

GENERAL ELECTRICAL EQUIPMENT SCHEDULE

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CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE BUT ARE GIVEN ONLY TO AID THE CONTRACTOR IN THE SEARCH FOR MATERIAL. NO MATERIAL SHALL BE ORDERED BY MANUFACTURER AND CATALOG NUMBER ONLY. EACH CONTRACTOR SHALL FIRST READ THE COMPLETE DESCRIPTION OF THE MATERIAL ON THESE DRAWINGS AND SPECIFICATIONS. THE FIRST MANUFACTURER LISTED IS THE BASIS OF DESIGN. "STANDARD COLOR" INDICATES FACTORY FINISH AVAILABLE AT NO ADDITIONAL CHARGE.

ITEM NO.	SYMBOL	DESCRIPTION	APPROVED MANUFACTURERS
1	DEVICE COLOR	ALL SWITCH, RECEPTACLE, OUTLET, AND COVERPLATE COLORS SHALL BE VERIFIED WITH ARCHITECT, UNLESS INDICATED OTHERWISE.	HUBBELL LEVITON PASS & SEYMOUR COOPER
2	COVER PLATES	ALL SWITCHES, RECEPTACLES, AND OUTLETS SHALL BE COMPLETE WITH UNBREAKABLE THERMOPLASTIC COVERPLATES IN FINISHED SPACES WHERE WALLS ARE FINISHED; #302 STAINLESS STEEL COVERPLATES IN UNFINISHED SPACES FOR FLUSH BOXES; AND GALVANIZED STEEL COVERPLATES IN UNFINISHED SPACES FOR SURFACE MOUNTED BOXES. WHERE SEVERAL DEVICES ARE GANGED TOGETHER, THE COVER PLATE SHALL BE OF THE GANGED STYLE FOR THE NUMBER OF DEVICES USED.	HUBBELL LEVITON PASS & SEYMOUR COOPER
3	S	SWITCH, SINGLE POLE, SINGLE THROW, 120/277 VOLT, 20 AMP. TOGGLE HANDLE, MAINTAINED CONTACT, SIDE AND BACK WIRED.	HUBBELL HBL1221 LEVITON 1221-2 PASS & SEYMOUR PS20AC1 COOPER 2221
4	S ₃	SWITCH, THREE WAY, 120/277 VOLT 20 AMP. TOGGLE HANDLE, SIDE AND BACK WIRED.	HUBBELL HBL1223 LEVITON 1223-2 PASS & SEYMOUR PS20AC3 COOPER 2223
5	S ₄	SWITCH, FOUR WAY, 120/277 VOLT 20 AMP. TOGGLE HANDLE, SIDE AND BACK WIRED.	HUBBELL HBL1224 LEVITON 1224-2 PASS & SEYMOUR PS20AC4 COOPER 2224
6	S ₀	OCCUPANCY SENSOR WALL SWITCH, PASSIVE INFRARED, ZERO CROSSING CIRCUITRY, INTEGRATED AMBIENT LIGHT SENSOR (10-150 FC RANGE), ADJUSTABLE SENSITIVITY AND TIME DELAY, NO MINIMUM LOAD REQUIREMENTS, MANUAL OR AUTO ON OPERATION, 5 YEAR WARRANTY. INITIAL SETTINGS: 10 MINUTES, AMBIENT SENSOR 40 FC.	WATT STOPPER PW-100 SERIES SENSOR SWITCH WSD HUBBELL AUTOMATION LHRS1 LEVITON ODS15 GREENGATE OSW-P-0451
7	PC	PHOTOCELL, 120/277 VOLT, 1800 V.A. RATED, SINGLE POLE, SINGLE THROW CONTACT, WEATHERPROOF AND CORROSION PROOF ENCLOSURE, MOUNT FACING NORTH. U.L. LISTED. PHOTOCELL SHALL BE SAME MANUFACTURER OR COMPATIBLE WITH TIME CLOCK MANUFACTURER.	PARAGON CW-201-70 TORK 2107 INTERMATIC K4236
8	TC	TIMER, 24 HOUR, 20 AMP CONTINUOUS CONTACTS, 1 N.O. AND 1 N.C. CONTACTS, SPRING WOUND BACK-UP, 120 VOLT, OVERRIDE SWITCH, U.L. LISTED. COORDINATE INITIAL SETTINGS WITH CEMETERY DIRECTOR	PARAGON 4213-0S TORK 7200L INTERMATIC T173CR
9	H	RECEPTACLE, DUPLEX, 125 VOLT, 20 AMP, 3 WIRE GROUNDING TYPE, N.E.M.A. 5-20R, IMPACT RESISTANT THERMOPLASTIC FACE, STEEL BACK STRAP.	HUBBELL 5352A LEVITON 5362-S PASS & SEYMOUR 5362 COOPER 5352
10	H	RECEPTACLE, GROUND FAULT DUPLEX, 125 VOLT, 20 AMP, 3 WIRE GROUNDING TYPE, N.E.M.A. 5-20R. TEST AND RESET BUTTONS IN IMPACT RESISTANT THERMOPLASTIC FACE.	HUBBELL GF20L LEVITON 7899 PASS & SEYMOUR 2095 COOPER VGF20
