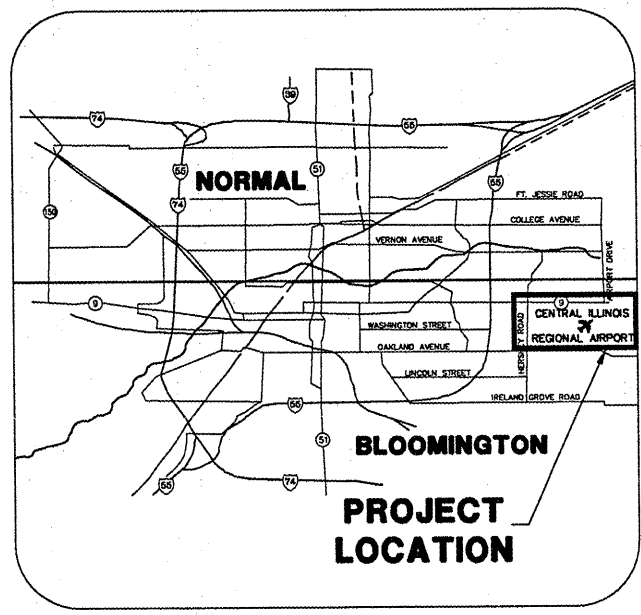


CONSTRUCTION PLANS  
FOR  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
BLOOMINGTON, ILLINOIS

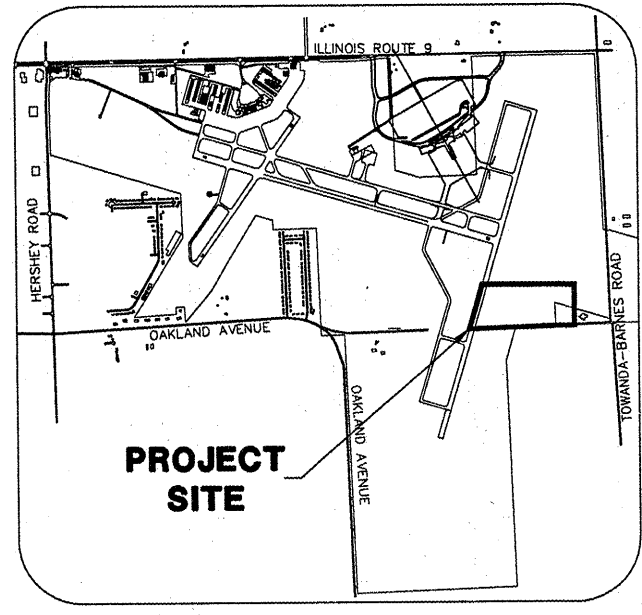
ILLINOIS PROJECT BMI-3797  
A. I. P. PROJECT 3-17-0006-46 & 48

CONSTRUCT GRADING AND PAVING FOR ACCESS AND EGRESS  
ROADWAYS AND EMPLOYEE PARKING LOT FOR NEW AIRPORT  
RESCUE AND FIRE FIGHTING FACILITY (BY OTHERS)

APRIL 1, 2008



LOCATION MAP



SITE PLAN

4/1/08  
RANDALL L. VOGEL  
62-048048  
REGISTERED  
PROFESSIONAL  
ENGINEER  
OF  
ILLINOIS  
*Randall L. Vogel*  
EXP. 11/30/08

DESIGN INFORMATION
<b>DESIGN VEHICLE</b> ARFF VEHICLE - OSHKOSH STRIKER 3000 AERIAL TRUCK - PIERCE T-3 AERIAL PLATFORM AASHTO WB-50 TRACTOR-TRAILER COMBINATION
<b>PAVEMENT DESIGN CRITERIA</b> 87,000 LBS. P-23 (3,000 GAL.) CRASH TRUCK
CALL J.U.L.I.E. BEFORE EXCAVATING 1-800-892-0123
TOWNSHIP: 23 NORTH RANGE: 3 EAST OF THE 4TH P.M. SECTION: 6 & 7 COUNTY: McLEAN CIVIL TOWNSHIP: OLD TOWN

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

APPROVED: *[Signature]*  
EXECUTIVE DIRECTOR OF AVIATION

DATE

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

SUBMITTED BY: *[Signature]*  
DATE: 4/1/08 2008

CMT JOB NUMBER 05085-09-00

**SUMMARY OF QUANTITIES**

ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITY	BASE BID QUANTITY	ADD. ALT. #1 QUANTITY	UTILITIES QUANTITY	BUILDING QUANTITY
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1	1	0	0	0
AR152455	EMBANKMENT IN PLACE	C.Y.	7950	6650	0	0	1300
AR156510	SILT FENCE	L.F.	1815	1815	0	0	0
AR156520	INLET PROTECTION	EACH	12	12	0	0	0
AR209606	CRUSHED AGG. BASE COURSE - 6"	S.Y.	9050	9050	0	0	0
AR401900	REMOVE BITUMINOUS PAVEMENT	S.Y.	365	365	0	0	0
AR501508	8" PCC PAVEMENT	S.Y.	8685	8685	0	0	0
AR501530	PCC TEST BATCH	EACH	1	1	0	0	0
AR501604	4" PCC SIDEWALK	S.F.	72	0	0	72	0
AR501690	PCC SIDEWALK REMOVAL	S.F.	72	0	0	72	0
AR620510	PAVEMENT MARKING	S.F.	5325	5325	0	0	0
AR162324	CLASS E GATE 24' - VINYL	EACH	1	1	0	0	0
AR162410	CLASS E FENCE, VINYL-10'	L.F.	680	680	0	0	0
AR162730	ELECTRIC GATE - 30'	EACH	1	1	0	0	0
AR162900	REMOVE CLASS E FENCE	L.F.	320	320	0	0	0
AR163510	TEMPORARY FENCE	L.F.	1315	1315	0	0	0
AR800280	CLASS E FENCE W/SCREEN	L.F.	55	55	0	0	0
AR800353	ACCESS CONTROLS	L.S.	1	1	0	0	0
AR701008	8" PVC STORM SEWER	L.F.	110	110	0	0	0
AR701512	12" RCP, CLASS IV	L.F.	690	690	0	0	0
AR701515	15" RCP, CLASS IV	L.F.	605	605	0	0	0
AR751410	INLET	EACH	9	9	0	0	0
AR751530	MANHOLE	EACH	2	2	0	0	0
AR754410	COMB CONCRETE CURB & GUTTER	L.F.	330	330	0	0	0
AR760302	2" WATER MAIN	L.F.	165	0	0	165	0
AR760308	8" WATER MAIN	L.F.	925	0	0	925	0
AR760720	20" STEEL CASING	L.F.	20	0	0	20	0
AR760800	FIRE HYDRANT	EACH	4	0	0	4	0
AR760830	WATER VALVE	EACH	7	0	0	7	0
AR760840	IRON FITTINGS	LB.	2630	0	0	2630	0
AR800271	PRESSURE TESTING OF WATERMAIN	L.S.	1	0	0	1	0
AR800272	DISINFECTION OF WATERMAIN	L.S.	1	0	0	1	0
AR800325	CONTROLLED LOW STRENGTH MATERIAL	C.Y.	14	0	0	14	0
AR800382	PAVEMENT REMOVAL AND REPLACEMENT	S.Y.	23	0	0	23	0
AR770506	6" SANITARY SEWER	L.F.	270	0	0	270	0
AR770945	ADJUST SANITARY MANHOLE	EACH	1	0	0	1	0
AR800276	LEAKAGE TESTING	L.F.	270	0	0	270	0
AR800383	SANITARY SEWER FITTINGS	LB.	450	0	0	450	0
AR901510	SEEDING	ACRE	6	0	0	0	0
AR904510	SODDING	S.Y.	615	615	0	0	0
AR908510	MULCHING	ACRE	6	6	0	0	0
AR908520	EXCELSIOR BLANKET	S.Y.	7475	7475	0	0	0
AR910101	ROADWAY LIGHT POLE, TYPE A	EACH	3	3	0	0	0
AR910102	ROADWAY LIGHT POLE, TYPE B	EACH	1	1	0	0	0
AR800306	LIGHTING CONTROLS	L.S.	1	1	0	0	0
AR910200	ROADWAY SIGN	EACH	6	6	0	0	0
AR910230	HANDICAP SIGN	EACH	1	1	0	0	0
AR910420	BOLLARD	EACH	12	12	0	0	0
AR910915	REMOVE ROADWAY SIGN	EACH	3	3	0	0	0
AR800304	FLAG POLE	EACH	1	1	0	0	0
AR108108	1/C #8 5 KV UG CABLE	L.F.	195	195	0	0	0
AR108158	1/C #8 5 KV UG CABLE IN UD	L.F.	410	410	0	0	0
AR108812	12 PAIR CONTROL CABLE	L.F.	1140	1140	0	0	0
AR800349	2 - #8 USE, 1 - #10 GROUND	L.F.	250	250	0	0	0
AR800350	2 - #10 USE, 1 - #10 GROUND	L.F.	400	400	0	0	0
AR800351	6/C #18 SHIELDED CABLE	L.F.	400	400	0	0	0
AR800352	2/C #14 SHIELDED CABLE	L.F.	200	200	0	0	0
AR800219	30-FIBER OPTIC CABLE IN UD	L.F.	4140	4140	0	0	0
AR110201	1" PVC DUCT, DIRECT BURY	L.F.	1020	1020	0	0	0
AR110202	2" PVC DUCT, DIRECT BURY	L.F.	460	460	0	0	0
AR110204	4" PVC DUCT, DIRECT BURY	L.F.	1055	0	0	1055	0
AR110212	2" STEEL DUCT, DIRECT BURY	L.F.	20	20	0	0	0
AR110504	4-WAY CONCRETE ENCASED DUCT	L.F.	1090	1090	0	0	0
AR110550	SPLIT DUCT	L.F.	100	100	0	0	0
AR110900	REMOVE DUCT	L.F.	1215	1215	0	0	0
AR800231	INSTALL UTILITY PAD	EACH	1	0	0	1	0
AR800254	ELECTRICAL HANDHOLE - 4'	EACH	4	3	0	1	0
AR800307	POLYMER CONCRETE HANDHOLE	EACH	3	3	0	0	0
AR125441	TAXI GUIDANCE SIGN, 1 CHARACTER	EACH	1	1	0	0	0
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	1	1	0	0	0
AR125565	SPLICE CAN	EACH	1	1	0	0	0
AR125965	RELOCATE RWY DISTANCE REMAIN SIGN	EACH	1	1	0	0	0
AR800294	REPLACE SIGN FACE	EACH	1	1	0	0	0
AS209606	CRUSHED AGG. BASE COURSE - 6"	S.Y.	880	0	880	0	0
AS501508	8" PCC PAVEMENT	S.Y.	840	0	840	0	0
AS620510	PAVEMENT MARKING	S.F.	30	0	30	0	0

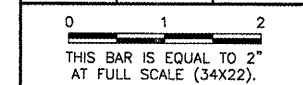
**INDEX TO SHEETS**

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02	INDEX TO SHEETS AND SUMMARY OF QUANTITIES
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04	CONSTRUCTION ACTIVITY PLAN
05	CONSTRUCTION ACTIVITY PLAN DETAILS 1
06	CONSTRUCTION ACTIVITY PLAN DETAILS 2
07	EXISTING CONDITIONS & REMOVALS 1
08	EXISTING CONDITIONS & REMOVALS 2
09	PROPOSED IMPROVEMENTS SITE PLAN
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12	PROPOSED IMPROVEMENTS 3
13	TYPICAL SECTIONS
14	ARFF RESPONSE ROAD PLAN & PROFILE
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59	INDEX TO CROSS SECTIONS
60	EARTHWORK SUMMARY
61	BASELINE A CROSS SECTIONS 1 STA. 37+00 TO STA. 39+00
62	BASELINE A CROSS SECTIONS 2 STA. 39+50 TO STA. 43+50
63	BASELINE A CROSS SECTIONS 3 STA. 44+00 TO STA. 45+18
64	BASELINE A CROSS SECTIONS 4 STA. 45+61.37 TO STA. 46+77.86
65	BASELINE B CROSS SECTIONS STA. 142+50 TO STA. 145+50
66	BASELINE C CROSS SECTIONS STA. 0+11.91 TO STA. 4+24.89

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 PLOT DATE: 4/21/2008 3:34 PM


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NUMBER	BY	DATE

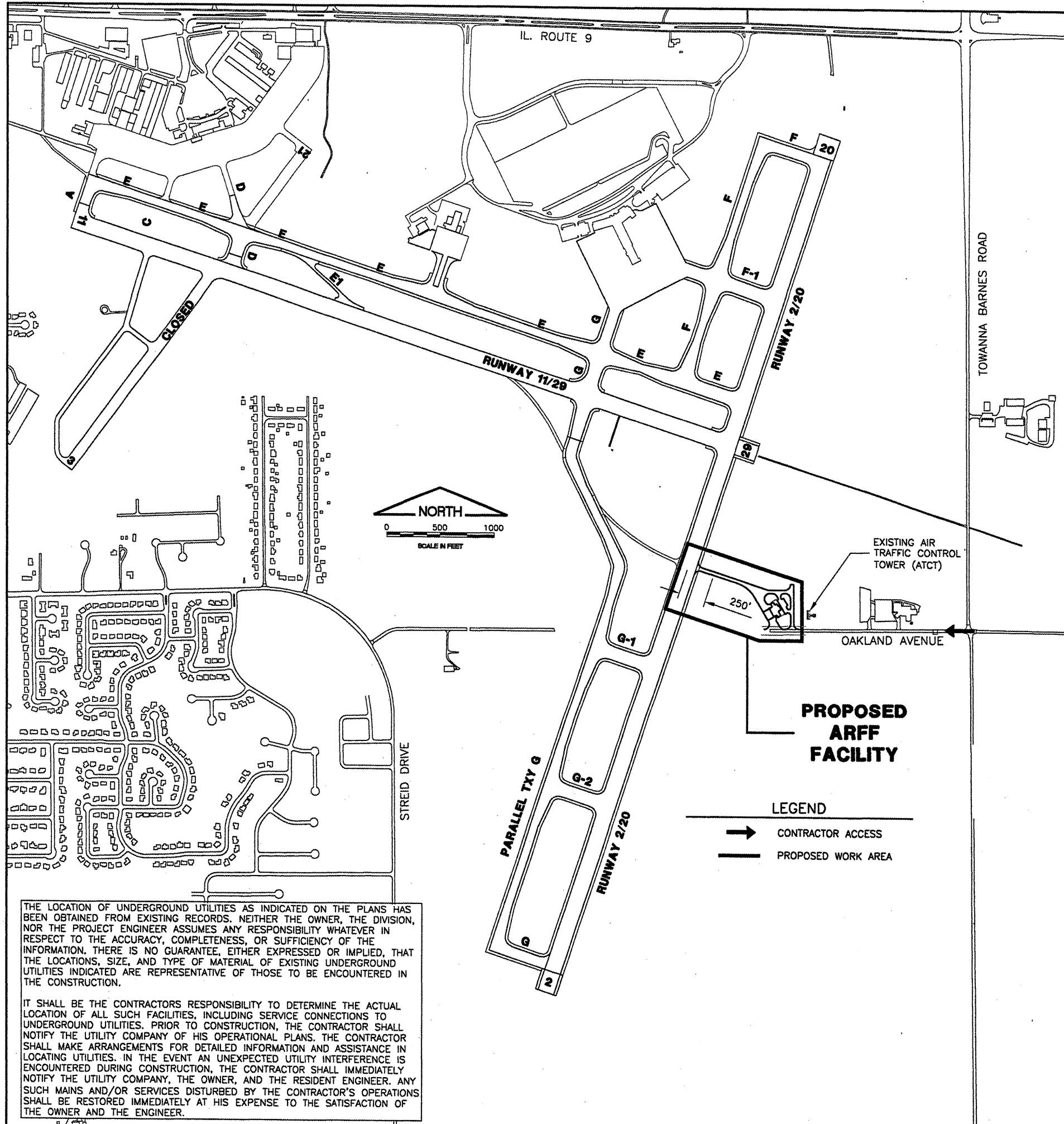


**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY  
 INDEX TO SHEETS AND SUMMARY OF QUANTITIES**

  
**CMT**  
 CRAWFORD, MURPHY & TILLY, INC.  
 CONSULTING ENGINEERS  
 License No. 184-000513

DESIGN BY:	KLB
DRAWN BY:	CMT
CHECKED BY:	<i>RW</i>
APPROVED BY:	<i>RW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	02 OF 66 SHEETS



THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER, THE DIVISION, NOR THE PROJECT ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY, THE OWNER, AND THE RESIDENT ENGINEER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.

**GENERAL NOTES**

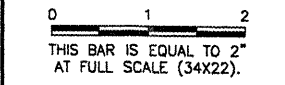
- ALL RUNWAYS, TAXIWAYS, AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED IN THE CONSTRUCTION ACTIVITY PLAN.
- ALL CONSTRUCTION TRAFFIC OPERATING ON OR CROSSING RUNWAYS, TAXIWAYS, AND APRONS OPEN TO AIRCRAFT SHALL BE UNDER CONTROL OF A FLAGMAN IN RADIO CONTACT WITH FAA AIR TRAFFIC CONTROL TOWER PERSONNEL AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE HIS OWN RADIOS.
- 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.
- 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 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 6' TALL FENCE THROUGHOUT THE DURATION OF THE PROJECT.
- THE CONTRACTOR'S ACCESS TO THE WORK SHALL BE AS SHOWN IN THE PLANS AND 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 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.

GROUND CONTROL FREQUENCY - 121.65  
 AIR CONTROL FREQUENCY - 124.60  
 MAXIMUM HEIGHT OF EQUIPMENT - 25'

K:\Bloomington\0508509\_BMI\_ARFF\Draw\Sheets  
 FILE: SITE.dwg  
 UPDATE BY: Kristy Brad  
 PLOT DATE: 4/18/2008 9:21 AM  
 SERIAL:  
 BASE\_EXISTGEO  
 PROPGEO

**BL064**

REVISIONS		
NUMBER	BY	DATE



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

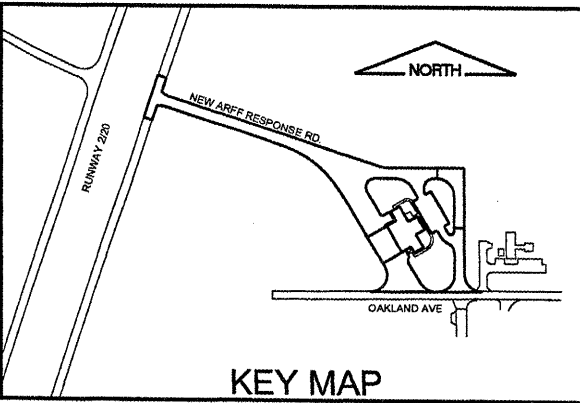
CONSTRUCT NEW ARFF FACILITY  
 AIRPORT SITE PLAN

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DESIGN BY:	RLV
DRAWN BY:	DPA
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	03 OF 66 SHEETS

CRITICAL POINTS			
POINT	LATITUDE	LONGITUDE	ELEVATION
A	40° 28' 28.04"	88° 54' 40.83"	867.82'
B	40° 28' 27.51"	88° 54' 38.67"	863.74'
C	40° 28' 25.58"	88° 54' 39.29"	862.91'
D	40° 28' 24.30"	88° 54' 35.96"	870.68'
E	40° 28' 22.31"	88° 54' 35.92"	872.87'
F	40° 28' 22.73"	88° 54' 35.27"	871.55'
G	40° 28' 25.56"	88° 54' 34.97"	877.59'
H	40° 28' 27.54"	88° 54' 34.13"	876.81'

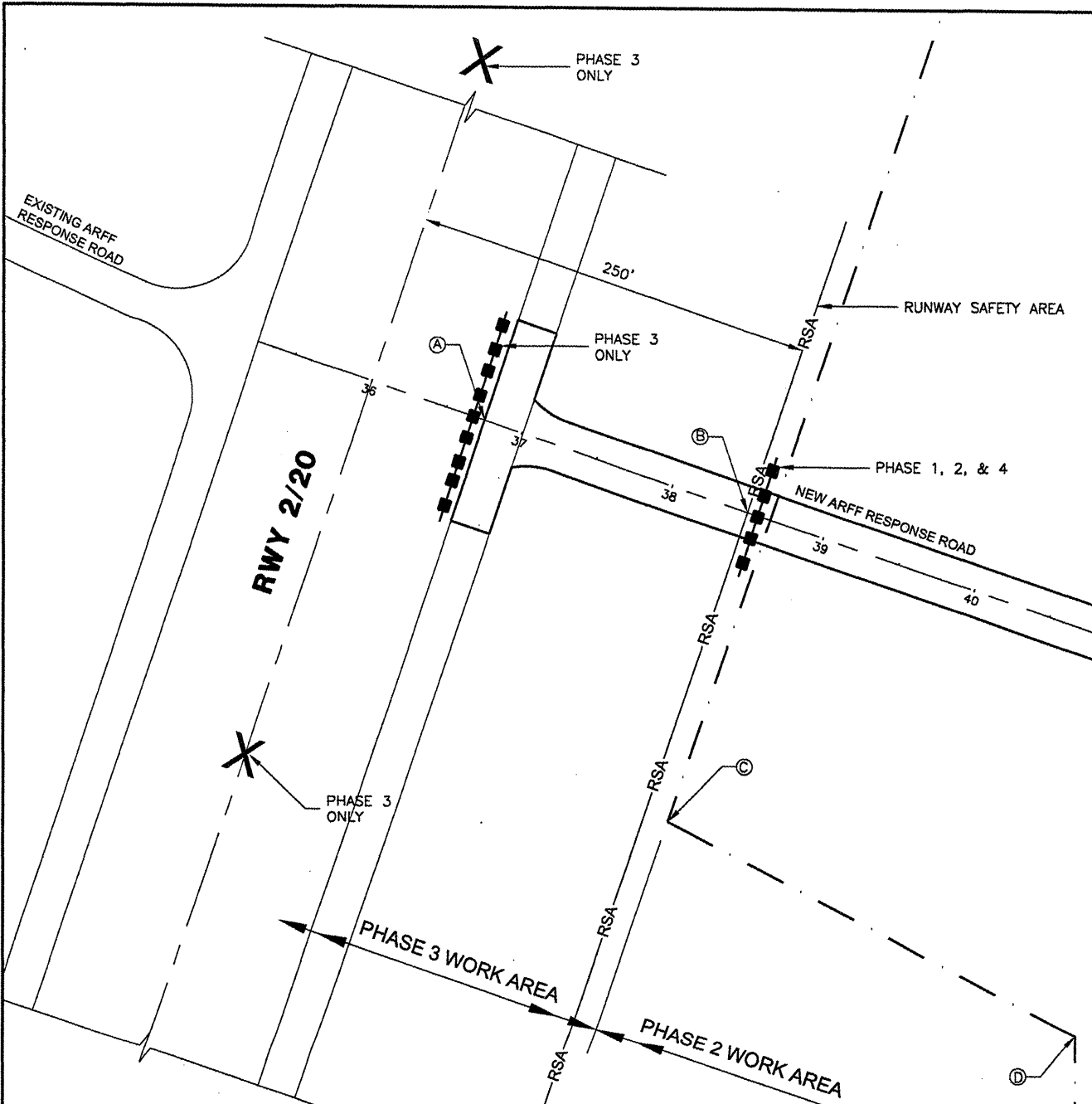


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 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:31 AM  
 BASE\_EXISTORP  
 FLOOR\_ENG-UCS  
 SITE\_KEYMAP  
 BASE\_PROPGEOD

**BL064**

REVISIONS		
NUMBER	BY	DATE

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



- LEGEND**
- EXISTING PAVEMENT
  - NEW PAVEMENT
  - RSA RUNWAY SAFETY AREA
  - [Hatched Box] NEW ARFF BUILDING - BY OTHERS
  - [Solid Box] EXISTING BUILDING
  - X EXISTING FENCE LINE
  - [Gate Symbol] EXISTING GATE
  - X-X INSTALL TEMPORARY FENCE
  - - - CONSTRUCTION SET-BACK LINE - SEE DETAIL
  - [Dashed Line with Squares] IDOT TYPE 1 BARRICADES W/FLASHING RED LIGHTS AND 20"x20" ORANGE FLAGS AT 10' SPACING
  - X PORTABLE CLOSED RUNWAY MARKERS; REQUIRED AT BOTH ENDS OF RUNWAY - SEE DETAIL
  - [Arrow] CONTRACTOR'S ACCESS ROUTE - THIS CONTRACT

SITWORK CONTRACTOR'S STAGING, STORAGE AND PARKING

PHASE 1 & 4 WORK AREA

BUILDING CONTRACTOR'S STAGING, STORAGE, AND PARKING

RESIDENT ENGINEER'S FIELD OFFICE

NEW MAJOR INCIDENT ACCESS/SERVICE ROAD

NEW MAJOR INCIDENT ACCESS/SERVICE ROAD

EXISTING AIR TRAFFIC CONTROL TOWER

NEW AIRSIDE APRON AND DRIVEWAY

NEW EMPLOYEE AND VISITOR PARKING

NEW LANDED APRON AND DRIVEWAY

OAKLAND AVE

OLYMPIA DR.

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

CONSTRUCT NEW ARFF FACILITY  
 CONSTRUCTION ACTIVITY PLAN

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DESIGN BY:	RLV
DRAWN BY:	DPA
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO. BMI-3797	
AIP PROJ. NO. 3-17-0006-46 & 48	
SHEET 04 OF 66 SHEETS	

MAXIMUM EQUIPMENT HEIGHT = 25'

**CONSTRUCTION ACTIVITY PLAN NOTES - PHASE 1**

1. THE CONTRACTOR SHALL PLACE ALL BARRICADES AND CONSTRUCTION SET BACK LINES AS SHOWN PRIOR TO STARTING WORK ON THIS PHASE.
2. THE AIRPORT WILL REQUIRE 3 WORKING DAY NOTICE FROM THE CONTRACTOR PRIOR TO STARTING WORK IN THIS PHASE.
3. THE CONTRACTOR SHALL CONSTRUCT THE TEMPORARY FENCE IN THE LOCATION SHOWN OR AS DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL REMOVE THE EXISTING FENCE.
5. THE CONTRACTOR SHALL CONSTRUCT THE PHASE 1 WORK AREA TO THE PROPOSED SUBGRADE ELEVATION AND INSTALL UTILITIES UP TO THE TERMINATION POINT TO PREPARE FOR THE PROPOSED BUILDING CONSTRUCTION.
6. THE CONTRACTOR SHALL HAVE 21 CALENDAR DAYS TO COMPLETE THE EARTHWORK AND UTILITY INSTALLATION IN THE PHASE 1 WORK AREA.
7. ONCE THE CONTRACTOR HAS COMPLETED THE EARTHWORK AND UTILITY INSTALLATION IN THE PHASE 1 WORK AREA, THE AREA SHALL BE TURNED OVER TO THE BUILDING CONTRACTOR FOR ERECTION OF THE PROPOSED BUILDING.
8. THE CONTRACTOR MAY WORK CONCURRENTLY IN THE PHASE 2 WORK AREA PROVIDED THAT IT DOES NOT IMPACT THE PROGRESS OF THE PHASE 1 WORK.

**CONSTRUCTION ACTIVITY PLAN NOTES - PHASE 2**

1. THE CONTRACTOR SHALL PLACE ALL BARRICADES AS SHOWN PRIOR TO STARTING WORK ON THIS PHASE.
2. THE AIRPORT WILL REQUIRE 3 WORKING DAYS NOTICE FROM THE CONTRACTOR PRIOR TO INITIATING THIS PHASE TO COORDINATE WITH THE TENANTS.
3. FOR ALL PHASES OF WORK, THE CONTRACTOR SHALL RETURN THE EQUIPMENT TO THE STAGING & STORAGE AREA UNLESS PERMISSION IS GIVEN BY THE AIRPORT TO DO OTHERWISE.

**CONSTRUCTION ACTIVITY PLAN NOTES - PHASE 3**

1. THE CONTRACTOR SHALL PLACE ALL BARRICADES AND CLOSED RUNWAY MARKERS AS SHOWN PRIOR TO STARTING WORK ON THIS PHASE.
2. THE AIRPORT WILL REQUIRE A 7 CALENDAR DAY NOTICE FROM THE CONTRACTOR PRIOR TO INITIATING THIS PHASE TO COORDINATE WITH THE TENANTS.
3. THE CONTRACTOR MAY WORK IN THE PHASE 2 WORK AREA PROVIDED THAT IT DOES NOT IMPACT THE PROGRESS OF THE PHASE 3 WORK.
4. THE IMPACTS OF THIS PHASE MERIT ADDITIONAL CONSIDERATION FROM THE CONTRACTOR WHEN SCHEDULING THE WORK IN CONSTRUCTION PHASE 3 OF THE PROJECT AND, AS A RESULT, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SUFFICIENT PERSONNEL AND EQUIPMENT AND WORK SUFFICIENT HOURS TO COMPLETE THE CONSTRUCTION PHASE 3 WORK WITHIN THE FOLLOWING PARAMETERS:
  - THE CONTRACTOR WILL BE ALLOWED TO CLOSE RUNWAY 2/20 FOR 14 CONSECUTIVE CALENDAR DAYS TO COMPLETE THE WORK.
5. THE CONTRACTOR SHALL COORDINATE CLOSELY WITH THE AIRPORT TO SCHEDULE THE ABOVE REFERENCED CLOSURE. ITEMS SUCH AS THE EXTENDED WEATHER FORECAST, MATERIAL AVAILABILITY, EQUIPMENT DEPENDABILITY, & MANPOWER AVAILABILITY SHALL BE DISCUSSED PRIOR TO SCHEDULING THE CRITICAL CLOSURE. THE AIRPORT AND THE CONTRACTOR SHALL MUTUALLY AGREE ON THE ACTUAL DAYS FOR THE CLOSURE.

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 AT FULL SCALE (34X22).

**CONSTRUCTION ACTIVITY PLAN NOTES - PHASE 4**

1. THIS PHASE SHALL BEGIN AFTER THE BUILDING CONTRACTOR HAS COMPLETED THE MAJOR WORK ITEMS ASSOCIATED WITH THE CONSTRUCTION OF THE BUILDING SUCH AS STRUCTURAL STEEL ERECTION WITH CRANES, INSTALLATION OF THE BUILDING FACE, ETC.
2. IT IS ESTIMATED THAT THE CONTRACTOR WILL NOT BE ALLOWED TO START WORK ON THIS PHASE UNTIL AFTER NOVEMBER 1, 2008.
3. THE CONTRACTOR SHALL CONSTRUCT THE REMAINING WORK ITEMS IN THE PHASE 4 WORK AREA WHICH SHOULD PRIMARILY CONSIST OF PAVING UP TO AND NEAR THE BUILDING.
4. UPON COMPLETION OF PHASE 4, THE CONTRACTOR SHALL REMOVE THE TEMPORARY FENCE.

**TEMPORARY FENCE NOTES**

1. MAINTAINING THE SECURITY REQUIREMENTS OF THE AIRPORT SHALL BE A PRIMARY CONCERN FOR THE CONTRACTOR.
2. AT NO TIME ARE UNSUPERVISED GAPS OR OPENINGS PERMITTED IN THE AIRPORT FENCE LINE. IF THE PROPOSED WORK REQUIRES AN OPENING OR REMOVAL OF THE TEMPORARY FENCE, THE CONTRACTOR SHALL PROVIDE A GUARD TO PREVENT UNAUTHORIZED ACCESS. THE CONTRACTOR SHALL RE-INSTALL THE TEMPORARY FENCE AT THE COMPLETION OF THE WORK DAY.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING AIRPORT SECURITY BY SUPERVISING OPENINGS OR MAINTAINING THE AIRPORT PERIMETER FENCE LINE AT ALL TIMES DURING THE COURSE OF THE WORK.
4. PRIOR TO REMOVING A SEGMENT OF THE AIRPORT PERIMETER FENCE, THE TEMPORARY FENCE SHALL BE ERECTED. THE TEMPORARY FENCE SHALL BE ERECTED AT THE LOCATIONS SHOWN IN THE PLANS SO THE PERIMETER FENCE LINE IS ALWAYS CONTINUOUS AND THERE ARE NO OPENINGS OR BREAKS IN THE AIRPORT PERIMETER FENCE LINE.
5. THE ENDS OF THE TEMPORARY FENCE SHALL BE CONNECTED TO THE EXISTING FENCE OUTSIDE THE LIMITS OF THE FENCE SEGMENT DESIGNATED FOR REMOVAL.
6. THE TEMPORARY FENCE SHALL BE PORTABLE CHAIN-LINK FENCING, MINIMUM 2 INCH, 9-GAUGE GALVANIZED STEEL, CHAIN-LINK FABRIC FENCING; MINIMUM 6 FEET HIGH WITH GALVANIZED STEEL PIPE POST; MINIMUM 2-3/8 INCH-OD LINE POSTS AND 2-7/8 INCH-OD CORNER AND PULL POSTS, WITH 1-5/8 INCH-OD TOP AND BOTTOM RAILS OR AN APPROVED SUBSTITUTE.
7. PROVIDE WEIGHTED BASES, ANCHORS, OR INSTALL POSTS FOR SUPPORT.
8. SHOULD THE CONTRACTOR DESIRE A REVISED TEMPORARY FENCE ALIGNMENT OF LOCATION, IT SHALL BE APPROVED BY THE AIRPORT AND BE AT NO ADDITIONAL COST TO THE CONTRACT.
9. THE CONTRACTOR SHALL SUPPLY A 24-HOUR EMERGENCY CONTACT THAT IS CAPABLE OF PROVIDING EMERGENCY REPAIR.
10. FINES CAN BE LEVIED AGAINST THE CONTRACTOR BY THE TRANSPORTATION SECURITY ADMINISTRATION (TSA) FOR NEGLIGENCE IF THE AIRPORT SECURITY IS COMPROMISED AND THE AIRPORT PERIMETER FENCE LINE IS NOT MAINTAINED AS SPECIFIED ABOVE. FINES CAN ALSO BE LEVIED AGAINST THE CONTRACTOR FOR FAILURE TO COOPERATE WITH THE AIRPORT MANAGEMENT AS REQUIRED TO MAINTAIN AIRPORT SECURITY.

**CONSTRUCTION ACTIVITY PLAN NOTES - GENERAL**

1. DUE TO CIRCUMSTANCES OUTSIDES THE AIRPORT'S CONTROL, IT IS NECESSARY FOR THE SITEWORK AND BUILDING CONSTRUCTION TO TAKE PLACE CONCURRENTLY IN ORDER TO MEET THE ULTIMATE REQUIREMENTS OF THE PROJECT. AS A RESULT, IT WILL BE NECESSARY FOR THE CONTRACTORS, IN CONJUNCTION WITH THE AIRPORT, THE CITY AND THE UTILITY PROVIDERS, TO COOPERATE IN A MANNER THAT ALLOWS THE PROJECT TO PROCEED IN THE MOST EFFICIENT MANNER POSSIBLE GIVEN THE CONSTRAINTS OF THIS SITUATION.
2. THE CONTRACTOR SHALL PLAN AND CONDUCT HIS WORK SO AS TO NOT INTERFERE OR HINDER THE PROGRESS OR WORK BEING PERFORMED BY OTHER CONTRACTORS.
3. THE TIMELY PROSECUTION OF THE OVERALL PROJECT IS DEPENDENT UPON THE PROPER COORDINATION BETWEEN CONTRACTORS.
4. IT SHALL BE FULLY UNDERSTOOD BY THE CONTRACTOR THAT THE PROSECUTION OF THE OVERALL PROJECT ARE THE GOVERNING CRITERIA FOR RESOLVING CONFLICTS WHICH MAY ARISE BETWEEN HIS SCHEDULE AND THE SCHEDULE OF OTHER CONTRACTORS.
5. WHEN CONFLICTS ARISE, RESOLUTION OF SUCH CONFLICTS WILL BE MADE BY THE AIRPORT THROUGH THE RESIDENT ENGINEER IN THE BEST INTEREST OF THE AIRPORT AND THE PROJECT.
6. DELAYS, CHANGES IN SCHEDULING OR THE EXPEDITION OF WORK UNDER THIS CONTRACT TO PROVIDE FOR THE TIMELY PROSECUTION OF THE PROJECT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
7. THE CONTRACTOR SHALL NOT IMPEDE OR OBSTRUCT THE BUILDING CONTRACTOR'S ACCESS TO THE PROPOSED BUILDING PERIMETER AND WORK AREAS.

BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 CONSTRUCTION ACTIVITY PLAN DETAILS 1

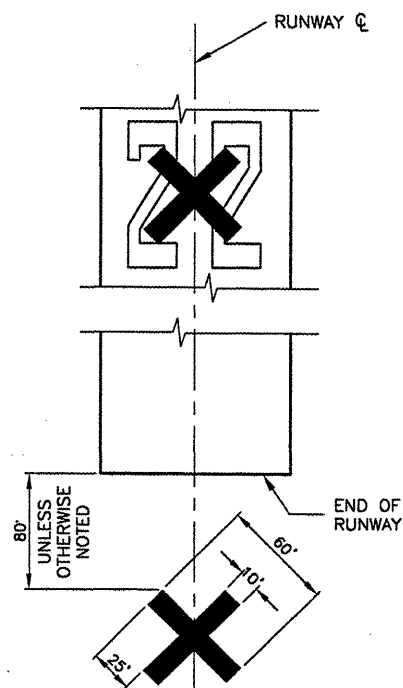
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 AIP PROJ. NO. 3-17-0006-46 & 48  
 SHEET 05 OF 66 SHEETS

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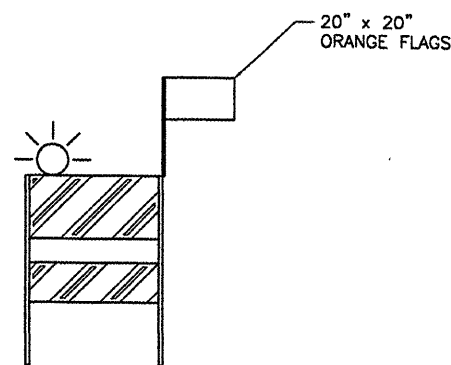
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**PORTABLE CLOSED RUNWAY MARKER  
 NOTES AND MARKER DETAIL**  
 N.T.S.

**NOTES**

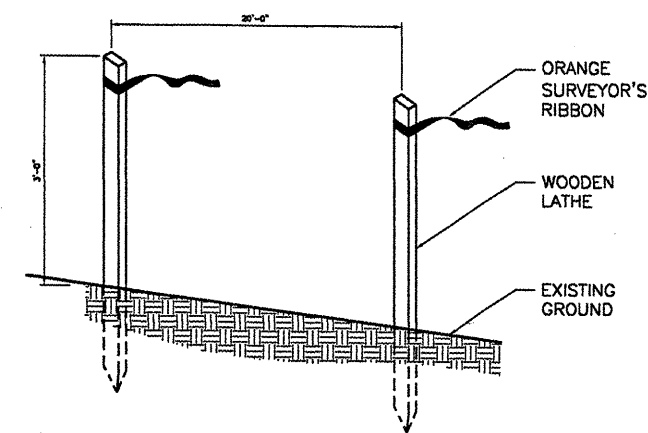
1. THE AIRPORT WILL PROVIDE PORTABLE LIGHTED CLOSURE MARKERS FOR THE CONTRACTOR'S USE.
2. THE CONTRACTOR WILL BE REQUIRED TO TOW AND SET UP THE MARKERS AT THE ENDS OF THE RUNWAY WHENEVER RUNWAY CLOSURES ARE REQUIRED
3. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE FUEL AND DAILY/PERIODIC MAINTENANCE INSPECTIONS AS REQUIRED BY THE AIRPORT.
4. THE AIRPORT WILL PERFORM PERIODIC MAINTENANCE, PROVIDE REPLACEMENT PARTS AND PERFORM REPAIRS AS REQUIRED TO KEEP THE EQUIPMENT OPERATIONAL.
5. THE COST OF SET-UP, FUELING AND REMOVAL OF THE MARKERS SHALL BE INCIDENTAL TO THE CONTRACT.
6. MARKERS SHALL BE PLACED OVER EXISTING RUNWAY NUMERALS. HOWEVER, WHEN WORK IS NECESSARY FOR THAT AREA OR PAVEMENT IS OPEN TO TAXIING AIRCRAFT, THE MARKERS SHALL BE RELOCATED OFF THE PAVEMENT AS SHOWN ON THE DETAIL.



**FLASHER BARRICADE DETAIL**  
 N.T.S.

**FLASHER BARRICADE NOTES**

1. FLASHERS TO BE BATTERY OPERATED. LENS TO BE RED AND BE ABLE TO ROTATE 90 DEGREES.
2. SANDBAGS TO BE PLACED ON EACH SUPPORT BRACE AS REQUIRED TO PREVENT DISPLACEMENT BY WIND, JET OR PROP BLAST.
3. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.
4. PLACE AT 10' INTERVALS.



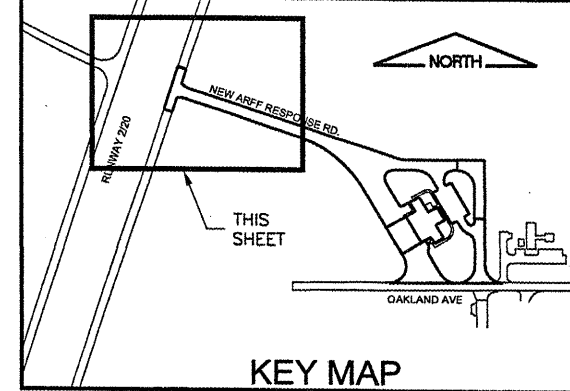
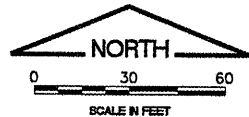
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 N.T.S.

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 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY  
 CONSTRUCTION ACTIVITY PLAN DETAILS 2**

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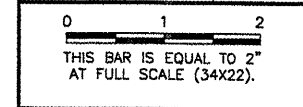
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 SHEET 06 OF 66 SHEETS



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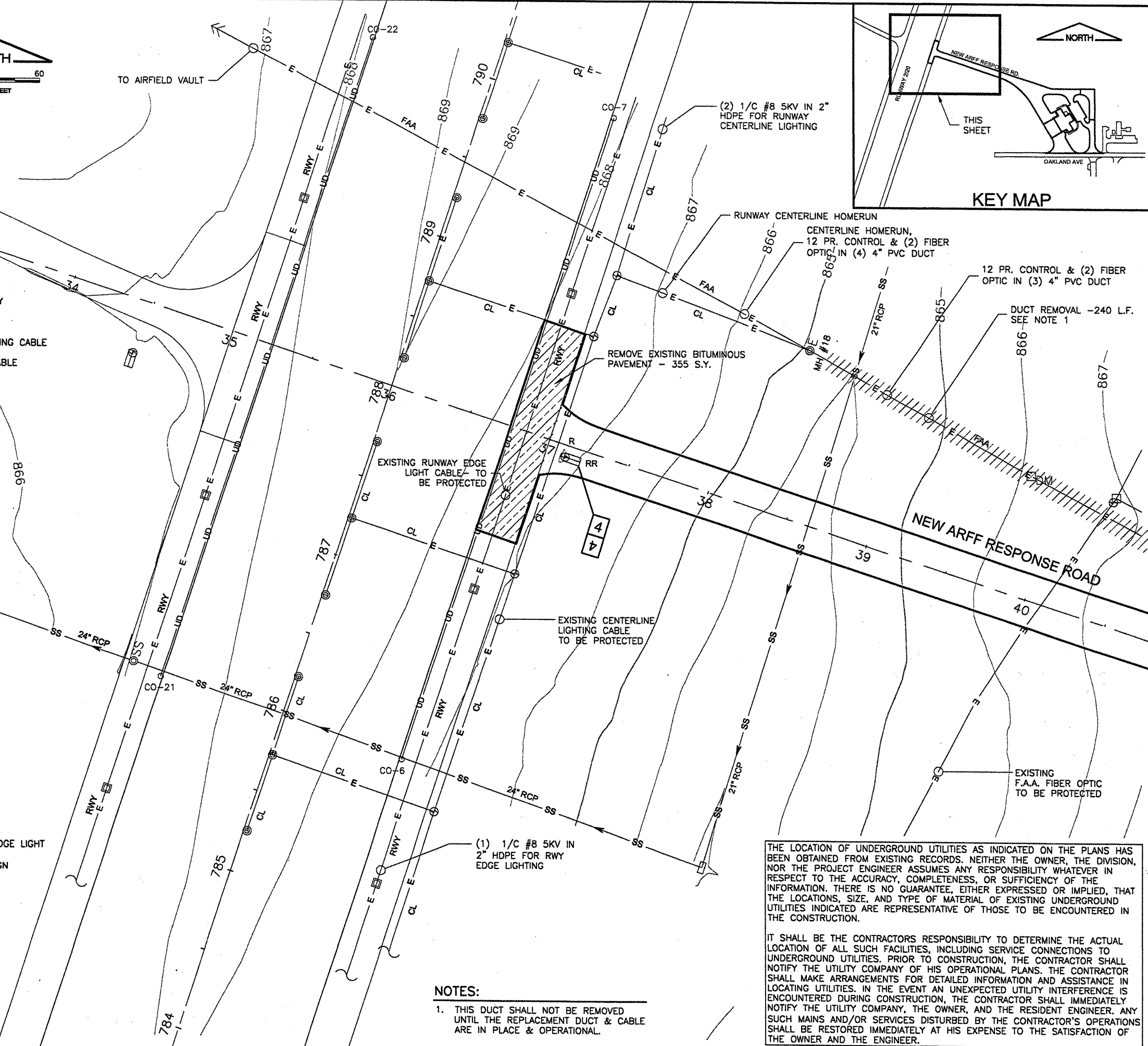
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NUMBER	BY	DATE



**LEGEND**

	NEW BUILDING BY OTHERS
	EXISTING DITCHLINE
	EXISTING OVERHEAD ELECTRIC UTILITY
	EXISTING UNDERDRAIN
	EXISTING RUNWAY CENTERLINE LIGHTING CABLE
	EXISTING RUNWAY EDGE LIGHTING CABLE
	EXISTING F.A.A. CABLE
	EXISTING FENCE
	EXISTING GATE
	EXISTING CONTOUR
	EXISTING SANITARY SEWER
	EXISTING SANITARY MANHOLE
	EXISTING STORM SEWER
	EXISTING INLET
	EXISTING END SECTION
	EXISTING UNDERDRAIN
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING GAS LINE
	EXISTING ELECTRICAL MANHOLE
	EXISTING LIGHT POLE
	EXISTING SPLICE CAN
	EXISTING UTILITY POLE
	EXISTING GUY WIRE ANCHOR
	EXISTING GATE POST
	EXISTING ROADWAY SIGN
	EXISTING TELEPHONE PEDESTAL
	EXISTING BUILDING
	EXISTING DUCT/CABLE MARKER
	EXISTING BASE MOUNTED RUNWAY EDGE LIGHT
	EXISTING RUNWAY GUIDANCE/DTG SIGN
	EXISTING RUNWAY CENTERLINE LIGHT
	EXISTING CROP LIMITS
	REMOVAL
	RELOCATE
	ADJUST
	REMOVAL PAVEMENT
	SOIL BORING



**NOTES:**  
 1. THIS DUCT SHALL NOT BE REMOVED UNTIL THE REPLACEMENT DUCT & CABLE ARE IN PLACE & OPERATIONAL.

THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER, THE DIVISION, NOR THE PROJECT ENGINEER ASSUMES ANY RESPONSIBILITY WHATEVER IN RESPECT TO THE ACCURACY, COMPLETENESS, OR SUFFICIENCY OF THE INFORMATION. THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE LOCATIONS, SIZE, AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ARE REPRESENTATIVE OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.

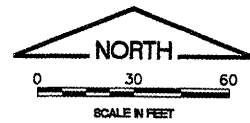
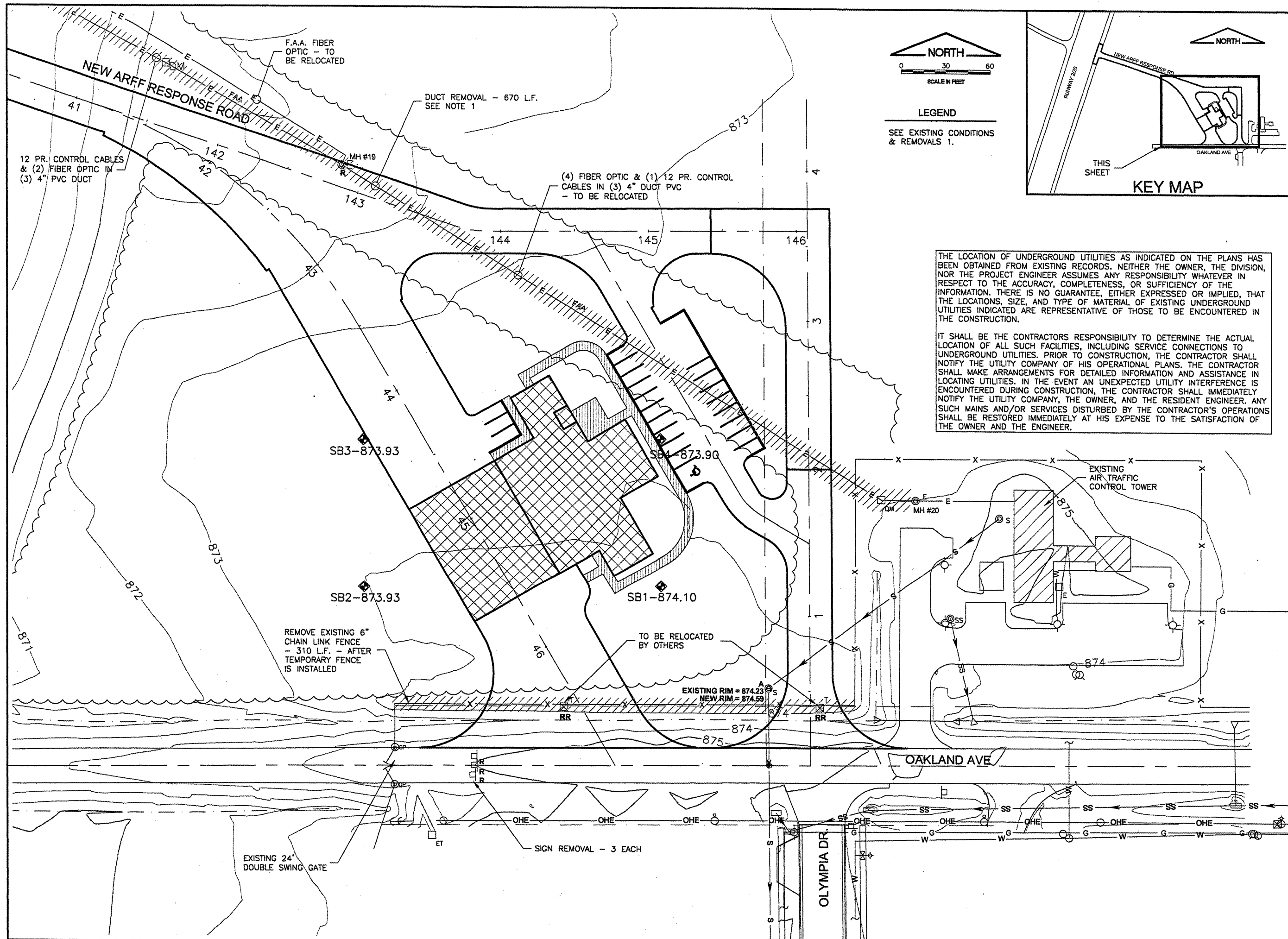
IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANY OF HIS OPERATIONAL PLANS. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR DETAILED INFORMATION AND ASSISTANCE IN LOCATING UTILITIES. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY, THE OWNER, AND THE RESIDENT ENGINEER. ANY SUCH MAINS AND/OR SERVICES DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED IMMEDIATELY AT HIS EXPENSE TO THE SATISFACTION OF THE OWNER AND THE ENGINEER.

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 BLOOMINGTON, ILLINOIS**

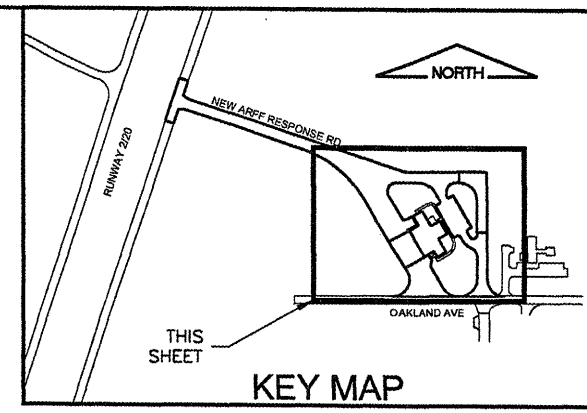
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 EXISTING CONDITIONS & REMOVALS 1**

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AIP PROJ. NO.	3-17-0006-46 & 48
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**LEGEND**  
SEE EXISTING CONDITIONS & REMOVALS 1.



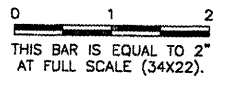
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BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
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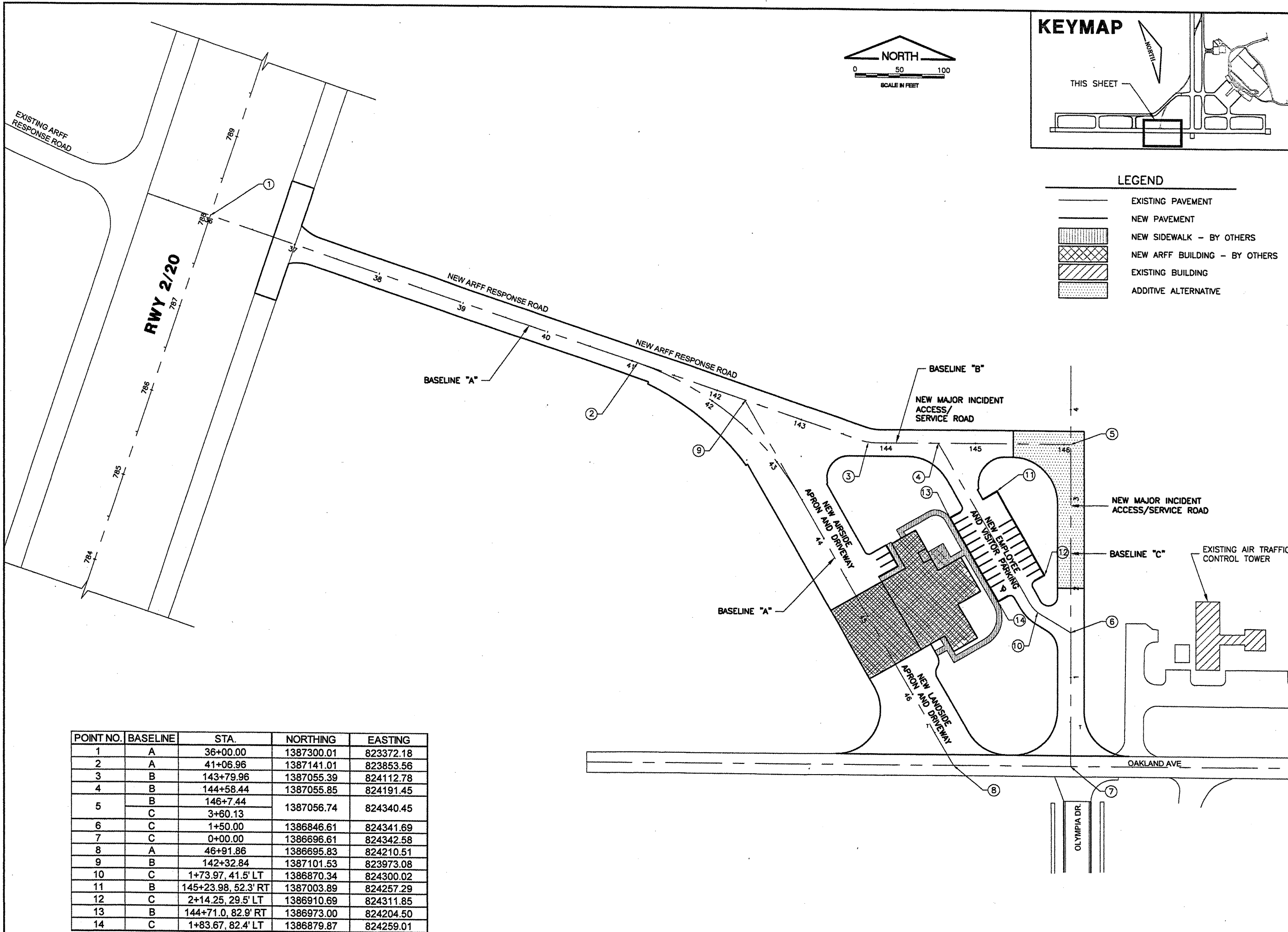
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 BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY  
 PROPOSED IMPROVEMENTS SITE PLAN**

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SHEET	09 OF 66 SHEETS

POINT NO.	BASELINE	STA.	NORTHING	EASTING
1	A	36+00.00	1387300.01	823372.18
2	A	41+06.96	1387141.01	823853.56
3	B	143+79.96	1387055.39	824112.78
4	B	144+58.44	1387055.85	824191.45
5	B	146+7.44	1387056.74	824340.45
6	C	3+60.13	1386846.61	824341.69
7	C	1+50.00	1386696.61	824342.58
8	A	0+00.00	1386695.83	824210.51
9	B	46+91.86	1387101.53	823973.08
10	B	142+32.84	1386870.34	824300.02
11	C	1+73.97, 41.5' LT	1387003.89	824257.29
12	C	145+23.98, 52.3' RT	1386910.69	824311.85
13	B	2+14.25, 29.5' LT	1386973.00	824204.50
14	B	144+71.0, 82.9' RT	1386879.87	824259.01

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 BLOOMINGTON, ILLINOIS

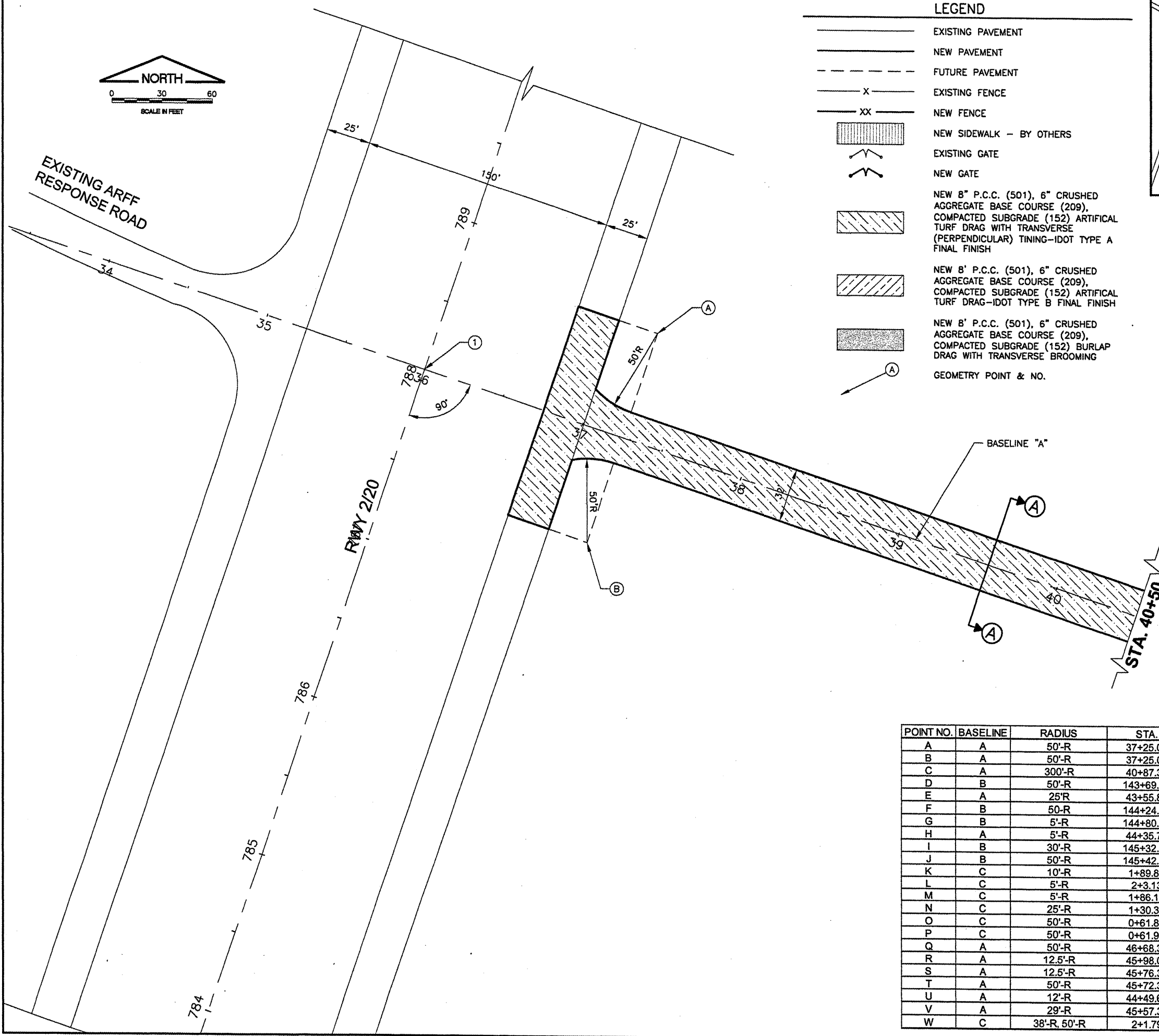
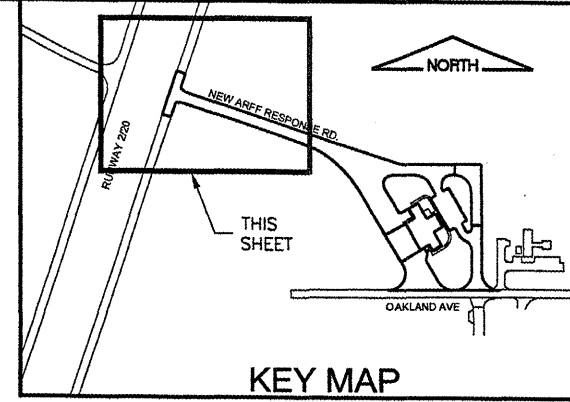
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 PROPOSED IMPROVEMENTS 1

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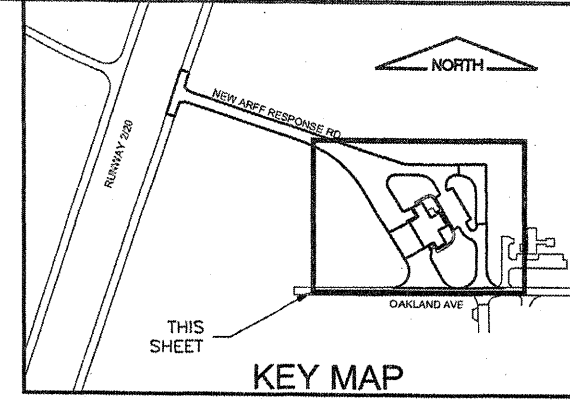
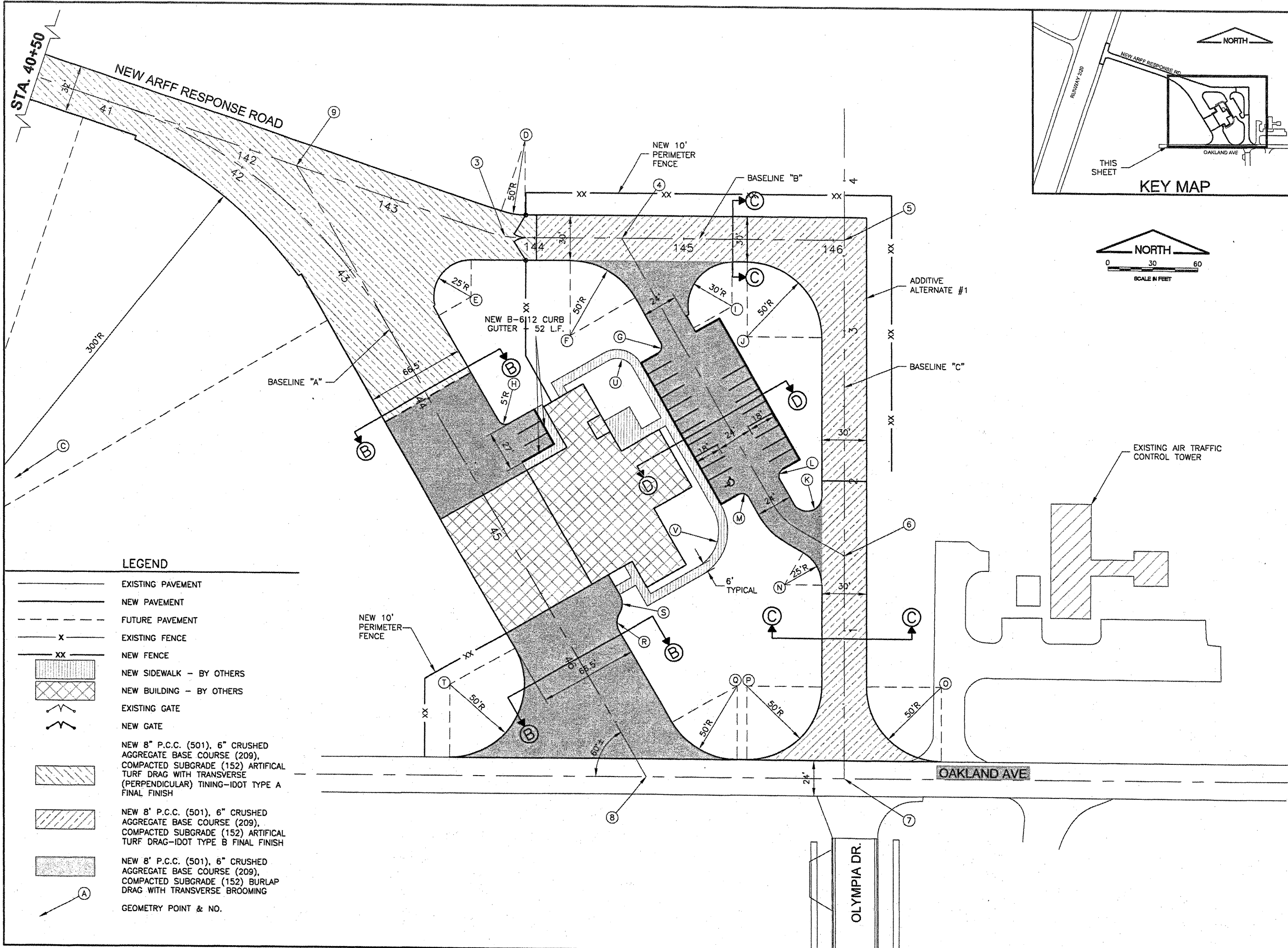
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 AIP PROJ. NO. 3-17-0006-46 & 48  
 SHEET 10 OF 66 SHEETS

**LEGEND**

- EXISTING PAVEMENT
- NEW PAVEMENT
- - - - - FUTURE PAVEMENT
- X - - - EXISTING FENCE
- XX - - - NEW FENCE
- [Hatched Box] NEW SIDEWALK - BY OTHERS
- [Wavy Line] EXISTING GATE
- [Wavy Line] NEW GATE
- [Diagonal Hatched Box] NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) ARTIFICIAL TURF DRAG WITH TRANSVERSE (PERPENDICULAR) TILING-IDOT TYPE A FINAL FINISH
- [Diagonal Hatched Box] NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) ARTIFICIAL TURF DRAG-IDOT TYPE B FINAL FINISH
- [Stippled Box] NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) BURLAP DRAG WITH TRANSVERSE BROOMING
- [Circle with A] GEOMETRY POINT & NO.



POINT NO.	BASELINE	RADIUS	STA.	OFFSET	NORTHING	EASTING
A	A	50'-R	37+25.00	66' LT	1387323.47	823511.57
B	A	50'-R	37+25.00	66' RT	1387198.09	823470.29
C	A	300'-R	40+87.39	316' RT	1386847.09	823735.87
D	B	50'-R	143+69.30	65' LT	1387120.47	824126.18
E	A	25'-R	43+55.84	58.25' LT	1387015.26	824091.06
F	B	50'-R	144+24.37	65' RT	1386990.65	824147.77
G	B	5'-R	144+80.27	71.81' RT	1386984.17	824213.70
H	A	5'-R	44+35.70	38.25' LT	1386936.23	824114.14
I	B	30'-R	145+32.92	45' RT	1387011.30	824266.19
J	B	50'-R	145+42.44	80' RT	1386991.35	824275.83
K	C	10'-R	1+89.84	25' LT	1386886.30	824316.45
L	C	5'-R	2+3.13	38.73' LT	1386899.51	824302.65
M	C	5'-R	1+86.13	68.17' LT	1386882.33	824273.31
N	C	25'-R	1+30.37	40' LT	1386826.74	824301.81
O	C	50'-R	0+61.86	65' RT	1386758.86	824407.21
P	C	50'-R	0+61.98	65' LT	1386758.21	824277.21
Q	A	50'-R	46+68.38	83.25' LT	1386758.15	824270.50
R	A	12.5'-R	45+98.02	45.75' LT	1386799.93	824202.60
S	A	12.5'-R	45+76.37	33.25' LT	1386812.31	824180.88
T	A	50'-R	45+72.37	83.24' RT	1386756.91	824078.31
U	A	12'-R	44+49.62	116.81' LT	1386963.91	824188.97
V	A	29'-R	45+57.36	99.81' LT	1386862.33	824228.72
W	C	38'-R, 50'-R	2+1.79	13.7' LT	1386898.32	824327.68



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 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:32 AM  
 BASE\_EXISTPO  
 FLOOR\_ENG-UCS  
 SITE\_KEYMAP  
 BASE\_PROPGEO

**BL064**

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**

**CONSTRUCT NEW ARFF FACILITY  
 PROPOSED IMPROVEMENTS 2**

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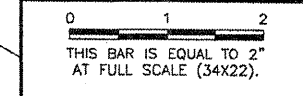
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CHECKED BY:	REN
APPROVED BY:	REN
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	11 OF 66 SHEETS

**LEGEND**

- EXISTING PAVEMENT
- NEW PAVEMENT
- FUTURE PAVEMENT
- EXISTING FENCE
- NEW FENCE
- NEW SIDEWALK - BY OTHERS
- NEW BUILDING - BY OTHERS
- EXISTING GATE
- NEW GATE
- NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) ARTIFICIAL TURF DRAG WITH TRANSVERSE (PERPENDICULAR) TILING-IDOT TYPE A FINAL FINISH
- NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) ARTIFICIAL TURF DRAG-IDOT TYPE B FINAL FINISH
- NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) BURLAP DRAG WITH TRANSVERSE BROOMING
- GEOMETRY POINT & NO.

