14A

HV004

TOTAL SHEETS: 11

CONSTRUCTION PLANS

FOR

HAVANA REGIONAL AIRPORT

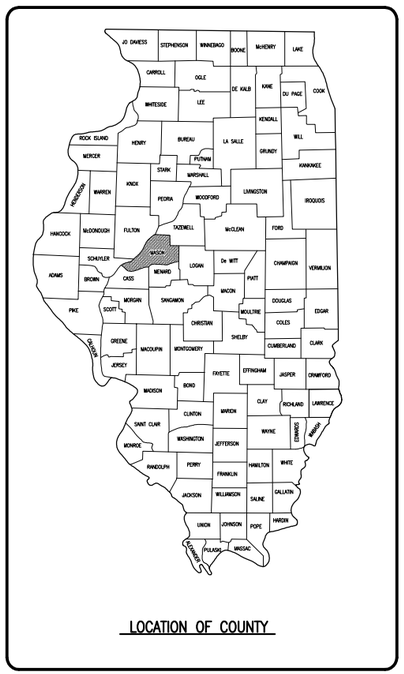
HAVANA, MASON COUNTY, ILLINOIS

REPLACE AIRPORT ROTATING BEACON

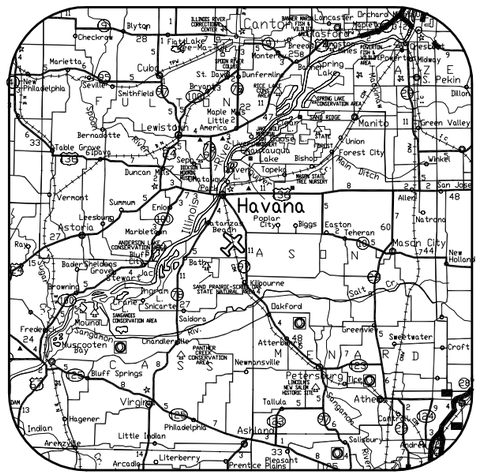
SCOPE OF WORK

THIS PROJECT SHALL CONSISTS OF REPLACING THE EXISTING AIRPORT ROTATING BEACON WITH A NEW L-801A-MEDIUM INTENSITY AIRPORT BEACON, ADDITION OF L-810 OBSTRUCTION LIGHTING AND LIGHTNING PROTECTION TO THE EXISTING BEACON TOWER, AND ASSOCIATED POWER AND CONTROL WORK.

ADDITIVE ALTERNATE NUMBER 1 SHALL INCLUDE A NEW AIRFIELD LIGHTING CONTROL PANEL, ASSOCIATED ELECTRICAL WORK AT THE ADMINISTRATION BUILDING, AND A NEW FEEDER FROM THE ADMINISTRATION BUILDING TO THE BEACON.



LOCATION OF COUNTY



LOCATION MAP

IL PROJ. : 910-4055
A.I.P. PROJ. : 3-17-0133-B11

LATITUDE: 40° 13' 16"
LONGITUDE: 90° 01' 22"
ELEVATION: 495.0' M.S.L.

DATE: JANUARY 26, 2011

LICENSED PROFESSIONAL ENGINEER
KEVIN N. LIGHTFOOT
062-047643
STATE OF ILLINOIS

HANSON
Hanson Professional Services Inc.
ELECTRICAL ENGINEER
Submitted by: Kevin N. Lightfoot ENG'R
Date Submitted 1/26/2011
Lics. Exp. Date 11/30/2011

HAVANA REGIONAL PORT DISTRICT
Approved Ronald W. Pace AIRPORT MANAGER
Date 1-26-2011

DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

IL. PROJ.: 910-4055 A.I.P. PROJ.: 3-17-0133-B11

Hanson Project No. 10A0157
Filename R-001COV.DWG
Scale N/A
Date 1/26/11

LAYOUT	KNL	12/07/10
DRAWN	CWS	12/07/10
REVIEWED	CAH	12/10/10

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

REPLACE AIRPORT ROTATING BEACON

COVER SHEET

1

1 of 11 sheets

JAN 26, 2011 3:01 PM SCHUB01446
C:\AIRPORTS\HAVANA\10A0157\CADD\AIRPORT\SHEET\R-001COV.DWG - Layout1

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES	AS BUILT QUANTITIES
AR101510	AIRPORT ROTATING BEACON	EACH	1	
AR101900	BEACON REMOVAL	EACH	1	
AR800591	UPGRADE AIRPORT ROTATING BEACON	L.S.	1	

SUMMARY OF QUANTITIES – ADDITIVE ALTERNATE NO. 1

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES	AS BUILT QUANTITIES
AS109620	LIGHTING CONTROL SYSTEM	L.S.	1	

INDEX TO SHEETS

DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

A.I.P. PROJ.: 3-17-0133-B11

IL. PROJ.: 910-4055

Hanson Project No.	10A0157	
Filename	R-002FLP.DWG	
Scale	NOT TO SCALE	
Date	1/26/11	
LAYOUT	KNL	12/07/10
DRAWN	CWS	12/07/10
REVIEWED	CAH	12/10/10

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Hanson Professional Services Inc.
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Springfield, Illinois 62703-2886
Offices Nationwide

REPLACE AIRPORT ROTATING BEACON

SUMMARY OF QUANTITIES AND INDEX TO SHEETS

SCOPE OF WORK

THIS PROJECT SHALL CONSISTS OF REPLACING THE EXISTING AIRPORT ROTATING BEACON WITH A NEW L-801A-MEDIUM INTENSITY AIRPORT BEACON, ADDITION OF L-810 OBSTRUCTION LIGHTING AND LIGHTNING PROTECTION TO THE EXISTING BEACON TOWER, AND ASSOCIATED POWER AND CONTROL WORK.

ADDITIVE ALTERNATE NUMBER 1 SHALL INCLUDE A NEW AIRFIELD LIGHTING CONTROL PANEL, ASSOCIATED ELECTRICAL WORK AT THE ADMINISTRATION BUILDING, AND A NEW FEEDER FROM THE ADMINISTRATION BUILDING TO THE BEACON.

UTILITY NOTE

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT. ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. **CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123.** ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.

J.U.L.I.E. INFORMATION

COUNTY_____ MASON
CITY_____ HAVANA
TOWNSHIP_____ HAVANA
SECTION NO._____ 32
ADDRESS_____ HAVANA, ILLINOIS

HEIGHT OF CONSTRUCTION EQUIPMENT

THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT WILL BE 60 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE A CRANE OR A BUCKET TRUCK FOR REMOVAL AND REPLACEMENT OF THE BEACON AND ASSOCIATED WORK ON THE BEACON TOWER. THE CRANE OR BUCKET TRUCK SHALL BE IN THE LOWERED POSITION WHEN NOT IN USE. THE CRANE, BUCKET TRUCK AND OTHER CONTRACTOR EQUIPMENT SHALL BE MOVED TO THE CONTRACTOR PARKING & STORAGE AREA WHEN NOT IN USE.

HAUL ROUTE AND VEHICLE PARKING

THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTE AND PARKING AREA AS SHOWN ON THIS SHEET. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE PROPOSED HAUL ROUTE AND PARKING AREA THROUGHOUT THE COURSE OF THE PROJECT. ANY AREAS DAMAGED OUTSIDE OF THESE AREAS WILL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE. AT THE CONCLUSION OF THE PROJECT THE CONTRACTOR WILL RESTORE THE HAUL ROUTE AND PARKING AREA TO ITS' ORIGINAL STATE. RESTORATION OF THE HAUL ROUTE AND PARKING AREA WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CONTRACTOR RESPONSIBILITIES

THE CONTRACTOR'S EQUIPMENT PARKING AND STORAGE AREA WILL BE IN THE GENERAL CONSTRUCTION AREA AS SHOWN ON THIS SHEET. THE CONTRACTOR'S EMPLOYEES WILL PARK THEIR VEHICLES IN THE AIRPORT PARKING AREA OR IN THE CONTRACTOR'S EQUIPMENT PARKING AND STORAGE AREA.

THE CONTRACTOR AND HIS EMPLOYEES WILL BE RESTRICTED TO THE WORK AREA AND ALL OTHER AREAS OF THE AIRPORT ARE "OFF LIMITS" TO THEM. THE CONTRACTOR SHALL KEEP THE RUNWAY OPEN AT ALL TIMES AND MAINTAIN TAXIWAY ACCESS TO THE T-HANGAR AREA.

ALL CONSTRUCTION OPERATIONS SHALL BE PERFORMED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2E "OPERATIONAL SAFETY ON AIRPORTS DURING CONSTRUCTION".

150-ENGINEER'S FIELD OFFICE NOTES

AN ENGINEER'S FIELD OFFICE WILL NOT BE REQUIRED FOR THIS PROJECT.

