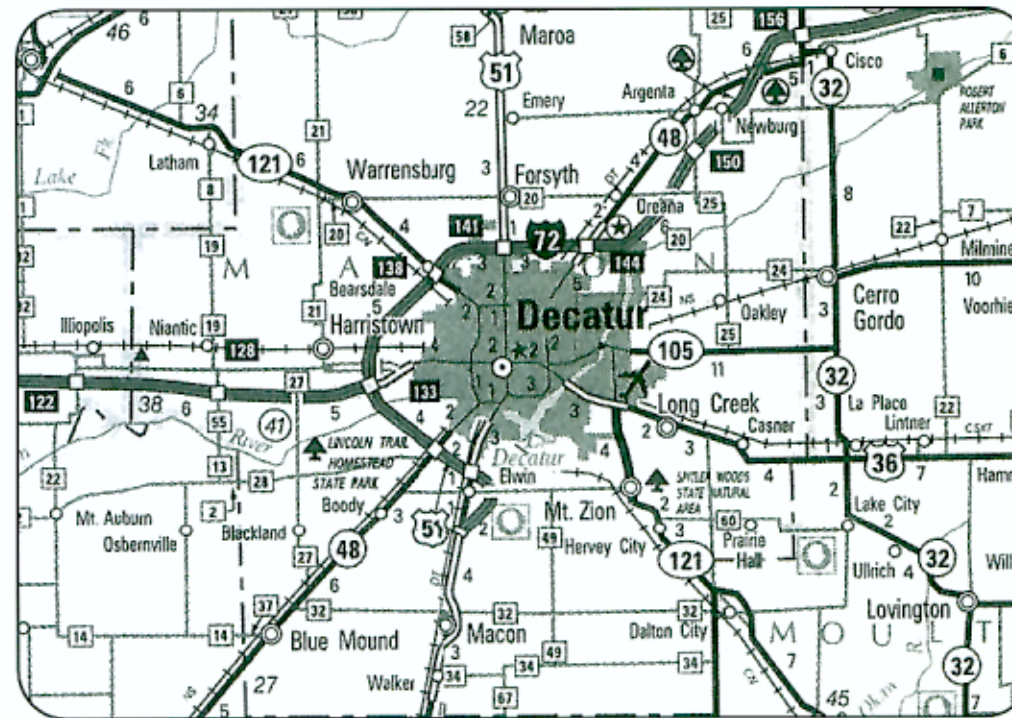


CONSTRUCTION PLANS FOR DECATUR AIRPORT DECATUR, MACON COUNTY, ILLINOIS INSTALL PERIMETER FENCING

SCOPE OF WORK

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 10-FOOT CLASS E (CHAIN LINK) FENCING IN THE SOUTH FRONTAL AREA; INCLUDING THE INSTALLATION OF ELECTRIC SLIDE GATES AND WALKWAY GATES, AND THE REMOVAL OF THE EXISTING 4-FOOT CLASS E (CHAIN LINK) FENCE, AND REMOVAL OF EXISTING ELECTRIC SLIDE GATES.



LOCATION

ILL. PROJ.: DEC-3934
 A.I.P. PROJ.: 3-17-00xx-xx
 LATITUDE: 39° 50' 05"
 LONGITUDE: 88° 51' 59"
 ELEVATION: 682.0' M.S.L.
 DATE: JULY 30, 2009



Hanson Professional Services Inc.
 ELECTRICAL ENGINEER

Submitted by: *Kevin N. Lightfoot* ENGR

Date Submitted: *8/5/2009*

Lics. Exp. Date: *11/30/2009*

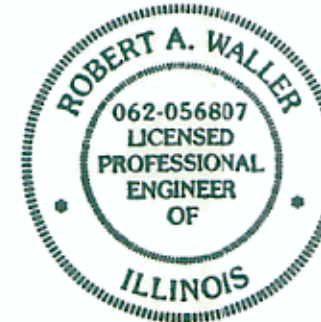


Hanson Professional Services Inc.

Submitted by: *[Signature]* ENGR

Date Submitted: *8/3/2009*

Lics. Exp. Date: *11/30/2009*



DECATUR PARK DISTRICT
 DECATUR, ILLINOIS

Approved: *[Signature]* AIRPORT DIRECTOR

Date: *19 June 09*



AUG 05, 2009 11:01 AM WALLER0723
 I:\AIRPORTS\DECATUR\08A00140\CA00\AIRPORT\SHEETS\R-001CVR.DWG - COVER

 DECATUR, ILLINOIS	A.I.P. PROJ.: 3-17-0033-## ILL. PROJ.: DEC-3934	ILL. PROJ. NO. 08A00140_0800 DRAWING: R-001CVR.DWG SCALE: NOT TO SCALE DATE: 07/30/09	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>LAYOUT</td> <td>RAM</td> <td>09/18/08</td> </tr> <tr> <td>DRAWN</td> <td>BAK</td> <td>09/18/08</td> </tr> <tr> <td>REVIEWED</td> <td>CAH</td> <td>07/31/09</td> </tr> </table>	LAYOUT	RAM	09/18/08	DRAWN	BAK	09/18/08	REVIEWED	CAH	07/31/09	 Hanson Professional Services Inc. 1525 South Sixth Street Springfield, Illinois 62703-2886 United States
LAYOUT	RAM	09/18/08											
DRAWN	BAK	09/18/08											
REVIEWED	CAH	07/31/09											
INSTALL PERIMETER FENCING	COVER SHEET	1 1 of 14 sheets											

DATE	REVISION	BY

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES	AS BUILT QUANTITIES
AR161900	REMOVE CLASS C FENCE	L.F.	530	
AR162510	CLASS E FENCE 10'	L.F.	2,665	
AR162724	ELECTRIC GATE - 24'	EACH	2	
AR162900	REMOVE CLASS E FENCE	L.F.	2,124	
AR162908	REMOVE ELECTRIC GATE	EACH	2	
AR162910	REMOVE CLASS E GATE	EACH	2	
AR800468	PEDESTRIAN GATE W/LOCK	EACH	1	

INDEX TO SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES AND INDEX TO SHEETS
3	PROPOSED SAFETY PLAN
4	PROPOSED FENCING PLAN
5	PROPOSED FENCE LAYOUT DETAIL
6	PROPOSED FENCE DETAILS
7	ELECTRICAL LEGEND AND ABBREVIATIONS
8	PROPOSED CARGO FACILITY & FUEL FARM GATES ELECTRICAL PLAN
9	EXISTING CARGO FACILITY & FUEL FARM GATES ELECTRICAL ONE LINE DIAGRAM
10	PROPOSED CARGO FACILITY & FUEL FARM GATES ELECTRICAL ONE LINE DIAGRAM
11	PROPOSED ELECTRIC SLIDE GATE DETAILS - CARGO FACILITY GATE
12	PROPOSED ELECTRIC SLIDE GATE DETAILS - FUEL FARM GATE
13	PROPOSED PEDESTRAIN SWING GATE WITH LOCK DETAILS
14	CARD READER, BOLLARD & GATE OPERATOR DETAILS



DECATUR, ILLINOIS

IL. PROJ.: DEC-3934 A.I.P. PROJ.: 3-17-0033-#

HEI Project No. 08A0014D_0800	RAW	09/18/08
Filename R-002FLP.DWG	BAK	09/18/08
Scale NOT TO SCALE	CAH	07/31/09
Date 07/30/09		
LAYOUT		
DRAWN		
REVIEWED		



Hanson Professional Services Inc.
16250 W. 11th Street
Springfield, IL 62703-2886
Offices Nationwide

INSTALL PERIMETER FENCING

SUMMARY OF QUANTITIES AND INDEX TO SHEETS

SCOPE OF WORK

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 10 FOOT CHAIN LINK FENCING IN THE SOUTH FRONTAL AREA; PROJECT INCLUDES THE INSTALLATION OF ELECTRICAL SLIDE GATE AND WALKWAY GATES.

AIRPORT SECURITY NOTE

AIRPORT SECURITY WILL BE MAINTAINED AT ALL TIMES. NO GAPS IN FENCING SHALL REMAIN OVERNIGHT OR UNATTENDED DURING THE DAY.

UTILITY NOTE

THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND AGENCIES WHICH HAVE LINES OR CONDUITS IN THE PROPOSED WORK AREA. ALL LINES AND CONDUITS SHALL BE LOCATED AND IDENTIFIED FOR DEPTH BEFORE ANY EXCAVATION BEGINS. THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) TO ACCOMPLISH THE ABOVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL UNDERGROUND NON-JULIE UTILITIES LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS. THESE UNDERGROUND IMPROVEMENTS WILL BE LOCATED AT THE CONTRACTOR'S OWN EXPENSE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

HEIGHT OF CONSTRUCTION EQUIPMENT

THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT WILL BE 15 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE A CONCRETE TRUCK.

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 AND AT THE CONTRACTOR'S OWN EXPENSE. AT THE CONCLUSION OF THE PROJECT THE CONTRACTOR WILL REPAIR (IF PAVED AND DAMAGED); GRADE, FERTILIZE, SEED AND MULCH (IF TURF) THE HAUL ROUTE AND PARKING AREA AS NEEDED TO RESTORE IT TO ITS' ORIGINAL STATE. RESTORATION OF THE HAUL ROUTE AND PARKING AREA WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CONTRACTOR RESPONSIBILITIES

THE CONTRACTOR'S EQUIPMENT PARKING AND STORAGE AREA WILL BE AS SHOWN ON THIS SHEET. THE CONTRACTOR'S EMPLOYEES WILL PARK THEIR VEHICLES IN THE AREA DESIGNATED. ONLY CONTRACTOR VEHICLES WILL BE ALLOWED OUTSIDE THIS 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 MAINTAIN ACCESS TO ALL FUEL AND BUILDINGS IN THE PROXIMITY OF THE PROJECT.

ALL WORK PERFORMED SHALL BE DONE IN A ORDERLY AND EFFECTIVE MANNER TO MINIMIZE CONFLICT TO NORMAL AIRPORT OPERATION.

BARRICADES AND TRAFFIC CONES

IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE AND MAINTAIN BARRICADES AND TRAFFIC CONES AS DIRECTED BY THE AIRPORT MANAGEMENT. THE BARRICADES WILL BE EQUIPPED WITH RED FLASHING OR RED STEADY-BURN LIGHTS AND 20" SQUARE ORANGE FLAGS. THE BARRICADES, THEIR MAINTENANCE, PLACEMENT AND REMOVAL WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

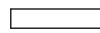



CERTIFIED PAYROLLS

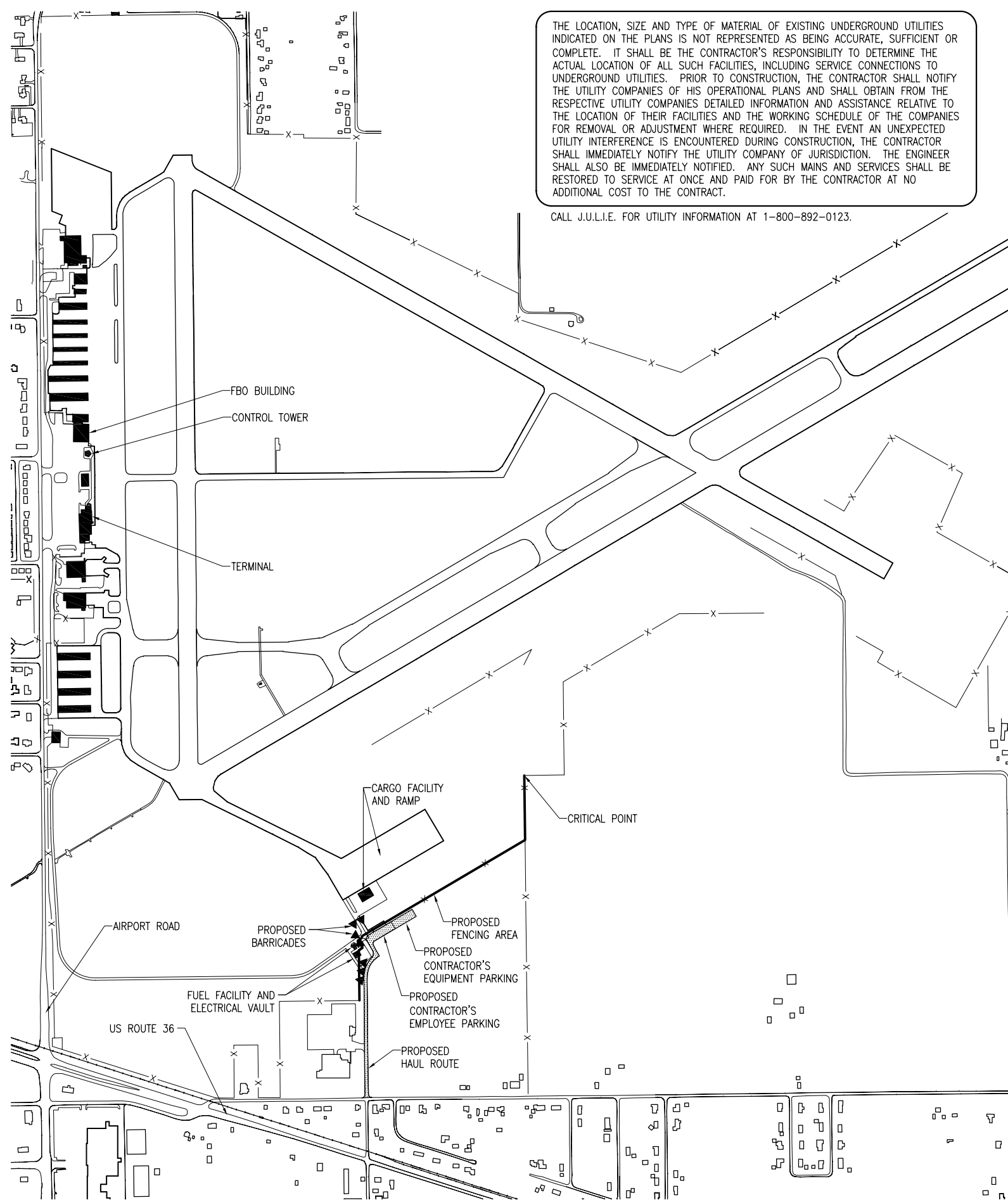
THE RESIDENT ENGINEER CANNOT FORWARD CONSTRUCTION REPORTS TO THE ILLINOIS DIVISION OF AERONAUTICS FOR PROCESSING UNTIL ALL CERTIFIED PAYROLLS FOR THE PERIOD HAVE BEEN RECEIVED.

MATERIAL CERTIFICATION

COMPLETED WORK CANNOT BE PLACED ON A CONSTRUCTION REPORT UNTIL ALL MATERIAL CERTIFICATIONS FOR THAT PAY ITEM HAVE BEEN RECEIVED, REVIEWED AND ACCEPTED BY THE RESIDENT ENGINEER.

