

PROJECT DESCRIPTION
POINT CONDOMINIUMS

PROJECT LOCATION:
KAHEAHEHA HIGHWAY, UNIT 18
KAHUKU, HI 96731

SHEET INDEX

E-1	ELECTRICAL COVER SHEET, GENERAL NOTES & SYMBOL LEGEND
E-2	ONE LINE DIAGRAM

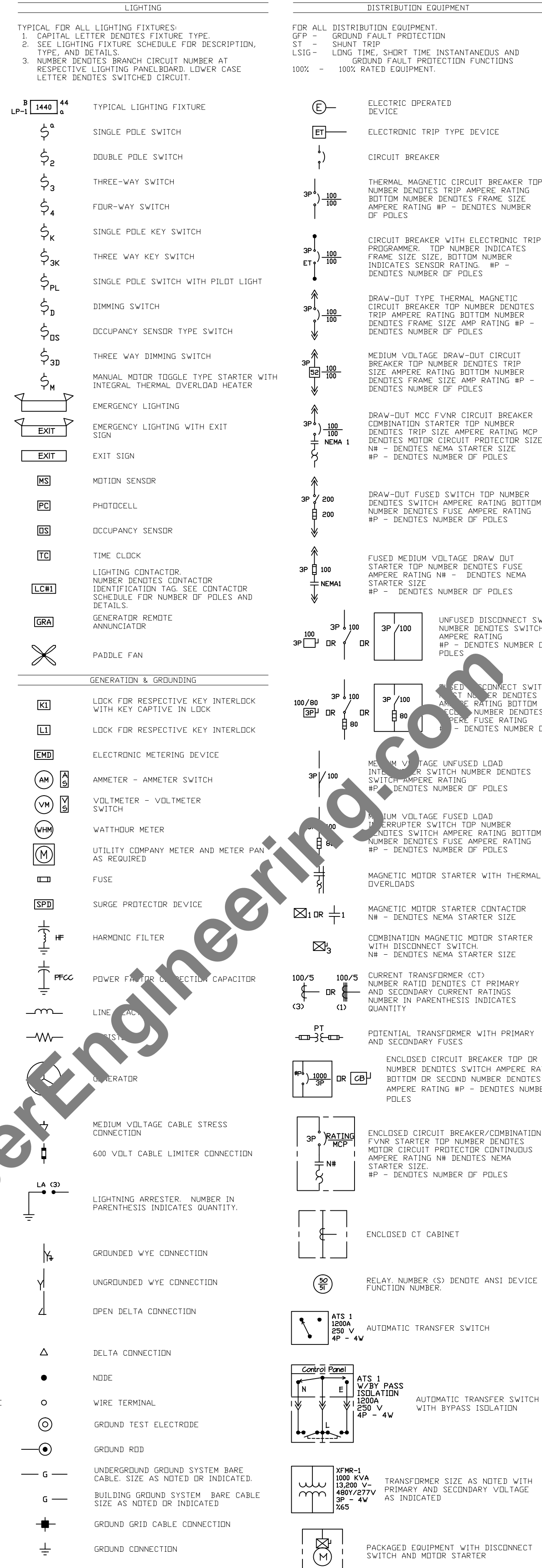
ELECTRICAL NOTES

- THIS DESIGN MAY BE USED FOR SECURING PERMITS, BID, PLANNING, THE COMPANY'S REVIEW OR SOME OTHER GOAL. THE CONTRACTOR DOES NOT WARRANT THESE APPROVALS NOR ARE THESE APPROVALS A REQUIREMENT FOR SERVICES.
- THIS DESIGN IS NOT A COMPLETE SET OF CONSTRUCTION DRAWINGS OR SHOP DRAWINGS. THIS DESIGN REPRESENTS DIAGRAMMATIC REPRESENTATION OF INTENDED SCOPE OF WORK.
- THE SYMBOLS AND ABBREVIATIONS LIST ON THIS SHEET IS A COMPREHENSIVE STANDARD GUIDE INTENDED FOR GENERAL USE ON ALL PROJECTS. THEREFORE, NOT ALL THE SYMBOLS AND ABBREVIATIONS CONTAINED IN THIS LIST ARE NECESSARILY USED ON THIS PARTICULAR PROJECT AND SHOULD BE USED FOR CLARIFICATION ONLY.
- ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE NATIONAL ELECTRICAL CODE (NEC), IFC, LIFE SAFETY CODE, LOCAL BUILDING CODE, OSHA REGULATIONS, LOCAL, STATE, FEDERAL, AND AUTHORITY HAVING JURISDICTION CODES APPLICABLE AT THE TIME OF THE CONSTRUCTION.
- GENERAL WORK PRACTICES FOR ELECTRICAL CONSTRUCTION SHALL BE IN ACCORDANCE WITH NECA 1 STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION (ANSI).
- ALL MATERIALS PROVIDED BY THE CONTRACTOR SHALL BE NEW AND FREE OF DEFECTS, LISTED/LABELLED FOR THE INTENDED PURPOSE BY UNDERWRITERS (UL) OR OTHER ORGANIZATION THAT IS ACCEPTABLE TO THE HOA.
- THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS ARE INTENDED TO DESCRIBE AND ILLUSTRATE SYSTEMS WHICH WILL NOT INTERFERE WITH THE STRUCTURE OF THE BUILDING AND WHICH WILL FIT INTO THE AVAILABLE SPACES. THE CONTRACTOR IS RESPONSIBLE FOR CAREFULLY LAYING OUT ALL WORK TO CONFORM TO NATIONAL ELECTRICAL CODE CLEARANCES, ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND SITE CONDITIONS, TO AVOID OBSTRUCTIONS AND TO ALLOW THE PROPER INSTALLATION OF EACH ITEM.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE WITH DRAWINGS OF OTHER TRADES TO FIT THE ACTUAL SPACE CONDITIONS, ROOMS AND SPACE CONDITION TO BE MAINTAINED.