**BL064**

REVISIONS		
NUMBER	BY	DATE



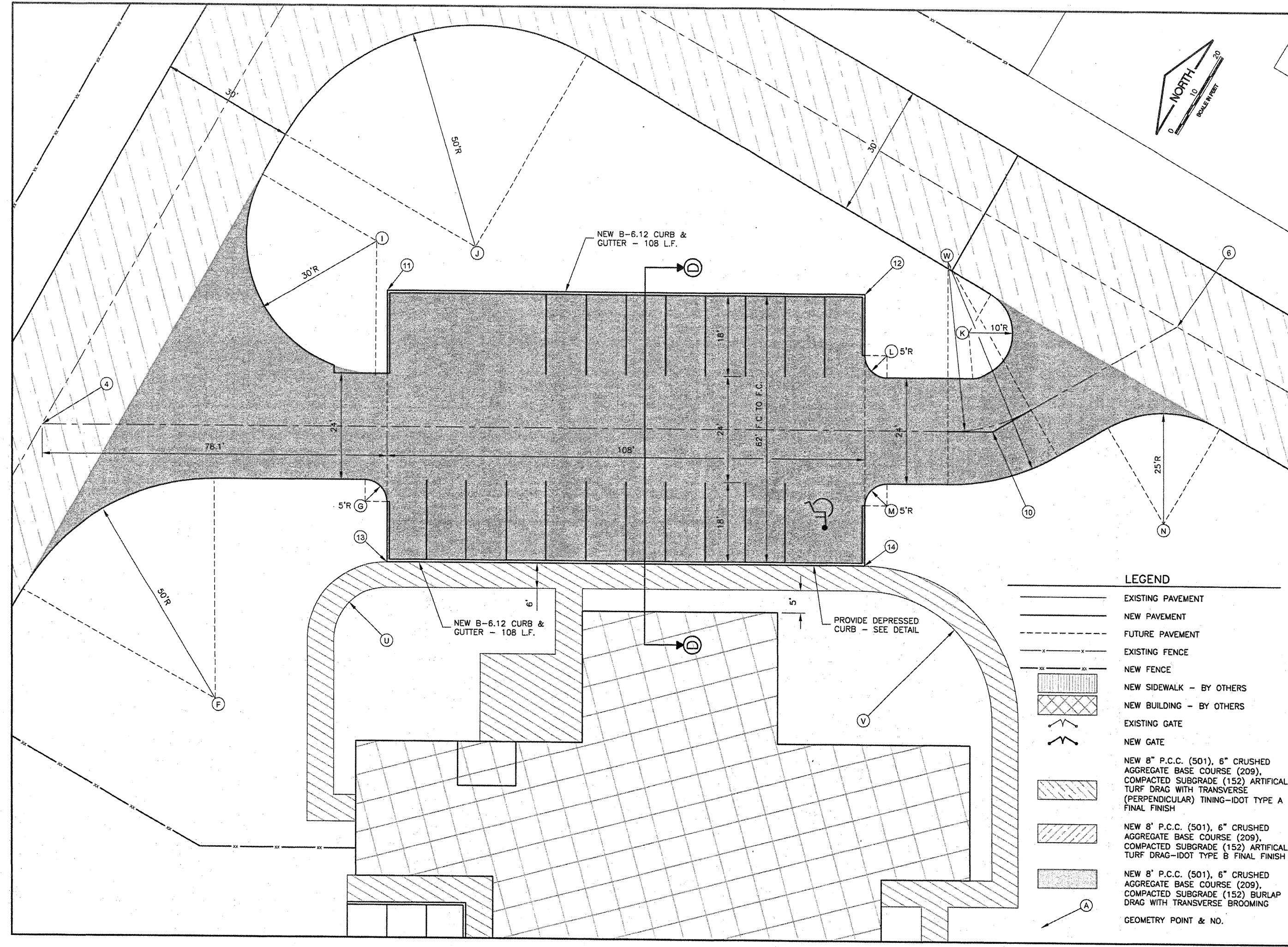
**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY  
 PROPOSED IMPROVEMENTS 3**

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DRAWN BY:	DPA
CHECKED BY:	<i>RLV</i>
APPROVED BY:	<i>RLV</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	12 OF 66 SHEETS



**LEGEND**

- EXISTING PAVEMENT
- NEW PAVEMENT
- FUTURE PAVEMENT
- EXISTING FENCE
- NEW FENCE
- NEW SIDEWALK - BY OTHERS
- NEW BUILDING - BY OTHERS
- EXISTING GATE
- NEW GATE
- NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) ARTIFICIAL TURF DRAG WITH TRANSVERSE (PERPENDICULAR) TILING-IDOT TYPE A FINAL FINISH
- NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) ARTIFICIAL TURF DRAG-IDOT TYPE B FINAL FINISH
- NEW 8" P.C.C. (501), 6" CRUSHED AGGREGATE BASE COURSE (209), COMPACTED SUBGRADE (152) BURLAP DRAG WITH TRANSVERSE BROOMING
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REVISIONS		
NUMBER	BY	DATE

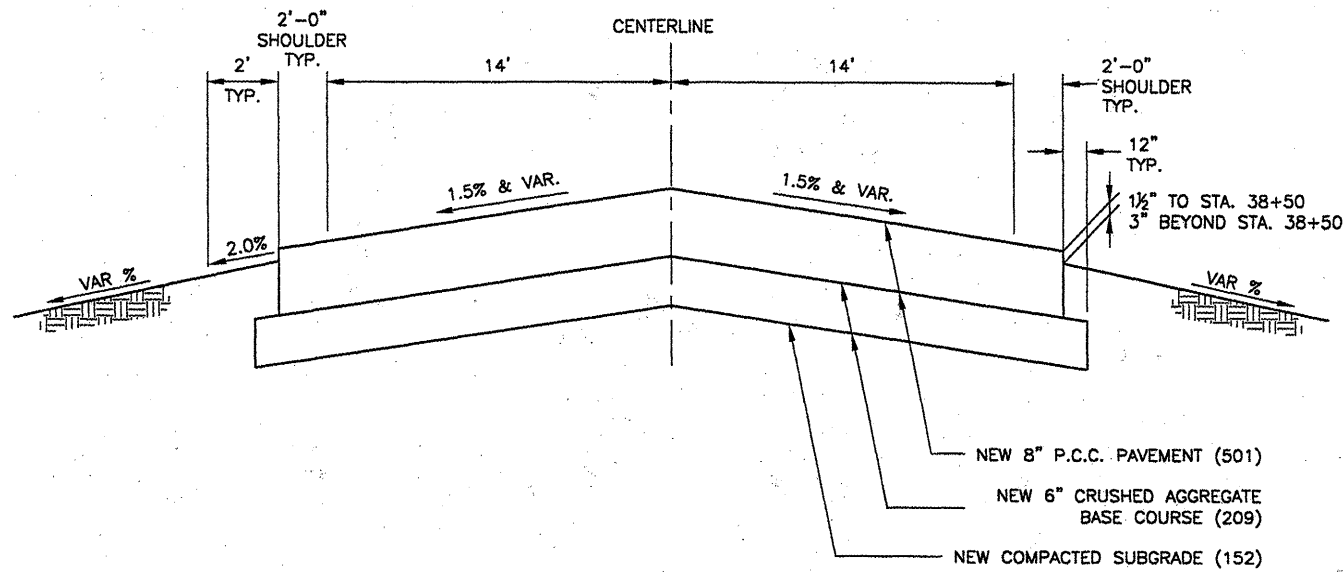
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BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS

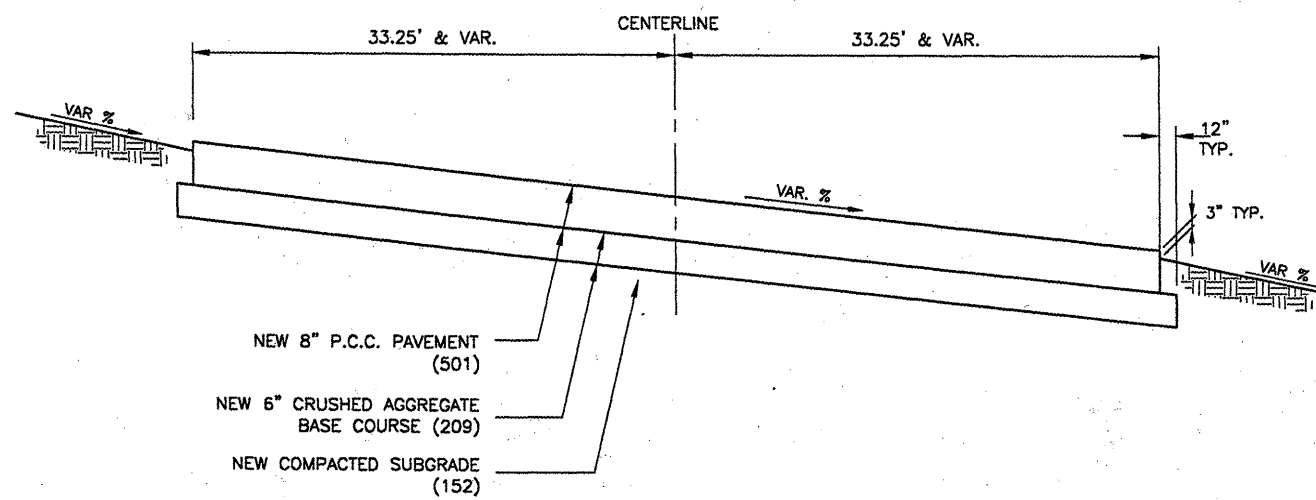
CONSTRUCT NEW ARFF FACILITY  
 TYPICAL SECTIONS

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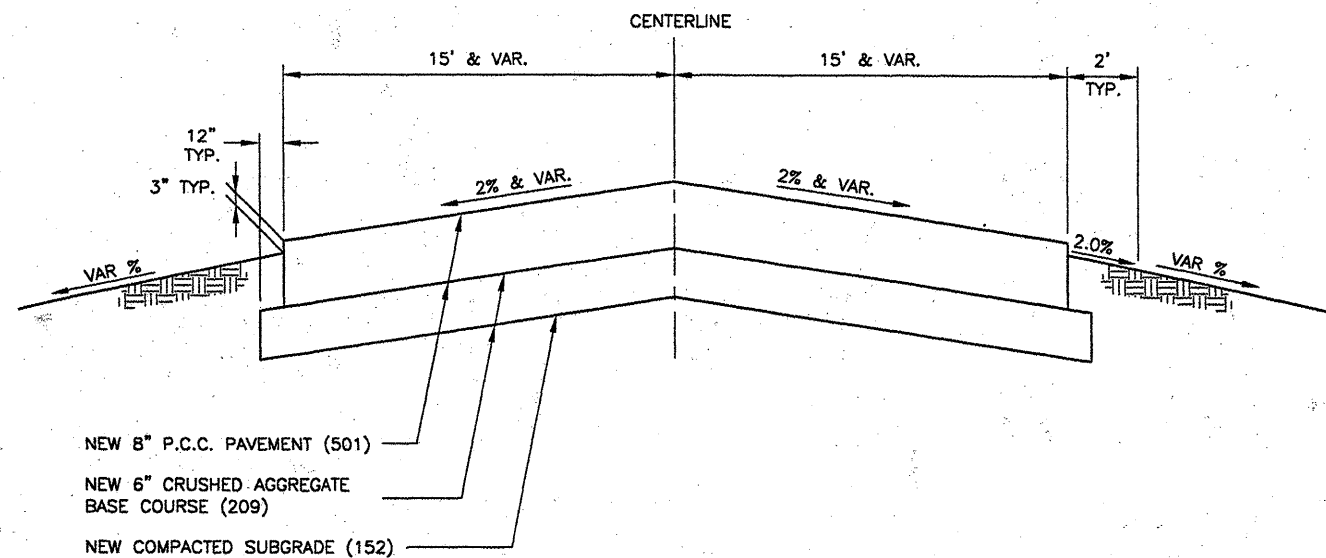
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DRAWN BY:	DPA
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APPROVED BY:	RW
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JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	13 OF 66 SHEETS



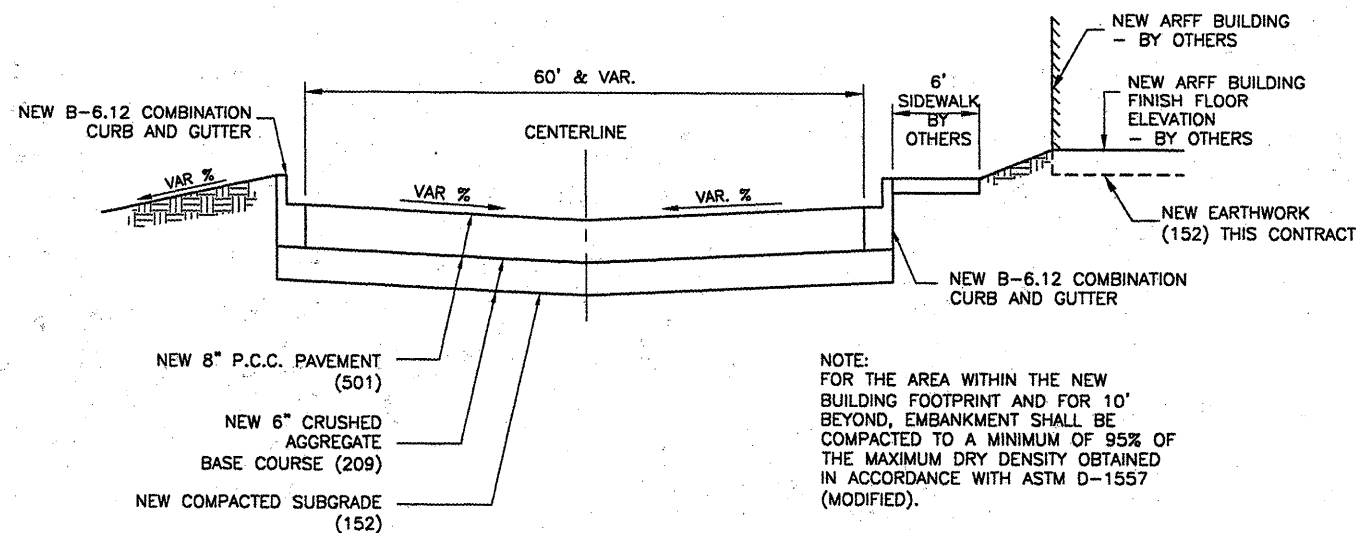
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 TYPICAL SECTION  
 N.T.S.



(B) NEW LAND SIDE/AIR SIDE APRON AND  
 DRIVEWAY TYPICAL SECTION  
 N.T.S.



(C) NEW MAJOR INCIDENT ACCESS/SERVICE  
 ROAD TYPICAL SECTION  
 N.T.S.



(D) NEW BUILDING AND PARKING AREA  
 TYPICAL SECTION  
 N.T.S.

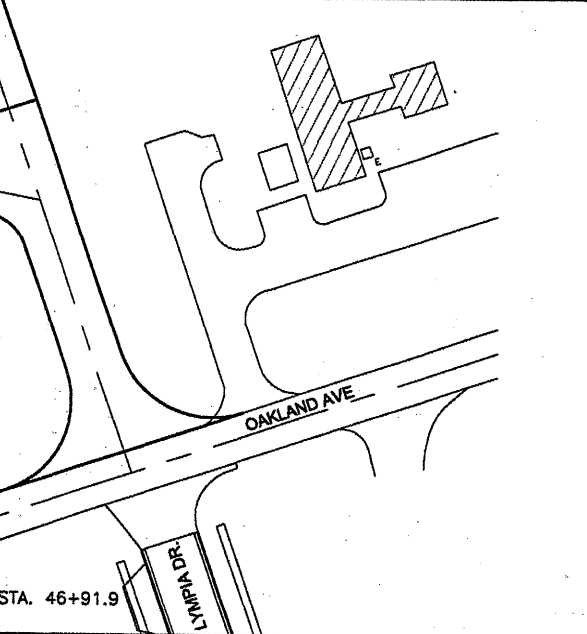
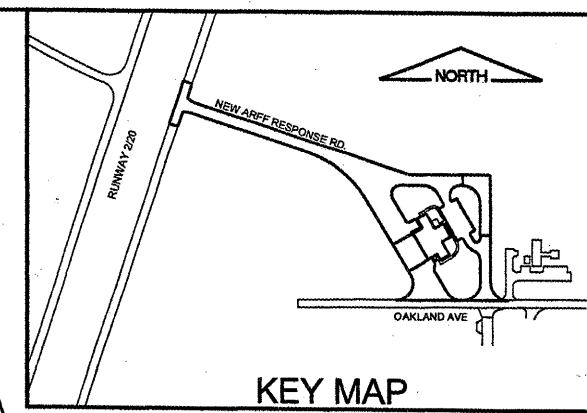
NOTE:  
 FOR THE AREA WITHIN THE NEW  
 BUILDING FOOTPRINT AND FOR 10'  
 BEYOND, EMBANKMENT SHALL BE  
 COMPACTED TO A MINIMUM OF 95% OF  
 THE MAXIMUM DRY DENSITY OBTAINED  
 IN ACCORDANCE WITH ASTM D-1557  
 (MODIFIED).

K:\Bloomington\0508509\_BMI\_ARFF\Draw\ECPT  
 FILE: RCP01014.dwg  
 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:32 AM  
 rcp01014  
 BASE\_EXISTTOPO  
 BASE\_EXISTGEO  
 BASE\_PROPGEO  
 SITE\_KEYMAP

**BL064**

REVISIONS		
NUMBER	BY	DATE

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



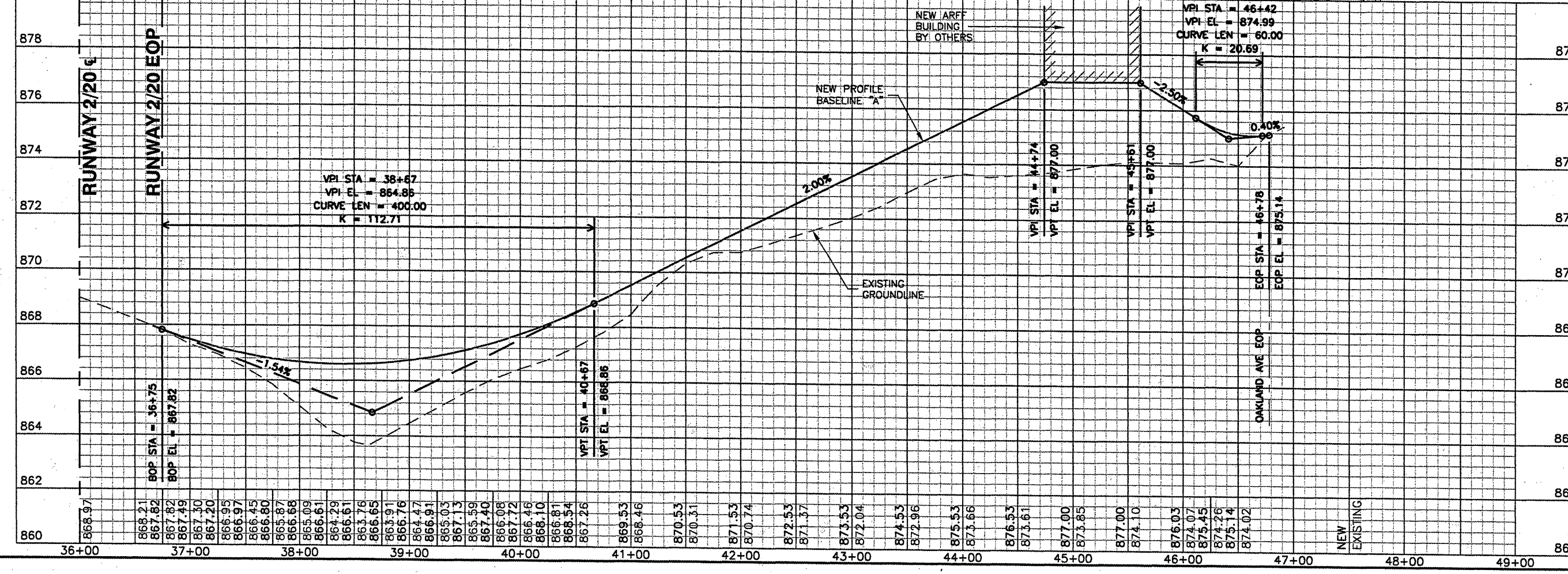
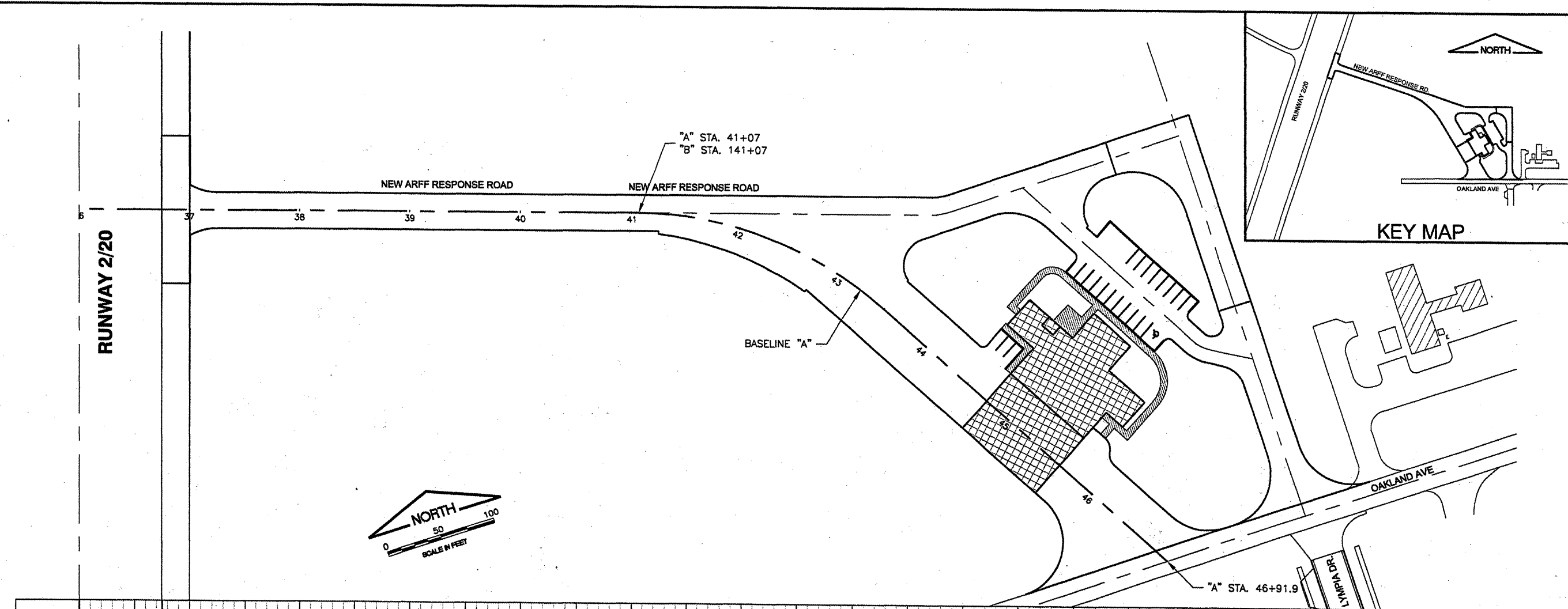
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 ARFF RESPONSE ROAD  
 PLAN & PROFILE

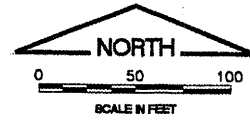
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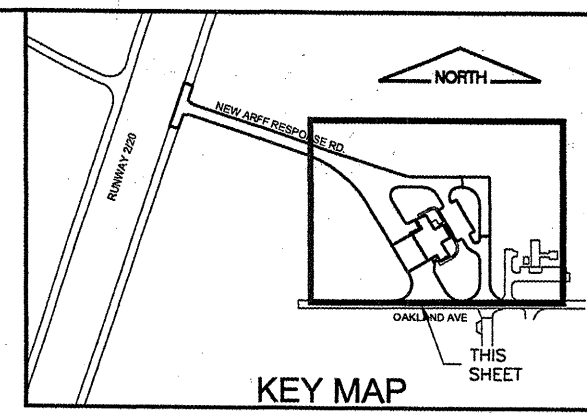
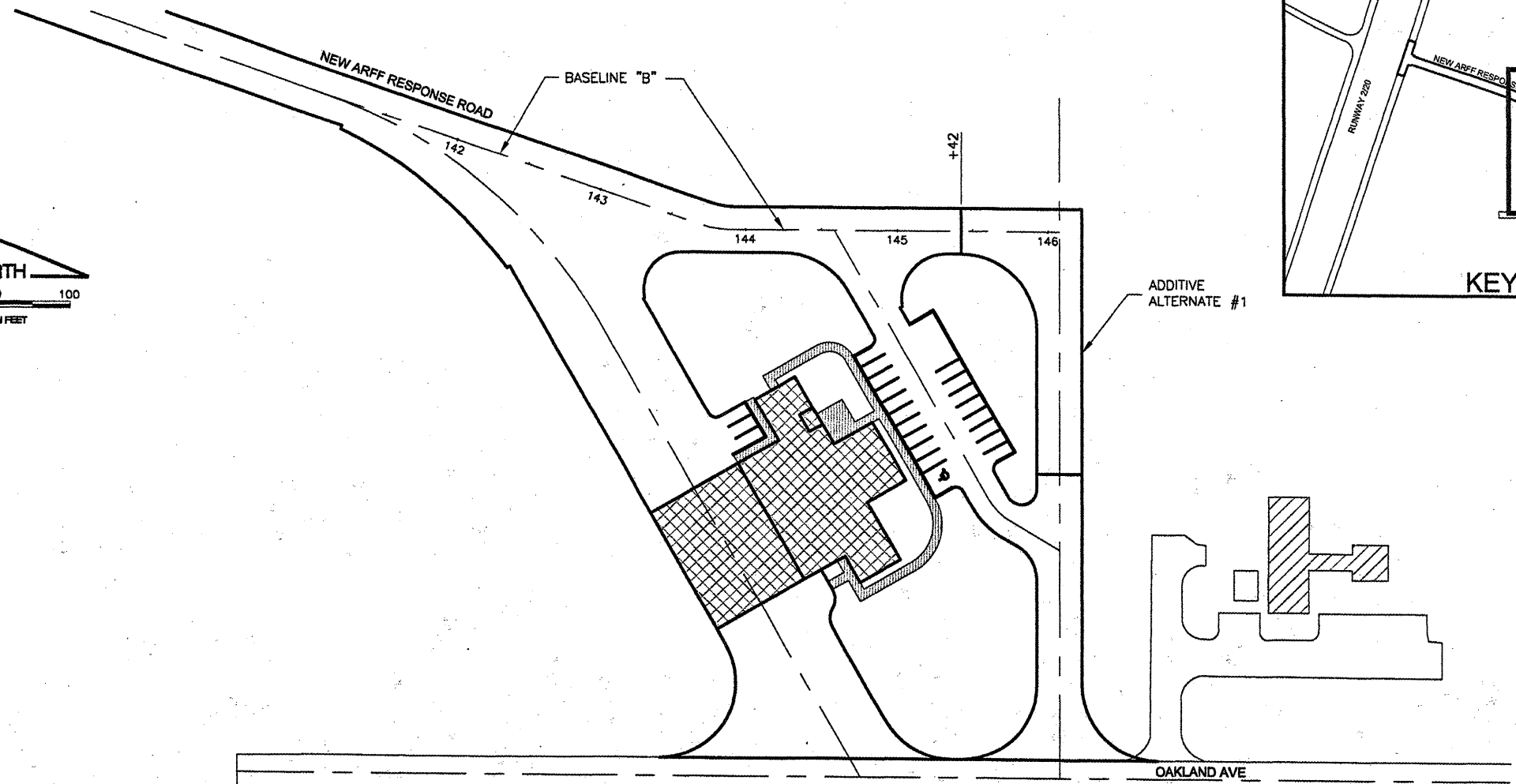
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DRAWN BY:	DPA
CHECKED BY:	RW
APPROVED BY:	RW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	14 OF 66 SHEETS



NEW	EXISTING
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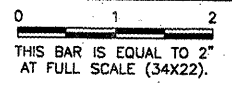
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 1" = 50' HOR  
 1" = 2' VER



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 SITE\_KEYMAP

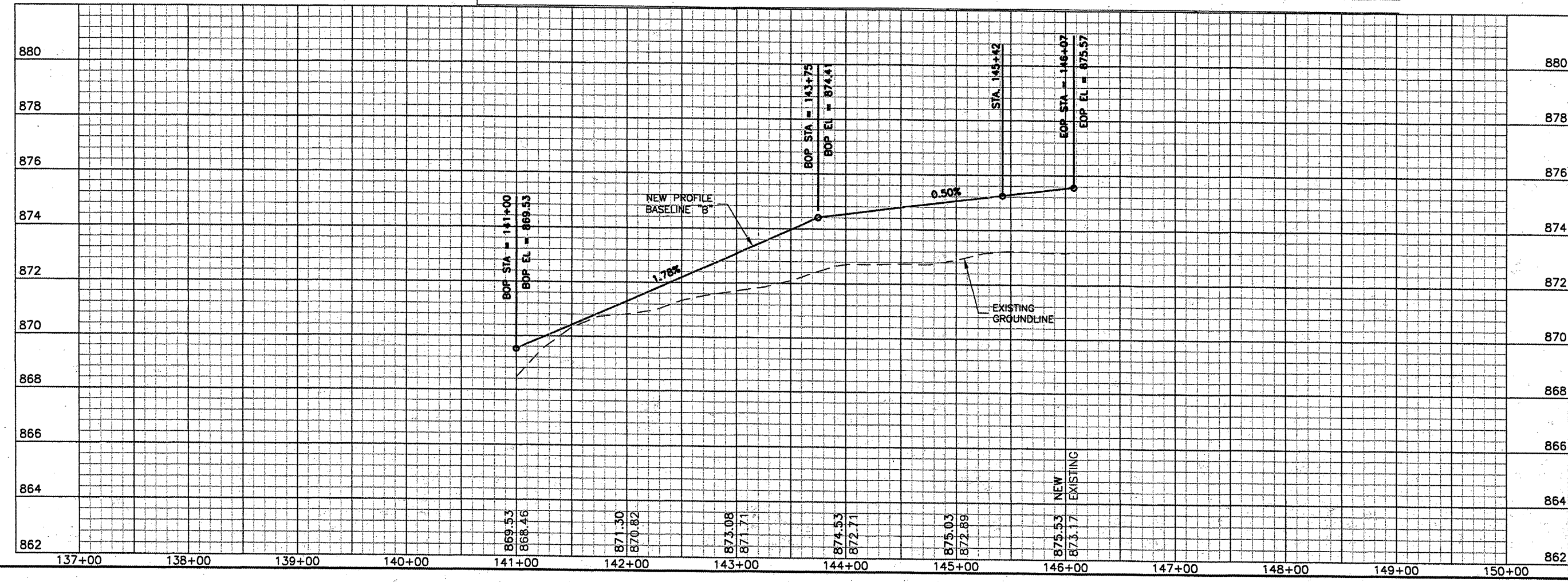
**BL064**

REVISIONS		
NUMBER	BY	DATE



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

**CONSTRUCT NEW ARFF FACILITY  
 ARFF RESPONSE & SERVICE ROAD  
 PLAN & PROFILE**

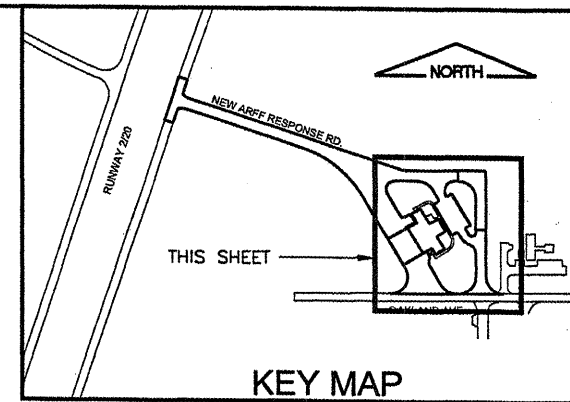
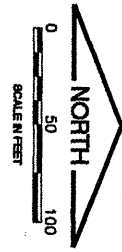
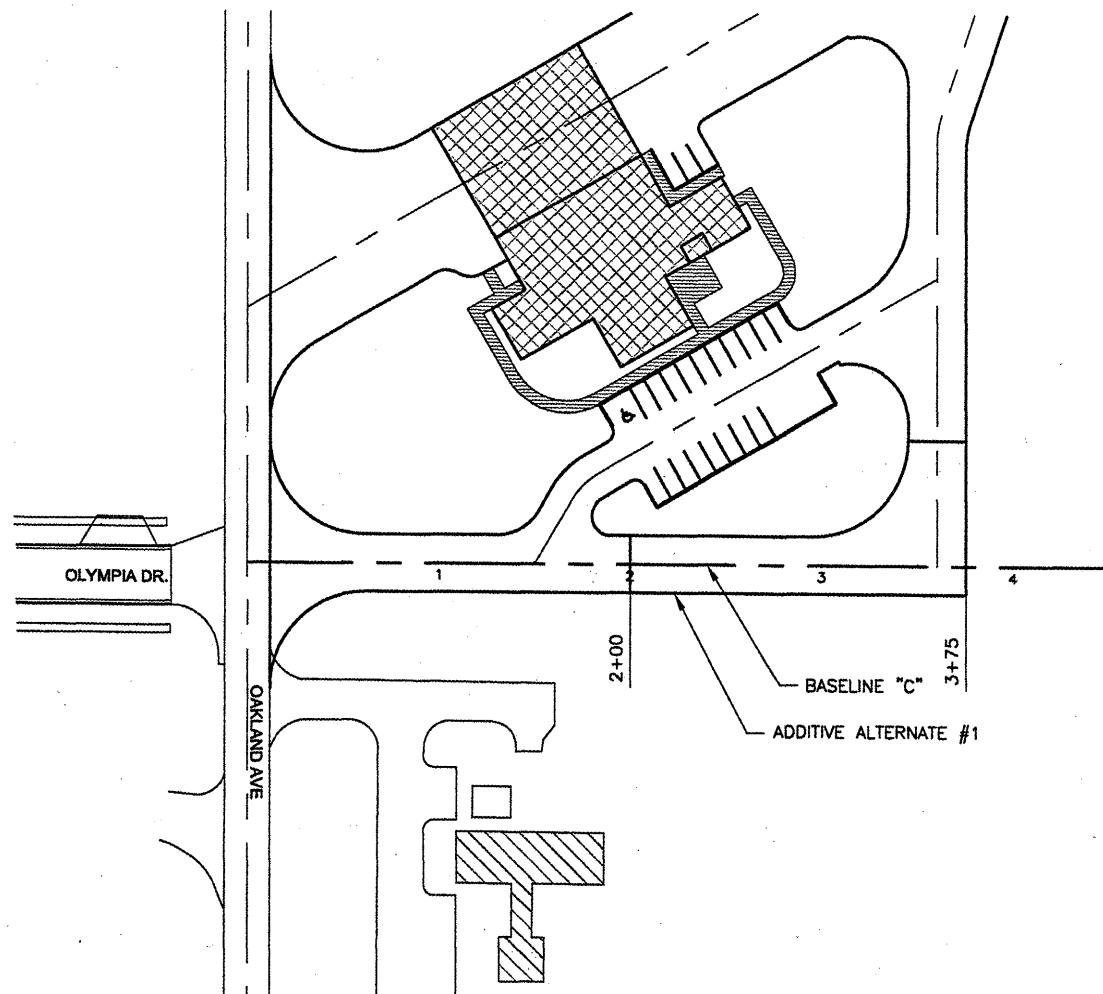


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APPROVED BY:	RLW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	15 OF 66 SHEETS

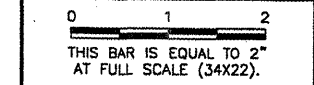
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 1" = 50' HOR  
 1" = 2' VER



