(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

GENERAL NOTES

1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING AND PROPOSED CONSTRUCTION, PIPING, CONDUITS, CLEAN-OUTS, PULL BOXES, ETC. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE DISTRICT AND ARCHITECT PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL GRADES ELEVATIONS, DIMENSIONS, AND CONDITIONS OF INSTALLATION PRIOR TO PROVIDING BID. ANY DISCREPANCIES DISCOVERED BY THE CONTRACTOR DURING THE ABOVE INVESTIGATIONS SHALL BE REPORTED IMMEDIATELY TO THE ARCHITECT. THE CONTRACTOR BY MEANS OF OFFERING A BID SHALL THEREBY CERTIFY THAT THE ABOVE STATED REQUIREMENTS HAVE BEEN MET.
3. GENERAL CONTRACTOR SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND TRANSPORTATION NECESSARY FOR THE COMPLETE AND PROPER EXECUTION OF THE WORK.
4. THE ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE ARCHITECT AND / OR STRUCTURAL ENGINEER.
5. ALL WORK SHALL CONFORM TO THE "APPLICABLE CODES" AS LISTED HEREON.
6. CONTRACTOR SHALL REMOVE FROM SITE AND DISPOSE OF IN A LEGAL MANNER ALL EXCESS DIRT / SOIL AND DEBRIS RESULTANT OF THE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT.
7. CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL NECESSARY PERMITS AND APPROVALS FOR ALL WORK THAT OCCURS IN ANY PUBLIC RIGHT-OF-WAY AND / OR EASEMENT. FEES FOR REQUIRED PERMITS SHALL BE PAID FOR DIRECTLY BY CONTRACTOR AND SHALL BE REIMBURSED BY THE DISTRICT 1:1.
8. PROPERLY REMOVE ALL DEMOLISHED ITEMS AND MATERIALS FROM THE SITE AND DISPOSE OF ALL IN A LEGAL MANNER.
9. REPAIR OR REPLACE EXISTING WALKS, UTILITY LINES, LANDSCAPING, ETC. THAT ARE DAMAGED DURING CONSTRUCTION. PROTECT ALL EXISTING CONSTRUCTION DESIGNATED TO REMAIN.
10. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDA OR A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT AS REQUIRED BY SECTION 4-338 PART 1, TITLE 24, CCR.
11. A DSA CERTIFIED CLASS 2 PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN THE SECTION 4-342 PART 1, TITLE 24, CCR.
12. D.S.A. APPROVED TESTING LABORATORY DIRECTLY EMPLOYED AND PAID FOR BY THE DISTRICT SHALL CONDUCT ALL REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
13. CONTRACTOR SHALL NOTIFY DISTRICT AND ARCHITECT IN WRITING UPON COMPLETION OF SITE PREPARATION.
14. ASSUMED SOIL BEARING CAPACITY PER SOILS REPORT.
15. PATCH AND REPAIR ALL SURFACES AFFECTED BY CONTRACT WORK AND BY SELECTIVE DEMOLITION TO A "LIKE NEW" CONDITION OR TO MATCH EXISTING ADJACENT FINISHES.
16. FIRE SAFETY DURING CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE IN ACCORDANCE WITH 2019 CFC CHAPTER 7, 11 AND 33.
17. ALL CONTRACTORS ARE ADVISED THAT CERTAIN PORTIONS OF THE WORK MAY NOT BE EASY AND MAY EXCEED THE ASSUMED STANDARD OF THE INDUSTRY, INCLUDING MEANS AND METHOD, OPERATIONAL STAGING, SCHEDULING AND COORDINATION OF WORK, AS WELL AS TIME AND DURATION OF ACTIVITIES NECESSARY TO SATISFACTORILY COMPLETE THE PROJECT IN ACCORDANCE WITH THIS CONTRACT. CONTRACTOR SHALL PROVIDE ALL NECESSARY LABOR, MATERIALS AND OPERATIONAL SUPPORT NECESSARY TO COMPLETE THE PROJECT AS REQUIRED UNDER THIS CONTRACT.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WATER NECESSARY FOR CONSTRUCTION. WATER CAN BE MADE AVAILABLE ON-SITE VIA EXISTING HYDRANT, AND SHALL BE PROPERLY METERED THROUGH LOCAL WATER AGENCY.
19. CONTRACTOR MAY ONLY STAGE AND PERFORM WORK IN AREAS SPECIFICALLY IDENTIFIED FOR THIS CONTRACT. ALL WORK REQUIRED TO BE PERFORMED OUTSIDE OF THE DESIGNATED AREAS SHALL REQUIRE MONITORING BY ASSIGNED DISTRICT STAFF OR SHALL BE PERFORMED DURING NON-SCHOOL HOURS. ALL REQUESTS FOR MONITORED WORK SHALL BE MADE IN WRITING 48 HOURS IN ADVANCE BY GENERAL CONTRACTOR AND SCHEDULING SHALL BE SUBJECT TO APPROVAL BY DISTRICT.
20. CONSTRUCTION AREA OVERLAPS ACTIVE SERVICE AREAS NECESSARY FOR THE NORMAL DAILY OPERATION OF THE SCHOOL. CONTRACTOR SHALL AT ALL TIMES MAINTAIN AND ALLOW ACCESS ON SITE FOR EMERGENCY VEHICLES, TRASH COLLECTION, LANDSCAPE, GENERAL SCHOOL MAINTENANCE AND FOOD SERVICE DELIVERY. CONTRACTOR SHALL COORDINATE CLOSELY WITH DISTRICT FOR ALL NECESSARY ACCESS.
21. CONTRACTOR SHALL PROVIDE AND MAINTAIN FOR THE DURATION OF THE CONTRACT OPAQUE VINYL SCREENS (TARP OR SIMILAR) PROPERLY SECURED TO ALL TEMPORARY CONSTRUCTION FENCING AND GATES AS WELL AS ALL EXISTING FENCING THAT DEFINES A PERIMETER OF ANY DESIGNATED CONSTRUCTION AREA. SCREENING SHALL BE MINIMUM 6'-0" HIGH AND SHALL BE BLACK, GREEN OR TAN IN COLOR.
22. DUE TO THE ON-GOING OPERATION OF THE ACTIVE SCHOOL SITE DURING CONSTRUCTION, AS WELL AS THE UNIQUE CONSTRAINTS OF THE CONSTRUCTION AREA, CONTRACTOR SHALL BE AWARE THAT THE VEHICULAR DRIVES, ACCESS LANES AND PARKING SHALL BE SHARED AND SHALL NOT SCHEDULE ANY DELIVERIES AS WELL AS SUSPEND CONSTRUCTION TRAFFIC ENTERING AND EXISTING PREMISES DURING THE PERIODS REQUIRED FOR STUDENT DROP-OFF AND PICK-UP. CONTRACTOR SHALL COORDINATE WITH DISTRICT FOR ALL TIME OFF OPERATION FOR THE SITE.
23. FOR THE DURATION OF THE CONTRACT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRICT COMPLIANCE WITH LOCAL AGENCY HAVING JURISDICTION FOR ALL, FUGITIVE DUST AND SHALL BE RESPONSIBLE FOR ALL PENALTIES, FINES, ETC. IF THE PROJECT SHOULD BE CITED FOR VIOLATIONS.
24. DUE TO THE SITE CONSTRAINTS OF THE ACTIVE SCHOOL SITE, THE CONTRACTOR MAY BE REQUIRED TO STAGE IN VARIOUS AVAILABLE AREAS ON SITE AND MAY BE REQUIRED TO MOVE OR RELOCATE STAGING DURING THE COURSE OF CONSTRUCTION IN ORDER TO ACCOMMODATE CONSTRUCTION AND SCHEDULE. CONTRACTOR SHALL FACTOR IN ALL NECESSARY MEASURES TO ACCOMMODATE THE TIMELY COMPLETION OF THIS CONTRACT.
25. CONTRACTOR SHALL NOT INTERRUPT ANY UTILITY SERVICE TO ACTIVE SCHOOL SITE WITHOUT EXPRESSED PERMISSION AND PRIOR SCHEDULING WITH DISTRICT.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CONTRACTOR SUBMITTALS OF DOCUMENTS TO THE DSA BOX.
27. CONTRACTOR MAY UTILIZE EXISTING ELECTRICAL SERVICE IN YARD FOR TEMPORARY POWER. ALL TEMPORARY POWER INSTALLATION SHALL ADHERE TO APPLICABLE CODES.

THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION 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 WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK. REFERENCE: SECTION 4-317 (C), CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)

ABREVIATIONS

ABV	above
ACC	access
ADJ	adjacent
AFD	automatic fire damper
AGG	aggregate
A/C	air conditioning
ALT	alternate
ALUM	aluminum
AB	anchor bolt
AC	asphaltic concrete
AUTO	automatic
BEL	below
BET	between
BG	below grade
BLKG	blocking
BD	board
BOT	bottom
BLDG	building
CAB	cabinet
CATV	cable television
CB	catch basin
CLG	ceiling
CHBD	chalkboard
CLR	clear
COL	column
COMP	composition (composite)
CONC	concrete
CMU	concrete masonry unit
CONN	connection
CONST	construction
CONT	continuous (continue)
CONTR	contractor
CUST	custodian
CF	curb face
CT	ceramic tile
DL	dead load
DEMO	demolish (demolition)
FUT	future
GA	gauge
GALV	galvanized
GC	general contractor
GI	galvanized iron
GV	gate valve
GL	glass, glazing
GLB	glue lam beam
GYPBD	gypsum board
HDWE	hardware
HDWD	hardwood
HDR	header
HVAC	heating/ ventilating/ air conditioning
HGT	height
HC	hollow core
HCP	handicap(ped)
HM	hollow metal
HP	horsepower
HORIZ	horizontal
HB	hose bibb
INCL	include(d), (ing)
ID	inside diameter
INSUL	insulat(e), (ion)
INT	interior
JT	joint
KO	knockout
LAB	laboratory
LB	lag bolt
LAM	laminate
LAV	lavatory
LH	left hand

L	length
LGT	light
LTL	lintel
LL	live load
LVR	louver
MB	machine bolt
MH	manhole
MFR	manufature(er)
MO	masonry opening
DET(DTL)	detail
DIAG	diagonal
DIA	diameter
DIM	dimension
DS	downspout
DWG	drawing
DF	drinking fountain
E	east
ELEC	electric(al)
EWC	electric water cooler
EL	elevation
EQ	equal
EXH	exhaust
EXIST(E)	existing
EB	expansion bolt
EXP	exposed
EXT	exterior
FOC	face of concrete
FOM	face of masonry
FOS	face of stud
FF	factory finish
FIN	finish(ed)
FFE	finished floor elevation
FA	fire alarm
FE	fire extinguisher
FEC	fire extinguisher cabinet
FHMS	flathead machine screw
FHWS	flathead wood screw
FLR	floor(ing)
FCO	floor cleanout
FD	floor drain
FL	flow line
FLUOR	fluorescent
FTG	footing
FND	foundation
FR	fram(ed), (ing)
FBO	furnished by others
MTL	material
MAX	maximum
MECH	mechanical
MED	medium
MET	metal
MIN	minimum
MISC	miscellaneous
MOD	modular
MULL	mullion
NAT	natural
NR	noise reduction
NRC	noise reduction coefficient
NOM	nominal
N	north
(N)	new
NIC	not in contract
NTS	not to scale
OC	on center
OPG	opening
OPP	opposite
OD	outside diameter

OVHD	overhead
PNL	panel
PVMT	pavement
PLAS	plaster
PLAM	plastic laminate
PL	plate
PLYWD	plywood
PT	point
PVC	polyvinyl chloride
PSF	pounds per square foot
PSI	pounds per square inch
PL	property line
R	radius
REFL	reflect(ed), (ive), (or)
REG	register
RCP	reinforced conc. pipe
RA	return air
REV	revision, revised
RH	right hand
RD	roof drain
RM	room
RO	rough opening
QT	quarry tile
SCHED	schedule
SIM	similar
SC	solid core
S	south
SPK	speaker
SPEC	specification
SQ	square
S/S	stainless steel
STD	standard
STA	station
STL	steel
STO	storage
SD	storm drain
STRUCT	structural
SUSP	suspended
TKBD	tackboard
TEL	telephone
TV	television
THK	thickness
T&G	tongue & groove
TOW	top of wall
TYP	typical
UR	urinal
VERT	vertical
VCT	vinyl comp tile
WSCT	wainscot
WC	water closet
WP	water proofing
WR	water repellent
WWF	welded wire fabric
W	west
WH	water heater
WIND	window
WG	wire glass
W/	with
W/O	without
WI	wrought iron
WIC	Woodwork Institute of CA

APPLICABLE CODES

Part 1	2019 California Building Standards Administrative Code, Title 24 C.C.R.
Part 2	2019 California Building Code, Title 24 C.C.R. (2018 International Building Code of the International Code Council, with California Amendments)
Part 3	2019 California Electrical Code, Title 24 C.C.R. (2016 National Electrical Code of the National Fire Protection Association, NFPA)
Part 4	2019 California Mechanical Code, Title 24 C.C.R. (2018 Uniform Mechanical Code of the International Association of Plumbing and
Part 5	2019 California Plumbing Code, Title 24 C.C.R. (2018 Uniform Plumbing Code of the International Association of Plumbing and Mechanical Officials, IAPMO)
Part 6	2019 California Energy Code, Title 24 C.C.R.
Part 8	2019 California Historical Building Code, Title 24 C.C.R.
Part 9	2019 California Fire Code, Title 24 C.C.R. (2018 International Fire Code of the International Code Council)
Part 10	2019 California Existing Building Code, Title 24 C.C.R. (2018 International Existing Building Code of the International Code Council, with amendments)
Part 11	2019 California Green Building Standards Code (CALGreen Code), Title 24 C.C.R.
Part 12	2019 California Referenced Standards Code, Title 24 C.C.R.

PARTIAL LIST OF APPLICABLE STANDARDS :

2019 California Building Code (for SFM) Referenced Standards Chapter 35

NFPA 13	Automatic Sprinkler Systems (California Amended)	2016 Edition
NFPA 14	Standpipe Systems (California Amended)	2013 Edition
NFPA 17	Dry Chemical Extinguishing Systems	2013 Edition
NFPA 17A	Wet Chemical Extinguishing Systems	2013 Edition
NFPA 20	Stationary Pumps	2013 Edition
NFPA 24	Private Fire Service Mains (California Amended)	2016 Edition
NFPA 72	National Fire Alarm and Signaling Code (California Amended) (Note: See UL Standard 1971 for "Visual Devices")	2016 Edition
NFPA 80	Fire Door and Other Opening Protectives	2019 Edition
NFPA 253	Critical Radiant Flux of Floor Covering Systems	2019 Edition
NFPA 2001	Clean Agent Fire Extinguishing Systems (California Amended)	2015 Edition

MODULAR BUILDING NOTES

1. THE PROJECT INSPECTOR (PI) IS TO WITNESS AND VERIFY GROUNDING.
2. THE FOLLOWING DOCUMENTS SHALL BE ON THE JOB SITE PRIOR TO INSTALLATION OF THE UNITS, INCLUDING THE SERIAL NUMBERS FOR EACH UNIT.
   a. IN-PLANT FINAL VERIFIED REPORT;
   b. LABORATORY VERIFIED REPORT;
   c. WELDING VERIFIED REPORT.
   THE SITE INSPECTOR SHALL VERIFY THE ABOVE DOCUMENTS AND SERIAL NUMBERS APPLICABLE TO EACH UNIT PRIOR TO INSTALLATION OF THE UNIT(S). NOTIFY ARCHITECT AND THE DIVISION OF THE STATE ARCHITECT FIELD ENGINEER IF ANY DISCREPANCIES OCCUR.
3. "DETERIORATION OR EXISTING NON-COMPLIANT CONSTRUCTION - IF ANY CONDITION IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENTS OF THE EDITION OF THE CBC IN FORCE AT THE TIME OF ORIGINAL CONSTRUCTION, THE CONDITION MUST BE CORRECTED IN ACCORDANCE WITH CURRENT CODE REQUIREMENTS. A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK."
4. MODULAR BUILDING(S) SHALL HAVE TAGS TO IDENTIFY THE DSA APPLICATION NUMBER AND THE BUILDING SERIAL NUMBER WHEN DELIVERED TO THE SITE. THE PLAN AFFIDAVIT IS ALSO REQUIRED.

BIDDING NOTES

PRE-BID JOB WALK :

MANDATORY PRE-BID JOB WALK WILL BE HELD ON DATE AND TIME STATED IN "NOTICE TO CONTRACTOR" AT THE PROJECT SITE. ALL PROSPECTIVE BIDDERS ARE ADMONISH TO ATTEND.

DISABLED VETERAN BUSINESS ENTERPRISES (DVBE) :

THE REQUIREMENTS OF THIS PROJECT ARE SUCH THAT ALL BIDDERS MUST COMPLY WITH THE STATE REQUIREMENTS FOR DVBE CONTRACTOR SOLICITATION, PROJECT ADVERTISEMENT AND SUBSEQUENT DOCUMENTATION FAILURE TO PROPERLY COMPLY WITH ALL NECESSARY REQUIREMENTS AND SUBSEQUENT DOCUMENTATION MAY BE GROUNDS FOR SCHOOL BOARD ACTION TO REJECT A BID AS INVALID AND/OR NON-RESPONSIVE. FOR ADDITIONAL INFORMATION REFER TO PROJECT MANUAL.

FINGERPRINTING :

FINGERPRINTING AND BACKGROUND CHECKS IN ACCORDANCE WITH CURRENT LAWS AND REGULATIONS SHALL BE REQUIRED FOR ALL WORKERS WHO WILL BE PERFORMING WORK OUTSIDE OF THE ESTABLISHED CONSTRUCTION BARRICADES (MINIMUM 6' HIGH FENCE) DURING HOURS THAT THE ADJACENT CAMPUSES ARE OCCUPIED SIMULTANEOUSLY BY THE STUDENTS. ANY WORKER FOUND TO BE IN VIOLATION OF THESE REQUIREMENTS WILL BE ASKED TO LEAVE THE PROJECT SITE UNTIL THE APPROPRIATE DOCUMENTATION IS PROVIDED.

QUESTIONS DURING BID :

ALL QUESTIONS SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT USING THE ATTACHED "BID R.F.I." FORM. ALL "BIDDING R.F.I.'S" SHALL BE SUBMITTED NO LATER THAN FIVE (5) CONSECUTIVE CALENDAR DAYS PRIOR TO SCHEDULED BID OPENING.

STATEMENT OF GENERAL CONFORMANCE

THESE DRAWINGS AND / OR SPECIFICATIONS AND / OR CALCULATIONS FOR THE ITEMS DESIGNATED WITH A [hatched box] HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND / OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR :
1) DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMENT OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2) COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.
THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341 AND 4-344" OF TITLE 24, PART 1. (TITLE 24, PART 1, SECTION 4-317 (b))

Matthew C. Buchanan, AIA — Date: DECEMBER 03, 2019

License Number: C-26053 — Expiration Date: AUGUST 31, 2021

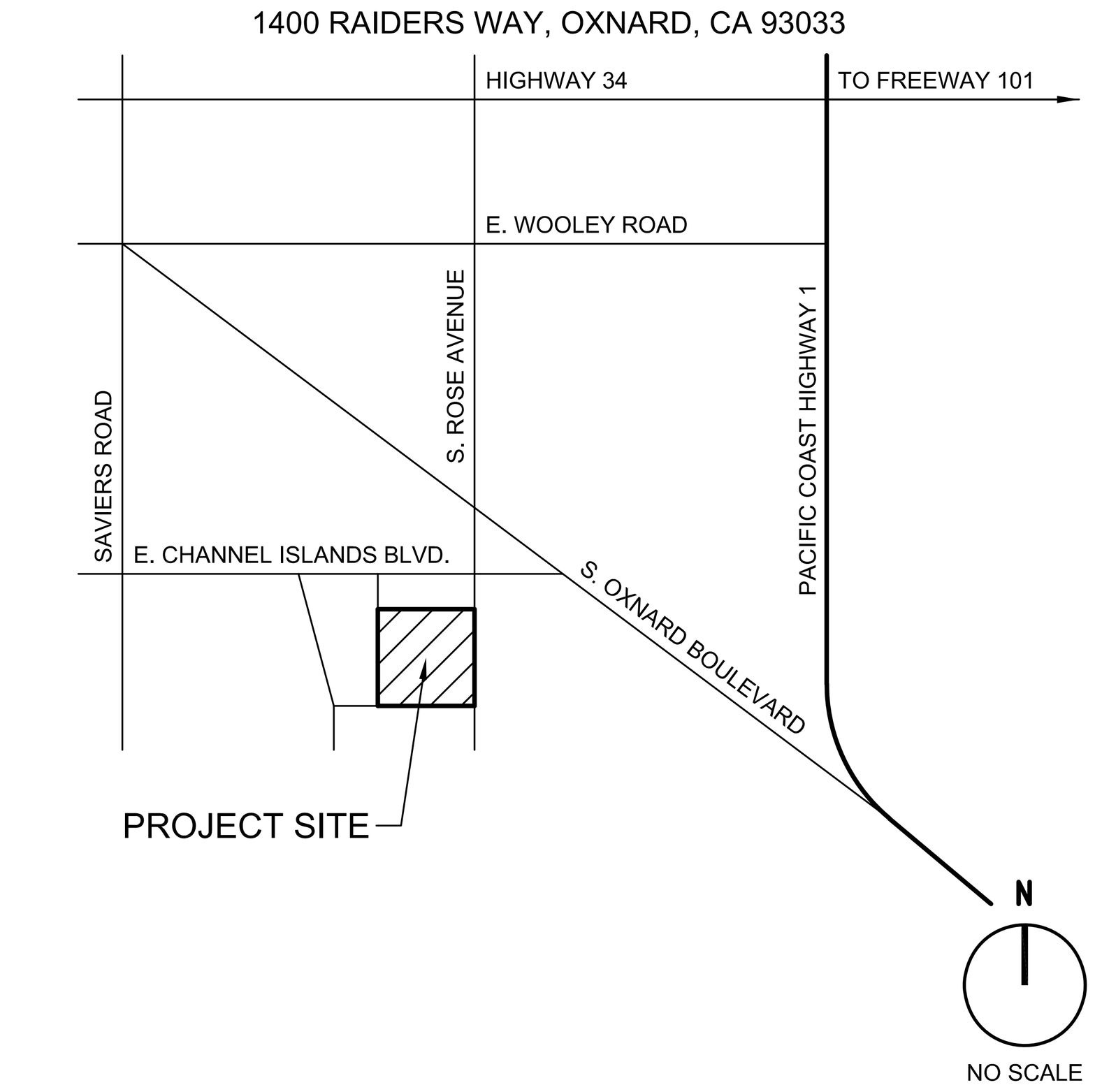
SCOPE OF WORK

THE PROJECT SCOPE OF WORK CONSISTS OF BUT IS NOT LIMITED TO THE FOLLOWING:

- SET (4) 24'x40' MODULAR CLASSROOM BUILDINGS ON WOOD FOUNDATION FROM STOCKPILE A#04-116504
- PROVIDE ELECTRICAL AND FIRE ALARM SYSTEM FOR ALL (4) NEW BUILDINGS
- PROVIDE CONCRETE WALKWAYS

VICINITY MAP

1400 RAIDERS WAY, OXNARD, CA 93033



SHEET INDEX

TOTAL SHEETS: 87

CIVIL ENGINEER	PLUMBING ENGINEER	ELECTRICAL ENGINEER	SCHOOL DISTRICT
ENCOMPASS CONSULTANT GROUP 25115 AVENUE STANFORD, STE A-320 SANTA CLARITA, CA 91355 TEL: (661) 600-9367 Contact: Josiah Jenison Email: josiah.jenison@ecgcivil.com	BUDLONG & ASSOCIATES 5151 Ventura Way, Suite 201 Camarillo, CA 93010 TEL: (805) 987-4001 Contact: Patrick Fitzsimmons Email: patrick@budlong.com	BUDLONG & ASSOCIATES 5151 Ventura Way, Suite 201 Camarillo, CA 93010 TEL: (805) 987-4001 Contact: Patrick Fitzsimmons Email: patrick@budlong.com	OXNARD UNION HIGH SCHOOL DISTRICT 309 South K Street (Bldg c) Oxnard, CA 93030 TEL: (805) 797-1126 Contact: Poul Hanson Email: N/A

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

CONSULTANT

Drawn by

Checked by

Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

COVER SHEET

Job No. 2835.0200

Date 10-9-2019

T0.01

GENERAL: REQUIREMENTS OF DIVISION 1 APPLY TO ALL SECTIONS LIST ON SHEETS SPEC-1 AND SPEC-2

SECTION 02 41 19
DEMOLITION

1.00 GENERAL

1.01 SCOPE: FURNISH MATERIALS AND PERFORM LABOR REQUIRED TO EXECUTE THIS WORK AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS NECESSARY TO COMPLETE THE CONTRACT, INCLUDING, BUT NOT LIMITED, THESE MAJOR ITEMS:

A. PROTECTION OF EXISTING WORK TO REMAIN.

B. BARRICADES, LIGHTS, SIGNS AND SAFETY PRECAUTIONS REQUIRED BY THE GOVERNING CODE. NOTE THE REQUIREMENTS FOR MOVEMENT TO ACCOMMODATE PHASING.

C. DUST CONTROL.

D. REMOVAL AND DISPOSITION OR SALVAGE (WHERE SPECIFIED) OF ALL SURPLUS MATERIAL RESULTING FROM THIS WORK.

E. REMOVAL OF UTILITY LINES (GAS, WATER, ELECTRIC, SEWER), AND STRUCTURES INDICATED FOR ABANDONMENT, AND SUCH LINES AND STRUCTURES NOT SHOWN BUT ENCOUNTERED IN THE COURSE OF THE WORK.

F. REMOVAL OF VEGETATION, INCLUDING IRRIGATION SYSTEM.

G. CUTTING AND REMOVAL OF SLABS, FOOTINGS, WALKS, PAVING, CURBS, GUTTERS, PITS AND OTHER UNDERGROUND STRUCTURES.

H. REMOVAL OF LIGHT STANDARDS, SIGN POSTS, FENCES, AND MISCELLANEOUS STRUCTURES.

1.02 GENERAL REQUIREMENTS

A. CODES: PERFORM ALL WORK IN ACCORDANCE WITH THE BUILDING CODE OF THE GOVERNING BODY HAVING JURISDICTION, THE GOVERNING STATE INDUSTRIAL SAFETY ORDERS, AND THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT.

B. NOISE CONTROL: CARRY ON ALL WORK IN A MANNER WHICH WILL PRODUCE THE LEAST AMOUNT OF NOISE. INSTRUCT ALL WORKMEN IN NOISE CONTROL PROCEDURES. ADHERE TO ALL LOCAL ORDINANCES WITH REGARDS TO WORK HOURS.

2.00 MATERIALS

2.01 BARRICADES

A. CHAIN LINK FENCING, SIX FEET HIGH MINIMUM WITH SCREENING FABRIC.

3.00 EXECUTION

3.01 DUST CONTROL

A. USE WATER AS REQUIRED TO ALLAY DUST IN EARTH AREAS. USE NO OTHER AGENT WITHOUT THE SPECIFIC APPROVAL OF THE ARCHITECT. COMPLY WITH ALL LOCAL DUST CONTROL ORDINANCES.

3.02 PROTECTION OF WORK TO REMAIN

A. USE STAKES, BARRICADES, AND SUCH OTHER MEANS OF PROTECTION AS REQUIRED TO PREVENT DAMAGE TO EXISTING WORK THAT IS INDICATED TO REMAIN.

3.03 CLEAN-UP

A. ALL MATERIAL RESULTING FROM THESE OPERATIONS, EXCEPT SALVAGE, BECOMES THE PROPERTY OF THE CONTRACTOR, AND SHALL BE REMOVED FROM THE SITE, PROMPTLY.

B. REMOVE MATERIALS AND DEBRIS PROMPTLY, AS GENERATED. BURNING OR BURYING OF DEBRIS ON THE SITE IS PROHIBITED. DISPOSE OF DEBRIS IN A LEGAL MANNER.

END OF SECTION

SECTION 05 50 00
MISCELLANEOUS METALS

1.00 GENERAL

1.01 SCOPE: FURNISH MATERIALS AND PERFORM LABOR REQUIRED TO EXECUTE THIS WORK AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS NECESSARY TO COMPLETE THE CONTRACT, INCLUDING, BUT NOT LIMITED TO, THESE MAJOR ITEMS:

A. SHAPES, SLEEVES, ANCHORS, CONNECTORS, PLATED, BACKING PLATES, SUPPORTS, AND FASTENING REQUIRED, BUT WHICH ARE NOT SPECIFIED IN OTHER SECTIONS.

B. GATES TO TRASH ENCLOSURE; ORNAMENTAL FENCES WITH GATES.

C. HANDRAILS AND GUARD RAILS.

D. SIGN STANDARDS.

1.02 GENERAL REQUIREMENTS

A. CODES: MATERIALS AND WORK SHALL CONFORM TO THE GOVERNING BUILDING CODE. IN CASE OF CONFLICT BETWEEN THESE SPECIFICATIONS AND THE BUILDING CODE, THE MORE STRINGENT SHALL GOVERN.

B. SHOP DRAWINGS: SUBMIT IN ACCORDANCE WITH SECTION 013323, SHOWING IN COMPLETE DETAIL ALL INFORMATION REQUIRED FOR FABRICATION, FINISHING AND INSTALLATION OF THIS WORK.

2.00 PRODUCTS

2.01 MATERIALS (AS REQUIRED)

A. STEEL SHAPES: ASTM A36.

B. PIPE FOR RAILINGS: ASTM A53 OR A120. USE STAINLESS STEEL PIPE WHERE INDICATED.

C. GALVANIZING: ASTM A123.

D. BOLTS, NUTS, SCREWS: ASTM A307, GRADE A.

E. STEEL TUBING: ASTM A501.

F. PAINT-SHOP PRIME COAT FOR FERROUS METAL: AS SPECIFIED UNDER PAINTING SECTION.

2.02 GALVANIZING

A. GALVANIZE ALL EXTERIOR ITEMS AND THOSE INTERIOR ITEMS SO SPECIFIED. USE THE HOT DIP PROCESS, CONFORMING TO ASTM A123.

2.03 FABRICATION

A. GENERAL: USING SKILLED MECHANICS, FORM AND FABRICATE ITEMS OF WORK AS INDICATED AND AS REQUIRED TO MEET INSTALLATION CONDITIONS. MAKE PROVISIONS TO CONNECT WITH OR RECEIVE THE WORK OF OTHER TRADES.

B. CONNECTIONS: UNLESS OTHERWISE INDICATED, WELDED OR BOLT CONNECTIONS BETWEEN MEMBERS. WHERE POSSIBLE, CONCEAL CONNECTIONS IN THE FINISHED WORK. WHERE EXPOSED SCREW FASTENINGS ARE REQUIRED, USE PHILLIPS OVALHEAD SCREWS TO MATCH PARENT MATERIAL. FIT OR MITER EXPOSED JOINTS TO HAIRLINE TOLERANCE OR USE WELDED JOINTS. ON FINISHED FACES, GRIND ALL WELD SMOOTH AND SLUSH WITH BASE METAL.

C. EMBEDDED ITEMS: WHERE ITEMS ARE TO BE EMBEDDED IN CONCRETE, PROVIDE WELDED-ON ANCHORS OR LUGS AS INDICATED OR REQUIRED.

3.00 EXECUTION

3.01 INSTALLATION

A. INSTALL ALL ITEMS PLUMB, LEVEL AND SQUARE, SECURELY AND RIGIDLY ATTACHED TO SUPPORTING CONSTRUCTION AND AS DETAILED.

END OF SECTION

SECTION 06 40 00
ROUGH CARPENTRY

1.00 GENERAL

1.01 SUMMARY

A. PRINCIPAL WORK IN THIS SECTION:

1. WOOD STRUCTURAL FRAMING AND PARTITION FRAMING.

2. EXTERIOR SHEATING.

3. WOOD GROUNDS, NAILERS AND BLOCKING.

4. MISCELLANEOUS ROUGH CARPENTRY ITEMS AS INDICATED AND REQUIRED FOR COMPLETE INSTALLATION.

1.02 GENERAL REQUIREMENTS

A. GENERAL NOTES ON THE DRAWINGS ARE PART OF THIS SECTION.

1.03 QUALITY ASSURANCE

A. REFERENCE STANDARDS: APPLICABLE PROVISIONS OF THE FOLLOWING GOVERN THE WORK OF THIS SECTION.

1. ALSC, AMERICAN LUMBER STANDARDS COMMITTEE: SOFTWOOD LUMBER STANDARDS.

2. AWPA, AMERICAN WOOD PRESERVERS' ASSOCIATION.

3. NFPA, NATIONAL FOREST PRODUCTS ASSOCIATION.

4. PS-1, PLYWOOD GRADING RULES.

5. CALIFORNIA STATE BUILDING CODE, TITLE 24 CCR.

2.00 PRODUCTS

2.01 MATERIALS

A. LUMBER: MANUFACTURED, GRADED AND GRADE-MARKED IN COMPLIANCE WITH THE FOLLOWING REFERENCE SPECIFICATIONS AND GRADING RULES. GRADES AND SPECIES AS HEREINAFTER SPECIFIED OR NOTED ON THE DRAWINGS.

B. DOUGLAS FIR: GRADE IN COMPLIANCE WITH ONE OF THE FOLLOWING:

1. UBC STANDARD 23-1.

2. DOUGLAS FIR, LARCH OR HEMLOCK STRUCTURAL AND FRAMING LUMBER SHALL BE GRADED IN ACCORDANCE WITH THE “STANDARD GRADING RULES NO. 17” OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR THE “STANDARD GRADING RULES” OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) LATEST EDITIONS.

C. PLYWOOD: U.S. DEPARTMENT OF COMMERCE, PRODUCT STANDARD PS 1, GRADE AND GRADE-MARKED BY THE AMERICAN PLYWOOD ASSOCIATION.

D. BOLTS: ASTM A 307, GRADE A SQUARE OR HEXAGONAL HEAD, SIZES AND SPACING AS REQUIRED BY THE DRAWINGS. ALL HEADS AND NUTS BEARING ON WOOD SHALL BE FITTED WITH WASHERS.

1. BOLTS, NUTS AND WASHERS FOR USE IN LOCATIONS SUBJECT TO MOISTURE, FOR OUTSIDE USE OR IN PORTIONS OF THE STRUCTURE, WHICH ARE NOT COMPLETELY ENCLOSED, OR ELSEWHERE AS SPECIFIED OR INDICATED. GALVANIZED IN COMPLIANCE WITH ASTM A 153.

E. NAILS: COMMON NAILS, SIZES AND TYPE INDICATED, SPECIFIED, OR AS REQUIRED FOR THE PURPOSE, IN COMPLIANCE WITH FS FF-N-105A.

F. TIMBER CONNECTORS: ICBO APPROVED CONNECTORS, SIMPSON OR EQUAL.

3.00 EXECUTION

3.01 CARPENTRY INSTALLATION

A. WORKMANSHIP: PERFORM WORK IN ACCORDANCE WITH THE BEST STANDARDS OF PRACTICE RELATING TO THE TRADES AND CAREFULLY PLAN AND LAY OUT THE WORK AS REQUIRED. PROPERLY ACCOMMODATE THE WORK OF OTHER TRADES. ACCURATELY SAW-CUT AND FIT LUMBER INTO THE RESPECTIVE LOCATIONS, TRUE TO LINE, GRADE, AND LEVEL, AS INDICATED OR REQUIRED, AND PERMANENTLY SECURE IN PROPER POSITION WITH SPIKES, NAILS, LAG SCREWS, BOLTS, HANGERS, OR OTHER FASTENINGS TO MAKE THE WORK SUBSTANTIAL AND RIGID IN ALL PARTS AND CONNECTIONS.

B. CONNECTION: MAKE CONNECTIONS BETWEEN MEMBERS TIGHT ACCURATE AND SECURE. PLACE FASTENINGS WITH OUT SPLITTING WOOD; PREDRILL WHEN REQUIRED. DRILL BOLT HOLE SAME SIZE AS BOLT DIAMETER. DRILL HOLE FOR LAG SCREWS SAME AS THREAD ROOT DIAMETER; AND CANTERBURY, SAME DEPTH AND DIAMETER AS SHANK. TURN LAG SCREWS INTO PLACE; DO NOT DRIVE. PROVIDE BOLTS AND LAG SCREWS WITH WASHERS UNDER EVERY HEAD AND NUT BEARING ON WOOD. TIGHTEN BOLTS AND LAG SCREWS AT INSTALLATION; CAREFULLY RETIGHTEN JUST PRIOR TO CLOSING, OR AT COMPLETION OF THE PROJECT.

3.02 CLEAN-UP

A. COMPLY WITH THE REQUIREMENTS OF SECTION 01740. DISPOSE OF PRESSURE-TREATED WOOD IN AN AUTHORIZED DISPOSAL AREA. DO NOT BURN TREATED WOOD. DO NOT BURY WOOD OF ANY TYPE ON THE JOBSITE.

END OF SECTION

SECTION 07 92 00
JOINT SEALANTS

1.00 GENERAL

1.01 SUMMARY

A. THIS SECTION INCLUDES JOINT SEALANTS FOR THE FOLLOWING LOCATIONS:

1. EXTERIOR JOINTS IN VERTICAL SURFACES AND NON-TRAFFIC HORIZONTAL SURFACES AS INDICATED BELOW:

a. CONTROL AND EXPANSION JOINTS IN CAST-IN-PLACE CONCRETE.

b. JOINTS BETWEEN DIFFERENT MATERIALS LISTED ABOVE.

2. EXTERIOR JOINTS IN HORIZONTAL TRAFFIC SURFACES AS INDICATED BELOW:

a. CONTROL, EXPANSION AND ISOLATION JOINTS IN CAST-IN-PLACE CONCRETE SLABS.

b. JOINTS BETWEEN DIFFERENT MATERIALS LISTED ABOVE.

1.02 SUBMITTALS

A. PROCEDURE: IN ACCORDANCE WITH SECTION 01340.

1.03 JOB CONDITIONS

A. DO NOT INSTALL SEALANTS UNDER ADVERSE WEATHER CONDITIONS, OR WHEN TEMPERATURES ARE BEYOND MANUFACTURER'S RECOMMENDED LIMITS.

B. PROCEED WITH THE INSTALLATION ONLY WHEN FORECASTED WEATHER CONDITIONS ARE FAVORABLE FOR PROPER SEALANT CURE AND DEVELOPMENT OF EARLY BOND STRENGTH.

2.00 PRODUCTS

2.01 MATERIALS

A. COLORS: MATCH SEALANT COLOR TO COLOR OF ADJACENT MATERIALS AS CLOSELY AS POSSIBLE USING COLORS SELECTED FROM THE MANUFACTURER'S STANDARD PALETTE, AS APPROVED BY THE ARCHITECT.

B. COMPATIBILITY: VERIFY THAT SELECTED SEALANTS WILL NOT CAUSE STAINING, DEGRADATION AND PREMATURE AGING OF THE ADJACENT SURFACES AND THE SEALANT ITSELF WHEN IN CONTACT WITH THESE SURFACES.

1. FOR ALL OTHER EXTERIOR APPLICATIONS:

A. GENERAL ELECTRIC CORP.: SILPRUF.
b. DOW CORNING CORP.: 123, 790 OR 795.

c. PECORA CORP.: 90 OR 895.

d. TREMCO CORP.: SPECTREM I OR SPECTREM II.

e. OR APPROVED EQUAL.

C. MISCELLANEOUS MATERIALS:

1. JOINT CLEANER, PRIMER AND SEALER: AS RECOMMENDED BY THE SEALANT MANUFACTURER, FOR THE SURFACES TO BE CLEANED, PRIMED OR SEALED.

2. SEALANT BACKER ROD:

a. COMPRESSIBLE ROD STOCK FORMED OF CLOSED-CELL POLYETHYLENE FOAM, POLYETHYLENE JACKETED POLYURETHANE FOAM, BUTYL RUBBER NEOPRENE FOAM OR OTHER FLEXIBLE, PERMANENT, DURABLE NON-ABSORPTIVE MATERIAL RECOMMENDED BY THE SEALANT MANUFACTURER.

3.00 EXECUTION

3.01 INSTALLATION

A. COMPLY WITH SEALANT MANUFACTURER'S PRINTED INSTRUCTIONS AND ASTM C 1193, EXCEPT WHERE MORE STRINGENT REQUIREMENTS ARE SPECIFIED HEREIN. AT THE ARCHITECT'S OPTION, ASTM C 1193 MAY ALSO BE USED FOR REJECTION OF UNACCEPTABLE INSTALLATIONS.

END OF SECTION

SECTION 09 91 00
PAINTING

1.00 GENERAL

1.01 DESCRIPTION

A. PAINTING AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING, BUT NOT LIMITED TO THESE MAJOR ITEMS:

1. ALL SURFACES SCHEDULED, SPECIFIED OR INDICATED.

B. EXTERIOR SURFACES NOT TO BE PAINTED.

1. CONCRETE PAVING AND BASE, INCLUDING METAL INSERTS.

2. STAINLESS STEEL.

3. GRATINGS, CHECKER PLATE OR CAST IRON COVERS AND FRAMES.

4. ALUMINUM WITH ANODIC (COLOR) FINISH, OR CLEAR ANODIZE.

1.02 RELATED WORK SPECIFIED ELSEWHERE AS REQUIRED

A. SHOP PRIMED METAL.

B. PROJECT SIGN, IN DIVISION 0. TEMPORARY FACILITIES.

C. SIGNAGE.

D. ELASTOMERIC COATING

1.04 PRODUCT HANDLING

A. DELIVER MATERIALS TO THE PROJECT SITE IN UNOPENED CONTAINERS BEARING MANUFACTURER'S NAME AND PRODUCT DESCRIPTIONS CORRESPONDING TO DESIGNATION ON MATERIAL LIST.

1.05 PROTECTION

A. PROTECT FLOORS AND ALL ADJACENT SURFACES FROM PAINT SMEARS, SPATTERS, AND DROPPINGS. USE DROP-CLOTHS TO PROTECT FLOORS. COVER FIXTURES AND REMOVE HARDWARE NOT TO BE PAINTED. MASK OFF AREAS WHERE NECESSARY.

2.00 PRODUCTS
2.01 GENERAL

A. MATERIALS SHALL CONFORM TO GOVERNING REQUIREMENTS OF SOUTH COAST AIR QUALITY CONTROL DISTRICT.

2.03 MANUFACTURERS

A. MATERIALS NECESSARY TO COMPLETE THE PAINTING HEREIN SPECIFIED AND LISTED BY MATERIAL NUMBER AND NAMES ARE STANDARDS FOR KINDS, QUALITY AND FUNCTION, AND ARE TAKEN FROM THE STOCK LIST OF ARCHITECTURAL FINISHES OF THE DUNN EDWARDS CORPORATION, LOS ANGELES.

1. EQUIVALENT MATERIALS FROM THE ARCHITECTURAL PRODUCT LINE OF SINCLAIR/ICI DULUX PAINT COMPANY, SHERWIN WILLIAMS, FRAZEE INDUSTRIES INC. OR VISTA PAINT CORP. WILL BE ACCEPTABLE, SUBJECT TO ARCHITECTS' APPROVAL.

2. EXCEPT FOR SPECIALTY ITEMS, OR OTHERWISE SPECIFIED, ALL MATERIALS SHALL BE BY ONE MANUFACTURER. PRIMER SHALL BE FROM SAME MANUFACTURER AS FINISH PAINT.

3. MISCELLANEOUS BASIC MATERIALS SUCH AS LINSEED OILS, SHELLAC, WHITE LEAD, PUTTY AND SOLVENTS SHALL BE PURE AND OF HIGHEST QUALITY.

2.03 MATERIALS

A. SURFACES SHALL BE FINISHED IN ACCORDANCE WITH THE FOLLOWING PROCEDURES FOR THE SURFACE AND FINISH DESIRED THEREON.

B. EXTERIOR FINISHES:

1. SURFACE - GALVANIZED METAL

PRETREATMENT - GE123 GALVA-ETCH
1ST COAT - QD43-7 GALVA-ALUM
2ND COAT - W960 PERMAGLOSS
3RD COAT - W960 PERMAGLOSS

2. SURFACE - WOOD

PRIMER ULTRA-GRIP, EXTERIOR MULTI-SURFACE PRIMER LUGSLOO.

FIRST COAT: SPARTASHILED, EXTERIOR

SECOND COAT: 100% ACRYLIC SEMI-GLOSS PAINT (SSHL50)

3.00 EXECUTION

3.01 PREPARATION OF SURFACES

A. GENERAL: SURFACES TO RECEIVE PAINT FINISH SHALL BE PREPARED AS INDICATED BY PRIMER PAINT PRINTED INSTRUCTIONS.

B. METAL SHALL BE FREE OF RUST. DAMAGED SHOP PRIMER SHALL BE RE-TOUCHED. ROUGH EDGES SHALL BE SANDED.

3.02 APPLICATION

A. MISCELLANEOUS FINISHES:

1. FINISHES NOT SCHEDULED ON DRAWINGS:

a. WHERE WALLS ARE PAINTED:

(1) PIPES, CONDUITS OR DUCTS: APPLY SAME FINISH AS SPECIFIED FOR WALL OR CEILING ADJACENT TO SURFACES TO BE PAINTED. PRIME SURFACES AS FOLLOWS BEFORE WALL OR CEILING FINISH IS APPLIED.

3.03 CLEANING AND PATCHING

A. UPON COMPLETION, REMOVED SPILLAGE, SPATTER SPOTS AND OTHER MISPLACED PAINT MATERIAL, IN MANNER THAT WILL NOT DAMAGE SURFACES. PATCH, REPAIR OR MAKE RESTITUTION FOR WORK OF OTHERS DAMAGED BY PAINTING OPERATIONS, TO SATISFACTION OF ARCHITECT.

3.04 ATTIC STOCK

A. PROVIDE TO OWNER AN ADDITIONAL 5% OF ALL TYPES AND COLORS OF ALL MATERIALS SPECIFIED.

END OF SECTION

SECTION 10 14 00
SIGNAGE

1.00 GENERAL

1.01 SCOPE

A. SIGNAGE AS SHOWN ON THE DRAWINGS AND AS SPECIFIED, INCLUDING BUT NOT LIMITED TO THE FOLLOWING MAJOR ITEMS:

1. DOOR SIGNS AS SCHEDULED AND NOTED.

2. DISABLED ACCESS SIGNS.

3. DISABLED ACCESS SYMBOL SIGNS FOR TOILET ROOMS.

4. EXIT SIGNS.

5. DISABLED ACCESS PARKING SIGNS AND GATE SIGNS.

6. ROOM OCCUPANCY SIGNS.

7. TOILET ROOM SIGNS.

8. BUILDING IDENTIFICATION SIGNS.

1.02 DESIGN

A. WORK SHALL CONFORM TO 2013 CBC 11B AND THE AMERICAN WITH DISABILITIES ACT.

B. APPROVED SYSTEMS (MANUFACTURERS):

1. ASI/MODULEX, INC. (213) 645-1400.

2. KROY, (800) 733-5769.

3. MOWHAWK SIGN SYSTEMS, INC. (518) 370-3433.

4. CALIFORNIA CONTRACT, (818) 503-7241.

5. OR APPROVED EQUAL.

2.00 MATERIALS

2.01 PLAQUE SIGNS

A. NUMBER SIGNS: MOUNT ON A BASE - 1 1/8" INCH HIGH X 5 INCHES LONG. TYPE FACE - MODIFIED HELVETICA. NUMBER SIZE 9/16 INCH HIGH. PROVIDE BRAILLE SYMBOLS. SECURE ADJACENT TO DOOR, WHERE INDICATED. SIMILAR TO: ASI INFINITY; SPE-SA.

B. TEXT SIGNS: MOUNT ON A BASE - 1 1/8 INCH HIGH X VARYING LENGTHS. TYPE FACE - MODIFIED HELVETICA. LETTER SIZE - 9/16" INCH HIGH, SUPPER AND LOWER CASE. PROVIDE BRAILLE SYMBOLS. SECURE ADJACENT TO DOOR, WHERE INDICATED. SIMILAR TO: ASI INFINITY; SPE-SA.

2.02 PERMANENT TEXT SIGNS

A. DIRECTIONAL AND INFORMATIONAL SIGNS REQUIRED BY TITLE 24 CCR AND THE ADA AS SHOWN ON THE DRAWINGS SHALL HAVE THE TEST SILVER OR VINYL DIE CUT IN SIGNS AS NOTED. SIMILAR TO ASI INFINITY SOG-SA.

2.03 PERMANENT TEXT - EXTERIOR

A. SIZE AS REQUIRED TO PROVIDE TEXT STATED USING 1 INCH HIGH LETTERS, UPPER AND LOWER CASE MODIFIED HELVETICA, AND OTHER TEXT.

B. MATERIAL: FIBERGLASS BASE, WITH URETHANE FINISH AND SILK SCREENED GRAPHICS, PROTECTED WITH A TRANSPARENT MATTE FINISH. SIMILAR TO ASI GOF SERIES.

C. MOUNTING: SCREWS 1/4 INCH DIAMETER, CORROSION AND VANDAL RESISTANT, SELF DRILLING.

2.04 DISABLE ACCESS SIGNS, OCCUPANCY SIGNS

A. TOILET ROOM SYMBOLS

1. MEN'S AND BOYS' SIGN IS A 12" TRIANGLE. PANEL IS PAINTED ACRYLIC WITH SUB-SURFACE TEXT AND PICTOGRAM.

2. WOMEN'S AND GIRLS' ROOM SIGNS IS A 12" CIRCLE. PANEL IS PAINTED ACRYLIC WITH SUB-SURFACE TEXT AND PICTOGRAM.

3. UNISEX.

B. FREE-STANDING EXTERIOR ACCESSIBILITY SIGNS, TRAFFIC CONTROL AND OTHER EXTERIOR SIGNS: TRAFFIC CONTROL SERVICE, INC. (800) 222-8274, ZUMAR INDUSTRIES (323) 724-8450 OR WESTERN HIGHWAY PRODUCTS, INC. (714) 761-4811, OR EQUAL.

3.00 EXECUTION

3.01 PERMANENT TEXT

A. PERMANENT TEXT NOT INDICATED IN CONTRACT DRAWINGS WILL BE FURNISHED AT THE TIME THAT SUBMITTALS ARE RETURNED.

3.02 INSTALLATION

A. INSTALL WHERE INDICATED. SIGNS SHALL BE A COMPLETE VANDAL RESISTANT INSTALLATION. FASTENERS SHALL BE CONCEALED, IN DRILLED HOLES, COUNTER SUNK WHERE INDICATED. SIGNS SHALL ALIGN WITH ADJACENT LINES AND EDGES, BE LEVEL, FLAT ON THE MOUNTING SURFACE.

B. BUILDING WALL SIGNS: INSTALL AS RECOMMENDED BY THE MANUFACTURER. FASTENERS SHALL BE CONCEALED, IN DRILLED HOLES, COUNTER SUNK WHERE INDICATED. SIGNS SHALL ALIGN WITH ADJACENT LINES AND EDGES, BE LEVEL, FLAT ON THE MOUNTING SURFACE.

C. POST MOUNTED SIGNS SHALL FOLLOW SAME REQUIREMENTS AS SPECIFIED FOR LINE POSTS OF SAME HEIGHT IN SECTION 32 31 15.

END OF SECTION

SECTION 31 10 00
SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, SERVICES, TESTING, TRANSPORTATION AND EQUIPMENT NECESSARY FOR THE COMPLETION OF ALL SITE CLEARING WORK AS REQUIRED AND AS INDICATED ON DRAWINGS AND SPECIFIED HEREIN. WORK MATERIALS AND EQUIPMENT NOT INDICATED OR SPECIFIED WHICH IS NECESSARY FOR THE COMPLETE AND PROPER OPERATION OF THE WORK OF THIS SECTION IN ACCORDANCE WITH THE TRUE INTENT AND MEANING OF THE CONTRACT DOCUMENTS SHALL BE PROVIDED AND INCORPORATED AT NO ADDITIONAL COST TO THE OWNER.

B. REMOVAL OF SURFACE DEBRIS; REMOVAL OF PAVING AND CURBS; REMOVAL OF TREES, SHRUBS, AND OTHER PLANT LIFE; TOPSOIL EXCAVATION; AND REPAIR OF DAMAGED VEGETATION AND/OR IRRIGATION SYSTEMS/SYSTEM COMPONENTS.

C. REMOVAL OF CONCRETE AND BITUMINOUS SURFACING.

1.2 RELATED SECTIONS

A. SECTION 02 41 19: DEMOLITION.

1.3 REGULATORY REQUIREMENTS

A. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, LICENSES, OR AGREEMENTS REQUIRED BY ANY LEGALLY CONSTITUTED AGENCY, PAY FOR ALL FEES AND GIVE ALL NECESSARY NOTICES REQUIRED FOR THE CONSTRUCTION OF THE WORK. THE SCHOOL DISTRICT SHALL REIMBURSE THE CONTRACTOR FOR ALL NECESSARY PERMITS OR INSPECTION FEES BY ANY LEGALLY CONSTITUTED AGENCY AT A ONE TO ONE BASIS.

B. PERFORM ALL WORK OF THIS SECTION IN STRICT ACCORDANCE WITH APPLICABLE GOVERNMENT CODES AND REGULATIONS ESPECIALLY MEETING ALL SAFETY STANDARDS AND REQUIREMENTS OF CAL/OSHA.

C. COMPLY STRICTLY TO ALL LOCAL AIR QUALITY MANAGEMENT DISTRICT'S RULES AND REGULATIONS.

PART 2 - PRODUCTS

2.1 SATISFACTORY SOIL MATERIALS:

A. OBTAIN APPROVED CLEAN BORROW SOIL MATERIALS OFF-SITE WHEN SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE ON-SITE. SEE SPECIFICATION SECTION 31 20 00 FOR REQUIREMENTS.

PART 3 - EXECUTION

3.1 PROTECTION

A. PROTECT EXISTING STRUCTURES AND SITE IMPROVEMENTS INDICATED TO REMAIN, FROM DAMAGE BY APPROVED METHODS AND/OR AS AUTHORIZED BY THE *DISTRICT REPRESENTATIVE*. REMOVAL OF ALL PROTECTIONS SHALL BE WHEN WORK OF THIS SECTION IS COMPLETED OR WHEN SO AUTHORIZED BY THE DISTRICT REPRESENTATIVE.

B. PROTECT EXISTING UTILITIES INDICATED OR MADE KNOWN TO REMAIN TRAVERSING THE JOB-SITE AND SERVING EXISTING ADJACENT FACILITIES.

3.2 EXCESS MATERIALS DISPOSAL

A. REMOVE SURPLUS SOIL MATERIAL, UNSUITABLE TOPSOIL, OBSTRUCTIONS, DEMOLISHED MATERIALS, AND WASTE MATERIALS, INCLUDING TRASH AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.

END OF SECTION

SECTION 31 20 00
EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

A. SECTION INCLUDES:

1. PREPARING SUBGRADES FOR WALKS, PAVEMENTS, TURF AND GRASSES, AND PLANTS.
2. DRAINAGE COURSE FOR CONCRETE SLABS-ON-GRADE.
3. SUBBASE COURSE FOR CONCRETE WALKS.

1.2 DEFINITIONS

A. BACKFILL: SOIL MATERIAL USED TO FILL AN EXCAVATION.

1. INITIAL BACKFILL: BACKFILL PLACED BESIDE AND OVER PIPE IN A TRENCH, INCLUDING HAUNCHES TO SUPPORT SIDES OF PIPE.
2. FINAL BACKFILL: BACKFILL PLACED OVER INITIAL BACKFILL TO FILL A TRENCH.

B. BASE COURSE: AGGREGATE LAYER PLACED BETWEEN THE SUBBASE COURSE AND HOT-MIX ASPHALT PAVING.

C. BEDDING COURSE: AGGREGATE LAYER PLACED OVER THE EXCAVATED SUBGRADE IN A TRENCH BEFORE LAYING PIPE.

D. BORROW SOIL: SATISFACTORY SOIL IMPORTED FROM OFF-SITE FOR USE AS FILL OR BACKFILL.

E. FILL: SOIL MATERIALS USED TO RAISE EXISTING GRADES.

1.3 PROJECT CONDITIONS

UTILITY LOCATOR SERVICE: NOTIFY UTILITY LOCATOR SERVICE FOR AREA WHERE PROJECT IS LOCATED BEFORE BEGINNING EARTH MOVING OPERATIONS.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. OBTAIN APPROVED CLEAN BORROW SOIL MATERIALS OFF-SITE WHEN SATISFACTORY SOIL MATERIALS ARE NOT AVAILABLE ON-SITE, ALL BORROW SITES REQUIRE APPROVAL BY GEOTECHNICAL ENGINEER OF RECORD AND SHALL BE DTSC APPROVED SITE.

PART 3 - EXECUTION

3.1 PREPARATION

A. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTH MOVING OPERATIONS.

B. PROTECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS DURING EARTH MOVING OPERATIONS.

3.2 EXCAVATION, GENERAL

A. UNCLASSIFIED EXCAVATION: EXCAVATE TO SUBGRADE ELEVATIONS REGARDLESS OF THE CHARACTER OF SURFACE AND SUBSURFACE CONDITIONS ENCOUNTERED. UNCLASSIFIED EXCAVATED MATERIALS MAY INCLUDE ROCK, SOIL MATERIALS, AND OBSTRUCTIONS. NO CHANGES IN THE CONTRACT SUM OR THE CONTRACT TIME WILL BE AUTHORIZED FOR ROCK EXCAVATION OR REMOVAL OF OBSTRUCTIONS.

1. IF EXCAVATED MATERIALS INTENDED FOR FILL AND BACKFILL INCLUDE UNSATISFACTORY SOIL MATERIALS AND ROCK, REPLACE WITH SATISFACTORY SOIL MATERIALS.

3.3 EXCAVATION FOR WALKS AND PAVEMENTS

A. EXCAVATE SURFACES UNDER WALKS AND PAVEMENTS TO INDICATED LINES, CROSS SECTIONS, ELEVATIONS, AND SUBGRADES.

3.4 STORAGE OF SOIL MATERIALS

A. STOCKPILE BORROW SOIL MATERIALS AND EXCAVATED SATISFACTORY SOIL MATERIALS WITHOUT INTERMIXING. PLACE, GRADE, AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST.

3.5 SOIL MOISTURE CONTROL

UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL SOIL LAYER BEFORE COMPACTION TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT.

3.6 COMPACTION OF SOIL BACKFILLS AND FILLS

PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 6 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.

RETAIN ONE OPTION IN PARAGRAPH BELOW BASED ON ASTM LABORATORY-TEST METHOD REQUIRED. REPLACE THE TERM "UNIT WEIGHT" WITH "DENSITY" IF PREFERRED.

B. COMPACT SOIL MATERIALS TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 ASTM D 1557:

RETAIN APPLICABLE SUBPARAGRAPHS BELOW. PERCENTAGES OF MAXIMUM DRY UNIT WEIGHT ARE EXAMPLES ONLY; REVISE TO SUIT PROJECT. DELETE SCARIFYING AND RECOMPACTING EXISTING SUBGRADE WHEN PROOF-ROLLING WILL SUFFICE.

1. UNDER WALKWAYS, SCARIFY AND RECOMPACT TOP 6 INCHES (150 MM) BELOW SUBGRADE AND COMPACT EACH LAYER OF BACKFILL OR FILL SOIL MATERIAL AT 90 PERCENT.
2. FOR UTILITY TRENCHES, COMPACT EACH LAYER OF INITIAL AND FINAL BACKFILL SOIL MATERIAL AT 90 PERCENT.

3.7 GRADING

A. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.

B. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING. FINISH SUBGRADES TO REQUIRED ELEVATIONS WITHIN THE FOLLOWING TOLERANCES:

TURF OR UNPAVED AREAS: PLUS OR MINUS 1 INCH (25 MM)]
3. WALKS: PLUS OR MINUS 1 INCH (25 MM)

3.8 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

PLACE SUBBASE COURSE AND BASE COURSE ON SUBGRADES FREE OF MUD, FROST, SNOW, OR ICE.

C. ON PREPARED SUBGRADE, PLACE SUBBASE COURSE AND BASE COURSE UNDER PAVEMENTS AND WALKS AS FOLLOWS:

RETAIN OPTION IN THREE SUBPARAGRAPHS BELOW IF RETAINING "AND BASE COURSE" OPTION IN PARAGRAPHS ABOVE.

1. COMPACT SUBBASE COURSE AND BASE COURSE AT OPTIMUM MOISTURE CONTENT TO REQUIRED GRADES, LINES, CROSS SECTIONS, AND THICKNESS TO NOT LESS THAN 90 PERCENT OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D 698 ASTM D 1557.

3.9 FIELD QUALITY CONTROL

A. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEERING TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS.

3.10 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. REMOVE SURPLUS SATISFACTORY SOIL AND WASTE MATERIALS, INCLUDING UNSATISFACTORY SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF THEM OFF OWNER'S PROPERTY.

END OF SECTION

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

CONSULTANT

Drawn by

Checked by

Revisions

No.	Date	Description
—	—	—

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No.
2835.0200

Date
10-9-2019

SPEC-1

MISCELLANEOUS FINISH/EQUIPMENT SPECIFICATIONS

CARPETING:

ALL CARPETING SHALL BE FABRICATED BY A SINGLE MANUFACTURER, EXPERT UMP BY SHAW CONTRACT GROUP, PERFORMANCE BROADLOOM, 26 OZ.

RUBBER BASE:

SOLID RUBBER BASES BY THE JOHNSON RUBBER CO., BURKE, FLEXCO CO. OR ROPPE RUBBER CORP. OF THE COLOR SELECTED BY THE ARCHITECT.

SHEET VINYL:

TARKETT, STYLE IQ OPTIMA, 12' WIDTH X 90' LONG ROLLS WITH 6" HIGH COVED BASE.

TACKABLE WALL PANELS:

KOROSEAL/HARBORWEAVE 1/2" THICK NCFR FLAME SPEC BOARD BACKING PANEL MANUFACTURED BY HOMASOTE, OR 1/2" THICK FIBERBOARD MANUFACTURED BY NACO OR BP CELOTEX

CERAMIC WALL TILE:

4-1/4 IN. X 4-1/4 IN. AND 6 IN. X 6 IN. X 5/16 IN. THICK, WITH CUSHIONED EDGES, STAIN MATTE GLAZED, BY AMERICAN OLEAN, DAL-TILE, HUNTINGTON/PACIFIC OR EQUAL .

SUSPENDED CEILING GRID AND TILES:

GRID: CHICAGO METALLIC 660 SERIES, OR EQUAL BY ARMSTRONG WORLD INDUSTRIES OR DONN CORP. "HEAVY DUTY" CLASSIFICATION COMPLYING WITH ASTM C 635 .

TILES: 24 INCH X 48 INCH X 5/8 INCH THICK, WHITE, CORTEGA MINATONE, 703

CHANGING TABLE:

LEAVEX "475BCSHGY" HORIZONTAL BABY CHANGING STATION.

SECTION 32 16 00
CONCRETE SITEWORK

PART 1 - GENERAL

1.1 SECTION INCLUDES:

A. CONCRETE WALKS, PAVING, RAMPS, CURBS, WALLS, MOW STRIPS, FENCE FOOTINGS AND CATCH BASINS, AND MISCELLANEOUS CONCRETE SITE WORK AS INDICATED ON THE DRAWINGS.

B. FURNISHING AND INSTALLING FORMWORK.

C. FURNISHING AND INSTALLING REINFORCING STEEL.

D. FURNISHING AND PLACING CONCRETE, INCLUDING JOINTS AND FINISHING.

E. CURING CONCRETE.

1.2 RELATED SECTIONS:

A. DIVISION 31: EARTHWORK

PART 2 - PRODUCTS

2.1 MATERIALS

A. CONFORM TO SECTION 201 - "CONCRETE, MORTAR AND RELATED MATERIALS" OF THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION.

B. FORMS: STEEL, WOOD, OR OTHER SUITABLE MATERIAL OF SIZE AND STRENGTH TO RESIST MOVING DURING CONCRETE PLACEMENT AND TO RETAIN HORIZONTAL AND VERTICAL ALIGNMENT UNTIL REMOVAL. USE STRAIGHT FORMS, FREE OF DISTORTION AND DEFECTS.

1. USE FLEXIBLE SPRING STEEL FORMS OR LAMINATED BOARDS TO FORM RADIUS BENDS AS REQUIRED.

2. COAT FORMS WITH A NON-STAINING FORM RELEASE AGENT THAT WILL NOT DISCOLOR OR DEFACE SURFACE OF CONCRETE.

C. REINFORCING STEEL:

1. REINFORCING BARS: ASTM A615, GRADE 60.

2. WELDED WIRE MESH: ASTM A185.

D. CONCRETE MATERIALS:

1. FINISHED CONCRETE: CONCRETE CLASS PER PWC SPECIFICATIONS SECTION 201-1 12, EXCEPT 6-INCH REINFORCED CONCRETE PAVING SHALL BE 560-C-3500 CONCRETE.

2. COMBINED AGGREGATE: GRADATION PER PWC SPECIFICATIONS, SECTION 201-1.3.2.

3. CEMENT: PORTLAND CEMENT, TYPE II CONFORMING TO ASTM C-150.

4. WATER: CLEAR, CLEAN AND FREE FROM OIL, VEGETABLE MATTER AND OTHER DELETERIOUS SUBSTANCES.

E. CONTROL JOINT MATERIAL:

1. PLASTIC: "QUICKJOINT" T-SHAPED 1/16" PLASTIC STRIP, 1 INCH MINIMUM DEPTH AS DISTRIBUTED BY J.A. CRAWFORD CO. PHONE (562) 698-0901, OR APPROVED EQUAL.

2. PRE-MOLDED EXPANSION JOINT FILLER: ASTM 1751 NON-EXTRUDING BITUMINOUS SATURATED RESILIENT JOINT FILLER.

F. CURING MATERIALS:

1. LIQUID CURING COMPOUND: NON-STAINING, COMPLYING WITH ASTM C309 AT MANUFACTURERS RECOMMENDED RATE OF APPLICATION. DELIVER CURING COMPOUND IN UNOPENED LABELED CONTAINERS.

PART 3 - EXECUTION

3.1 PREPARATION

A. GENERAL; COORDINATE WORK WITH RELATED TRADES. DO NOT LOCATE RELATED WORK IN CONCRETE EXCEPT AS DETAILED. PLACE CONDUITS IN CONCRETE SLABS WITH A MINIMUM COVER OF 2" ABOVE AND BELOW CONDUIT. LOCATE ACCURATELY AND SECURE IN PLACE ALL INSERTS, BOLTS, TIES, DOWELS, MISCELLANEOUS PLATES, ETC., BEFORE POURING. THEY SHALL BE CLEAN AND FREE FROM ANY COATING WHICH WOULD REDUCE THEIR BOND.

B. REINFORCING STEEL: POSITION, SUPPORT AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. LOCATE AND SUPPORT WITH METAL CHAIRS, RUNNERS, BOLSTER, SPACERS AND HANGERS, AS REQUIRED. SET WIRE TIE SO ENDS ARE DIRECTED INTO CONCRETE, NOT TOWARD EXPOSED CONCRETE SURFACES.

3.2 CONCRETE MIX

A. COMPLY WITH REQUIREMENTS OF PWC SPECIFICATIONS, SECTION 201-1.3 PROPORTIONING AND SECTION 201-1.4 MIXING AND AS HEREIN SPECIFIED. CONCRETE STRENGTH SHALL BE 2500 PSI AT 28 DAYS UNLESS SPECIFIED BY ARCHITECT TO BE OF A GREATER STRENGTH FOR THE APPLICATION-SPECIFIC PURPOSE.

3.3 PLACING CONCRETE

A. GENERAL: PLACE CONCRETE IN ACCORDANCE WITH PWC SPECIFICATIONS SECTION 303-5.3.

3.4 FINISHING

A. MEDIUM BROOM FINISH: BROOM FINISH BY DRAWING A FINE-HAIR BROOM ACROSS CONCRETE SURFACE, PERPENDICULAR TO LINE OF TRAFFIC. REPEAT OPERATION IF REQUIRED TO PROVIDE A FINE LINE TEXTURE ACCEPTABLE TO ARCHITECT.

3.5 CURLNG

A. LIQUID CURING COMPOUND FOR NATURAL CONCRETE: LOCATIONS AS APPROVED BY ARCHITECT. APPLY A UNIFORM COATING WITHIN 2 HOURS OF FINAL TROWELING.

END OF SECTION

SECTION 32 31 15
CHAIN LINK FENCING AND GATES

PART 1 - GENERAL

1.1 DESCRIPTION

A. PRINCIPAL WORK ITEMS ARE:

1. CHAIN LINK FENCE.
2. CONCRETE POST FOUNDATIONS.
3. ALL HARDWARE, EXCEPT PADLOCKS.
4. GATES.

1.2 QUALITY ASSURANCE

A. REQUIREMENTS OF REGULATORY AGENCIES RELATIVE TO GATES AND HARDWARE IN THE PATH OF TRAVEL:

1. CODES: CONFORM TO 2016 TITLE 24 CBC SECTION 1007.3.11 AND CALIFORNIA FIRE CODE (CFC) SECTION 1208.

B. QUALITY STANDARDS: ALL WORK SHALL COMPLY WITH CHAIN LINK FENCE MANUFACTURERS INSTITUTE (CLFMI) STANDARDS, ASTM F567, AND ALL REQUIREMENTS IN THESE SPECIFICATIONS; THE MOST STRINGENT REQUIREMENTS SHALL APPLY WHERE THERE ARE CONFLICTS.

PART 2 - PRODUCTS

2.1 GENERAL

A. ALL FENCE COMPONENTS TO BE GALVANICALLY COMPATIBLE.

2.2 MATERIALS; FABRIC

A. GENERAL; DRAWN STEEL WIRE, HOT-DIPPED ZINC COATED AFTER WEAVING, ASTM A-392 CLASS 1, 1.2 OZ/SQ. FT. OF WIRE SURFACE, PER ASTM A-90 STRIPPING TEST; WITHSTAND 5 ONE-MINUTE IMMERSIONS PER PREECE TEST PER ASTM A-392 & A-90.

B. FENCE & GATE FABRIC:

1. ONE-PIECE FABRIC FULL-HEIGHT FOR FENCE THRU 12'-0"; EDGES KNUCKLED SELVAGE. TOP EDGES OVER 6'-0" ABOVE ADJACENT FINISH SURFACE.

2. MESH SIZE: 2" TYPICAL.

3. WIRE DIA.: #9 GA. TYPICAL.

4. FABRIC SHALL BE FREE FROM BARBS, ICICLES, OR OTHER PROJECTIONS RESULTING FROM THE GALVANIZING PROCESS, WHICH MIGHT BE HAZARDOUS. FENCE FABRIC HAVING SUCH DEFECTS WILL BE REJECTED AND CONTRACTOR SHALL REPLACE IT WITH SUITABLE FABRIC AT NO COST TO DISTRICT EVEN IF IT HAS BEEN INSTALLED.

2.3 MATERIALS; FRAMEWORK

A. PIPE: ASTM F-1083, GROUP IA, SCHED, 40, STANDARD WELDED OR SEAMLESS STEEL PIPE, COMMERCIAL HOT-DIPPED ZINC COATED, 1.8 OZ/SQ. FT, MIN. EVENLY DEPOSITED; REASONABLY STRAIGHT, BURRS REMOVED, FREE OF DEFECTS AND ALL ROUGHNESS.

B. SIZES: FOR FENCING 8' HIGH OR LESS;

ITEM	O.D INCHES	WGT. LBS/L.F.
1. LINE POSTS:	2.375	3.65
2. CORNER, TERMINAL & PULL POSTS:	2.875	5.80
3. PEDESTRIAN GATE POSTS:		
3.1. FOR GATE LEAF 0' THRU 6'	2.875	5.80
3.2. LEFT 6'-1" THRU 13'	3.500	7.58
4. GATE POSTS: FOR GATE LEAD WIDTHS AS LISTED:		
4.1. 0' THRU 6':	3.500	7.58
4.2. 6'-1" THRU 13':	4.500	10.80
4.3. 13'-1" THRU 18':	6.625	18.99
5. TOP RAILS, BOTTOM RAILS, BRACE RAILS, & BOTTOM RAILS:	1.660	2.27
6. GATES: FOR GATE LEAF WIDTHS AS LISTED:		
6.1. FRAME THRU 12':	1.900	2.72
6.2. FRAME OVER 12':	2.375	3.65
6.3. BRACING:	1.660	2.27
7. FOR 8' TO 12' HIGH FENCING:		
7.1. LINE POST:	2.875	5.80
7.2. CORNER & TERMINAL POSTS:	3.500	3.58
7.3. GATE POSTS (GATE LEAF < 6')	4.00	9.12
7.4. TOP RAILS, BOTTOM RAILS, BRACE RAILS & TRANSOM RAIL:	1.900	2.72

2.4 MATERIALS; ACCESSORIES

A. WIRE: ALL GALVANIZED.

1. TENSION: #9 GA, STEEL, COLD DRAWN, MARCELLED; ASTM A-82.

2. TIES: SOFT ANNEALED STEEL; FS QQ-W-461; FOR FASTENING FABRIC TO POSTS, TOP RAILS, BOTTOM RAILS AND BRACE RAILS:

a. #9 GA. TO POSTS.

b. #14 GA. TO TOP & BOTTOM RAILS, AND TENSION WIRE.

B. GALVANIZING; ALL ACCESSORIES, EXCEPT WIRE: ASTM A-153.

C. FITTINGS:

1. TENSION BARS: 3/16" X 3/4", MILD STEEL.

2. STEEL BANDS: 1/8" X 1" TYPICAL, 1/8" X 3/4" AT GATES; MILD STEEL.

3. POST EYE CAPS: CAST MALLEABLE IRON OR PRESSED STEEL; SNUG FIT TO EXCLUDE MOISTURE FROM POSTS; HOLE TO ACCOMMODATE TOP RAIL.

4. TRUSS RODS: 3/8" DIA. STEEL; ADJUSTABLE LENGTH.

5. TURNBUCKLES FOR TENSION WIRE: EYE/EYE TYPE, DROP FORGED STEEL, 5/16" MIN. SCREWS WITH 4-1/2" MIN. TAKE-UP.

6. BOLTS: 3/8" DIA. MIN.; CADMIUM PLATED.

7. EXPANSION COUPLINGS FOR RAILS: STEEL, 6" LONG; DESIGNED TO FIT TIGHTLY INSIDE RAIL, FITTED WITH RAISED CENTER.

8. HOG RINGS: SIZES AND GAGES AS REQUIRED; #9 GA. MINIMUM GALVANIZED STEEL.

9. RAIL ENDS FOR TOP RAILS AND BRACE RAILS: MALLEABLE IRON (ASTM A47, GRADE 32510) WITH HOLES TO RECEIVE 3/8" BOLTS FOR SECURING TO RAIL END BANDS.

10. MISC.: ALL OTHER REQUIRED FITTINGS.

11. 1 ¼" TO 1 ½" BOTTOM RAIL, FULLY WELDED IN PLACE BOTTOM RAIL ONLY.

2.5 MATERIALS; GATE HARDWARE

A. GENERAL:

1. MFR.'S STANDARD GALVANIZED HEAVY DUTY HARDWARE, UNLESS NOTED OTHERWISE ON DRAWINGS.

2. GALVANIZING FOR ALL PARTS: ASTM A-153; GALVANIZE AFTER FABRICATION.

B. HINGES: TYPICALLY, MALLEABLE IRON, DOUBLE CLAMPING, NON-LIFT-OFF, OFFSET TYPE FOR 180 DEG. SWING. INSTALL AND ADJUST HINGES; BURR OR CENTER PUNCH THREADS OF GATE HINGE BOLTS TO PREVENT REMOVAL OF NUTS.

C. LATCHES: TYPICALLY, MALLEABLE IRON, FORKED OR PLUNGER-BAR TYPE, PERMIT OPERATION FROM EITHER SIDE OF GATE, GRAVITY TYPE AUTOMATICALLY ENGAGING GATE FRAME; WITH PADLOCK EYES FOR LOCKING GATES IN BOTH THE OPEN AND CLOSED POSITIONS; MOUNTING HEIGHT AT 30" TO 44" ABOVE FINISHED FLOOR.

D. KEEPER; MALLEABLE IRON; AUTOMATICALLY ENGAGE GATE WHEN SWUNG OPEN 180 DEG., AND HOLD UNTIL MANUALLY RELEASED.

E. PAIRS OF GATES:

1. STOPS: FLUSH STEEL PLATE, WITH ANCHORS.

2. LATCH: CENTER DROP ROD OR PLUNGER BAR; WITH INTEGRAL PADLOCK EYES.

2.6 MATERIALS; MISC.

A. PORTLAND CEMENT CONCRETE: 1: 2-L/2: 3-L/2 MIX (2500 PSI MIN.) DELIVERED BY READY-MIX TRUCK. CONCRETE BAG MIXES OR CONCRETE MIXED ON-SITE ARE NOT ACCEPTABLE.

2.7 FABRICATION; GATES

A. FRAME: WELD FRAMES WITH INTEGRAL RADIUS OR MITERED AND FULLY WELDED CORNERS; HORIZONTAL BRACING RAILS FOR GATES EXCEEDING 6' HIGH; VERTICAL BRACING RAILS AT 6' O.C. MAX. FOR GATES EXCEEDING 9' WIDE; DIAGONAL CROSS-BRACING TRUSS RODS TO INSURE GATES STAY SQUARE AND OPERATE PROPERLY, GRIND ALL WELDS FLUSH AND SMOOTH. GALVANIZE AFTER FABRICATION.

B. FABRIC: STRETCH TAUT; TENSION BARS AND BANDS A 15" O.C. MAX. AT VERTICAL EDGES. TENSION BARS SHALL EXTEND FULL HEIGHT OF GATES. WIRE TIE FABRIC AT 12" O.C. MAX. TOP, BOTTOM, AND BRACING RAILS.

PART 3 - EXECUTION

3.1 PREPARATION

A. EXISTING CONDITIONS; VERIFY LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES AND WATER LINES PRIOR TO EXCAVATING FOR FOOTINGS.

B. LAYOUT: MEASURE AND LAY OUT COMPLETE FENCE LINE, GATE(S), AND MODIFICATIONS TO EXISTING FENCE.

C. POST SPACING:

1. GENERAL: LOCATE LINE POSTS AT EQUAL-DISTANCE SPACING IN A RUN, BUT DO NOT EXCEED 10-FEET ON CENTER, UNLESS NOTED OTHERWISE.

3.2 INSTALLATION; FOOTINGS

A. SIZES; FOR FENCING 8' HIGH OR LESS:

	DEPTH (INCHES)	DIAMETER (INCHES)
1. LINE POSTS:	36	12
2. CORNER POSTS;	36	18
3. GATE POSTS: FOR GATE LEAF WIDTHS AS LISTED,		
a. LEAF 0' THRU 8'	36	18
b. LEAF 8'-1" THRU 13':	48	24

B. POSTS; FOR 8' HIGH OR GREATER FENCING:

1. LINE POSTS:	48	18
2. CORNER POSTS;	48	24
3. GATE POSTS: FOR GATE LEAF WIDTHS AS LISTED.		
a. LEAF 0' THRU 8'	48	24
b. LEAF 8'-1" THRU 13':	60	30

C. HOLES: DRILL HOLES IN FIRM, UNDISTURBED, OR COMPACTED SOIL.

3.3 ERECTION; FRAMEWORK

A. POSTS:

1. TYPICAL INSTALLATION; POSTS SET INTO CONCRETE FOOTINGS:

a. GENERAL: SET POSTS INTO CONCRETE FOOTINGS PLUMB, CENTERED, AND ALIGNED; 3" CONCRETE COVER BETWEEN POST BOTTOM AND EARTH.

b. CONCRETE: PLACE IN CONTINUOUS POUR IN HOLE; TAMP TO CONSOLIDATE; CROWN CONCRETE TO DRAIN WATER AWAY FROM POSTS.

c. REBAR: WHERE INDICATED, INSTALL REBAR CAGES.

d. SET POSTS AND FOOTINGS PRIOR TO INSTALLATION OF ADJACENT PAVING. LOCATE TOP OF FOOTING A MINIMUM OF 3 INCHES (4" AT CONCRETE) BELOW INDICATED FINISH ELEVATION OF TOP OF ADJACENT PAVING OR MOW STRIP, TO ALLOW PAVING OR MOW STRIP TO COVER FOOTING AND FINISH TIGHT TO POST.

2. CORNER/TERMINAL/PULL POSTS: INSTALL AT ENDS OF RUNS, HORIZONTAL DIRECTION CHANGES OF 15 DEG. OR MORE, VERTICAL GRADE CHANGES OF 5 DEG. OR MORE, ENDS OF CURVED FENCE SECTION; PULL POST EACH 500' RUN OF FENCE.

3. GATE POSTS: INSTALL EACH SIDE OF GATES.

3.4 ERECTION; FENCE FABRIC

A. FABRIC: INSTALL IN ONE CONTINUOUS PIECE WHEREVER POSSIBLE; STRETCH TAUT.
1. ADJOINING EXISTING FENCING: MATCH EXISTING.

2. AT REPLACEMENT OF FENCE FABRIC: MATCH EXISTING, UNLESS NOTED OTHERWISE.

B. FASTENINGS:

1. AT TERMINAL/CORNER/PULL/GATES POSTS, THREAD TENSION BARS THRU MESH; SECURE TO POSTS WITH BANDS AT 15" O.C. MAX.

2. WIRE-TIE FABRIC TO LINE POSTS AT 16" O.C.; TO TOP RAIL, BOTTOM RAILS, BRACE RAILS, AND INTERMEDIATE RAILS AT 18" O.C.

3. HOG-RING TO BOTTOM TENSION WIRE AT 18" O.C., WHERE BOTTOM RAILS DO NOT OCCUR.

4. HOOKED TIES WITH LINKS ARE NOT PERMITTED.

3.5 ERECTION; GATES

A. INSTALL GATES PLUMB AND LEVEL TO A TOLERANCE OF 1/4 IN. IN 10 FT.

B. INSTALL GROUND-SET ITEMS IN CONCRETE.

C. ADJUST HARDWARE TO PROVIDE SMOOTH OPERATION. LUBRICATE WHERE REQUIRED.

D. KNUCKLE ENDS OF FABRIC TO ELIMINATE HAZARDS. ALLOW CLEARANCE ON GATES OF 1-1/2" AT BOTTOM.

3.6 EXISTING FENCING; REMOVAL, REUSE, SALVAGE, & MODIFICATIONS

A. REMOVAL WORK:

1. REMOVE EXISTING FENCING AS INDICATED, INCLUDING CONCRETE POST FOOTINGS AND MOW STRIPS.

2. POST HOLES: FILL WITH EARTH, COMPACT TO SAME DENSITY AS SURROUNDING EARTH. AT PAVING AREAS, COMPACT FILL TO 95% MAX. DRY DENSITY, AND FLUSH WITH ADJOINING SURFACES.

3. DISPOSAL: DISPOSE OF ALL REMOVED MATERIALS WHICH ARE NOT INDICATED TO BE REUSED OR SALVAGED, OFF-SITE AT CONTRACTOR'S EXPENSE.

B. REUSE OF EXISTING FENCING; WHERE INDICATED AND APPROVED BY ARCHITECT:

1. REMOVE EXISTING FENCE FABRIC AS INDICATED. LEAVE POSTS AND FOOTINGS IN PLACE.

2. FULLY CLEAN EXISTING POSTS OF ALL RUST, PROPERLY PREP, AND APPLY GALVANIZING PAINT PER MFR.'S SPECIFICATIONS. FINISH SURFACE TO BE CLEAN AND SMOOTH AND WITH CONSISTENT GALVANIZED COATING EQUAL TO G-90 HOT-DIPPED GALVANIZING.

3. REPLACE ANY DAMAGED POSTS AS DETERMINED BY THE ARCHITECT.

4. PROVIDE NEW POSTS AND FRAMING MEMBERS AS INDICATED ON DRAWINGS.

5. INSTALL NEW FENCE FABRIC AND HARDWARE TO SAME REQUIREMENTS AS SPECIFIED FOR ALL-NEW WORK.

6. DO NOT REUSE DEFECTIVE MATERIALS OR PARTS.

7. SUPPLY ANY MISSING AND/OR ADDITIONAL PARTS NECESSARY FOR A COMPLETE INSTALLATION.

8. CONFORM TO SAME STANDARDS AS FOR ALL-NEW WORK.

9. DISPOSE OF ALL REMOVED MATERIALS WHICH ARE NOT INDICATED TO BE REUSED, OFF-SITE AT CONTRACTOR'S EXPENSE.

3.7 ADJUSTMENT & CLEANING

A. ADJUSTMENT: ADJUST BRACE RAILS AND TENSION RODS FOR RIGID INSTALLATION. TIGHTEN HARDWARE, FASTENERS, AND ACCESSORIES.

B. REPAIR OF DAMAGED WORK: WHERE OPERATIONS DAMAGE WORK TO REMAIN, REPAIR, REPLACE OR RESTORE WORK AS DIRECTED BY ARCHITECT AND/OR DISTRICT USING QUALIFIED WORKMEN OF RESPECTIVE TRADES. CLOSELY COORDINATE WORK WITH IRRIGATION, PAVING, CONCRETE, LANDSCAPING, ELECTRICAL AND UTILITIES, AND ALL OTHER RELATED OR ADJACENT WORK.

C. CLEANING: REMOVE EXCESS AND WASTE MATERIALS FROM PROJECT SITE.

END OF SECTION

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: frm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: frm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

CONSULTANT

Drawn by

Checked by

Revisions

No.	Date	Description
–	–	–

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No.
2835.0200

Date
10-9-2019

SPEC-2

PLUMBING SPECIFICATIONS

22_0500_COMMON_WORK_RESULTS_PLUMBING

A.GENERAL CONDITIONS, CODES & STANDARDS

1. GENERAL CONDITIONS OF THE CONTRACT FOUND IN THE ARCHITECTURAL DRAWINGS, GENERAL AND SPECIAL CONDITIONS OF THE AMERICAN INSTITUTE OF ARCHITECTS (AIA) AND ANY OF THE OWNER'S GENERAL REQUIREMENTS SHALL APPLY UNLESS NOTED OTHERWISE.
2. REFER TO THE GENERAL CONDITIONS ON THE ARCHITECTURAL DOCUMENTS AND THE GENERAL AND SPECIAL CONDITIONS OF THE AIA FOR ADDITIONAL REQUIREMENTS REGARDING; SAFETY, COORDINATION & COOPERATION, WORKMANSHIP, PROTECTION, CUTTING AND PATCHING, DAMAGE TO OTHER WORK, PRELIMINARY OPERATIONS, STORAGE, ADJUSTMENTS, CLEANING, ETC.
3. ALL WORK SHALL BE IN CONFORMANCE WITH ALL LOCALLY ENFORCED, FEDERAL, STATE AND LOCAL CODES AND ORDINANCES INCLUDING ANY SPECIAL THE OWNER REQUIREMENTS IN ADDITION TO THOSE SPECIFIED.
4. CONTRACTOR SHALL PAY FOR AND OBTAIN ALL NECESSARY LICENSES, PERMITS AND INSPECTIONS REQUIRED TO PROCEED WITH THE WORK. THIS SHALL INCLUDE ALL REQUIRED COORDINATION WITH THE LOCAL UTILITY COMPANIES AND THEIR ASSOCIATED FEES OR COSTS.

B.SCOPE OF WORK

1. THE MAJORITY OF PLUMBING CONSTRUCTION IS PERFORMED AT THE OUHSD STRUCTURES FACTORY. SELECT WORK, INCLUDING SETTING TOILET FIXTURES, PIPING CONNECTING BETWEEN VERTICALLY STACKED PIPING, AND SIMILAR WORK IS PERFORMED IN THE FIELD/ON SITE BY THE SITE PLUMBING CONTRACTOR, INCLUDING LATERAL PIPING WITHIN CRAWLSPACE BENEATH MODULES. SELECT WORK IS NOTED AS "FACTORY" OR "FIELD" FOR CLARIFICATION.
2. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS REQUIRED TO PROVIDE THE OWNER A COMPLETE, CODE APPROVED AND OPERATIONAL PLUMBING SYSTEM.
3. CAREFULLY READ SPECIFICATION FOR ALL PARTS OF THE WORK SO AS TO BECOME FAMILIAR WITH ALL TRADES' WORK SCOPE. CONSULT WITH OTHER TRADES TO INSURE PROPER LOCATIONS AND AVOID INTERFERENCES. ANY CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER BEFORE WORK IS COMMENCED.
4. CONTRACTORS SHALL BE HELD TO HAVE EXAMINED THE PREMISES AND SITE SO AS TO COMPARE THEM WITH THE DRAWINGS AND SPECIFICATIONS, NOTE THE EXISTING CONDITIONS AND OTHER WORK THAT WILL BE REQUIRED, AND THE NATURE OF THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. NO ALLOWANCE SHALL BE MADE TO THE CONTRACTOR BY REASON OF THIS FAILURE TO HAVE MADE SUCH EXAMINATION OR OF ANY ERROR ON HIS PART.
5. ALL EXISTING UTILITY AND PLUMBING SERVICES SHALL BE FIELD VERIFIED. CORRECTIONS TO THE DESIGN AND INSTALLATION SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
6. PROVIDE ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF PLUMBING WORK. ALL CORE DRILLING OR CUTTING OF FIRE RATED FLOORS, SHAFTS, AND WALLS SHALL BE FIRESTOPPED PRIOR TO FINISH PATCHING. ALL PENETRATIONS SHALL BE FIRE SEALED TO MATCH THE FIRE RATING OF THE FLOORS, SHAFTS, AND WALLS PENETRATED. THIS CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL WALL AND FLOOR OPENINGS WITH THE GENERAL TRADES CONTRACTOR. THE FINAL LOCATIONS AND SIZES OF ALL PIPE OPENINGS SHALL BE PROVIDED BY THIS CONTRACTOR.
7. ALL WORK INCLUDING, BUT NOT LIMITED TO PARTS, MATERIAL, EQUIPMENT AND LABOR SHALL BE GUARANTEED FOR ONE YEAR AFTER ACCEPTANCE BY THE ENGINEER AND OWNER. WHERE AN EQUIPMENT MANUFACTURER HAS A WARRANTY THAT EXCEEDS ONE YEAR, THAT WARRANTY PERIOD SHALL APPLY TO THIS PROJECT.

C.DOCUMENTS

1. THE DRAWINGS ARE DIAGRAMMATIC, ALL WORK SHALL BE PERFORMED AS INDICATED ON THE DRAWINGS UNLESS EXISTING CONDITIONS OR COORDINATION ISSUES REQUIRE CHANGES. THESE CHANGES SHALL BE MADE WITH NO ADDITIONAL COST TO THE OWNER.
2. ANY INCIDENTAL ITEMS OR LABOR, ETC. NOT INCLUDED IN THE SPECIFICATIONS OR THE DRAWINGS BUT REASONABLY IMPLIED AS NECESSARY FOR THE COMPLETE INSTALLATION OF ALL APPARATUS SHALL BE INCLUDING IN BID.
3. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO SUPPLEMENT EACH OTHER AND ANY MATERIAL OR LABOR CALLED FOR IN ONE SHALL BE FURNISHED EVEN THOUGH NOT MENTIONED IN BOTH.
4. IF ERRORS ARE FOUND IN THE DRAWINGS OR SPECIFICATIONS OR DISCREPANCIES OCCUR BETWEEN THE SAME, OR BETWEEN THE FIGURES ON THE DRAWINGS, AND THE SCALE OF SAME OR BETWEEN THE LARGER AND SMALLER DRAWINGS, OR IN THE DESCRIPTIVE MATTER ON THE DRAWINGS SHALL BE REFERRED TO THE OWNER FOR REVIEW AND FINAL DECISION PRIOR TO THE BID DUE DATE.
5. THE BIDDING OF THIS WORK WILL CONTEMPLATE THE USE OF EQUIPMENT AND MATERIALS EXACTLY AS SPECIFIED HEREIN. WHERE MORE THAN ONE MANUFACTURER IS MENTIONED ANY ONE MAY BE UTILIZED. SUBSTITUTE MANUFACTURERS MAY BE OFFERED ONLY AS AN ALTERNATE TO THE SPECIFIED EQUIPMENT AND MATERIAL AND MUST BE SUBMITTED AS SPECIFIED IN THE ARCHITECTURAL DOCUMENTS.
6. MISCELLANEOUS ITEMS NECESSARY TO COMPLETE THE SYSTEMS CAN BE OF ANY RECOGNIZED MANUFACTURE PROVIDED THESE ITEMS MEET MINIMUM STANDARDS AS SET IN THESE SPECIFICATIONS. REFER TO EACH SECTION FOR ANY SPECIFIC REQUIREMENTS.

D.COORDINATION

1. CONTRACTOR SHALL LOCATE, IDENTIFY AND PROTECT ANY EXISTING SERVICES WHICH ARE REQUIRED TO BE MAINTAINED OPERATIONAL AND SHALL EXERCISE EXTRA CAUTION IN THE PERFORMANCE OF ALL WORK TO AVOID DISTURBING SUCH FACILITIES. ALL COSTS FOR REPAIR OF DAMAGES TO SUCH SERVICES SHALL BE PAID BY THE CONTRACTOR CAUSING THE DAMAGE.
2. EACH CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO OTHER WORK CAUSED BY HIS WORK OR THROUGH THE NEGLECT OF HIS, OR HIS SUB-TRADE'S PERSONNEL. ALL PATCHING, REPAIRING, REPLACEMENT AND PAINTING, ETC. SHALL BE DONE AS DIRECTED BY THE OWNER BY THE CRAFTSMEN OF THE TRADES INVOLVED. THE COSTS OF SUCH WORK SHALL BE PAID BY THE CONTRACTOR CAUSING THE DAMAGE.

E.METHODS

1. EXCAVATIONS SHALL BE MADE IN OPEN TRENCHES. FLOORS SHALL BE SAW CUT. PIPING SHALL BE LAID ON AN APPROPRIATELY GRADED 6" BED OF CLEAN AND DRY SAND. ENGINEERED FILL SHALL BE USED TO BACKFILL TO 6" ABOVE THE PIPING. BACKFILL THE REMAINDER OF THE TRENCH UTILIZING THE EXCAVATED MATERIAL IF APPROVED BY THE ARCHITECT OR THE OWNER. IF THE EXCAVATED MATERIALS ARE NOT ACCEPTABLE, ENGINEERED FILL ACCEPTABLE TO THE ARCHITECT SHALL BE UTILIZED TO BACKFILL THE REMAINDER OF THE TRENCH. BACKFILL SHALL BE ACCOMPLISHED IN 9" LIFTS WITH ALL LIFTS COMPACTED TO 95% PROCTOR. PATCH FLOOR TO MATCH EXISTING.
2. EQUIPMENT, PIPING, ETC. SHALL NOT BE SUPPORTED FROM ANY CEILINGS, OTHER PIPING, CONDUIT OR DUCTWORK, ROOF DECK, OR JOIST BRIDGING. ITEMS SHALL BE SUPPORTED FROM ACCEPTABLE STRUCTURAL BUILDING COMPONENTS AS DETERMINED BY THE ARCHITECT AND STRUCTURAL ENGINEER.

F.SUBMITTALS

1. SHOP DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT OF ALL EQUIPMENT AND ACCESSORIES PROVIDED FOR THE PROJECT WHETHER SPECIFIED HERE-IN OR ON THE DRAWINGS. REVIEW OF THE SHOP DRAWINGS SHALL BE FOR GENERAL DESIGN CONCEPT AND ADHERENCE WITH THE SPECIFICATIONS. QUANTITY OF SHOP DRAWINGS SUBMITTED SHALL BE AS SPECIFIED BY THE ARCHITECT. SHOP DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR SHOWING LOCATIONS AND MEASUREMENTS FROM COLUMNS OF ALL CONCEALED AND EXPOSED PIPING, DUCTWORK, CONDUIT, EQUIPMENT, ACCESSORIES, ETC., AND SUBMITTED PRIOR TO INSTALLATION. THE OWNER MAY MAKE REPRODUCIBLE COPIES OF THEIR DRAWINGS AVAILABLE FOR USE IN PREPARATION OF SHOP DRAWINGS, HOWEVER THE OWNER SHALL NOT BE HELD RESPONSIBLE FOR NOT CONFIRMING ALL INFORMATION ON THE DRAWINGS PRIOR TO FABRICATION AND/OR INSTALLATION.
2. PROJECT RECORD DOCUMENTS - MAINTAIN AT THE JOBSITE ONE COPY OF ALL CONTRACT DOCUMENTS CLEARLY MARKED AS “PROJECT RECORD COPY”. THESE DRAWINGS ARE TO BE MAINTAINED IN GOOD CONDITION, UPDATED DAILY FOR CHANGES ENCOUNTERED AND AVAILABLE AT ALL TIMES FOR INSPECTION BY THE OWNER. DO NOT USE FOR FIELD CONSTRUCTION! PROJECT RECORD DOCUMENTS ARE TO BE KEPT CURRENT WITH EXACT DIMENSIONS OF ALL WORK, EQUIPMENT, PIPING, VALVES, DUCTWORK, ETC. MARK ALL INFORMATION IN RED LINES AND NOTES SO AS TO BE EASILY IDENTIFIED FROM THE BASE DRAWING. UPON COMPLETION OF THE WORK, ONE SET OF THESE DOCUMENTS SHALL BE TURNED OVER TO THE OWNER AS ONE QUALIFICATION FOR FINAL PAYMENT.
3. AFTER THE ACCEPTANCE TESTS ARE COMPLETED AND ACCEPTED BY THE OWNER, THREE COMPLETE SETS OF AS-BUILT DOCUMENTATION SHALL BE PROVIDED. IT SHALL INCLUDE, BUT NOT BE LIMITED TO ACCURATE PLAN DRAWINGS, SYSTEM AND CONTROL SCHEMATICS, SEQUENCE OF OPERATION, WIRING DIAGRAMS AND OPERATION AND MAINTENANCE MANUALS.

22_0513_BASIC_PLUMBING_MATERIALS_METHODS

A.GENERAL

1. INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS, AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES.
2. CLEAN AND DRY SURFACES PRIOR TO INSULATING.

B.PLUMBING

1. ALL ABOVE GROUND PIPING SHALL BE INSULATED WITH FIBERGLASS PIPING INSULATION WITH AN ALL SERVICE JACKET AND SELF SEALING LAP (ASJ/SSL).
   a. DOMESTIC COLD WATER PIPING - 1 INCH THICK.
2. FITTINGS AND VALVES SHALL BE INSULATED WITH PRE-MOLDED FIBERGLASS FITTINGS AND COVERED WITH A PRE-FORMED PVC FITTING COVER.

C. CONDENSATE DRAINAGE

1. CONDENSATE DRAINS FROM HVAC EQUIPMENT SHALL NOT BE CONNECTED TO ANY PORTION OF SCIENCE CLASSROOM ACID WASTE DRAINAGE SYSTEM.
2. UNDERGROUND CONDENSATE PIPING SHALL BE TYPE "K" HARD COPPER WITH WROUGHT COPPER SILVER BRAZED FITTINGS.
3. ABOVE GROUND CONDENSATE DRAINAGE SHALL BE TYPE "L" HARD COPPER WITH WROUGHT COPPER FITTINGS.

22_0553_PLUMBING_IDENTIFICATION_111001

A.SUMMARY

1. SECTION INCLUDES PIPE MARKERS.

B.REFERENCES

1. ASME A13.1 (AMERICAN SOCIETY OF MECHANICAL ENGINEERS) - SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS.

C.PIPE MARKERS

1. COLOR AND LETTERING: CONFORM TO ASME A13.1.
2. PLASTIC PIPE MARKERS:
   a. FACTORY FABRICATED, FLEXIBLE, SEMI-RIGID PLASTIC, PREFORMED TO FIT AROUND PIPE OR PIPE COVERING. LARGER SIZES MAY HAVE MAXIMUM SHEET SIZE WITH SPRING FASTENER.

D.PREPARATION

1. DEGREASE AND CLEAN SURFACES TO RECEIVE ADHESIVE FOR IDENTIFICATION MATERIALS.

E.INSTALLATION

1. IDENTIFY PIPING, CONCEALED OR EXPOSED, WITH PLASTIC PIPE MARKERS, PLASTIC TAPE PIPE MARKERS OR STENCILED PAINTING. IDENTIFY SERVICE, FLOW DIRECTION, AND PRESSURE. INSTALL IN CLEAR VIEW AND ALIGN WITH AXIS OF PIPING. LOCATE IDENTIFICATION NOT TO EXCEED 20 FEET ON STRAIGHT RUNS INCLUDING RISERS AND DROPS, ADJACENT TO EACH VALVE AND TEE, AT EACH SIDE OF PENETRATION OF STRUCTURE OR ENCLOSURE, AND AT EACH OBSTRUCTION.

22_1000_PLUMBING_140214

A.GENERAL

1. THE ENTIRE PLUMBING INSTALLATION, MATERIALS, EQUIPMENT, ETC. SHALL CONFORM TO THE REQUIREMENTS OF THE LOCALLY ENFORCED BUILDING CODE, THE INTERNATIONAL PLUMBING CODE, AND THE AMERICAN DISABILITIES ACT GUIDELINES, ANSI A117.1 REQUIREMENTS FOR THE PHYSICALLY CHALLENGED AND THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS). CONTRACTOR TO VERIFY ALL PLUMBING ROUGH IN DIMENSIONS MEET THE ABOVE NOTED REQUIREMENTS. VERIFY FINAL ROUGH IN WITH ARCHITECT PRIOR TO BACKFILLING OR WALL INSTALLATION.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
SUNIL PATEL
No. 29448
EXP. 06-30-21
STATE OF CALIFORNIA

Drawn by

Checked by

Revisions

No.	Date	Description
	—	

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL
1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No. 2835.0200

Date 12-18-2019

SPEC-3

DSA SUBMITTAL

ELECTRICAL SPECIFICATIONS

SECTION 26 0126
TEST AND ACCEPTANCE REQUIREMENTS

1.00 SCOPE

A. FURNISH ALL LABOR AND FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT FOR A COMPLETE AND OPERATING ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS AND/OR SPECIFIED HEREINAFTER.

B. REMOVE ABANDONED CONNECTORS, CABLE, RECEPTACLES, TELEPHONE OUTLETS AND ALL OUTLET BOXES, CONDUIT AND WIRE THROUGHOUT THE ENTIRE AREA.

C. FURNISH, INSTALL AND CONNECT CONTROL CABLE AND CONNECTORS AS NOTED ON DRAWINGS.

D. INSTALL AND CONNECT ALL OWNER FURNISHED EQUIPMENT AS NOTED. COORDINATE WITH OWNER BEFORE INSTALLATION.

1.01 GENERAL

A. PROVIDE ALL EQUIPMENT, MATERIAL, LABOR. SERVICE, HOISTING, SUPPORT AND SUPERVISION FOR ALL WORK SHOWN ON THE ELECTRICAL DRAWINGS AND AS SPECIFIED.

B. THE ENTIRE WORK PROVIDED SHALL BE CONSTRUCTED AND FINISHED IN EVERY RESPECT IN A WORKMANLIKE AND SUBSTANTIAL MANNER. FURNISH AND INSTALL ALL WORK AS MAY BE NECESSARY TO COMPLETE THE SYSTEMS IN ACCORDANCE WITH THE BEST TRADE PRACTICE AND TO THE SATISFACTION OF THE OWNER. THE ENTIRE INSTALLATION SHALL BE READY IN EVERY RESPECT FOR SATISFACTORY AND EFFICIENT OPERATION WHEN COMPLETE.

C. THE DRAWINGS SHOW VARIOUS CONDUIT AND WIRING SYSTEMS SCHEMATICALLY AND PROVIDE CIRCUIT NUMBERS FOR REFERENCE ONLY. BALANCE ALL PANELBOARDS AND RECORD ALL CIRCUIT NUMBERS ON AS-BUILT DRAWINGS.

D. SUBMIT A SINGLE GUARANTEE STATING THAT ALL PORTIONS OF THE WORK ARE IN ACCORDANCE WITH CONTRACT REQUIREMENTS. GUARANTEE ALL WORK AGAINST FAULTY AND IMPROPER MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY THE OWNER EXCEPT THAT WHERE GUARANTEES OR WARRANTIES FOR LONGER TERMS ARE SPECIFIED BY CONTRACT, SUCH LONGER TERM SHALL APPLY. AT NO ADDITIONAL COST TO THE OWNER, WITHIN 24HOURS AFTER NOTIFICATION, CORRECT ANY DEFICIENCIES WHICH OCCUR DURING THE GUARANTEE PERIOD, ALL TO THE SATISFACTION OF THE OWNER.

E. PROVIDE ALL MATERIAL AND EQUIPMENT AND MAKE THE FINAL CONNECTIONS TO ALL EQUIPMENT.

1.02 CODES AND PERMITS

A. ALL WORK SHALL BE DONE IN FULL COMPLIANCE WITH THE CALIFORNIA ELECTRIC CODE AND ALL LOCAL CODES OR ORDINANCES HAVING JURISDICTION.

B. ALL EQUIPMENT AND MATERIALS SHALL BE NEW EXCEPT WHERE SPECIFICALLY NOTED TO BE REUSED AND LISTED BY THE UNDERWRITER'S LABORATORIES, INC., MANUFACTURED IN ACCORDANCE WITH ASME, NEMA ANSI OR IEEE STANDARDS, AND APPROVED BY ALL AUTHORITIES HAVING JURISDICTION.

C. SECURE AND PAY FOR ALL NECESSARY APPROVALS, PERMITS, INSPECTIONS, ETC., AND DELIVER THE OFFICIAL RECORDS OF THE GRANTING OF PERMITS TO THE OWNER WITHOUT ADDITIONAL COST TO THE OWNER.

1.03 COORDINATION

A. COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER SECTIONS IN AMPLE TIME FOR THE PROPER INSTALLATION AND CONNECTION AND FOR THE PROVISION OF ALL OPENINGS REQUIRED IN FLOORS AND WALLS.

B. CAREFULLY CHECK SPACE REQUIREMENTS WITH OTHER TRADES TO INSURE THAT ALL EQUIPMENT AND MATERIALS CAN BE INSTALLED IN THE SPACES ALLOTTED THERETO. INSTALL ALL WORK TO AVOID OBSTRUCTIONS AND TO PRESERVE HEADROOM AND CEILING HEIGHT REQUIREMENTS.

C. CAREFULLY CHECK THE DOCUMENTS WITH OTHER TRADES TO ASCERTAIN THE REQUIREMENTS OF ANY MATERIALS OR EQUIPMENT BEING FURNISHED AND/OR INSTALLED BY THAT SECTION AND PROVIDE THE PROPER INSTALLATION AND/OR CONNECTIONS INCLUDING ANY CONTROL WIRING REQUIRED.

D. BEFORE FABRICATION AND INSTALLATION OF SPECIAL SYSTEM OUTLETS VERIFY THE FINAL DESIRED LOCATION OF EQUIPMENT WITH OWNER.

SECTION 26 0500
COMMON WORK RESULTS ELECTRICAL

1.00 CLEANING PREMISES

A. THE CONTRACTOR SHALL KEEP ALL PARTS OF THE BUILDING AND SITE FREE FROM ANY ACCUMULATIONS OF RUBBISH OR WASTE MATERIALS CAUSED BY HIS WORKMEN, AND SHALL REMOVE SUCH ACCUMULATIONS FROM THE BUILDING, SITE AND PROPERTY. JOB SITE SHALL BE CLEANED AT THE END OF EACH WORKING DAY.

1.01 RECORD DRAWINGS

A. KEEP UP TO DATE, A COMPLETE SET OF AS BUILT MYLARS TO INDICATE ANY CHANGES FROM THE ORIGINAL DRAWINGS. UPON COMPLETION OF THE INSTALLATION, FURNISH A COMPLETE SET OF AS-BUILT MYLARS. THESE DRAWINGS SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL. AFTER APPROVAL THEY SHALL BECOME THE PROPERTY OF THE OWNER. FINAL PAYMENT WILL BE WITHHELD UNTIL RECEIPT OF THE APPROVED DRAWINGS.

1.02 PROTECTION & SAFEGUARDS

A. THE CONTRACTOR SHALL ERECT AND MAINTAIN SUITABLE BARRIERS, PROTECTIVE DEVICES, LIGHTS AND WARNING SIGNS WHERE REQUIRED FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES ABOUT THE BUILDING. HE SHALL BE FULLY RESPONSIBLE FOR ANY LOSS OR INJURY TO PERSONS OR PROPERTY RESULTING FROM HIS NEGLECT OF THESE PRECAUTIONS, HIS OWN CARELESSNESS, OR THE CARELESSNESS OR NEGLECT OF HIS EMPLOYEES, OR HIS SUB-CONTRACTOR AND/OR THEIR EMPLOYEES.

1.03 SHOP DRAWINGS

A. WITHIN THIRTY (15) DAYS AFTER AWARD OF THE GENERAL CONTRACT, THE CONTRACTOR SHALL SUBMIT SIX (6) PRINTS OF ALL REQUIRED SHOP DRAWINGS AND BROCHURES. SHOP DRAWINGS AND BROCHURES WILL BE REQUIRED FOR THE FOLLOWING EQUIPMENT. SWITCHBOARDS, PANELBOARDS, CIRCUIT BREAKERS, LIGHT FIXTURES AND ANY SPECIAL EQUIPMENT. EQUIPMENT INSTALLED WITHOUT APPROVAL THEREOF SHALL BE DONE AT THE RISK OF THE CONTRACTOR AND THE COST FOR REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE OF THIS CONTRACTOR.

SECTION 26 0513
BASIC ELECTRICAL MATERIALS METHODS

1.00 EXISTING CONDITIONS

A. BEFORE SUBMITTING BID BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING AND OF THE PRESENT INSTALLATIONS TO WHICH CONNECTIONS MUST BE MADE OR WHICH MUST BE CHANGED OR ALTERED. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREINAFTER AND NO CONSIDERATION WILL BE GRANTED BY REASON OF LACK OF FAMILIARITY ON THE PART OF THE CONTRACTOR WITH ACTUAL PHYSICAL CONDITIONS AT THE SITE.

B. WHERE SPECIFICALLY CALLED FOR ON THE DRAWING OR WHEN PERMISSION IS SPECIFICALLY GIVEN BY THE OWNER, EXISTING EQUIPMENT AND MATERIAL MAY BE REUSED. SALVAGEABLE MATERIAL, UNLESS OTHERWISE INSTRUCTED BY HE OWNER, SHALL BECOME THE PROPERTY OF THE ONTRACTOR AND BE REMOVED FROM THE SITE.

1.01 CUTTING & PATCHING

A. THE CONTRACTOR SHALL DO ALL DRILLING, CUTTING, AND PATCHING OF GENERAL CONSTRUCTION WORK EXISTING OR NEW, ROUGH FINISH AND TRIM WHICH MAY BE REQUIRED FOR THE INSTALLATION OF ALL OF HIS WORK. ALL PATCHING SHALL BE OF THE SAME MATERIALS, WORKMANSHIP AND FINISH AS THE ORIGINAL WORK, AND SHALL ACCURATELY MATCH ALL SURROUNDING WORK.

1.02 ELECTRICAL SERVICE

A. FURNISH AND INSTALL ALL ELECTRICAL SERVICE CONDUIT, CONDUCTORS, PULL BOXES, METER SOCKETS AND SERVICE SWITCHGEAR. SERVICE FACILITIES AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE UTILITY COMPANY. IMMEDIATELY UPON AWARD OF CONTRACT, CONTACT THE UTILITY COMPANY TO COORDINATE THEIR WORK WITH THE WORK OF THIS CONTRACT. OBTAIN APPROVAL OF THE UTILITY COMPANY FOR SERVICE EQUIPMENT AND CONNECTIONS. ALL SERVICE AND CABLE CHARGES OF THE UTILITY COMPANY WILL BE PAID BY THE CONTRACTOR.

SECTION 26 0526
GROUNDING AND BONDING

1.03 GROUNDING SYSTEM

A. ALL ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND TITLE 24, CALIFORNIA ADMINISTRATIVE CODE, PART 3. SERVICE ENTRANCE EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE UTILITY COMPANY'S REQUIREMENTS.

B. GROUNDING AND BONDING SHALL BE AS INDICATED ON THE DRAWINGS AND BONDED TO THE COLD WATER PIPING SYSTEM.

C. PROVIDE A GROUNDING CONDUCTOR, WHICH SHALL BE IN ADDITION TO THE THE CIRCUIT CONDUCTORS INDICATED, IN EACH NONMETALLIC CONDUIT USED FOR LIGHTING AND POWER CIRCUITS.

D. ALL SYSTEM GROUNDING CONDUCTORS SHALL BE COPPER. ALL GROUND CONNECTIONS SHALL BE ACCESSIBLE AND MADE WITH COPPER ALLOY FITTINGS.

SECTION 26 2416
PANELBOARDS

1.00 DISTRIBUTION SYSTEM

A. FURNISH AND INSTALL THE ELECTRICAL DISTRIBUTION SYSTEM COMPLETE INCLUDING FEEDERS, BRANCH CIRCUITS, SWITHCBOARDS, PANELBOARDS, OUTLETS AND WIRING DEVICES.

1.13 PANELBOARDS

A. LIGHTING PANELBOARDS SHALL BE EATON CUTLER-HAMMER 120/208V-3 PHASE AND 480/277V OR EQUAL BY SQUARE D, CUTLER HAMMER, GENERAL ELECTRIC OR SYLVANIA. THE CIRCUIT BREAKERS SHALL BE BOLT ON TYPE AND SHALL HAVE THE NUMBER OF POLES INDICATED ON THE DRAWINGS. TIE HANDLES WILL NOT BE ALLOWED, PROVIDE DEDICATED NEUTRALS. PROVIDE AN ENGRAVED PHENOLIC NAMEPLATE FOR ALL PANELS.

SECTION 26 0533
RACEWAYS, BOXES, FITTINGS AND SUPPORTS

1.00 WIRING DEVICES

A. THE CATALOG NUMBERS OF ALL WIRING DEVICES, UNLESS OTHERWISE SPECIFIED ARE THOSE OF THE HUBBELL COMPANY, OR AS NOTED TO ESTABLISH THE QUALITY DESIRED. EQUAL EQUIPMENT BY GENERAL ELECTRIC, BRYANT, SIERRA, SLATER, LEVITON OR A&H WILL BE ACCEPTABLE.

B. FURNISH AND INSTALL WALL SWITCHES AT EACH LOCATION INDICATED ON THE DRAWINGS. WHERE MORE THAN ONE SWITCH OCCURS AT THE SAME LOCATION, THEY SHALL BE INSTALLED UNDER A MULTIPLE GANG PLATE. SWITCH HANDLE SHALL BE WHITE COLOR. SWITCHES HANDLES SHALL BE WHITE COLOR. SWITCHES SHALL BE A.C. QUIET TYPE RATED 20 AMPERES AT 120 AND/OR 277 VOLTS. - HUBBELL #1221.

C. FURNISH AND INSTALL CONVENIENCE RECEPTACLE AT EACH LOCATION INDICATED ON THE DRAWINGS. RECEPTACLE SHALL BE 5262.

D. PLATES FOR WIRING DEVICES SHALL BE WHITE OR AS SELECTED BY ARCHITECT.

1.01 OUTLET BOXES

A. JUNCTION BOXES SHALL BE 4 BY 4 BY 2-1/8 INCHES DEEP WITH COVERS UNLESS OTHERWISE NOTED OR REQUIRED BY CODE. JUNCTION BOXES ABOVE SUSPENDED CEILINGS FOR LIGHTING AND FOR DATA/COMMUNICATION SYSTEMS SHALL BE 4-11/16 BY 2-1/8 INCHES DEEP MINIMUM, TO BE INSTALLED ADJACENT TO RECESSED FIXTURE IN SUCH MANNER AS TO BE ACCESSIBLE THROUGH THE OPENING IN THE CEILING IN WHICH THE FIXTURE IS INSTALLED.

1.02 CONDUIT AND FITTINGS

A. RACEWAYS LARGER THAN 3-INCH SHALL BE GALVANIZED RIGID STEEL UNLESS OTHERWISE SPECIFIED.

B. RIGID METAL RACEWAYS SHALL BE INSTALLED IN WET LOCATIONS, IN OR UNDER CONCRETE SLABS ON GRADE WITH OR WITHOUT VAPOR BARRIER, IN CONCRETE WALLS AND COLUMNS, IN CONCRETE SLABS, WALLS AND COLUMNS EXPOSED TO THE WEATHER WITH OR WITHOUT VAPOR BARRIERS; WHERE EXPOSED IN AREAS OPEN TO THE WEATHER, WHERE EXPOSED ON WALLS AND COLUMNS UP 6 FEET ABOVE THE FLOOR, EXCEPT IN ELECTRICAL OR TELEPHONE RISER CLOSETS; AND IN MECHANICAL ROOMS IN SIZES LARGER THAN 1-IN UP TO 7-FEET 0 INCHES ABOVE FINISHED FLOOR.

C. ELECTRICAL METALLIC TUBING IN SIZES UP TO 3-INCH MAY BE INSTALLED IN INTERIOR SPACES WHERE RIGID RACEWAY IS NOT REQUIRED, AND WHERE PERMITTED BY THE LOCAL CODE AUTHORITIES HAVING JURISDICTION.

D. JOIN ELECTRICAL METALLIC TUBING WITH WATERTIGHT STEEL COMPRESSION TYPE THREADLESS FITTINGS THROUGHOUT. USE CONNECTORS OF FACTORY PRE INSULATED TYPE IN ALL SIZES. EMT FITTINGS USING SET SCREWS ARE NOT ACCEPTABLE. EMT CONNECTIONS SHALL BE OF MALLEABLE IRON OR STEEL.

E. FLEXIBLE RACEWAY SHALL BE STEEL AND SHALL BE USED FOR REMOVABLE LIGHTING FIXTURES IN FURRED CEILING SPACES AND AT LOCATIONS AS SHOWN. USE FACTORY PRE INSULATED FITTINGS OF THE TYPE APPROVED AS GROUNDING CONNECTORS. PROVIDE GROUNDING WIRE IN ALL NON-LIQUID TIGHT FLEXIBLE RACEWAY SIZED ACCORDING TO CODE. MAXIMUM LENGTH OF FLEXIBLE RACEWAYS SHALL BE 6-FEET.

F. SURFACE RACEWAY SHALL BE WIREMOLD #AL3100. PROVIDE DIVIDER WHERE SHOWN FOR COMBINATION POWER & DATA/COMM.

SECTION 26 0519
LOW VOLTAGE WIRES

1.00 CONDUCTORS

A. ALL CONDUCTORS SHALL BE COPPER WITH THHN 90 DEGREE C INSULATION.

B. CONDUCTORS SHALL BE CONTINUOUS FROM OVER-CURRENT PROTECTIVE DEVICE TO TERMINAL OR FARTHEST OUTLET. NO JOINTS SHALL BE MADE EXCEPT IN PULL, JUNCTION OR OUTLET BOXES.

C. JOINTS IN WIRES SMALLER THAN NO.6 SHALL BE MADE WITH IDEAL SUPER WIRE NUTS OR SCOTCH TYPE "R", "Y" OR "B" SPRING CONNECTORS. JOINTS IN WIRES NO. 6 AND LARGER SHALL BE MADE WITH APPROVED SOLDERLESS CONNECTORS. ALL JOINTS IN CABLES NO. 6 AND LARGER SHALL BE INSULATED AND TAPED.

D. NEUTRAL CONDUCTORS SHALL NOT BE BROKEN AT ANY DUPLEX RECEPTACLE, LIGHTING FIXTURE OR SIMILAR WIRING DEVICE IN MULTI-WIRE (3 WIRE OR 4 WIRE) CIRCUITS. GROUNDED NEUTRAL SHALL NOT DEPEND ON DEVICE CONNECTIONS FOR CONTINUITY. NEUTRAL WIRES CAN BE SPLICED TOGETHER WITH PIGTAIL TO NEUTRAL TERMINAL ON RECEPTACLE, LIGHTING FIXTURE OR SIMILAR DEVICE. IF DEVICE OR FIXTURE IS REMOVED, NEUTRAL WILL REMAIN CONTINUOUS.

1.01 EQUIPMENT CONNECTIONS

A. MAKE CONNECTIONS TO ALL MOTORS, MOTOR CONTROLLERS AND ELECTRICALLY OPERATED EQUIPMENT WHETHER FURNISHED AS A PART OF THIS CONTRACT OR FURNISHED BY THE OWNER FOR INSTALLATION UNDER THIS CONTRACT. FURNISH AND INSTALL ALL CONDUITS AND CONDUCTORS REQUIRED FOR THESE CONNECTIONS AND FOR CONTROL WIRING AS INDICATED BY ELECTRICAL IN OTHER SECTIONS.

1.02 DISCONNECT SWITCHES AND CONTROL WIRING

A. FURNISH AND INSTALL HORSE POWER RATED DISCONNECT SWITCHES FOR ALL MOTORS, CONTROL CIRCUITS AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED BY CODE WHETHER OR NOT SHOWN ON THE DRAWINGS. A DISCONNECT SWITCH SHALL BE LOCATED WITHIN SIGHT FROM THE CONTROLLER DISCONNECT LOCATION. WHERE A MOTOR IS NOT WITHIN SIGHT FROM THE CONTROLLER DISCONNECT LOCATION AN ADDITIONAL DISCONNECTING SWITCH SHALL BE PROVIDED WITHIN SIGHT OF THE MOTOR LOCATION.

B. THE ELECTRICAL CONTRACTOR SHALL VERIFY WITH THE MECHANICAL CONTRACTOR FOR ITEMS, DEVICES OR EQUIPMENT THAT THE ELECTRICAL CONTRACTOR IS TO FURNISH, INSTALL AND/OR CONNECT FOR THE HEATING, VENTILATING, AIR CONDITIONING AND PLUMBING SYSTEM DEVICES UNDER THIS CONTRACT.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
MAHBUBE E. ZERRAT ZADE
E 22441
9/30/20
ELECTRICAL
STATE OF CALIFORNIA

Drawn by

Checked by

Revisions

No.	Date	Description
		-

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL
1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No.
2835.0200

SPEC-4

Date
12-18-2019

DSA SUBMITTAL

FIRE DETECTION AND ALARM

SECTION 28 3100 - FIRE DETECTION AND ALARM

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Fire alarm system shall consist of fire alarm control panel or networked nodes, of the same make and CSFM (California State Fire Marshall) listed for the application.
2. Labor, equipment, materials, connections, testing, and performance of operations in the installation of fire alarm system.

B. Related Requirements:

1. Division 01 General Requirements.
2. Section 26 0500: Common Work Results for Electrical.
3. Section 26 0513: Basic Electrical Materials and Methods.
4. Section 26 0519: Low-Voltage Wire (600 Volt AC).
5. Section 26 0526: Grounding and Bonding.
6. Section 26 0533: Raceways, Boxes, Fittings, and Supports.

1.02 SYSTEM REQUIREMENTS

A. Fire detection system shall continually supervise and monitor the following initiating, signaling, and monitoring circuits:

1. Manual fire-pull stations.
2. Smoke and heat detectors, duct detectors, including those installed under other sections.
3. Fire sprinkler flow and tamper switches. In existing installations also include PIV tamper switches.
4. Alarm signaling circuits including alarm bells, horns and visual alarm units.
5. Annunciators.
6. Power supplies and batteries.
7. Interconnection with Central and Autonomous Public Address systems, telephone network system, Clock System-Classroom or Program schedule change, HVAC system where applicable, kitchen fire suppression system, Theatrical and House Lighting, and elevator equipment for control of recall function and elevator circuit breaker shunt trip.

B. System controls shall be UL listed for power limited applications in accordance with California Electrical Code.

C. The fire alarm devices and equipment shall be listed for installation for the fire alarm control panel to which they are being connected.