- THE DRAWINGS ARE TO BE CONSIDERED SCHEMATIC ONLY AND DO NOT NECESSARILY SHOW THE EXACT LOCATION AND DETAILS OF THE WORK TO BE INSTALLED.
- UPON THE COMPLETION OF THE WORK, THE ENTIRE ELECTRICAL SYSTEM SHALL BE TESTED AND SHALL BE SHOWN TO BE IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL SYSTEM READY FOR FINAL INSPECTION BY ALL.
- TEST AND INSPECT ALL WIRING AND EQUIPMENT INSTALLED UNDER THIS SECTION OF SPECIFICATIONS. ALL WIRING MUST BE FREE SHORTS AND OPEN CIRCUITS. WHEN BREAKING HIRE LEAVE ALL MATERIALS AND APPARATUS IN PROPER AND SATISFACTORY WORKING CONDITIONS.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE CORRECT PHASE SEQUENCE OF ALL THREE-PHASE FEEDERS AND BRANCH CIRCUITS. VERIFY PROPER ROTATION OF ALL MOTORS.
- CONDUIT RUNS WHEN SHOWN ARE DIAGRAMMATIC. FINAL LOCATION AND ROUTING SHALL BE ESTABLISHED BY THE CONTRACTOR BASED ON THE INSTALLATION CONDITIONS AND SHALL BE VERIFIED IN THE FIELD. ALL CONDUIT TYPES AND INSTALLATION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONDUIT RUNS SHALL BE PARALLEL WITH OR AT RIGHT ANGLES TO WALLS AND CEILING. CONDUIT SHALL BE SUPPORTED BY APPROVED MEANS. ALL ENTRY CONDUITS SHALL BE PROVIDED WITH A DRAG HIRE.
- PROVIDE CONDUIT EXPANSION FITTINGS WITH BONDING JUMPERS FOR ALL CONDUITS PASSING THROUGH EXPANSION JOINTS.
- THE USE OF FLEXIBLE CONDUIT FROM LIGHTING FIXTURES TO JUNCTION BOX IS PERMITTED ONLY WHEN A SEPARATE GROUND WIRE IS INSTALLED WITH THE CONDUCTORS INSIDE FLEXIBLE CONDUIT. THE GROUND WIRE MUST BOND THE FIXTURE TO THE JUNCTION BOX. MAXIMUM LENGTH SHALL BE 40 FEET.
- FLEXIBLE CONDUIT INSTALLED OUT OF DOORS, IN ANY MECHANICAL EQUIPMENT ROOMS, OR IN NORMALLY WET AREAS SHALL BE LIQUID TIGHT FLEX WITH SATISFACTORY FITTINGS.
