

REVISIONS		
NO.	DATE	DESCRIPTION

DATE: 01/25/08
SCALE: NOTED
DRAWN BY: RL
SERIAL NO.:

CUSTOMER:
2:12 PITCHED ROOF 24' x 40' THRU 120' x 40' RELOCATABLE CLASSROOMS MECHANICAL BUILDING SECTION & CEILING DETAILS

AMS
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APPROVALS:
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
112985
AC. FLS. SS. 2/24/2009
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OFFICE OF REGULATION SERVICES
PC 02-108695
AC. FLS. SS. 3/27/2009
DATE: 3/27/2009

PROJECT No.
PC
M2

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METAL SUSPENSION SYSTEMS FOR LAY IN PANEL CEILING

- 12 GA. (MIN) HANGER WIRES MAY BE USED FOR UP TO AND INCLUDING 4'-0" x 4'-0" GRID SPACING, ALONG MAIN RUNNER. SPLICES WILL NOT BE PERMITTED IN ANY HANGER WIRES UNLESS SPECIFICALLY APPROVED BY DSA.
- PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO MAINTAIN HANGER SPACING. PROVIDE ADDITIONAL HANGERS, STRUTS OR BRACES AS REQUIRED AT ALL CEILING BREAKS, SOFFITS OR DISCONTINUOUS AREA. HANGER WIRES THAT ARE MORE THAN 1 IN 6 OUT OF PLUMB ARE TO HAVE COUNTERBRACED WIRES.
- CEILING GRID MEMBERS MAY BE ATTACHED TO NOT MORE THAN 2 ADJACENT WALLS. CEILING GRID MEMBERS SHOULD BE AT LEAST 1/2 INCH FREE OF OTHER WALLS. IF WALLS RUN DIAGONALLY TO CEILING GRID SYSTEM RUNNERS, ONE END OF MAIN AND CROSS RUNNERS SHOULD BE FREE AND A MINIMUM OF 1/2 INCH CLEAR OF WALL.
- AT THE PERIMETER OF THE CEILING AREA WHERE MAIN OR CROSS RUNNERS ARE NOT CONNECTED TO THE ADJACENT WALL, PROVIDE INTERCONNECTION BETWEEN THE RUNNERS AT THE FREE END TO PREVENT LATERAL SPREADING. A METAL STRUT OR A 16 GA WIRE WITH A POSITIVE MECHANICAL CONNECTION TO THE RUNNERS MAY BE USED. WHERE THE PERPENDICULAR DISTANCE FROM THE WALL TO THE FIRST PARALLEL RUNNERS IS 12" OR LESS, THIS INTERLOCK IS NOT REQUIRED.
- PROVIDE SETS OF 4-#12 GA. SPLAY BRACING WIRES ORIENTED 90 DEGREES FROM EACH OTHER AT THE FOLLOWING SPACING:
 - FOR SCHOOL BUILDINGS, PLACE SETS OF SPLAY WIRES AT A SPACING NOT MORE THAN 12 FEET BY 12 FEET ON CENTER.
 - PROVIDE SPLAY WIRES AT LOCATIONS NOT MORE THAN 1/2 THE ABOVE SPACING FROM EACH PERIMETER WALL OR AT THE EDGE OF VERTICAL CEILING OFFSETS

THE SLOPE OF THESE WIRES SHOULD NOT EXCEED 45 DEGREES FROM THE PLANE OF THE CEILING AND SHOULD BE TAUT WITHOUT CAUSING THE CEILING TO LIFT. SPLICES IN BRACING WIRES ARE NOT PERMITTED WITHOUT SPECIAL DSA APPROVAL.
- FASTEN HANGER WIRES WITH NOT LESS THAN 3 TIGHT TURNS. FASTEN SPLAY WIRES WITH 4 TIGHT TURNS. MAKE ALL TIGHT TURNS WITHIN A DISTANCE OF 1 1/2 INCHES. HANGER OR BRACING WIRE ANCHORS TO THE STRUCTURE SHOULD BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE WIRE ALIGNS AS CLOSELY AS POSSIBLE WITH THE DIRECTION OF THE FORCES ACTING ON THE WIRE.
- SEPARATE ALL CEILING HANGING AND BRACING WIRES AT LEAST 6 INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT ETC..
- ATTACH ALL LIGHT FIXTURES AND AIR TERMINALS TO THE CEILING GRID RUNNERS WITH SCREWS OR APPROVED FASTENERS AS REQUIRED TO RESIST A HORIZONTAL FORCE EQUAL TO THE FIXTURES.
- FLUSH OR RECESSED LIGHT FIXTURES AND AIR TERMINALS WEIGHING LESS THAN 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE RUNNERS OF A HEAVY DUTY GRID SYSTEM BUT, IN ADDITION, THEY MUST HAVE A MINIMUM OF 2-#12 GA. SLACK SAFETY WIRES ATTACHED AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE.
- CLASSIFICATION OF CEILING GRID: CLASSIFICATION OF CEILING GRID IS "HEAVY DUTY" CHICAGO METALLIC, OR DONN(USG) PER ASTM C635 MANUFACTURER'S CATALOG NUMBER - MAIN RUNNER HEAVY DUTY MAIN TEE OR EQUAL #200-01 OR DX26. MANUFACTURER'S CATALOG NUMBER - CROSS RUNNER CHICAGO METALLIC 1214-01 OR DONN DX 416 CROSS TEES. MANUFACTURER'S CATALOG NUMBER OF DETAIL FOR RUNNER SPLICE N/A. ACOUSTICAL PANELS SHALL BE 5/8" MINIMUM THICK, MINERAL FIBERBOARD OR VINYL-FACED FIBERGLASS LAY-IN PANELS SQUARE EDGE ASTM FLAME SPREAD CLASS T, 24" x 48" MODULAR SIZE, LIGHT REFLECTION 75% MINIMUM, NOISE REDUCTION COEFFICIENT OF 0.65 MINIMUM. MAXIMUM SMOKE DENSITY NOT TO EXCEED 450.

MANUFACTURER	MAIN TEE	H.D. 4' CROSS TEE	H.D. 2' CROSS TEE
DONN/USG	DX-26	DX-424	DX-216
ARMSTRONG	7301	7341	7323
CHICAGO MET.	200-01	1204-01	1226-01

NOTE: ALL GRID COMPONENTS SHALL BE BY SAME MANUFACTURER

MODEL NUMBER	DESCRIPTION	MAX. CFM	UNIT WEIGHT LBS.
WH421-A	3 1/2 TON HEAT PUMP	1400	530
WH482-A	4 TON HEAT PUMP	1550	560
WH602-A	5 TON HEAT PUMP	1700	560

GENERAL NOTES

- HEATING VENTILATING AND AIR CONDITIONING (HVAC)
- HEAT PUMP: SINGLE PACKAGE WALL MOUNTED AIR TO AIR ELECTRIC HEAT PUMP UNIT SHALL BE RATED IN ACCORDANCE WITH ARI STANDARD 240-77.

REFERENCE BRANDS: BARD WH421-XXXXXXX
BARD WH482-XXXXXXX
BARD WH602-XXXXXXX

MAXIMUM AC SIZE FOR THIS BUILDING WILL BE A 5-TON UNIT

ALL UNITS SHALL BE 230/208 VOLT, 1 PHASE SYSTEM, UL TESTED & APPROVED OR COMPARABLE AND MEET CURRENT ENERGY STANDARDS.