LEGEND

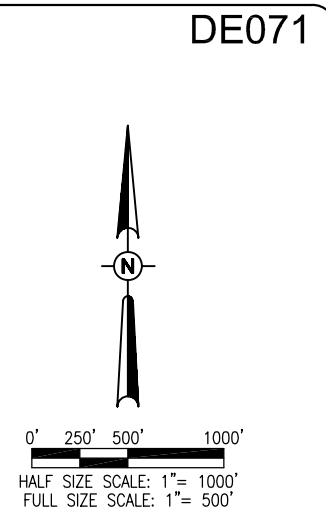
-  EXISTING IMPROVEMENTS
-  PROPOSED IMPROVEMENTS
-  EXISTING BUILDINGS
-  PROPOSED HAUL ROUTE AND EQUIPMENT PARKING AREA



THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. 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 ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.

DE071



DRIVER SAFETY TRAINING NOTE

AT LEAST ONE EMPLOYEE OF THE CONTRACTOR WILL ATTEND THE DRIVING SAFETY TRAINING CONDUCTED BY THE AIRPORT. THIS PERSON WILL OPERATE/ESCORT ALL VEHICLES THAT ARE OPERATING INSIDE THE PERIMETER FENCING.

J.U.L.I.E. INFORMATION

COUNTY _____ MACON
 CITY _____ DECATUR
 TOWNSHIP _____ LONG CREEK
 SECTION NO. _____ 20 & 21
 ADDRESS _____ DECATUR AIRPORT
 AIRPORT ROAD
 DECATUR, ILLINOIS 62524

CRITICAL POINT DATA

LATITUDE: 39° 49' 39.00"
 LONGITUDE: 88° 51' 51.39"
 ELEVATION: 670' M.S.L.

PROPOSED SAFETY PLAN

GENERAL - THE DECATUR AIRPORT IS COMPRISED OF THREE RUNWAYS. THE PROPOSED CONSTRUCTION WILL NOT NECESSITATE CLOSING ANY RUNWAY.

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 CONTRACTOR WILL ALSO PROVIDE WORKERS WITH SOME TYPE OF TAG OR GARMET TO IDENTIFY THE PERSON AS BEING PART OF THE CONSTRUCTION CREW.

RADIO CONTROL: THE CONTRACTOR WILL BE REQUIRED TO HAVE A TWO-WAY RADIO, CAPABLE OF BEING IN CONTACT WITH THE CONTROL TOWER, GROUND CONTROL CHANNEL (121.75 MHZ). THIS WILL KEEP THE CONTRACTOR IN CONSTANT CONTACT WITH THE CONTROL TOWER, THUS KEEPING THE CONTROL TOWER INFORMED ON HIS CONSTRUCTION ACTIVITIES AND ENABLE THE CONTROL TOWER TO IMMEDIATELY CONTACT THE CONTRACTOR IN CASE OF AN AERONAUTIC EMERGENCY THAT WOULD REQUIRE SOME ACTION BY THE CONTRACTOR AND/OR HIS PERSONNEL.

150-ENGINEER'S FIELD OFFICE NOTES

THE PROPOSED ENGINEER'S FIELD OFFICE WILL CONSIST OF PROVISION OF A WIRELESS PHONE FOR USE BY THE RESIDENT ENGINEER IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

THE CONTRACTOR WILL FURNISH A WIRELESS PHONE TO THE RESIDENT ENGINEER FOR HIS EXCLUSIVE USE FOR THE DURATION OF THIS PROJECT. THE RESIDENT ENGINEER WILL USE THIS PHONE FOR PROJECT BUSINESS ONLY. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CHARGES ASSOCIATED WITH THIS CELL PHONE.

ALL COSTS ASSOCIATED WITH THE PROVISION OF THE PHONE WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

EROSION CONTROL

THIS PROJECT WILL DISTURB LESS THAN 1 ACRE OF LAND, THEREFORE NO N.P.D.E.S. PERMIT WILL BE REQUIRED.

BY	
REVISION	
DATE	



DECATUR, ILLINOIS
 A.I.P. PROJ.: 3-17-0033-##
 IL PROJ.: DEC-3934

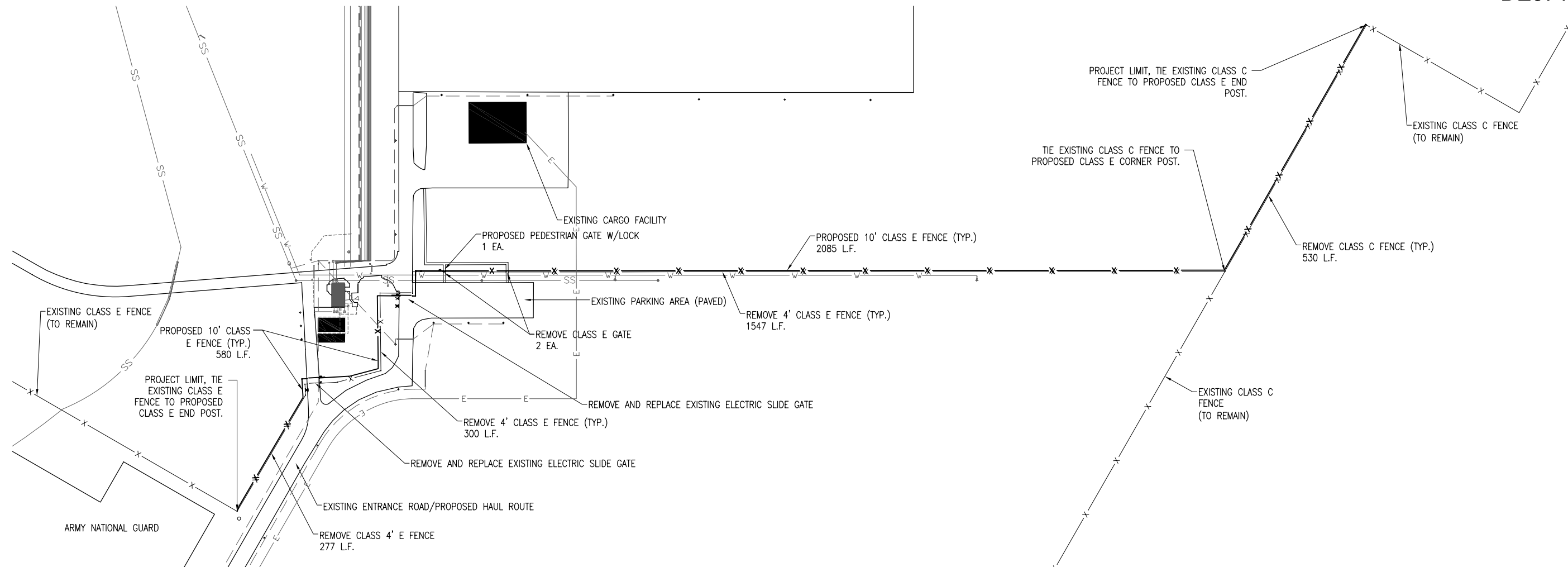
HEI Project No. 08A0014D_0800	09/18/08
Filename R-003SFY.DWG	RAW
Scale 1" = 500'	BAK
Date 07/30/09	CAH
LAYOUT	07/31/09
DRAWN	
REVIEWED	



Hanson Professional Services Inc.
 1200 S. State Street
 Springfield, IL 62703-2886
 Offices Nationwide

INSTALL PERIMETER FENCING
PROPOSED SAFETY PLAN

JUL 31, 2009 3:41 PM V00RH0805 I:\AIRPORTS\DECATUR\08A0014D\CADD\AIRPORT\SHEETS\R-003SFY.DWG - SAFETY



REVISION	DATE

DECATUR AIRPORT
DECATUR, ILLINOIS
 A.I.P. PROJ.: 3-17-0033-#
 IL PROJ.: DEC-3934

HEI Project No.	08A0014D_0800
Filename	R-172EEN.DWG
Scale	1" = 100'
Date	07/30/09
LAYOUT	RAW 09/19/08
DRAWN	BAK 09/19/08
REVIEWED	CAH 07/31/09

LEGEND

- EXISTING PAVEMENT
- EXISTING AIRPORT BUILDINGS
- EXISTING PROPERTY LINE
- EXISTING FENCE (TO REMAIN IN PLACE)
- PROPOSED 10' CLASS E FENCE
- EXISTING WATER LINE
- EXISTING ELECTRIC LINE
- EXISTING GAS LINE
- EXISTING STORM SEWER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING CONTROL CABLES
- EXISTING TELEPHONE LINE
- EXISTING UNDERDRAINS
- EXISTING DRAINAGE LINES
- EXISTING PARKING LOT LIGHT
- EXISTING MANHOLE
- EXISTING INLET

UTILITY NOTE

THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND AGENCIES WHICH HAVE LINES OR CONDUITS IN THE PROPOSED WORK AREA INCLUDING THE FAA AND NATIONAL GUARD. ALL LINES AND CONDUITS SHALL BE LOCATED AND IDENTIFIED FOR DEPTH BEFORE ANY WORK BEGINS. THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) TO ACCOMPLISH THE ABOVE.

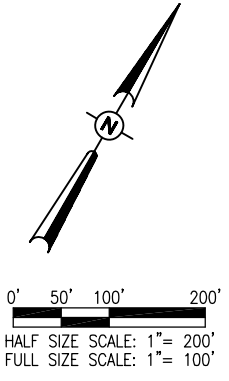
IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL UNDERGROUND NON-J.U.L.I.E. UTILITIES LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS. THESE UNDERGROUND IMPROVEMENTS WILL BE LOCATED AT THE CONTRACTOR'S OWN EXPENSE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. 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 ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123.

FENCE POSTS IN PAVEMENT NOTE

FENCE POST TO BE INSTALLED IN BITUMINOUS PAVEMENT. THE PAVEMENT WILL BE SAWED FULL DEPTH FOR THE DIMENSION OF THE POST FOOTING.

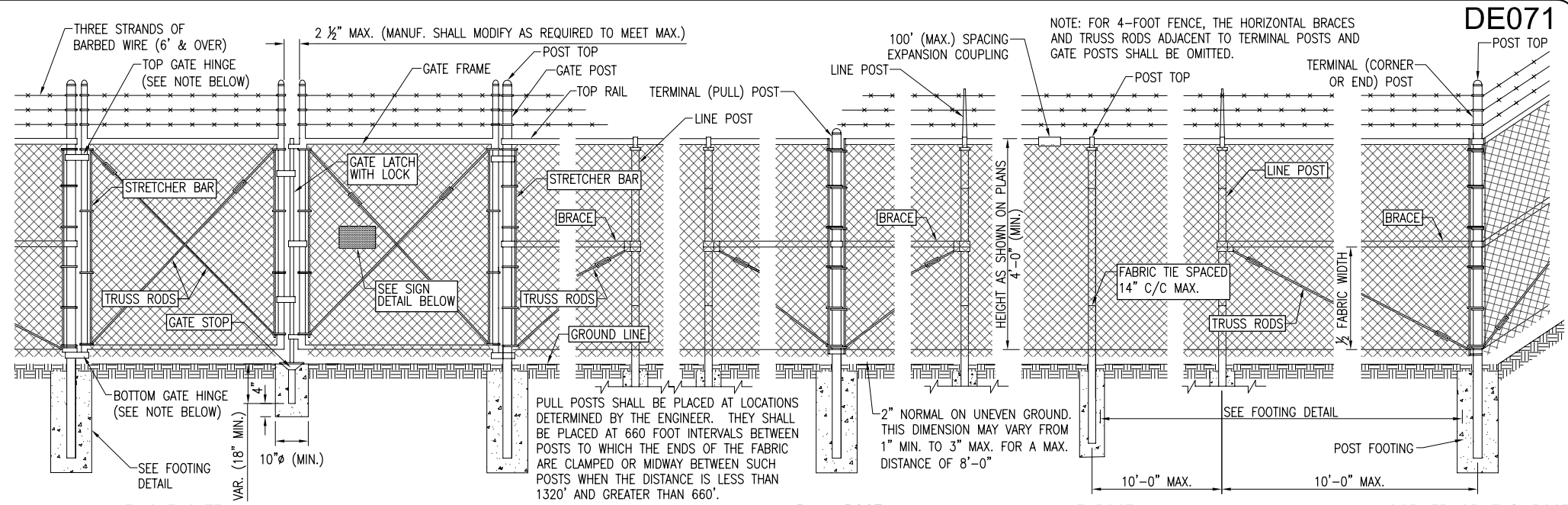


HANSON
 Hanson Professional Services Inc.
 1225 South State Street
 Springfield, IL 62703-2886
 Offices Nationwide

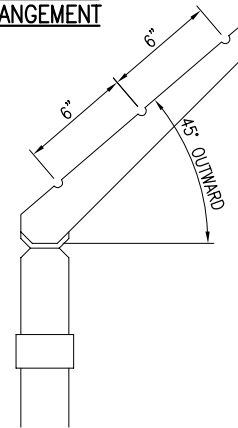
INSTALL PERIMETER FENCING
 PROPOSED FENCING PLAN

GENERAL NOTE:

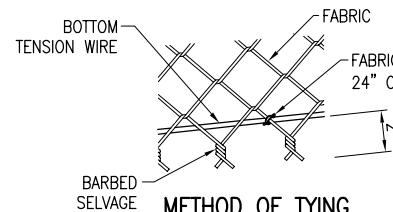
CONTINUOUS FENCE SHALL BE GROUNDED AT INTERVALS NOT EXCEEDING 500 FT IN URBAN AREAS AND 1,000 FT IN RURAL AREAS. THERE SHALL BE A GROUND WITHIN 100 FT OF GATES IN EACH SECTION OF THE FENCE ADJACENT TO THE GATE. FENCE UNDER A POWER LINE SHALL BE GROUNDED BY THREE GROUNDS; ONE DIRECTLY UNDER THE CROSSING AND ONE ON EACH SIDE 25 FT TO 50 FT AWAY. A SINGLE GROUND SHALL BE LOCATED DIRECTLY UNDER EACH TELEPHONE WIRE OR CABLE CROSSING. THE COUNTERPOISE GROUND SHALL BE USED ONLY WHERE IT IS IMPOSSIBLE TO DRIVE A GROUND ROD. THE GROUND WIRE SHALL BE CONNECTED TO THE FABRIC AND TENSION WIRE WITH UL LISTED GROUNDING CONNECTORS OF CAST BRONZE BODY AND BRONZE OR STAINLESS STEEL BOLTS AND WASHERS. GROUNDING CONNECTORS SHALL BE SIZED AND SUITABLE FOR THE RESPECTIVE APPLICATION. CONNECTIONS TO GROUND RODS SHALL BE WITH UL LISTED GROUNDING CONNECTORS SUITABLE FOR DIRECT BURIAL IN EARTH OR EXOTHERMIC WELD TYPE CONNECTORS, CADWELD BY ERICO PRODUCTS, INC., SOLON, OHIO, (PHONE 1-800-248-9353), THERMOWELD BY CONTINENTAL INDUSTRIES, INC., TULSA, OKLAHOMA (PHONE 918-663-1440) OR ULTRAWELD BY HARGER, GRAYSLAKE, ILLINOIS (PHONE 1-800-842-7437). EXOTHERMIC WELD CONNECTIONS SHALL BE INSTALLED IN CONFORMANCE WITH THE RESPECTIVE MANUFACTURER'S DIRECTIONS USING MOLDS SUITABLE FOR EACH RESPECTIVE APPLICATION. GROUND RODS SHALL BE 5/8-IN. DIAMETER BY 8 FT LONG (MINIMUM), UL-LISTED, COPPER-CLAD. THE GROUND WIRE USED TO BOND THE FENCE FABRIC AND TENSION WIRE TO THE GROUND ROD SHALL BE #6 AWG BARE SOLID COPPER CONDUCTOR.



