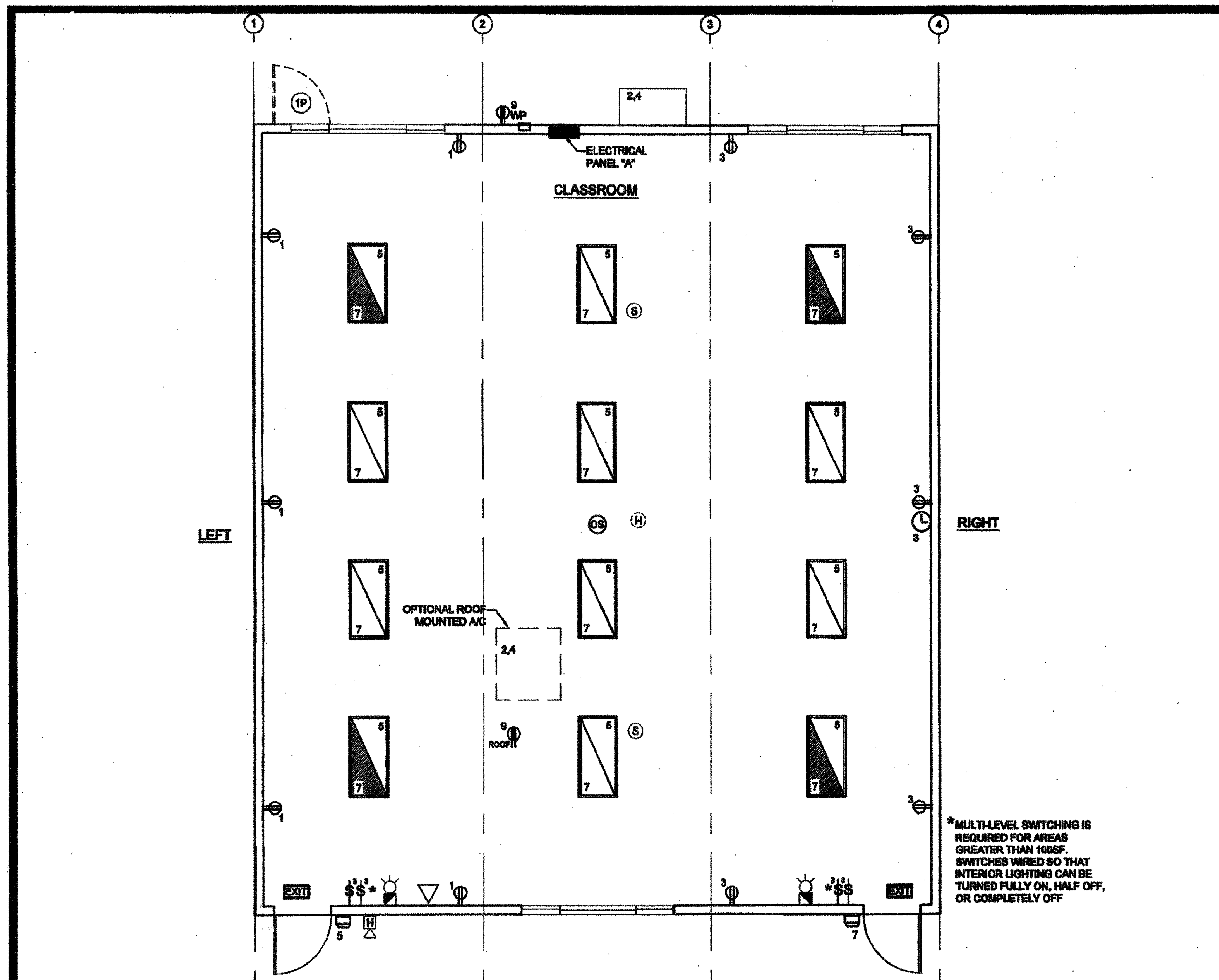


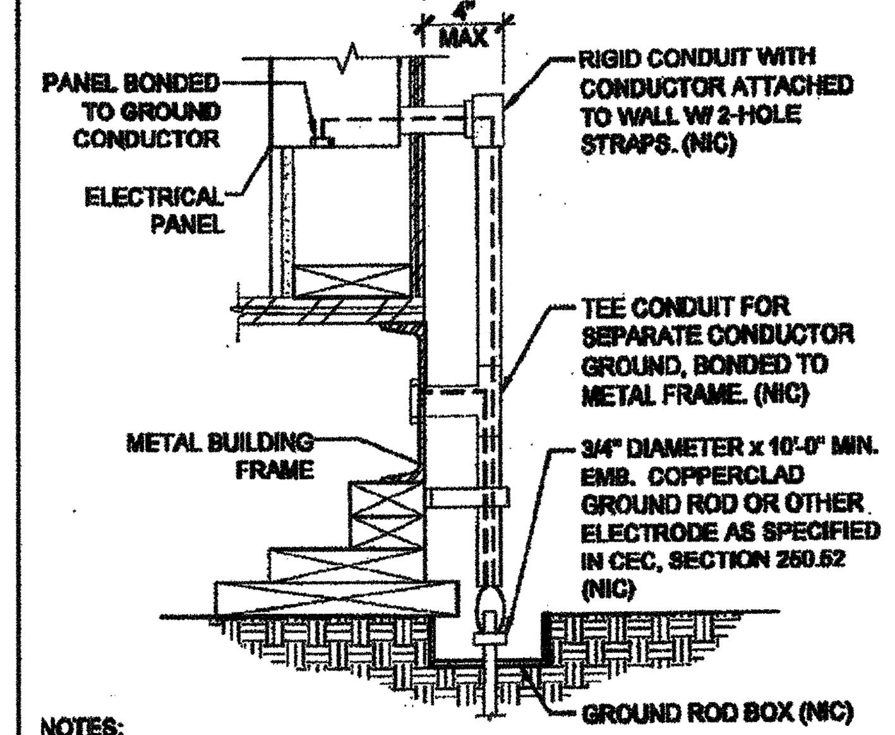
*MULTI-LEVEL SWITCHING IS REQUIRED FOR AREAS GREATER THAN 100SF. SWITCHES WIRED SO THAT INTERIOR LIGHTING CAN BE TURNED FULLY ON, HALF OFF, OR COMPLETELY OFF