A.) THE SYSTEM SHALL MAINTAIN AN AUTOMATICALLY CONTROLLED INDOOR CLASSROOM TEMPERATURE OF 78 DEGREES F. WHEN THE OUTDOOR DRY BULB TEMPERATURE VARIES BETWEEN 100 DEGREES F. IN THE SUMMER

B.) THE SYSTEM MUST MAINTAIN THE ABOVE TEMPERATURE WHEN THE DAMPER IS ADJUSTED TO USE APPROXIMATELY ONE THIRD FRESH AIR.
 - DUCTWORK.

A.) CONSTRUCT ALL DUCTWORK OF GALVANIZED SHEET METAL IN ACCORDANCE WITH C.M.C., ASHRAE GUIDE EQUIPMENT VOLUME AND SMACNA LOW VELOCITY DUCT CONSTRUCTION MANUAL LATEST EDITIONS. ALL DUCTWORK SHALL BE INSULATED WITH 1" THICK FIBERGLASS DUCT WRAP WITH VAPOR BARRIER. PROVIDE 1" DUCT ATTENUATION AT ALL DUCTWORK WITHIN 2'-0" OF HVAC UNIT.

B.) NON-METALLIC DUCTWORK OPTION: IN ACCESSIBLE CONCEALED PORTIONS OF DUCT SYSTEM RIGID 1" FIBERGLASS OR INSULATED FLEX-DUCT WITH VAPOR BARRIER MAY BE SUBSTITUTED FOR SHEET METAL DUCTWORK. ALL DUCTWORK WITHIN 2'-0" OF THE HVAC UNIT AND ALL INTERFACE CONNECTIONS SHALL BE METAL. DUCTWORK AND REINFORCEMENT SHALL BE DESIGNED FOR 2" STATIC PRESSURE. REFERENCE BRANDS: OWENS-CORNING FIBERGLASS DUCTBOARD, 1" THICK, AND MICRO-ARE, TYPE 475. NON-METALLIC DUCTWORK SHALL CONFORM TO NFPA 90-A AND SMACNA CLASS 1 RATING.
 - AIR DUCT INSULATION AND LININGS SHALL COMPLY WITH FLAME SPREAD LESS THAN OR EQUAL TO 25, SMOKE GENERATION LESS THAN OR EQUAL TO 50.
 - SUPPLY AIR DIFFUSERS SHALL BE 675 CFM MAX. 12" ROUND. 1" FIBERGLASS OR FLEXDUCT DUCTWORK SPECIFICALLY DESIGNED TO PROVIDE AIR THERMAL COOLING SYSTEMS. 24"x8"x1" MICRO-AIRE TYPE #475 OWENS-CORNING, KNAUF, CERTAINTEEED, OR EQUAL AND 90- B: UL #131 TEST, CLASS 1 RATING WITH "SMACNA".
 - REGISTERS AND DIFFUSERS: PROVIDE THREE (MIN) 4-WAY THROW AIR DIFFUSERS AS MANUFACTURED CARNES, TITUS, HART AND COOLEY, METALAIRE, SHOEMAKER, BARBER-COLEMAN OR KRUEGER COMMERCIAL GRADE GRILLS AND REGISTERS
 - AIR CONDITIONING CONTROLS. THERMOSTAT: PROVIDE ELECTRONIC PROGRAMMABLE THERMOSTAT. THERMOSTAT SHALL HAVE THE FOLLOWING FUNCTIONS.
 - 5 AND 2 WEEKDAY/WEEKEND PROGRAMMING WITH 4 SEPARATE TIME/TEMPERATURE SETTING FOR 24-HOUR PERIOD.
 - KEY BOARD LOCKOUT SWITCH.
 - PROGRAMMABLE DISPLAY.
 - 2-HOUR OVERRIDE MINIMUM.
 - STATUS INDICATED LED'S.
 - BATTERY BACK-UP.

PROVIDE LOCKING CLEAR THERMOSTAT COVER WITH THERMOSTAT COVER WITH ACCESS HOLE FOR PROGRAM OVERRIDE. WHITE RODERS IF92-371. MOUNT @ +60° w/COVER (SEALED-SETTING ADJUSTMENTS CAN BE DONE BY SERVICE PERSONNEL ONLY.)
 - THERMAL INSULATION.
 - ROOF INSULATION: R-19 UNFACED.
 - WALLS INSULATION: R-13 KRAFT FACED.
 - FLOORS INSULATION: CONCRETE FLOOR FLAME SPREAD AND SMOKE DEVELOPMENT SHALL CONFORM TO CALIFORNIA BUILDING CODE SEC. 719.
 - FACTORY-MADE AIR DUCTS. FACTORY-MADE AIR DUCTS SHALL BE APPROVED FOR THE USE INTENDED OR SHALL CONFORM TO THE REQUIREMENTS OF U.M.C. STANDARD NO. 6-1. EACH PORTION OF A FACTORY-MADE AIR DUCT SYSTEM SHALL BE IDENTIFIED BY THE MANUFACTURER WITH A LABEL OR OTHER SUITABLE IDENTIFICATION INDICATING COMPLIANCE WITH U.M.C. STANDARD NO. 6-1 AND ITS CLASS DESIGNATION. THESE DUCTS SHALL BE LISTED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF THEIR LISTING AND THE REQUIREMENTS OF UMC STD. 6-1.

DUCT SUPPORT
FLEX DUCT TO BE SUPPORTED WITH 1-1/2" WIDE X 26 GA. GALV. STRAP @ MAX 6'-0" O.C. ATTACH TO RAFTER W/2 #8 SMS @ EACH END.
SUPPLY AIR PLENUM TO BE SUPPORTED WITH 1-1/2" WIDE X 26 GA. GALV. STRAPS MIN. 2 PER PLENUM.
SUPPLY AIR BOX AND DIFFUSERS TO BE SUPPORTED WITH (2) 12 GA. HANGER WIRES TO BOX @ OPPOSITE CORNERS.
SUPPLY AIR BOX AND DIFFUSERS TO BE BRACED WITH (2) 12 GA. SLACK WIRES TO BOX @ OPPOSITE CORNERS. ATTACH SUPPLY AIR DIFFUSERS TO CEILING GRID TO RESIST A LATERAL LOAD EQUAL TO THE WEIGHT OF THE DIFFUSER AND SUPPLY AIR BOX W/2 #8 SMS.

- FIREBLOCKING: SHALL BE PROVIDED IN THE FOLLOWING LOCATION
- IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10-FOOT (3048mm) INTERVALS BOTH VERTICAL AND HORIZONTAL. SEE CBC SECTION 717.2

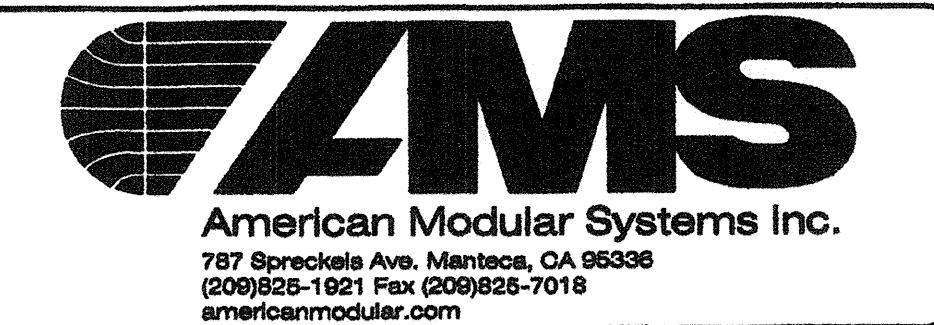
ZONE	WALL	ROOFS	FLOORS
1-14 & 16	R -13	R -19	R -13
15	R -13	R -30	R -13