VEHICLE GATE ARRANGEMENT

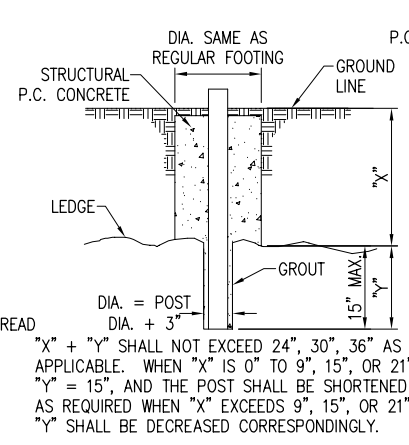


DETAIL - BARBED WIRE ARM OF LINE POST
(ONLY FOR OVER 48" FENCE)



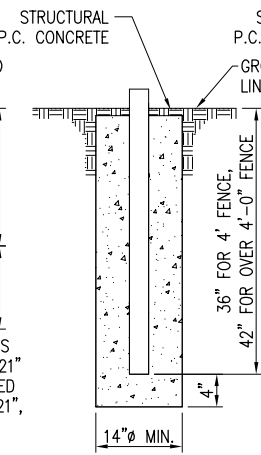
METHOD OF TYING FABRIC TO TENSION WIRE

PULL POST ARRANGEMENT



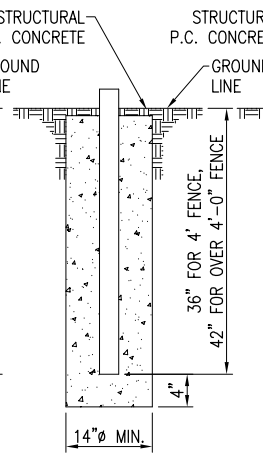
FOOTING FOR POST WHEN ROCK LEDGE IS ENCOUNTERED

LINE POST ARRANGEMENT



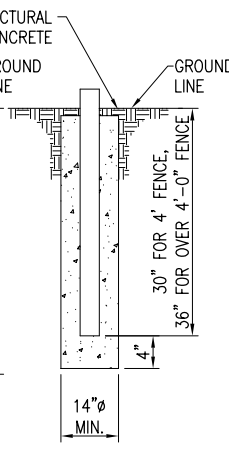
FOOTING FOR TERMINAL POST

CORNER OR END POST ARRANGEMENT

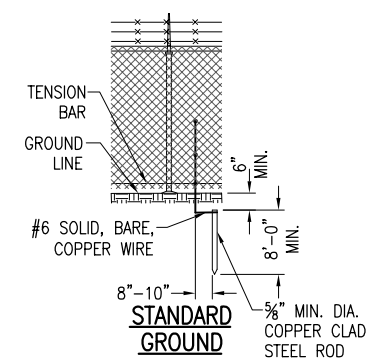


FOOTING FOR GATE POST

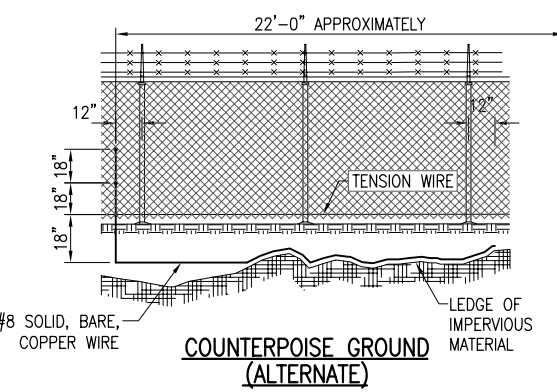
FOOTING FOR LINE POST



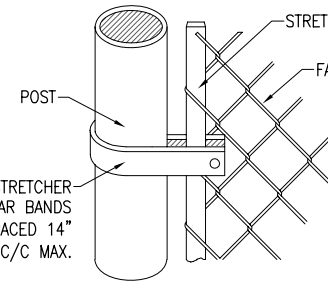
FOOTING FOR LINE POST



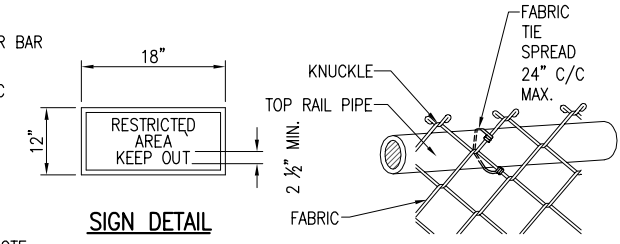
STANDARD GROUND



COUNTERPOISE GROUND (ALTERNATE)



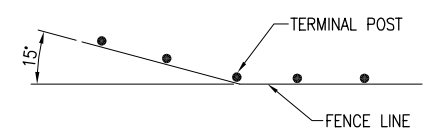
METHOD OF FASTENING STRETCHER BAR TO POST



SIGN DETAIL

NOTE: 0.08 GA. ALUMINUM ALLOY SHEET LETTERING COLOR SHALL BE RED. EACH GATE SHALL REQUIRE ONE SIGN. EVERY 400' OF FENCE SHALL REQUIRE ONE SIGN.

METHOD OF TYING FABRIC TO PIPE



WHERE THE FENCE LINE HAS A CHANGE IN DIRECTION OF 15° OR MORE, A TERMINAL POST SHALL BE PLACED AS SHOWN ABOVE. WHERE ANGLE IS LESS THAN 15° AND EXISTING CONDITIONS REQUIRE TERMINAL POST, THEY SHALL BE PLACED AS DIRECTED BY ENGINEER.

JUL 31, 2009 3:40 PM V00RH00805
I:\AIRPORTS\DECATUR\08A0014D\CADD\AIRPORT\SHEETS\R-571FEN.DWG - DETAIL 1

BY	
REVISION	
DATE	
DECATUR, ILLINOIS	
A.I.P. PROJ.: 3-17-0033-## IL PROJ.: DEC-3934	
HEI Project No. 08A0014D_0800 Filename R-571FEN.DWG Scale NOT TO SCALE Date 07/30/09	LAYOUT CAH 08/04/08 DRAWN BAK 08/04/08 REVIEWED CAH 07/31/09
Hanson Professional Services Inc. 12250 W. 111th Street Spring Lake, MI 49783-2886 Offices Nationwide	
PERIMETER FENCE INSTALLATION PROPOSED FENCE DETAILS	
6 6 of 14 sheets	

ELECTRICAL LEGEND - ONE-LINE DIAGRAM	
	CABLE TERMINATOR/LUG, TERMINAL BLOCK, OR SPLICE
	TRANSFORMER
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
	THERMAL MAGNETIC CIRCUIT BREAKER
	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
	TC
	FUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE
	GROUND - GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
	INDICATING LIGHT
	MOTOR
	LOAD, MOTOR, # = HORSEPOWER
	ELECTRIC UTILITY METER BASE
	JUNCTION BOX WITH SPLICE OR TERMINALS
	EQUIPMENT, XXX = DEVICE DESCRIPTION
	GROUND BAR, GROUND BUS OR GROUND TERMINAL
	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
	CONTROL STATION
	TRANSFER SWITCH: N = NORMAL EM = EMERGENCY L = LOAD
	ENGINE GENERATOR SET

ELECTRICAL LEGEND - PLANS	
	CONDUIT (EXPOSED)
	CONDUIT OR UNIT DUCT (CONCEALED OR BURIED)
	DUCT
	DUCT
	BURIED/UNDERGROUND ELECTRIC
	D ELECTRIC
	TOGGLE SWITCH
	PUSH BUTTON STATION
	WALL OR CEILING M'T'D. JUNCTION BOX. CONFIGURATION
	CONTROL PANEL

ELECTRICAL ABBREVIATIONS	
A.F.F.	ABOVE FINISHED 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 CIRCUULAR MIL
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
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	GUIDE 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

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.
- 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).
- 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:

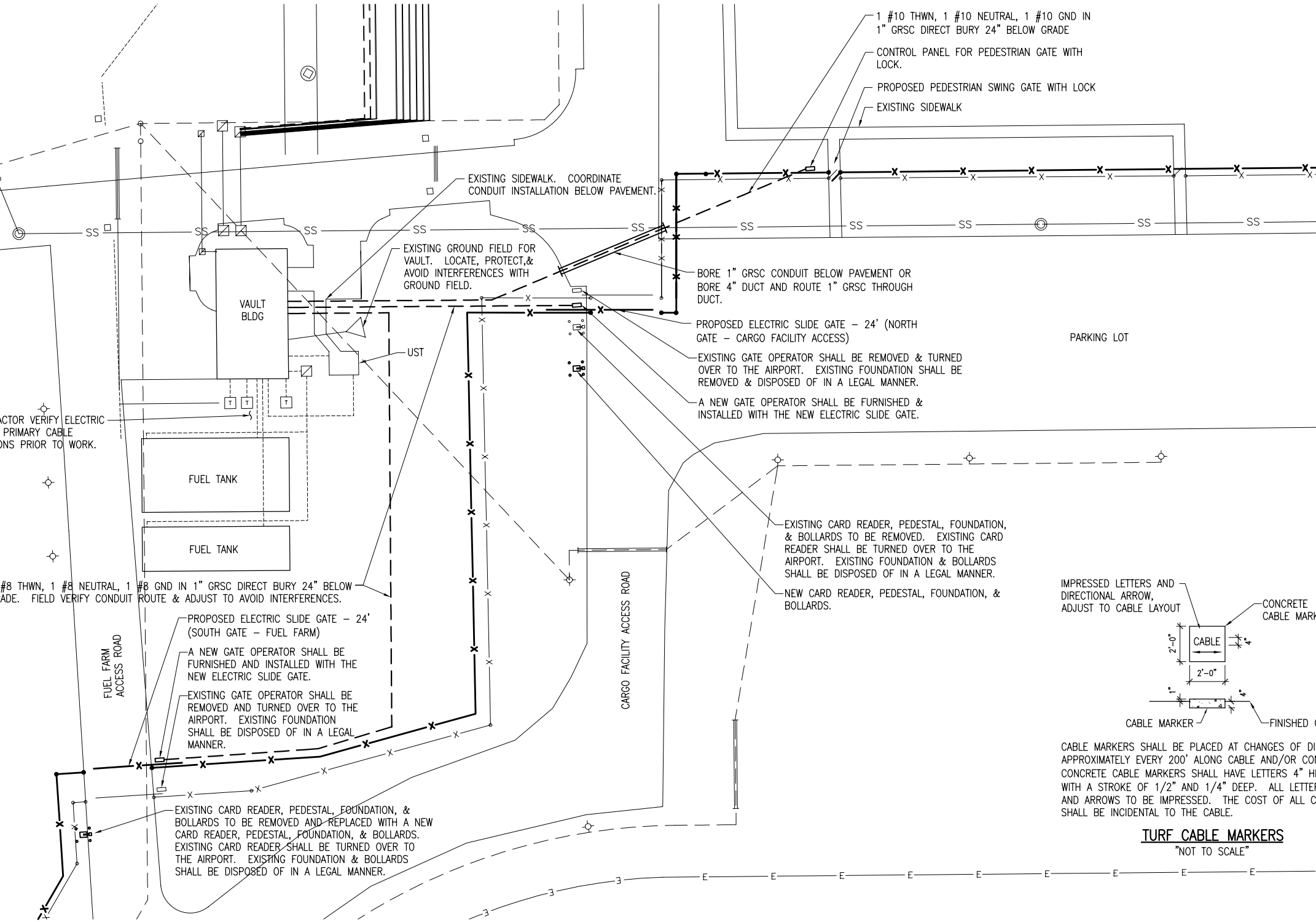
120/240 VAC, 1 PHASE, 3 WIRE
PHASE A BLACK
PHASE B RED
NEUTRAL WHITE
GROUND GREEN
- SEE RESPECTIVE SITE PLANS FOR SITE LEGEND INFORMATION.
- LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED, SUNLIGHT RESISTANT, & SUITABLE FOR GROUNDING. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO MOTORS & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. EXTERNAL BONDING JUMPERS USED WITH CCR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). DO NOT INSTALL LTFMC THAT IS NOT UL LISTED. CONFIRM LTFMC BEARS THE UL LABEL PRIOR TO INSTALLING IT.
- ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES U.L. LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE, TO MAINTAIN THE NEMA 4, 4X RATING.
- HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, DUCT, OR HANDHOLE.

BY		REVISION		DATE	
 DECATUR, ILLINOIS					
A.I.P. PROJ.: 3-17-0033-## I.L. PROJ.: DEC-3934					
H.E. Project No. 08A0014D_0800 File Name E-001.DWG Scale NONE Date 07/30/09		LAYOUT KNL 01/09/09 DRAWN MV 01/09/09 REVIEWED CAH 07/31/09		 Hanson Professional Services Inc. 12250 W. 111th Street Springdale, IL 62286 Offices Nationwide	
INSTALL INSTALLATION			ELECTRICAL LEGEND AND ABBREVIATIONS		
7					
7 of 14 sheets					

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS

CONTRACTOR 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 ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

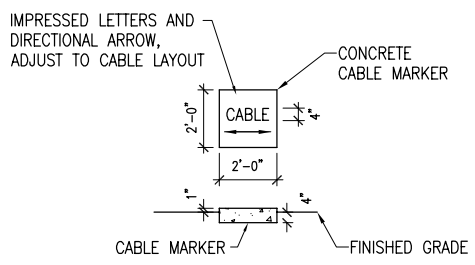
CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123. CONTACT FAA FOR ASSISTANCE IN LOCATING THEIR LINES AND UTILITIES.



- NOTES:**
- THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND AGENCIES WHICH HAVE LINES, UTILITIES, AND/OR CONDUITS IN THE PROPOSED WORK AREA. ALL LINES, UTILITIES, AND CONDUITS SHALL BE LOCATED AND IDENTIFIED FOR DEPTH BEFORE ANY WORK BEGINS. THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123) FOR ASSISTANCE IN LOCATING UTILITY LINES. THE CONTRACTOR SHALL CONTACT THE FAA FOR ASSISTANCE IN LOCATING THEIR LINES & UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY ALL UNDERGROUND NON-J.U.L.I.E. LINES, UTILITIES, AND CONDUITS LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS. THESE UNDERGROUND LINES, UTILITIES, AND CONDUITS SHALL BE LOCATED AT THE CONTRACTOR'S OWN EXPENSE PRIOR TO THE START OF CONSTRUCTION ACTIVITIES. ANY EXISTING UTILITY LINES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
 - EXISTING DETECTOR LOOPS SHALL BE REMOVED & REPLACED WITH NEW DETECTOR LOOPS.
 - SEE "PROPOSED ELECTRIC SLIDE GATE DETAILS" SHEETS FOR EACH RESPECTIVE GATE FOR ADDITIONAL REQUIREMENTS ON ELECTRIC SLIDE GATE WORK. SEE "PROPOSED PEDESTRIAN SWING GATE WITH LOCK DETAILS" SHEET FOR ADDITIONAL REQUIREMENTS ON PEDESTRIAN GATE WITH LOCK WORK.

