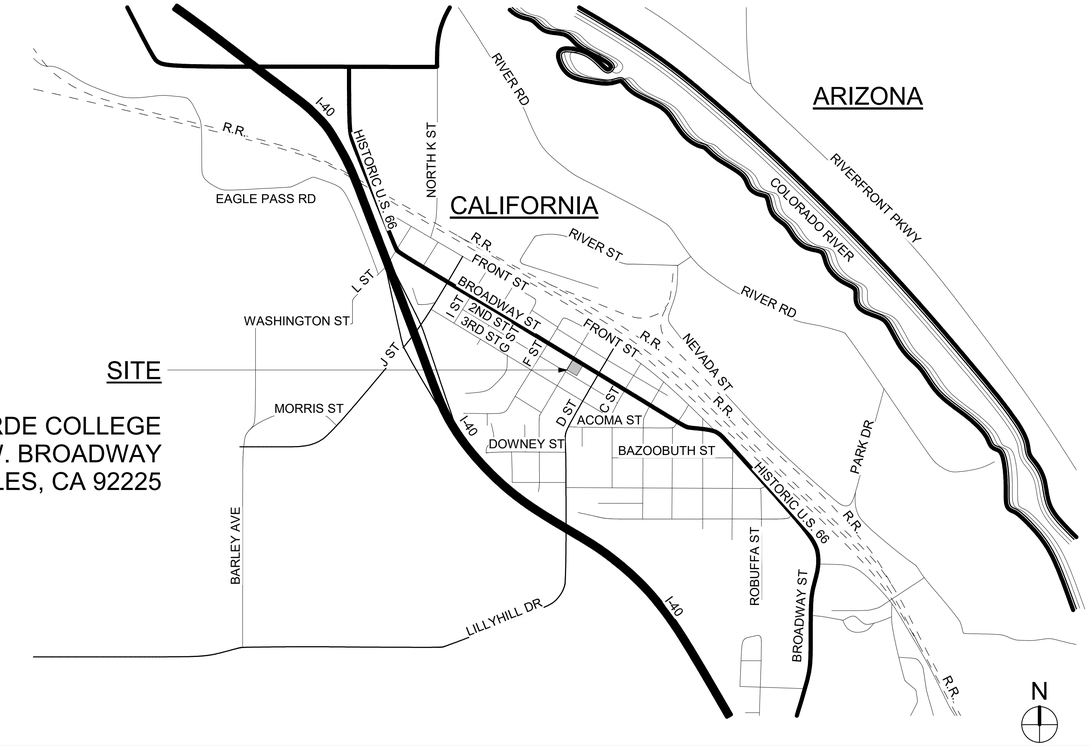
PALO VERDE COMMUNITY COLLEGE
PROJECT 3: CLAYPOOL BUILDING MEZZANINE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

VICINITY MAP



BUILDING DATA / CODE ANALYSIS

TOTAL AREA OF WORK:	3,004 SF
APN:	0186-107-01-0000
CONSTRUCTION TYPE:	(E) TYPE: V-N
OCCUPANCY GROUPS:	B
FULLY SPRINKLERED:	NO, SPRINKLERS IN BASEMENT ONLY
BUILDING HEIGHT:	36'-0" (NO CHANGETS TO HT.)
NUMBER OF STORIES	1-STORY WITH BASEMENT
DSA INSPECTOR:	**CLASS 3**

SCOPE OF WORK

SCOPE OF WORK:
THE PROJECT CONSISTS OF TENANT IMPROVEMENTS TO THE MEZANINE LEVEL. THE TENANT IMPROVEMENTS WILL CONSIST OF CONVERSION OF (E) MEZANINE AND (E) STORAGE INTO PARTITIONED STUDENT LOUNGE, FLEX SPACE, MULTI-PURPOSE LAB, LOCKABLE STORAGE, AND REGULAR STORAGE. ADDITIONALLY, LANDING WILL BE INCREASED AT TOP OF STAIRS AND A NEW LANDING WITH A WALKWAY WILL BE PROVIDED AT ELEVATOR.

APPLICABLE CODES

THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE FOLLOWING CODES AND REGULATIONS:

2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
(2015 INTERNATIONAL BUILDING CODE, VOL. 1 & 2, AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
(2015 IAPMO UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
(2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24 CCR
(2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR
2016 TITLE 19, CCR, PUBLIC SAFETY, STATE FIRE MARSHALL REGULATIONS
2013 ASME A17.1/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS
2016 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
(2015 IAPMO UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
(2015 INTERNATIONAL EXISTING BUILDING CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR

BUILDING DATA

MAIN OCCUPANCY GROUP:	B
TYPE OF CONSTRUCTION:	TYPE V-N; Basement Fully Sprinklered
NUMBER OF SORIES:	ONE
ALLOWABLE NUMBER OF STORIES: (CBC TABLE 5-B)	TWO
TOTAL FLOOR AREA:	15,967 S.F.
MEZZANINE:	12,075 S.F.
ROOF PENTHOUSE:	308 S.F.
BASEMENT: (Not included in the total floor area per CBC 504.5)	8,271 S.F.
TOTAL ALLOWABLE AREA:	16,000 S.F.
BASIC ALLOWABLE AREA (CBC TABLE 5-B):	8,000 S.F.
INCREASED ALLOWABLE AREA FOR SEPARATION ON THREE SIDES (CBC 505.1.2)	8,000 S.F. (+100%)
MAX. HEIGHT:	36'-0"
MAX. ALLOWABLE HEIGHT:	40'-0"
EXISTING CLASS "A" BUILT-UP ROOF	

DSA NOTES

- ALL WORK SHALL CONFORM TO 2016 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
- FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DSA. LIST DEFERRED SUBMITTAL ITEMS FOR TIHS PROJECT.
- CHANGE TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
- A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DRISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
- 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, CCR. 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, CCR, A CONSTRUCION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR).

SHEET INDEX

GENERAL PLANS

G-001	TITLE SHEET
G-002	NOTES, ABBREVIATIONS, AND ACCESSIBILITY NOTES
G-003	OVERALL SITE PLAN
G-004	ENLARGED ACCESSIBILITY PARKING PLAN

ARCHITECTURAL

A-200	DEMO FLOOR PLAN
A-201	PROPOSED FLOOR PLAN
A-202	DEMO CEILING PLAN
A-203	PROPOSED CEILING PLAN
A-500	INTERIOR ELEVATIONS AND DOOR SCHEDULE
A-800	DETAILS
A-801	DETAILS

STRUCTURAL

S0	STRUCTURAL SPECIFICATIONS
S1.0	PARTIAL CEILING FRAMING PLAN
S2.0	STRUCTURAL DETAILS

MECHANICAL

M0.1	MECHANICAL NOTES, LEGEND AND SCHEDULES
M0.2	MECHANICAL TITLE 24
M1.1	MECHANICAL DEMOLITION FLOOR PLAN
M2.1	MECHANICAL NEW WORK FLOOR PLAN
M5.1	MECHANICAL DETAILS

PLUMBING

P0.1	PLUMBING NOTES, LEGEND, AND SCHEDULES
P2.1	PLUMBING NEW WORK FLOOR PLAN
P3.1	PLUMBING ENLARGED NEW WORK FLOOR PLAN
P5.1	PLUMBING DETAILS

ELECTRICAL

E-00	ELECTRICAL COVER SHEET
E-10	SINGLE LINE DIAGRAM
E-20	POWER & SIGNAL DEMO PLAN
E-20	POWER & SIGNAL NEW WORK PLAN
E-20	LIGHTING DEMO PLAN
E-20	LIGHTING NEW WORK PLAN
E-30	PANEL & LUMINAIRE SCHEDULES
E-30	PANEL SCHEDULE & ELECTRICAL DETAILS

FIRE ALARM

FA-001	FIRE ALARM COVER PAGE
FA-002	BATTERY CALCULATIONS RISER DIAGRAM WIRING DIAGRAMS
FA-003	PROPOSED FIRE ALARM FLOOR PLAN

DIRECTORY

OWNER
PALO VERDE COMMUNITY COLLEGE DISTRICT
1 COLLEGE DRIVE
BLYTHE, CA 92225
CONTACT : RUSSI EGAN
P: (760) 921-5524
EMAIL: RUSSI.EGAN@PALOVERDE.EDU

ARCHITECT
SILLMAN WRIGHT ARCHITECTS
31045 TEMECULA PARKWAY, SUITE 204
TEMECULA, CA 92592
P: (760) 489-4432
CONTACT: NATHAN HOUCK
EMAIL: NHOUCK@SILLMANWRIGHT.COM

STRUCTURAL DESIGN
WYNN ENGINEERING, INC.
27315 VALLEY CENTER RD.
VALLEY CENTER, CA 92082
P: (760) 749-8722
CONTACT: STEVE REID
EMAIL:STEVE@WYNNENGINEERING.COM

MECHANICAL/PLUMBING DESIGN
DEC ENGINEERS
7360 CARROLL ROAD, SUITE 100
SAN DIEGO, CA 92121
P: (858) 578-3270
CONTACT: MARIO RUIZ
EMAIL: MRUIZ@DECENGINEERS.COM

ELECTRICAL DESIGN
EPI
9565 WAPLES STREET, SUITE 100
SAN DIEGO, CA 92121
P: (858) 824-1761
F: (858) 824-1768
CONTACT: BOBBY EUGENIO
EMAIL: BOBBY@ENGINEERINGPARTNERS.COM

FIRE ALARM DESIGN
APPLE VALLEY COMMUNICATIONS, INC.
21845 HWY 18
APPLE VALLEY, CA 92307
P: (760) 247-2668
CONTACT: JAY LOVATO

GENERAL NOTES

STATEMENT OF GENERAL CONFORMANCE - DRAWINGS BY OTHERS
THE DRAWINGS ON THE DRAWING INDEX INDICATED BY A BULLET (•) HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:
DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMENTS OF THE TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND

1. COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THE PROJECT.

MARK BAKER, HB&A ARCHITECTS, C-18627

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

DESIGNER

SILLMAN WRIGHT ARCHITECTS
31045 Temecula Parkway
Suite 204
Temecula, CA 92592
T 760.489.4432
F 760.738.8619
www.sillmanwright.com

CONSULTANTS

REGISTRATION STAMP

LICENSED ARCHITECT
LEWIS BAKER
C-18627
06/30/19
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	NH/JA
CHECKED BY:	MS
SCALE:	As indicated

DESIGN ITERATION

DATE

DATE: 10.24.2017

SHEET TITLE

TITLE SHEET

SHEET NUMBER

G-001

1. ALL CONTRACTORS SHALL BE EXPERIENCED AND THOROUGHLY KNOWLEDGEABLE IN THEIR RESPECTIVE AREAS OF THE CONSTRUCTION INDUSTRY AND SHALL PERFORM IN A RESPONSIBLE MANNER IN ESTABLISHED CONSTRUCTION SEQUENCE. IN REVIEWING THE DRAWINGS AND DETAILS, THE CONTRACTOR SHALL INFORM THE ARCHITECT OF POTENTIAL PROBLEMS WHEN DRAWINGS ARE UNCLEAR OR INCONSISTENT.

2. ALL REFERENCES MADE IN THE PLANS, SPECIFICATIONS AND CONTRACT DOCUMENTS TO THE CONTRACTOR SHALL ALSO APPLY TO THE SUBCONTRACTOR. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE TO NOTIFY THE ARCHITECT OF DISCREPANCIES OR CONFLICTS IN THE DRAWINGS FOUND DURING BIDDING AND/OR CONSTRUCTION PRIOR TO PERFORMING THE WORK. THE ARCHITECT SHALL RESOLVE SUCH DISCREPANCIES EXPEDITIOUSLY AND NOTIFY THE CONTRACTOR EITHER VERBALLY OR IN WRITING AS APPLICABLE TO THE CONDITION. IF CONFLICTS ARE NOT BROUGHT TO THE ATTENTION OF THE ARCHITECT DURING THE BID PROCESS IT IS ASSUMED THAT THE CONTRACTOR WILL BE RESOLVING THE CONFLICT IN THE MOST INEXPENSIVE WAY.

3. UTILITIES ARE DIAGRAMMATICALLY LOCATED ON THE DRAWING SOLEY FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR IS EXPRESSLY WARNED THAT SUCH INDICATIONS ARE ONLY APPROXIMATE AS TO ACTUAL LOCATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE ANY AND ALL UTILITIES REQUIRED TO COMPLETE THE SCOPE OF WORK.

4. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE C.B.C. AND TITLE 24 AS ADOPTED AND AMENDED BY LOCAL GOVERNING AGENCIES.

5. WHERE NO CONSTRUCTION DETAILS OR NOTES ARE SHOWN FOR ANY PART OF THE WORK, IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM THE WORK TO CONFORM TO SIMILAR STANDARD DETAILS AS REGULATED BY LOCAL GOVERNING AGENCIES.

6. IF NOT SPECIFICALLY DEFINED IN THESE DRAWINGS, MATERIALS AND/OR EQUIPMENT SHALL BE IDENTIFIED BY THE CONTRACTOR TO THE ARCHITECT WITHIN A REASONABLE AMOUNT OF TIME TO ALLOW SELECTION, PURCHASE AND DELIVERY SO AS TO PREVENT DELAY IN THE JOB SCHEDULE.

7. MATERIAL SUBSTITUTION SHALL BE APPROVED BY THE ARCHITECT AND OWNER PRIOR TO THE PURCHASE AND INSTALLATION.

8. ALL MATERIAL SHALL BE HANDLED AND INSTALLED PER MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.

9. ALL COLORS AND / OR COLOR SAMPLES SHALL BE SUBMITTED TO THE ARCHITECT AND OWNER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OR APPLICATION.

10. TOILET ROOMS SHALL HAVE AN AIR CHANGE OF FOUR (4) COMPLETE VOLUMETRIC AIR CHANGES PER HOUR.

11. NEITHER THE OWNER OR ARCHITECT ARE RESPONSIBLE FOR ENFORCING SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.

12. ATTIC SEPARATIONS AS REQUIRED BY GOVERNING AGENCIES SHALL BE PROVIDED, WHETHER INDICATED ON THESE PLANS OR NOT.

13. THE CONTRACTOR IS REQUIRED TO VISIT THE SITE AND BECOME AWARE OF ALL VISIBLE EXISTING CONDITIONS, ASCERTAIN THE LIMITS OF WORK, (AS RELATED TO EXISTING CONDITIONS AND IMPROVEMENTS) LIMITS OF SITE ACCESS FOR EQUIPMENT, MATERIAL DELIVERY AND STORAGE AND CONSTRUCTION FORCES.

14. THE CONTRACTOR SHALL CHECK AND VERIFY ALL FIELD MEASUREMENTS AND SHALL SUBMIT FOR REVIEW, WITH SUCH PROMPTNESS AS TO CAUSE NO DELAY IN HIS OWN WORK OR THAT OF ANY SUBCONTRACTOR, ALL SHOP OR SETTING DRAWINGS AND SCHEDULES REQUIRED FOR THE WORK OF THE VARIOUS TRADES.

15. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THEY HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL. THE DEFERRED SUBMITTAL ITEMS ARE: NONE AT THIS TIME

16. VERIFY WITH ARCHITECT WHETHER THESE NOTES OR SPECIFIC NOTES ON DRAWINGS SHALL TAKE PRECEDENCE IN CASE OF CONFLICT. WRITTEN DIMENSIONS
17. ON THESE DRAWINGS SHALL GOVERN. DO NOT SCALE DRAWINGS UNLESS DIRECTED BY ARCHITECT.

18. VERIFY EXACT LOCATIONS AND SIZES OF HOLES IN FLOOR, WALLS, AND ROOF FOR PLUMBING, HVAC, AND ELECTRICAL WITH RESPECTIVE CONTRACTORS AND SUB CONTRACTORS.

19. OWNER OR HIS AUTHORIZED AGENT SHALL BE RESPONSIBLE FOR ALL SCHEDULING AND COORDINATION. ALL DRAWINGS HAVE BEEN DRAWN TO SCALE AS INDICATED UNLESS OTHERWISE SHOWN; HOWEVER, MECHANICAL, FIRE PROTECTION AND ELECTRICAL SYSTEMS MAY BE OF SCHEMATIC LAYOUT. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION OF ALL ROUGH-IN AND FINISH INSTALLATIONS OF AND VERIFICATION OF NON-INTERFERENCE BETWEEN ALL SYSTEMS.

20. WALLS: SEE DRAWINGS FOR LEGEND, STUD SIZES AND SPACING. FRAMING MEMBERS INDICATED ARE SCHEMATIC, ADDITIONAL MEMBERS MAY BE REQUIRED TO PROPERLY MAINTAIN RIGIDITY, BACKING, ELECTRICAL BRACING, ETC. FOR A COMPLETE INSTALLATION. ALL INSTALLATIONS SHALL CONFORM TO THE MANUFACTURER'S ICBO APPROVED SYSTEM.

21. IF SMOKE AND FIRE DAMPERS ARE REQUIRED, CONTRACTOR SHALL SUPPLY AND INSTALL AS REQUIRED BY LOCAL CODE.

22. DRILLED-IN OR SHOT-IN CONCRETE ANCHORS USED FOR HANGER WIRES MUST BE FIELD TESTED. ONE OUT OF TEN MUST BE TESTED FOR 200 POUNDS OF TENSION. DRILLED IN CONCRETE ANCHORS USED FOR BRACING WIRES MUST BE FIELD TESTED. ONE OUT OF TWO MUST BE TESTED FOR 440 POUNDS OF TENSION. IF ANY TEST FAILS, ALL ADJACENT WIRES MUST BE TESTED.

23. ICBO REPORT NUMBERS WHERE SHOWN ON DRAWINGS AND IN THE SPECIFICATIONS ARE SHOWN ONLY TO INDICATE THE REQUIREMENTS BY THE LOCAL BUILDING DEPARTMENT. OTHER PRODUCTS WITH APPROVED ICBO REPORT NUMBER MAY BE USED IF SUBMITTED TO THE ARCHITECT PRIOR TO INSTALLATION.

24. ALL FURRED CEILINGS SHALL COMPLY WITH C.B.C

25. PLUMBING AND ELECTRICAL PENETRATIONS THROUGH WALLS FOR SEPARATION OF OCCUPANCY AND AREA, CORRIDOR, OR OTHER FIRE SEPARATIONS SHALL COMPLY WITH SEC. 713-C.B.C.

26. ADDITIONALLY, STEEL OUTLET BOXES AT OCCUPANCY SEPARATION WALLS SHALL NOT EXCEED SIXTEEN SQUARE INCHES, SHALL NOT EXCEED ONE HUNDRED SQUARE INCHES PER ONE HUNDRED SQUARE FEET OF WALL, AND SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF TWENTY-FOUR INCHES WHEN ON OPPOSITE SIDES OF A WALL PER 713 C.B.C. DUCTS PENETRATING OCCUPANCY SEPARATIONS MUST HAVE SMOKE AND FIRE DAMPERS PER 713 C.B.C.

27. BRACING AND TEMPORARY SUPPORT SHALL BE PROVIDED AS REQUIRED TO HOLD THE WORK SECURELY IN PLACE AND TO SUSTAIN ALL LOADS THAT MAY DURING ERECTION AND UNTIL SUBSEQUENT CONSTRUCTION IS ADEQUATE TO REPLACE TEMPORARY BRACING.

28. ALL FIXED GLASS PANELS ADJACENT TO DOORS AND GLAZING ADJACENT TO WALKING SURFACE MUST BE OF SAFETY GLAZING MATERIAL.

29. ALL SHOT PINS SHALL BE HILTI DS (0.177" DIA) LOW VELOCITY FASTENER (ICC-ESR-1663), 32" O.C.

    WHEN SPECIAL INSPECTION IS REQUIRED, THE ARCHITECT OR ENGINEER OF RECORD SHALL SUBMIT THE NAME AND INFORMATION OF THE SPECIAL INSPECTION TEAM TO THE CITY FOR REVIEW AND APPROVAL.

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GENERAL NOTES

&	AND
L	ANGLE
@	AT
C.L.	CENTERLINE
	DIAMETER
#	POUND OR NUMBER
(E)	EXISTING
A.A.	ALL AROUND
ACOUS	ACCOUSTICAL
AD	AREA DRAIN
ADJ	ADJUSTABLE
AGGR	AGGREGATE
AL	ALUMINUM
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASPH	ASPHALT
AC	ASPHALT CONCRETE
ACC	ACCESS COMPO
AP	ACCESS PANEL
ACP	ASPHALT CONCRETE PAVING
ADD	ADDENDUM
ADH	ADHESIVE
ADJ	ADJACENT
AFF	ABOUV FINISH FLOOR
A/C	AIR CONDITIONING
ALT	ALTERNATE
AB	ANCHOR BOLT
ANOD	ANODIZED
AT	ASHALT TILE
AUTO	AUTOMATIC
AV	AUDIO VISUAL
BD	BOARD
BITMUN	BITMUMIOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BTM	BOTTOM
BMK	BENCHMARK
BET	BETWEEN
BRZ	BRONZE
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CER	CERAMIC
CI	CAST IRON
CIP	CAST IN PLACE
CIR	CIRCLE
CLG	CEILING
CLKG	CAULKING
CLO	CLOSET
CLR.	CLEAR
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN.	CONNECTION
CONST	CONSTRUCTION
CONTIN	CONTINUOUS
CORR	CORRIDOR
CSK	COUNTERSINK
CTR	COUNTER
CPT	CARPET
CT	CERAMIC TILE
COMPO	COMPOSITION/COMPOSITE
CMU	CONCRETE MASONRY UNIT
CONF	CONFERENCE
CMP	CORRIGATED METAL PIPE
CONTR	CONTRACTOR
CP	CEMENT PLASTER
CJ	CONTROL JOINT
DBL	DOUBLE
DEPT	DEPARTMENT
DF	DRINKING FOUNTAIN
DET	DETAIL
DG	DUAL GLASS
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DO	DOOR OPENING
DWR	DRAWER
DS	DOWN SPOUT
DSP	DRY STAND PIPE
DWG	DRAWING
DP	DAMPROOFING
DEMO	DEMOLITION
DEP	DEPRESSION/DEPRESSED
DIAG	DIAGONAL
DIV	DIVISION
DR	DOOR
D	DRAIN
DW	DISHWASHER
E	EAST
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATION
ELEC	ELECTRICAL
EMER	EMERGANCY
ENCL	ENCLOSURE
EP	ELECTRICAL PANEL
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE
EXP	EXPOSED
EXP	EXPANSION
EXT	EXTERIOR
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EXH	EXHAUST
EL	ELEVATOR
EIF	EXTERIOR INSULATING FINISH SYSTEM
FA	FIRE ALARM
FAS	FASTENER
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER
FHC	CABINET
FIN	FIRE HOSE CABINET
FL	FINISH
FLASH	FLOOR
FLOUR	FLASHING
FOC	FLUORESCENT
FOF	FACE OF CONCRETE
FOS	FACE OF FINISH
FOM	FACE OF STUD
FRP	FACE OF MASONRY
FT	FIBER REINFORCED PANEL
FTG	FOOT/FEET
FURR	FOOTING
FUT	FURRING
FFE	FUTURE
FF	FINISH FLOOR
FG	FINISH GRADE
FP	FIRE PROOF
FHMS	FLAT HEAD MACHINE SCREW
FHWS	FLAT HEAD WOOD SCREW
FL	FLOW LINE
FS	FLOOR DRAIN
FIX	FLOOR SINK
FPL	FIXTURE
FBO	FIREPLACE
	FURNISHED BY OTHERS
GA	
GALV	GAUGE
GEN	GALVANIZED
GB	GENERAL
GL	GRAB BAR
GC	GLASS, GLAZING
GND	GENERAL CONTRACTOR
GR	GROUND
GYP. BD.	GRADE
GI	GYPSUM BOARD
GPL	GALVANIZED IRON
	GYPSUM LATH
HB	
HC	HOSE BIBB
HWD	HOLLOW CORE
HDW	HARDWOOD
HM	HARDWARE
HORIZ	HOLLOW METAL
HR	HORIZONTAL
HGT	HOUR
HC	HEIGHT
HBD	HANDICAP
HDR	HARDBOARD
HVAC	HEADER
	HEATING, VENTING/ & AIR CONDITIONING
HD	
HOR	HEAVY DUTY
HWH	HORIZONTAL
HW	HOT WATER HEATER
HEX	HOT WATER HEXAGONAL
ID	
INSUL	INSIDE DIAMETER
INT	INSULATION
INCL	INTERIOR
INTEG	INCLUDED
INSTR	INTEGRATED INSTRUCTIONS
JAN	
JT	JANITOR
JST	JOINT
JF	JOIST
	JOINT FILLER
KJ	KEYED COLD JOINT
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICK PLATE
LAB	LABORATORY
LAM	LAMINATE
LAV	LAVATORY
LKR	LOCKER
LT	EQUAL
LAD	LADDER
LB	LAG BOLT
LH	LEFT HAND
L	LENGTH/LONG
LW	LIGHT WEIGHT
LL	LIVE LOAD
LVR	LOUVER
LIN	LINTEL
MAX	MAXIMUM
MC	MEDICINE CABINET
MECH	MECHANICAL
MEMB	MEMBRANE
MTL	METAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTD	MOUNTED
MUL	MULLION
MB	MACHINE BOLT
MAS	MASONRY
MED	MEDIUM
MDO	MEDIUM DENSITY OVERLAY
MOD	MODIFIED
MOV	MOVABLE
MLD	MOLDING
MAT	MATERIAL
MRB	MARBLE
MRD	METAL ROOF DECK
N	NORTH
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OVERALL
OBS	OBSCURE
O.C.	ON CENTER
OD	OUTSIDE DIAMETER
OFF	OFFICE
OPF	OPENING
OPP	OPPOSITE
OCC	OCCUPANT
OPH	OPPOSITE HAND
OHMS	OVAL HEAD MACHINE SCREW
OHWS	OVAL HEAD WOOD SCREW
OH	OVERHEAD
OV/	OVER
PAN	PANEL
PCC	PRE-CAST CONCRETE
PL	LATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD.	PLYWOOD
PR	PAIR
PT	POINT
PTD	PAPER TOWEL DISPENSER
PAR	PARALLEL
PTN	PARTITION
PB	PANIC BAR
PL	PROPERTY LINE
PERF	PERFORATED
QT	QUARRY TILE
R	RISER
R	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REFR	REFRIGERATOR
RGTR	REGISTER
REINF	REINFORCEMENT
REQ	REQUIRED
RESIL	RESILIENT
RM	ROOM
RO	ROUGH OPENING
RWD	REDWOOD
REV	REVISION
RFEC	RECESSED FIRE EXTINGUISHER CABINET
RET	RETURN
RH	RIGHT HAND
RF	ROOF
RS	RESAWN
S	SOUTH
SF	SQUARE FEET
SC	SOLID CORE
SCH	SCHEDULE
SD	SOAP DISPENSER
SEC	SECTION
SLV	SHELF/SHELVING
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SLD	SLIDING
SD	STORM DRAIN
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SSK	SERVICE SINK
STF	STORE FRONT
STA	STATION
STD	STANDARD
STL	STEEL
STO	STORAGE
STR	STRUCTURAL
SUSP	SUSPENDED
SYM	SYMMETRICAL
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SKL	SKYLIGHT
SPK	SPREAKER
SYS	SYSTEM
SHTG	SHEATHING
T	TREAD
TB	TOWEL BAR
TC	TOP OF CURB
TEL	TELEPHONE
TZ	TERAZZO
T&G	TONGUE AND GROOVE
THK	THICK
TP	TOP OF PAVEMENT
TPH	TOILET PAPER HOLDER
TV	TELEVISION
TW	TOP OF WALL
TYP	TYPICAL
THRES	THRESHOLD
TR	TRANSOM
TOS	TOP OF SLAB
TG	TEMPERED GLASS
TS	TOP OF STEEL
TKBD	TACK BOARD
UNF	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
UL	UNDERWRITER'S LABORATORY
VERT	VERTICAL
VEST	VESTIBULE
VB	VAPOR BARRIER
VCT	VINYL COMPOSITION TILE
VB	VINYLE BASE
W	WEST
W/	WITH
WC	WATER CLOSET
WD	WOOD
W/O	WITHOUT
WP	WATERPROOF
WSCT	WAINSCOT
WT	WEIGHT
WH	WALL HUNG
WWF	WELDED WIRE FABRIC
W	WIDE/WIDTH
WIN	WINDOW
WB	WOOD BASE

ABBREVIATIONS

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

ACCESSIBILITY NOTES

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

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LEWIS R. WRIGHT
C-18627
06/30/19
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	1/16" = 1'-0"

DESIGN ITERATION

DATE

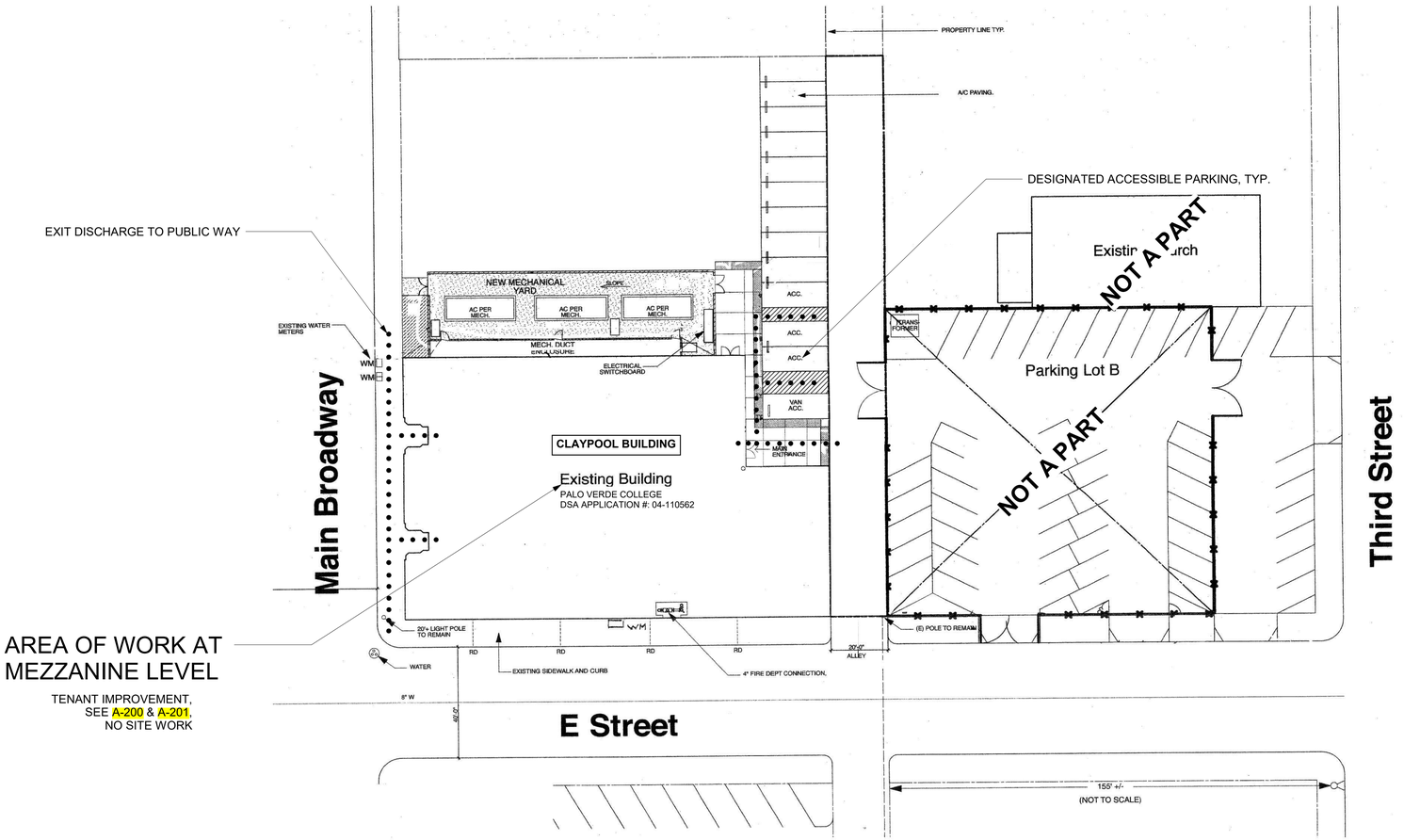
DATE: 10.24.2017

SHEET TITLE

NOTES, ABREVIATIONS, AND ACCESSIBILITY NOTES

SHEET NUMBER

G-002



AREA OF WORK AT MEZZANINE LEVEL

TENANT IMPROVEMENT,
SEE A-200 & A-201,
NO SITE WORK

OVERALL SITE PLAN 1
NTS

N

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ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	1" = 20'-0"

DESIGN ITERATION

DATE

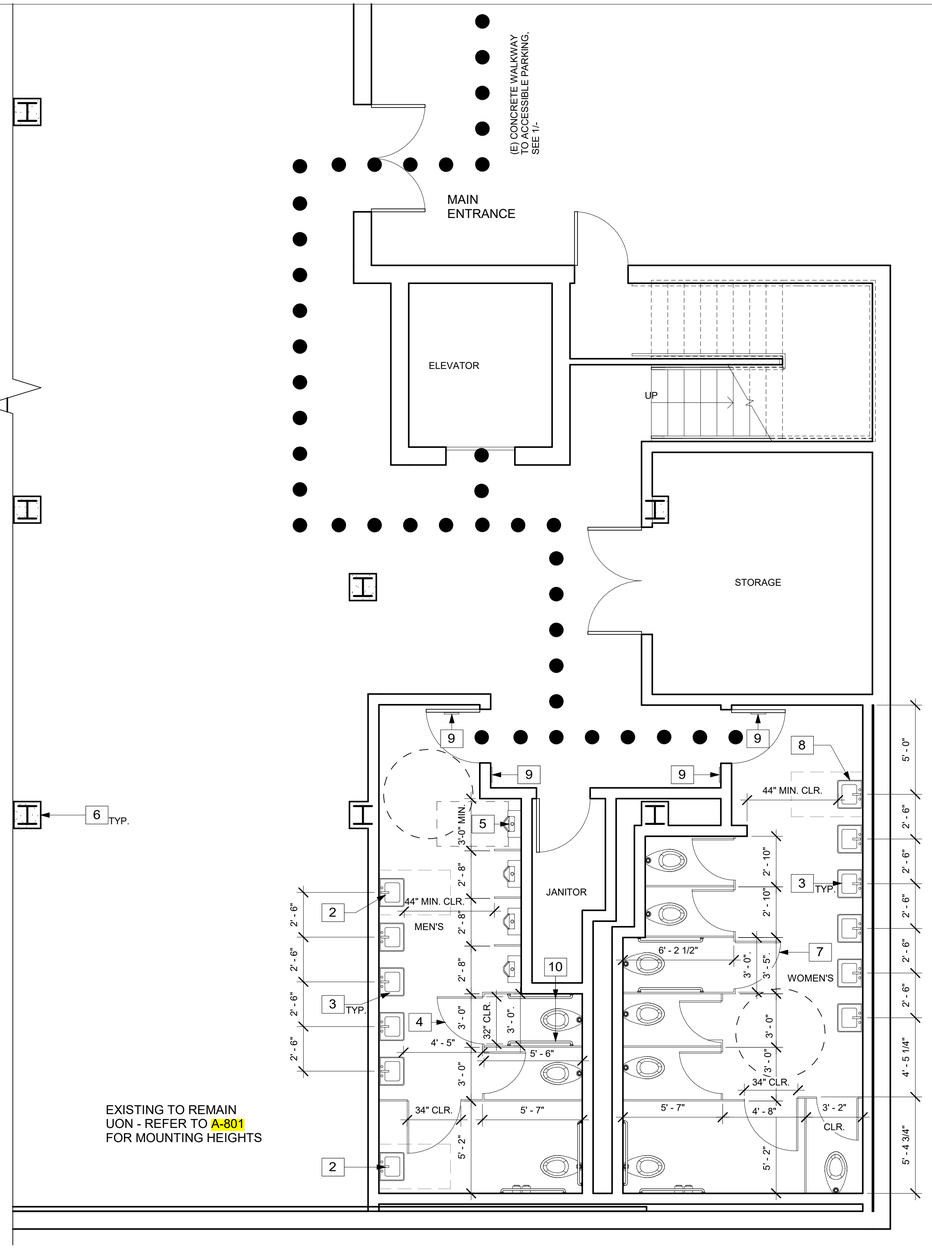
DATE: 10.24.2017

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

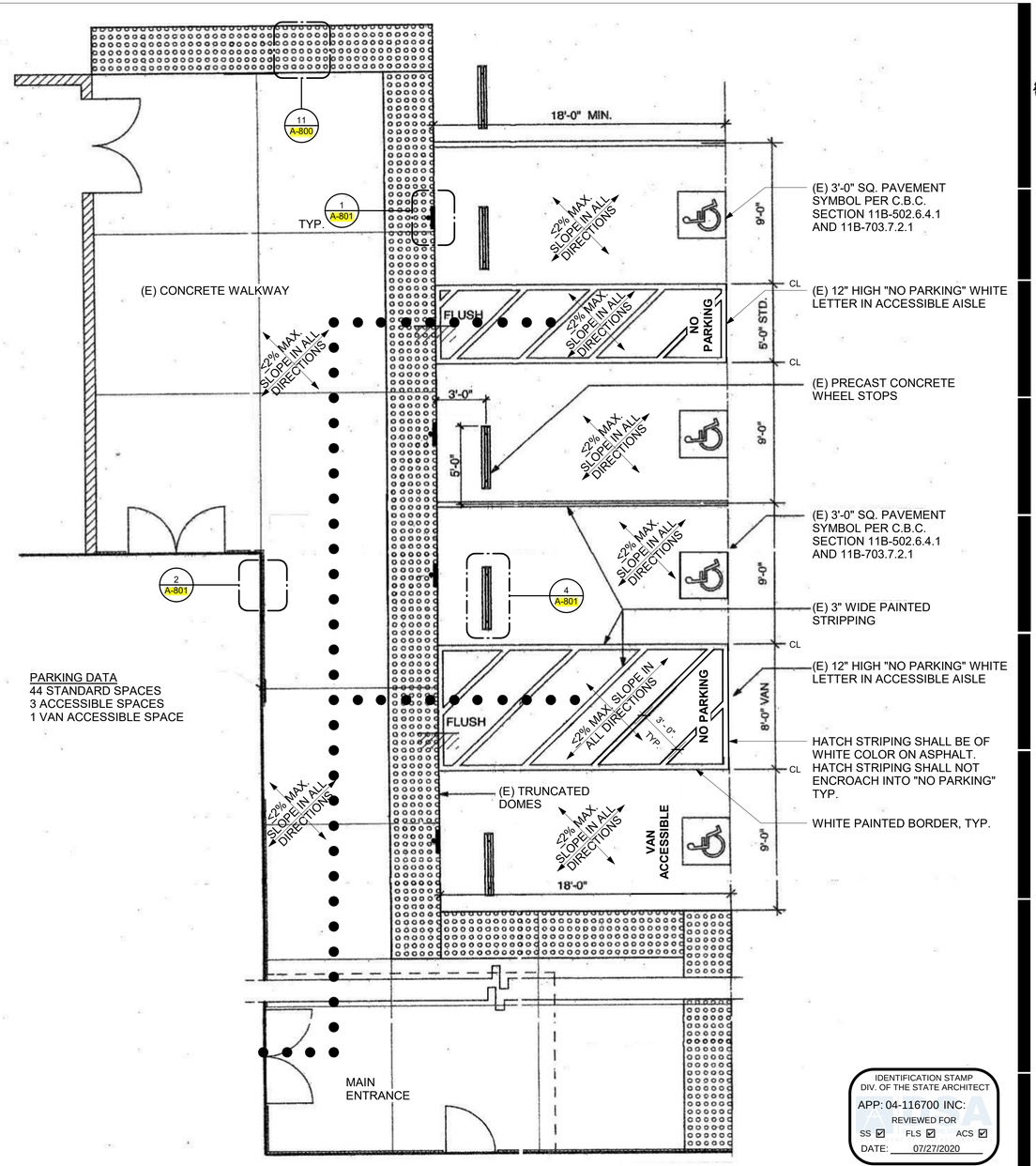
G-003



EXISTING TO REMAIN
UON - REFER TO A-801
FOR MOUNTING HEIGHTS

ACCESSIBLE RESTROOM PATH

1/4" = 1'-0"



PARKING DATA
44 STANDARD SPACES
3 ACCESSIBLE SPACES
1 VAN ACCESSIBLE SPACE

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Enlarged Existing Accessible Parking

3/16" = 1'-0"

NOTE:
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KEYNOTES

1	REMOVE & RELOCATE EXISTING ACCESSIBLE SINK
2	EXISTING ACCESSIBLE SINK LOCATION, SEE **9/A-801**
3	EXISTING SINK TO REMAIN, NOT IN CONTRACT, TYP. U.N.O.
4	NEW AMBULATORY STALL - USE EXISTING PARTITIONS
5	EXISTING ACCESSIBLE URINAL, SEE **9/A-801**
6	EXISTING COLUMN TO REMAIN
7	EXISTING AMBULATORY STALL TO REMAIN
8	EXISTING ACCESSIBLE SINK, NOT IN CONTRAC, TO REMAIN
9	EXISTING RESTROOM SIGNAGE AT WALL AND DOOR, DETAIL PER **10/A-801**
10	NEW GRAB BARS MOUNTED PER **A-801**

ACCESSIBILITY LEGEND

● ● ● ● ● INDICATES (E) PATH OF TRAVEL (P.O.T.)