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 SITE\_KEYMAP

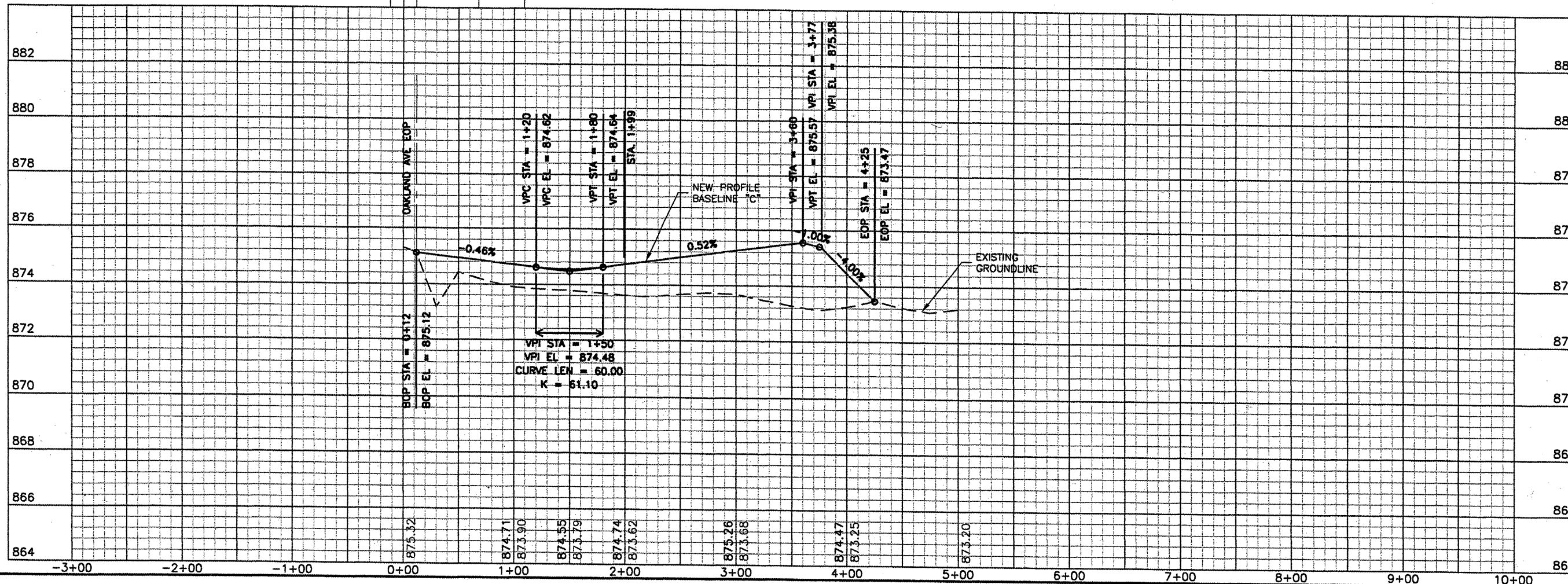
**BL064**

REVISIONS		
NUMBER	BY	DATE



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

CONSTRUCT NEW ARFF FACILITY  
 SERVICE ROAD  
 PLAN & PROFILE



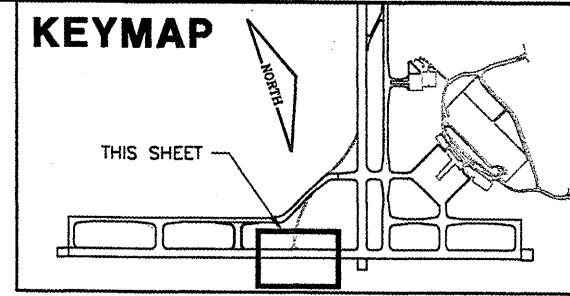
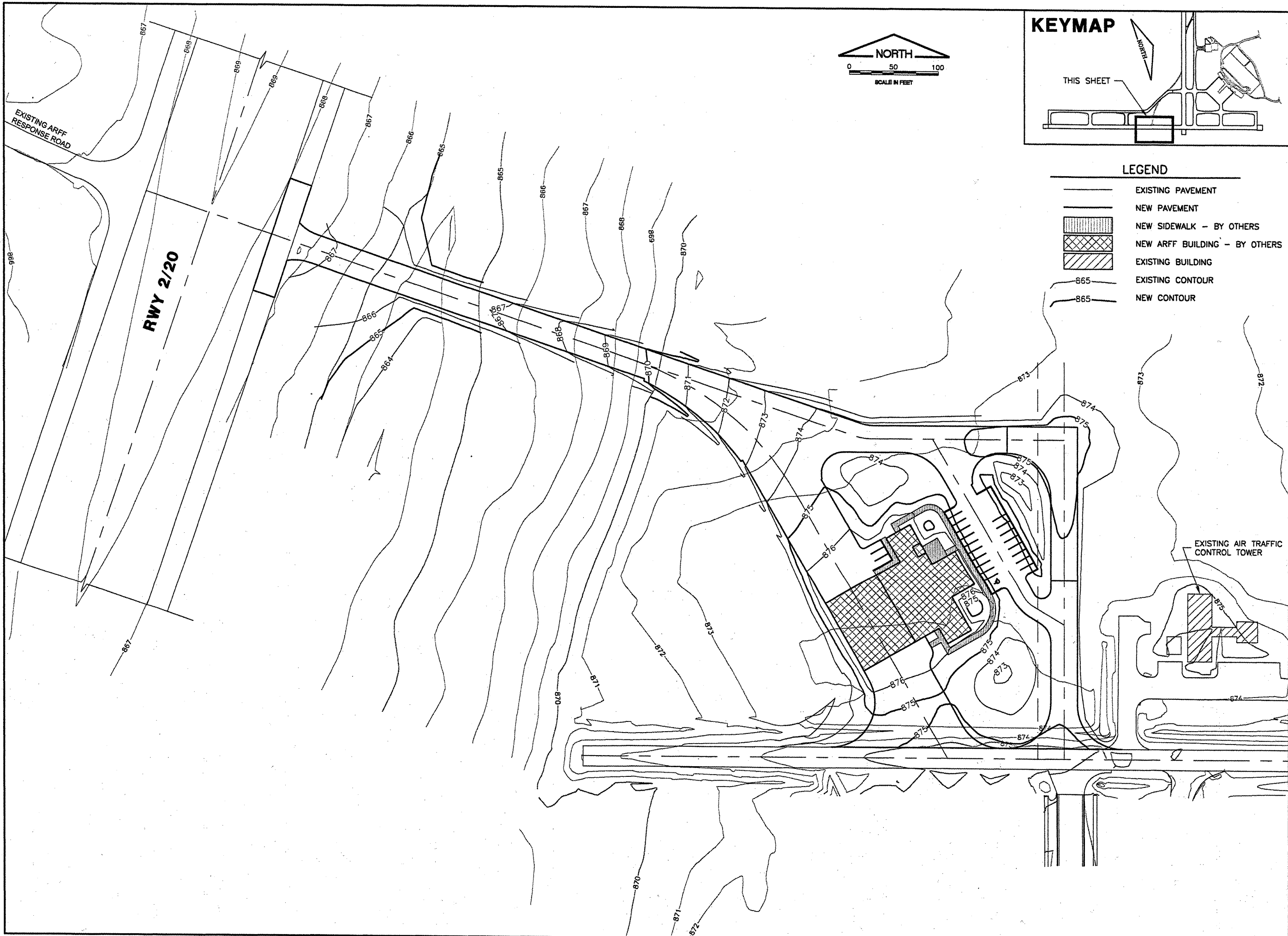
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DRAWN BY:	DPA
CHECKED BY:	<i>RW</i>
APPROVED BY:	<i>RW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	16 OF 66 SHEETS

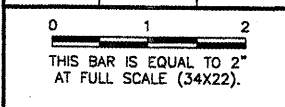




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 KEY  
 BASE\_PROPCEO  
 BASE\_PROPSTAKE

**BL064**

REVISIONS		
NUMBER	BY	DATE



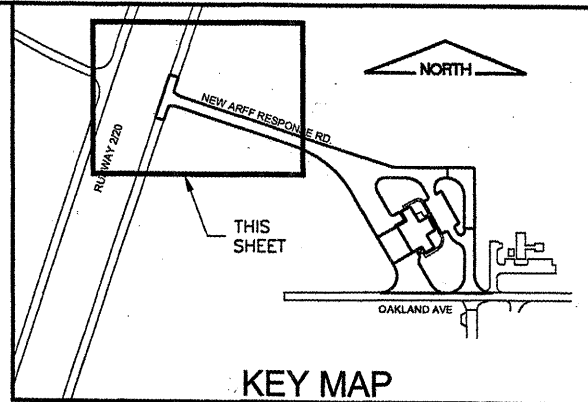
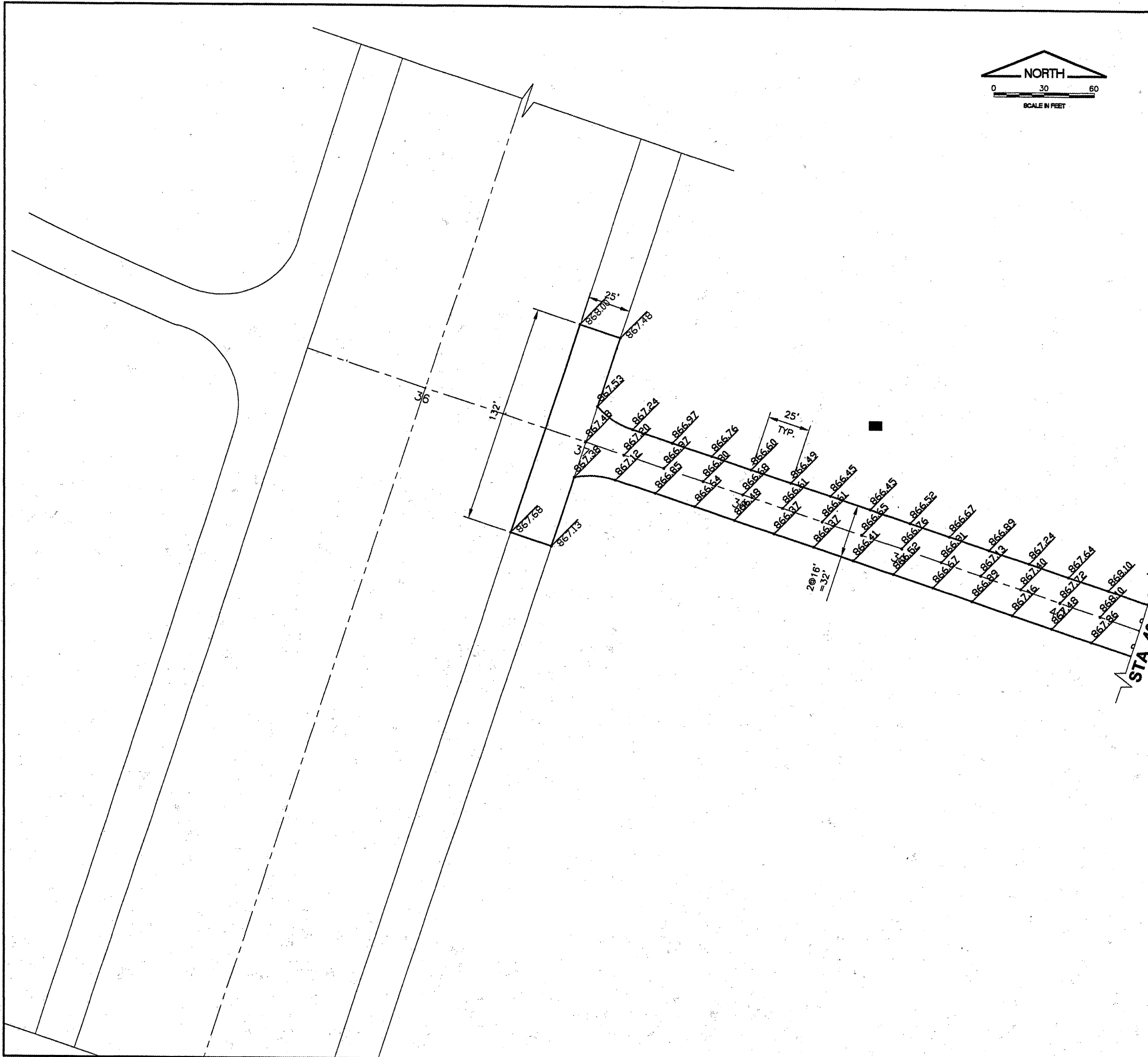
- LEGEND**
- EXISTING PAVEMENT
  - NEW PAVEMENT
  - NEW SIDEWALK - BY OTHERS
  - NEW ARFF BUILDING - BY OTHERS
  - EXISTING BUILDING
  - EXISTING CONTOUR
  - NEW CONTOUR

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

**CONSTRUCT NEW ARFF FACILITY  
 GRADING PLAN**

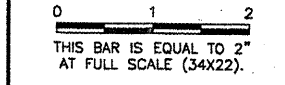
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CHECKED BY:	<i>RLW</i>
APPROVED BY:	<i>RLW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	17 OF 66 SHEETS



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 FILE: STAK01.dwg  
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 PLOT DATE: 4/18/2008 8:32 AM  
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 BASE\_EXISTTOPO  
 SITE\_KEYMAP  
 BASE\_PROPGED  
 BASE\_PROPSAKE  
 BASE\_PROPDRAIN

REVISIONS		
NUMBER	BY	DATE



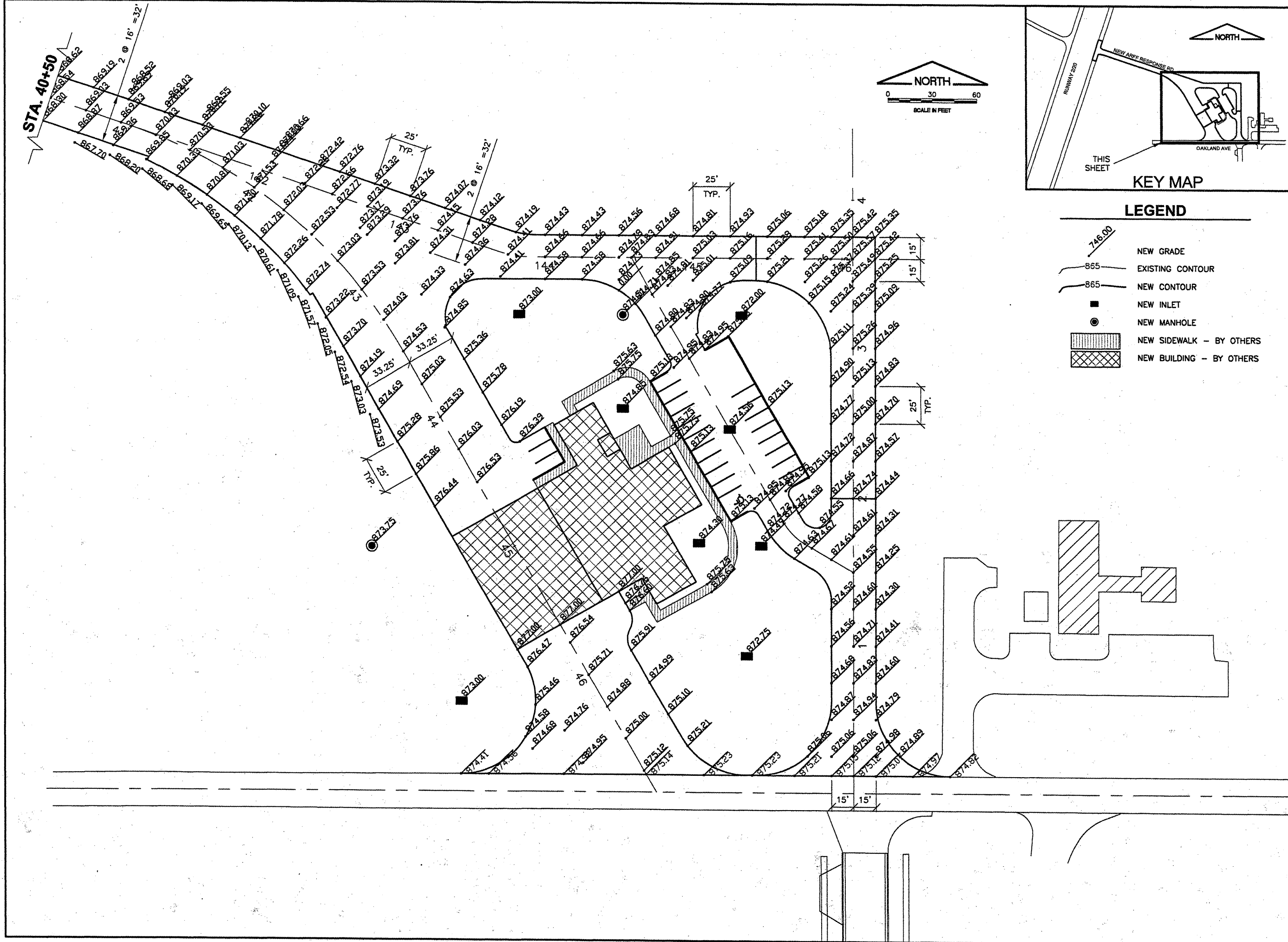
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- NEW GRADE
  - EXISTING PAVEMENT
  - NEW PAVEMENT
  - NEW INLET
  - NEW MANHOLE
  - NEW SIDEWALK - BY OTHERS
  - NEW BUILDING - BY OTHERS

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

**CONSTRUCT NEW ARFF FACILITY**  
**STAKING PLAN 1**

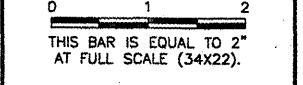
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DRAWN BY:	DPA
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APPROVED BY:	<i>RW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	18 OF 66 SHEETS



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 PLOT DATE: 4/18/2008 8:32 AM  
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 SITE\_KEYMAP  
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 BASE\_PROPDRAIN

REVISIONS		
NUMBER	BY	DATE

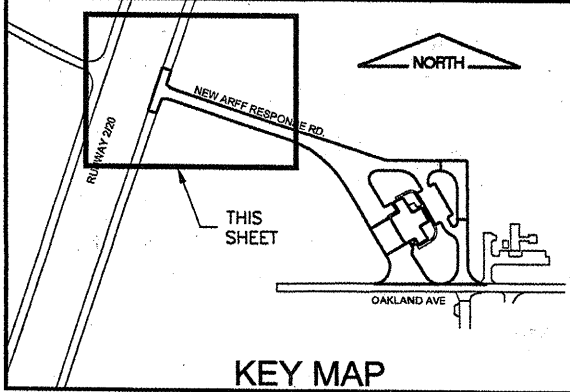
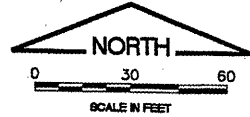
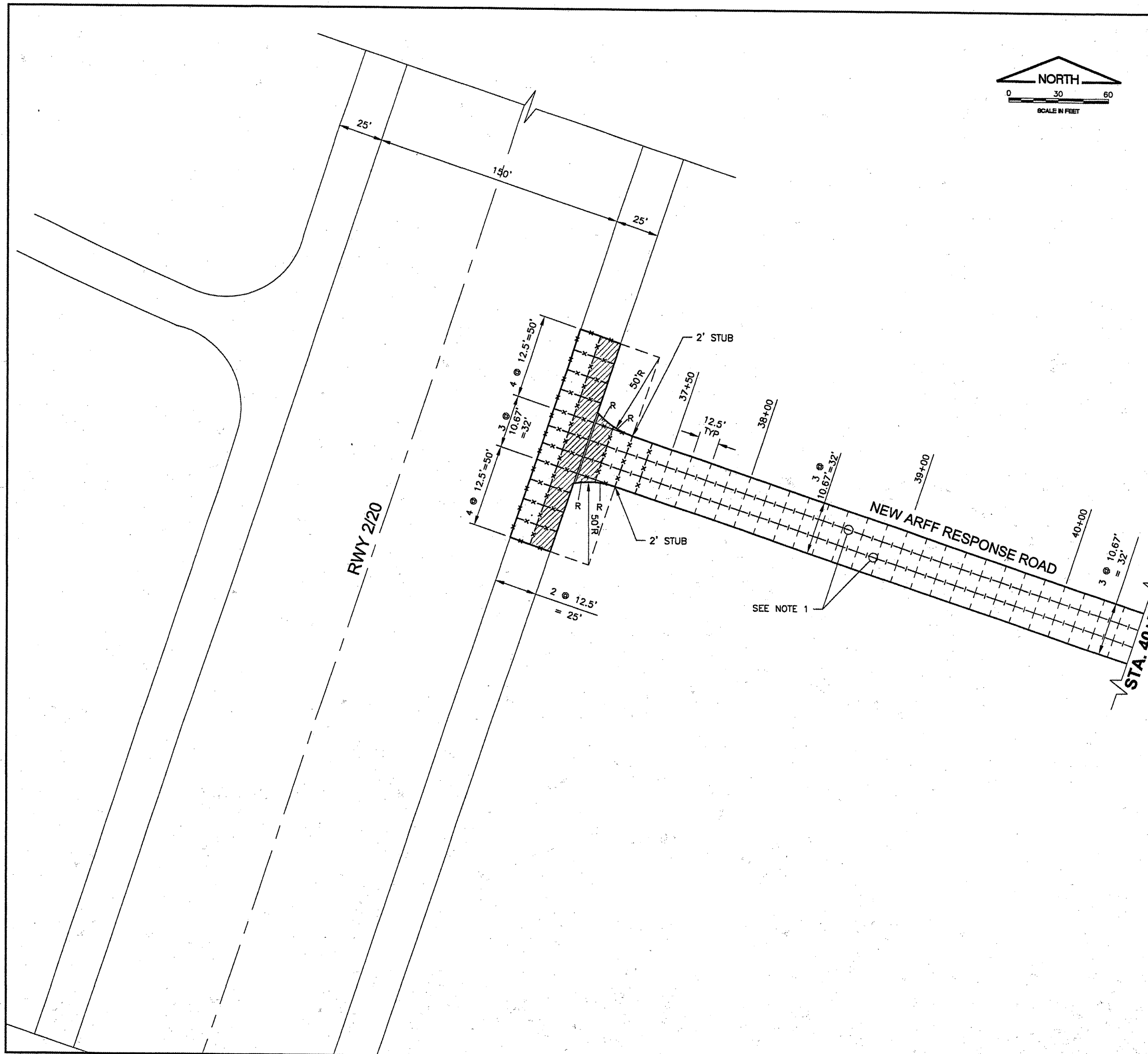


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 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 STAKING PLAN 2

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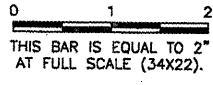
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JOB No:	0508509
IL PROJ. NO. BMI-3797 AIP PROJ. NO. 3-17-0006-46 & 48	
SHEET 19	OF 66 SHEETS



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 FILE: JNTP1N1.dwg  
 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:33 AM  
 BASE\_EXISTPO  
 SITE\_KEYMAP  
 BASE\_PROPJOINT  
 BASE\_PROPCEO

**BL064**

REVISIONS		
NUMBER	BY	DATE



**LEGEND**

- EXISTING PAVEMENT
- NEW PAVEMENT
- TYPE B EXPANSION JOINT
- ▨ THICKENED EDGE
- x — x — x — TYPE D (DOWELED)
- x — x — x — TYPE F (DOWELED)
- |-|-| TYPE G HINGED (TIED)
- - - - - TYPE H (DUMMY)
- R REINFORCED PANEL
- - - - - EXISTING JOINT

**NOTES:**

1. TYPE D (DOWELED) CONSTRUCTION JOINTS MAY BE USED IN LIEU OF TYPE G HINGED (TIED) CONTRACTION JOINTS AT THIS LOCATION.

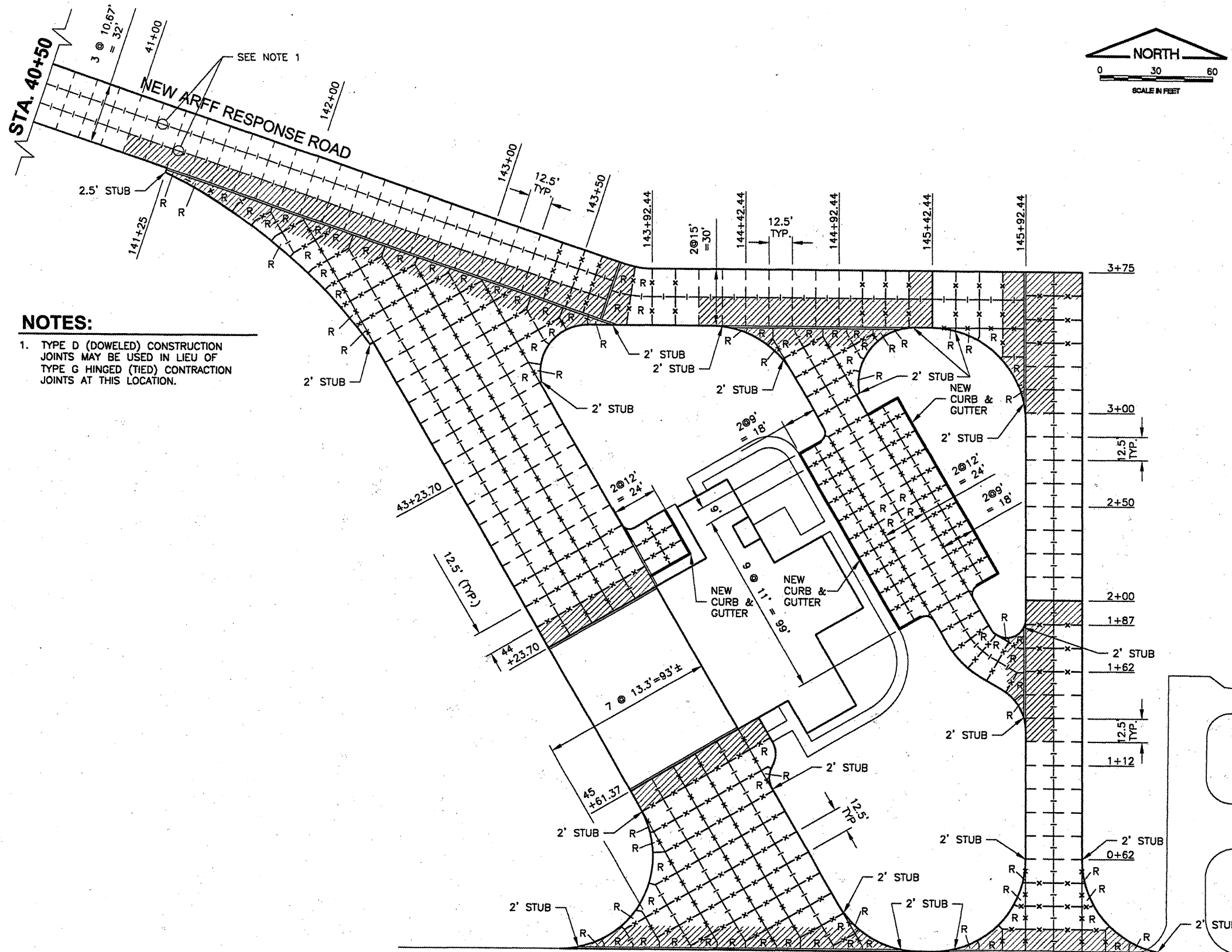
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 JOINTING PLAN 1

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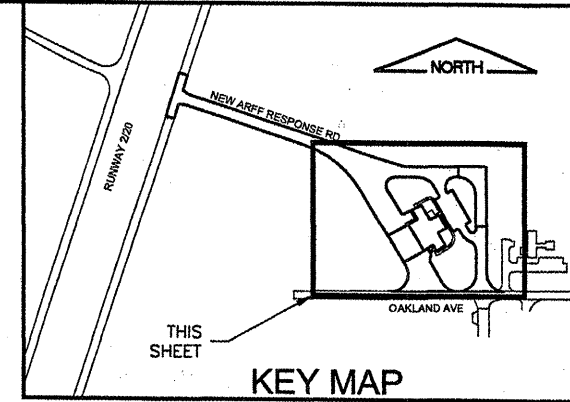


DESIGN BY:	----
DRAWN BY:	CMT
CHECKED BY:	<i>RW</i>
APPROVED BY:	<i>RW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	20 OF 66 SHEETS



**NOTES:**

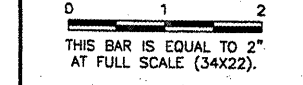
1. TYPE D (DOWELED) CONSTRUCTION JOINTS MAY BE USED IN LIEU OF TYPE G HINGED (TIED) CONTRACTION JOINTS AT THIS LOCATION.



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 PLOT DATE: 4/18/2008 8:33 AM  
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 FLOOR\_ENG--UCS  
 SITE\_KEYMAP  
 BASE\_PROFJOINT  
 BASE\_PROPGE0

**BL064**

REVISIONS		
NUMBER	BY	DATE



- LEGEND**
- EXISTING PAVEMENT
  - NEW PAVEMENT
  - TYPE B EXPANSION JOINT
  - ▨ THICKENED EDGE
  - ×××× TYPE D (DOWELED)
  - ×××× TYPE F (DOWELED)
  - |—|— TYPE G HINGED (TIED)
  - - - - TYPE H (DUMMY)
  - R REINFORCED PANEL
  - - - - EXISTING JOINT
  - NEW CURB & GUTTER

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

**CONSTRUCT NEW ARFF FACILITY  
 JOINTING PLAN 2**

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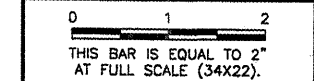


DESIGN BY:	---
DRAWN BY:	CMT
CHECKED BY:	REW
APPROVED BY:	REW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	21 OF 66 SHEETS

P/A DR.

**BL064**

REVISIONS		
NUMBER	BY	DATE



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

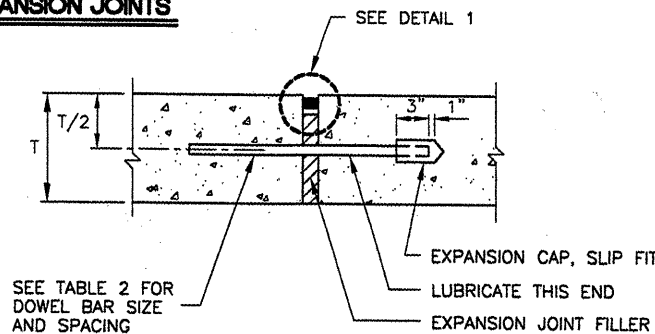
**CONSTRUCT NEW ARFF FACILITY  
 JOINTING DETAILS 1**

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DRAWN BY:	DPA
CHECKED BY:	<i>RLV</i>
APPROVED BY:	<i>RLV</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	22 OF 66 SHEETS

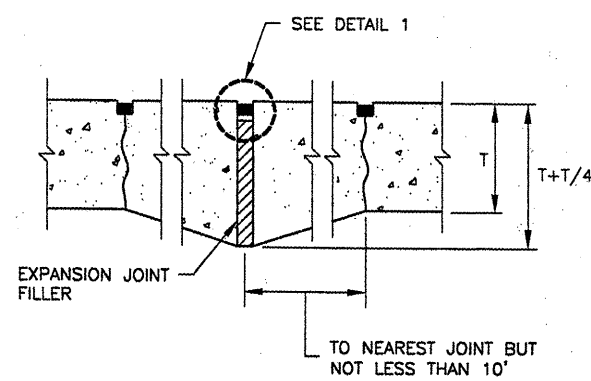
PAVEMENT THICKNESS T - INCHES	DEPTH OF CONTRACTION JOINT INITIAL SAW CUT I, INCHES $I=(T/3) \pm 1/4"$
5	1.67"
6	2.00"
7	2.33"
8	2.67"
9	3.00"
10	3.33"
11	3.67"
12	4.00"
13	4.33"
14	4.67"
15	5.00"
16	5.33"
17	5.67"
18	6.00"

**EXPANSION JOINTS**



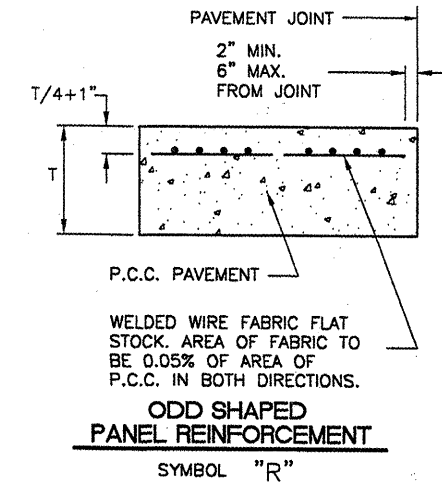
**TYPE A DOWELED**

SYMBOL



**TYPE B THICKENED EDGE**

SYMBOL

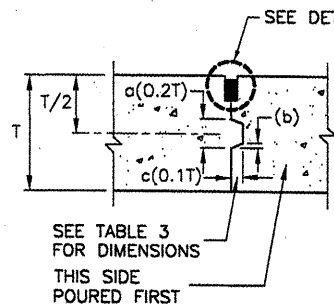


**ODD SHAPED PANEL REINFORCEMENT**

SYMBOL "R"

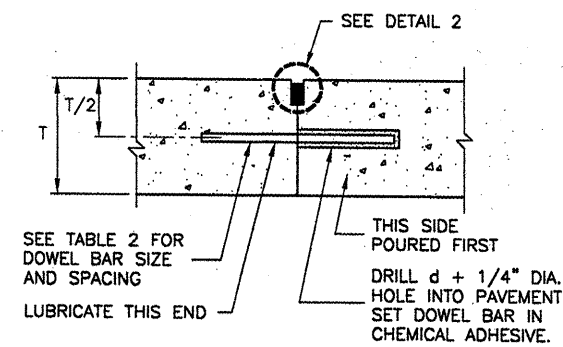
PAVEMENT THICKNESS T - INCHES	DOWEL BAR DETAILS			TIE BAR DETAILS		
	DIA.	LENGTH	SPACING	BAR SIZE	LENGTH	SPACING
5	5/8"	12"	12"	#4	24"	30"
6	3/4"	18"	12"	#5	30"	30"
7	3/4"	18"	12"	#5	30"	30"
8	1"	19"	12"	#5	30"	30"
9	1"	19"	12"	#5	30"	30"
10	1"	19"	12"	#5	30"	30"
11	1"	19"	12"	#5	30"	30"
12	1"	19"	12"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



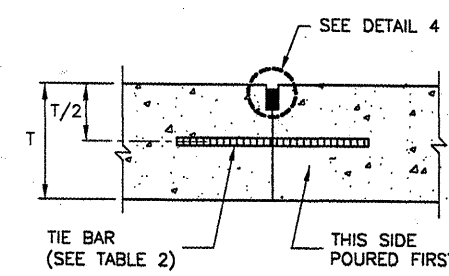
**TYPE C KEYED**

SYMBOL



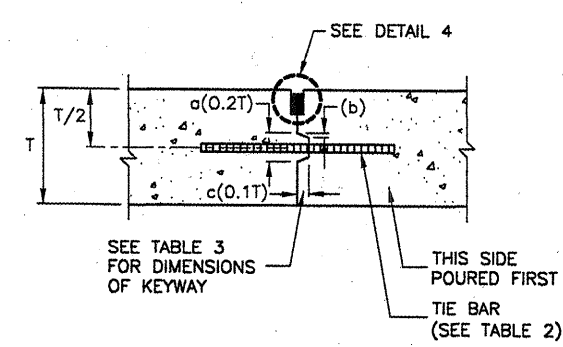
**TYPE D DOWELED**

SYMBOL



**TYPE E HINGED (BUTT)**

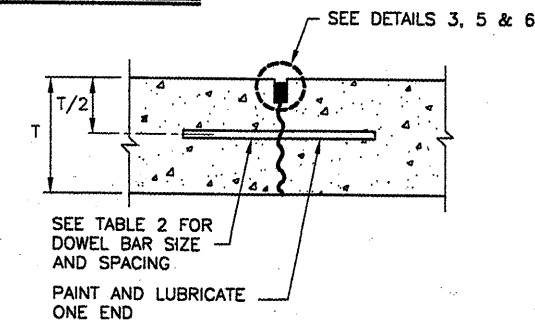
SYMBOL



**TYPE E HINGED (KEYED)**

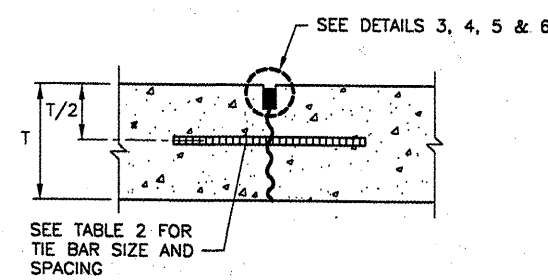
SYMBOL

**CONTRACTION JOINTS**



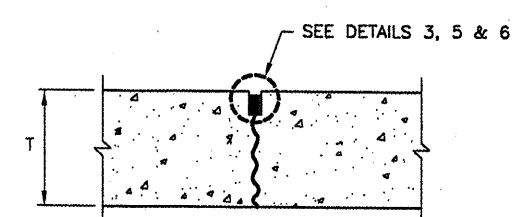
**TYPE F DOWELED**

SYMBOL



**TYPE G HINGED (TIED)**

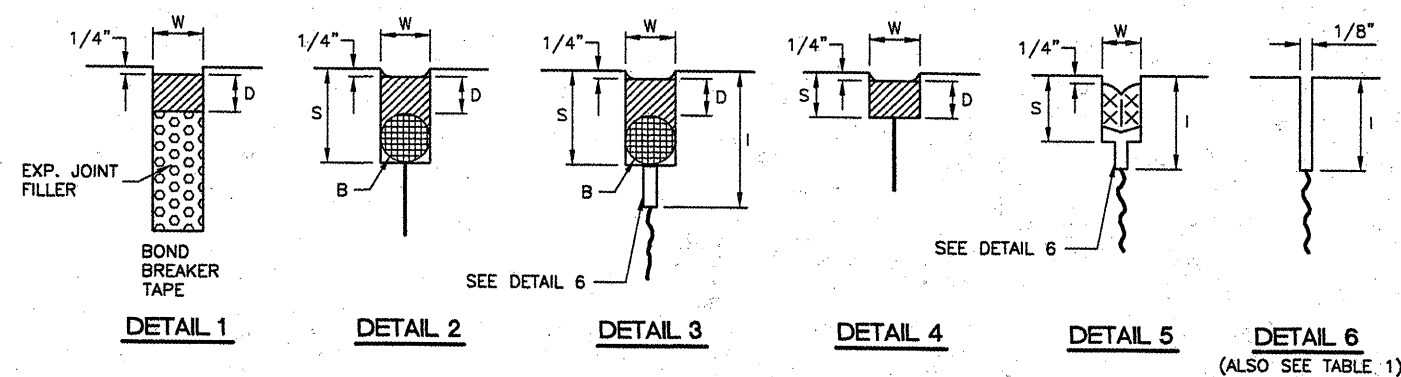
SYMBOL



**TYPE H DUMMY**

SYMBOL

**JOINT SEALING DETAILS**

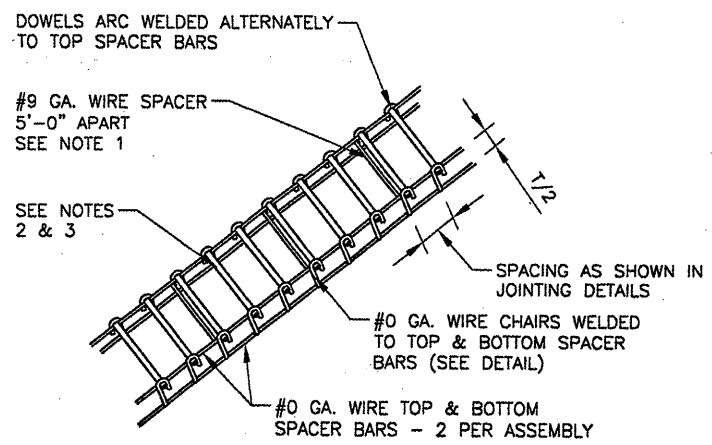


PAVEMENT THICKNESS T - INCHES	KEYED JOINT DIMENSIONS		
	a	b	c
6	—	—	—
7	—	—	—
8	0.133' (1-5/8" ±)	0.017' (3/16" ±)	0.067' (7/8" ±)
9	0.150' (1-13/16" ±)	0.019' (3/16" ±)	0.075' (7/8" ±)
10	0.167' (2" ±)	0.021' (1/4" ±)	0.083' (1" ±)
11	0.183' (2-13/16" ±)	0.023' (1/4" ±)	0.092' (1-1/8" ±)
12	0.200' (2-3/8" ±)	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" ±)

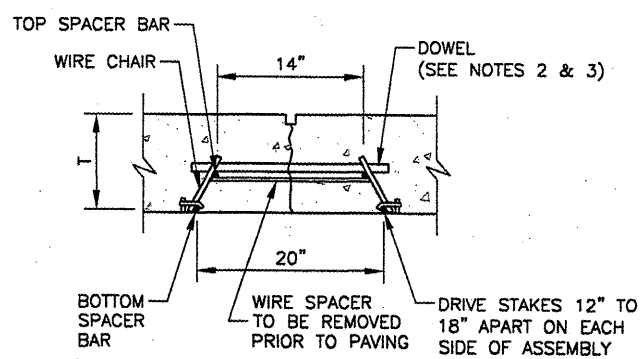
**JOINT NOTES**

- 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.
- THE INITIAL SAWCUT FOR ALL LONGITUDINAL & TRANSVERSE CONTRACTION JOINTS SHALL BE SAWS AS SOON AS POSSIBLE AFTER PLACEMENT OF THE PAVEMENT.
- ALL TIE BARS & MESH SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR OTHER APPROVED METHODS TO PREVENT SHIFTING DURING & AFTER CONCRETE PLACEMENT.
- TIE BARS SHALL BE DEFORMED BARS IN CONFORMANCE WITH THE SPECIFICATIONS.
- 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.

