

**BL067**

REVISIONS		
NUMBER	BY	DATE
△	JEF	1/9/12

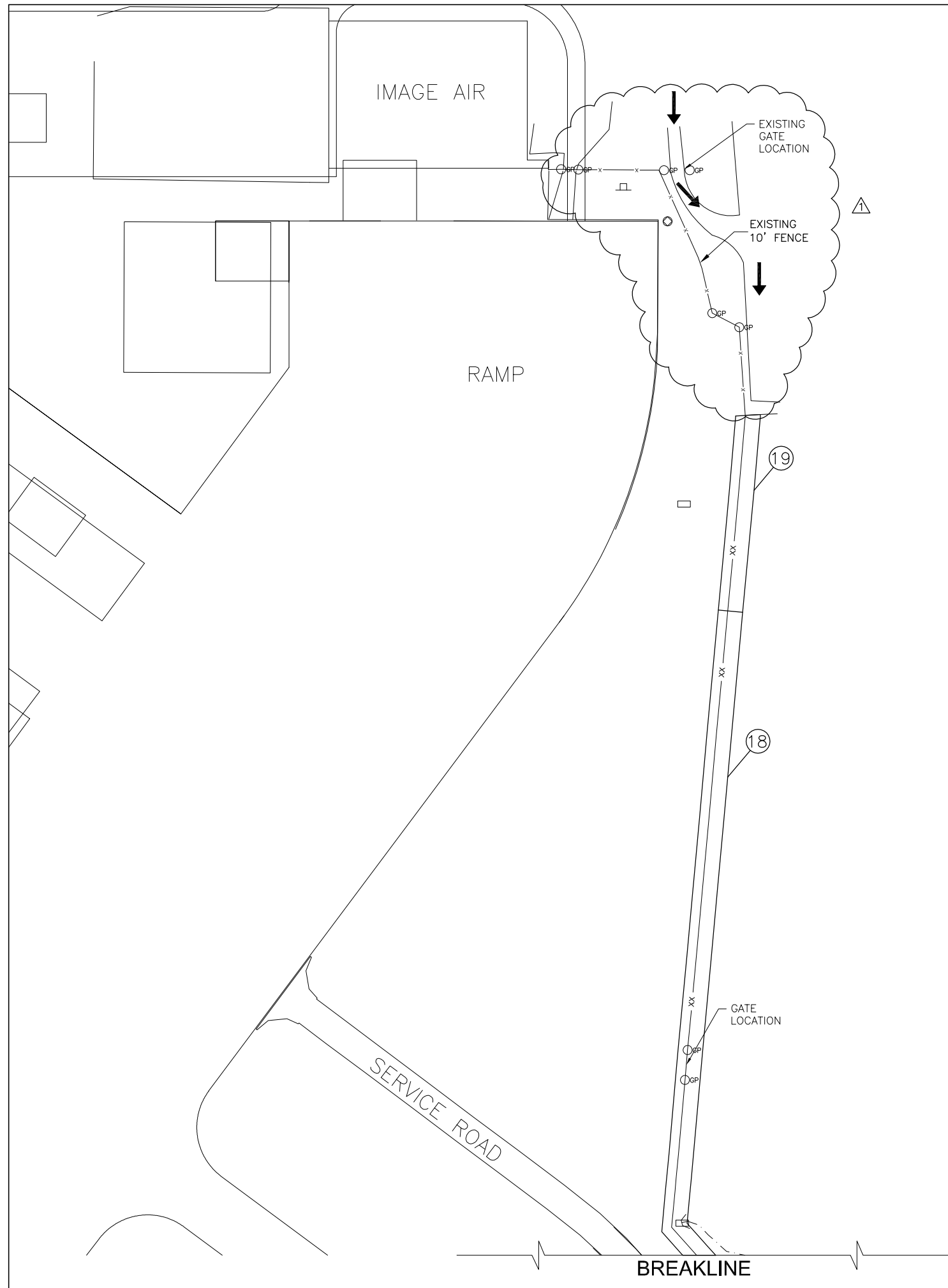
0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 6**

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CHECKED BY:	JEF
APPROVED BY:	JEF
DATE:	0-/--/2012
JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	9 OF 42 SHEETS

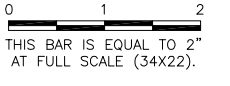


**LEGEND**

	CONTRACTOR'S ACCESS
	PHASE #
	PHASE WORK LIMITS
	EXISTING/NEW FENCING

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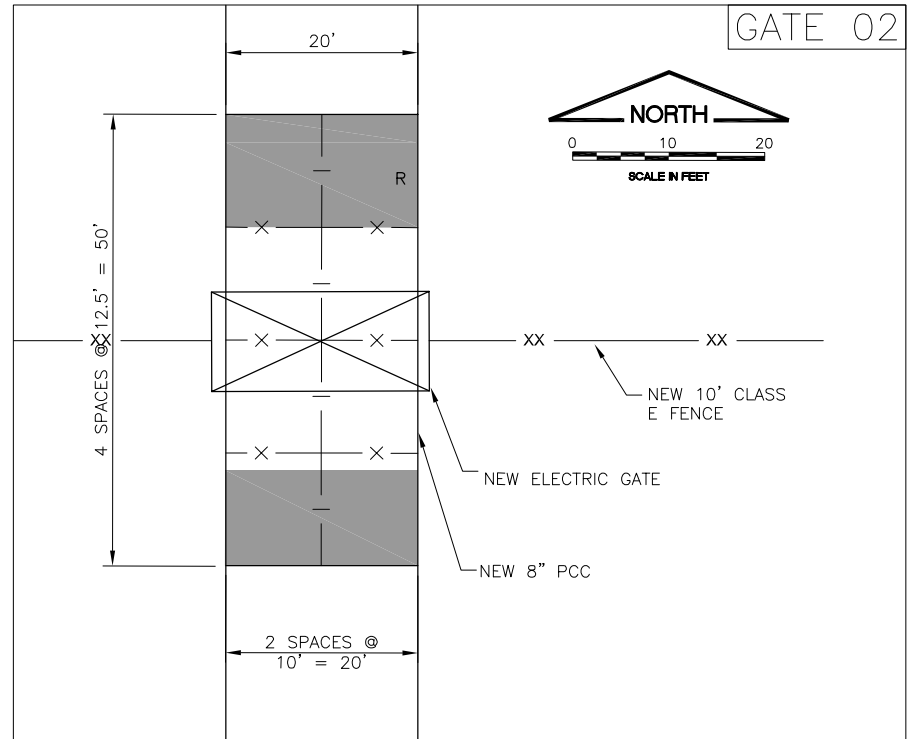
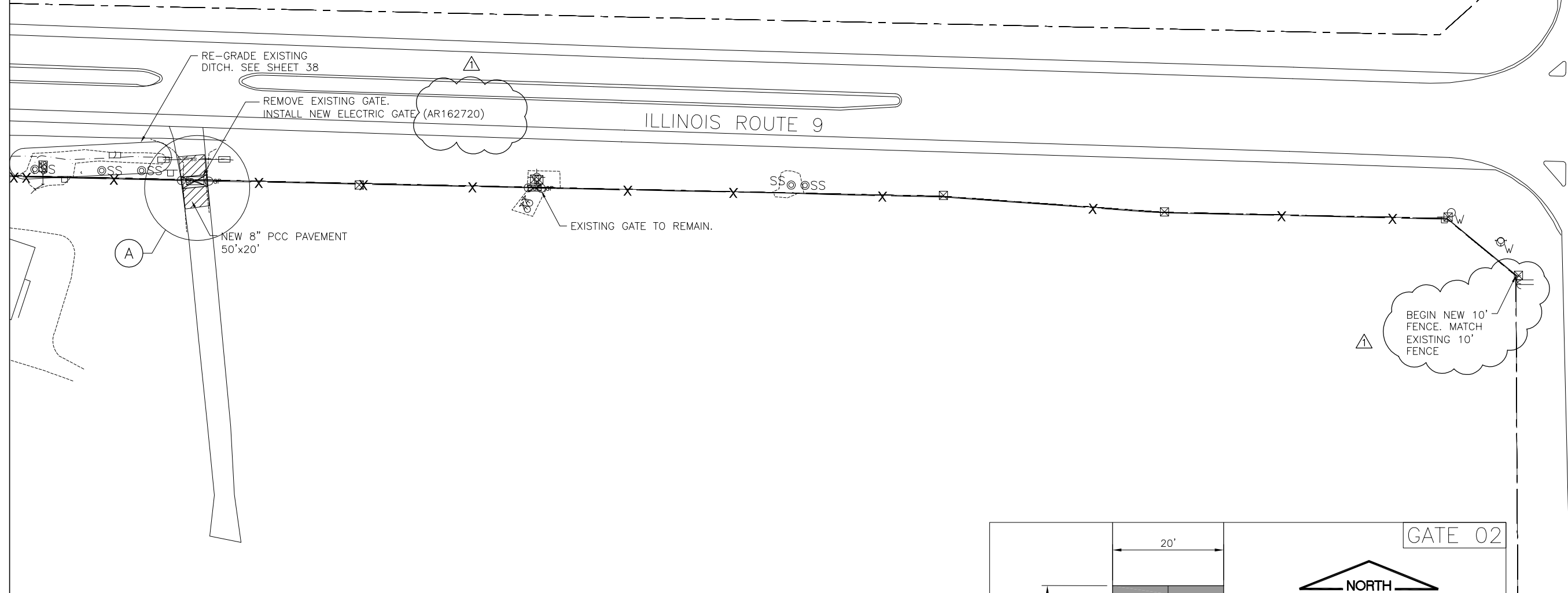
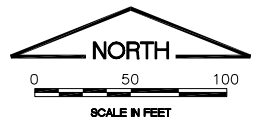


**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 1**

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SHEET	12 OF 42 SHEETS



**DETAIL A**  
 1"=10'-0"

**LEGEND**

- EXISTING/ NEW GATE--SEE GATE PLAN AND SCHEDULE
- REMOVE EXISTING FENCE AND INSTALL NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
- EXISTING FENCE TO BE REMOVED.

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0 1 2  
 THIS BAR IS EQUAL TO 2"  
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ILLINOIS ROUTE 9

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N: 824396.6147  
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N: 823902.3865  
 E: 1391946.9775





EXISTING RIP RAP

CIRA DRIVE EAST  
 BEGIN 8' FENCE

EXISTING STORM WATER  
 DETENTION AREA

EXISTING GATE TO BE REMOVED

**LEGEND**

-  EXISTING/ NEW GATE—SEE GATE PLAN AND SCHEDULE
-  REMOVE EXISTING FENCE AND INSTALL NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
-  REMOVE EXISTING FENCE. INSTALL NEW 8' CLASS E FENCE, WITHOUT BARB WIRE
-  EXISTING FENCE TO BE REMOVED.

