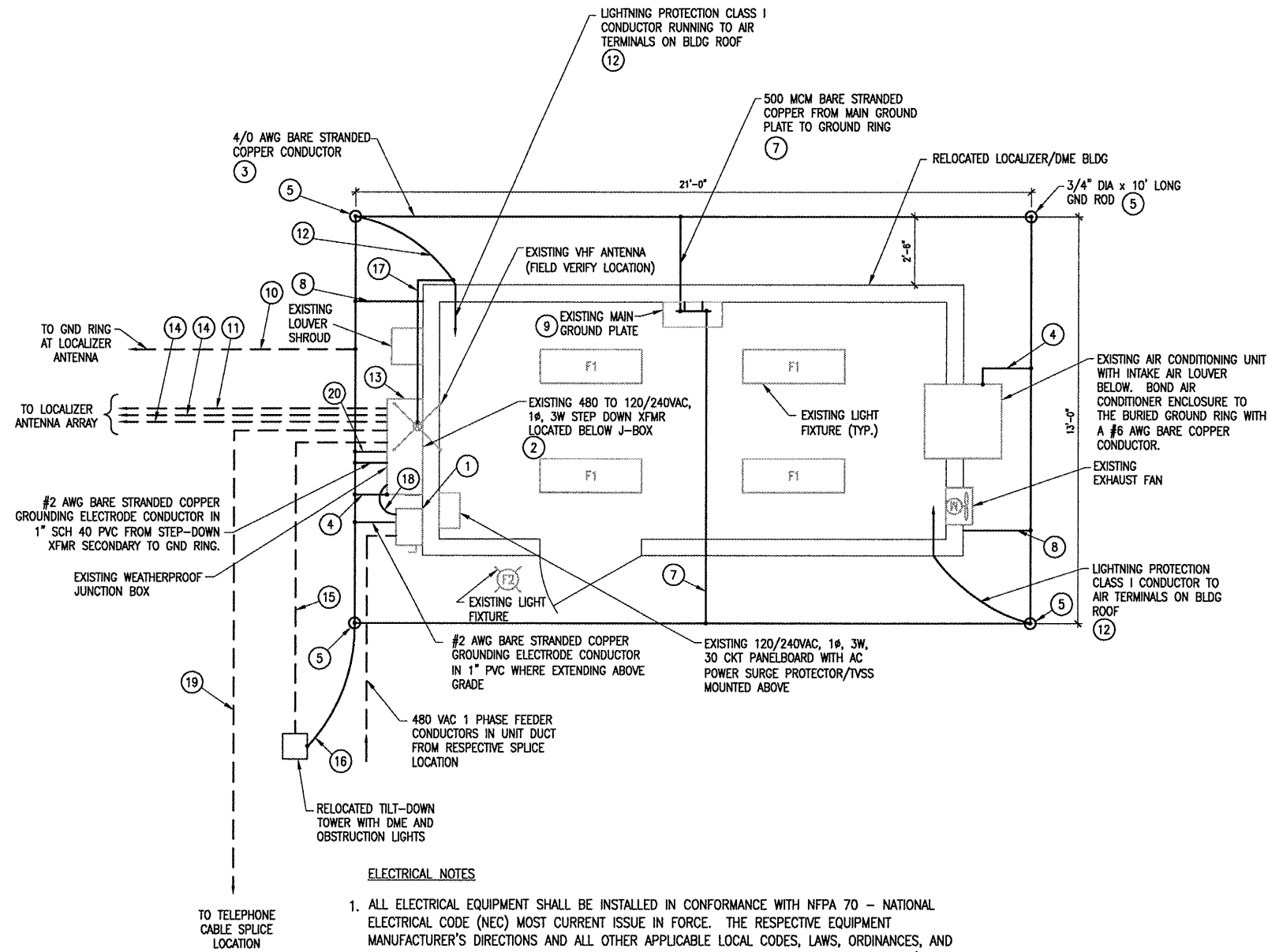


A: 10/26/05 (02840) 07A01661 DRAWINGS (SHEETS) 17-LOCALIZER BUILDING PLAN/DWG APR 18, 2008 10:21AM HANSON00682



ELECTRICAL NOTES

1. 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 GROUNDING AND BONDING FOR LIGHTNING PROTECTION EQUIPMENT, POWER DISTRIBUTION EQUIPMENT, AND INSTRUMENTATION SHALL BE PER F.A.A. STD-019E.
3. GRSC DENOTES GALVANIZED RIGID STEEL CONDUIT (HEAVY WALL).
4. GND RING/COUNTERPOISE AND LIGHTNING PROTECTION SHALL BE OBSERVED BY RESIDENT ENGINEER PRIOR TO BACKFILLING AND COVERING.
5. REFERENCES TO "THOMPSON" ARE THOMPSON LIGHTNING PROTECTION, INC., 901 SIBLEY HIGHWAY, ST. PAUL, MN. 55118-1792, PHONE: 1-800-777-1230 OR 612-455-7661.
6. 15 AMP & 20 AMP BRANCH CIRCUITS AT THE SHELTER SHALL BE WITH #12 THWN CONDUCTORS. CONDUITS FOR POWER, SIGNAL, AND/OR CONTROL CIRCUITS SHALL BE GRSC, IMC, OR EMT AT THE SHELTER INTERIOR AND GRSC FOR ALL EXTERIOR CIRCUITS.