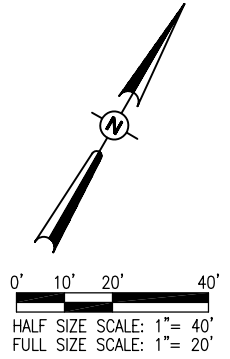
LEGEND

- EXISTING PAVEMENT
- EXISTING BUILDING
- EXISTING ELECTRICAL DUCT
- PROPOSED ELECTRICAL DUCT
- EXISTING ELECTRICAL CABLES
- PROPOSED ELECTRICAL CABLES AND/OR CONDUITS
- UD EXISTING UNDERDRAIN
- SS EXISTING STORM SEWER
- SAN EXISTING SANITARY SEWER
- W EXISTING WATER LINE
- T EXISTING TELEPHONE LINE
- G EXISTING GAS LINE
- X EXISTING FENCE
- M EXISTING MANHOLE
- J EXISTING JUNCTION BOX
- E EXISTING END SECTION
- O EXISTING GATE OPERATOR
- P EXISTING GATE OPERATOR
- R EXISTING CARD READER WITH BOLLARDS
- F PROPOSED FENCE
- H EXISTING ELECTRICAL HANDHOLE
- T EXISTING TRANSFORMER



CABLE MARKERS SHALL BE PLACED AT CHANGES OF DIRECTION AND APPROXIMATELY EVERY 200' ALONG CABLE AND/OR CONDUIT RUNS. CONCRETE CABLE MARKERS SHALL HAVE LETTERS 4" HIGH, 3" WIDE WITH A STROKE OF 1/2" AND 1/4" DEEP. ALL LETTERS, NUMBERS AND ARROWS TO BE IMPRESSED. THE COST OF ALL CABLE MARKERS SHALL BE INCIDENTAL TO THE CABLE.

TURF CABLE MARKERS
"NOT TO SCALE"



JUL 31, 2009 3:39 PM V00RH00805
I:\AIRPORTS\DECATUR\08A0014D\CADD\AIRPORT\SHEETS\E-101.DWG - Work

BY	
REVISION	
DATE	

HEI Project No. 08A0014D_0800
 File Name: E-101.DWG
 Scale: 1" = 20'
 Date: 07/30/09

LAYOUT	KNL	01/09/09
DRAWN	MV	01/09/09
REVIEWED	CAH	07/31/09

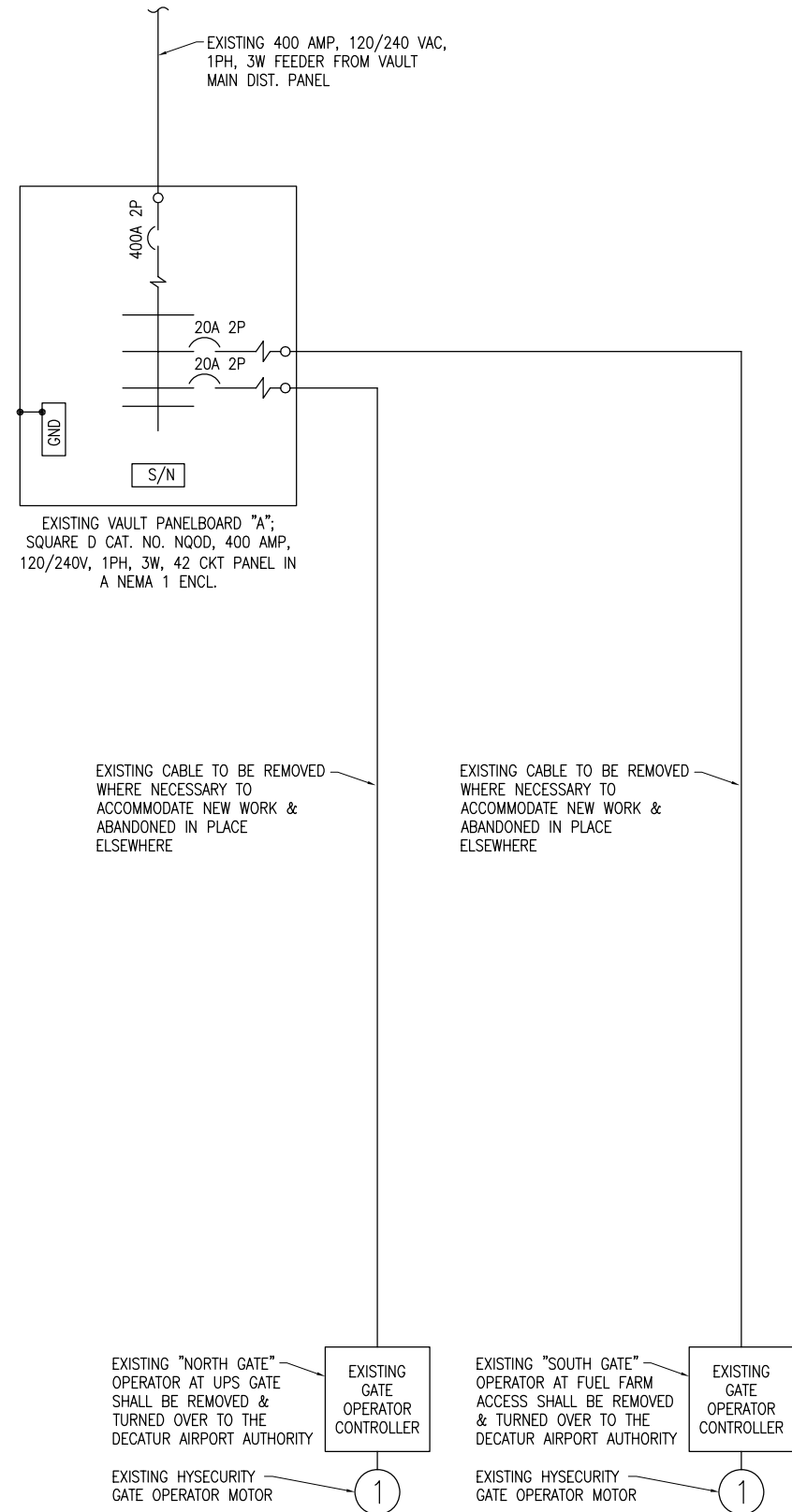
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 Hanson Professional Services Inc.
 1626 S. Main Street
 Springfield, IL 62703-2886
 Offices Nationwide

INSTALL PERIMETER FENCING
PROPOSED CARGO FACILITY & FUEL FARM GATES ELECTRICAL PLAN



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NOTES:

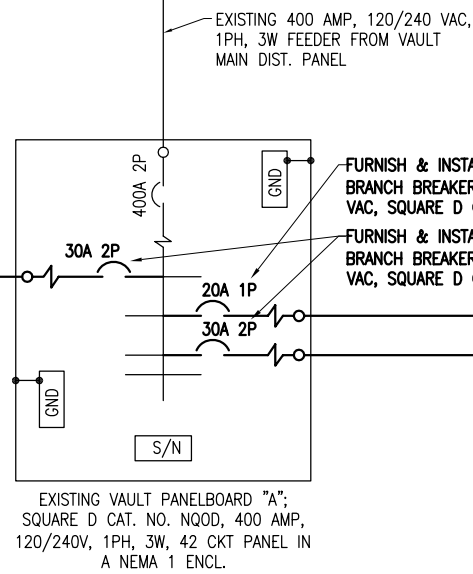
- SEE "ELECTRICAL LEGEND AND ABBREVIATIONS" SHEET FOR GENERAL NOTES AND REQUIREMENTS.
- REMOVAL OF EACH EXISTING ELECTRIC SLIDE GATE WILL BE PAID FOR UNDER ITEM AR162908 - REMOVE ELECTRIC GATE.



**EXISTING GATE OPERATORS
ELECTRICAL ONE LINE DIAGRAM**

BY	
REVISION	
DATE	
 DECATUR, ILLINOIS	
A.I.P. PROJ.: 3-17-0033-## IL PROJ.: DEC-3934	
HEI Project No. 08A0014D_0800 Filename E-601.DWG Scale NONE Date 07/30/09	LAYOUT KNL 01/09/09 DRAWN MV 01/09/09 REVIEWED CAH 07/31/09
 HANSON Hanson Professional Services Inc. 16250 W. State Street Springfield, IL 62703-2886 Offices Nationwide	
PERIMETER FENCE INSTALLATION	EXISTING CARGO FACILITY & FUEL FARM GATES ELECTRICAL ONE LINE DIAGRAM
9	
9 of 14 sheets	

2 #8 THWN, 1 #8 NEUTRAL (WHITE INSULATION), 1 #8 GND (GREEN INSULATION) IN 1" GRSC. EXISTING CONDUIT AND/OR LOW VOLTAGE WIREWAY IN THE VAULT MAY BE REUSED IN PLACE. DIRECT BURY 24" BELOW GRADE TO RESPECTIVE GATE OPERATOR INSTALLATION.



FURNISH & INSTALL A 20 AMP, 1 POLE BOLT-ON BRANCH BREAKER WITH 22,000 AIC AT 120/240 VAC, SQUARE D CAT. NO. Q0B120VH

FURNISH & INSTALL A 30 AMP, 2 POLE BOLT-ON BRANCH BREAKER WITH 22,000 AIC AT 120/240 VAC, SQUARE D CAT. NO. Q0B230VH

2 #8 THWN, 1 #8 NEUTRAL (WHITE INSULATION), 1 #8 GND (GREEN INSULATION) IN 1" GRSC. EXISTING CONDUIT AND/OR LOW VOLTAGE WIREWAY IN THE VAULT MAY BE REUSED IN PLACE. DIRECT BURY 24" BELOW GRADE TO RESPECTIVE GATE OPERATOR INSTALLATION.

2 #10 THWN, 1 #10 NEUTRAL (WHITE INSULATION), 1 #10 GND (GREEN INSULATION) IN 1" GRSC. DIRECT BURY 24" BELOW GRADE TO PEDESTRIAN SWING GATE INSTALLATION.

30 AMP, 2 POLE, 240 VAC, U.L. LISTED, HEAVY DUTY FUSIBLE SAFETY SWITCH IN A NEMA 4X STAINLESS STEEL ENCLOSURE, SQUARE D CLASS 3110, CAT. NO. H221DS WITH NEUTRAL KIT & EQUIPT. GROUND KIT, OR APPROVED EQUAL. PROVIDE 2 UL LISTED CLASS RK5 FUSES AS MANUFACTURED BY BUSSMANN, SIZED AS REQUIRED FOR THE RESPECTIVE GATE OPERATOR IN ACCORDANCE WITH THE GATE OPERATOR MANUFACTURER'S RECOMMENDATIONS AND PER THE REQUIREMENTS OF NEC. INCLUDE 2 SPARE FUSES OF THE SAME SIZE AND TYPE. LOCATE SAFETY SWITCH NEAR GATE OPERATOR AND PROVIDE STAINLESS STEEL STRUT SUPPORT WITH CORROSION RESISTANT HARDWARE. NOTE SAFETY SWITCH SHALL NOT BE USED AS SPLICE BOX OR A PULL BOX.

30 AMP, 2 POLE, 240 VAC, U.L. LISTED, HEAVY DUTY FUSIBLE SAFETY SWITCH IN A NEMA 4X STAINLESS STEEL ENCLOSURE, SQUARE D CLASS 3110, CAT. NO. H221DS WITH NEUTRAL KIT & EQUIPT. GROUND KIT, OR APPROVED EQUAL. PROVIDE 2 UL LISTED CLASS RK5 FUSES AS MANUFACTURED BY BUSSMANN.

20 AMP, 1 POLE, 120 VAC WEATHERPROOF TOGGLE SWITCH IN A CAST BOX WITH PAD LOCKABLE FEATURE, CROUSE-HINDS CAT. NO. EDCS3129, OR APPROVED EQUAL.

2 #10 THWN, 1 #10 NEUTRAL, 1 #10 GND IN 3/4" GRSC

2 #10 THWN, 1 #10 NEUTRAL, 1 #10 GND IN 3/4" GRSC

2 #10 THWN, 1 #10 NEUTRAL, 1 #10 GND IN 3/4" GRSC NIPPLE

STANT HARDWARE. NOTE SAFETY SWITCH SHALL NOT BE USED AS SPLICE BOX OR A PULL BOX.

NEMA 4 STAINLESS STEEL ENCLOSURE ADEQUATELY SIZED FOR TERMINAL BLOCKS, SURGE PROTECTOR, ASSOCIATED CONTROL COMPONENTS AND CONDUITS & WIRING FOR INPUT POWER, LOOP DETECTORS, SECONDARY SAFETY DEVICES, CARD READER CONTROL, ETC. INSTALL ADJACENT TO SAFETY SWITCH & GATE OPERATOR.

NEMA 4 STAINLESS STEEL ENCLOSURE ADEQUATELY SIZED FOR TERMINAL BLOCKS, SURGE PROTECTOR, ASSOCIATED CONTROL COMPONENTS AND CONDUITS & WIRING FOR INPUT POWER, LOOP DETECTORS, SECONDARY SAFETY DEVICES, CARD READER CONTROL, ETC. INSTALL ADJACENT TO SAFETY SWITCH & GATE OPERATOR.

20 AMP, 2 POLE INDUSTRIAL CONTROL RELAY SUITABLE FOR OPERATING THE LOCK SOLENOID, WITH TIME DELAY CONTROL. UPON ACTIVATION BY CARD READER INPUT OR EXIT PUSH BUTTON INPUT LOCK SHALL OPEN FOR ADJUSTABLE PERIOD OF APPROXIMATELY 5 SECONDS TO 10 SECONDS.

AC SURGE PROTECTOR, UL 1449 SECOND EDITION LISTED, SURGE CURRENT RATING OF 40KA, SUITABLE FOR USE ON A 120 VAC, 1 PHASE, 2 WIRE WITH GROUND SYSTEM WITH LED INDICATING OPERATIONAL STATUS, SQUARE D CAT. NO. TVS120XRS OR APPROVED EQUAL. INCLUDE MOUNTING BRACKET.

AC SURGE PROTECTOR, UL 1449 SECOND EDITION LISTED, SURGE CURRENT RATING OF 40KA, SUITABLE FOR USE ON A 120/240 VAC, 1 PHASE, 3 WIRE SYSTEM WITH LED INDICATING OPERATIONAL STATUS, JOSLYN MODEL 1265-21, SQUARE D CAT. NO. TVS120XR40S OR APPROVED EQUAL. INCLUDE MOUNTING BRACKET.