- CONDUIT HIRING, CIRCUITING AND REQUIRED CONNECTIONS TO ALL DEVICES, FIXTURES AND EQUIPMENT. CONNECT TO CIRCUITS AS INDICATED. CIRCUIT NUMBERS ARE FOR INFORMATION PURPOSES ONLY. ACTUAL CIRCUIT NUMBERS SHALL BE DETERMINED IN THE FIELD AND REFLECTED IN THE PANEL SCHEDULE DIRECTORY AND ON THE AS-BUILT DRAWINGS.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL MOUNTING HEIGHTS OF ALL DEVICES MOUNTED IN CASEWORK OR IN ABOVE CABINETS WITH EXISTING EQUIPMENT.
- UNLESS SPECIFICALLY DIRECTED OTHERWISE, FURNISH AND INSTALL EACH AND EVERY ITEM CONTAINED IN AND ASSOCIATED WITH THE WORK INVOLVED AS SHOWN ON THE DRAWINGS AND/OR DESCRIBED IN THE ACCOMPANYING SPECIFICATIONS, TOGETHER WITH ALL APPURTENANCES, COMPONENTS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. CONTRACTOR SHALL PROVIDE CONDUIT, WIRING AND CABLES TO ALL DEVICES, FIXTURES AND ETC. FOR A COMPLETE WORKING SYSTEM BASED ON THE CIRCUITS NOTED.
- PROVIDE INDEPENDENT SUPPORT FOR DISCONNECT SWITCHES, CONTROL STATIONS, BOXES, PANELS, ETC. WHERE NO WALLS OR OTHER STRUCTURAL SURFACE EXISTS.
- EQUIPMENT SIZED AND LOCATIONS ARE APPROXIMATE. ACTUAL DIMENSIONS TO BE DETERMINED BY EQUIPMENT FURNISHER.
- PROVIDE BRANCH CIRCUIT WIRING TO ALL ITEMS REQUIRING ELECTRICAL CONNECTIONS, WHERE BRANCH CIRCUIT WIRING IS NOT SHOWN, CONNECT ITEMS TO CIRCUITS INDICATED. THE CONTRACTOR SHALL DETERMINE EXACT ROUTING OF CONDUITS AND WIRING UNLESS INDICATED OTHERWISE. ALL BRANCH CIRCUITS SHALL BE MINIMUM #12 AWG.
- PROVIDE JUNCTION BOX FOR ANY DEVICE WITH PIG TAIL SUCH AS SOLENOID VALVES, LIMIT SWITCHES, SMOKE DETECTORS AND ETC. FOR PROPER ELECTRICAL CONNECTION. PROVIDE ALL HARDWARE FOR MOUNTING OF JUNCTION BOX.
- EXACT LOCATION OF MECHANICAL AND PLUMBING EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL AND PLUMBING DRAWINGS. COORDINATE WITH MECHANICAL AND PLUMBING CONTRACTORS.
- WHEREVER THE INSTALLATION OF ELECTRICAL EQUIPMENT AS SHOWN ON THE DRAWINGS IS IMPRACTICAL DUE TO LOCAL INTERFERENCE OR UNFORSSEEN FIELD CONDITIONS, THE CONTRACTOR SHALL INSTALL THE EQUIPMENT AT NEW LOCATIONS AS DIRECTED BY THE ENGINEER.

