

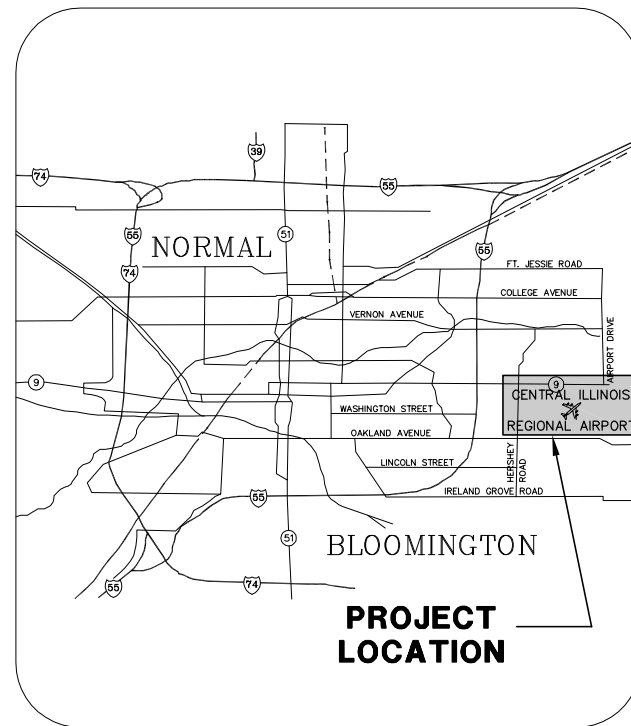
# CONSTRUCTION PLANS FOR CENTRAL ILLINOIS REGIONAL AIRPORT

BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
BLOOMINGTON, ILLINOIS

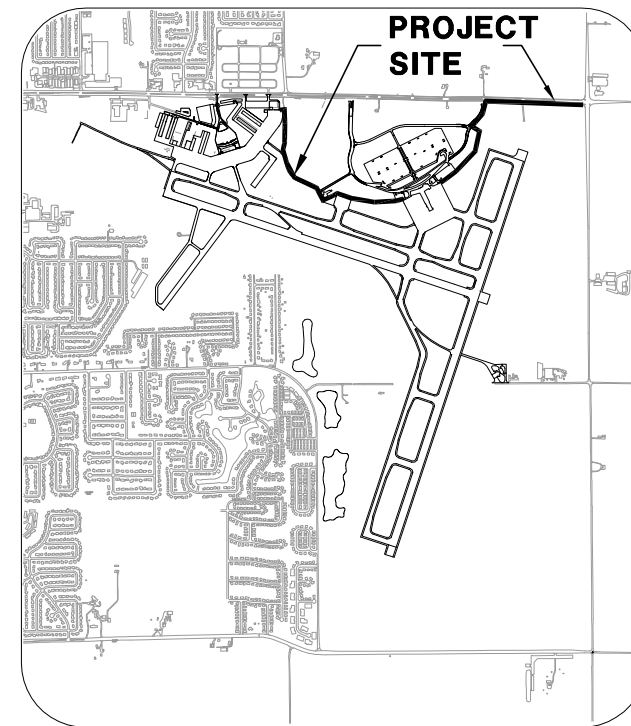
IL PROJ NO. BMI-4098  
AIP PROJ NO. 3-17-0006-XX

## INSTALL 10' PERIMETER FENCE PHASE 4

DECEMBER 9, 2011



LOCATION MAP



SITE PLAN

**811** Know what's below. Call before you dig.  
J.U.L.I.E. JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS  
www.illinois1call.com

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 ACTUAL LOCATIONS OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF HIS OPERATIONAL PLANS, OBTAIN FROM 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 AND THE ONE-CALL NOTICE SYSTEM. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH UTILITY OR 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 811.

CALL J.U.L.I.E. BEFORE EXCAVATING  
1-800-892-0123

TOWNSHIP: 23 NORTH  
RANGE: 3 EAST OF 4TH P.M.  
SECTION: 6 & 7  
COUNTY: McLEAN  
CIVIL TOWNSHIP: BLOOMINGTON CITY AND OLDTOWN

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

APPROVED: *[Signature]*  
EXECUTIVE DIRECTOR OF AVIATION

DATE: 12/9/11

12/9/11

**JASON E. FRANK**  
LICENSED PROFESSIONAL ENGINEER  
STATE OF ILLINOIS  
068-054100

*[Signature]*  
EXP. 11/30/13

**GMT**  
CRAWFORD MURPHY & TILLY, INC.  
CONSULTING ENGINEERS  
■ SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO

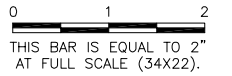
SUBMITTED BY: *[Signature]*  
DATE: 12/9/11

CMT JOB NUMBER: 1008501

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FILE: COVER.dwg  
UPDATE BY: Dale Draughon  
PLOT DATE: 12/9/2011 2:27 PM

**BL067**

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NUMBER	BY	DATE



**SUMMARY OF QUANTITIES**

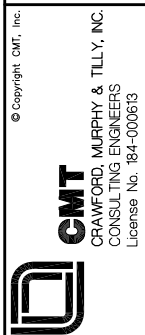
ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
<b>BASE BID</b>			
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1
AR152440	BORROW EXCAVATION	C.Y.	500
AR156513	SEPARATION FABRIC	SY	350
AR156543	RIPRAP GRADATION NO 3	SY	350
AR162510	CLASS E FENCE 10'	L.F.	5440
AR162620	CLASS E GATE - 20'	EACH	2
AR162624	CLASS E GATE - 24'	EACH	1
AR162720	ELECTRIC GATE - 20'	EACH	1
AR162724	ELECTRIC GATE - 24'	EACH	1
AR162900	REMOVE CLASS E FENCE	L.F.	8800
AR162905	REMOVE GATE	EACH	8
AR162908	REMOVE ELECTRIC GATE	EACH	2
AR501508	8" PCC PAVEMENT	SY	135
AR701024	24" PVC STORM SEWER	LF	30
AR701512	12" RCP, CLASS IV	LF	32
AR701524	24" RCP, CLASS IV	LF	40
AR752412	Precast Reinforced Conc. FES 12"	EACH	2
AR752424	Precast Reinforced Conc. FES 24"	EACH	3
AR752512	Grating for Conc. FES 12"	EACH	1
AR752524	Grating for Conc. FES 24"	EACH	2
AR752536	Grating for Conc. FES 36"	EACH	2
AR800224	Regrade Swale	S.Y.	1500
AR801207	Re-block Architectural Split Face Block Wall	L.S.	1
AR901510	SEEDING	ACRE	4
AR908510	MULCHING	ACRE	4
AR908520	EXCELSIOR BLANKET	S.Y.	2000
<b>ALTERNATE #1 - VINYL COATED CLASS E FENCE AND GATES AT TERMINAL</b>			
AS162304	CLASS E GATE - 4' - VINYL	EACH	2
AS162408	CLASS E FENCE 8' - VINYL	L.F.	3360
AS162724	ELECTRIC GATE - 24' - VINYL	EACH	2
<b>ALTERNATE #2 - CLASS E FENCE AND GATES AT TERMINAL</b>			
AT162508	CLASS E FENCE 8'	L.F.	3360
AT162604	CLASS E GATE - 4'	EACH	2
AT162724	ELECTRIC GATE - 24'	EACH	2
<b>ALTERNATE #3 - ELECTRIC GATE AND PAVEMENT REMOVAL AND REPLACEMENT</b>			
AU162724	ELECTRIC GATE - 24'	EACH	1
AU501508	8" PCC PAVEMENT	SY	135
AU501900	REMOVE PCC PAVEMENT	SY	135

**Sheet List Table**

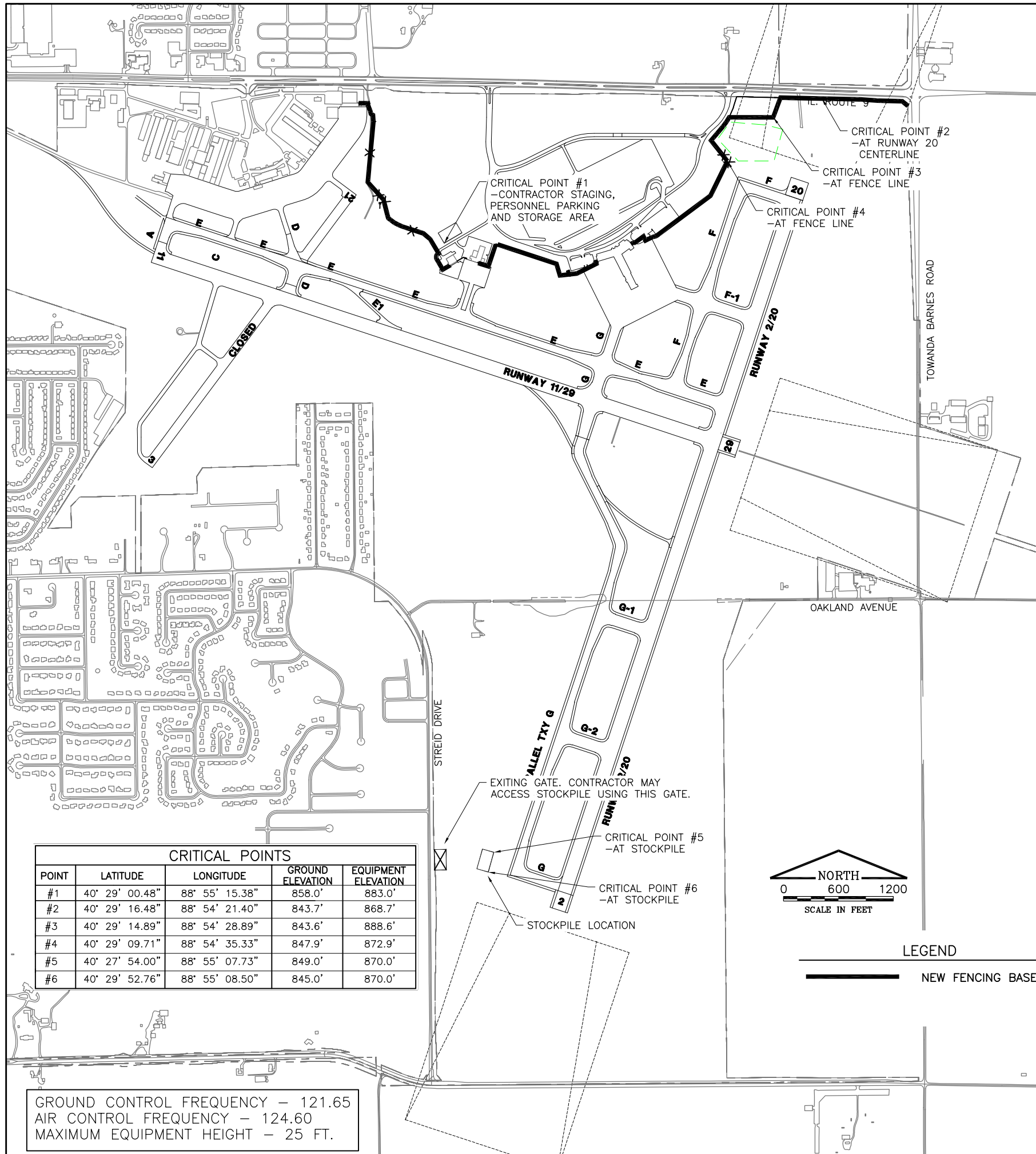
Sheet Number	Sheet Title
1	COVER SHEET
2	INDEX TO SHEETS & SUMMARY OF QUANTITIES
3	SITE PLAN
4	CONSTRUCTION ACTIVITY PLAN 1
5	CONSTRUCTION ACTIVITY PLAN 2
6	CONSTRUCTION ACTIVITY PLAN 3
7	CONSTRUCTION ACTIVITY PLAN 4
8	CONSTRUCTION ACTIVITY PLAN 5
9	CONSTRUCTION ACTIVITY PLAN 6
10	CONSTRUCTION ACTIVITY PLAN 7
11	CONSTRUCTION ACTIVITY PLAN 8
12	PROPOSED IMPROVEMENTS 1
13	PROPOSED IMPROVEMENTS 2
14	PROPOSED IMPROVEMENTS 3
15	PROPOSED IMPROVEMENTS 4
16	PROPOSED IMPROVEMENTS 5
17	PROPOSED IMPROVEMENTS 6
18	PROPOSED IMPROVEMENTS 7
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37	ALT-3 ELECTRIC GATE
38	REGRADE SWALE
39	REGRADE SWALE PROFILE
40	REGRADE SWALE CROSS SECTIONS 1
41	REGRADE SWALE CROSS SECTIONS 2
42	REGRADE SWALE CROSS SECTIONS 3

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

**INSTALL 10' PERIMETER FENCE PHASE 4  
 INDEX TO SHEETS & SUMMARY OF QUANTITIES**



DESIGN BY:	JEF
DRAWN BY:	CMT
CHECKED BY:	
APPROVED BY:	
DATE:	0-/--/2012
JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	2 OF 42 SHEETS



CRITICAL POINTS				
POINT	LATITUDE	LONGITUDE	GROUND ELEVATION	EQUIPMENT ELEVATION
#1	40° 29' 00.48"	88° 55' 15.38"	858.0'	883.0'
#2	40° 29' 16.48"	88° 54' 21.40"	843.7'	868.7'
#3	40° 29' 14.89"	88° 54' 28.89"	843.6'	888.6'
#4	40° 29' 09.71"	88° 54' 35.33"	847.9'	872.9'
#5	40° 27' 54.00"	88° 55' 07.73"	849.0'	870.0'
#6	40° 29' 52.76"	88° 55' 08.50"	845.0'	870.0'

GROUND CONTROL FREQUENCY - 121.65  
 AIR CONTROL FREQUENCY - 124.60  
 MAXIMUM EQUIPMENT HEIGHT - 25 FT.

**GENERAL NOTES**

- ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLAN.
- THE CONTRACTOR SHALL REMAIN WITHIN 50' OF THE EXISTING FENCE LINE AT ALL TIMES DURING CONSTRUCTION. AT NO TIME SHOULD THE CONTRACTOR OR HIS PERSONNEL ACCESS ANY ACTIVE AIRFIELD PAVEMENTS. PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR'S SUPERINTENDENT SHALL BE REQUIRED TO ATTEND TRAINING COURSES AT THE AIRPORT TO BECOME AWARE OF POLICIES AND PROCEDURES ASSOCIATED WITH WORKING WITHIN THE AIRPORT SECURITY FENCE.
- WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT DIRECTOR.
- THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS AT THE LOCATIONS SHOWN. THE MAXIMUM HEIGHT OF EQUIPMENT, MATERIALS AND STOCKPILES SHALL BE 25' ABOVE GROUND ELEVATION.
- BROKEN CONCRETE SHALL BE DISPOSED OF BY THE CONTRACTOR OFF AIRPORT PROPERTY.
- VEHICLES AND EQUIPMENT SHALL NOT BE ALLOWED WITHIN AREAS 95' FROM THE CENTERLINE OF ACTIVE TAXIWAYS OR 250' FROM THE CENTERLINE OF ACTIVE RUNWAYS.
- ALL CONTRACTOR VEHICLE AND EQUIPMENT SHALL BE PROPERLY MARKED AND HAVE 3'x3' INTERNATIONAL ORANGE AND WHITE CHECKED FLAG WHILE WORKING ON OR ADJACENT TO AIRFIELD.
- ALL PAVEMENTS, DRIVES, OR ANY OTHER AREAS UTILIZED BY THE CONTRACTOR FOR HAUL ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED IN KIND BY THE CONTRACTOR TO THE SATISFACTION OF THE AIRPORT. NO ADDITIONAL COMPENSATION SHALL BE MADE TO THE CONTRACTOR FOR THIS WORK.
- EXISTING TURF AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY HIM AT HIS EXPENSE TO THE SATISFACTION OF THE AIRPORT.
- THE CONTRACTOR SHALL CONTINUOUSLY CLEAN ALL CONSTRUCTION AREAS WHICH WILL BE OPENED TO AIR TRAFFIC.
- IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS SO AS TO AVOID ANY DAMAGE. ANY UTILITY, INCLUDING AIRFIELD ELECTRICAL CABLE AND LIGHTS, DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY HIM AT HIS OWN EXPENSE IN A MANNER WHICH IS SATISFACTORY TO THE ENGINEER, THE AIRPORT AND TO THE OWNER OF THE UTILITY. ANY REPAIRS THAT MUST BE MADE BY THE OWNER OF THE UTILITY SHALL HAVE THE COST REIMBURSED TO THE UTILITY BY THE CONTRACTOR. AIRFIELD LIGHTING CABLES DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY A QUALIFIED ELECTRICIAN WITH THE COSTS TO BE BORNE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL MAINTAIN A SECURE AIRFIELD PERIMETER WITH EXISTING, TEMPORARY, RELOCATED OR PERMANENT FENCE THROUGHOUT THE DURATION OF THE PROJECT. COST OF ERECTION AND REMOVAL OF TEMPORARY FENCE WILL BE INCIDENTAL TO CONTRACT.
- CONTRACTOR'S ACCESS SHALL BE AS FOLLOWS:
  - THE CONTRACTOR SHALL COMPLETE A TEN YEAR CRIMINAL AND EMPLOYMENT BACKGROUND CHECK AND A SECURITY FORM FOR THE SUPERINTENDENTS AND SUPERVISING FOREMEN HE PROPOSES TO USE ON THE AIRPORT. THESE FORMS SHALL BE COMPLETED PRIOR TO THAT PERSON BEING ALLOWED ON THE AIRFIELD. A LIST OF PERSONNEL AUTHORIZED TO WORK ON THE AIRFIELD SHALL BE PROVIDED TO THE RESIDENT ENGINEER BY THE CONTRACTOR.
  - THE CONTRACTOR SHALL USE AN EXISTING GATE(S) FOR ACCESS TO THE AIRFIELD. THE CONTRACTOR SHALL INSTALL AND MAINTAIN A HEAVY-DUTY PADLOCK ON THE ACCESS GATE. HE SHALL PROVIDE KEYS FOR THIS PADLOCK TO THE RESIDENT ENGINEER AND BNAA MAINTENANCE SUPERVISOR. NO ADDITIONAL KEYS ARE TO BE DISTRIBUTED UNLESS AUTHORIZED BY THE RESIDENT ENGINEER.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING THE ACCESS GATE(S) CLOSED DURING WORK HOURS. IF THE CONTRACTOR CHOOSES TO LEAVE THE GATE(S) OPEN, THEN HE SHALL POST A COMPETENT SECURITY GUARD TO PREVENT UNAUTHORIZED ENTRIES. THE CONTRACTOR SHALL REPLACE ANY UNSATISFACTORY SECURITY GUARDS IF SO DIRECTED.
  - THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND TEMPORARY EASEMENTS FOR THE ACCESS ROAD(S) SHOWN AND SHALL COMPLY WITH ALL TRAFFIC CONTROL SIGNAGE REQUIRED BY THE CITY, COUNTY, TOWNSHIP, OR I.D.O.T..
  - DURING ADVERSE WEATHER THE CONTRACTOR SHALL MAINTAIN ACCESS TO THE WORK AT NO ADDITIONAL COST TO THE CONTRACT. NO EXTENSION OF CONTRACT TIME WILL BE CONSIDERED FOR DELAYS DUE TO LACK OF ADEQUATE ACCESS TO THE WORK SITE.
  - THE CONTRACTOR WILL CLOSE AND LOCK THE ACCESS GATE(S) UPON LEAVING THE SITE.
  - ALL COSTS RELATING TO CONTRACTOR'S ACCESS AND SECURITY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - THE CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN SUCH A WAY AS NOT TO VIOLATE AIRSPACE SURFACES, OR RUNWAY AND TAXIWAY OBJECT FREE OR SAFETY AREAS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ACTIVE AIRFIELD PAVEMENTS WHICH ARE CROSSED BY HIS VEHICLES ACCESSING THE WORK OR DEPARTING THE WORK IMMEDIATELY FOLLOWING SAID VEHICLE.

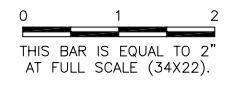


**LEGEND**  
 ——— NEW FENCING BASE BID

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 PLOT DATE: 12/8/2011 3:40 PM  
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 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

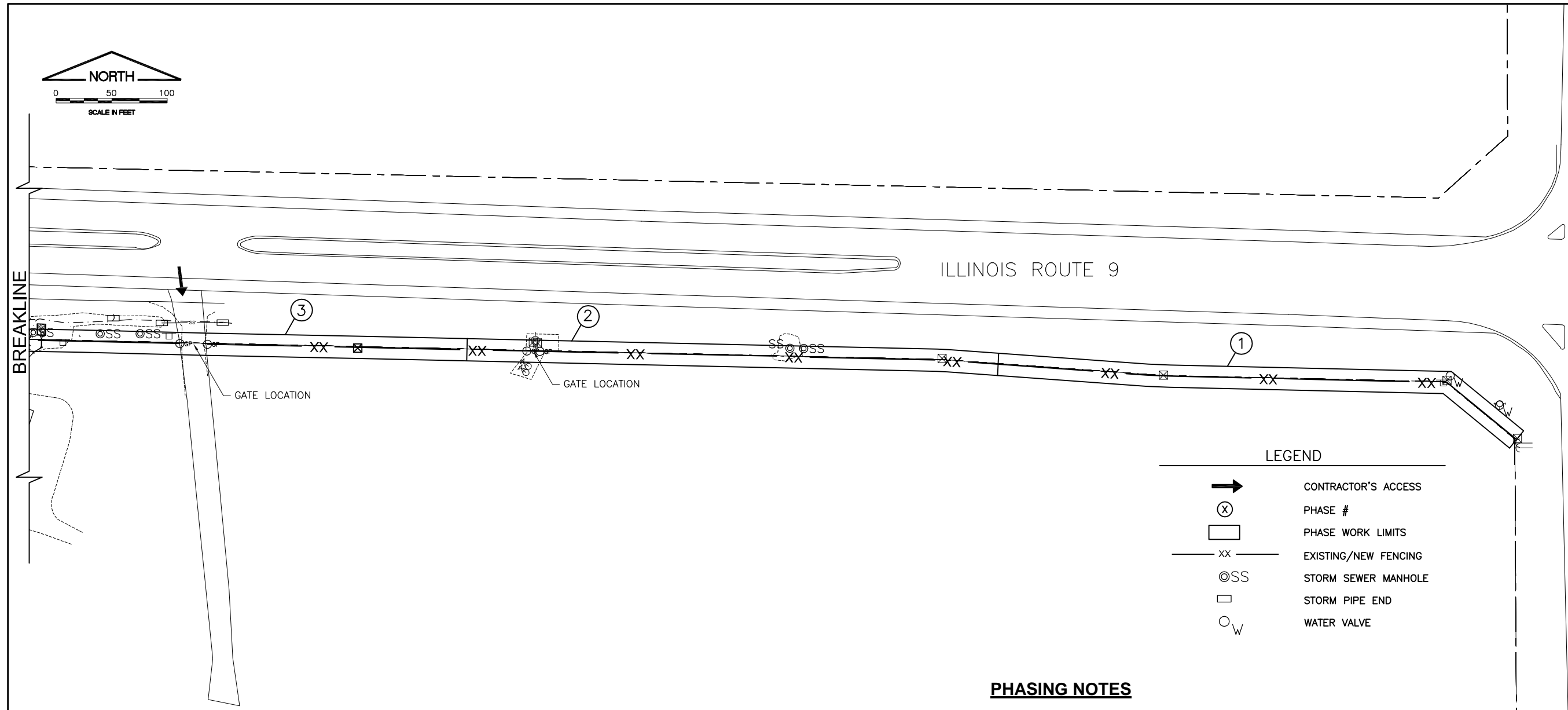
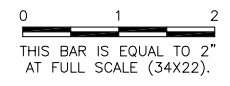
**INSTALL 10' PERIMETER FENCE PHASE 4  
 SITE PLAN**

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

**BL067**

REVISIONS		
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LEGEND	
	CONTRACTOR'S ACCESS
	PHASE #
	PHASE WORK LIMITS
	EXISTING/NEW FENCING
	STORM SEWER MANHOLE
	STORM PIPE END
	WATER VALVE

**PHASING NOTES**

- Maintaining the security requirements of the Airport shall be a primary concern for the Contractor.
- At no time shall there be unsupervised openings or gaps permitted in the Airport fence line.
- The Contractor shall provide and install Temporary Fencing as required by the specifications.
- The proposed phases are approximately 500' long.
- No more than three consecutive phases may be constructed simultaneously with the exception of work at the terminal building.
- When work is taking place at the terminal building the contractor may only work in those phases until those phases are completed.
- When working in Phases 9 and 10 at the terminal, the Contractor shall coordinate with the Airport through the Resident Engineer.
- The Contractor shall provide a seven (7) day notice prior to starting a new phase to allow Airport coordination with adjacent property owners.
- The Contractor shall place Temporary Fencing at an offset that does not encroach on adjacent agricultural fields.
- Phases 2 and 3 will require Contractor coordination with the Federal Aviation Administration (FAA) through the Resident Engineer.

**PROPOSED CONSTRUCTION SEQUENCE FOR EACH PHASE**

- Provide seven (7) day notice to the Airport for coordination.
- Install Temporary Fence.
- Remove existing fence including backfill of post holes.
- Clear and grade the new fence line in accordance with Section 162-3.2, Clearing Fence Line, of the Standard Specifications.
- Install new fence.
- Restore the disturbed areas.
- Seeding and Mulching.
- Remove Temporary Fencing including any additional restoration.

TOWANDA BARNES ROAD

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

**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 1**

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ILLINOIS ROUTE 9

BREAKLINE





CIRA DRIVE

EXISTING STORM  
 WATER DETENTION  
 AREA

BREAKLINE


GATE LOCATION  
 GATE TO BE REMOVED

**LEGEND**

-  CONTRACTOR'S ACCESS
-  PHASE #
-  PHASE WORK LIMITS
-  EXSTING/NEW FENCING

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

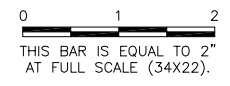
**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 2**

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SHEET	5 OF 42 SHEETS

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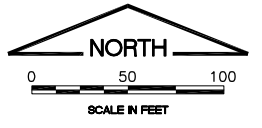
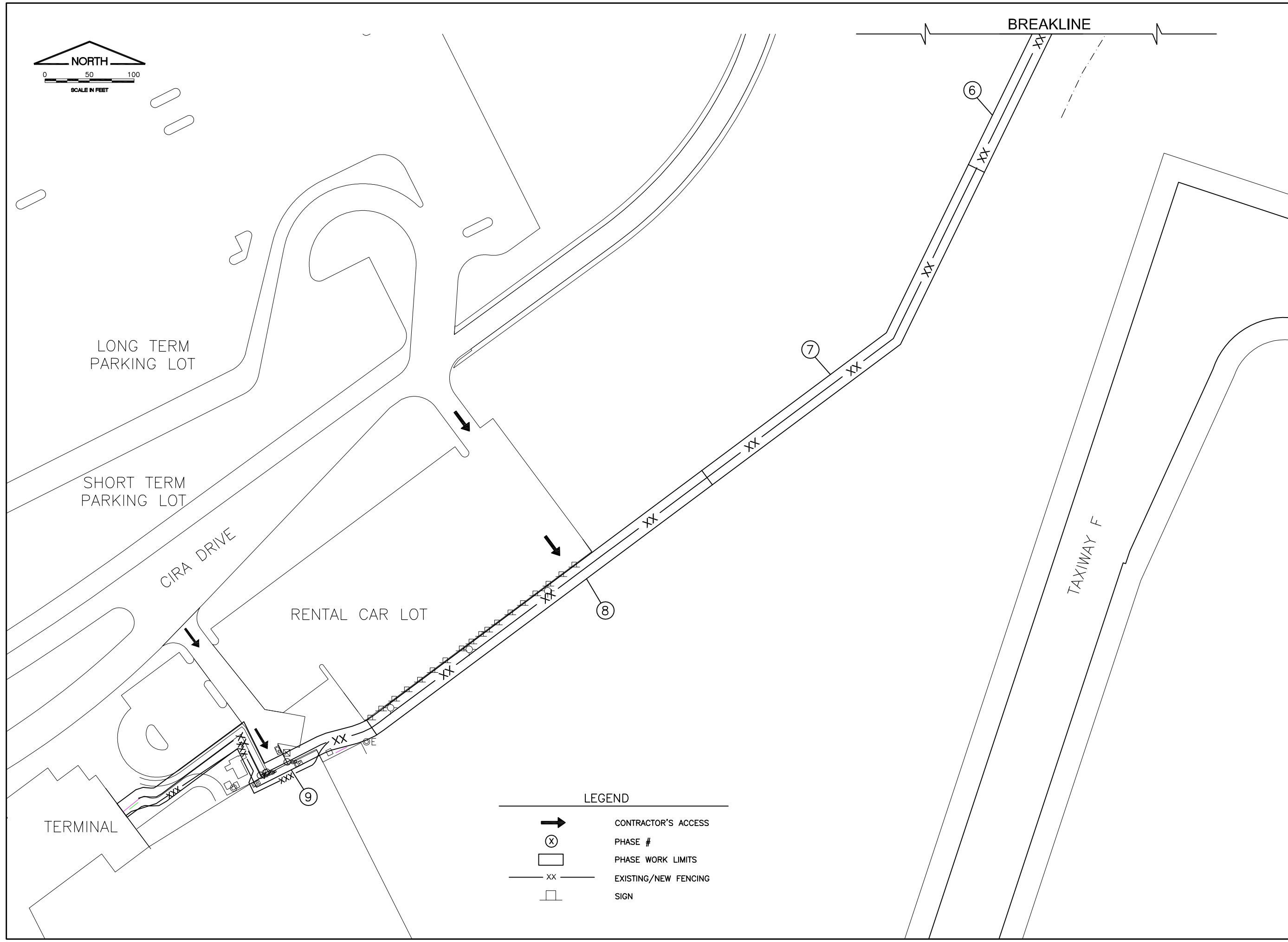


**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 3**

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JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	6 OF 42 SHEETS

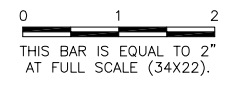


**LEGEND**

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

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NUMBER	BY	DATE



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

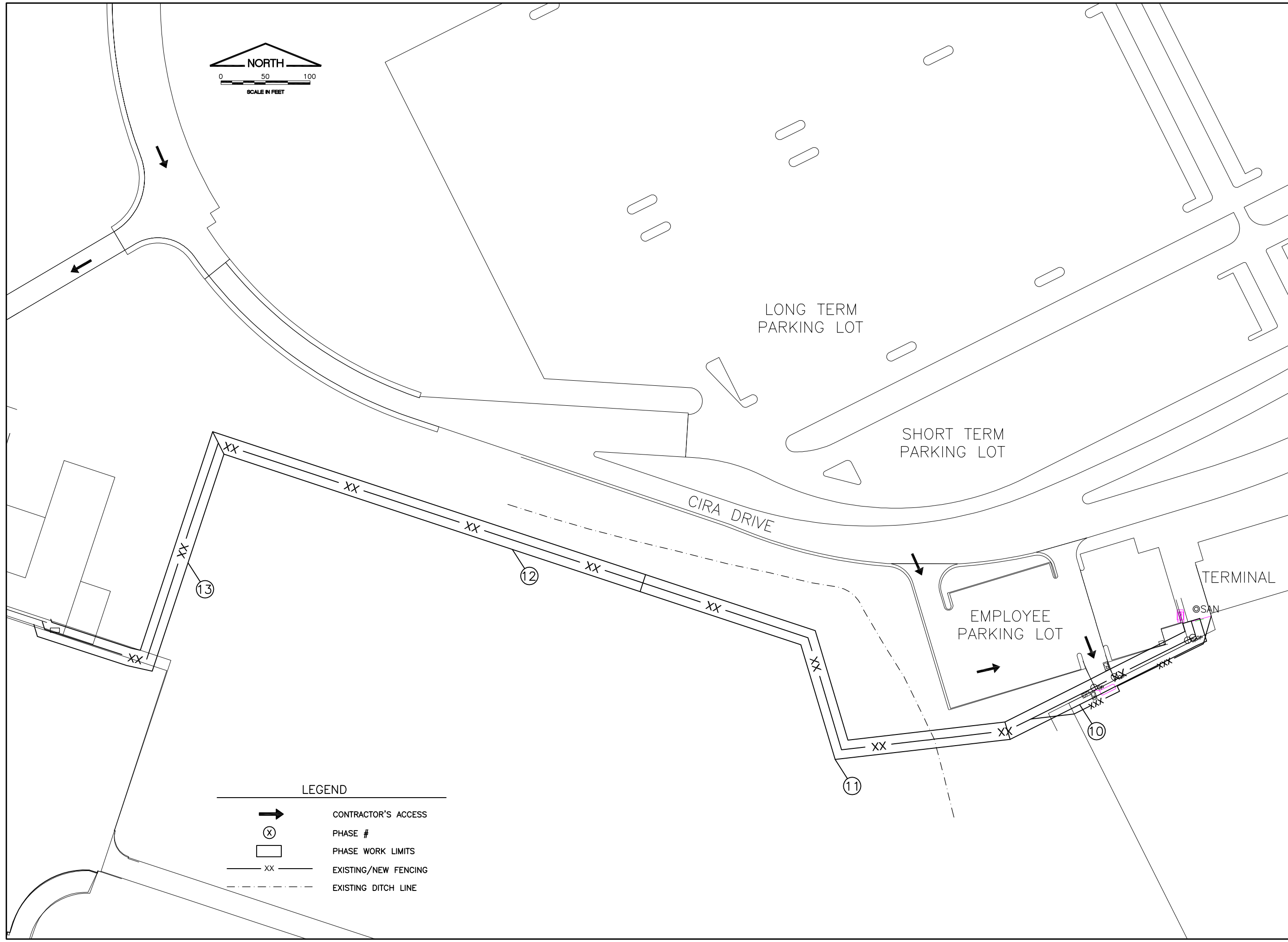
**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 4**

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AIP PROJ NO.	3-17-0006-XX
SHEET	7 OF 42 SHEETS