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 2**

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SHEET 13 OF 42 SHEETS	

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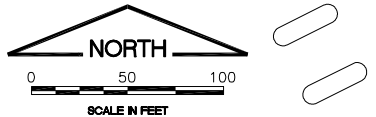
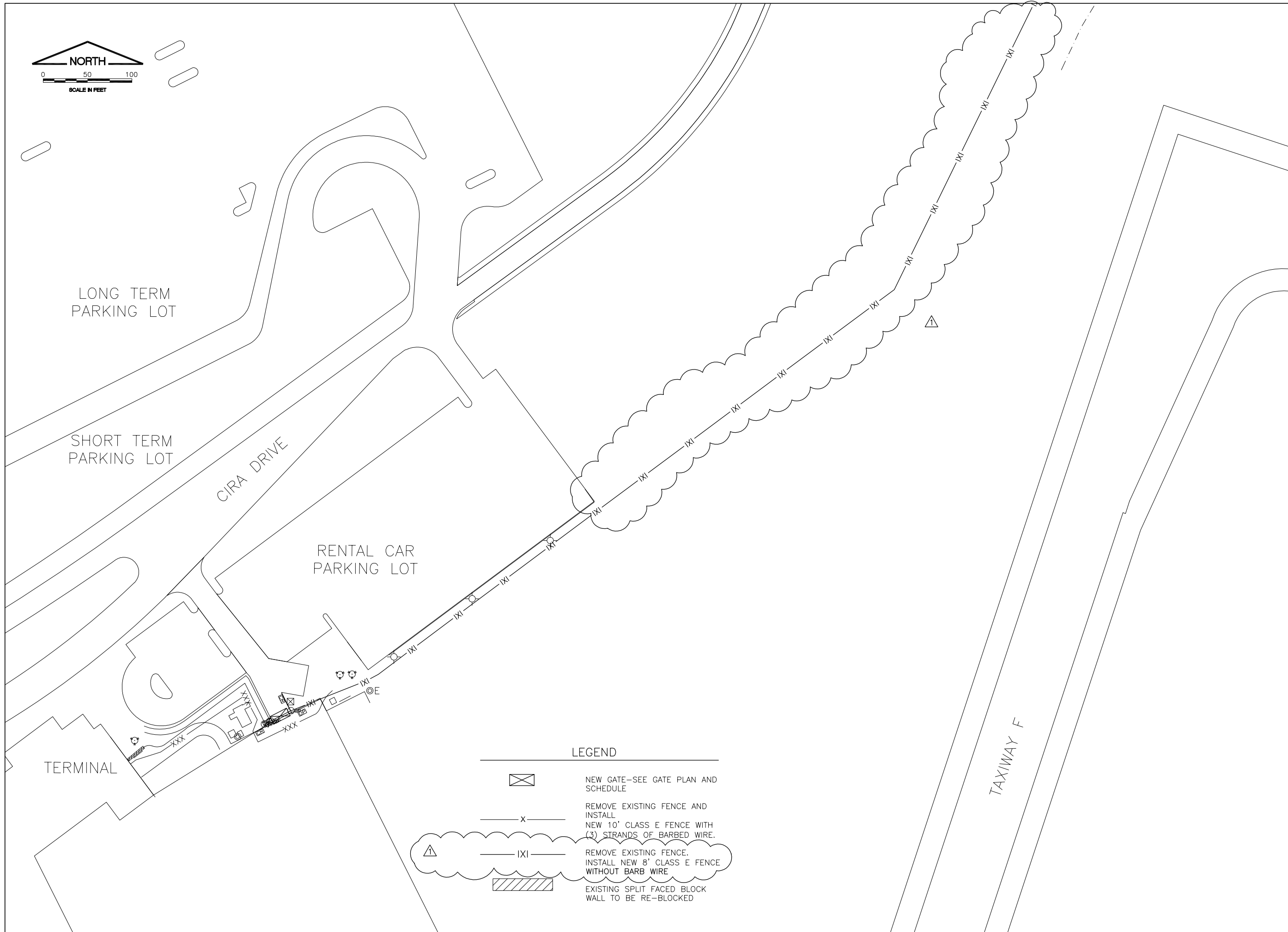
**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 3**


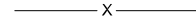
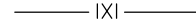

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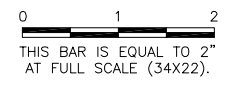


LEGEND

-  NEW GATE--SEE GATE PLAN AND SCHEDULE
-  REMOVE EXISTING FENCE AND INSTALL NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
-  REMOVE EXISTING FENCE. INSTALL NEW 8' CLASS E FENCE WITHOUT BARB WIRE
-  EXISTING SPLIT FACED BLOCK WALL TO BE RE-BLOCKED

**BL067**

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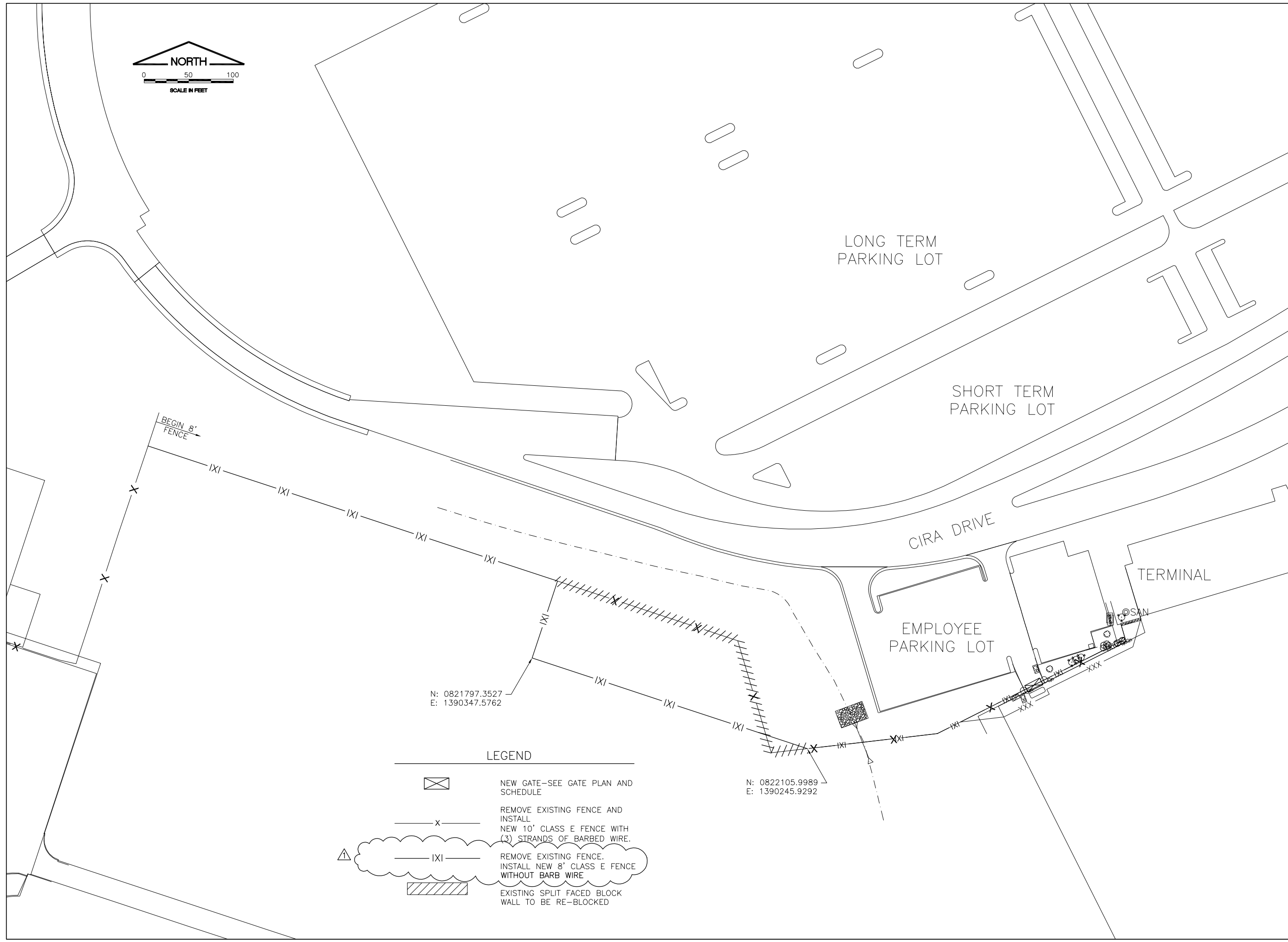


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
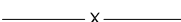

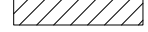
**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 4**

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SHEET	15 OF 42 SHEETS



**LEGEND**

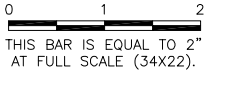
-  NEW GATE--SEE GATE PLAN AND SCHEDULE
-  REMOVE EXISTING FENCE AND INSTALL NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
-  REMOVE EXISTING FENCE. INSTALL NEW 8' CLASS E FENCE WITHOUT BARB WIRE
-  EXISTING SPLIT FACED BLOCK WALL TO BE RE-BLOCKED

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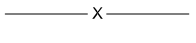
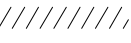


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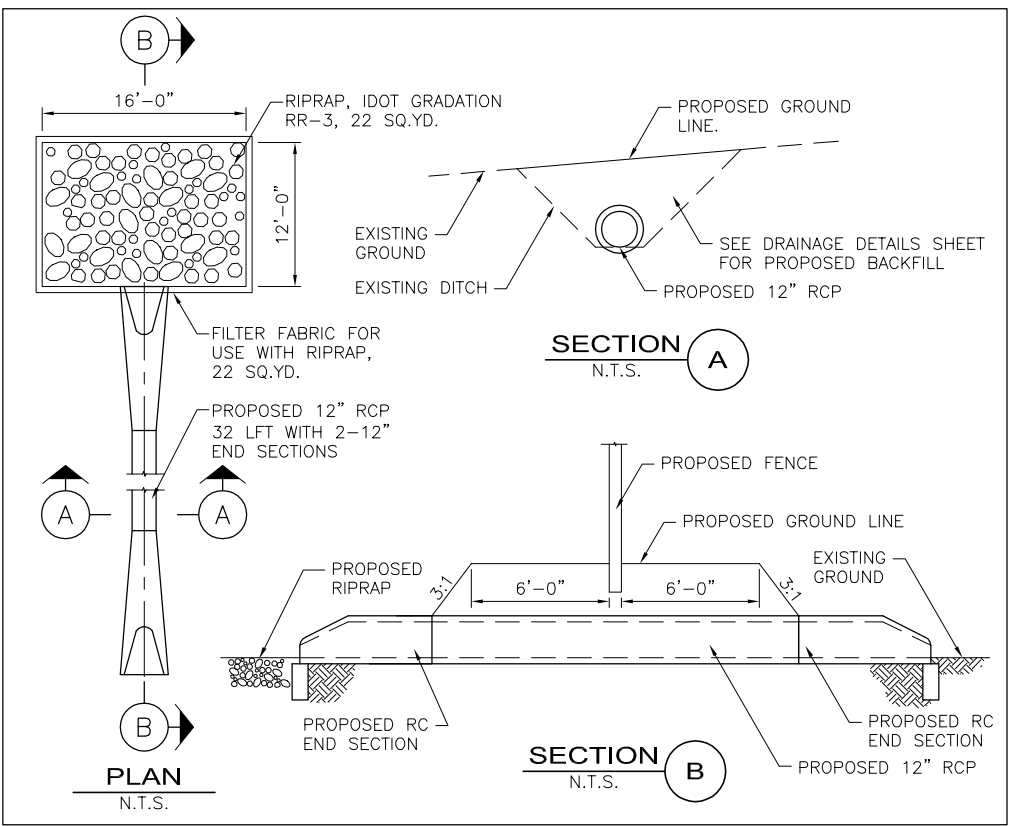
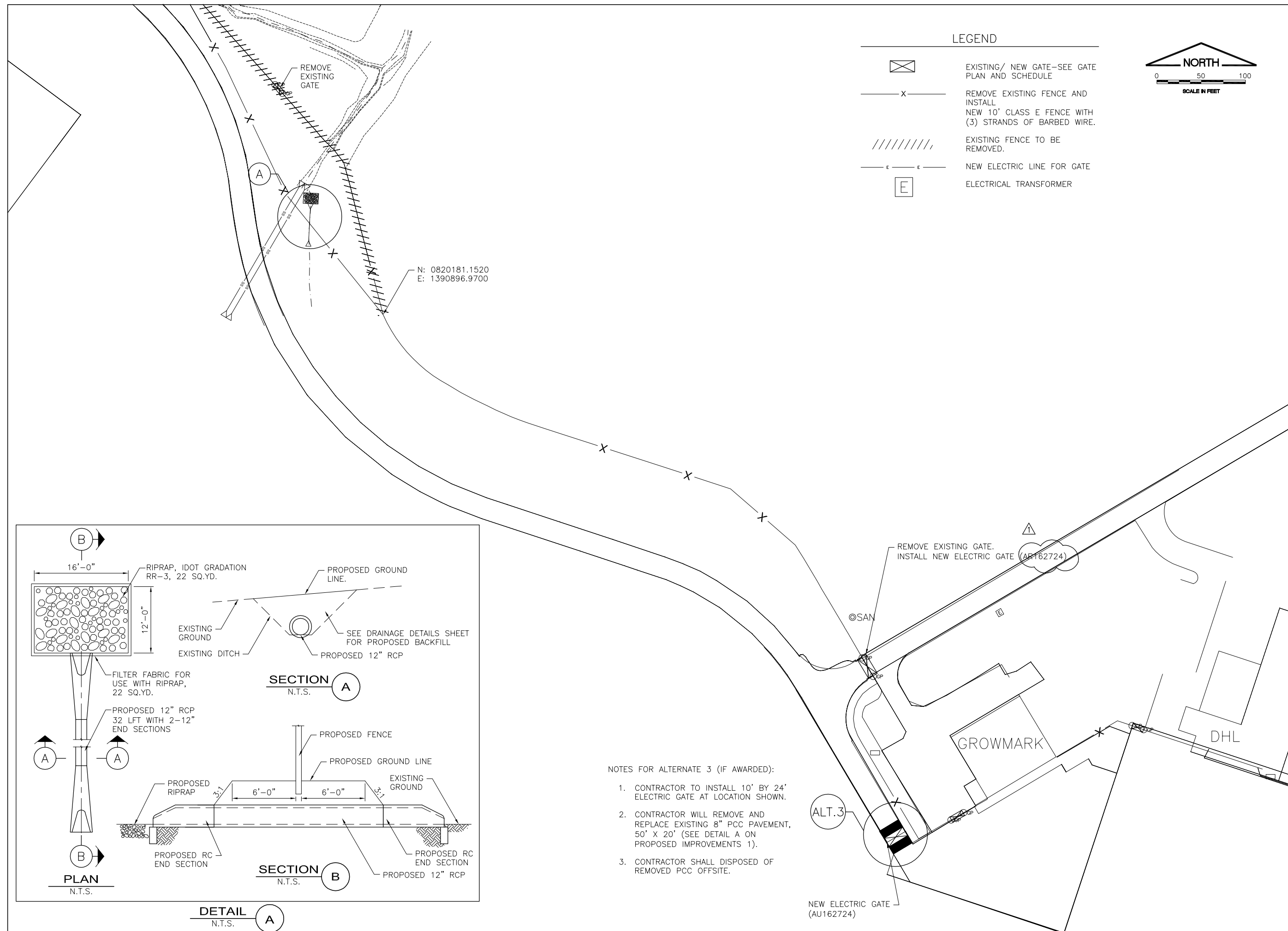
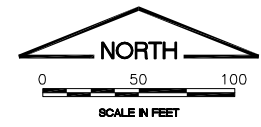
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**LEGEND**