STANDARD ABBREVIATIONS

A	AMPERE	DVG	DRAWING	KV	KILOVOLT
AFT	ABOVE FINISHED FLOOR	E.C.	ELECTRICAL CONTRACTOR	KVA	KILOVOLT AMPERE
AFG	ABOVE FINISHED GRADE	EL	ELEVATION	KW	KILOWATT
AFI	ARC FLASH INTERRUPTER	E.E.	ELECTRICAL	KWH	KILOWATT HOUR
AFIC	ARC FLASH CIRCUIT INTERRUPTER	ELEC	ELECTRICAL	LCP	LOCAL CONTROL PANEL
ASYM	ASYMMETRICAL	EDUP	ELECTRICAL DISTRIBUTION UNIT	LIS	LOAD INTERRUPTER SWITCH
ATS	AUTOMATIC TRANSFER SWITCH	EXIST	EXISTING	LP	LIGHTING PANEL
AVG	AMERICAN WIRE GAUGE	FA	FIRE ALARM	LIT	LIGHTING
BKR	BREAKER	FBD	FURNISHED BY OTHER	MAX	MAXIMUM
C	CONDUIT	FDR	FEEDER	MCC	MOTOR CONTROL CENTER
CB	CIRCUIT BREAKER	FIXT	FIXTURE	MCS	MOLDED CASE SWITCH
CCTV	CLOSED CIRCUIT TELEVISION	FL	FLOOR	MCP	MAIN DISTRIBUTION PANEL
CKT	CIRCUIT	G	GROUND	MIN	MINIMUM
CL	CENTER LINE	GC	GENERAL CONTRACTOR	MSB	MAIN SWITCHBOARD
CLG	CEILING	GEN	GENERATOR	MSG	MAIN SWITCHGEAR
CNTL	CONTROL	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	MTS	MANUAL TRANSFER SWITCH
CP	CONTROL POWER TRANSFORMER	GFI	GROUND FAULT INTERRUPTER	NA	NON-AUTOMATIC
CPT	CURRENT TRANSFORMER	HI	HIGH INTENSITY DISCHARGE	NC	NORMALLY CLOSED
CU	COPPER	HDA	HAND-OFF-AUTOMATIC	NEC	NATIONAL ELECTRIC CODE
D	DEMOLISH	HP	HORSE POWER	NO	NORMALLY OPEN
DIA	DIAMETER	IC	INTERRUPTING CAPACITY	NTS	NOT TO SCALE
DISC	DISCONNECT	I/O	INPUT / OUTPUT	P	POLE
DN	DOWN	JB	JUNCTION BOX	PH	PHASE
DP	DISTRIBUTION PANEL BOARD	PNL	PANEL	PT	POTENTIAL TRANSFORMER