**LEGEND**

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

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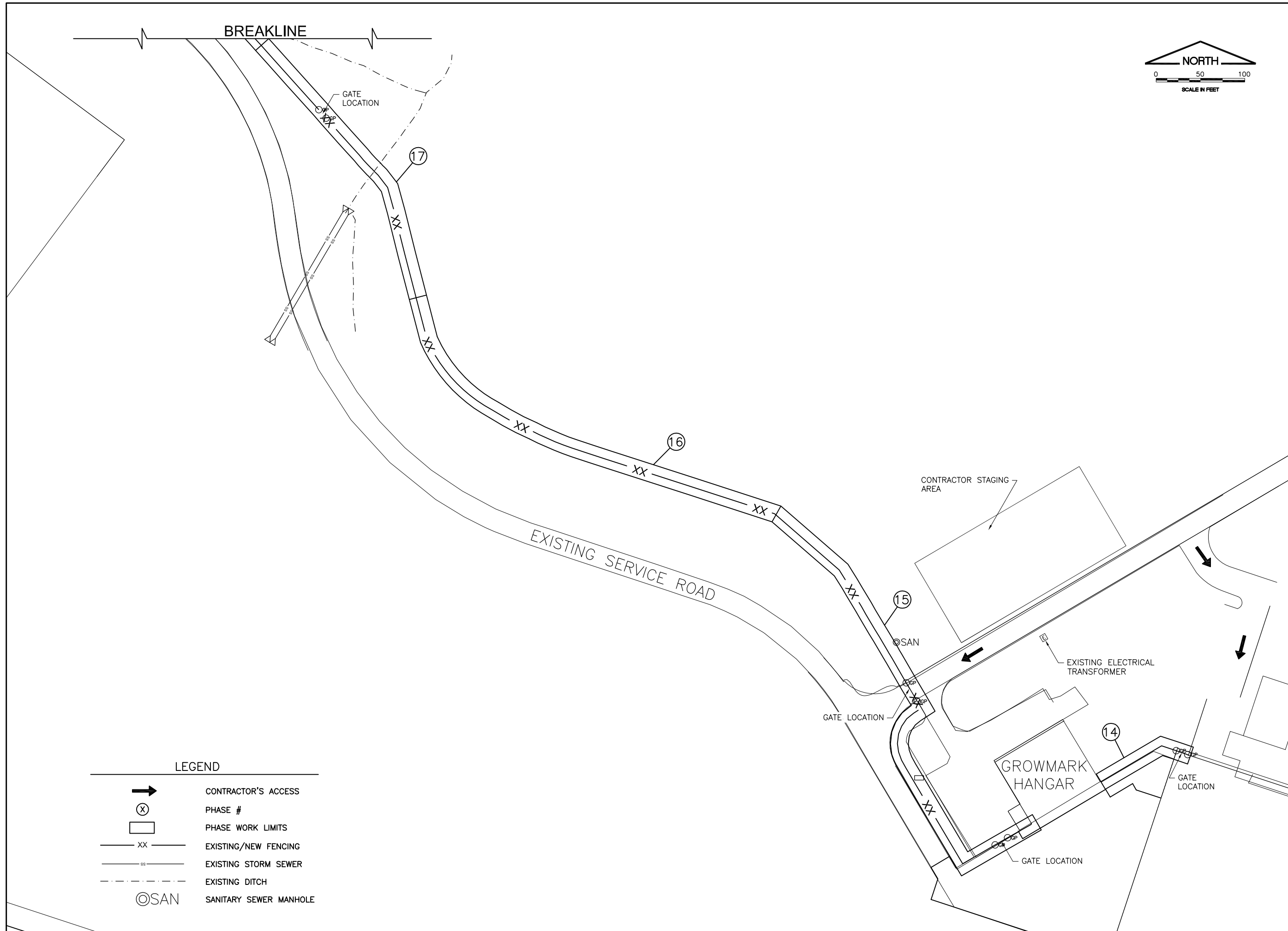
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 BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 5**

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SHEET	8 OF 42 SHEETS



**LEGEND**

	CONTRACTOR'S ACCESS
	PHASE #
	PHASE WORK LIMITS
	EXISTING/NEW FENCING
	EXISTING STORM SEWER
	EXISTING DITCH
	SANITARY SEWER MANHOLE



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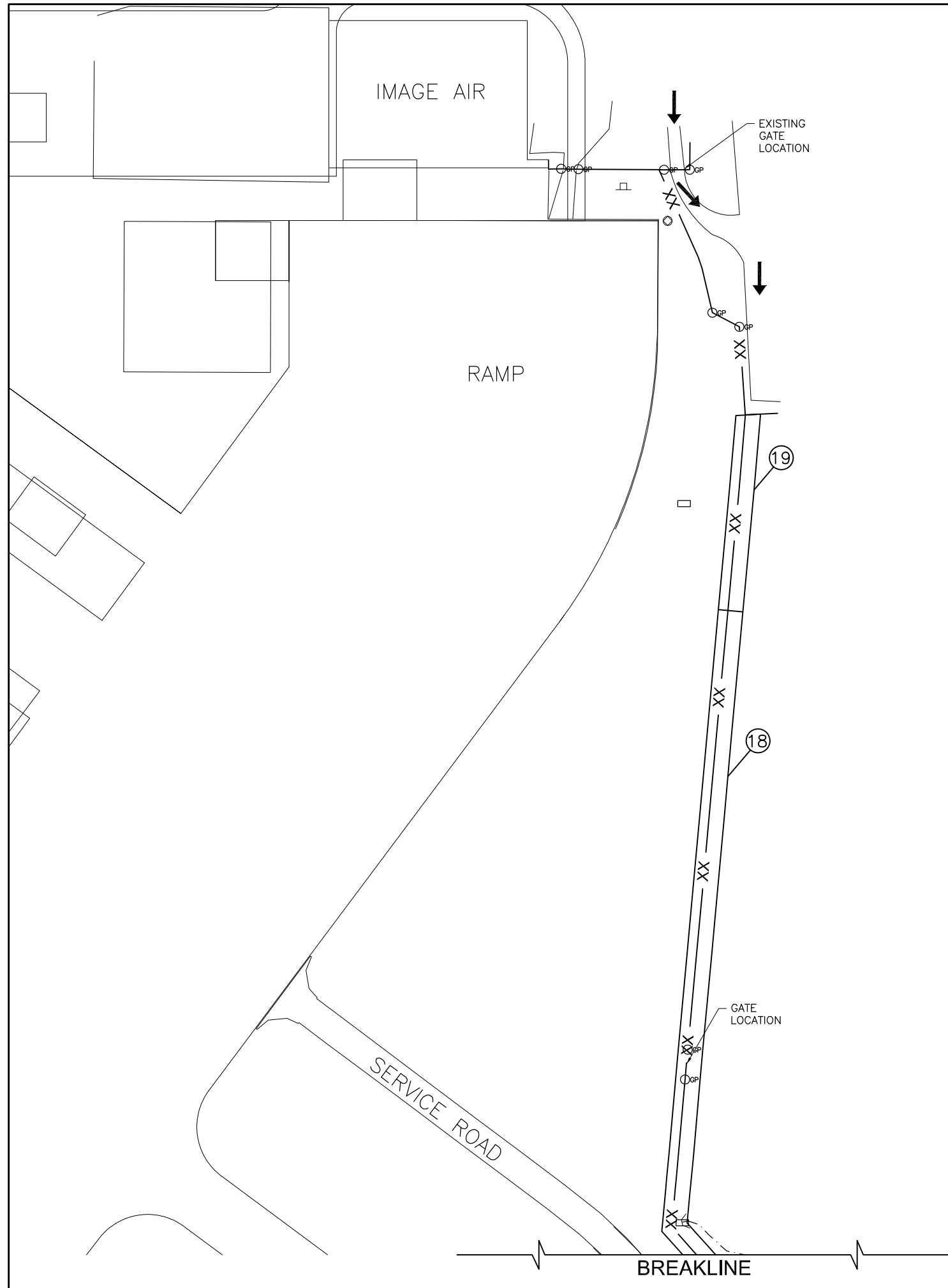
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**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 6**

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

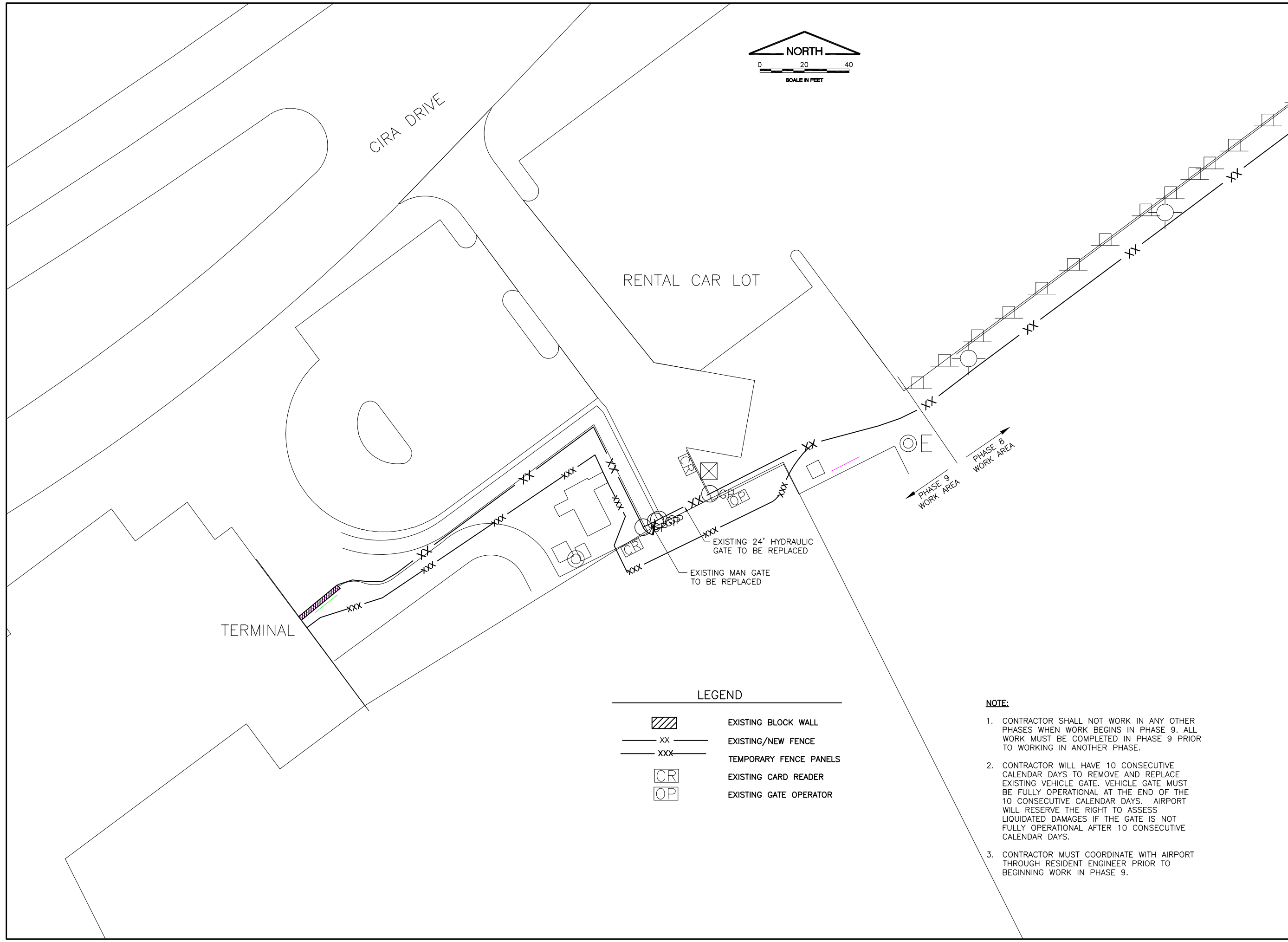
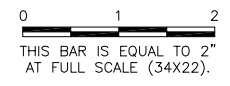


**LEGEND**

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

**BL067**

REVISIONS		
NUMBER	BY	DATE



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

**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 7**

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**LEGEND**

- EXISTING BLOCK WALL
- EXISTING/NEW FENCE
- TEMPORARY FENCE PANELS
- EXISTING CARD READER
- EXISTING GATE OPERATOR

**NOTE:**

1. CONTRACTOR SHALL NOT WORK IN ANY OTHER PHASES WHEN WORK BEGINS IN PHASE 9. ALL WORK MUST BE COMPLETED IN PHASE 9 PRIOR TO WORKING IN ANOTHER PHASE.
2. CONTRACTOR WILL HAVE 10 CONSECUTIVE CALENDAR DAYS TO REMOVE AND REPLACE EXISTING VEHICLE GATE. VEHICLE GATE MUST BE FULLY OPERATIONAL AT THE END OF THE 10 CONSECUTIVE CALENDAR DAYS. AIRPORT WILL RESERVE THE RIGHT TO ASSESS LIQUIDATED DAMAGES IF THE GATE IS NOT FULLY OPERATIONAL AFTER 10 CONSECUTIVE CALENDAR DAYS.
3. CONTRACTOR MUST COORDINATE WITH AIRPORT THROUGH RESIDENT ENGINEER PRIOR TO BEGINNING WORK IN PHASE 9.

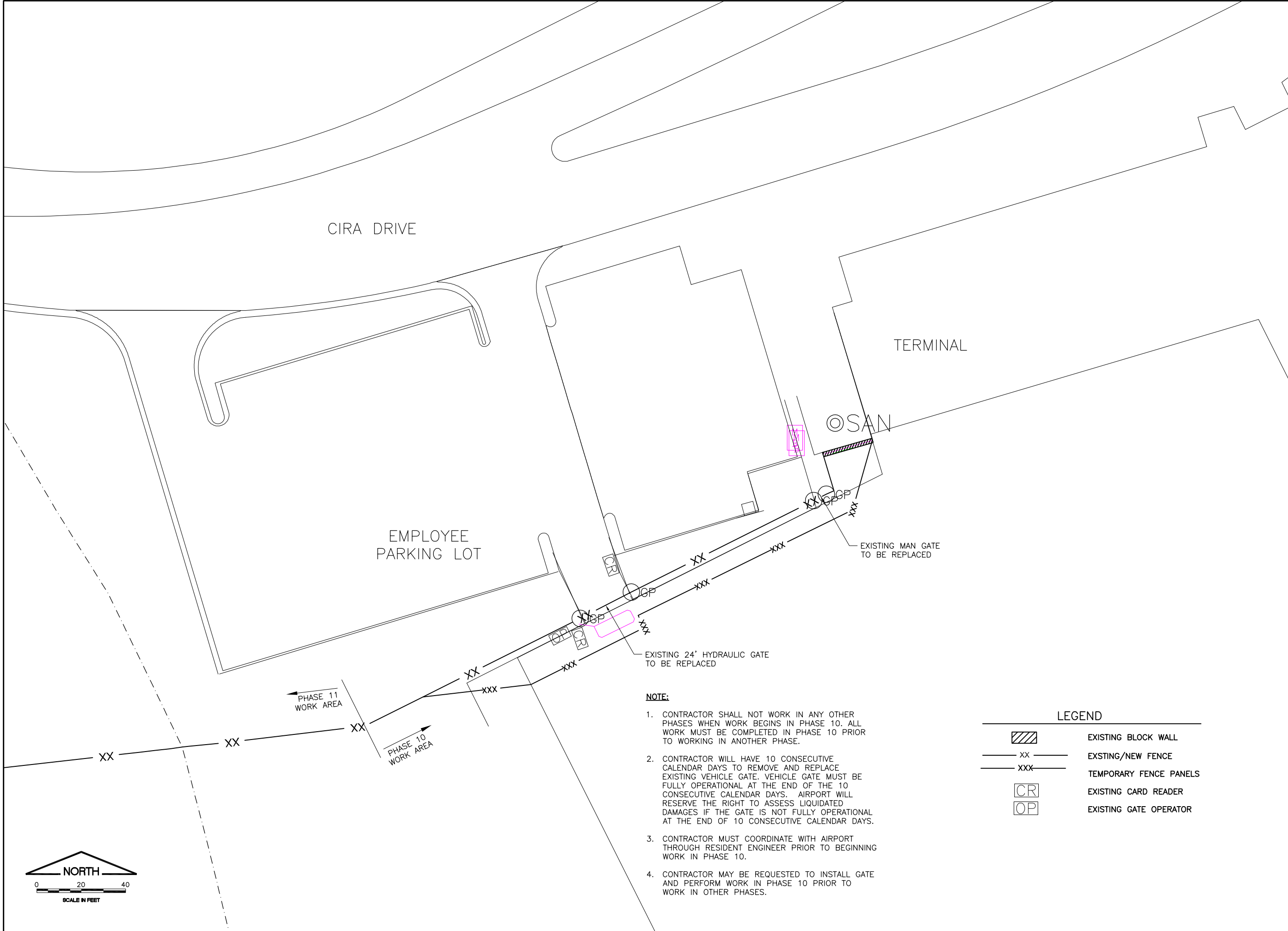
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AIP PROJ NO.	3-17-0006-XX
SHEET	10 OF 42 SHEETS

**BL067**

REVISIONS

NUMBER	BY	DATE






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



**NOTE:**

1. CONTRACTOR SHALL NOT WORK IN ANY OTHER PHASES WHEN WORK BEGINS IN PHASE 10. ALL WORK MUST BE COMPLETED IN PHASE 10 PRIOR TO WORKING IN ANOTHER PHASE.
2. CONTRACTOR WILL HAVE 10 CONSECUTIVE CALENDAR DAYS TO REMOVE AND REPLACE EXISTING VEHICLE GATE. VEHICLE GATE MUST BE FULLY OPERATIONAL AT THE END OF THE 10 CONSECUTIVE CALENDAR DAYS. AIRPORT WILL RESERVE THE RIGHT TO ASSESS LIQUIDATED DAMAGES IF THE GATE IS NOT FULLY OPERATIONAL AT THE END OF 10 CONSECUTIVE CALENDAR DAYS.
3. CONTRACTOR MUST COORDINATE WITH AIRPORT THROUGH RESIDENT ENGINEER PRIOR TO BEGINNING WORK IN PHASE 10.
4. CONTRACTOR MAY BE REQUESTED TO INSTALL GATE AND PERFORM WORK IN PHASE 10 PRIOR TO WORK IN OTHER PHASES.

**LEGEND**

	EXISTING BLOCK WALL
	EXISTING/NEW FENCE
	TEMPORARY FENCE PANELS
	EXISTING CARD READER
	EXISTING GATE OPERATOR



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

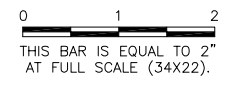
**INSTALL 10' PERIMETER FENCE PHASE 4  
 CONSTRUCTION ACTIVITY PLAN 8**

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AIP PROJ NO.	3-17-0006-XX
SHEET	11 OF 42 SHEETS

**BL067**

REVISIONS		
NUMBER	BY	DATE

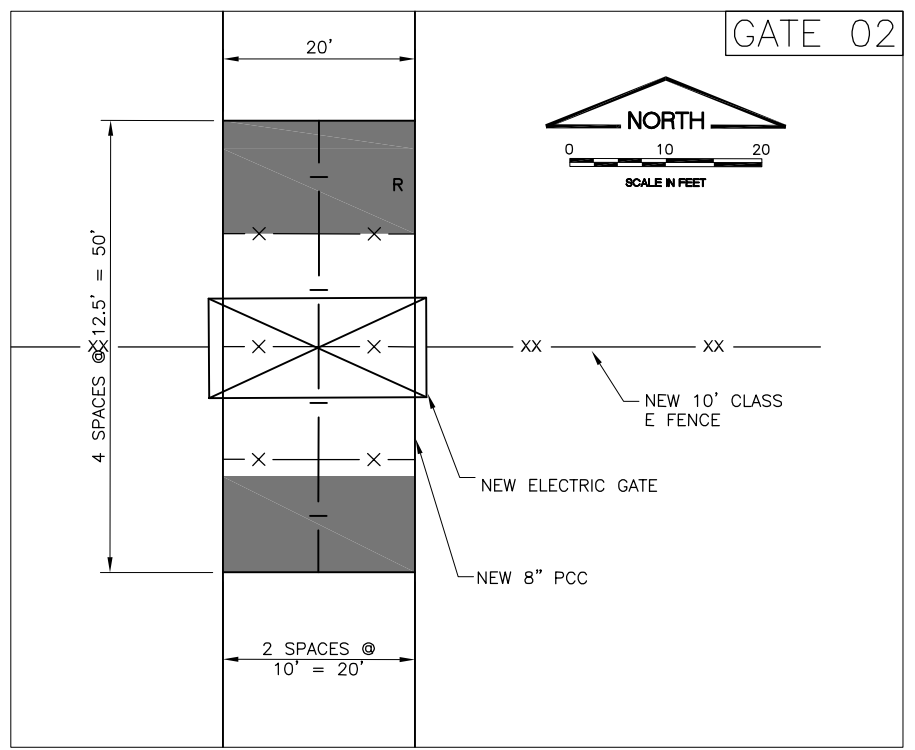
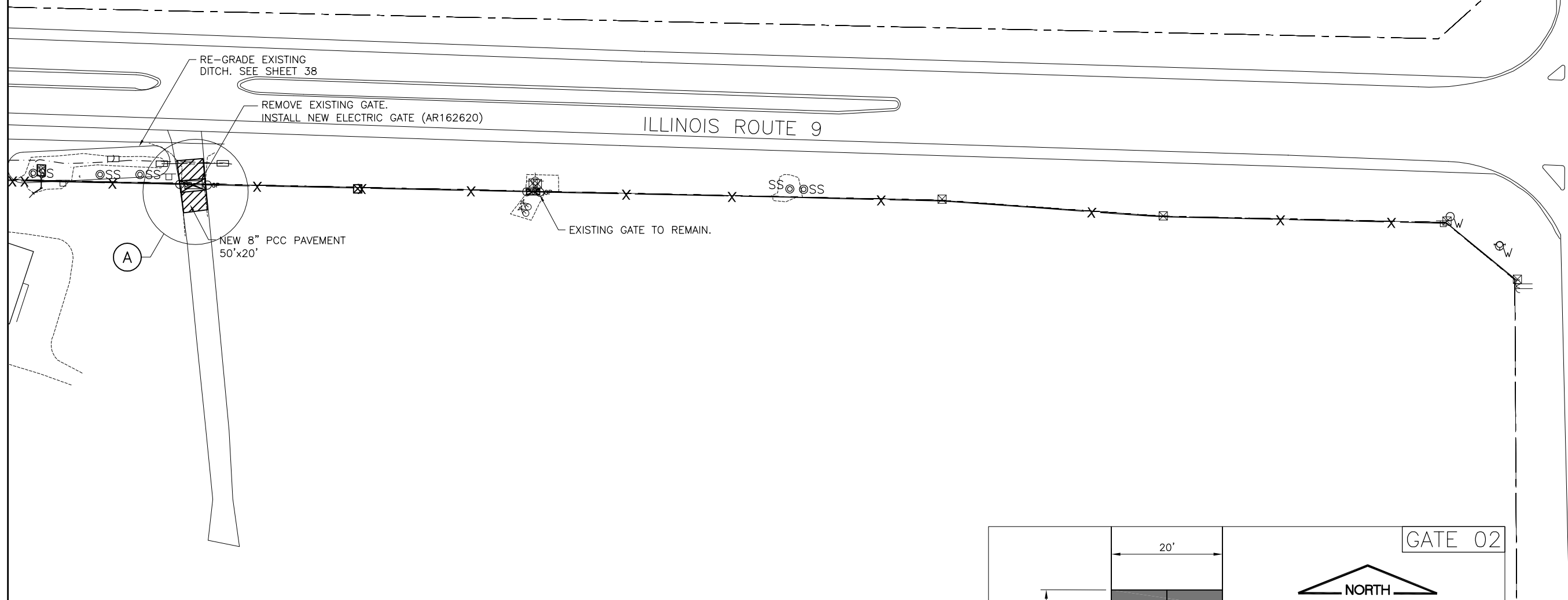


**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

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

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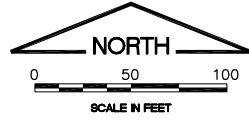
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JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET 12 OF 42 SHEETS	



**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.



V:\A\ind\Bloomington\1008501\Draw\Sheets  
 FILE: PROPIMP02.dwg  
 UPDATE BY: Dale Draughan  
 PLOT DATE: 12/8/2011 3:48 PM  
 EXIST\_TOPO  
 AIRPORT\_LAYOUT\_PLAN  
 AERIAL

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REVISIONS

NUMBER	BY	DATE

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

ILLINOIS ROUTE 9

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 E: 1392010.9396

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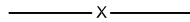
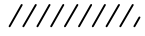
EXISTING RIP RAP

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.
-  EXISTING FENCE TO BE REMOVED.

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

INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 2

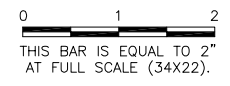
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AIP PROJ NO.	3-17-0006-XX
SHEET	13 OF 42 SHEETS



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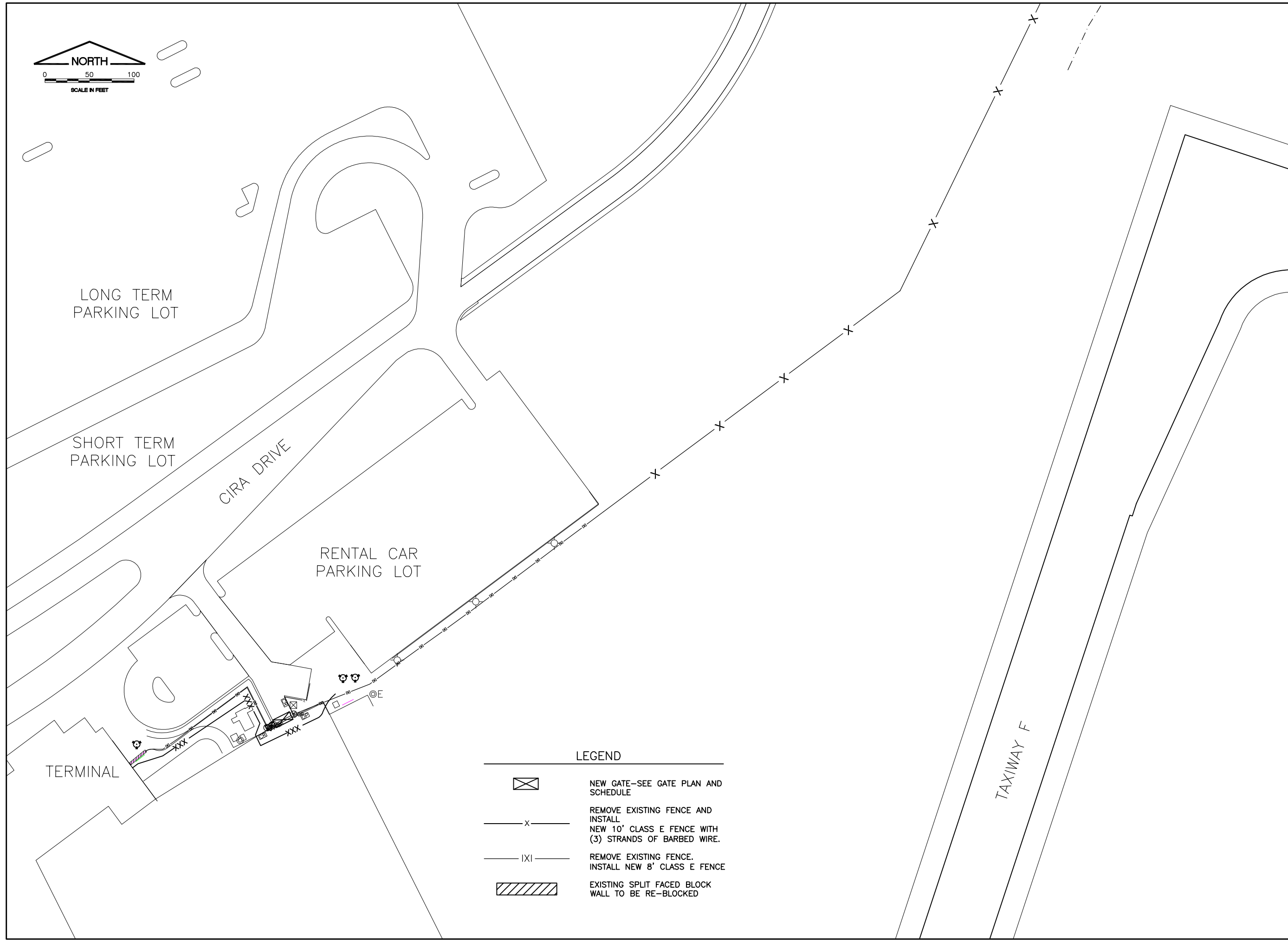
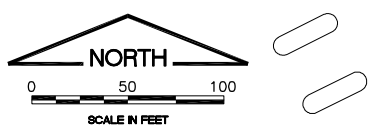


**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**


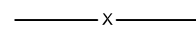
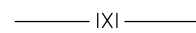
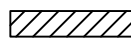
**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 3**

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AIP PROJ NO.	3-17-0006-XX
SHEET	14 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
-  EXISTING SPLIT FACED BLOCK WALL TO BE RE-BLOCKED

**BL067**

REVISIONS

NUMBER	BY	DATE

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

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

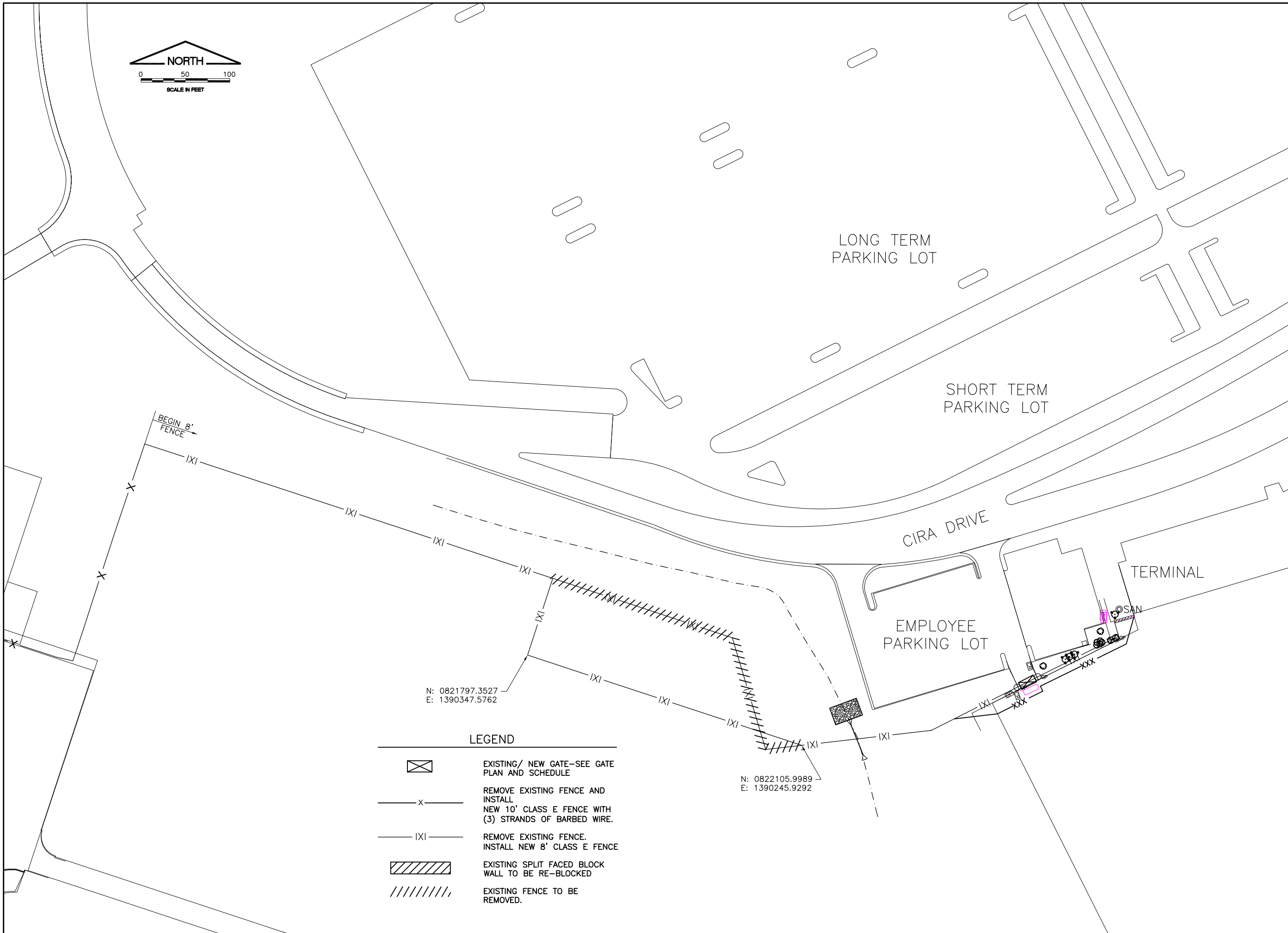
**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 4**

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


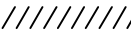
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AIP PROJ NO.	3-17-0006-XX
SHEET	15 OF 42 SHEETS

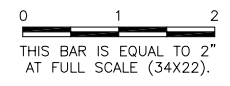


**LEGEND**


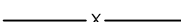
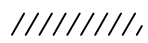


-  EXISTING/ NEW GATE--SEE GATE PLAN AND SCHEDULE
-  REMOVE EXISTING FENCE AND INSTALL NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
-  REMOVE EXISTING FENCE. INSTALL NEW 8' CLASS E FENCE
-  EXISTING SPLIT FACED BLOCK WALL TO BE RE-BLOCKED
-  EXISTING FENCE TO BE REMOVED.