ACCESSIBLE PATH OF TRAVEL AS DEFINED BELOW:
ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES THAT WILL BE GREATER THEN 1/2" WHEN CHANGES TO OCCUR, THEY SHALL BE BEVELED WITH A MAX. SLOPE OF 1:2. LEVEL CHANGES LESS THAN A 1/4" MAX MAY BE VERTICAL, AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP RESISTANT. THE MAXIMUM PERMITTED CROSS SLOPE SHALL NOT EXCEED 1:48, AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5%, IF GREATER THAN 5% THEY MUST COMPLY RAMP REQUIREMENTS PER SECTION 11B-402.2. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

CLIENT

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1 College Drive
Blythe, CA 92225

PROJECT NAME

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Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

DESIGNER

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06/30/19
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	As indicated

DESIGN ITERATION

DATE

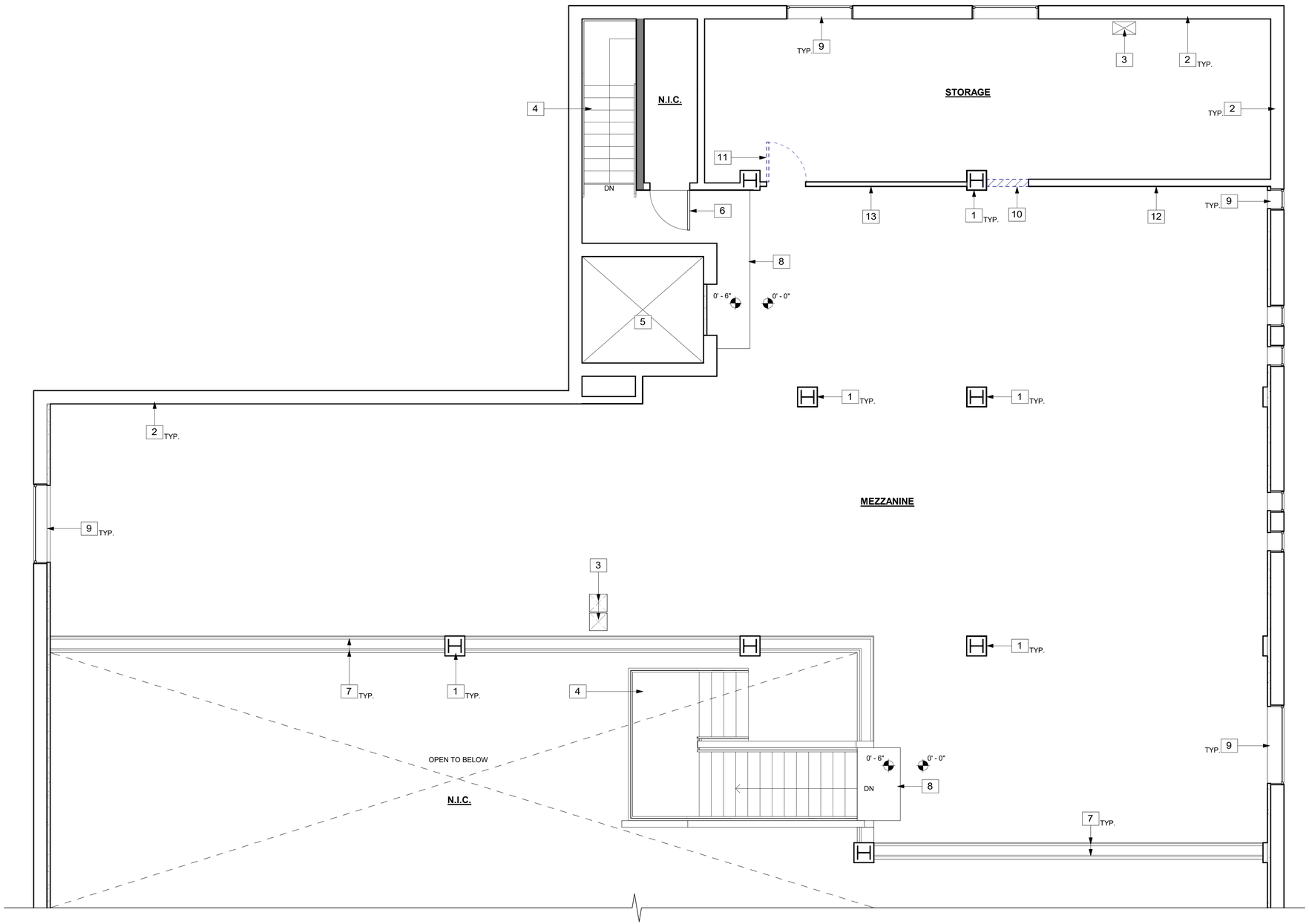
DATE: 10.24.2017

SHEET TITLE

ENLARGED ACCESSIBLE PARKING PLAN

SHEET NUMBER

G-004



Mezz. Demo Plan

1/4" = 1'-0"

1

N

KEYNOTES

1. EXISTING COLUMN TO REMAIN
2. EXISTING EXTERIOR WALL TO REMAIN
3. EXISTING MECHANICAL DUCT TO REMAIN
4. EXISTING STAIRS TO REMAIN
5. EXISTING ELEVATOR TO REMAIN
6. EXISTING DOOR TO REMAIN
7. EXISTING RAILING TO REMAIN
8. EXISTING RAISED FLOOR TO REMAIN
9. EXISTING WINDOW TO REMAIN
10. PORTION OF EXISTING 6" METAL STUD NON BEARING WALL TO BE REMOVED FOR NEW OPENING
11. EXISTING DOOR TO BE DEMOLISHED - INFILL WALL TO MATCH EXISTING
12. EXISTING NON-STRUCTURAL 6" METAL STUD WALL TO REMAIN
13. EXISTING NON-STRUCTURAL 3 5/8" METAL STUD WALL TO REMAIN

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DATE: 07/27/2020

DEMO LEGEND

EXISTING WALL TO REMAIN

EXISTING WALL TO BE DEMOLISHED

CLIENT

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Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	NH
CHECKED BY:	MS
SCALE:	1/4" = 1'-0"

DESIGN ITERATION

DATE

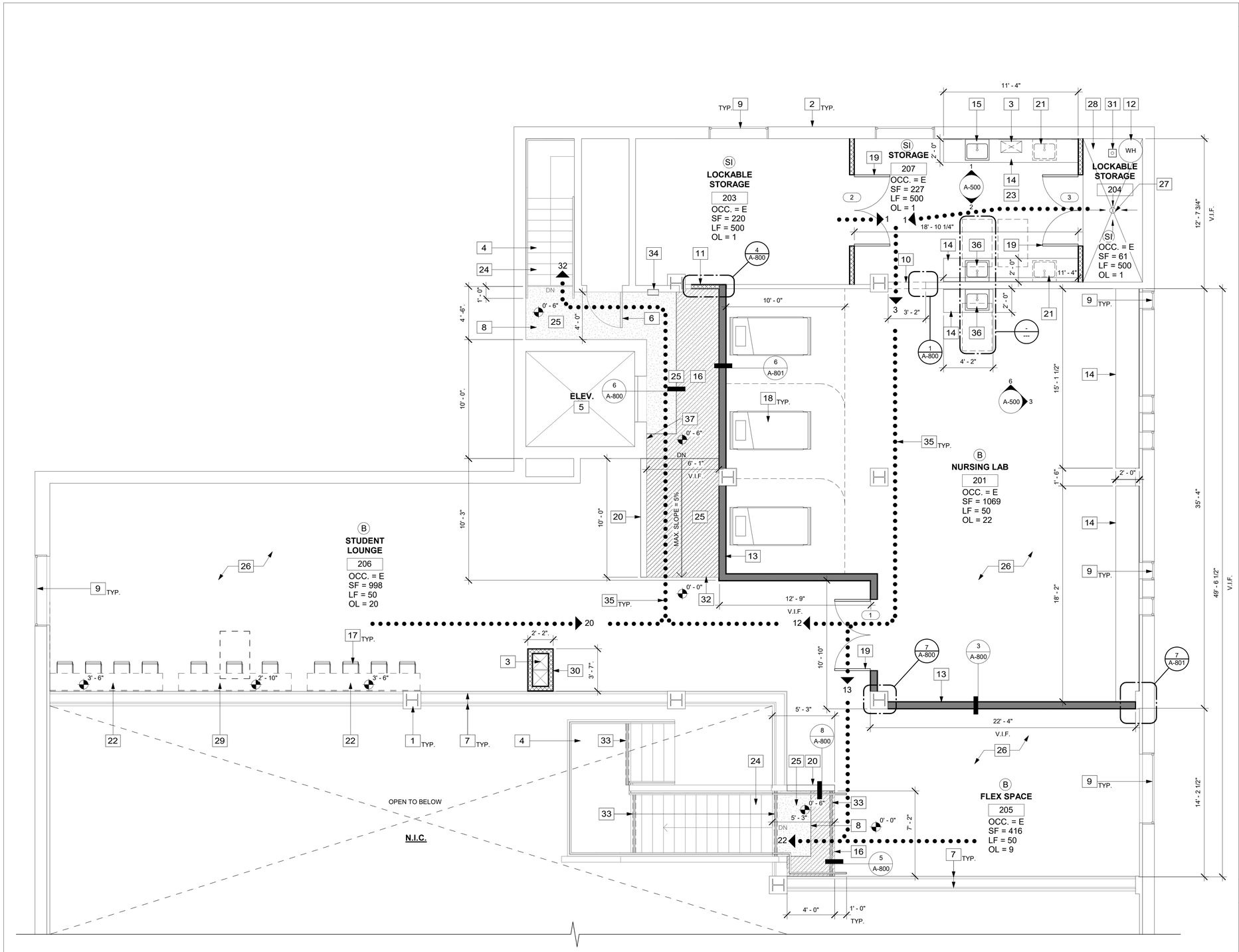
DATE: 10.24.2017

SHEET TITLE

DEMO FLOOR PLAN

SHEET NUMBER

A-200



Mezz. Proposed Plan

1/4" = 1'-0"

1

N

KEYNOTES

1	EXISTING COLUMN TO REMAIN
2	EXISTING WALL TO REMAIN
3	EXISTING MECHANICAL DUCT TO REMAIN
4	EXISTING STAIRS TO REMAIN
5	EXISTING ELEVATOR TO REMAIN
6	EXISTING DOOR TO REMAIN
7	EXISTING RAILING TO REMAIN
8	EXISTING RAISED FLOOR TO REMAIN
9	EXISTING WINDOW TO REMAIN
10	NEW OPENING IN WALL, SEE 2/A-500
11	NEW WALL INFILL TO MATCH EXISTING
12	WATER HEATER PER PLUMBING PLANS
13	NEW PARTITION WALL
14	NEW CASEWORK. SEE ELEVATIONS
15	NEW SINK PER PLUMBING PLANS
16	NEW RAISED FLOOR TO MATCH EXISTING
17	FURNITURE BY OWNER, N.I.C.
18	NURSING BED, N.I.C.
19	NEW DOOR, PER SCHEDULE
20	NEW LOW WALL TO MATCH ADJACENT
21	FUTURE LOCATION FOR SINK, PER PLUMBING PLANS
22	NEW FREE-STANDING BAR COUNTERTOP BY OWNER, N.I.C.
23	APPLY 1 LAYER OF 5/8" GYP BD TO STORAGE SIDE OF EXISTING METAL STUD WALL
24	EXISTING CARPET TO REMAIN
25	INSTALL NEW CARPET TO MATCH EXISTING CARPET, OBTAIN APPROVAL FROM ARCHITECT PRIOR TO INSTALLATION
26	EXISTING FLOOR TO REMAIN
27	FLOOR AREA DRAIN PER PLUMBING PLANS
28	SLOPE FLOOR 1/8" PER FT. TO FLOOR AREA DRAIN
29	NEW FREE-STANDING ACCESSIBLE BAR COUNTERTOP BY OWNER, N.I.C.
30	NEW SHAFT WALL
31	FLOOR SINK PER PLUMBING PLANS
32	NEW SLOPED WALKWAY
33	NEW CONSTRASTING STRIP
34	EXISTING FIRE EXTINGUISHER, TO REMAIN.
35	ACCESSIBLE PATH OF TRAVEL, SEE ACCESSIBLE LEGEND ON G-004
36	NEW ACCESSIBLE SINK
37	PROVIDE TWO-WAY COMMUNICATION SYSTEM WITH BOTH AUDIBLE AND VISIBLE SIGNALS PER CBC SECTION 1009.8. SEE 10/A-803

WALL LEGEND

- EXISTING WALL
- NEW 3 5/8" METAL STUD WALL, SEE 3/A-800
- NEW 6" METAL STUD WALL, SEE 3/A-800
- NEW WOOD DECK
- NEW CARPET TO MATCH EXISTING CARPET, OBTAIN APPROVAL FROM ARCHITECT PRIOR TO INSTALLATION

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04/30/19
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DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	1/4" = 1'-0"

DESIGN ITERATION

DATE

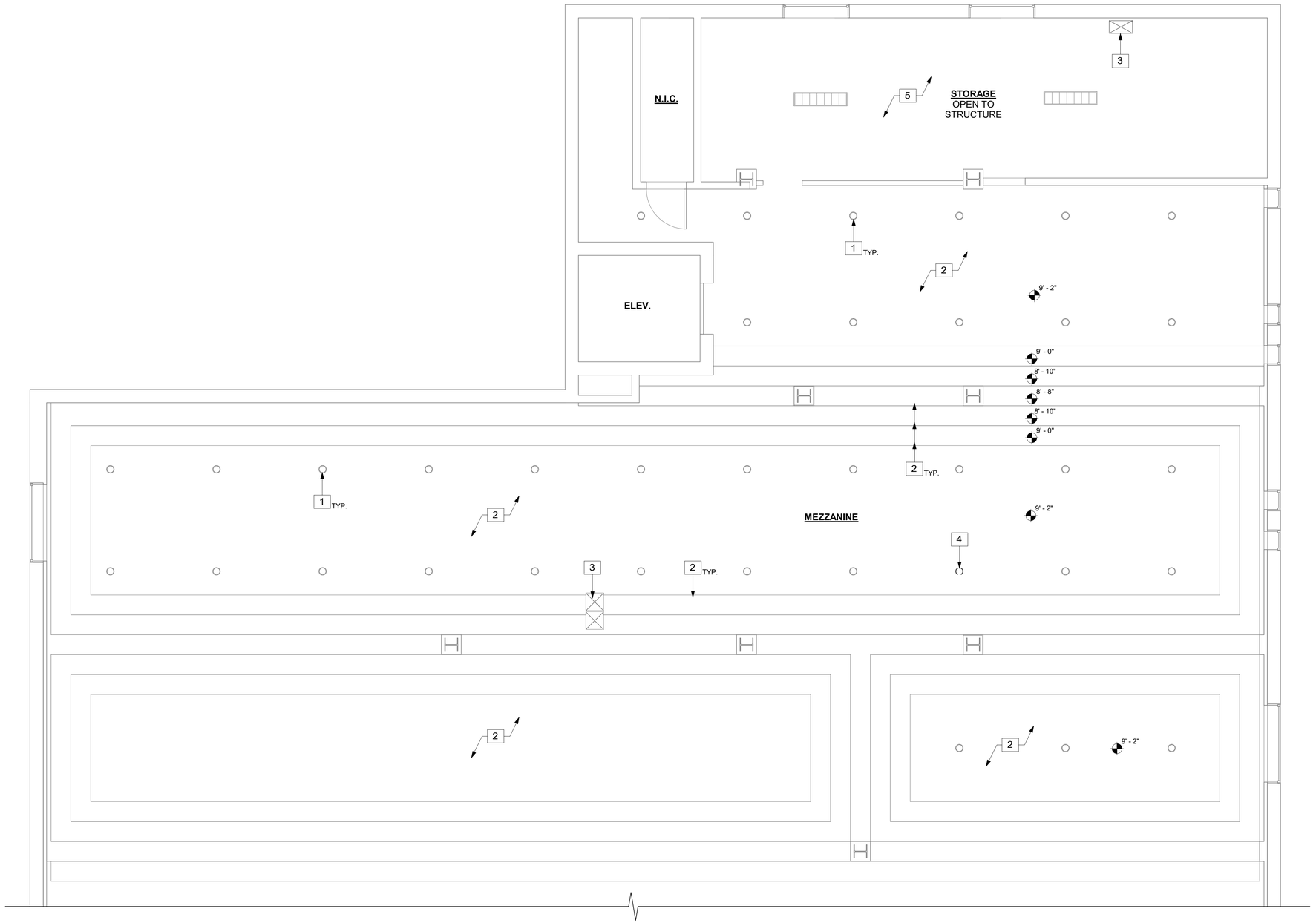
DATE: 10.24.2017

SHEET TITLE

PROPOSED FLOOR PLAN

SHEET NUMBER

A-201



Mezzanine Ceiling - Demo 1

1/4" = 1'-0"

N

KEYNOTES

1. EXISTING LIGHT FIXTURE TO REMAIN
2. EXISTING DROP GYP BD CEILING TO REMAIN
3. EXISTING MECHANICAL DUCT TO REMAIN
4. EXISTING LIGHT FIXTURE TO BE REMOVED
5. EXISTING STRUCTURE TO REMAIN

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APP: 04-116700 INC:
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DATE: 07/27/2020

DEMO LEGEND

EXISTING WALL TO REMAIN

EXISTING WALL TO BE DEMOLISHED

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

DESIGNER

SILLMAN WRIGHT ARCHITECTS
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CONSULTANTS

REGISTRATION STAMP

LICENSED ARCHITECT
LEWIS BYRD
C-18627
04/30/19
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	1/4" = 1'-0"

DESIGN ITERATION

DATE

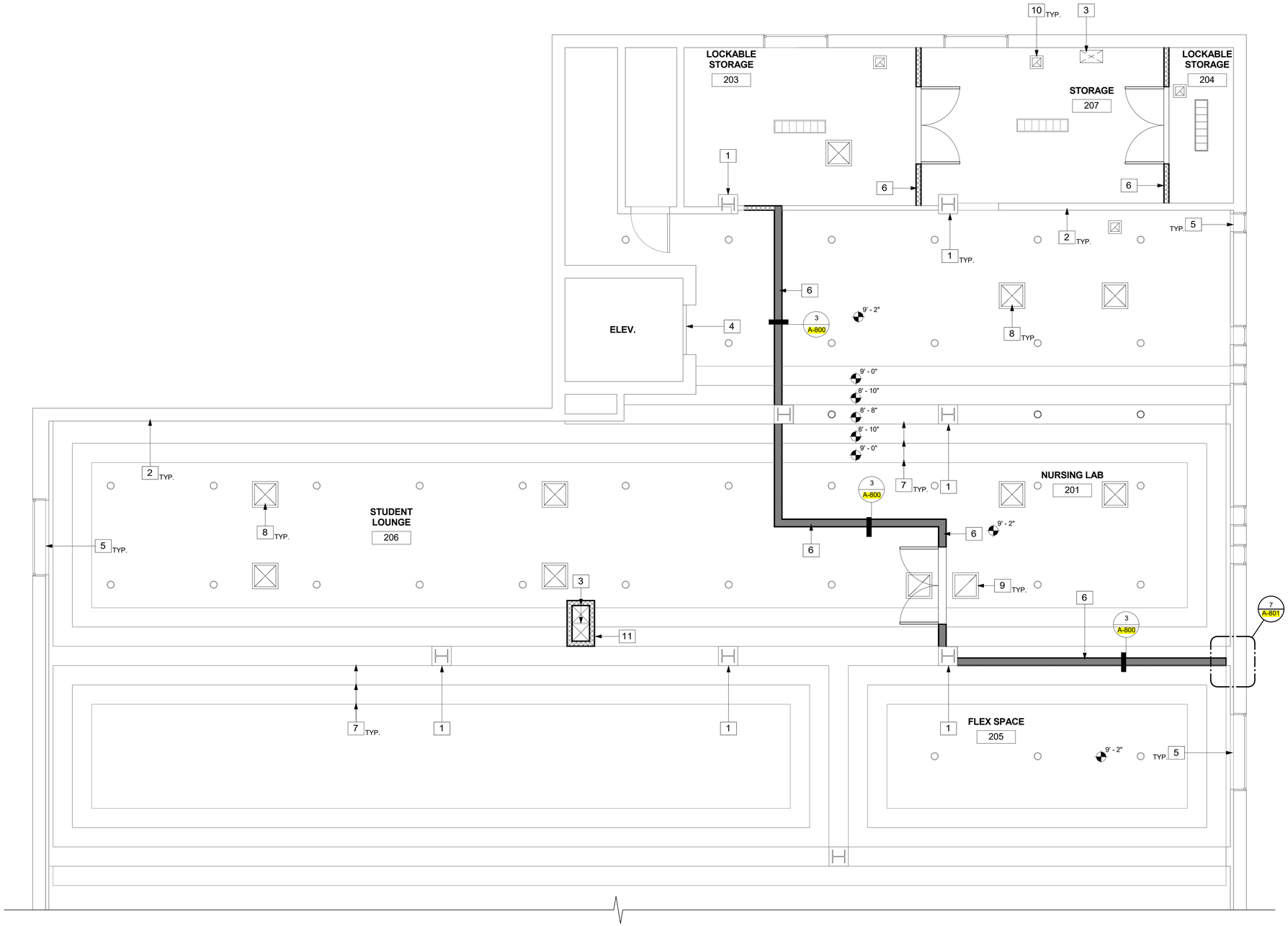
DATE: 10.24.2017

SHEET TITLE

DEMO CEILING PLAN

SHEET NUMBER

A-202



Mezzanine Ceiling - Proposed 1

1/4" = 1'-0"

KEYNOTES

1. EXISTING COLUMN TO REMAIN
2. EXISTING WALL TO REMAIN
3. EXISTING MECHANICAL DUCT TO REMAIN
4. EXISTING ELEVATOR TO REMAIN
5. EXISTING WINDOW TO REMAIN
6. NEW PARTITION WALL
7. EXISTING DROPPED CEILING GYP BD TO REMAIN
8. NEW SUPPLY DIFFUSERS PER MECHANICAL - LOCATE (N) DUCTS IN BETWEEN (E) HAT CHANNELS AT CEILING. REFER TO STRUCTURAL **KEYNOTE 1/S1.0** - DO NOT REMOVE ANY (E) HANGERS, HAT CHANNELS OR BRACES.
9. NEW RETURN DIFFUSERS PER MECHANICAL - LOCATE (N) DUCTS IN BETWEEN (E) HAT CHANNELS AT CEILING. REFER TO STRUCTURAL **KEYNOTE 1/S1.0** - DO NOT REMOVE ANY (E) HANGERS, HAT CHANNELS OR BRACES.
10. NEW VENT EXHAUST PER MECHANICAL
11. NEW SHAFT WALL

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CEILING LEGEND

- EXISTING WALL
- NEW 3 5/8" METAL STUD WALL, SEE 4/A-800
- NEW 6" METAL STUD WALL, SEE 3/A-800
- SUPPLY DIFFUSER
- RETURN REGISTER
- VENT EXHAUST
- NEW 1 X 4 STRIP LIGHT TO MATCH EXISTING
- EXISTING CAN LIGHTS TO REMAIN

CLIENT

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ISSUE

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

DESIGN ITERATION

DATE

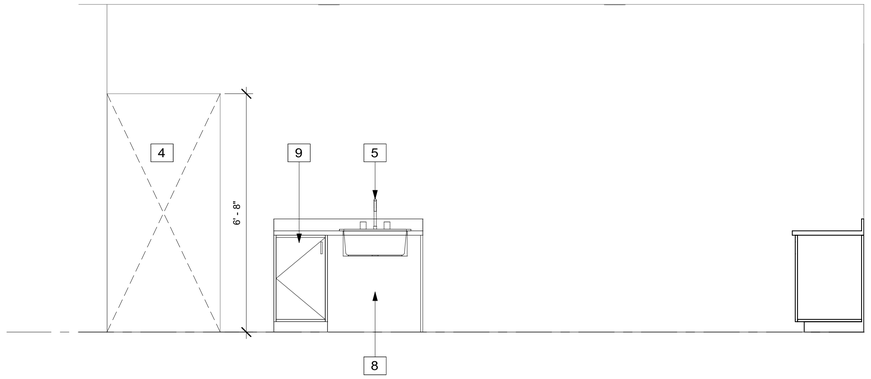
DATE: 10.24.2017

SHEET TITLE

PROPOSED
CEILING PLAN

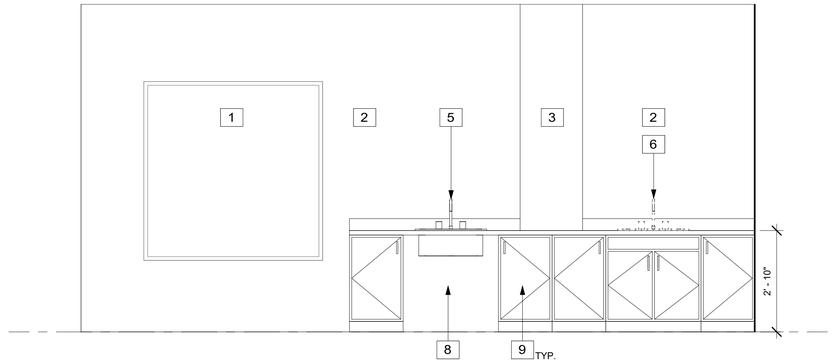
SHEET NUMBER

A-203



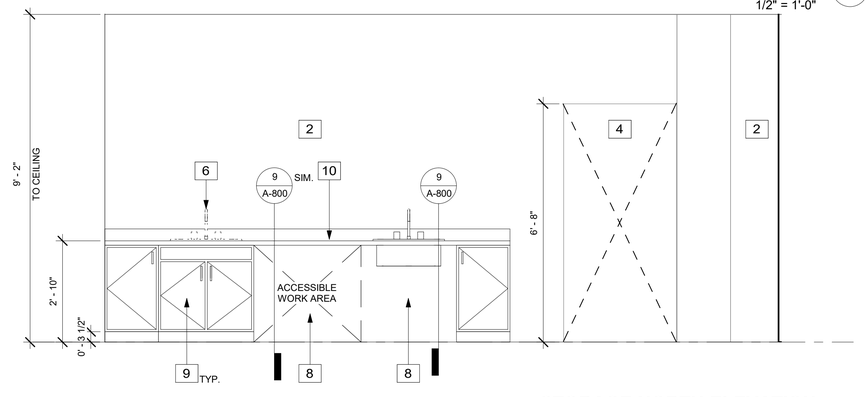
Elevation 2 - d 6

1/2" = 1'-0"



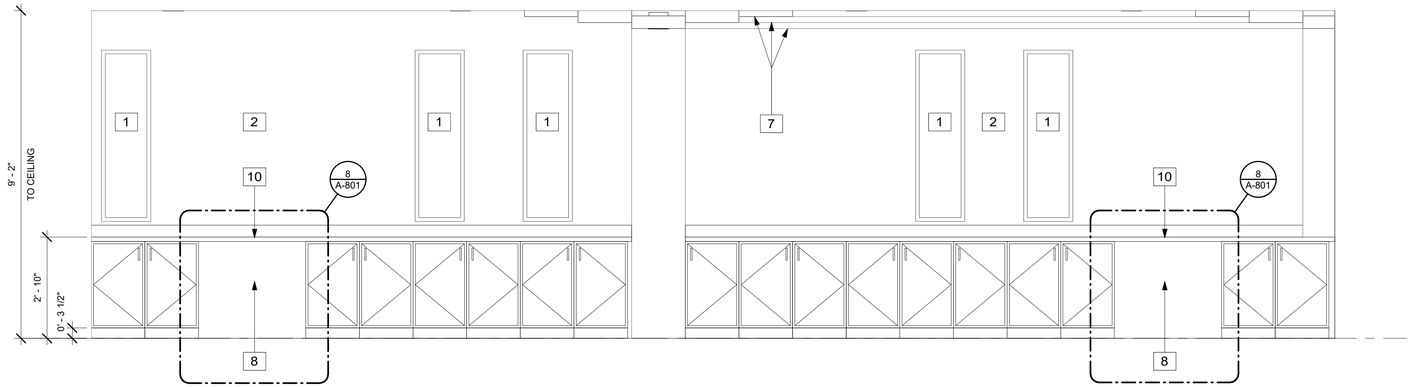
STORAGE SOUTH ELEVATION 1

1/2" = 1'-0"



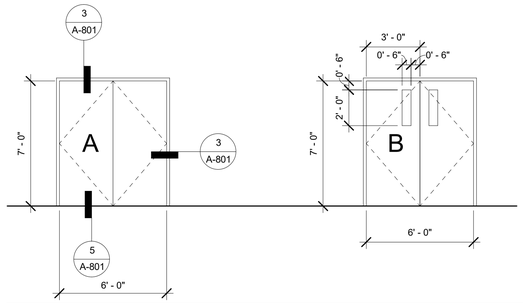
STORAGE NORTH ELEVATION 2

1/2" = 1'-0"



NURSING LAB 3

1/2" = 1'-0"



Door Schedule						
Mark	Width	Height	Door Material	Frame Material	H.W. Group	Elevation
1	6' - 0"	7' - 0"	HM	HM	1	B
2	6' - 0"	7' - 0"	HM	HM	2	A
3	6' - 0"	7' - 0"	HM	HM	2	A

LEGEND:
HM HOLLOW METAL

DOOR SCHEDULE AND LEGEND 4

1/4" = 1'-0"

KEYNOTES

1	EXISTING WINDOW TO REMAIN
2	EXISTING WALL TO REMAIN
3	EXISTING MECHANICAL DUCT TO REMAIN
4	OPEN TO BEYOND
5	NEW ACCESSIBLE SINK
6	FUTURE SINK
7	EXISTING DROPPED CEILING GYP BD TO REMAIN
8	NO LOWER CASE WORK AT ACCESSIBLE COUNTER AREA
9	NEW CASEWORK
10	ACCESSIBLE COUNTER
11	NEW CASEWORK

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CLIENT

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Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

DESIGNER

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REGISTRATION STAMP

LICENSED ARCHITECT
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06/30/19
STATE OF CALIFORNIA

ISSUE

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DESIGNER PROJECT NO.: 17010
DRAWN BY: Author
CHECKED BY: Checker
SCALE: As indicated

DESIGN ITERATION

DATE

DATE: 10.24.2017

SHEET TITLE

INTERIOR ELEVATIONS AND DOOR SCHEDULE

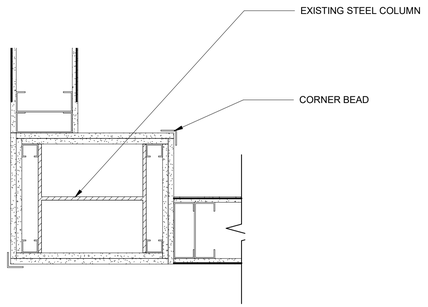
SHEET NUMBER

A-500

INTENTIONALLY LEFT BLANK

NTS

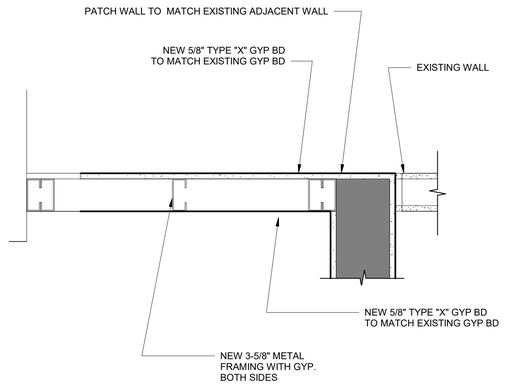
10



New Wall Attachment ot Existing Column

1 1/2" = 1'-0"

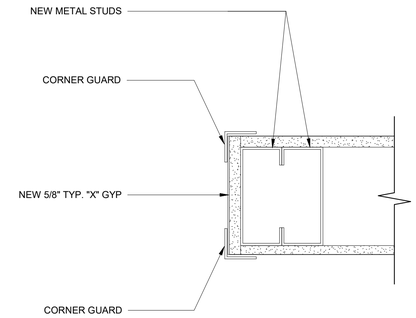
7



New Wall Patch

1 1/2" = 1'-0"