-  EXISTING/ NEW GATE—SEE GATE PLAN AND SCHEDULE
-  REMOVE EXISTING FENCE AND INSTALL NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
-  EXISTING FENCE TO BE REMOVED.
-  NEW ELECTRIC LINE FOR GATE
-  ELECTRICAL TRANSFORMER



- NOTES FOR ALTERNATE 3 (IF AWARDED):
- CONTRACTOR TO INSTALL 10' BY 24' ELECTRIC GATE AT LOCATION SHOWN.
  - CONTRACTOR WILL REMOVE AND REPLACE EXISTING 8" PCC PAVEMENT, 50' X 20' (SEE DETAIL A ON PROPOSED IMPROVEMENTS 1).
  - CONTRACTOR SHALL DISPOSED OF REMOVED PCC OFFSITE.

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

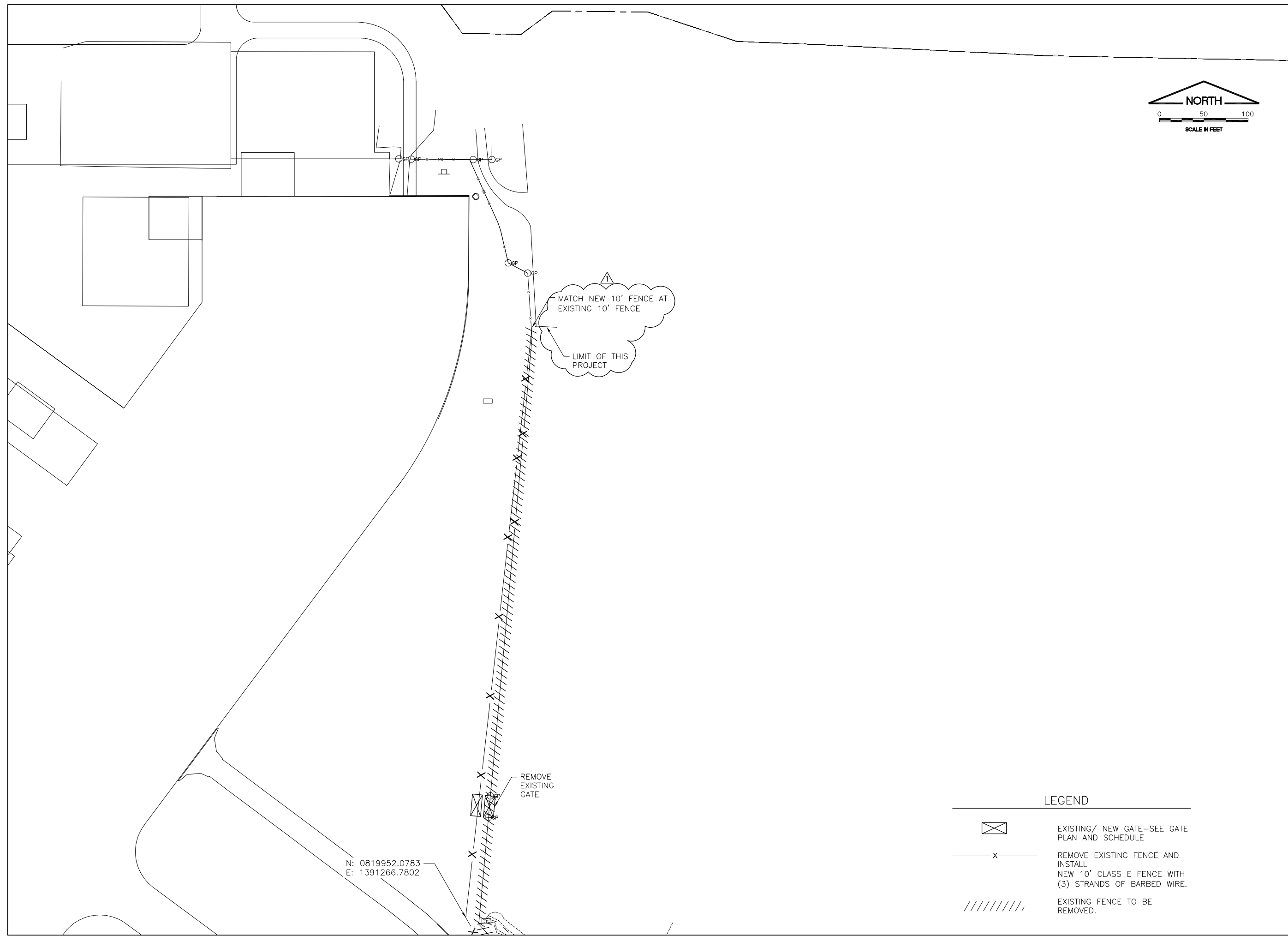
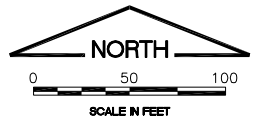
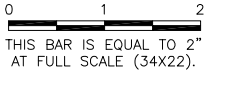
**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 5**

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AIP PROJ NO.	3-17-0006-XX
SHEET	16 OF 42 SHEETS

**BL067**

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1	JEF	1/9/12



N: 0819952.0783  
 E: 1391266.7802

REMOVE EXISTING GATE

MATCH NEW 10' FENCE AT EXISTING 10' FENCE  
 LIMIT OF THIS PROJECT

**LEGEND**

☒	EXISTING/ NEW GATE--SEE GATE PLAN AND SCHEDULE
—X—	REMOVE EXISTING FENCE AND INSTALL NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
///////	EXISTING FENCE TO BE REMOVED.

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

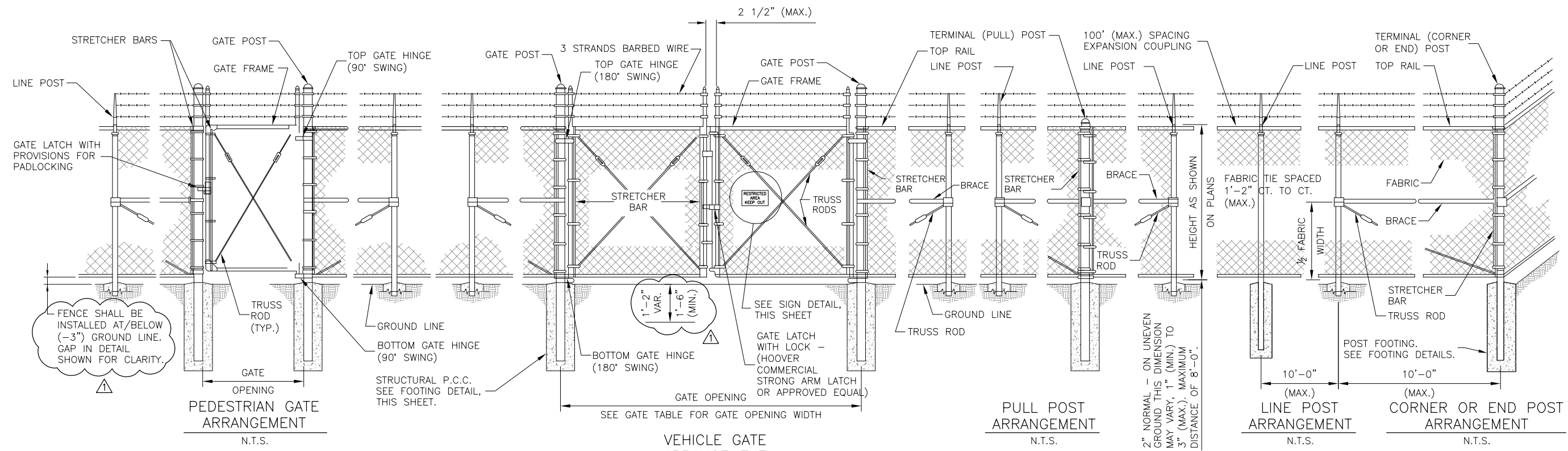
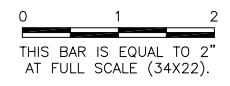
**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 6**

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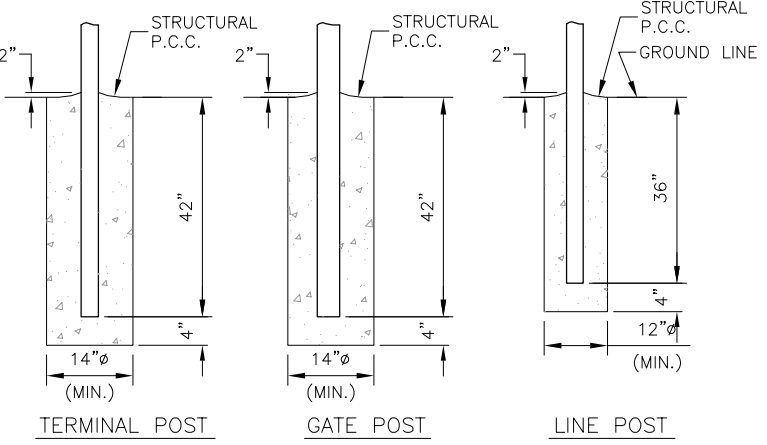
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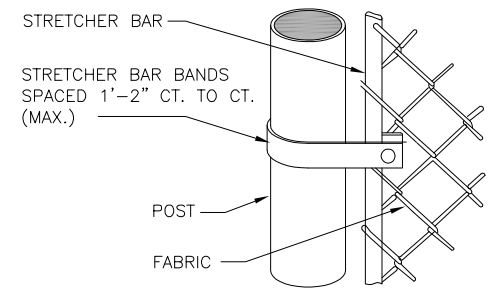
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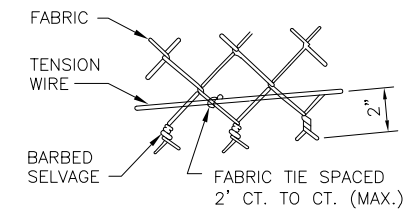
PULL POSTS SHALL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER. THEY SHALL BE PLACED AT 660 FT. INTERVALS BETWEEN POSTS TO WHICH THE ENDS OF THE FABRIC ARE CLAMPED OR MIDWAY BETWEEN SUCH POSTS WHEN THE DISTANCE IS LESS THAN 1320 FT. AND GREATER THAN 660 FT.