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

NOTE: SEE CCD-1 FOR SITE SPECIFIC CONFIGURATION

NOT USED — 6

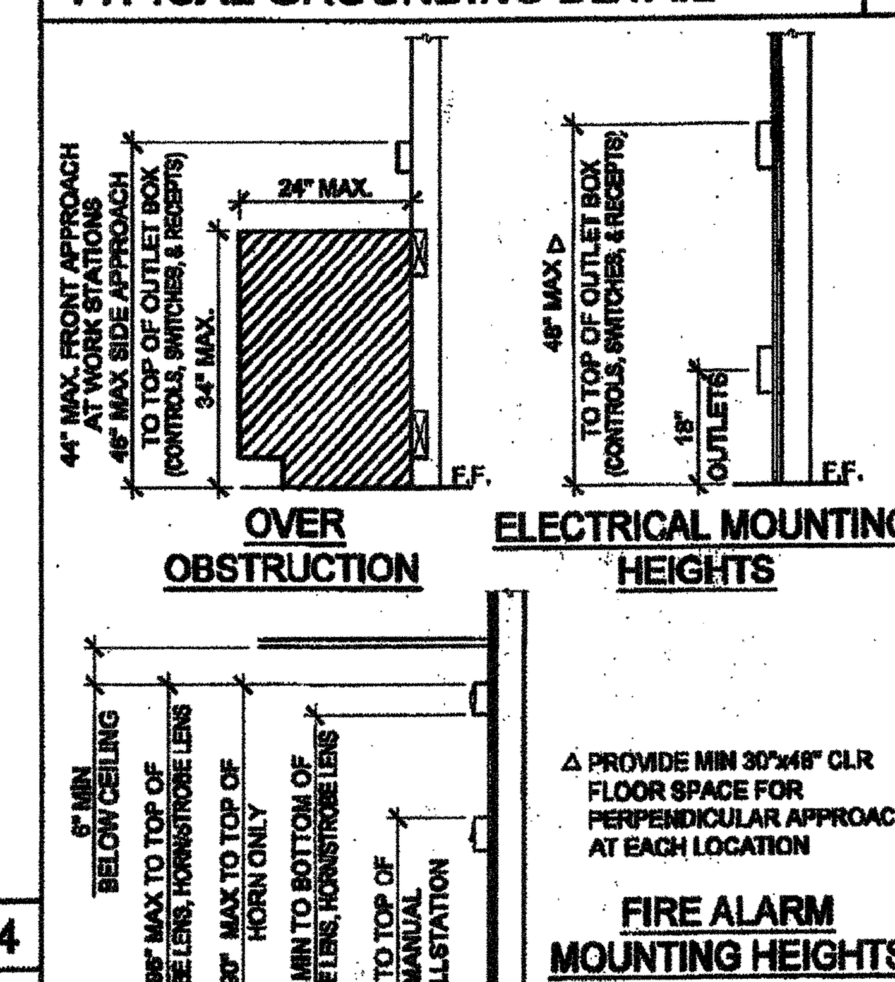
NOT USED — 5



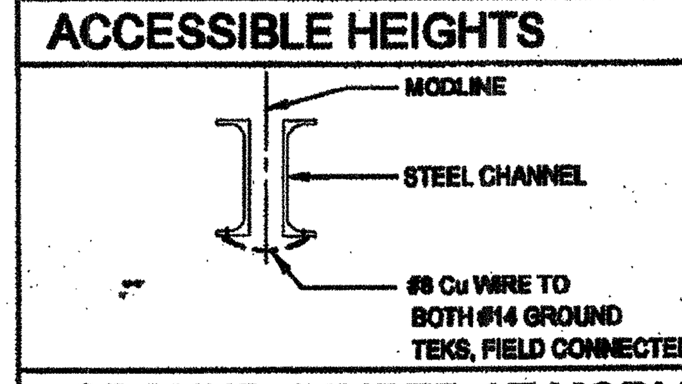
NOTES:

1. SIZE OF CONDUCTORS SHALL COMPLY WITH CEC TABLE 250.66
2. ELEC. TRADE SHALL CHECK AREA FOR EXISTING CONDUITS, SEWER, GAS & WATER PIPING BEFORE DRIVING GROUND RODS.
3. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELEC'L. PANEL, & TO METAL BUILDING FRAME (CEC 250.52) IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10 FT. OR MORE, IF AVAILABLE (CEC 250.52)
4. ALL MODULES OF METAL FRAME BLDGS. SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). BONDING SHALL INCLUDE METAL RAMP.
5. CHECK RESISTANT TO GROUND ROD, IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (CEC 250.56).

TYPICAL GROUNDING DETAIL — 1



ACCESSIBLE HEIGHTS — 2



GROUND JUMPER AT MODLINE — 3

GENERAL GROUNDING NOTES

EACH BUILDING SHALL BE SEPARATELY GROUNDED WITH A 3/4" RD. X 8' COPPERCLAD STEEL GROUND ROD, WHERE ROCK BOTTOM IS ENCOUNTERED, ROD SHALL BE DRIVEN AT AN ANGLE NOT TO EXCEED 45 DEGREE'S FROM THE VERTICAL OR SHALL BE BURIED IN A TRENCH THAT IS AT LEAST 30" DEEP (BY SITE ELECTRICAL).

TESTING: TEST FOR RESISTANCE TO GROUND, IF RESISTANCE EXCEEDS 25 OHMS. INSTALL ADDITIONAL GROUND RODS SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCES TO 25 OHMS OR LESS. (BY SITE ELECTRICAL).

APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF THIS FIRE ALARM FOR ALL SITES. THE FIRE ALARM SYSTEM AND/OR COMPONENTS MAYBE REQUIRED TO BE CHANGED DUE TO SITE LOCATION EXISTING CONDITIONS OR INCOMPATIBLE COMPONENTS.

GROUND MG TEST SHALL BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR. ALL GROUNDING SHALL BE IN ACCORDANCE WITH CEC ARTICLE 250.

