

BY	
REVISION	
DATE	

MT. VERNON AIRPORT

 MT. VERNON, ILLINOIS
 I.L. PROJ.: MW-3539 A.I.P. PROJ.: 3-17-0074-B12

REV. PROJECT NO. 819-06RWYD	12/02/05
DATE E-609.DWG	12/02/05
SCALE NONE	CAH
DATE 12/16/05	
LAYOUT KNL	
DRAWN MV	
REVIEWED CAH	

HANSON
 Hanson Professional Services Inc.
 1525 South Sixth Street
 Springfield, Illinois 62703-2886
 Offices Nationwide

RUNWAY 15-33
 P.F.C. OVERLAY
 GATE NO. 7
 ELECTRICAL ONE LINE

ELECTRICAL NOTES

1. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (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 SHALL NOT BE PERMITTED.
2. CONTRACTOR SHALL COORDINATE NEW WORK AND ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE USER PERSONNEL & THE AIRPORT MANAGER.
3. ALL EQUIPMENT NOT LABELED AS EXISTING IS NEW.
4. PROVIDE A WEATHERPROOF ENGRAVED PHENOLIC OR PLASTIC LEGEND PLATE FOR THE SAFETY SWITCH AT THE RESPECTIVE GATE OPERATOR LABELED "GATE NO. 7, 120 VAC, FED FROM PANEL M4".
5. FURNISH AND INSTALL A LOW VOLTAGE LINE PROTECTOR FOR THE EXISTING CARD READER UNIT. LOW VOLTAGE LINE PROTECTOR SHALL BE SUITABLE FOR USE ON THE RESPECTIVE CONTROL VOLTAGE SYSTEM USED IN THE CARD READER UNIT, AC OR DC PROTECTION MODES (AS APPLICABLE) ON ALL LINES WITH A SURGE CURRENT RATING OF 2000 AMPS (MINIMUM). LOW VOLTAGE LINE PROTECTOR FOR 12 VDC, 24 VDC, OR 24 VAC APPLICATIONS SHALL BE DITEK CORPORATION, MODEL DTK-4LVLP-CR, OR APPROVED EQUAL. LOCATE INSIDE GATE OPERATOR HOUSING.
6. FURNISH AND INSTALL A #12 AWG EQUIPMENT GROUND WIRE FROM THE GATE OPERATOR TO THE CARD READER UNIT IN THE EXISTING CONTROL WIRING CONDUIT.
7. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
8. WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM AT109200.

WORK SHOWN ON THIS SHEET IS FOR BID ALTERNATE NO. 2

REPLACE EXISTING 120 VAC CIRCUIT CONDUCTORS WITH 1 #8 THWN, 1 #8 NEUTRAL (WHITE), 1 #8 GND (GREEN) IN EXISTING 4" CONDUIT. DISTANCE FROM PANEL M4 TO GATE OPERATOR IS APPROXIMATELY 125'. CONTRACTOR SHALL FIELD VERIFY & ADJUST ACTUAL CABLE LENGTHS AS APPLICABLE.

REPLACE EXISTING 20 AMP, 1 POLE BREAKER WITH A 30 AMP, 1 POLE, BOLT-ON BREAKER WITH 10,000 AIC AT 120 VAC, SQUARE D CAT. NO. QOB130