EROSION CONTROL

THE PROPOSED CONSTRUCTION WILL DISTURB LESS THAN 1 ACRE OF LAND, THEREFORE AN EROSION CONTROL PLAN AND AN NPDES PERMIT ARE NOT REQUIRED.

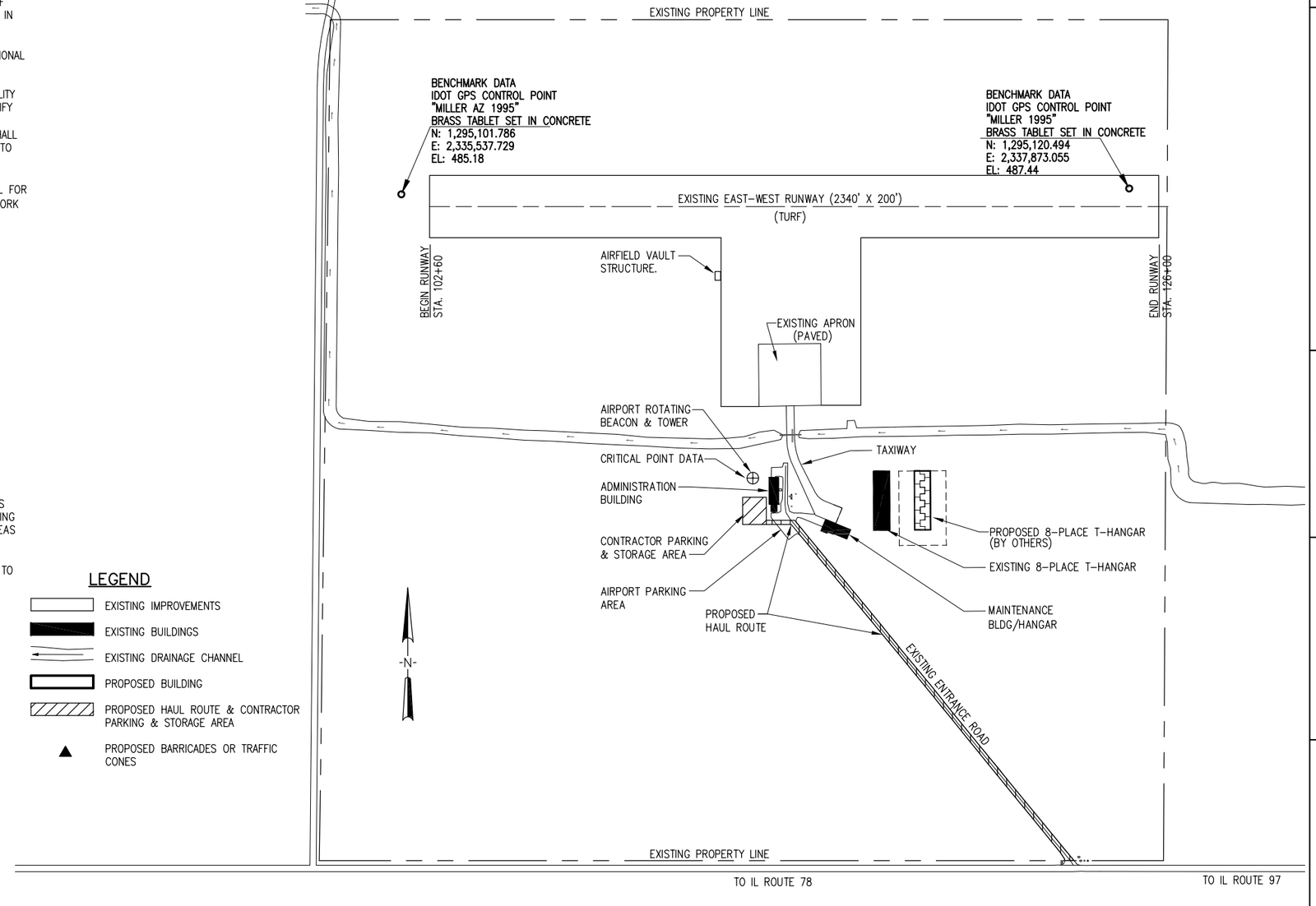
CRITICAL POINT DATA
LAT. 40° 13' 13.50"
LONG. 90° 01' 23.25"
ELEV. 487'

OPERATIONAL LIGHTING

ALL EXISTING AIRFIELD CIRCUITS, WITH EXCEPTION TO THE AIRPORT ROTATING BEACON CIRCUIT, SHALL BE OPERABLE DURING NIGHTFALL. CONTRACTOR SHALL PROVIDE ALL TEMPORARY WORK, AS NECESSARY TO MAINTAIN OPERATION OF THE AIRFIELD LIGHTING SYSTEMS AT NIGHTFALL. THE CONTRACTOR SHALL SECURE, IDENTIFY AND PLACE ALL TEMPORARY EXPOSED WIRING IN CONDUIT, DUCT OR UNIT DUCT TO PREVENT ELECTROCUTION AND FIRE IGNITION SOURCES AS PER THE REQUIREMENTS OF FAA AC 150/5370-2E, PART 3-6, C. ALL WORK SHALL BE COORDINATED WITH THE AIRPORT MANAGER AND SHALL BE COORDINATED TO MINIMIZE DOWN TIME TO THE RESPECTIVE LIGHTING SYSTEM.

IDENTIFICATION OF CONTRACTOR EQUIPMENT

IDENTIFICATION – WHEN THE CONTRACTORS VEHICLES AND EQUIPMENT ARE ON THE AIRPORT THEY SHALL BE PROPERLY MARKED WITH THREE (3') FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE). THE CRANE OR BUCKET TRUCK SHALL BE MARKED WITH A FLAG AS DESCRIBED ABOVE.



LEGEND

- EXISTING IMPROVEMENTS
- EXISTING BUILDINGS
- EXISTING DRAINAGE CHANNEL
- PROPOSED BUILDING
- PROPOSED HAUL ROUTE & CONTRACTOR PARKING & STORAGE AREA
- ▲ PROPOSED BARRICADES OR TRAFFIC CONES

200 0 200 400
11 X 17 SCALE: 1" = 400'
24 X 36 SCALE: 1" = 200'

DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

A.I.P. PROJ.: 3-17-0133-B11
IL. PROJ.: 910-4055

Hanson Project No. 10A0157
Filename R-101SAF.DWG
Scale 1"=200'
Date 1/26/11

LAYOUT	KNL	12/08/10
DRAWN	CWS	12/08/10
REVIEWED	CAH	12/10/10

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

REPLACE AIRPORT ROTATING BEACON

PROPOSED SAFETY PLAN

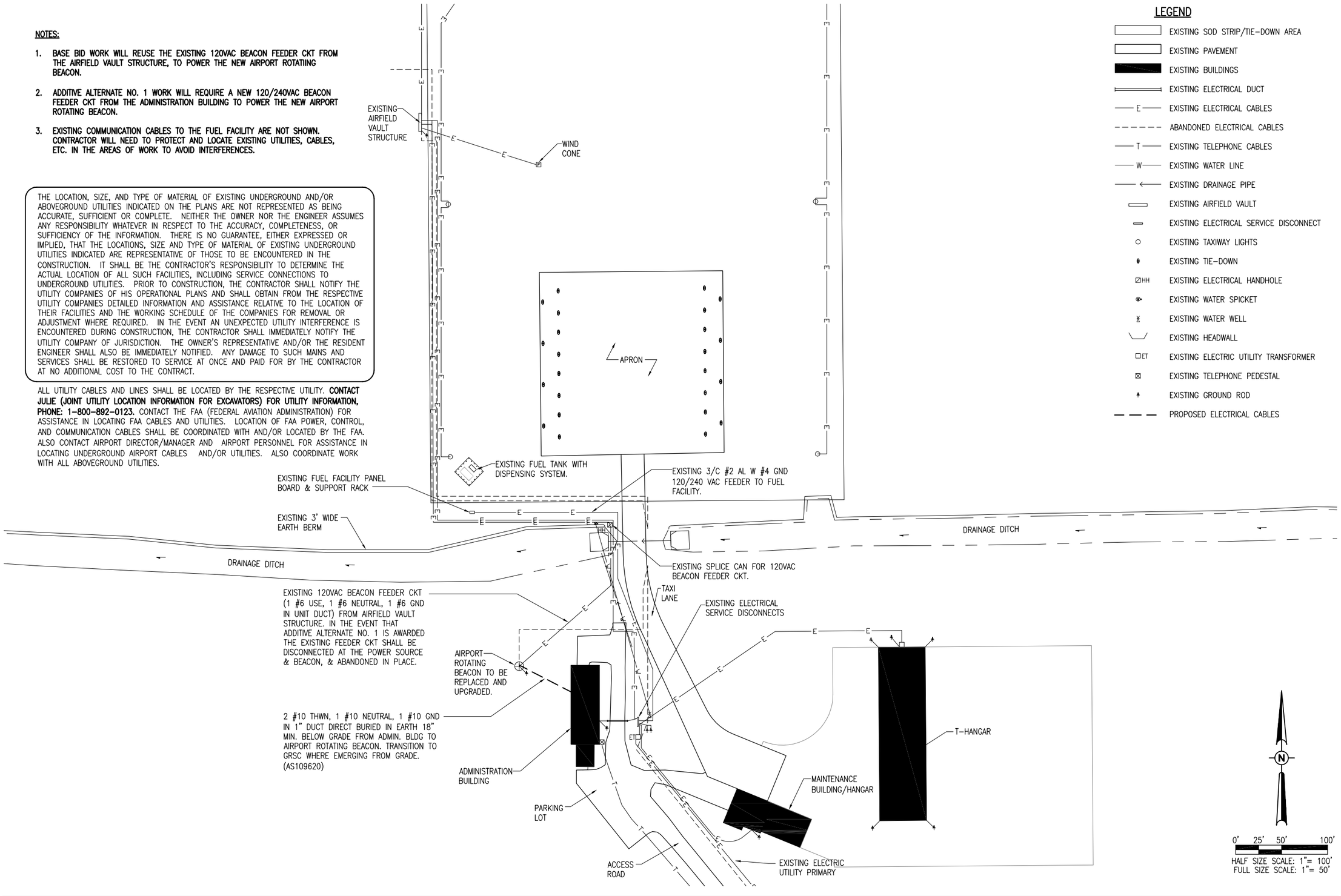
3
3 of 11 sheets

NOTES:

1. **BASE BID WORK WILL REUSE THE EXISTING 120VAC BEACON FEEDER CKT FROM THE AIRFIELD VAULT STRUCTURE, TO POWER THE NEW AIRPORT ROTATIING BEACON.**
2. **ADDITIVE ALTERNATE NO. 1 WORK WILL REQUIRE A NEW 120/240VAC BEACON FEEDER CKT FROM THE ADMINISTRATION BUILDING TO POWER THE NEW AIRPORT ROTATING BEACON.**
3. **EXISTING COMMUNICATION CABLES TO THE FUEL FACILITY ARE NOT SHOWN. CONTRACTOR WILL NEED TO PROTECT AND LOCATE EXISTING UTILITIES, CABLES, ETC. IN THE AREAS OF WORK TO AVOID INTERFERENCES.**

THE LOCATION, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND AND/OR ABOVEGROUND UTILITIES INDICATED ON THE PLANS ARE NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE OWNER'S REPRESENTATIVE AND/OR THE RESIDENT ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY DAMAGE TO SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

ALL UTILITY CABLES AND LINES SHALL BE LOCATED BY THE RESPECTIVE UTILITY. **CONTACT JULIE (JOINT UTILITY LOCATION INFORMATION FOR EXCAVATORS) FOR UTILITY INFORMATION, PHONE: 1-800-892-0123.** CONTACT THE FAA (FEDERAL AVIATION ADMINISTRATION) FOR ASSISTANCE IN LOCATING FAA CABLES AND UTILITIES. LOCATION OF FAA POWER, CONTROL, AND COMMUNICATION CABLES SHALL BE COORDINATED WITH AND/OR LOCATED BY THE FAA. ALSO CONTACT AIRPORT DIRECTOR/MANAGER AND AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING UNDERGROUND AIRPORT CABLES AND/OR UTILITIES. ALSO COORDINATE WORK WITH ALL ABOVEGROUND UTILITIES.



LEGEND

- EXISTING SOD STRIP/TIE-DOWN AREA
- EXISTING PAVEMENT
- EXISTING BUILDINGS
- EXISTING ELECTRICAL DUCT
- E — EXISTING ELECTRICAL CABLES
- ABANDONED ELECTRICAL CABLES
- T — EXISTING TELEPHONE CABLES
- W — EXISTING WATER LINE
- EXISTING DRAINAGE PIPE
- EXISTING AIRFIELD VAULT
- EXISTING ELECTRICAL SERVICE DISCONNECT
- EXISTING TAXIWAY LIGHTS
- EXISTING TIE-DOWN
- HH — EXISTING ELECTRICAL HANDHOLE
- EXISTING WATER SPICKET
- EXISTING WATER WELL
- EXISTING HEADWALL
- ET — EXISTING ELECTRIC UTILITY TRANSFORMER
- EXISTING TELEPHONE PEDESTAL
- EXISTING GROUND ROD
- PROPOSED ELECTRICAL CABLES

DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

A.I.P. PROJ.: 3-17-0133-B11
IL. PROJ.: 910-4055

Hanson Project No. 10A0157
Filename R-101SIT.DWG
Scale 1"= 50'
Date 1/26/11

LAYOUT	KNL	12/08/10
DRAWN	CWS	12/08/10
REVIEWED	CAH	12/08/10

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

REPLACE AIRPORT ROTATING BEACON

PROPOSED CONSTRUCTION / ELECTRICAL SITE PLAN

4

JAN 26, 2011 10:29 AM SCHUBO1446
C:\AIRPORTS\HAVANA\10A0157\CADD\AIRPORT\SHEET\R-101SIT.DWG - SITE

ELECTRICAL LEGEND – ONE-LINE DIAGRAM

	CABLE TERMINATOR/LUG
	TRANSFORMER
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
	THERMAL MAGNETIC CIRCUIT BREAKER
	FUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE
	GROUND – GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
	INDICATING LIGHT
M	MOTOR
#	LOAD, MOTOR, # = HORSEPOWER
	ELECTRIC UTILITY METER BASE
	JUNCTION BOX WITH SPLICE
XXX	EQUIPMENT, XXX = DEVICE DESCRIPTION
GND	GROUND BUS OR TERMINAL
S/N	NEUTRAL BUS
	PANELBOARD WITH MAIN LUGS
	PANELBOARD WITH MAIN BREAKER
	FUSE PANEL WITH MAIN FUSE PULLOUT
	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE
	CONTROL STATION
N EM L	TRANSFER SWTICH
G	ENGINE GENERATOR SET

ELECTRICAL LEGEND – SCHEMATIC

	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
S*	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 OX	2-POSITION SELECTOR SWITCH
OFF HAND AUTO XOO OOX	3-POSITION SELECTOR SWITCH (H-O-A SHOWN)
	2 POLE DISCONNECT SWITCH
	3 POLE DISCONNECT SWITCH
	PHOTOCELL
	TERMINAL BLOCK, * = TERMINAL NUMBER
	DEVICE TERMINAL, * = DEVICE TERMINAL NUMBER
	INTERNAL PANEL WIRING
	FIELD WIRING
	FUSE
GND	GROUND BUS OR TERMINAL
S/N	NEUTRAL BUS
	GROUND, GROUND ROD, GROUND BUS
	INDUSTRIAL CONTROL RELAY OR LIGHTING CONTACTOR
P	S1 CUTOUT HANDLE REMOVED
I	S1 CUTOUT HANDLE INSERTED
	N.O. THERMAL SWITCH
	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
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CR	CONTROL RELAY
CU	COPPER
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EM	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
HOA	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
MCM	THOUSAND CIRCLUAR MIL
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
N	NEUTRAL
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
OL	OVERLOAD

ELECTRICAL ABBREVIATIONS (CONTINUED)

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
V	VOLTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

AIRPORT 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

ELECTRICAL LEGEND – PLANS

	CONDUIT (EXPOSED)
	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
	POLE OR CONDUIT MOUNTED LIGHT FIXTURE
	WALL OR CEILING MT'D. JUNCTION BOX. CONFIGURATION VARIES WITH USE
	SINGLE THROW DISCONNECT SWITCH
	SINGLE THROW, FUSIBLE DISCONNECT SWITCH
CB	ENCLOSED CIRCUIT BREAKER
DT	DOUBLE THROW SAFETY SWITCH, MANUAL TRANSFER SWITCH
CP	CONTROL PANEL
T	TRANSFORMER
	ELECTRIC UTILITY METER
	ENCLOSURE
	CIRCUIT BREAKER PANEL-SEE SCHEDULES
	GROUND ROD
	#12 AWG THWN COPPER UNLESS NOTED OTHERWISE. LONG SLASHES INDICATE NEUTRAL. SHORT SLASHES INDICATE HOT OR SWITCHED LEG. SLASHES WITH DOT INDICATE SEPARATE GROUND WIRE.
PNL A / 1,3,5	HOMERUN TO PANEL PNL A INDICATES PANEL 1,3,5 INDICATES CIRCUIT NUMBERS
PC	PHOTO-ELECTRIC CELL.