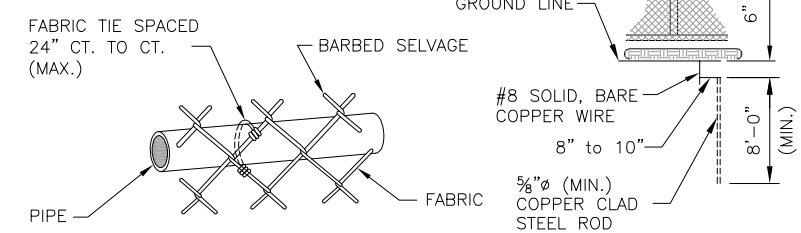
FOOTING DETAILS  
N.T.S.



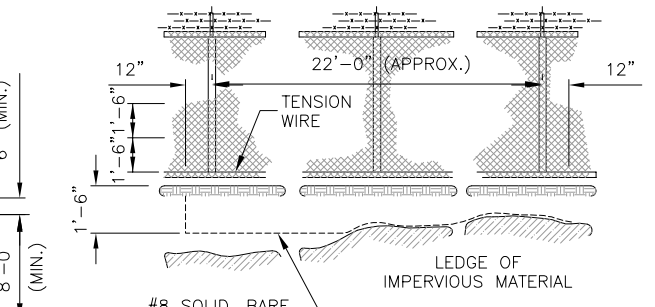
FASTENING STRETCHER BAR TO POST  
N.T.S.



TYING FABRIC TO TENSION WIRE  
N.T.S.

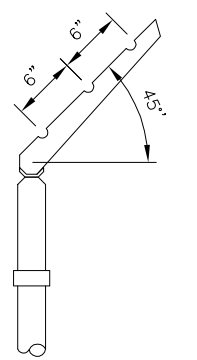


TYING FABRIC TO PIPE  
N.T.S.

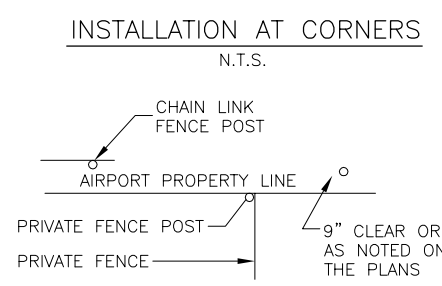


PROTECTIVE ELECTRICAL GROUND DETAILS  
N.T.S.

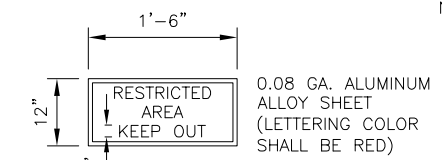
WHERE FENCE LINE HAS A CHANGE IN DIRECTION OF 15° OR MORE, A TERMINAL POST SHALL BE PLACED AS SHOWN ABOVE. WHERE ANGLE IS LESS THAN 15° AND EXISTING CONDITIONS REQUIRE A TERMINAL POST, THEY SHALL BE PLACED AS DIRECTED BY THE ENGINEER.



BARBED WIRE ARM ON LINE POST  
N.T.S.



PRIVATE FENCE TERMINAL  
N.T.S.



SIGN DETAIL  
N.T.S.

EACH GATE SHALL REQUIRE TWO SIGNS. EVERY 100' OF FENCE SHALL REQUIRE ONE SIGN. EVERY STRAIGHT SECTION OF FENCE SHALL REQUIRE MINIMUM ONE SIGN.

- NOTES**
- CONTINUOUS FENCE SHALL BE GROUNDED AT INTERVALS NOT EXCEEDING 1000 FT. EXCEPT THERE SHALL BE A GROUND NOT EXCEEDING 100 FT. FROM GATE IN EACH SECTION OF THE FENCE ADJACENT TO THE GATE.
  - FENCE UNDER POWER LINES SHALL BE GROUNDED BY 3 GROUNDS, ONE DIRECTLY UNDER THE CROSSING AND ONE ON EACH SIDE 25 TO 50 FT. AWAY. A SINGLE GROUND SHALL BE LOCATED DIRECTLY UNDER EACH TELEPHONE WIRE OR CABLE CROSSINGS.
  - THE COUNTERPOISE SHALL BE USED ONLY WHERE IT IS IMPOSSIBLE TO DRIVE A GROUND ROD BECAUSE OF IMPERVIOUS EARTH STRUCTURES.
  - THE GROUND WIRE SHALL BE CONNECTED TO THE FABRIC AND THE GROUND ROD BY A MECHANICAL CLAMP OF CAST BRONZE BODY AND BRONZE OR STAINLESS STEEL BOLTS AND WASHERS. WHEN A TENSION WIRE IS REQUIRED, THE BOTTOM CONNECTION OF THE GROUND WIRE SHALL BE MADE TO THE TENSION WIRE.
  - ALL PROPOSED CLASS E FENCE SHALL MEET THE REQUIREMENTS OF IDOT STANDARD 664001-01.

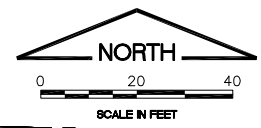
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS

INSTALL 10' PERIMETER FENCE PHASE 4  
 FENCE DETAILS 1

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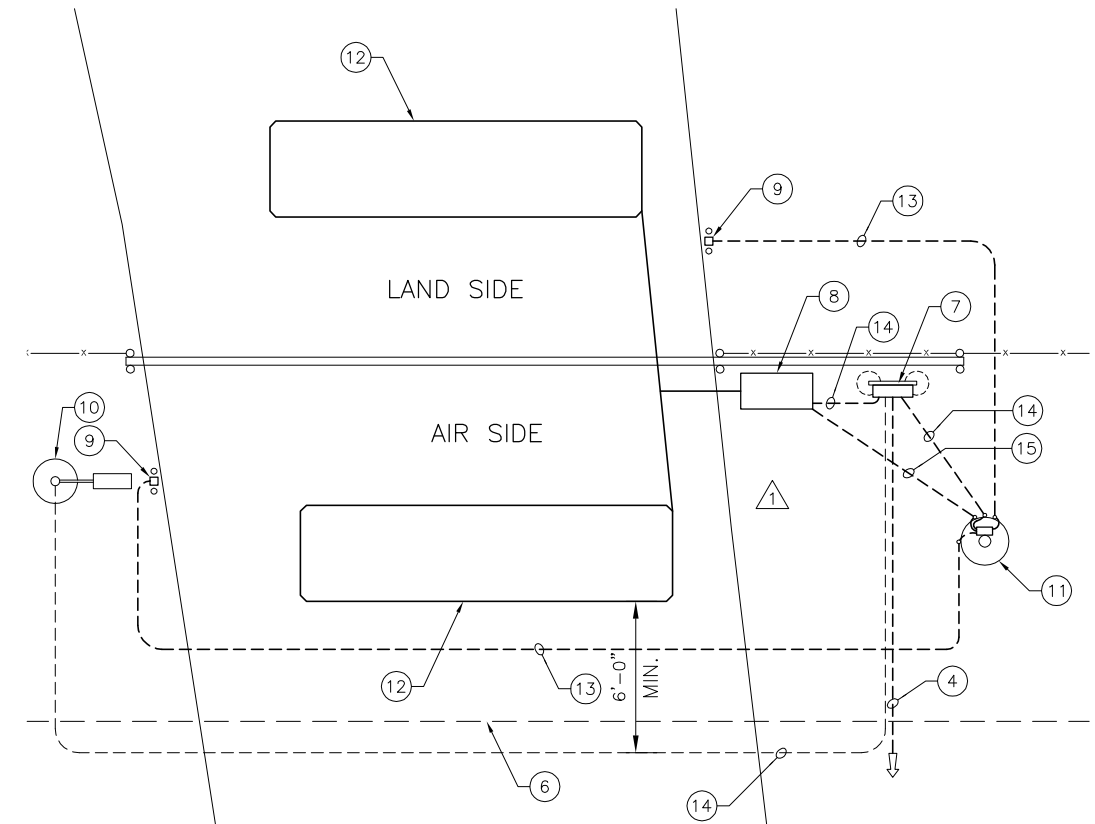
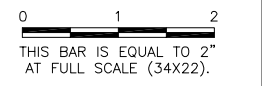
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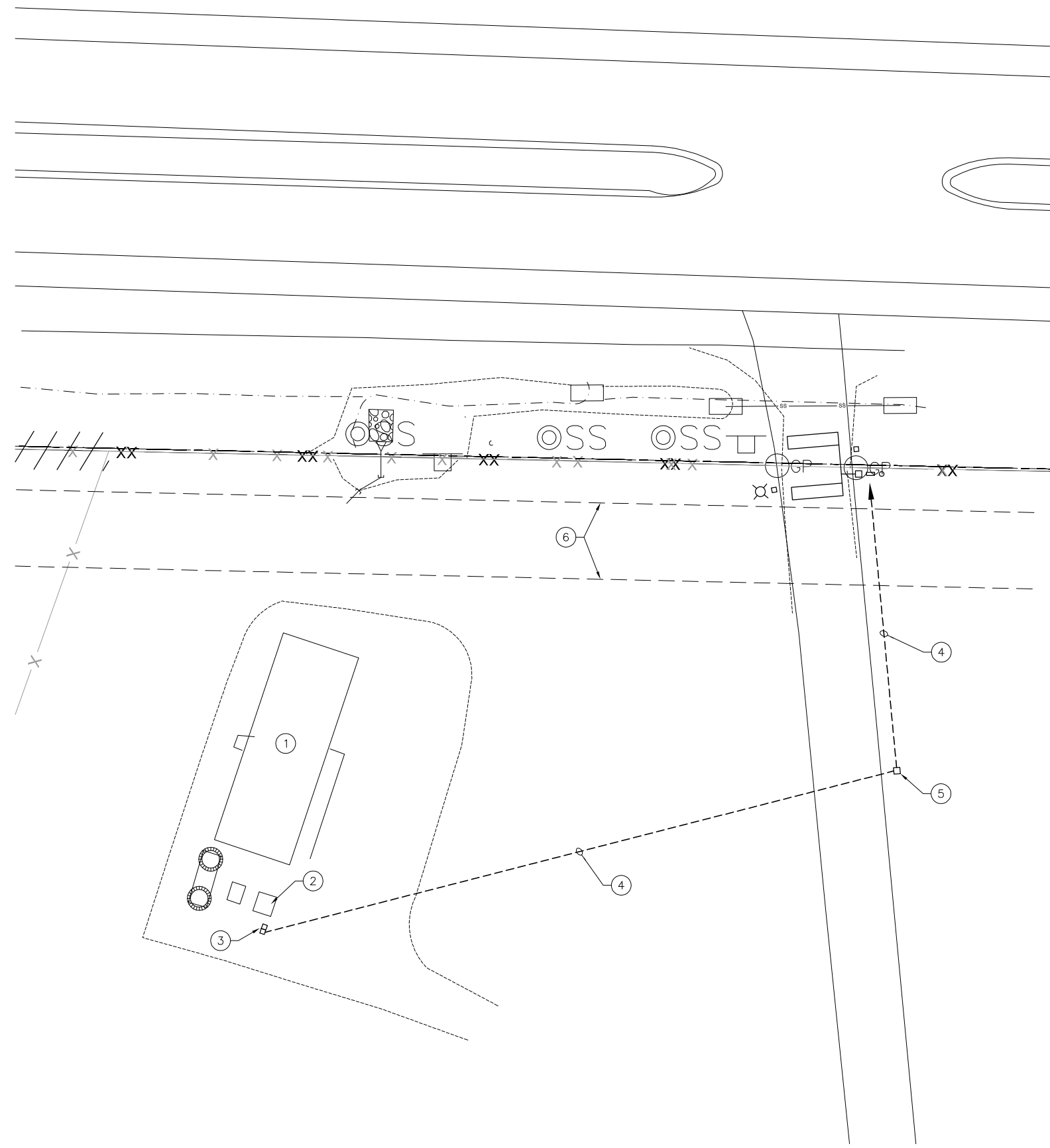
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**ENLARGED VIEW**  
 1/4"=1'-0"

