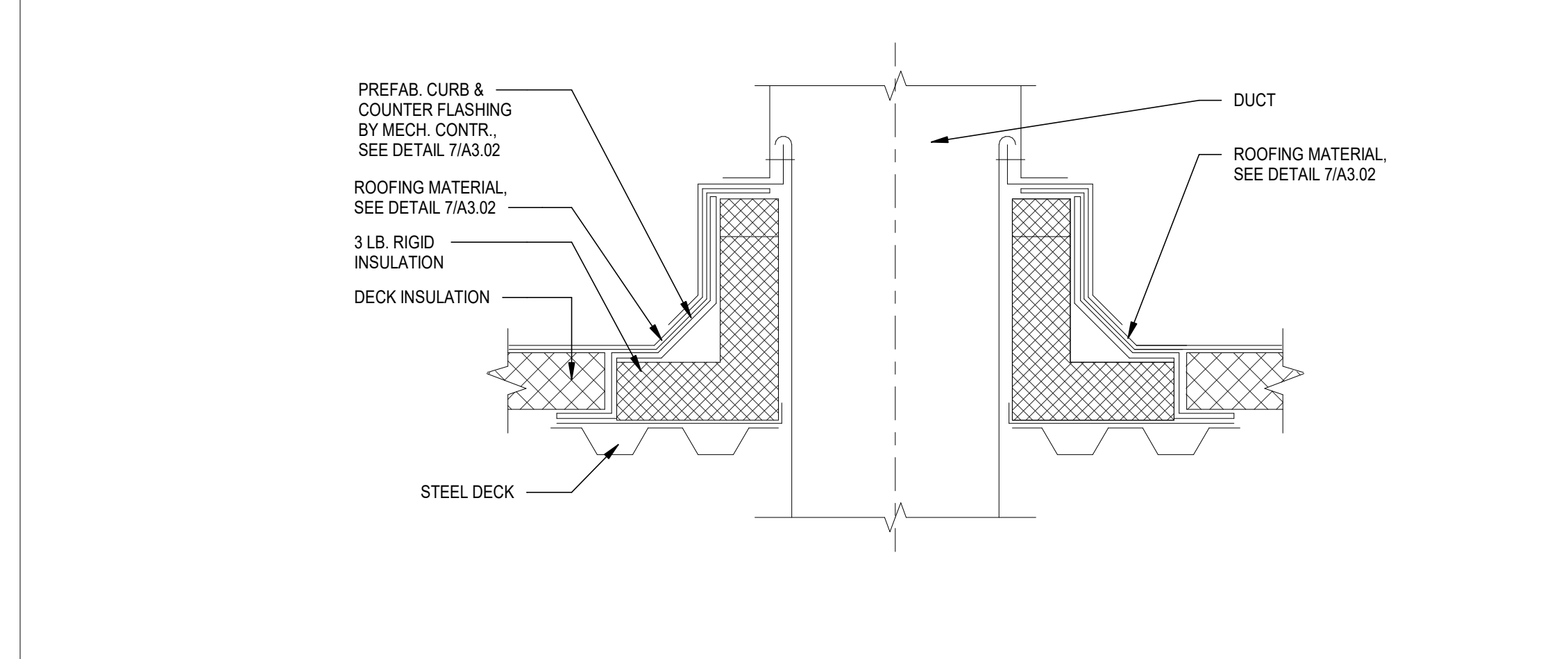
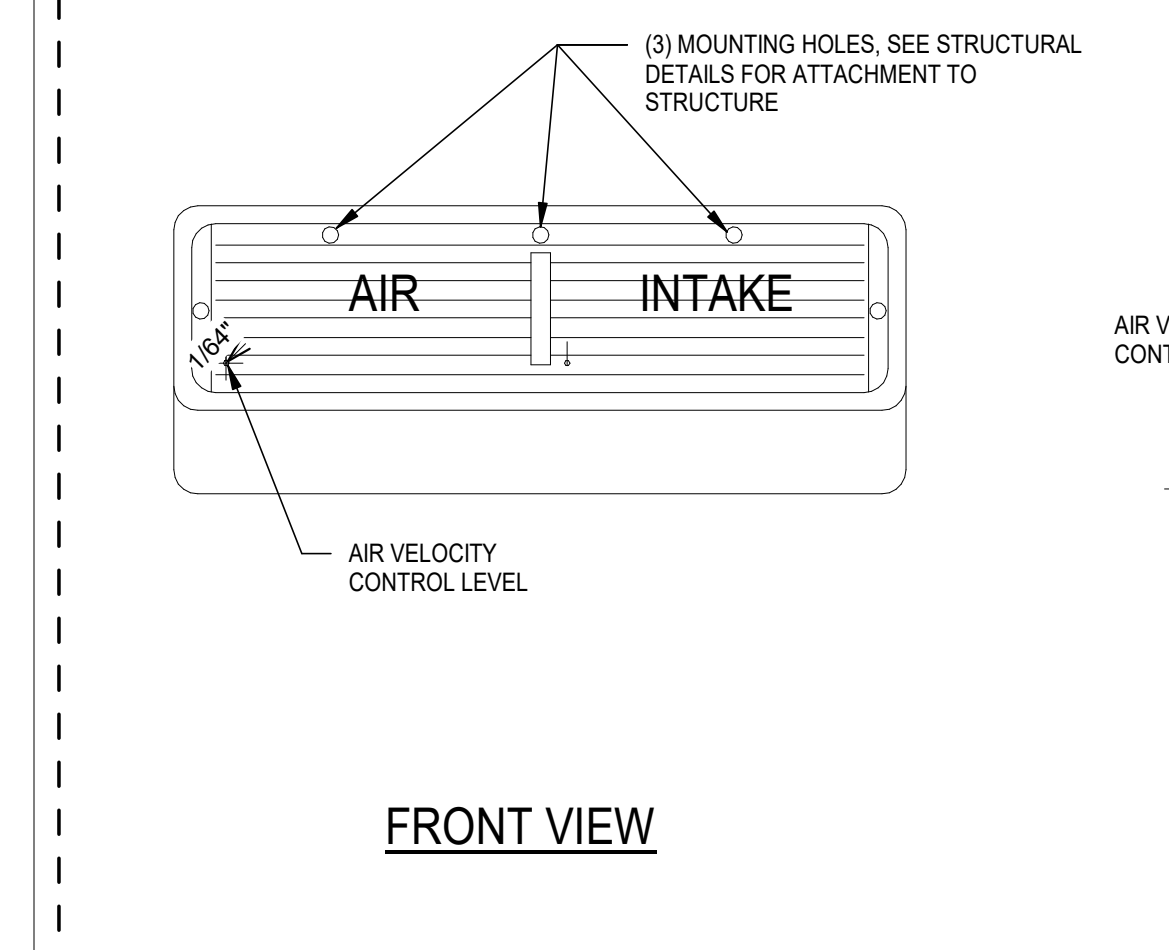


13 ROOF CURB DETAIL
 NOT TO SCALE



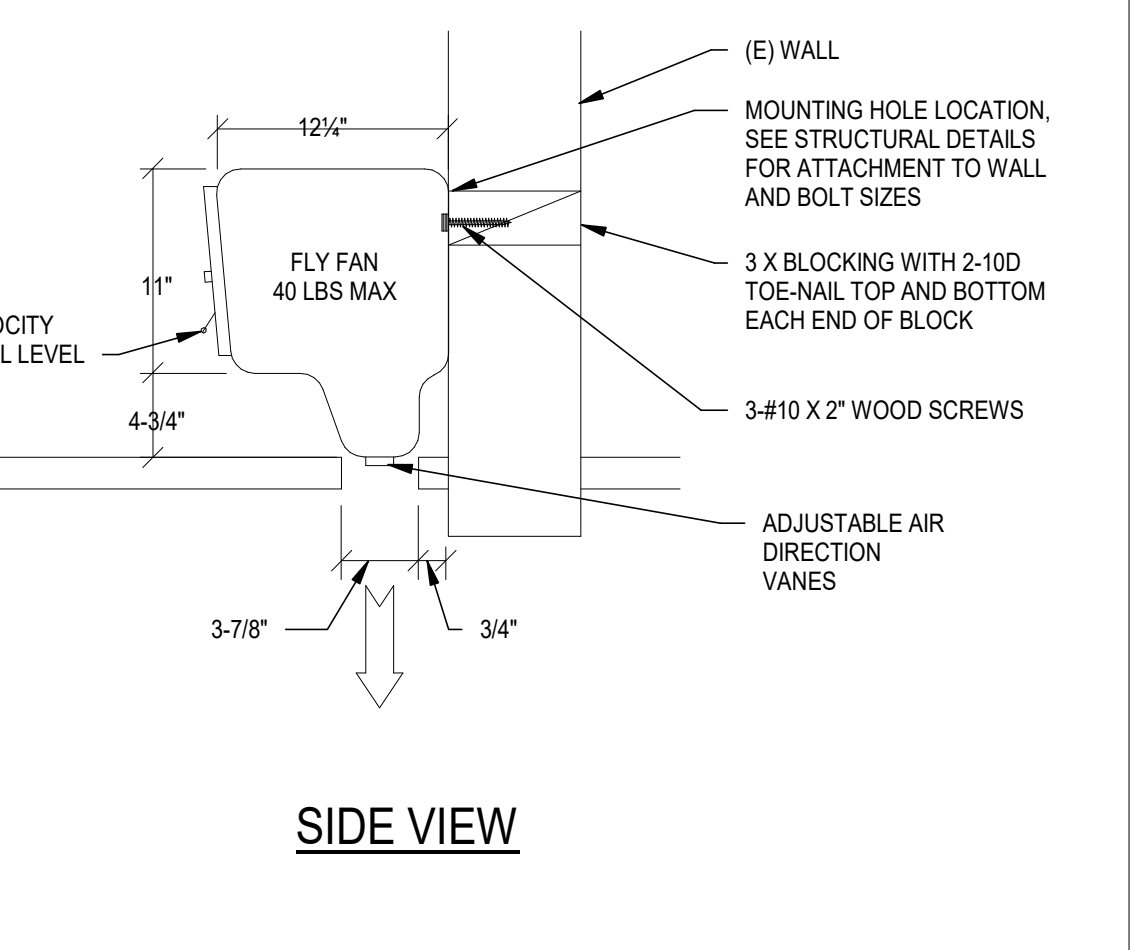
9 RECT. ROOF DUCT SUPPORT DETAIL
 NOT TO SCALE

8 EXPOSED SPIRAL SIDEWALL GRILLE
 NOT TO SCALE

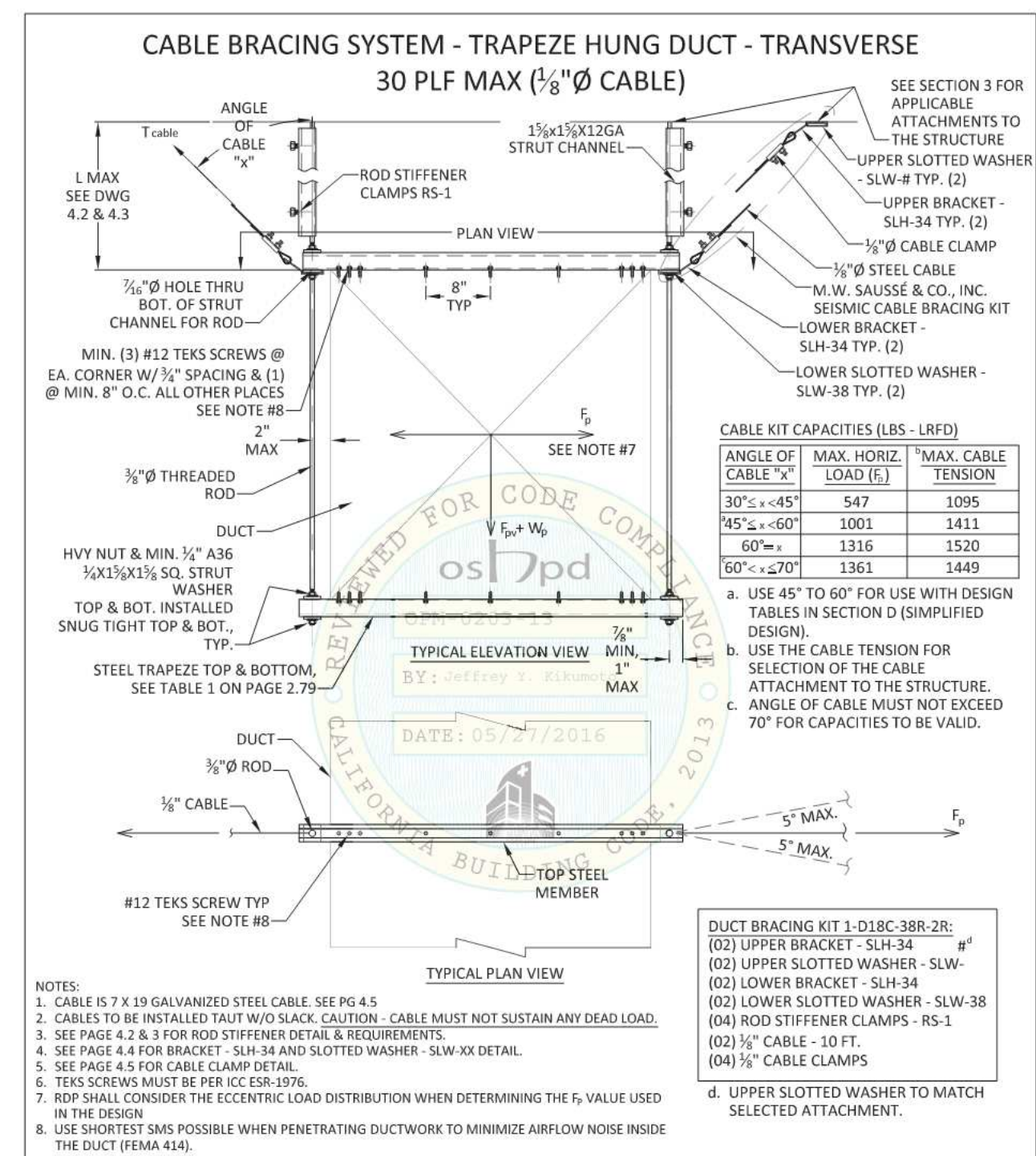


4 DUCTWORK THROUGH ROOF CURB DETAIL
 NOT TO SCALE

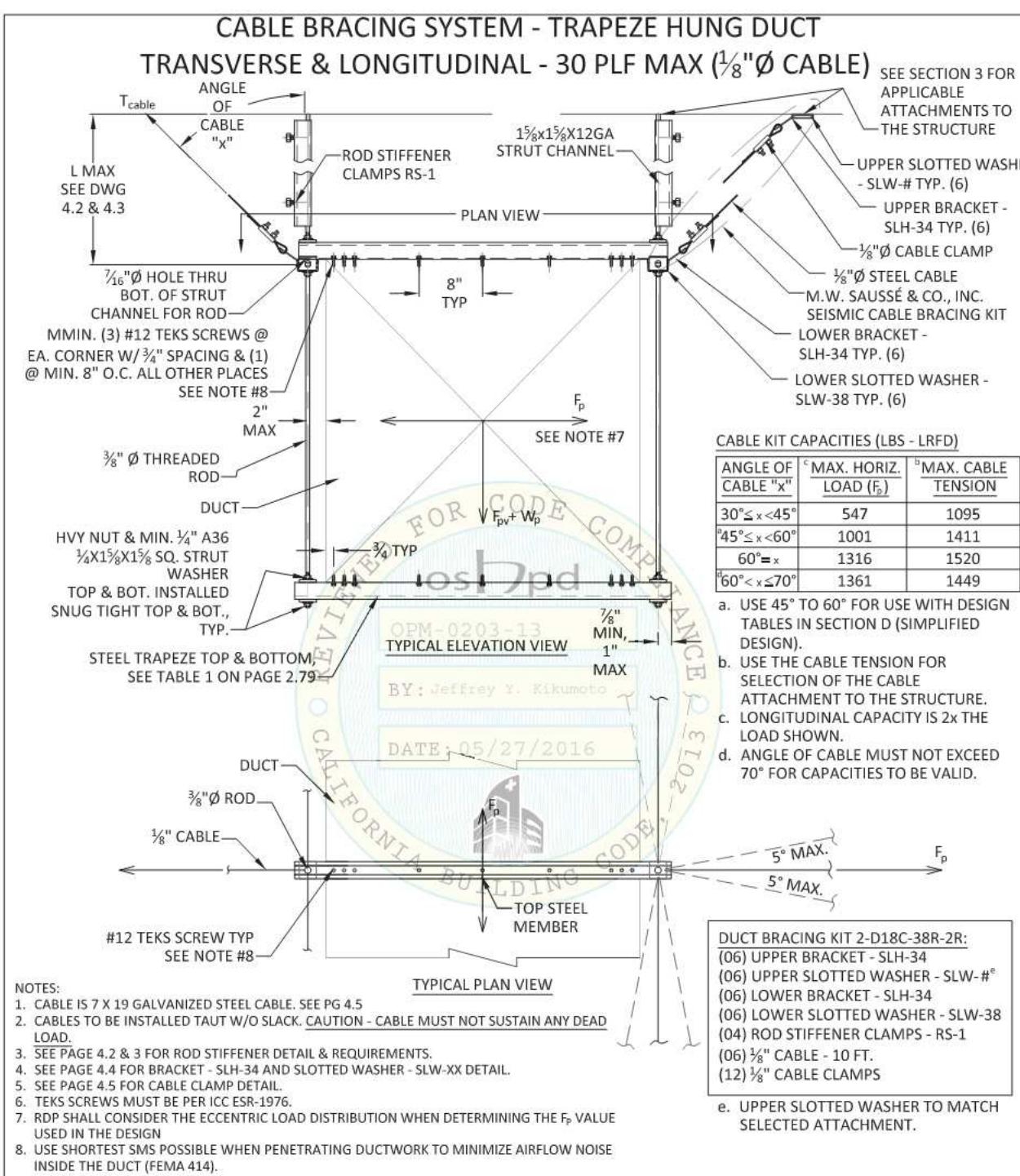
2 FLY FAN MOUNTING DETAIL
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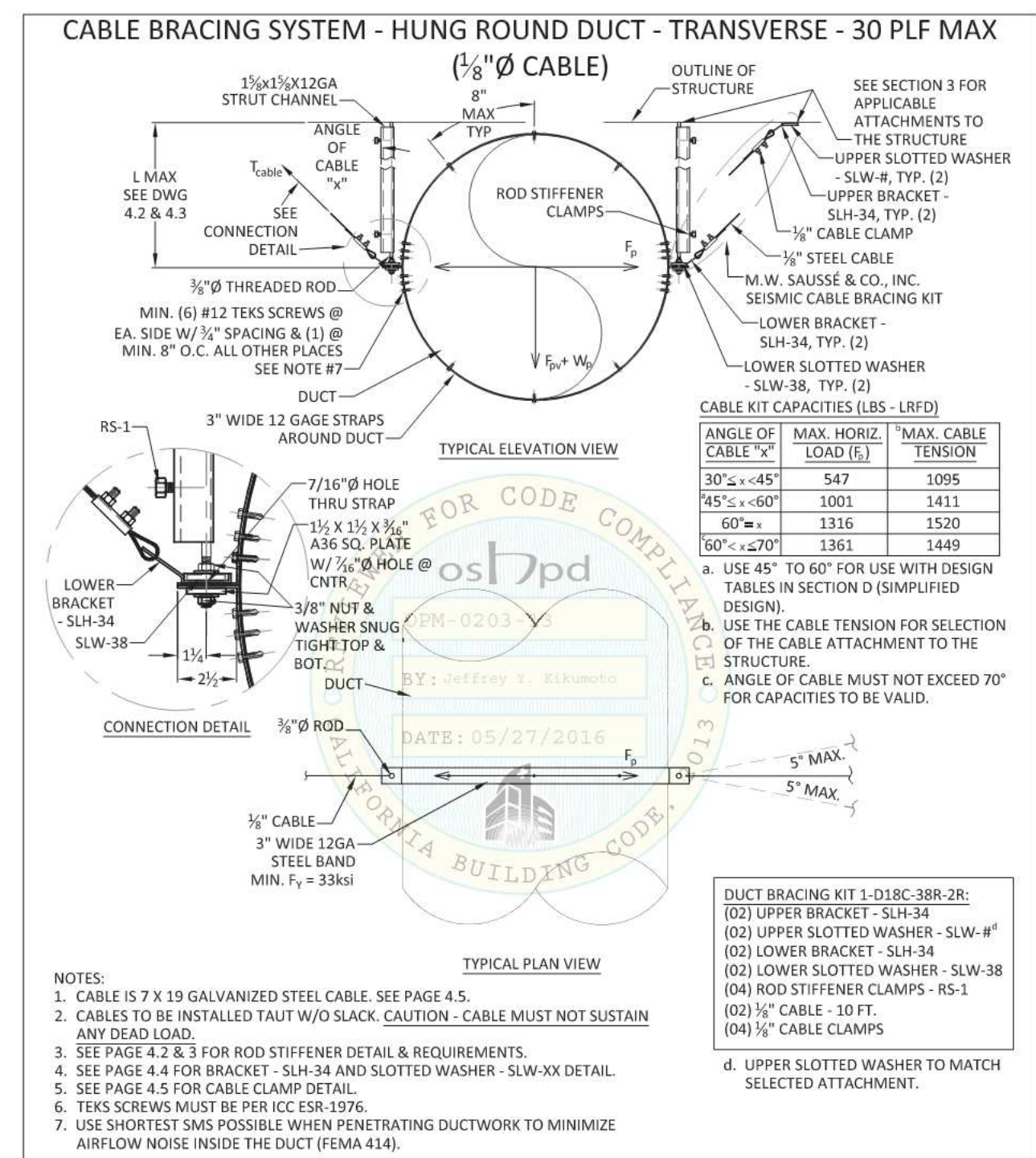
2 FLY FAN MOUNTING DETAIL
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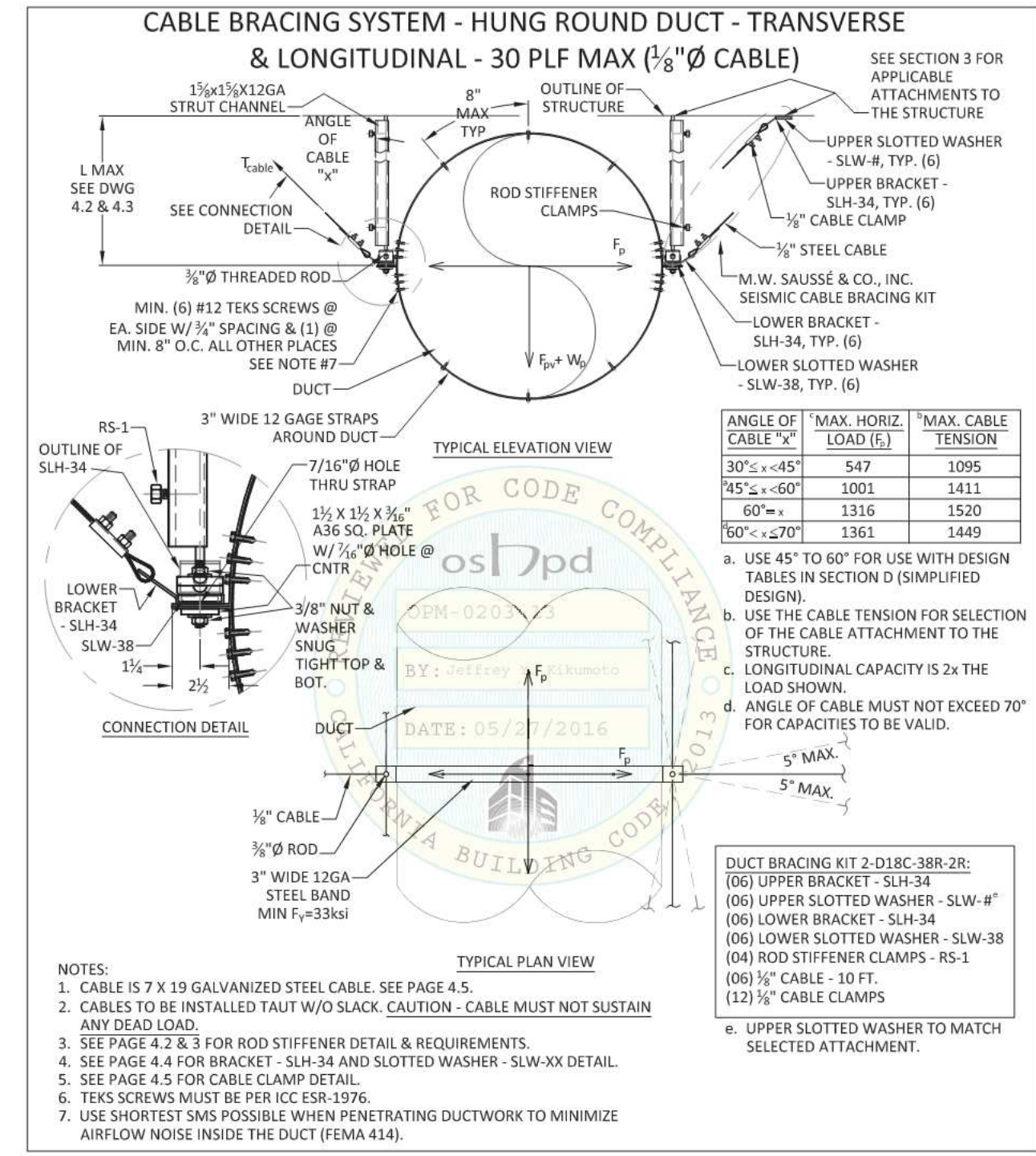
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Civil Engineer: P.K. Sachdeva
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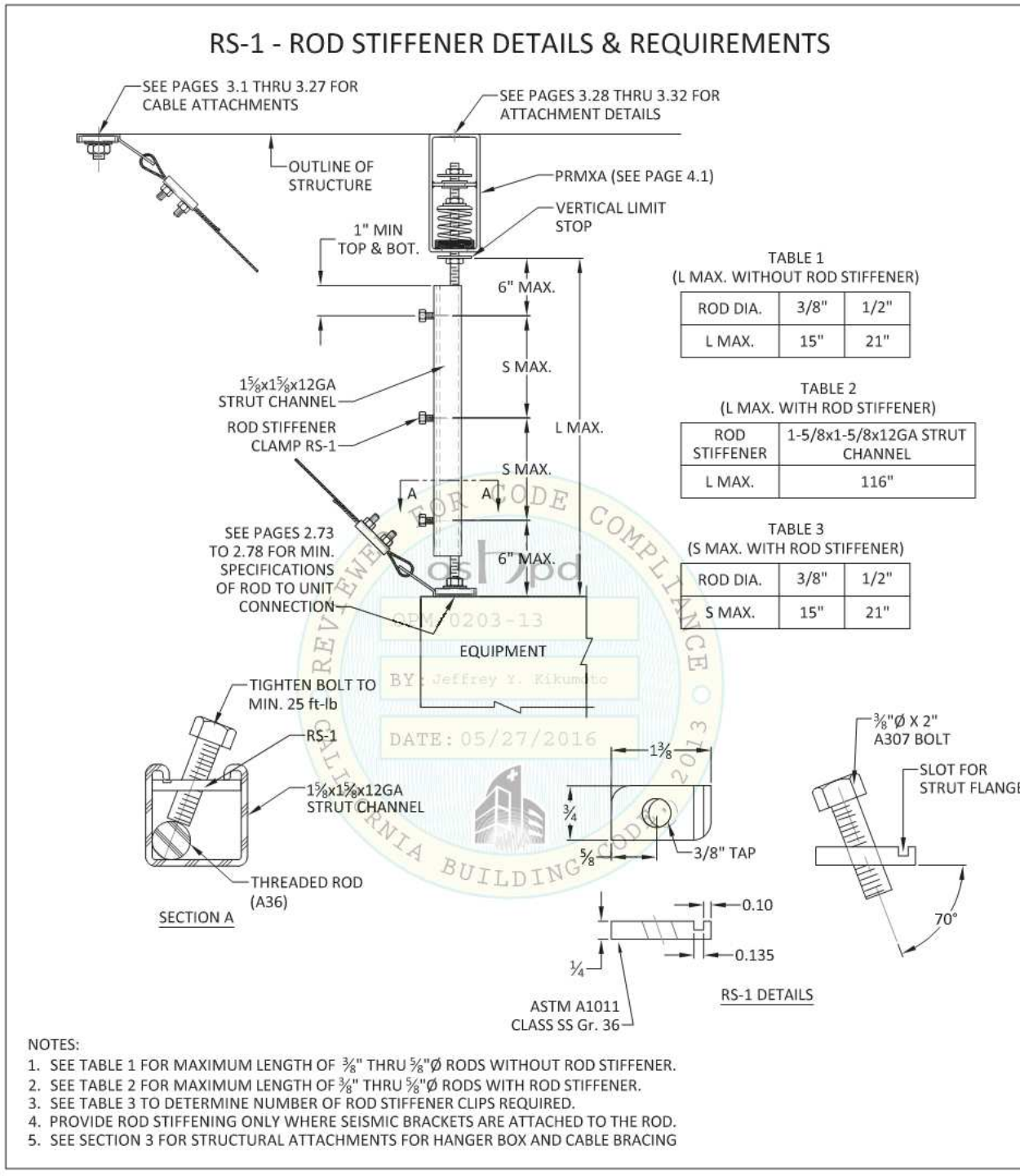
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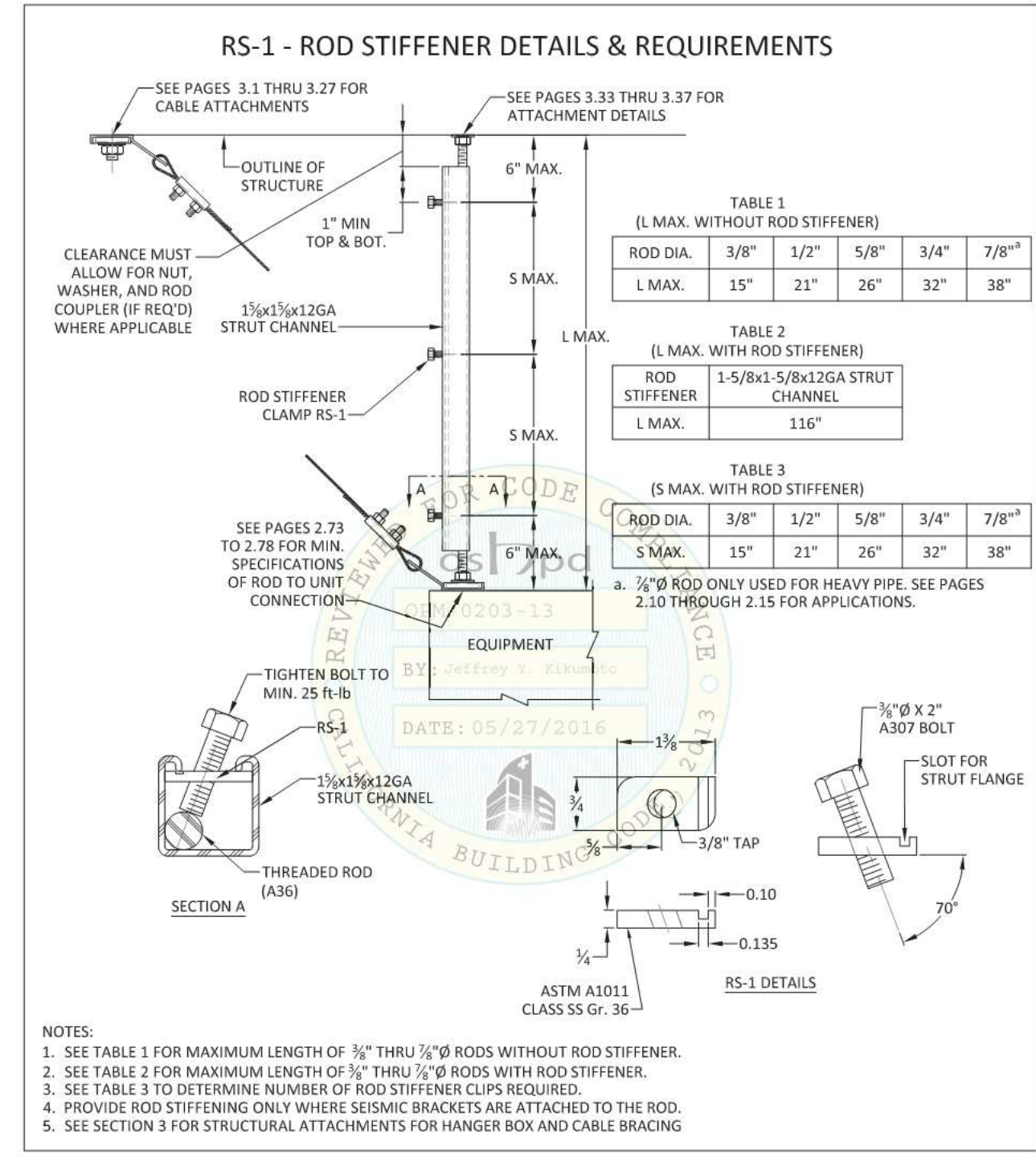
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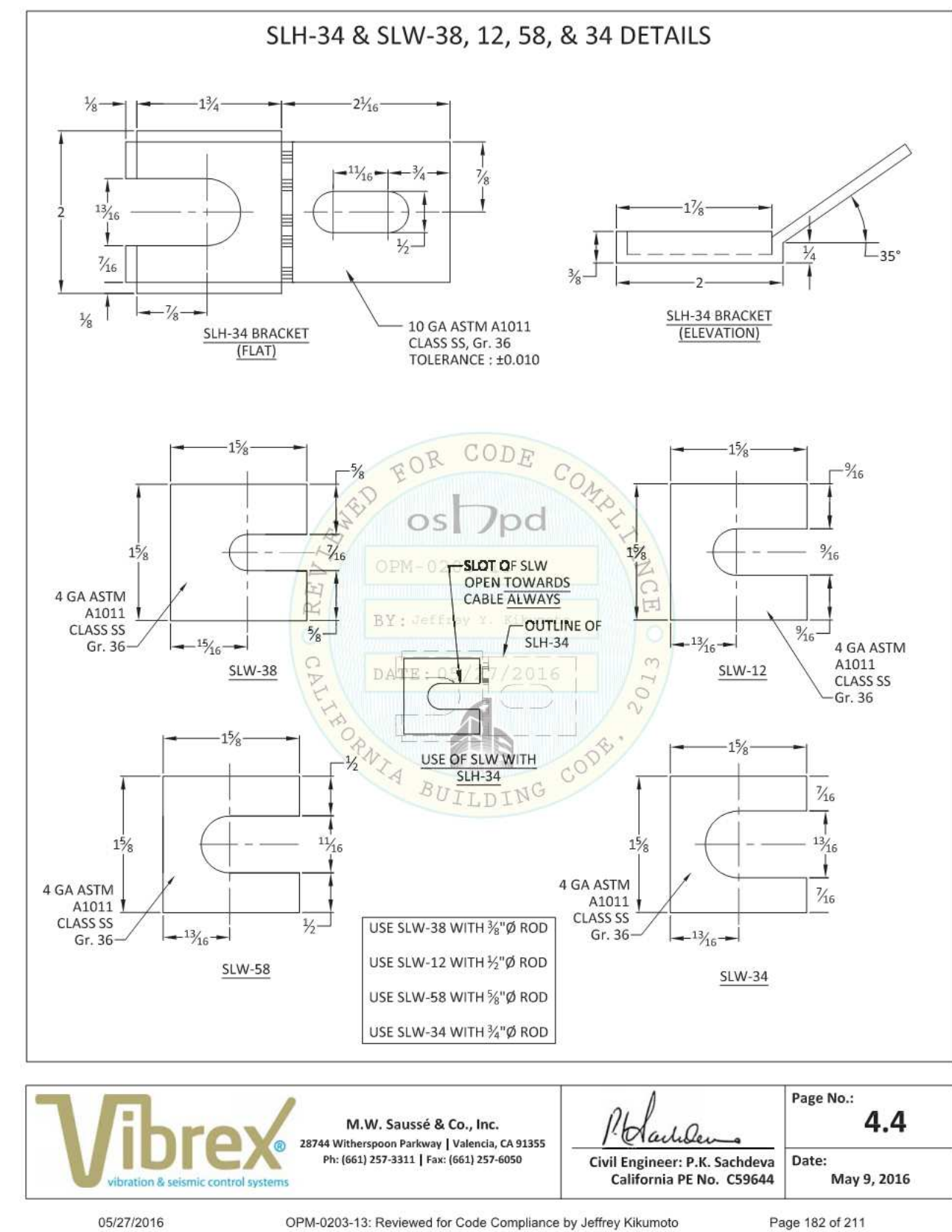
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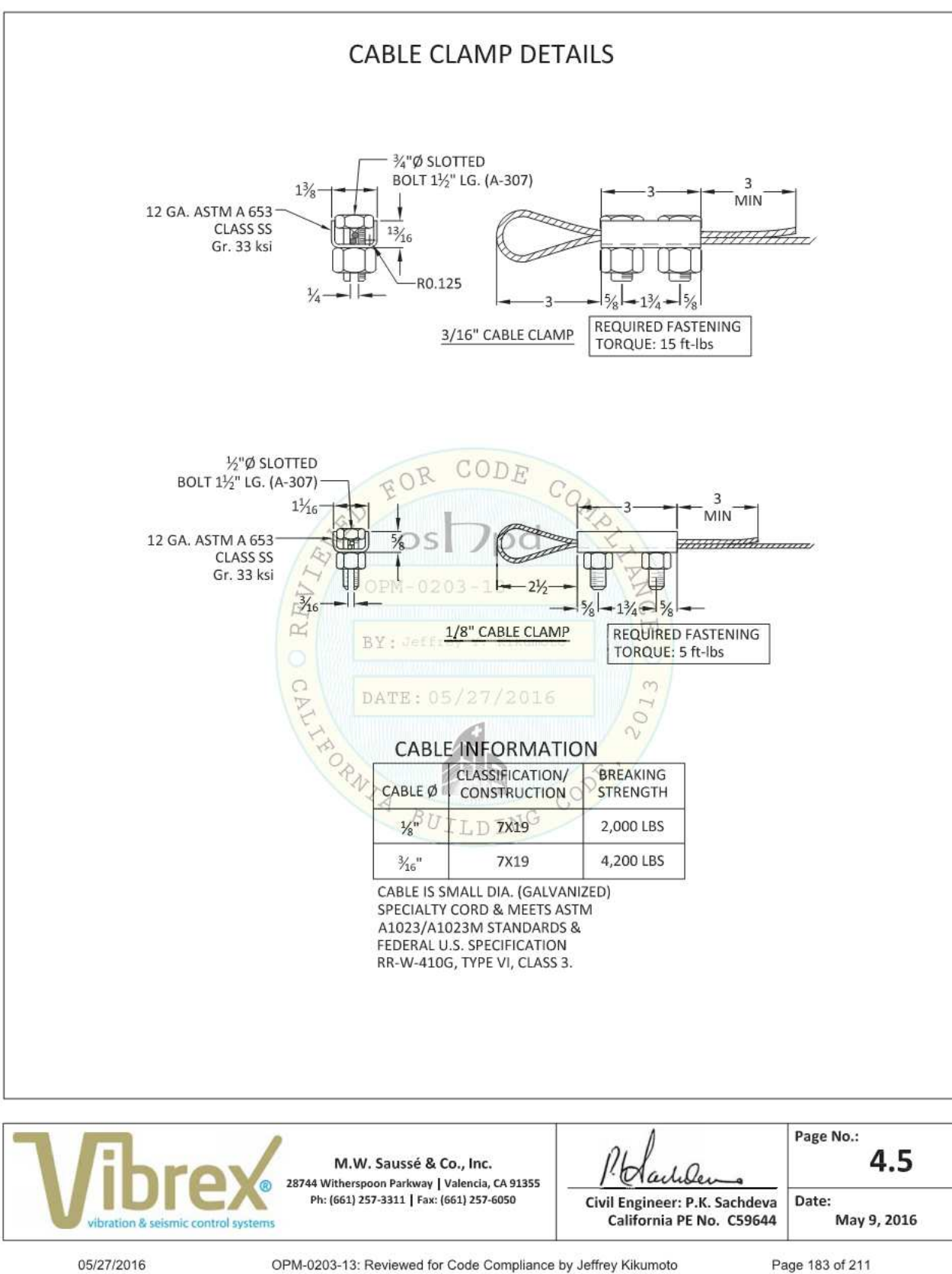
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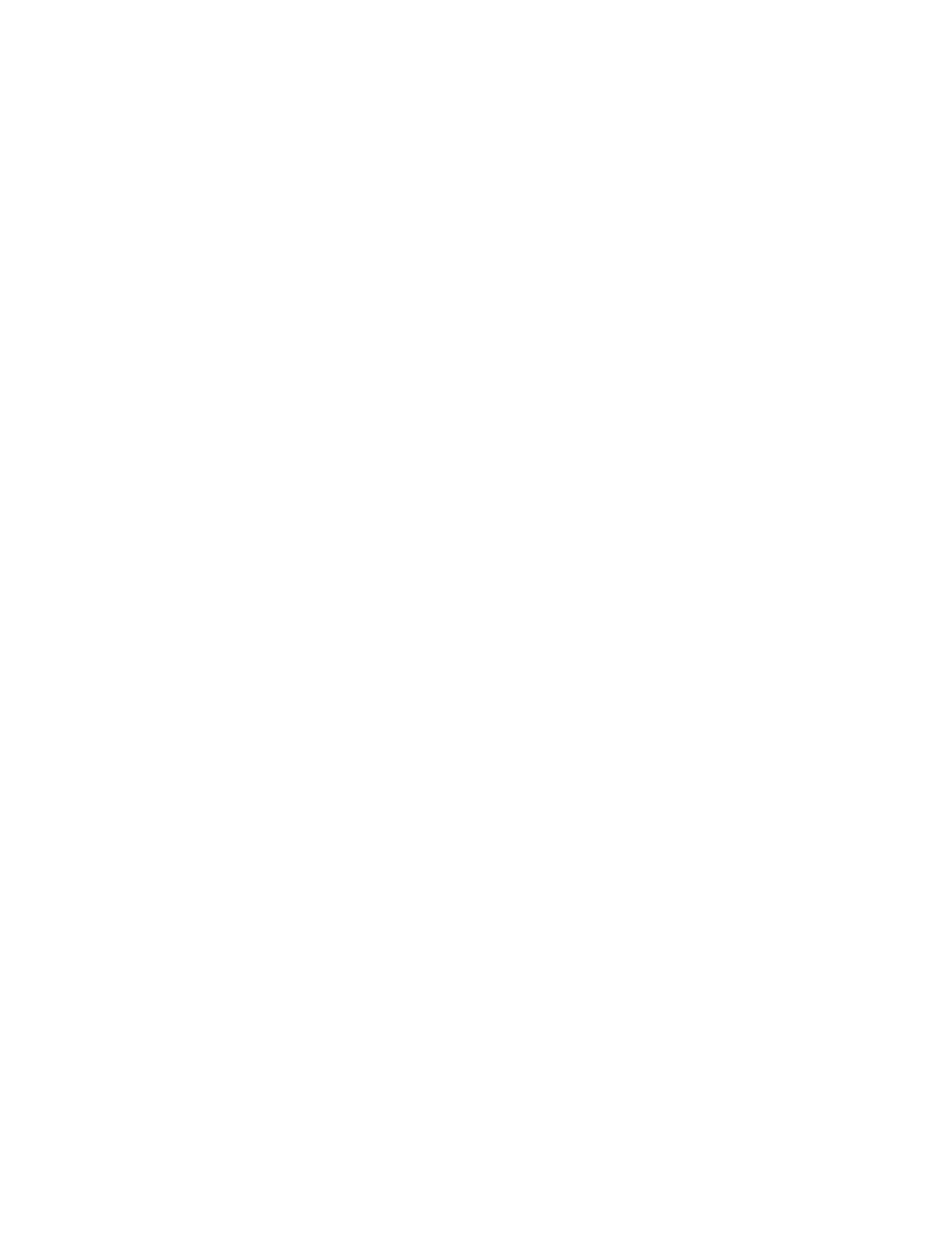
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Page No.: 4.3
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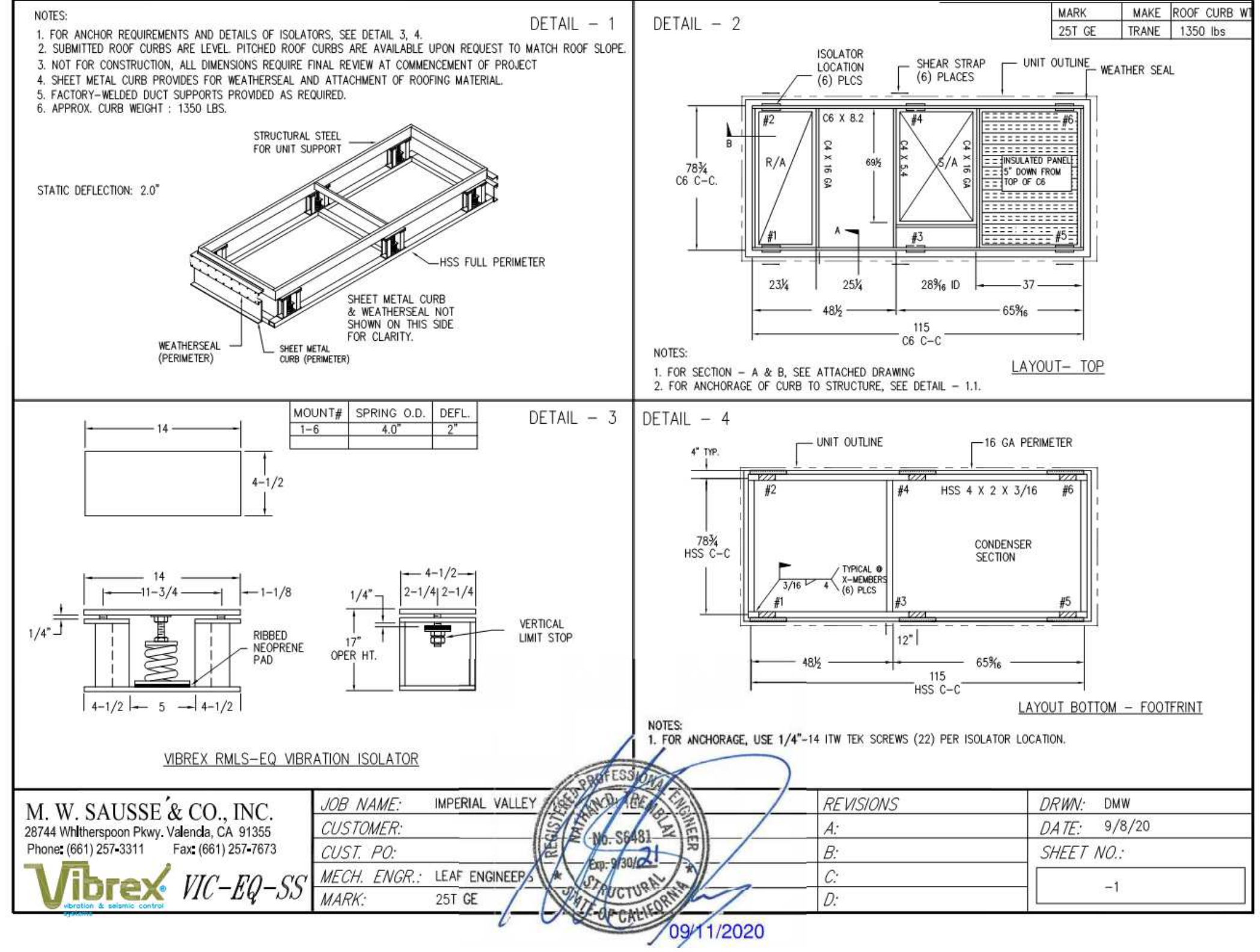
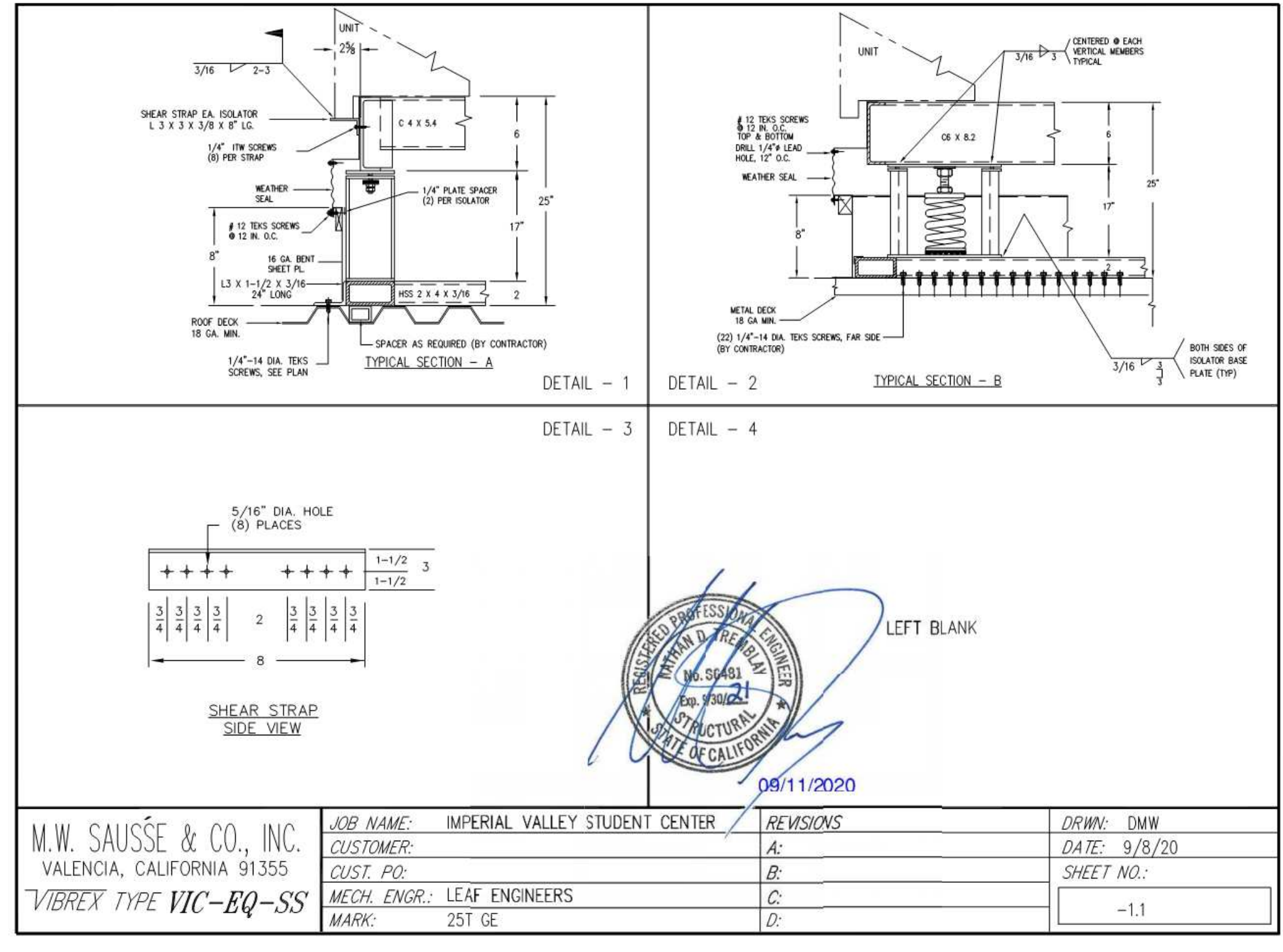
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Civil Engineer: P.K. Sachdeva
Page No.: 4
Date: 09/11/2020

PLUMBING LEGEND

NOTE: NOT ALL SYMBOLS TABULATED BELOW ARE NECESSARILY USED ON THE DRAWINGS.

SYMBOL	ITEM	ABBR.
S	FIXTURE DESIGNATION UNIT ABBREVIATION NUMBER	
1	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN	
---	DOMESTIC COLD WATER	CW
---	DOMESTIC HOT WATER	HW
---	DOMESTIC HW RETURN	HWR
- - - - -	EXISTING PIPING	
-X-	POINT OF CONNECTION	POC
-C-	CONDENSATE DRAIN	
-O-	SHUT-OFF VALVE IN BOX	SOV
-o-	PIPING RISE	
->	PIPING DROP	
-WS-	SOIL OR WASTE	SS OR W
-V-	VENT	V
-VTR-	VENT THRU ROOF	VTR
FCO	FLOOR CLEANOUT	FCO
COTG	CLEANOUT TO GRADE	COTG
WCO	WALL CLEANOUT	WCO
HB	HOSE BIBB	HB
RD	ROOF DRAIN	RD
OD	OVERFLOW DRAIN	OD
DS	DOWN SPOUT	DS
UG	UNDERGROUND	UG
-TP-	TRAP PRIMER	TP
-SD-	STORM DRAIN	SD
(E)	EXISTING	EXIST.
(N)	NEW	NEW
UF	UNDERFLOOR	UF
OH	OVERHEAD	OH
R	RELIEF	
D	DRAIN	
CO	CONDENSATE DRAIN CLEAN OUT	CO
SC	SECONDARY CONDENSATE DRAIN	
FC	FURNACE CONDENSATE	
GSOV	GAS SHUT OFF VALVE	GSOV
CDT	CONDENSATE DRAIN TRAP	CDT
LPG	LIQUIFIED PETROLEUM GAS	LPG
G	NATURAL GAS	G
FSR	FIRE SPRINKLER RISER	FSR
FSL	FIRE SPRINKLER LINE	FSL
FDC	FIRE DEPARTMENT CONNECTION	FDC
FL	FINISHED FLOOR	FL
FL	FLOW LINE	FL
POD	FIRE RATED PENETRATION POINT OF DISCONNECTION	POD
POC	POINT OF CONNECTION	POC

PLUMBING TESTING

- 1. ALL EQUIPMENT AND/OR SYSTEMS NOTED ON THE DRAWINGS "TO REMAIN" SHALL BE INSPECTED AND TESTED ON SITE TO CERTIFY WORKING CONDITION. A WRITTEN REPORT ON THE CONDITION OF ALL EQUIPMENT TO REMAIN, INCLUDING A COPY OF THE TEST RESULTS AND RECOMMENDED REMEDIAL ACTIONS AND COSTS SHALL BE MADE BY THIS CONTRACTOR TO THE ARCHITECT/ENGINEER FOR REVIEW.
- 2. PIPE COVER AND BACKFILLING:
 - A. AFTER HYDROSTATIC TEST, EVENLY BACKFILL ENTIRE TRENCH WIDTH BY HAND PLACING BACKFILL MATERIAL AND HAND TAMPING IN FOUR (4) INCHES COMPACTED LAYERS TO 12 INCHES MINIMUM COVER OVER TOP OF JACKET. COMPACT TO 95 PERCENT MAXIMUM DENSITY.
 - B. EVENLY AND CONTINUOUSLY BACKFILL REMAINING TRENCH DEPTH IN
 - C. UNIFORM LAYERS WITH BACKFILL MATERIAL.
 - D. DO NOT USE WHEELED OR TRACKED VEHICLES FOR TAMPING.
- 3. PRESSURE TEST ALL DOMESTIC WATER PIPING AFTER INSTALLATION AND PRIOR TO BACKFILL OR COVER-UP. RINSE PIPING SYSTEM OF PARTICULATE, CONTAMINANTS, CAP AND SUBJECT TO STATIC WATER PRESSURE OF 125 PSIG FOR FOUR (4) HOURS. REPAIR LEAKS AND DEFECTS AND RE-TEST ANY PORTION OF PIPING SYSTEM THAT FAILS. PROVIDE WRITTEN TEST REPORT INCLUDING DATE AND TIME OF TEST, PASS OR FAIL INDICATION, SUMMARY OF REMEDIAL WORK REQUIRED AND DATE AND TIME OF EACH RE-TEST.
- 4. PRIOR TO COVER-UP, WATER PIPE, SANITARY PIPE, AND GAS PIPING SHALL BE PRESSURE TESTED. TESTS SHALL BE WITNESSED BY CONSULTANT AND OWNER. NOTIFY OWNER 48 HOURS PRIOR TO TEST. TEST SHALL BE WITNESSED BY CLIENT PLUMBING TECHNICIAN.
- 5. UPON COMPLETION OF THE SANITARY PIPING SYSTEM, THE CONTRACTOR SHALL NOTIFY ENGINEER AND OWNER TO OBSERVE A SMOKE TEST OF THE SYSTEM. SMOKE TESTING SHALL BE PERFORMED ON SANITARY PIPING SYSTEM TWICE DURING CONSTRUCTION.
- 6. PRESSURE TEST NATURAL GAS PIPING IN ACCORDANCE WITH NFPA 54, CA PLUMBING CODE SECTION 1213

SCOPE OF WORK

PROVIDE ACCESSIBILITY UPGRADE FOR WATER CLOSETS IN ENLARGED RESTROOM PLAN PER 3/44.01 MENS 113 AND WOMENS 112 RESTROOM

RELOCATE EXISTING 6" GAS LINE.

PROVIDE NEW GAS AND CONDENSATE LINE TO NEW ROOFTOP A/C UNIT.

DRAWING INDEX

SHEET	DESCRIPTION
P0.01	PLUMBING INDEX, NOTES AND LEGENDS
P02.01	PLUMBING DEMOLITION FLOOR PLAN
P2.01	PLUMBING FLOOR PLAN
P2.02	PLUMBING ENLARGED FLOOR PLANS
P3.01	PLUMBING ROOF PLAN
P6.01	PLUMBING DETAILS

DSA FILE NO. 37-C2 AB 04-119030

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119487 INC:
REVIEWED FOR
DATE: 02/01/2021



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CONSULTANT

ENGINEER



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CLIENT
IMPERIAL VALLEY COLLEGE

DATE	12/08/2020	
DRAWN BY	AA	
CHECKED BY	RW	
REVISIONS		
No.	Description	Date

DSA SUBMITTAL

PLUMBING INDEX, NOTES AND LEGENDS

P0.01

GENERAL PLUMBING NOTES

- 1. ALL BRACING OF PIPING SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES, HAZARD LEVEL 'A'.
- 2. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, MECHANICAL ENGINEER AND FIELD INSPECTOR.
- 3. SUPPORT AND BRACING OF ALL PIPING SHALL BE IN ACCORDANCE WITH THE SMACNA "GUIDELINES FOR SEISMIC RESTRAINTS OF PLUMBING PIPING SYSTEMS" OR THE "SUPERSTRUT SEISMIC RESTRAINT SYSTEM" FOR PIPING ONLY.
- 4. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO PROCEEDING WITH INSTALLATION. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY EXISTING CONDITIONS WHICH CONFLICT WITH INFORMATION PROVIDED IN CONSTRUCTION DOCUMENTS.
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL PIPE ROUTING WITH WORK OF OTHER TRADES AND MAKE ANY OFFSETS AS REQUIRED TO AVOID CONFLICT WITH DUCTWORK, LIGHT FIXTURES, SKYLIGHTS, ETC.
- 6. PLUMBING CONTRACTOR TO COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL CONDENSATE DRAIN CONNECTIONS TO MECHANICAL EQUIPMENT.
- 7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING PLUMBING CONDITIONS PRIOR TO PROCEEDING WITH INSTALLATION. CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER OF ANY EXISTING CONDITIONS WHICH CONFLICT WITH INFORMATION PROVIDED IN CONSTRUCTION DOCUMENTS.
- 8. FOR PLUMBING FIXTURE MOUNTING HEIGHTS AND LOCATIONS, REFER TO THE ARCHITECTURAL DRAWINGS.
- 9. ALL PLUMBING CONVEYING OR DISPENSING WATER FOR HUMAN CONSUMPTION SHALL COMPLY WITH AB 1953 FOR LEAD CONTENT.
- 10. REFER TO ARCHITECTURAL DRAWING FOR EXACT LOCATIONS OF FIXTURES, EQUIPMENT, ETC. DO NOT SCALE FROM PLUMBING DRAWINGS.
- 11. ALL WALL CLEAN-OUTS SHALL BE ACCESSIBLE BY AN ACCESS PANEL.
- 12. PROVIDE A DOUBLE EXTERIOR CLEAN-OUT (DFCO) ON ALL SANITARY LINES EXITING THE BUILDING.
- 13. ALL FLOOR DRAINS AND FLOOR SINKS SHALL BE PROVIDED WITH A TRAP PRIMER.
- 14. FIXTURES DESIGNATED AS ADA ACCESSIBLE BY ARCHITECT SHALL BE INSTALLED AT ADA ACCESSIBLE HEIGHT PER ARCHITECTURAL DETAILS.
- 15. ALL DOMESTIC COLD AND HOT WATER TAKE-OFFS SHALL HAVE AN ISOLATION SHUT-OFF VALVE.
- 16. CONTRACTOR SHALL DEWATER ANY AREA AT OR BELOW GRADE PRIOR TO SETTING EQUIPMENT.
- 17. ANY AND ALL WATER PIPING EXPOSED TO OUTSIDE ELEMENTS SHALL BE INSULATED TO PREVENT FREEZING.

EQUIPMENT ANCHORAGE NOTES

MEP COMPONENT ANCHORAGE NOTES:

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.16 THROUGH 1617A.1.20 AND ASCE 7-16 CHAPTER 13.20 AND 30.

- 1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
- 2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRIC, GAS OR WATER. PERMANENTLY ATTACHED SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
- 3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- 1. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- 2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL, RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16, SECTION 13.3.4.5 DERIVED IN ASCE 7-16 SECTION 13.3.5, 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTION 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G. OSHPO OPM FORM D13 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO START OF AND DURING THE HANGING AND BRACING OF DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP MD PP E OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES & DETAILS.