11	H _w	RECEPTACLE, GROUND FAULT DUPLEX, WEATHER RESISTANT, WEATHERPROOF COVERPLATE, 125 VOLT, 20 AMP, 3 WIRE GROUNDING TYPE, N.E.M.A. 5-20R. TEST AND RESET BUTTONS IN IMPACT RESISTANT THERMOPLASTIC FACE. NEMA 3R RATED WHILE IN USE, CLEAR, NON-LOCKING, STANDARD DEPTH, VERTICAL MOUNT.	HUBBELL GF20L/(WP826MP) LEVITON 7899/(5977-CL) PASS & SEYMOUR 2095/(MUIC10-C) COOPER VGF20/(4966)
12	E	ELECTRICAL CONNECTION TO EQUIPMENT AND MOTORS, SIZE PER N.E.C. COORDINATE REQUIREMENTS WITH CONTRACTOR FURNISHING EQUIPMENT OR MOTOR. SEE SPECIFICATIONS AND GENERAL INSTALLATION NOTES FOR TERMINATIONS TO MOTORS.	SEE SPECIFICATIONS
13	J	JUNCTION BOX, SIZE PER N.E.C., SEE SPECIFICATIONS FOR GENERAL CONSTRUCTION. USE OF THIS SYMBOL DOES NOT INDICATE ALL JUNCTION BOXES REQUIRED FOR THIS CONTRACT ARE SHOWN.	SEE SPECIFICATIONS
14	OC _D	OCCUPANCY SENSOR, CEILING MOUNTED 360 DEGREE, DUAL TECHNOLOGY PASSIVE INFRARED/ULTRASONIC FREQUENCY GREATER THAN 40 KHz OR PASSIVE INFRARED/ACOUSTIC, DUAL SENSING VERIFICATIONS (REQUIRES BOTH TECHNOLOGIES TO ACTIVATE), EITHER TECHNOLOGY MAINTAINS ON STATUS, INTEGRATED AMBIENT LIGHT LEVEL SENSOR (2-200 FC RANGE), ADJUSTABLE SENSITIVITY AND TIME DELAY, INTEGRAL ISOLATED RELAY CONTACT, 5 YEAR WARRANTY. SENSOR SHALL CONTROL ALL CIRCUITS IN AREA, UNLESS NOTED OTHERWISE. INITIAL SETTINGS: TIME DELAY 10 MINUTES, AMBIENT SENSOR 40FC. CONTRACTOR SHALL SUBMIT MANUFACTURER SUPPLIED SENSOR COVERAGE DRAWING FOR SHOP DRAWING REVIEW.	WATT STOPPER DT 300 SERIES SENSOR SWITCH WV-PDT HUBBELL AUTOMATION OMNI-DT2000 LEVITON OSC##-MOW
15	OC _U	OCCUPANCY SENSOR, ULTRASONIC CEILING MOUNTED, 360 DEGREE 20'X20' HAND MOTION COVERAGE PATTERN, FREQUENCY GREATER THAN 32 KHz SOLID STATE, ADJUSTABLE SENSITIVITY AND TIME DELAY, INTEGRAL ISOLATED 1 AMP RELAY CONTACT, TEMPERATURE AND HUMIDITY RESISTANT RECEIVERS, 5 YEAR WARRANTY. SENSOR SHALL CONTROL ALL CIRCUITS IN AREA, UNLESS NOTED OTHERWISE. INITIAL SETTINGS: TIME DELAY 10 MINUTES. CONTRACTOR SHALL SUBMIT MANUFACTURER SUPPLIED SENSOR COVERAGE DRAWING FOR SHOP DRAWING REVIEW.	WATT STOPPER WT-1100 SERIES HUBBELL AUTOMATION OMNI-US LEVITON OSC SERIES GREENGATE ODC-U SERIES
16	■	PANELBOARD, SURFACE MOUNT, 208/120 VOLT, 3 PHASE, 4 WIRE, S/N, GROUND BUS, COPPER BUS, BOLT-ON BREAKERS, NEMA 1 ENCLOSURE, SEE SCHEDULES FOR SIZE AND CONFIGURATION, SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.	SQUARE D NQ GENERAL ELECTRIC AQ SIEMENS P1 CUTLER-HAMMER PRL1
17	FACP-1001	FIRE ALARM CONTROL PANEL, ADDRESSABLE SYSTEM, FEATURING INTERFACE WITH ANALOG SENSING INITIATING DEVICES, EXPANDABLE MODULAR DESIGN, MICROPROCESSOR BASED ELECTRONICS, 120 VAC OPERATION, SURFACE MOUNT. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.	SIMPLEX 4XXX SERIES NOTIFIER SIEMENS FIRE SAFETY EDWARDS
18	V1 V3 V7 V8	FIRE ALARM VISUAL NOTIFICATION APPLIANCE, HIGH-INTENSITY STROBE, RED HOUSING WITH WHITE LETTERING OR PICTOGRAM, SEMI-FLUSH WALL MOUNT; 24 VDC. WG SUBSCRIPT INDICATES WIRE GUARD IS REQUIRED. CANDELA RATINGS: V1=15, V3=30, V7=75, AND V8=110. CANDELA RATING SHALL BE VISIBLE FROM THE OUTSIDE OF THE DEVICE.	SYSTEM SENSOR S24 GENTEX GES EDWARDS EG1 SIMPLEX 4904 SIEMENS UMCS WHEELLOCK RSS