BUILDING SIZE	# OF HVAC		
	3 1/2 TON HVAC	4 TON HVAC	5 TON HVAC
24' x 40'	1		
36' x 40'		1	
48' x 40'	2		
60' x 40'		2	
72' x 40'			2
84' x 40'			2
96' x 40'		3	
108' x 40'			3
120' x 40'			3

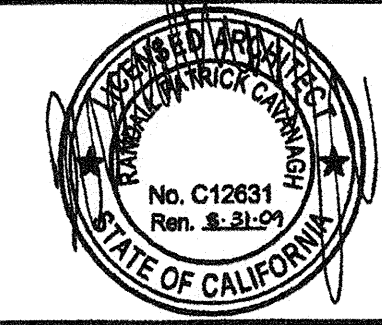
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SCALE: NOTED
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SERIAL NO.:

CUSTOMER:
2:12 PITCHED ROOF 24' x 40' THRU 120' x 40' RELOCATABLE CLASSROOMS
CEILING & MECHANICAL NOTES



APPROVALS:



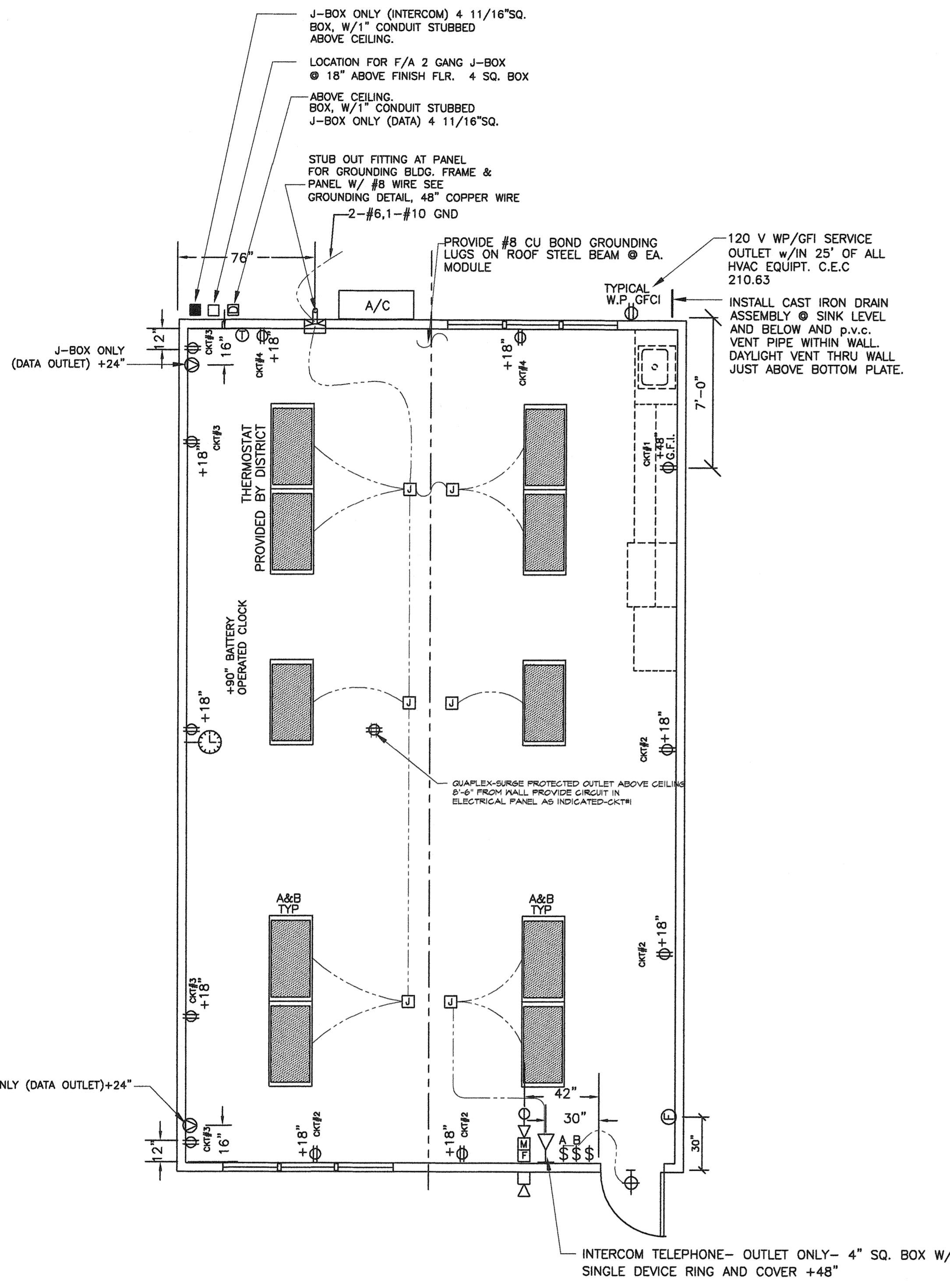
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OFFICE OF REGULATION SERVICES
PC 02-109895
AC, FLS, HT, SSC
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PROJECT No.
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M3

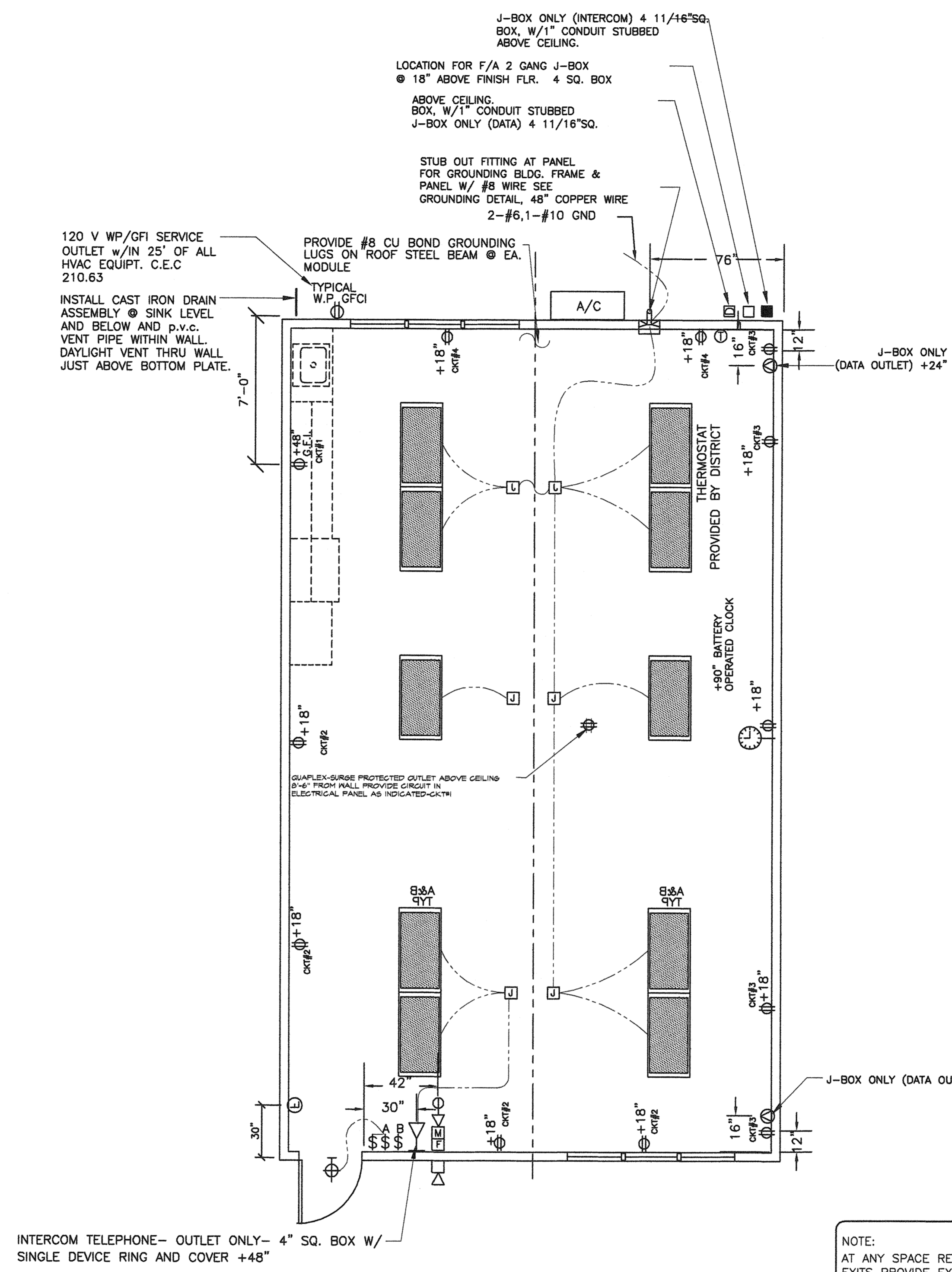
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STANDARD ELECTRICAL SYMBOLS