SCHOOL EQUIPMENT ANCHORAGE

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2010 CBC, SECTIONS 1615A.1.12 THROUGH 1615A.1.22 AND ASCE 7-05 CHAPTER 6 AND 13.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

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

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

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

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.8, 13.6.7, 13.6.5.6 AND 2010 CBC SECTIONS 1615A.1.20, 1615A.1.21 AND 1615A.1.22.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AN BRACING OF THE PIPE, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

REVISED
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113892 AC FLS SS DATE FEB 26 2015

FIRE ALARM NOTES

1. SMOKE AND HEAT DETECTOR SHALL BE CONNECTED TO FIRE ALARM SYSTEM BY OTHERS
2. PROVIDE DEDICATED FIRE ALARM 120 VOLT CIRCUIT CONNECTED TO LOCKED-ON BREAKER. THE CIRCUIT BREAKER SHALL BE LOCKED-ON WITH APPROVED LOCKING DEVICE, MARKED RED AND IDENTIFIED AS "FIRE ALARM CONTROL CIRCUIT". NFPA 72 4.4.1.4.2.2

CONDUIT FILL AND CONDUCTOR CAPACITY TABLE

(ALL CONDUCTORS SHALL BE TYPE THHN/THWN 75°C. COPPER)

WIRE SIZE	CAPACITY	WIRE TYPE	NO. OF CONDUCTOR PERMITTED 1/2" C	3/4" C	1" C	1 1/4" C
#12	20A	THHN	9	16	26	46
#10	30A	THHN	5	10	16	28
#8	45A	THHN	2	5	8	14
#6	65A	THHN	1	3	5	10
#4	85A	THHN	1	2	4	7

JUNCTION BOX SIZE TABLE

BOX	SIZE	CU. IN.	MAX NO. OF CONDUCTORS #12	#10	#8	#6
4SS	1 1/4" x 4" SQ	18.0	8	7	6	0
4S	1 1/2" x 4" SQ	21.0	9	8	7	0
4SD	2 1/8" x 4" SQ	30.3	13	12	10	6
4SX	2 7/8" x 4" SQ	43.5	23	21	17	10
5SD	2 1/8" x 4-11/16" SQ	42.0	18	16	14	6
5SX	3 7/8" x 4-11/16" SQ	86.0	38	34	28	17
6S4	4" x 6" SQ	144.0	64	57	48	28