MP MD PP E OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPO PRE-APPROVAL (OPM) # _____

ABBREVIATIONS

NOTES:	1. ALL ABBREVIATIONS MAY NOT BE USED ON THESE DRAWINGS.		
AAP	AREA ALARM PANEL	MH	MANHOLE
AAV	AUTOMATIC AIR VENT	MS	MOP SINK
A.F.F.	ABOVE FINISHED FLOOR	N.C.	NORMALLY CLOSED
AP	ACCESS PANEL	NIC	NOT IN CONTRACT
B.F.F.	BELOW FINISHED FLOOR	N.O.	NORMALLY OPEN
BFP	BACKFLOW PREVENTER	O.F.C.I.	OWNER FURNISHED/CONTRACTOR INSTALLED
BOB	BOTTOM OF BEAM	O.F.O.I.	OWNER FURNISHED/OWNER INSTALLED
BOP	BOTTOM OF PIPE	OFD	OVERFLOW DRAIN
BTUH	BRITISH THERMAL UNITS PER HOUR	PH	PHASE
CA	COMPRESSED AIR	PIV	POST INDICATOR VALVE
CIC	CUT AND CAP	PRV	PRESSURE REDUCING VALVE
CH	CUBIC FEET PER HOUR	RD	ROOF DRAIN
CFS	CUBIC FEET PER SECOND	RE	REFER TO
CI	CAST IRON	R.I.C.	ROUGH-IN AND CONNECT
CLG	CEILING	RO	REVERSE OSMOSIS
CO	CLEANOUT	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
CONN	CONNECTION	RPM	REVOLUTIONS PER MINUTE
CONT.	CONTINUATION	RVB	REFRIGERATOR VALVE BOX
DF	DRINKING FOUNTAIN	SD	STORM DRAIN
DPV	DRY PIPE VALVE	S.F.	SQUARE FEET
DS	DOWN SPOUT	SS	SANITARY SEWER
DWG.	DRAWING	SIA	SIAMESE
EA	EACH	SK	SINK
EL	ELEVATION	T.O.P.	TOP OF PIPE
EDF	ELECTRIC DRINKING FOUNTAIN	TP	TRAP PRIMER
FCO	FLOOR CLEANOUT	TYP	TYPICAL
FD	FLOOR DRAIN	U	URNAL
FDV	FIRE DEPARTMENT VALVE	UF	UNDERFLOOR
F.F.	FINISHED FLOOR	US	UNDERSLAB
FHC	FIRE HOSE CABINET	VAC. BRKR.	VACUUM BREAKER
F.L.	FLOOR LINE	VIF	VERIFY IN FIELD
FS	FLOOR SINK	VTR	VENT THRU ROOF
FT	FEET	WC	WATER CLOSET
FU	FIXTURE UNITS	WCO	WALL CLEANOUT
GC	GENERAL CONTRACTOR	WH	WALL HYDRANT
GPH	GALLONS PER HOUR	WMB	WASHING MACHINE BOX
GPM	GALLONS PER MINUTE	YH	YARD HYDRANT
HB	HOSE BIBB	ZV	ZONE VALVE
HP	HORSEPOWER	(A)	ITEM NOTED TO BE ABANDONED
I.E.	INVERT ELEVATION	(D)	ITEM NOTED TO BE DEMOLISHED
KW	KILOWATTS	(E)	EXISTING ITEM
LAV	LAVATORY	(N)	NEW ITEM
MAP	MASTER ALARM PANEL	(R)	ZFITEM NOTED TO RELOCATED
MECH	MECHANICAL		

CALIFORNIA GREEN BUILDING STANDARDS

THE FOLLOWING SHALL BE REQUIRED WHETHER OR NOT SPECIFICALLY SHOWN OR MENTIONED IN DRAWINGS AND/OR SPECIFICATIONS:

5.303.1 METERS, SEPARATE SUBMETERS OR METERING DEVICES SHALL BE INSTALLED FOR USES DESCRIBED IN SECTIONS 5.303.1.1 AND 5.303.1.2.

- 5.303.1.1 NEW BUILDINGS OR ADDITIONS IN EXCESS OF 50,000 SQUARE FEET:
 - 1. FOR EACH INDIVIDUAL LEASED, RENTED, OR OTHER TENANT SPACE WITHIN THE BUILDING PROJECTED TO CONSUME MORE THAN 100 GAL/DAY, INCLUDING, BUT NOT LIMITED TO, SPACES USED FOR LAUNDRY OR CLEANERS, RESTAURANT OR FOOD SERVICE, MEDICAL OR DENTAL OFFICE, LABORATORY, OR BEAUTY SALON OR BARBER SHOP.
 - 2. WHERE SEPARATE SUBMETERS FOR INDIVIDUAL BUILDING TENANTS ARE UNFEASIBLE, FOR WATER SUPPLIED TO THE FOLLOWING SUBSYSTEMS:
 - a. MAKE-UP WATER FOR COOLING TOWERS WHERE FLOW THROUGH IS GREATER THAN 500 GPM.
 - b. MAKE-UP WATER FOR EVAPORATIVE COOLERS GREATER THAN 8 GPM.
 - c. STEAM AND HOT-WATER BOILERS WITH ENERGY INPUT MORE THAN 500,000 BTU/HH.

5.303.1.2 EXCESS CONSUMPTION: A SEPARATE SUBMETER OR BE PROVIDED FOR ANY TENANT WITHIN A NEW BUILDING OR WITHIN AN ADDITION THAT IS PROJECTED TO CONSUME MORE THAN 1,000 GAL/DAY.

5.303.2 RESERVED

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS: PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING:

5.303.3.1 WATER CLOSETS: THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR TANK-TYPE TOILETS. NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH.

5.303.3.2 URINALS:

5.303.3.2.1 WALL-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH.

5.303.3.2.2 FLOOR-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF FLOOR-MOUNTED URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

5.303.3.2.1 WALL-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH.

5.303.3.2.2 FLOOR-MOUNTED URINALS: THE EFFECTIVE FLUSH VOLUME OF FLOOR-MOUNTED URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

5.303.3.3 SHOWERHEADS:
5.303.3.3.1 SINGLE SHOWERHEAD: SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 2.0 GALLONS PER MINUTE AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS.

5.303.3.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER: WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR SHOWERHEADS.

5.303.3.4 FAUCETS AND FOUNTAINS:
5.303.3.4.1 NONRESIDENTIAL LAVATORY FAUCETS: LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.5 GALLONS PER MINUTE AT 60 PSI.

5.303.3.4.2 KITCHEN FAUCETS: KITCHEN FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTE AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTE AT 60 PSI.

5.303.3.4.3 WASH FOUNTAINS: WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTE/2.0 GPM SPACE (INCHES) AT 60 PSI.

5.303.3.4.4 METERING FAUCETS: METERING FAUCETS SHALL NOT DELIVER MORE THAN 0.20 GALLONS PER CYCLE.

5.303.3.4.5 METERING FAUCETS FOR WASH FOUNTAINS: METERING FAUCETS FOR WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.20 GALLONS PER CYCLE/2.0 GPM SPACE (INCHES) AT 60 PSI. NOTE: WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.



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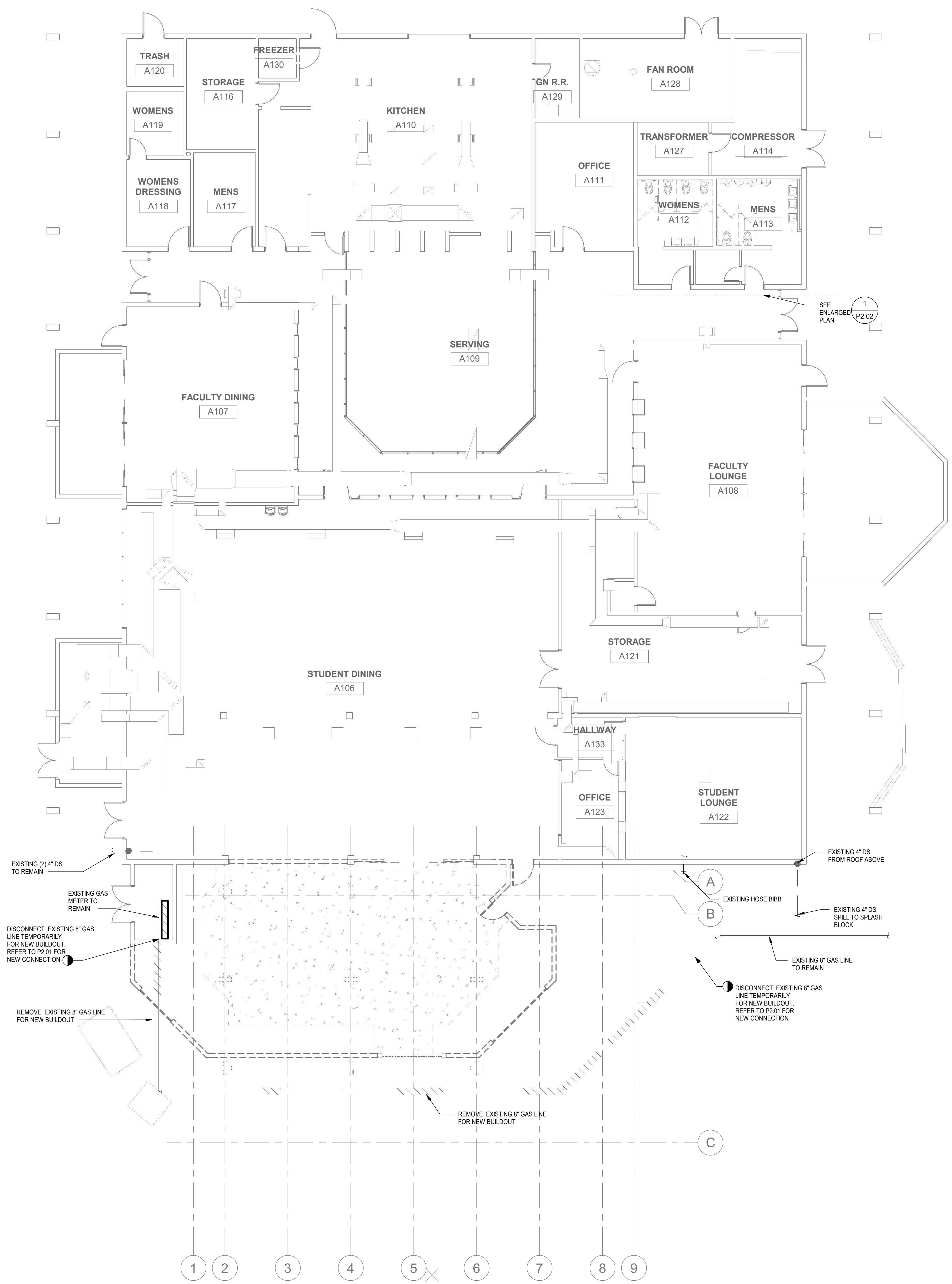
CLIENT
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PROJECT NUMBER	20190	
DATE:	12/08/2020	
DRAWN BY:	AA	
CHECKED BY:	RW	
REVISIONS		
No.	Description	Date

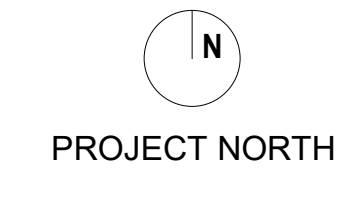
DSA SUBMITTAL
PLUMBING
DEMOLITION FLOOR PLAN

PD2.01

GENERAL NOTES:
1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITION PRIOR TO ROUGH-IN. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITY LINES INCLUDING BUT NOT LIMITED TO ELECTRICAL, SEWER, WATER, GAS, TELEPHONE, ETC. IN ADDITION, THE CONTRACTOR SHALL CAUTION ALL SUBCONTRACTORS THAT THE SITE AND PUBLIC PROPERTY CONTAINS UNDERGROUND UTILITY LINES. THE DRAWINGS SHOW DIAGRAMMATICALLY THE APPROXIMATE LOCATION OF UNDERGROUND UTILITIES WHERE INFORMATION IS AVAILABLE, BUT THE DRAWINGS ARE NOT EXACT AS TO THE QUANTITY EXTENT OR LOCATION.
2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING ALL PHASES OF THE WORK TO LOCATE, IDENTIFY AND PROTECT EXISTING UNDERGROUND UTILITIES. THE CONTRACTOR SHALL RECORD LOCATION OF, DISCONNECT AND CAP AS REQUIRED, AND REPAIR DAMAGE TO EXISTING UTILITIES WHICH ARE ENCOUNTERED AS A RESULT OF WORK UNDER THIS CONTRACT. THE CONTRACTOR SHALL MAINTAIN UTILITIES TO EXISTING ADJACENT BUILDING OR TEMPORARY SERVICE CONNECTIONS.



EXISTING (2) 4" DS TO REMAIN
EXISTING GAS METER TO REMAIN
DISCONNECT EXISTING 8" GAS LINE TEMPORARILY FOR NEW BUILDOUT. REFER TO P2.01 FOR NEW CONNECTION
REMOVE EXISTING 8" GAS LINE FOR NEW BUILDOUT
EXISTING 4" DS FROM ROOF ABOVE
EXISTING HOSE BIBB
EXISTING 4" DS SPILL TO SPLASH BLOCK
EXISTING 8" GAS LINE TO REMAIN
DISCONNECT EXISTING 8" GAS LINE TEMPORARILY FOR NEW BUILDOUT. REFER TO P2.01 FOR NEW CONNECTION
REMOVE EXISTING 8" GAS LINE FOR NEW BUILDOUT

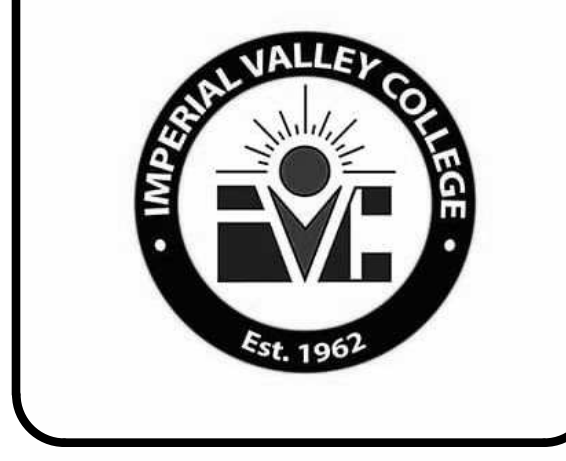




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REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No. M 38155
Exp. 09-30-2022
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STATE OF CALIFORNIA

ARCHITECT

CLIENT
IMPERIAL VALLEY COLLEGE
PROJECT NUMBER
20190
DATE: 12/08/2020
DRAWN BY: AA
CHECKED BY: RW

REVISIONS

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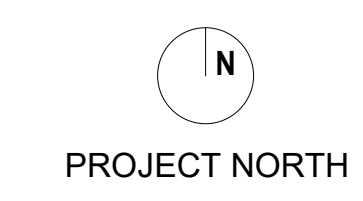
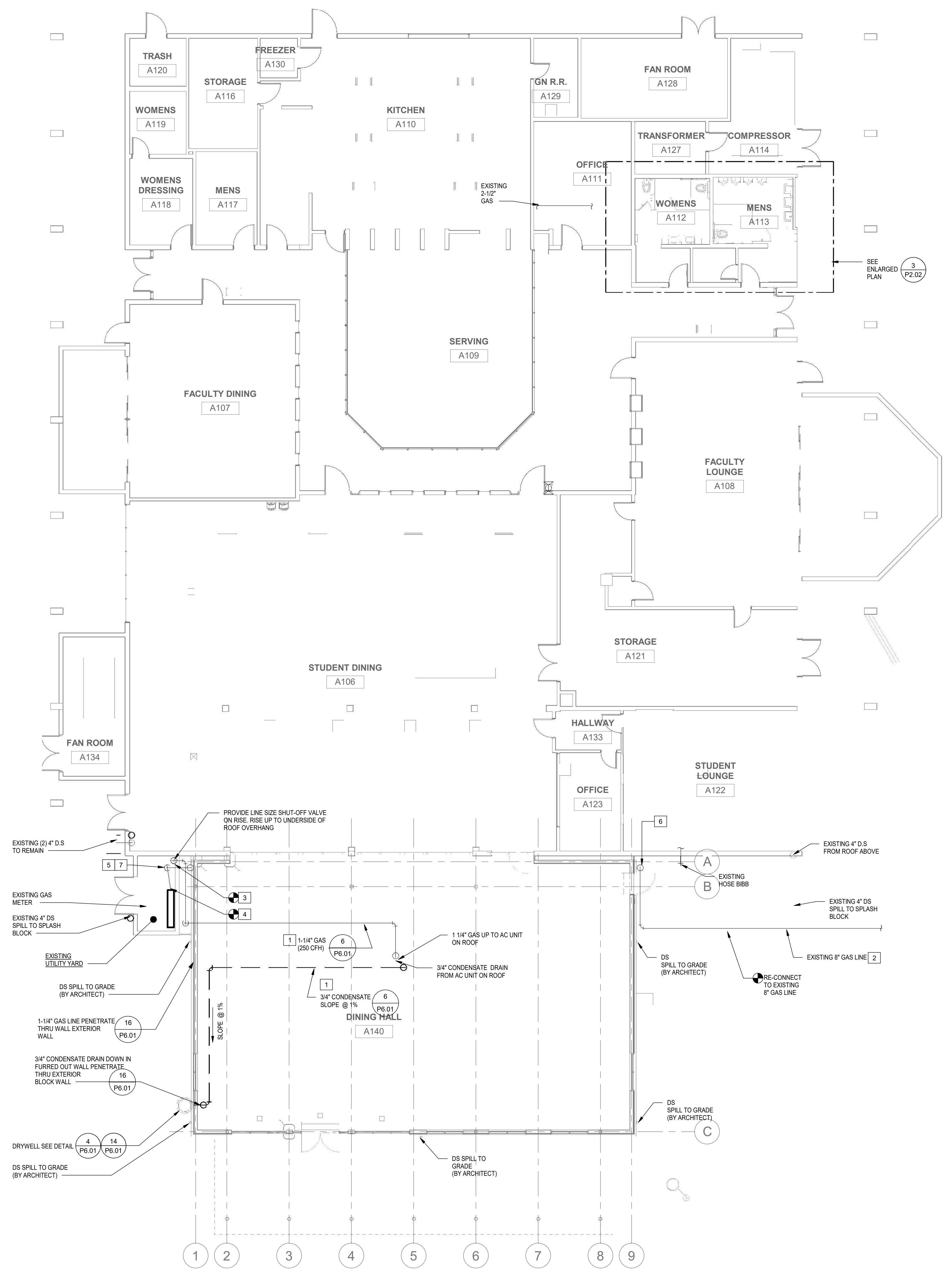
DSA SUBMITTAL
PLUMBING FLOOR PLAN
P2.01

GENERAL NOTES:

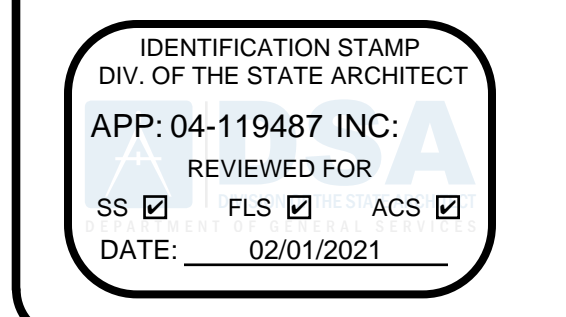
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KEY NOTES:

- 1 PIPING ABOVE IN CEILING SPACE
- 2 PIPING BELOW FLOOR GRADE
- 3 POINT OF CONNECTION TO EX. 2" LOW PRESSURE GAS LINE. CONNECT DOWN STREAM OF EX. REGULATOR. CONTRACTOR TO VERIFY GAS PRESSURE BEFORE START OF WORK. PROVIDE SHUT OFF VALVE ON RISE. PROVIDE SIGNAGE PER CPC 1210.9.3 (24 P6.01)
- 4 RELOCATED 8" GAS MAIN. RECONNECT TO EXISTING GAS METER. CONTRACTOR TO FIELD VERIFY POINTS OF DISCONNECT AND CONNECTION BEFORE START OF WORK.
- 5 8" GAS LINE RISE UP TO ROOF MOUNTED ON CMU WALL. PROVIDE PIPE SUPPORTS MOUNTED 6'-0" ON CENTER. SEE DETAIL (8 P6.01)
- 6 8" GAS LINE DOWN TO BELOW GRADE MOUNTED ON CMU WALL. PROVIDE PIPE SUPPORTS MOUNTED 6'-0" ON CENTER. SEE DETAIL (3 P6.01)
- 7 8" GAS LINE. PROVIDE PIPE STANCHION AT BASE OF ELBOW. STANCHION TO BE LOCATE AT CORNER OF BLOCK WALL. PROVIDE ANVIL MODEL # FIG. 62 TYPE A (3 P2.02)



1 PLUMBING FLOOR PLAN
1/8" = 1'-0"



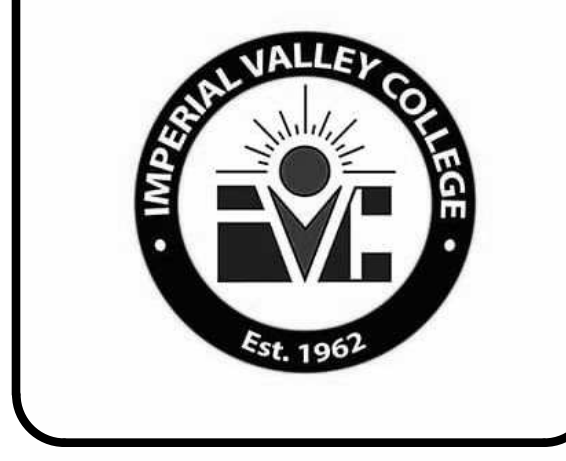
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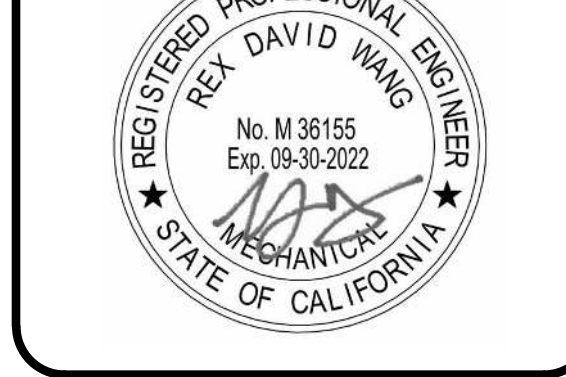
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PLUMBING ENLARGED FLOOR PLANS

P2.02

GENERAL NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITION PRIOR TO ROUGH-IN. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITY LINES INCLUDING BUT NOT LIMITED TO ELECTRICAL, SEWER, WATER, GAS, TELEPHONE, ETC. IN ADDITION, THE CONTRACTOR SHALL CAUTION ALL SUBCONTRACTORS THAT THE SITE AND PUBLIC PROPERTY CONTAINS UNDERGROUND UTILITY LINES. THE DRAWINGS SHOW DIAGRAMMATICALLY THE APPROXIMATE LOCATION OF UNDERGROUND UTILITIES WHERE INFORMATION IS AVAILABLE, BUT THE DRAWINGS ARE NOT EXACT AS TO THE QUANTITY, EXTENT OR LOCATION.
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DEMOLITION KEY NOTES:

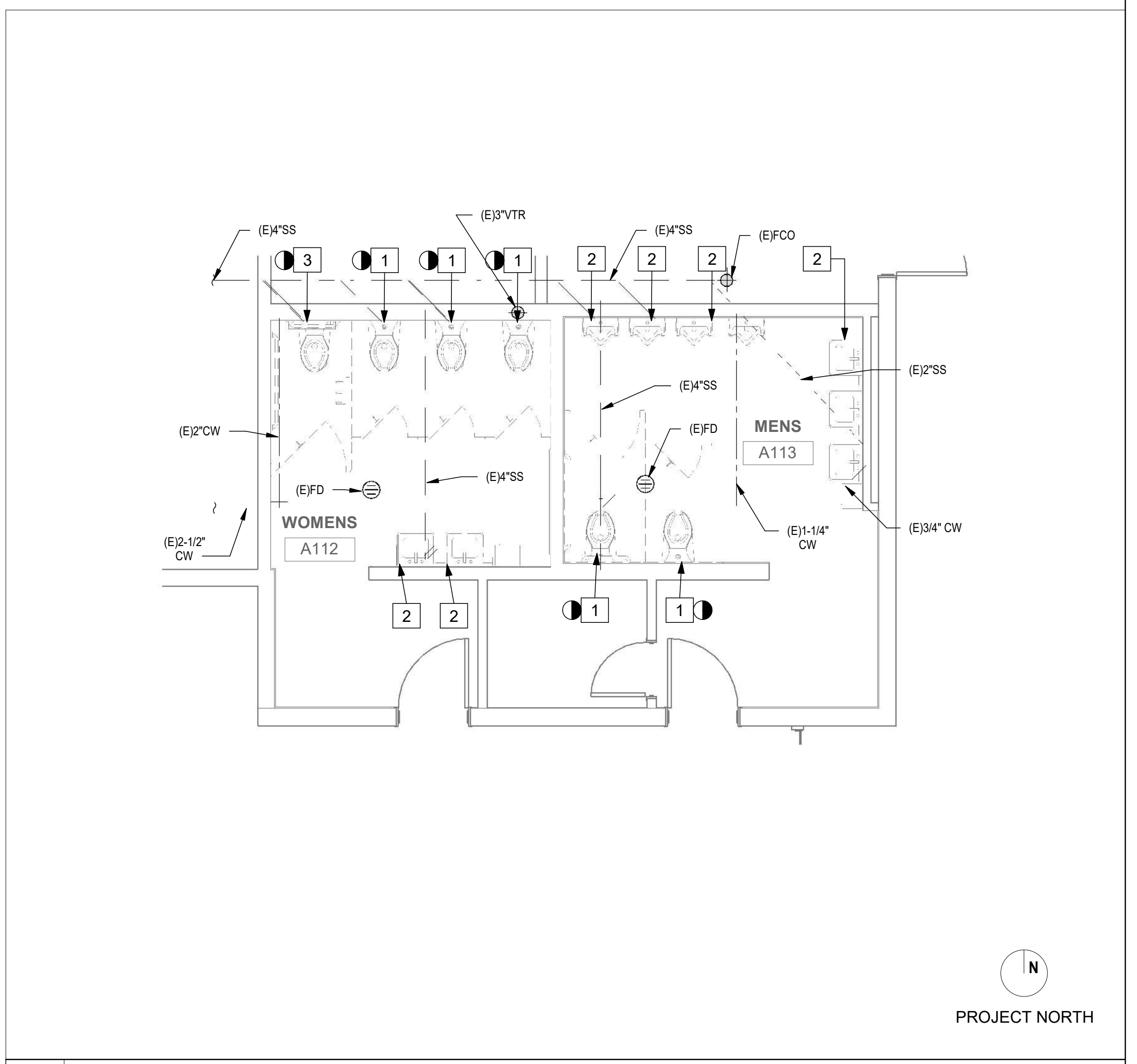
1. EXISTING WATER CLOSET AND ALL APPURTENANCES TO BE REMOVED. CAP EXISTING WASTE LINE BELOW THE FLOOR. CAP EXISTING COLD WATER LINE IN WALL. CAP EXISTING VENT LINE ABOVE IN CEILING SPACE. PATCH AND SEAL TO MATCH EXISTING AS REQUIRED.
2. EXISTING FIXTURE TO REMAIN
3. EXISTING FIXTURE TO BE REMOVED AND REPLACED

GENERAL NOTES:

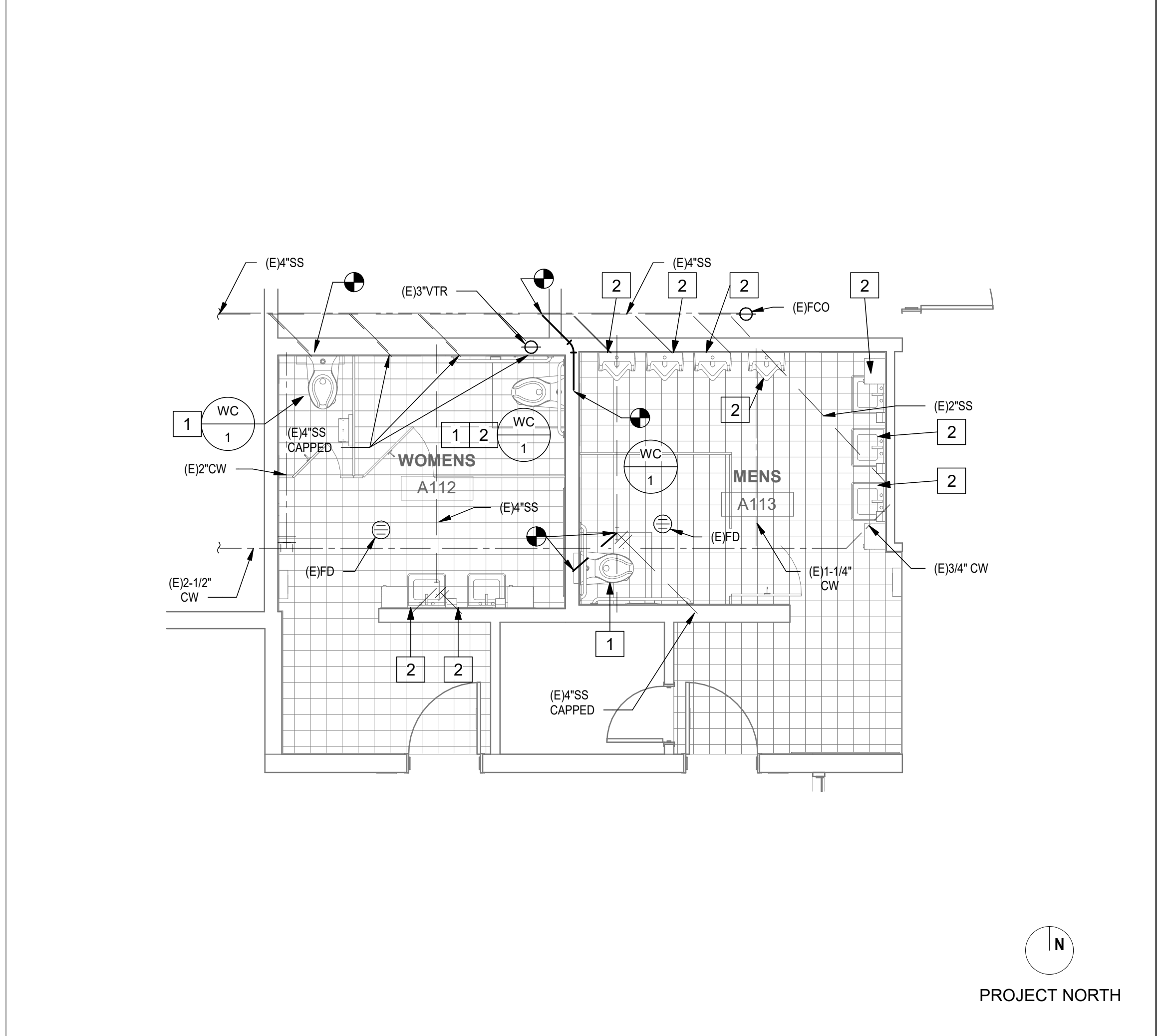
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KEY NOTES:

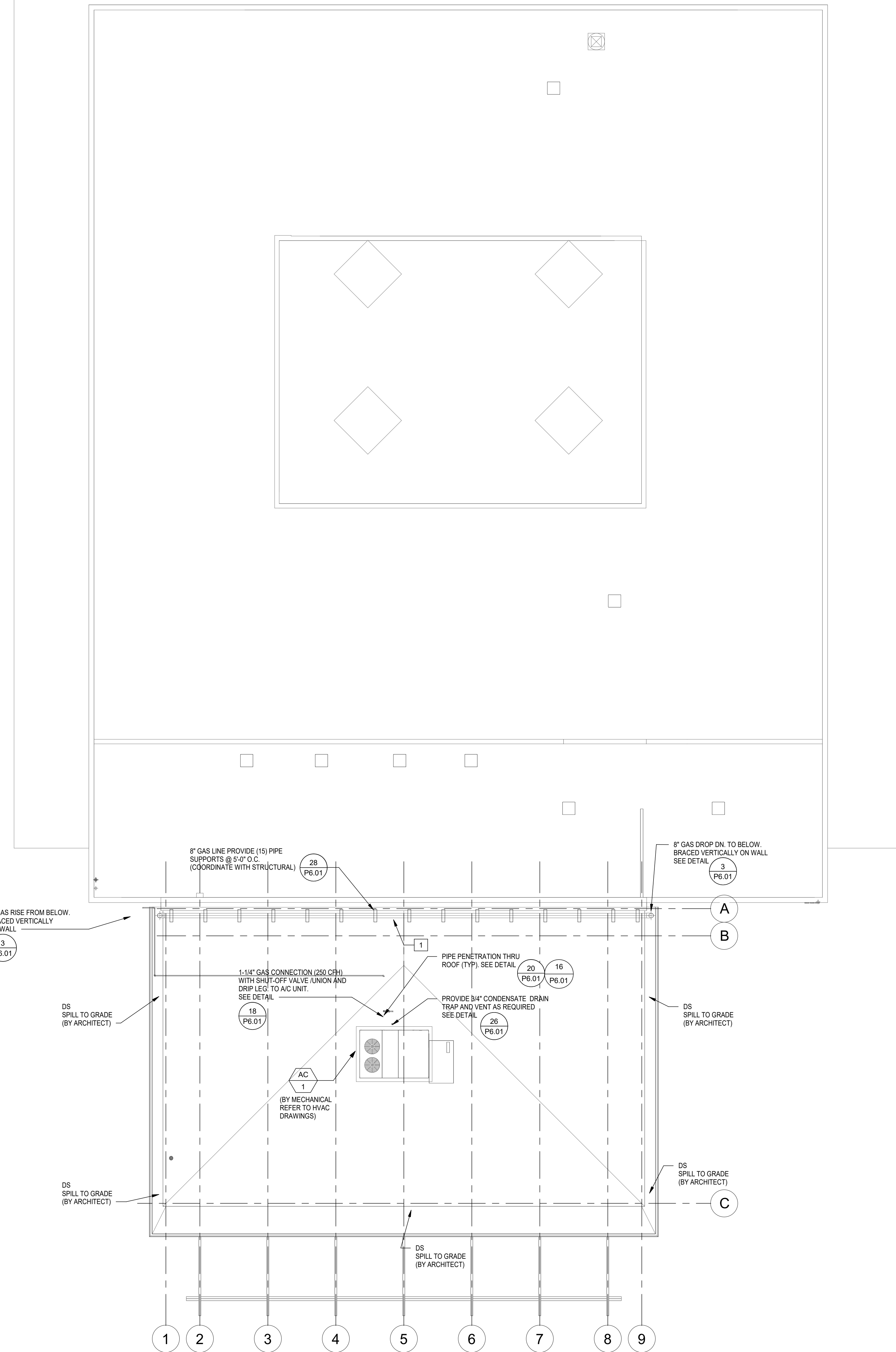
1. NEW WATER CLOSET
KOHLER MODEL K-4325 KINGSTON ELONGATED WALL HUNG W/ SLOAN ROYAL MODEL # 111 MANUAL FLUSH VALVE 1.28 GPF GBC COMPLIANT, WITH OPEN FRONT SEAT WITH 300 SERIES SELF SUSTAINING CONCEALED CHECK HINGE. THE FLUSH HANDLE TO BE MOUNTED ON THE WIDE SIDE OF THE STALL. SEE ARCH SHEETS FOR MOUNTING HEIGHT. PROVIDE J/R SMITH SERIES #10 SUPPORT CARRIER. PROVIDE 4" SS, 2" VENT AND 1" CW. RECONNECT TO EXISTING 1-1/4" CW LINE. RECONNECT TO EXISTING WASTE LINE BELOW THE FLOOR. RECONNECT TO EXISTING VENT LINE ABOVE IN CEILING SPACE.
2. EXISTING FIXTURE



15 PLUMBING DEMOLITION ENLARGED FLOOR PLAN
1/4" = 1'-0"



3 PLUMBING ENLARGED FLOOR PLAN
1/4" = 1'-0"



GENERAL NOTES:

- CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITION PRIOR TO ROUGH-IN. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE LOCATION OF ALL EXISTING UTILITY LINES INCLUDING BUT NOT LIMITED TO ELECTRICAL, SEWER, WATER, GAS, TELEPHONE, ETC. IN ADDITION, THE CONTRACTOR SHALL CAUTION ALL SUBCONTRACTORS THAT THE SITE AND PUBLIC PROPERTY CONTAINS UNDERGROUND UTILITY LINES. THE DRAWINGS SHOW DIAGRAMMATICALLY THE APPROXIMATE LOCATION OF UNDERGROUND UTILITIES WHERE INFORMATION IS AVAILABLE, BUT THE DRAWINGS ARE NOT EXACT AS TO THE QUANTITY EXTENT OR LOCATION.
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KEY NOTES:

- PROVIDE UV PROTECTION TO EXTERIOR PIPING
-
-

DSA FILE NO. 37-C2 A# 04-119030

IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP: 04-119487 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/01/2021



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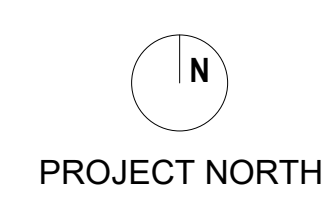
CLIENT
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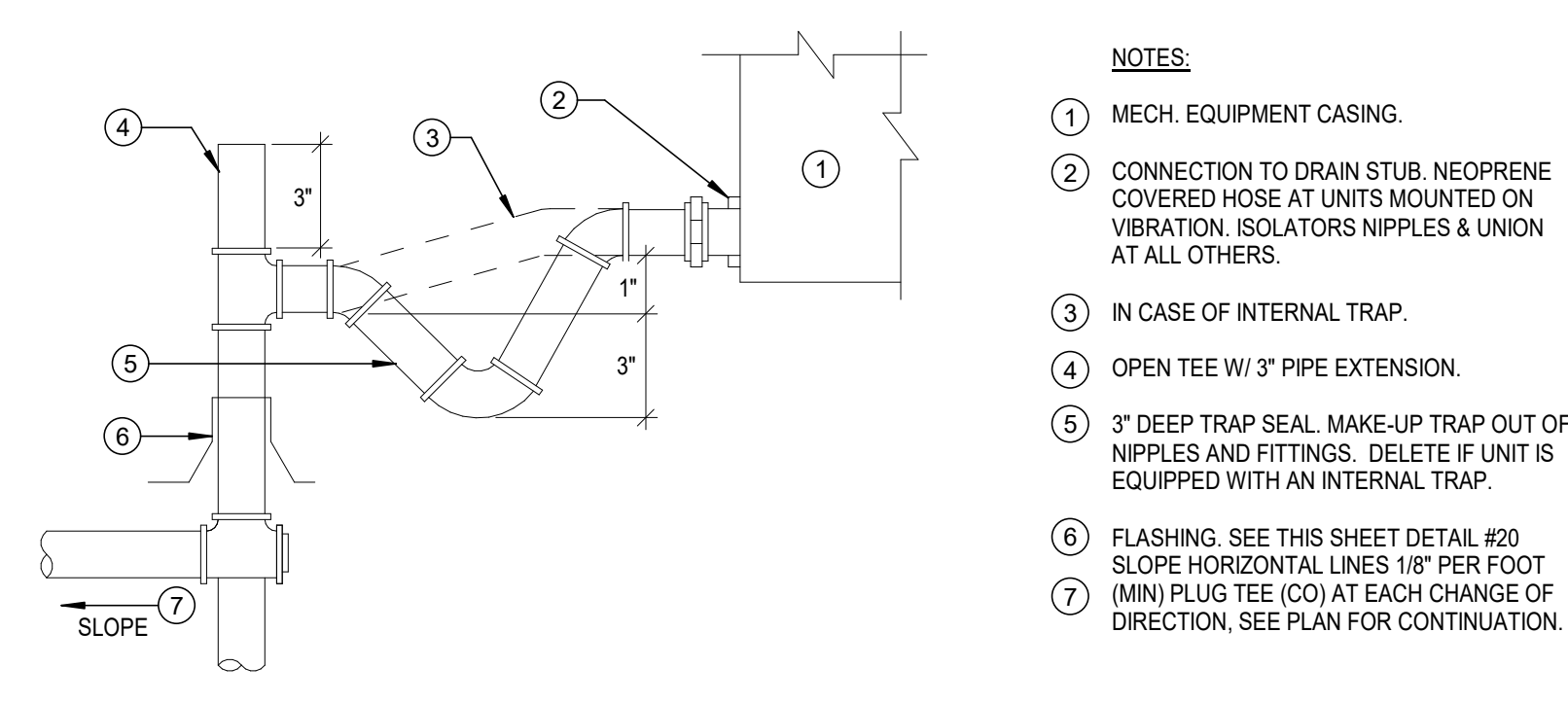
REVISIONS

No.	Description	Date

DSA SUBMITTAL
PLUMBING ROOF PLAN

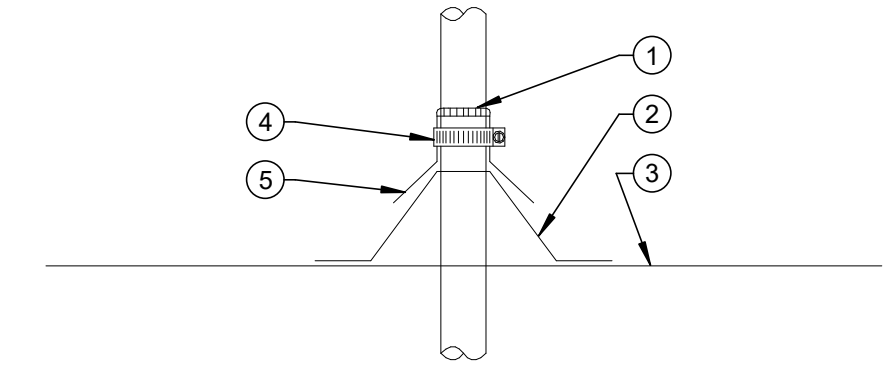
P3.01





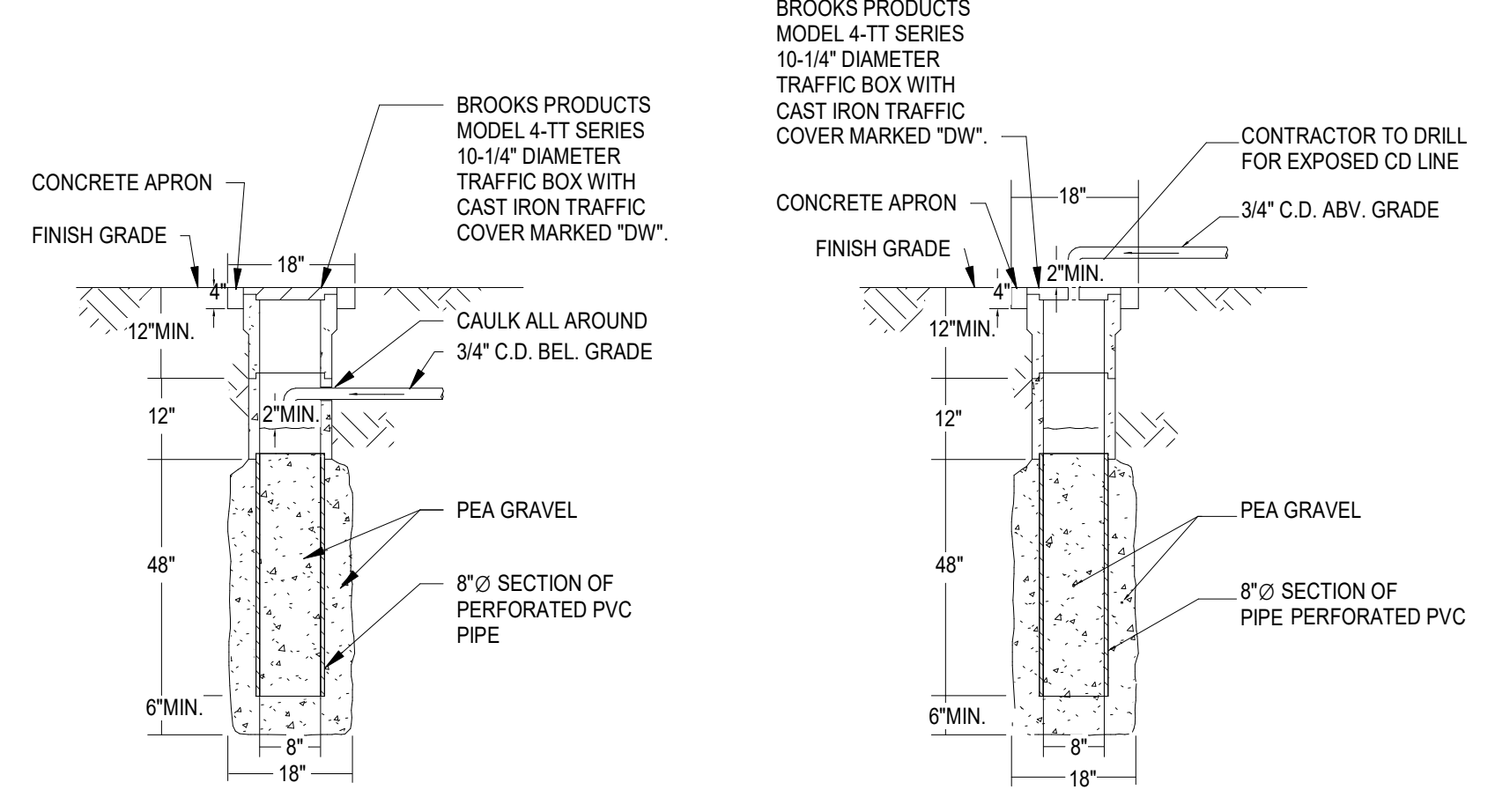
- NOTES:
- MECH. EQUIPMENT CASING.
 - CONNECTION TO DRAIN STUB: NEOPRENE COVERED HOSE AT UNITS MOUNTED ON VIBRATION ISOLATORS NIPPLES & UNION AT ALL OTHERS.
 - IN CASE OF INTERNAL TRAP.
 - OPEN TEE W/ 3" PIPE EXTENSION.
 - 3" DEEP TRAP SEAL, MAKE-UP TRAP OUT OF NIPPLES AND FITTINGS. DELETE IF UNIT IS EQUIPPED WITH AN INTERNAL TRAP.
 - FLASHING: SEE THIS SHEET DETAIL #20 SLOPE HORIZONTAL LINES 1/8" PER FOOT (MIN) PLUS TEE (CO) AT EACH CHANGE OF DIRECTION. SEE PLAN FOR CONTINUATION.
 -

26 CONDENSATE DRAIN CONNECTION DETAIL
NOT TO SCALE

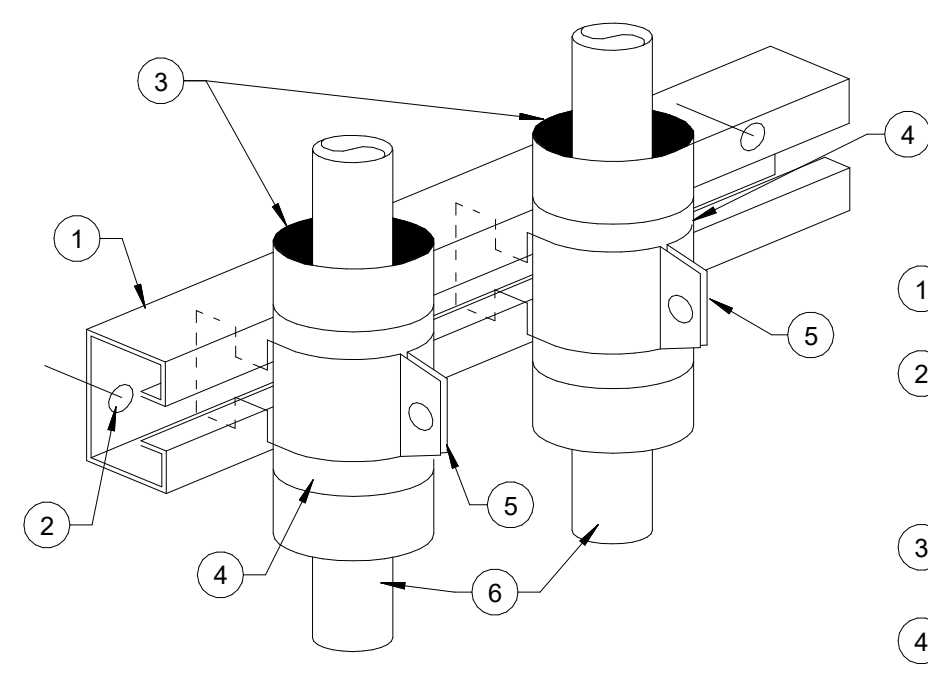


- NOTES:
- SILICONE SEAL.
 - SHORT CONE FLASHING.
 - ROOF, SEE ARCH. DWGS.
 - SCREW BAND HOSE CLAMP.
 - COUNTER FLASHING.

20 PIPE THRU ROOF DETAIL
NOT TO SCALE

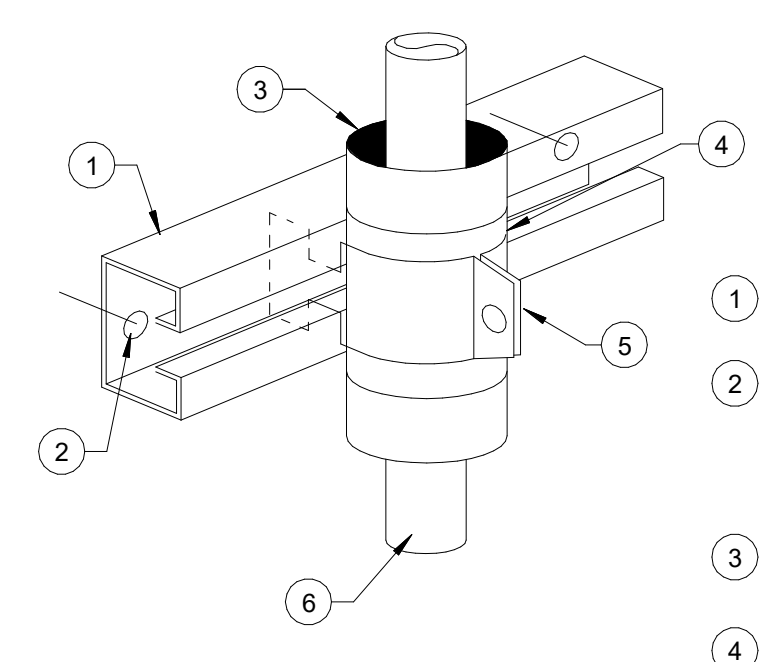


14 DRY WELL DETAIL
NOT TO SCALE



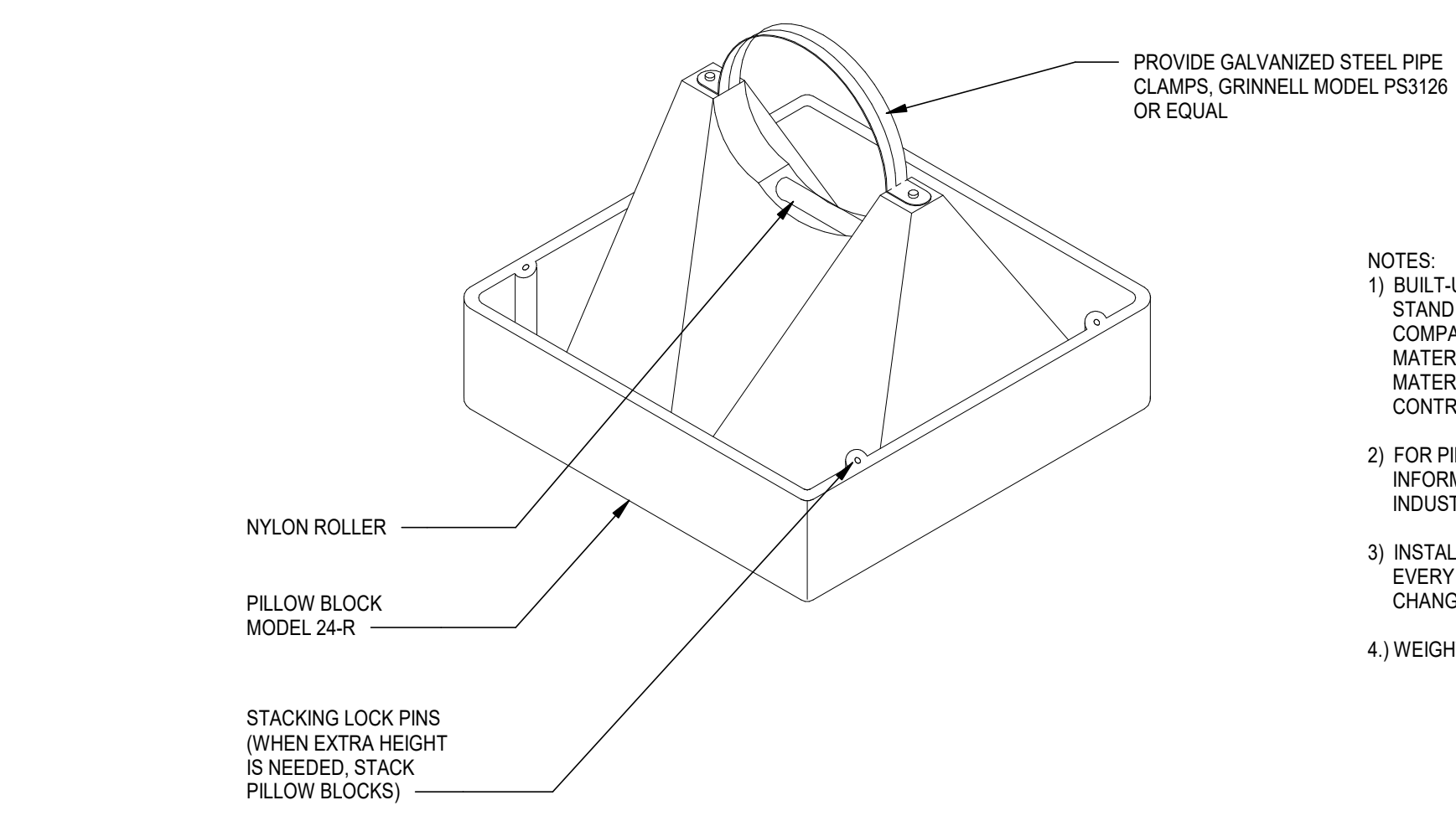
- DETAIL NOTES:
- P1000 UNISTRUT CHANNEL AT 6'-0" MAX. SPACING. (LENGTH AS REQ'D).
 - SECURE EACH END TO METAL DECK ROOF W/ (2) #10 SMS OR CONC. FLOOR WITH 3/8" TITAN HD ANCHOR W/ 2-1/2" NOMINAL EMBEDMENT. (2) PER UNISTRUT (ICC ESR-2713).
 - INSULATION (OMIT WHEN NOT REQUIRED).
 - INSULATION SHIELD (OMIT WHEN NOT REQUIRED).
 - SECURE PIPING TO SUPPORT WITH UNISTRUT P1100 PIPE CLAMP.
 - SEE PLAN FOR TYPE OF PIPING.

8 PIPE SUPPORT DETAIL (DOUBLE)
NOT TO SCALE



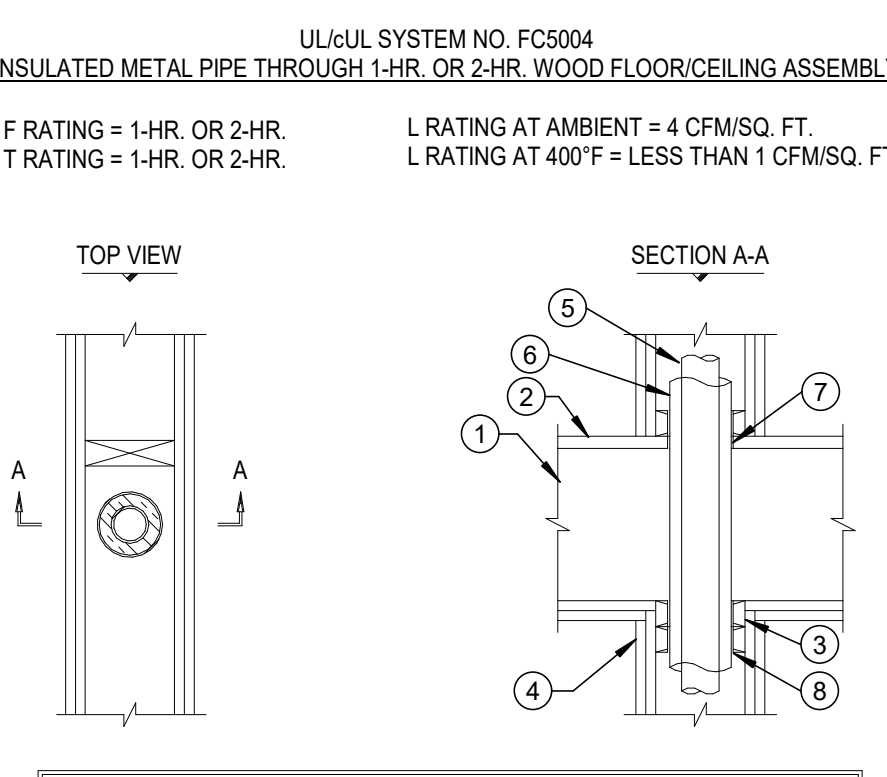
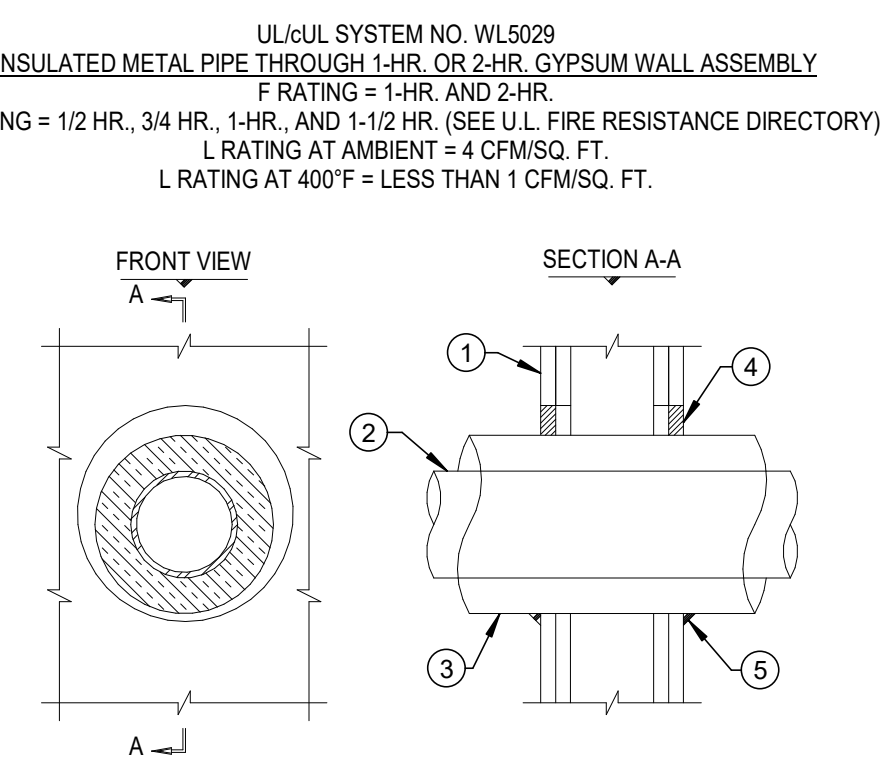
- DETAIL NOTES:
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 - SECURE EACH END TO METAL DECK ROOF W/ (2) #10 SMS OR CONC. FLOOR WITH 3/8" TITAN HD ANCHOR W/ 2-1/2" NOMINAL EMBEDMENT. (2) PER UNISTRUT (ICC ESR-2713).
 - INSULATION (OMIT WHEN NOT REQUIRED).
 - INSULATION SHIELD (OMIT WHEN NOT REQUIRED).
 - SECURE PIPING TO SUPPORT WITH UNISTRUT P1100 PIPE CLAMP.
 - SEE PLAN FOR TYPE OF PIPING.

3 PIPE SUPPORT DETAIL (SINGLE)
NOT TO SCALE



- NOTES:
- BUILT-UP ROOF SET PIPE STAND IN MAJESTIC BASE COMPATIBLE WITH ROOFING MATERIAL. COORDINATE MATERIAL WITH ROOFING CONTRACTOR.
 - FOR PILLOW BLOCK PIPE STAND INFORMATION CONTACT MICRO INDUSTRIES (800) 768-6978.
 - INSTALL PIPE SUPPORT AT EVERY 5 FEET AND EVERY CHANGE OF DIRECTION.
 - WEIGHT 833/100 (FL).

