ELEC	CTRICAL LEGEND — ONE—LINE DIAGRAM
-	CABLE TERMINATOR/LUG
***	TRANSFORMER
__	DISCONNECT SWITCH
<u></u>	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
<u></u> -^-	THERMAL MAGNETIC CIRCUIT BREAKER
⊣⊢	NORMALLY OPEN (N.O.) CONTACT
→ ¥	NORMALLY CLOSED (N.C.) CONTACT
	FUSE
↓	TRANSIENT VOLTAGE SURCE SUPPRESSOR OR SURGE PROTECTOR DEVICE
≢	GROUND — GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
a	INDICATING LIGHT
(N)	MOTOR
#	LOAD, MOTOR, # = HORSEPOWER
0	ELECTRIC UTILITY METER BASE
0	JUNCTION BOX WITH SPLICE
xxx	EQUIPMENT, XXX = DEVICE DESCRIPTION
GND	GROUND BAR, GROUND BUS, OR GROUND TERMINAL
S/N	SOLID NEUTRAL, NEUTRAL BUS, OR NEUTRAL TERMINAL
#	PANELBOARD WITH MAIN LUGS
#\-_	PANELBOARD WITH MAIN BREAKER
♣□≫ #	FUSE PANEL WITH MAIN FUSE PULLOUT
+	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE
888	CONTROL STATION
N EM	TRANSFER SWTICH
	ENGINE GENERATOR SET

	ELECTRICAL LEGEND - SCHEMATIC
⊣ ⊢	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
(\$*)	STARTER COIL, * = STARTER NUMBER
OL _	OVERLOAD RELAY CONTACT
(CR+)	CONTROL RELAY, * = CONTROL RELAY NUMBER
(R*)	RELAY, * = RELAY NUMBER
· ~	TOGGLE SWITCH / 2 POSITION SWITCH
OFF AUTO	2-POSITION SELECTOR SWITCH
HAND T AUTO XOO OOX	3-POSITION SELECTOR SWITCH (H-O-A SHOWN)
	2 POLE DISCONNECT SWITCH
1111	3 POLE DISCONNECT SWITCH
<u>→</u>	PHOTOCELL
	TERMINAL BLOCK, * = TERMINAL NUMBER
	DEVICE TERMINAL, * = DEVICE TERMINAL NUMBER
	INTERNAL PANEL WIRING
	FIELD WIRING
	FUSE
GND	GROUND BAR, GROUND BUS, OR GROUND TERMINAL
S/N	SOLID NEUTRAL, NEUTRAL BUS, OR NEUTRAL TERMINAL
+	GROUND, GROUND ROD, GROUND BUS
0 0	INDUSTRIAL CONTROL RELAY OR LIGHTING CONTACTOR
+++	S1 CUTOUT HANDLE REMOVED
 	S1 CUTOUT HANDLE INSERTED
2	N.O. THERMAL SWITCH
- <u>T</u> -	N.C. THERMAL SWITCH
()	L-830 SERIES ISOLATION TRANSFORMER

ELECTRICAL ABBREVIATIONS				
A.F.F.	ABOVE FINSHED FLOOR			
A, AMP	AMPERES			
ATS	AUTOMATIC TRANSFER SWITCH			
AWG	AMERICAN WIRE GAUGE			
BKR	BREAKER			
С	CONDUIT			
СВ	CIRCUIT BREAKER			
CKT	CIRCUIT			
CR	CONTROL RELAY			
CU	COPPER			
DPDT	DOUBLE POLE DOUBLE THROW			
DPST	DOUBLE POLE SINGLE THROW			
ЕМ	EMERGENCY			
EMT	ELECTRICAL METALLIC TUBING			
ENCL	ENCLOSURE			
EP	EXPLOSION PROOF			
ES	EMERGENCY STOP			
ETL	INTERTEK - ELECTRICAL TESTING LABS			
ETM	ELAPSE TIME METER			
GFCI	GROUND FAULT CIRCUIT INTERRUPTER			
GFI	GROUND FAULT INTERRUPTER			
GND	GROUND			
GRSC	GALVANIZED RIGID STEEL CONDUIT			
HID	HIGH INTENSITY DISCHARGE			
НОА	HAND OFF AUTOMATIC			
HP	HORSEPOWER			
HPS	HIGH PRESSURE SODIUM			
J	JUNCTION BOX			
KVA	KILOVOLT AMPERE(S)			
KW	KILOWATTS			
LC	LIGHTING CONTACTOR			
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)			
LTG	LIGHTING			
LP	LIGHTING PANEL			
MAX	MAXIMUM			
MCB	MAIN CIRCUIT BREAKER			
МСМ	THOUSAND CIRCLUAR MIL			
MDP	MAIN DISTRIBUTION PANEL			
MFR	MANUFACTURER			
MH	METAL HALIDE			
MIN	MINIMUM			
MLO	MAIN LUGS ONLY			
N N	NEUTRAL NEUTRAL			
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)			
NC	NORMALLY CLOSED			
NO NO	NORMALLY OPEN			
NTS	NOT TO SCALE			
OHE	OVERHEAD ELECTRIC			
0L	OVERLOAD			