* DEDUCT ONE CONDUCTOR FOR (1) OR MORE GROUNDING CONDUCTORS ENTERING THE BOX

LEGEND

- 2x4 CEILING LIGHT WITH (3) T-8 LAMPS, LAY-IN FLUORESCENT LIGHT FIXTURE WITH ELECTRONIC BALLAST. ORACLE LIGHTING - MODEL 24.OT.332.2.T8A12.L41K.C4 WATTAGE: 32W T8 (48"LG) OR EQUAL
- OPTIONAL 1x4 CEILING LIGHT WITH (1) T-8 LAMP, LAY-IN FLUORESCENT LIGHT FIXTURE WITH ELECTRONIC BALLAST
- WALL MOUNTED HVAC UNIT. SEE MECHANICAL DWGS
- ROOF MOUNTED HVAC UNIT-SEE MECHANICAL DWGS
- ELECTRICAL PANEL AT +60" AFF TO TOP OF ELECTRICAL PANEL WITH 1 1/2" DIA POWER STUB OUT
- OS — DUAL CEILING OCCUPANCY SENSOR. WATTSTOPPER DT-300 OR EQUAL. SENSOR TO BE CONNECTED TO LIGHT SWITCHES FOR MANUAL OVERRIDE AND USE FOR OPEN ROOM OVER 100 SQ FT W/ (2) CIRCUITS.
- US — ULTRASONIC CEILING OCCUPANCY SENSOR. WATTSTOPPER W-500A OR EQUAL. SENSOR TO BE CONNECTED TO KEYED LIGHT SWITCHES FOR MANUAL OVERRIDE AND USE FOR RESTROOM W/ PARTITIONS.
- WS-1 — SINGLE SWITCH WALL OCCUPANCY SENSOR. WATTSTOPPER PW-100 OR EQUAL. SENSOR TO BE MOUNTED AT +44" AFF AND USE FOR OPEN ROOM (OR RESTROOM) LESS THAN 100 SQ FT W/ (1) CIRCUIT.
- WS-2 — DUAL SWITCH WALL OCCUPANCY SENSOR. WATTSTOPPER PW-200 OR EQUAL. SENSOR TO BE MOUNTED AT +44" AFF AND USE FOR OPEN ROOM OVER 100 SQ FT W/ (2) CIRCUITS.
- $ — LIGHT SWITCH. MOUNT AT +48" AFF TO TOP OF OUTLET BOX
- $3 — 3-WAY LIGHT SWITCH. MOUNT AT +48" AFF TO TOP OF OUTLET BOX
- DUPLEX (WALL MOUNTED) RECEPTACLE 15A - 125V - 3 WIRE. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF DEVICE
- WP — EXTERIOR WEATHER PROOF GFI RECEPTACLE AT +24" AFF FOR A/C SERVICES (MAX 25'-0" FROM UNITS)
- GFI — GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE WITHIN 6'-0" OF ALL SINKS
- ROOF — ROOF MOUNTED WEATHER PROOF GFI RECEPTACLE
- EXTERIOR LIGHT FIXTURE. MOUNT AT +93" AFF
- CLOCK OUTLET AT +90" AFF TO CENTERLINE OF DEVICE
- EXIT — EXIT SIGN WITH BATTERY BACK UP. EXIT SIGN REQUIRED FOR CLASSROOMS WITH TWO OR MORE EXTERIOR DOORS. CLASSROOMS WITH ONE EXTERIOR DOOR - OPTIONAL)
- 4SD J-BOX FOR FIRE ALARM PULLSTATION (DEVICE BY OTHERS). MOUNT AT +48" AFF TO TOP OF OUTLET BOX WITH 3/4" CONDUIT TO FIRE ALARM STROBE WITH PULLSTRING
- 4SD J-BOX FOR FIRE ALARM STROBE (DEVICE BY OTHERS) BOTTOM OF LENS SHALL BE BETWEEN 80" TO 96" AFF WITH 3/4" CONDUIT TO EXTERIOR FIRE ALARM HORN WITH PULLSTRING