- EXIT LIGHT WHEN THE OCCUPANT LOAD IS 50 OR MORE
- INCANDESCENT WALL MOUNTED INTERIOR LIGHT FIXTURE
- DUPLEX WALL CONVENIENCE OUTLETS @ +18" TO CENTER LINE ABOVE F.F. AND 12'-0" MAX TYP U.O.N.
- FOURPLEX WALL OUTLET @ +18" TO CENTER LINE U.O.N.
- WEATHER PROOF GROUND FAULT CIRCUIT INTERRUPT OUTLET
- GROUND FAULT CIRCUIT INTERRUPT OUTLET
- SINGLE POLE LIGHT SWITCHES @ +48", HUBBELL PREMIUM, BRYANT HEAVY DUTY, OR LEVITON SPECIFICATIONS GRADE.
- ELECTRICAL CROSSOVER J-BOXES ABOVE T-BAR CEILING #1-4"x1", #22 4"x2"
- CLOCK/SPEAKER COMBO @ +90"
- SWITCH SUBSCRIPTS - @=DEVICE CONTROLLED.
- JUNCTION BOX - SIZE AND TYPE AS REQUIRED.
- SPEAKER - OUTLET ONLY - 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +84"
- DATA/COMMUNICATION OUTLET ONLY- 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +18" U.O.N. AND A 3/4" CONDUIT STUB CEILING SPACE.
- INTERCOM TELEPHONE- OUTLET ONLY- 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +48" U.O.N.
- MOTION SENSOR OUTLET STUB-UP -PROVIDE (1)4" SQ. BOX W/ SINGLE DEVICE RING AND COVER AND ONE 3/4" CONDUIT STUB TO ABOVE CEILING (DEVICES BY OTHERS)
- SECURITY/INTRUSION KEY PAD - OUTLET ONLY- 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER @ +48" AND ONE 3/4" CONDUIT STUB ABOVE CEILING
- DOOR CONTACT - PROVIDE (1) EMPTY 1/2"Ø EMT THROUGH DOOR HEADER STUB ABOVE CEILING
- CATV OUTLET STUB-UP -PROVIDE (1)4" SQ. BOX W/ SINGLE DEVICE RING AND COVER AND(1) 3/4"Ø CONDUIT TO ABOVE CEILING (DEVICES BY OTHERS)
- FIRE ALARM PULL STATION - OUTLET ONLY, 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +48". (DEVICE N.I.C.)
- FIRE ALARM HORN - OUTLET ONLY - 4" SQ. SINGLE GANG J-BOX WITH BLANK WEATHERPROOF COVER @ +90" MIN (DEVICE N.I.C.)
- FIRE ALARM VISUAL ALARM- OUTLET ONLY - 4" SQ. BOX W/ SINGLE DEVICE RING AND COVER +80". A.F.F. BUT NO GREATER THAN +96". IF CEILING MOUNTED PER NFPA72 TABLE 6-4.4.1(b).
- MINI HORN BOX W/ SINGLE DEVICE RING AND COVER @ +80"A.F.F. BUT NO GREATER THAN +96". STUB TO ATTIC
- THERMOSTAT @ +60" SEALED, +48" A.F.F UNSEALED
- ULTRASONIC OCCUPANCY SENSOR
- ELECTRICAL PANEL
- EMERG. LIGHTING w/BATTERY BACKUP WHEN THE OCCUPANT LOAD IS 50 OR MORE



1 TYPICAL ELECTRICAL PLAN
E1 1/4"=1'-0"



2 TYPICAL ELECTRICAL PLAN
E1 1/4"=1'-0"

NOTE:
AT ANY SPACE REQUIRING 2 OR MORE EXITS PROVIDE EXIT SIGNS (CBC 1011) AND EMERGENCY EXIT ILLUMINATION (CBC 1006)

NOTE:
THE PROJECT ARCHITECT SHALL BE RESPONSIBLE FOR THE PLACEMENT OF HEAT, SMOKE DETECTORS AND PULL STATIONS WHEN THE SITE SPECIFIC PROJECT IS REQUIRED TO MEET THE PROVISIONS OF SB 575 & CBC 907.2.3

SYMBOL	DESCRIPTION	WATTS	MANUFACTURER
	2'x4' FLOURESCENT DROP IN FIXTURE, ACRYLIC PRISMATIC LENS. T-8 ELECTRONIC BALLASTS (3)32 WATT TUBES, WT. 27 LBS.	SP41 32 W	CRESCENT 24GP40HSA1158YF2 OR LITHONIA 2GT440A12120ESPWS1846LPESCW
	FLOURESCENT SURFACE MOUNTED EXTERIOR LIGHT WITH IMPACT RESISTANT ENCLOSURE. .125 THICK CLEAR PRISMATIC ONE PIECE LENS W/ NEOPRENE GASKET & POSIGRIP STAINLESS STEEL SCREWS. (PROVIDE EMERGENCY BATTERY BACK-UP WHEN THE OCCUPANT LOAD IS 50 OR MORE)	(2) 7W TT 2700 K	ENERTRON 7026B-L OR EQUAL

- GENERAL NOTES -

- 1.-F.A. : STUB-UP ALL FIRE ALARM JUNCTION BOXES TO ACCESSIBLE ATTIC SPACE WITH 1/2" MIN. GALV. THIN WALL TUBING (EMT). DO NOT CONNECT FIRE ALARM CONDUIT WITH ANY OTHER ELECTRICAL CONDUIT
- 2.-IF OPTIONAL DOOR OCCURS A PULL STATION HEAT, SMOKE DETECTORS AND PULL STATIONS ARE REQUIRED. PULL STATIONS ARE REQUIRED @ EVERY EXIT
- 3.-STUB OUT LOCATIONS FOR ELECTRICAL PANEL, FIRE ALARM, AND DATA BOXES SHOWN ARE DIAGRAMITICAL ONLY EXACT LOCATIONS MAY VARY +/- SEVERAL FEET. PLEASE CONTACT AMERICAN MODULAR SYSTEMS FOR EXACT LOCATIONS. POINT OF CONNECTION WILL BE AT FACE OF BUILDING.
- 4.-SEE TYPICAL CLASSROOM LAYOUT FOR LOCATIONS OF ALL DEVICES. FIXTURE MOUNTING SHALL COMPLY WITH CALIFORNIA SEISMIC REGULATIONS.
- 5.-THE LIGHTS FOR EACH ROOM OVER 250' SQ SHALL BE CONTROLLED BY ULTRASONIC OCCUPANCY SENSOR. WATT STOPPER W-500A W-1000A,OR W-2000A (OR EQUAL) BASED ON THE ROOM SIZE IN CONJUNCTION WITH BI-LEVEL SWITCHING.