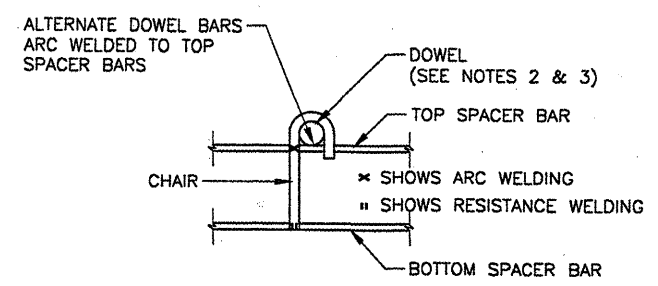
	DETAIL 1	DETAIL 2	DETAIL 3	DETAIL 4	DETAIL 5
W=WIDTH OF SEALANT RESERVOIR (IN.)	1	1/2	1/2	1/2	3/8 (COMPRESSED)
D=DEPTH OF SEALANT RESERVOIR (IN.)	1	1/2	1/2	1/2	N/A
B=BACKER ROD DIAMETER (IN.)	N/A	5/8	5/8	N/A	N/A
S=SECOND SAWCUT DEPTH (IN.) MINIMUM	N/A	1-3/8	1-3/8	3/4	1-1/2



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



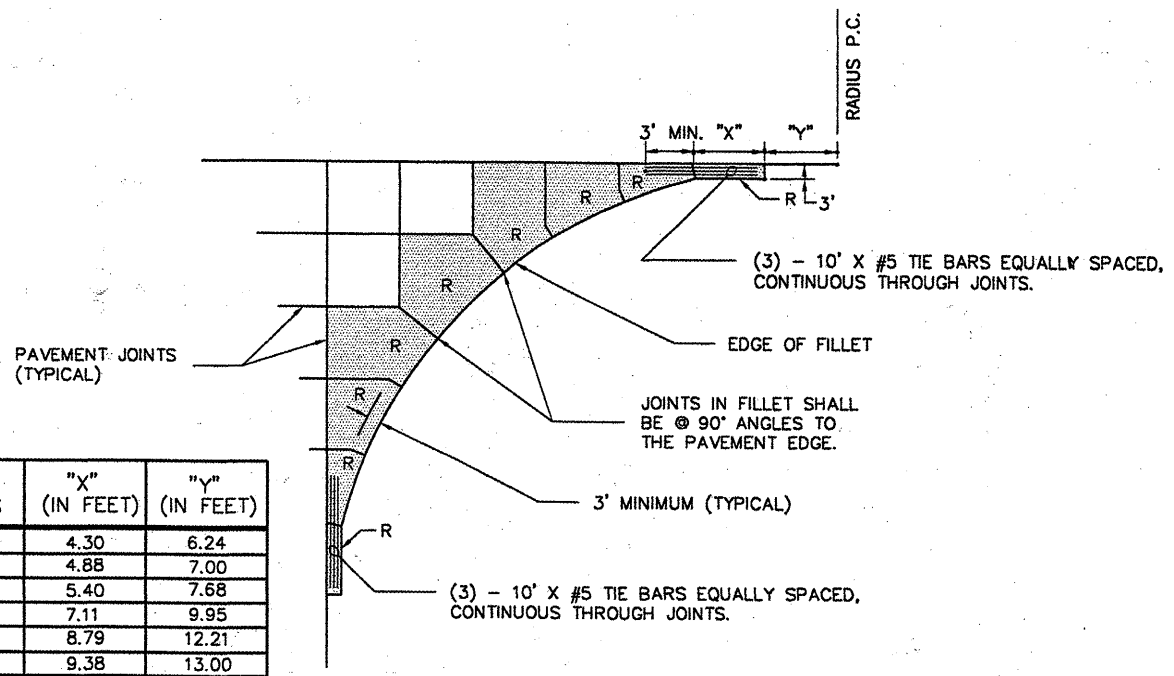
**DOWEL BAR INSTALLATION DETAIL**  
 N.T.S.



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

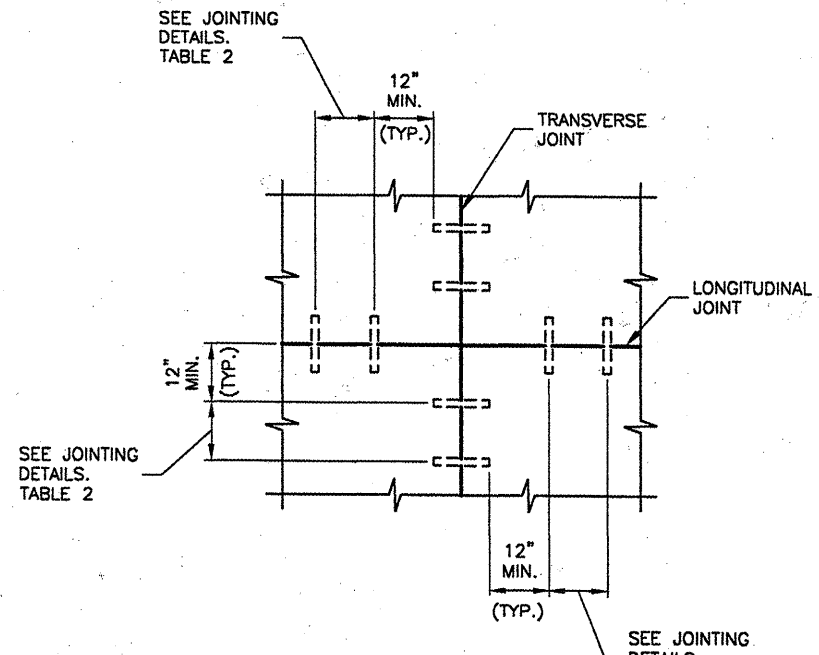
- DOWEL BASKET NOTES**
- #9 GA. WIRE SPACER BAR ARC WELDED TO THE BOTTOM OF TOP SPACER BAR. (MAY BE MECHANICALLY ATTACHED IN LIEU OF WELDING) 3 REQUIRED PER UNIT. THIS WIRE MUST BE CUT OR REMOVED PRIOR TO PAVING.
  - DOWEL BAR DIAMETER, LENGTH & SPACING SHALL BE AS SHOWN IN TABLE 2 JOINTING DETAILS 1.
  - 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.

**DOWEL BASKET DETAILS**  
 N.T.S.



FILLET RADIUS	"X" (IN FEET)	"Y" (IN FEET)
20	4.30	6.24
25	4.88	7.00
30	5.40	7.68
50	7.11	9.95
75	8.79	12.21
85	9.38	13.00
100	10.21	14.11
125	11.44	15.78
150	12.56	17.29
175	13.58	18.68
200	14.53	19.98

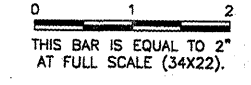
**FILLET DETAIL AND FILLET REINFORCING LAYOUT**  
 N.T.S.



**DOWEL PLACEMENT DETAIL**  
 N.T.S.

**BL064**

REVISIONS		
NUMBER	BY	DATE



**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
  
**CONSTRUCT NEW ARFF FACILITY**  
**JOINTING DETAILS 2**

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DRAWN BY: CMT
CHECKED BY: <i>RW</i>
APPROVED BY: <i>RW</i>
DATE: 04/01/2008
JOB No: 0508509
IL PROJ. NO. BMI-3797
AIP PROJ. NO. 3-17-0006-46 & 48
SHEET 23 OF 66 SHEETS

**BL064**

REVISIONS		
NUMBER	BY	DATE

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

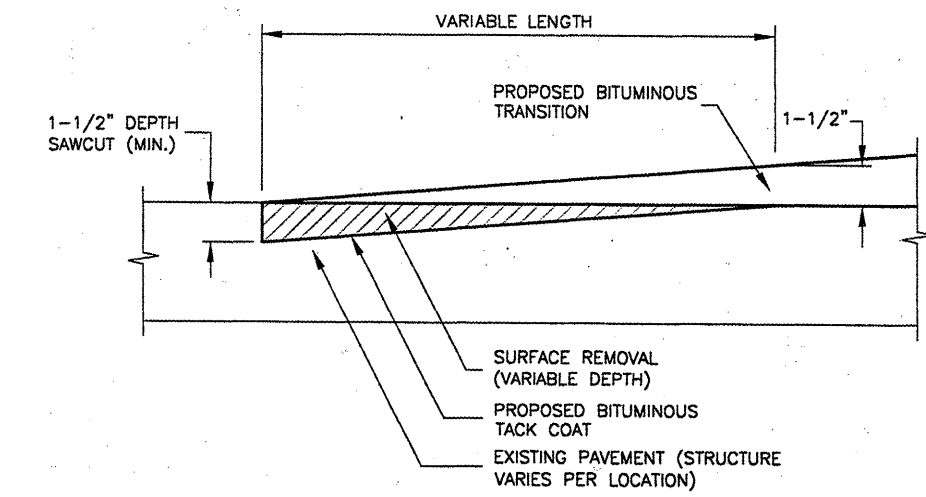
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 PAVING AND MISCELLANEOUS DETAILS 1

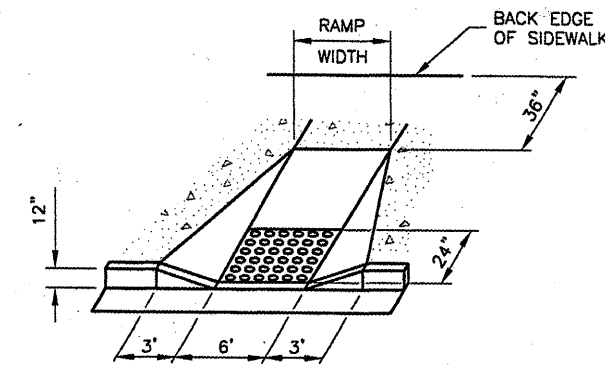
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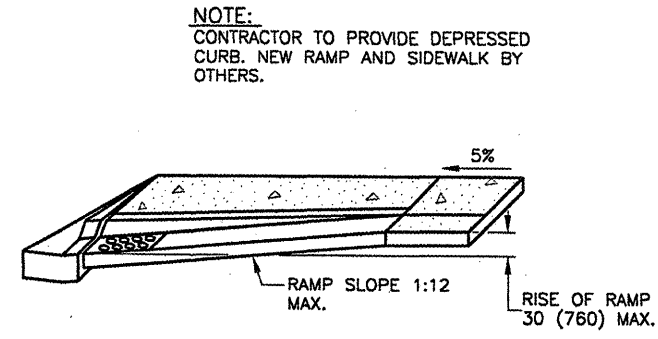
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DRAWN BY:	CMT
CHECKED BY:	<i>REW</i>
APPROVED BY:	<i>REW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	24 OF 66 SHEETS



**BUTT JOINT DETAIL**  
 N.T.S.



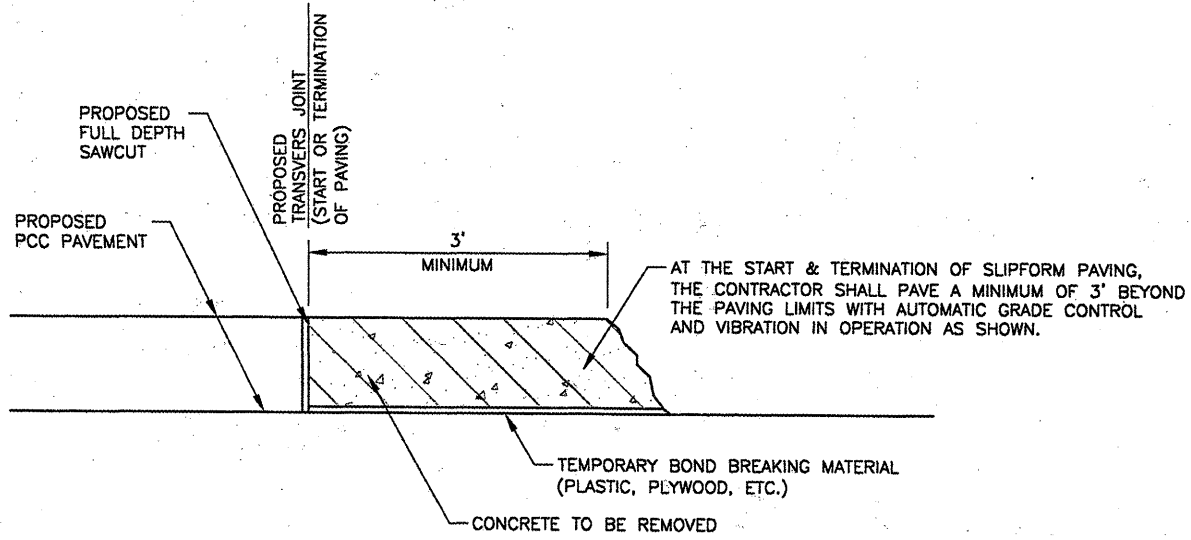
**DETAILS OF RAMPS**  
 N.T.S.  
 I.D.O.T. STANDARD 424001-04



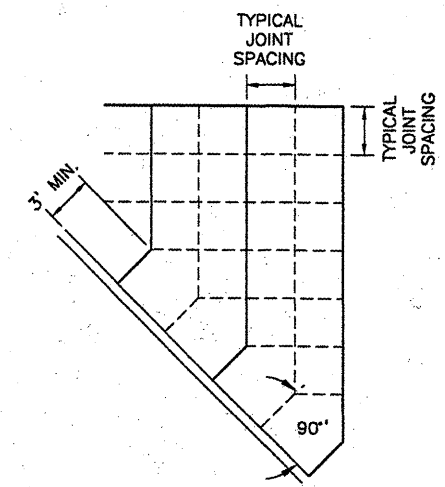
**RAMP PROFILE**  
 N.T.S.  
 I.D.O.T. STANDARD 424001-04

**NOTE:**  
 CONTRACTOR TO PROVIDE DEPRESSED CURB, NEW RAMP AND SIDEWALK BY OTHERS.

**SIDEWALK RAMP**  
 N.T.S.

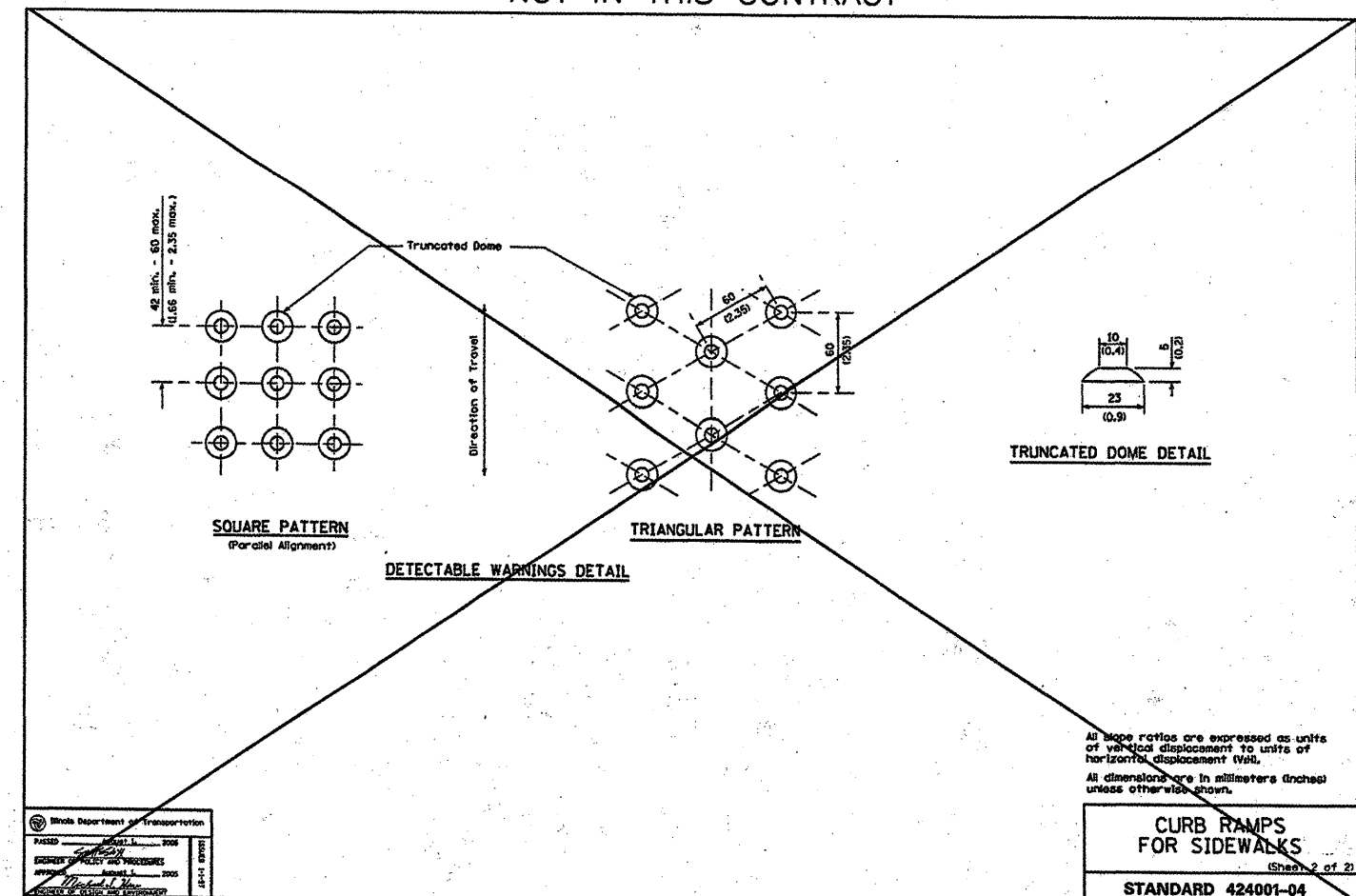


**REQUIREMENTS AT START AND TERMINATION OF SLIPFORM PAVING**  
 N.T.S.



**JOINTING AT SKEWED EDGE**  
 N.T.S.

NOT IN THIS CONTRACT



All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).  
 All dimensions are in millimeters (inches) unless otherwise shown.

**CURB RAMPS FOR SIDEWALKS**  
 STANDARD 424001-04

Illinois Department of Transportation  
 PASSED 11/2007  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION  
 SECTION 205 - PAVEMENT  
 DIVISION 2 - PAVEMENTS  
 PART 1 - PAVEMENTS  
 SECTION 205-1.00 - PAVEMENTS  
 SECTION 205-1.00-1 - PAVEMENTS



**BL064**

REVISIONS		
NUMBER	BY	DATE

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

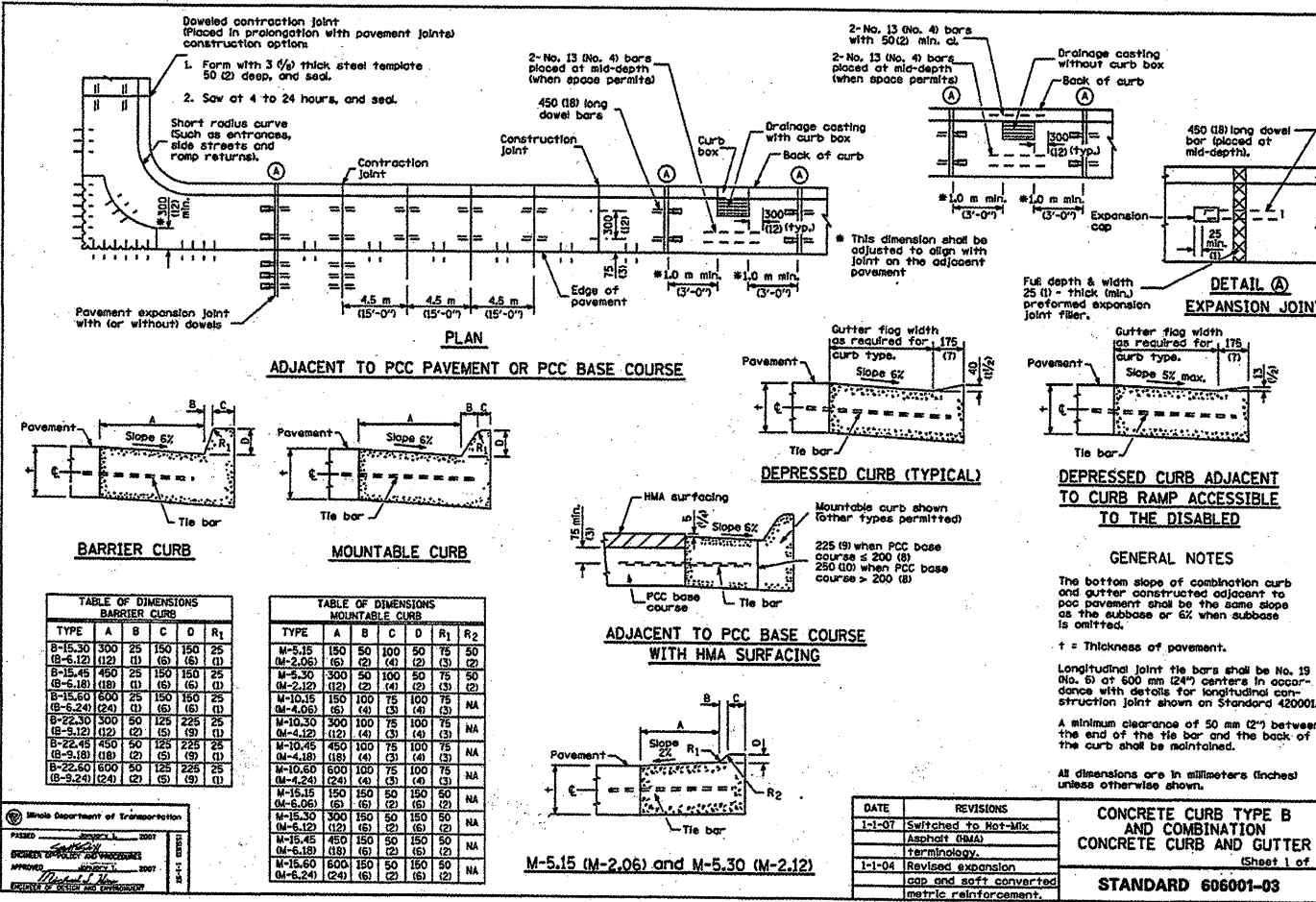
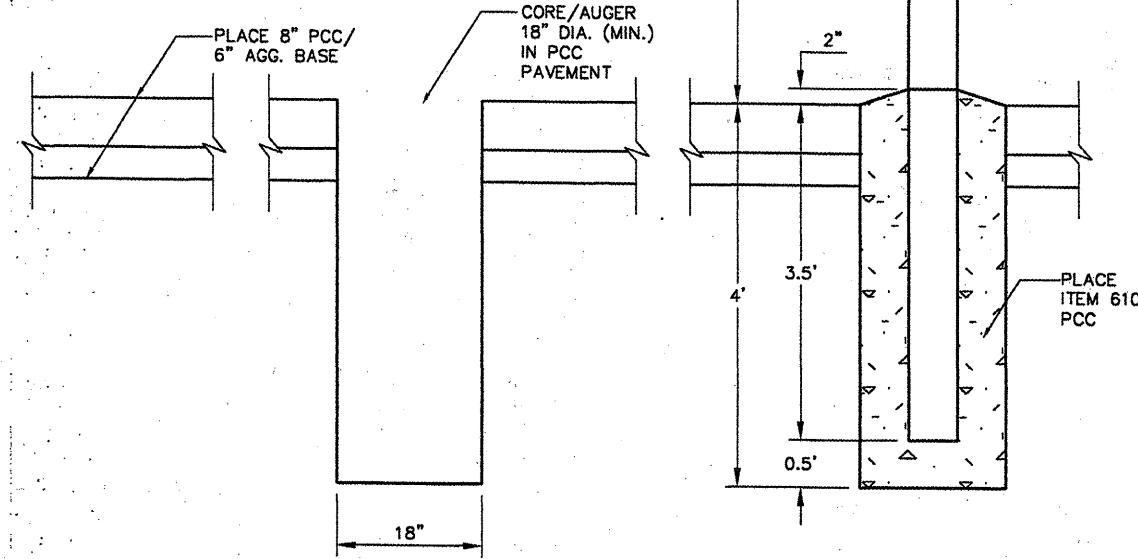
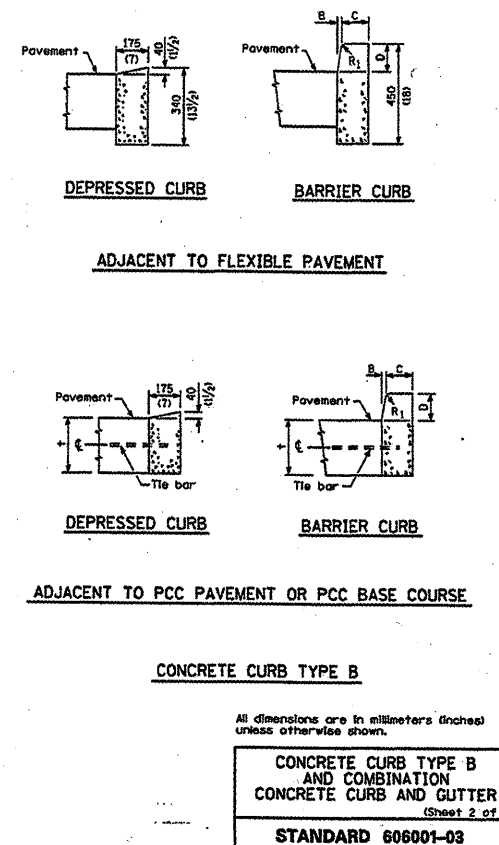
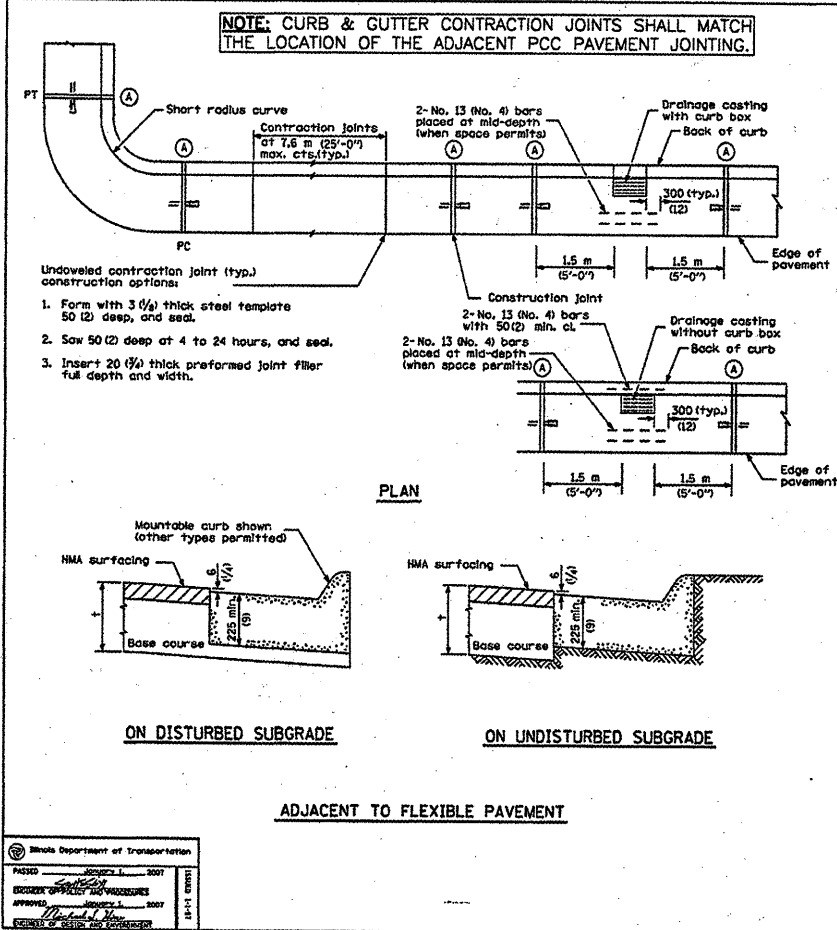
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 PAVING AND MISCELLANEOUS DETAILS 2

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CHECKED BY:	RW
APPROVED BY:	RW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	25 OF 66 SHEETS

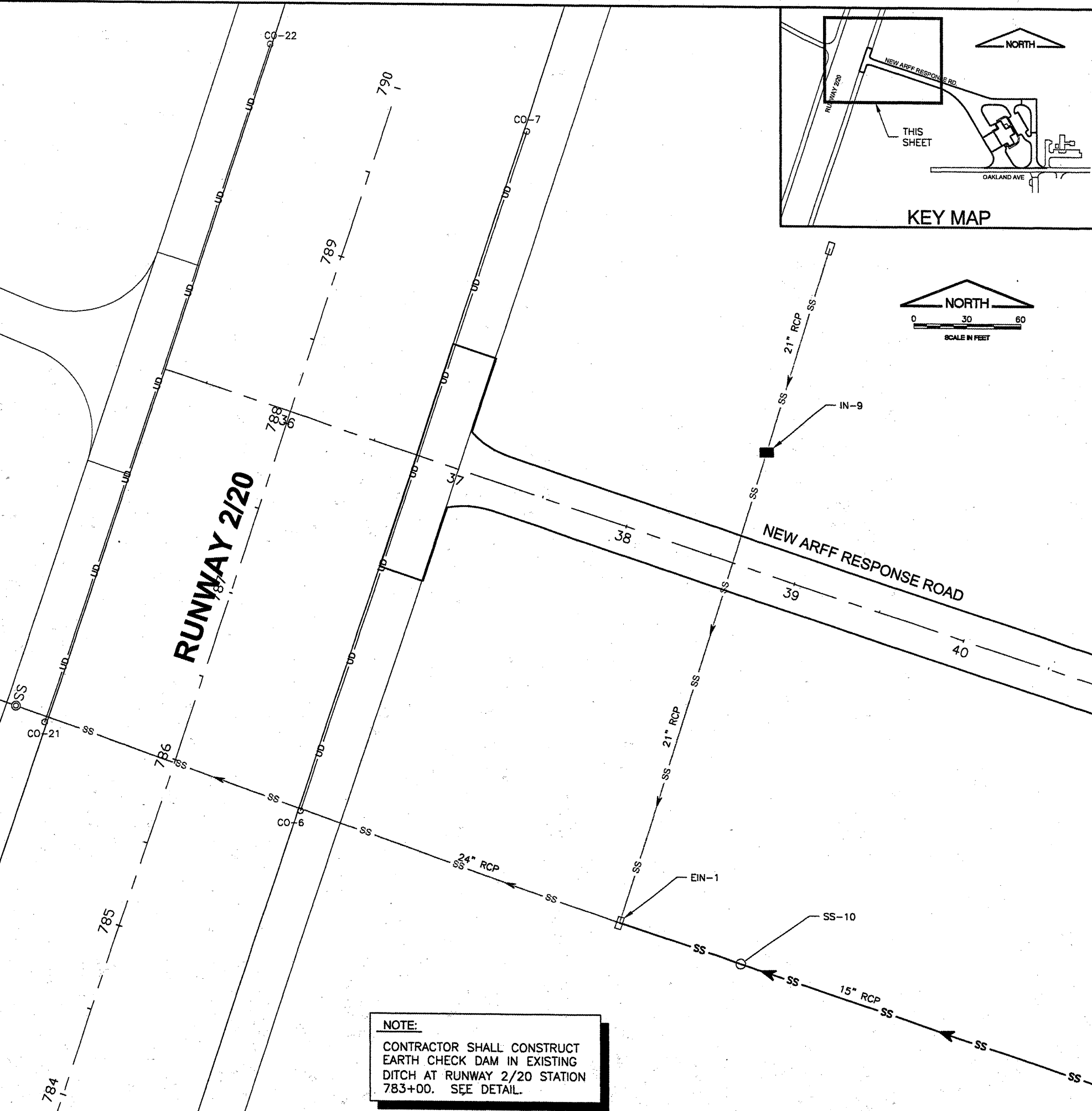


STORM SEWER PIPE SCHEDULE								
PIPE	TYPE	SIZE	UPSTREAM STRUCTURE	DOWNSTREAM STRUCTURE	LENGTH (ft)	UPSTREAM INVERT	DOWNSTREAM INVERT	SLOPE
SS-1	RCP CLASS IV	12"	IN-1	IN-2	81.2	865.92	865.51	0.50%
SS-2	PVC	8"	IN-3	IN-2	41.8	869.30	865.51	9.07%
SS-3	RCP CLASS IV	12"	IN-2	IN-4	75.1	865.51	865.13	0.50%
SS-4	RCP CLASS IV	12"	IN-4	IN-5	194.4	865.13	864.16	0.50%
SS-5	RCP CLASS IV	15"	IN-5	MH-2	120.9	864.16	863.56	0.50%
SS-6	RCP CLASS IV	12"	IN-6	MH-1	79.8	865.23	864.83	0.50%
SS-7	PVC	8"	IN-7	MH-1	62.4	869.85	864.83	8.04%
SS-8	RCP CLASS IV	12"	MH-1	IN-8	70.2	864.83	864.48	0.50%
SS-9	RCP CLASS IV	12"	IN-8	MH-2	184.5	864.48	863.56	0.50%
SS-10	RCP CLASS IV	15"	MH-2	EIN-1	483.8	863.56	858.72	1.00%

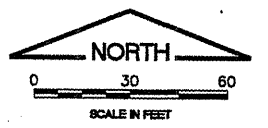
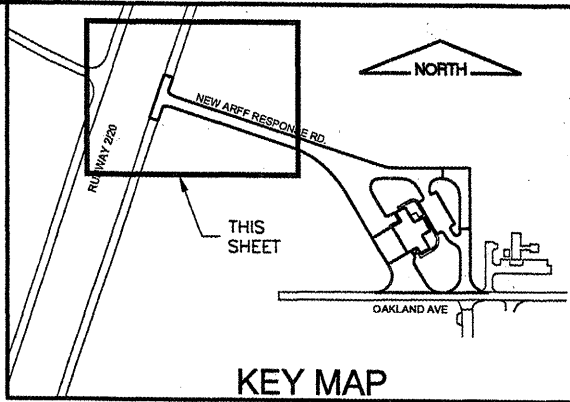
STORM SEWER STRUCTURE SCHEDULE									
STRUCTURE	BASELINE	STATION	OFFSET	NORTHING	EASTING	RIM	INVERT	STRUCTURE TYPE	FRAME & LID
IN-1	C	2+45.72	82.59' LT	1386935.38	824263.68	874.56	865.92	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
IN-2	C	1+67.27	61.91' LT	1386857.06	824285.19	874.49	865.51	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
IN-3	C	1+69.07	103.64' LT	1386858.60	824243.45	874.30	869.30	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
IN-4	A	46+41.72	98.69' LT	1386782.49	824275.87	872.75	865.13	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
IN-5	A	45+73.16	83.25' RT	1386748.78	824084.22	873.00	864.16	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
IN-6	B	145+32.42	38.52' RT	1387011.31	824271.17	872.00	865.23	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
IN-7	B	144+52.61	100.92' RT	1386948.44	824191.73	874.85	869.85	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
MH-1	B	144+52.61	38.52' RT	1387011.29	824181.65	874.51	864.83	IDOT MANHOLE TYPE A	IDOT TYPE 1 CLOSED
IN-8	A	43+56.86	80.29' LT	1387010.43	824121.16	873.00	864.48	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
MH-2	A	44+52.22	83.25' RT	1386854.60	824013.42	873.75	863.56	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
EIN-1	A	38+66.89	214.78' RT	1387012.35	823558.23	862.88	858.72	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN
IN-9	A	38+62.09	65.00' LT	1387279.52	823641.43	864.02	859.84	IDOT MANHOLE TYPE A	IDOT TYPE 1 OPEN

**LEGEND**

- SS ——— EXISTING STORM SEWER
- SS ——— NEW STORM SEWER
- UD ——— EXISTING UNDERDRAIN
- ⊙ CO EXISTING CLEANOUT
- EXISTING INLET
- NEW INLET
- ⊙ SS EXISTING STORM SEWER MANHOLE
- SS NEW STORM SEWER MANHOLE
- ▽ EXISTING FLARED END SECTION
- - - - - EXISTING DITCH LINE



**NOTE:**  
 CONTRACTOR SHALL CONSTRUCT EARTH CHECK DAM IN EXISTING DITCH AT RUNWAY 2/20 STATION 783+00. SEE DETAIL.



K:\Bloomington\0508509\_BML\_ARFF\Draw\Sheets  
 FILE: DRNPLN1.dwg  
 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:33 AM  
 BASE\_EXISTGEO  
 SITE\_KEYMAP  
 BASE\_PROPRAIN  
 BASE\_PROPGEO  
 BASE\_EXISTGEO

**BL064**

REVISIONS		
NUMBER	BY	DATE

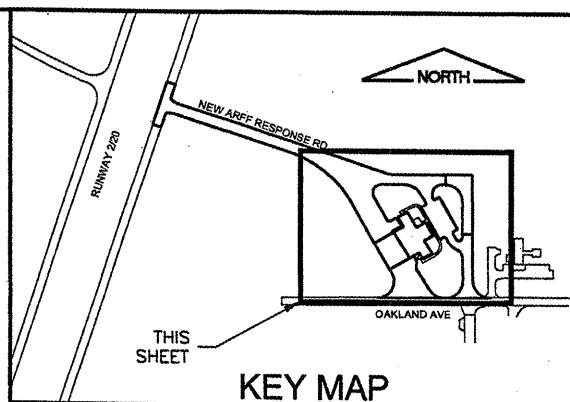
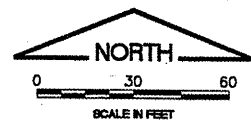
0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).