**KEYED NOTES**

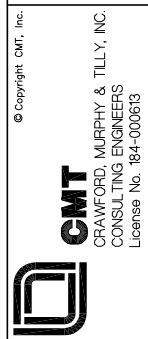
- ① EXISTING FAA ALSF SHELTER.
- ② EXISTING UTILITY TRANSFORMER.
- ③ NEW UTILITY METER AND SERVICE ENTRANCE DISCONNECT. SEE DETAILS AND SPECIFICATIONS. LOCATE METER AND DISCONNECT BEHIND EXISTING PROTECTIVE BOLLARDS.
- ④ THREE #3 USE (LOAD CENTER 120/240V POWER), ONE #8 GROUND IN 1-1/2" CONDUIT.
- ⑤ NEW POLYMER CONCRETE HANDHOLE, OPEN-BOTTOM DESIGN, QUAZITE/HUBBELL #PG-2436-BA-42 WITH #PG-2436-HH-00-17 COVER, LABELED "ELECTRICAL", OR EQUIVALENT. THE USE OF CHOPPED FIBERGLASS STRANDS, HIGH DENSITY POLYETHYLENE OR HIGH DENSITY POLYSTYRENE IS UNACCEPTABLE. PLASTIC AND/OR FIBERGLASS BOXES WILL NOT BE CONSIDERED AS ACCEPTABLE ALTERNATES FOR POLYMER CONCRETE HANDHOLES.
- ⑥ FUTURE PERIMETER ROADWAY.
- ⑦ NEW LOAD CENTER, 100A, 120/240V, SINGLE-PHASE, WITH 100A 2P MAIN BREAKER, IN OUTDOOR RAINPROOF ENCLOSURE, SQUARE D QO116M100RB (16-POLE), EATON CH14B100R (14-POLE), OR EQUIVALENT. PROVIDE SURGE PROTECTIVE DEVICE WITH LOAD CENTER. SEE DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ⑧ NEW CANTILEVER SLIDE GATE MOTOR OPERATOR, LINEAR/OSCO MODEL HSLG-1, 1 HP, 120V, SINGLE PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1700 LBS AND MAXIMUM GATE WIDTH OF 55 FEET. NEW GATE OPERATOR SHALL INCLUDE AN INTERNAL POWER DISCONNECT SWITCH AND DETECTOR LOOP ELECTRONICS. PROVIDE A REMOTE GATE SENSOR FOR MOUNTING ON LEADING GATE EDGE AND WIRE TO OPERATOR TO REVERSE GATE UPON CONTACT WITH AN OBSTRUCTION WHILE CLOSING. CONNECT NEW GATE OPERATOR TO POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. NOTE: AN EARTH GROUND ROD IS REQUIRED AT GATE OPERATOR, BUT NOT SHOWN.
- ⑨ NEW INDALA WEATHERPROOF LONG RANGE CARD READER, OR EQUIVALENT, FURNISHED BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR. SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. LOCATE CARD READER 5' FROM FENCE.
- ⑩ NEW AREA LIGHT, KIM LIGHTING (NO ALTERNATE), MODEL 1A/STL3/150PMH120/\*A-25/TDP (\* = COLOR TO BE SELECTED BY OWNER), 150W PULSE START METAL HALIDE, 120V, WITH PHOTOCELL RECEPTACLE & PHOTOCELL, AND DOUBLE TENSION STRUCTURAL OPTION. POLE SHALL BE KIM LIGHTING (NO ALTERNATE) MODEL PRA10-34125/A/TD/\*DR-GFI (\* = COLOR TO BE SELECTED BY OWNER), 10' TALL, ROUND, STRAIGHT ALUMINUM, WITH 20A DUPLEX GFCI RECEPTACLE OPPOSITE HANDHOLE. PROVIDE WEATHERPROOF COVER FOR RECEPTACLE WHICH COMPLIES WITH NEC ARTICLE 406.9B1. COVER SHALL REMAIN RAIN-TIGHT WHETHER OR NOT A PLUG AND CORD IS INSERTED. COVER SHALL BE EXTRA-DEEP, PADLOCKABLE, CAST ALUMINUM CONSTRUCTION AS MANUFACTURED BY HUBBELL WP26M, OR EQUIVALENT. LOCATE POLE 5' FROM BOTH ROADWAY AND FENCE.
- ⑪ NEW ACCESS CONTROL EQUIPMENT, ANTENNAS AND 10' ANTENNA POLE, KIM LIGHTING, MODEL PRA10-34125/FM/LG-P. SEE DETAILS AND SPECIFICATIONS. LOCATE POLE 10' FROM ROADWAY AND 8' FROM FENCE.
- ⑫ NEW DETECTOR LOOP.
- ⑬ 6-CONDUCTOR #18 SHIELDED CABLE (CONTRACTOR SHALL VERIFY WITH ACCESS CONTROL CONTRACTOR) IN 1" CONDUIT.
- ⑭ TWO #12 USE (120V POWER), ONE #12 GROUND IN 3/4" CONDUIT.
- ⑮ 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 3/4" CONDUIT.



**SITE PLAN**  
 1"=20'-0"

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**

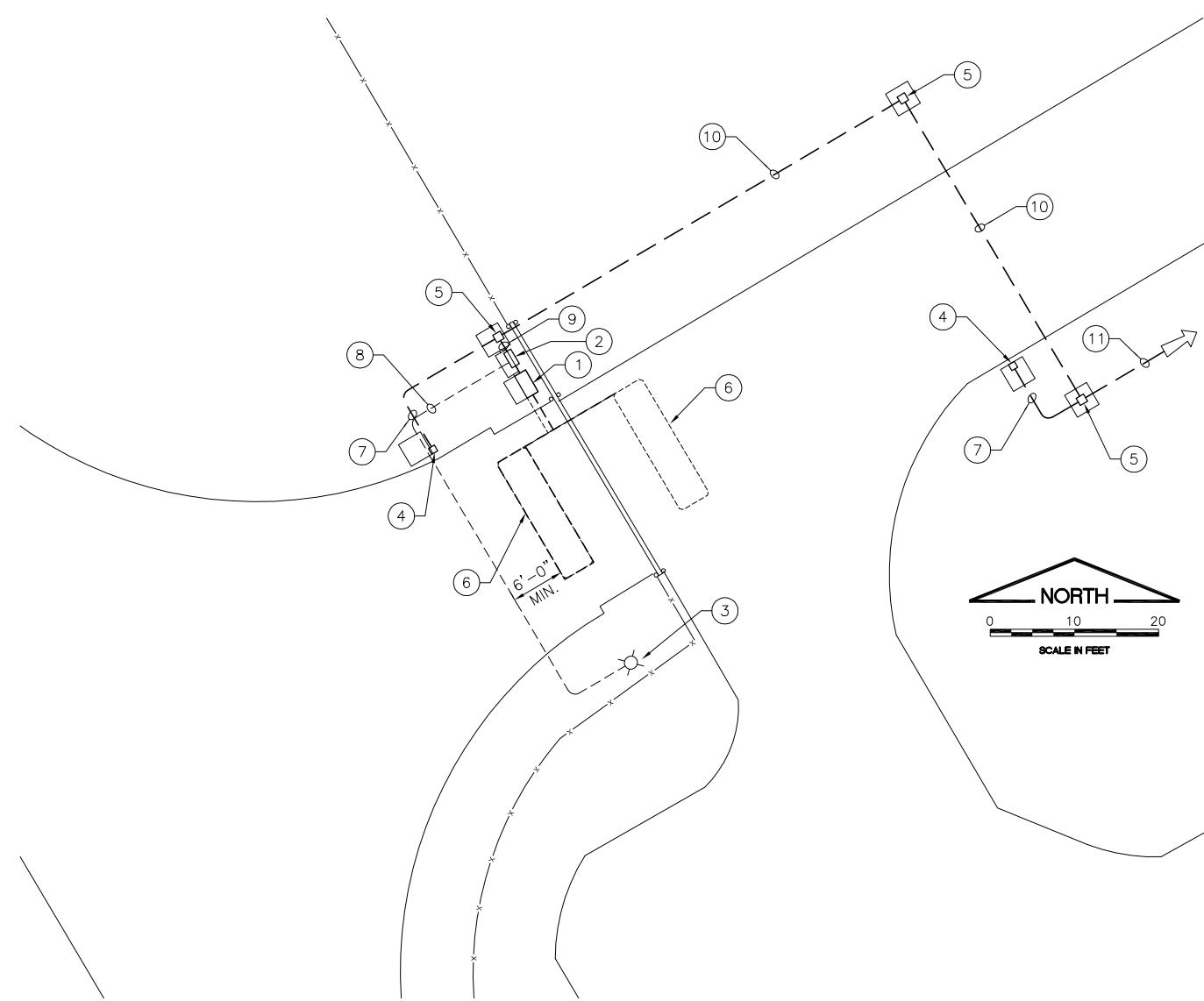
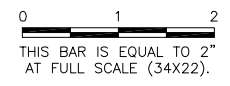
**INSTALL 10' PERIMETER FENCE PHASE 4**  
**ROUTE 9 GATE ELECTRICAL**