28 PIPE SUPPORT ON ROOF
NOT TO SCALE

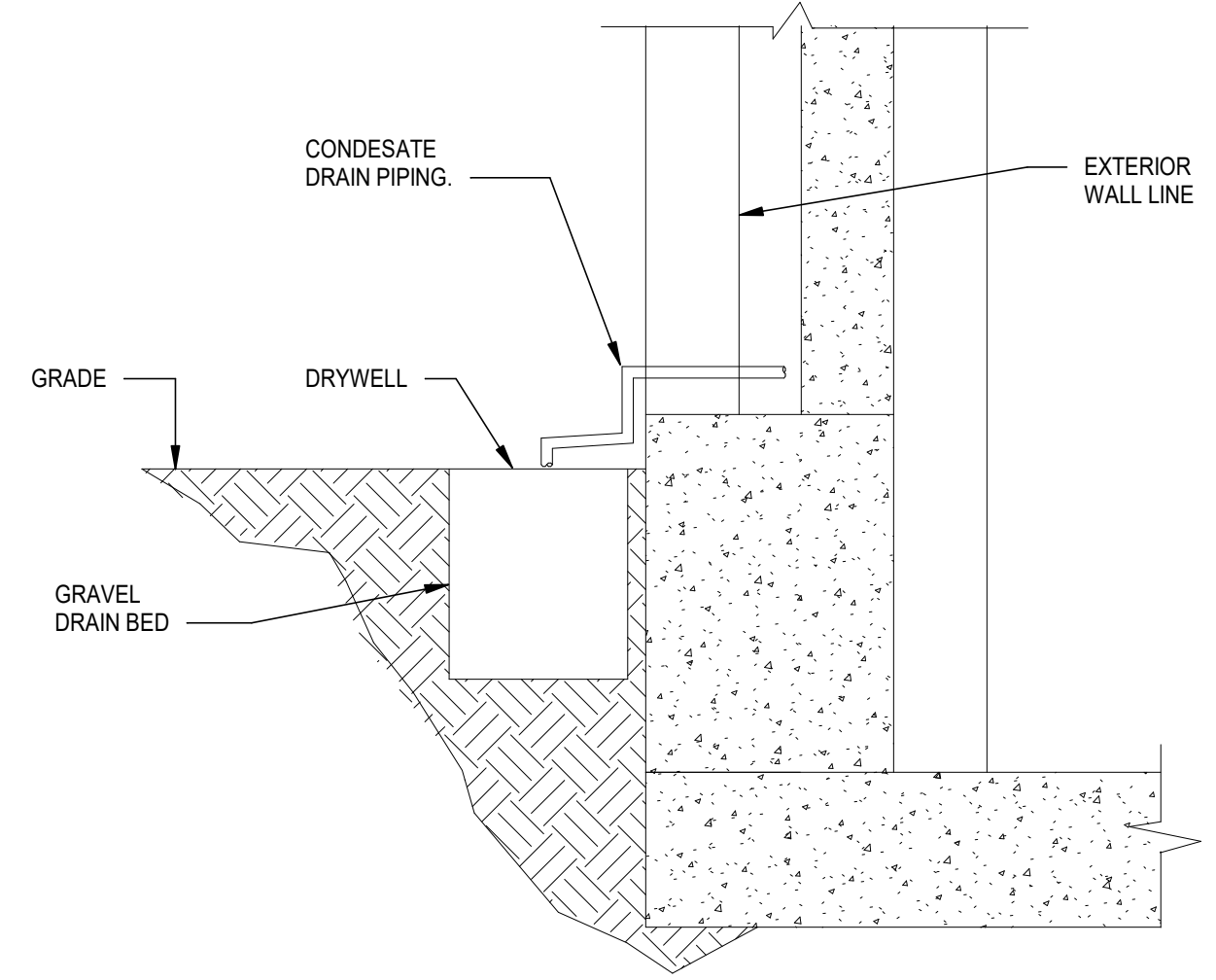


- NOTES:
- MAXIMUM DIAMETER OF OPENING = 4".
 - ANNULAR SPACE = 1/8" WHEN GLASS FIBER PIPE INSULATION IS USED, MINIMUM 1/8"; MAXIMUM 3/8" WHEN AB/PVC PIPE INSULATION IS USED.

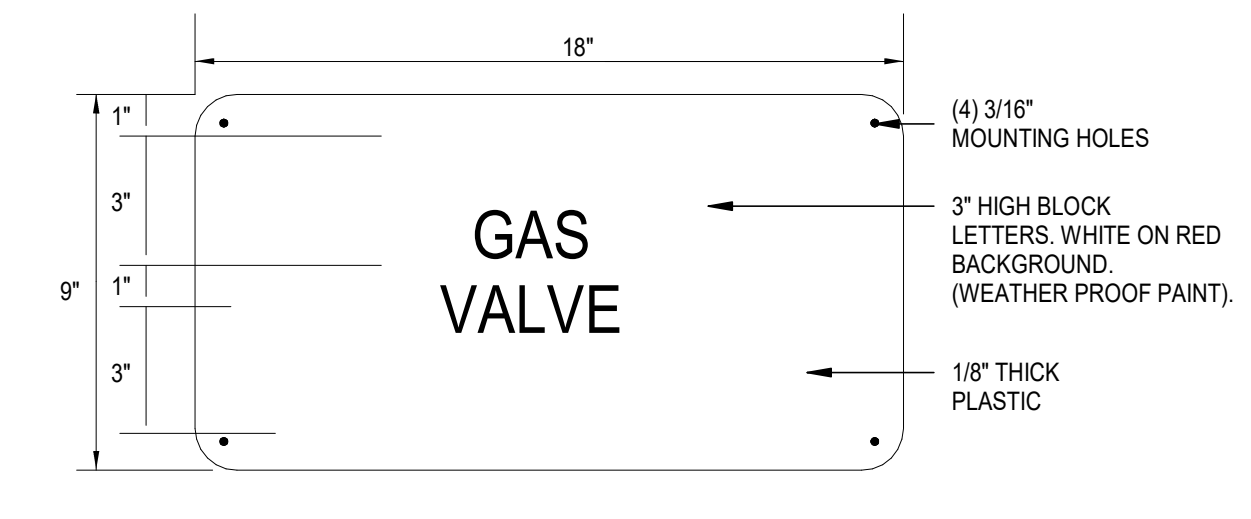
- NOTES:
- GYPSUM WALL ASSEMBLY (UL/LUL CLASSIFIED U300 OR U400 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
 - PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
A. MAXIMUM 1/2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 20 OR HEAVIER).
B. MAXIMUM 6" NOMINAL DIAMETER COPPER PIPE.
C. MAXIMUM 4" NOMINAL DIAMETER STEEL CONDUIT.
D. MAXIMUM 4" NOMINAL DIAMETER EMT.
 - MAXIMUM 2" THICK GLASS-FIBER PIPE INSULATION.
 - MINIMUM 5/8" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.
 - MINIMUM 1/2" BEAD HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT AT POINT OF CONTACT.

- NOTES:
- WOOD FLOOR/CEILING ASSEMBLY (UL/LUL CLASSIFIED L500 SERIES) (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
 - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD, OR FLOOR TOPPING MIXTURE.
 - TOP PLATE.
 - GYPSUM WALL ASSEMBLY (1-HR. OR 2-HR. FIRE-RATING) (2-HR. SHOWN).
 - PENETRATING ITEM TO BE ONE OF THE FOLLOWING:
A. MAXIMUM 2" NOMINAL DIAMETER STEEL PIPE (SCHEDULE 10 OR HEAVIER).
B. MAXIMUM 2" NOMINAL DIAMETER COPPER PIPE.
C. MAXIMUM 2" NOMINAL DIAMETER STEEL CONDUIT.
D. MAXIMUM 2" NOMINAL DIAMETER EMT.
 - PIPE INSULATION TO BE ONE OF THE FOLLOWING:
A. MAXIMUM 1/2" THICK GLASS FIBER INSULATION.
B. MAXIMUM 3/4" THICK AB/PVC FLEXIBLE FOAM INSULATION.
 - MINIMUM 3/4" DEPTH HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT.
 - PROVIDE A GENEROUS BEAD OF HILTI FS-ONE INTUMESCENT FIRESTOP SEALANT FLUSH WITH THE BOTTOM OF THE TOP PLATE.

16 FIRE RATED PENETRATION DETAIL
NOT TO SCALE

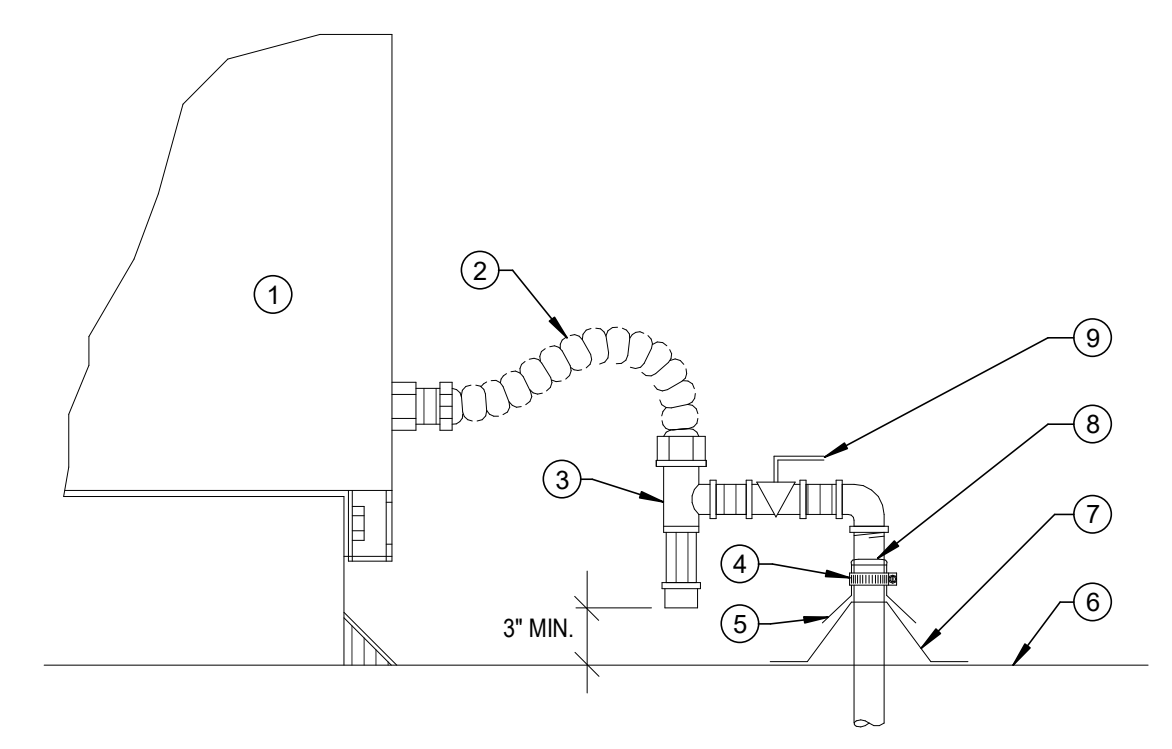


4 CONDENSATE DRAIN BOX
NOT TO SCALE



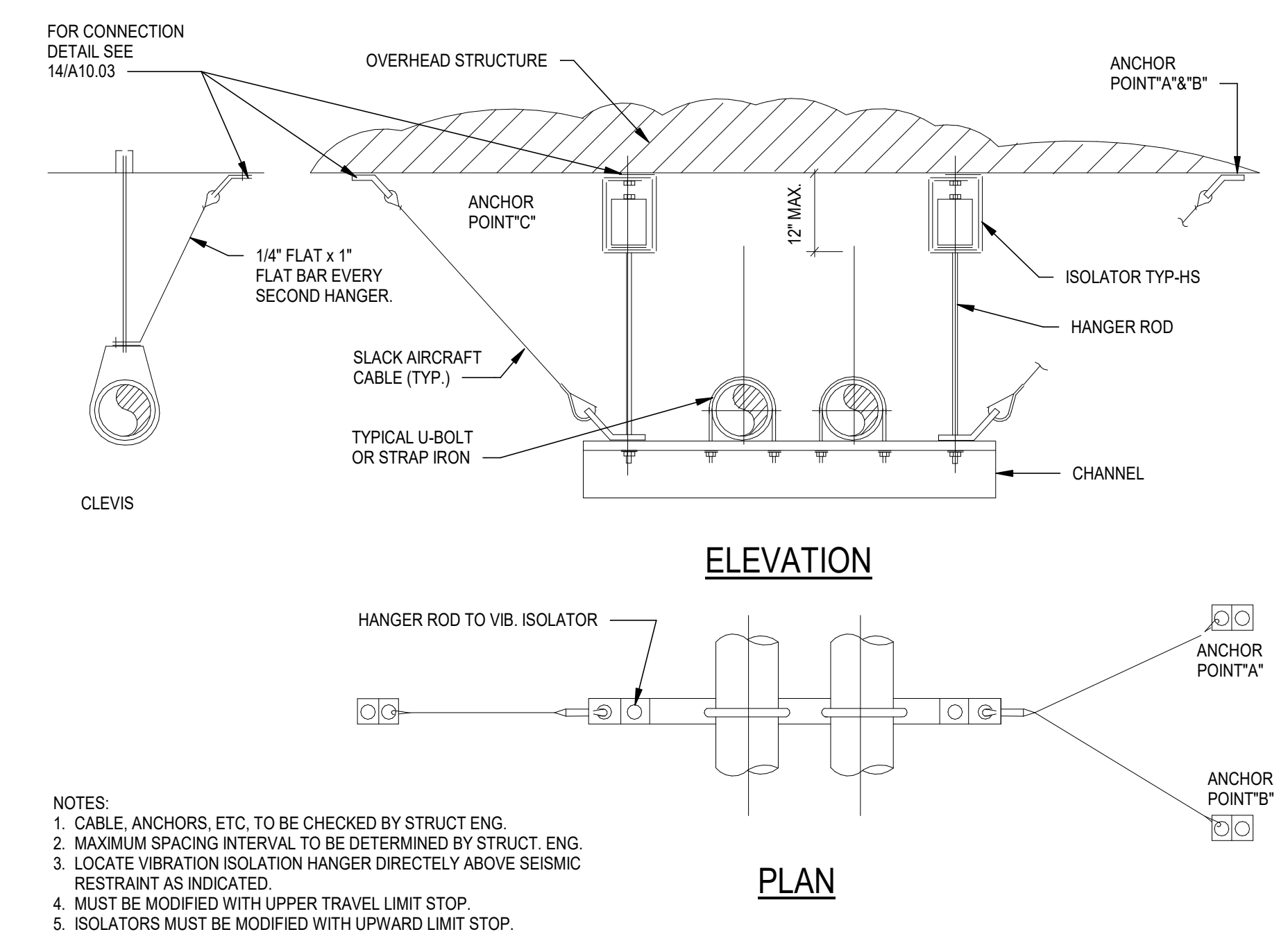
- NOTE:
SIGN TO BE CONSPICUOUSLY LOCATED ABOVE BUILDING GAS SHUT-OFF VALVE AS INDICATED ON FLOOR PLAN.

24 GAS VALVE SIGN DETAIL
NOT TO SCALE



- NOTES:
- AC UNIT.
 - STAINLESS STEEL FLEX CONNECTOR.
 - TEE WITH 4" LONG DIRT LEG AND REMOVEABLE CAP.
 - SCREW BAND HOSE CLAMP.
 - COUNTER FLASHING.
 - ROOF, SEE ARCH. DWGS.
 - SHORT CONE FLASHING.
 - SILICONE SEAL.
 - GAS SHUT-OFF VALVE.

18 AC UNIT GAS CONNECTION DETAIL
NOT TO SCALE



- NOTES:
- CABLE, ANCHORS, ETC. TO BE CHECKED BY STRUCT. ENG.
 - MAXIMUM SPACING INTERVAL TO BE DETERMINED BY STRUCT. ENG.
 - LOCATE VIBRATION ISOLATION HANGER DIRECTLY ABOVE SEISMIC RESTRAINT AS INDICATED.
 - MUST BE MODIFIED WITH UPPER TRAVEL LIMIT STOP.
 - ISOLATORS MUST BE MODIFIED WITH UPWARD LIMIT STOP.

6 PIPE SUPPORT DETAIL
NOT TO SCALE

ELECTRICAL SYMBOL LEGEND

1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS
2. DASHED ELECTRICAL EQUIPMENT GENERALLY INDICATES EXISTING EQUIPMENT
3. LONG-SHORT-SHORT-LONG DASHING GENERALLY INDICATES MATCH LINE OR DEFINES AREA FOR SPECIAL NOTE

CIRCUIT RELATED:	
	LIGHTING OR POWER CIRCUIT(S). ARROW INDICATES HOME RUN. LONGER TICK(S) INDICATE NEUTRAL WIRE(S). SHORTER STRAIGHT TICK(S) INDICATE PHASE WIRE(S). SLANTED SHORTER TICK(S) INDICATE SWITCH LEG(S). DOTS INDICATE GROUNDING CONDUCTOR(S). DASHED WIRING (LONG-SHORT-LONG DASHES) INDICATES WIRING BELOW SLAB OR GRADE. DASHED WIRING (SERIES OF SHORT DASHES) INDICATES EXISTING WIRING. SLASH THROUGH ARROW INDICATES PARTIAL CIRCUIT. "D" ON HOMERUN ARROW INDICATES DEDICATED CIRCUIT. PROVIDE A SEPARATE NEUTRAL FOR EACH PHASE CONDUCTOR FOR ENTIRE LENGTH OF CIRCUIT FROM PANEL TO OUTLET. COUNT EACH NEUTRAL AS CURRENT-CARRYING AND GROUP A MAXIMUM OF SIX THINWTHW CONDUCTORS IN A SINGLE RACEWAY. GROUNDING CONDUCTOR IS NOT COUNTED
	JUNCTION BOX
	GROUNDING FIXTURE

LIGHTING:	
	LED LIGHTING FIXTURE. LETTER INDICATES TYPE. SMALL LETTER INDICATES SWITCH CONTROL. NUMBER INDICATES CIRCUIT. CROSS HATCHING INDICATES FIXTURE ON EMERGENCY SYSTEM. FOR SOLID CIRCLE WITHIN FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL.
	STRIP TYPE LED LIGHTING FIXTURE. LETTER INDICATES TYPE. SMALL LETTER INDICATES SWITCH CONTROL. NUMBER INDICATES CIRCUIT. FOR SOLID CIRCLE ATTACHED TO FIXTURE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL.
	LED LIGHTING FIXTURE. LETTER INDICATES TYPE. SMALL LETTER INDICATES SWITCH CONTROL. NUMBER INDICATES CIRCUIT. FOR SOLID CIRCLE REFERENCE APPROPRIATE CATEGORY "A" CIRCUIT RELATED SYMBOL.
	DESIGNATES FIXTURE ON EMERGENCY POWER. RE: LIGHTING PLAN NOTES AND FIXTURE SCHEDULE NOTES FOR ADDITIONAL INFORMATION
	WALL OR BRACKET MOUNTED FIXTURE OR DEVICE
	EXIT LIGHT FIXTURE. LETTER INDICATES TYPE. NUMBER INDICATES CIRCUIT. NUMBER AND LOCATION OF SHADED TRIANGLE SECTIONS INDICATE NUMBER OF EXIT SIGN FACES AND DIRECTION OF EACH FACE. PROVIDE CHEVRON DIRECTIONAL INDICATORS AS SHOWN ON DRAWINGS

CONTROL:	
	SWITCH. SMALL LETTER INDICATES FIXTURES CONTROLLED. "P" INDICATES PILOT LIGHT. "WP" INDICATES WEATHERPROOF. "K" INDICATES KEY POWERED. "MO" INDICATES SPDT MOMENTARY CONTACT. "Z" INDICATES DPDT. "3" INDICATES 3-WAY. "4" INDICATES 4-WAY. "M" INDICATES MANUAL MOTOR STARTER. CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES BRANCH CIRCUIT NUMBER
	WALL BOX DIMMER SWITCH. "MARK" INDICATES WATTAGE IF OTHER THAN 600. "3D" INDICATES 3-WAY DIMMER
	MULTI-LEVEL SWITCH. CIRCUIT DESIGNATION NEXT TO SWITCH INDICATES BRANCH CIRCUIT NUMBER
	DIGITAL TIME SWITCH
	PHOTOELECTRIC CONTROL
	EMERGENCY POWER OFF (EPO) PUSHBUTTON
	PUSH BUTTON
	WALL MOUNT OCCUPANCY SENSOR
	DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR
	CEILING MOUNTED RESTROOM OCCUPANCY SENSOR
	CEILING MOUNTED CORRIDOR OCCUPANCY SENSOR
	CEILING MOUNTED HIGH CEILING OCCUPANCY SENSOR
	ROOM CONTROLLER

POWER OUTLETS:	
	20A-125V DUPLEX RECEPTACLE
	20A-125V GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE. "WP" INDICATES WEATHER PROOF DEVICE
	20A-125V DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP. REFER TO ARCHITECT FOR EXACT HEIGHT ABOVE COUNTER
	20A-125V CONTROLLED DUPLEX RECEPTACLE
	20A-125V ISOLATED GROUND TYPE DUPLEX RECEPTACLE
	20A-125V DUPLEX TAMPER RESISTANT REEPTACLE WITH (2) USB CHARGING PORTS
	20A-125V FOURPLEX RECEPTACLE. SAME SYMBOLOGY AS DUPLEX RECEPTACLE
	SPECIAL PURPOSE SINGLE POWER RECEPTACLE. RATED AS INDICATED (IF NO RATING INDICATED). RECEPTACLE RATING SHALL MATCH BRANCH CIRCUIT OVERCURRENT PROTECTIVE DEVICE AND SHALL MEET REQUIREMENTS OF EQUIPMENT BEING CONNECTED. "C" INDICATES CLOCK OUTLET
	20A-125V FLUSH FLOOR DUPLEX RECEPTACLE. 20A WHEN INDICATED OR IF BRANCH CIRCUIT SERVES ONLY SINGLE DUPLEX. PROVIDE CARPET FLANGE WHERE APPLICABLE
	CIRCUIT DESIGNATION NEXT TO RECEPTACLE DEVICES INDICATES BRANCH CIRCUIT NUMBER. RE: PANEL SCHEDULES FOR INFORMATION.

TELEPHONE/DATA:	
	FLUSH FLOOR TELEPHONE OUTLET WITH CARPET FLANGE WHERE APPLICABLE
	WALL COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS
	FLUSH FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE
	SURFACE FLOOR COMMUNICATIONS OR DATA OUTLET. REFER TO 'TS' SERIES SHEETS FOR EXACT BOX / CONDUIT REQUIREMENTS. PROVIDE CARPET FLANGE WHERE APPLICABLE

EQUIPMENT:	
	A NOTATION INDICATING THE MOUNTING HEIGHT OF A DEVICE AS MEASURED FROM FINISHED FLOOR OR GRADE TO CENTER LINE OF DEVICE
	MOTOR
	DISCONNECT SWITCH. FRAME SIZE/FUSE SIZE/POLES AS INDICATED. "NF" INDICATES NON-FUSIBLE. NEMA 1 ENCLOSURE UNLESS OTHERWISE NOTED. PROVIDE FUSED BUSWAY PLUG WHEN SWITCH IS INDICATED ON BUSWAY. ALL DISCONNECT SWITCHES SHALL BE 30NF/3 UNLESS OTHERWISE NOTED
	SINGLE CIRCUIT BREAKER IN INDIVIDUAL ENCLOSURE
	MAGNETIC MOTOR CONTROLLER. NUMBER INDICATES NEMA SIZE. STARTER NEMA SIZE SHALL BE "NEMA 1" UNLESS OTHERWISE NOTED
	COMBINATION DISCONNECT SWITCH / MOTOR CONTROLLER
	CONTACTOR
	PANELBOARD
	SWITCHBOARD / DP
	TRANSFORMER
	GROUNDING CONNECTION TO GROUNDING ELECTRODE AS DEFINED IN NEC ARTICLE 250
	BELL. "WP" INDICATED OUTDOOR RATED

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. HE SHALL THOROUGHLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND BY SUBMITTING A BID, ACCEPTS THE CONDITIONS UNDER WHICH HE SHALL BE REQUIRED TO PERFORM HIS WORK.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A COMPLETE SET OF CONTRACT DOCUMENTS AND ADDENDA (DRAWINGS AND SPECIFICATIONS) HE SHALL CHECK THE CONTRACT DOCUMENTS OF THE OTHER TRADES AND DETERMINE HIS RESPONSIBILITIES. FAILURE TO DO SO SHALL NOT RELEASE THE CONTRACTOR FROM COMPLETING ALL RESPONSIBLE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
3. SECURE AND PAY FOR ALL PERMITS, FEES, CHARGES, AND INCIDENTAL COSTS NECESSARY FOR EXECUTION AND COMPLETION OF ELECTRICAL WORK, INCLUDING ALL CHARGES BY STATE, COUNTY AND LOCAL GOVERNMENTAL AGENCIES.
4. ALL ELECTRICAL WORK REFERENCED HEREIN SHALL BE COORDINATED WITH OTHER TRADES AND SITE CONDITIONS. ANY COSTS TO INSTALL WORK TO ACCOMPLISH SAID COORDINATION WHICH DIFFERS FROM THE WORK AS SHOWN ON THE CONTRACT DOCUMENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. AMBIGUITIES OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING BID TIME FOR CLARIFICATION. ANY SUCH CONFLICTS NOT CLARIFIED PRIOR TO BID SHALL BE SUBJECT TO THE INTERPRETATION OF THE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.
5. PROVIDE TEMPORARY POWER FACILITIES AND CONNECTIONS FOR ALL FEEDERS, BRANCH CIRCUITS OR SIGNAL AND COMMUNICATIONS SYSTEMS BEING DISCONNECTED IN ORDER TO MAINTAIN SYSTEMS IN OPERATION.
6. ALL INTERRUPTION OF ELECTRICAL POWER SHALL BE KEPT TO A MINIMUM. HOWEVER WHEN AN INTERRUPTION IS NECESSARY, THE SHUTDOWN MUST BE COORDINATED WITH THE OWNER AND ENGINEER 14 DAYS PRIOR TO THE OUTAGE AND OVERTIME PAY SHALL BE INCLUDED IN THE CONTRACTOR'S BID. WORK IN EXISTING SWITCHBOARDS OR PANEL BOARDS SHALL BE COORDINATED WITH THE OWNER PRIOR TO REMOVING ACCESS PANELS OR DOORS.
7. AFTER ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS HAVE BEEN FULLY COMPLETED, REPRESENTATIVES OF THE OWNERS WILL INSPECT THE WORK. THE CONTRACTOR SHALL PROVIDE COMPETENT PERSONNEL TO DEMONSTRATE THE OPERATION OF ANY ITEM OR SYSTEM TO THE FULL SATISFACTION OF EACH REPRESENTATIVE. FINAL ACCEPTANCE OF THE WORK WILL BE MADE BY THE OWNER AFTER RECEIPT OF APPROVAL AND RECOMMENDATION OF ACCEPTANCE FROM EACH REPRESENTATIVE.
8. FURNISH A ONE YEAR WRITTEN GUARANTEE OF MATERIALS AND WORKMANSHIP FROM THE DATE OF SUBSTANTIAL COMPLETION.
9. ALL FINAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR.
10. EXACT METHOD AND LOCATION OF CONDUIT PENETRATION AND OPENINGS IN CONCRETE OR MASONRY WALLS, GRADEBEAMS, FLOORS OR STRUCTURAL STEEL MEMBER SHALL BE AS DIRECTED BY THE STRUCTURAL ENGINEER. PERFORM CORING, SAWCUTTING, PATCHING, AND REFINISHING OF WALLS AND SURFACES WHEREVER IT IS NECESSARY TO PENETRATE. OPENINGS SHALL BE SEALED IN AN APPROVED METHOD TO MEET THE FIRE RATING OF THE PARTICULAR WALL, FLOOR OR CEILING EXACT METHOD AND LOCATION OF CONDUIT PENETRATIONS AND OPENINGS IN CONCRETE FLOORS SHALL BE UL APPROVED.
11. CONNECTIONS TO MECHANICAL, PLUMBING AND VIBRATING EQUIPMENT AND SEISMIC SEPARATIONS SHALL BE LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS, AND LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS.
12. EQUIPMENT OUTLETS, LIGHTING FIXTURES, CONDUIT, WIRE AND CONNECTION METHODS IN HVAC AIR-PLenums SHALL BE APPROVED FOR USE IN PLENUMS AND SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE.
13. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.
14. CONDUIT SHALL NOT BE INSTALLED IN ANY FLOOR SLAB. CONDUIT SHALL BE INSTALLED CONCEALED IN THE CEILING SPACE, CONCEALED WALLS, OR 24" MINIMUM BELOW SLAB ON GRADE UNLESS NOTED OTHERWISE.
15. LOCATE ELECTRICAL EQUIPMENT AND BOXES IN ACCESSIBLE CEILING SPACE OR PROVIDE AN ACCESS PANEL FOR INACCESSIBLE CEILING SYSTEMS. ACCESS DOORS SHALL BE A MINIMUM DIMENSION OF 24" x 24" ACCESS DOOR LOCATIONS SHALL SUIT ACCESSIBILITY AND CONSTRUCTION CONDITIONS. ACCESS DOORS SHALL HAVE A FIRE RATING EQUAL TO THE CEILING ASSEMBLY IN WHICH THEY ARE INSTALLED.
16. COORDINATE REQUIRED ACCESS DOORS IN NON-ACCESSIBLE CEILING TO SUIT FIELD CONDITIONS. THE EXACT SIZES AND PHYSICAL LOCATIONS SHALL SUIT ACCESSIBILITY AND CONSTRUCTION CONDITIONS. ACCESS DOORS SHALL BE PROVIDED IN OTHER SECTIONS OF THE SPECIFICATIONS. ACCESS DOORS SHALL HAVE A FIRE RATING EQUAL TO THE CEILING ASSEMBLY IN WHICH THEY ARE INSTALLED.
17. WHENEVER A DISCREPANCY OF ANY SYSTEM AND/OR EQUIPMENT ARISES ON THE CONTRACT DOCUMENTS OR SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ARCHITECT/ENGINEER.
18. STRAIGHT FEEDER BRANCH CIRCUIT, AND CONDUIT RUNS SHALL BE PROVIDED WITH SUFFICIENT PULL BOXES OR JUNCTION BOXES TO LIMIT THE MAXIMUM LENGTH OF ANY SINGLE CABLE PULL TO 100 FEET. PULL BOXES SHALL BE SIZED PER CODE OR AS INDICATED ON DRAWINGS.
19. PANEL SCHEDULES SHALL BE REVISED TO REFLECT FINAL ROOM NAMES AND NUMBERS USING OWNERS ROOM ROOM NAMES AND NUMBERS DESIGNATIONS.
20. WHERE OUTLETS OCCUR AT TACKABLE WALL PANELS OR OTHER WALL FINISHES, PROVIDE EXTENSION RINGS AS REQUIRED SO THAT ALL EXIST BETWEEN DEVICE PLATE AND BACKBOX PER CALIFORNIA ELECTRICAL CODE 314.20 SEE ARCHITECTURAL ELEVATIONS FOR WALL FINISHES AND LOCATIONS.
21. COORDINATE LOCATIONS OF ALL SEISMIC SEPARATIONS.

UTILITY PENETRATIONS NOTE

UTILITY PENETRATIONS OF ANY KIND IN FIRE AND SMOKE PARTITIONS AND CEILING ASSEMBLIES SHALL BE FIRESTOPPED AND SEALED WITH AN APPROVED UL LISTED SYSTEM OR MATERIAL.

STEEL ELECTRICAL OUTLET BOXES WHICH DO NOT EXCEED 16 SQUARE INCHES IN AREA, NEED NOT BE PROTECTED IN ONE HOUR OR TWO HOUR FIRE RATED WALLS, PARTITIONS, CEILING, OR AREA SEPARATION UNLESS THEY:

1. OCCUR ON OPPOSITE SIDES OF THE WALL WITHIN 24 INCH HORIZONTAL DISTANCE OF ONE ANOTHER IN THIS CASE, ONLY ONE OUTLET BOX NEEDS TO BE PROTECTED BY AN APPROVED FIRESTOP MATERIAL OR DETAIL TO CORRECT THIS CONDITION.
2. OCCUR IN COMBINATION WITH OUTLET BOXES OF ANY SIZE SUCH THAT THE AGGREGATE AREA OF UNPROTECTED OUTLET BOXES EXCEEDS 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF WALL AREA IN THIS CASE, ONLY A SUFFICIENT NUMBER OF OUTLET BOXES NEED TO BE PROTECTED BY AN APPROVED MATERIAL OR DETAIL TO DECREASE THE AGGREGATE AREA OF UNPROTECTED UTILITY BOXES TO LESS THAN 100 SQUARE FEET OF WALL.

STEEL ELECTRICAL OUTLET BOXES WHICH EXCEED 16 SQUARE INCHES IN AREA, AND ALL OTHER STEEL UTILITY OUTLET BOXES REGARDLESS OF SIZE, SHALL BE PROTECTED BY AN APPROVED FIRESTOP MATERIAL AS LISTED OR EQUAL.

FIRESTOPPING MATERIAL:
MPP-1 MOLDABLE PUTTY PADS
SM CONTRACTOR PRODUCTS
MINNEAPOLIS, MN - 3M TEST REPORT NO. 1167 DATED AUGUST 21, 1987
FLAMESAFE FSP 1077 FIRESTOP PADS
INTERNATIONAL PROTECTIVE COATINGS
OKAHR/ST, NJ

FSP FIRESTOP PUTTY PADS
HEV-DUTY NELSON PRODUCTS
TULSA, OK

STEEL UTILITY BOXES WHICH EXCEED 100 SQUARE INCHES IN AREA SHALL BE PROTECTED BY ENCASEMENT.

UTILITY AND ELECTRICAL OUTLETS OR BOXES SHALL BE SECURELY FASTENED TO THE STUD FRAMING OF THE WALL, PARTITION OR CEILING ASSEMBLY. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT SO THAT THE CLEARANCE BETWEEN THE BOX AND THE GYPSUM BOARD DOES NOT EXCEED 1/8 INCH IN SMOKE WALLS OR PARTITIONS. THE 1/8 INCH CLEARANCE SHALL BE FILLED WITH AN APPROVED FIRE-RATED SEALANT.

APPLICABLE CODES

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2020:

- 2019 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
- 2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
- (2018 INTERNATIONAL BUILDING CODE, VOL. 1 & 2, AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
- (2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
- (2018 IAPMO UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
- (2018 IAPMO UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
- 2019 CALIFORNIA FIRE CODE (FC), PART 9, TITLE 24 CCR
- (2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
- (2018 INTERNATIONAL EXISTING BUILDING CODE AND 2019 CALIFORNIA AMENDMENTS)
- 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
- 2019 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
- 2016 ASME A17.1/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS

PARTIAL LIST OF APPLICABLE STANDARDS

- NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED): 2016 EDITION
- NFPA 720 STANDARD FOR THE INSTALLATION OF CARBON MONOXIDE DETECTION AND WARNING EQUIPMENT: 2015 EDITION
- UL 464 AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES: 2003 EDITION
- UL 521 STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS: 1999 EDITION
- UL 1971 STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED: 2002 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2019 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 60.

SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

* ALL PARTS OF THE 2019 CALIFORNIA BUILDING CODE BECOME EFFECTIVE JANUARY 1, 2020 EXCEPT THE EFFECTIVE DATE FOR THE USE OF THE 2019 BUILDING ENERGY EFFICIENCY STANDARDS (TITLE 24, PART 1, CHAPTER 10) IS JANUARY 8, 2019 AND THE EFFECTIVE DATE FOR THE USE OF THE CALIFORNIA ADMINISTRATIVE CODE (TITLE 24, PART 1, CHAPTER 4) IS JANUARY 8, 2019.

SEE CALIFORNIA FIRE CODE, CHAPTER 33 FOR FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION.

GENERAL NOTES

22. ALL 120V POWER REQUIRED FOR THE FUNCTIONALITY OF ALL LOW VOLTAGE / TECHNOLOGY SYSTEMS SHALL BE A DEDICATED CIRCUIT AND ON EMERGENCY POWER WHEN AVAILABLE. CABLING CONTRACTOR SHALL COORDINATE ALL 120V POWER REQUIREMENTS AND LOCATIONS WITH ELECTRICAL CONTRACTOR FOR ALL EQUIPMENT.
23. ALL TECHNOLOGY CABLING SHALL BE PROVIDED IN CONDUIT.
24. SYSTEM WIRING AND EQUIPMENT INSTALLATION SHALL BE IN ACCORDANCE WITH GOOD ENGINEERING PRACTICES AS ESTABLISHED BY THE EIA AND THE NEC.
25. ALL TECHNOLOGY SYSTEMS EQUIPMENT AND MOUNTING LOCATIONS SHALL BE IN COMPLIANCE WITH ADA ACCESSIBILITY STANDARDS.
26. ALL TECHNOLOGY CABLES ARE TO BE INSTALLED WITH A MINIMUM OF 12 INCHES OF SEPARATION FROM AC POWER CABLES, INTERCOM, FIRE ALARM, SECURITY CABLES IN ANY PARALLEL OPEN WIRE RUN.
27. ALWAYS CROSS OTHER SYSTEM CABLES AT A 90 DEGREE ANGLE.
28. ALL CABLES AND TERMINATION COMPONENTS SHALL BE MACHINE LABELED AT BOTH ENDS.
29. ALL EXPOSED CABLING ROUTED IN PLENUM SHALL BE PLENUM-RATED. ALL NON PLENUM-RATED CABLING INSTALLED IN PLENUM SPACES SHALL BE INSTALLED IN CONDUIT.
30. NO TERMINATION OR SPLICES SHALL BE INSTALLED IN OR ABOVE CEILINGS UNLESS NOTED OTHERWISE.
31. CONTRACTOR SHALL PROVIDE AND INSTALL ALL SLEEVES REQUIRED TO INSTALL COMMUNICATION CABLING THROUGH RATED WALLS. ALL TECHNOLOGY SYSTEM CONDUIT SLEEVES SHALL HAVE PROTECTIVE BUSHING ON BOTH ENDS, BE DEDICATED FOR TECHNOLOGY SYSTEMS ONLY AND SHALL NOT SHARE WITH OTHER BUILDING TRADES.
32. CONTRACTOR SHALL MAINTAIN WALL RATING WITH PROPER FIRE BLOCKING METHODS.
33. ALL CONDUCTORS SHALL BE UL LISTED, COPPER #12 MINIMUM SIZE, TYPE THINWTHW THERMOPLASTIC, 600 VOLT, 75 DEGREES CELSIUS WET AND 90 DEGREES CELSIUS DRY, UNLESS NOTED OTHERWISE.
34. ALL CABLING SHALL BE ROUTED IN CONDUIT. SIZE CONDUIT AS REQUIRED TO ROUTE SYSTEMS WITH MAXIMUM 40% CABLE FILL. MINIMUM CONDUIT SIZE SHALL BE 3/4" INTERIOR & 1" EXTERIOR.
35. ALL TECHNOLOGY CABLING SHALL BE INSTALLED NEW AND DROPPED DOWN INSIDE ALL WALLS FOR A FLUSH MOUNT SOLUTION. CONTRACTOR TO PROVIDE AND INSTALL A MINIMUM OF ONE (1) DOUBLE GANG BACK BOX WITH A SINGLE GANG REDUCER RING AND A 1" CONDUIT STUBBED OUT TO THE NEAREST PLENUM CEILING AT ALL LOCATIONS.
36. ALL CONDUIT STUB OUTS AND SLEEVES SHALL HAVE PROTECTIVE BUSHINGS TO PREVENT CABLE DAMAGE. BUSHING TO BE INSTALLED PRIOR TO CABLE INSTALLATION. CUTTING BUSHINGS AND INSTALLING AFTER CABLE IS INSTALLED WILL NOT BE ACCEPTED.

EQUIPMENT ANCHORAGE NOTES

MEP COMPONENT ANCHORAGE NOTES:

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE USA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRIC, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY USA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

1. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUND PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY USA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTION 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G. OSHPD OPM FORD213 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO START OF AND DURING THE HANGING AND BRACING OF DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP MD PP OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES & DETAILS.

MP MD PP OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # _____

EQUIPMENT ANCHORAGE NOTES

MEP COMPONENT ANCHORAGE NOTES:

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE USA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRIC, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY USA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

1. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUND PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY USA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2019 CBC, SECTION 1617A.1.24, 1617A.1.25, AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G. OSHPD OPM FORD213 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO START OF AND DURING THE HANGING AND BRACING OF DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP MD PP OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES & DETAILS.

MP MD PP OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # _____

DRAWING INDEX

SHEET	DESCRIPTION
E0.01	ELECTRICAL INDEX, NOTES AND LEGEND
E0.02	TITLE 24 (1 OF 4)
E0.03	TITLE 24 (2 OF 4)
E0.04	TITLE 24 (3 OF 4)
E0.05	TITLE 24 (4 OF 4)
E02.01	ELECTRICAL DEMOLITION POWER PLAN
E1.01	ELECTRICAL SITE PLAN
E2.01	ELECTRICAL POWER PLAN
E2.02	ELECTRICAL LIGHTING PLAN
E3.01	ELECTRICAL RING PLAN
E5.01	ELECTRICAL ONE-LINE, RISER DIAGRAM & SCHEDULES
E6.01	ELECTRICAL DETAILS
E6.02	LIGHTING CONTROL SCHEMATICS

DIAGRAMMATIC NOTE

DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE DETAILED CONDUIT ROUTING OR LENGTHS REQUIRED FOR COMPLETE INSTALLATION. ROUTING OF RACEWAYS SHALL BE AT THE OPTION OF THE CONTRACTOR BUT SHALL BE IN STRICT COMPLIANCE WITH STRUCTURAL REQUIREMENTS, CONTRACT DOCUMENTS AND SPECIFICATIONS UNLESS OTHERWISE NOTED. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES. DO NOT SCALE THE ELECTRICAL DRAWINGS FOR LOCATIONS ANY ELECTRICAL, ARCHITECTURAL, STRUCTURAL AND/OR MECHANICAL ITEMS OR FEATURES. REFER TO ARCHITECTURAL AND STRUCTURAL CONTRACT DOCUMENTS FOR FEATURES. REFER TO ARCHITECTURAL AND STRUCTURAL CONTRACT DOCUMENTS FOR DIMENSIONS.

DEVICE LOCATIONS NOTE

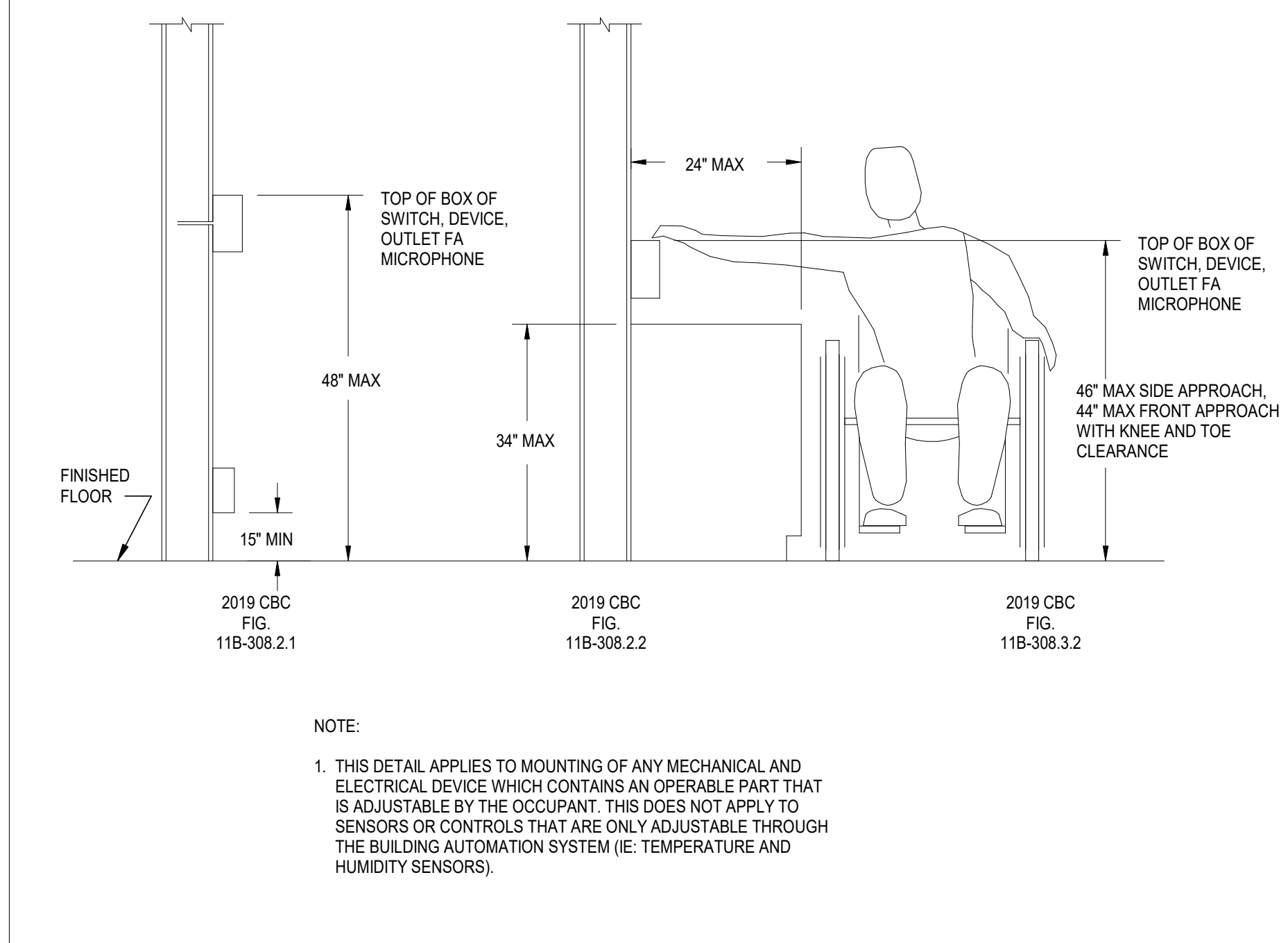
THE LOCATION OF ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE COORDINATED WITH THE ARCHITECTURAL ELEVATIONS, DETAILS, OR SECTIONS PRIOR TO INSTALLATIONS. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE RECESSED IN WALLS UNLESS OTHERWISE NOTED. OUTLETS NOT INDICATED ON ARCHITECTURAL ELEVATIONS SHALL BE COORDINATED WITH THE ARCHITECT PRIOR TO ROUGH-IN, UNLESS OTHERWISE NOTED. ELECTRICAL DEVICES SHALL BE MOUNTED PER "ACCESSIBLE DEVICE MOUNTING HEIGHT" DETAIL.

COORDINATE WITH OTHER TRADES AS TO THE EXACT LOCATION OF THEIR RESPECTIVE EQUIPMENT SUPPLY POWER AND MAKE CONNECTION TO MOTORS AND EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS AS INDICATED ON THE SINGLE LINE DIAGRAM, ELECTRICAL DRAWINGS, AND DRAWINGS OF OTHER TRADES. REVIEW THE DRAWINGS OF OTHER TRADES FOR CONTROL DIAGRAMS, SIZE AND LOCATION OF EQUIPMENT, DISCONNECT SWITCHES, STARTERS, WIRING, CONTROLS, AND CONDUIT FOR MECHANICAL AND PLUMBING OPERATIONS SHALL BE PROVIDED THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MANUFACTURER'S SHOP DRAWINGS PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.

STRUCTURAL NOTE

UNLESS SPECIFICALLY SHOWN ON THESE PLANS, STRUCTURAL MEMBERS SHALL NOT BE CUT, DRILLED, OR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.

MOUNTING OVER OBSTRUCTION DETAIL



UL LISTINGS NOTE

ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE LISTED BY UNDERWRITER'S LABORATORIES (UL) AND BEAR THEIR LABEL OR LISTED AND CERTIFIED BY A

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS
 This Section Does Not Apply

R. 80% LIGHTING POWER FOR ALTERATIONS - CONTROLS EXCEPTIONS
 This Section Does Not Apply

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)
 This Section Does Not Apply

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCC/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCC-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete

Documentation Author Name: Jonah Jeffries	Documentation Author Signature: <i>Jonah Jeffries</i>
Company: LEAF Engineers	Signature Date: 12/04/2020
Address: 3110 East Guasti Road, Suite 300	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Ontario, CA 91761	Phone: 909-390-3111

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Matthew Sickorez	Responsible Designer Signature: <i>Matthew Sickorez</i>
Company: LEAF Engineers	Date Signed: 12/14/2020
Address: 3110 East Guasti Road, Suite 300	License: E-20162
City/State/Zip: Ontario, CA 91761	Phone: 909-390-3111

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	<input type="checkbox"/>	<input type="checkbox"/>

A. GENERAL INFORMATION

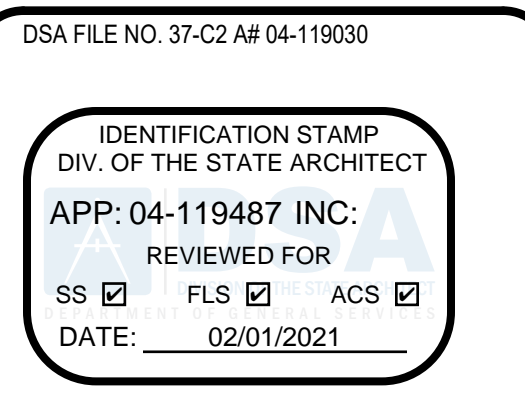
01 Project Location (city)	Imperial	04 Total Illuminated Hardscape Area (ft ²)	2,720
02 Climate Zone	15		
03 Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):			
<input type="checkbox"/> LZ-0: Very Low - Undeveloped Parkland		<input checked="" type="checkbox"/> LZ-2: Moderate - Rural Areas	<input type="checkbox"/> LZ-4: High - Must be reviewed by CA Energy Commission for Approval
<input type="checkbox"/> LZ-1: Low - Developed Parkland		<input type="checkbox"/> LZ-3: Moderately High - Urban Areas	

B. PROJECT SCOPE
 Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)(2) for alterations.
 My project consists of:

<input checked="" type="checkbox"/> New Lighting System	Must Comply with Allowances from §140.7.
<input type="checkbox"/> Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)? <input type="radio"/> Yes <input type="radio"/> No
03 % of Existing Luminaires Being Altered ¹	04 Sum Total of Luminaires Being Added or Altered
05 Calculation Method	
¹ FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100	

C. COMPLIANCE RESULTS
 Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Calculation of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)(2)						Compliance Results		
01	02	03	04	05	06	07	08	09
General Hardscape Allowance §140.7(d)(1)	Per Application §140.7(d)(2)	Sales Frontage §140.7(d)(2)	Ornamental §140.7(d)(2)	Per Specific Area §140.7(d)(2)	Existing Power §141.0(b)(2)	Total Allowed (Watts)	Total Actual (Watts)	07 Must be ≥ 08
(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	(See Table N)	77	77	COMPLIES
Cutoff Compliance (See Table G for Details)						Not Applicable		
Controls Compliance (See Table H for Details)						COMPLIES with Exceptional Conditions		



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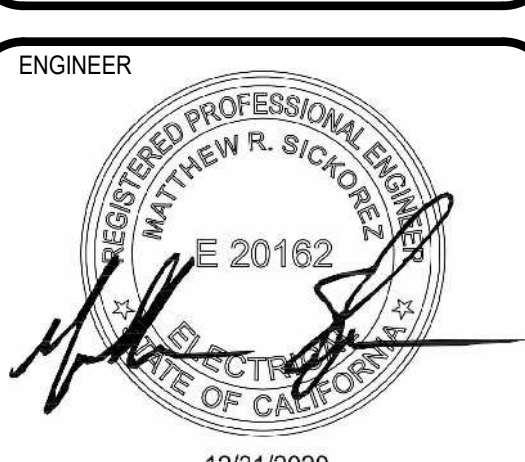


3110 E. Guasti Road, Suite 300
 Ontario, CA 91761

IMPERIAL VALLEY COLLEGE
- B600 EXPANSION
 380 E Aten Rd.
 Imperial, CA 92251
DSA SUBMITTAL



CONSULTANT



ARCHITECT

CLIENT IMPERIAL VALLEY COLLEGE		
PROJECT NUMBER 20190		
DATE:	12/08/2020	
DRAWN BY:	JJ	
CHECKED BY:	RDC	
REVISIONS		
No.	Description	Date

DSA SUBMITTAL
TITLE 24 (2 OF 4)

E0.03

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Imperial Valley College B600 Expansion Report Page: Page 2 of 6
 Project Address: 380 E Aten Rd. Imperial, CA 92251 Date Prepared: 12/04/2020

D. EXCEPTIONAL CONDITIONS
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Table H. Outdoor Lighting Controls Permit Applicant Notes:
 Building Exterior: Lighting fixture wattage is below 40 watts.

E. ADDITIONAL REMARKS
 This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. OUTDOOR LIGHTING FIXTURE SCHEDULE
 Table Instructions: For new or altered lighting systems demonstrating compliance with §140.7 (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)(2) (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

Designed Wattage:

01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Watts per luminaire ^{1,2}	How Wattage is determined	Total number luminaires ²	Luminaire Status ³	Excluded per §140.7(a)	Design Watts	Cutoff Req. ≥ 6,200 initial lumen output §130.2(b) ⁴	Field Inspector
D	ARCH WALL SCNCE <input type="checkbox"/> Linear	11	Mfr. Spec ¹	7	New	<input type="checkbox"/>	77	NA: <6,200 lumens	<input type="checkbox"/> Pass <input type="checkbox"/> Fail
Total Designed Watts:							77		

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
 EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b).

¹ FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c)
² For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 05 instead of number of luminaires.
³ Select "New" for new luminaires in a new outdoor lighting project or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope
⁴ Compliance with mandatory cutoff requirements is required for luminaires with initial lumen output ≥ 6,200 unless exempted by §130.2(b).

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Imperial Valley College B600 Expansion Report Page: Page 4 of 6
 Project Address: 380 E Aten Rd. Imperial, CA 92251 Date Prepared: 12/04/2020

K. LIGHTING ALLOWANCE: SALES FRONTAGE
 This Section Does Not Apply

L. LIGHTING ALLOWANCE: ORNAMENTAL
 This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA
 Table Instructions: Please complete this table for areas using the wattage allowance per specific area type from Table 140.7-B. More than one specific area allowance may be taken in a single project, if applicable. However, multiple specific area allowances may not be taken for the exact same area on the site.

01	02	03			04				05	06	07	08	09	10
		Specific Area (ft ²) ¹	Allowed Density (W/ft ²)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire ²	# of Luminaires ²	Design Watts						
Building Facade	Bldg Façade	1,870	0.1	187	D	11	7	77						
Total Design Watts for this Area:											77	77		
Total Allowance (Watts) All Areas:											77			

¹ FOOTNOTES: See Table 140.7-B for the rules for calculating the specific areas (ft²) for these additional lighting allowances.
² For luminaires indicated in Table F as linear, wattage in column 07 is W/lf instead of Watts/luminaire. Total linear feet for the luminaire should be indicated in column 08 instead of number of luminaires.

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)
 This Section Does Not Apply

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Imperial Valley College B600 Expansion Report Page: Page 3 of 6
 Project Address: 380 E Aten Rd. Imperial, CA 92251 Date Prepared: 12/04/2020

G. CUTOFF REQUIREMENTS (BUG)
 This Section Does Not Apply

H. OUTDOOR LIGHTING CONTROLS
 Table Instructions: Complete this table demonstrating compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
 When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. For each requirement in columns 02 through 04, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.

Mandatory Controls

01	02	03	04	05
Area Description	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Field Inspector
Building Exterior	Astronomical Timer	Yes	Exempt *	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

* NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
 EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c).
 Building Exterior Lighting fixture wattage is below 40 watts.

I. LIGHTING POWER ALLOWANCE (per §140.7)
 Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lose it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

General Hardscape Allowance	01 "Use it or lose it" Allowances (select all that apply)				
	Per Application	Sales Frontage	Ornamental	Per Specific Area	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Table I (below)	Table J	Table K	Table L	Table M	

J. LIGHTING ALLOWANCE: PER APPLICATION
 This Section Does Not Apply

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 11/19) CALIFORNIA ENERGY COMMISSION

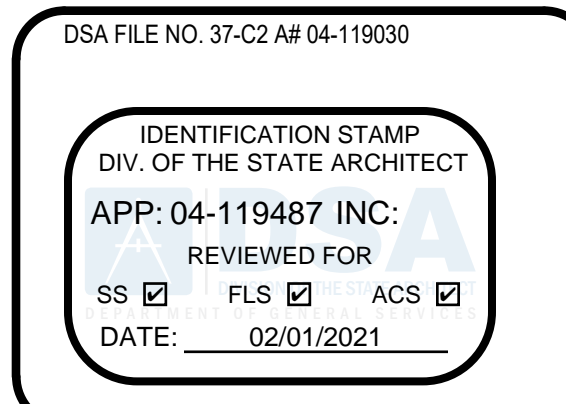
CERTIFICATE OF COMPLIANCE NRCC-LTO-E
 Project Name: Imperial Valley College B600 Expansion Report Page: Page 5 of 6
 Project Address: 380 E Aten Rd. Imperial, CA 92251 Date Prepared: 12/04/2020

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCL/.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCL-LTO-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="radio"/>	<input type="radio"/>	NRCL-LTO-02-E - Must be submitted for a lighting control system; or for an Energy Management Control System (EMCS), to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	<input type="checkbox"/>	<input type="checkbox"/>

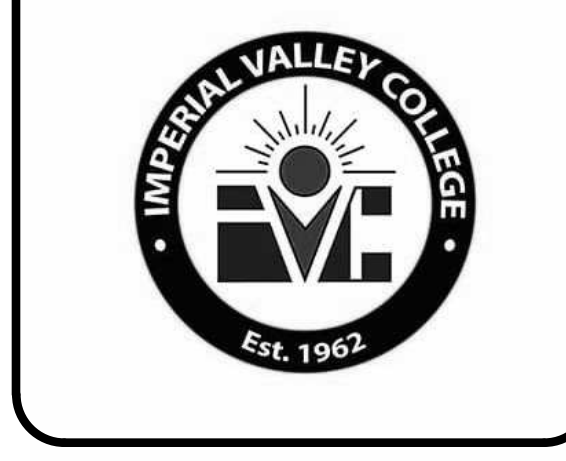


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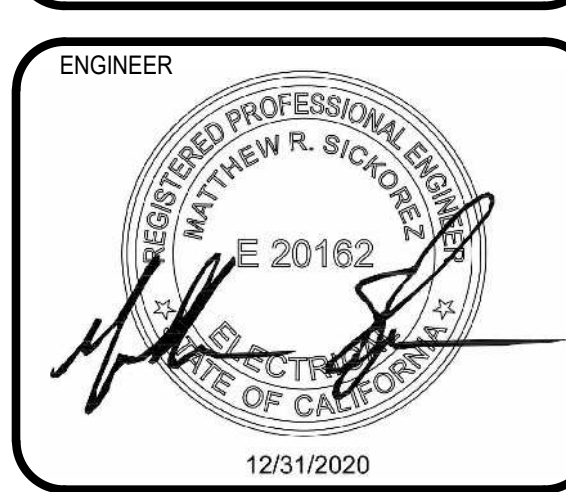


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IMPERIAL VALLEY COLLEGE
- B600 EXPANSION
 380 E Aten Rd.
 Imperial, CA 92251
 DSA SUBMITTAL



CONSULTANT



ARCHITECT

CLIENT
 IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
 20190

DATE: 12/08/2020
 DRAWN BY: JJ
 CHECKED BY: RDC

REVISIONS

No.	Description	Date

DSA SUBMITTAL
TITLE 24 (3 OF 4)

E0.04

Outdoor Lighting

NRCC-LTO-E (Created 11/19)

CALIFORNIA ENERGY COMMISSION



CERTIFICATE OF COMPLIANCE

NRCC-LTO-E

Project Name: Imperial Valley College B600 Expansion	Report Page: Page 6 of 6
Project Address: 380 E Aten Rd. Imperial, CA 92251	Date Prepared: 12/04/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete

Documentation Author Name: Jonah Jeffries	Documentation Author Signature: <i>Jonah Jeffries</i>
Company: LEAF Engineers	Signature Date: 12/04/2020
Address: 3110 East Guasti Road, Suite 300	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Ontario, CA 91761	Phone: 909-390-3111

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Matt Sickorez	Responsible Designer Signature: <i>Matthew R. Sickorez</i>
Company: LEAF Engineers	Date Signed: 12/04/2020
Address: 3110 East Guasti Road, Suite 300	License: E-20162
City/State/Zip: Ontario, CA 91761	Phone: 909-390-3111

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119487 INC:
REVIEWED FOR:
SS FLS ACS
DATE: 02/01/2021



ARCHITECTURE

SAN DIEGO
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San Diego, CA 92130
619-695-0402 P
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ENGINEERS LEAF Engineers



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**IMPERIAL VALLEY COLLEGE
- B600 EXPANSION**
380 E Aten Rd.
Imperial, CA 92251
DSA SUBMITTAL



CONSULTANT

ENGINEER



ARCHITECT

CLIENT

IMPERIAL VALLEY COLLEGE
PROJECT NUMBER
20190
DATE: 12/08/2020
DRAWN BY: JJ
CHECKED BY: RDC

REVISIONS

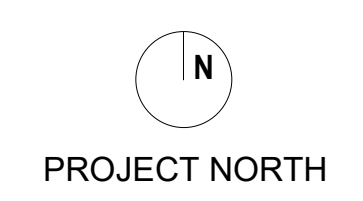
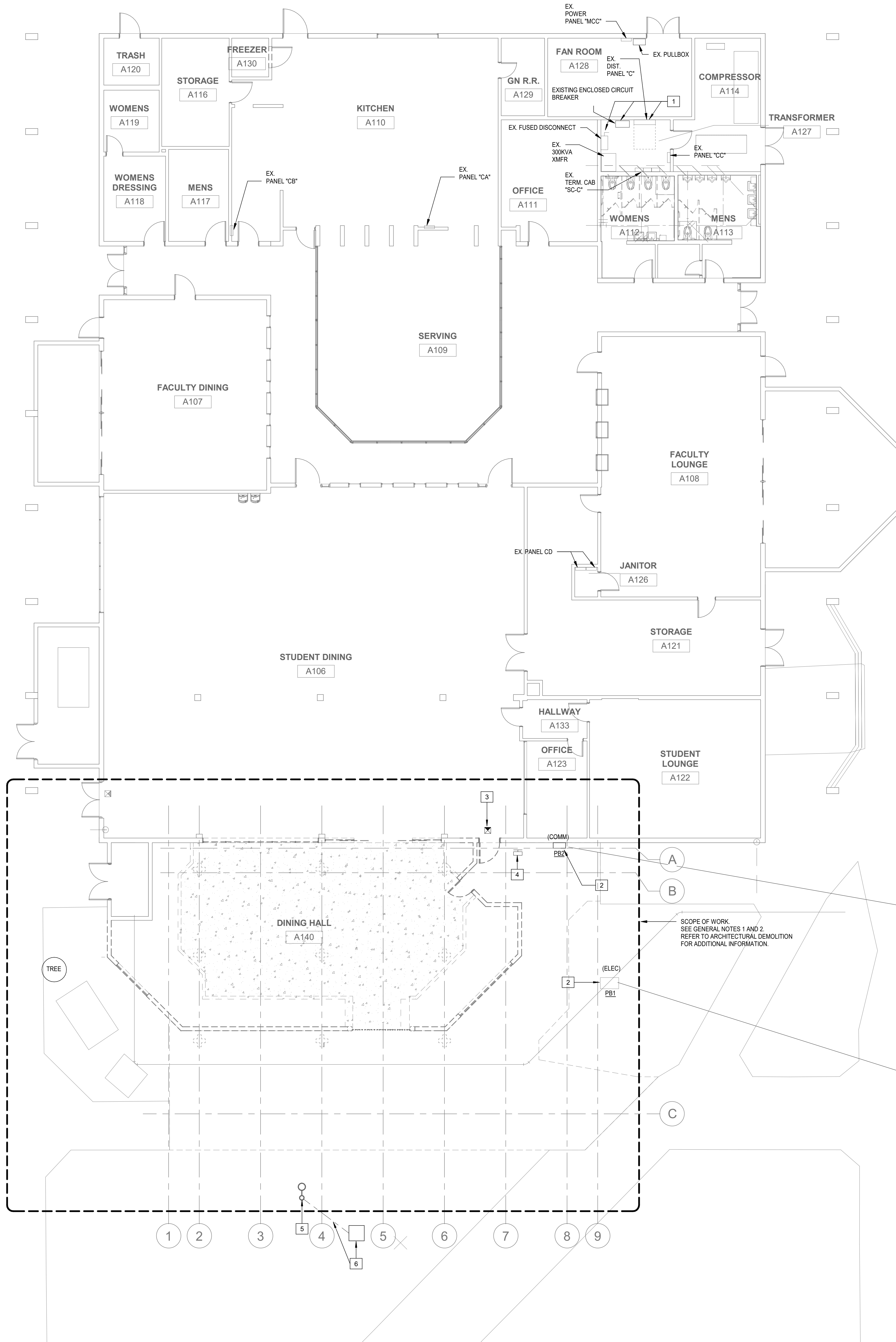
No.	Description	Date

DSA SUBMITTAL

TITLE 24 (4 OF 4)

E0.05

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12/4/2020 1:47:28 PM



GENERAL NOTES:

1. ALL DEVICES AND ELECTRICAL EQUIPMENT IN EXISTING SPACES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. FOR ALL WALLS THAT ARE SCHEDULED TO BE DEMOLISHED, DISCONNECT AND REMOVE DEVICES AND SWITCHES. CONTRACTOR SHALL TAKE WHATEVER STEPS NECESSARY TO MAINTAIN CIRCUIT CONTINUITY TO DOWNSTREAM DEVICES. COORDINATE WITH ARCHITECTURAL DEMOLITION FOR ACTUAL SCOPE OF WORK PRIOR TO ROUGH-IN.

