

Menlo Park City School District

181 Encinal Avenue
Atherton CA 94027



Encinal Elementary School Administration Building Modernization

195 Encinal Avenue
Atherton CA 94027

DSA BACKCHECK

04/02/2019

I-HED

2018-03800-000


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LICENSED ARCHITECT

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STATE OF CALIFORNIA
No. 12345

GENERAL NOTES

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMISSION OF BIDS TO REVIEW EXISTING CONDITIONS OF AREAS THAT ARE TO BE BID.
2. ADMINISTRATIVE REQUIREMENTS:
2A. A COPY OF PARTS 1 & 2, TITLE 24 C.C.R. SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
2B. ALL CONSTRUCTION CHANGE DOCUMENTS AND ADDENDA ARE TO BE SIGNED BY THE ARCHITECT, THE CONTRACTOR AND DISTRICT.
2C. ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335, PART 1, TITLE 24, AND APPROVED TESTING & INSPECTION SHEET.
2D. TESTS OF MATERIALS AND TESTING LAB SHALL BE IN ACCORDANCE WITH SECTION 4-335 OF PART 1, TITLE 24 AND THE DISTRICT SHALL PAY AND PAY THE LAB, COST OF RE-TEST MAY BE BACK-CHARGED TO THE CONTRACTOR.
2E. INSPECTOR TO BE APPROVED BY THE ARCHITECT AND DSA. INSPECTION TO BE IN ACCORDANCE WITH SECTION 4-335(b). THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24.
2F. CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS IN ACCORDANCE WITH SECTIONS 4-336 AND 4-343, PART 1, TITLE 24.
2G. THE ARCHITECT AND THE STRUCTURAL ENGINEER AND PROFESSIONAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTIONS 4-333(c) AND 4-341, PART 1, TITLE 24.
2H. THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343, PART 1, TITLE 24.
2I. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION AND ADDITIONS IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHERE IN 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 WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
3. NATIONAL REFERENCE STANDARDS:
- ASD (AISC) MANUAL OF STEEL CONSTRUCTION, 14th EDITION
- 2012 REVISED NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION
- AC-308-11 CODE & COMMENTARY
- REFERENCE CODE SECTION FOR NFPA STANDARDS - CBC (SFM) 3504.1 (FOR ADDITIONAL LISTING, SEE ITEM 4 APPLICABLE CODES BELOW)
4. APPLICABLE CODES FOR THIS PROJECT SHALL BE:
- 2016 CALIFORNIA ADMINISTRATIVE CODE.....(CAC) (PART 1, TITLE 24, CCR)
- 2016 CALIFORNIA BUILDING CODE (CBC) VOLUMES 1 & 2.....(PART 2, TITLE 24, CCR)
- (2015 EDITION INTERNATIONAL BUILDING CODE WITH 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ELECTRICAL CODE (CEC).....(PART 3, TITLE 24, CCR)
- (2015 EDITION NATIONAL ELECTRICAL CODE WITH 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA MECHANICAL CODE (CMC).....(PART 4, TITLE 24, CCR)
- (2015 EDITION IAPMO UNIFORM MECHANICAL CODE WITH 2015 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA PLUMBING CODE (CPC).....(PART 5, TITLE 24, CCR)
- (2015 EDITION IAPMO UNIFORM PLUMBING CODE WITH 2015 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ENERGY CODE.....(PART 6, TITLE 24, CCR)
- (2015 EDITION CALIFORNIA ENERGY COMMISSION BUILDING ENERGY EFFICIENCY STANDARDS)
- 2016 CALIFORNIA FIRE CODE (CFC).....(PART 7, TITLE 24, CCR)
- (2015 EDITION OF INTERNATIONAL FIRE CODE WITH 2015 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA GREEN CODE.....(PART 11, TITLE 24, CCR)
- 2016 CALIFORNIA REFERENCE STANDARDS CODE.....(PART 12, TITLE 24, CCR)
NFA 13 - 2016 INSTALLATION OF SPRINKLER SYSTEMS
NFA 72 - 2016 NATIONAL FIRE ALARM AND SIGNALING CODE
- REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS
2016 CBC, CHAPTER 35
2016 CFC, CHAPTER 45
5. USE OF ANY MATERIAL CONTAINING ASBESTOS IS PROHIBITED.
7. DO NOT SCALE DRAWINGS. DRAWINGS SHOULD BE USED AS A SUPPLEMENTAL TOOL FOR THE CONTRACTOR'S USE IN REVIEWING ACTUAL FIELD CONDITIONS PRIOR TO BIDDING.
8. ALL DIMENSIONS ARE APPROXIMATE DUE TO THE AS-BUILT CONDITIONS VARYING FROM ACTUAL FIELD CONDITIONS. ALL DIMENSIONS ARE TO BE FIELD VERIFIED PRIOR TO COMMENCING WORK. DIMENSIONS ARE FROM/TO CENTERLINE OR FACE OF STUDS/SHEATHING U.O.N. PER PLANS.
9. NOT USED.
10. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS TO INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY FOR ALL WORK SHOWN, PRESCRIBED, OR REASONABLY IMPLIED, BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS. WHERE WORK OR EQUIPMENT IS INDICATED N.I.C. (NOT IN CONTRACT), SUCH WORK AND/OR EQUIPMENT SHALL BE PROVIDED BY OTHERS. CONTRACTOR SHALL COORDINATE AND COOPERATE TO EFFECT SUCH INSTALLATION. REQUESTS FOR CLARIFICATION OF THESE DRAWINGS SHALL BE DIRECTED TO THE HD. ALL REQUIRED WORK SHALL BE PERFORMED BY THE CONTRACTOR INCLUDING THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS. THEY SHALL BE ONE AND THE SAME. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES ON THE PROJECTS. ANY CHANGES OR DELAYS ARISING FROM CONFLICTS BETWEEN TRADES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL TRADES COORDINATE, INTERFACE BETWEEN THEMSELVES, I.E., PLUMBING, ROUGH-IN CABINETS, ETC.
11. EXISTING UTILITIES AND IMPROVEMENTS DAMAGED DURING THE COURSE OF THE WORK SHALL BE PROMPTLY REPAIRED. EXISTING UTILITIES AND IMPROVEMENTS DAMAGED FOR WHICH LOCATIONS WERE UNKNOWN, SHALL BE IMMEDIATELY BROUGHT TO THE OWNER'S AND ARCHITECT'S ATTENTION AND PROMPTLY REPAIRED AT HIS/HER DIRECTION. THE WORK REQUIRED TO REPAIR DAMAGED EXISTING UTILITIES AND IMPROVEMENTS FOR WHICH LOCATIONS WERE UNKNOWN WILL BE REVIEWED AND TAKEN UNDER CONSIDERATION AS EXTRA WORK.
12. ALL ITEMS NOTED TO BE SALVAGED SHALL BE RETURNED TO THE OWNER.
13. THE TERM "TYPICAL" (TYP.) SHALL BE CONSTRUED TO MEAN APPLYING TO ALL LIKE OR SIMILAR CONDITIONS IN THE AREAS DESIGNATED FOR WORK SCOPE (I.E. WITHIN THE BOUNDARIES OF THIS PROJECT.).
14. PENETRATIONS IN FIRE RATED ASSEMBLIES AND BEARING WALLS SHALL BE PROTECTED AS REQUIRED BY 2016 CBC CHAPTER 7.
15. THE CONSTRUCTION DOCUMENTS, INCLUDING THE SPECIFICATIONS AND DRAWINGS, ARE COMPLEMENTARY AND WHAT IS CALLED FOR BY ANY ONE SHALL BE AS BINDING AS IF CALLED FOR BY ALL. IN CASE OF CONFLICT, LARGE SCALE (DETAIL) DRAWINGS SHALL GOVERN OVER SMALL-SCALE DRAWINGS. THE SPECIFICATIONS SHALL GOVERN OVER BOTH THE CONSTRUCTION PROJECT MANUAL AND THE CONTRACT DRAWINGS EXCEPT AS NOTED HEREIN BELOW. SPECIAL CONDITIONS SHALL GOVERN OVER BOTH THE CONSTRUCTION DRAWINGS AND THE GENERAL CONDITIONS, AND SUBSEQUENT ADDENDA. INTERPRETATIONS, OR CHANGE ORDERS SHALL GOVERN OVER THE ORIGINAL DOCUMENTS, UNLESS A DIFFERENT ORDER OF PRECEDENCE IS NOTED ELSEWHERE IN CONJUNCTION WITH A SPECIFIC PORTION OF THE DOCUMENTS.
- IN CASE OF CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE DOCUMENT CONTAINING ADDITIONAL QUANTITIES SHALL GOVERN IN MATTERS OF QUANTITY; THE DOCUMENT REQUIRING A HIGHER DEGREE OF QUALITY SHALL GOVERN IN MATTERS OF QUALITY. IN CASE OF CONFLICT WITHIN THE DRAWINGS INVOLVING QUANTITIES OR WITHIN THE SPECIFICATIONS INVOLVING QUALITY, THE GREATER QUANTITY AND THE HIGHER QUALITY SHALL BE FURNISHED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ALL SUCH QUANTITY AND QUALITY CONFLICTS AND SHALL AGREE UPON RESOLUTION, IN WRITING, PRIOR TO PROCEEDING.
- WHERE ON ANY DRAWING A PORTION OF THE WORK IS DRAWN OUT AND THE REMAINDER IS INDICATED IN OUTLINE, THE DRAWN-OUT PARTS SHALL APPLY TO ALL OTHER LIKE PORTIONS OF THE WORK. WHERE ORNAMENT OR OTHER DETAILS IS INDICATED AS STARTING, SUCH DETAIL SHALL BE CONTINUED THROUGHOUT THE COURSES OR PARTS IN WHICH IT OCCURS AND SHALL ALSO APPLY TO OTHER SIMILAR PARTS IN THE WORK, UNLESS OTHERWISE INDICATED.
16. ITEMS INDICATED TO BE VERIFIED OR FIELD VERIFIED ARE REQUIRED TO BE VERIFIED PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH THE WORK. ITEMS ARE ALWAYS TO BE VERIFIED FOR DESIGN INTENT AND COMPATIBILITY.
17. THE CONTRACTOR SHALL MAINTAIN THE PUBLIC RIGHTS OF WAY, SIDEWALKS, CORRIDORS, ETC., AFFECTED BY THE CONSTRUCTION, AND KEEP THESE AREAS FREE OF ALL SOIL, DEBRIS TRASH, ETC., ON A DAILY BASIS. CLEAN EGRESS SHALL BE MAINTAINED AT ALL TIMES FOR ALL ADJACENT BUILDING TENANTS, THEIR EMPLOYEES AND GUESTS.

18. THE ARCHITECT'S APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR FROM RESPONSIBILITY FOR DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS UNLESS HE HAS (IN WRITING) CALLED THE ARCHITECT'S ATTENTION TO SUCH DEVIATIONS AT THE TIME OF SUBMISSION NOR SHALL IT RELIEVE HIM OF RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS.
19. NOT USED.
20. GENERAL CONTRACTOR OR ITS SUBCONTRACTORS SHALL BE RESPONSIBLE FOR VERIFICATION AND APPROVALS OF SUBSTITUTED MATERIALS AS REQUIRED BY GOVERNING CODES AND AGENCIES.
21. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTORS TO SUPPLY AND DISTRIBUTE ADEQUATE COPIES OF ALL DRAWINGS TO ALL TRADES FAILING UNDER THEIR RESPONSIBILITY AT ALL TIMES DURING THE PROGRESS OF THE JOB (I.E.; REVISIONS).
22. UPON COMPLETION OF THE JOB, THE GENERAL CONTRACTOR SHALL SUBMIT CERTIFICATES OF INSPECTION OF SATISFACTORY COMPLETION, AND OPERATION AND MAINTENANCE P.L.M./AREA DRAWING. CONFLICTS BETWEEN WORK SET FORTH ON THE DRAWINGS AND BUILDING CODES, LAWS OR REGULATIONS NOTED BY THE GENERAL CONTRACTOR SHALL BE SUBMITTED TO THE ARCHITECT FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.
23. THE CONTRACTOR SHALL SUBMIT ALL PERTINENT SHOP DRAWINGS AND COLOR SAMPLES (INCLUDING CASEWORK) FOR THE ARCHITECT'S REVIEW. ALLOWING ADEQUATE TIME FOR REVIEW AND CORRECTIVE ACTION, SHOULD IT BE REQUIRED. BY SUBMITTING SHOP DRAWINGS, THE CONTRACTOR THEREBY REPRESENTS THAT HE HAS VERIFIED ALL FIELD MEASUREMENTS, METHODS OF ACCESS TO THE POINT OF INSTALLATION AND SIMILAR FIELD CRITERIA FOR CABINETS/MILLWORK AND ALL PREFABRICATED ASSEMBLIES OTHER THEN BUILDING STANDARD WORK.
24. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AREA AND SURROUNDING AREA FREE FROM DUST/NUISANCE. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH AND AGENCIES.
25. NO EXTRA WORK OR CHARGE SHALL BE MADE UNLESS WRITTEN AND COUNTERSIGNED BY THE ARCHITECT AND OWNER OR WRITTEN ORDER FROM THE ARCHITECT IS OBTAINED. THIS ORDER SHALL STATE THAT THE OWNER HAS AUTHORIZED THE EXTRA WORK OR CHARGE AND NO CLAIM FOR AN ADDITIONAL SUM SHALL BE VALID UNLESS SO PRESENTED AS DESCRIBED ABOVE.
26. CONSTRUCTION DEBRIS AND WASTES SHALL BE DEPOSITED AT AN APPROPRIATE SITE. THE CONTRACTOR SHALL AT ALL TIMES, KEEP PREMISES FREE FROM ACCUMULATION OF DEBRIS CAUSED BY ITS OPERATIONS. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL CLEAN THE BUILDING AND LEAVE THE WORK "READY FOR MOPPING AND WAXING."
27. GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING AND FIELD VERIFYING DEMOLITION REQUIREMENTS IN RELATION TO CONSTRUCTION DRAWINGS. THE ARCHITECT IS TO BE NOTIFIED OF ANY AND ALL CONFLICTS, DISCREPANCIES OR PROBLEMS.
28. CONTRACTOR TO REPAIR AND PATCH ALL AREAS DISTURBED DUE TO THIS PROJECT'S SCOPE OF WORK.

ABBREVIATIONS

A.B./ANCHOR BOLT
ABV./ABOVE
A.C./ASPHALTIC CONCRETE
A.C.T./ACOUSTICAL CEILING TILE
A.C./AIR CONDITIONING
ACOUS./ACOUSTICAL
A.D./AREA DRAIN
ADMIN./ADMINISTRATION
ADJ./ADJUSTABLE
A.F.F./ABOVE FINISHED FLOOR
AGGR./AGGREGATE
AL./ALUMINUM
ALT./ALTERNATE
P.S./ACCESS PANEL
APP./APPLICATION
APPROX./APPROXIMATE
ARCH./ARCHITECTURAL
ASPH./ASPHALT
ATTEN./ATTENUATING

BD./BOARD
BET./BETWEEN
B.F./BRACED FRAME
B.D./BUILDING
BLK./BLOCKING
BM./BEAM
BOT./BOTTOM

CAB./CABINET
C/C/CENTER TO CENTER
CEM./CEMENT
CN./CERAMIC
C.F./CUBIC FEET
CH./CHANNEL
C.I./CAST IRON
C.J./CONTROL JOINT
CL./CENTERLINE
CLG./CEILING
CLKG./CAULKING
C.O./CLOSET
CLR./CLEAR
C.M.U./CONCRETE MASONRY UNIT
COL./COLUMN
CMP./COMPUTER
CONC./CONCRETE
CONF./CONFERENCE
CONTR./CONTINUOUS
CONTR./CONTRACTOR
CONST./CONSTRUCTION
CORR./CORRIDOR
CPT./CARPET
CR./COLD-ROLLED
CSMT./CASEMENT
CT./CERAMIC TILE
CTR./CENTER
CTSK./COUNTERSUNK
C.Y./CUBIC YARDS

D./DRYER
DBL./DOUBLE
DECK./DECKING
DEG./DEGREE
DEMO./DEMOLITION
DEPT./DEPARTMENT
DET./DETAIL
D.F./DRINKING FOUNTAIN
DIA./DIAMETER
DIM./DIMENSION
DIR./DIRECTION
DST./DISTRIBUTION
DIV./DIVISION
DN./DOWN
DR./DOOR
D.S./DOWNSPOUT
D.S.A./ DIVISION OF STATE ARCHITECT
D.S.P./DRY STAND PIPE
DWG./DRAWING

NOTE: NOT ALL ABBREVIATIONS MAY BE USED IN THIS PROJECT

E./EAST
(E)/EXISTING
E.C./EACH
E.J./EXPANSION JOINT
EL./ELEVATION
ELAS./ELASTOMERIC
ELEC./ELECTRICAL
ELEV./ELEVATOR
EMER./EMERGENCY
ENCL./ENCLOSURE
ENGR./ENGINEER
EQ./EQUAL
EQUIP./EQUIPMENT
E.S./EACH SIDE
EXP./EXPANSION
EXH./EXHAUST
EXIST./EXISTING
EXT./EXTERIOR
E.W./EACH WAY

F./FREEZER
F.A./FIRE ALARM
F.A.F./FORCED AIR FURNACE
F.D./FOUND
FND./FOUNDATION
F.E./FIRE EXTINGUISHER
F.E.C./FIRE EXTINGUISHER & CABINET
FED./FEDERAL
F.V./FIELD VERIFY
F.F./FINISH FLOOR
F.H.C./FIRE HOSE CABINET
FIN./FINISH
FX./FIXTURE
F.L./FLOW LINE
FLR./FLOOR
FLUOR./FLUORESCENT
F.O./FACE OF
F.O.C./FACE OF CONCRETE
F.O.F./FACE OF FINISH
F.O.M./FACE OF MASONRY
F.O.S./FACE OF STUD
F.O.W./FACE OF WALL
FRFR./FIREPROOF(ING)
FRM./FRAMING
F.R.P./FIRE RETARDANT TREATED
F.R.P./FIBERGLASS REINFORCED POLYESTER
F.S./FLOOR SINK
F.S.E./FLOOR SERVICE EQUIPMENT
FT./FOOT OR FEET
FTG./FOOTING
FURR./FURRING
CSMT./CASEMENT
FUT./FUTURE

GA./GAUGE
GALV./GALVANIZED
GLB./GLUE- LAMINATED (WOOD) BEAM
GL./GLASS
GND./GROUND
G.R.G./GLASS REINFORCED GYPSUM
G.S.M./GALVANIZED SHEET METAL
O.P./GYPSUM
G.W.B./GYPSUM WALL BOARD

H.B./HOSE BIBB
H.C./HOLLOW CORE
HDWR./HARDWARE
HDWD./HARDWOOD
HT./HEIGHT
H.M./HOLLOW METAL
HORIZ./HORIZONTAL
H.P./HIGH POINT
HVAC/HEATING, VENTILATING, AIR CONDITIONING

I.D./INSIDE DIAMETER
IN./INCH
INCAND./INCANDESCENT
INCR./INCREMENT
INFO./INFORMATION
INSUL./INSULATION
INT./INTERIOR

JAN./JANITOR
JST./JOIST
J.V./JOINT

KIT./KITCHEN
K.P./KICK PL

LAB./LABORATORY
LAM./LAMINATE
LAV./LAVATORY
LB./POUND
LF./LINEAR FEET
L.H./LEFT HAND
LN./LINEAR
LKR./LOCKER
LL.H./LONG LEG HORIZONTAL
LP./LOW POINT
LT./LIGHT
LVR./LOUVER

MACH./MACHINE
MAINT./MAINTENANCE
MATL./MATERIAL
MAS./MASONRY
MAX./MAXIMUM
M.B./MARKER BOARD OR MACHINE BOLT
M.C./MEDICINE CABINET
MECH./MECHANICAL
MEMB./MEMBRANE
MET./METAL
MFR./MANUFACTURER
MIN./MINIMUM
MIR./MIRROR
MSC./MISCELLANEOUS
M.W./MARK
M.O./MASONRY OPENING
M.D./MOUNTED
MTL./METAL
MUL./MULLION

N./NORTH
(N)/NEW
N/A./NOT APPLICABLE
N.E./NORTHEAST
N.I.C./NOT IN CONTRACT
NO./NUMBER
NOM./NOMINAL
N.T.S./NOT TO SCALE
N.W./NORTHWEST

OBS./OBSCURE
O.C./ON CENTER
O.D./OUTSIDE DIAMETER OR DIMENSION
O.F.C.I./OWNER FURNISHED, CONTRACTOR INSTALLED
O.F.D./OVERFLOW DRAIN
O.F.S./OVERFLOW SCUPPER
O.H./OVER HEAD
OPNG./OPENING
OPP. HD./ OPPOSITE HAND
OZ./OUNCE

P.A./PLANTING AREA
P.B./PANO BAR
P.C.P./PRECAST CONCRETE PANEL
PERIM./PERIMETER
PL./PLATE
P.L.G./PLATE GLASS
P.L.M./PLASTIC LAMINATE
PLAS./PLASTER
PLBG./PLUMBING
PLYWD./PLYWOOD
PNL./PANEL
PR./PAIR

PREP./PREPARATION
P.S.F./POUNDS PER SQUARE FOOT
P.S.I./POUNDS PER SQUARE INCH
P.T./PRESSURE TREATED
PT./POINT
P.T.D./PAPER TOWEL DISPENSER
PTM./PARTITION
PVC./POLYVINYL CHLORIDE
P.W.M./PAVEMENT

R./RISER OR REFRIGERATOR
(R)/REMOVE
R.A./RETURN AIR
RAD./RADIUS
R.B./RUBBER BASE
R.C.P./REFLECTED CEILING PLAN
R.D./ROOF DRAIN
REF./REFERENCE
REFR./REFRIGERATION
RFR./REINFORCED
REQD./REQUIRED
REV./REVISION OR REVISED
RESIL./RESILIENT
R.H./RIGHT HAND
RM./ROOM
R.O./ROUGH OPENING
R.WD./REDWOOD
R.W.L./RAINWATER LEADER

S./SOUTH
S.A./SUPPLY AIR
S.B./SCOREBOARD
S.C./SOLID CORE
S.C.D./SEE CIVIL DRAWINGS
SCHD./SCHEDULE
S.D./STANDARD
S.D.S./SEE DOOR SCHEDULE
S.E./SOUTHEAST
S.E.D./SEE ELECTRICAL DRAWINGS
SECT./SECTION
S.F./SQUARE FOOT (FEET)
S.F.S./SEE (ROOM) FINISH SCHEDULE
S.G.S./SEE GLAZING SCHEDULE
S.H./SHEET
SHG./SHEATHING
SIM./SIMILAR
S.L.D./SEE LANDSCAPE DRAWINGS
S.M./SHEET METAL
S./SLOPE
SWAGNA./SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
S.M.D./SEE MECHANICAL DRAWINGS
S.M.S./SHEET METAL SCREW
S.M.D./SANITARY NAPKIN DISPENSER
S.N.R./SANITARY NAPKIN RECEPTACLE
S.S.D./ON GRADE
S.P.D./SEE PLUMBING DRAWINGS
SPEC./SPECIFICATION
SPR./SPRINKLERED
S.P.S./SEE PARTITION SCHEDULE
SQ./SQUARE
S.S.D./SEE STRUCTURAL DRAWINGS
STD./STANDARD

STL./STEEL
STR./STRUCTURAL
S2S./SURFACE FOUR SIDES
S2S./SURFACE TWO SIDES
S.S./STAINLESS STEEL
SVC./SERVICE
STOR./STORAGE
SUSP./SUSPENDED
S.W./SOUTHWEST
S.W.S./SEE WINDOW SCHEDULE
SYM./SYMMETRICAL

T./TREAD
T.B./TACKBOARD
TECH./TECHNOLOGY
TELE./TELEPHONE
TEMP./TEMPERED OR TEMPERATURE
TER./TERRAZZO
T & G/TONGUE & GROOVE
THK./THICK
THRES./THRESHOLD
T.O./TOP OF
T.O.C./TOP OF CURB OR CONCRETE
T.O.D./TOP OF DECKING
T.O.M./TOP OF MASONRY
T.O.P./TOP OF PAVEMENT OR PARAPET
T.O.S./TOP OF STEEL
T.O.W./TOP OF WALL
T.S./TUBULAR STEEL
T.S.C.D./TOILET SEAT COVER DISPENSER
T.T.D./TOILET TISSUE DISPENSER
TV/TELEVISION
TYP./TYPICAL

U.B.C./UNIFORM BUILDING CODE
U.G./UNDERGROUND
UL./UNDERWRITERS LABORATORY
UNF./UNFINISHED
U.O.N./UNLESS OTHERWISE NOTED
UR./JURNAL

V.C.T./VINYL COMPOSITION TILE
VERT./VERTICAL
VEST./VESTIBULE
V.G.D./VERTICAL GRAIN DOUGLAS FIR
V.I.F./VERIFY IN FIELD
VOL./VOLUME
V.T.R./VENT THRU ROOF (S.P.D.)
W.C./VINYL WALL COVERING

W./WEST OR WASHER
W./WITH
W.C./WATER CLOSET
WD./WOOD
WOW./WINDOW
W.F./WIDE FLANGE
WGL./WIRE GLASS
W.H./WATER HEATER
W.I./WOODWORK INSTITUTE
W.O./WHERE OCCURS
W.P./WORKING POINT
W.SCT./WANSCOPE
W.S.P./MET STANDPIPE
WT./WEIGHT
W.W.F./WELDED WIRE FABRIC

& /AND
@ /AT
/CHANNEL
/PENNY
/POUND OR NUMBER

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TOTAL NUMBER OF SHEETS = 40	

SYMBOL LEGEND

ROOM NAME NUMBER/INTERIOR ELEVATION SHEET	GALLERY A101 A7.X	WALL SECTION REFERENCE 17.A5 (DWG #/SHEET #)
DOOR NUMBER	101A	STRUCTURAL GRID (NUMBER OR LETTER)
DEMOLITION NOTE	1	DETAIL DRAWING REFERENCE 1.AX.XX - DWG # AX.XX - SHEET #
TOILET ACCESSORY	1	BUILDING ELEVATION REFERENCE 1.AX.XX - DWG # AX.XX - SHEET #
CONSTRUCTION NOTE	1	INTERIOR ELEVATION REF 1.AX.XX - DWG # AX.XX - SHEET #
PARTITION TYPE	ETI	WINDOW TYPE 15
MATCH LINE		BUILDING SECTION 1.AX.XX - DWG # AX.XX - SHEET #
DATUM POINT	+0'-0" A.F.F.	
NORTH ARROW		
MAGNETIC NORTH PROJECT NORTH		

PROJECT SCOPE

- WORK SHALL INCLUDE BUT IS NOT LIMITED TO THE :
- REPLACEMENT OF EXISTING LIGHTING, REFLECTED CEILING, GYPSUM CEILING AND ALL RELATED ACCESSORIES. REPLACE AND MODIFY EXISTING ELECTRICAL CONDUITS AND SWITCHES ASSOCIATED WITH THE LIGHTS.
 - REPLACEMENT OF EXISTING HVAC SYSTEM.
 - SELECTIVE DEMOLITION, PATCH, REPAIR AND FINISH OF AREAS AFFECTED BY NEW WORK.
 - REPLACEMENT OF ONE EXTERIOR DOOR WITH A NEW STOREFRONT WINDOW SYSTEM.
 - EXISTING OFFICE INTO TWO SPACES WITH NON-STRUCTURAL PARTITION.
 - PAINT AND FLOOR FINISHES.

THE PRECEDING DESCRIPTION DOES NOT LIMIT THE EXTENT OF WORK. CONTRACTOR IS RESPONSIBLE FOR ALL WORK CONTAINED WITHIN THE CONTRACT DOCUMENTS.

FOR REFERENCE ONLY, REFER TO ASBESTOS AND LEAD SURVEY, DATED MAY 3, 2007 PREPARED BY OTHERS.

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. 01-117917 File No. 41-8)

- ☐ The drawings or sheets listed on the cover or index sheet (signed by other than the Architect of Record)
☐ 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:

- design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations (and the project specifications prepared by me, and
- 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))

I find that:

- ☒ All drawings or sheets listed on the cover or index sheet
☒ This drawing or page

☒ I share in general conformance with the project design, and
☒ I have been coordinated with the project plans and specifications.

Signature _____ APRIL 1, 2019
Date _____

Architect or Engineer designated to be in general responsible charge

Print Name _____
License Number C-36095 Expiration Date MARCH 31, 2021

or

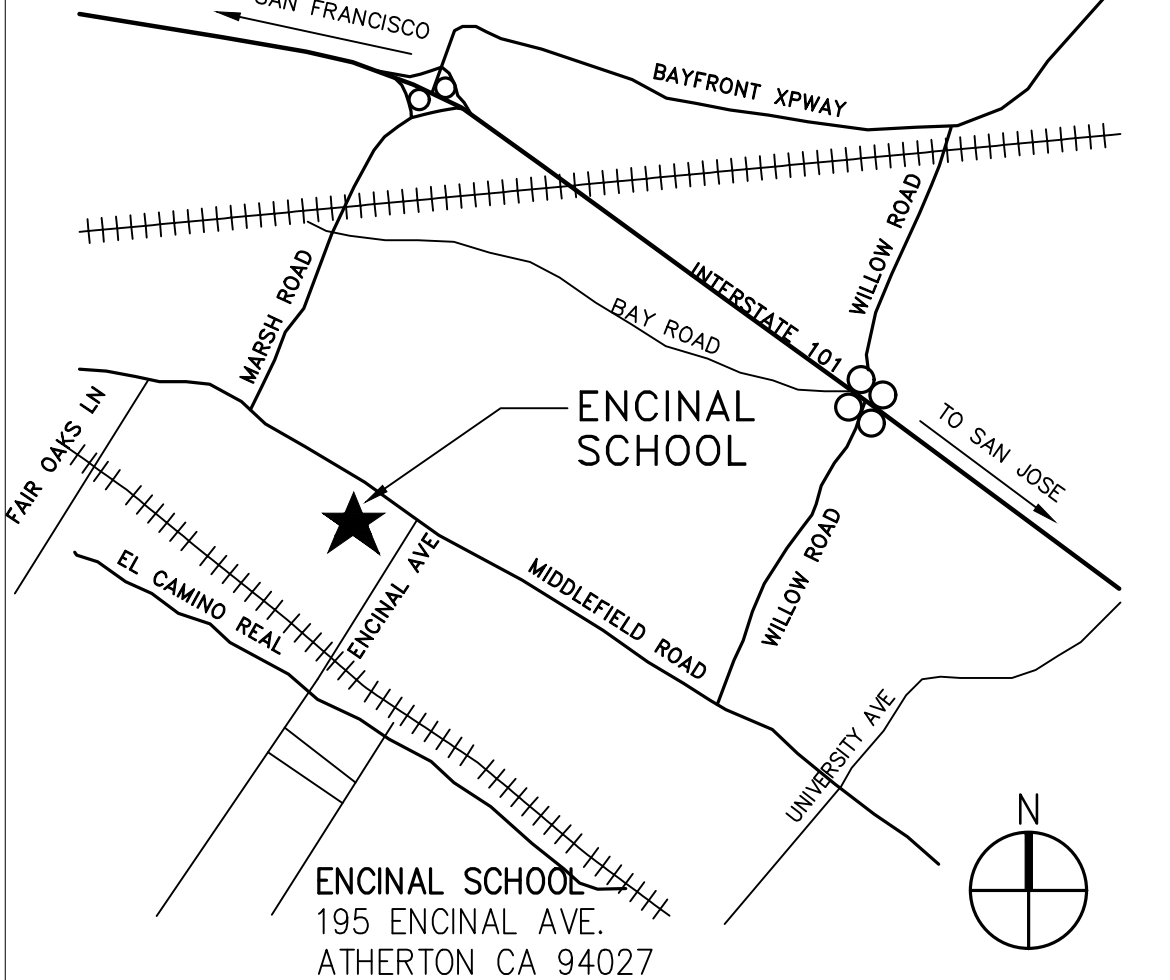
☐ I share in general conformance with the project design, and
☐ I have been coordinated with the project plans and specifications.

Signature _____ Date _____

Architect or Engineer delegated to be in general responsible charge

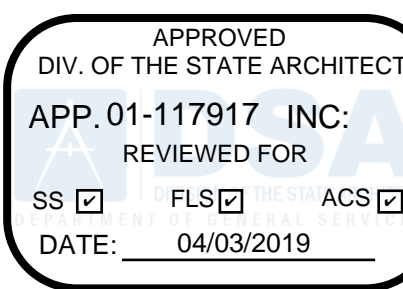
Print Name _____
License Number _____ Expiration Date _____

VICINITY MAP



DEFERRED APPROVAL

NONE



APPROVED
DIV. OF THE STATE ARCHITECT
APP.01-117917 INC.
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 04/03/2019

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date Issued For
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LICENSED ARCHITECT
michael j. myers
STATE OF CALIFORNIA
C-36095

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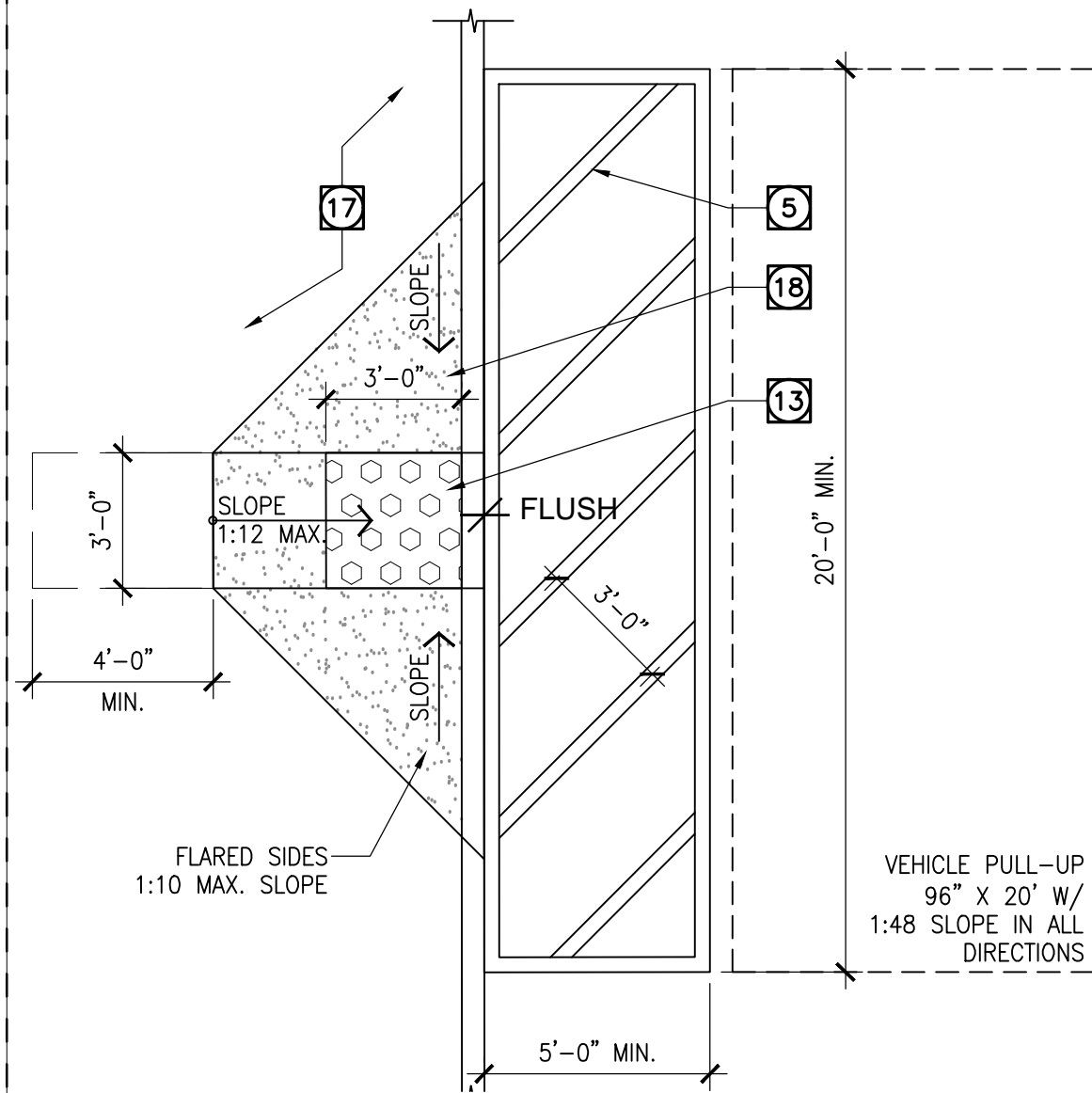
GENERAL INFORMATION

G-001

BLDG. WING	DATE	DSA #	CCUP	CONSTR. TYPE	ALLOW. HEIGHT	ACTUAL HEIGHT	ALLOW. AREA	AFTER INCREASE	ACTUAL AREA
A CLASSROOMS	1948	5932	E1	V-NR	1 STORY	40'	1 STORY	17'-6"+/-	9100
	1997	66839							
	1954	13458							
B ADMINISTRATION	1992	58673	B	V-NR	1 STORY	40'	1 STORY	21'-0"	9100
	2005	106927							
	2007	108446							
D MULTI-PURPOSE	1948	5932	A2.1	V-1HR	2 STORY	40'	1 STORY	26'-0"+/-	10500
	1997	66839							
	1952	10257							
E CLASSROOMS	1997	66839	E1	V-NR	1 STORY	40'	1 STORY	17'-6"+/-	9100
	1952	10257							
	1997	66839							
F KINDERGARTEN	1952	10257	E1	V-NR	1 STORY	40'	1 STORY	17'-6"+/-	9100
	1997	66839							
	2007	PENDING							
J MULTI-PURPOSE	2008	01-	**A2.1	V-1HR	2 STORY	40'	1 STORY	27'-0"	10500
	2008	01-							
K CLASSROOMS	2008	01-	**E1	V-1HR	2 STORY	40'	2 STORY	27'-0"	15700
	2008	01-							

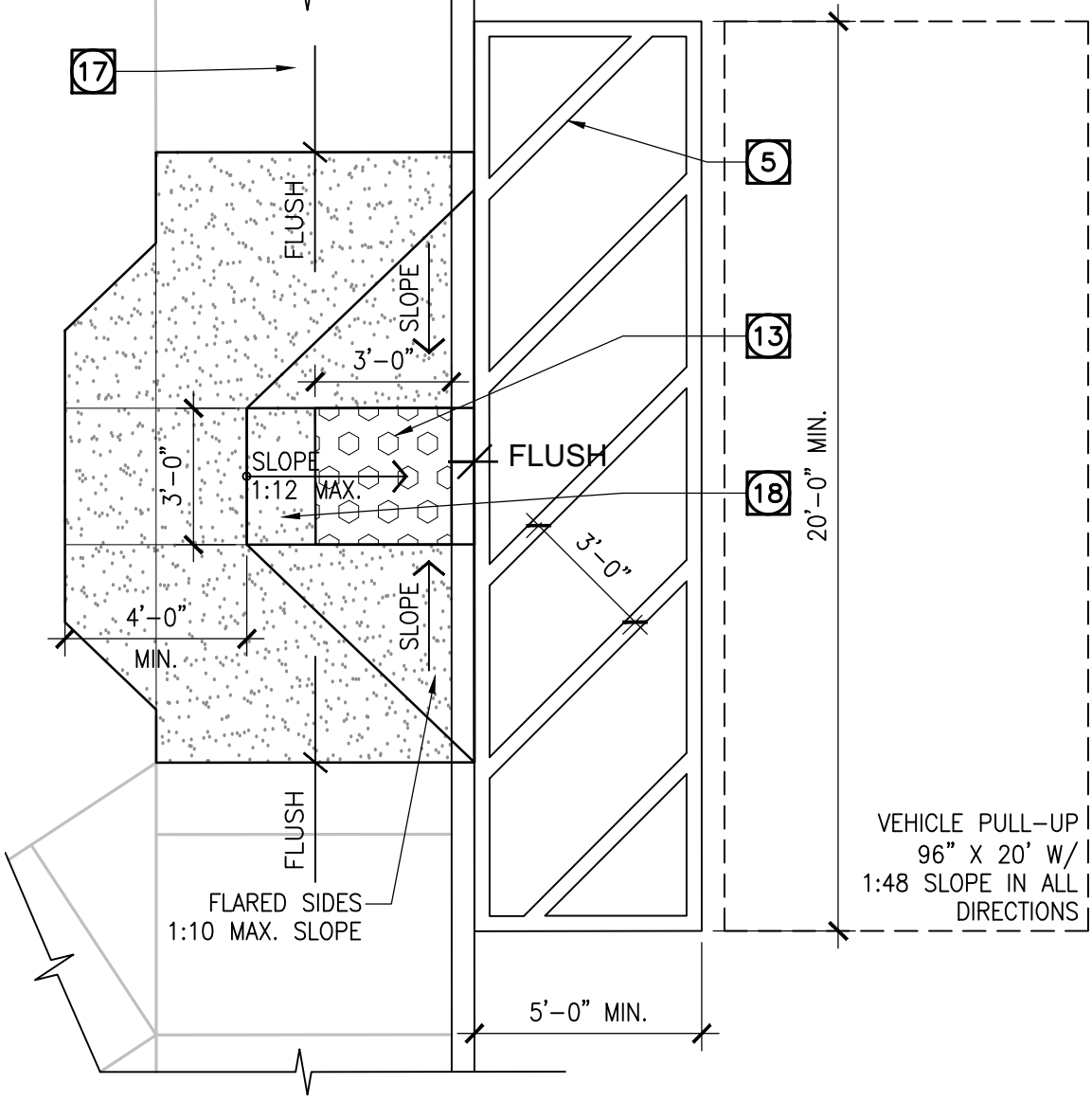
NOTES:

** ALL BUILDINGS ARE FULLY SPRINKLERED AS A SUBSTITUTE FOR ONE HOUR FIRE RESISTIVE CONSTRUCTION REQUIREMENT, PER CBC SECTION 508.



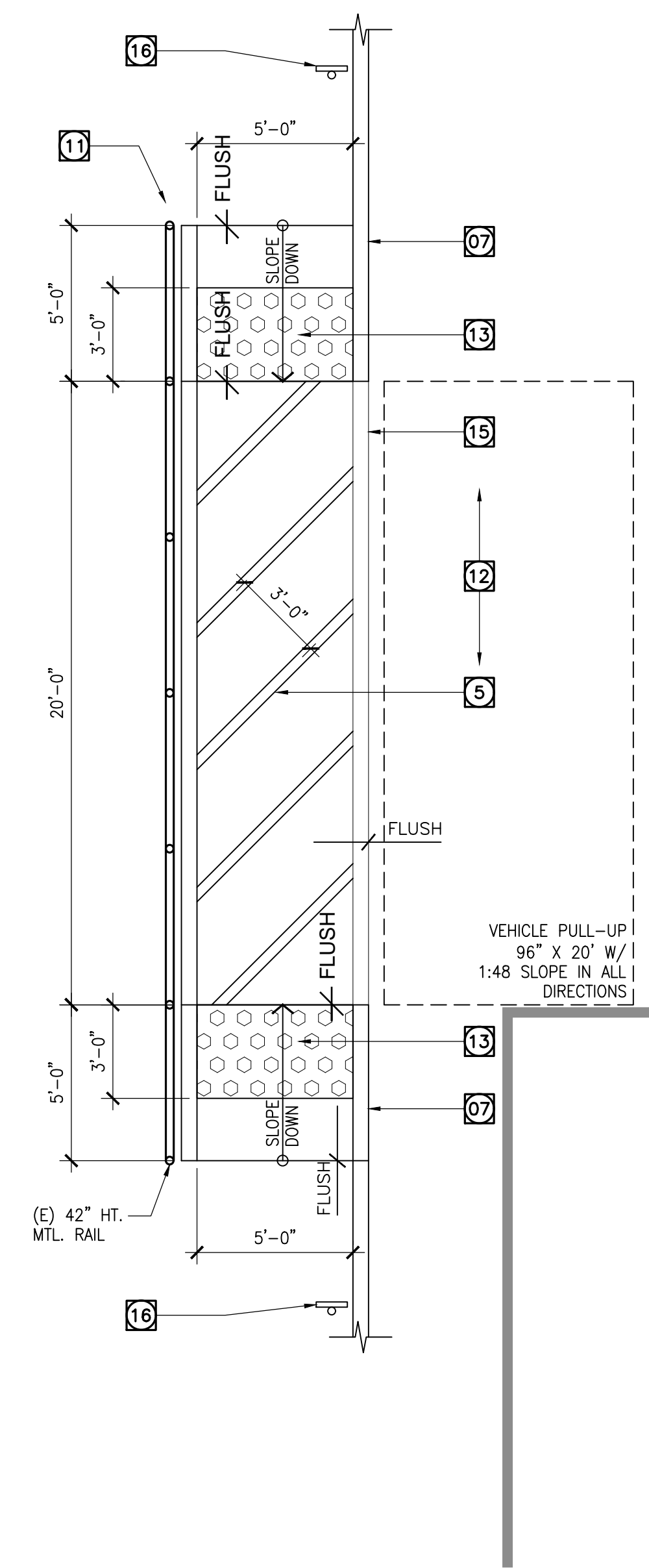
5 PERPENDICULAR CURB RAMP

1/4" = 1'-0"



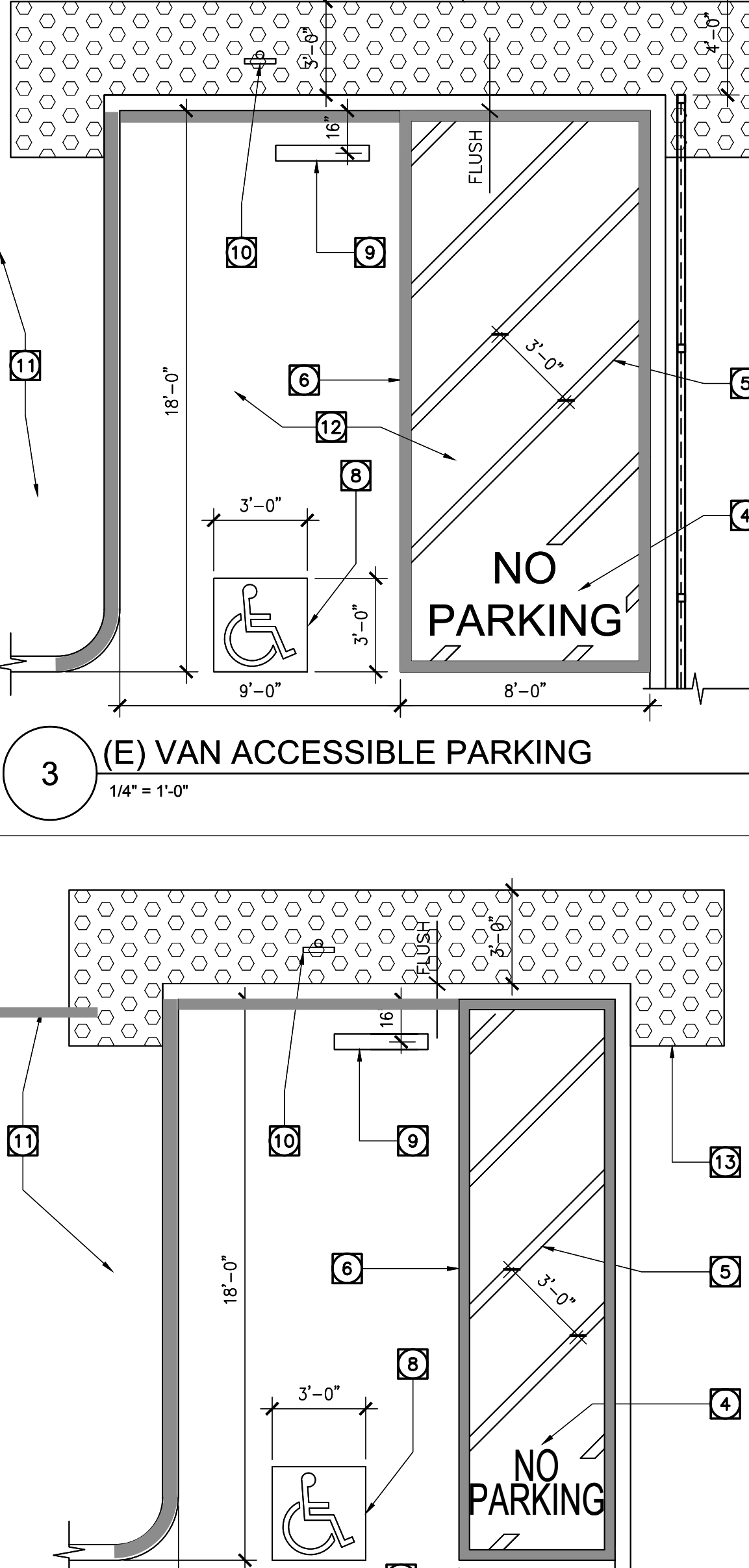
6 PERPENDICULAR CURB RAMP

1/4" = 1'-0"



4 (E) STUDENT DROP-OFF

1/4" = 1'-0"



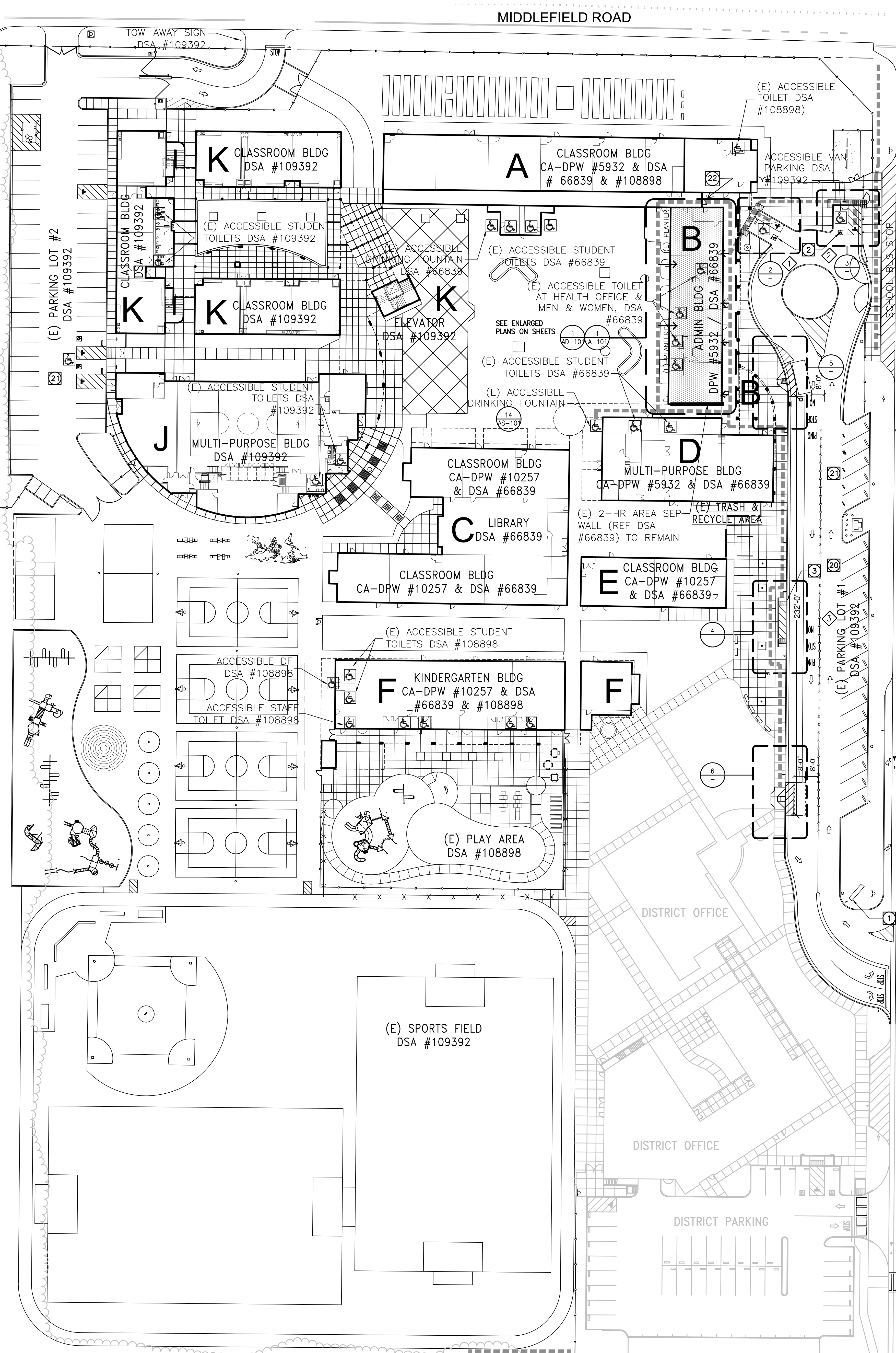
3 (E) VAN ACCESSIBLE PARKING

1/4" = 1'-0"



2 (E) STANDARD ACCESSIBLE PARKING

1/4" = 1'-0"



1 SITE PLAN

1" = 30'-0"

LEGEND

- EXISTING PROPERTY LINE
- BUILDING IN THE SCOPE OF WORK
- EXISTING BUILDING - NOT IN SCOPE
- (E) ACCESSIBLE COMPONENT PER PLAN
- ACCESSIBLE PATH OF TRAVEL
- PHOTO REFERENCE

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) 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 WITH THE CBC HAVE BEEN IDENTIFIED AND 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 INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

GENERAL NOTES

- REFER TO ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- LENGTH OF DROP-OFF AREA IS 232'-0".

KEYNOTES

- TOW AWAY SIGN, PER DETAIL
- (E) STAFF AND VISITOR ACCESSIBLE PARKING
- (E) STUDENT DROP-OFF
- 12" HIGH LETTERS "NO PARKING" PAINTED WHITE
- 4" WIDE WHITE STRIPING
- 4" WIDE BLUE STRIPING TYP. AT OUTLINE OF ACCESSIBLE PARKING STALLS.
- (E) 5" HIGH CONC. CURB
- (E) ACCESSIBILITY SYMBOL 36 X 36 ISA IN WHITE PAINT ON BLUE FIELD
- (E) CONC. BUMPER
- (E) ACCESSIBLE PARKING SIGN, PER DETAIL
- (E) CONC. SIDEWALK W/ 2% MAX. SLOPE IN ALL DIRECTION.
- (E) ASPHALT PAVEMENT W/ 2% MAX. SLOPE IN ALL DIRECTION.
- TRUNCATED DOMES, PER DETAIL
- (E) CONC. CURB RAMP
- (E) FLUSH CONC. CURB
- (E) STUDENT DROP-OFF SIGN
- (E) CONC. SIDEWALK
- CONC. CURB, PER DETAIL
- CONC. SIDEWALK, PER DETAIL
- VISITOR PARKING
- STAFF PARKING
- (E) DOUBLE 3'-0" x 7'-0" DOORS W/ PH AND LEVER HANDLE.

PARKING ANALYSIS

PARKING LOT #1

NUMBER OF PARKING SPACES: 21 (STANDARD)

NUMBER OF REQUIRED ACCESSIBLE SPACES: 2

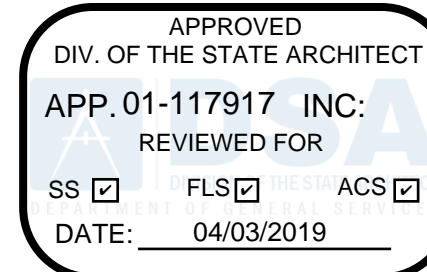
VAN ACCESSIBLE SPACES PROVIDED: 1

PARKING LOT #2

NUMBER OF PARKING SPACES: 41 (STANDARD)

NUMBER OF REQUIRED ACCESSIBLE SPACES: 2

VAN ACCESSIBLE SPACES PROVIDED: 1



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Administration
Building
Modernization

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94104 USA
(415) 981-2345
WWW.HED.DESIGN

LICENSED ARCHITECT
Michael J. Myers
STATE OF CALIFORNIA
No. 94104

2018-03800-000

SITE PLAN,
CODE ANALYSIS
& SITE DETAILS

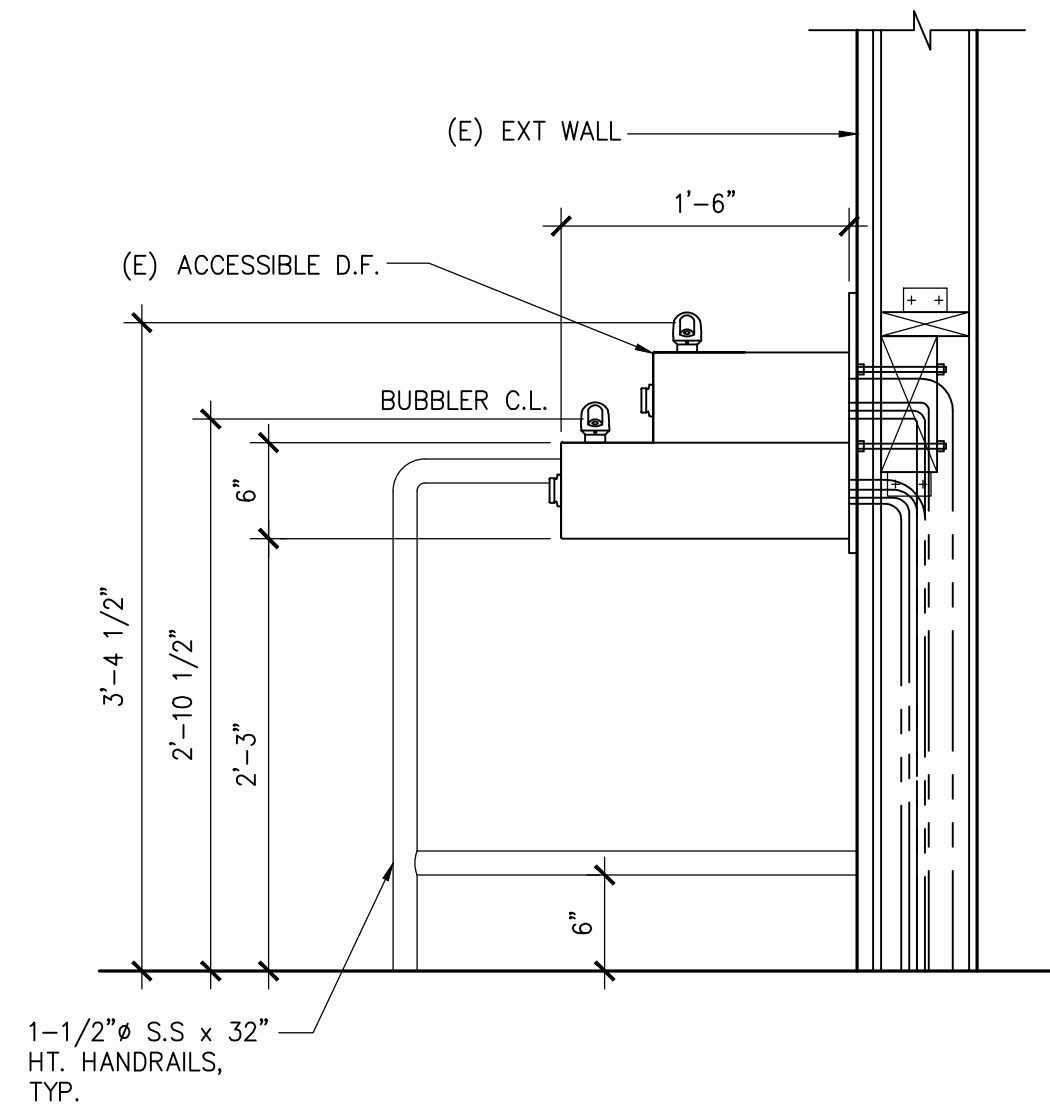
AS-001



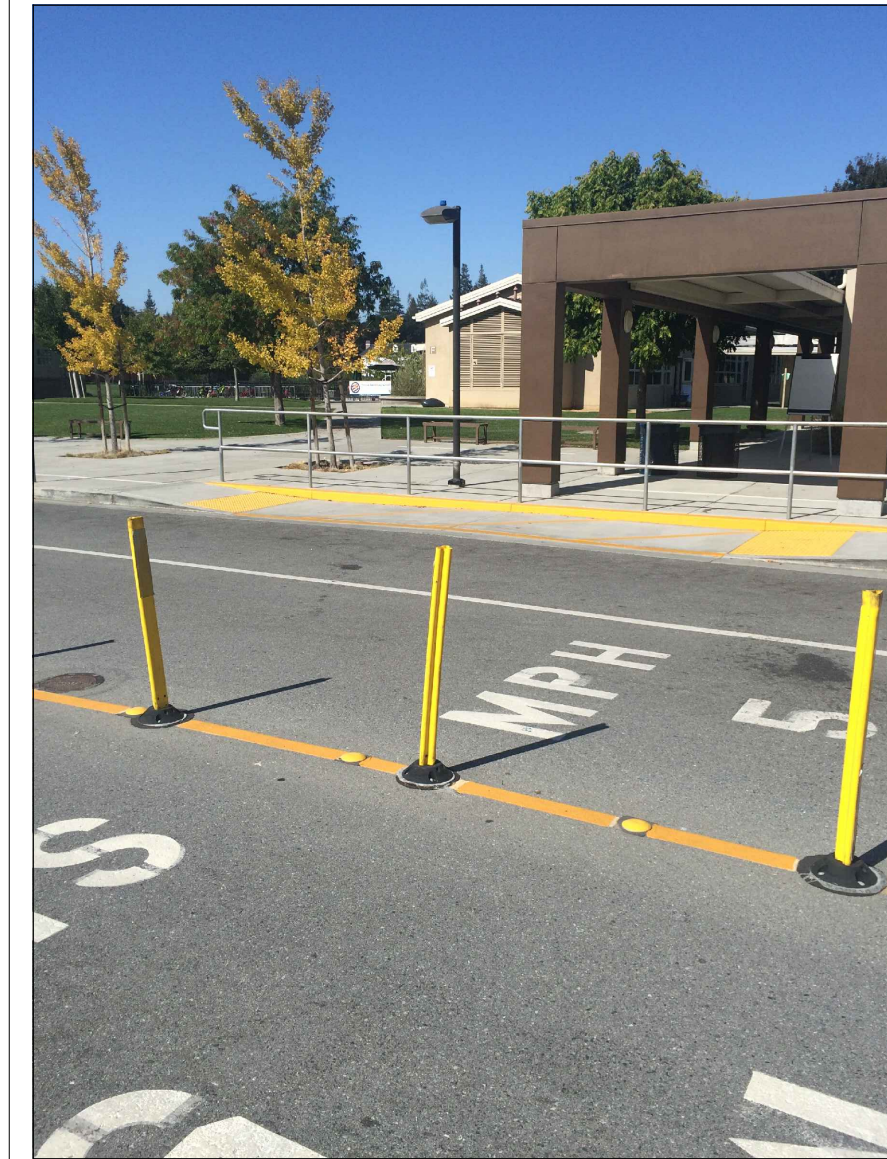
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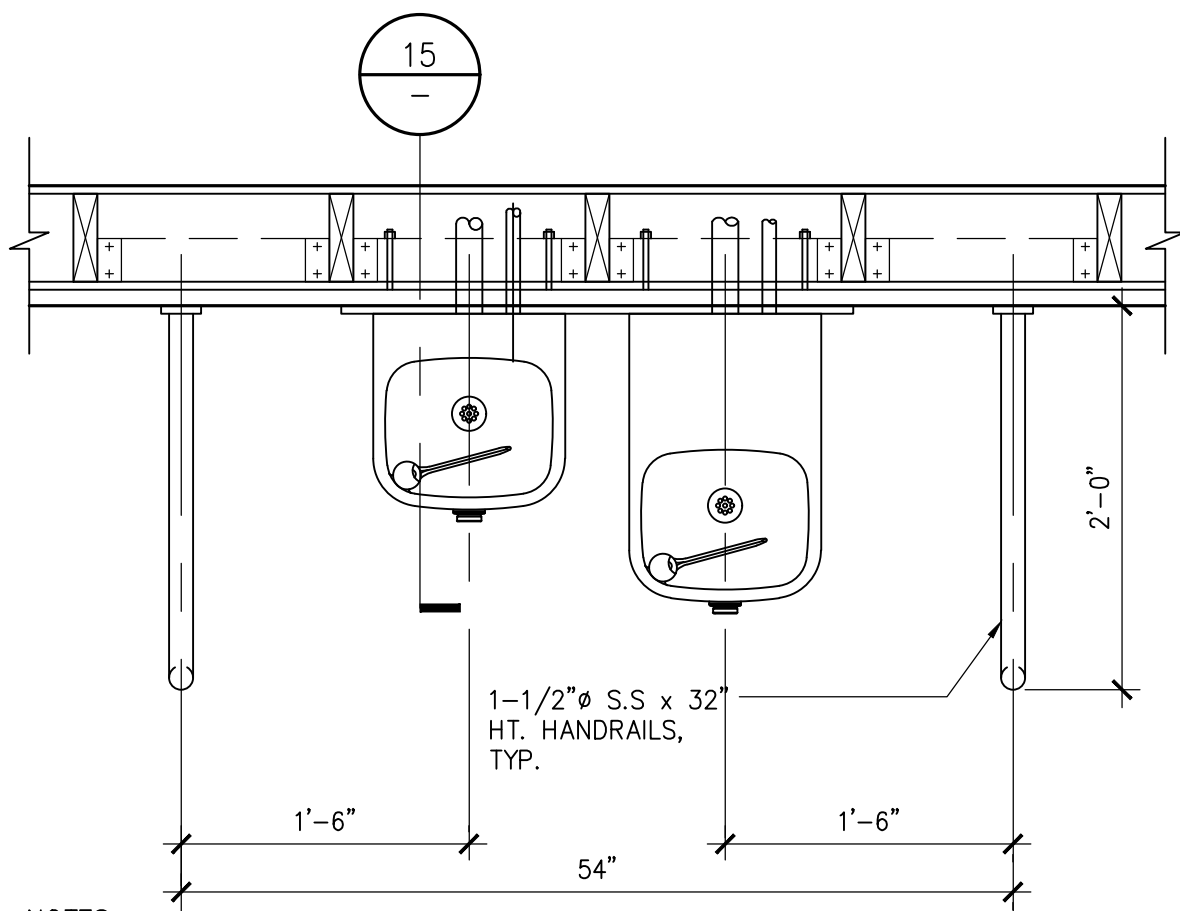
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15 (E) ACCESSIBLE D.F. SECTION
1" = 1'-0"



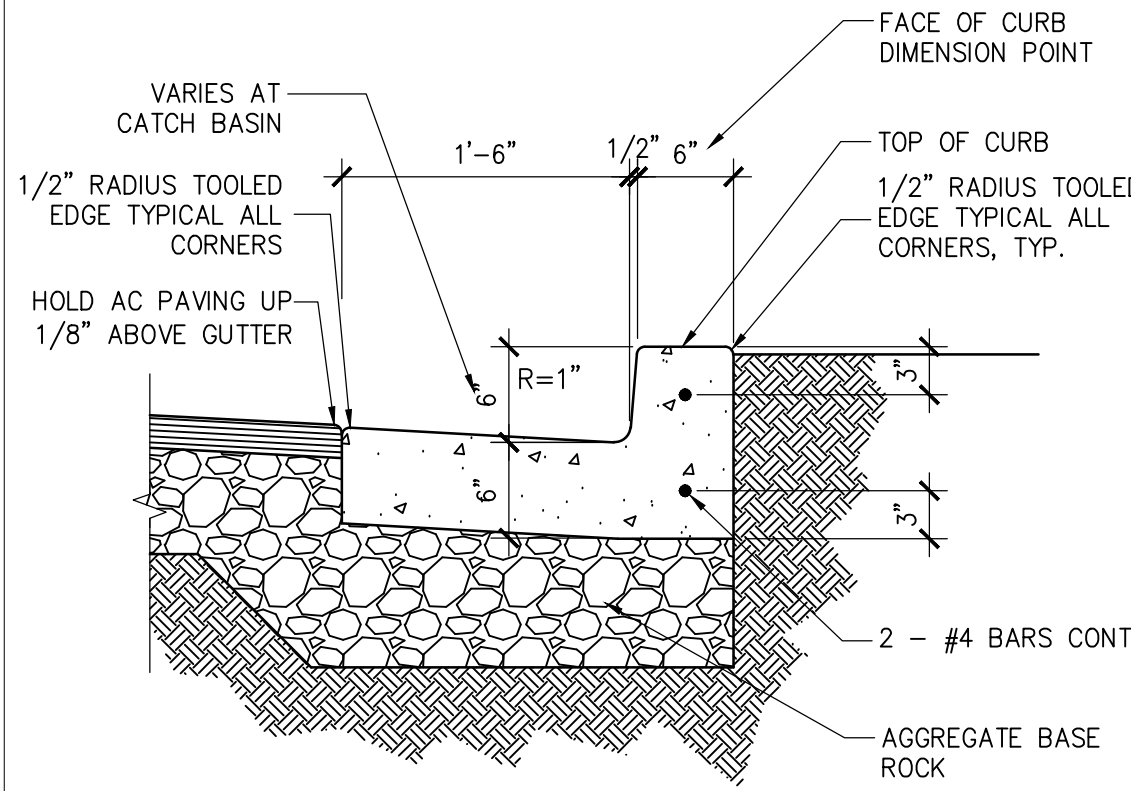
7 (E) STUDENT DROP-OFF
PICTURE 3



- NOTES:
- (E) HAWS DRINKING FOUNTAIN 1119.4, 14 CA W/ 6700 MOUNTING PLATE & 6800 CARRIER, SPEEDWAY OR-14-SS STOPS, ZURN FL-MOUNT CARRIER.
 - THIS EXISTING D.F. AT BUILDING 'D' WAS APPROVED IN MODERNIZATION, DSA # 01-110366

14 (E) ACCESSIBLE D.F. PLAN
1" = 1'-0"

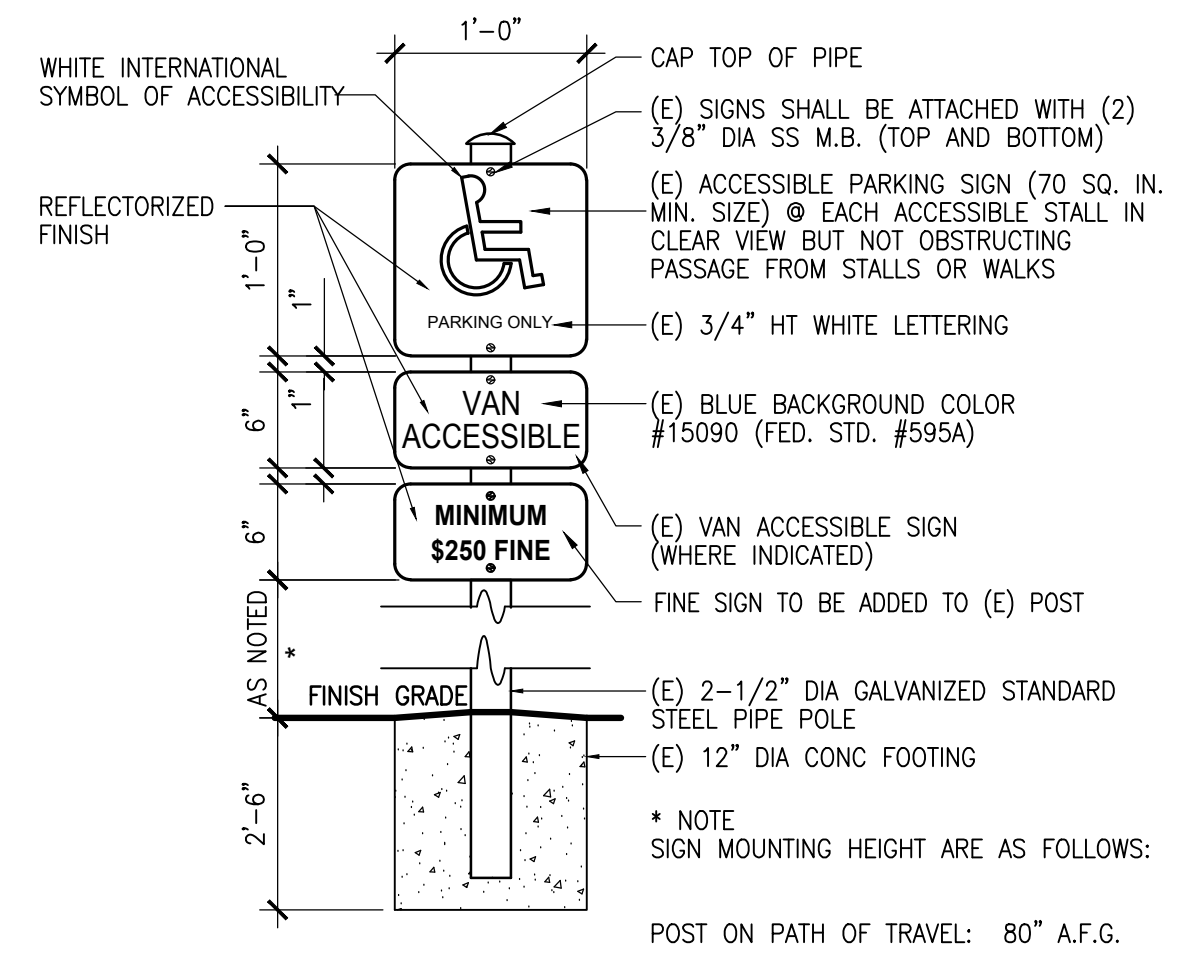
- NOTE:
- CURB MAY EITHER BE EXTRUDED TO THE SHAPE SHOWN OR FORMED & POURED IN PLACE.
 - PROVIDE EXPANSION JOINTS @ 15'-0" O.C.