D. System labels and devices programming addresses shall be based on final signage and building labeling submittals. For existing facilities contractor shall obtain from Owner Authorized Representative a copy of the current site layout and building labeling designations.

1.03 CERTIFICATION

A. Certification: Installation of fire alarm system shall not begin until Shop Drawings, including State Fire Marshal listing numbers of fire alarm components, are submitted and reviewed by the Architect. Written certification by fire alarm equipment distributor or manufacturer shall be submitted to the Architect stating that system and its component parts are as approved and listed by the State Fire Marshal, and that the design conforms to requirements set forth in CBC.

1.04 PERFORMANCE

A. System shall be fully programmable, configurable, and expandable in the field without special tools or PROM programmers and shall not require replacement of memory ICs. Installer shall provide a CD of system installed software, site specific system programming and information and tools required to re-program or modify the system.

1.05 SYSTEM FUNCTIONAL OPERATION

A. When a fire alarm condition is detected by one of the system alarm initiating devices, the following functions shall occur:

1. System alarm LED shall flash.
2. Local sounding device in panel shall be activated.
3. The LCD display shall indicate type of device, custom label location label and point status alarm condition.
4. Appropriate change of status message shall be transmitted to remote annunciator(s).
5. Automatic programs assigned to alarm point shall be executed and associated indicating devices and relays activated.
6. In the event of a fire alarm control panel activation, manual and automatic electronic tone or electromechanical bell class passing signals shall be disabled.
7. In the event of a fire alarm condition the Central and Autonomous Public Address System shall be overridden.
8. UDACT (Universal Digital Alarm Communicator Transmitter) shall activate.
9. Provide necessary hardware and labor for a complete and tested interfacing of the fire alarm system with the lighting controls systems in Auditoriums, Multi-Purpose rooms, and Gymnasiums; lighting in these areas shall be brought to full brightness in the event of a fire alarm.

B. Trouble and Supervisory Conditions.

1. When any trouble condition is detected the following functions shall occur:
   a. System trouble LED shall flash.
   b. Local sounding device in panel shall be activated.
   c. The LCD display shall indicate the type of trouble and custom label location associated with the trouble condition and its location. Unacknowledged alarm messages shall have priority over trouble messages. If such an alarm is displayed, then trouble messages shall not be displayed.
   d. Appropriate message shall be transmitted to remote annunciators.
   e. UDACT shall activate.

C. When any supervisory condition occurs such as a sprinkler valve tamper, the following function shall occur:

1. System supervisory LED shall flash.
2. Local sounding device in panel shall be activated.
3. Appropriate message shall be transmitted to remote annunciators.
4. UDACT shall activate.

D. Activation of control panel ACKNOWLEDGE switch in response to a single new alarm, trouble or supervisory condition shall silence panel sounding device and change system alarm, trouble, or supervisory LED from flashing to steady-ON. If additional new alarm, trouble, or supervisory conditions exist in the system; activation of this switch shall advance display to next alarm, trouble, or supervisory condition that exists, and shall not silence local audible device or change LED to steady until new conditions have been so acknowledged. New alarm conditions shall always be displayed before new trouble conditions. Occurrence of a new alarm, trouble, or supervisory condition shall cause panel to resound, and sequences as described above, shall repeat.

E. Activation of the signal silence switch shall cause appropriate notification (indicating) appliances and relays to return to normal condition. Selection of notification appliance circuits and relays silenced by this switch shall be fully programmable.

F. Activation of system reset switch shall cause electronically latched initiating devices or zones, as well as associated output devices and circuits, to return to normal condition after sixty seconds of alarm. If alarm conditions exist in system after system reset switch activation, system shall then re-sound alarm conditions as indicated hereafter.

G. Activation of lamp test switch shall turn on LED indicators, LCD display, and local sounding device in panel, and then return to previous condition.

H. Fire alarm indicating appliances may be silenced or extinguished, after one minute, by operating signal silence switch at the FACP or by use of key supervised alarm silence switch at remote annunciators. A subsequent zone alarm shall reactivate signals. Audible indicating appliances shall be automatically silenced after no less than five nor more than ten minutes of operation. Visual indicating appliances shall be extinguished at system reset, or automatically after no less than five nor more than ten minutes of operation. Fire sprinkler flow alarm bells shall not silence until the contacts in the fire sprinkler flow switch return to the normal non-alarm state. Appropriate signage must be installed on or next to the sprinkler alarm bell.

I. System's circuits including but not limited to initiation, indicating, and equipment interfacing shall be monitored for open or short circuit and ground fault conditions, these conditions shall be indicated on the Fire Alarm Control Panel and Annunciator displays while remaining circuits continue to operate normally.

J. Notification appliance circuits shall be silenceable for testing purposes by authorized persons. Protected pass-codes, keys, or another secure method that does not require entering into the system programming shall be used.

1.06 POWER REQUIREMENTS

A. The fire alarm control panel and remote power supply shall receive 120 VAC power, 60 Hz, through a dedicated 20 amps circuit. Circuit breaker protection for the dedicated fire alarm power circuits shall be equipped with a handle lock-on device; the breaker handle shall be colored red and labeled "FIRE ALARM". Clearly label the Electrical panel name, location and circuit number on the inside of the fire alarm control panel and remote power supplies using a p-touch style labeling system. Transient voltage surge suppression shall be provided at the 120VAC input terminal.

B. System shall be provided with sufficient battery capacity to operate entire system upon loss of normal 120 VAC power, in a normal quiescent mode, for a period of 24 hours with five minutes of alarm indication at end of this period. System shall automatically transfer to standby batteries upon power failure. Battery charging and recharging operations shall be automatic. Batteries, once discharged, shall recharge at a rate to provide a minimum of 70 percent capacity in 12 hours.

C. Circuits requiring system operating power shall be 24 VDC and shall be individually protected at control panel.

1.07 SUBMITTALS

A. Provide in accordance with Division 01.

B. Component Plan Submittal: Availability and listing for its application shall be verified for system components before presentation of the submittal. Include the following information and details as applicable:

1. Installer name, address, telephone number.
2. List of system components, equipment and devices, including manufacturer model numbers, quantity and California State Fire Marshal listing numbers, mounting heights, and symbols.
3. Copies of manufacturer specification sheets for equipment and devices indicated. Highlight or identify the specific components on Catalog cut sheets.
4. Voltage Drop Calculations: Include the following information for the worst case:
   a. Point-to-point or Ohms law calculations.
   b. Zone used in calculations.
   c. Voltage drop percent. Voltage drop shall not exceed manufacturer's requirements. If voltage drop exceeds ten percent, indicate manufacturer listed operating voltage ranges for equipment and devices.
5. Battery types, amp hours, and load calculations including the following:
   a. Normal operation: 100 percent of applicable devices for 24 hours to equal control panel amps plus list of amps per device that draw power form the panel during standby power condition including, but not limited to, zone modules, detectors and devices as identified.
   b. Alarm condition: 100 percent of applicable devices for five minutes to equal control panel amps plus list of amps per device that draw power from panel during alarm condition including, but not limited to, the following:
      1) Zone modules.
      2) Signal modules.
      3) Detectors.
      4) Signal devises.
      5) Annunciator.
      6) Other devices as identified.
   c. Normal operation plus alarm operation load calculation shall include total amp hours required and total amp hours provided.
6. Provide one copy of testing procedures.

C. Shop Drawings: Provide Shop Drawings, in the same size as the design Drawings, include the following:

1. Provide drawing scale, elevations of system enclosures, and actual layout of the Fire Alarm Control Panel, power supply, annunciator, and main system components.
2. Site Plan indicating PIV and related fire sprinkler system devices and equipment to be monitored or supervised; such as water flow valves, and main equipment such as control panels, power supplies, annunciators, and components such as outdoor wall-mounted horns, sprinkler bells, pull boxes, underground pull boxes , wiring routes on buildings exterior and underground locations. In each conduit or raceway run indicate conduit sizes, and quantities and type of wires.
   a. In existing facilities make a distinction between existing and new installation.
3. Complete battery calculations, and voltage drop calculation shall be included; these calculations shall be based on the devices maximum UL current rating.
4. One line drawing for the entire system network indicating system components and wiring. The one line diagram shall show but not be limited to panel to panel interconnections, conductors gage and quantity, conduit size and type (designation) and specific function.
5. System panel one-line drawings indicating the quantity and type (designation) of conductors entering and exiting the fire alarm terminal cabinet in each building (enclosure) for initiating, notification, or other command control functions required for complete system operation:
   a. Individual floor or building plan view drawings indicating device locations including end of line resistors "EOLR" in accordance with the legend provided.
   b. Individual point addresses for initiation and notification devices.
   c. Device "typical" wiring diagrams. These drawings shall indicate specific termination details for peripheral equipment and interface devices.
6. Provide interfacing with equipment furnished by others including voltages, and other required coordination items. Refer to 3.01-B.
7. Each of the pictorial diagrams included shall appear identical to the products they are intended to depict, in order to speed installation of the system, and to enhance the accuracy of the installation Work. Typical wiring diagrams or catalog sheets are not permitted.
8. Other installation and coordination drawings specifically related to this section shall be included as follows:
   a. Size A (8 ½ by 11) and size B (11 by 17) shall be bound into the manual.
   b. Larger drawings shall be folded and inserted into transparent envelopes and bound into the manual.
9. Installation and coordination drawings for items in other sections shall be included with submittal of Shop Drawings. Submit blue line copies and one reproducible copy of installation and coordination drawings.

D. Submittal of Equivalent Systems:

1. In addition to the submittal requirements of this section, if an equivalent system listed in Section 2.01A is submitted in lieu of the designed system shown on the approved drawings, the Contractor shall also submit a letter stating that the system is equivalent, and that device locations and quantities of devices are unchanged. Attached to this letter shall be a copy of the revised equipment schedule with corresponding CSFM numbers and a cut sheet for each item.

E. Modifications or additions to existing fire alarm systems shall be compatible and of the same manufacturer as the existing system. Contractor shall be solely responsible for engineering, plan check and any fees resulting form an installation that deviates from this requirement.

F. Prior to Substantial Completion submit to the Architect or Engineer of Record and to Owner Authorized Representative a complete updated set of the Shop Drawings showing changes made to the Fire Alarm System during construction. These drawings will become the System As-Built Drawing set for the Fire Alarm System Owner's Manual.

1.08 QUALITY ASSURANCE

A. Installer shall have successfully completed at least five projects of equal scope in the past five years, and have been in business of furnishing and installing fire alarm systems of this type for at least five years.

B. Installer shall be a factory authorized distributor and service provider for the brand of equipment offered and shall provide documentation to the Architect upon request.

C. Installer shall maintain a fully equipped service organization capable of furnishing repair service to the equipment and shall maintain a spare set of major parts for the system at all times.

D. Installer shall furnish a letter from manufacturer of equipment certifying equipment has been installed according to factory standards and that system is operating properly.

E. Certifications: Installer shall submit certification from the equipment manufacturer indicating that installer is an authorized representative of the equipment manufacturer and is trained on network applications.

F. Materials and equipment installed shall be new.

G. Equipment in this specification shall be furnished and installed by the Authorized Factory Distributor of the equipment. Furnish a letter from the manufacturer of major equipment, which certifies that the installer is an authorized distributor and that the equipment has been installed according to factory intended practices. Furnish a written guarantee from the manufacturer that they will have a service representative assigned to this area for the life of the equipment.

H. Installer shall be Underwriters Laboratory (UL) listed company under the UUJS classification, and shall certify that the installation has been made in accordance with UL requirements.

I. The fire alarm contractor shall have a NICET II Certified Technician on staff in their facility directly involved with this project to ensure technical expertise to this project and adherence with these specifications.

J. Contractor or Installer's Electricians and fire and life safety technicians shall be certified in accordance with Labor Code sections 3099, and 3099.2, and section 209.0 of the California Code of Regulations.

K. System startup and testing shall be performed under the direct observation of the Project Inspector. Provide a legible half size reproduction of the original completed fire alarm red-line drawings (this copy will be retained by the Owner), an accurate copy of the fire alarm system points list, and a copy of the construction drawings on CD in AutoCad format.

L. At the time of installation the most current software package available shall be provided.

M. Provide at the time of Owner Acceptance of the installation, equipment, and updated software which is to include the appropriate operating system, pass-codes, electronic keys and program disks, manuals and cables employed in the installation of the system.

1.09 WARRANTY

A. The Fire Alarm Equipment Manufacturer shall provide a three year material warranty. Installer shall provide a three year labor warranty.

B. Complete maintenance and repair service for the fire alarm system shall be available from a factory trained authorized representative of the manufacturer for a period of five years after expiration of the warranty.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Fire alarm equipment shall be standard products of Gamewell-FCI, as the district standard.

B. Catalog and model numbers listed are intended to establish type and quality of equipment and system design as well as operating features required. Deviations from intended functions of specified system are not permitted. Equipment shall not be ordered or installed until such equipment has been reviewed and approved by the Architect.

C. Products specified below are based on Gamewell-FCI system components. For other manufacturers approved system components, refer to Attachment A.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244

Drawn by

Checked by

Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No. 2835.0200

SPEC-5

Date 12-18-2019

DSA SUBMITTAL

FIRE DETECTION AND ALARM
SECTION 28 3100 - FIRE DETECTION AND ALARM
(CONTINUED)

2.02 FIRE ALARM CONTROL PANEL (FACP) OR NETWORK NODES

A. Furnish Gamewell-FCI Model No. E3 Series, (CSFM 7165-1703:0125).

B. Operator Control:

1. Acknowledge Switch: Activation of control panel acknowledge switch in response to a single new trouble or alarm condition shall silence panel sounding device and change system alarm or trouble LED from flashing to steady-ON. If additional new alarm or trouble conditions exist in system, activation of this switch shall advance display to next alarm or trouble condition that exists, and shall not silence local audible device or change LED to steady until new conditions have been so acknowledged. New alarm conditions shall always be displayed before new trouble conditions. Occurrence of a new alarm or trouble condition shall cause panel to resound, and sequences as described above, shall repeat.

2. Signal (Alarm) Silence Switch: Activation of the signal silence switch shall cause programmed alarm notification appliances and relays to return to the normal condition after an alarm condition. The selection of notification circuits and relays that are silenceable by this switch shall be fully fielded programmable within the confines of applicable standards at the job site. The FACP software shall include silence inhibit and auto-silence timers.

3. Alarm Activate (Drill) Switch: Alarm activate switch shall activate notification appliance circuits. The drill function shall latch until the panel is silenced or reset.

4. System Reset Switch: Activation of the System Reset switch shall cause electronically-latched initiating devices, appliances or software zone, as well as associated output devices and circuits, to return to their normal condition.

5. Lamp Test Switch: Switch shall activate local system LEDs, light each segment of the liquid crystal display and display the panel software revision for service personnel.

6. Hot Button Switch: Hot Button Key switch shall be provided in FACP to disable all output devices for testing or repair of system. Key switch shall silence all horn and strobes, disable PA cutouts, HVAC shutdowns, door closures, and Autonomous PA systems. Key switch shall be password protected to enable function. LED indicator shall illuminate a trouble condition while Hot Button Switch is activated and shall turn off when system is re-enabled.

C. System Capacity and General Operation

1. The control panel or each network node shall provide, or be capable of expansion to 488 intelligent or addressable devices for the E3 Series control panel.

2. The control panel or each network node shall include Form-C alarm, trouble, supervisory, and security relays rated at a minimum of two amps at 30 VDC. It shall also include four Class B (NFPA Style Y) or Class A (NFPA Style Z) programmable Notifications Appliance Circuits.

3. The control panel or each network node shall support up to two output modules (signal or relay) for a total of eight output modules (signal or relay), each with eight circuits for a total of 64 circuits for the E3 Series control panel. Programmable notification appliance circuits shall be class B.

4. The system shall include a full featured operator interface control and annunciation panel that shall include a backlit Liquid Crystal Display (LCD), individual color coded system status LEDs, and an alphanumeric keypad with easy touch rubber keys for the field programming and control of the fire alarm system.

5. The system shall be programmable, configurable, and expandable in the field without the need for special tools, PROM programmers or PC based programmers. It shall not require replacement of memory ICs to facilitate programming changes.

6. The system shall allow the programming of any input to activate any output or group of outputs. The FACP shall support up to 20 logic equations, including "and" "or" and "not", or timed delay equations to be used for advanced programming. Logic equations shall require the use of a PC with software utility designed for programming.

7. The FACP or each network node shall provide the following features:

a. Drift compensation to extend detector accuracy over life. Drift Compensation shall also include a smoothing feature, allowing transient noise signals to be filtered out.

b. Detector Sensitivity tests, meeting requirements of NFPA 72 Chapter seven.

c. Maintenance alert, with two levels (maintenance alert or maintenance urgent), to warn of excessive smoke detector dirt or dust accumulation.

d. Nine sensitivity levels for alarm, selected by detector. The alarm level range shall be 0.5 to 2.35 percent per foot for photoelectric detectors and 0.5 to 2.5 percent per foot for ionization detectors. The system shall also support sensitive advance detection laser detectors with an alarm level range of 0.03 percent per foot to one percent per foot. The system shall also include up to nine levels of Pre- alarm, selected by detector, to indicate impending alarms to maintenance personnel.

e. Circuit boards, programming, and interconnecting cables to enable the system to display or print system reports.

f. Alarm verification, with counters and a trouble indication to alert maintenance personnel when a detector enters verification 20 times.

g. PAS pre-signal, meeting NFPA 72 requirements.

h. Rapid manual station reporting (less than three seconds) shall meet NFPA 72 Chapter one requirements for activation of notification circuits within ten Seconds of initiating device activation.

i. Periodic detector test, conducted automatically by the software.

j. Self optimizing pre-alarm for advance fire warning, which allows each detector to learn its particular environment and set its pre-alarm level to just above normal peaks.

k. Cross zoning with the capability of counting: two detectors in alarm, two software zones in alarm, or one smoke detector and one thermal detector.

l. Walk test, with a check for two detectors set to same address.

m. Control-by-time for non-fire operations, with holiday schedules.

n. Day or night automatic adjustment of detector sensitivity.

8. The FACP shall be capable of coding main panel(s) node notification circuits in temporal code (NFPA 72 A-2-2.2.2).The panel shall also provide a coding option that will synchronize specific strobe lights designed to accept a specific "sync pulse".

9. Network Communication:

a. The network architecture shall be based on a Local Area Network (LAN), a firmware package that utilizes a peer-to-peer, inherently regenerative communication format and protocol. The protocol shall be based on ARCNET or equivalent non-proprietary protocol.

b. Failure of any node shall not cause failure or communication degradation of any other node or change the network communication protocol among surviving nodes located within distance limitations. A node may be an intelligent Fire Alarm Control Panel (FACP), Network Control Station PC (NCS) or Network Graphic Annunciator (NGA).

c. Each network node address shall be capable of storing Event Equations which shall be used to activate outputs on one network node from inputs on other network nodes.

D. System Display:

1. Utilize the 640-character display option. The design of the CPU shall provide for a configuration with the 640-character display mounted on the front of the unit in place of the standard 80-character display.

2. The 640-character display shall provide the controls and indicators used by the system operator: The 640 character display shall include the following operator control switches; Acknowledge, Alarm, Silence, Alarm Activate (drill), System Reset and Lamp Test.

3. The display shall annunciate status information and custom alphanumeric labels for intelligent detector, addressable modules, internal panel circuits, and software zones.

4. The 640-character display shall provide ten Light-Emitting-Diodes (LEDs) that indicate the status of the following system parameters: AC Power and Network Communication, Fire Alarm, Pre alarm Warning, Security Alarm, Supervisory Event, System Trouble, Alarm Silence, Disabled Points, CPU failure.

5. The 640-character display shall use ten "soft" keys for screen navigation or to accomplish dedicated programming functions. Full programming access shall require use of a laptop and the proper programming utility. The programming utility shall be provided to the OAR who will forward it to the local maintenance area representative.

6. The system shall support the display of battery charging current and voltage on the LCD display.

E. Network Graphic Annunciator (NGA):

1. When a networked system is installed a network controlled annunciator shall be provided to display system intelligent points. The NGA shall be capable of displaying information for all possible points on the network.

2. The NGA shall include a minimum of 640 characters, backlit by a long life, solid-state LCD display. Additionally, the network display shall include ten soft keys for screen navigation and the ability to scroll events by type. i.e. Fire Alarm, Supervisory Alarm, Trouble, etc.

3. The NGA shall have the ability to display up to eight events in order of priority and time of occurrence. Counters shall be provided to indicate the total number of event by type.

4. The NGA shall mount in a Gamewell-FCI ABS-2DB or equal box; provide the NGA with a key enable or disable switch for the network node fire alarm control panels. The network display may mount in a backbox designed for this use. The network shall support the NGAs.

5. The network control annunciator shall have an event history buffer capable of storing a minimum of 1000 events in nonvolatile memory. Additionally, the NGA shall have a fire alarm history buffer capable of storing a minimum of 200 events in nonvolatile memory.

6. The NGA shall include two EIA-232 ports for UL864 listed printers and CRT's.

7. The NGA shall include control switches for system wide control of Acknowledge, Signal Silence, System Reset, Drill, and local Lamp Test. A mechanical means, by which the controls switches are locked out, such as a key, shall be provided.

8. The NGA shall include long life LEDs to display Power, Fire Alarm, Pre-Alarm, Security Alarm, System Trouble, Supervisory, Signals, Silenced, Disabled Prints, other (non-fire) Events, and CPU Failure.

9. The NGA shall include a Master Password and up to nine user Passwords. The Master password shall be required to access the programming and alter status menus. Each User password may have different levels of authorization assigned by the Master password. Passwords installed into the NGA shall be made available to the OAR who will forward them to the local maintenance area representative.

10. The NGA shall allow editing of label for points within the network, control on or off of outputs, enable or disable of network points, alter detector sensitivity, clear detector verification counters for any analog addressable detector within the network, clear any history log within the network, change the Time or Date settings, initiate a Walk Test.

11. The NGA shall include a time of day clock.

12. Each NGA shall support 80-character remote display annunciators for displaying network activity. These "Terminal Mode" displays will mimic the activity appearing on the corresponding NGA. There shall be only one annunciator or control system consisting of components manufactured by one manufacturer for the fire alarm system.

F. Signaling Line Circuits (SLC):

1. Each FACP or FACP network node shall support a minimum of two SLC for the Gamewell-FCI E3 Series control panel. Each SLC interface shall provide power to and communicate with up to 159 intelligent detectors (ionization, photoelectric or thermal) and 159 intelligent modules (monitor or control) for a loop capacity of 318 devices.

2. CPU shall receive analog information from intelligent detectors to be processed to determine whether normal, alarm, pre-alarm, or trouble conditions exist for each detector. The software shall automatically maintain the detector's desired sensitivity level by adjusting for the effects of environmental factors including the accumulation of dust in each detector. The analog information shall also be used for automatic detectors testing and for the automatic determination of detector maintenance requirements.

G. Enclosures:

1. The control panel shall be housed in a UL-listed cabinet suitable for surface or semi-flush mounting. The cabinet and front shall be corrosion protected, given a rust-resistant prime coat, and manufacturer's standard finish.

2. The back box and door shall be constructed of 0.030 steel with provisions for electrical conduit connections into the sides and top.

3. The supplied door shall include a key lock and shall include glass or other transparent opening for viewing of indicators. For convenience, the door may be site configured for either right or left hand hinging.

H. Power Supply:

1. An off-line switching power supply shall be available for the fire alarm control panel or network node and provide six amps of available power for the E3 Series control panel and peripheral devices.

2. Provisions shall be made to allow the audio-visual power to be increased as required by adding modular expansion audio-visual power supplies.

3. Over-current protection shall be provided on power outputs. The power supply shall provide an integral battery charger. Battery arrangement may be configured in the field.

4. The power supply shall continuously monitor field wires for earth ground conditions, and shall have the following LED indicators:

a. Ground Fault LED.

b. AC Power Fail LED.

c. NGA on LED (4).

5. The main power supply shall operate on 120 VAC, 60 Hz, and shall provide power for the FACP or network node(s).

6. The main power supply shall provide a battery charger using dual rate charging techniques for fast battery recharge and be capable of charging batteries up to 90 AH for the E3 Series FACP.

2.03 REMOTE ANNUNCIATORS

A. A non-networked fire alarm system annunciator is required when there is only one FACP in the system. Provide a Gamewell-FCI Model No. LCD-E3 (CSFM7165-1703:0125), alphanumeric display remote annunciator, or equal. A Network annunciator is required for any system that contains more than one fire alarm control panel (FACP) or network node. Display shall be back lit and be furnished with a maximum of 77 characters for the LCD-E3. Provide the following functions:

1. Control switches for system acknowledge, signal silence and system reset via a touchpad.

2. Time and date display field.

3. Local piezo sounder with alarm or trouble resound.

4. On-line green LED (flashing).

5. Evacuation and drill switches, via a touchpad.

6. Pre-signal hold via a touchpad.

7. System test at control panel and CTR.

B. Following additional features shall be furnished:

1. Device Fire Annunciation.

2. Device Trouble Annunciation.

3. System Operation Annunciation.

4. "Power On" LED.

C. Typewritten operating instructions and a site map shall be posted adjacent to remote annunciator(s). The site map shall be sized and include designations and devices as described in paragraph 3.02 N. of this specification. Project site map shall depict fire alarm devices in the building(s) in which they are installed. The instruction and site map shall be mounted in suitable document frames and attached to the wall with a minimum of two screws each. Contractor's name and telephone number shall not be placed on either the instruction or the site map.

2.04 POWER SUPPLIES

A. NOT USED.

2.05 PERIPHERAL DEVICES AND EQUIPMENT

A. Manual Stations: Interior Use: Station shall be Gamewell-FCI, Model No. MS Series (CSFM 7150-1703:0109) or equal, addressable semi-flush, non-breakable glass type. Station housing shall be fabricated of die-cast aluminum with reset lock and key. Provide an addressable monitor module Model No. AMM-4F (CSFM 7300-1703:0103) for each manual station.

B. Smoke Detectors: Smoke Detectors shall be Gamewell-FCI Model No. ASD-IL2F (CSFM 7271-1703:0206) or equal, addressable smoke detectors. Provide base Model No. B210LP. (CSFM 7135-1653:0213). Detector shall be microprocessor based, using a combination of photoelectric, and thermal sensing technologies. The smoke detector shall have its loop number and electronic address permanently and clearly labeled onto the device base using a p-touch type labeling system. The label shall be visible without removing the detector head.

C. Non-Explosion Proof Automatic Heat Detectors shall be combination rate-of-rise and fixed-temperature type. When fixed-temperature portion is activated, units shall provide visual evidence of such operation (LED). Addressable Heat detectors shall be Gamewell-FCI Model No. ATD-RL2F (CSFM 7270-1703:0115) or equal. Provide base Model No. ADB-FLF. (CSFM 7300-1703:0103) The location of the heat detector must be clearly marked below the ceiling and the detector must be readily accessible. The heat detector shall have its electronic address permanently and clearly labeled onto the device and be readily accessible. For spaces where the normal ambient temperature can reach temperatures as high as 150 degrees F. such as in attic spaces, use Gamewell-FCI ATD-HL2F with base ADB-FLF. The heat detector shall have its loop number and electronic address permanently and clearly labeled onto the device using a p-touch type labeling system. The label shall be visible without removing the detector head.

D. Explosion Proof Automatic heat Detectors: NOT USED.

E. Weatherproof Automatic heat Detectors: NOT USED.

F. Duct Smoke Detectors: NOT USED.

G. Projected Beam Infrared Type Smoke Detectors: NOT USED.

H. Linear Heat Detectors: NOT USED.

I. Multi-Criteria Fire Detectors (MS and HS Only): NOT USED.

J. Monitor Modules:

1. Monitor module shall be Gamewell-FCI Model No. AMM-2IF (CSFM 7300-1703:0107), or equal. Module shall connect a supervised zone of conventional initiating devices, N.O. dry contact devices, including four-wire smoke detectors, to one of SLC loops. Monitor module shall install in a four-inch square by 2 1/8-inch deep electrical box. The module shall have its loop number, electronic address, and function label on the front cover using a P-Touch type or equal labeling system.

2. Monitor module shall provide address-setting means using rotary decimal switches and shall store an internal type of device. An LED shall be provided which shall flash under normal conditions indicating that monitor module is operational and in regular communication with control panel.

K. Control Modules: NOT USED.

L. Relay Modules:

1. Relay Module shall be Gamewell-FCI AOM-2RF (CSFM 7300-1703:0102) the module shall provide as a minimum one set of form "C" dry contacts and have its loop number, electronic address, and function labeled on the front cover using a P-Touch type labeling system.

2. Provide a buffer relay that is part of the control system if controlled circuit(s) exceeds the voltage or current rating of the relay module.

3. Relays used to interface control of other systems shall be electrically supervised and shall only be wired in a fail-safe mode of function during a power failure.

M. Isolator Modules: NOT USED.

N. Speakers and Strobes: Speakers and strobes shall be products of the same manufacturer. In order to establish a standard of quality, items are specified from the products manufactured by System Sensor, acceptable manufacturers are Honeywell, Wheelock Inc., Gentex equal. Addressable or multifunction two wire indicating (Audible or Visual) appliances shall not be acceptable.

1. Alarm horns: NOT USED.

2. Speaker/strobe shall be wall mounted System Sensor Model No. SPSR standard candela output (CSFM 7320-1653:0201); or equal. Speaker/strobe shall operate on two separate two wire 24 VDC polarized circuits and shall be provided with a semi-flush mounting plate. Entire unit shall be red finish. Strobe light shall have a clear Lexan lens. The word "FIRE" shall be printed on the two sides of the strobe body. Horn shall provide a minimum sound output of 100 dB at 10 feet. The strobe shall provide a selectable minimum light intensity of 15, 30, 60, 75, 90, 110, 135, 150, or 185 Candela as indicated on Drawings to meet or exceed requirements of CBC, CHAPTER 11B AND ADAAG and UL 1971. Horn/Strobes shall be mounted on manufacturer recommended outlet boxes. Provide a model No. BBS-2 back box skirt on indoor surface mounted outlet boxes.

3. Strobes: NOT USED.

4. Strobe synchronization modules: NOT USED.

O. Electromagnetic Door Holder: NOT USED.

P. Bells: NOT USED.

Q. Water-flow Switches:

1. Water-flow switches: NOT USED.

2. Sprinkler valve tamper switches: NOT USED.

R. Universal Digital Alarm Communicator Transmitter: See FACP.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT

BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244

REGISTERED PROFESSIONAL ENGINEER
E 22441
STATE OF CALIFORNIA

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Revisions

No.	Date	Description
		-

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT
CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No.
2835.0200

SPEC-6

Date
12-18-2019

DSA SUBMITTAL

S. Voice Evacuation System:

1. The Voice Evacuation Control (EVAC) Panel shall be Gamewell-FCI Model No. FireVac IV (CSFM 6911-1703:0112) The self contained control panel shall be equipped with dual 25 watt audio amplifiers each with a single style Y (Class B) supervised 25 V rms output circuit. The EVAC panel shall have the ability to record a minimum of two field-programmable messages of up to 60 seconds total duration with an integral microphone or an external source via an audio input jack. The messages shall be stored digitally onto a non-volatile EEPROM. The message(s) shall be individually field programmable for three, four, six, eight, or indefinite repeat while triggered by the host FACP. Any message being delivered at the time of the trigger circuit(s) reset shall not stop in mid sentence but shall be completed to the end of the message. A tone generator shall be provided capable of emulating a field programmable lead-in or trailing alert tone or an Audible Emergency Evacuation Signal (Temporal Pattern). The EVAC panel shall be capable of electrically supervising in both active and standby conditions, the amplifier outputs, field wiring, message generator, tone generator, microphone and primary or secondary power supplies to an internal trouble relay(s). The trouble relay(s) contacts shall be accessible via a terminal strip and be configured and connected to report internal or external trouble conditions to the host FACP via the trigger circuit or a separate monitor module. The minimum of two trigger circuits shall be individually field-configurable for triggering with a NAC circuit or a supervised dry contact. The control panel shall be equipped with LED indicator lights for Power On, System Trouble, Message Generator Trouble, Tone Generator Trouble, Microphone Trouble, Battery Trouble, Charger Trouble, Ground Fault, Output Circuit Trouble and Amplifier Supervisory. The panel shall be equipped with an internal monitor speaker for reviewing the field recorded messages. The primary power supply shall operate at 120 VAC through a dedicated 20 amp. circuit and shall be capable of charging 18 AH lead acid batteries. Provide two 12 volt batteries that will provide a secondary power source for the same or longer duration than is required by the host FACP. An auxiliary 24 volt DC power output shall be provided for use by an associated addressable control module. The EVAC control panel shall be triggered either directly by the associated FACP with a NAC circuit or by an addressable control module. Provide 3/8 inch minimum P Touch labeling on the window in front of the built in microphone indicating that "THE INTERNAL MICROPHONE IS TO BE USED FOR THE RECORDING OF ANNOUNCEMENTS ONLY. NOT FOR USE BY STAFF OR FIRE DEPARTMENT PERSONNEL."

2. Ceiling Mounted eight Inch EVAC Speakers: NOT USED.

3. Wall Mounted weather-proof EVAC Speakers shall be System Sensor Model No. SPRK (CSFM 7320-1653:0201) to be mounted on a manufacture recommended outlet box. When mounted on a surface mount outlet box, Provide a Model No. WBB-W surface mount backbox skirt. The speaker assembly shall be supplied with a square high impact red grill. The four inch speaker shall have an attached 25 volt audio line matching transformer with 1/4, 1/2, 1 and 2 watt tap settings and a DC blocking capacitor. Wattage shall be selectable by the use of a jumper or shunt. Audio levels shall be 80, 84, 86 or 89 dba at ten feet. Input or Output terminals that will accommodate 12 to 18 AWG wire shall be provided. Speakers orientated in the same direction shall be connected in phase with each other; but when installed facing opposite directions they shall be connected out of phase.

T. Network Cables or SLC or Annunciator Data or Audio Output Cables: The construction and physical characteristics such as aqua-seal water block, wire gage, insulation and jacket types, etc. shall not be altered. Equivalent cables must be specifically approved and recommended by the manufacturer of the fire alarm system equipment. Substitutions will require review from the Architect or Engineer of Record.

U. The cable types listed below are based and specified on the recommendations of Gamewell-FCI Fire Alarm Systems. If the submitted fire alarm system requires a different cable configuration with additional conductors, multi-conductor versus twisted pairs, etcetera than is specified above, request a substitution to supply and install the configuration of cables by the make and model of the fire alarm system that is to be installed.

1. Indoor Network and EVAC System Audio Output Circuit(s) applications shall be in conduit or in surface mounted raceway as indicated on drawings: West Penn No. D980, one pair 18 gage solid copper, unshielded, Copolene II insulated and PVC jacketed, or equal.

2. Indoor SLC applications in conduit or in surface mounted raceway where it is indicated on drawings: West Penn No. D990, one pair 16 gage solid copper, unshielded, Copolene II insulated and PVC jacketed, or equal.

3. Indoor Annunciator applications in conduit or in surface mounted raceway where it is indicated on drawings: West Penn No. D975, one pair 18 gage solid copper, shielded, Copolene II insulated and PVC jacketed, or equal.

4. Outdoor or Underground Network Applications: West Penn AQ224, two-conductor 18 gage stranded copper, unshielded, water-blocked construction and PVC insulated, or equal.

5. Outdoor or Underground SLC applications: West Penn AQ225, 2-conductor 16 gage, AQ226, 2 conductor 14 gage, or AQ227, 2 conductor 12 gage stranded copper, unshielded water-blocked construction and PVC insulated, or equal.

6. Outdoor or Underground Annunciator applications: West Penn AQ293, 2 conductors, 18 gage stranded copper, shielded water-blocked construction and PVC insulated, or equal.

V. Protective Covers

1. Provide protective covers for pull stations, smoke and heat detectors, and audible and visual devices located in areas occupied by students that can be subjected to vandalism such as gyms, restrooms, locker and shower rooms, and all hallways and corridors associated with these spaces. Installation of cover must not protrude over current ADA limitations.

PART 3 - EXECUTION

3.01 GENERAL

A. Fire alarm system shall not be used for any purpose other than fire alarm functions.

B. Fire alarm shall be interconnected but not limited to the following systems:

1. Systems required by code to be connected to the fire alarm systems shall be connected.

2. Public address system for disabling the manual and automatic bell or tone class passing signals. Manual and automatic class passing signals shall not be operable during alarm conditions.

3. Central and Autonomous PA system(s).

4. Fire pump controller for required signaling and trouble supervision.

C. Fire alarm system shall not be interconnected to any of the following:

1. Sump warning systems,

2. Carbon monoxide detection systems.

3. Methane gas detection systems.

4. Elevator car alarm bell circuit.

5. Other unrelated system.

3.02 SYSTEM INSTALLATION

A. Install required conductors to devices indicated on Drawings. Provide required conductor terminations to devices for a complete system to function as specified and indicated on Drawings. Refer to Section 26 0519: Low-Voltage Wire (600 Volt AC), for installation and color coding requirements.

B. Splices are not allowed in junction boxes. Terminations shall be in terminal cabinets or on equipment terminals.

C. Conductors shall be installed within conduits, boxes, and terminal cabinets in a totally enclosed installation. Furnish and install conductors required to connect incoming and outgoing circuits, including spare conductors, to terminal strips within terminal cabinets.

D. Wiring within equipment and terminal cabinets shall be installed to conform to contract documentation and NFPA 72 standards, and shall be terminated on terminal blocks having terminals for required connections. Wiring shall be cabled, laced, and securely fastened in place so that no weight is imposed on equipment or terminals.

E. Install required terminal blocks within terminal cabinets. Terminal blocks shall be installed on inside back of cabinets only, not on side. Incoming wiring shall be terminated on the left side of terminal blocks; outgoing wiring shall be terminated on the right side of the terminal blocks.

F. Conductors shall be color-coded per specification section 26 0519 Low Voltage wires and tagged with code markers at terminal cabinets, and equipment. A wire index shall be typed and installed on terminal cabinet doors. Index shall be covered with clear plastic adhesive covers. Wiring shall be identified as to building and location of devices in the index.

G. Wiring within equipment and terminal cabinets shall be carefully strapped, and shall be formed in rectangular configuration. Wires shall be properly numbered in numerical order and shall maintain same number throughout the Project site.

H. Complete installation shall comply with local building codes and applicable provisions of the California Electrical Code, California Fire Code and the NFPA 72 National Fire Alarm Code.

I. Location of outlet boxes and equipment on Drawings is approximate, unless dimensions are indicated. Do not scale Drawings to determine locations and routing of conduits and outlet boxes. Location of outlet boxes and equipment shall conform to architectural features of the building and other Work already in place, and must be ascertained in the field before the start of Work.

J. Drawings generally indicate Work to be provided, but do not indicate all bends, transitions or special fittings required to clear beams, girders or other Work already in place. Investigate conditions where conduits are to be installed, and furnish and install required fittings.

K. Provide P-touch label of approximately one inch wide with red lettering for each initiating device that is hidden from view. Tags shall indicate the name and type of device: Heat Detector, or Duct Smoke Detector. Tags shall be permanently attached on access panel or t-bar grid which is used to access a hidden device.

L. Provide smoke and heat detectors in elevator hoist-ways if a fire sprinkler head is located at the top of the elevator hoist-way. Provisions shall be made for access to the detector without entering the elevator hoist-way. Access shall be provided through an approved enclosure with self-locking fire rated door. The detectors shall be so placed as to allow service to them without the service personnel having to reach into the hoist-way in the way of travel of the elevator car. Access to elevator hoist-ways and machine rooms (including escalators) must be supervised by the Owner's licensed elevator or escalator maintenance contractor. OAR is responsible for coordinating access in accordance with Contractor's schedule. Contractor shall provide a minimum of 48 hours notice.

M. Provide adjacent to each annunciator a neatly typewritten copy of the Fire Alarm Operating Instructions. The instructions shall reflect the installed and programmed features of the system. Instructions that include information on non-installed or programmed features will not be acceptable. The instructions shall be placed into a suitably sized dark colored wood or metal frame with a glass document face cover. The frame shall be attached to the wall with a minimum of two screws into the wall material with appropriate anchors.

N. Provide adjacent to each annunciator a neatly drawn site map showing rooms with designations and buildings with names as programmed into the system. This map shall be sized to allow (normal vision) reading of the designations, names etc. A map so reduced in size to the point of not being readable will not be acceptable. This map shall include symbols indicating the locations of installed fire sprinkler flow switches, riser shut off valves, post indicating valves and manual pull stations. Provide a symbol list on the map for the symbols used. The site map shall be placed into a suitably sized dark colored wood or metal frame with a glass document face cover. The frame shall be attached to the wall with a minimum of two screws into the wall material with the appropriate anchors.

3.03 SYSTEM PROGRAMMING

A. Programming shall be performed in accordance with District requirements set forth in this section - the local authority having jurisdiction and applicable codes. If a conflict arises or a clarification is required, the contractor through the project's OAR shall contact the Districts Fire Life Systems Testing Group (FLSTG) for clarification

B. As part of the 50 percent construction completion label devices and locations in the manner indicted in the attached guidelines on a separate copy of the shop drawings. Request a meeting with OAR, Project Inspector, and representative of FLSTG to review, finalize and obtain approval of the proposed device, equipment and location descriptors that will be programmed into the system. The District may at time of substantial completion request minor changes to program descriptors if needed to conform to site conditions.

C. The following functions and features as required by the site or system configuration and installed peripheral equipment and systems shall be programmed into the district fire alarm systems. The definition of programming shall include but not be limited to the use of a built in keyboard, the use of a connected PC with the appropriate software, dip or rotary switches, wiring or installable or removable jumpers as required or provided in the fire alarm equipment.

1. Signal Silence Switch Inhibit: The audible signal silence switch located on the remote fire alarm annunciator(s) or any fire alarm control panel(s) shall be programmed to not silence the audible or extinguish the visual alarm circuits during the first minute (60 seconds) of the fire alarm horn or strobe activation. Activation of this switch after the initial 60 seconds signaling shall silence only the audible signals. Enabling or disabling this feature shall be allowed only by authorized District maintenance personnel and shall be protected by a maintenance level password.

2. Audible and Visual Signal Auto Silencing Extinguishing: Audible coded signals and visual signals throughout the site, unless silenced by the above switch, shall be programmed to automatically self-silence or extinguish in no less than 5 minutes (300 seconds) and no more than 10 minutes (600 seconds). This feature shall not apply to the fire sprinkler water flow audible appliance.

3. Audible Notification Appliance Circuits: Audible notification appliance circuits shall be programmed to emulate the temporal code (ANSI S 3.41) from fire alarm audible appliances (horns). This coding shall originate and be controlled by a single coder residing within the FACP(s). The use of coders within remote power supplies either mounted adjacent to an FACP or at a remote location or directly by an audible notification appliance will not be permitted. Programmable audible notification appliances shall be configured to emulate a steady tone at approximately 1000 Hz. Audible notification appliance circuits shall be programmed to be silenced as described above. Notification appliance circuits throughout the site shall be activated by any alarm initiating device. Coded audible signals shall be controlled by a single synchronized FACP.

4. Visual Notification Appliance Circuits: Visual notification appliance circuits shall be programmed to provide steady non-coded power to the visual appliances (strobes). As required by code and the system configuration, a synchronization signal shall be superimposed onto the NAC by the FACP, a remote power supply or an add-on synchronization module. Visual notification appliance circuits shall be programmed to be extinguished as described above. Visual notification appliance circuits through out the site shall be activated by any alarm initiating device.

5. System Reset Button: The system reset button located on FACPs and remote annunciators in addition to resetting the fire alarm system and silencing or extinguishing notification appliances except for the sprinkler water flow appliances shall be programmed to reset analog and addressable smoke detectors, duct detectors, beam detectors and relays, addressable control modules and addressable relay modules used to interface to other systems and equipment. Each installed system reset button shall be programmed to operate as a "single point of reset" for the complete system.

6. Fire Fighter Warning: In conjunction with the above elevator recall function, an additional addressable relay module shall be programmed to operate only with the detection of smoke by a detector located in an elevator machine room or elevator hoistway to provide a warning signal to fire fighters attempting to use the phase II elevator function.

7. Smoke Detector Maintenance Alert: Addressable smoke detectors shall be programmed with the capability of initiating a maintenance alert when any one detector becomes obscured by dust or any other contaminates at approximately 10 percent below the level of obstruction that would initiate an alarm.

8. Disabling Class Passing Signals: The relay or addressable relay module shall be programmed to disable the class passing signals during any alarm condition at the site. This relay or addressable module shall return to normal only after the system is reset.

9. Disabling Audio of a Public Address System: The relay or addressable relay module shall be programmed to mute the audio output of the associated public address system during any activation of an audible notification appliance circuit or a voice evacuation announcement. This or these relays shall automatically restore to normal upon the silencing of the audible NACs and the voice evacuation announcement.

10. UDACT: The FACP and the associated Universal Digital Alarm Communication Transmitter shall be programmed to transmit to the central monitoring station separate indications for General Alarm, Fire Sprinkler Water Flow Alarm, System Trouble and Supervisory Conditions. These indications shall be in addition to any indications initiated by the UDACT itself.

11. Voice Evacuation Panel: The NAC originating at, or the addressable control module controlled by the associated FACP that is controlling the EVAC panel shall be programmed to emulate the above paragraph "E" Audible Notification Appliance Circuits except that it shall be non-coded. Trouble conditions at the EVAC panel shall report back to the associated FACP via the controlling NAC or addressable control module or a separate addressable monitor module. Transformer taps at the EVAC speakers shall be selected to provide the proper balance of audio volume in larger and smaller areas. The message shall be programmed in a female voice in the English language as follows: A minimum of two but no more than three cycle sounding of an approximate 1000 Hz tone in the pattern of the NFPA required temporal code followed by: "May I have your attention please. May I have your attention please". The fire alarm has been activated in the building. The fire alarm has been activated in the building. Please proceed to the nearest exit and leave the building." The sounding of the temporal patterned signal followed by the indicated message shall repeat indefinitely until the controlling NAC is reset.

12. Power Failure Reporting Time Delay: Main and remote NAC power supplies shall be programmed to delay the reporting of a site AC power failure for a minimum of 6 hours.

D. Device Descriptors:

1. Descriptors shall enable responding personnel to identify the location of a fire quickly and accurately, and shall indicate the status of emergency equipment or fire safety functions that might affect the safety of occupants. The minimum required information for devices intended to report smoke, fire, or fire sprinklers water flow include, but may not be limited to: Building, floor (if multiple floors exist in the building), room or space description, and device type and digital address (Smoke detector, Heat detector, Fire sprinkler water flow switch, etc).

a. Building: The building must always be included in the descriptor, even if there is only one building one the site. Additional building(s) may be added at a later date creating the possibility of confusion by similar designated spaces, such as "Work room" or "Staff restroom" if more than one building has these similar designated spaces. The building designation in the descriptor must be what the site-based personnel call the building. The building should be provided with signage to aid fire department personnel in the identification of the building.

c. Room Description: The room or space description must be unique. Using the same designation for multiple spaces, such as "Workroom", "Counselor's Office", or "Men's restroom", etc. is not acceptable. If, during a project, the room numbers or the use of the room changes then the room or space descriptor must be changed to agree with the change. Proper signage should be provided for each space to aid fire department personnel in the identification of the room or space.

d. Device Type, Address and Compass Designations: The device type and digital address must be included with the descriptor, such as smoke detector or heat detector, etc. Some systems provide this information automatically in the descriptor. Compass designations, (N, S, E, and W) are required in spaces such as corridors where there are multiple detectors and this information would be helpful to responding fire department personnel in locating the device reporting alarm. It is not necessary to include compass designations in smaller spaces where there are multiple detectors located in close proximity to each other.

E. ACCEPTABLE ABBREVIATIONS

Rm.- RoomBldg.- BuildingSmk. - SmokeCorr.- CorridorLby- LobbyAsst. - AssistantEng.- EnglishN - NorthNrs. - NurseFlr.- FloorS - SouthCnclr - CounselorHt.- HeatE - EastOff. - OfficeLib.- LibraryW - WestPE - Physical EducationLkr. - Locker Kit- KitchenRR- Rest RoomStu Str - Student StoreSci - ScienceBy = nearStor Rm - Store RoomCafé - CafeteriaPM - Plant Manager1st- First2nd- Second3rd- ThirdHopr Rm - Hopper RoomDet - DetectorElev - ElevatorPrin - PrincipalBlr Rm - Boiler RoomConf - ConferencePark - ParkingBsmt -BasementMPR.- Multi-Purpose room3.04 SYSTEM OPERATION

A. Unless otherwise specified, but not limited to actuation of manual stations, smoke detectors, heat detectors, linear heat or smoke detectors, or water-flow switches shall cause the following operations to occur, refer to Attachment B:

1. Activate audible circuits.

2. Actuate strobe units until the panel is reset or strobe circuit time-out.

3. Release magnetic door holders to doors to adjacent zones on the floor from which the alarm was initiated.

4. Where required, return elevators to the primary or alternate floor of egress.

5. Smoke detectors in elevator lobbies shall, in addition to the above functions, return elevators to the primary or alternate floor of egress.

6. Smoke detectors in elevator machine rooms or tops of hoist-ways shall return elevators to the primary or alternate floor. Smoke detectors or heat detectors installed to shut down elevator power shall perform this function in accordance with ANSI A 17.1 requirements and shall be coordinated.

7. Duct type smoke detectors shall, in addition to the above functions, shut down the ventilation system or close associated control dampers as required.

8. Activation of fire sprinkler system low-pressure switches, post indicator valve or tamper switches shall initiate a system supervisory alarm indication.

9. UL listed central station shall be notified via - Universal Digital Alarm Communicator Transmitter (UDACT).

3.05 TESTING

A. A 48 hour notice shall be provided to the Project Inspector before final testing.

B. Testing of fire detection system shall be as required by the State Fire Marshal and local authorities having jurisdiction. Installer is responsible for identifying required testing, coordinating, scheduling, and conducting tests before Substantial Completion. Tests shall include the following:

1. Operation of signal-initiating devices (smoke detectors, heat detectors, pull stations etc.).

2. Operation of indicating devices (alarm horns, alarm bells and alarm strobes).

3. Operation of system features under normal operation.

4. Operation of system supervisory features.

5. Operation of system features on standby power, with primary power turned off.

6. Before energizing the cables and wires, check for correct connections and test for short circuits, ground faults, continuity, and insulation.

7. Close sprinkler system flow valves and verify proper supervisory alarm at the FACP.

8. Verify activation of flow switches.

9. Open initiating device circuits and verify that trouble signal actuates.

10. Open signaling line circuits and verify that trouble signal actuates.

11. Open and short notification appliance circuits and verify that trouble signal actuates.

12. Open and short (wire only) network communications and verify that trouble signals are received at network annunciators or reporting terminals.

13. Ground initiating device circuits and verify response of trouble signals.

14. Ground signaling line circuit and verify response of trouble signals.

15. Ground notification appliance circuit and verify response of trouble signals.

16. Check alert tone to alarm notification devices.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
MAHBUBE E. ZERRATZADE
E 22441
9/30/20
ELECTRICAL
STATE OF CALIFORNIA

Drawn by

Checked by

Revisions

No.	Date	Description
		-

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No. 2835.0200

Date 12-18-2019

DSA SUBMITTAL

17. Check installation, supervision, and operation of intelligent smoke detectors.
18. Alarm conditions that the system is required to detect shall be introduced on the system. Verify the proper receipt and the proper processing of the signal at the FACP and the correct activation of the control points.
19. When the system is equipped with optional features, consult the manufacturer manual to determine proper testing procedures.
20. Theatrical lighting house light control override.
21. Central and Autonomous PA systems for muting during the sounding of the audible notification appliances and voice evacuation announcements.
22. Disabling electronic tone or electromechanical bell class passing signals until system reset.

C. Upon completion of installation of fire alarm equipment, provide to the OAR a signed, written statement confirming that fire alarm equipment was installed in accordance with the Specifications, Shop Drawings, instructions and directions provided by the manufacturer.

D. Demonstrate in presence of the Project Inspector that circuit and wiring tests are free of shorts and grounds and that installation performs as specified herein and within manufacturer's guidelines.

E. Software Modifications:
1. Provide the services of a factory trained and authorized technician to perform system software modification, upgrades or changes. Response time of the technician to the Project site shall not exceed 24 hours.
2. Provide hardware, software, programming tools, and documentation necessary to modify the fire alarm network on the Project site. Modification includes: addition and deletion of devices, circuits, zones and changes to system operation and custom label changes for devices or zones. The system structure and software shall place no limit on the type or extent of software modification on-site. Modification of software shall not require power-down of the system or loss of system fire protection while modifications are being provided.

F. Complete the inspection and testing form as required by NFPA 72, and submit one copy of the completed form to the Architect and Project Inspector.

G. Fire alarm system shall pass a City of Ventura Fire Department Regulation 4 test administered by Owner personnel prior to issuing certificate of substantial completion. An accurate copy of the red line as-built drawings, a valid copy of the fire alarm points list, a CD with the project background drawings in AutoCAD format, and passwords required for the testing process shall be made available to FLSTG personnel prior to the test. These items shall be retained by the FLSTG.
1. Defects resulting from the FLSTG tests shall be corrected prior to substantial completion.

3.06 SERVICE MANUALS

A. Deliver to OAR, three copies of the service manuals. Each manual shall include the following:
1. Installation manuals, programming manuals and user manual if applicable for every control panel, control panel power supply, FACP input or output or relay or control module, auxiliary power supply, UDACT, remote NAC extender power supply, door holder power supplies, installed annunciators, initiating and indicating devices and addressable monitor, relay and control modules. Catalog cut sheets are not acceptable.
2. A printed copy of the system configuration as programmed, including system labeling codes, and passwords.
3. An electronic copy on compact disk of the system configuration program
4. Final test report.
5. Detailed explanation of the operation of the system.
6. Instructions for routine maintenance.
7. Detailed wiring diagram for the connection of relays, addressable monitor, and control or relay modules as applied in the interfacing of peripheral systems or equipment to the fire alarm system. Updated shop drawings shall include revisions made in the field via plan changes, RFIs, Field Change Directives, and any other construction change documents including interface details with ancillary systems.
8. An electronic copy (CD) of the posted site or fire alarm map in Auto-Cad and pdf formats.
9. Provide a CD ROM electronic copy of the updated system As-Built Drawings to the OAR, prepare this copy in the latest version of AutoCAD; along with the electronic copy provide a full size bond copy. Include one CD-ROM of the up-dated As-Built Drawings into each of the Service Manuals. CD and folded drawings shall be secured and inserted into the Service Manuals via a three-hole punched protective CD case and protective envelopes for the drawings.
10. Provide codes and passwords for fire alarm system at testing.

3.07 SPARE PARTS

A. The following new spare parts shall be furnished in unopened boxes:
1. Five percent spare pull stations including the associated monitor module (minimum one spare pull station per type).
2. Five percent spare smoke and heat detectors (minimum one spare smoke and heat detector per type).
3. Five percent spare audible devices (minimum one spare audible device per type).
4. Five percent spare strobe devices (minimum one spare strobe device per type).

3.08 SYSTEM USER AND MAINTENANCE PERSONNEL TRAINING

A. Before Substantial Completion, provide one instruction period for the Project site based Owner operators and system users. The instruction period shall be scheduled and coordinated by the OAR.

B. Training materials and required deliverables shall be submitted to the OAR.
1. Prior to beginning the operational demonstration, notify Central monitoring Station that an instructional activity is beginning; inform them that it includes setting and resetting the system in test mode. After the demonstration is completed and the system restored, notify the Central Monitoring Station that the system has been restored and it is back on line for continuous monitoring.

C. User Instruction and Training
1. Before substantial completion and with a fully functional fire alarm system installed at the site, the contractor shall provide a minimum of four hours of user training for site based staff. The date and time for this training shall be coordinated by the project OAR.

D. Instruction period training for site based staff shall consist of the following:
1. Overview:
   a. Explain the fire system is "addressable" which means every device-smoke detector, heat detector, sprinkler water flow switch, manual pull station, etc. has a unique address or identity. This makes it possible to positively identify the exact device causing an alarm, trouble or supervisory condition.
   b. Explain the fire alarm control panel also controls the horns and strobes throughout the campus or building.
   c. Explain that the fire alarm system is interconnected to various other systems and equipment through out the site such as:
      1) Elevators to recall them to the main floor or to an alternate floor and as an option dependent circumstances turn off the power to the elevators.
      2) Heating and air conditioning equipment to turn off fans and close dampers to stop the spread of smoke through out a building.
      3) The class passing signaling system to disable the bells or tones to not accidentally signal students and staff to return to the buildings.
      4) Magnetically held doors to close them to stop the spread of smoke.
   d. Explain the fire system has a battery backup in case of power failure and that it will continue to function for a minimum of 24 hours after a total power failure.
   e. Explain that the fire alarm system components and wiring are monitored to report a malfunction, damage or vandalism. When this occurs, a trouble indication will appear on the fire alarm annunciator and FACP and this indication will be transmitted to the central monitoring station.
   f. Explain that other equipment and systems are monitored for abnormal conditions such as the fire sprinkler water being turned off. When this occurs, a supervisory condition is created. A supervisory indication will appear on the fire alarm annunciator and FACP and this indication will be transmitted to the central monitoring station.
   g. Explain that the fire system in addition to notifying the occupants of a possible fire condition also transmits an alarm indication to the central monitoring station that will in turn notify and dispatch the local fire department to your site.
2. Basic:
   a. Hand out the SYSTEM OPERATION instructions to attendees.
   b. Point out the Fire Alarm Control Panel and have them observe the normal LED status (one green LED only should be on):
      1) GREEN = Normal.
      2) YELLOW = Trouble.
      3) RED = ALARM.
   c. Have the attendees observe the LCD display that should be indicating a SYSTEM NORMAL message.
   d. Point out the Fire Alarm System Annunciator and have attendees observe the LCD display that should be indicating a SYSTEM NORMAL message.
3. Operation and Demonstration:
   a. After putting the system or having someone put the system central station monitoring into the test mode demonstrate the following:
   b. Activate a Manual Pull Station to demonstrate ALARM.
      1) Demonstrate audible and visual notification appliances and if installed the voice evacuation signal announcement.
      2) Demonstrate panel or annunciator sounder tone for ALARM.
      3) Have staff SILENCE system.
      4) Show LCD display and LED of alarm.
      5) Demonstrate and have staff reset the manual pull station.
      6) Have staff RESET fire system.
   c. Activate Smoke Detector with canned smoke to demonstrate address identification:
      1) Have staff SILENCE system.
      2) Show LCD and display LED of ALARM.
      3) Have staff RESET fire system.
   d. Remove Smoke Detector to demonstrate SYSTEM TROUBLE.
      1) Demonstrate panel or annunciator sounder tone for TROUBLE.
      2) Have staff SILENCE system.
      3) Show LCD display and LED of TROUBLE.
      4) Replace the smoke detector.
      5) Have staff RESET fire system.
   e. Remove power to demonstrate function during power failure.
      1) Have staff SILENCE system.
      2) Show LCD display and LED of TROUBLE.
      3) Activate Manual Pull station to demonstrate audible or visual functions in power failure mode.
      4) Reset manual pull station.
      5) Reset fire system.
      6) If applicable, point out sprinkler riser and shut off valves.
      7) Show location of a water flow switch.
      8) Show location of a valve tamper switch.
      9) Point out valves must always be OPEN or fully counter clock wise.
      10) Point out PIV (Post Indicator Valves) if applicable.
      11) Have water flow through the inspectors test valve and point out the ringing water flow bell.
      12) After the horns are silenced by an assistant, show that the water flow bell is ringing continuously indicating water flow.
      13) Have the assistant turn off the inspectors test valve to show that water flow alarm bell turns off.
      14) Reset system.
      15) Unlock and turn off a PIV or riser valve to show a supervisory condition.
      16) Turn valve back on, lock the valve open and demonstrate the end of the indication of a supervisory condition.
4. Training documentation.
   a. Insure fire panel is reset and indicates normal and central station monitoring is taken off of the test mode.
   b. Have staff attendees sign off training sheet and provide a copy to the PROJECT INSPECTOR.

3.09 PROTECTION

A. Protect the Work of this section until Substantial Completion.

3.10 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off Project site.

END OF SECTION

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT

BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
CAMARILLO OFFICE / DOWNTOWN/LA OFFICE / GLENDALE OFFICE

REGISTERED PROFESSIONAL ENGINEER
E 22441
STATE OF CALIFORNIA

Drawn by

Checked by

Revisions

No.	Date	Description
		-

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

SPECIFICATIONS

Job No. 2835.0200

Date 12-18-2019

SPEC-8

DSA SUBMITTAL

CIVIL IMPROVEMENTS FOR 4 MODULAR CLASSROOMS CHANNEL ISLANDS HIGH SCHOOL IN THE CITY OF OXNARD, CA

SURVEY NOTES

1. MAPPING

TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=10', WITH A 1 FOOT CONTOUR INTERVAL FROM DATA COLLECTED IN A FIELD SURVEY PERFORMED USING CONVENTIONAL EQUIPMENT AND PROCEDURES IN SEPTEMBER 2019, AT THE REQUEST OF FLEWELLING AND MOODY.

2. BASIS OF BEARINGS AND COORDINATES

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM NAD83, ZONE 5, EPOCH 2017.50 AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING STATIONS (CGPS) AND/OR CONTINUOUS OPERATING REFERENCE STATIONS (CORS) CSCI & VNCO BEING NORTH 56°18'26" WEST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

3. ELEVATIONS

THE VERTICAL DATUM OF THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), PER GPS TIES & GEOID MODELING (GEOID12B) TO CGPS STATION CSCI. ELLIPSOID HEIGHTS ARE CONSTRAINED PER CSRC. NO COUNTY BENCHMARKS WERE MEASURED IN THIS SURVEY.

4. UTILITIES

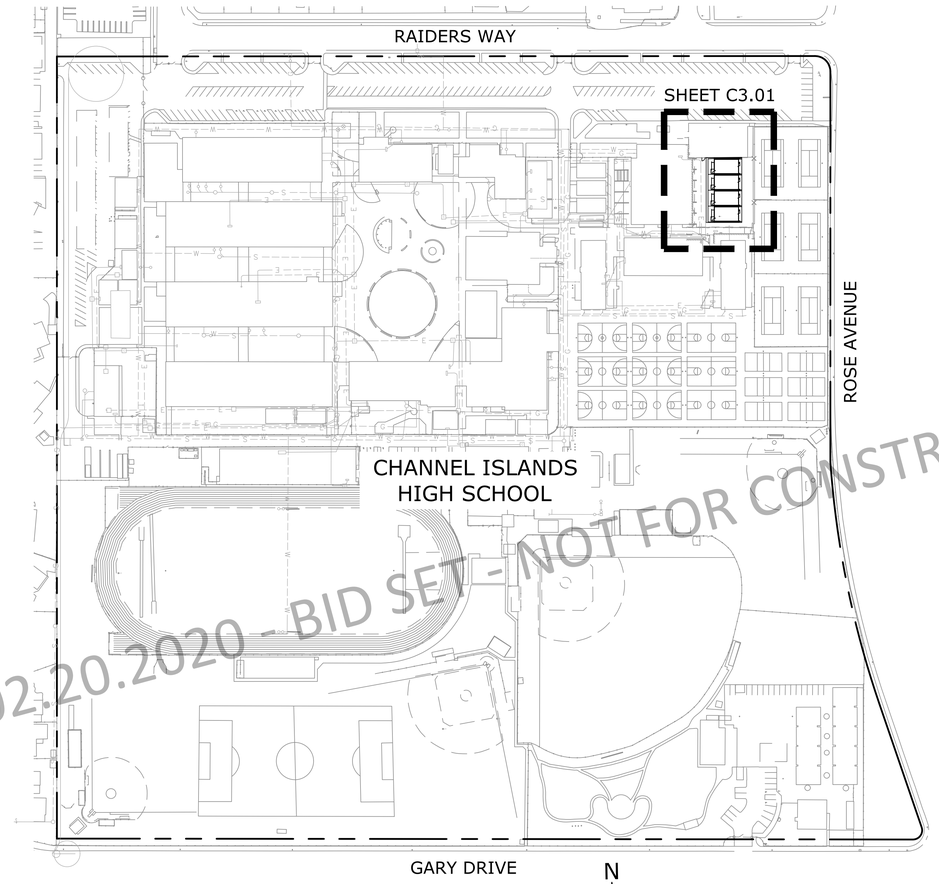
SURFACE UTILITY FEATURES SHOWN HEREON WERE LOCATED AS A PART OF THE FIELD SURVEY PERFORMED BY ECG BASED ON VISIBILITY ON THE DATE OF SURVEY. NO RESEARCH OR MAPPING OF SUBSURFACE UTILITIES HAS BEEN PERFORMED.

CONTROL POINT TABLE

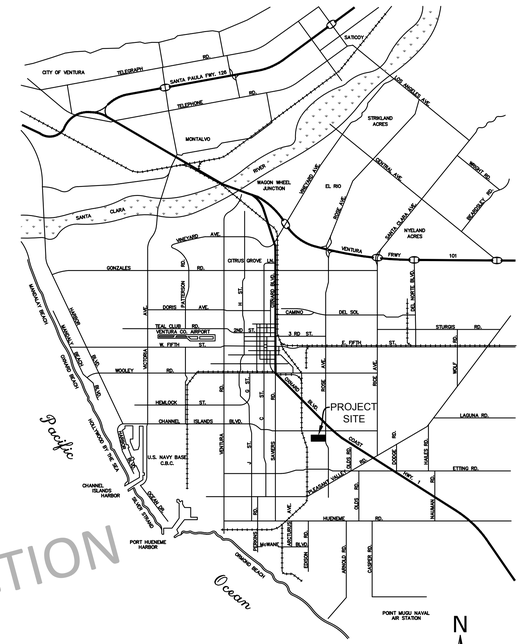
POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1886588.62	6210528.82	35.10	SET MAG NAIL
2	1886744.89	6210546.66	35.05	SET SCRIBED X
3	1886735.57	6210285.11	34.68	SET SCRIBED X

LEGEND

36.00	PROPOSED MAJOR CONTOURS
35.25	PROPOSED MINOR CONTOURS
	PROPOSED FLOWLINE
GB	PROPOSED GRADE BREAK
	PROPOSED FENCE
	EXISTING RIGHT OF WAY/PROPERTY LINE
	EXISTING FENCE
36.00	EXISTING INTERMEDIATE CONTOURS
35.25	EXISTING INDEX CONTOURS
E	EXISTING ELECTRICAL LINE
G	EXISTING GAS LINE
W	EXISTING WATER LINE
SD	EXISTING STORM DRAIN LINE
FW	EXISTING FIREWATER LINE
S	EXISTING SEWER LINE
IRR	EXISTING IRRIGATION LINE
120.00 FS	PROPOSED ELEVATION
(120.00) EG	EXISTING ELEVATION
1.5%	PROPOSED GRADE
	PROPOSED WALKWAY CONCRETE PAVING



INDEX MAP
SCALE: 1"=100'



VICINITY MAP
N.T.S.

SHEET INDEX

ABBREVIATIONS

ABBR	ABBREVIATION	FG	FINISH GRADE	R.O.W.	RIGHT OF WAY
A.C.	ASPHALT CONCRETE	FL	FLOWLINE	RPD	RESIDENTIAL PLANNED DEVELOPMENT
A.C.P.	ASBESTOS CONCRETE PIPE	FS	FINISHED SURFACE	RT	RIGHT
AP	ANGLE POINT	FT/S	FEET PER SECOND	RW	RECLAIMED WATER
ARCH.	ARCHITECT	FUT	FUTURE	R/W	RIGHT OF WAY
ASSOC.	ASSOCIATION	GB	GRADE BREAK	SCE	SOUTHERN CALIFORNIA EDISON
AVE	AVENUE	GF	GARAGE FLOOR	SCO	SEWER CLEAN OUT
BC	BEGIN CURVE	GM	GAS METER	SD	STORM DRAIN
BCR	BEGIN CURB RETURN	G.P.	GRADING PERMIT	SDMH	STORM DRAIN MANHOLE
BDY.	BOUNDARY	GV	GAS VALVE	SDR	STANDARD DIMENSION RATIO
BEG	BEGIN	HGL	HYDRAULIC GRADE LINE	S.E.	SAND EQUIVALENT
BFP	BACKFLOW PREVENTER	HOA	HOME OWNERS ASSOCIATION	SF	SQUARE FOOT/FEET
BLDG	BUILDING	HORZ.	HORIZONTAL	SHT	SHEET
BOT	BOTTOM OF PIPE	HP	HIGH POINT	SHTS	SHEETS
BS	BOTTOM OF STEP	HPS	HIGH PRESSURE SODIUM	S.L.	SEWER LATERAL
BVC	BEGIN VERTICAL CURVE	HW	HEADWALL	SLDS	STANDARD LAND DEVELOPMENT SPECIFICATIONS
BW	BACK OF WALK OR BOTTOM OF WALL	ICP	INTERLOCKING CONCRETE PAVERS	S'LY	SOUTHERLY
CB	CATCH BASIN	ICV	IRRIGATION CONTROL VALVE	SMH	SEWER MANHOLE
CBC	CALIFORNIA BUILDING CODE	INT.	INTERSECTION	S.N.S.	STREET NAME SIGN
C-C	CENTER TO CENTER	INV	INVERT	SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
CF	CURB FACE	IRR	IRRIGATION	SS	SANITARY SEWER
CFS	CUBIC FEET PER SECOND	LAT	LATERAL	SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
CL	CENTERLINE OR CLASS	LDM	LAND DEVELOPMENT MANUAL	ST	STREET
CLF	CHAIN LINK FENCE	LDSP	LANDSCAPE	STD	STANDARD
CLR	CLEAR	LF	LINEAR FEET	SW	SIDEWALK
CMB	CRUSHED MISCELLANEOUS BASE	LN	LANE	SWCT	SAWCUT
CMP	CORRUGATED METAL PIPE	LP	LOW POINT	TC	TOP OF CURB
CMU	CONCRETE MASONRY UNIT	LT	LEFT	TEL	TELEPHONE
CO	CLEANOUT	MAX	MAXIMUM	TG	TOP OF GRATE
CONC	CONCRETE	MH	MANHOLE	TF	TOP OF FOOTING
CONT	CONTROL	MIN	MINIMUM	TI	TRAFFIC INDEX
CPS	CONNECTOR PIPE SCREEN	MOC	MIDDLE OF CURVE	TMH	TELEPHONE MANHOLE
CT	COURT	N'LY	NORTHERLY	TOE	TOE OF SLOPE
DBL	DOUBLE	NO.	NUMBER	TOP	TOP OF SLOPE OR PIPE
DES	DESIGN	N.T.S.	NOT TO SCALE	TPL	TRIPLE
DG	DECOMPOSED GRANITE	O.C.	ON CURB OR ON CURVE OR ON CENTER	TR	TRACT
DI	DROP INLET	OHW	OVERHEAD WIRE	TS	TOP OF STEP
D.I.	DUCTILE IRON	PB	PULL BOX	TW	TOP OF WALL
DIA	DIAMETER	P.C.C.	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVE	TYP	TYPICAL
DR	DRIVE	PI	POINT OF INTERSECTION	UG	UNDERGROUND
DWG	DRAWING	P/L	PROPERTY LINE	VAR	VARIES
EASE	EASEMENT	PMB	PROCESSED MISC. BASE	V.C.	VERTICAL CURVE
EBAA	EBAA IRON, INC.	POC	POINT OF CONNECTION	VERT.	VERTICAL
EC	END CURVE	PRC	POINT OF REVERSE CURVE	VLT	VAULT
ECR	END CURB RETURN	PT	POINT	VLV	VALVE
EG	EXISTING GROUND	PTDF	PRESSURE TREATED DOUGLAS FIR	W	WATER
ELEC	ELECTRIC	PUB	PUBLIC	W'LY	WESTERLY
ELEV	ELEVATION	PVC	POLYVINYL CHLORIDE	WM	WATER METER
EL'LY	EASTERLY	PVMT	PAVEMENT	WSEL	WATER SURFACE ELEVATION
ELLIP	ELLIPTICAL	PVT	PRIVATE	WV	WATER VALVE
EP	EDGE OF PAVEMENT	RCB	REINFORCED CONCRETE BOX	W.W.M.	WELDED WIRE MESH
ESMT	EASEMENT	RCP	REINFORCED CONCRETE PIPE	YR	YEAR
EVC	END VERTICAL CURVE	RD	ROAD		
EQ	EQUIVALENT	RET	RETAINING		
FED.	FEDERAL	RWGV	RESILIENT WEDGE GATE VALVE		
FF	FINISHED FLOOR				

ENGINEER'S NOTICE TO CONTRACTOR

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN ON THESE PLANS WAS OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN ON THESE DRAWINGS. THE CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES TO VERIFY THE LOCATION AND ANY DISCREPANCY BETWEEN THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER.

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITION DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR ALSO AGREES TO DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

77454 10/28/2019
JOSIAH D. JENISON R.C.E. DATE

811 Know what's below. Call before you dig.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

LICENSED ARCHITECT MATTHEW BUCHMAN C-26053 Ren. Date 08/31/2021 STATE OF CALIFORNIA

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER JOSIAH D. JENISON NO 77454 CIVIL STATE OF CALIFORNIA

ECG Encompass Consultant Group
333 N. LANTANA ST., SUITE 287, CAMARILLO, CA 93010
PHONE: 805.322.4443 WEBSITE: WWW.ECGCIVIL.COM

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Checked by

Revisions

No.	Date	Description

All dimensions must be checked at the job by the contractor who accepts full responsibility for their accuracy under the contract. These plans & the specifications in connection therewith have been prepared for a specific site. Any and all responsibility for their use in whole or in part on any other site is hereby disclaimed by Flewelling & Moody.

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

COVER SHEET

Job No. 2835.0200

Date 10-28-2019

C1.01

GENERAL NOTES

1. CONTRACTOR SHALL REVIEW GRADING AND DRAINAGE AND UTILITY PLANS; AND PROTECT ALL EXISTING FACILITIES TO REMAIN. ADJUST ALL UTILITY SURFACE FEATURES TO FINAL GRADES.
2. CONTRACTOR SHALL REMOVE ALL TREES AND EXISTING ROOTS SYSTEMS WITHIN THE PROJECT AREA TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE.
3. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO EXISTING BUILDINGS AND HYDRANTS THROUGHOUT CONSTRUCTION AND COORDINATE ANY SHUT DOWNS WITH THE OWNER'S REPRESENTATIVE.
4. CONTRACTOR SHALL THOROUGHLY REVIEW CONSTRUCTION DOCUMENTS IN THEIR ENTIRETY FOR PROJECT DEMOLITION AND CONSTRUCTION.
5. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION AND REMOVAL OF ALL EXISTING FACILITIES AND FEATURES WITHIN THE PROJECT LIMIT WHICH ARE REQUIRED FOR THE PROJECT CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL EXISTING FACILITIES THAT ARE TO REMAIN IN PLACE AND PROMPTLY REPAIR ANY DAMAGES CAUSED BY DEMOLITION AND CONSTRUCTION AT ITS OWN EXPENSE. ALL EXISTING UTILITIES WITHIN THE BUILDING FOOTPRINT SHALL BE CAPPED AT THE NEAREST TEE, VALVE, OR MANHOLE. CONTRACTOR SHALL REMOVE ALL DEMOLITION/WASTE MATERIALS FROM THE PROJECT SITE AND LEGALLY DISPOSE OF THEM AT A DUMP SITE OFF-CAMPUS.
6. REVIEW LANDSCAPE PLANS FOR IRRIGATION DESIGN TO REMOVE EXISTING IRRIGATION SYSTEM IN CONFLICT WITH CONSTRUCTION, AND CONSTRUCT NEW FACILITIES.
7. CONTRACTOR SHALL CONSTRUCT EROSION CONTROL DEVICES PER PROJECT EROSION CONTROL PLANS AND AS REQUIRED FOR SITE CONDITIONS. NO SILT AND DEBRIS SHALL BE ALLOWED TO DEPART FROM THE CONSTRUCTION LIMITS OR ENTER THE STORM DRAIN SYSTEM.
8. CONTRACTOR SHALL PREPARE AND PROVIDE ALL CONSTRUCTION STAKING FOR THE CONSTRUCTION OF THIS PROJECT.
9. CONTRACTOR SHALL USE PROVIDED COORDINATES TO INITIALLY LOCATE THE BUILDINGS AND CONSTRUCT THE BUILDINGS PER THE ARCHITECTURAL PLANS. THE AUTOCAD DRAWING FILES MAY BE PROVIDED TO THE CONTRACTOR FOR STAKING PURPOSES DURING CONSTRUCTION.
10. CONTRACTOR SHALL PROVIDE A SUITABLE STABILIZED CONSTRUCTION ENTRANCE/EXIT AT ALL ACCESS POINTS FROM THE JOB SITE TO PREVENT TRACKING OF MUD ONTO CAMPUS AND PUBLIC ROADS. ADDITIONALLY PROVIDE SWEEPER SERVICE ON THE FREQUENCY NECESSARY TO MITIGATE UNDESIRABLE CONDITIONS, AS APPROVED BY THE OWNER'S REPRESENTATIVE.
11. CONTRACTOR SHALL SUBMIT A DRAWING OF THE PROPOSED STAGING AREA AND CONSTRUCTION FENCING TO THE OWNER'S REPRESENTATIVE FOR APPROVAL. CONSTRUCTION STAGING SHALL NOT BLOCK FIRE ENGINE ACCESS OR EXISTING FIRE HYDRANTS.

GENERAL DEMOLITION NOTES

1. DEMOLITION SHALL CONSIST OF FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE EXISTING STRUCTURES, UTILITIES, AND ALL OTHER MATERIAL FROM THE PROJECT SITE.
2. DISPOSAL OF MATERIALS SHALL BE DONE IN A SAFE AND LEGAL MANNER AND SHALL BE IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS.
3. THE CONTRACTOR SHALL CONTINUOUSLY CLEAN AND REMOVE DEMOLISHED MATERIALS FROM THE SITE EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE. DO NOT ALLOW MATERIALS TO ACCUMULATE ON SITE.
4. EXISTING UNDERGROUND UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE IN-KIND ANY ITEMS DAMAGED DURING THE DEMOLITION PROCESS THAT ARE INTENDED TO REMAIN.
6. ALL EXISTING LANDSCAPE INSIDE THE LIMITS OF WORK SHALL BE REMOVED, UNLESS OTHERWISE NOTED ON THE PLANS.
7. ALL SURFACE FEATURES FOR EXISTING UNDERGROUND UTILITIES SHALL REMAIN AND BE ADJUSTED TO MATCH NEW FINISH GRADE - UNLESS OTHERWISE NOTED.
8. SAWCUT EXISTING PAVEMENT FULL DEPTH TO A CLEAN STRAIGHT EDGE.
9. ALL TREE ROOTS, ABANDONED IRRIGATION LINES, UTILITY SERVICES, SEPTIC TANKS (AS NOTED) AND SIMILAR MATERIALS SHALL BE REMOVED FROM THE SITE AND VOIDS CREATED THEREBY SHALL BE PROPERLY FILLED AND COMPACTED AS DIRECTED BY THE ENGINEER.
10. CONTRACTOR TO COORDINATE WITH DISTRICT STAFF FOR LOCATION OF EXISTING COMMUNICATION AND ELECTRICAL STUBS.
11. EXCAVATIONS AND DEPRESSIONS RESULTING FROM FOUNDATION AND BELOW-GRADE STRUCTURE REMOVAL SHALL NOT BE FILLED IN PRIOR TO OBSERVATION BY THE GEOTECHNICAL REPRESENTATIVE.
12. CONTRACTOR SHALL PROVIDE LATERAL SUPPORT OF EXCAVATIONS, AS NEEDED, TO PREVENT LATERAL AND VERTICAL MOVEMENT OF ADJACENT EXISTING FACILITIES.

GRADING NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE CALIFORNIA BUILDING CODE. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTIONS (GREEN BOOK) LATEST EDITION AND AMENDMENTS WHENEVER SPECIAL REQUIREMENTS CONFLICT ON ANY SUBJECT MATTER. THE ENGINEER OF RECORD AND/OR HIS REPRESENTATIVE WILL DETERMINE WHICH SPECIAL REQUIREMENT AND/OR CODE WILL GOVERN.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEARING AND DISPOSAL OF THE PROPOSED WORK AREA.
3. DUST SHALL BE CONTROLLED BY WATERING OR OTHER APPROVED METHODS IN ACCORDANCE WITH CITY, COUNTY, AND STATE ORDINANCES AND STATUTES.
4. NO FILL SHALL BE PLACED ON THE EXISTING GROUND UNTIL THE GROUND HAS BEEN CLEARED OF WEEDS, DEBRIS, TOPSOIL, DELETERIOUS MATERIAL AND SCARFIED PER THE PROJECT SPECIFICATIONS.
5. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL.
6. FILLS SHALL BE COMPACTED THROUGHOUT TO THE MAXIMUM DENSITY AS DETERMINED THE GEOTECHNICAL ENGINEER.
7. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND APPROVED BY THE GEOTECHNICAL ENGINEER AND/OR HIS REPRESENTATIVE PRIOR TO PLACING OF FILL.
8. FILL SLOPES SHALL BE KEYED AND BENCHED WITH APPROVED MATERIAL AND PER THE RECOMMENDATIONS OF THE PROJECT SOILS REPORT.
9. ALL EXISTING FILLS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND OR HIS REPRESENTATIVE BEFORE ANY ADDITIONAL FILLS ARE ADDED.
10. ANY EXISTING IRRIGATION LINES AND CISTERNS SHALL BE REMOVED OR CRUSHED IN PLACE AND BACKFILLED AND APPROVED BY THE GRADING INSPECTOR AND GEOTECHNICAL ENGINEER, UNLESS OTHERWISE NOTED ON THE PLANS.
11. SLOPES EXCEEDING FIVE FEET IN HEIGHT MUST BE PLANTED AND AN APPROVED IRRIGATION SYSTEM SHALL BE INSTALLED.
12. ALL TRENCH BACKFILLS SHALL BE TESTED AND APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER PER THE GRADING AND EXCAVATION CODE.
13. ALL CUT SLOPES SHALL BE INVESTIGATED BOTH DURING AND AFTER GRADING BY AN ENGINEERING GEOLOGIST TO DETERMINE IF ANY SLOPE STABILITY PROBLEM EXISTS SHOULD EXCAVATION DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS. THE ENGINEERING GEOLOGIST SHALL RECOMMEND NECESSARY TREATMENT TO THE CONSTRUCTION MANAGER FOR APPROVAL.

GRADING NOTES (CONTINUED)

14. THE FINAL COMPACTION REPORT AND APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL CONTAIN THE TYPE OF FIELD TESTING PERFORMED. THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE, NUCLEAR GAGE, OR DRIVE RING SHALL BE NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY THE ACCURACY OF THE MAXIMUM DENSITY CURVES USED BY THE FIELD TECHNICIAN.
15. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
16. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION OF AND PROTECT ALL EXISTING UTILITIES AND TO ENSURE SERVICE IS NOT DISRUPTED TO EXISTING FACILITIES.
17. ALL EXISTING DRAINAGE COURSES ON THE PROJECT SITE MUST CONTINUE TO FUNCTION, ESPECIALLY DURING STORM CONDITIONS AND APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE PROVIDED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT. IN ALL CASES, THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO CONSTRUCTING NATURAL OR EXISTING DRAINAGE PATTERNS.
18. WHENEVER THERE IS AN EXISTING CATCH BASIN ALONG OR ADJACENT TO THE CONSTRUCTION SITE FRONTAGE, AN ON-SITE STORM DRAIN OR SWALE SHALL BE CONSTRUCTED TO CONVEY WATER DIRECTLY TO THE BASIN. EXCEPTIONS SHALL REQUIRE APPROVAL BY THE CIVIL ENGINEER.
19. ALL PLANTERS ADJACENT TO THE FOUNDATIONS SHALL BE SEALED ALONG SIDE OF THE FOUNDATION FOOTING AND EXTENDED UNDER THE PLANTER AREA TO A MINIMUM OF 12 INCHES TO PREVENT MOISTURE FROM REACHING THE FOUNDATION SUBGRADE SOLES.
20. EXPORT SOILS MUST GO TO A LEGAL DUMP SITE OR TO A PERMITTED SITE APPROVED BY THE LOCAL AGENCY HAVING JURISDICTION.
21. ANY DIRT, ROCK OR CONSTRUCTION MATERIAL THAT MAY BE TRACKED OR DROPPED WITHIN THE PUBLIC RIGHT-OF-WAY DURING THE TRANSPORTATION OF SAID MATERIAL OR EQUIPMENT ASSOCIATED WITH THE PROJECT SHALL BE CLEANED OR REMOVED DAILY AND AS DEEMED NECESSARY BY THE CONSTRUCTION MANAGER.
22. DIRT ACCESS RAMPS OVER CURB AND GUTTER TO CONSTRUCTION SITE ARE NOT ALLOWED. WHEN NECESSARY FOR ENTRANCE TO SUCH CONSTRUCTION SITES, ASPHALT RAMPS WITH A MINIMUM 3 DIAMETER PIPE WILL BE CONSTRUCTED TO CONVEY GUTTER DRAINAGE. ALL BASE, GRAVEL, SOIL OR OTHER MATERIAL CARRIED INTO THE ROADWAY BY CONTRACTORS PERSONNEL OR EQUIPMENT WILL BE CLEANED AS NECESSARY AND NO LESS THAN ONCE A DAY. TRUCKS HAULING BASE, GRAVEL, FILL OR EXPORT MATERIALS WILL BE TARPED AS NECESSARY TO PREVENT MATERIAL FROM SPILLING INTO THE ROADWAY.
23. PRIOR TO ANY CONSTRUCTION WHICH INVOLVES HAZARDOUS CONDITIONS, THE CONTRACTOR SHALL FIRST OBTAIN A PERMIT FROM THE DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (OSHA).
24. PROPOSED REVISIONS TO THE GRADING PLAN SHALL BE DRAWN IN RED PENCIL ON BOND COPIES OF THE APPROVED PLAN. THESE REDLINES ARE THEN TO BE SUBMITTED TO THE OWNERS REPRESENTATIVES FOR REVIEW AND APPROVAL. ONLY AFTER THE BOND COPIES APPROVAL IS GIVEN SHOULD THE ORIGINALS BE AS-BUILT BY THE ENGINEER/ARCHITECT.
25. RULE 403, AIR QUALITY CONTROL MANAGEMENT DISTRICT, MUST BE IMPLEMENTED DURING CONSTRUCTION.
    a. A PERSON SHALL NOT CAUSE OR ALLOW THE EMISSIONS OF FUGITIVE DUST FROM ANY TRANSPORT, HANDLING, CONSTRUCTION OR STORAGE ACTIVITY SO THAT THE PRESENCE OF SUCH DUST REMAINS VISIBLE IN THE ATMOSPHERE BEYOND THE PROPERTY LINE OF THE EMISSION SOURCE. (DOES NOT APPLY TO EMISSION EMANATING FROM UNPAVED ROADWAYS OPEN TO PUBLIC TRAVEL OR FARM ROADS. THIS EXCLUSION SHALL NOT APPLY TO INDUSTRIAL OR COMMERCIAL FACILITIES).
    b. A PERSON SHALL TAKE EVERY REASONABLE PRECAUTION TO MINIMIZE FUGITIVE DUST EMISSIONS FROM WRECKING EXCAVATION GRADING, CLEARING OF LAND AND SOLID WASTE DISPOSAL OPERATIONS.
    c. A PERSON SHALL NOT CAUSE OR ALLOW PARTICULATE WATER TO EXCEED 100 MICROGRAMS PER CUBIC METER WHEN DETERMINED AS THE DIFFERENCE BETWEEN UPWIND AND DOWNWIND SAMPLES COLLECTED ON HIGH VOLUME SAMPLERS AT THE PROPERTY LINE FOR A MINIMUM OF FIVE HOURS.
    d. A PERSON SHALL TAKE EVERY REASONABLE PRECAUTION TO PREVENT VISIBLE PARTICULATE WATER FROM BEING DEPOSITED UPON PUBLIC ROADWAYS. PRECAUTIONS SHALL INCLUDE BUT ARE NOT LIMITED TO, THE REMOVAL OF PARTICULATE MATTER FROM EQUIPMENT PRIOR TO MOVEMENT ON PAVED STREETS ONTO WHICH SUCH MATERIAL HAS BEEN DEPOSITED.
    e. SUBSECTIONS (A) AND (B) SHALL NOT BE APPLICABLE WHEN THE WIND SPEED INSTANTANEOUSLY EXCEEDS 40 KILOMETERS (25 MILES) PER HOUR, OR WHEN THE AVERAGE WIND SPEED IS GREATER THAN 24 KILOMETERS (15 MILES) PER HOUR. THE AVERAGE WIND SPEED DERMINATIONS SHALL BE ON A 15 MINUTE AVERAGE AT THE NEAREST OFFICIAL AIR-MONITORING STATION OR BY WIND INSTRUMENT LOCATED AT THE SITE BEING CHECKED.
26. CONTRACTORS SHALL USE LOW EMISSION MOBILE CONSTRUCTION EQUIPMENT DURING ALL SITE PREPARATION, GRADING AND CONSTRUCTION ACTIVITIES, WHERE FEASIBLE.
27. CONTRACTORS SHALL MAINTAIN ALL CONSTRUCTION ENGINES TUNED CONSISTENT WITH MANUFACTURER'S SPECIFICATIONS DURING ALL SITE PREPARATION, GRADING AND CONSTRUCTION ACTIVITIES.
28. CONTRACTORS SHALL USE LOW SULFUR FUEL FOR STATIONARY CONSTRUCTION EQUIPMENT AS REQUIRED BY AQMD RULES 431.1 AND 431.2 AND SHALL USE EXISTING POWER SOURCES AND CLEAN FUEL GENERATORS AS FEASIBLE, DURING ALL SITE PREPARATION, GRADING AND CONSTRUCTION ACTIVITIES.
29. CONSTRUCTION PARKING SHALL BE ONSITE. TRAFFIC CONTROL AND ACCESS SHALL BE IN ACCORDANCE WITH COUNTY CONSTRUCTION REQUIREMENTS
30. THE SPEED OF TRUCKS ONSITE SHALL BE LIMITED TO 15 MPH.
31. TRUCKS AND LARGE CONSTRUCTION VEHICLES WILL OBTAIN APPROVED TRUCK ROUTES FROM THE AGENCIES HAVING JURISDICTION OVER PROPOSED ROUTES.
32. THE CONTRACTOR SHALL CONTROL DUST IN AREAS USED FOR OFF-ROAD PARKING MATERIALS LAYDOWN OR THOSE AWAITING FUTURE CONSTRUCTION. FREQUENTLY ACCESSED AREAS SHALL BE PAVED AS EARLY AS POSSIBLE TO MINIMIZE DIRT TRACKOUT TO THE PUBLIC RIGHT OF WAY.
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING MEASURES:
    a. CESSATION OF ACTIVITIES DURING A STAGE-2 SMOG EPISODE. CALL 1-800-242-4022 FOR THE DAILY SMOG FORECAST.
    b. TRUCK ROUTES AND SCHEDULES FOR THE RECEIPT OF MATERIALS SHALL BE COORDINATED WITH THE MANAGER OF BUILDING AND SAFETY.
    c. WHERE FEASIBLE, ON-ROAD VEHICLES AND OFF-ROAD EQUIPMENT SHALL BE TURNED OFF AND SUBSEQUENTLY RESTARTED IF THE ANTICIPATED DURATION OF IDLING IS EXPECTED TO EXCEED FIVE (5) MINUTES.
34. THE CONTRACTOR SHALL IMPLEMENT THE FOLLOWING HIGH WIND DUST CONTROL WHEN WIND GUSTS EXCEED 25 MPH:
    a. TERMINATION/MODIFICATION OF OPERATION OF SCRAPERS, GRADERS OR DOZERS ON UNPAVED SURFACES UNTIL WINDS SUBSIDE.
    b. APPLICATION OF WATER AS NEEDED TO ANY UNPAVED SURFACE WITH VEHICLE OR EQUIPMENT OPERATIONS.
    c. APPLICATION OF WATER OR OTHER DUST CONTROL MATERIAL TO ANY PREVIOUSLY GRADED SURFACE IF DUST EMANATION IS VISIBLE FROM SUCH A SURFACE.
35. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EQUIPMENT TO PREVENT VISIBLE SOOT FROM REDUCING LIGHT TRANSMISSION THROUGH THE EXHAUST STACK BY MORE THAN 20 PERCENT FOR MORE THAN THREE MINUTES PER HOUR AND USE LOW-SULFER FUEL AS REQUIRED BY SCAQMD REGULATIONS.
36. TRUCKS USED IN HAULING DIRT TO OR FROM THE SITE ON PUBLIC ROADS WILL BE COVERED OR WILL MAINTAIN A SIX INCH DIFFERENTIAL BETWEEN THE MAXIMUM HEIGHT OF ANY HAULED MATERIAL AND THE TOP OF THE TRAILER. HAUL TRUCK DRIVERS WILL LOAD PRIOR TO LEAVING THE SITE TO PREVENT SOIL LOSS DURING TRANSPORTATION.
37. PURSUANT TO SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE, EXISTING SURVEY MONUMENTS SHALL BE NOTED AND DOCUMENTED BEFORE CONSTRUCTION. IF MONUMENTS ARE DISTURBED DURING CONSTRUCTION, THE CONTRACTOR SHALL PAY A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER TO RESET SUCH MONUMENTS.

EXISTING UTILITY NOTES

1. THE GENERAL CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AND NOTIFY APPROPRIATE UTILITY AGENCIES TO VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING ANY EXCAVATION.
2. THE GENERAL CONTRACTOR SHALL POTHOLE TO LOCATE AND VERIFY ALL EXISTING UTILITIES, POINT OF CONNECTIONS, AND CROSSINGS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE OWNERS REPRESENTATIVE.
3. THE LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY; ALL UTILITIES MAY NOT BE SHOWN.
4. SOME IRRIGATION PIPING AND ELECTRICAL CONDUIT LOCATIONS AND SIZES ARE UNKNOWN AND NOT IDENTIFIED HEREON.
5. SUBSURFACE UTILITIES SHOWN HEREON HAVE BEEN COMPILED FROM RECORD INFORMATION GATHERED FROM VARIOUS SOURCES. THE SUBSURFACE INFORMATION, INCLUDING LOCATION, SIZES, AND CAPACITIES IS AN ESTIMATION BASED ON AVAILABLE DATA AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. ECG DOES NOT WARRANT THE ACCURACY OF COMPLETENESS OF SAID RECORD INFORMATION.
6. THE CONTRACTOR, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, UNDERSTANDS THAT THEY AGREE TO ASSUME LIABILITY, AND AGREE TO HOLD THE UNDERSIGNED HARMLESS FOR ANY LIABILITY FOR DAMAGE RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE RECORDS PROVIDED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING TO WORK.
7. THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICES TO BUILDINGS OR OTHER STRUCTURES INTENDED TO REMAIN IN OPERATIONAL SERVICE DURING THE COURSE OF CONSTRUCTION.

STORMWATER POLLUTION PLAN NOTES

1. IN CASE OF EMERGENCY CALL: TO BE DETERMINED
2. A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON (NOVEMBER 1 TO APRIL 15). NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.
3. EROSION CONTROL DEVICES SHOWN ON THIS PLAN MAY BE REMOVED WHEN APPROVED BY THE BUILDING OFFICIAL IF THE GRADING OPERATION HAS PROGRESSED TO THE POINT WHERE THEY ARE NO LONGER REQUIRED.
4. GRADED AREAS ADJACENT TO FILL SLOPES LOCATED AT THE SITE PERIMETER MUST DRAIN AWAY FROM THE TOP OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY. ALL LOOSE SOILS AND DEBRIS THAT MAY CREATE A POTENTIAL HAZARD TO OFF-SITE PROPERTY SHALL BE STABILIZED OR REMOVED FROM THE SITE ON A DAILY BASIS.
5. ALL SILT AND DEBRIS SHALL BE REMOVED FROM ALL DEVICES WITHIN 24 HOURS AFTER EACH RAINSTORM AND BE DISPOSED OF PROPERLY.
6. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO FEET. THE DEVICE SHALL BE DRAINED OR PUMPED DRY WITHIN 24 HOURS AFTER EACH RAINSTORM. PUMPING AND DRAINING OF ALL BASINS AND DRAINAGE DEVICES MUST COMPLY WITH THE APPROPRIATE BMP FOR DEWATERING OPERATIONS.
7. THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE AND CONTAIN POLLUTANTS WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER. ADDITIONAL DEVICES AS NEEDED SHALL BE INSTALLED TO RETAIN SEDIMENTS AND OTHER POLLUTANTS ON SITE.
8. DESILTING BASIN MAY NOT BE REMOVED OR MADE INOPERABLE BETWEEN NOVEMBER 1 AND APRIL 15 OF THE FOLLOWING YEAR WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL. STORM WATER POLLUTION AND EROSION CONTROL DEVICES ARE TO BE MODIFIED, AS NEEDED, AS THE PROJECT PROGRESSES, THE DESIGN AND PLACEMENT OF THESE DEVICES IS THE RESPONSIBILITY OF THE FIELD ENGINEER.
9. PLANS REPRESENTING CHANGES MUST BE SUBMITTED FOR APPROVAL IF REQUESTED BY THE BUILDING OFFICIAL.
10. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON STORM WATER FROM THE PROJECT SITES AT ALL TIMES.
11. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON-SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND.
12. STOCKPILES OF EARTH AND OTHER CONSTRUCTION-RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
13. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND AREA NOT TO CONTAMINATE THE SOILS AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
14. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON-SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
15. CONTRACTORS ARE RESPONSIBLE TO INSPECT ALL EROSION CONTROL DEVICES BMPs ARE INSTALLED AND FUNCTIONING PROPERLY IF THERE IS A 40% CHANCE OF 0.25 INCHES OR GREATER OF PREDICTED PRECIPITATION, AND AFTER ACTUAL PRECIPITATION. A CONSTRUCTION SITE INSPECTION CHECKLIST AND INSPECTION LOG SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES AND AVAILABLE FOR REVIEW BY THE BUILDING OFFICIAL. (COPIES OF THE SELF INSPECTION CHECK LIST AND INSPECTION LOGS ARE AVAILABLE UPON REQUEST).
16. TRASH AND CONSTRUCTION-RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OR RAINWATER AND DISPERSAL BY WIND.
17. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
18. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
19. THE FOLLOWING BMPs FROM THE "CALIFORNIA STORM WATER BMP CONSTRUCTION HANDBOOK" - LATEST EDITION, MUST BE IMPLEMENTED FOR ALL CONSTRUCTION ACTIVITIES AS APPLICABLE.

STORMWATER POLLUTION PLAN NOTES (CONTINUED)

EROSION CONTROL:

EC-1	SCHEDULING
EC-2	PRESERVATION OF EXISTING VEGETATION
EC-3	HYDRAULIC MULCH
EC-4	HYDROSEEDING
EC-5	SOIL BINDERS
EC-6	STRAW MULCH
EC-7	GEOTEXTILES & MATS
EC-8	WOOD MULCHING
EC-9	EARTH DIKES AND DRAINAGE SWALES
EC-10	VELOCITY DISSIPATION DEVICES
EC-11	SLOPE DRAINS
EC-12	STREAMBANK STABILIZATION
EC-13	RESERVED
EC-14	COMPOST BLANKETS
EC-15	SOIL PREPARATION/ROUGHENING
EC-16	NON-VEGETATIVE STABILIZATION

TEMPORARY SEDIMENT CONTROL:

SE-1	SILT FENCE
SE-2	SEDIMENT BASIN
SE-3	SEDIMENT TRAP
SE-4	CHECK DAM
SE-5	FIBER ROLLS
SE-6	GRAVEL BAG BERM
SE-7	STREET SWEEPING AND VACUUMING
SE-8	SANDBAG BARRIER
SE-9	STRAW BALE BARRIER
SE-10	STORM DRAIN INLET PROTECTION
SE-11	ACTIVE TREATMENT SYSTEMS
SE-12	TEMPORARY SILT DIKE
SE-13	COMPOST SOCKS AND BERMS
SE-14	BIOFILTER BAGS

EQUIPMENT TRACKING CONTROL:

TC-1	STABILIZED CONSTRUCTION ENTRANCE/EXIT
TC-2	STABILIZED CONSTRUCTION ROADWAY
TC-3	ENTRANCE/OUTLET TIRE WASH

WIND EROSION CONTROL:

WE-1	WIND EROSION CONTROL

NON-STORMWATER MANAGEMENT:

NS-1	WATER CONSERVATION PRACTICES
NS-2	DEWATERING OPERATIONS
NS-3	PAVING AND GRINDING OPERATIONS
NS-4	TEMPORARY STREAM CROSSING
NS-5	CLEAR WATER DIVERSION
NS-6	ILLICIT CONNECTION/DISCHARGE
NS-7	POTABLE WATER/IRRIGATION
NS-8	VEHICLE AND EQUIPMENT CLEANING
NS-9	VEHICLE AND EQUIPMENT FUELING
NS-10	VEHICLE AND EQUIPMENT MAINTENANCE
NS-11	PILE DRIVING OPERATIONS
NS-12	CONCRETE CURING
NS-13	CONCRETE FINISHING
NS-14	MATERIAL OVER WATER
NS-15	DEMOLITION ADJACENT TO WATER
NS-16	TEMPORARY BATCH PLANTS

WASTE MANAGEMENT & MATERIAL POLLUTION CONTROL:

WM-1	MATERIAL DELIVERY AND STORAGE
WM-2	MATERIAL USE
WM-3	STOCKPILE MANAGEMENT
WM-4	SPILL PREVENTION AND CONTROL
WM-5	SOLID WASTE MANAGEMENT
WM-6	HAZARDOUS WASTE MANAGEMENT
WM-7	CONTAMINATED SOIL MANAGEMENT
WM-8	CONCRETE WASTE MANAGEMENT
WM-9	SANITARY/SEPTIC WASTE MANAGEMENT
WM-10	LIQUID WASTE MANAGEMENT

NOTE:
SITE INSPECTIONS ARE REQUIRED BEFORE AND AFTER STORMS TO ENSURE THAT ALL BMP'S ARE FUNCTIONAL AND TO DETERMINE MAINTENANCE.

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FLEWELLING & MOODY
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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

LICENSED ARCHITECT
MATTHEW BUCKNAM
C-26053
Rn Date 08/31/2021
STATE OF CALIFORNIA

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER
JOHN D. JENISON
NO 77454
CIVIL
STATE OF CALIFORNIA

ECG
Encompass Consultant Group
333 N. LANTANA ST, SUITE 287, CAMARILLO, CA 93010
PHONE: 805.322.4443 WEBSITE: WWW.ECGCIVIL.COM

Drawn by

Checked by

Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

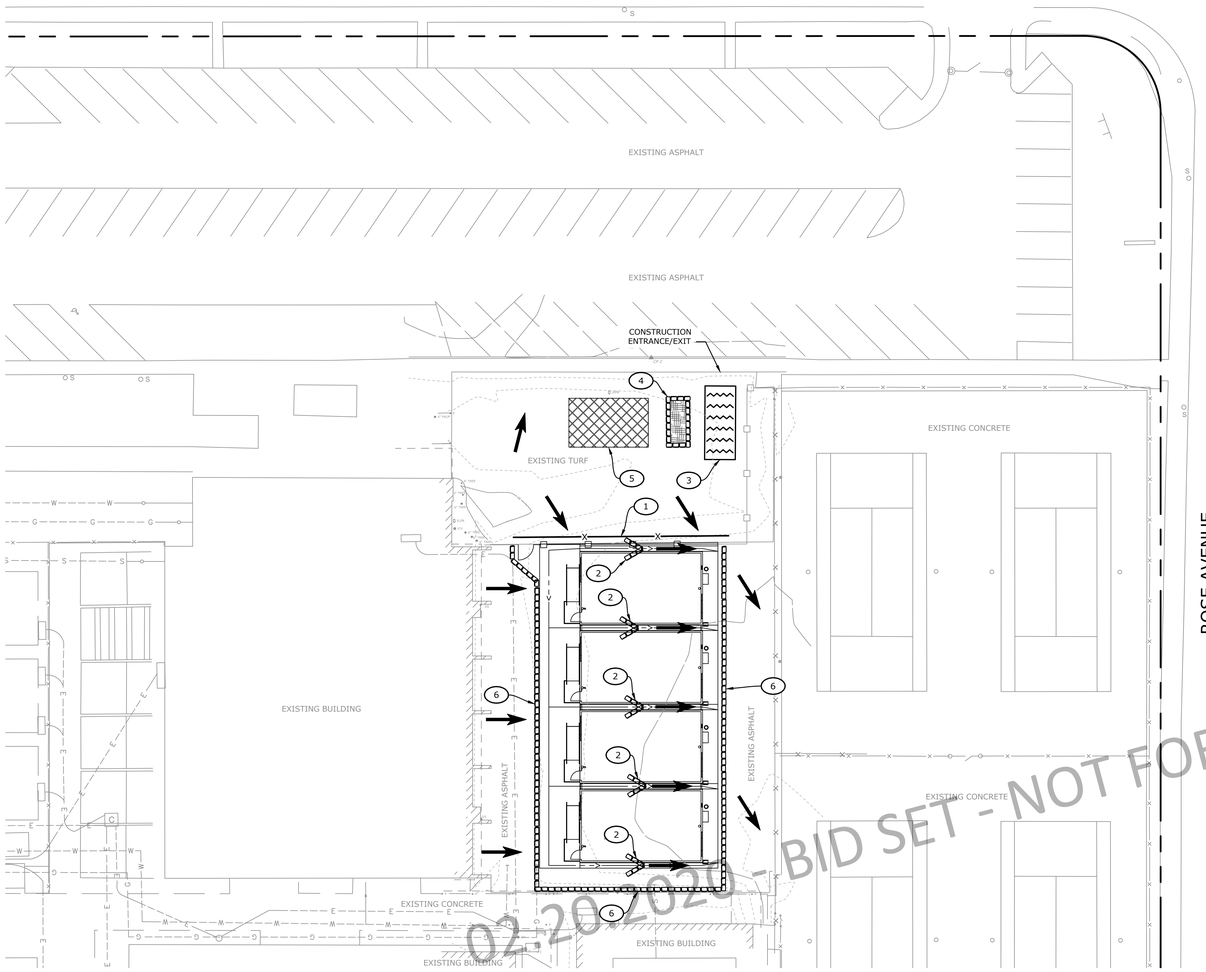
OXNARD UNION HIGH SCHOOL DISTRICT

GENERAL NOTES

Job No.
2835.0200

Date
10-28-2019

C1.02



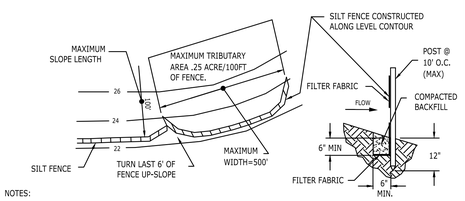
EROSION CONTROL CONSTRUCTION NOTES

1. CONSTRUCT SILT FENCE PER BMP SE-1 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK AND DETAIL "A" HEREON, PRIOR TO AND DURING GRADING AND THE ESTABLISHMENT OF SITE LANDSCAPING AND PLANTINGS.
2. CONSTRUCT TEMPORARY GRAVEL BAG CHECK DAM OR CATCH BASIN SEDIMENT BARRIER PER BMP SE-4 AND SE-10 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK. SEE DETAIL "B" HEREON. ALL GRAVEL BAGS MUST BE IN PLACE DURING PROJECT CONSTRUCTION.
3. CONSTRUCT "RUMBLE RACKS" AT ALL CONSTRUCTION SITE EXITS (MINIMUM 24-FEET BY 10-FEET WIDE). RECOMMENDED LOCATION SHOWN, CONTRACTOR SHALL SUBMIT FINAL LOCATION TO SCHOOL'S REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION. SEE BMP TC-1 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK AND DETAIL "C" HEREON.
4. PROPOSED CONCRETE WASH-OFF AREA PER BMP WM-8 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK AND DETAIL "D" HEREON. WASH-OFF AREA SHALL BE IN PLACE AT ALL TIMES DURING GRADING AND PAVING OPERATIONS. CONTRACTOR SHALL NOT TRACK SOLIDS OR CONCRETE WASH OUT OR DEBRIS ON PUBLIC ROADWAYS. RECOMMENDED LOCATION SHOWN, CONTRACTOR SHALL SUBMIT FINAL LOCATION TO SCHOOL'S REPRESENTATIVE FOR APPROVAL PRIOR TO CONSTRUCTION.
5. PROPOSED STOCKPILE AND MATERIAL STORAGE AREA PER BMP WM-1 AND WM-3 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK AND DETAIL "E" HEREON.
6. CONSTRUCT GRAVEL BAG BERM AT PROJECT LIMITS PER BMP SE-6 IN CURRENT CASQA CONSTRUCTION BMP HANDBOOK.

N
W E
S

SCALE: 1"=20'
0 20 40 60

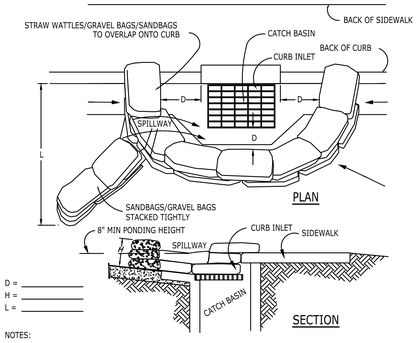
A SILT FENCE SE-1



NOTES:

1. CONSTRUCT THE SILT FENCE ALONG A LEVEL CONTOUR.
2. SILT FENCES SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
3. PROVIDE SUFFICIENT ROOM FOR RUNOFF TO POND BEHIND THE FENCE AND ALLOW SEDIMENT REMOVAL EQUIPMENT TO PASS BETWEEN THE SILT FENCE AND TOE OF SLOPE OR OTHER OBSTRUCTIONS. ABOUT 1200 SQ. FT. OF PONDING AREA SHALL BE PROVIDED FOR EVERY ACRE DRAINING TO THE FENCE.
4. TURN THE ENDS OF THE FILTER FENCE UPHILL TO PREVENT STORMWATER FROM FLOWING AROUND THE FENCE.
5. LEAVE AN UNDISTURBED OR STABILIZED AREA IMMEDIATELY DOWNSLOPE FROM THE FENCE.
6. DO NOT PLACE IN LIVE STREAM OR INTERMITTENTLY FLOWING CHANNELS.
7. WHEN STANDARD FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS.
8. REFER ALSO TO BMP SE-1 FROM CALIFORNIA STORMWATER B.M.P. HANDBOOK FOR CONSTRUCTION (LATEST EDITION).

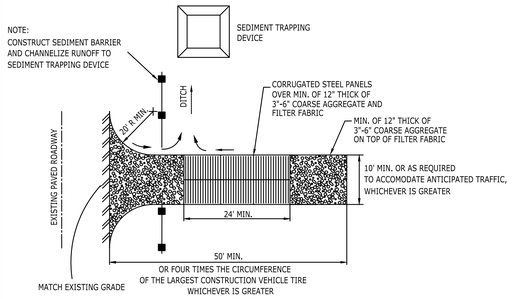
B CATCH BASIN/INLET PROTECTION SE-10



NOTES:

1. CATCH BASIN/INLET PROTECTION SHALL BE INSTALLED WHEREVER THERE IS A POTENTIAL OF STORMWATER OR NON-STORMWATER BEING DISCHARGED INTO IT.
2. INLET PROTECTION IS REQUIRED ALONG WITH OTHER POLLUTION PREVENTION MEASURES SUCH AS; EROSION CONTROL, SOIL STABILIZATION, AND MEASURES TO PREVENT TRACKING ONTO PAVED SURFACES.
3. MODIFY INLET PROTECTION AS NEEDED TO AVOID CREATING TRAFFIC HAZARDS.
4. INCLUDE INLET PROTECTION MEASURES AT HILLSIDE V-DITCHES AND MISC. DRAINAGE SWALES.
5. INLET PROTECTION SHALL BE INSPECTED AND ACCUMULATED SEDIMENTS REMOVED. SEDIMENT SHALL BE DISPOSED OF PROPERLY AND IN A MANNER THAT ASSURES THAT THE SEDIMENT DOES NOT ENTER THE STORM DRAIN SYSTEM.
6. DAMAGED BAGS SHALL BE REPLACED IMMEDIATELY.
7. ADDITIONAL SANDBAG SEDIMENT TRAPS SHALL BE PLACED AT INTERVALS AS INDICATED ON SITE PLAN.

C STABILIZED CONSTRUCTION ENTRANCE TC-1



NOTES:

1. SEDIMENTS AND OTHER MATERIALS SHALL NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS SHALL BE STABILIZED SO AS TO PREVENT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC ROADS. DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS INTO THE STORM DRAIN SYSTEM.
2. STABILIZED CONSTRUCTION ENTRANCE SHALL BE:
   A. LOCATED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE TO OR FROM A PUBLIC RIGHT OF WAY, STREET, ALLEY, AND SIDEWALK OR PARKING AREA.
   B. A SERIES OF STEEL PLATES WITH "RUMBLE STRIPS", AND/OR MIN 3"-6" COARSE AGGREGATE WITH LENGTH, WIDTH & THICKNESS AS NEEDED TO ADEQUATLY PREVENT ANY TRACKING ONTO PAVED SURFACES.
3. ADDING A WASH RACK WITH A SEDIMENT TRAP LARGE ENOUGH TO COLLECT ALL WASH WATER CAN GREATLY IMPROVE EFFICIENCY.
4. ALL VEHICLES ACCESSING THE CONSTRUCTION SITE SHALL UTILIZE THE STABILIZED CONSTRUCTION ENTRANCE SITES.

STREET MAINTENANCE SE-7

NOTES:

1. REMOVE ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS IMMEDIATELY.
2. SWEEP PAVED AREAS THAT RECEIVE CONSTRUCTION TRAFFIC WHENEVER SEDIMENT BECOMES VISIBLE.
3. PAVEMENT WASHING WITH WATER IS PROHIBITED IF IT RESULTS IN A DISCHARGE TO THE STORM DRAIN SYSTEM.

D CONCRETE WASTE MANAGEMENT WM-8

NOTES:

1. EXCESS AND WASTE CONCRETE SHALL NOT BE WASHED INTO THE STREET OR INTO A DRAINAGE SYSTEM.
2. FOR WASHOUT OF CONCRETE AND MORTAR PRODUCTS, A DESIGNATED CONTAINMENT FACILITY OF SUFFICIENT CAPACITY TO RETAIN LIQUID AND SOLID WASTE SHALL BE PROVIDED ON SITE.
3. SLURRY FROM CONCRETE AND ASPHALT SAW CUTTING SHALL BE VACUUMED OR CONTAINED, DRIED, PICKED UP AND DISPOSED OF PROPERLY.
4. CONCRETE WASHOUT AREA SHALL BE LINED WITH A MINIMUM 10 MIL. POLYETHYLENE SHEETING. REFER TO BMP #WM-8 FROM THE 2013 CALIFORNIA CONSTRUCTION BMP HANDBOOK

E MATERIAL STORAGE AND DELIVERY WM-1

APPLY BMP WM-1 FROM THE 2013 CALIFORNIA STORMWATER BMP HANDBOOK FOR CONSTRUCTION AVAILABLE AT www.cabmphandbooks.com.

MINIMUM REQUIREMENTS FROM WM-1:

1. MATERIAL DELIVERY AND STORAGE AREAS SHOULD BE LOCATED NEAR THE CONSTRUCTION ENTRANCES, AWAY FROM WATERWAYS OR DRAINAGE PATHS. PREFERRED METHOD OF MATERIAL STORAGE IS INDOORS WITHIN EXISTING STRUCTURES OR SHEDS WHEN AVAILABLE. AT A MINIMUM, MATERIAL STORAGE AREA SHALL BE SURROUNDED WITH PROTECTIVE BERMS.
2. MATERIALS SHOULD BE STORED IN THEIR ORIGINAL CONTAINERS AND THE ORIGINAL PRODUCT LABELS SHOULD BE MAINTAINED IN PLACE IN A LEGIBLE CONDITION.
3. MATERIALS SHOULD BE STORED ON PALLETS AND SHOULD NOT BE ALLOWED TO ACCUMULATE ON THE GROUND. SECONDARY CONTAINMENT SHALL BE PROVIDED, WHEN POSSIBLE, TO PROVIDE PROTECTION FROM WIND AND RAIN, MATERIALS SHOULD BE COVERED DURING NON-WORKING DAYS AND PRIOR TO AND DURING RAIN OR WIND EVENTS.
4. EMPLOYEES AND SUBCONTRACTORS SHALL BE TRAINED ON PROPER MATERIAL DELIVERY AND STORAGE PRACTICES AND IN EMERGENCY SPILL CLEANUP PROCEDURES.

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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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LICENSED ARCHITECT
MATTHEW BUCHANAN
C-26053
Ren. Date 08/31/2021
STATE OF CALIFORNIA

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER
JOSHAY D. JENISON
NO 77454
CIVIL
STATE OF CALIFORNIA

ECG
Encompass Consultant Group
333 N. LANTANA ST. SUITE 287, CAMARILLO, CA 93010
PHONE: 805.322.4443 WEBSITE: WWW.ECGCIVIL.COM

Drawn by

Checked by

Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

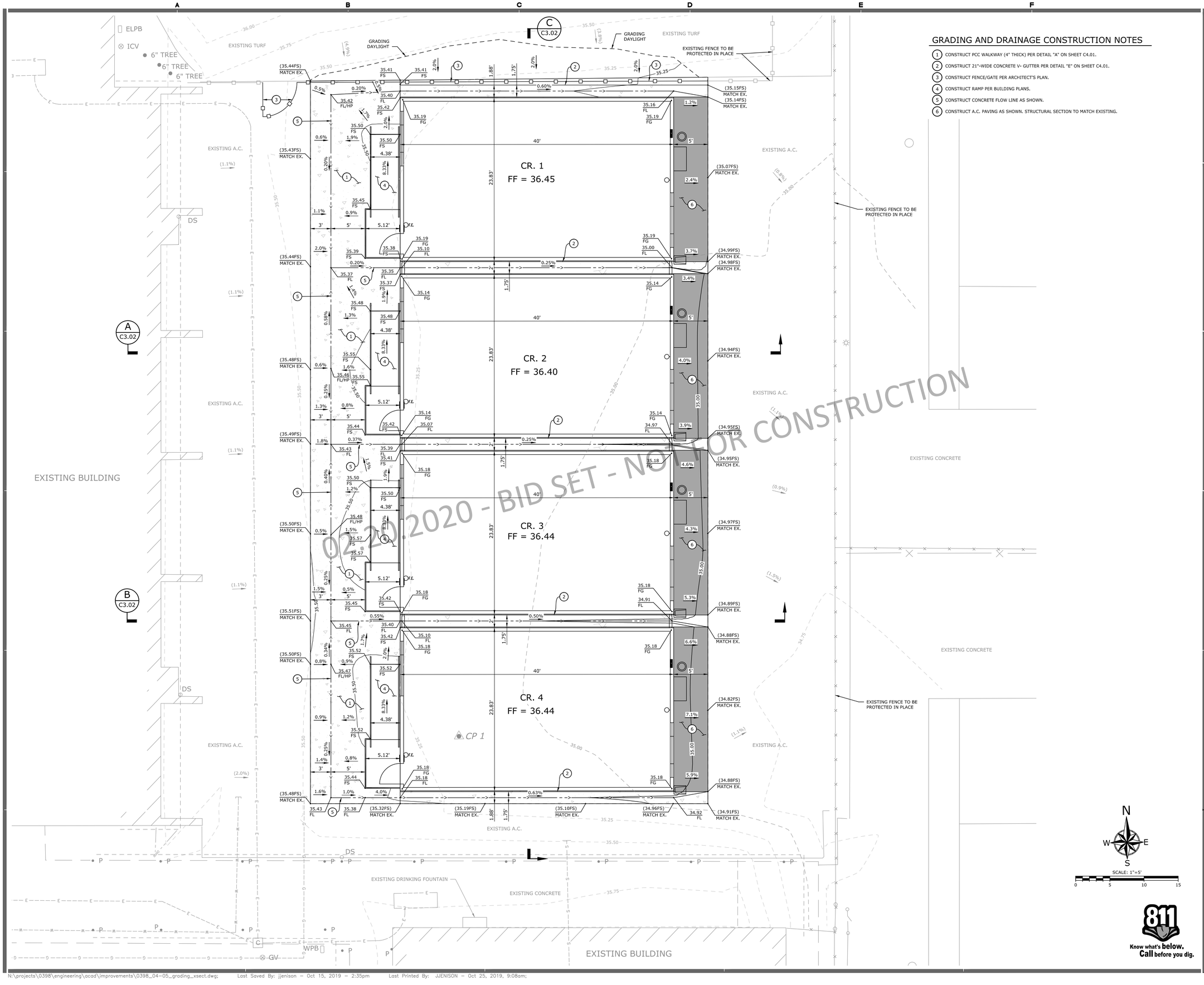
OXNARD UNION HIGH SCHOOL DISTRICT

EROSION CONTROL PLAN

Job No.
2835.0200

Date
10-28-2019

C2.01



GRADING AND DRAINAGE CONSTRUCTION NOTES

1. CONSTRUCT PCC WALKWAY (4" THICK) PER DETAIL "A" ON SHEET C4.01.
2. CONSTRUCT 21"-WIDE CONCRETE V- GUTTER PER DETAIL "E" ON SHEET C4.01.
3. CONSTRUCT FENCE/GATE PER ARCHITECT'S PLAN.
4. CONSTRUCT RAMP PER BUILDING PLANS.
5. CONSTRUCT CONCRETE FLOW LINE AS SHOWN.
6. CONSTRUCT A.C. PAVING AS SHOWN. STRUCTURAL SECTION TO MATCH EXISTING.