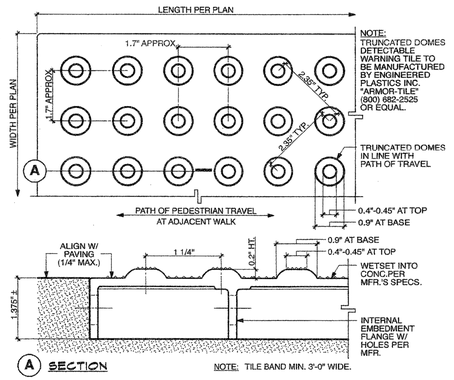
4



New Jamb at Opening

3" = 1'-0"

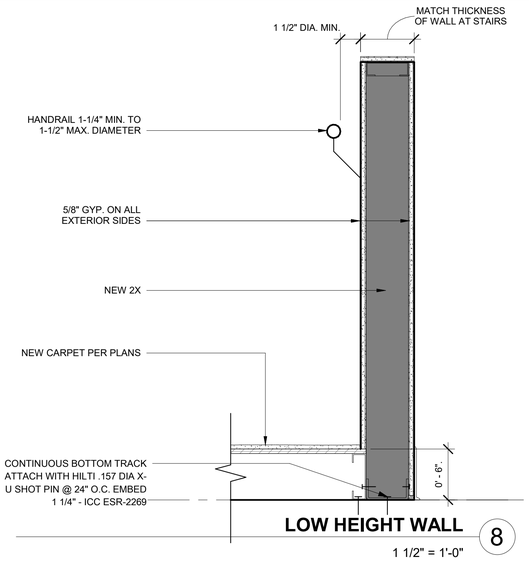
1



TACTILE DETECTABLE WARNING SURFACE TILE

NTS

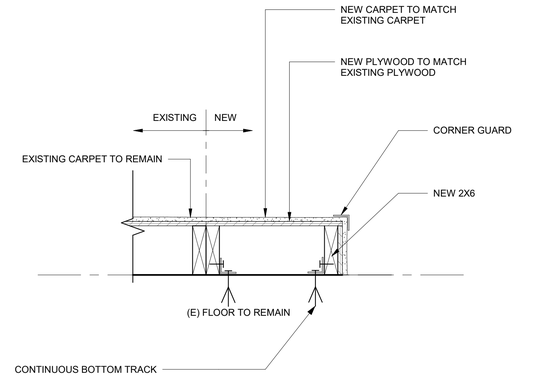
11



LOW HEIGHT WALL

1 1/2" = 1'-0"

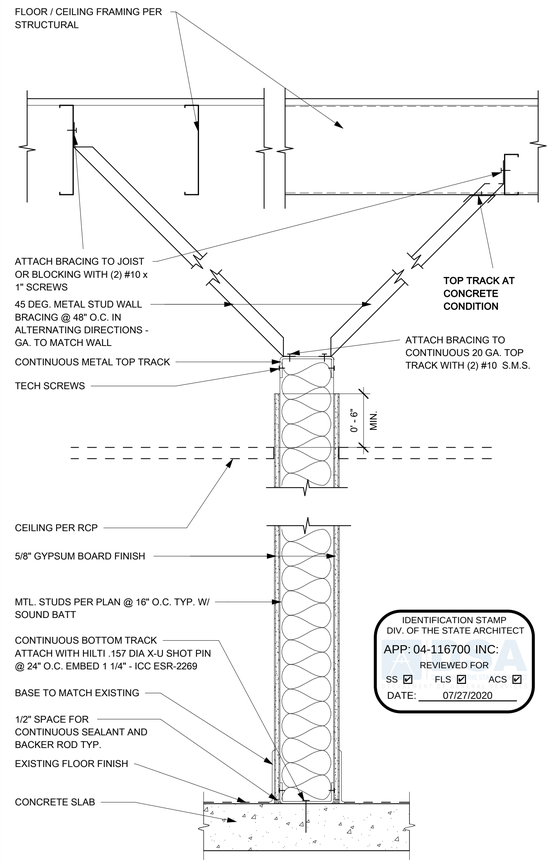
8



Stairs Landing Extension

1 1/2" = 1'-0"

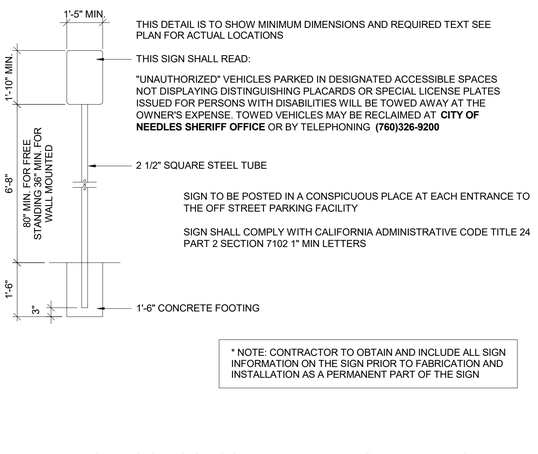
5



TYP. INTERIOR PARTION WALL PARTIAL HEIGHT

1 1/2" = 1'-0"

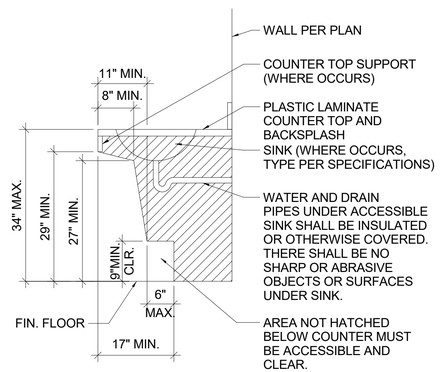
3



TYPICAL (E) ACCESSIBLE PARKING ENTRANCE SIGNAGE

NTS

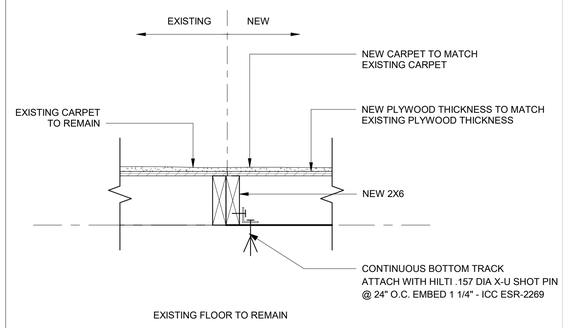
12



ACCESSIBLE SINK SECTION 1

3/4" = 1'-0"

9



Elevator Landing Extension

1 1/2" = 1'-0"

6

CLIENT

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PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

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C-18627
06/30/19
STATE OF CALIFORNIA

ISSUE

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DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	As indicated

DESIGN ITERATION

DATE

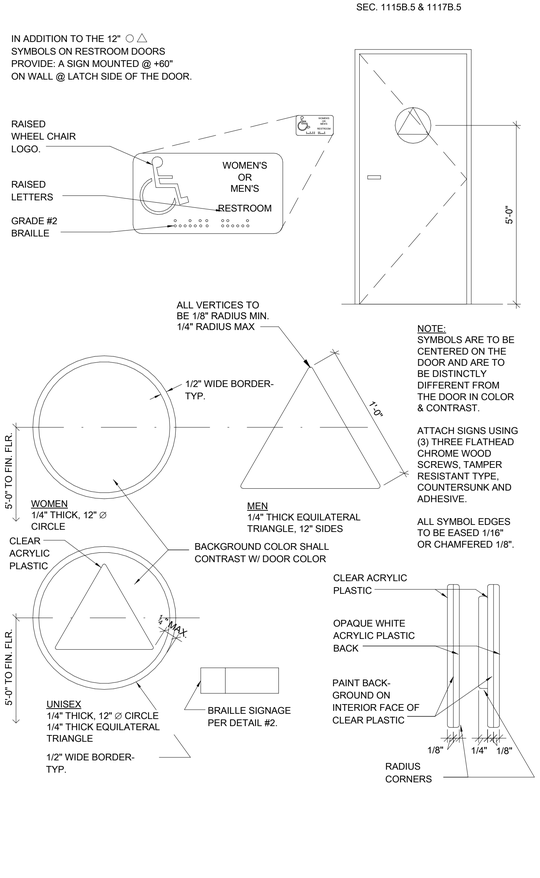
DATE: 10.24.2017

SHEET TITLE

DETAILS

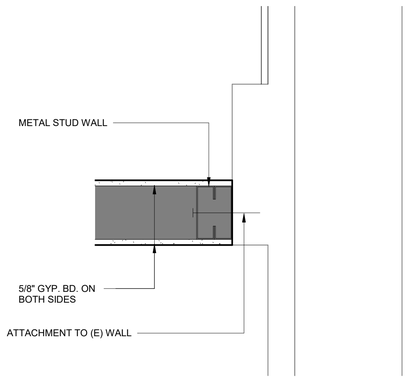
SHEET NUMBER

A-800



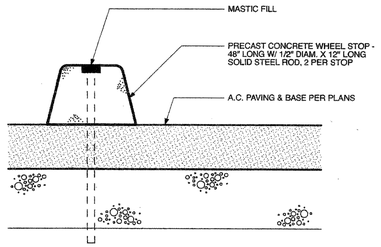
RESTROOM SIGNAGE 10

NTS



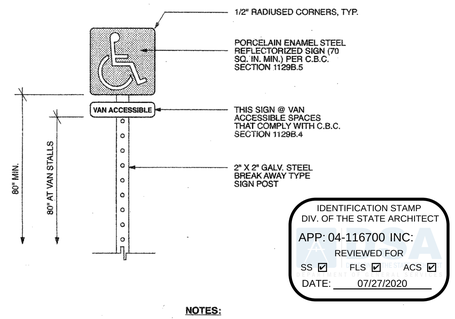
NEW WALL TO (E) WALL ATTACHMENT 7

1 1/2" = 1'-0"



TYPICAL (E) PRECAST CONCRETE WHEEL STOP 4

NTS

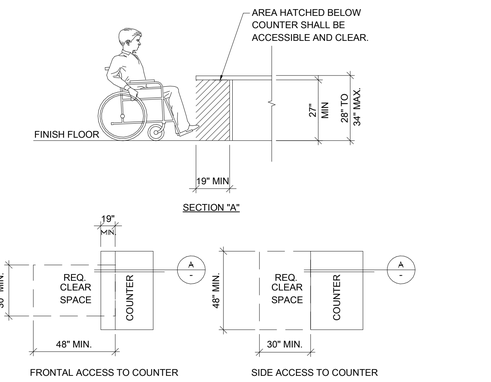


NOTES:

1. SIGN SHALL BE POSTED AT EACH ACCESSIBLE PARKING STALL PER PLANS.
2. "VAN ACCESSIBLE" SIGN SHALL BE DISPLAYED AT VAN ACCESSIBLE STALLS PER PLANS.

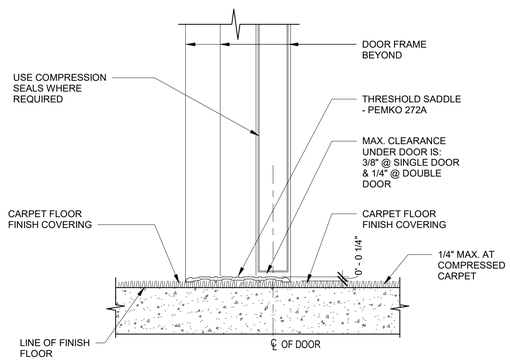
TYPICAL (E) ACCESSIBLE PARKING STALL SIGNAGE 1

NTS



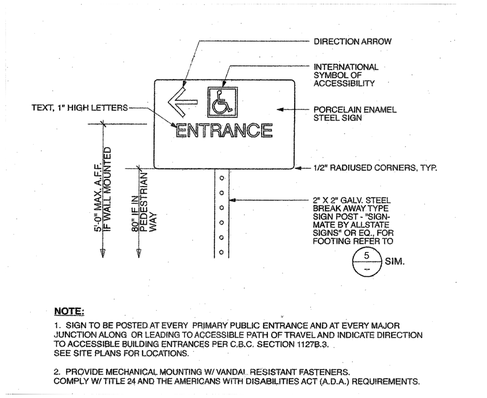
ACCESSIBLE TABLE COUNTER HEIGHTS 8

NTS



INT. DOOR THRESHOLD - CARPET TO CARPET 5

3" = 1'-0"

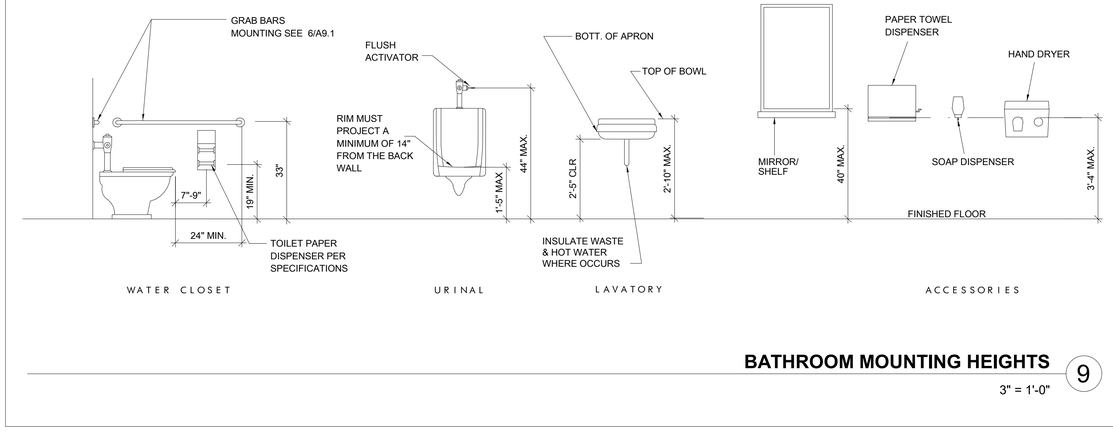


NOTE:

1. SIGN TO BE POSTED AT EVERY PRIMARY PUBLIC ENTRANCE AND AT EVERY MAJOR JUNCTION ALONG OR LEADING TO ACCESSIBLE PATH OF TRAVEL AND INDICATE DIRECTION TO ACCESSIBLE BUILDING ENTRANCES PER C.B.C. SECTION 1127B.3. SEE SITE PLANS FOR LOCATIONS.
2. PROVIDE MECHANICAL MOUNTING W/ VANDAL RESISTANT FASTENERS. COMPLY W/ TITLE 24 AND THE AMERICANS WITH DISABILITIES ACT (A.D.A.) REQUIREMENTS.

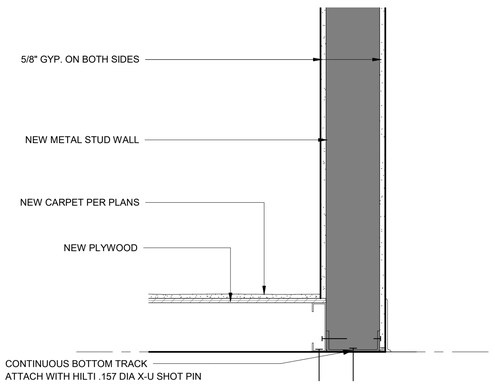
TYPICAL (E) DIRECTIONAL SIGNAGE 2

NTS



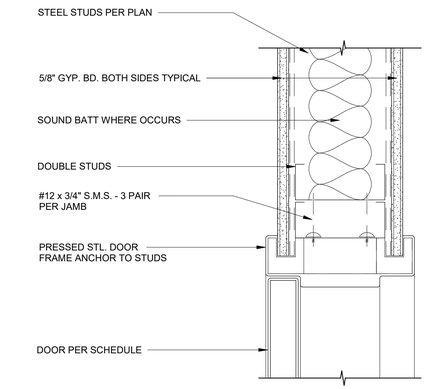
BATHROOM MOUNTING HEIGHTS 9

3" = 1'-0"



ELEVATOR LANDING TO WALL DETAIL 6

1 1/2" = 1'-0"



INTERIOR DOOR HEAD/JAMB 3

3" = 1'-0"

CLIENT

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CONSULTANTS

REGISTRATION STAMP

LICENSED ARCHITECT LEWIS R. WRIGHT C-18627 06/30/19 STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	As indicated

DESIGN ITERATION

DATE

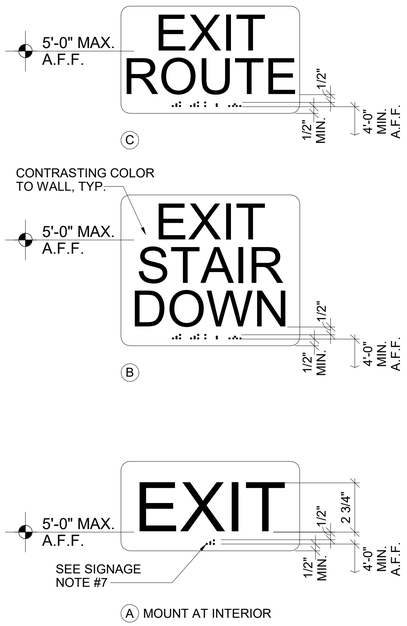
DATE: 10.24.2017

SHEET TITLE

DETAILS

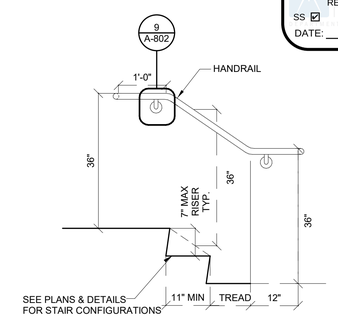
SHEET NUMBER

A-801



EXIT ROUTE 8

3" = 1'-0"



HANDRAIL MOUNT 4

1 1/2" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

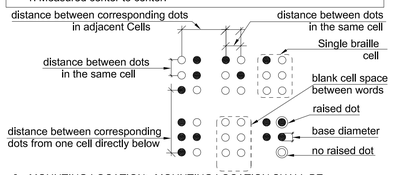
SIGNAGE NOTES: (TYPICAL ALL SIGNS)

1. SIGN MATERIAL TO BE 1/8" THICK PLASTIC WITH 1/32" RAISED BORDER, GRAPHICS AND LETTERS. PROVIDE MECHANICAL MOUNTING WITH VANDAL RESISTANT FASTENERS. COMPLY WITH 11B-703 OF THE CBC.
2. PROVIDE ONE SIGN WHERE INDICATED ON DOOR SCHEDULE OR PER PLANS. LOCATE SIGN MAXIMUM 9" AWAY FROM DOOR THE LOWEST STRIKE CELLS SIDE, LOCATE SIGN 48" MIN. A.F.F. TO BOTTOM OF THE LOWEST BRAILLE CELLS AND 60" MAX.TO BOTTOM OF HIGHEST TEXT TACTILE LETTERING. SIGN SHALL BE CENTERED IN AN 18" x18" CLEAR FLOOR SPACE BEYOND THE DOOR SWING ARC WITH 90° INHIBITOR-TYPE CLOSER NEXT TO A TACTILE SIGN.
3. CHARACTER TYPE: CHARACTERS ON SIGNS SHALL BE RAISED 1/32" MINIMUM AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPANIED BE GRADE 2 BRAILLE (SEE NOTE 7 BELOW).
4. CHARACTER SIZE: RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8" AND A MAXIMUM OF 2" HIGH.
5. FINISH AND CONTRAST: CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THEIR BACKGROUND MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH. 11B-703.6.2
6. RAISED CHARACTERS: PER CBC 11B-703.2 PROPORTIONS: RAISED CHARACTERS ON SIGNS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60% MINIMUM AND 110% MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I". STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15% MAXIMUM OF THE HEIGHT OF THE CHARACTER (CBC SECTION 11B-703.2.6)
7. BRAILLE: SHALL BE CONTRACTED GRADE 2 & COMPLY WITH SECTIONS 11B-70.3 & 11B-703.4. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE & COMPLY WITH TABLE 11B-703.3.1. THE INDICATION OF AN UPPERCASE LETTER(S) SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS & NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS, & ACRONYMS. BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT, FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH (9.5 MM) MIN. & 1/2 INCH (12.7 MM) MAX. FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH (9.5 MM) MIN. FROM RAISED BORDERS & DECORATIVE ELEMENTS. (CBC SECTION 11B-703.3, 11B-703.1, 11B-703.3.2, & 11B-703.4.)

Table 11B-703.3.1 Braille Dimensions

Measurement Range	Minimum in Inches Maximum in Inches
Dot base diameter	0.059 (1.5 mm) to 0.063 (1.6 mm)
Distance between two dots in the same cell	0.100 (2.5 mm)
Distance between corresponding dots in adjacent cells	0.300 (7.6 mm)
Dot height	0.025 (0.6 mm) to 0.037 (0.9 mm)
Distance between corresponding dots from one cell directly below	0.395 (10 mm) to 0.400 (10.2 mm)

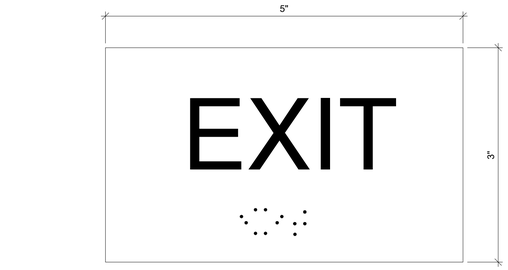
1. Measured center to center.



8. MOUNTING LOCATION: MOUNTING LOCATION SHALL BE DETERMINED SO THAT A PERSON MAY APPROACH WITHIN 3 INCHES (76MM) OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR. CBC SECTION 11B-703.4.2
9. SIGNS TO BE CONTRASTING COLORS. (CBC SECTION 11B-703.6.2)
10. BRAILLE SHALL BE SEPARATED 3/8 INCH (9.5MM) MINIMUM AND 1/2" MAX. FROM RAISED BORDER AND DECORATIVE ELEMENTS.

SIGNAGE NOTES 6

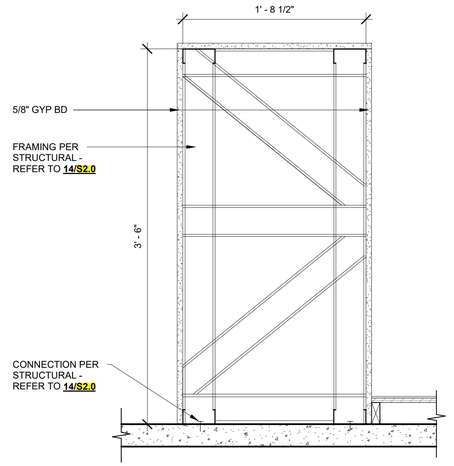
3" = 1'-0"



1. LETTERS SHALL BE RAISED 1/32", SANS SERIF UPPERCASE CHARACTERS AND ARE ACCOMPANIED BY GRADE 2 BRAILLE
2. CHARACTERS AND BACKGROUND OF SIGNS SHALL BE EGGSHELL, MATTE OR OTHER NON-GLARE FINISH
3. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND (LIGH CHARACTERS ON DARK BACKGROUND OR DARK CHARACTERS ON LIGHT BACKGROUND)
4. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR (AT DOUBLE LEAF DOORS AND WHEN THERE IS NO WALL SPACE AT THE LATCH SIDE, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT)
5. MOUNTING HEIGHT IS 60" FROM THE FINISH FLOOR TO THE CENTERLINE OF THE SIGN.
6. MOUNTING LOCATION ALLOWS A PERSON TO APPROACH WITHIN 3" OF THE SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR.

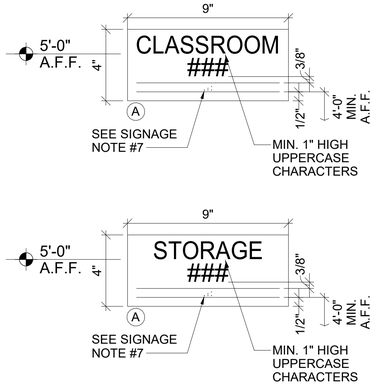
EXIT SIGN 1

12" = 1'-0"



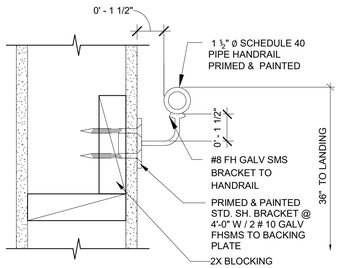
LOW WALL AT SLOPED RAMP 2

1 1/2" = 1'-0"



ROOM SIGNAGE 3

3" = 1'-0"



HANDRAIL ATTACHMENT 9

3" = 1'-0"

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

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C-18627
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	As indicated

DESIGN ITERATION

DATE

DATE: 10.24.2017

SHEET TITLE

DETAILS

SHEET NUMBER

A-802

PASSENGER ELEVATOR NOTES:

1. ELEVATORS PROVIDED IN COVERED MULTIFAMILY BUILDINGS SHALL BE ACCESSIBLE. ELEVATORS REQUIRED TO BE ACCESSIBLE SHALL COMPLY WITH THIS CHAPTER, ASME A17.1, SAFETY CODE FOR ELEVATORS AND ESCALATORS, TITLE 8, OF THE CALIFORNIA CODE OF REGULATIONS, UNDER "ELEVATOR SAFETY ORDERS," AND ANY OTHER APPLICABLE SAFETY REGULATIONS OF OTHER ADMINISTRATIVE AUTHORITIES HAVING JURISDICTION. (1124A.1)

2. PASSENGER ELEVATORS SHALL BE LOCATED ON A MAJOR ACCESSIBLE ROUTE AND PROVISIONS SHALL BE MADE TO ENSURE THAT THEY REMAIN ACCESSIBLE AND USABLE AT ALL TIMES THAT THE BUILDING IS OCCUPIED. (1124A.2)

3. THE CAR INSIDE SHALL ALLOW FOR THE TURNING OF A WHEELCHAIR. THE MINIMUM CLEAR DISTANCE BETWEEN WALLS OR BETWEEN WALL AND DOOR, EXCLUDING RETURN PANELS, SHALL NOT BE LESS THAN 80 INCHES BY 54 INCHES (2032 MM BY 1372 MM) FOR CENTER-OPENING DOORS, AND 68 INCHES BY 54 INCHES (1727 MM BY 1372 MM) FOR SIDE-SLIDE OPENING DOORS. MINIMUM DISTANCE FROM WALL TO RETURN PANEL SHALL NOT BE LESS THAN 51 INCHES (1295 MM). (1124A.3.2)

4. ELEVATOR DOORS SHALL PROVIDE A MINIMUM CLEAR WIDTH OF 36 INCHES (914 MM). (1124A.3.2.1)

5. ELEVATOR FLOOR BUTTONS SHALL BE WITHIN 54 INCHES (1372 MM) ABOVE THE FINISH FLOOR FOR SIDE APPROACH AND 48 INCHES (1219 MM) FOR FRONT APPROACH. EXCEPT FOR PHOTOELECTRIC TUBE BYPASS SWITCHES, EMERGENCY CONTROLS, INCLUDING THE EMERGENCY STOP AND ALARM, SHALL BE GROUPED IN OR ADJACENT TO THE BOTTOM OF THE PANEL AND SHALL BE NO LOWER THAN 35 INCHES (889 MM) FROM THE FLOOR. FOR MULTIPLE CONTROLS ONLY, ONE SET MUST COMPLY WITH THESE HEIGHT REQUIREMENTS. FLOOR BUTTONS SHALL BE PROVIDED WITH VISUAL INDICATORS TO SHOW WHEN EACH CALL IS REGISTERED. THE VISUAL INDICATORS SHALL BE EXTINGUISHED WHEN EACH CALL IS ANSWERED. NOTE: WHERE POSSIBLE, A 48-INCH (1219 MM) MAXIMUM HEIGHT FOR ELEVATOR FLOOR BUTTONS IS PREFERRED. (1124A.3.3.1)

6. PASSENGER ELEVATOR CAR CONTROLS SHALL HAVE A MINIMUM DIMENSION OF 3/4 INCH (19.1 MM) AND SHALL BE RAISED 1/8 INCH (3.2 MM) PLUS OR MINUS 1/32 INCH (0.8 MM) ABOVE THE SURROUNDING SURFACE. CONTROL BUTTONS SHALL BE ILLUMINATED, SHALL HAVE SQUARE SHOULDERS AND SHALL BE ACTIVATED BY A MECHANICAL MOTION THAT IS DETECTABLE. ALL CONTROL BUTTONS SHALL BE DESIGNATED BY A 5/8-INCHMINIMUM (15.9 MM) RAISED CHARACTERS AND STANDARD RAISED SYMBOLS THAT COMPLY WITH SECTIONS 1143A.6 AND 1143A.7 IMMEDIATELY TO THE LEFT OF THE CONTROL BUTTON. CONTRACTED GRADE 2 BRAILLE THAT CONFORMS TO SECTION 1143A.7 SHALL BE LOCATED IMMEDIATELY BELOW THE NUMERAL, CHARACTER OR SYMBOL. A MINIMUM CLEAR SPACE OF 3/8 INCH (9.5 MM) OR OTHER SUITABLE MEANS OF SEPARATION SHALL BE PROVIDED BETWEEN ROWS OF CONTROL BUTTONS. THE RAISED CHARACTERS AND SYMBOLS SHALL BE WHITE ON A BLACK BACKGROUND. CONTROLS AND EMERGENCY EQUIPMENT IDENTIFIED BY RAISED SYMBOLS SHALL INCLUDE, BUT NOT BE LIMITED TO, "DOOR OPEN," "DOOR CLOSE," "ALARM BELL," "EMERGENCY STOP" AND "TELEPHONE." THE CALL BUTTON FOR THE MAIN ENTRY FLOOR SHALL BE DESIGNATED BY A RAISED STAR AT THE LEFT OF THE FLOOR DESIGNATION. (1124A.3.3.2)

7. EMERGENCY TELEPHONE. THE EMERGENCY TELEPHONE HANDSET SHALL BE POSITIONED NO HIGHER THAN 48 INCHES (1219 MM) ABOVE THE FLOOR, AND THE HANDSET CORD SHALL BE A MINIMUM OF 29 INCHES (737 MM) IN LENGTH. IF THE TELEPHONE SYSTEM IS LOCATED IN A CLOSED COMPARTMENT, THE COMPARTMENT DOOR HARDWARE SHALL CONFORM TO THE PROVISIONS OF SECTION 1138A.4.4. EMERGENCY INTERCOMMUNICATION SHALL NOT REQUIRE VOICE COMMUNICATION. (1124A.3.4)

8. CALL OPERATION BUTTONS SHALL BE CENTERED 42 INCHES (1067 MM) ABOVE THE FLOOR. BUTTONS SHALL BE A MINIMUM OF 3/4-INCH (19.1 MM) IN SIZE AND SHALL BE RAISED 1/8-INCH (3.2 MM) PLUS OR MINUS 1/32-INCH (0.8 MM) ABOVE THE SURROUNDING SURFACE. THE BUTTON DESIGNATING THE "UP" DIRECTION SHALL BE ON TOP. VISUAL INDICATION SHALL BE PROVIDED TO SHOW EACH CALL REGISTERED AND EXTINGUISHED WHEN ANSWERED. OBJECTS ADJACENT TO, AND BELOW, HALL CALL BUTTONS SHALL NOT PROJECT MORE THAN 4 INCHES (101.6 MM) FROM THE WALL. HALL CALL BUTTONS SHALL BE INTERNALLY ILLUMINATED WITH A WHITE LIGHT OVER THE ENTIRE SURFACE OF THE BUTTON. (1124A.4)

9. THE MINIMUM ILLUMINATION AT THE CAR CONTROLS THRESHOLD AND THE LANDING WHEN THE CAR AND LANDING DOORS ARE OPEN SHALL NOT BE LESS THAN 5 FOOT-CANDLES (54 LX). (1124A.5)

10. A VISUAL AND AUDIBLE SIGNAL SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE INDICATING TO THE PROSPECTIVE PASSENGER THE CAR ANSWERING THE CALL AND ITS DIRECTION OF TRAVEL AS FOLLOWS:

    1. THE VISUAL SIGNAL FOR EACH DIRECTION SHALL BE A MINIMUM OF 2 1/2 INCHES (63.5 MM) HIGH BY 2 1/2 INCHES (63.5 MM) WIDE, AND VISIBLE FROM THE PROXIMITY OF THE HALL CALL BUTTON.

    2. THE AUDIBLE SIGNAL SHALL SOUND ONCE FOR THE "UP" DIRECTION AND TWICE FOR THE "DOWN" DIRECTION OR OF A CONFIGURATION WHICH DISTINGUISHES BETWEEN UP AND DOWN ELEVATOR TRAVEL.

    3. THE CENTER LINE OF THE FIXTURE SHALL BE LOCATED A MINIMUM OF 6 FEET (1829 MM) IN HEIGHT FROM THE LOBBY FLOOR.

    4. THE USE OF IN-CAR LANTERNS, LOCATED IN OR ON THE CAR DOORJAMBS, VISIBLE FROM THE PROXIMITY OF THE HALL CALL BUTTONS AND CONFORMING TO THE ABOVE REQUIREMENTS OF THIS SECTION SHALL OR WILL BE ACCEPTABLE. (1124A.6)

    NOTE: THE USE OF ARROW SHAPES ARE PREFERRED FOR VISIBLE SIGNALS.

11. THE MINIMUM ACCEPTABLE TIME FROM NOTIFICATION THAT A CAR IS ANSWERING A CALL (LANTERN AND AUDIBLE SIGNAL) UNTIL THE DOORS OF THE CAR START TO CLOSE SHALL BE CALCULATED BY THE FOLLOWING EQUATIONS BUT SHALL BE NO LESS THAN 5 SECONDS: (1124A.7.1)

    T = D / (1.5 FT/S) OR T = D / (445 MM/S)

    WHERE T IS THE TOTAL TIME IN SECONDS AND D IS THE DISTANCE FROM A POINT IN THE LOBBY OR LANDING AREA 60 INCHES (1524 MM) DIRECTLY IN FRONT OF THE FARTHEST CALL BUTTON CONTROLLING THAT CAR TO THE CENTERLINE OF ITS HOISTWAY DOOR. FOR CARS WITH IN-CAR LANTERNS, T BEGINS WHEN THE LANTERN IS VISIBLE FROM THE VICINITY OF HALL CALL BUTTONS AND AN AUDIBLE SIGNAL IS SOUNDED.

12. THE MINIMUM ACCEPTABLE TIME FOR THE DOOR TO REMAIN FULLY OPEN AFTER RECEIVING A CALL SHALL NOT BE LESS THAN 5 SECONDS. (1124A.7.2)

13. THE FLOOR LEVEL AT ALL ELEVATOR HOISTWAY ENTRANCES SHALL BE DESIGNATED BY RAISED CHARACTERS PROVIDED ON BOTH JAMBS. CHARACTERS SHALL BE 2 INCHES (50.8 MM) IN HEIGHT LOCATED WITH THE CENTERLINE 60 INCHES (1524 MM) FROM THE FLOOR. ON THE MAIN ENTRY LEVEL, A RAISED FIVE POINTED STAR SHALL BE PLACED TO THE LEFT OF THE RAISED CHARACTER. THE OUTSIDE DIAMETER OF THE STAR SHALL BE 2 INCHES (50.8 MM) AND ALL POINTS SHALL BE OF EQUAL LENGTH. THE RAISED CHARACTERS AND THE STAR SHALL BE WHITE ON A BLACK BACKGROUND. CONTRACTED GRADE 2 BRAILLE, CONFORMING TO SECTION 1143A.7, SHALL BE PLACED BELOW THE CORRESPONDING RAISED CHARACTERS AND THE STAR. THE BRAILLE TRANSLATION FOR THE STAR SHALL STATE "MAIN". THE RAISED CHARACTERS SHALL COMPLY WITH SECTION 1143A.6. (1124A.8)

14. DOORS CLOSED BY AUTOMATIC MEANS SHALL BE PROVIDED WITH A DOOR-REOPENING DEVICE THAT WILL FUNCTION TO STOP AND REOPEN A CAR DOOR AND ADJACENT HOISTWAY DOOR IN CASE THE CAR DOOR IS OBSTRUCTED WHILE CLOSING. THIS REOPENING DEVICE SHALL ALSO BE CAPABLE OF SENSING AN OBJECT OR PERSON IN THE PATH OF A CLOSING DOOR WITHOUT REQUIRING CONTACT FOR ACTIVATION AT A NOMINAL 5 INCHES AND 29 INCHES (127 MM AND 737 MM) ABOVE THE FLOOR. DOOR-REOPENING DEVICES SHALL REMAIN EFFECTIVE FOR A PERIOD OF NOT LESS THAN 20 SECONDS. AFTER SUCH AN INTERVAL, THE DOORS MAY CLOSE IN ACCORDANCE WITH THE REQUIREMENTS OF ASME A17.1. (1124A.9)

15. THE ELEVATOR SHALL BE AUTOMATIC AND BE PROVIDED WITH A SELF-LEVELING FEATURE THAT WILL AUTOMATICALLY BRING THE CAR TO THE FLOOR LANDINGS WITHIN A TOLERANCE OF PLUS OR MINUS
    1/2 INCH (12.7 MM) UNDER RATED LOADING TO ZERO LOADING CONDITIONS. THIS SELF-LEVELING SHALL, WITHIN ITS ZONE, BE ENTIRELY AUTOMATIC AND INDEPENDENT OF THE OPERATING DEVICE AND SHALL CORRECT THE OVERTRAVEL OR UNDERTRAVEL. THE CAR SHALL ALSO BE MAINTAINED APPROXIMATELY LEVEL WITH THE LANDING, IRRESPECTIVE OF LOAD.
    THE CLEARANCE BETWEEN THE CAR PLATFORM SILL AND THE EDGE OF THE HOISTWAY LANDING SHALL BE NO GREATER THAN 1 1/4 INCHES (31.75 MM). (1124A.10)

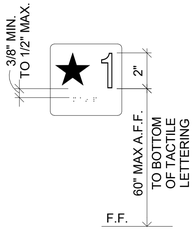
    ELEVATOR DOORS SHALL COMPLY WITH EXCEPTIONS 3 & 8 OF CBC 713.14.1

    DOOR OPENING INTO THE SHAFT ENCLOSURE SHALL BE SELF CLOSING, OR AUTOMATIC CLOSING UPON THE ACTUATION OF A SMOKE DETECTOR IN ACCORDANCE WITH SECTION 716.5.9.3

    ELEVATOR DOORS SHALL BE 1.5 HR FIRE RATED

PASSENGER ELEVATOR NOTES 16

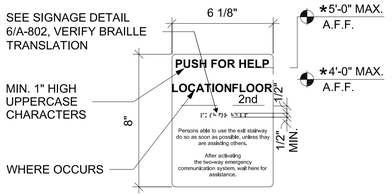
1" = 1'-0"



*TACTILE STAR IDENTIFICATION INDICATES EXIT DISCHARGE LEVEL

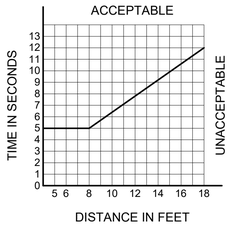
ELEVATOR FLOOR LANDING NUMBER 9

3" = 1'-0"



TWO-WAY CALL BUTTON 10

NTS



NOTE: THIS DIAGRAM ILLUSTRATES THE SPECIFIC REQUIREMENTS OF THESE REGULATIONS AND IS INTENDED ONLY AS AN AID FOR BUILDING DESIGN AND CONSTRUCTION.