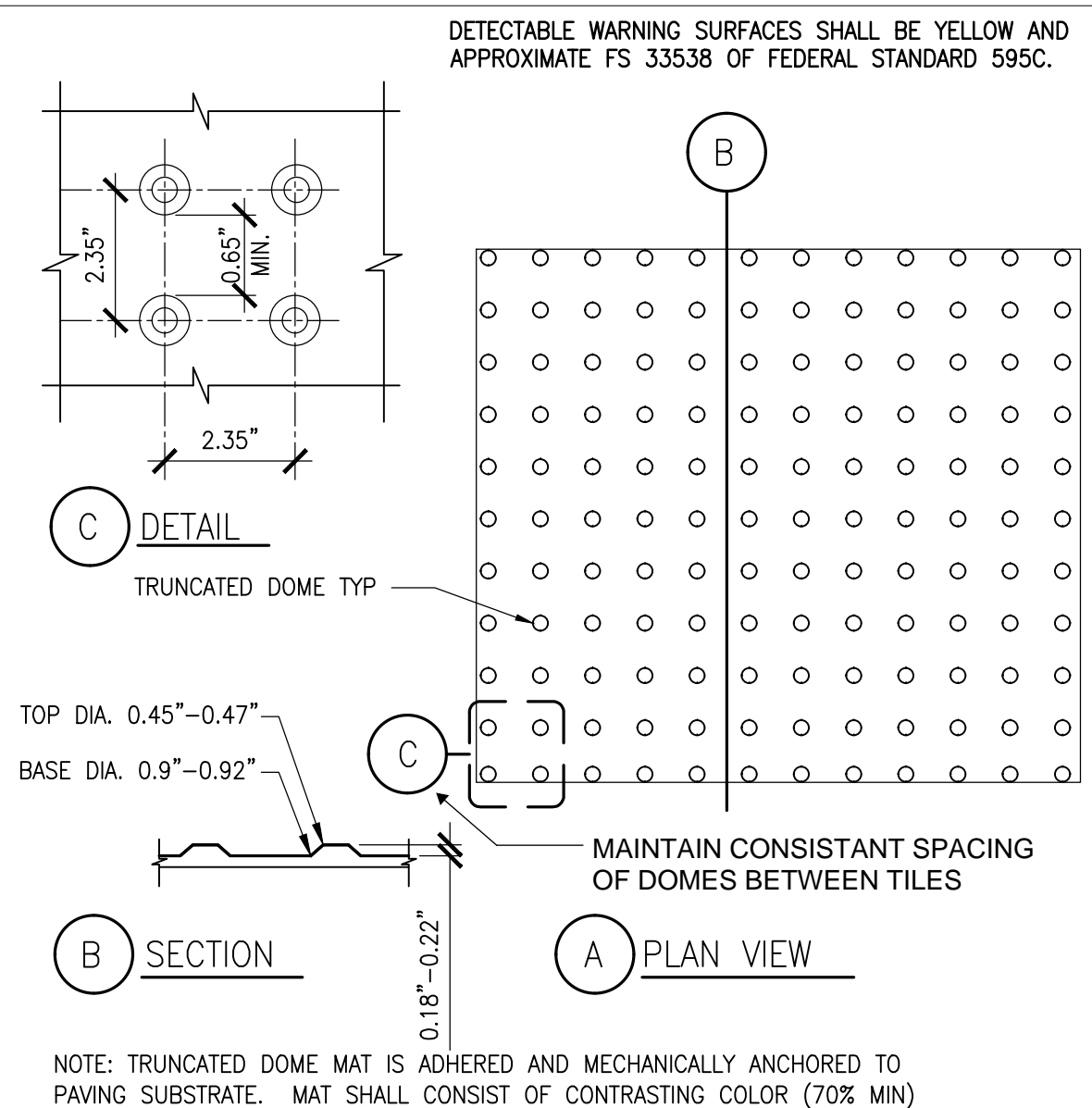
10 CONC. CURB DETAIL
1" = 1'-0"



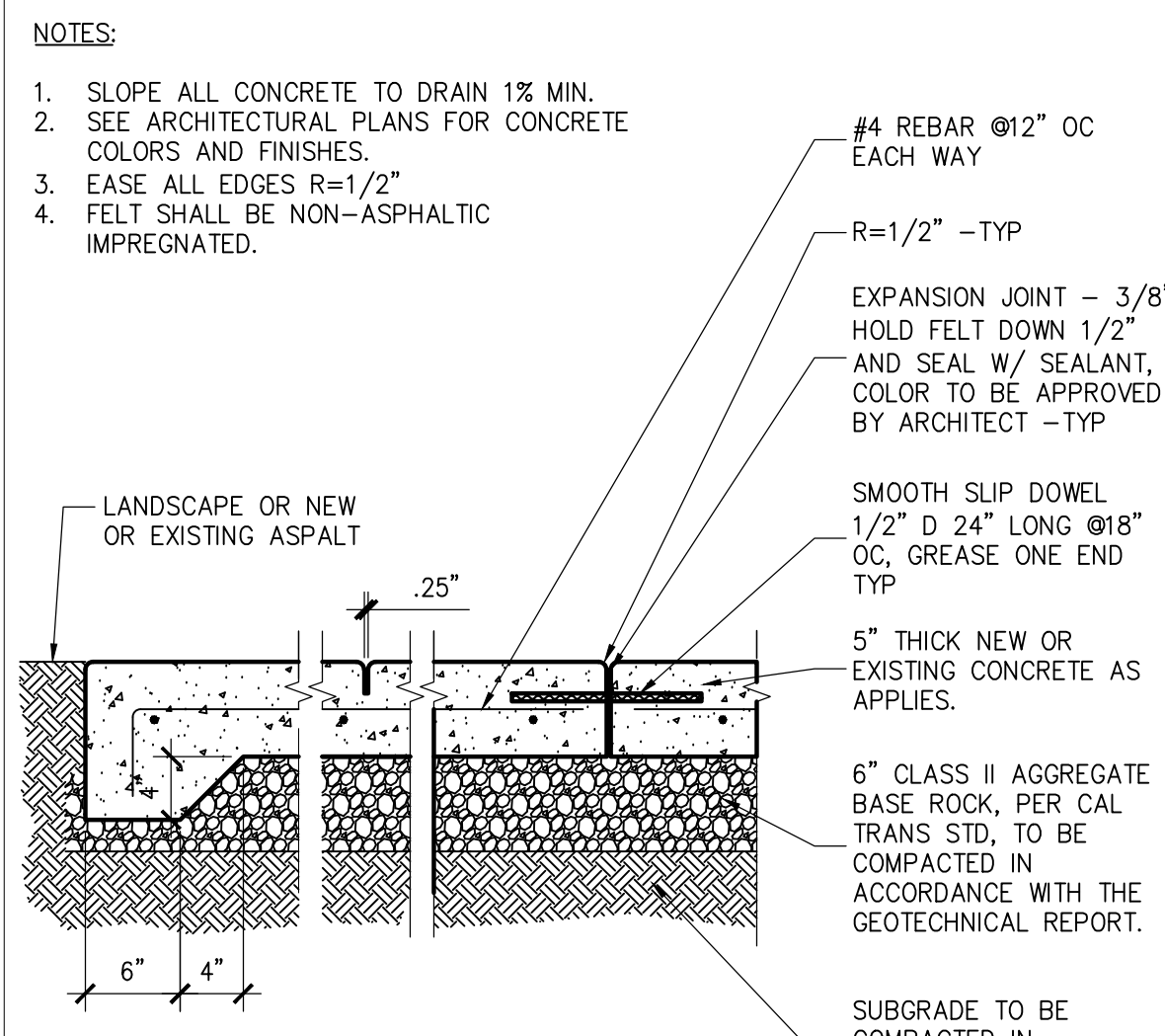
6 (E) ACCESSIBLE VAN STALL
PICTURE 2



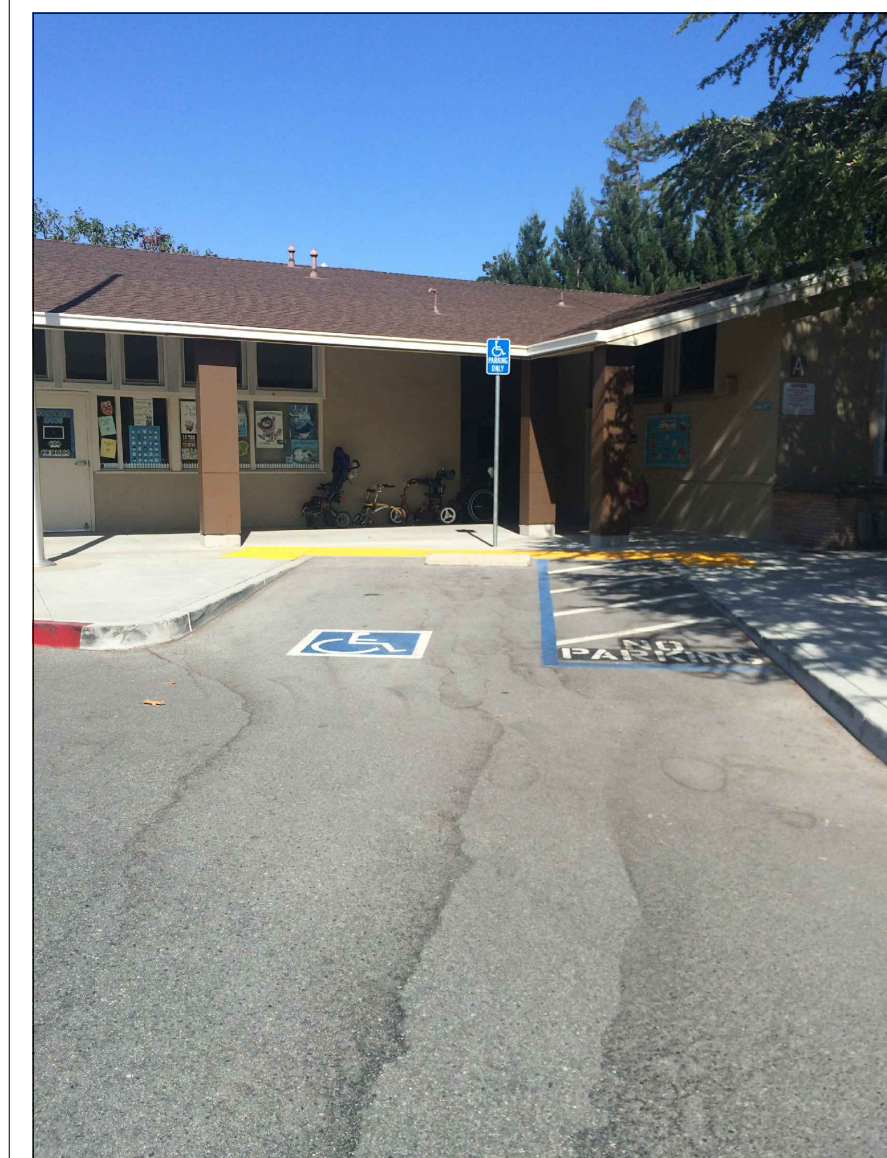
2 (E) ACCESSIBLE PARKING SIGN
1" = 1'-0"



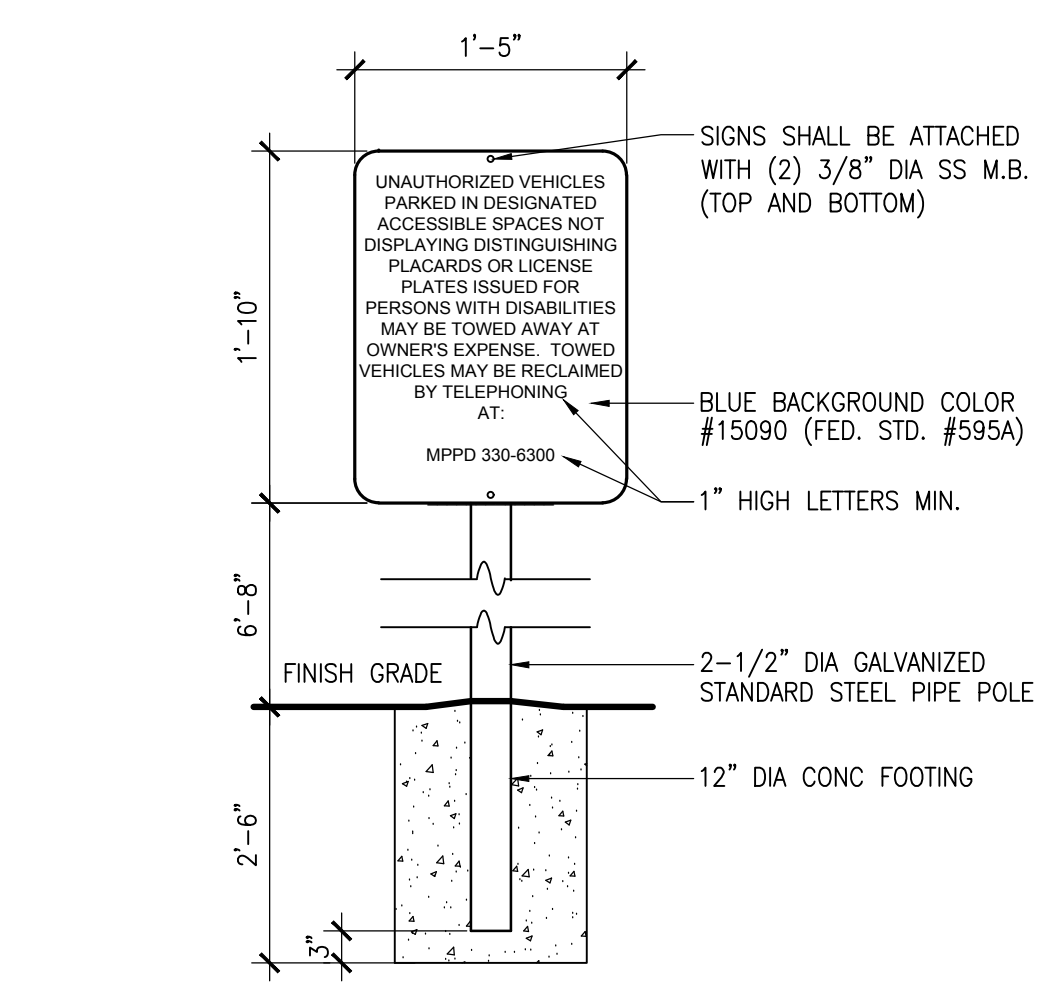
13 TRUNCATED DOMES
1-1/2" = 1'-0"



9 CONCRETE PAVING
1" = 1'-0"



5 (E) ACCESSIBLE STANDARD STALL
PICTURE 1



1 TOW-AWAY SING
1" = 1'-0"

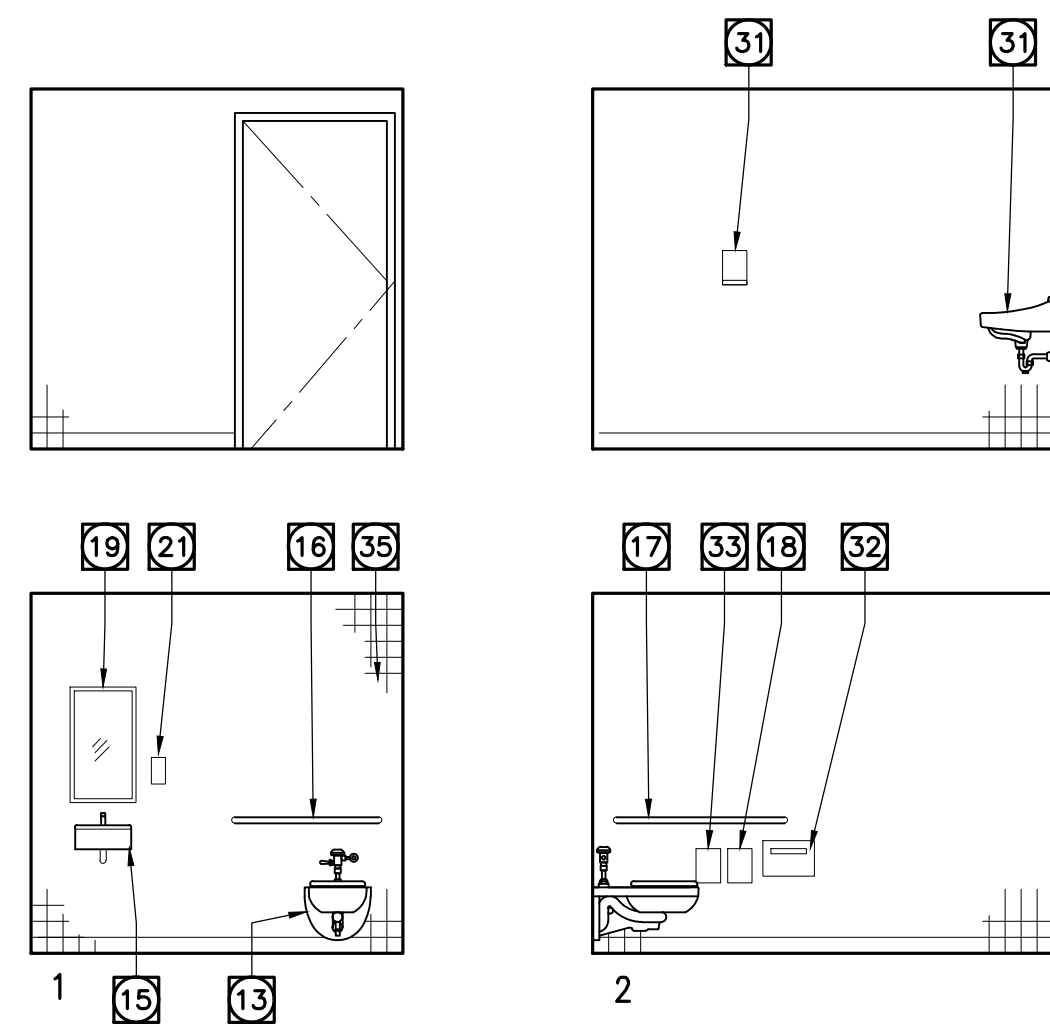
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94104 USA
(415) 981-2345
WWW.HED.DESIGN

LICENSED ARCHITECT
michael j. myers
STATE OF CALIFORNIA
C-3696

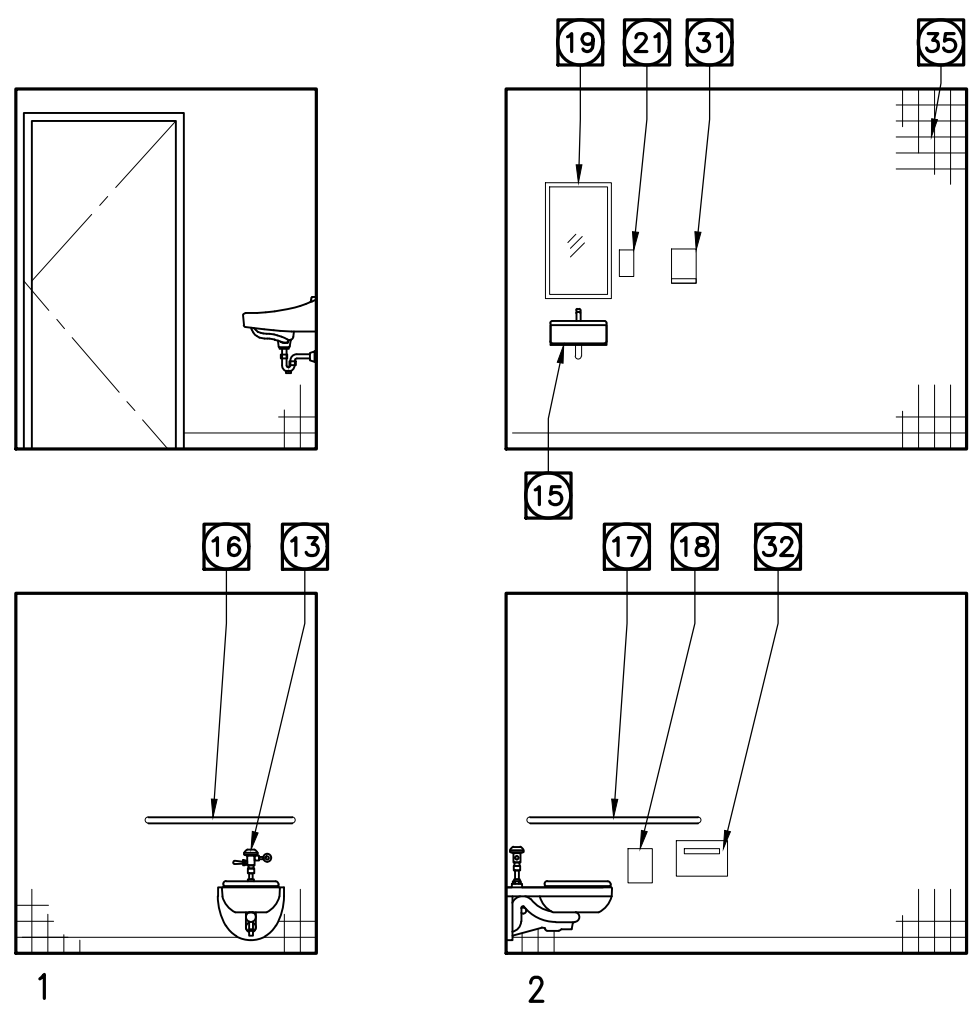
2018-03800-000 © 2018

SITE DETAILS
& PHOTOS

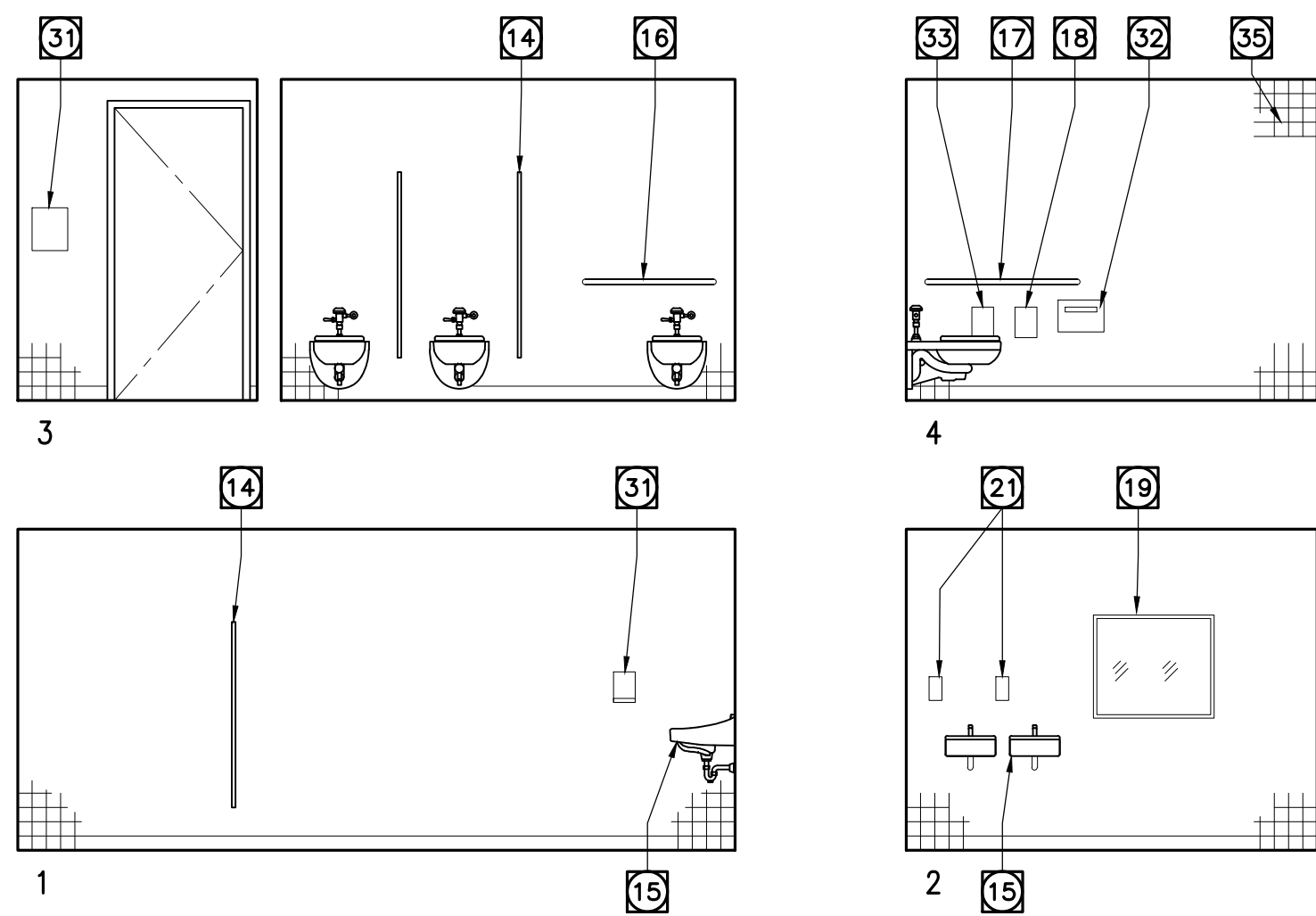
AS-101



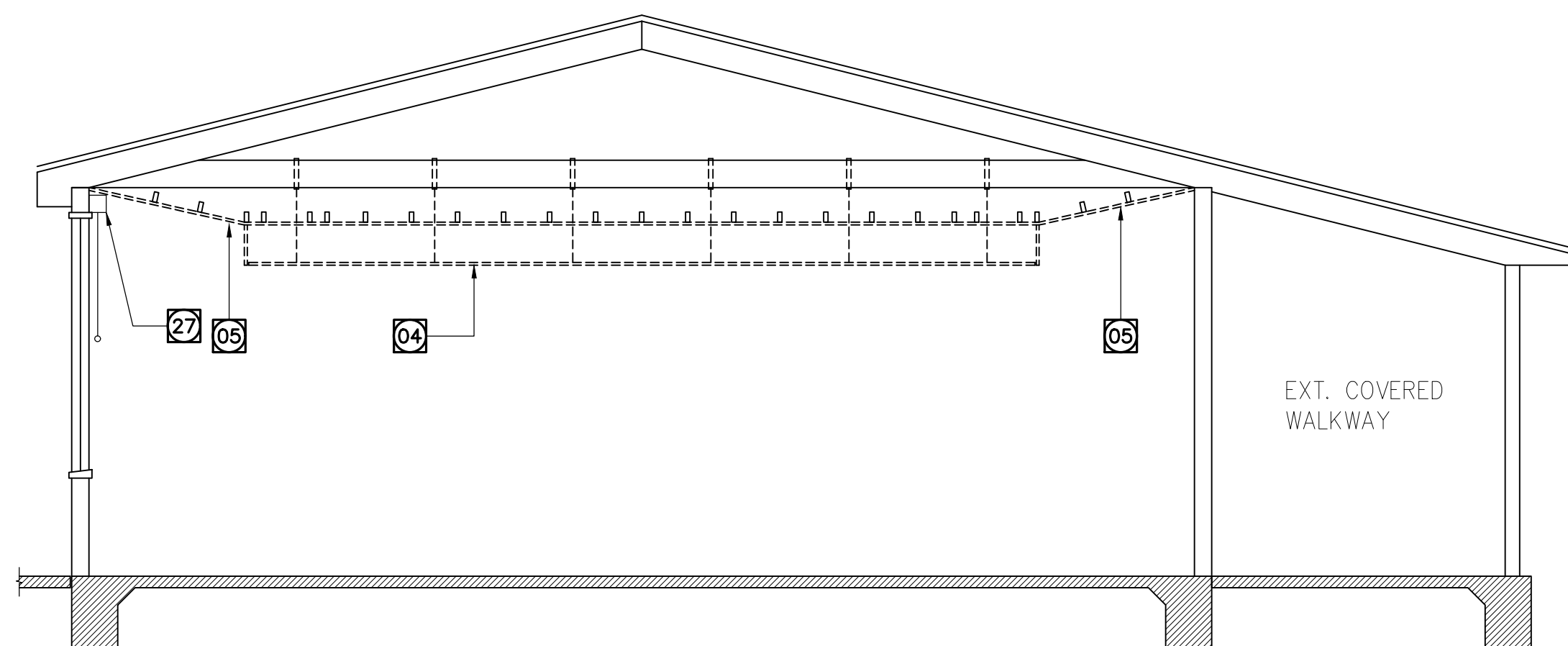
6 UNISEX TOILET - INT. ELEVATIONS
1/4" = 1'-0"



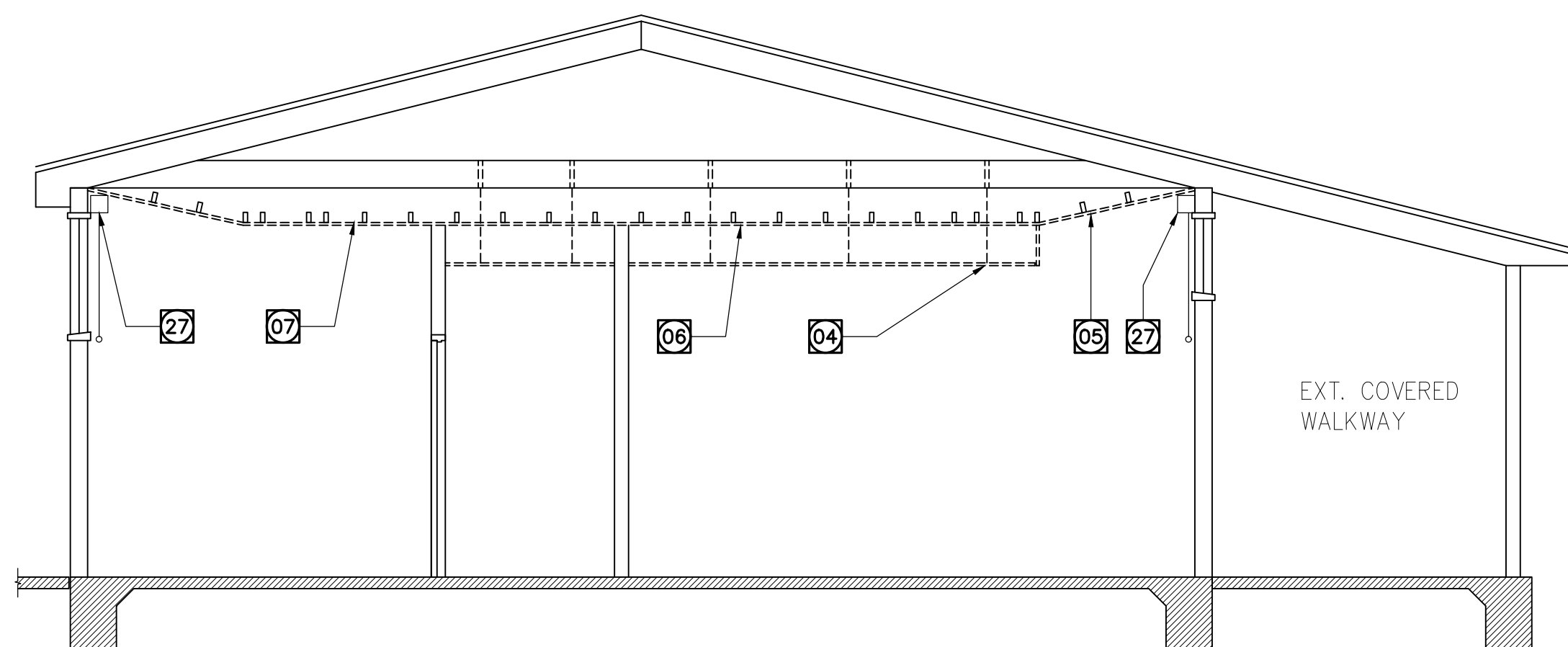
5 MEN'S STAFF TOILET - INT. ELEVATIONS
1/4" = 1'-0"



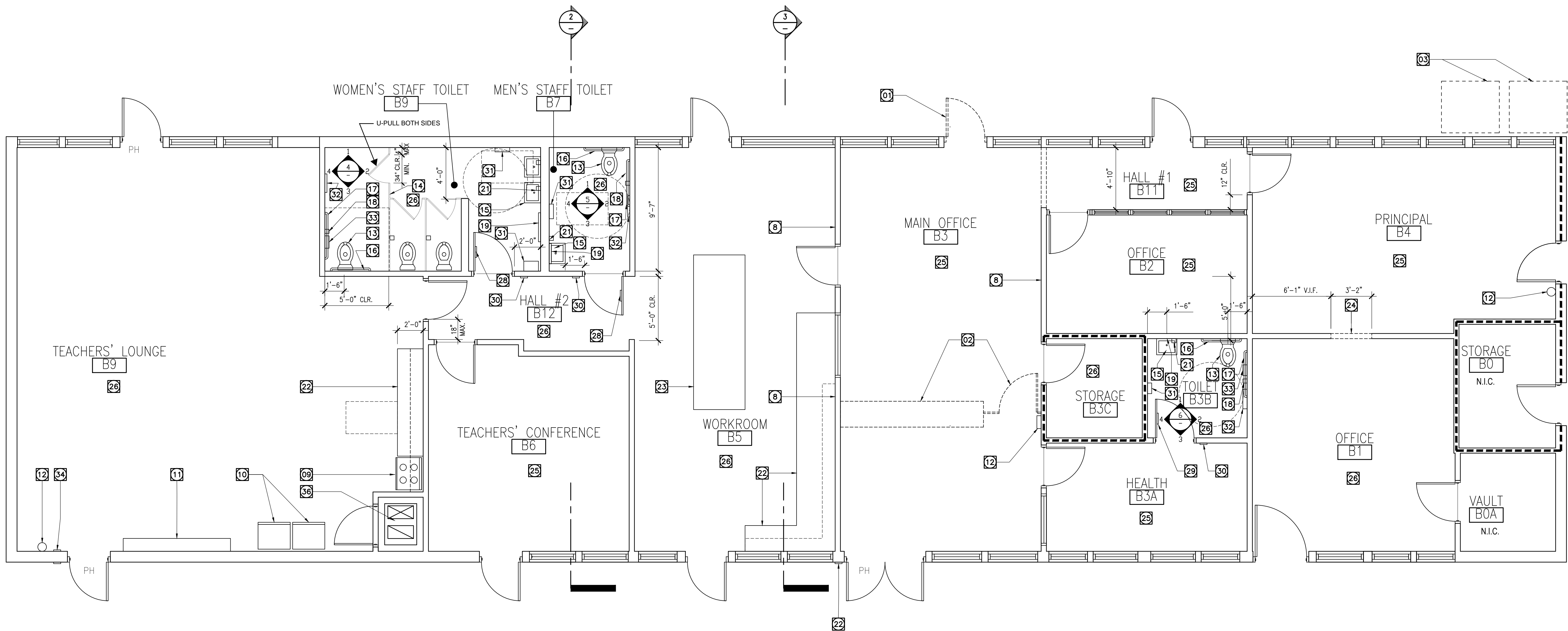
4 WOMEN'S STAFF TOILET - INT. ELEVATIONS
1/4" = 1'-0"



3 DEMOLITION SECTION
1/4" = 1'-0"

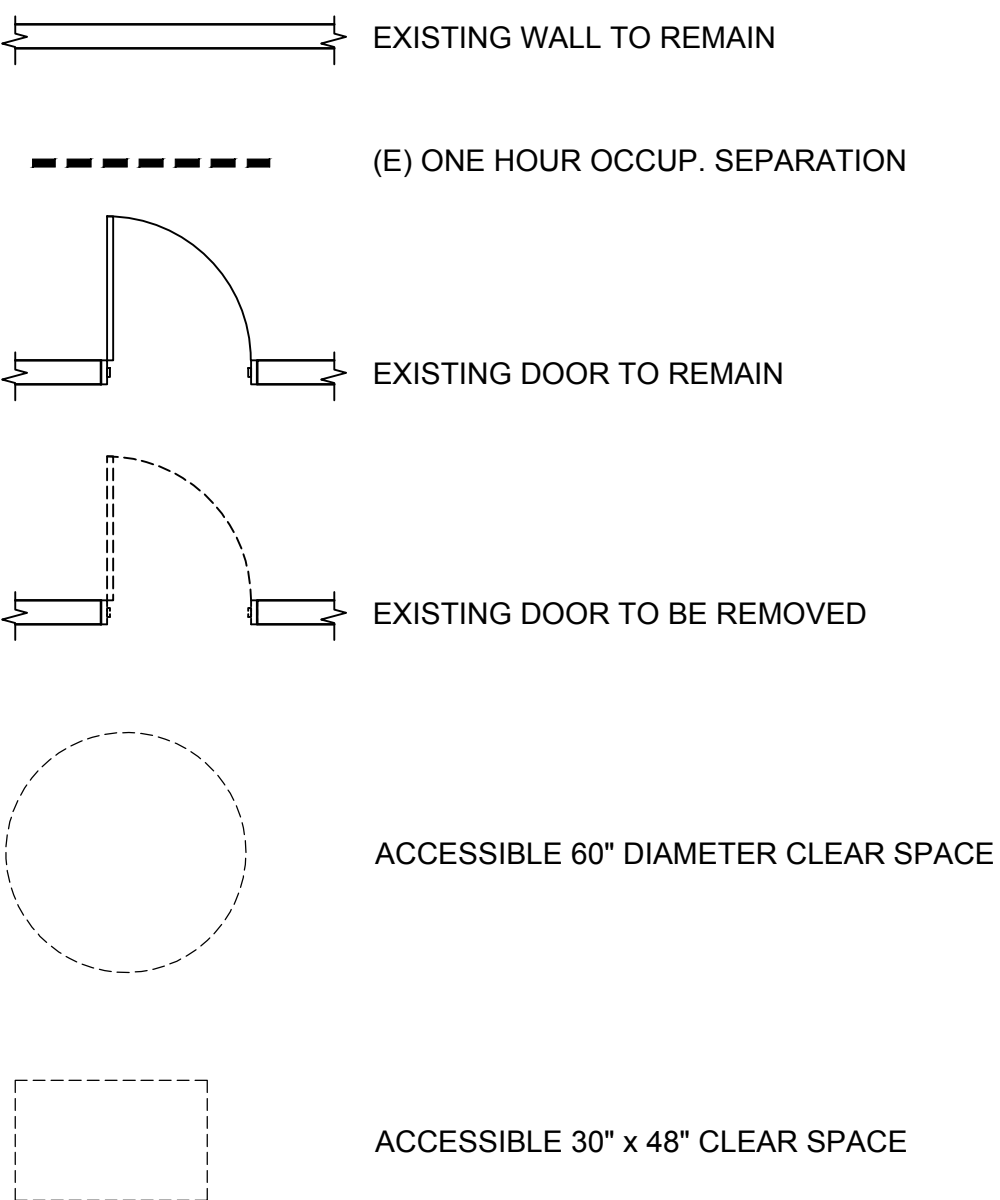


2 DEMOLITION SECTION
1/4" = 1'-0"



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

LEGEND

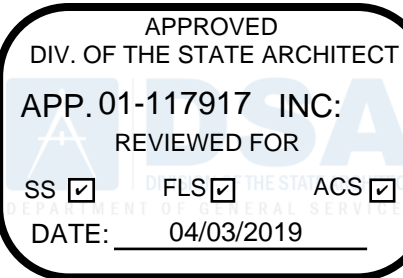


GENERAL NOTES

- MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- FOR EXISTING RESTROOM ACCESSORIES, SEE DETAIL 12 (A-581).
- (E) PRIVACY LOCKS AT UNISEX TOILET ROOMS B7 AND B3B TO REMAIN.

KEYNOTES 1

- REMOVE (E) DOOR, DOOR FRAME AND ALL RELATED ACCESSORIES.
- REMOVE (E) GATE AND COUNTER.
- REMOVE (E) MECH. UNIT, PATCH & REPAIR PAVEMENT.
- REMOVE (E) SUSPENDED CEILING AND ALL RELATED ACCESSORIES.
- REMOVE (E) SOFFIT.
- REMOVE (E) CEM. PLAST. CEILING AND FRAMING.
- REMOVE (E) GYP. BD. CEILING.
- REMOVE (E) GYP. BD. WALL FINISH AT THIS WALL.
- (E) RANGE & MICROWAVE ABOVE TO REMAIN.
- (E) REFRIGERATOR TO REMAIN.
- (E) BOOKCASE TO REMAIN.
- (E) FIRE EXTINGUISHER TO REMAIN, PROTECT
- (E) TOILET TO REMAIN.
- (E) PARTITION W/ 12" CLEAR VERTICAL OPENING FROM FLOOR FIN.
- (E) LAVATORY TO REMAIN.
- (E) 36" GRAB BAR TO REMAIN.
- (E) 42" GRAB BAR TO REMAIN.
- (E) TOILET PAPER DISPENSER TO REMAIN.
- (E) MIRROR TO REMAIN, PROTECT.
- (E) TRASH RECEPTACLE TO REMAIN.
- (E) SOAP DISPENSER TO REMAIN.
- (E) ISA ENTRANCE SIGN TO REMAIN, SEE DETAIL 9 (A-581).
- (E) 34" HT. WORK TABLE TO REMAIN, PROTECT
- REMOVE PORTION OF EXISTING NON-BEARING NON-SHEAR INTERIOR PARTITION WALL FOR THE PLACEMENT OF NEW DOOR.
- REMOVE (E) FLOOR FINISH AND ALL RELATED ACCESSORIES, SEE FINISH SCHEDULE.
- (E) FLOOR FINISH TO REMAIN, PROTECT.
- TEMPORARILY REMOVE (E) WINDOW SHADE AND PROTECT.
- (E) ACCESSIBLE DOOR SIGN, SEE DETAILS 5 (A-581), 7 (A-581).
- (E) UNISEX DOOR SIGN, SEE DETAIL 5 (A-581).
- (E) DOOR ROOM, SEE DETAIL 10 (A-581).
- (E) PAPER TOWEL DISPENSER TO REMAIN.
- (E) TOILET SEAT PAPER DISPENSER TO REMAIN.
- (E) SANITARY NAPKIN DISPOSAL TO REMAIN.
- (E) ACCESSIBLE EXIT SIGN, SEE DETAIL 11 (A-581).
- (E) CERAMIC WALL TILE TO REMAIN, PROTECT.
- (E) MECH. CLOSET TO REMAIN, PROTECT SMD.



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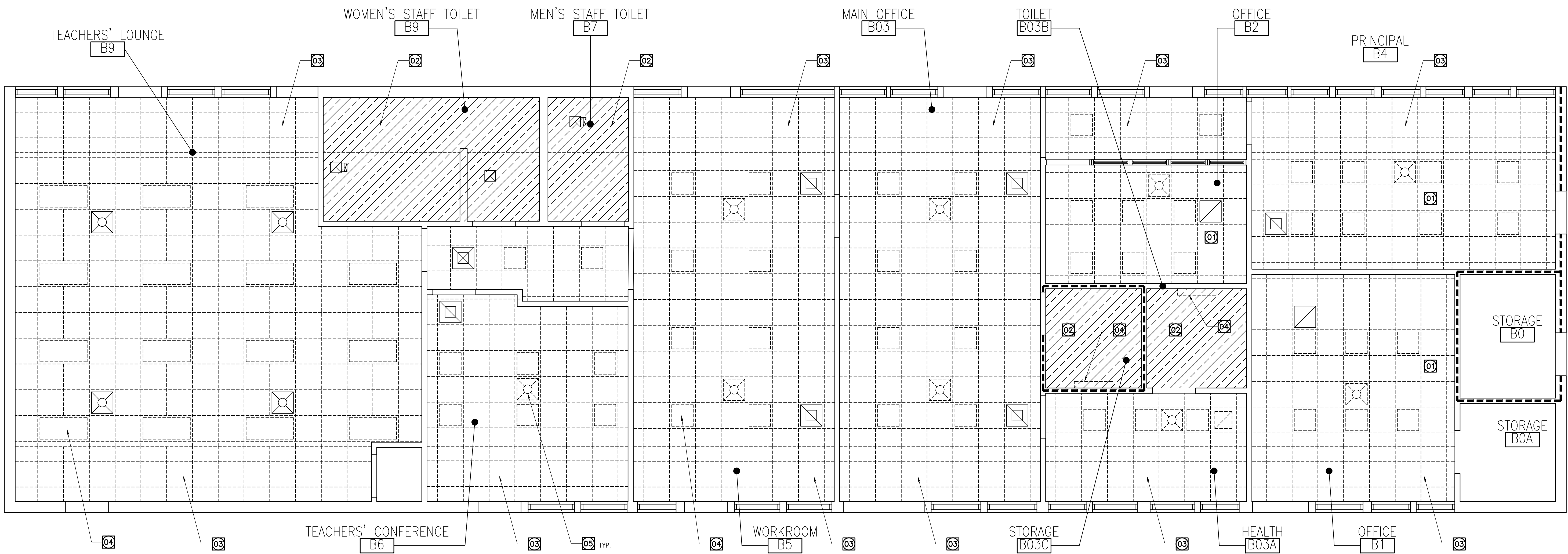
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94104 USA
(415) 981-2345
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LICENSED ARCHITECT
Michael J. Myers
No. 51887
STATE OF CALIFORNIA

DEMOLITION PLAN
AND SECTIONS

AD-101



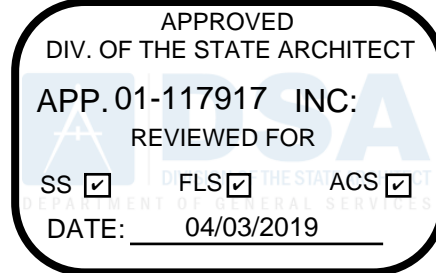
LEGEND	
	EXISTING WALL TO REMAIN
	(E) ONE HOUR OCCUP. SEPARATION
	DEMO LIGHT FIXTURE, SED
	DEMO WALL MOUNTED LIGHT FIXTURE
	DEMO ACOUSTIC SUSPENDED CEILING
	DEMO GYP. BD. CEILING
	MECH REGISTER/SUPPLY, SMD
	EXHAUST FAN, SMD

GENERAL NOTES

1. SEE MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

KEYNOTES ①

- 01 REMOVE (E) SUSPENDED CEILING AND ALL RELATED ACCESSORIES.
- 02 REMOVE (E) GYP. BD. CEILING.
- 03 REMOVE (E) SOFFIT.
- 04 REMOVE (E) LIGHT FIXTURES.
- 05 REMOVE (E) MECH. SUPPLY AND RETURN.
- 06 TEMPORARILY REMOVE (E) WINDOW SHADE AND REINSTALL AS PART OF NEW WORK.



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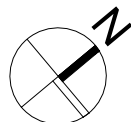
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DEMOLITION
CEILING PLAN

AD-102



DOOR AND FRAME SCHEDULE																			
DOOR							RATING	HDWR			FRAME			DETAIL			SIGNAGE PER A-581	NOTES	
DOOR #	SIZE	THK	TYPE	MATL	FIN	INT/EXT	MIN	GRP	PH	TYPE	MATL	FIN	HEAD	JAMB	SILL				
B4A	3'0"x7'0"	1 3/4"	A	SCW	P	INT	-	01	-	F1	HM	P	3/A-561	2/A561	1/A-581	10	5# MAX. FORCE FOR PUSHING OPEN DOOR		

DOOR SCHEDULE MATERIAL LEGEND

AL	ALUMINUM
FF	FACTORY FINISH
FIN	FINISH
GL	GLASS
GRP	GROUP
HDWR	HARDWARE
HM	HOLLOW METAL
P	PAINT
PH	PANIC HARDWARE
SCW	SOLID CORE DOOR
SS	STAINLESS STEEL
STL	STEEL
THK	THICKNESS

3 DOOR AND FRAME SCHEDULE
1/4" = 1'-0"

FINISH SCHEDULE																
		FLOOR		BASE		WALL								CEILING		NOTES
ROOM #	ROOM NAME	MATL	FIN	MATL	FIN	NORTH		EAST		SOUTH		WEST		MATL	FIN	
						MATL	FIN	MATL	FIN	MATL	FIN	MATL	FIN			
B0	STORAGE	(E) CONC	(E)	--	--	(E) GB	(E)	(E) GB	(E)	(E) GB	(E)	(E) GB	(E)	OPEN	--	
B0A	VAULT	(E) CONC	(E)	--	--	(E) GB	(E)	(E) GB	(E)	(E) GB	(E)	(E) GB	(E)	OPEN	--	
B1	OFFICE	(E) VCT	(E)	(E)	(E)	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B2	OFFICE	CPT	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B3	MAIN OFFICE	LVT	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B3A	HEALTH	LINO	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B3B	TOILET	(E) VCT	(E)	(E)	(E)	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	GB	P	
B3C	STORAGE	(E) VCT	(E)	(E)	(E)	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B4	PRINCIPAL OFFICE	CPT	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B4A	READING	CPT	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B5	WORK ROOM	LVT	FF	RES	FF	GB	P	GB	P	GB	P	GB	P	ACT	FF	
B6	TEACHER'S CONFERENCE	LINO	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B7	MEN'S STAFF TOILET	(E) CT	(E)	(E) CT	(E)	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	GB	P	
B8	WOMEN'S STAFF TOILET	(E) CT	(E)	(E) CT	(E)	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	GB	P	
B9	TEACHER'S LOUNGE	(E) LINO	(E)	(E) CT	(E)	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B10	READING ROOM	CPT	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	(E) GB	P	ACT	FF	
B11	HALL #1	LVT	FF	RES	FF	(E) GB	P	(E) GB	P	(E) GB	P	GB	P	ACT	FF	
B12	HALL #2	(E) LINO	(E)	(E)	(E)	(E) GB	P	(E) GB	P	(E) GB	P	GB	P	ACT	FF	

- FINISHES NOTES
1. SEE FLOOR PLANS, REFLECTED CEILING PLANS AND INTERIOR ELEVATIONS FOR ADDITIONAL FINISH AND MATERIAL INFORMATION. THE FINISH SCHEDULE CALLS OUT MAJOR MATERIALS ONLY. CABINETS, MARKER BOARDS, AND TACK PANELING ARE NOT INDICATED IN FINISH SCHEDULE. SEE INTERIOR ELEVATIONS FOR THESE AND OTHER ITEMS NOT CALLED OUT IN THE FINISH SCHEDULE.

2. TRANSITION BETWEEN DISSIMILAR FLOORING MATERIALS SHALL OCCUR UNDER INTERVENING DOORS. SEE ALSO DETAIL 1/A-581 FOR FLOOR TRANSITION DETAILS.

3. INTERIOR PAINT FINISH - ALL PAINTED SURFACES TO RECEIVE SEMI-GLOSS FINISH UNLESS OTHERWISE NOTED.

4. WHERE TACK PANELING, CASEWORK, MARKERBOARDS, ETC. OCCUR OVER GYPSUM BOARD, DO NOT PAINT GYPSUM BOARD.

5. ALL FLOOR FINISHES SHALL BE FIRM & SLIP RESISTANT IN ACCORDANCE WITH C.B.C. SECTION 11B-302.

FINISH SCHEDULE MATERIAL LEGEND	
ACP	ACOUSTICAL CEILING PANEL
ACP2	BLACK ACOUSTICAL CEILING PANEL
ACP3	BLACK ACOUSTICAL BOARD
AL	ALUMINUM
AWP	ACOUSTICAL WALL PANELING
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CPT	CARPET
CT	CERAMIC TILE
EP	EPOXY FLOORING
ES	EXPOSED STRUCTURE
ETZ	EPOXY TERRAZZO FLOORING
EXT	EXTERIOR
FF	FACTORY FINISH
FIN	FINISH
FRP	FIBERGLASS REINFORCED PLASTIC PANELING
GL	GLASS
GYP	GYPSUM BOARD
HM	HOLLOW METAL
INT	INTERIOR
IRGB	IMPACT RESISTANT GYPSUM BOARD
LINO	LINOLEUM
MATL	MATERIAL
P	PAINT
PC	POLISHED CONCRETE
PLP	PLASTIC LAMINATE PANELING
PLY	PLYWOOD
RES	RESILIENT RUBBER BASE
SCW	SOLID CORE DOOR
SLR	CONCRETE SEALER
SS	STAINLESS STEEL
TP	TRANSPARENT FINISH
VRB	VENTED RESILIENT RUBBER BASE
LVT	LUXURY VINYL TILE
WC	WALLCOVERING
WD	WOOD
WDM	WOOD FLOORING SYSTEM WITH MASONITE

- LEGEND
- EXISTING WALL TO REMAIN
- NEW NON-BEARING WALL
- (E) ONE HOUR OCCUP. SEPARATION, PROTECT
- WINDOW TYPE

- GENERAL NOTES
1. REFER TO MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.

2. PAINT AND/OR PROVIDE WALL COVERING IN-KIND AREAS AFFECTED BY NEW WORK.

- DOOR NOTES:
1. OVERALL DIMENSIONS SHOWN ARE NOMINAL DESIGN DIMENSIONS - SEE DETAILS AND FIELD VERIFY ROUGH OPENING DIMENSIONS TO DETERMINE OVERALL FABRICATION DIMENSIONS.

2. HOLLOW METAL FRAME FACE DIMENSION IS 2 INCHES U.O.N. SEE DETAILS FOR FRAME PROFILES.

3. ALL HOLLOW METAL FRAMES ARE FIELD PAINTED U.O.N.

4. CONNECT HOLLOW METAL FRAMES TO WALLS AS FOLLOWS:
METAL STUDS: STEEL STUD ANCHORS @24" O.C. MAX. ALL AROUND AND 9" MAX. FROM ENDS. - (3) PER JAMB MIN. (1) ANCHOR @ HEAD MIDSPAN @ DOORS WIDER THAN 3'-0". (4) #8 X 3/4" FLAT HEAD SHEET METAL SCREWS PER ANCHOR TYPICAL.
CONCRETE: 3/8" DIA. HILTI EXPANSION ANCHOR @ 24" O.C. MAX. - 6" FROM ENDS - (2) PER SIDE MIN.

5. ALL GLAZING IN DOORS AND ALL SIDELITE/TRANSOM GLAZING TO BE LAMINATED GLASS U.O.N.

6. ALL DOORS ARE TO BE 1 3/4" THICK U.O.N.

- DOOR SCHEDULE NOTES:
- A. FOR DOOR HARDWARE (HDWR) REFER TO SPECIFICATIONS.

B. ALL EXTERIOR DOORS ARE TO OPEN 180 DEGREES DEPENDING ON THEIR LOCATION U.O.N.

C. PROVIDE BACKING @ ALL WALL MOUNTED DOOR STOP LOCATIONS.

D. ALL DOORS IN PATH OF TRAVEL SHALL:
- PROVIDE 32" OF CLEAR ACCESS
- BE PROVIDED W/ LEVER TYPE LOCKS & LATCHES
- BE OPERATED W/ A MAX. FORCE OF 5# INTERIOR AND 5# EXTERIOR
- HAVE MAX. THRESHOLD HEIGHT OF 1/2" IF BEVELED 1:2

- WINDOW SCHEDULE NOTES:
1. OVERALL DIMENSIONS SHOWN ARE NOMINAL DESIGN DIMENSIONS. FIELD VERIFY ROUGH OPENING DIMENSIONS TO DETERMINE OVERALL FABRICATION

2. WINDOW FLASHING SHALL BE SET IN A CONTINUOUS BED OF SEALANT

3. CONNECT WINDOWS AS FOLLOWS:
WOOD: #12 x 2" STAINLESS STEEL WOOD SCREWS @ 16" O.C. MAX. ALL AROUND & 6" FROM ENDS - 2 MIN. PER SIDE

5. WINDOW SILL PANS TO HAVE A REAR VERTICAL LEG WITH END DAMS - SEALED AT END TERMINATION. ALL SILL PANS TO BE FILLED WITH WATER AND TESTED TO BE WATER TIGHT PRIOR TO INSTALLATION

6. ALL PENETRATIONS THROUGH WINDOW SILL PANS SHALL BE SEALED WATERTIGHT

7. ALL ATTACHMENTS MUST ACCOMMODATE THERMAL AND DYNAMIC MOVEMENT

8. ALL INTERRUPTIONS IN FLASHINGS MUST BE SEALED

9. EXTERIOR AND INTERIOR WINDOW PERIMETER SEALANT SHALL BE CONTINUOUS AND IN THE SAME PLANE

10. ALL GLAZING IN DOORS AND ALL SIDELITE/TRANSOM GLAZING TO BE LAMINATED GLASS U.O.N.

- KEYNOTES
- 01 INT. WALL 2X6 @ 16" O.C. W/ 5/8 " GYP. BD. EACH SIDE, PAINT.

02 FIRE EXTINGUISHER AND CABINET.

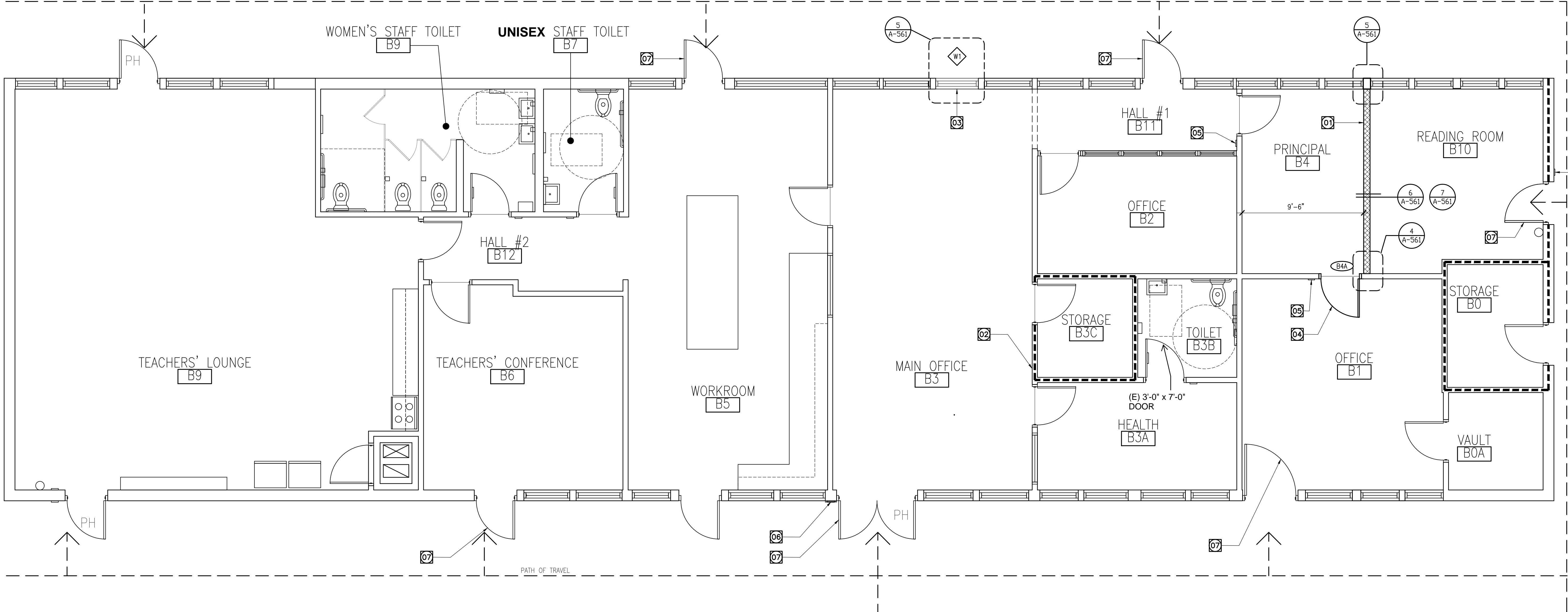
03 STOREFRONT WINDOW SYSTEM.

04 NEW DOOR, DOOR FRAME AND HARDWARE PER SCHEDULE.

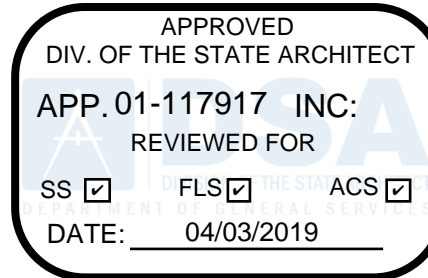
05 ROOM SIGNAGE

06 ACCESSIBLE ENTRANCE SIGN

07 (E) 3'-0"x7'-0" DOOR W/ THRESHOLD SHOWN ON DETAIL



1 IMPROVEMENT FLOOR PLAN
1/4" = 1'-0"



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Building
Modernization

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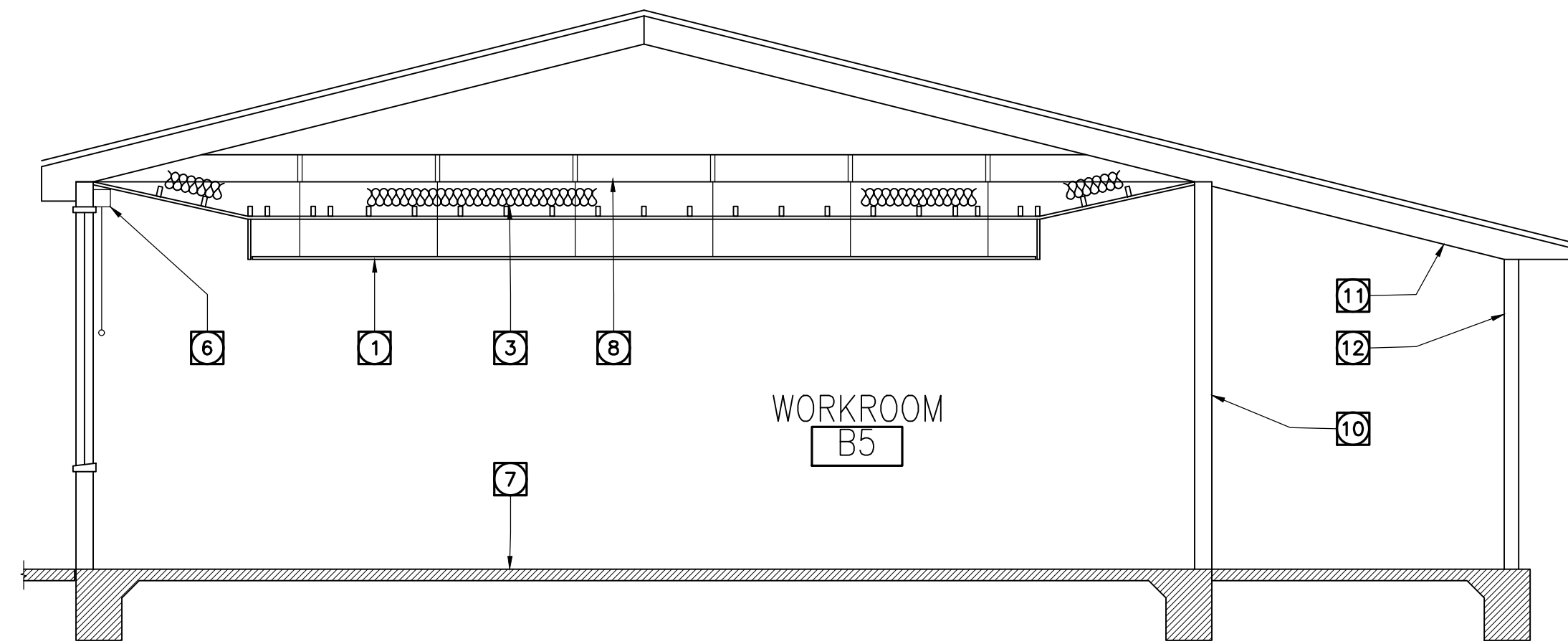
LICENSED ARCHITECT

Michael J. Myers

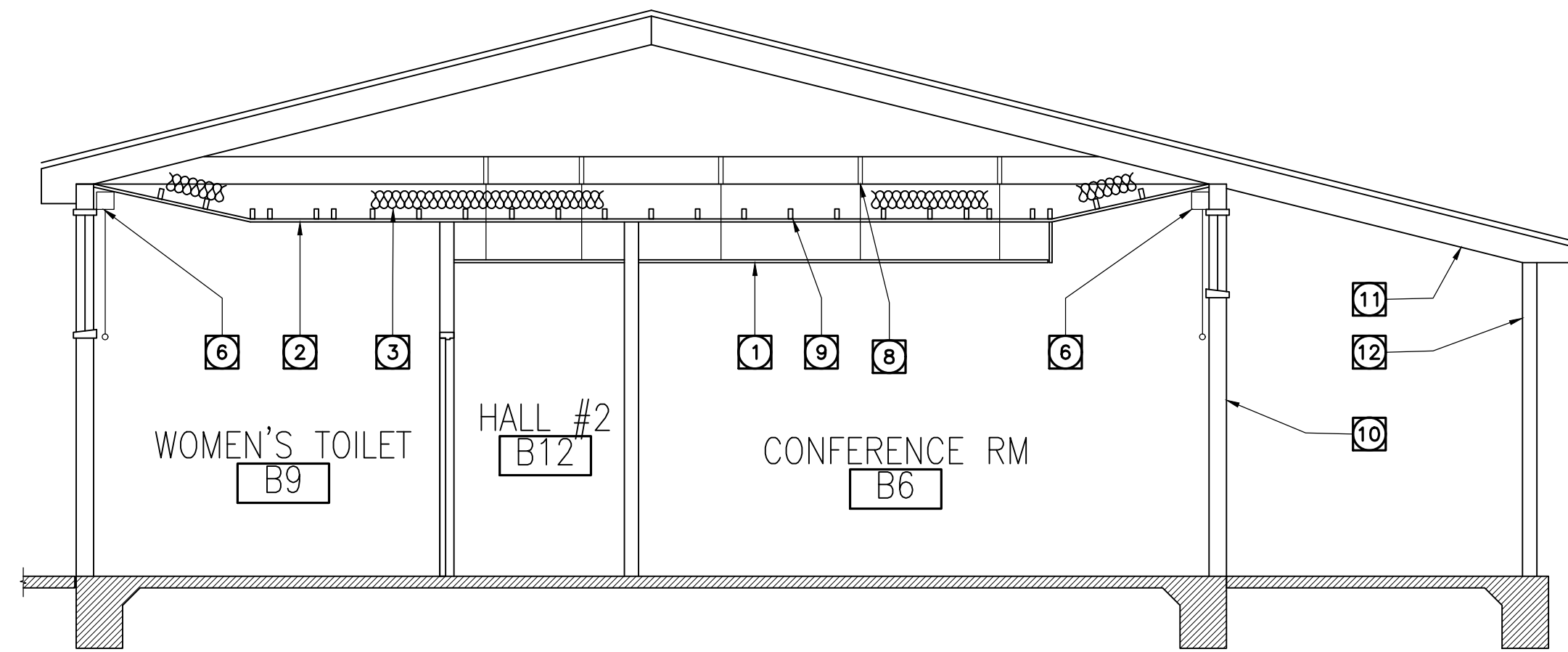
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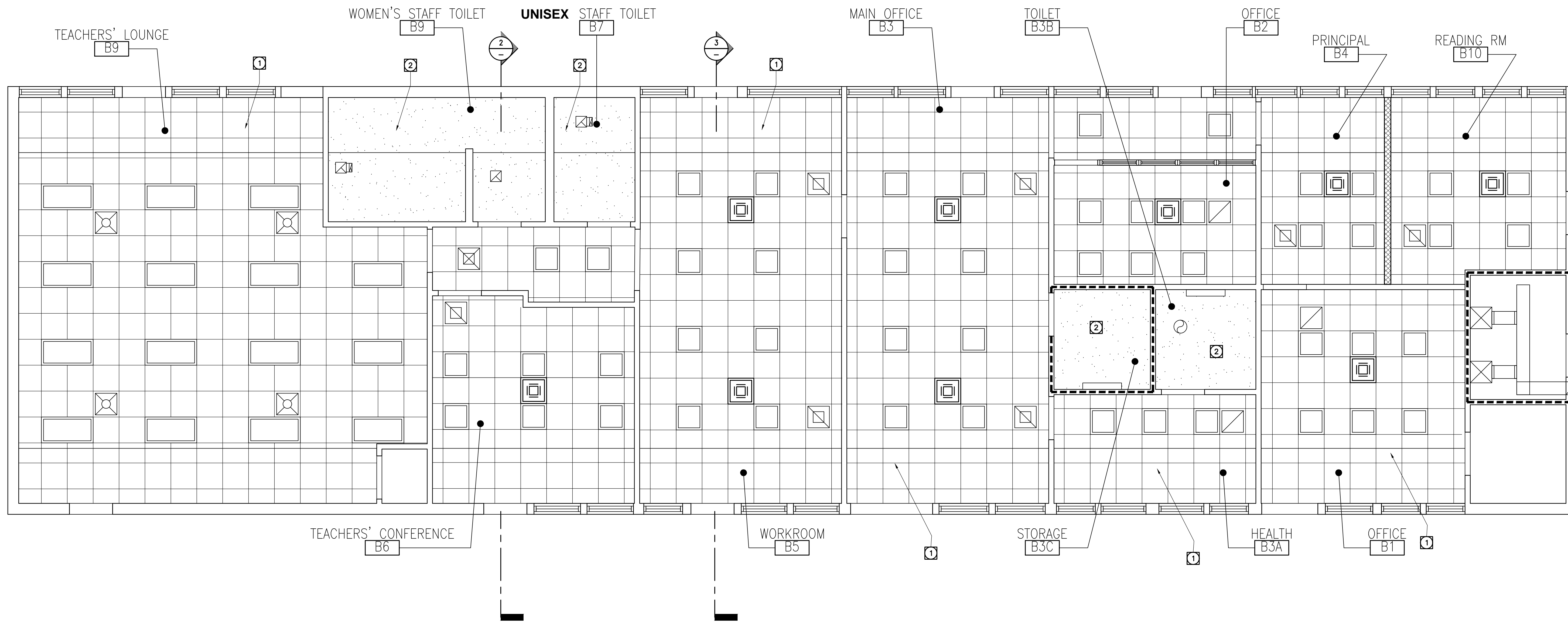
IMPROVEMENT
FLOOR PLAN ,
DOOR & FINISH
SCHEDULE



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



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



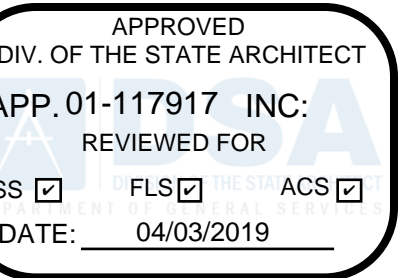
1 IMPROVEMENT CEILING PLAN
1/4" = 1'-0"

LEGEND	
	EXISTING WALL TO REMAIN
	LIGHT FIXTURE, SED
	WALL MOUNTED LIGHT FIXTURE, SED
	ACOUSTIC SUSPENDED CEILING
	GYP. BD. CEILING
	MECH REGISTER/SUPPLY, SMD
	EXHAUST FAN, SMD

GENERAL NOTES

1. MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
2. PAINT AND/OR PROVIDE WALL COVERING IN-KIND AREAS AFFECTED BY NEW WORK.