PB	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK
PNL	PANEL
RCPT	RECEPTACLE
R	RELAY
S	STARTER
SPD	SURGE PROTECTION DEVICE
SPST	SINGLE POLE SINGLE THROW
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITER'S LABORATORIES
٧	VOLTS
W/	WITH
W /0	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

ELECTRICAL ABBREVIATIONS (CONTINUED)

XFMR	TRANSFORMER
AIRF	PORT EQUIPMENT/FACILITY ABBREVIATIONS
ASOS	AUTOMATED SURFACE OBSERVING SYSTEM
ATCT	AIR TRAFFIC CONTROL TOWER
AWOS	AUTOMATED WEATHER OBSERVING SYSTEM
CCR	CONSTANT CURRENT REGULATOR
DME	DISTANCE MEASURING EQUIPMENT
FAR	FEDERAL AVIATION REGULATION
GS	GLIDE SLOPE FACILITY
HIRL	HIGH INTENSITY RUNWAY LIGHT
ILS	INSTRUMENT LANDING SYSTEM
IM	INNER MARKER
LIR	LOW IMPACT-RESISTANT
LOC	LOCALIZER FACILITY
MALS	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM
MALSR	MEDIUM INTENSITY APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATING LIGHTS
MIRL	MEDIUM INTENSITY RUNWAY LIGHT
MITL	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
PLASI	PULSE LIGHT APPROACH SLOPE INDICATOR
RAIL	RUNWAY ALIGNMENT INDICATING LIGHTS
REIL	RUNWAY END IDENTIFIER LIGHT
RVR	RUNWAY VISUAL RANGE
VADI	VISUAL APPROACH DESCENT INDICATOR
VASI	VISUAL APPROACH SLOPE INDICATOR
VOR	VERY HIGH FREQUENCY OMNIDIRECTIONAL RANGE FACILITY
WC	WIND CONE