N:\projects\0398\engineering\acad\improvements\0398_04-05_grading_xsect.dwg; Last Saved By: jjenison – Oct 15, 2019 – 2:35pm Last Printed By: JJENISON – Oct 25, 2019, 9:08am;

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815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

LICENSED ARCHITECT MATTHEW BUCHMAN C-26053 Ren. Date 08/31/2021 STATE OF CALIFORNIA

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER ADAM D. JENISON NO 77454 CIVIL STATE OF CALIFORNIA

ECG
Encompass Consultant Group
333 N. LANTANA ST. SUITE 207, CAMARILLO, CA 93010
PHONE: 805.322.4443 WEBSITE: WWW.ECGCIVIL.COM

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No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

GRADING AND PAVING PLAN

Job No. 2835.0200

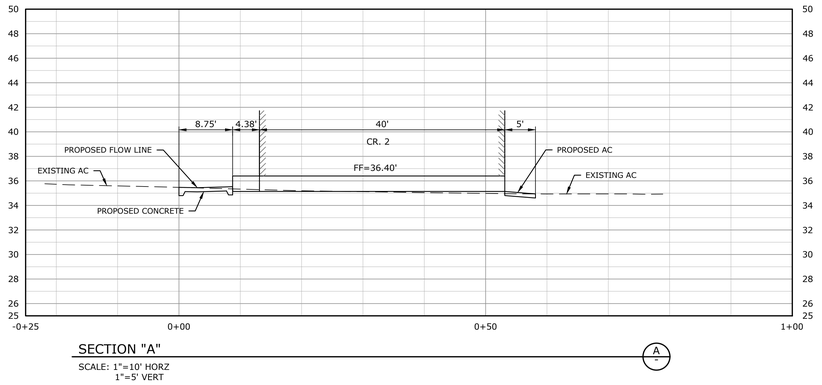
Date 10-28-2019

C3.01

N W E S

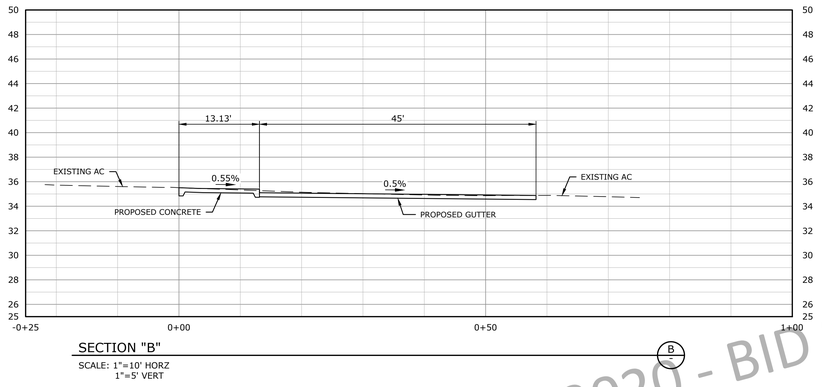
SCALE: 1"=5'
0 5 10 15

811 Know what's below. Call before you dig.



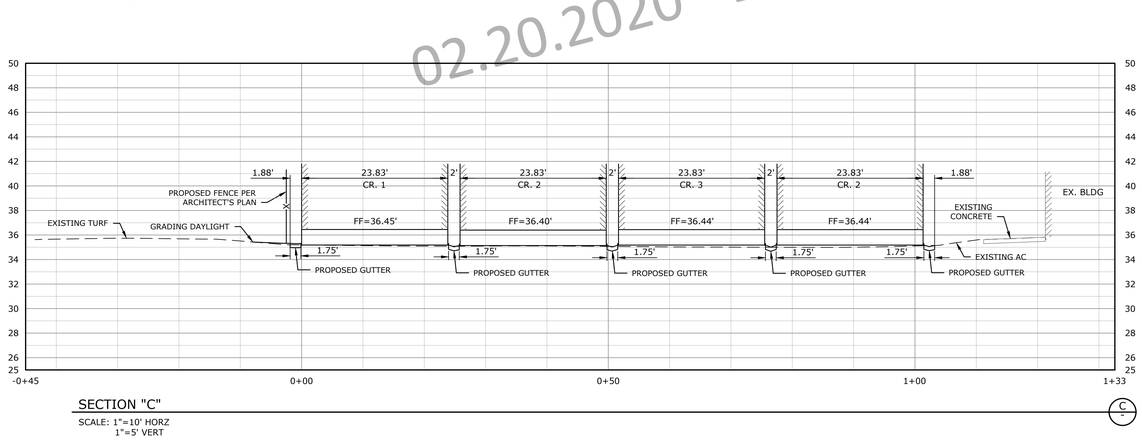
SECTION "A"

SCALE: 1"=10' HORZ
1"=5' VERT



SECTION "B"

SCALE: 1"=10' HORZ
1"=5' VERT



SECTION "C"

SCALE: 1"=10' HORZ
1"=5' VERT

Know what's **below.**
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ARCHITECT

LICENSED ARCHITECT
MATTHEW BUCHANAN
C-26053
Ren. 08/31/2021
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CONSULTANT

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JOSIAH D. JENISON
NO 77454
CIVIL
STATE OF CALIFORNIA

ECG
Encompass Consultant Group
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No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

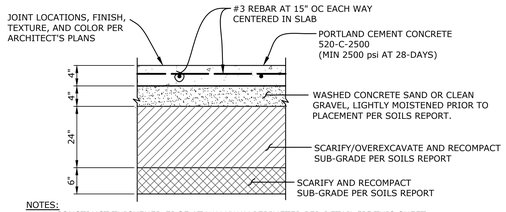
OXNARD UNION HIGH SCHOOL DISTRICT

SITE SECTIONS

Job No.
2835.0200

Date
10-28-2019

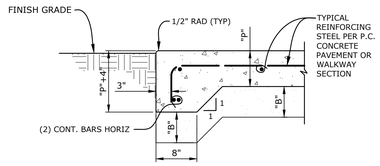
C3.02



NOTES:
1. CONSTRUCT THICKENED EDGE AT WALKWAY PERIMETER PER DETAIL "B" THIS SHEET
2. SAWCUT OR TOOLED CRACK CONTROL JOINTS AT 5' MAX O.C. E.W. PER DETAIL "C" THIS SHEET
3. CONSTRUCT EXPANSION JOINTS AT 11' MAX O.C. E.W. AND AT ADJACENT STRUCTURES PER DETAIL "D" THIS SHEET
4. PAVEMENT SECTION IS AN ESTIMATE ONLY. SOILS ENGINEER TO GIVE FINAL RECOMMENDATION BASED ON R-VALUE TEST RESULTS TAKEN PRIOR TO CONSTRUCTION.

WALKWAY PCC PAVEMENT SECTION
SCALE: N.T.S.

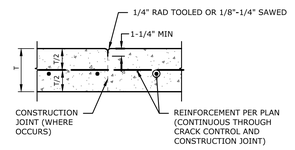
A



"P"= PORTLAND CEMENT CONCRETE THICKNESS (INCHES)
"B"= BASE LAYER THICKNESS (INCHES)

PCC PAVEMENT OR WALKWAY THICKENED EDGE
SCALE: N.T.S.

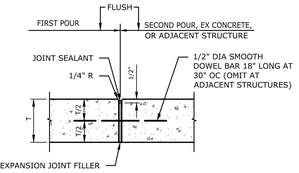
B



NOTES:
1. SEE SPECIFICATIONS FOR TYPE OF JOINT SEALANT.
2. CONSTRUCTION JOINTS SHALL ONLY BE LOCATED WHERE A CRACK CONTROL JOINT OR OTHER JOINT WOULD OTHERWISE HAVE BEEN REQUIRED.
3. SEE PLAN FOR THICKNESS, T.
4. FOR CRACK CONTROL JOINTS LOCATIONS, SEE ARCH. PLANS.
5. CRACK CONTROL JOINTS TO BE SPACED AT 5' MAX O.C. E.W.

CONSTRUCTION/CRACK CONTROL JOINT
SCALE: N.T.S.

C



NOTES:
1. SEE SPECIFICATIONS FOR TYPE OF JOINT SEALANT & EXPANSION JOINT FILLER.
2. USE SMOOTH BARS FOR DOWELS COATED TO PREVENT BOND, GREASE ONE END PRIOR TO SECOND POUR.
3. SEE PLAN FOR THICKNESS, T.
4. PROVIDE ADEQUATE SUPPORT FOR DOWELS TO ENSURE THEY REMAIN LEVEL WITH FINISH SURFACE.
5. STOP SLAB REINFORCING AT EXPANSION JOINTS.

EXPANSION JOINT
SCALE: N.T.S.

D

21" WIDE CONCRETE V-GUTTER
SCALE: N.T.S.

E

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C-26053
Ex. 08/31/2021
STATE OF CALIFORNIA

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER
JOSHUA D. JENISON
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CIVIL
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Revisions

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(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

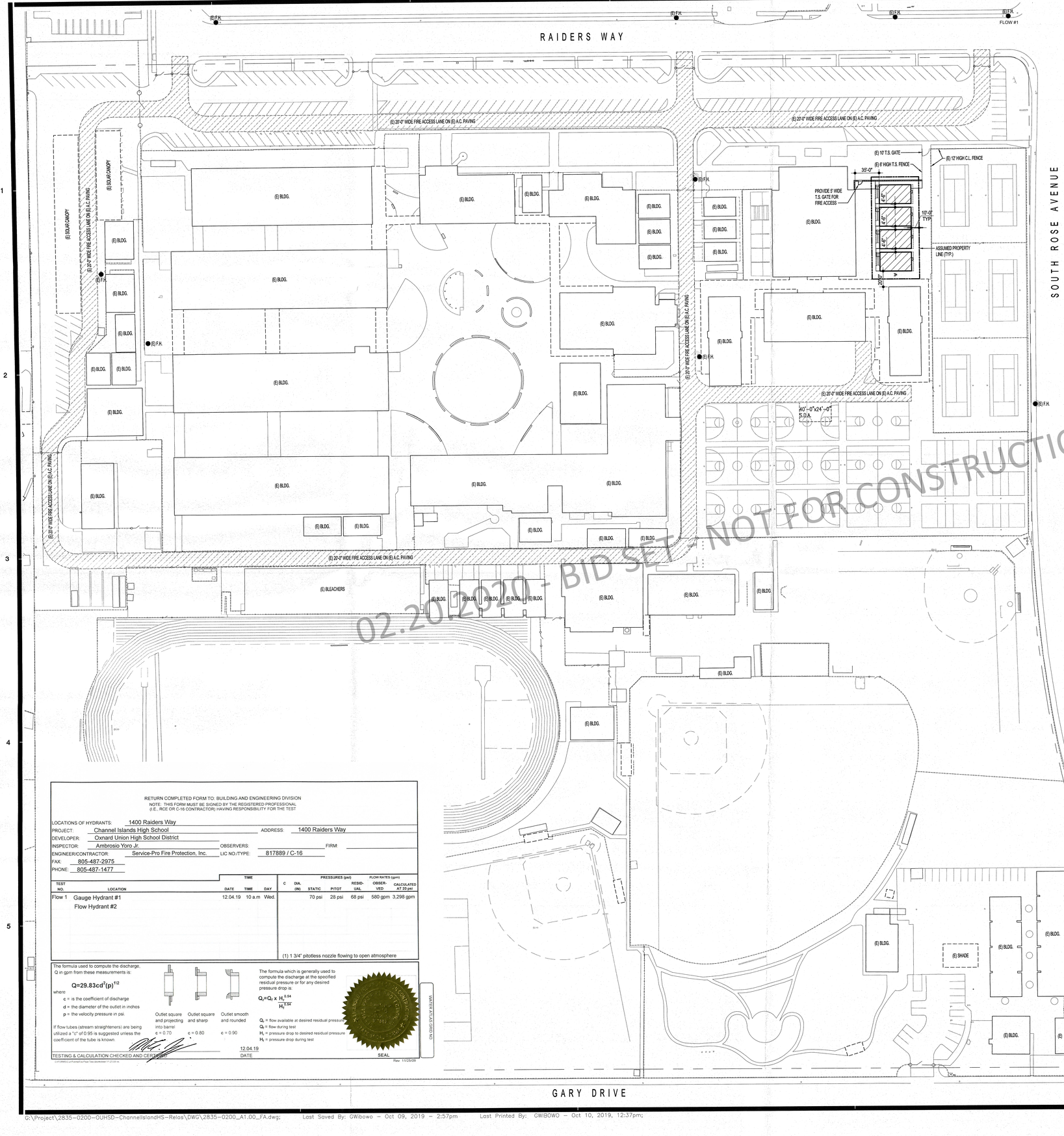
OXNARD UNION HIGH SCHOOL DISTRICT

DETAILS

Job No.
2835.0200

Date
10-28-2019

C4.01



RETURN COMPLETED FORM TO: BUILDING AND ENGINEERING DIVISION
NOTE: THIS FORM MUST BE SIGNED BY THE REGISTERED PROFESSIONAL (I.E., RCE OR C-16 CONTRACTOR) HAVING RESPONSIBILITY FOR THE TEST

LOCATIONS OF HYDRANTS: 1400 Raiders Way
PROJECT: Channel Islands High School — ADDRESS: 1400 Raiders Way
DEVELOPER: Oxnard Union High School District
INSPECTOR: Ambrosio Yoro Jr. — OBSERVERS: — FIRM:
ENGINEER/CONTRACTOR: Service-Pro Fire Protection, Inc. — LIC NO./TYPE: 817889 / C-16
FAX: 805-487-2975
PHONE: 805-487-1477

TEST NO.	LOCATION	TIME DATE	TIME	DAY	C	DIA. (IN)	PRESSURES (psi) STATIC	PITOT	RESID-UAL	FLOW RATES (gpm) OBSER-VED	CALCULATED AT 20 psi
Flow 1	Gauge Hydrant #1	12.04.19	10 a.m	Wed.			70 psi	28 psi	68 psi	580 gpm	3,298 gpm
	Flow Hydrant #2										

(1) 1 3/4" pitotless nozzle flowing to open atmosphere

The formula used to compute the discharge, Q in gpm from these measurements is:

$$Q = 29.83cd^2(p)^{1/2}$$

where
c = is the coefficient of discharge
d = the diameter of the outlet in inches
p = the velocity pressure in psi.

If flow tubes (stream straighteners) are being utilized a "c" of 0.95 is suggested unless the coefficient of the tube is known.

Outlet square and projecting into barrel c = 0.70 — Outlet square and sharp c = 0.80 — Outlet smooth and rounded c = 0.90

The formula which is generally used to compute the discharge at the specified residual pressure or for any desired pressure drop is:

$$Q_R = Q_t \times \frac{H_r^{0.54}}{H_t^{0.54}}$$

Q_R = flow available at desired residual pressure
Q_t = flow during test
H_r = pressure drop to desired residual pressure
H_t = pressure drop during test

TESTING & CALCULATION CHECKED AND CERTIFIED — 12.04.19 DATE — SEAL

WATER ATLAS CHRO NO

Rev 11/25/09

DSA 810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1–3 below is to be provided for all project types indicated above. Information associated with items 4–7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the local fire authority (LFA) is only required when an alternate design means is being requested.

Page 1 of the completed form must be imaged onto the fire access site plan. When an alternate design/means is proposed, completed pages 1 *and* 2 are to be imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy 09-01.

PROJECT INFORMATION

School District/Owner: OXNARD UNION HIGH SCHOOL DISTRICT
Project Name/School: (4)24'x40' CR. Modular Buildings at Channel Island High School
Project Address: 1400 Raiders Way, Oxnard, CA 93033

FIRE & LIFE SAFETY INFOMATION

1.	Has a fire hydrant flow test been performed within the past 12 months? *(If yes, provide a copy of the test data.)*	Yes ☐	No ☒
2.	Was the fire hydrant water flow test performed as part of this LFA review?	Yes ☐	No ☒
3.	Is the project located within a designated fire hazard severity zone as established by Cal-Fire? *(If yes, indicate fire hazard zone classification below)*	Yes ☐	No ☒
	Refer to the following for fire hazard zone locations: www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps	Moderate ☐ / High ☐ / Very High ☐	
	Wildland Interface Area (WIFA) *(If any designations are checked, project design must meet the requirements of CBC Chapter 7A.)*		WIFA ☐

CONDITION MEANS AND METHODS RESOLUTION

		ALTERNATE ACCEPTED Yes	No	N/A	N/R
4.	Emergency vehicle access roadways do not meet CFC requirements.			X	
4a.	**Acceptable Alternate:** Emergency vehicle and personnel access as proposed by the project architect is acceptable for providing fire suppression and protection of life and property.				
5.	**Fire Hydrants:** Number and spacing does not meet CFC requirements.			X	
5a.	**Acceptable Aternate:** Number of fire hydrants and spacing as proposed by the project architect is acceptable for fire suppression and protection of life and property.	X			
6.	**Fire Hydrants:** Water flow and pressure are less than CFC minimum.			X	
6a.	**Acceptable Alternate**: The available flow and pressure is acceptable for providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or standpipe systems does not meet CFC requirements.			X	
7a.	**Acceptable Alternate:** The location of fire department connection serving the fire sprinkler system and/or standpipe system is acceptable for providing fire suppression and protection of life and property.			X	

DSA 810
FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

School District Acceptance of Acceptable Design Alternates

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

Accepted by: _____ Title: _____

Signature: _____ Date: _____

LOCAL FIRE AUTHORITY (LFA) INFORMATION

LFA Agency Name: Ventura County Fire Department - Fire Prevention Center, Camarillo, CA
LFA Review Official: SERGIO MARTINEZ
Title: FIRE MARSHAL
Work E-mail: SERGIO.MARTINEZ@VENTURA.ORG

NON-CASE HARDENED LOCKS ON GATES.

SITE PLAN LEGEND :

PROPOSED 24'x40' MODULAR CLASSROOM BUILDING ON (E) A.C. PAVING - ONE STORY ON WOOD FOUNDATION, NON-SPRINKLERED

● (E) F.H. (E) FIRE HYDRANT, SIZE 6"x4"x2 1/2" (TYP.)

PROJECT DATA:

TYPE OF OCCUPANCY : E

TYPE OF CONSTRUCTION : VB

BUILDING AREA 1 :
FOUR (4) NEW 24'x40' MODULAR BUILDINGS = 3,840 S.F.
3,840 S.F. TOTAL BUILDING AREA < 9,500 S.F. BASIC ALLOWABLE AREA

SAFE DISPERSAL AREA (S.D.A.) :

SAFE DISPERSAL AREA - 5 S.F. / OCCUPANT

24'-0"x40'-0" = 960 S.F. (CLASSROOM BUILDING AREA)
20 (CLASSROOM'S OCCUPANCY LOAD) = 48 OCCUPANTS

48 OCCUPANTS x 5 S.F. x 8 BUILDINGS = 960 S.F. REQUIRED SAFE DISPERSAL AREA

24'-0"x40'-0" = 960 S.F. SAFE DISPERSAL AREA PROVIDED (50'-0" MIN. FROM STRUCTURES)

N

SITE PLAN

SCALE : 1" = 50'-0"

PROJECT NUMBER + DETAIL SEAL + SHEET REFERENCE +

1 / -

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Los Angeles, CA 90041
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LICENSED ARCHITECT MATTHEW BUCHMAN C-26053 Ren. Date 08/31/2021 STATE OF CALIFORNIA

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(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLAND HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

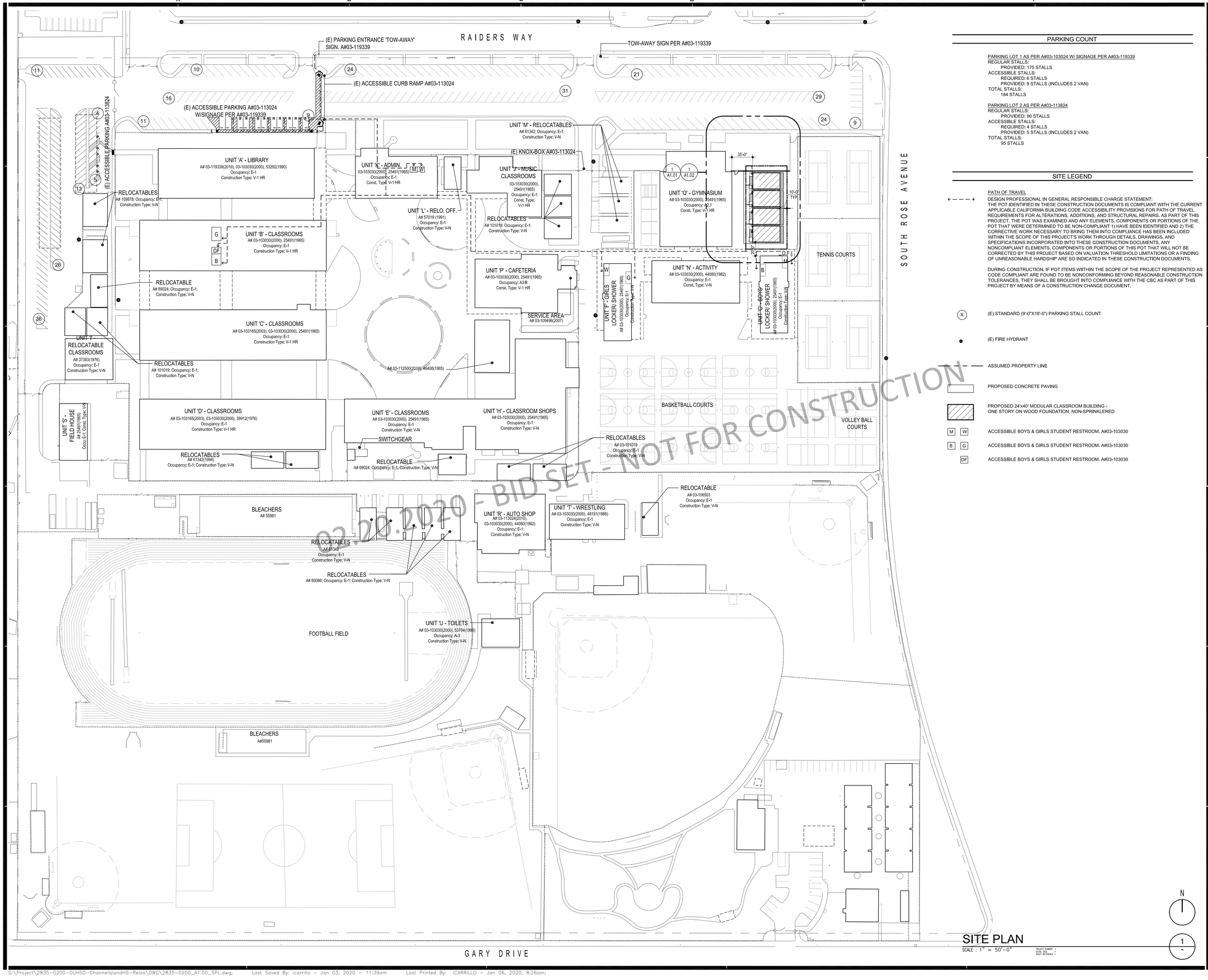
OXNARD UNION HIGH SCHOOL DISTRICT

FIRE ACCESS PLAN

Job No. 2835.0200

Date 10-9-2019

A1.00FA



PARKING COUNT

PARKING LOT 1 AS PER A#03-103024 W/ SIGNAGE PER A#03-119339
REGULAR STALLS:
PROVIDED: 175 STALLS
ACCESSIBLE STALLS:
REQUIRED: 6 STALLS
PROVIDED: 9 STALLS (INCLUDES 2 VAN)
TOTAL STALLS:
184 STALLS

PARKING LOT 2 AS PER A#03-113824
REGULAR STALLS:
PROVIDED: 90 STALLS
ACCESSIBLE STALLS:
REQUIRED: 4 STALLS
PROVIDED: 5 STALLS (INCLUDES 2 VAN)
TOTAL STALLS:
95 STALLS

SITE LEGEND

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

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

(X) (E) STANDARD (9'-0"X18'-0") PARKING STALL COUNT

(E) FIRE HYDRANT

ASSUMED PROPERTY LINE

PROPOSED CONCRETE PAVING

PROPOSED 24'x40' MODULAR CLASSROOM BUILDING - ONE STORY ON WOOD FOUNDATION, NON-SPRINKLERED

M W ACCESSIBLE BOYS & GIRLS STUDENT RESTROOM. A#03-103030

B G ACCESSIBLE BOYS & GIRLS STUDENT RESTROOM. A#03-103030

DF ACCESSIBLE BOYS & GIRLS STUDENT RESTROOM. A#03-103030

N

SITE PLAN
SCALE : 1" = 50'-0"

1
-

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1400 RAIDERS WAY
OXNARD, CA 93033

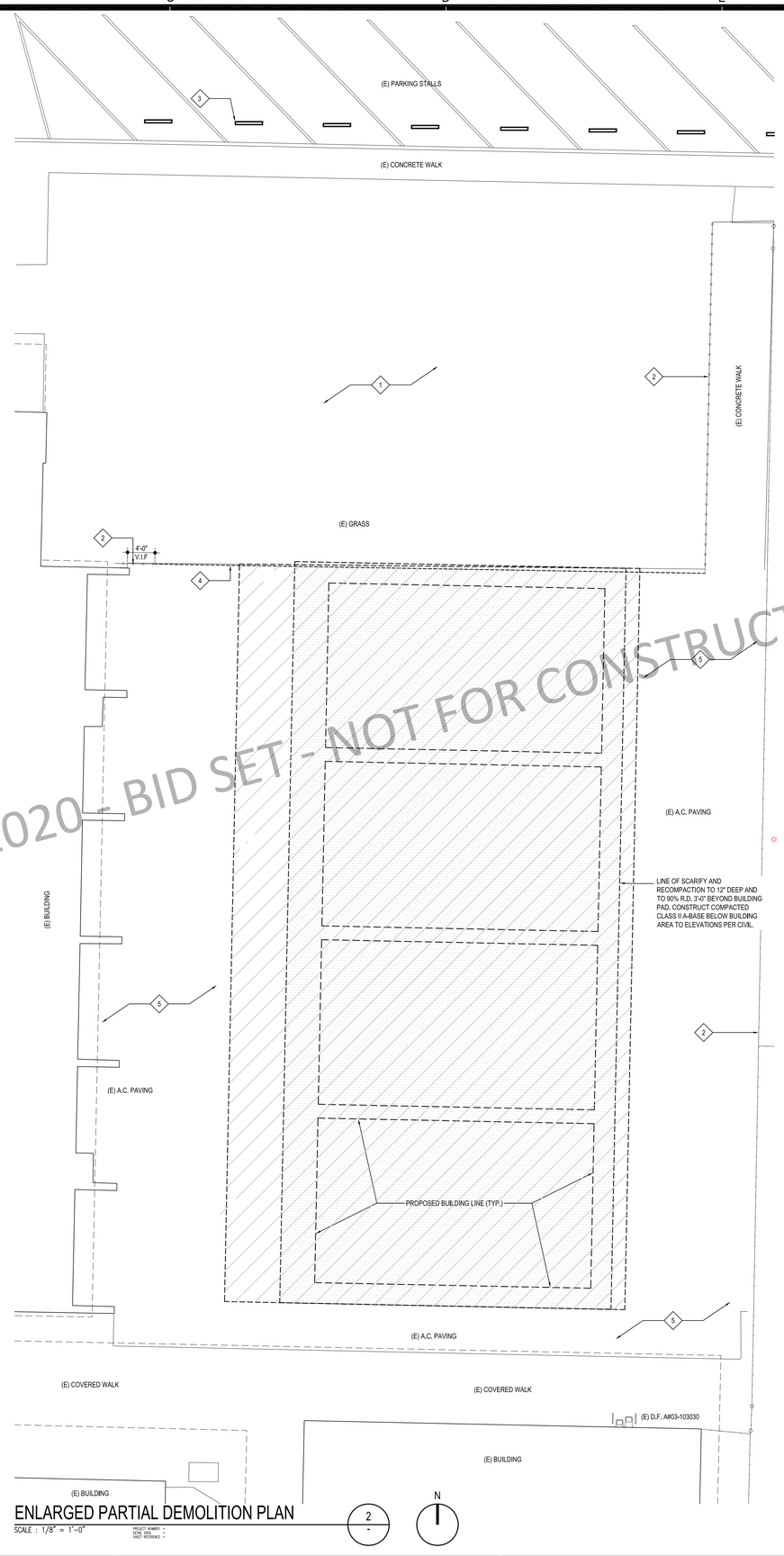
OXNARD UNION HIGH SCHOOL DISTRICT

SITE PLAN

Job No.
2835.0200

Date
10-9-2019

A1.00



ENLARGED PARTIAL DEMOLITION PLAN

SCALE : 1/8" = 1'-0"

2 / -

N

SITE DEMOLITION NOTES

1. KEYNOTES & DEMOLITION LEGEND SHOW THE GENERAL EXTENT OF DEMOLITION. G.C. SHALL REMOVE ALL ITEMS, WETHER SHOWN OR NOT, AS NECESSARY TO ACCOMMODATE THE INSTALLATION OF THE NEW WORK.
2. G.C. SHALL COORDINATE ALL REQUIRED SCOPE OF WORK FOR ALL TRADES PRIOR TO COMMENCING WORK.
3. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES WITHIN AREA OF WORK PRIOR TO START OF CONSTRUCTION. DO NOT INTERRUPT SERVICE TO EXISTING BUILDING WITHOUT PRIOR WRITTEN DISTRICT APPROVAL.
4. STAGING AREAS SHALL BE COORDINATED WITH OWNER'S REPRESENTATIVE. CONSTRUCTION STAGING SHALL NOT OBSTRUCT THE EXISTING FIRE ACCESS OR EXISTING FIRE HYDRANTS.
5. PROVIDE 6' HIGH SCREENED TEMPORARY FENCING AROUND PROJECT AREA. COORDINATE EXACT LOCATION WITH DISTRICT PRIOR TO START OF CONSTRUCTION.
6. REFER TO CIVIL DRAWINGS FOR EROSION CONTROL & EXTENTS OF GRADING.
7. SEE ELECTRICAL DRAWINGS FOR REQUIRED UTILITY ROUTING, PROVIDE NEAT SAWCUT AND TRENCHING AS REQUIRED TO ACCOMMODATE NEW UTILITIES, PATCH & REPAIR TO MATCH EXISTING CONDITION.
8. FIRE PROTECTION DURING DEMOLITION SHALL BE IN ACCORDANCE WITH 2016 C.F.C. CHAPTER 7, 11, AND 33.

SITE DEMOLITION KEYNOTES

1. EXISTING TURF AREA TO REMAIN. IRRIGATION LINES, SPRINKLER HEADS, VALVES, WIRING TO BE RELOCATED AS REQUIRED TO PROVIDE PROJECT SCOPE OF WORK. ADJUST ALL HEADS TO SPRAY AWAY FROM BUILDING.
2. EXISTING TUBE STEEL FENCE TO REMAIN.
3. REMOVE (E) CONCRETE PARKING STOPS AS REQUIRED TO ACCESS THE SITE. SALVAGE FOR REINSTALLATION. REPLACE ANY DAMAGED PARKING STOPS.
4. REMOVE PORTION OF (E) C.L. FENCE & FOOTINGS AS REQUIRED TO ACCOMMODATE NEW WORK.
5. PATCH & REPAIR EXISTING ASPHALT PAVING

SITE DEMOLITION LEGEND

- PORTION OF (E) A.C. PAVING TO BE REMOVE IN ITS ENTIRETY TO ACCOMMODATE NEW WORK.
- ITEM TO BE REMOVED IN ITS ENTIRETY
- (E) EXISTING FIRE HYDRANT, PROTECT IN PLACE

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Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

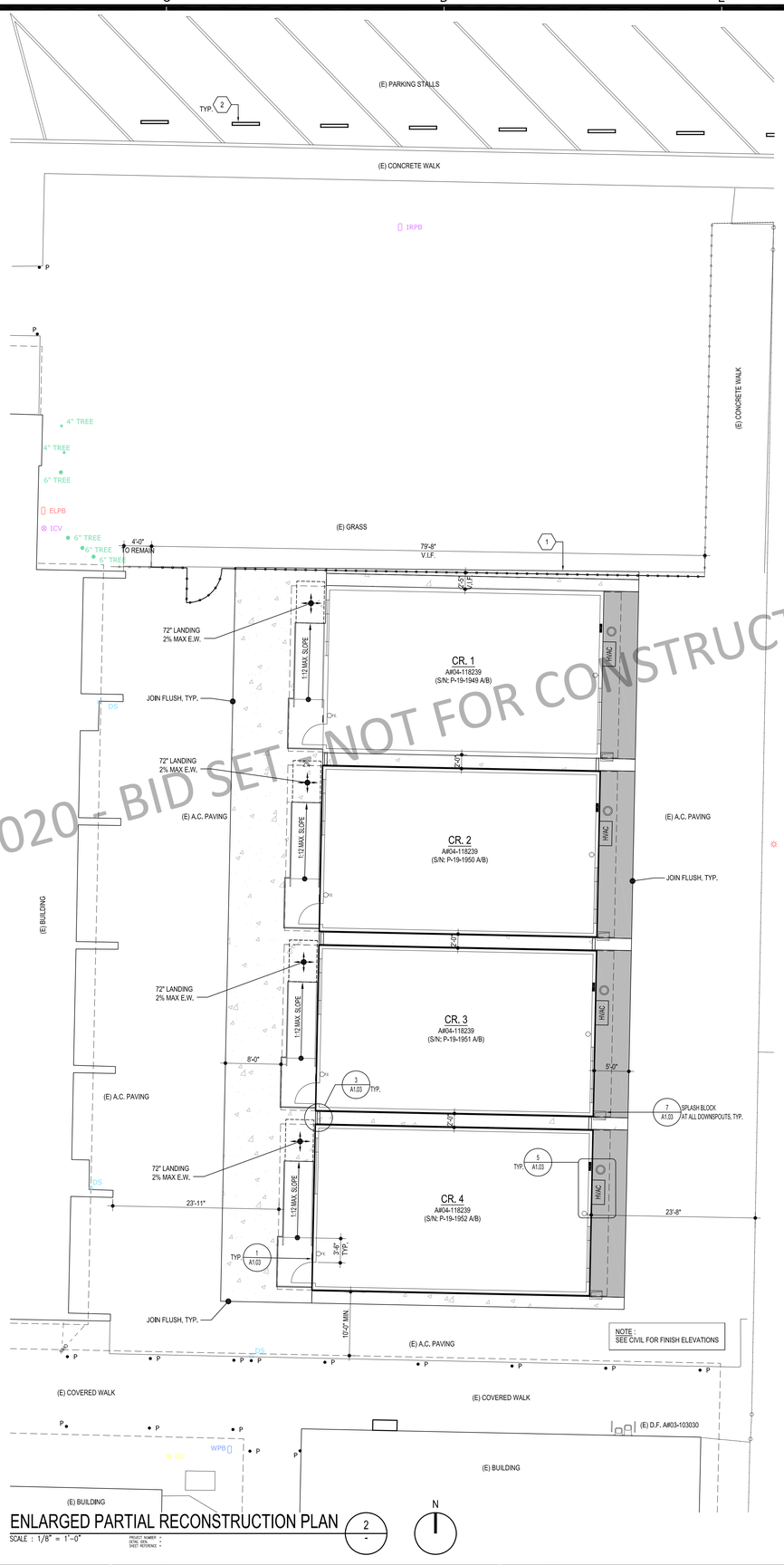
OXNARD UNION HIGH SCHOOL DISTRICT

ENLARGED PARTIAL SITE DEMOLITION PLAN

Job No.
2835.0200

Date
10-9-2019

A1.01



ENLARGED PARTIAL RECONSTRUCTION PLAN

SCALE : 1/8" = 1'-0"

2 / -

N

SITE RECONSTRUCTION NOTES

1. REFER TO A1.00 FOR PATH OF TRAVEL.
2. FOR BUILDING SITE LAYOUT DIMENSIONS REFER TO CIVIL DRAWINGS.
3. FOR FINISH ELEVATIONS REFER TO CIVIL DRAWINGS.
4. PROVIDE CONCRETE CONTROL JOINTS AT A MAXIMUM OF 10'-0" O.C.
5. G.C. TO COORDINATE EXACT LOCATION OF UNDER FLOOR VENTS & ACCESS WITH MANUFACTURER DRAWINGS. ALL GRATES SHALL BE HEEL-PROOF GRATES WITH A MAX. OPENING OF ½" EACH WAY.

SITE RECONSTRUCTION KEYNOTES

1. PROVIDE 6" CONCRETE MOWSTRIP.
2. RE-INSTALL PARKING STOPS PER ORIGINAL LOCATIONS,TYP. 11 / A1.03

SITE RECONSTRUCTION LEGEND

- MEDIUM BROOM CONCRETE FINISH. SEE CIVIL PLANS.
- A.C. PAVING. SEE CIVIL PLANS.
- PROVIDE 6' T.S. FENCE & 5' FIRE ACCESS GATE. SEE 8 / A1.03 9 / A1.03
- (E) F.H. 6"X4"X2 ½". PROTECT IN PLACE.

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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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No.	Date	Description

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1400 RAIDERS WAY
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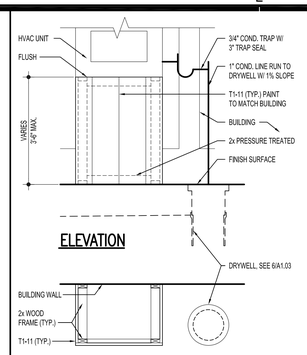
OXNARD UNION HIGH SCHOOL DISTRICT

ENLARGED PARTIAL SITE RECONSTRUCTION PLAN

Job No.
2835.0200

Date
10-9-2019

A1.02



NOTE :
ALL FASTENERS 8d GALV. AT 6" O.C. PERIMETER AND 12" O.C. FIELD.

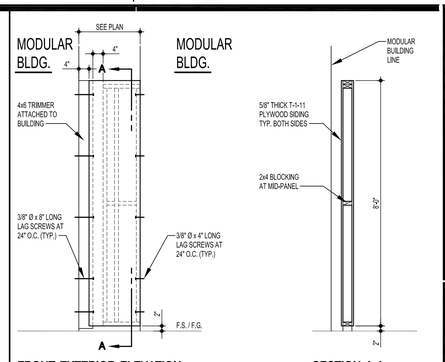
ELEVATION

PLAN

HVAC SCREEN AND CONDENSATE LINE

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

5 / A1.03



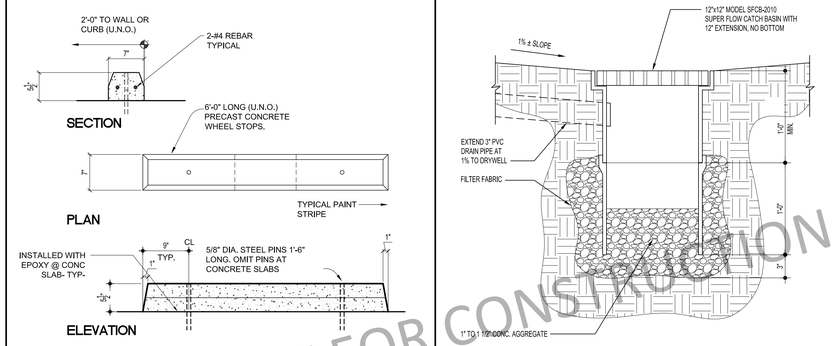
FRONT EXTERIOR ELEVATION

SECTION A-A

BUILDING PANEL CLOSURE - ELEVATION

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

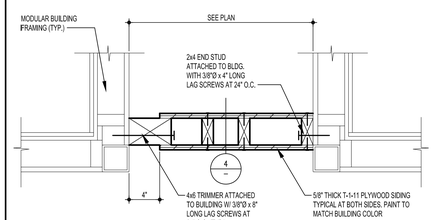
4 / A1.03



DRYWELL

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

6 / -



BUILDING CLOSURE PANEL - PLAN

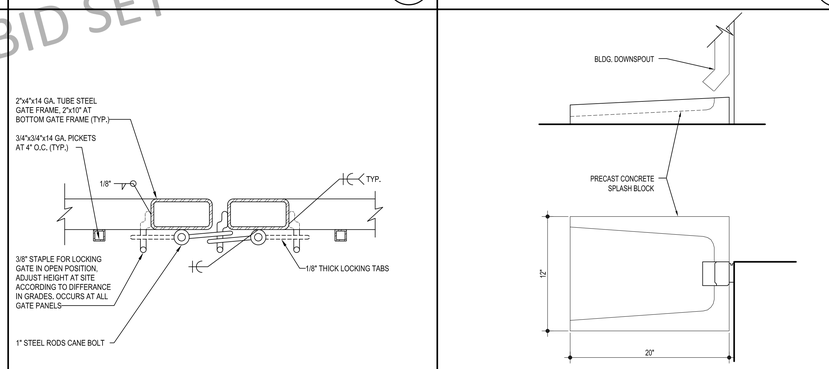
SCALE : 1 1/2" = 1'-0"

3 / -

CONCRETE WHEEL STOP

SCALE : 1" = 1'-0"

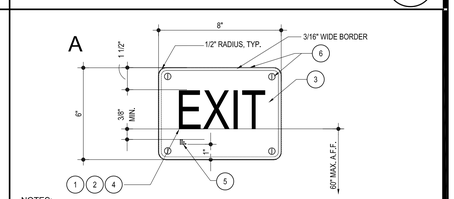
11 / -



PRECAST SPLASH BLOCK

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

7 / -



NOTES:

1. CHARACTER TYPE: CHARACTERS ON SIGNS SHALL BE RAISED 1/32".
2. CHARACTER SIZE: 1"-2" HIGH
3. FINISH AND CONTRAST: CONTRAST BETWEEN CHARACTERS, SYMBOLS, AND THEIR BACKGROUND MUST BE 70% MIN. AND HAVE A NON-GLARE FINISH.
4. PROPORTIONS: CHARACTERS AND SIGNS SHALL HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO OF BETWEEN 1:5 AND 1:10.
5. BRAILLE: CALIFORNIA GRADE 2 BRAILLE SHALL BE USED.
6. SIGN THICKNESS & MOUNTING: SIGN MATERIAL TO BE 1/8" THICK PLASTIC WITH 1/32" RAISED BORDER. PROVIDE MECHANICAL MOUNTING WITH VANDAL RESISTANT FASTENERS. USE DOUBLE SIDED FOAM TAPE AT GLAZING.

SIGNS SHALL BE INSTALLED AT THE INTERIOR LATCH SIDE OF ALL DOORS EXITING TO THE BUILDING'S EXTERIOR.

EXIT SIGN

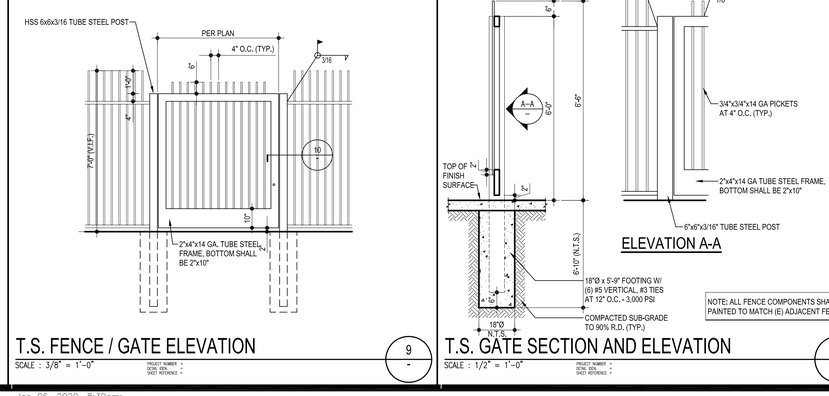
SCALE : 3" = 1'-0"

2 / -

GATE LOCK

SCALE : 3" = 1'-0"

10 / -



T.S. FENCE / GATE ELEVATION

SCALE : 3/8" = 1'-0"

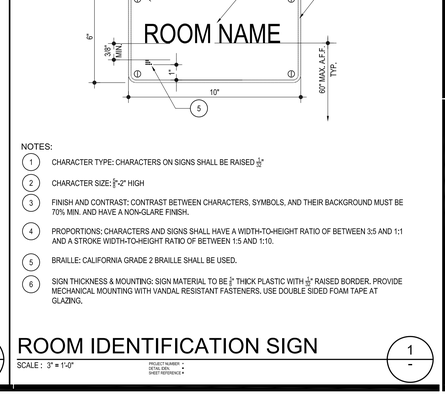
9 / -

NOTE: ALL FENCE COMPONENTS SHALL BE PAINTED TO MATCH (E) ADJACENT FENCE.

T.S. GATE SECTION AND ELEVATION

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

8 / -



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6. SIGN THICKNESS & MOUNTING: SIGN MATERIAL TO BE 1/8" THICK PLASTIC WITH 1/32" RAISED BORDER. PROVIDE MECHANICAL MOUNTING WITH VANDAL RESISTANT FASTENERS. USE DOUBLE SIDED FOAM TAPE AT GLAZING.

ROOM IDENTIFICATION SIGN

SCALE : 3" = 1'-0"

1 / -

AGENCY

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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
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ARCHITECT

CONSULTANT

Drawn by

Checked by

Revisions

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(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

DETAILS

Job No. 2835.0200

Date 10-9-2019

A1.03

PLUMBING GENERAL NOTES

A. BEFORE STARTING ANY WORK, VERIFY THE ADEQUACY, LOCATION, SIZE, AND AVAILABILITY OF ALL UTILITIES CONCERNED, INCLUDING SEWER INVERT ELEVATIONS, AND WATER PRESSURE.

B. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES FOR CLEARANCES AND WORK INCLUDED PRIOR TO START OF WORK.

C. CLEANOUTS SHALL BE INSTALLED PER CODE REQUIREMENTS.

D. PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE STOPPED. FIRE STOPPING SHALL BE AN APPROVED MATERIAL AS PRESCRIBED IN STATE. FIRE MARSHALL STANDARD 43-1, AND SHALL BE U.L. LISTED.

E. COORDINATE WITH ELECTRICAL SECTION PRIOR TO ORDERING EQUIPMENT FOR AVAILABLE VOLTAGE AT EQUIPMENT LOCATIONS.

F. ALL FIXTURES SHALL BE PROTECTED DURING CONSTRUCTION FROM ANY DAMAGE. REFINISHED FIXTURES WILL NOT BE ACCEPTABLE UNDER ANY CONDITIONS.

G. HANDICAPPED USE PLUMBING FIXTURES SHALL BE MOUNTED AT REQUIRED HEIGHTS AND WITH ALL RELATED ACCESSORIES AS REQUIRED BY THE ADMINISTRATIVE AUTHORITIES.

H. ALL CONDENSATE LINES, HOT WATER AND HOT WATER RETURN LINES SHALL BE INSULATED.

I. ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH "GUIDELINES FOR RESTRAINTS OF MECHANICAL SYSTEMS, PLUMBING PIPING SYSTEMS" PUBLISHED BY SMACNA.

J. ALL DOMESTIC WATER FIXTURES, PIPING VALVES, ETC. FOR HUMAN CONSUMPTION SHALL COMPLY WITH CALIFORNIA HEALTH AND SAFETY CODE 116875

K. THESE PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO ESTABLISH LOCATION OF WORK. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS BASED ON EXISTING FIELD CONDITIONS AND MAKE ADJUSTMENTS AS NECESSARY FOR THE LOCATIONS, ACTUAL EQUIPMENT TO BE INSTALLED, AND THE MANUFACTURER'S REQUIRED CLEARANCES TO ASSURE PROPER FUNCTIONALITY, CONSTRUCTABILITY, AND CODE COMPLIANCE.

L. ANY EQUIPMENT, DUCTWORK, OR PIPING INSTALLED MORE THAN 1'-0" FROM THE LOCATION SHOWN ON THE DRAWINGS SHALL BE CLEARLY DOCUMENTED IN THE FIELD. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS IN AUTOCAD COMPATIBLE FORMAT THAT CLEARLY SHOW THE LOCATION OF THE PIPING BEFORE THE COMPLETION OF THE PROJECT. ALL EXPENSE RELATING TO VERIFICATION OF THE AS-BUILT DRAWINGS BY THE OWNER OR ITS REPRESENTATIVE(S) DUE TO INACCURATE OR INCOMPLETE RECORD SHALL BE BORNE BY THE CONTRACTOR.

M. POTABLE WATER SYSTEM SHALL BE FLUSHED AND CHLORINATED PER CODE PRIOR TO USE. RESULTS OF CHLORINATION SHALL BE GIVEN TO OWNER.

N. CODE REFERENCES: 2019 CBC, 2019 CPC AND 2019 CAL GREEN CODE.

O. CONTRACTOR SHALL REFERENCE THE SOILS REPORT BEFORE ANY TRENCHING AND INSTALLATION OF PIPING.

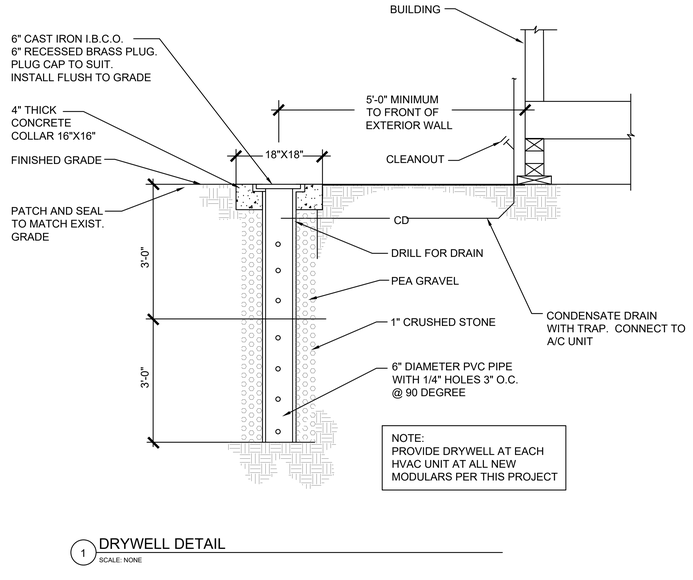
PIPE AND FITTING MATERIALS

TYPE	MATERIAL	FITTINGS	LOCATION
CD	SCHEDULE 40 PVC	SCHEDULE 40 PVC	ABOVE GRADE
	SCHEDULE 40 PVC	SCHEDULE 40 PVC	BELOW GRADE

PLUMBING LEGEND

SYMBOL	ABBR.	DESCRIPTION
ES	ES	EXISTING WASTE LINE BELOW GRADE
ECW	ECW	EXISTING COLD WATER LINE BELOW GRADE
CD	CD	CONDENSATE LINE BELOW GRADE
	-	DROP IN PIPE
	-	RISE IN PIPE
	-	DIRECTION OF FLOW
	HB	HOSE BIBB
	WCO	WALL CLEANOUT
	U	UNION
	BV	BALL VALVE
	POD	POINT OF DISCONNECT
	POC	POINT OF CONNECTION
	FCO	FLOOR CLEANOUT
	AP	ACCESS PANEL
	FU	FIXTURE UNIT
	GPM	GALLONS PER MINUTE
	I.E.	INVERT ELEVATION
	MV	MIXING VALVE ASSEMBLY
	PRV	PRESSURE REDUCING VALVE
	BOP	BOTTOM OF THE PIPE

PLUMBING SHEET INDEX



1 DRYWELL DETAIL
SCALE: NONE

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AGENCY

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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No.19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 340 CAMARILLO, CA 93010 TEL: (805)987-4287
☐ DOWNTOWN LA OFFICE 633W 5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-6780
☐ GLENDALE OFFICE 535 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-6780

REGISTERED PROFESSIONAL ENGINEER
SUNIL PATIL
No. 29448
EXP. 06-30-21
CIVIL
STATE OF CALIFORNIA

Drawn by: AL
Checked by: JA

Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT
CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

PLUMBING
FRONT SHEET

Job No.
2835.0200

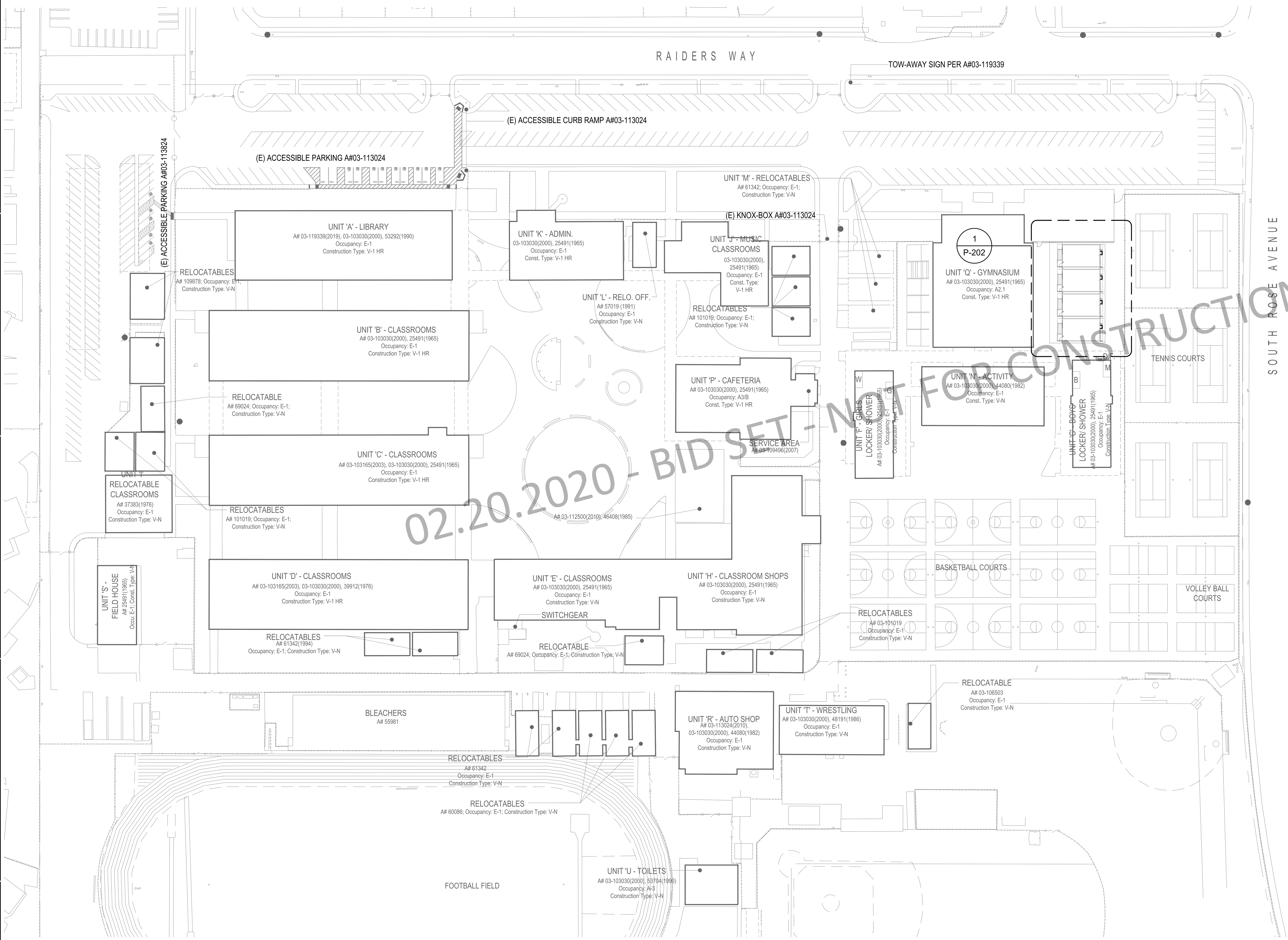
Date
12-18-2019

P-101

DIGALERT

CALL BEFORE YOU DIG
1-800-227-2600
IT'S THE LAW

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION OF BELOW GROUND PIPING, CONDUITS AND UTILITY PATHWAYS IN THE IMMEDIATE VICINITY OF THE WORK, WHETHER SHOWN ON THE DRAWINGS OR NOT. CONTRACTOR SHALL MARK ALL EXISTING PIPING, CONDUITS AND UTILITY PATHWAYS AFFECTED BY THE WORK USING AN UNDERGROUND PIPE LOCATOR TO DETERMINE THE POSITION OF PIPES AND CONDUITS ON THE SURFACE. THE CONTRACTOR SHALL ADD THE EXISTING UNDERGROUND UTILITIES FOUND BY BLUESTAKING TO THE RECORD DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL OF MARKING FROM CONSTRUCTION MANAGER PRIOR TO COMMENCING ANY DEMOLITION OR DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT ARISE FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND MARK ANY AND ALL UNDERGROUND UTILITIES. TRENCHING FOR NEW UNDERGROUND CONDUITS IN AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE PRESENT SHALL BE EXCAVATED BY HAND USING EXTREME CAUTION SO AS NOT TO DISTURB EXISTING UTILITIES. UNDERGROUND POWER AND COMMUNICATION PULLBOXES, WHERE SHOWN ON THE SITE PLAN, AND ARE DETERMINED TO BE IN CONFLICT WITH EXISTING UTILITIES AFTER EXCAVATION BY HAND SHALL BE RELOCATED TO A POSITION AS CLOSE AS POSSIBLE TO THE LOCATION SHOWN ON THE DRAWINGS.



PLUMBING SITE PLAN

SCALE : 1" = 50'-0"

1 / P-201

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architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

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REGISTERED PROFESSIONAL ENGINEER SUNIL PATEL No. 29448 EXP. 06-30-21 STATE OF CALIFORNIA

Drawn by: AL

Checked by: JA

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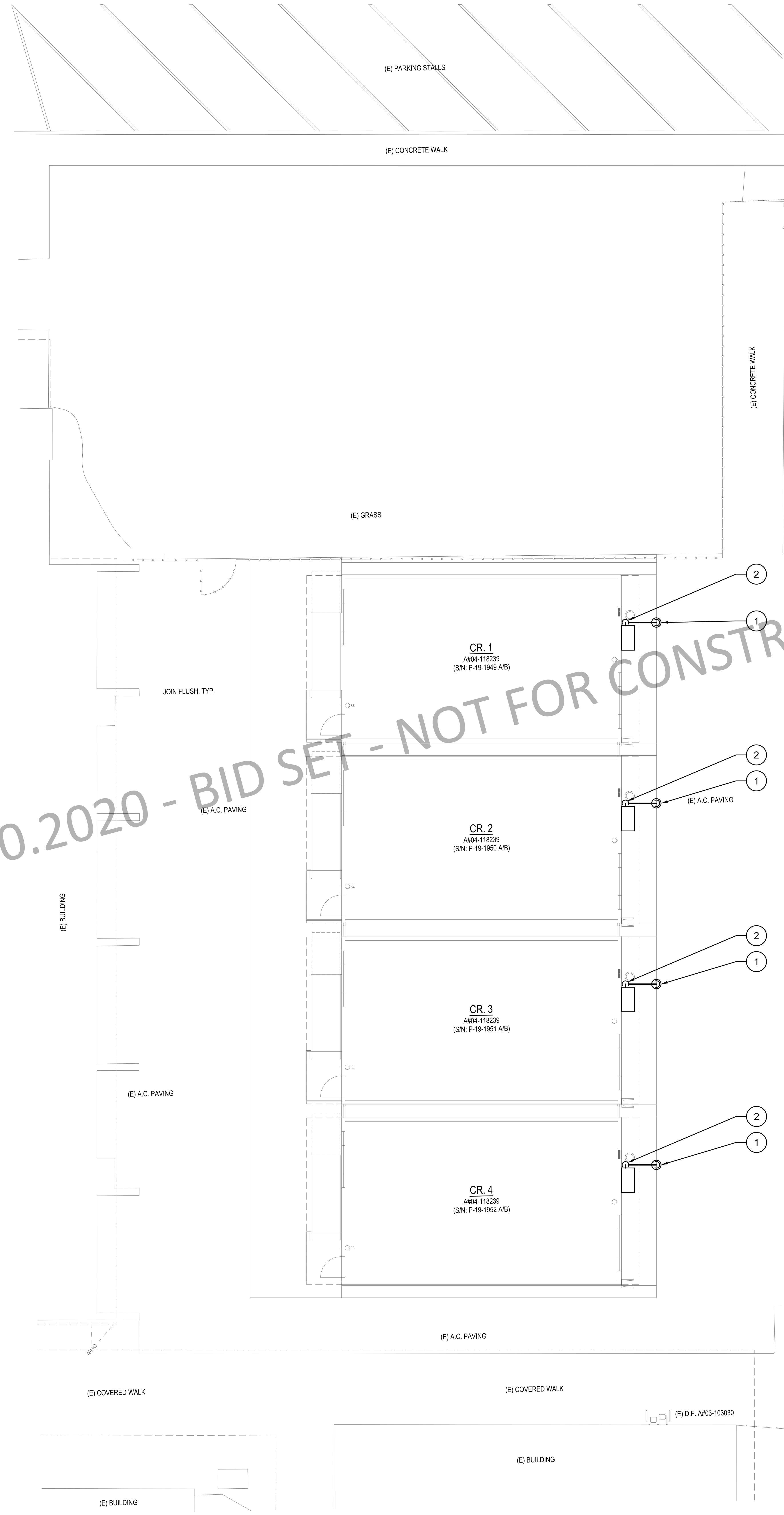
PLUMBING SITE PLAN

Job No.: 2835.0200

Date: 12-18-2019

P-201



02.20.2020 - BID SET - NOT FOR CONSTRUCTION

GENERAL NOTES

1. ALL WALL PENETRATIONS SHALL BE SEALED WATERTIGHT.

CONSTRUCTION NOTES

1. INSTALL NEW DRYWELL ASSEMBLY WITH ALL RELATED ACCESSORIES. SEE DETAIL #1/P-101.
2. RUN 3/4" CD DRAIN DOWN FROM HVAC UNIT TO BELOW GRADE. DISCHARGE DRAIN INTO DRYWELL ASSEMBLY.

PLUMBING ENLARGED PARTIAL RECONSTRUCTION PLAN

SCALE : 1/8" = 1'-0"

N

1
P-202

AGENCY

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architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
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400 W VENTURA BLVD, STE 240
CAMARILLO, CA 93010
TEL: (805)987-4001

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LOS ANGELES, CA 90071
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EXP. 06-30-21
MECHANICAL
STATE OF CALIFORNIA

Drawn by AL

Checked by JA

Revisions

No.	Date	Description

All dimensions must be checked at the job by the contractor who accepts full responsibility for their accuracy under the contract. These plans & the specifications in connection therewith have been prepared for a specific site. Any and all responsibility for their use in whole or in part on any other site is hereby disclaimed by Flewelling & Moody.

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OXNARD UNION HIGH SCHOOL DISTRICT

PLUMBING ENLARGED PARTIAL RECONSTRUCTION PLAN

Job No. 2835.0200

Date 12-18-2019

P-202

DSA SUBMITTAL

GENERAL NOTES

1. CONSULT WITH THE OWNER AND STRUCTURAL ENGINEER OF RECORD BEFORE STARTING WORK.
2. NO CONDUITS ARE TO BE INSTALLED ON ARCADES OR ROOF U.O.N. ALL EXPOSED CONDUITS, SUPPORTS AND JUNCTION BOXES SHALL BE PAINTED TO MATCH THE PREDOMINANT COLOR OF THE BUILDING, AS APPROVED BY STRUCTURAL EOR AND ELECTRICAL EOR.
3. COORDINATE THE ELECTRICAL WORK WITH THE WORK OF OTHER TRADES.
4. THE CONTRACTOR SHALL USE SUFFICIENT BARRICADES AND TEMPORARY PROTECTION DEVICES TO PREVENT PEDESTRIANS OR NON-AUTHORIZED PERSONNEL ACCESS TO ANY OPEN TRENCHES OR CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL ERECT A SAFETY BARRICADE AT ALL OPEN TRENCHES, DITCHES, PITS, SUMPS, ETC FOR THE PROTECTION AND SAFETY OF THE PUBLIC. ALL TRENCHES OUTSIDE OF THE BARRICADE LIMITS SHALL BE BACKFILLED AND PAVED NOT LATER THAN 72 HOURS AFTER BEING OPENED. DURING THE TIME THE TRENCHES ARE OPEN IN TRAFFIC AREAS, THE CONTRACTOR SHALL PROVIDE TRAFFIC PLATES. SAFETY BARRICADES SHALL BE PANELIZED CHAIN LINK FENCE. EACH FENCE PANEL SHALL BE 6FT TALL X 10FT WIDE WITH STAND AND TIED TOGETHER END TO END WITH A MINIMUM 8-GAUGE WIRE. NO TRENCHES SHALL BE LOCATED OUTSIDE BARRICADES.
5. WHERE STRUCTURAL WALLS ARE CORED FOR NEW CONDUIT RUNS, SEPARATION BETWEEN CORED HOLES SHALL BE THREE INCHES FROM NEW HOLES, UNLESS DIRECTED OTHERWISE BY THE STRUCTURAL EOR. ALL SAW CUTS OF EXISTING STRUCTURAL MEMBERS SHALL BE APPROVED BY STRUCTURAL EOR.
6. THE REPRESENTATION OF PHYSICAL PLACEMENT OF EXISTING UNDERGROUND CONDUITS HAS BEEN DEVELOPED FROM THE BEST INFORMATION AVAILABLE TO THE OWNER AT THE TIME THE DRAWINGS WERE PREPARED. THE ENGINEER PROVIDES THIS ONLY AS A GENERAL GUIDELINE FOR THE CONVENIENCE OF BIDDERS/CONTRACTORS AND DOES NOT PROVIDE A GUARANTEE OR WARRANTY IN ANY WAY EXPRESS OR IMPLIED, AS TO THE ACCURACY OF THESE REPRESENTATIONS. NOTHING IN THIS DISCLAIMER AFFECTS IN ANY WAY THE DUTY OF THE CONTRACTOR TO PROTECT THE EXISTING INSTALLATION AND TO FURNISH ACCURATE "AS BUILT" DRAWINGS AFTER THE COMPLETION OF THE CONTRACT.
7. ALL FEEDERS AND BRANCH CIRCUITS SHALL CARRY A GROUND WIRE, SIZED AS PER C.E.C. ARTICLE 250 AND BONDED TO THE METALLIC COMPONENTS OF THE RACEWAY SYSTEM.
8. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND EQUIPMENT AND MATERIAL APPROVED FOR USE UNDER THIS CONTRACT.
9. PRIOR TO PULLING ANY CONDUCTORS, CLEAN AND MANDREL ALL CONDUITS.
10. EXTERIOR EQUIPMENT, JUNCTION BOXES, ENCLOSURES AND CONNECTIONS SHALL BE WEATHERPROOF TYPE SUITABLE FOR EXTERIOR INSTALLATION.
11. COORDINATION:

    A.IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE CONSTRUCTION DOCUMENTS, THE FEATURES SHALL BE OF THE SAME CHARACTER AS SIMILAR CONDITIONS THAT ARE SHOWN.

13. THE ENGINEER HAS PREPARED THESE DOCUMENTS ONLY FOR IMPROVEMENTS SPECIFIED, DETAILED OR SHOWN AS NEW WORK, AND ASSUMES NO RESPONSIBILITY FOR OTHER CONSTRUCTION, MATERIAL OR EQUIPMENT NOTED AS "PROVIDED BY OTHERS".
14. DEMOLITION AND/OR REMOVAL OF ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. ALL REMOVED EQUIPMENT NOT TO BE REUSED SHALL BE RETURNED TO OWNER'S OR AS DIRECTED BY THE OWNER'S INSPECTOR.
15. ALL JUNCTION BOX COVER PLATES FOR BRANCH CIRCUIT SYSTEM SHALL BE CLEARLY MARKED WITH PERMANENT INK FELT PEN IDENTIFYING THE BRANCH CIRCUIT (BOTH PANEL NUMBER AND CIRCUIT NUMBER) CONTAINED IN THE BOX.
16. THE CONTRACTOR SHALL MAINTAIN THE UNIFORMITY AND CONTINUITY OF THE GROUNDING SYSTEM IN ALL CONDUITS/RACEWAYS.
17. TEST THE ENTIRE SYSTEM TO DEMONSTRATE TO THE ENGINEER THAT THE ELECTRICAL COMPONENTS AND SPECIAL SYSTEMS ARE COMPLETE AND FUNCTION PROPERLY. MAKE NECESSARY CORRECTIONS AND LEAVE SYSTEMS READY FOR OPERATION.
18. EXPOSED CONDUITS SHALL BE INSTALLED ALONG MECHANICAL PIPES. INSIDE BUILDING THE EXPOSED CONDUITS UP TO 8'-0" SHALL BE RIGID STEEL AND ABOVE 8'-0" MAY BE EMT. ALL EXPOSED EXTERIOR CONDUITS SHALL BE GALVANIZED RIGID CONDUITS. THREADLESS CONNECTORS & COUPLINGS SHALL NOT BE USED FOR RIGID CONDUIT. CONDUIT LARGER THAN 1 1/4" SHALL BE GALVANIZED RIGID CONDUIT. ALL EXPOSED CONDUITS, RACEWAYS, AND BOXES SHALL BE PAINTED TO MATCH THE SURFACE WHERE INSTALLED. DO NOT PAINT THE WIREMOLD.
19. DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND THE SIZE AND LOCATION OF EQUIPMENT IS INDICATED TO SCALE WHENEVER POSSIBLE. COORDINATE LOCATION AND LAYOUT WITH OTHER WORK. CONTRACTOR SHALL PROVIDE TO THE ENGINEER A ¼"=1'-0" SCALED DRAWING OF ELECTRICAL EQUIPMENT ROOMS SHOWING LOCATION AND CLEARANCES OF SUBMITTED EQUIPMENT FOR REVIEW AND APPROVAL PRIOR TO ORDERING OF ELECTRICAL EQUIPMENT.
20. PROVIDE SUPPORTS AND SEISMIC BRACING FOR ALL EQUIPMENT TO COMPLY WITH 2007 EDITION OF TITLE 24, PART 2, CALIFORNIA BUILDING CODE, CHAPTER 16, TABLE 16A AND ASSOCIATED NOTES.
21. PER CEC 300-21, "OPENINGS AROUND ELECTRICAL PENETRATIONS THROUGH FIRE-RESISTANT-RATED WALLS, PARTITIONS, FLOORS, CEILINGS SHALL BE FIRESTOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING."
22. ALL CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS SHALL BE COPPER, TYPE THWN/THHN, RATED FOR 75°C. SIZES #12 AWG SHALL BE SOLID. #10 AND LARGER SHALL BE STRANDED. PROVIDE 75°C RATED AND APPROVED TERMINATION FOR ALL CONDUCTORS.
23. ALL ELECTRICAL WORK SHALL BE PER THE APPLICABLE CEC CODE. CONTRACTOR SHALL INCLUDE IN HIS BID ALL REQUIRED LABOR, MATERIAL, EXPERTISE AND QUALIFIED PERSONNEL TO COMPLETELY INSTALL IN A CODE COMPLIANT MANNER, ALL WORK SHOWN ON THE PLANS OR REFERRED TO IN THE SPECIFICATIONS.
24. WHEN THERE ARE DISCREPANCIES BETWEEN CONTRACT DOCUMENTS (DRAWINGS AND/OR SPECIFICATIONS), OBTAIN CLARIFICATION FROM THE ENGINEER PRIOR TO BID. FOR BIDDING PURPOSES THE MORE STRINGENT OR MORE EXPENSIVE REQUIREMENT(S) SHALL APPLY.
25. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A DAILY RECORD OF ALL DEVIATIONS FROM THE BID DRAWINGS. ALL DIMENSIONS AND OTHER INFORMATION NECESSARY TO COMPLETELY EXPLAIN AND LOCATE ALL ELEMENTS OF THESE DEVIATIONS SHALL BE RECORDED. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL SUBMIT TO THE OWNER, ONE COMPLETE SET OF REPRODUCIBLE DRAWINGS CORRECTED TO REFLECT "AS-BUILT" CONDITIONS OF THE WORK.
26. ANY SUBMITTALS FOR EQUIPMENT DIFFERENT FROM THE SPECIFIED ITEMS SHOWN ON THE PLANS SHALL BE ACCOMPANIED BY CUT SHEETS FOR THE ORIGINAL SPECIFIED ITEM(S). SUBMITTALS WITHOUT THE SPECIFIED CUT SHEETS WILL BE REJECTED AS INCOMPLETE.
27. "PROVIDE" SHALL BE DEFINED AS: FURNISH AND INSTALL.
28. ALL MATERIALS, EQUIPMENT, CONDUIT AND WIRING SHALL BE NEW AND PROVIDED BY THE CONTRACTOR. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR EQUIPMENT AND MATERIAL APPROVED FOR USE UNDER THIS CONTRACT.
29. WIRING FOR ALL LOW VOLTAGE SYSTEMS SHALL BE ENCLOSED IN CONDUIT AND/OR RACEWAY.
30. ALL DIMENSIONS AND ELEVATIONS SHALL BE CHECKED AND VERIFIED ON THE SITE BY THE GENERAL CONTRACTOR AND EACH SUBCONTRACTOR BEFORE THE WORK BEGINS. ALL PERCEIVED ERRORS, OMISSIONS AND DISCREPANCIES SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION BEFORE CONSTRUCTION BEGINS.
31. ALL RACEWAYS INSIDE OF BUILDING SHALL BE CONCEALED. INCLUDE ALL REQUIRED DEMOLITION, CUTTING, PATCHING AND FINISH TO MATCH EXISTING INSTALLATION AS REQUIRED TO INSTALL NEW CONDUIT AND RACEWAYS IN EXISTING BUILDING.
32. ALL CONDUIT PENETRATIONS THROUGH FIRE-RATED FLOOR SLABS, SHAFTS AND WALLS SHALL BE SEALED AGAINST THE SPREAD OF FIRE OR SMOKE WITH APPROVED CABLE & CONDUIT FIRE STOPS OR FIRE RESISTANT SEALANT TO GIVE THE EQUIVALENT FIRE RATING OF THE STRUCTURE BEFORE THE PENETRATION. ALL OTHER NON-RATED PENETRATIONS OF STRUCTURES SHALL BE SEALED.
33. CONDUITS ABOVE T-BAR CEILINGS SHALL BE INSTALLED PARALLEL TO OR AT RIGHT ANGLES TO EXISTING BEAMS OR WALLS. EXPOSED CONDUITS UP TO 7'-0" ABOVE FINISH FLOOR SHALL BE RIGID GALVANIZED STEEL AND ABOVE 7'-0" MAY BE EMT.
34. PROVIDE ELECTRICAL PANELS WITH TYPEWRITTEN "AS-BUILT" PANEL SCHEDULE. PANEL SCHEDULE SHALL INCLUDE LOCATION, QUANTITY AND TYPE OF DEVICES SERVED.
35. PROVIDE ELECTRICAL PANELS WITH ENGRAVED NAMEPLATE ON OUTSIDE OF PANEL ABOVE DOOR OPENING.
36. SUPPORT CONDUIT 2-1/2 INCH TRADE SIZE OR SMALLER WITH U.L. LISTED CLAMPS AND HANGERS IN ACCORDANCE WITH SMACNA STANDARDS.
37. THE SEISMIC ANCHORAGE OF ELECTRICAL EQUIPMENT SHALL CONFORM TO C.C.R. 2019 CHAPTER 16 AND ASCE 7-10, CHAPTER 13.
38. THE SEISMIC BRACING AND ANCHORAGE OF ELECTRICAL CONDUITS, BUS DUCTS, WIREWAYS AND CABLE TRAYS SHALL BE IN ACCORDANCE WITH THE "GUIDELINE FOR SEISMIC RESTAINS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS" PUBLISHED BY SMACNA LATEST VERSION. A COPY OF THE APPROVED GUIDELINE SHALL BE PROVIDED BY THE CONTRACTOR AND BE KEPT AT THE JOB SITE AT ALL TIMES. WHERE BRACING AND ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDLINE, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT, ELECTRICAL ENGINEER AND FIELD INSPECTOR.

STANDARD ABBREVIATIONS

A OR AMP	AMPERES
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
A/C	ASPHALT /CONCRETE
BKR.	BREAKER
BC	BARE COPPER
C	CONDUIT
CKT.	CIRCUIT
C.O.	CONDUIT ONLY
DSA	DIVISION OF THE STATE ARCHITECT
E	EXISTING
EOR	ENGINEER OF RECORD
ER	EXISTING, RELOCATED
EX	EXISTING, REMOVED
F.O.	FIBER OPTIC
GFI	GROUND FAULT INTERRUPTER
J.BOX	JUNCTION BOX
NG	NEGLIGIBLE
N.I.C.	NOT IN CONTRACT
OAR	OWNER AUTHORIZED REPRESENTATIVE
PA	PUBLIC ADDRESS
PH OR Ø	PHASE
RSP	REMOTE SECURITY PANEL
SLC	SIGNALING LINE CIRCUIT
DWP,LADWP	LOS ANGELES DEPT. OF WATER & POWER
STC	SECURITY TERMINAL CABINET
SPS	SECURITY POWER SUPPLY
SW	SWITCH
XFMR	TRANSFORMER
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TVTC	TELEVISION TERMINAL CABINET
TYP.	TYPICAL
UFER	UFER GROUND
UG	UNDERGROUND
U.O.N.	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
V.L.	VERIFY LOCATION.

SYMBOL LIST
(NOT ALL SYMBOLS ARE USED ON PLANS)

POWER SYSTEM

J	JUNCTION BOX: SURFACE MOUNTED OR INSIDE WALL
F	COMBINATION FUSED MOTOR DISCONNECT SWITCH AND MAGNETIC MOTOR STARTER SIZED ACCORDING TO MOTOR MANUFACTURER RECOMMENDATIONS, HOA, STARTER SIZE 1 MIN., SOLID STATE ADJUSTABLE OVER LOAD PROTECTION, MOUNTED ON INDEPENDENT SUPPORT.
	SURFACE MOUNTED PANELBOARD
	FLUSH MOUNTED PANELBOARD
	DISTRIBUTION PANELBOARD
	MAIN SWITCHBOARD
T	TRANSFORMER
PB	UNDERGROUND POWER PULLBOX
1	NOTE REFERENCE TAG.
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
F	DISCONNECT SWITCH, "F" INDICATES FUSED
	DUPLEX RECEPTACLE NEMA 5-15R, +18" UNLESS NOTED
A-1,3	BRANCH CIRCUIT HOME RUN TO PANELBOARD. LETTER AND NUMBER NOTATION IDENTIFY PANEL & CIRCUIT NUMBERS

DEMOLITION GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO DEMOLITION OF ANY WORK.
2. NOT ALL FIXTURES, DEVICES, RACEWAYS, ETC. FOR REMOVAL ARE SHOWN. CONTRACTOR SHALL SURVEY SITE AND REVIEW ALL DEMOLITION/CONSTRUCTION DOCUMENTS FOR COMPLETE DEMOLITION/CONSTRUCTION SCOPE OF ALL TRADES TO PROVIDE BID THAT ADEQUATELY COVERS THE REQUIRED SCOPE OF WORK.
3. AS A RESULT OF ANY DEMOLITION, ALLOW NO 'ORPHANED' OR ISOLATED DEVICES OUTSIDE OF WORK SCOPE AREA TO REMAIN DISCONNECTED. PROVIDE ANY NECESSARY NEW TERMINATIONS, CONDUCTORS, CONNECTIONS, CONDUIT, ETC.

CONDUIT/CONDUCTOR TYPE

- 3/4"C. 2 #12 + #12 GND.
- 3/4"C. 3#12, + #12 GND.
- 3/4"C. 4#12, + #12 GND.
- 3/4"C. 5 #10 + #12 GND.
- 1"C. 6 #10 + #12 GND.
- 1"C. 7 #8 + #12 GND.
- 1"C. 8 #8 + #12 GND.
- D.T. 3/4"C. RACEWAY WITH ONE CAT6 DATA CABLE AND ONE CAT3 TELEPHONE CABLE.

* FOR ALL COMPUTER RECEPTACLE BRANCH CIRCUITS PROVIDE SEPARATE NEUTRAL WIRE AND PROVIDE A GROUND WIRE IN ALL CONDUITS AND WIREMOLD RACEWAYS. ALL OTHER BRANCH CIRCUITS SHALL SHARE NEUTRAL AS SHOWN ON DRAWINGS.

APPLICABLE CODES

2019 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R
2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
2019 CALIFORNIA ENERGY CODE.

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 72 NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) 2019 EDITION

(NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES")

SEISMIC NOTES

PROVIDE HANGERS, SUPPORTS, SEISMIC RESTRAINTS AND/ OR BRACING FOR ALL EQUIPMENT, CONDUIT, AND LIGHTING FIXTURES TO SUSTAIN VERTICAL LOADS AND RESIST HORIZONTAL FORCES IN ANY DIRECTION TO COMPLY WITH 2019 EDITION OF TITLE 24, PART 2, CALIFORNIA BUILDING CODE, CHAPTER 16A.

WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF STRUCTURAL ENGINEER AND THE DSA FIELD ENGINEER.

ELECTRICAL SHEET INDEX

NAME	SHEET TITLE
E-101	ELECTRICAL FRONT SHEET
E-102	ELECTRICAL PARTIAL SINGLE LINE DIAGRAM AND LOAD SCHEDULE
E-201	ELECTRICAL SITE PLAN
E-202	ELECTRICAL SITE PHOTOMETRIC PLAN
E-301	ELECTRICAL PARTIAL RECONSTRUCTION PLAN
E-401	ELECTRICAL DETAILS

A. EXISTING ELECTRICAL SERVICE HAS BEEN INVESTIGATED AND FOUND TO HAVE ADEQUATE CAPACITY FOR THE PROPOSED LOAD ADDITION AS SHOWN ON THESE PLANS.
OR
B. SOURCE OF POWER HAS BEEN INVESTGATED AND IS ADEQUATE FOR THE ADDITIONAL LOAD.
C. SITE INSPECTOR IS TO WITNESS AND VERIFY GROUNDING TEST.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
MAHBUBE E. ZERRAT ZADE
E 22441
9/30/20
ELECTRICAL
STATE OF CALIFORNIA

Drawn by

Checked by

Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT
CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

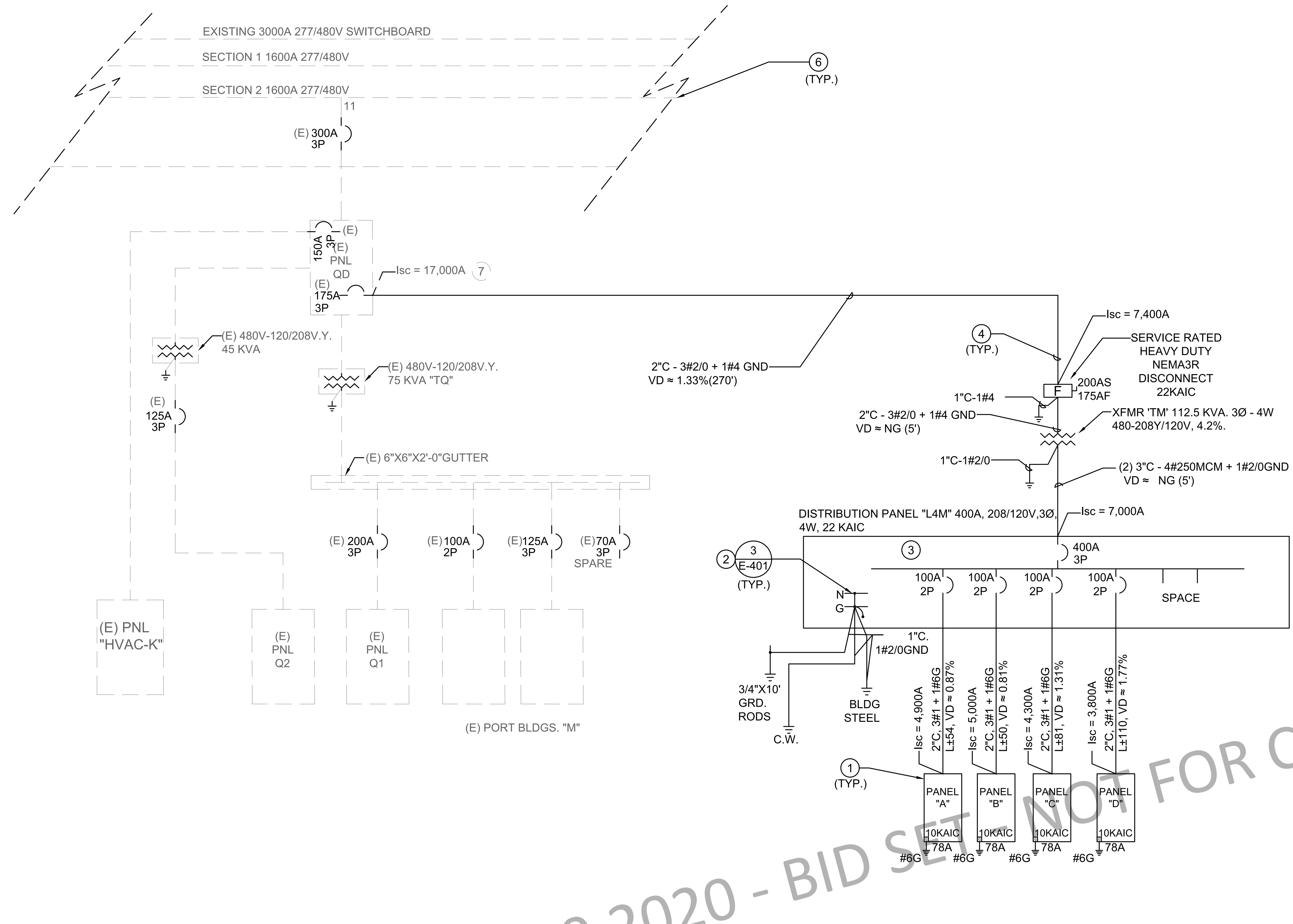
ELECTRICAL
FRONT SHEET

Job No. 2835.0200

Date 12-18-2019

E-101

DSA SUBMITTAL



SINGLE LINE DIAGRAM

SCALE : NONE

1 E-102

GENERAL NOTES

1. ALL ITEMS SHOWN ON SINGLE LINE DIAGRAM ARE NEW, UNLESS NOTED AS (E) FOR EXISTING TO REMAIN.
2. LENGTH OF FEEDERS SHOWN ON SINGLE LINE DIAGRAM ARE NOT TO BE USED FOR CONSTRUCTION OR BIDDING PURPOSE.
3. ALL EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND SHALL BE INSTALLED AS PER LISTING OR LABELING.
4. ALL EQUIPMENT SHALL BE U.L. LISTED AND RATED TO WITHSTAND THE CALCULATED FAULT CURRENT AS SHOWN ON THE DRAWINGS.
3. ALL EQUIPMENT, DEVICES AND TERMINALS SHALL BE U.L. LISTED AND RATED FOR CU/AL CONDUCTORS AND SHALL BE TORQUED TO MANUFACTURERS LISTED SPECIFICATIONS.
4. ALL EQUIPMENT AND EQUIPMENT ENCLOSURES SERVING CIRCUITS 100 AMPS OR LESS SHALL BE U.L. LISTED AND CERTIFIED FOR USE WITH 75°C CU/AL CABLES AND TERMINATIONS AND SHALL COMPLY WITH THE REQUIREMENTS OF CEC 110.14:(C)(1)(a)(3).
5. ALL RACEWAYS SHALL CONTAIN A CODE-SIZED (CEC-250.122), INSULATED, GREEN, COPPER EQUIPMENT GROUNDING CONDUCTOR AND SHALL BE BONDED TO THE METALLIC COMPONENTS OF THE RACEWAY SYSTEM.
6. ALL CONDUCTORS TO BE COPPER TYPE THWN/THHN-2 OR TYPE XHHW.
7. THE EXISTING INFORMATION PRESENTED ON THIS DRAWING IS BASED ON THE EXISTING AS-BUILT INFORMATION AVAILABLE. CONTRACTOR SHALL VERIFY THIS INFORMATION PRIOR TO BID SUBMITTAL.
8. OBJECTS ON LIGHTER LAYER INDICATES NO WORK EXISTING SYSTEM, OBJECTS ON DARKER LAYER INDICATES NEW WORK/ALTERATION.

CONSTRUCTION NOTES

1. NEW PANELS AND GROUNDING PROVIDED BY THE MODULAR MANUFACTURER.
2. SERVICE RATED EQUIPMENT WITH BONDING JUMPER.
3. CIRCUIT BREAKERS IN MAIN DISTRIBUTION PANEL "L4M" SHALL BE FULLY RATED WITH A MINIMUM OF 22KAIC.
4. EXPOSED CONDUITS SHALL BE GALVANIZED RIGID STEEL.
5. CIRCUIT BREAKERS IN MAIN SWITCHBOARD SHALL BE FULLY RATED WITH A MINIMUM OF 30KAIC.
6. NOT IN SCOPE OF WORK, SEE CONSTRUCTION DOCUMENTS PRODUCED BY 'BUDLONG & ASSOCIATES' UNDER JOB NO - 19-248 FOR THE COMPLETE SINGLE LINE DIAGRAM.
7. FAULT CURRENT AT DISTRIBUTION PANEL IS TAKEN FROM EXISTING DISTRIBUTION PANEL 'QD' AS WORST CASE TO CALCULATE DOWNSTREAM FAULT AT EQUIPMENT.

PANEL: L4M — 120/208 VOLT wye, 3 PH, 4W — 400AMP COPPER BUS

LOCATION: EXTERIOR MODULAR CLASSROOMS (PANEL TO HAVE BOLT-ON BREAKERS) — MAIN: 400A

MOUNTING: STAND ALONE — 22KAIC — LOAD: 77.4 kVA 245 AMPS

CK #	NT	VA LOAD LINE A	VA LOAD LINE B	VA LOAD LINE C	LOAD DESCRIPTION	OUTLETS O	OUTLETS R	OUTLETS L	CKT BKR P	CKT BKR A	CKT BKR A	CKT BKR P	OUTLETS L	OUTLETS R	OUTLETS O	LOAD DESCRIPTION	VA LOAD LINE A	VA LOAD LINE B	VA LOAD LINE C	NT	CK #
1		10108			PANEL 'A'					100						SPACE					2
3			9238		-				2		100					PANEL 'C'		10108			4
5				10108	PANEL 'B'					100		2				-			9238		6
7		9238			-				2		100					PANEL 'D'	10108				8
9					SPACE							2				-		9238			10
11					SPACE											SPACE					12
13					SPACE											SPACE					14
15					SPACE											SPACE					16
17					SPACE											SPACE					18
		19345	9238	10108	SUB - TOTALS											SUB - TOTALS	10108	19345	9237.5		
NOTE: 1.																LINE TOTALS:	29453	28583	19345		
2.																LCL ADDER					
3.																TOTAL VA PER PHASE	29453	28583	19345		
4.																LINE AMPS	245	238	161		

PANEL: A,B,C,D — 120/208 VOLT,1 PH,3W — 225 AMP COPPER BUS

LOCATION: MODULAR CLASSROOM (PANEL TO HAVE BOLT-ON BREAKERS) — MAIN: 100AMPS

MOUNTING: FLUSH — 10,000AIC — LOAD: 20.1 86 AMPS

CK #	NT	VA LOAD LINE A	VA LOAD LINE B	LOAD DESCRIPTION	OUTLETS O	OUTLETS R	OUTLETS L	CKT BKR P	CKT BKR A	CKT BKR A	CKT BKR P	OUTLETS L	OUTLETS R	OUTLETS O	LOAD DESCRIPTION	VA LOAD LINE A	VA LOAD LINE B	NT	CK #
1		6670		AC UNIT	1				80	20	1		2		RECEPTACLE	360			2
3			6670	-				2		20	1		4		RECEPTACLE		720		4
5		360		QUAD RECEPTACLE		2		1	20	20	1		3		RECEPTACLE	540			6
7	1		200	FACP DEDICATED REC.		1		1	20	20	1		1		GFI RECEPTACLE		180		8
9										20	1	3			EXIT LIGHTS	93			10
11										20	1	12			2X4 LED LIGHTS		660		12
13										20	1	2			EXIT SIGNS	90			14
15																			16
17																			18
19																			20
21																			22
23																			24
		7030	6870	SUB - TOTALS											SUB - TOTALS	1083	1560		
NOTE: 1.				OCCURS ONLY AT PANEL A. PROVIDE RED LOCK-ON DEVICE.											LINE TOTALS:	8113	8430		
2.															LCL ADDER	1713	1833		
3.															TOTAL VA PER PHASE	9826	10263		
4.															LINE AMPS	82	86		

PANEL SCHEDULES

SCALE : NONE

2 E-102

MAIN SWITCHBOARD SERVICE LOAD SUMMARY

EXISTING SCE HIGHEST PEAK DEMAND IN LAST 12 MONTHS =	296	KW
EXISTING LOAD IN KVA =	370	KVA
EXISTING LOAD @1.25% =	463	KVA
NEW MODULAR LOAD =	77	KVA
25% OF LARGEST MOTOR =	3	KVA
TOTAL LOAD =	543	KVA
TOTAL NEW LOAD @480 - 3PH =	654	A

EXISTING SERVICE: 3000AMPS @480

LOAD CALCULATION

SCALE : NONE

3 E-102

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

An Employee Owned Corporation

ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER MAHBUBE E. ZERRATZADE E 22441 9/30/20 ELECTRICAL STATE OF CALIFORNIA

Drawn by

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Revisions

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(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

ELECTRICAL
PARTIAL SINGLE LINE DIAGRAM AND LOAD SCHEDULE

Job No. 2835.0200

Date 12-18-2019

E-102

DSA SUBMITTAL

LIGHTING FIXTURE SCHEDULE

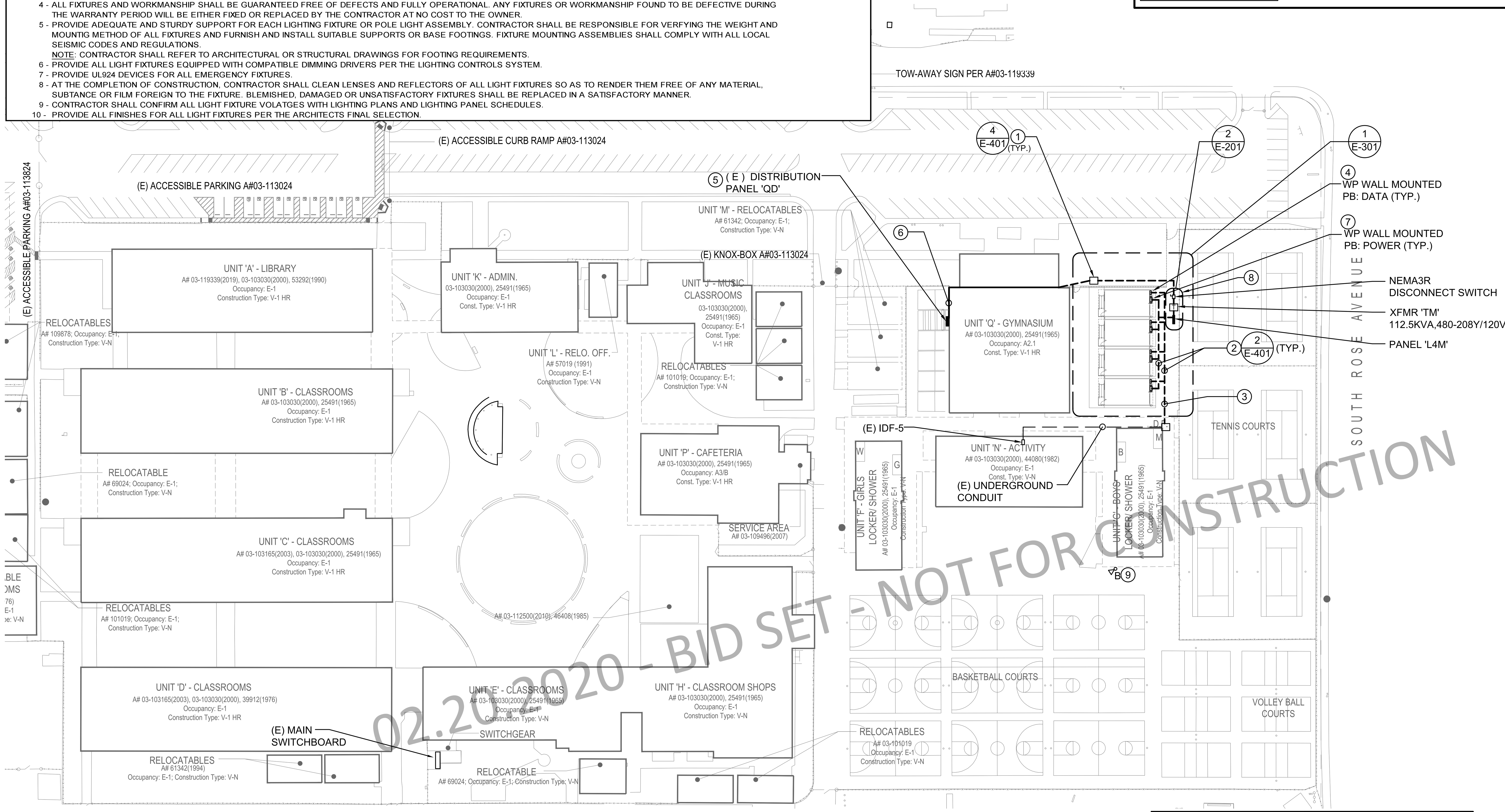
LABEL	QUANTITY	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LAMP	NUMBER LAMPS	LUMENS PER LAMP	LIGHT LOSSS FACTOR	WATTAGE
B	1	LITHONIA LIGHTING	D-SERIES SIZE 2 DSXF2 LED-P3-40K-MFL-MVOLT-PE	LED FLOOD LUMINAIRE 12,044 NOMINAL LUMENS, 4000K CCT	LED	1	12,044	0.95	102

GENERAL NOTES:

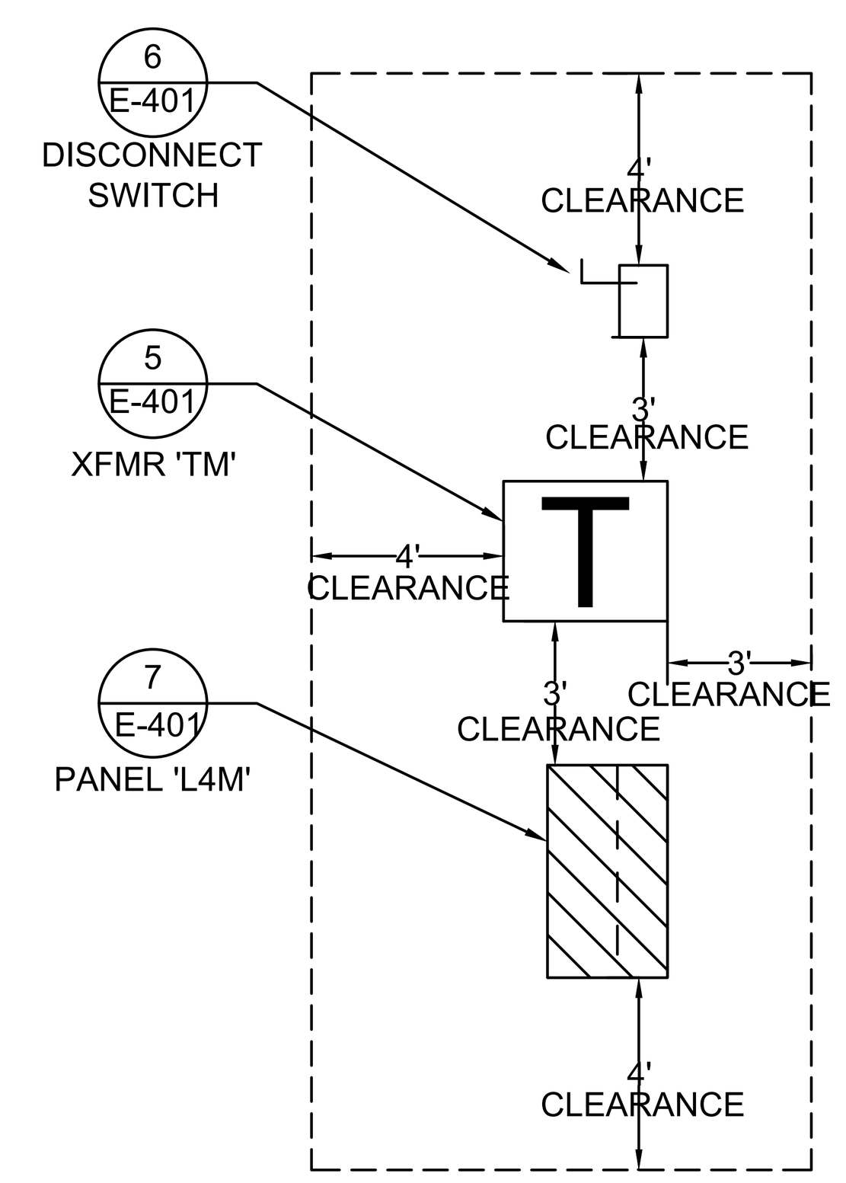
1 - PROVIDE ALL LIGHTING FIXTURES AS SHOWN COMPLETE WITH LAMPS, WIRED, CONTROLLED AND SECURELY ATTACHED TO SUPPORTS.
2 - PROVIDE DRIVERS WITH MANUFACTURER LABEL LISTED PER THE INPUT SYSTEM WATTS AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE.
3 - THE LIGHTING FIXTURES AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS OF THE FOLLOWING:
A. UNDERWRITERS LABORATORIES (UL)
B. CALIFORNIA ELECTRICAL CODE (CEC)
C. LOCAL BUILDING AND LIFE SAFETY CODE AGENCIES.
D. LM-79-08, LM-80-08 AND TM-21-11 LISTED
4 - ALL FIXTURES AND WORKMANSHIP SHALL BE GUARANTEED FREE OF DEFECTS AND FULLY OPERATIONAL. ANY FIXTURES OR WORKMANSHIP FOUND TO BE DEFECTIVE DURING THE WARRANTY PERIOD WILL BE EITHER FIXED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.
5 - PROVIDE ADEQUATE AND STURDY SUPPORT FOR EACH LIGHTING FIXTURE OR POLE LIGHT ASSEMBLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERFYING THE WEIGHT AND MOUNTIG METHOD OF ALL FIXTURES AND FURNISH AND INSTALL SUITABLE SUPPORTS OR BASE FOOTINGS. FIXTURE MOUNTING ASSEMBLIES SHALL COMPLY WITH ALL LOCAL SEISMIC CODES AND REGULATIONS.
NOTE: CONTRACTOR SHALL REFER TO ARCHITECTURAL OR STRUCTURAL DRAWINGS FOR FOOTING REQUIREMENTS.
6 - PROVIDE ALL LIGHT FIXTURES EQUIPPED WITH COMPATIBLE DIMMING DRIVERS PER THE LIGHTING CONTROLS SYSTEM.
7 - PROVIDE UL924 DEVICES FOR ALL EMERGENCY FIXTURES.
8 - AT THE COMPLETION OF CONSTRUCTION, CONTRACTOR SHALL CLEAN LENSES AND REFLECTORS OF ALL LIGHT FIXTURES SO AS TO RENDER THEM FREE OF ANY MATERIAL, SUBTANCE OR FILM FOREIGN TO THE FIXTURE. BLEMISHED, DAMAGED OR UNSATISFACTORY FIXTURES SHALL BE REPLACED IN A SATISFACTORY MANNER.
9 - CONTRACTOR SHALL CONFIRM ALL LIGHT FIXTURE VOLATGES WITH LIGHTING PLANS AND LIGHTING PANEL SCHEDULES.
10 - PROVIDE ALL FINISHES FOR ALL LIGHT FIXTURES PER THE ARCHITECTS FINAL SELECTION.

DIGALERT
CALL BEFORE YOU DIG
1-800-227-2600
IT'S THE LAW

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION OF BELOW GROUND PIPING, CONDUITS AND UTILITY PATHWAYS IN THE IMMEDIATE VICINITY OF THE WORK, WHETHER SHOWN ON THE DRAWINGS OR NOT. CONTRACTOR SHALL MARK ALL EXISTING PIPING, CONDUITS AND UTILITY PATHWAYS AFFECTED BY THE WORK USING AN UNDERGROUND PIPE LOCATOR TO DETERMINE THE POSITION OF PIPES AND CONDUITS ON THE SURFACE. THE CONTRACTOR SHALL ADD THE EXISTING UNDERGROUND UTILITIES FOUND BY BLUESTAKING TO THE RECORD DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL OF MARKING FROM CONSTRUCTION MANAGER PRIOR TO COMMENCING ANY DEMOLITION OR DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT ARISE FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND MARK ANY AND ALL UNDERGROUND UTILITIES. TRENCHING FOR NEW UNDERGROUND CONDUITS IN AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE PRESENT SHALL BE EXCAVATED BY HAND USING EXTREME CAUTION SO AS NOT TO DISTURB EXISTING UTILITIES. UNDERGROUND POWER AND COMMUNICATION PULLBOXES, WHERE SHOWN ON THE SITE PLAN, AND ARE DETERMINED TO BE IN CONFLICT WITH EXISTING UTILITIES AFTER EXCAVATION BY HAND SHALL BE RELOCATED TO A POSITION AS CLOSE AS POSSIBLE TO THE LOCATION SHOWN ON THE DRAWINGS.



ELECTRICAL SITE PLAN
SCALE: 1" = 50'-0"
1 / E-201



ENLARGED EQUIPMENT LAYOUT
SCALE: 1/4" = 1'-0"
2 / E-201

GENERAL NOTES

A. CONTRACTOR TO CONSULT OAR AND OTHER TRADES FOR SCHEDULE AND SEQUENCE CONSTRUCTION.
B. ALL NEW PROVIDED PATHWAYS, TRENCHING, CONDUCTORS, DEVICES, MOUNTING ACCESSORIES, ETC. SHALL BE PER APPLICABLE CODE AND SPECIFICATIONS.
C. ALL EXISTING UTILITIES AND PATHWAYS ARE TO BE PROTECTED. VERIFY FINAL LOCATION OF ALL EQUIPMENT WITH OWNER REPRESENTATIVE PRIOR TO ROUGH-IN.
D. ALL ELECTRICAL EQUIPMENT EXPOSED TO WEATHER OR INSTALLED OUTDOORS,SHALL BE WEATHER PROOF TYPE,INCLUDING BUT NOT LIMITED TO:SWITCHES, CONDUITS, BOXES,ETC.
E. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO INSTALL ALL EQUIPMENT WITH CLEARANCES AS REQUIRED PER CODE.
F. PROVIDE PROTECTION FROM PHYSICAL DAMAGE FOR SWITCHBOARDS , PANEL BOARDS AND OTHER ELECTRICAL EQUIPMENT.
G. ALL CONDUIT INSTALLATION SHALL BE CONCEALED. NO EXPOSED CONDUIT ALLOWED (NO EXCEPTIONS).
H. EXISTING CONDITIONS SHOWN ARE BASED ON AS-BUILT DRAWINGS & SITE-SURVEY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS SHOWN PRIOR TO INSTALLATION OF WORK.
I. PROVIDE THE REQUIRED AUXILIARY J-BOXES, PULL-BOXES OR HANDHOLES PER CEC 352.26/358.26 TO FACILITATE THE THERE INSTALLATION OF BRANCH CIRCUIT WIRING OR FEEDERS, SHALL NOT BE MORE THAN THE EQUIPMENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL) BETWEEN PULL POINTS FOR EXAMPLE,CONDUIT BODIES AND BOXES.

CONSTRUCTION NOTES

1. 2'X3'X4' PRECAST CONCRETE PULL BOX W/GALVANIZED TRAFFIC COVER AND RECESSED PINS. COVER READING 'ELECTRICAL' OR 'COMM' WHERE APPLICABLE.
2. PROVIDE NEW UNDERGROUND PATHWAYS IN NEW TRENCH PER SPECIFICATIONS FOR NEW POWER AND SIGNAL SYSTEMS.
3. PROVIDE (4) 1"C FOR DATA WITH PULL STRING.
4. CONTRACTOR SHALL PROVIDE FINAL LOW VOLTAGE CONDUIT CONNECTION TO MODULAR CLASSROOM AND STUB UP THE CONDUIT ABOVE CEILING FOR FUTURE USE BY OUHSD.
5. REFER TO CONSTRUCTION DOCUMENTS PRODUCED BY 'BUDLONG & ASSOCIATES' UNDER JOB NO - 19-248 FOR ALL WORK RELATED TO UPGRADING EXISTING 400AMP PANEL 'QD'.
6. PROVIDE POWER FROM PANEL 'QD' TO PRIMARY SIDE OF TRANSFORMER. RUN CONDUIT FROM ELECTRICAL ROOM THROUGH ROOF AND ON THE NORTH EXTERIOR WALL AND DOWN TO UNDERGROUND CONCRETE PULL BOX AS SHOWN ON PLAN. REFER TO SINGLE LINE DIAGRAM ON SHEET E-102 FOR CONDUIT AND CONDUCTOR SIZE DETAILS.
7. CONTRACTOR SHALL MAKE FINAL CONDUIT AND WIRING CONNECTION TO ELECTRICAL PANEL PROVIDED IN MODULAR CLASSROOM AND PROVIDE ALL GROUNDING CLAMP, CONDULETS, STRAPS AND ALL OTHER REQUIRED ACCESSORIES FOR FULLY OPERATIONAL SYSTEM, SEE DETAIL 2 PROVIDED ON SHEET E1.0 OF 'CLASS LEASING LLC' MODULAR DRAWINGS.
8. PROVIDE FENCE AROUND ELECTRICAL EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
9. PROVIDE NEW EMERGENCY LIGHTING INVERTER TO PROVIDE EMERGENCY EGRESS LIGHTING IN THE PATH OF EGRESS. THE LIGHT FIXTURE WILL BE OFF ON NORMAL OPERATION AND WILL COME ON DURING LOSS OF NORMAL POWER ONLY. PROVIDE 175VA REMOTE INVERTER WALL MOUNTED INSIDE ELECTRIC/JANITOR ROOM 'G05' IN AN AREA THAT IS ACCESSIBLE; MYERS # LV-1-R-2 OR EQUAL. CONNECT TO SEPARATE 120V 20AMPS CIRCUIT FROM PANEL G TO FEED EMERGENCY INVERTER.

AGENCY

FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-248

Drawn by
Checked by
Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL
1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

ELECTRICAL SITE PLAN

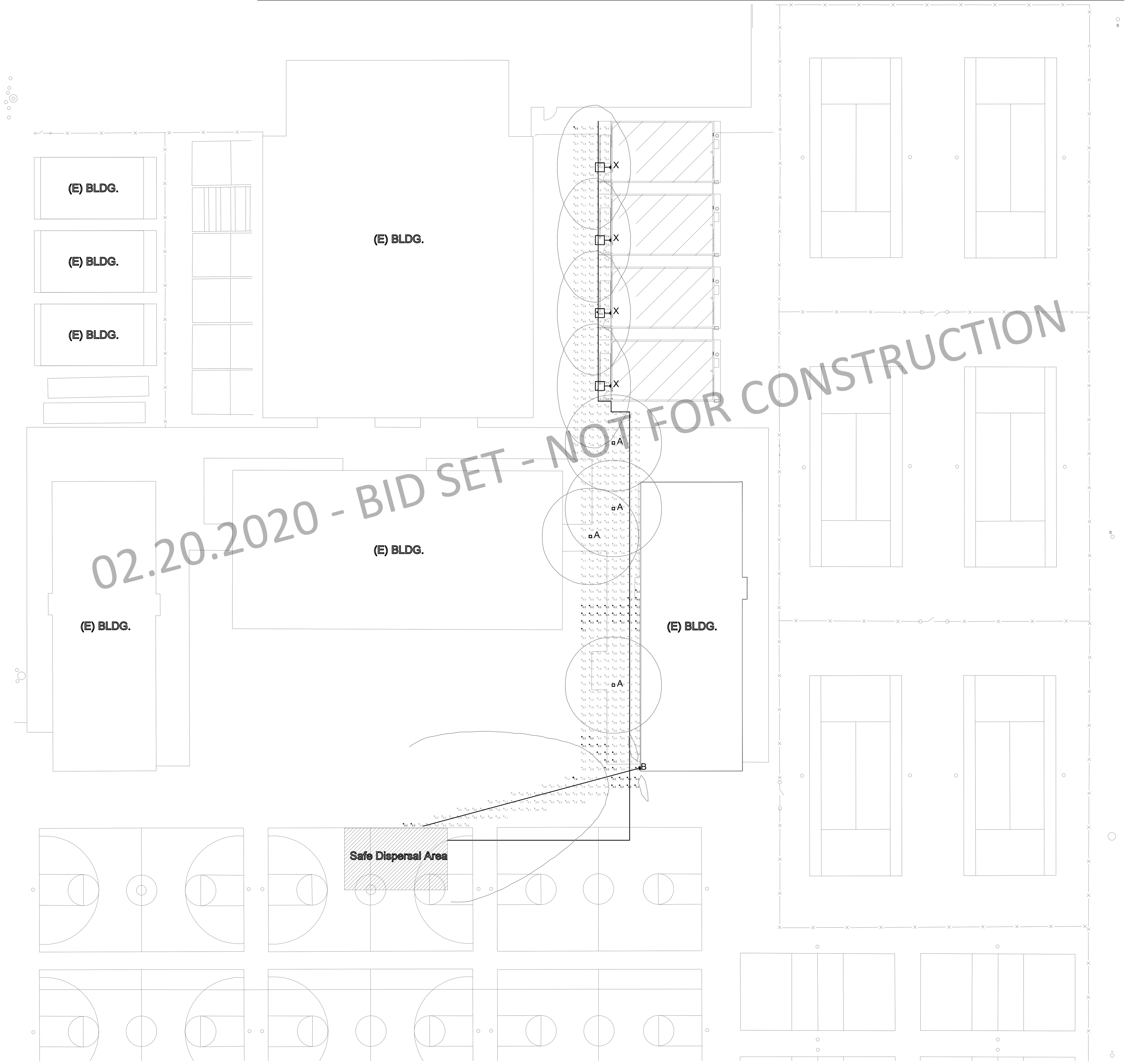
Job No. 2835.0200
Date 12-18-2019

E-201

DSA SUBMITTAL

Schedule												
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage	Polar Plot
	X	4	Lithonia Lighting	WST LED P2 30K VW MVOLT	WST LED, Performance package 2, 3000 K, visual comfort wide, MVOLT	LED	1	WST_LED_P2_30K_VW _MVOLT.ies	3276	0.85	25	Max: 2600cd
	A	4	Kenall	S1414L-P-MW-15L35K-DV	S1414L	Kenall	72	S1414L-P-MW-15L35K-DV.ies	31	0.85	19.85	Max: 813cd
	B	1	Lithonia Lighting	DSXF2 LED P3 40K MFL	DSXF2 LED P3 40K MFL		1	DSXF2_LED_P3_40K_ MFL.ies	Absolute	0.95	102	Max: 20190cd

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Calc Zone #4	+	2.1 fc	10.5 fc	0.2 fc	52.5:1	10.5:1
Calc Zone #5	+	2.5 fc	7.6 fc	0.2 fc	38.0:1	12.5:1



SOUTH ROSE AVENUE

02.20.2020 - BID SET - NOT FOR CONSTRUCTION

LIGHTING FIXTURES TYPE A ARE EXISTING.
LIGHTING FIXTURES TYPE X WILL BE INSTALLED BY THE MODULAR MANUFACTURER.
LIGHTING FIXTURE TYPE B IS NEW AND WILL BE CONNECTED TO POWER THROUGH INVERTER. REFER TO SITE PLAN E-201 KEY NOTE 9 FOR DETAILS.

ELECTRICAL PHOTOMETRIC SITE PLAN

SCALE : 1" = 20'-0"

1
E-202

N

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FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
MAHBUBE E. ZERRATZADE
E 22441
9/30/20
ELECTRICAL
STATE OF CALIFORNIA

Drawn by

Checked by

Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

ELECTRICAL
SITE PHOTOMETRIC PLAN

Job No.
2835.0200

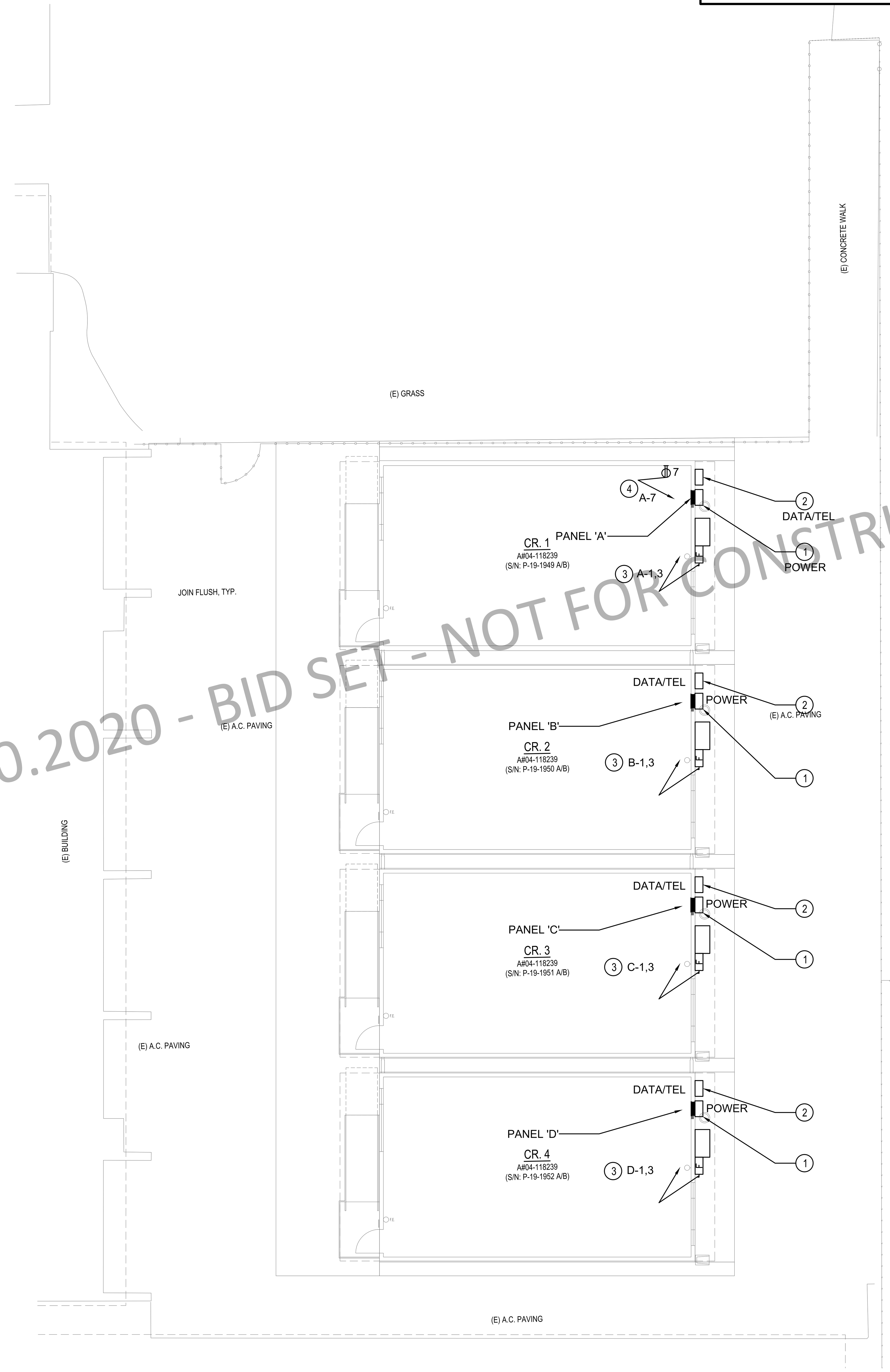
Date
12-18-2019

E-202

DSA SUBMITTAL

DIGALERT
CALL BEFORE YOU DIG
1-800-227-2600
IT'S THE LAW

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION OF BELOW GROUND PIPING, CONDUITS AND UTILITY PATHWAYS IN THE IMMEDIATE VICINITY OF THE WORK, WHETHER SHOWN ON THE DRAWINGS OR NOT. CONTRACTOR SHALL MARK ALL EXISTING PIPING, CONDUITS AND UTILITY PATHWAYS AFFECTED BY THE WORK USING AN UNDERGROUND PIPE LOCATOR TO DETERMINE THE POSITION OF PIPES AND CONDUITS ON THE SURFACE. THE CONTRACTOR SHALL ADD THE EXISTING UNDERGROUND UTILITIES FOUND BY BLUESTAKING TO THE RECORD DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL OF MARKING FROM CONSTRUCTION MANAGER PRIOR TO COMMENCING ANY DEMOLITION OR DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT ARISE FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND MARK ANY AND ALL UNDERGROUND UTILITIES. TRENCHING FOR NEW UNDERGROUND CONDUITS IN AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE PRESENT SHALL BE EXCAVATED BY HAND USING EXTREME CAUTION SO AS NOT TO DISTURB EXISTING UTILITIES. UNDERGROUND POWER AND COMMUNICATION PULLBOXES, WHERE SHOWN ON THE SITE PLAN, AND ARE DETERMINED TO BE IN CONFLICT WITH EXISTING UTILITIES AFTER EXCAVATION BY HAND SHALL BE RELOCATED TO A POSITION AS CLOSE AS POSSIBLE TO THE LOCATION SHOWN ON THE DRAWINGS.



GENERAL NOTES

1. ALL EQUIPMENT SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY AND SHALL BE INSTALLED AS PER LISTING OR LABELING.
2. ALL TERMINALS SHALL BE TORQUED TO MANUFACTURERS LISTED SPECIFICATIONS.
3. ALL RACEWAYS SHALL CONTAIN A CODE-SIZED (NEC-250.122), INSULATED, GREEN, COPPER EQUIPMENT GROUNDING CONDUCTOR AND SHALL BE BONDED TO THE METALLIC COMPONENTS OF THE RACEWAY SYSTEM.
4. ALL CONDUCTORS TO BE COPPER, TYPE THWN/THHN INSULATION RATED FOR 75°/90°C.
5. ALL RACEWAYS SHALL BE CONCEALED IN WALLS AND CEILING SPACE . NO SURFACE RACEWAYS OR WIRE MOLD IS ALLOWED. IF CONCEALING IS NOT FEASIBLE, CONTRACTOR TO CONSULT PROJECT MANAGER AND EOR FOR DIRECTION.
6. TITLE 24 FOR MODULARS TO BE PROVIDED BY MODULAR DESIGNER / MANUFACTURER.
7. MARK ALL EXPOSED JUNCTION BOXES WITH THE PANEL AND CIRCUIT NUMBERS OF THE CIRCUITS ENCLOSED WITHIN THE JUNCTION BOX USING A PERMANENT, FELT TIP MARKER.
8. PROVIDE THE REQUIRED AUXILIARY J-BOXES, PULL-BOXES OR HANDHOLES PER CEC 352.26/358.26 TO FACILITATE THE INSTALLATION OF BRANCH CIRCUIT WIRING OR FEEDERS, THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS(360 DEGREES TOTAL) BETWEEN PULL POINTS FOR EXAMPLE, CONDUIT BODIES AND BOXES.
9. SEE SHEET E-201 FOR UNDERGROUND POWER AND DATA CONDUITS AND CONDUCTOR SIZES.

REFERENCED NOTES

(1) PROVIDE 12x12x6 WALL MOUNTED PULL BOX FOR POWER .

(2) PROVIDE 12x12x6 WALL MOUNTED PULL BOX FOR DATA/TEL.

(3) DISCONNECT SWITCH CONNECTED TO AC UNIT SHALL BE RATED WITH A MINIMUM OF 10KAIC. REFER TO MODULAR DRAWINGS AND PANEL SCHEDULES PROVIDED BY MANUFACTURER FOR CONNECTING DISCONNECT SWITCH TO THE CORRESPONDING PANEL AND CIRCUITS. VERIFY CIRCUIT NUMBER SHOWN ON PLANS WITH MODULAR PANEL SCHEDULES AND MODIFY AS NEEDED. FINAL CONNECTION FROM FUSED DISCONNECT TO ELECTRICAL PANEL TO BE MADE BY MODULAR MANUFACTURER.

(4) MODULAR BUILDING MANUFACTURER TO PROVIDE RED LOCK-ON DEVICE IN PANEL 'A' FOR FACP DEDICATED RECEPTACLE.