- KEYNOTES** 1
- 01 SUSPENDED CEILING, SEE DETAIL 2.10/A-571
 - 02 GYP. BD. CEILING O/ (E) 2x FRAMING.
 - 03 R-19 BATT INSULATION
 - 04 NOT USED
 - 05 NOT USED
 - 06 (E) ROLLER SHADES
 - 07 (E) 4" CONC. SLAB
 - 08 (E) TRUSS BOTTOM CHORD 6X8
 - 09 (E) 2X4 FURRING @ 16" O.C. ATTACHED TO TRUSS W/ 1X4
 - 10 (E) CEMENT PLASTER FIN.
 - 11 (E) ACOUSTICAL PLASTER SOFFIT
 - 12 (E) STL. PIPE COLUMN



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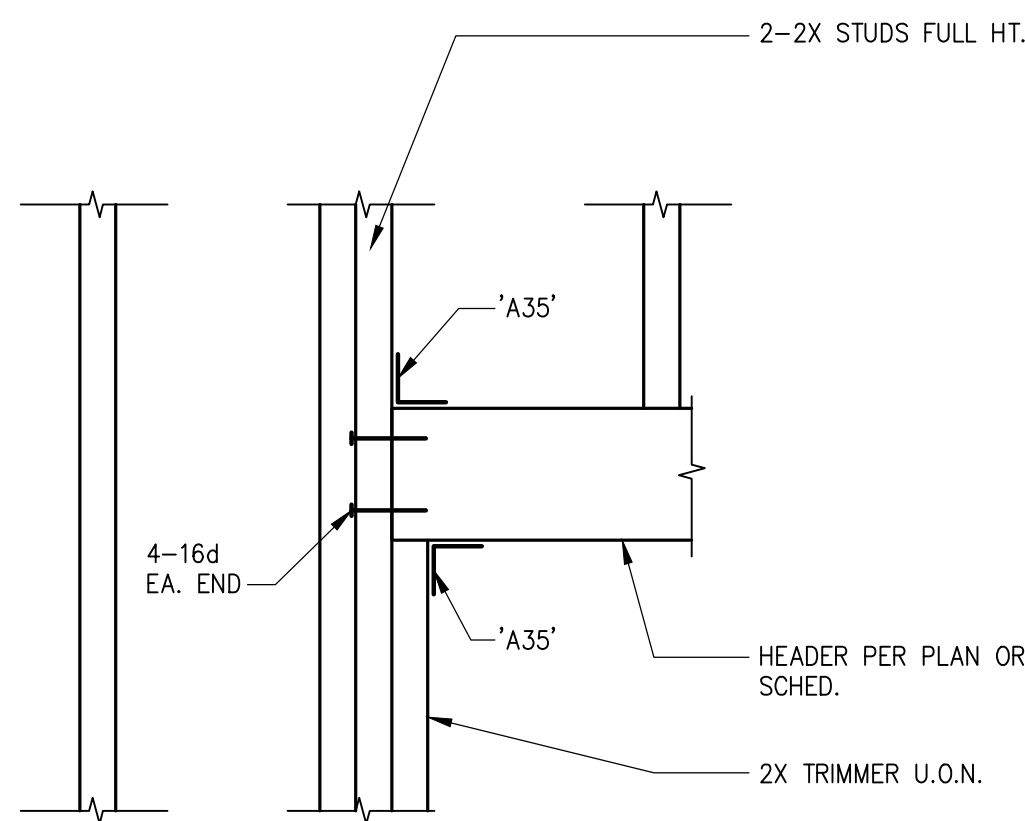
IMPROVEMENT
REFLECTED CEILING
PLAN & BUILDING
SECTIONS
A-102

	2x4 WALL	2x6 WALL
SPAN	SIZE	SIZE
0' TO 4'	4x4	6x6
4' TO 6'	4x6	6x6
6' TO 8'	4x8	6x8

1. SCHEDULE APPLIES U.O.N. ON DRAWINGS

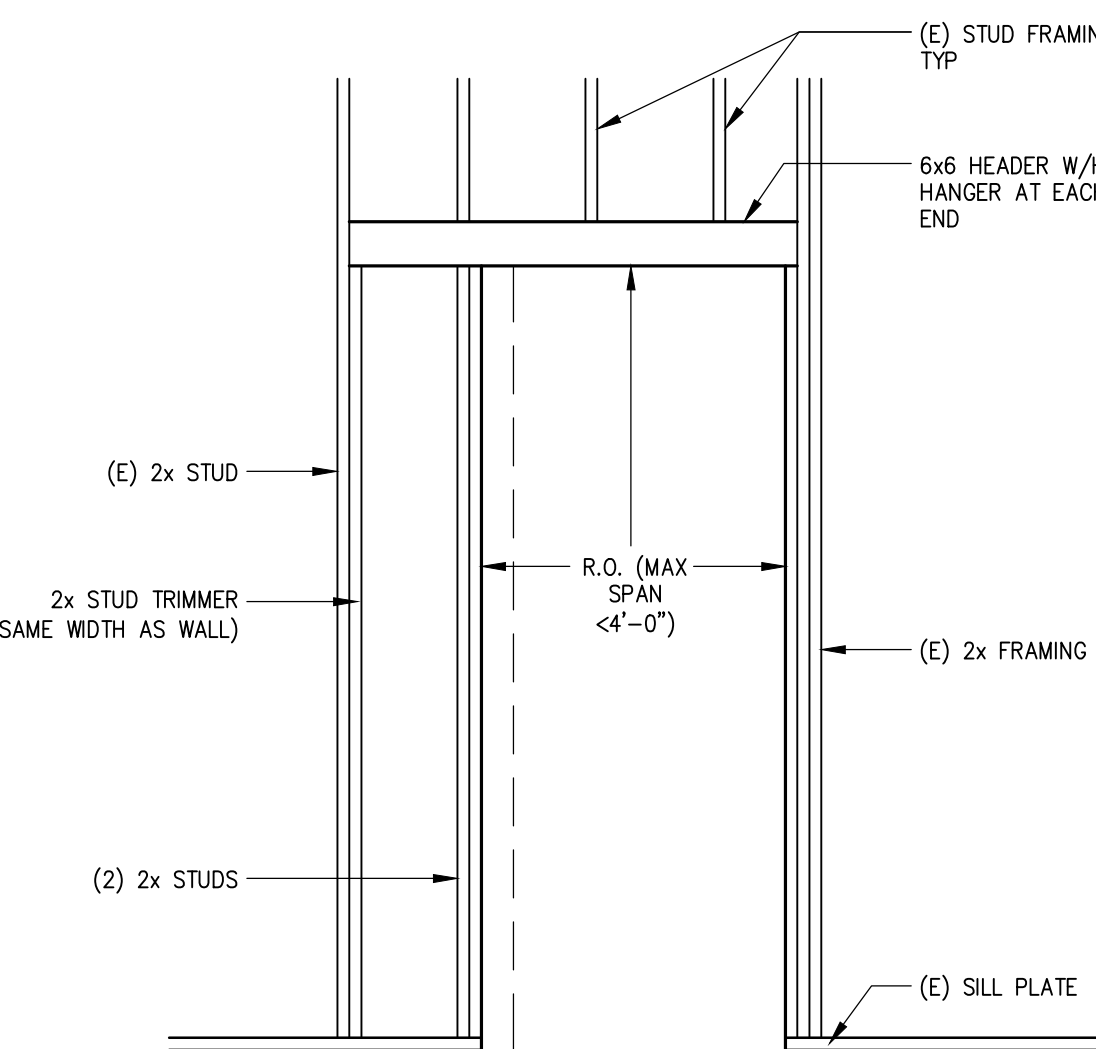
13 TYPICAL HEADER CONN.

NTS



12 TYPICAL HEADER CONN.

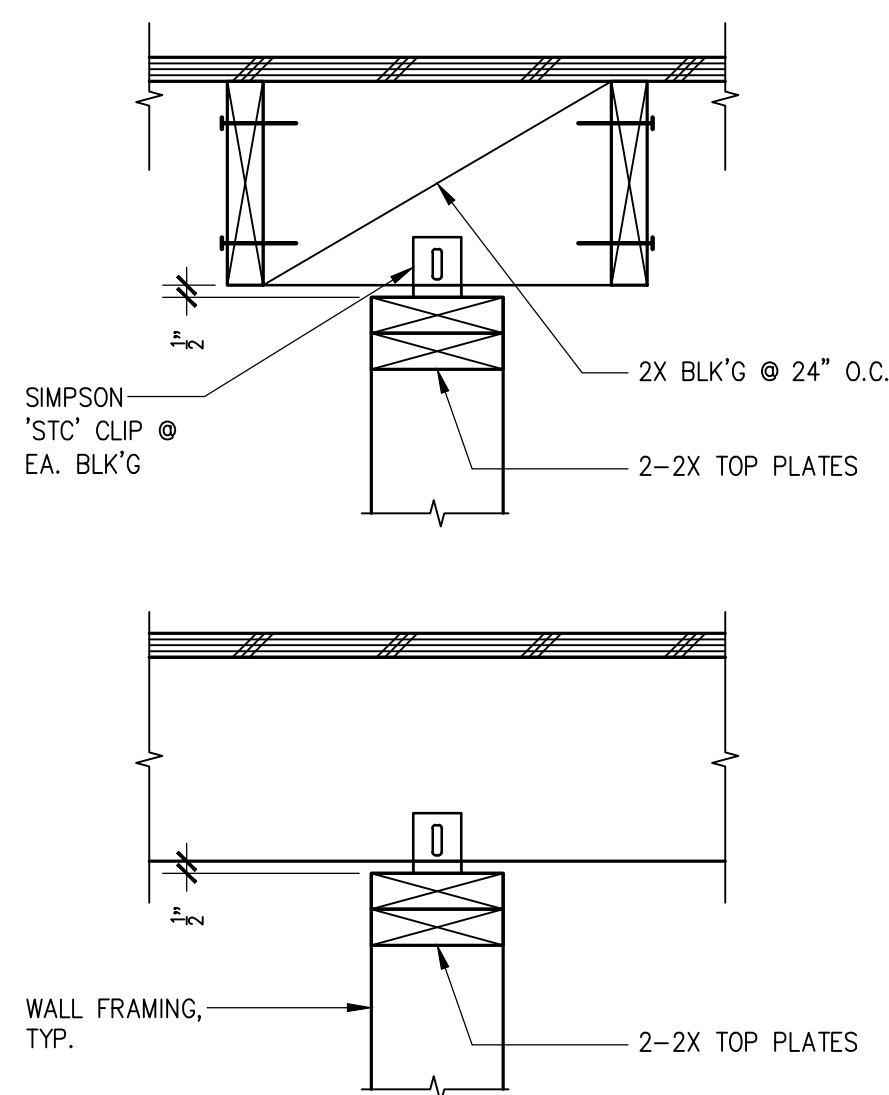
1-1/2" = 1'-0"



NOTE:
REMOVE (E) FINISHES, HEADER, FRAMING, ETC. AS REQUIRED TO CONSTRUCT (N) OPENING. PROVIDE MISC BLOCKING AND PATCH DISTURBED AREA TO MATCH (E).

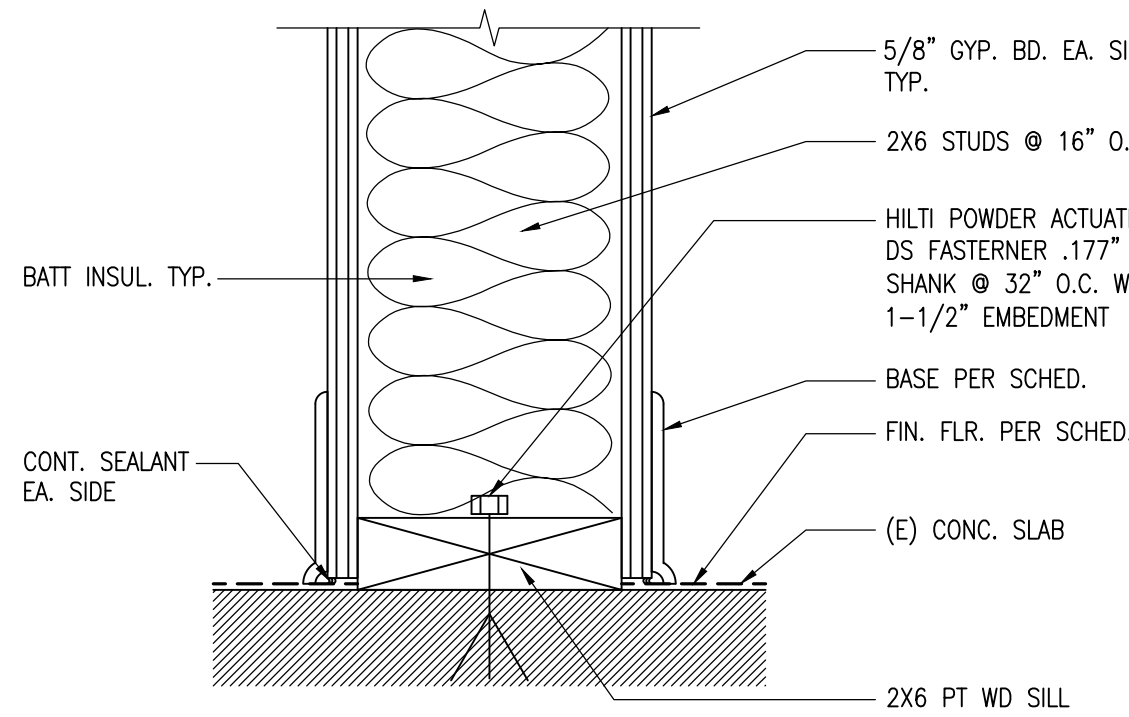
11 FRAMED OPENING

1/2" = 1'-0"



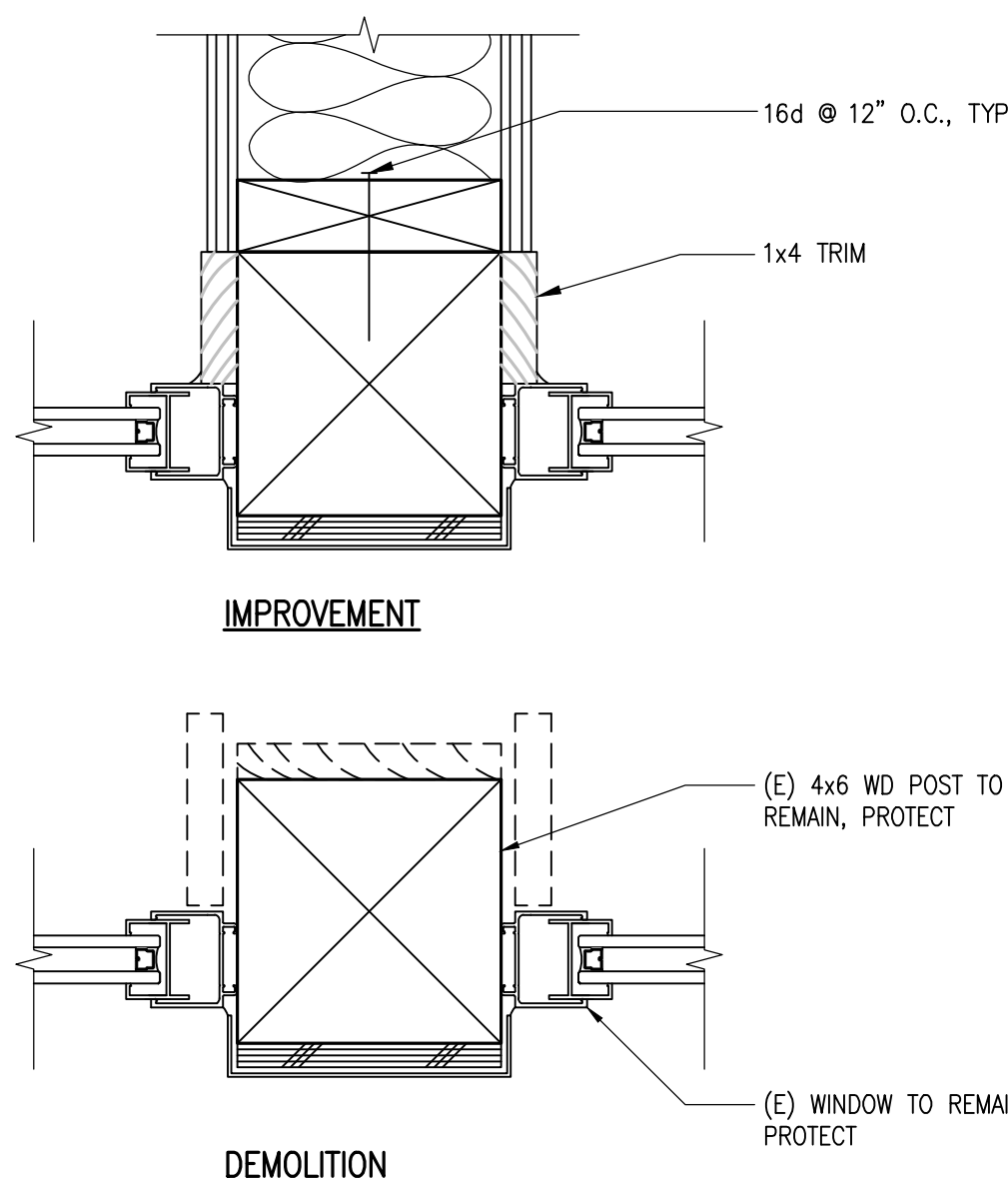
7 TYP. NON-BEARING PARTITIONS

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



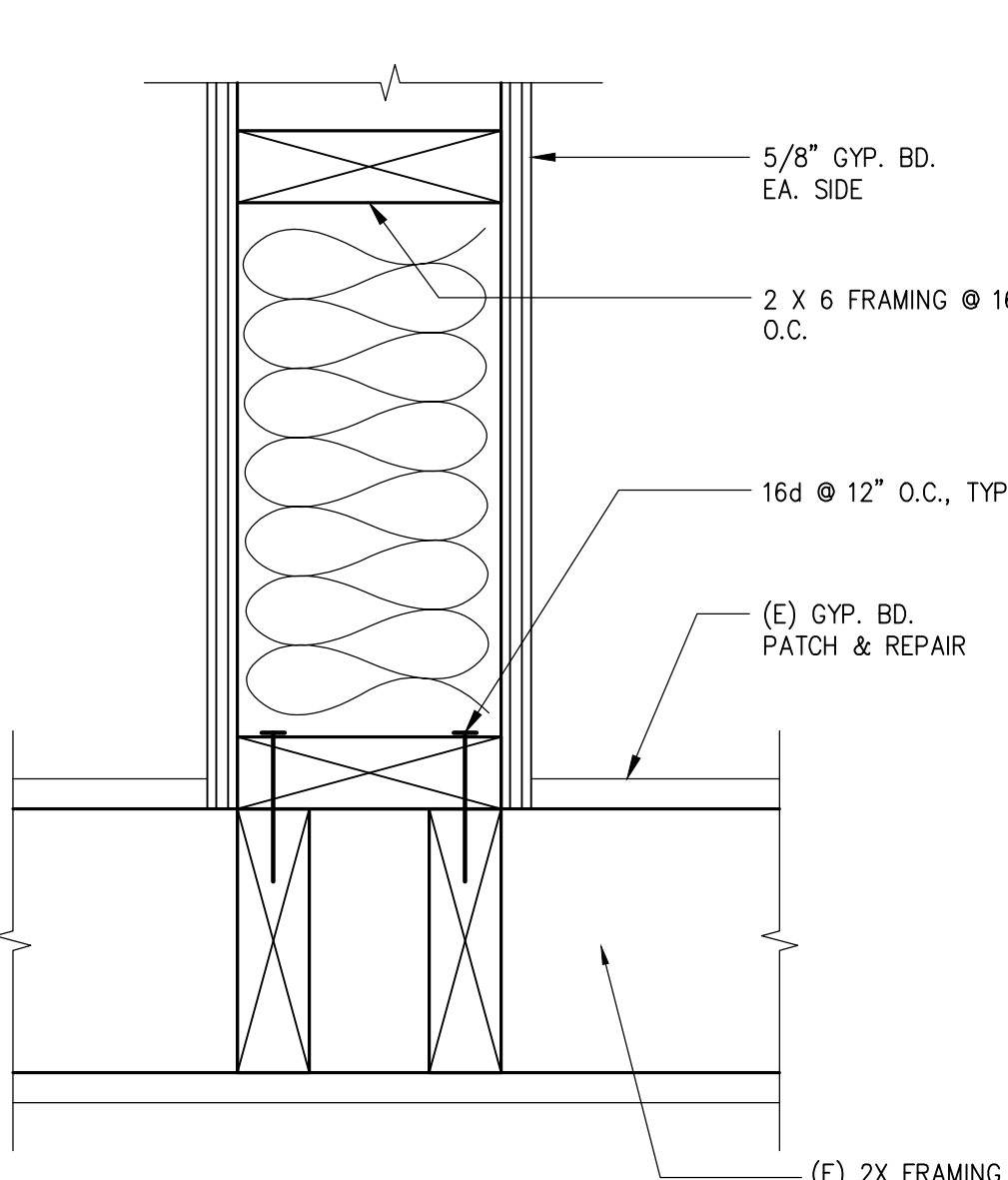
6 INT. NON-STRUCT. WALL SILL

3" = 1'-0"



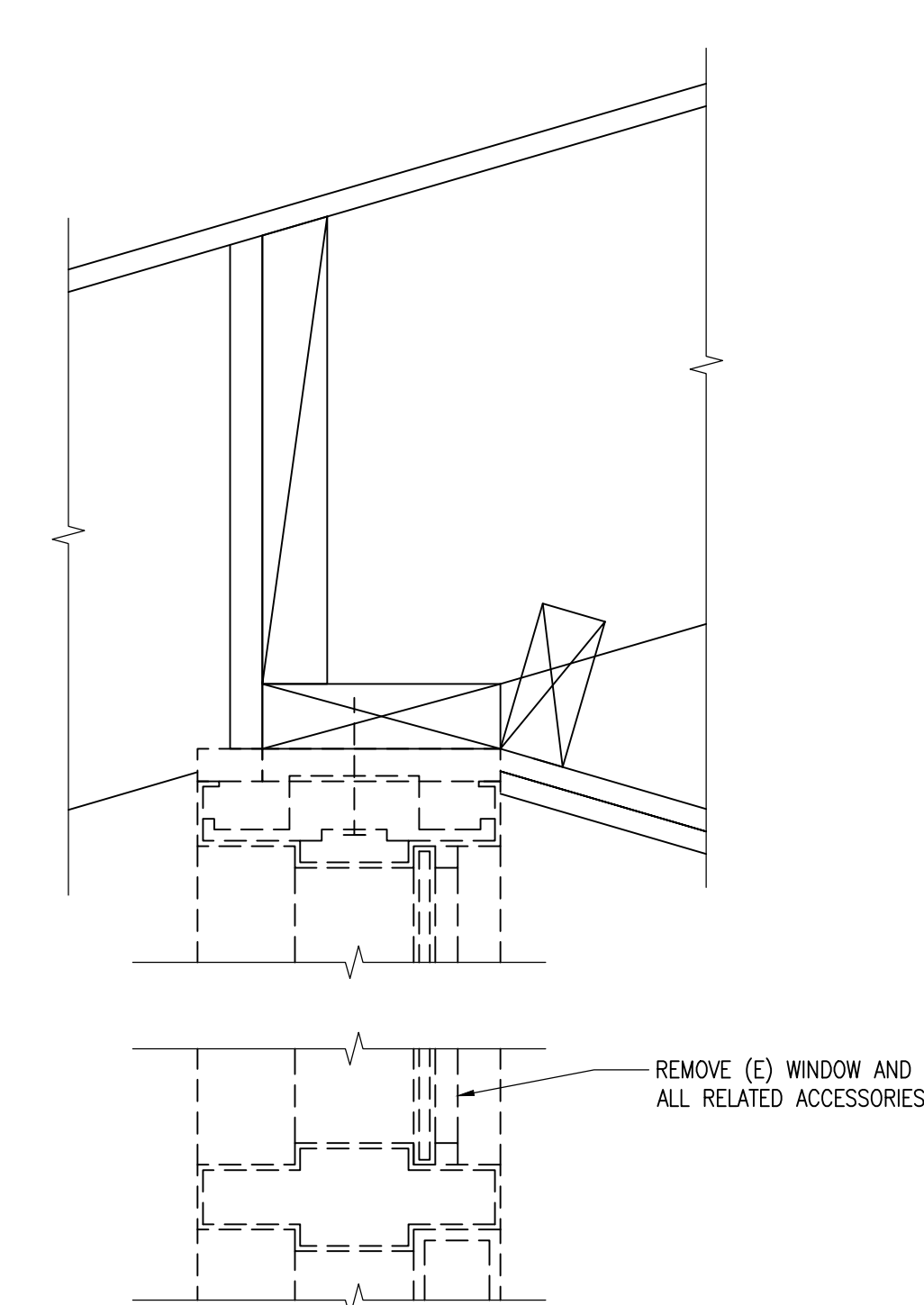
5 INT. NON-STRUCT. WALL @ (E) WINDOW

3" = 1'-0"



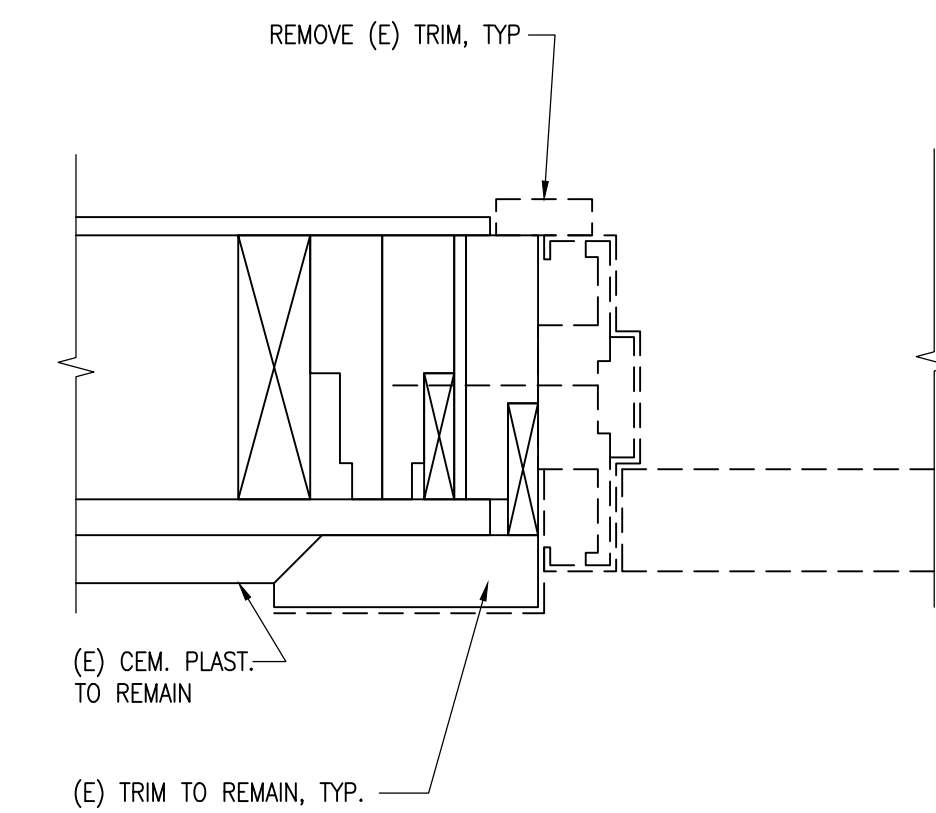
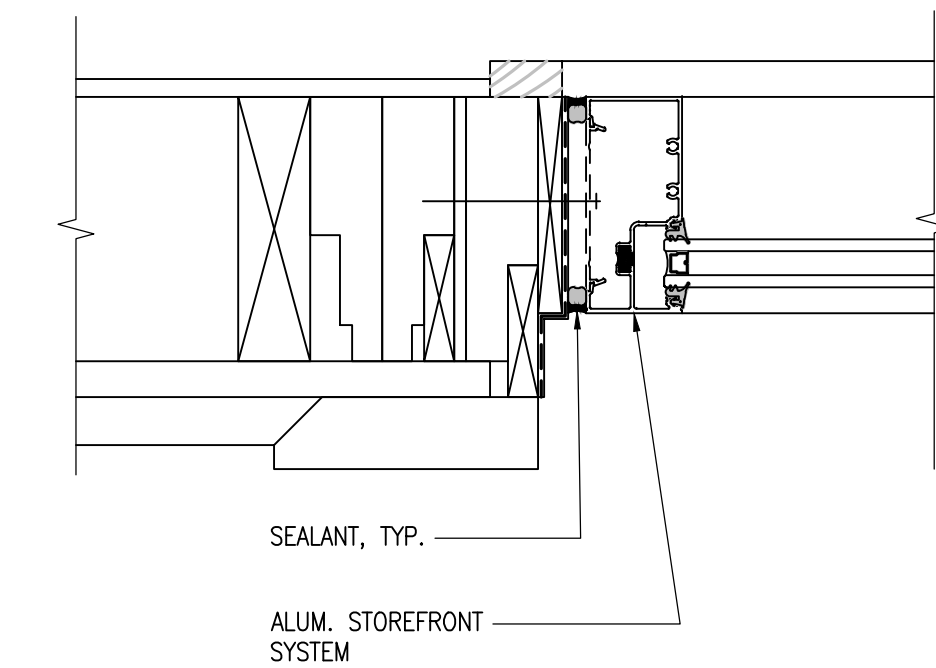
4 INT. NON-STRUCT. WALL @ (E) WALL

3" = 1'-0"



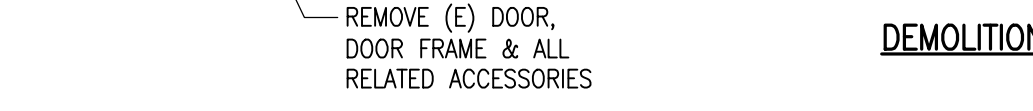
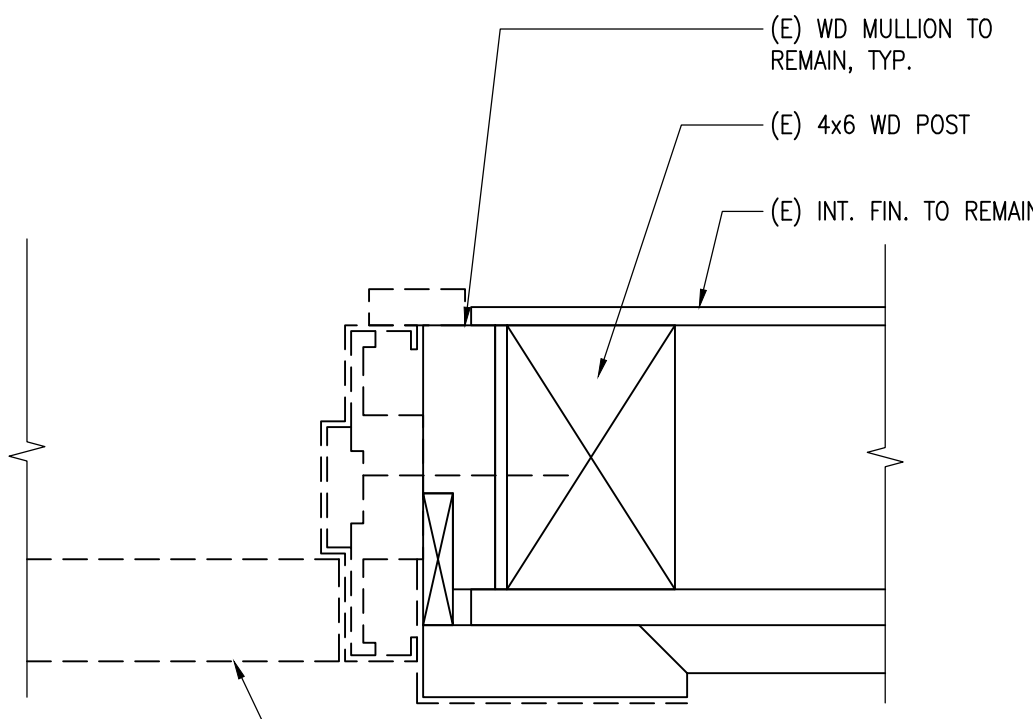
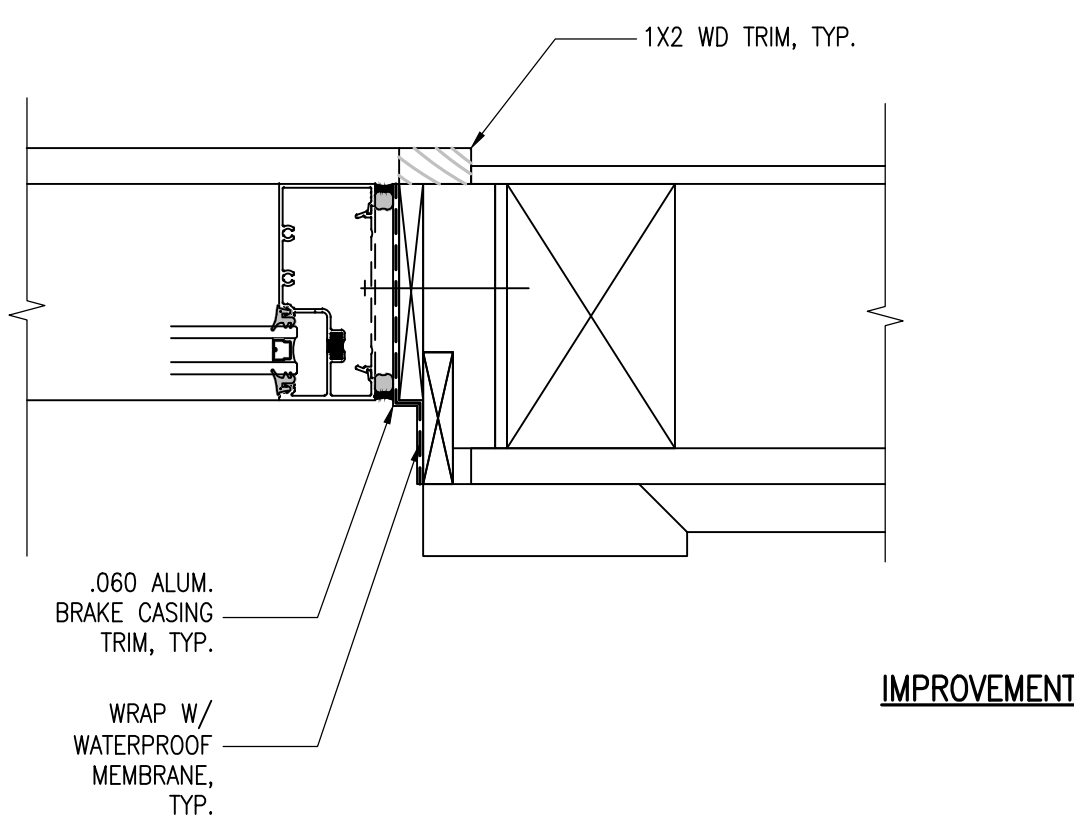
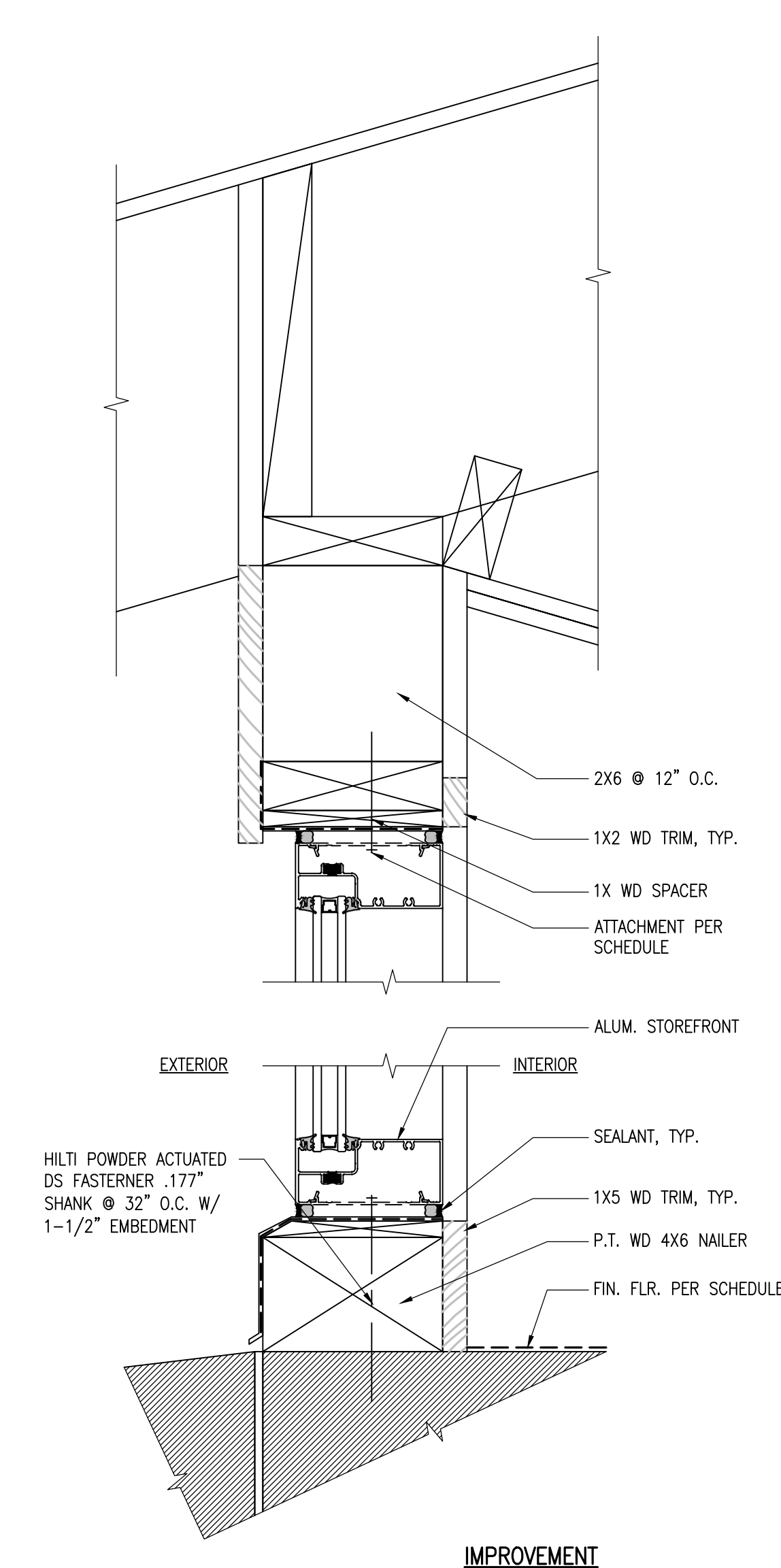
6 OPENING DETAIL

3" = 1'-0"



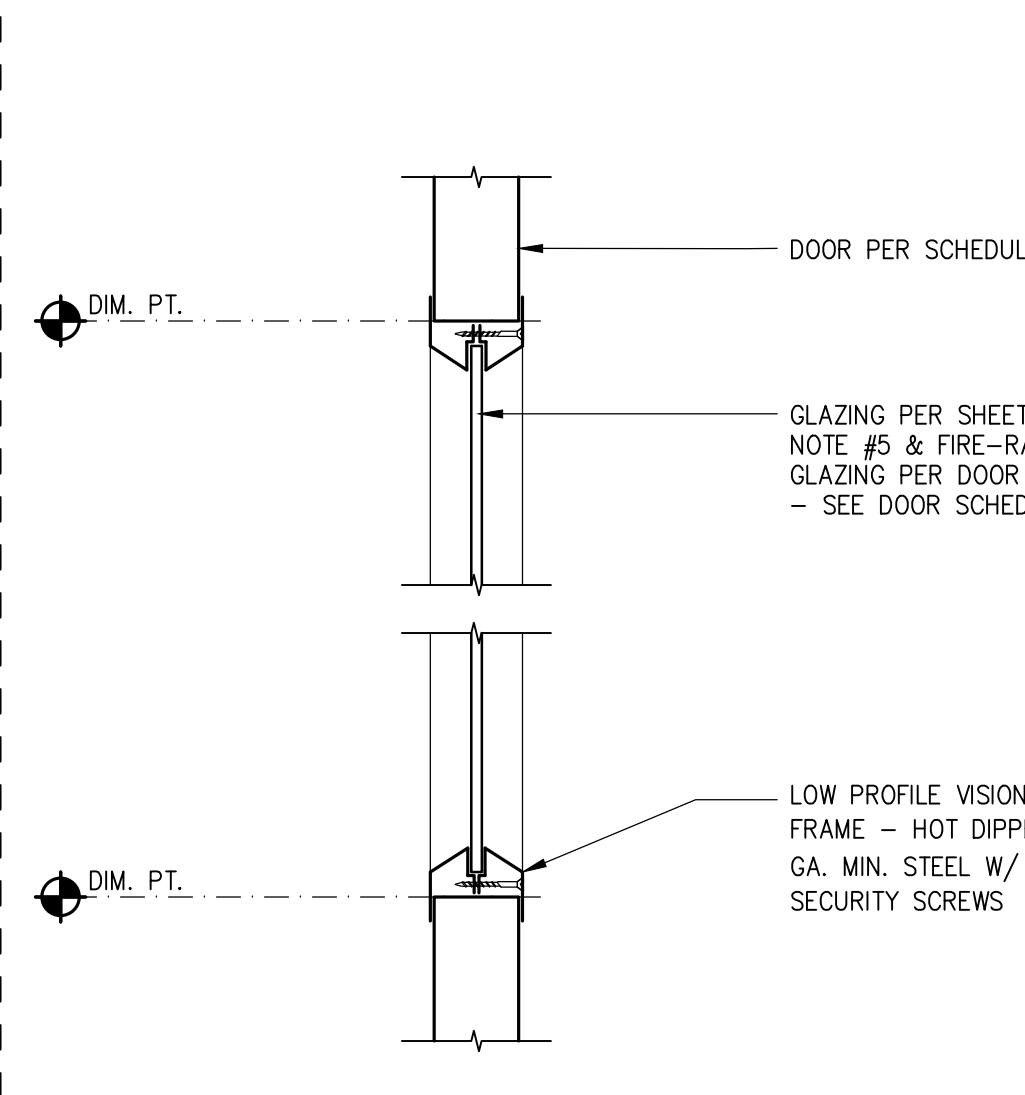
5 OPENING DETAIL

3" = 1'-0"



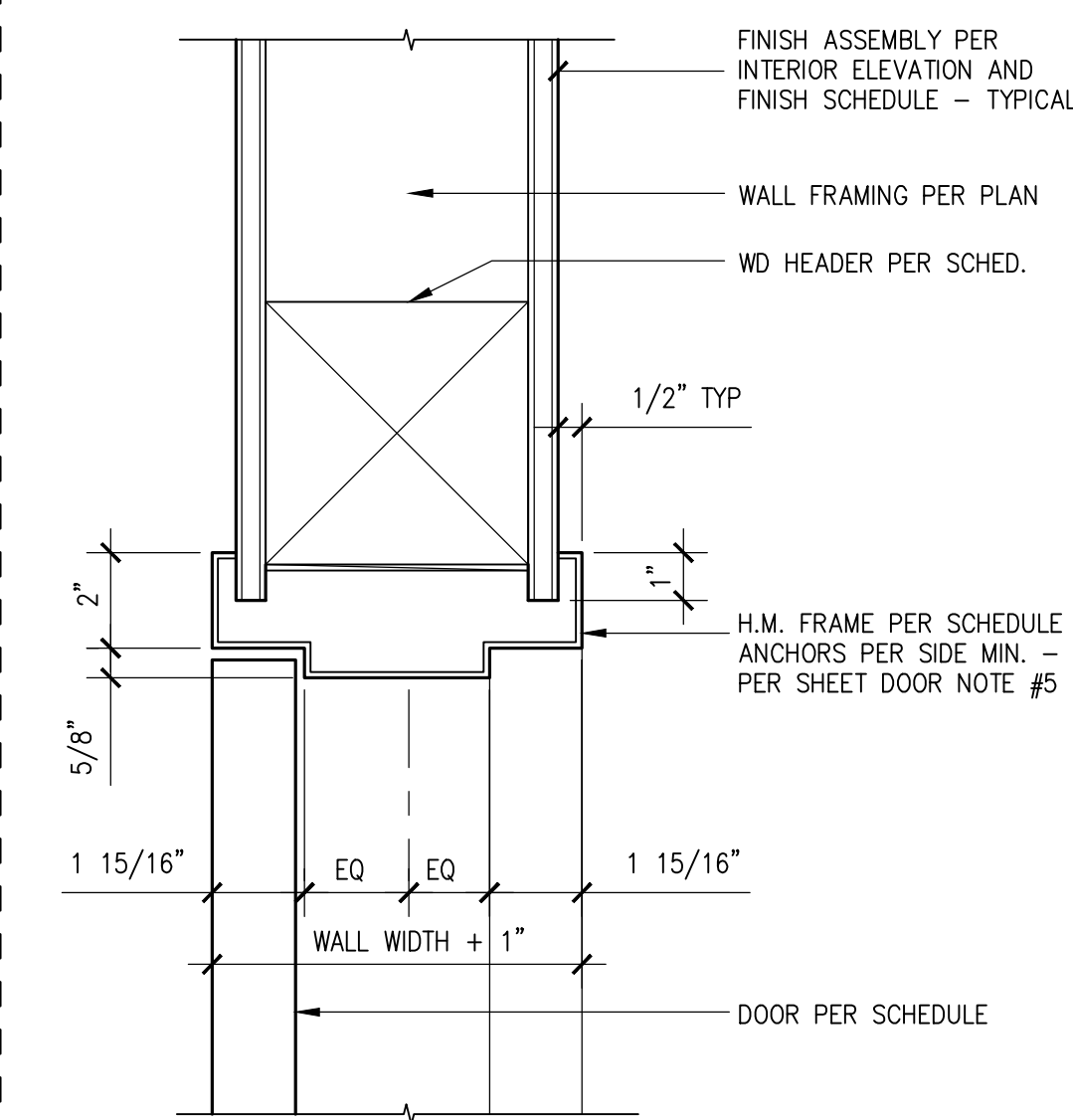
5 OPENING DETAIL

3" = 1'-0"



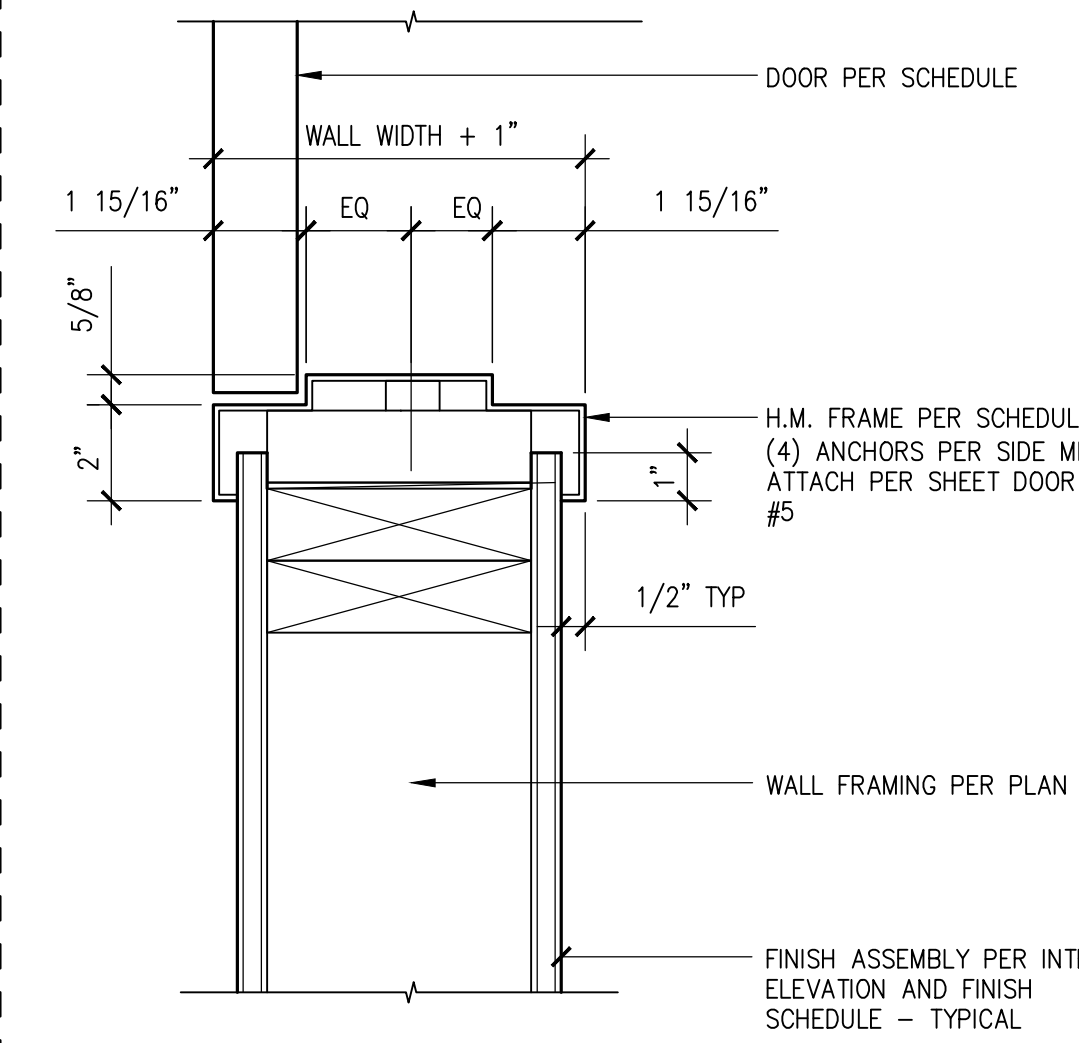
4 DOOR LITE

3" = 1'-0"



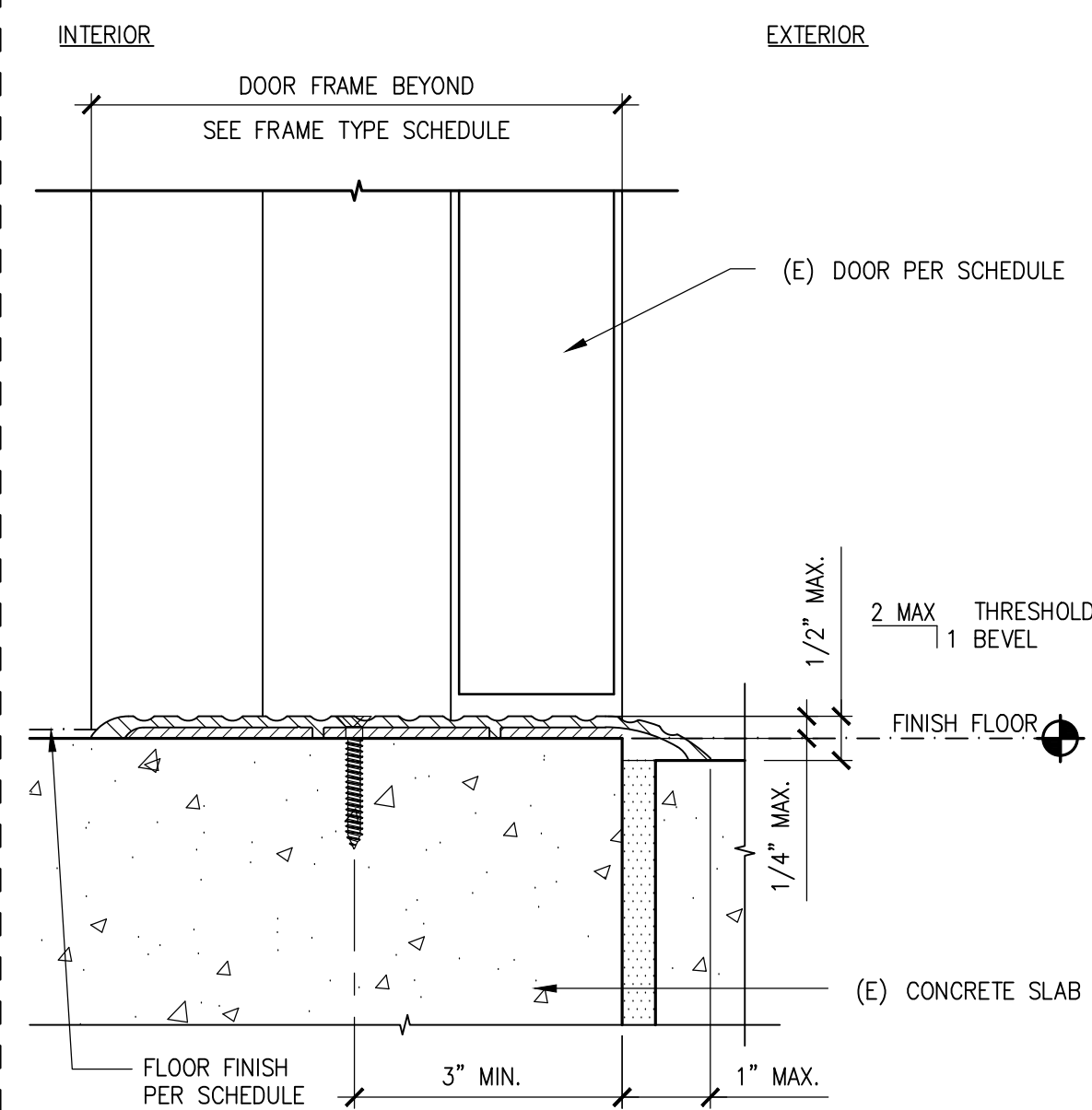
3 INT. DOOR HEADER

3" = 1'-0"



2 INT. DOOR JAMB

3" = 1'-0"



1 (E) EXT. DOOR THRESHOLD

6" = 1'-0"

GENERAL NOTES

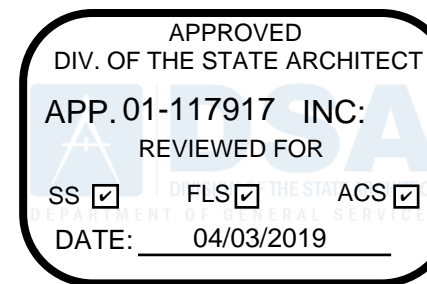
- REFER TO DOOR SCHEDULE, DOOR AND DOOR FRAME TYPES.
- ALL SHEET METAL FLASHING THAT IS DIRECTLY EXPOSED TO THE WEATHER SHALL BE SHOP PRIMED AND SHOP PAINTED.

DOOR NOTES:

- OVERALL DIMENSIONS SHOWN ARE NOMINAL DESIGN DIMENSIONS - SEE DETAILS & FIELD VERIFY ROUGH OPENING DIMENSIONS TO DETERMINE OVERALL FABRICATION DIMENSIONS
- HOLLOW METAL FRAME FACE DIMENSION IS 2 INCHES U.O.N. - SEE DETAILS FOR PROFILE DIMENSIONS
- ALL HOLLOW METAL FRAMES ARE FIELD PAINTED U.O.N.
- ALL ALUMINUM FRAMES ARE TO HAVE FACTORY FINISH (PAINT OR ANODIZING) - FIELD TOUCH UP TYPICAL
- CONNECT HOLLOW METAL FRAMES TO WALLS/PARTITIONS AS FOLLOWS:
WOOD - #12 WOOD SCREWS @ 16" O.C. MAX., 6" FROM ENDS, TYP.
- ALL DOOR FRAMES SHALL BE ANCHORED TO FLOOR

STOREFRONT NOTES:

- OVERALL DIMENSIONS SHOWN ARE NOMINAL DESIGN DIMENSIONS - SEE DETAILS & FIELD VERIFY ROUGH OPENING DIMENSIONS TO DETERMINE OVERALL FABRICATION DIMENSIONS
- ALL ALUMINUM FRAMES ARE TO HAVE FACTORY FINISH (ANODIZING).
- ALL EXTERIOR WINDOW GLAZING STOPS ARE TO BE INSTALLED FROM THE INTERIOR SIDE OF WINDOW
- CONNECT WINDOWS AS FOLLOWS:
WOOD FRAMING - #12 STAINLESS STEEL SELF TAPPING SHEET METAL SCREWS @ 16" O.C. MAX. ALL AROUND & 6" FROM ENDS - (2) PER SIDE MIN. - MIN. 1-1/2" PENETRATION INTO WOOD FRAMING - TYP.



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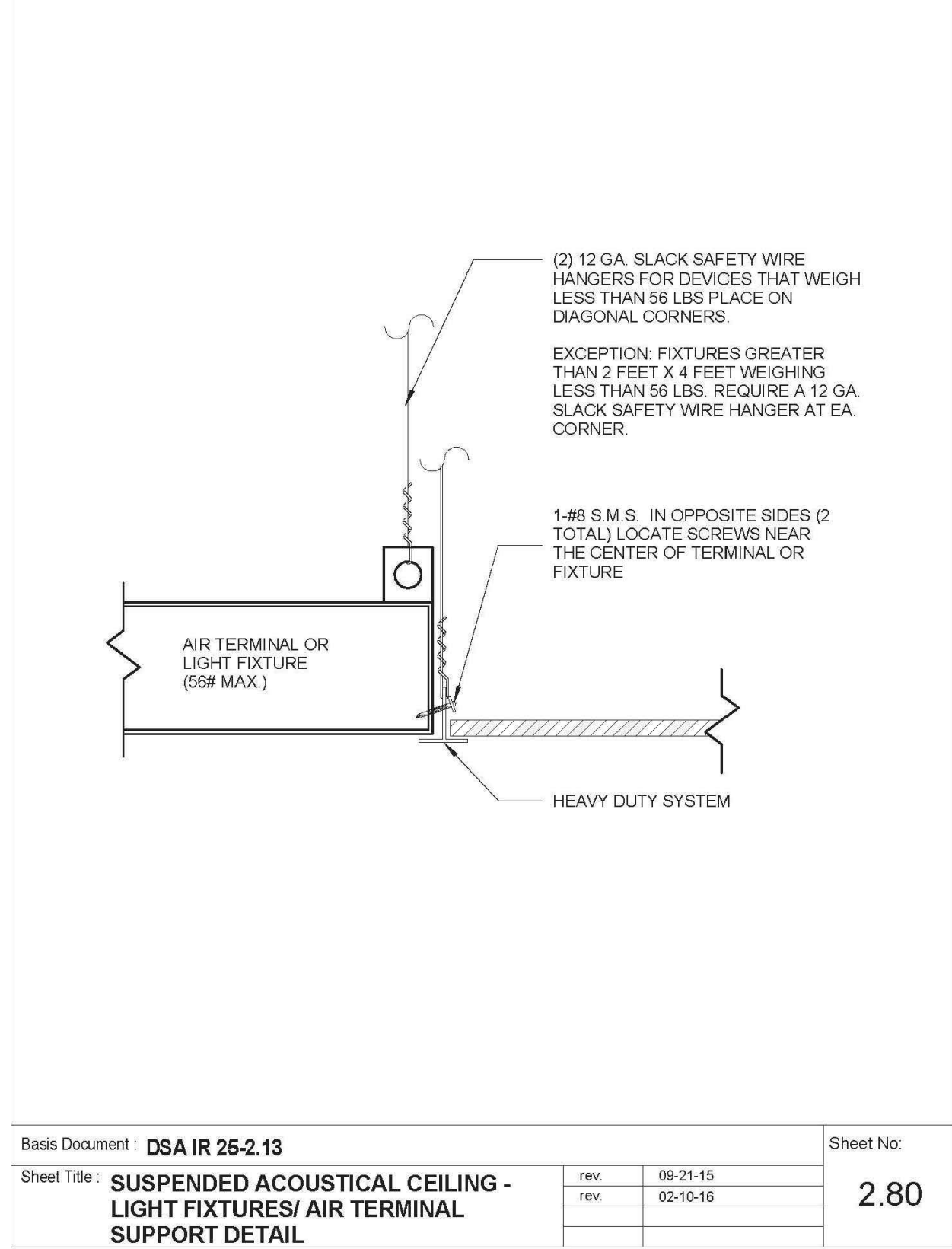
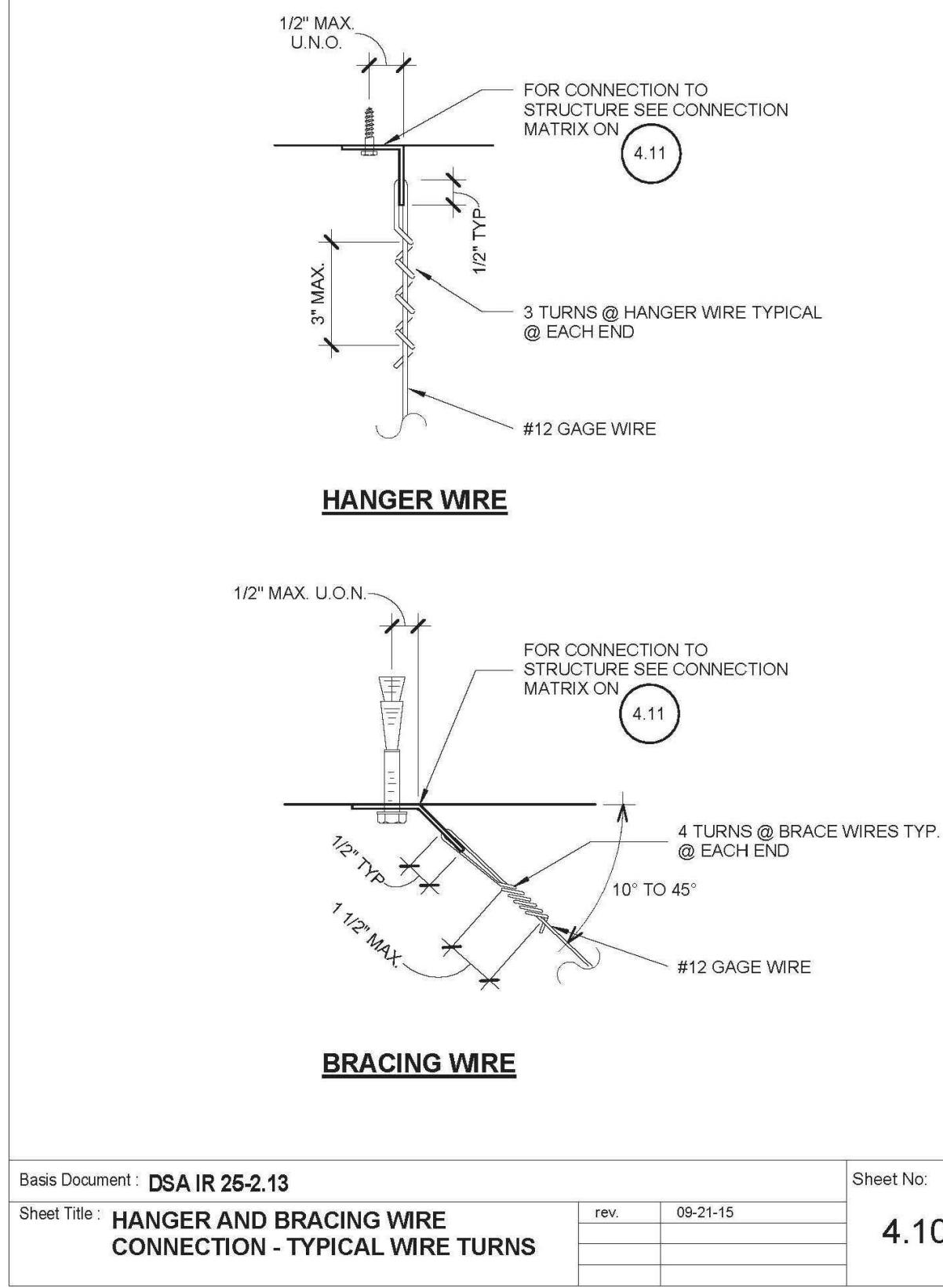
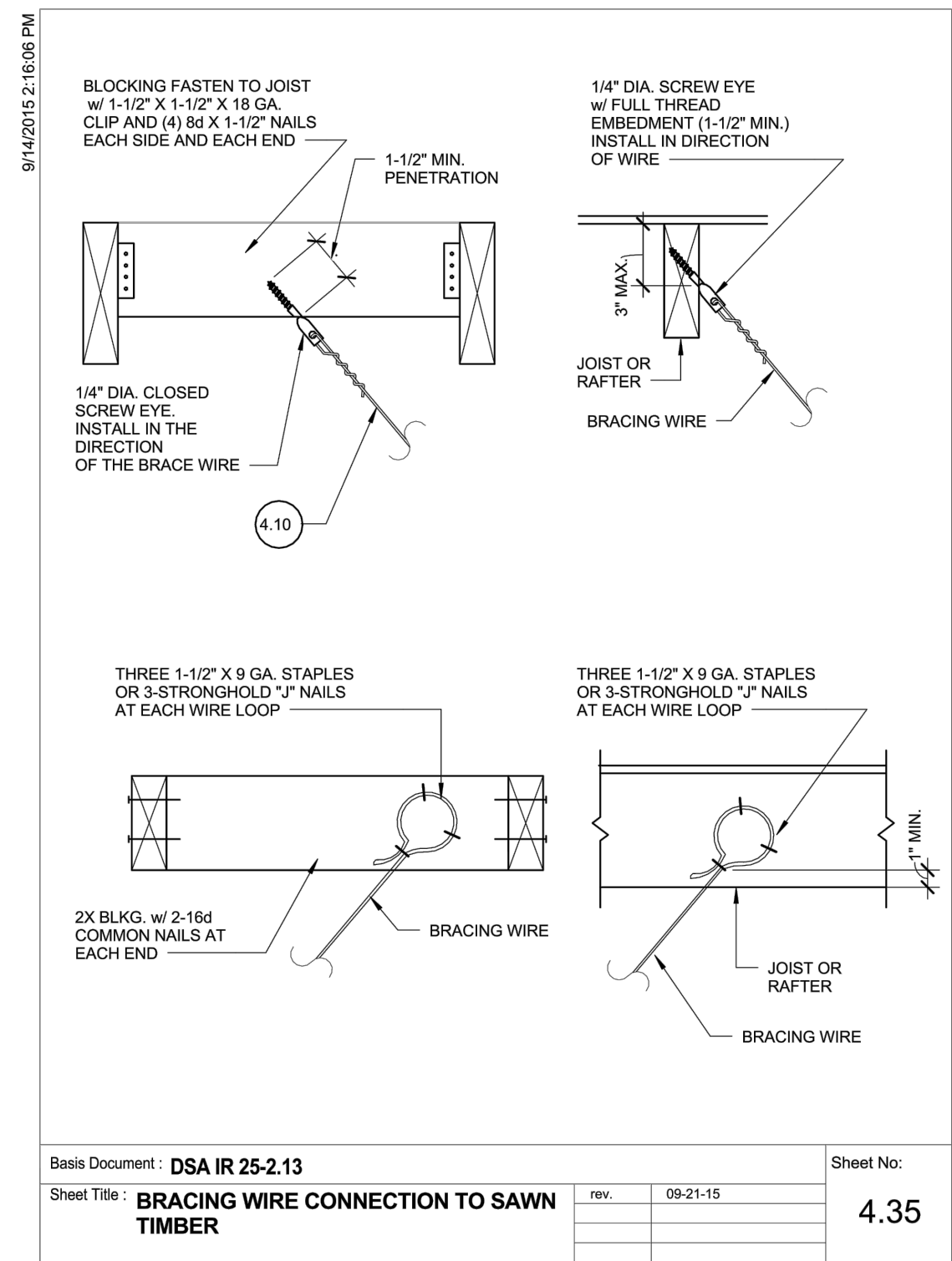
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MICHAEL J. MYERS
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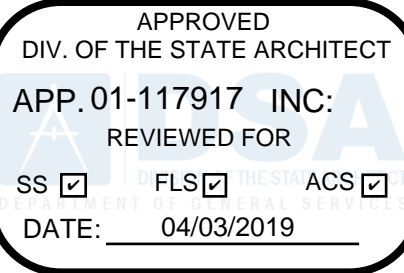
DOOR, WINDOW
AND INTERIOR
DETAILS