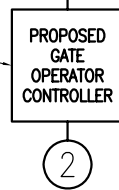
EQUIPMENT GROUND BAR ADEQUATELY SIZED FOR ALL GROUND WIRES TO AND FROM ENCLOSURE ILSCO CAT. NO. D167-6 OR APPROVED EQUAL. INSTALL ONE GROUND WIRE PER TERMINAL.

EQUIPMENT GROUND BAR ADEQUATELY SIZED FOR ALL GROUND WIRES TO AND FROM ENCLOSURE ILSCO CAT. NO. D167-6 OR APPROVED EQUAL. INSTALL ONE GROUND WIRE PER TERMINAL.

NEMA 4 STAINLESS STEEL ENCLOSURE (FOR THE PEDESTRIAN SWING GATE WITH ELECTRO-MECHANICAL LOCK) ADEQUATELY SIZED FOR TERMINAL BLOCKS, SURGE PROTECTOR, SIMPLEX RECEPTACLE, POWER SUPPLIES, CONTROL RELAYS, ASSOCIATED CONTROL COMPONENTS AND CONDUITS & WIRING FOR INPUT POWER, CARD READER CONTROL, EXIT CONTROL, ETC. INCLUDE TERMINAL BLOCKS TO ACCOMMODATE ALL POWER & CONTROL WIRING.

EQUIPMENT GROUND BAR ADEQUATELY SIZED FOR ALL GROUND WIRES TO AND FROM ENCLOSURE ILSCO CAT. NO. D167-6 OR APPROVED EQUAL. INSTALL ONE GROUND WIRE PER TERMINAL.

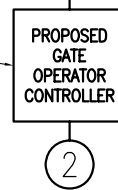
FUEL FARM GATE OPERATOR



3/4" DIA x 10'L UL LISTED COPPERCLAD GND ROD

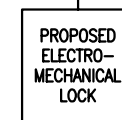
BOND GND ROD TO GATE OPERATOR FRAME WITH #6 AWG BARE STRANDED COPPER CONDUCTOR. PROVIDE 1" SCHED 40 PVC CONDUIT & COORDINATE INTO CONCRETE FOUNDATION. CONNECTION TO GND ROD SHALL BE EXOTHERMIC WELD. CONNECTION TO GATE OPERATOR FRAME SHALL BE WITH A TWO-HOLE TONGUE COMPRESSION LUG BOLTED TO THE FRAME.

CARGO FACILITY GATE OPERATOR



3/4" DIA x 10'L UL LISTED COPPERCLAD GND ROD

BOND GND ROD TO GATE OPERATOR FRAME WITH #6 AWG BARE STRANDED COPPER CONDUCTOR. PROVIDE 1" SCHED 40 PVC CONDUIT & COORDINATE INTO CONCRETE FOUNDATION. 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.



ELECTRO-MECHANICAL LOCK SYSTEM AT CARGO FACILITY PEDESTRIAN SWING GATE

#6 AWG BARE STRANDED COPPER CONDUCTOR. PROVIDE 1" SCHED 40 PVC CONDUIT FROM ENCLOSURE TO 1' BELOW GRADE. CONNECTION TO GND ROD SHALL BE EXOTHERMIC WELD.

3/4" DIA x 10'L UL LISTED COPPERCLAD GND ROD.

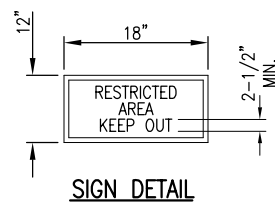
NOTES:

- SEE "ELECTRICAL LEGEND AND ABBREVIATIONS" SHEET FOR GENERAL NOTES AND REQUIREMENTS.
- FURNISH & INSTALL ALL POWER AND CONTROL CIRCUIT WIRING IN GALVANIZED RIGID STEEL CONDUIT FOR THE RESPECTIVE GATE OPERATOR. CONFIRM CONTROL WIRING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SYSTEM MANUFACTURER'S REPRESENTATIVE.
- EACH PROPOSED 24' ELECTRIC SLIDE GATE WILL BE PAID FOR UNDER ITEM AR162724 - ELECTRIC GATE - 24'.
- THE PROPOSED PEDESTRIAN SWING GATE WITH ELECTRO-MECHANICAL LOCK WILL BE PAID FOR UNDER ITEM AR800468 - PEDESTRIAN GATE W/LOCK.

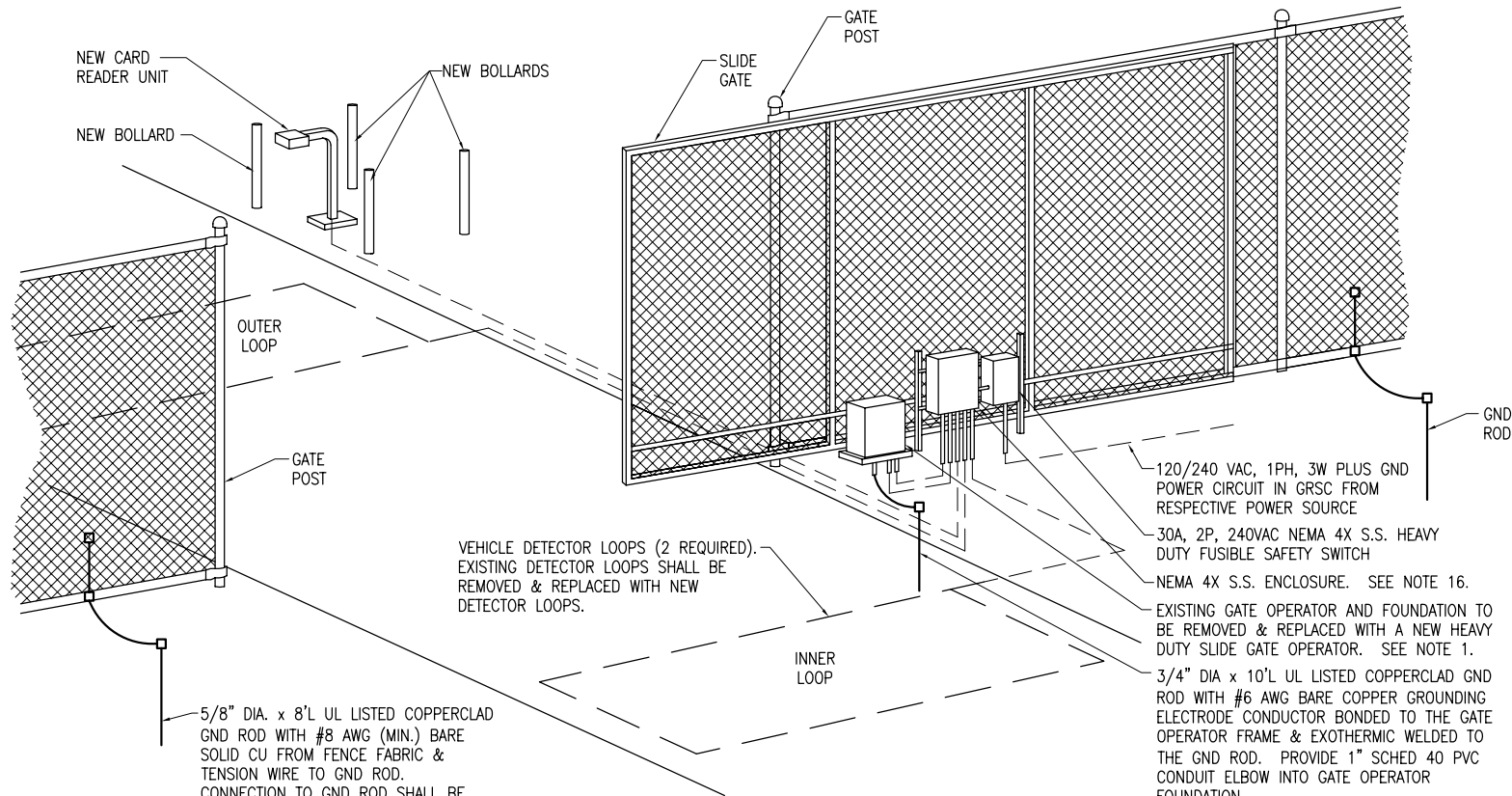
PROPOSED GATE OPERATORS
ELECTRICAL ONE LINE DIAGRAM

BY	
REVISION	
DATE	
 DECATUR, ILLINOIS	
A.I.P. PROJ.: 3-17-0033-# IL PROJ.: DEC-3934	
HEI Project No.	08A0014D_0800
File Name	E-602.DWG
Scale	NONE
Date	07/30/09
LAYOUT	KNL 01/09/09
DRAWN	MV 01/09/09
REVIEWED	CAH 07/31/09
 Hanson Professional Services Inc. 1250 S. State Street Springfield, IL 62703-2886 Offices Nationwide	
PERIMETER FENCE INSTALLATION	PROPOSED CARGO FACILITY & FUEL FARM GATES ELECTRICAL ONE LINE DIAGRAM
<h1>10</h1>	
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VEHICLE DETECTOR LOOPS		
GATE SIZE	LOOP SIZE	NO. OF TURNS
8' TO 12'	4' X 6'	3 TURNS
12' TO 16'	4' X 10'	2 TURNS
16' TO 20'	4' X 14'	2 TURNS
20' TO 24'	4' X 18'	2 TURNS
24' TO 30'	6' X 22'	2 TURNS
30' TO 34'	6' X 26'	2 TURNS

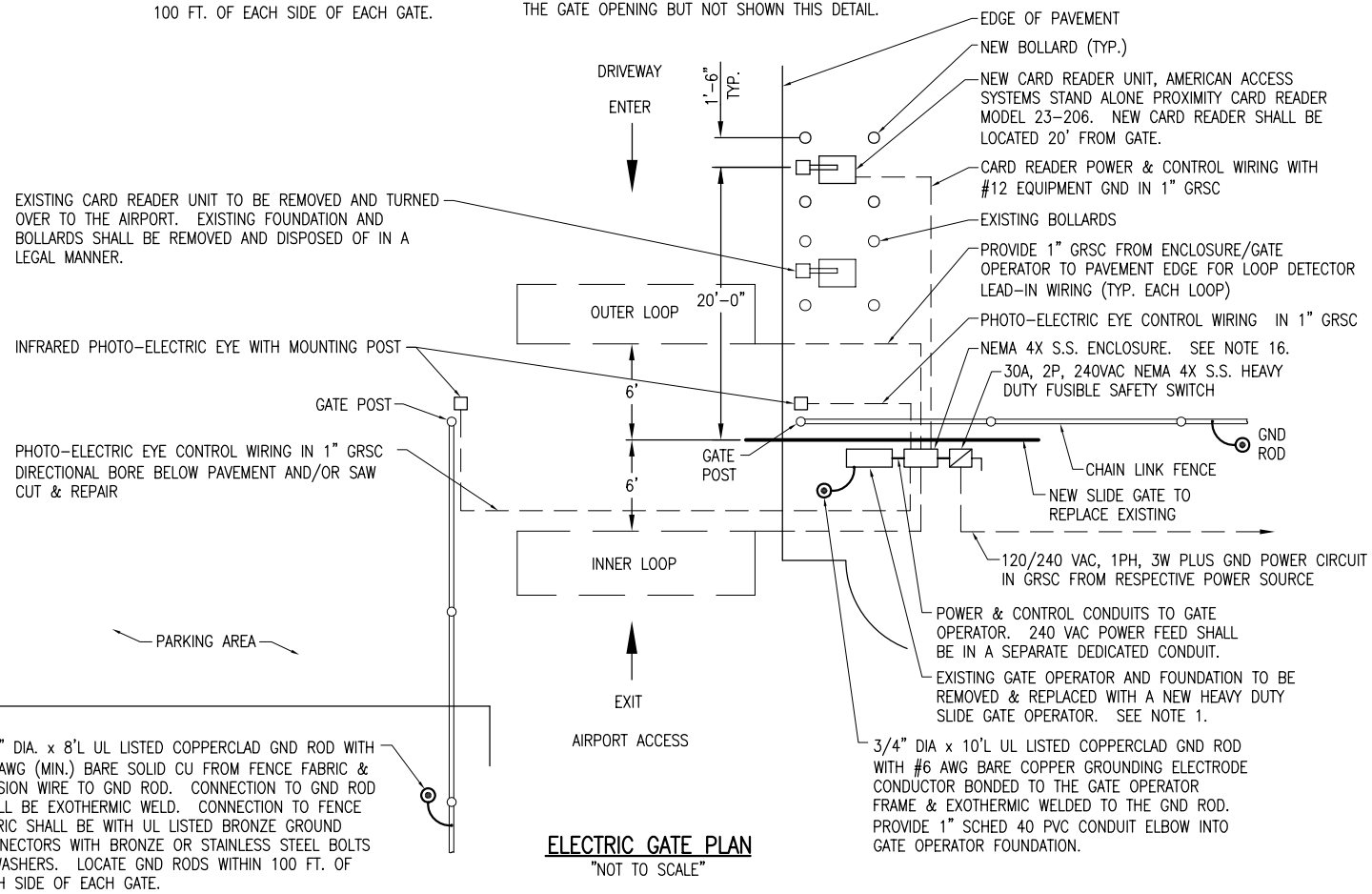


SIGN DETAIL
 NOTE: 0.08 GA. ALUMINUM ALLOY SHEET LETTERING COLOR SHALL BE RED. EACH GATE SHALL REQUIRE ONE SIGN. EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN.



ELECTRIC GATE DETAIL (ISOMETRIC)
 "NOT TO SCALE"

NOTE: PHOTO-ELECTRIC EYES ARE REQUIRED FOR THE GATE OPENING BUT NOT SHOWN THIS DETAIL.



