



PANEL 4RA
225A 120/208 V
FED FROM DISTRIBUTION
PANEL DP4R

- NOTES:
1. NORMAL POWER: WHITE LETTERS ON BLACK BACKGROUND
2. EMERGENCY POWER: WHITE LETTERS ON RED BACKGROUND
3. LETTERINGS ARE 1/2" HIGH
4. PROVIDE ENGRAVED NAMEPLATES FOR PANELS, DISCONNECT SWITCHES, STARTERS, CONTROL PANELS, ETC.

ENGRAVED NAMEPLATE FOR ELECTRICAL EQUIPMENT
SCALE: NONE

LIGHT FIXTURE SCHEDULE					
FIXTURE TYPE	IMAGE	DESCRIPTION	LAMPS	MOUNTING	MANUFACTURER CAT. NO.
E1		COMBINATION LED EXIT SIGN WITH ARROWS AS SHOWN AND 2 EMERGENCY LIGHT HEADS, 90-MINUTE BACK-UP BATTERIES AND CHARGER	LED AND (2) 5.4 WATT KRYPTON LAMPS	WALL MOUNTED	LITHONIA LHQM-P-W-I-R-H, OR EQUAL
E2		EMERGENCY LIGHT WITH 90-MINUTE BACK-UP BATTERIES AND CHARGER	TWO 5.4 WATT KRYPTON LAMPS	WALL OR CEILING MOUNTED AS SHOWN	LITHONIA QUANTUM ELM2, OR EQUAL
E3		EMERGENCY LIGHT HEADS, 90-MINUTE BACK-UP BATTERIES AND CHARGER, WET LOCATION LABEL.	LED AND (2) 5.4 WATT KRYPTON LAMPS	WALL MOUNTED	LITHONIA LHQM-P-W-I-R-H, OR EQUAL
A		CEILING MOUNTED FLUORESCENT IN RECESSED OUTLET BOX FOR HALLWAYS, BEDROOMS, 20" DIA. x 6.5" DEEP	TWO 26-WATT COMPACT FLUORESCENT LAMPS	CEILING	BETACALCO MODEL NO. TRILOGY CRADLE CAT. NO. 638815 OR EQUAL
B		RECESSED FLUORESCENT DOWNLIGHT, 6" DIAMETER APERTURE	ONE 26-WATT QUAD COMPACT FLUORESCENT LAMP	CEILING	OMEGA REVELATION LIGHTING CAT. NO. OMG-1-H-26QPL-WHITE FINISH FLANGE-CS-5 OR EQUAL
C		WALL MOUNTED FLUORESCENT IN RECESSED OUTLET BOX WITH UP AND DOWN LIGHT, 4 FEET LONG, FOR TOILETS	TWO 28-WATT LAMPS	WALL	FINELITE CAT. NO. SSWM-4-2T8-SC-SPEC-120-FE OR EQUAL
D		RECESSED FLUORESCENT SHOWER LIGHTING, 6" DIAMETER WITH LENS	ONE 42-WATT TRIPLE TUBE COMPACT FLUORESCENT LAMP	CEILING	PHILLIPS OMEGA LIGHTING CAT. NO. OMG-1-H-42-PLT-SHWR-FZ120-120/277 OR EQUAL
E		SURFACE FLUORESCENT WITH W/RAPOUND LENS, 13 3/4" WIDE x 4 FEET LONG	TWO 28-WATT T8 FLUORESCENT LAMPS	CEILING	LITHONIA CAT. NO. ZSB2-32-120-GEB10RS OR EQUAL
F		CEILING MOUNTED FLUORESCENT IN RECESSED OUTLET BOX 13.6" DIA. x 3.6" DEEP, UL-LISTED FOR OUTDOOR LOCATION, STAINLESS STEEL FINISH	TWO 18-WATT COMPACT FLUORESCENT LAMPS	WALL MOUNTED	BETACALCO MODEL NO. ORION ODI-310101-SS-1 OR EQUAL
G		RECESSED FLUORESCENT DOWNLIGHT, CLEAR ALZAK REFLECTOR, 8" DIAMETER	ONE 42-WATT TRIPLE TUBE COMPACT FLUORESCENT	CEILING	OMEGA REVELATION LIGHTING CAT. NO. OMG-1-H-42PLT-WHITE FINISH FLANGE-CS-5 OR EQUAL
H		IN-GROUND UPLIGHT, METAL HALIDE ADJUSTABLE	35-WATT G8.5 METAL HALIDE	IN-GROUND UPLIGHT	ERCO CAT. NO. 33711.000 OR EQUAL
I		WALL MOUNTED FLOOR WASH LIGHT	ONE T4 50W, 12V HALOGEN LAMP	WALL RECESSED	ERCO LIGHTING CAT. NO. VISOR II FLOOR WASHLIGHT NO.33302.023 REFLECTOR SILVER WITH CONCRETE HOUSING, OR EQUAL
K		UNDER CABINET FLUORESCENT, 4- FEET LONG	ONE 28-WATT T8	SURFACE	ALKCO CAT. NO. SFLNCS-150048 OR EQUAL
J		SIMILAR TO TYPE E BUT 2x4	THREE 28-WATT T8 FLUORESCENT LAMP	CEILING	LITHONIA CAT. NO. 2M328T8-A12120-GEB10RS, OR EQUAL
E4		SELF-LUMINOUS LOW-LEVEL EXIT SIGN WITH HEAVY EXTRUDED ALUMINUM FRAME	NONE	SURFACE WALL MOUNTED	BARRON EXITRONIX PXP-1W-20-WH-1F