A-561



SHEET NOTES

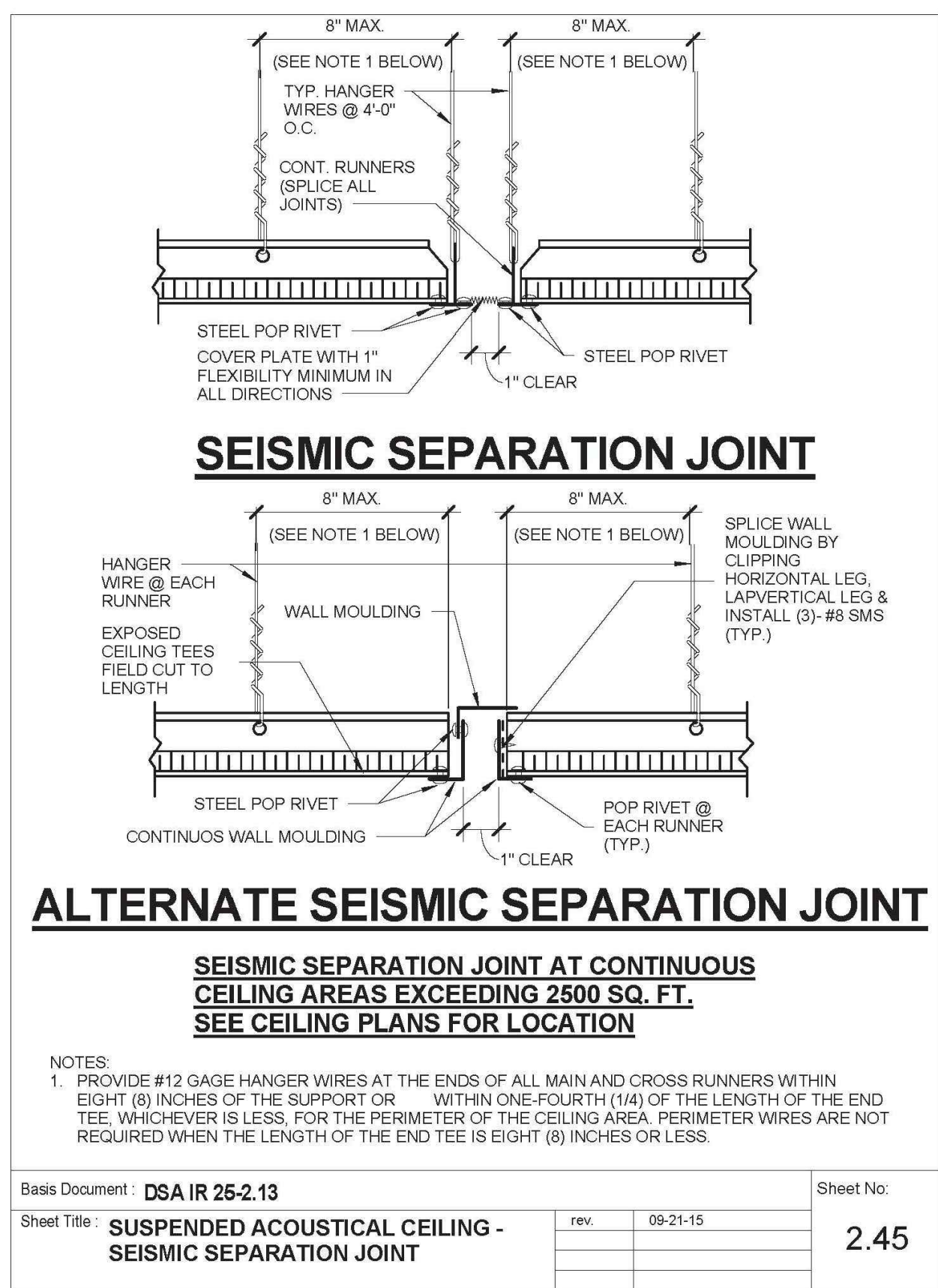
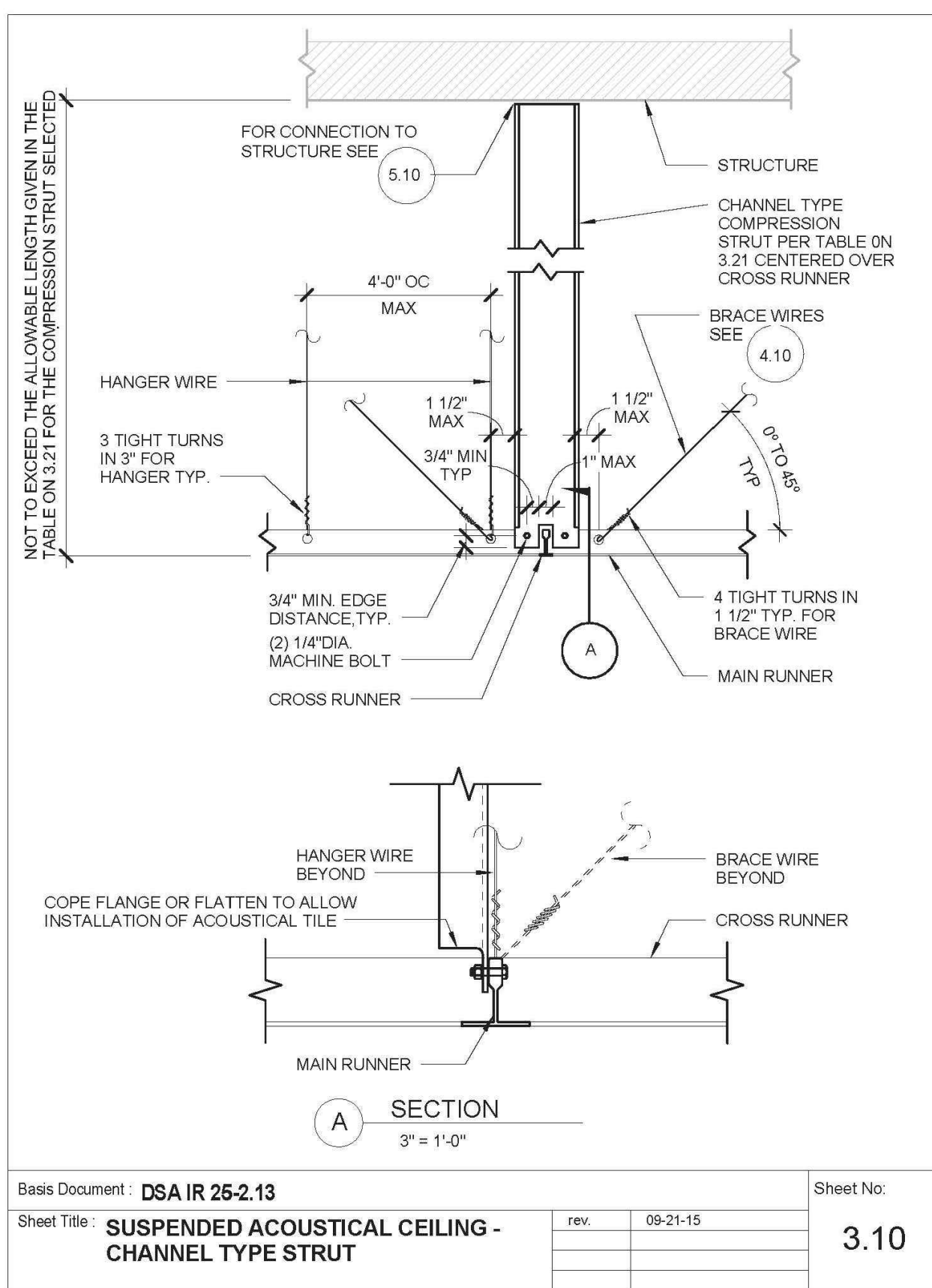
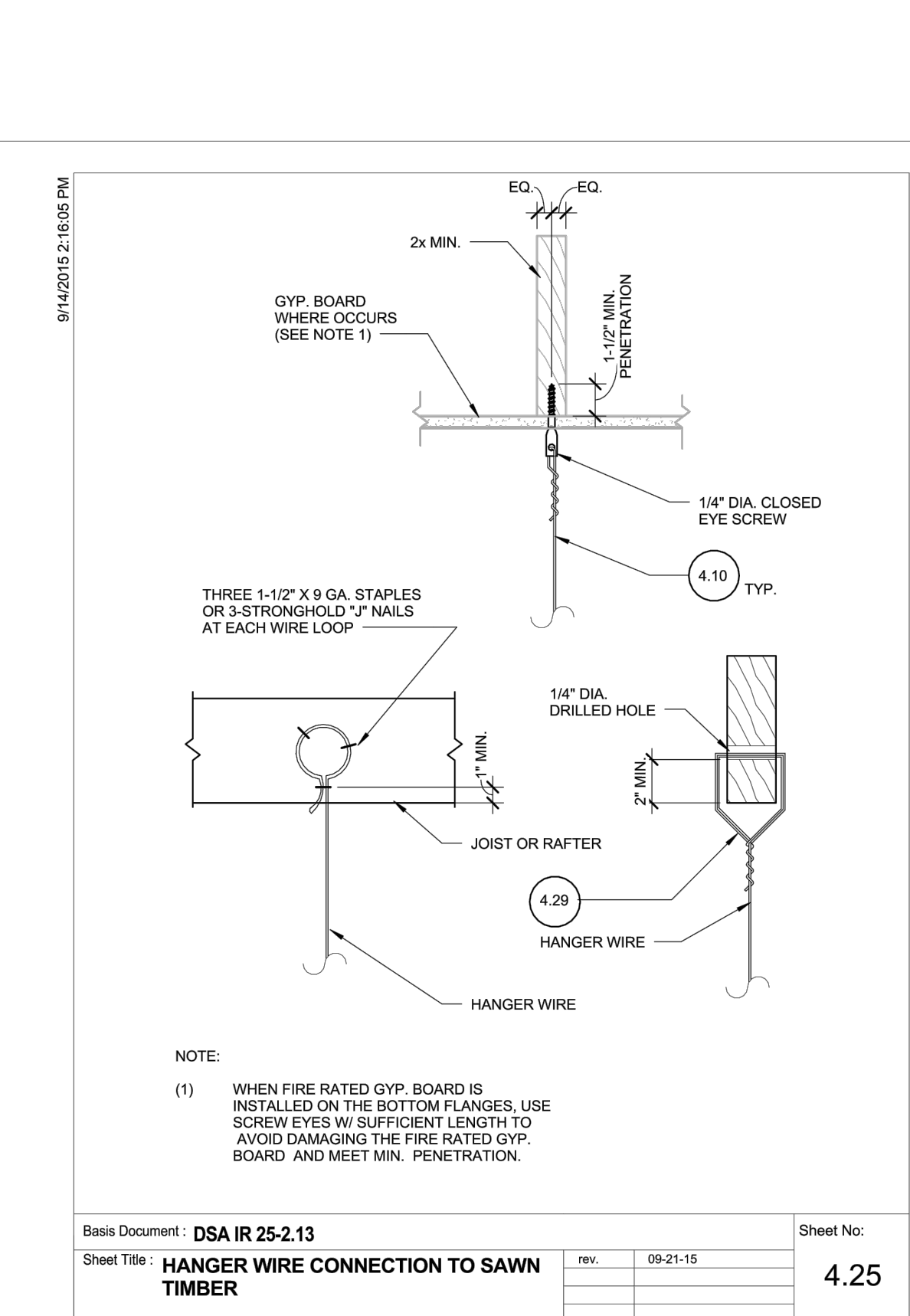
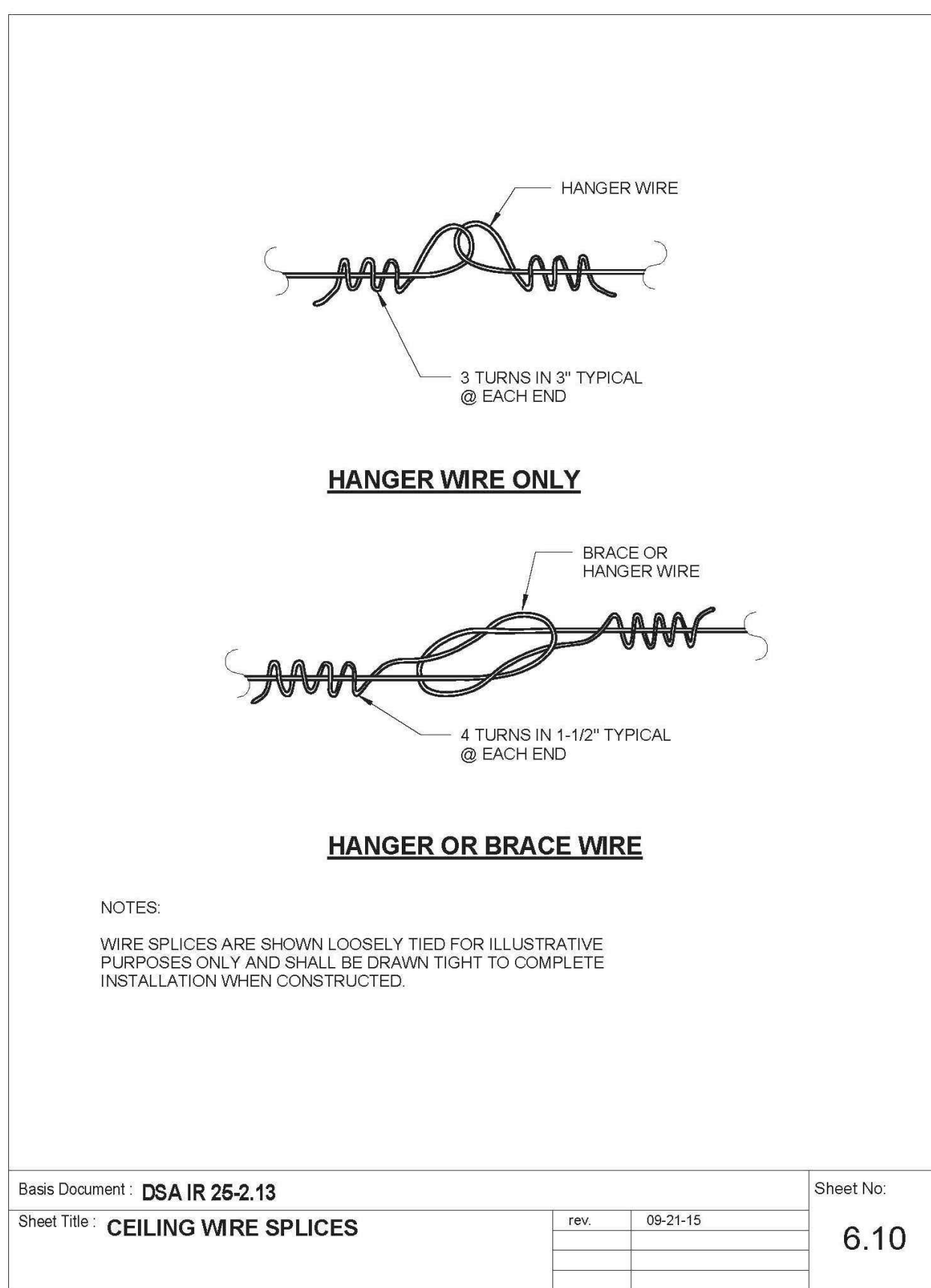
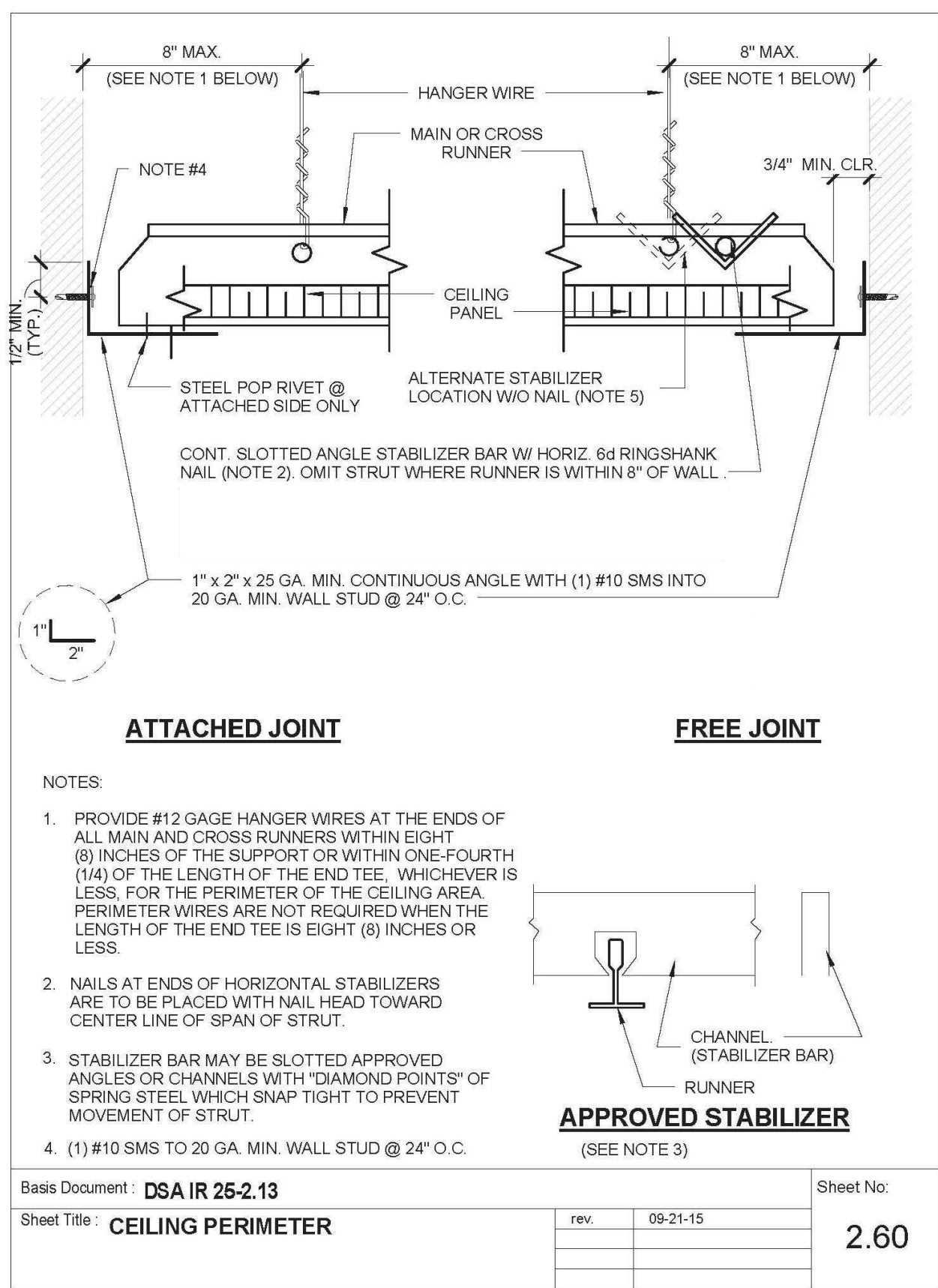
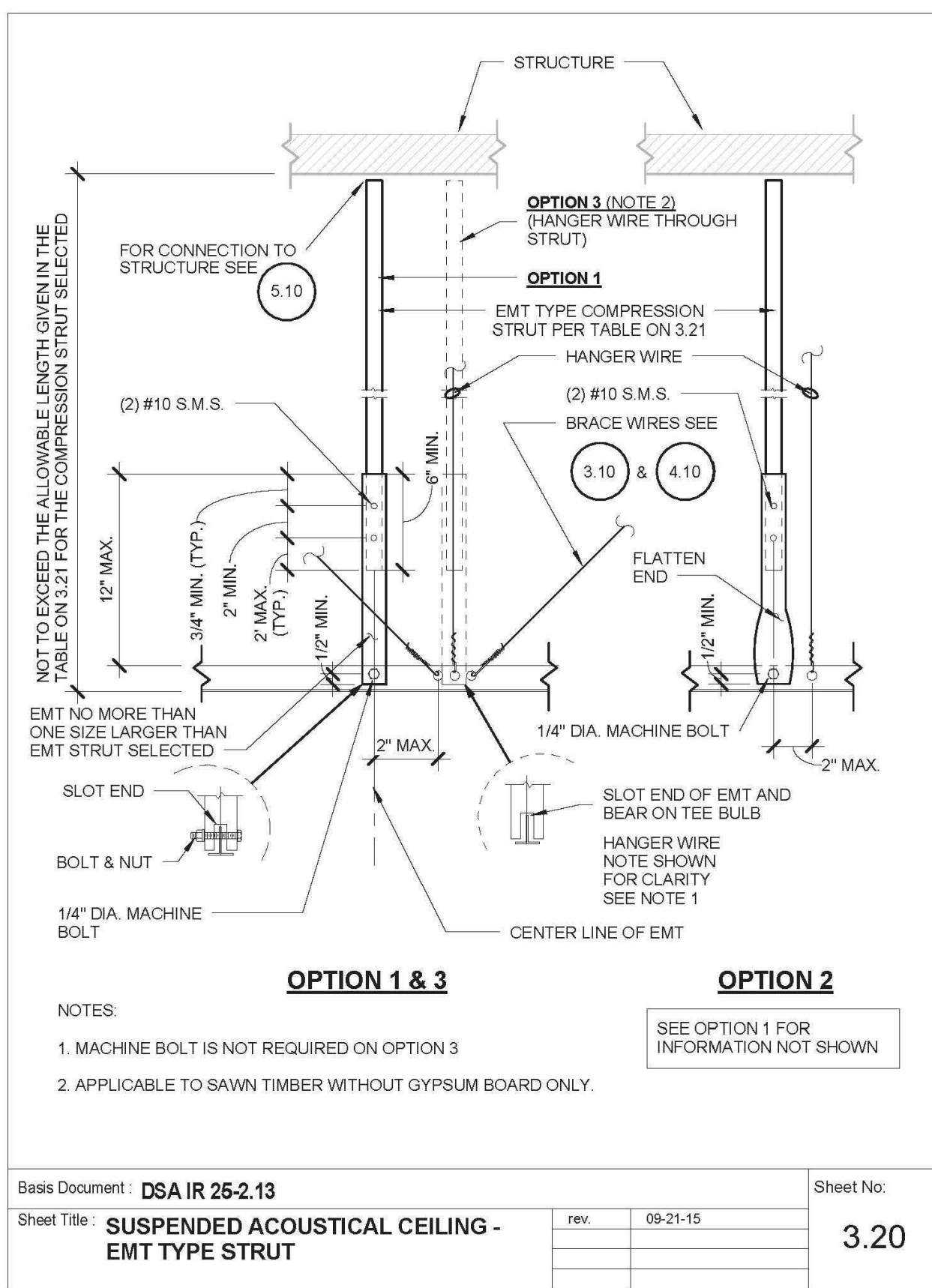
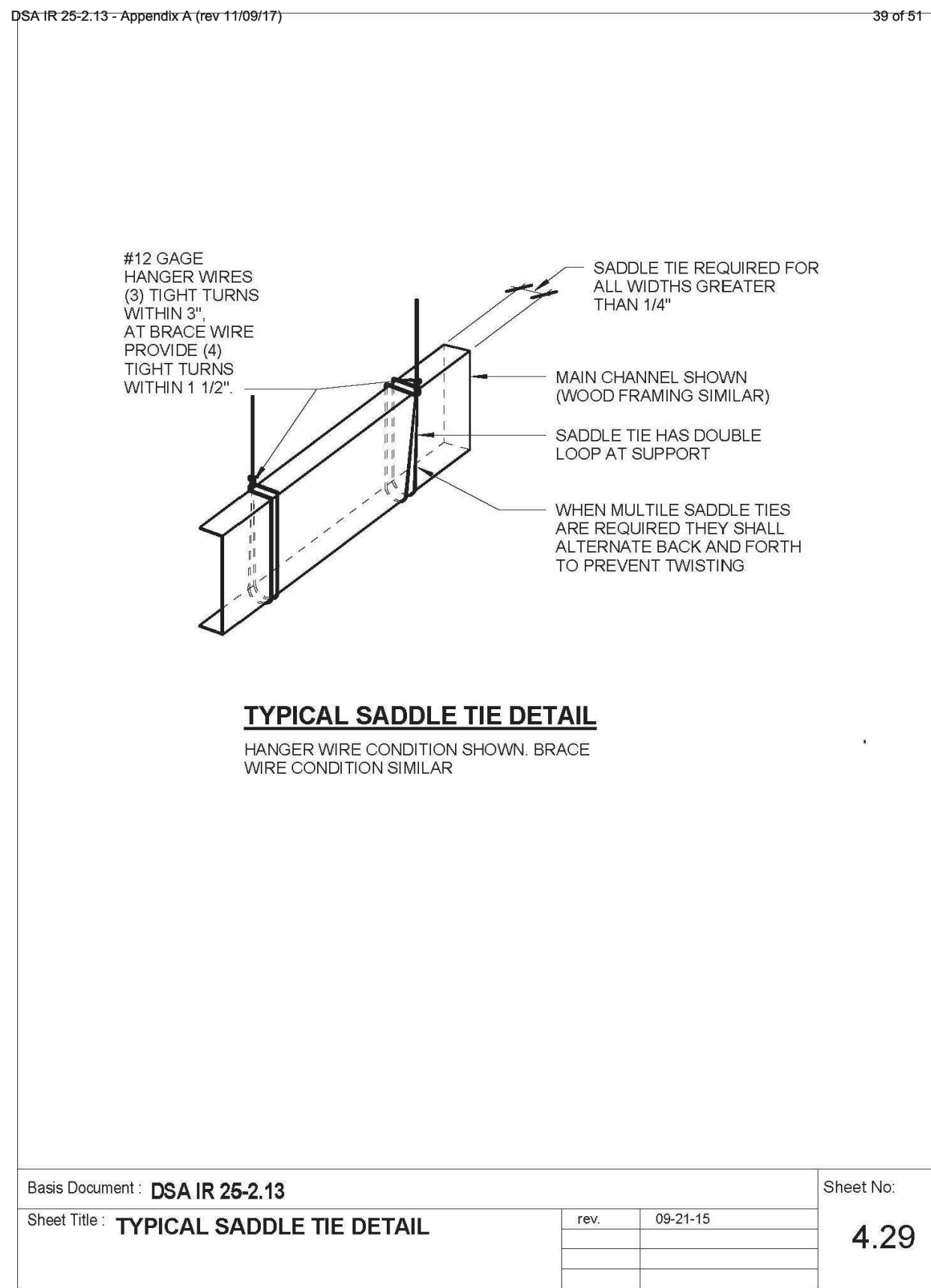
- ALL NOTES AND DRAWINGS ARE PER DSA IR 25-2.13.



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michael j. myers
STATE OF CALIFORNIA

2018-03800-000

DETAILS
SUSPENDED
CEILING

A-572

Wood

- All sawn lumber shall be Douglas Fir-Larch as graded by the West Coast Lumber Inspection Bureau (WCLIB) in accordance with Standard Grading Rules No. 17 typical unless noted otherwise. All members shall have a minimum grade of No. 1 except blocking may be No. 2.
- All structural sheathing used for shearwalls and roof sheathing shall be manufactured in accordance with product standards of APA – The Engineered Wood Association. Sheathing shall meet PS2-92 Performance standard for wood-based structural-use panels and shall be stamped with APA trademark.
- All foundation plates or sills on concrete slabs which are in direct contact with earth, and plates or sills on concrete or masonry foundations, shall be pressure treated.
- All wood shall have a moisture content of not more than 19% when sheathing is applied.
- 6" minimum clearance shall be maintained at all exterior walls between finish grade and bottom of wood walls.
- Bearing and shearwalls shall have double top plates lapped at wall corners and intersections and plates shall be interlaced with 3-16d at such locations. For plate splice details, see drawings.
1. Sill plate anchor bolts shall be installed with plate washers per detail 3 x 3 x 1/4" minimum. nut and plate.
2. Provide solid blocking between joists and rafters at all supports.
3. Provide blocking at all ceiling levels.
4. Holes for bolts in wood shall be bored with a bit of the same nominal diameter as the bolt plus 1/8".
5. Holes for lag screws shall be bored as follows:
 - The clearance hole for the shank shall have the same diameter as the shank, and the same depth of penetration as the length of unthreaded shank.
 - The lead hole for the threaded portion shall have a diameter equal to 60% to 75% of the shank diameter and a length equal to at least the length of the threaded portion.
6. Log screws and wood screws shall be screwed and not driven into place. Soap may be used to lubricate the screws.
7. All bolts and lag screws shall be provided with metal washers under heads and nuts which bear on wood. Applies also to inserted expanding fasteners, Red Head, etc.

Bolt Diameter	Min. Washer	Steel Washer
3/8" Ø	2 3/4" Ø x 3/16"	2 1/2" x 2 1/2" x 1/4"
1/2" Ø	3" Ø x 1/8"	3" x 3" x 3/16"
5/8" Ø	3 1/2" Ø x 1/8"	3 1/2" x 3 1/2" x 3/16"
1" Ø	4" Ø x 1/2"	3 3/4" x 3 3/4" x 3/8"

- All bolts and lag screws shall be tightened at installation and retightened before closing in or at completion of job.
- Lay all structural sheathing on roof and floors with face grain perpendicular to support typical unless noted otherwise. Use ply-clips at unsupported sheathing edges.
- Connector hardware model number are those for Simpson Strong-Tie Company. All joint hangers shall be Simpson U series unless noted otherwise. Equivalent connectors with ICC acceptance may be submitted for review as an alternate.
- Notify Structural Engineer after wall, floor, and roof sheathing nailing has been completed and a minimum of 48 hours prior to concealing sheathing.

Nailing Schedule

- All nails for structural work shall be common wire nails conforming to the following minimum sizes:

2d	1 1/2" Ø x 2 1/2"
3d	1 1/4" Ø x 2 1/2"
4d	1 1/2" Ø x 3"
6d	1 3/4" Ø x 3 1/2"
8d	1 3/4" Ø x 4"
10d	1 3/4" Ø x 4 1/2"
12d	1 3/4" Ø x 5"
16d	1 3/4" Ø x 6"
20d	1 3/4" Ø x 7"

- Provide nails at connections as indicated on the structural drawings. Where nails at connections are not indicated nail per nailing schedule in note 5.
- Nailing not noted in schedule or on plans shall be a minimum of two nails at each contact.
- 2d nails for 1" material and 16d nails for 2" material.
- Holes shall be pre-drilled where necessary to prevent splitting.
- Nails into preservative-treated lumber shall be of hot dipped zinc-coated galvanized steel, stainless steel, silicon bronze, or copper.
- Nailing schedule:

CONNECTION	NAILING
1. Joist to sill or girder, toenail	3-8d
2. Bridging to joist, toenail each end	2-8d
3. 1" x 6" subfloor or less to each joist, face nail	2-8d
4. Wider than 1" x 6" subfloor to go joist, face nail	2-16d
5. 2" subfloor to joist or girder, blind and face nail	2-16d
6. Sole plate to joist or blocking, typical face nail	16d at 16" cc
7. Sole plate to joist or blocking, at braced wall panels	3-16d per 16"
7. Top plate to stud, end nail	2-16d
8. Stud to sole plate	4-8d, toenail or 2-16d, end nail
9. Double studs, face nail	16d at 24" cc
10. Double top plates, typical face nail	16d at 16" cc
11. Blocking between joists or rafters to top plate, toenail	8d at 16" cc
12. Rim joist to top plate, toenail	8d at 16" cc
13. Top plates, laps at intersections, face nail	3-16d
14. Continuous header, two pieces	16d at 16" cc along each edge
15. Ceiling joists to plate, toenail	3-8d
16. Continuous header to stud, toenail	4-8d
17. Ceiling joists, laps over partitions, face nail	3-16d
18. Ceiling joists to parallel rafters, face nail	3-16d
19. Rafter to plate, toenail	3-16d
20. 1" x 6" sheathing to each bearing, face nail	2-8d
21. 1" x 8" sheathing to each bearing, face nail	3-8d
22. Wider than 1" x 8" sheathing to each bearing, face nail	3-8d
23. Built-up corner studs	16d at 32" cc at top and bottom and staggered
24. Built-up girder and beams	2-20d at ends and at each splice

Concrete Expansion Anchor Notes

- Use Hilti Kwik Bolt TZ Expansion Anchors as manufactured by Hilti, Inc., Tulsa, Oklahoma, ICC Report No. ESR-1917 with renewal date May 2017.
- Installation of anchors shall be in accordance with the manufacturer's recommendations, ICC report and these notes.
- Special inspection is required for all anchors.
- When installing anchors in existing concrete do not cut or damage existing reinforcing bars.
- Not used.

- The testing of the anchors shall be done by the testing laboratory and a report of the results shall be submitted to DSA and Architect/Structural Engineer. Testing shall occur 24 hrs. minimum after the installation of the anchors.

- Testing frequency for anchors shall be in accordance with 2016 California Building Code Section 1910A.5.3. A brief description is provided here for reference.

Structural applications:
Sill track bolting – 10% of anchors shall be tested.
All other – 100% of anchors shall be tested.

Nonstructural applications:
Equipment anchorage – 50% or alternating bolts in a group shall be tested.

- For anchor diameter, embedment depth, edge distance & spacing requirements, and test loads see table below:

NORMAL WEIGHT CONCRETE ANCHORS				
f'c = 3000psi				
Carbon Steel Anchors ICC Report NO. ESR-1917				
Anchor Diameter	Embed (u.n.o.)	Min. Edge Distance	Min. Spacing	Install./Test Torque (ft.-lbs)
3/8"	2"	2 1/2"	2 1/2"	25
1/2"	3 1/4"	2 3/8"	2 3/8"	40
5/8"	4"	3 1/4"	3"	60
3/4"	4 3/4"	4 1/8"	4"	110

Design Criteria

- Code: 2016 California Building Code
- Wind Design Load:

Simplified Procedure
Surface Roughness 'C'
Exposure 'C'

Risk Category III

Basic Wind Speed, $V_{wb} = 115 \text{ mph}$, $V_{ws} = 89$

Topographic Factor, $K_t = 1.0$

Gust Factor, $G = 0.85$

External Pressure Coefficient, $C_{pe} = 1.26$

Internal Pressure Coefficient, $C_{pi} = 0.18$

Velocity Pressure, $q_s = 27.7 \text{ psf}$

Components & cladding design wind pressure, $p_s = 39.8 \text{ psf}$

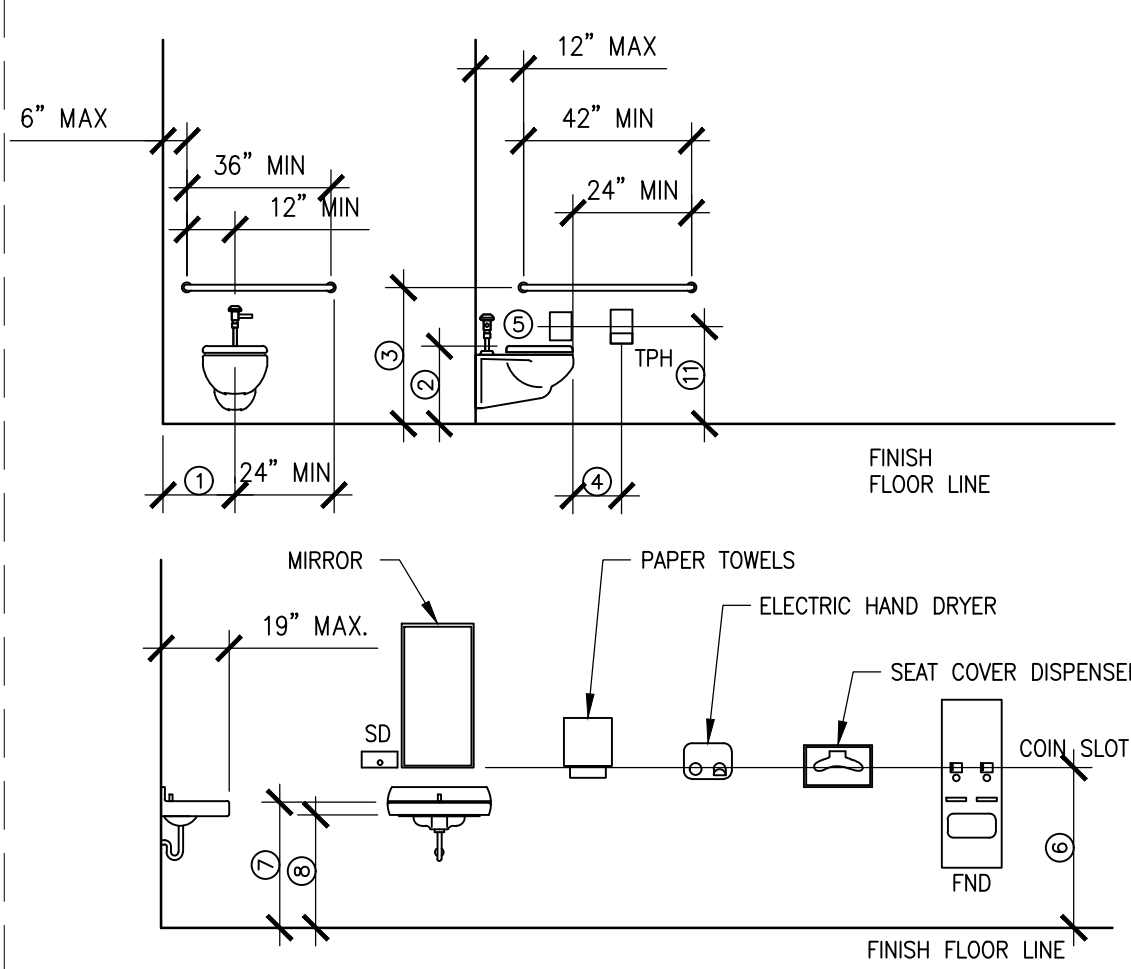
Abbreviations

addl.....Additional	lt. wt.....Light weight
alt.....Alternate	LL.....Live Load
AI.....American Institute of Steel Construction	LH.....Long leg horizontal
APA.....American Plywood Association	LLV.....Long leg vertical
ASTM.....American Society for Testing and Materials	LVL.....Laminated veneer lumber
AWS.....American Welding Society	mfr.....Manufacturer
AB.....Anchor bolt	max.....Maximum
arch.....Architect/Architectural	mech.....Mechanical
bm.....Beam	M.....Malleable iron
brg.....Bearing	min.....Minimum
bln.....Between	misc.....Miscellaneous
nts.....Not to scale	mtl.....Metal
b.s.....Both sides	(n).....New
bol.....Bottom	oc.....On center
cc.....Center to center	OWJ.....Open web joist
CL.....Center line	opng.....Opening
clr.....Clear	opp.....Opposite
col.....Column	o.h.....Opposite Hand
CP.....Complete Penetration	PP.....Partial penetration
concr.....Concrete	pc.....piece
cmu.....Concrete masonry unit	?.....Plate
conn.....Connection	pcf.....Pounds per cubic foot
CJ.....Construction Joint	psf.....Pounds per square foot
cont.....Continuous	psi.....Pounds per square inch
csk.....Countersink	PAF.....Powder actuated fasteners
CU.....Control Joint	p.t.....Pressure treated
D-C Weld.....Demand Critical Weld	r. rad.....Radius
DL.....Dead Load	ROWD.....Redwood
det.....Detail	rein.....Reinforcing
diag.....Diagonal	reqd.....Required
dia.....Diameter	rf.....Roof
do.....Ditto	r.o.....Rough opening
DF.....Douglas Fir	sched.....Schedule
dm.....Double	s.o.d.....See architectural drawings
dwn.....Down	s.m.d.....See mechanical drawings
dwg.....Drawings	s.t.s.....Self tapping screw
ea.....Each	shg.....Sheathing
e.f.....Each Face	sht.....Sheet
embed.....Embedment	SFRS.....Seismic Force Resisting Sys
e.n.....Edge Nailing	sm.....Sheet metal screw
e.w.....Each Way	sim.....Similar
elev.....Elevation	s.o.g.....Slab on grade
eq.....Equal	slagg.....Slagged
equip.....Equipment	sld.....Standard
(e).....Existing	stl.....Steel
exp.....Expansion Joint	stfr.....Stiffener
FC.....Face of concrete	struct.....Structural
FB.....Face of block	symm.....Symmetrical
FS.....Face of Stud	tn.....Toe nail
fin.....Finish	t&b.....Top & bottom
F.F.....Finish Floor	t.o.c.....Top of concrete
flr.....Floor	t.o.f.....Top of framing
fig.....Footing	t.o.p.....Top of plate
fg.....Fogging	t.o.s.....Top of Steel
TS.....Tube Steel	t.o.w.....Top of Wall
typ.....Typical	t&g.....Tongue & Groove
un.o.....Unless noted otherwise	typ.....Typical
vert.....Vertical	u.n.o.....Unless noted otherwise
gauge.....Gauge	vert.....Vertical
glb.....Glued-laminated beam	v.i.f.....Verify in field
hgr.....Hanger	w/.....With
hdr.....Header	w/in.....Within
ht.....Height	w/o.....Without
HSS.....Hollow Steel Section	w.p.....Work point
hk.....Hook	w.h.s.....Welded headed studs
horiz.....Horizontal	WWF.....Welded wire fabric
int.....Interior	WCLIB.....West Coast Lumber Inspection Bureau
inv.....Inverted	
joist.....Joist	

12

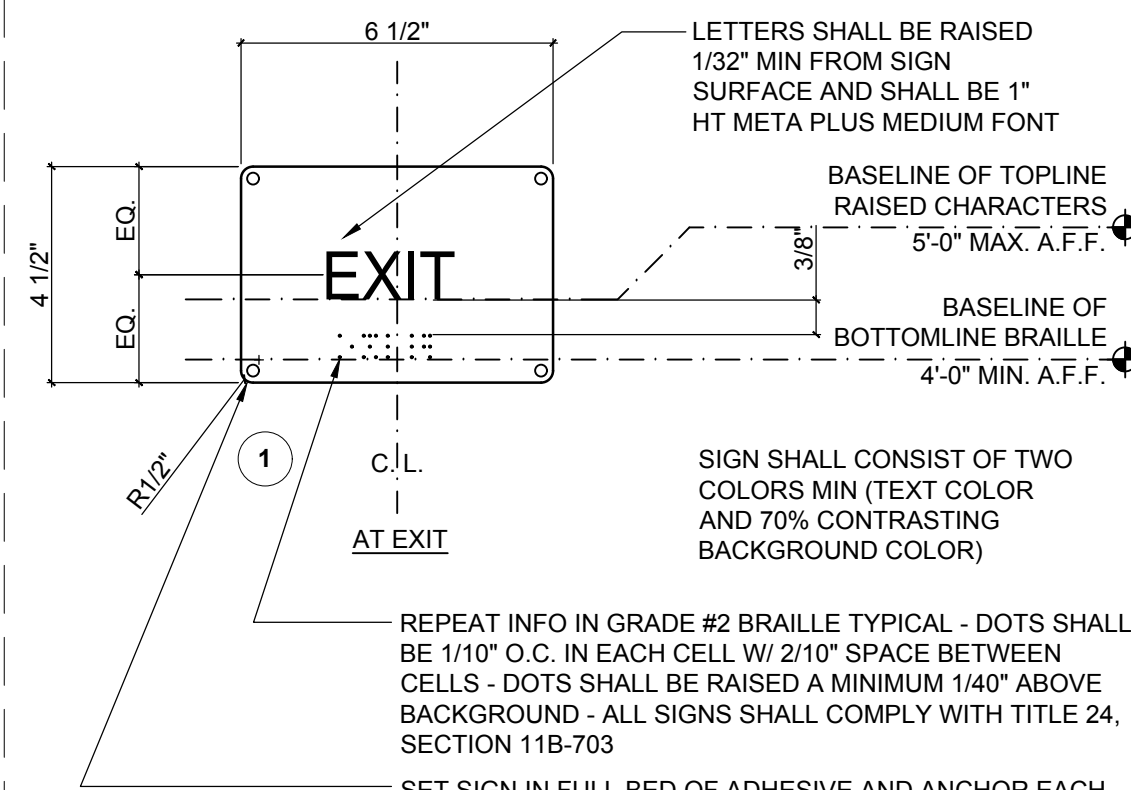
(E) RESTROOM ACCESSORIES

1/4" = 1'-0"



ACCESSIBLE TOILET FIXTURE AND ACCESSORY		
AGE GROUP: A = ADULT DIMENSIONS (AGE 12 AND OVER)		
	DIMENSIONS	A (INCHES)
①	TOILET CENTERING FROM WALL	17-18
②	TOILET SEAT HEIGHT TO TOP OF SEAT	17-19
③	GRAB BAR HEIGHT (SIDE)	33-36 TO TOP OF BAR
④	TOILET PAPER IN FRONT OF TOILET	7-9
⑤	NAPKIN DISPOSAL	19 MIN. TO OPENING
⑥	DISPENSER OR MIRROR HEIGHT *	40
⑦	LAVATORY/SINK TOP HEIGHT	34
⑧	LAVATORY/SINK KNEE CLEARANCE	27 MIN.
⑨	URINAL LIP HEIGHT	17 MAX.
⑩	NOT USED	
⑪	TOILET PAPER HEIGHT	19 MIN. TO OUTLET

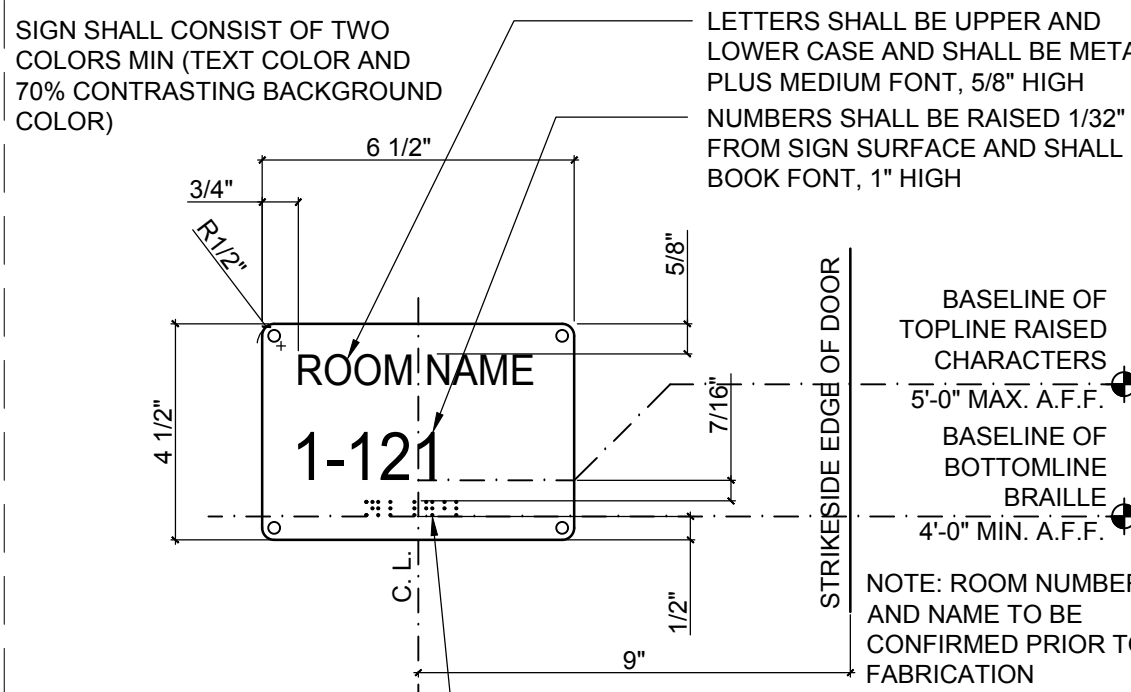
* MIRROR TO BE 35" MAX. A.F.F., WHERE NOT MOUNTED ABOVE A LAVATORY OR COUNTER.



11

ACCESSIBLE EXIT SIGN

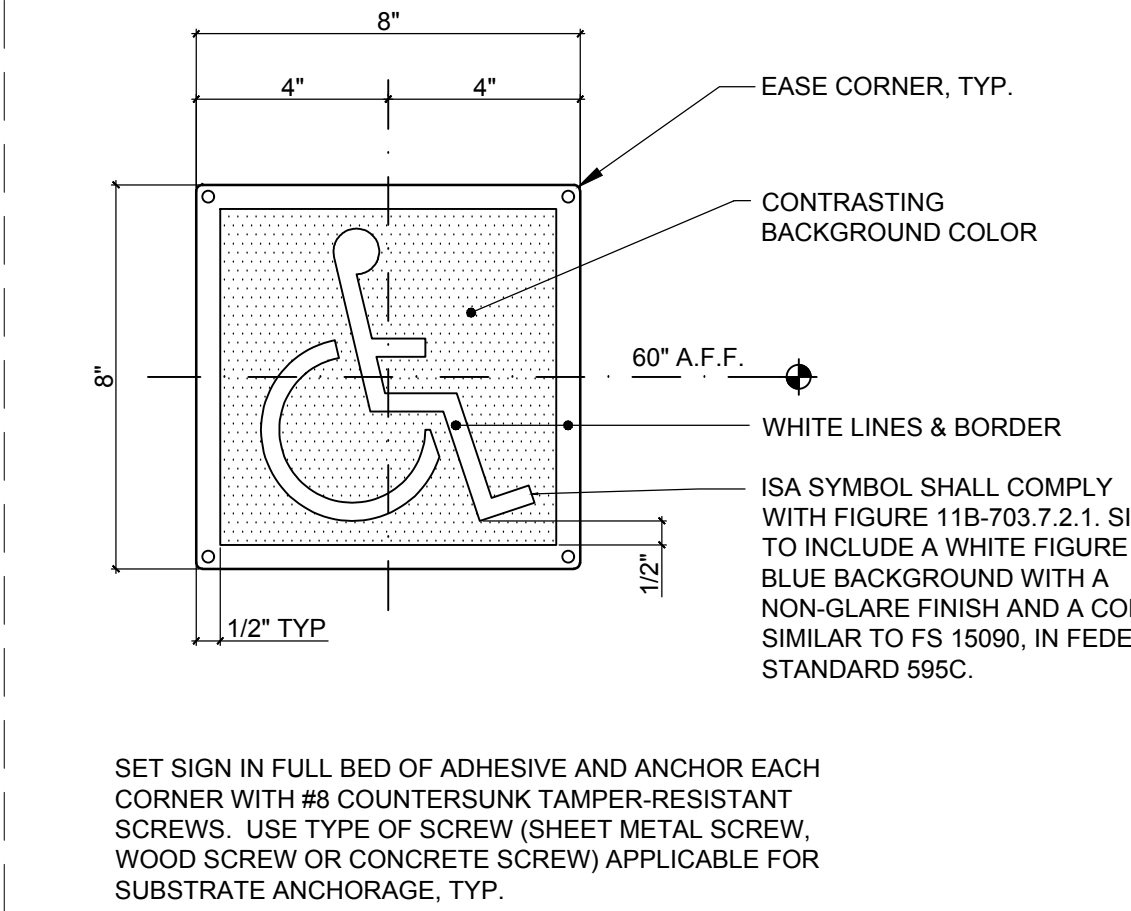
3" = 1'-0"



10

DETAIL

3" = 1'-0"



9

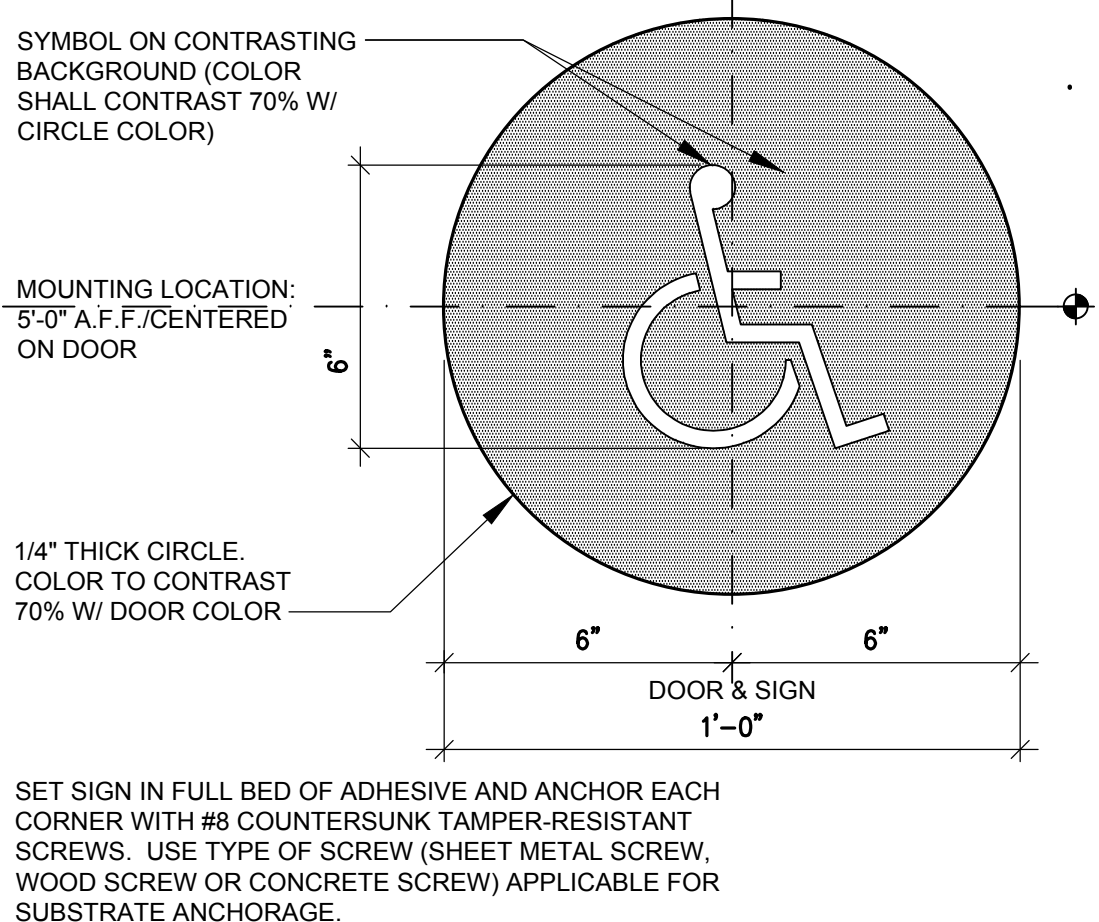
ACCESSIBLE ENTRANCE SIGN

3" = 1'-0"

7

(E) ACCESSIBLE WOMEN RR DOOR SIGN

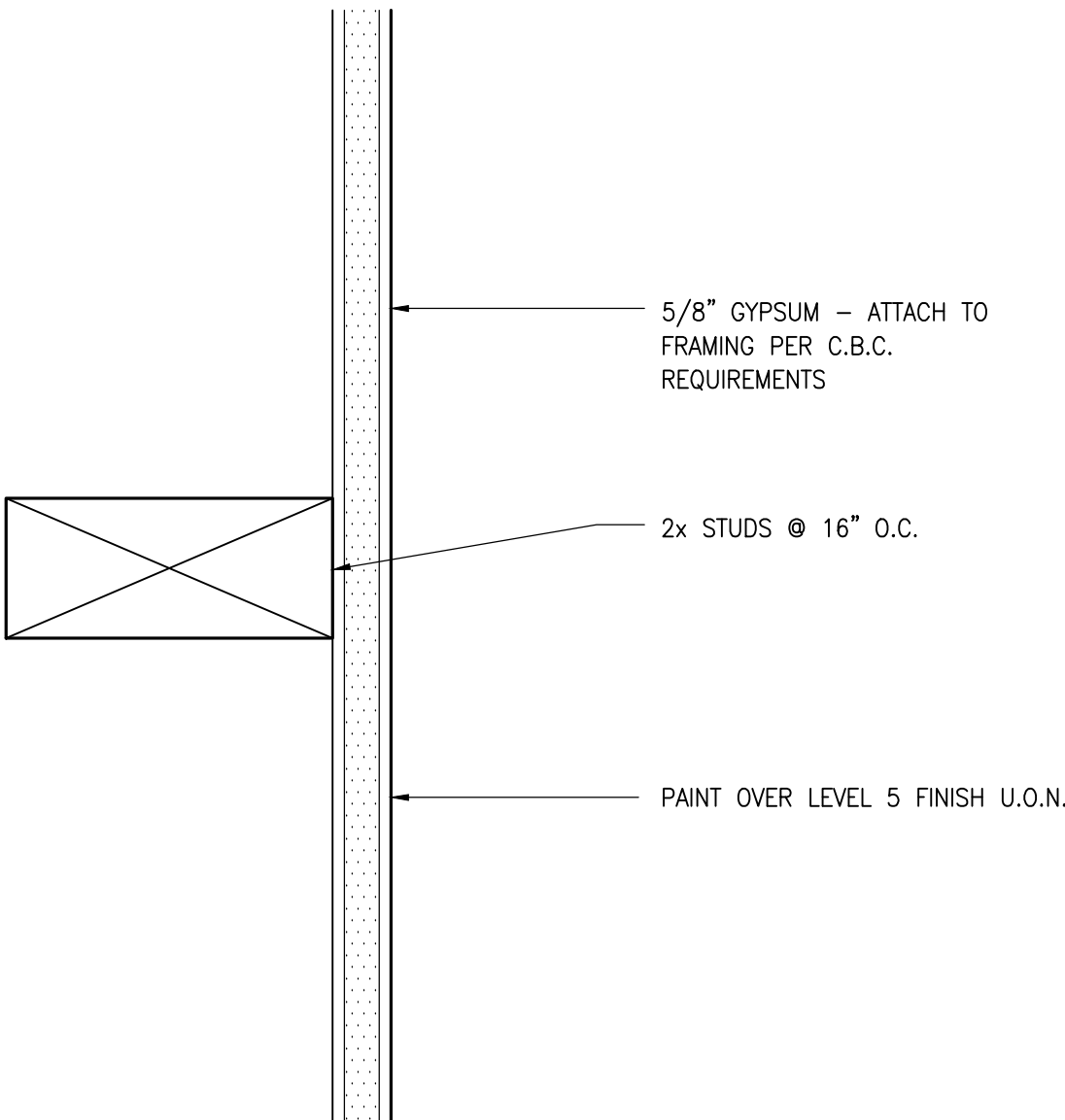
3" = 1'-0"



3

GYP. BOARD FINISH

6" = 1'-0"



A

CARPET/RESILIENT SHEET FLOORING

B

CONCRETE/RESILIENT SHEET FLOORING

C

EPOXY/RESILIENT SHEET FLOORING

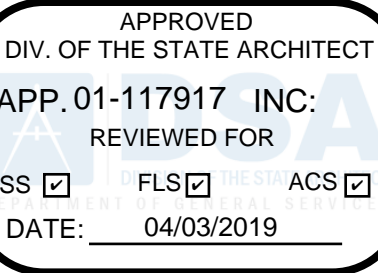
D

RESILIENT SHEET FLOORING & CARPET JOINER

13

STRUCTURAL NOTES

3" = 1'-0"



Encinal E.S. Administration Building Modernization

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date	Issued For
10/23/2018	DSA PRELIM. SUBMITTAL
01/11/2019	DSA SUBMITTAL
04/02/2019	DSA BACKCHECK

HED

417 Montgomery Street
Suite 400
San Francisco, CA
94104 USA

(415) 981-2345

WWW.HED.DESIGN

LICENSED ARCHITECT

Michael J. Myers

STATE OF CALIFORNIA

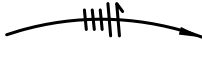
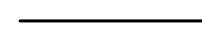
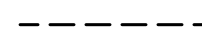

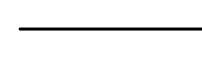




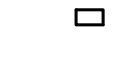
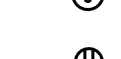



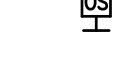
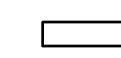
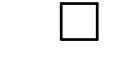
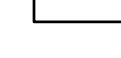

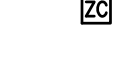



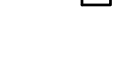




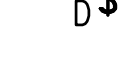

43892

2018-03800-000

FINISH DETAILS, SIGNAGE & STRUCTURAL NOTES

A-581

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XREFS: 2018-03800-000 BAKSHEET BORDER.dwg

GENERAL NOTES	GENERAL NOTES (CONTINUATION)	LEGEND	DRAWING INDEX																																																																																																								
<div>1. THE COMPLETE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE CALIFORNIA ELECTRICAL CODE, SPECIFICATIONS AND STANDARD, THE LATEST RULES AND REGULATIONS OF THE SAFETY ORDERS ISSUED BY THE DIVISION OF INDUSTRIAL SAFETY, THE NATIONAL BOARD OF FIRE UNDERWRITERS AND ALL APPLICABLE STATE AND LOCAL CODES ISSUED BY AUTHORITIES HAVING JURISDICTION.</div> <div>2. PRIOR TO SUBMITTING PROPOSAL, BIDDER SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS. VISIT CONSTRUCTION SITE AND ATTEND THE PRE-BID MEETING TO BE FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH WILL IN ANYWAY AFFECT THE WORK UNDER THIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.</div> <div>3. THIS CONTRACTOR SHALL INCLUDE ALL CONTINGENCIES WHICH MAY ARISE AND WHICH MAY BE REQUIRED BY ALTERATION AND DEMOLITION WORK. THIS IS TO INCLUDE ALL REMOVAL, RELOCATION AND REWORKING OF ELECTRICAL OUTLETS, CONDUITS, WIRING AND ITEMS FOR ELECTRICAL EQUIPMENT REQUIRED AND ANY NECESSARY SPLICING OR EXTENSION OF EXISTING CONDUIT AND WIRING SYSTEMS. THE ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND DETERMINE EXTENT OF THE WORK.</div> <div>4. FIELD VERIFY TO CONFIRM ALL FIRE RESISTIVE CEILINGS AND WALLS. PROVIDE FIRE STOP SEALS PER UNIFORM BUILDING CODE FOR CONDUIT PENETRATION THROUGH FIRE RESISTIVE FLOORS, WALLS AND CEILINGS.</div> <div>5. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES AND BEAR THEIR LABEL.</div> <div>6. CONDUIT ROUTING SHOWN IS ESSENTIALLY DIAGRAMMATIC. CONTRACTOR SHALL LAYOUT RUNS TO SUIT FIELD CONDITIONS AND THE COORDINATION REQUIREMENTS OF OTHER TRADES. ALL EXPOSED CONDUIT, BOXES, FITTINGS, SUPPORT, ETC. SHALL BE PAINTED TO MATCH ADJACENT SURFACES.</div> <div>7. THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL AND OTHER DRAWINGS RELATED TO THIS PROJECT FOR ADDITIONAL WORK TO BE PROVIDED.</div> <div>8. THE OWNER RETAINS FIRST SALVAGE RIGHTS TO ALL EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE OWNER FOR DISPOSITION OF THE EXISTING EQUIPMENT TO BE REMOVED BY HIM. THE CONTRACTOR SHALL INCLUDE IN HIS BID PROPOSAL ALL COSTS RELATED TO THE DISPOSAL OF EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT.</div> <div>9. ANY POWER SHUTDOWN SHALL BE COORDINATED WITH SCHOOL DISTRICT CONSTRUCTION COORDINATOR. A SHUTDOWN SCHEDULE SHALL BE PRESENTED TO SCHOOL DISTRICT FOR APPROVAL TWO WEEKS PRIOR TO COMMENCEMENT OF WORK. SHUTDOWN SHALL BE PERFORMED IN OVERTIME HOURS IF SO DIRECTED BY SCHOOL DISTRICT.</div> <div>10. ALL FEEDER AND BRANCH CIRCUIT CONDUITS SHALL BE INSTALLED CONCEALED IN FINISHED AREA, UNLESS OTHERWISE NOTED. CUT AND PATCH (C) WALL OR CEILING AS REQUIRED. SURFACE TYPE RACEWAY MAY BE PROVIDE IN LIEU OF CONCEALED CONDUITS. SEE NOTES 34, 35 AND 36 FOR REQUIREMENTS.</div> <div>11. ALL PENETRATIONS THROUGH FIRE RESISTIVE WALLS SHALL BE TOTALLY SEALED TO PREVENT THE SPREAD OF SMOKE, FIRE, TOXIC GASES, AND WATER THROUGH THE PENETRATION BEFORE, DURING AND AFTER A FIRE CONDITION. THE FIRE RATING OF THE SEALED PENETRATION SHALL BE AT LEAST THAT OF THE WALL INTO WHICH IT IS INSTALLED. THE SEAL SHALL PERMIT THE VIBRATION, EXPANSION AND/OR CONTRACTION OF THE CONDUIT PASSING THROUGH THE PENETRATION WITHOUT THE SEAL CRACKING OR CRUMBLING.</div> <div>12. PROVIDE FLEXIBLE CONDUIT AT BUILDING SEISMIC JOINTS.</div> <div>13. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUCTORS SHALL BE 12 AWG THWN STRANDED COPPER ONLY.</div> <div>14. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUIT SHALL BE 3/4".</div> <div>15. GREEN INSULATED GROUND CONDUCTORS SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUIT WIRING.</div> <div>16. PROVIDE LABELS ON ALL EQUIPMENT AND DEVICES. LABELS SHALL BE SELF-ADHESIVE PHENOLIC TYPE AND WHITE LETTER ON BLACK BACKGROUND, PROVIDE BRADY OR DYMO TYPE LABELS (CIRCUIT IDENTIFICATION) FOR ALL SWITCHES AND RECEPTACLES.</div> <div>17. THE CONTRACTOR SHALL PROVIDE TYPEWRITTEN DIRECTORIES FOR ALL ELECTRICAL PANELS INVOLVED IN THIS PROJECT. THE PANEL DIRECTORIES SHALL REFLECT THE AS-BUILT CIRCUITS. ONE COPY OF THE SCHEDULE SHALL BE TAPED TO THE INSIDE OF THE PANEL DOOR, AND ONE COPY SHALL BE SUBMITTED TO THE ENGINEER AS AN "AS-BUILT" DRAWING.</div> <div>18. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION PER CBC REQUIREMENTS.</div> <div>19. THE CONTRACTOR SHALL EMPLOY QUALIFIED AND EXPERIENCED WORKMEN FOR THIS WORK. ALL RESTORATION WORK SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT AND/OR OWNER AND IOR.</div> <div>20. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING PAINTING AND/OR OTHER REPAIRS DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THIS SPECIFICATION. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED. THIS SHALL INCLUDE ALL WALLS, CEILINGS, ROOFS, PAVEMENT, PLANTERS, ETC.</div> <div>21. WHERE CONDUIT IS ROUTED ON ROOF STRUCTURES, PROVIDE SUPPORT AT 10'-0" O.C. MAXIMUM.</div> <div>22. ALL EXPOSED CONDUIT BELOW 7'-0" SHALL BE RSC AND ALL EXPOSED HARDWARE SHALL BE "HOT DIPPED" GALVANIZED. ALL INTERIOR CONDUITS MAY BE EMT, UNLESS OTHERWISE NOTED.</div> <div>23. WHERE SURFACE WIRING IS CALLED FOR IN A FINISHED AREA, SURFACE TYPE RACEWAY SYSTEM SHALL BE INSTALLED COMPLETE WITH ALL PROPER FITTINGS, ADAPTERS, OUTLETS, DEVICES COVERS, END CAPS, ETC. AS MANUFACTURED BY PANDUIT OR AN APPROVED EQUAL AND SHALL BE PAINTED TO MATCH COLOR OF ADJACENT WALL OR CEILING. ALL EXPOSED CONDUITS, BOXES AND CABINETS SHALL ALSO BE PAINTED TO MATCH COLOR OF ADJACENT WALL OR CEILING.</div>	<div>24. SURFACE TYPE RACEWAY SYSTEM SHALL BE INSTALLED PARALLEL TO, OR AT RIGHT ANGLES TO BUILDING LINES AND ROUTE AROUND SURFACE MOUNTED ITEMS, SUCH AS TACK BOARDS, ETC.</div> <div>25. ALL WIRES SHALL BE IN CONDUIT U.O.N.</div> <div>26. GENERALLY, HORIZONTAL RUNS SHALL BE INSTALLED ON THE CORNER BELOW CEILING LINE AS APPROVED BY THE ENGINEER.</div> <div>27. ALL UNDERGROUND CONDUIT SHALL HAVE #12 TRACER WIRE WITH THWN INSULATION UNDER EACH RUN OF THE UNDERGROUND CONDUIT DUCTBANK AND 6" FOIL MARKER IN TRENCH. TRACE WIRE SHALL EXTEND AT TERMINATION POINTS A MIN. OF 3 FT FROM SUCH SURFACE AND SHALL BE TRAPPED SECURED TO CONDUIT OR ACCEPTABLE EQUIVALENT.</div> <div>28. UPON COMPLETION OF CONSTRUCTION, PAINT ALL EXPOSED ELECTRICAL CONDUITS, DEVICES AND BOXES (UNLESS DEVICES OR BOXES ARE ALREADY PRE-FINISHED) PER SPECIFICATION SECTION 09900, PARAGRAPH 2.3 PAINTING SCHEDULE. PAINT COLOR SHALL MATCH THE EXISTING SURFACES.</div> <div>29. THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, AN UP TO DATE "AS BUILT" DRAWING SET. THE "AS BUILT" DRAWING SET SHALL REFLECT ALL APPROVED CHANGES TO THE DESIGN DRAWINGS. THE "AS BUILT" DRAWING SET SHALL BE KEPT CLEAN AND IN GOOD CONDITION AND SHALL BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL BE UPDATED DAILY AND BE CHECKED WEEKLY BY IOR. THE PROGRESS PAYMENT IS TIED TO THEIR COMPLETION.</div> <div>30. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SCHEDULE AND PERFORM A COMPLETE FUNCTIONAL TEST IN THE PRESENCE OF DSA IOR TO DEMONSTRATE TO THE OWNER THAT THE NEW INSTALLATION IS OPERATING AS INTENDED TEST RESULTS SHALL BE SENT TO DISTRICT FOR IOR AND AOR. ANY DEFECTS OR DEFICIENCIES IN THE MATERIALS OR WORK SHALL BE CORRECTED IMMEDIATELY BY AND AT THE CONTRACTOR'S EXPENSE.</div>	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> <div><div>ABBREVIATIONS</div><table><tr><td>A AMP</td><td>AMPERE</td><td>O.C.</td><td>ON CENTER</td></tr><tr><td>AFF</td><td>ABOVE FINISHED FLOOR</td><td>PA</td><td>PUBLIC ADDRESS</td></tr><tr><td>AP</td><td>ACCESS POINT</td><td>PH, Ø</td><td>PHASE</td></tr><tr><td>BRKR</td><td>BREAKER</td><td>PNL</td><td>PANEL</td></tr><tr><td>C</td><td>CONDUIT, CLOCK</td><td>(R)</td><td>RELOCATED</td></tr><tr><td>CATV</td><td>CABLE TELEVISION</td><td>RECEPT.</td><td>RECEPTACLE</td></tr><tr><td>CBC</td><td>CALIFORNIA BUILDING CODE</td><td></td><td></td></tr><tr><td>CCTV</td><td>CLOSED CIRCUIT TELEVISION</td><td>SAD</td><td>SEE ARCHITECTURAL DRAWINGS</td></tr><tr><td>CEC</td><td>CALIFORNIA ELECTRIC CODE</td><td></td><td></td></tr><tr><td>CKT</td><td>CIRCUIT</td><td>STC</td><td>SATELLITE TERMINAL CABINET</td></tr><tr><td>CO</td><td>CONDUIT ONLY WITH PULL ROPE</td><td></td><td></td></tr><tr><td>CPS</td><td>CURRICULUM AND PRESENTATION SYSTEM</td><td>STC</td><td>SATELLITE TERMINAL CABINET</td></tr><tr><td>CSC</td><td>CLOCK/SPEAKER CABINET</td><td>TRANSF.</td><td>TRANSFORMER</td></tr><tr><td>(E)</td><td>EXISTING</td><td>TB</td><td>TELEPHONE BOARD</td></tr><tr><td>FU</td><td>FUSE</td><td>TC</td><td>TERMINAL CAN</td></tr><tr><td>G</td><td>GROUND, GUARD</td><td>TYP</td><td>TYPICAL</td></tr><tr><td>IDF</td><td>INTERMEDIATE DISTRIBUTION FRAME</td><td>UON</td><td>UNLESS OTHERWISE NOTED</td></tr><tr><td>MAX</td><td>MAXIMUM</td><td>V</td><td>VOLT</td></tr><tr><td>MDF</td><td>MAIN DISTRIBUTION FRAME</td><td>W</td><td>WATT</td></tr><tr><td>MIN</td><td>MINIMUM</td><td>WG</td><td>WIRE GUARD</td></tr><tr><td>MPOE</td><td>MAIN POINT OF ENTRY</td><td>WP</td><td>WEATHERPROOF</td></tr><tr><td>MSTC</td><td>MAIN SIGNAL TELEPHONE CABINET</td><td></td><td></td></tr><tr><td>MTB</td><td>MAIN TELEPHONE BOARD</td><td>XFMR</td><td>TRANSFORMER</td></tr><tr><td>NEC</td><td>NATIONAL ELECTRICAL CODE</td><td></td><td></td></tr><tr><td>NL</td><td>NIGHT LIGHT</td><td></td><td></td></tr><tr><td>NTS</td><td>NOT TO SCALE</td><td></td><td></td></tr></table></div>	A AMP	AMPERE	O.C.	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LIST OF APPLICABLE CODES			<div>1. 2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)</div> <div>2. 2016 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1 & 2 (PART 2, TITLE 24, CCR)</div> <div>3. 2016 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CCR)</div> <div>4. 2016 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR)</div> <div>5. 2016 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR)</div> <div>6. 2016 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)</div> <div>7. 2013 CALIFORNIA ELEVATOR SAFETY CONSTRUCTION CODE (PART 7, TITLE 24, CCR)</div> <div>8. 2016 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)</div> <div>9. 2016 CALIFORNIA REFERENCE STANDARDS CODE (PART 12, TITLE 24, CCR)</div> <div>10. NFPA 13, 2016 EDITION, THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS, AS AMENDED</div> <div>11. NFPA 14, 2016 EDITION, THE INSTALLATION OF STANDPIPE, PRIVATE HYDRANT AND HOSE SYSTEMS</div> <div>12. NFPA 24, 2016 EDITION, THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES</div> <div>13. NFPA 72, 2016 EDITION, NATIONAL FIRE ALARM CODE, AS AMENDED</div>																																																																																																								

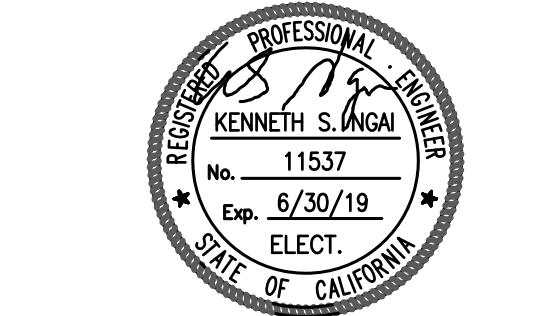


Encinal E.S.
Administration
Building
Modernization

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date	Issued For
10/23/2018	DSA PRELIM. SUBMITTAL
01/11/2019	DSA SUBMITTAL
04/02/2019	DSA BACKCHECK

AE Alliance
Engineering
Consultants, Inc.
4000 Peninsula Blvd., Suite 100
San Jose, CA 95128-1000
PROJECT NO. 101-18-10
Phone (408) 970-0888
Fax (408) 970-0101
www.aec-engineers.com



HED
417 Montgomery Street
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San Francisco, CA
94104 USA
(415) 981-2345
WWW.HED.DESIGN

STATE OF CALIFORNIA
INDOOR LIGHTING
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 1 of 6)

A. General Information
Climate Zone: Conditioned Floor Area: 3,744
Unconditioned Floor Area: 0
Building Type: ☒ Nonresidential ☐ High-Rise Residential ☐ Hotel/Motel
☐ Schools ☐ Restorable Public Schools ☐ Conditioned Spaces ☐ Unconditioned Spaces
Phase of Construction: ☒ New Construction ☐ Addition ☐ Alteration
Method of Compliance: ☒ Complete Building ☐ Area Category ☐ Tailored
Project Address: 2521 GOODWIN AVE

B. Lighting Compliance Documents (Select yes for each document included)
As detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, refer to the Nonresidential Manual published by the California Energy Commission.
YES NO COMPLETION DATE TITLE
☒ ☐ NRCC-LT-01-E Certificate of Compliance. All Pages required on plans for all submittals.
☐ ☐ NRCC-LT-02-E Lighting Controls, Certificate of Compliance, and PAF Calculation. All Pages required on plans for all submittals.
☐ ☐ NRCC-LT-03-E Indoor Lighting Power Allowance
☐ ☐ NRCC-LT-04-E Tailored Method Worksheets
☐ ☐ NRCC-LT-05-E Line Voltage Track Lighting Worksheets
☐ ☐ NRCC-LT-06-E Indoor Lighting Existing Conditions

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 1 of 6)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
1. I certify that the Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: Doan Trang Hoang
Company: Alliance Engineering Consultants, Inc.
Address: 4701 Patrick Henry Drive, BLDG 10
City/State/Zip: Santa Clara, CA 95054
Phone: (408) 970-9888

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 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: KEN NSAI
Company: ALLIANCE ENGINEERING CONSULTANT, INC.
Address: 4701 PATRICK HENRY DRIVE
City/State/Zip: SANTA CLARA, CA 95054
Phone: 408-970-9888

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Certificate of Compliance - Indoor Lighting Power Allowance
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 1 of 4)

A separate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for:
☒ CONDITIONED SPACES ☐ UNCONDITIONED SPACES

A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES
If using Complete Building Method for compliance, use only the total in column (a) as total allowed building watts.
If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored Method for compliance, use only the total in column (b) as the total allowed building watts.
01 Complete Building Method Allowed Watts. Documented in section B of NRCC-LT-01-E (below on this page) 2,995 (a) (b)
02 Area Category Method Allowed Watts. Documented in section C of NRCC-LT-04-E (below on this page)
03 Tailored Method Allowed Watts. Documented in section A of NRCC-LT-04-E
TOTAL ALLOWED BUILDING WATTS. Enter number into correct cell on NRCC-LT-01-E, Page 2, Row 1 2,995
☒ Check here if building contains both conditioned and unconditioned areas.