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 VAULT WORK, POWER OUTAGES, AND/OR SHUT DOWN OF EXISTING SYSTEMS SHALL BE COORDINATED WITH THE AIRPORT DIRECTOR. 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 AND 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, 3 WIRE

PHASE A	BLACK
PHASE B	RED
NEUTRAL	WHITE
GROUND	GREEN

REVISION	BY	DATE

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

A.I.P. PROJ.: 3-17-0133-B11
IL. PROJ.: 910-4055

Hanson Project No. 10A0157
Filename E-001.DWG
Scale N.T.S.
Date 1/26/11

LAYOUT	KNL	12/07/10
DRAWN	KDE	12/07/10
REVIEWED	CAH	12/10/10

HANSON

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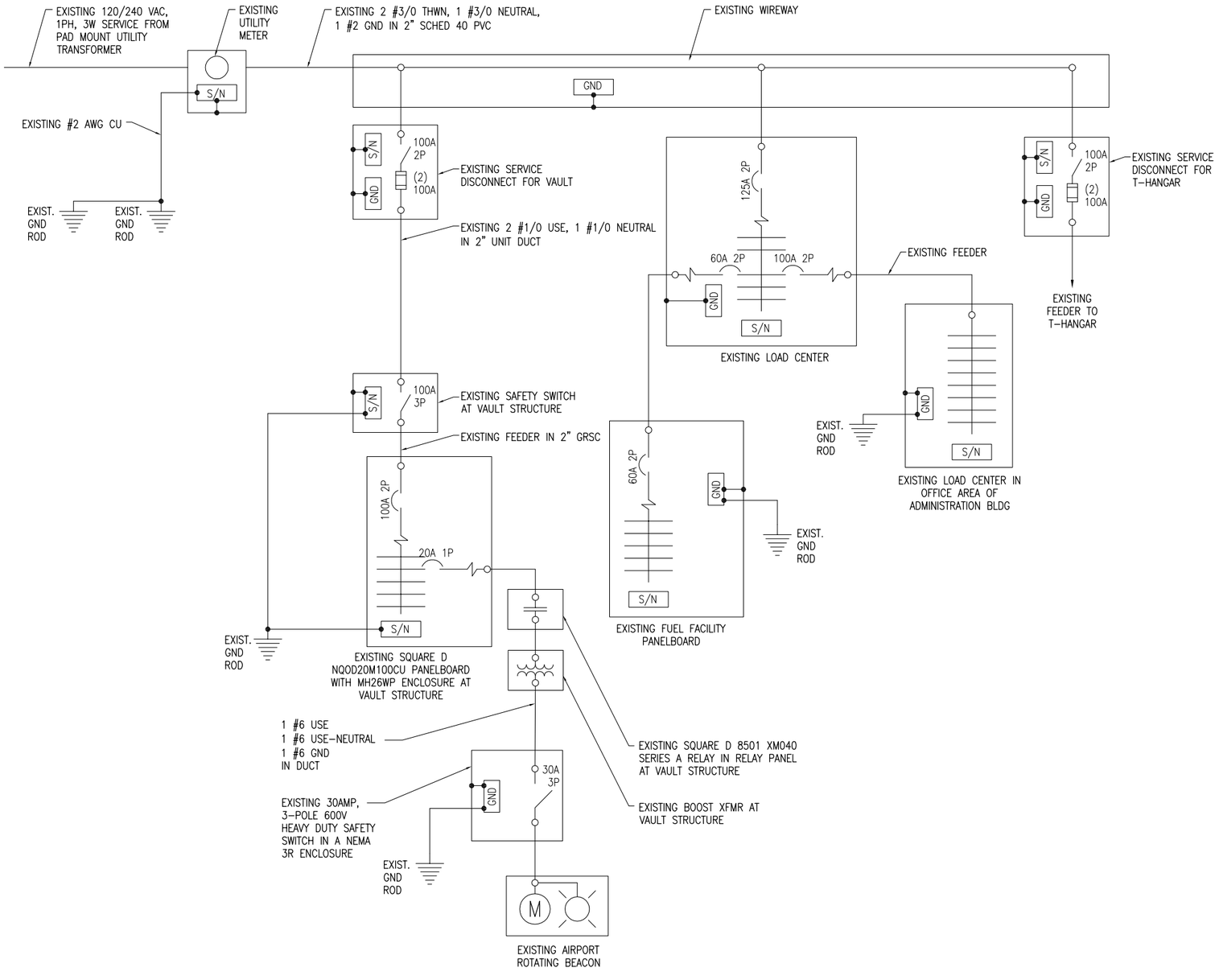
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REPLACE AIRPORT ROTATING BEACON

ELECTRICAL LEGEND AND ABBREVIATIONS

5

5 of 11 sheets



EXISTING ELECTRICAL ONE LINE DIAGRAM FOR AIRPORT ROTATING BEACON

NOT TO SCALE

NOTES

1. CONTRACTOR SHALL EXAMINE THE SITE PRIOR TO SUBMITTING A BID. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
2. ALL WORK AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT MANAGER AND/OR THE RESIDENT ENGINEER. ANY SHUTDOWN OF EXISTING SYSTEMS SHALL BE SCHEDULED WITH AND APPROVED BY THE AIRPORT MANAGER PRIOR TO SHUTDOWN. ONCE SHUT DOWN, THE CIRCUIT 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 AND 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. EXISTING AIRPORT ROTATING BEACON SHALL BE REMOVED AND TURNED OVER TO THE AIRPORT, COORDINATE BEACON REMOVAL WITH INSTALLATION OF NEW BEACON TO MINIMIZE DOWNTIME WHERE AIRPORT DOES NOT HAVE AN OPERATIONAL BEACON.

HV004

DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

IL. PROJ.: 910-4055 A.I.P. PROJ.: 3-17-0133-B11

Hanson Project No. 10A0157
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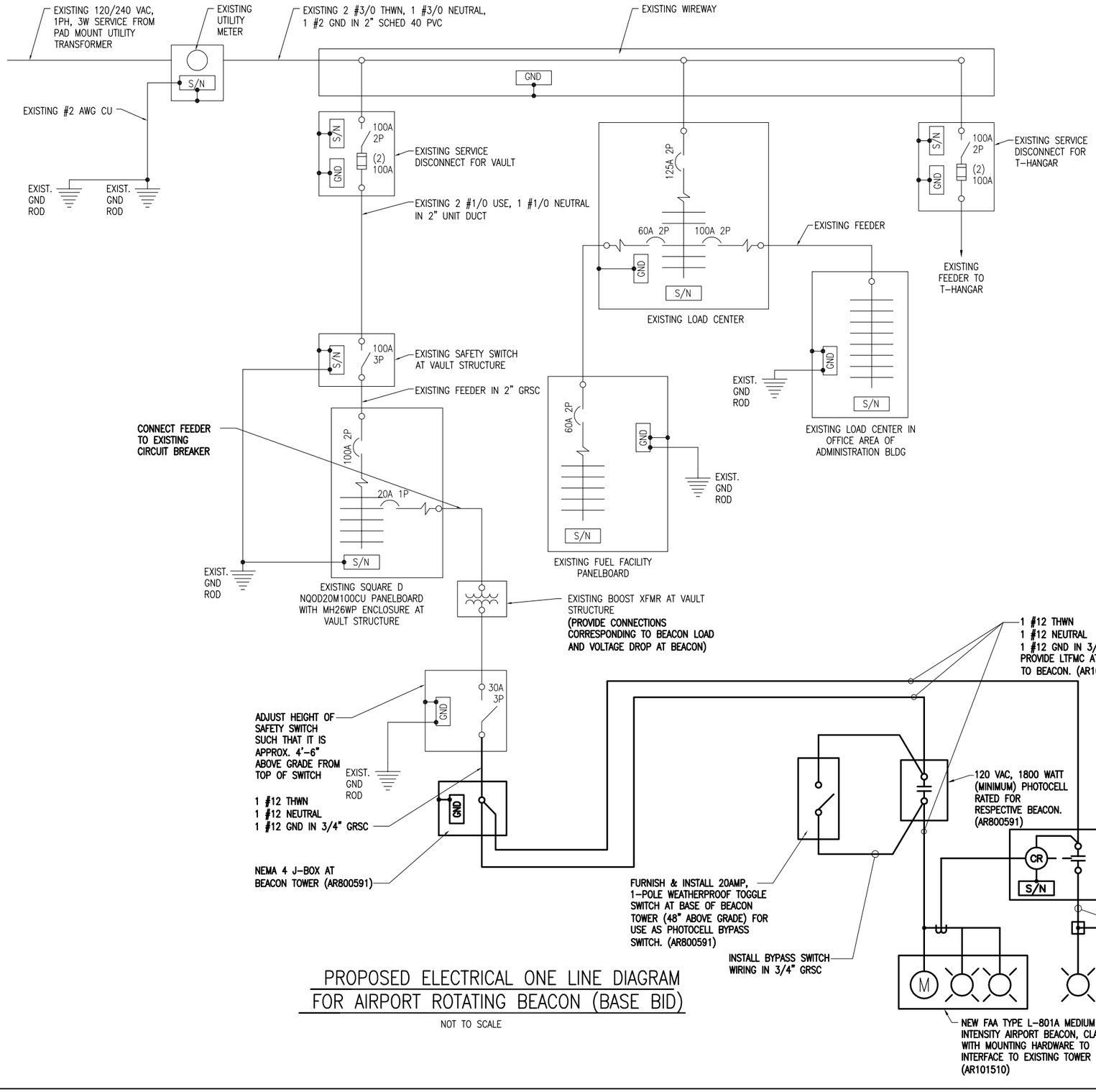
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REPLACE AIRPORT ROTATING BEACON