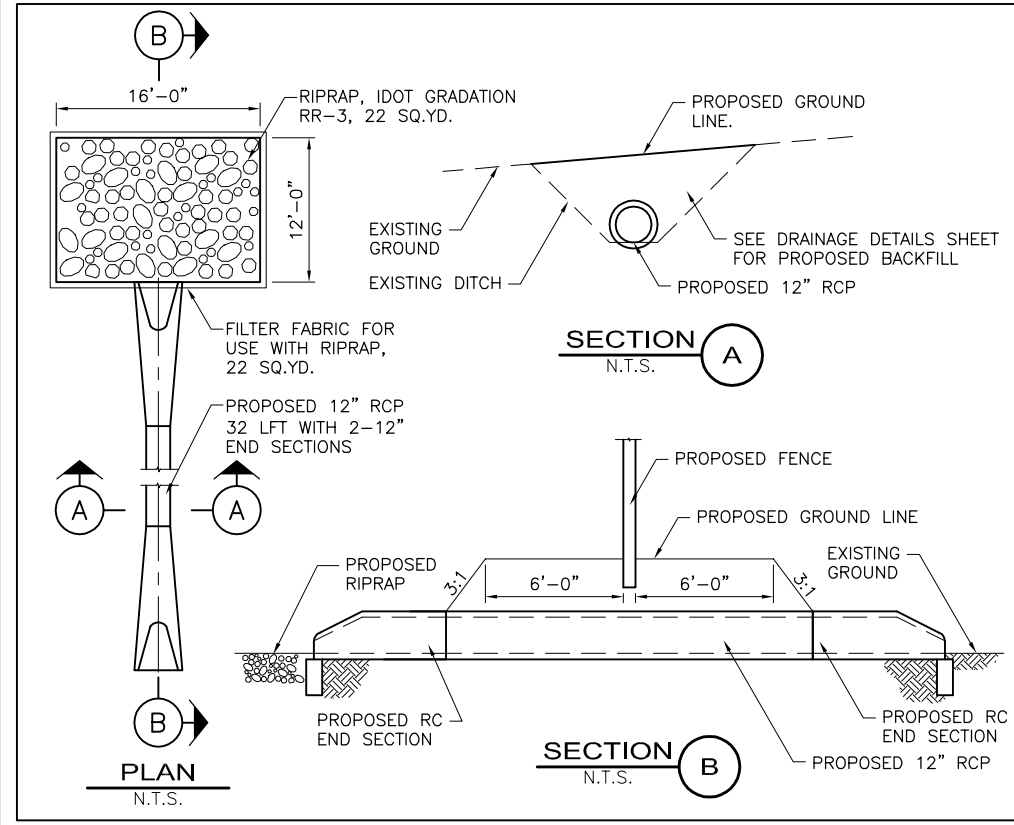
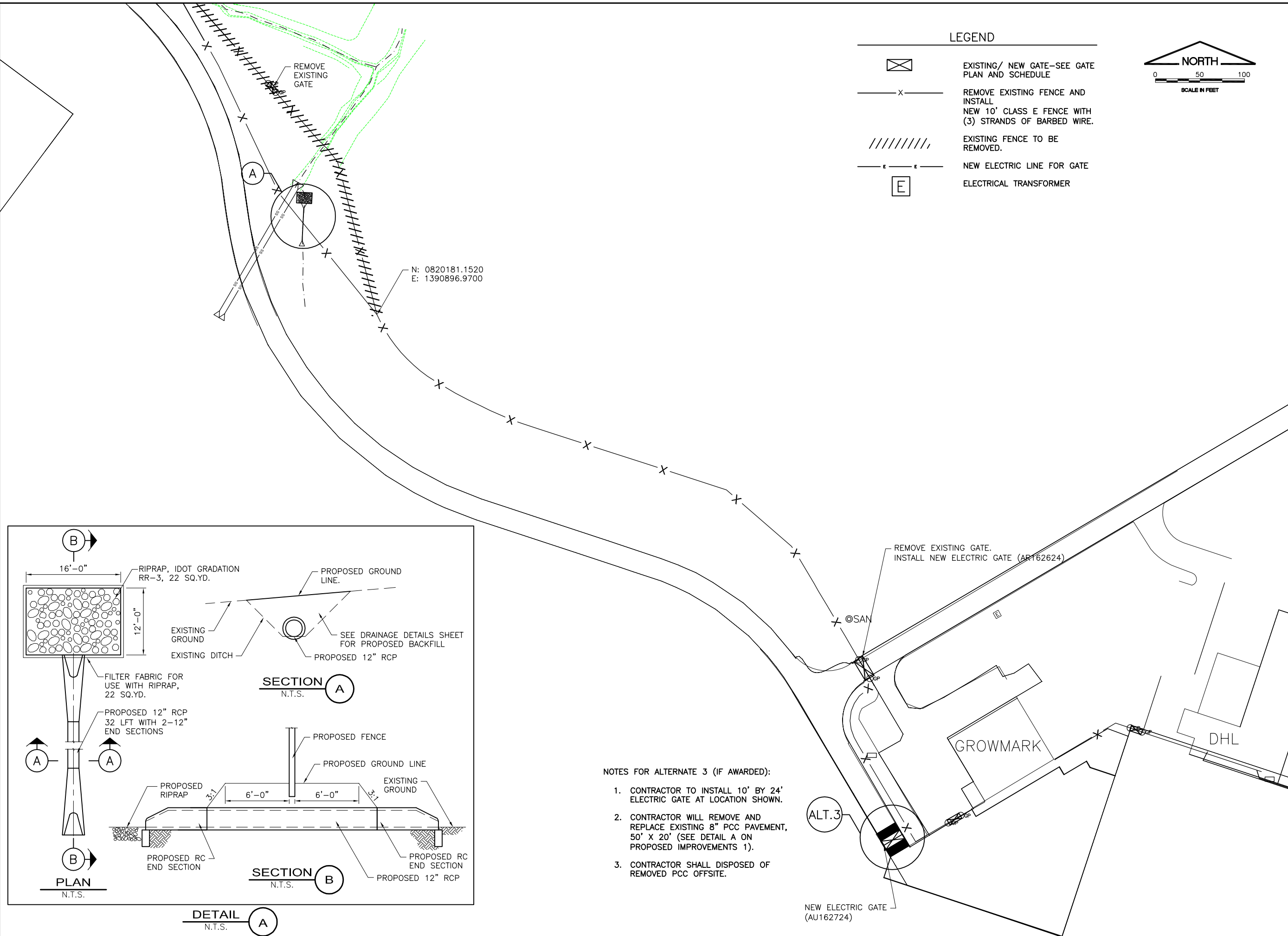
**BL067**

REVISIONS		
NUMBER	BY	DATE



**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):
1. CONTRACTOR TO INSTALL 10' BY 24' ELECTRIC GATE AT LOCATION SHOWN.
  2. CONTRACTOR WILL REMOVE AND REPLACE EXISTING 8" PCC PAVEMENT, 50' X 20' (SEE DETAIL A ON PROPOSED IMPROVEMENTS 1).
  3. 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**

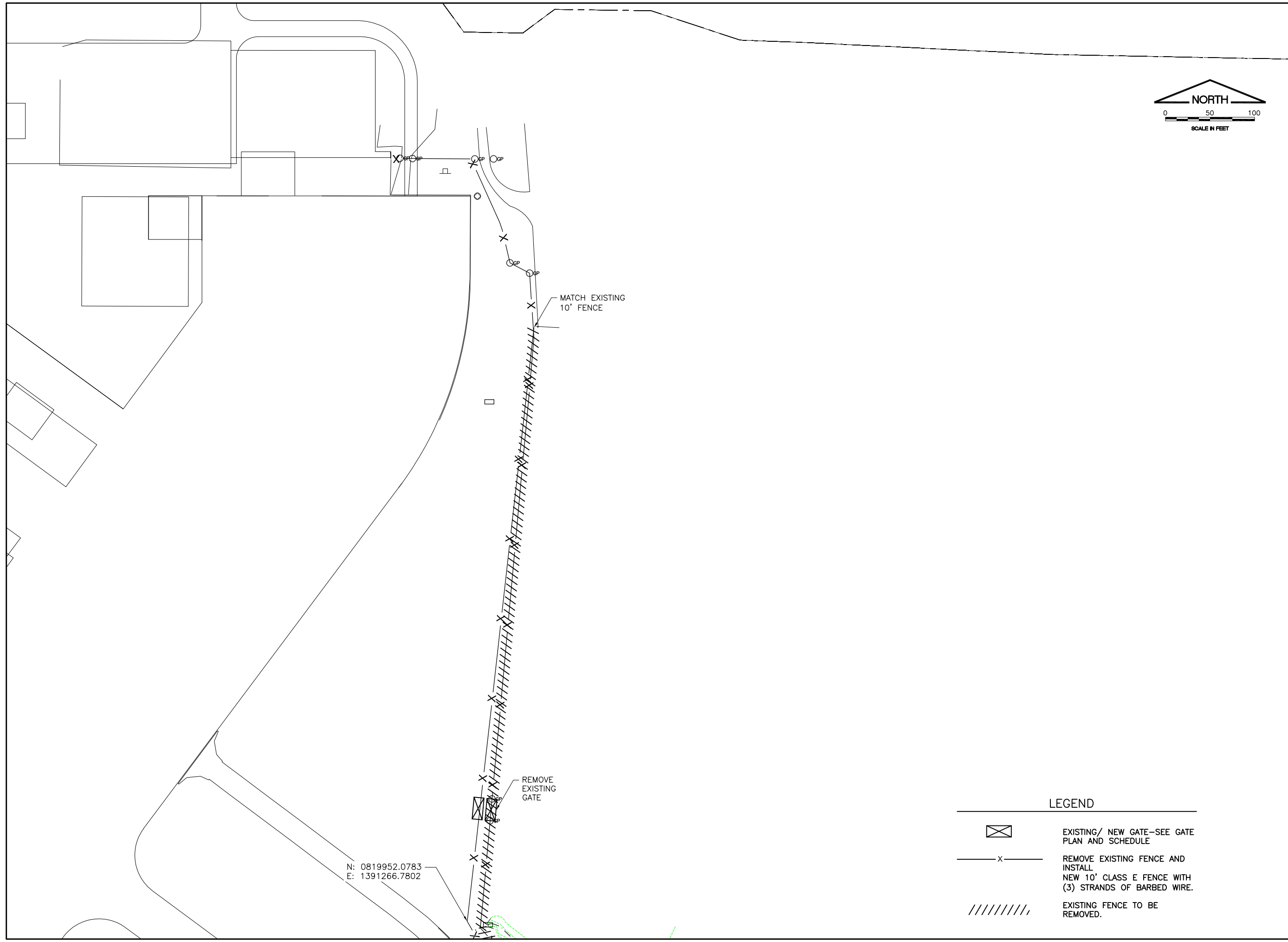
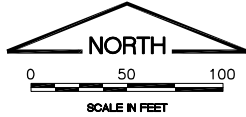
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SHEET	16 OF 42 SHEETS

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0 1 2  
 THIS BAR IS EQUAL TO 2"  
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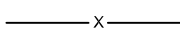
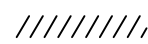


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 BLOOMINGTON, ILLINOIS**

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

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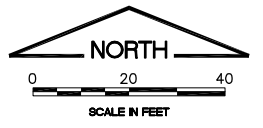
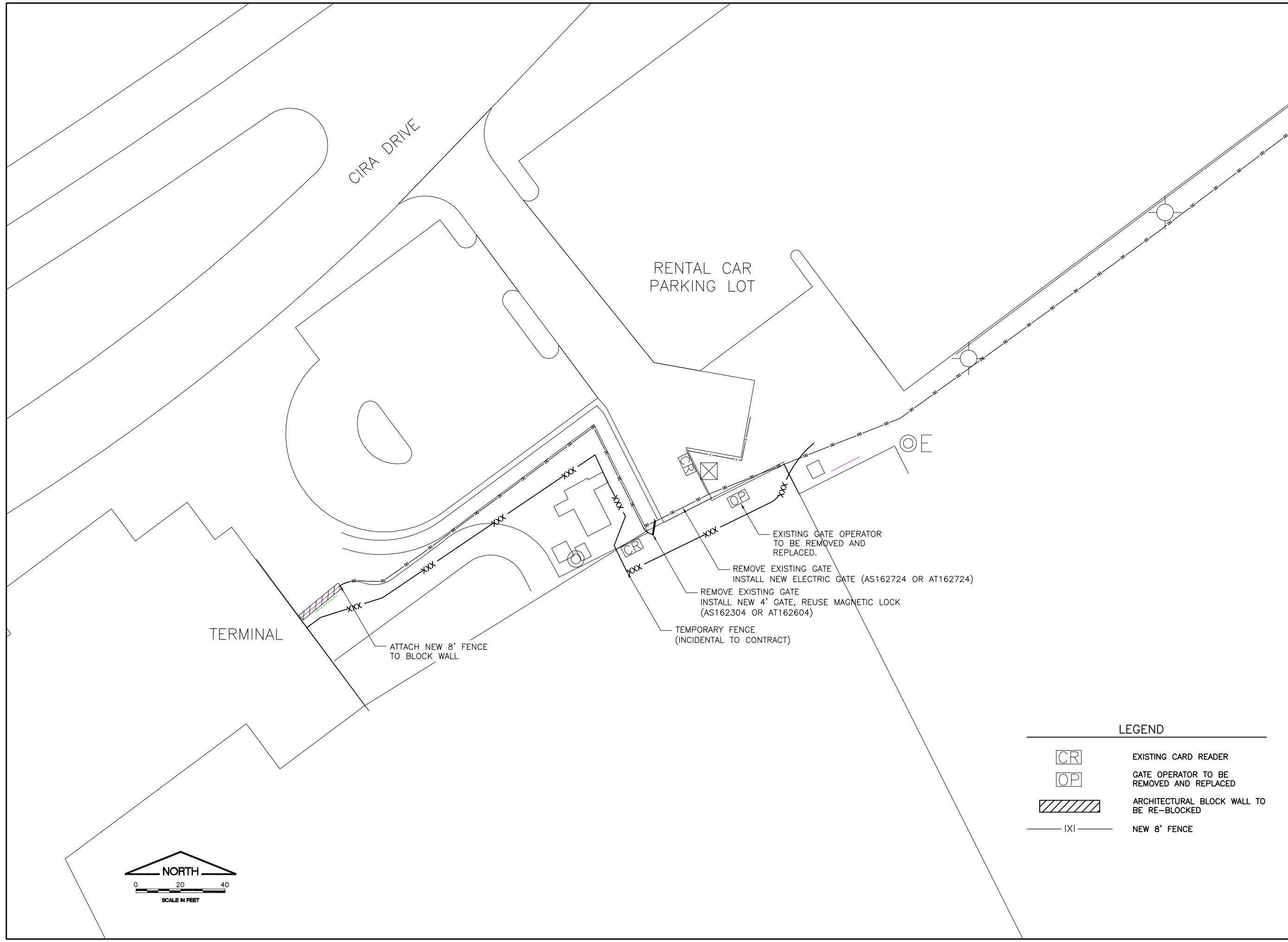
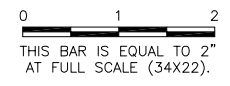
**LEGEND**

-  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.

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

**BL067**

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NUMBER	BY	DATE



**LEGEND**

[CR]	EXISTING CARD READER
[OP]	GATE OPERATOR TO BE REMOVED AND REPLACED
[Hatched Box]	ARCHITECTURAL BLOCK WALL TO BE RE-BLOCKED
— IXI —	NEW 8' FENCE

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



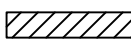

**INSTALL 10' PERIMETER FENCE PHASE 4  
 PROPOSED IMPROVEMENTS 7**

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AIP PROJ NO.	3-17-0006-XX
SHEET	18 OF 42 SHEETS



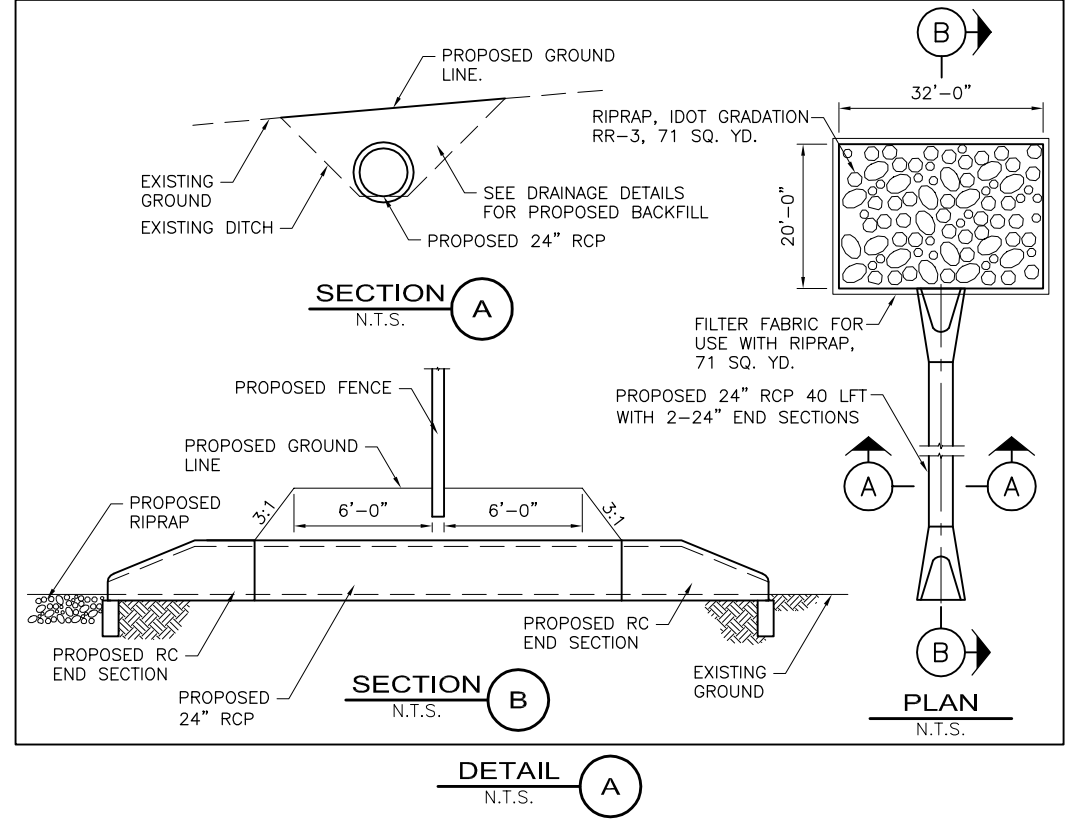
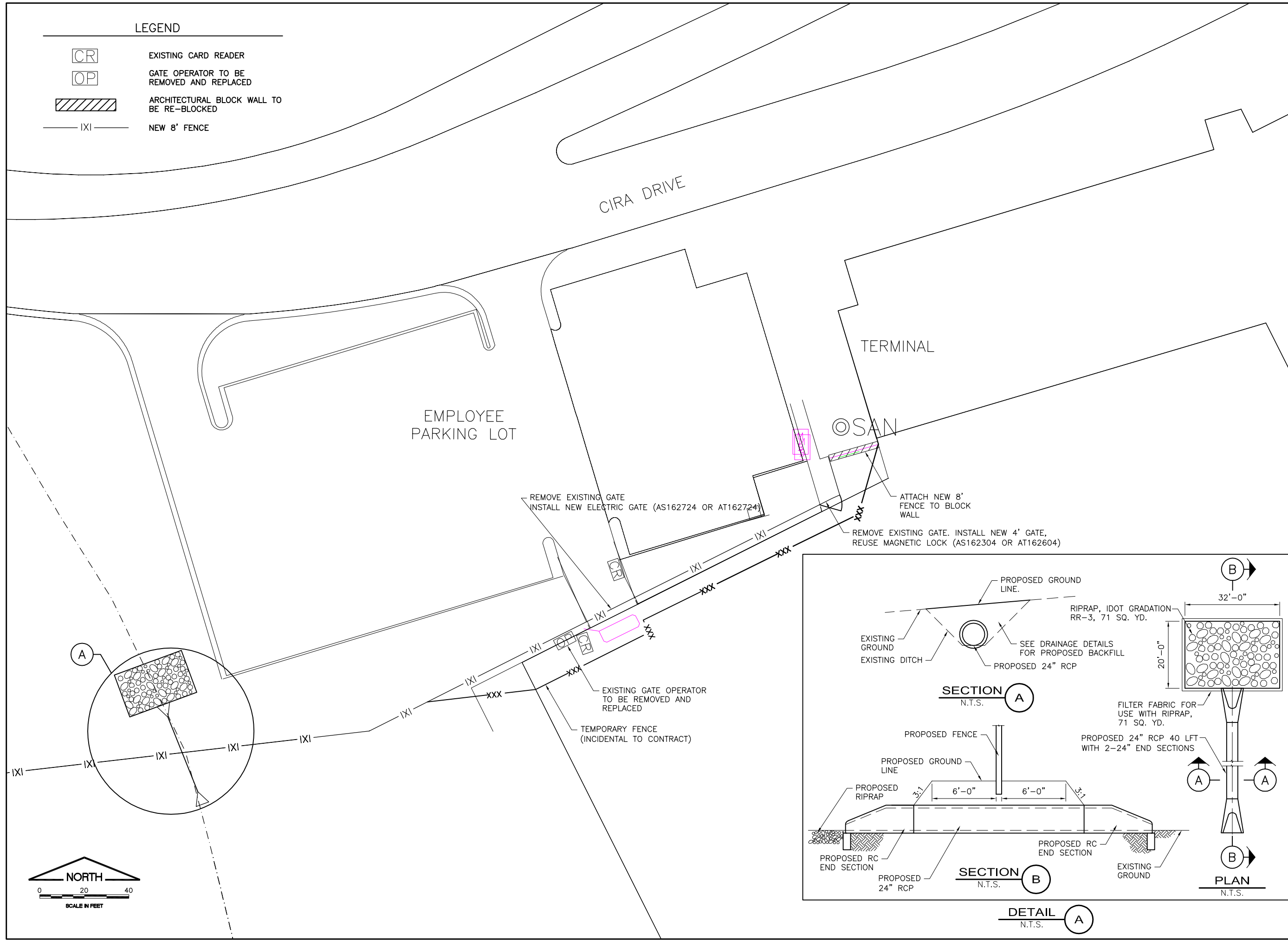
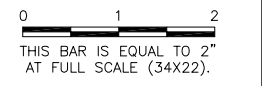
LEGEND

-  EXISTING CARD READER
-  GATE OPERATOR TO BE REMOVED AND REPLACED
-  ARCHITECTURAL BLOCK WALL TO BE RE-BLOCKED
-  NEW 8' FENCE

BL067

REVISIONS

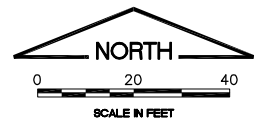
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**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**INSTALL 10' PERIMETER FENCE PHASE 4**  
**PROPOSED IMPROVEMENTS 8**

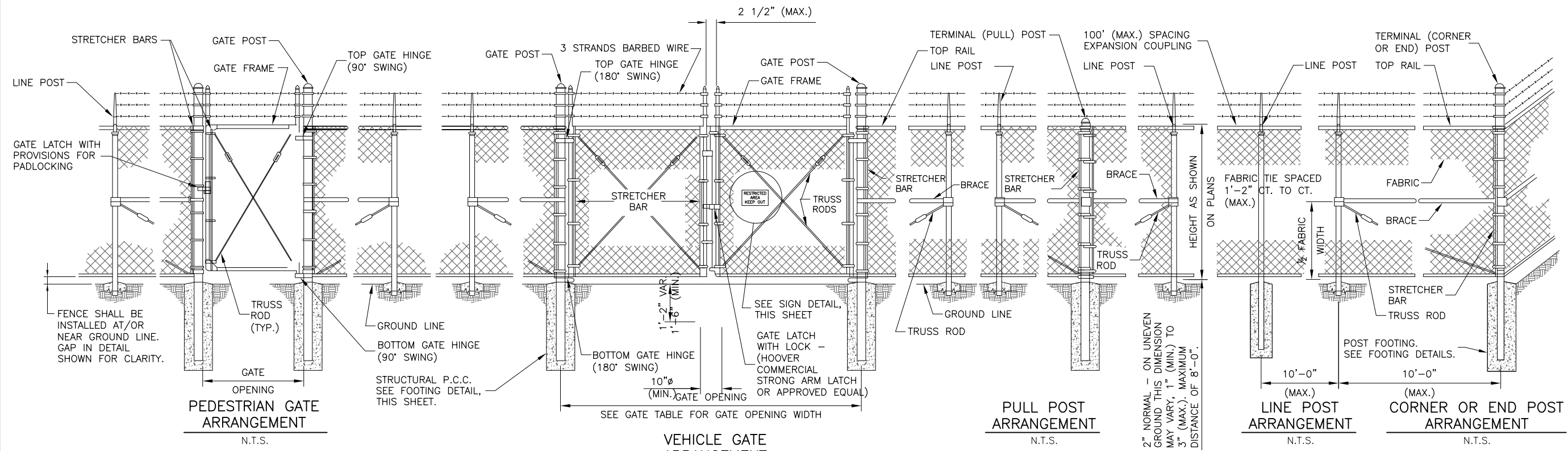
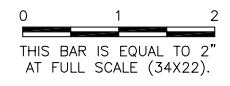
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SHEET	19 OF 42 SHEETS

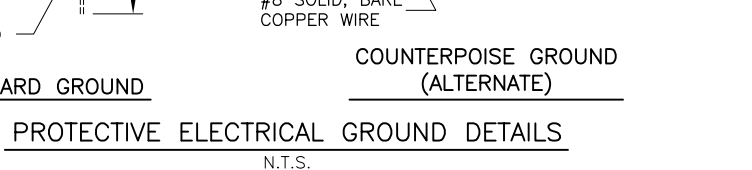
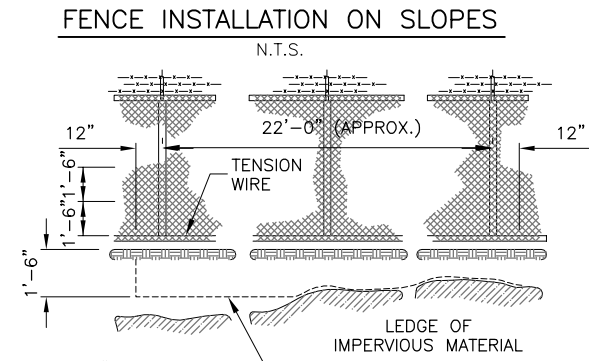
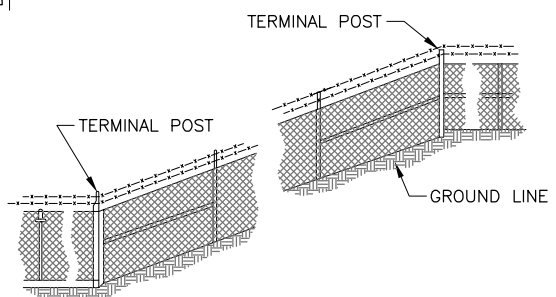
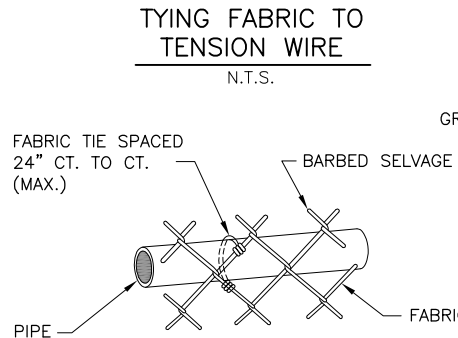
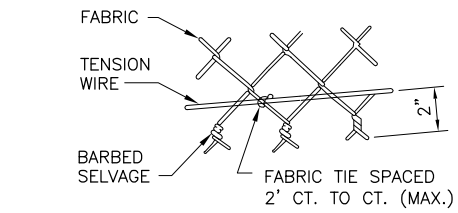
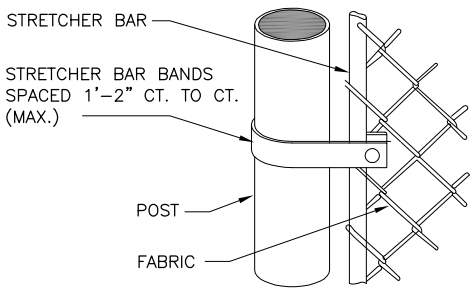
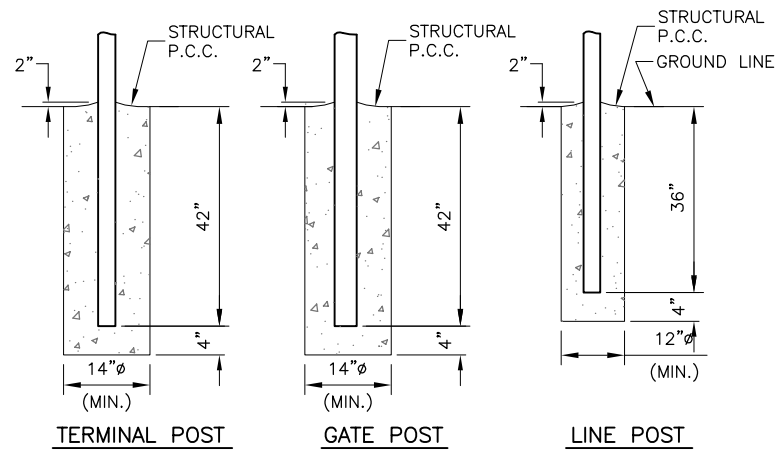


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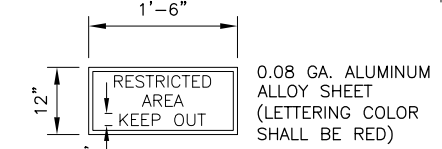
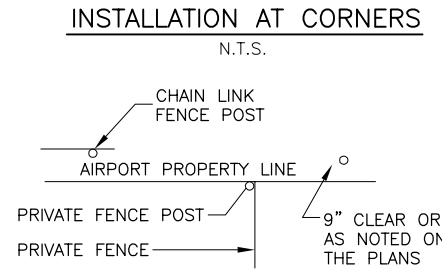
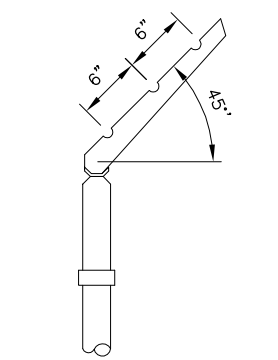
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PULL POSTS SHALL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER. THEY SHALL BE PLACED AT 660 FT. INTERVALS BETWEEN POSTS TO WHICH THE ENDS OF THE FABRIC ARE CLAMPED OR MIDWAY BETWEEN SUCH POSTS WHEN THE DISTANCE IS LESS THAN 1320 FT. AND GREATER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



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.



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**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**INSTALL 10' PERIMETER FENCE PHASE 4**  
**FENCE DETAILS 1**

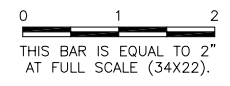
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 AIP PROJ NO. 3-17-0006-XX  
 SHEET 20 OF 42 SHEETS

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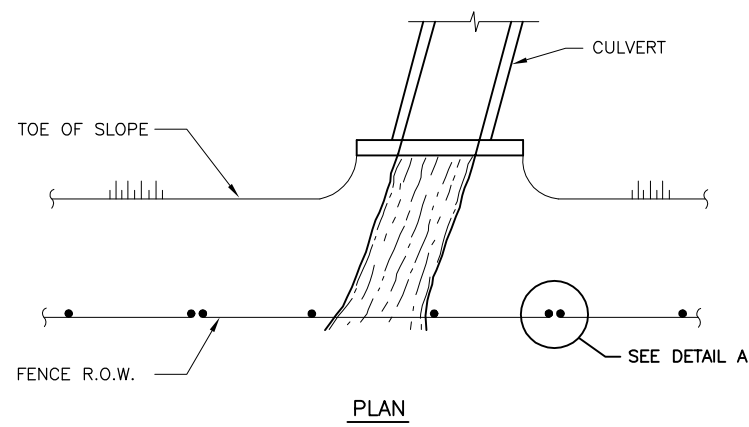
**INSTALL 10' PERIMETER FENCE PHASE 4  
 FENCE DETAILS 2**

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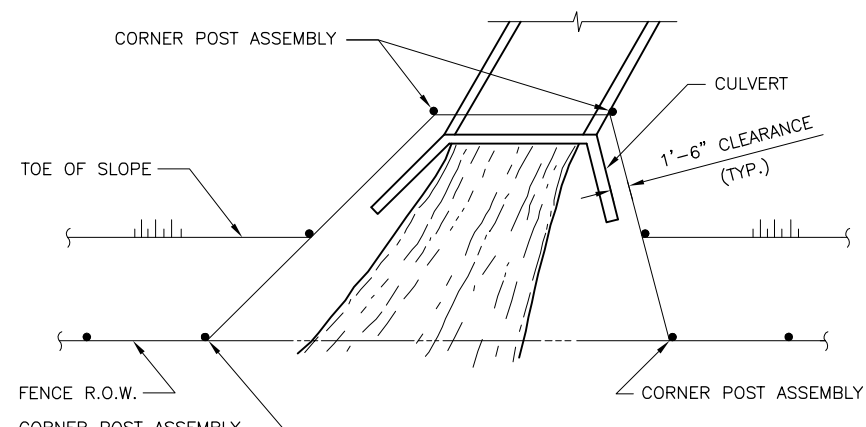


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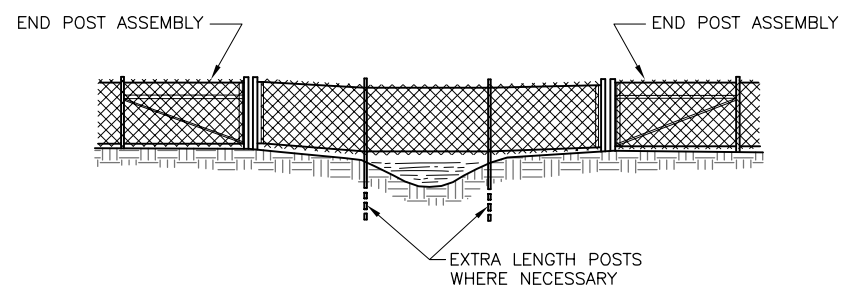
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PLAN

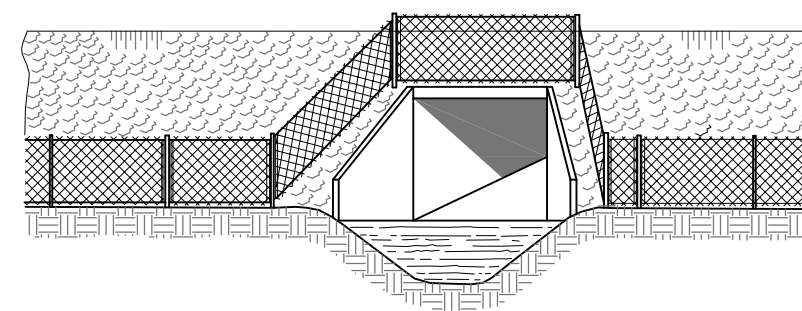


PLAN



ELEVATION

THE CHAIN LINK FABRIC SHALL BE REPLACED BY BARBED WIRE STRANDS AT 12" MAXIMUM CENTERS BETWEEN THE DOUBLE POSTS SHOWN ON DETAIL A WHEN SHOWN ON THE PLANS.

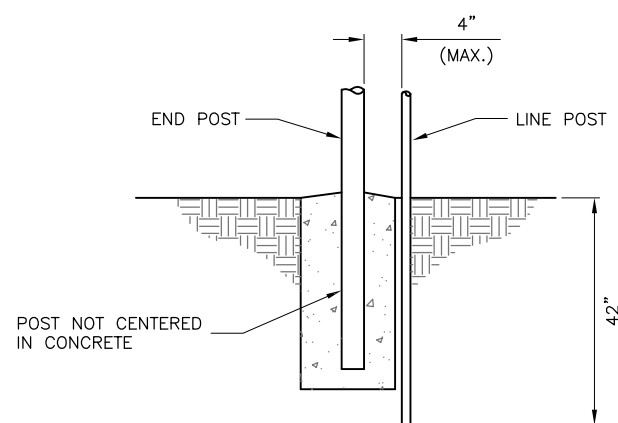


ELEVATION

WHEN THE WIDTH OF THE CULVERT MAKES IT NECESSARY TO ANCHOR A POST TO THE TOP OF THE CULVERT, A CAST IRON SHOE OR OTHER DEVICE APPROVED BY THE ENGINEER SHALL BE USED.