B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE
01 TYPE OF BUILDING (From §140.6 Table 140.6-B) 02 WATTS PER sq ft 03 COMPLETE BLDG AREA 04 ALLOWED WATTS
Comp Bldg Office 0.80 3,744 2,995
Total Watts: Enter Total Watts into section A, row 1 (Above on this page)

C. 1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES
Total from section C-2
Total from section C-3
Total Watts. Enter Total Watts into section A, row 2 (Above on this page)
For Alterations Only - Reduced lighting power option (Total Allowed Watts x .85). Enter this value into section A, row 2 if using this option.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 2 of 6)

C. Summary of Allowed Lighting Power
Conditioned and Unconditioned Space Lighting must not be combined for compliance.
Indoor Lighting Power for Conditioned Spaces
01 Installed Lighting NRCC-LT-01-E, Table 140.6-B, page 2 2,630
02 Portability Only for Offices NRCC-LT-01-E, Table 140.6-B, page 2
03 Minus Lighting Control Credits NRCC-LT-02-E, page 2 0
04 Adjusted Installed Lighting Power (from 140.6-B row 2, minus row 3) 2,630
Unconditioned Lighting Power NRCC-LT-01-E, page 1 0
05 Alterations with replacement luminaires that have at least 100/45/45 lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LT-05-E, page 2 2,995
Alterations with replacement luminaires that have at least 100/45/45 lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LT-05-E, page 2

Indoor Lighting Power for Unconditioned Spaces
Installed Lighting NRCC-LT-01-E, Table 140.6-B, page 2 0
Minus Lighting Control Credits NRCC-LT-02-E, page 2 0
Adjusted Installed Lighting Power (from 140.6-B row 2, minus row 3) 0
Unconditioned Lighting Power NRCC-LT-01-E, page 1 0

D. Declaration of Required Certificates of Installation
Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)

YES	NO	COMPLETION DATE/TITLE	
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LT-01-E - Must be submitted for all buildings	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LT-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be required for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LT-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection device used to energize only line-voltage track lighting, to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LT-04-E - Must be submitted for two interrelated systems serving as a workstation, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LT-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	<input type="checkbox"/> Field Inspector
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-LT-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	<input type="checkbox"/> Field Inspector

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING - LIGHTING CONTROLS
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting - Lighting Controls
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 1 of 3)

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.)

YES	NO	CONTROL REQUIREMENTS	
<input type="checkbox"/>	<input type="checkbox"/>	Lighting shall be controlled by a manufacturer's lighting control device which is certified to the Energy Commission according to the Title 24 Appliance Efficiency Regulations in accordance with Section 110.9.	
<input type="checkbox"/>	<input type="checkbox"/>	Lighting shall be controlled by a lighting control system or energy management control system in accordance with §110.9. An Installation Certificate shall be submitted in accordance with Section 130.4(b).	
<input type="checkbox"/>	<input type="checkbox"/>	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §130.9 and §130.6. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).	
<input type="checkbox"/>	<input type="checkbox"/>	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 130.4(b). Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).	
<input type="checkbox"/>	<input type="checkbox"/>	All lighting controls and equipment shall comply with the applicable requirements in §130.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.	
<input type="checkbox"/>	<input type="checkbox"/>	All luminaires shall be functionally controlled with manually switched ON and OFF lighting controls in accordance with Section 130.1(a).	
<input type="checkbox"/>	<input type="checkbox"/>	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, or special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display, ornamental, and special effects lighting shall each be separately controlled, in accordance with Section 130.1(b)(4).	
<input type="checkbox"/>	<input type="checkbox"/>	The general lighting of any enclosed area 300 square feet or larger with a connected lighting load that exceeds 0.3 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).	
<input type="checkbox"/>	<input type="checkbox"/>	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).	
<input type="checkbox"/>	<input type="checkbox"/>	Lighting in all Daylight Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylight to test are shown on the plans.	
<input type="checkbox"/>	<input type="checkbox"/>	Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signal in accordance with Section 130.1(d).	
<input type="checkbox"/>	<input type="checkbox"/>	Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with Section 130.4(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-OFF controls, and demand responsive controls.	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Certificate of Compliance - Indoor Lighting Power Allowance
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 4 of 4)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
1. I certify that the Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: Doan Trang Hoang
Company: Alliance Engineering Consultants, Inc.
Address: 4701 Patrick Henry Drive, BLDG 10
City/State/Zip: Santa Clara, CA 95054
Phone: (408) 970-9888

RESPONSIBLE PERSON'S DECLARATION STATEMENT
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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.
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Responsible Designer Name: KEN NSAI
Company: ALLIANCE ENGINEERING CONSULTANT, INC.
Address: 4701 PATRICK HENRY DRIVE
City/State/Zip: SANTA CLARA, CA 95054
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CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 3 of 6)

E. Declaration of Required Certificates of Acceptance
Declare by selecting yes for all of the Certificates that will be submitted. (Retain copies and verify forms are completed and signed.)
YES NO COMPLETION DATE/TITLE
☐ ☐ NRCA-LT02-A - Must be submitted for occupancy sensors and automatic time switch controls. ☐ Field Inspector
☐ ☐ NRCA-LT03-A - Must be submitted for automatic daylight controls. ☐ Field Inspector
☐ ☐ NRCA-LT04-A - Must be submitted for demand responsive lighting controls. ☐ Field Inspector
☐ ☐ NRCA-LT05-A - Must be submitted for institutional tuning power adjustment factor (PAF). ☐ Field Inspector

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☐ CONDITIONED SPACE ☐ UNCONDITIONED SPACE

F. Indoor Lighting Schedule and Field Inspection Energy Checklist
☐ The actual indoor lighting power listed on the next 2 pages includes all installed permanent and planned portable lighting systems.
☐ When Complete Building Method is used for compliance, list each different type of luminaire on separate lines.
☐ When Area Category Method or Tailored Method is used for compliance, list each different type of luminaire by each different function area on separate lines.
☐ Also include track lighting in schedule, and submit the track lighting compliance document (NRCC-LT-05-E) when line-voltage track lighting is installed.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING - LIGHTING CONTROLS
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting - Lighting Controls
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 2 of 3)

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

Lighting Control Schedule		Standards Complying With 1										PAF Credit Calculation 2		Field Inspector		
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	Pass	Fail
Location in Building	Type/Description of Lighting Control (i.e., occupancy sensor, automatic time switch, dimmer, automatic daylight, etc.)	# of Units	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)	§140.1(b)		
	OFF															
OFFICES, STORAGE, TOILETS	Automatic Daylighting	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
OFFICES, STORAGE, TOILETS	Occupancy Sensor	28	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control Credit PAGE TOTAL (Sum of Column 13):															0	
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):															0	
Enter Control Credit total into NRCC-LT-01-E, Page 1.																

1. §140.1(a) = Manual area controls; §140.1(b) = Multi-Level; §140.1(c) = Auto Shut-Off; §140.1(d) = Mandatory Daylight; §140.1(e) = Demand Responsive; §140.1(f) = Additional lighting controls installed to earn a PAF; §140.1(g) = Prescriptive Secondary Switch Daylight Controls.
2. Check table 140.1-A for correct factor. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is also required to be filled out, signed, and submitted.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
REGULATORY TITLE (Prescribed Title)

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 5 of 6)

A. Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:
☐ CONDITIONED SPACE ☐ UNCONDITIONED SPACE

H. Indoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts				Location		Field Inspector 1	
01	02	03	04	05	06	07	08	Pass	Fail
Name or Item Tag	Complete Luminaire Description (i.e., lamp, fluorescent troffer, 1327K, one-dimmable electronic ballast)	Watts per Luminaire	How wattage was determined	Number of luminaires in this area (EIR or EIR-1)	Primary function area in which these luminaires are installed				
A-A1	27.4W LED	27.4	<input type="checkbox"/>	16	274	Comp Bldg Office	<input type="checkbox"/>	<input type="checkbox"/>	
A2-A3	28.5W LED	28.5	<input type="checkbox"/>	41	1,169	Comp Bldg Office	<input type="checkbox"/>	<input type="checkbox"/>	
B	37.4W LED	37.4	<input type="checkbox"/>	6	224	Comp Bldg Office	<input type="checkbox"/>	<input type="checkbox"/>	
C	37.4W LED	37.4	<input type="checkbox"/>	26	972	Comp Bldg Office	<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>	
INSTALLED WATTS PAGE TOTAL: 2,639							Enter sum total of all pages into NRCC-LT-01-E, Page 2		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING - LIGHTING CONTROLS
REGULATORY TITLE (Prescribed Title)

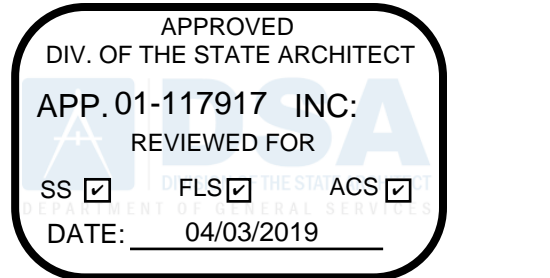
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Indoor Lighting - Lighting Controls
Project Name: ENCINAL ES - ADMIN BLDG MODERNIZATION
Date Prepared: 1/6/2019
(Page 3 of 3)

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
1. I certify that the Certificate of Compliance documentation is accurate and complete.
Documentation Author Name: Doan Trang Hoang
Company: Alliance Engineering Consultants, Inc.
Address: 4701 Patrick Henry Drive, BLDG 10
City/State/Zip: Santa Clara, CA 95054
Phone: (408) 970-9888

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 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: KEN NSAI
Company: ALLIANCE ENGINEERING CONSULTANT, INC.
Address: 4701 PATRICK HENRY DRIVE
City/State/Zip: SANTA CLARA, CA 95054
Phone: 408-970-9888

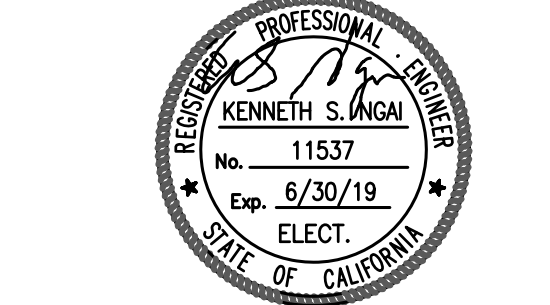
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016



Encinal E.S. Administration Building Modernization

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date Issued For
10/23/2018 DSA PRELIM. SUBMITTAL
01/11/2019 DSA SUBMITTAL
04/02/2019 DSA BACKCHECK



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94104 USA
(415) 981-2345
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2018-03800-000

CERTIFICATE OF COMPLIANCE TITLE 24

EL0.2

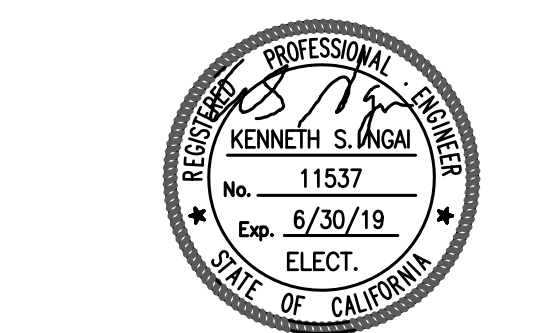


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phone (408) 970-8888
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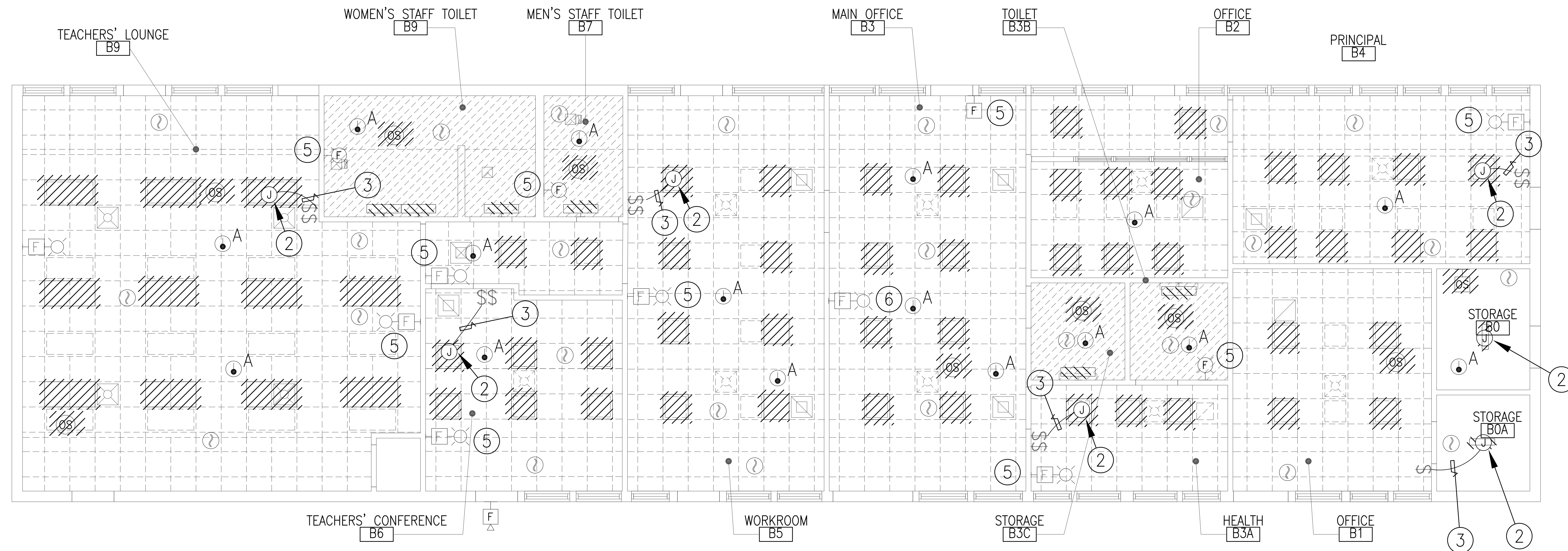
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ELECTRICAL
DEMOLITION PLAN

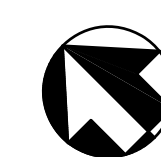
EL1.1

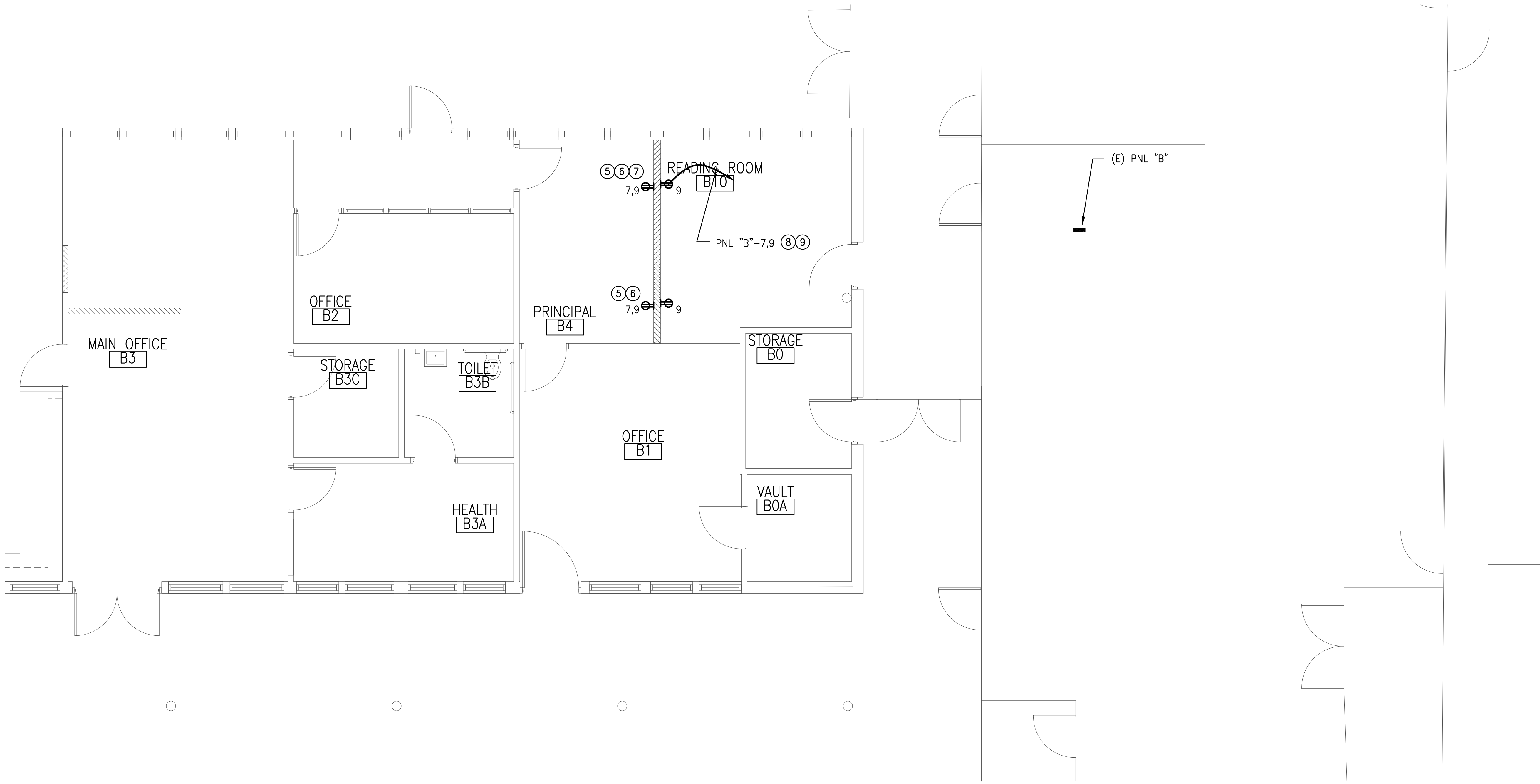
SHEET NOTES:

- ALL (E) LIGHT FIXTURES, POWER PACKS, OCCUPANCY SENSORS AND SWITCHES SHOWN SHALL BE DISCONNECTED AND REMOVED, UON.
- DISCONNECT AND REMOVE (E) LIGHT FIXTURE, COIL UP AND TAPE (E) WIRES IN (E) JUNCTION BOX FOR RECONNECTION IN THE (N) WORK.
- (E) CONDUIT FROM (E) JUNCTION BOX TO (E) SWITCH SHALL REMAIN FOR (N) DIMMER SWITCH TO BE INSTALLED IN THE (N) WORK. REMOVE (E) WIRES.
- ALL (E) SMOKE HEAT DETECTORS, THAT ARE AFFECTED IN THIS MODERNIZATION WORK SHALL BE DISCONNECTED AND REINSTALLED. SEE NEW LOCATIONS IN THE NEW WORK.
- (E) FIRE ALARM DEVICE TO REMAIN. SEE SHEET FA2.1 FOR WORK REQUIRED.
- (E) FIRE ALARM DEVICE TO BE RELOCATED. SEE SHEET FA2.1 FOR NEW LOCATION.

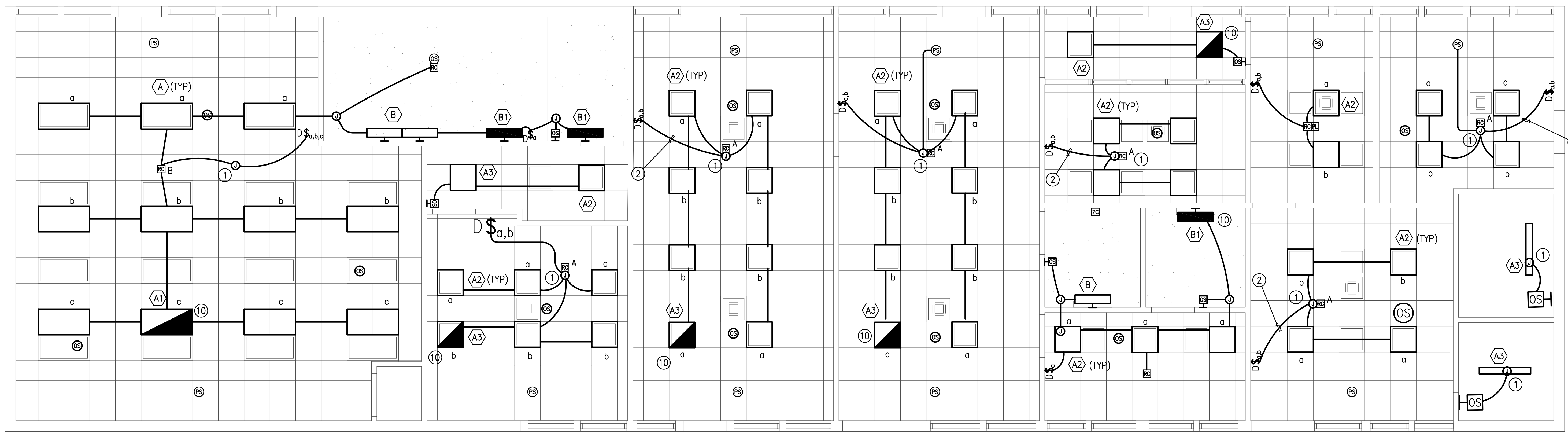


1 DEMOLITION PLAN - ELECTRICAL 14
- SCALE: 1/4"=1'-0"





2 POWER PLAN
SCALE: 1/4"=1'-0"



1 LIGHTING PLAN 34
SCALE: 1/4"=1'-0"

- SHEET NOTES:**
- 1 INTERCEPT (E) HOT WIRES (FIELD VERIFY) AND EXTEND (N) CONDUIT AND WIRES TO (N) LIGHTING FIXTURES AS SHOWN. REFER TO NOTE 2 ON SHEET EL1.1.
 - 2 UTILIZE (E) 3/4" C TO INSTALL (N) CAT6 CABLE FOR DIMMING CONTROL. REFER TO NOTE 3 ON SHEET EL1.1.
 - 3 SEE CONTROL WIRING DIAGRAM ON SHEET EL3.1 FOR ADDITIONAL WORK REQUIRED AND INFORMATION.
 - 4 UTILIZE (E) LIGHTING CIRCUITS. FIELD VERIFY.
 - 5 RECEPTACLE SHALL BE SPLIT WIRED WITH ONE CONTROLLED AND ONE UNCONTROLLED RECEPTACLE. PROVIDE A PERMANENT MARKING TO DIFFERENTIATE CONTROLLED RECEPTACLE FROM UNCONTROLLED RECEPTACLE.
 - 6 CIRCUIT SERVING CONTROLLED RECEPTACLE SHALL BE CONNECTED TO OCCUPANCY SENSOR FOR AUTOMATIC SHUTDOWN.
 - 7 RECEPTACLE CONNECTED TO CIRCUIT #7 SHALL BE MARKED "CONTROLLED RECEPTACLE".
 - 8 HOMERUN 3/4" C, 2 #12 AND 1 #12 (G) TO (E) PANEL "B". UTILIZE (E) SPARE CIRCUIT BREAKERS.
 - 9 RUN CONDUIT ON THE CEILING AND PROVIDE CONDUIT SUPPORT AT 10 FT INTERVAL MAXIMUM.
 - 10 PROVIDE UNSWITCHED HOT WIRE TO EMERGENCY DRIVER.

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117917 INC.
REVIEWED FOR:
SS ☒ FLS ☒ ACS ☒
DATE: 04/03/2019

ENCINAL
MEANS EXCELLENCE

**Encinal E.S.
Administration
Building
Modernization**

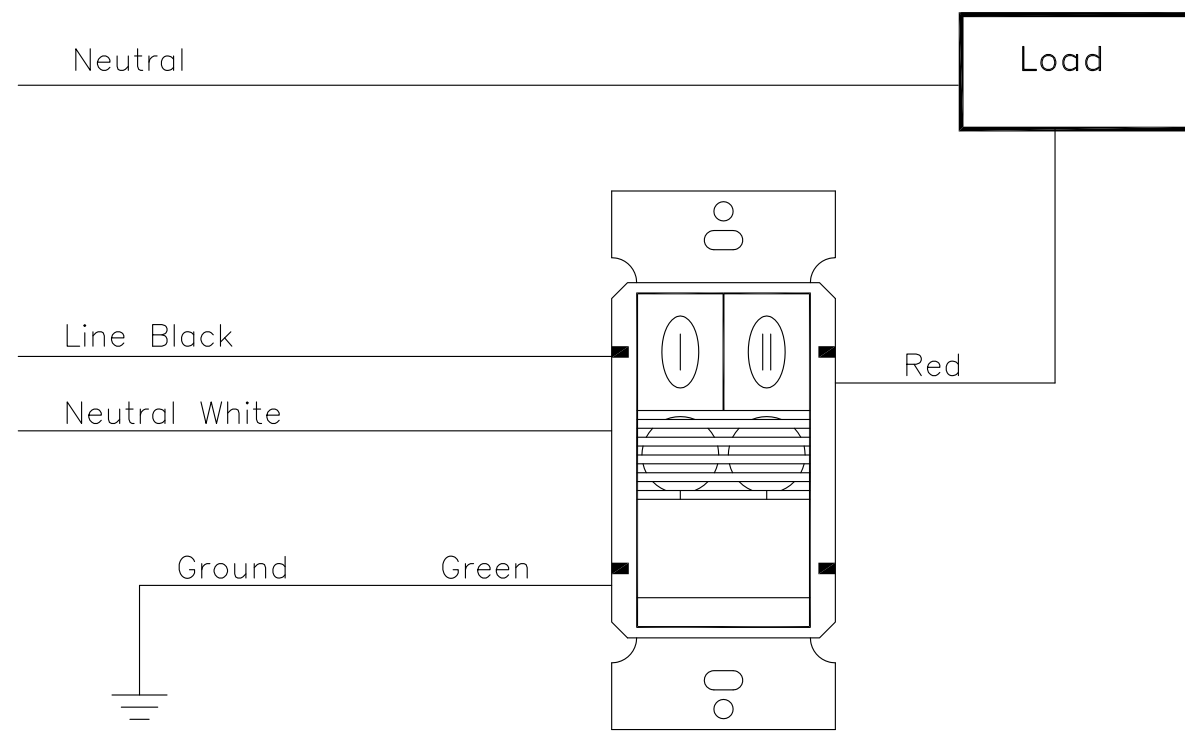
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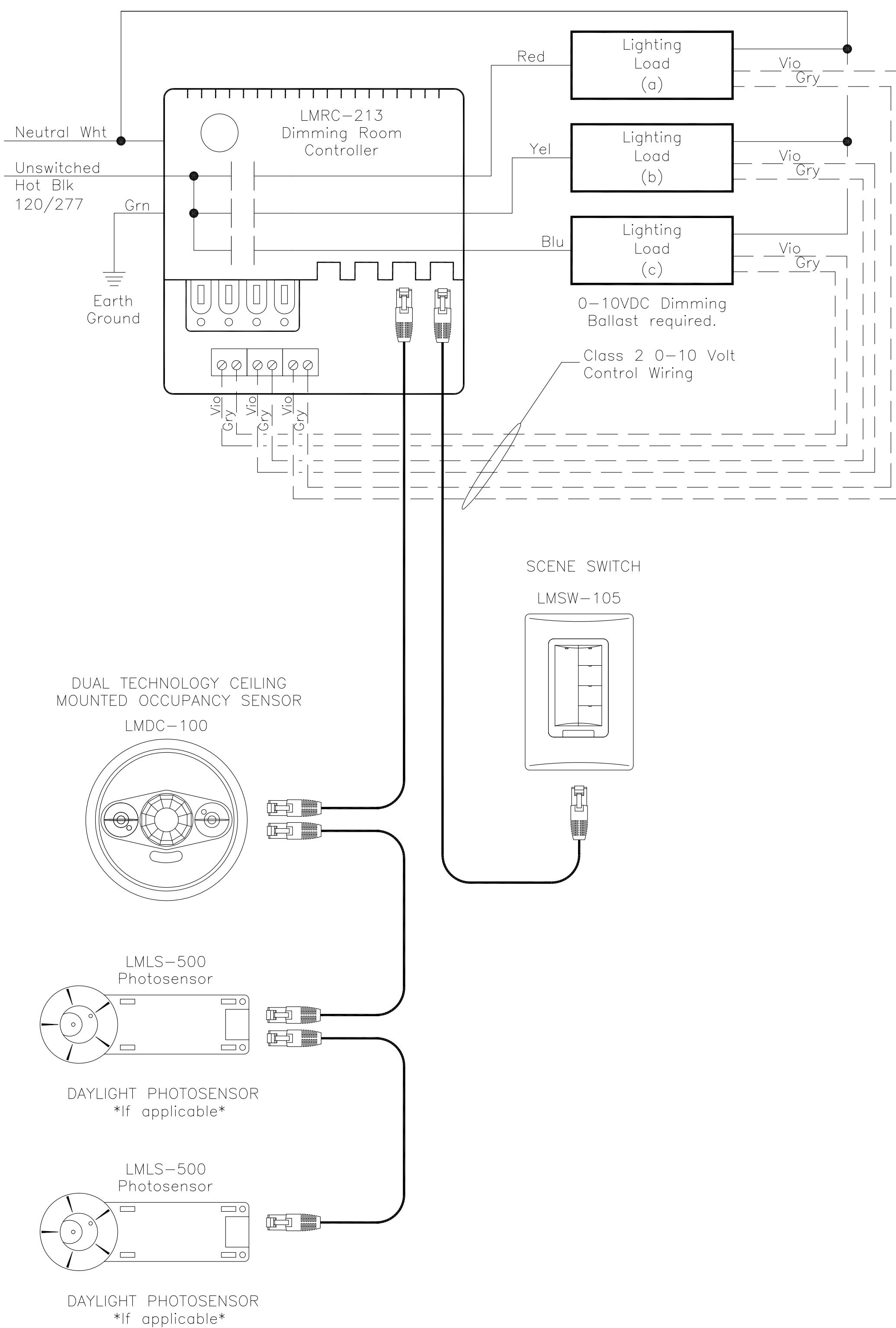
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www.aec-engineers.com

PROFESSIONAL ENGINEER
KENNETH S. ANGM
No. 11537
Exp. 6/30/19
ELECT.
STATE OF CALIFORNIA

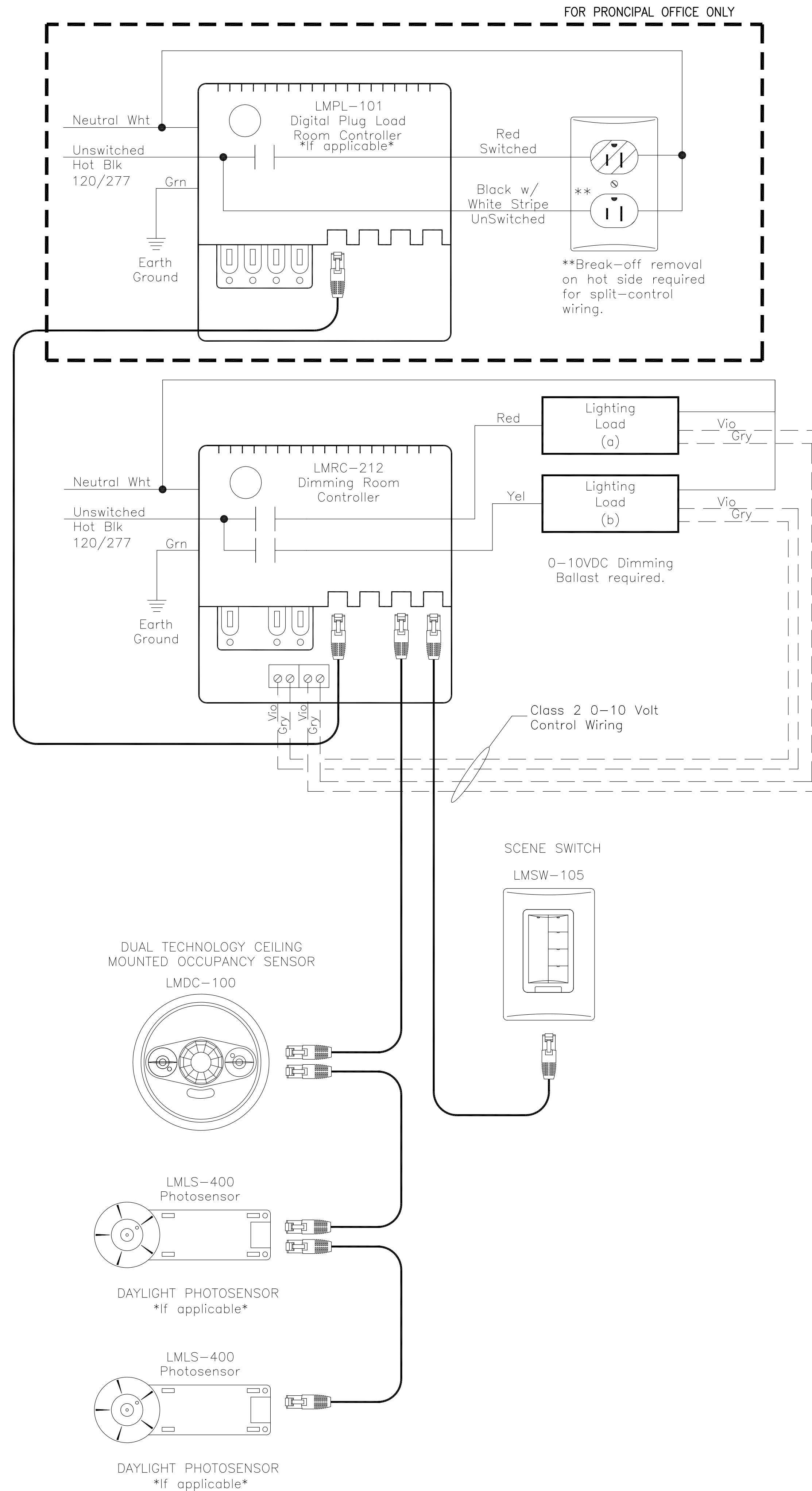
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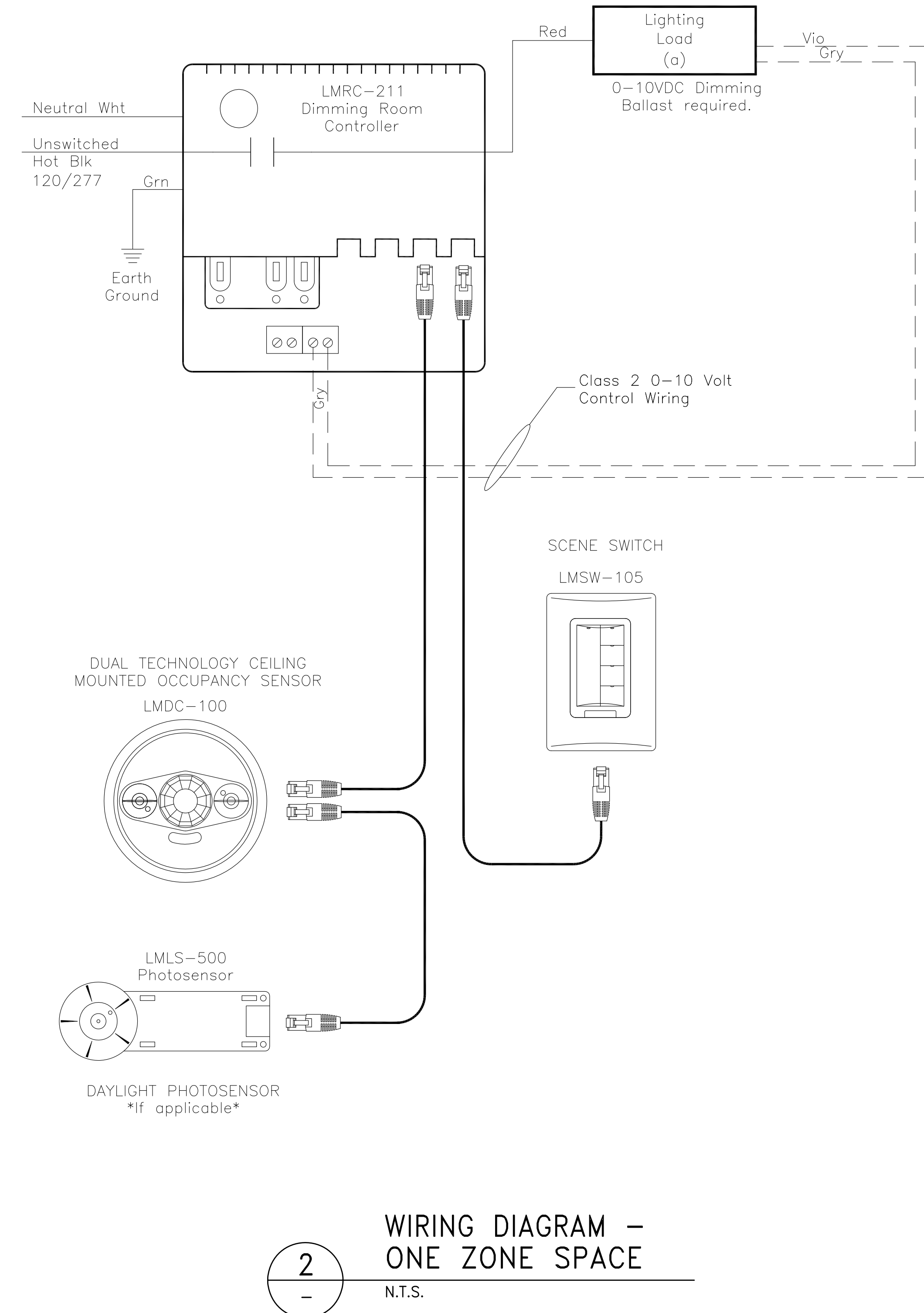
1
-
WIRING DIAGRAM - ONE ZONE SPACE (NO DLM)
N.T.S.



4
-
WIRING DIAGRAM - THREE ZONE SPACE
N.T.S.



3
-
WIRING DIAGRAM - TWO ZONE SPACE
N.T.S.



2
-
WIRING DIAGRAM - ONE ZONE SPACE
N.T.S.

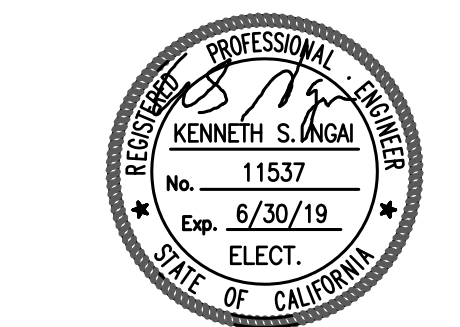


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ELECTRICAL
DETAILS

EL3.1

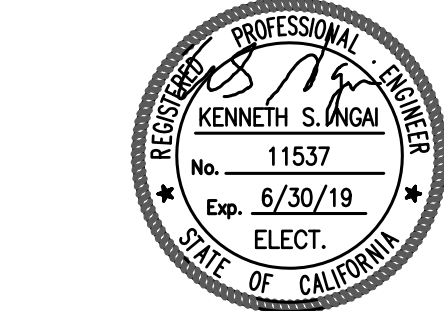


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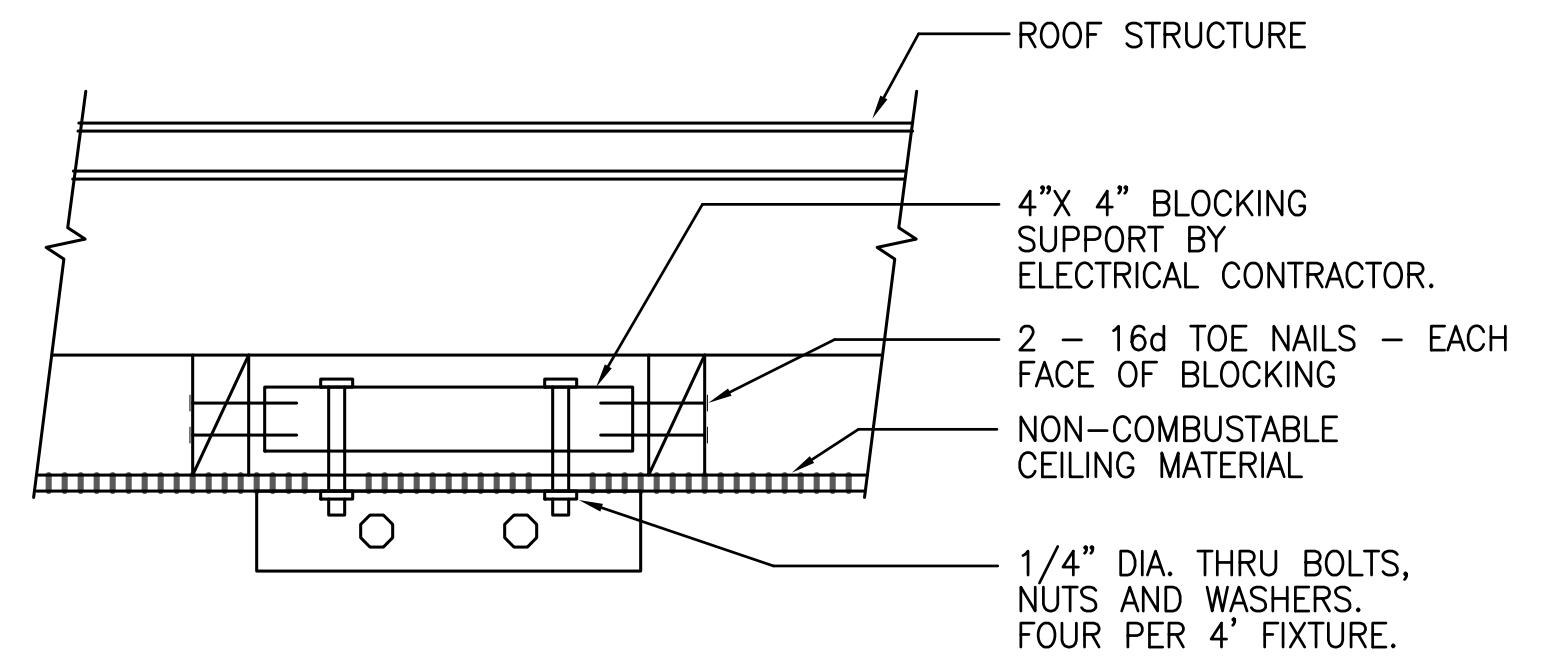
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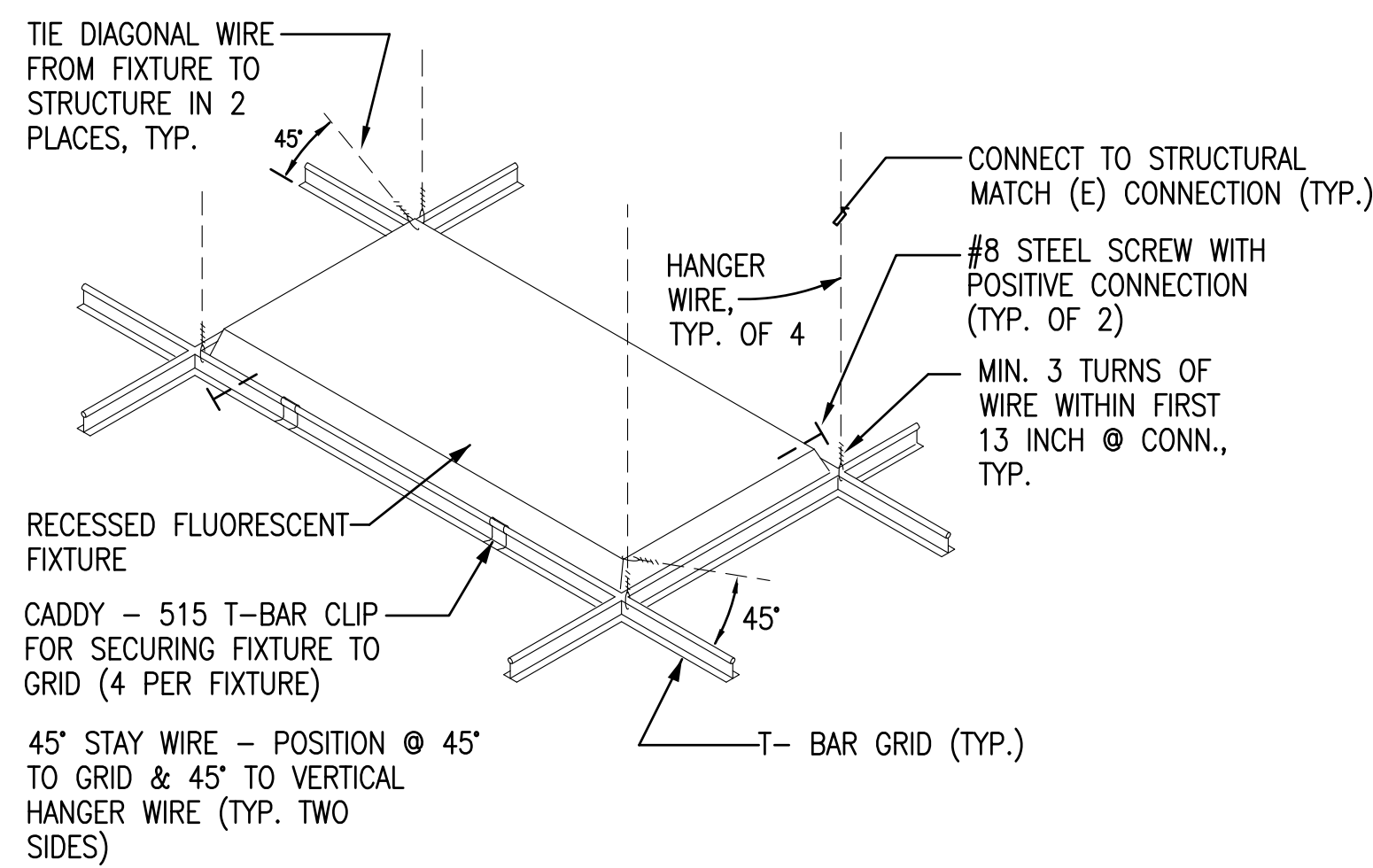
SHEET NOTES:

- UTILIZE (E) SPARE CIRCUIT BREAKERS, SIZE AS SHOWN.
- ALL COMPONENTS FOR THIS PANEL ARE (E) TO REMAIN, UON.



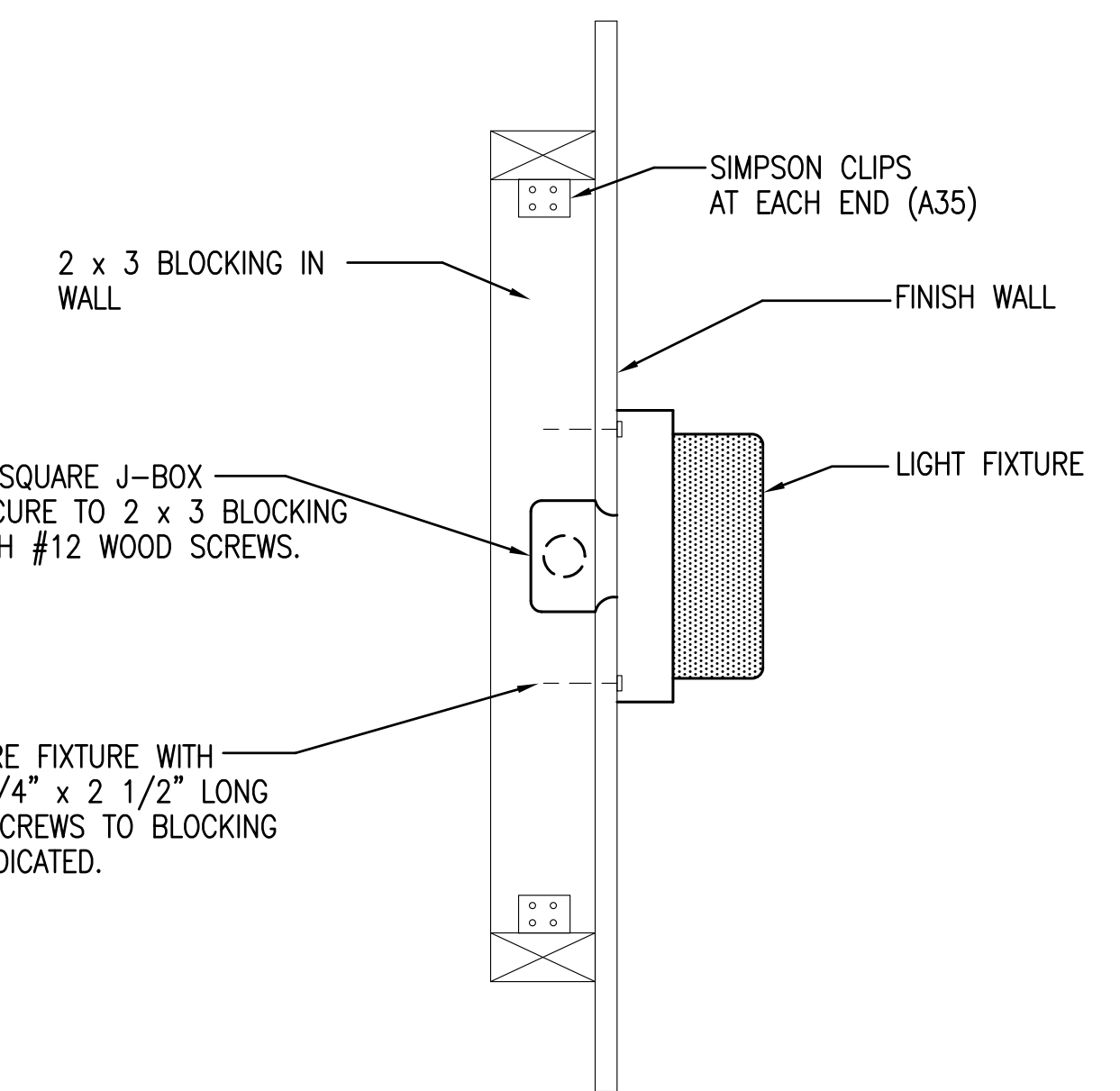
SURFACE MOUNTED(CEILING)
LIGHTING FIXTURE DETAIL

N.T.S.



TYPICAL SUPPORT REQUIREMENTS
FOR RECESSED LIGHT FIXTURES

NOT TO SCALE



SURFACE MOUNTED WAL
LIGHTING FIXTURE DETAIL

N.T.S.

LIGHTING FIXTURE SCHEDULE								
MARK	MANUFACTURERS MODEL NO.	LAMPS		TOTAL WATTS	VOLTS	MOUNTING	DESCRIPTION AND REMARKS	WEIGHT
		QTY.	TYPE					
A	FINELITE CAT #HPR LED-F-2x4-DCO-S-835 120-SC-C1-OB0	-	LED	27.4	120	RECESSED LAY-IN	2'x4' LED LIGHT FIXTURE WITH STEEL REFLECTORS 0-10 V DIMMING DRIVER	33 LBS
A1	FINELITE CAT #HPR LED-F-2x4-DCO-S-835 120-SC-C1-OB0-BSL722	-	LED	27.4	120	RECESSED LAY-IN	SAME AS TYPE "A" LIGHT FIXTURE EXCEPT WITH EMERGENCY BATTERY PACK	33 LBS
A2	FINELITE CAT #HPR LED-F-2x2-DCO-S-835 120-SC-C1-OB0	-	LED	28.5	120	RECESSED LAY-IN	2'x2' LED LIGHT FIXTURE WITH STEEL REFLECTORS 0-10 V DIMMING DRIVER	16 LBS
A3	FINELITE CAT #HPR LED-F-2x2-DCO-S-835 120-SC-C1-OB0-BSL722	-	LED	28.5	120	RECESSED LAY-IN	SAME AS TYPE "A2" LIGHT FIXTURE EXCEPT WITH EMERGENCY BATTERY PACK	16 LBS
B	FINELITE CAT #HPR LED-F-1X4-DCO-S-835 120-SC-SM-C1-OB0	-	LED	37.4	120	SURFACE WALL	1'X4' LED LIGHT FIXTURE WITH STEEL REFLECTORS 0-10 V DIMMING DRIVER	25 LBS
B1	FINELITE CAT #HPR LED-F-1X4-DCO-S-835 120-SC-SM-C1-OB0-BSL722	-	LED	37.4	120	SURFACE WALL	SAME AS TYPE "B" LIGHT FIXTURE EXCEPT WITH EMERGENCY BATTERY PACK	25 LBS
C	FINELITE CAT #HPR LED-F-1X4-DCO-S-835 120-SC-SM-C1-OB0	-	LED	37.4	120	SURFACE	SAME AS TYPE "B" LIGHT FIXTURE EXCEPT CEILING MOUNTED	25 LBS

(E)PANEL # B 2		LOCATION -				FEEDER SIZE -			
VOLTS	120/208V,3PH,4W	MLO	<input checked="" type="checkbox"/>	FEED THRU LUGS	<input type="checkbox"/>	FLUSH	<input type="checkbox"/>	SURFACE	<input checked="" type="checkbox"/>
AMPS	100	MCB	<input type="checkbox"/>	MCB AMPS	-	NEMA 1	<input checked="" type="checkbox"/>	NEMA 3R	<input type="checkbox"/>
AIC RATING	-	BUS AMPS	100						
DESCRIPTION	LOAD (VA)			BKR/ POLE	CKT No.	BKR/ POLE	LOAD (VA)		
	A	B	C				A	B	C
PROJECTOR RM.3	1000			20/1	1	2	500		
IDF		1500			3	4		1200	
IDF			1500		5	6			500
RECEPTACLES (NEW)	360				7	8		1000	
RECEPTACLES (NEW)		720			9	10			100
SPARE					11	12			200
					13	14		2300	
					15	16	30/3		2300
					17	18			2300
					19	20		2300	
					21	22	30/3		2300
					23	24			2300
SPACE				-	25	26	20/2	800	
				-	27	28		800	
				-	29	30	-		
SUBTOTAL	1360	2220	1500				6900	6700	5300
TOTAL LOAD		23.98	KVA;	@	208	VOLTS =	66.6	AMPS	

GENERAL NOTES

1. THE COMPLETE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA ELECTRICAL CODE SPECIFICATIONS AND STANDARDS, THE LATEST RULES AND REGULATIONS OF THE SAFETY ORDERS ISSUED BY THE DIVISION OF INDUSTRIAL SAFETY, THE NATIONAL BOARD OF FIRE UNDERWRITERS AND ALL APPLICABLE STATE AND LOCAL CODES ISSUED BY AUTHORITIES HAVING JURISDICTION.
2. PRIOR TO SUBMITTING PROPOSAL, BIDDER SHALL EXAMINE ALL GENERAL CONSTRUCTION DRAWINGS, VISIT CONSTRUCTION SITE AND ATTEND THE PRE-BID MEETING TO BE FAMILIAR WITH EXISTING CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH WILL IN ANYWAY AFFECT THE WORK UNDER THIS CONTRACT. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION IN BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLIGENCE ON HIS PART.
3. FIELD VERIFY TO CONFIRM ALL FIRE RATED CEILINGS AND WALLS. PROVIDE FIRE STOP SEALS PER UNIFORM BUILDING CODE FOR CONDUIT PENETRATION THROUGH FIRE RATED FLOORS, WALLS AND CEILINGS.
4. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITER'S LABORATORIES AND BEAR THEIR LABEL.
5. CONDUIT ROUTING SHOWN IS ESSENTIALLY DIAGRAMMATIC. CONTRACTOR SHALL LAYOUT RUNS TO SUIT FIELD CONDITIONS AND THE COORDINATION REQUIREMENTS OF OTHER TRADES. ALL EXPOSED CONDUIT, BOXES, FITTINGS, SUPPORT, ETC. SHALL BE PAINTED TO MATCH ADJACENT SURFACES.
6. THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL, MECHANICAL AND OTHER DRAWINGS RELATED TO THIS PROJECT FOR ADDITIONAL WORK TO BE PROVIDED.
7. THE OWNER RETAINS FIRST SALVAGE RIGHTS TO ALL EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE OWNER FOR DISPOSITION OF THE EXISTING EQUIPMENT TO BE REMOVED BY HIM. THE CONTRACTOR SHALL INCLUDE IN HIS BID PROPOSAL ALL COSTS RELATED TO THE DISPOSAL OF EXISTING EQUIPMENT REMOVED UNDER THIS CONTRACT.
8. ANY POWER SHUTDOWN SHALL BE COORDINATED WITH SCHOOL DISTRICT PROJECT MANAGER. A SHUTDOWN SCHEDULE SHALL BE PRESENTED TO SCHOOL DISTRICT FOR APPROVAL TWO WEEKS PRIOR TO COMMENCEMENT OF WORK. SHUTDOWN SHALL BE PERFORMED IN OVERTIME HOURS IF SO DIRECTED BY SCHOOL DISTRICT.
9. DEMOLITION WORK SHALL BE PROVIDED AS REQUIRED TO ACCOMPLISHED NEW WORK CALLED FOR AND AS NOTED. WORK SHALL BE PERFORMED CAREFULLY TO AVOID DAMAGE TO WALLS, STRUCTURES, AND EQUIPMENT NOT BEING REMOVED. EXISTING EQUIPMENT AND/OR ELECTRICAL WIRING WHICH IS TO REMAIN, BUT HAS BEEN REMOVED TO FACILITATE THE INSTALLATION OF THE NEW EQUIPMENT, SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION.
10. BLANK COVERS SHALL BE INSTALLED WHEREVER DEVICE IS REMOVED AND OUTLET BOX REMAINS IN PLACE.
11. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUCTORS SHALL BE 12 AWG THWN STRANDED COPPER ONLY.
12. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUIT SHALL BE 3/4".
13. GREEN INSULATED GROUND CONDUCTORS SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUIT WIRING.
14. PROVIDE LABELS ON ALL EQUIPMENT AND DEVICES. LABELS SHALL BE SELF-ADHESIVE PHENOLIC TYPE AND WHITE LETTER ON BLACK BACKGROUND, PROVIDE BRADY OR DYMO TYPE LABELS (CIRCUIT IDENTIFICATION) FOR ALL SWITCHES AND RECEPTACLES.
15. THE CONTRACTOR SHALL PROVIDE TYPED WRITTEN DIRECTORIES FOR ALL ELECTRICAL PANELS INVOLVED IN THIS PROJECT. THE PANEL DIRECTORIES SHALL REFLECT THE AS-BUILT CIRCUITS. ONE COPY OF THE SCHEDULE SHALL BE TAPED TO THE INSIDE OF THE PANEL DOOR, AND ONE COPY SHALL BE SUBMITTED TO THE ENGINEER AS AN "AS-BUILT" DRAWING.
16. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A SEISMIC FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING CRITERIA:
 - a. THE TOTAL DESIGN LATERAL SEISMIC FORCE SHALL BE DETERMINED PER CALIFORNIA BUILDING CODE (CBC) 2016 AND SECT. 7-10. SECTION 3.3. FORCES SHALL BE APPLIED IN THE HORIZONTAL DIRECTIONS, WHICH RESULT IN THE MOST CRITICAL LOADING FOR DESIGN.
 - b. THE VALUE OF A_p (COMPONENT AMPLIFICATION FACTOR) = $2 \frac{1}{2}$
 R_p (COMPONENT RESPONSE MODIFICATION FACTOR) = 6
 S_{DS} (SEISMIC DESIGN ACCELERATION) = 1.324
 I_p (SEISMIC IMPORTANCE FACTOR) = 1.25
BE DETERMINED PER CALIFORNIA BUILDING CODE (CBC) 2016.
17. CERTAIN REMODELING OF ELECTRICAL FACILITIES WILL BE REQUIRED IN THE EXISTING BUILDING. THE DRAWINGS SHOWING LOCATION OF EQUIPMENT IN EXISTING AREAS ARE APPROXIMATE. ONLY THE CONTRACTOR SHALL CONCEAL ALL WORK, IF THIS NOT POSSIBLE, SURFACE RACEWAY SUCH AS WIREMOLD SHALL BE USED ONLY WITH THE APPROVAL OF THE ARCHITECT AND OWNER.
18. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING PAINTING AND/OR OTHER REPAIRS DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THIS SPECIFICATION. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED. THIS SHALL INCLUDE ALL WALLS, CEILINGS, ROOFS, PAVEMENT, PLANTERS, ETC.
19. OUTLETS MOUNTED ON WALL BACK TO BACK SHALL MAINTAIN A MINIMUM HORIZONTAL DISTANCE OF 24" OR BE SEPARATED BY A STUD.
20. ALL EXPOSED CONDUITS, BOXES AND CABINETS INSTALLED IN FINISHED AREAS SHALL BE PAINTED TO MATCH COLOR OF ADJACENT WALL OR CEILING.
21. THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, AN UP TO DATE "AS BUILT" DRAWING SET. THE "AS BUILT" DRAWING SET SHALL REFLECT ALL APPROVED CHANGES TO THE DESIGN DRAWINGS. THE "AS BUILT" DRAWING SET SHALL BE KEPT CLEAN AND IN GOOD CONDITION AND SHALL BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT. THESE DRAWINGS SHALL BE UPDATED DAILY AND BE CHECKED WEEKLY BY IOR. THE PROGRESS PAYMENT IS TIED TO THEIR COMPLETION.
22. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SCHEDULE AND PERFORM A COMPLETE FUNCTIONAL TEST TO DEMONSTRATE TO THE OWNER THAT THE NEW INSTALLATION IS OPERATING AS INTENDED. ANY DEFECTS OR DEFICIENCIES IN THE MATERIALS OR WORK SHALL CORRECTED IMMEDIATELY BY AND AT THE CONTRACTOR'S EXPENSE.
23. PROVIDE ACCESSIBLE PANEL FOR HEAT DETECTOR ABOVE CEILING WHERE REQUIRED.

FIRE ALARM L E G E N D			
WIRING		FIRE ALARM SYSTEM	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	WIRING CONCEALED IN CEILING OR WALL		FIRE ALARM CONTROL PANEL AND ASSOCIATED COMPONENTS. PROVIDE 120V POWER AS REQUIRED OR AS INDICATED.
	LINE WEIGHT TOP TO BOTTOM= NEW, EXISTING TO REMAIN, FUTURE		FIRE ALARM REMOTE POWER SUPPLY
	WIRING CONCEALED IN FLOOR OR UNDER GRADE OR ROUTED IN CEILING SPACE OF FLOOR BELOW. LINE WEIGHT TOP TO BOTTOM= NEW, EXISTING TO REMAIN, FUTURE		ANNUNCIATOR
	WIRING EXPOSED. LINE WEIGHT TOP TO BOTTOM= NEW, EXISTING TO REMAIN, FUTURE		SMOKE DETECTOR
	EXISTING ITEM TO BE REMOVED		ABOVE CEILING HEAT DETECTOR
	LOW VOLTAGE CABLE IN CONDUIT		FIRE ALARM SYSTEM MANUAL PULL STATION.
	GROUND		STROBE
	HOT		WALL MOUNTED HORN/STROBE
	HOME RUN WIRING TO INDICATED DESTINATION, 3/4"C. MIN. OR AS OTHERWISE NOTED. CONTRACTOR SHALL USE CIRCUIT SIZES NOTED IN RESPECTIVE SCHEDULES AND INFORMATION IN THE FEEDER AND BRANCH CIRCUIT SCHEDULES.		HORN – WEATHERPROOF
	CONDUIT RUN TURNED UP THROUGH FLOOR OR CEILING. CORE & FIREPROOF AS REQUIRED.		MONITOR MODULE
	CONDUIT RUN TURNED DOWN THROUGH FLOOR OR CEILING. CORE & FIREPROOF AS REQUIRED.		ISOLATE MODULE
	CONDUIT STUBBED OUT AT LOCATION SHOWN. PROVIDE INSULATED BUSHING & PULLROPE.		RELAY MODULE
	RACEWAY STUBBED OUT FOR FUTURE CONTINUATION; CAP, MARK AND RECORD LOCATION.		
	JUNCTION BOXES, WALL, CEILING AND FLUSH FLOOR MOUNTED. 4" SQ. BOX MIN., LARGER IF REQUIRED	FIRE ALARM RECORD DOCUMENTS CABINET NFPA 72, 7.7.2	
	WIRING EXTENSION POINT – CONDUIT TO MC CABLE OR MANUFACTURED WIRING SYSTEM J-BOX ABOVE ACCESSIBLE CEILING AREAS, OR EXTEND CONDUIT & WIRE IN EXPOSED OR "HARD" CEILING AREAS. SHADED= ON ALT. POWER SOURCE (EMERG,UPS,ETC.)	- EVERY NEW FIRE ALARM SYSTEM SHALL PROVIDE A DOCUMENTATION CABINET, INSTALLED AT THE SYSTEM CONTROL PANEL OR OTHER APPROVED LOCATION.	
	PULL BOX, MIN. SIZE PER NEC., UON.	- THE DOCUMENTATION CABINET SHALL BE PROMINENTLY LABELED, "SYSTEM RECORD DOCUMENTS".	
	FLEXIBLE CONDUIT CONNECTION	- ALL RECORD AND TESTING DOCUMENTATION SHALL BE STORED IN THE CABINET.	
	POWER CONNECTION TO DMV 15 FIRE/SMOKE DAMPER. REFER TO FSD CONNECTION DETAIL IF NOT SHOWN	- CONTENTS SHALL BE ACCESSIBLE BY AUTHORIZED PERSONNEL ONLY.	
	LOW VOLTAGE SYSTEM GROUND CONNECTION	- WHERE CABINET IS INSTALLED IN A LOCATION OTHER THAN THE SYSTEM CONTROL UNIT, ITS LOCATION SHALL BE IDENTIFIED AT THE SYSTEM CONTROL UNIT.	
	GROUND ROD CONNECTION	SYSTEM DOCUMENTS AS APPLICABLE	
	GROUND ROD CONNECTION WITH TEST WELL BOX	- RECORD DRAWINGS/AS-BUILTS	
	LIGHTNING SYSTEM AIR TERMINAL	- EQUIPMENT CUT SHEETS & CA SFM LISTINGS	
		- ALTERNATIVE MEANS AND METHODS	
		- PERFORMANCE BASED DESIGN DOCUMENTATION (NFPA 72, 7.3.7)	
		- SYSTEM RECORD OF COMPLETION & ANY SUPPLEMENTAL INSPECTION AND TESTING DOCUMENTATION (NFPA 72, 7.8.2)	
		- EMERGENCY RESPONSE PLAN (NFPA 72, 7.3.8)	
		- EVALUATION DOCUMENTATION (NFPA 72, 7.3.9)	
		- RISK ANALYSIS DOCUMENTATION (NFPA 72, 7.3.6)	
		- SOFTWARE & FIRMWARE CONTROL DOCUMENTATION (NFPA 72, 23.2.2)	
APPLICABLE CODES		FIRE ALARM SCOPE OF WORK	
1.	2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)	THE INTENT OF THIS PROJECT IS TO PROVIDE A COMPLETE FIRE ALARM SYSTEM FOR THE ADMIN BUILDING.	
2.	2016 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1 & 2 (PART 2, TITLE 24, CCR)		
3.	2016 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CCR)	FIRE ALARM SYSTEM GENERAL NOTE	
4.	2016 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR)	THE FIRE DETECTION AND ALARM SYSTEM, UPON ACTIVATION OF AN INITIATING DEVICE, SHALL ALERT ALL OCCUPANTS AND SHALL TRANSMIT THE ALARM SIGNAL TO AN APPROVED SUPERVISING CENTRAL MONITORING STATION.	
5.	2016 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR)		
6.	2016 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)	NFPA 72 REQUIREMENTS	
7.	2016 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)	1. POWER SERVICE SHALL BE ON A DEDICATED BRANCH CIRCUIT WITH A RED MARKING AND IDENTIFIED PER (NFPA 72 SEC. 10.6.5.2.2)	
8.	2016 CALIFORNIA REFERENCED STANDARDS CODE (PART 12, TITLE 24, CCR)	2. PROVIDE TEMPORAL– THREE DISTINCTIVE FIRE ALARM SOUND, (CFC SEC. 907.5.2.1.3, NFPA 72 SEC. 18.4.2.1).	
9.	NFPA 13, 2016 EDITION, THE INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS, AS AMENDED	3. AUDIBLE FIRE ALARM SOUND LEVEL SHALL BE AT LEAST 15 DBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL IN ALL OCCUPYABLE AREAS, (NFPA 72 SEC. 18.4.3.1). (IE: CLASSROOM AVERAGE AMBIENT ROOM NOISE IS 45 DBA PLUS 15 DBA EQUALS = 60 DBA MINIMUM ALARM TONE REQUIRED)	
10.	NFPA 14, 2016 EDITION, THE INSTALLATION OF STANDPIPE, PRIVATE HYDRANT AND HOSE SYSTEMS	4. STROBES SHALL FLASH AT A RATE OF NOT EXCEEDING TWO FLASHES PER SECOND NOR BELESS THAN ONE FLASH EVERY SECOND, (2016 NFPA 72 SEC. 18.5.3.1).	
11.	NFPA 24, 2016 EDITION, THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES	5. FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF THE DATE AND TIME OF FINAL FIRE ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE.	
12.	NFPA 72, 2016 EDITION, NATIONAL FIRE ALARM CODE, AS AMENDED	6. FIRE ALARM CONTRACTOR SHALL PROVIDE A "RECORD OF COMPLETION" TO THE INSPECTOR OF RECORD (IOR)/DSA AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TESTS, (2016 NFPA 72 SEC. 7.8.2 AND FIGURE 7.8.2).	
13.	2010 ADA STANDARDS FOR ACCESSIBLE DESIGN.		