GENERAL ELECTRICAL EQUIPMENT SCHEDULE (CONTINUED)

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19	A1 A3 A7 AH	FIRE ALARM AUDIO/VISUAL NOTIFICATION APPLIANCE, ELECTRONIC HORN WITH SELECTABLE OR TEMPORAL TONE AND HIGH-INTENSITY STROBE, RED HOUSING WITH WHITE LETTERING OR PICTOGRAM, SEMI-FLUSH WALL MOUNT; 24 VDC. WG SUBSCRIPT INDICATES WIRE GUARD IS REQUIRED. CANDELA RATINGS: A1=15, A3=30, A7=75, AND AH=110. CANDELA RATING SHALL BE VISIBLE FROM THE OUTSIDE OF THE DEVICE.	SYSTEM SENSOR P24 GENTEX GEC EDWARDS EG1 SIMPLEX 4903 SIEMENS UMST WHEELLOCK HS4
20	SD	SMOKE DETECTOR, ADDRESSABLE, ANALOG PHOTOELECTRIC SENSOR, 24 VDC, 2-PIECE DESIGN, LOW-PROFILE MOUNTING BASE WITH MULTI-FUNCTION LED INDICATOR, COMPLETE WITH MOUNTING HARDWARE AND BACKBOX. PROVIDE A REMOTE LED INDICATOR DEVICE IF DETECTOR IS NOT VISIBLE FROM A FLOOR-STANDING POSITION.	SIMPLEX 4098 SERIES NOTIFIER SIEMENS FIRE SAFETY EDWARDS
21	H	HEAT DETECTOR, ADDRESSABLE, ANALOG SENSOR, COMBINATION RATE OF RISE AND 135 DEGREE FAHRENHEIT FIXED TEMPERATURE, 2-WIRE OPERATION, 24 VDC, 2-PIECE DESIGN, LOW-PROFILE MOUNTING BASE WITH MULTI-FUNCTION LED INDICATOR, COMPLETE WITH MOUNTING HARDWARE AND BACKBOX. PROVIDE A REMOTE LED INDICATOR DEVICE IF DETECTOR IS NOT VISIBLE FROM A FLOOR-STANDING POSITION.	SIMPLEX 4098 SERIES NOTIFIER SIEMENS FIRE SAFETY EDWARDS
22	F	FIRE ALARM MANUAL PULL STATION, ADDRESSABLE, DOUBLE ACTION WITH PLASTIC BREAKROD, RESET KEY LOCK, SEMI-FLUSH MOUNT, RED HIGH-ABUSE PLASTIC OR CAST METAL CONSTRUCTION WITH WHITE LETTERING. USE SURFACE MOUNT ONLY ON PRECAST CONCRETE OR STRUCTURE. WG SUBSCRIPT INDICATES WIRE GUARD IS REQUIRED.	SIMPLEX 2099 SERIES NOTIFIER SIEMENS FIRE SAFETY EDWARDS