EXISTING ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT ROTATING BEACON



PROPOSED ELECTRICAL ONE LINE DIAGRAM FOR AIRPORT ROTATING BEACON (BASE BID)

NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
2. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70– NATIONAL ELECTRIC 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.
3. ALL EQUIPMENT NOT LABELLED AS EXISTING IS NEW.
4. PROVIDE NEMA 4 HUBS FOR ALL CONDUIT ENTRIES INTO NEMA 4 RATED ENCLOSURES.
5. INSTALL OBSTRUCTION LIGHTING ON AIRPORT ROTATING BEACON TOWER IN CONFORMANCE WITH FAA AC NO. 150/5340–30E AND FAA AC NO. 150/5370–10E, ITEM L–101, INSTALLATION OF AIRPORT ROTATING BEACONS.
6. ALL CONDUCTORS/WIRING SHALL BE COPPER.
7. GRSC DENOTES GALVANIZED RIGID STEEL CONDUIT. LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. NEC 350.6 NOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE LISTED. DO NOT INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED. CONFIRM LIQUID TIGHT FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLATION.
8. PROPOSED ELECTRICAL POWER DISTRIBUTION AND CONTROL SYSTEM FOR THE BEACON IS BASED ON A BEACON SYSTEM THAT DOES NOT EXCEED 1000 WATTS AT 120VAC, IN THE EVENT THE PROPOSED BEACON LOAD EXCEEDS 1000 WATTS, THE CONTRACTOR WILL BE RESPONSIBLE TO ADJUST/INCREASE CIRCUIT BREAKERS, WIRE SIZES, CONDUIT SIZES, EQUIPMENT RATINGS & CONTROL COMPONENTS TO CONFORM WITH NEC & MANUFACTURER RECOMMENDATIONS, AT NO ADDITIONAL COST TO THE CONTRACT.

DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

IL. PROJ.: 910-4055 A.I.P. PROJ.: 3-17-0133-B11

Hanson Project No. 10A0157
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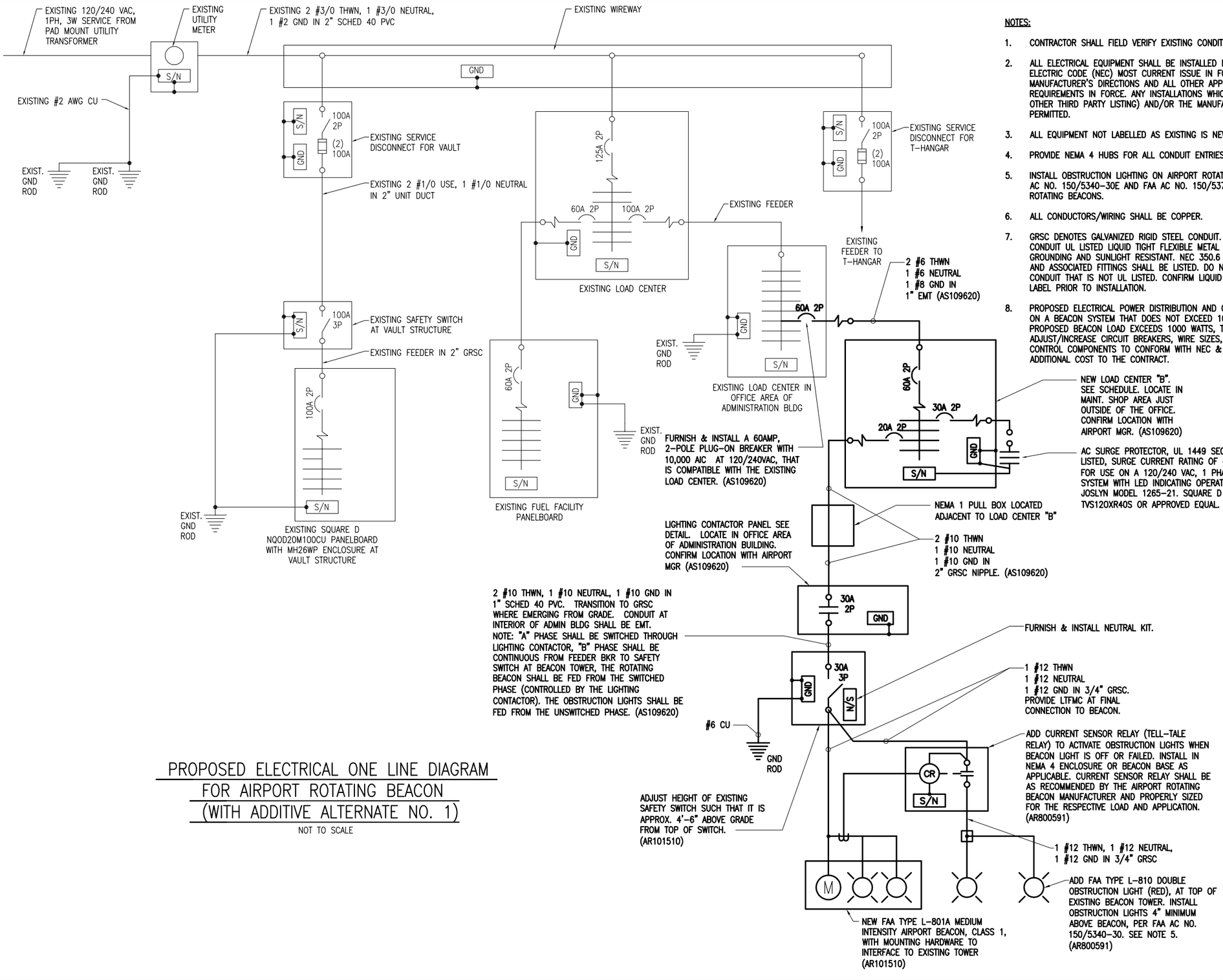
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REPLACE AIRPORT ROTATING BEACON

PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT ROTATING BEACON (BASE BID)



PROPOSED ELECTRICAL ONE LINE DIAGRAM FOR AIRPORT ROTATING BEACON (WITH ADDITIVE ALTERNATE NO. 1)

NOT TO SCALE

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS.
2. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70– NATIONAL ELECTRIC 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.
3. ALL EQUIPMENT NOT LABELLED AS EXISTING IS NEW.
4. PROVIDE NEMA 4 HUBS FOR ALL CONDUIT ENTRIES INTO NEMA 4 RATED ENCLOSURES.
5. INSTALL OBSTRUCTION LIGHTING ON AIRPORT ROTATING BEACON TOWER IN CONFORMANCE WITH FAA AC NO. 150/5340–30E AND FAA AC NO. 150/5370–10E, ITEM L–101, INSTALLATION OF AIRPORT ROTATING BEACONS.
6. ALL CONDUCTORS/WIRING SHALL BE COPPER.
7. GRSC DENOTES GALVANIZED RIGID STEEL CONDUIT. LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED LIQUID TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. NEC 350.6 NOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE LISTED. DO NOT INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED. CONFIRM LIQUID TIGHT FLEXIBLE METAL CONDUIT BEARS THE UL LABEL PRIOR TO INSTALLATION.
8. PROPOSED ELECTRICAL POWER DISTRIBUTION AND CONTROL SYSTEM FOR THE BEACON IS BASED ON A BEACON SYSTEM THAT DOES NOT EXCEED 1000 WATTS AT 120VAC, IN THE EVENT THE PROPOSED BEACON LOAD EXCEEDS 1000 WATTS, THE CONTRACTOR WILL BE RESPONSIBLE TO ADJUST/INCREASE CIRCUIT BREAKERS, WIRE SIZES, CONDUIT SIZES, EQUIPMENT RATINGS & CONTROL COMPONENTS TO CONFORM WITH NEC & MANUFACTURER RECOMMENDATIONS, AT NO ADDITIONAL COST TO THE CONTRACT.