N

ELECTRICAL PARTIAL
RECONSTRUCTION PLAN
SCALE : 1/8" = 1'-0"
1
E-301

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FLEWELLING & MOODY
architecture planning interiors

HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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ARCHITECT

CONSULTANT
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☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
MAHBUBE E. ZERRAT ZADE
E 22441
9/30/20
ELECTRICAL
STATE OF CALIFORNIA

Drawn by
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Revisions

No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM
BUILDINGS AT
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1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

ELECTRICAL
PARTIAL
RECONSTRUCTION
PLAN

Job No.
2835.0200
Date
12-18-2019

E-301

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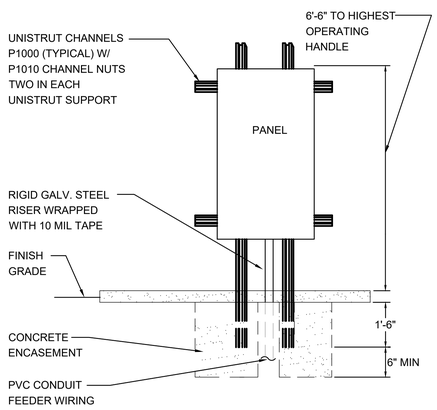
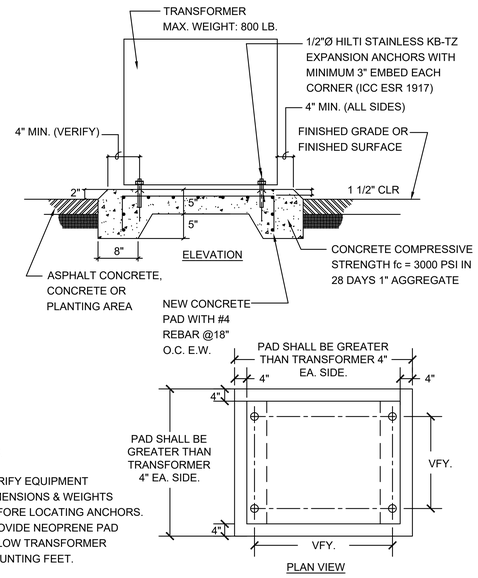
FLOOR STANDING PANEL DETAIL — SCALE NTS — 7



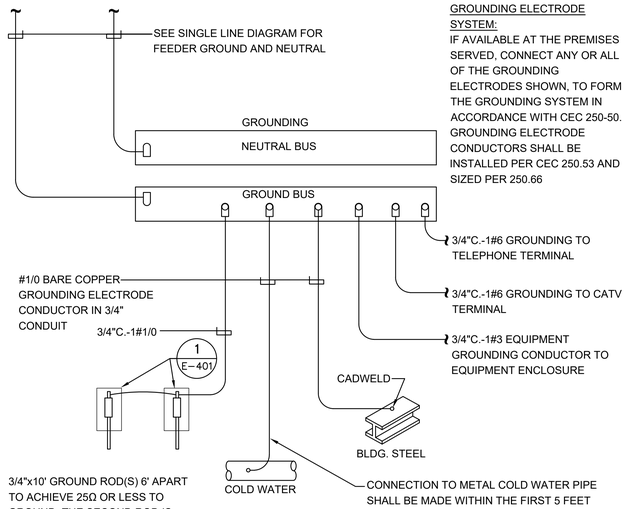
TRANSFORMER MOUNTING DETAIL — SCALE NTS — 5



NOTES:

1. VERIFY EQUIPMENT DIMENSIONS & WEIGHTS BEFORE LOCATING ANCHORS.
2. PROVIDE NEOPRENE PAD BELOW TRANSFORMER MOUNTING FEET.

SERVICE GROUNDING DETAIL — SCALE NTS — 3

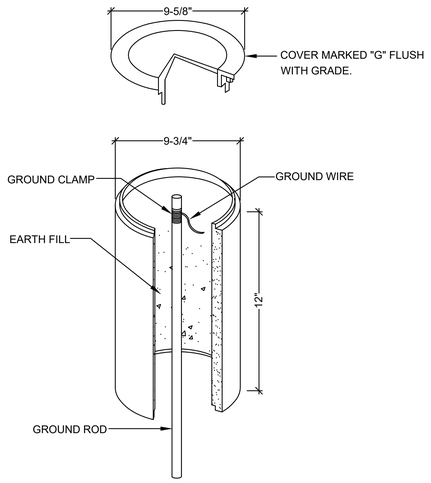


GROUNDING ELECTRODE SYSTEM:
IF AVAILABLE AT THE PREMISES SERVED, CONNECT ANY OR ALL OF THE GROUNDING ELECTRODES SHOWN, TO FORM THE GROUNDING SYSTEM IN ACCORDANCE WITH CEC 250-50. GROUNDING ELECTRODE CONDUCTORS SHALL BE INSTALLED PER CEC 250.53 AND SIZED PER 250.66

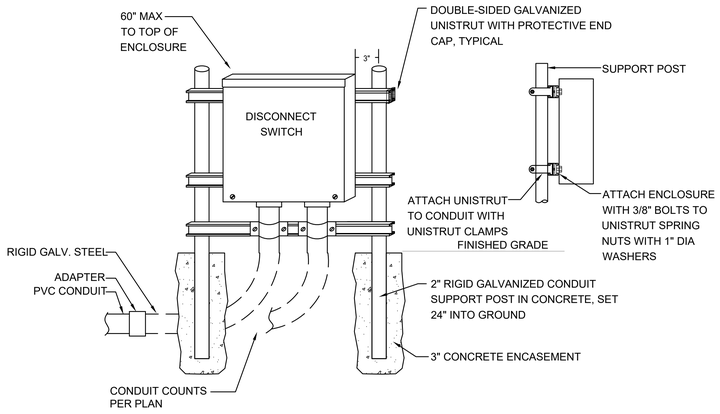
3/4"x10' GROUND ROD(S) 6' APART TO ACHIEVE 25Ω OR LESS TO GROUND. THE SECOND ROD IS REQUIRED IF 25Ω OR LESS TO GROUND IS NOT ACHIEVED BY INSTALLING THE FIRST ROD. IF MULTIPLE ROD ARE INSTALLED, THEY SHALL NOT BE LESS THAN 6' APART.

NOTE:
BONDING POINTS SHALL BE ACCESSIBLE AS REQUIRED PER CEC 250.104

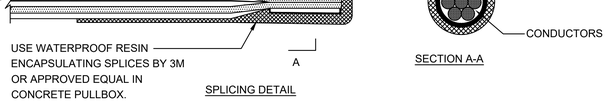
GROUND BOX DETAIL — SCALE NTS — 1

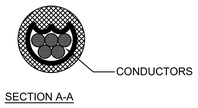


DISCONNECT FLOOR STANDING MOUNTING DETAIL — SCALE NTS — 6

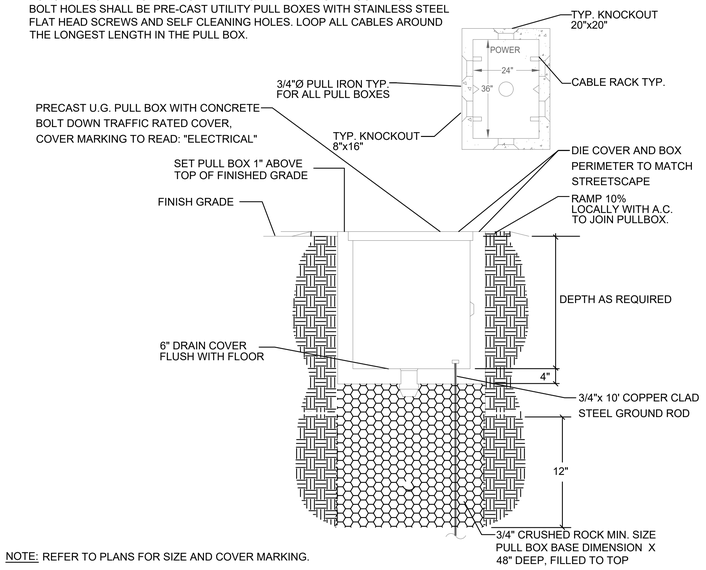


PRECAST CONCRETE PULL BOX AND SPLICING DETAIL — SCALE NTS — 4



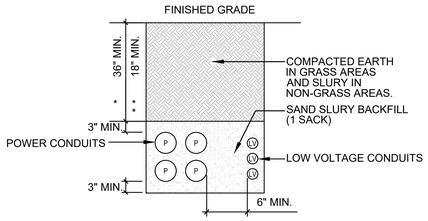


1. IN THE PRECAST CONCRETE PULL BOXES FURNISH AND INSTALL CABLE RACKS ON WALLS INDICATED. EACH RACK SHALL BE EQUIPPED WITH THREE PORCELAIN CABLE HOLDERS ON A VERTICAL STEEL VAULT MOUNTING BAR. BOLT HOLES SHALL BE PRE-CAST UTILITY PULL BOXES WITH STAINLESS STEEL FLAT HEAD SCREWS AND SELF CLEANING HOLES. LOOP ALL CABLES AROUND THE LONGEST LENGTH IN THE PULL BOX.



NOTE: REFER TO PLANS FOR SIZE AND COVER MARKING.

TYPICAL TRENCH DETAIL — SCALE NTS — 2



* -IN VEHICULAR AREAS

* * -IN NON VEHICULAR AREAS

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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
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ARCHITECT

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Job No.19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 340 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN LA OFFICE 633W 5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)539-6795
☐ GLENDALE OFFICE 535 ARDEN AVE, STE 20 GLENDALE, CA 91203 TEL: (818)539-6795

REGISTERED PROFESSIONAL ENGINEER
MARGARET E. ZERRY, P.E.
No. E 22441
12/30/20
ELECTRICAL
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No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT
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1400 RAIDERS WAY
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OXNARD UNION HIGH SCHOOL DISTRICT

ELECTRICAL DETAILS

Job No.
2835.0200

Date
12-18-2019

E-401

APPLICABLE CODES

CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING PARTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR):

PART 1 2019CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, TITLE 24 C.C.R.
PART 2 2019 CALIFORNIA BUILDING CODE (CBC), TITLE 24 C.C.R
(2015 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL WITH CALIFORNIA AMENDMENTS).
PART 3 2019 CALIFORNIA ELECTRICAL CODE (CEC), TITLE 24 C.C.R.
(2014 NATIONAL ELECTRIC CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA)
PART 4 2019 CALIFORNIA MECHANICAL CODE (CMC), TITLE 24 C.C.R.
(2015 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS IAPMO).
PART 5 2019 CALIFORNIA PLUMBING CODE (CPC), TITLE 24 C.C.R.
(2015 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS IAPMO).
PART 6 2019 CALIFORNIA ENERGY CODE (CEC), TITLE 24 C.C.R.
PART 9 2019 CALIFORNIA FIRE CODE (CFC), TITLE 24
(2015 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL CODE COUNCIL).
PART 10 2019 CALIFORNIA EXISTING BUILDING CODE, TITLE 24 C.C.R.
(2015 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL WITH CALIFORNIA AMENDMENTS).
PART 11 2019 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN CODE), TITLE 24 C.C.R.
PART 12 2019 CALIFORNIA REFERENCED STANDARDS, TITLE 24 C.C.R.

PARTIAL LIST OF APPLICABLE STANDARDS:
2019 CALIFORNIA BUILDING CODE (FOR SFM) REFERENCED STANDARDS CHAPTER 35.

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS (CALIFORNIA AMENDED)	2019 EDITION
NFPA 72,	NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) (NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES")	2019 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2019 EDITION
NFPA 17a	WET CHEMICAL EXTINGUISHING SYSTEMS	2019 EDITION
TITLE 19	C.C.R. SFM REGULATIONS	
UL 464	AUDIBLE SIGNAL APPLIANCES	2019 EDITION
UL 521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	2019 EDITION

ELECTRICAL SYMBOL LIST

(NOT ALL SYMBOLS ARE USED ON PLANS)

SYMBOL	DESCRIPTION
Ⓙ	JUNCTION BOX: CEILING MOUNTED, WALL MOUNTED OR IN ACCESSIBLE CEILING SPACE
▬	BRANCH CIRCUIT FLUSH PANELBOARD
- - - - -	CONDUIT: UNDERGROUND OR BELOW GRADE. SIZE & NUMBER OF CONDUCTORS AS NOTED.
———	CONDUIT: CONCEALED ABOVE CEILING OR IN WALL IN FINISHED AREAS; EXPOSED IN UNFINISHED AREA, 3/4"C. U.O.N.
—#—	3/4"C, 2#12 & 1#12 GROUND U.O.N.
E	"E" INDICATES EXISTING DEVICE TO REMAIN
R	"R" INDICATES EXISTING DEVICE TO BE REMOVED
1 / FA-201	SEE DIAGRAM 1, SHEET FA-201

MAXIMUM NUMBER OF CONDUCTORS IN TRADE SIZES OF TUBING

CONDUCTORS							
		Metric Designator (Trade Size)					
TYPE	CONDUCTOR SIZE (AWG/kcmil)	16 (1/2)	21 (3/4)	27 (1)	35 (1 1/4)	41 (1 1/2)	53 (2)
THHN, THWN, THWN-2	14	12	22	35	61	84	138
	12	9	16	26	45	61	101
	10	5	10	16	28	38	63
	8	3	6	9	16	22	36

V2400 RACEWAY WIRE FILL CAPACITIES FOR POWER				
			NUMBER OF CONDUCTORS (40% FILL)	
WIRE SIZE THHN/THWN	O.D. Inches	(mm)	WITHOUT DEVICES	WITH 2427 RECEPTACLE
14 AWG	0.111	(2.8)	57	12
12 AWG	0.130	(3.3)	41	9
10 AWG	0.164	(4.2)	26	-

DEVICE DESIGNATION

INITIATING	NOTIFICATION
L3- 03 DEVICE ADDRESS LOOP NUMBER	A1 - 2 V1- 2 DEVICE NUMBER NOTIFICATION CIRCUIT

CABLE CALLOUT NOTES

1/D CABLE TYPE
1/D QUANTITY OF CABLE

WIRE SCHEDULE

CABLE TYPE	WIRE/CABLE DESCRIPTION	CIRCUIT TYPE
A	2#12 WEST PENN 60994B	AUDIBLE
V	2#12 WEST PENN 60994B	VISUAL
D	2#16 WEST PENN D990	INDOOR DATA LOOP
D1	2#16 WEST PENN AQ225	OUTDOOR DATA LOOP
N	2#18 WEST PENN D980	INDOOR NETWORK
N1	2#18 WEST PENN AQ224	OUTDOOR NETWORK
M	2#18 WEST PENN D975	ANNUNCIATOR

FIRE ALARM SYMBOL LIST

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.	C.S.F.M.	MOUNTING	REMARKS
FACP	FIRE ALARM CONTROL PANEL	GAMEWELL-FCI	E3	7165-1703:0125	SURFACE	
FATC	FIRE ALARM TERMINAL CABINET	----	----	----	SURFACE	PROVIDE 36"H x 36"W x 8"D @ MAIN PNL AND PROVIDE 18"H x 12"W x 6"D AT ALL OTHER LOCATION U.O.N.
FAPB	FIRE ALARM PULL BOX	----	----	----	SURFACE	PROVIDE 12"x12"x6"D NEMA 3R WEATHERPROOF FIRE ALARM PULLBOX.
F	PULL STATION (INTERIOR USE) ZONE MONITOR	GAMEWELL-FCI	MS-2 AMM-2	7150-1703:0100 7300-1703:0102	SURFACE	
SD	SMOKE DETECTOR /BASE	GAMEWELL-FCI	FCI-ASD-PTL2F/ B224RB	7272-1703:0121	SURFACE	
HD	HEAT DETECTOR /BASE (CONCEALED) ABOVE CEILING / ATTIC	GAMEWELL-FCI	FCI-ATD-HL2F/B224RB	7270-1703:0115	CONCEALED	
S 75cd	SPEAKER/STROBE(15cd, 30cd, 75cd, 110cd)	GENTEX	SSPK24WLP	7320-0569:0140	SURFACE WALL MTD.	
W.P. S	EXTERIOR SPEAKER	GENTEX	WSSPK	7320-0569:0141	SURFACE WALL MTD.	
ANN	REMOTE ANNUNCIATOR	GAMEWELL-FCI	LCD-E3	7165-1703:0125	SURFACE WALL MTD.	

NOTE:
EXISTING FIRE ALARM SYSTEM IS GAMEWELL-FCI. NEW FIRE ALARM EQUIPMENT AND DEVICES WILL BE COMPATIBLE.

FIRE ALARM MONITORING NOTE

AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY ARTICLE 91. THE SUPERVISION STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. TELEPHONE LINES FOR FACP UNDER ELECTRICAL CONTRACT.

FIRE ALARM MONITORING: SERVICEPRO FIRE PROTECTION, INC.
805-487-1477
C-16# 817889 & E-1375
ACCOUNT NO. TCC-3001

NOTE:
EXISTING FIRE ALARM SYSTEM SHALL REMAIN FULLY IN SERVICE, UNIMPAIRED, UNTIL NEW SYSTEM HAS BEEN ACCEPTED. FIRE WATCH REQUIRED FOR IMPAIRMENT OF SYSTEM.
CFC 2019, CHAPTER 9, SECTION 901.7 FIRE WATCH PROVISION FOR IMPAIRMENT TO LIFE SAFETY SYSTEM.

SCOPE OF WORK

PROVIDE A NETWORKED FIRE ALARM SYSTEM FOR FOUR (4) NEW MODULAR CLASSROOMS VIA SMOKE DETECTORS, HEAT DETECTORS, AND VISUAL/AUDIBLE EVAC DEVICES. CONNECT TO EXISTING FIRE ALARM SYSTEM INSTALLED UNDER DSA # 03 - 103030

FIRE ALARM SYSTEM SEQUENCE OF OPERATIONS

DEVICE / ACTION	Pull Stations Manual	Area Smoke Detectors	Detectors Area Heat	Heat Linear Detectors	Beam Detectors	Flow Water Sprinkler	Bell Switch Tamper Sprinkler	Power Failure	Fire Alarm ac Power Failure	Fire Alarm Low Battery System	Open Circuit	Fault Ground	Short Circuit Appliance Notification	Kitchen Suppression	Room Smoke Elevator Machine Detector	Lobby Smoke Elevator Detector	Heat Room Elevator Machine Detector	Heat Detector Hoistway	Controller Fire Pump	Notes
Annunciate alarm at FACP and Remote Annunciator	X	X	X																	
Annunciate supervisory condition at FACP and Remote Annunciator																				
Annunciate trouble at FACP and Remote Annunciator	X	X	X					X	X	X	X	X	X							[1]
Activate Audible/Visual Signal Thoughout School (Alarm)	X	X	X																	
Contact Central Station (UDACT)	X	X	X					X	X	X	X	X	X							
Mute Local Public Address System	X	X	X																	
Disable Passing Signals	X	X	X																	
Shut down Air Handling Equipment	X	X	X																	[2]
Close Smoke/Fire Dampers	X	X	X																	[3]
Close Smoke and Fire Doors																				
Turn on general house lighting																				
Elevator Power Shunt Trip																				
Elevator Recall																				
Sound Sprinkler Bell																				

NOTES:
[1] Indicate trouble on wiring fault or device as required.
[2] Shut down only air handler equipment in the building or area where alarm condition occurs.
[3] Close only smoke and fire dampers in the building or area where alarm condition occurs.

FIRE ALARM SHEET INDEX

AGENCY

FLEWELLING & MOODY
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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
P 661.949.0771
E-Mail: fm-lancaster@flewelling-moody.com

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CONSULTANT
BUDLONG & ASSOCIATES, INC
MEP CONSULTING ENGINEERS
Job No. 19-244
☑ CAMARILLO OFFICE 400 W VENTURA BLVD, STE 240 CAMARILLO, CA 93010 TEL: (805)987-4001
☐ DOWNTOWN-LA OFFICE 633W.5TH STREET 26TH FLOOR LOS ANGELES, CA 90071 TEL: (818)638-8780
☐ GLENDALE OFFICE 315 ARDEN AVE, STE 23 GLENDALE, CA 91203 TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
MAHBUBE E. ZERRAT ZADE
E 22441
9/30/20
ELECTRICAL
STATE OF CALIFORNIA

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No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL
1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

FIRE ALARM
FRONT SHEET

Job No.
2835.0200

Date
12-18-2019

FA-101

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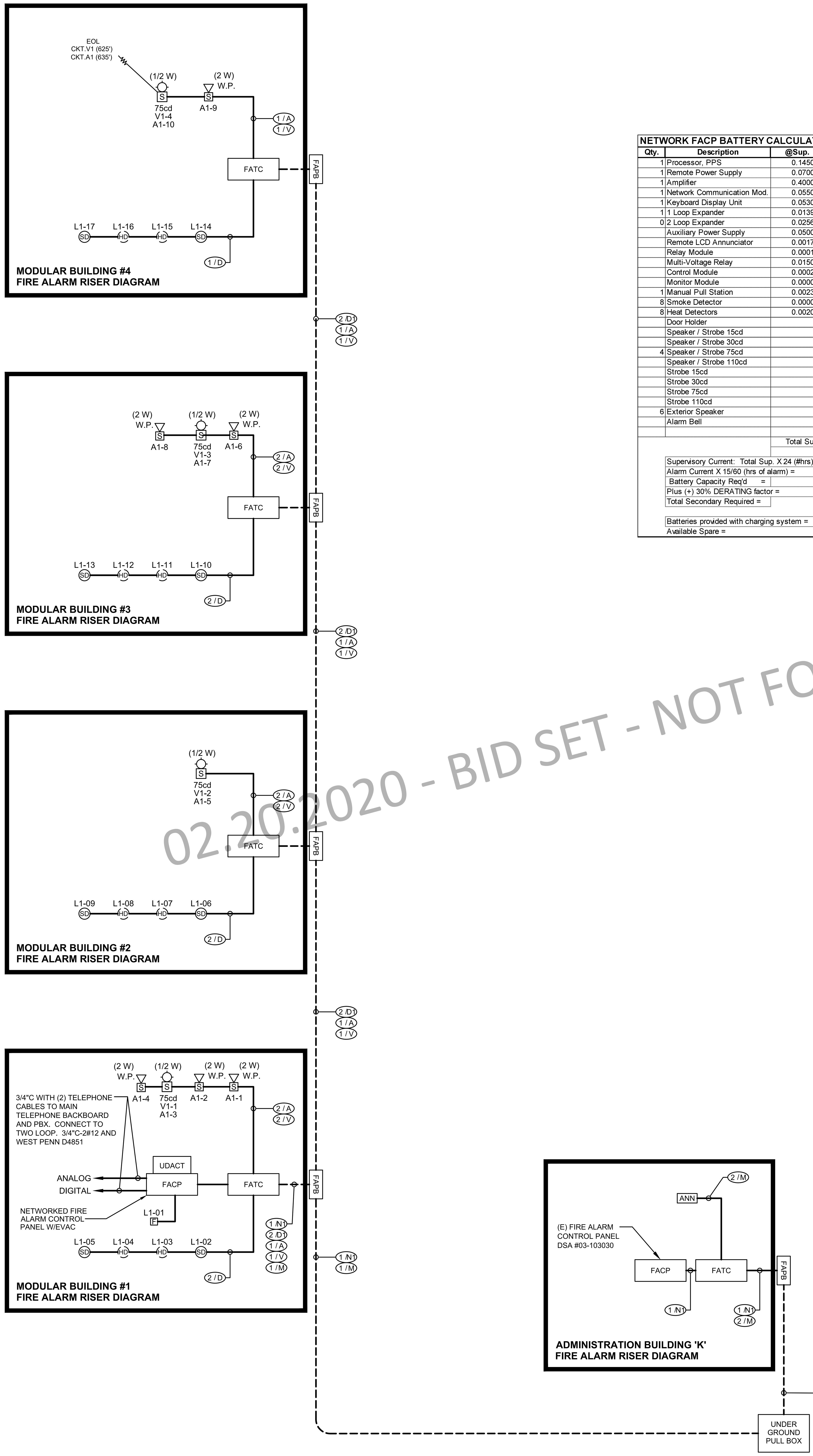

NETWORK FACP BATTERY CALCULATION (New Modular #1):					
Qty.	**Description**	**@Sup.**	**Sup.Current**	**@Alarm**	**Alarm Current**
1	Processor, PPS	0.145000	0.145000	0.05500	0.055000
1	Remote Power Supply	0.070000	0.070000	0.27000	0.270000
1	Amplifier	0.400000	0.400000	0.50000	0.500000
1	Network Communication Mod.	0.055000	0.055000	0.05500	0.055000
1	Keyboard Display Unit	0.053000	0.053000	0.05300	0.053000
1	1 Loop Expander	0.013900	0.013900	0.51800	0.518000
0	2 Loop Expander	0.025600	0.000000	0.02940	0.000000
	Auxiliary Power Supply	0.050000	0.000000	0.05000	0.000000
	Remote LCD Annunciator	0.001730	0.000000	0.10000	0.000000
	Relay Module	0.000100	0.000000	0.00010	0.000000
	Multi-Voltage Relay	0.015000	0.000000	0.01500	0.000000
	Control Module	0.000220	0.000000	0.00010	0.000000
	Monitor Module	0.000025	0.000000	0.00004	0.000000
1	Manual Pull Station	0.002300	0.002300	0.00500	0.005000
8	Smoke Detector	0.000050	0.000400	0.00005	0.000360
8	Heat Detectors	0.002000	0.016000	0.00850	0.068000
	Door Holder			0.06800	0.000000
	Speaker / Strobe 15cd			0.05500	0.000000
	Speaker / Strobe 30cd			0.07800	0.000000
4	Speaker / Strobe 75cd			0.15300	0.612000
	Speaker / Strobe 110cd			0.19600	0.000000
	Strobe 15cd			0.05900	0.000000
	Strobe 30cd			0.06200	0.000000
	Strobe 75cd			0.15200	0.000000
	Strobe 110cd			0.19100	0.000000
6	Exterior Speaker			0.03000	0.180000
	Alarm Bell			0.85000	0.000000
			0.000000		0.000000
		Total Sup.:	0.755600	Total Alarm:	2.316360

Supervisory Current: Total Sup. X 24 (#hrs) =	18.134400	Amp/Hrs
Alarm Current X 15/60 (hrs of alarm) =	0.579090	Amp/Hrs
Battery Capacity Req'd =	18.713490	Amp/Hrs
Plus (+) 30% DERATING factor =	5.614047	
Total Secondary Required =	24.327537	
Batteries provided with charging system =	100.000 (2 PCS)	
Available Spare =	75.672	

VOLTAGE DROP CALCULATIONS:

(Calculation: Length X Current X 21.6 (Voltage Drop factor) / (Circular Mils (copper) X 24 VDC) = Volts Dropped)

	Length	Load	CM	Volts Dropped	% VD @24VDC	Qty.	Device	@Load	Load
Circuit V1	658	0.612	6530	1.326	6.50		Strobe 15cd - Wall	0.059	0.000
							Strobe 30cd - Wall	0.082	0.000
							Strobe 75cd - Wall	0.153	0.000
							Strobe 110cd - Wall	0.191	0.000
							Speaker/Strobe 15cd - Wall	0.055	0.000
							Speaker/Strobe 30cd - Wall	0.078	0.000
						4	Speaker/Strobe 75cd - Wall	0.153	0.612
							Speaker/Strobe 110cd - Wall	0.196	0.000
									0.000
							Total Circuit Load:		0.612

WORST CASE VOLTAGE DROP% CALCULATIONS							
Panel		**DAA-1**		**Wire Gauge**		**16**	
Circuit No.		**A1**		**Area Cir.Mil**		**2580**	
System Voltage		**70**		**DC resistance ohm/kFT**		**4.99**	
Distance in Feet		**735**					
						Alarm	**Total**
Model Number		**Description**			**QTY**	**Current**	**Current**
SYSTEM SENSOR	SPSR	INTERIOR SPEAKER (1/4W)				0.0100	0.000
SYSTEM SENSOR	SPSR	INTERIOR SPEAKER (1/2W)			4	0.0200	0.080
SYSTEM SENSOR	SPSR	INTERIOR SPEAKER (1W)				0.0400	0.000
SYSTEM SENSOR	SPSR	INTERIOR SPEAKER (2W)				0.0800	0.000
SYSTEM SENSOR	SPRK	EXTERIOR SPEAKER (1/4W)				0.0400	0.000
SYSTEM SENSOR	SPRK	EXTERIOR SPEAKER (1/2W)				0.0200	0.000
SYSTEM SENSOR	SPRK	EXTERIOR SPEAKER (1W)				0.0400	0.000
SYSTEM SENSOR	SPRK	EXTERIOR SPEAKER (2W)			6	0.0800	0.480
					CIRCUIT TOTAL CURRENT		**0.5600**
RESISTANCE		OPERATING		VOLTAGE			**%VOLTAGE**
(ohms)		VOLTS		DROP			**DROP**
7.3353		**65.89**		**4.108**			**5.87%**
NOTE: % VOLTAGE DROP SHALL NOT EXCEED 10%							
Resistance =		(2XDistance in feet x Wire Resistance in ohms)/(1,000)					
Dropped Voltage=		(Current x Resistance)					
% Voltage Drop=		(Dropped Voltage/System Volt)					

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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
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LOS ANGELES, CA 90071
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GLENDALE, CA 91203
TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
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E 22441
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No.	Date	Description

(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

FIRE ALARM
RISER DIAGRAM
AND CALCULATIONS

Job No. 2835.0200

Date 12-18-2019

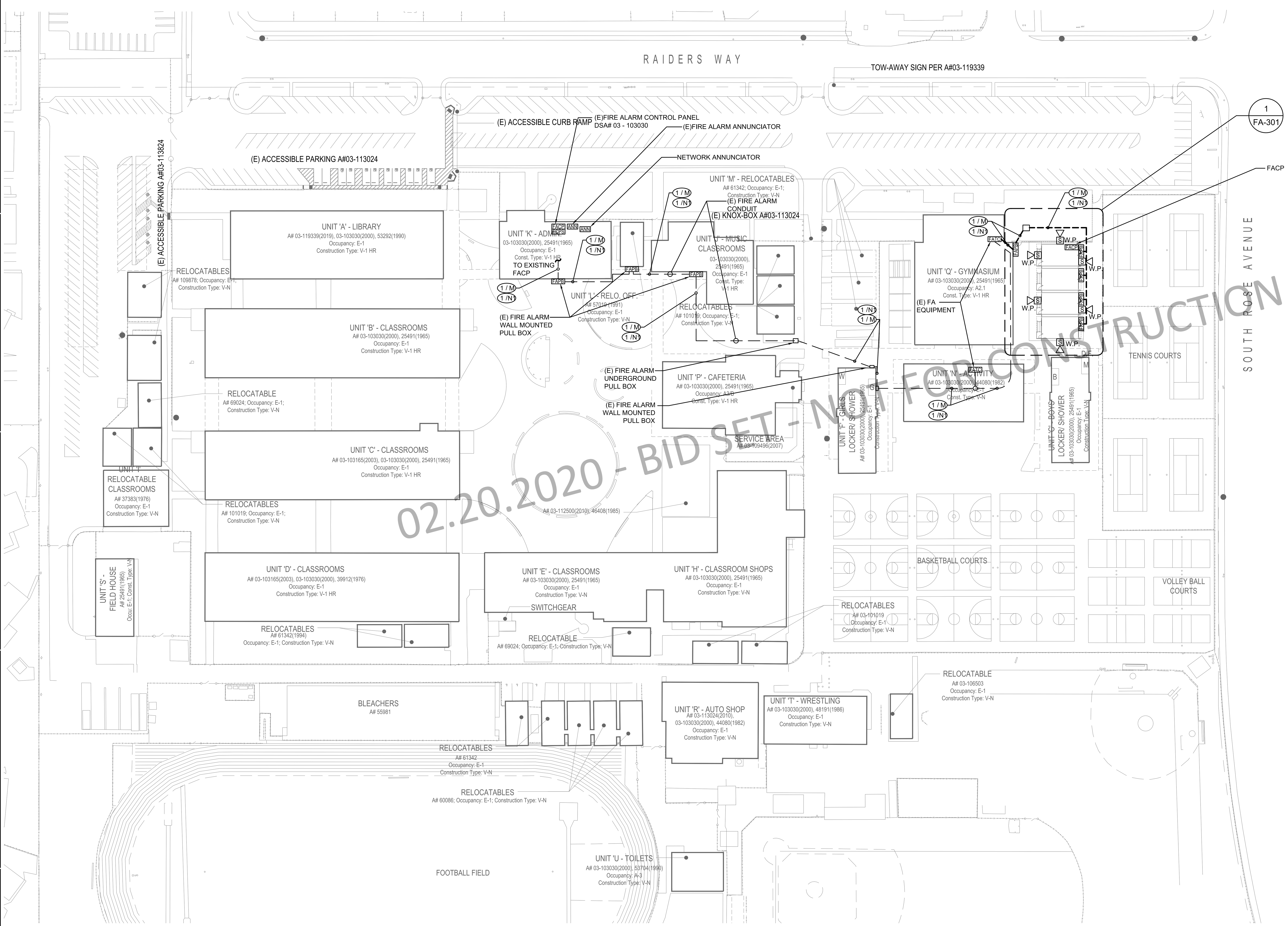
FA-102

DSA SUBMITTAL

DIGALERT

CALL BEFORE YOU DIG
811
IT'S THE LAW

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE EXACT LOCATION OF BELOW GROUND PIPING, CONDUITS AND UTILITY PATHWAYS IN THE IMMEDIATE VICINITY OF THE WORK, WHETHER SHOWN ON THE DRAWINGS OR NOT. CONTRACTOR SHALL MARK ALL EXISTING PIPING, CONDUITS AND UTILITY PATHWAYS AFFECTED BY THE WORK USING AN UNDERGROUND PIPE LOCATOR TO DETERMINE THE POSITION OF PIPES AND CONDUITS ON THE SURFACE. THE CONTRACTOR SHALL ADD THE EXISTING UNDERGROUND UTILITIES FOUND BY BLUESTAKING TO THE RECORD DRAWINGS. CONTRACTOR SHALL OBTAIN APPROVAL OF MARKING FROM CONSTRUCTION MANAGER PRIOR TO COMMENCING ANY DEMOLITION OR DIGGING. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT ARISE FROM THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND MARK ANY AND ALL UNDERGROUND UTILITIES. TRENCHING FOR NEW UNDERGROUND CONDUITS IN AREAS WHERE EXISTING UNDERGROUND UTILITIES ARE PRESENT SHALL BE EXCAVATED BY HAND USING EXTREME CAUTION SO AS NOT TO DISTURB EXISTING UTILITIES. UNDERGROUND POWER AND COMMUNICATION PULLBOXES, WHERE SHOWN ON THE SITE PLAN, AND ARE DETERMINED TO BE IN CONFLICT WITH EXISTING UTILITIES AFTER EXCAVATION BY HAND SHALL BE RELOCATED TO A POSITION AS CLOSE AS POSSIBLE TO THE LOCATION SHOWN ON THE DRAWINGS.



FIRE ALARM SITE PLAN

SCALE : 1" = 50'-0"

1 / FA-201

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Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

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(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

FIRE ALARM
SITE PLAN

Job No. 2835.0200

Date 12-18-2019

FA-201

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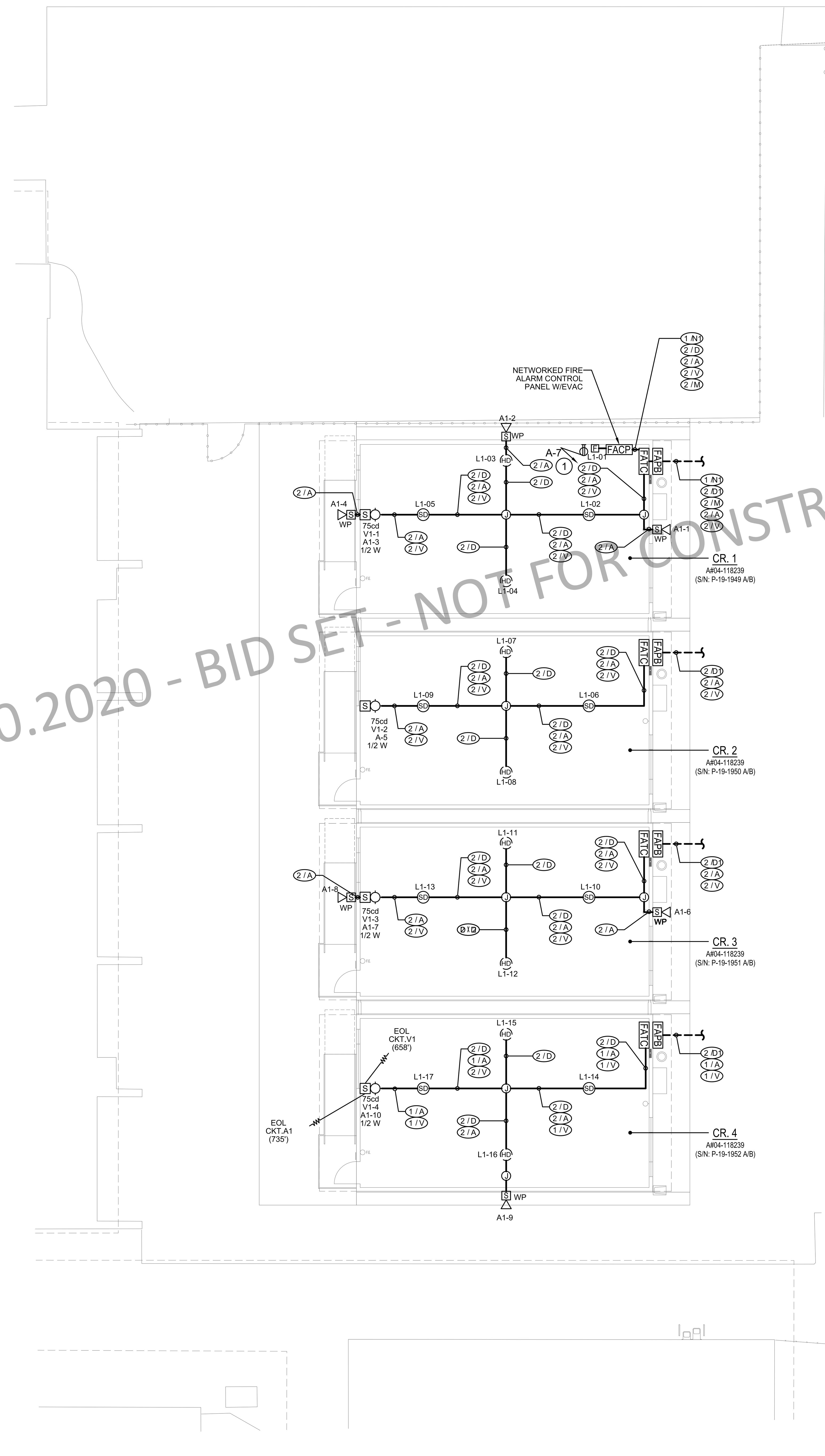

REFERENCED NOTES

1. MODULAR BUILDING MANUFACTURER TO PROVIDE RED LOCK-ON DEVICE IN PANEL 'A' FOR FACP DEDICATED RECEPTACLE.

FIRE ALARM ENLARGED PARTIAL RECONSTRUCTION PLAN

SCALE : 1/8" = 1'-0"

1 / FA-301

N

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815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
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☑ CAMARILLO OFFICE
400 W VENTURA BLVD, STE 240
CAMARILLO, CA 93010
TEL: (805)987-4001

☐ DOWNTOWN-LA OFFICE
633W.5TH STREET 26TH FLOOR
LOS ANGELES, CA 90071
TEL: (818)638-8780

☐ GLENDALE OFFICE
315 ARDEN AVE, STE 23
GLENDALE, CA 91203
TEL: (818)638-8780

REGISTERED PROFESSIONAL ENGINEER
MAHBUBE E. ZERRAT ZADE
E 22441
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(4) 24'x40' MODULAR CLASSROOM BUILDINGS AT CHANNEL ISLANDS HIGH SCHOOL

1400 RAIDERS WAY
OXNARD, CA 93033

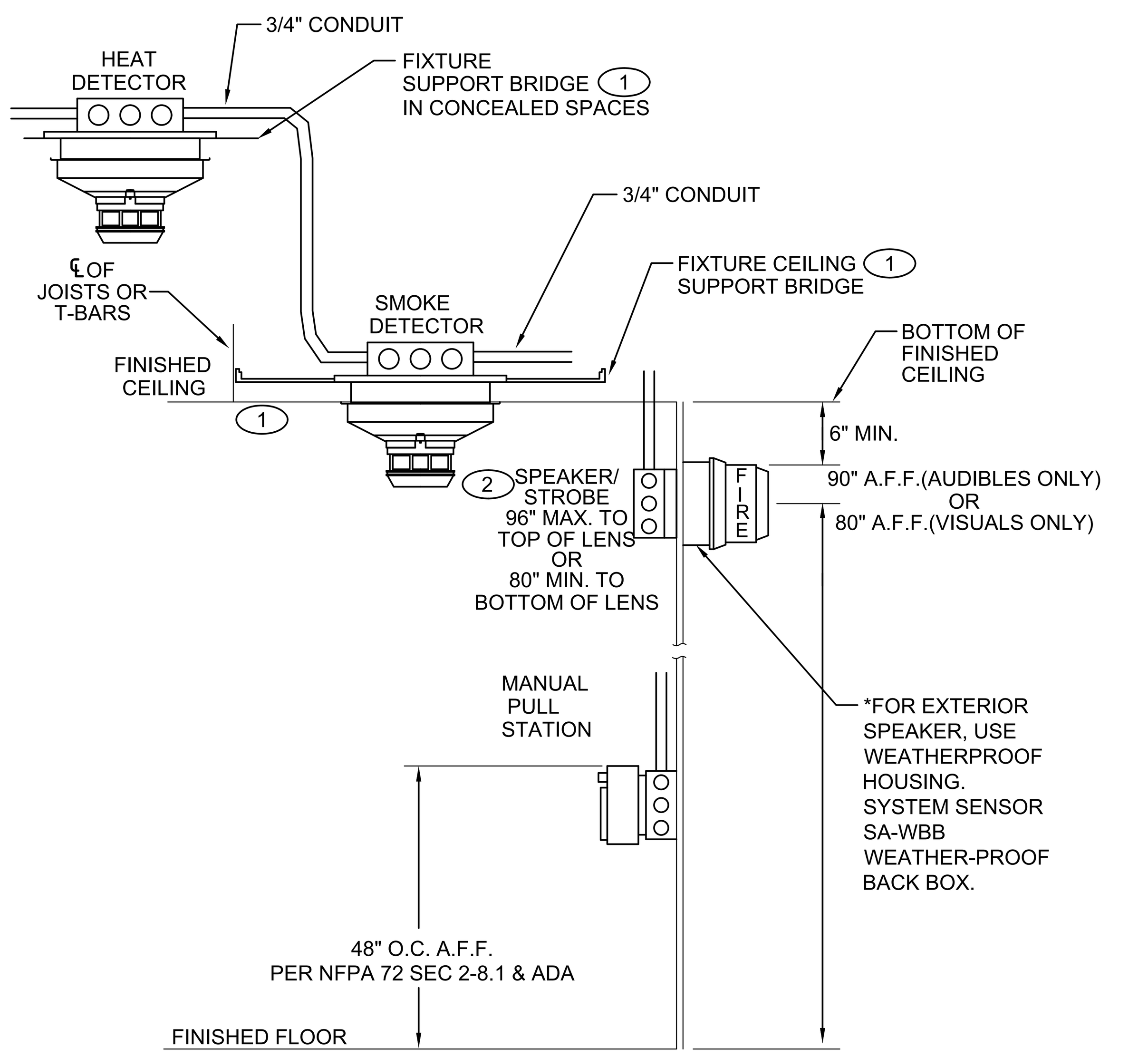
OXNARD UNION HIGH SCHOOL DISTRICT

FIRE ALARM ENLARGED PARTIAL RECONSTRUCTION PLAN

Job No. 2835.0200

Date 12-18-2019

FA-301



NOTES:

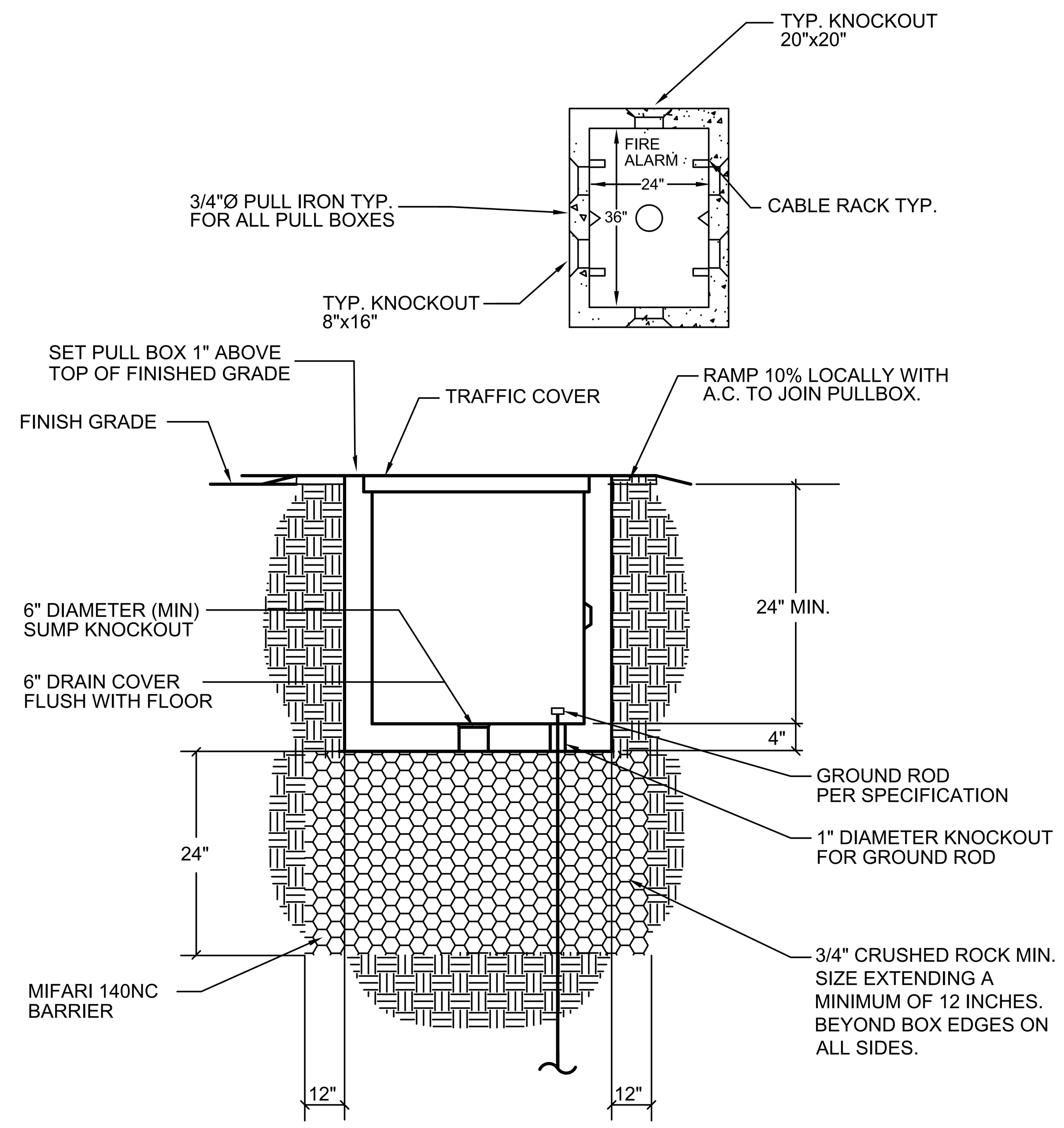
1. SMOKE DETECTOR TO PROVIDE 900 SQ.FT. COVERAGE FOR SMOOTH CEILING CONSTRUCTION, 21 FT. (MAXIMUM) FROM DETECTOR TO WALL & CEILING INTERSECTIONS.

2. AUDIBLES TOPS LOCATED @ 90"A.F.F. OR 6" B.F.C. PER NFPA 72, SEC. 18.5.4.1

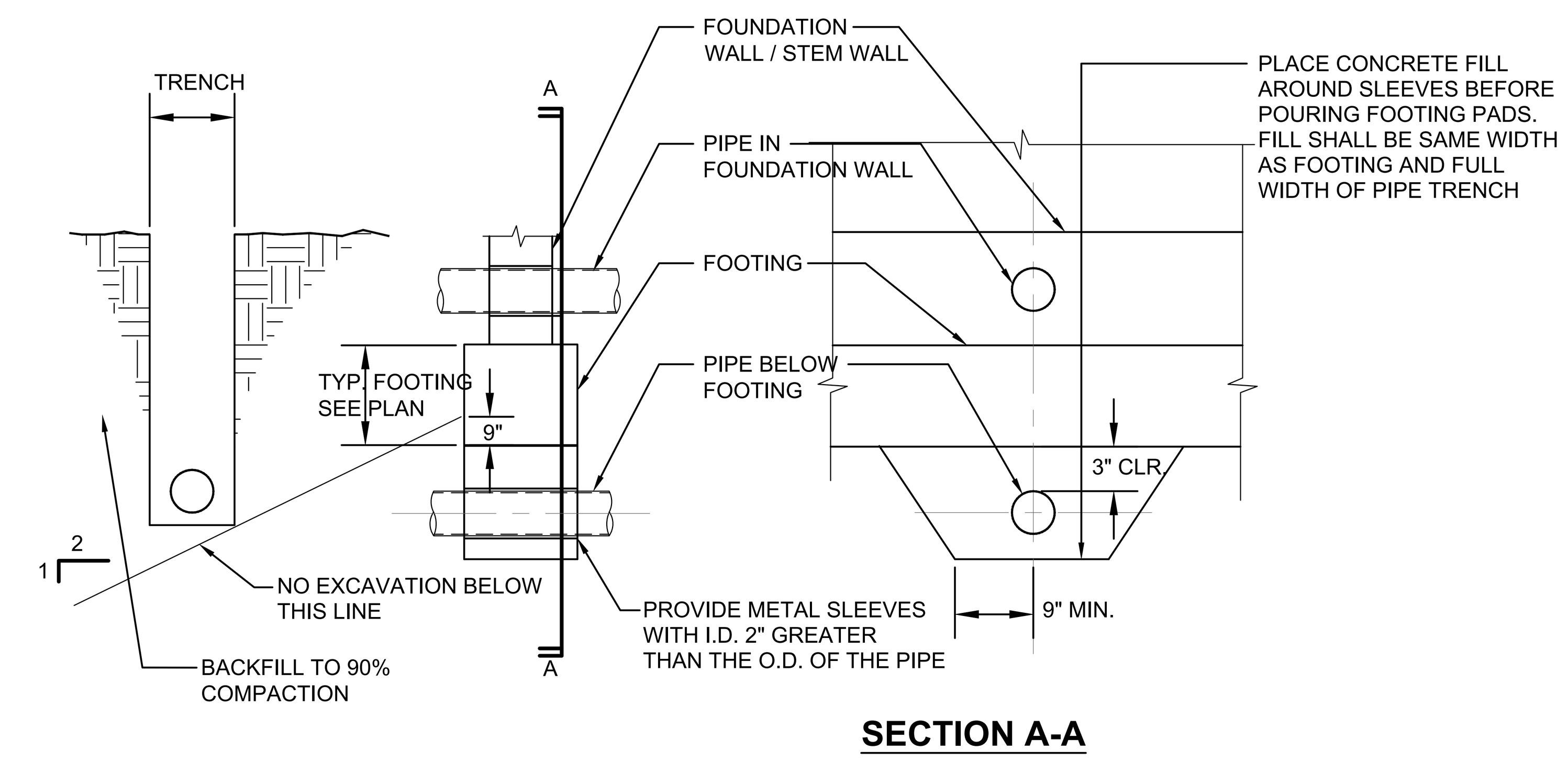
   VISUAL BOTTOM OF LENS LOCATED NO LOWER THAN 80"A.F.F. PER NFPA 72 SEC. 18.5.4.1 OR HIGHER THAN 96"A.F.F. TOP OF LENS

TYPICAL DEVICE MOUNTING REQUIREMENTS — Scale NONE — 1

1. IN THE PRECAST CONCRETE PULL BOXES FURNISH AND INSTALL CABLE RACKS ON WALLS INDICATED. EACH RACK SHALL BE EQUIPPED WITH THREE PORCELAIN CABLE HOLDERS ON A VERTICAL STEEL VAULT MOUNTING BAR. BOLT HOLES SHALL BE PRE-CAST UTILITY PULL BOXES WITH STAINLESS STEEL FLAT HEAD SCREWS AND SELF CLEANING HOLES. LOOP ALL CABLES AROUND THE LONGEST LENGTH IN THE PULL BOX.



PRECAST CONCRETE PULL BOXES — Scale NONE — 2



NOTE:
NO PIPE SHALL PASS THROUGH FOOTING. PROVIDE SLEEVE MIN. 1" Ø LARGER THAN PIPE.

TYPICAL PIPE TRENCH / FOOTING DIAGRAM — Scale NONE — 3

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HEADQUARTERS OFFICE:
815 Colorado Blvd, Suite 200
Los Angeles, CA 90041
P 323.543.8300
E-Mail: fm-pasadena@flewelling-moody.com

ANTELOPE VALLEY OFFICE:
1035 West Lancaster Boulevard
Lancaster, California 93534
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☑ CAMARILLO OFFICE ☐ DOWNTOWN L.A OFFICE ☐ GLENDALE OFFICE

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OXNARD, CA 93033

OXNARD UNION HIGH SCHOOL DISTRICT

FIRE ALARM DIAGRAMS

Job No. 2835.0200
Date 12-18-2019

FA-401

DSA SUBMITTAL

Sheet List

Sheet Number	Sheet Name
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E2.1	120'x40' T24 CZ 16 (WALL AC)
E2.2	120'x40' T24 CZ 16 (WALL AC)
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A0.0	COVER SHEET
A0.0.1	PROJECT OPTIONS SCHEDULE
A0.1	TYPICAL KEY PLAN AND SCHEDULES, GEN NOTES,
A0.2	SIGNAGE AND SYMBOLS
~~A0.3~~	~~DSA-103 T&I CONCRETE FLOORS~~
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A0.5	CALGREEN SPEC'S
Architectural	
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~~A1.1~~	~~36x40 FLOOR PLAN~~
~~A1.2~~	~~48x40 FLOOR PLAN~~
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~~A2.2~~	~~ARCHITECTURAL DETAILS (WOOD FRAMING PLASTER FINISH)~~
~~A2.3~~	~~ARCHITECTURAL DETAILS (MTL FRAMING SHTG FINISH)~~
~~A2.4~~	~~ARCHITECTURAL DETAILS (MTL FRAMING PLASTER FINISH)~~
~~A2.5~~	~~ARCHITECTURAL DETAILS (1-HR WOOD FRAMING SHTG FINISH)~~
~~A2.6~~	~~ARCHITECTURAL DETAILS (1-HR WOOD FRAMING PLASTER FINISH)~~
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~~A6.1~~	~~SECTION - EPDM (DUAL)~~
A6.2	SECTION
~~A6.3~~	~~SECTION - EPDM (MONO)~~
~~A7.0~~	~~ADDITIONAL OPTION DETAILS~~
~~A7.1~~	~~ADDITIONAL OPTION DETAILS~~
A7.2	ADDITIONAL OPTION DETAILS
MEP	
E1.0	ELECTRICAL PLAN 24x40
E1.1	ELECTRICAL SCHEDULES 24x40
~~E1.2~~	~~ELECTRICAL PLAN 36x40~~
~~E1.3~~	~~ELECTRICAL SCHEDULE 36x40~~
~~E1.4~~	~~ELECTRICAL PLAN 48x40~~
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M0.1	MISCELLANEOUS NOTES & DETAILS
M2.1	120'x40' T24 CZ 16 (WALL AC)
M2.2	120'x40' T24 CZ 16 (WALL AC)
M2.3	120'x40' T24 CZ 16 (WALL AC)
M2.4	120'x40' T24 CZ 16 (WALL AC)
M5.1	MECHANICAL CEILING PLAN 24x40
~~M5.2~~	~~MECHANICAL ROOF MOUNT 24x40~~
~~M6.1~~	~~MECHANICAL CEILING PLAN 36x40~~
~~M6.2~~	~~MECHANICAL ROOF MOUNT 36x40~~
~~M7.1~~	~~MECHANICAL CEILING PLAN 48x40~~
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~~P1.0~~	~~TYPICAL PLUMBING DETAILS~~
Foundation	
~~F1.10~~	~~WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 50+15~~
~~F1.11~~	~~WOOD FOUNDATION PLAN 24x40 BLDG W/ 50+15~~
~~F1.12~~	~~WOOD FOUNDATION 36x40 BLDG W/ 50+15~~
~~F1.13~~	~~WOOD FOUNDATION PLAN 48x40 BLDG W/ 50+15~~
~~F1.14~~	~~MODLINE "B" W/ EXTERIOR WALLS BACK-TO-BACK 100 PSF~~
~~F1.20~~	~~WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 100PSF~~
~~F1.21~~	~~WOOD FOUNDATION PLAN 24x40 BLDG W/ 100 PSF~~
~~F1.22~~	~~WOOD FOUDATION PLAN 36x40 BLDG W/ 100 PSF~~
~~F1.23~~	~~WOOD FOUNDATION PLAN 48x40 BLDG W/ 100 PSF~~
~~F1.24~~	~~MODLINE "B" W/ EXTERIOR WALLS BACK-TO-BACK 100 PSF~~
~~F1.30~~	~~WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 150 PSF~~
~~F1.31~~	~~WOOD FOUNDATION PLAN 24X40 BLDG W/ 150 PSF~~
~~F1.32~~	~~WOOD FOUNDATION PLAN 36x40 BLDG W/ 150 PSF~~
~~F1.33~~	~~WOOD FOUNDATION PLAN 48x40 BLDG W/ 150 PSF~~
~~F1.34~~	~~MODLINE "B" W/ EXTERIOR WALL BACK-TO-BACK 150 PSF~~
~~F1.40~~	~~WOOD FOUNDATION DETAILS~~
~~F2.10~~	~~CONCRETE FOUNDATION PLAN~~
~~F2.20~~	~~CONCRETE FOUNDATION DETAILS~~
~~F2.22~~	~~CONCRETE FOUNDATION DETAILS~~
~~F2.23~~	~~CONCRETE FOUNDATION DETAILS~~
Structural	
S0.1	STRUCTURAL GEN NOTES
S1.0.1	WD SHTH'G FLR FRM'G PLAN (50+15 PSF)
~~S1.0.2~~	~~WD SHTH'G FLR FRM'G PLAN (100 PSF)~~
~~S1.0.3~~	~~WD SHTH'G FLR FRM'G PLAN (150 PSF)~~
~~S1.1.1~~	~~CONC FLR FRM'G PLAN (50+15 PSF)~~
~~S1.1.2~~	~~CONC FLR FRM'G PLAN (100 PSF)~~
~~S1.1.3~~	~~CONC FLR FRM'G PLAN (150 PSF)~~
S1.2	STRUCTURAL DETAILS (FLOOR)
S3.0.1	MONO SLOPE ROOF FRM'G PLAN
~~S3.0.2~~	~~DUAL SLOPE ROOF FRM'G PLAN~~
S3.1	STRUCTURAL DETAILS (ROOF)
~~S3.2~~	~~ROOF DETAILS (SOFFIT/PARAPET)~~
S3.3	ROOF PERIMETER TRUSS
~~S4.0~~	~~MTL WALL FRAMING ELEVATIONS~~
S4.1	WD WALL FRAMING ELEVATIONS
S4.2	WALL DETAILS (WOOD FRAMING)
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S4.4	TYP FRAMING
S4.5	FRAMING SCHEDULES
S5.0	LONG. SECTION - (MONO)
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~~SR0~~	~~MODULE PLAN AND NOTES~~
~~SR1~~	~~RAMP LANDING~~
~~SR2~~	~~LANDING FRAME~~
~~SR3~~	~~FOUNDATION PLAN~~
~~SR4~~	~~RAMP ELEVATION~~
~~SR5~~	~~RAMP DETAILS~~
~~SR6~~	~~RAMP DETAILS~~
~~SR7~~	~~STAIR CONN~~

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Sheet List

Sheet Number	Sheet Name
Under Separate Cover	
~~FS-1~~	~~FIRE SPRINKLER DESIGN 1~~
~~FS-2~~	~~FIRE SPRINKLER DESIGN 2~~

F1.10 WOOD FOUNDATION NOTES SCHED FOR BLDG W/50 + 15
F1.11 WOOD FOUNDATION PLAN 24 x 40 BLDG W/50 + 15
F1.40 WOOD FOUNDATION DETAILS
SR0 MODULE PLAN & NOTES
SR1 RAMP AND LANDING PLAN
SR2 RAMP AND LANDING FRAMING
SR3 FOUNDATION PLAN
SR4 RAMP AND LANDING / STAIR FRAMING
SR5 RAMP DETAILS
SR6 RAMP DETAILS
SR7 STAIR CONN

CLASS LEASING LLC

LOW SEISMIC
DESIGN CRITERIA

PC NOT USABLE
IN WUI AREAS

PC # 04-116504

24' x 40' EXPANDABLE TO 120' x 40'

STKP # 244

DESIGN CODES

PARTIAL LIST OF APPLICABLE CODES AS OF February 28, 2017

2016 Administrative Code (CAC), Part 1, Title 24 C.C.R. *
2016 California Building Code (CBC), Part 2, Title 24 C.C.R.
(2015 International Building Code with 2016 California Amendments)
2016 California Electrical Code (CEC), Part 3, Title 24 C.C.R.
(2014 National Electrical Code with 2016 California Amendments)
2016 California Mechanical Code (CMC), Part 4, Tiltle 24 C.C.R.
(2015 Uniform Mechanical Code with 2016 California Amendments)
2016 California Plumbing Code (CPC), Part 5, Title 24 C.C.R.
(2015 Uniform Plumbing Code with 2016 California Amendments)
2016 California Energy Code (CEC), Part 6, Title 24 C.C.R
2016 California Fire Code, Part 9, Title 24 C.C.R.
(2015 International Fire Code with 2016 California Amendments)
2016 California Green Building Standards Code, Part 11, Title 24 C.C.R.
2016 California Referenced Standards, Part 12, Title 24 C.C.R
Title 19 C.C.R., Public Safety, State Fire Marshal Regulations.
2013 ASME A17.1 (W/ CSA B44-13) Safety Code for Elevators and Escalators

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	Automatic Sprinkler Systems	2016 Edition
NFPA 14	Standpipe Systems	2013 Edition
NFPA 17	Dry Chemical Extinguishing Systems	2013 Edition
NFPA 17a	Wet Chemical Systems	2013 Edition
NFPA 20	Stationary Pumps	2016 Edition
NFPA 22	Water Tanks for Private Fire Protection	2013 Edition
NFPA 24	Private Fire Mains	2016 Edition
NFPA 72	National Fire Alarm Code	2016 Edition
NFPA 80	Fire Doors and Other Opening Protectives	2016 Edition
NFPA 92	Standard for Smoke Control Systems	2015 Edition
NFPA 253	Critical Radiant Flux of Floor Covering Systems	2015 Edition
NFPA 2001	Clean Agent Fire Extinguishing Systems	2015 Edition
ICC 300	ICC Standards on Bleachers, Folding and Telescoping Seating and Grand stands	2012 Edition
UL 300	Fire Testing of Fire Extinguishing System for Protection Of Restaurant Cooking Areas	2005 Edition
UL 464	Audible Signal Appliances	2003 Edition
UL 521	Heat Detectors for Fire Protective Signaling Systems	1999 Edition

Reference Code Section for NFPA Standards - 2016 CBC (SFM) Chapter 35. See Chapter 35 for State of California amendments to NFPA Standards.

* California Administrative Code, Part 1, Chapter 10, Administrative Regulations for the California Energy Commission (CEC).

ACOUSTICAL CONTROL (EXTERIOR) REQUIREMENTS

Per the 2016 CCR, Title 24, Part 11 (CALGREEN CODE) Section 5.507.4. This pre-check building is not allowed to be placed:
- Within the 65 CNEL noise contour of a airport;
- Within the 65 CNEL or Ldn noise contour of a freeway, expressway, railroad, or industrial source guideway;
- Or in a location exposed to a noise level of 65 dB Leq-1Hr, during any hour of operation.

CODE	ADOPTED YEAR	ITEM
NFPA 13	2016	AUTOMATIC SPRINKLER SYSTEMS
NFPA 72	2016	NATIONAL FIRE ALARM CODE w/ CALIFORNIA AMENDMENTS

NOTE: VISUAL DEVICES PER UL STANDARD 1971

THIS PC HAS A "PRE-DESIGNED" FIRE SPRINKLER SYSTEM INSTALLED.
SEE BELOW FOR SITE REQUIREMENTS BY OWNER

IT IS THE OWNERS RESPONSIBILITY TO ENSURE THE MINIMUM FLOW (GPM) AND PRESSURE (PSI)CAN BE ATTAINED AT THE BASE OF THE RISER AT THE PROPOSED SITE FOR EACH PROPOSED BUILDING.

THIS PC REQUIRES
MINIMUM GPM : 250
MINIMUM PSI : 35

FAILURE TO ATTAIN THE MIN GPM/PSI MAY NECESSITATE THE INSTALLATION OF ONE OR MORE OF THE FOLLOWING ITEMS/EQUIPMENTS.

A. WATER TANK
1. FIRE PUMP
2. BACK UP FIRE SUPPLY

B. ADDITIONAL UNDERGROUND FIRE LINE TAPS
C. ALL OR ANY COMBINATION OF THE ABOVE OR ANY OTHERS AS REQUIRED TO ENSURE PROPER OPERATION OF THE AFSS

THE FOLLOWING MUST BE SUPPLIED TO DSA AT THE TIME OF SUBMITTAL WITH THE SITE PLAN FOR EACH PROPOSED BUILDING WITH AN AFSS.
1. MINIMUM GPM/PSI REQUIRED
2. WATER FLOW DATA (SEE DSA AFFS GUIDELINES)
3. SITE PLAN SHOWING THE LOCATION OF THE "FLOW" AND "TEST" HYDRANTS (FULLY DIMENSIONED)
4. ALL (NEW AND EXISTING) UNDERGROUND FIRE LINES/PIPING -LENGTH AND SIZE SHOWING LOCATION AND METHOD OF UNDERGROUND PIPING RESTRAINTS TO TEST HYDRANT
5. LOCATION OF ALL (NEW AND EXISTING) ;
   - A. FIRE HYDRANTS
   - B. POST INDICATORS
   - C. FIRE DEPARTMENT CONNECTIONS
   - D. PRESSURE REDUCERS
   - E. BACK-FLOW PREVENTION/DETECTOR CHECK VALVES
   - F. OTHER FIRE RELATED ITEM/EQUIPMENTS APPLICABLE
6. HYDRAULIC CALCULATIONS FOR THE UNDERGROUND PIPING WITH THE AVAILABLE GPM/PSI AT THE BASE OF EACH AFSS RISER (MUST MEET OR EXCEED MIN REQ'T)
7. ANY CHANGES TO THE CONFIGURATION (WALLS,CEILINGS, CONSTRUCTION TYPE) OR OCCUPANCY OF THE PC WILL NECESSITATE ADDITIONAL/REVISED HYDRAULIC CALCULATIONS

@	AT
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ABV	ABOVE
AD	AREA DRAIN
ADD	ADDENDUM
ADH	ADHESIVE
ADJ	ADJACENT, ADJUSTABLE
ADOH	ALTERNATE DIRECTION OF HOOK
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ANCH	ANCHOR (AGE)
ANOD	ANODIZED
APPRX	APPROXIMATE
ARCH	ARCHITECT (URAL)
ASPH	ASPHALT
AUTO	AUTOMATIC
B	BOTTOM
BB	BOND BEAM
BC	BOTTOM CHORD
BD	BOARD
BEG	BEGIN (ING)
BEL	BELOW
BIT	BITUMINOUS
BJT	BED JOINT
BLDG	BUILDING
BLK	BLOCK ('G, ING)
BLW	BELOW
BM	BEAM
BMK	BENCH MARK
BO*	BOTTOM OF ____________
BPL	BEARING PLATE
BRD	BOARD
BRDG	BRIDGING
BRG	BEARING
BRK	BRICK
BRZ	BRONZE
BS	BOTH SIDES
BTWN	BETWEEN
BVL	BEVELED
BW	BOTH WAYS
C	CHANNEL, COMPRESSION
CAD	CADMIUM
CAM	CAMBER
C/C	CENTER TO CENTER
CEM	CEMENT
CF	CUBIC FOOT
CHAM	CHAMFER
CI	CAST IRON
CIP	CAST-IN-PLACE
CIR	CIRCLE
CIRC	CIRCUMFERENCE
CJ	CONSTRUCTION JOINT
CJT	CONTROL JOINT
CLG	CEILING
CLK	CAULK, ('G, ING)
CLKG	CAULKING
CLR	CLEAR
CLS	CLOSURE
CM	CENTIMETER
CMP	CORRUDATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNTR	CENTER
COL	COLUMN
COG	CENTER OF GRAVITY
COMB	COMBINATION
COMP	COMPRESS (ED)(ION)(IBLE)
COMPO	COMPOSITE
CONN	CONNECT (ION)
CONC	CONCRETE
CONST	CONSTRUCT (ION) (ED)
CONT	CONTINUE, CONTINUOUS
CONTR	CONTRACTOR
COR	CORRUGATED
CP	COMPLETE PENETRATION
CPG	COPING
CPR	COPPER
CRS	COURSE (S)
CS	COUNTERSINK
CTSK	COUNTERSUNK SCREW
CU	CUBIC
CX	CONNECTION
CY	CUBIC YARD
D	DEEP, DEPTH
DBL	DOUBLE
DEF	DEFLECTION
DEG	DEGREE
DEM0	DEMOLISH, DEMOLITION
DEP	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION (ED)
DIV	DIVISION
DL	DEAD LOAD
DN	DOWN
DO	DITTO
DP	DAMPROOFING
DWL	DOWEL (ED)
DWG	DRAWING, (S)
E	EAST, MODULUS OF ELASTICITY
EA	EACH
EB	EXPANSION BOLT
EF	EACH FACE
EJT	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC (AL)
ENCL	ENCLOSURE, ENCLOSED
ENG	ENGINEER
EQ	EQUAL, EQUALIBRIUM
EQUIP	EQUIPMENT
ESTM	ESTIMATE (ED)
EV	EXPANSION BOLT
EW	EACH WAY
EXCA	EXCAVATE (D) (ION)
(E), EXIST	EXISTING
EXMP	EXPANDED METAL PLATE
EXP	EXPOSED
EXPN	EXPANSION
EXS	EXTRA STRONG
EXT	EXTERIOR, EXTERNAL
FAS	FASTENER
FBO	FURNISHED BY OTHERS
FD	FLOOR DRAIN
FHMS	FLATHEAD MACHINE SCREW
FHS	FIRE HOSE STATION
FHWS	FLATHEAD WOOD SCREW
FIN	FINISH (ED)
FIXT	FIXTURE
FJT	FLUSH JOINT
FLR	FLOOR
FLUR	FLUORESCENT
FLEX	FLEXIBLE
FND	FOUNDATION
FO*	FACE OF ____________
FP	FIREPROOF (ED)
FP'G	FIREPROOFING
FR	FRAME (D)(ING)
FRC	FIRE RESISTANT COATING
FRGD	FORGED
FRMG	FRAMING
FT	FOOT, FEET
FTG	FOOTING
FURR	FURRED, FURRING
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GI	GALVANIZED IRON
GKT	GASKET
GL	GLASS, GLAZING
GLM	GLULAM
GP	GALVANIZED PIPE
GPM	GALLONS PER MINUTE
GPPL	GYPSUM PLASTER
GRVL	GRAVEL, GRANULAR
GRD	GRADE, GRADING
GRN	GRANITE
GSS	GALVANIZED SHEET STEEL
GT	GROUT
GVL	GRAVEL
GWB	GYPSUM WALLBOARD
GYP	GYPSUM
H	HIGH
HBD	HARDBOARD
HC	HOLLOW CORE
HD	HEAVY DUTY
HDNR	HARDENER
HDR	HEADER
HDWR	HARDWARE
HDWD	HARDWOOD
HES	HIGH EARLY STRENGTH CEMENT
HH	HANDHOLE
HJT	HEADJOINT
HK	HOOK
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HPT	HIGH POINT
HR	HOUR
HSA	HEADED STUD ANCHOR
HSB	HIGH STRENGHT BOLT
HT	HEIGHT
HWD	HARDWOOD
ID	INSIDE DIAMETER
IN	INCHE (ES)
INCL	INCLUDE (D), INCLUDING
INSUL	INSULATE, INSULATION
INT	INTERIOR
INTM	INTERMEDIATE
INV	INVERT
JST	JOIST
JT	JOINT
K	KIP (S)
KO	KNOCKOUT
KSI	KIPS PER SQUARE INCH
L	LONG, LENGTH
LAM	LAMINATE (D)
LB	POUND, LAG BOLT
LBL	LABEL
LC	LIGHT CONTROL
LD	DEVELOPMENT LENGHT
LF	LINEAR FOOT
LH	LEFT HAND
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LPT	LOW POINT
LT	LIGHT
LTL	LINTEL
LVL	LEVEL (ING)
LW	LIGHT WEIGHT
LWC	LIGHT WEIGHT CONCRETE
LWF	LIGHT WEIGHT FILL
M	METER (S) MOMENT
MATL	MATERIAL
MAS	MASONRY
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MCONN	MOMENT CONNECTION
MECH	MECHANICAL
MED	MEDIUM
MET	METAL
MEMB	MEMBER
MEP	MECHANICAL, ELECTRICAL, & PLUMBING
MFD	METAL FLOOR DECKING
MFR	MANUFACTURE (R) (ED)
MID	MID, MIDDLE
MIN	MINIMUM, MINUTE
MISC	MISCELLANEOUS
MM	MILLIMETER (S)
MMB	MEMBRANE
MO	MASONRY OPENING
MOD	MODEL
MODU	MODULAR
MOV	MOVABLE
MTL	MATERIAL
N	NORTH, NEW
NAT	NATURAL
NL	NAILABLE
NMT	NONMETALLIC
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OVERALL
o.c.	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OHMS	OVALHEAD MACHINE SCREW
OHWS	OVALHEAD WOOD SCREW
OJ	OPEN-WEB JOINT (S)
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
PAR	PARALLEL
PBD	PARTICLE BOARD
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCS	PIECES
PERF	PERFORATE (D)
PERI	PERIMETER
PFB	PREFABRICATE (D)
PFS	POUNDS PER SQUARE FOOT
PL	PLATE
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
P.L.	PARALLAM
PLWD	PLYWOOD
PMT	PAVEMENT
PNL	PANEL
POSTEN	POST TENSION (D)
PRETEN	PRETENSIONED
POLY	POLYETHYLENE
PR	PAIR
PRJ	PROJECT
PSC	PRESTRESSED CONCRETE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
P.T.	PRESSURE TREATED
PTC	POST-TENSIONED CONCRETE
PTD	PAINTED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
QTY	QUANTITY
R	RADIUS, RISER
RAD	RADIUS
RD	ROOF DRAIN
RECT	RETANGULAR
REF	REFERENCE, REFER TO
REINF	REFORCE (D) (ING)
REM	REMOVE
REQD	REQUIRED
REQS	REQUIREMENTS
RETG	RETAINING
REV	REVISION, REVISED
RFG	ROOFING
RFH	ROOF HATCH
RFL	REFLECT (ED)(IVE)(OR)
RM	ROOM
RO	ROUGH OPENING
RT	FIRE RETARDANT TREATED
RT	RUBBER TILE
RTG	RATING
RVS	REVERSE SIDE
RVT	RIVET
S	SOUTH
SC	SOLID CORE
SCHED	SCHEDULE
SDL	SUPERIMPOSED DEAD LOAD
SDS	SELF DRILL SCREW
SE	STRUCTURAL ENGINEER
SDST	SELF-DRILL, SELF-TAP'G SCREW
SECT	SECTION
SF	SQUARE FOOT, SQUARE FEET
SHO	SHORE, SHORING
SHT	SHEET
SHTH	SHEATHING
SI	SQUARE INCH
SIM	SIMILAR
SL	SLOPE
SLNT	SEALANT
SMS	SHEET METAL SCREW
SOG	SLAB ON GRADE
SPA	SPACE, (ING)
SPC	SPACER
SPEC	SPECIFICATION (S)
SQ	SQUARE
SSTL	STAINLESS STEEL
STG	STAGGERED
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURE
STR	STRUCTURAL
SYM	SYMETRICAL, SYMETRY
SYS	SYSTEM
T	TOP, TORSION, TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TC	TOP CHORD
TEN	TESION, TENSILE
TEMP	TEMPORARY, TEMPERATURE
THD	THREAD (ED)
THK	THICK (NESS)
TMPD	TEMPERED
TO*	TOP OF ____________
TL	TOTAL LOAD
TR	TREAD
TS	TUBE STEEL
TYP	TYPICAL
UC	UNDERCUT
UGD	UNDERGROUND
UL	UNDEREWRITERS LABORATORY
UND	UNDER
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
V	SHEAR FORCE, VELOCITY
VB	VAPOR BARRIER
VER	VERIFY
VERT	VERTICAL
VG	VERTICAL GRAIN
VIF	VERIFY IN FIELD
VJ	V-JOINTED
VNR	VENEER
V.T.R.	VENT THROUGH ROOF
W	WEST, WIDTH, WIDE, WIDE FLANGE
W/	WITH
W/O	WITHOUT
WD	WOOD
WI	WROUGHT IRON
WM	WIRE MESH
WP	WATERPROFFING
WPR	WATER REPELLENT
WPT	WORKING POINT
WS	WATER STOP
WT	WEIGHT
WTW	WALL TO WALL (W/W)
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

P-19-1913 A/B
THRU
P-19-2012 A/B
(100) 24 X 40

P-19-2013 A/B/C/D
THRU
P-19-2027 A/B/C/D
(15) 48 X 40

CONSTRUCTION OF CLASSROOM BUILDING (RELOCATABLE)

SCOPE OF WORK

BUILDING DESIGN

NUMBER OF STORIES: 1
OCCUPANCY: "E"
CONSTRUCTION TYPE: VB
FLOOR LIVE LOAD: ☒ 50+15 PSF PARTITION ☐ 100 PSF ☐ 150 PSF
FLOOR DEAD LOAD: ☒ WOOD FLOOR - 11 PSF ☐ CONC. FLOOR - 33 PSF

ROOF LIVE LOAD: 20 PSF
ROOF SNOW LOAD: 0 PSF
ROOF DEAD LOAD: 18.5 PSF (INCLUDES SPRINKLERS & 3PSF SOLAR PANEL)
RAMPLIVE LOAD: 100PSF
FLOOD DESIGN: This PC has not been designed to accommodate flood loads. If located in a zone other than X, a letter stamped and signed from a soils engineer is needed to validate the allowable soil values assumed in this PC are still applicable.

BUILDING AREA	NO OVERHANG	WITH OVERHANG (5' @ EA. END)
ALLOWABLE AREA	☐ 24x40 960 sf	☒ 24x40 1200 sf
=9,500 sf	☐ 36x40 1440 sf	☐ 36x40 1800 sf
ACTUAL AREA	☐ 48x40 1920 sf	☐ 48x40 2400 sf
=4,800 SF	☐ 60x40 2400 sf	☐ 60x40 3000 sf
	☐ 72x40 2880 sf	☐ 72x40 3600 sf
	☐ 84x40 3360 sf	☐ 84x40 4200 sf
	☐ 96x40 3840 sf	☐ 96x40 4800 sf
	☐ 108x40 4320 sf*	☐ 108x40 5400 sf*
	☐ 120x40 4800 sf*	☐ 120x40 6000 sf*

*Geo-hazard site specific report must be provided and approved by CGS for building area more than 4000 sf

ALLOWABLE SOIL PRESSURE: ☒ WOOD FTG -1000PSF ☐ CONCRETE FTG 1500PSF
FOUNDATION: ☒ WOOD ☐ CONCRETE
PC IS DESIGNED BASED ON A PINNED CONNECTION TO THE FOUNDATION.

CEC CLIMATE ZONE: 1-16

WIND DESIGN

ULTIMATE DESIGN SPEED: Vult = 130 mph, 3 sec GUST, Kzt = 1.0
RISK CATEGORY: II
EXPOSURE: C

EARTHQUAKE DESIGN

RISK CATEGORY: II
SEISMIC IMPORTANCE FACTOR: I = 1
MAPPED SPECTRAL RESPONSE: Ss = 2.14
S1 = 1.99
SITE CLASS: D
SEISMIC DESIGN CATEGORY: E
Note: For SDC (E) site specific motion analysis is not required if not in a seismic hazard zone and/or meets other exemptions in DSA IR A-4
SHORT/LONG PERIOD SITE COEFFICIENT: Fa = 1.0, Fu = 1.5
DEISIGN SPECTRAL RESPONSE: Sds = 1.00 (for building), Sd1 = 1.99,
(Sds=1.426 for other parameters non-structural component anchorage no-cap)
RESPONSE COEFFICIENT, Cs: 0.286
BASIC SEISMIC FORCE-RESISTING SYS: OMF, R = 3.5
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
BASE SHEAR PER 24X40 MODULE: WOOD FLOOR, LL ≤ 100, BASE SHEAR= 20.04 kip
WOOD FLOOR, LL = 150, BASE SHEAR= 26.71 kip
CONC. FLOOR, LL ≤ 100, BASE SHEAR= 26.07 kip
CONC. FLOOR, LL = 150, BASE SHEAR= 36.36 kip

1. ARCHITECT OF RECORD SHALL PROVIDE FIRE ALARM DRAWINGS WITH SITE ADAPTED PROJECTS. FIRE ALARM IS NOT PART OF THIS PC.
2. THIS PC HAS BEEN STRUCTURALLY DESIGNED TO SUPPORT THE WEIGHT OF A FIRE SPRINKLER SYSTEM
3. ALLOWABLE AREA IS BASED ON 10'-0" SETBACK FROM ASSUMED LINE
4. PC DESIGNED AS A SINGLE-STORY MODULAR BUILDING
5. SEE STRUCTURAL FOR SOIL TYPES & BEARING STRENGTHS
6. WORK SHALL CONFORM TO TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS
7. THIS PC IS NOT APPROVED FOR "A" OCCUPANCY USAGE
8. EXTERIOR PROJECTIONS TO BE FIRE PROTECTED WHERE REQUIRED
9. SEE A0.5 AND ENGERY CALC M-SHEETS FOR REQUIRED ENVELOPE ASSEMBLIES & HVAC SYSTEMS
10. ALL SPECIFICATIONS BASED ON PERFORMANCE AND ABLE TO BE SUBSTITUTED BY "EQUAL" PRODUCTS PENDING APPROVAL BY D.S.A.
11. BUILDINGS TO COMPLY WITH WILDLAND URBAN INTERFACE GUIDELINES WHERE APPLICABLE
12. BUILDING AND SITE FEATURES MUST COMPLY WITH CALGREEN CODE FOR ITS SPECIFIC LOCATION WHEN ADAPTED FOR SITE-USE
13. SHOULD THIS P.C. CLASSROOM BE DESIGNED TO CONNECT TO ANOTHER P.C. CLASSROOM, INTERIOR SOUND TRANSMISSION IN THE WALL AND FLOOR-CEILING ASSEMBLY MUST MEET A MINIMUM STC OF 40 PER CALGREEN

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRA
No. S3380
STRUCTURAL
STATE OF CALIFORNIA
Manny D Fraser
12/19/2017

CLIENT
CLASS
LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

SSS: G. Chan
FLS: R. Ferrer
ACS: R. Mullen

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS RL FLS RF SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE
COVER SHEET

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2018/03/08

SHEET NO.
A0.0

SHEET OF SHEETS

ARCHITECTURAL

6 General Architectural Sheets 1/4" = 1'-0"	GENERAL ARCHITECTURAL SHEETS	Sheet
COVER SHEET		A0.0
PROJECT OPTIONS SCHEDULE		A0.0.1
TYPICAL KEY PLAN AND SCHEDULE, GEN NOTES		A0.1
SIGNAGE AND SYMBOLS		A0.2
DSA-103 T&I CONCRETE FLOORS		A0.3
DSA-103 T&I CONCRETE FLOORS		A0.4
CALGREEN SPEC'S		A0.5
CALGREEN SHEET		A0.6
CALGREEN SHEET		A0.7

5 Floor Plan Details 1/4" = 1'-0"	ARCHITECTURAL FLOOR PLANS	Sheet
☒ Floor Plans	☒ Floor Plan - 24'x40'	A1.0
	☐ Floor Plan - 36'x40'	A1.1
	☐ Floor Plan - 48'x40'	A1.2

1 Arch Floor Framing Details 1/4" = 1'-0"	ARCHITECTURAL FLOOR FRAMING DETAILS						
							Sheet
☒ Wood Floor	1	2	3	4	5	6	A2.9
☐ Concrete Floor	7	8	9	10	11	12	A2.9

2 Wall Schedule 1/4" = 1'-0"	ARCHITECTURAL WALL DETAILS													
☒ Wood Studs	Detail													Sheet
	Door		ML			Window	Corner	HVAC	Top PLT	6" SEP	1-HR OPT 1	1-HR OPT 2	EXT HDR	INT HDR	
☒ Sheating	8	9	2	3	4 5	11	1	16	17	5	x	x	10A	10B	A2.1
☐ Plaster	8	9	3	4	5	11	1	16	17	5	x	x	10A	10B	A2.2
☐ 1-HR Sheating	8	9	2	3	4 5	11	1	16	17	5	-	-	10A	-	A2.5
☐ 1-HR Plaster	8	9	2	3	4 5	11	1	16	17	4	-	-	10A	-	A2. 6
☐ Metal Studs															
☒ Wood Sheating	8	9	2	3	4 5	11	1	10	16	5	x	x	10A	10B	A2.3
☐ Wood Plaster	8	9	2	3	4 5	11	1	10	16	5	x	x	10A	10B	A2.4
☐ 1-HR Sheating	8	9	2	3	4 5	11	1	16	17	5	-	-	10A	-	A2.7
☐ 1-HR Plaster	8	9	2	3	4 5	11	1	16	17	5	-	-	10A	-	A2.8
☐ Additional Fire Rating Details and Notes															A3.0
☐ Single OCC. Bathroom															A3.1

4 Ceiling Plans 1/4" = 1'-0"	ARCHITECTURAL CEILING PLANS		Sheet
Reflected Ceiling Plans:	☒ 24' x 40'	☒ 8 (2'x4') Recessed Light Fixture	A3.2
		☐ 12 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light	A3.2
	☐ 36' x 40'	☐ 12 (2'x4') Recessed Light Fixture	A3.2
		☐ 16 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light	A3.2
	☐ 48' x 40'	☐ 16 (2'x4') Recessed Light Fixture	A3.2
		☐ 18 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light	A3.2
Celing Notes			A3.2.1

3 Ceiling Details 1/4" = 1'-0"	ARCHITECTURAL CEILING DETAILS				
Celing Framing	Detail				Sheet
	Wall	Joists	Access	BLK'G	
☒ T-GRID	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	A3.3
☐ Wood	1	2	5	Typ	A3.4
☐ MTL	6	7	10	11	A3.4

7 Roof Plans 1/4" = 1'-0"	ARCHITECTURAL ROOF PLANS	Sheet
☒ Mono	☐ EPDM	A4.2.1
	☒ Standing Seam	A4.0.1
	☐ Parapet	A4.4.1
☐ Dual	☐ EPDM	A4.2.2
	☐ Standing Seam	A4.0.2

22 Roof Details 1/4" = 1'-0"	ARCHITECTURAL ROOF DETAILS	Sheet
☒ Mono	☐ EPDM	A4.3
	☒ Standing Seam	A4.1
	☐ Parapet	A4.5
☐ Dual	☐ EPDM	A4.3
	☐ Standing Seam	A4.1

8 Arch Building Section 1/4" = 1'-0"	ARCHITECTURAL BUILDING SECTION	Sheet
☒ Mono	☐ EPDM	A6.3
	☒ Standing Seam	A6.0
☐ Dual	☐ EPDM	A6.1
	☐ Standing Seam	A6.0.1
Section		A6.2

ARCHITECTURAL

13 Exterior Elevations 1/4" = 1'-0"	ARCHITECTURAL EXTERIOR ELEVATIONS	Detail		Sheet	Detail		Sheet
		Left	Right		Front	Rear	
Exterior Elevations:	☒ 24'x40'						
	☒ Mono Slope	1	2	A5.0	1	2	A5.1
	☐ Parapet Roof - Mono Slope	3	4	A5.0	3	4	A5.1
	☐ Dual Slope	5	6	A5.0	1	2	A5.1
	☐ 36'x40'						
	☐ Mono Slope	1	2	A5.0	5	6	A5.1
	☐ Parapet Roof - Mono Slope	3	4	A5.0	7	8	A5.1
	☐ Dual Slope	5	6	A5.0	5	6	A5.1
	☐ 48'x40'						
	☐ Mono Slope	1	2	A5.0	9	10	A5.1
	☐ Parapet Roof - Mono Slope	3	4	A5.0	11	12	A5.1
	☐ Dual Slope	5	6	A5.0	9	10	A5.1

14 Interior Elevations 1/4" = 1'-0"	ARCHITECTURAL INTERIOR ELEVATIONS	Detail				Sheet
		Left	Right	Front	Rear	
Interior Elevations:	☒ 24'x40'	1	2	3	4	A5.2
	☐ 36'x40'	1	2	5	6	A5.2
	☐ 48'x40'	1	2	8	7	A5.2

MEP

9 Plumbing 1/4" = 1'-0"	PLUMBING	Sheet
☐ Plumbing Details and Schedules		P1.0

10 Mechanical 1/4" = 1'-0"	MECHANICAL		Sheet	
			Ceiling Plan	Roof Plan
Mechanical Plans:	☒ 24' x 40'	☒ Wall Mount	M5.1	M5.2
		☐ Roof Mount	M5.1	M5.2
	☐ 36' x 40'	☐ Wall Mount	M6.1	M6.2
		☐ Roof Mount	M6.1	M6.2
	☐ 48' x 40'	☐ Wall Mount	M7.1	M7.2
		☐ Roof Mount	M7.1	M7.2
	☐ 60' x 40'	☐ Wall Mount	A0.1	
		☐ Roof Mount		
	☐ 72' x 40'	☐ Wall Mount		
		☐ Roof Mount		
	☐ 84' x 40'	☐ Wall Mount		
		☐ Roof Mount		
	☐ 96' x 40'	☐ Wall Mount		
		☐ Roof Mount		
	☐ 108' x 40'	☐ Wall Mount		
		☐ Roof Mount		
	☐ 120' x 40'	☐ Wall Mount		
		☐ Roof Mount		

11 Electrical 1/4" = 1'-0"	ELECTRICAL		Sheet	
Reflected Ceiling Plans:	☒ 24' x 40'	☒ 8 (2'x4') Recessed Light Fixture	E1.0	E1.1
		☐ 12 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 36' x 40'	☐ 12 (2'x4') Recessed Light Fixture	E1.2	E1.3
		☐ 18 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 48' x 40'	☐ 16 (2'x4') Recessed Light Fixture	E1.4	E1.5
		☐ 24 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 60' x 40'	☐ 20 (2'x4') Recessed Light Fixture		
		☐ 30 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 72' x 40'	☐ 24 (2'x4') Recessed Light Fixture		
		☐ 36 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 84' x 40'	☐ 28 (2'x4') Recessed Light Fixture		
		☐ 42 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 96' x 40'	☐ 32 (2'x4') Recessed Light Fixture		
		☐ 48 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 108' x 40'	☐ 36 (2'x4') Recessed Light Fixture		
		☐ 54 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		
	☐ 120' x 40'	☐ 40 (2'x4') Recessed Light Fixture		
		☐ 60 (1'x8') Pendant Light w/ 4 (1'x16') Recessed Light		

12 Fire Sprinklers Plans 1/4" = 1'-0"	FIRE SPRINKLERS PLANS	Sheet
☐ Fire Sprinklers Drawings:	☐ Floor Plans	FS-2
	☐ Details	FS-1

STRUCTURAL

15 Foundations Plans 1/4" = 1'-0"	FOUNDATION	Sheet
☒ Wood Foundation Plan:	☒ 24'x40' (50+15 PSF)	F1.11
	☐ 24'x40' (100 PSF)	F1.21
	☐ 24'x40' (150 PSF)	F1.31
	☐ 36'x40' (50+15 PSF)	F1.12
	☐ 36'x40' (100 PSF)	F1.22
	☐ 36'x40' (150 PSF)	F1.32
	☐ 48'x40' (50+15 PSF)	F1.13
	☐ 48'x40' (100 PSF)	F1.23
	☐ 48'x40' (150 PSF)	F1.33
☐ Concrete Foundation Plan		F2.10

16 General Structural Sheets 1/4" = 1'-0"	GENERAL STRUCTURAL SHEETS	Sheet
STRUCTURAL GEN NOTES		S0.1

17 Floor Framing Plans 1/4" = 1'-0"	STRUCTURAL FLOOR FRAMING PLANS	Sheet
☒ Wood Sheating Floor:	☒ (50+15 PSF)	S1.01
	☐ (100 PSF)	S1.02
	☐ (150 PSF)	S1.03
☐ Concrete Framing Floor:	☐ (50+15 PSF)	S1.1.1
	☐ (100 PSF)	S1.1.2
	☐ (150 PSF)	S1.1.3

19 Floor Framing Details 1/4" = 1'-0"	STRUCTURAL FLOOR FRAMING DETAILS	Sheet
☒ Wood Framing		S1.2
☐ Concrete Framing		S1.2

18 Roof Framing Plans 1/4" = 1'-0"	STRUCTURAL ROOF FRAMING PLANS	Sheet
☒ Mono Slope Roof Framing		S3.0.1
☐ Dual Slope Roof Framing		S3.0.2

20 Wall Framing Details 1/4" = 1'-0"	STRUCTURAL WALL FRAMING DETAILS	Sheet
☒ Wood:		
☒ Framing Elevation		S4.1
☒ Wall Details		S4.2
☐ Metal:		
☐ Framing Elevation		S4.0
☐ Wall Details		S4.3
☒ Typ Framing:		S4.4
☒ Framing Schedule:		S4.5

21 Building Section 1/4" = 1'-0"	STRUCTURAL BUILDING SECTION	Sheet
☒ Mono		S5.0
☐ Dual		S5.1

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO No. 54380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2018

Revision Schedule

#	Description	Date

SHEET TITLE
PROJECT OPTIONS SCHEDULE

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

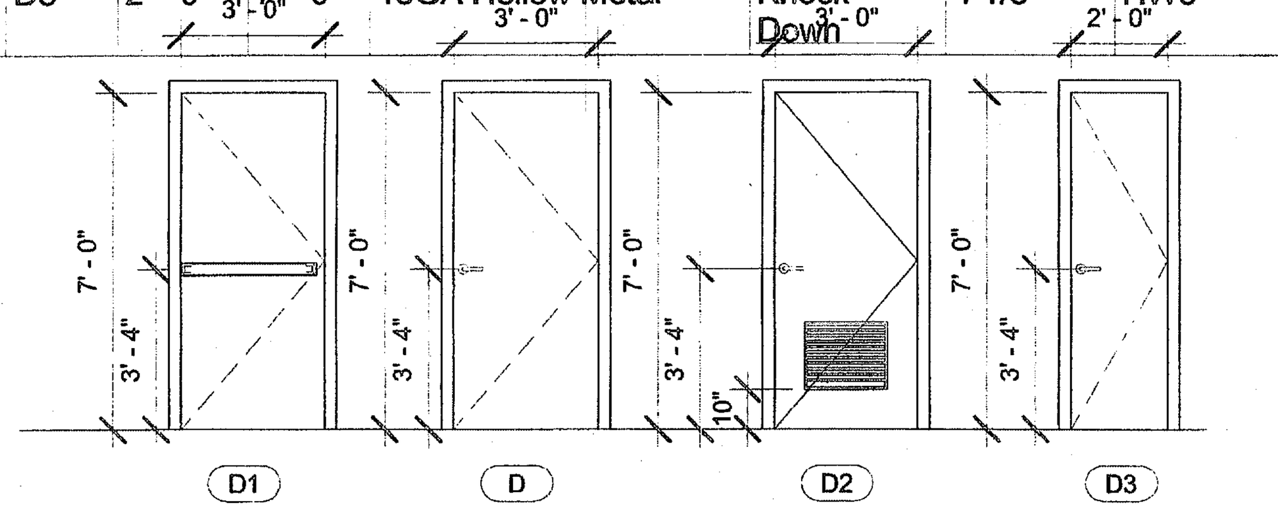
DATE
2018/03/08

SHEET NO.
A0.0.1

SHEET OF SHEETS

Door Schedule

Mark	Type	Width	Height	Door Material	Frame Type	Wall Thickness	Hardware
1	D1	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	5 1/4"	HW1
2	D	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	5 1/4"	HW2
3	D	3' - 0"	7' - 0"	Solid Core Wood Legacy	Knock Down	5 1/2"	HW3
4	D2	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	4 7/8"	HW3
5	D2	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	4 7/8"	HW3
6	D3	2' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	4 1/8"	HW3



1. ALL DOORS SHALL COMPLY WITH CBC SECTION 11B-404 AND BE 1 3/4" THK (UNO)

2. CENTER ALL DOOR LEVERS FOR ACCESS AND LOCKING @ 40" ABOVE FINISH FLOOR. ALL HARDWARE SHALL OPEN FROM THE INTERIOR AND NOT REQUIRE ANY SPECIFIC KNOWLEDGE OF THE HARDWARE OR REQUIRE ANY SPECIAL EFFORT FOR EGRESS. THE LEVER OF LEVER-ACTUATED LEVERS OR LOCKS SHALL BE CURVED WITH A RETURN TO WITHIN 1/2" OF THE FACE OF THE DOOR TO PREVENT CATCHING ON THE CLOTHING (etc.) OF PERSONS DURING EGRESS. THE LEVER OF LEVER-ACTUATED LEVERS OR LOCKS SHALL EXTEND AT A MINIMUM OF ONE-HALF THE DOOR WIDTH.

3. PER CBC 1008.1.10 FOR ANY ROOM CONFIGURATION WHICH PROVIDES AN OCCUPANT LOAD OF 50 OR GREATER SHALL NOT BE PROVIDED WITH A LATCH OR LOCK UNLESS IT IS PANIC HARDWARE OR FIRE EXIT HARDWARE AND COMPLY WITH ALL REQUIREMENTS OF SECTION 11B-309 OF THE CBC. ALL HARDWARE SHALL COMPLY WITH HARDWARE SCHEDULE THIS SHEET.

4. PER CBC 11B-309.4 THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS (22.2 N) MAX.

5. PER CBC 11B-404.2.8.2 DOOR SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR SHALL MOVE TO THE CLOSE POSITION IN 1.5 SECONDS MINIMUM. ALL CLOSER MUST COMPLY WITH CBC 11B-404.2.8.1 - DOOR CLOSER AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS OR LESS.

6. THE MAXIMUM AREA OF EXTERIOR WALL OPENING PER CBC TABLE 705.8 AND THE FIRE PROTECTION FOR EXTERIOR WALL PER CBC TABLE 602. ALL FIRE PROTECTION BASED ON THE FIRE SEPARATION DISTANCE.

7. DOOR LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS.

8. (PH) ON PLANS THE SHEET INDICATES REQUIRED PANIC HARDWARE.

9. PROVIDE EXIT SIGNS AS REQUIRED PER CBC SECTION 1013.4. SEE DETAILS PER A0.2

10. ALL EXIT DOORS SHALL BE OPENABLE FROM INSIDE W/O ANY USE OF SPECIAL TOOLS, KNOWLEDGE OR EFFORT.

9 *Doors*

1. PLACE (2) PERMANENT METAL IDENTIFICATION LABELS ON EACH MODULE.
   (1) LABEL AT REAR EXTERIOR
   (1) LABEL ABOVE CEILING LINE AT INTERIOR FRAME.
   LABELS WILL BE MECHANICALLY FASTENED AND SHOW THE DSA APPLICATION NUMBER, MANUFACTURERS NAME AND SERIAL NUMBER, DESIGN LIVE LOAD FOR ROOF AND FLOOR FRAMING, WIND SPEED, EXPOSURE CATEGORY, AND Kzt = 1.0 PER 2016 CBC

2. VINYL TACKBOARD TO HAVE A CLASS 1 FLAME SPREAD RATING AND COMPLY WITH A SMOKE DENSITY OF 175

3. VERIFIED ALL DIMENSIONS PRIOR TO CONSTRUCTION

4. SEE INTERIOR ELEVATIONS FOR ALL REQUIRED EGRESS SIGNAGE AND FIRE ALARM SYSTEM COMPONENTS

5. WHEN RELOCATING OR REMOVING INTERIOR PARTITIONS (2) EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE SHALL BE PROVIDED. EXIT DOORS MUST BE SEPERATED BY A DISTANCE APART EQUAL TO OR NOT LESS THAN ONE-HALF OF THE MAXUMUM OVERALL DIAGONAL DIMENSION FOR ALL NONSPRINKLERED BUILDINGS. EXIT DOORS MUST BE SEPERATED BY A DISTANCE APART EQUAL TO OR NOT LESS THAN ONE-THIRD OF THE MAXUMUM OVERALL DIAGONAL DIMENSION FOR ALL SPRINKLERED BUILDINGS. ALL EXIT AND EXIT ACCESS DOORWAYS MUST COMPLY WITH CBC SECTION 1015 EXIT AND EXIT ACCESS DOORWAYS AND CBC SECTION 1016 EXIT ACCESS TRAVEL DISTANCE.

6. OCCUPANCY LOAD SIGNS SHALL BE POSTING AND COMPLY WITH CBC SECTION 1004.3

7. SEE ADDITIONAL PC FOR ACCESS RAMPS AND STAIRS. WHERE RAMP IS AGAINST THE WALL AT PLASTER EXTERIOR OR ADJACENT TO ANY ABRASIVE SURFACE THEN A SMOOTH TROWEL SURFACE MUST BE PROVIDED AT THESE LOCATIONS OR AN ALTERNATIVE APPLICATION THAT COMPLIES WITH CBC SECTION 11B-505.8

8. ALL SURFACES ADJACENT TO HANDRAILS SHALL NOT HAVE ANY SHARP, ABRASIVE, OR PROTRUDING COMPONENTS

9. ALL METAL RAILINGS AND CONNECTIONS SHALL HAVE A SMOOTH SURFACE WHICH EXTENDS 8" ABOVE THE HANDRAIL

10. FOR PLASTER WALLS PROVIDE CONTROL JOINTS AT ALL MODLINES, ENDWALLS @ 2'-0 FROM EDGE, 10'-0" o/c @ SIDEWALLS, AND ABOVE AND BELOW ALL OPENING. SEE EXTERIOR ELEVATIONS. ALL MATERIALS, MEANS, METHODS, AND PROCEEDURES OF CONSTRUCTION USED TO PROTECT JOINTS SHALL COMPLY WITH FIRE RATED WALL ASSEMPLY PER CBC SECTION 703.2 - FIRE RESISTANCE RATING AND CBC SECTION 705 - EXTERIOR WALLS

11. FOR HVAC UNITS WHICH HEIGHT FROM GRADE TO BOTTOM OF UNIT EXCEEDS 27" AND LOCATED IN PEDESTRIAN PATH OF TRAVEL, A PROTECTION RAIL AROUND THE HVAC UNIT WILL BE PROVIDED. PER MNF INSTALLATION INSTRUCTIONS

2 *A0.1 GENERAL NOTES*

MOISTURE PROTECTION INSULATION:

MATERIAL:
INSULATING MATERIAL FOR WALLS, CEILINGS, AND FLOORS SHALL BE FIBERGLASS BATTS (UNFACED) AND SHALL COMPLY WITH CBC 2016.
(CLASS A = 0-25 FLAME SPREAD:) SMOKE DEVELOPMENT DENSITY LESS THAN 450.

INSULATION VALUES
SEE TITLE 24 SHEETS FOR REQUIRED INSULATION VALUES PER CLIMATE ZONE

EXTERIOR WALL INSULATION (MIN.)
☒ R-19 (2x6 STUD)
☐ R-19, CONTINUOUS R-4 (MTL STUD)

INTERIOR WALL INSULATION (MIN.)
☒ R-13

FLOOR INSULATION (MIN.)
CONCRETE SLAB WITH R-11 FIBERGLASS INSULATION

ROOF INSULATION (MIN.)
☐ R-30 (EPDM)
☒ R-30 (STANDING SEAM)

3 *Insulation Specs*

Finish Schedule

Room Number	Flooring		Wall Finish				Ceiling		Notes
	Floor	Base	Front	Left	Rear	Right	Type	Ht.	
CLASSROOM	Carp.	4" TS	Tack	Tack	Tack	Tack	CP	8'-6"	
CLASSROOM w/ PH	Carp.	4" TS	Tack	Tack	Tack	Tack	CP	8'-6"	
SINGLE OCC.	SV	6" TS	FRP	FRP	FRP	FRP	CP	8'-0"	
SINGLE OCC.	SV	SC	FRP	FRP	FRP	FRP	GBP	8'-0"	

Abbreviations:

FLOORING
- CARP: COMPLYING WITH GROUP 1; TYPE "A" OR TYPE "B"; CLASS 2; DENSITY 4600; DIRECT GLUE DOWN
- SV: SHEET VINYL FLOORING
- VCT: VINYL COMPOSITION TILE

BASE
- 4" TS: 4" TOP SET BASE
- 6" TS: 6" TOP SET BASE

WALLS
- TACK: 1/2" VINYL TACKBOARD CLASS 1 OVER 1/2" GYPSUM BOARD BACKING
- FRP: 1/8" FIBER REINFORCED PANEL OVER 1/2" WATER RESISTANT GYPSUM BOARD
- GYP: 1/2" GYPSUM BOARD; TAPE; TEXTURE; PAINTED FINISH
- PLY: 1/2" PLYWOOD FINISH
- NF: NO FINISH SC: 6" SELF-COVE BASE

CEILING
- CP: ACOUSTICAL LAY IN GRID CEILING PANELS
- HC: 5/8" GYPSUM BOARD; TAPE; TEXTURE; PAINTED FINISH
- GBP: 1/2" GYPSUM BOARD WASHABLE PANELS (PAINTED)

Finishes Notes

1. ALL FINISHES SHALL COMPLY WITH CBC, TITLE 19, AND C.F.C

2. PER ASTM D2047 ALL FLOORING WITH A COEFFICIENT OF FRICTION OF A MINIMUM OF 0.6 WILL BE CONSIDERED TO OBTAIN THE INTENT OF A SLIP RESISTANCE SURFACE.

3. FLOORING CONTRACTOR IS RESPONSIBLE FOR SUB-FLOORING PREPARATION. ALL PLYWOOD TO BE APA RATED AND COMPLY WITH PS1-09. PLYWOOD SURFACE TO BE CARPETED IS TO BE PLUGGED AND SANDED BY FLOORING CONTRACTOR. ALL DEFORMITIES OCCURRING DUE TO STANDARD CONSTRUCTION PRACTICES SHALL BE PLUGGED AND SANDED BY FLOOR CONTRACTOR. MATELINE JOINTS TO BE A MAX OF 1/8" AND SHALL BE PLUGGED AND SANDED BY FLOORING CONTRACTORS.

4. ALL CARPET AND FLOOR FINISH MUST COMPLY PER CBC SECTION 11B-302 FLOOR AND GROUND SURFACES. ALL CHANGES IN ELEVATION SHALL COMPLY WITH CBC SECTION 11B-303 CHANGES IN LEVELS

5 *Finishes and Materials*

HARDWARE SCHEDULE

CHILD RESTROOM : — **EXTERIOR DOOR HW-1**

LOCKSET	SCHLAGE ND75PDRHO626 (cylindrical)	Finish 26D or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal
WEATHER STRIP	HAGER 891SAV 3684	Finish Alum or equal
THRESHOLD	HAGER 413SA 36	Finish Alum or equal
DOOR BOTTOM	HAGER 783SAV 35N	Finish Alum or equal

DOOR w/ PANIC HARDWARE: — **EXTERIOR DOOR HW-2**

EXIT DEVICE	VON DUPRIN 99L-2 w/ SCHLAGE RIM (cylindrical)	Finish Alum or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal
CLOSER	NORTON 8501 BFDA	Finish 689 or equal
WEATHER STRIP	HAGER 891SAV 3684	Finish Alum or equal
THRESHOLD	HAGER 413SA 36	Finish Alum or equal
DOOR BOTTOM	HAGER 783SAV 35N	Finish Alum or equal

STAFF RESTROOM: — **EXTERIOR DOOR HW-3**

LOCKSET	SCHLAGE ND75PDRHO626 (cylindrical)	Finish 26D or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal
LOUVER	ANEMO 24x12	Finish 689 or equal
		Finish Bronze or equal

FOOD PREP: — **EXTERIOR DOOR HW-4**

LOCKSET	SCHLAGE ND75PDRHO626 (cylindrical)	Finish 26D or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal

ELECT ROOM: — **EXTERIOR DOOR HW-5**

LOCKSET	SCHLAGE ND75PDRHO626 (cylindrical)	Finish 26D or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal
FLUSH BOLT	TBD	Finish 26D

OFFICE: — **EXTERIOR DOOR HW-6**

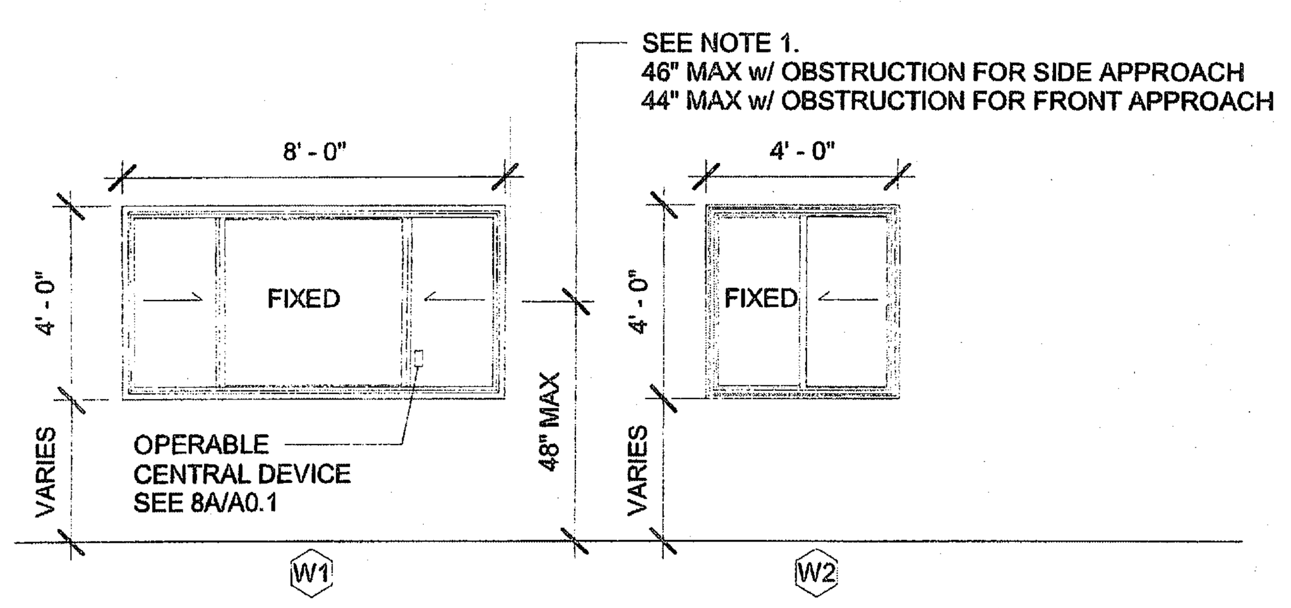
LOCKSET	SCHLAGE ND75PDRHO626 (cylindrical)	Finish 26D or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal

NOTE: ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM INSIDE

7 *Door Hardware*

Window Schedule

Mark	Type Mark	Height x Width	Function	Type Comments	Glazing	Wall Thickness
A	W1	4'-0" x 8'-0"	XOX	Clear Anodized Alum. Frame	"DP	
B	W2	4'-0" x 4'-0"	XO	Clear Anodized Alum. Frame	"DP	

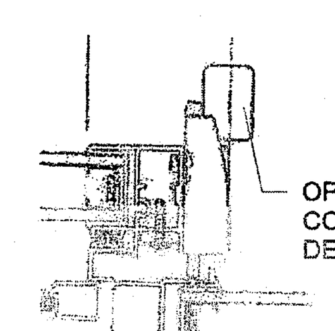


WINDOW LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS.

WINDOW - 3/4" INSULATING GLASS UNIT PERFORMANCE
U-VALUE : 0.35
SHGC : 0.24
VT : 0.5

ABBREVIATIONS:
DP - DUAL PANE
T - TEMPERED GLASS

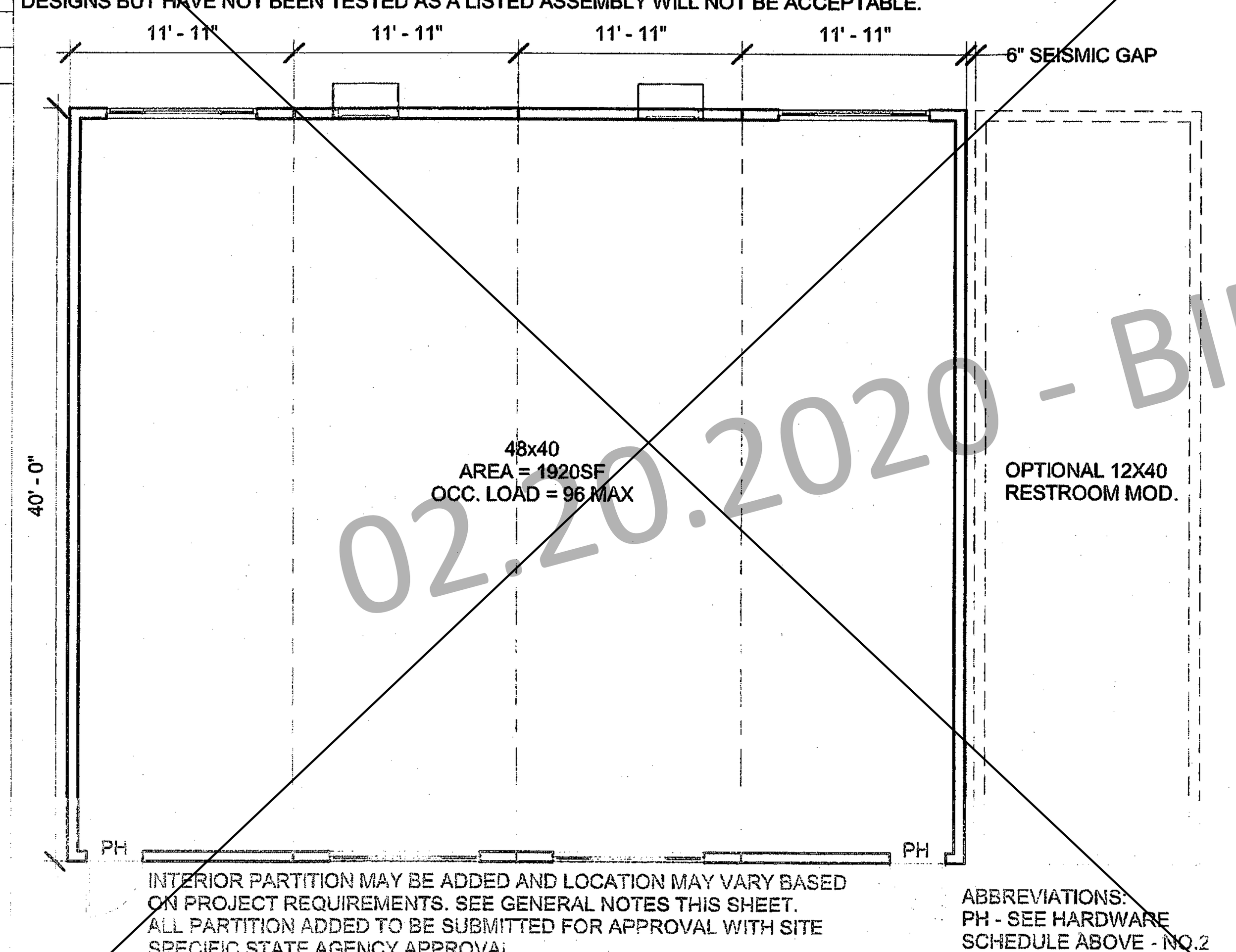
NEW BUILDINGS THAT ARE INCLUDED IN PUBLIC SCHOOLS (KINDERGARTEN THROUGH 12TH GRADE) SHALL INCLUDE LOCKS THAT ALLOW DOORS TO CLASSROOMS AND ANY ROOM WITH AN OCCUPANCY OF FIVE OR MORE PERSONS TO BE LOCKED FROM THE INSIDE. THE LOCKS SHALL CONFORM TO THE SPECIFICATION AND REQUIREMENTS FOUND IN SECTION 1010.1.9 Education Code 17075.50.



8 *Windows*

8A

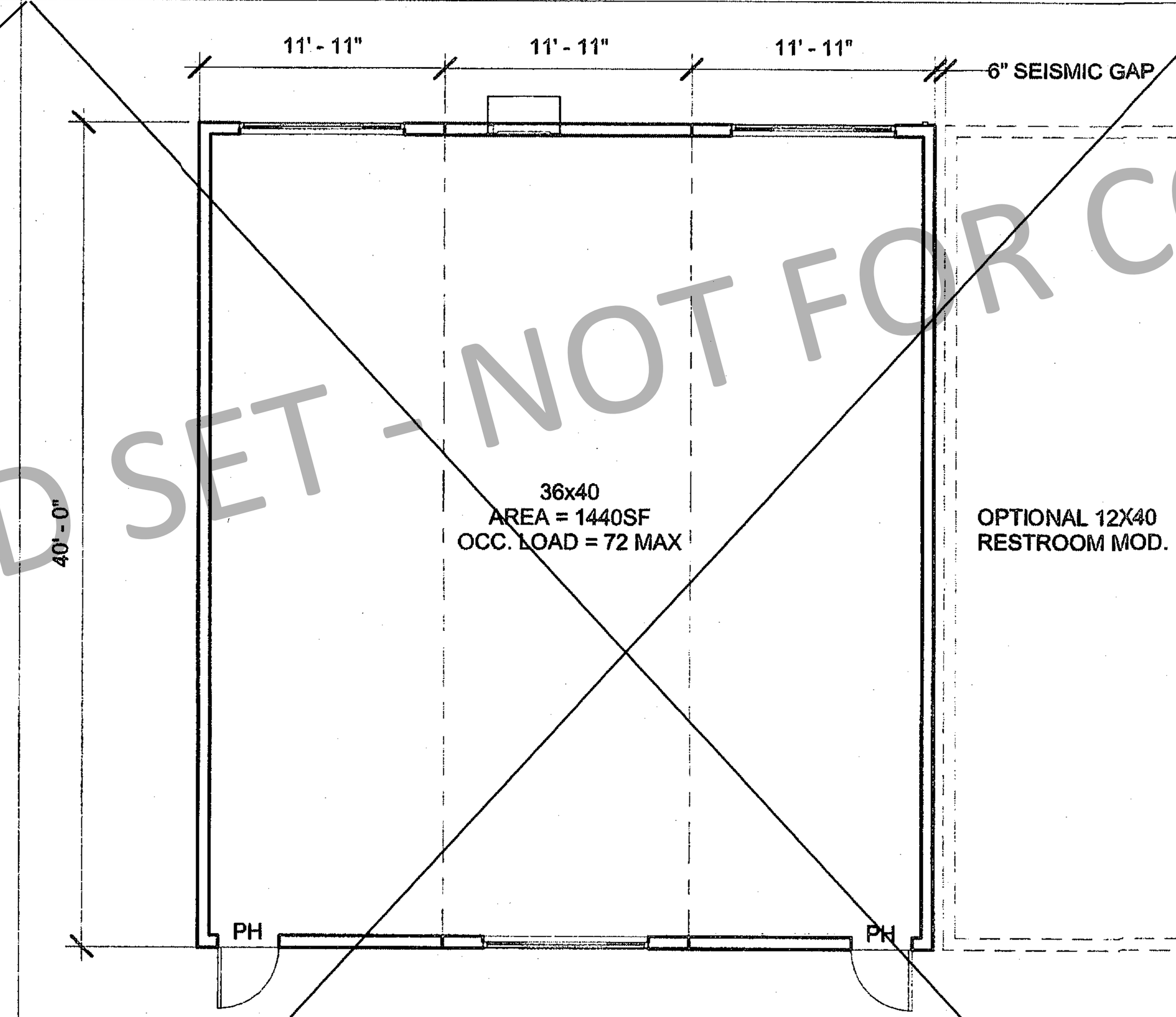
EMERGENCY EXIT AND PANIC HARDWARE: INDICATE ON DRAWINGS AND SPECIFICATIONS COMPLIANCE WITH SFM STANDARD 12-10-3,SECTION 12-10-302. (a) THE CROSS BAR SHALL EXTEND ACROSS NOT LESS THAN ONE-HALF THE WIDTH OF THE DOOR/GATE. (d) THE ENDS OF THE CROS-BAR SHALL BE CURVED, GUARDED OR OTHERWISE DESIGNED TO PREVENT CATCHING ON THE CLOTHING OF PERSONS DURING EGRESS. **PROVIDE CUT-SHEETS OF PANIC HARDWARE** PROVIDE THE ASSEMBLY DESIGN NUMBER FOR ALL FIRE-RATED CONSTRUCTION COMPONENTS. INSTALLATION DETAILS MUST BE COORDINATED WITH THE DESIGN NUMBERS. CUSTOM DESIGNS WHICH COMBINE COMPONENTS FROM VARIOUS DESIGNS BUT HAVE NOT BEEN TESTED AS A LISTED ASSEMBLY WILL NOT BE ACCEPTABLE.



INTERIOR PARTITION MAY BE ADDED AND LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS. SEE GENERAL NOTES THIS SHEET.
ALL PARTITION ADDED TO BE SUBMITTED FOR APPROVAL WITH SITE SPECIFIC STATE AGENCY APPROVAL.