EXISTING PANEL M4 LOCATED IN MAINTENANCE BLDG SQUARE D CAT. NO. NQOD43L100CU

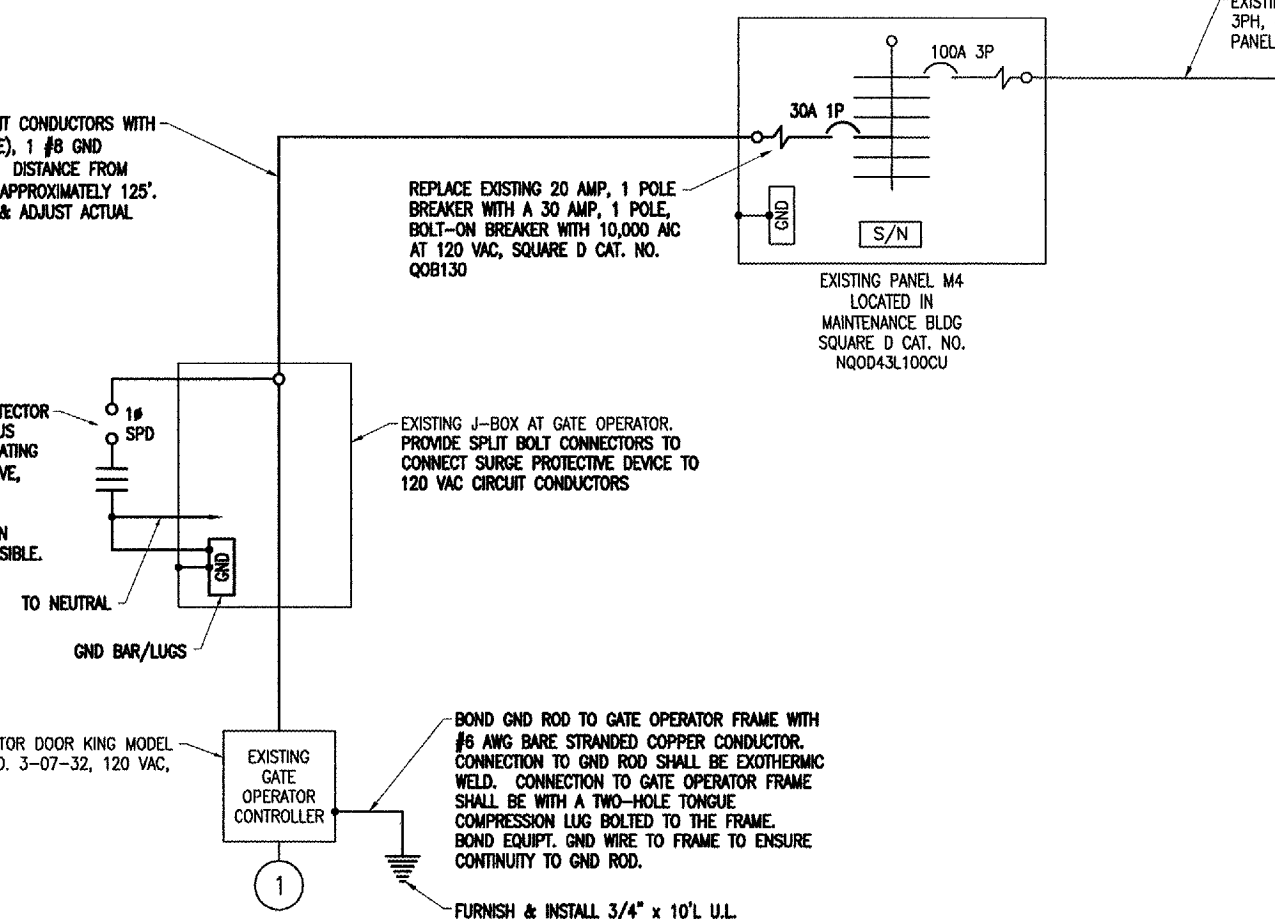
UL LISTED PER UL 1449, AC SURGE PROTECTOR SUITABLE FOR 120 VAC, 1PH, 2 WIRE PLUS GROUND SYSTEM WITH SURGE CURRENT RATING OF 40 KA (MIN.), 8x20 MICROSECOND WAVE, AND STATUS INDICATION LIGHTS IN A WEATHERPROOF HOUSING, JOSLYN MODEL 1260-21, OR APPROVED EQUAL. MAINTAIN LEADS AS SHORT & AS STRAIGHT AS POSSIBLE.

EXISTING J-BOX AT GATE OPERATOR. PROVIDE SPLIT BOLT CONNECTORS TO CONNECT SURGE PROTECTIVE DEVICE TO 120 VAC CIRCUIT CONDUCTORS

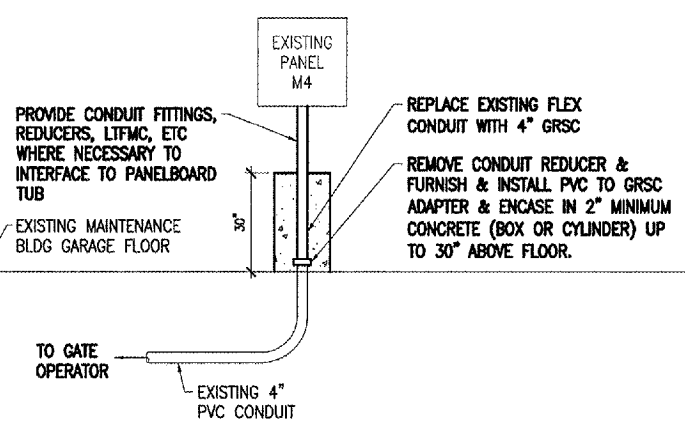
BOND GND ROD TO GATE OPERATOR FRAME WITH #6 AWG BARE STRANDED COPPER CONDUCTOR. CONNECTION TO GND ROD SHALL BE EXOTHERMIC WELD. CONNECTION TO GATE OPERATOR FRAME SHALL BE WITH A TWO-HOLE TONGUE COMPRESSION LUG BOLTED TO THE FRAME. BOND EQUIPT. GND WIRE TO FRAME TO ENSURE CONTINUITY TO GND ROD.

FURNISH & INSTALL 3/4" x 10'L U.L. LISTED COPPERCLAD GND ROD, ADJACENT TO GATE OPERATOR. MIN. BURY 1' BELOW GRADE.

EXISTING GATE OPERATOR DOOR KING MODEL 9150-080, SERIAL NO. 3-07-32, 120 VAC, 1PH, 14 AMPS, 1HP



GATE NO. 7 ELECTRICAL ONE LINE



PANEL M4 & GATE NO. 7 CONDUIT ELEVATION DETAIL

NOTE: TRANSITION FROM PVC TO GRSC & 2" CONCRETE ENCASEMENT REQUIRED TO COMPLY WITH NEC 511.4 & NEC 501.5(A)(4) EXCEPTION NO. 1. ALSO SEE NEC 230.6(2).