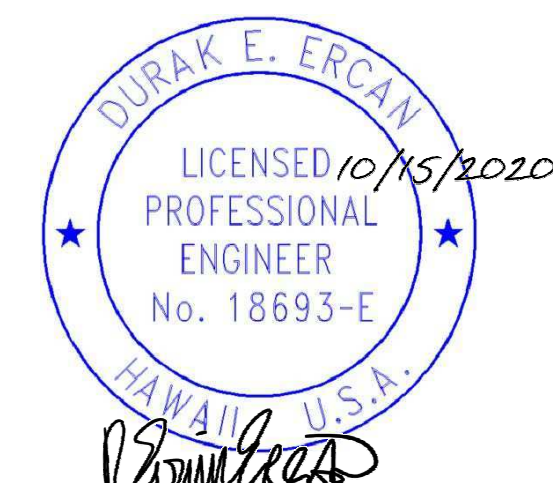
SYMBOL LEGEND

ELECTRICAL EQUIPMENT	LIGHTING	DISTRIBUTION EQUIPMENT
TYPICAL FOR ALL RECEPTACLES, OUTLETS, JUNCTION BOXES AND EQUIPMENT: NUMBER DENOTES PANEL CIRCUIT NUMBER.	TYPICAL FOR ALL LIGHTING FIXTURES: 1. CAPITAL LETTER DENOTES FIXTURE TYPE. 2. SEE LIGHTING FIXTURE SCHEDULE FOR DESCRIPTION, TYPE, AND DETAILS. 3. NUMBER DENOTES BRANCH CIRCUIT NUMBER AT RESPECTIVE LIGHTING PANEL/BOARD. LOWER CASE LETTER DENOTES SWITCHED CIRCUIT.	FOR ALL DISTRIBUTION EQUIPMENT: GFP - GROUND FAULT PROTECTION ST - SHORT TRIP LSIG - LONG TIME SHORT TIME INSTANTANEOUS AND GROUND FAULT PROTECTION FUNCTIONS 100% - 100% RATED EQUIPMENT
AFIC - ARC FAULT CIRCUIT INTERRUPTER GFI - GROUND FAULT INTERRUPTER SS - SURGE SUPPRESSION TYPE IG - ISOLATED GROUND TYPE WP - WEATHERPROOF D44 - DUPLEX RECEPTACLE S44 - SWITCHED DUPLEX RECEPTACLE - ONE OUTLET SWITCHED LOWER CASE LETTER DENOTES SWITCH CONTROL D44 - DOUBLE DUPLEX RECEPTACLE S44 - SINGLE RECEPTACLE S44 - SPECIAL RECEPTACLE AMPERE AND VOLTAGE RATINGS AS INDICATED ON DRAWING S44 - SURFACE RACEWAY WITH RECEPTACLES, AS INDICATED ON DRAWING D44 - DOUBLE DUPLEX RECEPTACLE - FLOOR MOUNTED H44 - DUPLEX RECEPTACLE - FLOOR MOUNTED S44 - SPECIAL RECEPTACLE - FLOOR MOUNTED D44 - CEILING MOUNTED DUPLEX RECEPTACLE PNL - FLOOR JUNCTION BOX REC - WALL MOUNTED JUNCTION BOX 15KVA - JUNCTION BOX, SIZE AND MOUNT AS REQUIRED EH 1 - ELECTRICAL OR TELEPHONE HANDHOLE EH 1 - ELECTRICAL OR TELEPHONE HANDHOLE TB - TERMINAL BOX, SIZE IN ACCORDANCE WITH NEC REQUIREMENTS AND TO ACCOMMODATE ALL TERMINAL BLOCKS. PB - PULL BOX, SIZE IN ACCORDANCE WITH NEC REQUIREMENTS. PXXX - SURFACE PANELBOARD LETTERS & NUMERALS INDICATE EQUIPMENT TAG PXXX - RECESSED PANELBOARD LETTERS & NUMERALS INDICATE EQUIPMENT TAG PANEL - ELECTRICAL PANEL LETTERS AND NUMBERS INDICATE PANELBOARD IDENTIFICATION TAG. SEE PANEL SCHEDULE FOR DETAILS. P1-5 - HOMERUN CIRCUITS TO PANELBOARD NUMBER DENOTES NUMBER OF CIRCUIT HOMERUNS. 1 PH 120V P1-2, 3 - 1000V 3 WIRE 3 PH 4W ELEC		