ELECTRIC GATE PLAN
 "NOT TO SCALE"

NOTES:

- SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON RESPECTIVE GATE & GATE OPERATOR SYSTEM.
- ALL DIMENSIONS AND LAYOUT INFORMATION SHOWN SHOULD BE ADJUSTED AS RECOMMENDED BY THE MANUFACTURER. SEE RESPECTIVE SITE PLAN FOR EACH GATE.
- CONCRETE FOUNDATIONS SHALL BE PROVIDED FOR THE SLIDE GATE OPERATOR AND THE CARD READER CONTROL UNIT. FOUNDATION FOR THE GATE OPERATOR SHALL BE 48" (MIN.) IN DEPTH AND OF THE SIZE RECOMMENDED BY THE MANUFACTURER. FOUNDATION FOR THE CARD READER ACCESS CONTROL UNIT SHALL BE 48" (MIN.) IN DEPTH, AS DETAILED ON SHEET 14.
- 1" GRCS CONDUIT WILL BE REQUIRED BETWEEN THE SLIDE GATE OPERATOR INSTALLATION AND THE CARD READER ACCESS CONTROL UNIT, THE PHOTO-ELECTRIC EYES, AND THE DETECTOR LOOPS. THE MINIMUM BURYING DEPTH IS 24". ALL METAL CONDUITS ENTERING THE GATE OPERATOR SHALL BE BONDED TO THE GATE OPERATOR FRAME WITH A #8 AWG (MIN.) COPPER BONDING JUMPER. CONFIRM CONTROL WIRING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SALES AND SERVICE REPRESENTATIVE.
- THE GUARD/BOLLARD POSTS SHALL BE 4" DIA. STEEL (HEAVY WALL) PIPE, CONCRETE FILLED, AND SHALL EXTEND FROM THE TOP OF THE CARD CONTROL UNIT TO A DEPTH OF 48" BELOW THE GROUND LINE. THE CONCRETE FOOTER DIMENSION SHALL BE AS DETAILED HEREIN. GUARD/BOLLARD POSTS SHALL BE PAINTED WITH YELLOW COLORED ENAMEL FINISH.
- THE SLIDING GATE SHALL BE CANTILEVER TYPE OF THE SIZE CALLED FOR ON THE PLANS, SHALL HAVE AN ENCLOSED ROLLER ASSEMBLY WHICH IS PROTECTED FROM FREEZING RAIN AND SNOW, AND SHALL BE AS MANUFACTURED BY TYMETAL CORPORATION OR APPROVED EQUAL.
- (RESERVED).
- CONTRACTOR SHALL COORDINATE ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER'S REPRESENTATIVE AND THE AIRPORT DIRECTOR.
- INCLUDE AC SURGE PROTECTOR FOR THE GATE OPERATOR, UL 1449 SECOND EDITION LISTED, SURGE CURRENT RATING OF 40KA, SUITABLE FOR USE ON A 120/240 VAC, 1 PHASE, 3 WIRE SYSTEM WITH LED INDICATING OPERATIONAL STATUS, JOSLYN MODEL 1265-21, SQUARE D CAT. NO. TVS120XR40S OR APPROVED EQUAL. INCLUDE MOUNTING BRACKET.
- CONCRETE USED FOR INSTALLING THE GATE OPERATOR, CARD READER, & FENCE SHALL MEET THE REQUIREMENTS OF STRUCTURAL PORTLAND CEMENT CONCRETE ITEM 610.
- 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 UL LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- PROVIDE A WEATHERPROOF ENGRAVED PHENOLIC OR PLASTIC LEGEND PLATE FOR THE SAFETY SWITCH AT THE RESPECTIVE GATE OPERATOR NOTING THE GATE SERVED, VOLTAGE, AND RESPECTIVE POWER SOURCE CIRCUIT AND LOCATION.
- PAYMENT FOR EACH SLIDE GATE, CARD READER, GATE OPERATOR, AND ALL ASSOCIATED CONTROL & SAFETY DEVICES SHALL BE ON A LUMP SUM BASIS AND SHALL BE FULL COMPENSATION FOR ALL MATERIALS, EQUIPMENT, CABLE IN CONDUIT, DUCT, OR UNIT DUCT, GROUNDING, LABOR, TOOLS, COORDINATION, TESTING, AND INCIDENTALS REQUIRED TO INSTALL THE GATE COMPLETE AND IN OPERATING CONDITION.
- CONTROL CIRCUIT WIRING SHALL NOT BE ROUTED THROUGH THE SAFETY SWITCH/DISCONNECT.
- INCLUDE CORROSION RESISTANT SUPPORT POSTS AND HARDWARE WITH THE PHOTO-ELECTRIC EYE SAFETY DEVICES.
- ALL CONTROL POWER TRANSFORMERS, POWER SUPPLIES, RECEPTACLES, LOOP DETECTOR AMPLIFIERS, SECONDARY SAFETY DEVICE EQUIPMENT, AND ANY OTHER ASSOCIATED CONTROLS SHALL BE INSTALLED EITHER INSIDE THE GATE OPERATOR CONTROL PANEL OR INSIDE A SEPARATE NEMA 4 STAINLESS STEEL CONTROL PANEL ENCLOSURE. WHERE THE CONTROL EQUIPMENT IS TO BE INSTALLED INSIDE THE GATE OPERATOR CONTROL PANEL THE CONTRACTOR SHALL COORDINATE THIS WITH THE GATE OPERATOR MANUFACTURER AND THE RESPECTIVE GATE OPERATOR EQUIPMENT SUPPLIER. LOCATING THESE CONTROLS OUTSIDE OF GATE OPERATOR CONTROL PANEL BUT WITHIN THE GATE OPERATOR HOUSING WILL NOT MEET THIS REQUIREMENT.

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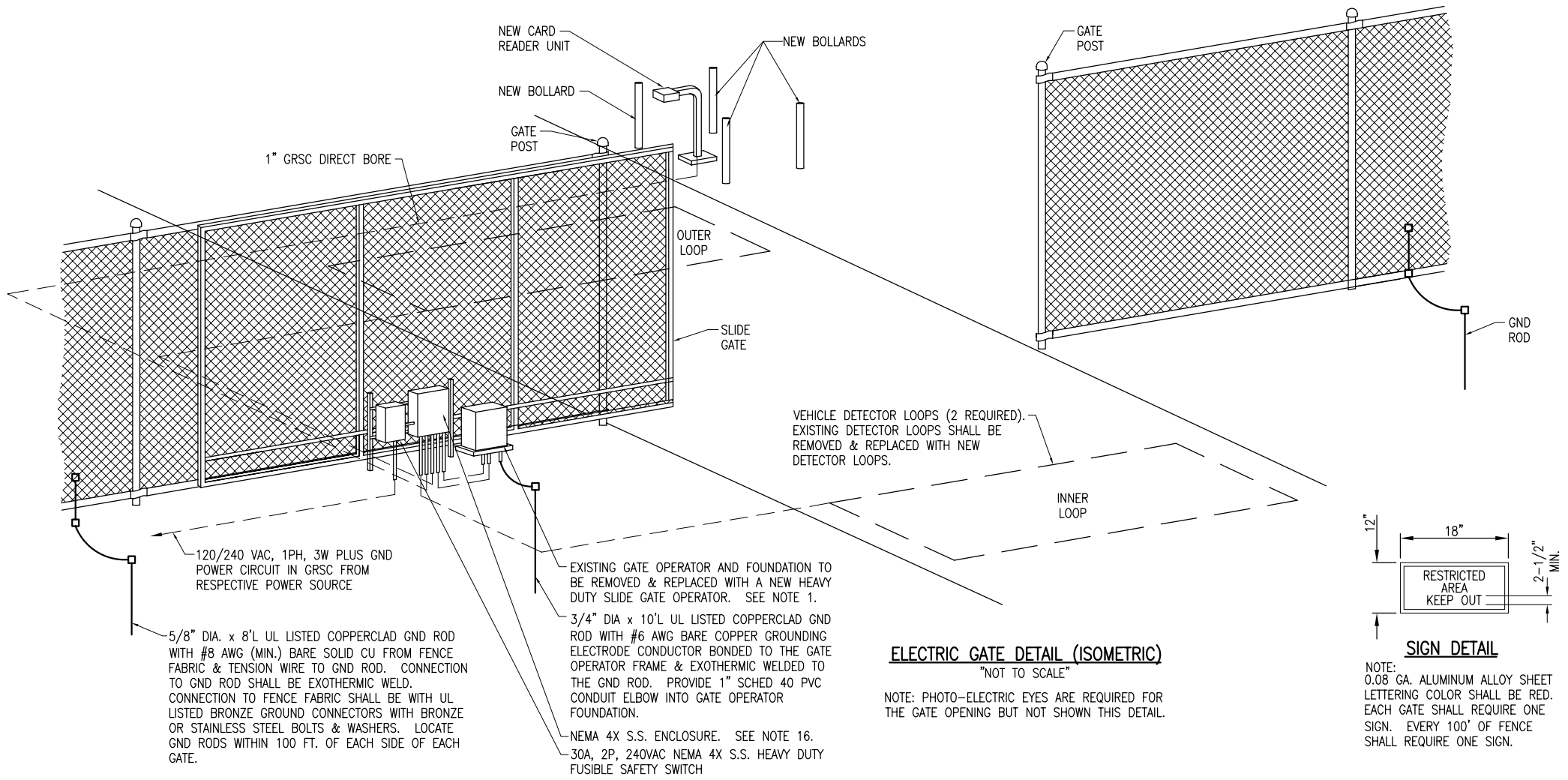
BY	REVISION	DATE



HEI Project No. 08A0014D_0800	FILENAME E-502.DWG	SCALE NOT TO SCALE	DATE 07/30/09
LAYOUT KNL	DRAWN MV	REVIEWED CAH	DATE 01/09/09
			DATE 01/09/09
			DATE 07/31/09

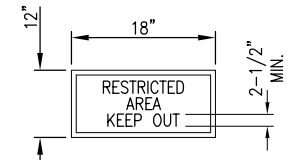


INSTALL PERIMETER FENCING
PROPOSED ELECTRIC SLIDE GATE DETAILS
 - CARGO FACILITY GATE



ELECTRIC GATE DETAIL (ISOMETRIC)
"NOT TO SCALE"

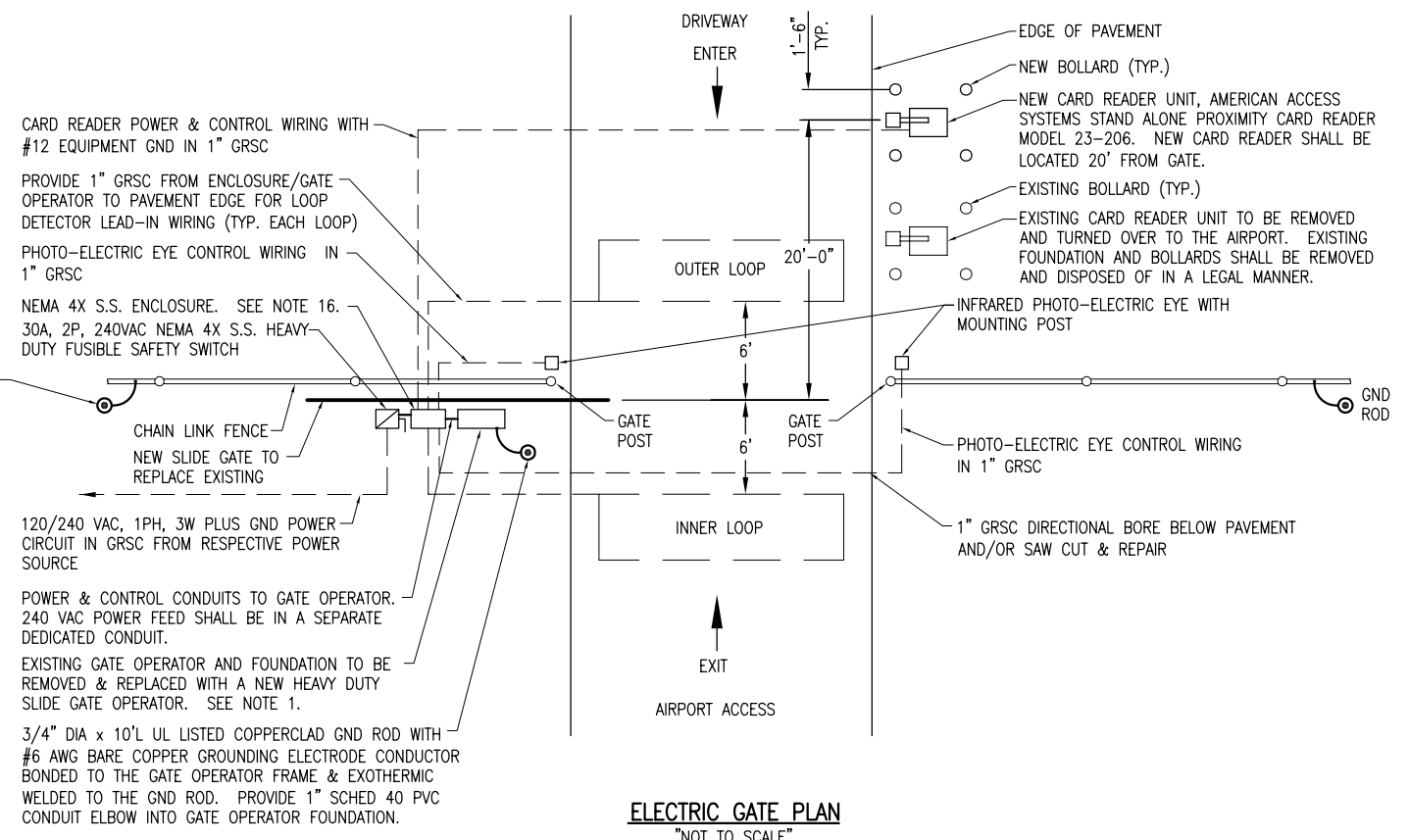
NOTE: PHOTO-ELECTRIC EYES ARE REQUIRED FOR THE GATE OPENING BUT NOT SHOWN THIS DETAIL.



SIGN DETAIL

NOTE: 0.08 GA. ALUMINUM ALLOY SHEET LETTERING COLOR SHALL BE RED. EACH GATE SHALL REQUIRE ONE SIGN. EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN.