ABBREVIATIONS	
(E)	EXISTING TO REMAIN
(F)	FUTURE
(R)	EXISTING TO BE REMOVED
(RL)	EXISTING TO BE RELOCATED
AB	ABOVE COUNTER BACKSPLASH
ACU	AIR CONDITIONING UNIT
AC	ALTERNATING CURRENT
A, AMP	AMPERES
AF	AMPERE (RATED) FUSE OR CB FRAME
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AL	ALUMINUM (ALLOY)
ALC	AUTOMATIC LIGHTING CONTROL
AS	AMPERE (RATED) SWITCH
AT	CIRCUIT BRKR TRIP SETTING (AMPS)
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
B	BELL (FIRE ALARM)
BAT	BATTERY
BG	BELOW GRADE
C	CONDUIT (CIRCULAR RACEWAY)
CAB	CABINET
CKT	CIRCUIT
CLG	CEILING
CO	CONDUIT ONLY
CU	COPPER
DC	DIRECT CURRENT
DIV	DIVISION
DPST	DOUBLE POLE SINGLE THROW
DWG	DRAWING
ENCL	ENCLOSURE
EO	ELECTRICALLY OPERATED
EOL	END OF LINE
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FSD	FIRE/SMOKE DAMPER
GND	GROUND
K	KEY OPERATED
MAX	MAXIMUM
MIN	MINIMUM
MTD	MOUNTED
MTR	MOTOR
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NO	NORMALLY OPEN
NTS	NOT TO SCALE
NP	NAMEPLATE
OC	ON CENTER
PNL	PANEL
+,POS	POSITIVE
REQD	REQUIRED
RNC	RIGID NON-METALLIC CONDUIT (PVC)
RSE	REMOTE SIGNAL EXPANDER
RST	REMOTE STATION TRANSMITTER
S.A.D.	SEE ARCHITECTURAL DRAWINGS
TYP	TYPICAL
UL	UNDERWRITERS LAB
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY

FIRE ALARM DRAWING LIST	
FA1.0	FIRE ALARM COVER SHEET
FA1.1	FIRE ALARM SITE PLAN
FA2.1	FIRE ALARM PLAN
FA3.1	FIRE ALARM RISER DIAGRAM, LEGEND AND EQUIPMENT LIST
FA3.2	FIRE ALARM VOLTAGE DROP AND BATTERY CALCULATION
FA3.3	FIRE ALARM DETAILS
FIRE ALARM SYSTEM NOTES	
1.	ALL WIRING SHALL BE IN CONDUIT, U.O.N. MINIMUM CONDUIT SIZE SHALL BE 3/4".
2.	PROVIDE AND INSTALL ALL CONDUIT, BOXES, CONDUCTORS, POWER SUPPLY, RELAYS, ZONE MODULES, CARDS, SWITCHES ETC. FOR A COMPLETE AND OPERABLE FIRE ALARM SYSTEM.
3.	ALL REQUIREMENT OF CONTRACT SPECIFICATIONS AND DRAWING APPLY.
4.	INSTALLATION SHALL CONFORM TO REQUIREMENTS OF APPLICABLE ELECTRICAL CODES.
5.	TEE-TAP INSIDE BUILDING IN JUNCTION BOX. USE TERMINAL BLOCKS.
6.	FIRE ALARM FIELD WIRING SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS.
7.	120VAC 60Hz INPUT POWER FOR FIRE ALARM CONTROLS SHALL BE A DEDICATED, LOCKING BREAKER PROPERLY LABELED "SOURCE FROM LINE OF MAIN DISCONNECT" OR "EMERGENCY POWER".
8.	ALL WIRING INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.
9.	120VAC IS NOT PERMITTED IN SAME CONDUIT WITH LOW VOLTAGE WIRING.
10.	DO NOT APPLY POWER EXCEPT IN THE PRESENCE OF A FACTORY-TRAINED FIRE ALARM TECHNICAL REPRESENTATIVE.
11.	THERE WILL BE NO CONDUIT ENTRY ALLOWED 18" OR LOWER ON THE SIDE PANELS OR THROUGH THE BOTTOM OF ALL CONTROL EQUIPMENT BACKBOXES.
12.	ALL VISUAL ALARM IN EVERY ROOMS OR EXTERIOR WHERE OCCUR SHALL BE SYNCHRONIZED.
13.	VISUAL DEVICE SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE THAT MEETS NFPA STROBE INTENSITY REQUIREMENTS WHICH VARIES WITH VIEWING CONDITIONS AND ROOM SIZES.
14.	UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER-TIGHT FITTINGS AND WIRES TO BE APPROVED FOR WET LOCATIONS.
15.	AUDIBLE DEVICE(S) TO BE AT LEAST 15dba ABOVE THE EQUIVALENT SOUND LEVEL BUT NOT LESS THAN 75dba AT 10' OR MORE THAN 110dba AT THE MINIMUM HEARING DISTANCE.
16.	AUDIBLE DEVICE SHALL SOUND THE CALIFORNIA UNIFORM FIRE ALARM SIGNAL.
17.	FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF DATA AND TIME OF FINAL FIRE ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE.
18.	FIRE ALARM CONTRACTOR SHALL PROVIDE A COMPLETED AND SIGNED" CERTIFICATE OF COMPLETION" AFTER COMPLETION OF OPERATIONAL ACCEPTANCE TESTS. (NFPA 72 SEC. 7.8.2 & 14.6.1).
19.	PROVIDE TEMPORAL THREE DISTINCTIVE FIRE ALARM SOUND (CFC SEC. 907.5.2.1.3 NFPA 72 SEC. 18.4.2.1)
20.	POWER SERVICE SHALL BE ON A DEDICATED BRANCH CIRCUIT WITH RED MARKING AND IDENTIFIED PER NFPA SEC 10.6.5.2.2 .
21.	WIRING AND MATERIALS SHALL BE PER CEC/NEC ART. 760.
22.	A DOCUMENTATION CABINET SHALL BE INSTALLED PROXIMAL TO THE FACU. (NFPA 72, 7.7.2.1)
23.	ALL RECORD DOCUMENTATION SHALL BE STORED IN THE DOCUMENT CABINET. (NFPA 72, 7.7.2.2)
24.	THE DOCUMENT CABINET SHALL BE PROMINENTLY LABELED SYSTEM RECORD DOCUMENT (NFPA 72, 7.7.2.4.)



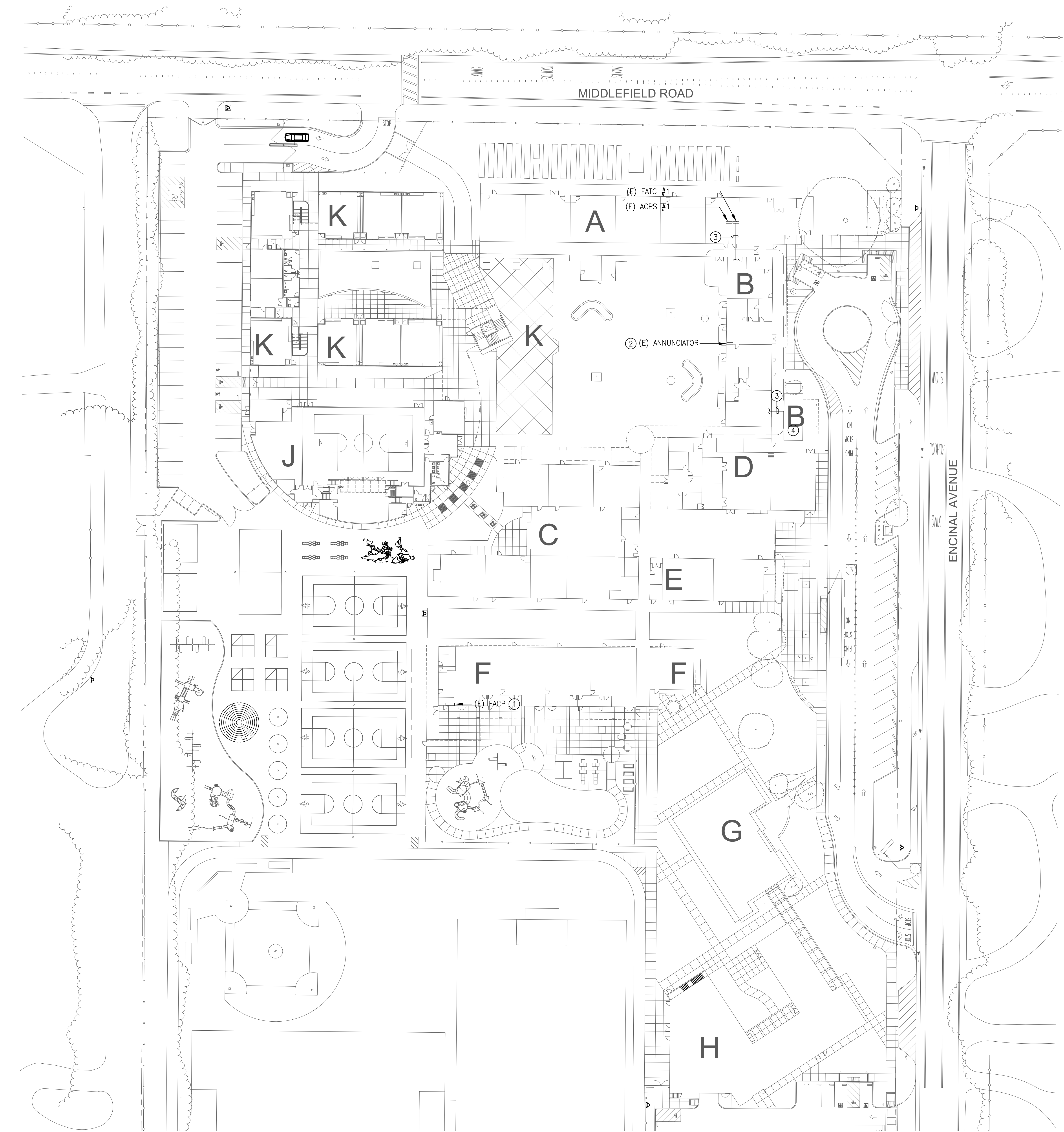
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FA0.1

FILE: M:\156-15-05-10e vergas ES Interim Housing\FA1.dwg Mar 02, 2016 6:05 pm Scale 1"=1' by TRANG
XREFS: 15-18(2) DE VARGAS BDK.dwg



1 FIRE ALARM SITE PLAN
SCALE: 1"=30'-0"



SHEET NOTES:

- 1 (E) FACP TO REMAIN. REPROGRAM DURING CONSTRUCTION AND AFTER COMPLETION OF WORK IN THIS ADMINISTRATION BUILDING MODERNIZATION PROJECT AS REQUIRED.
- 2 (E) ANNUNCIATOR TO REMAIN. PROTECT (E) WIRES AND MAINTAIN CIRCUIT CONTINUITY.
- 3 (E) CONDUIT WITH FA WIRES TO REMAIN. SEE FA2.1 FOR CONTINUATION AND WORK REQUIRED.
- 4 ALL (E) FIRE ALARM DEVICES IN THIS AREA TO REMAIN AND RECONNECTED DURING CONSTRUCTION. PROVIDE CONDUIT AND WIRES AS REQUIRED.

APPROVED
DIV. OF THE STATE ARCHITECT
APP.01-117917 INC.
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 04/03/2019



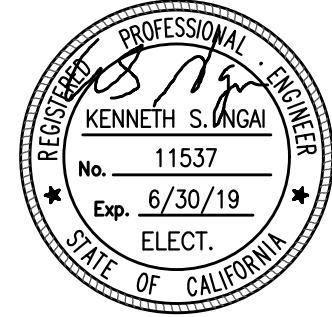
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Date	Issued For
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01/11/2019	DSA SUBMITTAL
04/02/2019	DSA BACKCHECK

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2018-03800-000

FIRE ALARM
SITE PLAN

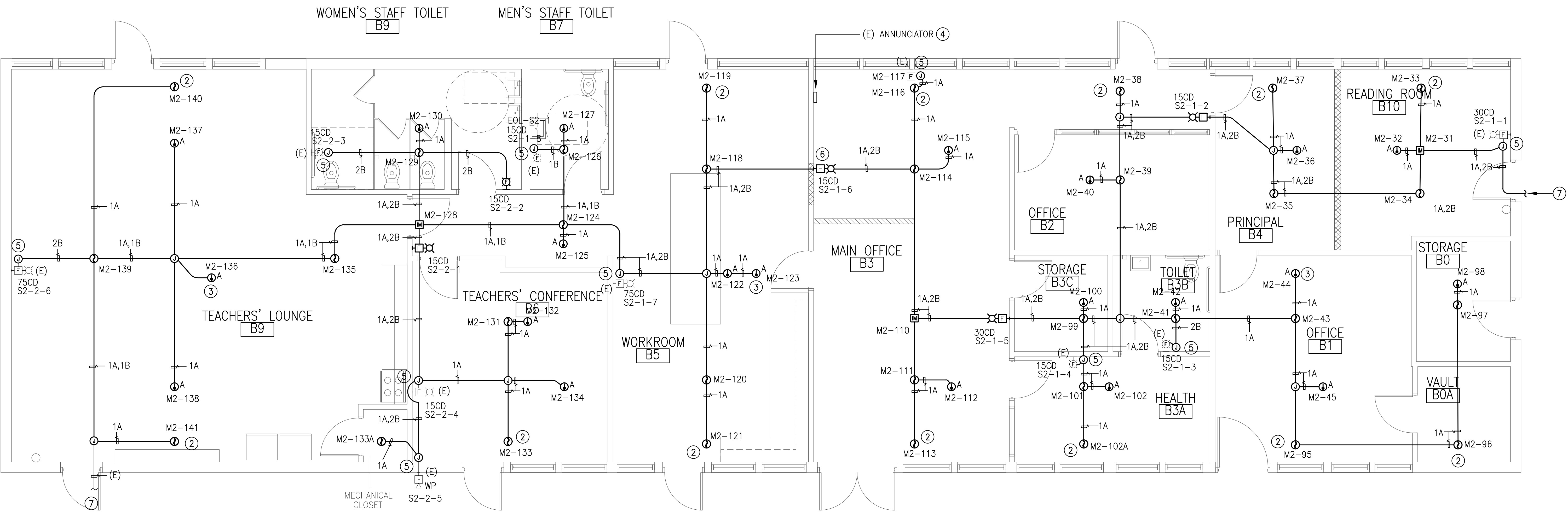
FA1.1

GENERAL NOTE:

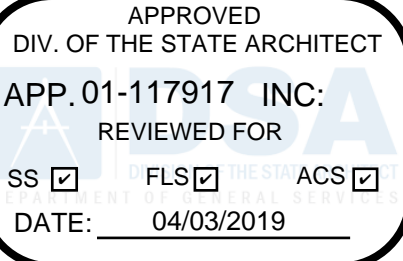
1. UTILIZE CONDUIT WHEREVER POSSIBLE.

SHEET NOTES:

- 1 ALL FIRE ALARM ITEMS ON THIS PLAN ARE (N) U.O.N.
- 2 MOUNT SMOKE DETECTOR BETWEEN 3 FEET OF THE PEAK OF THE CEILING.
- 3 MOUNT HEAT DETECTOR AT BETWEEN 3 FEET OF THE PEAK OF THE HIGHEST CEILING.
- 4 (E) ANNUNCIATOR TO REMAIN. PROTECT (E) WIRES AND MAINTAIN CIRCUIT CONTINUITY.
- 5 INSTALL (N) JUNCTION BOX TO (E) CONDUIT. EXTEND (N) WIRES AND TERMINATE (N) WIRES TO (E) DEVICE TO PUT IT BACK IN SERVICE.
- 6 RELOCATED DEVICE AS NOTED BY NOTE 6 ON EL1.1.
- 7 SEE SITE PLAN FOR CONTINUATION.



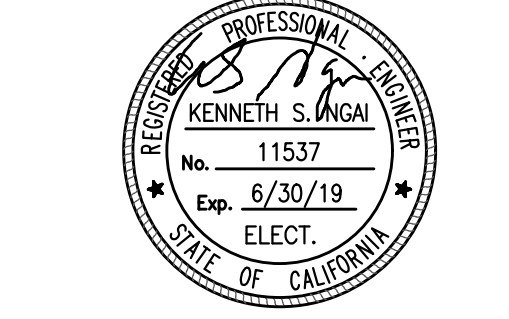
1 FIRE ALARM PLAN 1
SCALE: 1/4"=1'-0"



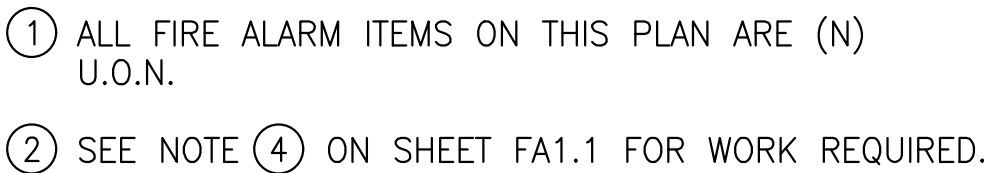
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(E) OPERATIONAL MATRIX						
	ANNUNCIATE ALARM CONDITION AT FACP	ANNUNCIATE TROUBLE/ SUPERVISORY CONDITION AT FACP	ANNUNCIATE TROUBLE CONDITION AT ANNUNCIATOR	ANNUNCIATE TROUBLE/ SUPERVISORY CONDITION AT ANNUNCIATOR	ACTIVATE HORN/STROBE THAT IS NOT THE ENTIRE BUILDING	SEND ALARM/TRBL/SUPERVISORY SIGNAL TO CENTRAL STATION
MASTER PULL STATION	X				X	X
BEAM DETECTOR	X				X	X
SMOKE DETECTOR	X				X	X
HEAT DETECTOR	X				X	X
SYSTEM TROUBLE		X		X		X
SYSTEM SUPERVISORY		X		X		X

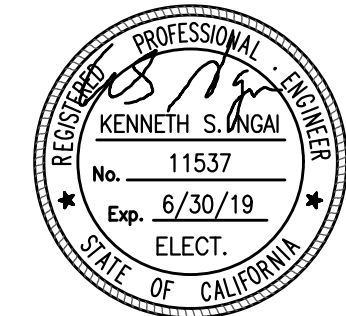


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FIRE ALARM
VOLTAGE DROP &
BATTERY CALC.

FA3.2

ENCINAL ES EXISTING FACP (ADMIN BATTERY CALCULATION)											
SUPERVISORY						ALARM					
QTY (E)	QTY (N)		DRAW	TOTAL (E)	TOTAL (N)	QTY (E)	QTY (N)		DRAW	TOTAL (E)	TOTAL (N)
PANEL						PANEL					
1		NFS2-3030	0.380	0.38	0.000	1		CPU-NFS2 640	0.415	0.415	0.000
1		UDACT ALARM COMMUNICATOR	0.040	0.04	0.000	1		UDACT ALARM COMMUNICATOR	0.100	0.1	0.000
1		LEM320 EXPAND MODULE	0.100	0.1	0.000	1		LEM320 EXPAND MODULE	0.100	0.1	0.000
1		KDM-R2	0.100	0.1	0.000	1		KDM-R2	0.100	0.1	0.000
1		NCA-2	0.400	0.4	0.000	1		NCA-2	0.200	0.2	0.000
4		FCPS	0.130	0.52	0.000	4		FCPS	0.130	0.52	0.000
PANEL TOTAL						PANEL TOTAL					
DEVICES						DEVICES					
231	31	FSP-851 SMOKE DETECTOR	0.0003	0.0693	0.0093	231	31	FSP-851 SMOKE DETECTOR	0.00065	0.15015	0.0202
0		FSD-751PL DUCT SMOKE DETECTOR	0.0003	0	0.0000	0		FSD-751PL DUCT SMOKE DETECTOR	0.00065	0	0.0000
0		FSB-200 BEAM SMOKE DETECTOR	0.002	0	0.0000	0		FSB-200 BEAM SMOKE DETECTOR	0.0085	0	0.0000
150	22	FST-851 HEAT DETECTOR	0.0003	0.0003	0.0066	150	22	FST-851 HEAT DETECTOR	0.0065	0.0065	0.1430
10	0	NBG-12LX PULL STATION	0.0004	0.0004	0.0000	10	0	NBG-12LX PULL STATION	0.005	0.005	0.0000
6	0	FMM-1 MONITOR MODULE	0.0004	0.0024	0.0000	6	0	FMM-1 MONITOR MODULE	0.00023	0.00138	0.0000
3		ISO-X ISOLATOR MODULE	0.00023	0	0.0007	3		ISO-X ISOLATOR MODULE	0.00023	0	0.0007
TOTAL DEVICES						TOTAL DEVICES					
TOTAL DRAW (PANEL + DEVICES + AMPLIFIER)						TOTAL DRAW					
X 24 HOURS ALARM						X 5 MIN ALARM					
SUBTOTAL						SUBTOTAL					
TOTAL SUPERVISE (1)						TOTAL ALARM (2)					
TOTAL DRAW= (1) + (2) + 20%											
NOTE: EXISTING PANEL IS SUPLIED WITH A 100 AMP HOUR BATTERY											

VOLTAGE DROP (VD) CALCULATION

PROJ. NAME— Ancinal ES Admn.
SIG CKT #— (NAC) S2-1

DEVICE #	1st	2nd	3rd	4th	5th	6th	7th	8th
GAUGE WIRE	12	12	12	12	12	12	12	12
DISTANCE (FT)	100	80	70	50	50	50	80	60
AMPS @ DEVICE	0.107	0.079	0.066	0.066	0.107	0.079	0.176	0.066
AMPS DEVELOPED	0.746	0.639	0.56	0.494	0.428	0.321	0.242	0.066
VOLT. DROP	0.237228	0.1625616	0.124656	0.078546	0.068052	0.051039	0.0615648	0.0125928

SIGNAL CIRCUIT # (NAC) S2-1
TOTAL CKT V.D. = 0.7962402
CKT VOLTAGE = 20.4
VOLTAGE AT
FINAL DEVICE = 19.60376
% VOLTAGE DROP = 3.9031382

VOLTAGE DROP (VD) CALCULATION

PROJ. NAME— Ancinal ES Admn.
SIG CKT #— (NAC) S2-2

DEVICE #	1st	2nd	3rd	4th	5th	6th	(E) 7th	(E) 8th	(E) 9th
GAUGE WIRE	12	12	12	12	12	12	12	12	12
DISTANCE (FT)	250	40	40	70	30	80	80	50	50
AMPS @ DEVICE	0.079	0.066	0.066	0.079	0.07	0.176	0.079	0.066	0.066
AMPS DEVELOPED	0.747	0.668	0.602	0.536	0.457	0.387	0.211	0.132	0.066
VOLT. DROP	0.593865	0.0849696	0.0765744	0.1193136	0.0435978	0.0984528	0.0536784	0.020988	0.010494

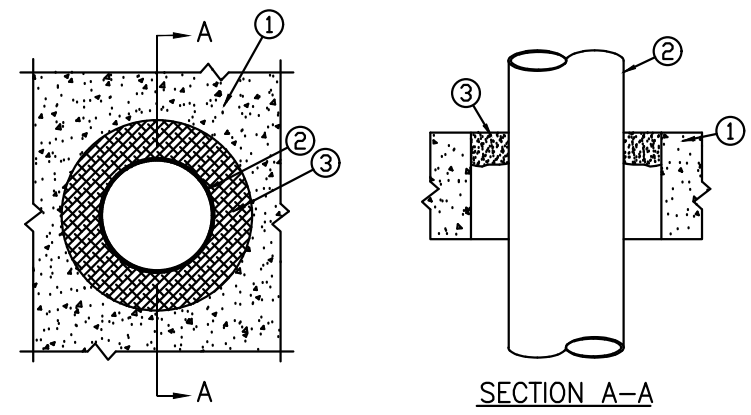
SIGNAL CIRCUIT # (NAC) S2-2
TOTAL CKT V.D. = 1.1019336
CKT VOLTAGE = 20.4
VOLTAGE AT
FINAL DEVICE = 19.298066
% VOLTAGE DROP = 5.4016353

EXISTING ACPS-1 BATTERY CALCULATION WORKSHEET											
24 HOUR BATTERY CALCULATIONS											
FOR THE NEW ACPS-610 FIRE ALARM REMOTE POWER SUPPLY											
SUPERVISORY						ALARM					
QTY (E)	QTY (N)		TOTAL (E)	TOTAL (N)		QTY (E)	QTY (N)		TOTAL (E)	TOTAL (N)	
1		PANEL	0.065	0	0.065	1		PANEL	0.145	0	0.145
PANEL TOTAL						PANEL TOTAL					
AUDIO AMPLIFIER TOTAL						AUDIO AMPLIFIER TOTAL					
DEVICES						DEVICES					
FM-997-24 DOOR HOLDER AT						7 15cd SR STROBES AT					
REMOTE POWER SUP. AT						0 30cd SR STROBES AT					
DEVICES TOTAL						0 75cd SR STROBES AT					
TOTAL DRAW						0 110cd SR STROBES AT					
X 24 HOURS OF						5 15cd SPCW/SPSW SPEAKER-STROBE AT					
STANDBY						2 30cd SPCW/SPSW SPEAKER-STROBE AT					
SUBTOTAL						2 75cd SPCW/SPSC SPEAKER-STROBE AT					
						0 110cd SPCW/SPSW SPEAKER-STROBE AT					
						1 WEATHER PROOF HORN					
TOTAL SUPER. (1)						TOTAL DEVICES					
						TOTAL DRAW					
						X 5 MIN ALARM					
						SUBTOTAL					
TOTAL SUPERVISORY (1)						TOTAL ALARM (2)					
TOTAL ALARM (2)											
TOTAL DRAW (1) + (2) + 20%											
NOTE: PANEL IS SUPLIED WITH A 7 AMP HOUR BATTERY											

THROUGH-PENETRATION FIRESTOP SYSTEM DETAILS

(Formerly System No. 202)

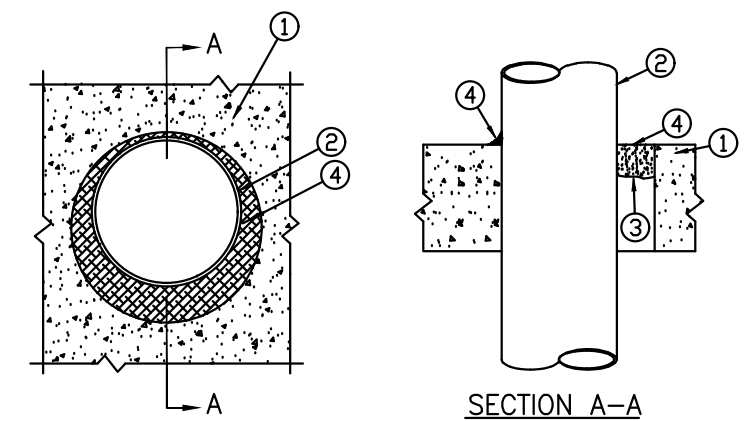
F RATING – 3 HOUR
T RATING – 0 HOUR



- FLOOR OR WALL ASSEMBLY – MIN 4–1/2 IN. THICK LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS. MAX THROUGH OPENING SIZE IS 12.4 SQ. IN.
SEE CONCRETE BLOCKS (CAZT) CATEGORY IN FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURERS.
- PIPE OR CONDUIT – NOM. 10 IN. DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 6 IN. DIA. (OR SMALLER) RIGID STEEL CONDUIT, NOM 4 IN. DIA. (OR SMALLER) STEEL EMT OR NOM 3 IN. DIA. (OR SMALLER), TYPE L (OR HEAVIER) COPPER PIPE, MAX ONE PIPE OR CONDUIT PER THROUGH OPENING. MAX ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF OPENING IS 3/4 IN. MIN ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF OPENING IS 0 IN. (POINT CONTACT). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
- FILL VOID OR CAVITY MATERIALS – PUTTY–MOLDABLE PUTTY MATERIAL KNEADED BY HAND AND APPLIED TO FILL ANNULAR SPACE TO A MIN DEPTH OF 1 IN FLUSH WITH TOP SURFACE OF FLOOR. IN WALL ASSEMBLIES, REQUIRED PUTTY THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL.
MINNESOTA MINING & MFG. CO.– MPS–2+.
BEARING THE UL CLASSIFICATION MARKING.

SYSTEM NO. CAJ1044
(Formerly System No. 319)

T RATING – 0 HR
L RATING AT AMBIENT – 2 CFM/SQ FT (SEE ITEM 4)
L RATING AT 400 F – LESS THAN 1 CFM/SQ FT (SEE ITEM 4)



- FLOOR WALL ASSEMBLY–LIGHTWEIGHT OR NORMAL WEIGHT (100–150 PCF) CONCRETE. EXCEPT AS NOTED IN TABLE UNDER ITEM 4, MIN THICKNESS OF SOLID CONCRETE FLOOR OR WALL ASSEMBLY IS 4–1/2 IN. FLOOR MAY ALSO BE CONSTRUCTED OF ANY MIN 6 IN. THICK UL CLASSIFIED HOLLOW–CORE. PRECAST CONCRETE UNITS. WHEN FLOOR IS CONSTRUCTED OF HOLLOW–CORE PRECAST CONCRETE UNITS, PACKING MATERIALS (ITEM 3) AND CAULK FILL MATERIAL (ITEM 4) TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF THE FLOOR, FLUSH WITH FLOOR SURFACE. WALL ASSEMBLY MAY ALSO BE CONSTRUCTED OF CLASSIFIED CONCRETE BLOCKS. MAX DIA. OF OPENING IS 32 IN.
SEE CONCRETE BLOCKS (CAZT) AND PRECAST CONCRETE UNITS (CFTV) CATEGORY IN THE FIRE RESISTANCE DIRECTORY FOR NAMES OF MANUFACTURER
- STEEL SLEEVE – (OPTIONAL NOT SHOWN) NOM 16 IN. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY. SLEEVE MAY EXTEND A MAX OF 2 IN. ABOVE TOP FLOOR OR BEYOND EITHER SURFACE OF WALL.
- PIPE OR CONDUIT – NOM 30 IN.DIA. (OR SMALLER) CAST IRON OR SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 6 IN. DIA. (OR SMALLER) STEEL CONDUIT, NOM 3 IN. DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBE OR NOM 4 IN. DIA. (OR SMALLER) STEEL ELECTRICAL METALIC TUBING. MAX ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING NOT TO EXCEED 2 IN. MIN ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND EDGE OF THROUGH OPENING IS 0 IN. (POINT CONTACT). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDE OF FLOOR OR WALL ASSEMBLY.
- PACKING MATERIAL – POLYETHYLENE BACKER ROD OR NOM 1 IN. THICKNESS OF TIGHTLY–PACKRD MINERAL WOOL BATT OR GLASS FIBER INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OF FROM BOTH SURFACES OF WALL AS REQUIRED TO ACCOMODATE THE REQUIRED THICKNESS OF CAULK FILL MATERIAL (ITEM 4).
- FILL VOID OR CAVITY MATERIAL – CAULK – APPLIED TO FILL THE ANNULAR SPACE FLUSH WITH TOP SURFACE OF FLOOR. IN WALL ASSEMBLIES, REQUIRED CAULK THICKNESS TO BE INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL, FLUSH WITH WALL SURFACE. THE HOURLY F RATING AND THE MIN REQUIRED CAULK THICKNESS ARE DEPENDENT UPON A NUMBER OF PARAMETERS, AS SHOWN ON THE FOLLOWING TABLE.

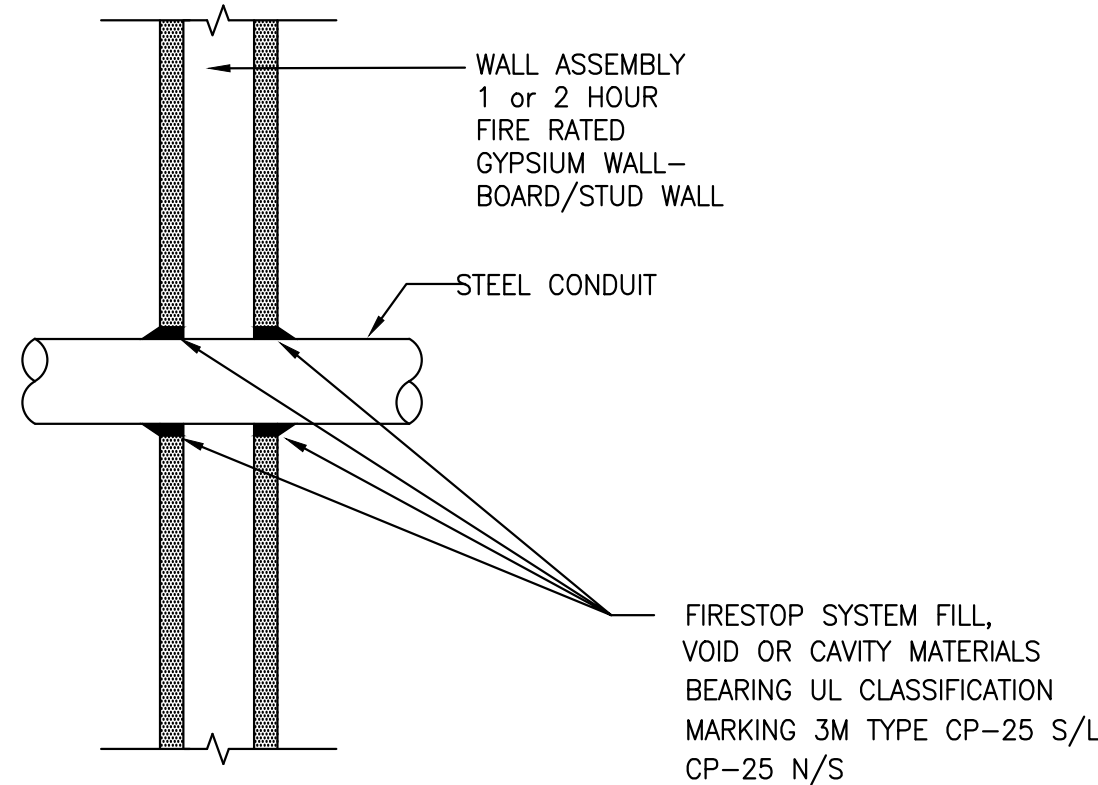
MIN FLOOR OR WALL THKNS, IN	NOM PIPE TUBE OR CONDUIT DIA. IN.	MAX ANNULAR SPACE, IN	MAX CAULK THKNS, IN	F RATING, HR
2–1/2	1/2–12	1–3/8	1/2	2
2–1/2	1/2–12	2–7/8	1	2
4–1/2	1/2–6	1–3/8	1/4(a)	2
4–1/2	1/2–12	1–1/4	1/2	3
4–1/2	1/2–20	2	2	3
4–1/2	22–30	2	2	3
5–1/2	1/2–6	1–3/8	1(b)	4

- (a) MIN 2 IN THICKNESS OF MINERAL–WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE.
(b) MIN 1 IN. THICKNESS OF MINERAL–WOOL BATT INSULATION REQUIRED IN ANNULAR SPACE ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. MIN 1IN. THICKNESS OF CAULK TO BE INSTALLED FLUSH WITH EACH SURFACE FLOOR OR WALL ASSEMBLY.

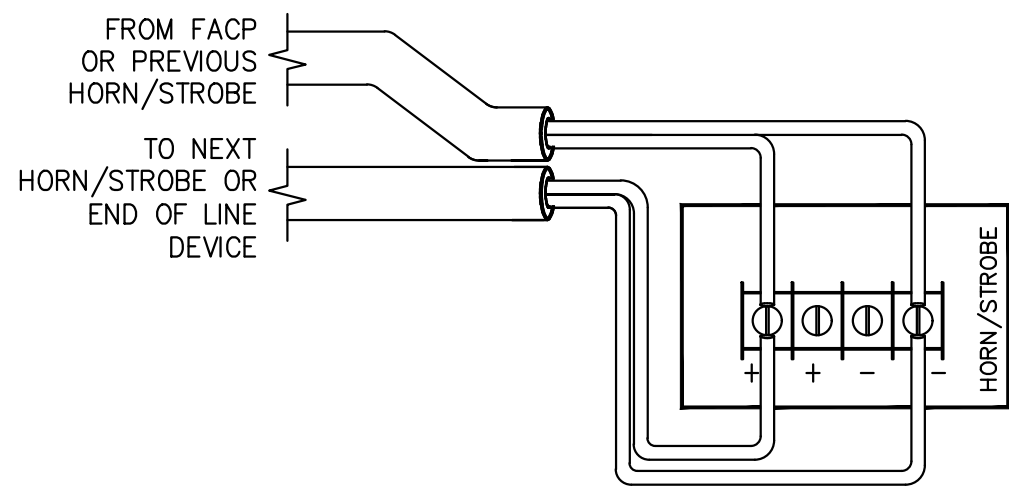
MINNESOTA MINING & MANUKACTURING CO – TYPES CP–25 WB, CP–25 WB+.
(NOTE: L RATING AND OR USE OF OPTIONAL SLEEVE APPLY ONLY WHEN TYPE CP–25WB+ CAULK IS USED).

SYSTEM NO. WL1001
(Formerly System No. 147)

F RATING – 1 & 2 HOUR
T RATING – 0, 1, 1–1/2 & 2 HOUR



- SEAL ALL PENETRATIONS IN ACCORDANCE WITH APPLICABLE CODES TO PRESERVE ORIGINAL FIRE HOUR RESISTANCE OF WALLS, FLOORS OR CEILINGS. USE UL DIRECTOY ASSEMBLY NOS. 49 & 328, AS APPLICABLE FOR ALL FIRE WALL PENETRATIONS.
- AT FIRE SEPARATION WALLS, WRAP CONDUIT WITH 3M CONDUIT WRAP F3–195 TO WITHIN 1/4” OF OPENING; FILL THE GAP AND COVER EDGE OF WRAP WITH 3M–CP25 CAULK AND/OR #303 PUTTY.

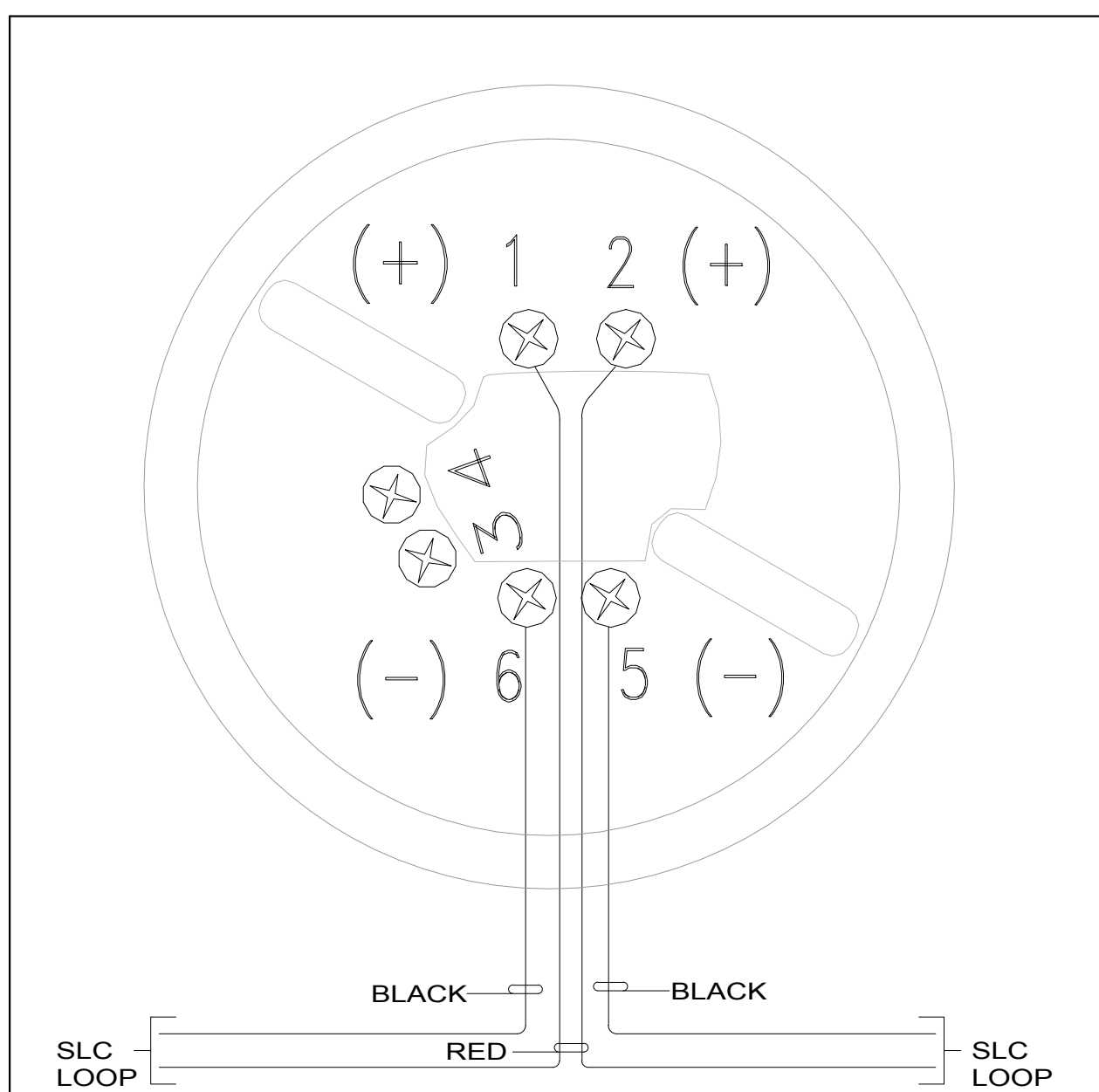


HORN/STROBE CIRCUIT, 24VDC

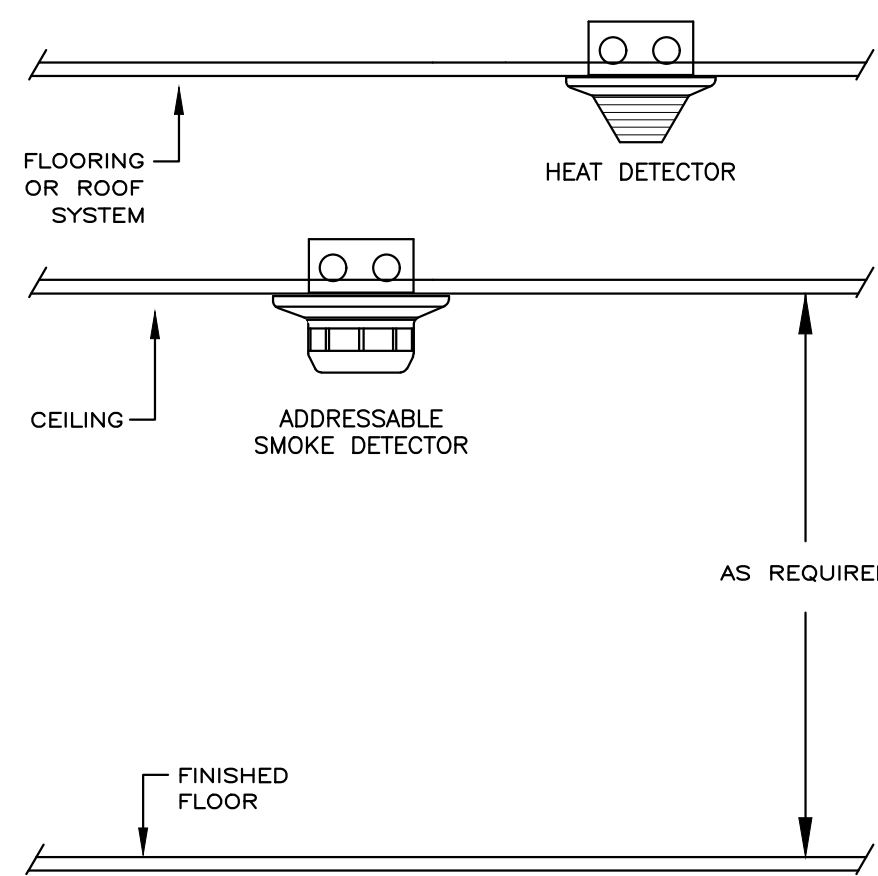
NOTE:

- STROBE CIRCUIT COMING FROM THE NAC USE: 24K, END OF LINE DEVICE.

HORN/STROBE, STROBE & HORN DETAILS

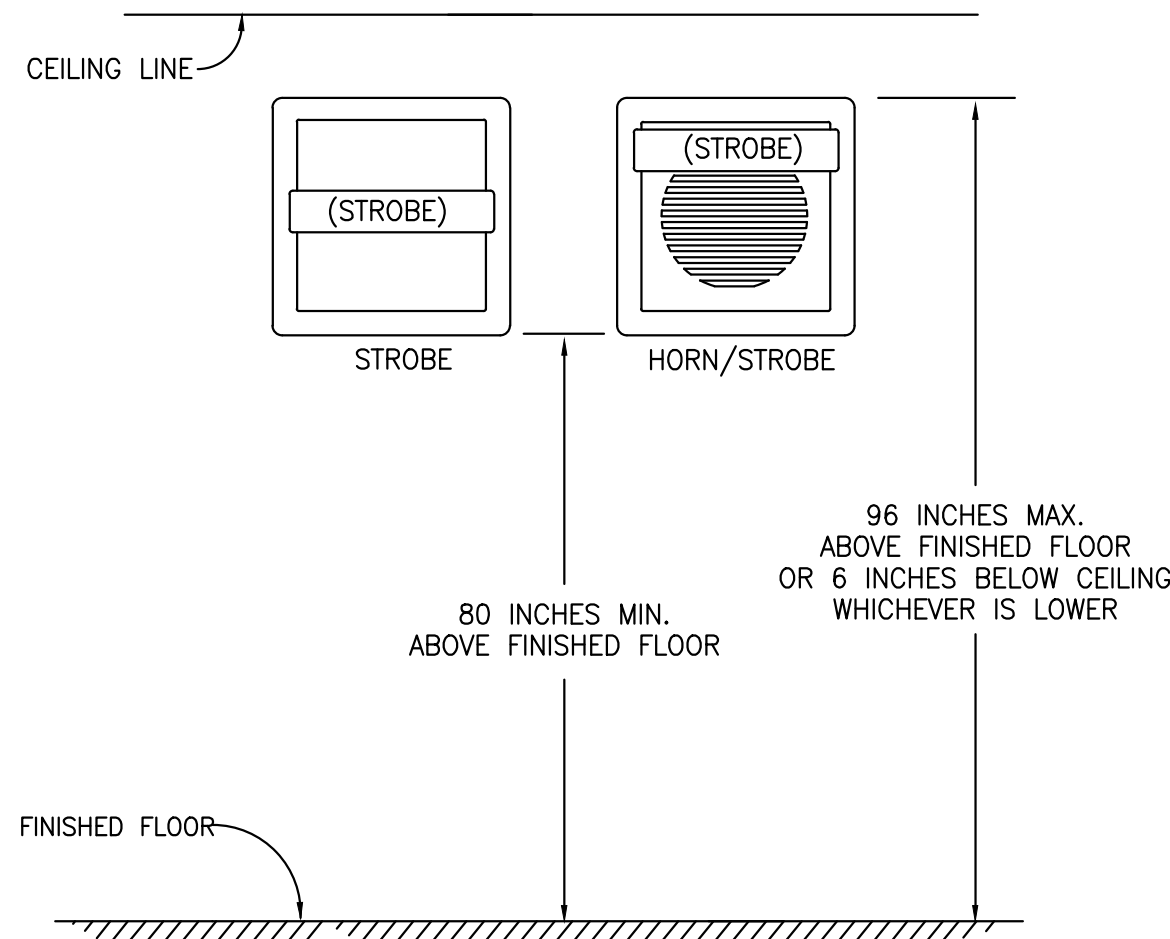


DETECTOR BASE

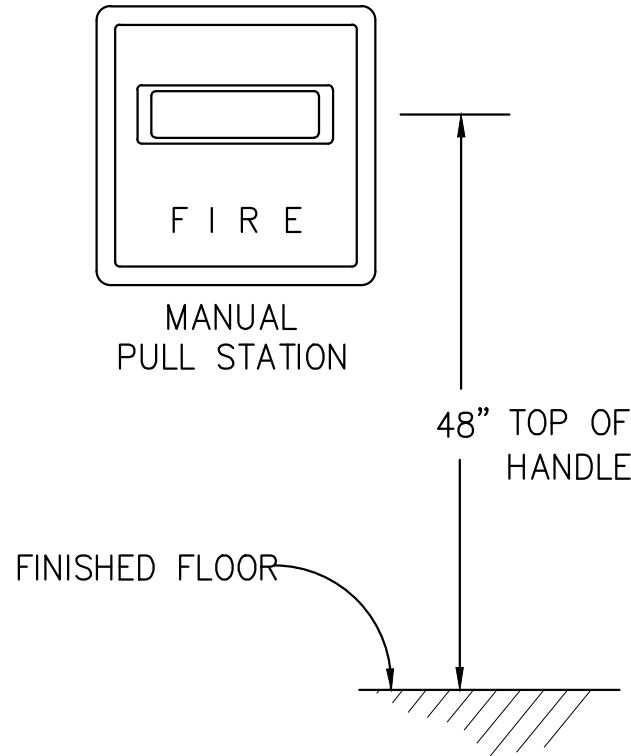


DETECTORS MOUNTING DETAIL

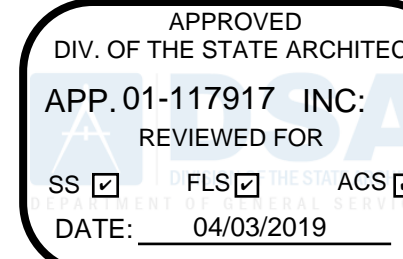
SCALE: N.T.S.



TYPICAL MOUNTING ELEVATION DETAIL
OF STROBE & HORN/STROBE



MANUAL PULL STATION
ELEVATION



Encinal E.S.
Administration
Building
Modernization

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date	Issued For
10/23/2018	DSA PRELIM. SUBMITTAL
01/11/2019	DSA SUBMITTAL
04/02/2019	DSA BACKCHECK



HED

417 Montgomery Street
Suite 400
San Francisco, CA
94104 USA

(415) 981-2345

WWW.HED.DESIGN

2018-03800-000

FIRE ALARM
DETAILS

FA3.3

MECHANICAL LEGEND AND ABBREVIATIONS											
SYMBOL	ABBREVIATION	DESCRIPTION	SYMBOL	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
			③		SWITCH OR SENSOR - MOUNT TOP OF BOX AT +48" AFF	Ø	DIAMETER	IFC	IN FURRED CEILING		
			①		THERMOSTAT - MOUNT TOP OF BOX AT +48" AFF	Ø	PHASE	IN.	INCH, INCHES		
			④		SHEET NOTE DESIGNATION	AC, A/C	AIR CONDITIONING UNIT	(2"L) (1"L), OR (L)	LINED DUCT - ALL DIMENSIONS SHOWN ARE NET CLEAR INSIDE DIMENSIONS. DUCTS ARE TO BE INCREASED IN SIZE TO ACCOMMODATE LINING WITHOUT LOSS OF AREA. (2"L) INDICATES 2" THICK, 3 PCF LINING; (1"L) OR (L) INDICATES 1" THICK, 15 PCF LINING.		
	20"x20"-EG	CEILING EXHAUST GRILLE WITH SQUARE NECK - TITUS MODEL 35CZRL. ALL STEEL GRILLE WITH 3/4" BLADE SPACING AND 0" FIXED DEFLECTION. NECK SIZE AS SHOWN ON DRAWINGS. PROVIDE PLENUM ON BACK OF GRILLE TO MATCH NECK SIZE. PLENUM HEIGHT AS REQUIRED FOR SIDE CONNECTION OF ROUND BRANCH DUCTING. FOR TOP DUCT CONNECTION, PROVIDE SQUARE TO ROUND FITTING. BORDER TYPE 3 WITH FACTORY EXTENDED PANEL FOR SUSPENDED TILE CEILINGS. COLOR: WHITE.	Ⓜ		ITEM FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR	ALT.	ALTERNATE				
	20"x20"-TG	CEILING TRANSFER GRILLE WITH SQUARE NECK - TITUS MODEL 35CZRL. ALL STEEL GRILLE WITH 3/4" BLADE SPACING AND 35° FIXED DEFLECTION. NECK SIZE AS SHOWN ON DRAWINGS. PROVIDE PLENUM ON BACK OF GRILLE TO MATCH NECK SIZE. PLENUM HEIGHT AS REQUIRED FOR SIDE CONNECTION OF ROUND BRANCH DUCTING. FOR TOP DUCT CONNECTION, PROVIDE SQUARE TO ROUND FITTING. BORDER TYPE 3 WITH FACTORY EXTENDED PANEL FOR SUSPENDED TILE CEILINGS. COLOR: WHITE.	ⓔ		ITEM FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR	AP	ACCESS PANEL				
			Ⓟ		ITEM FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR	APPROX.	APPROXIMATE				
		LINED DUCT - ALL DIMENSIONS SHOWN ARE NET CLEAR INSIDE DIMENSIONS. DUCTS ARE TO BE INCREASED IN SIZE TO ACCOMMODATE LINING, WITHOUT LOSS OF AREA.	Ⓛ		DETAIL REFERENCE - UPPER NUMBER=DETAIL NUMBER, LOWER NUMBER=SHEET NUMBER	ARCH.	ARCHITECT, ARCHITECTURAL	LBS., #	POUNDS		
		SQUARE TO ROUND FITTING - RECTANGULAR TO ROUND DUCT TRANSITION	M2			BC	BRANCH CIRCUIT	LV6.	LEAVING		
		FLEXIBLE DUCT	Ⓛ		EQUIPMENT TAG	BF	BELOW FLOOR	MAT'L, MATL.	MATERIAL		
	VD	VOLUME DAMPER	Ⓛ		EXISTING DUCT, PIPING OR EQUIPMENT TO BE REMOVED	BS	BELOW GRADE	MAX.	MAXIMUM		
	VD	CABLE OPERATED REMOTE VOLUME DAMPER. YOUNG REGULATOR MODEL 9020-1200 WITH 846-F5 CONCEALED CAP. INSTALL AT ALL DAMPERS LOCATED ABOVE GYP. BD. CEILING.	VR			BLDG.	BUILDING	MBH	1,000 BTU/HR.		

SYSTEM ACOUSTICS NOTES

- ALL HVAC EQUIPMENT IS TO BE ADJUSTED SO THAT IT IS OPERATING AT OR BELOW THE MANUFACTURER'S LISTED NOISE LEVELS.
 - SINGLE PHASE MOTOR HUM IS NOT ACCEPTABLE. ANY MOTORS THAT EXHIBIT MOTOR HUM ARE TO BE REPLACED.
 - EXCESSIVE EQUIPMENT VIBRATION IS NOT ACCEPTABLE. EQUIPMENT THAT EXHIBITS EXCESSIVE OR LOUD VIBRATIONS IS TO BE CORRECTED OR REPLACED.
- ALL POSSIBLE SOURCES OF NOISE ARE TO BE REVIEWED AND ADDRESSED SO THAT THE SYSTEMS ARE OPERATING QUIETLY INCLUDING THE FOLLOWING:
 - ALL FAN SYSTEMS ARE TO BE ADJUSTED SUCH THAT THE SYSTEMS DELIVER THE REQUIRED CFM AIRFLOW AT THEIR LOWEST POSSIBLE SPEED SETTINGS. THIS ADJUSTMENT IS TO INCLUDE DRIVE AND/OR SHEAVE CHANGES AS REQUIRED ON ANY FAN SYSTEMS THAT DO NOT MEET AIRFLOW OR ACOUSTICAL REQUIREMENTS.
 - AIR BALANCE PROCEDURE IS TO BE AS FOLLOWS:
 - ADJUST ALL DAMPERS IN DUCT SYSTEM TO THEIR FULL OPEN POSITION.
 - MEASURE AND RECORD THE TOTAL DELIVERED AIRFLOW OF FAN SYSTEM.
 - REDUCE FAN SPEED TO DELIVER TOTAL REQUIRED CFM AIRFLOW AS SHOWN ON THE FLOOR PLANS.
 - ADJUST INDIVIDUAL BALANCING DAMPERS IN THE DUCTWORK TO PROPORTION CFM TO AIRFLOW VALUES SHOWN ON THE FLOOR PLANS.
- VARY TOTAL SYSTEM AIR QUANTITIES BY ADJUSTMENT OF FAN SPEEDS. INSTALL DRIVE AND/OR SHEAVE CHANGES AS REQUIRED. VARY BRANCH AIR QUANTITIES BY DAMPER REGULATION.
- AIR BALANCING OF THE DUCT SYSTEMS IS TO BE MADE SO THAT AIR NOISE IS KEPT TO A MINIMUM. AIR BALANCING IS TO BE MADE STARTING WITH THE FARTHEST REGISTER FROM THE FAN, WORKING BACK TO THE EQUIPMENT. "PINCHING" AN IN-LINE DAMPER THAT IS CLOSE TO THE FAN IS NOT ACCEPTABLE.
- BALANCING DAMPERS ARE TO BE INSTALLED IN ALL BRANCH SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST DUCTS WHETHER OR NOT SHOWN ON THE DRAWINGS. ALL BALANCING DAMPERS ARE TO BE INSTALLED IN THE WYE BRANCHES, OR IN THE BRANCH DUCT AS FAR AWAY FROM THE REGISTER OR GRILLE AS POSSIBLE. STRAIGHT RUNS OF EXPOSED DUCT WITH DUCT MOUNTED REGISTERS OR GRILLES ARE TO INCLUDE BALANCING DAMPERS AT THE MID-POINTS BETWEEN THE REGISTERS OR GRILLES. INSTALL CABLE OPERATED DAMPERS AT INACCESSIBLE AREAS.
- SPRING ISOLATORS ARE TO BE ADJUSTED SUCH THAT THE ISOLATED EQUIPMENT IS FLOATING FREELY ON ITS SPRINGS. SPRING RATES ARE TO BE CORRECTLY ORDERED SO THAT THE EQUIPMENT SITS LEVEL, WITHOUT ANY ONE SIDE OR AREA BOTTOMING OR OVERLOADING THE SPRINGS.
- FOR ALL EQUIPMENT WITHOUT SPRING ISOLATORS, INSTALL 3/4" THICK NEOPRENE ISOLATION PADS, MASON SUPER W OR EQUAL.
- FLEXIBLE FABRIC DUCT CONNECTORS ARE TO BE INSTALLED AT ALL CONNECTIONS TO EQUIPMENT.
- FLEXIBLE ELECTRICAL AND PLUMBING CONNECTORS ARE TO BE USED AT ALL CONNECTIONS TO NON-RIGIDLY MOUNTED EQUIPMENT.
- ALL ROOF, CEILING, AND WALL PENETRATIONS (DUCT AND PIPING) ARE TO BE CAULKED AND SEALED. INSULATION MAY BE USED IN CONCEALED AREAS TO FILL VOIDS. FIRE CAULK ALL PENETRATIONS THROUGH RATED WALLS WITH 3M FIRESTOPPING SYSTEMS, OR EQUAL.
- COMPRESSORS ARE TO BE RELEASED FROM THEIR SHIPPING BOLTS.
- ALL SIDEWALL SUPPLY AIR REGISTERS ARE TO BE ADJUSTED SO THAT THE HORIZONTAL BLADES ARE POINTING SLIGHTLY ABOVE HORIZONTAL AND THE VERTICAL BLADES ARE ADJUSTED SO THAT THEY ARE DIFFUSED IN A 45° PATTERN. ADJUSTMENTS ARE TO BE MADE SUCH THAT NO DRAFTS ARE NOTICEABLE AT T-O-AFF OR BELOW. PATTERN IS TO BE CONSISTENT THROUGHOUT.

FIRE RATED PENETRATIONS

- ALL ROOF, CEILING, AND WALL PENETRATIONS (DUCT AND PIPING) ARE TO BE CAULKED AND SEALED. INSULATION MAY BE USED IN CONCEALED AREAS TO FILL VOIDS. FIRE CAULK ALL PENETRATIONS THROUGH RATED WALLS WITH 3M FIRESTOPPING SYSTEMS, OR EQUAL. SYSTEMS TO MEET ALL REQUIREMENTS OF 2019 CBC SECTIONS 714 & 711.
- THROUGH PENETRATIONS SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E 814 OR UL 1479, WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER AND SHALL HAVE AN F RATINGS OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATINGS OF THE WALL PENETRATED. (2019 CBC SECTION 714.3.1.2)
- INSTALL FIRE DAMPERS OR FIRE/SMOKE DAMPERS WHERE REQUIRED TO MEET ALL REQUIREMENTS OF 2019 CBC SECTIONS 714 & 711.

COORDINATION NOTES

- MECHANICAL CONTRACTOR IS TO COORDINATE WORK CLOSELY WITH ALL OTHER TRADES TO AVOID CONFLICTS WITH WORK FROM OTHER SECTIONS. MECHANICAL SYSTEMS ARE TO HAVE THE HIGHEST PRIORITY.
- MECHANICAL SYSTEMS HAVE BEEN SHOWN AS ACCURATELY AS POSSIBLE. THE MECHANICAL CONTRACTOR IS TO INCLUDE IN HIS BID OFFSETS AND REROUTING AS REQUIRED TO ACCOMMODATE ACTUAL FIELD CONDITIONS.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTERS 13, 26 AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED TO THE BUILDING UTILITY SERVICES SUCH AS GAS OR WATER PIPING.
- MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND 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 ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK AND PIPING.

- 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.
- 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.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK SYSTEMS BRACING NOTE

PIPING AND DUCTWORK SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTIONS 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC SECTIONS 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

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

MECHANICAL PIPING (MP) AND MECHANICAL DUCTS (MD) :

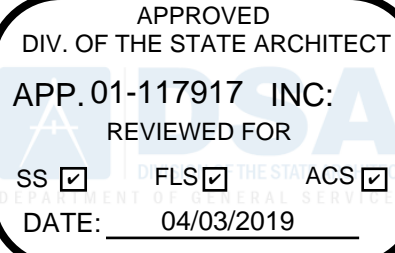
MP ☐ MD ☐ - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #0052-13).

MP ☒ MD ☒ - OPTION 3: SHALL COMPLY WITH SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2004), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL AND CONNECTION LEVEL FOR THE PROJECT AND CONDITIONS.

MECHANICAL LIST OF DRAWINGS

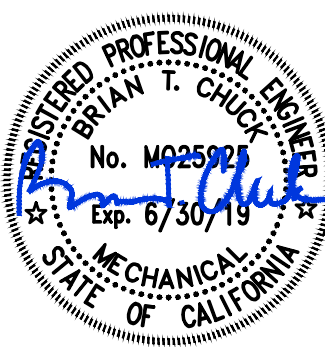
M-01	MECHANICAL LEGEND AND NOTES
M-01A	TITLE 24 FORMS
M-02	MECHANICAL SCHEDULES
M-03	MECHANICAL SCHEDULES
M-101	MECHANICAL DEMOLITION PLAN - ADMINISTRATION BLDG
M-201	MECHANICAL FLOOR PLAN - ADMINISTRATION BLDG
M-202	MECHANICAL PIPING PLAN - ADMINISTRATION BLDG
M-401	MECHANICAL DETAILS
M-402	MECHANICAL DETAILS
M-501	MECHANICAL CONTROL DIAGRAMS



Encinal E.S. Administration Building Modernization

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10/23/2018 DSA PRELIM. SUBMITTAL
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
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MECHANICAL LEGEND AND NOTES

M-01

STATE OF CALIFORNIA MECHANICAL SYSTEMS CEC-NRCC-MCH-01-E (Revised 01/10) CERTIFICATE OF COMPLIANCE Mechanical Systems Project Name: ENCINAL E.S. ADMIN. BUILDING MODERNIZATION	 CALIFORNIA ENERGY COMMISSION NRCC-MCH-01-E (Page 1 of 4) Date Prepared: 1/10/2019
---	---

A. MECHANICAL COMPLIANCE DOCUMENTS & WORKSHEETS (check box if worksheet is included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, refer to the 2016 Nonresidential Manual
 Note: The Enforcement Agency may require all forms to be incorporated onto the building plans.

YES	NO	Comp. Doc./Worksheet #	Title
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-01-E (Part 1 of 3)	Certificate of Compliance, Declaration. Required on plans for all submittals.
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-01-E (Part 2 of 3)	Certificate of Compliance, Required Acceptance Tests (MCH-02 to 11-A). Required on plans for all submittals.
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-01-E (Part 3 of 3)	Certificate of Compliance, Required Acceptance Tests (MCH-12-A to 18-A). Required on plans where applicable.
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-02-E (Part 1 of 2)	Mechanical Dry Equipment Summary is required for all submittals with Central Air Systems. It is optional on plans.
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-02-E (Part 2 of 2)	Mechanical Wet Equipment Summary is required for all submittals with chilled water, hot water or condenser water systems. It is optional on plans.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-03-E	Mechanical Ventilation and Exhaust is required for all submittals with multiple zone heating and cooling systems. It is optional on plans.
<input type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-07-E (Part 1 of 2)	Power Consumption of Fans. Required on plans where applicable.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCC-MCH-07-E (Part 2 of 2)	Power Consumption of Fans, Declaration. Required on plans where applicable.

STATE OF CALIFORNIA MECHANICAL SYSTEMS (CEC-MCH-01-E Rev.04/07/16) CERTIFICATE OF COMPLIANCE	CALIFORNIA ENERGY EFFICIENCY NRCC-MCH-01-E (Page 2 of 4)
Mechanical Systems	
Project Name: ENCIÑAL E.S. ADMIN. BUILDING MODERNIZATION	Date Prepared: 1/10/2019

B. MECHANICAL HVAC ACCEPTANCE FORMS (check box for required compliance documents)

Test Performed By:

Designer:

This compliance document is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for HVAC systems. The designer is required to check the applicable boxes for all acceptance tests that apply and list all equipment that requires an acceptance test. All equipment of the same type that requires a test, list the equipment description and the number of systems.

Installing Contractor:



The contractor who installed the equipment is responsible to either conduct the acceptance test themselves or have a qualified entity run the test for them. If more than one person has responsibility for the acceptance testing, each person shall sign and submit the Certificate of Acceptance applicable to the portion of the construction or installation for which they are responsible.

Enforcement Agency:

Plancheck – The NRCC-MCH-01-E compliance document is not considered a completed document and is not to be accepted by the building department unless the correct boxes are checked.

Inspector - Before occupancy permit is granted all newly installed process systems must be tested to ensure proper operations.