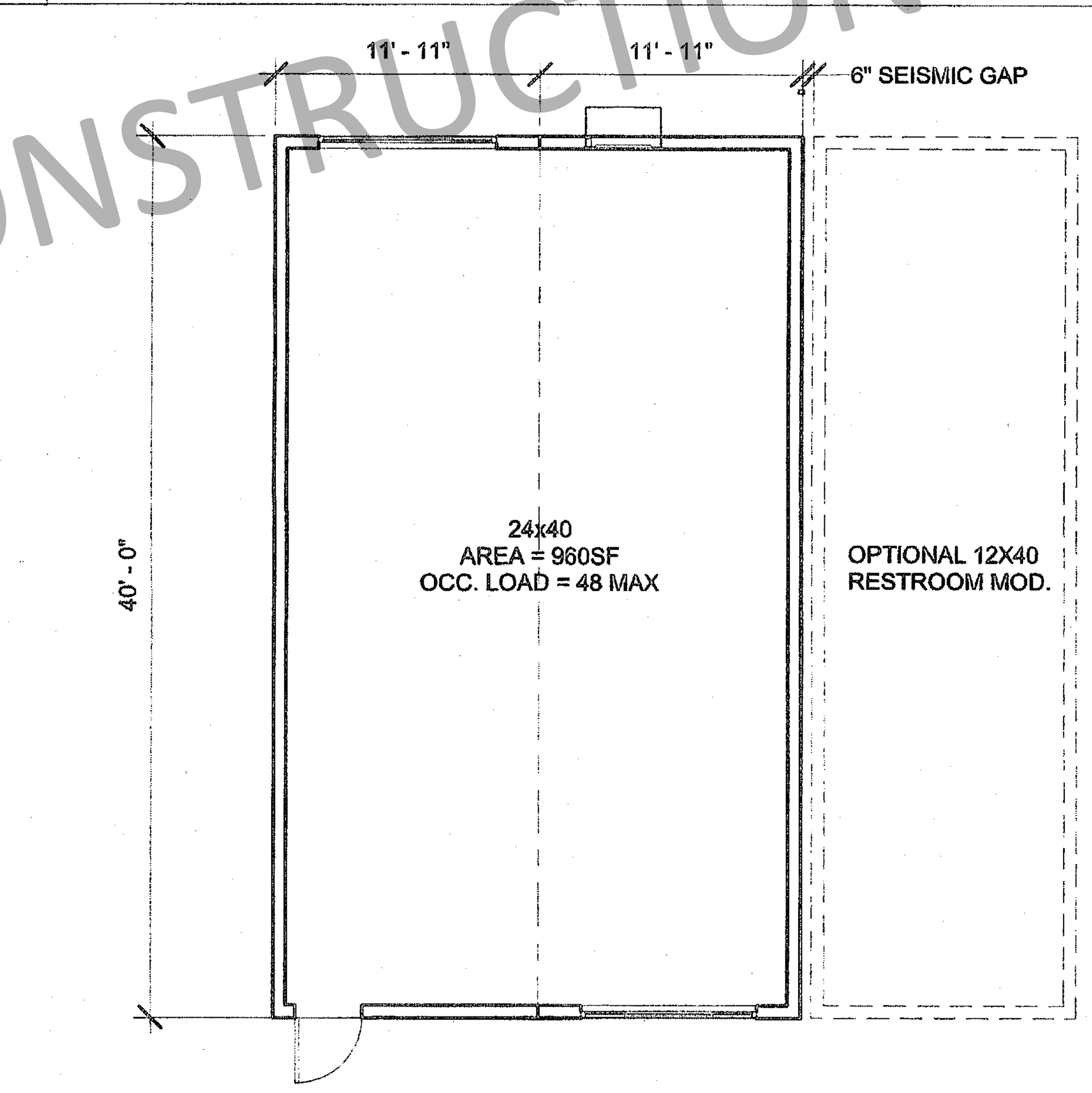
ABBREVIATIONS:
PH - SEE HARDWARE SCHEDULE ABOVE - NO.2

6 *48x40 (Total Area 1920sf)*



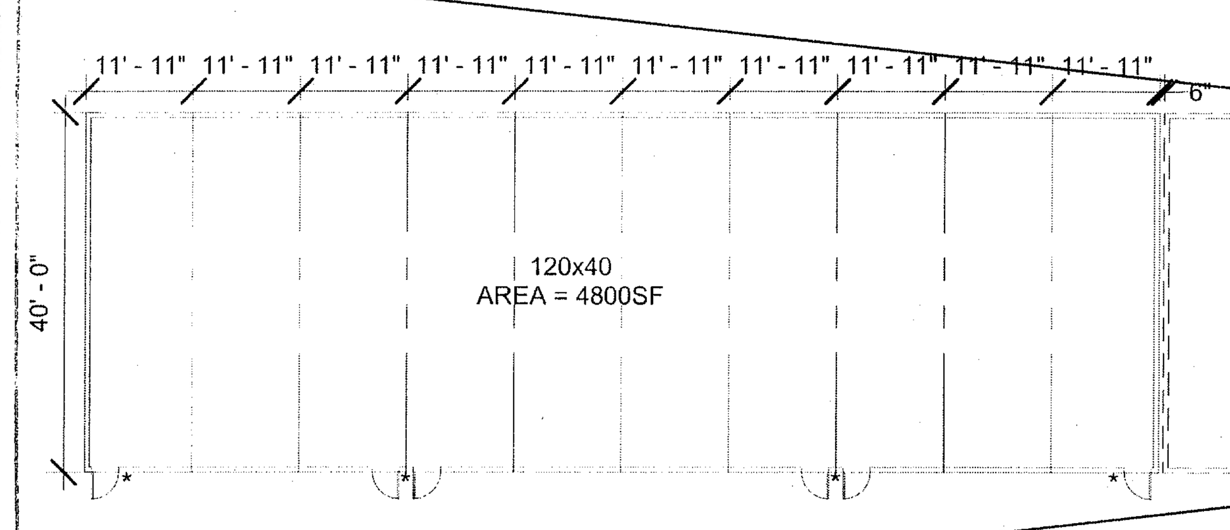
INTERIOR PARTITION MAY BE ADDED AND LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS. SEE GENERAL NOTES THIS SHEET.
ALL PARTITION ADDED TO BE SUBMITTED FOR APPROVAL WITH SITE SPECIFIC STATE AGENCY APPROVAL.
ABBREVIATIONS:
PH - SEE HARDWARE SCHEDULE ABOVE - NO.2

4 *36x40 (Total Area 1440sf)*

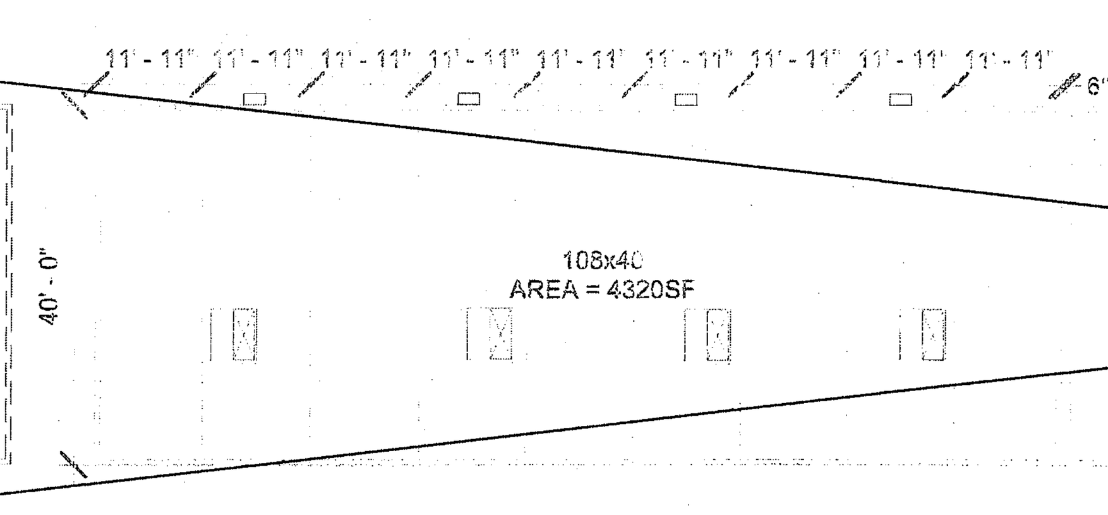


INTERIOR PARTITION MAY BE ADDED AND LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS. SEE GENERAL NOTES THIS SHEET.
ALL PARTITION ADDED TO BE SUBMITTED FOR APPROVAL WITH SITE SPECIFIC STATE AGENCY APPROVAL.
ABBREVIATIONS:
PH - SEE HARDWARE SCHEDULE ABOVE - NO.2

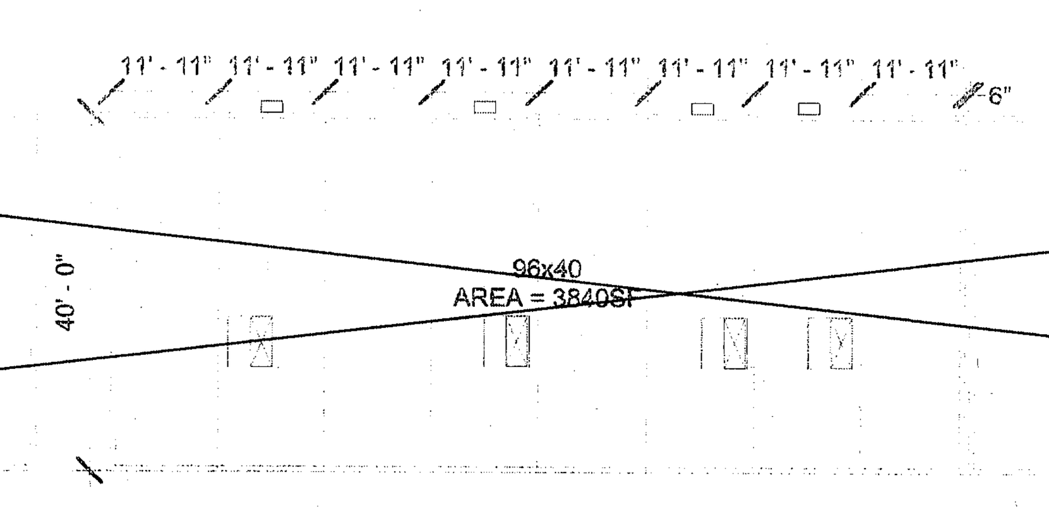
1 *24x40 (Total Area 960sf)*



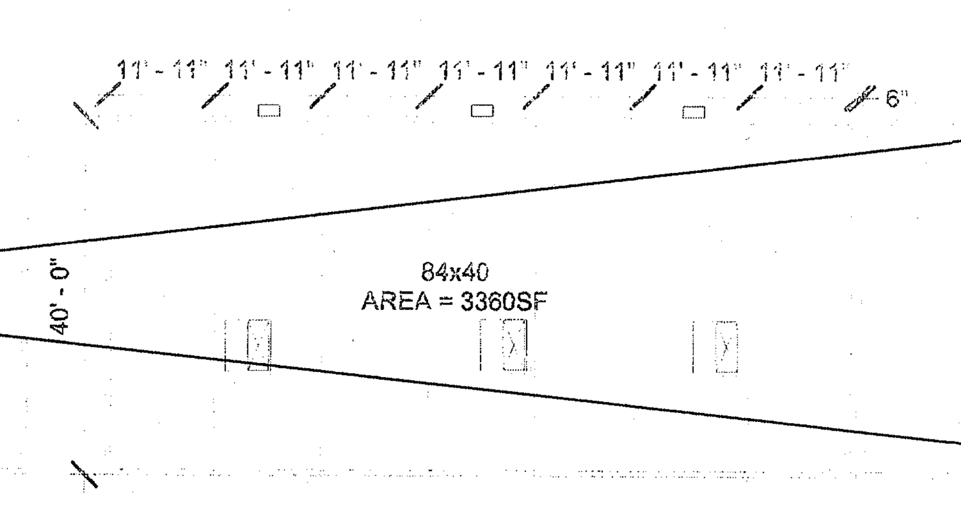
15 *120x40 (Total Area 4800sf)*



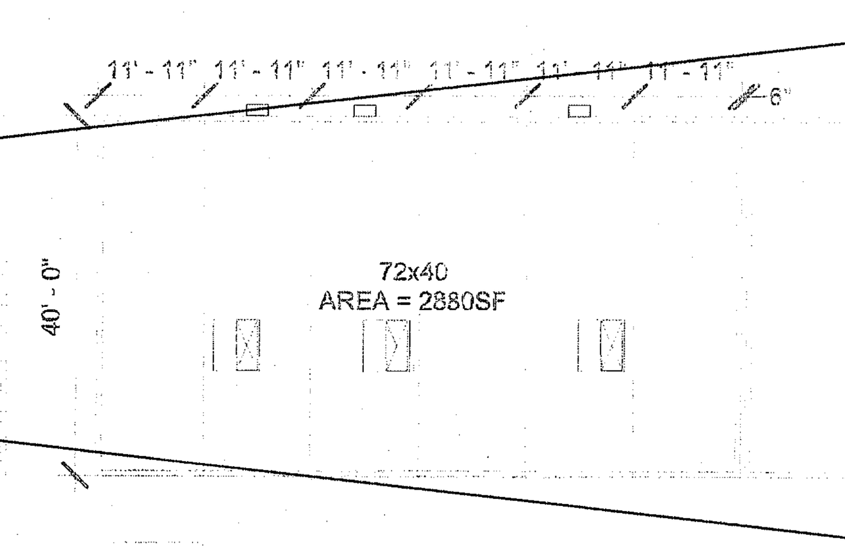
14 *108x40 (Total Area 4320sf)*



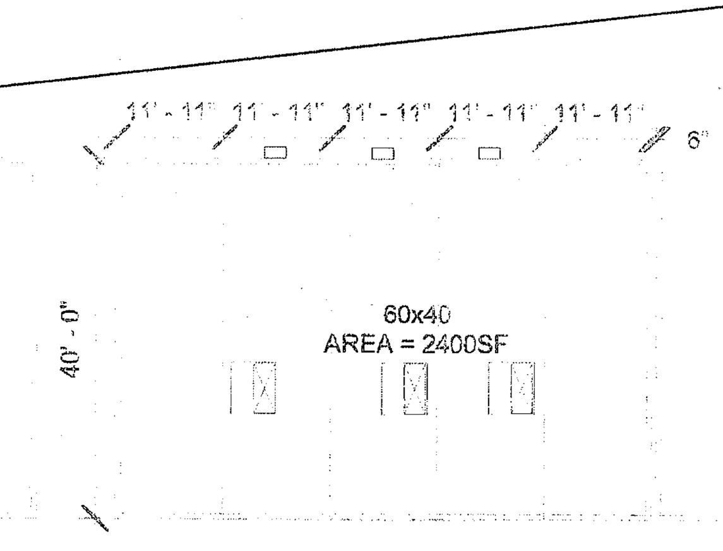
13 *96x40 (Total Area 3840sf)*



12 *84x40 (Total Area 3360sf)*



11 *72x40 (Total Area 2880sf)*



10 *60x40 (Total Area 2400sf)*

R&S TAVARES ASSOCIATES
DESIGN ◇ CONSULTING ◇ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRISH No. S3380 STRUCTURAL STATE OF CALIFORNIA
12/19/2017

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
TYPICAL KEY PLAN AND SCHEDULES, GEN NOTES,

PROJECT NUMBER 17016A
DRAWN BY rMc/SC
CHECKED BY JA/RT
DATE 2017/06/05
SHEET NO. A0.1

12/19/2017 1:11:55 PM C:\Users\...\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Lee.rvt

Advisory 1008.4.2 Clear Floor or Ground Space. Clear floor or ground spaces, turning spaces, and accessible routes are permitted to overlap within play areas. A specific location has not been designated for the clear floor or ground spaces or turning spaces, except swings, because each play component may require that the spaces be placed in a unique location. Where play components include a seat or entry point, designs that provide for an unobstructed transfer from a wheelchair or other mobility device are recommended. This will enhance the ability of children with disabilities to independently use the play component.

When designing play components with manipulative or interactive features, consider appropriate reach ranges for children seated in wheelchairs. The following table provides guidance on reach ranges for children seated in wheelchairs. These dimensions apply to either forward or side reaches. The reach ranges are appropriate for use with those play components that children seated in wheelchairs may access and reach. Where transfer systems provide access to elevated play components, the reach ranges are not appropriate.

Children's Reach Ranges

Forward or Side Reach	High (maximum)	Low (minimum)
Ages 3 and 4	36 in (915 mm)	20 in (510 mm)
Ages 5 through 8	40 in (1015 mm)	18 in (455 mm)
Ages 9 through 12	44 in (1120 mm)	16 in (405 mm)

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (2016 edition)
except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (2016 edition)

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 60 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".

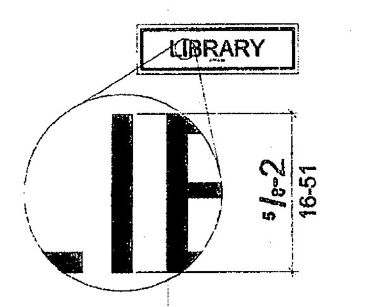


Figure 703.2.5 Height of Raised Characters

TABLE 11B-703.3.1
BRAILLE DIMENSIONS

MEASUREMENT RANGE	MINIMUM IN INCHES MAXIMUM IN INCHES
Dot base diameter	0.059 (1.5 mm) to 0.063 (1.6 mm)
Distance between two dots in the same cell[1]	0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells[1]	0.300 (7.6 mm)
Dot height	0.025 (0.6 mm) to 0.037 (0.9 mm)
Distance between corresponding dots from one cell directly below[1]	0.395 (10 mm) to 0.400 (10.2 mm)

1. Measured center to center.

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

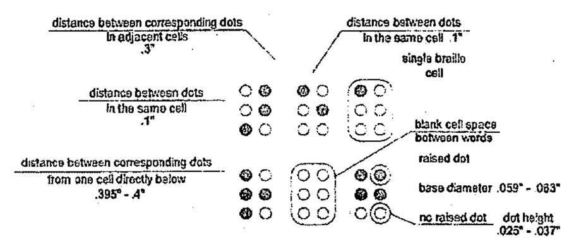


Figure 703.3.1 Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

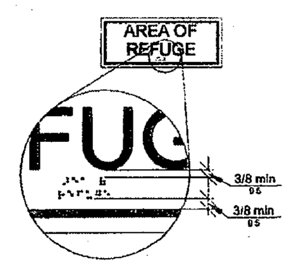


Figure 703.3.2 Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

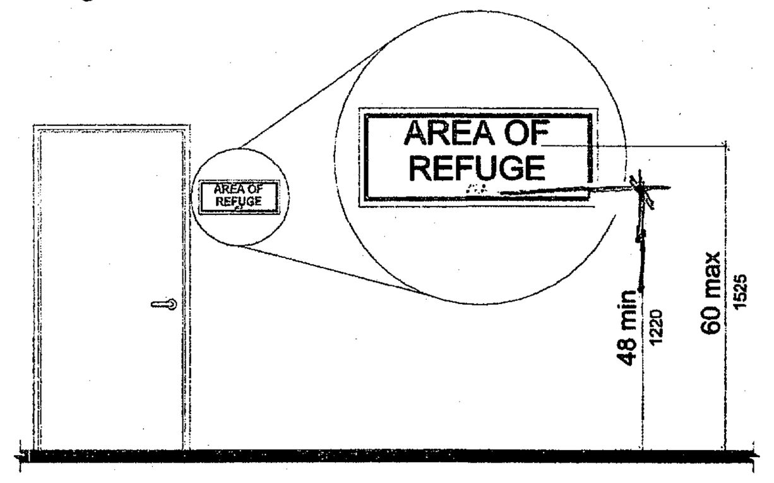


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

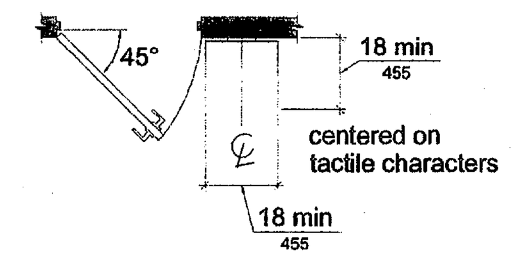


Figure 703.4.2 Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

703.5.1 Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 60 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

703.5.8 Character Spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

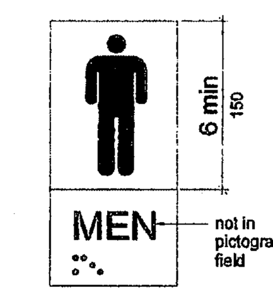
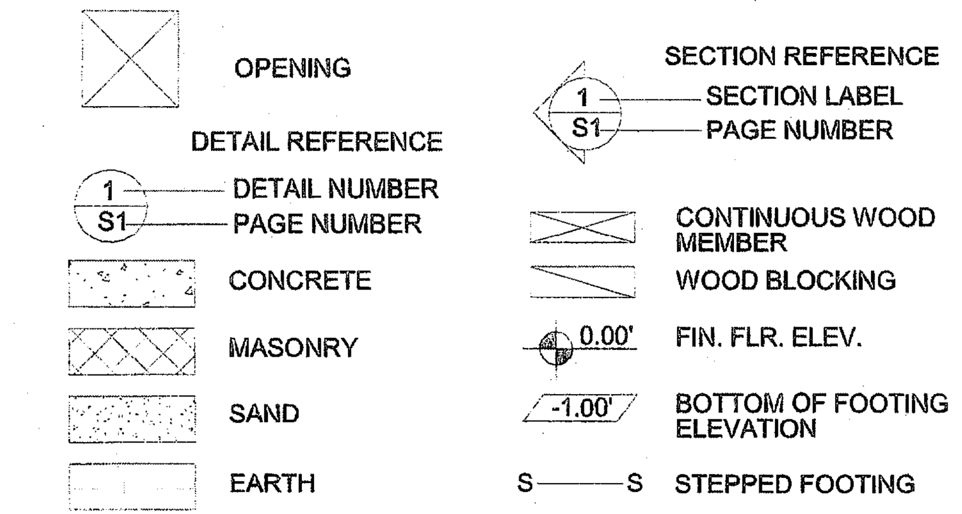


Figure 703.6.1 Pictogram Field dark-on-light.

5 1/4" = 1'-0"
Sign Notes



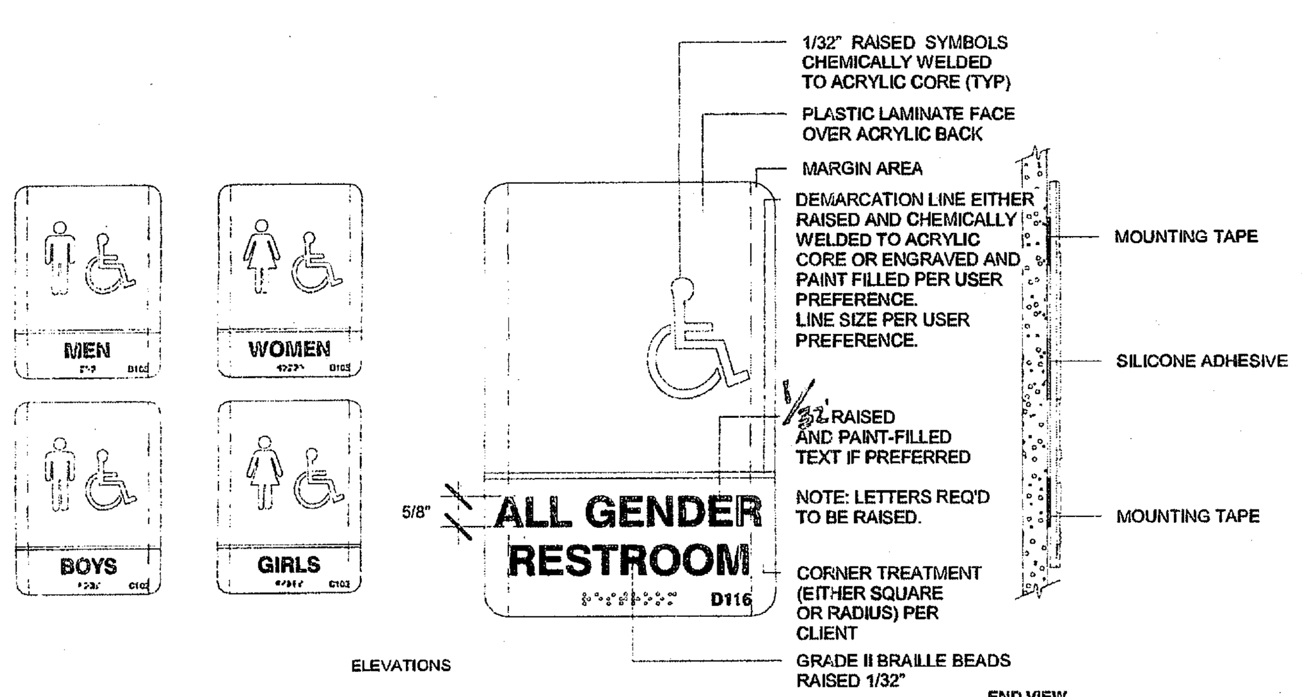
REQUIRED PER 11B-219 & 11B-706
(SEE FLOOR PLANS FOR MORE INFO)

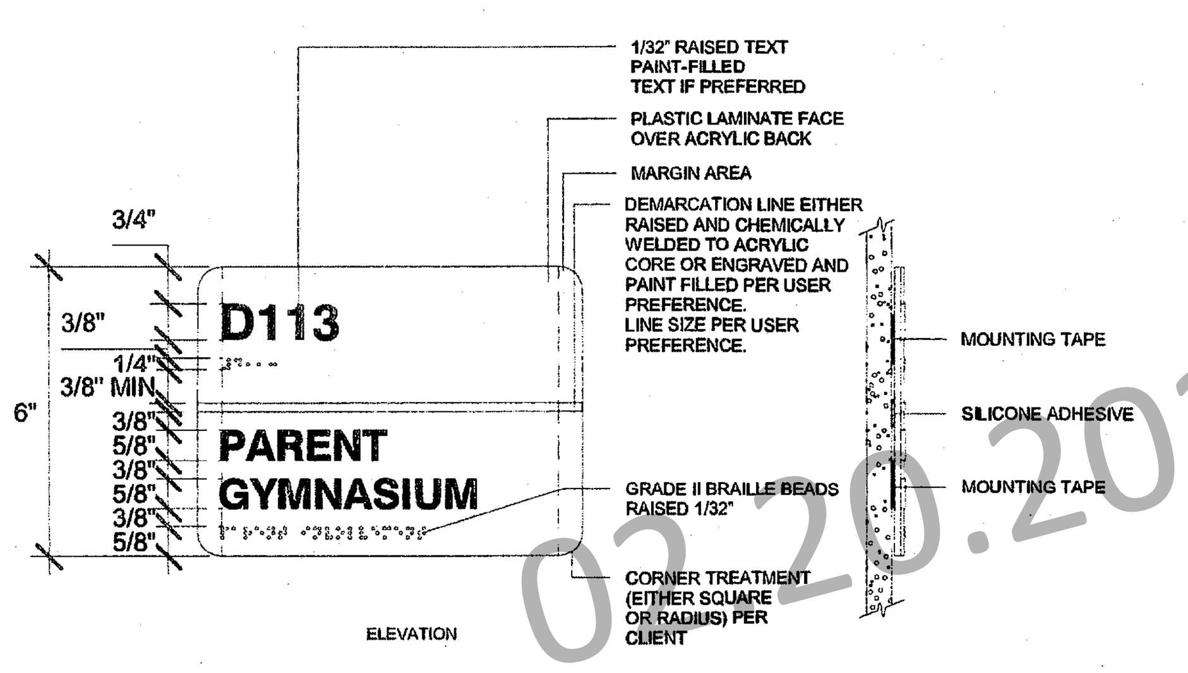
MAXIMUM OCCUPANCY

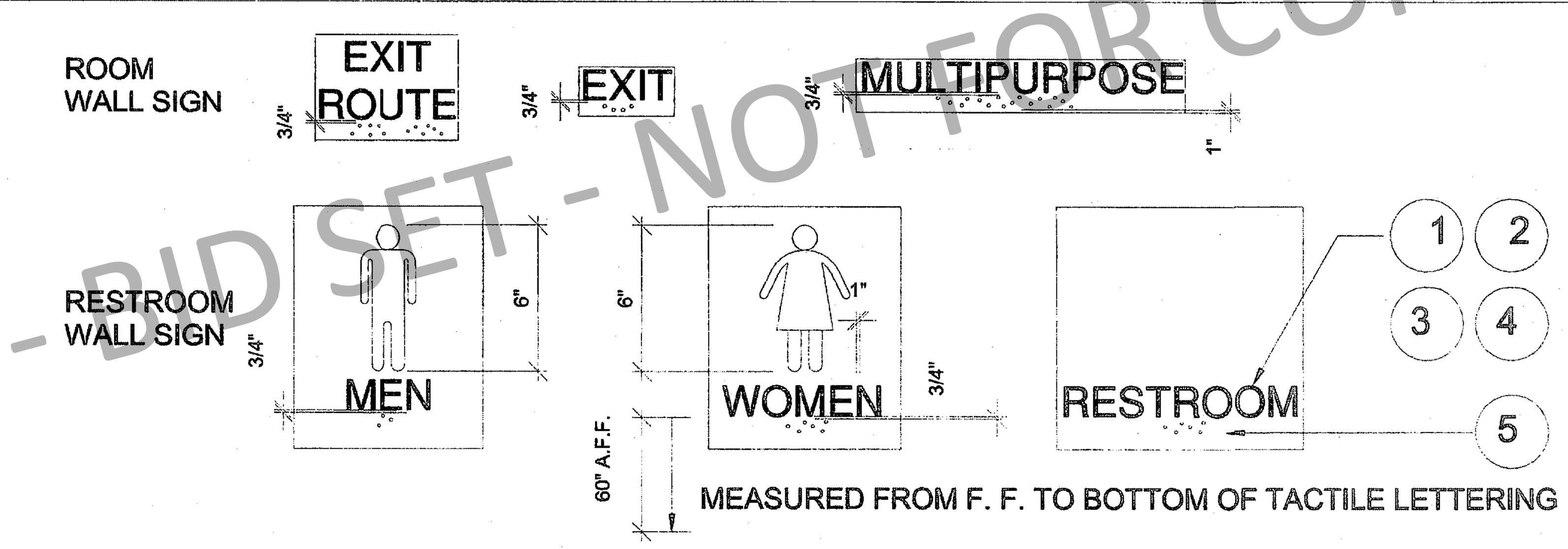
PERSONS

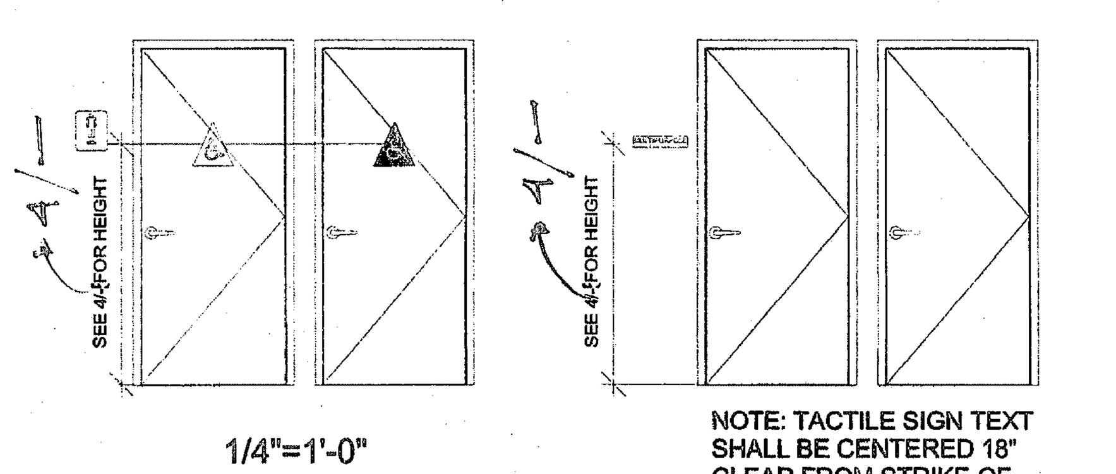
OCCUPANT LOAD SIGN REQUIRED PER DSA BU11-08.

EVERY ROOM OR SPACE WHICH IS USED FOR ASSEMBLY, CLASSROOM, DINING OR SIMILAR PURPOSES HAVING AN OCCUPANT LOAD OF 50 OR MORE SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY







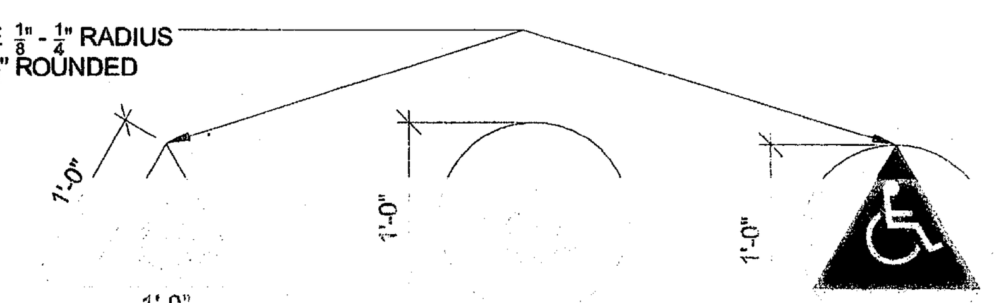


DOOR SYMBOLS: CIRLCLE & TRIANGLE1/4" THICK. 1/4" THICK TRIANGLE SHALL BE SUPERIMPOSED OVER 1/4" THICK CIRCLE AT UNISEX AND GENDER NEUTRAL RR.

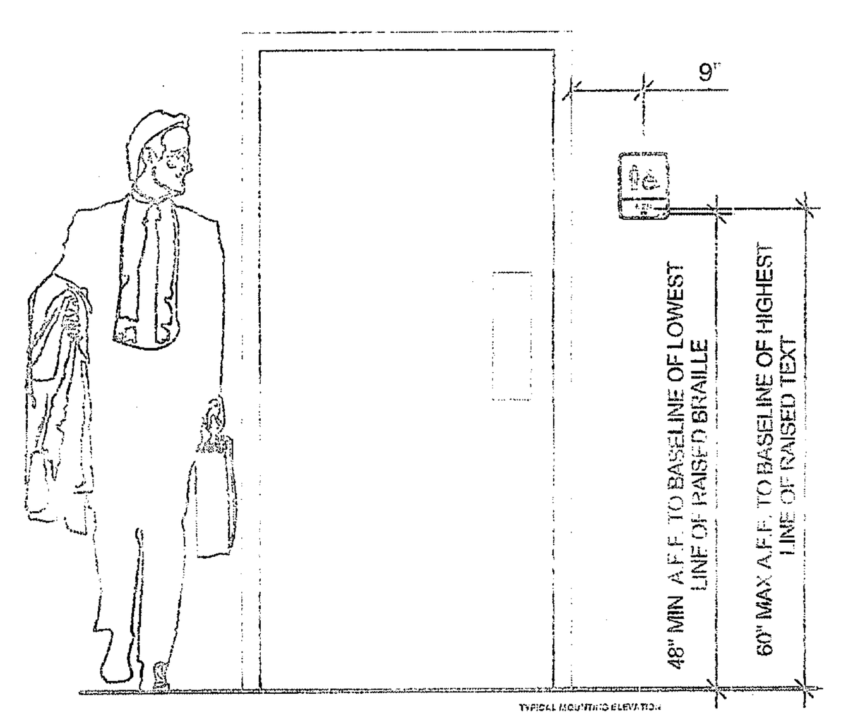
NOTE: TACTILE SIGN TEXT SHALL BE CENTERED 18" CLEAR FROM STRIKE OF DOOR

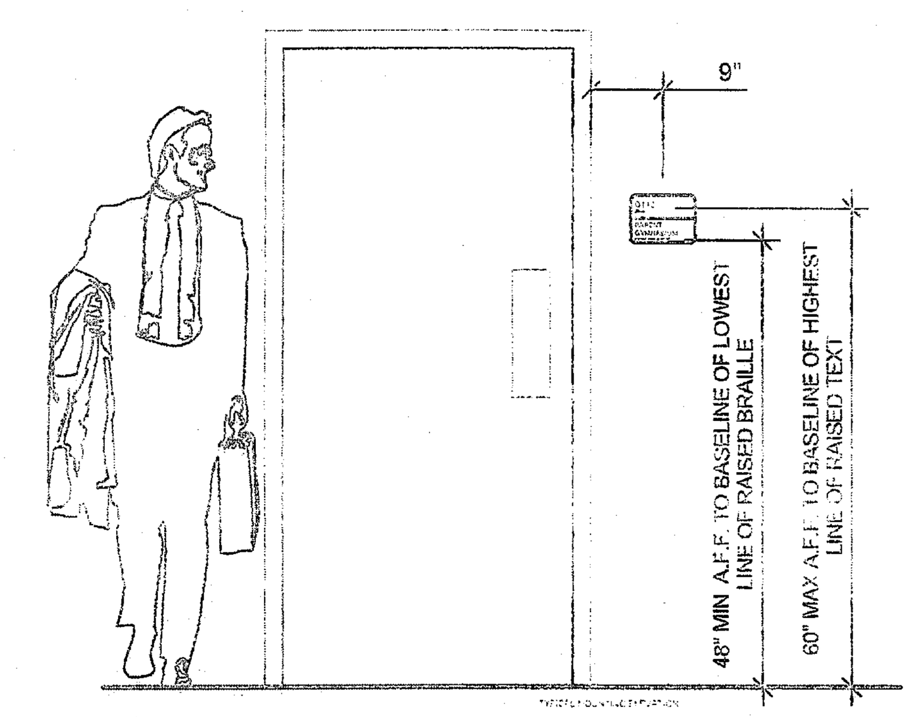
VERTICES SHALL BE 1/8" - 1/4" RADIUS
EDGES SHALL BE 1/16" - 1/8" ROUNDED

RESTROOM DOOR SIGN



1. CHARACTERS ON SIGNS SHALL BE RAISED 1/32 INCH MIN. AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2
2. RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8 INCH AND A MAXIMUM OF 2 INCHES HIGH.
3. CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THEIR BACKGROUND MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH. 11B-703-5.1.
4. TRIANGLE OR CIRCLE SMALL CONTRAST WITH DOOR. EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. 11B-703.7:2 6.1 AND 11B-703.2.2.6.2
5. CHARACTERES ON SIGN SHALL HAVE A WIDTH-TO HEIGHT RATIO OF BETWEEN 3:5 AND 1:1:1 AND A STROKE WIDTH TO HEIGHT RATIO OF BETWEEN 1:5 AND 1:10. SEE 11B.703.2.4





4 1/2" = 1'-0"
Signage

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRISCH No. S3380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
SIGNAGE AND SYMBOLS

PROJECT NUMBER 17016A

DRAWN BY rMc/SC

CHECKED BY JA/RT

DATE 2017/06/05

SHEET NO. A0.2

12/19/2017 1:11:57 PM C:\Users\Lee\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Lee.rvt

DSA DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES

DSA-103 Issued 12/30/2016

List of Required Structural Tests & Special Inspections - 2016 CBC

INCREMENT # ## | DSA File No.: # | Application No.: # | Date Submitted: # | Revised: # | Revised: #

School Name | District

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.
NOTE: This form is also available for projects submitted for review under the 2007, 2010, and 2013 CBC.

INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. **Note:** A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests and inspections finally selected. **For more information on use of this form, see DSA-103.INSTR.**

Note: References are to the 2016 edition of the California Building Code (CBC) unless otherwise noted.

REQUIRED	TEST OR SPECIAL INSPECTION	TYPE 1	PERFORMED BY 2	CODE REFERENCE AND NOTES
+	**SOILS**			
+	**CONCRETE**			Table 1705A.3, ACI 318-14 Sections 26.12 & 26.13
+	**MASONRY**			TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.3 & TMS 602-13/ACI 530.1-13/ASCE 6-13 Table 5
-	**STEEL, ALUMINUM**			Table 1705A.2.1, AISC 303-10, AISC 360-10, AISC 341-10, AISC 358-10, AISI S100-07/S2-10
-	**17. STRUCTURAL STEEL, COLD-FORMED STEEL, AND ALUMINUM USED FOR STRUCTURAL PURPOSES**			
	Material Verification:			
X	a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	2203A.1 (2203.1+), Table 1705A.2.1 Item 3a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S220-11 Section A4. * By special inspector or qualified technician when performed off-site.
X	b. Test unidentified materials	Test	LOR	2203A.1 (2203.1+).
	c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
	Inspection:			
	d. Not used.			
X	e. Verify and document steel fabrication per DSA approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
+	**18. HIGH STRENGTH BOLTS:**	RCSC 2009		
-	**19. WELDING:**			1705A.2.5, Table 1705A.2.1 Items 4 & 5; DSA IR 17-3, AWS D1.1 and AWS D1.8 for structurel steel, AWS D1.2 for Aluminum, AWS D1.3 for cold-formed steel, AWS D1.4 for reinforcing steel. (See Appendix for exemptions.)
	Verification of Materials, Equipment, Welders, etc:			
X	a. Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	DSA IR 17-3.
X	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
X	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	**19.1 SHOP WELDING:**			
X	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.5 & 5a.6. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.1. Per AISC 360-10 (and AISC 341-10 as applicable). AWS D1.1 & D1.3. DSA IR 17-3.
	d. Verification of reinforcing steel weldability other than ASTM A706	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. AWS D1.4. DSA IR 17-3.
	e. Inspect welding of reinforcing steel.	Continuous	SI	1705A.3.1, Table 1705A.3 Item 2, and Table 1705A.2.1 Item 5b, 1903A.8. AWS D1.4. DSA IR 17-3.
+	**19.2 FIELD WELDING:**			
-	**20. NONDESTRUCTIVE TESTING:**			
X	a. Ultrasonic	Test	LOR	1705A.2.1 & 1705A.2.5. AISC 360-10 N5.5, AISC 341-10 App. Q 5.2. AWS D1.1, D1.8. ANSI/ASNT CP-189, SNT-TC-1A. DSA IR 17-2.
X	b. Magnetic Particle	Test	LOR	
	c.	Test	LOR	
	d.	Test	LOR	
+	**21. STEEL JOISTS AND TRUSSES:**			
+	**22. SPRAY APPLIED FIRE-PROOFING:**			
-	**23. ANCHOR BOLTS, ANCHOR RODS, & OTHER STEEL:**			
	a. Anchor Bolts and Anchor Rods	Test	LOR	IR 17-11 Sample and test anchor bolts and anchor rods not reedily identifiable.
	b. Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in IR 17-11
	c.			
+	**WOOD**			
+	**OTHER**			

THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSE ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING.

3 — 6" = 1'-0"
DSA-103 PLYWOOD FLOOR (Stockpile)1

DSA DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES
DSA-103 Issued 12/30/2016
List of Required Structural Tests & Special Inspections - 2016 CBC
INCREMENT # ## | DSA File No.: # | Application No.: # | Date Submitted: # | Revised: # | Revised: #
School Name | District
IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.
NOTE: This form is also available for projects submitted for review under the 2007, 2010, and 2013 CBC.
INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. Note: A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests and inspections finally selected. For more information on use of this form, see DSA-103.INSTR.
Note: References are to the 2016 edition of the California Building Code (CBC) unless otherwise noted.

REQUIRED	TEST OR SPECIAL INSPECTION	TYPE 1	PERFORMED BY 2	CODE REFERENCE AND NOTES
-	**SOILS**			
-	**1. GENERAL:**	Table 1705A.6		
X	a. Verify that: • site has been prepared properly prior to placement of controlled fill and/or excavations for foundations, • foundation excavations are extended to proper depth and have reached proper material, and • materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)
-	**2. COMPACTED FILLS:**	Table 1705A.6		
	a. Perform classification and testing of fill materials.	Test	LOR*	* Under the supervision of the geotechnical engineer.
X	b. Verify use of proper meterials, densities end inspect lift thicknesses, placement, and compaction during placement of fill.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
X	c. Test compaction of fill.	Test	LOR*	* Under the supervision of the geotechnical engineer.
+	**3. DRIVEN DEEP FOUNDATIONS (PILES):**	Table 1705A.7		
+	**4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):**			Table 1705A.8
+	**5. RETAINING WALLS:**			
+	**6. OTHER SOILS:**			
-	**CONCRETE**			Table 1705A.3, ACI 318-14 Sections 26.12 & 26.13
-	**7. CAST IN PLACE CONCRETE**			
	Material Verification and Testing:			
X	a. Verify use of required design mix.	Periodic	SI*	Table 1705A.3 Item 5, 1910A.1 (1909.2.3+). * To be performed by qualified batch-plent inspector and concrete sampling technician
	b. Identifiy, sample, and test reinforcing steel.	Test	LOR	1910A.2 (1909.2.4+); ACI 318-14 Section 26.6.1.2. DSA IR 17-10
X	c. During concrete placement, fabricate specimens for strength tests,perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 item 6; ACI 318-14 Sections 26.5 & 26.12
X	d. Test concrete (f'_c).	Test	LOR	1905A.1.16 (1909.3.7+); ACI 318-14 Section 26.12.
	Inspection:			
X	e. Batch plant inspection ● Continuous ○ Periodic	See Notes	SI	Default of 'Continuous' per 1705A.3.3; If approved by DSA, batch plant inspection may be reduced to 'Periodic' subject to requirements in Section 1705A.3.3.1 or eliminated per 1705A.3.3.2. (See Appendix for exemptions.)
	f. Not used.			
	g. Not used.			
	h. Welding of reinforcing steel.	Provide special inspection per STEEL, category 19.1(d) & (e) and/or 19.2(g) & (h) below.		
	i. Not used.			
+	**8. PRESTRESSED CONCRETE (in addition to Cast in Place Concrete tests and inspections):**			
+	**9. PRECAST CONCRETE (in addition to Cast in Place Concrete tests and inspections):**			
+	**10. SHOTCRETE (in addition to Cast in Place Concrete tests and inspections):**			
-	**11. POST-INSTALLED ANCHORS:**			
X	a. Inspect installation of post-installed anchors	See Notes	SI*	Table 1705A.3 Item 4a (Continuous) & 4b (Periodic) (see Appendix for exemptions). ACI 318-14 Sections 17.8 & 26.13 * May be performed by the project inspector when specifically approved by DSA.
X	b. Test post-installed anchors.	Test	LOR	1910A.5 (1909.2.7+). (See Appendix for exemptions.)
+	**12. OTHER CONCRETE:**			
+	**MASONRY**			TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.3 & TMS 602-13/ACI 530.1-13/ASCE 6-13 Table 5
-	**STEEL, ALUMINUM**			Table 1705A.2.1, AISC 303-10, AISC 360-10, AISC 341-10, AISC 358-10, AISI S100-07/S2-10
-	**17. STRUCTURAL STEEL, COLD-FORMED STEEL, AND ALUMINUM USED FOR STRUCTURAL PURPOSES**			
	Material Verification:			
X	a. Verify identification of all materials end: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with requirements.	Periodic	*	2203A.1 (2203.1+), Table 1705A.2.1 Item 3a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S220-11 Section A4. * By special inspector or qualified technician when performed off-site.
X	b. Test unidentified materials	Test	LOR	2203A.1 (2203.1+).
	c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
	Inspection:			
	d. Not used.			
X	e. Verify and document steel fabrication per DSA approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
+	**18. HIGH STRENGTH BOLTS:**	RCSC 2009		
-	**19. WELDING:**			1705A.2.5, Table 1705A.2.1 Items 4 & 5; DSA IR 17-3, AWS D1.1 and AWS D1.8 for structural steel, AWS D1.2 for Aluminum, AWS D1.3 for cold-formed steel, AWS D1.4 for reinforcing steel. (See Appendix for exemptions.)
	Verification of Materials, Equipment, Welders, etc:			
X	a. Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	DSA IR 17-3.
X	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
X	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	**19.1 SHOP WELDING:**			
X	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.5 & 5a.6. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.1. Per AISC 360-10 (and AISC 341-10 as applicable). AWS D1.1 & D1.3. DSA IR 17-3.
	d. Verification of reinforcing steel weldability other than ASTM A706	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. AWS D1.4. DSA IR 17-3.
	e. Inspect welding of reinforcing steel.	Continuous	SI	1705A.3.1, Table 1705A.3 Item 2, and Table 1705A.2.1 Item 5b, 1903A.8. AWS D1.4. DSA IR 17-3.
-	**19.2 FIELD WELDING:**			
	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16"	Periodic	SI	Table 1705A.2.1 Item 5a.5. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
	c. Inspect end-welded studs (ASTM A-108) installation (including bend test)	Periodic	SI	2213A.2 (2212.6.2+); per AISC 360-10 (and AISC 341-10 as applicable), AWS D1.1. DSA IR 17-3.
	d. Inspect floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.6; per AISC 360 (and AISC 341 as applicable) & AWS D1.3. DSA IR 17-3.
	e. Inspect welding of structural cold-formed steel	Periodic	SI*	1705A.2.5; AWS D1.3. * May be performed by the project inspector when specifically approved by DSA. DSA IR 17-3.
	f. Inspect welding of stairs and railing systems	Periodic	SI*	1705A.2.1; Per AISC 360-10 (and AISC 341-10 as applicable). AWS D1.1 & D1.3. DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
	g. Verification of reinforcing steel weldability	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. DSA IR 17-3.
	h. Inspect welding of reinforcing steel.	Continuous	SI	1705A.3.1, Table 1705A.3 Item 2, and Table 1705A.2.1 Item 5b, 1903A.8. AWS D1.4. DSA IR 17-3.
-	**20. NONDESTRUCTIVE TESTING:**			
X	a. Ultrasonic	Test	LOR	1705A.2.1 & 1705A.2.5. AISC 360-10 N5.5, AISC 341-10 App. Q 5.2. AWS D1.1, D1.8. ANSI/ASNT CP-189, SNT-TC-1A. DSA IR 17-2.
X	b. Magnetic Particle	Test	LOR	
	c.	Test	LOR	
	d.	Test	LOR	
+	**21. STEEL JOISTS AND TRUSSES:**			
+	**22. SPRAY APPLIED FIRE-PROOFING:**			
-	**23. ANCHOR BOLTS, ANCHOR RODS, & OTHER STEEL:**			
	a. Anchor Bolts and Anchor Rods	Test	LOR	IR 17-11 Sample and test anchor bolts and anchor rods not readily identifiable.
	b. Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in IR 17-11
	c.			
+	**WOOD**			
+	**OTHER**			

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2 — 6" = 1'-0"
DSA-103 PLYWOOD FLOOR (Concrete Foundation)1

DSA DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES
DSA-103 Issued 12/30/2016
List of Required Structural Tests & Special Inspections - 2016 CBC
INCREMENT # ## | DSA File No.: # | Application No.: # | Date Submitted: # | Revised: # | Revised: #
School Name | District
IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.
NOTE: This form is also available for projects submitted for review under the 2007, 2010, and 2013 CBC.
INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. Note: A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests and inspections finally selected. For more information on use of this form, see DSA-103.INSTR.
Note: References are to the 2016 edition of the California Building Code (CBC) unless otherwise noted.

REQUIRED	TEST OR SPECIAL INSPECTION	TYPE 1	PERFORMED BY 2	CODE REFERENCE AND NOTES
+	**SOILS**			
+	**CONCRETE**			Table 1705A.3, ACI 318-14 Sections 26.12 & 26.13
+	**MASONRY**			TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.3 & TMS 602-13/ACI 530.1-13/ASCE 6-13 Table 5
-	**STEEL, ALUMINUM**			Table 1705A.2.1, AISC 303-10, AISC 360-10, AISC 341-10, AISC 358-10, AISI S100-07/S2-10
-	**17. STRUCTURAL STEEL, COLD-FORMED STEEL, AND ALUMINUM USED FOR STRUCTURAL PURPOSES**			
	Material Verification:			
X	a. Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with requirements.	Periodic	-	2203A.1 (2203.1+), Table 1705A.2.1 Item 3a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S220-11 Section A4. * By special inspector or qualified technician when performed off-site.
X	b. Test unidentified materials	Test	LOR	2203A.1 (2203.1+).
	c. Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
	Inspection:			
	d. Not used.			
X	e. Verify and document steel fabrication per DSA approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
+	**18. HIGH STRENGTH BOLTS:**	RCSC 2009		
-	**19. WELDING:**			1705A.2.5, Table 1705A.2.1 Items 4 & 5; DSA IR 17-3, AWS D1.1 and AWS D1.8 for structural steel, AWS D1.2 for Aluminum, AWS D1.3 for cold-formed steel, AWS D1.4 for reinforcing steel. (See Appendix for exemptions.)
	Verification of Materials, Equipment, Welders, etc:			
X	a. Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	DSA IR 17-3.
X	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
X	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	**19.1 SHOP WELDING:**			
X	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.5 & 5a.6. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.1. Per AISC 360-10 (and AISC 341-10 as applicable). AWS D1.1 & D1.3. DSA IR 17-3.
	d. Verification of reinforcing steel weldability other than ASTM A706	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. AWS D1.4. DSA IR 17-3.
	e. Inspect welding of reinforcing steel.	Continuous	SI	1705A.3.1, Table 1705A.3 Item 2, and Table 1705A.2.1 Item 5b, 1903A.8. AWS D1.4. DSA IR 17-3.
-	**19.2 FIELD WELDING:**			
	a. Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16"	Periodic	SI	Table 1705A.2.1 Item 5a.5. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
	c. Inspect end-welded studs (ASTM A-108) installation (including bend test)	Periodic	SI	2213A.2 (2212.6.2+); per AISC 360-10 (and AISC 341-10 as applicable), AWS D1.1. DSA IR 17-3.
	d. Inspect floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.6; per AISC 360 (and AISC 341 as applicable) & AWS D1.3. DSA IR 17-3.
	e. Inspect welding of structural cold-formed steel	Periodic	SI*	1705A.2.5; AWS D1.3. * May be performed by the project inspector when specifically approved by DSA. DSA IR 17-3.
	f. Inspect welding of stairs and railing systems	Periodic	SI*	1705A.2.1; Per AISC 360-10 (and AISC 341-10 as applicable). AWS D1.1 & D1.3. DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
	g. Verification of reinforcing steel weldability	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. DSA IR 17-3.
	h. Inspect welding of reinforcing steel.	Continuous	SI	1705A.3.1, Table 1705A.3 Item 2, and Table 1705A.2.1 Item 5b, 1903A.8. AWS D1.4. DSA IR 17-3.
-	**20. NONDESTRUCTIVE TESTING:**			
X	a. Ultrasonic	Test	LOR	1705A.2.1 & 1705A.2.5. AISC 360-10 N5.5. AISC 341-10 App. Q 5.2. AWS D1.1, D1.8. ANSI/ASNT CP-189, SNT-TC-1A. DSA IR 17-2.
X	b. Magnetic Particle	Test	LOR	
	c.	Test	LOR	
	d.	Test	LOR	
+	**21. STEEL JOISTS AND TRUSSES:**			
+	**22. SPRAY APPLIED FIRE-PROOFING:**			
-	**23. ANCHOR BOLTS, ANCHOR RODS, & OTHER STEEL:**			
	a. Anchor Bolts and Anchor Rods	Test	LOR	IR 17-11 Sample and test anchor bolts and anchor rods not readily identifiable.
	b. Threaded rod not used for foundation anchorage.	Test	LOR	Sample and test threaded rods not readily identifiable per procedures noted in IR 17-11
	c.			
+	**WOOD**			
+	**OTHER**			

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1 — 6" = 1'-0"
DSA-103 PLYWOOD FLOOR (Wood Foundation)1

R&S DESIGN & CONSULTING & PROJECT

PROFESSIONAL STAMP

12/19/2017

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40' EXPANDABLE TO 120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
DSA-103 T&I PLYWOOD FLOORS

PROJECT NUMBER
17016A

DRAWN BY
7MC

CHECKED BY
RT

DATE
2017/03/03

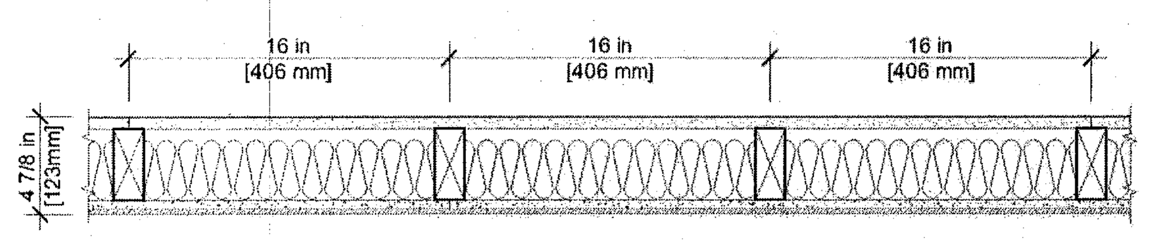
SHEET NO.
A0.4

CAL GREEN NOTES

CONSTRUCTION WASTE MANAGEMENT

PER 2016 CALGREEN CODE SECTION 5.408.1
CONSTRUCTION WASTE MANAGEMENT MEETS THE FOLLOWING CALGREEN REQUIREMENTS:
I- PERCENTAGE OF WASTE TO BE SALVAGED OR RECYCLED WITH A MINIMUM OF 65% OF NON-HAZARDOUS CONSTRUCTION WASTE.

II- THE CONSTRUCTION AND DEMOLITION MATERIALS WILL BE HANDLED BY A MATERIAL RECOVERY FACILITY (MRF) PROCESSED AND DIVERTED AS NEEDED. THE PROCESS IN PLACE GENERALLY YIELD A 75% OR BETTER DIVERSION RATE.



UL U329 or GAP WP 3441 Interior Partitions - Wood Stud	Fire Rating 1 hr.	STC 40 MIN.	Thickness (in.) 4-7/8"

* Gypsum Board - 5/8 in. thick board, applied horizontally or vertically

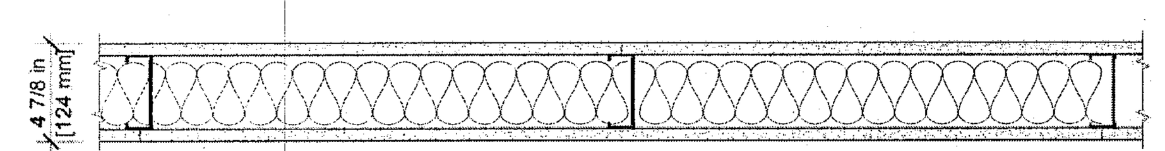
* Wood Studs - 2 in. x 4 in. wood studs spaced max. 16 in. o/c

* Batts and Blankets - Min. 3-1/2 in. thick mineral wool batt insulation

* Cement Board - 1/2 in. thick board, applied horizontally or vertically

* Bond Coat for Setting Tile - Latex modified portland cement mortar or . 1 type I organic adhesive applied with a notched trowel

* Ceramic Tile - 1/4 in. thick ceramic tile



Fire Test UL U465 Steel Stud (Non-loadbearing) Interior Partitions Sound Test: RAL-TL11-125	Fire Rating 1 hr.	STC 40 MIN.	Thickness (in.) 4-7/8"

* Gypsum Board - 5/8 in. thick board, applied vertically, attached to studs with 1 in. long, Type S-12 screws, spaced 8 in. o/c along the edges and 12 in. o/c of the board - SHHETROCK Brand Firecode Core (Type X)

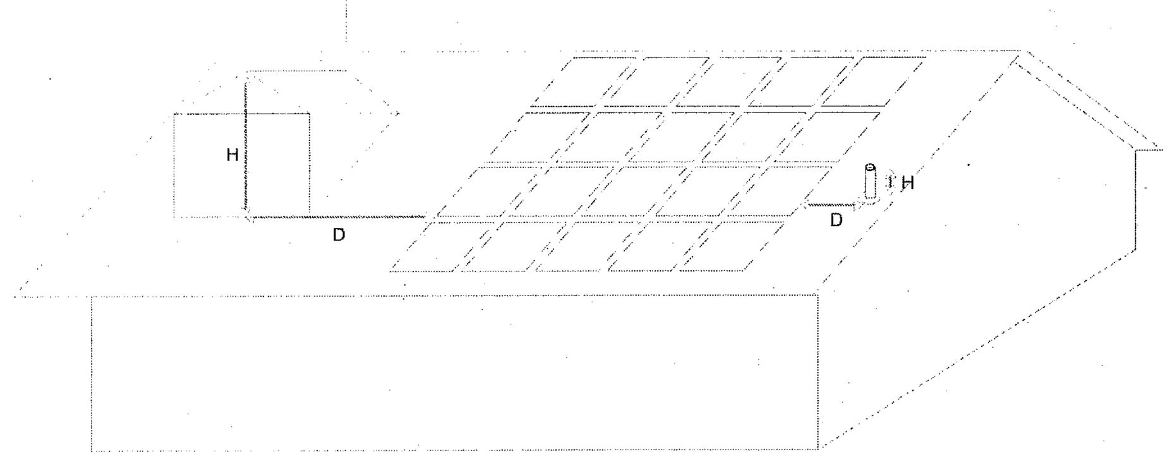
* Steel Studs - 3-5/8 in. wide min. 25 gauge steel. Attached to floor and ceiling with fastners, 24 in o/c - 362S125-18

* Gypsum Board - 5/8 in. thick gypsum board applied vertically or horizontally - SHEETROCK Brand FIRECODE Core (Type X)

* Batts and Blankets - Min. 3-1/2 in. thick mineral wool batt insulation

Moisture control. Exterior door protection:
Nonabsorbent flooring indicated on floor plan, and nonabsorbent interior wall finish indicated on interior elevations.

See sheets A1.0, A1.1, and A1.2 for door protection
See sheet A5.2 for wall finishes



Source: California Energy Commission

Any obstruction, located on the roof or any other part of the building that projects above the solar zone shall be located at a sufficient horizontal distance away from the solar zone, in order to reduce the resulting shading of the solar zone. For each obstruction, the horizontal distance ("D") from the obstruction to the solar zone shall be at least two times the height difference ("H") between the highest point of the obstruction and the horizontal projection of the nearest point of the solar zone.

$D \geq 2 \times H$

SECTION	SHEET	2016 CALGREEN AND ENERGY CODE COMPLIANCE CHECKLIST FOR PRE-CHECKED (PC) PERMANENT AND MODULAR RELOCATABLE BUILDING DESIGNS				
WATER EFFICIENCY						
5.303.3		**WATER CONSERVING PLUMBING FIXTURES AND FITTINGS:**				
5.303.3	P1.0	PLUMBING FIXTURE FLOW RATES ARE SHOWN ON PLUMBING FIXTURE SCHEDULE.				
MATERIAL CONSERVATION & RESOURCE EFFICIENCY						
5.407.2.2		**WATER RESISTANCE AND MOISTURE MANAGEMENT:**				
5.407.2.2.1	A1.0-1.2	PLANS AND FINISH SCHEDULE SHOW THE LOCATION OF THE MINIMUM REQUIRED INTERIOR DOOR PROTECTION AND INDICATE THE NON-ABSORBENT FLOOR AND WALL FINISHES TO BE INSTALLED 2 FEET AROUND AND PERPENDICULAR TO THE PRIMARY ENTRANCES.				
	A1.0-1.2, A6.0-6.3	PLANS AND SECTIONS INDICATE THE MINIMUM EXTERIOR DOOR PROTECTION WITH THE LOCATION AND DETAILS FOR A 4 FEET DEEP AWNING, ROOF OVERHANG, RECESSED AREA, OR OTHER APPROPRIATE METHOD AT THE PRIMARY ENTRANCES.				
5.407.2.2.2	A4.0.1-4.3	ROOF PLANS AND DETAILS INDICATE FLASHINGS INTEGRATED WITH A DRAINAGE PLANE.				
5.408.1		**CONSTRUCTION WASTE MANAGEMENT:**				
5.408.1	PDF	PROVIDE A LETTER FROM THE LOCAL WASTE AND RECYCLING FACILITY USED BY THE MANUFACTURER WHICH SPECIFIES A CONSTRUCTION WASTE MANAGEMENT PLAN IDENTIFYIN				
		☑ RECYCLES AND/OR SALVAGES FOR REUSE A MINIMUM OF 65% OF THE NONHAZARDOUS CONSTRUCTION WASTE.				
		☑ THE CONSTRUCTION WASTE MATERIALS TO BE DIVERTED FROM DISPOSAL BY EFFICIENT USAGE, RECYCLING, REUSE ON THE PROJECT, OR SALVAGED FOR FUTURE USE OR				
		☑ SPECIFIES IF CONSTRUCTION WASTE MATERIALS WILL BE SORTED ON-SITE OR BULK MIXED.				
		☑ DIVERSION FACILITY WHERE CONSTRUCTION WASTE WILL BE TAKEN.				
		☑ SPECIFIES IF THE AMOUNT OF CONSTRUCTION WASTE IS CALCULATED BY WEIGHT OR VOLUME.				
		☑ WASTE MANAGEMENT COMPANY IS ABLE TO PROVIDE VERIFIABLE DOCUMENTATION THAT 65% OF CONSTRUCTION WASTE MATERIAL WILL BE DIVERTED.				
ENVIRONMENTAL QUALITY						
5.504.4		**POLLUTANT CONTROL**				
5.504.4.1	A0.5	**ADHESIVES, SEALANTS AND CAULKS**				
		FINISH	**WHERE USED (TYPE)**	**MANUFACTURER/SPECIFICATION**	**VOC**	**VOC LIMIT (GPL)**
5.504.4.2	A0.5	Indoor Carpet Adhesives	NuBroadLok, Mohawk Inc.	NuBroadLok, Mohawk Inc.	0	50
		Carpet Pad Adhesives	N/A			
5.504.4.2	A0.5	Cove Base Adhesives	Interior Base	Henry 440	0	50
5.504.4.3	A0.5	Multi-purpose Construction Adhesives 1	General	Liquid Nails - Heavy Duty construction adhesive	70	70
5.504.4.4	A0.5	Contact Adhesive	General	Hankel - Loctite Light Cure	20	70
5.504.4.2	A0.5	Contact Adhesive	General	Hankel - Loctite Light Cure	20	70
5.504.4.1	A0.5	Architectural 1	Exterior	Sherwin williams - 850A White	33	250
5.504.4.1	A0.5	Architectural 2	Exterior	Sherwin williams - Shermax clear	19	250
5.504.4.1	A0.5	Single ply roof Membrane	Roof Caulk/Sealer	Tremco - Future Flash Sealant	6	450
5.504.4.3	A0.5	**PAINTS AND COATINGS**				
		FINISH	**WHERE USED (TYPE)**	**MANUFACTURER/SPECIFICATION**	**VOC**	**VOC LIMIT (GPL)**
5.504.4.3.1	A0.5	Aerosol Spray Flat Paint	Painted Surface	Krylon	<60	60
5.504.4.3	A0.5	Flat Coatings 1	Painted Surface	Sherwin Williams - Pro Mar 200 Zero	50	50
5.504.4.3	A0.5	Flat Coatings 2	Painted Surface	Dunn Edwards Paints - Acra Hues	40	50
5.504.4.3	A0.5	Flat Coatings 3	Painted Surface	Vista Paints	50	50
		Wall Material 1	FRP Wall Covering	Glassco		
		Wall Material 1	Tackable Wall (Non-absorbent)	Chatfield Clarke		
5.504.4.4	A0.5	**CARPET SYSTEMS**				
		FINISH	**MANUFACTURER**	**CERTIFICATION ORGANIZATION**		
5.504.4.4	A0.5	Carpet	Mohawk Carpets	Carpet & Rug Institute - Green Label Plus Program		
5.504.4.5		**HARDWOOD PLYWOOD, PARTICLEBOARD, FIBERBOARD WOOD PRODUCTS**				
		FINISH	**WHERE USED (TYPE)**	**MANUFACTURER/SPECIFICATION**	**FORMALDEHYDE EMMISIONS**	**FORMALDEHYDE LIMIT**
5.504.4.5	A0.5	Plywood	Roof / Floor	APA Rated	<.05	0.05
5.504.4.6	A0.5	**RESILIENT FLOORING SYSTEMS**				
		FINISH	**MANUFACTURER**	**CERTIFICATION ORGANIZATION**		
5.504.4.6	A0.5	Vinyl Composition Tile Flooring	Armstrong / Imperial	CA Dept. of Public Health's 2010 Standard Method for the Testing ...		
	A0.5	Sheet Vinyl Flooring	Mannington	CA Dept. of Public Health's 2010 Standard Method for the Testing ...		
		FRP Wall Covering	Glassco	CA Dept. of Public Health's 2010 Standard Method for the Testing ...		
		Tackable Wall	Chattfield Clarke	CA Dept. of Public Health's 2010 Standard Method for the Testing ...		
		FILTER SPECIFICATION:				
5.504.3	M0.1	COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION AND SHIPMENT.				
5.504.5.3	M0.1	MECHANICAL SPECIFICATION OR NOTE INCLUDES INFORMATION REQUIRING A MINIMUM MERV 8 FILTER(S) OR HIGHER.				
		INDOOR MOISTURE CONTROL:				
		☑ ATTIC IS UNVENTED				
5.507.4		**ENVIRONMENTAL COMFORT:**				
5.507.4.1	A0.0	**EXTERIOR NOISE TRANSMISSION:**				
		☑ NOTE ON COVERSHEET THAT STATES - "THIS PC WILL NOT BE PLACED IN ANY OF THE FOLLOWING LOCATIONS: 1- WITHIN THE 65 CNEL NOISE CONTOUR OF AN AIRPORT; 2- WITHIN THE 65 CNEL OR LDN NOISE CONTOUR OF A FREEWAY, EXPRESSWAY, RAILROAD, OR INDUSTRIAL SOURCE GUIDEWAY; 3- WHERE EXPOSED TO NOISE LEVEL OF 65 DB LEQ-1-HR DURING ANY HOUR OF OPERATION."				
5.507.4.3		**INTERIOR SOUND TRANSMISSION:**				
5.507.4.3	A0.5	INTERIOR WALLS MEET MINIMUM 40 STC.				
5.508.1		**OUTDOOR AIR QUALITY:**				
5.508.1	M0.1	HVAC EQUIPMENT DOES NOT CONTAIN CFCS OR HALONS.				

DESIGN & CONSULTING · PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128

PROFESSIONAL STAMP

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40' EXPANDABLE TO 120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
CALGREEN SPEC'S

PROJECT NUMBER
17016A

DRAWN BY
MC/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A0.5

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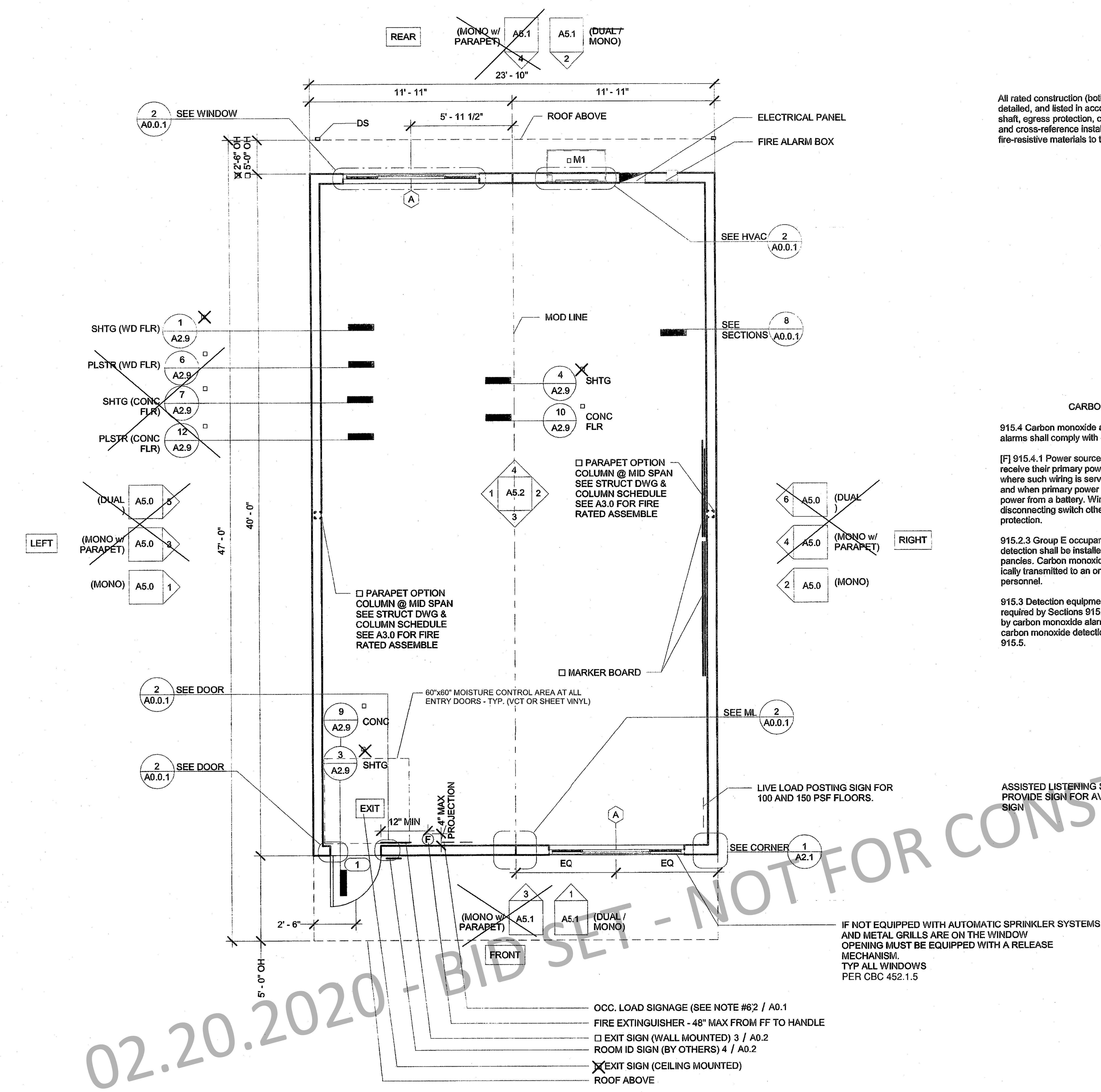

1 1/4" = 1'-0"
24x40 Floor Plan

All rated construction (both vertical and horizontal) must be clearly defined, correctly indentified, detailed, and listed in accordance with CBC Chapters 3,5,7 and 10 (fire partitions, barriers, walls, shaft, egress protection, ceilings, opening protection, penetrations, structural members, etc). Provide and cross-reference installation details, including all components and attachment schedules for the fire-resistive materials to the framing. Shall conform in every particular with the design number specified

SECTION 915
CARBON MONOXIDE DETECTION

915.4 Carbon monoxide alarms. Carbon monoxide alarms shall comply with Sections 915.4.1 through 915.4.4.

[F] 915.4.1 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and with-out a disconnecting switch other than that required forovercurrent protection.

915.2.3 Group E occupancies. Carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed byschool personnel.

915.3 Detection equipment. Carbon monoxide detection required by Sections 915.1 through 915.2.3 shall be provided by carbon monoxide alarms complying with Section 915.4 or carbon monoxide detection systems complying with Section 915.5.

ASSISTED LISTENING SYSTEM REQUIRED IN CLASSROOMS. PROVIDE SIGN FOR AVAILABILITY. SEE A0.2 FOR REQUIRED SIGN

Wall Schedule

	Stud Size	Sheet	Notes
☒	Wood Wall Stud	S4.5	
☐	Mtl Wall Stud	S4.5	CONTINUOUS EXT R-4 INSULATION

* SEE A0.5 FOR INTERIOR SOUND TRANSMISSION REQUIREMENTS, INTERIOR WALL LOCATION PER SITE SPECIFIC APPLICATION DRAWING,

5 1/4" = 1'-0"
Wall Schedule

Fire Rating Schedule

	Rating	Sheet	Notes
☐	1 HOUR - SIDING OVER WD STUDS	A2.5	WP#8105
☐	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.6	PER-CBC-TABLE 721.1(2)
☐	1 HOUR - SIDING OVER STL STUDS	A2.7	WP#8006
☐	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.8	PER-CBC-TABLE 721.1(2)

SEE A3.0 FOR ADDITIONAL FIRE ASSEMBLY NOTES AND DETAILS

4 1/4" = 1'-0"
Fire Rating Schedule

Ext. Finish Schedule

	Finishes	Sheet	Notes
☒	SIDING OVER WD STUDS	A2.1	
☐	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.2	
☐	SIDING OVER STL STUDS	A2.3	
☐	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.4	

3 1/4" = 1'-0"
Ext. Finish Schedule

Roofing Schedule

"SLOPE"	EDPM	Standing Seam	Parapet	Notes
Dual	☐ A4.2.2	☐ A4.0.2	N/A	
Monc	☐ A4.2.1	☒ A4.0.1	☐ A4.4.1	

HVAC Unit

Keynote	Type	Type Comments
☒ M1	Wall Mounted HVAC	See (M)-Sheets
☐ M2	Roof Mounted HVAV	See (M)-Sheets

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRA... No. S3380 STRUCTURAL STATE OF CALIFORNIA
12/19/2017

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40' EXPANDABLE TO 120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: 2016 CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
24x40 FLOOR PLAN

PROJECT NUMBER 17016A
DRAWN BY mc/SC
CHECKED BY JA/RT
DATE 2017/06/05
SHEET NO. A1.0

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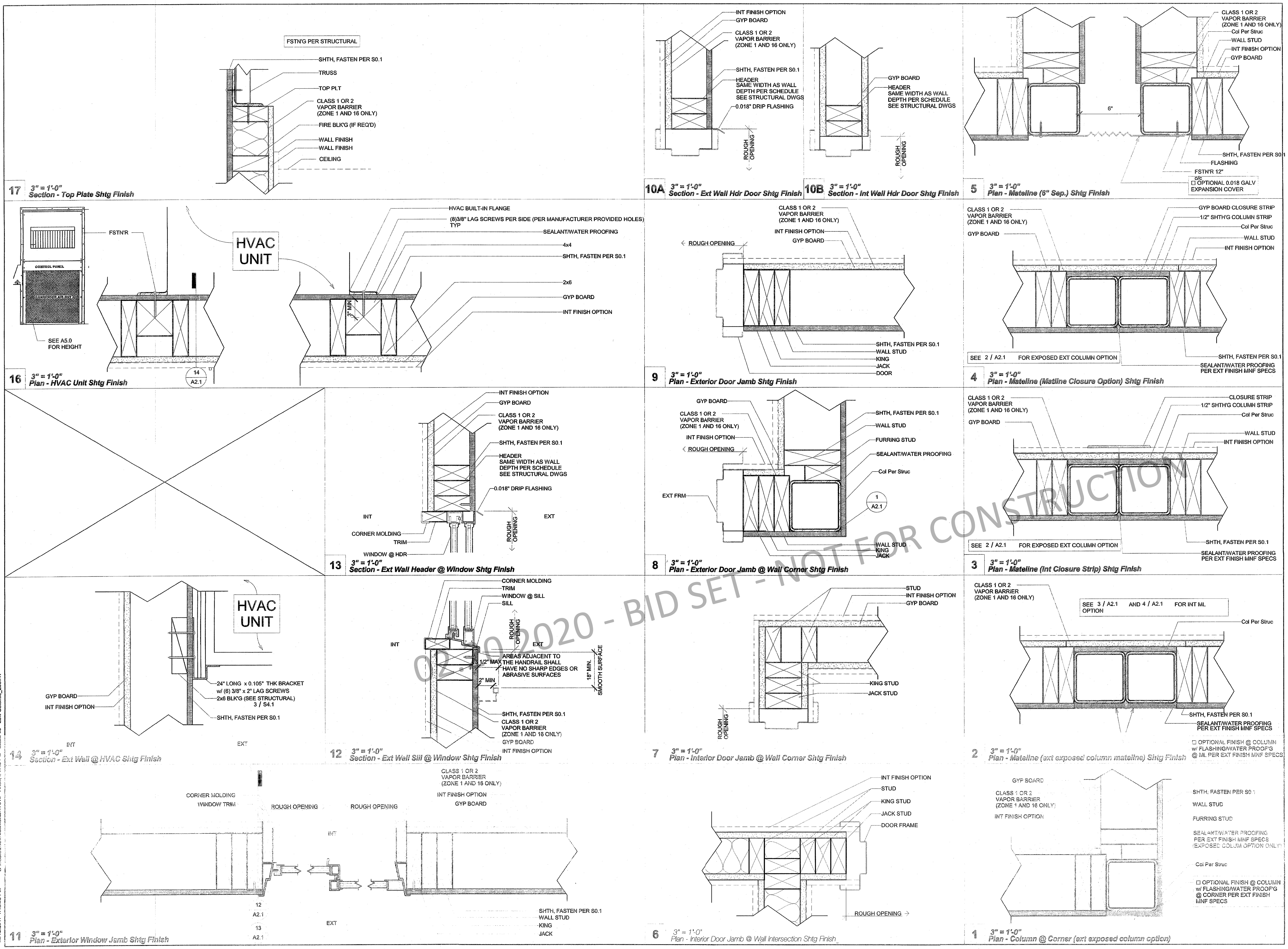

R&S TAVARES ASSOCIATES
DESIGN ◊ CONSULTING ◊ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105 SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY O. FR... 58380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

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PRE-CHECK (PC) DOCUMENT
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IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE

ARCHITECTURAL DETAILS (WOOD FRAMING SHTG FINISH)

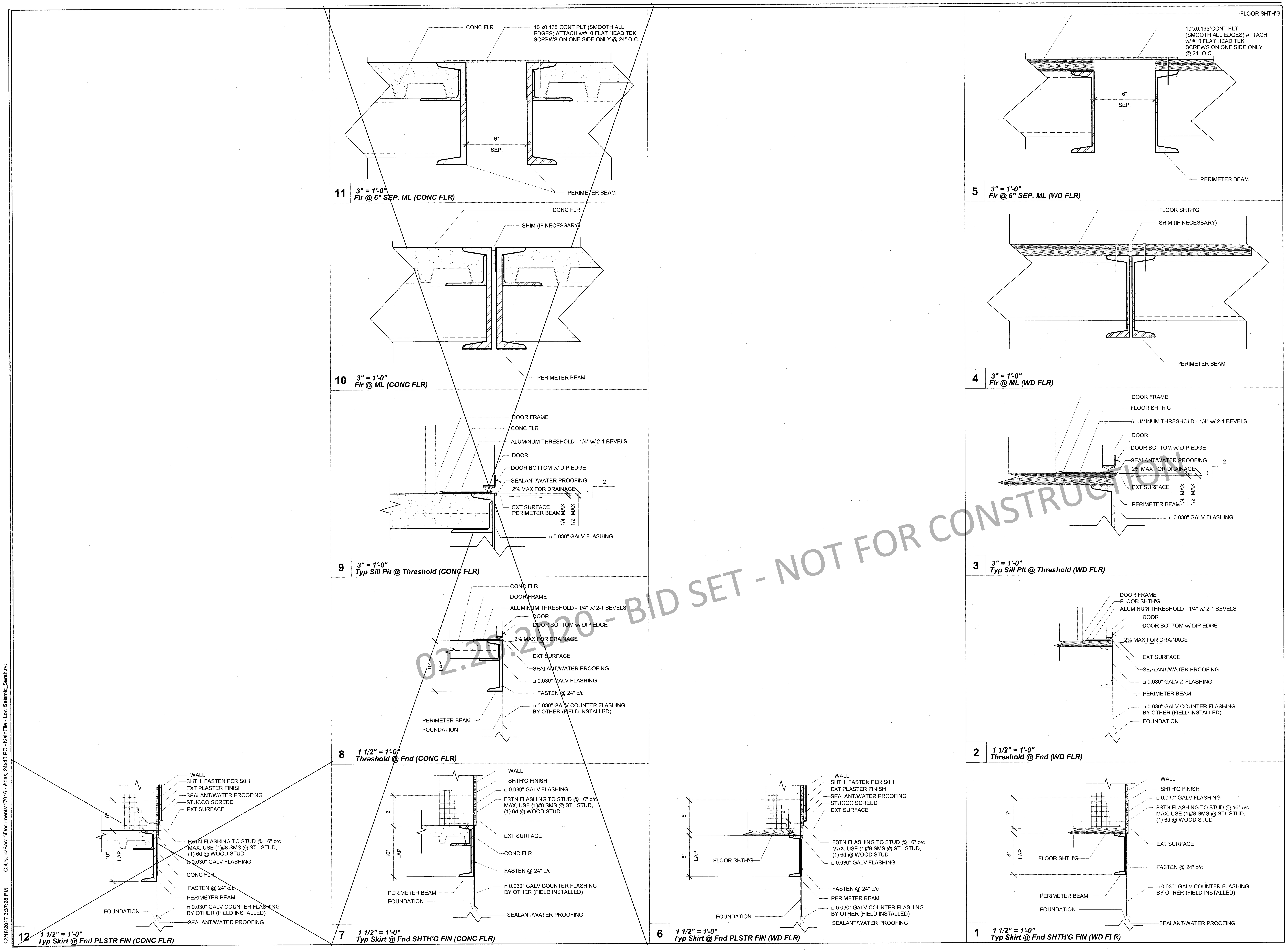
PROJECT NUMBER 17016A

DRAWN BY rMc/Sl

CHECKED BY JA/RT

DATE 2017/06/05

SHEET NO. A2.1



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R&S TAVARES ASSOCIATES

PROFESSIONAL STAMP

12/19/2017

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CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

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PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: 2016 CBC
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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2018

Revision Schedule

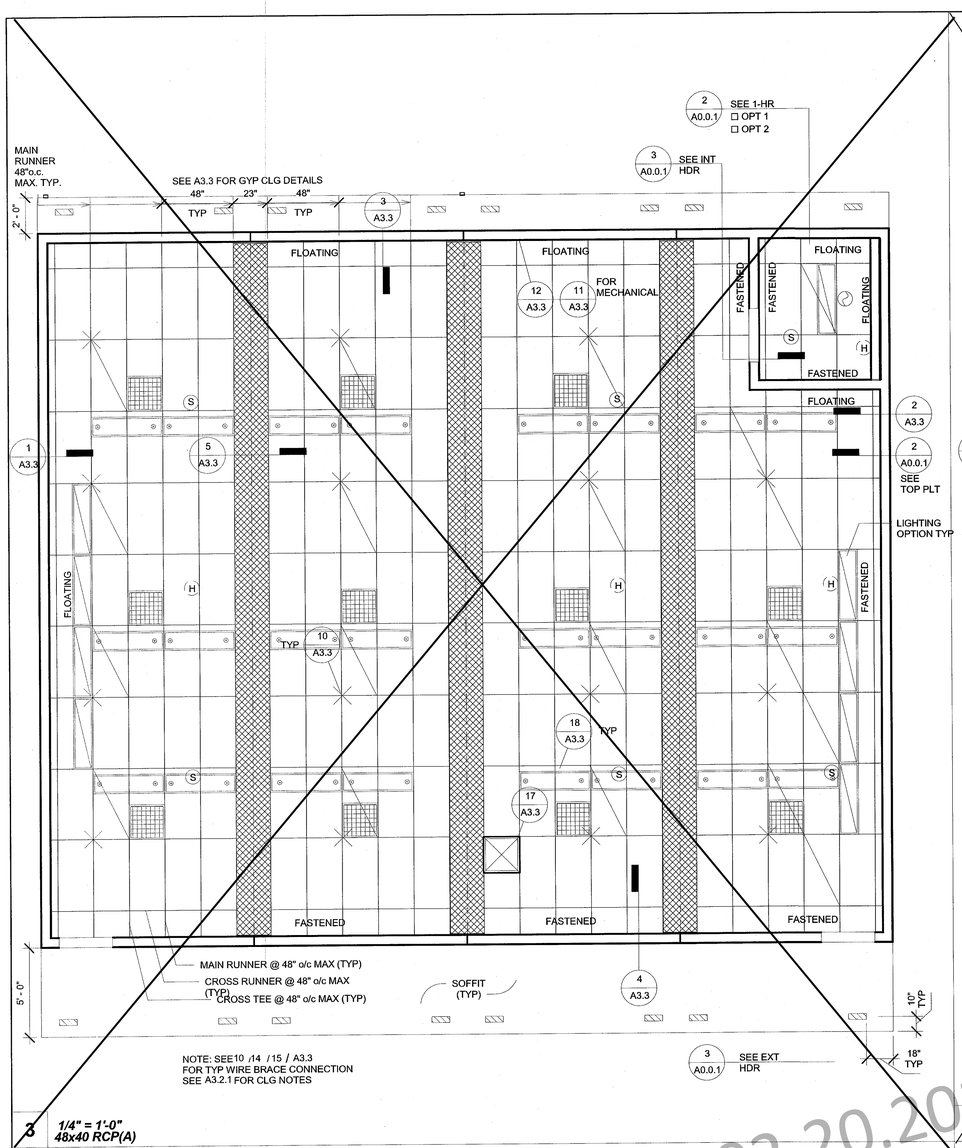
#	Description	Date

SHEET TITLE

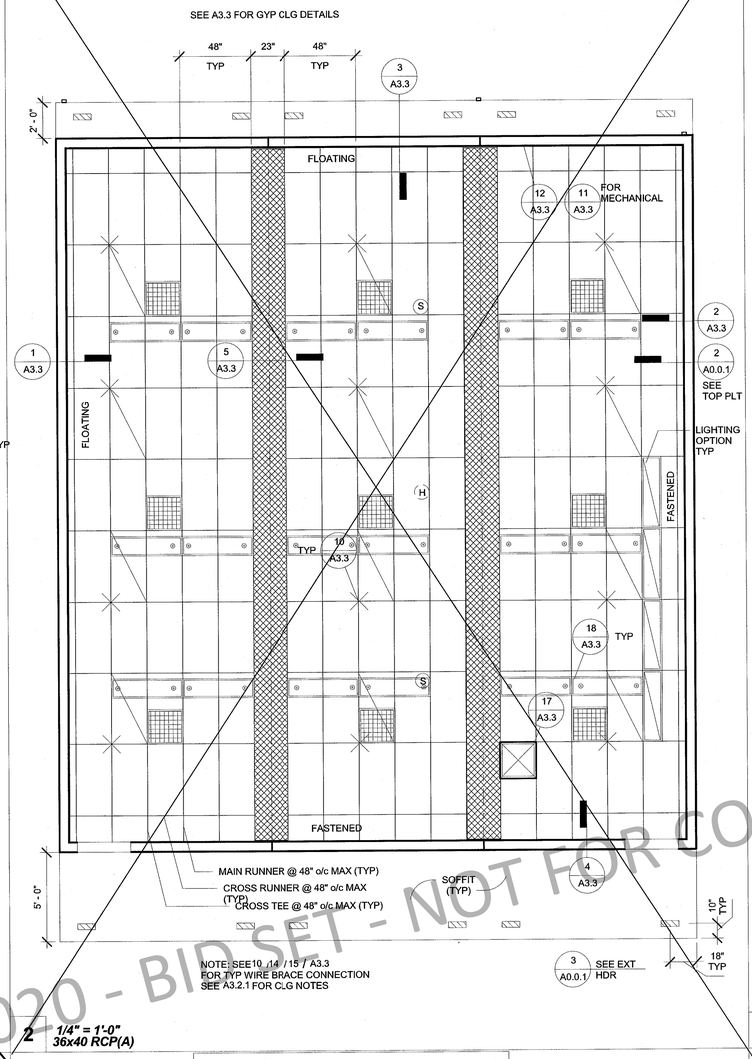
ARCHITECTURAL DETAILS (FLOOR)

PROJECT NUMBER	17016A
DRAWN BY	rMc/SC
CHECKED BY	JA/RT
DATE	2017/06/05
SHEET NO.	A2.9

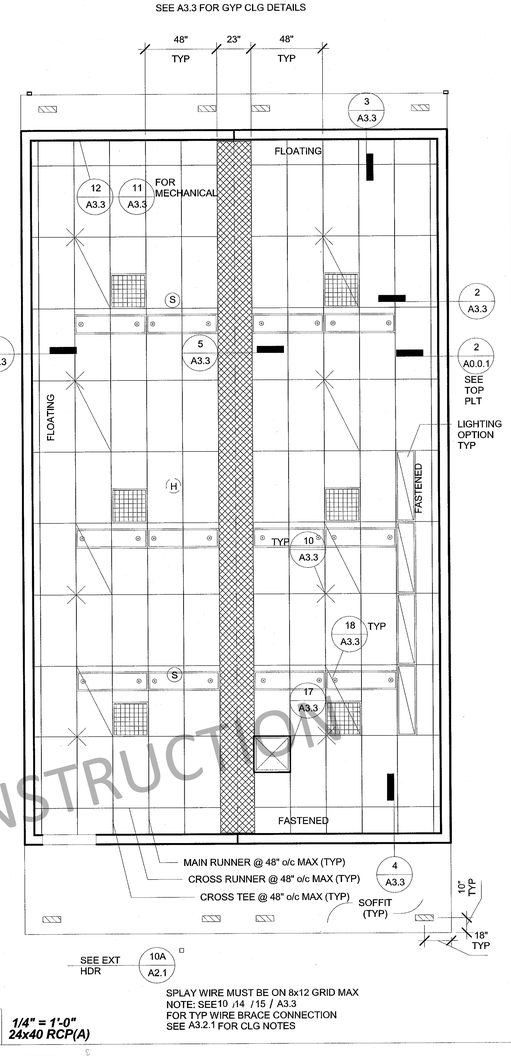
SHEET OF SHEETS



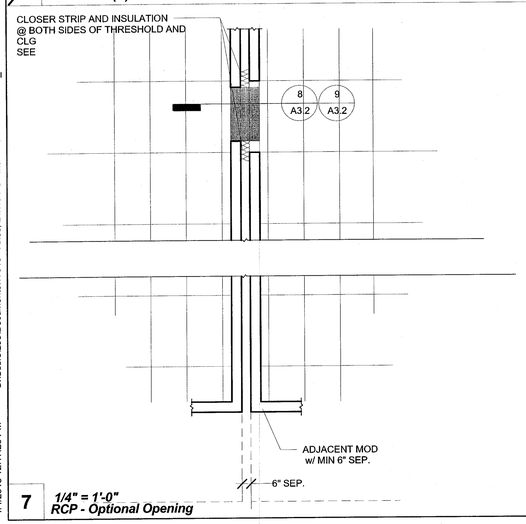
3 *1/4" = 1'-0"*
48x40 RCP(A)



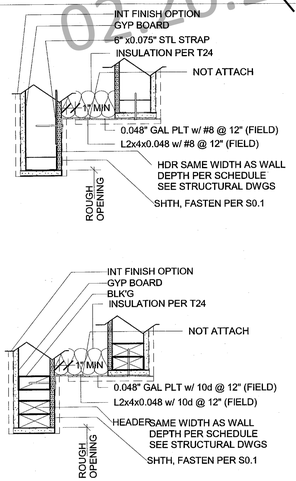
2 *1/4" = 1'-0"*
36x40 RCP(A)



1 *1/4" = 1'-0"*
24x40 RCP(A)



7 *1/4" = 1'-0"*
RCP - Optional Opening

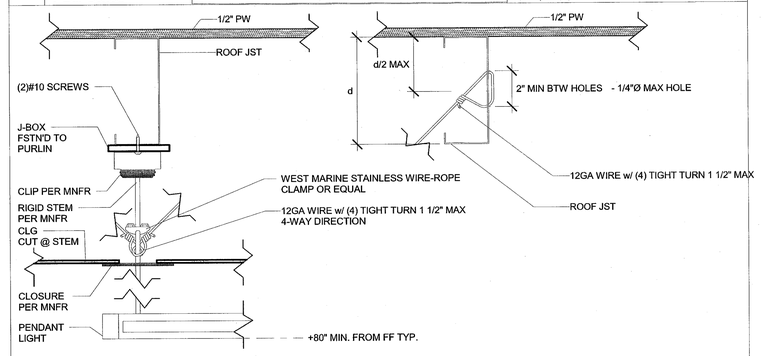


ARMSTRONG #:
PA-041

MAIN RUNNER 7301
4' CROSS T #: XL7341
2' CROSS T #: XL7328

STANDARD 7/8" WALL ANGLE CLIP w/ BERC-2 CLIP (ICC #ESR-1308)
2" WALL ANGLE: 7310 (OPTIONAL)

5 *1/4" = 1'-0"*
T-Bar Sched



6 *3" = 1'-0"*
Section - Pendant Mounting Detail

HVAC REG. (SEE MECH FOR DIFFUSER) LOCATION

4x12 SOFFIT VENTS

RECESSED LIGHT FIXTURE 2'x4'

* OPTIONAL LIGHTING RECESSED LIGHT FIXTURE 16'x1' (8) T8 (4FT) LINEAR FLUORESCENT - 32 WATT

6 / A3.2
* OPTIONAL LIGHTING PENDANT LIGHT FIXTURE 8'x1' (4) T8 (4FT) LINEAR FLUORESCENT - 32 WATT

SITE INSTALLED ML CLG PANEL

SINGLE OCC : (1 LIGHT FIXTURE) = 32 SYSTEM WATTS
(3)32 SYSTEM WATTS X .80 = 25.6
25.6 / 68 S.F. ROOM =

.38 LUMINAIRE WATTS/SF

T-GRID CLG

SKYLIGHT DIFFUSER SEE ROOF PLAN FOR LOCATION

SPLAY WIRE

S CLG MOUNTED SMOKE DETECTOR

H ATTIC MOUNTED HEAT SENSOR

CLG EXHAUST FAN

4 *1/4" = 1'-0"*
RCP Legend

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. PRASAD No. 52380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2018

Revision Schedule

#	Description	Date

SHEET TITLE
RCP

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A3.2

SHEET OF SHEETS

1. CEILING SYSTEM GENERAL NOTES:

1.01 Ceiling system components shall comply with ASTM C635-07 and Section 5.1 of ASTM E580-10a.

1.02 The ceiling grid system must be rated heavy duty as defined by ASTM C635-08.

1.03 Ceiling systems. The following ceiling system(s) is/are part of the scope of this project: ***[For each system used, the RDP shall indicate in the construction documents, the information that follows]***

Manufacturer's Name ARMSTRONG.
Product Evaluation Report Type and Number PA-041.
Manufacturer's Model Number - main runner 7301. (SEE A3.2)
Manufacturer's catalog number - cross runner 4' CROSS T #: XL7341, 2' CROSS T #: XL7328.

1.04 Seismic Wall Clip: ***[RDP to specify if used]***
STANDARD 7/8" WALL ANGLE CLIP w/ BERC-2 CLIP (ICC #ESR-1308)
Manufacturer's Model 2" WALL ANGLE: 7810 (OPTIONAL)

1.05 Ceiling panels shall not support any light fixtures, air terminals or devices.

1.06 For ceiling installations utilizing acoustical tile panels of mineral or glass fiber, it is not mandatory to provide ¾" clearance between the acoustical tile panels and the wall on the sides of the ceiling which are free to slip. For all other ceiling panel types, provide ¾" clearance between the ceiling panel and the wall on the sides of the ceiling free to slip.

2. MATERIALS:

2.01 Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641-09a. Wire shall be #12 gage (0.106" diameter) with soft temper and minimum tensile strength = 70 ksi.

2.02 Galvanized sheet steel (including that used for metal stud and track compression struts/post) shall conform to ASTM A653-11, or other equivalent sheet steel listed in Section A2.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members 2007, including supplement 2 dated 2010 (AISI S100-07/S2-10). Material 43 mil (18 gage) and lighter shall have minimum yield strength of 33 ksi. Material 54 mil (16 gage) and heavier shall have a minimum yield strength of 50 ksi.

2.03 Electrical metallic tube (EMT) shall be ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength (Fy) of 30 ksi and minimum ultimate strength (Fu) of 48 ksi.

Basis Document: **DSA IR 25-2.13** | Sheet No: 1.00
Sheet Title: **Ceiling Notes** | rev. 09-21-15

3. ATTACHMENT OF HANGER AND BRACING WIRES:

3.01 Separate all ceiling hanger and bracing wires at least six (6) inches from all unbraced ducts, pipes, conduit, etc.

3.02 Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to: piping, ductwork, conduit and equipment.

3.03 Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.

3.04 Slack safety wires shall be considered hanger wires for installation and testing requirements.

3.05 Hanger and bracing wire anchorage to the structure shall be installed in such a manner that the direction of the anchorage aligns closely with the direction of the wire. (e.g. bracing wire ceiling clips must be bent as shown in the details and rotated as required to align closely with the direction of the wire, screw eyes in wood must be installed so they align closely with the direction of the wire, etc.)

4. FASTENERS AND WELDING:

4.01 Sheet metal screws shall comply with ASTM C1513-10, ASME B18.6.4-89 (R2005). Penetration of screws through joined material shall not be less than three exposed threads.

4.02 Expansion anchors shall be: ***[RDP to indicate manufacturer, product, evaluation report number and load for each size specified per CBC 1913A.7.2.]***

4.03 Power-Actuated Fasteners shall be: ***[RDP to indicate manufacturer, product, evaluation report number]***

4.04 If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.

4.05 Power-actuated fasteners in concrete are not permitted for bracing wires.

4.06 Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post - installed anchor.

4.07 Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING: All field testing must be performed in the presence of the project inspector.

5.01 Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power actuated fasteners in concrete shall be field tested for 200 lbs. in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1913A.7.

5.02 Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1913A.7.

Basis Document: **DSA IR 25-2.13** | Sheet No: 1.01
Sheet Title: **Ceiling Notes** | rev. 09-21-15

6. LIGHT FIXTURES:

6.01 All light fixtures shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the fixture. A minimum of two screws or approved fasteners are required at each light fixture, per ASTM E580, Section 5.3.1.

6.02 Surface-mounted light fixtures shall be attached to the main runner with at least two positive clamping devices. The clamping device shall completely surround the supporting ceiling runner and be made of steel with a minimum thickness of #14 gage. Rotational spring catches do not comply. A #12 gage slack safety wire shall be connected from each clamping device to the structure above. Provide additional supports when light fixtures are eight (8) feet or longer or exceed 56 lb. Maximum spacing between supports shall not exceed eight (8) feet.

6.03 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.

6.04 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.

6.05 Light fixtures weighing greater than 10 lb. but less than or equal to 56 lbs. may be supported directly on the ceiling runners, but they shall have a minimum of two (2) #12 gage slack safety wires connected from the fixture housing at diagonal corners to the structure above.

Exception: All light fixtures greater than two by four feet weighing less than 56 lbs. shall have a #12 gage slack safety wire at each corner.

6.06 All Light fixtures weighing greater than 56 lb. shall be independently supported by not less than four (4) taut #12 gage hanger wires (one at each corner) attached from the fixture housing to the structure above or other approved hangers. The four (4) taut #12 gage wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four (4) times the weight of the fixture.

7. SERVICES WITHIN THE CEILING:

7.01 All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or approved fasteners are required. A minimum of two attachments are required at each component.

7.02 Ceiling-mounted air terminals or other services weighing less than or equal to 20 lb. shall have one (1) #12 gage slack safety wire attached from the terminal or service to the structure above.

7.03 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 20 lb. but less than or equal to 56 lb. shall have two (2) #12 gage slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.

7.04 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 56 lb. shall be supported directly from the structure above by not less than four (4) taut #12 gage hanger wires attached from the terminal or service to the structure above or other approved hangers.

Basis Document: **DSA IR 25-2.13** | Sheet No: 1.02
Sheet Title: **Ceiling Notes** | rev. 09-21-15

8. OTHER DEVICES WITHIN THE CEILING:

8.01 All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. In addition, devices weighing more than 10 lbs. shall have a #12 gage slack safety wire anchored to the structure above. Devices weighing more than 20 lb. shall be supported independently from the structure above.

Basis Document: **DSA IR 25-2.13** | Sheet No: 1.03
Sheet Title: **Ceiling Notes** | rev. 09-21-15

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 180
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO No. 58380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
CEILING NOTES

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A3.2.1
SHEET OF SHEETS

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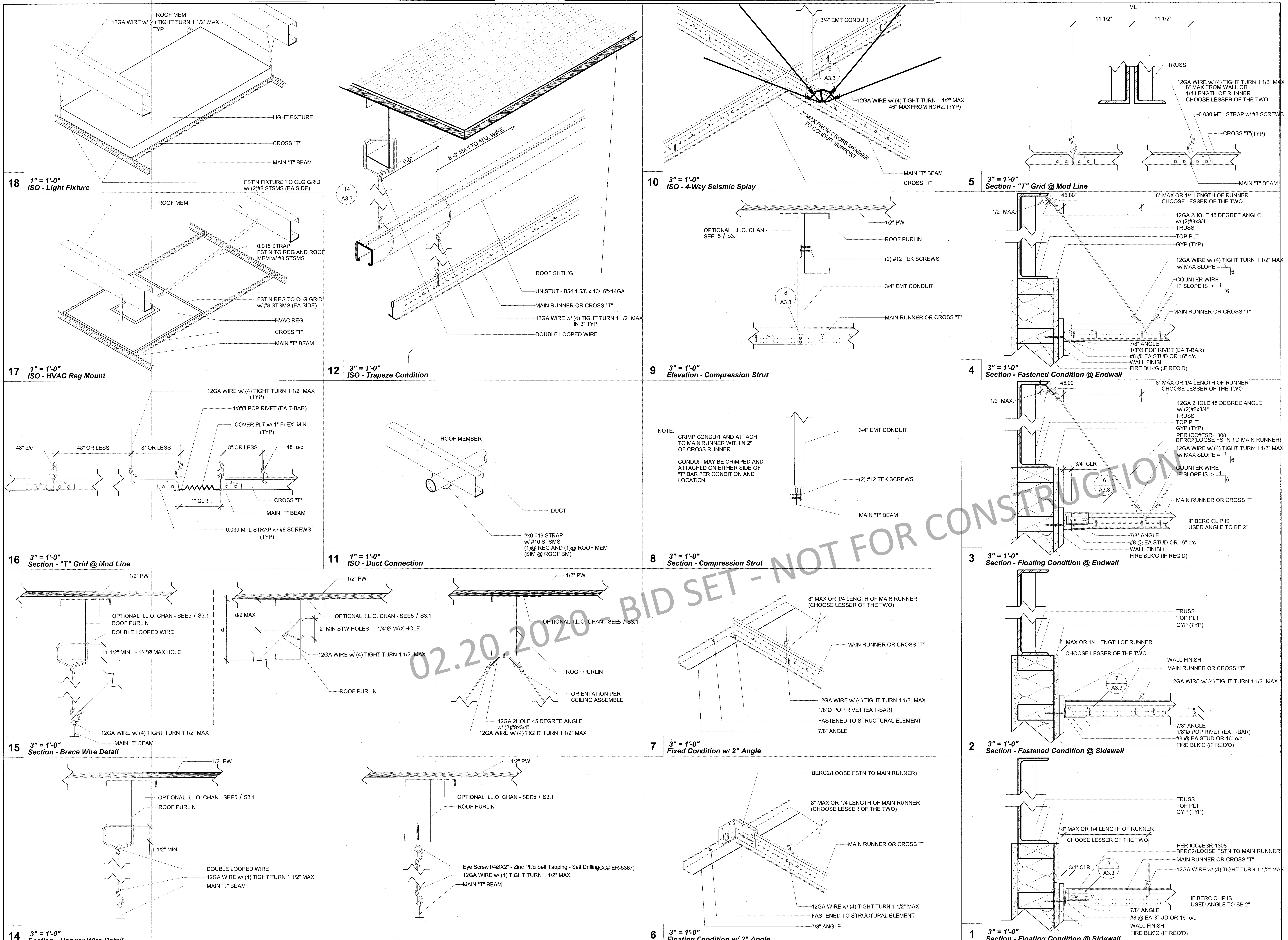

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DESIGN • CONSULTING • PROJECT
www.rstavares.com

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REGISTERED PROFESSIONAL ENGINEER MANNY D. FR... S3380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

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1221 Harley Knox Boulevard
Perris, CA 92571

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IDENTIFICATION STAMP
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ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

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SHEET TITLE

CEILING DETAILS
(T-GRID)

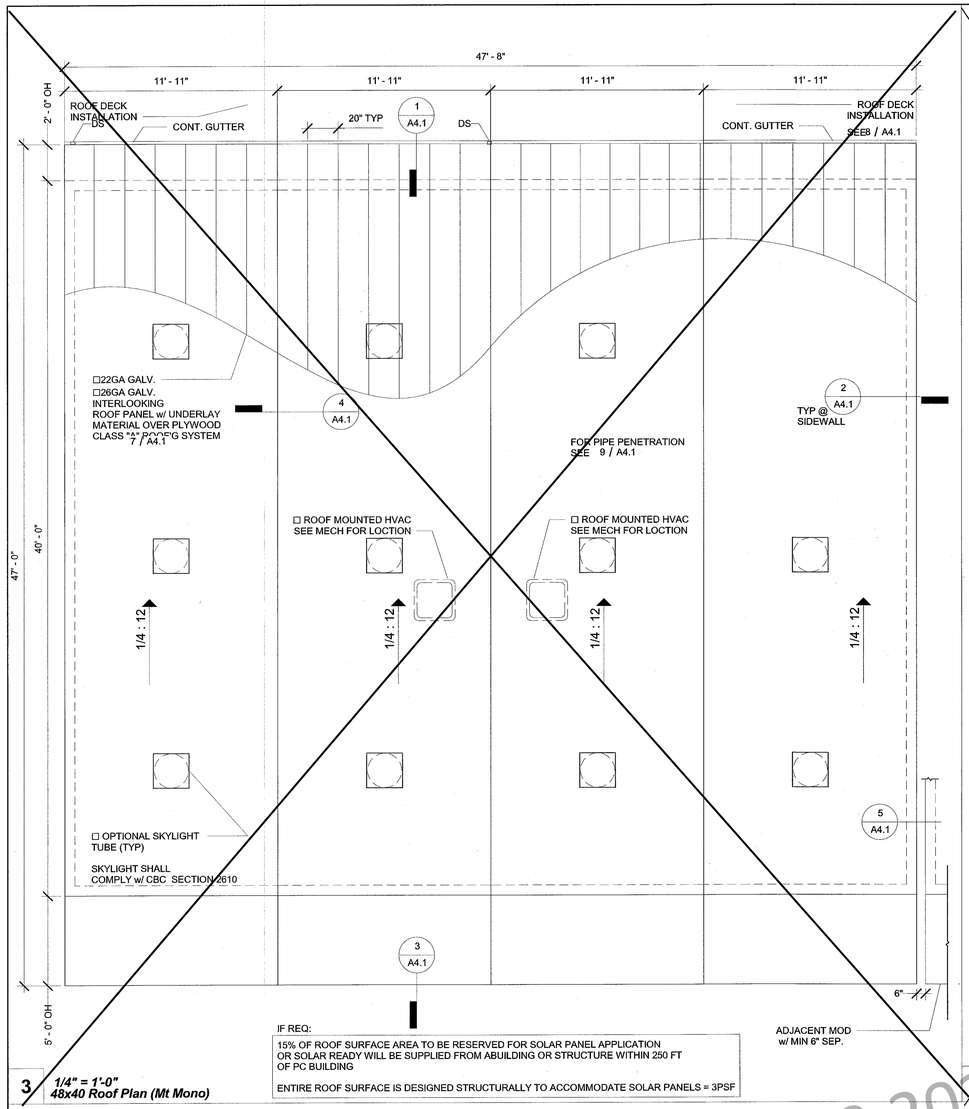
PROJECT NUMBER
17016A

DRAWN BY
rMe/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A3.3

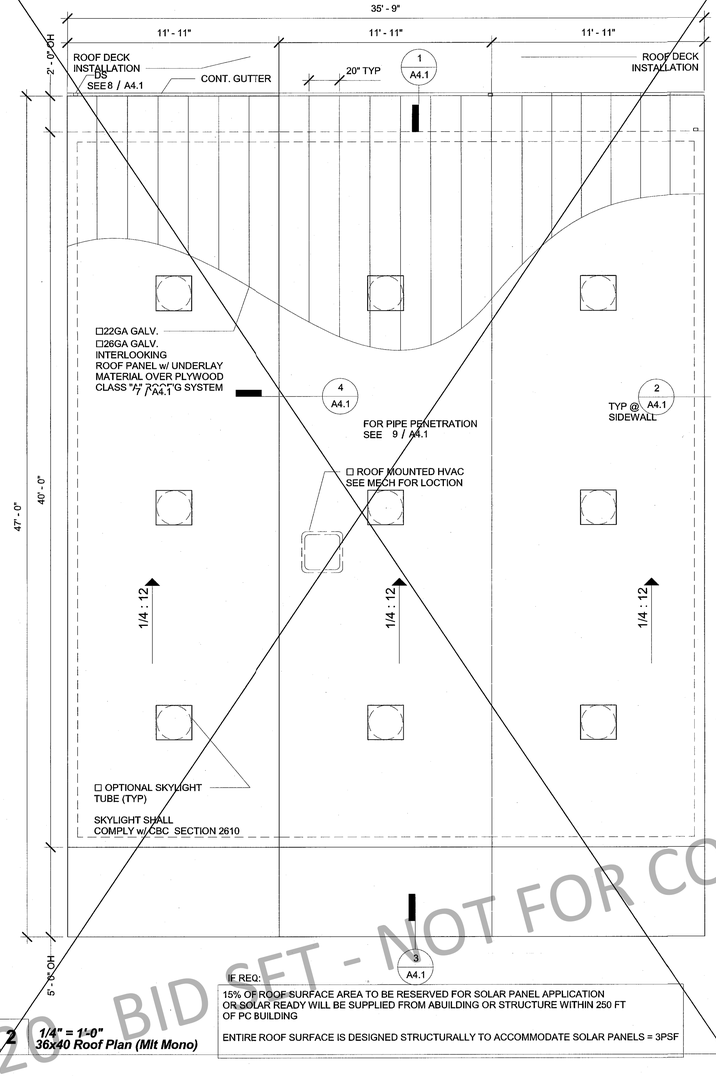


IF REQ:

15% OF ROOF SURFACE AREA TO BE RESERVED FOR SOLAR PANEL APPLICATION OR SOLAR READY WILL BE SUPPLIED FROM ABUILDING OR STRUCTURE WITHIN 250 FT OF PC BUILDING

ENTIRE ROOF SURFACE IS DESIGNED STRUCTURALLY TO ACCOMMODATE SOLAR PANELS = 3PSF

3 ***1/4" = 1'-0"***
48x40 Roof Plan (Mt Mono)



IF REQ:

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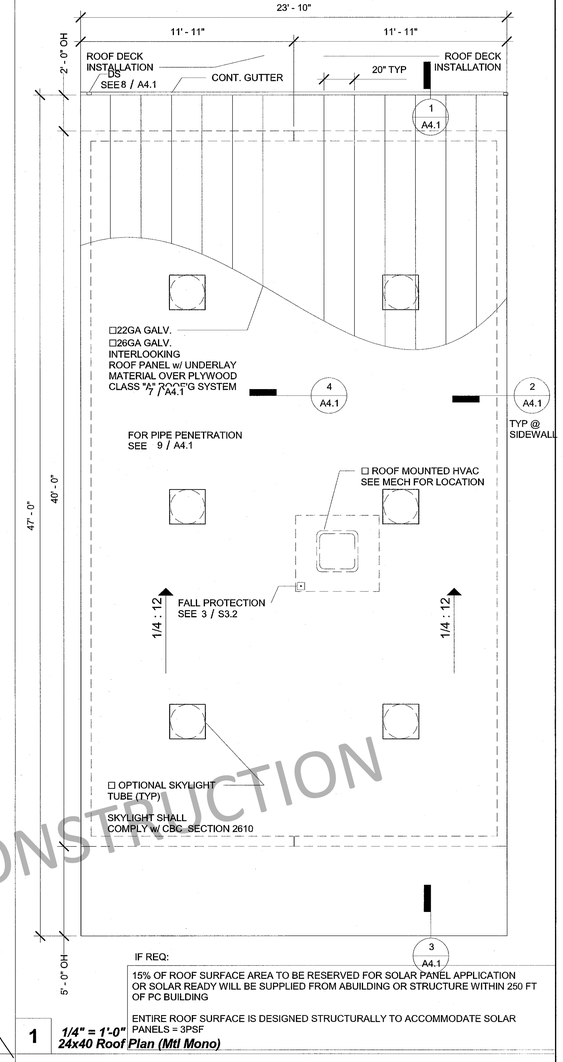
2 ***1/4" = 1'-0"***
36x40 Roof Plan (Mlt Mono)



IF REQ:

15% OF ROOF SURFACE AREA TO BE RESERVED FOR SOLAR PANEL APPLICATION OR SOLAR READY WILL BE SUPPLIED FROM ABUILDING OR STRUCTURE WITHIN 250 FT OF PC BUILDING

ENTIRE ROOF SURFACE IS DESIGNED STRUCTURALLY TO ACCOMMODATE SOLAR PANELS = 3PSF

1 ***1/4" = 1'-0"***
24x40 Roof Plan (Mtl Mono)

NOTE: PER CBC 1015.6, - EXCEPTION, GUARDRAILS ARE NOT REQUIRED WHERE PERMANENT FALL RESTRAINT ANCHORAGE DEVICES ARE AFFIXED & SHALL BE PLACED NOT MORE THAN 10FT FROM THE ROOF EDGE.