KEY NOTES:

1. EXISTING ENCLOSED CIRCUIT BREAKER/FUSES AND DISTRIBUTION PANEL "C" TO BE REMOVED AND REPLACED WITH NEW. REFER TO ELECTRICAL PARTIAL RISER DIAGRAM ON SHEET E5-01 FOR ADDITIONAL REQUIREMENTS.
2. EXISTING ELECTRICAL AND COMMUNICATION PULLBOX AND CONDUIT SHALL BE RELOCATED. REFER TO ELECTRICAL POWER PLAN SHEET E2-01 FOR NEW LOCATION. REMOVE CONDUIT/WIRECABLING TO OUTSIDE EXTENTS OF BUILDING PAD FOR RECONNECTION. CONTRACTOR TO DOCUMENT EXISTING CONDITION PRIOR TO DEMOLITION, AND MATCH AS REQUIRED.
3. EXISTING EXIT SIGN TO BE DISCONNECTED AND REMOVED. CONTRACTOR TO MAINTAIN CIRCUIT CONTINUITY.
4. EXISTING WALLPACK FIXTURE TO BE DISCONNECTED. CONTRACTOR MAINTAIN CIRCUIT CONTINUITY.
5. EXISTING LIGHTING POLE AND LIGHT POLE BASE SHALL BE REMOVED.
6. PROVIDE NEW INGROUND PULLBOX TO INTERCEPT EXISTING LIGHTING CIRCUIT. CONTRACTOR SHALL SPLICE INCOMING FEEDER TO LIGHT POLE THROUGH PULLBOX IN ORDER TO MAINTAIN DOWNSTREAM CIRCUIT CONTINUITY. PROVIDE #10 WIRE IN 1" CONDUIT.

1 ELECTRICAL DEMOLITION POWER PLAN
1/8" = 1'-0"

DSA FILE NO. 37-C2 A# 04-119030

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APP: 04-119487 INC.
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DATE: 02/01/2021

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STATE OF CALIFORNIA
12/31/2020

ARCHITECT

CLIENT
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PROJECT NUMBER
20190

DATE: 12/08/2020

DRAWN BY: JJ

CHECKED BY: RDC

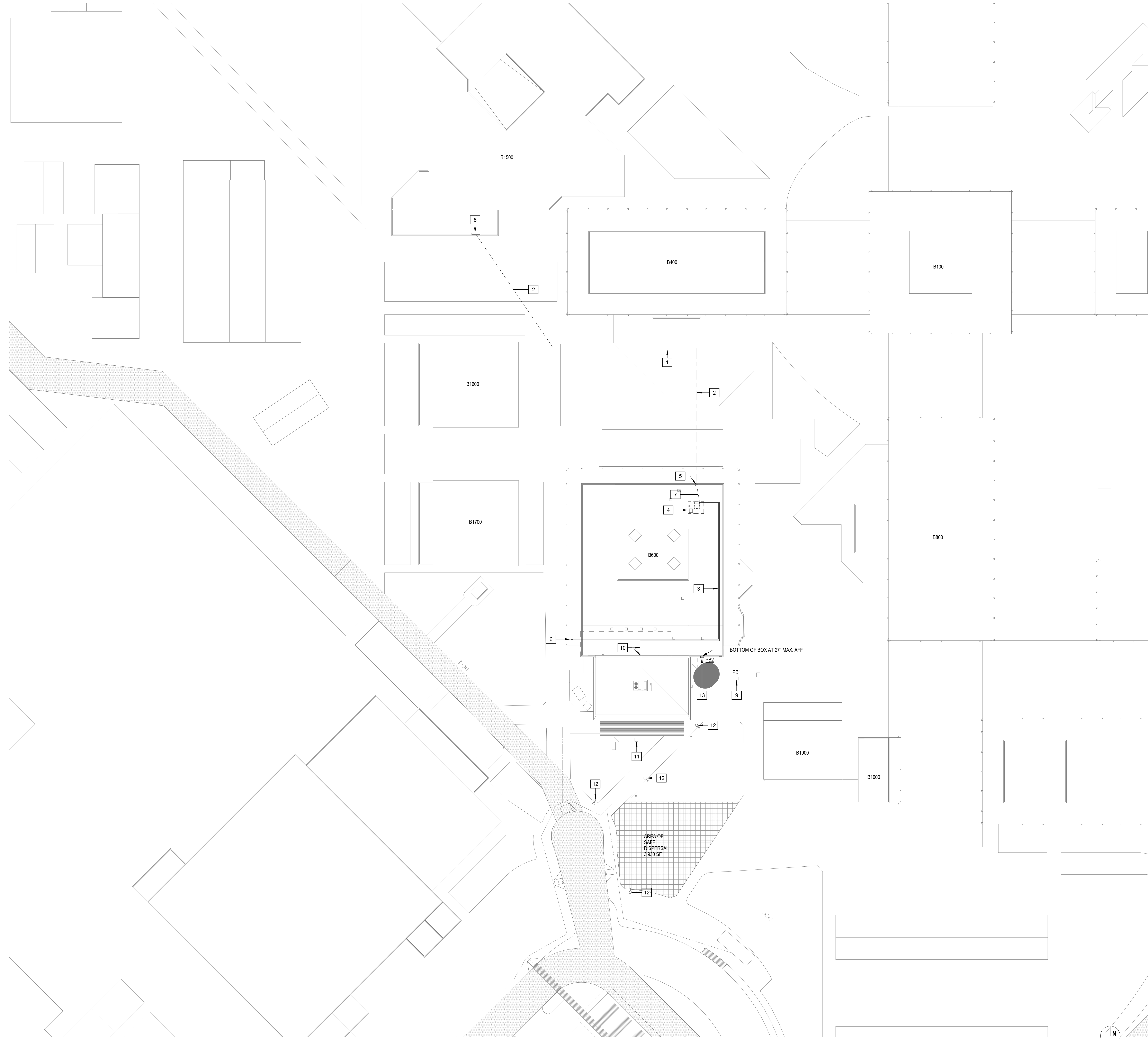
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No.	Description	Date

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ELECTRICAL DEMOLITION POWER PLAN

ED2.01



GENERAL NOTES:

- COORDINATE ROUTING FOR ALL UNDERGROUND ELECTRICAL BRANCH CIRCUITS AND FEEDERS WITH OTHER DISCIPLINES PRIOR TO TRENCHING.
- UNLESS NOTED OTHERWISE ALL UNDERGROUND CONDUIT SHOWN ON THIS PLAN TO BE MINIMUM 1" IN SIZE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY INSTALLATION OF NEW WORK.

KEY NOTES:

- EXISTING UNDERGROUND PULLBOX TO REMAIN.
- APPROXIMATE ROUTING OF EXISTING UNDERGROUND FEEDER. EXISTING 4" CONDUIT TO REMAIN. WIRES TO BE REPLACED. SEE SHEET E5.01. CONTRACTOR SHALL FIELD VERIFY EXACT ROUTING.
- APPROXIMATE ROUTING OF NEW FEEDER FROM NEW DISTRIBUTION BOARD "C" TO PANELBOARD "CE". CONTRACTOR SHALL ROUTE CONDUIT ON ROOF OF NEW BUILDING. WALL MOUNT CONDUIT ON EXISTING ROOF PARAPET ALONG ROUTE PATH. ROUTE CONDUIT ON ROOF OF EXISTING BUILDING AND PENETRATE DOWN INTO EXISTING MECHANICAL ROOM. PROVIDE CONDUIT SUPPORTS AT MINIMUM 10 FT SPACING AND 3 FT SPACING FROM JUNCTION BOXES PER ELECTRICAL CODE.
- LOCATION OF TRANSFORMER ROOM. DISTRIBUTION BOARD "C" AND 300 KVA TRANSFORMER LOCATED IN THIS ROOM. SEE SHEET E2.01 FOR ENLARGED LAYOUT.
- LOCATION OF EXISTING ABOVE GROUND WALL MOUNTED PULLBOX TO REMAIN.
- LOCATION OF NEW PANELBOARD "CE" TO BE INSTALLED SURFACE MOUNTED INSIDE OF EXISTING FAN ROOM.
- APPROXIMATE ROUTING OF EXISTING OVERHEAD FEEDER. CONDUIT TO REMAIN. WIRES TO BE REPLACED. SEE SHEET E3.01.
- APPROXIMATE LOCATION OF EXISTING MAIN SWITCHBOARD "MS2" LOCATED IN BLDG 1500.
- NEW/RELOCATED PULLBOX (SEE SHEET ED2.01 FOR OLD LOCATION). CONTRACTOR SHALL RETAIN CONTINUITY OF EXISTING CIRCUIT OR CONTROL WIRING. TRENCH AND EXTEND EXISTING WIRE AND CONDUIT WHERE REQUIRED.
- APPROXIMATE ROUTING OF BRANCH CIRCUITS SERVING NEW ROOF TOP UNIT. CONTRACTOR SHALL MOUNT CONDUIT ON EXISTING ROOF PARAPET ALONG ROUTE PATH. PROVIDE CONDUIT SUPPORTS AT MINIMUM 10 FT SPACING AND 3 FT SPACING FROM JUNCTION BOXES PER ELECTRICAL CODE. PROVIDE SEISMIC JOINT SUPPORTS BETWEEN BUILDINGS, SEE DETAIL E6.01.
- NEW IN-GROUND PULLBOX THAT FEEDS EXISTING SITE LIGHTING. SEE DEMOLITION NOTES ON SHEET ED2.01 FOR MORE INFORMATION.
- EXISTING LIGHTING POLE TO REMAIN.
- INDICATED THE APPROXIMATE LOCATION OF NEW/RELOCATED PULLBOX (SEE SHEET ED2.01 FOR OLD LOCATION). EXISTING LOW VOLTAGE CABLES MAY BE RE-ROUTED/RELOCATED. CONTRACTOR SHALL COORDINATE WITH THE OWNER IT DEPARTMENT FOR FURTHER INSTRUCTION.

DSA FILE NO. 37-C2 A# 04-119030

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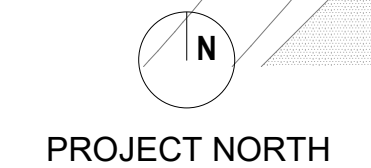
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 20190
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ELECTRICAL SITE PLAN

E1.01

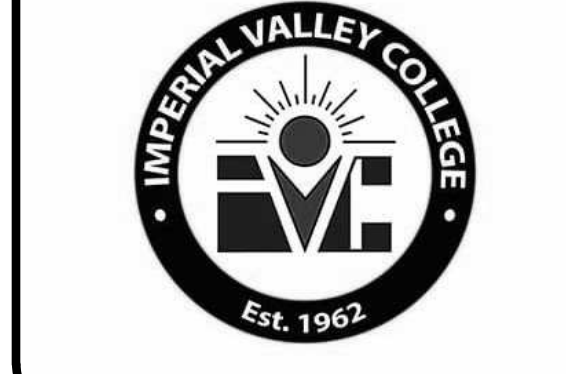




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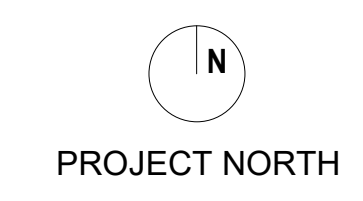
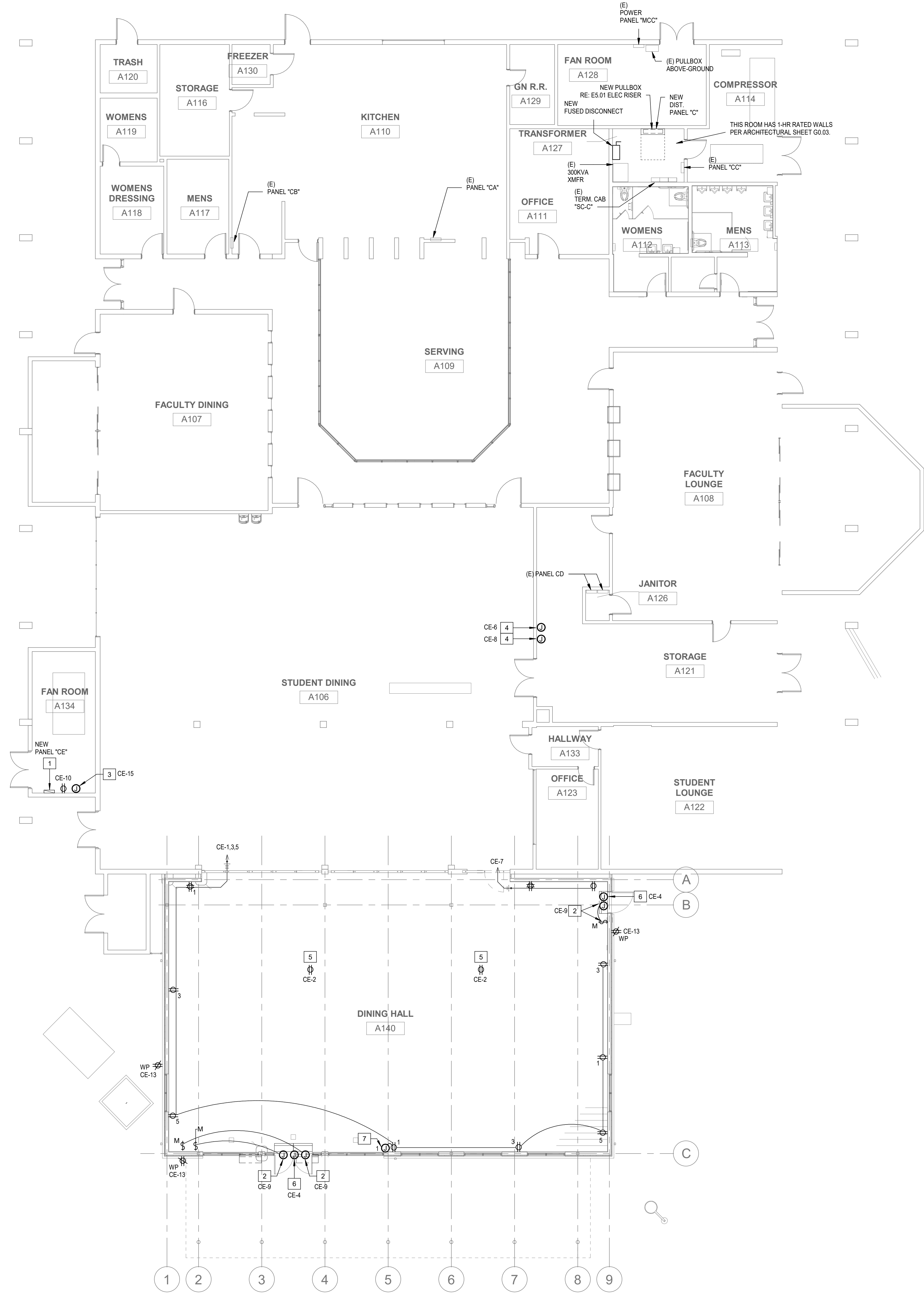
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ELECTRICAL POWER PLAN
E2.01

GENERAL NOTES:

1. ALL DEVICES AND ELECTRICAL EQUIPMENT IN EXISTING SPACES ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.
2. FOR ALL WALLS THAT ARE SCHEDULED TO BE DEMOLISHED, DISCONNECT AND REMOVE DEVICES AND SWITCHES. CONTRACTOR SHALL TAKE WHATEVER STEPS NECESSARY TO MAINTAIN CIRCUIT CONTINUITY TO DOWNSTREAM DEVICES. COORDINATE WITH ARCHITECTURAL DEMOLITION FOR ACTUAL SCOPE OF WORK PRIOR TO ROUGH-IN.
3. PROVIDE AND INSTALL ADDITIONAL CONDUITS AND BACKBOXES REQUIRED BY LOW VOLTAGE SYSTEMS. COORDINATE WITH IT DRAWINGS, DETAILS, ETC FOR EXACT QUANTITIES. LOCATIONS AND REQUIREMENTS PRIOR TO ROUGH-IN. COORDINATE LOCATION OF POWER OUTLETS WITH DATA OUTLETS PRIOR TO INSTALLATION.

KEY NOTES:

1. PROVIDE NEW PANEL 'CE' AND FEED FROM NEW MAIN DISTRIBUTION BOARD 'C' LOCATED IN 'TRANSFORMER' ROOM. SEE SHEET E5.01 FOR FEEDER SIZE.
2. POWER FOR FLY-FAN ABOVE DOOR. PROVIDE (1) LOCAL MOTOR RATED SWITCH ON WALL FOR EACH FAN TO SERVE AS LOCAL DISCONNECT. MOUNT SWITCH '96" ABOVE FINISHED FLOOR. PROVIDE LABEL 'FLY-FAN' ABOVE SWITCH.
3. PROVIDE POWER TO BUILDING AUTOMATION SYSTEM CONTROL PANEL. VERIFY EXACT LOCATION WITH CONTROLS CONTRACTOR PRIOR TO INSTALLATION.
4. PROVIDE POWER FOR FIRE ALARM CONTROL PANEL/ POWER SUPPLY. PROVIDE BREAKER WITH LOCK-ON COVER LABELED 'FIRE-ALARM'. VERIFY EXACT LOCATION OF CONTROL PANEL/POWER SUPPLY WITH FIRE ALARM CONTRACTOR PRIOR TO INSTALLATION.
5. PROVIDE POWER FOR CEILING MOUNTED PROJECTOR. VERIFY EXACT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
6. PROVIDE POWER ABOVE DOOR FOR ACCESS CONTROL HARDWARE. REFER TO TECHNOLOGY FOR ADDITIONAL REQUIREMENTS. COORDINATE EXACT LOCATION WITH SECURITY CONTRACTOR PRIOR TO ROUGH-IN.
7. PROVIDE POWER TO WALL MOUNTED CLOCK VIA HARD WIRED CONNECTION THRU RECESSED MOUNTED JUNCTION BOX. MOUNT AT HEIGHT SHOWN ON 'TECHNOLOGY FLOOR PLAN' SHEET T2.01. CONNECT TO LOCAL RECEPTACLE CIRCUIT AS SHOWN.



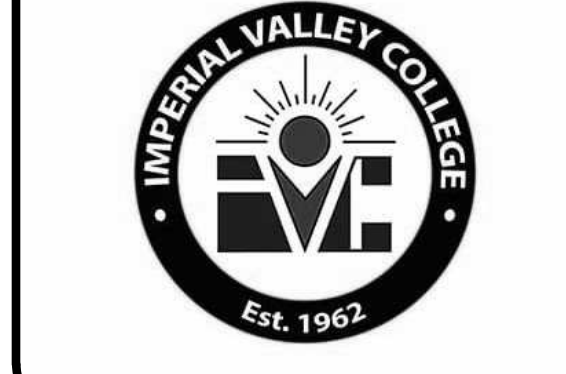
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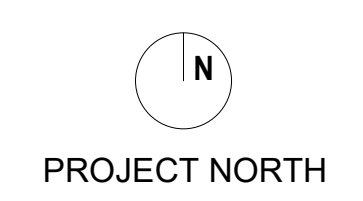
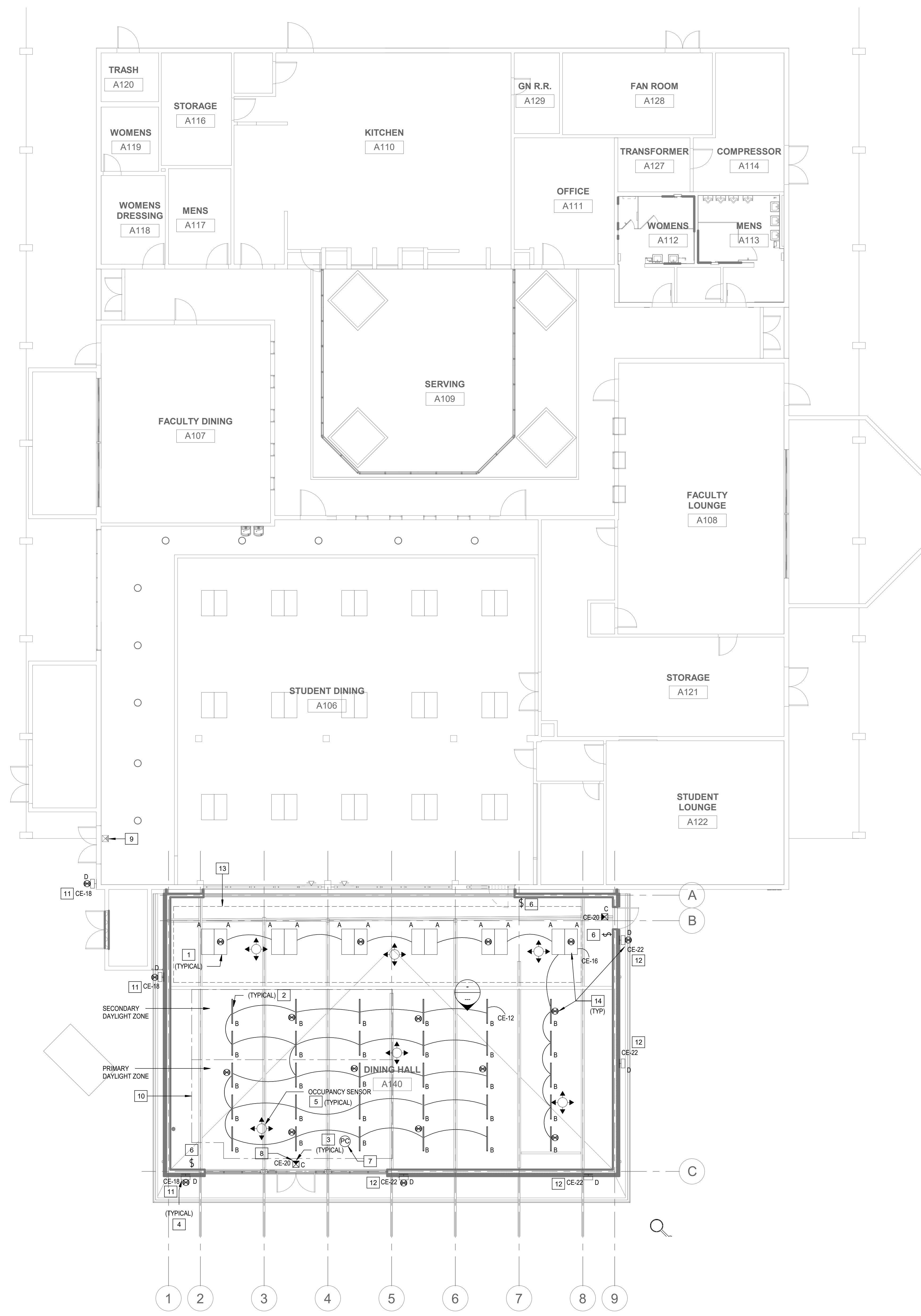
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ELECTRICAL LIGHTING PLAN
E2.02

GENERAL NOTES:

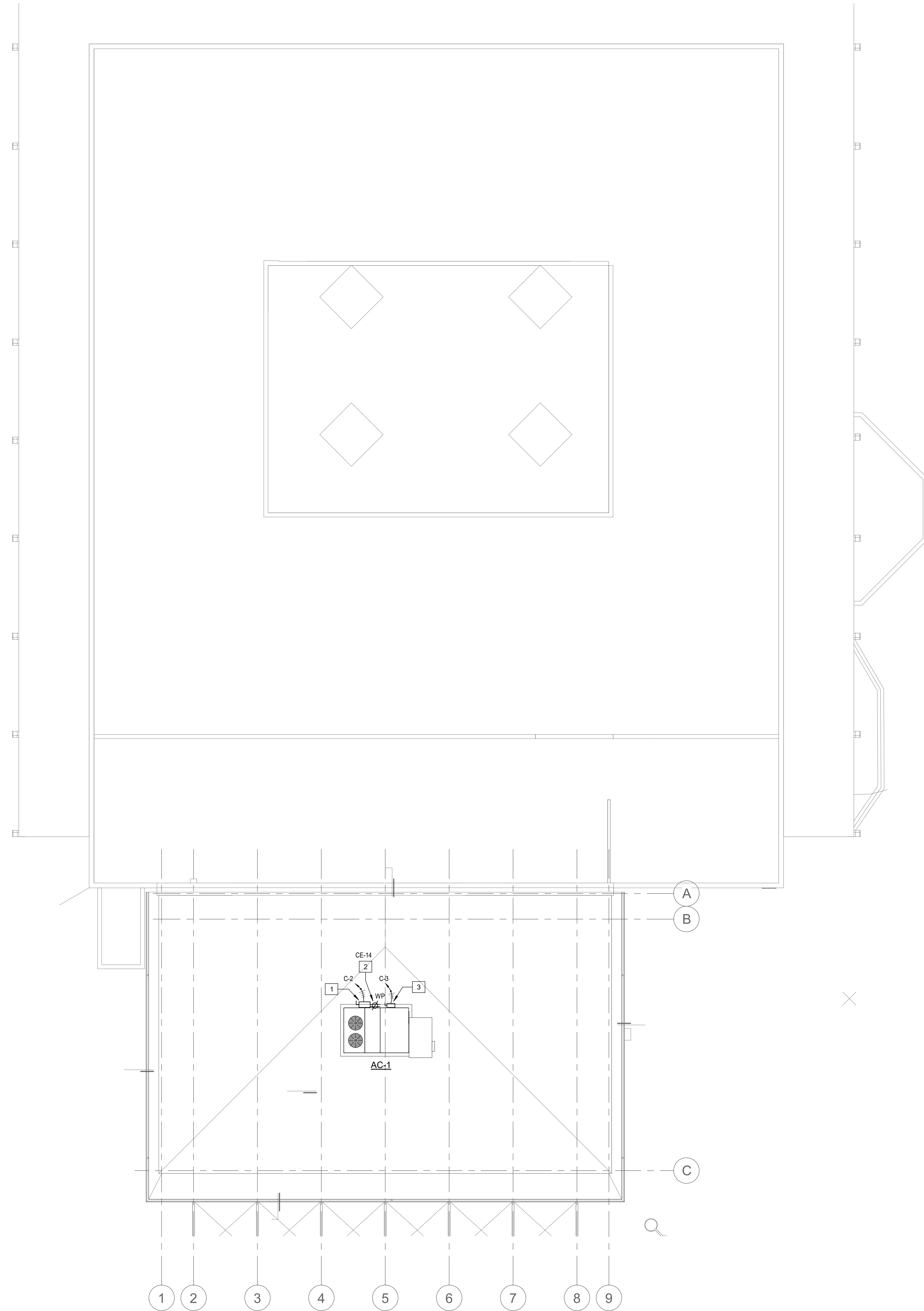
- REFER TO ARCHITECT'S REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL LIGHTING FIXTURES AND RELATED DETAILS TO DETERMINE PROPER CEILING TYPE COMPATIBILITY FOR EACH LUMINAIRE. PROVIDE ANY EXTRA FITTINGS OR OPTIONAL ACCESSORIES AS REQUIRED TO ENSURE CORRECT MOUNTING IN THE GIVEN CEILING.
- PROVIDE A COMPLETE AND OPERATIONAL SYSTEM OF OCCUPANCY SENSORS FOR TITLE 24 COMPLIANT, INCLUDING BUT NOT LIMITED TO POWER PACKS/ROOM CONTROLLER, WIRING, ETC. RE. DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION AND LIGHTING CONTROLS SCHEMATICS ON SHEET E8.02
- PROVIDE 90-MINUTE EMERGENCY BATTERY PACKS FOR ALL EXIT SIGNS AND ALL LIGHTING FIXTURES DESIGNATED TO BE ON EMERGENCY 'EM'. PROVIDE UNSWITCHED HOT TO BATTERY SO THAT LAMPS CAN BE SWITCHED OFF AND ON WITHOUT DRAINING BATTERY. RE. DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION. PROVIDE 20A UNSWITCHED BRANCH CIRCUIT (2#12, 1#12G, 3#4C) FROM NEW PANEL 'CE' TO ALL EXIT SIGNS IN THIS AREA.
- PROVIDE ONE-PIECE COVER PLATE FOR LIGHT SWITCHES.
- UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 3#12 (HOT-NEUTRAL-GROUND) THHN COPPER IN 3/4" CONDUIT.

KEY NOTES:

- TYPE 'A' SURFACE MOUNT FIXTURE. PROVIDE WITH 'EM' OPTION WHERE SHOWN TO BE ON EMERGENCY.
- TYPE 'B' PENDANT MOUNT LINEAR. PROVIDE CABLE LENGTH SUCH THAT BOTTOM OF FIXTURE IS 10'-6" A.F.F. PROVIDE WITH 'EM' OPTION WHERE SHOWN TO BE ON EMERGENCY.
- NEW EXIT SIGN WITH 90 MINUTE BATTERY. PROVIDE UNSWITCHED CIRCUIT FROM NEW PANEL 'CE'.
- NEW EXTERIOR WALLPACK. PROVIDE DEDICATED CIRCUIT FROM NEW PANEL 'CE' AND WIRE THRU NEW LIGHTING RELAY POWER PACK. PROVIDE WITH 'EM' OPTION WHERE SHOWN TO BE ON EMERGENCY.
- TYPICAL OCCUPANCY SENSOR FROM NLIGHT (ACTUITY). IN OPEN CEILING. PENDANT MOUNT AT 10'-6" AFF. PROVIDE WITH ROOM CONTROLLER FOR COMPLETE OPERATION.
- NEW LOW VOLTAGE LIGHT SWITCH (N-LIGHT) TO OVER-RIDE OCCUPANCY SENSOR. CONNECT ALL LIGHT FIXTURES IN THIS ROOM TO NEW PANEL 'CE' WITH 2#12, #12G, 3#4C.
- NEW PHOTOCELL, DUAL ZONE. PENDANT MOUNT AT 10'-6" A.F.F. IN OPEN CEILINGS.
- PROVIDE WINDOW MULLION MOUNTING WITH WIRING CONCEALED ALONG BEAM. COORDINATE EXACT ELEVATION WITH ARCHITECT PRIOR TO ROUGH-IN.
- EXISTING EXIT SIGN TO REMAIN.
- IN ADDITION TO DAYLIGHT DIMMING, LIGHTING CONTROLS SHALL HAVE OFF CONTROL CAPABILITY. LIGHTING FIXTURES IN BOTH PRIMARY AND SECONDARY DAYLIGHTING ZONES SHALL COMPLETELY TURN OFF FIXTURES WHEN ILLUMINANCE RECEIVED IS GREATER THAN 160% OF GENERAL LIGHTING SYSTEM AT FULL POWER.
- CONTROL VIA CONTACTOR 'C1' SHOWN ON ELECTRICAL RISER DIAGRAM SHEET E5.01.
- CONTROL VIA CONTACTOR 'C2' SHOWN ON ELECTRICAL RISER DIAGRAM SHEET E5.01.
- DEDUCTIVE ALTERNATE 1: IN LIEU OF SURFACE MOUNTED LIGHT FIXTURE TYPE 'A', PROVIDE PENDANT MOUNT FIXTURE TYPE 'B' ARRANGE FIXTURES IN (2) ROWS AND ALIGNED WITH THE REST OF THE PENDANT TYPE 'B' FIXTURES IN THE SPACE. QUANTITY OF FIXTURES, CONTROLS, AND CIRCUITING ARE UNCHANGED.
- TYPICAL INDICATION OF LIGHTS ON EMERGENCY. SEE GENERAL NOTE #3 ON SHEET E2.02.



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GENERAL NOTES:

- COORDINATE FINAL EQUIPMENT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

KEY NOTES:

- NEW MECHANICAL UNIT ON ROOF. CONNECT CIRCUIT SHOWN TO FACTORY MOUNTED DISCONNECT PROVIDED WITH ROOFTOP UNIT.
- PROVIDE SEPARATE 120V/20AMP CIRCUIT TO FACTORY INSTALLED RECEPTACLE PROVIDED WITH ROOFTOP UNIT. CIRCUIT AS SHOWN WITH 2#12, #12G, 3/4"C.
- ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL 30A NON-FUSED DISCONNECT IN NEMA 3R ENCLOSURE FOR SEPARATELY POWERED POWER EXHAUST UNIT. COORDINATE WITH UNIT MANUFACTURER FOR LOCATION OF DISCONNECT ON UNIT SUCH THAT IT DOES NOT OBSTRUCT AIRFLOW OR NAMEPLATE. INTERFERE WITH SERVICE CLEARANCES, OR CAUSE DAMAGE TO THE UNIT. LOCATION SHALL COMPLY WITH ALL APPLICABLE LOCAL CODE REQUIRED CLEARANCES. PROVIDE CIRCUIT AS NOTED.

DSA FILE NO. 37-C2 A# 04-119030

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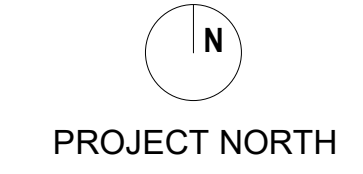
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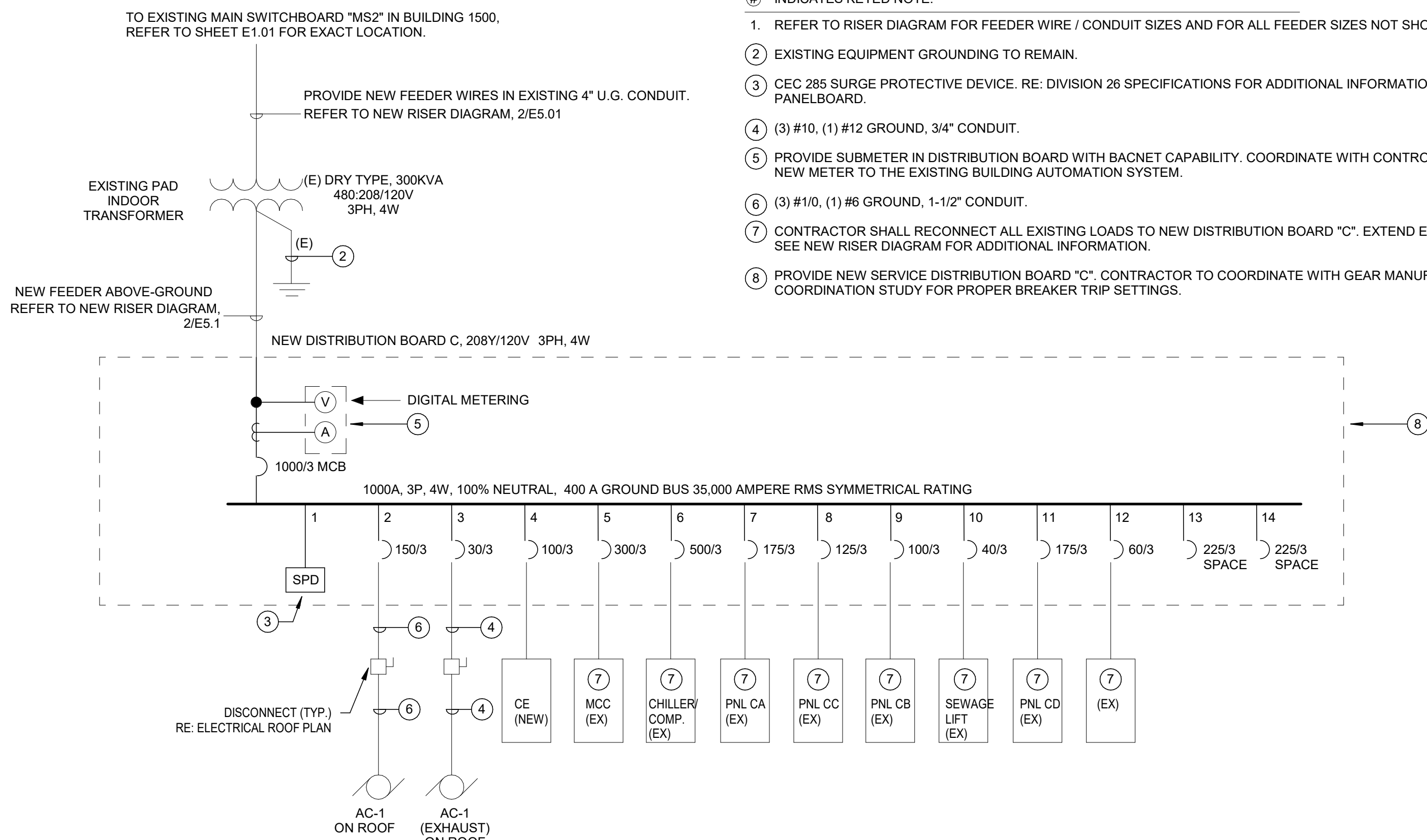
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ELECTRICAL ROOF PLAN

E3.01



ONE-LINE DIAGRAM (NEW)



ELECTRICAL ONE-LINE DIAGRAM NOTES:

- INDICATES GENERAL NOTE.
- INDICATES KEYED NOTE.
- REFER TO RISER DIAGRAM FOR FEEDER WIRE / CONDUIT SIZES AND FOR ALL FEEDER SIZES NOT SHOWN ON THIS ONE-LINE DIAGRAM.
- EXISTING EQUIPMENT GROUNDING TO REMAIN.
- CEC 285 SURGE PROTECTIVE DEVICE. RE: DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION. SPD TO BE INTEGRAL TO PANELBOARD.
- (3) #10, (1) #12 GROUND, 3/4" CONDUIT.
- PROVIDE SUBMETER IN DISTRIBUTION BOARD WITH BACNET CAPABILITY. COORDINATE WITH CONTROLS CONTRACTOR TO CONNECT NEW METER TO THE EXISTING BUILDING AUTOMATION SYSTEM.
- (3) #10, (1) #6 GROUND, 1-1/2" CONDUIT.
- CONTRACTOR SHALL RECONNECT ALL EXISTING LOADS TO NEW DISTRIBUTION BOARD "C". EXTEND EXISTING CONDUIT AND WIRE. SEE NEW RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE NEW SERVICE DISTRIBUTION BOARD "C". CONTRACTOR TO COORDINATE WITH GEAR MANUFACTURER TO PERFORM COORDINATION STUDY FOR PROPER BREAKER TRIP SETTINGS.

IMPERIAL VALLEY COLLEGE B600 EXPANSION - LOAD ANALYSIS

EXISTING SERVICE LOAD ON DISTRIBUTION BOARD "C": DEMOLISHED LOAD:	785A @ 208V 3-PHASE (PER 1976 AS-BUILTS) 0A (NO LOAD DEMOLISHED)
NEW LOAD:	
HVAC:	
AC-1	119A
AC-1 (EXHAUST)	16.75A
HVAC SUBTOTAL:	137.75A
NEW PANELBOARD "CE":	34.9A
(REFER TO SCHEDULE FOR NEC LOAD ANALYSIS)	
TOTAL NEW LOAD (HVAC + PANELBOARD "CE"):	172.65A @208V 3-PHASE
TOTAL SERVICE LOAD (EXISTING LOAD + NEW LOAD):	957.65A
NEW DISTRIBUTION BOARD AMPACITY:	1000A
SPARE AMPACITY:	42.35A
NEW DISTRIBUTION IS SUFFICIENTLY SIZED FOR LOAD ADDED TO SERVICE.	

3 ELECTRICAL ONE-LINE DIAGRAM & LOAD ANALYSIS

NOT TO SCALE

Job: Imperial Valley College - B600 Expansion										Job No: 20190														
Mounting SURFACE										AIC Rating: 14000														
Main Type: MLO										Voltage: 208Y/120V-3PH-4W														
Neutral: 100%										Ground: Equipment Ground														
Panel: CE										Log: SINGLE														
ALL LOADS IN VA																								
Log	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cr. No.	Ph.	Cr. No.	Wire	Amp/P	Description	Log	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
720								9 RECS - DINING HALL	203	12	1	A	2	12	201	2 PROJECTORS						600		0.00
540												3	B	4	12	201	CARD READER					150		0.00
360												4	C	6	12	201	FA VOICE SVAC PNL					300		0.00
540								3 RECS - DINING HALL	201	12	7	A	8	12	201	FA POWER SUPPLY						300		0.00
	864							FLY FAN - FF1FF2FF3	201	12	9	B	10	12	201	1 REC - FAN ROOM					180			0.00
								SPARE	201		11	C	12	12	201	LTO - DINING HALL		712						0.00
540								3 RECS - EXTERIOR	201	12	13	A	14	12	201	2 RECS - ROOFTOP						360		0.00
						300		LTO NETWORK	201	12	15	B	16	12	201	LTO - DINING HALL		1845						0.00
								SPARE	201		17	C	18	12	201	WALLPACK LTG		33						0.00
								SPACE	201		19	A	20	12	201	EXIT SIGNS		15						0.00
								SPARE	201		21	B	22	12	201	WALLPACK LTG		44						0.00
								SPARE	201		23	C	24			SPACE								0.00
								SPARE	201		25	A	26			SPACE								0.00
								SPARE	201		27	B	28			SPACE								0.00
								SPARE	201		29	C	30			SPACE								0.00
0	2700	864	0	0	0	300	0	TOTALS								TOTALS	3940	540	0	0	0	1350	0	0.00
LOAD SUMMARY										Phase Load														
Log	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Ph	KVA														
2.6	3.2	0.9	0.0	0.0	1.7	0.0	7.0	Connected KVA	A	3.1														
1.25	--	1.00	1.00	1.00	0.85	0.50	--	Design KVA	B	3.9														
3.3	3.2	0.9	0.0	0.0	1.7	0.0	3.5	Design KVA	C	1.4														
Input div factor per descriptions as required for calculations.										Panel Remarks:														
**100% of 1st 10 KVA, 50% of remaining.										FED FROM PANEL C *PROVIDE BREAKER WITH LOCK-ON COVER/ RED MARKING LABELLED "FIRE-ALARM" PROVIDE LABEL AT FIRE ALARM CONTROL UNIT WITH LOCATION OF BREAKER (RM TAG, PNL NAME, CKT #).														
Con. KVA										Des. KVA														
TOTAL 15.4 42.8										TOTAL 12.6 34.9														
Date: 12/4/2020										By: RDC/LL														
Panel: CE																								

4 ELECTRICAL PANEL SCHEDULE - PANELBOARD CE

NOT TO SCALE

LIGHTING FIXTURE NOTES

- FINISH OF FIXTURES SHALL BE AS SELECTED BY THE ARCHITECT.
- FIXTURES SHALL BE U.L. LISTED FOR THE INTENDED LOCATION.
- LAMP COLOR FOR LED FIXTURES SHALL BE 4000K (1/0).
- LENSES OF ALL LED LIGHTING FIXTURES SHALL NOT BE LESS THAN 0.125" THICK AND EQUAL TO KSH-K12 REQUIREMENTS.
- CONTRACTOR SHALL VERIFY LIGHTING FIXTURE & DIMMING DRIVER ARE COMPATIBLE WITH BRANCH CIRCUIT RATING PRIOR TO ORDERING.
- CONTRACTOR SHALL VERIFY LIGHTING FIXTURE MOUNTING REQUIREMENTS ARE COMPATIBLE WITH THE CEILING TYPES PRIOR TO SUBMITTING SHOP DRAWINGS.
- ALL LED LIGHTING FIXTURES SHALL BE TESTED TO LM-79 AND LM-80 IES STANDARDS.

ACCEPTANCE TESTING

MANDATORY ACCEPTANCE TESTING PER TITLE-24, PART-6, SECTION-130:

CONTRACTOR SHALL ACT AS THE ACCEPTANCE AGENT AND PERFORM WORK REQUIRED IN THE FOLLOWING ACCEPTANCE TESTS AS DESCRIBED IN CHAPTERS 5 & 6 OF THE 2019 NON RESIDENTIAL COMPLIANCE MANUAL. ALL FORMS SHALL BE COMPLETED IN ENTIRETY.

- L7-02-E AND L7-02-E: LIGHTING CONTROLS CREDIT WORKSHEET.
- L7-03-E AND L7-03-E: LIGHTING POWER ALLOWANCE.
- L7-04-E: TAILORED METHOD WORKSHEET.
- L7-05-E: LINE VOLTAGE TRACK LIGHTING WORKSHEET.

Imperial Valley College B600 Expansion

Lighting Fixture Schedule

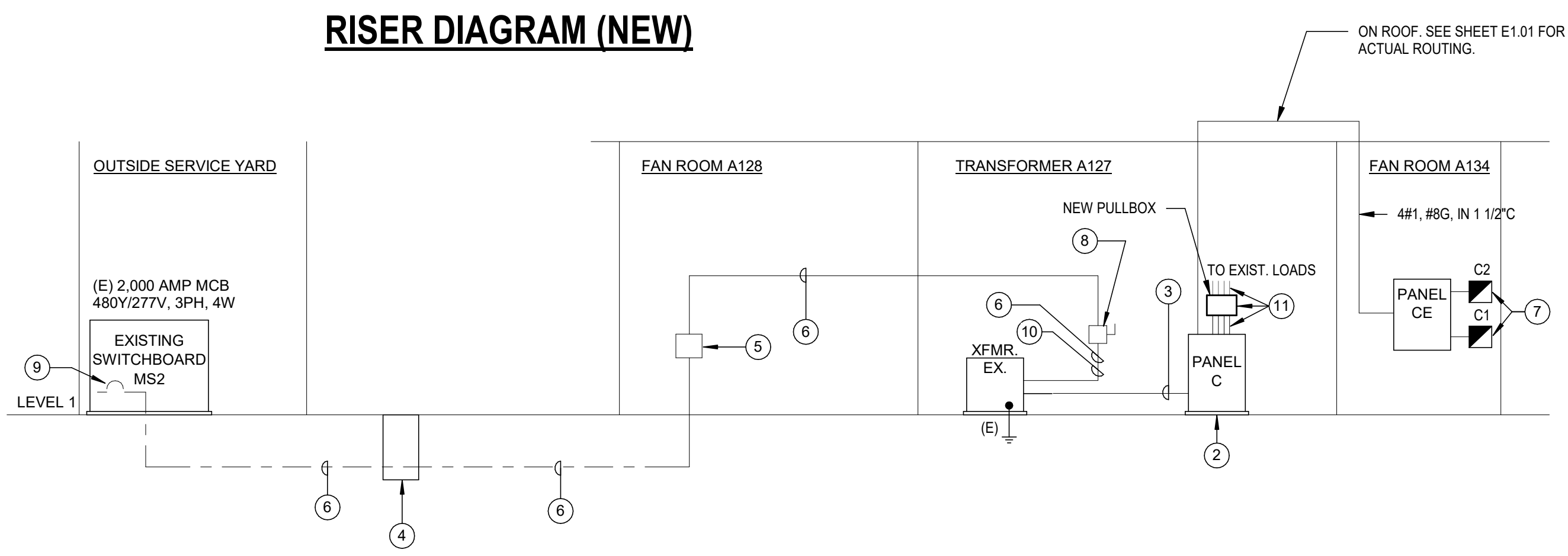
Fixture Type	Manufacturer	Catalog Number	LED Type	Mounting	Description	Voltage
A	LITHONIA	EPANL-2x4-30L-80CRI-35KMIN10-ZT-1M/VOLT-E10/WCP	28.51W 3500K 3140 LUMENS	SURFACE	SURFACE 2'x4' LED PANEL - 15.1 LBS. PROVIDE WITH SURFACE MOUNT KIT #SMKSH	JNV (120-277V)
B	LUMINI	T-SQ-4.5-F-10-B-935-D010	18.5W/FT 3500K 500 LM/FT DOWN / 1000 LM/FT UP	PENDANT	PENDANT 4' LED LINEAR - DOWN/UP LIGHTING - 16 LBS.	JNV (120-277V)
C	BEGHELLI	CT-ECO-SA-LU-1	2.6W INTEGRAL LED	SURFACE	CYCLONE ECO SERIES, WHITE FINISH HOUSING - 2 LBS.	120V
D	LITHONIA	WPX1-LED-P1-35K-MVOLT-E-4WH-08L-8XD	11W 3500K 1550 LUMENS	SURFACE	WPX LED - ARCH WALL SCONCE - 6.1 LBS.	JNV (120-277V)

- REFER TO ARCHITECT'S REFLECTED CEILING PLAN AND RELATED DETAILS TO DETERMINE PROPER CEILING TYPE COMPATIBILITY FOR EACH LUMINAIRE. PROVIDE ANY EXTRA FITTINGS OR OPTIONS AS REQUIRED TO ENSURE CORRECT MOUNTING IN THE GIVEN CEILING.
- PROVIDE FIRE RATED CANOPY OR ENCLOSURE FOR ALL FIXTURES RECESSED IN A FIRE RATED CEILING. THE FIRE RATED CANOPY OR ENCLOSURE SHALL BE REQUIRED BY THE UL DESIGN NUMBER LISTED IN THE UL FIRE RESISTANCE DIRECTORY. REFER TO ARCHITECTURAL DRAWING FOR THE UL DESIGN NUMBER. COORDINATE WITH CEILING INSTALLER AND MANUFACTURER.
- FOR WHEN THERE IS A DISCREPANCY OF LIGHTING FIXTURE QUANTITY SHOWN ON LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS, CONTRACTOR SHALL PROVIDE THE GREATER QUANTITY.
- PROVIDE WITH 90 MINUTE EMERGENCY BATTERY PACK WHERE SHOWN TO BE ON EMERGENCY POWER. SEE LIGHTING PLANS ON SHEET E2.02 FOR LOCATIONS AND QUANTITY.

5 LIGHTING FIXTURE NOTES & ACCEPTANCE TESTING

NOT TO SCALE

RISER DIAGRAM (NEW)



ELECTRICAL PARTIAL RISER DIAGRAM (NEW)

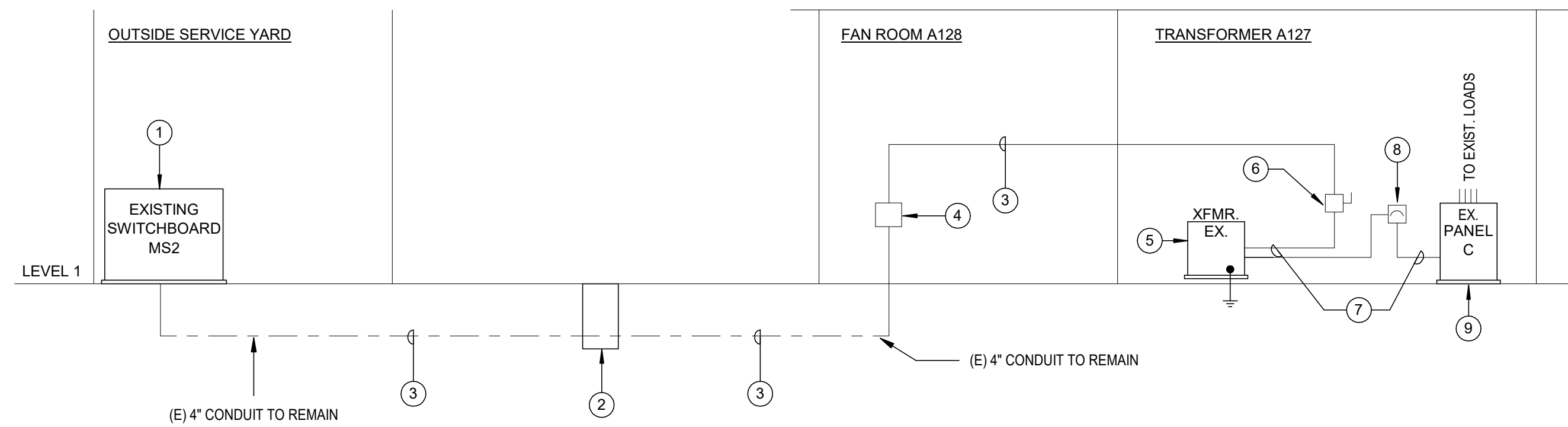
ELECTRICAL ONE-LINE DIAGRAM NOTES:

- INDICATES GENERAL NOTE.
- INDICATES KEYED NOTE.
- CONTRACTOR TO FIELD VERIFY EXISTING CONDITION PRIOR TO ROUGH-IN. REFER TO DEMOLITION INFORMATION.
- CONTRACTOR SHALL PROVIDE NEW SERVICE DISTRIBUTION BOARD "C". SEE ONE-LINE DIAGRAM, 3/E5.01 FOR ADDITIONAL INFORMATION.
- PROVIDE (3) SETS OF (4) #400, 1#2/0G, 3" C FROM EXISTING TRANSFORMER SECONDARY TO NEW DISTRIBUTION BOARD "C".
- EXISTING UNDERGROUND PULLBOX TO REMAIN.
- PROVIDE (2) PARALLEL SET OF (3) #300, (1) #2 GROUND WIRE, CONTRACTOR SHALL ROUTE WIRE THROUGH EXISTING 4" CONDUIT AND EXISTING PULLBOXES. FIELD VERIFY ACTUAL CONDUIT ROUTING.
- PROVIDE 4-POLE, NORMALLY OPEN CONTACTS, 20A, 120V COIL LIGHTING CONTACTOR FOR CONTROL OF NEW EXTERIOR LIGHTING. PROVIDE ASCO ACCESSORY 47 SOLID STATE TWO-WIRE CONTROL INTERFACE MODULE. PROVIDE PHOTOCELL ON ROOF. SEQUENCE MUST BE PHOTOCELL ON/BAS OFF. SEE CONTACTOR CONTROL DIAGRAM ON SHEET E6.02. COORDINATE WITH CONTROLS CONTRACTOR FOR LOW VOLTAGE CONNECTION TO BUILDING ENERGY MANAGEMENT SYSTEM.
- REPLACE THE EXISTING 400A DISCONNECT WITH NEW 600A FRAME, AND WITH 450AMP CLASS RK5 FUSES. INCOMING TERMINALS SHALL BE CAPABLE TO ACCEPT (2) SETS OF #300KCMIL WIRES. SALVAGE AND RETURN FUSED DISCONNECT TO THE OWNER.
- REPLACE EXISTING 400A/3P BREAKER WITH NEW 100% RATED 450A/3P BREAKER POWERPACT L-FRAME WITH LI TRIP FUNCTION ELECTRONIC TRIP UNIT, CATALOG #LJA3600U31X IN EXISTING SWITCHBOARD. BREAKER SHALL MATCH EXISTING SCOR RATING OF SWITCHBOARD, 65AIC AT 480V. CONTRACTOR TO DO TIME-DELAY SETTING COORDINATION.
- PROVIDE NEW 4" CONDUIT FROM NEW FUSED DISCONNECT TO THE EXISTING TRANSFORMER. ROUTE WIRE NOTED ON KEYNOTE 6 THROUGH CONDUIT.
- PROVIDE NEW PULLBOX, SIZED PER CEC. INSTALL ABOVE DISTRIBUTION BOARD TO INTERCEPT EXISTING BRANCH FEEDERS. DOCUMENT FEEDER SIZES PRIOR TO DEMOLITION. MATCH EXISTING CONDUIT/WIRE AND EXTEND FEEDERS FROM PULLBOX TO THE NEW BREAKERS IN DISTRIBUTION BOARD "C". AS SHOWN IN ELECTRICAL ONE-LINE DIAGRAM 3/E5.01.

2 PARTIAL ELECTRICAL RISER DIAGRAM - NEW

NOT TO SCALE

RISER DIAGRAM (DEMO PLAN)



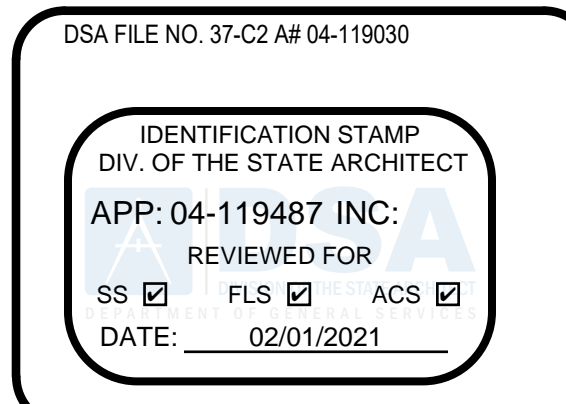
ELECTRICAL DEMOLITION PARTIAL RISER DIAGRAM

ELECTRICAL ONE-LINE DIAGRAM KEY NOTES:

- EXISTING MAIN SWITCHBOARD IN BUILDING 1500, TO REMAIN. EXISTING 400A/3P BREAKER FEEDING BUILDING 600 TO BE REPLACED. SEE NEW RISER DIAGRAM, 2/E5.01.
- EXISTING UNDERGROUND PULLBOX TO REMAIN.
- EXISTING FEEDER FROM MAIN SWITCHBOARD TO 300 KVA TRANSFORMER IN "TRANSFORMER" ROOM. REMOVE EXISTING WIRES ONLY. EXISTING SITE UNDERGROUND AND OVERHEAD CONDUIT TO THE TRANSFORMER ROOM SHALL REMAIN.
- EXISTING PULLBOX LOCATED ABOVE GROUND SHALL REMAIN. EXISTING INCOMING AND OUTGOING 4" CONDUIT SHALL REMAIN.
- EXISTING 300 KVA FLOOR MOUNTED DRY TYPE TRANSFORMER TO REMAIN.
- EXISTING 400AMP FUSED DISCONNECT TO BE REPLACED. NEW FUSED DISCONNECT TO BE INSTALLED AT EXISTING LOCATION.
- EXISTING WIREWAY IN THE TRANSFORMER ROOM TO BE REMOVED IN ITS ENTIRETY.
- EXISTING ENCLOSED CIRCUIT BREAKER TO BE REMOVED IN ITS ENTIRETY.
- EXISTING DISTRIBUTION BOARD "C" SHALL BE REPLACED WITH NEW. EXISTING DOWNSTREAM FEEDERS SHALL REMAIN AND TO BE INTERCEPTED. REFER TO THE NEW ELECTRICAL RISER DIAGRAM ON DETAIL 2/E5.01 FOR ADDITIONAL INFORMATION.