Test Description	MCH-02-A	MCH-03-A	MCH-04-A	MCH-05-A	MCH-06-A	MCH-07-A	MCH-08-A	MCH-09-A	MCH-10-A	MCH-11-A
Equipment Requiring Testing or Verification	# of Units	Outdoor Air Single Zone Unitary	Air Distribution Ducts	Economizer Controls	Demand Control Ventilation (DCV)	Supply Fan VAV	Valve Leakage Test	Supply Water Temp. Reset	Hydronic System Variable Flow Control	Automatic Demand Shed Control
VFC-1 THRU VFC-11	11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

STATE OF CALIFORNIA MECHANICAL SYSTEMS <small>CEC-MS-CM-001-01.0 (Revised 01/19)</small>		CALIFORNIA ENERGY COMMISSION NRCC-MCH-001-E (Page 4 of 4)	
CERTIFICATE OF COMPLIANCE Mechanical Systems		Date Prepared: 1/10/2019	
Project Name: ENCINAL E.S. ADMIN. BUILDING MODERNIZATION			
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete.			
Documentation Author Name: MARC WOODMAN		Documentation Author Signature: 	
Company: MCCRACKEN & WOODMAN, INC.		Signature Date: 1/10/2019	
Address: 3740 MT. DIABLO BLVD., SUITE A305		CEH/ HERS Certification Identification (if applicable):	
City/State/Zip: LAFAYETTE, CA 94549		Phone: 925.283.4891	
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 Designer Name: BRIAN CHUCK		Responsible Designer Signature: 	
Company: MCCRACKEN & WOODMAN, INC.		Date Signed: 1/10/2019	
Address: 3740 MT. DIABLO BLVD., SUITE A305		License: M205925	
City/State/Zip: LAFAYETTE, CA 94549		Phone: 925.283.4891	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

HVAC DRY & WET SYSTEM REQUIREMENTS		CALIFORNIA ENERGY COMMISSION	 NRCC-MCH-02-E (Page 1 of 3)			
CERTIFICATE OF COMPLIANCE						
HVAC Dry & Wet System Requirements						
Project Name:	ENCINAL E.S. ADMIN. BUILDING MODERNIZATION	Date Prepared:	1/10/2019			
A. Equipment Tags and System Description⁽¹⁾ – Dry Systems						
MANDATORY MEASURES		T-24 Sections	<i>Reference to the Requirements in the Contract Documents⁽²⁾</i>			
Heating Equipment Efficiency ⁽³⁾		110.1(f) or 110.2(a)	M-02			
Cooling Equipment Efficiency ⁽³⁾		110.1(f) or 110.2(a)	M-02			
HVAC or Heat Pump Thermostats		110.2(b), 110.2(c)	M-02			
Furnace Standby Load Control		110.2(d)	NA			
Low Leakage AHUs		110.2(f)	NA			
Ventilation ⁽⁴⁾		110.2(b)	M-02			
Demand Control Ventilation ⁽⁴⁾		120.1(c)(4)	M-02			
Occupant Sensor Ventilation Control ⁽⁴⁾		120.1(c)(5), 120.2(e)(3)	NA			
Shutoff and Reset Controls		120.2(e)	NA			
Outdoor Air and Exhaust Damper Control		120.2(f)	NA			
Isolation Zones		120.2(g)	NA			
Automatic Demand Shed Controls		120.2(h)	NA			
Economizer FDD		120.2(i)	NA			
Duct Insulation		120.4	SPEC. 25.00 00			
PREScriptive MEASURES						
Equipment is sized in conformance with 140.4(a,b)		140.4(a,b)	Y/N	Y/N		
Supply Fan Pressure Control		140.4(c)	NA			
Simultaneous Heat/Cool ⁽⁵⁾		140.4(d)	NA			
Economizer		140.4(e)	N			
Heat and Cool Air Supply Reset		140.4(f)	NA			
Electric Resistance Heating		140.4(g)	NA			
Duct Leakage Sealing and Testing ⁽⁶⁾		140.4(j)	SPEC. 25.00 00			
Notes:						
1. Provide equipment tags (e.g. AHU 1 to 10) and system description (e.g. Single Duct VAV reheat) as appropriate. Multiple units with common requirements can be grouped together.						
2. Provide references to plans (i.e. Drawing Sheet Numbers) and/or specifications [including Section name/number and relevant paragraph(s) where each requirement is specified. Enter "N/A" if the requirement is not applicable to this system].						
3. The referenced plans/specifications must include all of the following information: equipment tag, equipment nominal capacity, Title 24 minimum efficiency requirements, and actual rated efficiency values. Where multiple efficiency requirements are applicable (e.g. full- and part-load) include all. Where appliance standards apply (110.1), identify where equipment is required to be listed per T20 1601 et seq.						
4. If the system is a VAV system, the requirements are documented for each central HVAC system. Include references to both central unit schedules and sequences of operation. If one or more space is naturally ventilated identify where this is documented in the plans and specifications. Multiple zone central air systems must also provide a MCH-03-E compliance document.						
5. If one or more spaces has demand controlled ventilation identify where it is specified including the sensor specifications and the sequence of operation.						
6. If one or more space has occupant sensor ventilation control identify where it is specified including the sensor specifications and the sequence of operation.						
7. If the system is DOCS identify the sequences for the system start/stop, optimal start, setback (if required) and return (if required). For all systems identify the specification for the thermostats and time clocks (if applicable).						
8. Identify where the heating, cooling and deadband airflowers are scheduled for this system. Include a reference to the specification of the zone controls. Provide a MCH-03-E compliance document.						
9. If there is electric heating, if the system has electric heating include the specification of the electric heating load.						
10. If duct leakage sealing and testing is required, a MCH-03-E compliance document must be submitted.						

STATE OF CALIFORNIA
HVAC DRY & WET SYSTEM REQUIREMENTS
GRACIE MACKEY ARCHITECTS

CALIFORNIA ENERGY COMMISSION
NRCC-MCH-02-E
(Page 2 of 3)

CERTIFICATE OF COMPLIANCE
HVAC Dry & Wet System Requirements

Effective Date: 1/10/2019

Project Name: ENCINAL E.S. ADMIN. BUILDING MODERNIZATION

B. Equipment Tags and System Designations – Wet Systems

MANDATORY MEASURES	T-24 Sections	Reference to the Requirements in the Contract Documents ¹		
Heating Hot Water Equipment Efficiency ²	110.1	NA		
Cooling Chilled and Condenser Water Equipment Efficiency ³	110.1, 140.4(i)	NA		
Open and Closed Circuit Cooling Towers conductivity or flow-based controls	110.2(e) 1	NA		
Open and Closed Circuit Cooling Towers Maximum Achievable Cycles of Concentration (LSI) ⁴	110.2(e) 2	NA		
Open and Closed Circuit Cooling Towers Flow Meter with analog output	110.2(e) 3	NA		
Open and Closed Circuit Cooling Towers Overflow Alarm	110.2(e) 4	NA		
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators	110.2(e) 5	NA		
Pipe Insulation	120.3	NA		
PREScriptive MEASURES				
Cooling Tower Fan Controls	140.4(h)2, 140.4(h)5	Y/N	Y/N	Y/N
Cooling Tower Flow Controls ⁵	140.4(h)3	NA		
Centrifugal Fan Cooling Towers ⁶	140.4(h)4	NA		
Air-Cooled Chiller Limitation ⁷	140.4(i)	NA		
Variable Flow System Design	140.4(k)	NA		
Chiller and Boiler Isolation	140.4(k)	NA		
CHW and HHW Reset Controls	140.4(k)	NA		
WLHP Isolation Valves	140.4(k)	NA		
VSD on CHW, CW & WLHP Pumps >HP	140.4(k)	NA		
DP Sensor Location	140.4(k)	NA		

Notes:

- Provide equipment tags (e.g. CH 1 to 3) or system designation (e.g. CHW loop) as appropriate. Multiple units with common requirements can be grouped together.
- Provide references to plans (i.e. Drawing Sheet Numbers) and/or specifications (including Section name/number and relevant paragraph) where each requirement is specified. Enter "N/A" if the requirement is not applicable to this system.
- Refer to equipment tags and specifications must include all of the following information: equipment tag, equipment nominal capacity, Title 24 minimum efficiency requirements, and actual rated equipment efficiencies. Where multiple efficiency requirements are applicable (e.g. full- and part-load) include all. For chillers operating at non-standard efficiencies provide the KdJ values. For chillers also note whether the efficiencies are Path A or Path B.
- If cooling towers have propeller fans. If towers use centrifugal fans cooling tower which exception is used.
- If air-cooled chillers are used, document which exceptions have been used to comply with 140.4(i) and the total installed design capacity of the air-cooled chillers in the chilled water plant.
- Identify the existence of a completed MCH-06-E when open or closed circuit cooling towers are specified to be installed, otherwise enter "N/A".

STATE OF CALIFORNIA HVAC SYSTEM REQUIREMENTS		CALIFORNIA ENERGY COMMISSION 
CERTIFICATE OF COMPLIANCE HVAC Wet System Requirements		NRC-MCH-02-P (Page 3 of 3)
Project Name:	ENCINAL E.S. ADMIN. BUILDING MODERNIZATION	Date Entered: 1/10/2019
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT		
1. I certify that this Certificate of Compliance documentation is accurate and complete.		
Documentation Author Name:	MARC WOODMAN	Documentation Author Signature: 
Company:	MCCRACKEN & WOODMAN, INC.	Signature Date: 1/10/2019
Address:	3470 MT. DIABLO BLVD., SUITE A305	CEA/HRS Certification (if applicable):
City/State/Zip:	LAFAYETTE, CA 94549	Phone: 925.283.4991
RESPONSIBLE PERSON'S DECLARATION STATEMENT		
1. 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.		
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. My energy features and performance specifications, materials, components, and/or 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 this 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:	BRIAN CHUCK	Responsible Designer Signature: 
Company:	MCCRACKEN & WOODMAN, INC.	Date Signed: 1/10/2019
Address:	3470 MT. DIABLO BLVD., SUITE A305	License: M025925
City/State/Zip:	LAFAYETTE, CA 94549	Phone: 925.283.4991

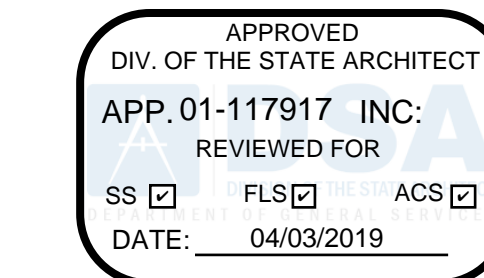
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance
January 2016

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

T24 VENTILATION REMARKS:

MODELING APPROACH IS BASED ON LIMITATIONS AVAILABLE IN ENERGY PRO CALCULATION. REFER TO THE RECORD MECHANICAL SCHEDULES/PLANS FOR COMMISSIONING/ACCEPTANCE TESTING AND VENTILATION AIRFLOWS.



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





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TITLE 24
FORMS

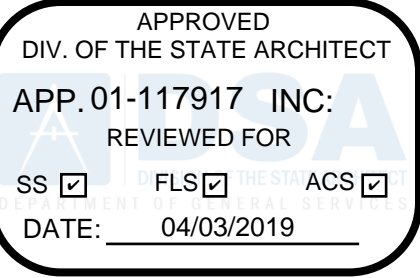
M-01A

VRF OUTDOOR UNIT SCHEDULE																			
SYMBOL	MANUFACTURER	MODEL NO.	SERIES	SYSTEM TYPE	COMPRESSOR OPERATING RANGE	REFRIGERANT	COOLING CAPACITY @ ARI (btu/ hr)	HEATING CAPACITY @ ARI (btu/ hr)	NUMBER OF MODULES	MODULE MODEL NO.	COMPRESSORS	COMPRESSOR TYPE	ELECTRICAL DATA				SYSTEM NOISE LEVEL (dBA)	SYSTEM OPERATING HEIGHT (LBS.)	NOTES
													VOLTAGE	PHASE	MCA (AMPS)	MCOP (AMPS)			
	MITSUBISHI	PURY-P168TSLMU-A	R2	SIMULTANEOUS HEATING/ COOLING	6% TO 100%	R410A	168,000	168,000	2	PURY-P16TLMU-A-B5	1	INVERTER HERMETIC SCROLL	208-230V	3Φ	33	50	61.0	450	①
										PURY-P12THMU-A	1	INVERTER HERMETIC SCROLL	208-230V	3Φ	24	35			

- VRF OUTDOOR UNIT NOTES:
- PROVIDE WITH THE FOLLOWING:
 - SEPARATE ELECTRICAL CONNECTION REQUIRED FOR EACH MODULE.
 - AE200A TOUCHSCREEN CENTRALIZED CONTROLLER WITH PRE-PROGRAMMED SYSTEM SOFTWARE.
 - INVERTER DRIVEN COMPRESSOR(S).
 - ELECTRONIC EXPANSION VALVES.
 - FOLLOW MANUFACTURER'S INSTALLATION AND PIPING REQUIREMENTS CLOSELY.
 - REFRIGERANT PIPING THINNING KIT AS REQUIRED. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

VRF FAN COIL SCHEDULE																	
SYMBOL	AREA SERVED	MANUFACTURER	MODEL NO.	CONFIGURATION	ASSOCIATED OUTDOOR UNIT	TOTAL COOLING CAPACITY @ ARI (BTU/HR.)	HEATING CAPACITY @ ARI (BTU/HR.)	CFM (MAX)	STATIC PRESSURE SETTING (IN. W.G.)	ELECTRICAL DATA				NOISE LEVEL @ MAX CFM (DBA)	OUTSIDE AIR QUANTITY (CFM)	APPROX. OPERATING WEIGHT (LBS.)	NOTES
										VOLTAGE	PHASE	MCA	MCOP (AMPS)				
	BUILDING B ADMIN. AREA TEACHERS' CONF. B6	MITSUBISHI	PLFY-P15NFMU-E	2x2 CEILING RECESSED	VRF-1	15,000	17,000	340	-	208/230V	1ø	.35	15	28-34 (LOW-HIGH)	120	45	①②
	BUILDING B ADMIN. AREA WORKROOM B5	MITSUBISHI	PLFY-P15NFMU-E	2x2 CEILING RECESSED	VRF-1	15,000	17,000	340	-	208/230V	1ø	.35	15	28-34 (LOW-HIGH)	40	45	①②
	BUILDING B ADMIN. AREA WORKROOM B5	MITSUBISHI	PLFY-P15NFMU-E	2x2 CEILING RECESSED	VRF-1	15,000	17,000	340	-	208/230V	1ø	.35	15	28-34 (LOW-HIGH)	40	45	①②
	BUILDING B ADMIN. AREA MAIN OFFICE B3	MITSUBISHI	PLFY-P15NFMU-E	2x2 CEILING RECESSED	VRF-1	15,000	17,000	340	-	208/230V	1ø	.35	15	28-34 (LOW-HIGH)	45	45	①②
	BUILDING B ADMIN. AREA MAIN OFFICE B3	MITSUBISHI	PLFY-P15NFMU-E	2x2 CEILING RECESSED	VRF-1	15,000	17,000	340	-	208/230V	1ø	.35	15	28-34 (LOW-HIGH)	55	45	①②
	BUILDING B ADMIN. AREA HEALTH B3A	MITSUBISHI	PLFY-P08NFMU-E	2x2 CEILING RECESSED	VRF-1	8,000	9,000	315	-	208/230V	1ø	.28	15	26-33 (LOW-HIGH)	30	45	①②
	BUILDING B ADMIN. AREA OFFICE B2	MITSUBISHI	PLFY-P05NFMU-E	2x2 CEILING RECESSED	VRF-1	5,000	5,600	280	-	208/230V	1ø	.24	15	26-30 (LOW-HIGH)	30	45	①②
	BUILDING B ADMIN. AREA PRINCIPAL B4	MITSUBISHI	PLFY-P18NFMU-E	2x2 CEILING RECESSED	VRF-1	18,000	20,000	460	-	208/230V	1ø	.50	15	33-43 (LOW-HIGH)	25	45	①②
	BUILDING B ADMIN. AREA PRINCIPAL B4	MITSUBISHI	PLFY-P18NFMU-E	2x2 CEILING RECESSED	VRF-1	18,000	20,000	460	-	208/230V	1ø	.50	15	33-43 (LOW-HIGH)	20	45	①②
	BUILDING B ADMIN. AREA OFFICE B1	MITSUBISHI	PLFY-P15NFMU-E	2x2 CEILING RECESSED	VRF-1	15,000	17,000	340	-	208/230V	1ø	.35	15	28-34 (LOW-HIGH)	60	45	①②
	BUILDING B ADMIN. AREA CORRIDOR	MITSUBISHI	PLFY-P18NFMU-E	2x2 CEILING RECESSED	VRF-1	18,000	20,000	460	-	208/230V	1ø	.50	15	33-43 (LOW-HIGH)	-	45	①②

- VRF FAN COIL NOTES:
- PROVIDE WITH THE FOLLOWING:
 - SET FAN COIL SWITCHES SO THAT ROOM TEMPERATURE IS READ FROM WALL CONTROLLER, NOT FROM RETURN AIR SENSOR.
 - INTERLOCK SUPPLY FANS WHERE OCCURS. PROVIDE ALL COMPONENTS AND ACCESSORIES AS REQUIRED.
 - CEILING RECESSED UNITS:
 - INTEGRAL CONDENSATE PUMP.
 - INTEGRAL FILTER.
 - DISABLE MODULATING AIRFLOW FUNCTION. ADJUST AIRFLOW PATTERN SO THAT NO DRAFTS ARE PRESENT.
 - SET CEILING RECESSED FAN SPEED TO MEDIUM HIGH (MID-2).
 - PAR-VOIMEDU-J WALL MOUNTED, WIRED CONTROLLER FOR VRF FAN COIL UNITS.
 - AFTER AIR BALANCING IS COMPLETE, PROGRAM ALL UNITS TO MEDIUM SPEED.



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VRF BC CONTROLLER SCHEDULE											
SYMBOL	AREA SERVED	TYPE	MANUFACTURER	ASSOCIATED OUTDOOR UNIT	MODEL NO.	NUMBER OF BRANCH CONNECTIONS	ELECTRICAL DATA			APPROX. OPERATING WEIGHT (LBS.)	NOTES
							VOLTAGE	PHASE	MCA (AMPS)		
	BUILDING B ADMIN. AREA	MAIN CONTROLLER	mitsubishi	VRF-I	CMB-PI08NU-HAI	8	208-230V	1ø	1.70	175	①
	BUILDING B ADMIN. AREA	SUB CONTROLLER	mitsubishi	VRF-I	CMB-PI08NU-GBI	8	208-230V	1ø	.65	175	①



- VRF BC CONTROLLER NOTES:**
- PROVIDE WITH THE FOLLOWING:
 - mitsubishi BV-SERIES REFRIGERATION ISOLATION/SERVICE VALVES AND BV-SERIES INSULATION AT ALL GAS AND LIQUID BRANCH CONNECTIONS, INCLUDING SPARES.
 - SPARE PORTS TO BE CAPPED AFTER VALVE.
 - CONDENSATE DRAIN PUMP KIT, REFCO 60BI SELF CONTAINED CONDENSATE PUMP, 161W@208V-1ø.

CABINET SUPPLY FAN SCHEDULE											
SYMBOL	MANUFACTURER	MODEL	AIR QUANTITY (CFM)	STATIC PRESSURE (IN. W.G.)	VOLTAGE/ PHASE	WATTS	AMPS	RPM	SONES	APPROX. OPER. WEIGHT (LBS.)	NOTES
	GREENHECK	CSP-A510-VG	305	0.25	120V/1ø	217	3.4	838	0.4	45	①②
	GREENHECK	CSP-A200	170	0.25	120V/1ø	40	-	802	0.3	25	①②

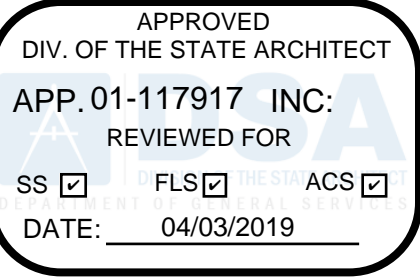
- CABINET SUPPLY FAN NOTES:**
- PROVIDE WITH THE FOLLOWING:
 - BACKDRAFT DAMPER AND DISCONNECT SWITCH. DAMPER TO PROVIDE 100% SHUT-OFF WHEN UNIT IS OFF-LINE.
 - SPEED SWITCH MOUNTED ON FAN CABINET. ADJUST FAN SPEED TO DELIVER REQUIRED CFM AT LOWEST POSSIBLE SPEED SETTING.
 - HANGING VIBRATION ISOLATORS.
 - PROVIDE WITH THE FOLLOWING:
 - BACKDRAFT DAMPER AND DISCONNECT SWITCH. DAMPER TO PROVIDE 100% SHUT-OFF WHEN UNIT IS OFF-LINE.
 - VARIGREEN EG MOTOR W/MOUNTED AND WIRED POTENTIONMETER DIAL. ADJUST FAN SPEED TO DELIVER REQUIRED CFM AT LOWEST POSSIBLE SPEED SETTING.
 - HANGING VIBRATION ISOLATORS.

CABINET EXHAUST FAN SCHEDULE											
SYMBOL	MANUFACTURER	MODEL	AIR QUANTITY (CFM)	STATIC PRESSURE (IN. W.G.)	VOLTAGE/ PHASE	WATTS	AMPS	RPM	SONES	APPROX. OPER. WEIGHT (LBS.)	NOTES
	GREENHECK	CSP-A390	400	0.25	120V/1ø	152	1.3	1350	2.5	30	①

- CABINET EXHAUST FAN NOTES:**
- PROVIDE WITH THE FOLLOWING:
 - BACKDRAFT DAMPER AND DISCONNECT SWITCH. DAMPER TO PROVIDE 100% SHUT-OFF WHEN UNIT IS OFF-LINE.
 - SPEED SWITCH MOUNTED ON FAN CABINET. ADJUST FAN SPEED TO DELIVER REQUIRED CFM AT LOWEST POSSIBLE SPEED SETTINGS.
 - HANGING VIBRATION ISOLATORS.

GRAVITY HOOD SCHEDULE								
SYMBOL	MANUFACTURER	MODEL NO.	DUTY RELIEF / INTAKE	THROAT SIZE (IN. x IN.)	THROAT AREA (SQ. FT.)	ASSOCIATED SYSTEM	APPROX. OPER. WEIGHT (LBS.)	NOTES
	GREENHECK	F6R	RELIEF	14x14	1.36	EF-I	50	① ③
	GREENHECK	F6I	INTAKE	14x14	1.36	EF-I	50	①②

- GRAVITY HOOD NOTES:**
- ROOF CURB.
 - RUSKIN CBD4 COUNTERBALANCED BACKDRAFT DAMPER MOUNTED IN THROAT OF HOOD. SET FOR INTAKE. DAMPER BLADES ARE TO BE GASKETED AND LINKAGES ARE TO INCLUDE BUSHINGS FOR QUIET OPERATION. DAMPER IS TO OPEN WHEN ASSOCIATED SYSTEM IS ENERGIZED.
 - RUSKIN CBD4 COUNTERBALANCED BACKDRAFT DAMPER MOUNTED IN THROAT OF HOOD. SET FOR RELIEF. DAMPER SENSITIVITY TO BE ADJUSTED SUCH THAT NO PRESSURE DIFFERENCE IS NOTICEABLE AT DOORS INTO AREA SERVED. DAMPER BLADES ARE TO BE GASKETED AND LINKAGES ARE TO INCLUDE BUSHINGS FOR QUIET OPERATION.



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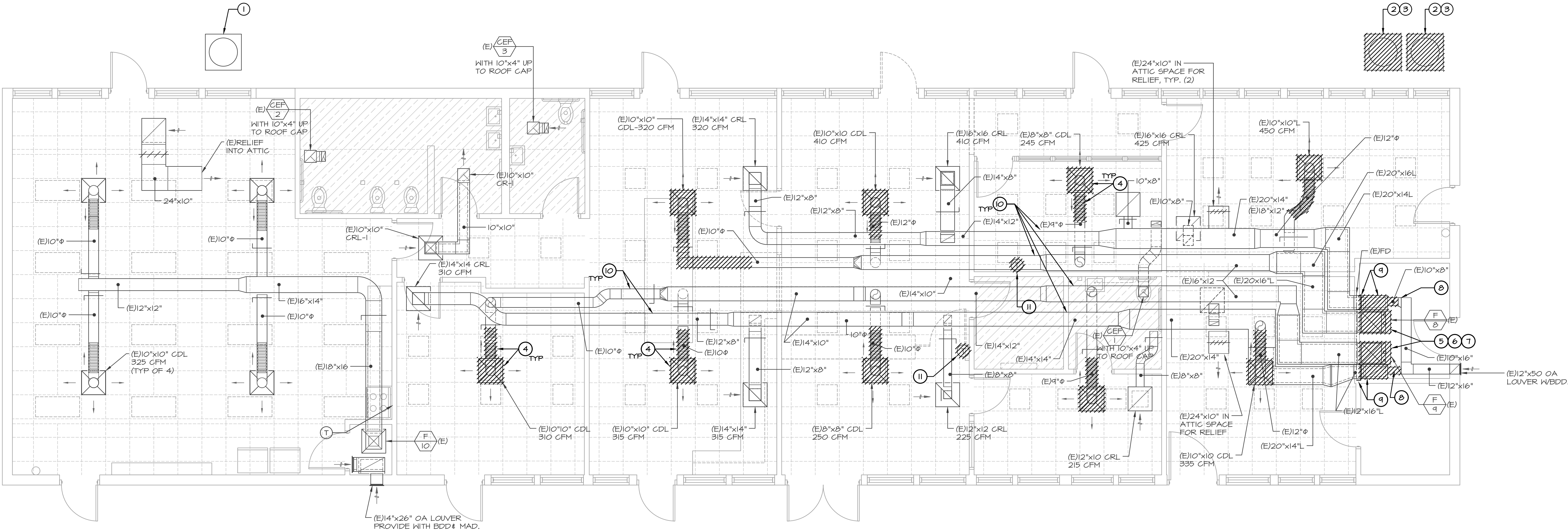


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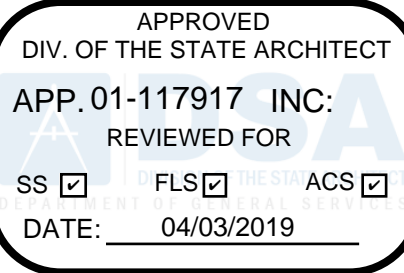
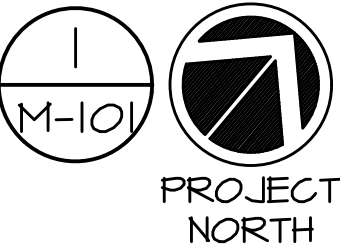
SHEET NOTES

- (E) CONDENSING UNIT TO REMAIN.
- EVACUATE (E) R-22 FROM (E) CONDENSING UNIT. SALVAGE REFRIGERANT AND DELIVER TO OWNER.
- REMOVE (E) CONDENSING UNIT. SALVAGE AND DELIVER TO OWNER. DEMOLISH (E) REFRIGERANT PIPING AND ALL ACCESSORIES IN THEIR ENTIRETY.
- DEMOLISH (E) SUPPLY REGISTER AND BRANCH DUCTING AS SHOWN.
- DEMOLISH (E) FURNACE, COOLING COIL, RETURN PLENUM BELOW UNIT, AND ALL MOUNTS AND ACCESSORIES IN THEIR ENTIRETY.
- DEMOLISH (E) PVC COMBUSTION AIR AND FLUE PIPING TO 12" BELOW ROOF. CAP (E) PIPING WATER TIGHT AND ABANDON IN PLACE. ABOVE ROOF, DEMOLISH (E) WEATHERPROOF TOPS AND CAP PIPING WATER TIGHT AT 8" ABOVE THE ROOF SURFACE.
- (E) SUPPLY DUCT RISER HIGH IN ROOM WITH FIRE DAMPER ACCESS PANEL TO REMAIN. DUCT JOINTS BELOW THE ACCESS PANEL ARE TO BE DEMOLISHED.
- DEMOLISH (E) BRANCH OUTSIDE AIR DUCTWORK BACK TO CONNECTION TO MAIN.
- DEMOLISH (E) RETURN RISER IN ITS ENTIRETY. CAP DUCT WITH MIN. 26GA GSH CAP. SEAL AIRTIGHT WITH BRUSH APPLIED HIGH PRESSURE DUCT SEALER.
- (E) DUCTWORK IS RUN THRU TRUSSES ABOVE AND IS TO REMAIN.
- DEMOLISH (E) THERMOSTAT AND ALL ASSOCIATED WIRING. REPAIR WALL, FINISHES TO MATCH ADJACENT SURFACES.



MECHANICAL DEMOLITION PLAN - ADMINISTRATION BLDG

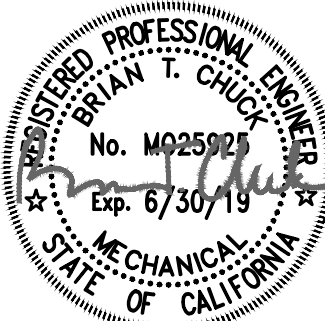
SCALE: 1/4" = 1'-0"



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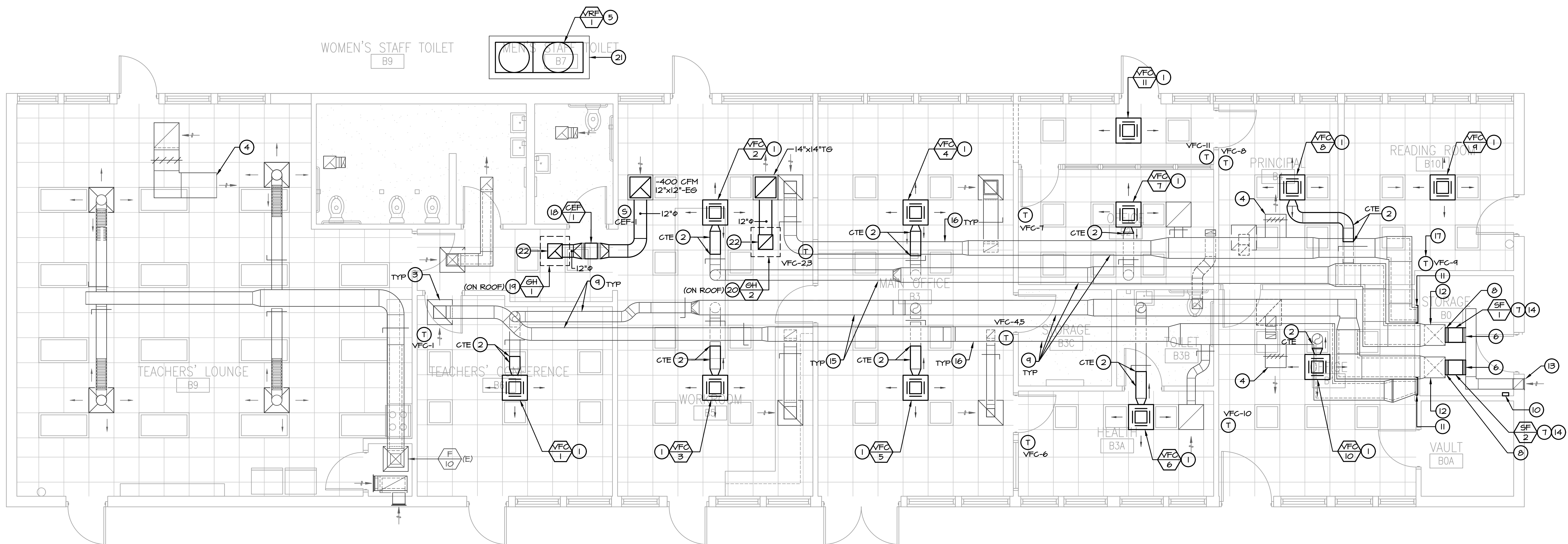
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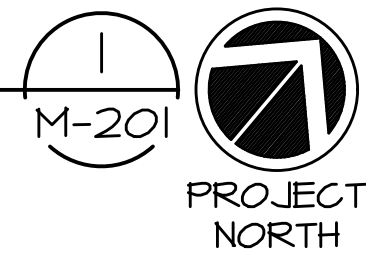


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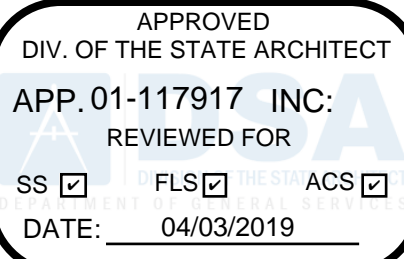
MECHANICAL FLOOR PLAN - ADMINISTRATION BLDG

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



SHEET NOTES

- FAN COIL UNIT FLUSH IN CEILING. SEE 1/M-401 FOR MOUNTING, 1/M-202 FOR REFRIGERANT PIPING, 1/M-501 FOR CONTROL.
- CONNECT TO EXISTING. VERIFY EXACT LOCATION IN FIELD. DUCT SIZE TO MATCH EXISTING. EXTEND TO FAN COIL UNIT, THEN TRANSITION AND CONNECT TO UNIT OUTSIDE AIR OPENING.
- (E) RETURN GRILLE TO BE USED FOR ROOM PRESSURIZATION RELIEF.
- (E) RELIEF DUCT OPENING INTO ATTIC TO REMAIN.
- VARIABLE REFRIGERANT FLOW OUTDOOR UNIT. SEE 3/M-401 FOR MOUNTING, 1/M-202 FOR REFRIGERANT PIPING, 1/M-501 FOR CONTROL.
- CONNECT 12"x12" DUCT TO (E) OUTSIDE AIR DUCT, THEN TRANSITION TO FAN CONNECTION SIZE.
- SUPPLY FAN IN DUCTWORK. SEE 4/M-401 FOR MOUNTING, 3/M-501 FOR CONTROL. INSTALL FLEXIBLE FABRIC DUCT CONNECTORS ON DUCT CONNECTIONS TO FAN. EXTEND DUCT FROM FAN DISCHARGE AS REQUIRED SO NO CONFLICT OCCURS WITH FAN BACKDRAFT DAMPER.
- TRANSITION DUCT FROM FAN CONNECTION SIZE TO 12"x12". TURN DUCT UP AND CONNECT TO (E) SUPPLY AIR DUCTWORK.
- (E) DUCTWORK IS RUN THRU TRUSSES ABOVE AND IS TO REMAIN.
- CONTROL PANEL FOR VRF SYSTEM. SEE 1/M-501 FOR DETAILS.
- CAP (E) RETURN DUCT AT WALL WITH MIN. 26GA GSM CAP. SEAL AIRTIGHT WITH BRUSH APPLIED HIGH PRESSURE DUCT SEALER.
- (E) SUPPLY DUCT ELBOW AND RISER TO REMAIN. (E) SUPPLY DUCT IS TO BE USED FOR OSA.
- (E) OSA LOUVER TO REMAIN.
- FAN TO BE CONNECTED TO (E) SUPPLY AIR DUCTWORK AND IS TO PROVIDE OUTSIDE AIR TO THE NEW FAN COIL UNITS VIA THE (E) SUPPLY AIR DUCTWORK.
- (E) SUPPLY AIR DUCTWORK IN ATTIC IS TO REMAIN. DUCT SYSTEM IS TO BE MODIFIED TO PROVIDE OUTSIDE AIR TO THE NEW FAN COIL UNITS.
- (E) RETURN AIR DUCTWORK IN ATTIC IS TO REMAIN. (E) SYSTEM PROVIDES BUILDING PRESSURE RELIEF AND IS TO REMAIN.
- THERMOSTAT TO BE MOUNTED ON 1" THICK RIGID BOARD INSULATION. INSULATION TO BE SHAPED TO MATCH THERMOSTAT BASE SIZE. EDGES OF INSULATION BOARD TO BE COVERED WITH TRIM THEN PAINTED TO MATCH THERMOSTAT COLOR. FINAL PRODUCT IS TO HAVE A NEAT, FINISHED APPEARANCE.
- EXHAUST FAN ABOVE CEILING. SEE 5/M-401 FOR MOUNTING, 2/M-501 FOR CONTROL.
- GRAVITY HOOD ON ROOF FOR EXHAUST FAN DISCHARGE. SEE DETAIL 5/M-402 FOR MOUNTING. INSTALL COUNTERBALANCED BACKDRAFT DAMPER IN THROAT OF HOOD, SET FOR RELIEF. BACKDRAFT DAMPER TO BE RUSKIN CBD4 OR EQUAL.
- ROOF MOUNTED GRAVITY INTAKE HOOD. SEE DETAIL 5/M-402 FOR MOUNTING. INSTALL COUNTERBALANCED BACKDRAFT DAMPER IN THROAT OF HOOD, SET FOR INTAKE. GRAVITY INTAKE PROVIDES MAKE-UP AIR WHEN EXHAUST FAN EF-1 IS IN OPERATION. BACKDRAFT DAMPER TO BE RUSKIN CBD4 OR EQUAL.
- CONCRETE HOUSEKEEPING PAD, SEE 3/M-402 FOR DETAILS. PAD TO BE 6" LARGER THAN EQUIPMENT ON ALL SIDES, COORDINATE AS REQUIRED.
- 14"x14" DUCT UP THRU ROOF TO GRAVITY HOOD.



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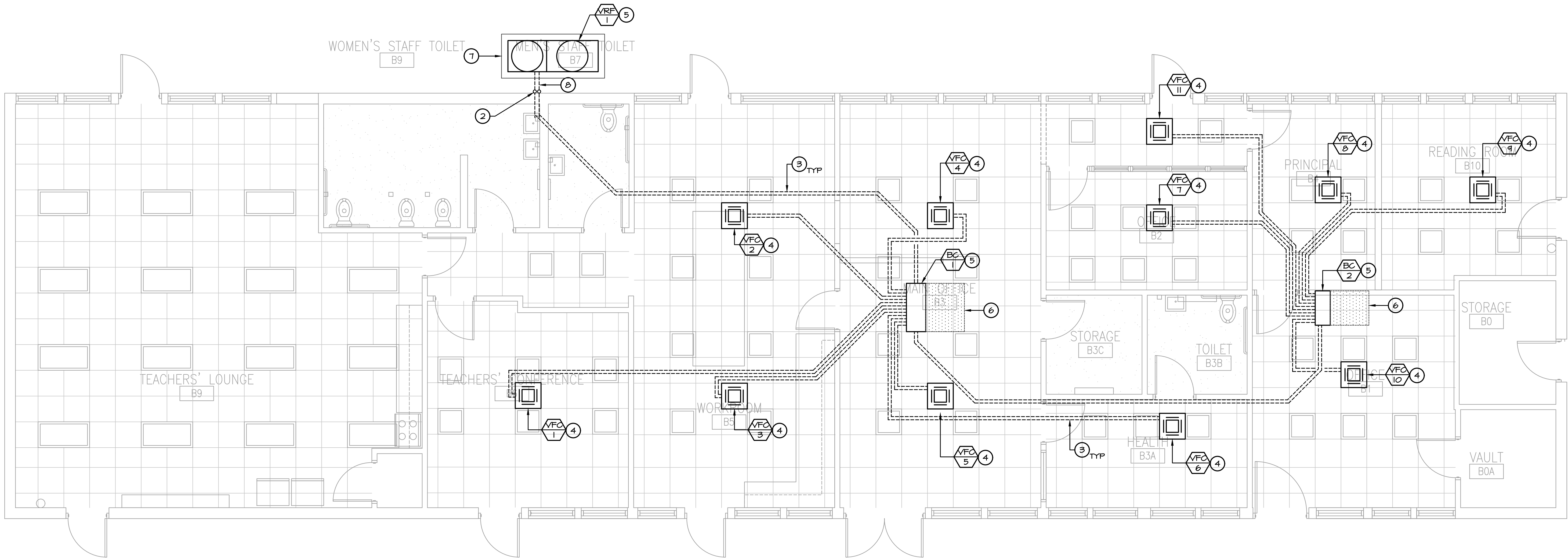
MECHANICAL
FLOOR PLAN -
ADMINISTRATION
BLDG

M-201

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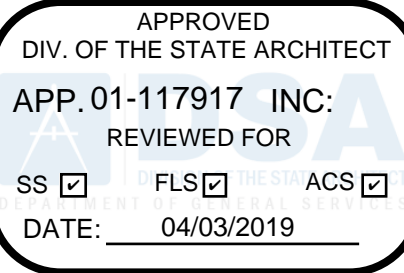
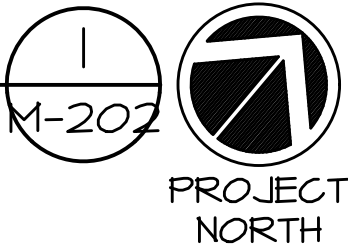
SHEET NOTES

- VARIABLE REFRIGERANT OUTDOOR UNIT MOUNTED AT GRADE. SEE 3/M-401 FOR MOUNTING, 1/M-402 FOR SCHEMATIC PIPING DIAGRAM, 1/M-501 FOR CONTROL. MAINTAIN ALL MANUFACTURER'S CLEARANCE AND ACCESS AREA REQUIREMENTS.
- EXTEND REFRIGERANT PIPING DOWN ALONG EXTERIOR WALL TO GRADE, SEE 2/M-402 FOR DETAILS. SEAL WALL PENETRATIONS WATER-TIGHT. INSTALL SHEET METAL COVER OVER PIPING AND MOUNTS. CAULK COVER AT WALL, PAINT COVER TO MATCH EXISTING SURFACES. COVER IS TO BE SIMILAR IN SIZE AND SHAPE TO (E) ADJACENT COVER. ELECTRICAL POWER WIRING TO ALSO BE ENCLOSED BEHIND SHEET METAL COVER.
- REFRIGERANT PIPING RUN IN ABOVE CEILING SPACE.
- FAN COIL UNIT FLUSH IN CEILING. SEE 1/M-401 FOR MOUNTING, SEE 1/M-402 FOR SCHEMATIC PIPING DIAGRAM, 1/M-501 FOR CONTROL. MAINTAIN ALL MANUFACTURER'S CLEARANCE AND ACCESS AREA REQUIREMENTS.
- REFRIGERANT BRANCH CONTROLLER, SEE 5/M-401 FOR MOUNTING, SEE 1/M-402 FOR SCHEMATIC PIPING DIAGRAM. MAINTAIN ALL MANUFACTURER'S CLEARANCE AND ACCESS AREA REQUIREMENTS.
- BRANCH CONTROLLER UNIT SERVICE ACCESS AREA. THIS AREA IS TO REMAIN FREE OF DUCT, PIPING, CONDUIT, WIRING AND ALL OTHER ITEMS THAT MAY OBSTRUCT THE SERVICE ACCESS TO THE BRANCH CONTROLLER UNIT. THE SERVICE ACCESS SHOWN IS TO INCLUDE THE HEIGHT FROM THE TOP OF THE CEILING TO THE TOP OF THE BRANCH CONTROLLER UNIT.
- CONCRETE HOUSEKEEPING PAD FOR VRF UNIT. SEE 3/M-402 FOR DETAILS.
- REFRIGERANT PIPING MOUNTED AT GRADE. SEE 4/M-402 FOR MOUNTING. PROVIDE SPACING BETWEEN REFRIGERANT LINES TO ACCOMMODATE ALUMINUM JACKETING.



MECHANICAL PIPING PLAN - ADMINISTRATION BLDG

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

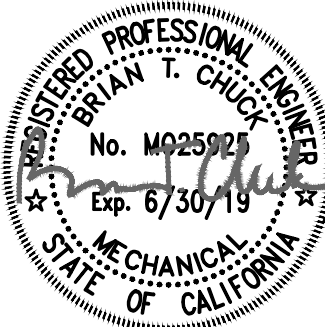


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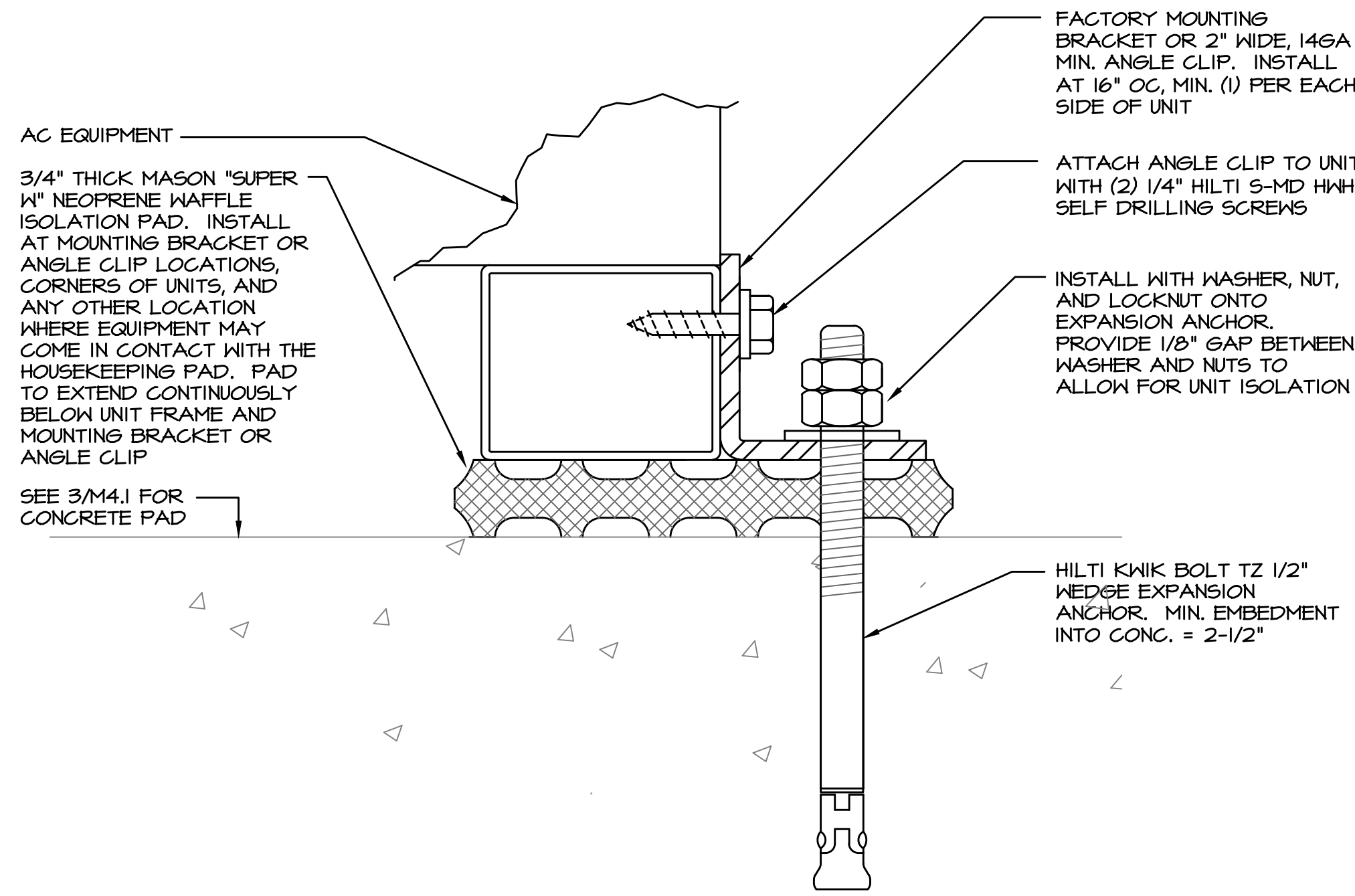


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MECHANICAL
PIPING PLAN -
ADMINISTRATION
BLDG

M-202



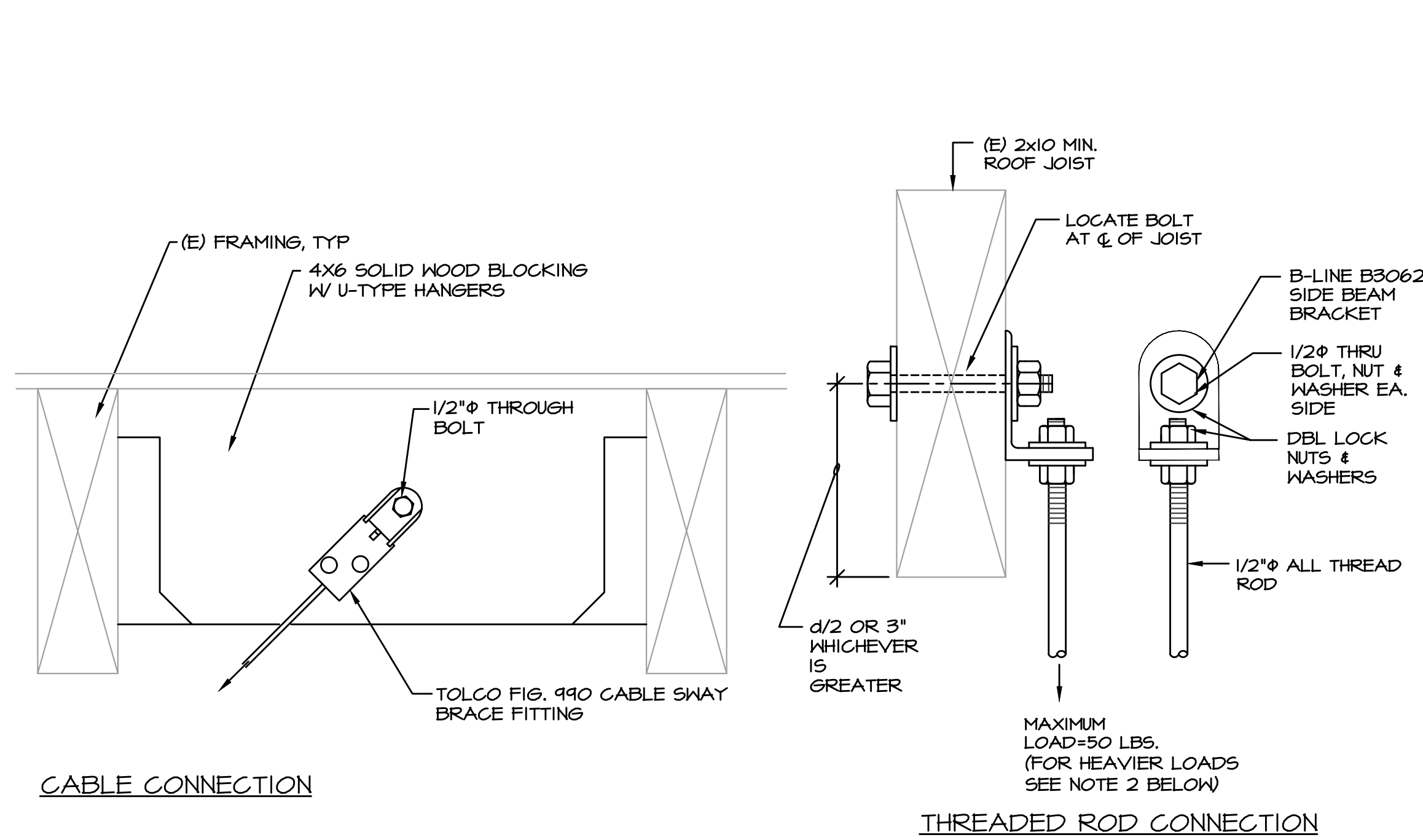
UNIT ATTACHMENT DETAIL

NO SCALE

NOTES:

- COORDINATE EQUIPMENT PAD SIZE IN FIELD. MAINTAIN MIN 1" EDGE DISTANCE TO EXPANSION ANCHORS.
- HOUSEKEEPING PAD TO BE 4" TALL ABOVE GRADE, SEE 3/M-402 FOR DETAILS.

3
M-401



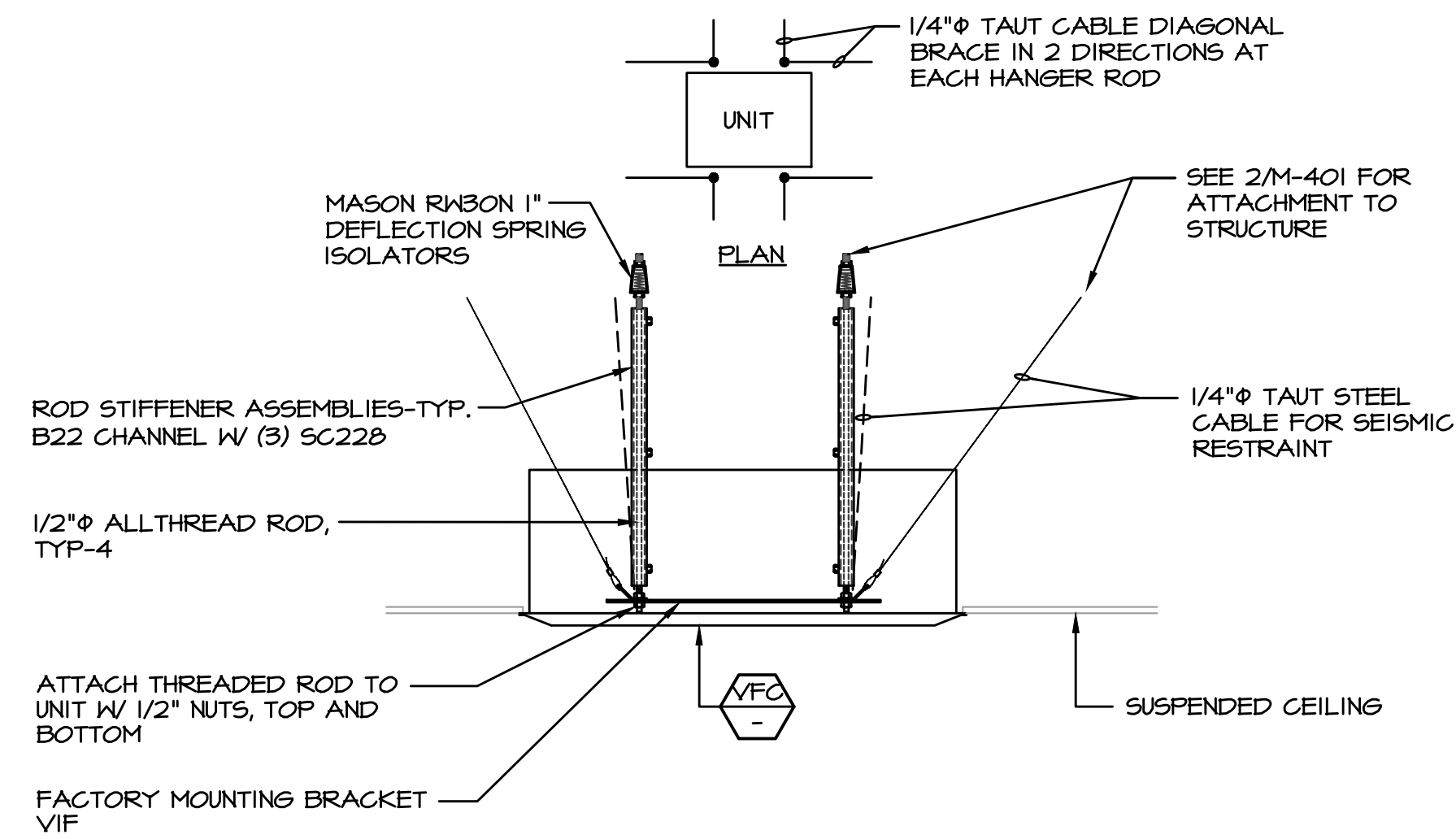
STRUCTURE CONNECTION DETAIL

NO SCALE

NOTES:

- FOR 2x JOIST/PURLIN, ONLY ONE ATTACHMENT POINT (1x LOAD) IS PERMITTED AT EACH JOIST. MULTIPLE LOADS/ATTACHMENTS SHALL BE ATTACHED TO RAFTER BEAMS OR 4x BLOCKING BETWEEN RAFTER BEAMS. COORDINATE WITH SEOR FOR APPROVAL AND DETAILS.
- FOR LOADS GREATER THAN 50 LBS AND LESS THAN 100 LBS, ATTACH TO 4x6 SOLID BLOCKING SET IN U-TYPE HANGERS.
- ALL FITTING NUMBERS ARE COOPER B-LINE STRUT SYSTEMS, UNLESS OTHERWISE NOTED.

2
M-401



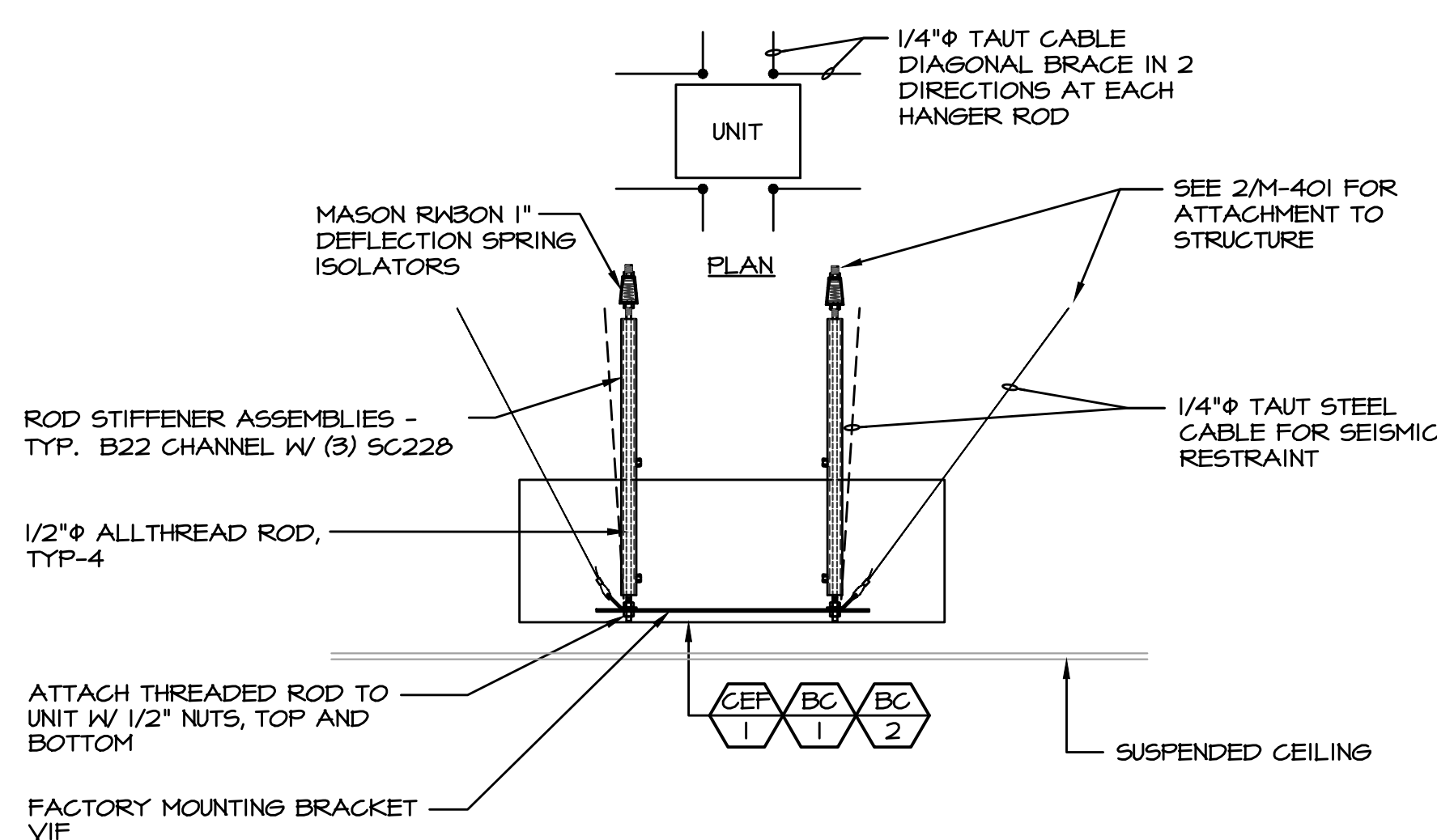
FAN COIL UNIT MOUNTING DETAIL

NO SCALE

NOTES:

- CABLE BRACES SHALL BE INSTALLED SUCH THAT THE ONLY VISIBLE SLACK IS THAT DUE TO CABLE SAG. CABLES SHALL NOT SUPPORT GRAVITY LOADS.

1
M-401



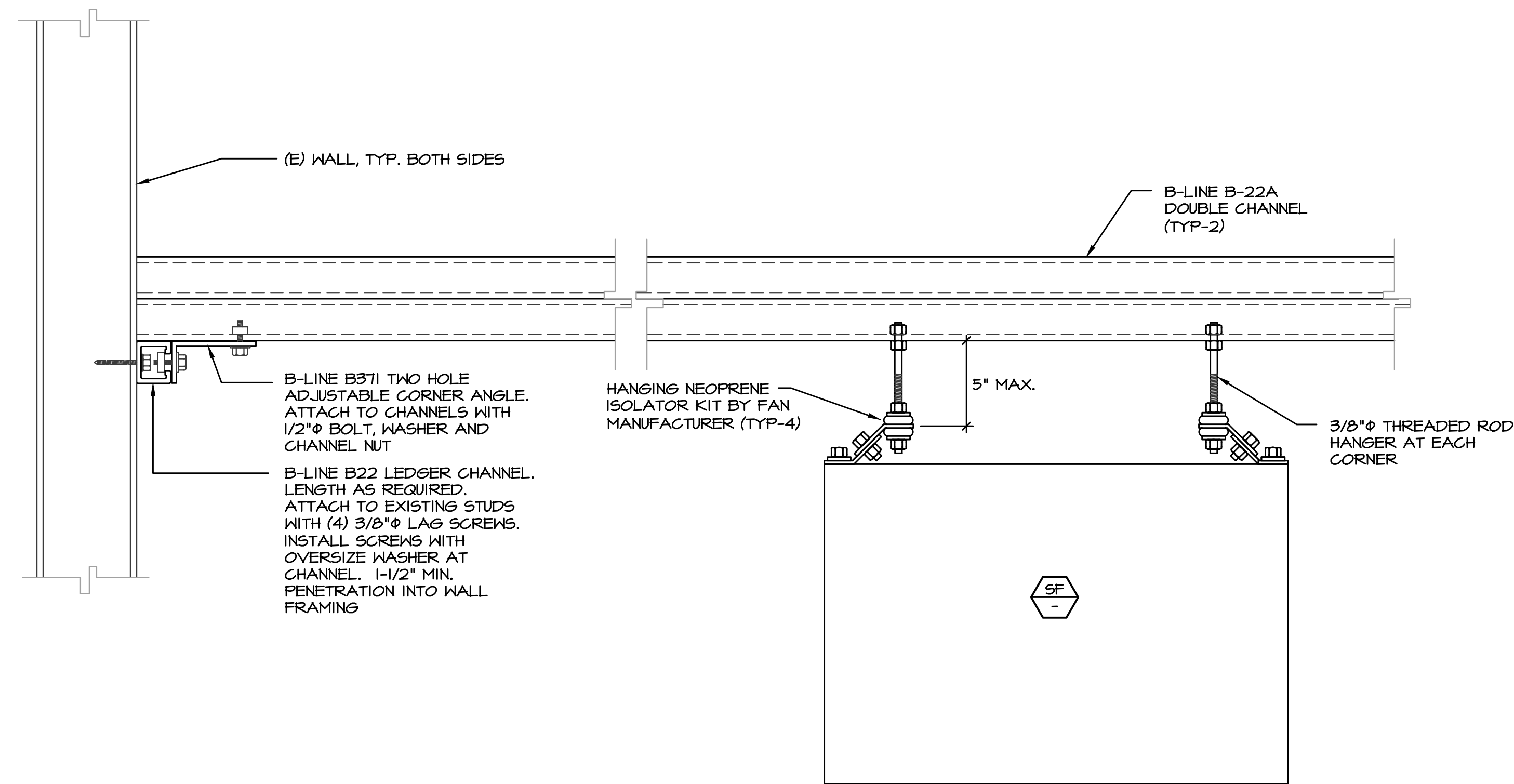
UNIT MOUNTING DETAIL

NO SCALE

NOTES:

- CABLE BRACES SHALL BE INSTALLED SUCH THAT THE ONLY VISIBLE SLACK IS THAT DUE TO CABLE SAG. CABLES SHALL NOT SUPPORT GRAVITY LOADS.

5
M-401



FAN MOUNTING DETAIL

NO SCALE

NOTES:

- MAXIMUM ALLOWABLE UNIT WEIGHT = 100 LBS.

4
M-401



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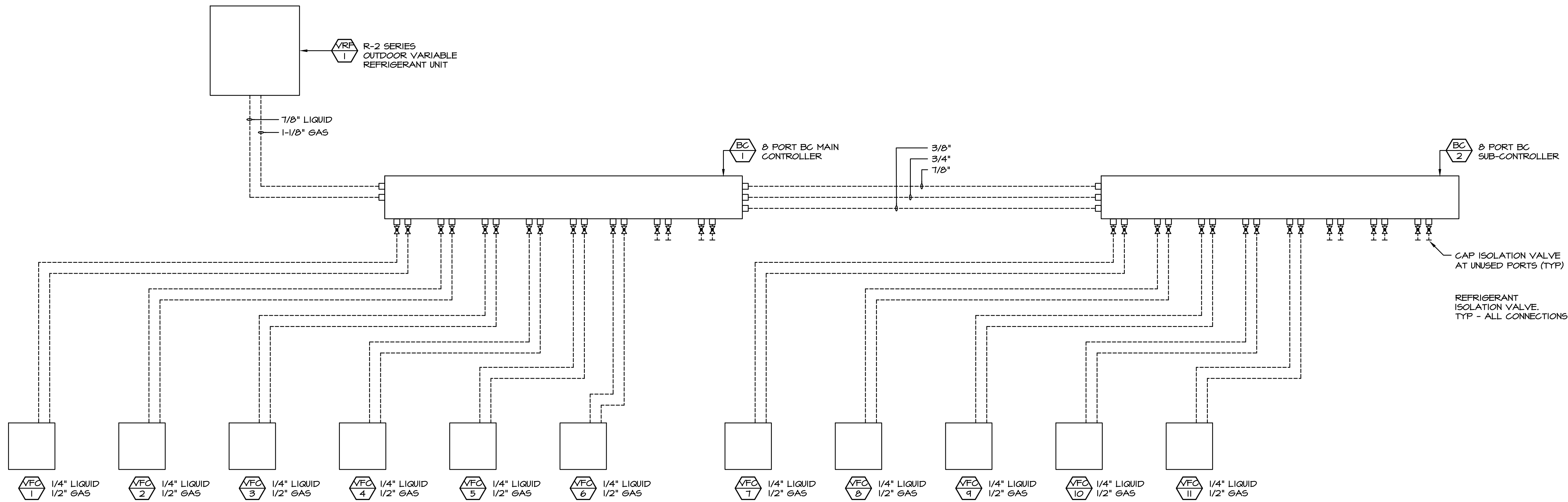
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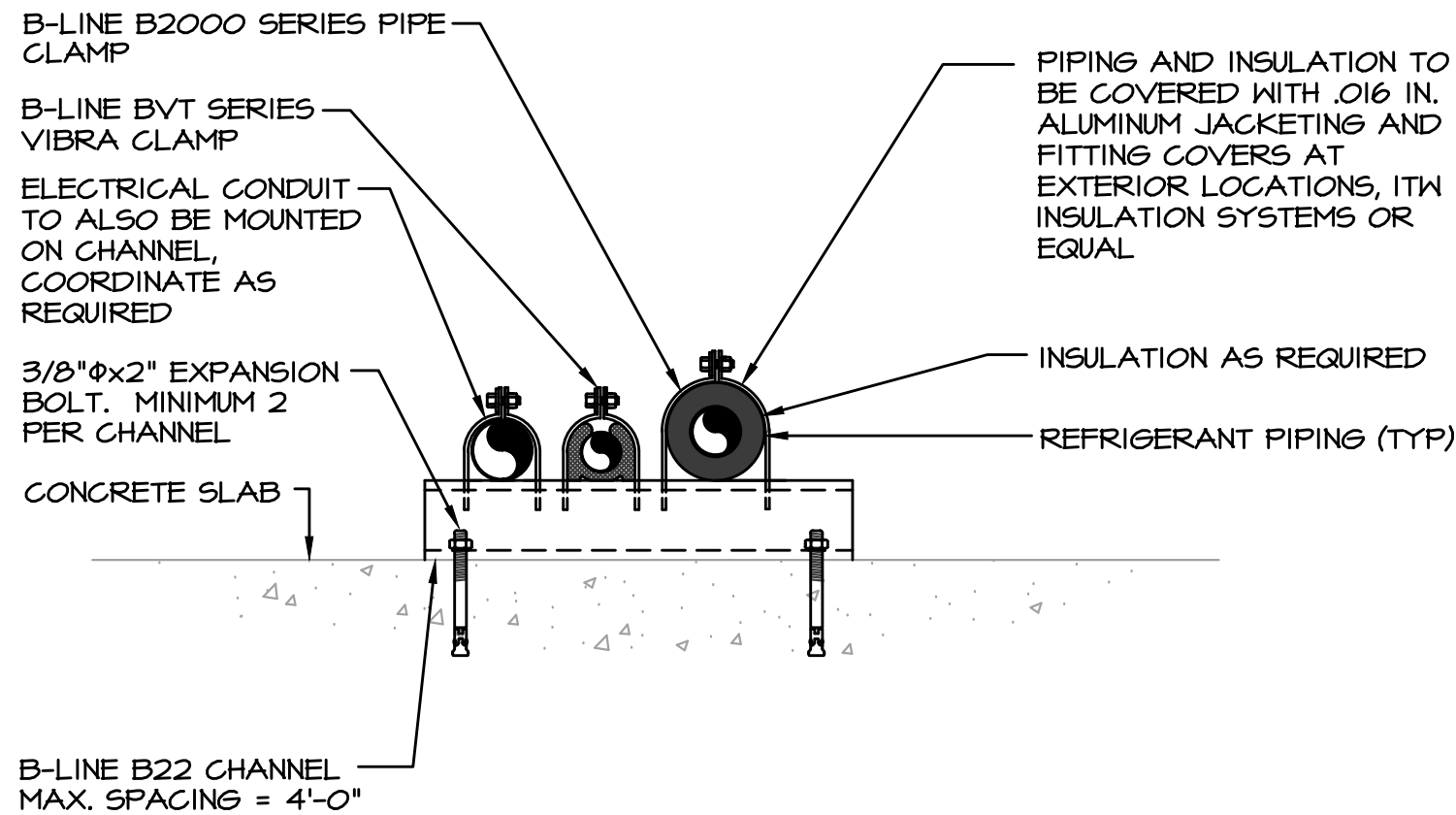
VRF SCHEMATIC PIPING DIAGRAM

NO SCALE

NOTES:

- FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS CLOSELY. PIPE SIZING IS TO BE CHECKED WITH MANUFACTURER AFTER ACTUAL FIELD ROUTING IS DETERMINED.