VEHICLE DETECTOR LOOPS		
GATE SIZE	LOOP SIZE	NO. OF TURNS
8' TO 12'	4' X 6'	3 TURNS
12' TO 16'	4' X 10'	2 TURNS
16' TO 20'	4' X 14'	2 TURNS
20' TO 24'	4' X 18'	2 TURNS
24' TO 30'	6' X 22'	2 TURNS
30' TO 34'	6' X 26'	2 TURNS



ELECTRIC GATE PLAN
"NOT TO SCALE"

NOTES:

- SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON RESPECTIVE GATE & GATE OPERATOR SYSTEM.
- ALL DIMENSIONS AND LAYOUT INFORMATION SHOWN SHOULD BE ADJUSTED AS RECOMMENDED BY THE MANUFACTURER. SEE RESPECTIVE SITE PLAN FOR EACH GATE.
- CONCRETE FOUNDATIONS SHALL BE PROVIDED FOR THE SLIDE GATE OPERATOR AND THE CARD READER CONTROL UNIT. FOUNDATION FOR THE GATE OPERATOR SHALL BE 48" (MIN.) IN DEPTH AND OF THE SIZE RECOMMENDED BY THE MANUFACTURER. FOUNDATION FOR THE CARD READER ACCESS CONTROL UNIT SHALL BE 48" (MIN.) IN DEPTH, AS DETAILED ON SHEET 14.
- 1" GRS CONDUIT WILL BE REQUIRED BETWEEN THE SLIDE GATE OPERATOR INSTALLATION AND THE CARD READER ACCESS CONTROL UNIT, THE PHOTO-ELECTRIC EYES, AND THE DETECTOR LOOPS. THE MINIMUM BURYING DEPTH IS 24". ALL METAL CONDUITS ENTERING THE GATE OPERATOR SHALL BE BONDED TO THE GATE OPERATOR FRAME WITH A #8 AWG (MIN.) COPPER BONDING JUMPER. CONFIRM CONTROL WIRING REQUIREMENTS WITH THE RESPECTIVE GATE OPERATOR SALES AND SERVICE REPRESENTATIVE.
- THE GUARD/BOLLARD POSTS SHALL BE 4" DIA. STEEL (HEAVY WALL) PIPE, CONCRETE FILLED, AND SHALL EXTEND FROM THE TOP OF THE CARD CONTROL UNIT TO A DEPTH OF 48" BELOW THE GROUND LINE. THE CONCRETE FOOTER DIMENSION SHALL BE AS DETAILED HEREIN. GUARD/BOLLARD POSTS SHALL BE PAINTED WITH YELLOW COLORED ENAMEL FINISH.
- THE SLIDING GATE SHALL BE CANTILEVER TYPE OF THE SIZE CALLED FOR ON THE PLANS, SHALL HAVE AN ENCLOSED ROLLER ASSEMBLY WHICH IS PROTECTED FROM FREEZING RAIN AND SNOW, AND SHALL BE AS MANUFACTURED BY TYMETAL CORPORATION OR APPROVED EQUAL.
- (RESERVED).
- CONTRACTOR SHALL COORDINATE ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER'S REPRESENTATIVE AND THE AIRPORT DIRECTOR.
- INCLUDE AC SURGE PROTECTOR FOR THE GATE OPERATOR, UL 1449 SECOND EDITION LISTED, SURGE CURRENT RATING OF 40KA, SUITABLE FOR USE ON A 120/240 VAC, 1 PHASE, 3 WIRE SYSTEM WITH LED INDICATING OPERATIONAL STATUS, JOSLYN MODEL 1265-21, SQUARE D CAT. NO. TVS120XR40S OR APPROVED EQUAL. INCLUDE MOUNTING BRACKET.
- CONCRETE USED FOR INSTALLING THE GATE OPERATOR, CARD READER, & FENCE SHALL MEET THE REQUIREMENTS OF STRUCTURAL PORTLAND CEMENT CONCRETE ITEM 610.
- 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 UL LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- PROVIDE A WEATHERPROOF ENGRAVED PHENOLIC OR PLASTIC LEGEND PLATE FOR THE SAFETY SWITCH AT THE RESPECTIVE GATE OPERATOR NOTING THE GATE SERVED, VOLTAGE, AND RESPECTIVE POWER SOURCE CIRCUIT AND LOCATION.
- PAYMENT FOR EACH SLIDE GATE, CARD READER, GATE OPERATOR, AND ALL ASSOCIATED CONTROL & SAFETY DEVICES SHALL BE ON A LUMP SUM BASIS AND SHALL BE FULL COMPENSATION FOR ALL MATERIALS, EQUIPMENT, CABLE IN CONDUIT, DUCT, OR UNIT DUCT, GROUNDING, LABOR, TOOLS, COORDINATION, TESTING, AND INCIDENTALS REQUIRED TO INSTALL THE GATE COMPLETE AND IN OPERATING CONDITION.
- CONTROL CIRCUIT WIRING SHALL NOT BE ROUTED THROUGH THE SAFETY SWITCH/DISCONNECT.
- INCLUDE CORROSION RESISTANT SUPPORT POSTS AND HARDWARE WITH THE PHOTO-ELECTRIC EYE SAFETY DEVICES.
- ALL CONTROL POWER TRANSFORMERS, POWER SUPPLIES, RECEPTACLES, LOOP DETECTOR AMPLIFIERS, SECONDARY SAFETY DEVICE EQUIPMENT, AND ANY OTHER ASSOCIATED CONTROLS SHALL BE INSTALLED EITHER INSIDE THE GATE OPERATOR CONTROL PANEL OR INSIDE A SEPARATE NEMA 4 STAINLESS STEEL CONTROL PANEL ENCLOSURE. WHERE THE CONTROL EQUIPMENT IS TO BE INSTALLED INSIDE THE GATE OPERATOR CONTROL PANEL THE CONTRACTOR SHALL COORDINATE THIS WITH THE GATE OPERATOR MANUFACTURER AND THE RESPECTIVE GATE OPERATOR EQUIPMENT SUPPLIER. LOCATING THESE CONTROLS OUTSIDE OF GATE OPERATOR CONTROL PANEL BUT WITHIN THE GATE OPERATOR HOUSING WILL NOT MEET THIS REQUIREMENT.

BY	
REVISION	
DATE	
<p>HANSON Professional Services Inc. 1625 S. State St. Springfield, IL 62703-2886 Offices Nationwide</p>	
<p>INSTALL PERIMETER FENCING</p> <p>PROPOSED ELECTRIC SLIDE GATE DETAILS</p> <p>- FUEL FARM GATE</p>	
<p>12</p> <p>12 of 14 sheets</p>	

<p>DECATUR, ILLINOIS</p>	
<p>A.I.P. PROJ.: 3-17-0033-##</p> <p>IL PROJ.: DEC-3934</p>	

HEI Project No. 08A0014D_0800	FILED	01/09/09
Filename E-503.DWG	NOT TO SCALE	01/09/09
Date 07/30/09		07/31/09
LAYOUT	KNL	CAH
DRAWN	MV	
REVIEWED		

NOTES:

- SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON PEDESTRIAN GATE WITH ELECTRO-MECHANICAL LOCK.
- ALL DIMENSIONS AND LAYOUT INFORMATION SHOWN SHOULD BE ADJUSTED AS RECOMMENDED BY THE MANUFACTURER. SEE RESPECTIVE SITE PLAN FOR EACH GATE.
- CONCRETE FOUNDATIONS SHALL BE PROVIDED FOR THE PEDESTRIAN GATE, AND THE CARD READER CONTROL UNIT. FOUNDATION FOR THE PEDESTRIAN GATE SHALL BE 48" (MIN.) IN DEPTH AND OF THE SIZE RECOMMENDED BY THE MANUFACTURER. FOUNDATION FOR THE CARD READER ACCESS CONTROL UNIT SHALL BE 48" (MIN.) IN DEPTH, AS DETAILED HEREIN.
- CONTRACTOR SHALL COORDINATE ANY POWER OUTAGES TO EXISTING EQUIPMENT WITH THE RESPECTIVE OWNER'S REPRESENTATIVE AND THE AIRPORT DIRECTOR.
- CONCRETE USED FOR INSTALLING THE PEDESTRIAN SWING GATE, CARD READER, SIDEWALK, & FENCE SHALL MEET THE REQUIREMENTS OF STRUCTURAL PORTLAND CEMENT CONCRETE ITEM 610.
- 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 UL LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- PROVIDE A WEATHERPROOF ENGRAVED PHENOLIC OR PLASTIC LEGEND PLATE FOR THE CONTROL PANEL AT THE RESPECTIVE GATE NOTING THE GATE SERVED, VOLTAGE, AND RESPECTIVE POWER SOURCE CIRCUIT AND LOCATION.
- PAYMENT FOR EACH GATE, CARD READER, AND ALL ASSOCIATED CONTROL & SAFETY DEVICES SHALL BE ON A LUMP SUM BASIS AND SHALL BE FULL COMPENSATION FOR ALL MATERIALS, EQUIPMENT, CABLE IN CONDUIT, DUCT, OR UNIT DUCT, GROUNDING, LABOR, TOOLS, COORDINATION, TESTING, AND INCIDENTALS REQUIRED TO INSTALL THE GATE COMPLETE AND IN OPERATING CONDITION. ASSOCIATED SIDEWALK REMOVAL, REPLACEMENT, & RESTORATION WILL BE CONSIDERED INCIDENTAL TO THE PEDESTRIAN GATE WITH LOCK.

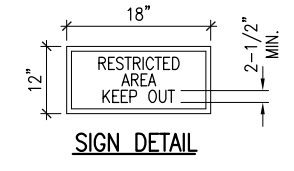
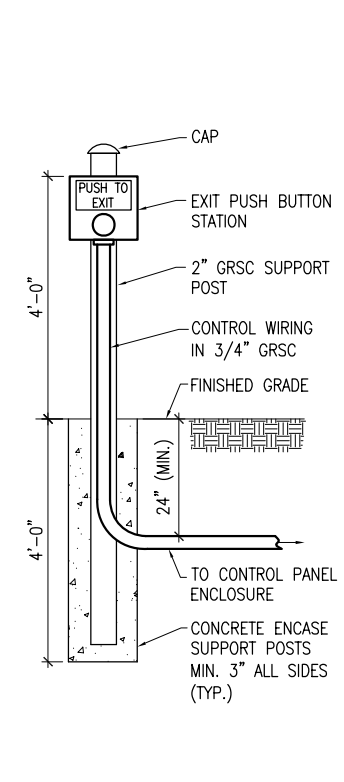
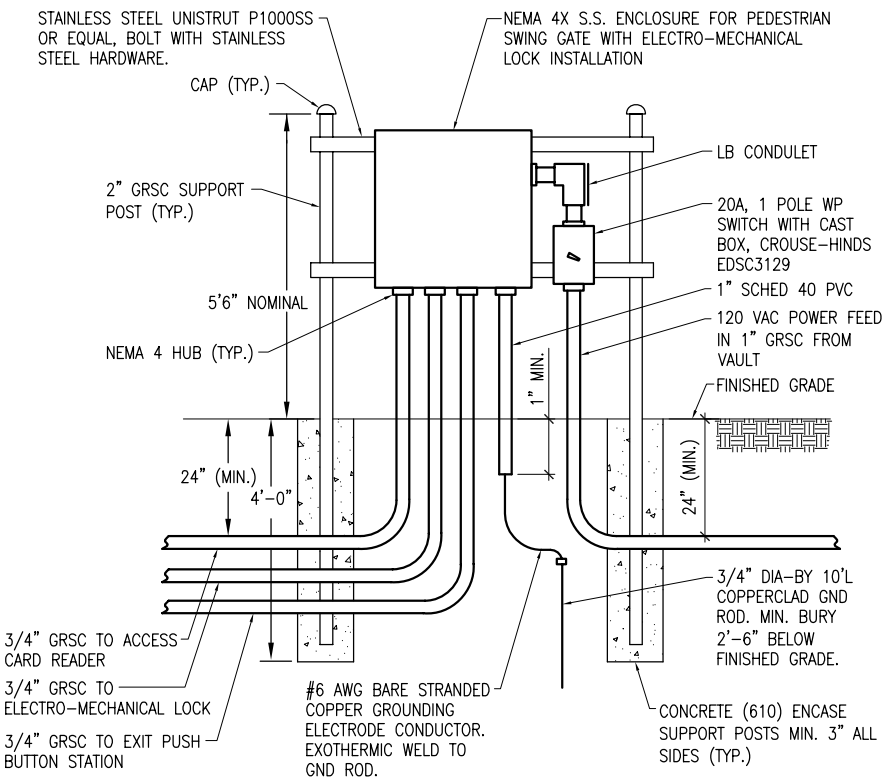
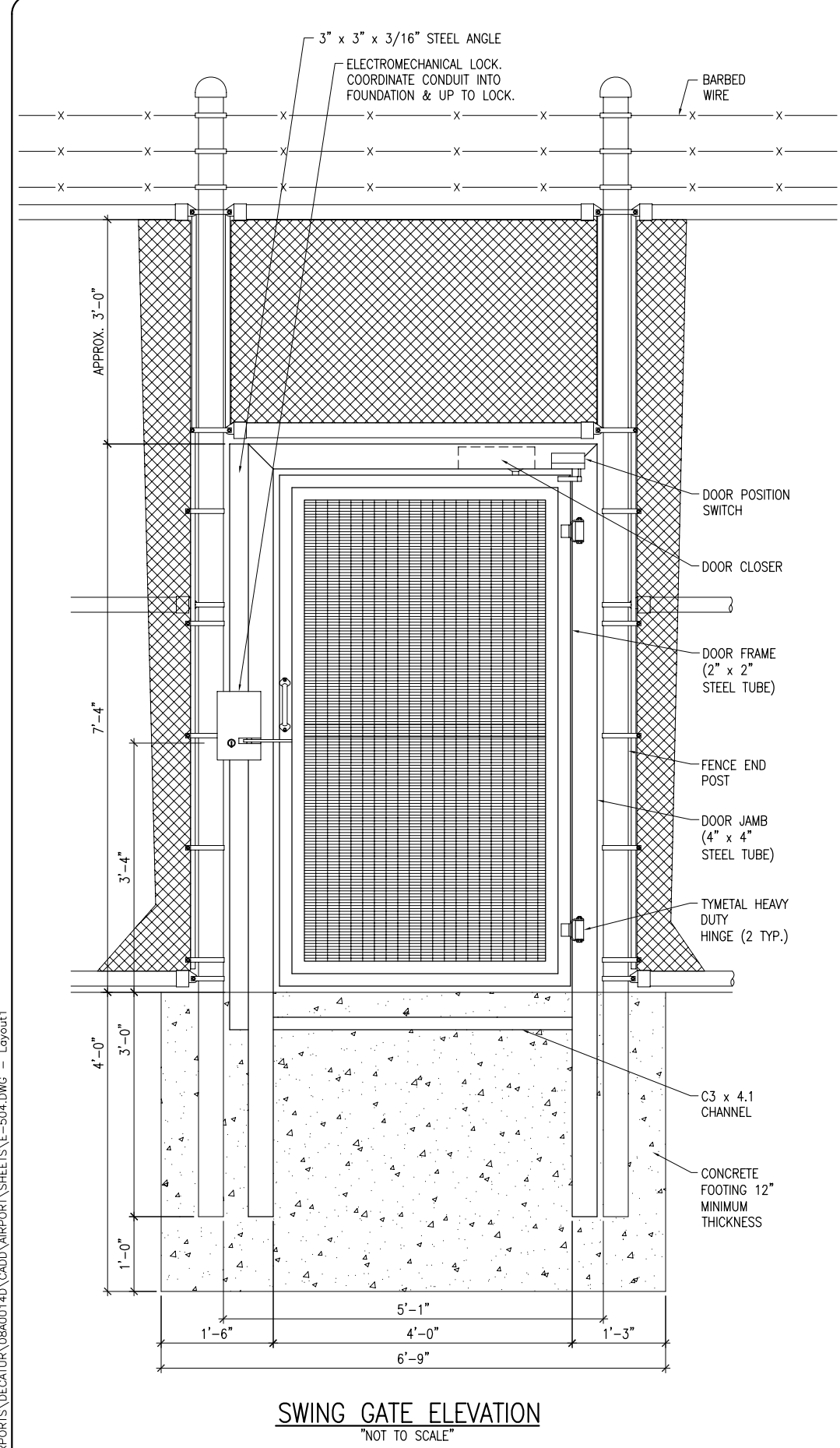
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REVISION	
DATE	