NOTE: UNLESS OTHERWISE NOTED FIXTURE VOLTAGE IS 120 VOLTS

SYMBOL	EQUIPMENT
	120/208 VOLT PANELBOARD WALL MOUNTED 6'-6" AFF TO TOP
	EQUIPMENT DESIGNATION, PANEL RPA1
	NON-FUSED DISCONNECT SWITCH, HP RATED FOR MOTOR LOAD WP = WEATHERPROOF ENCLOSURE
	FUSED DISCONNECT SWITCH HP RATED FOR MOTOR LOAD WP = WEATHERPROOF ENCLOSURE 100A = 100 AMPERE FRAME 90A = 90 AMPERE FUSES
	MOTOR CONTROLLER WITH HOA CONTROL SWITCH, UON 1 = INDICATES NEMA SIZE 1 STARTER
	COMBINATION MOTOR CONTROLLER AND MOTOR CIRCUIT PROTECTOR WITH HOA CONTROL SWITCH, UON 2 = INDICATES NEMA SIZE 2 STARTER
	VARIABLE FREQUENCY DRIVE
	ENCLOSED CIRCUIT BREAKER
	MOTOR CONNECTION 5 = INDICATES 5 HP MOTOR
	CEILING EXHAUST FAN WITH NORMAL LIGHT, NIGHT LIGHT AND HEAT LAMP
	GROUND CONNECTION

SYMBOL	FIRE ALARM
	MANUAL PULL STATION, WALL MOUNTED 48" AFF TO CENTERLINE OF STATION M1 = INDICATES DEVICE ADDRESS
	COMBINATION HORN AND STROBE NOTIFICATION APPLIANCE WALL MOUNTED 80" AFF TO BOTTOM OF STROBE H1 = INDICATES DEVICE ADDRESS
	STROBE NOTIFICATION APPLIANCE WALL MOUNTED 80" AFF TO BOTTOM OF STROBE V1 = INDICATES DEVICE ADDRESS
	SPACE SMOKE DETECTOR, CEILING MOUNTED D1 = INDICATES DEVICE ADDRESS
	HEAT DETECTOR, CEILING MOUNTED D2 = INDICATES DEVICE ADDRESS
	DUCT MOUNTED SMOKE DETECTOR D3 = INDICATES DEVICE ADDRESS
	DUCT MOUNTED SMOKE DETECTOR WITH AIR SAMPLING PROBES, NEMA 3R CABINET FOR OUTDOOR LOCATION
	FIRE ALARM CONTROL PANEL WALL MOUNTED 72" AFF
	FIRE ALARM ANNUNCIATOR PANEL WALL MOUNTED 66" AFF
	MAGNETIC DOOR HOLDER, WALL MOUNTED 6" BELOW THE TOP OF DOOR. PROVIDE RELAY MODULE WITHIN 3 FEET OF DOOR HOLDER.