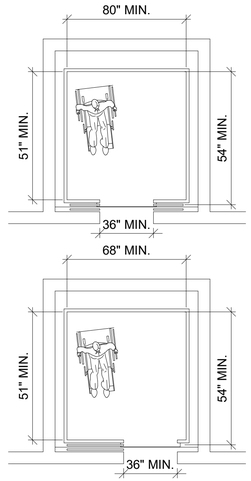
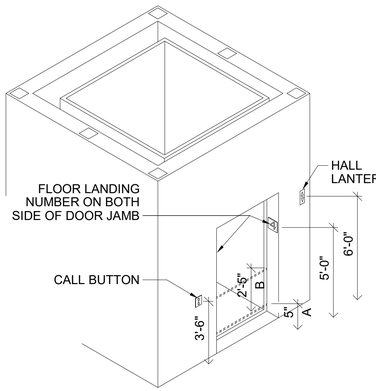
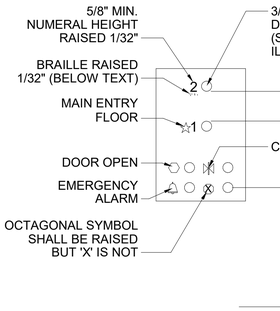


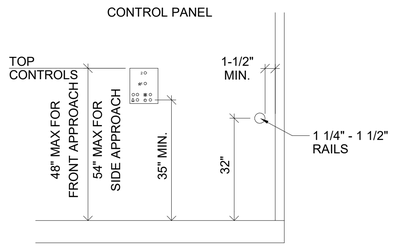
FIG. 22
MINIMUM DIMENSIONS OF ELEVATOR CARS



NOTE: THE AUTOMATIC DOOR REOPENING DEVICE IS ACTIVATED IF AN OBJECT PASSES THROUGH EITHER LINE A OR LINE B. LINE A AND LINE B REPRESENT THE VERTICAL LOCATIONS OF THE DOOR REOPENING DEVICE NOT REQUIRING CONTACT.
FIG. 20 - HOISTWAY AND ELEVATOR ENTRANCES

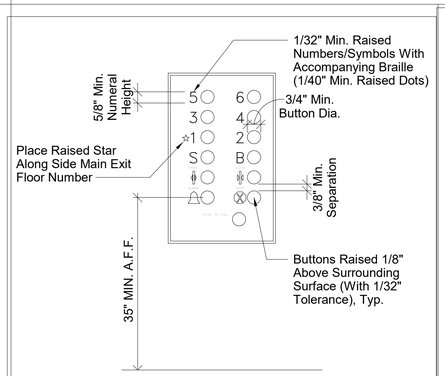
PROVIDE TWO-WAY COMMUNICATION SYSTEM WITH BOTH AUDIBLE AND VISIBLE SIGNALS AT THE ELEVATOR LANDING ON EACH ACCESSIBLE FLOOR THAT IS ONE OR MORE STORIES ABOVE OR BELOW THE STORY OF THE EXIT DISCHARGE PER CBC SECTION 1009.8
SEE DETAIL 10/A-803





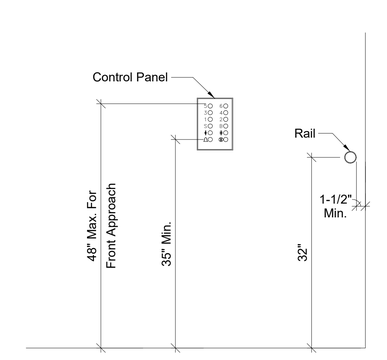
ELEVATOR DETAILS 3

1/4" = 1'-0"



ELEVATOR CONTROL PANEL 2 8

3" = 1'-0"



ELEVATOR CONTROL PANEL 4

1" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

CLIENT

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WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

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Project 3
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Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	As indicated

DESIGN ITERATION

DATE

DATE: 10.24.2017

SHEET TITLE

DETAILS

SHEET NUMBER

A-803

N. COLD FORMED STEEL

1. COLD FORMED STEEL FABRICATION AND ERECTION SHALL COMPLY WITH THE 2010 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS (AISI S100–07/S2–10).

2. WELDING OF LIGHT GAGE MEMBERS SHALL COMPLY WITH AWS D1.3 "STRUCTURAL WELDING CODE – SHEET STEEL."

3. LOAD BEARING STUDS, TRACKS, CHANNELS, JOISTS, ETC SHALL CONFORM TO THE PROVISIONS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) IN ACCORDANCE WITH ICC ER–4943. EACH STUD OR JOIST SHALL BE IDENTIFIED WITH ITS THICKNESS AND YIELD STRESS.

4. COLD FORMED MEMEBERS ARE IDENTIFIED AS FOLLOWS:
   600S250–43 — THICKNESS OF PART IN MILS
   — WIDTH OF PART IN MILS
   — TYPE OF PART PER SSMA
   — DEPTH OF PART IN MILS

5. ROOF AND FLOOR DECKING SHALL BE VERCO MANUFACTURING COMPANY CONFORMING TO ICC ER–1735P.

6. STEEL GRADE AND FINISH OF COLD FORMED SECTIONS SHALL CONFORM TO ASTM A653SS OR ASTM A570 WITH GRADES AS FOLLOWS:

I.	STUDS, TRACKS, JOISTS, HEADERS	
	a. THICKNESS UP TO 43mils(18ga)	GRADE 33ksi
	b. THICKNESS 54mils(16ga) AND ABOVE ..	GRADE 50ksi
II.	MISC CHANNELS	GRADE 33ksi
III.	DECKING	GRADE 33ksi

7. SCREWS SHALL BE HILTI KWIK–PRO. SCREWS EXPOSED TO WEATHER SHALL BE ZINC PLATED AND PROVIDED WITH A SEALING WASHER.

8. ANY JOIST SPANS OVER 8'–0" SHALL HAVE A ROW OF 18 Ga FULL DEPTH BLOCKING AT MID–SPAN.

9. NO PUNCHOUTS ARE ALLOWED WITHIN 24" OF SUPPORTS FOR FLOOR JOISTS.

REQUIRED SPECIAL INSPECTION

The following items require Special Inspection in accordance with Sections 1704 & 1705 of the 2016 California Building Code:

(only checked items are required)

Inspection Item	Notes
Structural Concrete (CBC Table 1705.3)	
☐ Foundations(1)	
☐ Grade Beams / Piles	
☐ Beams / Slabs	
☐ Walls / Columns	
☐ Welding of Reinforcement	
☐ Anchor Bolts	
☐ Shotcrete / Gunnite	
☐ Seismic Resisting System	
☐ Other:	
Structural Steel (AISC 360–10 Chapter N)	
☑ Field Welding(2)	See AISC 341–10 Chapter J
☐ High Strength Bolting	
☐ Seismic Resisting System	
☐ Other:	
Structural Masonry (ACI 530–13 3.1)	
☐ Concrete Masonry (CMU)	
☐ Seismic Resisting System	
☐ Other:	
Structural Wood (CBC 1705.5)	
☐ High Load Diaphragms	
☐ Seismic Resisting System(3)	Wood Shearwalls, Diphragms, Collectors
☐ Other:	
Miscellaneous Items	
☑ Wedge Anchors	Hitli Kwik Bolt TZ (ICC–ER 1917)
☐ Other:	

1. FOUNDATION SPECIAL INSPECTION IS NOT REQUIRED FOR BUILDINGS THREE STORIES OR LESS IN HEIGHT.
2. SPECIAL INSPECTION NEED NOT BE PROVIDED FOR WELDING PERFORMED IN THE SHOP OF AN APPROVED FABRICATOR.
3. SPECIAL INSPECTION IS NOT REQUIRED FOR SHEARWALLS WHERE NAIL SPACING IS 4" OC OR LARGER.

K. NAILS AND FASTENERS

1. ALL CONNECTORS SHALL BE SIMPSON HARDWARE. ANY CHANGES SHALL BE APPROVED BY THE ENGINEER AND BUILDING OFFICIAL (PLAN CHECK OFFICE, NOT FIELD INSPECTOR).

2. USE FULL NAILING/BOLTING AT ALL CONNECTORS.

3. ALL BOLTS TO BE ASTM A307 UNLESS NOTED OTHERWISE.

4. ALL NAILS TO BE COMMON UNLESS NOTED OTHERWISE

L. MINIMUM FASTENING SCHEDULE UNLESS NOTED OTHERWISE (CBC TABLE 2304.10.1)

ROOF

BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE – TOE NAIL EA END	3–8d
BLOCKING TO JOISTS OR RAFTERS – TOE NAIL EACH END	2–8d
FLAT BLOCKING TO TRUSS AND WEB FILLER – FACE NAIL	16d @ 6"
CEILING JOIST TO PLATE – TOE NAIL	3–8d
CEILING JOISTS, LAPS OVER PARTITIONS – FACE NAIL	3–16d
CEILING JOISTS TO PARALLEL RAFTERS – FACE NAIL	3–16d
COLLAR TIE TO RAFTER – FACE NAIL	3–10d
RAFTERS OR TRUSS TO PLATE–TOE NAIL	3–10d
RAFTER TO RIDGE VALLEY OR HIP – TOE NAIL OR END NAIL	3–10d OR 2–16d
ROOF RAFTER TO 2–BY RIDGE BEAM – TOE NAIL OR END NAIL	3–10d OR 2–16d

WALL

STUD TO STUD (NOT A SHEAR WALLS) – FACE NAIL	16d @ 24"
STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT SHEAR WALLS) – FACE NAIL	16d @ 16"
BUILT–UP HEADER (2" TO 2" HEADER) – FACE NAIL	16d @ 16" EA FACE
CONTINUOUS HEADER TO STUD – TOE NAIL	4–8d
TOP PLATE TO TOP PLATE – FACE NAIL	16d @ 16"
TOP PLATE TO TOP PLATE, AT END JOINTS – FACE NAIL (24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)	8–16d EA SIDE OF JOINT
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, BLOCKING (NOT AT SHEAR WALLS) – FACE NAIL	16d @ 16"
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, BLOCKING (AT SHEAR WALLS) – FACE NAIL	2–16d @ 16"
STUD TO TOP OR BOTTOM PLATE – TOE NAIL OR END NAIL	4–8d OR 2–16d
TOP OR BOTTOM PLATE TO STUD – END NAIL	2–16d
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS – FACE NAIL	2–16d
1" BRACE TO EACH STUD AND PLATE – FACE NAIL	2–8d
1" BRACE TO EACH STUD AND PLATE – FACE NAIL	2–8d
1" X 8" SHEATHING OR LESS TO EACH BEARING–FACE NAIL	3–8d

FLOOR

JOIST TO SILL, TOP PLATE, OR GIRDER – TOENAIL	3–8d
RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL, OR OTHER FRAMING BELOW – TOENAIL	8d @ 6"
1" X 6" SUBFLOOR OR LESS TO EACH JOIST – FACE NAIL	2–8d
2" SUBFLOOR TO JOIST OR GIRDER	2–16d
2" PLANKS	16d @ EACH BEARING
BUILT UP GIRDER AND BEAMS–TOP & BOT OR ENDS & SPLICE	20d @ 32" OR 2–20d
LEDGER STRIP – FACE NAIL	3–16d @ EACH JOIST
JOIST TO BAND JOIST OR RIM JOIST – FACE NAIL	3–16d
BLOCKING TO JOISTS OR TRUSS – TOE NAIL EACH END	2–8d

WOOD STRUCTURAL PANELS AND PARTICLEBOARD, SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING 6:6:12)

½" AND LESS	6d
19/32" TO ¾"	8d
⅞" TO 1¼"	10d

SINGLE FLOOR (COMBINATION SUBFLOOR–UNDERLAYMENT TO FRAMING 6:6:12)

¾" AND LESS	8d
⅞" TO 1"	8d
1⅛" TO 1¼"	10d

PANEL SIDING (TO FRAMING 6:6:12)

½" OR LESS	6d
⅝"	8d

OTHER EXTERIOR WALL SHEATHING

FIBERBOARD SHEATHING – ½" OR 25/32" (3:3:6)	1½" GALVANIZED ROOFING NAIL OR 1¾" GALVANIZED ROOFING NAIL

INTERIOR PANELING

¼" OR ⅜" (6:6:12)	4d OR 6d

Q. LUMBER AND WOOD FRAMING

1. ALL LUMBER SHALL BE DOUGLAS FIR LARCH EXCEPT AS NOTED. ALL LUMBER SHALL BE GRADED IN ACCORDANCE WITH THE RULES OF THE WCLIB OR WWPA AND SHALL BEAR A GRADE MARK. LUMBER GRADES SHALL BE AS FOLLOWS:
   I. 2X ROOF OR FLOOR JOISTS..... NO.2
   II. 4X HEADERS & BEAMS..... NO.1
   III. 6X OR LARGER BEAMS..... NO 1 B & S
   IV. 2X AND 3X STUDS..... STUD
   V. 4X4 OR 4X6 POSTS..... NO.1
   VI. 6X POSTS OR GREATER..... NO 1 P & T

2. HOLES AND NOTCHES, UNLESS OTHERWISE DETAILED SHALL MEET THE FOLLOWING REQUIREMENTS. BEAMS OR JOISTS MAY BE NOTCHED AT THE ENDS AND SHALL NOT EXCEED 1/4 THE DEPTH. HOLES BORED IN MEMBERS SHALL NOT BE WITHIN 2" OF THE TOP OR BOTTOM OF THE MEMBER AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED 1/3 THE DEPTH. NOTCHES IN THE TOP OR BOTTOM OF MEMBERS SHALL NOT EXCEED 1/6 THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. CUTTING AND NOTCHING OF STUDS: STUDS IN EXTERIOR WALLS AND BEARING PARTITIONS MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25% OF ITS WIDTH. CUTTING OR NOTCHING OF STUDS IN NON–BEARING PARTITIONS SHALL NOT EXCEED 40% OF THE WIDTH. BORED HOLES IN STUDS: A HOLE NOT GREATER IN DIAMETER THAN 40% OF THE STUD WIDTH MAY BE BORED IN ANY WOOD STUD. BORED HOLES NOT GREATER THAN 60% OF THE WIDTH OF THE STUD ARE PERMITTED IN NONBEARING PARTITIONS. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8" TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH. RIPPING LUMBER: RIPPING LUMBER VOIDS GRADE AND IS NOT PERMITTED UNLESS OTHERWISE NOTED.

3. ALL LUMBER IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

4. STUD PARTITIONS CONTAINING PLUMBING, HEATING, OR OTHER PIPES SHALL BE SO FRAMED AND THE JOISTS UNDERNEATH SO SPACED AS TO GIVE PROPER CLEARANCE FOR THE PIPING. WHERE A PARTITION CONTAINING SUCH PIPING RUNS PARALLEL TO THE FLOOR JOISTS, THE JOISTS UNDERNEATH SUCH PARTITIONS SHALL BE DOUBLED AND SPACED TO PERMIT PASSAGE OF SUCH PIPES AND SHALL BE BRIDGED.

5. ALL STUD WALLS OVER 10' IN HEIGHT SHALL BE SOLID BLOCKED AT MID–HEIGHT AS NECESSARY SO THAT NO CONCEALED SPACE IS OVER 10' IN HEIGHT OR LENGTH.

6. EVERY WOOD STUD BEARING WALL OR BEARING PARTITION SHALL BE BRACED AT EACH END OR AS CLOSE AS POSSIBLE.

7. PROVIDE METAL WASHERS UNDER ALL BOLT HEADS AND NUTS BEARING ON WOOD.

8. PROVIDE DOUBLE FLOOR JOISTS UNDER ALL PARALLEL PARTITIONS AND TRIPLE FLOOR JOISTS UNDER ALL BEARING PARTITIONS UNLESS OTHERWISE NOTED, 2X BLOCKING AT 8'–0" OC AND AT SUPPORTS. BLOCK BELOW PERPENDICULAR PARTITIONS.

9. THE MOISTURE CONTENT OF ALL WOOD SHALL BE 19% OR LESS.

H. WOOD PANEL SHEATHING

1. WOOD STRUCTURAL PANELS MAY BE OSB OR PLYWOOD AND SHALL COMPLY WITH PRODUCT STANDARD PS1–09 OR PS2–10, AND CBC 2303.1.5.

2. SEE PLAN FOR SHEATHING AND NAILING DATA.

3. FACE GRAIN SHALL RUN PERPENDICULAR TO SUPPORTS AT ROOF AND FLOOR SHEATHING.

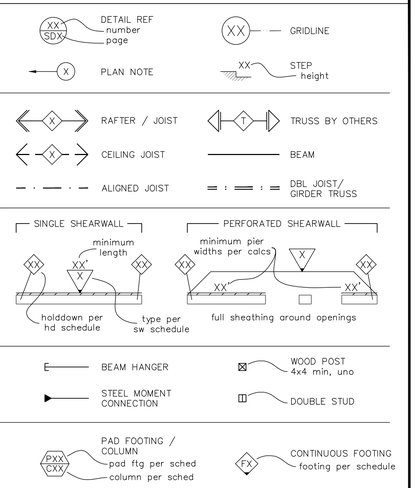
4. MINIMUM SHEET DIMENSION SHALL BE 2'–0"

5. USE COMMON NAILS ONLY UNLESS SPECIFICALLY NOTED OTHERWISE. THIS APPLIES TO ALL PLYWOOD NAILING.

6. MINIMUM EDGE DISTANCE SHALL BE 3/8", AND NAILS SHALL NOT BE OVERDRIVEN THRU OUTER PLY. STAGGER NAILS AT ADJACENT PLYWOOD SHEET.

7. SILLS AND PLATES AT SHEAR WALLS SHALL BE CONTINUOUS AND FREE OF CUTS AND NOTCHES. PERFORATIONS SHALL BE ALLOWED WITH A MAXIMUM OF 1–3/4" DIAMETER AND SHALL BE LOCATED AS CLOSE TO CENTER AS POSSIBLE. SILL BOLTS TO ENTER CONCRETE 7" MINIMUM AND 12" MAXIMUM FROM ENDS OF SILL AND CORNERS.

SYMBOL LEGEND



A. GENERAL SPECIFICATIONS

1. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE, 2016 CALIFORNIA PLUMBING CODE, 2016 CALIFORNIA MECHANICAL CODE, AND THE 2016 CALIFORNIA ELECTRICAL CODE.

2. ALL DETAILS, SECTIONS, AND NOTES ON DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS OTHERWISE NOTED.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE. WHERE ACTUAL CONDITIONS CONFLICT WITH THE DRAWINGS, DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER SO THAT THE PROPER REVISIONS CAN BE MADE PRIOR TO PROCEEDING WITH THE WORK.

4. ALL GENERAL CONTRACTORS, SUB–CONTRACTORS, ARCHITECTS, AND ENGINEERS CONDUCTING BUSINESS ARE REQUIRED TO MAINTAIN A CURRENT BUSINESS LICENSE.

5. A RE–INSPECTION FEE WILL BE CHARGED FOR AN INSPECTION WHICH IS CALLED WITHOUT PROVIDING ACCESS, PLANS, OR IF THE JOB IS NOT READY.

6. DIMENSIONS SHALL NOT BE SCALED FROM THE DRAWINGS.

7. ALL ASTM DESIGNATIONS SHALL BE AS AMENDED TO DATE UNLESS OTHERWISE NOTED.

8. ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.

9. CONTRACTOR TO PROVIDE ADEQUATE SHORING AND BRACING TO SUPPORT ALL LOADS DURING CONSTRUCTION.

10. A SURVEY SHALL BE PROVIDED BY A LICENSED SURVEYOR ON STRUCTURES WHICH DEFINE PROPERTY LINES, SETBACKS, DESIGNATED PARKLAND OR STREET RIGHT–OF–WAY.

A.1 DESIGN BASIS

1. THESE STRUCTURAL DRAWINGS ARE BASED UPON THE 2016 CALIFORNIA BUILDING CODE AND FOLLOWING DESIGN PARAMETERS:

a. SEISMIC DESIGN PARAMETERS

IMPORTANCE FACTOR	I	1.5
RISK CATEGORY		IV
SITE CLASS		D
SEISMIC DESIGN CATEGORY		D
MAPPED ACCELERATIONS	Ss	0.24
	S1	0.13
DESIGN ACCELERATIONS	Sds	0.26
	Sd1	0.19

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

WYNN ENGINEERING, INC.
27315 Valley Center Road
Valley Center, CA 92082
Voice: 760.749.8722
Fax: 760.749.9412

SHEET DESCRIPTION:
STRUCTURAL SPECIFICATIONS

PROJECT INFORMATION:
NEEDLES CENTER - PROJECT 3
725 W. BROADWAY
NEEDLES, CA 92363

REGISTERED PROFESSIONAL ENGINEER
STEVE D. REID JR
No. S850
Exp. 12-31-21
STRUCTURAL
STATE OF CALIFORNIA

THESE DRAWINGS ARE NOT VALID FOR CONSTRUCTION UNLESS THE STAMP ABOVE IS SIGNED WITH AN ELECTRONIC SIGNATURE AND THESE DRAWINGS BEAR THE APPROVAL STAMP OF THE BUILDING OFFICIAL.

REVISIONS

1	
2	
3	
4	

DATE:	5/12/2020
SCALE:	NTS
ENGINEER:	JPC
DRAFTER:	JPC
JOB No:	17–625
DWG No:	

S0

OF 3 TOTAL SHEETS

Date Plotted: 5/12/2020 5:09 PM — Plotted By: STEVE REID
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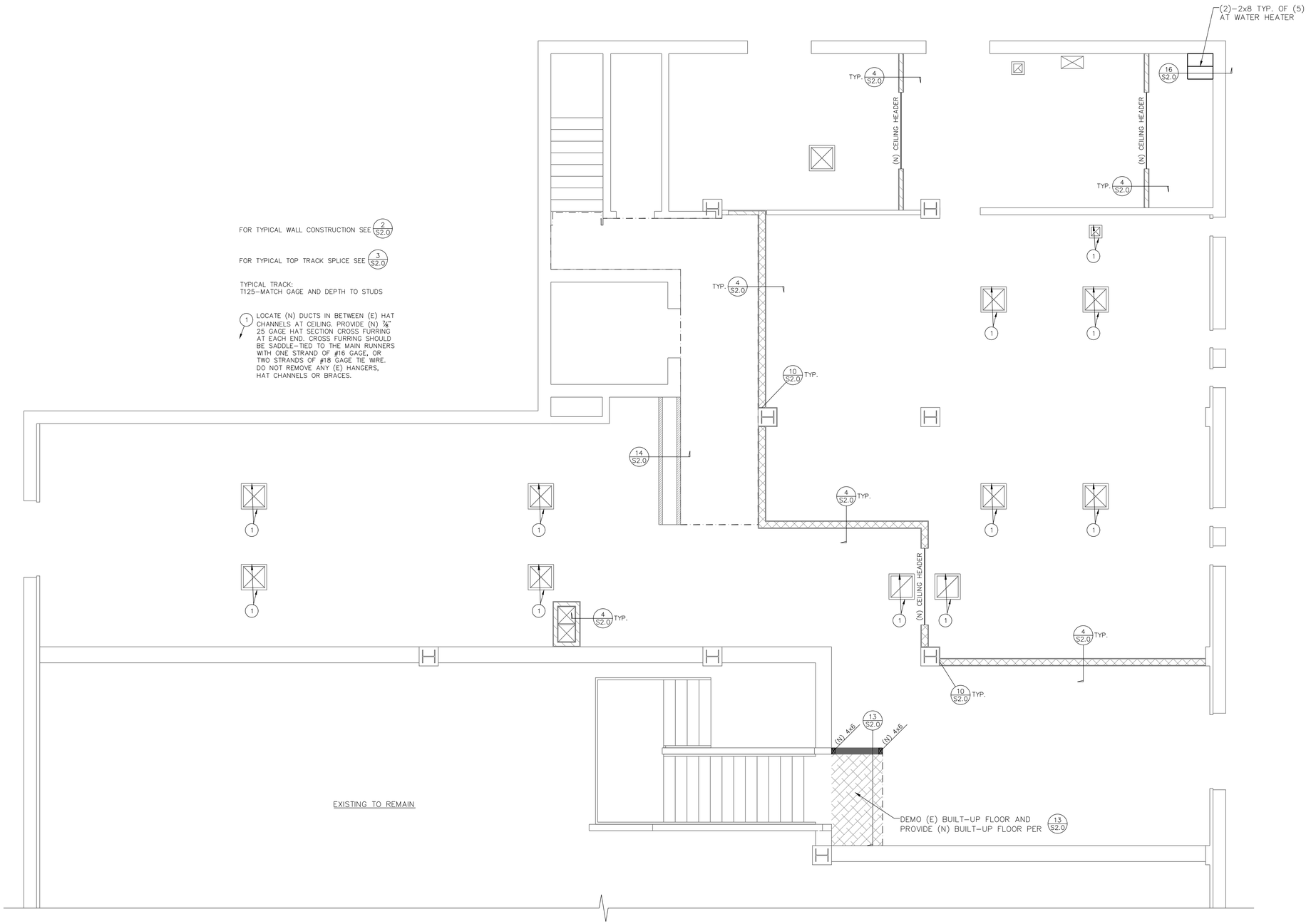

WALL LEGEND
(E) WALLS TO REMAIN
(N) 362S125–43 @ 16" OC
(N) 600S125–43 @ 16" OC
(N) 2x6 DFL NO. 2 @ 16" OC (LOW WALL)
(N) 350S125–68 @ 16" OC (LOW WALL)

CEILING HEADER SCHEDULE	
JOISTS	SPAN
(2)–550S162–33	3'–0" – 6'–0"
(2)–550S162–43	6'–0" – 8'–0"

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APP: 04-116700 INC:
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DATE: 07/27/2020

PARTIAL CEILING FRAMING PLAN
1/4" = 1'-0"

WYNN ENGINEERING, INC.
27315 Valley Center Road
Valley Center, CA 92082
Voice: 760.749.8722
Fax: 760.749.9412

SHEET DESCRIPTION:
PARTIAL CEILING FRAMING PLAN

PROJECT INFORMATION:
NEEDLES CENTER - PROJECT 3
725 W. BROADWAY
NEEDLES, CA 92363

REGISTERED PROFESSIONAL ENGINEER
STEVE D. REID JR
No. 5850
Exp. 12-31-21
STRUCTURAL
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REVISIONS
1
2
3
4

DATE:	5/12/2020
SCALE:	1/4" = 1'-0"
ENGINEER:	JPC
DRAFTER:	JPC
JOB No:	17-625
DWG No:	S1.0
OF 3 TOTAL SHEETS	

Date Plotted: 5/12/2020 5:09 PM Plotted By: STEVE REID
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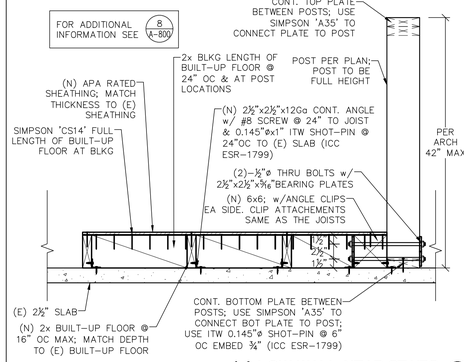
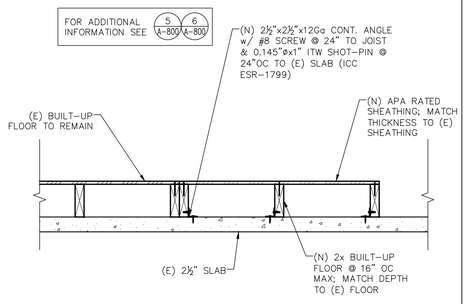
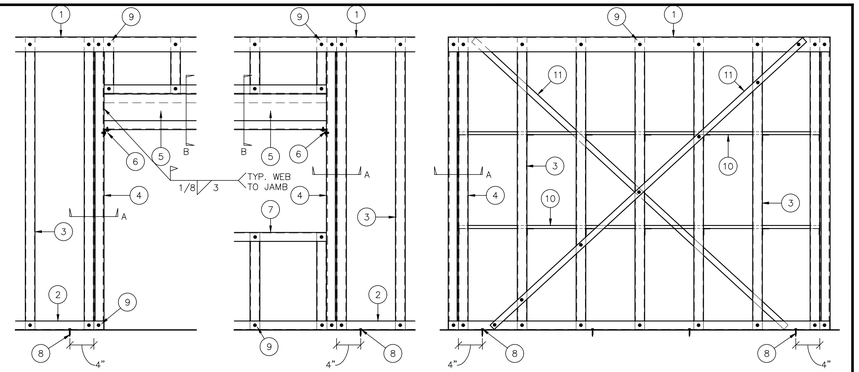
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020



NTS 17 **(N) LOW WALL NEAR STAIRS**



NTS 13 **(N) BUILT-UP FLOOR AT (E) BUILT-UP FLOOR**



DOOR FRAMING

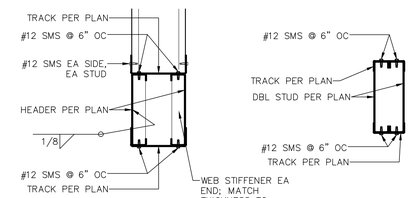
NOTES:
1. TOP TRACK PER PLAN
2. BOTTOM TRACK PER PLAN
3. STUDS PER PLAN
4. BUILT UP JAMB U.N.O. ON PLANS, SEE SECTION A–A
5. BUILT UP HEADER PER PLAN, SEE SECTION B–B

WINDOW FRAMING

6. 14gax10" FRAMING CLIP w/ (14)–#12 SMS TO HEADER AND JAMB.
7. SILL TRACK PER PLAN
8. SHOT PIN PER 2'–
9. #12 SMS EA SIDE

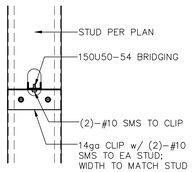
WALL FRAMING

10. 150U50–54 CHANNEL BRIDGING PER SECTION C–C AT 4'–0" MAX OC
11. 2"x18ga STRAP w/ #10 SMS TO TRACK & STUDS; INSTALL EACH SIDE OF WALL IN OPPOSITE DIRECTIONS. INSTALL 1 SET OF BRACES FOR EVERY 20' OF WALL, WITH A MINIMUM OF 1 SET PER WALL.



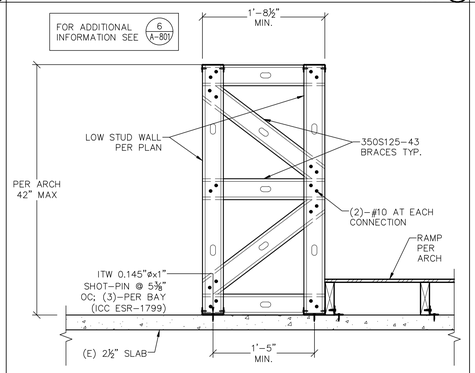
SECTION B–B
TYPICAL HEADER

SECTION A–A
TYPICAL DBL STUD

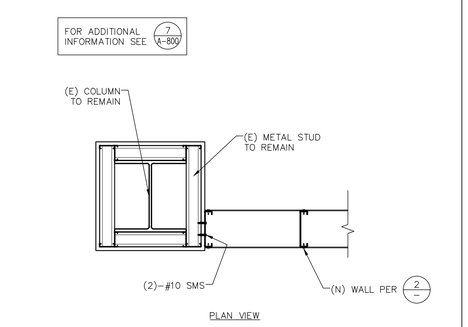


SECTION C–C
TYPICAL BRIDGING

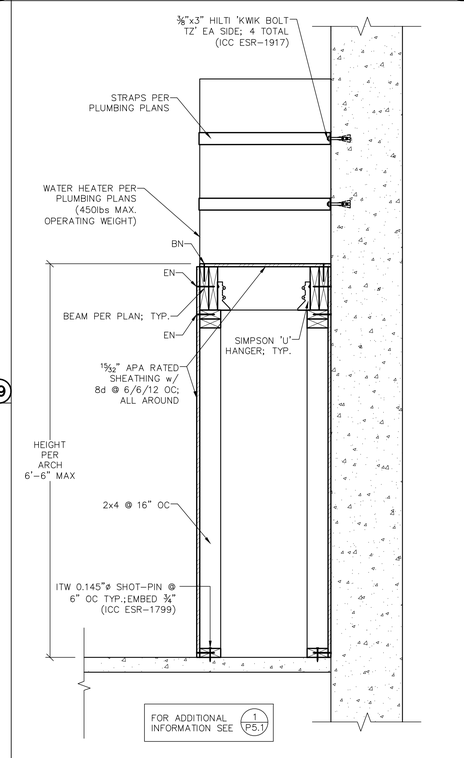
NTS 2 **TYPICAL METAL STUD WALL FRAMING**



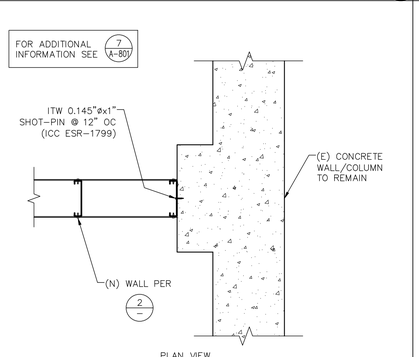
NTS 14 **(N) LOW WALL NEAR ELEVATOR RAMP**



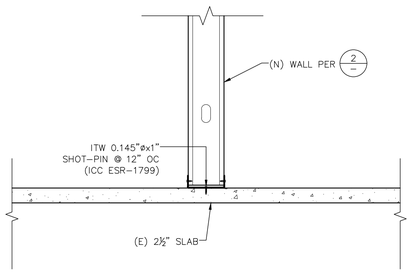
NTS 10 **(N) WALL TO (E) COLUMN CONNECTION**



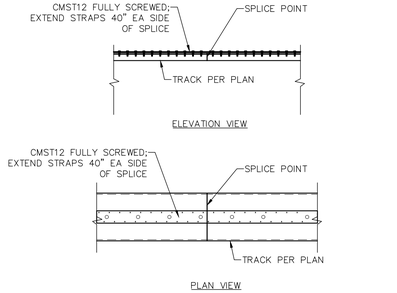
NTS 19 NTS 20 **WATER HEATER ANCHORAGE** NTS 16



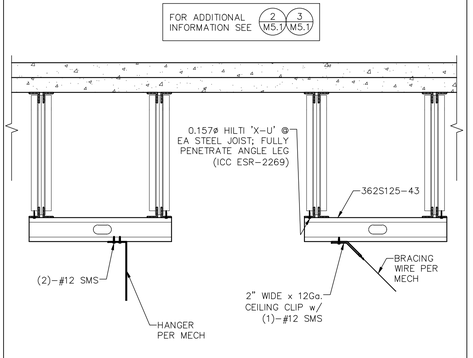
NTS 11 **(N) WALL TO (E) CONCRETE WALL CONNECTION**



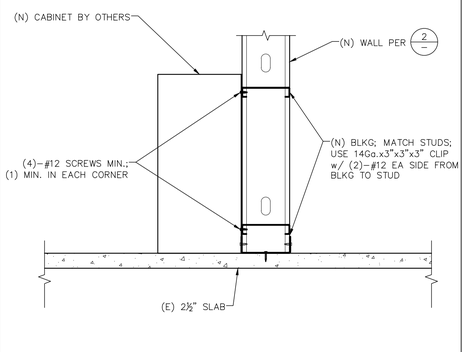
NTS 7 **TYPICAL INTERIOR NON-BEARING WALLS TO FLOOR**



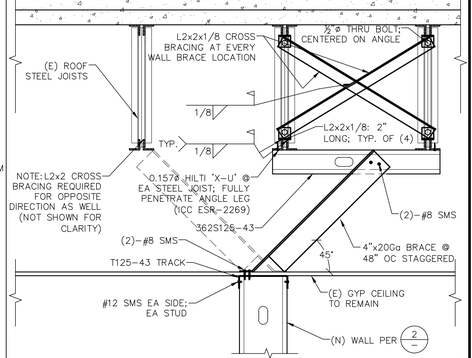
NTS 3 **TYPICAL TOP TRACK SPLICE**



NTS 12 **DUCT ANCHORAGE**



NTS 8 **COFFEE ROOM CABINET ANCHORAGE**



NTS 4 **INTERIOR NON-BEARING WALLS TO ROOF**

WYNN ENGINEERING, INC.
27315 Valley Center Road
Valley Center, CA 92082
Voice: 760.749.8722
Fax: 760.749.9412

SHEET DESCRIPTION:
STRUCTURAL DETAILS

PROJECT INFORMATION:
NEEDLES CENTER - PROJECT 3
725 W. BROADWAY
NEEDLES, CA 92363

REGISTERED PROFESSIONAL ENGINEER
STEVE D. REID JR
No. 5850
Exp. 12-31-21
STRUCTURAL
OF CALIFORNIA

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REVISIONS
1
2
3
4

DATE:	5/12/2020
SCALE:	NTS
ENGINEER:	JPC
DRAFTER:	JPC
JOB No:	17–625
DWG No:	S2.0

OF 3 TOTAL SHEETS

Date Plotted: 5/12/2020 6:09 PM Plotted By: STEVE REID
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ANCHORAGE & BRACING NOTE

MEP COMPONENT ANCHORAGE NOTE

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 FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED TO 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 DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7–10 SECTION 13.3 AS DEFINED IN ASCE 7–10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A1.25 AND 1616A.1.26.