BY	REVISION	DATE

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

IL. PROJ.: 910-4055 A.I.P. PROJ.: 3-17-0133-B11

Hanson Project No. 10A0157
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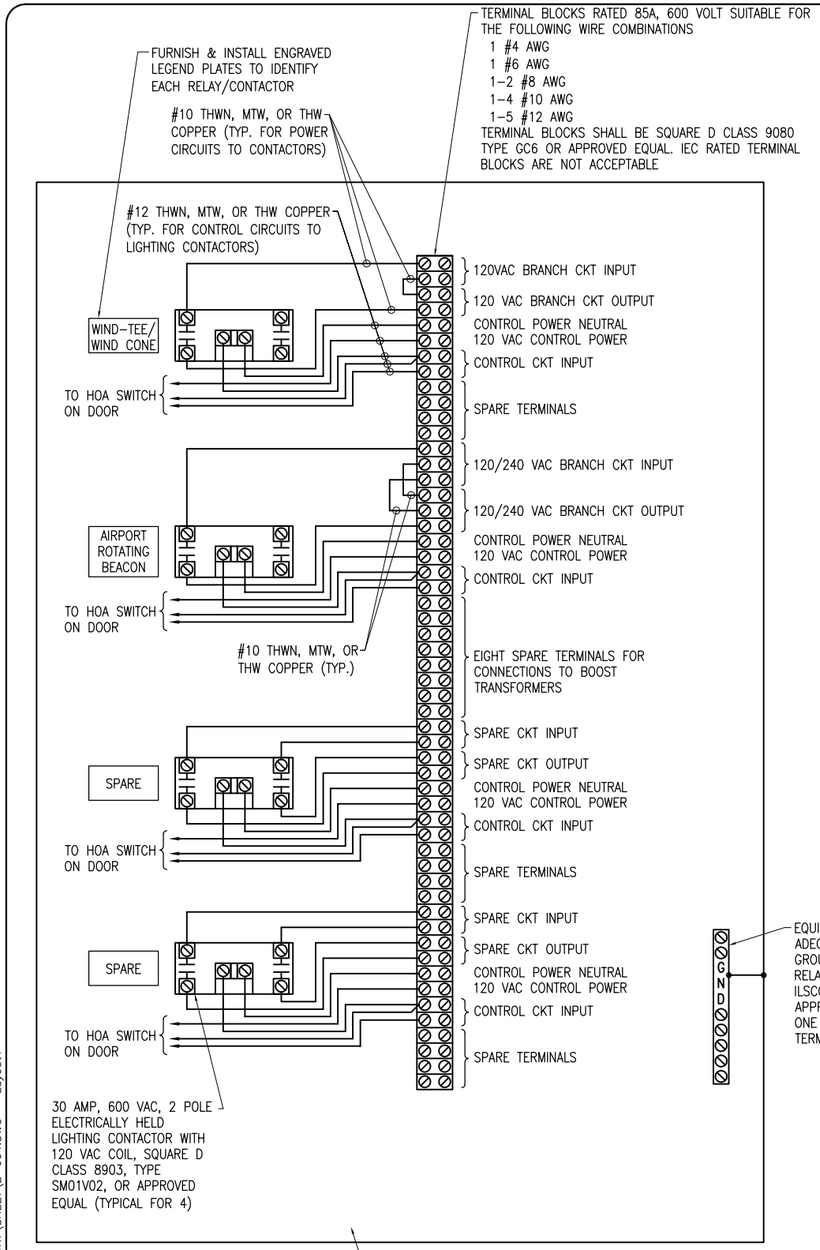
1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REPLACE AIRPORT ROTATING BEACON

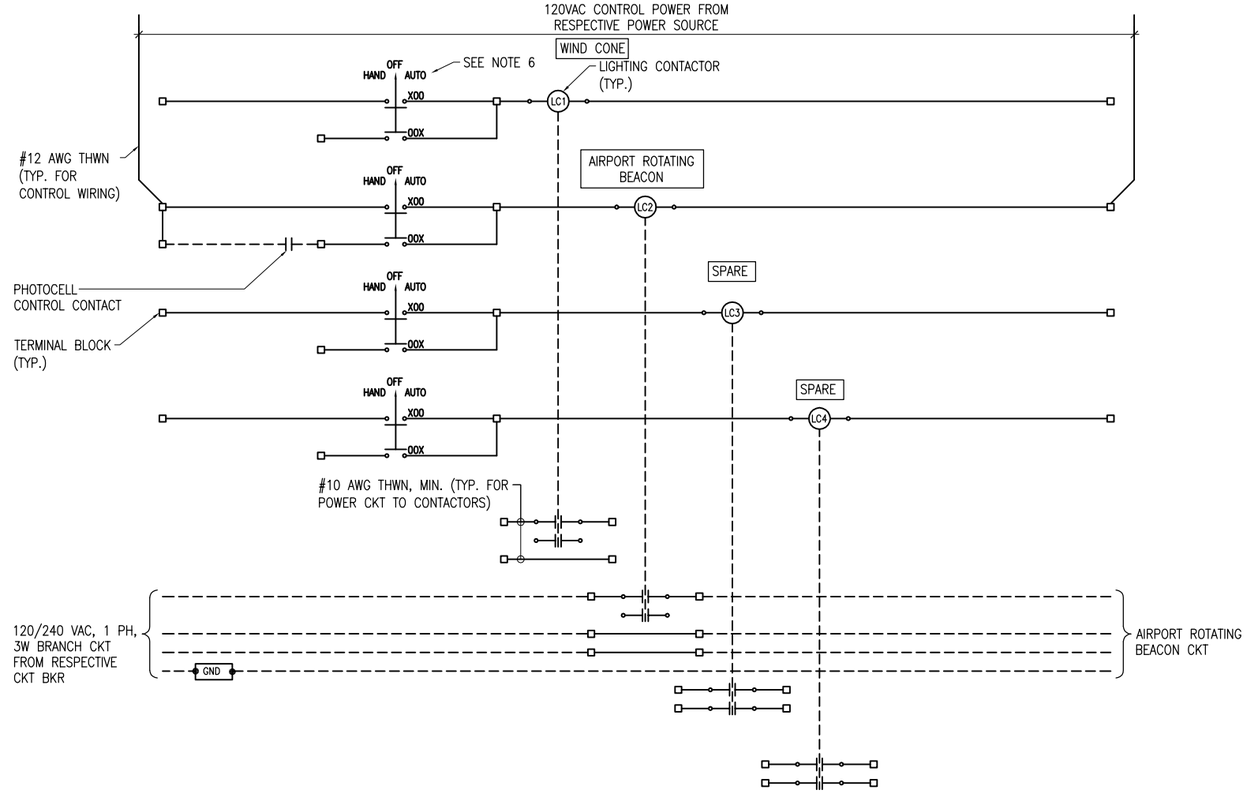
PROPOSED ELECTRICAL ONE-LINE DIAGRAM FOR AIRPORT ROTATING BEACON (w/ ADDITIVE ALT NO.1)



CONTROL PANEL FOR BEACON & AIRFIELD LIGHTING

NOTES

1. 15 AMP & 20 AMP INPUT POWER/BRANCH CIRCUITS SHALL BE #10 AWG COPPER THWN FROM THE RESPECTIVE POWER SOURCE TO THE LIGHTING CONTACTOR/RELAY PANEL. 30 AMP INPUT POWER/BRANCH CIRCUITS SHALL BE #8 AWG COPPER THWN (MIN.) FROM THE RESPECTIVE POWER SOURCE TO THE LIGHTING CONTACTOR/RELAY PANEL.
2. INPUT CONTROL CIRCUITS SHALL BE #12 AWG COPPER THWN.
3. FOR 120 VAC BRANCH CIRCUITS THE NEUTRAL CONDUCTOR SHALL NOT BE SWITCHED THROUGH THE RELAY CONTACTS. USE TERMINAL BLOCKS TO TRANSITION FROM VAULT BRANCH CIRCUIT WIRING TO FIELD WIRING.
4. THE AIRPORT ROTATING BEACON CIRCUIT SHALL HAVE PHASE "A" SWITCHED THROUGH THE LIGHTING CONTACTOR. PHASE "B" SHALL BE UNSWITCHED FROM THE POWER SOURCE TO THE LOAD CENTER AT THE AIRPORT ROTATING BEACON.
5. PROVIDE #10 AWG COPPER BONDING JUMPER FROM PANEL ENCLOSURE FRAME TO ENCLOSURE DOOR.
6. PROVIDE 3–POSITION MAINTAINED CONTACT "HAND–OFF–AUTO" SELECTOR SWITCH FOR EACH LIGHTING CONTACTOR & MOUNT ON LIGHTING CONTACTOR PANEL ENCLOSURE DOOR. SELECTOR SWITCH SHALL BE SQUARE D CLASS 9001, TYPE KS43FBH13, OR APPROVED EQUAL. INCLUDE LEGEND PLATE TO IDENTIFY THE DEVICE CONTROLLED (EX: "WIND CONE" OR "AIRPORT ROTATING BEACON").
7. INCLUDE LEGEND PLATE LABELED "NOTICE CONTACTORS HAVE REMOTE LOCATED CONTROLS AND MAY ACTIVATE AT ANY TIME"
8. 120/240 VAC PHASE "A" CONDUCTORS SHALL HAVE BLACK COLORED INSULATION. 120/240 VAC PHASE "B" CONDUCTORS SHALL HAVE RED COLORED INSULATION. NEUTRAL CONDUCTORS SHALL HAVE WHITE COLORED INSULATION. INSULATED EQUIPMENT GROUND WIRES SHALL HAVE GREEN COLORED INSULATION.
9. CONTROL PANEL FOR AIRFIELD LIGHTING SHALL BE MANUFACTURED BY A UL 508 INDUSTRIAL CONTROL PANEL BUILDER OR AN FAA APPROVED L–821 PANEL BUILDER, AND SHALL BE MANUFACTURED IN THE UNITED STATES TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENT AND THE "BUY AMERICAN ACT". GUS BERTHOLD ELECTRIC (1900 WEST CARROLL AVENUE, CHICAGO, IL. 60612, PHONE: 312–243–5767) IS AN APPROVED UL 508 INDUSTRIAL CONTROL PANEL BUILDER.
10. CONTROL PANEL FOR BEACON & AIRFIELD LIGHTING WILL BE PAID FOR UNDER ADDITIVE ALTERNATE NO. 1 ITEM AS109620 LIGHTING CONTROL SYSTEM.