- H — 4SD J-BOX FOR EXTERIOR FIRE ALARM HORN (DEVICE BY OTHERS). MOUNT AT +90" AFF TO TOP OF DEVICE WITH 3/4" CONDUIT TO FIRE ALARM BACKBOX WITH PULLSTRING
- RECESSED 4SD J-BOX W / COVER PLATE FOR FUTURE FIRE ALARM SYSTEM BY OTHERS. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF BOX AND PROVIDE 1" CO STUB TO ATTIC SPACE WITH PULLSTRING
- S — 4SD J-BOX IN ATTIC FOR CEILING MOUNTED SMOKE DETECTOR (DEVICE BY OTHERS). DETECTORS SHALL BE PLACED SO THAT THERE IS A DETECTOR WITHIN 15'-0" FROM ADJACENT WALL(S), AND 21'-0" FROM ANY POINT IN ROOM. DETECTORS SHALL BE PLACED 30'-0" O.C. MAX. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO SMOKE DETECTOR LOCATION. PROVIDE 3/4" CONDUIT FROM J-BOX TO FIRE ALARM BACKBOX WITH PULLSTRING (ALARM NOTE #1)
- H — 4SD J-BOX IN ATTIC FOR ATTIC MOUNTED HEAT DETECTOR (DEVICE BY OTHERS). DETECTORS SHALL BE PLACED SO THAT THERE IS A DETECTOR WITHIN 25'-0" FROM ADJACENT WALL(S), 35'-0" FROM ANY POINT IN ATTIC. DETECTORS SHALL BE PLACED 50'-0" O.C. MAX. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO HEAT DETECTOR LOCATION. PROVIDE 3/4" CONDUIT FROM J-BOX TO FIRE ALARM BACKBOX WITH PULLSTRING (ALARM NOTE #1)
- WH — 4SD J-BOX FOR WATER HEATER LOCATE ABOVE CEILING W/ COVER PLATE, HARD WIRE TO UNIT
- 100 CFM CEILING MOUNTED EXHAUST FAN. INTERLOCKED WITH LIGHT SWITCH
- 2x4 CEILING LIGHT WITH (3) T-8 LAMPS, LAY-IN FLUORESCENT LIGHT FIXTURE WITH ELECTRONIC BALLAST. ORACLE LIGHTING - MODEL 24.OT.332.2.T8A12.L41K.C4 WATTAGE: 32W T8 (48"LG) OR EQUAL. EACH LIGHT FIXTURE WHICH IS INDICATED AS BEING AN EMERGENCY LIGHT SHALL HAVE A BALLAST BATTERY PACK INSTALLED ON THE FIXTURE. THE BATTERY PACK SHALL PROVIDE POWER TO A SINGLE LAMP WITHIN THE FIXTURE FOR NO LESS THAN 90 MINUTES. ANY LIGHT FIXTURE EQUIPPED WITH A BATTERY PACK SHALL BE WIRED IN SUCH A MANNER THAT THE BATTERY WILL BE ACTIVATED IMMEDIATELY UPON LOSS OF POWER TO THE FIXTURE. ADDITIONALLY THE BATTERY PACK SHALL BE WIRED SUCH THAT WHEN THE FIXTURE IS BEING OPERATED USING BATTERY POWER THE LIGHTING CONTROL SWITCHES AND SENSORS SHALL NOT BE ABLE TO SHUT THE FIXTURE OFF.
- OPTIONAL 4SD-JBOX w/3/4" CONDUIT INTO ATTIC SPACE-HEIGTH T.B.D. LOCATIONS AS REQUIRED