23	EPO	MOMENTARY PUSH BUTTON OPERATOR, (NON-ILLUMINATED), ROUND, 1-3/8" DIAMETER MUSHROOM BUTTON, (1) NORMALLY OPEN, (1) NORMALLY CLOSED CONTACT. CONTACTS RATED 10 AMPS CONTINUOUSLY. PROVIDE AND INSTALL 2-1/4" SQUARE ENGRAVED NAMEPLATE WITH RED BACKGROUND AND BOLD WHITE LETTERS. NAMEPLATE TO READ "EMERGENCY GAS SHUTOFF". SUBSCRIPT R = DENOTES A NEMA 3R ENCLOSURE	SQUARE D CLASS 9001 SKR4RH13-BUTTON (2) KA1-CONTACTS KN100WP-NAMEPLATE GENERAL ELECTRIC SIEMENS CUTLER-HAMMER
24	H	RECEPTACLE, DUPLEX, SPECIFICATION GRADE, 125 VOLT, 20 AMP, 3 WIRE GROUNDING TYPE, N.E.M.A. 5-20R, RED IMPACT RESISTANT THERMOPLASTIC FACE, RED COVERPLATE. DOUBLE DUPLEX, CONSIST OF TWO DUPLEX RECEPTACLES, DOUBLE GANG BOX, PLASTER RING AND FACEPLATE. PROVIDE IDENTIFICATION LABEL ON COVER PLATE INDICATING PANEL AND CIRCUIT NUMBER, SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION	HUBBELL HBL8300R LEVITON 8300-R PASS & SEYMOUR 8300-RED COOPER 8300RD
25	HH-1	HANDHOLE, COMPOSITE POLYMER CONCRETE BODY AND COVER. STAINLESS STEEL HARDWARE. BOLTED NON-SKID COVER RATED FOR 6,500 LB. DESIGN LOAD OCCASIONAL NON-DELIBERATE VEHICULAR TRAFFIC. STACK UNITS TO ACHIEVE DEPTH SHOWN ON PLANS. UNITS IN LANDSCAPED AREAS SHALL BE GREEN IN COLOR.	HUBBELL/QUAZITE PG###BB18 PG###H1A0Q CARSON INDUSTRIES H SERIES ARMORCAST HIGHLINE PRODUCTS SYNERTECH
26	WW-1	WIREWAY, STEEL LAY-IN TYPE, J.I.C., NEMA 12, 12" x 12", FULLY GASKETED, COMPLETE WITH ALL FITTINGS REQUIRED TO FORM A CONTINUOUS ENCLOSED RACEWAY, U.L. LISTED.	SQUARE D CLASS 5120 LJB# HOFFMAN F-88L# HUBBELL-WEGMANN
27	SPD-C3	SURGE PROTECTION DEVICE, NON-MODULAR SERVICE ENTRANCE TYPE, CATEGORY C3 RATING, EXTERNAL MOUNTED CABINET AND 208/120 VOLT, 3 PHASE, 4 WIRE, COMPLY WITH U.L. 1449, WALL MOUNTED, LESS THAN 5' FROM PANEL SERVING, WARRANTY OF FIVE (5) YEARS, INCLUDING WORKSMANSHIP, INSTALLATION, AND PROGRAMMING, LED VISUAL INDICATORS.	SQUARE D CLASS 1310 EMB SERIES SIEMENS TPS3 SERIES CUTLER HAMMER SPD SERIES GENERAL ELECTRIC TR7 SERIES CURRENT TECH. CURRENT GUARD PLUS LIEBERT ACV7 SERIES LEA INTERNATIONAL LSS SERIES