RUNWAY 2 LOCALIZER/DME BUILDING ELECTRICAL PLAN

NOT TO SCALE

NUMBERED LEGEND

- 1 EXISTING HEAVY DUTY 60 AMP, 600 VAC, 3 POLE WITH S/N & GND FUSIBLE SAFETY SWITCH MAIN DISCONNECT IN A NEMA 3R & 12 ENCLOSURE.
- 2 EXISTING 15 KVA, 480 VAC TO 120/240 VAC, 1 PH, 3W STEP DOWN TRANSFORMER, LOCATED BELOW J-BOX.
- 3 4/0 AWG BARE STRANDED COPPER GROUNDING ELECTRODE CONDUCTOR FOR BUILDING GROUND RING, MIN. BURY 42" BELOW FINISHED GRADE. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMIC WELD.
- 4 #6 OR #2 BARE SOLID COPPER GROUNDING ELECTRODE CONDUCTOR (SECONDARY CONDUCTOR) THOMPSON NO 14X OR NO. 32M FROM RESPECTIVE DEVICE TO 4/0 AWG GROUND RING. CONNECTIONS TO RESPECTIVE EQUIPMENT SHALL BE WITH UL LISTED GROUNDING COMPRESSION TERMINALS SUITABLE FOR THE RESPECTIVE APPLICATION, BURNDY YGA6C-2TC3BE2G1 (FOR #6 SOLID) OR YGA2C-2TC38 (FOR #2 SOLID) OR EQUAL. CONNECTIONS TO THE GROUND RING SHALL BE EXOTHERMIC WELD.
- 5 3/4" DIA x 10' LONG U.L. LISTED COPPER CLAD GROUND ROD WITH 10 MIL MIN. COPPER COATING. BURY GND RODS 30" BELOW FINISHED GRADE. CONNECTIONS TO GND RODS SHALL BE EXOTHERMIC WELD (TYP.). GND RODS SHALL BE SPACED 13' TO 21' APART AS SHOWN AND MINIMUM 2'-6" OUT FROM THE BUILDING.
- 6 #2 AWG BARE STRANDED COPPER CONDUCTOR FROM RESPECTIVE BURIED GRSC TERMINATION TO THE 4/0 AWG BURIED GROUND RING. CONNECTIONS TO THE GND RING SHALL BE EXOTHERMIC WELD. CONNECTIONS TO THE CONDUIT SHALL BE WITH U.L. LISTED GROUNDING CLAMPS SUITABLE FOR DIRECT BURIAL. NOTE WHERE GRSC TERMINATES IN A HANDHOLE PROVIDE GROUND BUSHINGS AT CONDUIT TERMINATIONS WITH #2 GND FROM BUSHINGS TO GND RING.
- 7 500 MCM BARE STRANDED COPPER CONDUCTOR IN 1 1/2" SCHED 40 PVC FROM MAIN GROUND PLATE TO THE 4/0 AWG BURIED GROUND RING. CONNECTIONS TO THE GND RING SHALL BE EXOTHERMIC WELD. CONNECTIONS TO THE MAIN GROUND PLATE SHALL BE WITH 2 HOLE TONGUE, COMPRESSION LUGS BOLTED TO THE GROUND PLATE. NOTE GND PLATE SHALL HAVE 2 CONNECTIONS TO THE GND RING, EACH AT OPPOSITE SIDES OF THE BUILDING.
- 8 BARE 4/0 AWG STRANDED COPPER FROM THE BUILDING STEEL FRAMEWORK TO THE 4/0 GND RING. ALL CONNECTIONS SHALL BE EXOTHERMIC WELD.
- 9 EXISTING MAIN GROUND PLATE, 6" x 8" x 3/8" COPPER BUS WITH A CLEAR PLEXIGLASS COVER OR FIBERGLASS ENCLOSURE WITH WINDOW TYPE COVER. SEE NUMBER 7.
- 10 #1/0 BARE SOLID COPPER CONDUCTOR (GUARD WIRE) FROM 4/0 GROUND RING AT LOCALIZER BUILDING TO GROUND RING AT LOCALIZER ANTENNA. ROUTE #1/0 GND ABOVE THE OBSTRUCTION LIGHTS CIRCUIT CONDUCTORS AND LOCALIZER CONTROL CABLES PER FAA-STD-019e PARAGRAPH 4.2.1.5.