DECATUR, ILLINOIS
A.I.P. PROJ.: 3-17-0033-#

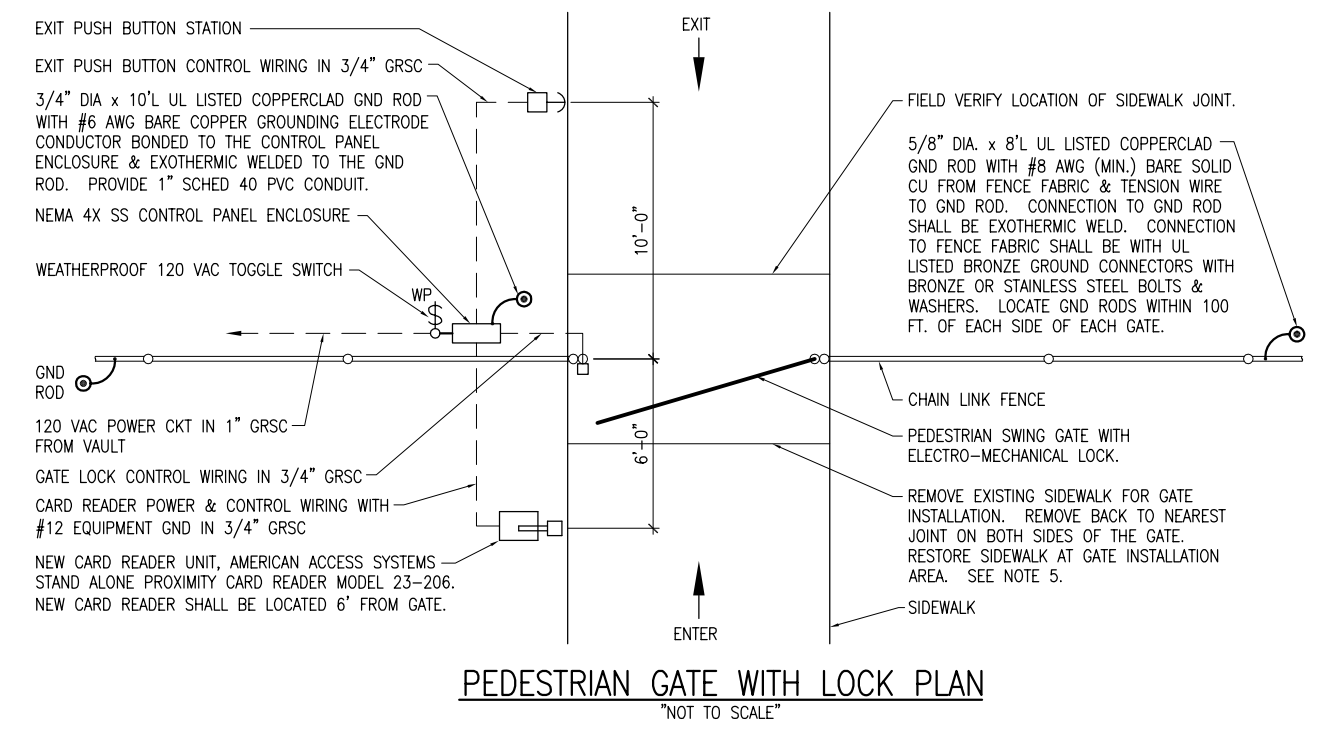
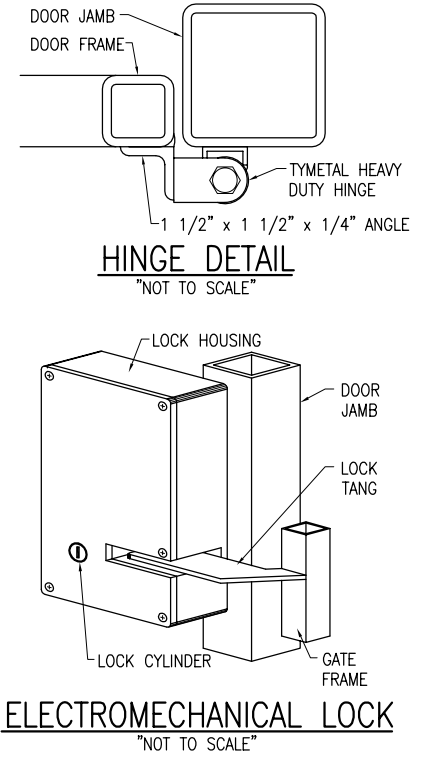
HEI Project No.	08A0014D_0800
File Name	E-504.DWG
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Date	07/30/09
LAYOUT	KNL 01/09/09
DRAWN	MV 01/09/09
REVIEWED	CAH 07/31/09

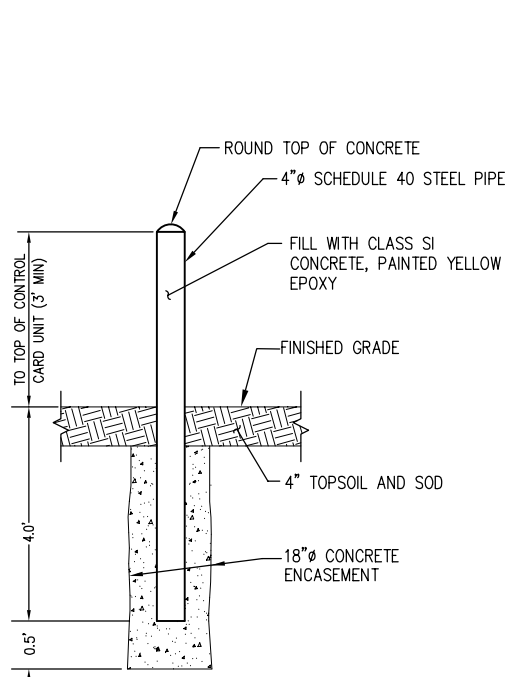
HANSON
Professional Services Inc.
1626 Old Mill Road
Springfield, IL 62703-2886
Offices Nationwide

INSTALL PERIMETER FENCING
PROPOSED PEDESTRIAN SWING GATE WITH LOCK DETAILS



NOTE:
0.08 GA. ALUMINUM ALLOY SHEET LETTERING COLOR SHALL BE RED. EACH GATE SHALL REQUIRE ONE SIGN. EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN.



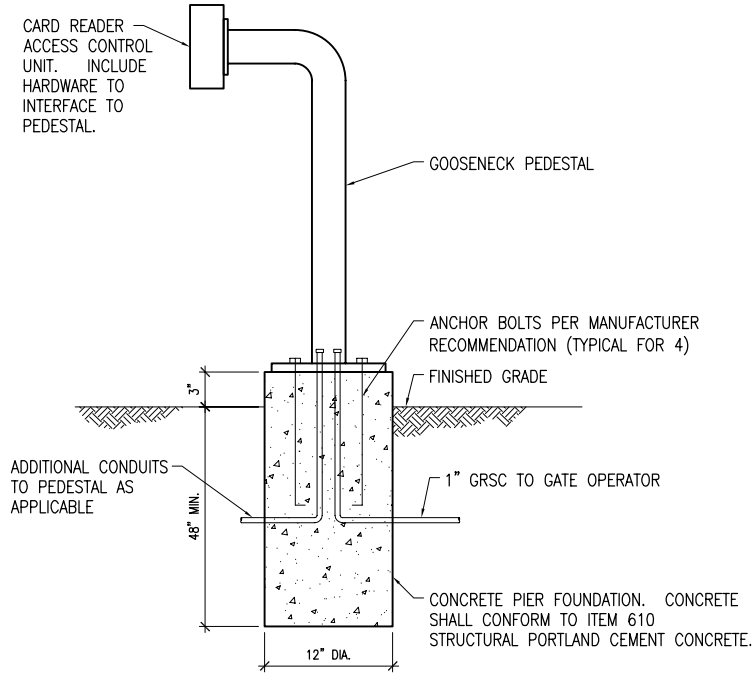


NOTES

1. THE EXPOSED PORTION OF THE BOLLARD SHALL BE PAINTED YELLOW EPOXY.
2. BOLLARD AND ASSOCIATED ITEMS ARE INCIDENTAL TO THE ELECTRIC SLIDING GATE.

BOLLARD DETAIL

SCALE: NONE

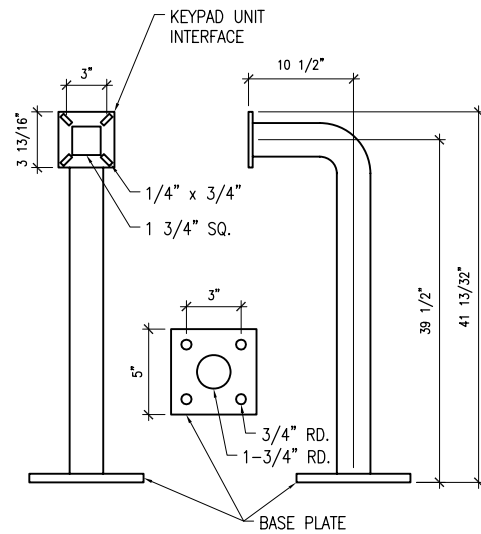


NOTES

1. SEE SPECIAL PROVISION SPECS FOR REQUIREMENTS ON CARD READER ACCESS CONTROL UNIT.
2. INCLUDE #12 AWG EQUIPMENT GND WIRE TO CARD READER.
3. FACE OF CARD READER SHALL NOT EXTEND BEYOND BOLLARDS.

CARD READER ACCESS CONTROL UNIT PEDESTAL ELEVATION DETAIL

SCALE: NONE



GOOSENECK PEDESTAL DETAIL

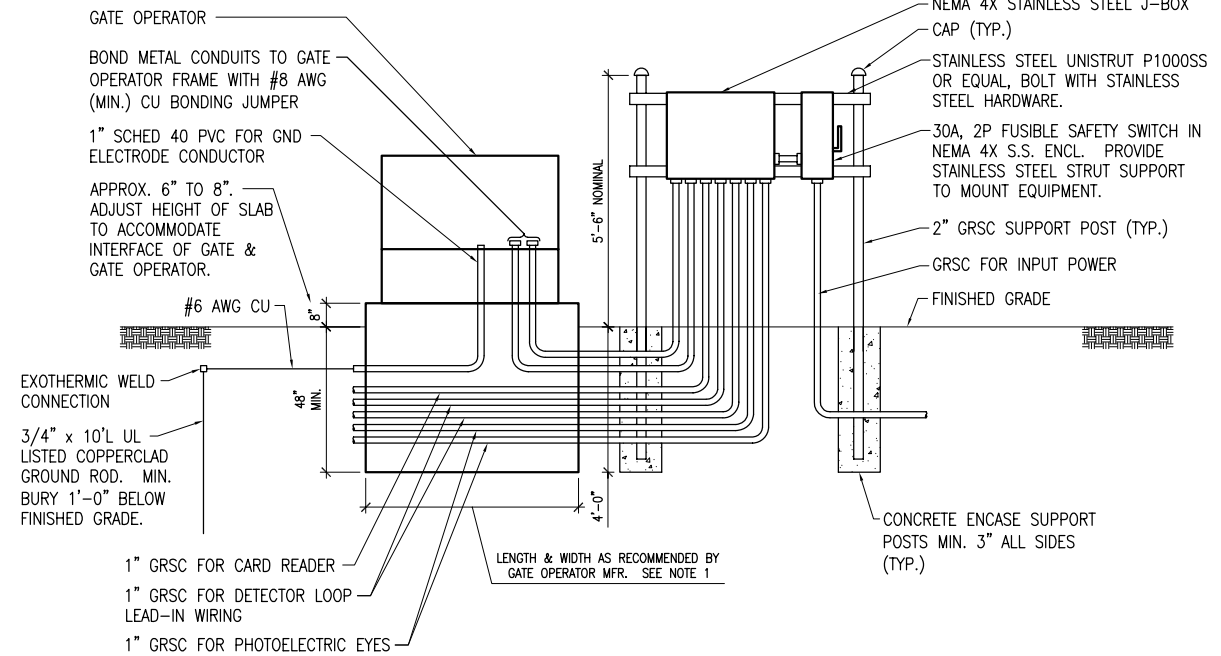
SCALE: NONE

NOTE:
GOOSENECK PEDESTAL SHALL BE AMERICAN ACCESS SYSTEMS, INC. (7079 SOUTH JORDAN RD., UNIT 6, ENGLEWOOD, CO 80112, PHONE: 800-541-5677, FAX 303-799-9756) MODEL 18-001 OR APPROVED EQUAL.

NOTES

1. WARNING SIGNS/PLACARDS AS DETAILED ABOVE OR SIMILAR, SHALL BE INSTALLED WHERE CLEARLY VISIBLE ON BOTH SIDES OF EACH ELECTRIC SLIDE GATE. WARNING SIGNS SHALL BE WEATHERPROOF, CORROSION RESISTANT METAL, AS DETAILED ABOVE, AND IN ACCORDANCE WITH THE RESPECTIVE GATE MANUFACTURER'S RECOMMENDATIONS, B&B ARMR PART NO. 0000-0017, HY-SECURITY PART NO. MX000882, OR EQUAL.

WARNING SIGN DETAIL



NOTES

1. FOUNDATION FOR GATE OPERATOR SHALL BE 48" MIN. IN DEPTH AND OF THE LENGTH & WIDTH RECOMMENDED BY THE MANUFACTURER.
2. COORDINATE CONDUITS INTO FOUNDATION.
3. CONFIRM CONDUIT SIZES AND WIRING REQUIREMENTS WITH THE GATE OPERATOR MFR. ADJUST/INCREASE CONDUIT SIZES WHERE APPLICABLE. REQUIREMENTS VARY BETWEEN DIFFERENT MANUFACTURERS.
4. ALL ENCLOSURES RATED NEMA 4, 4X SHALL HAVE WATERTIGHT HUBS AT CONDUIT ENTRANCES U.L. LISTED NEMA 4, 4X FOR THE RESPECTIVE ENCLOSURE, TO MAINTAIN THE NEMA 4, 4X RATING.

GATE OPERATOR FOUNDATION DETAIL

"NOT TO SCALE"

LEGEND PLATE SCHEDULE	
DEVICE	LABEL
UPS GATE OPERATOR DISCONNECT	UPS GATE 120/240VAC FED FROM VAULT
FUEL FARM GATE OPERATOR DISCONNECT	FUEL FARM GATE 120/240VAC FED FROM VAULT
CONTROL PANEL FOR PEDESTRIAN SWING GATE WITH ELECTRO-MECHANICAL LOCK	SWING GATE LOCK CONTROL PANEL 120VAC FED FROM VAULT

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.

BY	
REVISION	
DATE	
 DECATUR, ILLINOIS	
A.I.P. PROJ.: 3-17-0033-## IL PROJ.: DEC-3934	
HEI Project No. 08A0014D_0800 Filename E-501.DWG Scale NONE Date 07/30/09	LAYOUT KNL 01/09/09 DRAWN MV 01/09/09 REVIEWED CAH 07/31/09
 Hanson Professional Services Inc. 12501 South State Street Springfield, IL 62703-2886 Offices Nationwide	
INSTALL PERIMETER FENCING	CARD READER, BOLLARD & GATE OPERATOR DETAILS
<h1>14</h1>	
14 of 14 sheets	