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

**CONSTRUCT NEW ARFF FACILITY  
 DRAINAGE PLAN 1**

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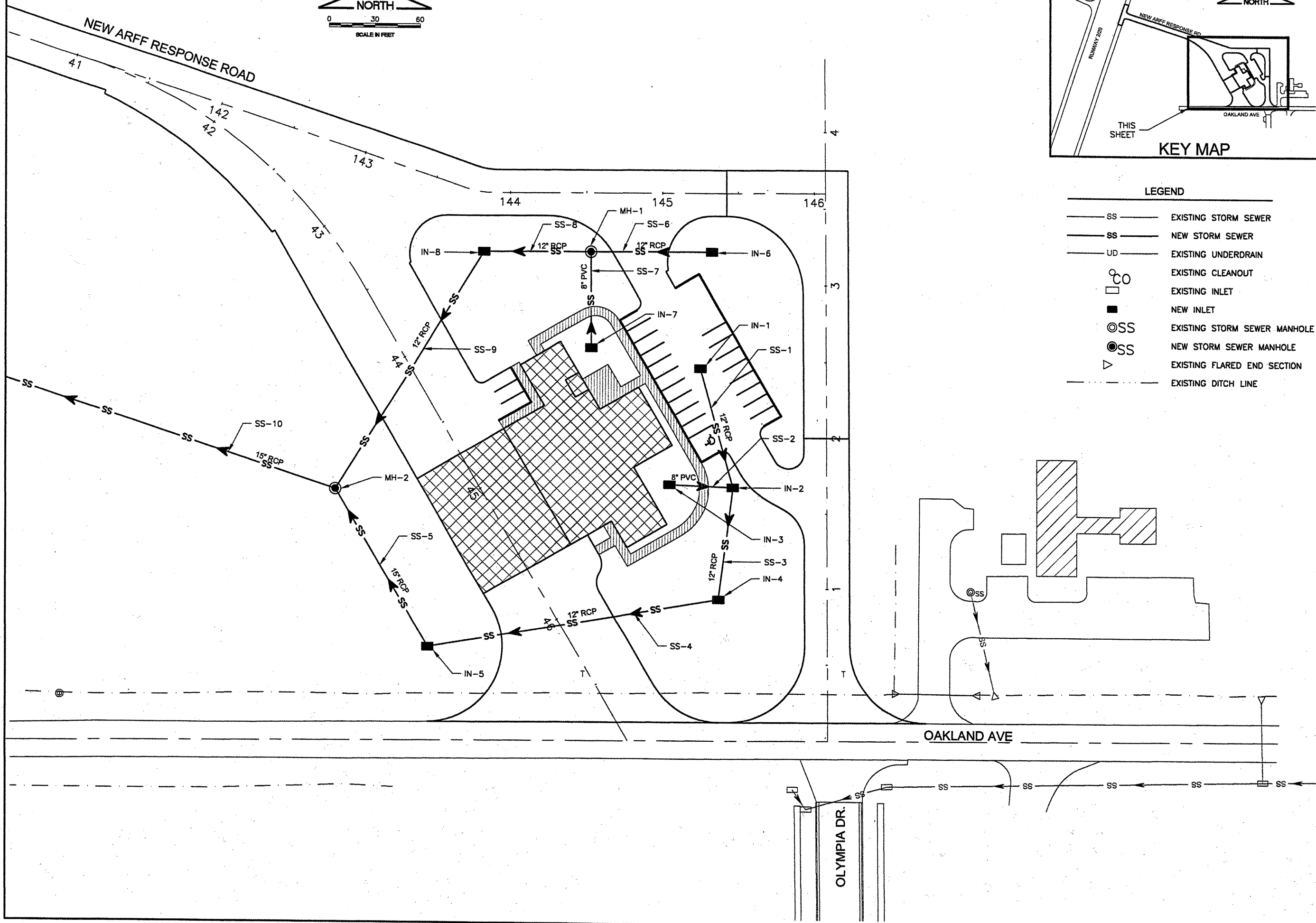
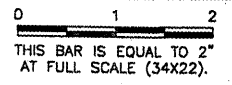
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DRAWN BY:	DPA
CHECKED BY:	REN
APPROVED BY:	REN
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	26 OF 66 SHEETS



K:\Bloomington\0508509\_BMI\_ARFF\Draw\Sheets  
 FILE: DRNPLN2.dwg  
 UPDATE BY: Kristy Brad  
 PLOT DATE: 4/18/2008 8:33 AM  
 BASE\_EXISTGEO  
 BASE\_EXISTTOPO  
 SITE\_KEYMAP  
 BASE\_PROPDRAIN  
 BASE\_PROPGEO

**BL064**

REVISIONS		
NUMBER	BY	DATE



- LEGEND**
- SS — EXISTING STORM SEWER
  - SS — NEW STORM SEWER
  - UD — EXISTING UNDERDRAIN
  - CO — EXISTING CLEANOUT
  - — EXISTING INLET
  - — NEW INLET
  - ⊙ — EXISTING STORM SEWER MANHOLE
  - ⊙ — NEW STORM SEWER MANHOLE
  - ▽ — EXISTING FLARED END SECTION
  - - - EXISTING DITCH LINE

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

**CONSTRUCT NEW ARFF FACILITY**  
**DRAINAGE PLAN 2**

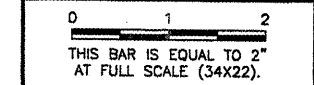
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DESIGN BY:	KLB
DRAWN BY:	DPA
CHECKED BY:	<i>RLW</i>
APPROVED BY:	<i>RLW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	27 OF 66 SHEETS

**BL064**

REVISIONS		
NUMBER	BY	DATE



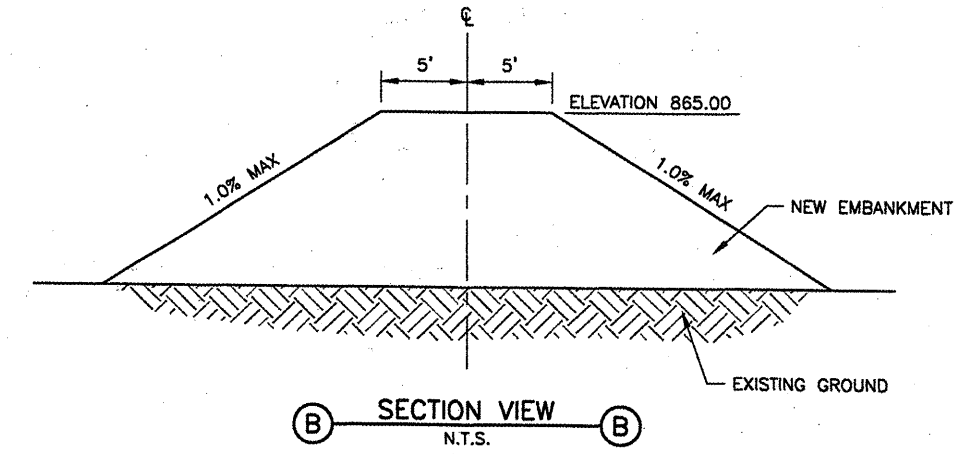
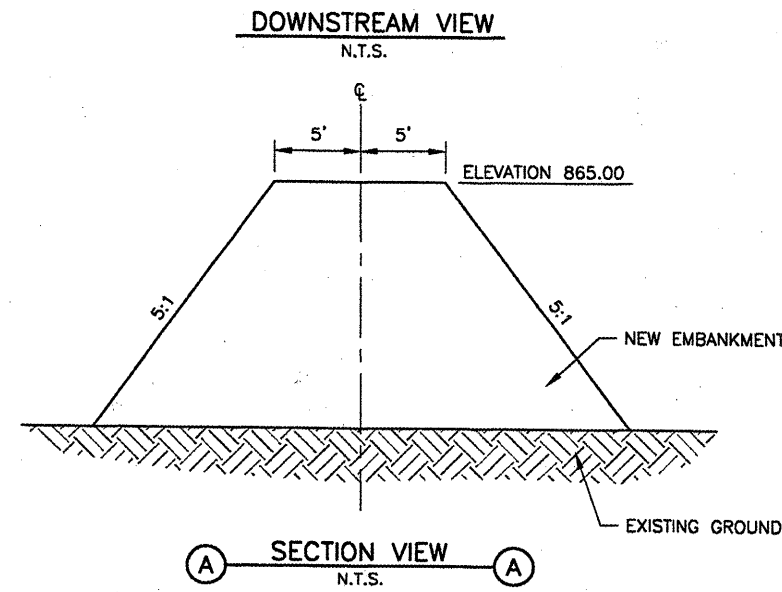
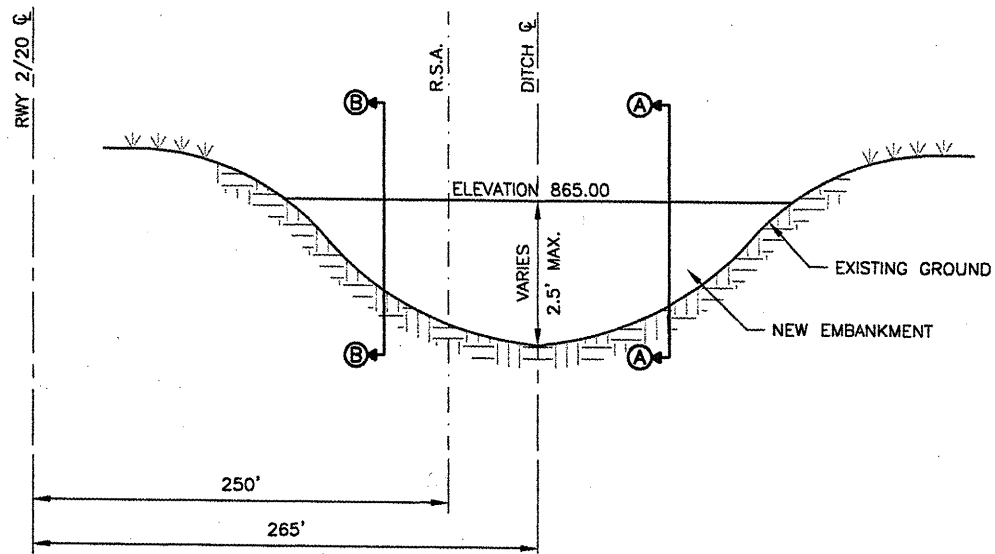
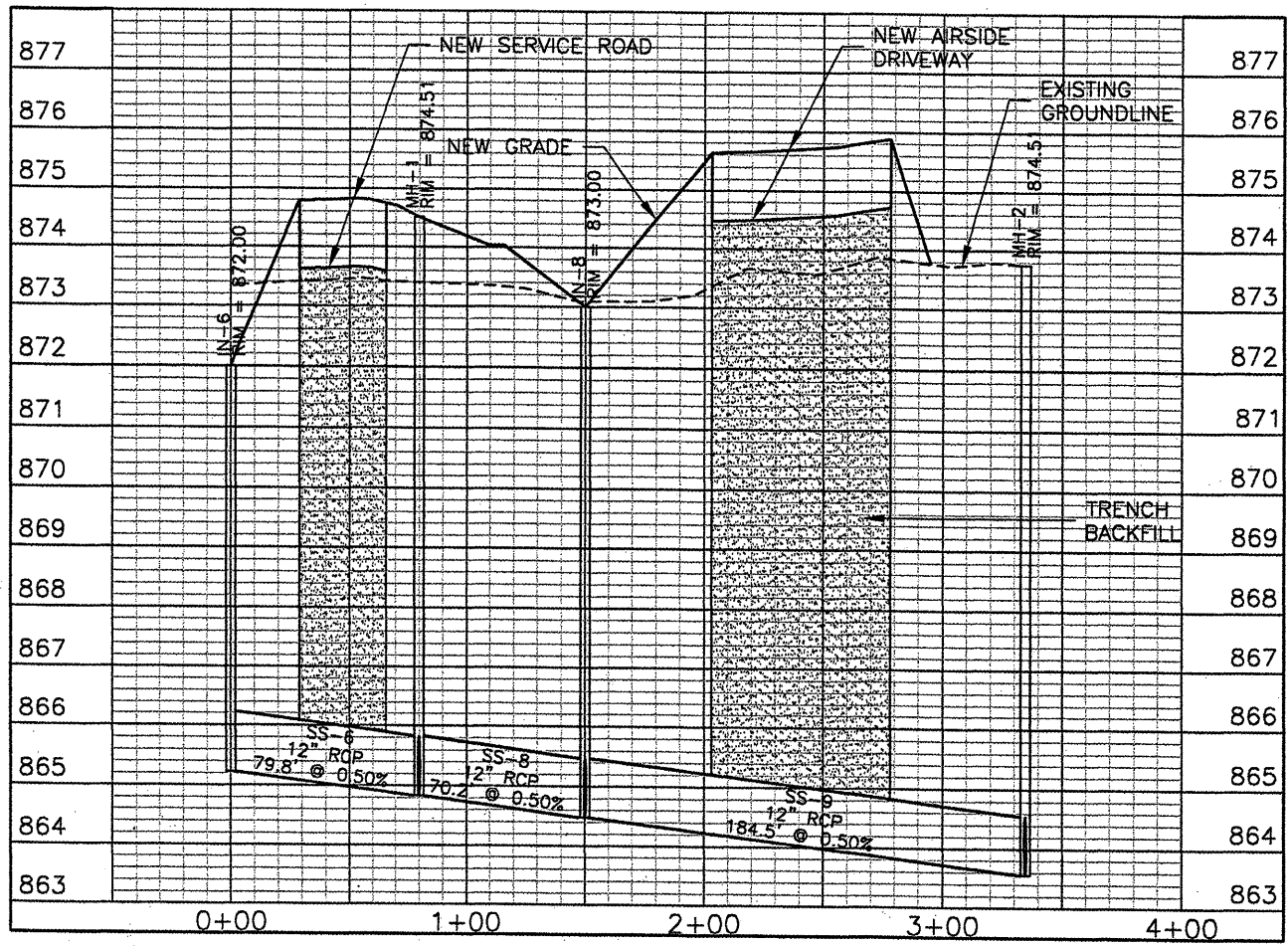
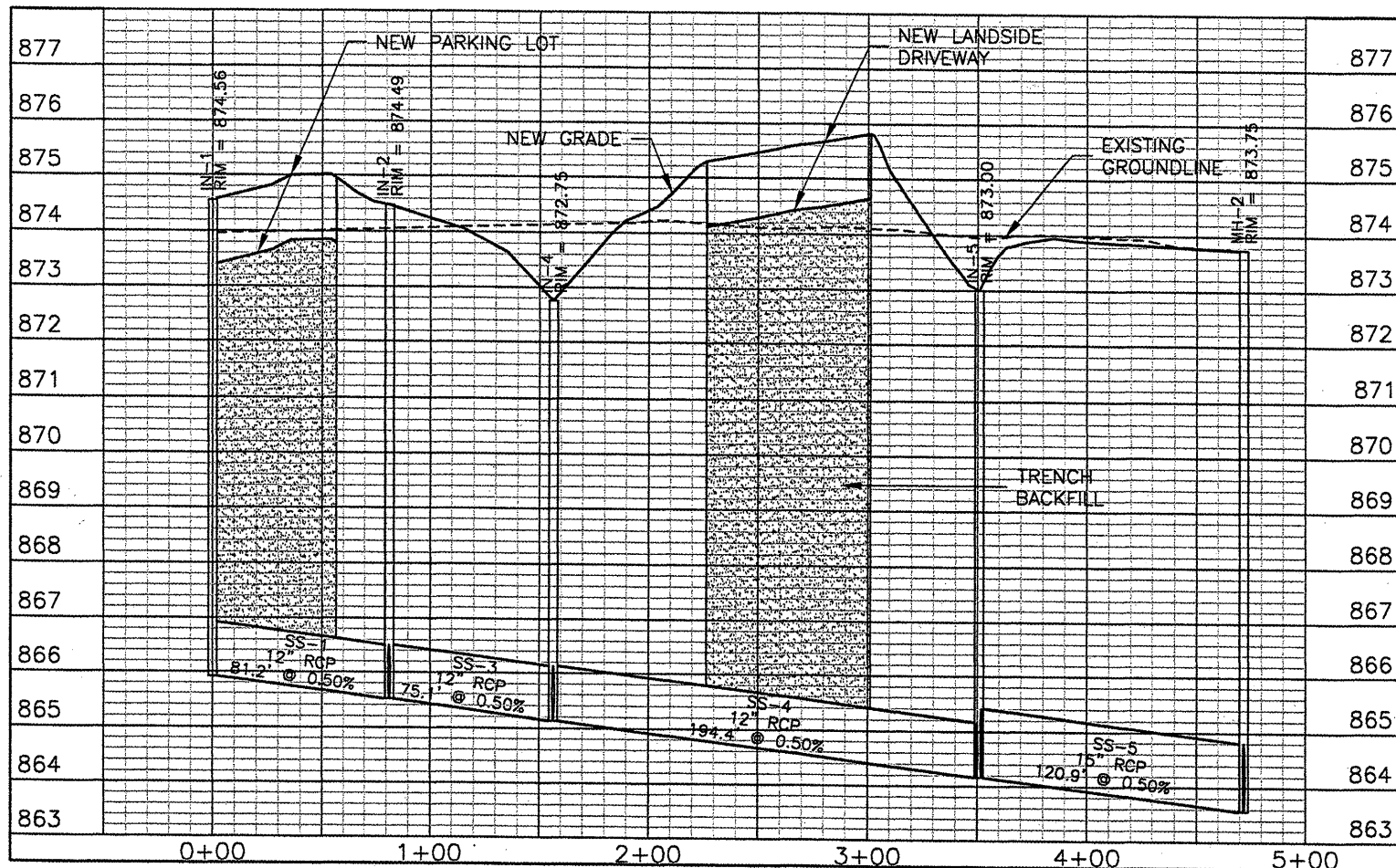
**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY  
 STORM SEWER PROFILES 1**

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DESIGN BY:	KLB
DRAWN BY:	DPA
CHECKED BY:	RWJ
APPROVED BY:	RWJ
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	28 OF 66 SHEETS

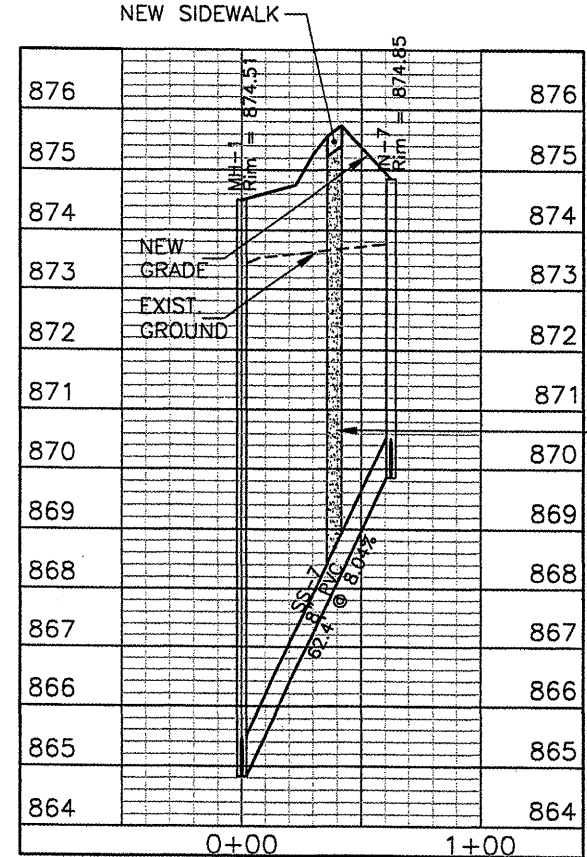
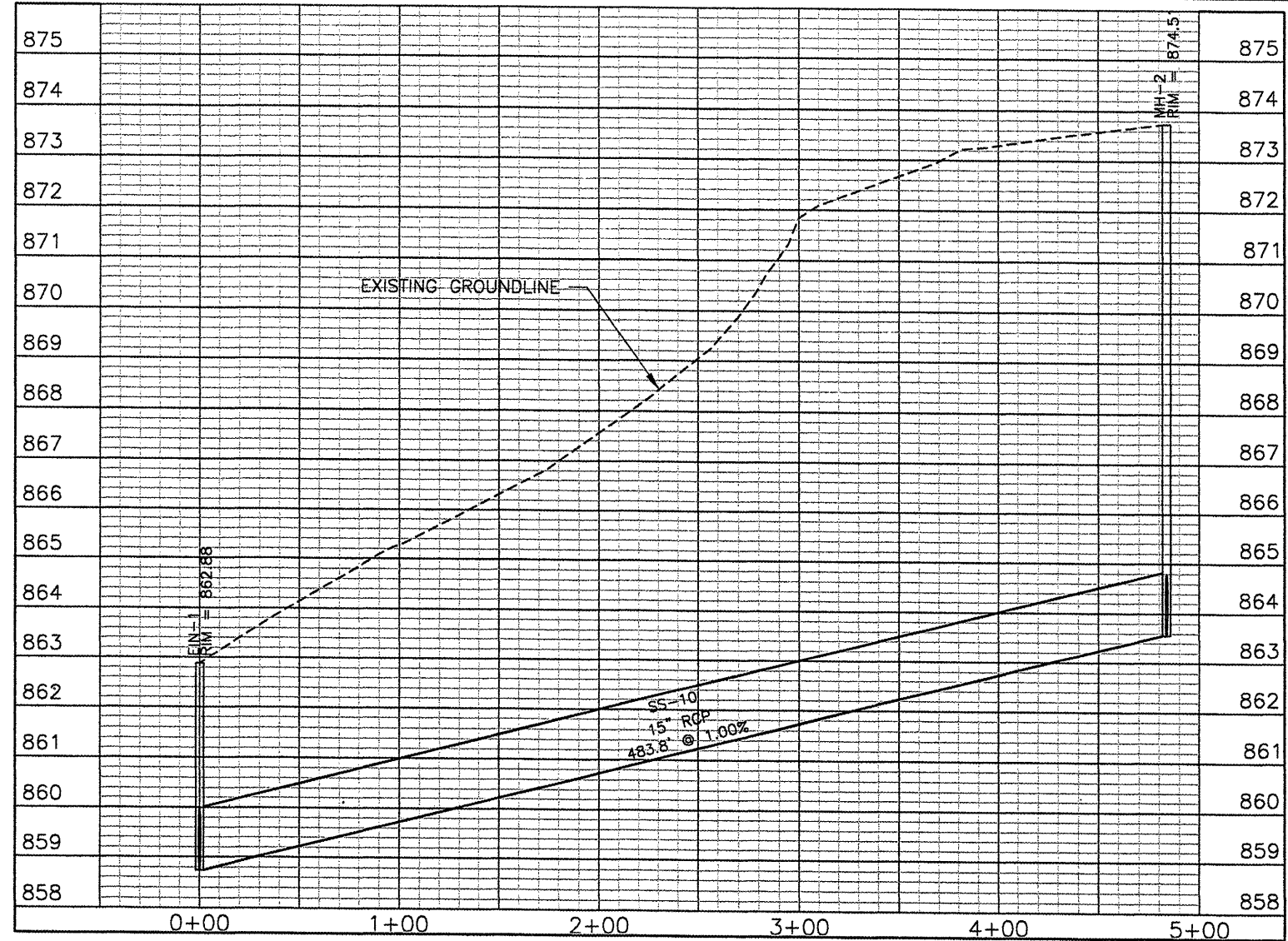
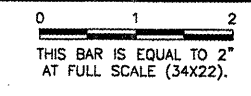


**NEW EARTH CHECK DAM DETAIL  
 RWY 2/20 STA. 783+00**

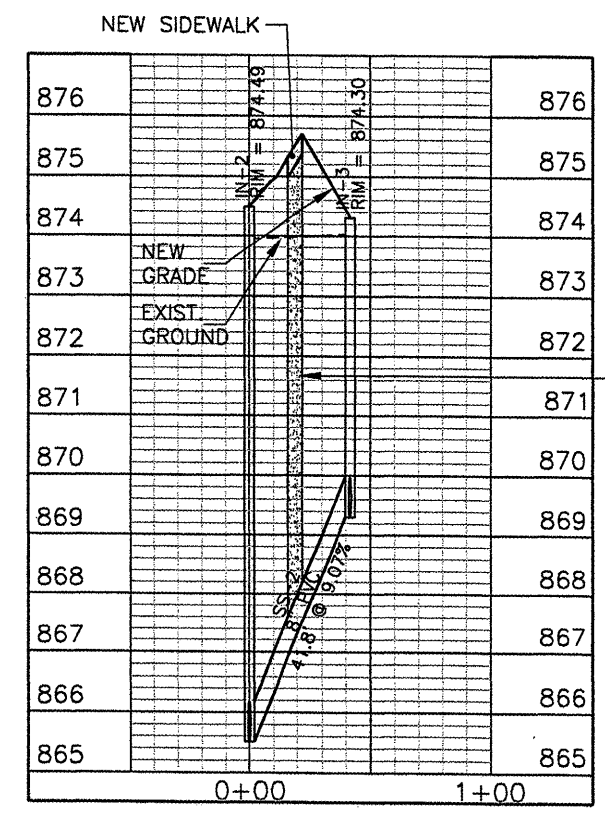
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 sthy0401  
 sthy0501  
 sthy0101

**BL064**

REVISIONS		
NUMBER	BY	DATE



TRENCH BACKFILL



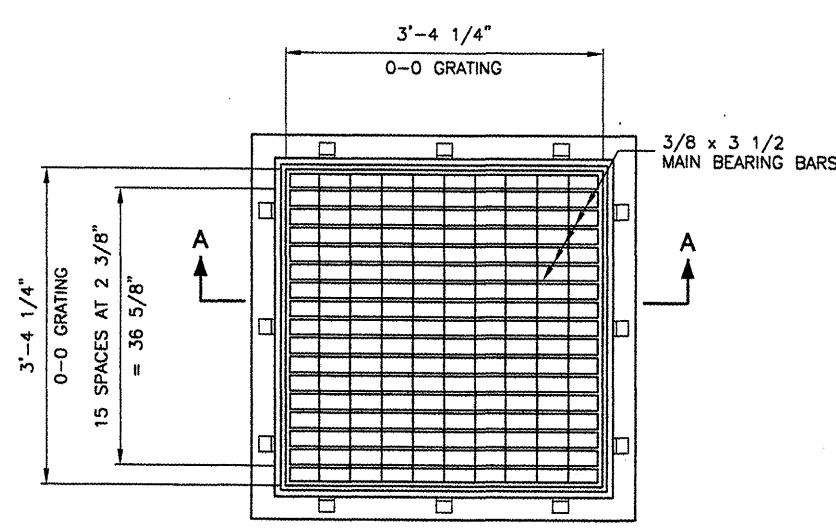
TRENCH BACKFILL

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

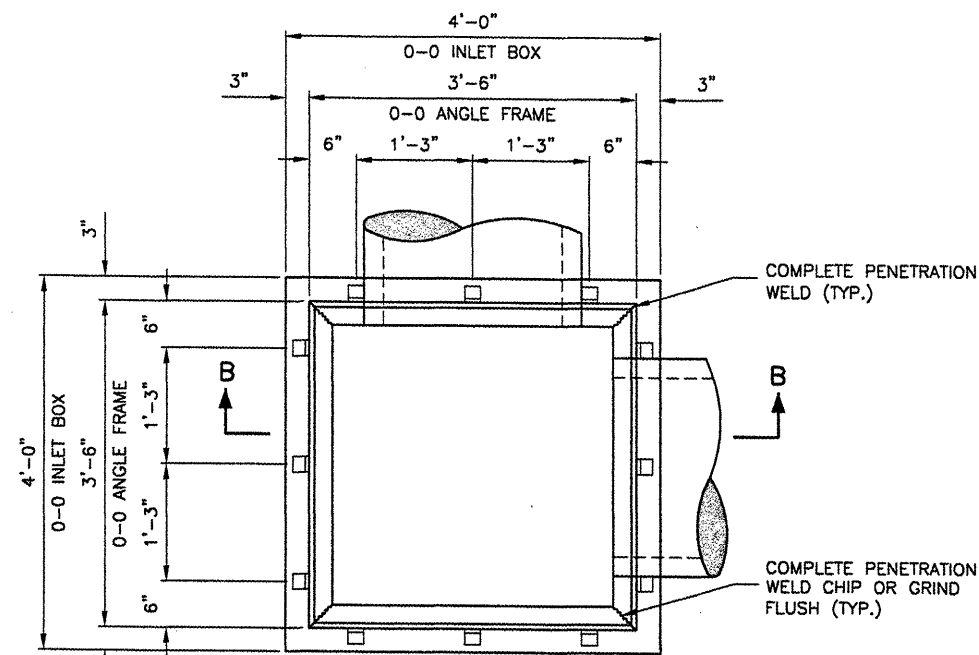
CONSTRUCT NEW ARFF FACILITY  
 STORM SEWER PROFILES 2

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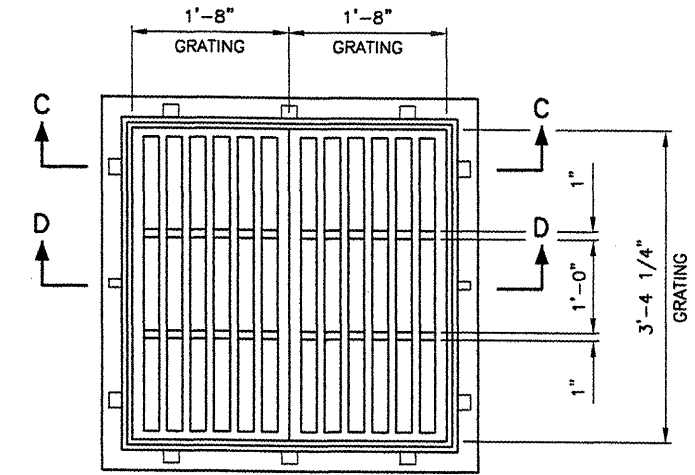
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DRAWN BY:	DPA
CHECKED BY:	RCL
APPROVED BY:	RCL
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	29 OF 66 SHEETS



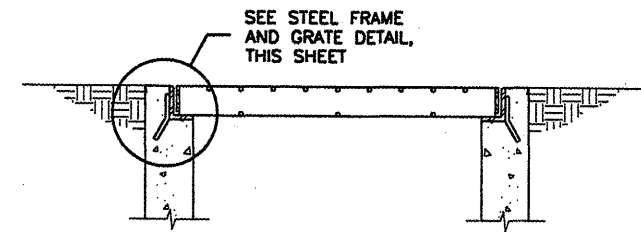
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N.T.S.



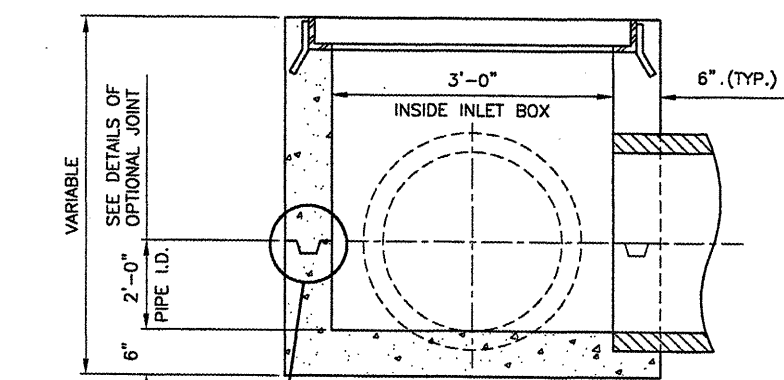
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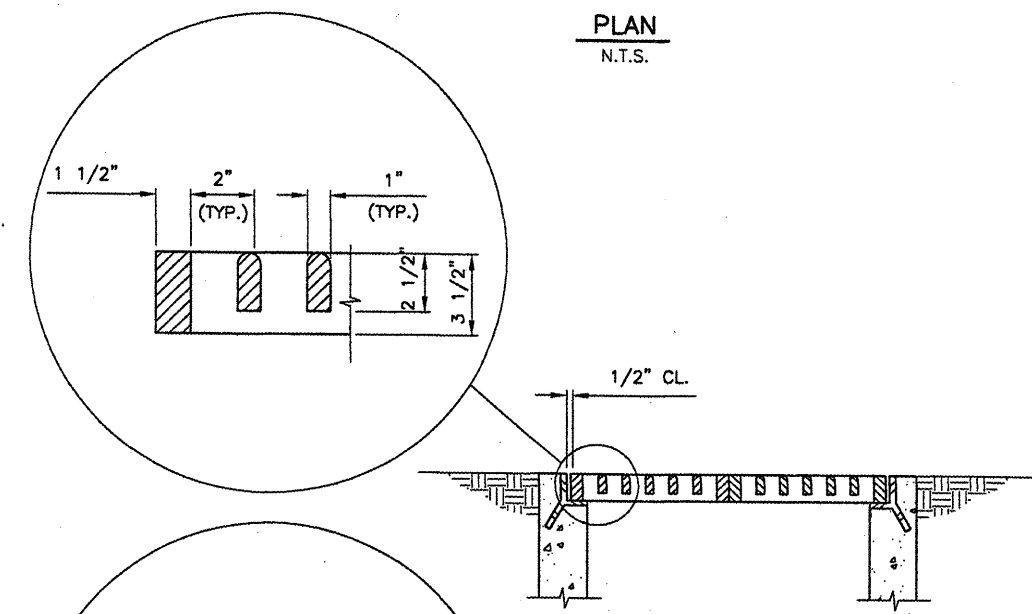
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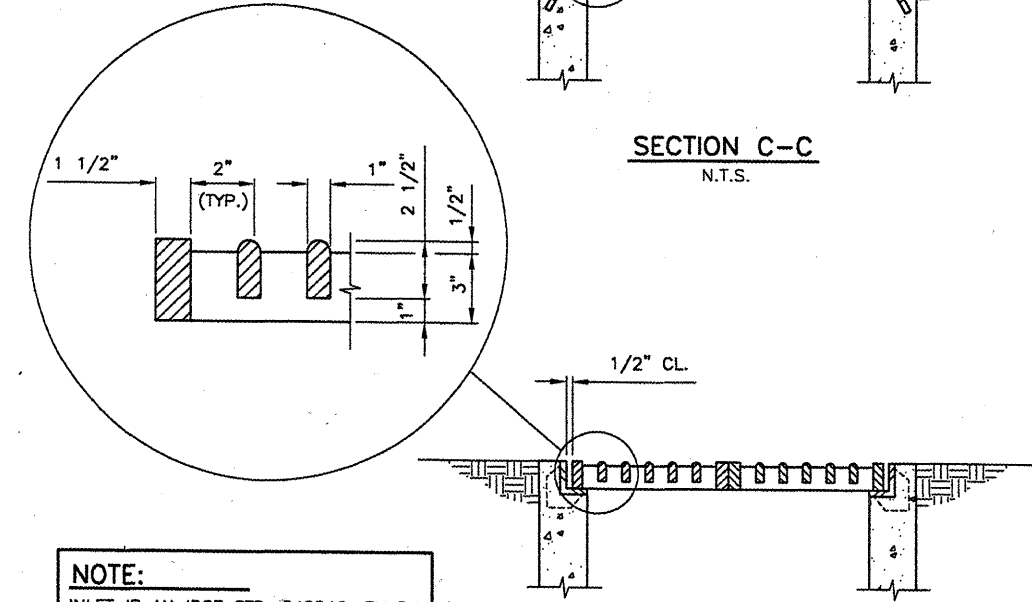
**SECTION A-A**  
N.T.S.