FENCE INSTALLATION AROUND HEADWALL DETAILS

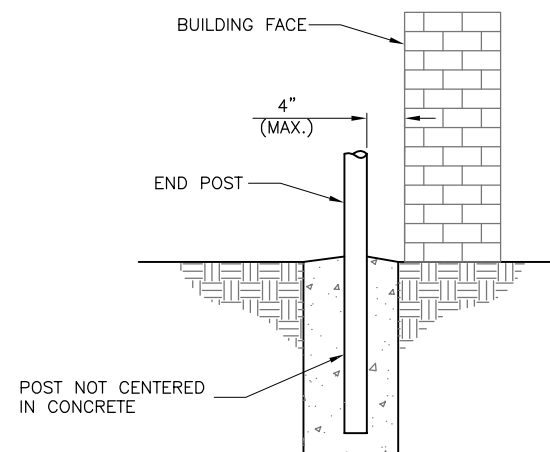
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DETAIL A

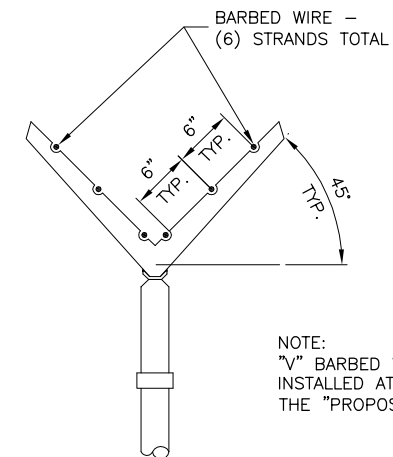
FENCE INSTALLATION OVER STREAM DETAILS

N.T.S.



FENCE INSTALLATION AT BUILDING FACE

N.T.S.



"V" BARBED WIRE ARM ON LINE POST

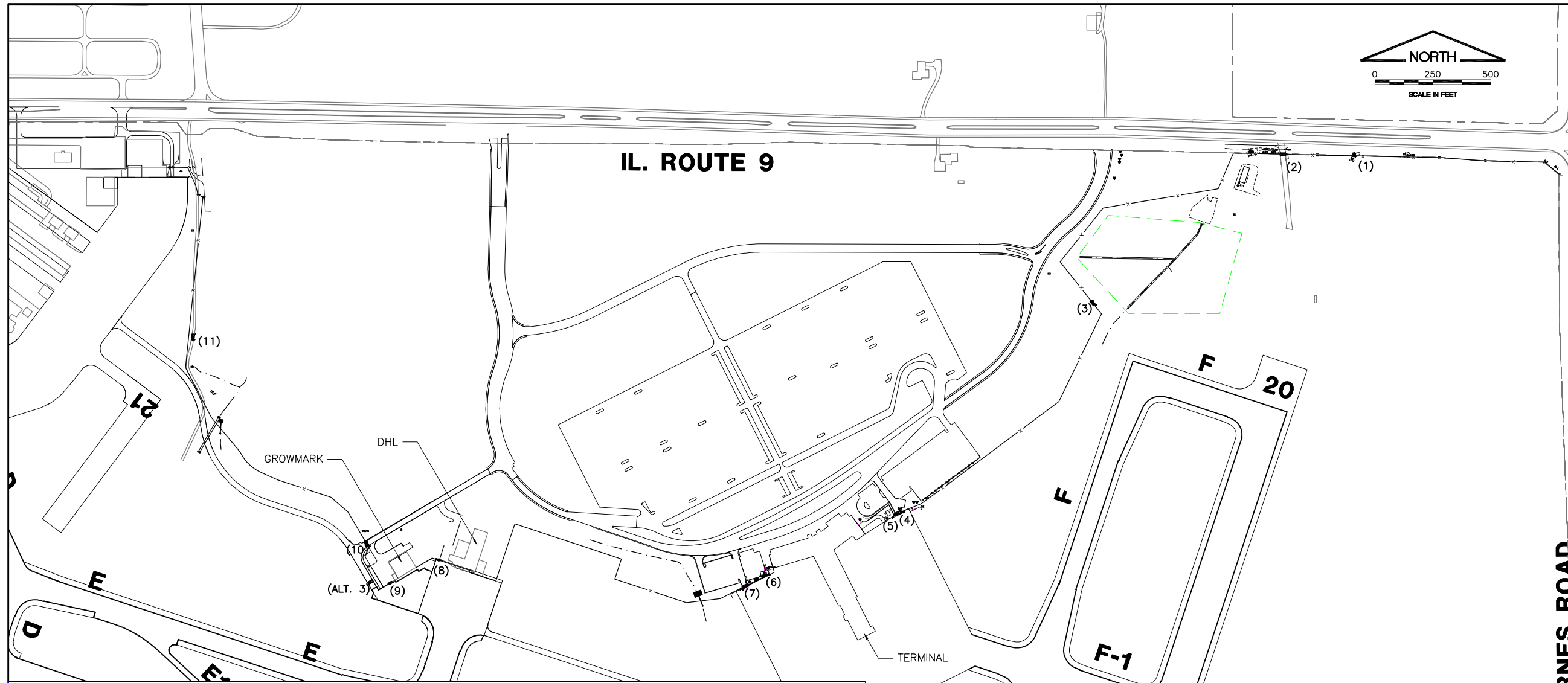
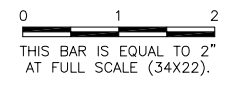
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NOTE:  
 "V" BARBED WIRE ARMS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE "PROPOSED IMPROVEMENTS" SHEETS.



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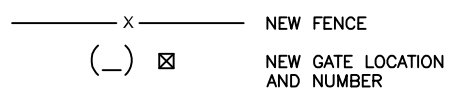
**GATE TABLE**

EXISTING GATE NUMBER	GATE LOCATION	OPENING WIDTH (FT)	TYPE	ACCESS RESPONSIBILITY	CONTROL TYPE	EXISTING GATE	NEW GATE	NOTES	NEW GATE NUMBER	SIGNS	PHASE	NOTES AND RESPONSE
1	ALSF II Station @ Route 9	10'	Pedestrian Gate	FAA	Lock and Key	10' x 10' Double Swing	N/A	Existing Gate to Remain	TBD	Gate Number Sign Restricted Area Sign	2	
2	ALSF II Access Road @ Route 9	20'	Vehicle Gate	BNAA/FAA	Lock and Key	20' x 6' Double Swing	20' x 10' Cantilever	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	3	New Electric Gate
3	Along CIRA Drive East	24'	Vehicle Gate	BNAA	Lock and Key	24' x 6' Double Swing	N/A	Remove Gate	TBD		6	
4	East Side of Terminal	24'	Vehicle Gate	BNAA	Card Reader	24' x 6' Cantilever	24' x 8' Cantilever	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	9	Replace Hydraulic Drive with Chain Drive operator
5	East Side of Terminal	4'	Pedestrian Gate	BNAA	Card Reader	6' x 4' Swing Gate	8' x 4' Swing Gate	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	9	Reuse Magnetic Lock. Install New Closer.
6	West Side of Terminal	4'	Pedestrian Gate	BNAA	Card Reader	6' x 4' Swing Gate	8' x 4' Swing Gate	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	10	Reuse Magnetic Lock. Install New Closer.
7	West Side of Terminal	24'	Vehicle Gate	BNAA	Card Reader	24' x 6' Cantilever	24' x 8' Cantilever	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	10	Replace Hydraulic Drive with Chain Drive operator
8	West Side of DHL	20'	Vehicle Gate	BNAA	Lock and Key	20' x 6' Swing Gate	20' x 10' Double Swing	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	14	
9	South Side of Growmark	20'	Vehicle Gate	BNAA	Lock and Key	20' x 6' Swing Gate	20' x 10' Double Swing	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	15	
10	Service Road @ Growmark Hangar	24'	Vehicle Gate	BNAA	Lock and Key	24' x 6' Double Swing	24' x 10' Cantilever	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	15	New Electric Gate
11	West of Image Air Ramp	24'	Vehicle Gate	BNAA	Lock and Key	24' x 6' Double Swing	24' x 10' Double Swing	Replace Gate	TBD	Gate Number Sign Restricted Area Sign	18	
ALT. 3	South of Side of Growmark	24'	Vehicle Gate	BNAA	Card Reader	NONE	24' x 10' Cantilever	New Gate	TBD	Gate Number Sign Restricted Area Sign	15	New Electric Gate

**RUNWAY 2/20**

**TOWANDA BARNES ROAD**

**LEGEND**



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

**INSTALL 10' PERIMETER FENCE PHASE 4  
 GATE PLAN AND SCHEDULE**

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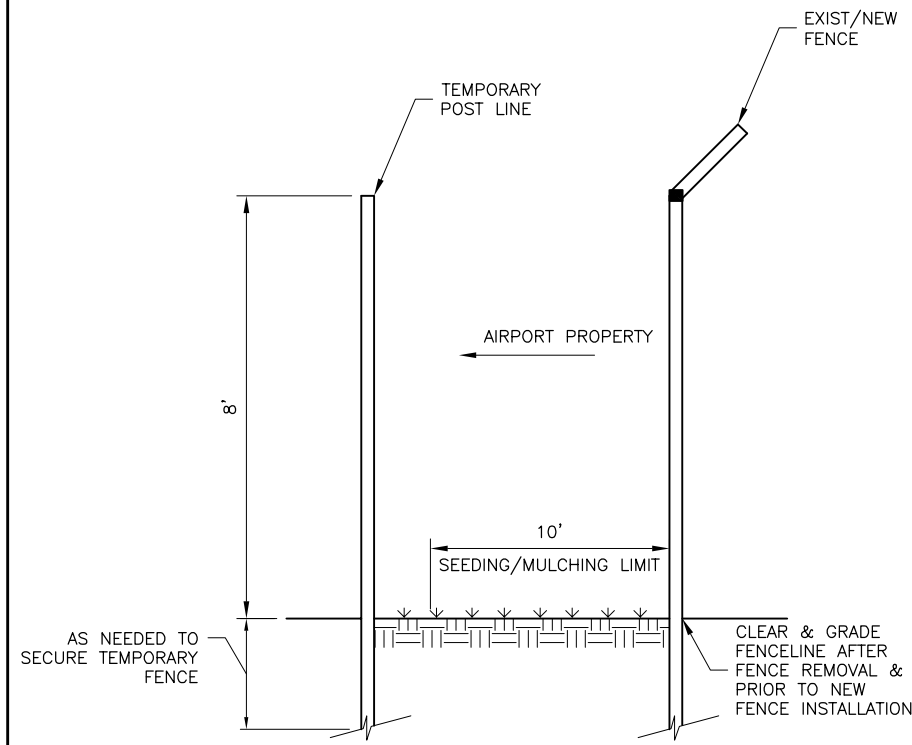
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SHEET	22 OF 42 SHEETS

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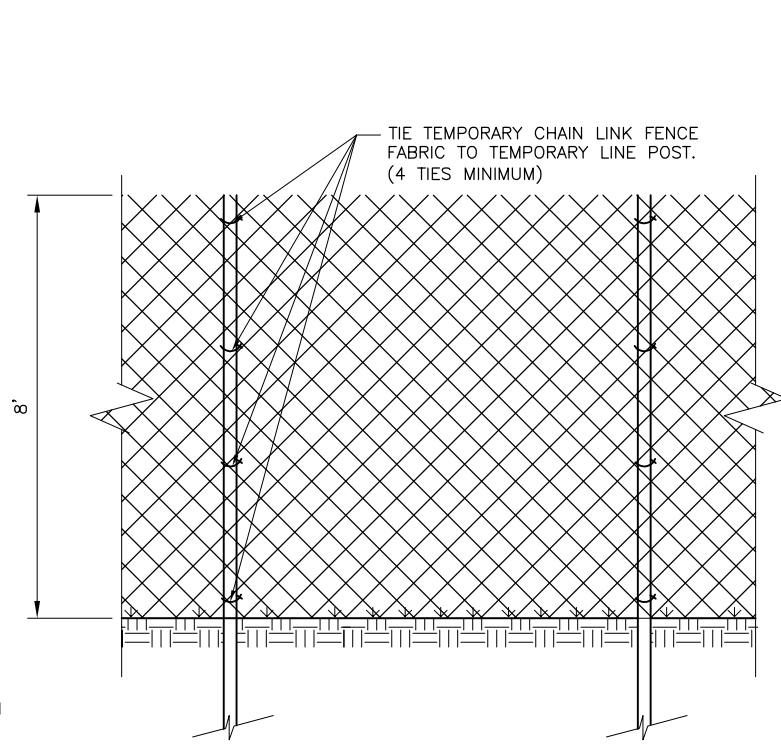
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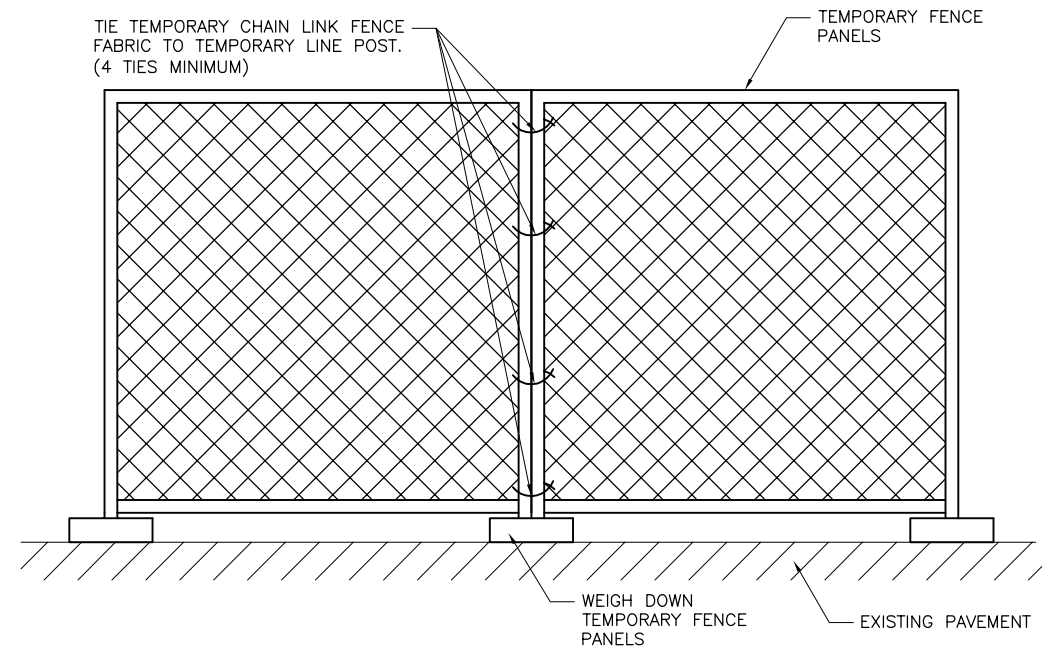
0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).



TEMPORARY FENCE IN TURF  
 NTS



TEMPORARY FENCE IN TURF  
 NTS



TEMPORARY FENCE ON PAVEMENT  
 NTS

**NOTES:**

1. CONTRACTOR MUST ERECT TEMPORARY FENCE PRIOR TO OR CONCURRENT WITH REMOVAL OF EXISTING FENCE
2. CONTRACTOR WILL NOT BE ALLOWED TO LEAVE OPENINGS IN TEMPORARY FENCE UNLESS OPENING IS GUARDED.
3. CONTRACTOR SHALL SECURE TEMPORARY FENCE TO EXISTING FENCE DURING EACH PHASE OF WORK
4. CONTRACTOR MAY USE REMOVED FENCE MATERIAL FOR TEMPORARY FENCE.
5. TEMPORARY FENCE IS INCIDENTAL TO CONTRACT.

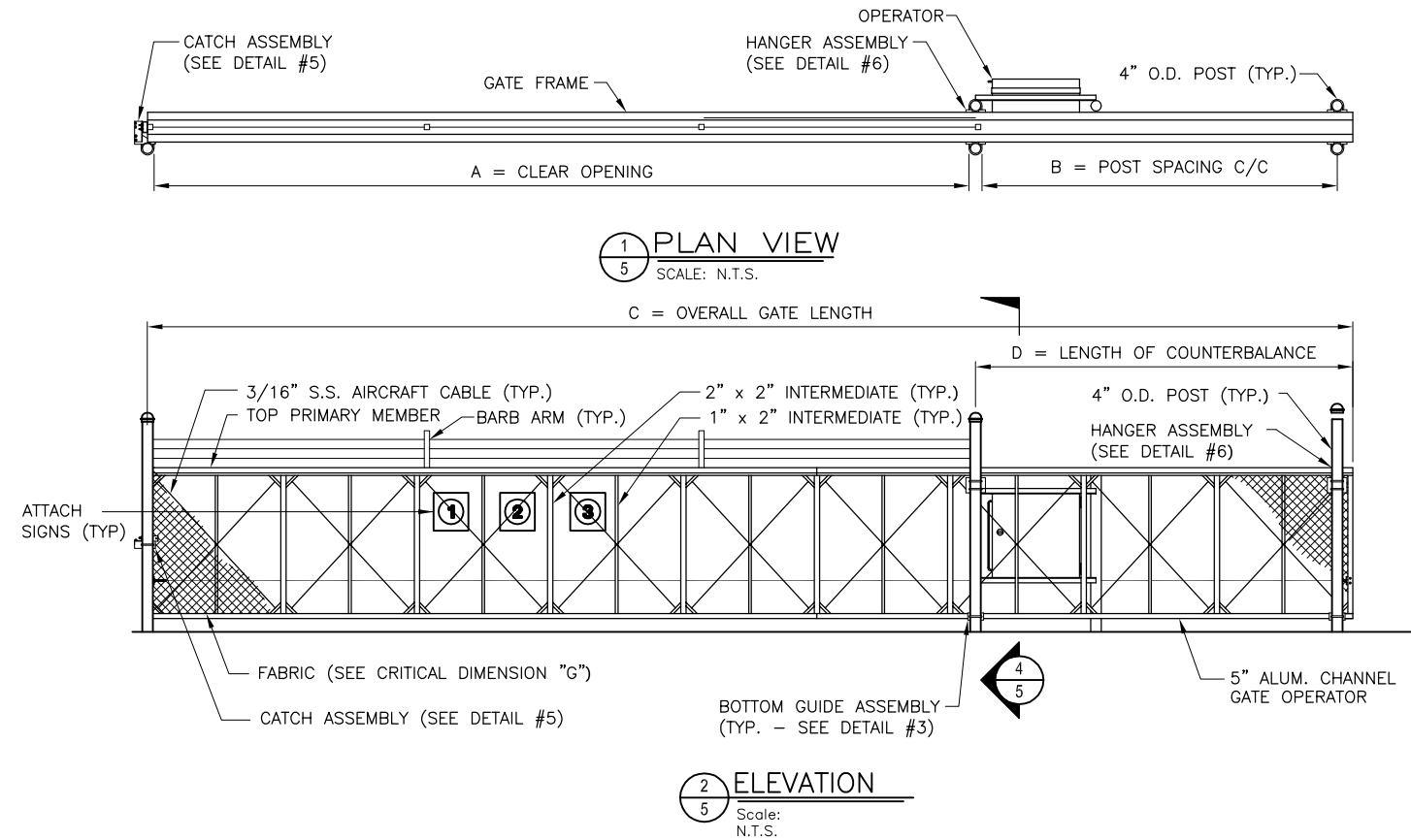
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INSTALL 10' PERIMETER FENCE PHASE 4  
 TEMPORARY FENCE DETAILS

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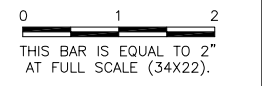
CANTILEVER SLIDE GATE CRITICAL DIMENSION CHART				
		GATE #2	GATE #10 & ALT #3	GATE #4 & #7
A	CLEAR OPENING	20'-0"	24'-0"	24'-0"
B	COUNTERBALANCE POST SPACING C/C	9'-1"	11'-1"	11'-1"
C	OVERALL GATE LENGTH	30'-0"	36'-0"	36'-0"
D	COUNTERBALANCE LENGTH	10'-0"	12'-0"	12'-0"
E	NOMINAL GATE HEIGHT	10'-0"	10'-0"	8'-0"
F	POST HEIGHT	11'-6"	11'-6"	9'-6"
G	FABRIC HEIGHT	9'-0"	9'-0"	7'-0"

SIGNS					
CONTRACTOR SHALL FURNISH AND INSTALL SIGNS AS INDICATED IN TABLE BELOW					
SIGN	DIMENSIONS	BACKGROUND	LETTERING		TEXT
		COLOR	COLOR	HEIGHT	
1	24' x 18"	WHITE	RED	1.5"	FAA REGULATIONS REQUIRE THAT AFTER ENTERING OR EXITING THROUGH THIS SECURITY GATE YOU ARE REQUIRED TO WAIT UNTIL THE GATE CLOSES BEFORE PROCEEDING. FINES OR PENALTIES WILL BE IMPOSED.
2	8" x 8"	WHITE	RED	4"	GATE (SEE NOTE #2)
3	SEE WARNING SIGN DETAIL				

**NOTES**  
 1) SIGNS #1 AND #3 SHALL BE INSTALLED ON BOTH SIDES OF GATE. SIGN #2 SHALL BE INSTALLED ON "LAND" SIDE OF GATE.  
 2) REPLACE WITH GATE #. SEE CRITICAL DIMENSION CHART.

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

INSTALL 10' PERIMETER FENCE PHASE 4  
 ELECTRIC GATE DETAILS 1



WARNING SIGN DETAIL

UL 235 COMPLIANCE NOTES

- GATE INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF UL 235, INCLUDING, BUT NOT LIMITED TO:
- ALL OPENINGS OF THE SLIDE GATE ARE GUARDED OR SCREENED FROM THE BOTTOM OF THE GATE TO A MINIMUM OF 4 FEET ABOVE GROUND TO PREVENT A 2-1/4" DIAMETER SPHERE FROM PASSING THROUGH THE OPENINGS ANYWHERE IN THE GATE, AND IN THAT PORTION OF THE ADJACENT FENCE THAT THE GATE COVERS IN THE OPEN POSITION.
  - ALL EXPOSED PINCH POINTS ARE ELIMINATED OR GUARDED AND GUARDING IS SUPPLIED FOR ALL EXPOSED ROLLERS.
  - A WARNING SIGN (SEE DETAIL, THIS SHEET) MUST BE AFFIXED TO BOTH SIDES OF THE SLIDE GATE.
  - FOR ADDITIONAL UL 235 REQUIREMENTS FOR THIS GATE INSTALLATION, SEE GATE OPERATOR DETAILS SHEET.

NOTES

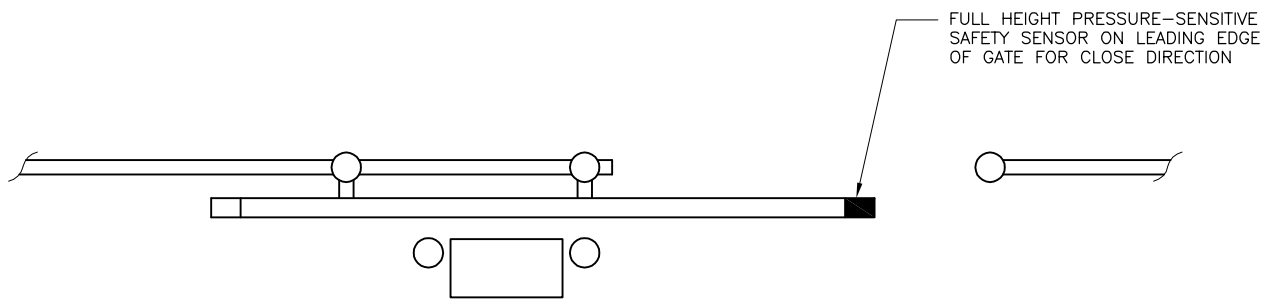
- CANTILEVERED GATE SHALL BE SUFFICIENTLY RIGID TO WITHSTAND FLEXING OR BENDING DURING WINDY CONDITIONS. CONTRACTOR SHALL PROVIDE STIFFENERS, STRUCTURAL SHAPES IN EXCESS OF THE MINIMUM SPECIFIED DIMENSIONS OR ADDITIONAL ROLLERS AND POSTS SUFFICIENT TO PREVENT DISPLACEMENT OF THE GATE BY WIND OR BY UNAUTHORIZED PERSONNEL.
- CONTRACTOR SHALL PROVIDE AND INSTALL GATE AS COMPLETE WORKING UNIT. THE GATE WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: GATE, OPERATOR, DIGITAL CODE CONTROL AND POWER CABLES, CONDUIT, TRENCHING, CIRCUIT BREAKERS, AND ALL CONNECTIONS, LABOR AND MATERIALS NECESSARY TO COMPLETE OPERATION.
- LOCATION OF THE GATE OPERATOR SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
- PIPE BOLLARDS SHALL BE INSTALLED AT LOCATIONS SHOWN IN PLAN VIEW.
- THE FABRIC TYPE AND FINISH OF THE GATE, MATCH WITH PROPOSED FENCE OR AS DIRECTED BY THE ENGINEER.
- ALL SLIDING GATES SHALL HAVE ALL ROLLERS ENCLOSED IN STEEL OR PLASTIC SHROUDS TO PREVENT ACCIDENTAL INJURY.

LOCATIONS, DETAILS AND CHARACTER OF EQUIPMENT SHOWN ON THIS SHEET IS GENERIC. EQUIPMENT LOCATIONS SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

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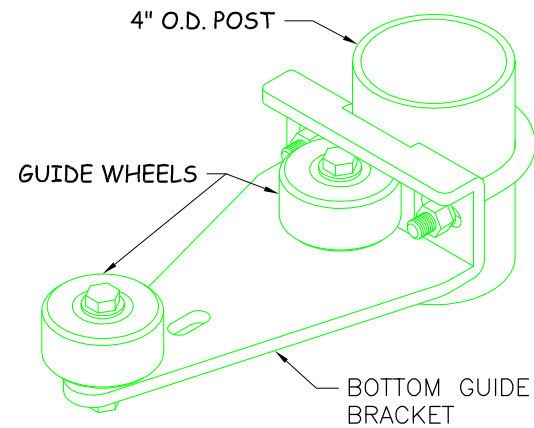


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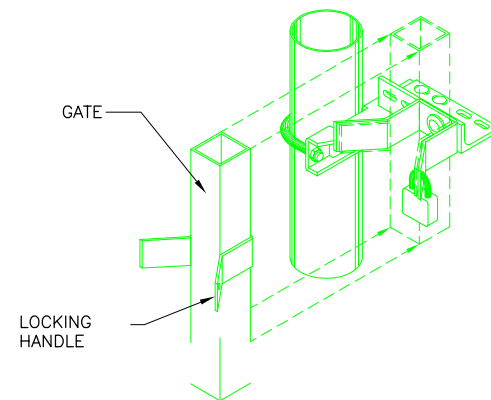


GATE OPERATOR CONTACT SENSOR

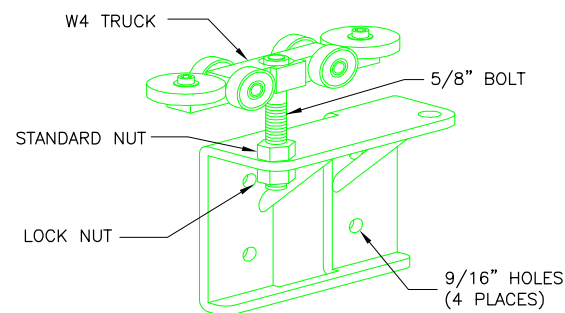
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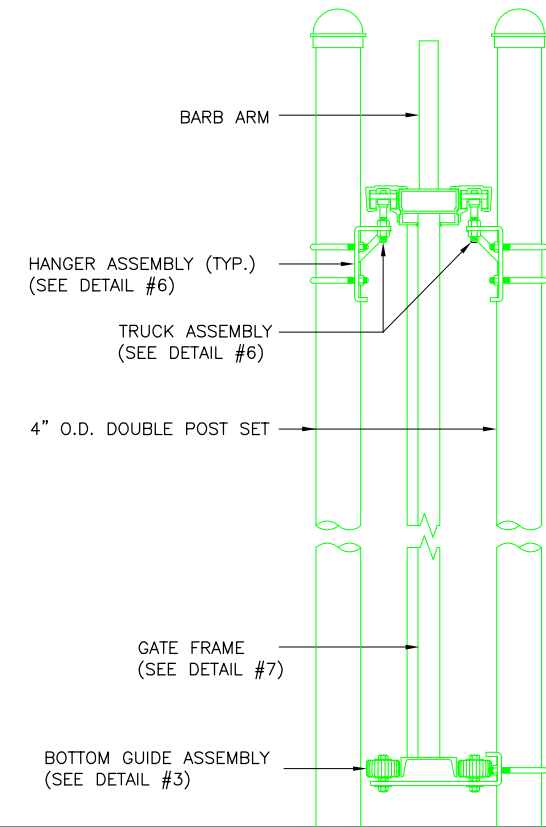
3  
5 BOTTOM GUIDE  
N.T.S.



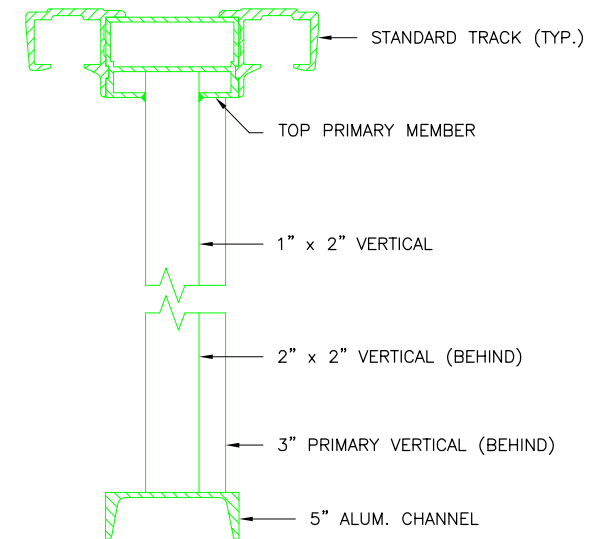
5  
5 CATCH ASSEMBLY  
N.T.S.



6  
5 GATE HANGER ASSEMBLY  
N.T.S.

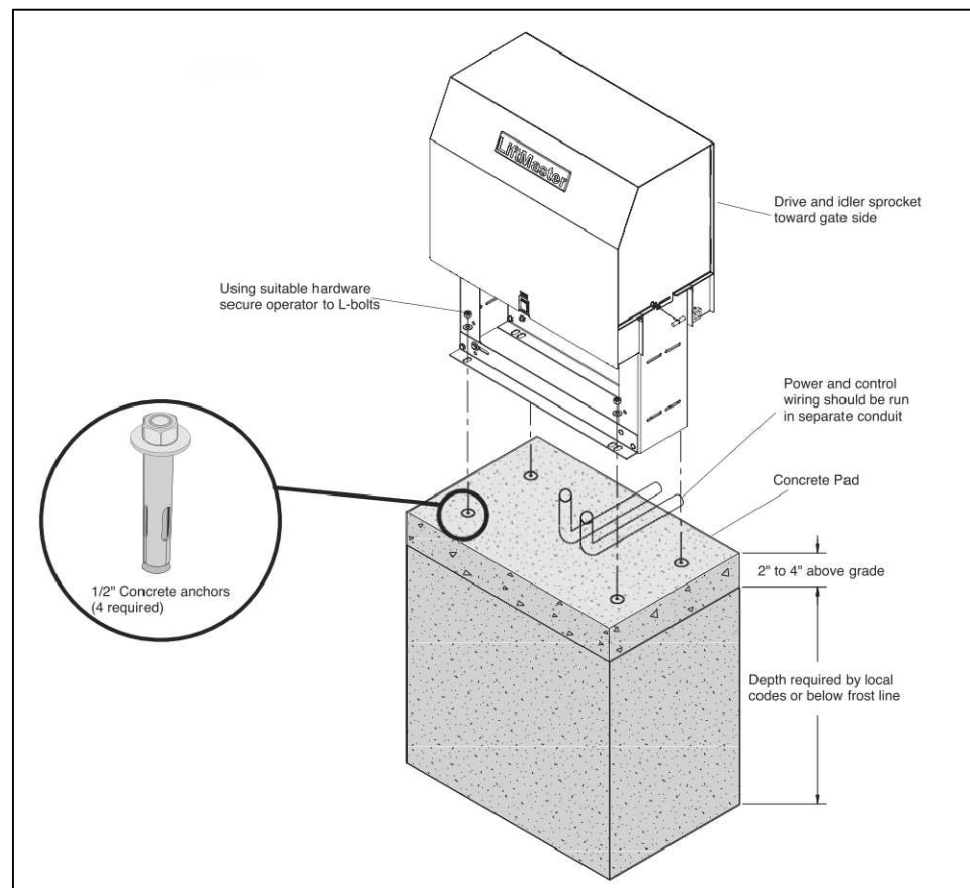


4  
5 ASSEMBLY SECTION  
N.T.S.



7  
5 GATE FRAME SECTION  
N.T.S.

GATE FOUNDATION DETAIL SHOWN IS FOR INFORMATION ONLY. CONTRACTOR SHALL INSTALL FOUNDATION AS RECOMMENDED BY SUPPLIED GATE OPERATOR MANUFACTURER, AND SHALL INCLUDE DETAILS OF THIS FOUNDATION WITH SHOP DRAWINGS FOR REVIEW AND COMMENT.