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

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

MP ☒ MD ☐ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE–APPROVED (OPM#) # OPM-0043

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

MECHANICAL PLAN CHECK NOTES

1. ALL INSULATION MATERIAL SHALL COMPLY WITH THE CALIFORNIA QUALITY STANDARD PER SECTION 118 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS. INSULATION INSTALLED INDOORS SHALL HAVE A FLAME SPREAD–RATING OR 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS.
2. ALL HVAC PIPING AND DUCTWORK SYSTEMS SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF THE 2016 CALIFORNIA ENERGY CODE AND THE 2016 CALIFORNIA MECHANICAL CODE (CMC) APPENDIX A.
3. ALL HVAC EQUIPMENT AND APPLIANCES SHALL MEET THE REQUIREMENTS PER SECTION 110 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS.
4. HVAC SYSTEMS AUTOMATIC CONTROLS SHALL COMPLY WITH THE CONTROL REQUIREMENTS PER SECTIONS 120 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS.
5. MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS, FLEXIBLE DUCTS AND DUCT INSULATION SHALL COMPLY WITH 2016 CMC 602 AND SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING OF NOT MORE THAN 50.
6. ALL DOORS AND WINDOWS SHALL MEET THE MINIMUM INFILTRATION REQUIREMENTS PER SECTION 110.6 OF THE CALIFORNIA ENERGY EFFICIENCY STANDARDS.
7. AT THE TIME OF PERMIT ISSUANCE, THE PERMITEE WILL PROVIDE AN APPROVED COPY OF THE CERTIFICATE OF COMPLIANCE (MECH–1C) TO THE JURISDICTION FOR FILING.
8. FIRE AND/OR SMOKE DAMPER ASSEMBLIES, INCLUDING SLEEVES, AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO INSTALLATION.
9. ATTICS OR SIMILAR CONCEALED SPACE MUST BE PARTITIONED BY DRAFT STOPS INTO AREAS NOT EXCEEDING 3,000 SQ. FT. IN AREA AND 60 FT. IN LENGTH (EVERY 9,000 SQ. FT. AND 100 FT. IN SPRINKLED BUILDINGS).
10. ALL WATER HEATERS/ BOILERS SHALL BE STRAPPED OR ANCHORED PER SEC. 507 OF THE CPC TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION.
11. AIR FILTERS SHALL BE A STATE FIRE MARSHALL APPROVED AND LISTED TYPE. PRE–FORMED FILTERS HAVING COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS IN ALL OCCUPANCIES SHALL BE CLASS 1 OR 2 (AS SHOWN IN THE STATE FIRE MARSHALL LISTING). AIR FILTERS SHALL BE ACCESSIBLE FOR CLEANING OR REPLACEMENT. (314.2, 408 CMC)
12. CERTIFICATE OF COMPLIANCE (MECH–1C) AND ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THESE FORMS ARE REVIEWED AND APPROVED
13. PENETRATIONS IN FIRE–RESISTIVE WALLS, PARTITIONS AND FLOORS WHERE PROTECTED OPENINGS ARE REQUIRED SHALL BE FIRE STOPPED USING APPROVED MATERIALS, SECURELY INSTALLED AND CAPABLE OF MAINTAINING THEIR INTEGRITY AND PREVENTING THE MOVEMENT OF HOT FLAMES OR GASES THROUGH THE VOID SPACES BETWEEN PENETRATING MATERIALS AND WALLS, PARTITIONS AND FLOORS WHEN TESTED IN ACCORDANCE WITH ASTM STANDARD E–814 OR UL STANDARD 1479 (UBC SECTIONS 4304(e), 4305(a) & 4305(b)). PROVIDE DESIGN DETAILS ON DRAWINGS DEPICTING APPROVED (LISTED) METHODS AND MATERIALS USED TO PROTECT PENETRATIONS IN WALLS, PARTITIONS AND FLOORS.
14. MATERIALS EXPOSED WITHIN PLENUMS SHALL COMPLY WITH CMC SECTION 602.2 AND UMC SECTION 604.2 AND SHALL HAVE MOLD–, HUMIDITY– AND EROSION–RESISTANT FACES THAT MEET UL 181 REQUIREMENTS.
15. MECHANICAL DEMOLITION SHALL COMPLY WITH THE PROVISIONS SET FORTH IN THE 2016 CFC, CHAPTER 33.
16. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT, DRILLED, NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM STRUCTURAL ENGINEER AND THE DISTRICT STRUCTURAL ENGINEER FROM THE DIVISION OF THE STATE ARCHITECT.

HVAC GENERAL NOTES

1. CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. CONTRACTOR SHALL ALSO REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES (INCLUDING CIVIL, STRUCTURAL, AND ELECTRICAL) PRIOR TO BID TO ENSURE AN ACCURATE UNDERSTANDING OF EXACT SCOPE OF WORK. ANY ITEMS REQUIRING CLARIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN SUFFICIENT TIME TO BE INCORPORATED INTO THE BID.
2. CONTRACTOR SHALL VERIFY ALL EQUIPMENT MODEL NUMBERS, CAPACITIES, SIZES, VOLTAGES, AND ALL OTHER SCHEDULED INFORMATION WITH ALL OTHER APPLICABLE TRADES AND WITH THE MANUFACTURER PRIOR TO INSTALLATION.
3. CONTRACTOR SHALL VERIFY ALL LOCATIONS, SIZES, P.O.C.'s, AND AVAILABILITY OF ALL EXISTING ITEMS (I.E.: OUTSIDE AIR, CWS & CWR, EXHAUST ETC.) PRIOR TO INSTALLATION OF ANY MATERIAL OR EQUIPMENT.
4. THESE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL NECESSARY OFFSETS OF DUCTWORK AND PIPING. THE CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT IN A MANNER AS TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. ALL INSTALLATIONS SHALL BE CONSISTENT WITH NORMALLY ACCEPTABLE INDUSTRY STANDARDS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR CONFLICTS THAT WOULD AFFECT THE SYSTEM PERFORMANCE OR WHICH WOULD INCUR ADDITIONAL COSTS. THIS NOTIFICATION SHALL BE MADE PRIOR TO THE INSTALLATION OF THE ITEMS CONCERNED.
5. NEW AND/OR EXISTING EQUIPMENT INDICATED ON THIS DRAWING IS SHOWN IN APPROXIMATE POSITION(S). CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING EQUIPMENT LOCATIONS, P.O.C.'s AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. IN ALL CASES, ADEQUATE ACCESS (PER MANUFACTURER'S RECOMMENDATIONS AND CODE COMPLIANCE) FOR MAINTENANCE AND REPLACEMENT OF EQUIPMENT SHALL BE PROVIDED.
6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN IN THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATION OF CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO THE MANUFACTURER'S INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORM TO MANUFACTURER'S INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.
7. ALL HVAC EQUIPMENT, MATERIAL, AND ALL CONNECTION THERETO SHALL BE INSTALLED COMPLETE PER MANUFACTURER'S INSTRUCTIONS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM.
8. DUCT SIZES INDICATED ON DRAWINGS ARE INSIDE NET CLEARANCE DIMENSIONS.
9. CONTRACTOR MAY, AT HIS OPTION, REVISE DUCTWORK SIZING AND ROUTING TO ALLOW FOR INSTALLATION IN THE AVAILABLE SPACE. DUCTWORK THAT IS RESIZED MUST MAINTAIN THE SAME CROSS–SECTIONAL AREA. FLEX DUCT IS LIMITED TO A MAXIMUM OF 7' AT EACH REGISTER.
10. ALL NEW SUPPLY, RETURN, AND EXHAUST (AIR DISTRIBUTION) GRILLES, REGISTERS, AND DIFFUSERS SHALL MATCH (IF APPLICABLE) EXISTING, AND BE APPROVED BY ARCHITECT. THE MAXIMUM NOISE NC LEVEL SHALL BE 35.
11. ALL SUPPLY, RETURN, AND EXHAUST REGISTER CONNECTIONS TO DUCTWORK SHALL BE PROVIDED WITH ACCESSIBLE MANUAL VOLUME DAMPERS. ALTERNATIVELY, ACCESSIBLE MANUAL VOLUME DAMPERS MAY BE PROVIDED IN DUCT WORK FEEDER LINES SERVING INDIVIDUAL REGISTERS.
12. SUBSTITUTION OF HVAC EQUIPMENT WITH EFFICIENCIES LOWER THAT THOSE INDICATED ON THE PLANS MAY REQUIRE RECALCULATION OF TITLE 24 DOCUMENTS. IF THE CONTRACTOR CHOOSES TO UTILIZE SUCH EQUIPMENT, HE ASSUMES FULL RESPONSIBILITY FOR THE RECALCULATION AND JURISDICTIONAL APPROVAL OF TITLE 24 DOCUMENTS.
13. IF THE CONTRACTOR'S USE OF SUBSTITUTE MATERIALS, EQUIPMENT, OR METHODS OF INSTALLATION REQUIRES ANY CHANGES IN OTHER TRADES' WORK FROM THAT SHOWN ON THE DRAWINGS, THE EXTRA COST OF THE OTHER TRADES WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INITIATING THE SUBSTITUTION.
14. SUBMITTALS: APPROVAL OF SUBMITTALS DOES NOT RELEASE THE CONTRACTOR FROM OBLIGATIONS TO COMPLY WITH ALL REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS OR APPLICABLE CODE REGULATIONS.
15. WHERE NONMETALLIC PIPING PENETRATES AREA SEPARATION WALLS, THE PIPE SECTION PASSING THROUGH THE WALLS AND THE FIXTURE CONNECTIONS THERETO SHALL BE OF METAL ONLY.
16. NO RANGE HOODS, DRYER VENTS, COMBUSTION VENTS, OR HEATING DUCTS ARE PERMITTED IN AREA SEPARATION WALLS.
17. A. CONTRACTOR TO VERIFY LOCATION OF FIRE AND FIRE/SMOKE BARRIER WALLS WITH ARCHITECT PRIOR TO FIRE AND/OR SMOKE DAMPER, DETECTOR AND ACTUATOR INSTALLATION.

    B. ALL CEILING FIRE DAMPERS TO BE ONE (1) HOUR U.L. AND C.S.F.M. APPROVED.

    C. ALL FIRE RATED WALLS SHALL BE PROVIDED WITH U.L. AND C.S.F.M. APPROVED SMOKE/FIRE DAMPERS (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.

    D. ALL SMOKE BARRIER WALLS SHALL BE PROVIDED WITH U.L. AND C.S.F.M. APPROVED SMOKE/FIRE DAMPERS (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.

    E. ALL PENETRATIONS OF ONE (1) HOUR CORRIDOR WALLS AND CEILINGS THAT WOULD REQUIRE THE INSTALLATION OF A FIRE DAMPER SHALL BE APPROVED WITH A U.L. AND C.S.F.M. APPROVED COMBINATION SMOKE/FIRE DAMPER, (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.

    F. PROVIDE ALL FIRE & SMOKE DAMPERS WITH ACCESS DOORS AS NECESSARY.

LEGEND

SYMBOL	ABBR.	DESCRIPTION
	POC	POINT OF CONNECTION
	POD	POINT OF DISCONNECTION
		REMOVE EXIST. EQUIP. OR PIPES SHOWN HATCHED
R		DUCT RISE / DUCT DROP
		DUCT WITH SOUND INSULATION/LINING
		DUCT SECTION – SUPPLY
		DUCT SECTION – RETURN
		DUCT SECTION – EXHAUST
	AP	ACCESS PANEL
	DL/UC	DOOR LOUVER OR UNDERCUT
Tx		ROOM THERMOSTAT & ZONE NUMBER/TEMP SENSOR
HHWS	HHWS	HEATING HOT WATER SUPPLY
HHWR	HHWR	HEATING HOT WATER RETURN
	MVD	MANUAL VOLUME DAMPER
	AP	ACCESS PANEL
	DTR	DOWN THRU ROOF
	ETR	EXISTING TO REMAIN
	EA	EXHAUST AIR
	OSA	OUTSIDE AIR
	RA	RETURN AIR
	SA	SUPPLY AIR
	UTR	UP THRU ROOF
M		FURNISHED & INSTALLED BY MECHANICAL
ME		FURNISHED BY MECHANICAL INSTALLED BY ELECTRICAL
E		FURNISHED & INSTALLED BY ELECTRICAL
CFM		DIFFUSER/REGISTER AIR QUANTITY (C.F.M.) TYPE
		EQUIPMENT TAG TYPE EQUIPMENT NUMBER

EXISTING ZONE DAMPERS

MARK	MANUFACTURER & MODEL NO.	ROOMS SERVED	AIR HANDLER	INLET SIZE (DIA)	AIRFLOW (CFM) MAX.	AIRFLOW (CFM) MIN.	OPER. WT. (LBS.)	REMARKS
(E) ZD–13	PRICE SDV	MULTI PURPOSE LAB 201 & STORAGE SPACES	(E)AH–2	14	2,700	540	50	REBALANCE (E) ZD AIRFLOW AS SCHEDULED.
(E) ZD–15	PRICE SDV	STUDENT LOUNGE 206 & FLEX SPACE 205	(E)AH–2	14	2,600	520	50	REBALANCE (E) ZD AIRFLOW AS SCHEDULED.

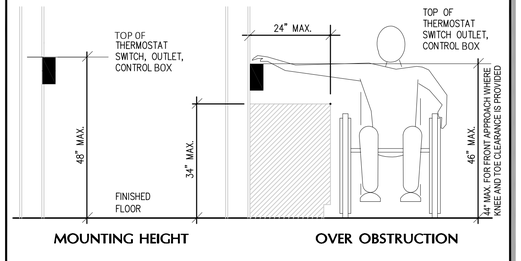
EXISTING EXHAUST FAN SCHEDULE

MARK	MANUFACTURER & MODEL NO.	SERVICE	LOCATION	UNIT TYPE	AIRFLOW (CFM)	ESP (IN. WG)	FAN DATA TYPE	FAN DATA DRIVE	FAN DATA FRPM	MOTOR HP	VOLTS/PH/HZ	OPER. WT. (LBS.)	REMARKS
(E) EF–1	COOK 135 C3B	1ST FLOOR RESTROOMS & MEZZANINE STORAGE SPACES	ROOF	EXHAUST	1135	0.5	CENTRIFUGAL	BELT	1068	1/6	115/1/60	80	–

AIR DISTRIBUTION DEVICE SCHEDULE

MARK	MANUFACTURER & MODEL NO.	SERVICE	NECK SIZE	AIRFLOW (CFM)	FACE SIZE	BORDER TYPE	DESCRIPTION	FINISH	REMARKS
A –	TITUS 300RL	SUPPLY AIR	10x10	0–350	NECK SIZE PLUS 1–3/4"	SURFACE MOUNT	DOUBLE DEFLECTION GRILLE	OFF–WHITE	PROVIDE WITH SQUARE TO ROUND TRANSITION.
			18X10	351–500					
			14X14	501–650					
B –	TITUS 350RL	RETURN/EXHAUST	6x6	0–100	NECK SIZE PLUS 1–3/4"	SURFACE MOUNT	DOUBLE DEFLECTION GRILLE	OFF–WHITE	PROVIDE WITH SQUARE TO ROUND TRANSITION.
			8x6	101–175					
			12x8	176–350					
			28X28	1500–2600					

THERMOSTAT MOUNTING HEIGHT



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

DESIGNER

SILLMAN WRIGHT ARCHITECTS
7515 Metropolitan Dr.
Suite 400
San Diego, CA 92108
T 619.294.7515
F 619.294.7592
www.sillmanwright.com

CONSULTANTS

DEC ENGINEERS
7340 CARROLL ROAD, STE. 100
SAN DIEGO, CA 92121
PH 858 576.3270 FX 858 576.3273
DEC PROJECT P5222

REGISTRATION STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER D. DECKER
NO.M30087
9/15
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.: 17010
DRAWN BY: Author
CHECKED BY: Checker
SCALE: 1/4" = 1'-0"

DESIGN ITERATION

PRELIMINARY

DATE

DATE: 1.3.2018

SHEET TITLE

MECHANICAL NOTES, LEGEND, AND SCHEDULES

SHEET NUMBER

M0.1

STATE OF CALIFORNIA
MECHANICAL VENTILATION AND REHEAT
CEC-NRCC-MCH-03-E (Revised 05/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-03-E
Mechanical Ventilation & Reheat	(Page 1 of 2)
Project Name: Palo Verde Community College - Needles Center	Date Prepared: 10/5/2017

A. Mechanical Ventilation and Reheat

ACTUAL DESIGN INFO (FROM EQUIPMENT SCHEDULES, ETC)						AREA BASIS			OCCUPANCY BASIS			ROOM BASIS	MINIMUM		VAV Reheated Primary Air CFM			VAV Deadband Primary Air CFM		
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
ZONE/ SYSTEM/ VAV BOX TAG	DESIGN PRIMARY COOLING AIRFLOW (CFM)	DESIGN PRIMARY DEADBAND AIRFLOW (CFM)	DESIGN PRIMARY HEATING AIRFLOW (CFM)	CNTRL TYPE DDC (Y/N)	TRANSFER AIRFLOW (CFM)	CONDITIONED AREA (ft²)	MIN CFM PER AREA	MIN CFM BY AREA	NUM. OF PEOPLE	CFM PER PERSON	MIN CFM BY OCCUPANT	MIN CFM BY ROOM	REQ'D VENT AIRFLOW (CFM)	COMPLIES?	PERCENTAGE BASED DESIGN PRIMARY COOLING AIR (CFM)	MAXIMUM REHEAT (CFM)	COMPLIES?	% BASED DESIGN PRMY COOLNG AIR (CFM)	MAX DEAD BAND AIRFLOW (CFM)	COMPLIES?
Undefined Zone						3,119	0.38	1,170	85.2	15.0	1,277		1,277	☒ Pass ☐ Fail			☐ Pass ☐ Fail ☒ N/A			☐ Pass ☐ Fail ☒ N/A
											Total		1,277	☐ Pass ☐ Fail			☐ Pass ☐ Fail ☐ N/A			☐ Pass ☐ Fail ☐ N/A
														☐ Pass ☐ Fail			☐ Pass ☐ Fail ☐ N/A			☐ Pass ☐ Fail ☐ N/A
														☐ Pass ☐ Fail			☐ Pass ☐ Fail ☐ N/A			☐ Pass ☐ Fail ☐ N/A
														☐ Pass ☐ Fail			☐ Pass ☐ Fail ☐ N/A			☐ Pass ☐ Fail ☐ N/A
														☐ Pass ☐ Fail			☐ Pass ☐ Fail ☐ N/A			☐ Pass ☐ Fail ☐ N/A
														☐ Pass ☐ Fail			☐ Pass ☐ Fail ☐ N/A			☐ Pass ☐ Fail ☐ N/A

STATE OF CALIFORNIA
MECHANICAL SYSTEMS
CEC-NRCC-MCH-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-01-E
Mechanical Systems	(Page 1 of 4)
Project Name: Palo Verde Community College - Needles Center	Date Prepared: 10/5/2017

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

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

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

TITLE 24 NOTES

NO ENVELOPE MODIFICATIONS AND NO NEW HVAC EQUIPMENT. COMPLIANCE DOCUMENTATION NOT REQUIRED.

STATE OF CALIFORNIA
WATER HEATING SYSTEM GENERAL INFORMATION
CEC-NRCC-PLB-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-PLB-01-E
Water Heating System General Information	(Page 2 of 2)
Project Name: Palo Verde Community College - Needles Center	Date Prepared: 10/5/2017

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Jemar Quibuyen	Documentation Author Signature: [signature]
Company: DEC Engineers, Inc.	Signature Date: 10/5/2017
Address: 7360 Carroll Road, Suite 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Diego, CA 92121	Phone: (858) 578-3270

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: Christopher Deck	Responsible Designer Signature: [signature]
Company: DEC Engineers	Date Signed: 10/5/2017
Address: 7360 Carroll Road Suite 100	License: M30087
City/State/Zip: San Diego, CA 92121	Phone: (858) 578-3270

STATE OF CALIFORNIA
WATER HEATING SYSTEM GENERAL INFORMATION
CEC-NRCC-PLB-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-PLB-01-E
Water Heating System General Information	(Page 1 of 2)
Project Name: *Palo Verde Community College - Needles Center*	Date Prepared: *10/5/2017*

A. GENERAL INFORMATION/SYSTEM INFORMATION

01	Water Heater System Name:	*Bradford White LE140L3-3*
02	Water Heater System Configuration:	*Non-Central*
03	Water Heater System Type:	
04	Building Type:	
05	Total Number of Water Heaters in Systems:	*1*
06	Central DHW Distribution Type:	*n/a*
07	Dwelling Unit DHW Distribution Type:	*Standard*

B. WATER HEATER INFORMATION
Each water heater type requires a separate compliance document.

01	Water Heater Type:	*Small Storage Electric*
02	Fuel Type:	*Electric Res*
03	Manufacture Name:	*Bradford White LE140L3-3*
04	Model Number:	
05	Number of Identical Water Heaters:	*1*
06	Installed Water Heater System Efficiency:	*0.99*
07	Required Minimum Efficiency:	*0.99*
08	Standby Loss Percent or Standby Loss Total:	*0.000*
09	Rated Input:	*20,478*
10	Pilot Energy:	
11	Water Heater Tank Storage Volume:	*40*
12	Exterior Insulation on Water Heater:	*0*
13	Volume of Supplemental Storage:	
14	Internal Insulation on Supplemental Storage:	
15	Exterior Insulation on Supplemental Storage:	

C. PLUMBING COMPLIANCE FORMS & WORKSHEETS
Check box if worksheet is included.
For detailed instructions on the use of this and all Energy Standards compliance documents, refer to the 2016 Nonresidential Manual
Note: The Enforcement Agency may require all compliance documents to be incorporated onto the building plans.

YES	NO	Doc/Worksheet #	Title
☒	☐	NRCC-PLB-01-E	Certificate of Compliance, Declaration. Required on plans for all submittals.
☒	☐	NRCI-PLB-01-E	Certificate of Installation. Required on plans for all submittals.
☐	☐	NRCI-PLB-02-E	Certificate of Installation, required on central systems in high-rise residential, hotel/motel application.
☐	☐	NRCI-PLB-03-E	Certificate of Installation, required on single dwelling unit systems in high-rise residential, hotel/motel application.
☐	☐	NRCI-PLB-21-H	Certificate of Installation, required on HERS verified central systems in high-rise residential, hotel/motel application.
☐	☐	NRCI-PLB-22-H	Certificate of Installation, required on HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.
☐	☐	NRCI-STH-01-E	Certificate of Installation, required on any solar water heating

STATE OF CALIFORNIA
FAN POWER CONSUMPTION
CEC-NRCC-MCH-07-E (Revised MM/YY) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-07-E
Power Consumption of Fans Requirements	(Page 2 of 2)
Project Name: Palo Verde Community College - Needles Center	Date Prepared: 10/5/2017

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Jemar Quibuyen	Documentation Author Signature: [signature]
Company: DEC Engineers, Inc.	Signature Date: 10/5/2017
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City/State/Zip: San Diego, CA 92121	Phone: (858) 578-3270

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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: Christopher Deck	Responsible Designer Signature: [signature]
Company: DEC Engineers	Date Signed: 10/5/2017
Address: 7360 Carroll Road Suite 100	License: M30087
City/State/Zip: San Diego, CA 92121	Phone: (858) 578-3270

STATE OF CALIFORNIA
FAN POWER CONSUMPTION
CEC-NRCC-MCH-07-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-07-E
Power Consumption of Fans Requirements	(Page 1 of 2)
Project Name: *Palo Verde Community College - Needles Center*	Date Prepared: *10/5/2017*

A. Constant Volume Fan Systems
NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater than 25 hp of Constant Volume Fan Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c).

01	02	03		04	05
FAN DESCRIPTION	DESIGN BRAKE HP	EFFICIENCY MOTOR	EFFICIENCY DRIVE	NUMBER OF FANS	PEAK WATTS A02 x A04 x 746 / (A03a x A03b)

B. Variable Air Volume Fan Systems
NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater than 25 hp of Variable Air Volume (VAV) Systems when using the Prescriptive Approach. See Power Consumption of fans §140.4(c).

01	02	03		04	05
FAN DESCRIPTION	DESIGN BRAKE HP	EFFICIENCY MOTOR	EFFICIENCY DRIVE	NUMBER OF FANS	PEAK WATTS B02 x B04 x 746 / (B03a x B03b)
(E) AH-2 - Supply Fan	*15.000*	*93.0 %*	*97.0 %*	*1.0*	*12,404*

C. Totals and Adjustments

FILTER PRESSURE ADJUSTMENT Equation 140.4-A in §140.4(c) of the Building Energy Efficiency Standards. A) If filter pressure drop (SP_a) is greater than 1 inch W. C. or 245 Pascal then enter SP_a on line 4. Enter Total Fan pressure drop across the fan (SP_f) on line 5. B) Calculate Fan Adjustment and enter on line 6. C) Calculate Adjusted Fan Power Index and enter on row 7	01	TOTAL FAN SYSTEM POWER (WATTS, SUM COLUMN F)	*12,404*	W
	02	SUPPLY DESIGN AIRFLOW	*12,100*	CFM
	03	TOTAL FAN SYSTEM POWER INDEX (Row 1 / Row 2)[1]	*1.025*	W/CFM
	04	SP_a		in W.C or Pa
	05	SP_f		in W.C or Pa
	06	Fan Adjustment = 1-(SP_a – 1)/SP_f		
	07	ADJUSTED FAN POWER INDEX (Line 3 x Line 6)[1]	*1.025*	W/CFM

1. TOTAL FAN SYSTEM POWER INDEX or ADJUSTED FAN POWER INDEX must not exceed 0.8 W/cfm for Constant Volume systems or 1.25 W/cfm for VAV systems.

STATE OF CALIFORNIA
MECHANICAL VENTILATION AND REHEAT
CEC-NRCC-MCH-03-E (Revised 05/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-03-E
Mechanical Ventilation & Reheat	(Page 2 of 2)
Project Name: Palo Verde Community College - Needles Center	Date Prepared: 10/5/2017

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Jemar Quibuyen	Documentation Author Signature: [signature]
Company: DEC Engineers, Inc.	Signature Date: 10/5/2017
Address: 7360 Carroll Road, Suite 100	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Diego, CA 92121	Phone: (858) 578-3270

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: Christopher Deck	Responsible Designer Signature: [signature]
Company: DEC Engineers	Date Signed: 10/5/2017
Address: 7360 Carroll Road Suite 100	License: M30087
City/State/Zip: San Diego, CA 92121	Phone: (858) 578-3270

STATE OF CALIFORNIA
REQUIRED ACCEPTANCE TESTS
CEC-NRCC-MCH-04-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-04-E
Required Acceptance Tests	(Page 1 of 3)
Project Name: Palo Verde Community College - Needles Center	Date Prepared: 10/5/2017

A. MECHANICAL COMPLIANCE FORMS & WORKSHEETS
(indicate if worksheet is included)
For detailed instructions on the use of this and all Energy Standards compliance documents, refer to the 2016 Nonresidential Manual
Note: The Enforcement Agency may require all compliance documents to be incorporated onto the building plans. The NRCC-MCH-04-E and NRCC-MECH-05-E are alternative compliance documents to NRCC-MCH-01-E, NRCC-MCH-02-E and NRCC-MCH-03-E for projects using only single zone packaged HVAC systems.

YES	NO	Form	Title
	✓	NRCC-MCH-04-E (1 of 2)	Certificate of Compliance. Required on plans when used.
	✓	NRCC-MCH-04-E (2 of 2)	Mechanical Acceptance Tests. Required on plans when used.
	✓	NRCC-MCH-05-E (1 of 2)	HVAC Prescriptive Requirements. It is required on plans when used.
	✓	NRCC-MCH-05-E (2 of 2)	Mechanical SWH Equipment Summary is required for all submittals with service water heating, pools or spas. It is required on plans where applicable.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

DESIGNER

SILLMAN WRIGHT ARCHITECTS
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DEC PROJECT #5222

REGISTRATION STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER D. DECK
NO.M30087
EXP. 9/18
MECHANICAL
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	Author
CHECKED BY:	Checker
SCALE:	1/4" = 1'-0"

DESIGN ITERATION

PRELIMINARY

DATE

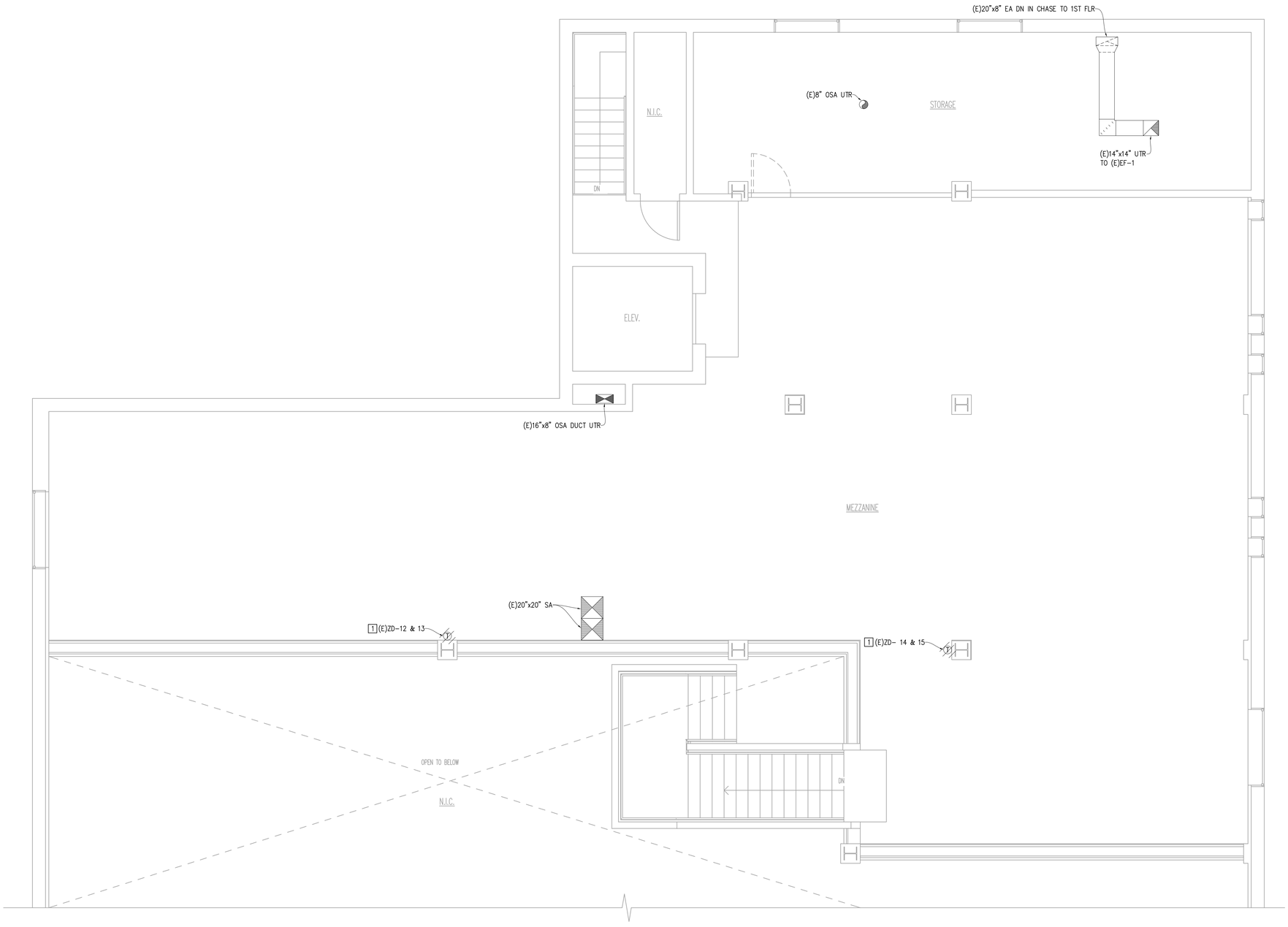
DATE: 1.3.2018

SHEET TITLE

TITLE 24

SHEET NUMBER

M0.2



DEMOLITION NOTES

1 REMOVE AND RELOCATE EXISTING THERMOSTAT. REFER TO 1/M2.1.

MECHANICAL DEMOLITION FLOOR PLAN

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

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REGISTRATION STAMP

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NO.M30087
9/20
STATE OF CALIFORNIA