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DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

IL. PROJ.: 910–4055 A.I.P. PROJ.: 3–17–0133–B11

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1525 South Sixth Street
Springfield, Illinois 62703-2886
Offices Nationwide

REPLACE AIRPORT ROTATING BEACON

LIGHTING CONTACTOR PANEL DETAIL

LEGEND PLATE SCHEDULE	
DEVICE	LABEL
LOAD CENTER "A"	PANEL A 120/240VAC, 1PH FED FROM SERVICE LOAD CENTER
LOAD CENTER "B"	PANEL B 120/240VAC, 1PH FED FROM PANEL A
BEACON AND AIRFIELD LIGHTING CONTROL PANEL	AIRFIELD LIGHTING CONTROL PANEL
BEACON AND AIRFIELD LIGHTING CONTROL PANEL	NOTICE CONTACTORS HAVE REMOTE LOCATED CONTROL AND MAY ACTIVATE AT ANY TIME
SAFETY SWITCH FOR BEACON	BEACON DISCONNECT

NOTE: LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.

FURNISH & INSTALL A WEATHERPROOF WARNING LABEL FOR EACH SAFETY SWITCH, PANELBOARD, LOAD CENTER, CUTOUT, & CONTROL PANEL TO WARN PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS, PER THE REQUIREMENTS OF NEC 110.16 "FLASH PROTECTION". LABELS SHALL BE HAZARD COMMUNICATION SYSTEMS, LLC (190 OLD MILFORD RD., BOX 1174, MILFORD, PA 18337, PHONE: 1-877-748-0244) PART NO. H6010-9VWHBJ OR APPROVED EQUAL.

LOAD CENTER "B" SCHEDULE

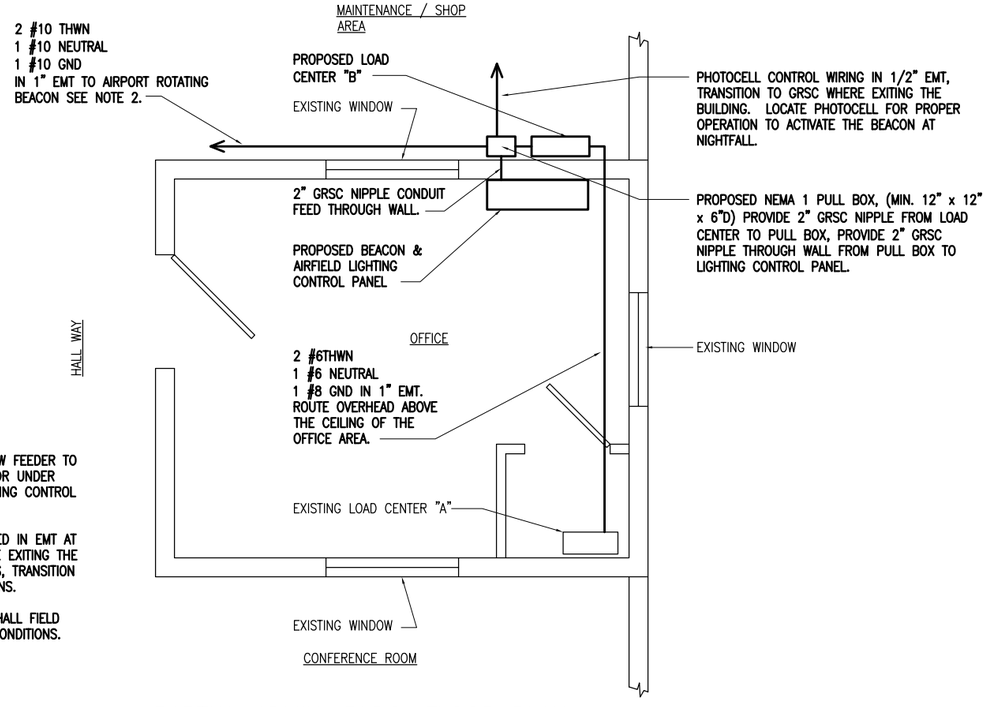
CKT #	DUTY	SIZE		SIZE	DUTY	CKT #
1	PHOTOCELL & CONTROL POWER	15A 1P		30A 2P	TVSS/SURGE ARRESTOR	2
3	SPARE	20A 1P		---		4
5	AIRPORT ROTATING BEACON	20A 2P		20A 1P	SPARE	6
7		---		20A 1P	SPARE	8
9	BLANK				BLANK	10
11	BLANK				BLANK	12
13	BLANK				BLANK	14
15	BLANK				BLANK	16
17	BLANK				BLANK	18
19	BLANK				BLANK	20

S/N GND

100 AMP, 120/240 VAC, 1 PHASE, 3 WIRE, 20 CIRCUIT LOAD CENTER WITH A 60 AMP, 2 POLE MAIN BREAKER RATED 22,000 AIC AT 120/240 VAC, IN A NEMA 1 ENCLOSURE, SQUARE D CLASS 1130, CAT. NO. QO120M100 WITH QOM60VH, 60 AMP, 2 POLE MAIN BREAKER, QOC20U100S COVER, AND PK15GTA EQUIPMENT GROUND BAR KIT OR APPROVED EQUAL. BRANCH BREAKERS SHALL HAVE 10,000 AIC RATING AT 120/240 VAC.

NOTES

1. FURNISH & INSTALL A LOAD CENTER FOR THE MAINTENANCE AREA OF THE ADMINISTRATION BUILDING. INSTALL LOAD CENTERS SUCH THAT THE TOP OF ENCLOSURE IS 5'-6" ABOVE FINISHED FLOOR & THE BOTTOM DOES NOT EXTEND INTO THE AREA 18" ABOVE THE FLOOR.
2. CONFIRM LOCATION OF NEW LOAD CENTER WITH THE AIRPORT MANAGER.
3. LOAD CENTERS SHALL BE MANUFACTURED IN THE UNITED STATES TO COMPLY WITH THE AIRPORT IMPROVEMENT PROGRAM BUY AMERICAN REQUIREMENTS. PROVIDE CERTIFICATION OF MANUFACTURE IN THE UNITED STATES WITH SHOP DRAWING SUBMITTAL.
4. BEACON FEEDER BREAKER SHALL BE SIZED FOR THE RESPECTIVE AIRPORT ROTATING BEACON FURNISHED IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE & THE BEACON MFR RECOMMENDATIONS.



PARTIAL ADMIN. BLDG. FLOOR PLAN

NOT TO SCALE

NOTES:

1. WORK AT THIS ADMINISTRATION BUILDING AND NEW FEEDER TO THE AIRPORT ROTATING BEACON WILL BE PAID FOR UNDER ADDITIVE ALTERNATE ITEM NO. 1 AS109620 LIGHTING CONTROL SYSTEM PER LUMP SUM.
2. FEEDER CIRCUIT FOR BEACON SHALL BE INSTALLED IN EMT AT BUILDING INTERIOR. TRANSITION TO GRSC WHERE EXITING THE BUILDING AND AT EXPOSED LOCATIONS OUTDOORS, TRANSITION TO SCHED. 40 PVC CONDUIT AT BURIED LOCATIONS.
3. FLOOR PLAN IS NOT TO SCALE. CONTRACTOR SHALL FIELD VERIFY ACTUAL DIMENSIONS AND EXISTING SITE CONDITIONS.