GATE OPERATOR FOUNDATION

CANTILEVER SLIDE GATE DETAILS

BL067

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

BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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BLOOMINGTON, ILLINOIS

INSTALL 10' PERIMETER FENCE PHASE 4  
ELECTRIC GATE DETAILS 2

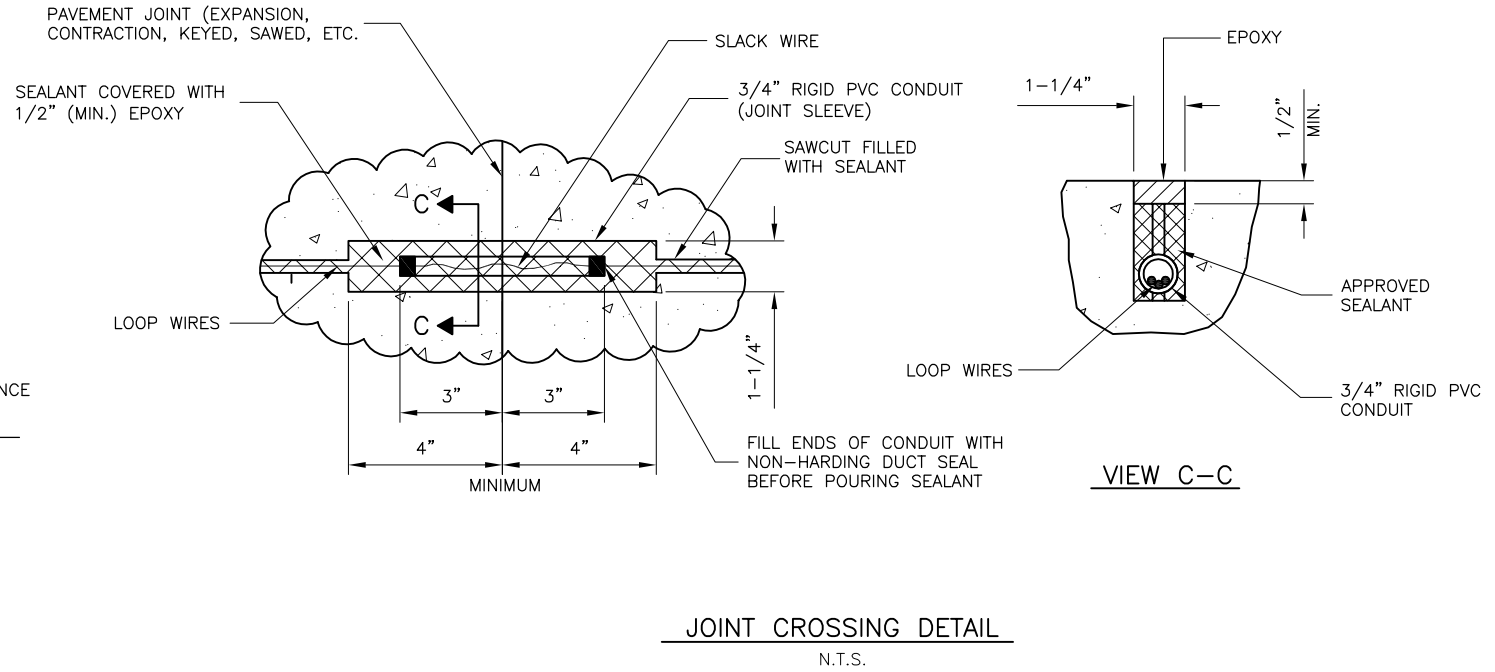
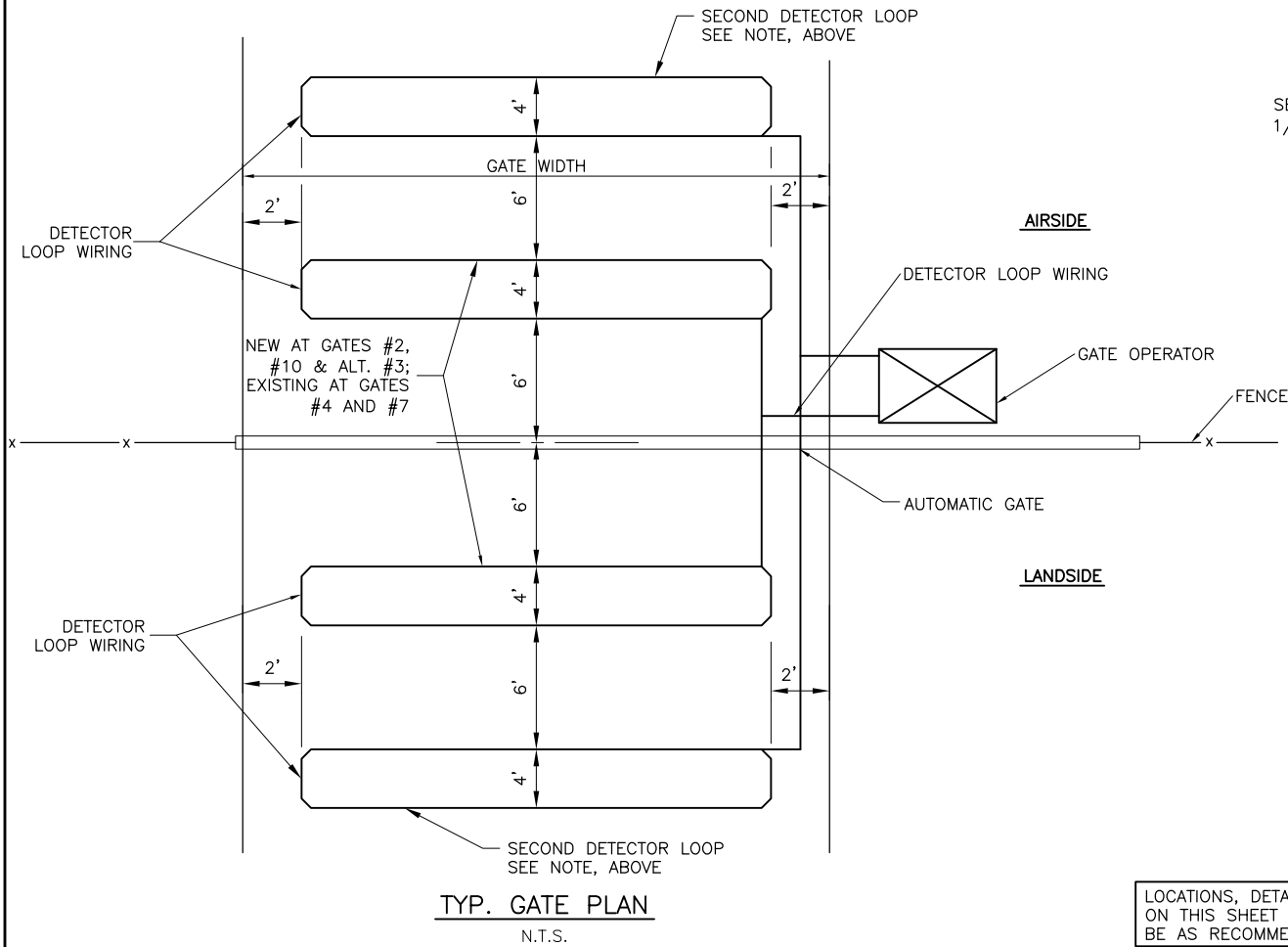
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**NOTE:**  
INSTALL SECOND DETECTOR ON EACH  
SIDE OF EXISTING GATE DETECTOR  
LOOP AT GATE #4 & #7.



LOCATIONS, DETAILS AND CHARACTER OF EQUIPMENT SHOWN ON THIS SHEET ARE GENERIC. EQUIPMENT LOCATION SHALL BE AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

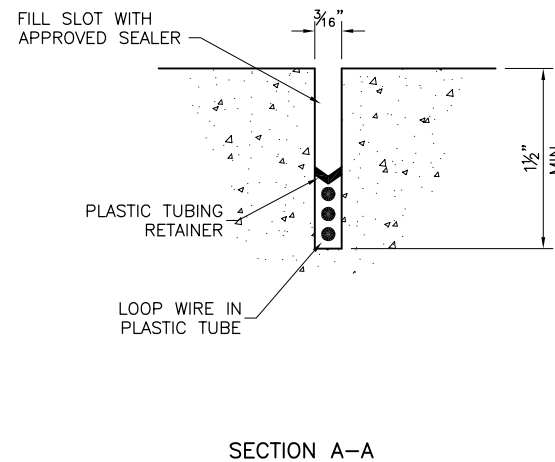
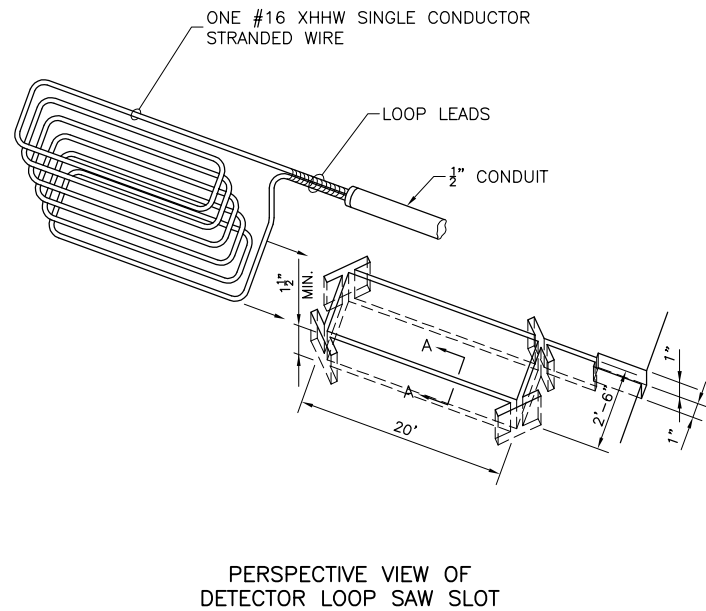
- NOTES**
1. LOOP LEADS ARE LIMITED TO 100 FEET.
  2. LOOP LEADS MUST HAVE FOUR (4) TWISTS PER FOOT.
  3. LOOP AND LOOP LEADS MUST BE LOCATED, AT LEAST, 18" FROM ANY ELECTRICAL POWER SERVICE OR STEEL REINFORCEMENT.
  4. LOOP LEADS MUST BE IN SEPARATE CONDUIT BETWEEN LOOP AND DETECTOR. THEY MUST NOT SHARE CONDUIT WITH OTHER WIRING OR LEADS FROM OTHER LOOPS.
  5. WIRE SHALL BE #16 XHHW SINGLE CONDUCTOR STRANDED WIRE.
  6. ALL WIRE SHALL BE CONTINUOUS WITHOUT SPLICING.

**CAUTION:**

- DO NOT SPLICE WIRE.
- DO NOT FRACTURE WIRE INSULATION. LOOPS SHORTED TO GROUND WILL CAUSE DETECTOR MALFUNCTION. WHEN PLACING WIRE IN THE SLOT. DO NOT USE SCREWDRIVER OR OTHER SHARP TOOLS.

**TYPICAL LAYOUT FOR LOOP:**

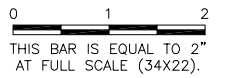
- SAW SLOT 3/16" WIDE x 1-1/2" DEEP. MAKE RECTANGULAR SHAPE TO SPECIFIED LOOP DIMENSIONS PLUS SLOT FOR LEAD CONDUIT.
- GROUT WITH NO. 202 WEATHERBAN SEALANT (A PRODUCT OF 3M CO.) OR APPROVED EQUIVALENT ... (EXAMPLE: DE WITTS NO. 99 BLACK MASTIC CAULK).



**DETECTOR LOOP DETAILS**  
N.T.S.

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

**INSTALL 10' PERIMETER FENCE PHASE 4  
ELECTRIC GATE DETAILS 3**

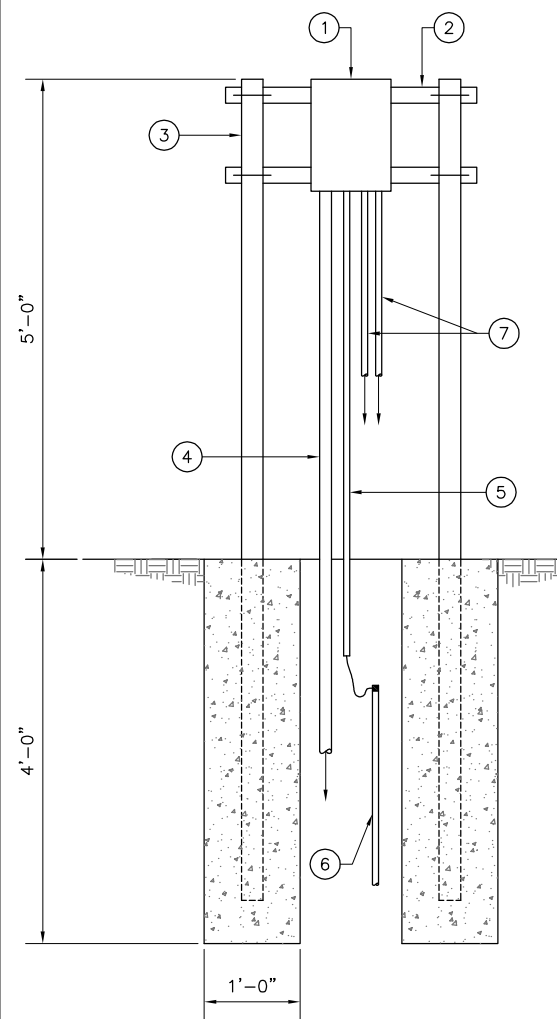
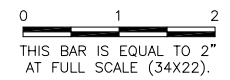
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AIP PROJ NO.	3-17-0006-XX
SHEET	26 OF 42 SHEETS

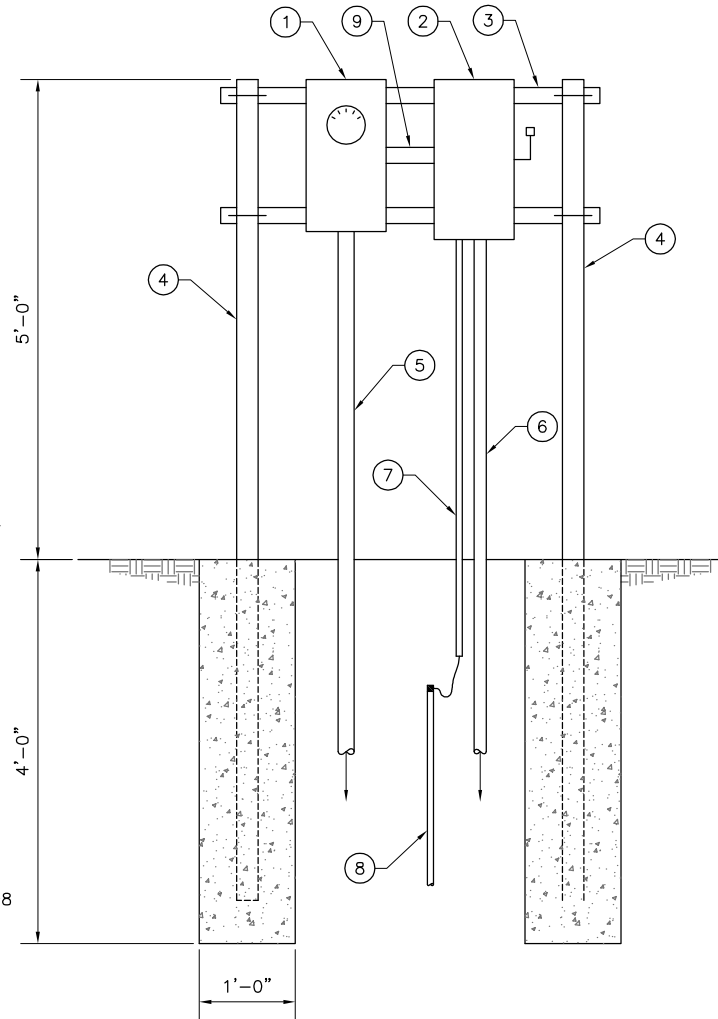
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REVISIONS		
NUMBER	BY	DATE

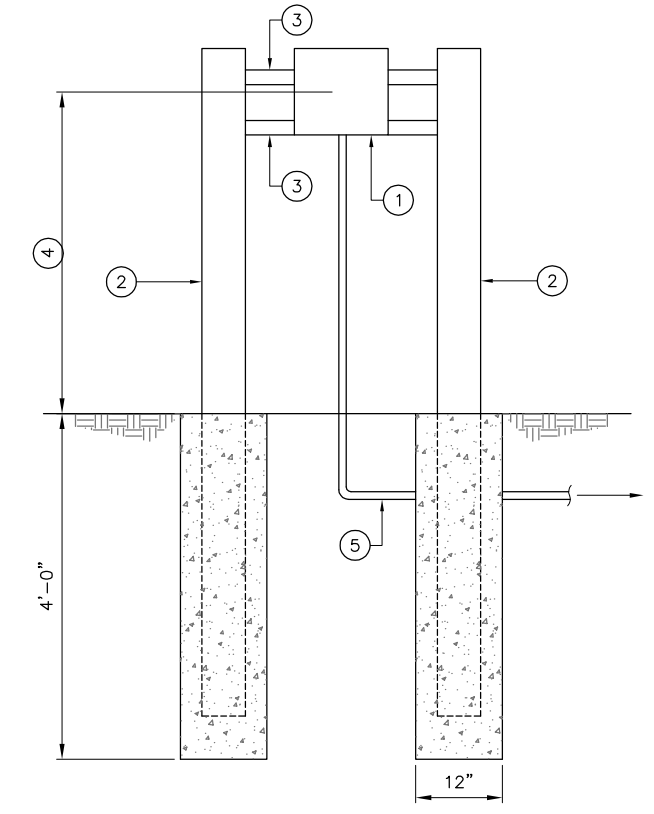


- LOAD CENTER NOTES**
- LOAD CENTER, 100A, 120/240V, SINGLE-PHASE, WITH 100A 2P MAIN BREAKER, IN OUTDOOR RAINPROOF ENCLOSURE, SQUARE D QO116M100RB (16-POLE), EATON CH14B100R (14-POLE), OR EQUIVALENT. PROVIDE SURGE PROTECTIVE DEVICE WITH LOAD CENTER.
  - STRUT-TYPE FRAMING, UNISTRUT P1000, OR EQUIVALENT, CLAMPED TO SUPPORT POSTS.
  - 3" DIAMETER, CONCRETE FILLED, GALVANIZED STEEL SUPPORT POST, PAINTED YELLOW, EMBEDDED IN 12" DIAMETER X 48" DEEP CONCRETE FOUNDATION.
  - TO SERVICE DISCONNECT AT UTILITY TRANSFORMER: THREE #3 USE (120/240V), ONE #8 GROUND IN 1-1/2" CONDUIT.
  - #6 BARE COPPER GROUND IN 1/2" PVC CONDUIT TO 1'-0" BELOW GRADE. CONNECT GROUND WIRE TO GROUND ROD VIA EXOTHERMIC WELD.
  - 3/4" DIAMETER X 10' LONG COPPER CLAD GROUND ROD.
  - CONDUITS AND WIRING AS NEEDED TO REMOTE ELECTRICAL EQUIPMENT.
- UTILITY METER AND SERVICE DISCONNECT NOTES**
- UTILITY METER.
  - SERVICE ENTRANCE DISCONNECT, HEAVY DUTY, 100A, FUSIBLE, 120/240V, SINGLE-PHASE, 3-WIRE, LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT, WITH GROUND BAR AND NEUTRAL BAR ASSEMBLIES, WITH 100A CLASS R FUSES, IN NEMA 4X ENCLOSURE, SQUARE D, EATON/CUTLER HAMMER, GENERAL ELECTRIC, OR EQUIVALENT.
  - STRUT-TYPE FRAMING, UNISTRUT P1000, OR EQUIVALENT, CLAMPED TO SUPPORT POSTS.
  - 3" DIAMETER, CONCRETE FILLED, GALVANIZED STEEL SUPPORT POST, PAINTED YELLOW, EMBEDDED IN 12" DIAMETER X 48" DEEP CONCRETE FOUNDATION.
  - TO UTILITY TRANSFORMER: THREE #3 USE (120/240V POWER) IN 2" PVC CONDUIT. COORDINATE WORK WITH SERVING UTILITY.
  - TO LOAD CENTER AT GATE OPERATOR: THREE #3 USE (120/240V), ONE #8 GROUND IN 1-1/2" CONDUIT.
  - #6 BARE COPPER GROUND IN 1/2" PVC CONDUIT TO 1'-0" BELOW GRADE. CONNECT GROUND WIRE TO GROUND ROD VIA EXOTHERMIC WELD.
  - 3/4" DIAMETER X 10' LONG COPPER CLAD GROUND ROD.
  - THREE #3 USE (120/240V POWER) IN 2" CONDUIT. COORDINATE WORK WITH SERVING UTILITY.

**GATE #2 & GATE #10 LOAD CENTER DETAIL**  
N.T.S.

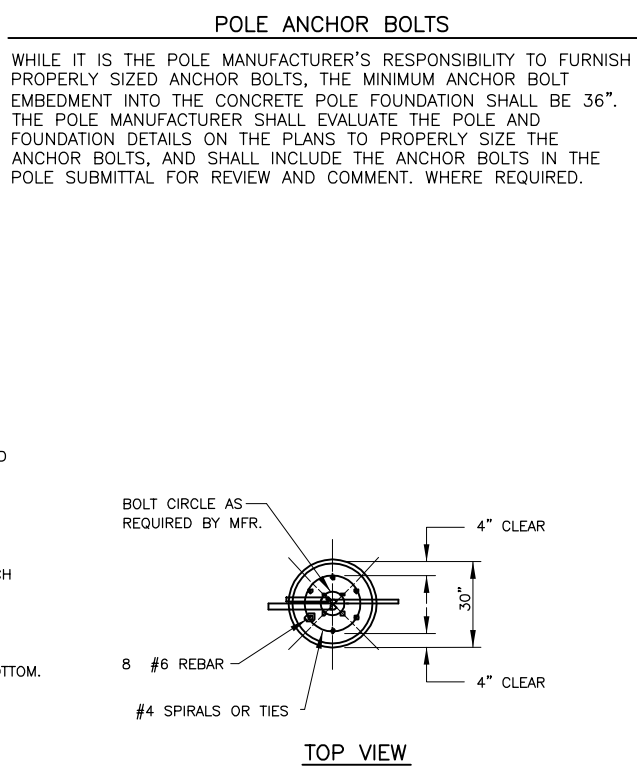
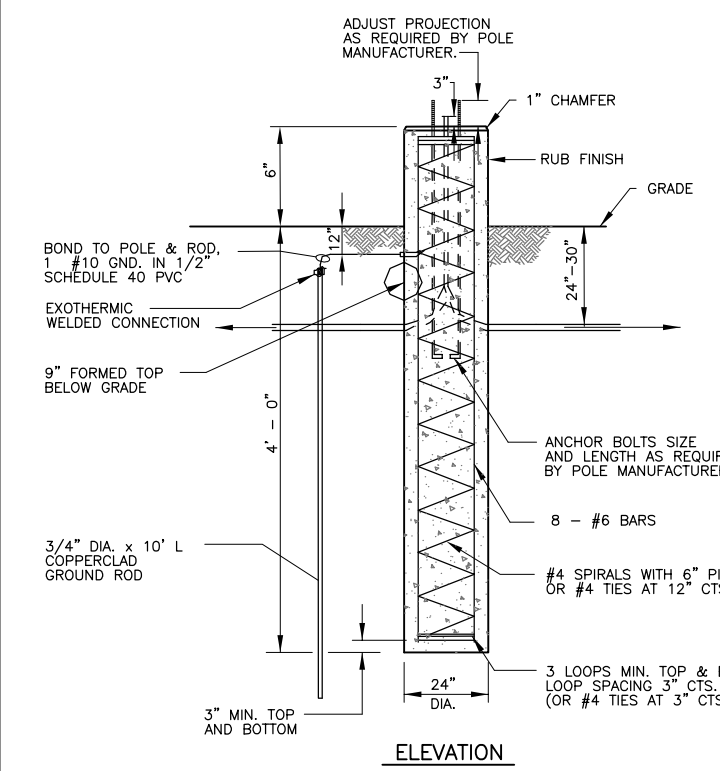


**GATE #2 & GATE #10 UTILITY METER & SERVICE DISCONNECT DETAIL**  
N.T.S.

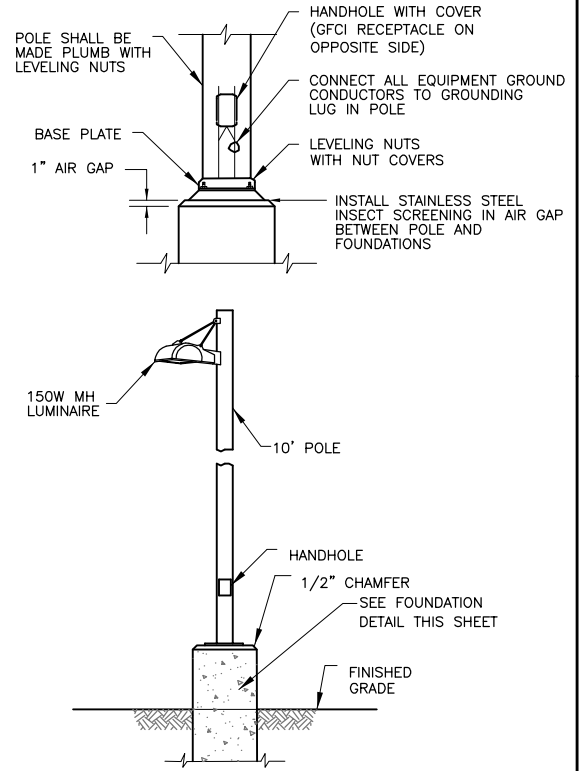


**TYPICAL CARD READER INSTALLATION**  
N.T.S.

- CARD READER NOTES**
- INDALA WEATHERPROOF LONG RANGE CARD READER, OR EQUIVALENT, FURNISHED BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
  - 6" DIAMETER, CONCRETE FILLED, GALVANIZED STEEL SUPPORT POST, PAINTED YELLOW, EMBEDDED IN 12" DIAMETER X 48" DEEP CONCRETE FOUNDATION.
  - 2" X 1" STEEL C-CHANNEL WELDED TO 6" PIPE AND PAINTED YELLOW.
  - AS RECOMMENDED BY GATE OPERATOR INSTALLER, TYPICALLY 42".
  - 6-CONDUCTOR #18 SHIELDED CABLE (CONTRACTOR SHALL VERIFY WITH ACCESS CONTROL CONTRACTOR) IN 1" CONDUIT.



**LIGHT POLE BASE DETAIL**  
N.T.S.



**LIGHT STANDARDS**  
N.T.S.

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**INSTALL 10' PERIMETER FENCE PHASE 4**  
**ELECTRICAL GATES DETAILS 4**

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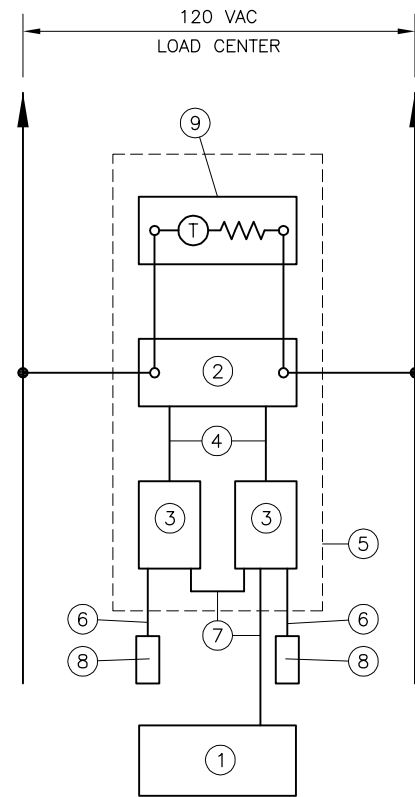
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JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX

SHEET 27 OF 42 SHEETS

**ACCESS CONTROL ANTENNA NOTES**

- ① ANTENNA POLES:
  - ANTENNA POLE AT NEW ROUTE 9 ELECTRIC CANTILEVER SLIDE GATE #2 SHALL BE KIM LIGHTING (NO ALTERNATE) MODEL PRA10-34125/FM/LG-P, 10' TALL, ROUND, STRAIGHT ALUMINUM. NO VIBRATION DAMPER WILL BE REQUIRED. ANTENNA POLE AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, LOCATION SHALL BE AS DIRECTED BY ACCESS CONTROL CONTRACTOR.
  - ANTENNA POLE AT NEW GROWMARK ELECTRIC CANTILEVER SLIDE GATE #10 SHALL BE KIM LIGHTING (NO ALTERNATE) MODEL PRA16-5188/FM/LG-P, 16' TALL, ROUND, STRAIGHT ALUMINUM. NO VIBRATION DAMPER WILL BE REQUIRED. ANTENNA POLE AND FOUNDATION SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR, LOCATION SHALL BE AS DIRECTED BY ACCESS CONTROL CONTRACTOR.
- ② ANTENNA, SUPPLIED BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR (TYPICAL OF TWO PER POLE).
- ③ 5-FOOT GROUNDING CONNECTION CABLE, SUPPLIED BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR (TYPICAL OF TWO PER POLE).
- ④ GROUNDING BLOCK, SUPPLIED BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
- ⑤ GROUND WIRE, INSTALLED BY ELECTRICAL CONTRACTOR PER ACCESS CONTROL CONTRACTOR REQUIREMENTS. CONNECTION TO GROUND ROD SHALL BE VIA EXOTHERMIC WELD.
- ⑥ 3/4" DIAMETER X 10' LONG COPPERCLAD GROUND ROD, MINIMUM BURY 1'-0", FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
- ⑦ COAXIAL ANTENNA CABLE, SUPPLIED BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR (TYPICAL OF TWO PER POLE). PROVIDE SEALING GROMMETS IN OPENINGS IN BOTTOM OF NEMA 4X ENCLOSURE FOR CABLE ENTRY. PROVIDE "DRIP LOOP" IN COAXIAL CABLES WHEN INSTALLING CABLES. THE NEMA 4 WATER-TIGHTNESS OF ENCLOSURE SHALL BE MAINTAINED.
- ⑧ NEMA 4X STAINLESS STEEL HINGED COVER ENCLOSURE WITH SPACE HEATER, POWER SUPPLY AND WIRELESS READER INTERFACES, FURNISHED COMPLETE BY ACCESS CONTROL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
- ⑨ CONDUITS AND WIRING AS NEEDED TO REMOTE EQUIPMENT, FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.



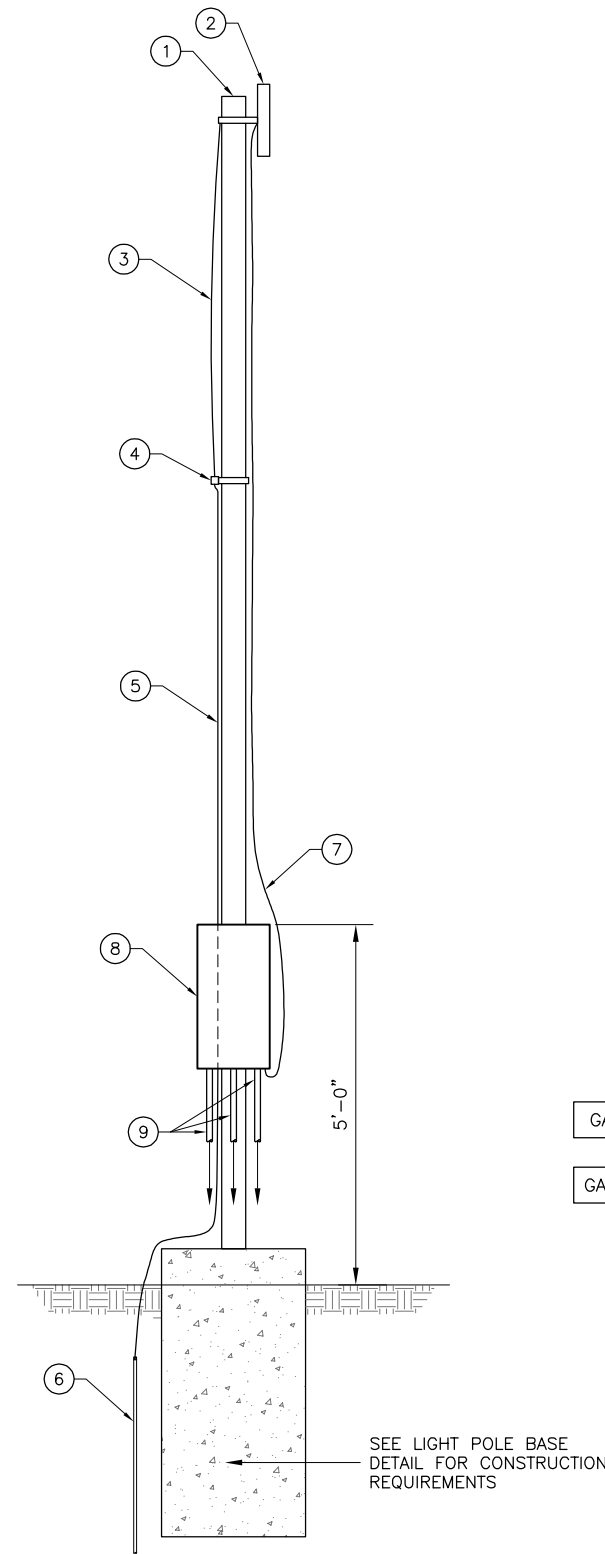
**ROUTE 9 GATE #2 & GROWMARK GATE #10  
OPERATOR CONTROL BLOCK DIAGRAM**

**GATE OPERATOR CONTROL BLOCK DIAGRAM NOTES**

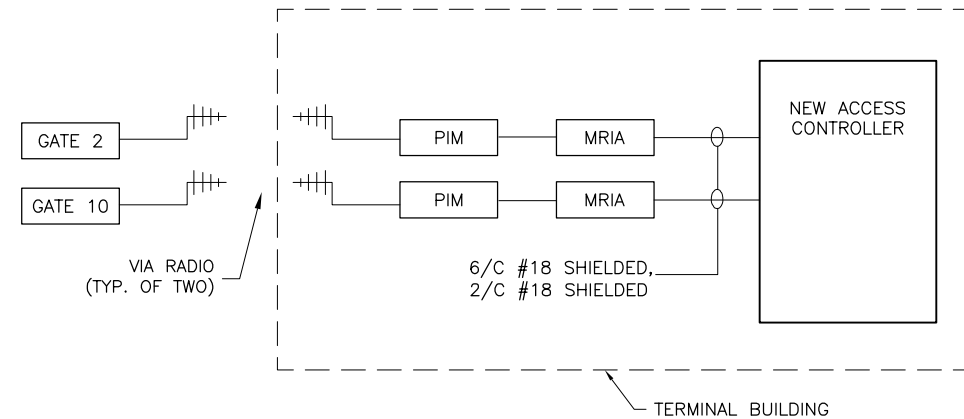
- ① GATE OPERATOR.
- ② WIRELESS CARD READER INTERFACE POWER SUPPLY.
- ③ WIRELESS CARD READER INTERFACE.
- ④ 2/C #14 SHIELDED CABLE (12VDC POWER).
- ⑤ NEMA 4X STAINLESS STEEL HINGED COVER ENCLOSURE, HOFFMAN, OR EQUIVALENT, SIZED AS REQUIRED TO HOUSE EQUIPMENT.
- ⑥ 6-CONDUCTOR #16 SHIELDED CABLE (CONTRACTOR SHALL VERIFY WITH ACCESS CONTROL CONTRACTOR).
- ⑦ 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL).
- ⑧ INDALA LONG RANGE CARD READER, OR EQUIVALENT.
- ⑨ THERMOSTATICALLY CONTROLLED SPACE HEATER SIZED AS REQUIRED TO MAINTAIN TEMPERATURE INSIDE ENCLOSURE ABOVE 32°F AT OUTSIDE TEMPERATURE OF -10°F.