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT 03-117024 AC FLS SS DATE 06/01/2016

ELECTRICAL PANEL
WALL MOUNTED HVAC

VOLTS: 120/208 V — PANEL: "A" — FEED: REAR
MAIN: 100 A — LOCATION: INTERIOR ACCESS — MOUNTING: FLUSH

LOAD	QTY	WATTS AØ	WATTS BØ	BREAKER Amps	P	Circuit	Circuit	BREAKER Amps	P	WATTS AØ	WATTS BØ	QTY	LOAD
RECEPTACLES	5	900		20	1	1	2	60	2	6960		1	TON HVAC - WALL MOUNT (- R410a)
RECEPTACLES/CLOCK	6		900	20	1	3	4	-	-		6960		-
INTERIOR/EXTERIOR LIGHTING	19	1005		20	1	5	6						
INTERIOR/EXTERIOR LIGHTING	19		1005	20	1	7	8						
WALL RECEPTACLE (GFI)	1	180		20	1	9	10						
						11	12	20	1		40		ALARM
A = 9045 WATTS / PHASE		2085	1905							6960	7000		B = 8905 WATTS / PHASE

TOTAL = 17,950 WATTS — 75 AMPS — 120/208 VOLTS — 1 Ø — 3 WIRE

ELECTRICAL PANEL
ROOF MOUNTED HVAC

VOLTS: 120/208 V — PANEL: "A" — FEED: REAR
MAIN: 100 A — LOCATION: INTERIOR ACCESS — MOUNTING: FLUSH

LOAD	QTY	WATTS AØ	WATTS BØ	BREAKER Amps	P	Circuit	Circuit	BREAKER Amps	P	WATTS AØ	WATTS BØ	QTY	LOAD
RECEPTACLES	5	900		20	1	1	2	45	2	4200		1	TON HVAC - ROOF MOUNT (R-410a)
RECEPTACLES/CLOCK	6		900	20	1	3	4	-	-		4200		-
INTERIOR/EXTERIOR LIGHTING	19	1005		20	1	5	6						
INTERIOR/EXTERIOR LIGHTING	19		1005	20	1	7	8						
ROOF RECEPTACLE (GFI)	1	180		20	1	9	10						
						11	12	20	1		40		ALARM
A = 6285 WATTS / PHASE		2085	1905							4200	4240		B = 6145 WATTS / PHASE

TOTAL = 12,430 WATTS — 52 AMPS — 120/208 VOLTS — 1 Ø — 3 WIRE

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 114277 AC FLS SS DATE APR 23 2015

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING CLASSROOMS BLDG'S

SHEET TITLE:

ELECTRICAL PLAN AND SCHEDULE 36' x 40'

TAVARES ASSOCIATES

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE

REGISTERED ARCHITECT ROBERT A. McQUEAD C10322 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113849 AC FLS SS DATE AUG 20 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT CODE: 2010 CBC — A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES PC 04-112072 AC FLS SS DATE DEC 29 2011

REVISIONS

1
2
3
4
5
6
7
8

SILVER CREEK INDUSTRIES 24' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	12-23-11

P.C. SHEET NUMBER: E-1.02

STKP 140