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DESIGN ITERATION

PRELIMINARY

DATE

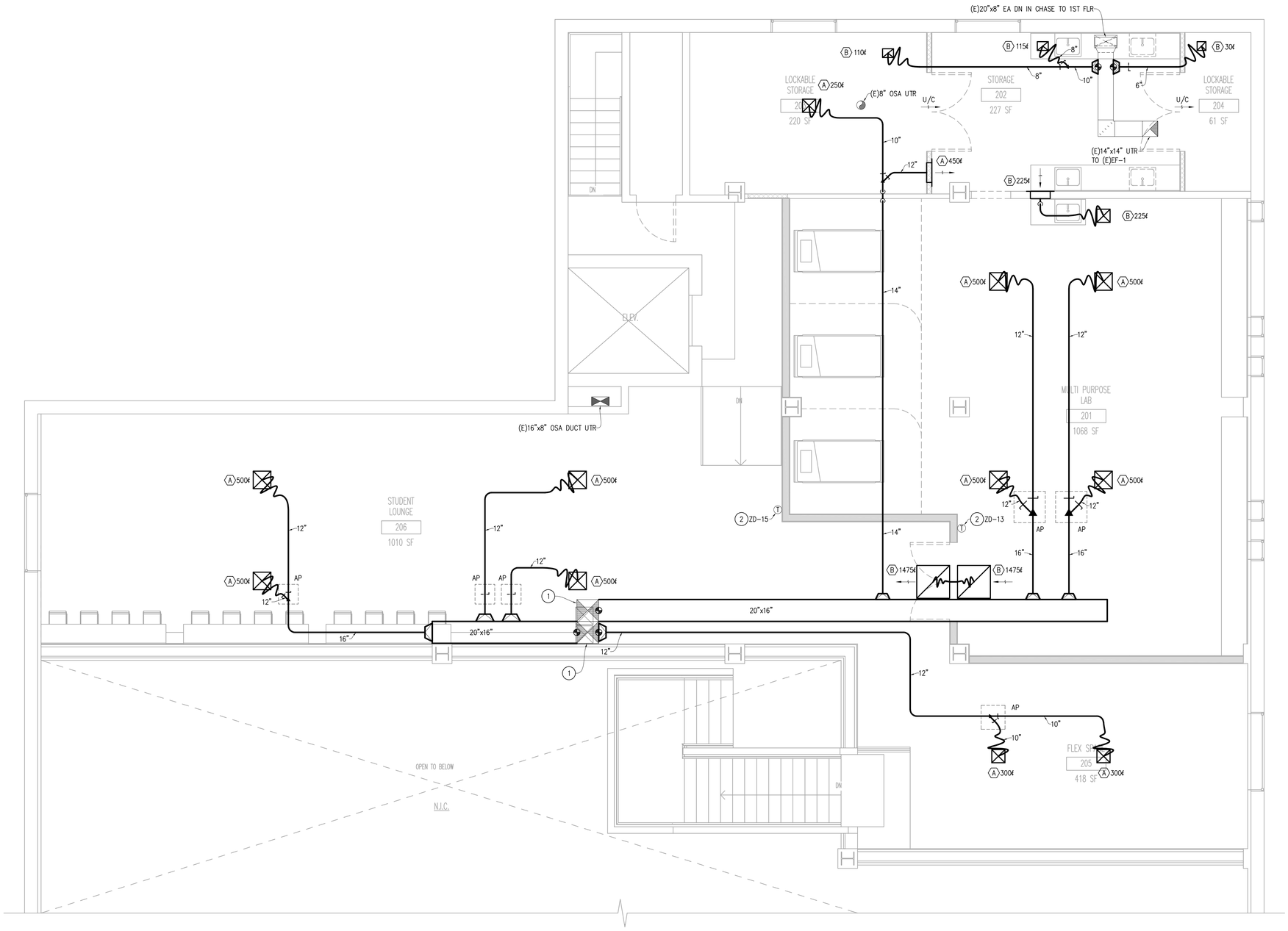
DATE: 1.3.2018

SHEET TITLE

MECHANICAL
DEMOLITION
FLOOR PLAN

SHEET NUMBER

M1.1



NEW WORK NOTES

1. EXTEND SUPPLY DUCTS UP ABOVE HARD LID CEILING.
2. RELOCATED EXISTING THERMOSTAT.

MECHANICAL NEW WORK FLOOR PLAN

SCALE 1/4" = 1'-0"

1

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OF CALIFORNIA

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PRELIMINARY

DATE

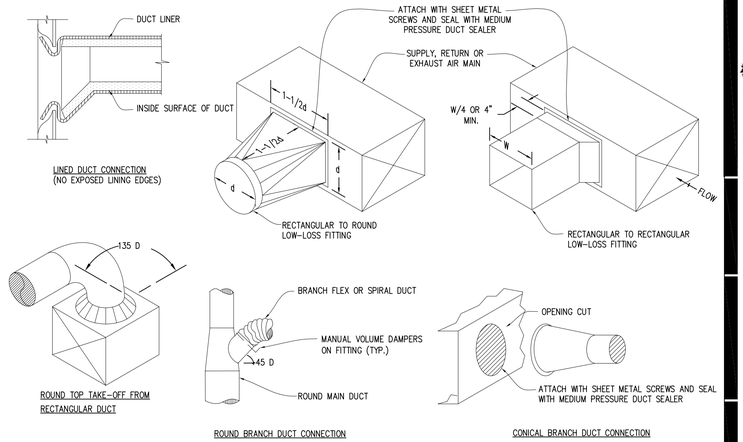
DATE: 1.3.2018

SHEET TITLE

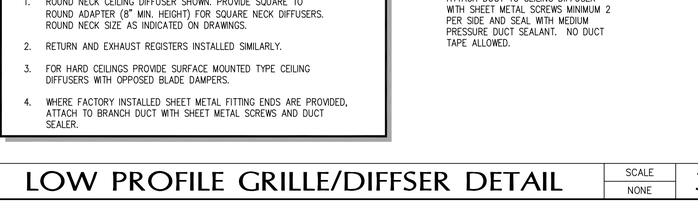
MECHANICAL
NEW WORK
FLOOR PLAN

SHEET NUMBER

M2.1



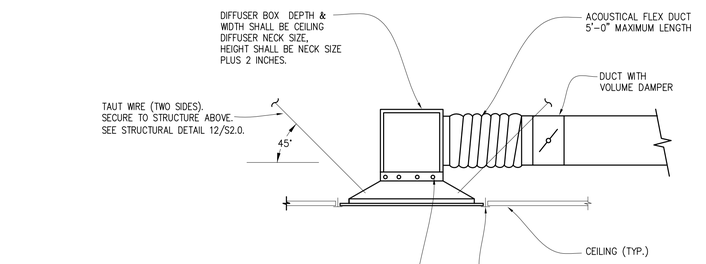
-	SCALE NONE	7	-	SCALE NONE	4	BRANCH TAKEOFFS	SCALE NONE	1



SMACNA STANDARDS

1. ALL DUCT SUPPORT AND STRAPPING SHALL BE PER SMACNA HVAC DUCT CONSTRUCTION STANDARDS, OSHPD EDITION (2009).

-	SCALE NONE	8	-	SCALE NONE	5	DUCT SUPPORTS	SCALE NONE	2



NOTES

1. ROUND NECK CEILING DIFFUSER SHOWN. PROVIDE SQUARE TO ROUND ADAPTER (8" MIN. HEIGHT) FOR SQUARE NECK DIFFUSERS. ROUND NECK SIZE AS INDICATED ON DRAWINGS.
2. RETURN AND EXHAUST REGISTERS INSTALLED SIMILARLY.
3. FOR HARD CEILINGS PROVIDE SURFACE MOUNTED TYPE CEILING DIFFUSERS WITH OPPOSED BLADE DAMPERS.
4. WHERE FACTORY INSTALLED SHEET METAL FITTING ENDS ARE PROVIDED, ATTACH TO BRANCH DUCT WITH SHEET METAL SCREWS AND DUCT SEALER.

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-	SCALE NONE	9	-	SCALE NONE	6	LOW PROFILE GRILLE/DIFFSER DETAIL	SCALE NONE	3

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9/30
STATE OF CALIFORNIA

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SHEET TITLE

MECHANICAL DETAILS

SHEET NUMBER

M5.1

FIXTURE CONNECTION SCHEDULE

MARK	DESCRIPTION	MINIMUM PIPE CONNECTION				MANUFACTURER / MODEL NUMBER
		CW ROUGH-IN	HW ROUGH-IN	WASTE	VENT	
S-1	SINK	3/4"	3/4"	2"	2"	ELKAY #LRAD1918 TOP MOUNT, STAINLESS STEEL SINK WITH 3 FAUCET HOLES ON 4" CENTERS, 19"x18"x6-1/2". PROVIDE WITH SYMMONS #S-26-IPS-2.0 KITCHEN FAUCET WITH 2.0 GPM FLOW CONTROL.
FD-1	FLOOR DRAIN	–	–	SEE PLANS FOR SIZES		ZURN # Z415B, FLOOR DRAIN WITH CAST IRON BODY, ANCHOR FLANGE AND ROUND, ADJUSTABLE, WIDE FLANGE NICKEL BRONZE STRAINER HEAD
FS-1	FLOOR SINK	–	–	SEE PLANS FOR SIZES		ZURN # Z1910-K, FLOOR SINK, CAST IRON FLANGED RECEPTOR WITH SEEPAGE HOLES, ACID RESISTANT COATED INTERIOR, NICKEL BRONZE RIM WITH 1/2 GRATE.

ELECTRIC WATER HEATER

UNIT NO.	MANUFACTURER & MODEL NO.	SERVICE	LOCATION	UNIT CAPACITY			SYSTEM OUTLET TEMP. (°F)	ELEC. DATA	WATTAGE (WATT)	OVERALL DIMENSIONS (DxH)	OPER. WT. (LBS)
				STORAGE (GALLONS)	RECOVERY GPH	DEGREE RISE °F		V/PH/HZ			
WH 1	BRADFORD WHITE LE140L3-3	DOMESTIC	STORAGE	40	18	100	120	SEE ELECTRICAL	SEE ELECTRICAL	22" x 31"	450

EXPANSION TANK

UNIT NO.	MANUFACTURER & MODEL NO.	DESCRIPTION	SERVICE	LOCATION	OVERALL DIMENSIONS (DxH)	REMARKS
ET 1	AMTROL #ST-5	EXPANSION TANK	DOMESTIC	STORAGE	8" x 13"	2.0 GALLON EXPANSION TANK, NON-ASME RATED, FACTORY PRE-CHARGED BLADDER.

CIRCULATION PUMPS

UNIT NO.	MANUFACTURER & MODEL NO.	LOCATION	TYPE	DESIGN CAPACITY		ELEC. DATA			OVERALL DIMENSION (LxWxH)	OPR. WT. (LBS)	REMARKS
				PUMP GPM	PUMP HEAD (FT)	MOTOR HP	MOTOR RPM	V/PH/HZ			
CP 1	BELL & GOSSETT #NBF-9U	STORAGE	IN-LINE	5	11	1/16	2800	115/1/60	6"x5"x4"	9.3	PROVIDE AQUASTAT CONTROLLER TO ACTIVATE PUMP WHEN HOT WATER RETURN REACHES 110°F AND DEACTIVATE PUMP AT 120°F

THERMOSTATIC MIXING VALVE

MARK	DESCRIPTION	MANUFACTURER & MODEL NUMBER	LOCATION	OPER. WT. (LBS)	REMARKS
TMV 1	THERMOSTATIC MIXING VALVE	BRADLEY # S59-2045	–	–	LEAD FREE THERMOSTATIC MIXING VALVE, SET AT 120°F, 5 GPM, 0.5 GPM MINIMUM FLOW.

TRAP PRIMER

UNIT NO.	MANUFACTURER & MODEL NO.	DESCRIPTION	OVERALL DIMENSIONS (LxWxH)	REMARKS
TP 1	PPP, INC. # PR-500	TRAP PRIMER	½"ø x 5"	BRASS BODY, PISTON OPERATED. INCLUDE PPP # DU-4 DISTRIBUTION UNIT FOR MULTIPLE DRAIN CONNECTIONS. INSTALL BOTTOM OF DISTRIBUTION UNIT MIN. 12" AFF. TO INSURE PROPER FLOW OF PRIMING WATER TO DRAIN TRAP CONNECTION.

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PLUMBING GENERAL NOTES

1. CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. CONTRACTOR SHALL ALSO REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES (INCLUDING CIVIL, STRUCTURAL, AND ELECTRICAL) PRIOR TO BID TO INSURE AN ACCURATE UNDERSTANDING OF EXACT SCOPE OF WORK. ANY ITEMS REQUIRING CLARIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN SUFFICIENT TIME TO BE INCORPORATED INTO THE BID.
2. CONTRACTOR SHALL VERIFY ALL EQUIPMENT MODEL NUMBERS, CAPACITIES, SIZES, VOLTAGES, AND ALL OTHER SCHEDULED INFORMATION WITH OTHER APPLICABLE TRADES AND WITH THE MANUFACTURER PRIOR TO INSTALLATION.
3. CONTRACTOR SHALL VERIFY ALL LOCATIONS, SIZES, POC'S, INVERT ELEVATIONS, AND AVAILABILITY OF ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF ANY MATERIAL OR EQUIPMENT.
4. THESE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL DETAILS AND NECESSARY OFFSETS OF PIPING. THE CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT IN A MANNER AS TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. ALL INSTALLATIONS SHALL BE CONSISTENT WITH NORMALLY ACCEPTABLE INDUSTRY STANDARDS.
5. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR CONFLICTS THAT WOULD EFFECT THE SYSTEM PERFORMANCE OR INCUR ADDITIONAL COSTS. THIS NOTIFICATION SHALL BE SUBMITTED PRIOR TO INSTALLATION OF THE ITEMS CONCERNED.
6. NEW AND/OR EXISTING EQUIPMENT INDICATED ON THIS DRAWING IS SHOWN IN APPROXIMATE POSITION(S). CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING EQUIPMENT LOCATIONS, POC'S AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. IN ALL CASES, ADEQUATE ACCESS (PER MANUFACTURERS RECOMMENDATIONS AND CODE COMPLIANCE) FOR MAINTENANCE AND REPLACEMENT OF EQUIPMENT SHALL BE PROVIDED.
7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN ON THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATIONS OR CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO MANUFACTURERS INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS.
8. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT THE INSTALLATIONS AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORMS TO MANUFACTURERS INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.
9. SUBSTITUTION OF PLUMBING EQUIPMENT WITH EFFICIENCIES LOWER THAN THOSE INDICATED ON THE PLANS MAY REQUIRE RE-CALCULATION OF TITLE 24 DOCUMENTS. IF THE CONTRACTOR CHOOSES TO UTILIZE SUCH EQUIPMENT, HE ASSUMES FULL RESPONSIBILITY FOR THE RE-CALCULATION AND JURISDICTIONAL APPROVAL OF TITLE 24 DOCUMENTS.
10. IF THE CONTRACTORS' USE OF SUBSTITUTE MATERIALS, EQUIPMENT OR METHODS OF INSTALLATION REQUIRES ANY CHANGES IN OTHER TRADES WORK FROM THAT SHOWN ON THE DRAWINGS, THE EXTRA COST OF THE OTHER TRADES' WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INITIATING THE SUBSTITUTION.
11. SUBMITTALS: APPROVAL OF THE SUBMITTALS DOES NOT RELEASE THE CONTRACTOR FROM OBLIGATIONS TO FULLY COMPLY WITH ALL REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS OR APPLICABLE CODE REGULATIONS.
12. ALL PLUMBING EQUIPMENT, MATERIAL, AND ALL CONNECTIONS THERETO SHALL BE INSTALLED COMPLETE PER MANUFACTURERS INSTRUCTIONS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM.
13. PLUMBING EQUIPMENT SHALL BE CERTIFIED BY AND COMPLY WITH THE STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS (E.E.S.) SECTION 113. COMPLIANCE CERTIFICATES SHALL BE PROVIDED WITH EQUIPMENT SUBMITTALS.
14. ALL INSULATING MATERIALS INSTALLED MUST BE CERTIFIED BY CALIFORNIA ENERGY COMMISSION TO MEET C.E.C. ENERGY EFFICIENCY STANDARDS (E.E.S.) SECTION 118, 123 AND 124.
15. WATER HEATERS FOR DOMESTIC HOT WATER SHALL COMPLY WITH THE STATE OF CALIFORNIA ENERGY EFFICIENCY STANDARDS (E.E.S.) SECTION 113, AND 114.
16. SOIL, SEWER AND WASTE PIPING SHALL SLOPE AT 1/4" PER FOOT MINIMUM. UNLESS OTHERWISE NOTED.
17. ALL PLUMBING SOLDER SHALL BE LEAD FREE.
18. ALL COMPONENTS OF POTABLE WATER SYSTEM, INCLUDING SHUT OFF VALVES, ANGLE STOPS, AND PLUMBING FIXTURE SHALL COMPLY WITH CALIFORNIA LAW AB 1953 AND SECTION 116875 OF THE CALIFORNIA HEALTH AND SAFETY CODE.
19. PROVIDE CLEANOUTS EVERY 100' AND AT ANY CHANGE OF DIRECTION EXCEEDING 135 DEGREES.

PLUMBING PLAN CHECK NOTES

1. WHERE PLUMBING PENETRATES THE FIRE RESISTIVE WALLS (AREA SEPARATION AND OCCUPANCY SEPARATION), THE SECTION PASSING THROUGH THE WALL SURFACE, AND THE FIXTURE CONNECTIONS ATTACHED THERETO, SHALL MEET CBC, FIRE AND TEMPERATURE RATING.
2. ALL WATER HEATERS SHALL BE LISTED IN THE CEC LIST OF APPROVED WATER HEATERS.
3. ALL PLUMBING FIXTURES, FAUCETS AND SHOWER HEADS SHALL COMPLY WITH CALIFORNIA GREEN BUILDING CODE MAXIMUM FLOW REQUIREMENTS PER MINUTE.(1.5 GPM FOR FAUCETS) (2.0 GPM FOR SHOWER HEADS) (1.28 GPF FOR WATER CLOSETS) (1.0 GPF FOR URINALS)
4. ALL SERVICE HOT WATER AND HOT WATER RETURN PIPING SHALL BE INSULATED IN ACCORDANCE WITH 609.11 CPC. HOT WATER PIPE INSULATION SHALL HAVE A MINIMUM WALL THICKNESS OF NOT LESS THAN THE DIAMETER OF THE PIPE UP TO 2 INCHES (50mm) IN DIAMETER. INSULATION WALL THICKNESS SHALL BE NOT LESS THAN 2 INCHES (51mm) FOR A PIPE OF 2 INCHES (50mm) OR MORE IN DIAMETER.
5. SLOPE ALL ABOVE AND BELOW GRADE STORM WATER PIPING AT 1/8" PER FOOT (1%).
6. VALVES, FIXTURES AND ALL OTHER APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF CALIFORNIA ASSEMBLY BILL AB1953, LOW LEAD CONTENT AS APPLICABLE.
7. EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX (6) INCHES ABOVE THE FLOOD-LEVEL RIM OF THE FIXTURE SERVED BEFORE OFFSETTING HORIZONTALLY OR BEFORE BEING CONNECTED TO ANY OTHER VENT.
8. VENTS LESS THAN SIX (6) ABOVE THE FLOOD LEVEL RIM OF THE FIXTURE SHALL BE INSTALLED WITH APPROVED DRAINAGE FITTINGS, MATERIAL, AND GRADE TO THE DRAIN.
9. EACH PLUMBING FIXTURE THAT CONNECTS TO THE SANITARY SEWER SYSTEM SHALL BE PROPERLY TRAPPED AND VENTED IN ACCORDANCE WITH THE 2013 CALIFORNIA PLUMBING CODE.

SPECIAL NOTE TO PLUMBING CONTRACTOR

THE DESIGN OF THIS PROJECT WAS BASED UPON INFORMATION CONTAINED IN DRAWINGS PROVIDED BY THE PROPERTY OWNER. DISCREPANCIES BETWEEN INDICATED AND ACTUAL FIELD CONDITIONS MAY EXIST. IT IS A REQUIREMENT THAT THE CONTRACTOR VISIT THE SITE AND WALK THE JOB BEFORE SUBMITTING HIS BID AND SHALL MAKE ALL ALLOWANCES FOR PLAN/FIELD CONDITION DISCREPANCIES PRIOR TO SUBMITTING FOR BID. DURING THE CONSTRUCTION PROCESS IF A DISCREPANCY IS FOUND TO EXIST, THE CONTRACTOR SHALL DETERMINE A FIELD SOLUTION TO RESOLVE THE PROBLEM, AND THEN FORWARD THIS INFORMATION TO THE ARCHITECT FOR SUBMITTAL TO THE ENGINEER FOR APPROVAL. ADDITIONALLY, SEE PLUMBING GENERAL NOTES, SHEET P0.1.

ANCHORAGE & BRACING NOTE

MEP COMPONENT ANCHORAGE NOTE

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 FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED TO BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

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B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

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

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MP [X] MD ☐ PP ☐ E ☐ OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

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

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

LEGEND

SYMBOL	ABBR.	DESCRIPTION
	POC	POINT OF CONNECTION
	POD	POINT OF DISCONNECTION
— (E) —	(E)	EXISTING PIPING – SEE PLANS FOR TYPE
		REMOVE EXIST. EQUIP. OR PIPES SHOWN HATCHED
— — —	S OR W	SOIL OR WASTE BELOW FLOOR OR GRADE
———	S OR W	SOIL OR WASTE ABOVE FLOOR OR GRADE
- - - - -	V	SANITARY VENT
—·—·—	CW	COLD WATER (DOMESTIC)
	FCO	FLOOR CLEAN OUT
	WCO	WALL CLEAN-OUT OR CLEAN-OUT BELOW FLOOR
		DOWN OR DROP
		UP OR RISE
	A/C	ABOVE CEILING
	ARCH	ARCHITECT OR ARCHITECTURAL
	B/G	BELOW GRADE
	B/F	BELOW FLOOR
	B/S	BELOW SLAB
	DN	DOWN
	EXIST	EXISTING
	FIN	FINISH OR FINISHED
	FLR	FLOOR
	FT	FEET OR FOOT
	GPM	GALLONS PER MINUTE
	N.I.C.	NOT IN CONTRACT
	NTS	NOT TO SCALE
	TYP	TYPICAL
	VTR	VENT THROUGH ROOF
	CD	CONDENSATE PIPING
	G	GAS PIPING
	HPG	HIGH PRESSURE GAS

PIPE MATERIALS SCHEDULE

DOMESTIC WATER PIPING ABOVE, INSIDE BUILDING:

1. TYPE "L" COPPER TUBING, HARD DRAWN CONFORMING TO ASTM B 88, WITH WROUGHT COPPER SOLDER SWEAT FITTINGS CONFORMING TO ASTM B 16.22.

SEWER WASTE PIPING:

1. CAST IRON "NO-HUB" CONFORMING TO CISPI 301 AND ASTM A 888 WITH NEOPRENE GASKET AND 300 SERIES STAINLESS STEEL CLAMPING DEVICE CONFORMING TO CISPI 310.
   A. DRAIN PIPING: HEAVY DUTY, SHIELDED. STAINLESS-STEEL COUPLINGS: WITH STAINLESS-STEEL SHIELD, STAINLESS-STEEL BANDS AND TIGHTENING DEVICES, AND ASTM C 564, RUBBER SLEEVE.
   B. VENT PIPING: STANDARD, SHIELDED. CISPI 310 STAINLESS-STEEL COUPLINGS: WITH STAINLESS-STEEL SHIELD, STAINLESS-STEEL BANDS AND TIGHTENING DEVICES, AND ASTM C 564, RUBBER SLEEVE.

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

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DESIGNER

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REGISTRATION STAMP

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER D. DECKER
NO. M 30087
9/30
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.: 17010
DRAWN BY: Author
CHECKED BY: Checker
SCALE: 1/4" = 1'-0"

DESIGN ITERATION

PRELIMINARY

DATE

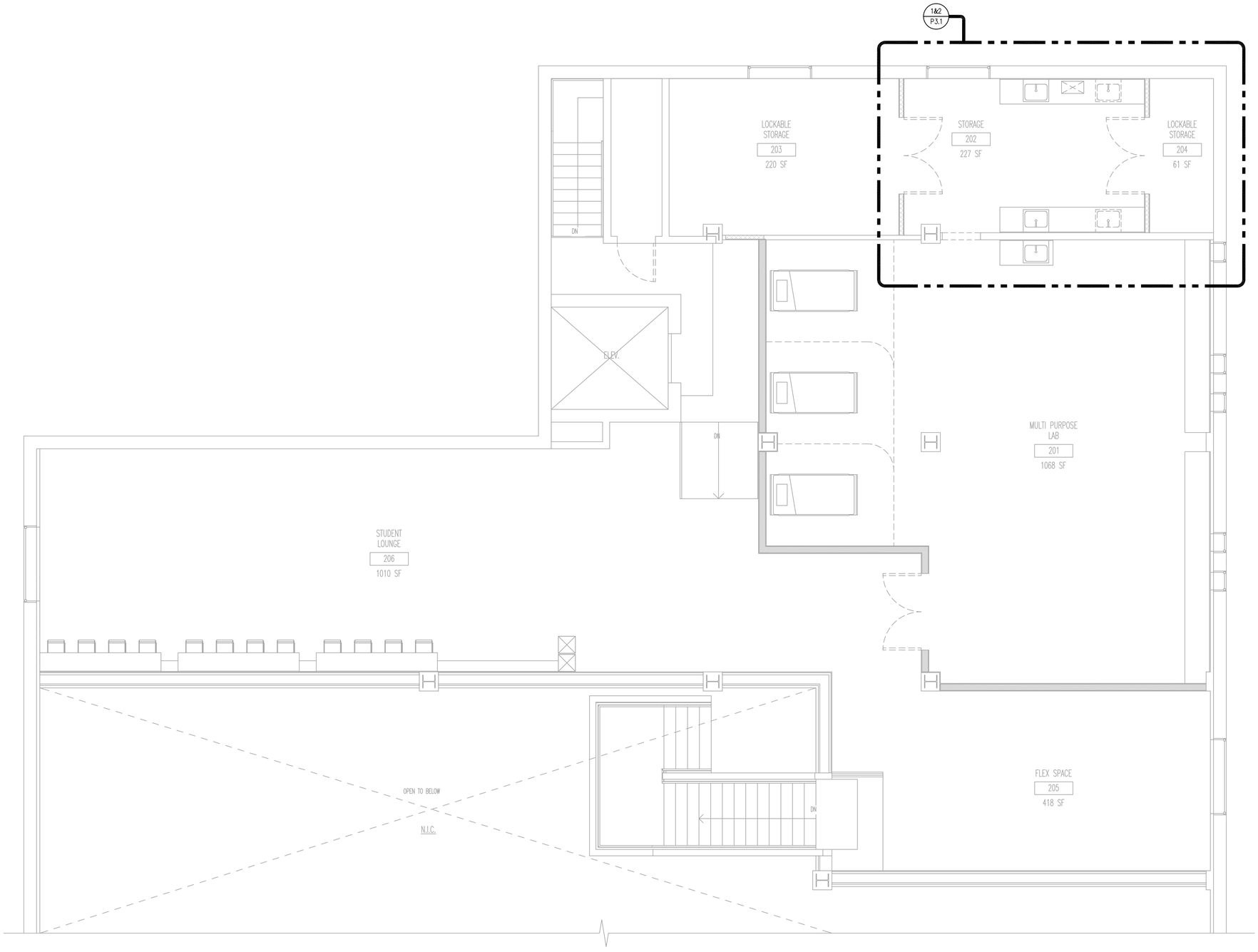
DATE: 1.3.2018

SHEET TITLE

PLUMBING NOTES, LEGEND, AND SCHEDULES

SHEET NUMBER

P0.1



NEW WORK NOTES

1 --

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DATE: 07/27/2020

PLUMBING NEW WORK FLOOR PLAN

SCALE 1/4" = 1'-0"

1

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9/20
MECHANICAL
STATE OF CALIFORNIA

ISSUE

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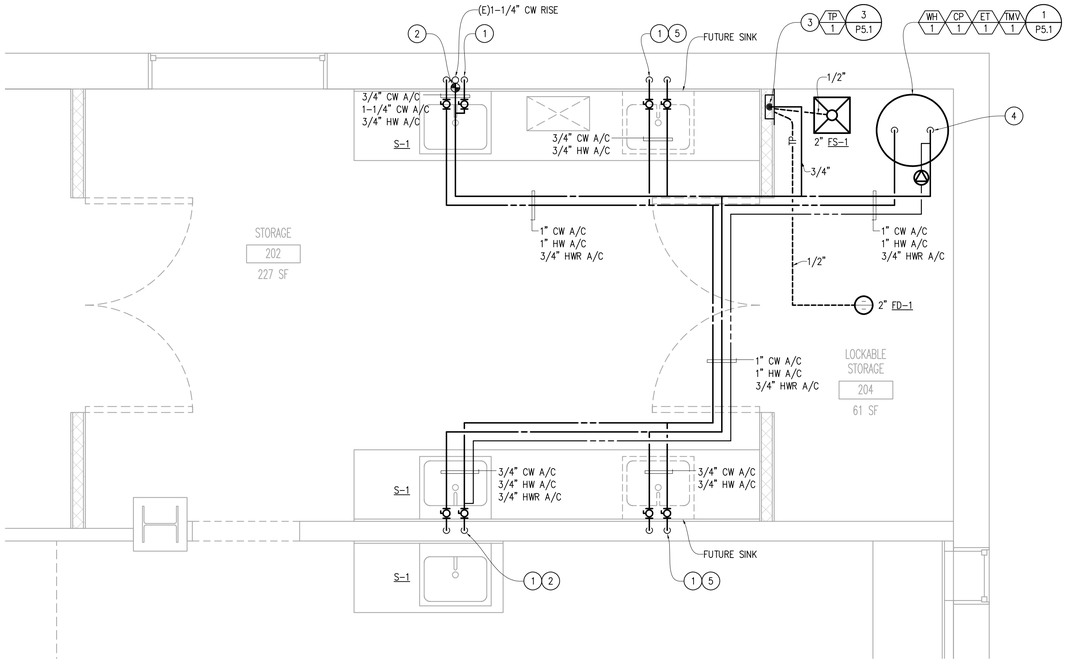
SHEET TITLE

PLUMBING
NEW WORK
FLOOR PLAN

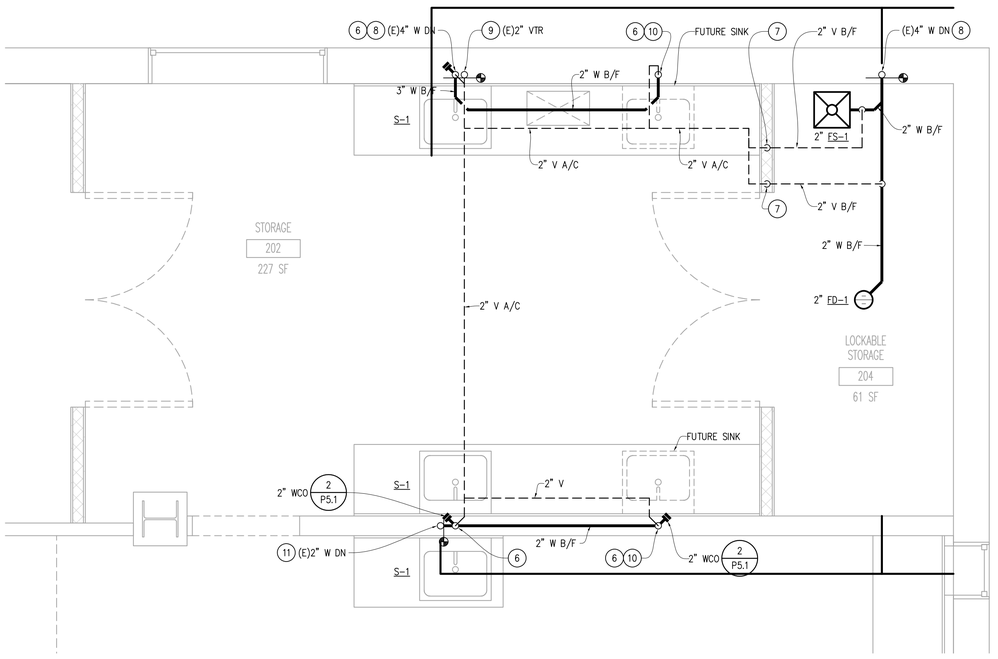
SHEET NUMBER

P2.1



PLUMBING ENLARGED NEW WORK FLOOR PLAN - DOMESTIC WATER

SCALE 1/2" = 1'-0" — 1



PLUMBING ENLARGED NEW WORK FLOOR PLAN - DWV

SCALE 1/2" = 1'-0" — 2

NEW WORK NOTES

1. 3/4" CW & HW DOWN IN WALL TO FIXTURE.
2. POC 1" CW TO EXISTING 1-1/4" CW RISE.
3. 3/4" CW DOWN IN WALL TO TRAP PRIMER.
4. 1" CW & HW DOWN TO WATER HEATER.
5. PROVIDE DOMESTIC WATER UTILITY ROUGH-INS FOR FUTURE SINK. COORDINATE FUTURE LOCATION WITH ARCHITECT PLANS.
6. 2" W DOWN, 2" VENT UP.
7. 2" V UP FROM BELOW FLOOR.
8. POC 2" WASTE TO EXISTING 4" WASTE. CONTRACTOR SHALL VERIFY EXACT LOCATION AND PIPE SIZE PRIOR TO INSTALLATION.
9. POC 2" VENT TO EXISTING 2" VENT. CONTRACTOR SHALL VERIFY EXACT LOCATION AND PIPE SIZE PRIOR TO INSTALLATION.
10. PROVIDE WASTE UTILITY ROUGH-INS FOR FUTURE SINK. COORDINATE FUTURE LOCATION WITH ARCHITECT PLANS.
11. POC 2" WASTE TO EXISTING 2" WASTE. CONTRACTOR SHALL VERIFY EXACT LOCATION AND PIPE SIZE PRIOR TO INSTALLATION.

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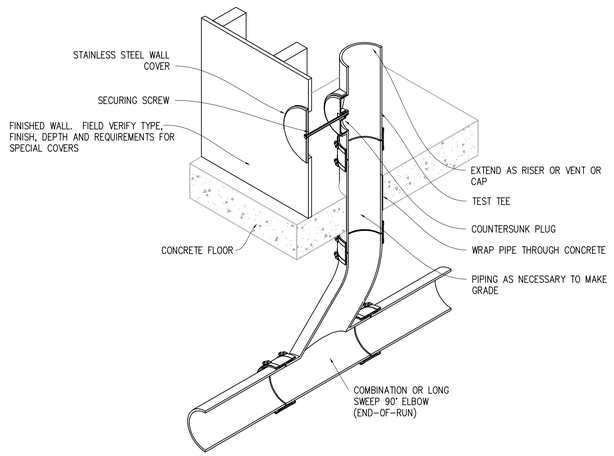
PLUMBING
NEW WORK
FLOOR PLAN

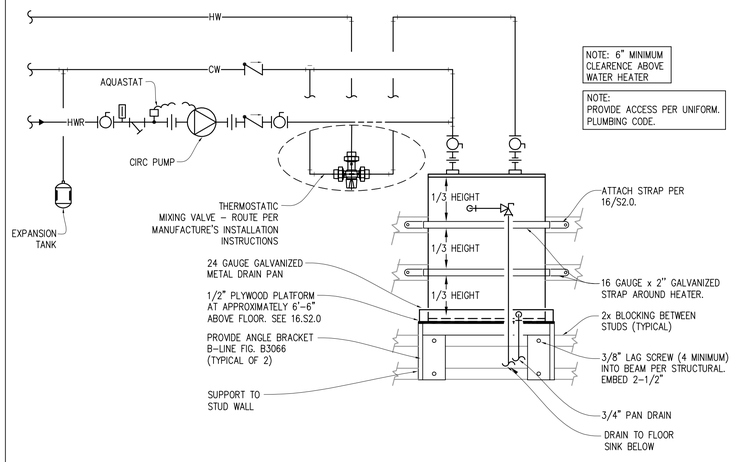
SHEET NUMBER

P3.1



WALL CLEANOUT

SCALE: NONE | 4



WATER HEATER DETAIL

SCALE: NONE | 1

NOTE:
TRAP PRIMER VALVE SHOULD BE MOUNTED 12" ABOVE FINISHED FLOOR FOR EVERY 20 FEET OF PRIMER PIPE

TRAP PRIMER

SCALE: NONE | 2

CAST-IRON NO-HUB PIPING SHOWN. PIPE PER SPECIFIC MATERIAL SPECIFICATIONS AS LISTED ON DRAWINGS.

FLOOR CLEANOUT

SCALE: NONE | 3

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SHEET TITLE

PLUMBING DETAILS

SHEET NUMBER

P5.1

ELECTRICAL LEGEND

GENERAL

- 1 / E0.1 — DETAIL NUMBER DESIGNATION; SHEET DETAIL APPEARS (ILLUSTRATED ON)
- 1 — NOTE REFERENCE
- XXX / XXX — SHEET DETAIL APPEARS (ILLUSTRATED ON); DETAIL NUMBER DESIGNATION

POWER

+48"	INDICATES MOUNTING HEIGHT ABOVE FINISHED FLOOR
PH OR ø	PHASE
J	JUNCTION OF OUTLET BOX CEILING OR WALL MOUNTED AS INDICATED. LOCATE ABOVE ACCESSIBLE CEILING UON.
(E)	EMERGENCY BATTERY BACKUP LIGHT FIXTURE
	DUPLEX RECEPTACLE, FLUSH MOUNTED, THE BOTTOM OF THE OUTLET SHALL BE INSTALLED NOT LESS THAN 15" AFF UNLESS NOTED OTHERWISE.
	QUADRUPLEX RECEPTACLE, FLUSH MOUNTED, THE BOTTOM OF THE OUTLET SHALL BE INSTALLED NOT LESS THAN 15" AFF UNLESS NOTED OTHERWISE.
M	QUADRUPLEX TELECOMMUNICATION AND POWER OUTLETS IN FLUSH MOUNTED FLOOR BOX. PROVIDE CABLING AS SPECIFIED.
$	MOTOR RATED SWITCH
	POWER TRANSFORMER
	GROUND
3P / 100AS / 60AF	SWITCH AND FUSE DESIGNATION: NUMBER OF POLES; SWITCH SIZE; FUSE SIZE
3P / 225AF / 225AT	CIRCUIT BREAKER: NUMBER OF POLES; AMPS FRAME; AMPS TRIP; KAIC RATING

RACEWAYS

	CONDUIT TERMINATED AND CAPPED
	WIRING OR CONDUIT CONCEALED IN WALL OR CEILING
— — —	WIRING OR CONDUIT EXPOSED
	WIRING OR CONDUIT CONCEALED UNDERGROUND, OR IN FLOORS ABOVE GRADE LEVEL.
	FLEXIBLE CONDUIT CONDUIT
1ELA–1,3,5	HOMERUN TO PANELBOARD. TEXT INDICATES ELECTRICAL PANEL DESIGNATION AND CIRCUIT NUMBERS. MINIMUM CONDUIT SIZE SHALL BE 3/4". UNLESS OTHERWISE NOTED, PROVIDE BRANCH CIRCUIT AND FEEDER HOMERUNS WITH NOT MORE THAN THREE PHASE CONDUCTORS, THREE NEUTRAL CONDUCTORS AND ONE GROUND CONDUCTOR IN A SINGLE RACEWAY. PROVIDE ALL BRANCH CIRCUITS WITH A SEPARATE NEUTRAL CONDUCTOR.