**SECTION B-B**  
N.T.S.

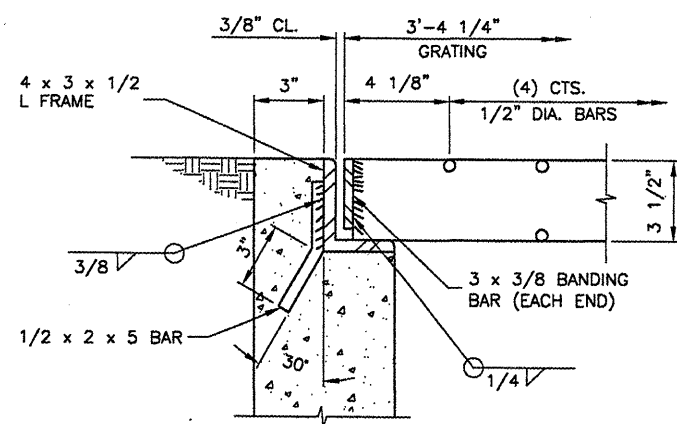


**SECTION C-C**  
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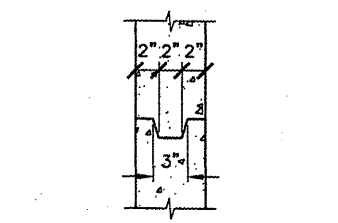


**SECTION D-D**  
CAST FRAME AND GRATE DETAIL  
N.T.S.

**NOTE:**  
 INLET IS AN IDOT STD. 542546, FLUSH  
 INLET BOX FOR MEDIAN. FRAME &  
 GRATES ARE NEENAH R-3807 OR  
 APPROVED EQUAL.



**STEEL FRAME AND GRATE DETAIL**  
N.T.S.



**OPTIONAL JOINT DETAIL**  
N.T.S.

REVISIONS		
NUMBER	BY	DATE

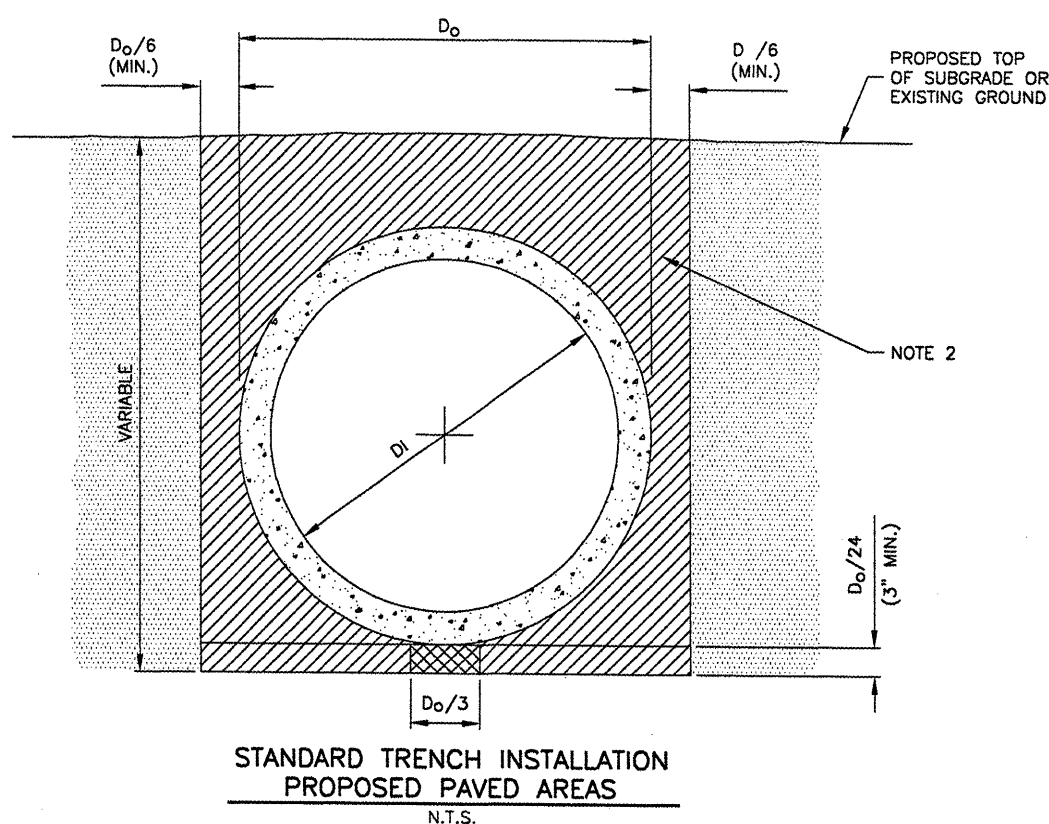
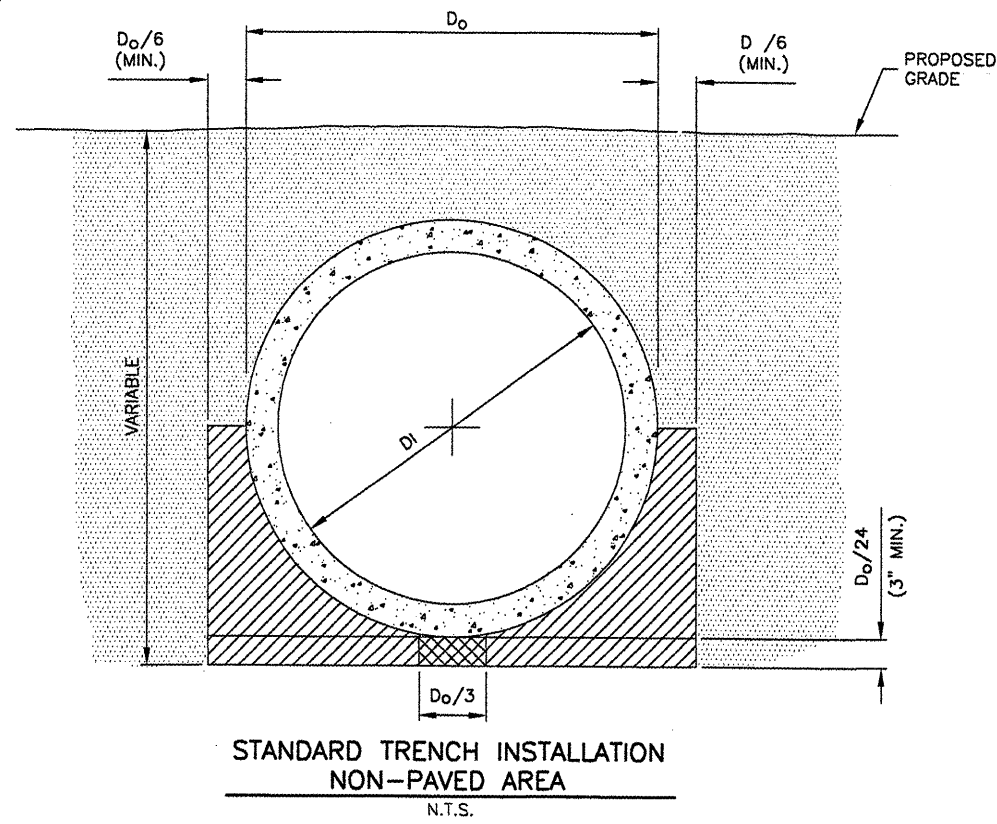
0 1 2  
 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).

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

**CONSTRUCT NEW ARFF FACILITY  
 INLET DETAILS**

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DESIGN BY: RLV  
 DRAWN BY: DPA  
 CHECKED BY: RLV  
 APPROVED BY: RLV  
 DATE: 04/01/2008  
 JOB No: 0508509



**LEGEND**

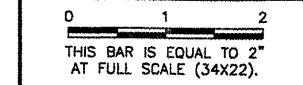
- DRAINAGE CONDUIT MATERIAL-CONCRETE
- MIDDLE BEDDING LOOSELY PLACED UNCOMPACTED BEDDING
- HAUNCH AND OUTER BEDDING COMPACTION- TO ENGINEER'S SATISFACTION OR 95% STANDARD PROCTOR
- LOWER SIDE AND OVERFILL COMPACTION- SAME AS EMBANKMENT REQUIREMENTS

$D_0$  PIPE OUTSIDE DIAMETER  
 $D_1$  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.

**REVISIONS**

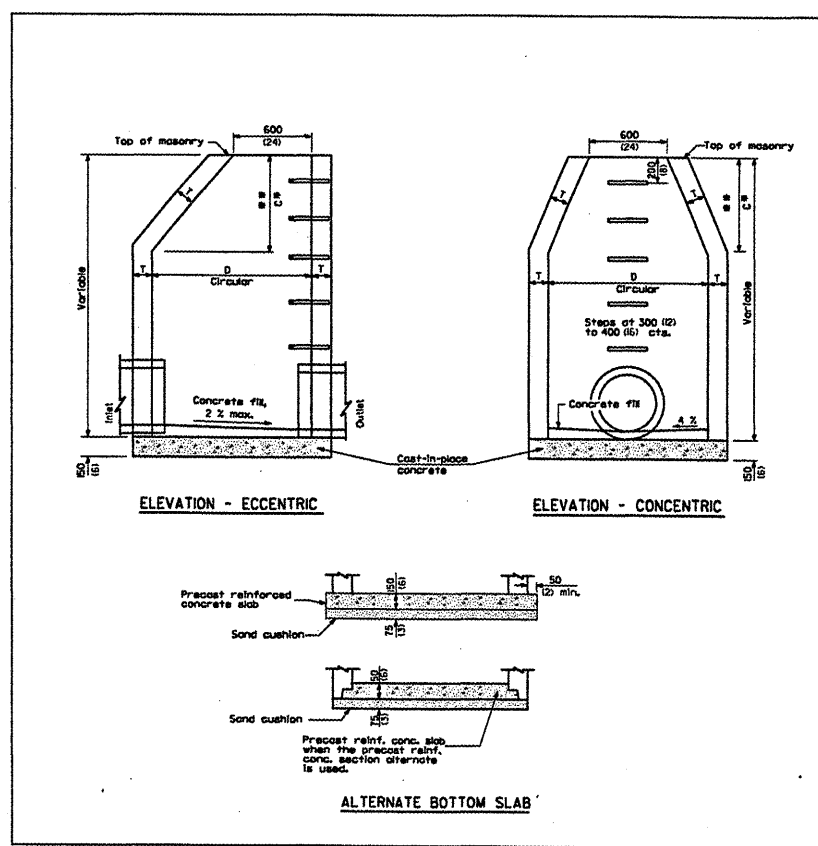
NUMBER	BY	DATE



**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**CONSTRUCT NEW ARFF FACILITY**  
**DRAINAGE DETAILS**

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DESIGN BY: RLV  
 DRAWN BY: CMT  
 CHECKED BY: RW  
 APPROVED BY: RW  
 DATE: 04/01/2008  
 JOB No: 0508509



**ALTERNATE MATERIALS FOR WALLS**

	D	C	T (min.)
Concrete Masonry Unit	L2 m (4'-0")	750 (30)	25 (8)
	L3 m (9'-0")	L5 m (13'-9")	25 (8)
Brick Masonry	L2 m (4'-0")	750 (30)	200 (8)
	L3 m (9'-0")	L5 m (13'-9")	200 (8)
Precast Reinforced Concrete Section	L2 m (4'-0")	750 (30)	100 (4)
	L3 m (9'-0")	L5 m (13'-9")	125 (5)
Cast-in-place Concrete	L2 m (4'-0")	750 (30)	50 (2)
	L3 m (9'-0")	L5 m (13'-9")	50 (2)

**GENERAL NOTES**

See Standard 60270 for details of steps.

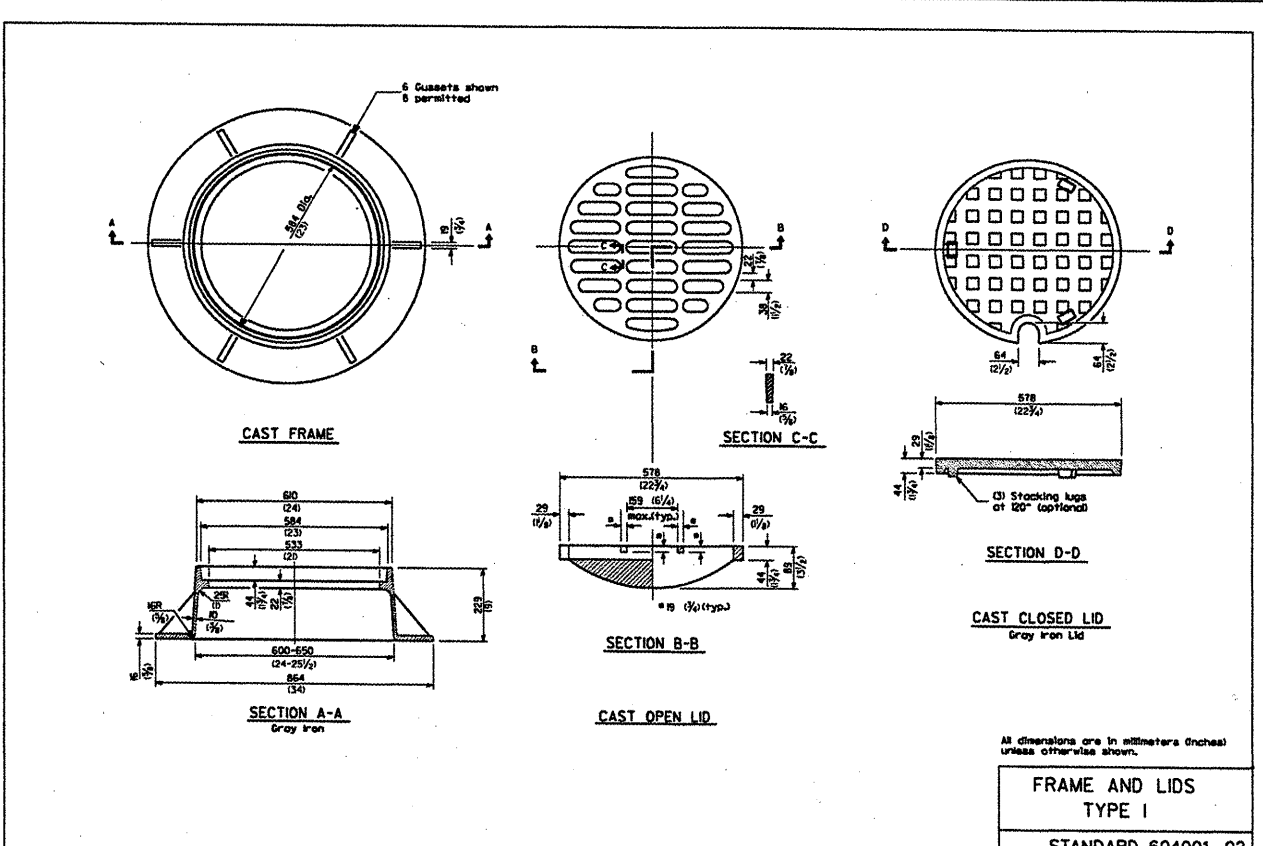
\* Dimension "C" for Precast Reinforced Concrete Sections may vary from the dimension given to plus 150 mm (6").

\*\* See Standard 60260 for Optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in millimeters (inches) unless otherwise shown.

**MANHOLE TYPE A**

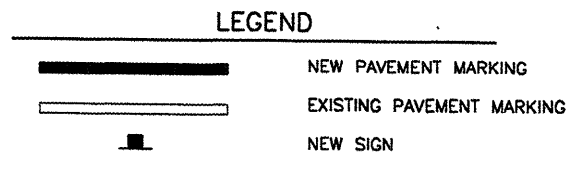
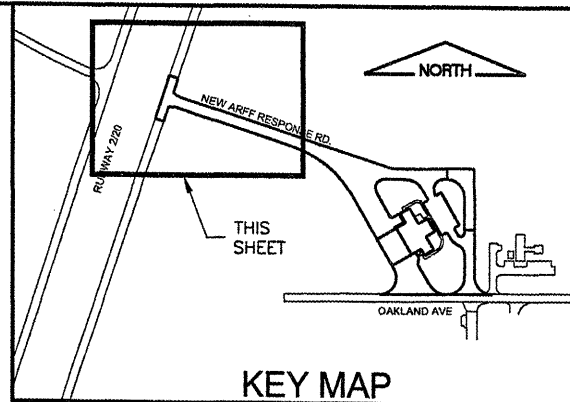
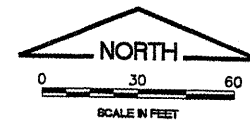
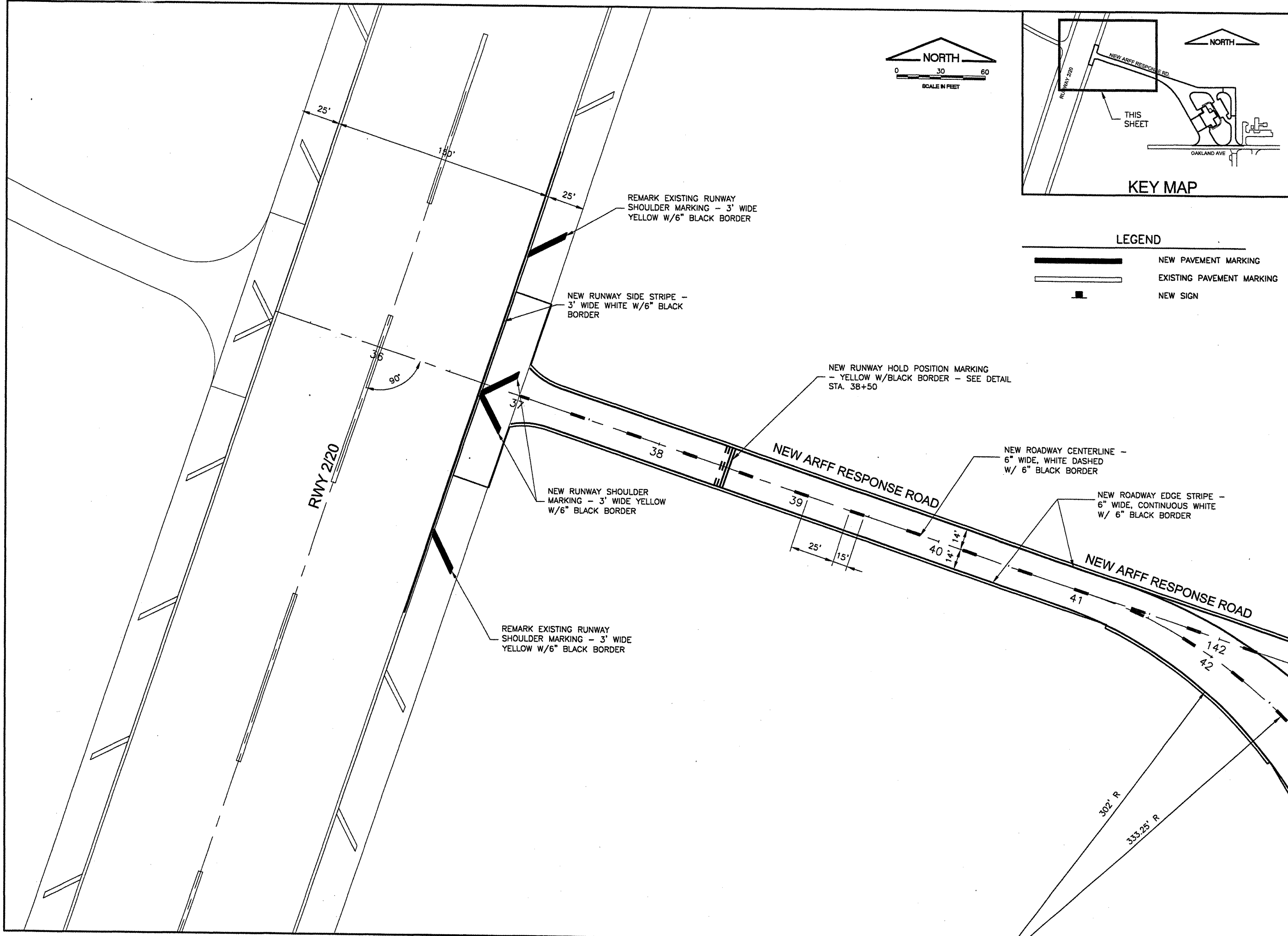
STANDARD 602401-01



All dimensions are in millimeters (inches) unless otherwise shown.

**FRAME AND LIDS**  
**TYPE I**

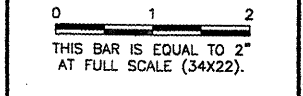
STANDARD 604001-02



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 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:34 AM  
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 SITE\_KEYMAP  
 BASE\_TOPO  
 BASE\_PROPGEO  
 BASE\_EXISTGEO  
 BASE\_PROPMARK

**BL064**

REVISIONS		
NUMBER	BY	DATE



**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**CONSTRUCT NEW ARFF FACILITY**  
**MARKING AND SIGNAGE PLAN 1**

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DESIGN BY:	KLB
DRAWN BY:	DPA
CHECKED BY:	RLW
APPROVED BY:	RLW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	32 OF 66 SHEETS

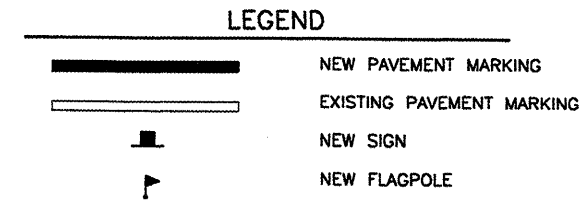
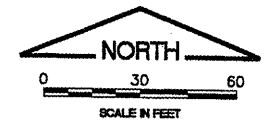
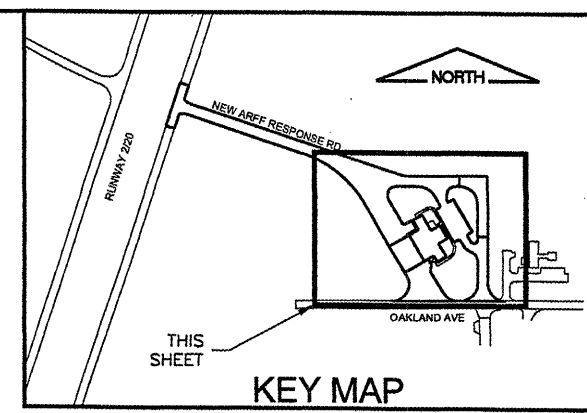


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 PLOT DATE: 4/18/2008 8:34 AM  
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 SITE\_KEYMAP  
 BASE\_PROPOSED  
 BASE\_PROPMARK

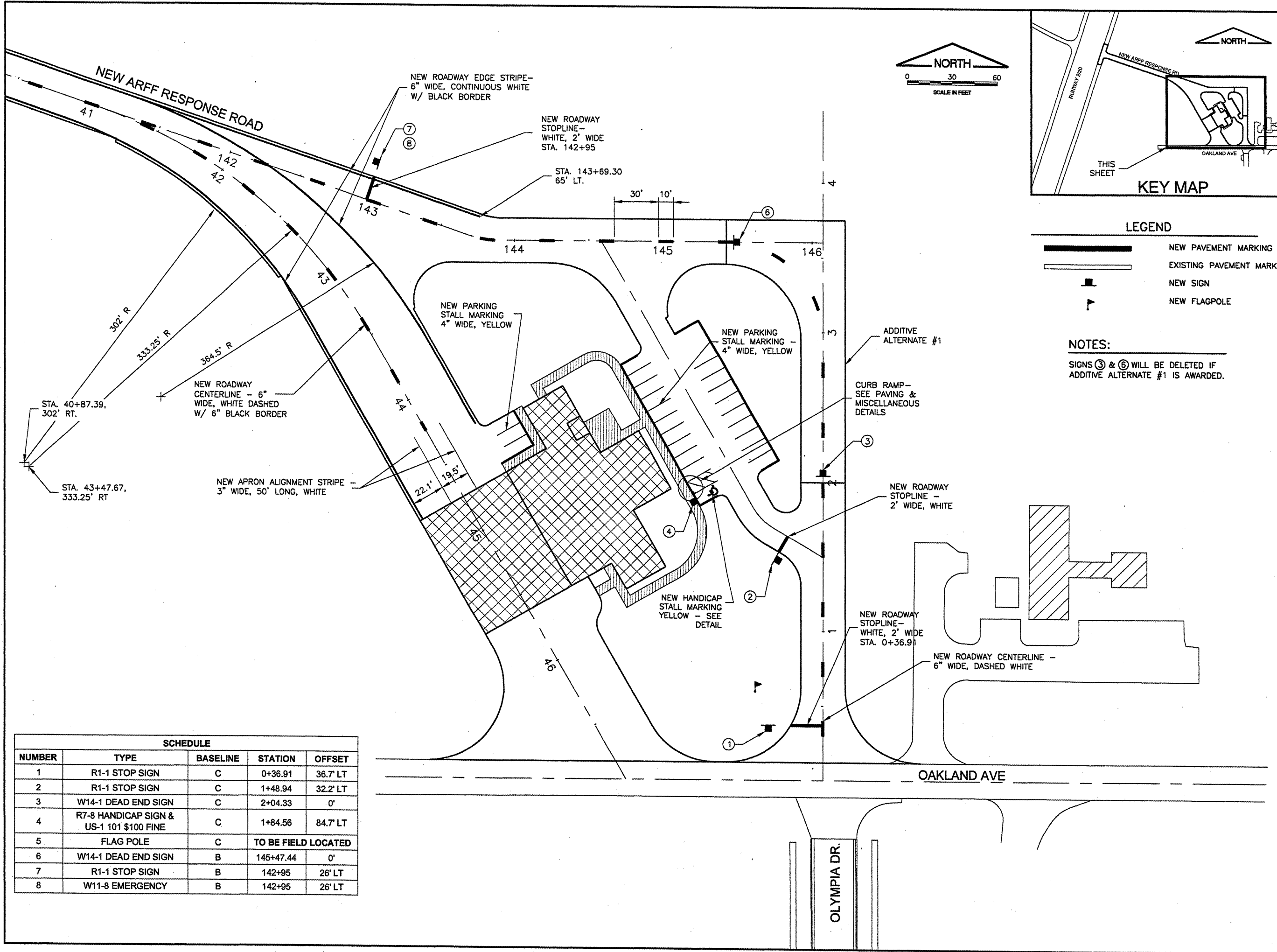
**BL064**

REVISIONS		
NUMBER	BY	DATE

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



**NOTES:**  
 SIGNS ③ & ⑥ WILL BE DELETED IF  
 ADDITIVE ALTERNATE #1 IS AWARDED.



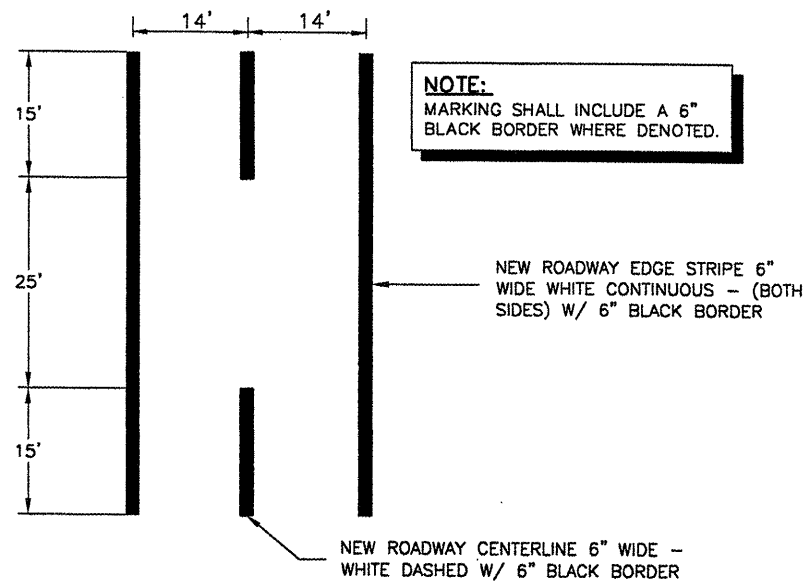
SCHEDULE				
NUMBER	TYPE	BASELINE	STATION	OFFSET
1	R1-1 STOP SIGN	C	0+36.91	36.7' LT
2	R1-1 STOP SIGN	C	1+48.94	32.2' LT
3	W14-1 DEAD END SIGN	C	2+04.33	0'
4	R7-8 HANDICAP SIGN & US-1 101 \$100 FINE	C	1+84.56	84.7' LT
5	FLAG POLE	C	TO BE FIELD LOCATED	
6	W14-1 DEAD END SIGN	B	145+47.44	0'
7	R1-1 STOP SIGN	B	142+95	26' LT
8	W11-8 EMERGENCY	B	142+95	26' LT

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**CONSTRUCT NEW ARFF FACILITY**  
**MARKING AND SIGNAGE PLAN 2**

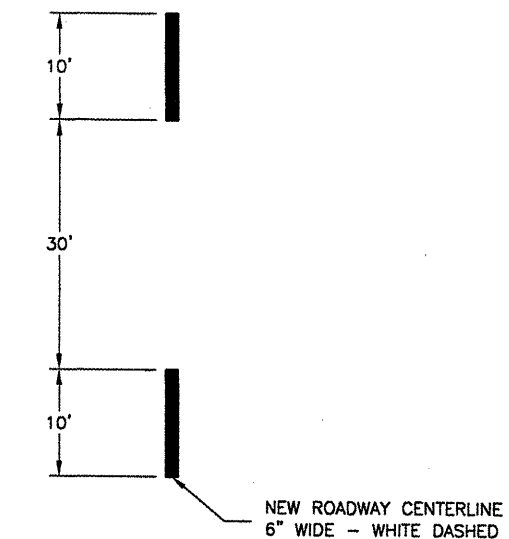
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DESIGN BY: KLB  
 DRAWN BY: DPA  
 CHECKED BY: RW  
 APPROVED BY: RW  
 DATE: 04/01/2008  
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 IL PROJ. NO. BMI-3797  
 AIP PROJ. NO. 3-17-0006-46 & 48  
 SHEET 33 OF 66 SHEETS

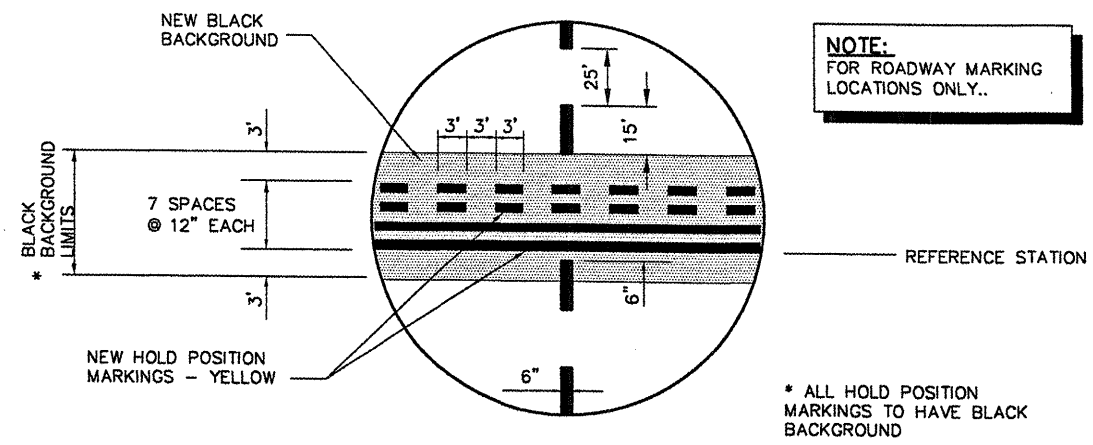
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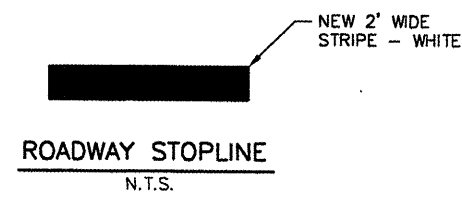
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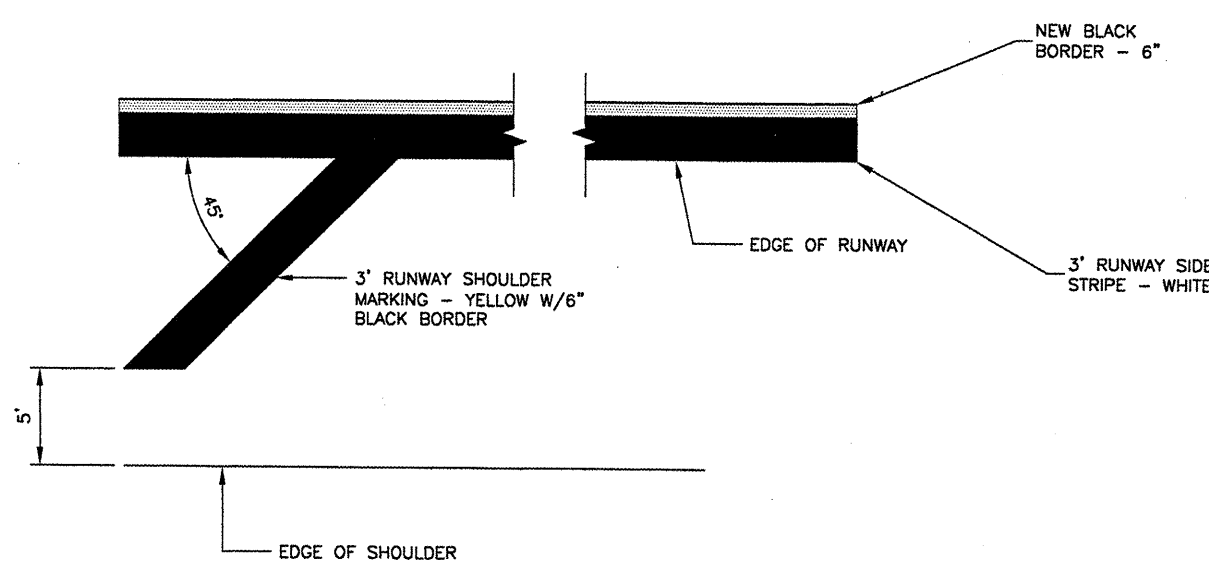
**SERVICE ROAD CENTERLINE MARKING**  
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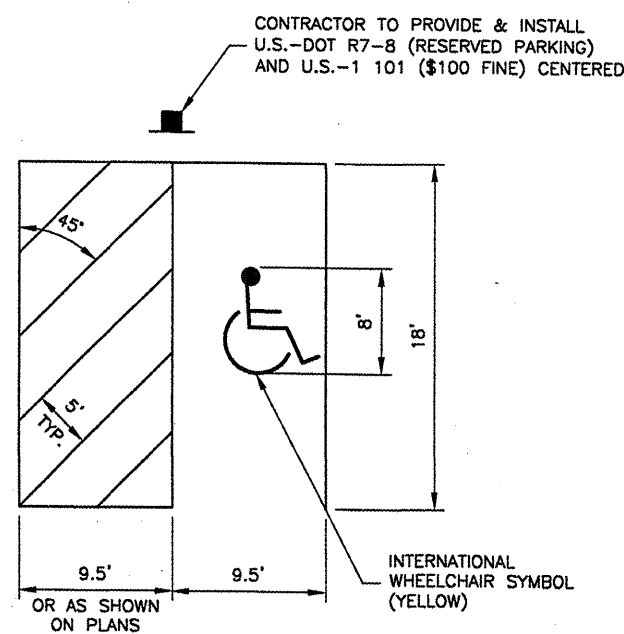
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N.T.S.