REVISIONS

NO	DATE	DESCRIPTION

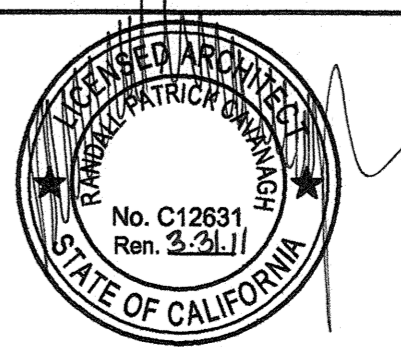
DATE: 08/13/09
SCALE: NOTED
DRAWN BY: RS
SERIAL NO.:

CUSTOMER:
BAKERSFIELD CITY SCHOOLS
MUNSEY AND FREMONT ELEMENTARY SCHOOL

2:12 PITCHED ROOF 24' x 40' RELOCATABLE BUILDINGS
TYPICAL ELECTRICAL PLAN



APPROVALS:



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
No. C12631
Ren. 3/21/11
AC. FLS. SS
DATE: SEP 24 2009

PROJECT NO:
E1

BASED ON PC 02-109695

VOLTS: 120/240 SINGLE PHASE		PANEL: A		FEED: EXTERIOR LB							
MAIN: 100 AMP MAIN BKR.		LOCATION: INTERIOR		MOUNTING: FLUSH							
LOAD	WATTS		BRK.	C	A	B	C	BRK.	WATTS		LOAD
	A	B							A	B	
LIGHTS, FLUORESCENT	960		15	1	1		2	2	60	4476	A/C HVAC UNIT
LIGHTS, FLUORESCENT		960	15	1	3		4	2	60	4476	
EXTERIOR LIGHT & CLOCK	100		15	1	5		6				SPACE
DUPLEX RECEPT.		720	15	1	7		8				
DUPLEX RECEPT.	720		15	1	9		10				
SPACE					11		12				
					13		14				
					15		16				
PHASE WATTAGE	1880	1680			17		18		4476	4476	PHASE WATTAGE
TOTAL WATTS "A" LEG: 6556		TOTAL WATTS A+B=2743		TOTAL WATTS "B" LEG 6156							
TOTAL WATTS: 15455		65 AMPS		120/240V		SINGLE PHASE		100AMP BUS.			
FEEDERS: TO BE RUN BY THE DISTRICT EITHER UNDERGROUND OR OVERHEAD, SEE SITE ELEC. PLAN.											

NOTE:
FIRE ALARM DEDICATED CIRCUIT SHALL BE IDENTIFIED WITH A RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY NFPA 72 4.4.1.4.2.1

- GENERAL NOTES -

- FIRE ALARM SYSTEM**
- THE FIRE ALARM SYSTEM SHALL CONFORM TO THE CALIFORNIA ELECTRICAL CODE, & CA. FIRE CODE.
 - INSTALLATION OF THE FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHAL LISTINGS FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN APPROVED BY DSA.
 - UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY.
 - JUNCTION BOXES- GALVANIZED SHEET METAL, SQUARE OR RECTANGULAR WITH BLANK COVERS. LOCATE ONE BOX AT REAR OF BUILDING NEAR MAIN ELECTRICAL PANEL AT +18" ABOVE FINISH FLOOR FOR FUTURE CONNECTION.
 - COVERS- INSTALL GASKETED, METAL, WATERPROOF, FINISH COVERS AT EXTERIOR LOCATIONS. INSTALL FINISH COVERS AT INTERIOR LOCATIONS.
 - THE AUTOMATIC ALARM SYSTEM SHALL BE INSTALL, TESTED, AND MAINTAINED IN ACCORDANCE WITH THE STATE FIRE MARSHAL REGULATIONS (CBC 907.2.3) AND THE 2002 EDITION OF NFPA 72.
 - THE LOCATION OF AUTOMATIC DETECTORS, MANUAL STATIONS AND OTHER FIRE ALARM EQUIPMENT AND DEVICES, AS SHOWN ON PLAN, ARE FOR REFERENCE ONLY AND DO NOT CONSTITUTE SHOP DRAWINGS WHICH ARE REQUIRED FOR REVIEW AND APPROVAL.
 - ALARM-INDICATING DEVICES OF A FIRE ALARM SYSTEM INTENDED TO ALERT ALL OCCUPANTS SHALL CAUSE A LEVEL OF AUDIBILITY OF NOT LESS THAN 15 dBA ABOVE THE AVERAGE AMBIENT NOISE LEVELS OR 5dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF 60 SECONDS WHICH-EVER IS GREATER, MEASURED 5' ABOVE THE FLOOR. AMBIENT NOISE LEVELS MEANS THE LEVEL WHICH CAN NORMALLY BE EXPECTED WHEN THE FACILITY, BUILDING, ROOM, OR AREA IS FUNCTIONING UNDER NORMAL OPERATING OR WORKING CONDITIONS (NFPA 72, SEC. 7.4.2)
 - THE ALARM SYSTEM SHALL ACTIVATE A MEANS OF WARNING THE HEARING IMPAIRED. FLASHING VISUAL WARNINGS SHALL HAVE A FLASH RATE NOT EXCEEDING TWO FLASHES PER SECOND (2 HZ) NOR BE LESS THAN ONE FLASH EVERY SECOND (1 HZ). STROBE SIGNALING DEVICES FOR THE HEARING IMPAIRED SHALL BE STATE FIRE MARSHAL APPROVED AND LISTED (NFPA 72, SEC. 7.5)
 - AUTOMATIC FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY STATE FIRE MARSHAL. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFV OR UJVS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BY ARRANGED BY OWNER.
IF TESTING RESULTS DETERMINE FIRE ALARM AUDIBILITY DOES NOT MEET 10db OVER AMBIENT NOISE LEVELS, ADDITIONAL FIRE ALARM SIGNALING DEVICES MAY BE REQUIRED BY TYHE ENFORCING AGENCY PER [CBC].