SYMBOL	LIGHTING
	FLUORESCENT FIXTURE, CEILING MOUNTED. FIXTURE TYPE AS SHOWN. SUBSCRIPTS INDICATE F1 = FIXTURE TYPE 'F1' 2 = CIRCUIT NUMBER '2' o = CONTROLLED BY SWITCH 'o'
	FLUORESCENT FIXTURE, CEILING MOUNTED 6'-8" AFF TO BOTTOM OF FIXTURE UON
	DOWNLIGHT, CEILING MOUNTED SUBSCRIPTS INDICATE F7 = FIXTURE TYPE 'F7' 2 = CIRCUIT NUMBER '2' o = CONTROLLED BY SWITCH 'o'
	DOWNLIGHT, CEILING MOUNTED, ON EMERGENCY CIRCUIT
	FLUORESCENT FIXTURE, CEILING MOUNTED, ONE LAMP ON EMERGENCY CIRCUIT
	ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROW, CEILING (WALL) MOUNTED UON
	OUTDOOR LIGHT STANDARD, SINGLE OR DOUBLE LUMINAIRE POLE MOUNTED ON STEEL REINFORCED CONCRETE BASE
	OUTDOOR BOLLARD LIGHT FIXTURE, POLE MOUNTED ON STEEL REINFORCED CONCRETE BASE
	LIGHT FIXTURE DESIGNATION WITHIN THE ROOM OR AREA F1 = INDICATES FIXTURE TYPE REFER TO FIXTURE SCHEDULE FOR DETAILS
	EMERGENCY LIGHT UNIT, CEILING OR WALL MOUNTED 82" AFF AS SHOWN

SYMBOL	RACEWAYS
	CONDUIT AND WIRES, CONCEALED IN CEILING SPACES AND WALLS
	CONDUIT AND WIRES, RUN UNDERGROUND
	CONDUIT AND WIRES, RUN EXPOSED
	INDIVIDUAL CONDUIT HOMERUN WITH WIRES TO DESIGNATED EQUIPMENT OR PANEL. NUMBER OF HASH MARKS INDICATE QUANTITY OF WIRES (MINIMUM #12 AWG WIRE SIZE, UON - #10 INDICATES #10 AWG WIRE SIZE), LONG MARK INDICATES NEUTRAL WIRE AND SHORT MARKS INDICATE PHASE WIRES. LP-1,3,5 INDICATES HOMERUN TO PANEL LP CIRCUITS 1,3,5.
	EMERGENCY POWER CONDUIT AND WIRES
	GROUND WIRE AND CONDUIT
	FIRE ALARM CONDUIT AND WIRES
	LOW VOLTAGE CONDUIT AND WIRES UON, SUBSCRIPT INDICATES: T = TELECOMMUNICATIONS SYSTEM S = PAGING SPEAKER SYSTEM N = NURSE CALL SYSTEM
	PRECAST HANDHOLE WITH COVER. INSCRIBE COVER WITH APPROPRIATE DESIGNATION TO SHOW WIRING IN HANDHOLE SUCH AS GROUND, LIGHTING, FIRE ALARM, TELECOMMUNICATIONS, POWER.
	PULL BOX, MOUNTING AS NOTED
	PRECAST UNDERGROUND PULL BOX WITH BOTTOM SLAB AND COVER. INSCRIBE COVER WITH APPROPRIATE DESIGNATION TO SHOW WIRING INSIDE PULL BOX. SUBSCRIPT INDICATES:

SYMBOL	WIRING DEVICES
	DUPLEX RECEPTACLE, HALF-SWITCHED, 20A, 125V, 2-POLE, 3-WIRE GROUNDING, WALL MOUNTED 18" AFF UON
	DUPLEX RECEPTACLE, 20A, 125V, 2-POLE, 3-WIRE GROUNDING, WALL MOUNTED 18" AFF UON SUBSCRIPTS INDICATE 15 = CIRCUIT NUMBER '15' C = MOUNTED 9" ABOVE COUNTER G, GF1 = WITH GROUND FAULT INTERRUPTER D = DEDICATED CIRCUIT (USE 20A RECEPTACLE)
	DOUBLE DUPLEX RECEPTACLE, 20A, 125V, 2-POLE, 3-WIRE GROUNDING, WALL MOUNTED 18" AFF UON D = DEDICATED CIRCUIT (USE 20A RECEPTACLE)
	DUPLEX RECEPTACLES, FLUSH FLOOR MOUNTED, POKE-THRU FIRE RATED FITTING WITH FLEX CONDUIT TO WORK STATION.
	SPECIAL PURPOSE SINGLE RECEPTACLE, RATING AS SHOWN, WALL MOUNTED 18" AFF UON SUBSCRIPTS INDICATE 2 = CIRCUIT NUMBER 20A = 20 AMPERE, 208V, 2-POLE, 3-WIRE GROUNDING, STRAIGHT BLADE, NEMA 6-20R
	SWITCH, TOGGLE TYPE, 15A, 125/277V, 1-POLE, WALL MOUNTED 48" AFF UON SUBSCRIPTS INDICATE o = CONTROLS OUTLET 'o' 3 = 3-WAY SWITCH 4 = 4-WAY SWITCH P = WITH PULL LIGHT WP = WEATHERPROOF TYPE
	OCCUPANCY SENSOR, WALL MOUNTED +48"
	MULTIPLE SWITCHES IN COMMON OUTLET BOX, WALL MOUNTED 48" AFF UON. NOTE: WHERE SWITCH IS SHOWN THAT IS SUPPLIED FROM STAND-BY OR EMERGENCY - PROVIDE WITH OWN OUTLET BOX.
	SWITCH WITH THERMAL OVERLOAD DEVICE, WALL MOUNTED 48" AFF UON
	LOW VOLTAGE SWITCH WALL MOUNTED 48" AFF UON
	CEILING MOUNTED MOTION OCCUPANCY SENSOR WITH RELAY PACK FOR LIGHTING

SYMBOL	TELECOMMUNICATIONS
	TELEPHONE OUTLET BOX WITH 3/4" AND CABLES, WALL MOUNTED 18" AFF UON SUBSCRIPT INDICATE W = MOUNTED 48" AFF
	TELEPHONE AND DATA OUTLET BOX WITH 3/4" CONDUIT AND CABLES, WALL MOUNTED 18" AFF UON
	DATA OUTLET BOX WITH 3/4" CONDUIT AND CABLES
	TV OUTLET BOX +18" WITH 3/4" AND RG6U COAX CABLE TO TERMINAL CABINET
	SECURITY KEYPAD, WALL MOUNTED +48"
	SECURITY ALARM HORN, WALL MOUNTED +6'-8"

SYMBOL	MISCELLANEOUS
	EQUIPMENT IDENTIFICATION (EXHAUST FAN NO. 1)
	DETAIL OR SECTION SHEET NUMBER
	NORTH ARROW (REFERENCE)
	KEYED NOTE
	OUTLET BOX FOR CARD READER, WALL MOUNTED 48" AFF
	DOOR POSITION SWITCH, SEE DETAIL 6 ON E502
	DOOR PROP ALARM

ABBREVIATIONS	
A	AMPERE
AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
C	CONDUIT
CO	CONTROL ONLY
CPT	CONTROL POWER TRANSFORMER
CSFM	CALIFORNIA STATE FIRE MARSHAL
(E)	EXISTING
F	FIRE ALARM
FA	GROUND
H-O-A	HAND-OFF-AUTO
HP	HORSEPOWER
KMIL	THOUSAND CIRCULAR MILS
MCC	MOTOR CONTROL CENTER
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRICAL CODE
NL	NIGHT LIGHT
NO.	NUMBER
(N)	NEW
P	POLE
ø	PHASE
TV	TELEVISION
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLT-AMPERE
W	WIRE