**NOTES:**

- THE ENCLOSURE, COMPLETE WITH ALL EQUIPMENT SHOWN AND INTERNAL WIRING, SHALL BE FURNISHED BY THE ACCESS CONTROL CONTRACTOR TO THE ELECTRICAL CONTRACTOR FOR MOUNTING ON ANTENNA POLE AND WIRING TO REMOTE EQUIPMENT.



**ACCESS CONTROL ANTENNA  
DETAIL  
N.T.S.**



**NOTES:**

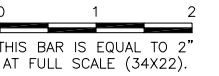
THE ACCESS CONTROL CONTRACTOR SHALL FURNISH AND INSTALL ALL LABOR, MATERIALS AND EQUIPMENT IN TERMINAL BLDG, INCLUDING ANY CABLES, CONDUITS, ANTENNAS, MASTS, PANEL INTERFACE MODULES (PIM), MATCH READER INTERFACE MODULES (MRIA), NEW ACCESS CONTROLLER, ACCESSORIES, ETC., AS REQUIRED FOR A COMPLETE AND ACCEPTED ACCESS CONTROL INSTALLATION IN THE TERMINAL BUILDING.

**TERMINAL BUILDING  
ACCESS CONTROL BLOCK DIAGRAM**

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

**INSTALL 10' PERIMETER FENCE PHASE 4  
ELECTRIC GATE DETAILS 5**

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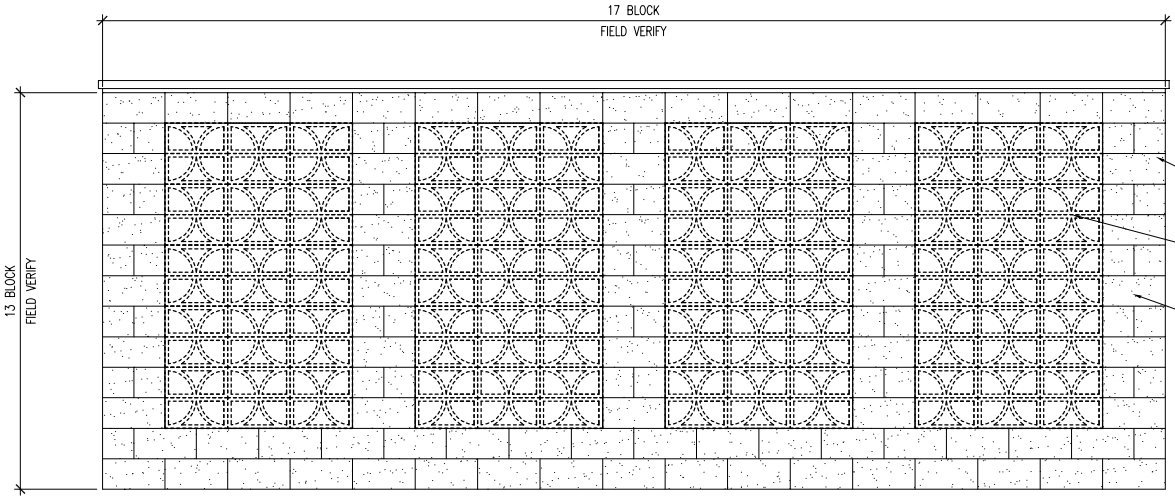
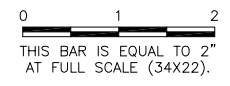
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DRAWN BY:	CMT
CHECKED BY:	WDP
APPROVED BY:	JEF
DATE:	0-/--/2012
JOB No:	1008501

IL PROJ NO. BMI-4098  
AIP PROJ NO. 3-17-0006-XX

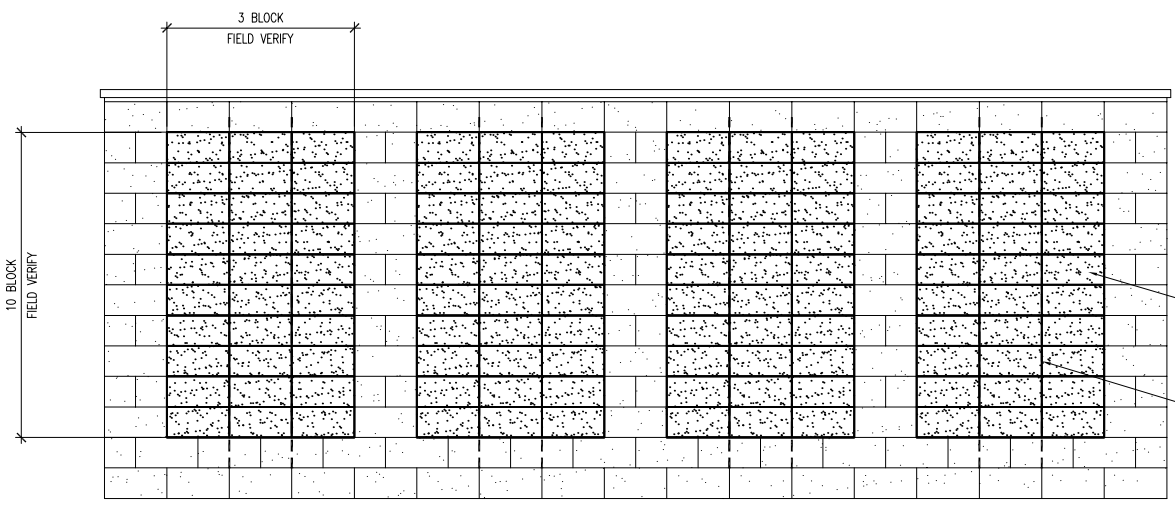


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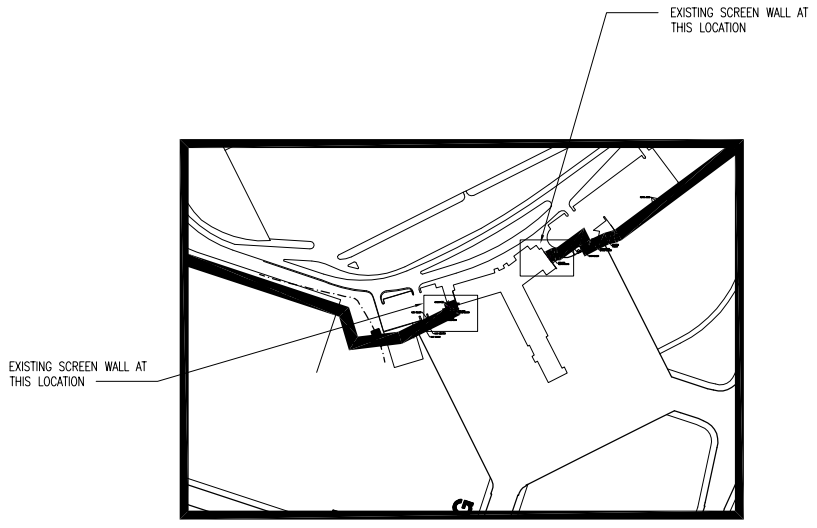
**1 SCREEN WALL ELEVATION (DEMO)**  
 SCALE: 1/2" = 1'-0"



**2 SCREEN WALL ELEVATION (INFILL)**  
 SCALE: 1/2" = 1'-0"

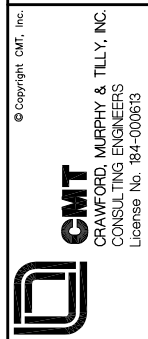
**GENERAL NOTES:**

- CONTRACTOR TO ENSURE STABILITY OF EXISTING WALL BY REMOVING DECORATIVE CMU AND INFILLING WITH NEW CONCRETE SPLIT FACE CMU INTO WALL IN PHASES.
- EXISTING SCREEN WALL IN TWO LOCATIONS ON EAST AND WEST SIDE OF EXISTING TERMINAL BUILDING.
- CONTRACTOR SHALL TAKE PRECAUTIONS IN ORDER TO PROTECT THE EXISTING BLOCK THAT IS TO REMAIN IN PLACE OR THAT WILL BE REUSED. ANY BLOCK DAMAGED BY THE CONTRACTOR WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL TAKE CARE TO PROVIDE PROPER SUPPORT TO ALL ITEMS THAT ARE CURRENTLY ATTACHED TO THE BLOCK WALLS WHILE REPLACEMENT OF BLOCK IS TAKING PLACE. WHEN BLOCK WALL HAS BEEN COMPLETED, THE CONTRACTOR SHALL REATTACH ITEMS IN KIND. ANY DAMAGE DONE TO ITEMS ATTACHED TO BLOCK WALL SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL INSPECT EXISTING BLOCK WALLS PRIOR TO CONSTRUCTION.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE AIRPORT COLOR SAMPLES OF PROPOSED BLOCK FOR APPROVAL. THE COLOR SAMPLES SHOULD CLOSELY MATCH THE EXISTING CMU BLOCK. THE CONTRACTOR SHALL ALSO PROVIDE SAMPLES THAT ARE TWO SHADES LIGHTER AND TWO SHADES DARKER THAN THE EXISTING CMU BLOCK.
- PROVIDE HORIZONTAL JOINT REINFORCEMENT AT 16" O.C., SEE SPECIFICATIONS.



**SITE PLAN**

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**INSTALL 10' PERIMETER FENCE PHASE 4**  
**BLOCKWALL DETAIL**

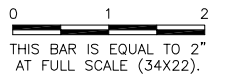


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CHECKED BY:	GTC
APPROVED BY:	GTC
DATE:	0-/--/2012
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IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	29 OF 42 SHEETS



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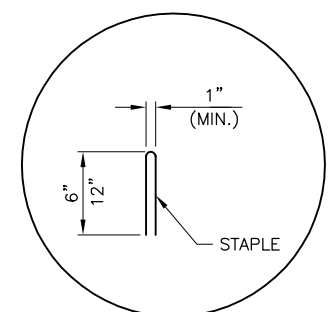
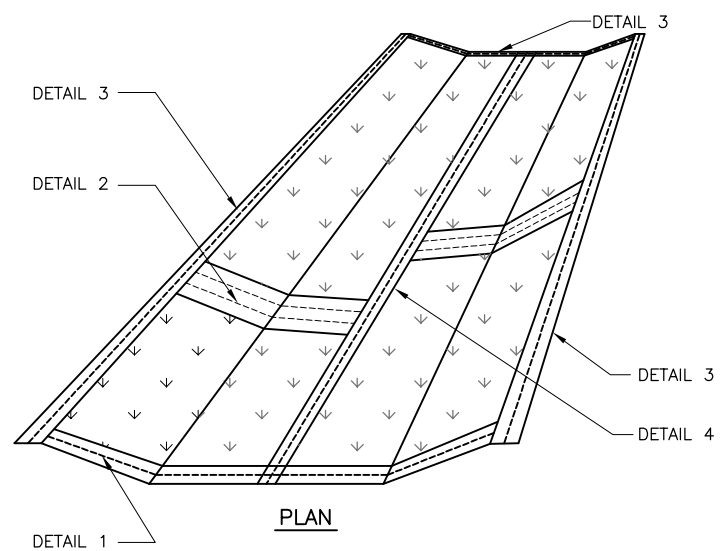
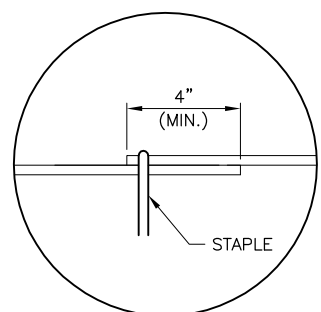
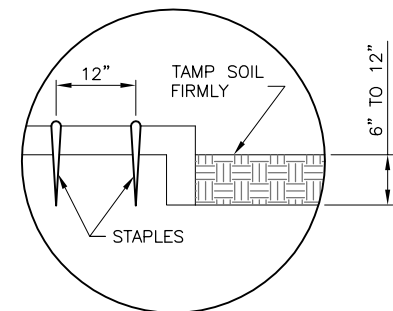
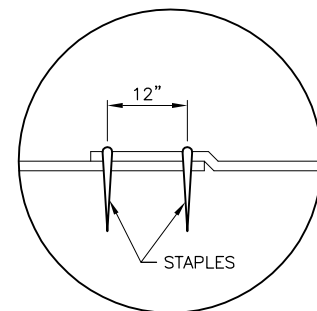
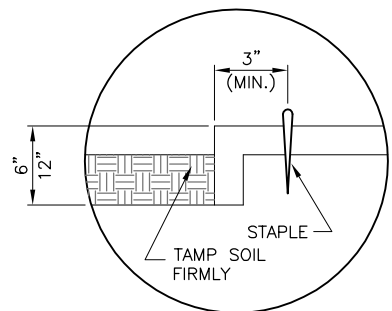
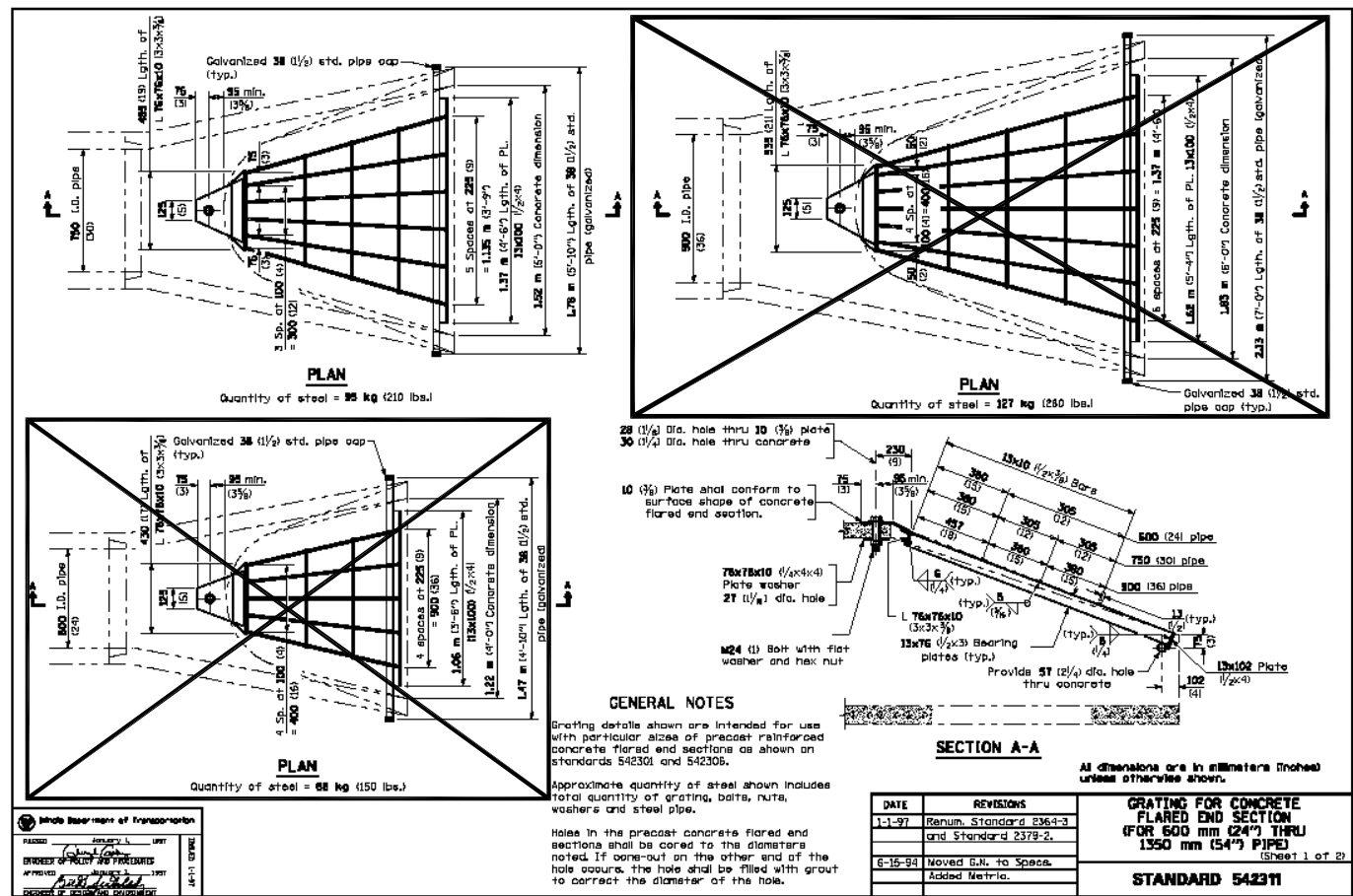
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**INSTALL 10' PERIMETER FENCE PHASE 4**  
**EROSION CONTROL AND GRATING DETAILS**

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SHEET	30 OF 42 SHEETS

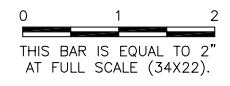


**NOTES**

1. STAPLES TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART.
2. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
3. ALL TERMINALS ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

**BL067**

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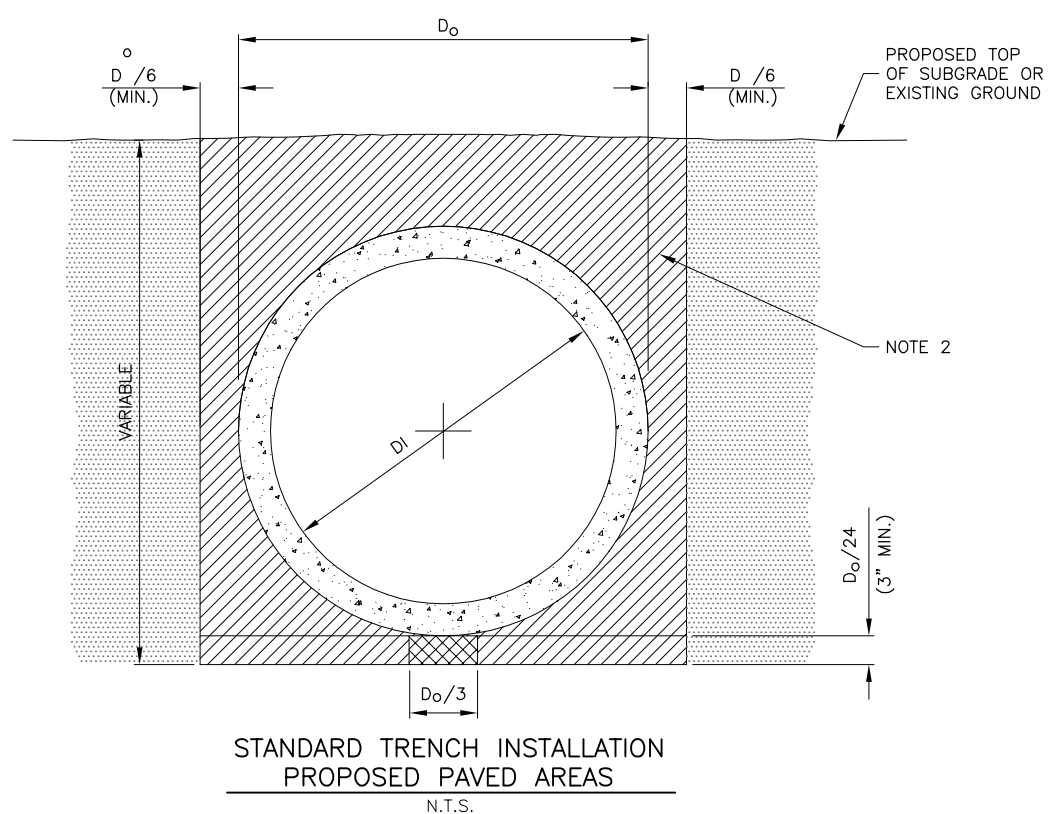
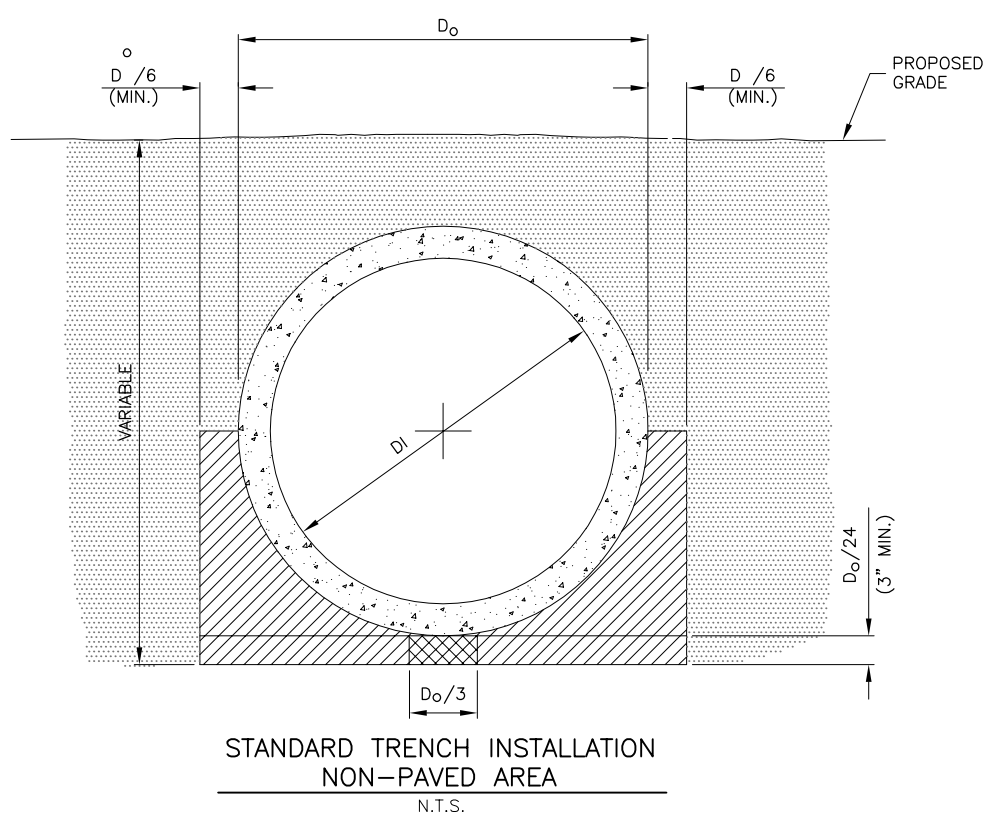


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**INSTALL 10' PERIMETER FENCE PHASE 4  
 DRAINAGE DETAILS**

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**LEGEND**

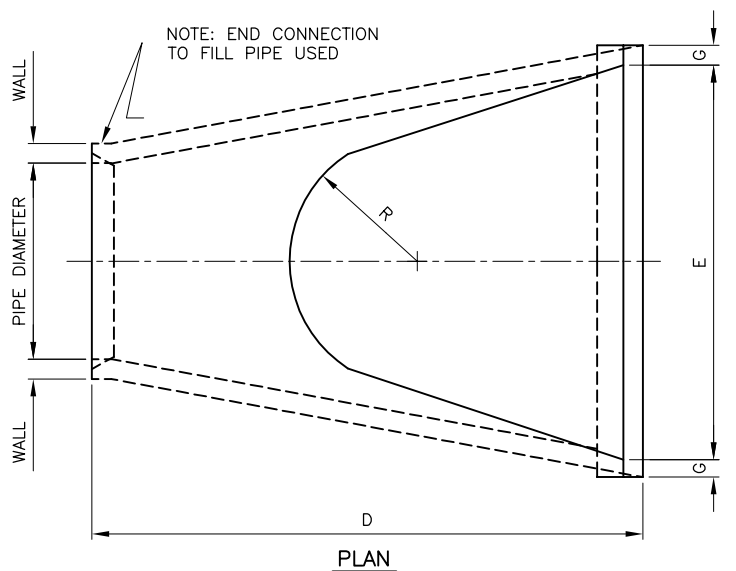
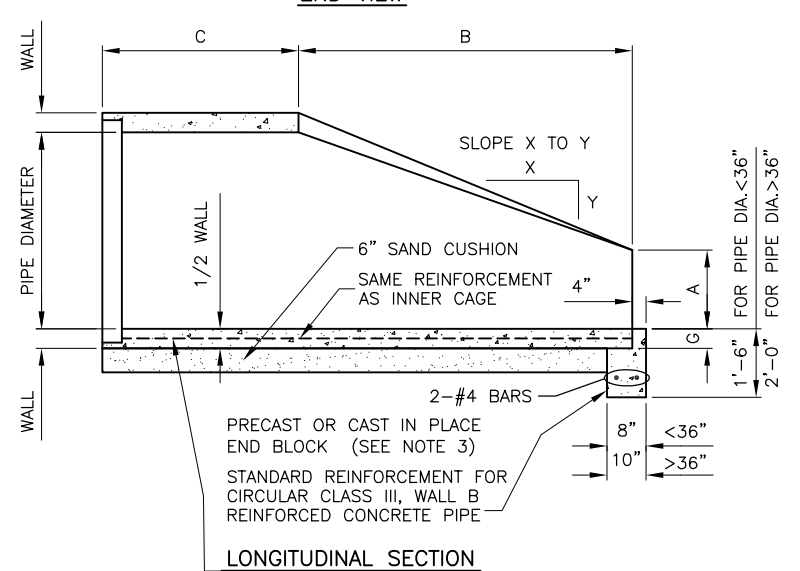
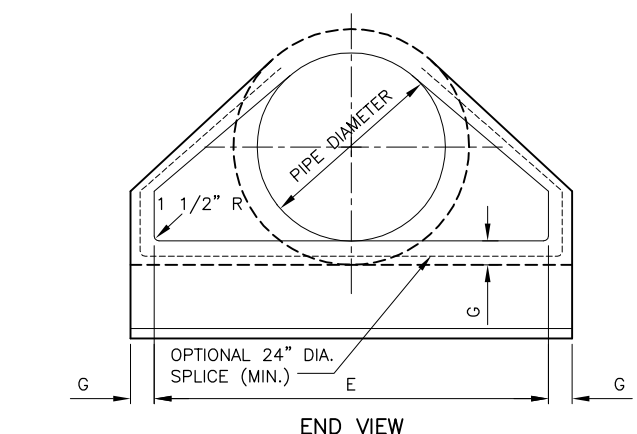
	DRAINAGE CONDUIT MATERIAL—CONCRETE
	MIDDLE BEDDING LOOSELY PLACED UNCOMPACTED BEDDING
	HAUNCH AND OUTER BEDDING COMPACTION— TO ENGINEER'S SATISFACTION OR 95% STANDARD PROCTOR
	LOWER SIDE AND OVERFILL COMPACTION— SAME AS EMBANKMENT REQUIREMENTS. (USE ON AIRPORT BORROW MATERIAL)
Do	PIPE OUTSIDE DIAMETER
D1	PIPE INSIDE DIAMETER

- NOTES**
- BEDDING SHOWN IS IN ACCORDANCE WITH "STANDARD EMBANKMENT INSTALLATIONS", STANDARD INSTALLATION & BEDDING FACTORS FOR THE INDIRECT DESIGN METHOD (DESIGN DATA 40), AMERICAN CONCRETE PIPE ASSOCIATION.
  - BACKFILL TO EXTEND 3' BEYOND EDGES OF PROPOSED PAVEMENT.

**DIMENSIONS — TABLE 1**

PIPE DIA.	APPROX WT.(lbs.)	WALL	A	B	C	D	E	G	R	SLOPE
12"	530	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	2"	9"	3:1
15"	740	2 1/4"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2 1/4"	11"	3:1
18"	990	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	2 1/2"	12"	3:1
21"	1280	2 3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	2 3/4"	13"	3:1
24"	1520	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3"	14"	3:1
27"	1930	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	3 1/4"	14 1/2"	3:1
30"	2190	3 1/2"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3 1/2"	15"	3:1
33"	3200	3 3/4"	1'-1 1/2"	4'-10 1/2"	3'-3 1/4"	8'-1 3/4"	5'-6"	3 3/4"	17 1/2"	3:1
36"	4100	4"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"	4"	20"	3:1
42"	5380	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	4 1/2"	22"	3:1
48"	6550	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	5"	22"	3:1
54"	8240	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	5 1/2"	24"	2.4:1
60"	8730	6"	2'-11"	5'-0"	3'-3"	8'-3"	8'-0"	5"	*	2:1
66"	10710	6 1/2"	2'-6"	6'-0"	2'-3"	8'-3"	8'-6"	5 1/2"	*	2:1
72"	12520	7"	3'-0"	6'-6"	1'-9"	8'-3"	9'-0"	6"	*	1.86:1
78"	14770	7 1/2"	3'-0"	7'-6"	1'-9"	9'-3"	9'-6"	6 1/2"	*	1.82:1
84"	18160	8"	3'-0"	7'-6 1/2"	1'-9"	9'-3 1/2"	10'-0"	6 1/2"	*	1.5:1

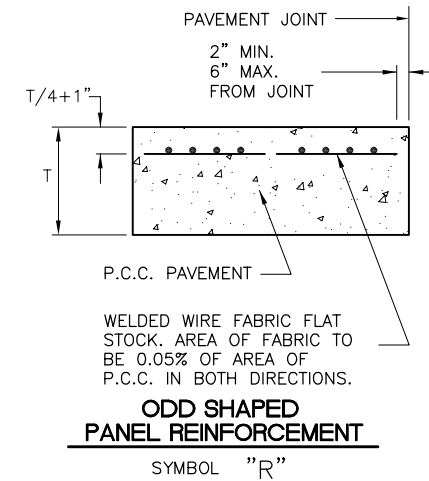
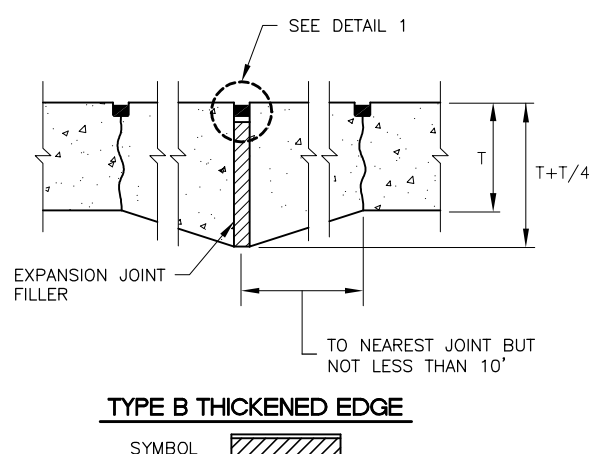
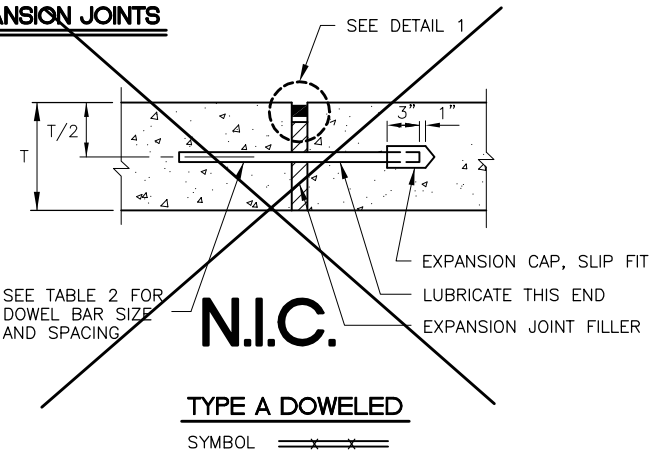
\* RADIUS AS FURNISHED BY MANUFACTURER.



- NOTES**
- PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
  - PRECAST CONCRETE FLARED END SECTION FOR PIPE DIAMETER REQUIRED SHALL BE AS INDICATED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.