1 PARTIAL ELECTRICAL RISER DIAGRAM - DEMO

NOT TO SCALE



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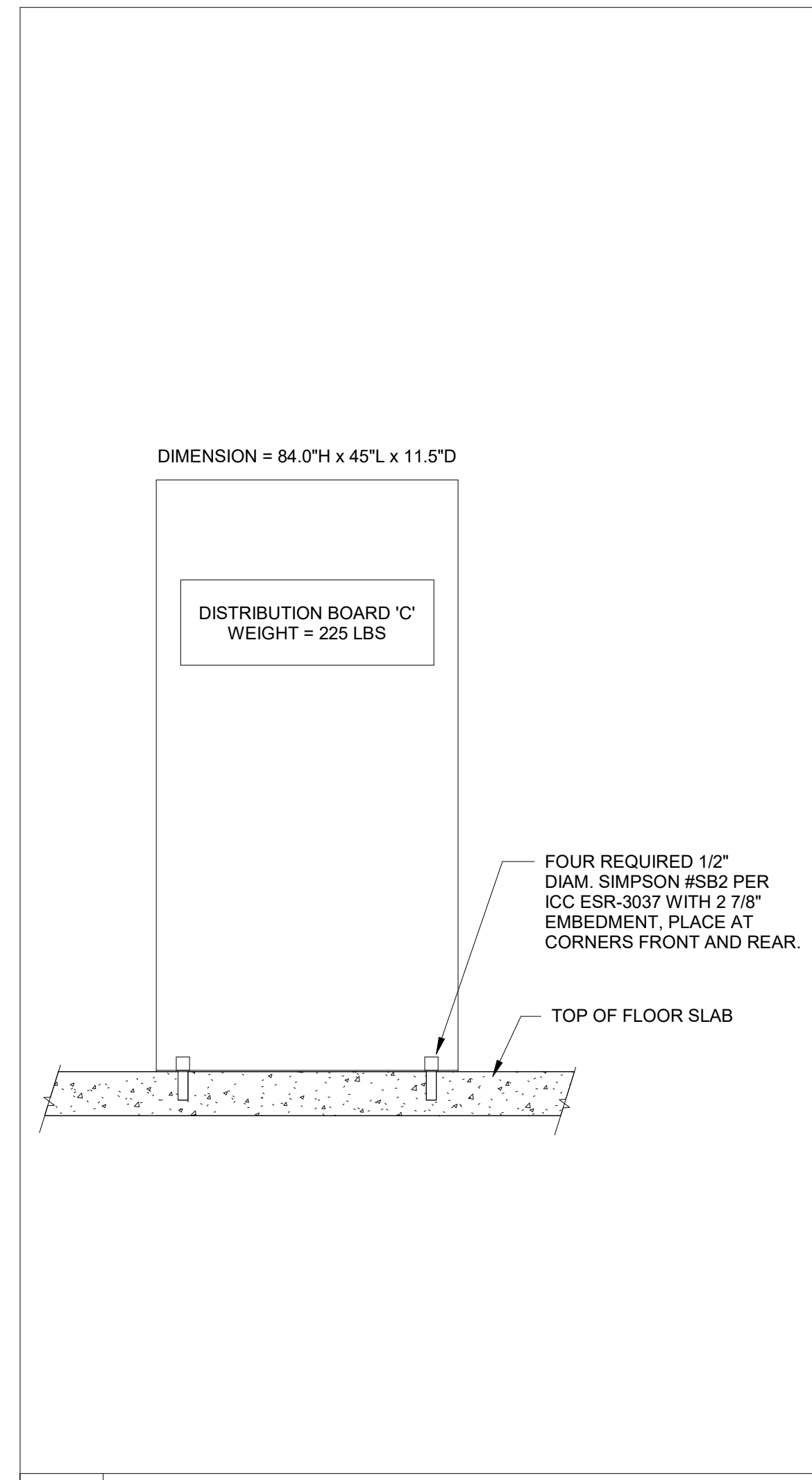
ARCHITECT

CLIENT IMPERIAL VALLEY COLLEGE		
PROJECT NUMBER 20190		
DATE:	12/08/2020	
DRAWN BY:	JJ	
CHECKED BY:	RDC	
REVISIONS		
No.	Description	Date

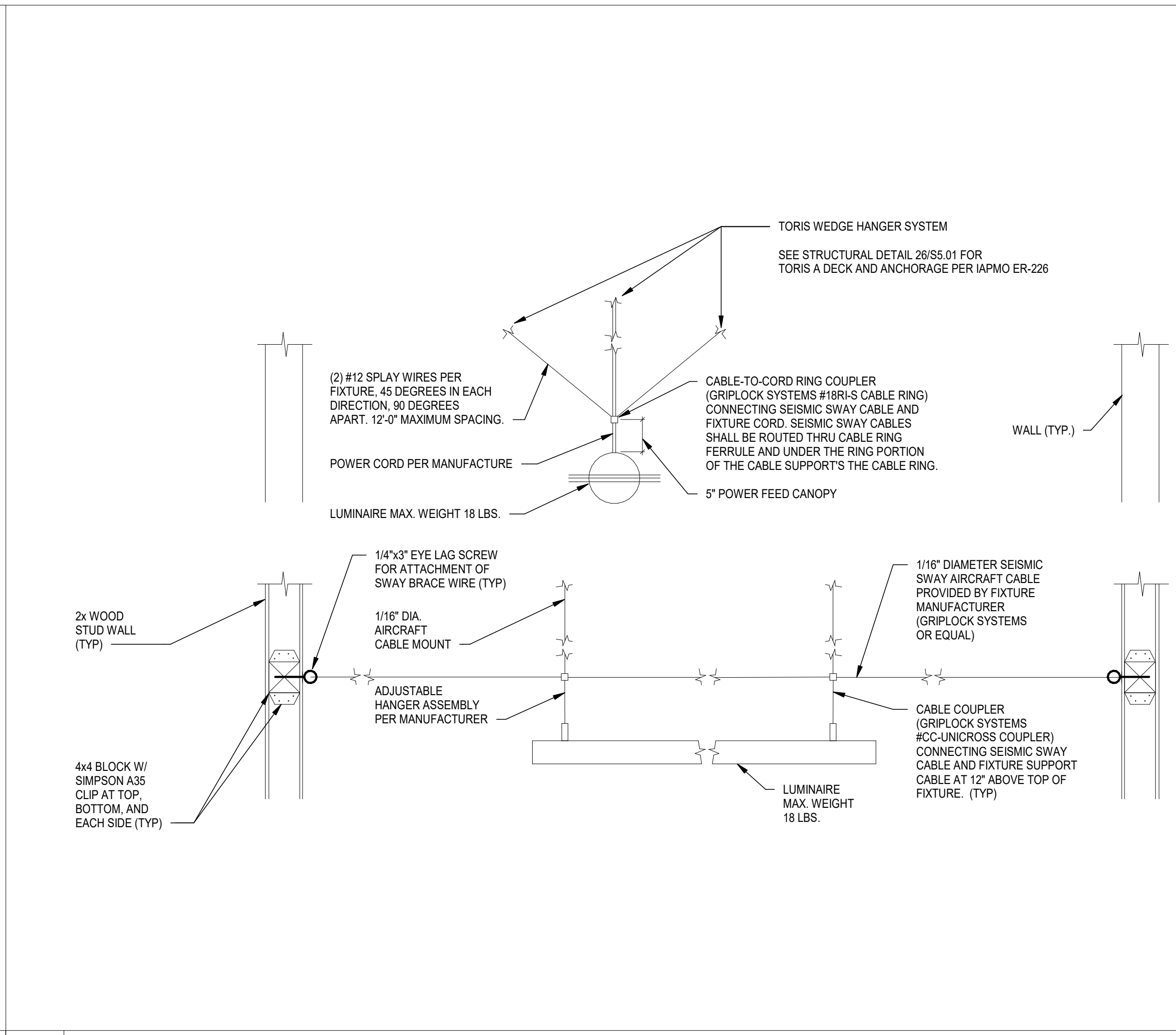
DSA SUBMITTAL

ELECTRICAL ONE-LINE, RISER DIAGRAM & SCHEDULES

E5.01

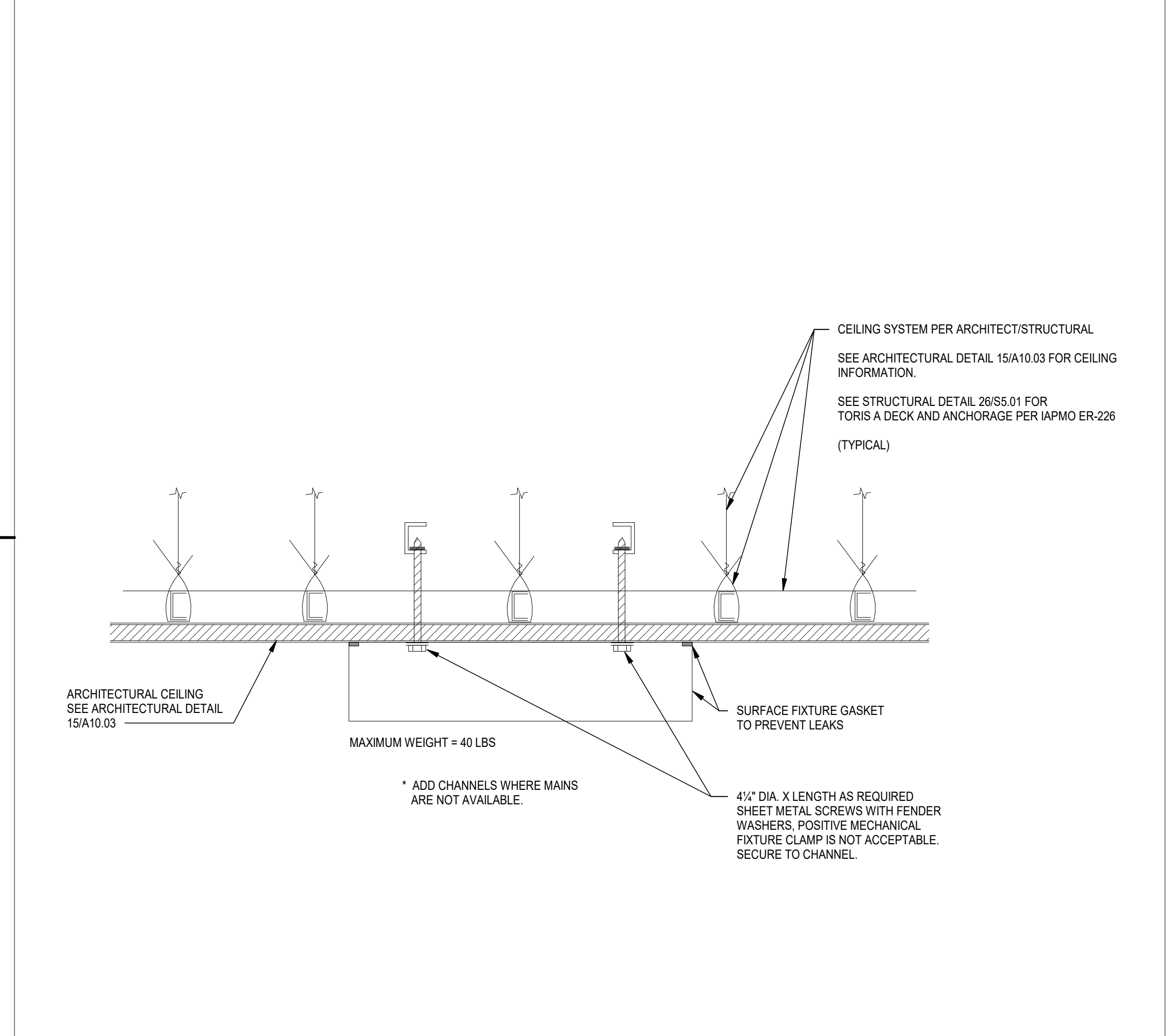


16 SWITCHBOARD ANCHORAGE DETAIL
 NOT TO SCALE

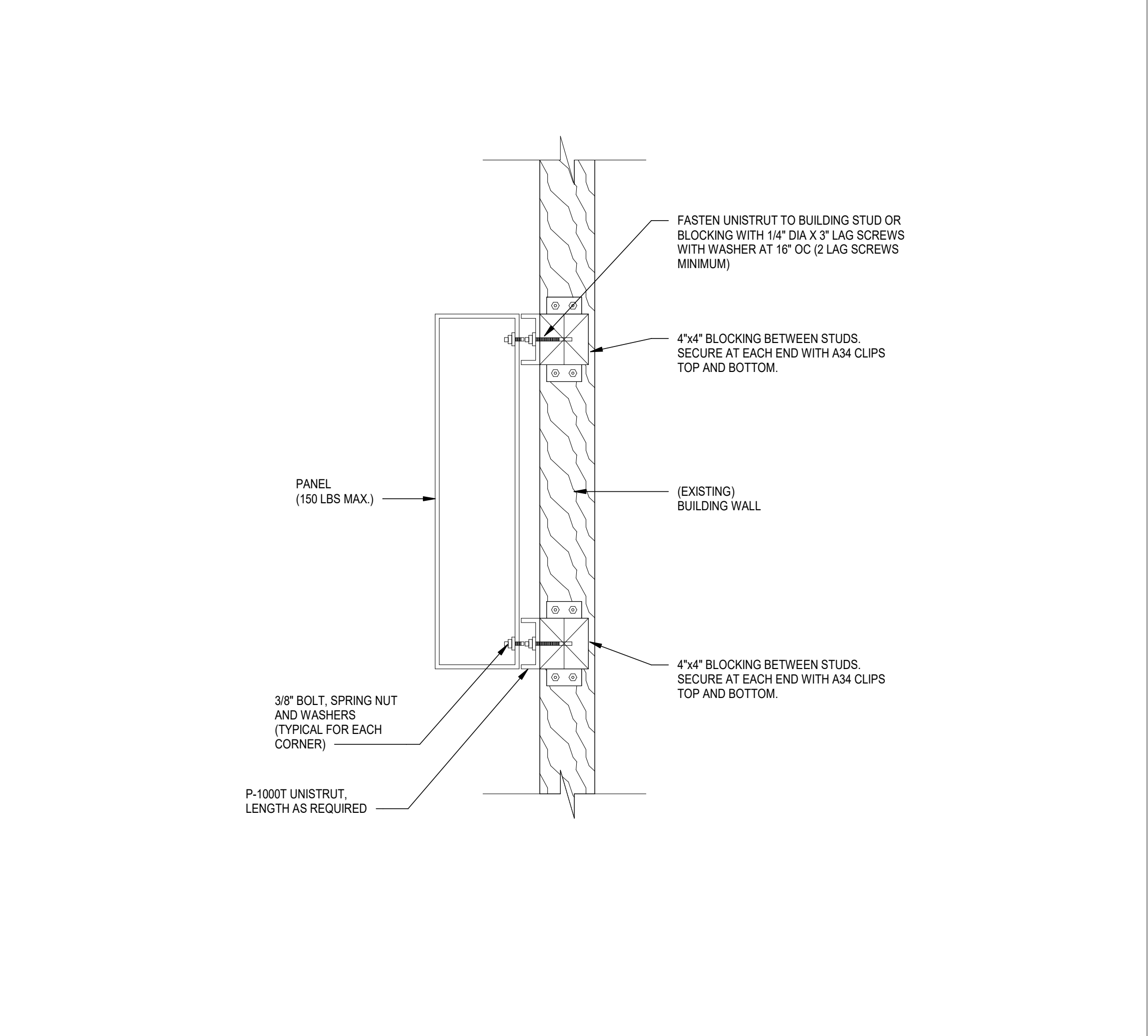


15 PENDANT MOUNTED FIXTURE AND SEISMIC BRACING DETAIL
 NOT TO SCALE

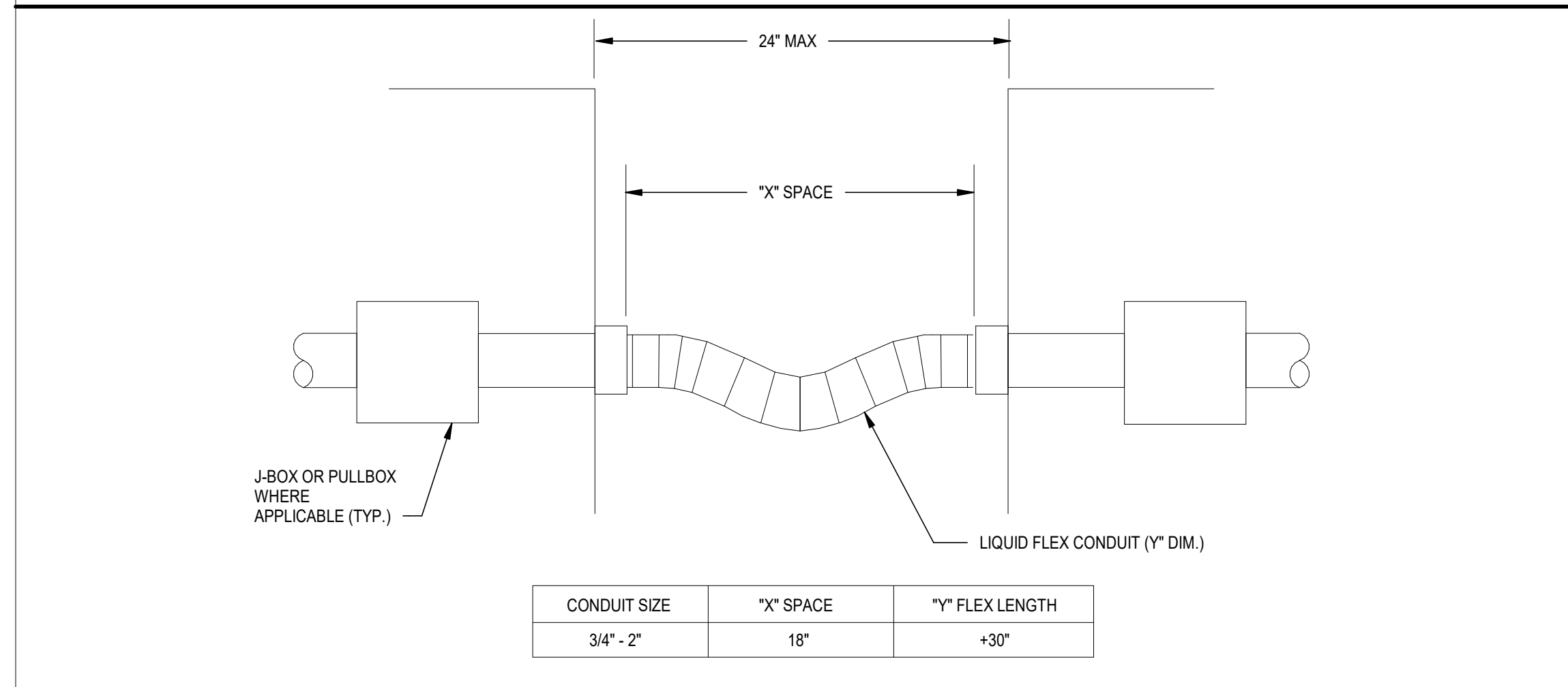
- NOTES:
- SUSPENSION SYSTEMS FOR LIGHT FIXTURES WHICH HAVE PASSED SHAKING TABLE TESTS PROVIDED BY D.S.A. OR WHICH, AS INSTALLED, ARE FREE TO SWING A MINIMUM OF 45 DEGREES FROM THE VERTICAL IN ALL DIRECTIONS WITHOUT CONTACTING OBSTRUCTIONS SHALL BE ASSUMED TO COMPLY WITH THE LATERAL-FORCE REQUIREMENTS OF 2019 C.B.C. SECTION 1617A.1.16 & CHAPTER 13 ASCE 7-16. IF FIXTURES CANNOT SWING A MINIMUM OF 45 DEGREES FROM THE VERTICAL IN ALL DIRECTIONS WITHOUT CONTACTING OBSTRUCTIONS, PROVIDE ALL COMPONENTS NECESSARY AND APPROVED FOR A COMPLETE CODE-COMPLIANT AIRCRAFT CABLE-BASED FIXTURE SEISMIC BRACING SYSTEM TO LIMIT MOVEMENT OF CABLE/CORD HUNG FIXTURES. CABLE BRACING SYSTEM SHALL NOT BE DRAWN TAUT TO AVOID DAMAGING THE BRACING SYSTEM DURING WALL MOVEMENT CAUSED BY EARTHQUAKES. ADJUST TENSION PER BRACING SYSTEM MANUFACTURER RECOMMENDATIONS.
 - CONTRACTOR TO VERIFY AIRCRAFT CABLE LENGTHS AND FIXTURE MOUNTING HEIGHTS ABOVE FINISH FLOOR. INCLUDE ALL COSTS IN BASE TO PROVIDE FIXTURE SEISMIC SWAY BRACING SYSTEM DESCRIBED IN NOTE 1 ABOVE AS REQUIRED.
 - SUPPORT TYPICAL FOR FEED A NON FEED POINT (WITHOUT J-BOX AND FLEX) SHOULD A CONFLICT OCCUR BETWEEN FIXTURE SUPPORT DETAIL AND HVAC DUCT ROUTING OR OTHER SUCH OBSTRUCTIONS. ELECTRICAL CONTRACTOR WILL INCLUDE ALL COSTS IN BASE BID TO PROVIDE A UNISTRUT "TRAPEZE" WITH 3/8" DIA THREADED ROD HANGERS AROUND THE HVAC DUCT OR OTHER OBSTRUCTION. TRAPEZE SHALL BE SUBMITTED TO PROJECT STRUCTURAL ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION OR ORDERING TRAPEZE MATERIAL.
 - MOUNT FIXTURE CANOPY AS HIGH AS POSSIBLE OR TO UNISTRUT IF NECESSARY. UNISTRUT SHOWN PARALLEL TO FIXTURE FOR EASE OF DEPICTION. PROVIDE UNISTRUT LENGTH AND ORIENTATION AS REQUIRED FOR COMPLETE-APPROVED FIXTURE INSTALLATION.
 - MOUNTING OF PENDANT MOUNTED LIGHTING FIXTURES SHALL BE IN COMPLIANCE WITH DSA R 16-9.
 - PROVIDE ALL COMPONENTS NECESSARY AND APPROVED FOR A COMPLETE CODE-COMPLIANT AIRCRAFT CABLE SEISMIC BRACING SYSTEM TO LIMIT MOVEMENT OF CABLE HUNG FIXTURES. CABLE BRACING SYSTEM SHALL NOT BE DRAWN TAUT TO AVOID DAMAGING THE BRACING SYSTEM DURING WALL MOVEMENT WHICH COULD OCCUR DURING A SEISMIC EVENT. ADJUST TENSION PER BRACING SYSTEM MFGR RECOMMENDATIONS.
 - UNISTRUT SHOWN PARALLEL TO FIXTURE FOR EASE OF DEPICTION. PROVIDE UNISTRUT LENGTH AND ORIENTATION AS REQUIRED FOR COMPLETE-APPROVED FIXTURE INSTALLATION.



4 SURFACE MOUNTED FIXTURE TO SUSPENDED GRID SYSTEM
 NOT TO SCALE



2 SURFACE MOUNTED PANEL/CABINET AT WOOD FRAMING DETAIL
 NOT TO SCALE



6 CONDUIT RUN THRU SEISMIC SEPARATION DETAIL
 NOT TO SCALE



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CONSULTANT

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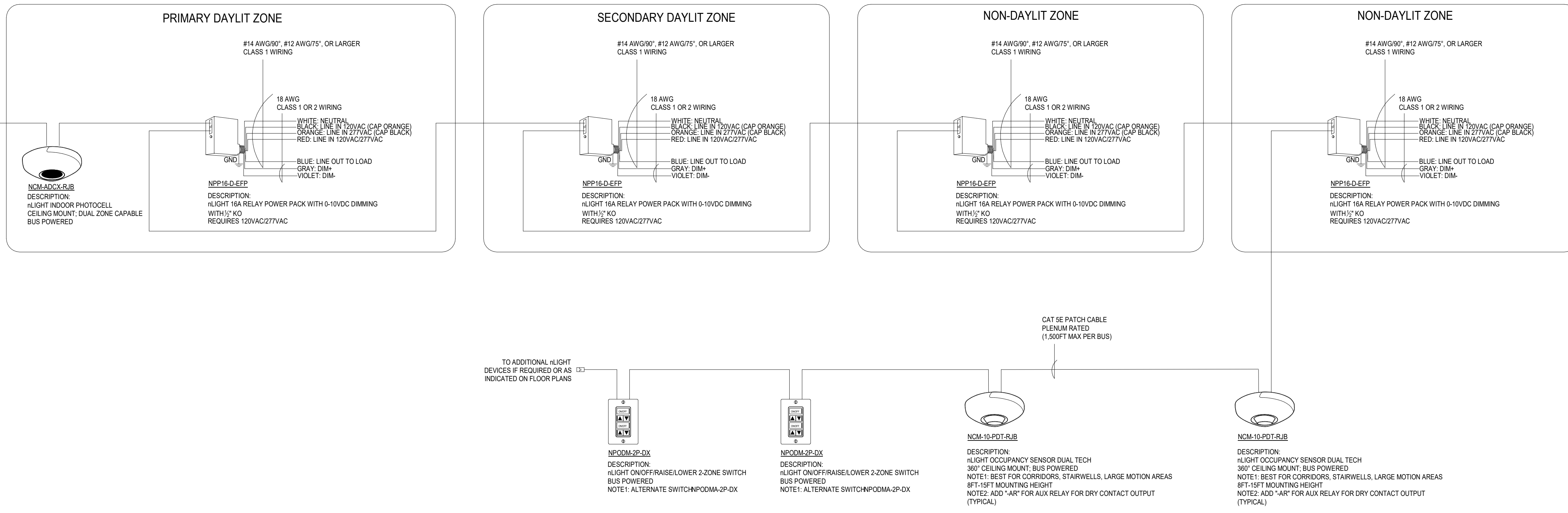
ARCHITECT

CLIENT
IMPERIAL VALLEY COLLEGE
PROJECT NUMBER
20190
DATE: 12/08/2020
DRAWN BY: JJ
CHECKED BY: RDC
REVISIONS

DSA SUBMITTAL
LIGHTING CONTROL SCHEMATICS
E6.02

DINING HALL W/ DAYLIGHTING

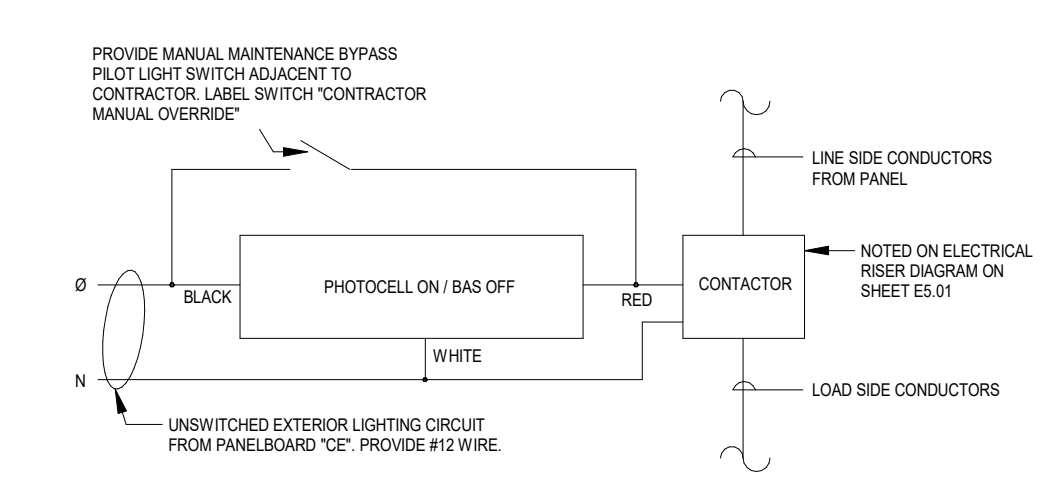
VERIFY QTY/TYPES ON PLANS



NTS DINING HALL WITH DAYLIGHTING USING nLIGHT POWER PACKS AND 2-ZONE SWITCH

- T24 COMPLIANT SEQUENCE OF OPERATION:
1. OCCUPANCY SENSOR PROVIDES AUTOMATIC ON/OFF OF LIGHTS LOAD BASED ON ROOM OCCUPANCY (USE DEFAULT TIME DELAY FOR OCCUPANCY SENSOR).
2. DUAL ZONE PHOTOCELL SHALL AUTOMATICALLY REDUCE GENERAL LIGHTING IN BOTH PRIMARY AND SECONDARY DAYLIT ZONES BASED ON DAYLIGHT TO MAINTAIN DESIGN ILLUMINANCE.
3. SWITCH PROVIDES MANUAL OVERRIDE OF THE LIGHTS.

EXTERIOR LIGHTS (WALL PACKS)



NTS CONTACTOR CONTROL DIAGRAM

GENERAL SYSTEM NOTES:

ON DIGITAL SYSTEMS, ALL DEVICES TO BE CONNECTED IN A DAISY CHAIN PATTERN SO THAT THE FIRST AND LAST DEVICE IN THE CHAIN HAS AN OPEN PORT. NO T-TAP CONNECTIONS. EXCEPTIONS FOR nLIGHT "RUB" DEVICES UTILIZING THEIR INCLUDED RJ45 SPLITTER INSIDE PACKAGING.
ON DIGITAL SYSTEMS, CONTRACTOR SHALL NOTE AND LABEL ADDRESS AND LOCATION OF EACH DEVICE ON THE SYSTEM ONE-LINE DIAGRAMS OR SYSTEM LAYOUT DRAWINGS AT TIME OF INSTALLATION.
WIRING SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (NEC) AND APPLICABLE LOCAL CODES & 2019 CEC, INCLUDING PROVISION OF EQUIPMENT GROUNDING AS REQUIRED BY THE NEC.
POWER CONDUCTORS SHALL BE SIZED PER THE NEC AMPACITY TABLES (ARTICLE 310), INCLUDING ADJUSTMENT FACTOR AND NEUTRAL CONDUCTOR REQUIREMENTS (FEED AND BRANCH NEUTRAL CONDUCTORS MUST BE COUNTED AS CURRENT CARRYING CONDUCTORS). RUN SEPARATE NEUTRAL CONDUCTORS FOR EACH DIMMED LOAD CIRCUIT.
FOR 0-10VDC DIMMING SYSTEMS, VIOLET AND GRAY CONDUCTORS ARE FOR 0-10VDC LOW VOLTAGE TERMINATIONS ONLY. NEVER TERMINATE LINE VOLTAGE (120/208/277VAC) TO VIOLET AND GRAY.
CONTRACTOR IS RESPONSIBLE FOR ALL CONTROL TERMINATIONS. NO SPLICES ARE PERMITTED IN CONTROL WIRING.
POWER AND CONTROL CONDUCTORS MUST NOT SHARE THE SAME RACEWAY OR CONDUIT EXCEPT WHERE ALLOWED.
LIGHTING CONTROL EQUIPMENT MUST BE INSTALLED, MAINTAINED, AND OPERATED IN AN "OFFICE CLEAN" DRY ENVIRONMENT, INDOOR DRY LOCATIONS ONLY. 10% - 80% RELATIVE HUMIDITY. AMBIENT TEMPERATURE 0° - 40°C (32° - 104°F) - 0° - 35°C (32° - 95°F) RECOMMENDED.
SENSORS IN ELECTRICAL/MECHANICAL LOCATIONS NEED TO BE VERIFIED WITH AUTHORITY HAVING JURISDICTION. REFER TO NEC 110.28.D.
RELAY AND DIMMER PANEL SCHEDULES SHOULD CONTAIN BREAKER PANEL INPUTS AS WELL AS ZONES/AREAS CONTROLLED.
VERIFY MAXIMUM CABLE LENGTHS AND/OR RF COMMUNICATION DISTANCE BASED ON CONTROL SYSTEM PARAMETERS. MANUFACTURER IS NOT RESPONSIBLE FOR SYSTEMS EXCEEDING PARAMETERS.
LOW VOLTAGE CABLE MUST BE INSTALLED AT LEAST 12 INCHES FROM ALL LINE VOLTAGE CONDUCTORS EXCEPT TO CROSS OR MAKE TERMINATIONS. CAT 5 CABLE MUST BE KEPT AWAY FROM ALL LEMF DEVICES SUCH AS BALLASTS OR TRANSFORMERS.

nLIGHT SYSTEM NOTES:

EVERY nLIGHT ENABLED DEVICE (INCLUDING nLIGHT ENABLED FIXTURES) IS FURNISHED WITH (1) PERMANENTLY ADHERED ID TAG AND (1) MATCHING, PARTIALLY ADHERED ID TAG TO BE PLACED ON THE RISER DIAGRAM SHEET PROVIDED AS PART OF AN nLIGHT SUBMITTAL DURING INSTALLATION AND PRIOR TO FACTORY STARTUP. CONTRACTOR SHALL PLACE EACH ID TAG BELOW EACH CORRESPONDING DEVICE SHOWN ON RISER DIAGRAM TO FACILITATE FACTORY STARTUP. FAILURE TO COMPLY MAY RESULT IN STARTUP DELAYS AND ADDITIONAL COSTS AT THE CONTRACTOR'S EXPENSE. DO NOT PLACE DEVICE OR STICKERS ON FLOOR PLAN UNLESS REQUIRED TO EXECUTE nLIGHT PLAN SERVICES. REFERENCE nLIGHT PLAN SERVICE NOTES ON THIS SHEET FOR SPECIFIC REQUIREMENTS.
ONE RELAY PACK OR nLIGHT ENABLED FIXTURE IS NEEDED PER CIRCUIT ZONE TO BE CONTROLLED AND CAN RESIDE WITHIN SENSORS, WALLPODS, OR RELAY PACKS. POWER PACK PLACEMENT ON DRAWINGS IS FOR COUNTING ONLY. FINAL PLACEMENT IS UP TO DISCRETION OF CONTRACTOR/ENGINEER. PLEASE RECHECK COUNTS TO VERIFY THE NUMBER OF RELAYS NEEDED TO SWITCH ALL DESIRED LOADS.
BRIDGES, RELAYS, POWER PACKS, WALLPODS, AND SENSORS ON DRAWINGS WERE PLACED WITH INFORMATION PROVIDED AT TIME OF DESIGN. ADDITIONAL BRIDGES AND/OR SENSORS MAY BE REQUIRED DEPENDING ON BUILDING CHANGES, FINAL PARTITION HEIGHT PLACEMENT, FURNITURE PLACEMENT, EQUIPMENT HEIGHT PLACEMENT, AND SHELVING HEIGHT PLACEMENT.
THE LAYOUT OF THE NETWORK BACKBONE (BRIDGES AND ECLYPSES) HAS BEEN PLACED IN A SEPARATE TREE DIAGRAM AND NOT ON THE ACTUAL LAYOUT. FINAL PLACEMENT OF THE BRIDGES(S) AND ECLYPSES(S) DEVICES SHALL BE AT THE CONTRACTOR/ENGINEER DISCRETION.
ALL DEVICES HAVE RJ45 FEMALE PORTS. MAKING NETWORK CONTROL CABLES IS REQUIRED. T568B TERMINATIONS ARE RECOMMENDED. IT IS IMPERATIVE THAT ALL NETWORK CONTROL CABLES BE TESTED WITH A LAN CABLE TESTER TO VERIFY PROPER TERMINATIONS.
DAISY-CHAINED DEVICES SHOULD BE POWERED UP AND WORKING ON DEFAULT PROGRAMMING PRIOR TO CONNECTION TO BRIDGE OR ECLYPSES.
LOW VOLTAGE NETWORK CONTROL CABLE (CAT5/E6R) RUNS FOR LOCAL ZONES. HOMERUNS AND BACKBONE SHOULD BE WHITE WITH CABLES LABELED.
CONTRACTOR TO VERIFY BLANK DIAGNOSTIC CODES (VISIT HTTP://nLIGHTCONTROLS.COM/WP-CONTENT/UPLOADS/nLIGHT_POCKET_GUIDE.PDF) WHEN CONNECTING ECLYPSES/BRIDGES TO ZONES.
MAXIMUM CABLE LENGTH FROM START DEVICE TO END DEVICE IS 1500' INCLUDING HOMERUN TO BRIDGE DEVICE, IF PRESENT. MANUFACTURER IS NOT RESPONSIBLE FOR SYSTEMS EXCEEDING CABLE LENGTH PARAMETERS.
SINGLE LINE DRAWING FOR DIAGRAMMATIC PURPOSES AND DETAIL REFERENCE ONLY. REFER TO PLANS FOR TYPES AND QUANTITIES.
CONTRACTOR/INSTALLER TO VERIFY WITH THE MANUFACTURER TYPE AND QUANTITY OF OCCUPANCY AND/OR PHOTOCELL SENSORS TO ENSURE 100% COVERAGE OF THE SPACE(S) WHERE SHOWN CONTROLLED BY OCCUPANCY SENSORS(S).
ON-SITE SYSTEM STARTUP, PROGRAMMING AND END USER TRAINING SHALL BE PERFORMED BY FACTORY AUTHORIZED TECHNICIAN REPRESENTATIVE. CONTRACTOR SHALL INCLUDE THIS SERVICE LINE ITEM IN THEIR BID PACKAGE.
ELECTRICAL CONTRACTOR SHALL SEND ELECTRICAL PLANS INFORMATION AND REQUEST FOR QUOTE TO ELECTRICAL.DISTRIBUTORS@SUPPLIERS.COM. ELECTRICAL DISTRIBUTOR(S)/SUPPLIER(S) SHALL CONTACT PERFORMANCE LIGHTING SYSTEM AT QUOTES@PERFORMANCELIGHTING.COM FOR PRICING.

IMPORTANT: MANUFACTURER OR AUTHORIZED LIGHTING REPRESENTATIVE OF CONTROL SYSTEM MUST VERIFY TYPE, QUANTITIES, PLACEMENT OF DEVICES TO MEET DESIGN INTENT AND TITLE 24 CODE COMPLIANCE, AND PROVIDE SHOP DRAWINGS FOR SPECIFIER APPROVAL. THIRD PARTY TAKE-OFFS OR LAYOUTS WILL NOT BE ACCEPTED. NO EXCEPTIONS.

DEVICE SCHEDULE

Table with 7 columns: SYMBOL, DESCRIPTION, MODEL, MANUFACTURER, BACKBOX, MOUNTING HEIGHT, C.S.F.M. NUMBER. Lists various fire alarm components like control panels, amplifiers, annunciators, and detectors.

LEGENDS

Table with 4 columns: ABBREVIATION, DESCRIPTION, ABBREVIATION, DESCRIPTION. Defines symbols for electrical components like amperes, conduct, and equipment.

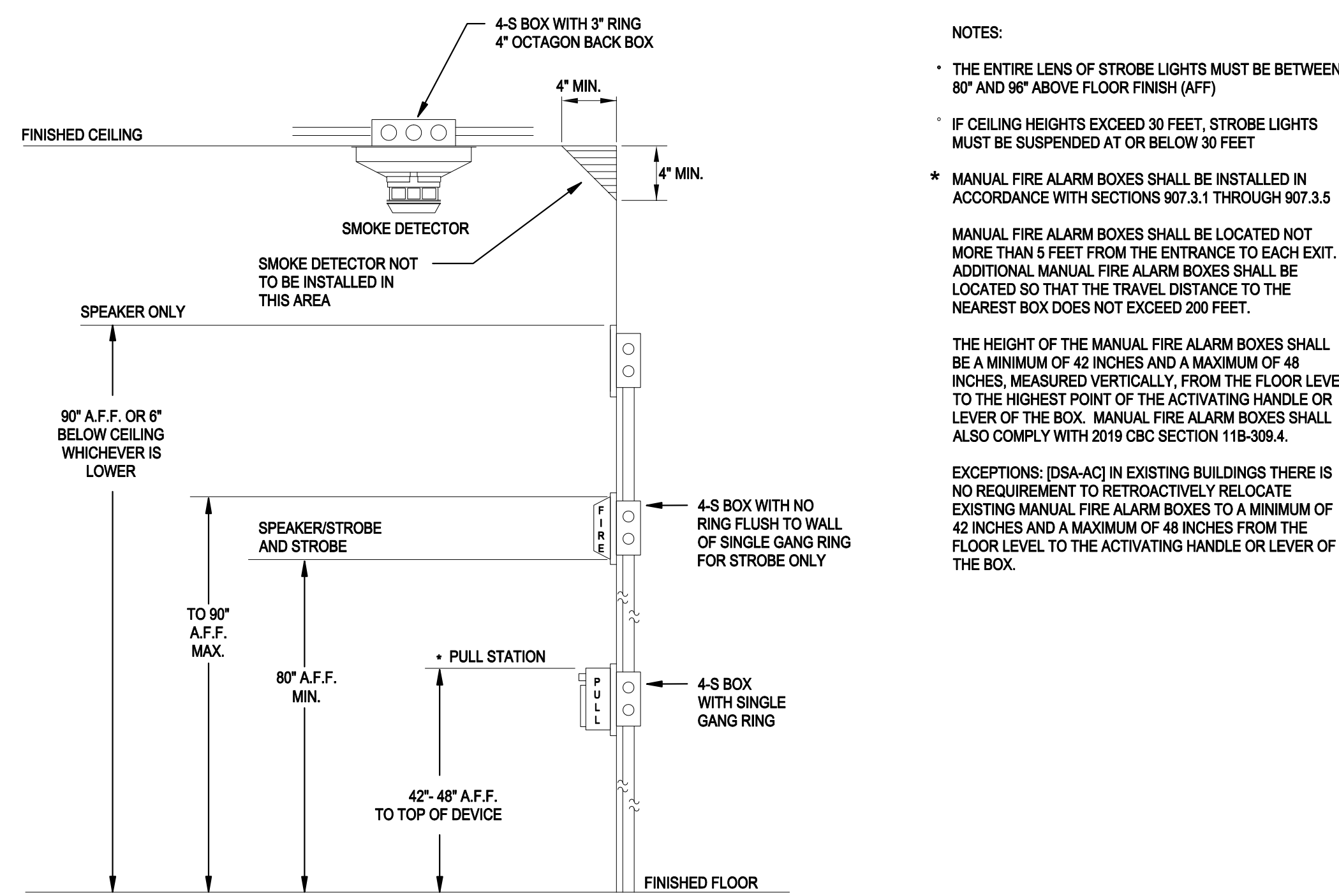
DRAWING INDEX

Table with 2 columns: SHEET, DESCRIPTION. Lists sheets FA0.01 through FA0.01 and their corresponding descriptions.

GENERAL NOTES

- 1. APPLICABLE STANDARD NFPA 72 as adopted and amended in CBC Chapter 35
2. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA.

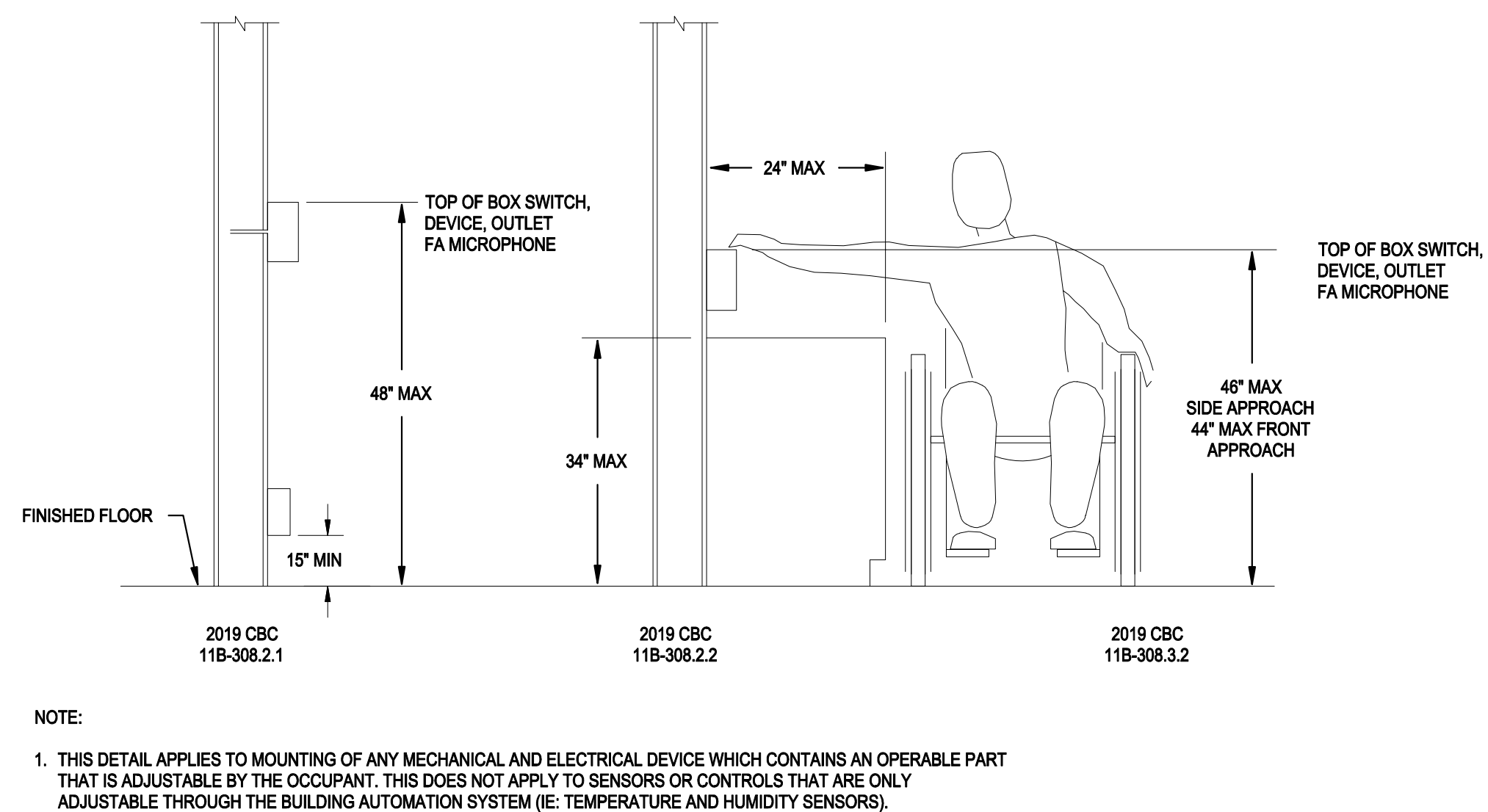
ELEVATION MOUNTING DETAIL



SEQUENCE OF OPERATIONS

Table with 10 columns: DEVICE ACTION, MANUAL PULL STATION, AREA SMOKE DETECTOR, CARBON MONOXIDE DETECTOR, 120VAC POWER FAILURE, SHORT CIRCUIT, GROUND FAULT, BATTERY FAILURE, SPRINKLER VALVE TAMPER SWITCH, SPRINKLER WATER FLOW SWITCH. Lists actions like 'SOUND ALARM AT FACP' and 'ANNUNCIATE AT FACP'.

MOUNTING OVER OBSTRUCTION DETAIL



WIRE SCHEDULE

Table with 4 columns: WIRE DESIGNATION, WIRE IN CONDUIT UNDERGROUND/WET LOC., WIRE IN CONDUIT UNDERGROUND/WET LOC., UNDERGROUND/WET WIRE DESIGNATION. Lists wire types like '2 CONDUCTOR #16 FPL TWISTED SHIELDED WEST PENN #991'.

FIRE ALARM REQUIREMENTS

- THE CONTRACTOR SHALL PROVIDE AND SUBMIT THE FIRE ALARM SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF THE FIRE ALARM SYSTEM. THE SUBMITTAL SHALL CONTAIN THE FOLLOWING:
A. SHOP DRAWINGS: COMPLETE 1/8\"/>

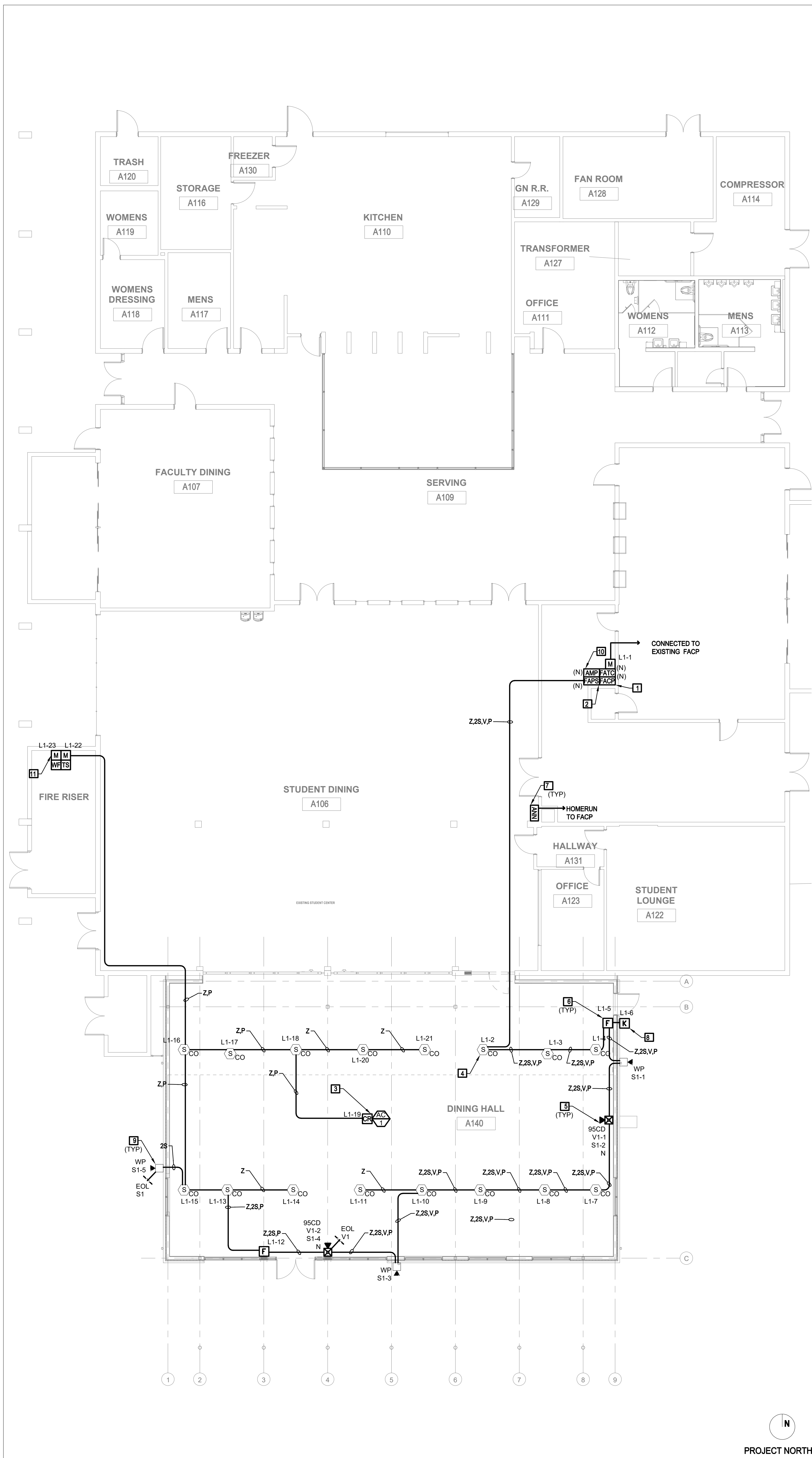
FIRE WATCH NOTE

A FIRE WATCH SHALL BE ESTABLISHED AND THE FIRE DEPARTMENT & FIRE CODE OFFICIAL SHALL BE NOTIFIED IMMEDIATELY WHENEVER THE FIRE PROTECTION ALARM SYSTEM IS RENDERED OUT OF SERVICE. A FIRE WATCH SHALL BE STAGED WHENEVER THE BUILDING IS OCCUPIED (PARTIAL OR WHOLE) PER DSA IR F-2 AND CFC 801.7.

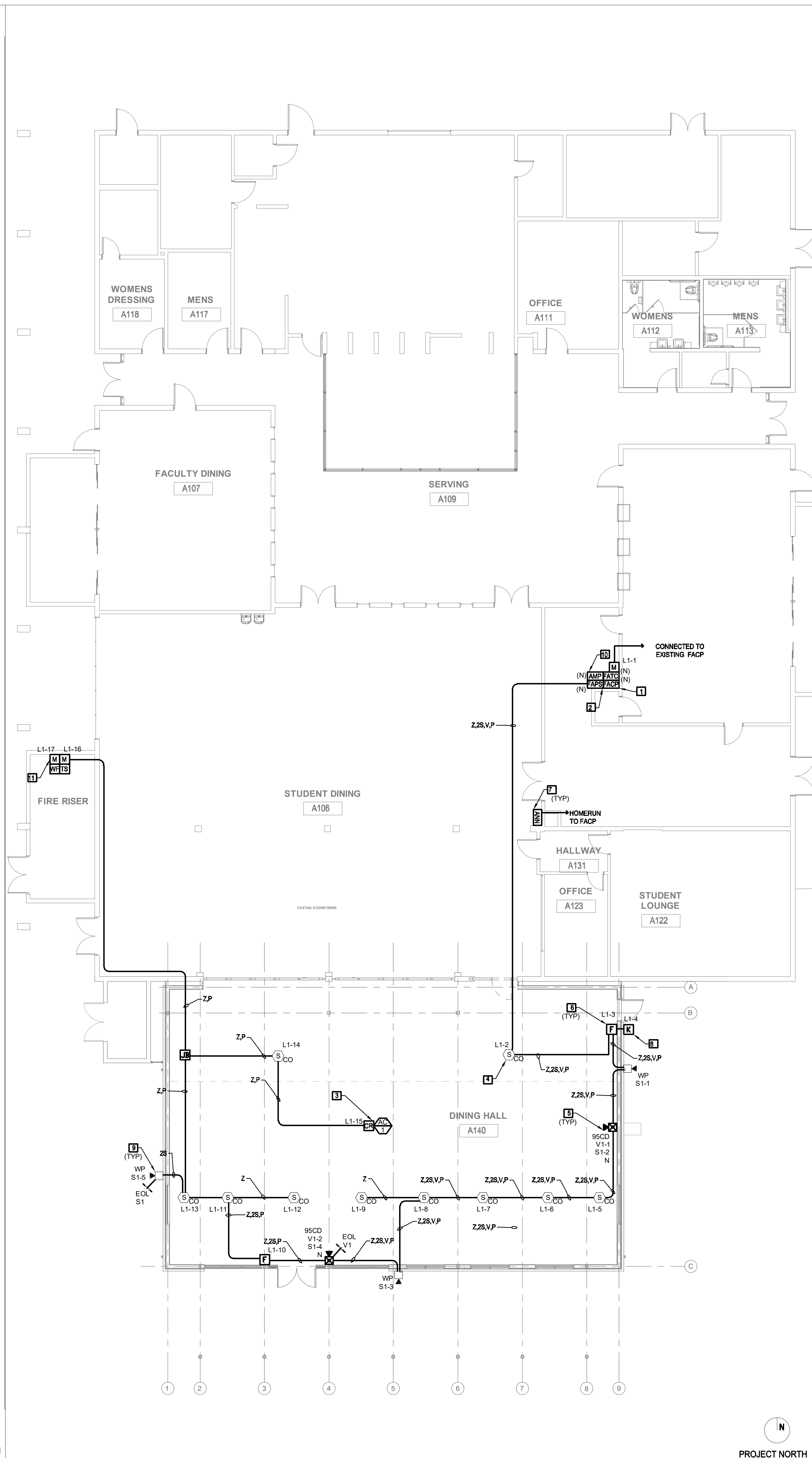
APPLICABLE CODES

- PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2021:
2019 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2019 CALIFORNIA BUILDING CODE (CBC), PART 1, TITLE 24 CCR
2018 INTERNATIONAL BUILDING CODE, VOL. 1 & 2 AND 2019 CALIFORNIA AMENDMENTS
2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
2019 CALIFORNIA FIRE CODE (CFC), PART 5, TITLE 24 CCR
2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
2019 CALIFORNIA PLUMBING CODE (CPL), PART 5, TITLE 24 CCR
2019 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
2019 CALIFORNIA FIRE CODE (CFC), PART 8, TITLE 24 CCR
2018 INTERNATIONAL BUILDING CODE (IBC) AMENDMENTS
2019 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2019 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR
2019 CALIFORNIA PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
2019 ASME A17.1/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS

Vertical sidebar containing project information: DSA FILE NO. 37-C2 AF 04-119030, IDENTIFICATION STAMP, APP: 04-119487 INC., SAN DIEGO ARCHITECTURE, IMPERIAL VALLEY COLLEGE - B600 EXPANSION, and FA0.01.



1 FIRE ALARM FLOOR PLAN (BID ALT 1)
1/8" = 1'-0"



2 FIRE ALARM FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES:

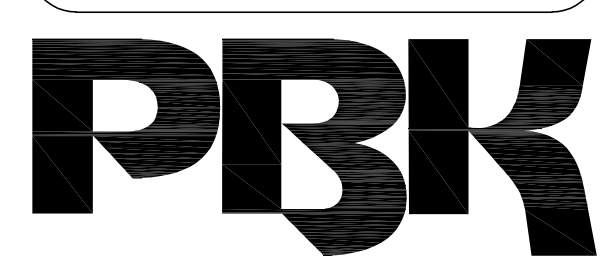
1. ALL SPEAKER TAP SETTING SHALL BE SET AT 12 WATT FOR INTERIOR SPEAKER AND 2 WATT FOR EXTERIOR SPEAKERS UNLESS NOTED OTHERWISE (U.N.D.)
2. MOUNT COISMOKE DETECTORS AT LEAST 3 FEET AWAY FROM SUPPLY AIR DIFFUSERS.
3. PROVIDE 24 VDC POWER FROM FACP TO ALL CO DETECTOR BASES.
4. RUN FIRE ALARM CABLES IN CONDUIT CONCEALED IN WALLS AND CEILING WHEN POSSIBLE. EXPOSED CONDUITS ARE NOT ACCEPTABLE.
5. PROVIDE RELAY TO SHUT DOWN THE NEW MECHANICAL UNIT AC-1 AS SHOWN.

KEY NOTES:

1. PROVIDE NEW FIRE ALARM CONTROL PANEL (FACP) WITH VOICE EVAC.
2. PROVIDE FIRE ALARM POWER SUPPLY (FAPS) AS SHOWN.
3. PROVIDE FIRE ALARM ADDRESSABLE CONTROL RELAY MODULE FOR SHUTTING DOWN MECHANICAL UNIT.
4. PROVIDE FIRE ALARM ADDRESSABLE COISMOKE DETECTOR AS SHOWN (TYPICAL).
5. PROVIDE WALL MOUNTED SPEAKER STROBE AS SHOWN (TYPICAL).
6. PROVIDE FIRE ALARM ADDRESSABLE MANUAL PULL STATION AS INDICATED (TYPICAL).
7. PROVIDE FIRE ALARM REMOTE ANNUNCIATOR AS SHOWN.
8. PROVIDE FIRE ALARM KNOX BOX AS INDICATED FIELD VERIFY LOCATION.
9. PROVIDE FIRE ALARM WEATHERPROOF SPEAKER DEVICES AS SHOWN (TYPICAL).
10. PROVIDE INTELLIGENT 80W FIRE ALARM AMPLIFIER AS SHOWN.
11. PROVIDE ADDRESSABLE MONITOR MODULES TO MONITOR WATER FLOW, TAMPER SWITCH AND THE CONNECTION WITH EXISTING SIMPLEX FACP. NEW SILENT KNIGHT FACP PANEL AS SHOWN.