INDICATES NEW OR EXISTING EQUIPMENT/CONDUIT INDICATES CONCEALED NEW OR EXISTING EQUIPMENT/CONDUIT INDICATES EXISTING EQUIPMENT/CONDUIT TO BE DEMOLISHED AND/OR REMOVED BUS BAR FLEXIBLE CONNECTION CONDUIT TURNING UP CONDUIT TURNING DOWN CAPPED CONDUIT CABLE TRAY (LADDER STYLE) NUMBER DENOTES WIDTH IN INCHES BUS DUCT HAND OFF AUTO SELECTOR SWITCH CONTROL STATION PUSHBUTTON STATION INDICATING LIGHT STATION DATA & TELEPHONE DATA SYSTEM SYSTEM OUTLET BOX, WITH 3/4" CONDUIT SUB UP ABOVE HANG TELEPHONE SYSTEM OUTLET BOX, WITH 3/4" CONDUIT SUB UP ABOVE HANG CEILING WITH DRAG LINE AND BUSHED END COMBINATION TELEPHONE DATA AND TELEPHONE SYSTEM OUTLET BOX, WITH 3/4" CONDUIT SUB UP ABOVE HANG CEILING DATA OUTLET, RECESSED, MOUNTED WITH DRAG LINE AND BUSHED ENDS TELE OUTLET - FLOOR MOUNTED COMBINATION TELEPHONE/DATA OUTLET FOR PLUMBING TELEPHONE POKE THRU DATA POKE THRU TELEPHONE / DATA POKE THRU TELEPHONE/DATA TERMINAL BOARD, NATIONAL ELECTRIC CODE, 3/4" x 6" PLYWOOD FASTENED TO THE WALL WITH 3/4" CHANNEL MEDIUM VOLTAGE CABLE STRESS CONNECTION 600 VOLT CABLE LIMITER CONNECTION LIGHTNING ARRESTER, NUMBER IN PARENTHESES INDICATES QUANTITY. GROUNDED WYE CONNECTION UNGROUNDED WYE CONNECTION OPEN DELTA CONNECTION DELTA CONNECTION NDE WIRE TERMINAL GROUND TEST ELECTRODE GROUND ROD UNDERGROUND GROUND SYSTEM BARE CABLE, SIZE AS NOTED OR INDICATED, BUILDING GROUND SYSTEM BARE CABLE, SIZE AS NOTED OR INDICATED, GROUND GRID CABLE CONNECTION, GROUND CONNECTION, PACKAGED EQUIPMENT WITH DISCONNECT SWITCH AND MOTOR STARTER		