GENERAL NOTES

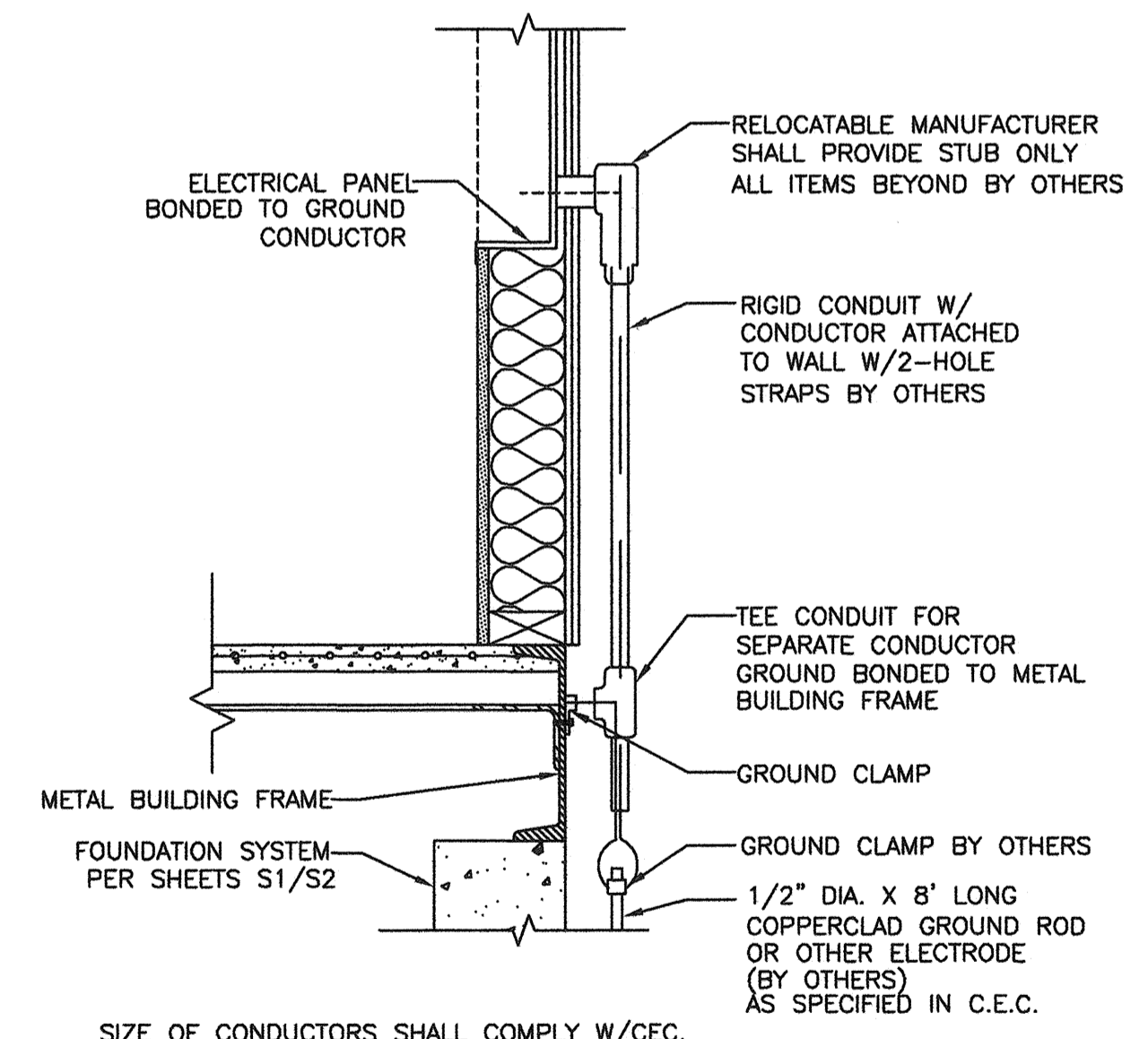
- GROUNDING ELECTRODE CONDUCTOR SIZED PER CEC.
- PROVIDE BONDS TO BLDG. STEEL & PANEL (#8 CU)
- PANEL TO LISTED FOR USE AS SERVICE EQUIPMENT.

FIXTURE NOTES:

- ALL FLUORESCENT LIGHT FIXTURES SHALL HAVE ENERGY SAVING LAMPS AND BALLASTS.
- LUMINATES/BALLASTS SHALL BE CERTIFIED PER CALIFORNIA BUILDING CODE, TITLE 24.
- FLUORESCENT LIGHT FIXTURE TYPE "A" SHALL BE CONTROLLED TO PROVIDE TWO LEVELS OF LIGHTING. SWITCH (SA) SHALL CONTROL THE TWO OUTER LAMPS AND SWITCH (SB) SHALL CONTROL THE TWO INNER LAMPS.

ELECTRICAL

- ELECTRICAL SERVICE DROP AND CONNECTIONS SUPPLIED BY OTHERS.
 - MANUFACTURER TO PROVIDE STUB-OUT FROM BACK OF ELECTRICAL PANEL THROUGH THE EXTERIOR WALL OR TO BELOW FLOOR FOR RECEIVING EITHER UNDERGROUND OR OVERHEAD SERVICE & FITTING FOR GROUNDING CABLE.
 - ELECTRICAL PANEL BOARD SHALL BE RECESS MOUNTED INSIDE THE BUILDING. SIZED TO ACCOMMODATE ALL CONNECTED LOADS INCLUDING SPACES AS SHOWN. OVERCURRENT PROTECTIVE DEVICES IN THE PANEL BOARDS HAVE ADEQUATE SHORT CIRCUIT INTERRUPTING CAPACITY. ALL BUSES INCLUDING BUS SHALL BE COPPER OR ALUMINUM.
 - 2X4 FLOURESCENT FIXTURES SHALL BE STEEL FRAME, LENS SHALL BE HINGED AND LOCKED IN PLACE BY TWO LOCKING DEVICES. THE LENS DIFFUSERS SHALL BE KHS, INC. #KSH-12, CAROLITE, INC. #C-12 OR PLASKOLITE, INC. #PL21A. MINIMUM LENS THICKNESS SHALL BE .125 INCH.
 - FLOURESCENT BALLAST SHALL BE ENERGY SAVER WHILE MAINTAINING FULL LIGHT OUTPUT. CLASS "T" EQUIPPED WITH THERMAL PROTECTORS, GUARANTEED AGAINST FAILURE FOR (2) YEARS AND BE REPLACED FROM INSIDE THE FIXTURE.
 - CLOCK - 12" DIAL CLOCK ON CLOCK OUTLET.
 - CLOCK SHALL BE GENERAL ELECTRIC MODEL 2912 129V 60 CYCLE
 - CLOCK OUTLET SHALL BE BRYANT #2828 OR EQUAL WITH SEPERABLE HANGING CLIP & APP'D RECEPT.
- THE H.V.A.C. UNIT FEEDER CIRCUIT - PANEL CIRCUIT BREAKER, FEEDER WIRE, UNIT DISCONNECT AND FUSES (WHERE USED) - IS TO BE COORDINATED WITH THE NAME PLATE DATA AT THE TIME OF MANUFACTURE. H.V.A.C. UNITS HAVING KVA RATINGS LARGER THAN THAT INDICATED ON THIS PANEL SCHEDULE WILL NOT BE ALLOWED TO BE INSTALLED ON THIS BUILDING. IF 60 DEGREES C. WIRE IS TO BE USED IN THIS INSTALLATION, CALCULATIONS DEMONSTRATING AMPACITY BE PROVIDED ON THE DRAWING.



SIZE OF CONDUCTORS SHALL COMPLY W/CEC. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL & METAL BUILDING FRAME (CEC). IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST 10' INTO THE SOIL IF AVAILABLE (CEC). ELECTRICAL BOND MODULES TOGETHER W/#8 CU @ MODLINE. BY MANUFACTURER. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS (CEC) AS REQUIRED. GROUNDING DETAIL PER DSA IR E-1. INSPECTOR TO WITNESS GROUNDING TEST.