DSA FILE NO. 37-C2 AB 04-119030

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119487 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/01/2021

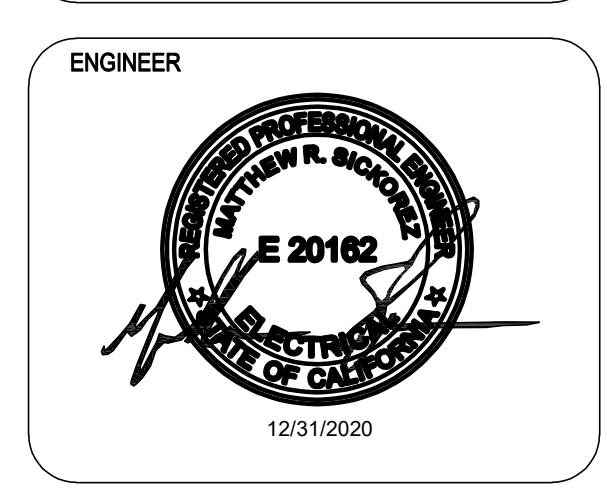


ARCHITECTURE
SAN DIEGO
11455 El Camino Real, Suite 480
San Diego, CA 92130
619-685-0400 P
PBK.com
ENGINEERS LEAF Engineers
LEAF
ELECTRICAL & MECHANICAL
3110 E. Grand Street, Suite 300
Chico, CA 95926

IMPERIAL VALLEY COLLEGE
- B600 EXPANSION
380 E. Aten Rd.
Imperial, CA 92251
DSA SUBMITTAL



CONSULTANT



ARCHITECT

CLIENT
IMPERIAL VALLEY COLLEGE

PROJECT NUMBER
20190

DATE: 12/08/2020

DRAWN BY: CP

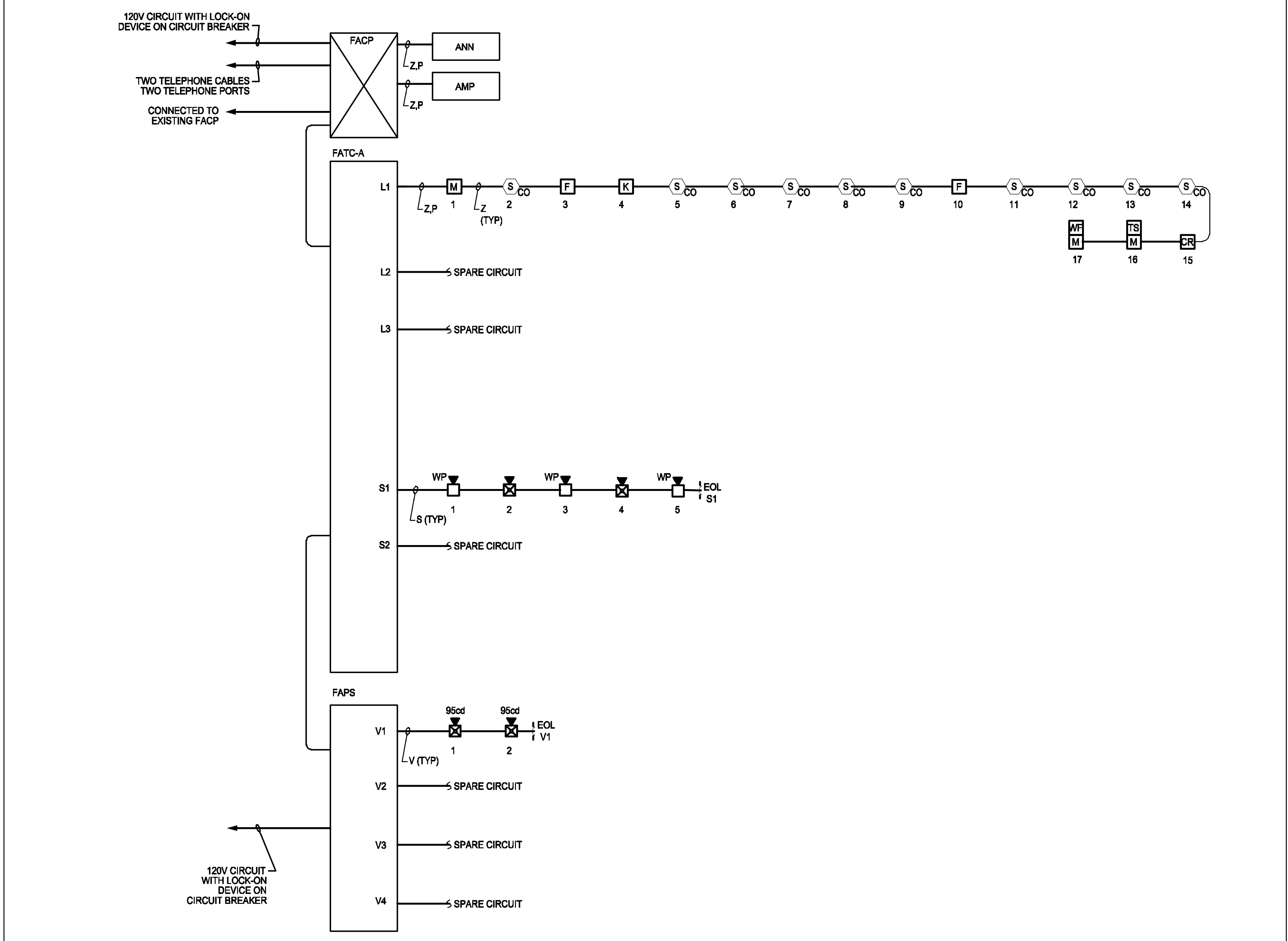
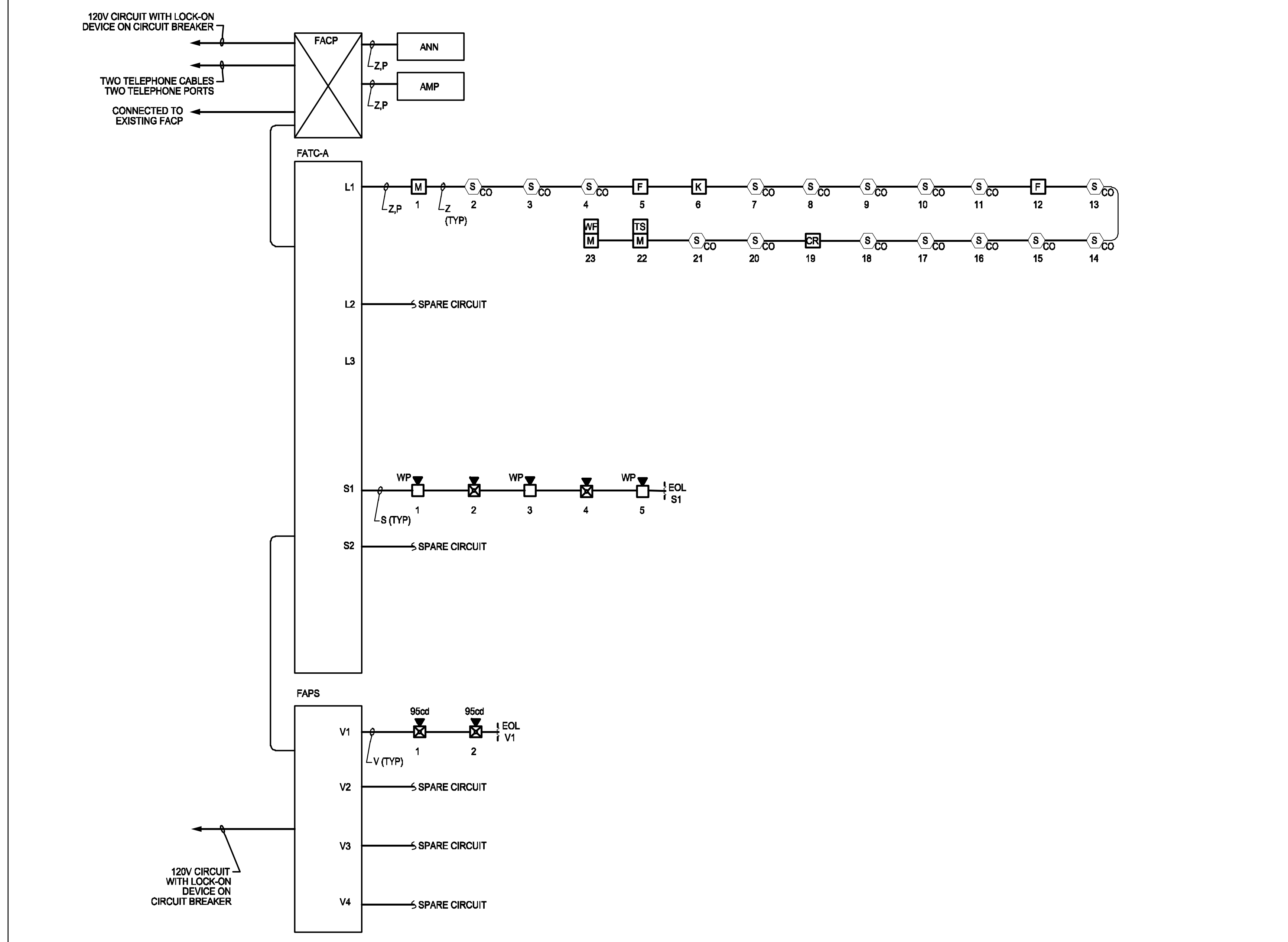
CHECKED BY: RW

REVISIONS

No.	Description	Date

DSA SUBMITTAL
FIRE ALARM FLOOR PLAN

FA2.01



1 FIRE ALARM RISER DIAGRAM (BID ALT 1)
NOT TO SCALE

3 FIRE ALARM RISER DIAGRAM
NOT TO SCALE

BATTERY CALCULATION SHEET
AMP
LOCATION:

QUANTITY	UNIT	TOTAL	UNIT	TOTAL	
	STANDBY	STANDBY	ALARM	ALARM	
1	50 WATT AMPLIFIER	0.100	0.100	0.5800	0.5800
0	SPEAKER (1/4 W)	0.000	0.000	0.0035	0.0000
2	SPEAKER (1/2 W)	0.000	0.000	0.0071	0.0142
0	SPEAKER (1 W)	0.000	0.000	0.0142	0.0000
3	WP SPEAKER (2W)	0.000	0.000	0.0283	0.0849
SUB TOTAL			0.100		0.679
STANDBY CURRENT x 24 Hrs. (AH)				2.400	AH
ALARM CURRENT x 15 MINUTES (AH)				0.170	AH
TOTAL (AH)				2.570	AH
25% DERATING				0.642	AH
TOTAL DEMAND (AH)				3.212	AH
BATTERY REQUIRED				7	AH

FACP BATTERY CALCULATION SHEET
FACP - IFP-2100 WITH VOICE EVAC
LOCATION: COLLEGE CENTER 600

QUANTITY	UNIT	TOTAL	UNIT	TOTAL	
	STANDBY	STANDBY	ALARM	ALARM	
1	MAIN BOARD	0.230	0.230	0.415	0.415
1	ANNUNCIATOR	0.025	0.025	0.050	0.050
1	AMPLIFIER	0.100	0.100	0.580	0.580
1	REMOTE POWER SUPPLY PANEL	0.010	0.010	0.010	0.010
16	CO/SMOKE DETECTOR	0.000500	0.008000	0.007200	0.115200
2	PULL STATION	0.000000	0.000000	0.003000	0.006000
16	CO DETECTOR SOUNDER BASE	0.000500	0.008000	0.035000	0.560000
3	MONITOR MODULE	0.000400	0.001200	0.000375	0.001125
1	RELAY MODULE	0.255000	0.255000	0.255000	0.255000
SUB TOTAL			0.637		1.987
STANDBY CURRENT x 24 Hrs. (AH)				15.293	AH
ALARM CURRENT x 15 MINUTES (AH)				0.467	AH
TOTAL (AH)				15.760	AH
25% DERATING				3.947	AH
TOTAL DEMAND (AH)				19.737	AH
BATTERY REQUIRED				30	AH

BATTERY CAPACITY CALCULATION SHEET
FAPS
LOCATION:

QUANTITY	Description	Current(A)	Standby	Unit	Total
				Alarm	Alarm
1	NACTRIP	0.100	0.100	0.145	0.145
2	95cd wall speaker/strobe	0.000	0.000	0.155	0.310
Sub Total			0.100		0.455
A - Battery Backup - Standby (Hour)				24	
B - Battery Backup (minutes)				15	
C - Allowable Error (%)				25	
D - Total Standby Backup (Amp-Hour)			2.400		
E - Total Alarm Backup (Amp-Hour)			0.114		
F - Allowable Error (C x (D + E))			0.628		
Total Amp-Hour Required (D + E + F)			3.142		
Battery Submitted			7 Amp-Hour		

STROBES WORST CASE VOLTAGE DROP

PANEL NAME	WIRE GAUGE	CIRCUIT NUMBER	15cd	30cd	75cd	95	110	TOTAL CURRENT (AMPS)	DISTANCE (FEET)	TOTAL VOLTAGE DROP (%)	TOTAL DEVICES
FAPS	12AWG	V1				2		0.310	200	0.85%	2
FAPS	12AWG	V2						0.000		0.00%	0
FAPS	12AWG	V3						0.000		0.00%	0
FAPS	12AWG	V4						0.000		0.00%	0
TOTAL			0	0	0	2	0				

SPEAKER CIRCUIT LOAD CALCULATION

SPEAKER CIRCUIT DESCRIPTION	PANEL CIRCUIT NUMBER	WIRE GAUGE (18, 16, 14)	CIRCUIT VOLTAGE (25 OR 70 VRMS)	APPLIANCES QUANTITIES / TAP VALUES	TOTAL CIRCUIT LOAD (WATT)	ESTIMATED CIRCUIT LENGTH (FEET)	MFG. REC. MAXIMUM LOSS IS: .05dB	ACTUAL WIRE/LOSS (dB)	MAXIMUM ALLOWABLE LENGTH (FEET)	TOTAL CIRCUIT RESISTANCE (OHMS)
AMP	DINING HALL	S1	14 AWG	70	2	3	7.00	-0.02	7,500	1.55
(SPARE)	(SPARE)	S2	14 AWG	70			0.00	0.00		0.00
(SPARE)	(SPARE)	S3	14 AWG	70			0.00	0.00		0.00
(SPARE)	(SPARE)	S4	14 AWG	70			0.00	0.00		0.00
TOTAL					7.00					0.00

2 FIRE ALARM BATTERY CALCULATIONS (BID ALT 1)
NOT TO SCALE

BATTERY CALCULATION SHEET
AMP
LOCATION:

QUANTITY	UNIT	TOTAL	UNIT	TOTAL	
	STANDBY	STANDBY	ALARM	ALARM	
1	50 WATT AMPLIFIER	0.100	0.100	0.5800	0.5800
0	SPEAKER (1/4 W)	0.000	0.000	0.0035	0.0000
2	SPEAKER (1/2 W)	0.000	0.000	0.0071	0.0142
0	SPEAKER (1 W)	0.000	0.000	0.0142	0.0000
3	WP SPEAKER (2W)	0.000	0.000	0.0283	0.0849
SUB TOTAL			0.100		0.679
STANDBY CURRENT x 24 Hrs. (AH)				2.400	AH
ALARM CURRENT x 15 MINUTES (AH)				0.170	AH
TOTAL (AH)				2.570	AH
25% DERATING				0.642	AH
TOTAL DEMAND (AH)				3.212	AH
BATTERY REQUIRED				7	AH

FACP BATTERY CALCULATION SHEET
FACP - IFP-2100 WITH VOICE EVAC
LOCATION: COLLEGE CENTER 600

QUANTITY	UNIT	TOTAL	UNIT	TOTAL	
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1	MAIN BOARD	0.230	0.230	0.415	0.415
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1	REMOTE POWER SUPPLY PANEL	0.010	0.010	0.010	0.010
10	CO/SMOKE DETECTOR	0.000500	0.008000	0.007200	0.115200
2	PULL STATION	0.000000	0.000000	0.003000	0.006000
10	CO DETECTOR SOUNDER BASE	0.000500	0.008000	0.035000	0.560000
3	MONITOR MODULE	0.000400	0.001200	0.000375	0.001125
1	RELAY MODULE	0.255000	0.255000	0.255000	0.255000
SUB TOTAL			0.631		1.734
STANDBY CURRENT x 24 Hrs. (AH)				15.149	AH
ALARM CURRENT x 15 MINUTES (AH)				0.433	AH
TOTAL (AH)				15.582	AH
25% DERATING				3.896	AH
TOTAL DEMAND (AH)				19.478	AH
BATTERY REQUIRED				30	AH

BATTERY CAPACITY CALCULATION SHEET
FAPS
LOCATION:

QUANTITY	Description	Current(A)	Standby	Unit	Total
				Alarm	Alarm
1	NACTRIP	0.100	0.100	0.145	0.145
2	95cd wall speaker/strobe	0.000	0.000	0.155	0.310
Sub Total			0.100		0.455
A - Battery Backup - Standby (Hour)				24	
B - Battery Backup (minutes)				15	
C - Allowable Error (%)				25	
D - Total Standby Backup (Amp-Hour)			2.400		
E - Total Alarm Backup (Amp-Hour)			0.114		
F - Allowable Error (C x (D + E))			0.628		
Total Amp-Hour Required (D + E + F)			3.142		
Battery Submitted			7 Amp-Hour		

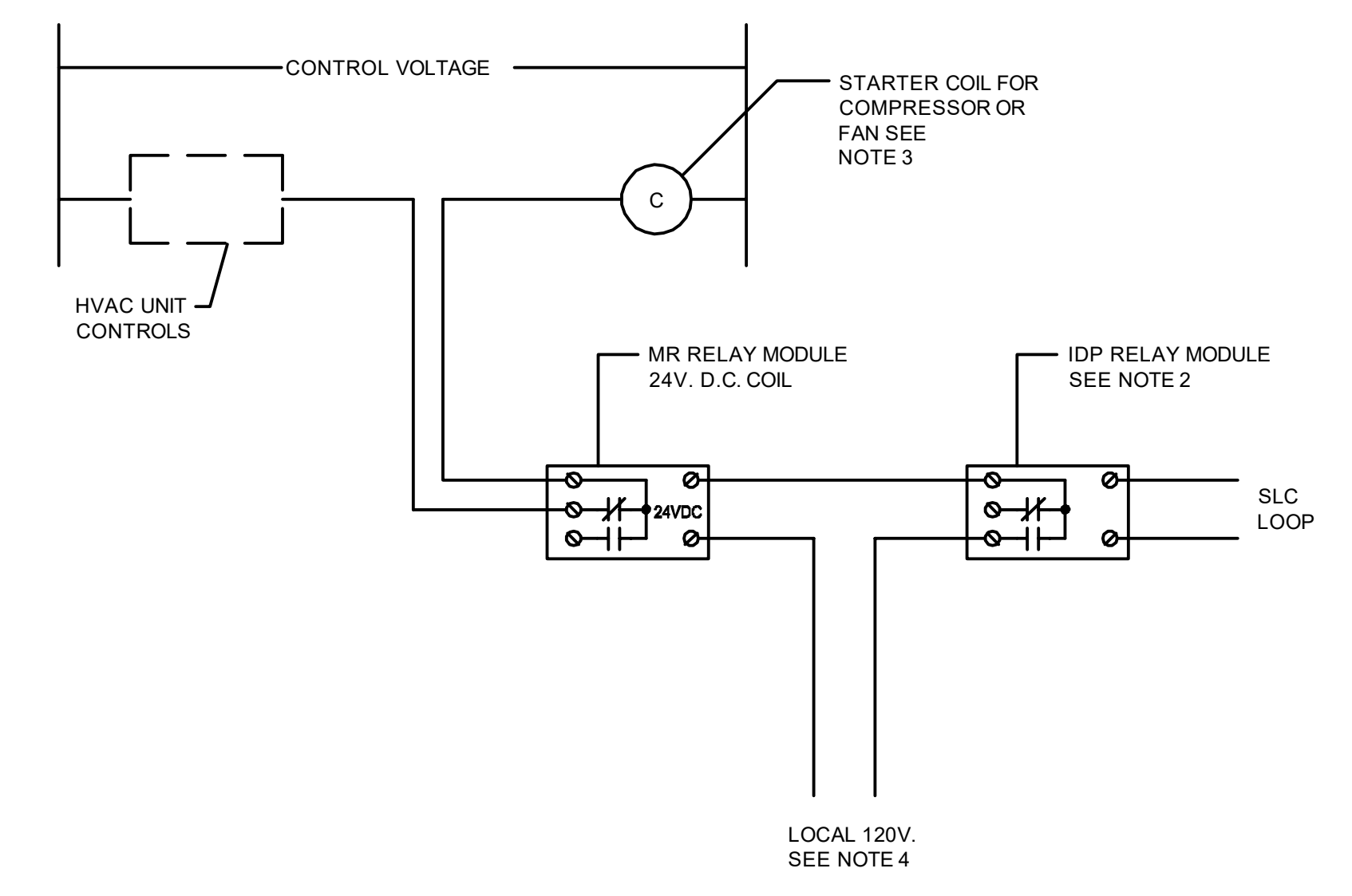
STROBES WORST CASE VOLTAGE DROP

PANEL NAME	WIRE GAUGE	CIRCUIT NUMBER	15cd	30cd	75cd	95	110	TOTAL CURRENT (AMPS)	DISTANCE (FEET)	TOTAL VOLTAGE DROP (%)	TOTAL DEVICES
FAPS	12AWG	V1				2		0.310	200	0.85%	2
FAPS	12AWG	V2						0.000		0.00%	0
FAPS	12AWG	V3						0.000		0.00%	0
FAPS	12AWG	V4						0.000		0.00%	0
TOTAL			0	0	0	2	0				

SPEAKER CIRCUIT LOAD CALCULATION

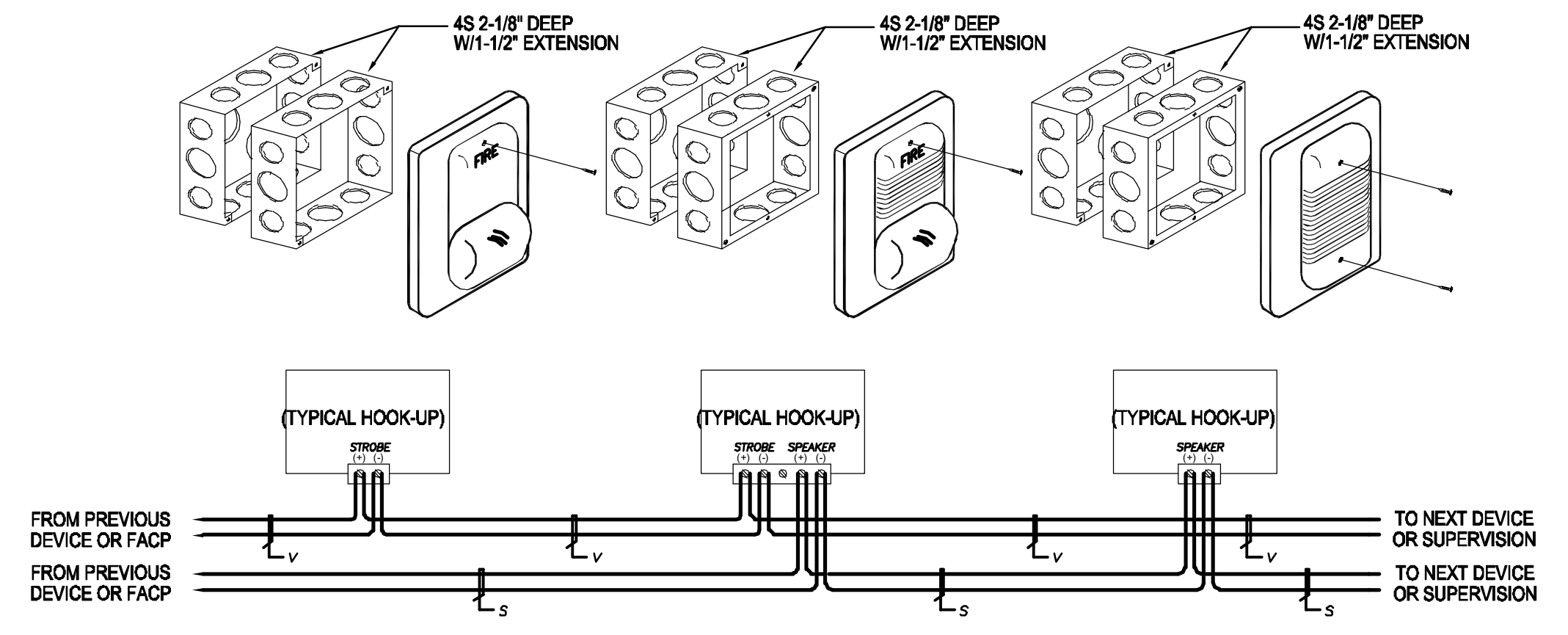
SPEAKER CIRCUIT DESCRIPTION	PANEL CIRCUIT NUMBER	WIRE GAUGE (18, 16, 14)	CIRCUIT VOLTAGE (25 OR 70 VRMS)	APPLIANCES QUANTITIES / TAP VALUES	TOTAL CIRCUIT LOAD (WATT)	ESTIMATED CIRCUIT LENGTH (FEET)	MFG. REC. MAXIMUM LOSS IS: .05dB	ACTUAL WIRE/LOSS (dB)	MAXIMUM ALLOWABLE LENGTH (FEET)	TOTAL CIRCUIT RESISTANCE (OHMS)
AMP	DINING HALL	S1	14 AWG	70	2	3	7.00	-0.02	7,500	1.55
(SPARE)	(SPARE)	S2	14 AWG	70			0.00	0.00		0.00
(SPARE)	(SPARE)	S3	14 AWG	70			0.00	0.00		0.00
(SPARE)	(SPARE)	S4	14 AWG	70			0.00	0.00		0.00
TOTAL					7.00					0.00

4 FIRE ALARM BATTERY CALCULATIONS
NOT TO SCALE

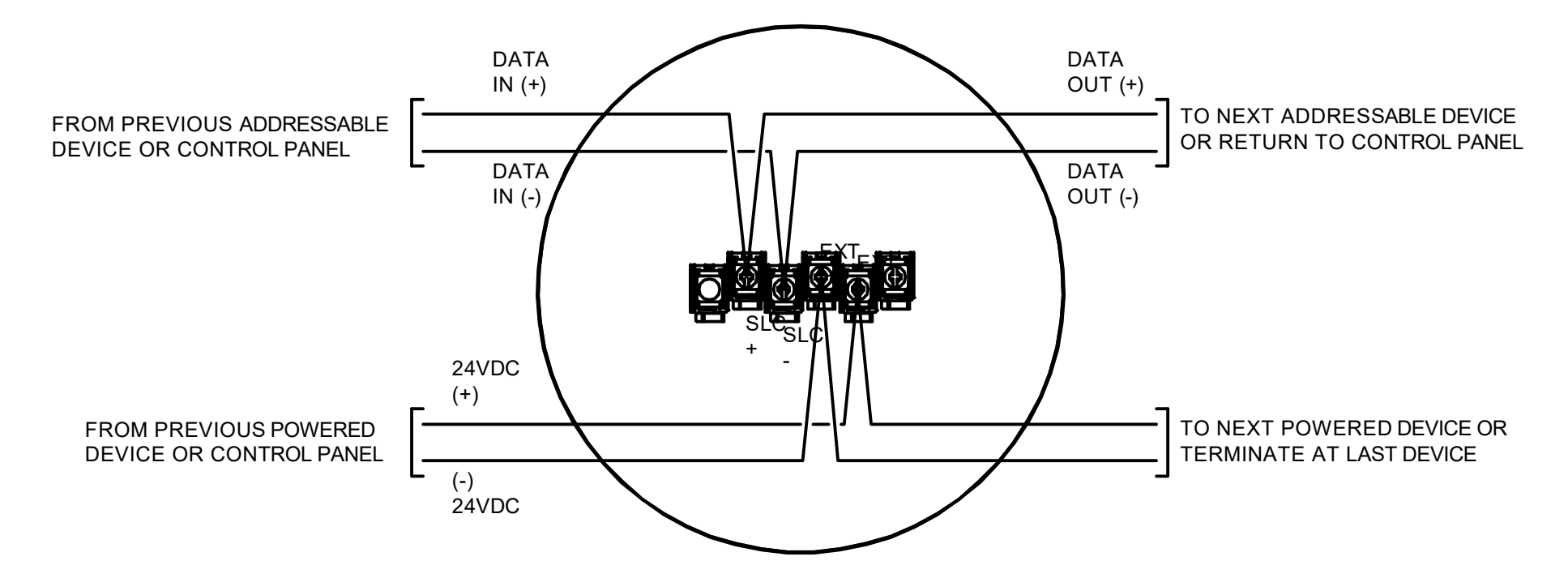


- NOTES:**
1. LOCATE NEW F.A. RELAY MODULES NEAR EXISTING HVAC UNIT CONTROL PANEL.
 2. IDP RELAY IS ACTIVATED BY THE AREA SMOKE/HEAT DETECTORS VIA SLC LOOP.
 3. VERIFY NUMBER OF STARTER COILS AT EACH HVAC UNIT. SOME UNITS REQUIRE 2 OR MORE RELAYS FOR SHUTDOWN OF COMPRESSORS AND FANS.
 4. USE 120V. SOURCE AT THE UNIT.
 5. A LISTED RELAY TO THE FIRE ALARM SYSTEM SHALL BE LOCATED WITHIN 3 FEET OF THE CONTROLLED CIRCUIT PER 2016 NFPA 6.16.2.2.

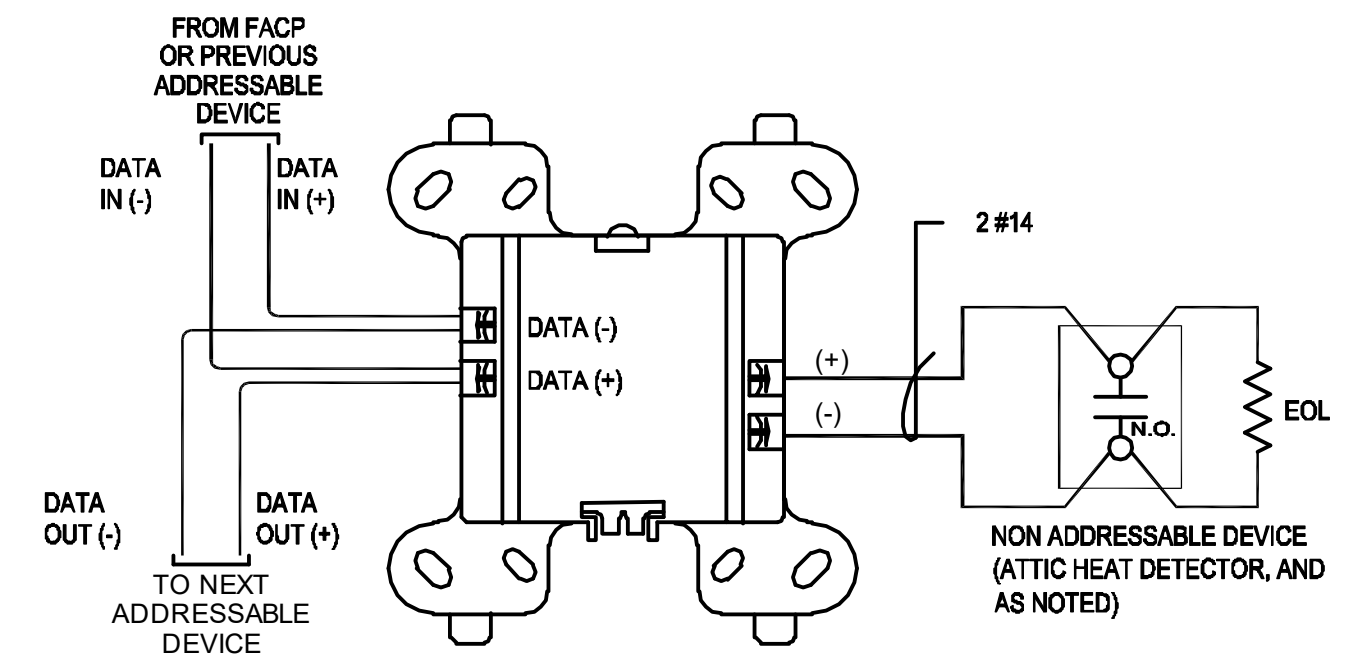
1 HVAC UNIT SHUT-DOWN DETAIL
 SCALE: NOT TO SCALE



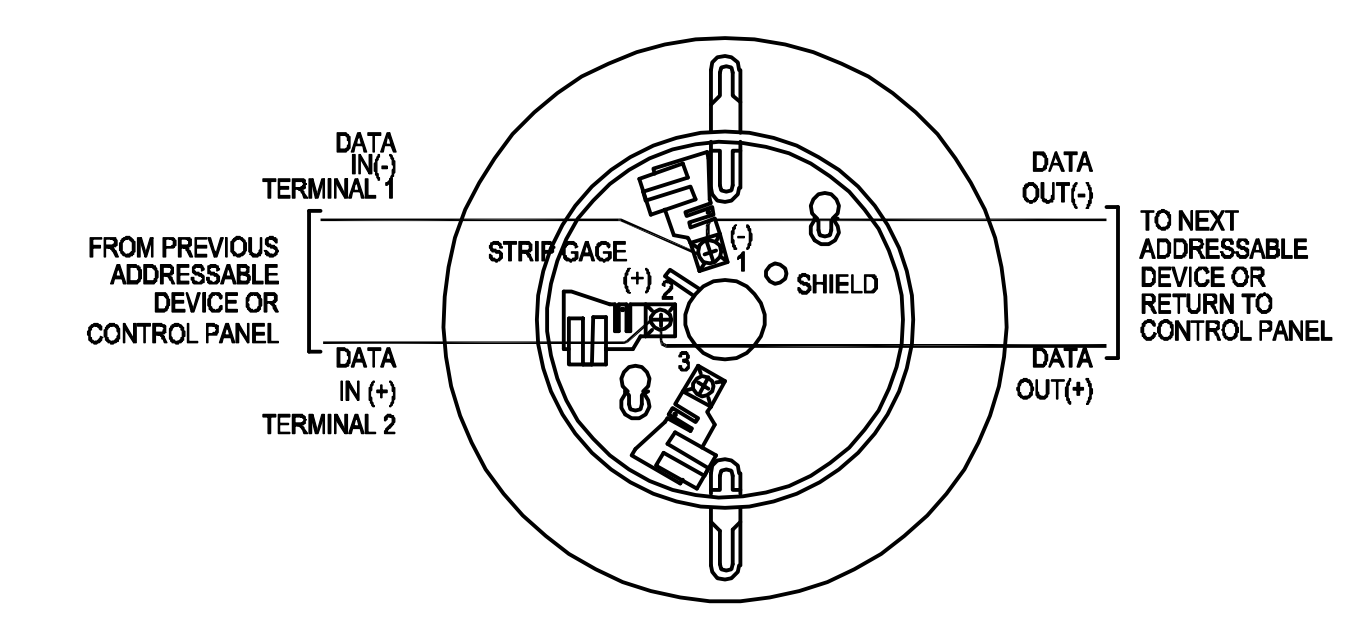
2 SPEAKER/ STROBE DETAIL
 SCALE: NOT TO SCALE



5 SOUNDER BASE DETAIL
 SCALE: NOT TO SCALE



4 MONITOR MODULE DETAIL
 SCALE: NOT TO SCALE



3 FIRE ALARM SMOKE/ HEAT DETECTOR DETAIL
 SCALE: NOT TO SCALE

From: Robert Malek <robertmalek@imperial.ca.us>
 Sent: Thursday, September 10, 2020 10:50 AM
 To: Forte, Chuck <Chuck.Forte@pbk.com>
 Cc: Andrew Lopez <andrew.lopez@imperial.ca.us>; Rudy Mesa <Rudy.Mesa@imperial.ca.us>; Rick Webster <rwebster@imperial.ca.us>
 Subject: Flow Test

Hydrant Flow Test for Imperial Valley College
 College Center Building

Static Pressure: 120 from Fire Pump
 Residual Pressure: 100 from Fire Pump
 Total Test Flow-rate (GPM): 1300
 GPM at 20 PSI: 3100

Robert Malek
 Deputy Chief Fire Marshal
 Imperial County Fire Department

FIRE SPRINKLER MATERIAL SCHEDULE

SPECIFICATION SECTION	DESCRIPTION	MODEL NO.	CSFM LISTING	MANUFACTURER
210500				
2.2	BURIED PIPE			
	IN-BUILDING RISER	SERIES IBR	N/A	AMES
2.3	ABOVE-GROUND PIPING			
	PIPE:			
	2 1/2" - 6" SCHED. 10	N/A	N/A	ALLIED
	1" - 2" SCHED. 40	N/A	N/A	ALLIED
	FITTINGS:			
	CAST IRON THREADED	N/A	N/A	ANVIL
	GROOVED	VGS	N/A	GRUVLOK
2.4	PIPE HANGERS AND SUPPORTS			
	----	----	----	ANVIL
2.6	GLOBE OR ANGLE VALVES			
	GLOBE VALVE	125SUL	N/A	UNITED BRASS
	ANGLE VALVE	126SUL	N/A	UNITED BRASS
2.8	BUTTERFLY VALVES			
	CHECK VALVES			
2.9	4" GROOVED CHECK VALVE	M-2	N/A	VIKING
211300				
1.5	STRUCTURAL DESIGN AND SEISMIC REQUIREMENTS			
	----	----	----	ANVIL
2.2	SPRINKLERS			
	MICROFAST QR SSU	VK300	N/A	VIKING
	MICROFAST QR SSP	VK302	N/A	VIKING
2.3	PIPING SPECIALTIES			
	10" ELECTRIC BELL	PBA-AC	7135-0328:0119	POTTER
	FLAWSWITCH	VSR-F	7770-0328:0001	POTTER

U.S. SEISMIC DESIGN

LATITUDE, LONGITUDE: 32.8290418, -115.5054213
 Ss: 2.232

HYDRAULIC CALCULATION DESIGN INFORMATION

CALCULATION AREA#	1
SPRINKLER HEAD TYPE	SSP
K-FACTOR	5.6
SYSTEM TYPE (WET/DRY)	WET
HAZARD CLASSIFICATION	ORD. GRP. 1
DENSITY (GPM/S.F.)	.15
AREA PER HEAD	130 SQ. FT.
AREA OF OPERATION (S.F.)	1563
AREA OF OPERATION ADJUSTMENTS:	
DRY PIPE INCREASE (30%)	N/A
SLOPE > 2:12 INCREASE (30%)	N/A
CEILING HEIGHT	N/A
PERCENT REDUCTION	N/A
CEILING REDUCTION (S.F.)	N/A
ADJUSTED AREA OF OPERATION	N/A
WATER SUPPLY	
STATIC (PSI)	120
RESIDUAL (PSI)	20
FLOW (GPM)	3100
FIRE PUMP (GPM @ PSI)	N/A
SYSTEM DEMAND @ SOURCE	
PRESSURE REQUIRED (PSI)	91.84
FLOW REQUIRED (GPM)	791.26
PRESSURE AVAILABLE (PSI)	112.04
SAFETY MARGIN (PSI)	20.17
HOSE STREAM ALLOWANCE (GPM)	
INSIDE	-----
OUTSIDE	250
SYSTEM DEMAND AT BASE OF RISER	
PRESSURE REQUIRED (PSI)	89.68
FLOW REQUIRED (GPM)	541.26

PROTECTION AREAS AND MAXIMUM SPACING OF STANDARD PENDENT AND UPRIGHT SPRAY SPRINKLERS

CONSTRUCTION TYPE	OCCUPANCY TYPE	MAXIMUM SPRINKLER SPACING (ft)
COMBUSTIBLE OBSTRUCTED CONSTRUCTION	LIGHT HAZARD	130
	ORDINARY HAZARD	130
COMBUSTIBLE UNOBSTRUCTED HYDRAULICALLY CALCULATED	LIGHT HAZARD	225
	ORDINARY HAZARD	130

ANY SUBSTITUTION OF "FLEXIBLE" TYPE PIPING IN LIEU OF "RIGID" PIPE OR ANY CHANGES TO SIZE, MANUFACTURER OR LENGTHS OF "FLEXIBLE" TYPE PIPING REQUIRE RESUBMITTAL OF PIPING PLANS, PRODUCT DATA SHEETS AND HYDRAULIC CALCULATIONS TO DSA FOR REVIEW AND APPROVAL. CONTRACTOR SHALL REIMBURSE SCHOOL DISTRICT FOR COST IF ADDITIONAL PLAN CHECK IS REQUIRED.

ANY CHANGES TO THE FIRE SPRINKLER SUPPORT, INCLUDING THE ADDITION OF SWAY BRACING, TO THE APPROVED DSA CONSTRUCTION SET WILL RESULT IN A CHANGE TO THE CONSTRUCTION DOCUMENTS (CCD) AND WILL NEED TO FOLLOW DSA PROCEDURES FOR CCD. CONTRACTOR SHALL REIMBURSE SCHOOL DISTRICT FOR COST IF ADDITIONAL PLAN CHECK IS REQUIRED.

FIRE SPRINKLER LEGEND

SYMBOL	DESCRIPTION
⊙	DETAIL DESIGNATION DETAIL NUMBER SHEET NO. WHERE SHOWN
○	HYDRAULIC CALCULATION REFERENCE NODE
↔	EARTHQUAKE BRACE
⊕	FIRE SPRINKLER RISER
□	GROOVED COUPLING
∕ X	HANGER DESIGNATION
—○—	CHANGE IN ELEVATION
⊥	CAP
⊥	PLUG
⊥	VALVE
—	FIRE SPRINKLER PIPE
— —	END OF LINE RESTRAINT

SPRINKLER SYSTEM - GENERAL INFORMATION

FOR: IMPERIAL VALLEY COLLEGE

DATE: 9/17/2020

FLOW TEST DATA:

STATIC:	100	PSI	RESID:	20	PSI
FLOW:	3100	GPM	PITOT:	N/A	PSI
9/10/2020 LOCATION ON SITE HYDRANT					

LOCATION OF AUX/LOW POINT DRAINS:

ORIGINAL MAIN DRAIN TEST RESULTS:

STATIC	X	PSI	RESID:	X	PSI
HIGH PILED:	-	YES	X	NO	
RACK STORAGE:	-	YES	X	NO	

COMMODITY CLASS:

MAXIMUM STORAGE	XX	FT		
aisle width (min.)	XX	FT		
ENCAPSULATION:	-	YES	X	NO
SOLID SHELVING:	-	YES	X	NO
FLAMMABLE / COMBUSTIBLE LIQUIDS	-	YES	X	NO
OTHER STORAGE:	-	YES	X	NO
HAZARDOUS MATERIAL	-	YES	X	NO
IDLE PALLETS	-	YES	X	NO
ANTIFREEZE SYSTEMS	-	YES	X	NO
DRY OR AUX SYS	-	YES	X	NO

LOCATION:

NAME OF CONTRACTOR OR DESIGNER: LEAF ENGINEERS

ADDRESS & PHONE: 895 W. ASHLAN AVE., SUITE 101
 CLOVIS, CA 93612
 PH 559-348-2130

BUILDING DATA

PROJECT DESCRIPTION: INSTALL NEW WET PIPE FIRE SPRINKLER SYSTEM IN EXISTING COLLEGE CENTER BUILDING AND NEW EXPANSION

OWNER: IMPERIAL VALLEY COLLEGE
 380 E. ATEN ROAD
 IMPERIAL, CA 92251

BUILDING DATA/ CODE ANALYSIS

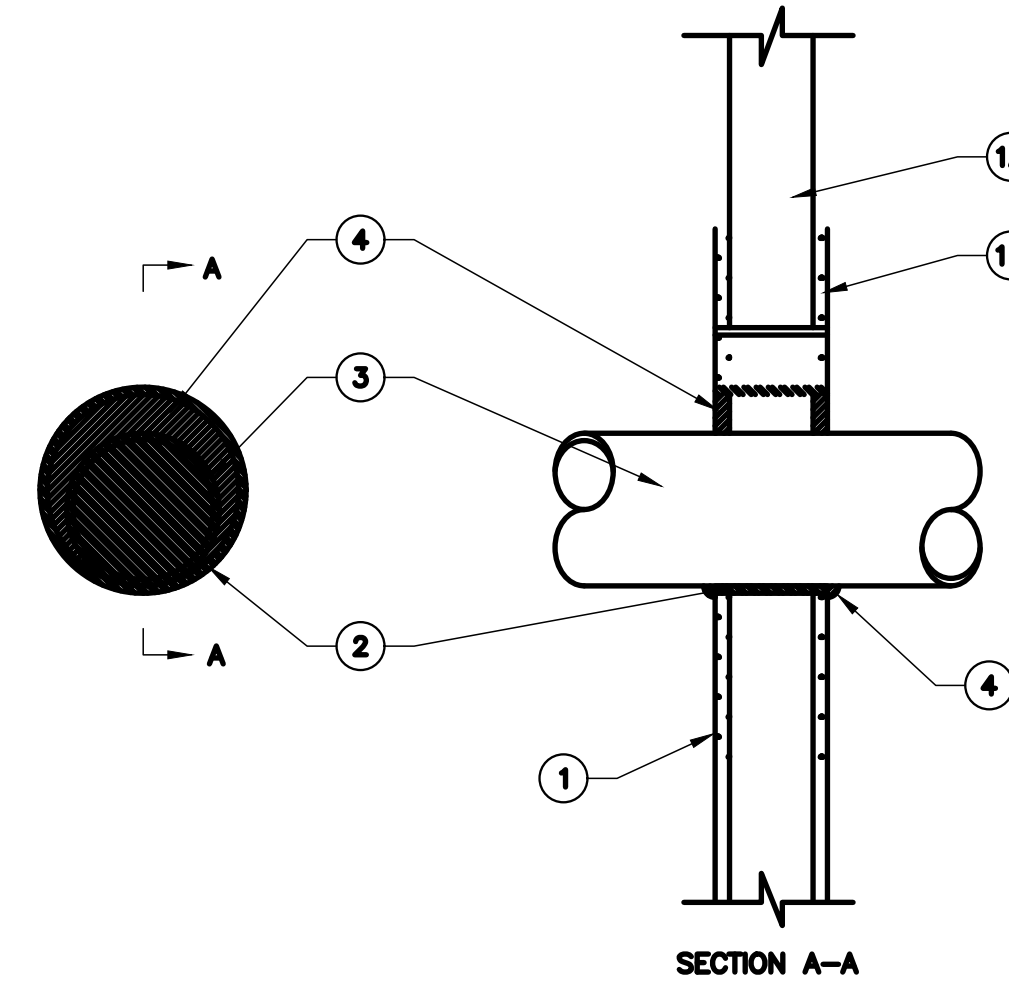
DESCRIPTION	MULTI-PURPOSE
OCCUPANCY GROUP	A2
CONSTRUCTION TYPE	V-B
STORIES	1
HEIGHT	+16'-3" (+50'-0" MAX.)
FIRE SPRINKLER SYSTEM	YES
FIRE ALARM	YES
TOTAL ALLOWABLE AREA (sq.ft.)	24,000
(E) BLDG. 600 (sq.ft.)	13,900S.F.
(E) BLDG. 600 OVERHANGS	2,138 S.F.
(E) ADJACENT TRELLIS	768 S.F.
BLDG. 600 ADDITION	3,027 S.F.
TOTAL BLDG. 600 SQ. FTG.	19,831 S.F.

FIRE SPRINKLER SHEET INDEX

SHEET NO.	SHEET TITLE
FP0.01	FIRE SPRINKLER COVER SHEET AND LEGENDS
FP0.02	FIRE SPRINKLER NOTES
FP0.03	FIRE SPRINKLER REFERENCE SITE PLAN
FP2.01	FIRE SPRINKLER PIPING PLAN
FP6.01	FIRE SPRINKLER DETAILS AND BUILDING CROSS SECTION
FP10.01	FIRE SPRINKLER REFLECTED CEILING PLAN

- WALL ASSEMBLY THE 1 OR 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 2-1/2 IN. WIDE AND SPACED MAX 24 IN. OC. WHEN STEEL STUDS ARE USED AND THE DIAM OF OPENING EXCEEDS THE WIDTH OF STUD CAVITY, THE OPENING SHALL BE FRAMED ON ALL SIDES USING LENGTHS OF STEEL STUD INSTALLED BETWEEN THE VERTICAL STUDS AND SCREW-ATTACHED TO THE STEEL STUDS AT EACH END. THE FRAMED OPENING IN THE WALL SHALL BE 4 TO 6 IN. WIDER AND 4 TO 6 IN. HIGHER THAN THE DIAM OF THE PENETRATING ITEM SUCH THAT, WHEN THE PENETRATING ITEM IS INSTALLED IN THE OPENING, A 2 TO 3 IN. CLEARANCE IS PRESENT BETWEEN THE PENETRATING ITEM AND THE FRAMING ON ALL FOUR SIDES.
 - GYPSUM BOARD* THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IN STEEL STUD WALLS IS 32IN.. MAX DIAM OF OPENINGS IN WOOD STUD WALLS IS 14-1/2 IN. IN THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
- STEEL SLEEVE - NOM 3/2 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE SLEEVE FRICION FIT IN NOM 3/2 IN. DIAM CIRCULAR OPENING CUT THROUGH GYPSUM WALLBOARD LAYERS. LENGTH OF STEEL SLEEVE TO BE EQUAL TO THICKNESS OF WALL.
- THROUGH-PENETRANT - ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND THE STEEL SLEEVE SHALL BE MIN OF 0 IN. (POINT CONTACT) TO MAX 1-7/8 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE - NOM 3/4 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE - NOM 3/4 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.
 - CONDUIT - NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
 - COPPER TUBING - NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - COPPER PIPE - NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- FILL VOID OR CAVITY MATERIAL-SEALANT - MIN 5/8 IN. AND 1-14 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY FOR 1 OR 2 HR RATED WALLS. RESPECTIVELY, MIN 1/2 IN. DIAM BEAD OF GULK APPLIED TO THE PENETRANT/WALLBOARD INTERFACE AT THE POINT CONTACT LOCATION ON BOTH SIDES OF WALL.

HILTI CONSTRUCTION CHEMICALS, DIV OF
 HILTI INC - FS-ONE SEALANT
 *BEARING THE UL CLASSIFICATION MARKING



FIRE STOP DETAIL RATED WALL

NTS

DSA FILE NO. 37-C2 AH 04-11930

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 DIV. OF THE STATE ARCHITECT
 APP: 04-119487 INC.
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CONSULTANT

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ARCHITECT

CLIENT

PROJECT NUMBER
 20190
 DATE: 09/17/2020
 DRAWN BY:
 CHECKED BY:
 REVISIONS

No.	Description	Date

DSA SUBMITTAL

FIRE
 SPRINKLER
 COVER SHEET
 AND LEGENDS

FP0.01

OVERHEAD FIRE SPRINKLER SYSTEM NOTES

- NFPA 13 (2016) SEC. 10.10.2.1 UNDERGROUND MAINS AND LEAD-IN CONNECTIONS TO SYSTEM RISERS SHALL BE COMPLETELY FLUSHED BEFORE CONNECTION IS MADE TO THE OVERHEAD FIRE SPRINKLER PIPING SYSTEM. (WITNESSED BY THE INSPECTOR OF RECORD)
- NFPA 13 (2016) SEC. 9.3.4.2 CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS AND FOUNDATIONS INCLUDING DRAINS SUCH THAT THE DIAMETER OF THE HOLES IS 2 INCHES LARGER THAN THE PIPE FOR 1 INCH TO 3 1/2 INCH NOMINAL AND 4 INCHES LARGER THAN THE PIPE FOR PIPE 4 INCH NOMINAL AND LARGER.
- NFPA 13 (2016) SEC. 25.2.1 ALL INTERIOR PIPING AND APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS. (WITNESSED BY THE DSA PROJECT INSPECTOR)
- NFPA 13 (2016) SEC. 6.2.9.5 PROVIDE SPARE SPRINKLER HEAD CABINET, WRENCH, AND NO FEWER THAN A TOTAL OF 6 SPARE SPRINKLER HEADS MATCHING THE TYPES AND TEMPERATURE RATINGS IN EACH PROTECTED BUILDING FOR SYSTEMS WITH LESS THAN 300 SPRINKLERS AND 12 SPARE SPRINKLERS FOR SYSTEMS WITH 300-1000 SPRINKLERS.
- NFPA 13 (2016) SEC. 9.3.6 PROVIDE RESTRAINT OF BRANCH LINES BY USING ONE OF THE FOLLOWING:
 - LISTED SWAY BRACE ASSEMBLY
 - WRAPAROUND U-HOOK SATISFYING THE REQUIREMENTS OF 6-4.5.3, EXCEPTION NO. 3
 - NO. 12, 440-LB WIRE INSTALLED AT LEAST 45 DEGREES FROM THE VERTICAL PANE AND ANCHORED ON BOTH SIDE OF THE PIPE.
 - HANGER NO LESS THAN 45 DEGREES FROM VERTICAL, INSTALLED WITHIN 6 INCHES OF THE VERTICAL HANGER ARRANGED FOR RESTRAINT AGAINST UPWARD MOVEMENT, PROVIDED IT IS UTILIZED SUCH THAT L/R DOES NOT EXCEED 300, WHERE THE ROD SHALL EXTEND TO THE PIPE OR HAVE A SURGE CLIP INSTALLED.
- NFPA 72 (2019) SEC. 5-10.2 SPRINKLER FLOW SWITCHES SHALL BE TESTED BY IOR TO CONFIRM THAT WHEN THE INSPECTORS' TEST VALVE IS ACTIVATED AND ALARM WILL SOUND IN NO LESS THAN 20 SECONDS AND NOT MORE THAN 90 SECONDS.
- CBC (2019) SEC. 903.4.1 MAIN FIRE ALARM PANEL, MONITORING AND WATER FLOW ALARM AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION MONITORING COMPANY.
- NFPA 13 (2016) SEC. 6.9 FLOW SWITCHES SHALL BE CONNECTED TO A 10 INCH OUTSIDE ALARM BELL AT EACH RISER, AN APPROVED IDENTIFICATION SIGN SHALL BE PROVIDED FOR THE OUTSIDE ALARM BELL. THE SIGN IS TO READ "SPRINKLER FIRE ALARM-WHEN BELL RINGS CALL 911/FIRE DEPARTMENT"
- NFPA 13 (2016) SEC. 25.5 HYDRAULIC CALCULATION DESIGN DATA PLACARD IS TO BE ATTACHED TO THE FIRE SPRINKLER SYSTEM RISER.
- NFPA 13 (2016) SEC. 25.1 THE FIRE SPRINKLER CONTRACTOR (C-16) SHALL COMPLETE AND SIGN THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE OVERHEAD FIRE SPRINKLER SYSTEM USING THE FORM IN FIGURE 24.1. THIS FORM SHALL BE GIVEN TO THE DSA PROJECT INSPECTOR WHO WILL TURN IT IN FOR DSA RECORDS.
- NFPA 13 (2016) SEC. 25.2.3.4 THE MAIN DRAIN VALVE SHALL BE OPENED AND REMAIN OPEN UNTIL THE SYSTEM PRESSURE STABILIZES. THE STATIC AND RESIDUAL PRESSURES SHALL BE RECORDED ON THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATE. THE TEST IS TO BE WITNESSED BY THE INSPECTOR OF RECORD - IOR.
- SPRINKLER UPRIGHTS AND DROPS OVER 4 FEET LONG SHALL BE RESTRAINED TO PREVENT DAMAGE TO PIPING OR TO AND FROM ADJACENT BUILDING ELEMENTS.
- TITLE 19 ARTICLE 906(A) A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

FIRE PROTECTION NOTES

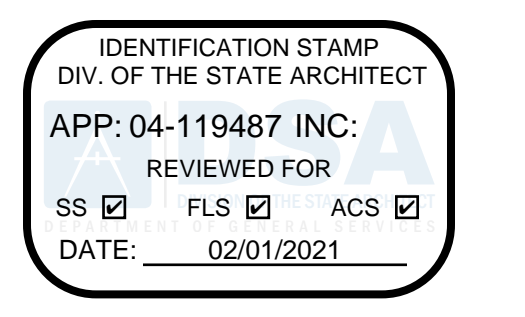
- ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN COMPLIANCE WITH THE FOLLOWING CODES AS AMENDED AND ADOPTED BY THE INSPECTION AUTHORITY. NOTHING IN THESE PLANS IS TO BE CONSTRUCTED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THIS PROJECT.
 - CALIFORNIA FIRE CODE, 2019
 - NFPA-13, 2016
 - IMPERIAL COUNTY FIRE DEPARTMENT REQUIREMENTS
 - CALIFORNIA BUILDING CODE - 2019
 - CALIFORNIA MECHANICAL CODE - 2019
 - CALIFORNIA PLUMBING CODE - 2019
 - CALIFORNIA ELECTRICAL CODE - 2019
 - STATE OF CALIFORNIA ENERGY CONSERVATION REGULATIONS, TITLE 24 - 2019 NATIONAL FIRE PROTECTION ASSOCIATION
 - OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)
 - SEISMIC RESTRAINT: ALL HUNG PIPING SHALL CONFORM TO NFPA 13, SECTION 9.3.
 - LATERAL BRACING MAY BE ELIMINATED IF PIPING 2-1/2" AND LARGER IS SUSPENDED BY INDIVIDUAL HANGERS 6" OR LESS IN LENGTH FROM THE TOP OF PIPE TO THE BOTTOM OF THE ATTACHMENT TO STRUCTURE.
 - NO TRAPEZE ASSEMBLIES SHALL BE USED TO SUPPORT PIPING.
 - WHERE LATERAL RESTRAINTS ARE OMITTED, PIPING SHALL BE INSTALLED SUCH THAT LATERAL MOTION OF THE PIPING WILL NOT CAUSE DAMAGING IMPACT WITH OTHER SYSTEMS OR STRUCTURAL MEMBERS, OR LOSS OF VERTICAL SUPPORT.
- THE STRUCTURAL ENGINEER OF RECORD SHALL BE RESPONSIBLE TO VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACING LOADS.
- THE CONTRACTOR SHALL SURVEY EXISTING FIELD CONDITIONS PRIOR TO BIDDING. IF AWARDED THE CONTRACT, THE CONTRACTOR SHALL SURVEY EXISTING FIELD CONDITIONS IN DETAIL AND COORDINATE THE WORK WITH EXISTING BUILDING SYSTEMS.
- ANY DAMAGE TO NEW BUILDING ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL SYSTEMS THAT OCCURS DURING THE WORK SHALL BE RESTORED TO THE ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. IF LANDSCAPED AREAS INCLUDING NATURAL SPACES MUST BE USED FOR BUILDING ACCESS, THE LANDSCAPING SHALL BE RETURNED TO ITS ORIGINAL CONDITION. THE CONTRACTOR SHALL INCLUDE COSTS IN THE BID FOR THIS WORK IF THIS APPROACH IS USED. THE OWNER WILL NOT PAY ANY ADDITIONAL COSTS TO COVER DAMAGE TO THE BUILDING SYSTEMS, LANDSCAPING OR DRIVE AREAS.
- COORDINATE THE FOLLOWING WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND ELEMENTS AS INSTALLED, INCLUDING EXISTING BUILDING SYSTEMS:
 - EXACT LOCATION OF ALL EQUIPMENT.
 - ALL PENETRATIONS THRU ROOF, WALLS AND FLOORS.
 - EXACT SIZE AND ROUTING OF PIPING.
- DRAWINGS INDICATE DIAGRAMMATICALLY THE ARRANGEMENT OF PRINCIPAL APPARATUS, PIPING, AND OTHER MATERIAL. FOLLOW DRAWING AS CLOSELY AS POSSIBLE, IN ORDER TO ACHIEVE A NEAT ARRANGEMENT OF PIPING AND EQUIPMENT WHILE STILL OVERCOMING OBSTRUCTIONS.
- INSTALLATION OF THE SPRINKLER SYSTEM SHALL NOT BE STARTED UNTIL COMPLETE PLANS AND SPECIFICATIONS, INCLUDING WATER SUPPLY INFORMATION, HAVE BEEN APPROVED BY THE LOCAL FIRE MARSHAL. AT VARIOUS STAGES AND UPON COMPLETION, THE SYSTEM MUST BE TESTED IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION.
- ALL EXISTING FIRE PROTECTION SYSTEMS SHALL REMAIN IN OPERATION DURING ALL PHASES OF CONSTRUCTION. NO SYSTEMS ARE TO BE SHUTDOWN WITHOUT AUTHORIZATION FROM THE OWNER AND LOCAL FIRE DISTRICT.
- THE LOCATION OF FIRE SPRINKLER HEADS SHALL BE COORDINATED WITH THE NEW CEILING LAYOUTS AND ALL OTHER TRADES FOR COMPLETE FIRE PROTECTION COVERAGE OF ALL AREAS. PROVIDE DETAILED PLANS FOR APPROVAL PRIOR TO INSTALLATION.
- HEADS SHALL BE SYMMETRICALLY LOCATED IN CENTER OF CEILING PANELS. COORDINATE LAYOUT WITH CEILING OR SOFFIT LIGHT FIXTURES, AND HVAC DIFFUSERS, RETURNS, ETC. PROVIDE PENDENT AND/OR UPRIGHT TYPE SPRINKLER HEAD WHERE REQUIRED.
- WORKMANSHIP: ALL WORK SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER ACCORDING TO THE BEST TRADE PRACTICE BY THOSE SKILLED IN THE PARTICULAR TRADE. PIPES, EQUIPMENT, ETC., TO BE INSTALLED LEVEL, SQUARE OR CENTERED, ETC., TO GIVE A NEAT AND PLEASING APPEARANCE. ALL EQUIPMENT IS TO BE INSTALLED STRICTLY PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE ALL WORK WITH OTHER TRADES.
- THE ANNULAR SPACE BETWEEN PIPE SLEEVES AND THE PIPE THROUGH ALL RATED WALLS AND FLOORS SHALL BE FIRESTOPPED. FIRESTOPPING OF ALL PIPE PENETRATIONS SHALL COMPLY WITH U.L. REQUIREMENTS. MANUFACTURER PREAPPROVED UL PENETRATION FOR PIPE MATERIAL AND SURFACE PENETRATED SHALL BE USED. PENETRATIONS SHALL BE 3M, PROSET, OR APPROVED EQUAL. SUBMIT SHOP DRAWINGS.
- BY OTHERS:
 - ELECTRICAL CONTRACTOR: ALL POWER AND ALARM WIRING, CONDUITS, DISCONNECTS, AND FINAL CONNECTIONS. NO FIELD SUPPLIED ELECTRICAL DEVICE SHALL BE MOUNTED ON PIPING AND NO RIGID ELECTRICAL CONNECTIONS SHALL BE MADE.
 - GENERAL CONTRACTOR: CUTTING, FRAMING, PATCHING, FURRING, AND PAINTING.
- WARRANTY: ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE GUARANTEED FREE FROM ALL FIRE PROTECTION, ELECTRICAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGES TO THE PREMISES CAUSED BY LEAKS AND/OR BREAKS IN PIPES AND FIXTURES INSTALLED UNDER THIS CONTRACT.
- IT IS THE INTENTION OF THE PLANS AND SPECIFICATIONS TO COVER ALL THINGS REQUIRED TO PROVIDE COMPLETE AND OPERATIVE SYSTEMS. THE CONTRACTOR IS TO FURNISH ALL LABOR, MATERIALS, TRANSPORTATION, EQUIPMENT, MISCELLANEOUS SERVICES, ETC., REQUIRED TO ACCOMPLISH THIS RESULT. ANYTHING WHICH MAY BE REASONABLY CONSTRUED AS A NECESSARY PART OF THE INSTALLATION IS TO BE INCLUDED, WHETHER SPECIFICALLY SHOWN OR MENTIONED. THE ENGINEER WILL GIVE ANY INTERPRETATIONS NECESSARY FOR THE CONTRACTOR TO PROPERLY ESTIMATE THE JOB.
- IT IS THE CONTRACTORS' RESPONSIBILITY TO PROVIDE FABRICATION OR SHOP DRAWINGS. CAD FILES WILL NOT BE PROVIDED

GENERAL NOTES

- THE SYSTEM DESIGN AND INSTALLATION SHALL COMPLY WITH NFPA 13, 2016 EDITION AND THE DSA REQUIREMENTS.
- SYSTEM HYDRAULIC DESIGN IS FOR: LIGHT HAZARD, KITCHEN: ORDINARY HAZARD, GRP. 1
- CITY WATER SUPPLY INFORMATION: IMPERIAL COUNTY FIRE DEPARTMENT
STATIC: 120 PSI RESIDUAL: 20 PSI GPM: 3100
- ALL PIPE 2" AND SMALLER SHALL BE SCHEDULE 40, BLACK STEEL ANSI/ASTM A135.
- ALL GROOVED AND WELDED PIPE 2 1/2" - 6" SHALL BE SCHEDULE 10, BLACK STEEL ANSI/ASTM A785.
- THREADED FITTINGS SHALL BE CLASS 125 THREADED CAST IRON ANSI B16.4.
- ALL THREADED PIPE AND FITTINGS SHALL HAVE THREADS CUT TO ANSI/ASME STANDARD B1.20.1.
- ALL PIPE WELDING SHALL BE IN COMPLIANCE WITH THE REQUIREMENTS OF AWS D10.9 (STANDARD FOR BUILDING SERVICE PIPING), LEVEL AR-3.
- ALL PIPE SHALL BE EARTHQUAKE BRACED AS OUTLINED IN NFPA 13, 2016 EDITION, SECTION 9.3, AND AS MODIFIED BY THE 2019 CBC.
- ALL HANGER COMPONENTS AND INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 13, 2016 EDITION, SECTION 9.1 AND 9.2, AND AS MODIFIED BY THE 2019 CBC.
- ELECTRICAL WIRING AND ANY PAINTING OF THE PIPE THAT MAY BE REQUIRED SHALL BE BY OTHERS.
- ALL NEW PIPING IS TO BE HYDROSTATICALLY TESTED TO CODE FOR A PERIOD NOT LESS THAN TWO HOURS.
- FLOW AND TAMPER SWITCHES ARE TO BE PROVIDED ON THE FIRE SPRINKLER SYSTEM. ALL ELECTRICAL WIRING TO BE PROVIDED "BY ELECTRICAL CONTRACTOR."
- FIRE SPRINKLER SUPPLY AND STUB OUT SHALL BE INSTALLED AND TESTED PER NFPA 24.
- MAIN FIRE PANEL, VALVE MONITORING, WATER FLOW ALARM AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION MONITORING COMPANY.