PV AREA FOR FIRE ACCESS REQ'T (PER IR 16-8)

3.2.1 General Requirements: A PV System shall be typically considered equipment. There is typically not an occupancy group classification, building area limitation, or type of construction assignment to a PV system.
a) PV equipment supported by non-combustible framing installed in locations dedicated for building frontage used for area increases per California Building Code (CBC), Chapter 5, Section 506, shall be limited in size and may be allowed on a case by case basis. Maximum area that may be allowed for such systems shall not exceed 1/3 of the horizontal projected area of each frontage.
b) Open sided PV systems and framing that are non-combustible and without use underneath may be considered equipment and may be placed next to DSA IR 16-8 Solar Photovoltaic and Thermal
(updated 01-25-17) Systems Review and Approval Requirements Page 11 of 19 property lines. Signs may be required on or near the system prohibiting any use or storage underneath the equipment.
c) Combustible PV systems and framing and those with use underneath such as for assembly or parking, may need to comply with 2010 CBC, Table 602. These structures may include those that do and that do not have a roof underneath the PV system.
d) PV systems (both the frame and the array) shall not be placed in fire department access roads. (Per Title 24 CCR, Division 1, Chapter 1, Section 3.05 and 2010 CFC Chapter 5, Section 503.)
e) Access to a public way or safe dispersal area shall not be obstructed by the system or system framing. (CBC 1027.6 and 442.3)
f) PV systems that cover a lunch area or similar (occupant load less than 50), that are not used for assembly purposes shall be considered equipment. Playgrounds would also fall into this category regardless of total occupant load.
g) Any PV system that is installed above an assembly use (i.e. Group A-3 or A-5 occupancy classification) shall be considered an open sided building structure and all or portions of CBC provisions apply on a case by case basis. Such areas might include an outdoor amphitheater, bleacher or grandstand seating with concentrated occupant loads and heavy use.
h) Fire Department concern for the installation of roof mounted PV systems will be addressed by DSA review to the State Fire Marshal Solar Photovoltaic Installation Guideline available at:
http://osfm.fire.ca.gov/pdf/reports/solarphotovoltaicguideline.pdf
i) When a PV system, without riser framework, is installed directly on a rated roof assembly with a required classification greater than "Class C" found in CBC, Chapter 15, and f

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

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12/19/2017

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1221 Harley Knox Boulevard
Perris, CA 92571

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PRE-CHECK (PC) DOCUMENT
Code: | 2016 | CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2018

Revision Schedule

#	Description	Date

SHEET TITLE
ROOF PLAN MONO
SLOPE (STANDING
SEAM)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A4.0.1

SHEET OF SHEETS

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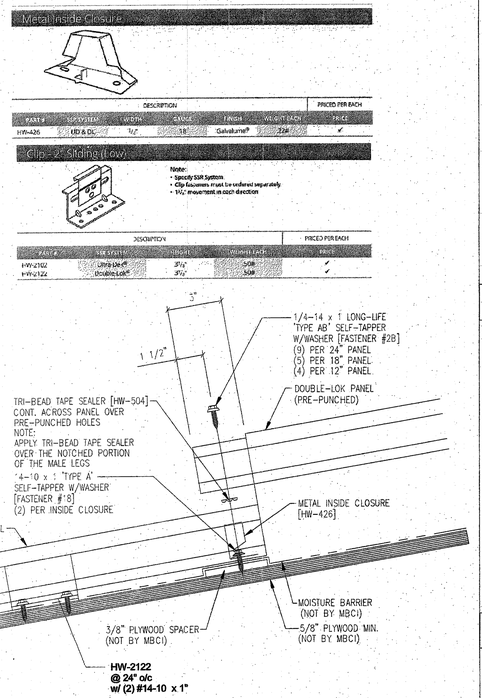
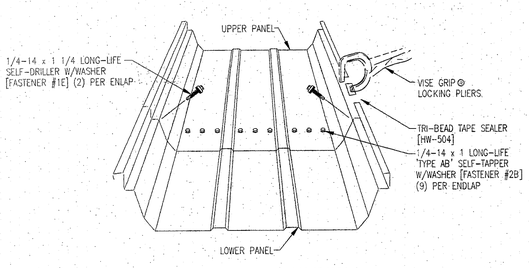
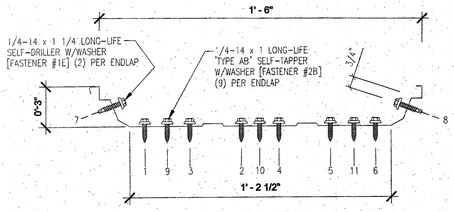




PANEL INSTALLATION SEQUENCE



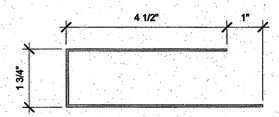
FASTENER SEQUENCE @ ENDLAP

18" DOUBLE-LOK 22GA STANDING SEAM PANEL BY MBCI

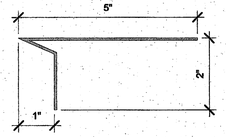
NEG		POS	
t	= 0.0299"	t	= 0.0299"
S_x	= 0.1846 IN³	S_x	= 0.2154 IN³
I_x	= 0.2718 IN⁴	I_x	= 0.4968 IN⁴
F_y	= 50 KSI	F_y	= 50 KSI

18" 26GA STANDING SEAM PANEL

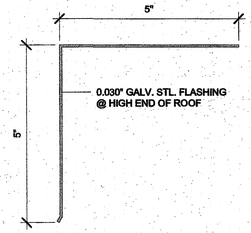
NEG		POS	
t	= 0.018"	t	= 0.018"
S_x	= 0.1383 IN³	S_x	= 0.7560 IN³
I_x	= 0.351 IN ⁴	I_x	= 0.351 IN ⁴
F_y	= 33 KSI	F_y	= 33 KSI



14 6" = 1'-0" **FLASHING @ ROOF HIGH SIDE**

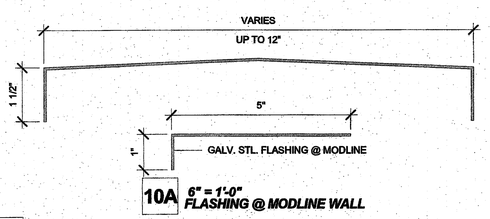


13 6" = 1'-0" **FLASHING @ ROOF LOW SIDE**



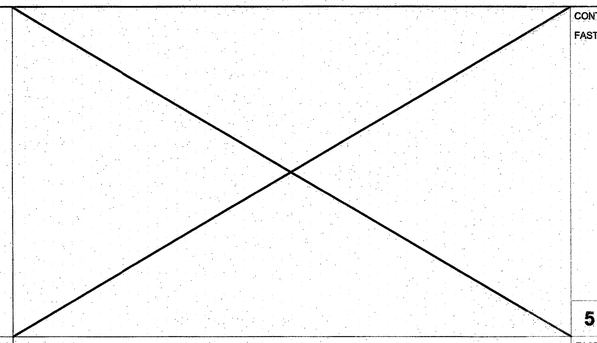
12 6" = 1'-0" **ROOF FLASHING**

11 6" = 1'-0" **ROOF FLASHING @ SIDEWALL**

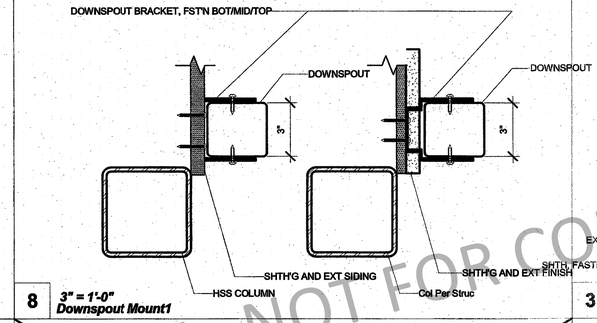


10A 6" = 1'-0" **FLASHING @ MODLINE WALL**

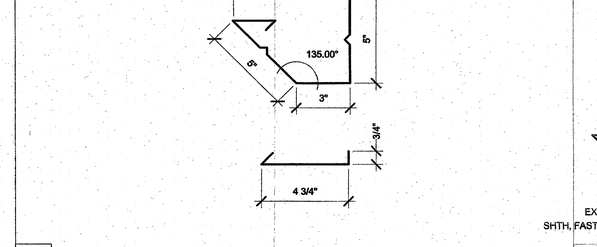
10 6" = 1'-0" **ROOF CAP @ MODLINE**



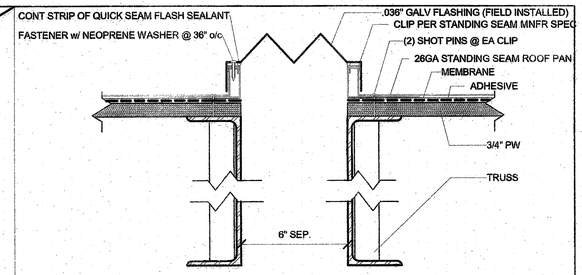
9 3" = 1'-0" ***Pipe Penetration Standing Seam*** ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



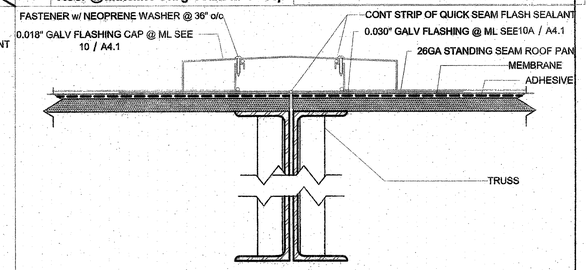
8 3" = 1'-0" ***Downspout Mount1***



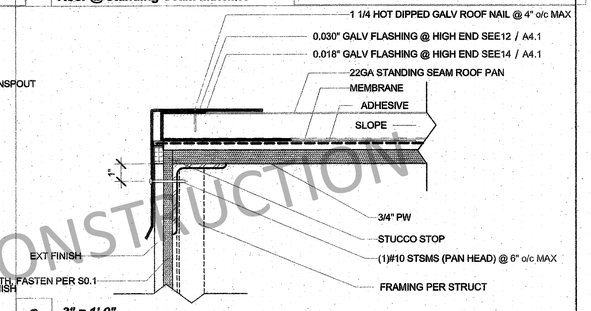
6 3" = 1'-0" ***Gutter and Strap1***



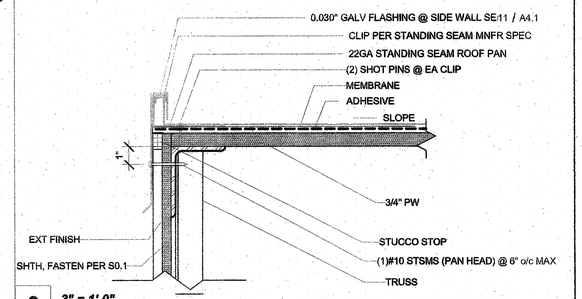
5 3" = 1'-0" ***Roof @ Mateline Std'g Seam w/ 6" Sep*** ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



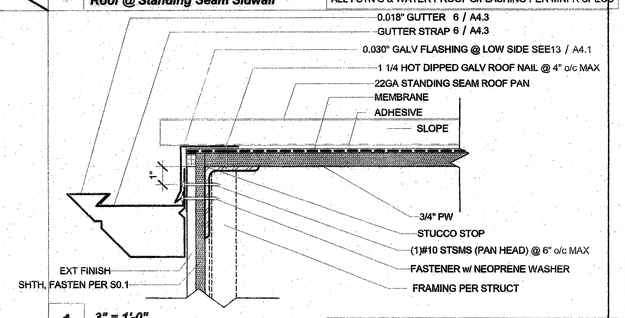
4 3" = 1'-0" ***Roof @ Standing Seam Mateline*** ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



3 3" = 1'-0" ***Roof @ Endwall Std'g Seam (High End)*** ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



2 3" = 1'-0" ***Roof @ Standing Seam Sidwall*** ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



1 3" = 1'-0" ***Roof @ Endwall Std'g Seam (Low End)*** ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

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PROJECT TITLE

24' x 40'
EXPANDABLE TO
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PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

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04 118239
ACS FLS SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE

ROOF DETAILS
(STANDING SEAM)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

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JA/RT

DATE
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SHEET NO.
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SHEET OF SHEETS

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Ext. Finish Schedule

	Finishes	Sheet	Notes
☒	SIDING OVER WD STUDS	A2.1	
☐	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.2	
☐	SIDING OVER STL STUDS	A2.3	
☐	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.4	

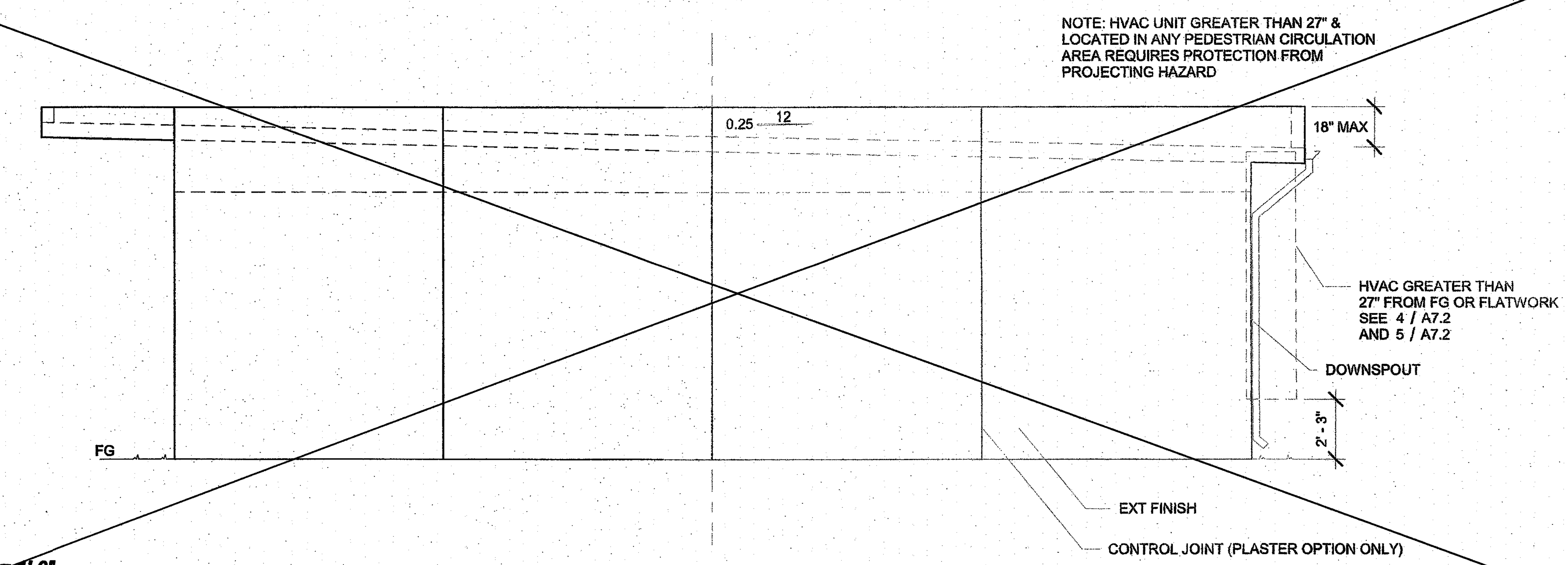
9 *1/4" = 1'-0"* ***Ext. Finish Scedule***

Fire Rating Schedule

	Rating	Sheet	Notes
☐	1 HOUR - SIDING OVER WD STUDS	A2.5	
☐	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.6	
☐	1 HOUR - SIDING OVER STL STUDS	A2.7	
☐	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.8	

SEE A3.0 FOR ADDITIONAL FIRE ASSEMBLY NOTES AND DETAILS

10 *1/4" = 1'-0"* ***Fire Rating Scedule***



4 *1/4" = 1'-0"* ***Right Elevation (Mono w/ Parapet)***

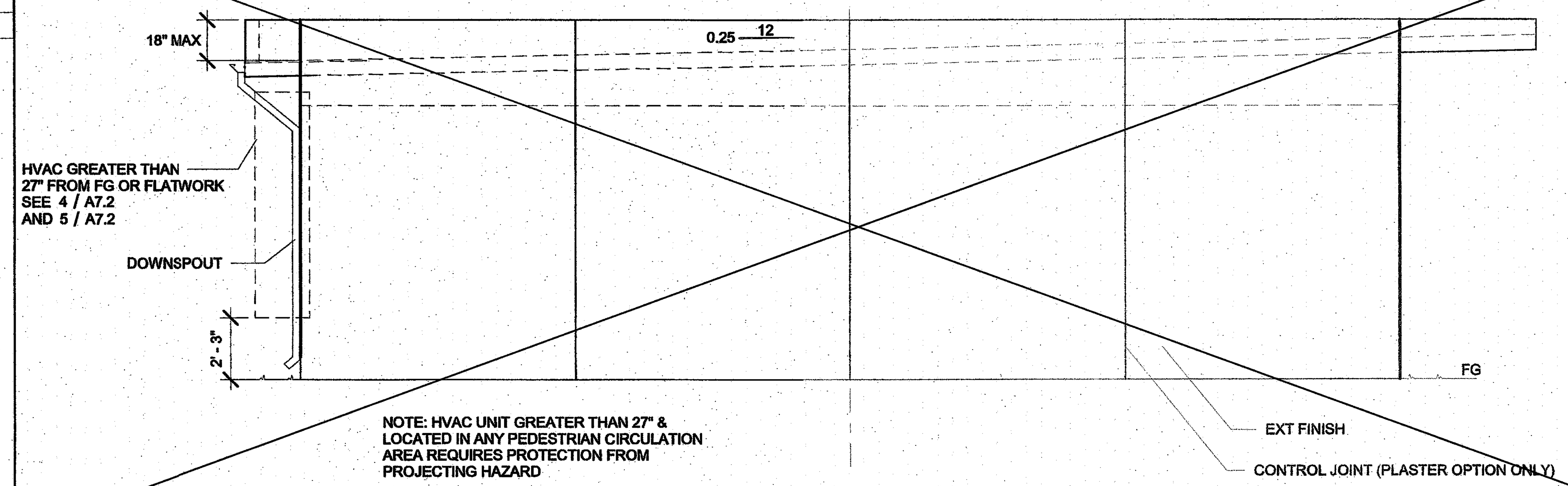
SEE A0.1 FOR GENERAL NOTES

7 *3" = 1'-0"* ***Notes A5.0***

Wall Schedule

	Stud Size	Sheet	Notes
☒	Wood Wall Stud	S4.5	
☐	Mtl Wall Stud	S4.5	CONTINUOUS EXT R-4 INSULATION

8 *1/4" = 1'-0"* ***Wall Schedule***



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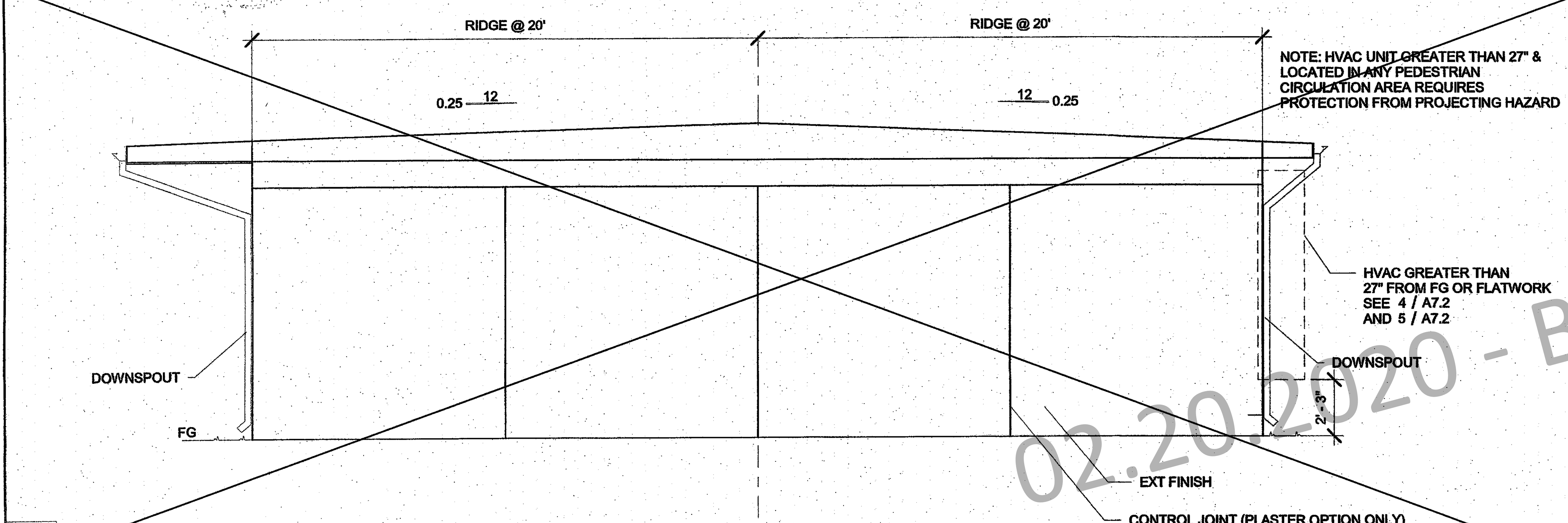
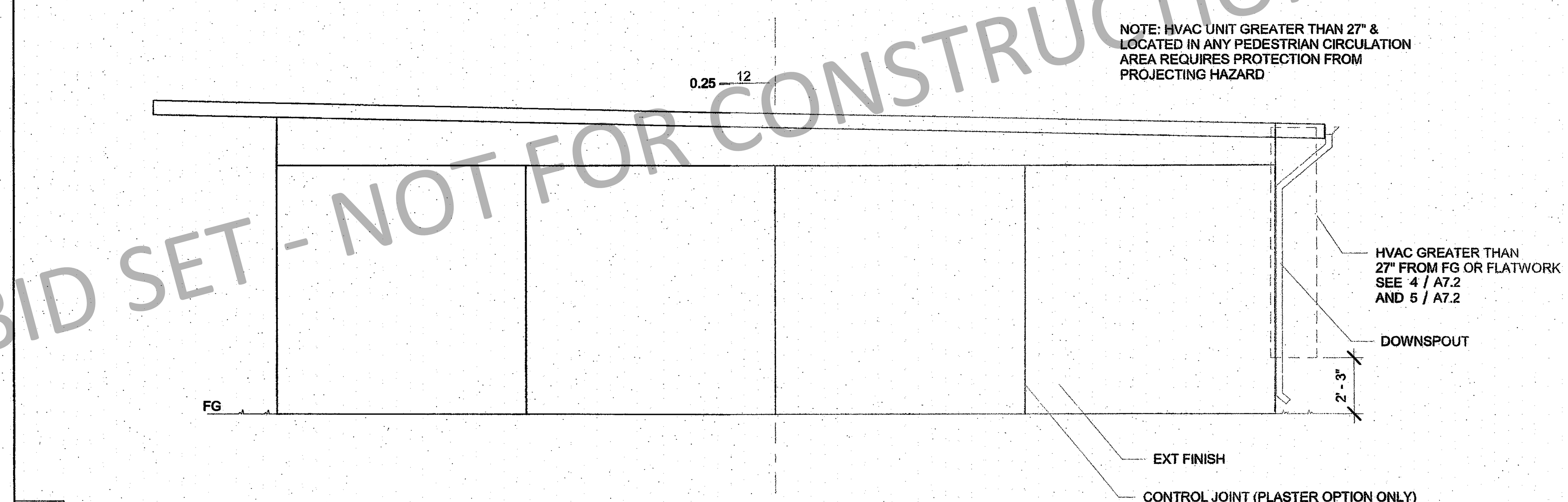
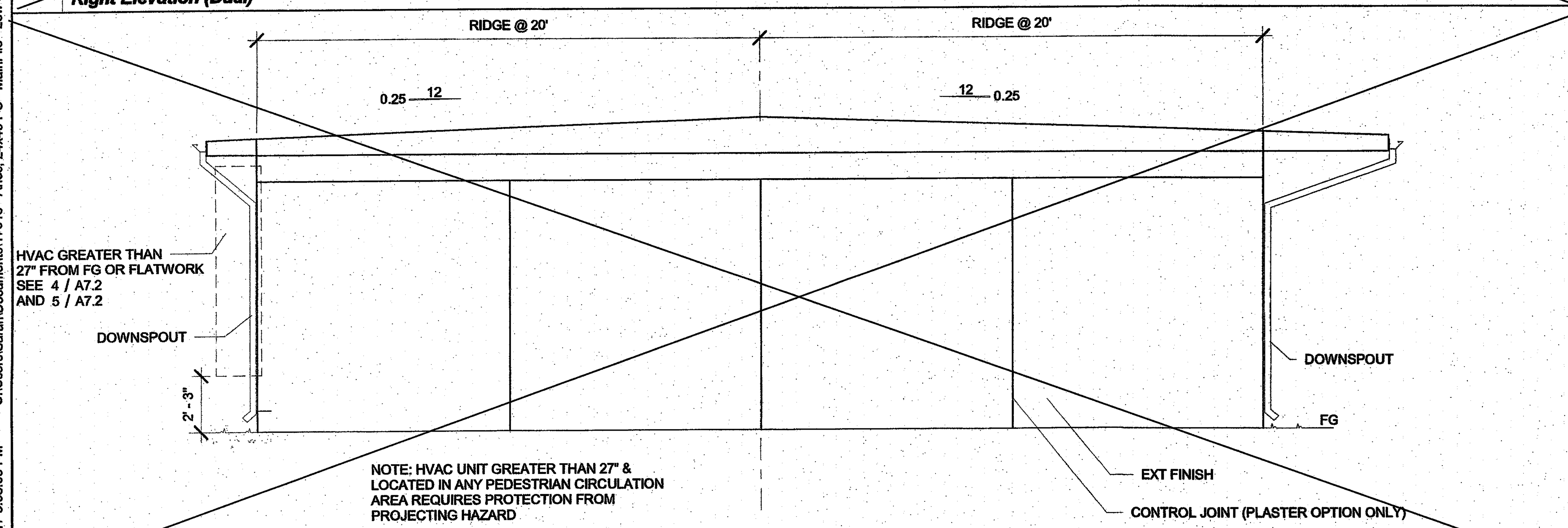


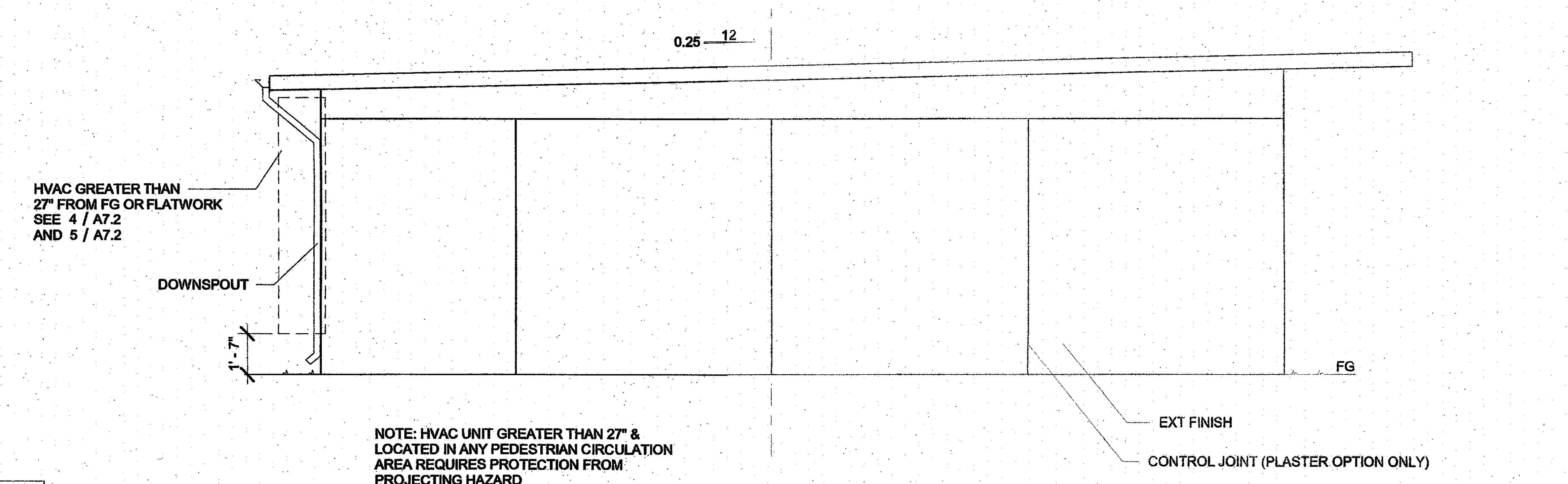
6 *1/4" = 1'-0"* ***Right Elevation (Dual)***



2 *1/4" = 1'-0"* ***Right Elevation (Mono)***



5 *1/4" = 1'-0"* ***Left Elevation (Dual)***



1 *1/4" = 1'-0"* ***Left Elevation (Mono)***

R&S TAVARES ASSOCIATES
DESIGN + CONSULTING + PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FR... No. S3800 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC_RM_ FLS_EA_ SSR_KER
DATE 07/19/2018

PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS ✓ FLS — SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE

SIDEWALL ELEVATION

PROJECT NUMBER 17016A

DRAWN BY rMc/SC

CHECKED BY JA/RT

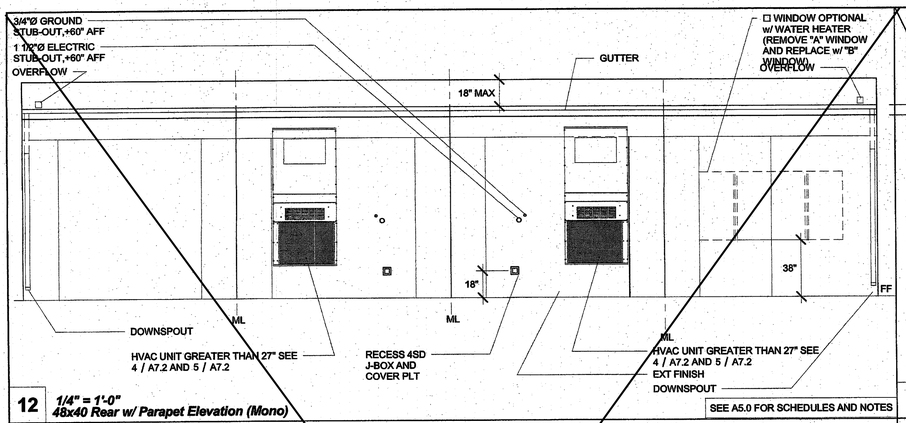
DATE 2017/06/05

SHEET NO.

A5.0

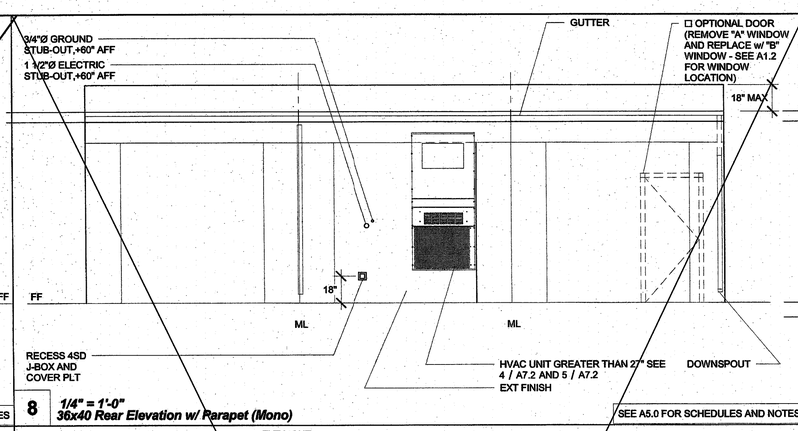
SHEET OF SHEETS

12/18/2017 3:38:05 PM C:\Users\Sarah\Documents\17016 - Aries_24x40 PC - MainFile - Low Seismic_Sarah.rvt



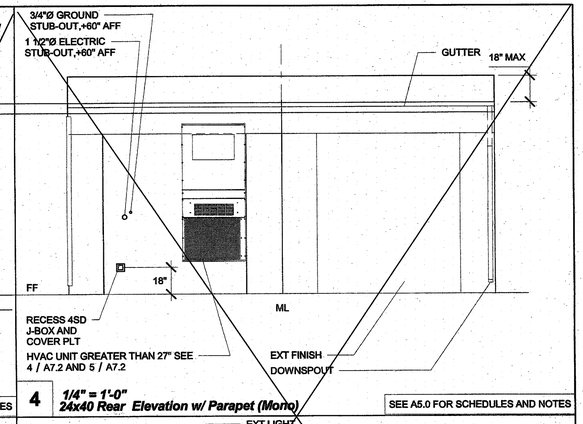
12 *1/4" = 1'-0"*
48x40 Rear w/ Parapet Elevation (Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



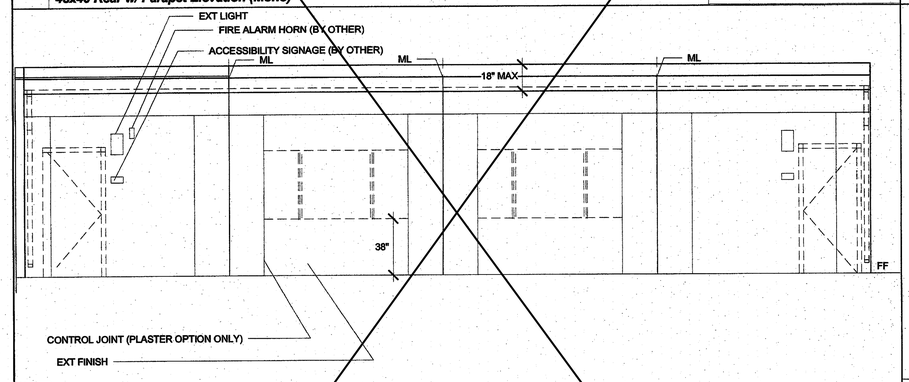
8 *1/4" = 1'-0"*
36x40 Rear Elevation w/ Parapet (Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



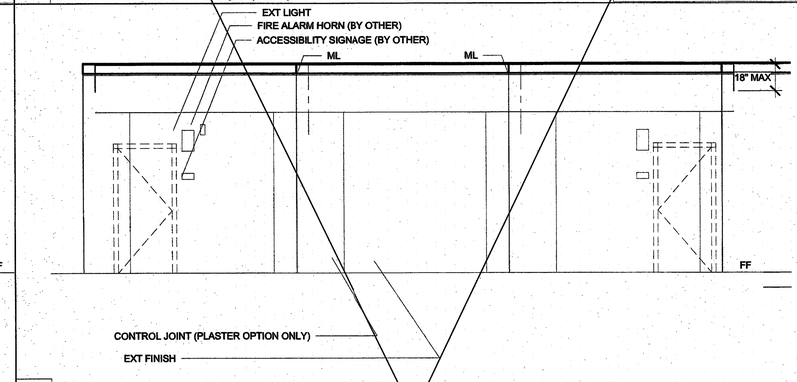
4 *1/4" = 1'-0"*
24x40 Rear Elevation w/ Parapet (Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



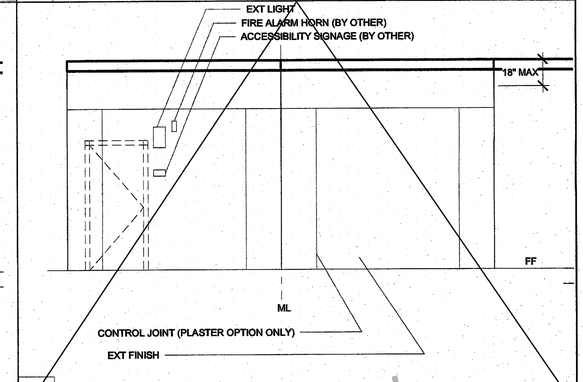
11 *1/4" = 1'-0"*
48x40 Front w/ Parapet Elevation (Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



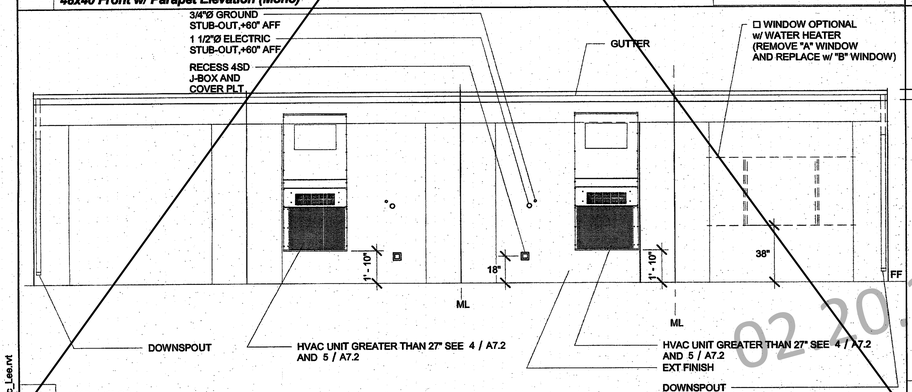
7 *1/4" = 1'-0"*
36x40 Front Elevation w/ Parapet (Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



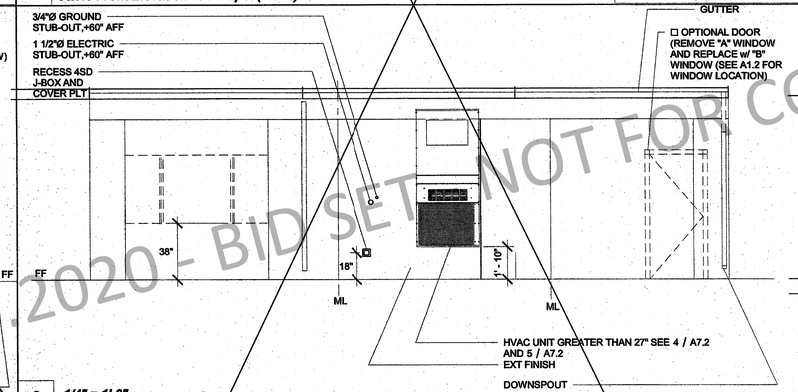
3 *1/4" = 1'-0"*
24x40 Front Elevation w/ Parapet (Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



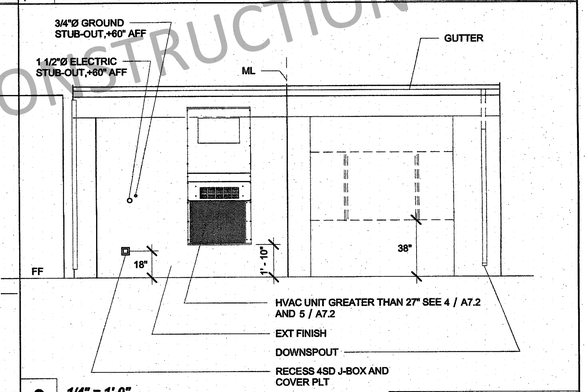
10 *1/4" = 1'-0"*
48x40 Rear Elevation (Dual/Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



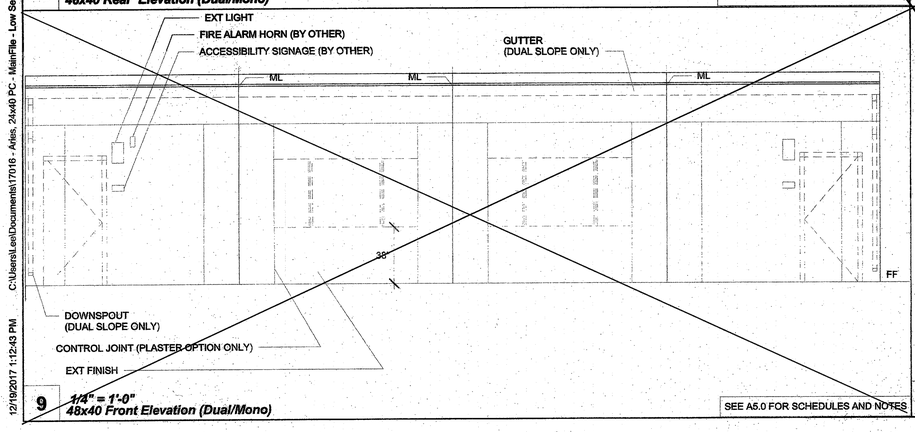
6 *1/4" = 1'-0"*
36x40 Rear Elevation (Dual/Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



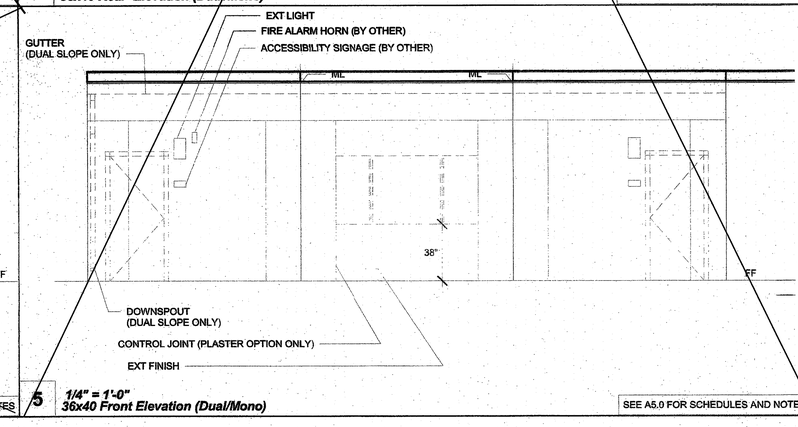
2 *1/4" = 1'-0"*
24x40 Rear Elevation (Dual/Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



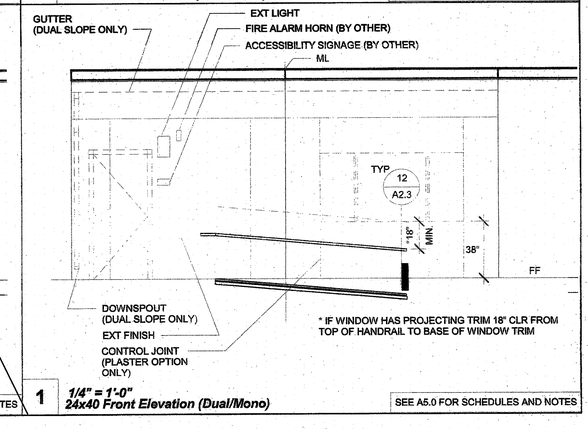
9 *1/4" = 1'-0"*
48x40 Front Elevation (Dual/Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



5 *1/4" = 1'-0"*
36x40 Front Elevation (Dual/Mono)

SEE A5.0 FOR SCHEDULES AND NOTES



1 *1/4" = 1'-0"*
24x40 Front Elevation (Dual/Mono)

SEE A5.0 FOR SCHEDULES AND NOTES

R&S TAVARES ASSOCIATES
DESIGN ❖ CONSULTING ❖ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER — MANNY D. FRANCISCO — No. S-3360 — STRUCTURAL — STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE

ENDWALL ELEVATIONS

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A5.1

SHEET OF SHEETS

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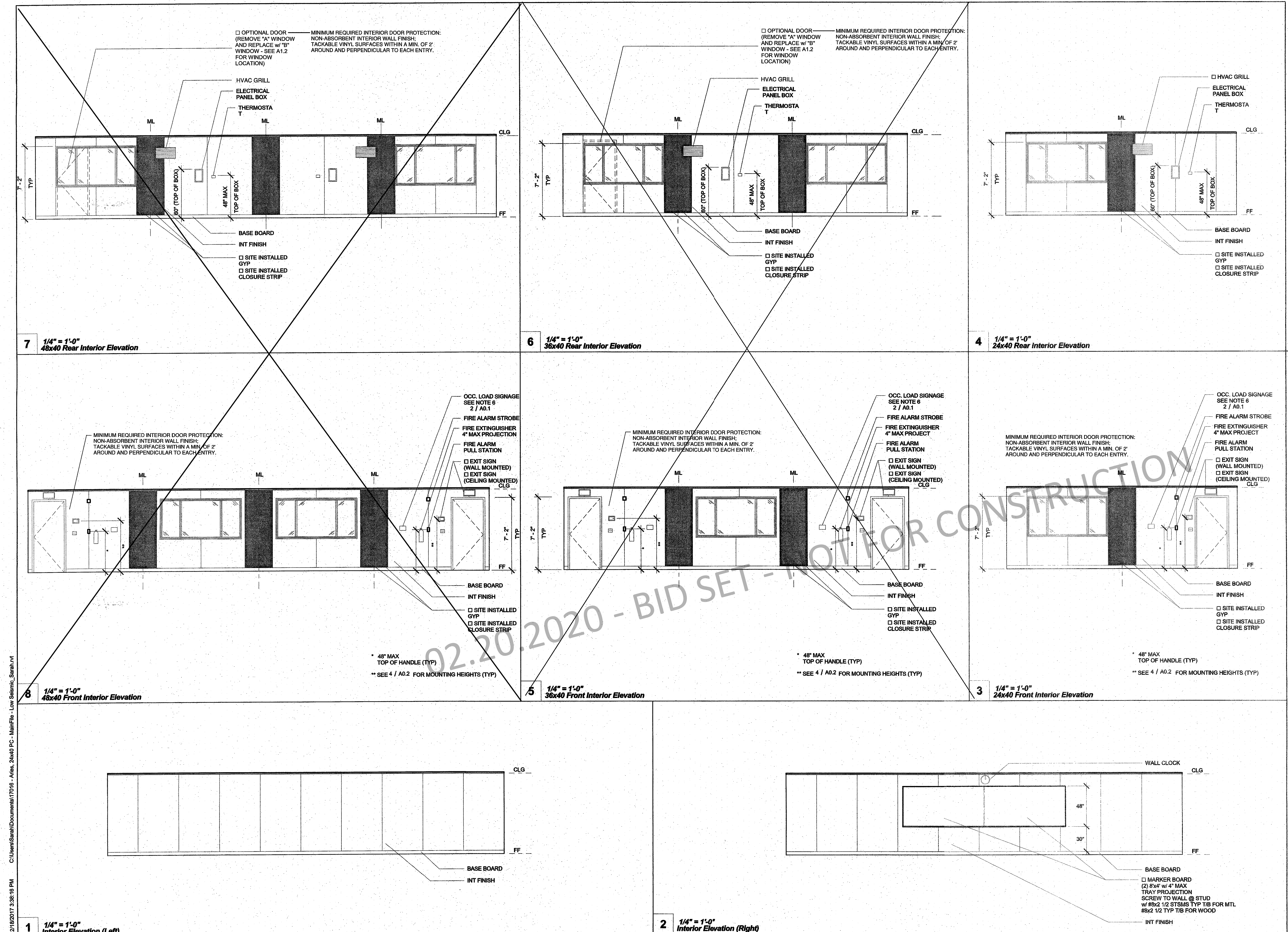


R&S TAVARES ASSOCIATES
DESIGN + CONSULTING + PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE

INTERIOR ELEVATIONS

PROJECT NUMBER
17016A

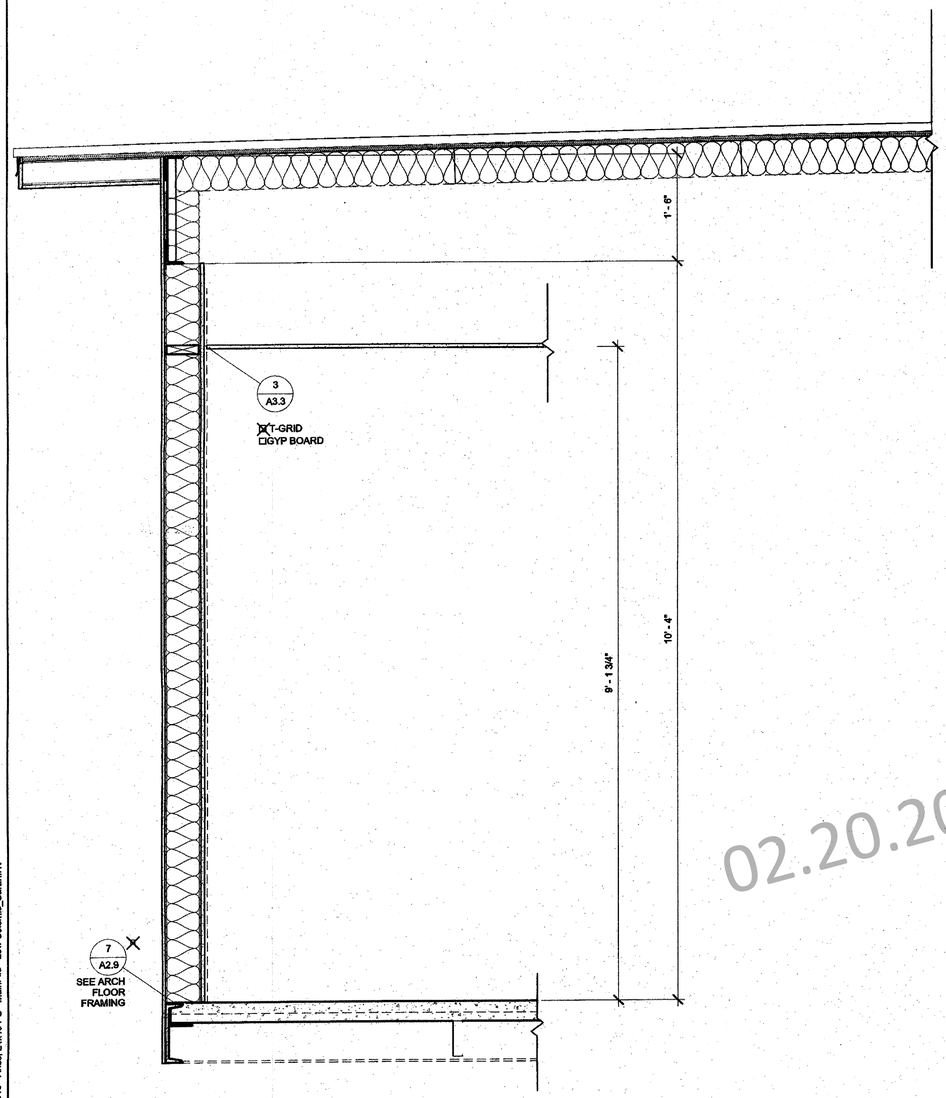
DRAWN BY
rMc/SC

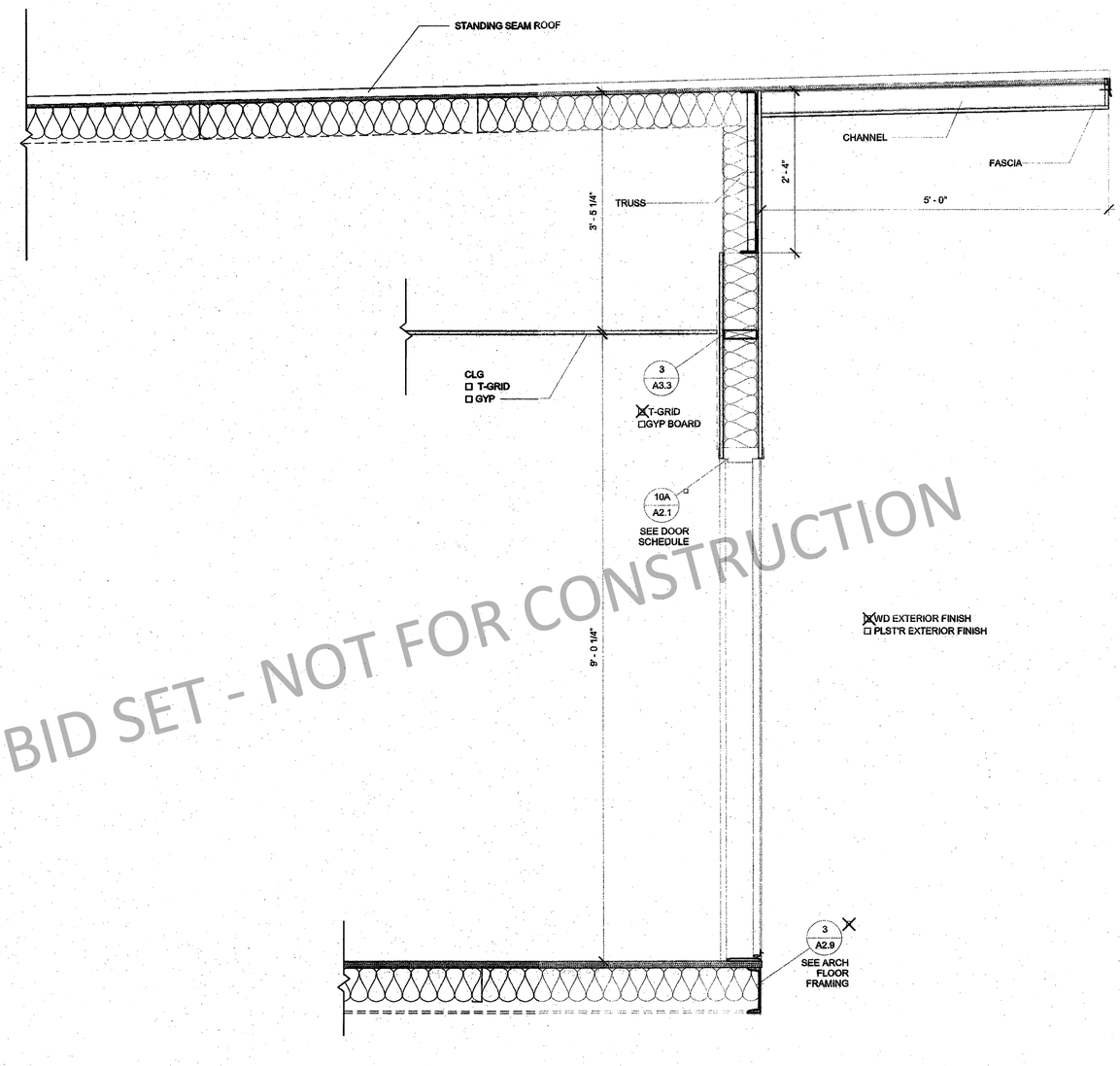
CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A5.2

SHEET OF SHEETS





1 1" = 1'-0" Section (EPDM)2

12/18/2017 3:38:16 PM C:\Users\Sarah\Documents\17016 - Arlee, 24x40 PC - MainFile - Low Seismic_Sarah.rvt

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DESIGN ✦ CONSULTING ✦ PROJECT
11770 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO 24380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
SECTION -
STANDING SEAM
(MONO)

PROJECT NUMBER
17016A

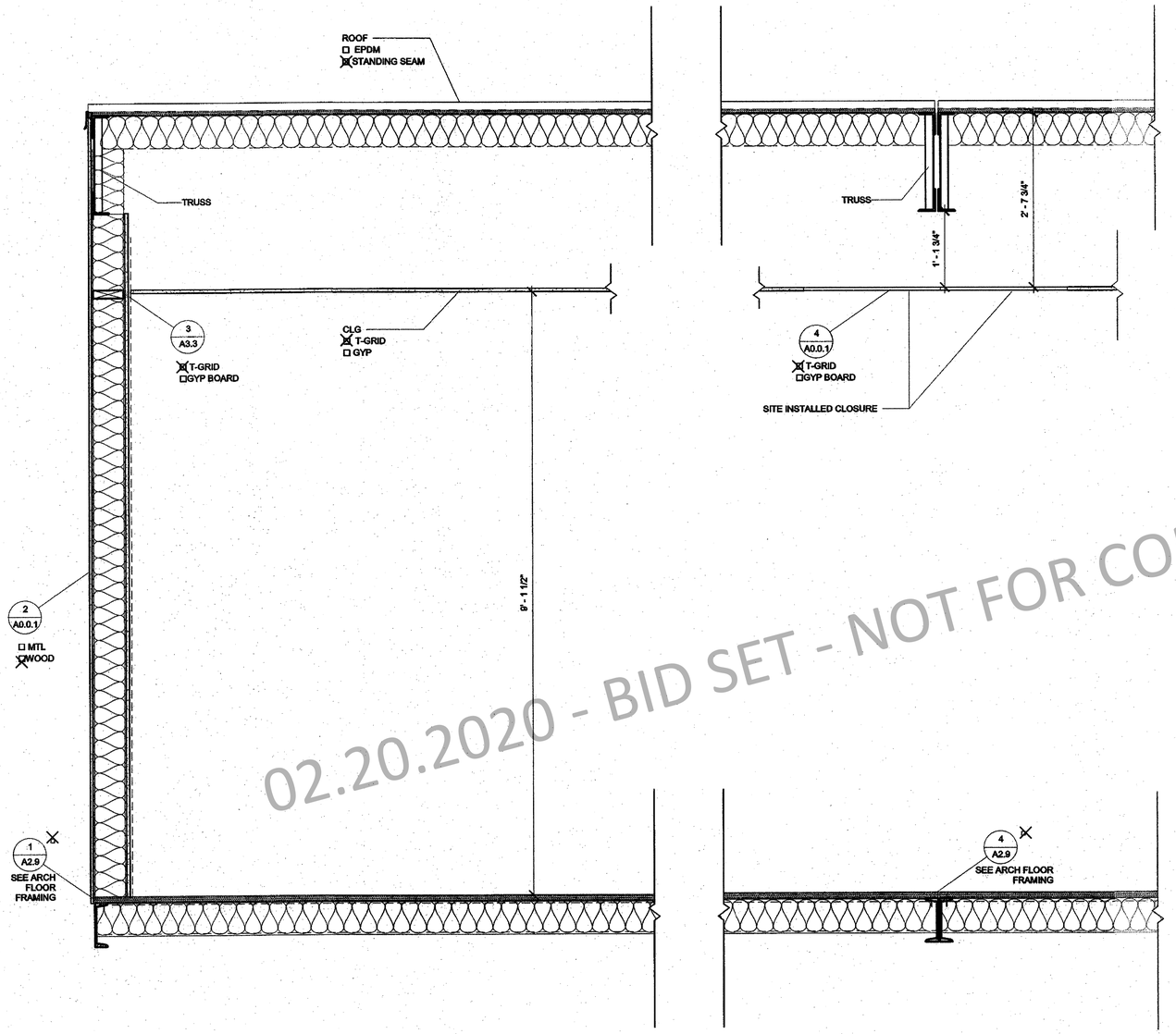
DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A6.0

SHEET OF SHEETS



1 **1" = 1'-0"**
Latitudinal Section

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DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

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12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
SECTION

PROJECT NUMBER
17016A

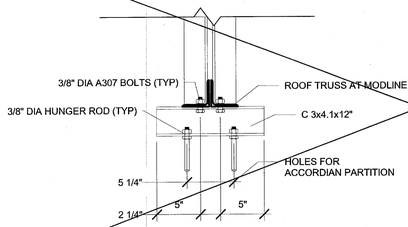
DRAWN BY
rMc/SC

CHECKED BY
JA/RT

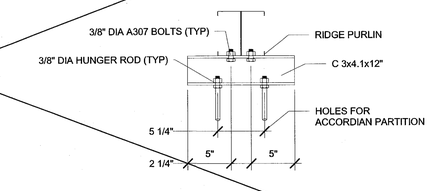
DATE
2017/06/05

SHEET NO.
A6.2

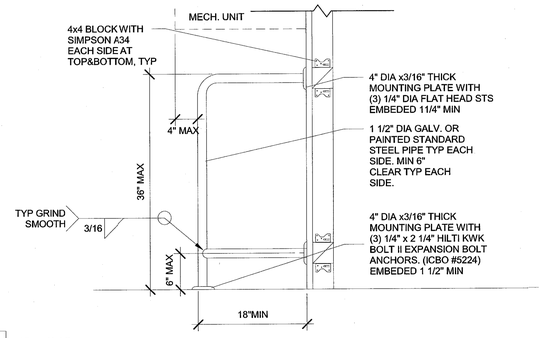
SHEET OF SHEETS



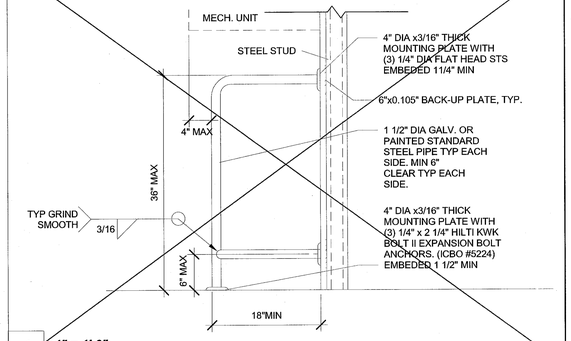
2 *1 1/2" = 1'-0"*
ACCORDIAN DOOR - TOP CONN AT TRUSS



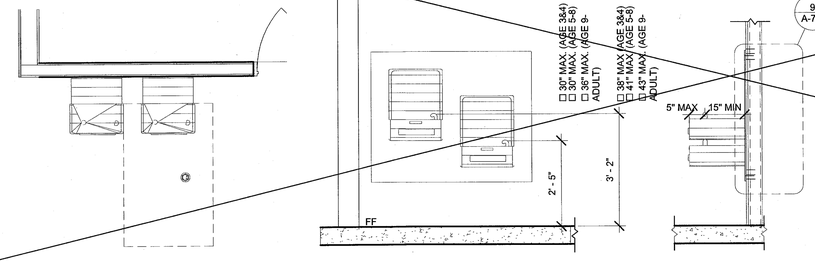
1 *1 1/2" = 1'-0"*
ACCORDIAN DOOR - TOP CONN AT PURLIN

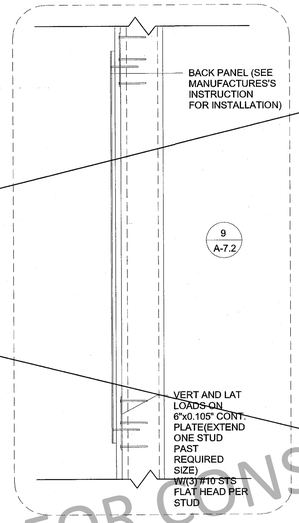


5 *1" = 1'-0"*
HVAC BARRIER at wood stud

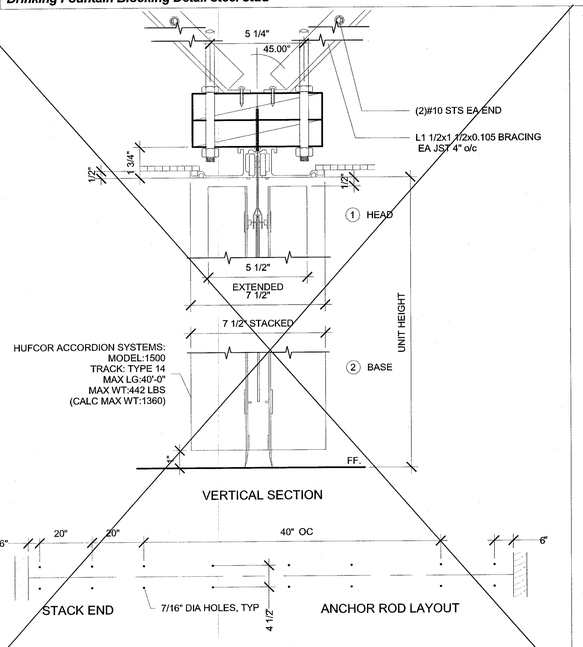


4 *1" = 1'-0"*
HVAC BARRIER at steel stud

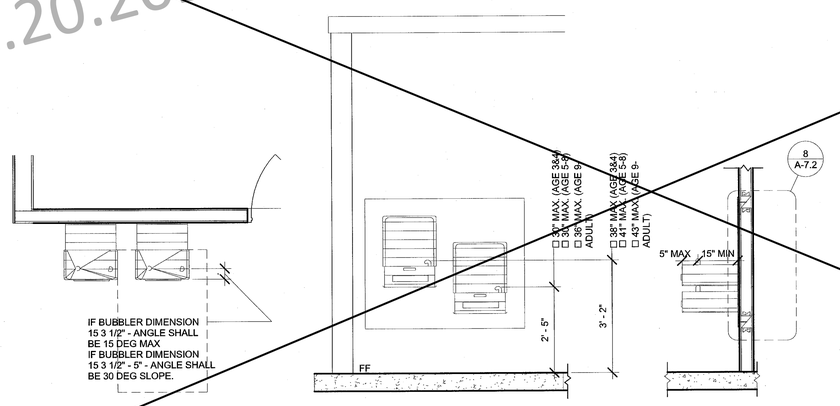


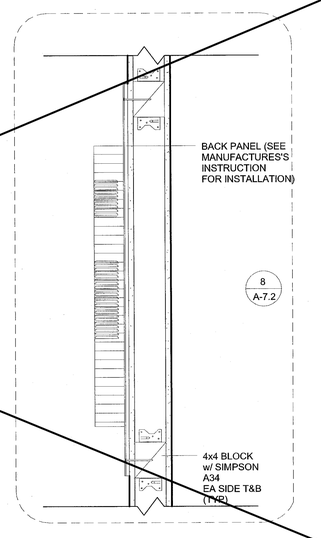


6 *1/2" = 1'-0"*
Drinking Fountain Blocking Detail steel stud



3 *3" = 1'-0"*
ACCORDION PARTITION ATTACHMENT





7 *1/2" = 1'-0"*
Drinking Fountain Blocking Detail wood stud

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO C-52380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2018

Revision Schedule

#	Description	Date

SHEET TITLE
ADDITIONAL
OPTION DETAILS

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
A7.2

SHEET OF SHEETS

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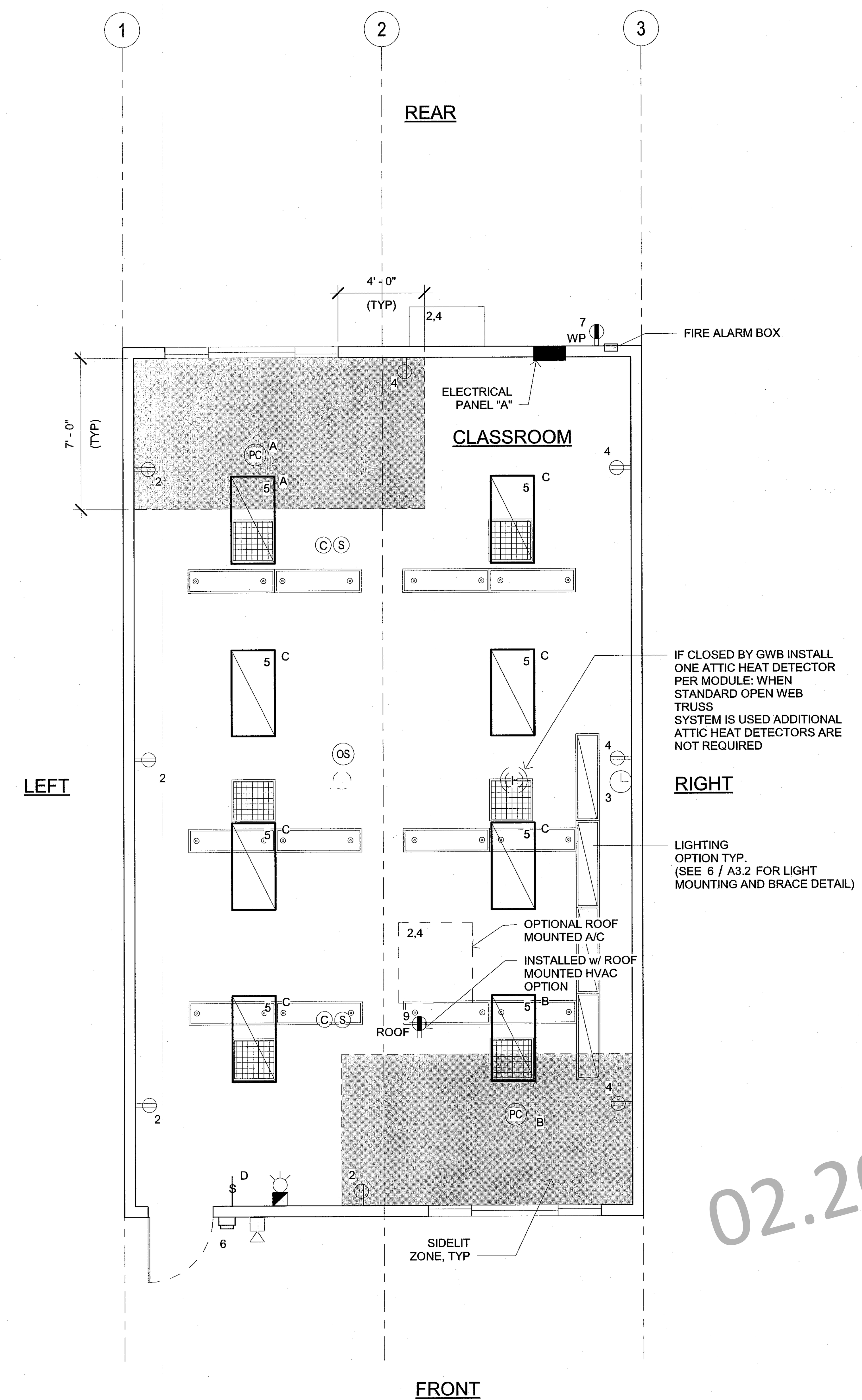
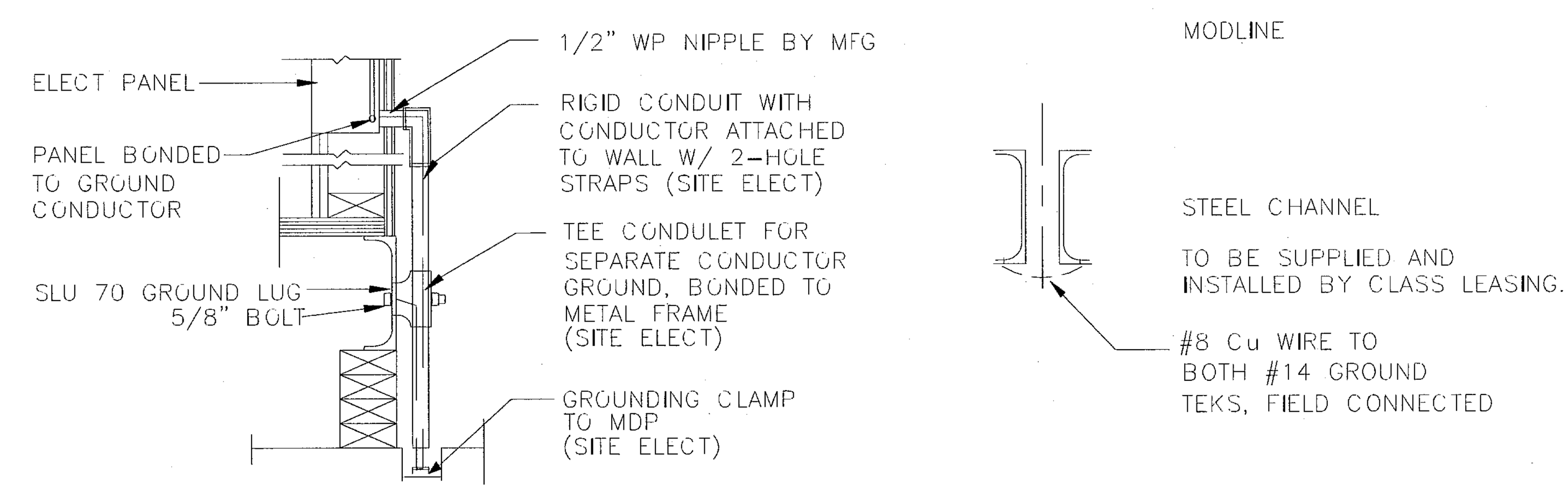
1/4/2018 12:17:31 PM



NOTE: PROVIDE A MINIMUM OF 72 SF SOLAR READY AREA PER MODULE. AREA TO BE A MINIMUM OF 5' IN ANY DIRECTION WITH A MINIMUM SPACE OF 80 SF PER BUILDING.

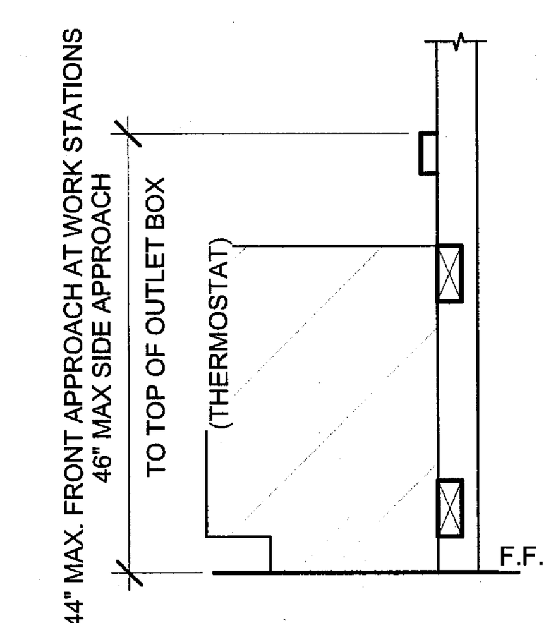
1 — *1/4" = 1'-0"* **ELECTRICAL PLAN**



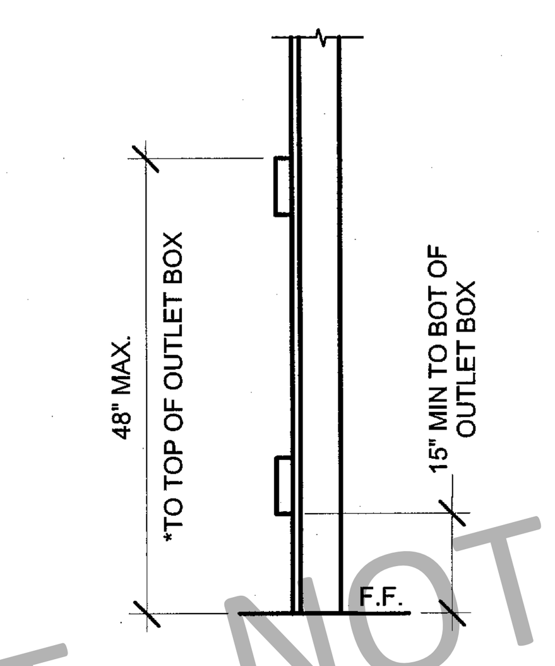
NOTES:

1. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELEC'L. PANEL & TO METAL BUILDING FRAME (CEC 250.52) IN ADDITION TO THE DETAIL SHOWN ABOVE. BOND THE ELECTRICAL GROUND TO METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10 FT. OR MORE, IF AVAILABLE (CEC 250.52)
2. CHECK RESISTANT TO GROUND ROD. IF RESISTANCE EXCEEDS 25 OHMS. INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (CEC 250.56).
3. ELEC. TRADE SHALL CHECK AREA FOR EXISTING CONDUITS, SEWER, GAS & WATER PIPING BEFORE DRIVING GROUND RODS.
4. ALL MODULES OF STEEL FRAME BLDGS. SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). BONDING SHALL INCLUDE METAL RAMP & STAIRS.
5. SIZE OF CONDUCTORS SHALL COMPLY WITH CEC TABLE 250.66

2 — *1 1/2" = 1'-0"* **TYPICAL GROUNDING DETAIL**

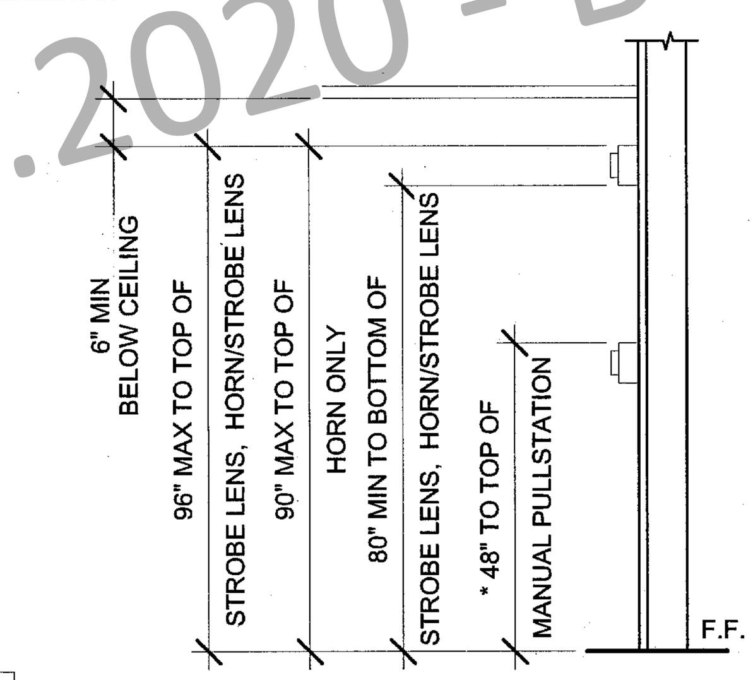


3 — *1" = 1'-0"* **ELEV. @ WORKSTATION**



* 30"x48" MIN CLR FLOOR SPACE AT EACH LOCATION FOR PERPENDICULAR APPROACH

4 — *1" = 1'-0"* **MOUTING ELEV.**



* PROVIDE MIN 30"x48" CLR FLOOR SPACE FOR PERPENDICULAR APPROACH AT EACH LOCATION

THE SWITCH OR SWITCHES INSTALLED IN EMERGENCY LIGHTING CIRCUITS SHALL BE SO ARRANGED THAT ONLY AUTHORIZED PERSONNEL WILL HAVE CONTROL OF EMERGENCY LIGHTING. (CEC art. 700.20)

5 — *1" = 1'-0"* **FIRE ALARM MOUNTING HEIGHTS**

GENERAL GROUNDING NOTES

EACH BUILDING SHALL BE GROUNDED SEPARARELY WITH A ¾" ROUND X 8 FEET COPPERCLAD STEEL GROUND ROD. WHERE ROCK BOTOOM IS FOUND, DRIVE ROD AT 45 DEGREES MAXIMUM FROM THE VERTICAL OR HAVE IT BURIED IN A TRENCH 30" DEEP MINIMUM.

TESTING FOR RESISTANCE TO GROUND, IF RESISTANCE EXCEEDS 25 OHMS INSTALL ADDITIONAL GROUND RODS SEPARATED AT LEAST 6 FEET, UNTIL RESISTANCE REDUCES TO 25 OHMS OR LESS. GROUND TEST MUST BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR AND ALL GROUNDING SHALL BE IN ACCORDANCE WITH CEC ARTICLE 250

EQUIPMENT ANCHORAGE

ALL MECHANICAL, PLUMBING AND ELECTRICAL 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 2013 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

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

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 STRUCTURAL ENGINEER OF RECORD 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, DUCTWORK AND ELECTRICAL SYSTEM BRACING OF

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION 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 SECTION 13.6.8, 13.6.7, 13.6.5.6 AND 2013 CBC SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AN BRACING OF THE PIPE, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

FIRE ALARM NOTES

PROVIDE SPACE ON ELECTRICAL PANEL FOR LOCK-ON BREAKER, IDENTIFIED WITH RED MARKING, FOR 120 VOLTS FIRE ALARM CIRCUIT, WITH BREAKER LABELED AS FIRE ALARM CIRCUIT, CEC 760.41 (B).
BREAKER AND CIRCUIT PROVIDED AND INSTALLED ON SITE BY OTHERS.

SMOKE AND HEAT DETECTOR CONDUIT AND DEVICES TO BE PROVIDED AND INTERCONNECTED TO THE FIRE ALARM SYSTEMS ON SITE BY OTHERS

APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF THIS FIRE ALARM SYSTEM FOR ALL SITES, THE FIRE ALARM SYSTEM AND COMPONENTS MAYBE REQUIRED TO BE CHANGED DUE TO EXISTING CONDITIONS OR INCOMPATIBLE COMPONENTS.

CONDUIT FILL AND CONDUCTOR CAPACITY TABLE

(ALL CONDUCTORS SHALL BE TYPE THHN/THWN 75 DEG. C. COPPER)

WIRE SIZE	CAPACITY	WIRE TYPE	NO. OF CONDUCTOR 1/2" C	3/4" C	1" C	1 1/4" C
#12	20A	THHN	9	16	25	45
#10	30A	THHN	5	10	16	28
#8	45A	THHN	2	5	8	14
#6	65A	THHN	1	3	5	10
#4	85A	THHN	1	2	4	7

JUNCTION BOX SIZE TABLE

BOX	SIZE	CU. IN.	MAX NO. OF CONDUCTORS #12	#10	#8	#6
4SS	1 1/4"x4" SQ	18.0	8	7	6	0
4S	1 1/2"x4" SQ	21.0	9	8	7	0
4SD	2 1/8"x4" SQ	30.3	13	12	10	6
4SX	2 7/8"x4" SQ	43.5	23	21	17	10
5SD	2 1/8"x4-11/16" SQ	42.0	18	16	14	6
5SX	3 7/8"x4-11/16" SQ	86.0	38	34	28	17
664	4"x6" SQ	144.0	64	57	48	28

* DEDUCT ONE CONDUCTOR FOR (1) OR MORE GROUNDING CONDUCTORS ENTERING THE BOX

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC_RM_ FLS_EA_ SSR_KER
DATE 07/19/2018

PROJECT TITLE
24' x 40' EXPANDABLE TO 120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: 2016 CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS ✓ FLS ✓ SS
DATE MAR 0 7 2018

Revision Schedule

#	Description	Date

SHEET TITLE
ELECTRICAL PLAN 24x40

PROJECT NUMBER 17016A
DRAWN BY rMc/SC
CHECKED BY JA/RT
DATE 2017/06/05
SHEET NO. E1.0
SHEET OF SHEETS

C:\Users\Lee\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Lee.rvt
1/4/2018 2:43:42 PM

PANEL A 24" x40"	120/208 VOLTS, 1 ϕ, 3 WIRE							MAIN LUGS ONLY		PANEL BOX= 100A
	LOADCENTER		SURFACE MOUNTED					GRD & NEUTRAL BARS		AMP BUS
	VOLTAMPS		10000 AIC					VOLTAMPS		
DESCRIPTION	ϕA	ϕB	C/B	CKT	ϕ	CKT	C/B	ϕA	ϕB	DESCRIPTION
AC WALL MOUNTED	6670		30	1	A	2	20	720		OUTLETS
		6670	30	3	B	4	20		720	OUTLETS
GENERAL LIGHTING	768		20	5	A	6	20	40		EXTERIOR LIGHT
EXTERIOR GFI/WP		180	20	7	B	8	20			
			20	9	A	10	20	40		FIRE ALARM
SUBTOTAL	ϕA 7390	ϕB 6850						ϕA 800	ϕB 720	SUBTOTAL
TOTAL	8190	7570	8190 /120 VOLTS= 68.25 76.25 AMPS + .94= 77.19 AMPS							

1 1" = 1'-0"
ELECTRICAL PANEL_WALL MOUNTED

PANEL A 24" x40"	120/208 VOLTS, 3 ϕ, 3 WIRE							MAIN LUGS ONLY		PANEL BOX= 100A
	LOADCENTER		SURFACE MOUNTED					GRD & NEUTRAL BARS		AMP BUS
	VOLTAMPS		10000 AIC					VOLTAMPS		
DESCRIPTION	ϕA	ϕB	C/B	CKT	ϕ	CKT	C/B	ϕA	ϕB	DESCRIPTION
AC Roof Mounted	7360		30	1	A	2	20	720		OUTLETS
		7360	30	3	B	4	20		720	OUTLETS
GENERAL LIGHTING	768		20	5	A	6	20	40		EXTERIOR LIGHT
EXTERIOR GFI/WP		180	20	7	B	8	20			
			20	9	A	10	20	40		FIRE ALARM
SUBTOTAL	ϕA 8080	ϕB 7540						ϕA 800	ϕB 720	SUBTOTAL
TOTAL	8880	8260	8880 /120 VOLTS= 74 74 AMPS + 18.5= 92.5 AMPS							

2 1" = 1'-0"
ELECTRICAL PANEL_ROOF MOUNTED

LEGEND

- ELECTRICAL PANEL AT +60" AFF TO TOP OF ELECTRICAL PANEL WITH 1 1/2" DIA POWER STUB OUT
- ROOF MOUNTED HVAC UNIT-SEE MECHANICAL DWGS
- WALL MOUNTED HVAC UNIT, SEE MECHANICAL DWGS
- 100 CFM CEILING MOUNTED EXHAUST FAN. INTERLOCKED WITH LIGHT SWITCH
- (HW) 4SD J-BOX FOR WATER HEATER LOCATE ABOVE CEILING W/ COVER PLATE, HARD WIRE TO UNIT
- 4SD J-BOX IN ATTIC FOR ATTIC MOUNTED HEAT DETECTOR (DEVICE BY OTHERS). MAXIMUM 35'-0" FROM ANY POINT IN ATTIC AND 50'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO HEAT DETECTOR LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE & DEVICE BY OTHERS (ALARM NOTE #1)
- 4SD J-BOX IN ATTIC FOR CEILING MOUNTED SMOKE DETECTOR (DEVICE BY OTHERS). MAXIMUM 21'-0" FROM ANY POINT IN ROOM BUT NOT MORE THAN 15'-0" TO A PERPENDICULAR WALL AND 30'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO SMOKE DETECTOR LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE & DEVICE BY OTHERS (ALARM NOTE #1)
- (S)
- RECESSED 4SD J-BOX W/ COVER PLATE FOR FUTURE FIRE ALARM SYSTEM BY OTHERS. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF BOX AND PROVIDE 1" CO STUB TO ATTIC SPACE WITH PULLSTRING
- 4SD J-BOX FOR EXTERIOR FIRE ALARM HORN (DEVICE BY OTHERS). MOUNT AT +90" AFF TO TOP OF DEVICE WITH 3/4" CONDUIT STUBBED TO ATTIC WITH PULLSTRING
- 4SD J-BOX FOR FIRE ALARM STROBE (DEVICE BY OTHERS). BOTTOM OF LENS 80" MIN TOP OF LENS 96" MAX AFF WITH 3/4"CONDUIT TO EXTERIOR FIRE ALARM HORN WITH PULLSTRING
- 4SD J-BOX FOR FIRE ALARM PULLSTATION (DEVICE BY OTHERS). MOUNT AT +48" AFF TO TOP OF CONTROL BOX WITH 3/4" CONDUIT TO FIRE ALARM STROBE WITH PULLSTRING
- EXIT — EXIT SIGN WITH BATTERY BACK UP. EXIT SIGN REQUIRED FOR CLASSROOMS WITH TWO OR MORE EXTERIOR DOORS. CLASSROOMS WITH ONE EXTERIOR DOOR-OPTIONAL.
- CLOCK OUTLET AT +90" AFF TO CENTERLINE OF DEVICE
- EXTERIOR LED LIGHT FIXTURE. 30w MAX WITH 90 MIN BACKUP BATTERY MOUNT AT +93" AFF
- ROOF — ROOF MOUNTED WEATHER PROOF GFI RECEPTACLE
- GFI — GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE WITHIN 6'-0" OF ALL SINKS
- WP — EXTERIOR WEATHER PROOF GFI RECEPTACLE AT +24" AFF FOR A/C SERVICES (MAX 25'-0" FROM UNITS)
- MIN. + 15" TO BOTTOM OF BOX
- DUPLEX (WALL MOUNTED) RECEPTACLE 15A-125V-3 WIRE. MOUNT AT +15" AFF U.O.N. TO BOTTOM OF OUTLET BOX
- $3 — 3-WAY LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF SWITCH BOX
- $ — LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF SWTICH BOX
- $D — SINGLE BUTTON DIMMER SWITCH, AT +48" AFF, TO TOP OF SWITCH BOX, WATTSTOPPER #LMDM-101 OR EQUAL
- WS-1 — SINGLE SWITCH WALL OCCUPANCY SENSOR. WATTSTOPPER PW-100 OR EQUAL. SENSOR TO BE MOUNTED AT +44" AFF AND USE FOR OPEN ROOM (OR RESTROOM) LESS THAN 100 SQ FT W/ (1) CIRCUIT.
- US — ULTRASONIC CEILING OCCUPANCY SENSOR. WATTSTOPPER W-500A OR EQUAL. SENSOR TO BE CONNECTED TO KEYED LIGHT SWITCHES FOR MANUAL OVERRIDE AND USE FOR RESTROOM W/ PARTITIONS.
- PC — CEILING MOUNTED PHOTOCELL, WATTSTOPPER #LMLS-500 OR EQUAL
- OS — CEILING MOUNTED OCCUPANCY SENSOR. WATTSTOPPER #LMPC-100 OR EQUAL.
- C — CARBON MONOXIDE PER CBC SECTION 915
- 2x4 CEILING LIGHT WITH (3) T-8 LAMPS, LAY-IN FLUORESCENT LIGHT FIXTURE WITH DIMMABLE BALLAST ORACLE LIGHTING MODEL: 24-OT-3-32-T8-A12-L41K-C4 WATTAGE: 96W (3 LAMPS/32W/T8) OR EQUAL
- 2x4 CEILING LIGHT WITH (3) T-8 LAMPS, LAY-IN FLUORESCENT LIGHT FIXTURE WITH DIMMABLE BALLAST ORACLE LIGHTING MODEL: 24-OT-3-32-T8-EMG-T8-BX-600-A12-L41K-C4 WATTAGE: 96W (3 LAMPS/32W/T8) OR EQUAL EACH LIGHT FIXTURE WHICH IS INDICATED AS BEING AN EMERGENCY LIGHT SHALL HAVE A BALLAST BATTERY PACK INSTALLED ON THE FIXTURE. THE BATTERY PACK SHALL PROVIDE POWER TO A SINGLE LAMP WITHIN THE FIXTURE FOR NO LESS THAN 90 MINUTES. ANY LIGHT FIXTURE Equipped WITH A BATTERY PACK SHALL BE WIRED IN SUCH A MANNER THAT THE BATTERY WILL BE ACTIVATED IMMEDIATELY UPON LOSS OF POWER TO THE FIXTURE. ADDITIONALLY THE BATTERY PACK SHALL BE OPERATED USING BATTERY POWER LIGHTING CONTROL SWITCHES AND SENSORS SHALL NOT BE ABLE TO SHUT THE FIXTURE OFF. SHALL COMPLY W/ CEC 700.20

NOTE: SEE 4/A3.2 FOR PHOTOMETRIC DATA

3 1" = 1'-0"
LEGEND

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCISCO 23804 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2018

Revision Schedule

#	Description	Date

SHEET TITLE
ELECTRICAL
SCHEDULES 24x40

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
E1.1
SHEET OF SHEETS

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 1 of 6)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 06/25/2018

A. General Information

Climate Zone:	Conditioned Floor Area: 4800						
	Unconditioned Floor Area:						
Building Type:	☑	Nonresidential	☐	High-Rise Residential	☐	Hotel/Motel	
☐ Schools	☑	Relocatable Public Schools	☐	Conditioned Spaces	☐	Unconditioned Spaces	
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Method of Compliance:	☐	Complete Building	☐	Area Category	☐	Tailored	
Project Address:							

B. Lighting Compliance Documents (select yes for each document included)

For 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	COMP. DOC.	TITLE
◉	○	NRCC-LTI-01-E	Certificate of Compliance. All Pages required on plans for all submittals.
◉	○	NRCC-LTI-02-E	Lighting Controls, Certificate of Compliance, and PAF Calculation. All Pages required on plans for all submittals.
◉	○	NRCC-LTI-03-E	Indoor Lighting Power Allowance
○	◉	NRCC-LTI-04-E	Tailored Method Worksheets
○	◉	NRCC-LTI-05-E	Line Voltage Track Lighting Worksheets
○	◉	NRCC-LTI-06-E	Indoor Lighting Existing Conditions

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 4 of 6)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 06/25/2018

G. Installed Portable Luminaires in Offices – Exception to Section 140.6(a)

- This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1). All other planned portable luminaires shall be documented on next page of this compliance document.
- This section is used to determine if greater than 0.3 watts of portable lighting is planned for any office
- Fill out a separate line for each different office. Small offices that are typical (having the same general and portable lighting) may be grouped together. This allowance shall not be traded between offices having different lighting systems.

Office Portable Luminaire Schedule	Office Installed Portable Luminaire W/ft²							Office Location	Field Inspector	
01	02	03	04	05	06	07	08	09	10	
Complete Luminaire Description (i.e., LED, under cabinet, furniture mounted direct/indirect)	Watts per Luminaire	Number of Luminaires	Installed portable luminaire watts in this office (G02 x G03)	Square feet of this office	Watts per square foot (G04 / G05)	If G06 ≤ 0.3, enter zero; If G06 > 0.3, (G06-0.3)	(G05 x G07)	Identify Office area in which these portable luminaires are installed	Pass	Fail
			0				0		○	○
			0				0		○	○
			0				0		○	○
			0				0		○	○
			0				0		○	○
Total installed portable luminaire watts that are greater than 0.3 W/ft² per office:								Enter sum total of all pages into NRCC-LTI-01-E; Page 2		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 1 of 3)
Project Name: 120'X40' (PC 04-116504)	Date Prepared: 06/25/2018

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

YES	NO	Control Requirements
◉	○	Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with Section 110.9.
◉	○	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).
○	◉	One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 and §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b).
○	◉	A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b).
◉	○	All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with Section 130.1.
◉	○	All luminaires shall be functionally controlled with manual ON and OFF lighting controls in accordance with Section 130.1(a).
○	◉	General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamental, and 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(a)4.
◉	○	The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the multi-level lighting control requirements in accordance with Section 130.1(b).
◉	○	All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).
◉	○	Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.
○	◉	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(e).
◉	○	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
CEC-NRCC-LTI-01-E (Revised 04/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 2 of 6)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 06/25/2018

C. Summary of Allowed Lighting Power

Conditioned and Unconditioned space Lighting must not be combined for compliance

	Indoor Lighting Power for Conditioned Spaces		Watts	Indoor Lighting Power for Unconditioned Spaces		Watts
01	**Installed** Lighting NRCC-LTI-01-E, Table H, page 5	+	3840	**Installed** Lighting NRCC-LTI-01-E, Table H, page 5	+	
02	Portable Only for Offices NRCC-LTI-01-E, Table G, page 4	+				
03	Minus Lighting Control Credits NRCC-LTI-02-E, page 2	-	711	Minus Lighting Control Credits NRCC-LTI-02-E, page 2	-	
04	Adjusted **Installed** Lighting Power (row 1 plus row 2 minus row 3)	=	3129	Adjusted **Installed** Lighting Power (row 1 minus row 3)	=	0
	Complies ONLY if **Installed** ≤ **Allowed** (Box 04 < Box 05)			Complies ONLY if **Installed** ≤ **Allowed** (Box 04 < Box 05)		
05	**Allowed** Lighting Power Conditioned NRCC-LTI-03-E, page 1 Alterations with replacement luminaires that have at least 50/35%lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2		5280	**Allowed** Lighting Power Unconditioned NRCC-LTI-03-E, page 1 Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2		

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	Form/Title	
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐ Field Inspector
◉	○	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐ Field Inspector
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐ Field Inspector

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 5 of 6)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 06/25/2018

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	
Name or Item Tag	Complete Luminaire Description (i.e, 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per Luminaire	How wattage was determined: CEC-Default from A43	How wattage was determined: According to §130.0(c)	Number Luminaires	Total Installed Watts in this area (A03 x H05)	Primary Function area in which these luminaires are installed	Pass	Fail
L-1	3-LAMP/32W/T8	96	☑	☐	40	3840		○	○
			☐	☐		0		○	○
			☐	☐		0		○	○
			☐	☐		0		○	○
			☐	☐		0		○	○
			☐	☐		0		○	○
			☐	☐		0		○	○
			☐	☐		0		○	○
			☐	☐		0		○	○
INSTALLED WATTS PAGE TOTAL:						3160	Enter sum total of all pages into NRCC-LTI-01-E; Page 2		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 2 of 3)
Project Name: 120'X40' (PC 04-116504)	Date Prepared: 06/25/2018

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following:
☑ CONDITIONED SPACES ☐ UNCONDITIONED SPACES

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

Lighting Control Schedule		Standards Complying With [1] (✓ all that apply, or leave empty if Exempted)								PAF Credit Calculation [2]			✓ if Acceptance Test Required	Field Inspector	
										Watts of Controlled Lighting	PAF	Control Credit (11 x 12)			
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	
Location in Building	Type/ Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc...)	# of Units	§130.1(a)	§130.1(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(a)2	§140.6(d)					Pass	Fail
CLASSROOM	AUTOMATIC DAYLIGHT	10	•	•	•	•		•		790	.10	79	☐	○	○
CLASSROOM	OCCUPANCY SENSOR	3	•	•	•	•		•		3160	.20	632	☐	○	○
												0	☐	○	○
												0	☐	○	○
												0	☐	○	○
												0	☐	○	○
												0	☐	○	○
Control Credit PAGE TOTAL (Sum of Column 13):												711			
IF MULTIPLE PAGES ARE USED, ENTER SUM TOTAL OF Control Credit for all pages HERE (Sum of all Column 13):															
													Enter Control Credit total into NRCC-LTI-01-E; Page 1.		

1. §130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive; §140.6(d) = Additional lighting controls installed to earn a PAF; §140.6(d) = Prescriptive Secondary Sidelit Daylight Controls.
2. Check Table 140.6-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
CEC-NRCC-LTI-01-E (Revised 04/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 3 of 6)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 06/25/2018

E. Declaration of Required Certificates of Acceptance

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

YES	NO	FORM/TITLE	
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐ Field Inspector
◉	○	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐ Field Inspector
○	◉	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐ Field Inspector
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	

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-LTI-05-E) when line-voltage track lighting is installed.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING
CEC-NRCC-LTI-01-E (Revised 04/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-01-E
Indoor Lighting	(Page 6 of 6)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 06/25/2018

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

Documentation Author Name: RALPH M. TAVARES	Documentation Author Signature:
Company: R&S TAVARES ASSOCIATES, INC.	Signature Date: 06/25/2018
Address: 11777 BERNARDO PLAZA CT. SUITE 105	CEA Certification Identification (if applicable):
City/State/Zip: SAN DIEGO, CA 92128	Phone: 858-444-3344 EXT 1801

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).
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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: MANNY D. FRISCH	Responsible Designer Signature:
Company: R&S TAVARES ASSOCIATES, INC.	Date Signed: 06/25/2018
Address: 11777 BERNARDO PLAZA CT. SUITE 105	License: S3380
City/State/Zip: SAN DIEGO, CA 91218	Phone: 858 444 3344 EXT 1810

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
INDOOR LIGHTING – LIGHTING CONTROLS
CEC-NRCC-LTI-02-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-02-E
Indoor Lighting - Lighting Controls	(Page 3 of 3)
Project Name: 120'X40' (PC 04-116504)	Date Prepared: 06/25/2018

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Address: 11777 BERNARDO PLAZA CT. SUITE 105	CEA Certification Identification (if applicable):
City/State/Zip: SAN DIEGO, CA 92128	Phone: 858 444 3344 EXT 1801

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Address: 11777 BERNARDO PLAZA CT. SUITE 105	License: S3380
City/State/Zip: SAN DIEGO, CA 92128	Phone: 858 444 3344 EXT 1810

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# 04-116504 DATE 7.10.18

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRISCH No. S3380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | **CBC**
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
120'x40' T24 CZ 16
(WALL AC)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2018/06/26

SHEET NO.
E2.1
SHEET OF SHEETS

3/8/2018 2:19:39 PM C:\Users\Andrew\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Andrew.rvt

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 1 of 4)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 03/05/2018

A. General Information

Project Address: NA	Total Illuminated Hardscape Area: NA

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Outdoor Lighting Zone (LZ): ☐ LZ-1 ☐ LZ-2 ☑ LZ-3 ☐ LZ-4

I have confirmed with the AHJ which LZ applies to this site. For default lighting zone designations, see Title 24 Part 6, §10-114

B. Lighting Compliance Documents (check box for each document included)

For 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.

☑	NRCC-LTO-01-E	Certificate of Compliance
☑	NRCC-LTO-02-E	Outdoor Lighting Controls Certificate of Compliance
☑	NRCC-LTO-03-E	Outdoor Lighting Power Allowance Certificate of Compliance
☐	NRCC-LTO-04-E	Outdoor Lighting Existing Conditions Certificate of Compliance

C. Summary of Allowed Outdoor Lighting Power		Watts
01	**Sum Total ALLOWED** Outdoor Lighting Wattage from NRCC-LTO-03-E, page 1 Alterations with NO increase of connected lighting load may instead use the allowed wattage from NRCC-LTO-04, page 2.	120
	Complies ONLY if **Installed** (Box 02) ≤ **Allowed** (Box 01)	
02	**Sum Total INSTALLED** Outdoor Lighting Wattage from NRCC-LTO-01-E, page 3.	120

D. Declaration of Required Installation Certificates

Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

☑ NRCI-LTO-01-E - Must be submitted for all buildings	☐ Field Inspector
☑ NRCI-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐ Field Inspector

E. Declaration of Required Certificates of Acceptance

Declare by checking all of the Certificates of Acceptance that will be submitted. (Retain copies and verify compliance documents are completed and signed.)

☑ NRCA-LTO-02-A - Must be submitted for outdoor lighting controls.	☐ Field Inspector

F. Schedule of Luminaires Exempt from the Outdoor Lighting Power Requirements in §140.7

01 Name or Symbol	02 Description of exempt luminaire in accordance with the exemptions

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 2 of 4)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 03/05/2018

G. Schedule of Luminaires Exempt from the Cutoff Requirements in §130.2(b)

01 Name or Symbol	02 Description of exempt luminaire in accordance with the exemptions

H. Schedule of Luminaires Exempt from the Outdoor Lighting Control Requirements in §130.2(c)

01 Name or Symbol	02 Description of exempt luminaire in accordance with the exemptions

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 3 of 4)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 03/05/2018

I. Outdoor Lighting Schedule and Field Inspection Energy Checklist

Luminaire Schedule		Installed Watts					Location	Cutoff	Field Inspector	
01	02	03	04		05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	How wattage was determined: CEC Default from NA8	How wattage was determined: According to §130.0(c)	Number of Luminaires	Total Installed Watts in this area (03 x 05)	Primary Function area in which these luminaires are installed (Outdoor Lighting Zone)	BUG Rating	Pass	Fail
D	EXTERIOR LED LIGHT FIXTURE 30W MAX WITH PHOTOCELL MOUNT AT 93" AFF	30	☑	☐	4	120	MAIN ENTRANCE	UH: UL: FVH: BVH: FH: BH:	○	○
			☐	☐		0		UH: UL: FVH: BVH: FH: BH:	○	○
			☐	☐		0		UH: UL: FVH: BVH: FH: BH:	○	○
		INSTALLED WATTS PAGE TOTAL:				120	Enter sum total of all pages (**Sum Total INSTALLED** Outdoor lighting wattage) into NRCC-LTO-01-E; Page 1		120	

STATE OF CALIFORNIA
OUTDOOR LIGHTING
CEC-NRCC-LTO-01-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 4 of 4)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 03/05/2018

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: RALPH M. TAVARES	Documentation Author Signature:
Company: R&S TAVARES ASSOCIATES, INC.	Signature Date: 03/05/2018
Address: 11777 BERNARDO PLAZA CT. SUITE 105	CEA Certification Identification (if applicable):
City/State/Zip: SAN DIEGO, CA 92128	Phone: 858 444 3344 EXT 1801

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Responsible Designer Name: MANNY D. FRISCH	Responsible Designer Signature:
Company: R&S TAVARES ASSOCIATES, INC.	Date Signed: 03/05/2018
Address: 11777 BERNARDO PLAZA CT. SUITE 105	License: S3380
City/State/Zip: SAN DIEGO, CA 92128	Phone: 858 444 3344 EXT 1810

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP # 04-116504 DATE: 7.10.18

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	(Page 1 of 3)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 03/05/2018

A. Mandatory Outdoor Lighting Control Declaration Statements

Check all that apply:

- ☑ Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency Regulations in accordance with §110.9(a).
- ☐ 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 §130.4(b).
- ☑ All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in accordance with §130.0(d).
- ☐ Part-Night Outdoor Lighting Controls, as defined in Section 100.1(b), shall meet the requirements in Section 110.9(b)5.
- ☐ All outdoor incandescent luminaires rated over 100 watts, determined in accordance with Section 130.0(c), shall be controlled by a motion sensor.
- ☐ All outdoor luminaires rated for use with lamps greater than 150 lamp watts, determined in accordance with Section 130.0(c), shall comply with Uplight and Glare requirements in accordance with Section 130.2(b)
- ☑ All installed outdoor lighting shall be controlled by a photocontrol or outdoor astronomical time-switch control, or other control capable of automatically switching OFF in accordance with Section 130.2(c)1.
- ☐ All installed outdoor lighting shall be circuited and independently controlled from other electrical loads by an automatic scheduling control in accordance with Section 130.2(c)2.
- ☑ All installed outdoor lighting, where the bottom of the luminaire is mounted 24 feet or less above the ground, shall be controlled with automatic lighting controls in accordance with Section 130.2(c)3.
- ☐ For Outdoor Sales Frontage, an automatic lighting control shall be installed in accordance with Section 130.2(c)4.
- ☐ For Building Facade, Ornamental Hardscape and Outdoor Dining lighting, an automatic lighting control shall be installed in accordance with Section 130.2(c)5
- ☐ Before an occupancy permit is granted for the newly constructed building or for the addition, or for any altered outdoor lighting controls, shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with §130.4.(a). Outdoor lighting controls shall comply with the applicable requirements of Section 130.2(c) and Reference Nonresidential Appendix NA7.8.

STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	(Page 2 of 3)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 03/05/2018

B. Mandatory Outdoor Lighting Control Schedule and Field Inspection Checklist

Outdoor Lighting Control Schedule		Standards Complying With (✓ all that apply, or leave empty if Exempted)						✓ if Acceptance Test Required	Field Inspector	
01	02	03	04	05	06	07	08	09	10	11
Location and Application of Luminaires Being Controlled	Type/ Description of Lighting Control (i.e. outdoor motion sensor, outdoor photocontrol, outdoor astronomical time-switch control, automatic scheduling control, part-night outdoor lighting control)	# of Units	§130.2(b)	§130.2(c)1	§130.2(c)2	§130.2(c)3	§130.2(c)4	§130.2(c)5		Pass / Fail
ENTRY DOOR	PHOTOCELL CONTROLLED	4		•		•			☐	○ ○
									☐	○ ○
									☐	○ ○
									☐	○ ○
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STATE OF CALIFORNIA
OUTDOOR LIGHTING CONTROLS
CEC-NRCC-LTO-02-E (Revised 08/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-02-E
Outdoor Lighting Controls	(Page 3 of 3)
Project Name: 120'x40' (PC 04-116504)	Date Prepared: 03/05/2018

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R&S TAVARES ASSOCIATES
DESIGN & CONSULTING & PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER — MANNY D. FRISCH — No. S3380 — STRUCTURAL — STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-1226

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE
120'x40' T24 CZ 16
(WALL AC)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2018/03/08

SHEET NO.
E2.2
SHEET OF SHEETS

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16)
CALIFORNIA ENERGY COMMISSION
NRCC-ELC-01-E

CERTIFICATE OF COMPLIANCE
Electrical Power Distribution
Page of

Project Name: 120'x40' (PC 04-116504)
Date Prepared: 04/24/2018

General Information

Project Address:	Climate Zone:	Conditioned Floor Area :
NA	16	4800
		Unconditioned Floor Area :

Building Type: ☐ Nonresidential ☐ High-Rise Residential ☐ Hotel/Motel
☐ Schools ☑ Relocatable Public Schools ☐ Conditioned Spaces ☐ Unconditioned Spaces
Phase of Construction: ☐ New Construction ☐ Addition ☐ Alteration

In the table below identify all applicable construction documents that specify the requirements for the scope of responsibility reported by this certificate. Use additional pages as needed to list all construction documents related to compliance of Section 130.5.

Document Number	Document Title/Descriptions (include description information for Table or Schedule if it contains compliance information)	Document Sheet # or Page #	Indicate which subsection of Section 130.5 is related to the document (e.g. 130.5(a) for service electrical metering)

Add Row | Remove Last

A. Service Electrical Metering

Check one of the three boxes below if the electrical power distribution system is in compliance with Section 130.5(a).

☐ For newly installed electrical service in newly constructed buildings, Service Electrical Metering is required according to Section 130.5(a). *Fill out Column 1 through 6 of table below.*

☑ For new or replacement electrical service equipment in existing buildings, Service Electrical Metering is required according to Section 141.0(b)2Pi. *Fill out Column 1 through 6 of table below.*

☐ EXCEPTION to Electrical Service Metering: Service or feeder for which the utility company provides a metering system that indicates instantaneous kW demand and kWh for a utility-defined period. *Fill out Column 1, 2 and 6 of table below with the compliance information.*

Fill out a separate line for each electrical service that is connected to the building.

Electrical Service Schedule	Electrical	Metering Capabilities (check all that are present)				Exception to	Field Inspector
01	02	03	04	05	06	07	08
Electrical Service Designation/ Location/Description	kVA	Instantaneous (at the time) kW	Historical peak (kW)	Tracking kWh for a user-definable period	kWh per rate period	Utility metering system	Check that the metering complies
IT WILL VARY DEPENDING ON CLIENT'S SITE PROJECT - RELOCATABLE PUBLIC SCHOOL	0	☐	☐	☐	☐	☐	☐

Add Row | Remove Last

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16)
CALIFORNIA ENERGY COMMISSION
NRCC-ELC-01-E
CERTIFICATE OF COMPLIANCE
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Page of
Project Name: 120'x40' (PC 04-116504)
Date Prepared: 04/24/2018

B. Separation of Electrical Circuits for Electrical Energy Monitoring

Check all boxes below if the electrical power distribution system is in compliance with Section 130.5(b).

☑ The electrical power distribution system meets the separation of electrical circuits for electrical energy monitoring requirement of Section 130.5(b). The electrical power distribution systems is designed so that measurement devices can monitor the electrical energy usage of load types according to TABLE 130.5-B.

☐ Describe the electrical power distribution system installed and the compliance method chosen in meeting the requirement of Section 130.5(b). Use the space below to include the information. Examples of compliance methods are detailed in Nonresidential Compliance Manual Chapter 8.

Fill out Column 1 thru 3 with the compliance information.

General Information	Electrical Power Distribution System information and Method of compliance	Electrical Service Rating	Enforcement Agency
01	02	03	04
Electrical Service Designation/Location/Description	Describe the electrical power distribution system installed and the compliance method used	kVA	Check that the system complies
IT WILL VARY DEPENDING ON CLIENT'S SITE PROJECT - RELOCATABLE PUBLIC SCHOOL	NA	0	☐

Field Inspector Notes:

STATE OF CALIFORNIA
Electrical Power Distribution
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Project Name: 120'x40' (PC 04-116504)
Date Prepared: 04/24/2018

C. Voltage Drop

Check all boxes below if he electrical power distribution system is in compliance with Section 130.5(c).

	Enforcement Agency Check that the system complies
☑ The electrical power distribution system meets the voltage drop requirement of Section 130.5(c). The maximum combined voltage drop on feeder conductors and branch circuit conductors to the farthest connected load or outlet, do not exceed 5%.	☐
☐ Voltage drop calculation documents showing compliance to Section 130.5(c) are submitted as part of the compliance document submittal.	☐

D. Circuit Controls for 120-Volt Receptacles and Controlled Receptacles

Check one or more boxes below for applicable requirements of Section 130.5(d) for the electrical power distribution system.

	Field Inspector Check that the system complies
☐ The control is capable of automatically shutting OFF the controlled receptacles when the space is typically unoccupied, either at the receptacle or circuit level. For the automatic time switch control, it incorporates an override control that allows the controlled receptacle to remain ON for no more than 2 hours when an override is initiated and an automatic holiday "shut-OFF" feature that turns OFF all loads for at least 24 hours and then resumes the normally scheduled operation. Countdown timer switches are not be used to comply with the automatic time switch control requirements. The controls meet the requirement of Section 130.5(d)1.	☐
☑ There is at least one controlled receptacle within 6 ft from each uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)2.	☐
☐ There are installed split wired receptacles with at least one controlled and one uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)2.	☐
☑ Permanent and durable marking for controlled receptacles or circuits to differentiate them from uncontrolled receptacles or circuits is provided. The markings meet the requirement of Section 130.5(d)3.	☐
☐ For hotel and motel guest rooms, there are controlled receptacles for at least one-half of the 120-volt receptacles in each guest room. Electric circuits serving controlled receptacles in guestrooms are installed to have captive key controls, occupancy sensing controls, or automatic controls so the power is switched off no longer than 30 minutes after the guest room has been vacated. The receptacles meet the requirement of Section 130.5(d)4.	☐
☑ Receptacles that are only for the following purposes are excepted from Section 130.5(d): - Receptacles specifically for refrigerators and water dispensers in kitchen areas. - Receptacles located a minimum of six ft above the floor that are specifically for clocks. - Receptacles for network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms. - Receptacles on circuits rated more than 20 amperes. - Receptacles connected to an uninterruptible power supply (UPS) that are intended to be in continuous use, 24 hours per day/365 days per year, and are marked to differentiate them from other uncontrolled receptacles or circuits.	☐

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16)
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Page of
Project Name: 120'x40' (PC 04-116504)
Date Prepared: 04/24/2018

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: RALPH M. TAVARES	Documentation Author Signature:
Company: R&S TAVARES ASSOCIATES, INC.	Signature Date: 04/24/2018
Address: 11777 BERNARDO PLAZA CT. SUITE 105	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: SAN DIEGO, CA 92128	Phone: 858-444-3344 EXT 1801

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: MANNY D. FRISCH	Responsible Designer Signature:
Company: R&S TAVARES ASSOCIATES, INC.	Date Signed: 04/24/2018
Address: 11777 BERNARDO PLAZA CT. SUITE 105	License: S3380
City/State/Zip: SAN DIEGO, CA 91218	Phone: 858 444 3344 EXT 1810

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# 04-116504 DATE: 7-10-18

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRISCH S3380 STRUCTURAL STATE OF CALIFORNIA
12/19/2017

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAY 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE
120'x40' T24 CZ 16
(WALL AC)

PROJECT NUMBER
17016A
DRAWN BY
rMc/SC
CHECKED BY
JA/RT
DATE
2018/04/25
SHEET NO.
E2.3
SHEET OF SHEETS

ABB.	DESCRIPTION	SYMBOL
WM	WALL MOUNTED UNIT (SEE SCHEDULE THIS SHEET)	WM-1
RM	ROOF MOUNTED UNIT (SEE SCHEDULE THIS SHEET)	RM-1
P.O.C	POINT OF CONNECTION	P.O.C
CO2	CARBON MONOXIDE SENSOR	CO2
BT	BYPASS TIMER	BT
STAT	THERMOSTAT	T
UC	UNDERCUT DOOR	UC
MVD	MANUAL VOLUME DAMPER	
FD	FIRE DAMPER	
VTR	VENT THRU ROOF	
ER	EXHAUST CEILING REGISTER	
CR	RETURN CEILING REGISTER	
CD	SUPPLY CEILING DIFFUSER	
(L)	LINED DUCTWORK	
EAD	EXHAUST AIR DUCT	
RAD	RETURN AIR DUCT	
SAD	SUPPLY AIR DUCT	
EF	EXHAUST FAN	EF

1 *1" = 1'-0"* ***LEGEND***

EQUIPMENT ANCHORAGE

ALL MECHANICAL, PLUMBING AND ELECTRICAL 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 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

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

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 STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

BRACING OF PIPING, DUCTWORK AND ELECTRICAL SYSTEM:

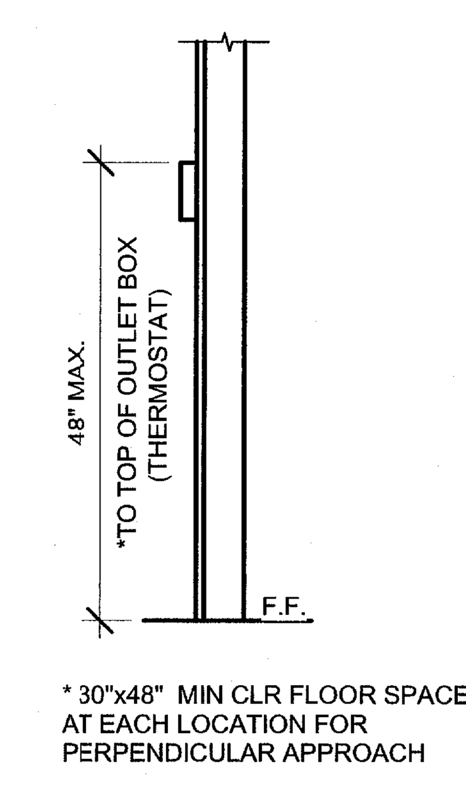
PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6 AND 2016 CBC SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AN BRACING OF THE PIPE, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

5 *1" = 1'-0"* ***EQUIPMENT ANCHORAGE***



* 30"x48" MIN CLR FLOOR SPACE AT EACH LOCATION FOR PERPENDICULAR APPROACH

9 *1" = 1'-0"* ***MOUNTING ELEV.***

10.6 EER and 11 EER

SINGLE PACKAGE VERTICAL HEAT PUMP SCHEDULE

	STANDARD	OPTION #I	OPTION #2
TAG	WM-1.1	WM-1.2	WM-1.3
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3.5 TONS
MANUFACTURER	**BARD	**BARD	**BARD
MODEL#	C48H1	C60H1	C42H1
CFM	1550	1700	1400
STATIC PRESSURE	3.0	3.0	3.0
DRIVE	DIRECT	DIRECT	DIRECT
MCA	58	67	57
MOCP	60	80	60
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#6/#10	#4/#8	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F (PART/FULL)	25.900/36.00	30.800/40.300	21.700/29.700
TOTAL COOLING @ 95° F (PART/FULL)	34.000/45.500	40.800/55.500	26.800/40.000
HEATING CAP. BTUH @ 47° F (PART/FULL)	29.200/41.500	36.000/51.000	46.600/38.500
HEATING CAP. BTUH @ 17° F	26.000	32.000	25.000
OPERATING WEIGHT	550#	580#	550#
EER	11.00	10.60	11.00
COP @ 47° F	3.00	3.00	3.00
COP @ 17° F	2.00	2.00	2.00

10.6 AND 11.0 EER (GAS ALTERNATE)

SINGLE PACKAGE VERTICAL AIR CONDITIONER WITH GAS FURNACE

	STANDARD	OPTION #I	OPTION #2
TAG	WM-2.1	WM-2.2	WM-2.3
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3.5 TONS
MANUFACTURER	BARD	**BARD	BARD
MODEL#	C48H1	C60H1	C42H1
CFM	1600	1750	1300
STATIC PRESSURE	0.2	0.2	0.2
DRIVE	DIRECT	DIRECT	DIRECT
MCA	38	40	32
MOCP	50	60	50
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#6/#10	#6/#10	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F (PART/FULL)	35.900/36.000	30.800/40.300	21.700/29.700
TOTAL COOLING @ 95° F (PART/FULL)	34.000/45.500	40.800/55.500	26.800/40.000
HEATING INPUT	75.000	75.000	75.000
HEATING OUTPUT	61.500	61.500	61.500
OPERATING WEIGHT	710#	725#	700#
EER	11.00	10.60	11.00
THERMAL EFFICIENCY (TE)	82	82	82

HVAC SCHEDULE

BUILDING SIZE	# OF HVAC		
	3 1/2 TON HVAC	4 TON HVAC	5 TON HVAC
☒ 24' x 40'	1		
☐ 36' x 40'		1	
☒ 48' x 40'	2		
☐ 60' x 40'		2	
☐ 72' x 40'	3		2
☐ 84' x 40'		3	
☐ 96' x 40'	4		3
☐ 108' x 40'		4	
☐ 120' x 40'	5		

HVAC SCHEDULE TYPICAL FOR WALL MTD AND ROOF MTD UNITS

2016 CALGREEN AND ENERGY CODE - COMPLIANCE SECTIONS

FILTER SPECIFICATION:

5.504.3 - ALL EXPOSED DUCT OPENINGS AND MECHANICAL EQUIPMENT SHALL BE COVERED AND PROTECTED DURING CONSTRUCTION AND SHIPMENT.

5.504.5.3 - HVAC FILTER (MERV RATING OF 8 MINIMUN OR HIGHER). ALL MECHANICAL EQUIPMENT WHICH REQUIRES A FILTER SHALL NOT BE OPERATED WITHOUT A FILTER IN PLACE.

OUTDOOR AIR QUALITY:

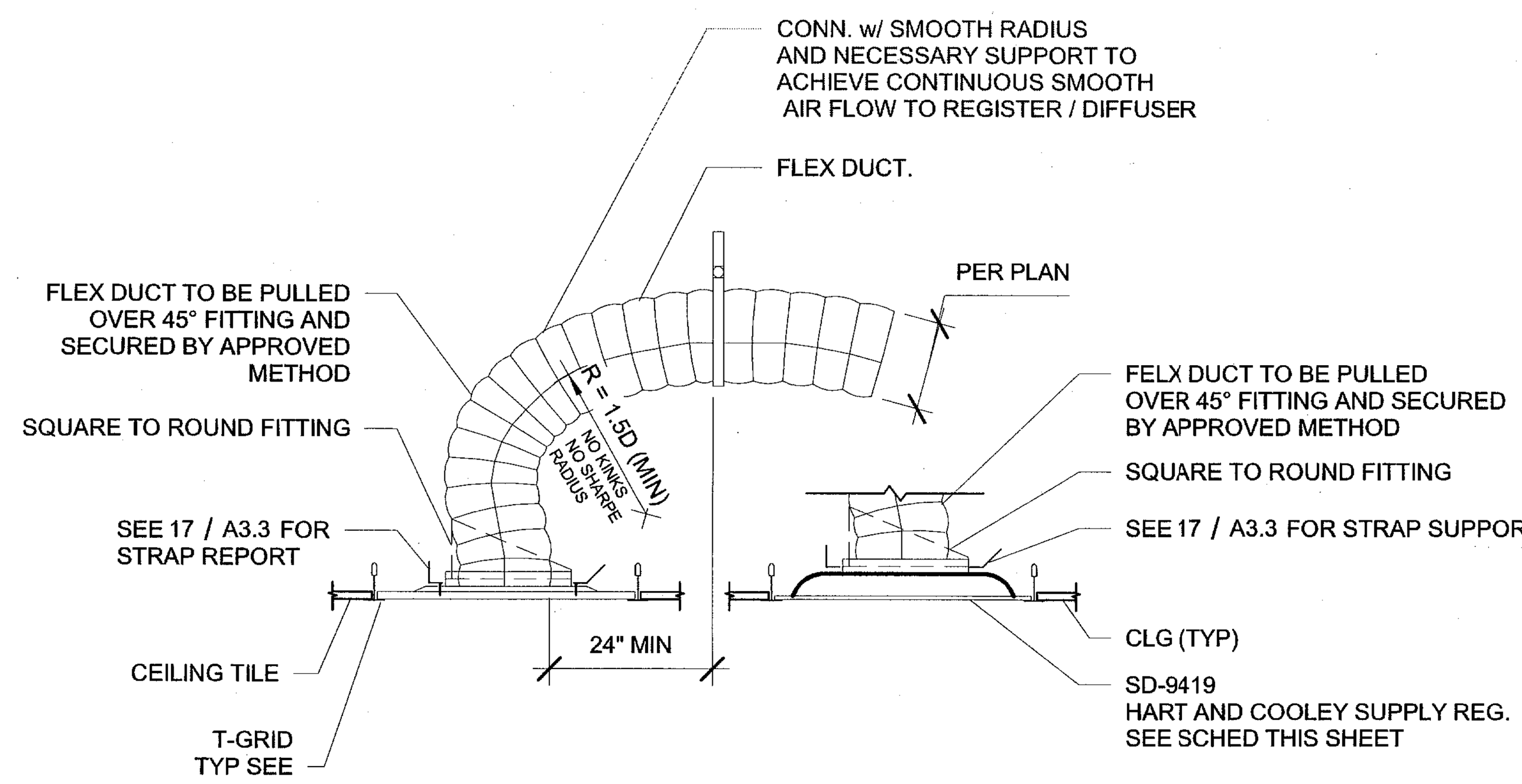
HVAC EQUIPMENT DOES NOT CONTAIN CFCS OR HALONS.

CEILING MOUNTED EXHAUST FAN

SYM.	USE	MFR/MODEL	CFM	SOUND LEVEL	SP	VOLTS	Ø	POWER	WGT#	NOTES
EF A	BATHROOM EXHAUST	BROAN L100	109	1.0 SONES	0.25	120	1	87 WATTS	22.80#	WITH BROAN ROOF CAP #634. PROVIDE 6" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH
EF B	BATHROOM EXHAUST	BROAN L200	210	2.0 SONES	0.25	120	1	127 WATTS	23#	WITH BROAN ROOF CAP #634. PROVIDE 8" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH.
EF C	BATHROOM EXHAUST	BROAN L300	308	2.8 SONES	0.25	120	1	212 WATTS	23.1O#	WITH BROAN ROOF CAP #634. PROVIDE 8" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH.
EF D	BATHROOM EXHAUST	BROAN 676	100	4.0 SONES	0.25	120	1	156 WATTS	7#	WITH BROAN ROOF CAP #636. PROVIDE 4" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH.

OR APPROVED EQUAL.

2 *1" = 1'-0"* ***CEILING MOUNTED EXHAUST FAN SCHEDULE***



14 SEER

SINGLE PACKAGE ROOF TOP HEAT PUMP SCHEDULE

	STANDARD	OPTION #I	OPTION #2
TAG	RM-1.1	RM-1.2	RM-1.3
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3 TONS
MANUFACTURER	**CARRIER	**CARRIER	**CARRIER
MODEL#	50KCQ05	50KCQ06	50KCQ04
CFM	1600	1750	1400
STATIC PRESSURE	0.2	0.2	0.15
DRIVE	BELT	BELT	BELT
MCA	64	72	59
MOCP	70	80	60
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#4/#8	#4/#8	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F	35.260	40.700	30.500
TOTAL COOLING @ 95° F	49.000	58.000	35.600
HEATING CAP. BTUH @ 47° F	45.500	58.000	35.500
HEATING CAP. BTUH @ 17° F	28.600	28.600	18.400
OPERATING WEIGHT	560#	615#	572#
SEER	14.00	14.3	14.00
HSPF	8.0	8.0	8.0
COP @ 47° F	3.4	3.5	3.4
COP @ 17° F	2.4	2.4	2.3

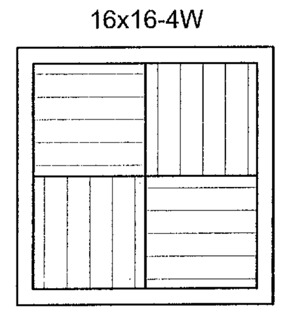
14 SEER (GAS ALTERNATE)

SINGLE PACKAGE ROOF TOP AIR CONDITIONER WITH GAS FURNACE

	STANDARD	OPTION #I	OPTION #2
TAG	RM-2.1	RM-2.2	RM-2.3
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3 TONS
MANUFACTURER	**CARRIER	**CARRIER	**CARRIER
MODEL#	50KCQ05	50KCQ06	50KCQ04
CFM	1600	1750	1400
STATIC PRESSURE	0.2	0.2	0.15
DRIVE	BELT	BELT	BELT
MCA	36.1	41.8	29.6
MOCP	50	60	40
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#6/#10	#6/#10	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F	35.260	40.700	30.500
TOTAL COOLING @ 95° F	49.000	58.000	45.600
HEATING INPUT	90.000	90.000	90.000
HEATING OUTPUT	73.000	73.000	73.000
OPERATING WEIGHT	590#	618#	572#
SEER	14.00	14.3	14.00
AFUE	80.4%	80.4%	80.4%

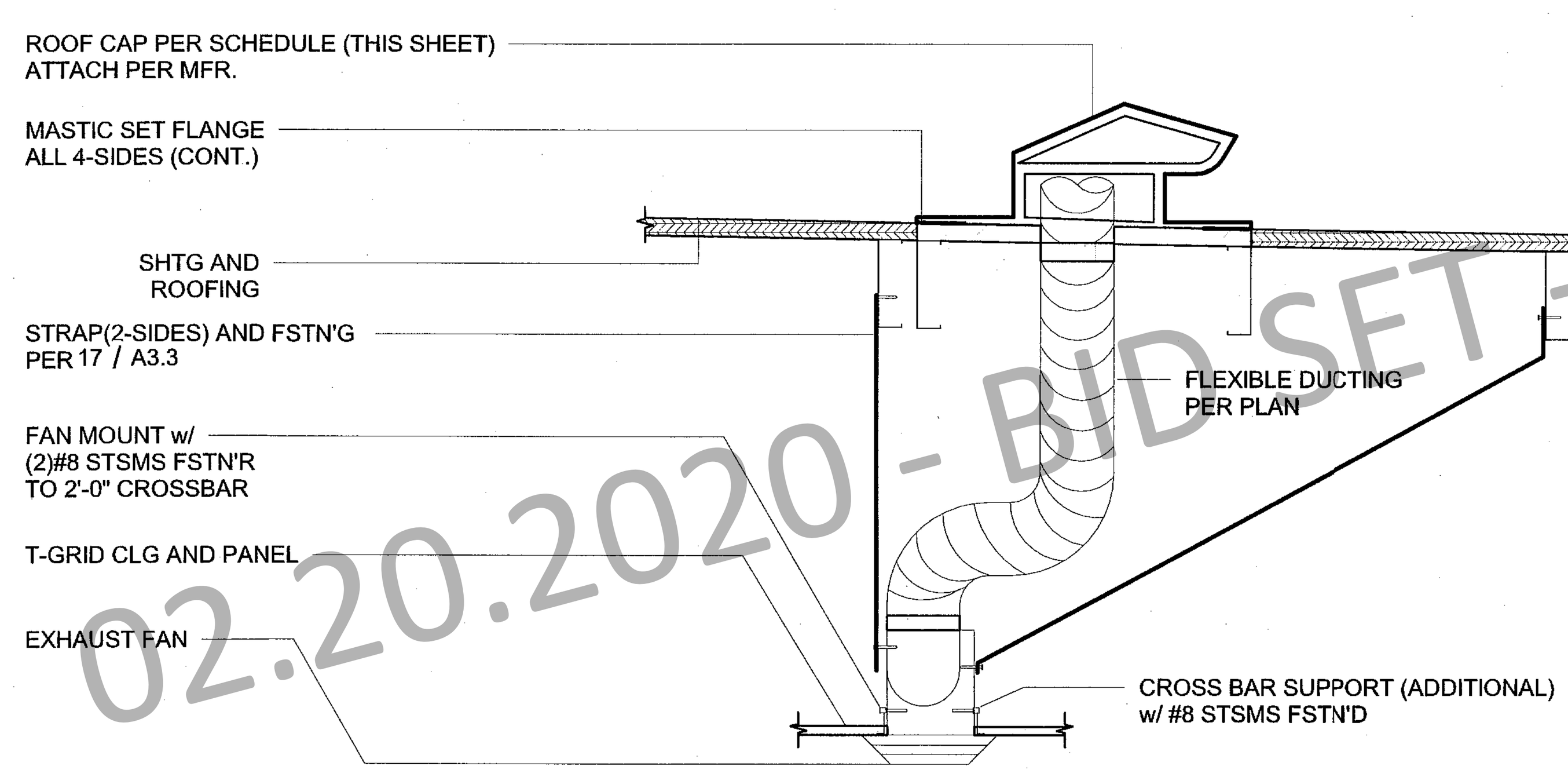
PERFORATED FACE GRILLE SCHEDULE (SUPPLY)

	NECK SIZE	CFM (RANGE)	NOTES
16x16-4W	6"Ø	0-150	SEE DETAIL FOR MAKE AND MODEL
	8"Ø	150-230	SEE DETAIL FOR MAKE AND MODEL
	10"Ø	230-350	SEE DETAIL FOR MAKE AND MODEL
	12"Ø	350-460	SEE DETAIL FOR MAKE AND MODEL
T-BAR SUPPLY	14"Ø	460-640	SEE DETAIL FOR MAKE AND MODEL



Fixed Curve Blade, 4-way throw

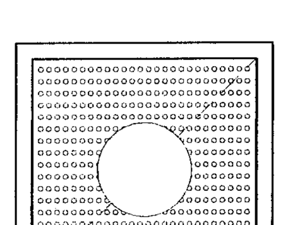
3 *1" = 1'-0"* ***PFG SCHED (SUPPLY)***



SEE ISOMETRIC DETAIL 17/A3.3 FOR STRAPS

PERFORATED FACE GRILLE SCHEDULE (RETURN)

	NECK SIZE	CFM (RANGE)	NOTES
	6"Ø	0-230	SEE MECH CLG PLAN FOR SIZE
	10"Ø	230-460	SEE MECH CLG PLAN FOR SIZE
	14"Ø	460-710	SEE MECH CLG PLAN FOR SIZE

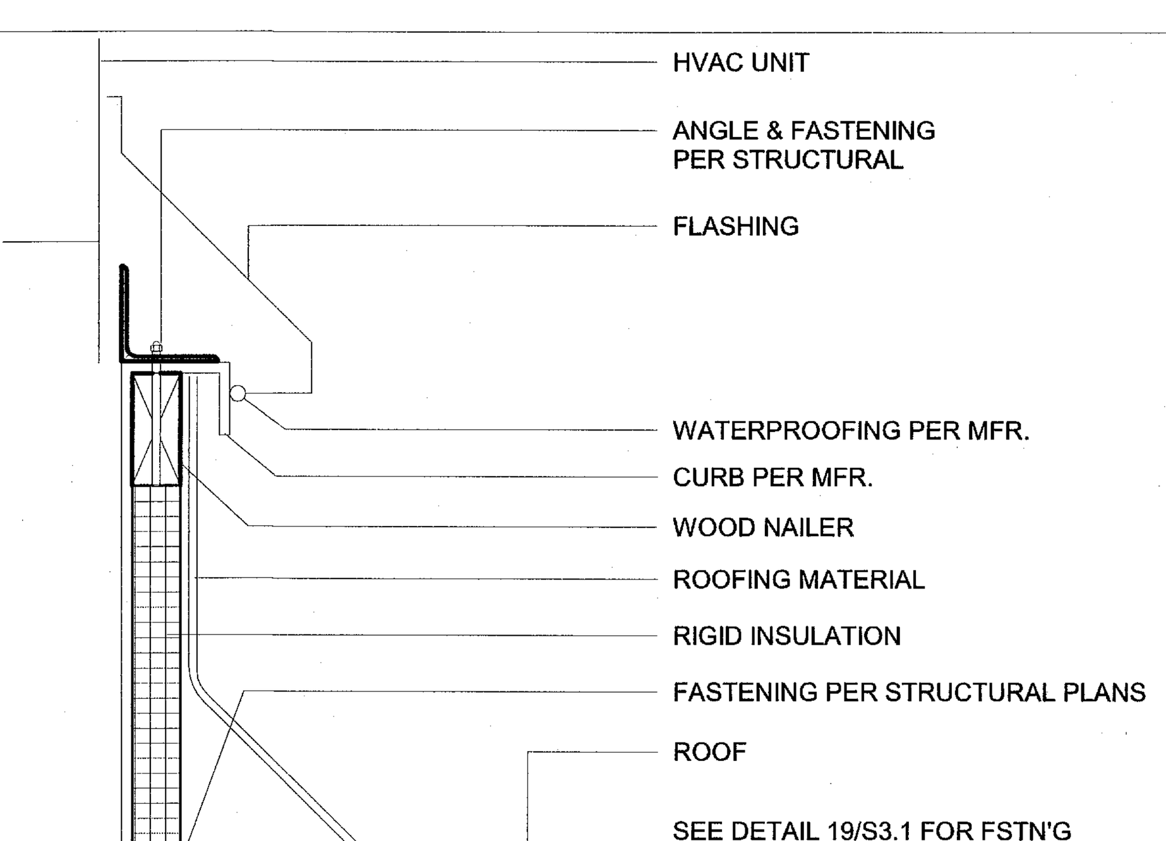


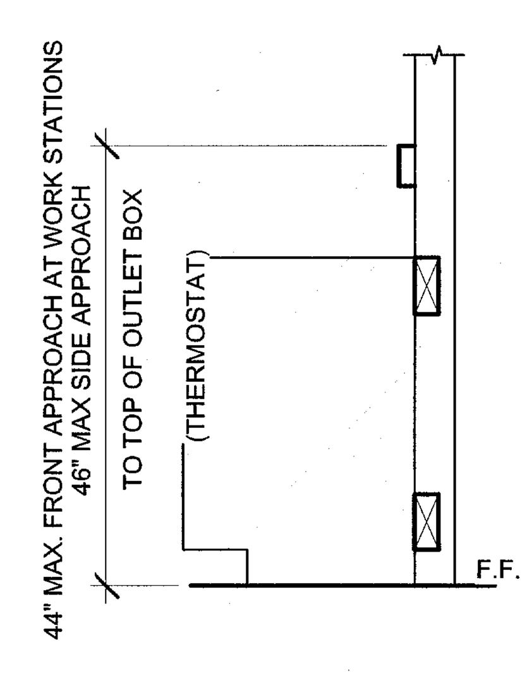
T-BAR RETURN

Perforated Face

Shoemaker 105P with 24 ga. 45 deg.