1 GROUNDING DETAIL
E2 1 1/2"=1'-0"

BASED ON PC# 02-109695

REVISIONS		
NO	DATE	DESCRIPTION

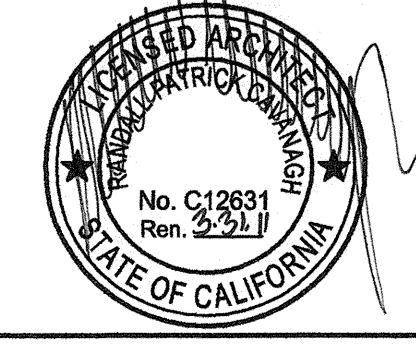
DATE: 08/12/09
SCALE: NOTED
DRAWN BY: RS
SERIAL NO.:

CUSTOMER:
BAKERSFIELD CITY SCHOOLS
MUNSEY AND FREMONT ELEMENTARY SCHOOL

24' x 40' RELOCATABLE BUILDINGS
ELECTRICAL NOTES & DETAILS



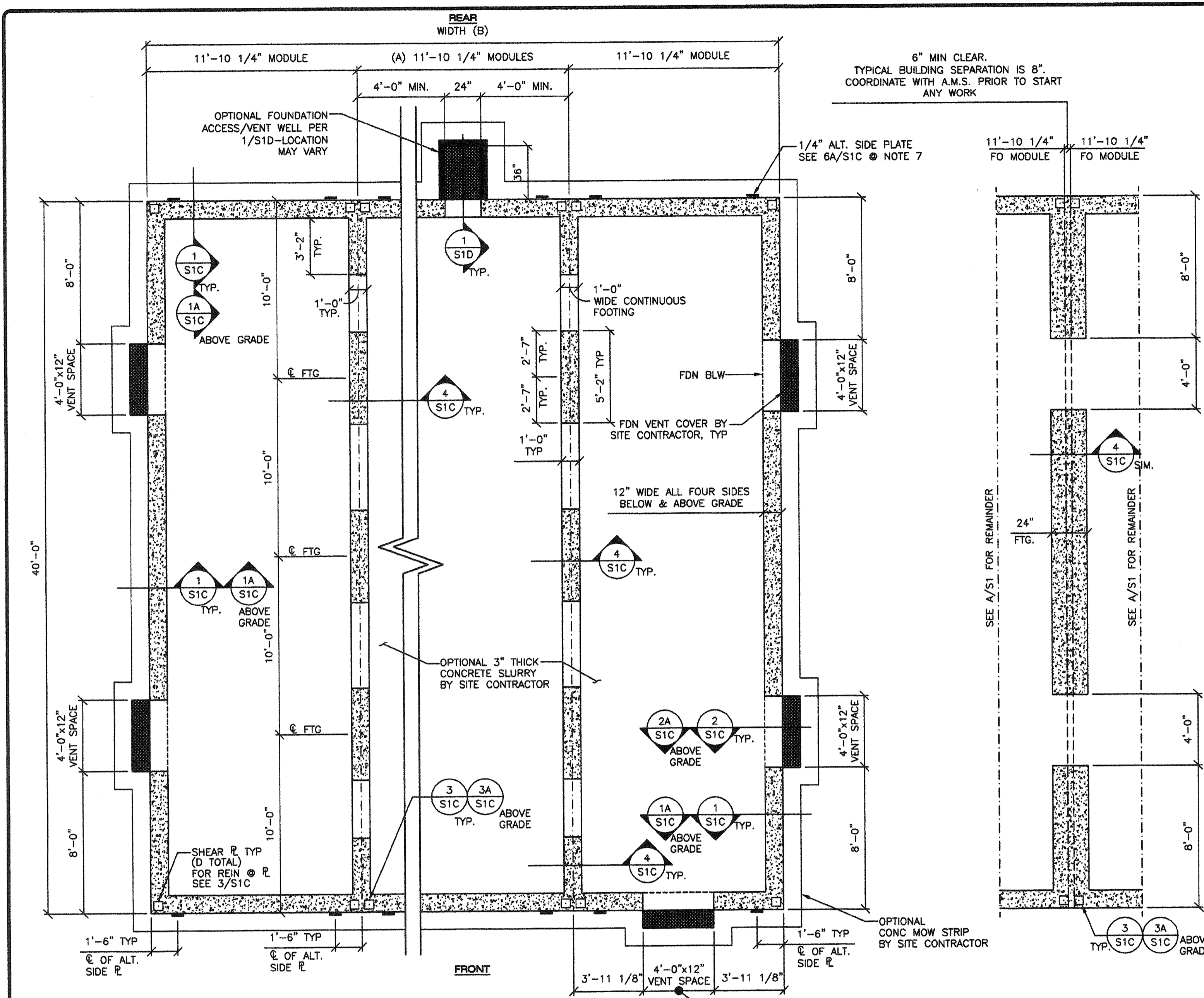
APPROVALS:



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
AC, FLS, SS
DATE: SEP 24 2009