TR006

CONDUIT (EXPOSED) CONDUIT (EXPOSED) POLE OR CONDUIT MOUNTED LIGHT FIXTURE POLE OR CONDUIT MOUNTED LIGHT FIXTURE VARIES WITH USE SINGLE THROW DISCONNECT SWITCH SINGLE THROW, FUSIBLE DISCONNECT SWITCH CONTROL PANEL T TRANSFORMER ELECTRIC UTILITY METER CIRCUIT BREAKER PANEL—SEE SCHEDULES OROUND ROD #112 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT		ELECTRICAL LEGEND - PLANS
POLE OR CONDUIT MOUNTED LIGHT FIXTURE WALL OR CEILING MITD. JUNCTION BOX. CONFIGURATION VARIES WITH USE SINGLE THROW DISCONNECT SWITCH SINGLE THROW, FUSIBLE DISCONNECT SWITCH LOB ENCLOSED CIRCUIT BREAKER DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH CONTROL PANEL TRANSFORMER ELECTRIC UTILITY METER CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT		CONDUIT (EXPOSED)
WALL OR CEILING MTD. JUNCTION BOX. CONFIGURATION VARIES WITH USE SINGLE THROW DISCONNECT SWITCH SINGLE THROW, FUSIBLE DISCONNECT SWITCH USB ENCLOSED CIRCUIT BREAKER UDD DUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH CONTROL PANEL T TRANSFORMER □ ELECTRIC UTILITY METER □ ENCLOSURE □ CIRCUIT BREAKER PANEL—SEE SCHEDULES ⊙ GROUND ROD #112 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT		CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
VARIES WITH USE SINGLE THROW DISCONNECT SWITCH SINGLE THROW, FUSIBLE DISCONNECT SWITCH ENCLOSED CIRCUIT BREAKER DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH CONTROL PANEL TRANSFORMER ELECTRIC UTILITY METER CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	⊶¤	POLE OR CONDUIT MOUNTED LIGHT FIXTURE
SINGLE THROW, FUSIBLE DISCONNECT SWITCH LCB ENCLOSED CIRCUIT BREAKER DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH CONTROL PANEL T TRANSFORMER ELECTRIC UTILITY METER ENCLOSURE CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	юо۰	
ENCLOSED CIRCUIT BREAKER LOT DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH CONTROL PANEL T TRANSFORMER ELECTRIC UTILITY METER ENCLOSURE CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	9	SINGLE THROW DISCONNECT SWITCH
DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH CONTROL PANEL T TRANSFORMER ELECTRIC UTILITY METER ENCLOSURE CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	Ā	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
CONTROL PANEL T TRANSFORMER ELECTRIC UTILITY METER ENCLOSURE CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	408	ENCLOSED CIRCUIT BREAKER
TRANSFORMER ELECTRIC UTILITY METER ENCLOSURE CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	ᄪ	DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH
ELECTRIC UTILITY METER ENCLOSURE CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	СР	CONTROL PANEL
ENCLOSURE CIRCUIT BREAKER PANEL-SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	T	TRANSFORMER
CIRCUIT BREAKER PANEL—SEE SCHEDULES GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOT	Ф	ELECTRIC UTILITY METER
GROUND ROD #12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE NEUTRAL. SHORT SLASHES INDICATE HOT		ENCLOSURE
#12 AWG TWHN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE HOTT		CIRCUIT BREAKER PANEL-SEE SCHEDULES
"II SLASHES INDICATE NEUTRAL. SHORT SLASHES INDICATE HOT	0	GROUND ROD
OR SWITCHED LEG. SLASHES WITH DOT INDICATE SEPARATE GROUND WIRE.		ŠLASHES INDICATE NEUTRAL. SHORT SLASHES INDICATE HOT OR SWITCHED LEG. SLASHES WITH DOT INDICATE SEPARATE
HOMERUN TO PANEL PNL A INDICATES PANEL 1,3,5 INDICATES CIRCUIT NUMBERS	PNL A	PNL A INDICATES PANEL
₩® PHOTO-ELECTRIC CELL.	ю	PHOTO-ELECTRIC CELL.

NOTES:

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 - NATIONAL ELECTRICAL CODE (NEC) MOST CURRENT ISSUE IN FORCE, THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- 2. ALL WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR/MANAGER. ONCE SHUT DOWN, THE CIRCUITS SHALL BE LABELED AS SUCH TO PREVENT ACCIDENTAL ENERGIZING OF THE RESPECTIVE CIRCUITS.
 ALL PERSONNEL SHALL FOLLOW U.S. DEPARTMENT OF
 LABOR OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION (OSHA) 29 CFR PART 1910
 OCCUPATIONAL SAFETY & HEALTH STANDARDS FOR ELECTRICAL SAFETY AND LOCKOUT/TAGOUT PROCEDURES INCLUDING, BUT NOT LIMITED TO, 29 CFR SECTION 1910.147 THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT).
- 3. COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL TO COMPLY WITH NEC 250.119. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION FOR NO. 6 AWG AND SMALLER TO MEET THE REQUIREMENTS OF NEC 200.6.
 STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

120/240 VAC, 1 PHASE, 2 WIRE
PHASE A BLACK
PHASE B RED NEUTRAL WHITE

1	ı					
-	REVISION					
-	DATE					
		I KI-I OWNSHIP AIKFOKI	VENIOR LICERAL VINIAVIVO	SAVAININA, CARROLL COON I	SIONITI	ILLINOIS

			60/12//0	, ,
E-001.DWG	NOT TO SCALE	08/14/09	KNL	
Filename E-	Scale NO	Date 08	LAYOUT	
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REPLACE MITL SYS., INSTALL APRON LTS ELECTRICAL LEGEND AND ABBREVIATIONS