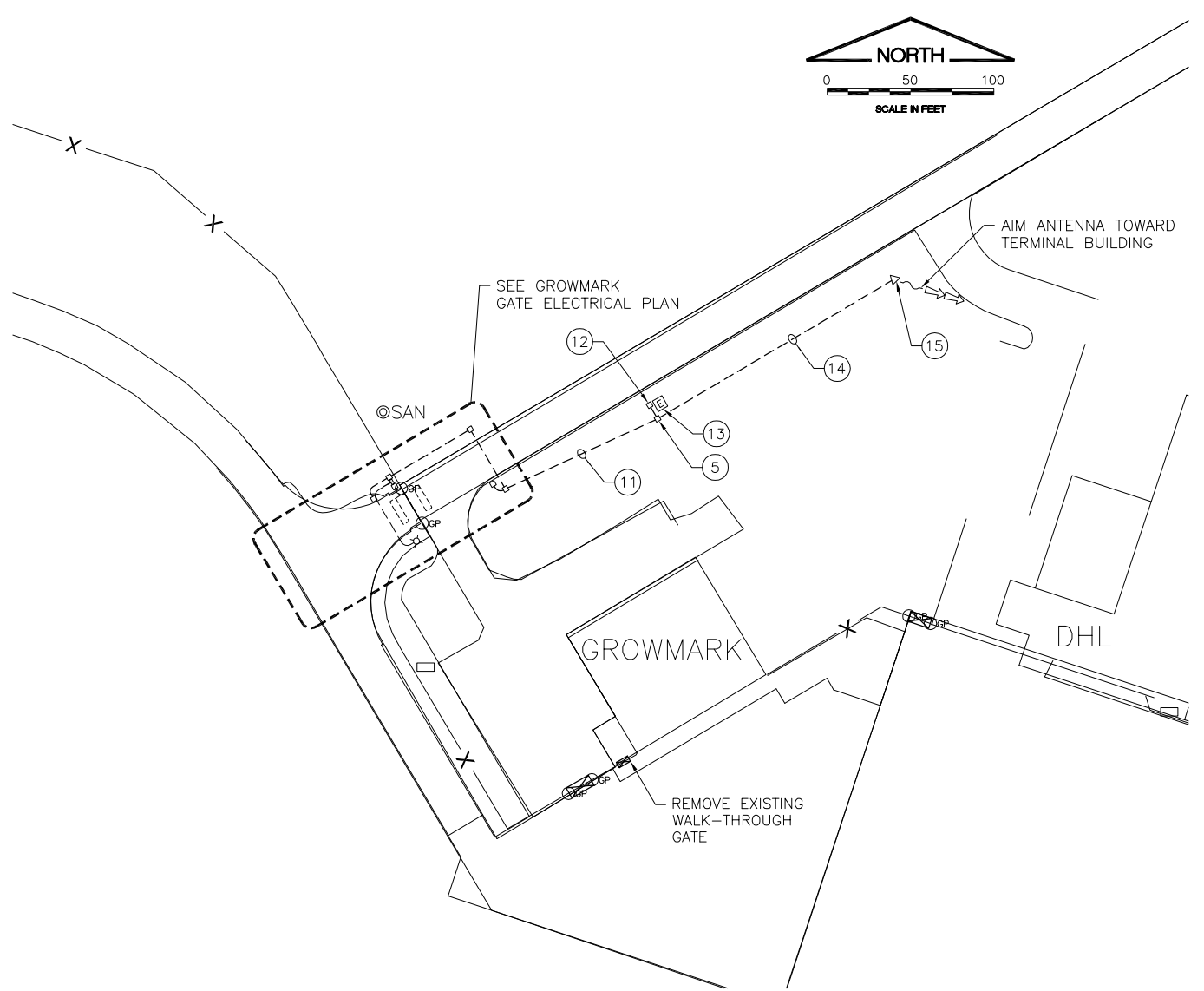
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CHECKED BY:	WDP
APPROVED BY:	JEF
DATE:	0-/--/2012
JOB No:	1008501

**BL067**

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**GROWMARK GATE ELECTRICAL PLAN**  
 1"=10'-0"



**GROWMARK SITE PLAN ELECTRICAL**  
 1"=50'-0"

**KEYED NOTES**

- ① NEW CANTILEVER SLIDE GATE MOTOR OPERATOR, LINEAR/OSCO MODEL HSLG-1, 1 HP, 120V, SINGLE PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1700 LBS AND MAXIMUM GATE WIDTH OF 55 FEET. NEW GATE OPERATOR SHALL INCLUDE AN INTERNAL POWER DISCONNECT SWITCH AND DETECTOR LOOP ELECTRONICS. PROVIDE A REMOTE GATE SENSOR FOR MOUNTING ON LEADING GATE EDGE AND WIRE TO OPERATOR TO REVERSE GATE UPON CONTACT WITH AN OBSTRUCTION WHILE CLOSING. CONNECT NEW GATE OPERATOR TO POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. NOTE: AN EARTH GROUND ROD IS REQUIRED AT GATE OPERATOR, BUT NOT SHOWN.
- ② NEW LOAD CENTER, 100A, 120/240V, SINGLE-PHASE, WITH 100A 2P MAIN BREAKER, IN OUTDOOR RAINPROOF ENCLOSURE, SQUARE D Q0116M100RB (16-POLE), EATON CH14B100R (14-POLE), OR EQUIVALENT. PROVIDE SURGE PROTECTIVE DEVICE WITH LOAD CENTER. SEE DETAILS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ③ NEW AREA LIGHT, KIM LIGHTING (NO ALTERNATE), MODEL 1A/STL3/150PMH120/\*A-25/TDP (\* = COLOR TO BE SELECTED BY OWNER), 150W PULSE START METAL HALIDE, 120V, WITH PHOTOCELL RECEPTACLE & PHOTOCELL, AND DOUBLE TENSION STRUCTURAL OPTION. POLE SHALL BE KIM LIGHTING (NO ALTERNATE) MODEL PRA10-34125/A/TD/\*DR-GFI (\* = COLOR TO BE SELECTED BY OWNER), 10' TALL, ROUND, STRAIGHT ALUMINUM, WITH 20A DUPLEX GFCI RECEPTACLE OPPOSITE HANDHOLE. PROVIDE WEATHERPROOF COVER FOR RECEPTACLE WHICH COMPLIES WITH NEC ARTICLE 406.9B1. COVER SHALL REMAIN RAIN-TIGHT WHETHER OR NOT A PLUG AND CORD IS INSERTED. COVER SHALL BE EXTRA-DEEP, PADLOCKABLE, CAST ALUMINUM CONSTRUCTION AS MANUFACTURED BY HUBBELL WP26M, OR EQUIVALENT. LOCATE POLE 5' FROM BOTH ROADWAY AND FENCE.
- ④ NEW INDALA WEATHERPROOF LONG RANGE CARD READER, OR EQUIVALENT, FURNISHED BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR. SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. LOCATE "AIR SIDE" READER 15' (NOM.) FROM GATE. LOCATE "LAND SIDE" READER NEAR END OF RADIUS OF ENTRANCE TO GROWMARK.
- ⑤ NEW POLYMER CONCRETE HANDHOLE, OPEN-BOTTOM DESIGN, QUAZITE/HUBBELL #PG-2436-BA-42 WITH #PG-2436-HH-00-17 COVER, LABELED "ELECTRICAL", OR EQUIVALENT. THE USE OF CHOPPED FIBERGLASS STRANDS, HIGH DENSITY POLYETHYLENE OR HIGH DENSITY POLYSTYRENE IS UNACCEPTABLE. PLASTIC AND/OR FIBERGLASS BOXES WILL NOT BE CONSIDERED AS ACCEPTABLE ALTERNATES FOR POLYMER CONCRETE HANDHOLES.
- ⑥ NEW DETECTOR LOOP. SEE DETAILS AND SPECIFICATIONS.
- ⑦ 6-CONDUCTOR #18 SHIELDED CABLE (CONTRACTOR SHALL VERIFY WITH ACCESS CONTROL CONTRACTOR) IN 1" CONDUIT.
- ⑧ TWO #12 USE (AREA LIGHT/RECEPTACLE 120V POWER), ONE #12 GROUND IN 1" CONDUIT.
- ⑨ FROM HANDHOLE TO LOAD CENTER: THREE #3 USE (120/240V POWER FROM UTILITY), ONE #8 GROUND IN 1-1/2" CONDUIT.  
 FROM HANDHOLE TO GATE OPERATOR: 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL FROM WIRELESS READER INTERFACE) IN 1" CONDUIT.  
 FROM LOAD CENTER TO GATE OPERATOR: TWO #12 USE (GATE 120V POWER), ONE #12 GROUND IN 1" CONDUIT.  
 FROM LOAD CENTER TO HANDHOLE: TWO #12 USE (WIRELESS READER INTERFACE 120V POWER), ONE #12 GROUND IN 1-1/2" CONDUIT.
- ⑩ 120V POWER), ONE #12 GROUND IN 1" CONDUIT.  
 THREE #3 USE (LOAD CENTER 120/240V POWER FROM UTILITY), ONE #8 GROUND IN 1-1/2" CONDUIT.  
 TWO #12 USE (WIRELESS READER INTERFACE 120V POWER), ONE #12 GROUND, 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 1" CONDUIT.  
 6-CONDUCTOR #18 SHIELDED CABLE (CONTRACTOR SHALL VERIFY WITH ACCESS CONTROL CONTRACTOR) IN 1" CONDUIT.
- ⑪ THREE #3 USE (LOAD CENTER 120/240V POWER FROM UTILITY), ONE #8 GROUND IN 1-1/2" CONDUIT.  
 TWO #12 USE (WIRELESS READER INTERFACE 120V POWER), ONE #12 GROUND, 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 1" CONDUIT.  
 TWO 6-CONDUCTOR #18 SHIELDED CABLES (CONTRACTOR SHALL VERIFY WITH ACCESS CONTROL CONTRACTOR) IN 1-1/2" CONDUIT.
- ⑫ NEW UTILITY METER AND SERVICE ENTRANCE DISCONNECT. SEE DETAILS AND SPECIFICATIONS.
- ⑬ EXISTING UTILITY TRANSFORMER.
- ⑭ TWO #12 USE (WIRELESS READER INTERFACE 120V POWER), ONE #12 GROUND, 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 1" CONDUIT.  
 TWO 6-CONDUCTOR #18 SHIELDED CABLES (CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER) IN 1-1/2" CONDUIT.
- ⑮ NEW ACCESS CONTROL EQUIPMENT, ANTENNAS AND 16' ANTENNA POLE, KIM LIGHTING, MODEL PRA16-5188/FM/LG-P. SEE DETAILS AND SPECIFICATIONS.