BY | REVISION | DATE

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

IL. PROJ.: 910-4055 A.I.P. PROJ.: 3-17-0133-B11

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1525 South Sixth Street
Springfield, Illinois 62703-2886
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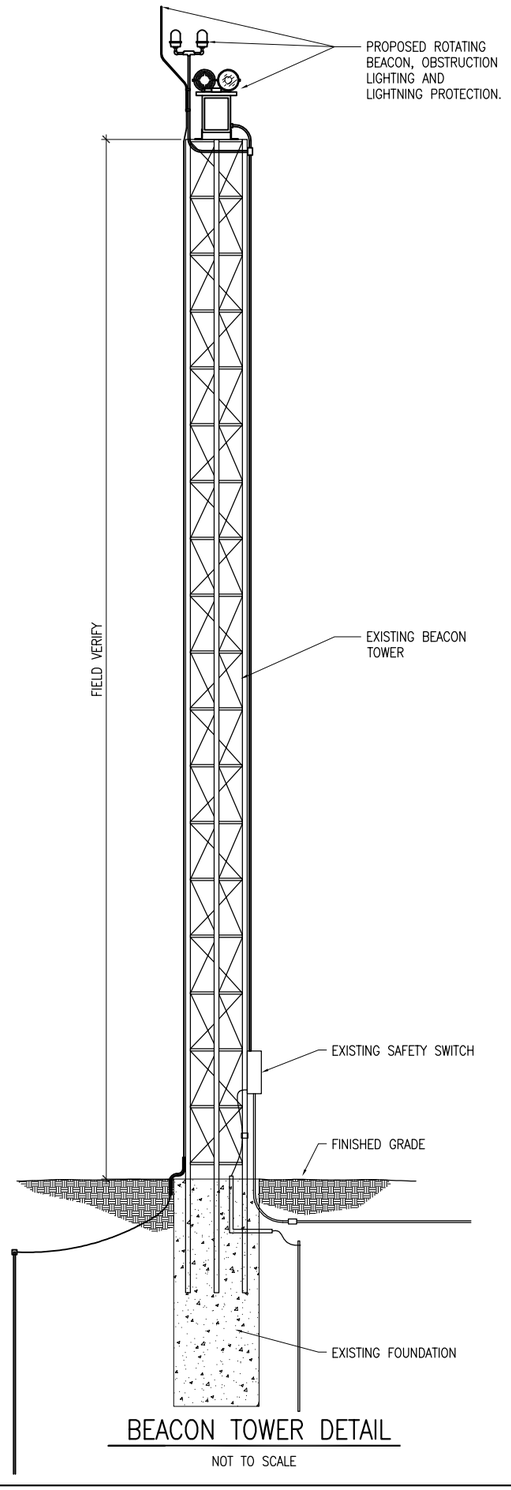
REPLACE AIRPORT ROTATING BEACON

ELECTRICAL SCHEDULES & DETAILS

10
10 of 11 sheets

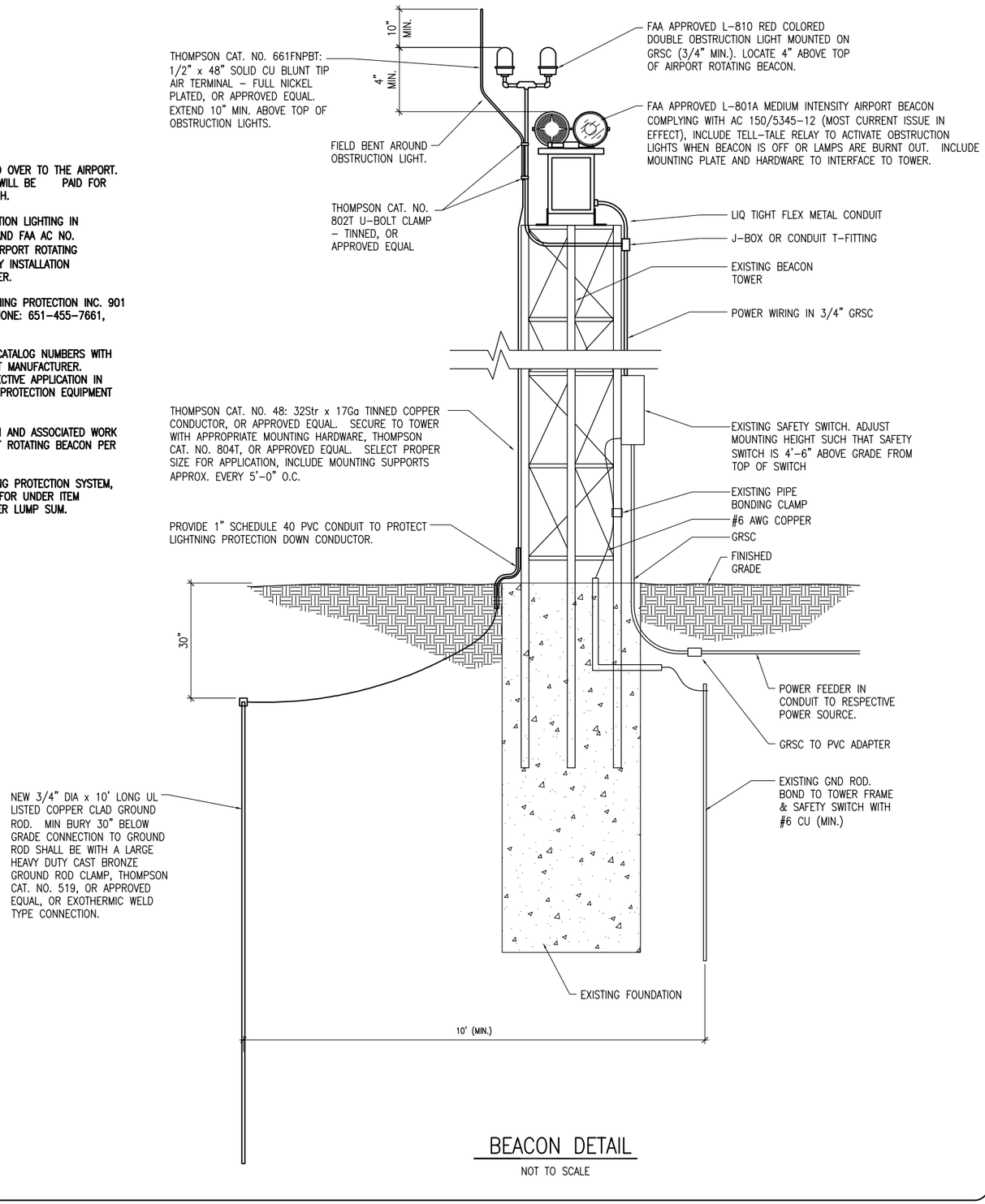


BEACON TOWER DETAIL

NOT TO SCALE

NOTES:

1. EXISTING BEACON SHALL BE REMOVED AND TURNED OVER TO THE AIRPORT. REMOVAL OF EXISTING AIRPORT ROTATING BEACON WILL BE PAID FOR UNDER ITEM AR101900 BEACON REMOVAL PER EACH.
2. INSTALL AIRPORT ROTATING BEACON WITH OBSTRUCTION LIGHTING IN CONFORMANCE WITH FAA AC NO. 150/5340-30E AND FAA AC NO. 150/5370-10E ITEM L-101, "INSTALLATION OF AIRPORT ROTATING BEACONS". CONFIRM BEACON AND TELL-TALE RELAY INSTALLATION REQUIREMENTS WITH THE RESPECTIVE MANUFACTURER.
3. REFERENCES TO THOMPSON ARE THOMPSON LIGHTNING PROTECTION INC. 901 SIBLEY MEMORIAL HWY. ST. PAUL MIN. 55188. PHONE: 651-455-7661, 800-777-1230, FAX: 651-455-2545.
4. VERIFY LIGHTNING PROTECTION COMPONENTS AND CATALOG NUMBERS WITH THE RESPECTIVE LIGHTNING PROTECTION EQUIPMENT MANUFACTURER. CONFIRM MATERIALS ARE SUITABLE FOR THE RESPECTIVE APPLICATION IN ACCORDANCE WITH NFPA 780 AND THE LIGHTNING PROTECTION EQUIPMENT MANUFACTURER.
5. THE NEW/REPLACEMENT AIRPORT ROTATING BEACON AND ASSOCIATED WORK WILL BE PAID FOR UNDER ITEM AR101510 AIRPORT ROTATING BEACON PER EACH.
6. OBSTRUCTION LIGHTING, TELL-TALE RELAY, LIGHTNING PROTECTION SYSTEM, GROUNDING AND ASSOCIATED WORK WILL BE PAID FOR UNDER ITEM AR800591 UPGRADE AIRPORT ROTATING BEACON PER LUMP SUM.



BEACON DETAIL

NOT TO SCALE

DATE	REVISION	BY

HAVANA REGIONAL AIRPORT
HAVANA, ILLINOIS

IL. PROJ.: 910-4055 A.I.P. PROJ.: 3-17-0133-B11

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Offices Nationwide

REPLACE AIRPORT ROTATING BEACON

AIRPORT ROTATING BEACON DETAILS