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SEAL & SIGNATURE



NO ALTERATION PERMITTED EXCEPT AS PROVIDED UNDER DIRECTION OF A LICENSED PROFESSIONAL ENGINEER.

Digitally signed by Durak Evrim Ercan, DN: c=US, st=New Jersey, I=Montclair, o=Durak Evrim Ercan, email=info@AmperEngineering.com, Date: 2020.10.15 13:18:09 -0400

REV.	DATE	DESCRIPTION
0	10/13/2020	ISSUED FOR PERMIT APPLICATION

CLIENT:
CONDOMINIUMS

PROJECT:
GENERATOR INSTALLATION

ADDRESS:
HIGHWAY, UNIT 18
KAHUKU, HI 96731

ISSUE DATE:
10/13/2020

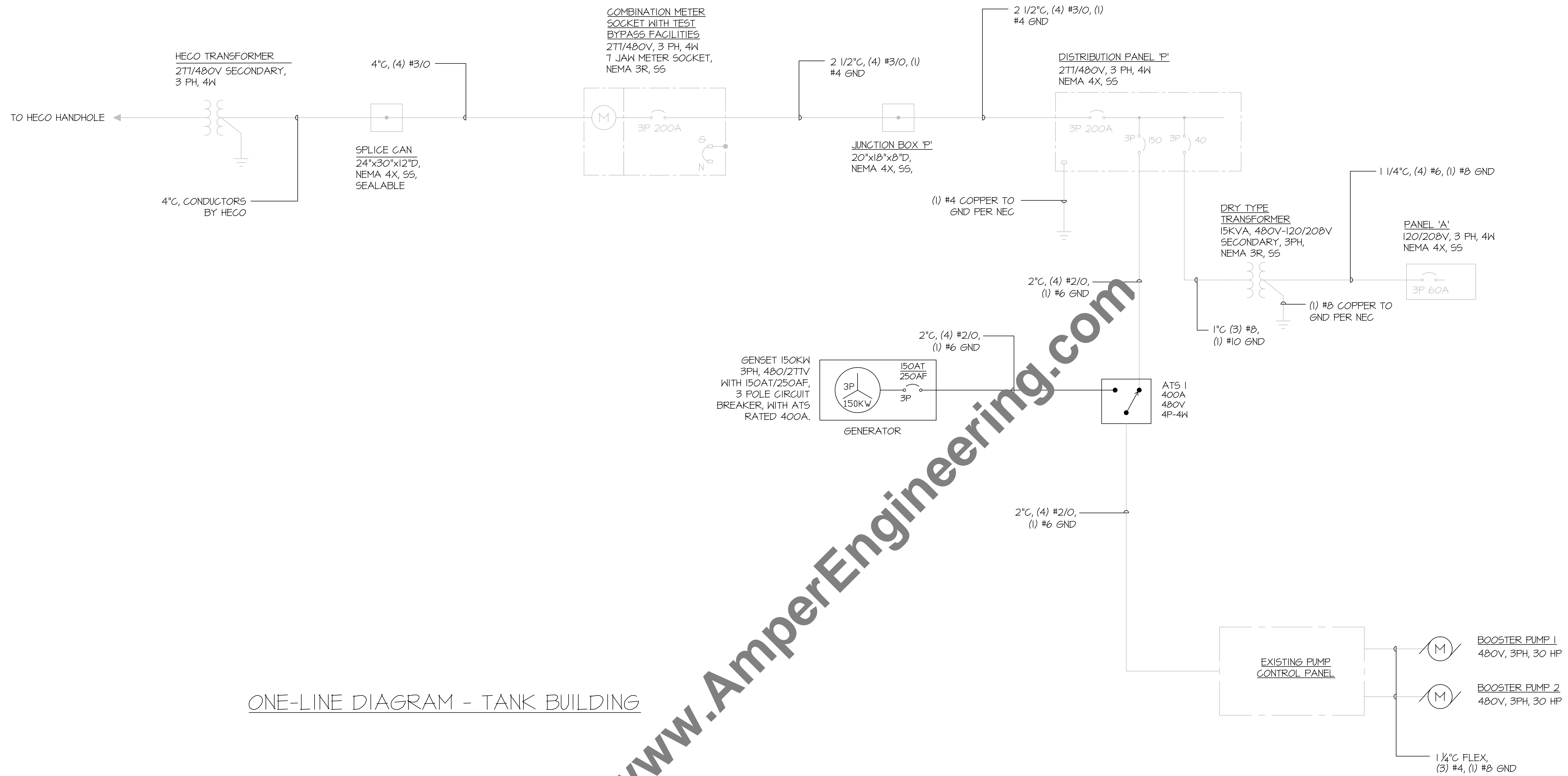
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DESIGNED BY: DEE	CHECKED BY: DEE

DRAWING TITLE:
ELECTRICAL COVER SHEET, GENERAL NOTES & SYMBOL LEGEND

DRAWING NO:
E1

REVISION:
0



ONE-LINE DIAGRAM - TANK BUILDING

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REV.	DATE	DESCRIPTION

CLIENT:
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PROJECT:
GENERATOR INSTALLATION
ADDRESS: A
HIGHWAY, UNIT 18
KAHUKU, HI 96731

ISSUE DATE:
10/13/2020
PROJECT NUMBER:
AE# 1216
SCALE: NONE
DRAWN BY: DEE
DESIGNED BY: DEE
CHECKED BY: DEE

DRAWING TITLE:
ONE LINE DIAGRAM

DRAWING NO: **E2** REVISION: **0**