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
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**BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4**  
**GROWMARK GATE ELECTRICAL**

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APPROVED BY:	JEF
DATE:	0--/--/2012
JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	35 OF 42 SHEETS

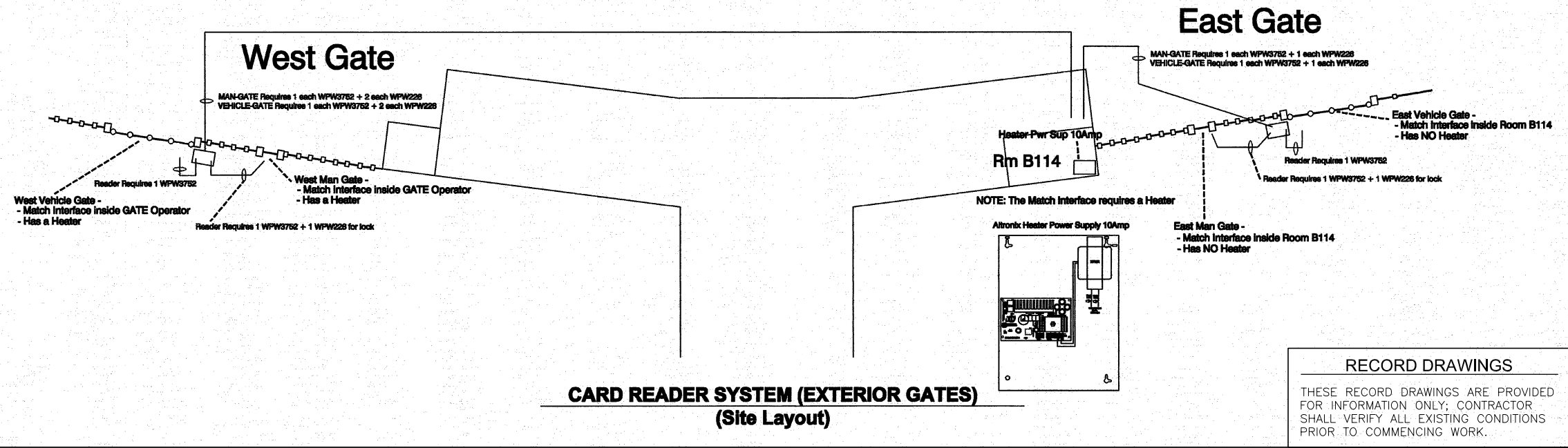
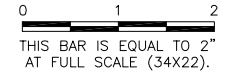
# Central Illinois Regional Airport- Hirsch Security System East / West Gate Wiring Diagram

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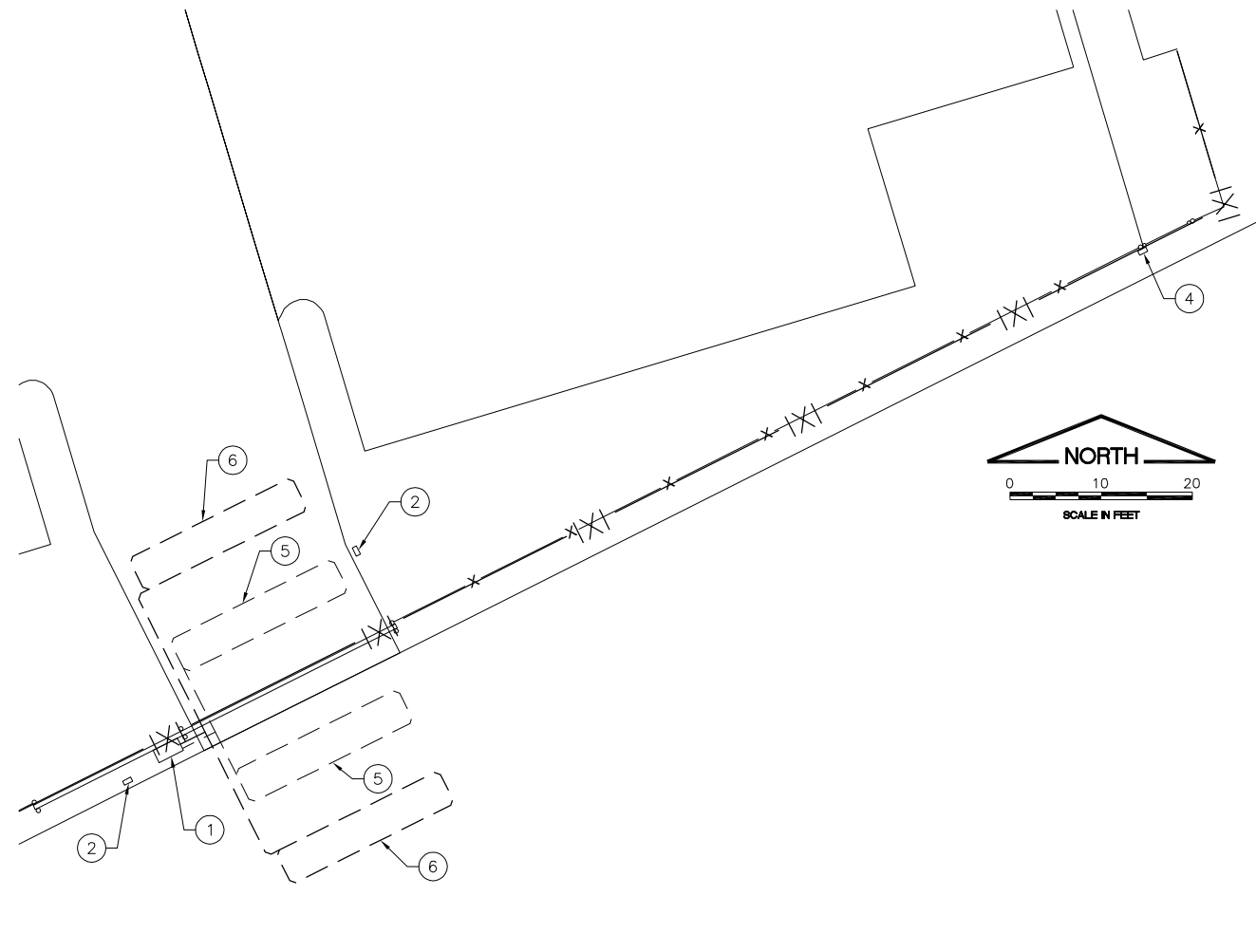
BL067

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1	JEF	1/9/12



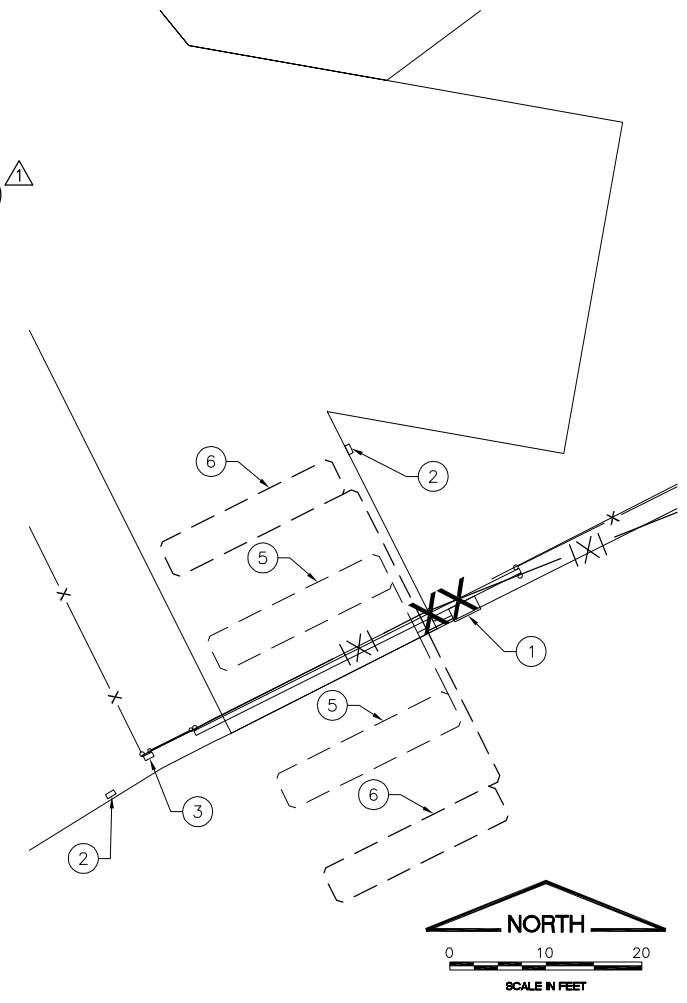
**CARD READER SYSTEM (EXTERIOR GATES)  
(Site Layout)**



**TERMINAL WEST GATE #7  
ELECTRICAL**

**KEYED NOTES**

- 1 DISCONNECT AND REMOVE EXISTING GATE OPERATOR. INSTALL NEW GATE OPERATOR ON EXISTING CONCRETE PAD AND RECONNECT TO EXISTING POWER AND CONTROL WIRING.
  - 2 EXISTING CARD READERS TO REMAIN UNDISTURBED. VERIFY OPERATION OF CARD READERS BOTH BEFORE AND AFTER MODIFICATIONS. COORDINATE THIS WORK WITH THE ACCESS CONTROL CONTRACTOR.
  - 3 EXISTING PEDESTRIAN GATE MAGNETIC LOCK AND CARD READER. REINSTALL TO NEW PEDESTRIAN GATE TO MATCH EXISTING INSTALLATION. VERIFY OPERATION BOTH BEFORE AND AFTER MODIFICATIONS. COORDINATE THIS WORK WITH THE ACCESS CONTROL CONTRACTOR.
  - 4 EXISTING PEDESTRIAN GATE MAGNETIC LOCK AND CARD READER. REINSTALL TO NEW PEDESTRIAN GATE TO MATCH EXISTING INSTALLATION. VERIFY OPERATION BOTH BEFORE AND AFTER MODIFICATIONS. COORDINATE THIS WORK WITH THE ACCESS CONTROL CONTRACTOR.
  - 5 EXISTING DETECTOR LOOP. TO BE REUSED WITH NEW GATE OPERATOR.
  - 6 NEW DETECTOR LOOP.
- AT WEST GATE OPERATOR (GATE #7), DISCONNECT AND REMOVE EXISTING ACCESS CONTROL "MATCH INTERFACE" AND "HEATER" INSIDE EXISTING GATE OPERATOR AND INSTALL IN NEW GATE OPERATOR. RECONNECT TO EXISTING WIRING. COORDINATE THIS WORK WITH THE ACCESS CONTROL CONTRACTOR.
- AT WEST GATE OPERATOR (GATE #7), DISCONNECT AND REMOVE EXISTING ACCESS CONTROL "MATCH INTERFACE" AND "HEATER" INSIDE EXISTING GATE OPERATOR FOR THIS PEDESTRIAN GATE CONTROL AND INSTALL IN NEW GATE OPERATOR. RECONNECT TO EXISTING WIRING. COORDINATE THIS WORK WITH THE ACCESS CONTROL CONTRACTOR.



**TERMINAL EAST GATE #4  
ELECTRICAL**

BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
CENTRAL ILLINOIS REGIONAL AIRPORT  
BLOOMINGTON, ILLINOIS

INSTALL 10' PERIMETER FENCE PHASE 4  
TERMINAL EAST AND WEST  
GATES ELECTRICAL

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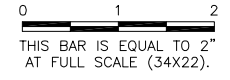
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APPROVED BY: WDP  
DATE: 0-/--/2012  
JOB No: 1008501

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AIP PROJ NO. 3-17-0006-XX  
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**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**INSTALL 10' PERIMETER FENCE PHASE 4**  
**ALT-3 ELECTRIC GATE**

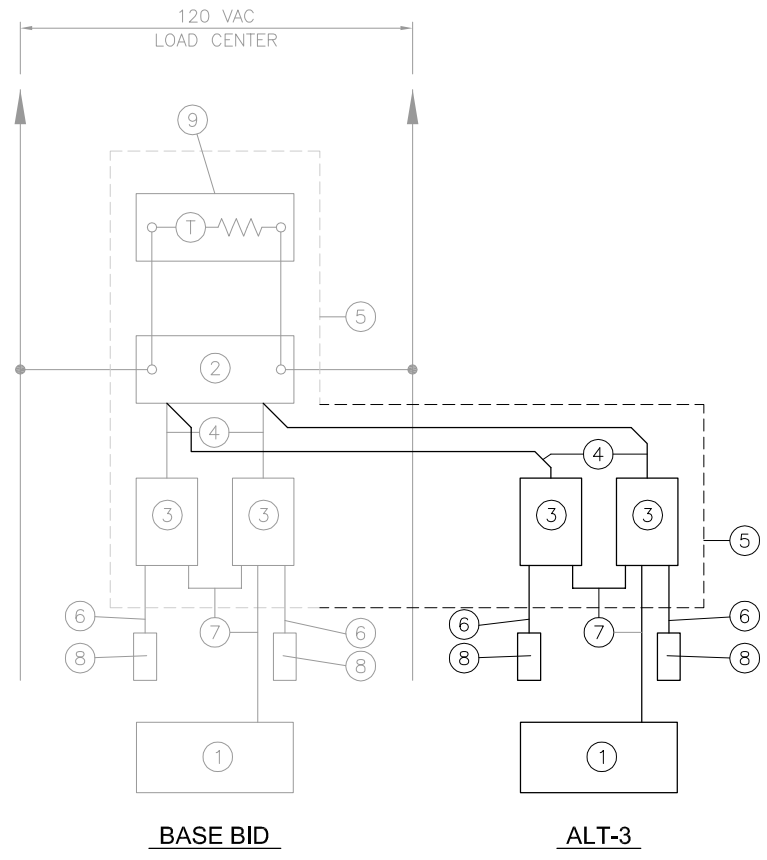
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DATE:	0-/--/2012
JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	37 OF 42 SHEETS