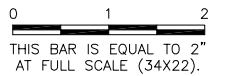
PAVEMENT THICKNESS T - INCHES	DEPTH OF CONTRACTION JOINT INITIAL SAW CUT I, INCHES $I=(T/3) \pm 1/4"$
5	1.67"
6	2.00"
7	2.33"
8	2.67"
9	3.00"
10	3.33"
11	3.67"
12	4.00"
13	4.33"
14	4.67"
15	5.00"
16	5.33"
17	5.67"
18	6.00"

**EXPANSION JOINTS**



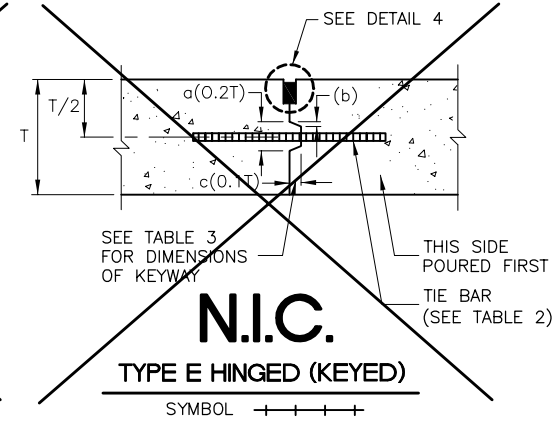
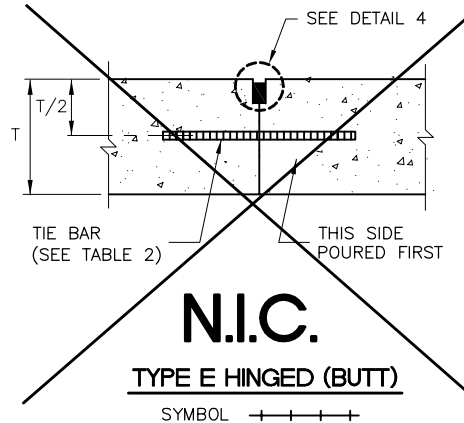
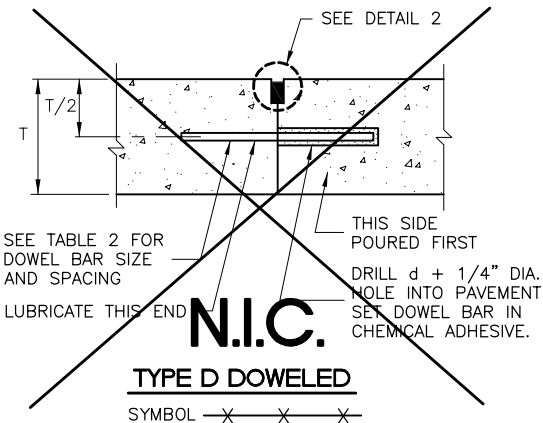
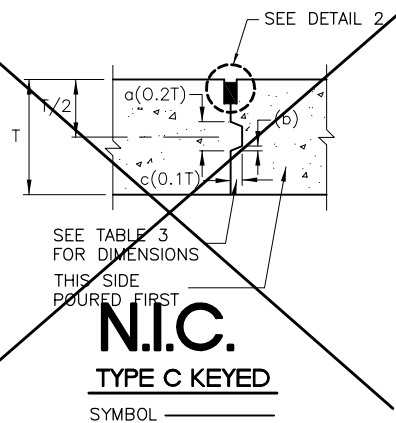
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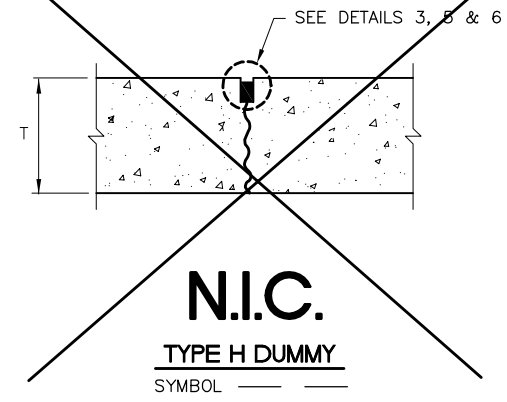
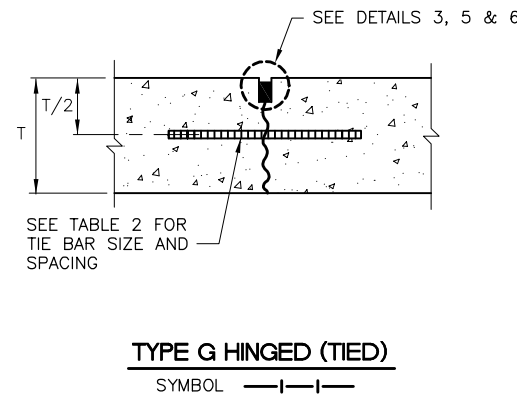
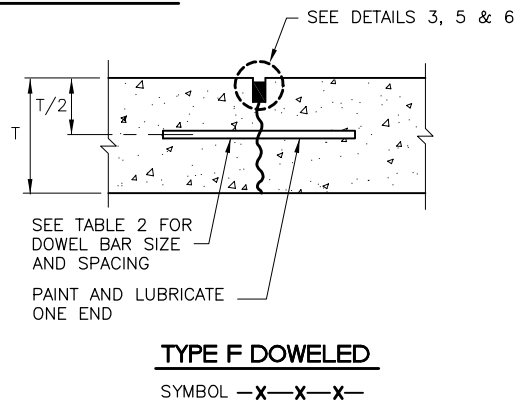


PAVEMENT THICKNESS T - INCHES	DOWEL BAR DETAILS			TIE BAR DETAILS		
	DIA.	LENGTH	SPACING	BAR SIZE	LENGTH	SPACING
5	5/8"	12"	12"	#4	24"	30"
6	3/4"	18"	12"	#5	30"	30"
7	3/4"	18"	12"	#5	30"	30"
8	1"	19"	12"	#5	30"	30"
9	1"	19"	12"	#5	30"	30"
10	1"	19"	12"	#5	30"	30"
11	1"	19"	12"	#5	30"	30"
12	1"	19"	12"	#5	30"	30"
13	1 - 1/4"	20"	15"	#5	30"	30"
14	1 - 1/4"	20"	15"	#5	30"	30"
15	1 - 1/4"	20"	15"	#5	30"	30"
16	1 - 1/4"	20"	15"	#5	30"	30"
17	1 - 1/2"	20"	18"	#5	30"	30"
18	1 - 1/2"	20"	18"	#5	30"	30"

**CONSTRUCTION JOINTS**



**CONTRACTION JOINTS**



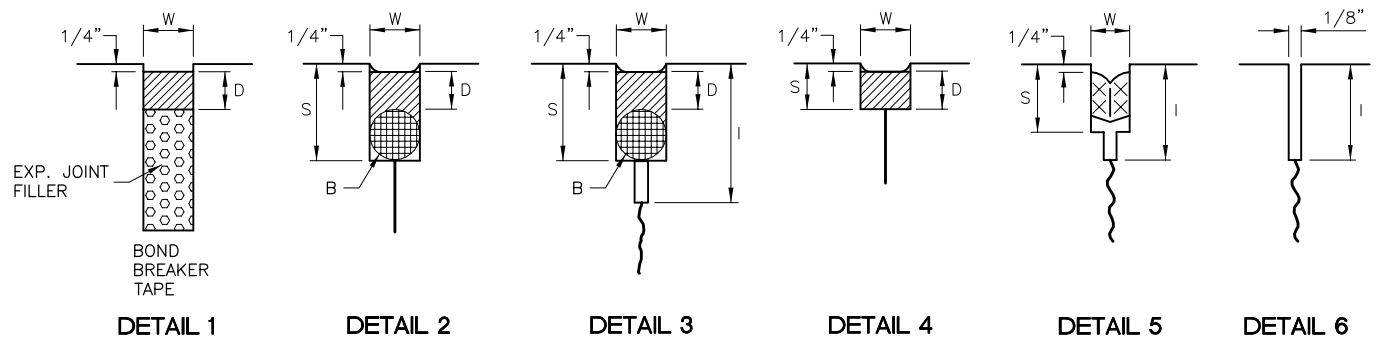
PAVEMENT THICKNESS T - INCHES	KEYED JOINT DIMENSIONS		
	a	b	c
6	---	---	---
7	---	---	---
8	0.133' ( 1-5/8" ± )	0.017' ( 3/16" ± )	0.067' ( 7/8" ± )
9	0.150' ( 1-13/16" ± )	0.019' ( 3/16" ± )	0.075' ( 7/8" ± )
10	0.167' ( 2" )	0.021' ( 1/4" ± )	0.083' ( 1" )
11	0.183' ( 2-13/16" ± )	0.023' ( 1/4" ± )	0.092' ( 1-1/8" ± )
12	0.200' ( 2-3/8" ± )	0.025' ( 5/16" ± )	0.100' ( 1-1/4" ± )
13	0.217' ( 2-5/8" ± )	0.027' ( 5/16" ± )	0.108' ( 1-5/16" ± )
14	0.233' ( 2-13/16" ± )	0.029' ( 3/8" ± )	0.117' ( 1-7/16" ± )
15	0.250' ( 3" )	0.031' ( 3/8" ± )	0.125' ( 1-1/2" ± )
16	0.267' ( 3-13/16" ± )	0.033' ( 7/16" ± )	0.133' ( 1-5/8" ± )

**JOINT NOTES**

- 1.) ALL EDGES OF NEW SLABS, FREE STANDING OR CLOSURE, SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF 1/8" TO 1/4" TO FACILITATE SAWING OF THE SEALANT RESERVOIR. A RADIUS > 1/4" WILL NOT BE ACCEPTABLE.
- 2.) THE INITIAL SAWCUT FOR ALL LONGITUDINAL & TRANSVERSE CONTRACTION JOINTS SHALL BE SAWED AS SOON AS POSSIBLE AFTER PLACEMENT OF THE PAVEMENT.
- 3.) ALL TIE BARS & MESH SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR OTHER APPROVED METHODS TO PREVENT SHIFTING DURING & AFTER CONCRETE PLACEMENT.
- 4.) TIE BARS SHALL BE DEFORMED BARS IN CONFORMANCE WITH THE SPECIFICATIONS.
- 5.) THE INITIAL SAWCUT SHALL BE MADE TO THE 1/8" WIDTH INDICATED. INITIAL SAWING TO THE DIMENSIONS OF THE SECOND SAWCUT WILL NOT BE ALLOWED.

	DETAIL 1	DETAIL 2	DETAIL 3	DETAIL 4	DETAIL 5
W=WIDTH OF SEALANT RESERVOIR (IN.)	1	1/2	1/2	1/2	3/8 (COM-PRESSED)
D=DEPTH OF SEALANT RESERVOIR (IN.)	1	1/2	1/2	1/2	N/A
B=BACKER ROD DIAMETER (IN.)	N/A	5/8	5/8	N/A	N/A
S=SECOND SAWCUT DEPTH (IN.) MINIMUM	N/A	1-3/8	1-3/8	3/4	1-1/2

**JOINT SEALING DETAILS**

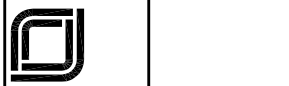


N.I.C. - NOT IN THIS CONTRACT

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

INSTALL 10' PERIMETER FENCE PHASE 4  
JOINTING 1

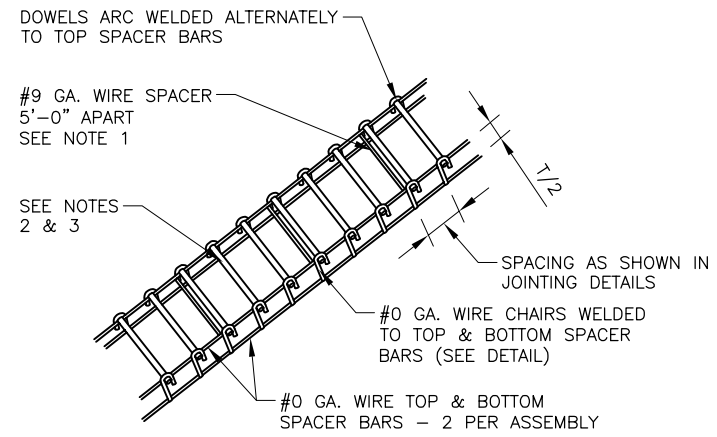
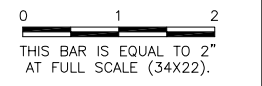
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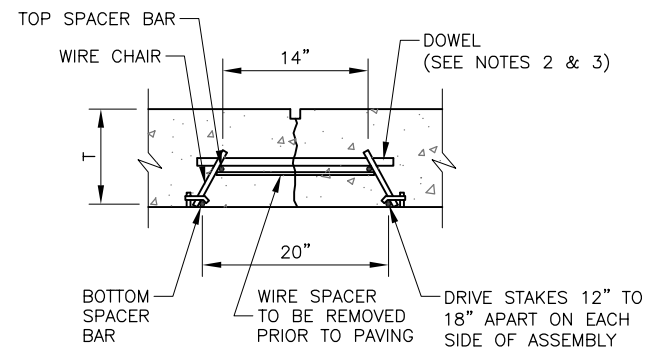
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DRAWN BY:	CMT
CHECKED BY:	JEF
APPROVED BY:	JEF
DATE:	0-/--/2012
JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	32 OF 42 SHEETS

**BL067**

REVISIONS		
NUMBER	BY	DATE

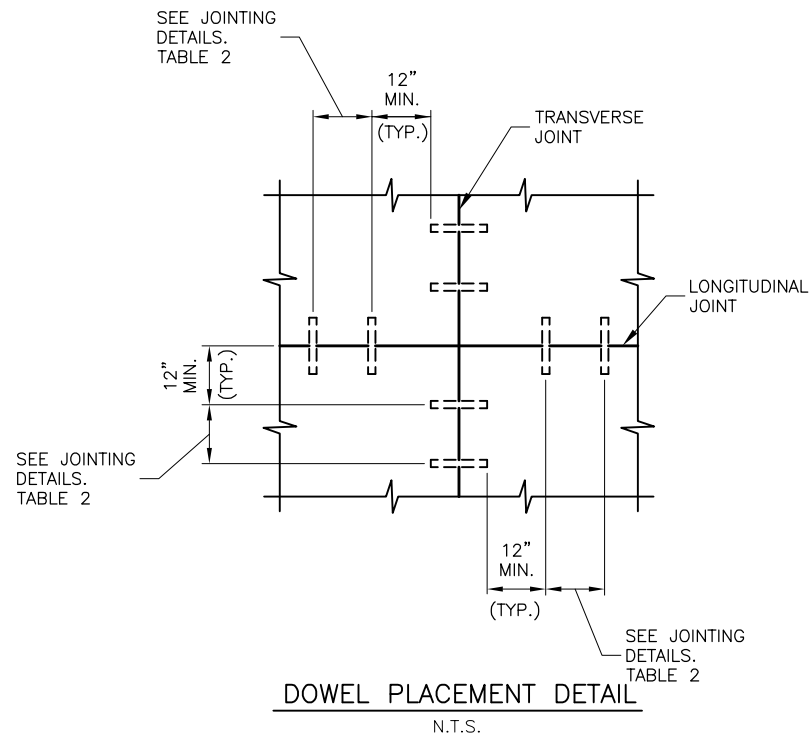


DOWEL BASKET ASSEMBLY DETAILS AND NOTES  
N.T.S.

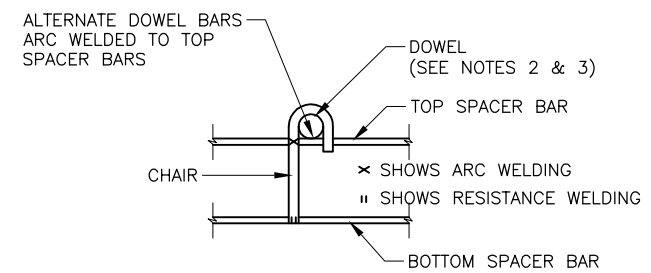


DOWEL BAR INSTALLATION DETAIL  
N.T.S.

DOWEL BASKET DETAILS  
N.T.S.



DOWEL PLACEMENT DETAIL  
N.T.S.



TYPICAL DOWEL BASKET ELEVATION DETAIL SHOWING CHAIR  
N.T.S.

DOWEL BASKET NOTES

- 1.) #9 GA. WIRE SPACER BAR ARC WELDED TO THE BOTTOM OF TOP SPACER BAR. (MAY BE MECHANICALLY ATTACHED IN LIEU OF WELDING) 3 REQUIRED PER UNIT. THIS WIRE MUST BE CUT OR REMOVED PRIOR TO PAVING.
- 2.) DOWEL BAR DIAMETER, LENGTH & SPACING SHALL BE AS SHOWN IN TABLE 2 JOINTING DETAILS 1.
- 3.) DOWELS SHALL BE EPOXY COATED FULL LENGTH OF DOWEL. IMMEDIATELY PRIOR TO PAVING, THE FREE END OF EACH DOWEL SHALL BE LUBRICATED OR OILED, FOR HALF THE LENGTH OF THE DOWEL.

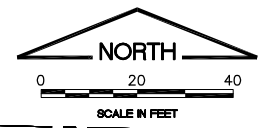
**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**

**INSTALL 10' PERIMETER FENCE PHASE 4**  
**JOINTING 2**

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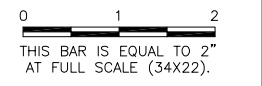


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DRAWN BY:	CMT
CHECKED BY:	JEF
APPROVED BY:	JEF
DATE:	0--/--/2012
JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	33 OF 42 SHEETS



**BL067**

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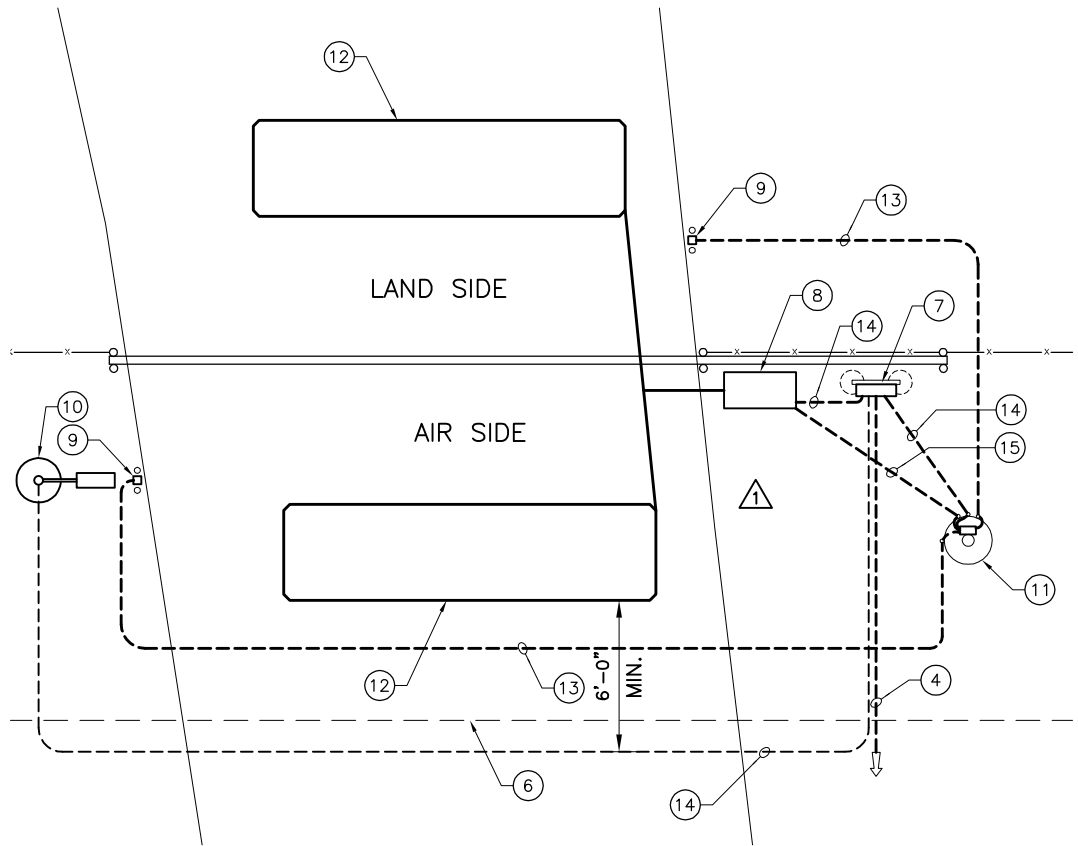


**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**

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

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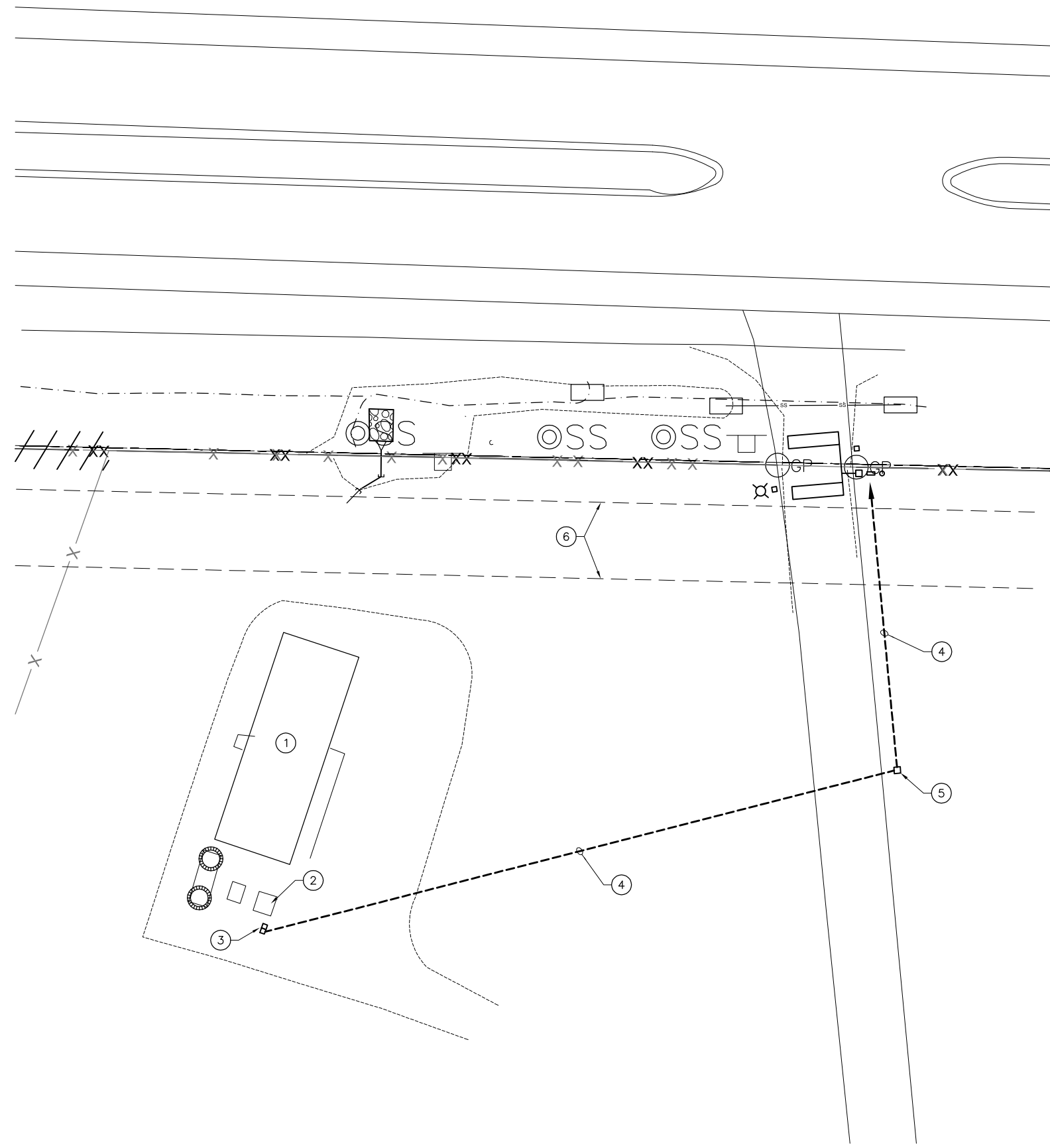
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APPROVED BY:	JEF
DATE:	0-/--/2012
JOB No:	1008501
IL PROJ NO.	BMI-4098
AIP PROJ NO.	3-17-0006-XX
SHEET	34 OF 42 SHEETS



**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, CHAMBERLAIN LIFTMASTER MODEL SL 575, 1 HP, 120V, SINGLE PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1800 LBS AND MAXIMUM GATE WIDTH OF 32 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"

**BL067**

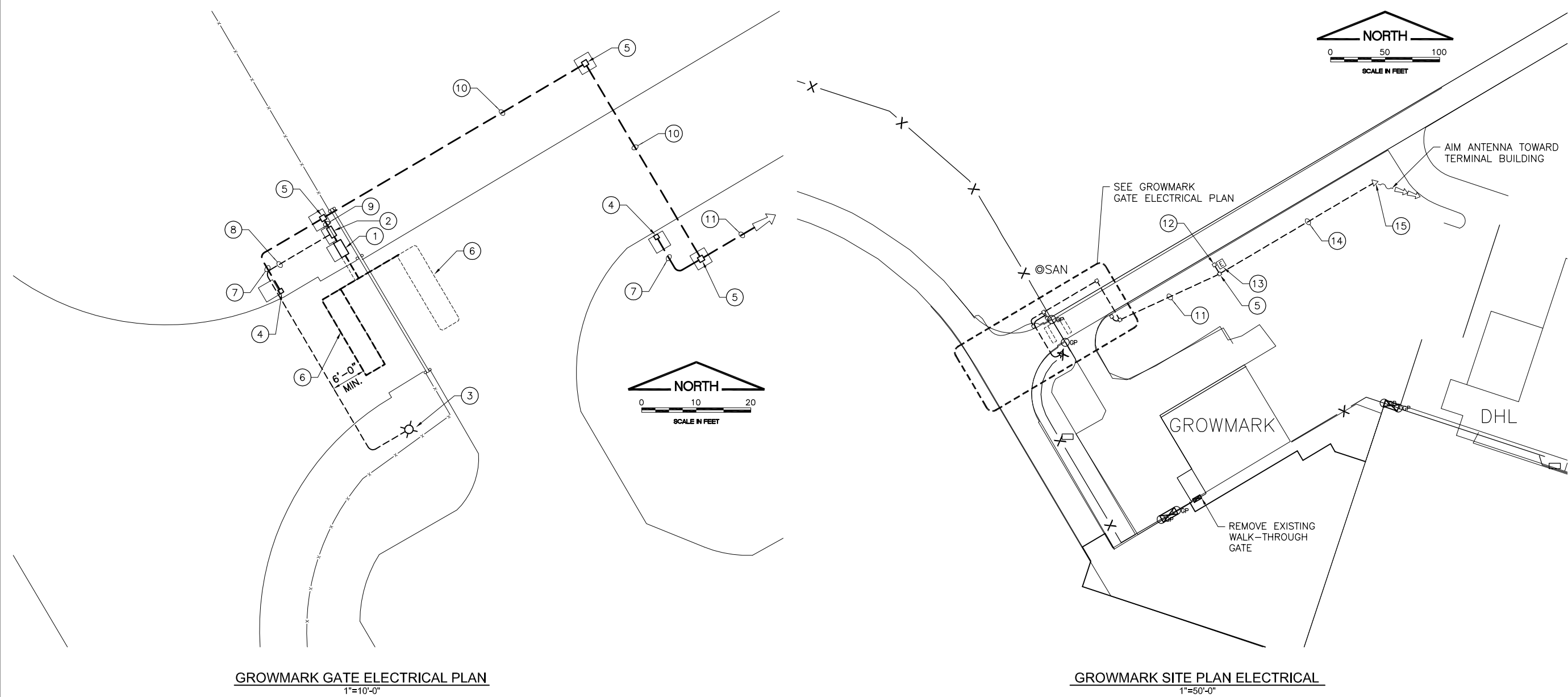
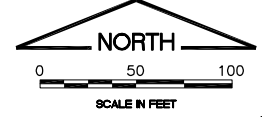
REVISIONS		
NUMBER	BY	DATE

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**  
**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



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

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

**KEYED NOTES**

- ① NEW CANTILEVER SLIDE GATE MOTOR OPERATOR, CHAMBERLAIN LIFTMASTER MODEL SL 575, 1 HP, 120V, SINGLE PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1800 LBS AND MAXIMUM GATE WIDTH OF 32 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 PHOTOCCELL RECEPTACLE & PHOTOCCELL, 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 RAINIGHT 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" CONDUIT.
- ⑩
  - 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.



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

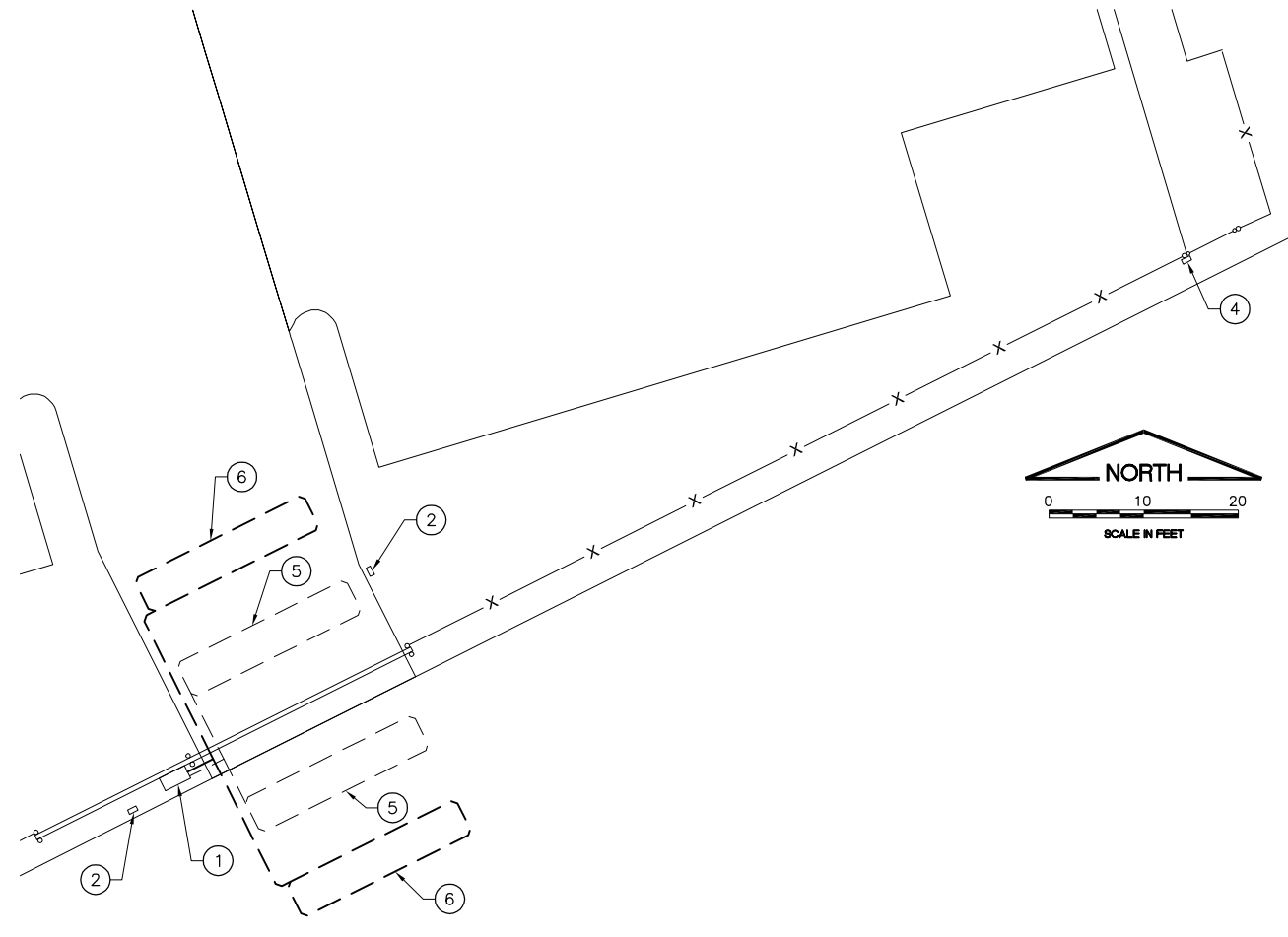
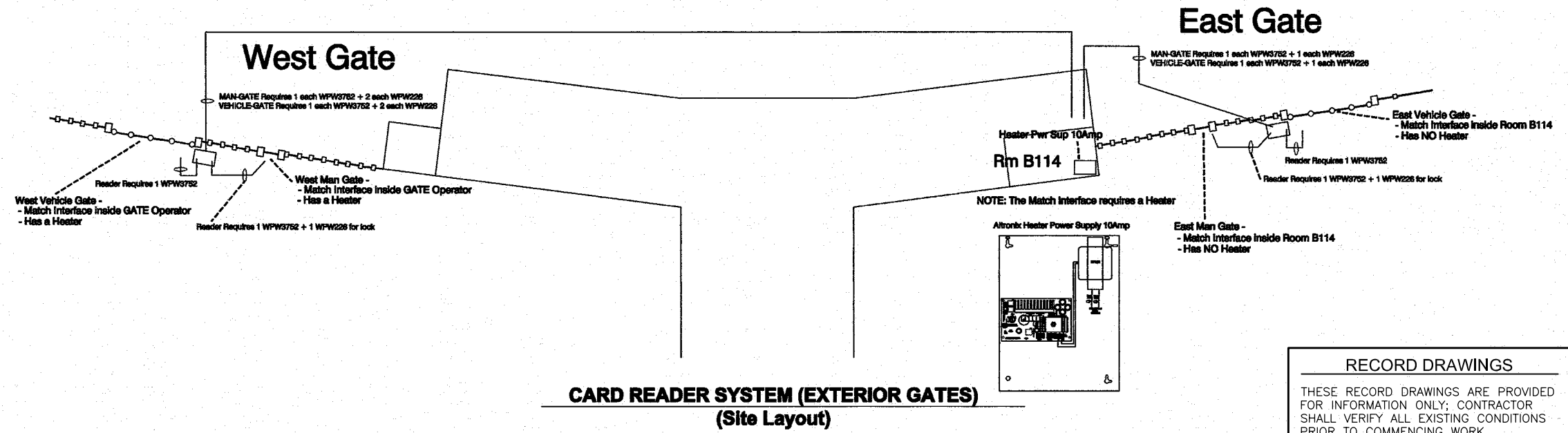
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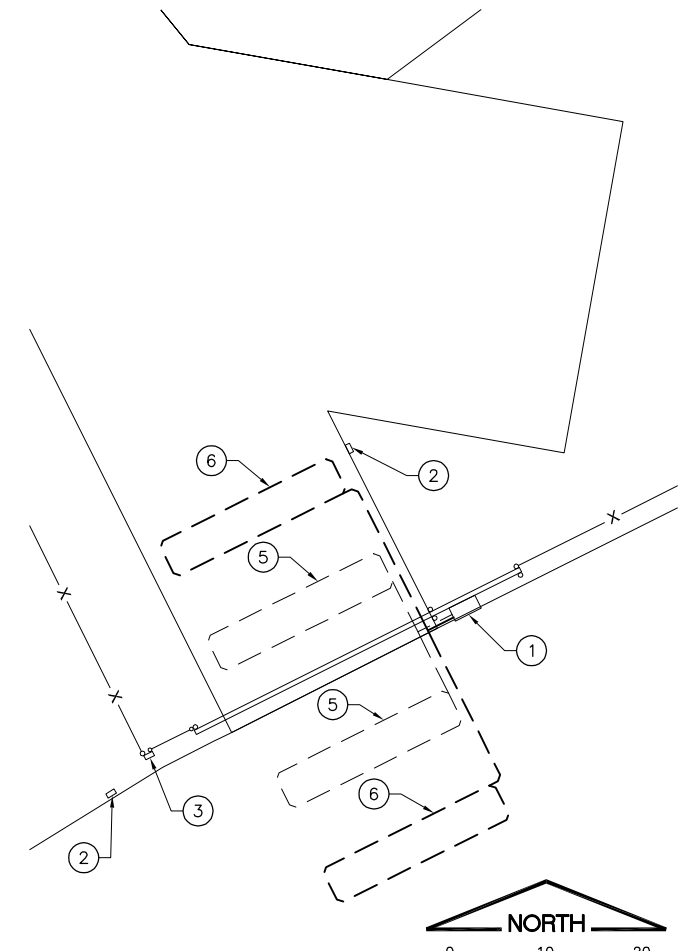
REVISIONS

NUMBER	BY	DATE

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



- KEYED NOTES**
- DISCONNECT AND REMOVE EXISTING GATE OPERATOR. INSTALL NEW GATE OPERATOR ON EXISTING CONCRETE PAD AND RECONNECT TO EXISTING POWER AND CONTROL WIRING.  
  