DRAWING INDEX	
E001	ELECTRICAL - LEGEND, ABBREVIATIONS, LIGHT FIXTURE SCHEDULE AND DRAWING INDEX
E100	ELECTRICAL - SITE PLAN
E200	ELECTRICAL - BUILDING 22 GROUND FLOOR PLAN, FIRE ALARM
E201	ELECTRICAL - BUILDING 22 SECOND FLOOR PLAN, FIRE ALARM
E202	ELECTRICAL - BUILDING 22 FIRE ALARM RISER DIAGRAM
E300	ELECTRICAL - BUILDING 22 GROUND FLOOR PLAN, LIGHTING
E301	ELECTRICAL - BUILDING 22 SECOND FLOOR PLAN, LIGHTING
E400	ELECTRICAL - BUILDING 22 GROUND FLOOR PLAN, POWER AND COMMUNICATIONS
E401	ELECTRICAL - BUILDING 22 SECOND FLOOR PLAN, POWER AND COMMUNICATIONS
E501	ELECTRICAL - NEW POWER ONE LINE DIAGRAM
E502	ELECTRICAL - CABLE TV AND TELE-DATA RISER DIAGRAM

GENERAL NOTES	
G1	PLANS ARE PREPARED WITH REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. PROVIDE AND INSTALL ALL CONDUITS, BOXES, MISCELLANEOUS FITTINGS FOR A COMPLETE AND OPERABLE SYSTEM (HOMERUN SHOWN). BRANCH CIRCUIT INSTALLATION SHALL COMPLY WITH SPECIFICATIONS AND NATIONAL ELECTRICAL CODE.
G2	CONCEALED CONDUIT ROUTING SHOWN IS ESSENTIALLY DIAGRAMMATIC. CONTRACTOR SHALL LAY OUT RUNS TO SUIT FIELD CONDITIONS AND THE COORDINATION REQUIREMENTS OF UTILITIES AND OTHER TRADES. ANY EXPOSED CONDUIT ROUTING (EXCEPT IN MECHANICAL OR ELECTRICAL ROOMS) SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.
G3	INSTALL AND CONNECT A CODE SIZED INSULATED COPPER GROUNDING CONDUCTOR IN ALL CONDUITS, BRANCH CIRCUITS AND FEEDERS. INCREASE CONDUIT SIZED WHERE REQUIRED TO INCLUDE THIS WIRE. THESE GROUNDING CONDUCTORS ARE NOT INDICATED ON THE PLANS. ANY CHANGES IN SIZES SHALL BE APPROVED BY ENGINEER.
G4	MOUNTING HEIGHTS SHOWN ARE FROM FINISHED FLOOR TO THE CENTERLINE OF THE DEVICE, U.O.N. ALL MOUNTING HEIGHTS SHALL BE AS SHOWN ON THE SYMBOLS LIST UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
G5	ALL CONDUIT AND RACEWAY PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN SUBJECTED TO THE REQUIREMENTS OF THE TEST STANDARD SPECIFIC OF THE FIRE STOPS ASTM-E-814. PROVIDE A UL TESTING PENETRATION FIRE STOP SYSTEM NUMBER PER UL FIRE RESISTANCE DIRECTORY. PENETRATIONS OF PIPES, CONDUITS, ETC., IN WALLS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. FIRE STOP MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE AUTHORITY HAVING JURISDICTION.
G6	CONTRACTOR SHALL EXTEND WIRING FROM ALL JUNCTION BOXES, RECEPTACLES, SWITCHES, ETC. AND MAKE FINAL CONNECTION AS REQUIRED TO ALL BUILDING EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS.
G7	CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL WALL OUTLET BOXES FOR SWITCHES, HORNS, FIRE ALARM DEVICES, RECEPTACLES ETC. WITH CABINETS, FURNITURE, EQUIPMENT ETC. TO AVOID CONFLICT. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION OF WALL MOUNTED DEVICES.
G8	ALL EXTERIOR ELECTRICAL DEVICES AND EQUIPMENT SHALL BE WEATHERPROOF TYPE, NEMA 3R.
G9	SPECIAL RECEPTACLES CONFIGURATION SHALL BE COORDINATED WITH OWNER AND EQUIPMENT MANUFACTURER.

Revisions:	Date

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