1
M-402



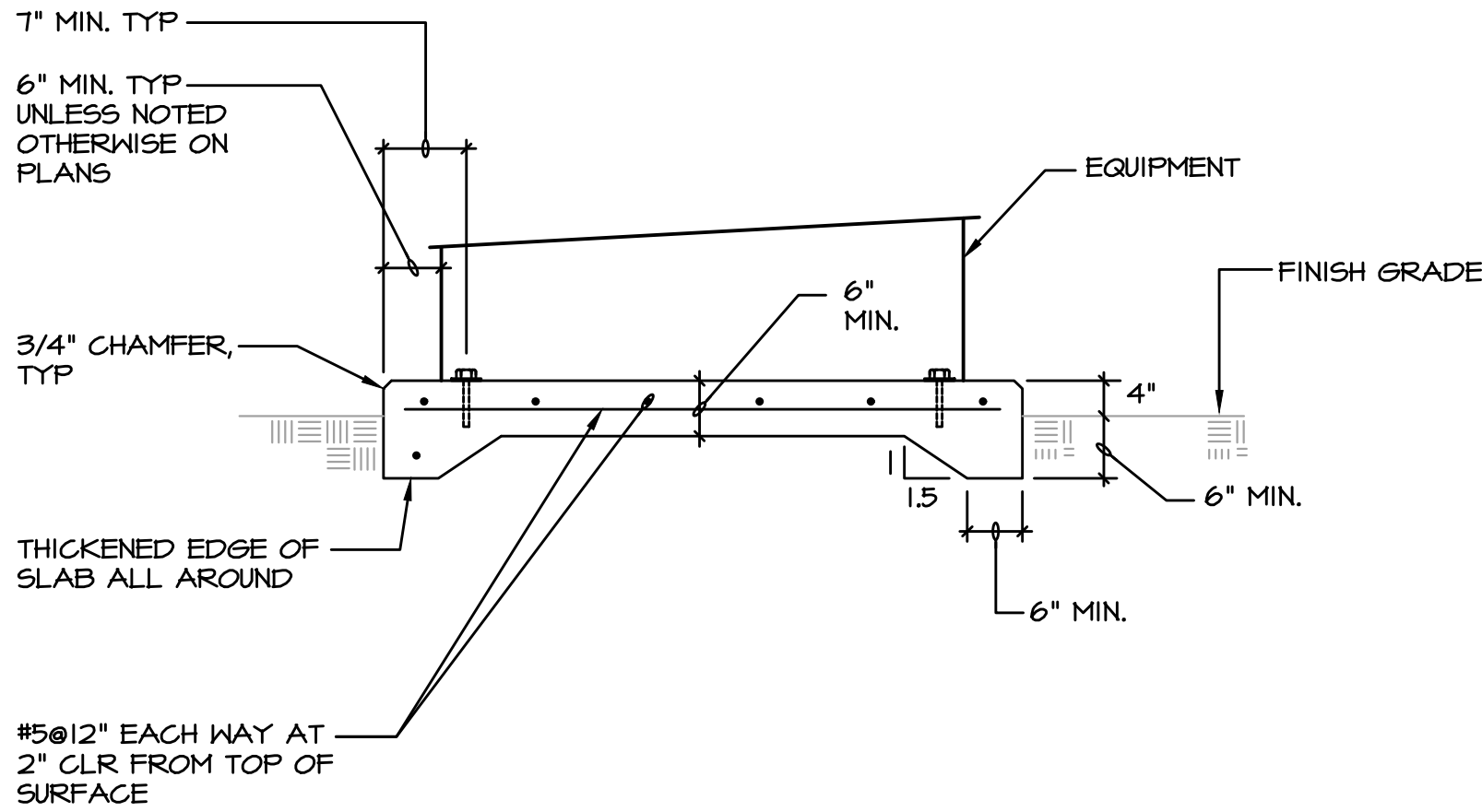
PIPE MOUNTING DETAIL

NO SCALE

NOTES:

- CHANNEL LENGTH TO BE AS SHORT AS POSSIBLE.
- PROVIDE SPACING BETWEEN REFRIGERANT LINES TO ACCOMMODATE ALUMINUM JACKETING.

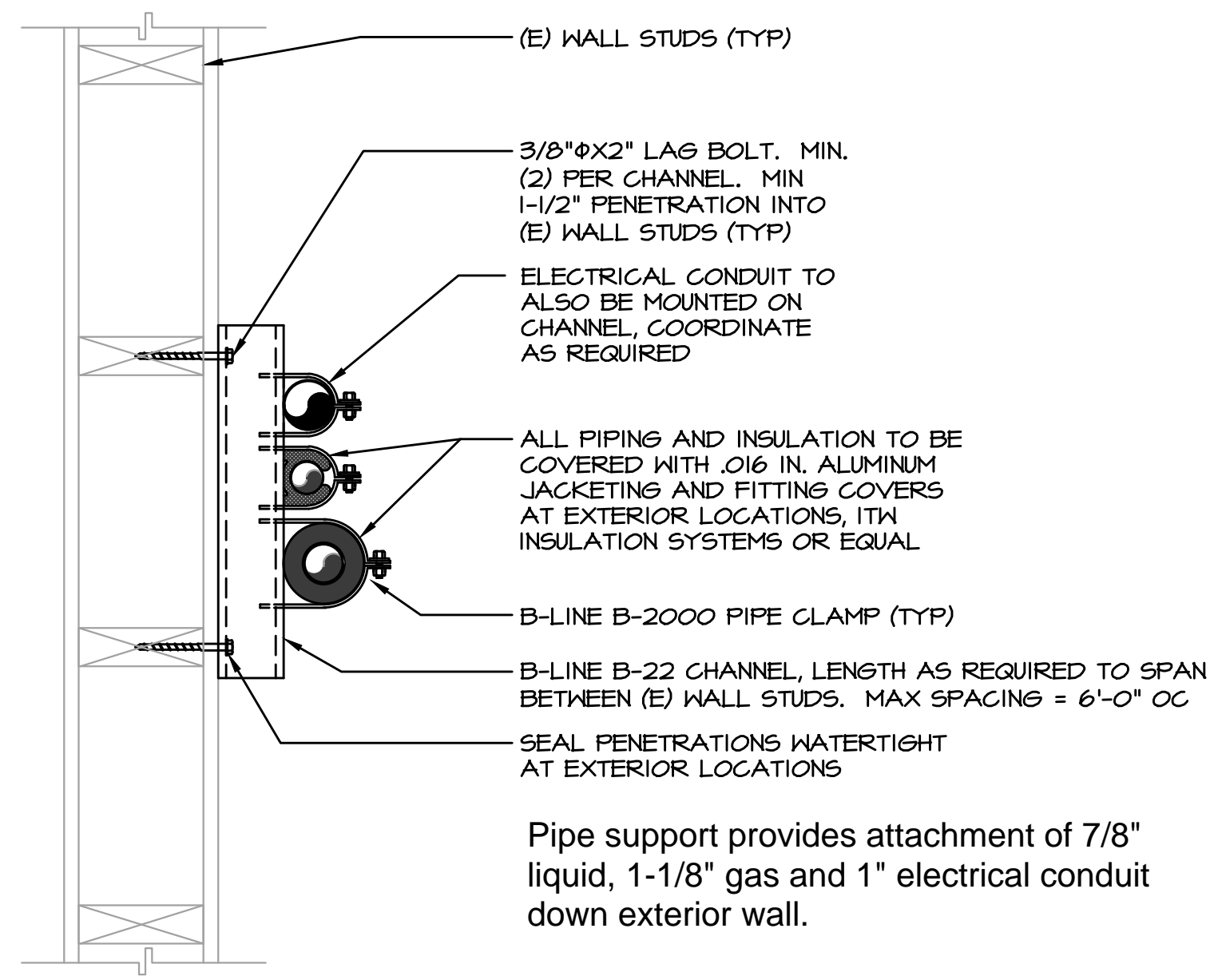
4
M-402



CONCRETE HOUSEKEEPING PAD DETAIL

NO SCALE

3
M-402



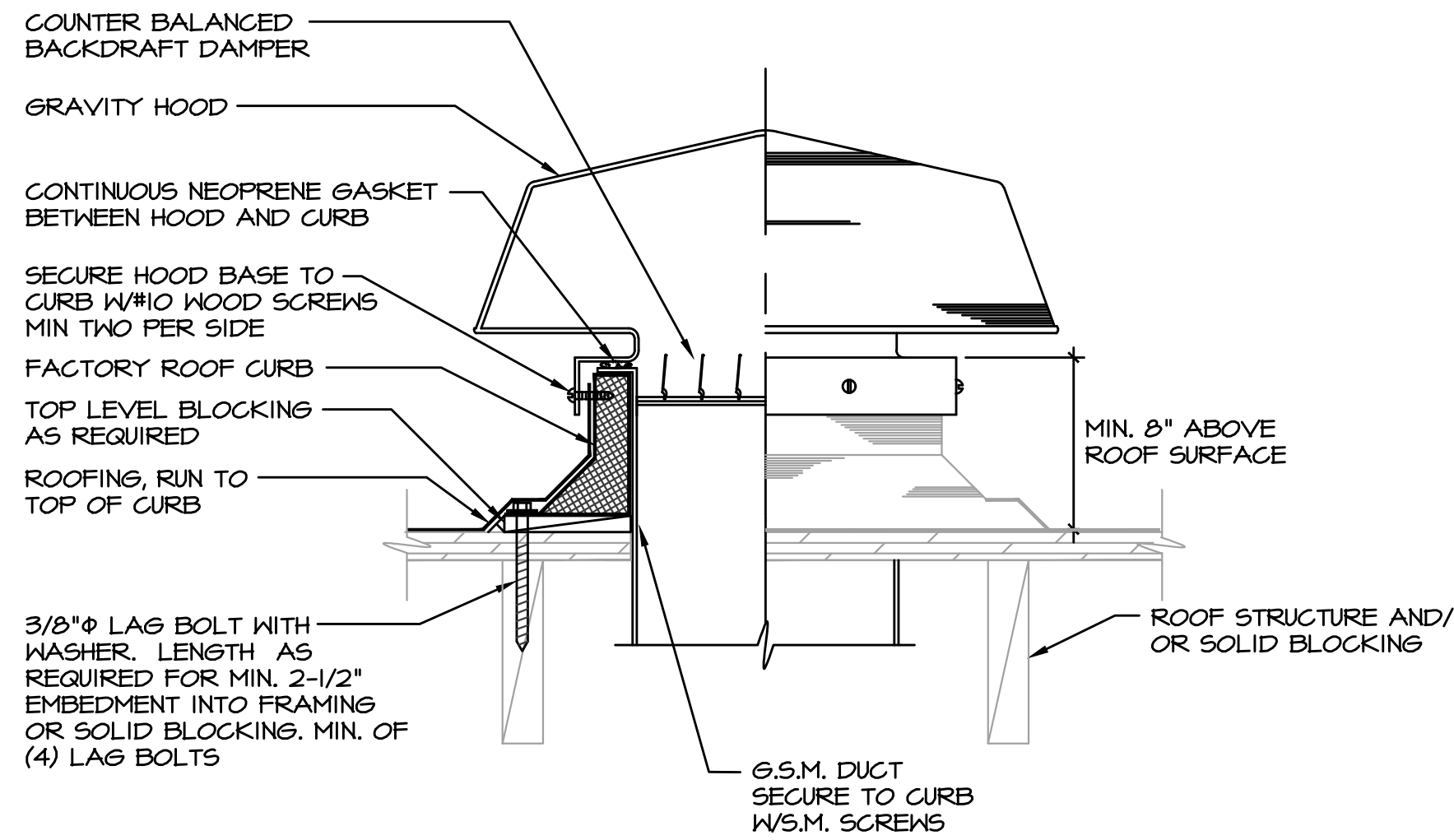
PIPE MOUNTING DETAIL

NO SCALE

NOTES:

- CHANNEL LENGTH TO BE AS SHORT AS POSSIBLE.
- INSTALL 20 GA. SHEET METAL COVER OVER PIPING AND MOUNTS. CAULK COVER AT WALL. PAINT COVER TO MATCH EXISTING SURFACES. COVER IS TO BE SIMILAR IN SIZE AND SHAPE TO (E) ADJACENT COVER. ELECTRICAL POWER WIRING TO ALSO BE ENCLOSED BEHIND SHEET METAL COVER.

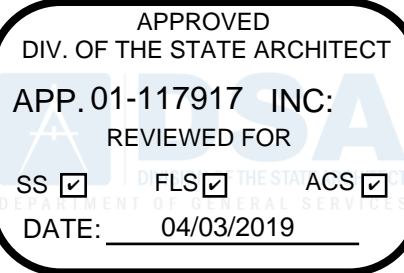
2
M-402



GRAVITY HOOD MOUNTING DETAIL

NO SCALE

5
M-402

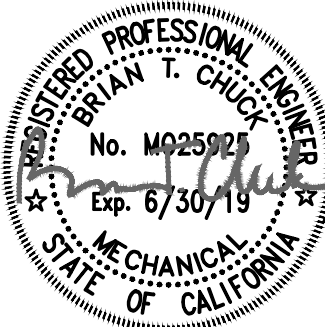


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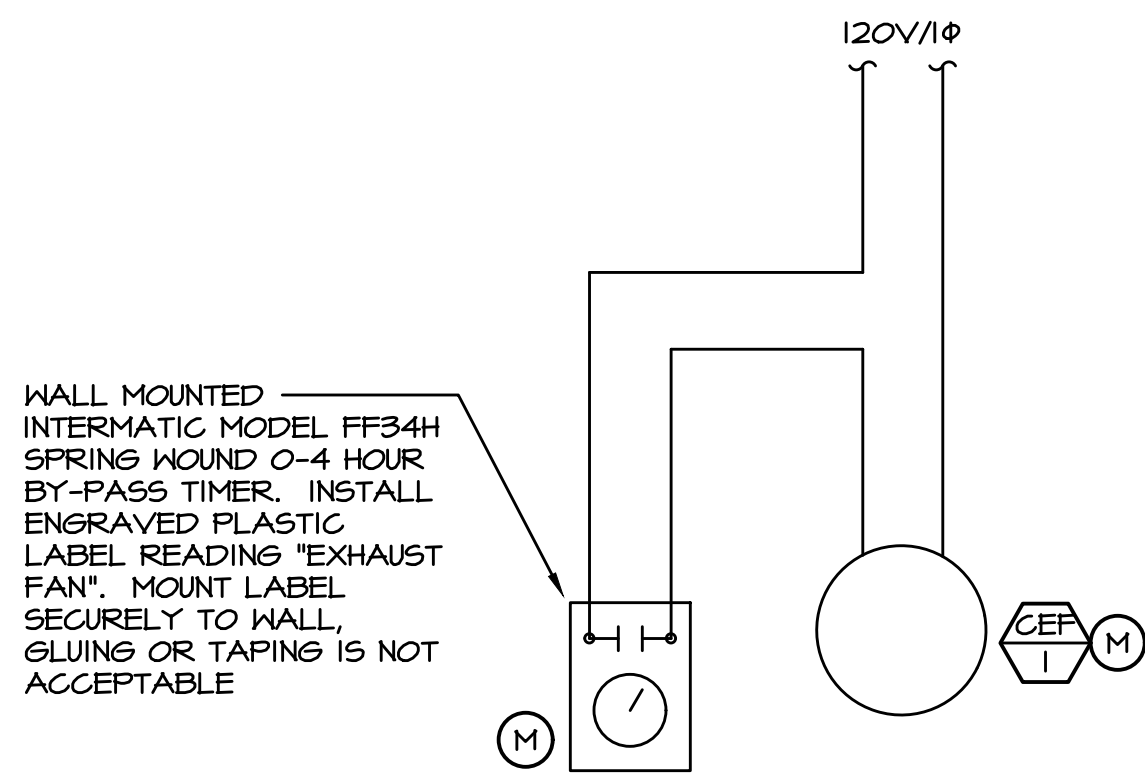


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MECHANICAL
DETAILS

M-402



SCHEMATIC CONTROL DIAGRAM
NO SCALE

2
M-501

VARIABLE REFRIGERANT SYSTEM SCHEMATIC CONTROL DIAGRAM
NO SCALE

TEMPERATURE REQUIREMENTS FOR VRF SYSTEM:

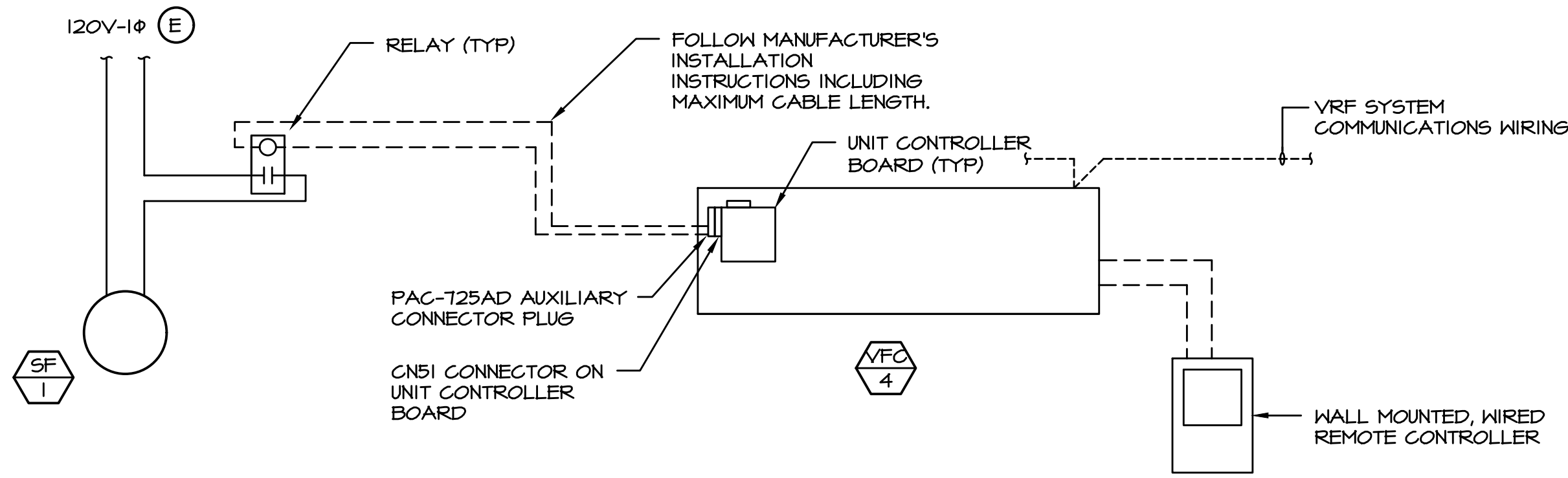
1. VRF SYSTEM IS TO PROVIDE HEATING AND COOLING FOR THE AREAS SERVED.
2. ALL SETTINGS TO BE ADJUSTABLE VIA ETHERNET CONNECTION AND REMOTE ACCESS MITSUBISHI SOFTWARE.
3. PROGRAM/SET EQUIPMENT FOR AUTO CHANGEOVER.
4. PROGRAM FOR DUAL SETPOINTS.
5. COORDINATE ALL SETPOINTS AND TIME SCHEDULE WITH OWNER.
6. PROVIDE 3°F SETPOINT ADJUSTMENT FOR BOTH HEATING AND COOLING SETPOINTS. MAINTAIN MIN. 1°F DEADBAND BETWEEN HEATING AND COOLING.
7. CONTACT MITSUBISHI REPRESENTATIVE FOR QUESTIONS REGARDING SYSTEM SET-UP.
CHRIS CARMODY (925) 408-2660

OPTIMUM START:

1. VRF SYSTEM IS TO PROVIDE OPTIMUM START STOP BASED ON MITSUBISHI PRE-PROGRAMMED ALGORITHM FOR OPTIMUM START.
2. PROVIDE CAPABILITY TO TOGGLE OPTIMUM START ON OR OFF.

CONTROL DIAGRAM NOTES:

1. DIAGRAM IS SCHEMATIC. VERIFY AND PROVIDE ALL WIRING AND COMPONENTS AS REQUIRED. ALL SETTINGS TO BE ADJUSTABLE.
2. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROGRAMMING INSTRUCTIONS CAREFULLY.
3. PROGRAM ALL FAN COIL CONTROLLERS TO THE SAME TIME SCHEDULE AND TEMPERATURES.
4. SET VFC SWITCHES SO THAT CONTROL IS FROM ROOM TEMPERATURE AT WALL MOUNTED SENSOR, NOT FROM RETURN AIR SENSOR IN UNIT.
5. PROGRAM ALL COMPONENTS OF THE CONTROLS SYSTEM AS REQUIRED AND ENSURE THAT THE SYSTEM IS FULLY FUNCTIONING PRIOR TO FINAL INSPECTION.
6. MITSUBISHI REMOTE ACCESS SYSTEM SOFTWARE TO DISPLAY AND MONITOR AND MAKE AVAILABLE FOR PROGRAMMING ALL SETTINGS AND FUNCTIONS THAT ARE AVAILABLE FROM THE AE-200A CENTRALIZED CONTROLLER OR FROM ANY WALL MOUNTED CONTROLLER.
7. PROGRAM SYSTEM TO GRAPHICALLY INDICATE EQUIPMENT TAG NAME AND NUMBER AND LOCATION.
8. AE-200A CONTROLLER, AND WALL MOUNTED CONTROLLER SHALL HAVE SAME CAPABILITIES OF CHANGING SYSTEM SETTINGS.
9. AFTER SYSTEM IS PROGRAMMED, LOCK-OUT WALL CONTROLLER FUNCTIONS EXCEPT TEMPERATURE ADJUSTMENT (WITHIN PRESET RANGE) AND SYSTEM OVERRIDE FOR AFTER HOURS USE.
10. AT BEGINNING OF OCCUPIED PERIOD, SLEEP ALL CONTROLLERS TO RESET ALL SETTINGS TO OCCUPIED PERIOD SETTINGS.
11. AT BEGINNING OF UNOCCUPIED PERIOD, SLEEP ALL CONTROLLERS TO RESET ALL SETTINGS TO UNOCCUPIED PERIOD SETTINGS.
12. PROGRAM AFTER-HOURS OVERRIDE MODE, AVAILABLE FROM EACH FAN COIL UNIT. SET FOR 2 HOURS (ADJUSTABLE).



SUPPLY FAN INTERLOCK SCHEMATIC CONTROL DIAGRAM
NO SCALE

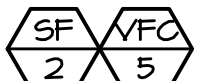
CONTROL DIAGRAM NOTES:

1. DIAGRAM IS SCHEMATIC.
2. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROGRAMMING INSTRUCTIONS CAREFULLY.
3. PROGRAM ALL COMPONENTS OF THE CONTROLS SYSTEM AS REQUIRED AND ENSURE THAT THE VRF SYSTEM IS FULLY FUNCTIONING PRIOR TO FINAL INSPECTION.

SEQUENCE OF OPERATION - OCCUPIED PERIOD:

1. FAN COIL UNIT ENERGIZED.
2. SUPPLY FAN IS TO BE INTERLOCKED WITH THE ASSOCIATED FAN COIL UNIT(S) AND IS TO ENERGIZE AT ANY TIME THE FAN COIL UNIT(S) ARE IN OPERATION.

INTERLOCKED EQUIPMENT IS AS FOLLOWS:



SEQUENCE OF OPERATION - UNOCCUPIED PERIOD:

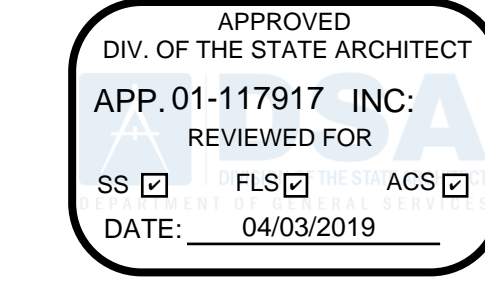
1. FAN COIL UNITS DE-ENERGIZED.
2. SUPPLY FANS DE-ENERGIZED.
3. IF ANY FAN COILS ARE PLACED IN THE OVERRIDE MODE DURING THE UNOCCUPIED PERIOD, THE FAN COIL UNIT(S) AND SUPPLY FAN(S) ARE TO ENERGIZE AND IS TO OPERATE TO SATISFY THE ROOM TEMPERATURE REQUIREMENTS. OVERRIDE DURATION IS TO BE SET FOR 2 HOURS.

CONTROL DIAGRAM NOTES AND SYMBOLS

1. LINE VOLTAGE POWER WIRING TO EQUIPMENT AND CONDUIT FOR POWER WIRING TO EQUIPMENT SHALL BE FURNISHED AND INSTALLED UNDER THE ELECTRICAL SECTION OF THE WORK.
2. LINE VOLTAGE POWER WIRING FOR CONTROL DEVICES OR COMPONENTS, AND LINE VOLTAGE CONDUIT FOR CONTROL DEVICES OR COMPONENTS SHALL BE FURNISHED AND INSTALLED AS PART OF THE CONTROLS SYSTEM BY THE CONTROLS CONTRACTOR.
3. ALL LOW VOLTAGE CONTROL WIRING SHALL BE FURNISHED AND INSTALLED BY THE CONTROLS CONTRACTOR. ALL CONDUIT REQUIRED FOR THE LOW VOLTAGE WIRING SHALL BE FURNISHED AND INSTALLED UNDER THE ELECTRICAL SECTION OF THE WORK. CONTROLS CONDUIT IS REQUIRED AT ALL EXTERIOR LOCATIONS AND EXPOSED LOCATIONS WITHIN THE BUILDING. COORDINATE LOCATIONS IN FIELD AS REQUIRED.
4. DIAGRAMS SHOWN ARE SCHEMATIC. CONTROLS CONTRACTOR MUST VERIFY ACTUAL CONTROL COMPONENT NUMBERS, CONNECTION POINTS, CONTROL VOLTAGE AND NUMBER AND TYPE OF CONTROL WIRES REQUIRED. OBTAIN CONTROL DIAGRAMS FOR EACH ITEM OF EQUIPMENT FROM THE EQUIPMENT MANUFACTURERS. CONTROLS CONTRACTOR SHALL PROVIDE ALL RELAYS, SENSORS, WIRING AND ALL CONTROL DEVICES REQUIRED FOR PROPER OPERATION AND COMPLIANCE WITH CODE.
5. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER INSTALLATION OF CONTROLS AND OPERATION OF EQUIPMENT AND SHALL COORDINATE ALL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
6. PLENUM RATED CABLE MAY BE USED IN CONCEALED LOCATIONS. INSTALL AND SUPPORT ALL CABLE AND WIRING PER ELECTRICAL SPECIFICATION SECTION 26 00 00. CONDUIT IS REQUIRED FOR ALL EXPOSED LOCATIONS, INCLUDING WORK ABOVE THE ROOF.

— INDICATES LINE VOLTAGE WIRING
- - - INDICATES LOW VOLTAGE WIRING

- (M) INDICATES ITEMS FURNISHED AND INSTALLED UNDER THE MECHANICAL SECTION OF THE WORK.
(E) INDICATES ITEMS FURNISHED AND INSTALLED UNDER THE ELECTRICAL SECTION OF THE WORK.
(ME) INDICATES ITEMS FURNISHED UNDER THE MECHANICAL SECTION OF THE WORK AND INSTALLED UNDER THE ELECTRICAL SECTION OF THE WORK.

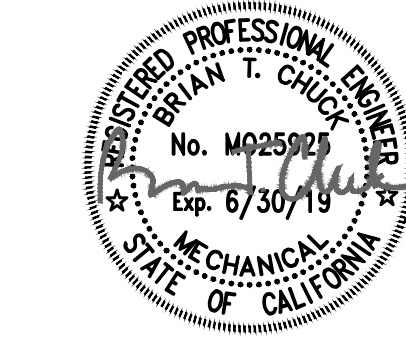


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**MECHANICAL
CONTROL
DIAGRAMS**

M-501

- GENERAL NOTES
1.

PLUMBING FLOOR PLANS ARE DIAGRAMMATIC. ALL ABOVE GRADE PIPING SHOWN NEAR A PLUMBING CHASE IS TO BE LOCATED WITHIN THE PLUMBING CHASE, UNLESS OTHERWISE NOTED. OFFSET PIPING AROUND BEAMS, COLUMNS, WALLS, ETC., AS REQUIRED.
2.

ALL CONDITIONS HAVE BEEN SHOWN AS ACCURATELY AS POSSIBLE. CONTRACTOR IS TO INCLUDE IN HIS BID ADJUSTMENTS TO THE WORK AS REQUIRED TO ACCOMODATE THE ACTUAL FIELD CONDITIONS.
3.

ALL HORIZONTAL CONDENSATE DRAINAGE PIPING SHALL MAINTAIN A MINIMUM 2% SLOPE TO POINT OF DISPOSAL.
4.

ALL HORIZONTAL WASTE PIPING SHALL MAINTAIN A MINIMUM 2% SLOPE TO POINT OF DISPOSAL.
5.

ALL CORING AND PENETRATIONS OF WALLS AND/OR FLOORS FOR PIPING ARE TO BE AS SMALL AS POSSIBLE. OVERSIZING OF OPENINGS IS TO BE AVOIDED. WALL PENETRATIONS ARE TO BE COORDINATED WITH ALL OTHER TRADES AND THE DRAWINGS. WALL PENETRATIONS ARE TO BE KEPT AS HIGH AS POSSIBLE AND ARE TO BE MADE IN AREAS WHERE PIPING WILL BE CONCEALED. IF PENETRATIONS IN EXPOSED LOCATIONS ARE UNAVOIDABLE, INSTALL ESCUTCHEON RINGS AT THESE LOCATIONS.

- PLUMBING COMPONENT ANCHORAGE NOTE
- ALL PLUMBING COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.10 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTERS 13, 26 AND 30.

1.

ALL PERMANENT EQUIPMENT AND COMPONENTS.

2.

TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED TO THE BUILDING UTILITY SERVICES SUCH AS GAS OR WATER PIPING.

3.

MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND 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 ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING PLUMBING COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK AND PIPING.

A.

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.

B.

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.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PLUMBING SYSTEMS BRACING NOTE

PLUMBING SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTIONS 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC SECTIONS 1616A.1.24, 1616A.1.25 AND 1616A.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., SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

PLUMBING PIPING (PP):

PP

OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #0052-13).

OPTION 3: SHALL COMPLY WITH SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE PROJECT AND CONDITIONS.

PLUMBING LEGEND AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
		SHEET NOTE DESIGNATION		DIAMETER		GALVANIZED SHEET METAL
		ITEM FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR		PHASE		HEIGHT
		ITEM FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR		AIR CONDITIONING		INVERT ELEVATION
		ITEM FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR		ABOVE FINISHED FLOOR		IN FURRED CEILING
		DETAIL REFERENCE - UPPER NUMBER=DETAIL NUMBER, LOWER NUMBER=SHEET NUMBER		ALTERNATE		INDIRECT
	SG	NATURAL GAS PIPING		ACCESS PANEL		INVERT
	CD	CONDENSATE DRAIN PIPING		APPROXIMATE		POUNDS
	BV	BALL VALVE		ARCHITECT, ARCHITECTURAL		MAXIMUM
	CH.V.	CHECK VALVE		BELOW FLOOR		MECHANICAL
	CO	CLEANOUT IN CD PIPING		BELOW FINISHED FLOOR		MANUFACTURER
	FCO	FLOOR CLEANOUT		BELOW GRADE		MINIMUM
	GCO	GRADE CLEANOUT		BUILDING		NEW
	G.C.	GAS COCK		BALL VALVE		ON CENTER
	G.V.	GATE VALVE		CUBIC FEET PER HOUR		OVERFLOW DRAIN
	WCO	WALL CLEANOUT		CENTERLINE		OPERABLE
		UNION		CAST IRON		PLUMBING CONTRACTOR
		CHANGE IN PIPE SIZE		CHECK VALVE		PLUMBING
		EXISTING FIXTURES, PIPING OR EQUIPMENT TO REMAIN		CEILING		POINT OF CONNECTION
		EXISTING FIXTURES, PIPING OR EQUIPMENT TO BE REMOVED		CLEANOUT		PRESSURE
	(E) CD	EXISTING CONDENSATE DRAIN PIPING TO REMAIN		COMPARTMENT		POUNDS PER SQUARE INCH
	(E)G	EXISTING NATURAL GAS PIPING TO REMAIN		CONCRETE		PRESSURE/TEMPERATURE

CLEARANCE NOTES

1.

CLEARANCES IN SOFFIT AREAS, AND IN MOST ATTIC AREAS ARE EXTREMELY LIMITED. ALL TRADES ARE TO WORK CLOSELY TOGETHER TO ENSURE THAT INSTALLATION OF ALL SYSTEMS MAY OCCUR.

2.

ALL CONDITIONS HAVE BEEN SHOWN AS ACCURATELY AS POSSIBLE. ALL CONDITIONS ARE TO BE FIELD VERIFIED. PLUMBING CONTRACTOR IS TO INCLUDE IN HIS BID ADJUSTMENTS TO THE WORK AS REQUIRED TO ACCOMMODATE THE ACTUAL FIELD CONDITIONS.

FIRE RATED PENETRATIONS

1.

ALL ROOF, CEILING, AND WALL PENETRATIONS ARE TO BE CAULKED AND SEALED. INSULATION MAY BE USED IN CONCEALED AREAS TO FILL VOIDS. FIRE CAULK ALL PENETRATIONS THROUGH RATED WALLS WITH 3M FIRESTOPPING SYSTEMS, OR EQUAL. SYSTEMS TO MEET ALL REQUIREMENTS OF 2016 CBC SECTIONS 714 & 717.

2.

THROUGH PENETRATIONS SHALL BE PROTECTED BY AN APPROVED PENETRATION FIRESTOP SYSTEM INSTALLED AS TESTED IN ACCORDANCE WITH ASTM E 814 OR UL 1479, WITH A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH OF WATER AND SHALL HAVE AN F RATING OF NOT LESS THAN THE REQUIRED FIRE-RESISTANCE RATING OF THE WALL PENETRATED. (2016 CBC SECTION 714.3.1.2)

PLUMBING LIST OF DRAWINGS

P-01

PLUMBING LEGEND AND NOTES

P-201

PLUMBING DEMOLITION AND FLOOR PLANS - ADMINISTRATION BLDGS.

P-301

PLUMBING DETAILS

APPROVED
DIV. OF THE STATE ARCHITECT
APP.01-117917 INC:
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 04/03/2019

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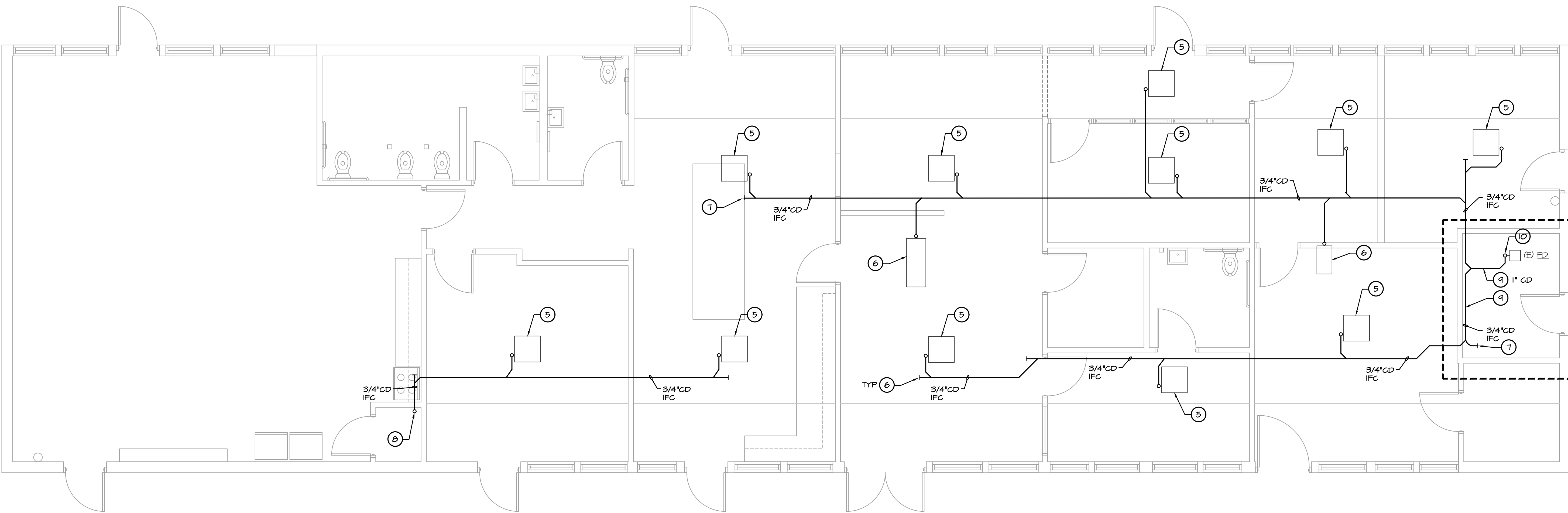
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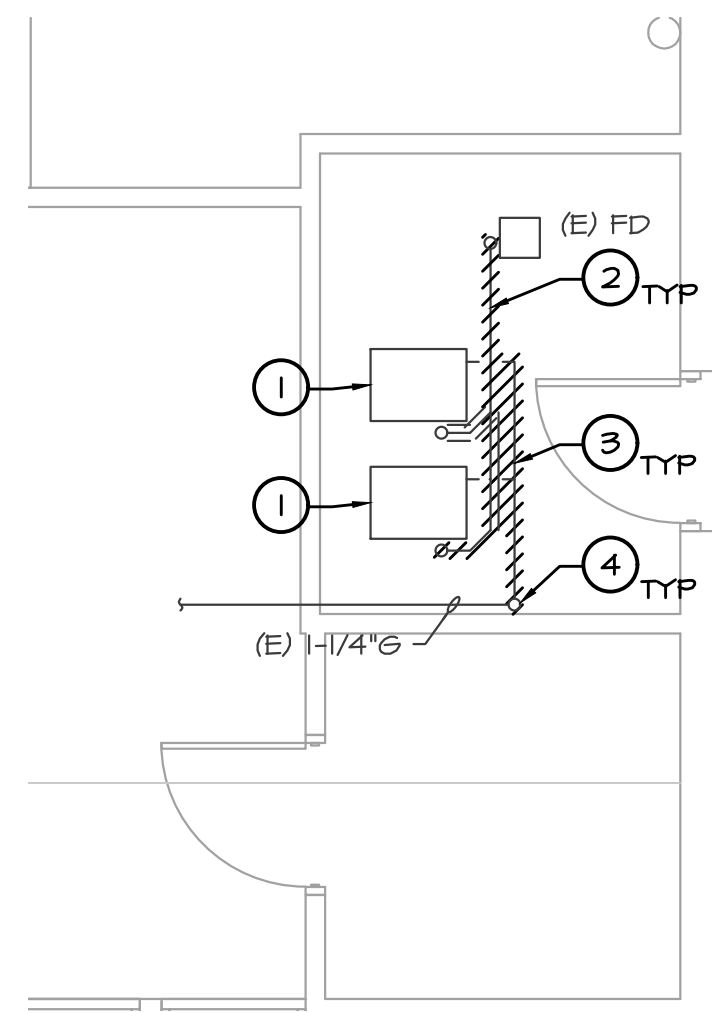
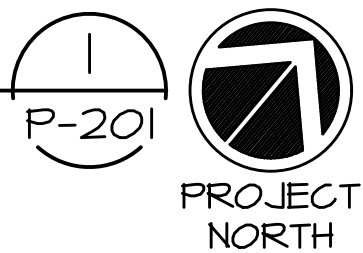
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PLUMBING
LEGEND AND
NOTES

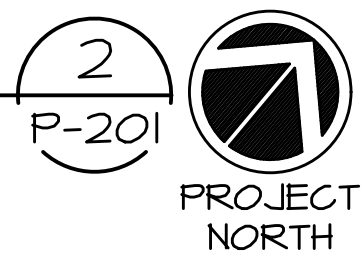
P-01



PLUMBING FLOOR PLAN - ADMINISTRATION BUILDING
SCALE: 1/4" = 1'-0"

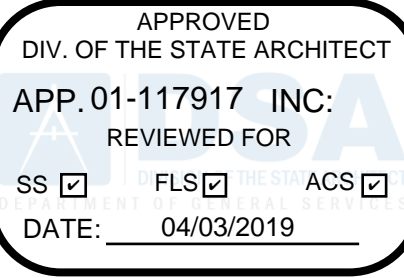


PARTIAL PLUMBING DEMOLITION
PLAN - ADMINISTRATION BLDG
SCALE: 1/4" = 1'-0"



SHEET NOTES

1. CONDENSING FURNACE AND COOLING COIL TO BE REMOVED, SEE MECHANICAL DRAWINGS.
2. DEMOLISH (E) CONDENSATE PIPING SERVING CONDENSING FURNACES AND COOLING COILS.
3. DEMOLISH (E) GAS PIPING SERVING CONDENSING FURNACES.
4. CAP (E) 1-1/4" @ AT RISER.
5. FAN COIL UNIT FLUSH IN CEILING WITH INTEGRAL CONDENSATE PUMP, SEE MECHANICAL DRAWINGS. CONNECT COPPER TUBING TO DISCHARGE OF CONDENSATE PUMP. TUBING IS TO MATCH SIZE OF PUMP DISCHARGE. ROUTE TUBING ABOVE CEILING AS SHOWN. SEE 1/P-301 FOR DETAILS.
6. REFRIGERANT BRANCH CONTROLLER UNIT ABOVE CEILING, WITH CONDENSATE PUMP FURNISHED BY MECHANICAL. SEE MECHANICAL DRAWINGS. INSTALL CONDENSATE PUMP AND CONNECT COPPER TUBING TO DISCHARGE OF PUMP. TUBING IS TO MATCH SIZE OF PUMP DISCHARGE. ROUTE TUBING ABOVE CEILING AS SHOWN. SEE 2/P-301 FOR DETAILS.
7. CLEANOUT AT END OF RUN.
8. EXTEND 3/4" CD PIPING AND CONNECT TO (E) 3/4" OR LARGER CD PIPING IN FURNACE CLOSET, DOWNSTREAM OF CONDENSATE NEUTRALIZATION KIT, AS APPLIES. VERIFY EXACT LOCATION IN FIELD.
9. ROUTE CD PIPING HIGH ALONG WALL, SEE 3/P-301 FOR MOUNTING.
10. EXTEND CD PIPING DN WALL, THEN OVER TO (E) FLOOR DRAIN. TERMINATE AT FLOOR DRAIN WITH ELBOW POINTING DOWN AND MIN. 1" AIR GAP. SEE 3/P-301 AND 4/P-301 FOR MOUNTING AT WALL AND FLOOR.



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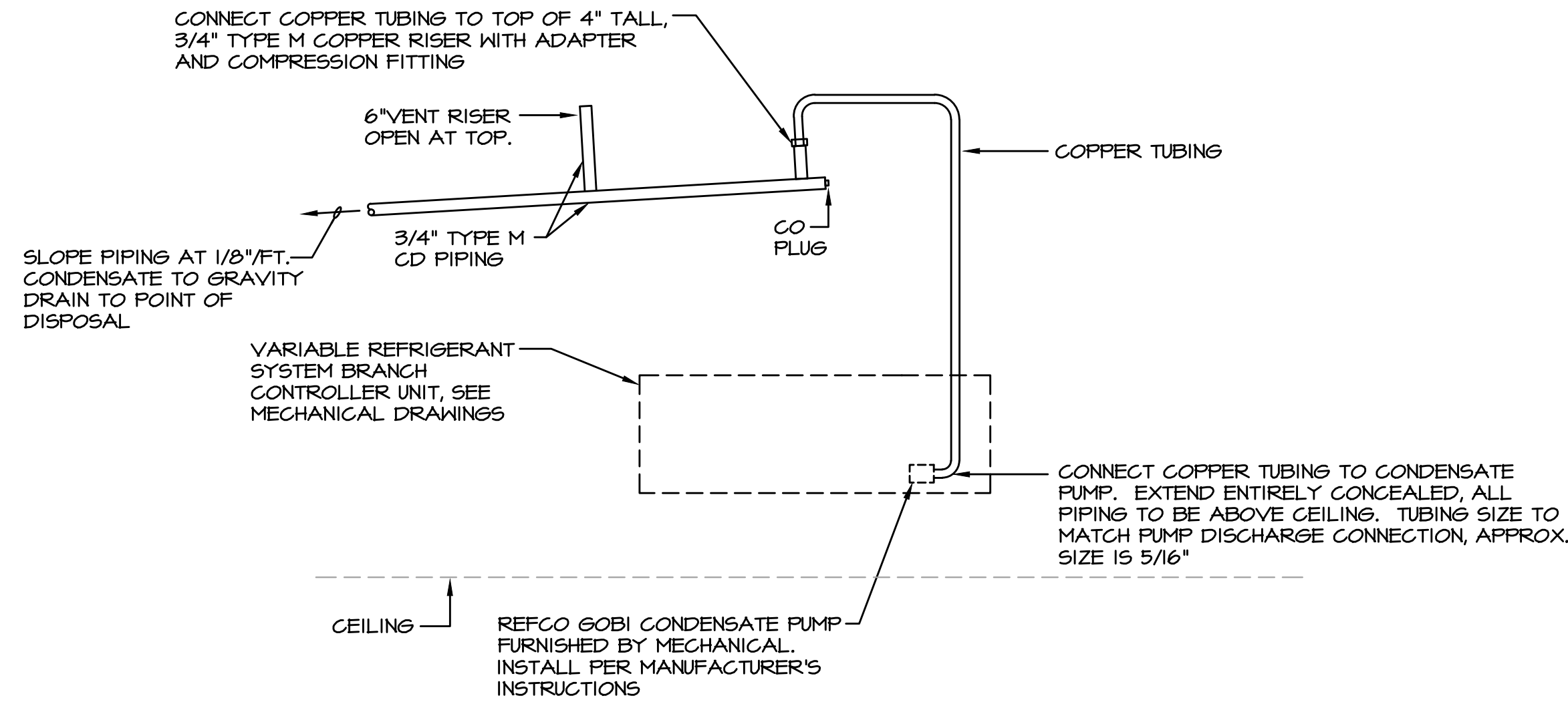
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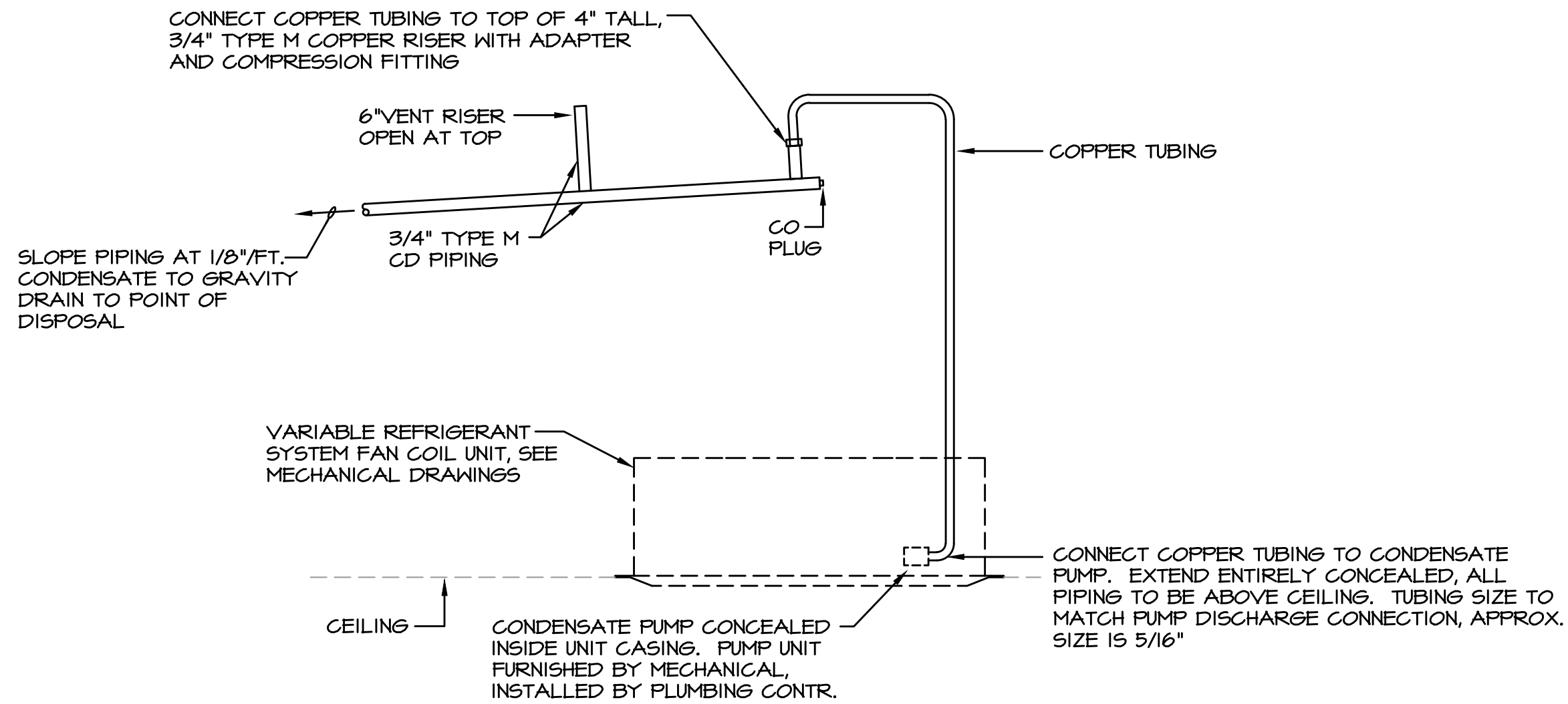
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CONDENSATE PIPING DETAIL

NO SCALE

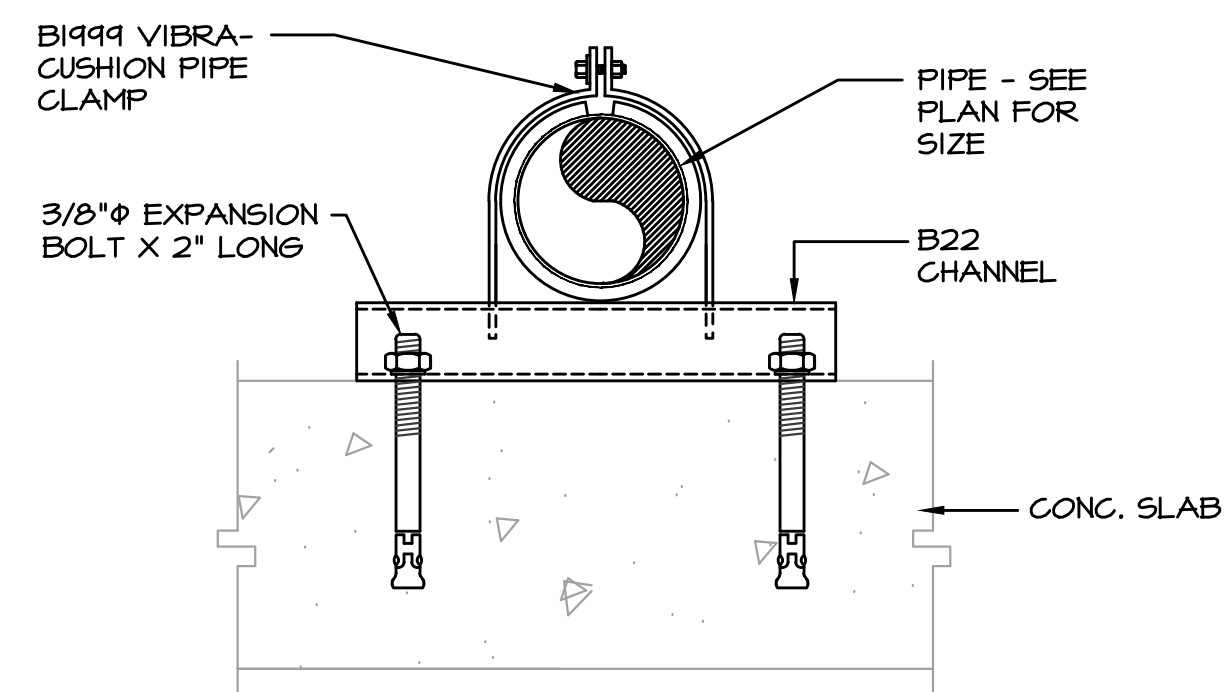
2
P-301



CONDENSATE PIPING DETAIL

NO SCALE

1
P-301



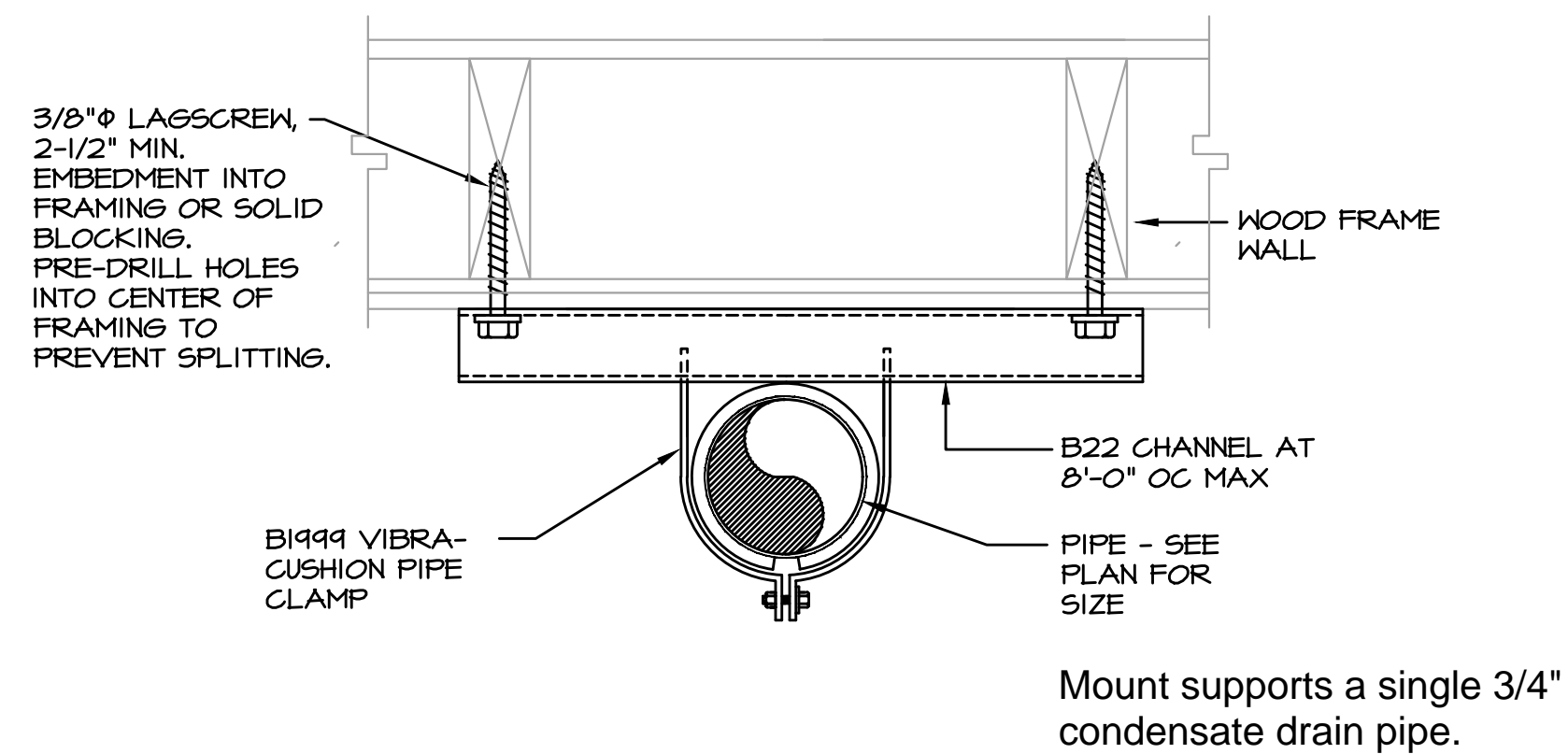
PIPE MOUNTING DETAIL

NO SCALE

NOTES:

- ALL CHANNEL AND FITTING NUMBERS ARE COOPER B-LINE.

4
P-301



PIPE MOUNTING DETAIL

NO SCALE

NOTES:

- ALL CHANNEL AND FITTING NUMBERS ARE COOPER B-LINE.

3
P-301

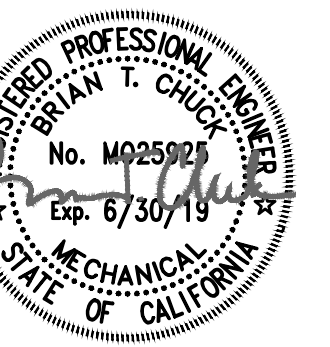


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SYMBOLS LIST

WP

GFI

WEATHERPROOF, GFI TYPE DUPLEX RECEPTACLE WITH WHILE-IN-USE COVER, WALL MOUNTED, +18" AFF.

①

JUNCTION BOX, MOUNTED ABOVE ACCESSIBLE CEILING.

①

H

JUNCTION BOX, WALL MOUNTED.

S

SINGLE POLE TOGGLE SWITCH, WALL MOUNTED, +48" AFF.

S

T

MOTOR RATED SWITCH WITH THERMAL OVERLOAD ELEMENT.

FUSED SAFETY DISCONNECT.

CONDUIT RUN EXPOSED ON WALL OR CEILING.

CONDUIT RUN CONCEALED IN SLAB, UNDERSLAB OR UNDERGROUND.

CONDUIT RUN CONCEALED IN WALL OR CEILING.

CONDUIT HOMERUN, CONTINUOUS RUN TO PANEL OR EQUIPMENT CABINET. PROVIDE JUNCTION BOX AS REQUIRED.

FLEXIBLE METALLIC CONDUIT.

CONDUIT TURN UP.

CONDUIT TURN DOWN.

CONDUIT OR DUCT STUB, MARK THE EXACT LOCATION ON THE AS-BUILT DRAWINGS.

BREAKER.

PHASE

NEUTRAL

GROUND

CONDUIT AND WIRE: CROSSMARKS INDICATE THE QUANTITY OF CONDUCTORS. NUMBER ADJACENT TO CROSSMARKS INDICATES WIRE SIZE. WIRE MARKS ARE SHOWN ONLY FOR "HOMERUNS" AND WHERE CONSIDERED NECESSARY TO CLARIFY CIRCUITRY OR CONTROL. NO WIRE MARKS INDICATE 2#12, 1#12 GROUND.

GROUND WIRE: NUMBER ADJACENT TO CROSSMARKS INDICATES WIRE SIZE. NO NUMBER INDICATES #12 WIRE.

EQUIPMENT CONNECTION. PROVIDE FLEX CONDUIT, WIRE, FITTINGS AND WIRE TERMINATIONS.

②

NUMBERED SHEET NOTE: APPLIES TO DRAWING CONTAINING NOTE ONLY.

A

E0.1

DETAIL REFERENCE:

SHEET NUMBER.

DETAIL DESIGNATION.

3

F2

FIXTURE IDENTIFICATION TAG:

FIXTURE TYPE.

QUANTITY: (FOR FIXTURE IDENTIFICATION ONLY, NOT FOR PROJECT COSTING.)

ABBREVIATIONS

A	AMPERE.
AFF	ABOVE FINISHED FLOOR.
C	CONDUIT.
CO	CONDUIT ONLY.
CU	COPPER.
(E)	EXISTING.
F	FUSED.
G	GROUND.
GFI	GROUND FAULT INTERRUPTER.
JB	JUNCTION BOX.
KVA	KILOVOLT AMPERE.
MSB	MAIN SWITCHBOARD.
(N)	NEW.
NIEC	NOT IN ELECTRICAL CONTRACT.
NL	NIGHT LIGHT.
OC	ON CENTER.
PH	PHASE.
PNL	PANEL.
(R)	RELOCATED.
T	TRANSFORMER.
TYP	TYPICAL.
UGPS	UNDERGROUND PULL SECTION.
UON	UNLESS OTHERWISE NOTED.
V	VOLT.
W	WIRE.
WP	WEATHERPROOF.
W/	WITH.
+48"	MOUNT 48" ABOVE FINISHED FLOOR FROM THE CENTER LINE OF DEVICE.

DRAWING LIST

E-01	SYMBOLS, NOTES AND SCHEDULES.
E-101	DEMOLITION PLAN.
E-201	POWER PLAN.

PANEL SCHEDULE

NAME: B (EXISTING)

ENCLOSURE NEMA: 1

BUS RATING: 100

INTERRUPTING RATING: 10K

GROUND BUS (YES/NO): Y

VOLTAGE: 208/120

PHASE: 3

WIRE: 4

MAIN: MLO

FEED: TOP

CIR NO	CB AMPS	LOAD DESCRIPTION	LOAD (KVA)	LOAD PER PHASE			LOAD (KVA)	LOAD DESCRIPTION	CB AMPS	CIR NO
				A	B	C				
1	20/1	PROJECTOR RM3	1.0	1.5			0.5	LCD	20/1	2
3	20/1	IDF	1.5		2.7		1.2	CORRIDOR LTGS	20/1	4
5	20/1	IDF	1.5			2.0	0.5	EXIT SIGNS	20/1	6
7	20/1	CEF-1	0.1	1.1			1.0	CANOPY LIGHTS	20/1	8
9	20/1	SPARE			0.1		0.1	CONTROL PANEL	20/1	10
11	20/1	SPARE				0.2	0.2	RECEPTACLE	20/1	12
13	20/1	SPARE		3.2			3.2	VRF-1	---	14
15	20/1	SPARE			3.2		3.2	VRF-1	40/3	16
17	20/1	SPARE			3.2	3.2	3.2	VRF-1	---	18
19	20/1	SPARE		2.3			2.3	VRF-1	---	20
21	20/1	SPARE			2.3		2.3	VRF-1	30/3	22
23	20/1	SPARE				2.3	2.3	VRF-1	---	24
25	20/1	SPACE		0.5			0.5	VFC UNITS & BC UNITS	20/2	26
27	20/1	SPACE			0.5		0.5	VFC UNITS & BC UNITS	---	28
29	20/1	SPACE				0.0		SPACE	---	30
TOTAL			8.6	8.8	7.7	TOTAL				

DEMAND LOAD
CONTINUOUS LOAD
DEDICATED LOAD
GENERAL RECEPTACLE
MECHANICAL EQUIPMENT

NEC DEMAND FACTOR
125% 3.4
100% 0.0
100% OF 1ST 10KVA & 50% OF REMAINING 4.3
125% OF LARGEST MOTOR & 100% OF REMAINING 20.0
TOTAL DEMAND KVA 27.7
AMPS @ 208/120V, 3 PHASE, 4 WIRE 76.9

PANEL SCHEDULE

NAME: BB (EXISTING)

ENCLOSURE NEMA: 1

BUS RATING: 225

INTERRUPTING RATING: 10K

GROUND BUS (YES/NO): Y

VOLTAGE: 208/120

PHASE: 3

WIRE: 4

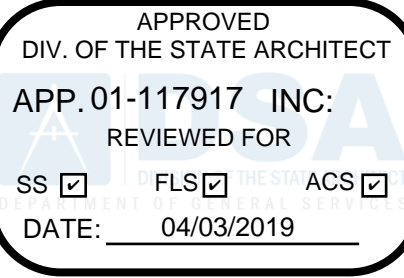
MAIN: 200A MCB

FEED: TOP

CIR NO	CB AMPS	LOAD DESCRIPTION	LOAD (KVA)	LOAD PER PHASE			LOAD (KVA)	LOAD DESCRIPTION	CB AMPS	CIR NO
				A	B	C				
1	30/1	ROOMS 11 & 12	1.5	2.3			0.8	DISH WASHER	20/1	2
3	30/1	ROOMS 11 & 12	1.5		2.5		1.0	PUBLIC ADDRESS RACK	20/1	4
5	20/1	ROOMS 11 & 12	1.0			2.0	1.0	EXISTING	20/1	6
7	20/1	ROOMS 13 & 14	1.0	2.5			1.5	COPY MACHINE	20/2	8
9	20/1	SF-1	0.4		1.9		1.5	COPY MACHINE	---	10
11	20/1	SF-2	0.1			0.7	0.6	DISPOSAL	20/1	12
13	20/1	ROOMS 15, 17 & 18	1.0	2.0			1.0	ROOM 20	20/1	14
15	20/1	ROOMS 15, 17 & 18	1.0		2.0		1.0	ROOM 20	20/1	16
17	20/1	ROOMS 15, 17 & 18	1.0			2.0	1.0	ROOM 20	20/1	18
19	20/1	CEF - 1, 2, 3	1.0	2.7			1.7	RHR-1, RHR-2 & CEF-4	---	20
21	20/1	EWH-1	1.5		3.2		1.7	RHR-1, RHR-2 & CEF-4	20/3	22
23	20/1	EWH-2	1.5			3.2	1.7	RHR-1, RHR-2 & CEF-4	---	24
25	20/1	ROOM 19	1.0	2.0			1.0	ROOM 21 & 24	20/1	26
27	20/1	ROOM 19	1.0		2.2		1.2	MICROWAVE	20/1	28
29	20/1	ROOM 19	1.0			2.0	1.0	EXISTING	20/1	30
31	20/1	SPARE	1.0	2.0			1.0	ROOM 24	20/1	32
33	40/2	WATER HEATER	3.0		3.8		0.8	FRIDGE IN KITCHEN	20/1	34
35	---	WATER HEATER	3.0			4.0	1.0	ROOM 24	20/1	36
37	40/2	STOVE	3.0	4.2			1.2	MICROWAVE	20/1	38
39	---	STOVE	3.0		4.0		1.0	ROOM 25	20/1	40
41	20/1	EXISTING	1.0			2.0	1.0	EXISTING	20/1	42
TOTAL			17.7	19.6	15.9	TOTAL				

DEMAND LOAD
CONTINUOUS LOAD
DEDICATED LOAD
GENERAL RECEPTACLE
MECHANICAL EQUIPMENT

NEC DEMAND FACTOR
125% 0.0
100% 9.0
100% OF 1ST 10KVA & 50% OF REMAINING 23.8
125% OF LARGEST MOTOR & 100% OF REMAINING 7.9
TOTAL DEMAND KVA 40.7
AMPS @ 208/120V, 3 PHASE, 4 WIRE 113.0



Encinal E.S.
Administration
Building
Modernization

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date	Issued For
10/23/2018	DSA PRELIM. SUBMITTAL
01/11/2019	DSA SUBMITTAL

B.R.K.
ASSOCIATES, INC.
ELECTRICAL ENGINEERING
1290 B Street, Suite 209
Hayward, CA 94541
TEL: (510) 889-7770
FAX: (510) 889-7791

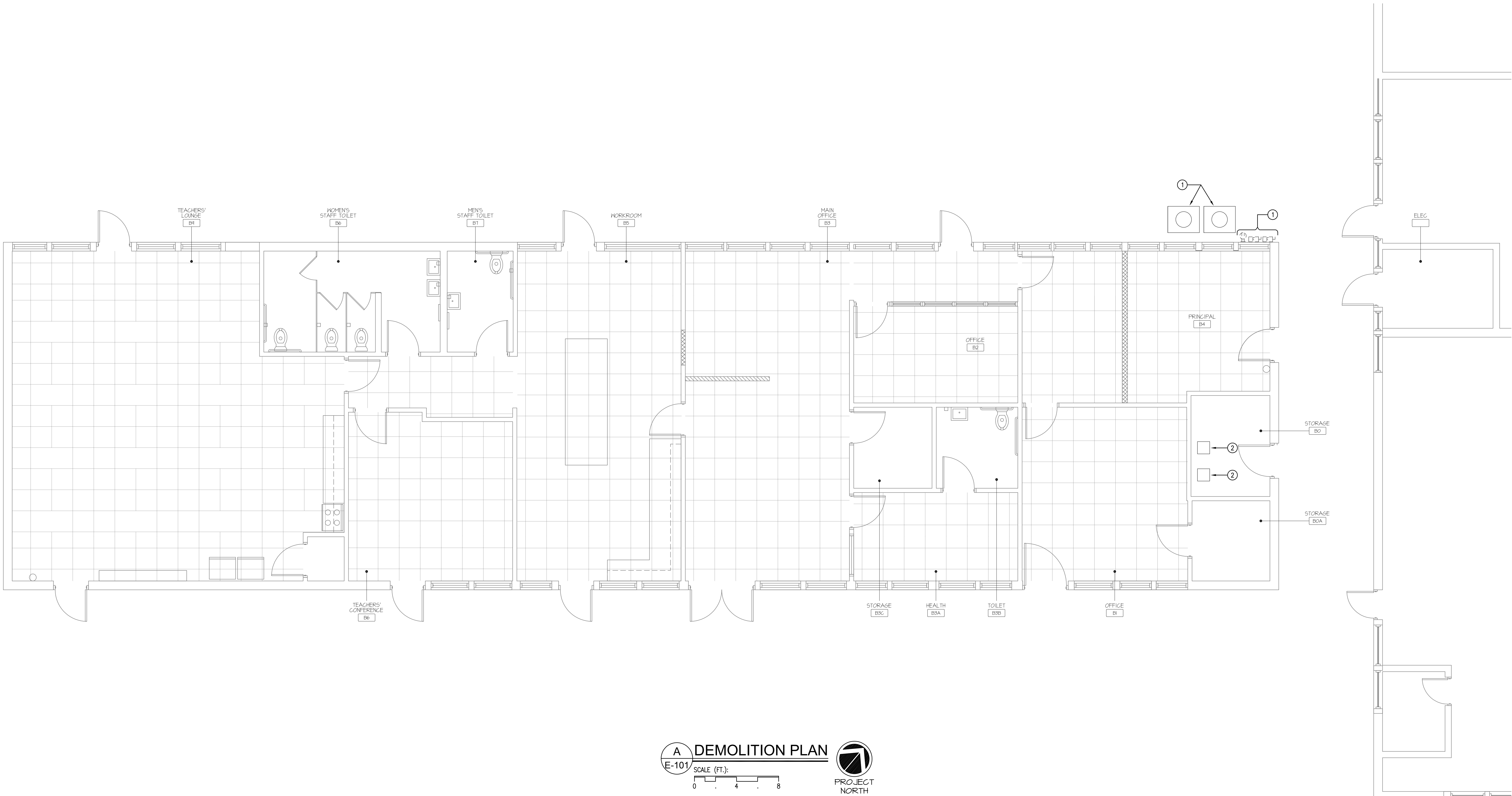
HED

417 Montgomery Street
Suite 400
San Francisco, CA
94104 USA
(415) 981-2345
WWW.HED.DESIGN



SYMBOLS, NOTES
AND SCHEDULES

G:\Encinal Elementary\Elect. Drawg\990m\ENCINAL ELEMENTARY E-101.dwg Mon, 15, 2019 1:42pm



A DEMOLITION PLAN
E-101
SCALE (FT.):
0 4 8
PROJECT NORTH

- DEMOLITION SHEET NOTES:**
- ① DISCONNECT POWER TO EXISTING CONDENSING UNITS. REMOVE ALL ASSOCIATED DISCONNECT SWITCHES, RECEPTACLES, JUNCTION BOXES, CONDUITS AND WIRES BACK TO PANEL "PA".
 - ② DISCONNECT POWER TO EXISTING FURNACE. SAVE OF FEEDERS FOR NEW SUPPLY FAN.

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117917 INC.
REVIEWED FOR
SS ☒ FLS ☒ ACS ☒
DATE: 04/03/2019



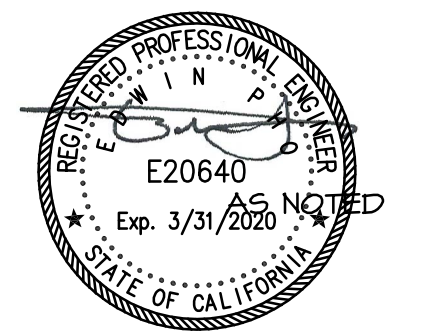
**Encinal E.S.
Administration
Building
Modernization**

195 Encinal Avenue
Atherton, CA 94027 (650) 326-5164

Date Issued For
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2018-03800-000 © 2018

DEMOLITION PLAN

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Atherton, CA 94027 (650) 326-5164

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E-201



- NUMBERED SHEET NOTES:

- ① PROVIDE POWER CONNECTION TO A CONDENSING PUMP FOR THE BRANCH CONTROLLER. USING SAME CIRCUIT FOR THE BRANCH CONTROLLER. COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EXACT REQUIREMENTS.
- ② RECONNECT TO EXISTING CIRCUIT BB-9.
- ③ RECONNECT TO EXISTING CIRCUIT BB-11.
- ④ LINE VOLTAGE BYPASS TIMER FURNISHED BY THE MECHANICAL CONTRACTOR, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.