ANY SUBSTITUTION OF "FLEXIBLE" TYPE PIPING IN LIEU OF "RIGID" PIPE OR ANY CHANGES TO SIZE, MANUFACTURER OR LENGTHS OF "FLEXIBLE" TYPE PIPING REQUIRE RESUBMITAL OF PIPING PLANS, PRODUCT DATA SHEETS AND HYDRAULIC CALCULATIONS TO DSA FOR REVIEW AND APPROVAL. CONTRACTOR SHALL REIMBURSE SCHOOL DISTRICT FOR COST IF ADDITIONAL PLAN CHECK IS REQUIRED.

ANY CHANGES TO THE FIRE SPRINKLER SUPPORT, INCLUDING THE ADDITION OF SWAY BRACING, TO THE APPROVED DSA CONSTRUCTION SET WILL RESULT IN A CHANGE TO THE CONSTRUCTION DOCUMENTS (CCD) AND WILL NEED TO FOLLOW DSA PROCEDURES FOR CCD. CONTRACTOR SHALL REIMBURSE SCHOOL DISTRICT FOR COST IF ADDITIONAL PLAN CHECK IS REQUIRED.



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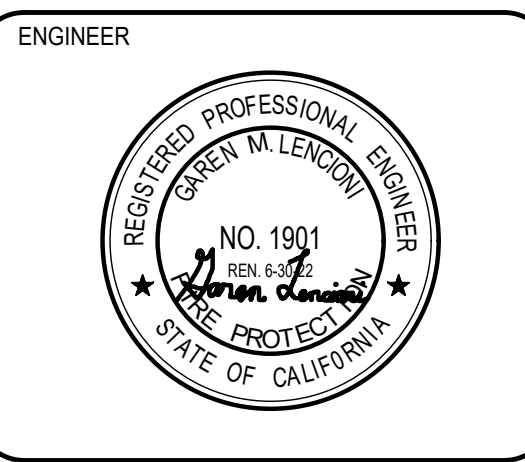


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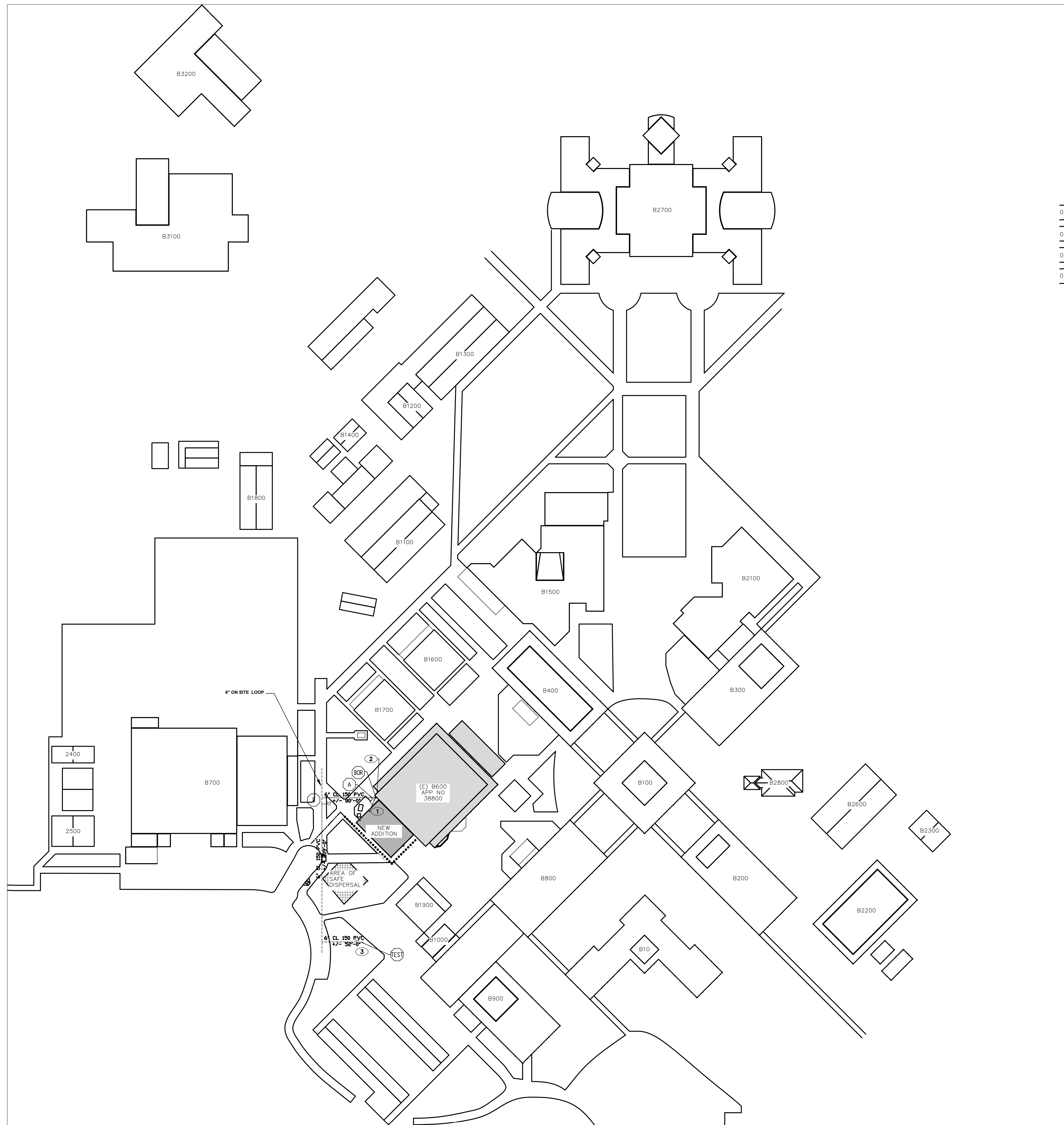
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PROJECT NUMBER	20190	
DATE:	09/17/2020	
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REVISIONS		
No.	Description	Date

DSA SUBMITTAL
FIRE
SPRINKLER
NOTES

FP0.02



KEYNOTES

- ① FIRE SPRINKLER RISER
- ② 10" ELECTRIC BELL
- ③ TEST HYDRANT - + 3 FEET

THRUST BLOCK CALCULATION

$$7.9 \text{ ft}^2 \frac{120}{1000} = 4.74 \text{ ft}^2$$

REQUIRED HORIZONTAL BEARING BLOCK AREA PER NFPA 13 A.6.6.1(b)

$$6" = 7.9 \text{ ft}^2$$

DSA FILE NO. 13-C1 A# 04-119487

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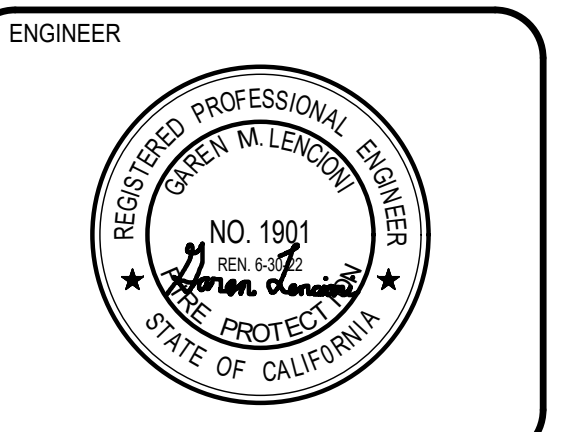
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20190

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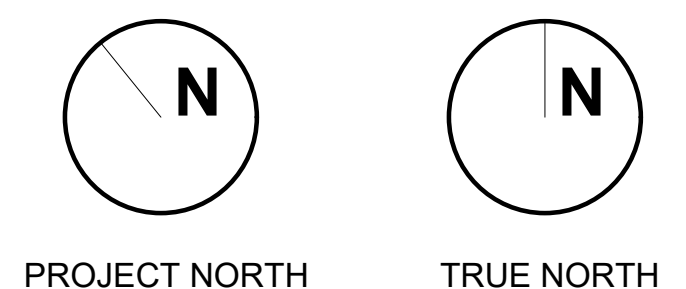
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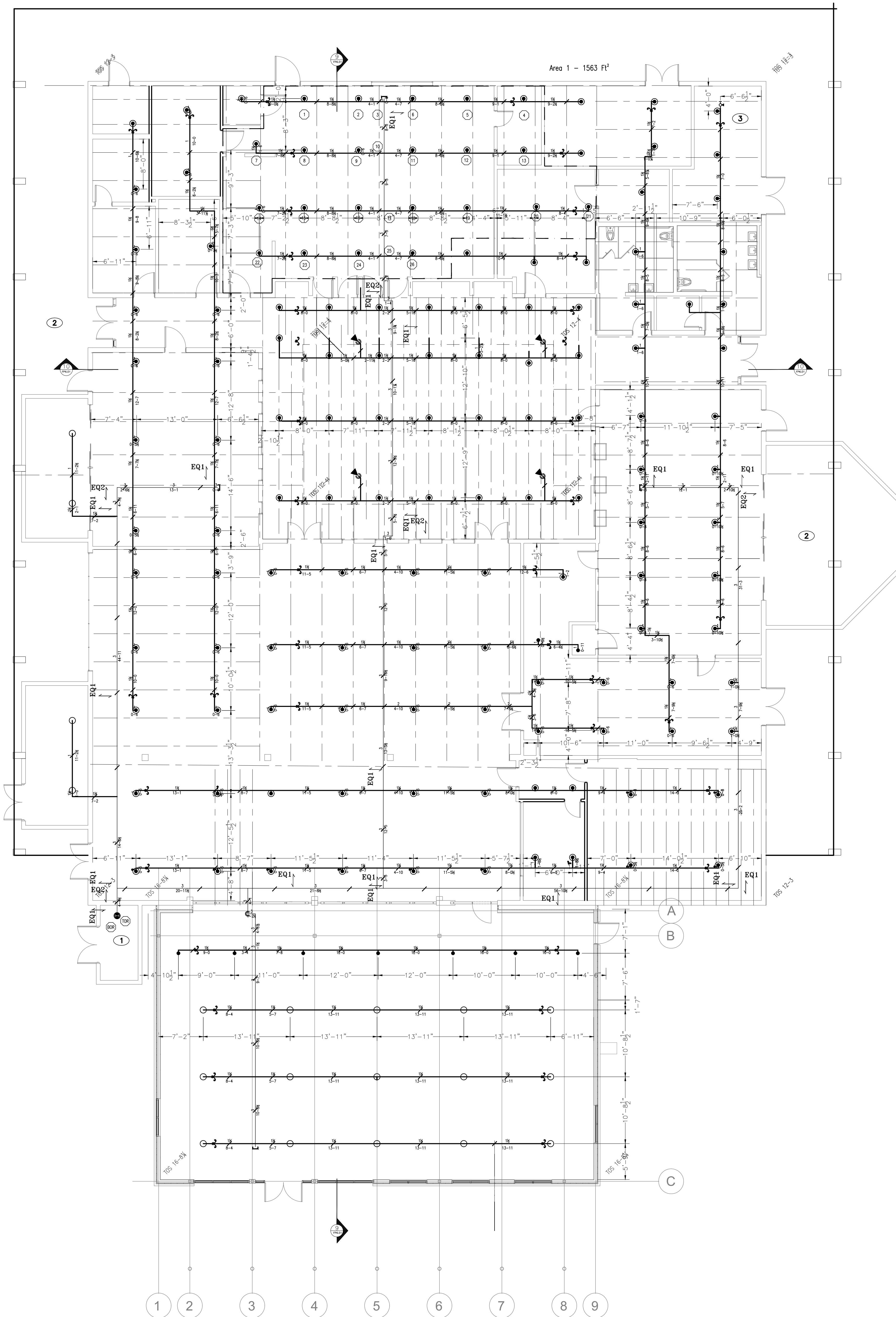
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**FIRE
SPRINKLER
REFERENCE
SITE PLAN**

FP0.03





- ### KEY NOTES
- 1 FIRE SPRINKLER RISER
 - 2 NONCOMBUSTIBLE CANOPY -- NO AS REQUIRED PER NFPA 13, 8.15.7.3
 - 3 1" VALVE FOR AIR VENT

- ### GENERAL NOTES
1. CONTRACTOR IS TO COORDINATE WITH ALL OTHER DISCIPLINES. REFER TO ARCHITECTURAL, MECHANICAL AND PLUMBING SHEETS, FIRE PROTECTION SPECIFICATIONS, AS WELL AS OTHER PORTIONS OF THE CONTRACT DOCUMENTS FOR ADDITIONAL COORDINATION REQUIREMENTS.
 2. THE LAYOUT REQUIREMENTS DESCRIBED IN THESE PLANS SHALL BE ADHERED TO AS CLOSELY AS POSSIBLE BUT SHALL NOT SUPERSEDE CODE CONSTRAINTS AND/OR REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION (AHJ/S), WHERE CODE OR AHJ REQUIREMENTS SUPERSEDE ITEMS SHOWN ON THIS PLAN, CONTRACTOR SHALL INCLUDE ALL ASSOCIATED PROVISIONS IN THE BID, AND SHALL MAKE THEM AT NO ADDITIONAL COST TO OWNER. PROPOSED DEVIATIONS FROM THIS PLAN SHALL BE SUBJECT TO ENGINEER OF RECORD REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION.
 3. ALL AREAS OF THE BUILDING NOT COVERED BY NOTES HEREIN SHALL BE FULLY SPRINKLERED IN ACCORDANCE WITH SPECIFICATIONS, NFPA 13, 2016 ED., CITY OF FRESNO FIRE DEPARTMENT REQUIREMENTS, DSA FIRE PROTECTION DESIGN STANDARDS AND CODE REQUIREMENTS.
 4. WHERE PLAN INDICATES EXPOSED FIRE SPRINKLER PIPING DIRECTION OF LAYOUT, ASSOCIATED CONNECTED FIRE SPRINKLER PIPING RUNNING IN PERPENDICULAR DIRECTIONS SHALL BE INSTALLED ONLY IN CONCEALED LOCATIONS UNLESS INDICATED OTHERWISE.
 5. INSTALLING CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND IS RESPONSIBLE FOR PREPARING A DESIGN TO ACCOMMODATE ALL BUILDING CONDITIONS.
 6. EXPOSED FIRE SPRINKLER SYSTEM PIPING SHALL BE RUN STRAIGHT AND TIGHT TO UNDERSIDE OF STRUCTURAL MEMBERS.
 7. FOR HANGER DETAILS, SEE SHEET FS2.1.
 8. UNO, ALL HANGERS ARE LESS THAN 6" FROM TOP OF PIPE TO POINT OF CONNECTION TO STRUCTURE. NO LATERAL BRACING OR BRANCH LINE RESTRAINT IS REQUIRED.
 9. FOR FIRE SPRINKLER LEGENDS AND SYMBOLS SEE SHEET FP0.1.

HYDRANTALLY CALCULATED SYSTEM		Additional Calculation Information:	
This system is shown on company print number FP2.01 dated 12-17-20 for K1010M at 300 E. Aten Road, Imperial, CA 92231 with contract number 20190 is designed to discharge at a rate of 15 gpm/ft (lpm/ft) over an area of 1563 ft ² when supplied with water at a rate of 541.26 gpm/ft at 89.88 psi/ft at the base of the riser. Rise clearance distance is 250 gpm/ft.		Design Area (ft ²):	1
Occupancy Classification: (R), (R)-1		System Type:	WET
		Number of Sprinklers:	22
		Flow Coefficient:	541.26 gpm/ft
		In-Rack Sprinklers:	0 gpm/ft
		Outside Sprinklers:	250 gpm/ft
		Other Fixed Flows:	0 gpm/ft
		Total of All Flows:	791.26 gpm/ft
		End Sprinkler:	19.5 gpm @ 12.13 psi
		Pressure Available from Supply:	112.00 psi/ft
		Pressure Required from System:	95.33 psi/ft
		Surplus Pressure (Safety):	16.67 psi/ft
		Maximum Velocity:	20.80 ft/m/sec
			N/A

SYMBOLS AND DESCRIPTIONS

SYM	QTY	TYPE	FINISH	TEMP	K	NPT	SIN#	MFG	MODEL#	ESOUTCHEON
●	151	QR PEND	WHITE	155°	5.6	1/2"	VK302	VIKING	MICROFAST	SEMI RECESS
●	160	QR SSU	BRASS	200°	5.6	1/2"	VK300	VIKING	MICROFAST	N/A
●	1	DRY SSP	CHROME	200°	5.6	1/2"	VK150	VIKING	DRY PEND	2 PIECE
◀	4	HSW	BRASS	200°	5.6	1/2"	VK305	VIKING	MICROFAST	SEMI-REC
●	4	QR SSP/QR SSU	WHITE/BRASS	155°/200°	5.6	1/2"	VK302/VK300	VIKING	MICROFAST	SEMI RECESS/NA
TOTAL THIS SHEET	305									

FIRE SPRINKLER INFORMATION IS FOR DSA REVIEW ONLY. INSTALLING CONTRACTOR IS RESPONSIBLE FOR VERIFYING ACCURATE SPRINKLER LAYOUT AND QUANTITIES. NO PRICING ADJUSTMENT WILL BE ALLOWED SPRINKLER HEADS ADDED BY CONTRACTOR.

DSA FILE NO. 37-C2 AH 04-119030

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APP: 04-119487 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/01/2021

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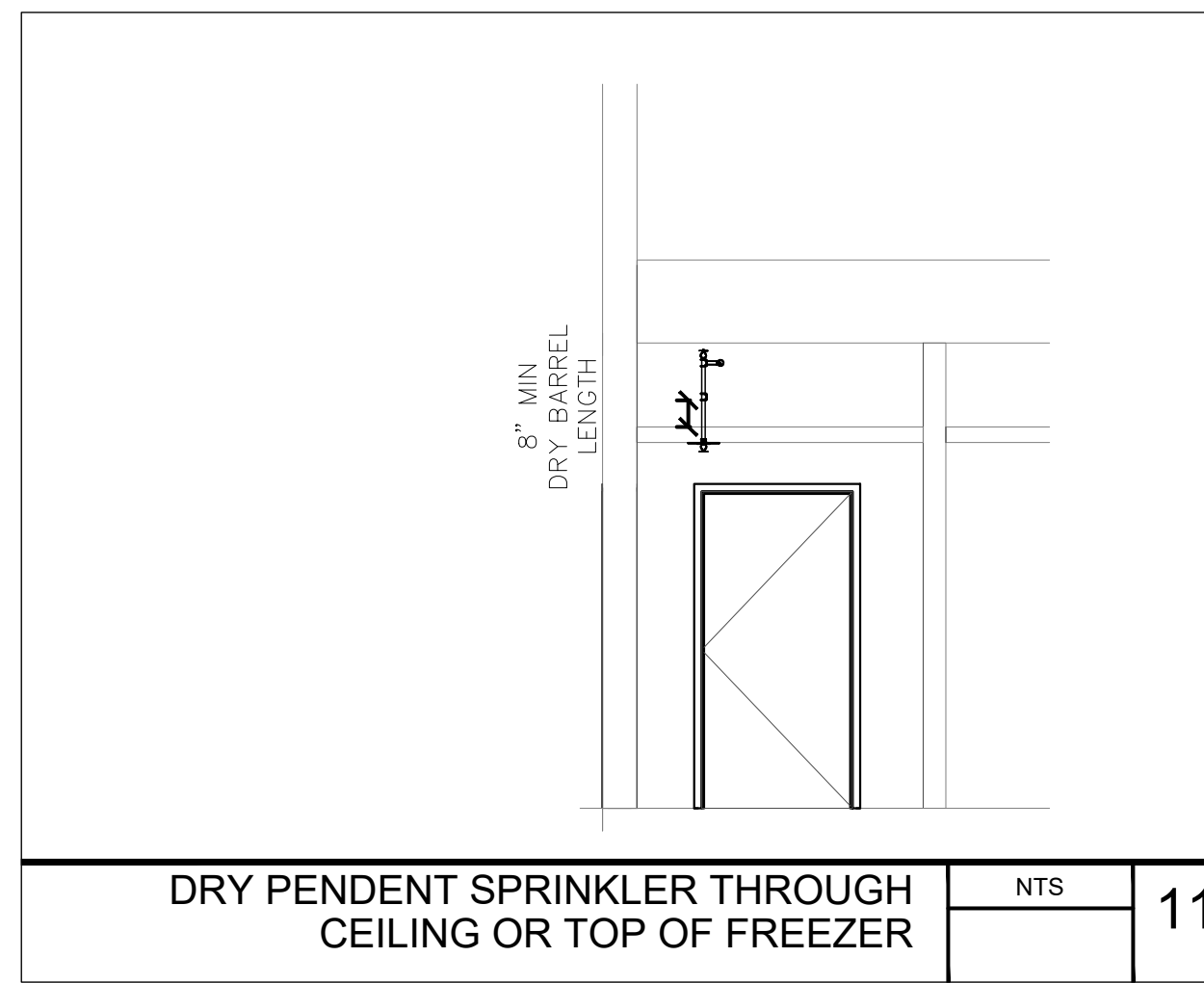
FIRE SPRINKLER PIPING PLAN

FP2.01

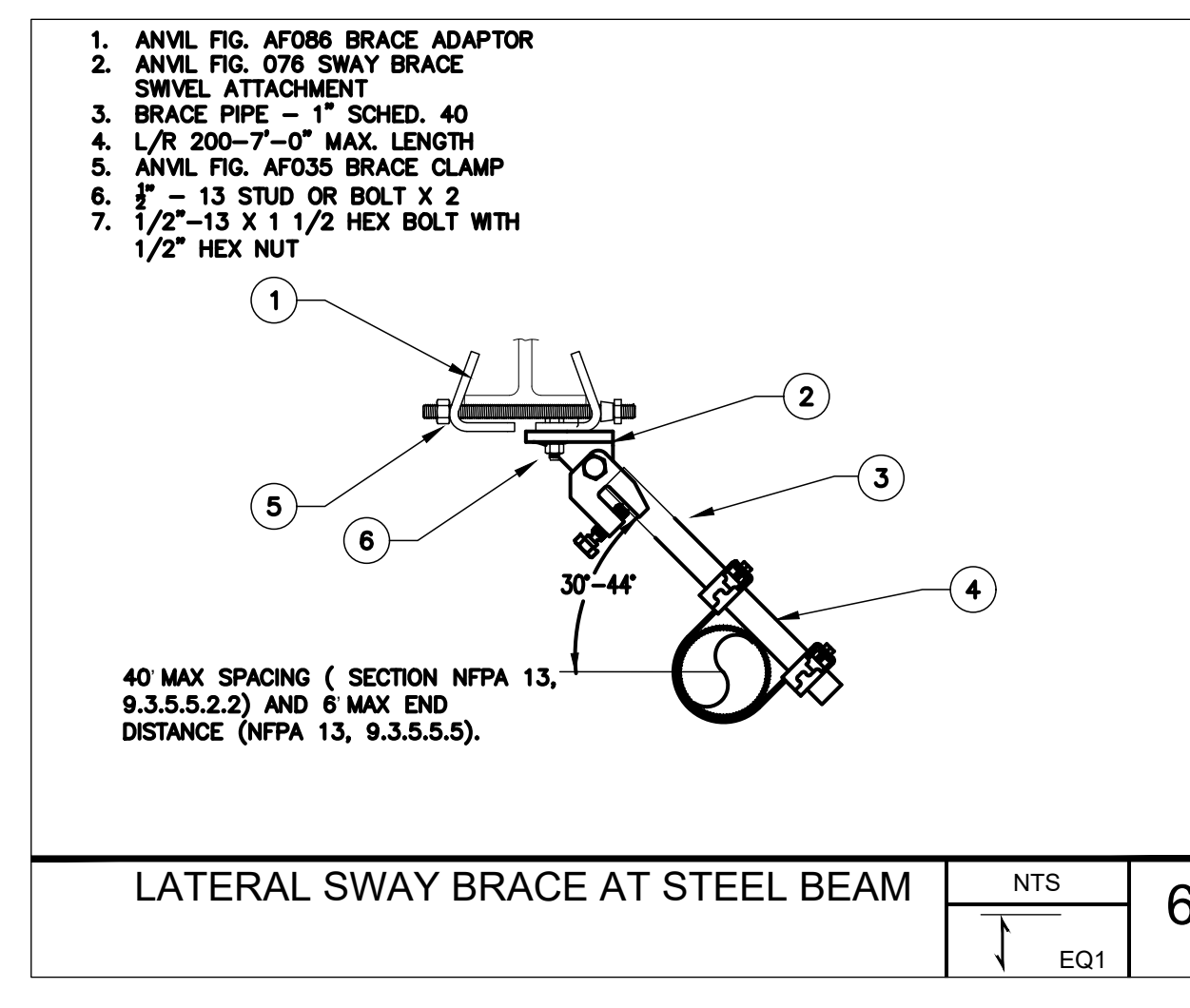
FIRE SPRINKLER PIPING PLAN
SCALE: 1/8" = 1'-0"

HANGER CHART												
MAXIMUM DISTANCE BETWEEN HANGERS												
NOMINAL PIPE SIZE (in.)	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	5"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0	15-0
THREADED LIGHTWALL STEEL PIPE	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A	N/A	N/A

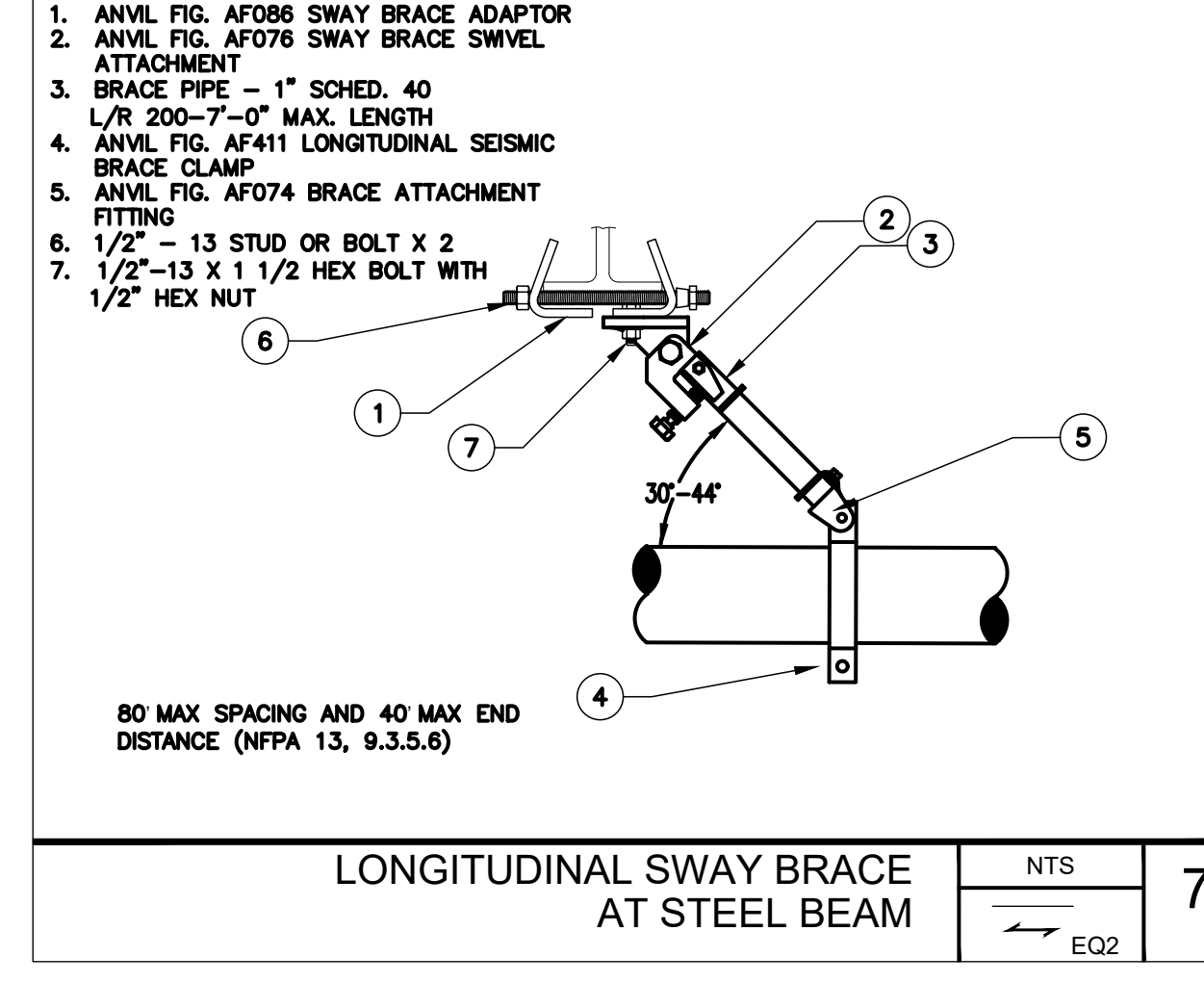
HANGER ROD SIZES												
NOMINAL PIPE SIZE (in.)	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"	5"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"
THREADED LIGHTWALL STEEL PIPE	N/A	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	N/A	N/A	N/A



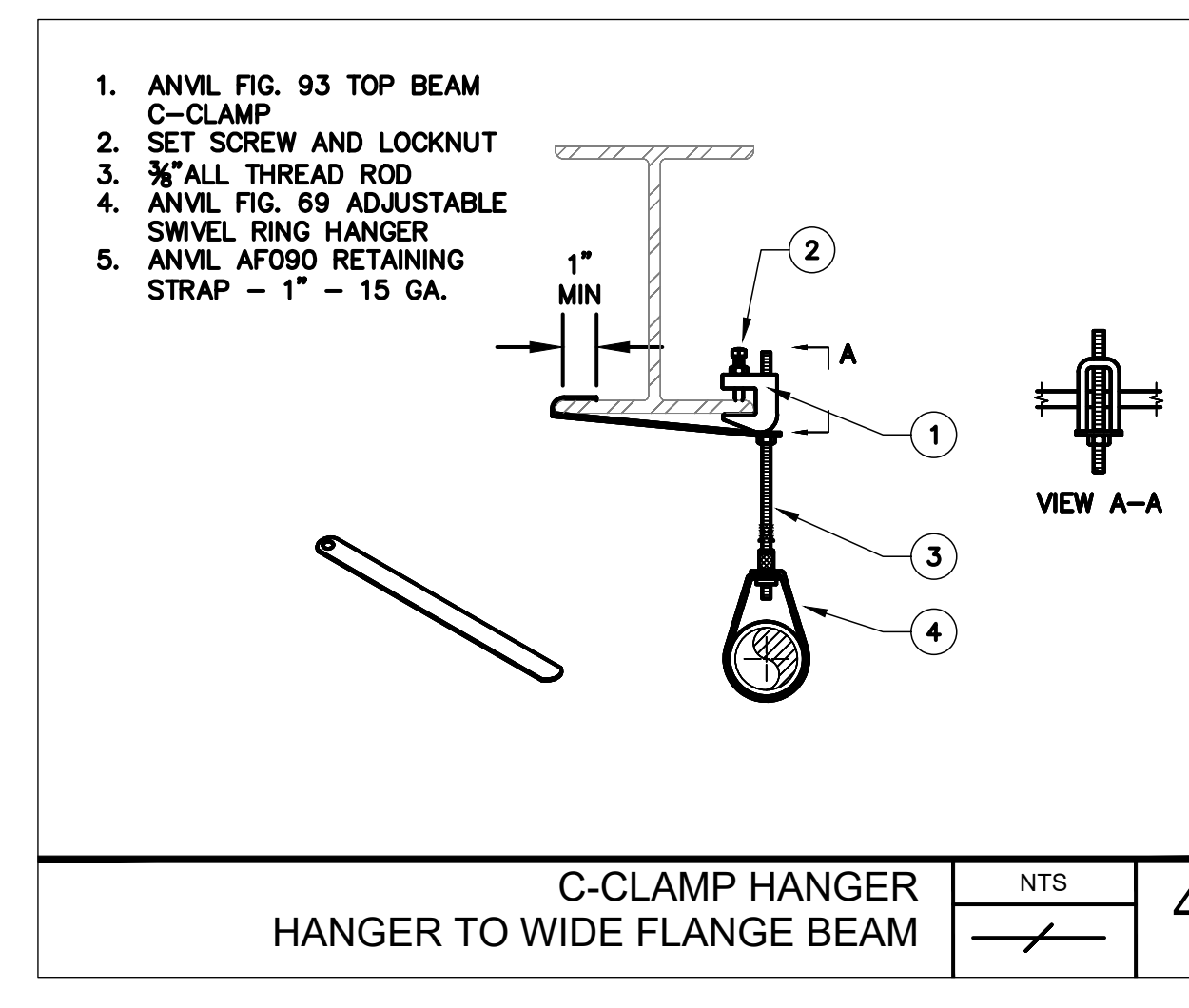
DRY PENDENT SPRINKLER THROUGH CEILING OR TOP OF FREEZER



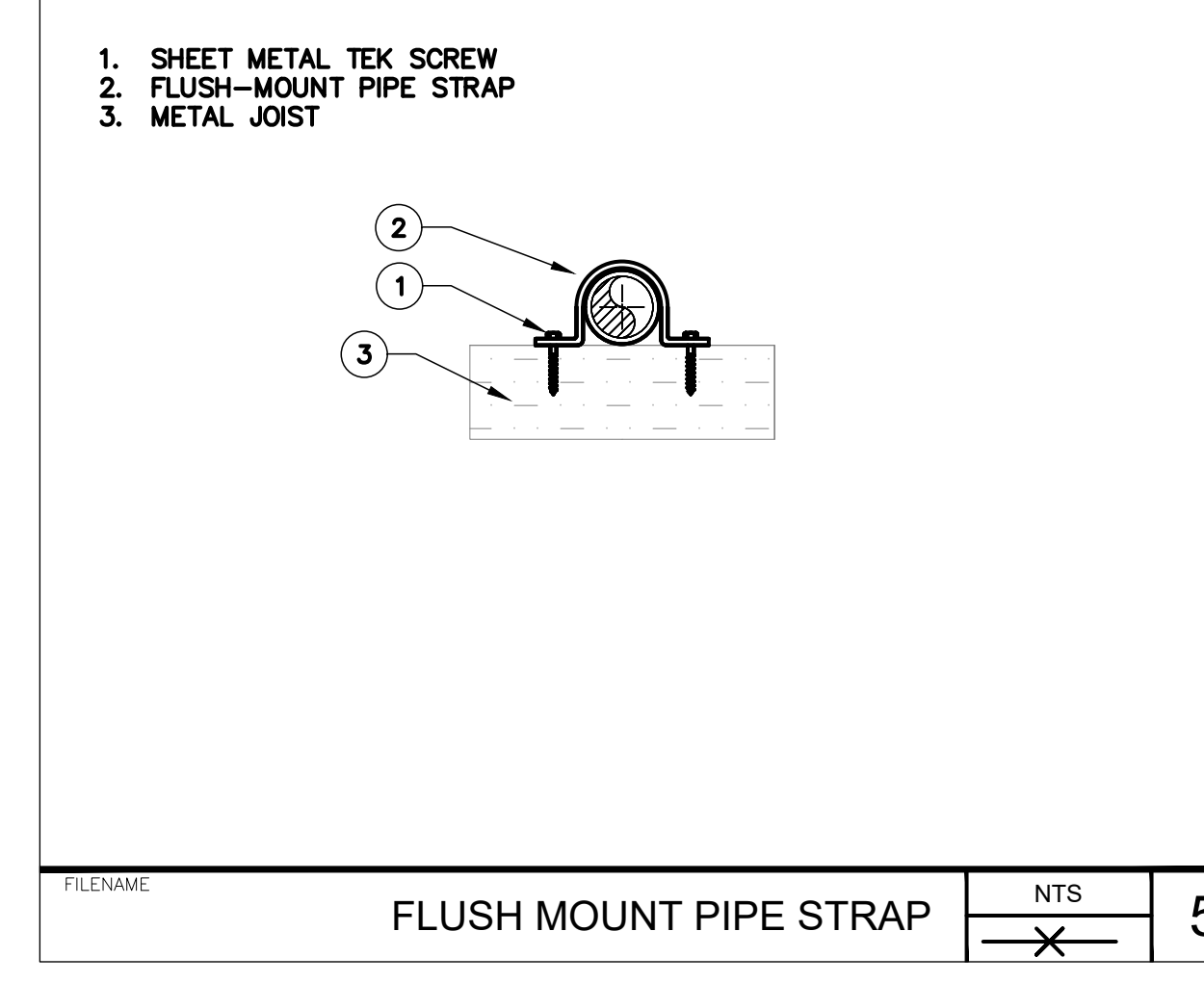
LATERAL SWAY BRACE AT STEEL BEAM



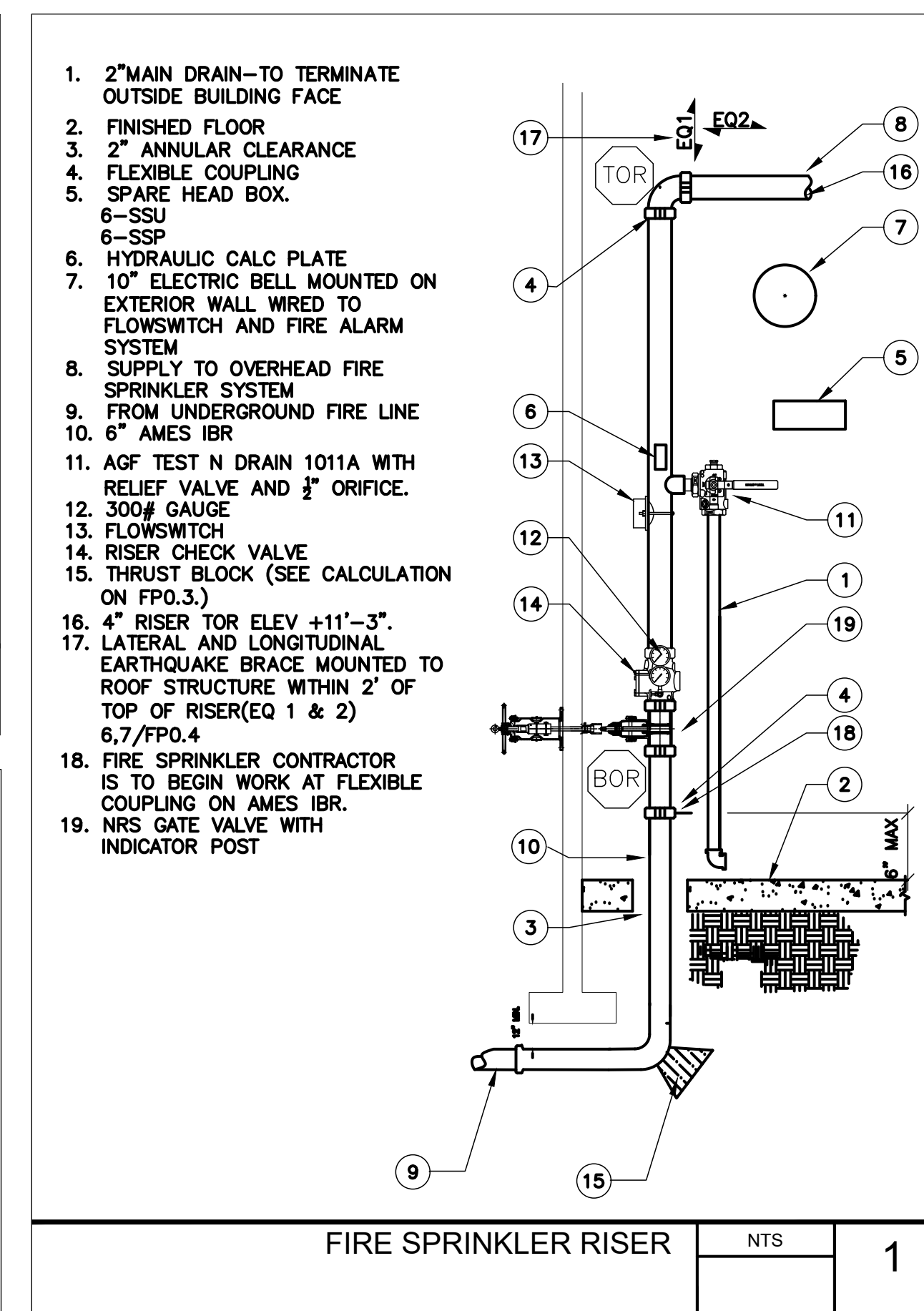
LONGITUDINAL SWAY BRACE AT STEEL BEAM



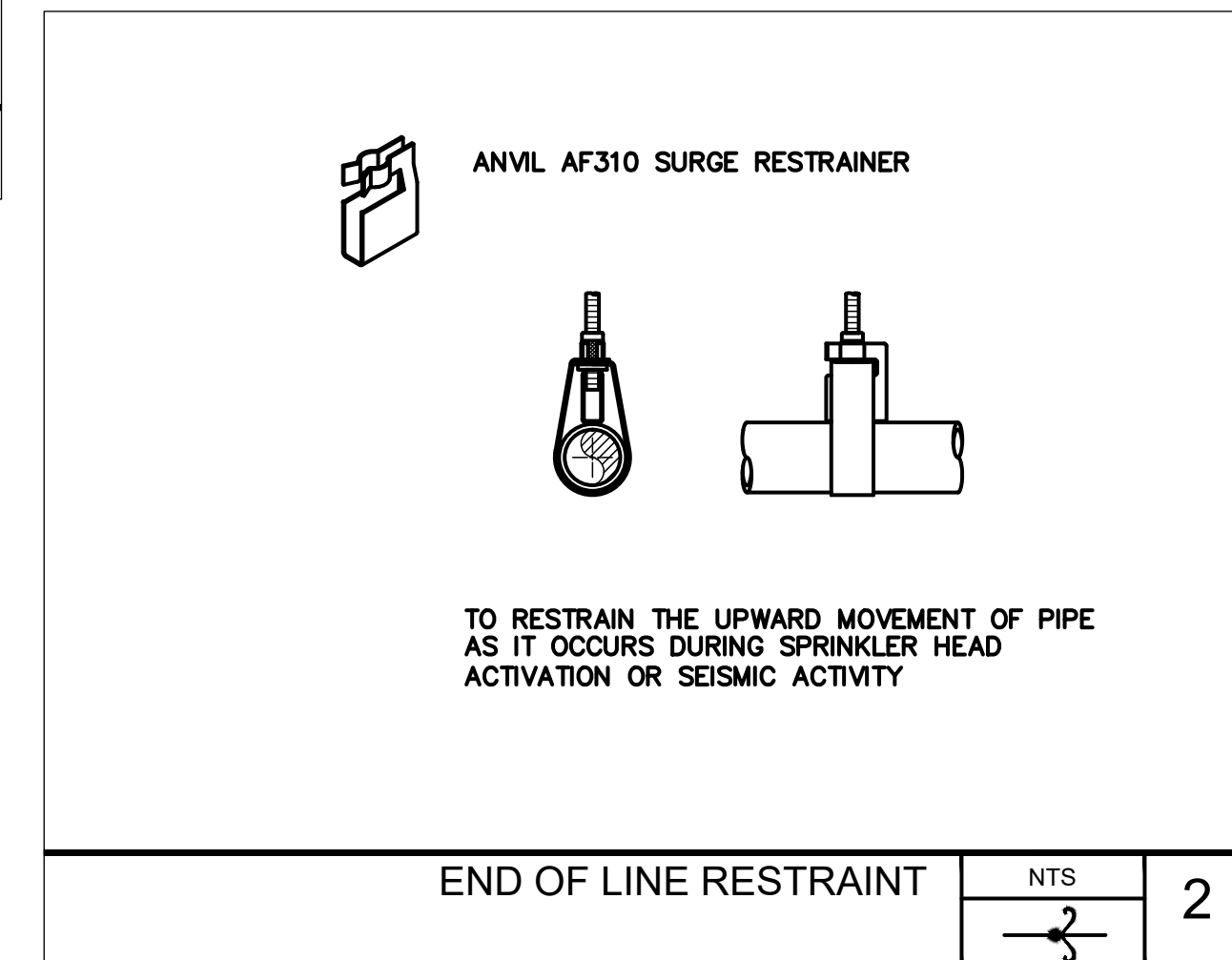
C-CLAMP HANGER HANGER TO WIDE FLANGE BEAM



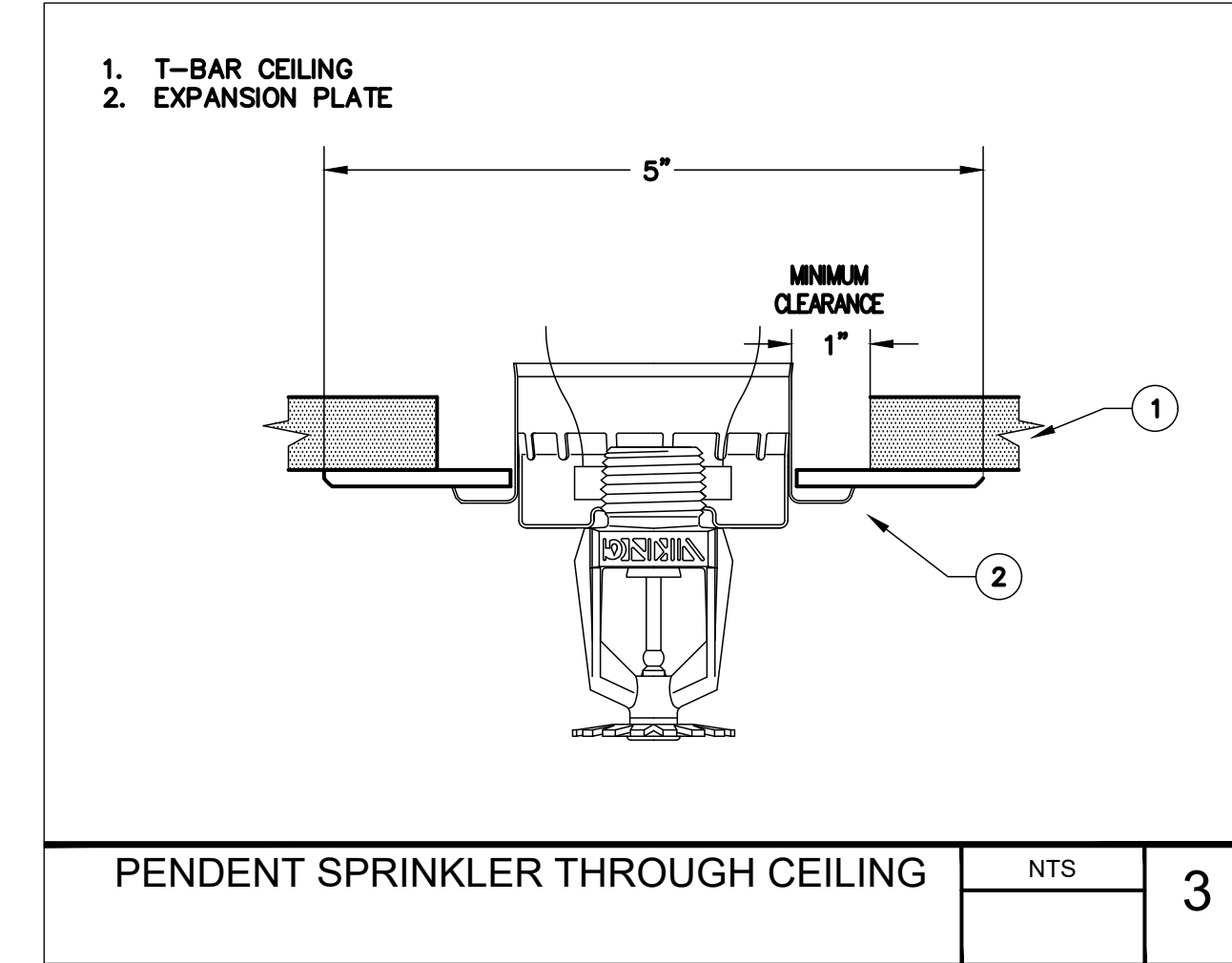
FLUSH MOUNT PIPE STRAP



FIRE SPRINKLER RISER



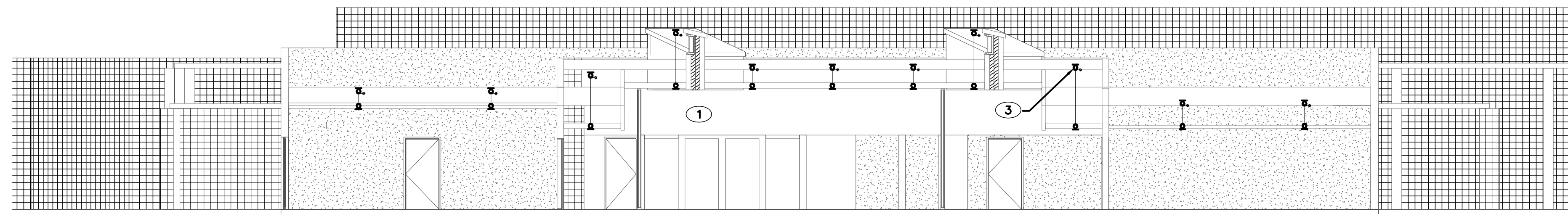
END OF LINE RESTRAINT



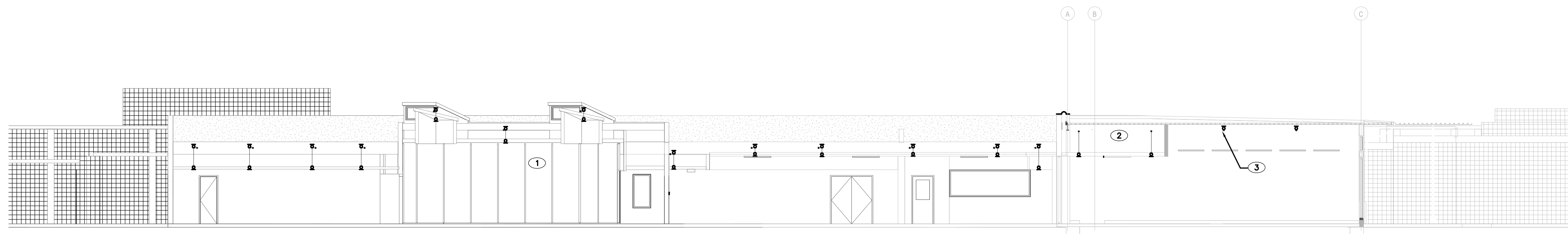
PENDENT SPRINKLER THROUGH CEILING

KEYNOTES

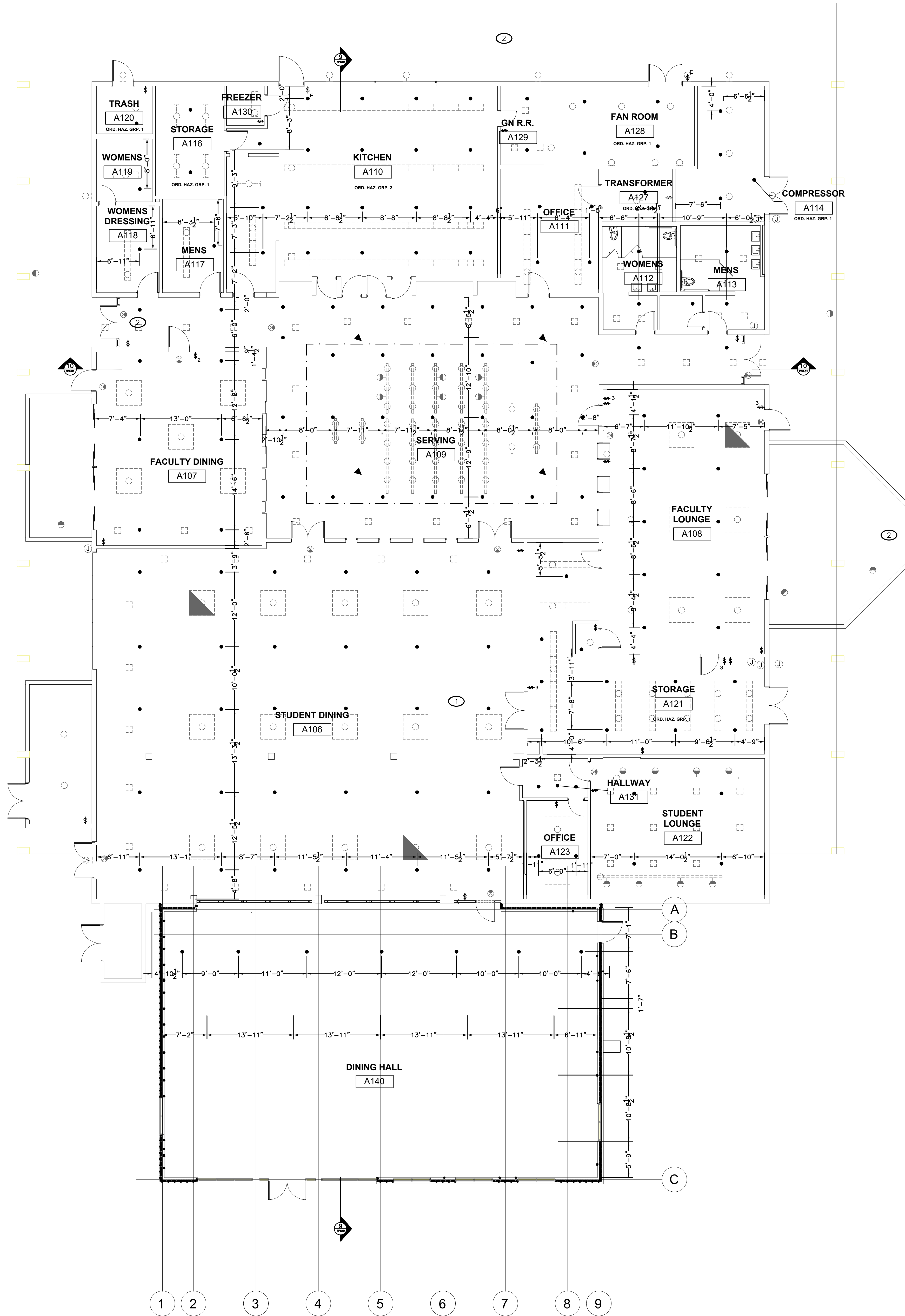
- 1 CHROME, 5.6K, 155', SSP, SEMI-REC CHROME ESHUTCHON
- 2 ATTIC SPACE - NONCOMBUSTIBLE CONSTRUCTION
- 3 BRASS, 5.6K, 200', SSU



9 FIRE SPRINKLER BUILDING CROSS SECTION
SCALE: 1/8" = 1'-0"



10 FIRE SPRINKLER BUILDING CROSS SECTION
SCALE: 1/8" = 1'-0"



KEY NOTES

① PENDENT FIRE SPRINKLERS ARE TO BE LOCATED IN THE CENTERLINE OF CEILING TILE IN THE 2'-0" DIMENSION AND AT 12" INCREMENTS IN THE 4'-0" DIMENSION.

② NONCOMBUSTIBLE EXTERIOR CANOPY - NO A.S. PER NFPA 13, 8.15.7.3

U.N.O., OCCUPANCY IS LIGHT HAZARD

SYMBOLS AND DESCRIPTIONS

SYM	QTY	TYPE	FINISH	TEMP	K	NPT	SIN#	MFG	MODEL#	ESCUTCHEON
●	151	QR PEND	WHITE	155°	5.6	1/2"	VK302	VIKING	MICROFAST	SEMI RECESS
◀	4	HSW	BRASS	200°	5.6	1/2"	VK305	VIKING	MICROFAST	SEMI-REC
TOTAL THIS SHEET	144									

FIRE SPRINKLER INFORMATION IS FOR DSA REVIEW ONLY. INSTALLING CONTRACTOR IS RESPONSIBLE FOR VERIFYING ACCURATE SPRINKLER LAYOUT AND QUANTITIES. NO PRICING ADJUSTMENT WILL BE ALLOWED SPRINKLER HEADS ADDED BY CONTRACTOR.

1 FIRE SPRINKLER REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"

DSA FILE NO. 37-C2 AH 04-119030

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APP: 04-119487 INC.
REVIEWED FOR:
SS FLS ACS
DATE: 02/01/2021

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CONSULTANT

ENGINEER

ARCHITECT

CLIENT

PROJECT NUMBER	20190
DATE:	09/17/2020
DRAWN BY:	
CHECKED BY:	

REVISIONS

No.	Description	Date

DSA SUBMITTAL

FIRE SPRINKLER REFLECTED CEILING PLAN

FP10.01

AUDIO & VIDEO GENERAL NOTES

- ALL 120V POWER REQUIRED FOR THE FUNCTIONALITY OF EACH SYSTEM SHALL BE A DEDICATED CIRCUIT AND ON EMERGENCY POWER WHEN AVAILABLE. THE INSTALLING CONTRACTOR OF EACH SYSTEM SHALL BE RESPONSIBLE FOR PROVIDING THEIR OWN 120V POWER REQUIREMENTS FOR ALL REMOTE POWER SUPPLIES. THE INSTALLING CONTRACTORS LICENSED ELECTRICAL SUBCONTRACTOR SHALL COORDINATE ELECTRICAL PANEL LOCATIONS AND AVAILABLE SPACE DEDICATED FOR THE CONTRACTOR'S SYSTEM REQUIREMENTS. (TYPICAL). PROJECTS ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER TO MAIN CONTROL PANELS AND ALL HEAD END EQUIPMENT. SYSTEM INSTALLERS SHALL COORDINATE LOCATION AND CONNECTION OF CONTROL PANEL AND HEAD END POWER WITH THE PROJECTS ELECTRICAL CONTRACTOR.
- THE PROJECTS ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL IN WALL CONDUITS, BELOW GRADE CONDUITS, BELOW SLAB CONDUITS, CONDUITS ACROSS OPEN AREAS BACK BOXES, SLEEVES, AND OTHER RACEWAY REQUIRED FOR DEVICES AND PATHWAYS SHOWN ON THE FLOOR PLANS AND DETAIL SHEETS. ANY ADDITIONAL CONDUITS, SLEEVES, AND RACEWAY REQUIREMENTS FOR EACH SYSTEM SHALL BE THE RESPONSIBILITY OF EACH SYSTEM INSTALLER.
- ALL EXPOSED SYSTEMS WIRING OR WIRING ROUTING ACROSS NON ACCESSIBLE CEILINGS SHALL BE ROUTED IN CONDUIT. SIZE CONDUIT AS REQUIRED TO ROUTE SYSTEMS WITH 40% CABLE FILL RATIO. MINIMUM CONDUIT SIZE SHALL BE 3/4".
- AV CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING ALL EXTERIOR WALL PENETRATIONS ARE PROPERLY SEALED TO PREVENT ANY MOISTURE FROM ENTERING BUILDING.
- NO CONDUITS SHALL BE INSTALLED ON THE EXTERIOR OF THE BUILDING. IF EXTERIOR CONDUITS ARE REQUIRED FOR A COMPLETE INSTALLATION, EACH SYSTEM CONTRACTOR SHALL COORDINATE WITH THE PROJECTS CONSULTANT PRIOR TO ANY ROUGH-IN.
- EACH SYSTEM CONTRACTOR SHALL PROVIDE AND INSTALL PROTECTIVE BUSHINGS ON ALL CONDUIT STUB OUTS AND SLEEVES TO PREVENT CABLE DAMAGE. BUSHING TO BE INSTALLED PRIOR TO CABLE INSTALLATION. CUTTING BUSHING AND INSTALLING AFTER CABLE IS INSTALLED WILL NOT BE ACCEPTED.
- ALL CABLE SHALL BE ROUTED DOWN CORRIDORS, PARALLEL AND PERPENDICULAR TO THE BUILDING WALLS AND STRUCTURE. CABLE TO EACH DEVICE SHALL BRANCH OFF OF A MAIN CORRIDOR TRUNK. ROUTING CABLES THROUGH CLASSROOMS, OFFICES, STORAGE ROOMS, RESTROOMS OR ANY TYPE OF ROOM OTHER THAN A CORRIDOR WILL NOT BE ACCEPTED. ENTER ALL ROOMS ABOVE THE ASSOCIATED ROOM DOORWAY.
- THE SYSTEM INSTALLER SHALL PROPERLY SUPPORT ALL INSTALLED SYSTEM CABLING FROM AN APPROVED CABLE SUPPORT SYSTEM AS DETAILED IN SPECIFICATIONS. NO CABLING SHALL BE ROUTED AND TIED DIRECTLY TO BUILDING STEEL, CEILING GRID SUPPORT, CONDUIT, PIPING, OR DUCTWORK. THE CABLE SUPPORT SYSTEM SHALL BE DIRECTLY CONNECTED TO THE BUILDING'S STEEL JOIST. AT LOCATIONS WHERE THE BOTTOM OF THE JOIST IS MORE THAN 5' ABOVE THE CEILING, THE SYSTEM INSTALLER SHALL PROVIDE AND INSTALL THREADED ROD AND ALL REQUIRED MATERIALS TO CONNECT THE THREADED ROD TO THE BUILDING STEEL AND THE CABLE SUPPORT SYSTEM TO THE THREADED ROD. CABLE PATHWAY SHALL NOT BE HIGHER THAN 5' ABOVE THE CEILING AT ANY LOCATIONS.
- ALL EXTERIOR AND WALL MOUNTED SPEAKERS SHALL BE MOUNTED AT 10'-0" UNLESS OTHERWISE NOTED.
- EXTERIOR SPEAKERS SHALL BE ON A SEPARATE LOW VOLTAGE CIRCUIT FROM INTERIOR SPEAKERS.
- AV CONTRACTOR SHALL COORDINATE ALL MOUNTING LOCATIONS OF ALL AV DEVICES TO PROVIDE EVEN AND BALANCED AUDIO COVERAGE OF INTENDED LISTENING AREAS AND UNOBSTRUCTED, SQUARE AND PLUMB VIDEO IMAGE DISPLAYS.
- ALL LAY-IN CEILING MOUNTED SPEAKERS SHALL BE INSTALLED UTILIZING A TILE BRIDGE SUPPORT SYSTEM. AT NO POINT SHOULD THE WEIGHT OF A CEILING MOUNTED SPEAKER BE SUPPORTED BY A CEILING TILE ONLY.
- AV CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL CONDUIT AND BACK BOX REQUIREMENTS.
- AV CONTRACTOR TO COORDINATE WITH ALL OTHER TRADES WITH REGARD TO BLOCKING AND PROPER SUPPORT OF ALL AV DEVICES.
- CONTRACTOR SHALL INCLUDE THE INSTALLATION OF THE ASSISTIVE LISTENING SYSTEM NOT SHOWN IN THE DRAWINGS. REFER TO SPECIFICATION SECTION 27 51 26 ASSISTIVE LISTENING SYSTEMS FOR DETAILS.