LIGHTING

D	RECESSED DIMMER SWITCH. SHALL NOT BE MORE THAN 48" AFF.
	CEILING MOUNTED TWO–WAY OCCUPANCY DETECTOR

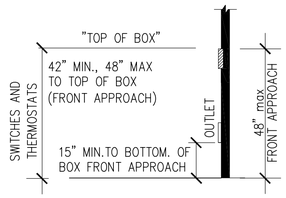
DEMOLITION

X X $X	SYMBOL INDICATES FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO BE REMOVED.
R	DASHED SYMBOL WITH "R" INDICATES FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO BE RELOCATED.
NR NR $NR	SYMBOL WITH "NR" INDICATES NEW LOCATION OR RELOCATED FIXTURE, DEVICE, OUTLET OR EQUIPMENT.
E E $E	SYMBOL WITH "E" OR "(E)" INDICATES EXISTING FIXTURE, DEVICE, OUTLET OR EQUIPMENT TO REMAIN.

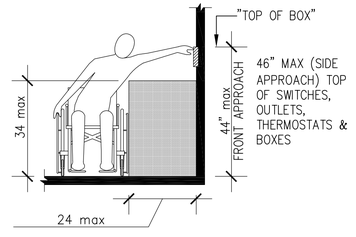
ABBREVIATIONS

A	AMPERE	LTG	LIGHTING
ADA	AMERICAN DISABILITIES ACT	LV	LOW VOLTAGE
AC	ALTERNATING CURRENT		
AF	AMP FRAME	MTD	MOUNTED
AFF	ABOVE FINISHED FLOOR	MCA	MINIMUM CIRCUIT AMPS
AIC	AMPERE INTERRUPTING CAPACITY	MOCP	MAXIMUM OVERCURRENT PROTECTION DEVICE
AL	ALUMINUM		
AS	AMP SWITCH	OC	2" ABOVE COUNTER BACK SPLASH
C	CONDUCTOR,	NTS	NOT TO SCALE
CKT	CONDUIT CIRCUIT	NFPA	NATIONAL FIRE PROTECTION
CSFM	CALIF. STATE FIRE MARSHALL	NEC	NATIONAL ELECTRIC CODE
CU	COPPER		
		TYP	TYPICAL
E	EXISTING		
ELEC	ELECTRICAL	UL	UNDERWRITER'S LABORATORY
FA	FIRE ALARM	V	VOLTAGE
FLUOR	FLUORESCENT		
GALV	GALVANIZED	W	WIRE
GFI	GROUND FAULT INTERRUPTER	WP	WEATHERPROOF
GND, G	GROUND	W/	WITH
HP	HORSEPOWER	XFMR	TRANSFORMER
HE	HANDHOLE ELECTRICAL		
HT	HANDHOLE TELECOM	PROVIDE	FURNISH, INSTALL, CONNECT AND TEST
IWB	INTERACTIVE WHITEBOARD		
KVA	KILOVOLT–AMPERE		
KW	KILOWATT		

ADA MOUNTING REQUIREMENTS



ELECTRICAL MOUNTING HEIGHTS



OVER OBSTRUCTION

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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.

"UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER IS TO BE CUT, DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND DISTRICT STRUCTURAL ENGINEER FROM THE DIVISION OF STATE ARCHITECT."

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUITION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7–10 SECTION 13.3 AD DEFINED IN ASCE 7–10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.213, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

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

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

MP ☐ MD ☐ PP ☐ E ☒ – OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PREAPPROVED (OPM#) CL2.80.

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CLIENT

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EPI JOB #187-54E

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REGISTERED PROFESSIONAL ENGINEER
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Exp. 9-18
ELECTRICAL
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.:	17010
DRAWN BY:	FS
CHECKED BY:	LG
SCALE:	1/4" = 1'-0"

DESIGN ITERATION

PRELIMINARY

DATE

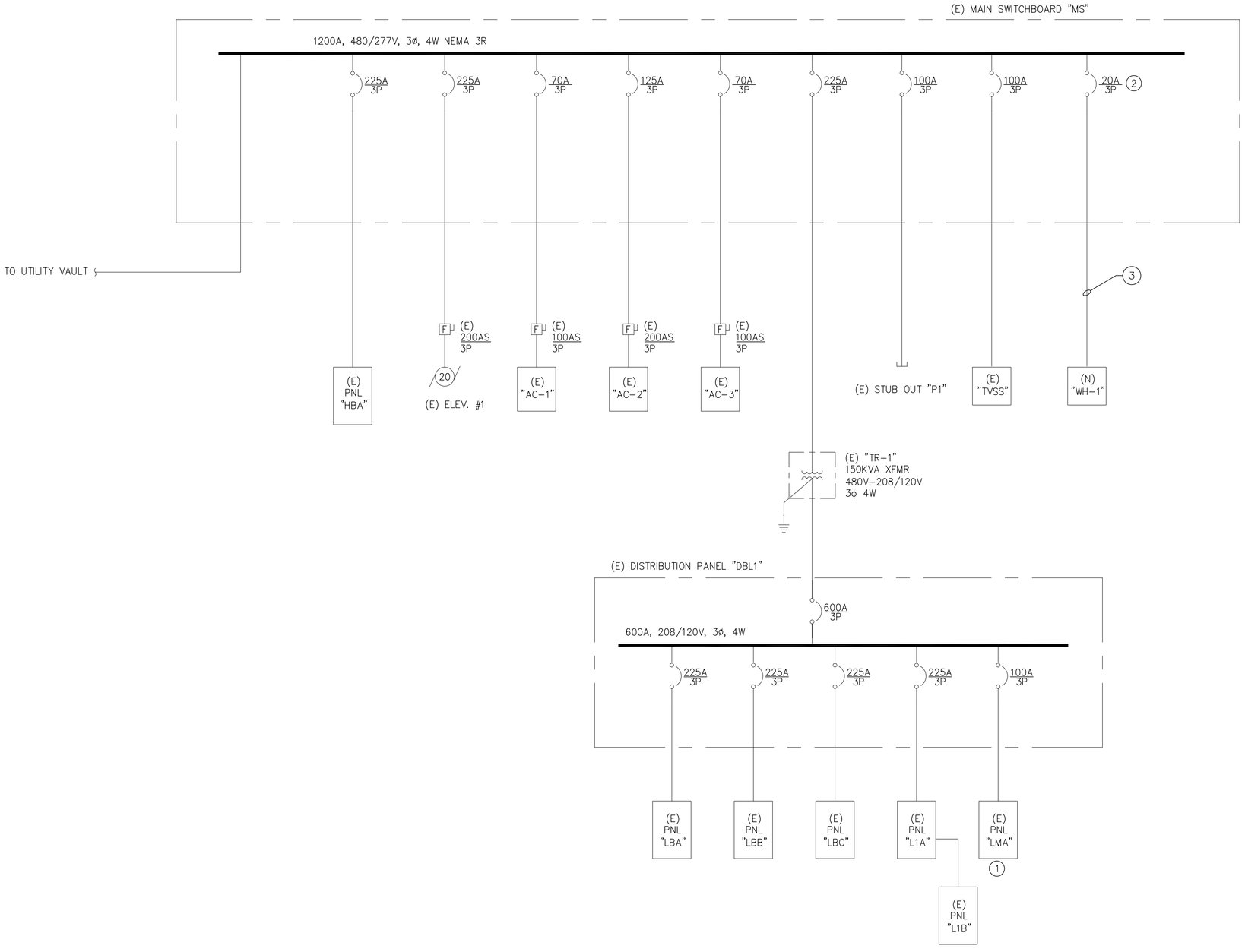
DATE 10.09.2017

SHEET TITLE

ELECTRICAL COVER SHEET

SHEET NUMBER

E-001



SHEET NOTES:

1. ALL EQUIPMENT SHOWN ON THIS SHEET IS EXISTING UNLESS NOTED OTHERWISE.

KEY NOTES:

(1) SEE PANEL SCHEDULE FOR WORK ON EXISTING PANEL.

(2) PROVIDE NEW CIRCUIT BREAKER TO MATCH EXISTING SWITCHBOARD COMPONENTS AND AIC RATING.

(3) SEE DRAWING E-201 FOR WH-1 LOCATION AND CONDUIT AND WIRE SIZE REQUIRED TO BE FED FROM EXISTING SWITHCBOARD "MSB".

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

SINGLE LINE DIAGRAM

SCALE: NOT TO SCALE

1

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
725 W. Broadway
Needles, CA 92363

CONTRACTOR

DESIGNER

SILLMAN WRIGHT ARCHITECTS
31045 Temecula Parkway
Suite 204
Temecula, CA 92592
T 760.489.4432
www.sillmanwright.com

CONSULTANTS

EPI THE ENGINEERING PARTNERS, INC.
CONSULTING ENGINEERS
9565 WAPLES STREET, SUITE 100
SAN DIEGO, CA 92121
(858) 824-1761 FAX (858) 824-1768

EPI JOB #187-54E

REGISTRATION STAMP

REGISTERED PROFESSIONAL ENGINEER
MATTHEW S. LONG
No. 13441
Exp. 9-18
ELECTRICAL
STATE OF CALIFORNIA

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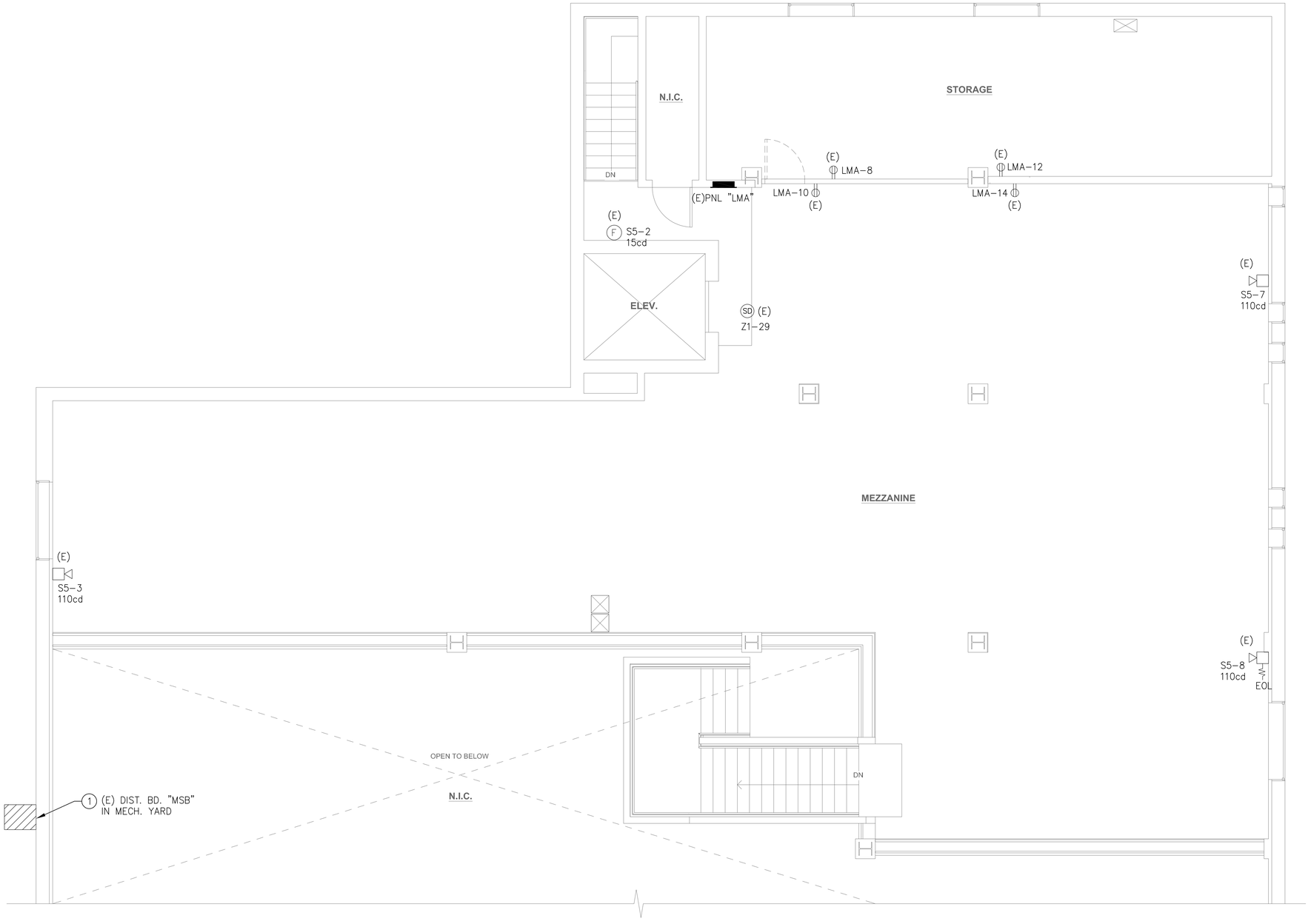
SHEET TITLE

SINGLE LINE DIAGRAM

SHEET NUMBER

E-100



MEZZ. DEMO PLAN (1)

1/4" = 1'-0"

SHEET NOTES:

1. THE EXISTING CIRCUIT NUMBERS SHOWN ON THE DRAWINGS ARE BASED ON RECORD DRAWINGS AND FIELD INVESTIGATION. THE CIRCUIT NUMBERS REPRESENT THE BEST INFORMATION AVAILABLE, BUT MAY NOT BE ACCURATE. PRIOR TO STARTING DEMOLITION, THE CONTRACTOR SHALL PERFORM A SURVEY AND RECORD THE EXISTING (VERIFIED) CIRCUITS FOR THE PROJECT. INCORRECT CIRCUIT NUMBERS SHALL BE CORRECTED ON THE AS-BUILT DRAWINGS.
2. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING ELECTRICAL SYSTEMS AND DEVICES TO REMAIN.
3. PROVIDE NEW CONDUIT AND WIRE TO RE-ROUTE EXISTING RACEWAYS THAT PASS THROUGH PARTITIONS OR CEILINGS TO BE DEMOLISHED.
4. REMOVE ALL ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE FOR DEVICES AND EQUIPMENT SCHEDULED FOR DEMOLITION.
5. FIRE ALARM DEVICES ARE SHOWN FOR REFERENCE ONLY.

KEY NOTES:

(1) (E) MAIN SWBD "MSB" IN MECH YARD. VERIFY EXACT LOCATION.

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1/4" = 1'-0" 4' 2' 0' 4' 8'

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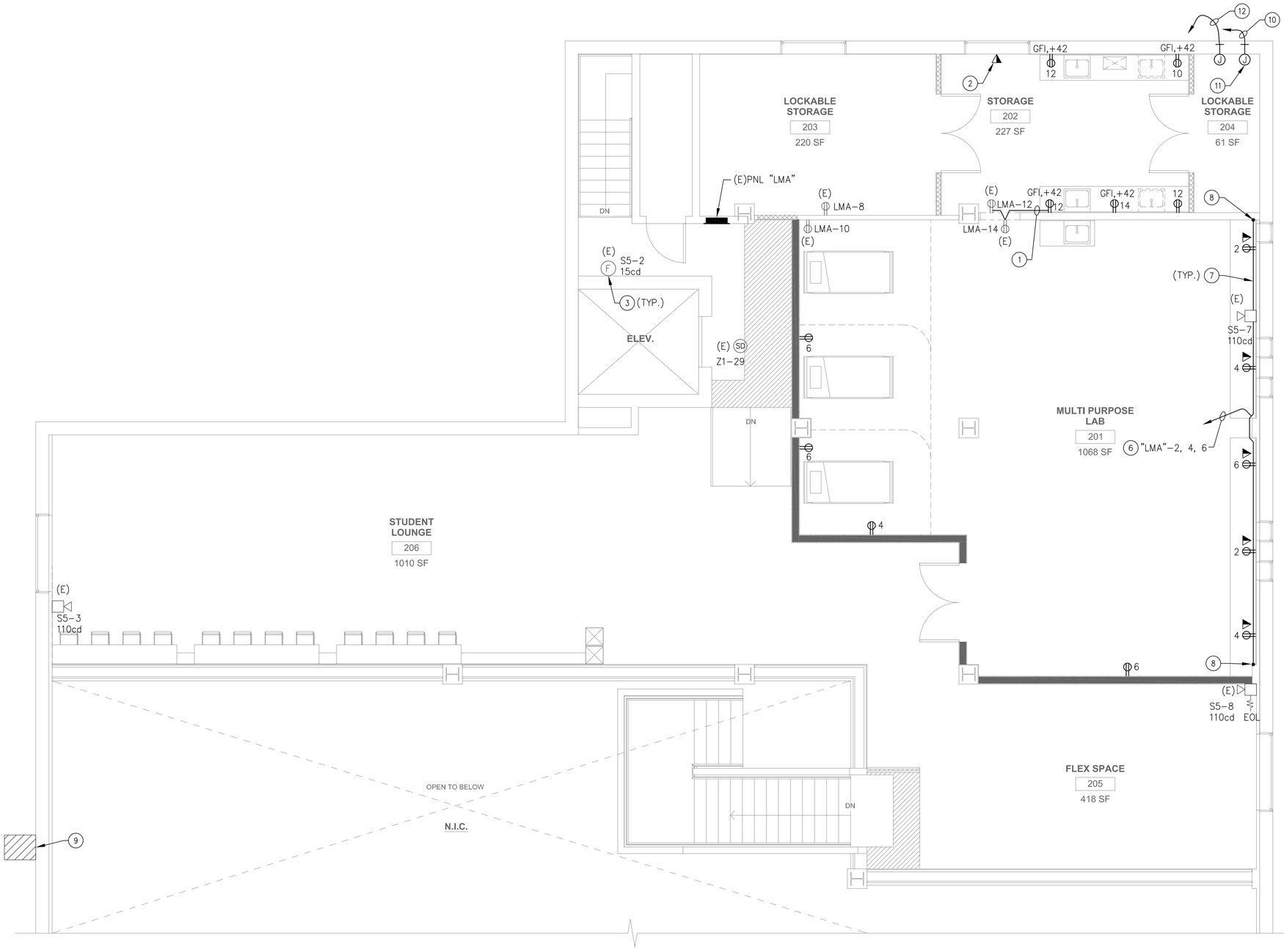
SHEET TITLE

POWER AND SIGNAL PLAN - DEMOLITION

SHEET NUMBER

E-200



MEZZ. PROPOSED PLAN (1)

1/4" = 1'-0"

SHEET NOTES:

1. EXTEND EXISTING CIRCUITS TO NEW LOCATION AS REQUIRED.
2. PROVIDE 3/4" C.O. UP TO CEILING SPACE FOR ALL NEW DATA OUTLETS.
3. FIRE ALARM DEVICES SHOWN FOR REFERENCE ONLY. FIRE ALARM WORK WILL BE DONE UNDER SEPARATE CONTRACT.
4. PROVIDE 120V CIRCUIT FOR VAV. PROVIDE 3/4" C. – 2#12, #12GND BACK TO SOURCE. COORDINATE EXACT LOCATION WITH MECHANICAL.
5. PROVIDE HARDWIRED CONNECTION FOR WATER HEATER.
6. PROVIDE 3/4"C. – (4)(2 #12, 1 #12 GND.).
7. PROVIDE NEW DUAL CHANNEL RACEWAY FOR POWER/DATA.
8. PROVIDE 1"C.O. UP TO CEILING SPACE FOR DATA OUTLETS IN NEW PLUGMOLD.
9. (E) MAIN SWBD IN MECH. YARD. VERIFY EXACT LOCATION.
10. PROVIDE 3/4" C. #10, #10 GND. TO (E) "MSB" FOR NEW WH-1 SEE MECHANICAL.
11. PROVIDE J-BOX FOR NEW WH-1 COORDINATE WITH MECH. CONTRACTOR.
12. PROVIDE J-BOX FOR CP-1, ROUTE 1/2"C. – 2#12, #12 GND. TO PANEL LMA-8

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1/4" = 1'-0" 4' 2' 0' 4' 8'

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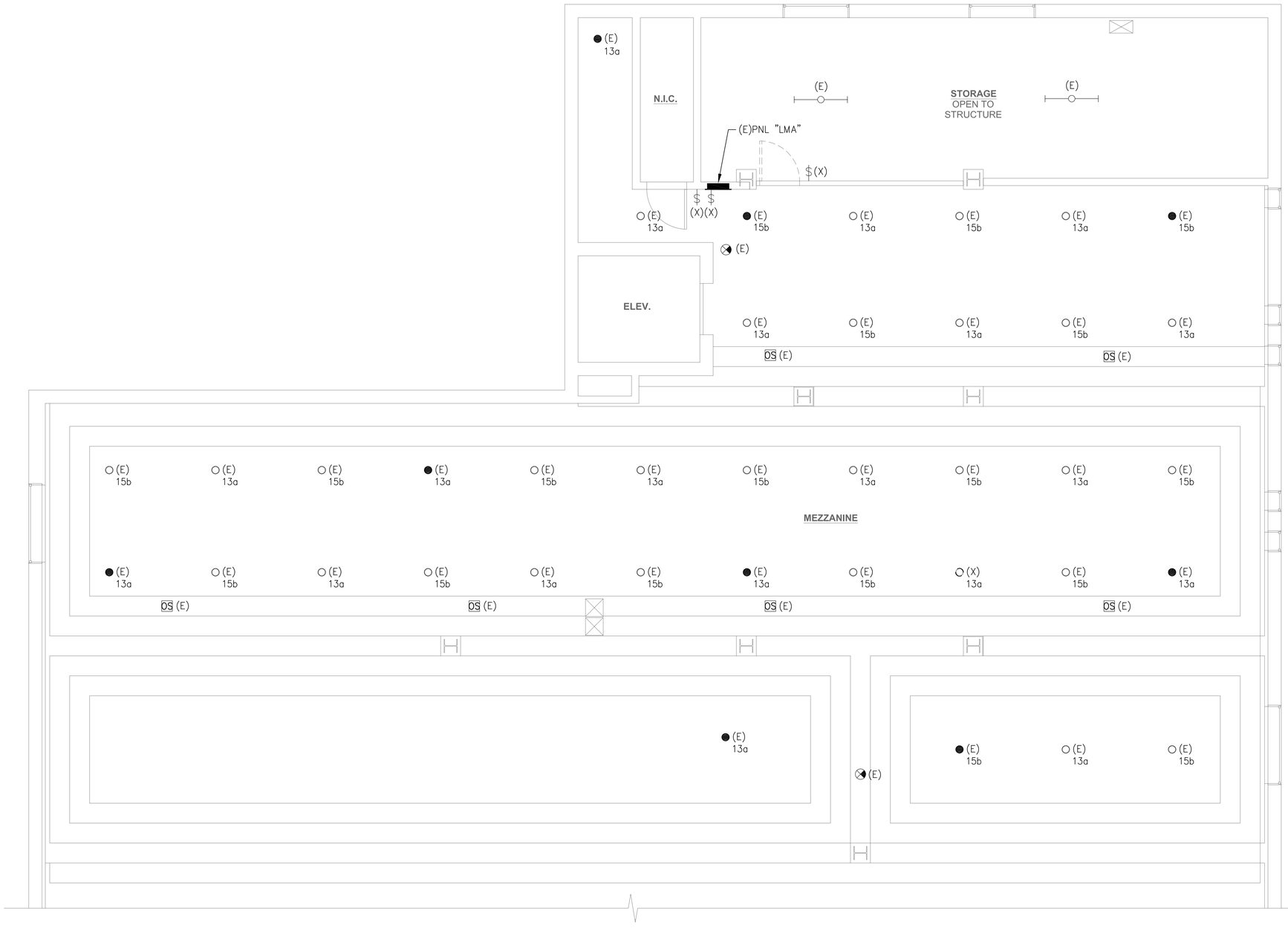
SHEET TITLE

POWER AND SIGNAL PLAN - NEW WORK

SHEET NUMBER

E-201



MEZZANINE CEILING - DEMO (1)

1/4" = 1'-0"

1/4" = 1'-0" 4' 2' 0' 4' 8'

SHEET NOTES:

1. THE EXISTING CIRCUIT NUMBERS SHOWN ON THE DRAWINGS ARE BASED ON RECORD DRAWINGS AND FIELD INVESTIGATION. THE CIRCUIT NUMBERS REPRESENT THE BEST INFORMATION AVAILABLE, BUT MAY NOT BE ACCURATE. PRIOR TO STARTING DEMOLITION, THE CONTRACTOR SHALL PERFORM A SURVEY AND RECORD THE EXISTING (VERIFIED) CIRCUITS FOR THE PROJECT. INCORRECT CIRCUIT NUMBERS SHALL BE CORRECTED ON THE AS-BUILT DRAWINGS.
2. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING ELECTRICAL SYSTEMS AND DEVICES TO REMAIN.
3. PROVIDE NEW CONDUIT AND WIRE TO RE-ROUTE EXISTING RACEWAYS THAT PASS THROUGH PARTITIONS OR CEILINGS TO BE DEMOLISHED.
4. REMOVE ALL ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE FOR DEVICES AND EQUIPMENT SCHEDULED FOR DEMOLITION.

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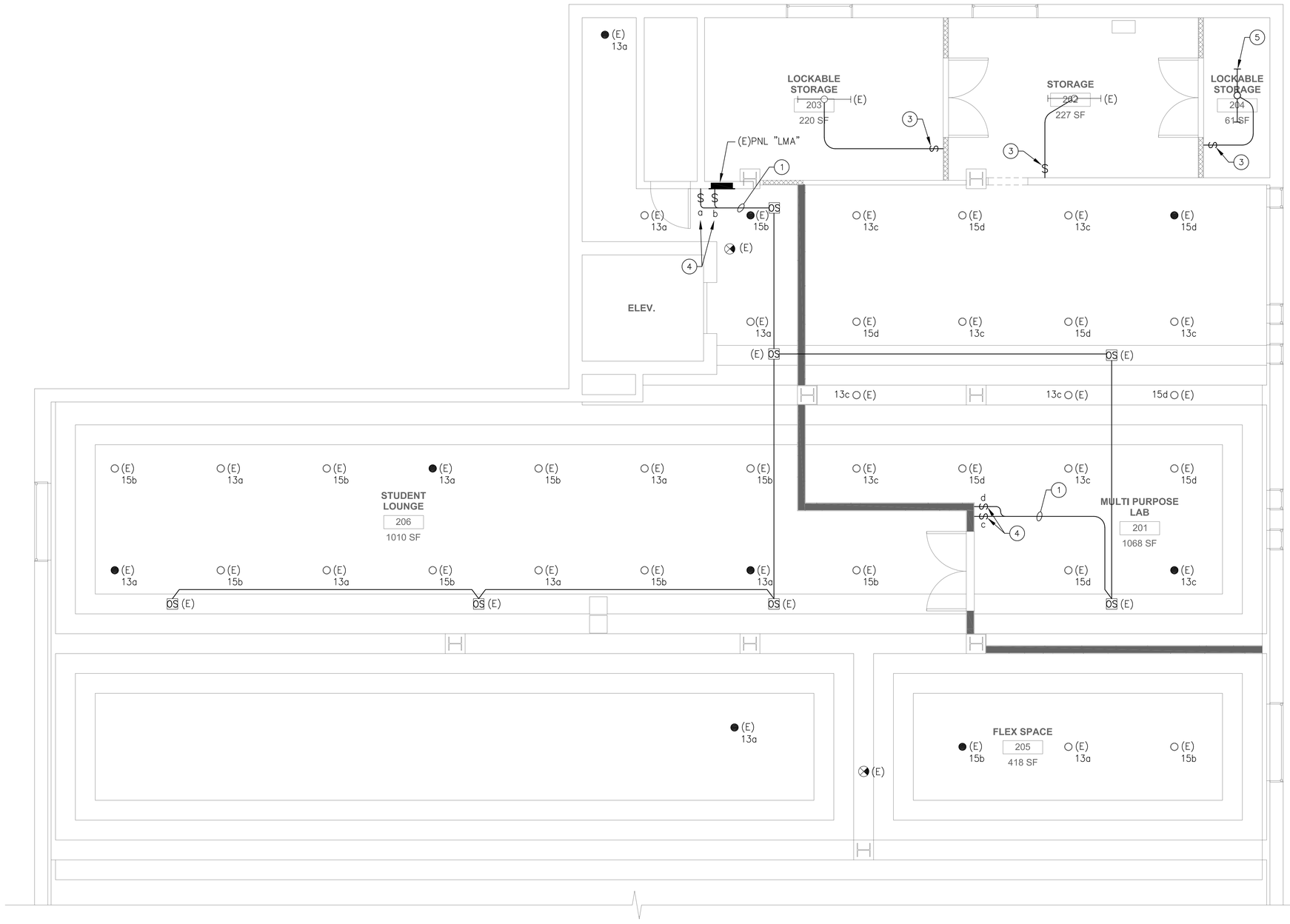
SHEET TITLE

LIGHTING PLAN - DEMOLITION

SHEET NUMBER

E-202



MEZZANINE CEILING - PROPOSED (1)

1/4" = 1'-0"

KEY NOTES:

1. EXTEND EXISTING CIRCUITS TO NEW LOCATION AS REQUIRED.
2. VERIFY CIRCUIT NUMBERS PRIOR TO INSTALLATION. CIRCUIT NUMBERS ARE TAKEN FROM AVAILABLE AS–BUILT INFORMATION. CONNECT AS NECESSARY.
3. PROVIDE NEW OCCUPANCY SENSOR SWITCH.
4. PROVIDE NEW DIMMER SWITCH.
5. PROVIDE NEW 1 X 4 STRIP LIGHT TO MATCH EXISTING.

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1/4" = 1'-0" 4' 2' 0' 4' 8'

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SHEET TITLE

LIGHTING PLAN - NEW WORK

SHEET NUMBER

E-203

LUMINAIRE SCHEDULE

TYPE	SYMBOL	WATT	VOLT	LAMP TYPE	DESCRIPTION	BALLAST TYPE	MANUFACTURER AND CATALOG NUMBER	MOUNTING
A		35	277	LED 3000 LUMENS, 4000K, 82CRI	2'x4' RECESSED LED DIMMING TROFFER, DIRECT/INDIRECT, ACRYLIC LINEAR PRISMATIC LENS, STEEL HOUSING WITH WHITE ENAMEL FINISH, 0-10V DIMMING, EMBEDDED OCCUPANCY SENSOR, UL LISTED.	0-10V DIMMING DRIVER	LITHONIA 2VTL4-33L-ADP-MVOLT-EZ1-LP840-N100 OR APPROVED EQUAL	RECESSED (T-GRID)
B		40	277	LED 2000 LUMENS, 4000K, 82CRI	2'X2' RECESSED LED DIMMING TROFFER, DIRECT/INDIRECT, LINEAR PRISMATIC LENS, STEEL HOUSING WITH WHITE ENAMEL FINISH, 0-10V DIMMING, EMBEDDED CONTROLS, UL LISTED	0-10V DIMMING DRIVER	LITHONIA 2VTL2-20L-ADP-EZ1-LP850-WH OR APPROVED EQUAL	RECESSED (T-GRID)
C		18.5	277	LED 1500 LUMENS, 5000K, 82 CRI	6" LED DOWNLIGHT, 0-10V DIMMING, EMBEDDED CONTROLS, UL LISTED	0-10V DIMMING DRIVER	GOTHAM EVO-50/1500-6WR-WD-LS-MVOLT OR APPROVED EQUAL	RECESSED (HARDLID)
X		0.7	277	LED	LED EXIT LIGHT FIXTURE WITH BRUSHED ALUMINUM HOUSING, RED LETTERS, NICKEL CADMIUM BATTERY (90 MIN) BACK-UP, UL LISTED	LED DRIVER	LITHONIA EDGR 2 R EL OR APPROVED EQUAL	SURFACE / SUSPENDED

LUMINAIRE SCHEDULE

1

SCALE: NO SCALE

(E)PANEL "LMA" — LOCATION: STAFF MEETING RM M03 — MAIN: 100AT — Bus Rating: 100A — 208Y/120V, 3ø, 4W — MOUNTING: FLUSH

LOCATION	VOLTAMPS øA	VOLTAMPS øB	VOLTAMPS øC	CR	BRK	A	B	C	BRK	CR	VOLTAMPS øA	VOLTAMPS øB	VOLTAMPS øC	LOCATION
SPARE				1	20	*			20	2				SPARE
SPARE				3	20		*		20	4				SPARE
SPARE				5	20			*	20	6				SPARE
SPARE				7	20	*			20	8	540			RECEPTACLE
SPARE				9	20		*		20	10		540		RECEPTACLE
SPARE				11	20			*	20	12			540	RECEPTACLE
SPARE				13	20	*			20	14	100			RECEPTACLE
SPARE				15	20		*		20	16		100		ROOF RECEPTACLE
SPARE				17	20			*	20	18			696	EF-1
SPARE				19	20	*			20	20	360			ELEV. EQUIP. RM REC
SPARE				21	20		*		20	22				CAB LTS. ELEV
SPARE				23	20			*	20	24				SPARE TO ELEV. CONTLR
SPARE				25	20	*			20	26				SPARE
SPARE				27	20		*		20	28				SPARE
SPARE				29	20			*	20	30				SPARE
SPARE				31	20	*			20	32				SPARE
SPARE				33	20		*		20	34				SPARE
SPARE				35	20			*	20	36				SPARE
SPARE				37	20	*			20	38				SPARE
SPARE				39	20		*		20	40				SPARE
SPARE				41	20			*	20	42				SPARE
	øA = 1000						øB = 640					øC = 1236		

TOTAL CONNECTED VA =	3	KVA
+ 25% LCL =		KVA
TOTAL	3	KVA
CONNECTED LOAD =	8	A
MINIMUM FEEDER SIZE =	8	A

PANEL SCHEDULE - "LMA"

2

SCALE: NO SCALE

LOAD SUMMARY AT (E) PANEL "LMA"	
EXISTING CONNECTED LOAD	38.5 KVA
EXISTING LOAD REMOVED:	0.2 KVA
NEW LOAD ADDED:	4.4 KVA
TOTAL LOAD:	42.7 KVA
ALLOWABLE LOAD (225 A x 208V 3ø):	81.0 KVA

ADDED LOAD DOES NOT REQUIRE ANY MODIFICATION TO "CS2A" FEEDER OR UPSTREAM OVERCURRENT PROTECTIVE DEVICE.

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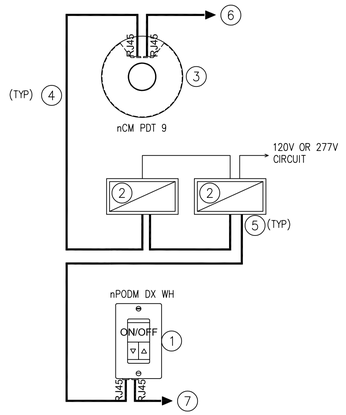
SHEET TITLE

PANELBOARD SCHEDULE

SHEET NUMBER

E-300



KEY NOTES:

1. SWITCH WITH ON/OFF RAISE/LOWER per section 130.1(A)–TITLE 24
2. LIGHT FIXTURE WITH 0–10V DIMMING EMBEDDED CONTROL. per section 130.1(B)–TITLE 24
3. OCCUPANCY SENSOR per section 130.1(C)–TITLE 24.
4. CAT 5 CABLE (TYPICAL).
5. SEE FLOOR PLAN FOR QUANTITY.
6. TO NEXT OCCUPANCY SENSOR (IF REQUIRED).
7. TO NEXT SWITCH (IF REQUIRED).

BILL OF MATERIAL

QTY	PRODUCT #	DESCRIPTION
5	nLIGHT # nPODM DX WH	1–CHANNEL WALL SWITCH, LOW VOLTAGE; ON / OFF / RAISE / LOWER CONTROL
	nLIGHT# nPP16 PL T24	16 AMP RELAY PACK FOR PLUG LOAD CONTROL; CHASE NIPPLE MOUNTING
5	nLIGHT # nCMR PDT	OCCUPANCY SENSOR – STANDARD RANGE 360° SENSOR – CEILING MOUNTED, LOW VOLTAGE, DUAL TECHNOLOGY (PDT).