**KEYED NOTES**

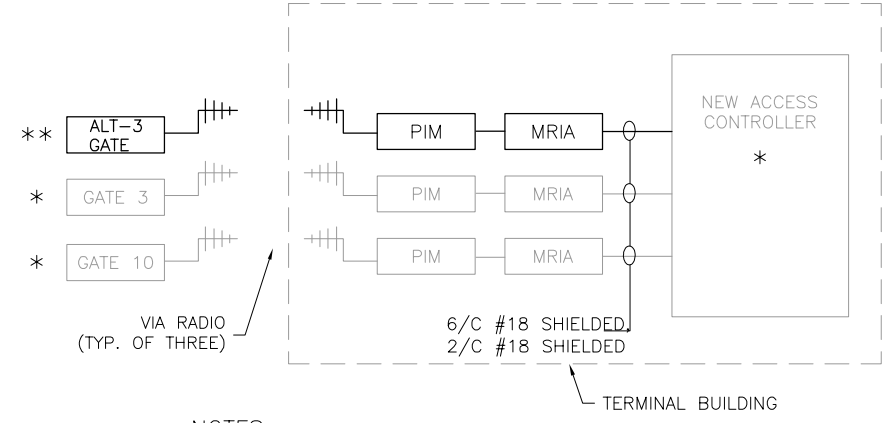
**NOTE:** THE FOLLOWING DESCRIBES WORK TO BE DONE TO PERFORM THE ELECTRICAL WORK FOR ALT-3 ELECTRIC GATE AT GROWMARK. IT DESCRIBES NEW WORK TO BE DONE AND MODIFICATIONS TO BASE-BID WORK TO FURNISH AND INSTALL ALT-3 ELECTRIC GATE.

- ① NEW CANTILEVER SLIDE GATE MOTOR OPERATOR, LINEAR/OSCO MODEL HSLG-1, 1 HP, 120V, SINGLE PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1700 LBS AND MAXIMUM GATE WIDTH OF 55 FEET. NEW GATE OPERATOR SHALL INCLUDE AN INTERNAL POWER DISCONNECT SWITCH AND DETECTOR LOOP ELECTRONICS. PROVIDE A REMOTE GATE SENSOR FOR MOUNTING ON LEADING GATE EDGE AND WIRE TO OPERATOR TO REVERSE GATE UPON CONTACT WITH AN OBSTRUCTION WHILE CLOSING. CONNECT NEW GATE OPERATOR TO POWER AND CONTROL WIRING. SEE DETAILS FOR ADDITIONAL INFORMATION. NOTE: AN EARTH GROUND ROD IS REQUIRED AT GATE OPERATOR, BUT NOT SHOWN.
- ② NEW INDALA WEATHERPROOF LONG RANGE CARD READER, OR EQUIVALENT. SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. LOCATE BOTH CARD READERS 15' (NOM.) FROM GATE.
- ③ NEW POLYMER CONCRETE HANDHOLE, OPEN-BOTTOM DESIGN, QUAZITE/HUBBELL #PG-2436-BA-42 WITH #PG-2436-HH-00-17 COVER, LABELED "ELECTRICAL", OR EQUIVALENT. THE USE OF CHOPPED FIBERGLASS STRANDS, HIGH DENSITY POLYETHYLENE OR HIGH DENSITY POLYSTYRENE IS UNACCEPTABLE. PLASTIC AND/OR FIBERGLASS BOXES WILL NOT BE CONSIDERED AS ACCEPTABLE ALTERNATES FOR POLYMER CONCRETE HANDHOLES.
- ④ NEW DETECTOR LOOP. SEE DETAILS AND SPECIFICATIONS.
- ⑤ 6-CONDUCTOR #18 SHIELDED CABLE (CONTRACTOR SHALL VERIFY WITH ACCESS CONTROL CONTRACTOR) IN 1" CONDUIT.
- ⑥ TWO #6 USE (GATE 120V POWER), ONE #10 GROUND, 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 1" CONDUIT.
- ⑦ - TWO #6 USE (GATE 120V POWER), ONE #10 GROUND, 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 1" CONDUIT.  
 - 6-CONDUCTOR #18 SHIELDED CABLE (CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER) IN 1" CONDUIT.
- ⑧ - TWO #6 USE (GATE 120V POWER), ONE #10 GROUND, 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 1" CONDUIT.  
 - TWO 6-CONDUCTOR #18 SHIELDED CABLES (CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER) IN 1-1/2" CONDUIT.
- ⑨ TWO #6 USE, ONE #10 GROUND IN 1" CONDUIT FROM HANDHOLE INSTALLED AS PART OF BASE BID TO 20A. 1P CIRCUIT BREAKER IN LOAD CENTER INSTALLED AS PART OF BASE BID.
- ⑩ - TO THE CONDUIT WITH ONE 6-CONDUCTOR #18 SHIELDED CABLE INSTALLED AS PART OF THE BASE BID, ADD TWO 6-CONDUCTOR #18 SHIELDED CABLES (CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER). INCREASE CONDUIT SIZE FROM 1" TO 2" CONDUIT.  
 - TO THE CONDUIT WITH TWO #12 USE (WIRELESS READER INTERFACE 120V POWER), ONE #12 GROUND, 2/C #14 SHIELDED CABLE (GROWMARK GATE #10 OPEN CONTROL) IN 1" CONDUIT, ADD 2/C #14 SHIELDED CABLE (ALT-3 GATE OPEN CONTROL). CONDUIT SIZE DOES NOT CHANGE.
- ⑪ - TO THE CONDUIT WITH TWO 6-CONDUCTOR #18 SHIELDED CABLES INSTALLED AS PART OF THE BASE BID, ADD TWO 6-CONDUCTOR #18 SHIELDED CABLES (CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER). INCREASE CONDUIT SIZE FROM 1-1/2" TO 2" CONDUIT.  
 - TO THE CONDUIT WITH TWO #12 USE (WIRELESS READER INTERFACE 120V POWER), ONE #12 GROUND, 2/C #14 SHIELDED CABLE (GROWMARK GATE #10 OPEN CONTROL) IN 1" CONDUIT, ADD 2/C #14 SHIELDED CABLE (ALT-3 GATE OPEN CONTROL). CONDUIT SIZE DOES NOT CHANGE.
- ⑫ - AT THE ANTENNA POLE INSTALLED AS PART OF BASE BID, ADD TWO ANTENNAS AND RELATED HARDWARE, CABLES, ETC., FOR ALT-3 GATE USE, SAME AS DETAILED IN THE BASE BID.  
 - IN NEMA 4X ENCLOSURE INSTALLED AS PART OF BASE BID AT ANTENNA POLE, INSTALL TWO WIRELESS READER INTERFACE UNITS AND ASSOCIATED WIRING AND HARDWARE, SAME AS DETAILED IN THE BASE BID.



SEE ELECTRIC GATE DETAILS 5  
 PLAN SHEET FOR NOTES

**GROWMARK GATE #10 & ALT-3 GATE  
 OPERATOR CONTROL BLOCK DIAGRAM**

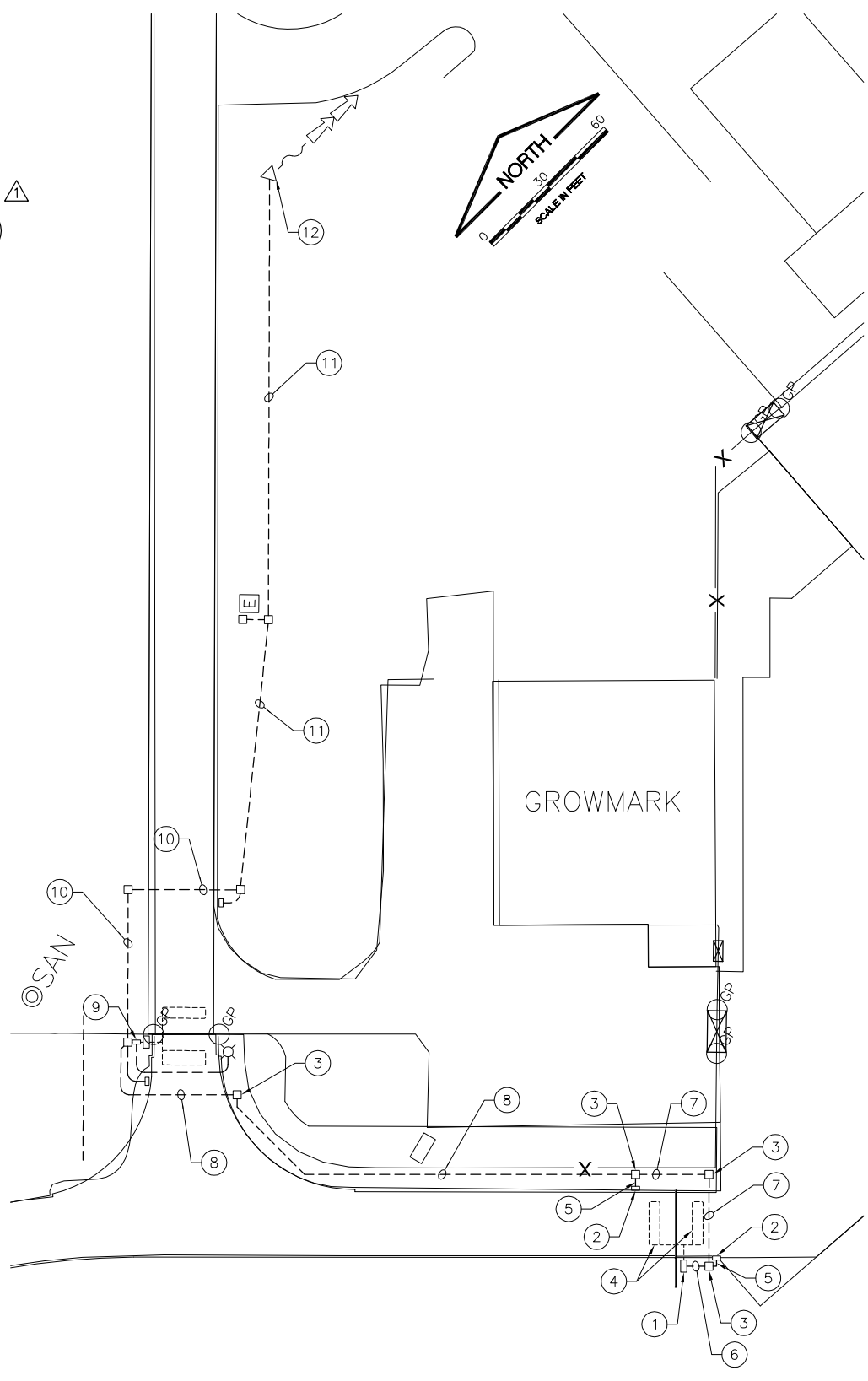


**NOTES:**

- \* = BASE BID
- \*\* = ALT-3

NOTE: ALL WORK IN TERMINAL BUILDING SHALL BE BY ACCESS CONTROL CONTRACTOR

**ALT-3  
 TERMINAL BUILDING  
 ACCESS CONTROL BLOCK DIAGRAM**



**ALT-3 GATE PLAN**  
 1"=30'-0"