4 *1" = 1'-0"* ***PFG SCHED (RETURN)***





10 *1" = 1'-0"* ***ELEV. @ WORKSTATION***

HVAC NOTES

1. SET BACK THERMOSTAT SHALL BE PROVIDED
2. THE CO2 SENSOR SHALL NOT BE OBSTRUCTED BY FURNITURE OR EQUIPMENT AND NEED TO BE LOCATED ACCORDINGLY, AND PLACED NO LESS THAN 35" AFF AND NO MORE THAN 72" AFF.
3. AIR HANDLERS WITH OTHER VOLTAGES SHOULD BE ACCEPTABLE, AS WELL AS OTHERS THAN THE MAKE AND MODELS LISTED ON THESE TABLES, WHEN THE NOMINAL TONNAGE DOES NOT EXCEEDS 5 TON AND THE SEER, HSPF AND COP VALUES ARE NO LESS THAN SHOWN.
4. MODEL NUMBERS FOR HEAT PUMP UNITS WITH OPTIONAL 5.0 AUXILIARY HEAT STRIPS, WHEN THE HEAT STRIP IS NOT USED, THE MCA AND MOCP MUST BE VERIFIED AND HEAT STRIPS LARGER THAN THE SIZES SHOWN MAY NOT BE USED.
5. HVAC SYSTEM DOES NOT CONTAIN AN ECONOMIZER AND DEMAND CONTROL VENTILATION DEVICES.
6. CLASSROOMS ARE DESIGNED FOR MINIMUM OUTSIDE AIR OF 0.38 CFM PER SF. PER CALIFORNIA ENERGY CODE (CEC), SPACES SHALL BE DESIGNED TO THE MINIMUM REQUIREMENTS AS SPECIFIED OR TO 15 CFM PER OCCUPANT, WHICHEVER IS GREATER. PC MANUFACTURER SHALL VERIFY WITH THE SCHOOL DISTRICT THE EXPECTED NUMBER OF OCCUPANTS IN THE CLASSROOM SO THAT THE OUTDOOR VENTILATION RATE FOR MECHANICAL SYSTEMS CAN BE ADEQUATELY ADJUSTED UPON SITE INSTALLATION OF THE BUILDING. PC MANUFACTURER SHALL ALSO CONFIRM WITH HVAC EQUIPMENT MANUFACTURER THAT THE SELECTED EQUIPMENT WILL BE ABLE TO PERFORM TO ACCOMODATE THE ADDITIONAL OUTDOOR AIR REQUIREMENTS UNDER THE PEAK DESIGN CONDITIONS FOR THE CLIMATE ZONE IN WHICH THE BUILDING IS LOCATED. AT OCCUPANCY, THE BUILDING MANUFACTURER SHALL PROVIDE TO BUILDING OWNER A DESCRIPTION OF THE QUANTITIES OF OUTDOOR AND RECIRCULATED AIR THAT THE VENTILATION SYSTEMS ARE DESIGNED TO PROVIDE EACH AREA.

*FOR 24x40 BUILDING A 5 TONS UNIT IS ONLY TO BE USED ON COMPUTER LAB APPLICATION

**OR EQUAL

SECTION 915
CARBON MONOXIDE DETECTION

915.2.3 Group E occupancies. Carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed byschool personnel.

915.3 Detection equipment. Carbon monoxide detection required by Sections 915.1 through 915.2.3 shall be provided by carbon monoxide alarms complying with Section 915.4 or carbon monoxide detection systems complying with Section 915.5.

CFC 915.1 - Classrooms which contain a fuel-burning appliance or a fuel-burning fireplace or are supplied by a forced-air furnace shall be provided with a carbon monoxide detexction system. Provide a carbon monoxide detection system

GENERAL NOTE:
UTLILITIES THAT SPAN BETWEEN UNITS OR ACROSS SEISMIC SEPARATION JOINTS MUST BE DESIGNED WITH A FLEXIBLE CONNECTION THAT CAN ACCOMMODATE DIFFERENTIAL MOVEMENTS

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: 2016 CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07

Revision Schedule

#	Description	Date

SHEET TITLE
MISCELLANEOUS NOTES & DETAILS

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
M0.1

SHEET OF SHEETS

PC DESIGN REVIEW INFORMATION
Title 24, Part 6, Energy Code
DSA Application #: 04-116504
Calculation Date/Time of Energy Report: 2018-06-23 17:00:30
Model Name and Option: **24'x40'** PC - CLASS LEASING LLC
Total Floor Area: 960 ft²
HVAC System Type: Simple / Wall Mounted A/C

Climate Zone (Reference City)	Azimuth (Front Orientation)	TDV - Standard Design	TDV - Proposed Design	Compliance Margin
14 (Palmdale) <	30	375.47	352.44	6.13%
	< * 75	356.36	348.45	< * 2.20%
	120	374.87	352.54	5.96%
	165	377.28	352.73	6.51%
	210	375.47	352.94	6.00%
	* 255	356.36	348.45	* 2.20%
	300	374.87	352.54	5.96%
	345	377.28	352.73	6.51%
15 (Palm Springs-Intl)	30	429.08	394.12	8.15%
	* 75	411.12	390.15	* 5.10%
	120	428.02	394.06	7.93%
	165	430.55	394.04	8.48%
	210	429.08	394.12	8.15%
	* 255	411.12	390.15	* 5.10%
	300	428.02	394.06	7.93%
	345	430.55	394.04	8.48%
16 (Blue Canyon)	30	357.12	336.72	5.71%
	* 75	337.94	329.35	* 2.50%
	120	356.82	336.85	5.60%
	165	358.91	336.85	6.12%
	210	357.12	336.72	5.71%
	* 255	337.94	329.35	* 2.50%
	300	356.82	336.85	5.60%
	345	358.91	336.95	6.12%

Reference: Energy Code, Appendix NA4, Table NA4-3
Notes:
* In the event that there are identical percentages, select one.
**This table is not currently generated by the energy software.
< Least Compliance Margin Orientation

PC DESIGN REVIEW INFORMATION
Title 24, Part 6, Energy Code
DSA Application #: 04-116504
Calculation Date/Time of Energy Report: 2018-06-23 19:58:52
Model Name and Option: **120'x40'** PC - CLASS LEASING LLC
Total Floor Area: 4,800 ft²
HVAC System Type: Simple / Wall Mounted A/C

Climate Zone (Reference City)	Azimuth (Front Orientation)	TDV - Standard Design	TDV - Proposed Design	Compliance Margin
14 (Palmdale) <	30	355.00	337.30	4.99%
	< * 75	334.48	333.12	< * 0.40%
	120	353.88	336.40	4.94%
	165	358.78	338.70	5.60%
	210	355.00	337.30	4.99%
	* 255	334.48	333.12	* 0.40%
	300	353.88	336.40	4.94%
	345	358.78	338.70	5.60%
15 (Palm Springs-Intl)	30	406.60	381.50	6.17%
	* 75	384.85	375.42	* 2.50%
	120	404.84	380.12	6.11%
	165	410.19	382.55	6.74%
	210	406.60	381.50	6.17%
	* 255	384.85	375.42	* 2.50%
	300	404.84	404.84	6.11%
	345	410.19	382.55	6.74%
16 (Blue Canyon)	30	334.47	320.27	4.25%
	* 75	314.67	312.69	* 0.60%
	120	333.94	319.52	4.32%
	165	339.48	321.33	5.35%
	210	334.47	320.27	4.25%
	* 255	314.67	312.69	* 0.60%
	300	333.94	319.52	4.32%
	345	339.48	321.33	5.35%

Reference: Energy Code, Appendix NA4, Table NA4-3
Notes:
* In the event that there are identical percentages, select one.
**This table is not currently generated by the energy software.
< Least Compliance Margin Orientation

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# 04-116504 DATE 7-10-18

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER — MANNY D. FRANCO — No. S-23380 — STRUCTURAL — STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE

24' x 40' EXPANDABLE TO 120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] **CBC**
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
120'x40' T24 CZ 16 (WALL AC)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
07/05/2018

SHEET NO.
M2.1

SHEET OF SHEETS

A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	Palmdale	8.	Standards Version	Compliance2016
2.	CA Zip Code		9.	Compliance Software (version)	EnergyPro 7.2
3.	Climate Zone	14	10.	Weather File	PALMDALE_723820_CZ2010.epw
4.	Total Conditioned Floor Area in Scope	4,800 ft²	11.	Building Orientation (deg)	(E) 75 deg
5.	Total Unconditioned Floor Area	0 ft²	12.	Permitted Scope of Work	NewComplete
6.	Total # of Stories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential
7.	Total # of dwelling units	0	14	Gas Type	NaturalGas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft²-yr) — **§ 140.1**

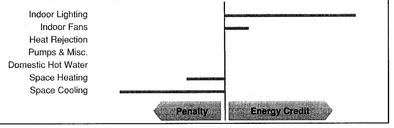
BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	17.88	22.68	-4.80	-26.8%
Space Cooling	103.92	117.41	-13.49	-13.0%
Indoor Fans	88.46	85.47	2.99	3.4%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	11.16	11.16	--	0.0%
Indoor Lighting	48.76	32.10	16.66	34.2%
COMPLIANCE TOTAL	**270.18**	**268.82**	**1.36**	**0.5%**
Receptacle	64.30	64.30	0.0	0.0%
Process	--	--	--	--
Other Ltg	--	--	--	--
Process Motors	--	--	--	--
TOTAL	**334.48**	**333.12**	**1.4**	**0.4%**

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Indoor Lighting: Check lighting	
2nd	Indoor Fans: Check envelope and mechanical	
3rd	Heat Rejection: Check envelope and mechanical	
4th	Pumps & Misc.: Check mechanical	
5th	Domestic Hot Water: Check mechanical	
6th	Space Heating: Check envelope and mechanical	
7th	Space Cooling: Check envelope and mechanical	

Compliance Margin By Energy Component (from Table B column 4)



D. EXCEPTIONAL CONDITIONS

The building does not include service water heating. Verify that service water heating is not required and is not included in the design.

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylit Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation (form NRCC-LTI-02-E) for the requirements of section 140.6(d) Automatic Daylighting Controls in Secondary Daylit Zones is required.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

Standard Building (Compliance)

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA"= not in project
For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒ Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	M2.3
	☐ Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐ NA		
Mechanical	☒ Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	M2.3
	☐ Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐ NA		
Domestic Hot Water	☐ Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☒ Prescriptive	NRCC-PLB-01-E	
	☐ NA		
Lighting (Indoor Conditioned)	☒ Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	M2.3
	☐ Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐ NA		
Covered Process: Commercial Kitchens	☐ Performance	S2 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 03-E	
	☒ NA		
Covered Process: Computer Rooms	☐ Performance	S3 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 04-E	
	☒ NA		
Covered Process: Laboratory Exhaust	☐ Performance	S4 (section of the NRCC-PRF-01-E)	
	☐ Prescriptive	NRCC-PRC-01/ 09-E	
	☒ NA		

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project. | *The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.*

Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms
☐	☒	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	☐ ☐	☒ ☒	Commissioning: §120.8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☐	☒	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E	☐	☒	Electrical: §130.5	NRCC-ELC-01-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E	☐	☒	Solar Ready: §110.10	NRCC-SRA-01 / 02-E
☐	☒	Solar Thermal Water Heating: §140.5	NRCC-STH-01-E	☐ ☐ ☐ ☐ ☐	☒ ☒ ☒ ☒ ☒	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) – Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify). See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☒ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☐ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☐ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☐ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☐ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) – Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify). See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Plumbing	☐ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☐ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☐ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☒ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls.	☐	☐
	☒ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☐ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☐ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

Project Name:	120X40 (PC 04-116504) - Wall AC	NRCC-PRF-01-E	Page 7 of 19
Project Address:	Climate Zone 14 Palmdale	Calculation Date/Time:	19:52, Sat, Jun 23, 2018
Compliance Scope:	NewComplete	Input File Name:	120X40 PC - CZ14(Wall AC)R75RSPV.cibd16x

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) – Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify). See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Covered Process	☐ NRCI-PRC-01-E Covered Processes	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

						Confirmed Pass	Confirmed Fail
1.	Total Conditioned Floor Area	4,800 ft²	5.	Number of Floors Above Grade	1		
2.	Total Unconditioned Floor Area	0 ft²	6.	Number of Floors Below Grade	0		
3.	Addition Conditioned Floor Area	0 ft²					
4.	Addition Unconditioned Floor Area	0 ft²					

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Ratio	Pass	Fail
North Wall	1,200 ft²	160 ft²	13.3%	☐	☐
East Wall	400 ft²	0 ft²	00.0%	☐	☐
South Wall	1,200 ft²	160 ft²	13.3%	☐	☐
West Wall	400 ft²	0 ft²	00.0%	☐	☐
Total	**3,200 ft²**	**320 ft²**	**10.0%**	☐	☐
Roof	4,800 ft²	30 ft²	00.6%	☐	☐

Project Name:	120X40 (PC 04-116504) - Wall AC	NRCC-PRF-01-E	Page 10 of 19
Project Address:	Climate Zone 14 Palmdale	Calculation Date/Time:	19:52, Sat, Jun 23, 2018
Compliance Scope:	NewComplete	Input File Name:	120X40 PC - CZ14(Wall AC)R75RSPV.cibd16x

O. EQUIPMENT CONTROLS § 120.2

1. Equip Name	2. Equip Type	3. Controls	Confirmed Pass	Confirmed Fail
AC-1 to AC-5	SPVHP	No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY § 120.4/ § 140.4(l)

		Dry System Distribution					Confirmed	
1.	2.	3.	4.	5. Ducts		6.		
Equip Name	Equip Type	Duct Leakage and Sealing Required per 140.4(l)	Duct Leakage will be verified per NA1 and NA2	Insulation R-Value	Location	Status[1]	Pass	Fail
AC-1 to AC-5	SPVHP	No	No	8	Unconditioned	N	☐	☐

[1] *Status: N - New, E – Existing*

Does the Project include Zonal Systems? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project include a Solar Hot Water System? (if "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (if "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)[3] § 140.6

1. Occupancy Type [1]	2. Conditioned Floor Area [2] (ft²)	3. Installed Lighting Power (Watts)	4. Lighting Control Credits (Watts)	5. Additional (Custom) Allowance: Area Category Footnotes (Watts)	5. Additional (Custom) Allowance: Tailored Method (Watts)	Confirmed Pass	Confirmed Fail
Classrooms, Lecture, Training, Vocational Areas	4,800	3,160	0	0	0	☐	☐
Building Totals:	**4,800**	**3,160**	**0**	**0**	**0**		

[1] *See Table 140.6-C*

	120X40 (PC 04-116504) - Wall AC	NRCC-PRF-01-E	Page 13 of 19
Project Address:	Climate Zone 14 Palmdale	Calculation Date/Time:	19:52, Sat, Jun 23, 2018
Compliance Scope:	NewComplete	Input File Name:	120X40 PC - CZ14(Wall AC)R75RSPV.cibd16x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT § 10-103

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

Documentation Author Name: LAL B. SAHGAL	Signature: Lal Sahgal
Company: LSA CONSULTING ENGINEERS	
Address: 83, WINDSWEPT WAY	Signature Date: 06/25/2018
City/State/Zip: MISSION VIEJO CA. 92692	CEA Identification (If applicable): M26885
Phone: (949)830-4746	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

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

1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name: Manny D. Frisch	Signature: Manny D. Frisch	
Company: R & S Tavares Associates		
Address: 11777 Bernardo Plaza Ct. #105	Date Signed: 06/25/2018	
City/State/Zip: San Diego Ca. 92128	Declaration Statement Type:	
Phone: (858)444-3344 Ext. 1810	Title:	License #: S3380
Responsible Lighting Designer Name: Ralph M. Tavares	Signature:	
Company: R & S Tavares Associates		
Address: 11777 Bernardo Plaza Ct. #105	Date Signed: 06/25/2018	
City/State/Zip: San Diego Ca. 92128	Declaration Statement Type:	
Phone: (858)444-3344 Ext. 1801	Title:	License #:
Responsible Mechanical Designer Name: Lal Sahgal	Signature: Lal Sahgal	
Company: LSA Consulting Engineers		
Address: 83, Windswept Way	Date Signed: 06/25/2018	
City/State/Zip: Mission Viejo Ca. 92692	Declaration Statement Type:	
Phone: (949)830-4746	Title:	License #: M26885

Project Name:	120X40 (PC 04-116504) - Wall AC	NRCC-PRF-01-E	Page 8 of 19
Project Address:	Climate Zone 14 Palmdale	Calculation Date/Time:	19:52, Sat, Jun 23, 2018
Compliance Scope:	NewComplete	Input File Name:	120X40 PC - CZ14(Wall AC)R75RSPV.cibd16x

J. FENESTRATION ASSEMBLY SUMMARY § 110.6

1. Fenestration Assembly Name / Tag or I.D.	2. Fenestration Type / Product Type / Frame Type	3. Certification Method[1]	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Status[2]	Confirmed Pass	Confirmed Fail
Sierra Pacific Windows	VerticalFenestration FixedWindow N/A	NFRC Rated	Manufactured	320	0.35	0.24	0.50	N	☐	☐
Solatube	Skylight FixedWindow N/A	NFRC Rated	Manufactured	30	0.37	0.35	0.50	N	☐	☐

[1] *Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*

[2] *Status: N - New, A – Altered, E – Existing*

Taking compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information)	No

K. OPAQUE SURFACE ASSEMBLY SUMMARY § 120.7/ § 140.3

1. Surface Name	2. Surface Type	3. Area (ft²)	4. Framing Type	5. Cavity R-Value	6. Continuous R-Value	7. U-Factor / F-Factor / C-Factor	8. Status[1]	Confirmed Pass	Confirmed Fail
R-19 Wall Metal Stud5	ExteriorWall	3200	Metal	19	4	U-Factor: 0.104	N	☐	☐
Raised Slab Floor with R-12	ExteriorFloor	4800	Metal	11	NA	U-Factor: 0.091	N	☐	☐
Standing Seam R-30 Metal14	Roof	4800	NA	30	NA	U-Factor: 0.072	N	☐	☐

[1] *Status: N - New, A – Altered, E – Existing*

L. ROOFING PRODUCT SUMMARY § 140.3

1. Product Type	2. Product Density (lb/ft³)	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. Roofing Product Description	Confirmed Pass	Confirmed Fail
Standing Seam R-30 Metal14	2.543	0.08	0.75	NA	No	NA	☐	☐

Project Name:	120X40 (PC 04-116504) - Wall AC	NRCC-PRF-01-E	Page 11 of 19
Project Address:	Climate Zone 14 Palmdale	Calculation Date/Time:	19:52, Sat, Jun 23, 2018
Compliance Scope:	NewComplete	Input File Name:	120X40 PC - CZ14(Wall AC)R75RSPV.cibd16x

[2] *See NRCC-LTI-01-E for unconditioned spaces*

[3] *Lighting information for existing spaces modeled is not included in the table*

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] § 130.0

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices)		Installed Watts (Conditioned)					Confirmed	
Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F3ZT8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Pass	Fail
L-1	3-LAMP / 32W / T8	96	Yes	No	40	3,840	☐	☐

[1] *If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.*

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES § 140.9

This Section Does Not Apply

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS § 140.9

This Section Does Not Apply

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS § 140.9

This Section Does Not Apply

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS § 140.9

This Section Does Not Apply

T. UNMET LOAD HOURS

This Section Does Not Apply

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	--	6.4	--	51.5	--	--
Space Cooling	12.2	14.3	-2.1	--	--	--

Project Name:	120X40 (PC 04-116504) - Wall AC	NRCC-PRF-01-E	Page 9 of 19
Project Address:	Climate Zone 14 Palmdale	Calculation Date/Time:	19:52, Sat, Jun 23, 2018
Compliance Scope:	NewComplete	Input File Name:	120X40 PC - CZ14(Wall AC)R75RSPV.cibd16x

M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) § 110.1 / § 110.2

Dry System Equipment [1] (Fan & Economizer info included below in Table N)												Confirmed	
1. Equip Name	2. Equip Type	3. System Type (Simple [2] or Complex [3])	4. Qty	5. Total Heating Output (kBtu/h)	6. Supp Heat Source (Y/N)	7. Supp Heat Output (kBtuh)	8. Total Cooling Output (kBtu/h)	9. Efficiency: Cooling	9. Efficiency: Heating	10. Acceptance Testing Required? (Y/N) [4]	11. Status[5]	Pass	Fail
AC-1 to AC-5	SPVHP (Packaged1Phase)	Simple	5	40	No	0	38	EER-11.00	COP-3.40	Yes	N	☐	☐

[1] *Dry System Equipment includes furnaces, air handling units, heat pumps, etc.*

[2] *Simple Systems must complete NRCC-CXR-03-E commissioning design review form*

[3] *Complex Systems must complete NRCC-CXR-04-E commissioning design review form*

[4] *A summary of which acceptance tests are applicable is provided in NRCC-PRF-MCH-DETAILS*

[5] *Status: N – New, A – Altered, E – Existing*

Wet System Equipment Section Does Not Apply

Discrepancy between modeled and designed equipment sizing? (if "Yes", see Table F. "Additional Remarks" for an explanation)	No

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1] § 140.4

1. Equip Name	2. Outside Air	3. Supply Fan: CFM	HP	BHP	TSP (inch WC)	Control	4. Return Fan: CFM	HP	BHP	TSP (inch WC)	Control	5. Economizer Type (if present)	Confirmed Pass	Confirmed Fail
AC-1 to AC-5	360	1250	0.750	0.750	1.90	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐

[1] *Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section*

Project Name:	120X40 (PC 04-116504) - Wall AC	NRCC-PRF-01-E	Page 12 of 19
Project Address:	Climate Zone 14 Palmdale	Calculation Date/Time:	19:52, Sat, Jun 23, 2018
Compliance Scope:	NewComplete	Input File Name:	120X40 PC - CZ14(Wall AC)R75RSPV.cibd16x

U. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Indoor Fans	18.2	18.1	0.1	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	--	--	37.1	37.1	0.0
Indoor Lighting	9.8	6.5	3.3	--	--	--
COMPLIANCE TOTAL	**40.2**	**45.3**	**-5.1**	**88.6**	**37.1**	**51.5**
Receptacle	12.7	12.7	0.0	--	--	--
Process	--	--	--	--	--	--
Other Ltg	--	--	--	--	--	--
Process Motors	--	--	--	--	--	--
TOTAL	**52.9**	**58.0**	**-5.1**	**88.6**	**37.1**	**51.5**

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# 04-116504 DATE: 7-10-18

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRISCH No. S-5438 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
120'x40' T24 CZ 16
(WALL AC)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
07/05/2018

SHEET NO.
M2.2
SHEET OF SHEETS

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS — Confirmed: Pass ☐ Fail ☐

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Pass	Fail
R-19 Wall Metal Stud5	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Metal framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 1/2 in. Expanded Polystyrene - EPS - 1 in. R4.2		☐	☐
Raised Slab Floor with R-12	ExteriorFloor	Concrete - 140 lb/ft3 - 4 in. Metal framed floor, 24in. OC, 5.5in., R-11 Plywood - 1/2 in. Carpet - 3/4 in.		☐	☐
Standing Seam R-30 Metal14	Roof	Metal Standing Seam - 1/16 in. Metal standing seam roof, R-30		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY

This Section Does Not Apply

NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2016-NRCC-MCH-03-E)* — Confirmed: Pass ☐ Fail ☐

1. DESIGN AIR FLOWS									2. VENTILATION (§ 120.1)									
CONDITIONED ZONE NAME	HEATING/COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Operable Window Interlock § 140.4(o) (Y/N)	Pass	Fail
1-First Floor	AC-1 to AC-5	6,250	NA	NA	NA	NA	N	AC-1 to AC-5	4,800	NA	120.00	15.00	1,800	1,800	NA	N	NA	☐	☐
								TOTAL	4,800		120.00		1,800	1,800	NA			☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY — § 140.4

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtuh) Heating	4. Rated Capacity (kBtuh) Cooling	5. Economizer	6. Zone Name	7. Airflow (cfm) Design	7. Airflow (cfm) Min.	7. Airflow (cfm) Min. Ratio	8. Fan BHP	8. Fan Cycles	8. Fan ECM Motor	Confirmed Pass	Confirmed Fail
1-First Floor-Trm	Uncontrolled	5	NA	NA	NA	1-First Floor	6250	NA	NA	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY

This Section Does Not Apply

D. DHW EQUIPMENT SUMMARY – *(Adapted from NRCC-PLB-01)*

This Section Does Not Apply

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS

This Section Does Not Apply

F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)

This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2016-NRCC-MCH-01-E)* — § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed Pass	Confirmed Fail
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	☐	☐
AC-1 to AC-5	5	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

H. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) — § 140.6

Lighting Control Credits Schedule (includes all lighting controls installed in conditioned space for compliance credit per §140.6(a)2 and Table 140.6-A)				Control Credit Calculation			V If Acceptance Test Required	Confirmed Pass	Confirmed Fail
Location in Building	Occupancy Type (must meet requirements of Table 140.6-A)	Type/Description of Lighting Control (i.e., partial on occupancy sensor, manual dimming, etc.)	# of Units	Watts of Controlled Lighting	Power Adjustment Factor	Control Credit Watts			
S-1-First Floor	Classrooms, Lecture, Training, Vocational Areas	- none specified -	1		0.00	0		☐	☐

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) — § 130.1

This Section Does Not Apply

§130.1(a) = Manual area controls; §130.0(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Responsive

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) — § 140.6

General lighting power (see Table D)	0
General lighting power from special function areas (see Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) — § 140.6-D

This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) — § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft²)	Allowed Watts	Confirmed Pass	Confirmed Fail
NA	NA	NA	NA	NA	NA	NA	☐	☐

Note: Tailored Method for Special Function Areas is not currently implemented

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces						Confirmed Pass	Confirmed Fail
Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR		
NA	NA	NA	NA	NA	NA	☐	☐

Non-Rectangular Spaces

This Section Does Not Apply

Note: All applicable spaces are listed under the Non-Rectangular Spaces table

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1. Wall Display	2. Combined Floor Display and Task Lighting	3. Combined Ornamental and Special Effects Lighting	4. Very Valuable Merchandise	Allowed Watts	Confirmed Pass	Confirmed Fail
0	0	0	0	0	☐	☐

5. Wall Display

This Section Does Not Apply

6. Floor Display and Task Lighting

This Section Does Not Apply

7. Combined Ornamental and Special Effects Lighting

This Section Does Not Apply

8. Very Valuable Merchandise

This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) — § 130.4

Declaration of Required Acceptance Certificates (NRCA) –Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		Indoor NRCA-LTI-02-A	Indoor NRCA-LTI-03-A	Indoor NRCA-LTI-04-A	Outdoor NRCA-LTO-02-A	Confirmed Pass	Confirmed Fail
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls		
Occupant Sensors	0	☒	☐	☐	☐	☐	☐
Automatic Time Switch	0	☒	☐	☐	☐	☐	☐
Automatic Daylighting	0	☐	☒	☐	☐	☐	☐
Demand Responsive	0	☐	☐	☐	☐	☐	☐
Outdoor Controls	0	☐	☐	☐	☐	☐	☐

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# OH-116504 DATE 7.10.18

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANCISCO
STRUCTURAL
STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
120'x40' T24 CZ 16
(WALL AC)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
07/05/2018

SHEET NO.
M2.3

SHEET OF SHEETS

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL — ENV-MM

Project Name	Date
120X40 (PC 04-116504) - Wall AC	*6/23/2018*

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(g):	Heated slab floors shall be insulated according to the requirements in Table 110.8-A.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a) :	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).
§120.7(a):	The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Metal Building-** The weighted average U-factor of the roof assembly shall not exceed 0.098. **Wood Framed and Others-** The weighted average U-factor of the roof assembly shall not exceed 0.075.
§120.7(b):	The opaque portions of walls that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-factor as follows: **Metal Building-** The weighted average U-factor of the wall assembly shall not exceed 0.113. **Metal Framed-** The weighted average U-factor of the wall assembly shall not exceed 0.151. **Light Mass Walls-** A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.440. **Heavy Mass Walls-** An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.690. **Wood Framed and Others-** The weighted average U-factor of the wall assembly shall not exceed 0.110. **Spandrel Panels and Opaque Curtain Wall-** The weighted average U-factor of the spandrel panels and opaque curtain wall assembly shall not exceed 0.280. **Demising Walls-**. The opaque portions of framed demising walls shall meet the requirements of Item A or B below: A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099. B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151.
§120.7(c):	The opaque portions of floors and soffits that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Raised Mass Floors-** Shall have a minimum of 3 inches of lightweight concrete over a metal deck or the weighted average U-factor of the floor assembly shall not exceed 0.269. **Other Floors-**The weighted average U-factor of the floor assembly shall not exceed 0.071.

Mandatory Measures: The following notes (items) represent the Mandatory Measures for all buildings.

Heat pumps with supplementary electric resistance heaters shall have controls:

1) That prevent supplementary heater operation when the heating load can be met by the heat pump alone; and

2) In which the cut-on temperature for compression heating is higher than the cut-on temperature for supplementary heating, and the cut-off temperature for compression heating is higher than the cut-off temperature for supplementary heating.

Sec. 110.2 (b)

The minimum rate of outdoor air required per Section 120.1 (b) 2 shall be supplied to each space at all time the space is usually occupied.

Sec. 120.1 (c) 3

The Lesser of the minimum rate of outdoor air required by Sec. 120.1 (b) 2, or three complete air changes shall be supplied to the entire building during the one-hour period immediately before the building is normally occupied.

Sec. 120.1 (c) 2

Hotel/Motel Guest Room Thermostats shall have numeric temperature set points in degrees F; and set point stops accessible only to authorized personnel, to restrict over-heating and over-cooling.

Sec. 120.2 (c)

All air distribution system ducts and plenums, including, but not limited to, building cavities, mechanical closets, air-handler boxes and support platforms used as ducts or plenums, shall be installed, sealed and insulated to meet the requirements of chapter 6 of the 2001 CMC. Supply-air and return-air ducts conveying heated or cooled air shall be insulated to a minimum installed level of R-8, unless ducts are in conditioned space.

Sec. 120.4 (a)

The thermostatic controls for HVAC systems shall meet the following requirements as applicable:

a) Each space conditioning zone shall be controlled by an individual thermostatic control that responds to temperature within the zone and meets the applicable requirements of Subsection (b).

b) Each Thermostatic control required by Subsection (a) shall be capable of being set locally or remotely by adjustment or selection of sensors to control:

1) Comfort heating down to 55°F or lower.

2) Comfort Cooling up to 85°F or higher.

3) Both heating and cooling, the thermostatic controls shall be capable of providing a temperature range or dead band of at least 5°F within which the supply of heating and cooling energy to the zone is shut off or reduced to a minimum.

Sec. 120.2 (a) & (b)

1) Outdoor air supply and exhaust equipment shall be installed with dampers that automatically close upon fan shutdown.

Sec. 120.2 (f)

2) Demand Control Ventilation Devices (CO2 sensors) shall be installed in accordance with Sec. 120.1 (c) 4.

Sec. 120.1 (c) 4

3) Each space-conditioning system shall be installed with controls that comply with Items 1 and 2 below:

1) Are capable of automatically shutting off the system during periods of non-use and shall have:

a) An automatic time switch control device complying with Sec. 119(c), with an accessible manual override that allows operation of the system for up to 4 hours; or
b) An occupancy sensor; or
c) A four-hour timer that can be manually operated.
d) EXCEPTION: Mechanical systems serving retail stores and associated malls, restaurants, grocery stores, churches, and theaters equipped with 7-day programmable timers.

2) Automatically restart and temporarily operate the system as required to maintain:
a) A setback heating thermostat set point, if the system provides mechanical heating; and
EXCEPTION: Area with the design winter outdoor temperature of greater than 32°F.
b) A setup cooling thermostat set point, if the system provides mechanical cooling.

EXCEPTION: Area with the design summer outdoor temperature of less than 100°F.
EXCEPTION: Systems serving hotel/motel guest rooms, if they have a readily accessible manual shut-off switch.

Sec. 120.2 (e)

4) The piping for all space conditioning and service water heating systems shall be insulated in accordance with TABLE 123-A.

Sec. 120.3

5) Service water heating systems and equipment shall meet the applicable requirements of the Appliance Efficiency Regulations as required by Sec. 110.1.

Sec. 110.3 (b)

6) Service hot water systems with circulating pumps or with electrical heat trace systems shall be capable of automatically turning off the system.

Sec. 110.3 (c) 2

7) Lavatories in public restrooms shall have controls that limit the water supply temperature to 110°F.

Sec. 110.3 (c) 3

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO 24380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE
120'x40' T24 CZ 16
(WALL AC)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
07/05/2018

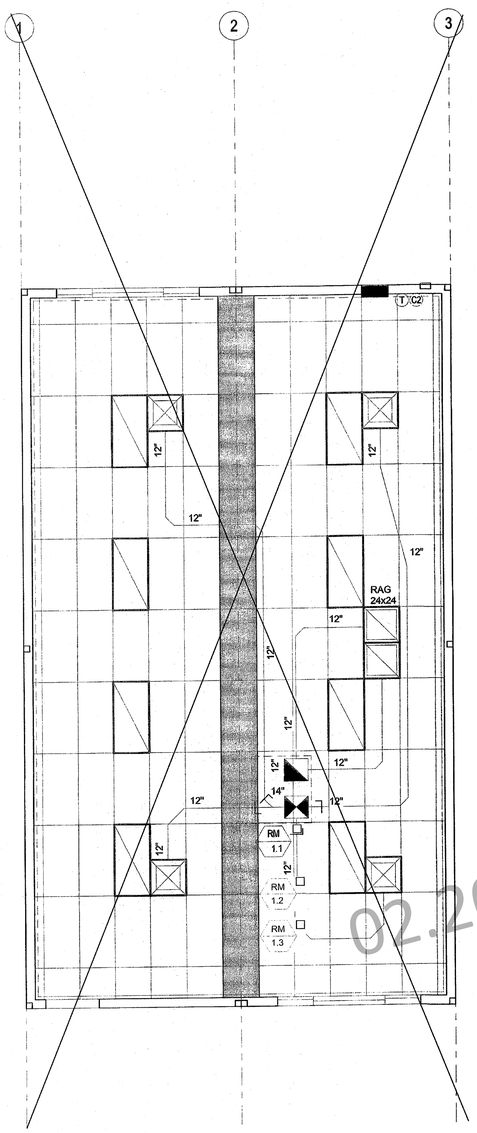
SHEET NO.
M2.4
SHEET OF SHEETS

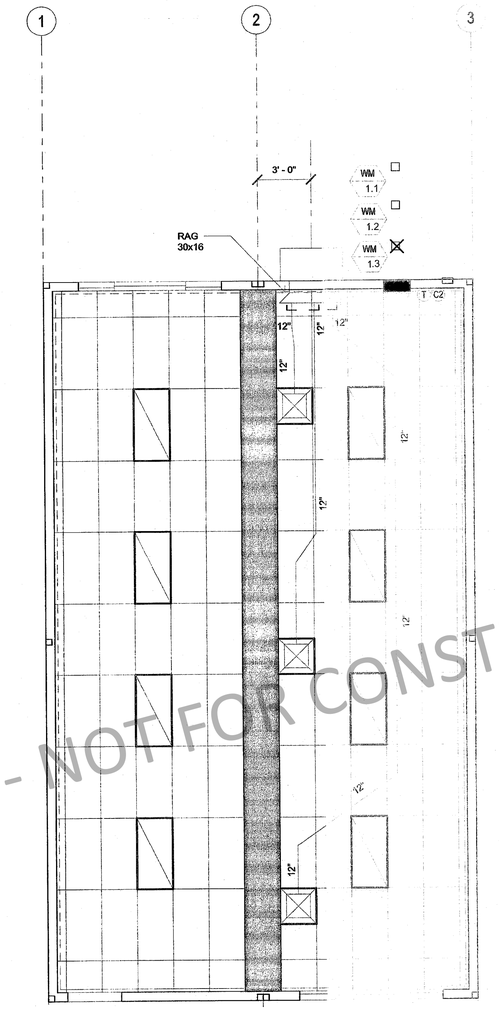
3/8/2018 2:19:44 PM C:\Users\Andrew\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Andrew.rvt

GENERAL NOTES:

1- DUCTWORK SHALL HAVE R-8 INSULATION.

2- PER 2016 CALIFORNIA MECHANICAL CODE (CMC) SECTION 603.4.1 AND SECTION 603.5 FACTORY-MADE FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE MORE THAN FIVE (5) FEET IN LENGTH AND SHALL BE USED IN LIEU OF RIGID ELBOWS OR FITTINGS.





1 1/4" = 1'-0"
24x40 RM-1 MECH PLANS

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R&S
DESIGN & CONSULTING PROJECT
11777 Bernardo Plaza South, Suite 105
San Diego, CA 92128
www.rsdesign.com

PROFESSIONAL STAMP

12/19/2017

CLIENT

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1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
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DATE 07/19/2018

PROJECT TITLE
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EXPANDABLE TO
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PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
MECHANICAL
CEILING PLAN
24x40

PROJECT NUMBER
17016A
DRAWN BY
SMC/SC
CHECKED BY
JA/RT
DATE
2017/08/08
SHEET NO.
M5.1

STRUCTRUAL STEEL:

A. ALL WORK, UNLESS MODIFIED BY THE CONCTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT AISC SPECIFICATIONS AND STANDARDS.
B. STEEL SHAPES SHALL COMFORM TO THE FOLLOWING STANDARD:
   a. STRUCTURAL HSS COLUMNS: ASTM A500 GRADE B
   b. STRUCTURAL W-SHAPES: ASTM A992 GRADE 50
   c. TUBE STEEL: ASTM A500 GRADE B
   d. ALL OTHER: ASTM A36

C. FABRICATION, ERECTION, AND SHOP PAINTING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AISC *CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES.*
D. HOLES IN STRUCTURAL STEEL SHALL NOT BE PERMITTED, UNLESS SPECIFIED IN THE STRUCTURAL DRAWINGS

CONCRETE

A. ALL CONCRETE WORK, UNLESS MODIFIED BY CONTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 19A, CBC 2013 AND ACI 318-11.

B. TESTS AND INSPECTION SHALL BE PERFORMED BY A TESTING LABORATRY CONTRACTED BY THE DISTRICT.

C. MIX DESIGN SHALL BE SUBMITTED FOR QUALIFICATION AND PROVIDE A 28-DAY COMPRESSIVE STRENGTH F'C OF 3500 PSI, COMPOSED OF NORMAL WEIGHT TYPE I PORTALAND CEMENT IN CONFORMANCE WITH ASTM C150.

D. FORMWORK SHALL RESULT IN FINAL STRUCTURE THAT CONFORMS TO SHAPES, LINES, AND DIMENSIONS AS REQUIRED BY THE CONTRACT DOCUMENTS.

E. LOCATIONS OF VENTS AND OPENINGS FOR MECHANICAL AND ELECTRICAL USE SHALL BE VERIFIED BY ARCHITECT.

F. EMBEDMENT OF MATERIALS NOT HARMFULL TO CONCRETE AND WITHIN LIMITATIONS OF SECTION 6.3, ACI-318-11 SHALL BE PERMITTED. REFER TO OTHER DISCIPLINES FOR LOCATION OF CONDUIT, PIPES, FITTINGS, SLEEVES, ETC.

G. CONTINUOUS BATCH PLANT INSPECTION WAIVED PER CBC 1705A3.3. WHEN CONTINUOUS BATCH PLANT INSPECTION IS WAIVED, THE FOLLOWING PERIODIC INSPECTION SHALL BE REQUIRED:(INSPECTIONS PROVIDED BY DISTRICT)

1. QUALIFIED TECHNICIAN OF THE TESTING LABORATORY SHALL CHECK THE FIRST BATCH AT THE START OF THE DAY.
2. LICENSED WEIGHMASTER TO POSITIVELY IDENTIFY MATERIALS AS TO QUANTIFY AND CERTIFY TO EACH LOAD BY A BATCH TICKET.
3. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY A TRUCK DRIVER WITH THE LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR WILL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, ITS LOAD, AND TIME OF RECEIPT, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND WILL TRANSMIT A COPY OF THE DAILY RECORD TO THE ENFORCEMENT AGENCY.

H. ANCHOR BOLTS, AND REINFORCING STEEL SHALL BE SECURELY TIED BEFORE CONCRETE IS POURED.

STEEL REINFORCEMENT

A. DEFORMED BARS SHALL CONFORM TO ASTM A615.
B. fy= 40,000 PSI, FOR ALL BARS EXEPT FOR #3 BARS, fy= 60,000 PSI.
C. PROVIDE A MINIMUM CONCRETE COVER FOR REINFORCEMENT EMBEDDED IN:
   a. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH = 3"
   b. CONCRETE EXPOSED TO EARTH OR WEATHER FOR #5 BARS OR SMALLER = 1.5"
D. SPLICE LENGTHS SHALL BE A MINIMUM OF 48" FOR #5 BARS, AND 30" FOR #4 BARS UNLESS OTHERWISE SPECIFIED IN DRAWINGS.

BOLTS

A. ALL BOLTS AND ANCHOR BOLTS SHALL COMFORM ATO ASTM A-307
B. BOLTS EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED BY THE HOT-DIP OR MECHANICAL PROCESS

WELDING

A. ALL WELDING SAHLL BE IN COMFORMANCE TO:
   a. AWS D1.1, EXCEPT AS MODIFIED IN SECTION J2, AISC-360 FOR STEEL
   b. AWS D1.3 FOR LIGHT GAUGE STEEL
   c. AWS D1.4 FOR REINFORCING STEEL

B. ELECTRODE CLASSIFICATION:
   a. E70XX FOR STEEL AND CONCRETE STEEL REINFORCEMENT
   b. E60XX FOR LIGHT GAUGE STEEL

C. WELDS SHALL BE CAPABLE OF PRODUCING THE FOLLOWING V-NOTCH TOUGHNESS AS DETERMINED BY APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION:
   a. LATERAL FORCE RESISTING SYSTEM (LFRS) = 20 FT-LB AT 0 DEGREE F
   b. COMPLETE JOINT PENETRATION GROOVE WELD = 20 FT-LB AT 40 DEGREE F

D. SHOP AND FIELD WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS.

E. INSPECTION:
   a. PERIODIC INSPECTION OF FILLET WELDS LESS THAN OR EQUAL TO 5/16", FLOOR AND ROOF DECK WELDS.
   b. CONTINUOUS INSPECTION FOR OTHER WELDS.

F. NONDESTRUCTIVE TESTING (NDT):
   a. ULTRASONIC TESTING SHALL BE PERFORMED ON 100 PERCENT OF CJP GROOVE WELDS IN MATERIALS 5/16" OR THICK OR GREATER. ULTRASONIC TESTING NOT REQUIRED FOR MATERIALS LESS THAN 5/16" THICK. TESTING FREQUENCY MAY BE REDUCED TO 25%, PROVIDED PROVISIONS SET FORTH IN SECTION N5.5e, AISC-360 IS MET.
   b. MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON 25 PERCENT OF ALL BEAM-TO-COLUMN CJP GROOVE WELDS. TESTING FREQUENCY MAY BE REDUCED TO 10%, PROVIDED PROVISIONS SET FORTH IN J6.2g, AISC-341 IS MET.

FOUNDATIONS

GEOTECHNICAL INVESTIGATION SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 1803A.1 THROUGH 1803A.8 BY A GEOTECHNICAL ENGINEER CONTRACTED BY THE DISTRICT. ALLOWABLE FOUNDATION AND LATERAL SOIL PRESSURE VALUES MAY BE DETERMINED FROM TALBLE 1806A.2, WHERE GEOTECHNINCAL REPORTS IS NOT REQUIRED PER SECTION 1803A.2. A MAXIMUM ALLOWABLE SOIL PRESSURE OF 1000 PSF AND 1500 PSF SHALLBE PERMITTED FOR TEMPORARY WOOD AND PERMANENT CONCRETE FOUNDATIONS RESPECTIVELY IN ACCORDANCE WITH SECTION 4.6, IR 16-1.13

A PREVIIOUS REPORT FOR A SPECIFIC SITE MAY BE RESUBMITTED. THE ALLOWABLE FOUNDATIONA AND LATERAL SOIL PRESSURE VALUES ARE ALLOWED A 33% INCREASE FOR SHORT TERM WIND AND SEIMIC LOADS.

THE DISTRCT SHALL BE RESPONSIBLE FOR EXCAVATION, BACKFILL, SETTING ELEVATIONS, CRANING AND RIGGING. PROVIDE SHIMS TO LEVEL BUILDING WITHIN 1/2" TOLERANCE.

COLD-FORMED STEEL:

A. ALL WORK SHALL, UNLESS MODIFIED BY THE CONCTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT AISI SPECIFICATIONS AND STANDARDS.

B. MATERIAL SPECIFICATION:
   a. ASTM A-1011/A, GRADE 33 FOR MATERIALS THICKNESS 0.120 OR LESS UNLESS OTHERWISE NOTED
   b ASTM A-1003, GRADE 33 TYPE H FOR LIGHT GUAGE STUDS AND TRACKS
   c. SHAPES SHALL BE DIMENSIONED TO SSMA SPECIFICATIONS.

C. SCREWS EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED

STEEL DECK

MINIMUM THICKNESS PERMITTED FOR FLOOR STEEL DECKS IS 20GA. PER DSA IR 16-1.13, 1.2.1, MINIMUM THICKNESS OF NON-STRUCTURAL STEEL ROOF DECKING IS 26GA. STANDING SEAM ROOF PANELS ARE GRADE 40 SHEET STEEL WITH AN ALUMINUM ZINC COATING CONFORMING TO ASTM A792 AND AZ55.

CHANGES

CHANGES AFFECTING STRUCTURAL PORTION OF THE APPROVED PC SHALL NEED DSA APPROVAL AND SHALL BE CLASSIFIED AS CCD CATEFORY A.

WOOD

ALL FRAMING LUMBER SHALL BE GRADE MARKED BY AN APPROVED GRADING AGENCY

SHEATHING:

EACH SHEET SHALL BE GRADE MARKED BY THE AMERICAN PLYWOOD ASSOCIATION IN ACCORDANCE WITH THE PROCEDURES AND QUALIFICATIONS SET FORTH BY PS 1-07.

1. SUB FLOOR: 1 1/8" T&G UNBLOCKED PLYWOOD, SHALL PROVIDE A SMOOTH AND UNIFORM SURFACE CAPABLE OF ACCEPTING CARPET FINISH
2. PLYWOOD ROOF DECK OPTION: APA RATED 3/4" T&G OSB OR EQUIVALENT RATED SHEATHING
3. EXTERIOR WALL SIDING:
   I. STANDARD: 5/8" DURATEMP OR 5/8" SMART PANEL
   II. OPTION: 5/8" MOD
   III. OPTION: 1/2" OSB OR CDX PLYWOOD FOR PLASTER/STUCCO FINISH
   IV. OPTION: 1/2" OSB OR CDX PLYWOOD FOR HARDIE BOARD (LAP SIDING) FINISH

4. EXTERIOR WALL SIDING ATTACHMENT:

FASTENERS USED FOR THE ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE HOT-DIPPED GALVANIZED, MECHANICALLY DEPOSITED ZINC-COATED, STAINLESS, SILICON BRONZE OR COPPER PER CBC SECTION 2304.9.1.1

FASTEN TO WOOD FRAMING WITH 8D BOX NAILS @ 6" E.N., 12" F.N.
FASTEN TO LIGHT GAGE METAL FRAMING WITH #8 WAFER HEAD STSMS @ 6" E.N., 12" F.N.
FASTEN TO STRUCTURAL STEEL WITH #12 STSMS OR 0.145 DIAM SHOT PINS @ 12" O.C.

TREATED WOOD:

ALL WOOD LOCATED WITHIN 6" OF EXPOSED EARTH SHALL BE "PRESERVATIVE TREATED" OR SHALL BE "NATURALLY DURABLE" MATERIAL IN ACCORDANCE WITH CBC SECTION 2304.11.2.2.

1. ALL ROUGH LUMBER SHALL BE DF #2 OR BETTER.
2. ALL POWER DRIVEN FASTENERS SHALL BE HILTI FASTENERS ICC# ESR-1663, AND RAMSET POWER DRIVEN FASTENERS (ICC # ESR-1799), OR SIMPSON POWER DRIVEN FASTENERS ICC #ESR-2138, OR OTHER EQUIVALENT PRODUCTS WITH ICC REPORTS AND APPROVED BY DSA.
3. FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER PER CBC 2304.9.5.1

ROOF DIAPHRAGM:

3/4" T&G RATED SHEATHING, EXPOSURE 1, 48/24 SPAN RATING
FASTEN AT METAL SUPPORTS W/ #10 x 1 1/4" SELF-TAPPING PHILLIPS FLAT-HEAD ZINC COATED TEKS SCREWS @ 4" O.C. BN, 6" O.C. EN, AND 12" O.C. FN. PROVIDE A MINIMUM OF 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2.

FLOOR DIAPHRAGM:

1 1/8" PLYWOOD - STURD-I-FLOOR T&G RATED SHEATHING, EXTERIOR, 48" oc SPAN RATING
FASTEN AT METAL SUPPORTS W/ #10 - 24 x 1 3/4" SELF-TAPPING PHILLIPS FLAT-HEAD ZINC COATED TEKS @ 6" O.C. BN, 6" O.C. EN, 12" FN. PROVIDE A MINIMUM OF 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2

CONCRETE FLOOR DATA: LIGHTWEIGHT CONCRETE FLOOR
STRENGTH: 3500 PSI
TYPE: I OR II
DESINTY: 110 PCF - MAX

DIMENSION LUMBER ATTACHMENT TO STEEL FRAMING:

2 x STUDS AT CORNER STEEL COLUMNS (NAILING STUD)
USE: #10 - 24 x 2 1/2" LG. SELF-DRILLING SELF-TAPPING PHILLIPS FLAT-HEAD WITH WASHER ZINC COATED TEK SCREWS AT 24" OC.

NAILING NOTES:

1. ALL NAILS SHALL BE COMMON UNLESS OTHERWISE NOTED
2. MACHINE APPLIED 16d FASTENERS SHALL HAVE AN EMBEDMENT OF NOT LESS THAN 1 1/2" INTO THE SECOND MEMBER, AND SHALL NOT BE LESS THAN 3" IN OVERALL LENGTH.
3. NAILS SHALL BE ACCEPTABLE FOR HAND NAILING, PROVIDED THE REQUIREMENT EMBEDMENT IS MAINTAINED.

CONNECTIONS AND FASTENERS:

ALL CONNECTIONS AND FASTENERS IN DRAWINGS CAN BE SUBSTITUTED BY AN EQUIVALENT PRODUCT PROVIDING ICC REPORTS ARE SUBMITTED TO AND APPROVED BY DSA.

CONNECTIONS LAG SCREWS:

LAG SCREWS SHALL BE INSTALLED WITH WASHER AND TURNED BY WRENCH, OVER-TORQUING SHALL BE AVOIDED. A PRE-DRILLED CLEARANCE AND LEAD HOLE SHALL BE REQUIRED AS DESCRIBED BELOW:

a) THE CLEARANCE HOLE FOR THE UNTHREADED PORTION OR THE SHANK SHALL HAVE SAME DEPTH AND DIAMETER.

b) THE LEAD HOLE FOR THE THREADED PORTION OF THE SHANK SHALL HAVE SAME DEPTH AND
65% TO 85% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, G > 0.6
60% TO 75% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, 0.5 < G ≤ 0.6
40% TO 70% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, G ≤ 0.5

LEAD OR CLEARANCE HOLES SHALL NOT BE REQUIRED FOR 3/8" DIAMETER OR SMALLER LAG SCREWS.

BALLISTIC PINS OPTIONS

1. HILTI X-CR PIN WITH 0.145 SHANK DIAMTER, ICC ESR-1663
2. RAMP SET 1500 PIN WITH 0.145 SHANK DIAMETER, ICC ESR-1799
3. SIMPSON STRONG TIE PDP PIN WITH 0.145 SHANK DIAMETER, ICC ESR-2138

NAILING SCHEDULE: (ALL NAILS SHALL BE COMMON, GALVANIZED WHERE EXPOSED) PER C.B.C. TABLE 2304.9.1

	CONNECTION	FASTENING	LOCATION
1.	JOIST TO SILL OR GIRDER	3-8d	TOENAIL
2.	BRIDGING TO JOIST	2-8d	TOENAIL EA. END
3.	1X6 OR LESS SUBFLOOR TO EA. JOIST	2-8d	FACE NAIL
4.	WIDER THAN 1X6 SUBFLOOR TO EA. JOIST	3-8d	FACE NAIL
5.	2" SUBFLOOR TO JOIST	2-16d	BLIND & FACE NAIL
6.	SOLE PLT. TO JOIST OR BLK'G. TO EA. JOIST	16d@16"	TYP. FACE NAIL
	SOLE PLT. TO JOIST OR BLK'G. @ BRACED WALL PANEL	3-16d@16"	TYP. FACE NAIL
7.	TOP PLT. TO STUD	2-16d	END NAIL
8.	STUD TO SOLE PLT.	2-16d	END NAIL
	OR	4-8d	TOENAIL
9.	DOUBLE STUDS	16d@24"	END NAIL
10.	DOUBLE TOP PLT.	16d@16"	TYP. FACE NAIL
	DOUBLE TOP PLT.	8-16d MIN. U.N.O.	LAP SPLICE
11.	BLKG. BTW. JOIST OR RAFTERS TO TOP PLT.	3-8d	TOENAIL
12.	RIM JOIST TO TOP PLT.	8d@6"	TOENAIL
13.	TOP PLT., LAPS & INTERSECTIONS	2-16d	FACE NAIL
14.	CONT. HDR. 2 PIECES	16d@16"	ALONG EDGE
15.	CLG. JOIST TO PLT.	3-8d	TOENAIL
16.	CONT. HDR. TO STUD	4-8d	TOENAIL
17.	CLG. JOIST LAP OVER PARTITONS	3-16d	FACE NAIL
18.	CLG. JOIST PARALLEL TO RAFTERS	3-16d	FACE NAIL
19.	RAFTER TO PLT.	3-8d	TOENAIL
20.	1" DIA. BRACE TO EA. STUD & PLT.	2-8d	FACE NAIL
21.	1X8 SHT'G. TO EA. BRG.	3-8d	FACE NAIL
22.	WIDER THAN 1X8 SHT'G. TO BRG.	3-8d	FACE NAIL
23.	BUILT-UP CORNER STUDS	16d@24"	FACE NAIL
24.	BUILT-UP GIRDERS & BEAMS	20d@32"	FACE NAIL @ TOP & BTM. STAGR. ON OPP. SIDES
		2-20d	FACE NAIL @ ENDS & @ EA. SPLICE
25.	2" PLANKS	2-16d	@ EA. BRG.
26.	COLLAR TIE TO RAFTER	3-10d	FACE NAIL
27.	JACK RAFTER TO HIP	3-10d	TOENAIL
28.	ROOF RAFTER TO 2X RIDGE	2-16d	TOENAIL
		2-16d	FACE NAIL
29.	JOIST TO BAND JOIST	3-16d	FACE NAIL
30.	4X BLOCKING TO STUDS	1-A34	FACE NAIL

12" = 1'-0"
STRUCTURAL NOTES

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO 12380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
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04 - 116504 INCR: 0
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PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
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DATE MAR 0 7 2018

Revision Schedule

#	Description	Date

SHEET TITLE
STRUCTURAL GEN NOTES

PROJECT NUMBER
17016A

DRAWN BY
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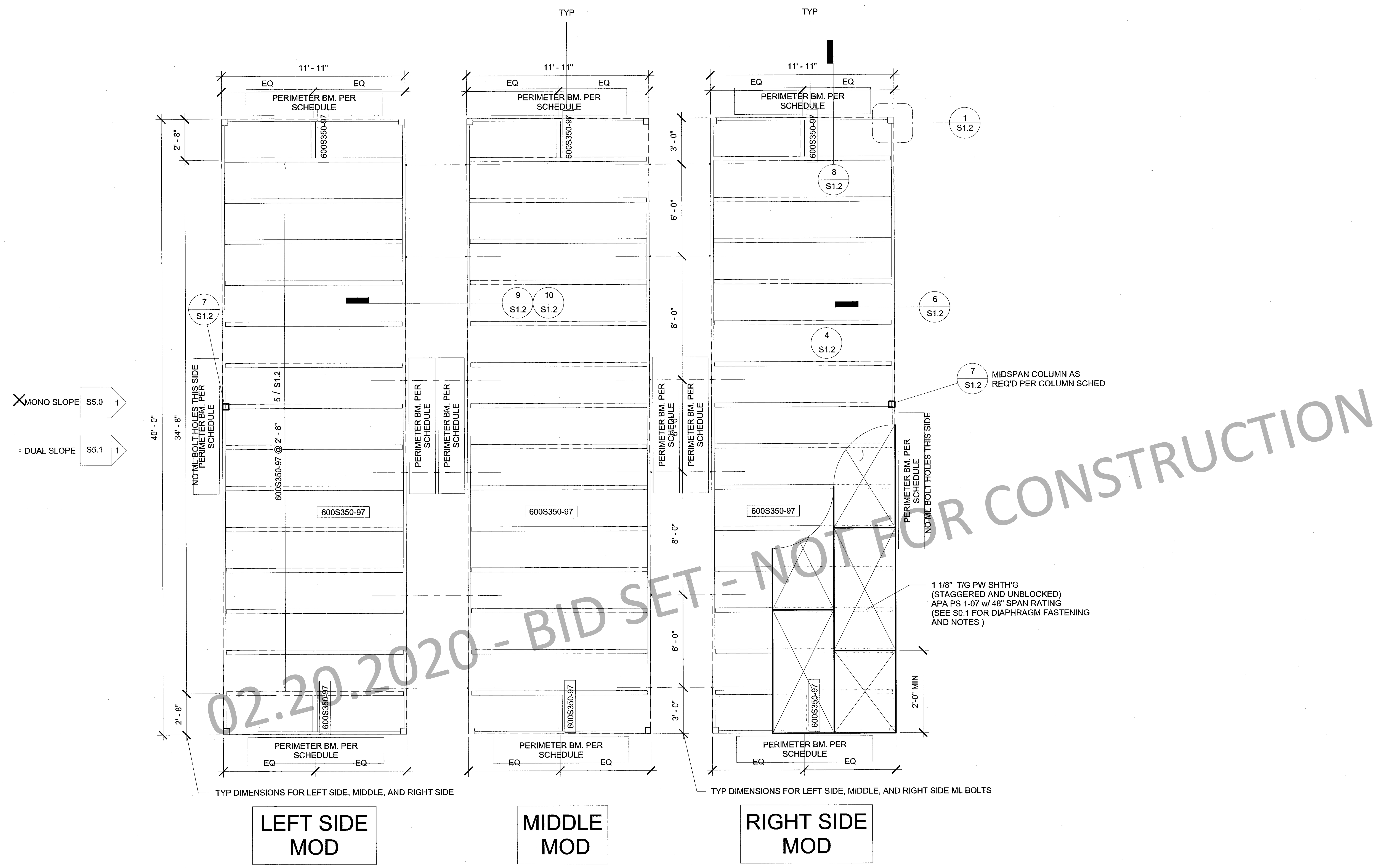
2017/06/05

SHEET NO.
S0.1

SHEET OF SHEETS



Perimeter Floor Beam Schedule			
HT	No Plaster Walls	Plaster Walls	w/ Parapet, 18" max
☒ 9'	C8x11.5	C8x11.5	C8x11.5
☐ 10'	C8x11.5	C8x11.5	C8x11.5

NOTE: SPLICE AT FLOOR BEAM PERMITTED PER 3/S1.2

Column Schedule			
HT	No Plaster Walls	Plaster Walls	w/ Parapet, 18" max
☒ 9'	5x5X1/4	5x5X1/4	5x5X1/4
☐ 10'	5x5X1/4	5x5X5/16*	5x5X5/16*
			3x3X3/16 mid-span column

*Alternative 6x6x1/4

1 1/4" = 1'-0"
WD Shth'g Flr Framing Plan (50+15 PSF)

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R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRAZIER S2380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

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04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
WD SHTH'G FLR FRM'G PLAN (50+15 PSF)

PROJECT NUMBER
17016A

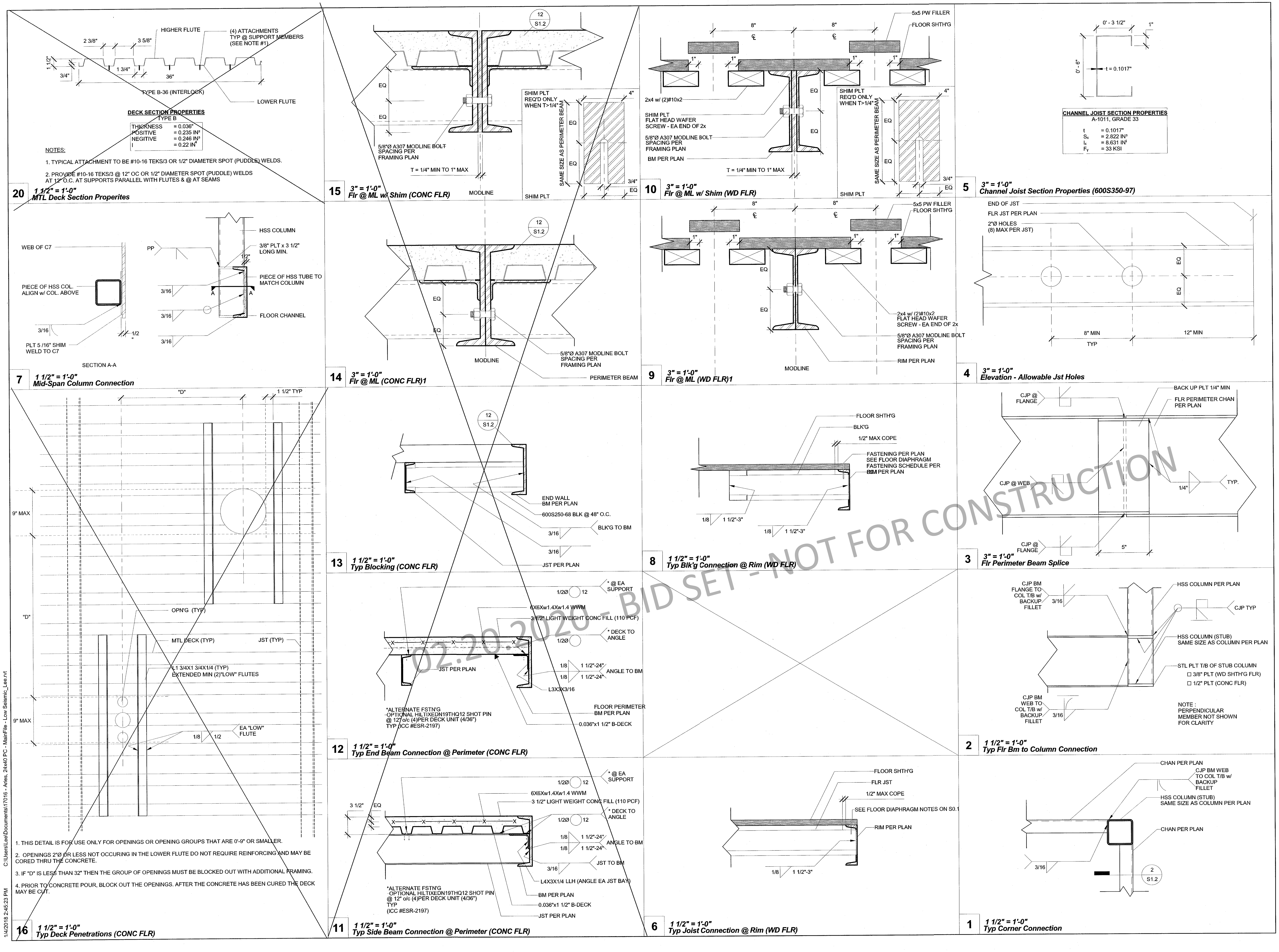
DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
S1.0.1

SHEET OF SHEETS



20 1 1/2" = 1'-0" MTL Deck Section Properites
HIGHER FLUTE
(4) ATTACHMENTS TYP @ SUPPORT MEMBERS (SEE NOTE #1)
TYPE B-36 (INTERLOCK)
LOWER FLUTE
DECK SECTION PROPERTIES
TYPE B
THICKNESS = 0.036"
POSITIVE = 0.235 IN³
NEGITIVE = 0.246 IN³
I = 0.22 IN⁴
NOTES:
1. TYPICAL ATTACHMENT TO BE #10-16 TEKS/3 OR 1/2" DIAMETER SPOT (PUDDLE) WELDS.
2. PROVIDE #10-16 TEKS/3 @ 12" OC OR 1/2" DIAMETER SPOT (PUDDLE) WELDS AT 12" O.C. AT SUPPORTS PARALLEL WITH FLUTES & @ AT SEAMS
15 3" = 1'-0" Flr @ ML w/ Shim (CONC FLR)
SHIM PLT REQ'D ONLY WHEN T>1/4"
SAME SIZE AS PERIMETER BEAM
5/8"Ø A307 MODLINE BOLT SPACING PER FRAMING PLAN
T = 1/4" MIN TO 1" MAX
MODLINE
SHIM PLT
10 3" = 1'-0" Flr @ ML w/ Shim (WD FLR)
5x5 PW FILLER
FLOOR SHTH'G
2x4 w/ (2)#10x2
SHIM PLT FLAT HEAD WAFER SCREW - EA END OF 2x
5/8"Ø A307 MODLINE BOLT SPACING PER FRAMING PLAN
BM PER PLAN
5 3" = 1'-0" Channel Joist Section Properties (600S350-97)
CHANNEL JOIST SECTION PROPERTIES
A-1011, GRADE 33
t = 0.1017"
Sx = 2.822 IN³
Ix = 8.631 IN⁴
Fy = 33 KSI
7 1 1/2" = 1'-0" Mid-Span Column Connection
WEB OF C7
PIECE OF HSS COL. ALIGN w/ COL. ABOVE
PLT 5/16" SHIM WELD TO C7
SECTION A-A
HSS COLUMN
3/8" PLT x 3 1/2" LONG MIN.
PIECE OF HSS TUBE TO MATCH COLUMN
FLOOR CHANNEL
14 3" = 1'-0" Flr @ ML (CONC FLR)1
5/8"Ø A307 MODLINE BOLT SPACING PER FRAMING PLAN
PERIMETER BEAM
9 3" = 1'-0" Flr @ ML (WD FLR)1
2x4 w/ (2)#10x2 FLAT HEAD WAFER SCREW - EA END OF 2x
RIM PER PLAN
4 3" = 1'-0" Elevation - Allowable Jst Holes
END OF JST
FLR JST PER PLAN
2"Ø HOLES (8) MAX PER JST)
8" MIN
12" MIN
TYP
16 1 1/2" = 1'-0" Typ Deck Penetrations (CONC FLR)
OPN'G (TYP)
MTL DECK (TYP)
JST (TYP)
L1 3/4X1 3/4X1/4 (TYP) EXTENDED MIN (2)"LOW" FLUTES
EA "LOW" FLUTE
1. THIS DETAIL IS FOR USE ONLY FOR OPENINGS OR OPENING GROUPS THAT ARE 0'-9" OR SMALLER.
2. OPENINGS 2"Ø OR LESS NOT OCCURRING IN THE LOWER FLUTE DO NOT REQUIRE REINFORCING AND MAY BE CORED THRU THE CONCRETE.
3. IF "D" IS LESS THAN 32" THEN THE GROUP OF OPENINGS MUST BE BLOCKED OUT WITH ADDITIONAL FRAMING.
4. PRIOR TO CONCRETE POUR, BLOCK OUT THE OPENINGS. AFTER THE CONCRETE HAS BEEN CURED THE DECK MAY BE CUT.
13 1 1/2" = 1'-0" Typ Blocking (CONC FLR)
END WALL BM PER PLAN
600S250-68 BLK @ 48" O.C.
BLK'G TO BM
JST PER PLAN
8 1 1/2" = 1'-0" Typ Blk'g Connection @ Rim (WD FLR)
FLOOR SHTH'G
BLK'G
1/2" MAX COPE
FASTENING PER PLAN SEE FLOOR DIAPHRAGM FASTENING SCHEDULE PER
RIM PER PLAN
3 3" = 1'-0" Flr Perimeter Beam Splice
CJP @ FLANGE
BACK UP PLT 1/4" MIN
FLR PERIMETER CHAN PER PLAN
CJP @ WEB
TYP.
12 1 1/2" = 1'-0" Typ End Beam Connection @ Perimeter (CONC FLR)
* @ EA SUPPORT
6X6Xw1.4Xw1.4 WWM
3 1/2" LIGHT WEIGHT CONC FILL (110 PCF)
* DECK TO ANGLE
JST PER PLAN
ANGLE TO BM
L3X3X3/16
FLOOR PERIMETER BM PER PLAN
0.036"x1 1/2" B-DECK
*ALTERNATE FSTN'G OPTIONAL HILTIXEDN19THQ12 SHOT PIN @ 12" o/c (4)PER DECK UNIT (4/36") TYP (ICC #ESR-2197)
2 1 1/2" = 1'-0" Typ Flr Bm to Column Connection
CJP BM FLANGE TO COL T/B w/ BACKUP FILLET
HSS COLUMN PER PLAN
CJP TYP
HSS COLUMN (STUB) SAME SIZE AS COLUMN PER PLAN
STL PLT T/B OF STUB COLUMN
☐ 3/8" PLT (WD SHTH'G FLR)
☐ 1/2" PLT (CONC FLR)
CJP BM WEB TO COL T/B w/ BACKUP FILLET
NOTE: PERPENDICULAR MEMBER NOT SHOWN FOR CLARITY
11 1 1/2" = 1'-0" Typ Side Beam Connection @ Perimeter (CONC FLR)
JST TO BM
L4X3X1/4 LLH (ANGLE EA JST BAY)
BM PER PLAN
0.036"x1 1/2" B-DECK
JST PER PLAN
6 1 1/2" = 1'-0" Typ Joist Connection @ Rim (WD FLR)
FLOOR SHTH'G
FLR JST
1/2" MAX COPE
SEE FLOOR DIAPHRAGM NOTES ON S0.1
RIM PER PLAN
1 1 1/2" = 1'-0" Typ Corner Connection
CHAN PER PLAN
CJP BM WEB TO COL T/B w/ BACKUP FILLET
HSS COLUMN (STUB) SAME SIZE AS COLUMN PER PLAN
02.20.2020 - BID SET - NOT FOR CONSTRUCTION
C:\Users\Lee\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Lee.rvt
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R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRAUSTO STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40' EXPANDABLE TO 120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
STRUCTURAL DETAILS (FLOOR)

PROJECT NUMBER
17016A

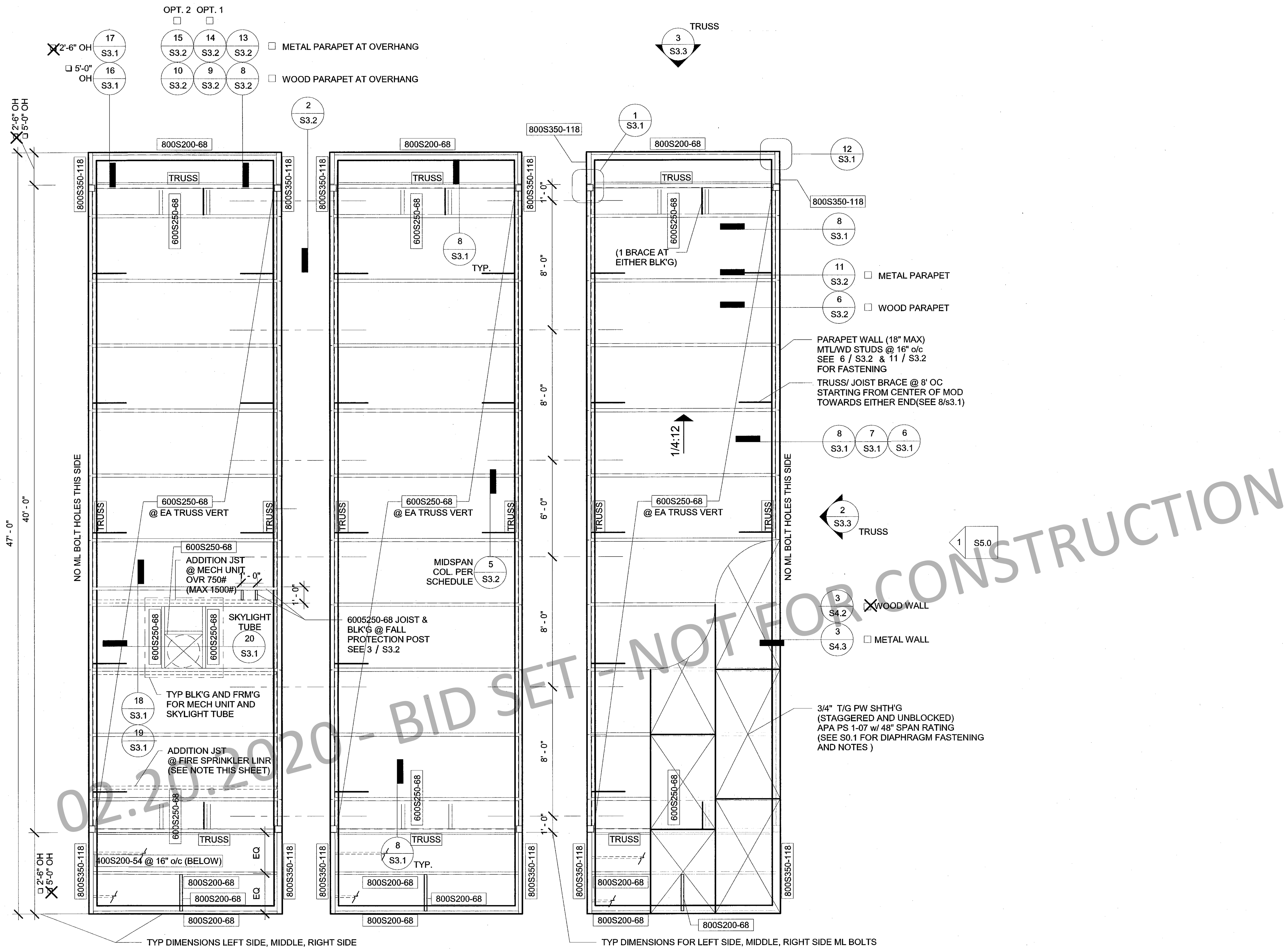
DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
S1.2

SHEET OF SHEETS



LEFT SIDE MOD

MIDDLE MOD

RIGHT SIDE MOD

NOTES:

FIRE SPRINKLER
ADDITIONAL ROOF JOIST FOR FIRE SPRINKLER LINE AS REQ'D
LOCATION OF FIRE SPRINKLER AND ADDITIONAL JOIST TO BE DETERMINED

1 1/4" = 1'-0"
Mono Roof Framing Plan

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE
MONO SLOPE ROOF FRM'G PLAN

PROJECT NUMBER 17016A

DRAWN BY rMc/SC

CHECKED BY JA/RT

DATE 2017/06/05

SHEET NO. S3.0.1

SHEET OF SHEETS

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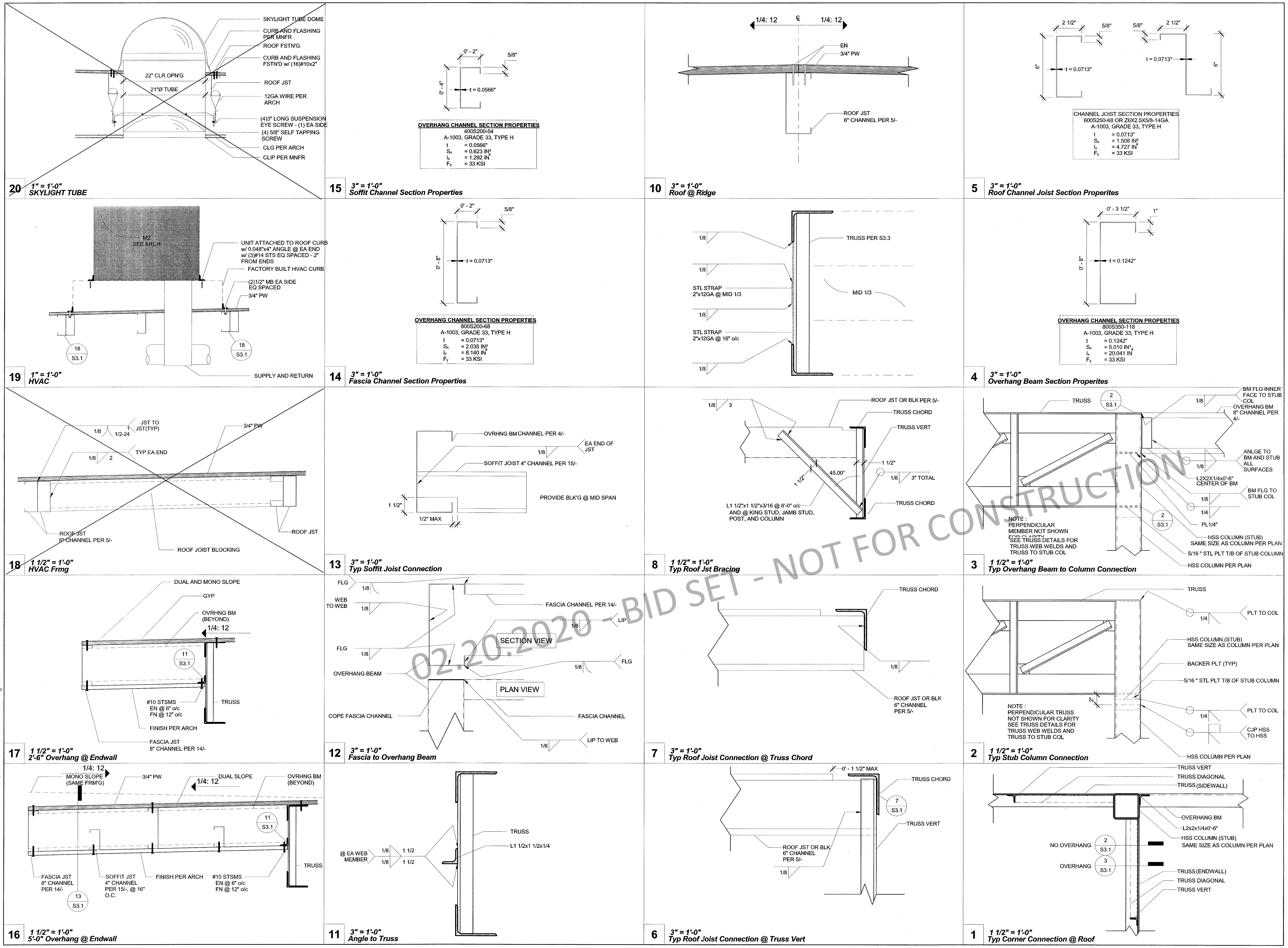

SKYLIGHT TUBE DOME
CURB AND FLASHING PER MNFR
ROOF FSTN'G
CURB AND FLASHING FSTN'D w/ (16)#10x2"
22" CLR OPN'G
21"Ø TUBE
ROOF JST
12GA WIRE PER ARCH
(4)3" LONG SUSPENSION EYE SCREW - (1) EA SIDE
(4) 5/8" SELF TAPPING SCREW
CLG PER ARCH
CLIP PER MNFR
20 1" = 1'-0" SKYLIGHT TUBE
0' - 2"
5/8"
0' - 4"
t = 0.0566"
OVERHANG CHANNEL SECTION PROPERTIES
400S200-54
A-1003, GRADE 33, TYPE H
t = 0.0566"
Sx = 0.623 IN³
Ix = 1.292 IN⁴
Fy = 33 KSI
15 3" = 1'-0" Soffit Channel Section Properties
1/4: 12
1/4: 12
EN
3/4" PW
ROOF JST
6" CHANNEL PER 5/-
10 3" = 1'-0" Roof @ Ridge
2 1/2"
5/8"
5/8"
2 1/2"
6"
t = 0.0713"
t = 0.0713"
6"
CHANNEL JOIST SECTION PROPERTIES
600S250-68 OR Z6X2.5X5/8-14GA
A-1003, GRADE 33, TYPE H
t = 0.0713"
Sx = 1.508 IN³
Ix = 4.727 IN⁴
Fy = 33 KSI
5 3" = 1'-0" Roof Channel Joist Section Properites
M2
SEE ARCH
UNIT ATTACHED TO ROOF CURB w/ 0.048"x4" ANGLE @ EA END w/ (3)#14 STS EQ SPACED - 2" FROM ENDS
FACTORY BUILT HVAC CURB
(2)1/2" MB EA SIDE EQ SPACED
3/4" PW
18 S3.1
18 S3.1
SUPPLY AND RETURN
19 1" = 1'-0" HVAC
0' - 2"
5/8"
0' - 8"
t = 0.0713"
OVERHANG CHANNEL SECTION PROPERTIES
800S200-68
A-1003, GRADE 33, TYPE H
t = 0.0713"
Sx = 2.035 IN³
Ix = 8.140 IN⁴
Fy = 33 KSI
14 3" = 1'-0" Fascia Channel Section Properties
1/8
TRUSS PER S3.3
1/8
STL STRAP 2"x12GA @ MID 1/3
MID 1/3
1/8
STL STRAP 2"x12GA @ 16" o/c
1/8
0' - 3 1/2"
1"
0' - 8"
t = 0.1242"
OVERHANG CHANNEL SECTION PROPERTIES
800S350-118
A-1003, GRADE 33, TYPE H
t = 0.1242"
Sx = 5.010 IN³
Ix = 20.041 IN⁴
Fy = 33 KSI
4 3" = 1'-0" Overhang Beam Section Properites
JST TO JST(TYP)
1/8
1/2-24
3/4" PW
TYP EA END
1/8 2
ROOF JST 6" CHANNEL PER 5/-
ROOF JST
ROOF JOIST BLOCKING
18 1 1/2" = 1'-0" HVAC Frmg
OVRHNG BM CHANNEL PER 4/-
EA END OF JST
1/8
SOFFIT JOIST 4" CHANNEL PER 15/-
PROVIDE BLK'G @ MID SPAN
1 1/2"
1/2" MAX
13 3" = 1'-0" Typ Soffit Joist Connection
1/8 3
ROOF JST OR BLK PER 5/-
TRUSS CHORD
TRUSS VERT
1 1/2"
45.00°
1 1/2"
1/8 3" TOTAL
TRUSS CHORD
L1 1/2"x1 1/2"x3/16 @ 8'-0" o/c AND @ KING STUD, JAMB STUD, POST, AND COLUMN
8 1 1/2" = 1'-0" Typ Roof Jst Bracing
TRUSS
2 S3.1
1/8
BM FLG INNER FACE TO STUB COL
OVERHANG BM 8" CHANNEL PER 4/-
ANLGE TO BM AND STUB ALL SURFACES
1/8
L2X2X1/4x0'-6" CENTER OF BM
BM FLG TO STUB COL
1/8
1/4
PL1/4"
NOTE : PERPENDICULAR MEMBER NOT SHOWN FOR CLARITY SEE TRUSS DETAILS FOR TRUSS WEB WELDS AND TRUSS TO STUB COL
2 S3.1
HSS COLUMN (STUB) SAME SIZE AS COLUMN PER PLAN
5/16 " STL PLT T/B OF STUB COLUMN
HSS COLUMN PER PLAN
3 1 1/2" = 1'-0" Typ Overhang Beam to Column Connection
DUAL AND MONO SLOPE
GYP
OVRHNG BM (BEYOND)
1/4: 12
11 S3.1
#10 STSMS EN @ 6" o/c FN @ 12" o/c
TRUSS
FINISH PER ARCH
FASCIA JST 8" CHANNEL PER 14/-
17 1 1/2" = 1'-0" 2'-6" Overhang @ Endwall
FLG 1/8
WEB TO WEB 1/8
FASCIA CHANNEL PER 14/-
1/8 LIP
SECTION VIEW
FLG 1/8
1/8 FLG
OVERHANG BEAM
PLAN VIEW
COPE FASCIA CHANNEL
FASCIA CHANNEL
1/8 LIP TO WEB
12 3" = 1'-0" Fascia to Overhang Beam
TRUSS CHORD
1/8
ROOF JST OR BLK 6" CHANNEL PER 5/-
7 3" = 1'-0" Typ Roof Joist Connection @ Truss Chord
TRUSS
PLT TO COL
1/4
HSS COLUMN (STUB) SAME SIZE AS COLUMN PER PLAN
BACKER PLT (TYP)
5/16 " STL PLT T/B OF STUB COLUMN
NOTE : PERPENDICULAR TRUSS NOT SHOWN FOR CLARITY SEE TRUSS DETAILS FOR TRUSS WEB WELDS AND TRUSS TO STUB COL
PLT TO COL
1/4
CJP HSS TO HSS
HSS COLUMN PER PLAN
2 1 1/2" = 1'-0" Typ Stub Column Connection
1/4: 12
MONO SLOPE (SAME FRM'G)
3/4" PW
1/4: 12 DUAL SLOPE
OVRHNG BM (BEYOND)
11 S3.1
TRUSS
FASCIA JST 8" CHANNEL PER 14/-
SOFFIT JST 4" CHANNEL PER 15/-, @ 16" O.C.
FINISH PER ARCH
#10 STSMS EN @ 6" o/c FN @ 12" o/c
13 S3.1
16 1 1/2" = 1'-0" 5'-0" Overhang @ Endwall
TRUSS
L1 1/2x1 1/2x1/4
@ EA WEB MEMBER
1/8 1 1/2
1/8 1 1/2
11 3" = 1'-0" Angle to Truss
0' - 1 1/2" MAX
TRUSS CHORD
7 S3.1
TRUSS VERT
ROOF JST OR BLK 6" CHANNEL PER 5/-
1/8
6 3" = 1'-0" Typ Roof Joist Connection @ Truss Vert
TRUSS VERT
TRUSS DIAGONAL
TRUSS (SIDEWALL)
OVERHANG BM
L2x2x1/4x0'-6"
HSS COLUMN (STUB) SAME SIZE AS COLUMN PER PLAN
NO OVERHANG 2 S3.1
OVERHANG 3 S3.1
TRUSS (ENDWALL)
TRUSS DIAGONAL
TRUSS VERT
1 1 1/2" = 1'-0" Typ Corner Connection @ Roof

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11772 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-126
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40' EXPANDABLE TO 120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: 2016 CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7

Revision Schedule

#	Description	Date

SHEET TITLE
STRUCTURAL DETAILS (ROOF)

PROJECT NUMBER 17016A
DRAWN BY rMc/SC
CHECKED BY JA/RT
DATE 2017/06/05
SHEET NO. S3.1
SHEET OF SHEETS

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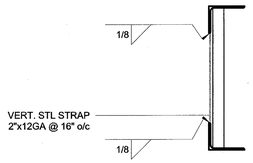
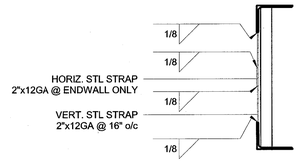
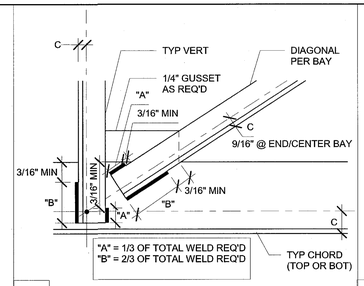
TABLE A-SECTION CENTROID	
SECTION	CENTROID C
L4X3 (LLV)	1 1/4"
L4X3 (LLH)	3/4"
L2X2X3/16	9/16"
L1.5X1.5X3/16	7/16"

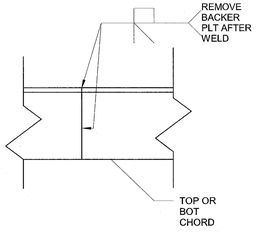
12 *1/2" = 1'-0"*
TABLE A - SECTION CENTROID



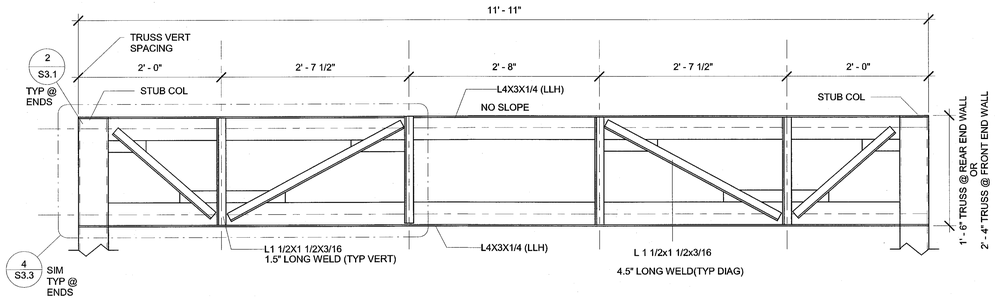




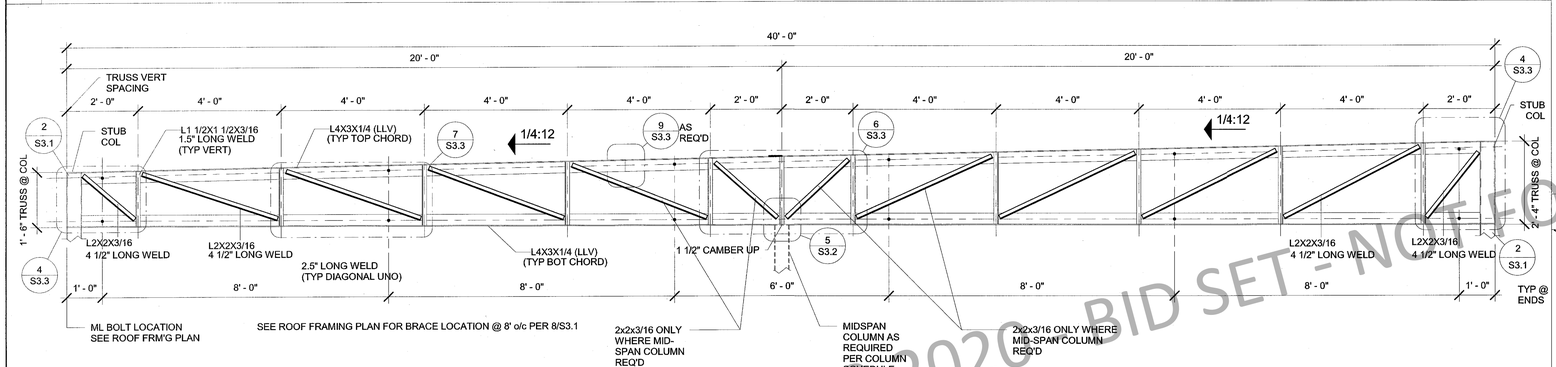
8 *3" = 1'-0"*
Typ Fillet Weld Lengths



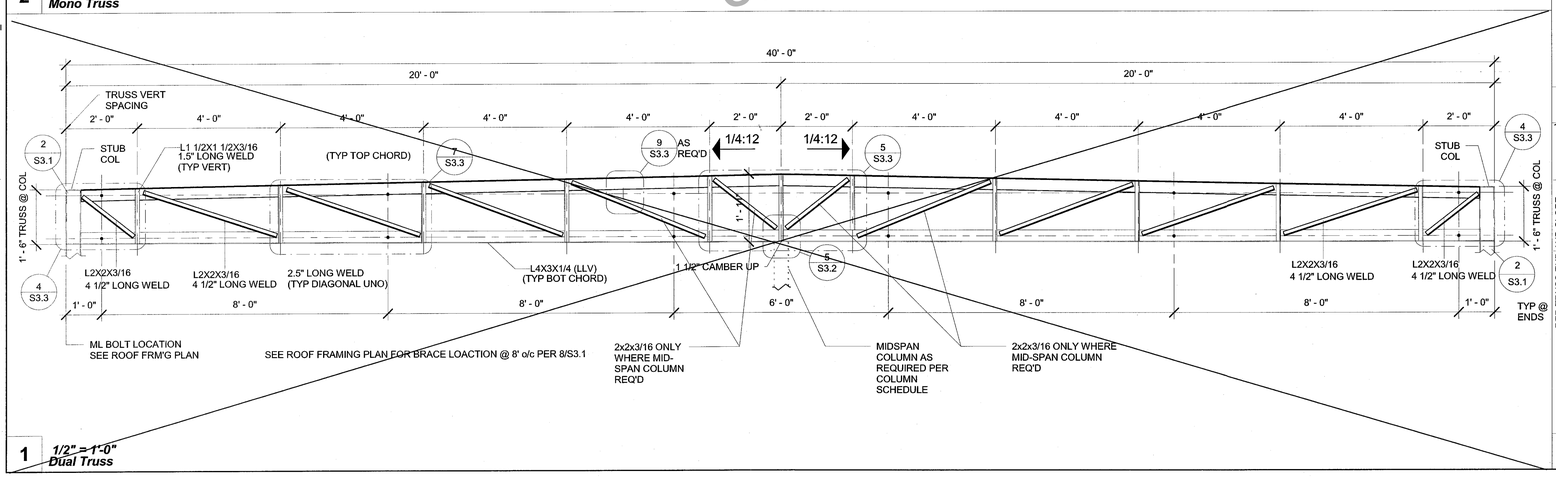
9 *3" = 1'-0"*
Typ Truss Chord Splice



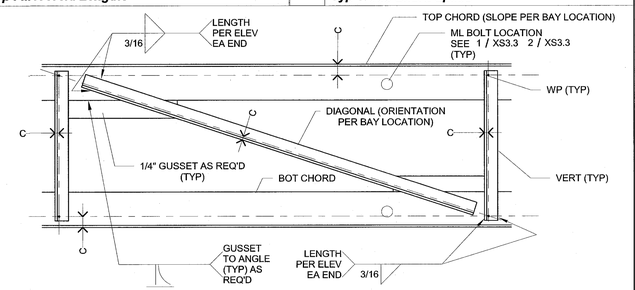
3 *1" = 1'-0"*
End Wall Truss



2 *1/2" = 1'-0"*
Mono Truss

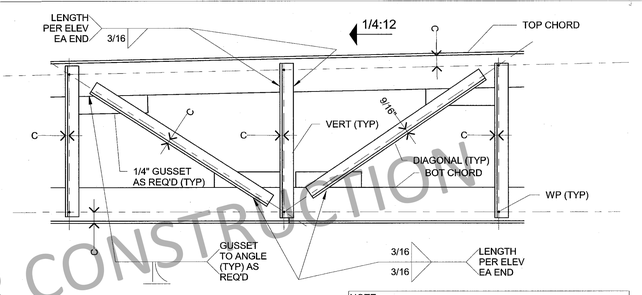


1 *1/2" = 1'-0"*
Dual Truss



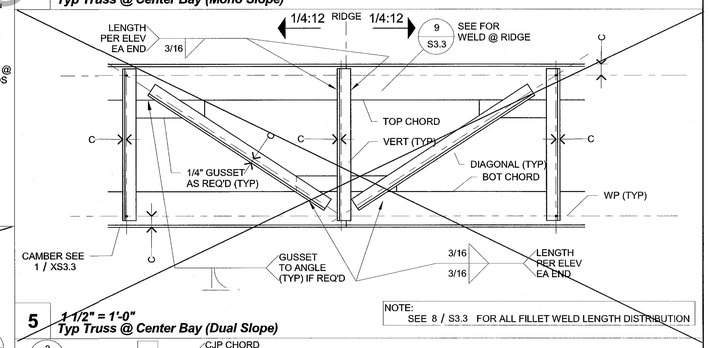
7 *1 1/2" = 1'-0"*
Typ Truss Bay

NOTE:
SEE DISTRIBUTION/S3.3 FOR ALL FILLET WELD LENGTH



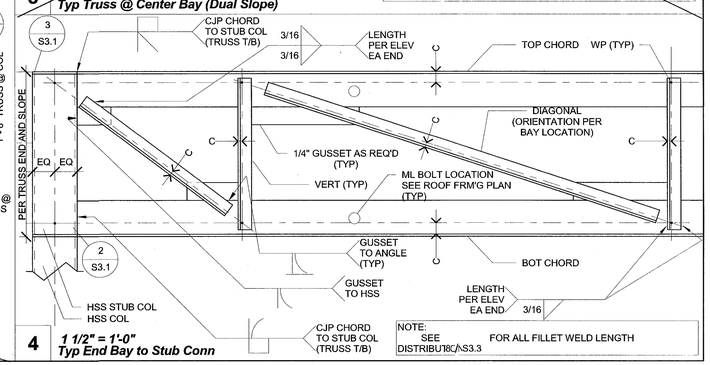
6 *1 1/2" = 1'-0"*
Typ Truss @ Center Bay (Mono Slope)

NOTE:
SEE 8 / S3.3 FOR ALL FILLET WELD LENGTH DISTRIBUTION



5 *1 1/2" = 1'-0"*
Typ Truss @ Center Bay (Dual Slope)

NOTE:
SEE 8 / S3.3 FOR ALL FILLET WELD LENGTH DISTRIBUTION



4 *1 1/2" = 1'-0"*
Typ End Bay to Stub Conn

NOTE:
SEE DISTRIBUTION/S3.3 FOR ALL FILLET WELD LENGTH

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

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12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2018

Revision Schedule

#	Description	Date

SHEET TITLE
ROOF PERIMETER TRUSS

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
S3.3
SHEET OF SHEETS

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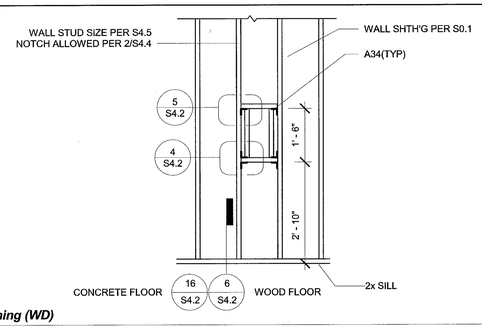
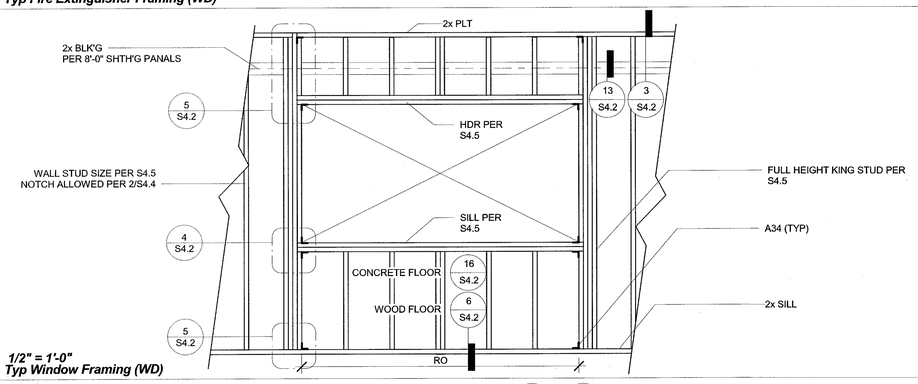
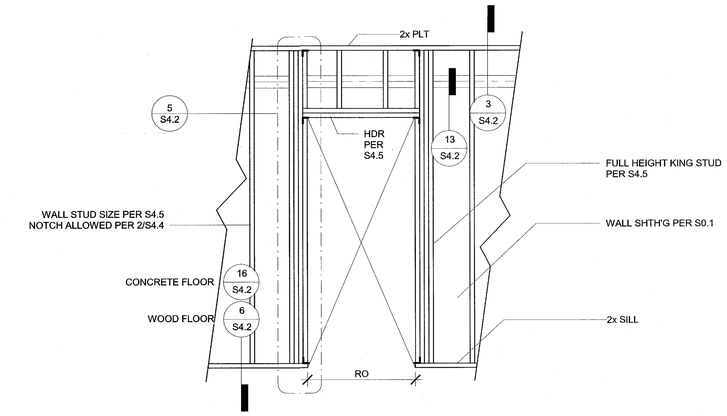


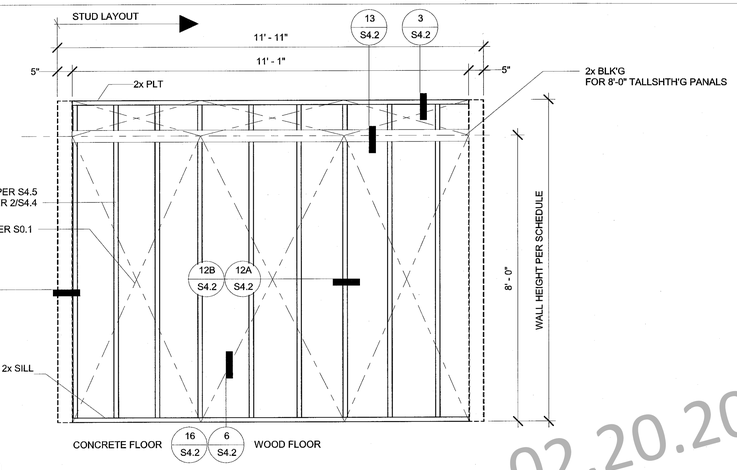
6 *1/2" = 1'-0"*
Typ Fire Extinguisher Framing (WD)



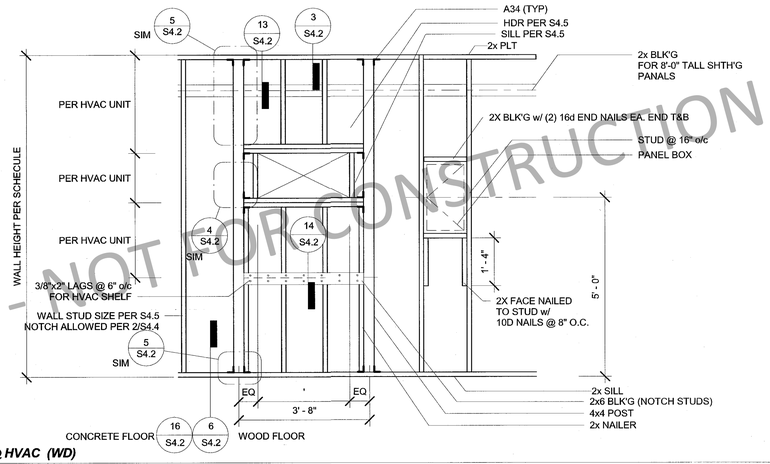
4 *1/2" = 1'-0"*
Typ Window Framing (WD)



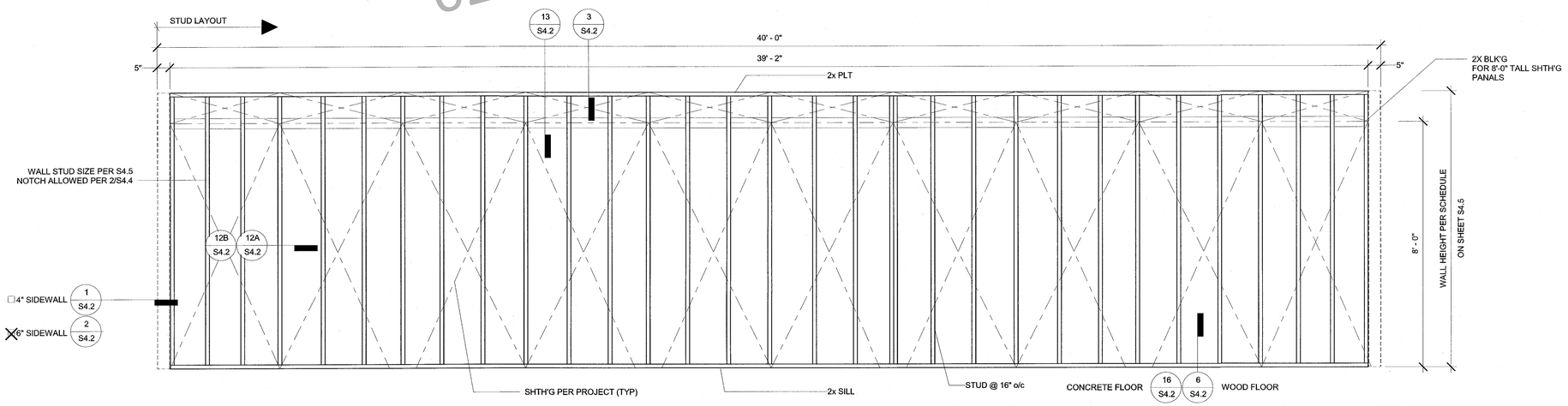
5 *1/2" = 1'-0"*
Typ Door Framing (WD)



2 *1/2" = 1'-0"*
Typ Endwall Framing (WD)



3 *1/2" = 1'-0"*
Typ Endwall Framing @ HVAC (WD)



1 *1/2" = 1'-0"*
Typ Sidewall Framing (WD)

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANCO
No. S-3380
STRUCTURAL
STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE
WD WALL
FRAMING
ELEVATIONS

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
S4.1

SHEET OF SHEETS

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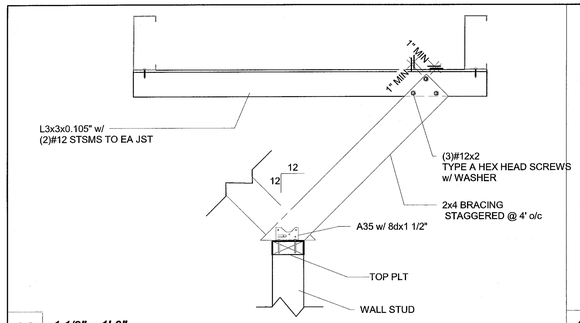
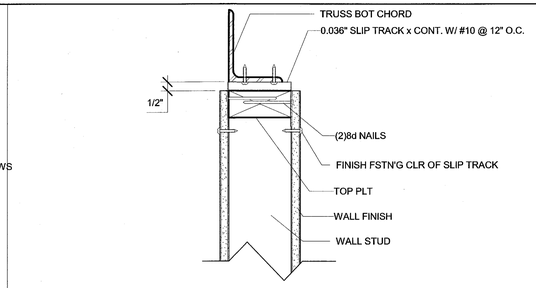
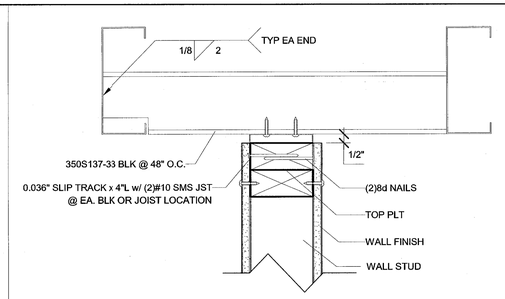


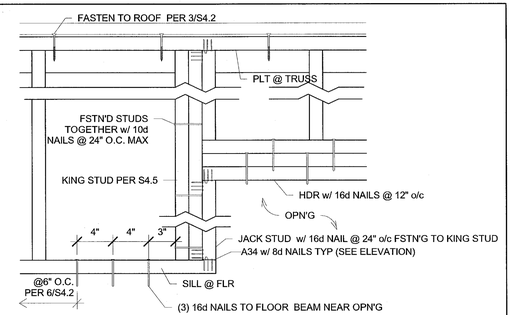
20 *1 1/2" = 1'-0"*
Sections - Interior Partition w/ Brace to Blk'g (WD)



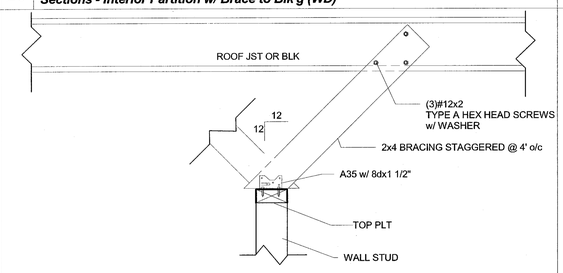
15 *3" = 1'-0"*
Section - Interior Wall Top Plate @ Truss (ML)



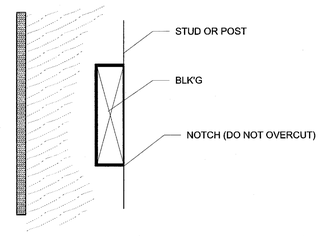
10 *3" = 1'-0"*
Sections - Interior Partition @ Blk'g (WD)



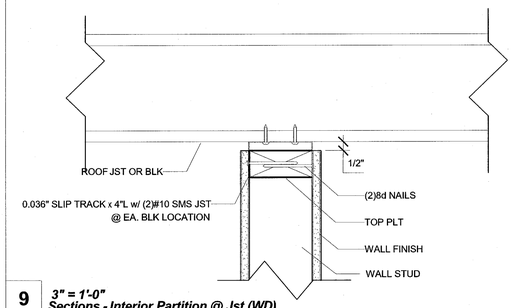
5 *1 1/2" = 1'-0"*
Elevation - Window/Door Hdr and Sill



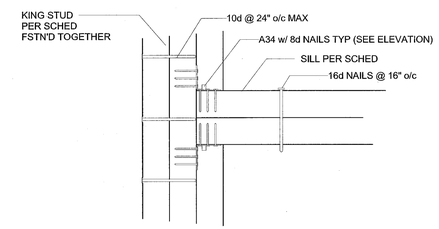
19 *1 1/2" = 1'-0"*
Sections - Interior Partition w/ Brace (WD)



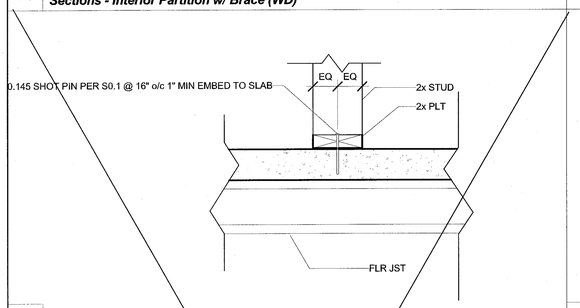
14 *3" = 1'-0"*
Notch Stud @ Blk'g



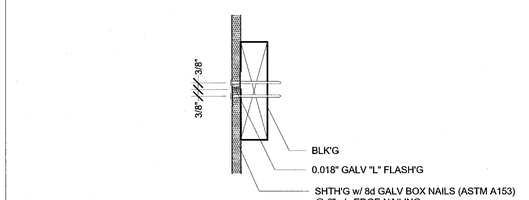
9 *3" = 1'-0"*
Sections - Interior Partition @ Jst (WD)



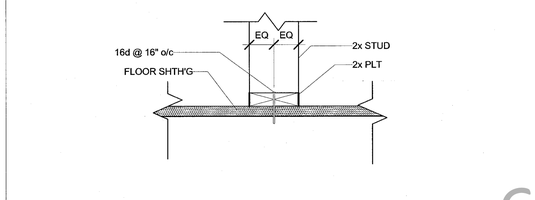
4 *3" = 1'-0"*
Elevation - Ext Wall Sill @ Window



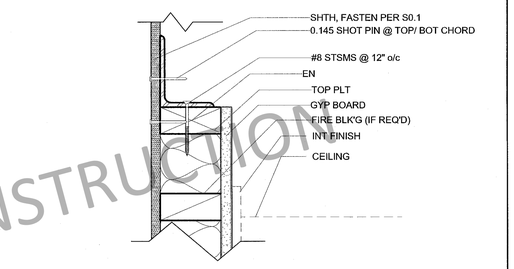
18 *1 1/2" = 1'-0"*
Typ Partition Sill Connection (CONC)



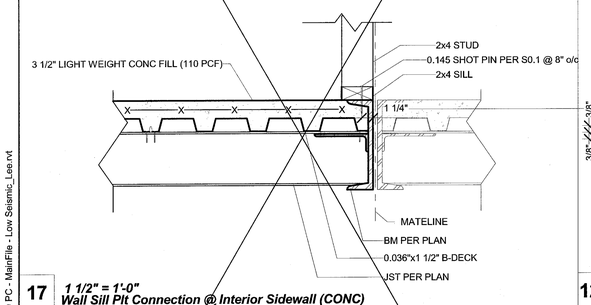
13 *3" = 1'-0"*
Shth'g @ Blk'g



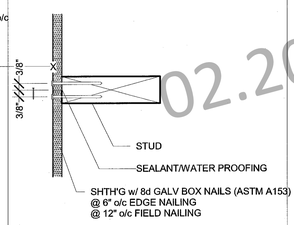
8 *1 1/2" = 1'-0"*
Typ Partition Sill Connection (WD)



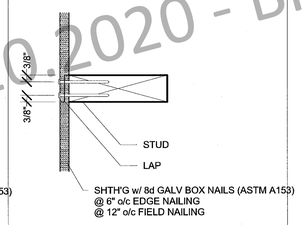
3 *3" = 1'-0"*
Section - Exterior Wall Top Plate @ Truss (WD)



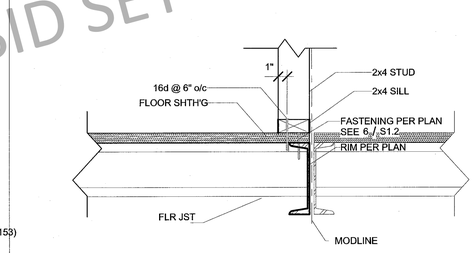
17 *1 1/2" = 1'-0"*
Wall Sill Plt Connection @ Interior Sidewall (CONC)



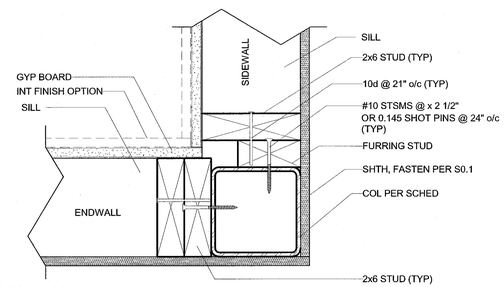
12A *3" = 1'-0"*
Shth'g @ Butt Jnt



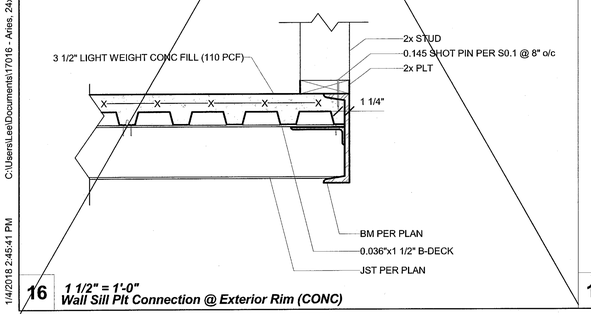
12B *3" = 1'-0"*
Shth'g @ Lap Jnt



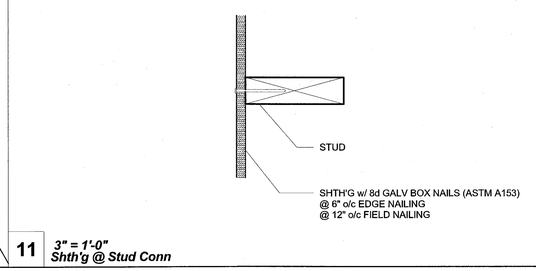
7 *1 1/2" = 1'-0"*
2x4 Wall Sill Connection @ Interior Sidewalls (WD)



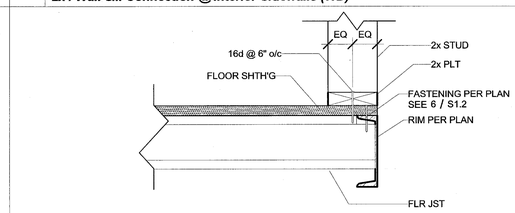
2 *3" = 1'-0"*
2x6 Framing @ Column (WD)



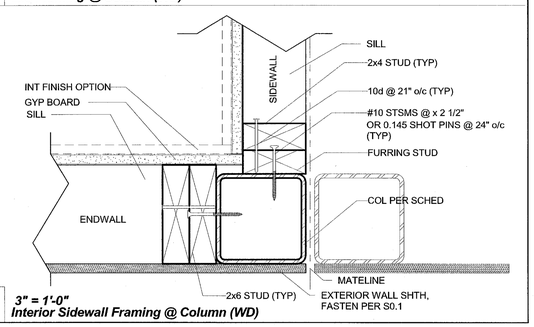
16 *1 1/2" = 1'-0"*
Wall Sill Plt Connection @ Exterior Rim (CONC)



11 *3" = 1'-0"*
Shth'g @ Stud Conn



6 *1 1/2" = 1'-0"*
Wall Sill Connection @ Exterior Rim (WD)



1 *3" = 1'-0"*
Interior Sidewall Framing @ Column (WD)

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANCIS
No. 42380
STRUCTURAL
STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2019

Revision Schedule

#	Description	Date

SHEET TITLE
WALL DETAILS
(WOOD FRAMING)