PANEL NAME: EPI

CONNECTED 2.4 KVA

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM: PORTABLE GEN SET VIA MTS-100R

MAIN: 60A/3P CB
VOLTS: 208Y / 120
PHASE: 3
WIRE: 4

K SCOR: 42,000

E NOTES:

CKT NO.	LOAD DESCRIPTION	WIRE SIZE	LOAD KVA	BREAKER AMP	BREAKER P	LOAD KVA	WIRE SIZE	LOAD DESCRIPTION	CKT NO.
1	RECEPT. CEMET. REP RM. A103	12	0.8	20	1	20	1	RECEPT. DIRECTOR RM A105, LUNCHROOM A106	2
3	RECEPT. MULTI. PURP. RM. A102, OPERATIONS A107	12	0.8	20	1	20	1	SPARE	4
5	SPARE			20	1	20	1	SPARE	6
7	SPARE			20	1	20	1	SPARE	8
9								SPARE	10
11									12
13									14
15									16
17									18

KEY: *A=HACR *G=GROUND FAULT INTERRUPT *S=SHUNT TRIP *P=PADLOCK HASP

TRANSFER SWITCH SCHEDULE

ITEM	SWITCH				NEMA ENCLOSURE	ACC	REMARKS	APPROVED MANUFACTURERS
	TYPE	VOLTAGE	POLES	AMPS				
MTS-100R	MAN, DS	208	3	100	3R			SQUARE D 3100 DTU324NRB CUTLER-HAMMER SIEMENS GENERAL ELECTRIC (G.E.)

SWITCH TYPE:
 AUTO - AUTOMATIC
 B/I - AUTOMATIC WITH BYPASS ISOLATION
 MAN - MANUAL OPERATION
 CT - CLOSED TRANSITION
 DT - DELAY TRANSITION - CENTER OFF
 STAT - STATIC SOLID STATE
 /30 - 30 CYCLE WITHSTAND RATING
 SN - SWITCHED NEUTRAL
 ON - OVERLAPPING SWITCHED NEUTRAL
 DN - SOLID NEUTRAL
 DS - DISCONNECT SWITCH

ACCESSORIES: (ACC)
 EE - ENGINE EXERCISER
 IM - INPHASE MONITOR
 SH - STRIP HEATER WITH THERMOSTAT
 RM - REMOTE ANNUNCIATOR
 RC - REMOTE CONTROL CIRCUITS
 EL - ELEVATOR EMERGENCY TO NORMAL PRESIGNAL
 SP - SERIAL COMMUNICATIONS PORT
 PM - POWER MONITORING METER
 RTC - REMOTE TRANSFER CONTROL FROM FIRE COMMAND CENTER
 RMC - REMOTE ANNUNCIATION AT FIRE COMMAND CENTER
 TI - TRANSFER INHIBIT
 LS - LOAD SHED

BID DOCUMENTS 7/1/2011

Revisions	Date

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I hereby certify that this Plan, Specification, or Report was prepared by me, or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Oregon.

Signature: _____
 Name: **Lee D. VanOordorp**
 Discipline: **Electrical**
 Oregon Registration No. **78702PE** Expiration date: **06.30.12**
 Date Issued: **/**/11

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NATIONAL
CEMETERY
ADMINISTRATION

Drawing Title	Project Title	Date
ELECTRICAL MATERIAL LIST - ADMIN.	REPLACE ADMINISTRATION AND MAINTENANCE BUILDING AND SITE IMPROVEMENTS	7-1-2011
Approved: Director, Office of Construction Management	Building Number: 1001 Checked: JOHMcG Drawn: BRAWT	Project No: 906CM3009
Approved: Director, Project Management Service	Location: EAGLE POINT NATIONAL CEMETERY 2763 RILEY ROAD EAGLE POINT, OR 97524	DRAWING NO.: E-1001-51 Dwg. 95 OF 181