NEW CANTILEVER SLIDE GATE MOTOR OPERATOR, CHAMBERLAIN LIFTMASTER MODEL SL 575, 1 HP, 120V, SINGLE PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1800 LBS AND MAXIMUM GATE WIDTH OF 32 FEET. NEW GATE OPERATOR SHALL INCLUDE AN INTERNAL POWER DISCONNECT SWITCH AND DETECTOR LOOP ELECTRONICS FOR BOTH EXISTING AND NEW DETECTOR LOOPS. 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. SEE DETAILS FOR ADDITIONAL INFORMATION. NOTE: AN EARTH GROUND ROD IS REQUIRED AT GATE OPERATOR, BUT NOT SHOWN.
  - EXISTING CARD READERS TO REMAIN UNDISTURBED. VERIFY OPERATION OF CARD READERS BOTH BEFORE AND AFTER MODIFICATIONS. COORDINATE THIS WORK WITH THE ACCESS CONTROL CONTRACTOR.
  - 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.
  - 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.  
  
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.
  - EXISTING DETECTOR LOOP. TO BE REUSED WITH NEW GATE OPERATOR.
  - NEW DETECTOR LOOP.



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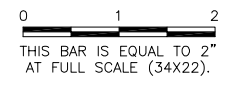
INSTALL 10' PERIMETER FENCE PHASE 4  
TERMINAL EAST AND WEST  
GATES ELECTRICAL

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APPROVED BY: WDP  
DATE: 0-/--/2012  
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IL PROJ NO. BMI-4098  
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**

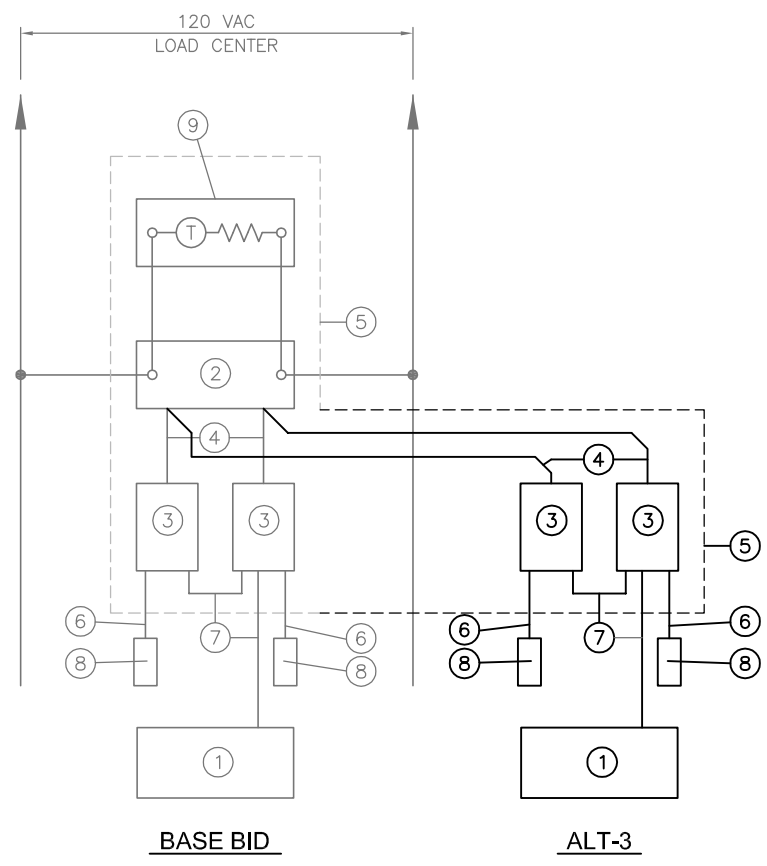
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AIP PROJ NO.	3-17-0006-XX
SHEET	37 OF 42 SHEETS

**KEYED NOTES**

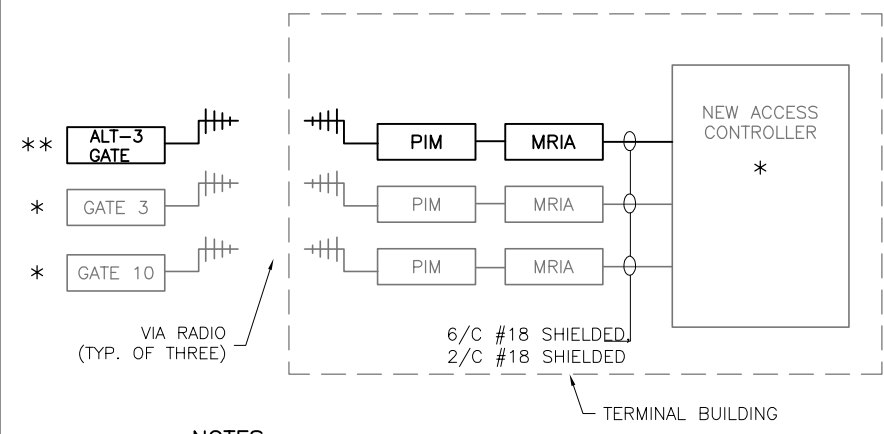
**NOTE:** THE FOLLOWING DESCRIBES WORK TO BE DONE TO PERFORM THE ELECTRICAL WORK FOR ALT-3 ELECTRIC GATE AT GROWMARK. IT DESCRIBES NEW WORK TO BE DONE AND MODIFICATIONS TO BASE-BID WORK TO FURNISH AND INSTALL ALT-3 ELECTRIC GATE.

- ① NEW CANTILEVER SLIDE GATE MOTOR OPERATOR, CHAMBERLAIN LIFTMASTER MODEL SL 575, 1 HP, 120V, SINGLE PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1800 LBS AND MAXIMUM GATE WIDTH OF 32 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**

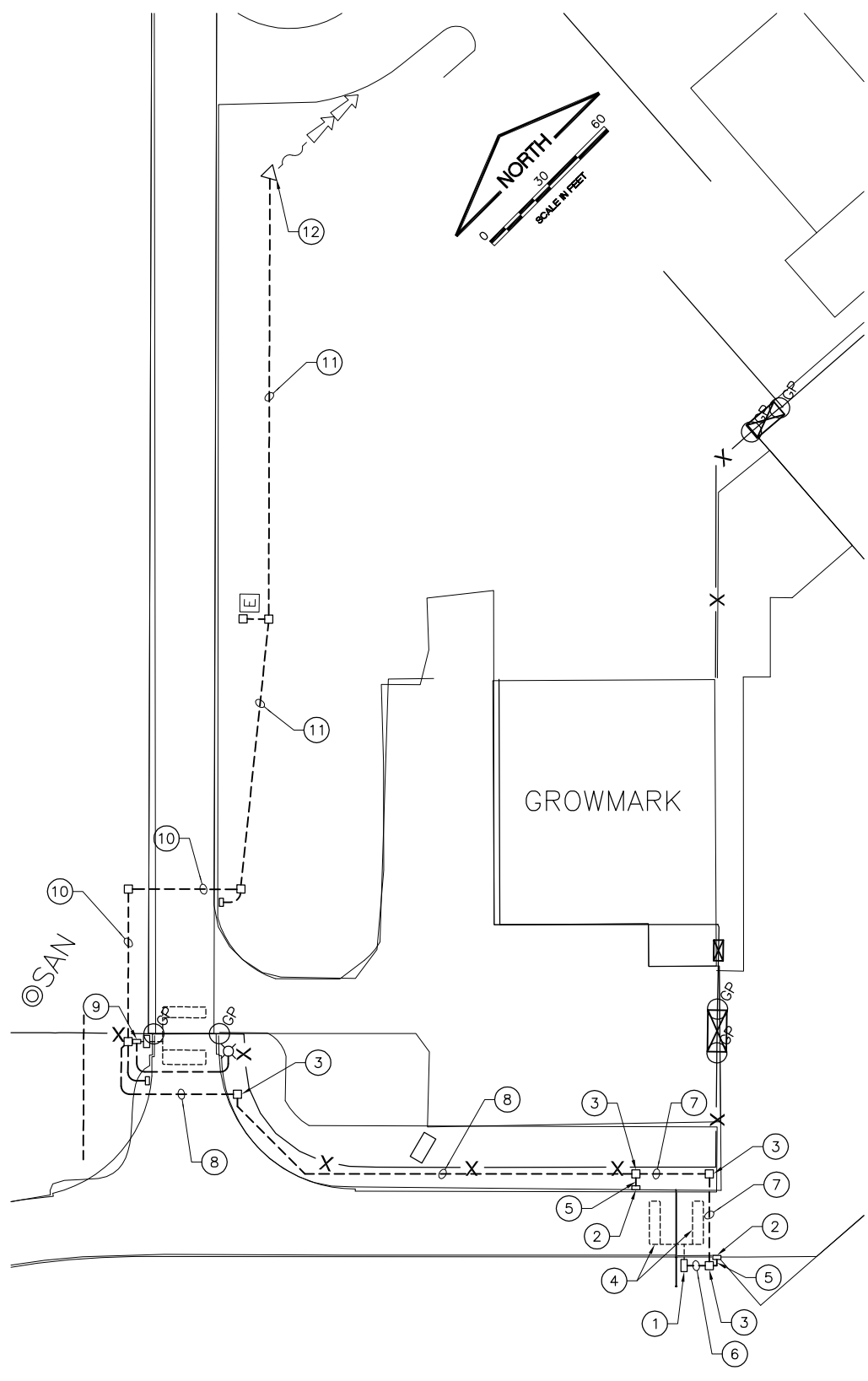


**NOTES:**

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

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

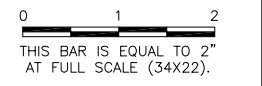
**ALT-3  
 TERMINAL BUILDING  
 ACCESS CONTROL BLOCK DIAGRAM**



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

**BL067**

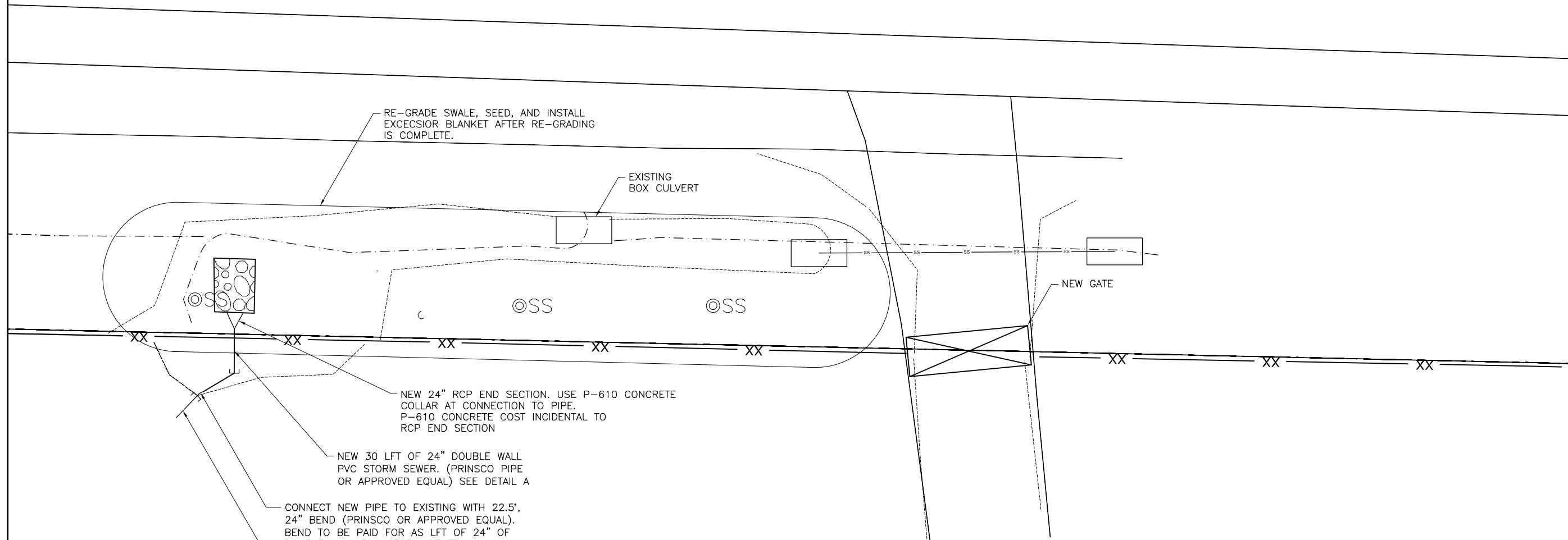
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**INSTALL 10' PERIMETER FENCE PHASE 4**  
**REGRADE SWALE**

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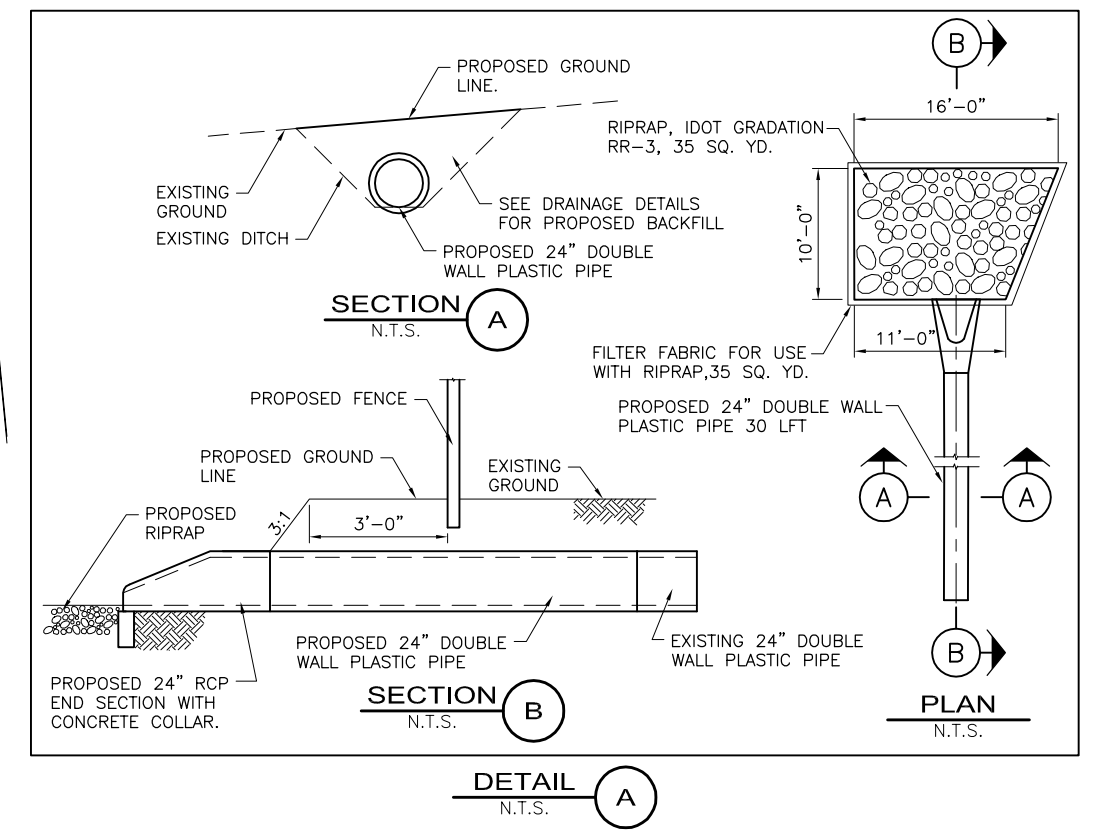


- RE-GRADE SWALE, SEED, AND INSTALL EXCESSIOR BLANKET AFTER RE-GRADING IS COMPLETE.
- EXISTING BOX CULVERT
- NEW GATE
- NEW 24" RCP END SECTION. USE P-610 CONCRETE COLLAR AT CONNECTION TO PIPE. P-610 CONCRETE COST INCIDENTAL TO RCP END SECTION
- NEW 30 LFT OF 24" DOUBLE WALL PVC STORM SEWER. (PRINSCO PIPE OR APPROVED EQUAL) SEE DETAIL A
- CONNECT NEW PIPE TO EXISTING WITH 22.5', 24" BEND (PRINSCO OR APPROVED EQUAL). BEND TO BE PAID FOR AS LFT OF 24" OF DOUBLE WALL PVC STORM SEWER.
- EXISTING 24" DOUBLE WALL PLASTIC DRAIN PIPE.

- NOTES:**
- SWALE SHALL BE RE-GRADED TO PROMOTE POSITIVE DRAINAGE.
  - CONTRACTOR SHALL REMOVE EXISTING RIP-RAP PRIOR TO REGRADING SWALE. RIP-RAP SHALL BE DISPOSED OF ON AIRPORT PROPERTY. COST OF REMOVAL OF RIP-RAP IS INCIDENTAL TO REGRADING OF SWALE.
  - CONTRACTOR MAY USE THE TOP 12"-18" OF THE EXISTING BERM ADJACENT TO THE 24" PLASTIC PIPE FOR TOP OF BACKFILL OF PLASTIC PIPE.
  - CONTRACTOR SHALL PLACE ALL PROPER WARNING SIGNS AND BARRICADES WHEN WORKING WITHIN THE RIGHT OF WAY OF ILLINOIS STATE ROUTE 9. COST OF BARRICADES AND WARNING SIGNS INCIDENTAL SHALL BE TO THE PROJECT.

**LEGEND**

	NEW GATE
	NEW 10' CLASS E FENCE WITH (3) STRANDS OF BARBED WIRE.
	NEW RCP END SECTION

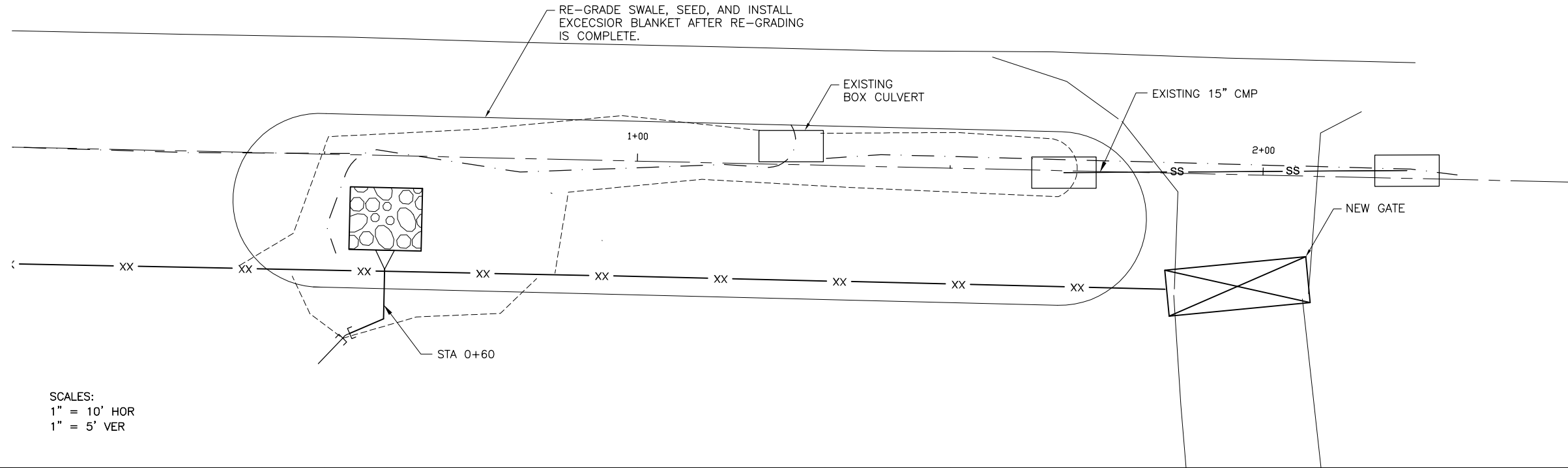


**DETAIL A**  
N.T.S.

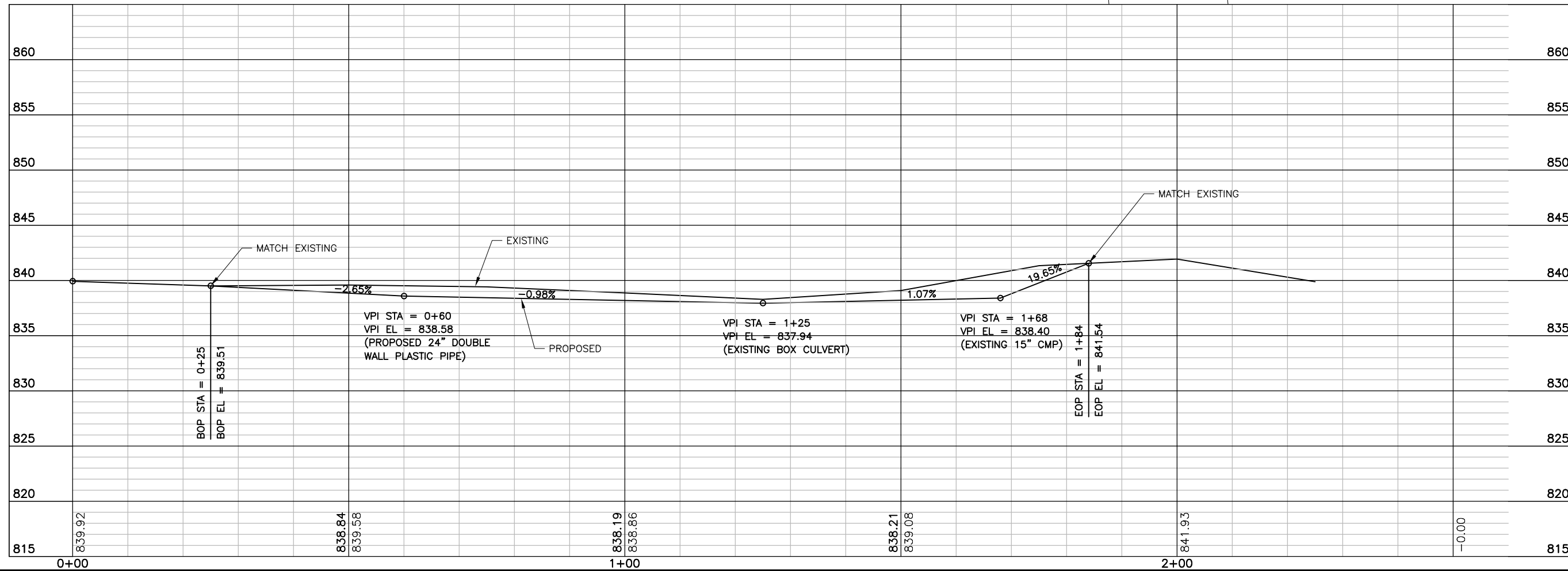
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0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).



SCALES:  
 1" = 10' HOR  
 1" = 5' VER

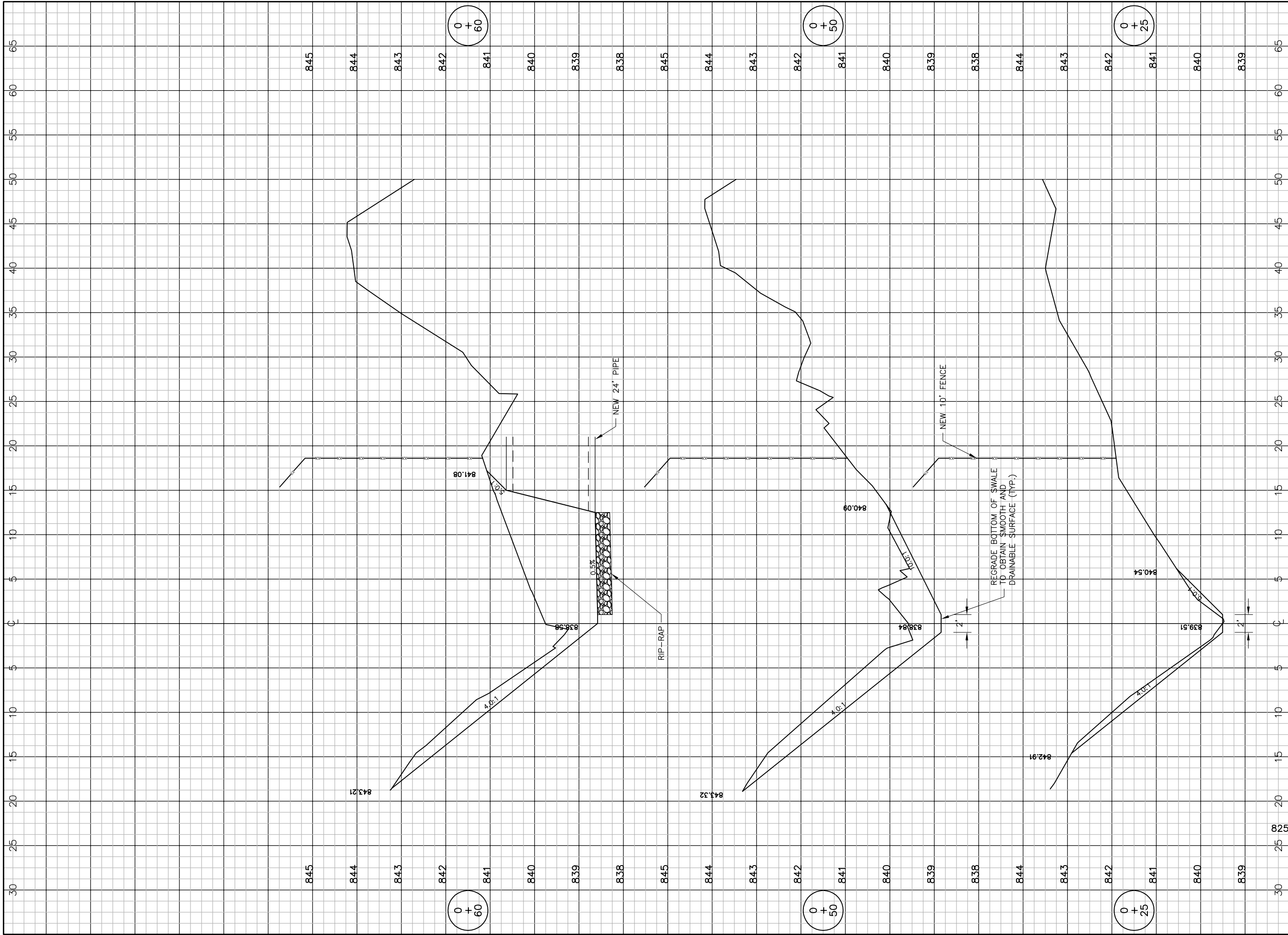


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**INSTALL 10' PERIMETER FENCE PHASE 4  
 REGRADE SWALE PROFILE**

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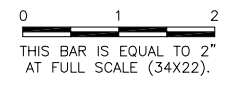
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 UPDATE BY: Dale Draughan  
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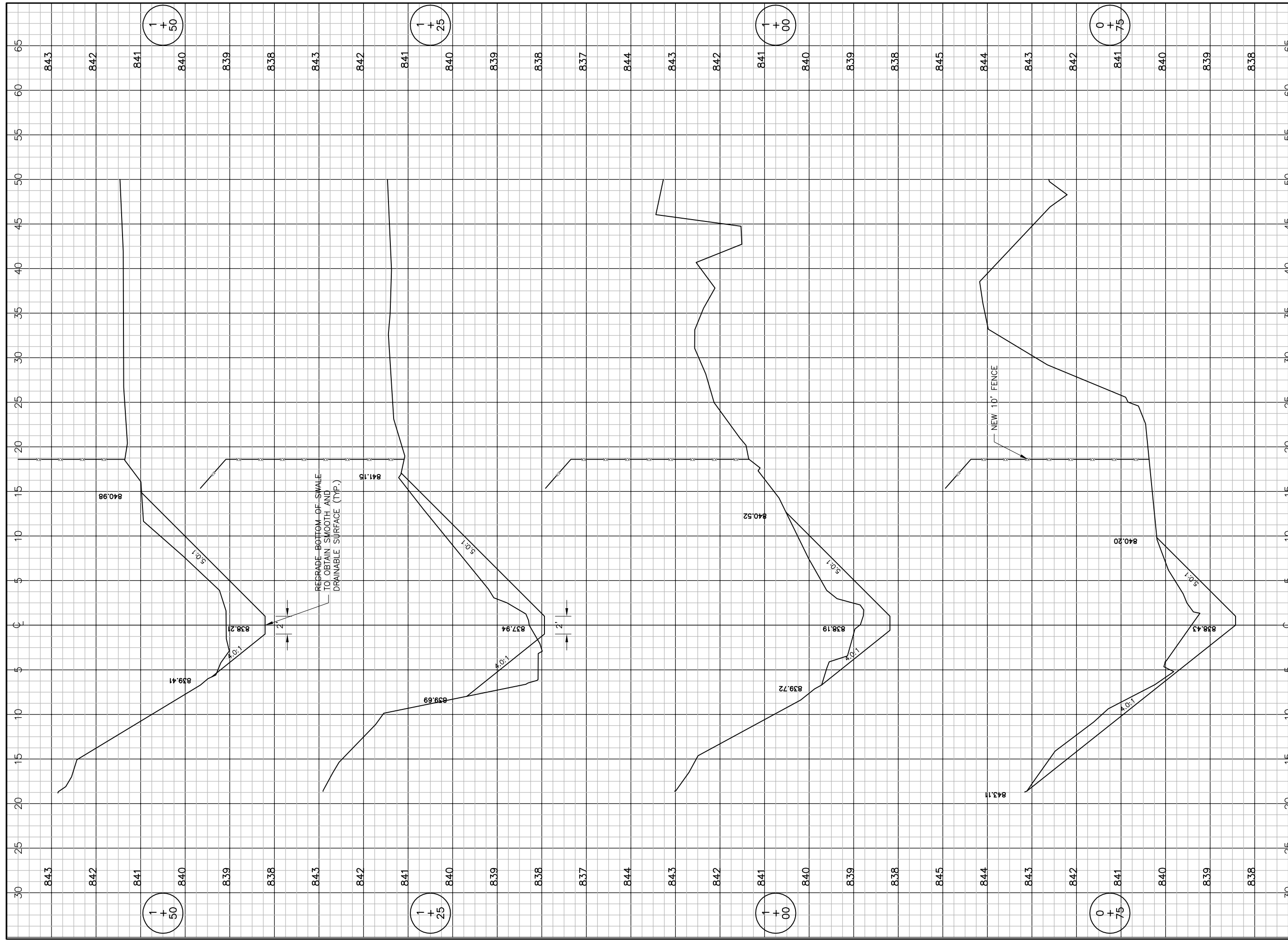
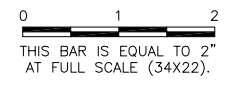
**INSTALL 10' PERIMETER FENCE PHASE 4  
 REGRADE SWALE CROSS SECTIONS 1**

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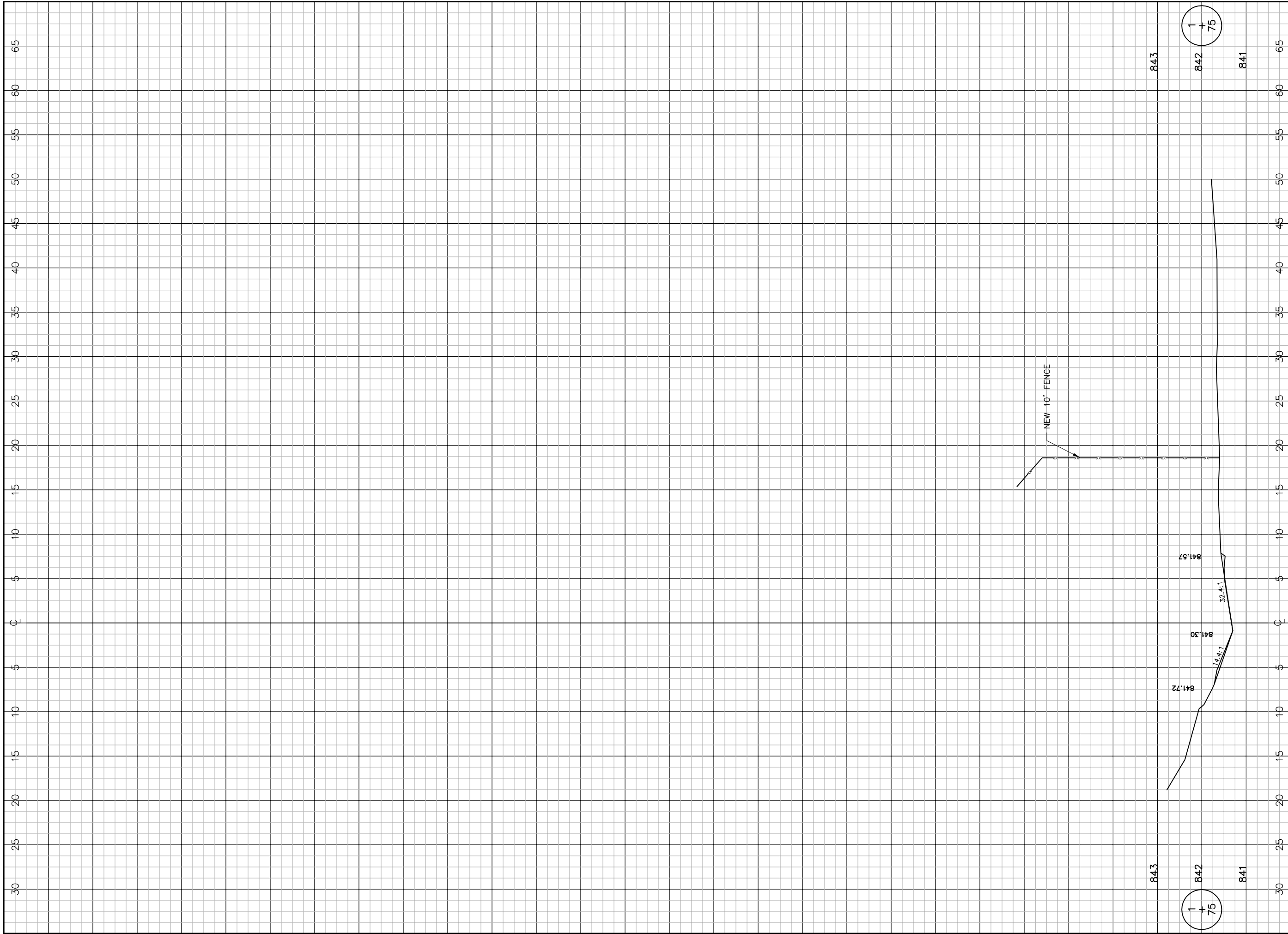
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**INSTALL 10' PERIMETER FENCE PHASE 4  
 REGRADE SWALE CROSS SECTIONS 2**

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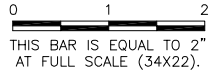




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**INSTALL 10' PERIMETER FENCE PHASE 4  
 REGRADE SWALE CROSS SECTIONS 3**

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