SINGLE CHANNEL CONTROL - CEILING OR WALL OCCUPANCY SENSOR 2

SCALE: NO SCALE

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SHEET TITLE

LIGHTING FIXTURE SCHEDULE AND ELECTRICAL DETAILS

SHEET NUMBER

E-301

SEQUENCE OF OPERATIONS

SEQUENCE OF OPERATIONS			
	SMOKE DETECTORS	AC POWER FAILURE AT NEV "FACP"	GROUND FAULT
ANNUNCIATE ALARM AT FACP/ANNUNCIATOR/CENTRAL STATION	YES	NO	NO
ANNUNCIATE TROUBLE AT FACP/ANNUNCIATOR/CENTRAL STATION (WIRING FAULT)	YES	YES	YES
ANNUNCIATE SUPERVISORY AT FACP/ANNUNCIATOR/CENTRAL STATION	NO	NO	NO
ACTIVATE NOTIFICATION APPLIANCE VISUALS AND AUDIO	YES	NO	NO

MONITORING COMPANY

MONITORING COMPANY	
COMPANY	APPLE VALLEY COMMUNICATIONS
ADDRESS	21845 US HWY 18 APPLE VALLEY, CA 92308
PHONE NUMBER	760-247-2668
FAX NUMBER	760-247-0087
ID NUMBER	696540-001
LICENSE EXPIRATION	MARCH 31, 2018
PROTECTIVE SIGNALING SERVICE	REMOTE STATION

DESIGN SPECIFICATIONS

DESIGN SPECIFICATIONS	
PROJECT NAME	NEEDLES CENTER PROJECT 3
OCCUPANCY	B
TYPE	V-N
SPRINKLERED	BASEMENT YES, MEZZANINE FLOOR NO
SQUARE FOOTAGE	3,584
INSTALL NEV SYSTEM AS FOLLOWS	(1) POWER SUPPLY (6) WALL MOUNT STROBES, (2) WALL MOUNT HORN STROBES (9) SMOKE DETECTOR.

FIRE ALARM SYMBOLS LIST

SYM	QTY	DESCRIPTION	BACKBOX/BASE	MANUFACTURER	PART NO.	CSFM LISTING
FACP	E	FIRE ALARM CONTROL PANEL	TWO TIER "B" SIZE 24.125"W x 28.625"H x 5.218"D	NOTIFIER	NFS-640	7165-0028:0243
SRD	E	SYSTEM RECORD DOCUMENT CABINET	SIZE 12"W x 13"H x 2-1/4"D	SPACE AGE ELECTRONIC	SSU0068	NOT APPLICABLE
UDACT	E	UNIVERSAL DIGITAL ALARM COMMUNICATOR TRANSMITTER	ABS-8RB 9.94"H x 4.63"W x 2.5"D	NOTIFIER	UDACT	7300-0028:0174
FAA	E	FIRE ALARM ANNUNCIATOR	SBB-3 5.813"W x 4"H x 2.188"D	NOTIFIER	FDU-80	7120-0028:0209
SPD	E	SURGE PROTECTION DEVICE	INSIDE 4-S BOX	SPACE AGE	E120V-GT	NOT APPLICABLE
?	9	SMOKE DETECTOR W/ SENSOR BASE	4-S BOX W/3" O-RING	NOTIFIER	FSP-851 B210LP	7272-0028:0206 7300-1653:0109
S	6	L-SERIES STROBE, RED, WALL (Notification)	4-S BOX W/SINGLE GANG RING	SYSTEM SENSOR	SRL	7125-1653:0504
HS◀	2	L-SERIES 2-WIRE, HORN STROBE, RED, WALL (Notification)	4-S BOX W/SINGLE GANG RING	SYSTEM SENSOR	P2RL	7125-1653:0503
--	2	7AH BATTERY	PROVIDED W/PANEL OR NFS-LBB IF BATTERIES OVER 26AH	POWER SONIC	PS-1270	NOT APPLICABLE
--	2	18AH BATTERY	PROVIDED W/PANEL OR NFS-LBB IF BATTERIES OVER 26AH	POWER SONIC	PS-12180	NOT APPLICABLE
--	VERIFY	16/2 SOLID BARE COPPER WITH STP	NOT APPLICABLE	WEST PENN WIRE	991	7161-0859:0101
--	VERIFY	1 PR 16AWG STRANDED UNSHIELDED FIRE ALARM OUTDOOR CABLING	NOT APPLICABLE	WEST PENN WIRE	AQC226RDAVC	7161-0859:0101
--	VERIFY	INITIATION CABLE (2)#12/14 FOR USE WITH CONDUIT	NOT APPLICABLE	CES	THHN	NOT APPLICABLE
F	E	MANUAL PULL STATION	4-S BOX W/SINGLE GANG RING	NOTIFIER	NBG-12LX	7150-0028:0199
FAPS	1	FIRE ALARM POWER SUPPLY (6-AMP)	SIZE 16.25"W x 13.5"H x 4.25"D	NOTIFIER	FCPS-24S6	7315-0028:0225
R	E	RELAY MODULE	SURFACE MOUNT: 4-S DEEP BOX FLUSH MOUNT: 4-S DEEP BOX W/TWO GANG RING	NOTIFIER	FRM-1	7300-0028:0202
M	E	MONITOR MODULE	SURFACE MOUNT: 4-S DEEP BOX FLUSH MOUNT: 4-S DEEP BOX W/TWO GANG RING	NOTIFIER	FMM-1	7300-0028:0202
↓	E	HEAT DETECTOR W/SENSOR BASE	4-S BOX W/3" O-RING	NOTIFIER	FST-851 B210LP	7270-0028:0196 7300-1653:0109

* E – EXISTING

GENERAL NOTES

1. ALL EQUIPMENT SHALL BE U.L. AND C.S.F.M. LISTED.

2. ALL WIRING SHALL BE IN ACCORDANCE WITH N.E.C. AND AUTHORITIES HAVING JURISDICTION.

3. ALL JUNCTION BOXES SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. AND SHALL HAVE THEIR COVERS PAINTED RED WHERE APPLICABLE.

4. ELECTRICAL CONTRACTOR SHALL FURNISH ACCESS PANELS TO INITIATING DEVICES THAT REQUIRE SERVICING, TROUBLE SHOOTING AND MAINTENANCE.

5. DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM SYSTEM SUPPLIER (APPLE VALLEY COMMUNICATIONS, INC., TEL (760) 247-2668). FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING, ETC., THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.

6. ALL 120VAC POWER REQUIREMENTS FOR THE FIRE ALARM SYSTEM SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR AND SHALL MEET ALL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.

7. ALL DEVICE BACKBOXES, TERMINAL CABINETS, GUTTERS, JUNCTION BOXES AND ASSOCIATED CONDUITS AS SHOWN ON THESE DRAWINGS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. REFER TO SYMBOL LIST AND OR MOUNTING DETAILS FOR ADDITIONAL INFORMATION. SYSTEM SUPPLIER PROVIDED BACKBOXES SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.

8. ELECTRICAL POWER SERVICE SHALL BE ON A DEDICATED BRANCH CIRCUIT(S). THE CIRCUIT(S) AND CONNECTIONS SHALL BE MECHANICALLY PROTECTED (CIRCUIT BREAKERS SHALL BE LOCKED IN THE ON POSITION WITH AN APPROVED MECHANICAL CLIP). CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL AND SHALL BE PERMANENTLY IDENTIFIED AS "FIRE ALARM CIRCUIT". THE LOCATION OF THE CIRCUIT DISCONNECTING MEANS SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.NFPA 72

9. TAMPER RESISTANT SCREWS OR OTHER APPROVED MECHANICAL MEANS SHALL BE PERMITTED FOR PREVENTING ACCESS TO JUNCTION BOXES AND DEVICE COVERS INSTALLED OUTSIDE OF BUILDINGS.

10. ALL CONDUITS ARE 3/4" UNLESS OTHERWISE NOTED.

11. ALL WIRING SHALL BE CUT FOR IN AND OUT. WIRING SHALL NOT BE LOOPED THROUGH DEVICES.

12. POINT AND COMMON ANNUNCIATION AND T-TAPPING ARE PROHIBITED (T-TAPPING IS ALLOWABLE ON ADDRESSABLE CLASS B SLC LOOPS).

13. ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

14. ALL WIRING, INITIATING DEVICES AND ANNUNCIATOR PANEL SHALL BE SUPERVISED TO THE PRINCIPAL POINT OF ANNUNCIATION. THE FIRE ALARM CONTROL UNIT TO SUPERVISE THE ANNUNCIATOR PANEL, ALL INITIATING AND INDICATING DEVICE CIRCUITS.

15. SYSTEM SHALL BE FURNISHED AND INSTALLED BY A NESCO AFFILIATE AND AUTHORIZED NOTIFIER DISTRIBUTOR. INSTALLATION COMPANY SHALL BE UL LISTED (UUJSUUFX).

16. IN SPACES SERVED BY AIR-HANDLING SYSTEMS, DETECTORS SHALL NOT BE LOCATED WHERE AIRFLOW PREVENTS THE OPERATION OF THE DETECTORS. DETECTORS SHALL NOT BE LOCATED IN DIRECT AIRFLOW OR CLOSER THAN 36-INCHES FROM AN AIR SUPPLY DIFFUSER OR RETURN OPENING. SMOKE DETECTORS SHOULD BE LOCATED FARTHER AWAY FROM HIGH VELOCITY AIR SUPPLIES.(NFPA 72)

17. ALL FAN SHUTDOWN FUNCTIONS, DAMPER CLOSURES AND ASSOCIATED MECHANICAL SYSTEM FIRE ALARM INTERFACE SHALL BE BY THE MECHANICAL CONTRACTOR.

18. ALL DUCT DETECTORS SHALL BE MOUNTED BY THE MECHANICAL OR ELECTRICAL CONTRACTOR. IF DUCT SMOKE DETECTORS ARE EXPOSED TO THE WEATHER, THEY SHALL BE WEATHER PROTECTED BY THE MECHANICAL CONTRACTOR. ALL AIR VELOCITY TESTING SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR.

19. DETECTORS SHALL BE PROTECTED DURING CONSTRUCTION PER NFPA 72.

20. SMOKE DETECTORS AND HEAT DETECTOR SHALL BE LOCATED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND NFPA 72.

21. SMOKE DETECTOR TESTING SHALL BE ACCOMPLISHED WITH SMOKE OR LISTED AEROSOL APPROVED BY THE MANUFACTURER PER NFPA 72 AS ACCEPTABLE BY THE A.H.J.

22. CENTER OF MANUAL PULL STATIONS SHALL BE MOUNTED AT 48" ABOVE FLOOR LEVEL.

23. CONTRACTOR TO PROVIDE 34" CONDUIT WITH (2) DEDICATED TELEPHONE LINES WITH (2) RJ-31X PHONE JACKS FROM TELEPHONE BACKBOARD FOR OWNER PROVIDED CENTRAL STATION MONITORING PANEL.

24. UPON COMPLETION OF ALL INSTALLATION AND TESTING, THE CONTRACTOR SHALL PROVIDE TO THE AUTHORITY HAVING JURISDICTION AND THE BUILDING OWNER A COMPLETED AND SIGNED NFPA 72 CERTIFICATE OF COMPLETION.

25. ALL CEILING-MOUNTED STROBE LOCATIONS ARE SPACED IN ACCORDANCE WITH NFPA 72, REQUIREMENTS BASED UPON CEILING HEIGHT AT THAT LOCATION.

26. ALL WALL-MOUNTED VISUAL SIGNALING APPLIANCES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80 IN. (2.03m) AND NOT GREATER THAN 96 IN. ABOVE THE FINISHED FLOOR (A.F.F.) PER NFPA 72. ALL WALL MOUNTED AUDIBLE DEVICES SHALL BE A MINIMUM OF 90" A.F.F. TO TOP OF DEVICE PER NFPA 72.

27. AREAS HAVING MORE THAN 2 STROBES IN THE FIELD OF VIEW SHALL BE SYNCHRONIZED PER NFPA 72.

28. PUBLIC MODE AUDIBLE REQUIREMENTS, UNLESS OTHERWISE PERMITTED BY THE AUTHORITY HAVING JURISDICTION, SHALL HAVE A SOUND LEVEL AT LEAST 15DB ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF A LEAST 60 SECONDS, WHICHEVER IS GREATER. MEASURED 5 FEET ABOVE THE FLOOR IN THE AREA REQUIRED TO BE SERVED BY THE SYSTEM USING ALARM SYSTEM USING THE A-WEIGHTED SCALE (dBA).

29. THE ALARM AUDIBLE SIGNAL PATTERN USED TO NOTIFY BUILDING OCCUPANTS OF THE NEED TO EVACUATE OR RELOCATE SHALL BE THE STANDARD ALARM EVACUATION OF THREE-PULSE PATTERN AND THAT THIS SOUND NOT TO BE USED FOR ANY OTHER PURPOSE (NFPA 72) FIRE ALARM SIGNAL.

30. FIRE ALARM CONTRACTOR SHALL PROVIDE AN IMPEDANCE METER AT THE TIME OF FINAL INSPECTION WHEN REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

31. THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM WILL BE SUPERVISED AND MONITORED BY THE FIRE ALARM SYSTEM.

32. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.

33. VISUAL DEVICES SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.

34. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVAL FOR WET LOCATIONS.

35. ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.

36. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.

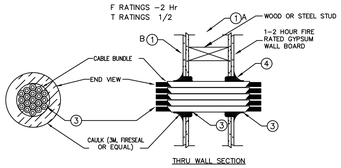
37. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.

38. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.

39. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.

40. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

THROUGH PENETRATION



THRU WALL SECTION

1. WALL ASSEMBLY – THE FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 OF SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS – WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS IN. OC.
B. WALLBOARD, GYPSUM– TWO LAYERS NOM 5/8 IN. THICK, GYPSUM WALLBOARD, AS SPECIFIED IN THE INDIVIDUAL WALL OR PARTITION DESIGN. MAX DIA OF OPENING IS 1-1/4 IN.

2. CABLES–MAX. 4 IN. DIAM. TIGHT BUNDLE OF CABLES CENTERED IN CIRCULAR CUTOUTS IN GYPSUM WALLBOARD AND RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLES MAY BE USED:

A. MAX 350 KCMIL SINGLE CONDUCTOR POWER CABLES CROSS-LINKED POLYETHYLENE (XLPE) INSULATION.

B. MAX NO 2/0 AWG MULTICONDUCTOR POWER AND CONTROL CABLES: XLPE INSULATION.

C. MAX 150 PAIR NO. 24 AWG TELECOMMUNICATION CABLE: PVC INSULATION AND JACKET MATERIALS.

3. FILL, VOID OR CAVITY MATERIAL*–WRAP STRIP– NOM. 1/4 IN. THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL. SUPPLIED IN NOM 2 IN. WDE STRIP TIGHTLY WRAPPED AROUND CABLE BUNDLE (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE TIE AND SLID INTO ANNULAR SPACE APPROX. 1-1/4 IN. SUCH THAT APPROX. 3/4 IN. OF THE WRAP STRIP WIDTH PROTRUDES FROM THE WALL SURFACE ON EACH SIDE OF THE ASSEMBLY.

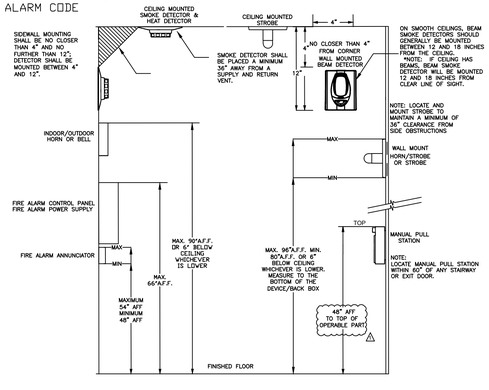
4. FILL, VOID OR CAVITY MATERIAL*–CAULK – MIN 1/4 IN. DIAM CONTINUOUS BEAD OF CAULK APPLIED TO THE WRAP STRIP/WALL INTERFACE AND EXPOSED EDGE OF THE WRAP STRIP APROX 3/4 IN. FROM THE WALL SURFACE ON EACH SIDE OF WALL ASSEMBLY. CAULK TO BE FORCED INTO THE INTERSTICES OF THE CABLE BUNDLE TO THE MAX EXTENT POSSIBLE WITHIN THE CONFINES OF THE WRAP STRIP ON EACH SIDE OF THE WALL ASSEMBLY.

MOUNTING HEIGHT

AUDIBLE NOTIFICATION DEVICES SHALL BE MOUNTED A MINIMUM OF 90" (2.30m) ABOVE FINISHED FLOOR, OR NO LESS THAN 6" (152mm) BELOW FINISHED CEILING PER NFPA 72 2016 FIRE ALARM CODE,

VISIBLE OR COMBINATION AUDIBLE/VISIBLE DEVICES SHALL BE MOUNTED SUCH THAT THE ENTIRE LENS IS NOT LESS THAN 80 IN. (2.03 M) AND NOT GREATER THAN 96 IN. (2.44 M) ABOVE THE FINISHED FLOOR PER NFPA 72 2016 FIRE ALARM CODE,

MANUAL PULL STATIONS SHALL BE MOUNTED NO LESS THAN 42" (1.1m) AND NO MORE THAN 54" (1.37m) ABOVE FINISHED FLOOR PER NFPA 72 2016 FIRE ALARM CODE



APPLICABLE CODES

2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE
PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

2016 CALIFORNIA BUILDING CODE
PART 2, TITLE 24, CCR
(2015 IBC AND 2016 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA ELECTRICAL CODE
PART 3, TITLE 24, CCR
(2017 NEC AND 2016 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA MECHANICAL CODE
PART 4, TITLE 24, CCR
(2015 UMC AND 2016 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA PLUMBING CODE
PART 5, TITLE 24, CCR
(2013 UPC AND 2016 CALIFORNIA AMENDMENTS)

2016 CALIFORNIA FIRE CODE
PART 9, TITLE 24, CCR
(2013 IFC AND 2016 CALIFORNIA AMENDMENTS)

2016 NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
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Needles, CA 92363

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San Diego, CA 92108
T 619.294.7515
F 619.294.7592
www.sillmanwright.com

CONSULTANTS

REGISTRATION STAMP

LICENSED ARCHITECT
LEWIS S. SILLMAN
C-18627
06/30/19
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description
1	12/15/2017	AS-BUILT

DESIGNER PROJECT NO.: 17010
DRAWN BY: Author
CHECKED BY: Checker
SCALE: 1/4" = 1'-0"
DESIGN ITERATION

PRELIMINARY

DATE

DATE: 09.07.2017

SHEET TITLE

FIRE ALARM COVER PAGE

SHEET NUMBER

FA-001

BATTERY CALCS

Battery Calculations for Panel: NFS-640

Part No:NFS-640 - INTELLIGENT ADDRESSABLE FIRE ALARM SYSTEM

Part No.	Qty.	Description	Standby	Total Standby	Alarm	Total Alarm
		Panel Equipment				
CPU-640	1	CENTRAL PROCESSING UNIT FOR THE NFS-640	250.0000mA	250.0000mA	390.0000mA	390.0000mA
FDU-80	1	80 CHARACTER DISPLAY ANNUNCIATOR	128.6000mA	128.6000mA	128.6000mA	128.6000mA
			Total Panel Stby	378.6000mA	Total Panel Alarm	518.6000mA
		Peripheral Devices				
10103	1	3 GANG BACK BOX, FDU-80 (Serial)	0.0000mA	0.0000mA	0.0000mA	0.0000mA
FSP-851	15	PHOTO DETECTOR, INTELL. ADDRESSABLE (Signaling line)	0.3600mA	5.4000mA	6.5000mA	97.5000mA
FST-851	1	THERMAL DETECTOR, INTELL. ADDRESSABLE (Signaling line)	0.3000mA	0.3000mA	6.5000mA	6.5000mA
FSD-751RPL	3	DUCT PHOTO DETECTOR W/RELAY, INTELL. ADDRESSABLE (Signaling line)	0.3000mA	0.9000mA	0.3000mA	0.9000mA
NBG-12LX	5	PULL STATION, NBG-12L, FLASHSCAN, ADDRESSABLE (Signaling line)	0.0038mA	0.0188mA	5.0000mA	25.0000mA
FST-851	1	THERMAL DETECTOR, INTELL. ADDRESSABLE (Signaling line)	0.3600mA	0.3600mA	6.5000mA	6.5000mA
FRM-1	4	RELAY MODULE, INTELL. ADDRESSABLE (Signaling line)	0.2300mA	0.9200mA	6.5000mA	26.0000mA
FMM-1	6	MONITOR MODULE W/FLASHSCAN, ADDRESSABLE (Signaling line)	0.3750mA	2.2500mA	5.1000mA	30.6000mA
FCPS-24S6	1	6.0 AMPS, 120 VAC REMOTE PS CHARGER, FCPS-24S6 MAIN BOARD (Notification)	1.0000mA	1.0000mA	1.0000mA	1.0000mA
10103	1	3 GANG BACK BOX, FDU-80 (Power)	64.3000mA	64.3000mA	25.0000mA	25.0000mA
			Total Peripheral Stby	75.4487mA	Total Periph Alarm	219.0000mA
			Total Standby Amps	454.0487mA	Total Alarm Amps	737.6000mA

Standby time: 24 Hrs 10.897Ah
Alarm time: 5 Min 0.061Ah
Battery requirement: 10.959Ah
Compensation Factors - Standby: 1.2 Alarm: 1.2 Requirement with compensation: 13.15Ah
Spare Battery: 26% Requirement with compensation: 18.00Ah

Battery Calculations for Panel: FCPS24S6

Part No:FCPS-24S6 - 6.0 AMPS, 120 VAC REMOTE PS CHARGER

Job number: 1 Job name: PROJECT 3
Address 1: 725 WEST BROADWAY STREET
Address 2: NEEDLES CALIFORNIA 92363

Part No.	Qty.	Description	Standby	Total Standby	Alarm	Total Alarm
		Panel Equipment				
FCPS-24S6 MAIN BOARD	1	MAINBOARD FOR THE FCPS-24S6	91.0000mA	91.0000mA	171.0000mA	171.0000mA
			Total Panel Stby	91.0000mA	Total Panel Alarm	171.0000mA
		Peripheral Devices				
HSR	2	HORN/STROBE, EXCEDER 24V, M-C, RED, WALL (Notification)	0.0000mA	0.0000mA	119.0000mA	238.0000mA
STR	4	STROBE, EXCEDER 24V, M-C, RED, WALL (Notification)	0.0000mA	0.0000mA	63.0000mA	252.0000mA
STR	2	STROBE, EXCEDER 24V, M-C, RED, WALL (Notification)	0.0000mA	0.0000mA	43.0000mA	86.0000mA
			Total Peripheral Stby	0.0000mA	Total Periph Alarm	576.0000mA
			Total Standby Amps	91.0000mA	Total Alarm Amps	747.0000mA

Standby time: 24 Hrs 2.184Ah
Alarm time: 5 Min 0.062Ah
Battery requirement: 2.246Ah
Compensation Factors - Standby: 1.2 Alarm: 1.2 Requirement with compensation: 2.696Ah
Spare Battery: 61% Requirement with compensation: 7.00Ah

VOLTAGE DROPS

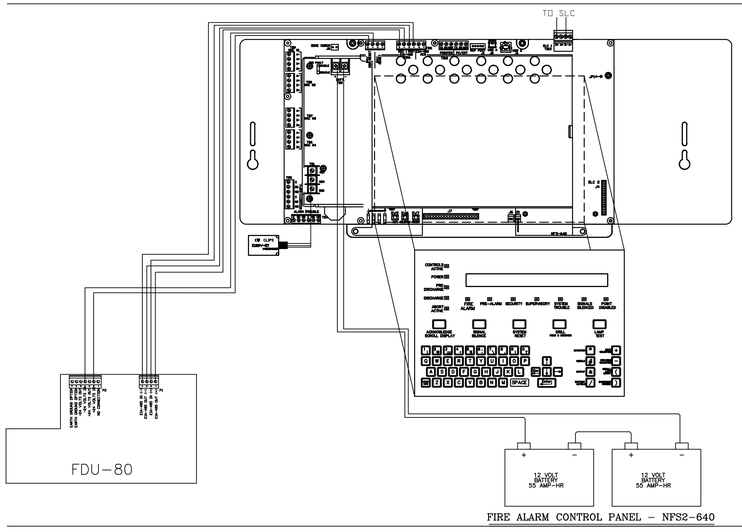
Circuit Calculations Panel: FCPS24S6 Card: 05 Circuit:S5

CircuitName: S5
Circuit Type: Notification Terminal Voltage: 20.4V:DC Amperage: 1.5000A
Cable: 12/2 SOL JKT FPLR 1M RL RED #12
Calculations based on Running Total Length.
Design Criteria: Ambient temperature: 167°F Max. operating voltage drop: 10%

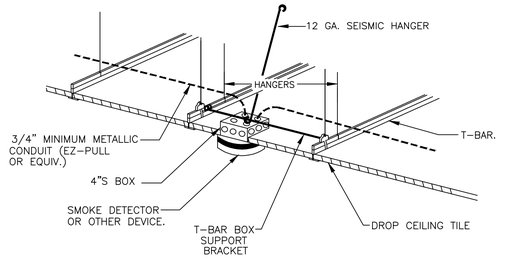
Device	Part No	Appliance Desc	Distance	Current	Voltage	Voltage Drop
	FCPS-24S6	Panel			20.4V	
001	HSR	HORN/STROBE, EXCEDER 24V, M-C, RED, WALL, 75CD	28'-0	119.0000mA	20.3377V	(0.0623V)
002	STR	STROBE, EXCEDER 24V, M-C, RED, WALL, 15CD	48'-0	43.0000mA	20.2531V	(0.0847V)
003	STR	STROBE, EXCEDER 24V, M-C, RED, WALL, 30CD	37'-0	63.0000mA	20.1939V	(0.0591V)
004	STR	STROBE, EXCEDER 24V, M-C, RED, WALL, 30CD	2'-0	63.0000mA	20.1912V	(0.0027V)
005	HSR	HORN/STROBE, EXCEDER 24V, M-C, RED, WALL, 75CD	39'-0	119.0000mA	20.1479V	(0.0434V)
006	STR	STROBE, EXCEDER 24V, M-C, RED, WALL, 30CD	12'-0	63.0000mA	20.1401V	(0.0078V)
007	STR	STROBE, EXCEDER 24V, M-C, RED, WALL, 15CD	18'-0	43.0000mA	20.1327V	(0.0074V)
008	STR	STROBE, EXCEDER 24V, M-C, RED, WALL, 30CD	9'-0	63.0000mA	20.1305V	(0.0022V)
			193'-0	576.0000mA		

Total Current: 576.0000mA
(Total VDrop Percent:1.32%) Total Voltage Drop : 0.2695V

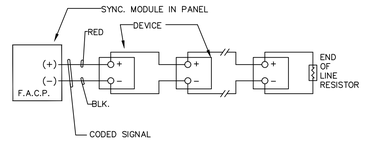
FIRE ALARM WIRING DIAGRAMS



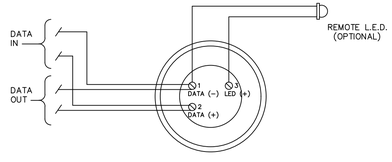
FIRE ALARM CONTROL PANEL – NFS2-640



TYPICAL (SMOKE/HEAT DETECTOR, CEILING MOUNT INSTALLATION DETAIL
N.T.S.



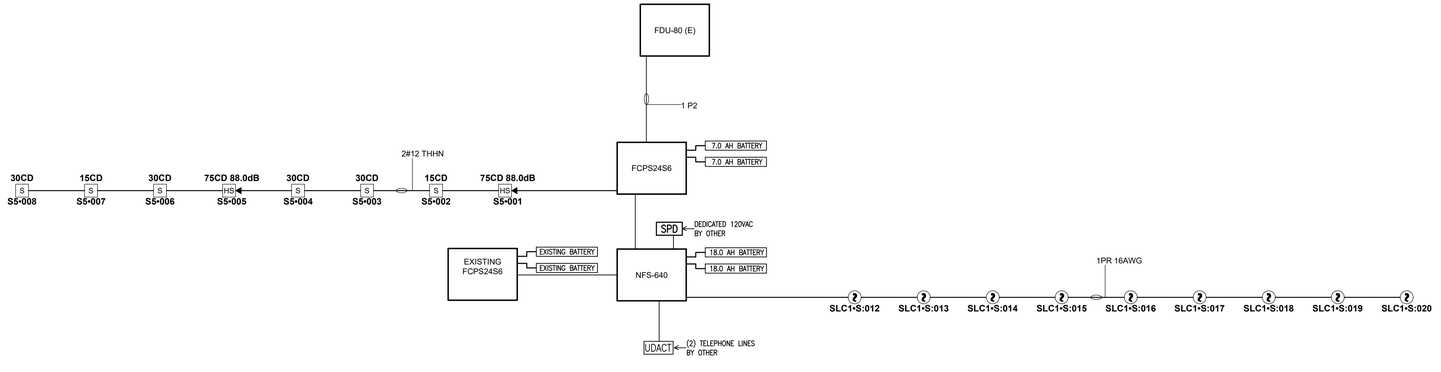
TYPICAL AUDIO/VISUAL DEVICE WIRING
N.T.S.



TYPICAL SMOKE/HEAT DETECTOR WIRING
N.T.S.

NOTE:
LOCATION OF SMOKE DETECTORS PER SMOOTH CEILING TYPE, NFPA72 CHAPTER 3 PROVISION.

FIRE ALARM RISER



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

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Project 3
725 W. Broadway
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CONSULTANTS

REGISTRATION STAMP

LICENSED ARCHITECT
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RENEWAL 08/31/19
C-18627
STATE OF CALIFORNIA

ISSUE

Mark	Date	Description

DESIGNER PROJECT NO.: 17010
DRAWN BY: Author
CHECKED BY: Checker
SCALE: 1/4" = 1'-0"
DESIGN ITERATION

PRELIMINARY

DATE

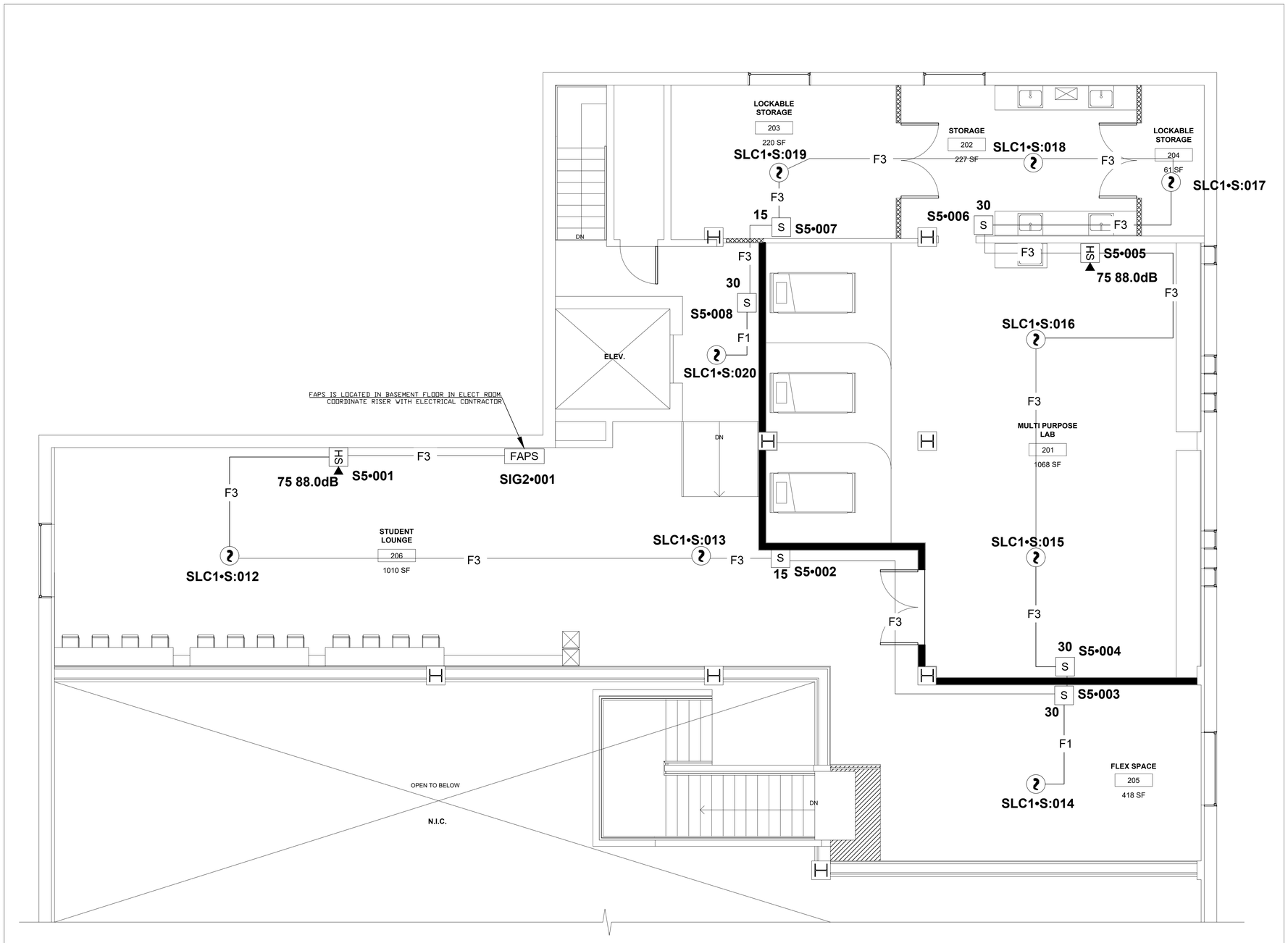
DATE: 09.07.2017

SHEET TITLE

BATTERY CALCULATIONS
RISER DIAGRAM
WIRING DIAGRAMS

SHEET NUMBER

FA-002



Mezz. Proposed Plan

1/4" = 1'-0"

1

GENERAL NOTES

1. EXISTING FIRE ALARM CONTROL PANEL IS LOCATED IN ELECT B18.
2. INSTALL 1 SYSTEM RECORD DOCUMENT ENCLOSURE PER NFPA 72 2016 7.7.2.4. 1
3. FINAL DRAWINGS SHALL BE PLACED IN THE RECORD DOCUMENT ENCLOSURE FOR FUTURE REFERENCE.
4. INITIATING & NOTIFICATION DEVICES SHALL BE LABELED WITH ADDRESS/CIRCUIT NUMBER. THE E.O.L SHALL BE LABELED AT THE ASSOCIATED DEVICE.
5. ANY REQUIRED FIRE SPRINKLER INSTALLATIONS/ MODIFICATIONS NECESSITATED BY THIS CONSTRUCTION MUST BE MADE UNDER FIRE PROTECTION PLANS APPROVED BY THE FIRE DEPARTMENT UNDER A SEPARATE PERMIT
6. REMOVE ANY EXISTING NOTIFICATION DEVICES.
7. NEW FAPS SHALL BE INSTALLED IN ELECT. ROOM B18. IN BASEMENT AREA.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-116700 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/27/2020

CONDUIT

LABEL	WIRES	CONDUIT SIZE	FILL %	NOTES
FA	2X(1PR16AWG, 2#12AWG	2" conduit	19.63%	--
F2U	2#14 THHN/THWN	2" CONDUIT	3.56%	4
F1	1PR 16AWG	2" conduit	7.32%	1
F2	2#12 THHN/THWN	2" conduit	4.98%	3
F3	1PR 16AWG, 2#12 THHN/THWN	2" conduit	12.30%	1 & 3
F4	4#12 THHN/THWN	2" conduit	9.96%	3
F5	1PR 16AWG, 4#12 THHN/THWN	2" conduit	17.28%	1 & 3

NOTES:
1. 1PR16AWG = WEST PENN #990; INSIDE ONLY.
2. 1PR16AWG = WEST PENN #AQCAQ226RDAVC; UNDERGROUND ONLY
3. 2# 12 = CES THHN/THWN
4. 2# 14 = CES THHN/THWN
5. ALL WIRING TO BE LISTED FOR USE AS REQUIRED BY TITLE 24/CEC, ART. 760.
6. CONDUIT TO NOT EXCEED 40% FILL PER NEC STANDARDS

CLIENT

PALO VERDE COLLEGE
WHERE KNOWLEDGE TAKES ROOT AND OPPORTUNITY GROWS

Palo Verde Community College District
1 College Drive
Blythe, CA 92225

PROJECT NAME

Needles Center
Project 3
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Needles, CA 92363

CONTRACTOR

DESIGNER

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CONSULTANTS

REGISTRATION STAMP

LICENSED ARCHITECT LEWIS PYE C-18627 04/30/19 STATE OF CALIFORNIA

ISSUE

Mark	Date	Description
1	12/15/2017	AS-BUILT

DESIGNER PROJECT NO.: 17010
DRAWN BY: Author
CHECKED BY: Checker
SCALE: 1/4" = 1'-0"
DESIGN ITERATION

PRELIMINARY

DATE

DATE: 09.07.2017

SHEET TITLE

PROPOSED FIRE ALARM FLOOR PLAN

SHEET NUMBER

FA-003