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
S4.2

SHEET OF SHEETS

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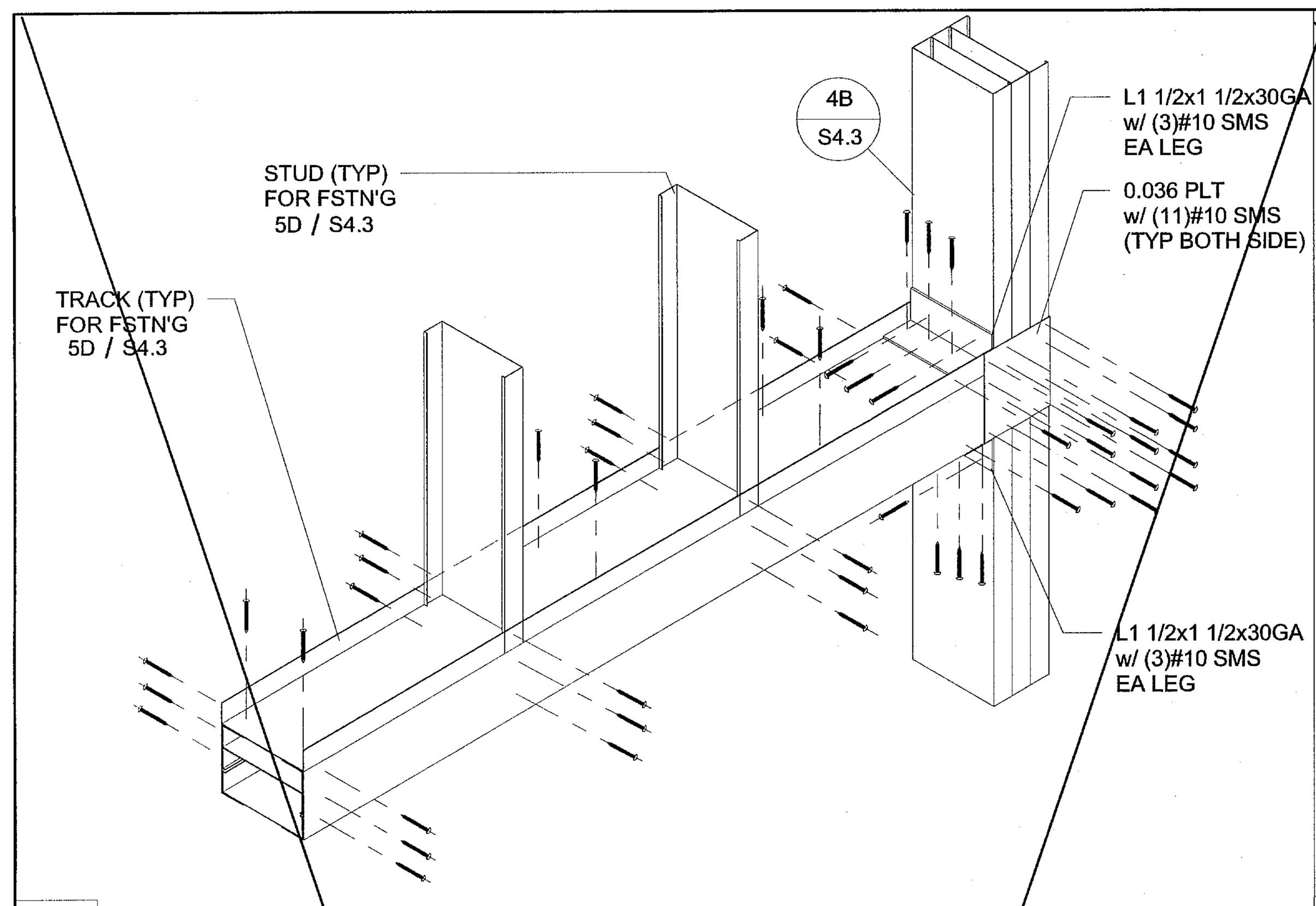
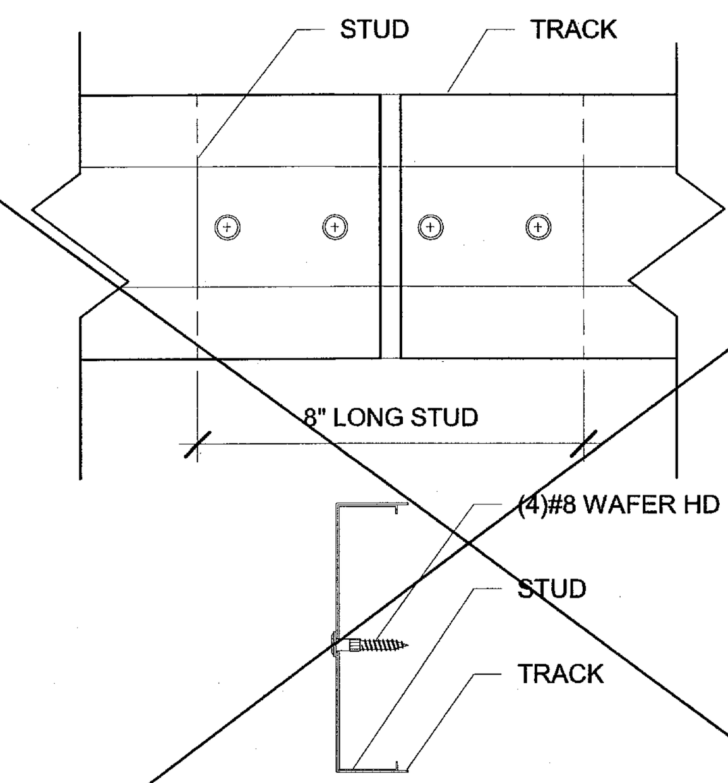
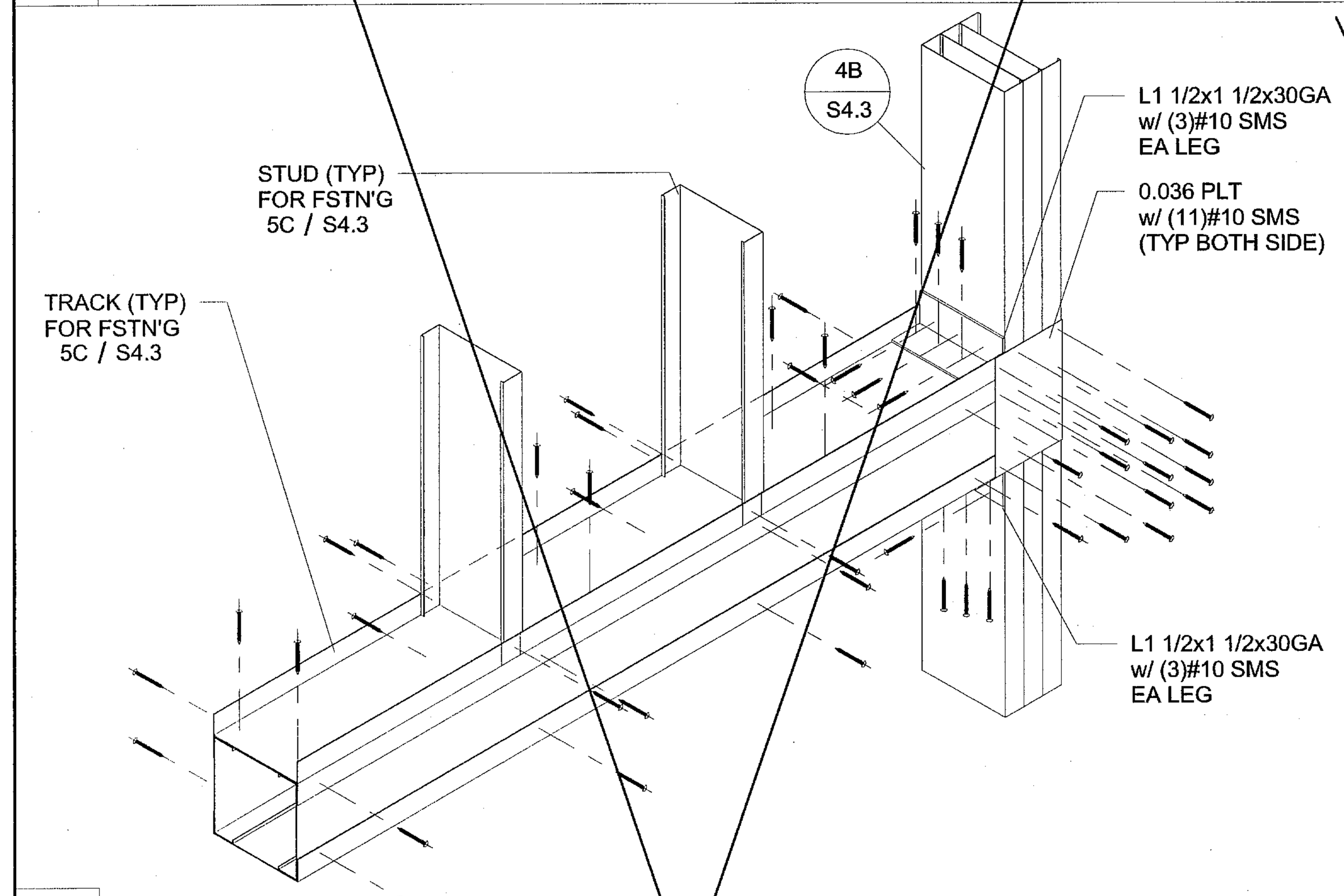


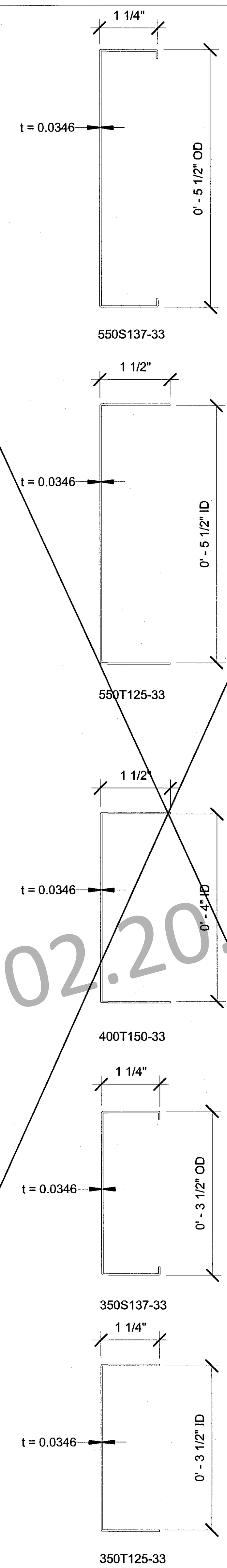
8 *1 1/2" = 1'-0"*
(3)Stud(3)Track - Type(4)



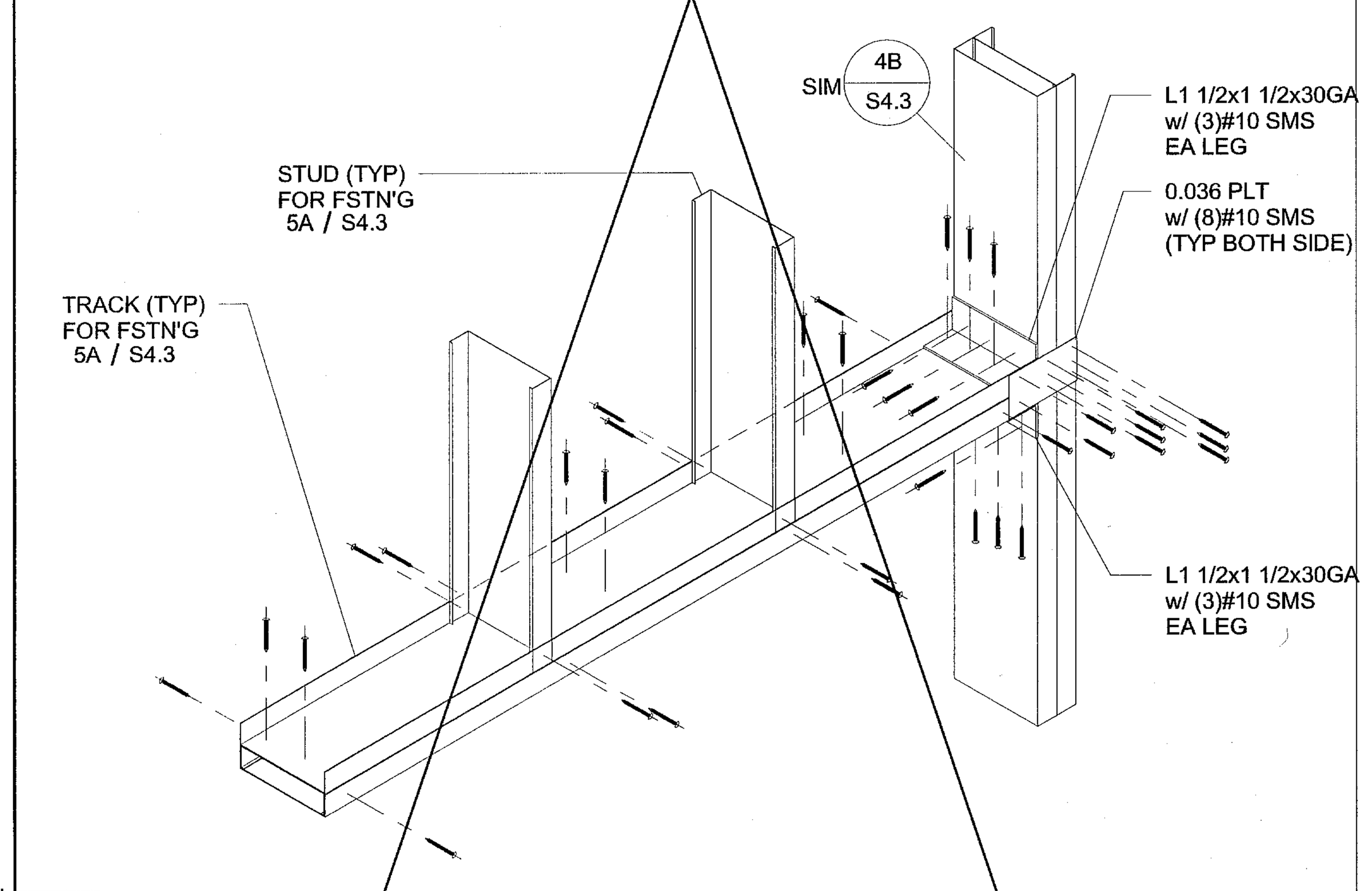
4 *3" = 1'-0"*
Track Splice



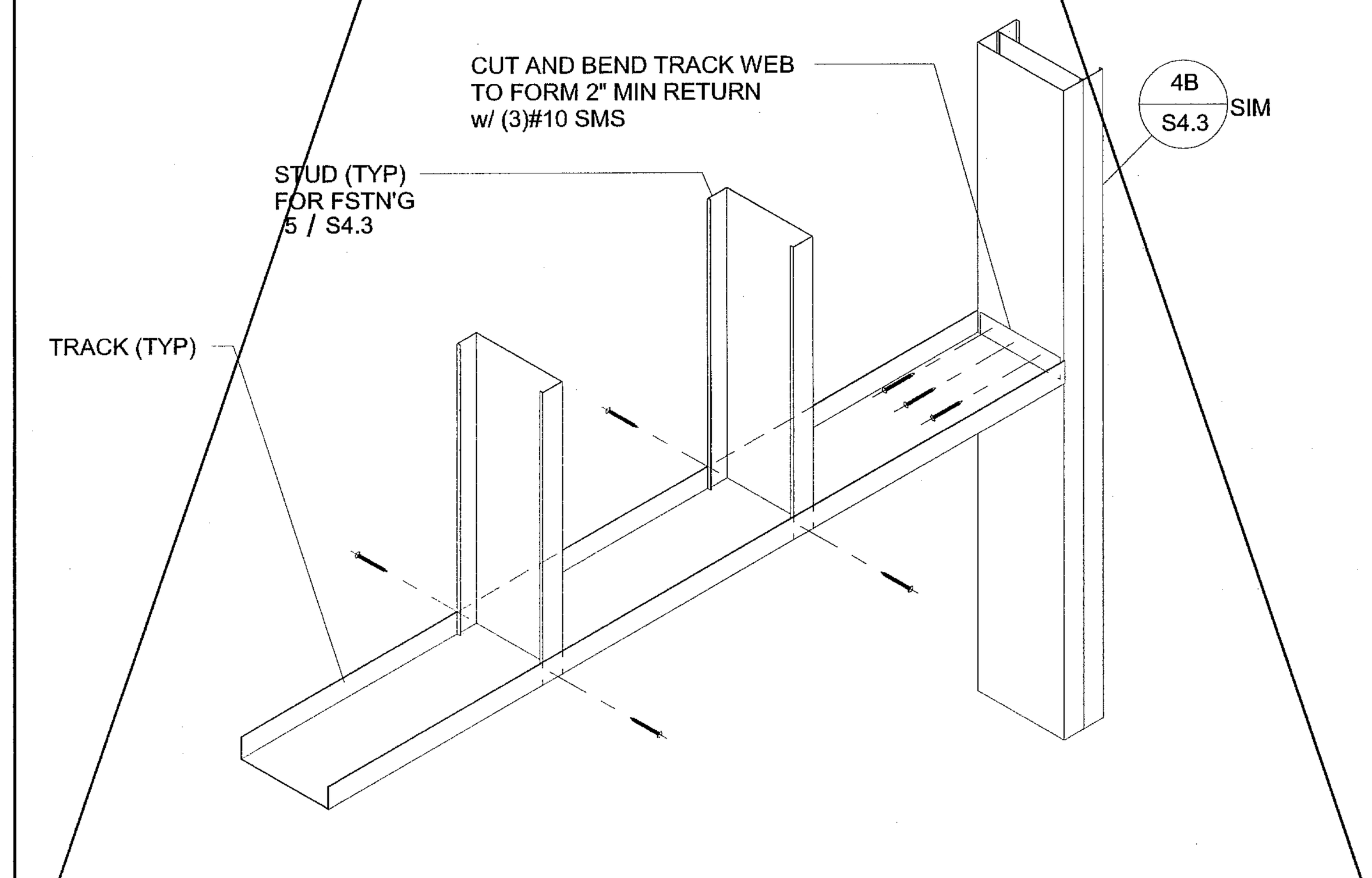
7 *1 1/2" = 1'-0"*
(3)Track(2)Stud - Type(3)



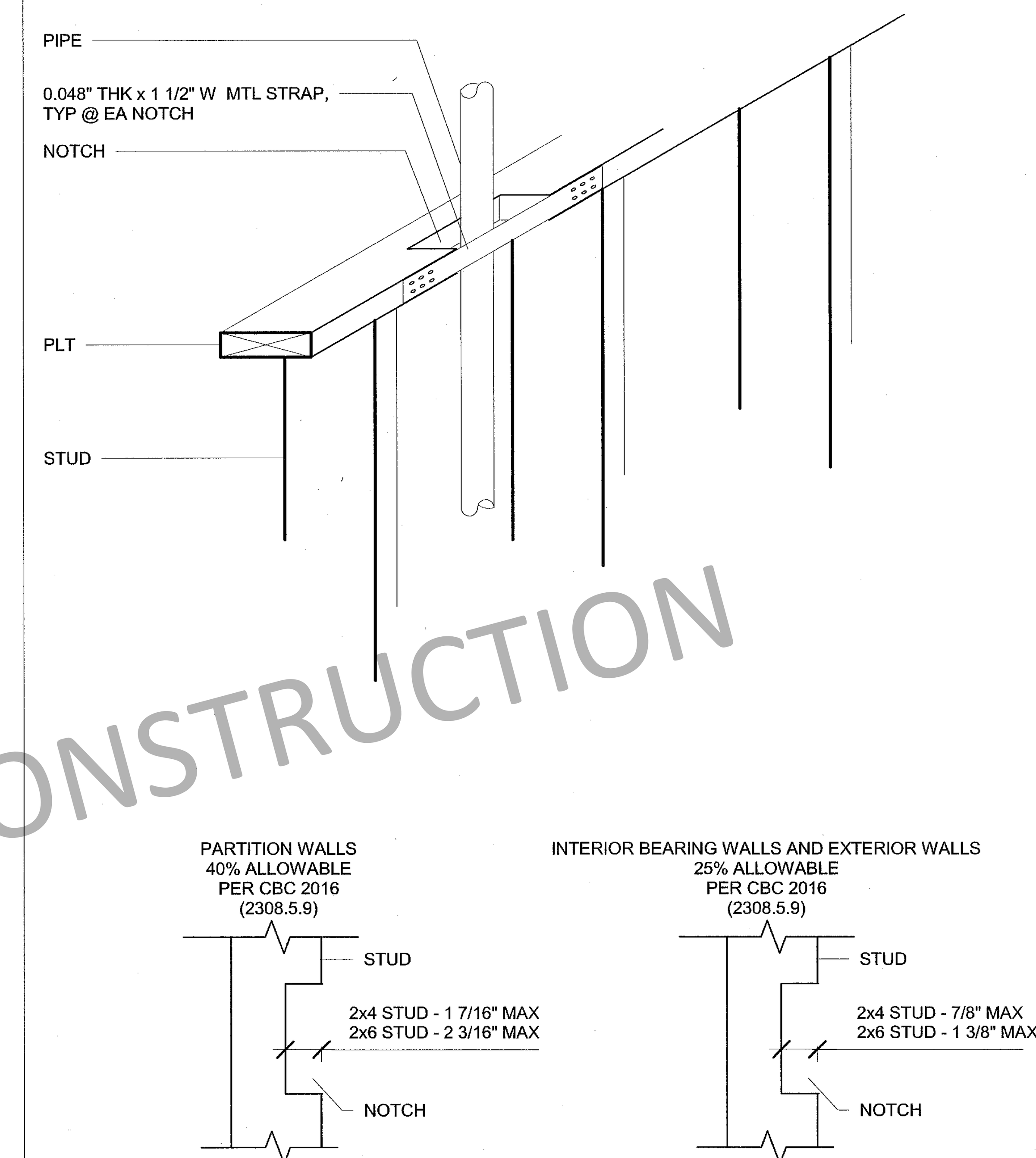
3 *6" = 1'-0"*
STUD AND TRACK



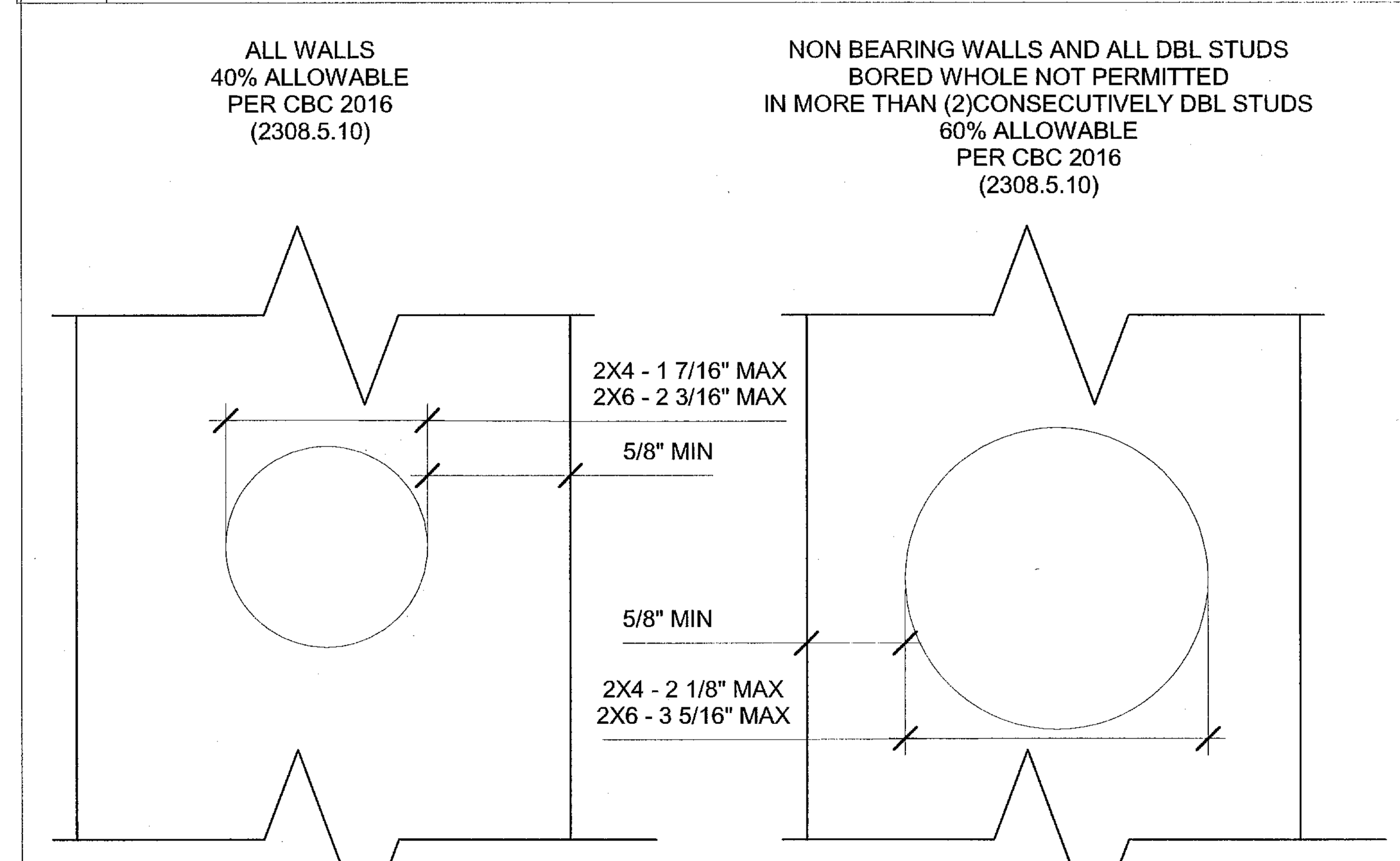
6 *1 1/2" = 1'-0"*
(2)Track(1)Stud - Type(2)



5 *1 1/2" = 1'-0"*
Single Track - Type(1)



2 *1 1/2" = 1'-0"*
Plt Notch



1 *6" = 1'-0"*
Stud Penetration

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FR...
S4380
STRUCTURAL
STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2013

Revision Schedule

#	Description	Date

SHEET TITLE
TYP FRAMING

PROJECT NUMBER 17016A
DRAWN BY rMc/SC
CHECKED BY JA/RT
DATE 2017/06/05
SHEET NO. S4.4
SHEET OF SHEETS

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12/18/2017 6:02:34 PM

2x4 Interior Wall Opening Schedule

COL HEIGHT	OPN'G SIZE	HDR			SILL			FULL HEIGHT KING STUD		
		Lumber	Number	Type	Lumber	Number	Type	Lumber	Number	Type
9FT	3070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	4070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	6040	HF	2	#2	DF	2	#2	HF	2	#2
		DF	2	#2	DF	2	#2	DF	2	#2
	8040	HF	3	#2	HF	3	#2	HF	2	#2
		DF	3	#2	DF	3	#2	DF	2	#2
10FT	3070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	4070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	6040	HF	2	#2	HF	2	#2	HF	2	#2
		DF	2	#2	DF	2	#2	DF	2	#2
	8040	HF	3	#2	HF	3	#2	HF	2	#2
		DF	3	#2	DF	3	#2	DF	2	#2

2x4 Interior Wall Framing Schedule

COL HEIGHT	Typical Location				4ft From Building Corner			
	Lumber	Number	Type	Spacing	Lumber	Number	Type	Spacing
9	HF	1	#2	16" O.C.	-	-	-	-
	DF	1	#2	16" O.C.	-	-	-	-
10	HF	1	#2	16" O.C.	-	-	-	-
	DF	1	#2	16" O.C.	-	-	-	-

2x6 Exterior Wall Opening Schedule (SHTH'G FINISH)

COL HEIGHT	OPN'G SIZE	HDR			SILL			FULL HEIGHT KING STUD		
		Lumber	Number	Type	Lumber	Number	Type	Lumber	Number	Type
9FT	3070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	8040	HF	2	#2	HF	1	#2	HF	2	#2
		DF	2	#2	DF	1	#2	DF	2	#2
10FT	3070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	2	#2	HF	1	#2	HF	2	#2
		DF	2	#2	DF	1	#2	DF	2	#2
	8040	HF	3	#2	HF	1	#2	HF	2	#2
		DF	3	#2	DF	1	#2	DF	2	#2

2x6 Exterior Wall Framing Schedule (SHTH'G FINISH)

COL HEIGHT	Typical Location				4.8ft From Building Corner			
	Lumber	Number	Type	Spacing	Lumber	Number	Type	Spacing
9	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.
10	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.

NOTE: SEE DETAIL 1 ON SHEETS A2.1 - A2.8

2x6 Exterior Wall Opening Schedule (PLASTER FINISH)

COL HEIGHT	OPN'G SIZE	HDR			SILL			FULL HEIGHT KING STUD		
		Lumber	Number	Type	Lumber	Number	Type	Lumber	Number	Type
9FT	3070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	2	#2	HF	1	#2	HF	2	#2
		DF	2	#2	DF	1	#2	DF	1	#2
	8040	HF	3	#2	HF	1	#2	HF	2	#2
		DF	3	#2	DF	1	#2	DF	2	#2
10FT	3070	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	2	#2	HF	1	#2	HF	2	#2
		DF	2	#2	DF	1	#2	DF	2	#2
	8040	HF	3	#2	HF	1	#2	HF	2	#2
		DF	3	#2	DF	1	#2	DF	2	#2

2x6 Exterior Wall Framing Schedule (PLASTER FINISH)

COL HEIGHT	Typical Location				4.8ft From Building Corner			
	Lumber	Number	Type	Spacing	Lumber	Number	Type	Spacing
9	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.
10	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.

☐ 350 Interior Wall Opening Schedule --Studs = 350S137-33 --Track = 350T125-33

Col Ht	Opn'g Size	HDR		SILL		FULL HEIGHT KING STUD		
		Type	Reference	Type	Reference	Type	Num.	Size
9'- 0"	3070	1	5	N/A	N/A	Stud	(2)	350S137-33
	4070	1	5	N/A	N/A	Stud	(2)	350S137-33
	6040	2	6	2	6	Stud	(3)	350S137-33
	8040	3	8	3	8	Stud	(3)	350S137-33
10'- 0"	3070	1	5	N/A	N/A	Stud	(2)	350S137-33
	4070	2	5	N/A	N/A	Stud	(2)	350S137-33
	6040	2	6	2	6	Stud	(3)	350S137-33
	8040	4	8	4	8	Stud	(4)	350S137-33

☐ 350 Interior Wall Framing Schedule

Column Height	Typ Wall Framing				4" From Corner Stud			
	Size	Number	Type	Spacing	Lumber	Number	Type	Spacing
9'- 0"	350S137-33	(1)	Stud	16" o/c	-	-	-	-
10'- 0"	350S137-33	(1)	Stud	16" o/c	-	-	-	-

☐ 550 Exterior Wall Opening Schedule (SHTH'G FINSIH) --Studs = 550S137-33 --Track = 550T125-33

Col Ht	Opn'g Size	HDR		SILL		FULL HEIGHT KING STUD		
		Type	Reference	Type		Type	Num.	Size
9'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	1	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	3	6	3	6	Stud	(3)	550S137-33
10'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	2	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	4	6	4	6	Stud	(4)	550S137-33

☐ 550 Exterior Wall Framing Schedule (SHTH'G FINISH)

Column Height	Typ Wall Framing				4" From Corner Stud			
	Size	Number	Type	Spacing	Lumber	Number	Type	Spacing
9'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c
10'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c

☐ 550 Exterior Wall Opening Schedule (PLASTER FINSIH) --Stud = 550S137-33 --Track = 550T125-33

Col Ht	Opn'g Size	HDR		SILL		FULL HEIGHT KING STUD		
		Type		Type		Type	Num.	Size
9'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	1	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	3	6	3	6	Stud	(3)	550S137-33
10'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	2	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	4	6	4	6	Stud	(4)	550S137-33

☐ 550 Exterior Wall Framing Schedule (PLASTER FINISH)

Column Height	Typ Wall Framing				4" From Corner Stud			
	Size	Number	Type	Spacing	Lumber	Number	Type	Spacing
9'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c
10'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c

C:\Users\Les\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Les.rvt

12/18/2017 6:02:38 PM

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCIS C-43801 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE

24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 0 7 2019

Revision Schedule

#	Description	Date

SHEET TITLE

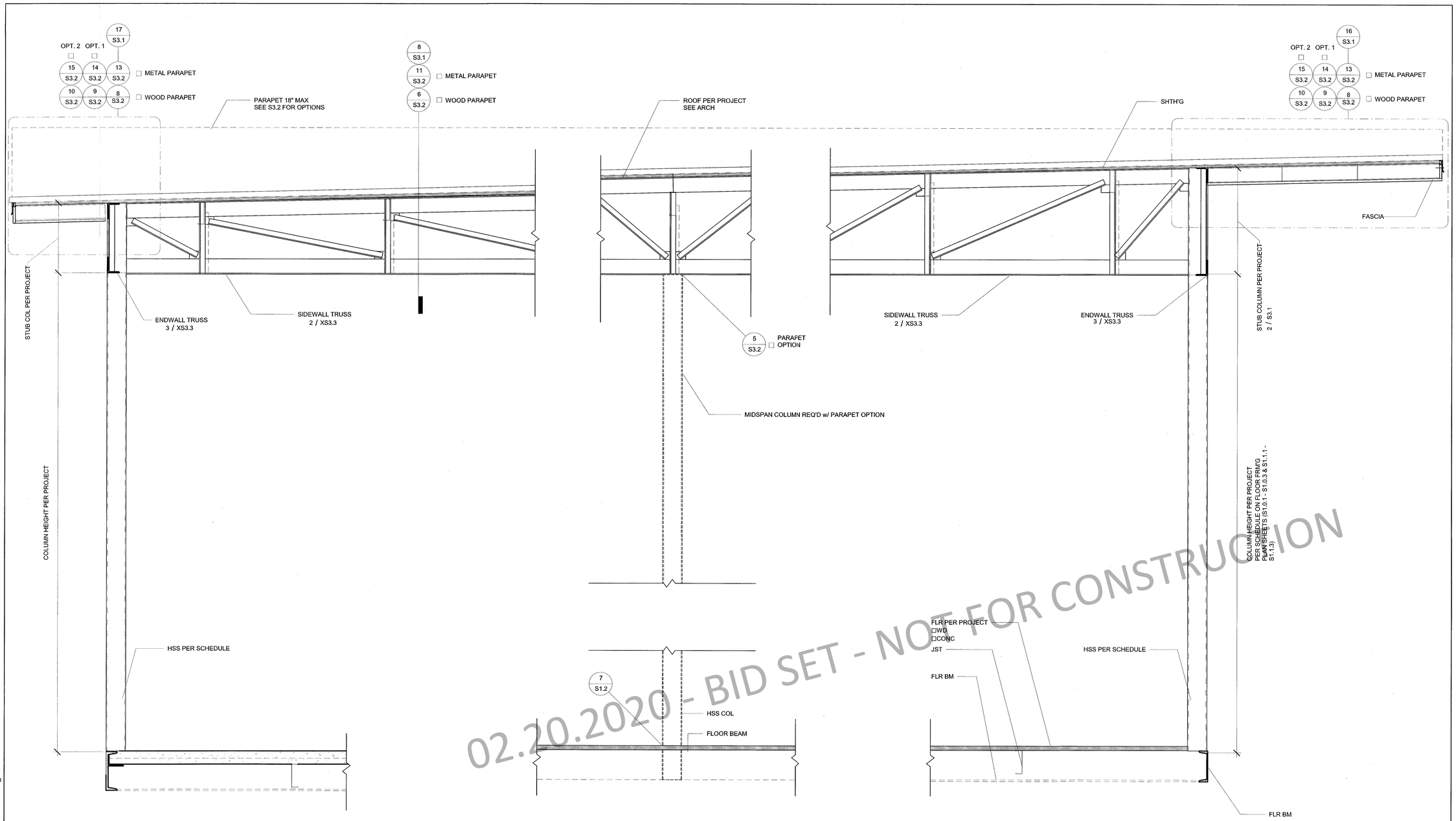
FRAMING SCHEDULES

PROJECT NUMBER: 17016A
DRAWN BY: rMc/SC
CHECKED BY: JA/RT
DATE: 2017/06/05

SHEET NO.

S4.5

SHEET OF SHEETS



1 *1" = 1'-0"*
Structural Section (MONO)

1/5/2018 11:34:51 AM C:\Users\Lee\Documents\17016 - Axies_24x40 PC - MainFile - Low Seismic_Lee.rvt

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. PRASAD No. S3380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: | 2016 | **CBC**
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118239
ACS FLS SS
DATE MAR 07 2018

Revision Schedule

#	Description	Date

SHEET TITLE
LONG. SECTION - (MONO)

PROJECT NUMBER
17016A

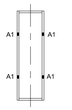
DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

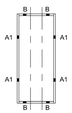
SHEET NO.
S5.0

SHEET OF SHEETS



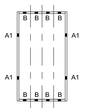
VENT AREA REQ = 960 SF = 6.4 SF
150

VENT AREA AVAIL = (4) 1.75 VENT = 7 SF



VENT AREA REQ = 1440 SF = 9.6 SF
150

VENT AREA AVAIL = (4) 1.75 SF + (4) 0.75 SF = 10 SF

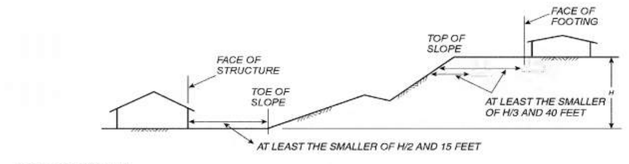


VENT AREA REQ = 1920 SF = 12.8 SF
150

VENT AREA AVAIL = (4) 1.75 SF + (8) 0.75 = 13 SF

NOTE: WOOD FOUNDATION EXPANDABLE TO 48x40

1 *1/16" = 1'-0"*
50+15 VENTING LAYOUT



For SI: 1 foot = 304.8 mm.

FIGURE 1808.7.1
FOUNDATION CLEARANCES FROM SLOPES

3 *1/4" = 1'-0"*
FOUNDATION SETBACKS

KEY PLAN VENTING SCHEDULE
VENT "A1" (SIDEWALL): 3'-6" x 6" = 1.75 S.F. VENTILATION
VENT "B" (ENDWALL): 3'-0" x 3" = 0.75 S.F. VENTILATION

SEE 2

9 *1/4" = 1'-0"*
KEY PLAN VENTING SCHEDULE FOR 50+15 PSF

WOOD FOUNDATION PLATE SCHEDULE								
50 + 15 PSF								
PLATES	END WALL	SIDE WALL	MODLINE ENDS	MODLINE INTERIOR	ML "B" ENDS	ML "B" INTERIOR	SEPERATION ENDS	SEPERATION INTERIOR
BOOSTER	2x4	2x4	2x6	2x6	2x8	2x8	2x4	2x4
TOP	2x6	2x6	2x8	2x8	2x10	2x10	2x6	2x6
BASE	2x8	2x8	2x10	2x10	2x12	2x12	2x8	2x8
SILL	2x12	2x12	(6) 2x12, 24" LONG	(6) 2x12, 24" LONG	(8) 2x12, 24" LONG	(8) 2x12, 24" LONG	2x12	2x12

* MODLINE "B" - MODLINE W/ EXT. WALLS BACK-TO-BACK SEE F1.14

8 *1/4" = 1'-0"*
WOOD FOUNDATION PLATE SCHEDULE FOR 50+15

1. WOOD FOUNDATION CONSTRUCTION IS ALLOWED FOR BUILDINGS WITH 2160 SF AND UNDER.
2. SILL PLATES SHALL BE OF FOUNDATION GRADE REDWOOD OR PRESERVATIVE PRESURE TREATED MATERIAL AND IS ALLOWED TO REST DIRECTLY ON SOIL OR PAVEMENT. MATERIALS ABOVE THE SILL PLATES ARE NOT CONTROLLED BY THIS REQUIREMENT.
3. VENTS THAT OCCUR INSIDE RAMP BOUNDARIES SHALL REQUIRE A VENT OF EQUAL SIZE AT RAMP SKIRTING.
4. TO PREVENT SLIDING; A 1 INCH G.S. SCHEDULE 40 PIPE (1.315" ACTUAL O.D.) SHALL BE ATTACHED TO SILL PLATE AND ANCHORED INTO THE EARTH W/ 12" MIN EMBEDMENT (PROJECTED VERTICALLY) @ 10' - 0" MAX O.C. AND SHALL BE LOCATED A MAXIMUM OF 2'-0" FROM CORNERS
5. STACKED FOUNDATION MEMBERS SHALL BE FASTENED TO ONE ANOTHER W/ CORROSION RESISTANT NAILS.
6. WOOD FOUNDATION HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 1,000 PSF IN ABSENSE OF A SOILS INVESTIGATION REPORT PROVIDED BY A LICENSED GEOTECHNICAL ENGINEER.
7. REFER TO ARCHITECT'S SITE PLAN FOR DRAINAGE.

8. THERE IS NO CONCRETE FLOOR FOR WOOD FOUNDATION OPTION, I.E., CONCRETE FLOOR LOAD IS INCLUDED IN THE CONCRETE FOUNDATION OPTION FOR FOUNDATION & ANCHORAGE DESIGN.

7 *1/4" = 1'-0"*
NOTES FOR 50+15

(2) 16d NAILS SILL TO BASE CONNECTION FOR 50+15 SEE S7 / F1.10			
	ENDWALL	SIDEWALL	SEPERATION
24x40	9" O.C	12" O.C	12" O.C
36x40	11" O.C	12" O.C	12" O.C
48x40	12" O.C	12" O.C	12" O.C

*16D "COMMON" NAIL CAN BE USED IN LIEU OF 16D "BOX" NAIL FOR SILL PLATE FASTENING.

6 *1/4" = 1'-0"*
NAILING SCHEDULE FOR 50+15

TIE PLATE SCHEDULE		
	END WALL	SIDE WALL
24x40	4	2
36x40	5	2
48x40	7	2

4 *1/4" = 1'-0"*
TIE PLATE SCHEDULE FOR 50+15

TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

Revision Schedule

#	Description	Date

SHEET TITLE
WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 50+15

PROJECT NUMBER
17016A

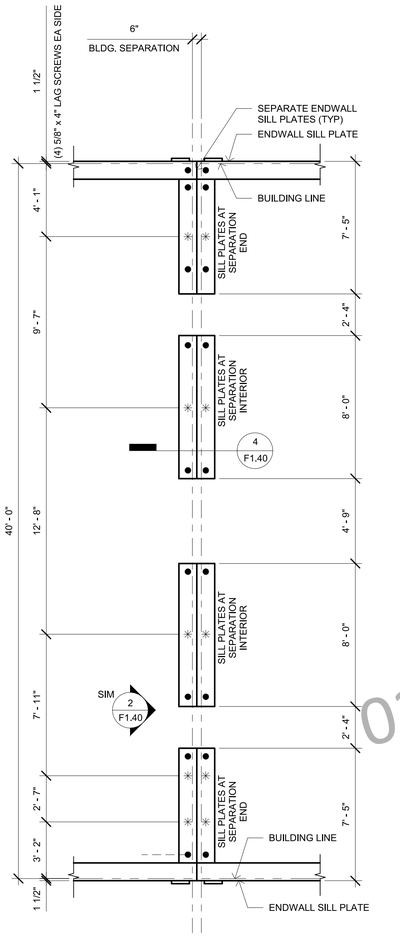
DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

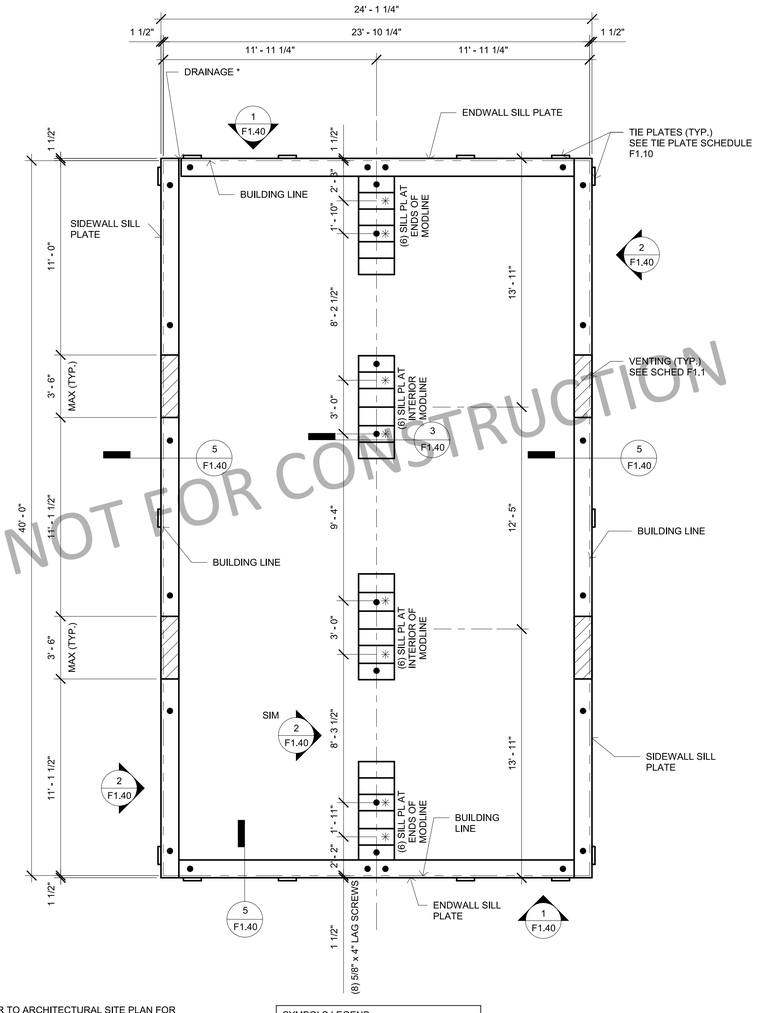
SHEET NO.
F1.10

SHEET OF SHEETS



SYMBOLS LEGEND
✳ LAG SCREWS
● SILL RESTRAINTS (SEE NOTE 4 / F1.10)

3 ***1/4" = 1'-0"***
FOOTING AT SEPARATION



* REFER TO ARCHITECTURAL SITE PLAN FOR DRAINAGE

SYMBOLS LEGEND
✳ LAG SCREWS
● SILL RESTRAINTS (SEE NOTE 4 / F1.10)

2 ***1/4" = 1'-0"***
24x40 FOUNDATION PLAN

R&S TAVARES ASSOCIATES
DESIGN ★ CONSULTING ★ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO C-63801 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

Revision Schedule

#	Description	Date

SHEET TITLE
WOOD
FOUNDATION
PLAN 24x40 BLDG
W/ 50+15

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

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JA/RT

DATE
2017/06/05

SHEET NO.
F1.11
SHEET OF SHEETS

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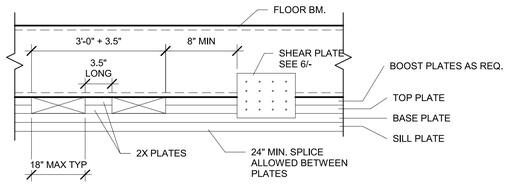
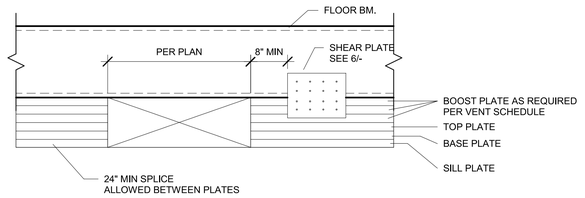
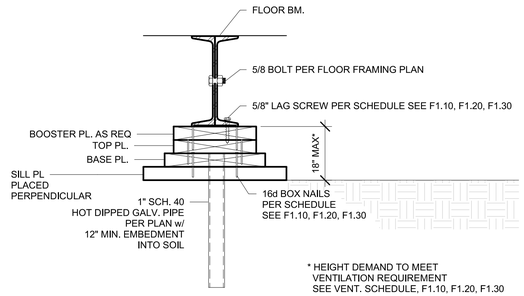


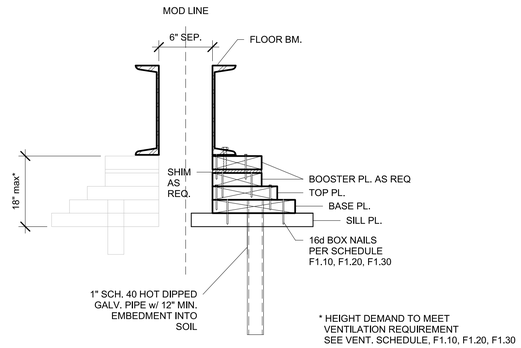
1 *1 1/2" = 1'-0"*
VENT OPENING OVER BASE PLATE



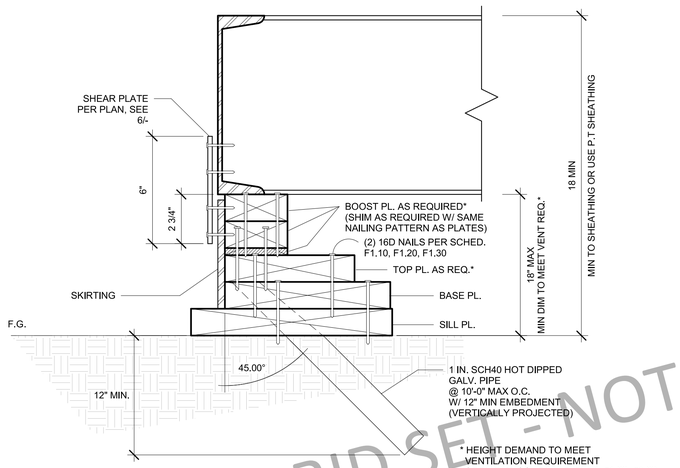
2 *1 1/2" = 1'-0"*
VENT OPENING @ SIDEWALL OR MODLINE @ SEPERATION



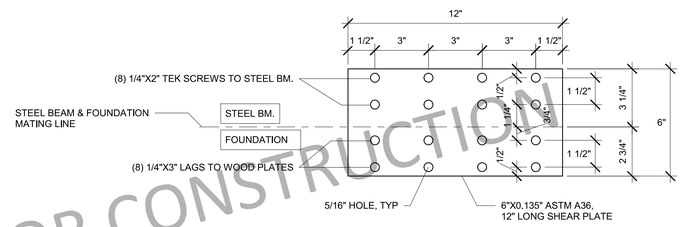
3 *1 1/2" = 1'-0"*
FOUNDATION PAD AT MOD LINE



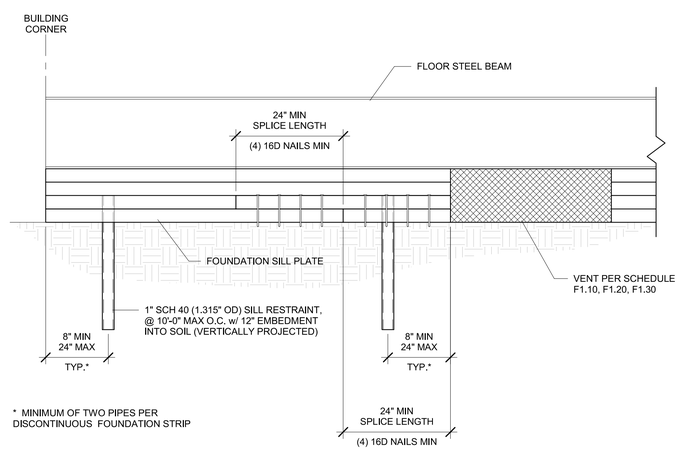
4 *1 1/2" = 1'-0"*
FOUNDATION PAD AT SEPARATION



5 *3" = 1'-0"*
SILL PLATE PROFILE



6 *3" = 1'-0"*
SHEAR PLATE



7 *1 1/2" = 1'-0"*
Splice at Sills

TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCISCO C-42380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
24' x 40'
EXPANDABLE TO
120' x 40'

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY APPROVAL

Revision Schedule

#	Description	Date

SHEET TITLE
WOOD
FOUNDATION
DETAILS

PROJECT NUMBER
17016A

DRAWN BY
rMc/SC

CHECKED BY
JA/RT

DATE
2017/06/05

SHEET NO.
F1.40
SHEET OF SHEETS

1/4/2018 2:44:12 PM C:\Users\Lee\Documents\17016 - Aries, 24x40 PC - MainFile - Low Seismic_Lee.rvt

PARTIAL LIST OF APPLICABLE CODES AS OF JULY 1, 2014

2013 ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R. *
2013 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2012 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2011 NATIONAL ELECTRICAL CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TILTLE 24 C.C.R.
(2012 UNIFORM MECHANICAL CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2012 UNIFORM PLUMBING CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R
2013 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
(2012 INTERNATIONAL FIRE CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2013 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
2007 ASME A17.1 (W/ A17.1A/CSA B44A-08 ADDENDA) SAFETY CODE FOR ELEVATORS AND ESCALATORS

*CALIFORNIA ADMINISTRATIVE CODE, PART1, CHAPTER 10, ADMINISTRATIVE REGULATIONS FOR THE CALIFORNIA ENERGY COMMISSION (CEC)

GENERAL NOTES

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATION SHALL BE MADE BY AN ADDENDUM OR CONSTRUCTION CHANGE DOCUMENT(CCD) BY DSA AS REQUIRED BY SECTION 4-338 PART1, TITLE 24, CCR

A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT(OWNER) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK, DUTIES OF INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1 TITLE 24, CCR

COMPLETE ACCESS IS A DIVISION OF INTEGRATED STAIR SYSTEMS INC. WITH CORPORATE OFFICES LOCATED IN 1345 RYAN RD, BUCKLEY, WA 98321, (360) 829-4220

DESIGN LOADS

LIVE LOAD:	100 PSF (4.8 kPa)
HANDRAIL IMPACT:	200 LBS (0.9 kN)
HANDRAIL DIST. LOAD:	50 PLF (0.7 kN/m)
SESIMIC:	Ss= 1.875g, S1= 0.675, R= 1.25, SITE CLASS D
LATERAL RESISTING SYST:	OTHER STRUCTURES SIMILAR TO BUILDINGS
WIND:	130 MPH, 3 SEC GUST EXPOSURE "C", Kzt= 1.0
SEIS IMPORTANCE FACTOR:	Ie= 1.25, Iw= 1.0
SNOW LOAD:	0 PSF (0 kPa)
SOIL ALLOWABLE BEARING:	1,000 PSF (4.8 kPa)

MATERIALS

SQUARE STEEL TUBE	ASTM A513 GR. C	Fy= 33 KSI (345 MPa)
RAMP OVERHANG POST	ASTM A500 B	Fy= 46 KSI

*ALL STEEL TO BE COATED WITH GALVANIZED RUST INHIBITING COATING

WOOD FOUNDATION SHALL BE OF FOUNDATION GRADE REDWOOD OR PRESERVATIVE PRESSURE TREATED HEM-FIR #2 AND IS ALLOWED TO REST DIRECTLY ON SOIL OR PAVEMENT.

WELDS

WELDING SHALL BE IN ACCORDANCE WITH AWS D.1.1-10 USING E70XX ELECTRODES FOR STEEL
AND AWS D1.2 AND A5.10 FOR ALUMINUM, USING ALMIGWELD ER4043

BOLTS, SCREWS AND NAILS

STEEL TO STEEL CONNECTIONS: ASTM A307 CARBON STEEL BOLTS SHALL BE GRADE 5 ZINC PLATED, HOT DIPPED GALVANIZED TO ASTM A153 OR ELECTROGALVANIZED TO ASTM B63.3. FASTENER SHALL BE LUBRICATED TO ELIMINATE GALLING. ALL STEEL MEMBERS IN CONTACT WITH ALUMINIUM SHALL BE ZINC COATED TO ELIMINATE GALVANIC REACTION.

STEEL TO STEEL & WOOD CONNECTIONS: ANSI/ASME STEEL LAG SCREWS, STEEL STANDARD WOOD SCREWS, WOOD TO WOOD CONNECTION: ASTM STANDARD COMMOM STEEL NAIL.

ITW RED HEAD CONCRETE WEDGE ANCHORS SHALL BE INSTALLED PER RECOMMENDATION SHOWN IN ESR-2427

HANDRAIL NOTES:

1) MANEUVERING CLEARANCE ON EXTERIOR PULL SIDE OF DOOR SHALL BE 24" (610MM) MINIMUM WITH 60" (1524MM) MINIMUM LANDING IN FRONT OF DOOR.

2) HANDRAILS SHALL BE CONTINUOUS ALONG BOTH SIDES. HANDRAILS SHALL BE PARALLEL WITH THE SURFACE AND PROJECT 12" (301MM) ON TOP OF RISER AND 12" (301MM) PLUS 1 TREAD AT BOTTOM RISER.AT RAMPS WHERE HANDRAIL ARE NOT CONTINUOUS BETWEEN RUNS THE HANDRAIL SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12" (301MM) MINIMUM BEYOND TOP AND BOTTOM RAMPS

3) TOP OF HANDRAILS SHALL BE MOUNTED BETWEEN 34" (864MM) AND 38" (965MM) ABOVE THE WALKING SURFACE, ONE CONSISTENT HEIGHT, BEIGINNING TO END.

4) CLEARANCE BETWEEN RAIL AND WALL SHALL BE A MINIMUM OF 1-1/2" (38MM).

5) GUARDS ARE TO BE DESIGNED FOR A CONCENTRATED LOAD OF 200 LBF (0.9 kN) APPLIED @ ANY POINT AND ANY DIRECTION ALONG THE RAIL OR A UNIFORM LOAD OF 50 PLF (0.7 kN/m) APPLIED HORIZONTALLY @ HANDRAIL HEIGHT.

7) HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION WITH AN OUTSIDE DIAMETER OF 1-1/4" (31.75MM) MINIMUM AND NOT GREATER THAN 2" (51MM) MAXIMUM.

8) GRIPPING SURFACE SHALL BE UNINTERRUPTED BY POSTS OR OTHER CONSTRUCTION ELEMENTS OR OBSTRUCTIONS.

9) HANDRAILS SHALL NOT ROTATE IN THEIR FITTINGS.

10) ENDS OF HANDRAILS SHALL RETURN SMOOTHLY TO FLOOR, WALL OR POST.

RAMP NOTES

1) RAMPS SHALL CONFORM TO CBC 2016 TITLE 24 PART 2, CHAPTER 11B, 11B-405

2) RAMP SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12 (8% SLOPE) FOR A MAXIMUM RISE OF 30" (762MM)

3) THE MAXIMUM VERTICAL RISE OF RAMP RUN SHALL BE 30" (762MM) MAXIMUM

4) RAMPS SHALL HAVE LANDING AT BOTTOM AND TOP OF EACH RAMP RUN

5) THE SLOPE ON LANDINGS SHALL NOT BE STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL (2% SLOPE) IN ANY DIRECTION

6) LANDING SHALL HAVE A WIDTH AT LEAST AS WIDE AS THE WIDES RAMP RUN LEADING TO THE LANDING AND A MINIMUM LENGTH OF 60" IN THE DIRECTION OF TRAVEL @ TOP LANDING - 72" MIN @ BOT LANDING

7) CHANGES IN DIRECTION OF TRAVEL SHALL HAVE A LANDING 60" WIDE BY 72" LONG (1524MM x 1829MM) MINIMUM, WITH WITH THE LENGTH BEING IN THE DIRCTION OF DOWNWARD TRAVEL AND CHANGES IN DIRECTION

8) MANEUVERING CLEARANCE ON LANDING ADJACENT TO DOORWAYS SHALL BE NO LESS THAN 42" WITH DOOR IN ANY POSITION AND SHALL NOT BE REDUCED BY MORE THAN 3" WHEN DOOR IS FULLY OPENED

9) WALKING SURFACE SAHLL BE ROUGHED OR SHALL BE OF SLIP RESISTANT DIAMOND PLATE ALUMINUM AND ALL LANDINGS TO BE DESIGNED TO NOT RETAIN STANDING WATER - 2.083 MAX SLOPE ANY DIRECTION

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

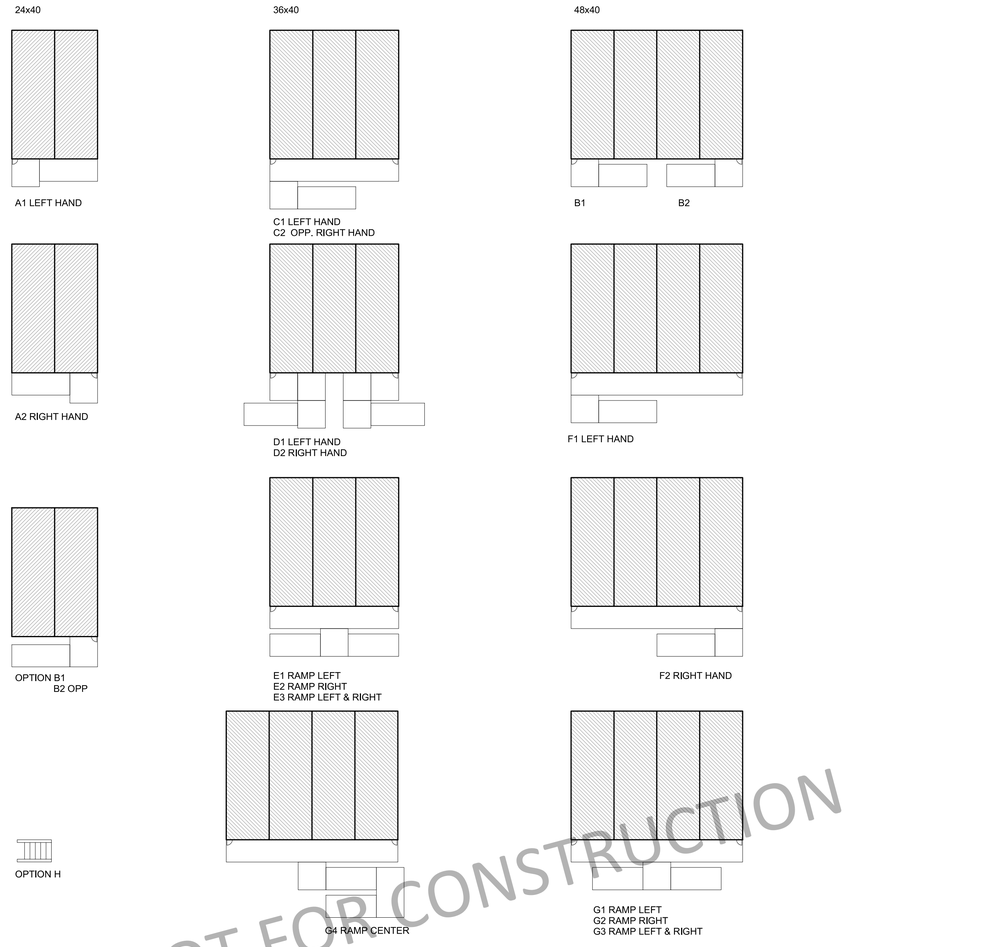
Ramp Option Schedule:

option1 : ramp & landing @ building
(plan view 1/SR1)

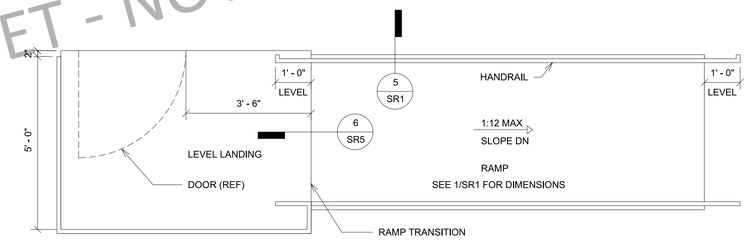
option 2 : ramp and landing with offset ramp
(plan view 2/SR1)

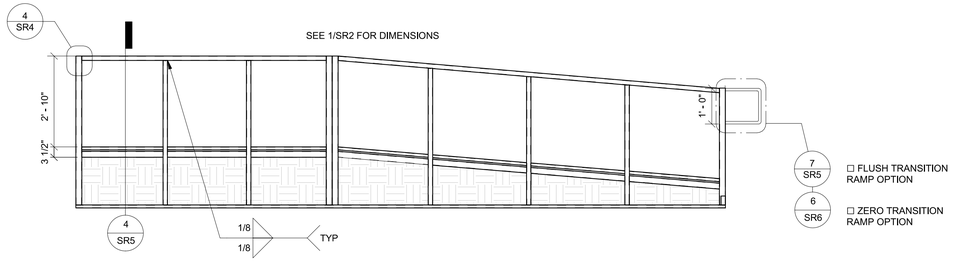
option 3: ramp and platform landing
(plan view 3/SR1)

option 4 : ramp and landing with switch back ramp
(plan view 4/SR1)



2 ***Ramps Options w/ Different Building Sizes***





3 ***1/2" = 1'-0"***
Standard Ramp

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DESIGN ◆ CONSULTING ◆ PROJECT
11777 Bernardo Plaza Court, Suite 108
San Diego, CA 92128

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCIS C 42380 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Module Plan and Notes

PROJECT NUMBER
17016A

DRAWN BY
SM

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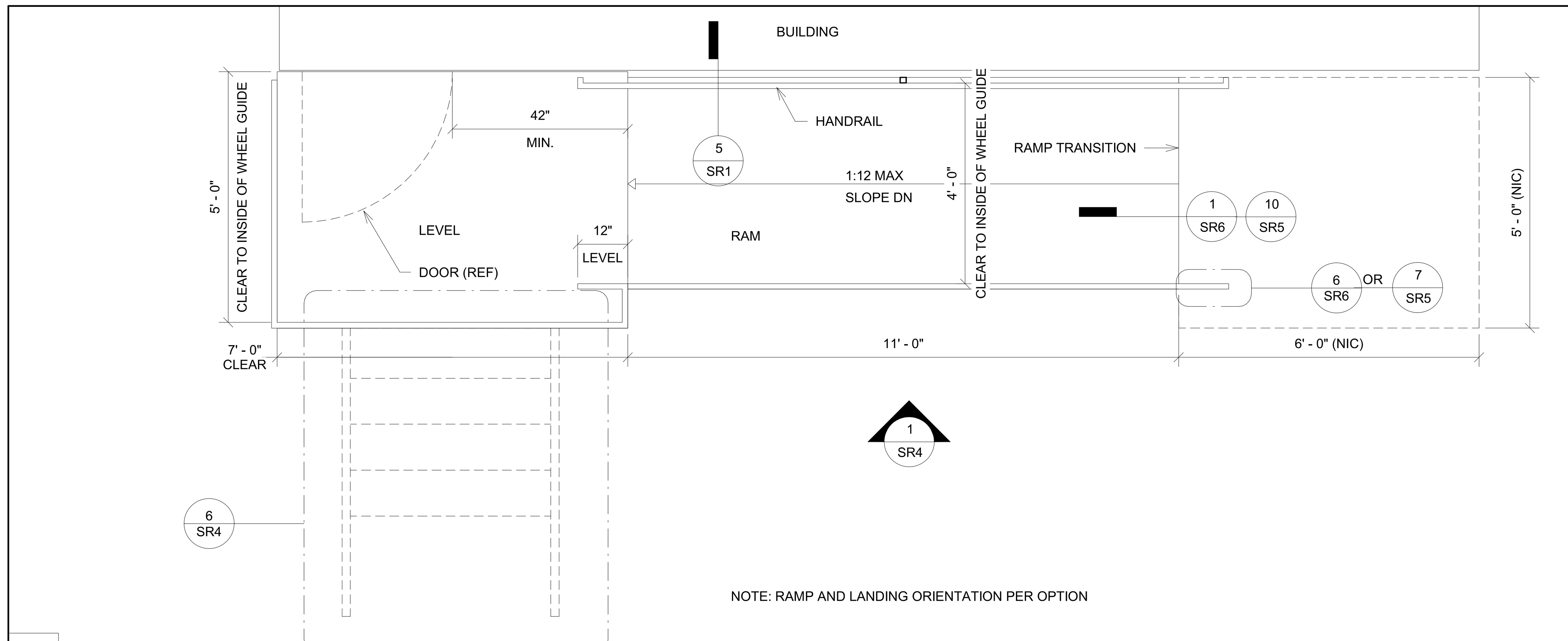
rMc

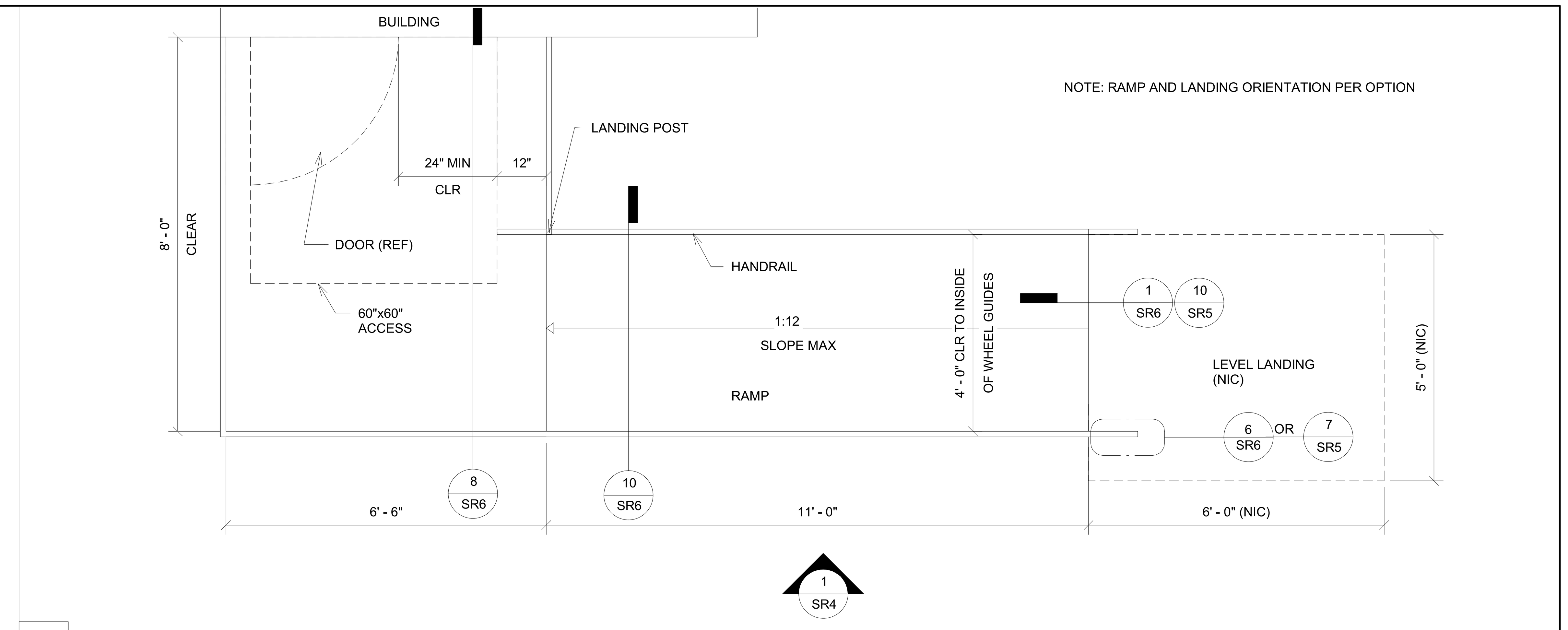
DATE
05/04/2017

SHEET NO.
SR0

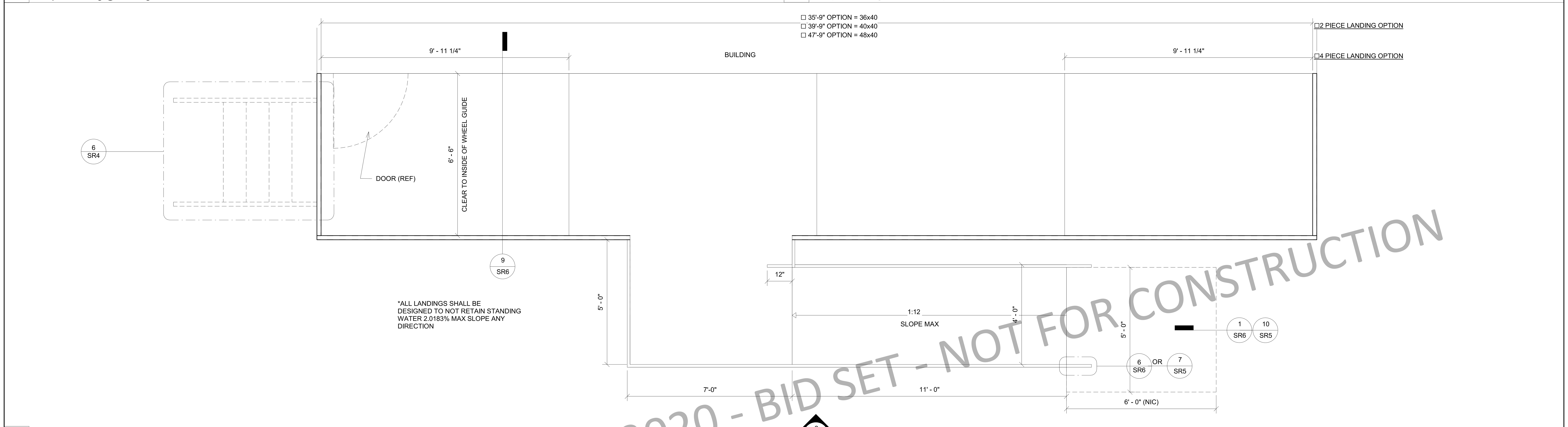
SHEET OF



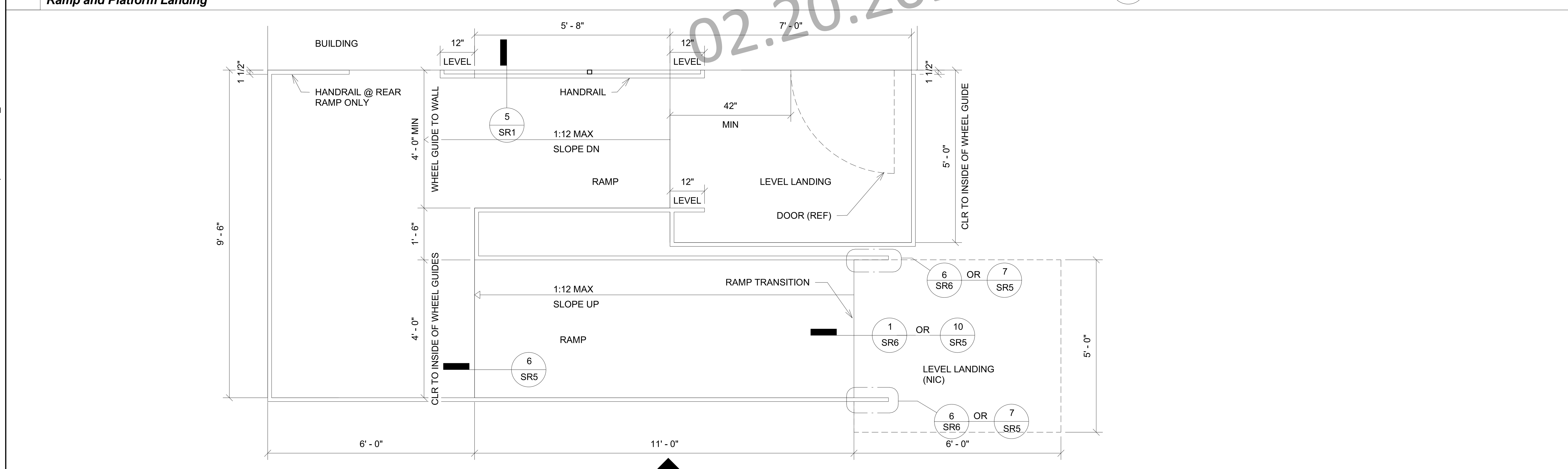
1 *1/2" = 1'-0"*
Ramp & Landing @ Building



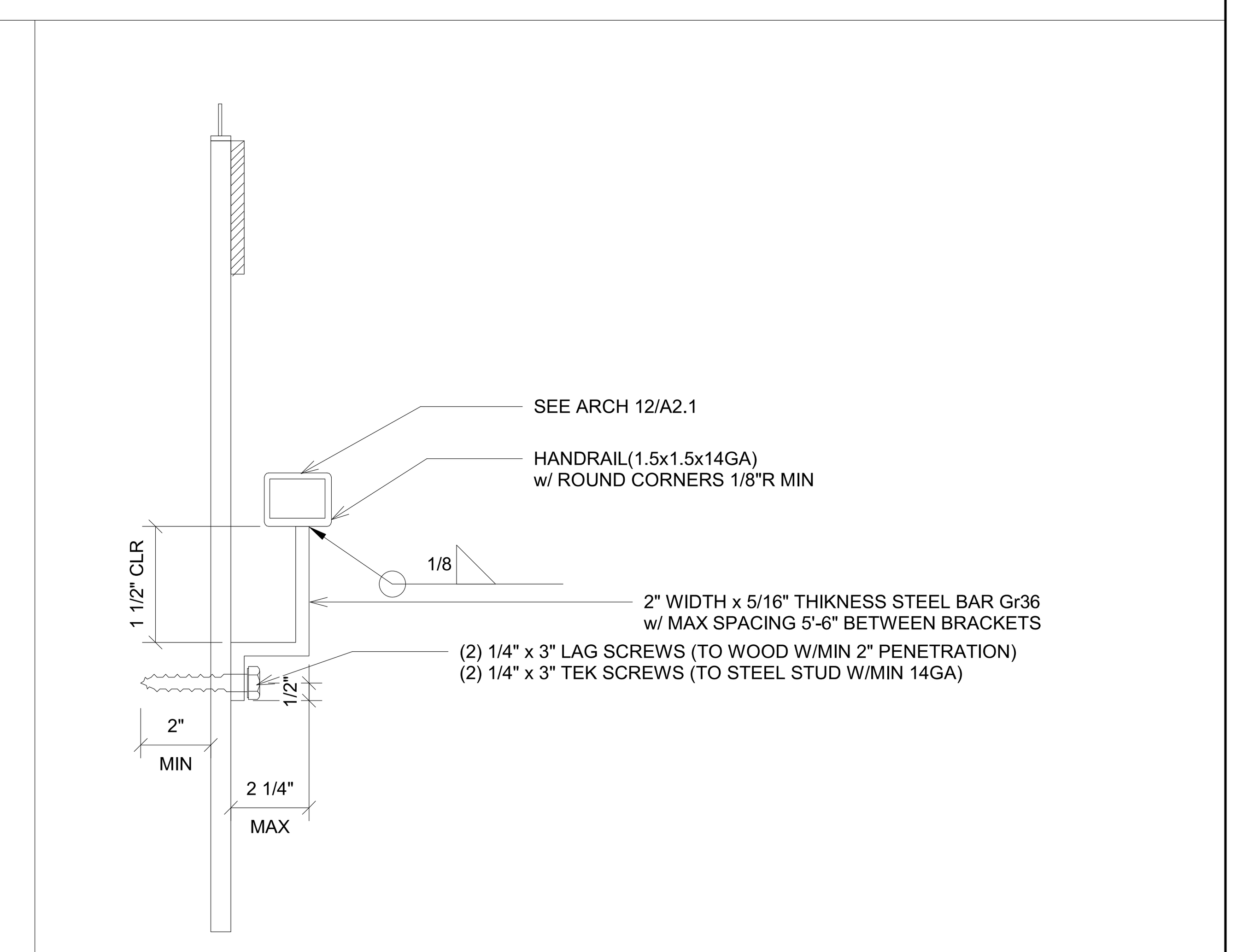
2 *1/2" = 1'-0"*
Ramp & Landing w/ Offset Ramp



3 *1/2" = 1'-0"*
Ramp and Platform Landing



4 *1/2" = 1'-0"*
Ramp & Landing w/ Switch Back Ramp



5 *3" = 1'-0"*
Handdrail

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DESIGN ◆ CONSULTING ◆ PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128

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REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRAZIER
STRUCTURAL
STATE OF CALIFORNIA

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PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Ramp and Landing Plan

PROJECT NUMBER
17016A

DRAWN BY
SM

CHECKED BY
rMc

DATE
05/04/2017

SHEET NO.
SR1

SHEET OF

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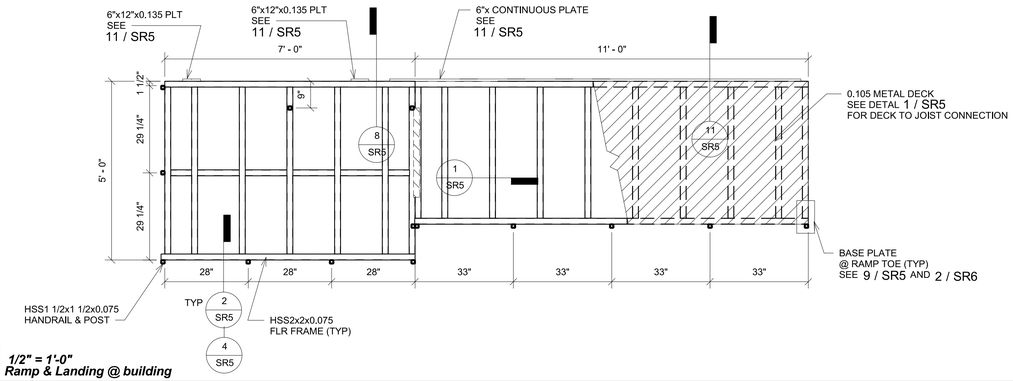
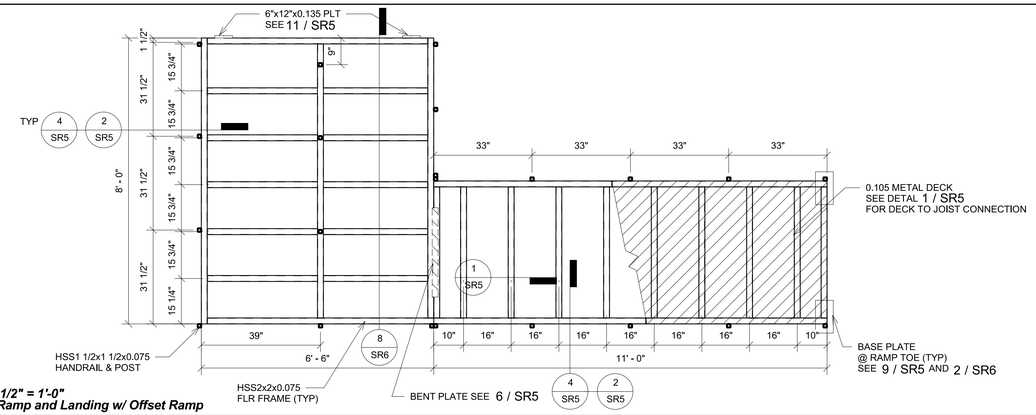
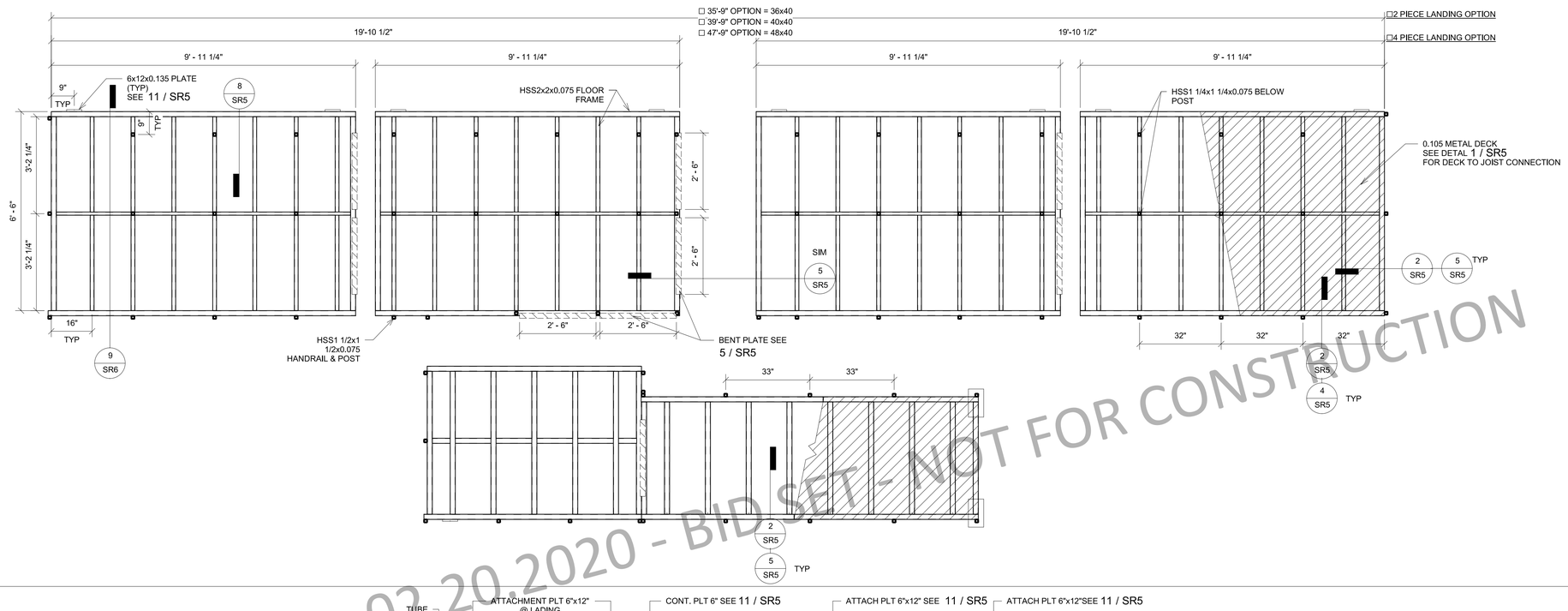


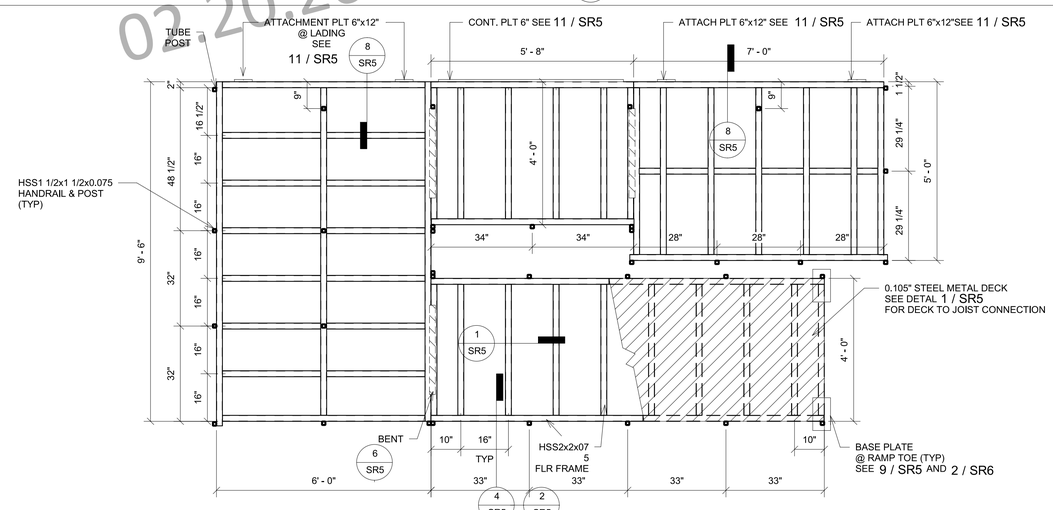
1 ***1/2" = 1'-0"***
Ramp & Landing @ building



2 ***1/2" = 1'-0"***
Ramp and Landing w/ Offset Ramp



3 ***1/2" = 1'-0"***
Ramp & Platform Landing Frame



4 ***1/2" = 1'-0"***
Ramp & Landing w/ Switch Back Ramp

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DESIGN ◆ CONSULTING ◆ PROJECT
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SAN DIEGO, CA 92128

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REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO C-54380 STRUCTURAL STATE OF CALIFORNIA

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FILE NUMBER: PC-128

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DATE 07/19/2018

PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Ramp and Landing Framing

PROJECT NUMBER
17016A

DRAWN BY
SM

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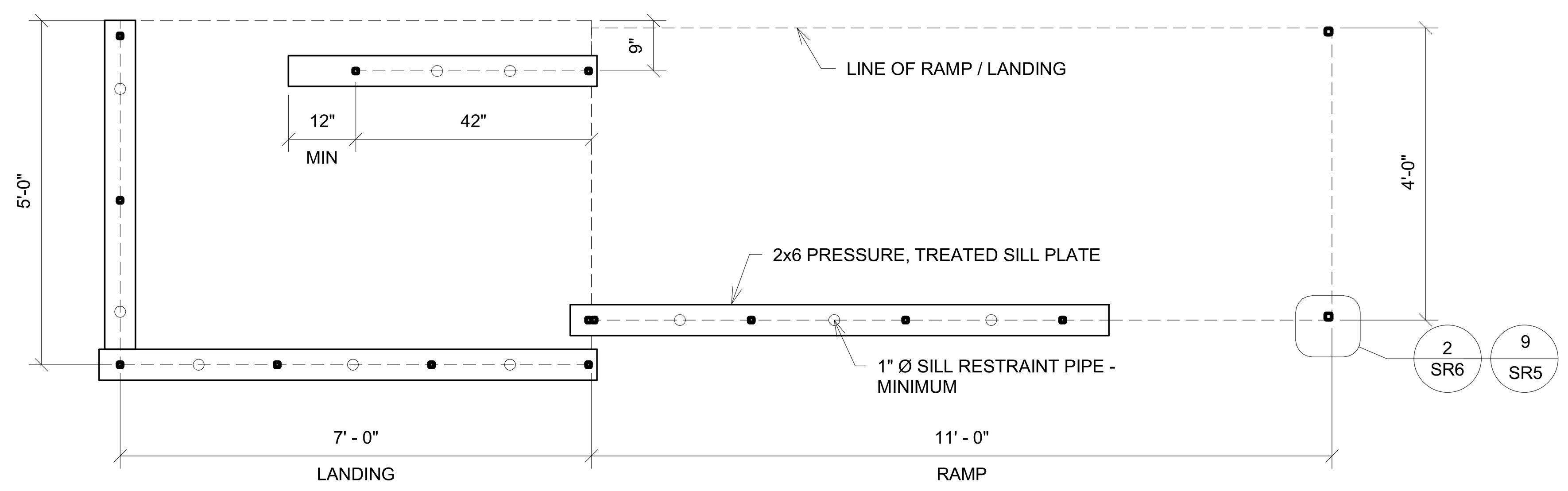
BR/rMc

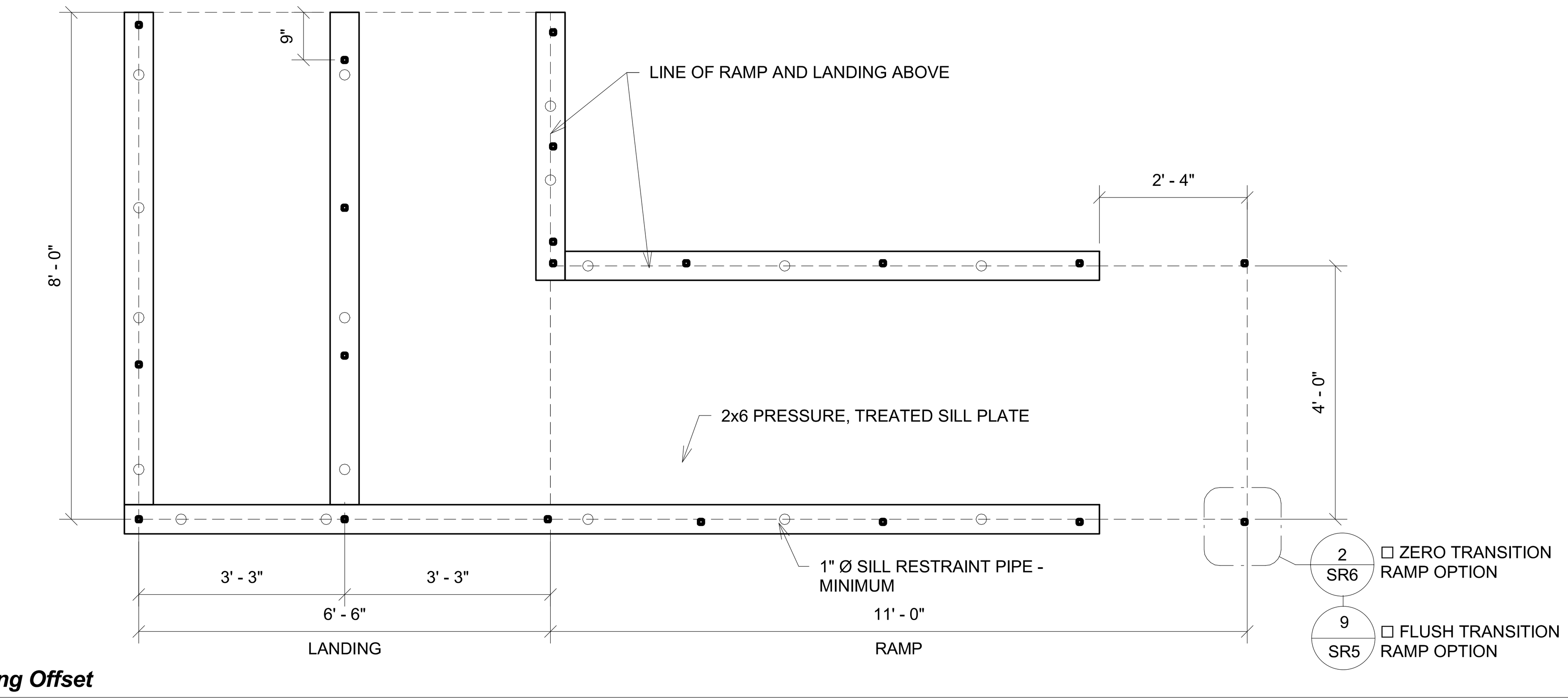
DATE
05/04/2017

SHEET NO.
SR2

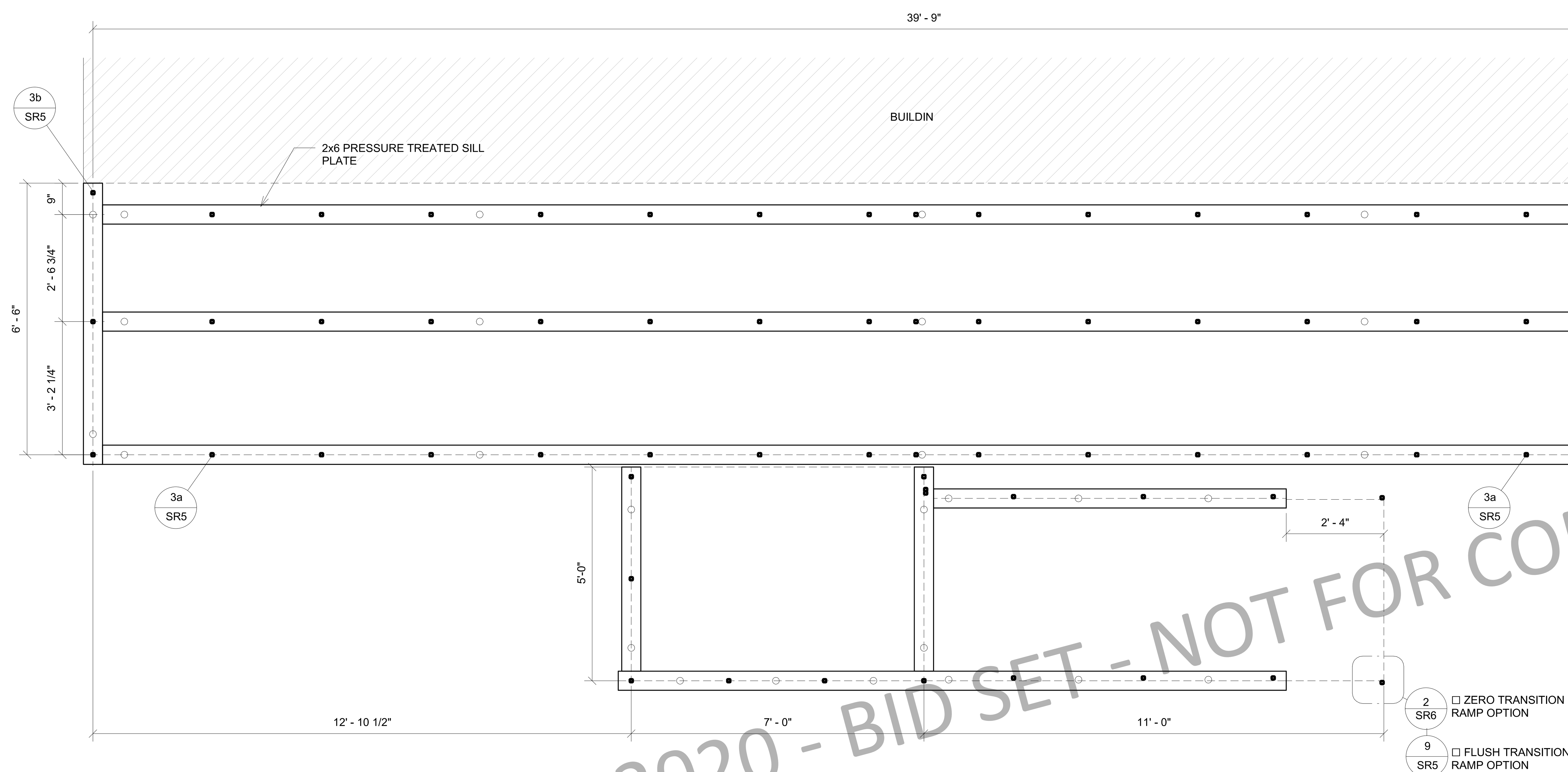
SHEET OF



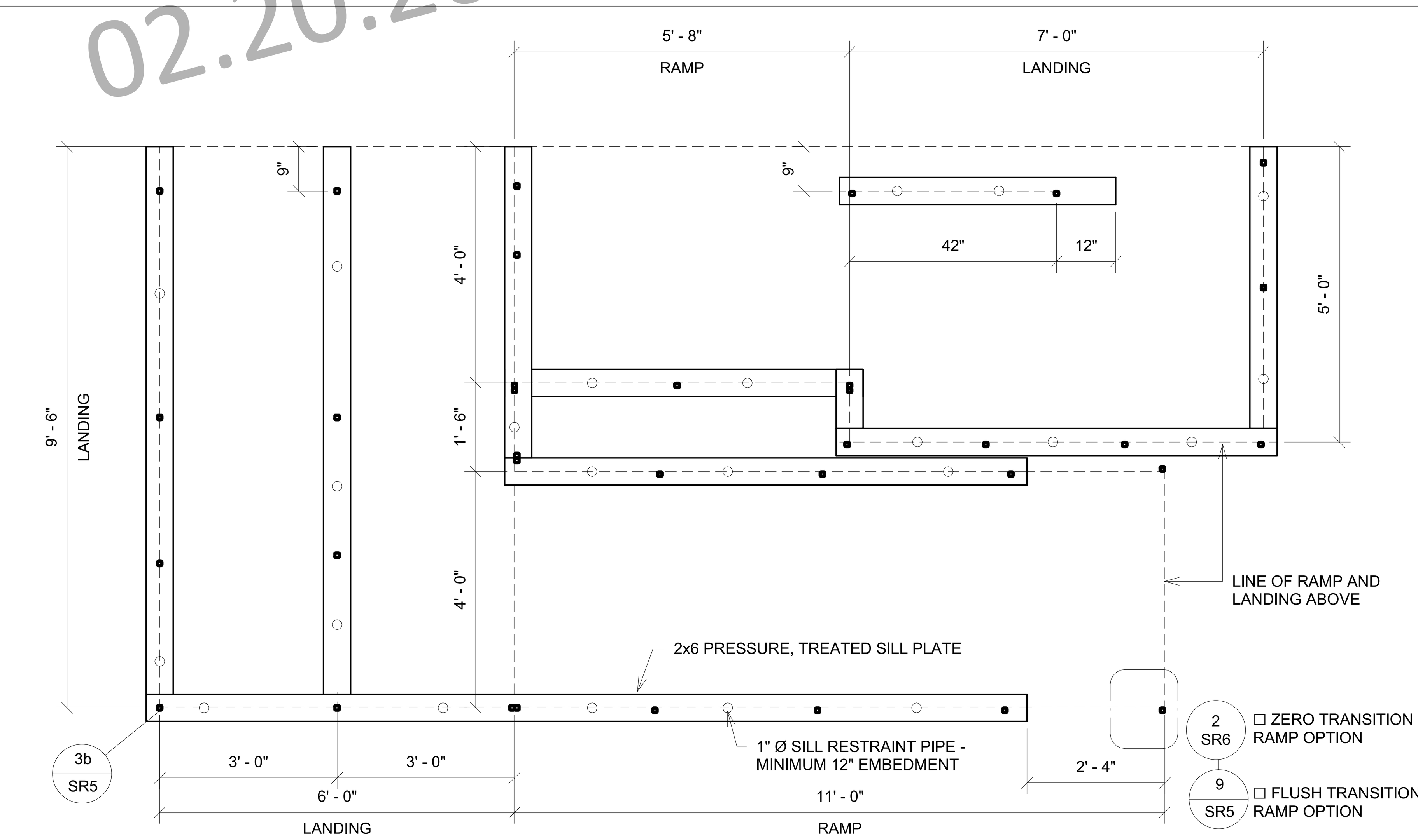
1 *1/2" = 1'-0"*
Sill Plan For Ramp & Landing



2 *1/2" = 1'-0"*
Sill Plan For Ramp & Landing Offset



3 *1/2" = 1'-0"*
Platform Sill Plan For Ramp & Landing



4 *1/2" = 1'-0"*
Sill Plan For Ramp & Landing Switchback

* "RESTRAINING PIPES / RODS SPECS"
ONE INCH DIAMETER STANDARD WEIGHT (1.315" ACTUAL 0.0) NOT DIPPED GALVANIZED PIPES OR ONE INCH DIAMETER SOLID STEEL RODS SPACED AT NOT MORE THAN 10'-0" o/c.
ONE PIPE / ROD SHALL BE LOCATED A MAXIMUM OF TWO FEET FROM EACH CORNERIN BOTH DIRECTIONS AND MINIMUM OF TWO PIPES / RODS PER DISCONTINUOUS FOUNDATION STRIP.
PIPES SHOULD PENETRATE INTO SOIL AND/OR PAVING A MIN. OF 12" MEASURED VERTICALLY.
PER DSA IR 16-1.13

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT
11777 BERNARDO PLAZA COURT, SUITE 105
SAN DIEGO, CA 92128

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REGISTERED PROFESSIONAL ENGINEER
MANNY D. FR...
STRUCTURAL
STATE OF CALIFORNIA
12/19/2017

CLIENT
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1221 Harley Knox Boulevard

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FILE NUMBER: PC-128
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DATE 07/19/2018

PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Foundation Plan

PROJECT NUMBER
17016A

DRAWN BY
SM

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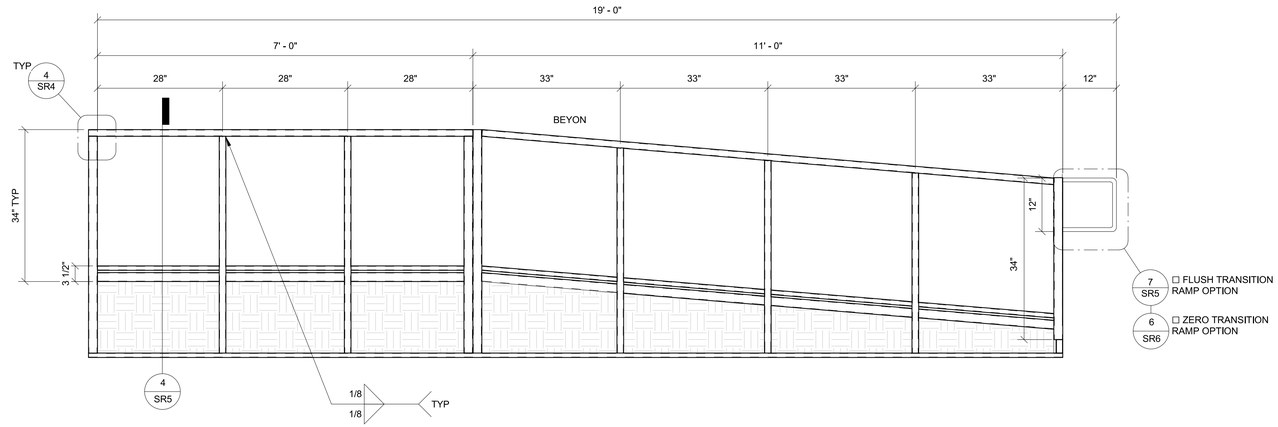
rMc

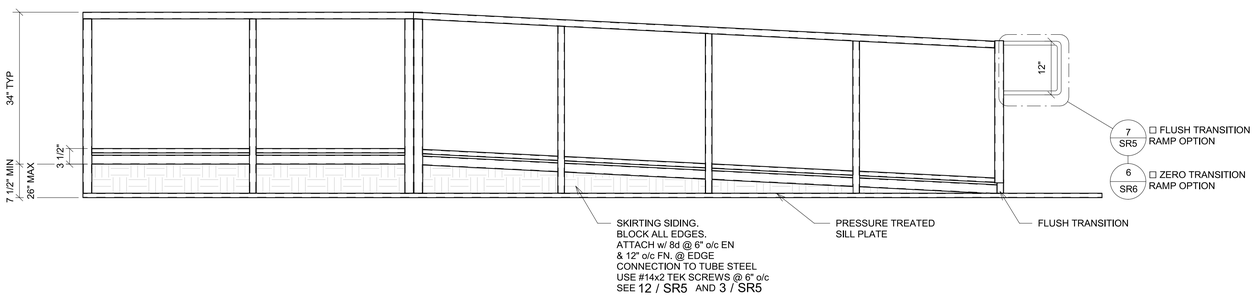
DATE
05/04/2017

SHEET NO.
SR3

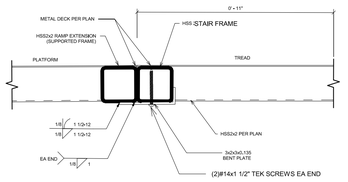
SHEET OF



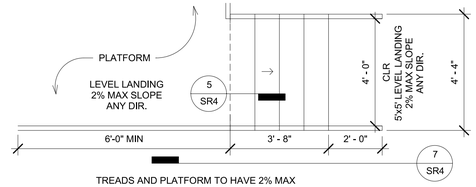
1 ***3/4" = 1'-0"***
Ramp & Landing Elevation



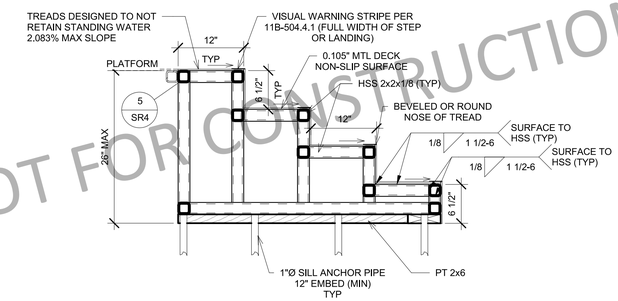
2 ***3/4" = 1'-0"***
Ramp & Landing Elevation Option X Copy 1



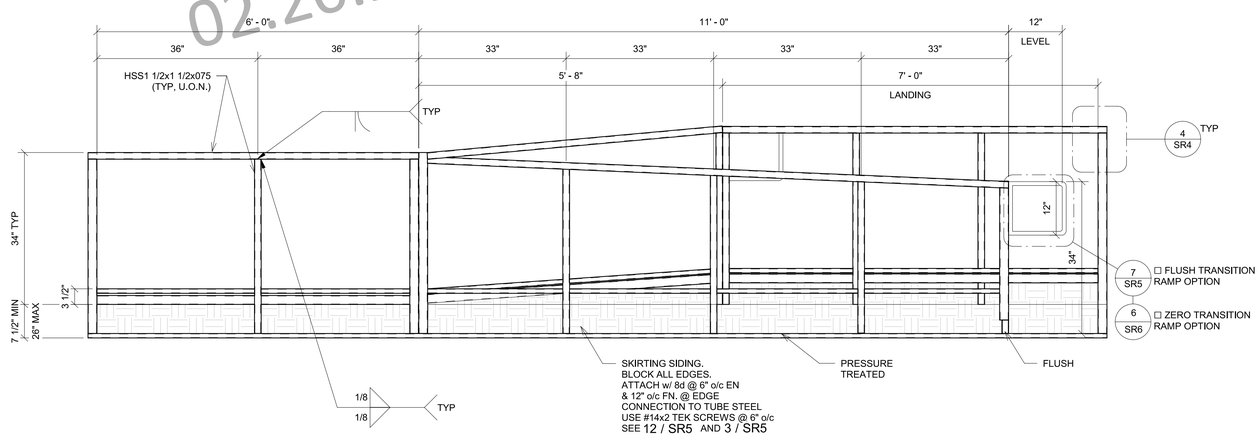
5 ***3" = 1'-0"***
Conn @ Platform



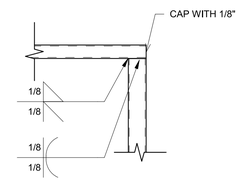
6 ***3/8" = 1'-0"***
Stair



7 ***1" = 1'-0"***
Stair Elev



3 ***3/4" = 1'-0"***
Ramp & Landing Elevation Option X



4 ***1 1/2" = 1'-0"***
Ramp & Landing Elevation Option X1 - Callout 1

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 Bernardo Plaza Court, Suite 108
San Diego, CA 92128

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANCISCO
No. S-2380
STRUCTURAL
STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
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DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC_RM FLS_EA SSR_KER
DATE 07/19/2018

PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Ramp and Landing / Stair Framing Elevation

PROJECT NUMBER
17016A

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DATE
05/04/2017

SHEET NO.
SR4

SHEET OF

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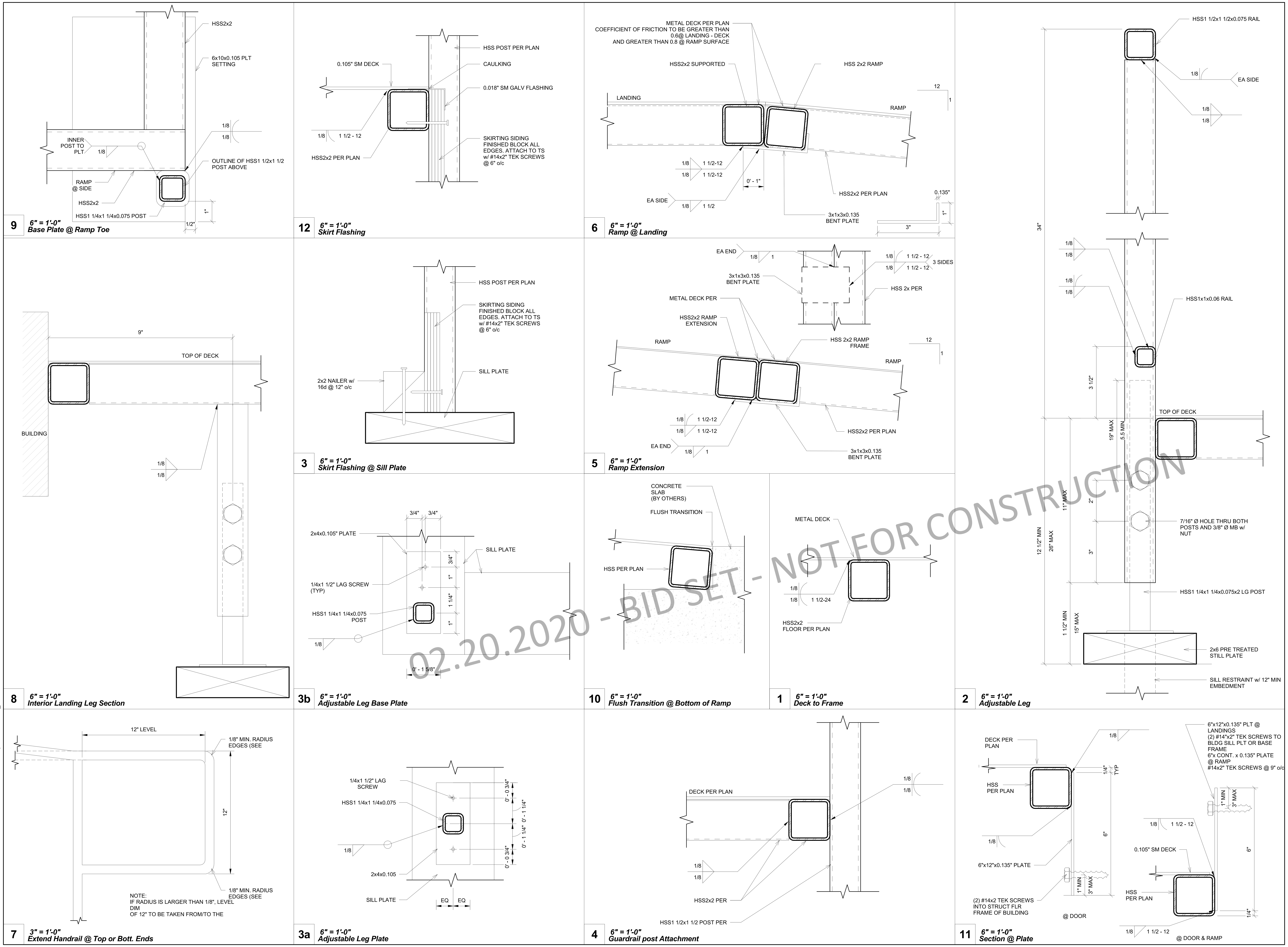

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San Diego, CA 92128

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CLASS LEASING LLC
1221 Harley Knox Boulevard

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FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
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AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Ramp Details

PROJECT NUMBER
17016A

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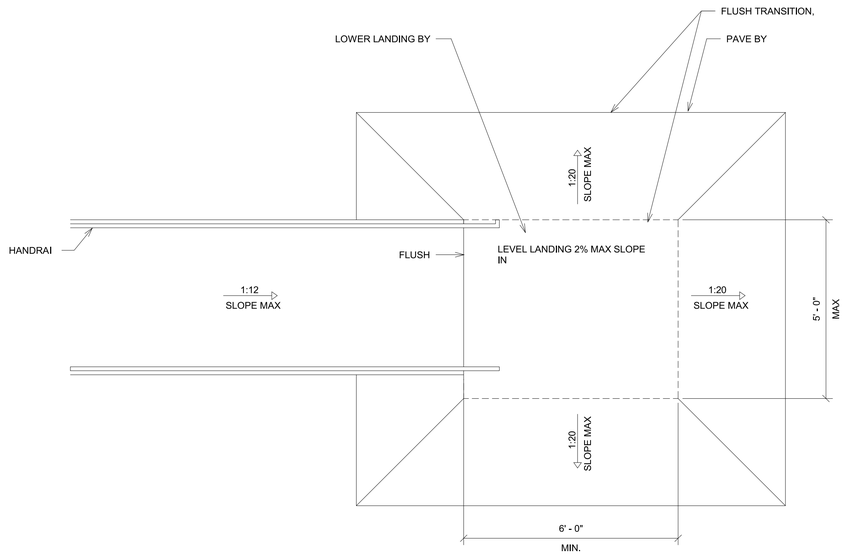
rMc

DATE
05/04/2017

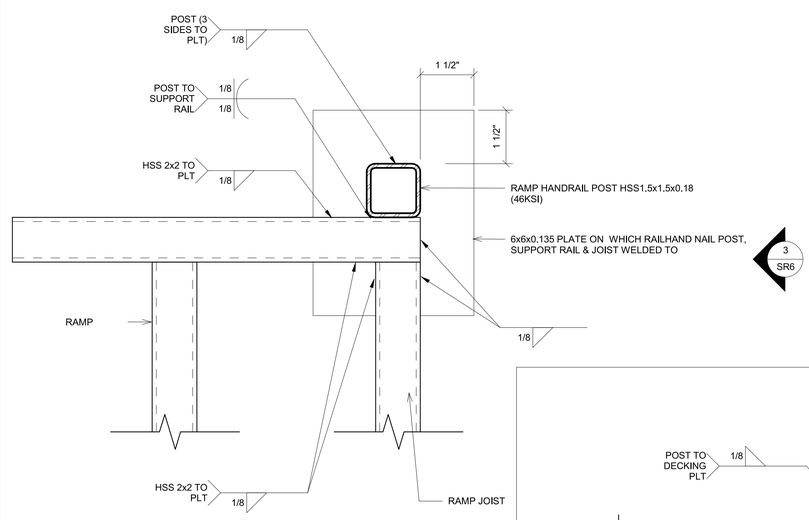
SHEET NO.
SR5

SHEET OF

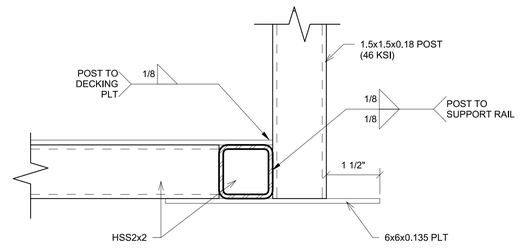


NOTE:
1. 1:20 TRANSITION OFF OF LOWER LANDING REQUIRES NO HANDRAIL.
2. TRANSITIONS EXCEEDING 1:20 BUT NOT EXCEED 1:12 REQUIRE REMOVAL OF 12" HANDRAIL EXTENSION AND ADDITIONAL HANDRAILING BY DISTRICT. (THIS CONDITION REQUIRES A SITE SPECIFIC DETAIL PROVIDED BY ARCHITECT TO DEMOSTRATE ACCESSIBLE RAMP)

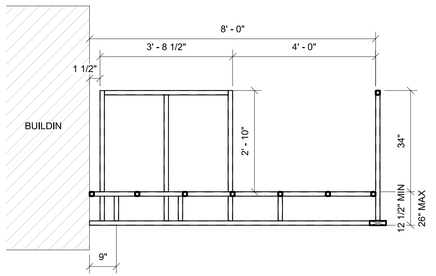
7 *1/2" = 1'-0"*
Ramp Transition



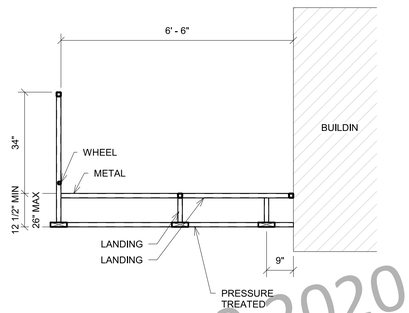
2 *6" = 1'-0"*
Base Plt @ Ramp Toe For Zero Transition



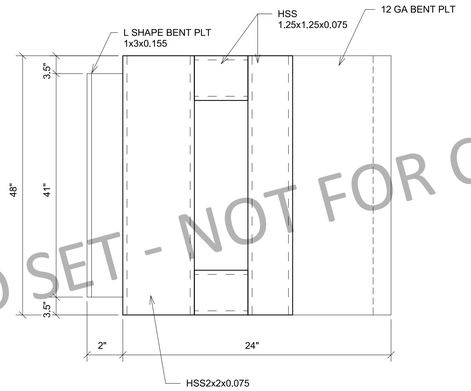
3 *6" = 1'-0"*
Base Plt @ Ramp Toe Low Zero Side View



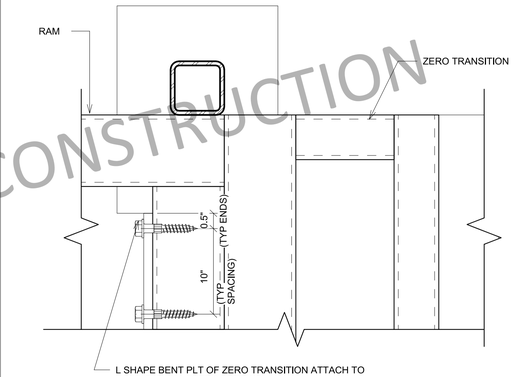
8 *1/2" = 1'-0"*
Section @ Landing



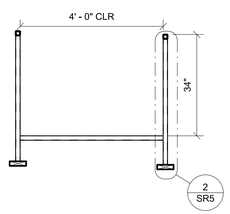
9 *1/2" = 1'-0"*
Section @ Landing Copy 1



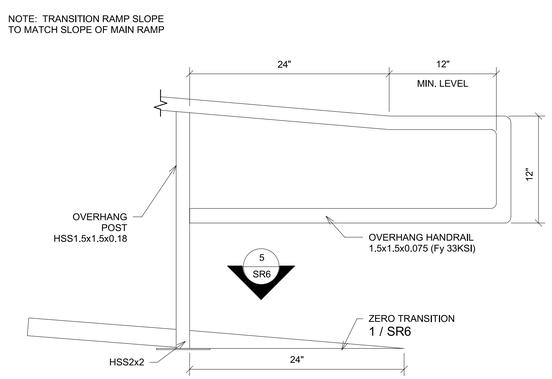
4 *6" = 1'-0"*
Top View Ramp Zero Transition



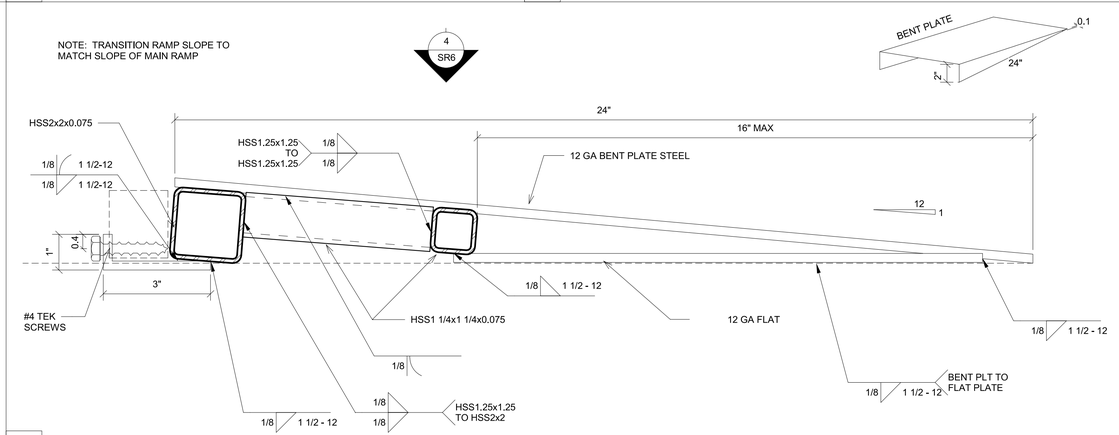
5 *6" = 1'-0"*
Zero Transition Ramp Connection



10 *1/2" = 1'-0"*
Section @ Ramp



6 *1 1/2" = 1'-0"*
Extend Handrail @ Bottom End For Zero Transition Ramp



1 *6" = 1'-0"*
Zero Transition Ramp

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12/19/2017 5:45:06 PM

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 Bernardo Plaza Court, Suite 105
San Diego, CA 92128

PROFESSIONAL STAMP

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Ramp Details

PROJECT NUMBER
17016A

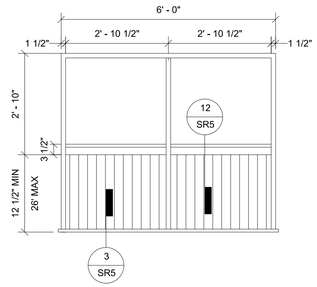
DRAWN BY
SM

CHECKED BY
rMc

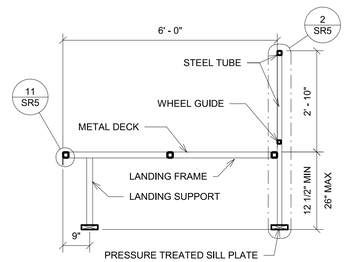
DATE
05/04/2017

SHEET NO.
SR6

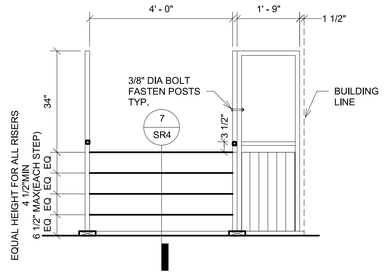
SHEET OF



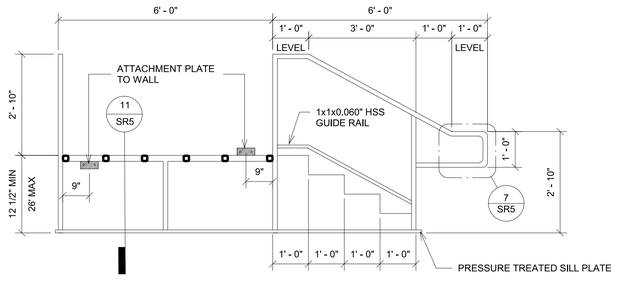
1 *1/2" = 1'-0"*
LANDING ELEVATION VIEW



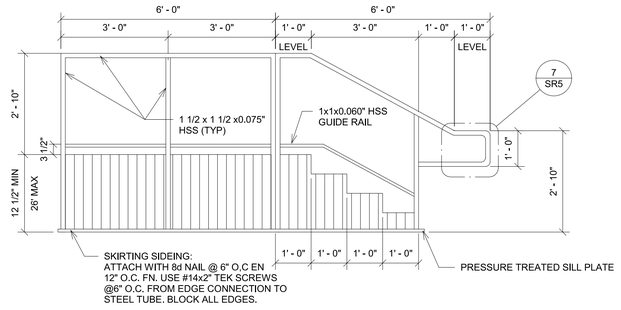
2 *1/2" = 1'-0"*
LANDING SECTION



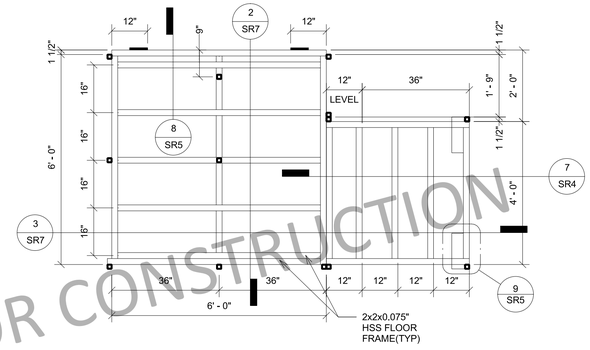
6 *1/2" = 1'-0"*
STEPS ELEVATION



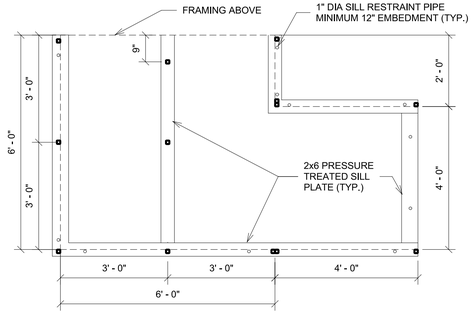
3 *1/2" = 1'-0"*
STEP AND LANDING SECTION



4 *1/2" = 1'-0"*
STEPS AND LANDING SECTION



5 *1/2" = 1'-0"*
STEPS/LANDING FRAMING PLAN



7 *1/2" = 1'-0"*
SILL PLAN

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT
11777 Bernardo Plaza Court, Suite 108
San Diego, CA 92128

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCIS C-43801 STRUCTURAL STATE OF CALIFORNIA

12/19/2017

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard

ORIGINAL PC STATE AGENCY APPROVAL
FILE NUMBER: PC-128

IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
04 - 116504 INCR: 0
AC RM FLS EA SSR KER
DATE 07/19/2018

PROJECT TITLE
RAMPS PC

PRE-CHECK (PC) DOCUMENT
Code: [2016] CBC
A separate project application for construction is required.

PROJECT SPECIFIC STATE AGENCY

Revision Schedule

#	Description	Date

SHEET TITLE
Stair Conn

PROJECT NUMBER
17016A

DRAWN BY
rMc

CHECKED BY
BR

DATE
05/04/2017

SHEET NO.
SR7

SHEET OF

12/18/2017 5:45:07 PM C:\Users\Lee\Documents\RST#17032 - Aries, Ramps and Stairs PC_Lee.rvt