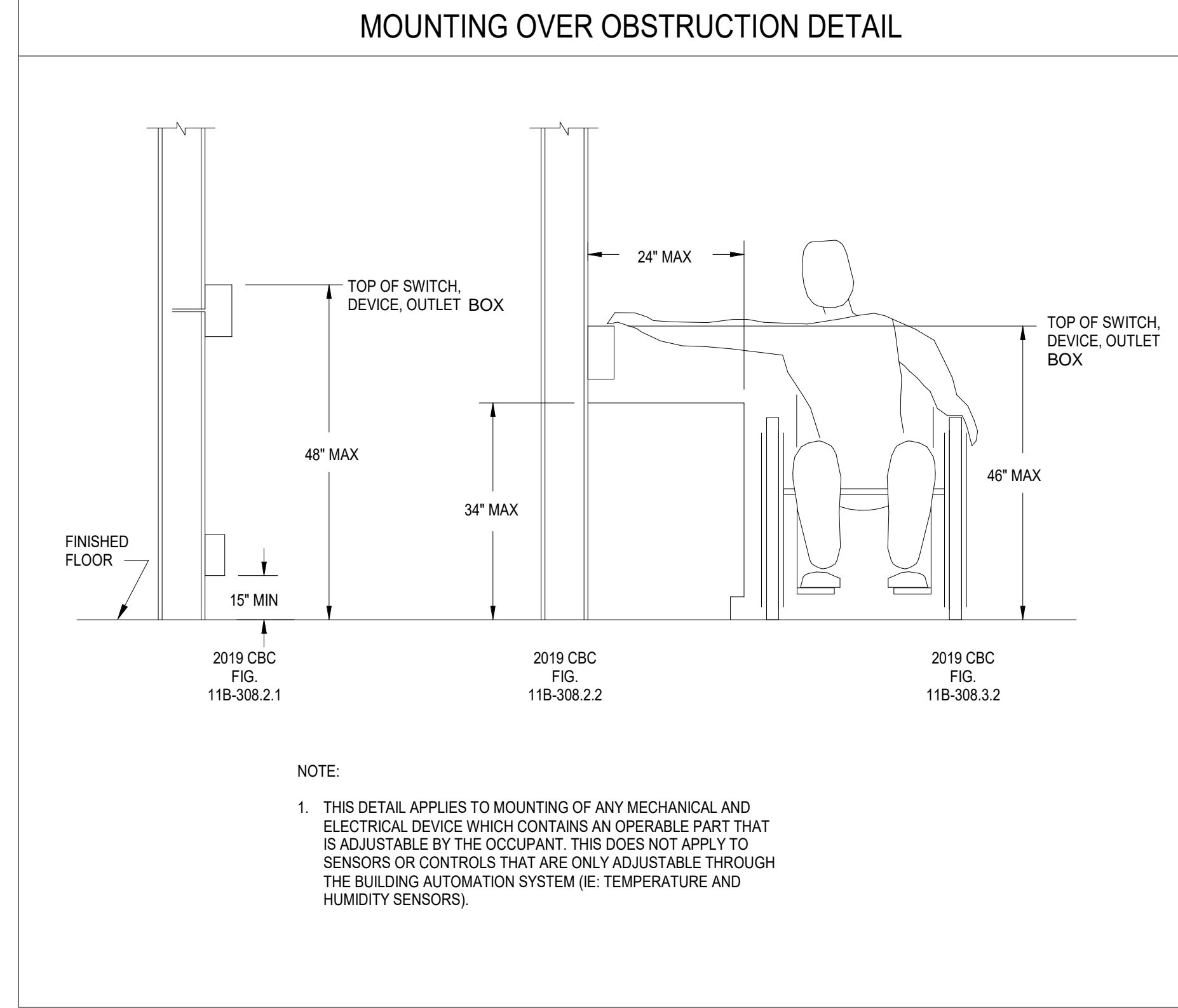
DATA PLAN GENERAL NOTES

- ALL 120V POWER REQUIRED FOR THE FUNCTIONALITY OF THE TELECOMMUNICATION, NETWORK, AND VIDEO EQUIPMENT SHALL BE A DEDICATED CIRCUIT AND ON EMERGENCY POWER WHEN AVAILABLE. CONTRACTOR SHALL COORDINATE AND INSTALL ALL 120V POWER REQUIREMENTS AND LOCATIONS AS REQUIRED FOR ALL EQUIPMENT (TYPICAL).
- CONTRACTOR SHALL COORDINATING WITH PBK TECHNOLOGY DEPARTMENT PRIOR TO THE INSTALLATION OF RACKS AND RACK EQUIPMENT. NO RACKS SHALL BE PERMANENTLY INSTALLED WITHOUT WRITTEN APPROVAL OF THE PROPOSED LOCATIONS.
- THE PROJECTS ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONDUITS, BACK BOXES, AND OTHER RACEWAY REQUIRED FOR DEVICES AND PATHWAYS SHOWN ON THE FLOOR PLANS AND DETAIL SHEETS. ANY ADDITIONAL CONDUITS, SLEEVES, AND RACEWAY REQUIREMENTS FOR THE SCS SHALL BE THE RESPONSIBILITY OF THE SCS INSTALLER.
- THE SELECTED, INSTALLING CONTRACTOR MUST BE A CERTIFIED INTEGRATOR/INSTALLER AUTHORIZED BY THE SPECIFIED SYSTEM MANUFACTURER TO INSTALL THE CABLE PLANT AND CONNECTIVITY PRODUCTS. REFER TO SPECIFICATIONS FOR PRODUCT TYPE AND DESCRIPTION.
- SYSTEM WIRING AND EQUIPMENT INSTALLATION SHALL BE IN ACCORDANCE WITH ENGINEERING BEST PRACTICES AS ESTABLISHED BY ANSIE/NETA/BICSI, AND THE CECC/EC.
- ALL WIRING SHALL MEET ALL STATE AND LOCAL ELECTRICAL CODES.
- ALL TELECOMMUNICATIONS SYSTEMS EQUIPMENT AND MOUNTING LOCATIONS SHALL BE IN COMPLIANCE WITH ADA ACCESSIBILITY STANDARDS.
- ALL INDUSTRY STANDARD CATEGORY 6A CABLE PRACTICES MUST BE FOLLOWED FOR ALL DATA CABLING.
- ALL DATA CABLES ARE TO BE INSTALLED WITH A MINIMUM OF 12 INCHES OF SEPARATION FROM AC POWER CABLES, INTERCOM, FIRE ALARM, SECURITY CABLES IN ANY PARALLEL OPEN WIRE RUN.
- ALWAYS CROSS OTHER SYSTEM CABLES AT A 90 DEGREE ANGLE.
- ALL CABLES AND TERMINATION COMPONENTS SHALL BE MACHINE LABELED AT BOTH ENDS. LABEL ALL CABLES PER ITS DRAWINGS AND/OR SPECIFICATIONS. FINAL CABLE/OUTLET IDENTIFICATION LABELS SHALL BE COORDINATED WITH THE OWNER AND PBK.
- CONTRACTOR TO PROVIDE LIGHTNING PROTECTION ON ALL COMMUNICATION CABLE BETWEEN BUILDINGS.
- ALL EXPOSED CABLING ROUTED IN PLENUM SHALL BE PLENUM-RATED. ALL NON PLENUM-RATED CABLING INSTALLED IN PLENUM SPACES SHALL BE INSTALLED IN CONDUIT.
- NO TERMINATION OR SPLICES SHALL BE INSTALLED IN OR ABOVE CEILINGS UNLESS NOTED OTHERWISE.
- TECHNOLOGY CONTRACTOR SHALL PROVIDE AND INSTALL ALL SLEEVES REQUIRED TO INSTALL COMMUNICATION CABLING THROUGH ALL CMU AND RATED WALLS. ALL TECHNOLOGY SYSTEM CONDUIT SLEEVES SHALL HAVE PROTECTIVE BUSHING ON BOTH ENDS. BE DEDICATED FOR TECHNOLOGY SYSTEMS ONLY AND SHALL NOT SHARE WITH OTHER BUILDING TRADES.
- CONTRACTOR SHALL MAINTAIN WALL RATING WITH PROPER FIRE BLOCKING METHODS.
- CONTRACTOR SHALL ROUTE ALL FIBER/OPTIC DATA AND CATV CABLING DOWN CORRIDORS AND PERPENDICULAR OR PARALLEL TO BUILDING WALLS ENTER INTO ALL ROOMS ABOVE THE MAIN DOORWAY.
- ALL COMMUNICATION CABLE INSTALLED SHALL ROUTE TO THE CENTER OF THE ROOM IN WHICH IT SERVES AND THEN TO THE OUTLET LOCATION IT IS INTENDED FOR. EACH CABLE SHALL HAVE A 10' SERVICE LOOP AT THE CENTER OF EACH ROOM AND A 3' SERVICE LOOP ABOVE EACH OUTLET LOCATION.
- THE SYSTEM INSTALLER SHALL PROPERLY SUPPORT ALL INSTALLED SYSTEM CABLING FROM A PANDUIT J-MOD CABLE SUPPORT SYSTEM AS DETAILED IN SPECIFICATIONS. NO CABLING SHALL BE ROUTED AND TIED DIRECTLY TO BUILDING STEEL, CEILING GRID SUPPORT, CONDUIT, PIPING, OR DUCTWORK. PANDUIT J-MOD SUPPORT SYSTEM SHALL BE DIRECTLY CONNECTED TO THE BUILDING'S STEEL JOIST. IN LOCATION WHERE THE BOTTOM OF THE JOIST IS MORE THAN 5' ABOVE THE CEILING, THE SYSTEM INSTALLER SHALL PROVIDE AND INSTALL THREADED ROD AND ALL REQUIRED MATERIALS TO CONNECT THE THREADED ROD TO THE BUILDING STEEL AND THE CABLE SUPPORT SYSTEM TO THE THREADED ROD. CABLE PATHWAY SHALL NOT BE HIGHER THAN 5' ABOVE THE CEILING AT ANY LOCATIONS.
- CONTRACTOR TO PROVIDE AND INSTALL ALL REQUIRED CABLING AND COMPONENTS TO FURNISH TWO (2) ANALOG TELEPHONE CABLES TO THE FIRE ALARM SYSTEM CONTRACTOR TO COORDINATE WITH THE SYSTEM INSTALLER FOR EXACT LOCATIONS AND TERMINATION INSTRUCTIONS PRIOR TO INSTALLATION.
- ALL EXPOSED CABLING OR CABLING ROUTING ACROSS NON ACCESSIBLE CEILINGS SHALL BE INSTALLED IN CONDUIT. CONDUIT SHALL BE PROPERLY SIZED TO MAINTAIN THE 40% FILL RATIO.
- ALL CONDUIT STUB OUTS AND SLEEVES SHALL HAVE PROTECTIVE BUSHINGS TO PREVENT CABLE DAMAGE. BUSHING TO BE INSTALLED PRIOR TO CABLE INSTALLATION. CUTTING BUSHING AND INSTALLING AFTER CABLE IS INSTALLED WILL NOT BE EXCEPTED. CONTRACTOR TO MAINTAIN A 40% MAXIMUM FILL RATION ON ALL SLEEVES INSTALLED.
- CONTRACTOR SHALL INCLUDE THE INSTALLATION OF THE ASSISTIVE LISTENING SYSTEM NOT SHOWN IN THE DRAWINGS. REFER TO SPECIFICATION SECTION 27 51 26 ASSISTIVE LISTENING SYSTEMS FOR DETAILS.

DATA SYSTEM LEGEND

GROUP	SYMBOL	DESCRIPTION
DEVICES		INDICATES THE LOCATION OF A NEW TECHNOLOGY OUTLET. CONTRACTOR SHALL PROVIDE FACEPLATE WITH A MINIMUM OF 4 PORTS AT EACH LOCATION UNLESS OTHERWISE NOTED. ELECTRICAL CONTRACTOR SHALL PROVIDE 1 GANG BOX AT 18" A.F.F. FLUSH MOUNT. CONNECT 1" EMT CONDUIT STUBBED OUT ABOVE NEAREST ACCESSIBLE CEILING. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL RACEWAY AS SPECIFIED AND DESIGNATED IN THE ELECTRICAL CONTRACT DOCUMENTS.
		INDICATES THE LOCATION OF AN ABOVE CEILING DATA OUTLET. CONTRACTOR SHALL INSTALL THE OUTLET AT 12-INCHES ABOVE THE CEILING. THE CABLE SHALL BE TERMINATED ABOVE THE CEILING INSIDE A SURFACE MOUNT BOX (BISCUIT) AND ATTACH TO THE DEVICE WITH A PATCH CORD THROUGH THE CEILING TILE.
DEVICES		INDICATES WIRELESS ACCESS POINT CONNECTION. CONTRACTOR SHALL PROVIDE AND INSTALL (1) CAT6 NETWORK CABLE WITH CATEGORY 6 CONNECTORS. STAINLESS STEEL FACEPLATE WITH IDENTIFICATION WINDOWS, LABELS, AND ANY OTHER MATERIALS REQUIRED TO FURNISH A COMPLETELY FUNCTIONAL AND TESTED CIRCUIT AT EACH LOCATION SHOWN. PROVIDE (2) 1/2" PLENUM PATCH CABLE FOR EACH LOCATION INSTALLED. PROVIDE 10' SERVICE LOOP UPSTREAM OF TERMINATION POINT. ACCESS POINTS SHALL BE WALL MOUNTED AT 108" A.F.F. REFER TO SPECIFICATIONS FOR MATERIALS AND METHODS. ELECTRICAL CONTRACTOR SHALL PROVIDE 1 GANG BOX AT 108" A.F.F. FLUSH MOUNT.
		WALL MOUNTED SPEAKER. SUBSCRIPT "L" INDICATES CONNECTION TO LOCAL SOUND SYSTEM.
		SINGLE SIDED WALL MOUNTED CLOCK.
DEVICES		INDICATES THE LOCATION OF AV PASS THROUGH BRUSH PLATE. ELECTRICAL CONTRACTOR SHALL PROVIDE (1) 4 1/4" X 1 1/8" SQUARE BOX, 3-1/4" DEEP WITH 2" KNOCK-OUT AND 2 GANG REDUCER RING. FLUSH MOUNT AT 6" ABOVE TABLE-TOP. CONNECT 2" CONDUIT STUBBED OUT ABOVE CEILING. INSTALL (1) 20AMP DEDICATED CIRCUIT ADJACENT TO AV DEVICE.
		INDICATES THE LOCATION OF AN ABOVE CEILING DATA OUTLET INTENDED TO SERVICE A CEILING MOUNTED PROJECTOR. CONTRACTOR SHALL PROVIDE AND INSTALL ALL CABLES FROM THE 'PS' OUTLET. VERIFY PROPER FOCAL DISTANCE PRIOR TO INSTALLATION. IMAGE SHALL BE SQUARE AND PLUMB ON VIEWING SURFACE.

NOTE:
1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS. REFER TO GENERAL ELECTRICAL NOTES FOR WALL-MOUNTED DEVICE MOUNTING HEIGHTS.
2. REFERENCE SPECIFICATIONS FOR MATERIALS AND METHODS.
3. COMPLETE INSTALLATION OF ALL PRODUCTS SHALL BE IN COMPLIANCE WITH ALL CODES, INDUSTRY STANDARDS, COMMON PRACTICES AND MANUFACTURER'S INSTRUCTIONS.
4. ALL CONDUIT STUB-OUTS SHALL BE EQUIPPED WITH A PLASTIC PROTECTIVE BUSHING TO PREVENT CABLE DAMAGE.



SECURITY SYSTEMS' LEGEND

GROUP	SYMBOL	DESCRIPTION
DEVICES		SHOWN FOR REFERENCE ONLY. CAMERAS ARE OWNER FURNISHED, CONTRACTOR INSTALLED.
		SHOWN FOR REFERENCE ONLY. CAMERAS ARE OWNER FURNISHED, CONTRACTOR INSTALLED.
		WALL MOUNTED MOTION DETECTOR. MOUNT AT 12'-0" A.F.F.
		360 DEGREE CEILING MOUNTED MOTION DETECTOR.
		INTRUSION DETECTION SYSTEM ARM/DISARM KEYPAD WITH LOCKING VANDAL RESISTANT COVER.
		PANIC BUTTON TO BE TIED TO EMERGENCY GENERATOR.
		INTRUSION DETECTION CONTROL PANELS MOUNTED ON WALL. ELECTRICAL CONTRACTOR TO PROVIDE 120V. POWER TO PANEL. PROVIDE (1) TELEPHONE LINE AND (1) NETWORK CABLE TO PANEL. COORDINATE WITH DISTRICT TECHNOLOGY DEPARTMENT ON ACTIVATING VOICE LINE AND ACQUIRING AN IP ADDRESS.
		ACCESS CONTROL PROXIMITY CARD READER. MOUNT AT 42" A.F.F.
		DOOR RELEASE BUTTON TO BE CONNECTED TO DOOR INDICATED AND MOUNTED TO 48" A.F.F. TO TOP OF CONTROL BOX.
		DOOR CONTACT.

NOTE:
1. EVERY SYMBOL SHOWN ON LEGEND MAY NOT APPEAR ON DRAWINGS. REFER TO GENERAL ELECTRICAL NOTES FOR WALL-MOUNTED DEVICE MOUNTING HEIGHTS.
2. REFERENCE SPECIFICATIONS FOR MATERIALS AND METHODS.
3. COMPLETE INSTALLATION OF ALL PRODUCTS SHALL BE IN COMPLIANCE WITH ALL CODES, INDUSTRY STANDARDS, COMMON PRACTICES AND MANUFACTURER'S INSTRUCTIONS.

DRAWING INDEX

SHEET	DESCRIPTION
T0.01	TECHNOLOGY INDEX, LEGENDS, & NOTES
T2.01	TECHNOLOGY FLOOR PLAN
T6.01	TECHNOLOGY DETAILS

DSA FILE NO. 37-C2 A8 04-119030

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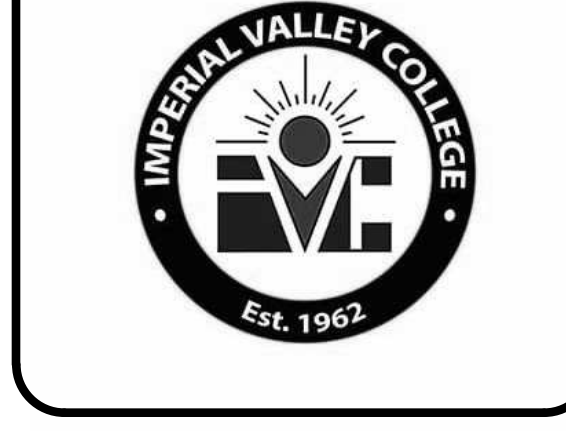
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PROJECT NUMBER
20190

DATE: 09/17/2020
DRAWN BY: TC
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REVISIONS

No.	Description	Date

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TECHNOLOGY INDEX, LEGENDS, & NOTES

T0.01

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GENERAL NOTES:

1. DEVICES AND CABLING FOR ALL EQUIPMENT CALLED OUT IN THIS DRAWING WILL BE TIED INTO THE EXISTING SYSTEMS RESPECTIVELY.
2. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL EXISTING SYSTEMS.
3. CONTRACTOR SHALL INCLUDE THE INSTALLATION OF THE ASSISTIVE LISTENING SYSTEM NOT SHOWN IN THE DRAWINGS. REFER TO SPECIFICATION SECTION 27 51 26 ASSISTIVE LISTENING SYSTEMS FOR DETAILS.

KEYED NOTES:

- 1 INDICATES THE LOCATION OF A DOOR CONTACT.
- 2 INDICATES THE LOCATION OF AN ACCESS CONTROL CARD READER INSTALLED AT 48-INCHES TO TOP OF BOX.
- 3 INDICATES THE LOCATION OF A WALL MOUNTED MOTION DETECTOR INSTALLED AT +12'-0" A.F.F.
- 4 INDICATES THE LOCATION OF A WALL MOUNTED PUBLIC ANNOUNCEMENT SPEAKER MOUNTED AT 9-FEET A.F.F.
- 5 INDICATES THE LOCATION OF A WALL MOUNTED CLOCK INSTALLED AT 9-FEET A.F.F.
- 6 INDICATES THE LOCATION OF A DATA OUTLET INTENDED TO SERVICE A WALL MOUNTED WIRELESS ACCESS POINT DEVICE MOUNTED AT 9-FEET A.F.F.
- 7 INDICATES THE APPROXIMATE LOCATION OF THE EXISTING MDF. ALL SYSTEM CABLING SHALL BE RUN BACK TO THIS POINT AND BE TERMINATED IN COORDINATION WITH THE OWNER'S IT DEPARTMENT.
- 8 INDICATES THE LOCATION OF AN ABOVE CEILING DATA OUTLET INTENDED TO SERVICE A CEILING MOUNTED PROJECTOR.
- 9 INDICATES THE LOCATION OF A PRESENTATION STATION USED FOR CONNECTING TO THE AUDIO VISUAL SYSTEM IN THE ROOM. ROUGHED IN AT 18-INCHES TO CENTER A.F.F.
- 10 INDICATES THE LOCATION FOR A TYPICAL DATA OUTLET.
- 11 INDICATES THE APPROXIMATE LOCATION FOR AN EXISTING PULL BOX MOUNTED ON THE OUTER WALL AND FEEDING THE EXISTING MDF. THIS BOX MAY NEED TO BE RELOCATED AND THE CABLES RE-ROUTED TO ACCOMMODATE FOR THE EXPANSION. CONTRACTOR SHALL COORDINATE WITH THE OWNER IT DEPARTMENT FOR FURTHER INSTRUCTION.

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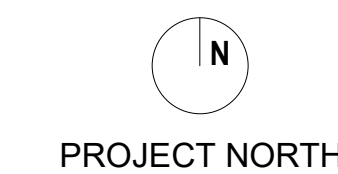
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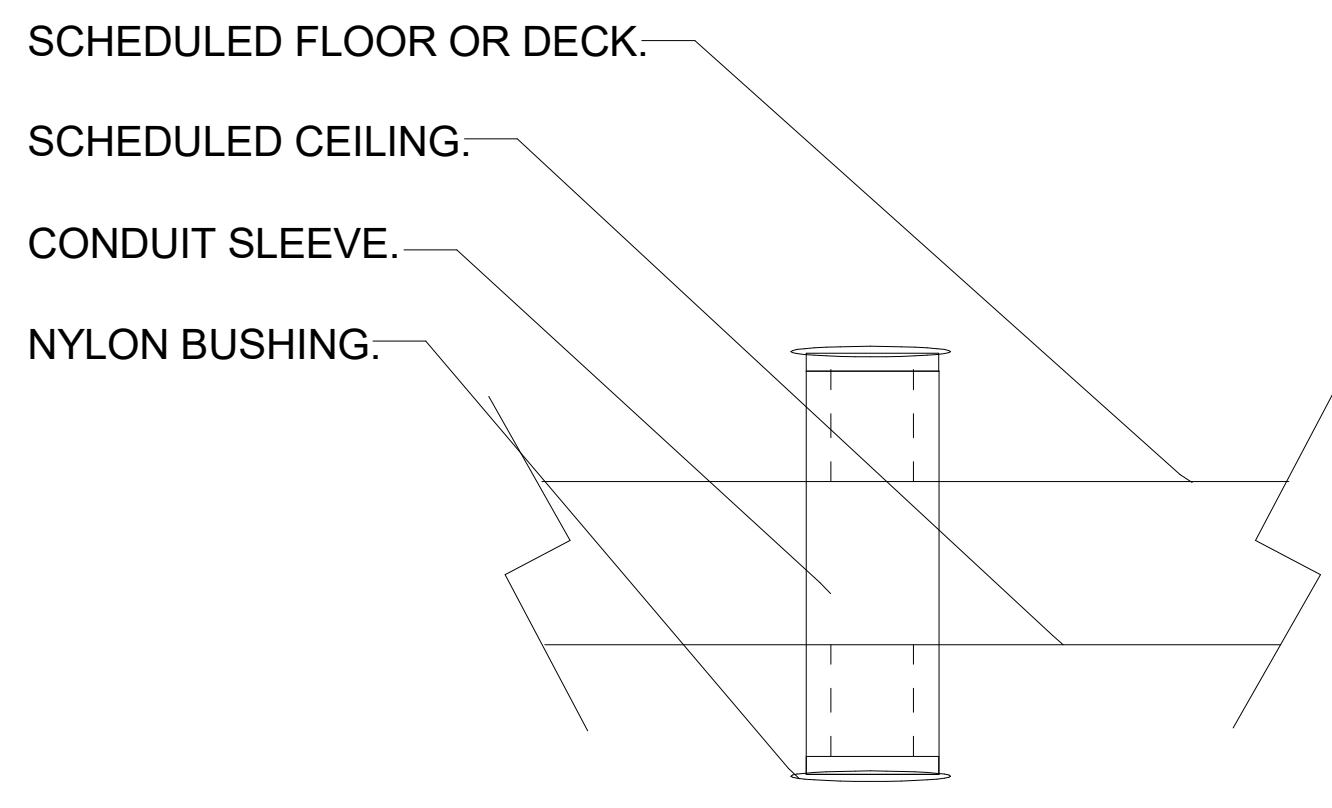
No.	Description	Date

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TECHNOLOGY FLOOR PLAN

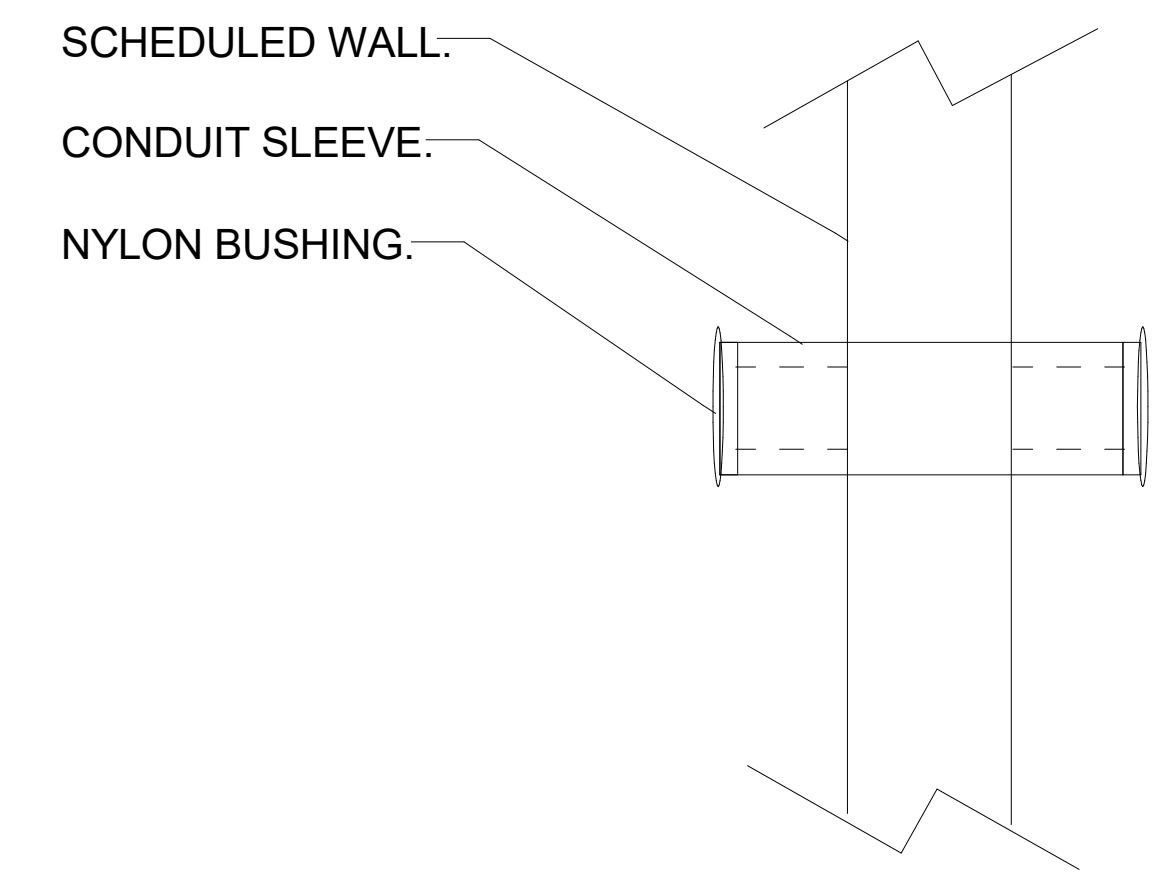
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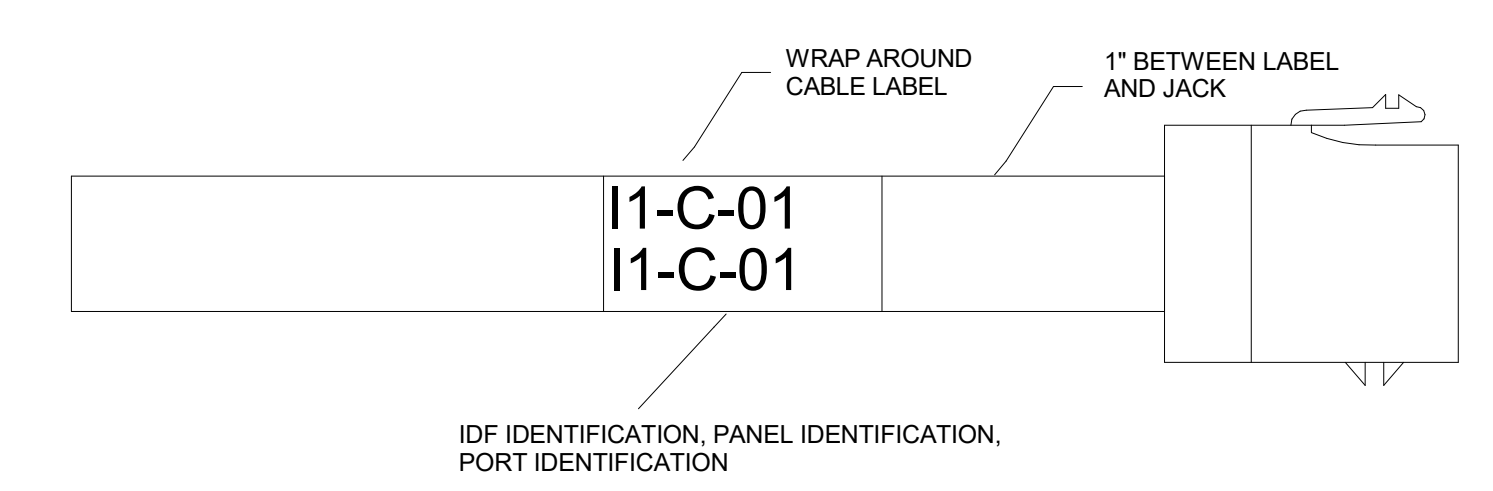
01 TYPICAL CONDUIT SLEEVE THROUGH FLOOR OR DECK

NOT TO SCALE



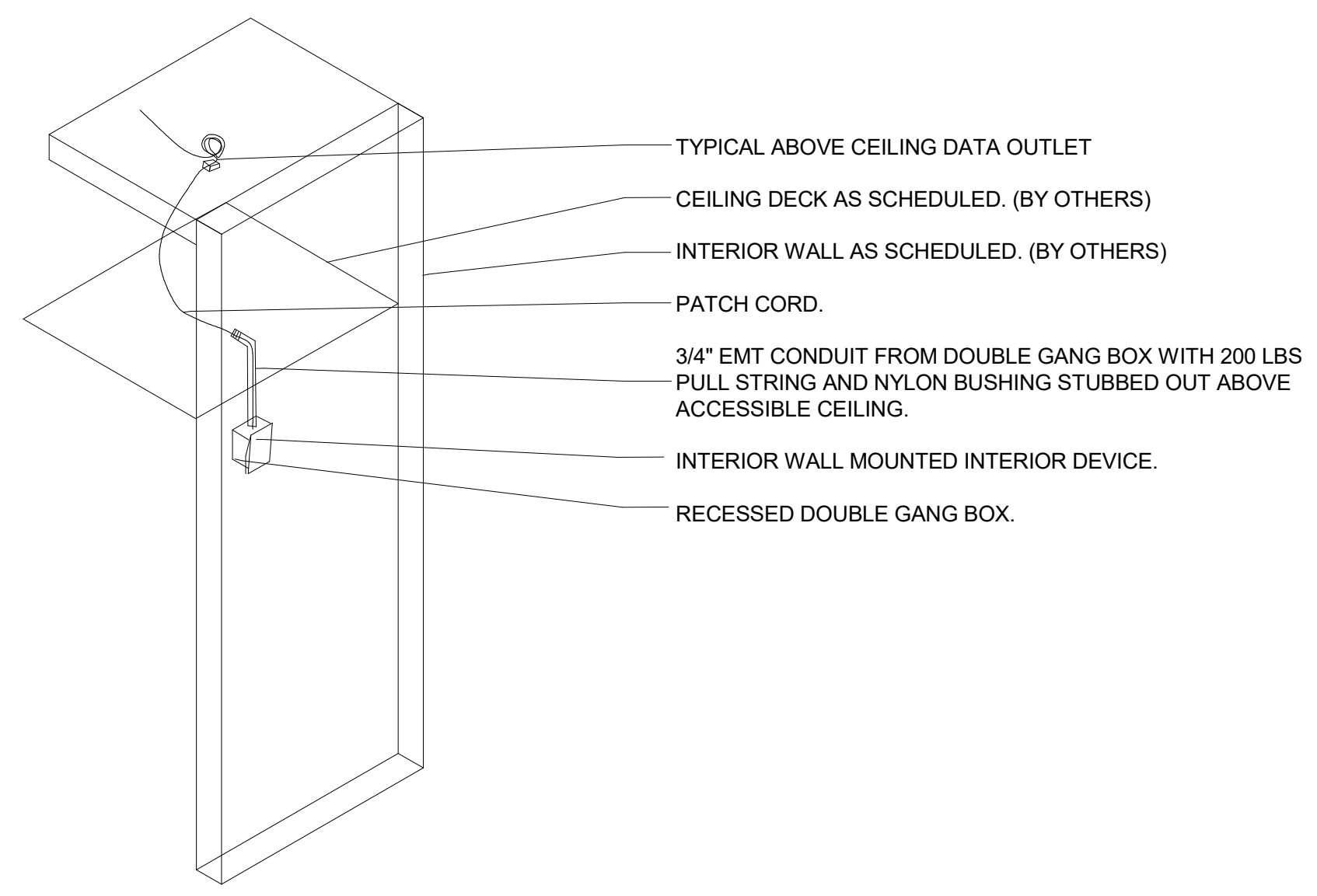
02 TYPICAL CONDUIT SLEEVE THROUGH WALL

NOT TO SCALE



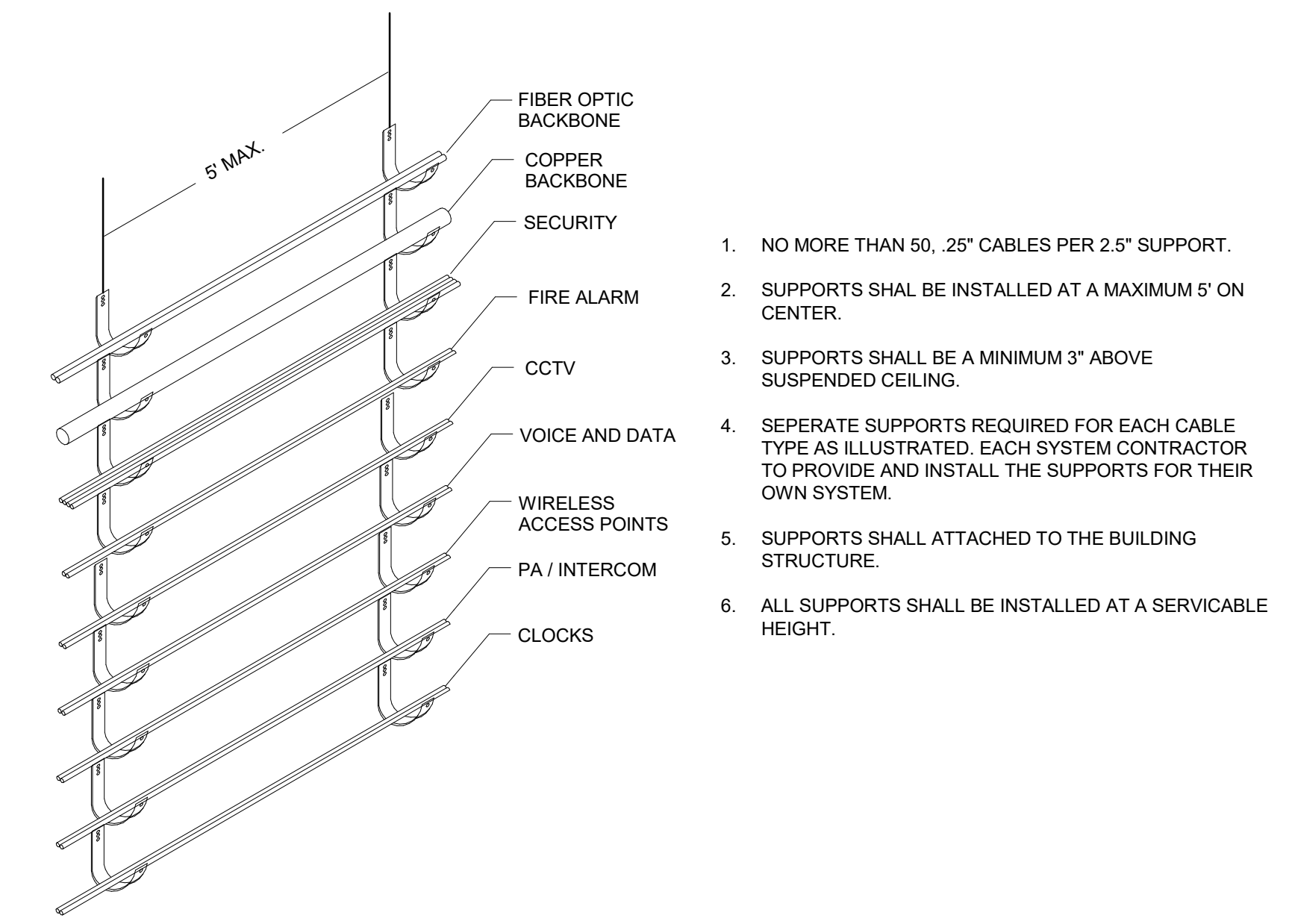
03 CABLE LABEL DETAIL

NOT TO SCALE



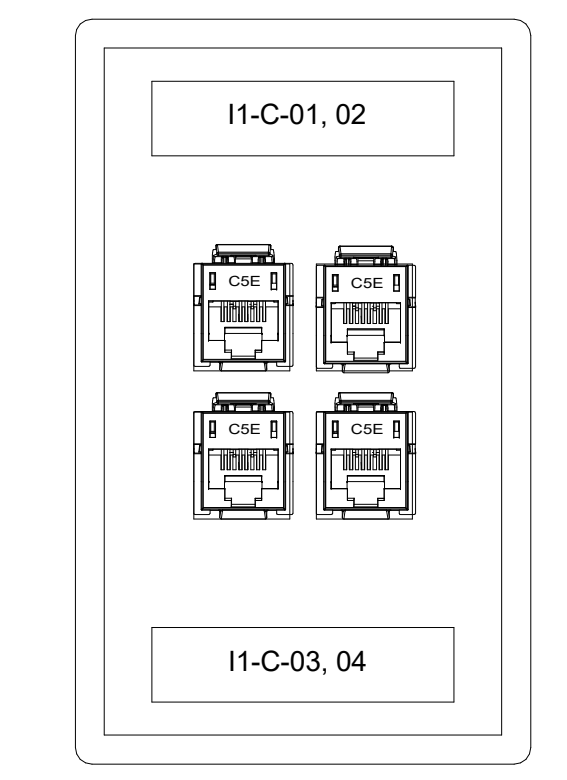
04 TYPICAL INTERIOR WALL MOUNTED DEVICE

NOT TO SCALE



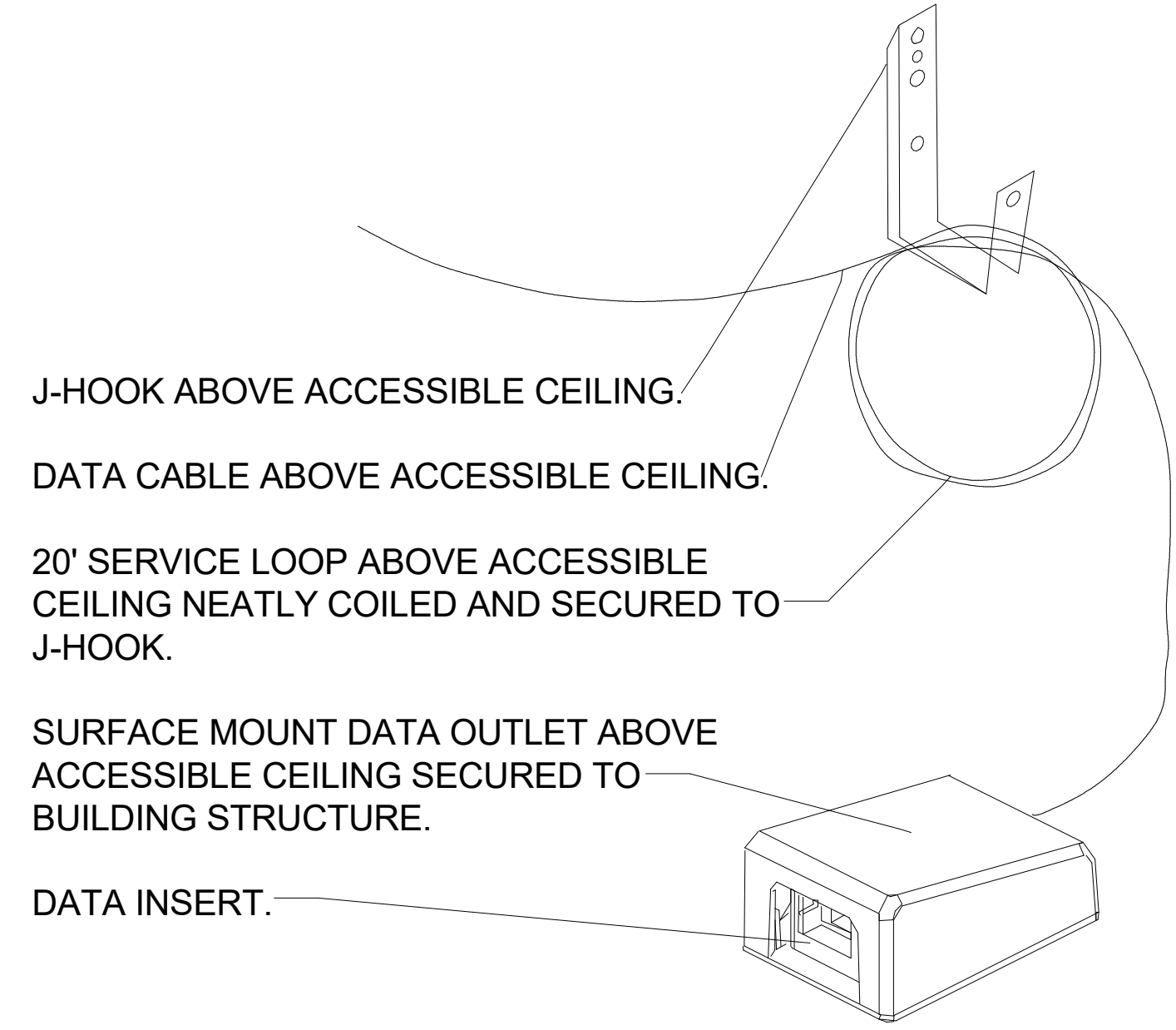
05 CABLE SUPPORT DETAIL

NOT TO SCALE



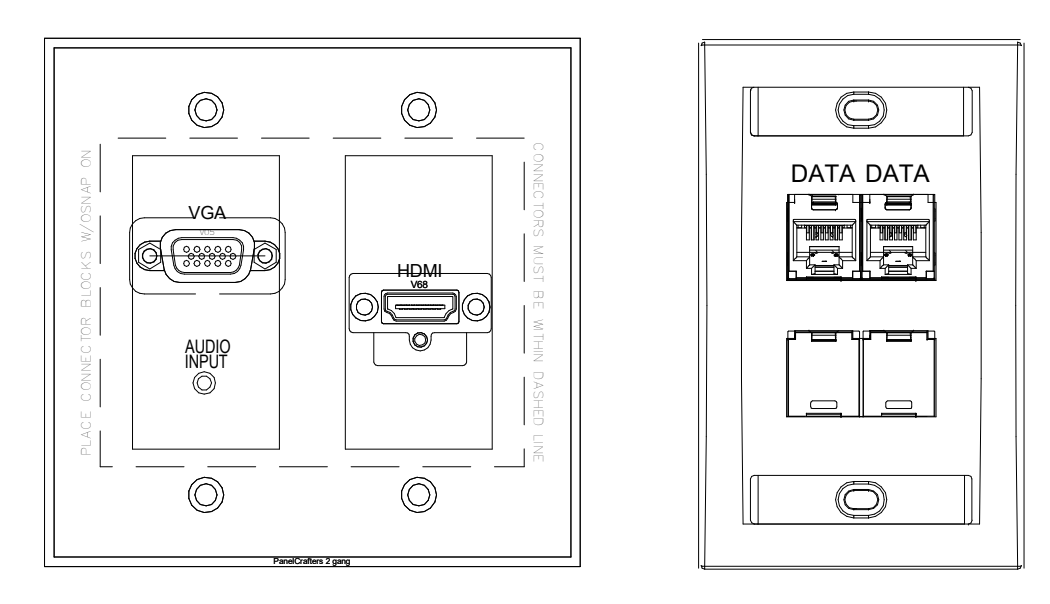
06 TYPICAL TECHNOLOGY OUTLET CONFIGURATION DETAIL

NOT TO SCALE



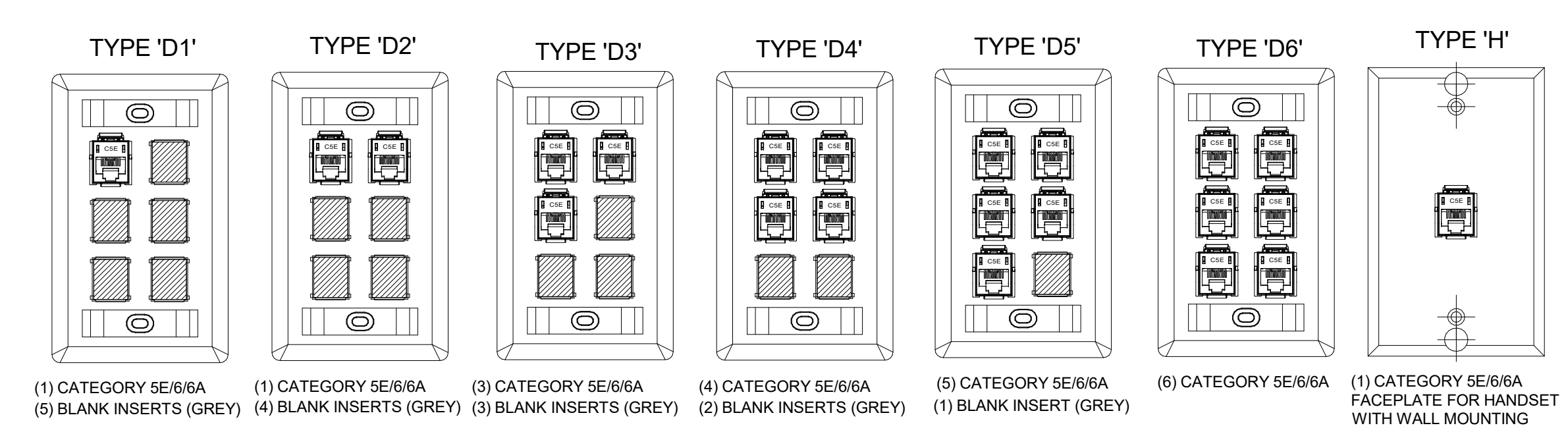
07 TYPICAL ABOVE CEILING DATA OUTLET

NOT TO SCALE



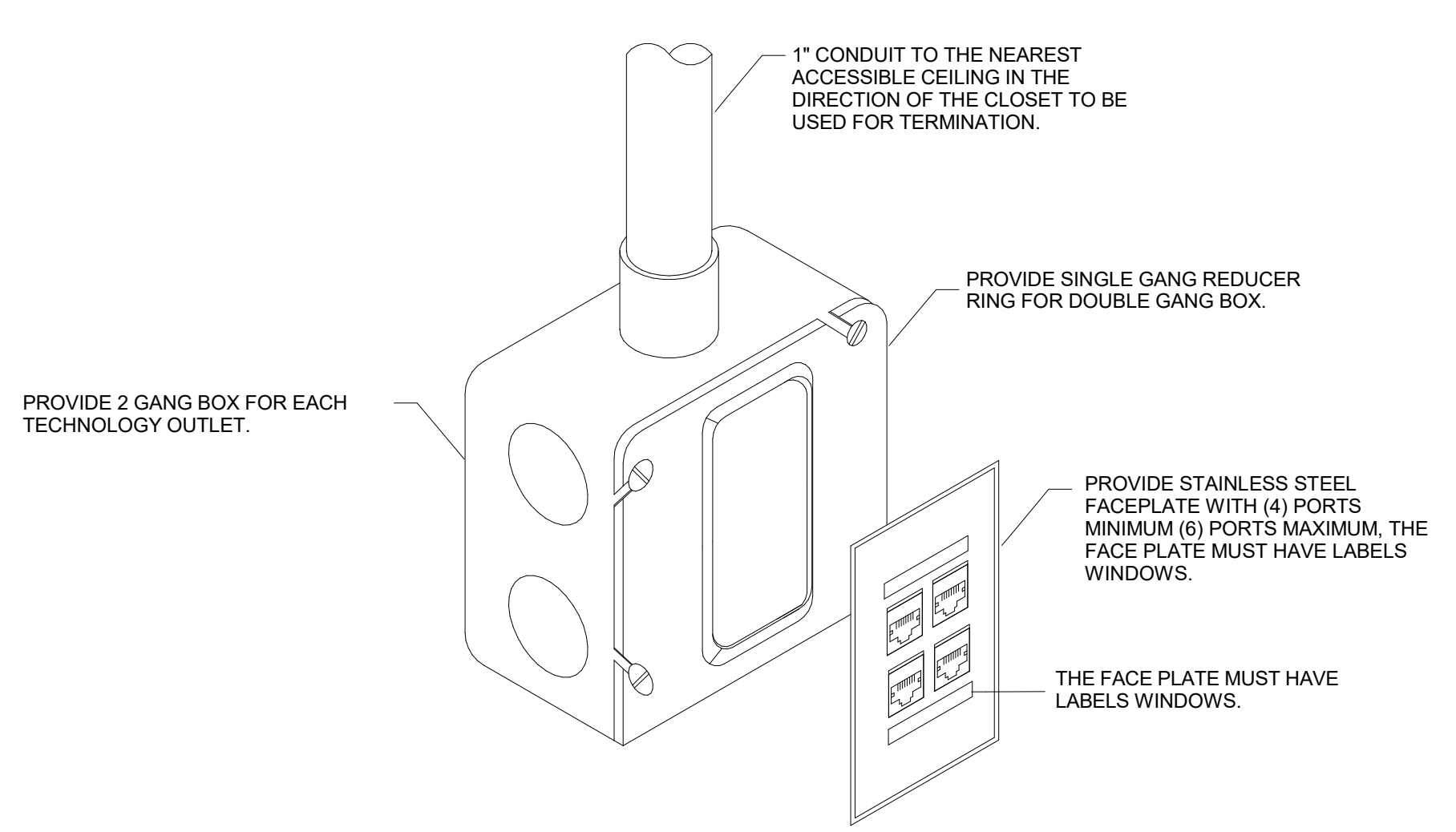
08 TYPICAL PS / D2 OUTLET DETAIL

NOT TO SCALE



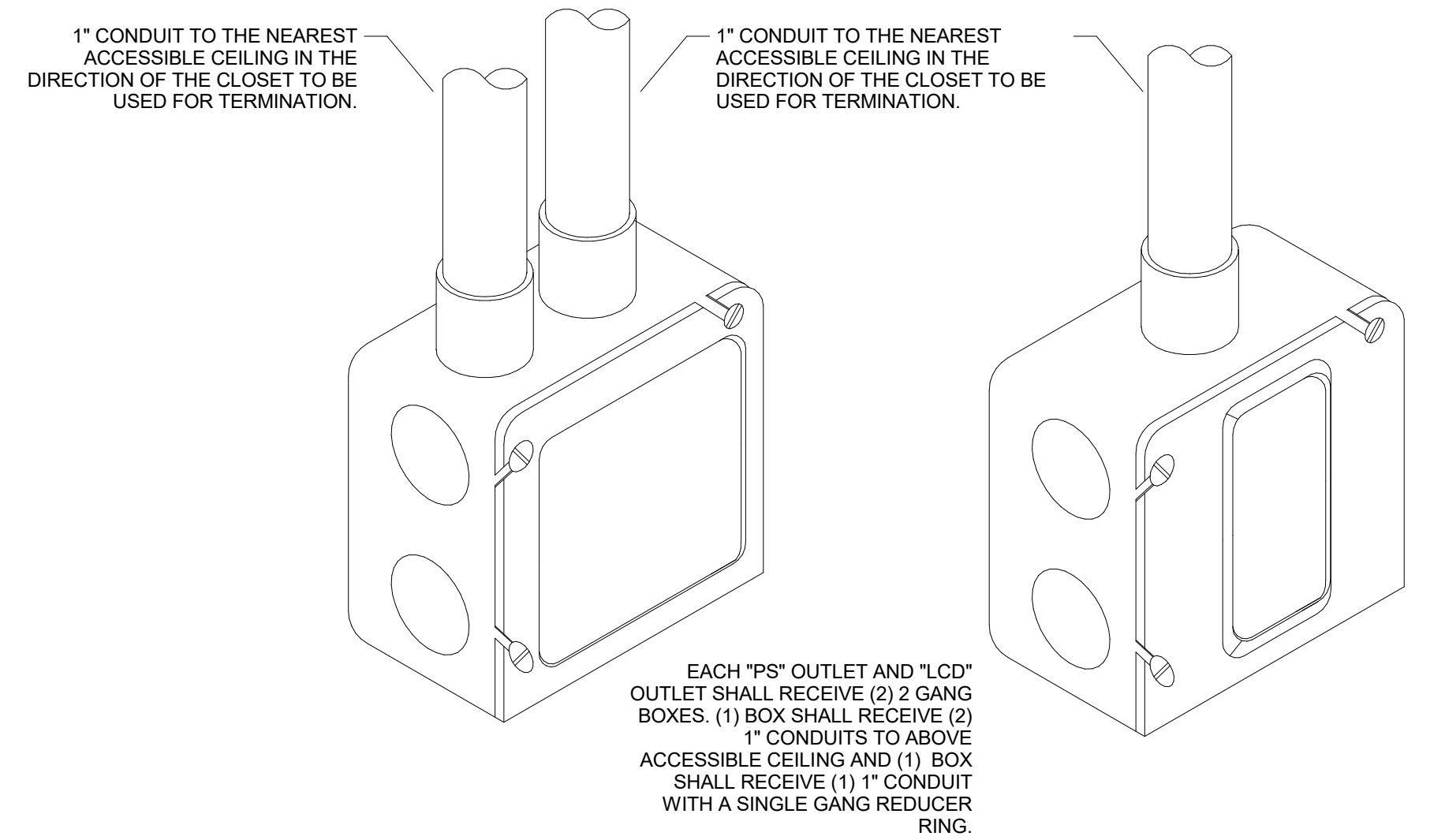
09 TYPICAL TECHNOLOGY OUTLET CONFIGURATION DETAIL

NOT TO SCALE



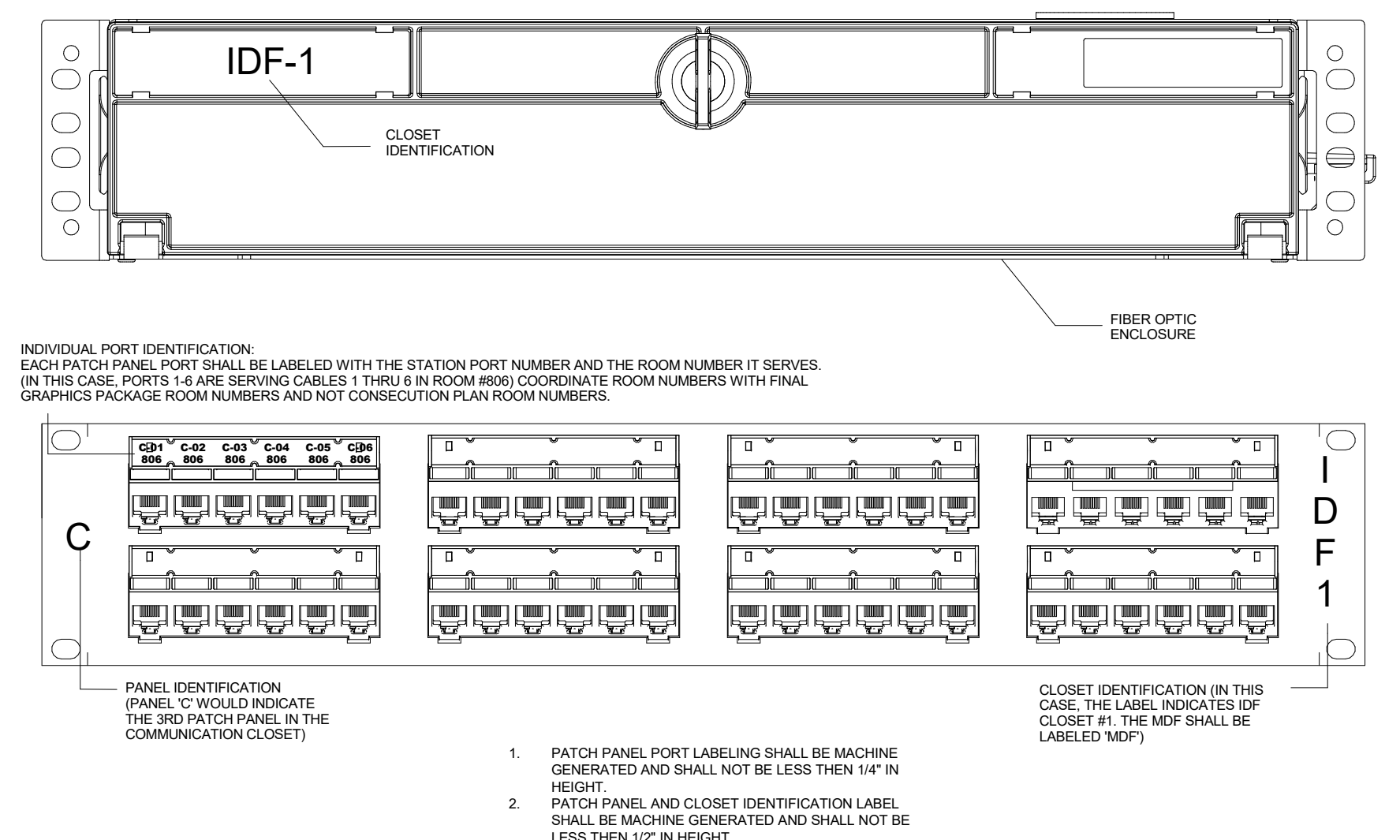
10 TECHNOLOGY OUTLET BOX DETAIL

NOT TO SCALE



11 PS AND LCD OUTLET BOX DETAIL

NOT TO SCALE



12 FIBER ENCLOSURE/PATCH PANEL LABELING DETAIL

NOT TO SCALE

DSA FILE NO. 37-C2 AR 04-11930

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REVIEWED FOR
SS FLS ACS
DATE: 02/01/2021



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CONSULTANT



ARCHITECT

CLIENT
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PROJECT NUMBER
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DRAWN BY: TC
CHECKED BY: GG

REVISIONS

No.	Description	Date

DSA SUBMITTAL
TECHNOLOGY DETAILS

T6.01