- 11 3-1/C #10 USE IN 1 1/4" GRSC TO OBSTRUCTION LIGHTS AT LOCALIZER ANTENNA. PROVIDE 1 1/4" GRSC FROM JUNCTION BOX TO 5 FEET MIN. BEYOND LOCALIZER BUILDING BURIED GROUND RING. CONDUIT SHALL BE SCHED 40 PVC THEREAFTER UP TO WITHIN 5' OF THE LOCALIZER ANTENNA GROUND RING WHERE IT SHALL TRANSITION TO GRSC.
- 12 AIR TERMINAL & CLASS I CONDUCTOR FOR LIGHTNING PROTECTION. SEE "LIGHTNING PROTECTION SYSTEM DETAIL" FOR REQUIREMENTS.
- 13 JUNCTION BOX FOR LOCALIZER/DME. INSTALL CABLES PER LOCALIZER/DME MFR'S INSTRUCTIONS. GROUNDING SHALL BE PER LOCALIZER MFR RECOMMENDATIONS & FAA-STD-19e. 480 VAC TO 120/240 VAC STEP-DOWN TRANSFORMER IS LOCATED BELOW J-BOX.
- 14 LOCALIZER SYSTEM CONTROL WIRING AND CONDUIT PER THE RESPECTIVE LOCALIZER MFR. CONDUIT SHALL BE 3" GRSC TO 5' MIN BEYOND THE LOCALIZER BLDG BURIED GND RING. CONDUIT SHALL BE SCHED 40 PVC THEREAFTER UP TO WITHIN 5' OF THE LOCALIZER ANTENNA GROUND RING WHERE IT SHALL TRANSITION TO GRSC. INSTALLATION OF CONTROL WIRING AND CONDUIT SHALL CONFORM TO FAA-STD-19e.
- 15 DME POWER & CONTROL WIRING IN 2" GRSC. CONFIRM WIRING REQUIREMENTS WITH DME MFR.
- 16 #2 BARE STRANDED COPPER FROM DME TOWER TO THE GND RING. CONNECTION TO GND RING SHALL BE EXOTHERMIC WELD. CONNECTION TO TOWER SHALL BE PER MFR RECOMMENDATIONS. CONFIRM GROUNDING REQUIREMENTS WITH DME MFR.
- 17 THOMPSON NO. 32 CLASS I CONDUCTOR. BOND VHF ANTENNA SUPPORT POST TO LIGHTNING PROTECTION DOWN CONDUCTOR. SEE "LIGHTNING PROTECTION SYSTEM DETAIL" FOR REQUIREMENTS.
- 18 480 VAC FEEDER CIRCUIT CONDUCTORS IN LIQUID TIGHT FLEXIBLE METAL CONDUIT TO 480 VAC TO 120/240 VAC STEP-DOWN TRANSFORMER LOCATED BELOW J-BOX.
- 19 1" GRSC FOR TELEPHONE SERVICE. EXTEND CONDUIT 5' MIN. BEYOND LOCALIZER/DME BLDG GND RING.
- 20 GROUNDING ELECTRODE CONDUCTORS SIZE & QTY PER LOCALIZER/DME MFR RECOMMENDATIONS IN 2" SCH 40 PVC. BOND ONE OF THE GROUNDING ELECTRODE CONDUCTORS TO CONDUIT GROUNDING BUSHINGS AT INTERIOR OF JUNCTION BOX. CONFIRM GROUNDING REQUIREMENTS WITH LOCALIZER/DME MFR.

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EXTEND RUNWAY 2-20; CONSTRUCT
TAXIWAY TURNAROUND

AIP PROJECT NO. 3-17-0140-B42
IDA PROJECT NO. LOT-3792

No.	Drawing Issue Description	Date	By

Date
APRIL 18, 2008
Sheet Title

**RUNWAY 2
LOCALIZER/DME
BUILDING PLAN**

07A0166
Project Number
KNL 11/26/03
Layout By Date
KNL 11/26/03
Designed By Date
RMH 03/20/08
Reviewed By Date
MV
Drawn By Sheet No.

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