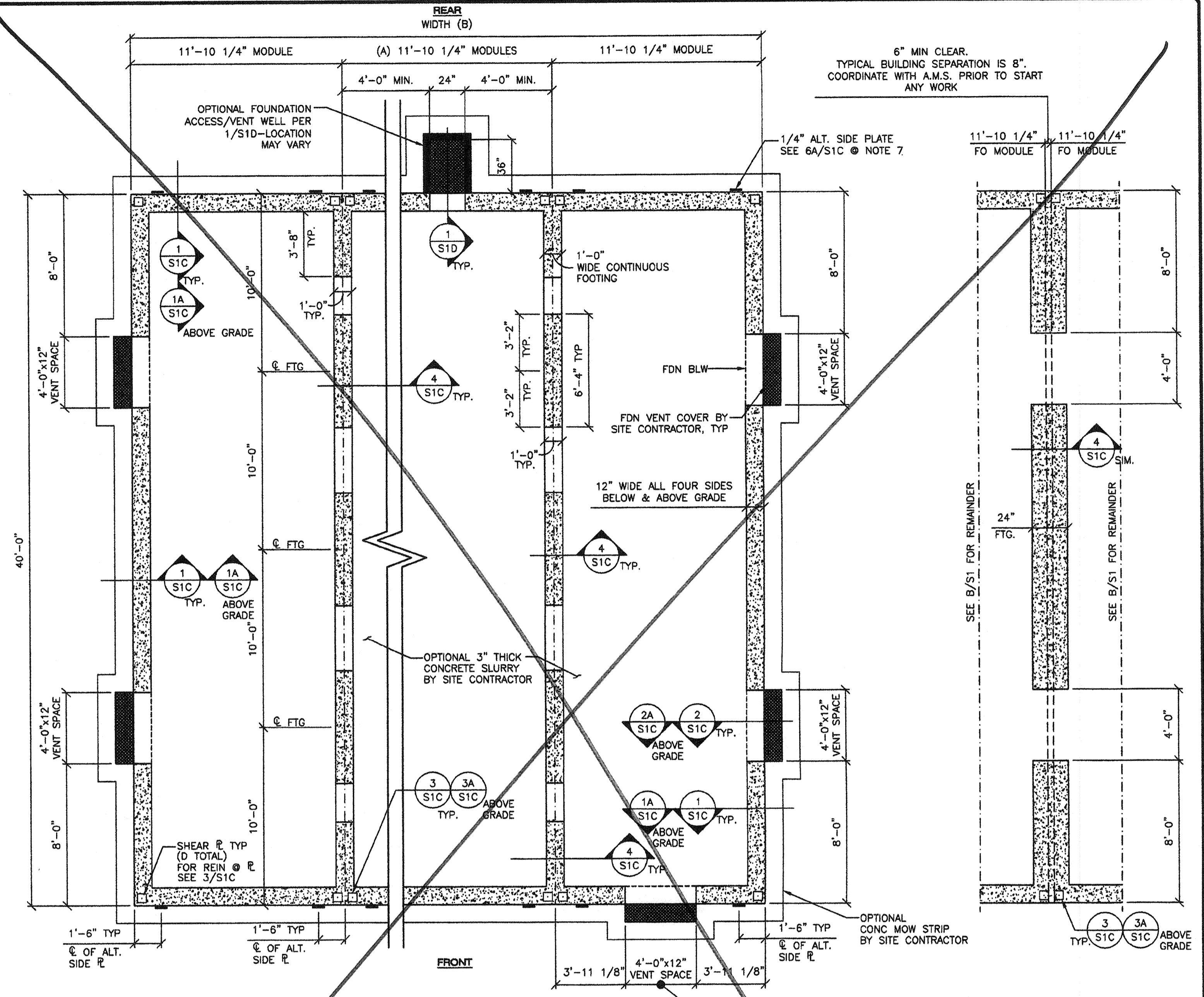
PROJECT No.
PC
E2

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A FOUNDATION PLAN (PLYWOOD OR VIROC FLOOR)
S1 1/4"=1'-0"
(60 PSF LIVE LOAD)

A1 FOUNDATION PLAN
S1 1/4"=1'-0"
COMBINED



B FOUNDATION PLAN (PLYWOOD OR VIROC FLOOR)
S1 1/4"=1'-0"
(60 PSF LIVE LOAD w/15 PSF PARTITION LOAD)

B1 FOUNDATION PLAN
S1 1/4"=1'-0"
COMBINED

MODULE SCHEDULE							
BLDG SIZE (FT)	TOTAL # OF 12' WIDE MODULES	"A" TOTAL # OF CENTER MODULES	"B" TOTAL BLDG WIDTH	TOTAL FLOOR AREA (FT ²)	"C" MIN. TOTAL # 4'x12" VENTS REQ'D	VENT AREA REQ'D (FT ²)	"D" TOTAL # OF TYPICAL SHEAR R _s
24x40	2	0	23'-8 1/2"	960	4	6.4	8
36x40	3	1	35'-6 3/4"	1440	4	9.6	12
48x40	4	2	47'-5"	1920	4	12.8	16
60x40	5	3	59'-3 1/4"	2400	4	16.0	20
72x40	6	4	71'-1 1/2"	2880	5	19.2	24
84x40	7	5	82'-11 3/4"	3360	6	22.4	28
96x40	8	6	94'-10"	3840	7	25.6	32
108x40	9	7	106'-8 1/4"	4320	8	28.8	36
120x40	10	8	118'-6 1/2"	4800	8	32.0	40
132x40	11	9	130'-4 3/4"	5280	9	35.2	44
144x40	12	10	142'-3"	5760	10	38.4	48

MODULE SCHEDULE							
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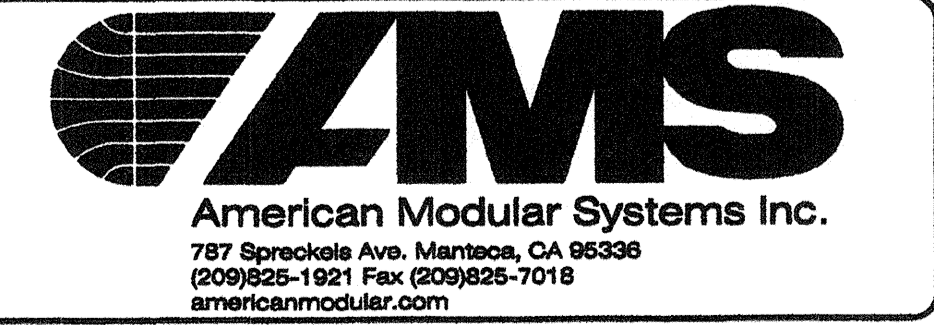
- NOTES:**
- DO NOT INSTALL BUILDING IN AREAS OF WATER FLOW LINES.
 - ULTIMATE 28-DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE 2500 PSI MIN. PROPORTIONED PER TITLE 24, PART 2, SECTION 1905A.3 OR 1905A.4
 - THE REINFORCING BARS MUST BE TESTED PER TITLE 24, PART 2, SECTION 1916A.2 IF CONCRETE WITH A COMPRESSIVE STRENGTH OF 3500 PSI IS SPECIFIED THEN THE TESTING OF THE REINFORCING BARS MAY BE WAIVED PER SECTION 1916A.4. THE CEMENT SHALL BE CERTIFIED PER SECTION 1916A.1
 - REINFORCING STEEL 40,000 PSI MINIMUM, PER ASTM A615
 - MINIMUM SOIL BEARING CAPACITY 1500 PSF.
 - DESIGN SOIL BEARING CAPACITY 1500 PSF.
 - ALTERNATE SIDE PLATES MUST COMPLETELY REPLACE TYPICAL SHEAR PLATES ALONG ANY ONE MODULE LINE (4 ALTERNATE SIDE PLATES @ INTERIOR MODULE LINE AND 2 ALTERNATE SIDE PLATES @ EXTERIOR MODULE LINE.) COMBINATION OF TYPICAL SHEAR PLATES AND ALTERNATE SIDE PLATES ALONG ANY ONE MODULE LINE IS NOT PERMITTED.

- NOTES:**
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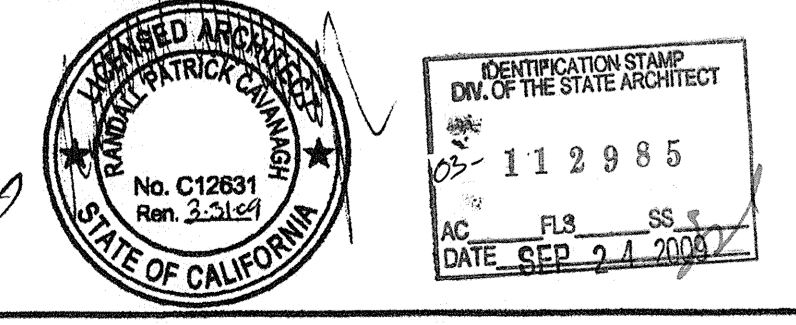
REVISIONS		
NO	DATE	DESCRIPTION

DATE: 02/13/09
SCALE: NOTED
DRAWN BY: RL
SERIAL NO.:

CUSTOMER:
2:12 PITCHED ROOF 24' x 40' THRU 120' x 40' RELOCATABLE BUILDINGS
CONCRETE FOUNDATION PLAN 50 P.S.F LIVE LOAD
& 50 P.S.F LIVE LOAD + 15 P.S.F PART. LOAD FLOOR



APPROVALS:
THESE DRAWINGS ARE PRELIMINARY AND NOT FOR CONSTRUCTION UNLESS STAMPED & SIGNED BY THE ENGINEER OF RECORD.



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