**ROADWAY STOPLINE**  
N.T.S.



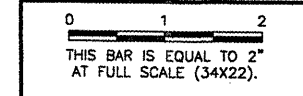
**RUNWAY SIDE STRIPE AND SHOULDER MARKINGS**  
N.T.S.



**HANDICAP PARKING SPACE**  
N.T.S.

**BL064**

REVISIONS		
NUMBER	BY	DATE



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

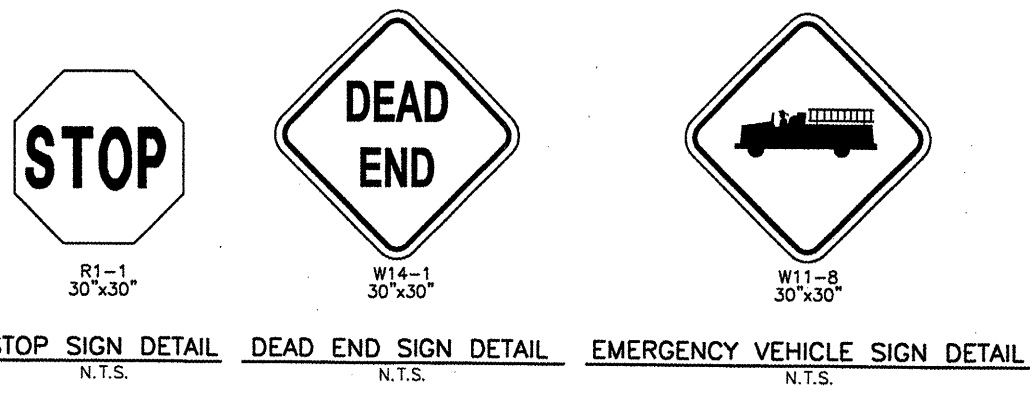
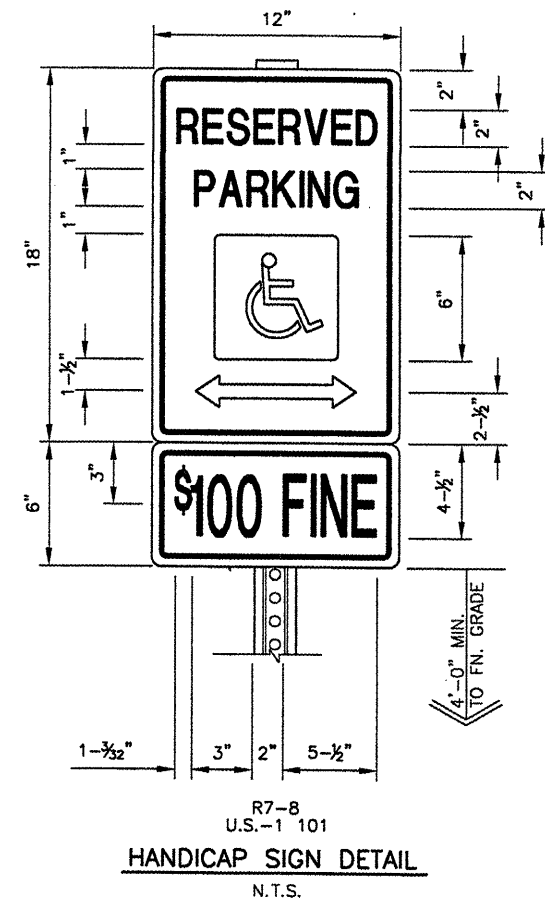
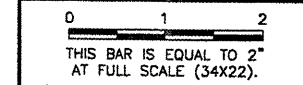
**CONSTRUCT NEW ARFF FACILITY  
 MARKING AND SIGNAGE DETAILS 1**

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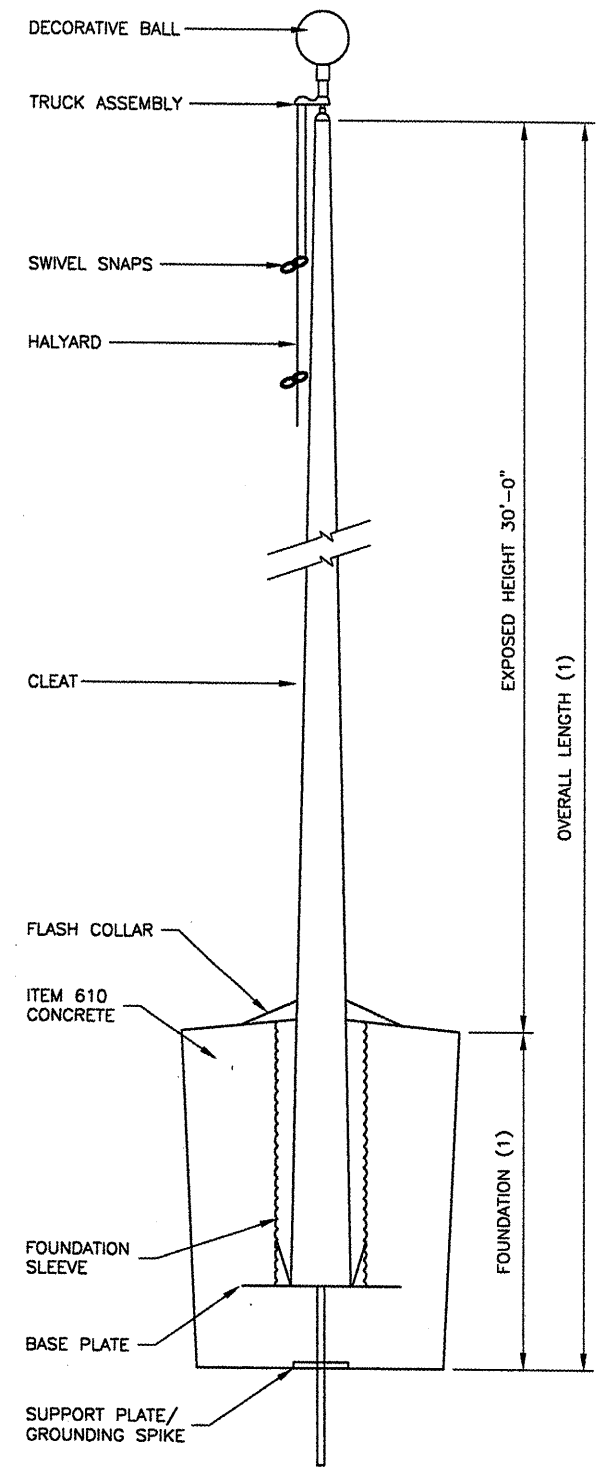
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CHECKED BY:	REN
APPROVED BY:	REN
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	34 OF 66 SHEETS

**BL064**

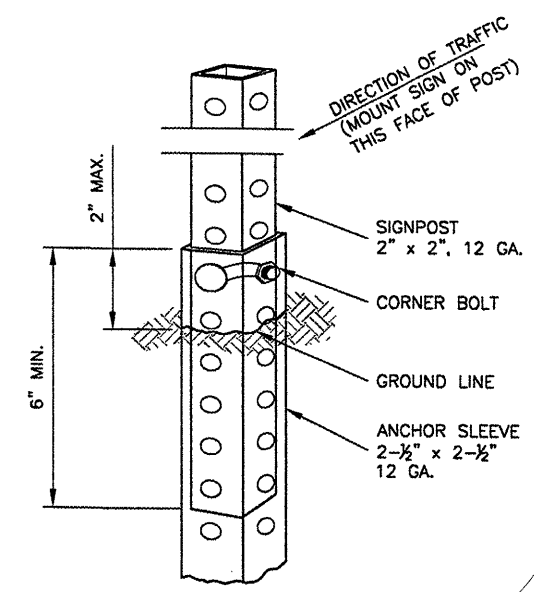
REVISIONS		
NUMBER	BY	DATE



NOTE:  
 FOR ONE SIGN, THERE SHALL BE A MINIMUM HEIGHT OF 5' TO FINISHED GRADE AND FOR TWO SIGNS, THERE SHALL BE A MINIMUM HEIGHT OF 4' TO FINISHED GRADE FROM THE BOTTOM OF THE SIGN.



(1) - AS REQUIRED BY THE MANUFACTURER  
**FLAGPOLE DETAIL**  
 N.T.S.



**PERFORATED SQUARE STEEL TUBE POST DETAIL**  
 N.T.S.

SIGN AREA (SQ.FT.)	POST TYPE		
	U-CHANNEL	WOOD	PERFORATED SQUARE STEEL TUBING
* 10	1 - 3.0 LB./FT.*	1 - 4" x 4"*	1 - 2" 12 GA.*
* 10 * 16	2 - 3.0 LB./FT.	2 - 4" x 4" * 1 - 4" x 6"*	2 - 2" 12 GA.
* 16 * 24	2 - 3.0 LB./FT.	2 - 4" x 6"	3 - 2" 12 GA.*
* 24 * 30	3 - 3.0 LB./FT.	2 - 4" x 6"	N/A
* 30 * 50	N/A	2 - 6" x 6"	N/A

\* SIGNS GREATER THAN 4 FEET IN WIDTH, EXCEPT DIAMOND SHAPE SIGNS, REQUIRE TWO POSTS.  
 \*\* REQUIRES SLIP BASE PER MANUFACTURER'S RECOMMENDATION.  
 ALL POSTS SHALL BE IMBEDDED A MINIMUM OF 3 FEET.

**POST SIZE REQUIREMENTS**

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
**CONSTRUCT NEW ARFF FACILITY**  
**MARKING AND SIGNAGE DETAILS 2**

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DRAWN BY:	DPA
CHECKED BY:	REN
APPROVED BY:	REN
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	35 OF 66 SHEETS

K:\Bloomington\0508509\_BMI\_ARFF\Draw\Sheets  
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 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:34 AM  
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 BASE\_EXISTPO  
 BASE\_PROPUTIL  
 BASE\_PROPGEO

**BL064**

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**

**CONSTRUCT NEW ARFF FACILITY  
 UTILITY PLAN 1**

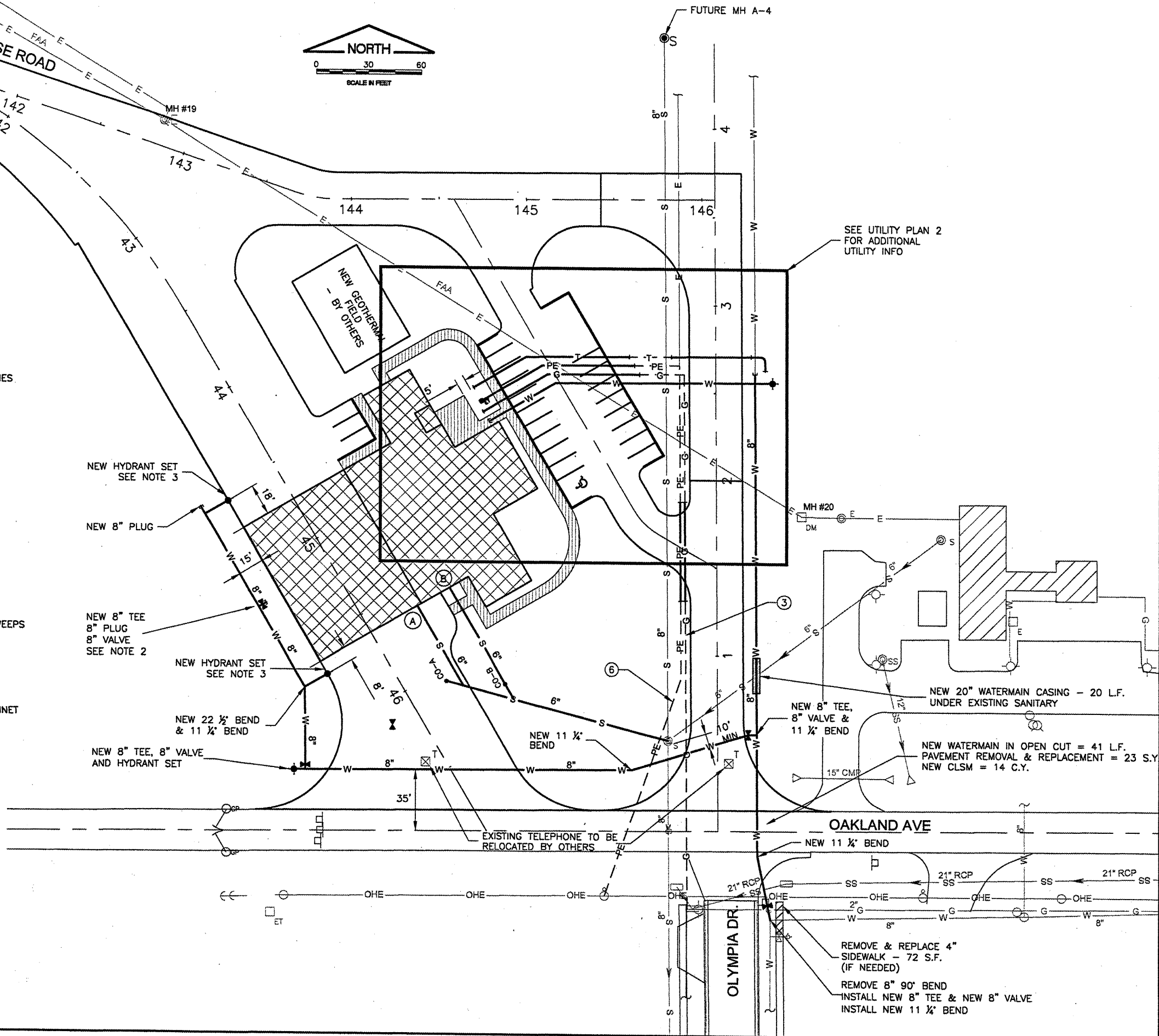
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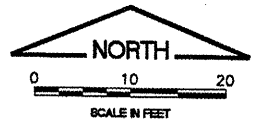
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DRAWN BY:	DPA
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	36 OF 66 SHEETS



- LEGEND**
- 8" S — NEW SANITARY
  - 8" S — FUTURE SANITARY
  - 8" W — ① NEW 8" WATERMAIN
  - ⊗ — NEW 8" VALVE
  - ⊕ — NEW FIRE HYDRANT INCLUDING ACCESSORIES
  - |— — NEW WATERMAIN PLUG
  - |— — NEW WATERMAIN CASING—
  - - - W - - - NEW WATERMAIN - BY OTHERS
  - - - FP - - - NEW FIRE PROTECTION - BY OTHERS
  - - - W - - - FUTURE WATERMAIN
  - G — ② NEW 4" PVC DUCT FOR GAS SERVICE
  - - - G - - - ③ NEW GAS SERVICE - BY OTHERS
  - PE — ④ NEW (2) 4" PVC DUCT WITH LONG G.R.S. SWEEPS FOR PRIMARY ELECTRIC SERVICE
  - ET — NEW 6'x6' TRANSFORMER PAD - UTILITY PROVIDED - CONTRACTOR INSTALLED
  - - - PE - - - ⑤ NEW (2) PVC DUCT WITH LONG G.R.S. SWEEPS FOR PRIMARY ELECTRIC - BY OTHERS
  - - - PE - - - ⑥ NEW PRIMARY ELECTRIC SERVICE - DIRECT BURY - BY OTHERS
  - PE — FUTURE PRIMARY ELECTRIC SERVICE
  - |— — NEW PRIMARY ELECTRIC METER BASE/CABINET - BY OTHERS
  - T — ⑦ NEW (4) 4" PVC DUCTS FOR TELEPHONE/CATV/FUTURE SERVICE
  - - - T - - - ⑧ NEW TELEPHONE SERVICE - BY OTHERS
  - - - GEO - - - NEW GEOTHERMAL PIPING - BY OTHERS
  - SE — NEW SITE ELECTRIC - SEE ELECTRIC PLAN 2

- NOTES:**
1. SELECT GRANULAR BACKFILL SHALL BE USED AS BACKFILL WHERE WATERMAIN, SEWER AND UTILITY CONDUITS ARE UNDER EXISTING AND NEW PAVEMENTS.
  2. LOCATION OF THIS VALVE TO BE COORDINATED WITH THE BUILDING THROUGH THE ENGINEER.
  3. LOCATE HYDRANT AT 5' FROM EDGE OF PAVEMENT.





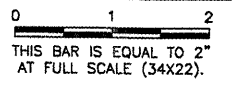
**LEGEND**

- 8" S — NEW SANITARY
- 8" S — FUTURE SANITARY
- 8" W — ① NEW 8" WATERMAIN
- ⊗ — NEW 8" VALVE
- ⊕ — NEW FIRE HYDRANT INCLUDING ACCESSORIES
- W — NEW WATERMAIN PLUG
- W — NEW WATERMAIN CASING—
- W — NEW WATERMAIN - BY OTHERS
- FP — NEW FIRE PROTECTION - BY OTHERS
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- ET — NEW 6'x6' TRANSFORMER PAD - UTILITY PROVIDED - CONTRACTOR INSTALLED
- PE — ⑤ NEW (2) PVC DUCT WITH LONG G.R.S. SWEEPS FOR PRIMARY ELECTRIC - BY OTHERS
- PE — ⑥ NEW PRIMARY ELECTRIC SERVICE - DIRECT BURY - BY OTHERS
- PE — FUTURE PRIMARY ELECTRIC SERVICE
- ⊕ — NEW PRIMARY ELECTRIC METER BASE/CABINET - BY OTHERS
- T — ⑦ NEW (4) 4" PVC DUCTS FOR TELEPHONE/CATV/FUTURE SERVICE
- T — ⑧ NEW TELEPHONE SERVICE - BY OTHERS
- GEO — NEW GEOTHERMAL PIPING - BY OTHERS
- SE — NEW SITE ELECTRIC - SEE ELECTRIC PLAN 2
- 2" W — ⑨ NEW 2" COPPER WATER SERVICE - SEE NOTES 2, 3, & 4

K:\Bloomington\0508509\_BMI\_ARFF\Draw\Sheets  
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 UPDATE BY: Kristy Brad  
 PLOT DATE: 4/18/2008 8:34 AM  
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 BASE\_EXISTTOP  
 BASE\_PROPGEO  
 BASE\_PROPDRAIN  
 BASE\_PROPULI2

**BL064**

REVISIONS		
NUMBER	BY	DATE



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

**CONSTRUCT NEW ARFF FACILITY  
 UTILITY PLAN 2**

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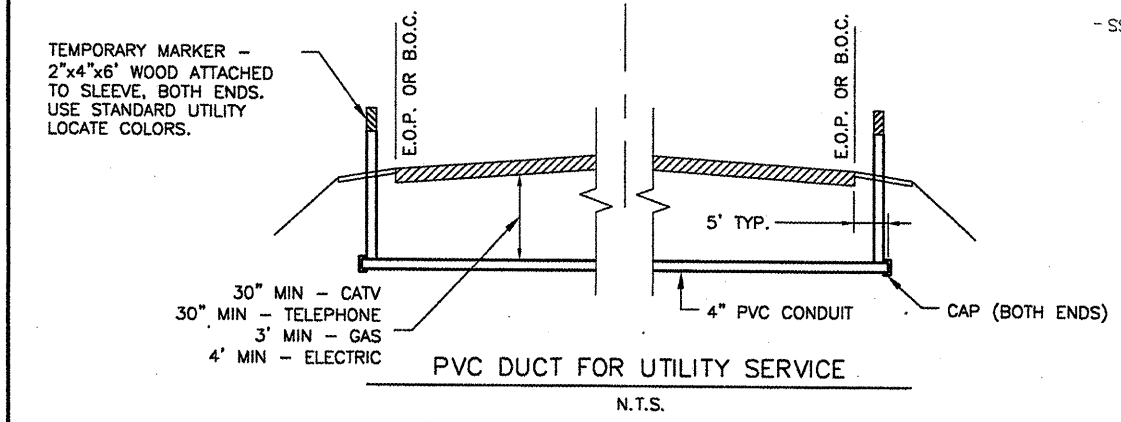
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CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	37 OF 66 SHEETS

**NOTES:**

1. SELECT GRANULAR BACKFILL SHALL BE USED AS BACKFILL WHERE WATERMAIN, SEWER AND UTILITY CONDUITS ARE UNDER EXISTING AND NEW PAVEMENTS.
2. INSTALLATION OF THIS SERVICE SUBJECT TO CITY REVIEW.
3. SERVICE TO BE INSTALLED IN ACCORDANCE WITH THE CITY MANUAL OF PRACTICE.
4. 2" ACCESSORIES (VALVES, PLUGS, ETC.) AS WELL AS DISINFECTION SHALL BE INCIDENTAL TO THE 2" WATERMAIN.

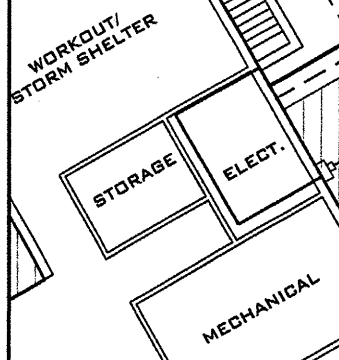


TEMPORARY MARKER - 2"x4"x6" WOOD ATTACHED TO SLEEVE, BOTH ENDS. USE STANDARD UTILITY LOCATE COLORS.

30" MIN - CATV  
 30" MIN - TELEPHONE  
 3" MIN - GAS  
 4" MIN - ELECTRIC

**PVC DUCT FOR UTILITY SERVICE**

N.T.S.



NEW 8" TEE,  
 (2) 8" VALVES &  
 (2) 8" PLUGS

NEW 2" VALVE & PLUG  
 - SEE NOTE 4

NEW 22 1/2' BEND  
 & 11 1/4' BEND

OPEN CUT PRIOR TO ROADWAY CONSTRUCTION

NEW 2" CURB STOP & BOX  
 SEE NOTE 4

INSTALL NEW 8" CROSS

NEW HYDRANT SET

NEW 8" PLUG  
 NEW 8" VALVE  
 INSTALL NEW 8" TEE

NEW (2) PVC DUCT WITH LONG G.R.S. SWEEPS FOR PRIMARY ELECTRIC - BY OTHERS

NEW PRIMARY ELECTRIC SERVICE - DIRECT BURY - BY OTHERS

FUTURE PRIMARY ELECTRIC SERVICE

NEW (4) 4" PVC DUCTS FOR TELEPHONE/CATV/FUTURE SERVICE

NEW TELEPHONE SERVICE - BY OTHERS

NEW GEOTHERMAL PIPING - BY OTHERS

NEW 2" COPPER WATER SERVICE - SEE NOTES 2, 3, & 4

NEW 6'x6' TRANSFORMER PAD - UTILITY PROVIDED - CONTRACTOR INSTALLED

NEW (2) PVC DUCT WITH LONG G.R.S. SWEEPS FOR PRIMARY ELECTRIC - BY OTHERS

NEW PRIMARY ELECTRIC SERVICE - DIRECT BURY - BY OTHERS

FUTURE PRIMARY ELECTRIC SERVICE

NEW (4) 4" PVC DUCTS FOR TELEPHONE/CATV/FUTURE SERVICE

NEW TELEPHONE SERVICE - BY OTHERS

NEW GEOTHERMAL PIPING - BY OTHERS

NEW 2" COPPER WATER SERVICE - SEE NOTES 2, 3, & 4

NEW 6'x6' TRANSFORMER PAD - UTILITY PROVIDED - CONTRACTOR INSTALLED

NEW (2) PVC DUCT WITH LONG G.R.S. SWEEPS FOR PRIMARY ELECTRIC - BY OTHERS

NEW PRIMARY ELECTRIC SERVICE - DIRECT BURY - BY OTHERS

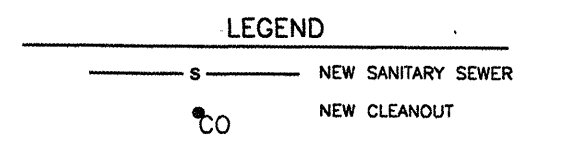
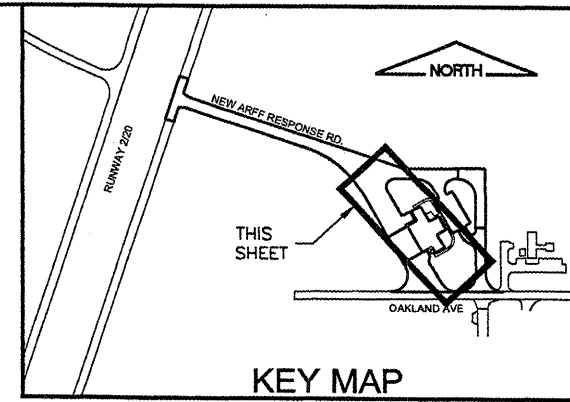
FUTURE PRIMARY ELECTRIC SERVICE

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 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:34 AM  
 rcp01007  
 SURVEY  
 SITE KEYMAP  
 BASE\_PROPGEO  
 BASE\_PROPUTIL

**BL064**

REVISIONS		
NUMBER	BY	DATE

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 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22):

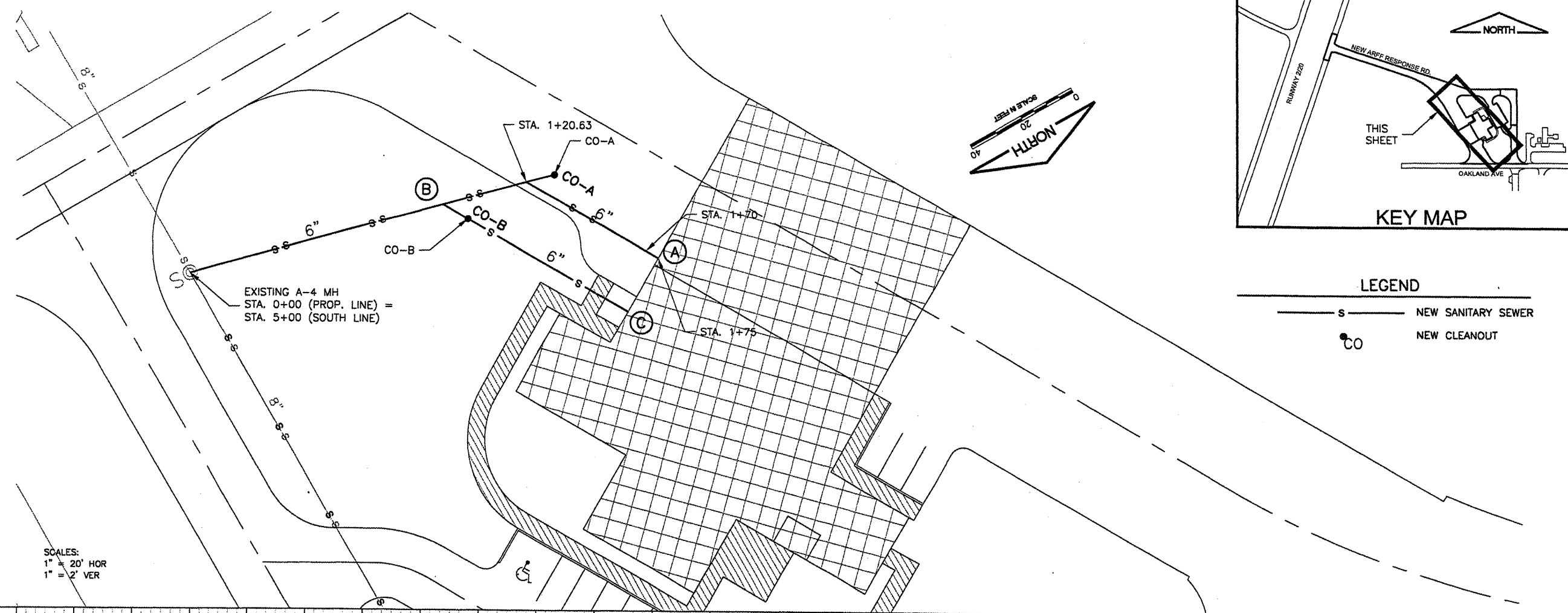


**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

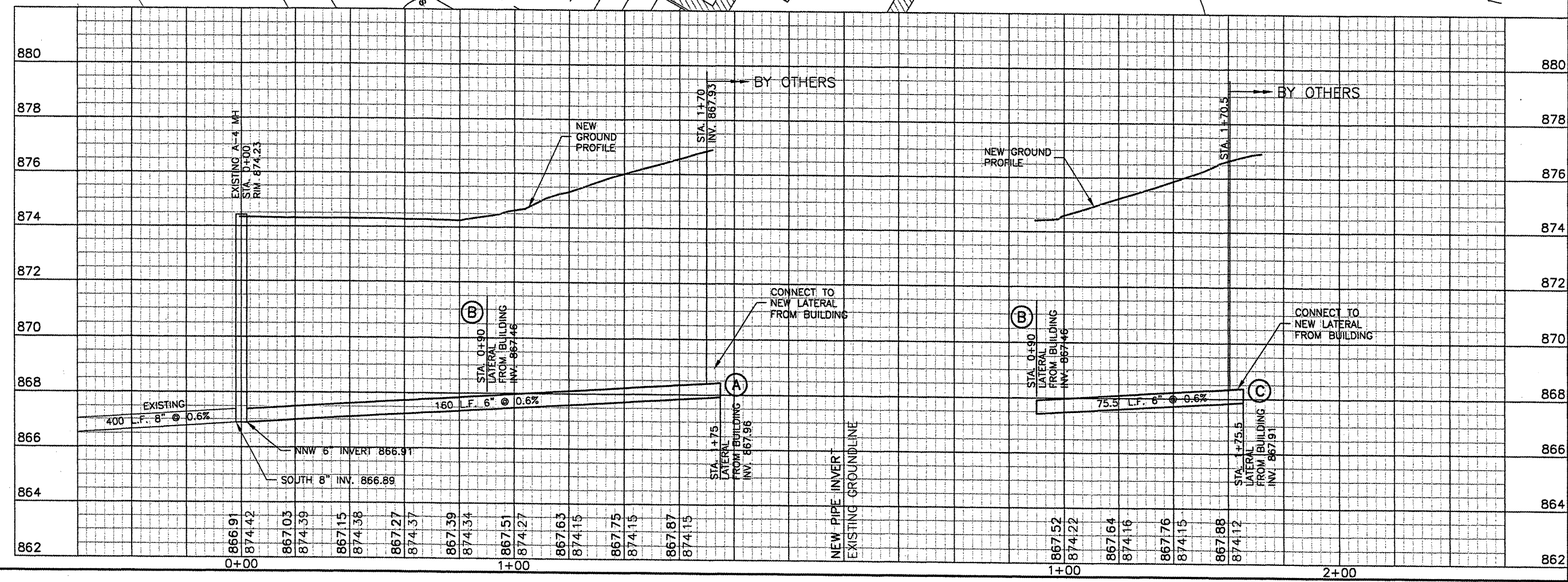
**CONSTRUCT NEW ARFF FACILITY  
 SANITARY SEWER  
 PLAN & PROFILE 1**

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CHECKED BY:	RW
APPROVED BY:	RW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET 38 OF 66 SHEETS	



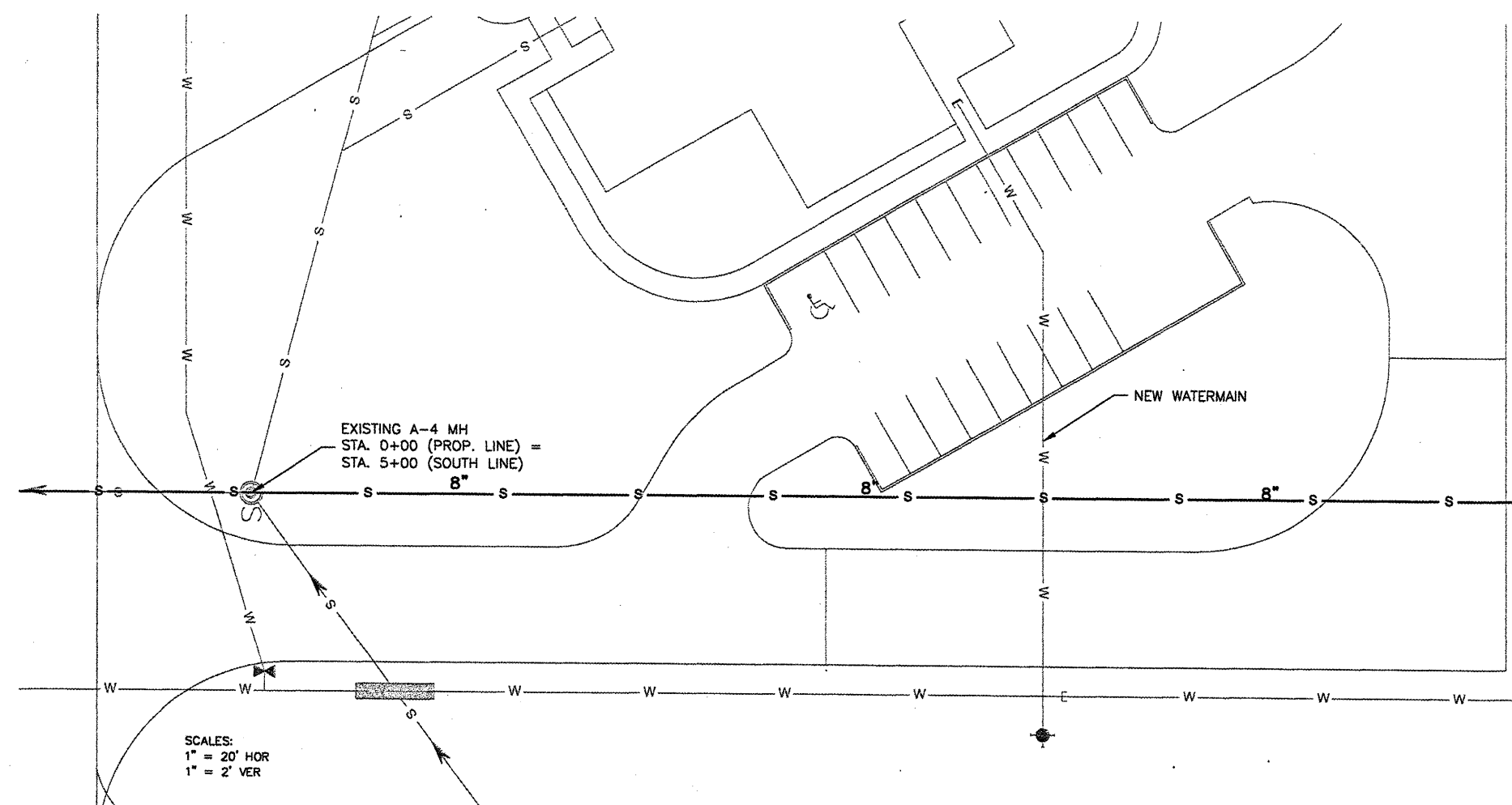
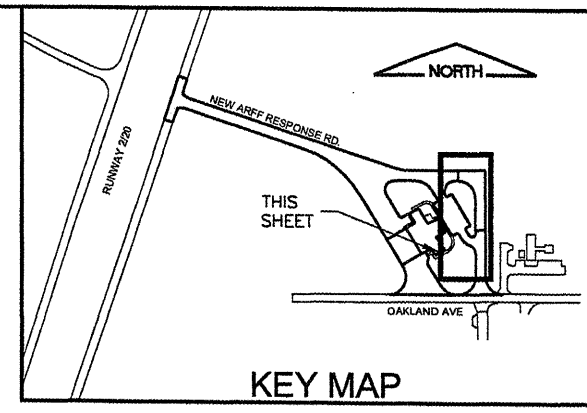
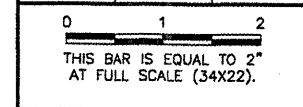
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 1" = 20' HOR  
 1" = 2' VER



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 SITE\_KEYMAP  
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**BL064**

REVISIONS		
NUMBER	BY	DATE



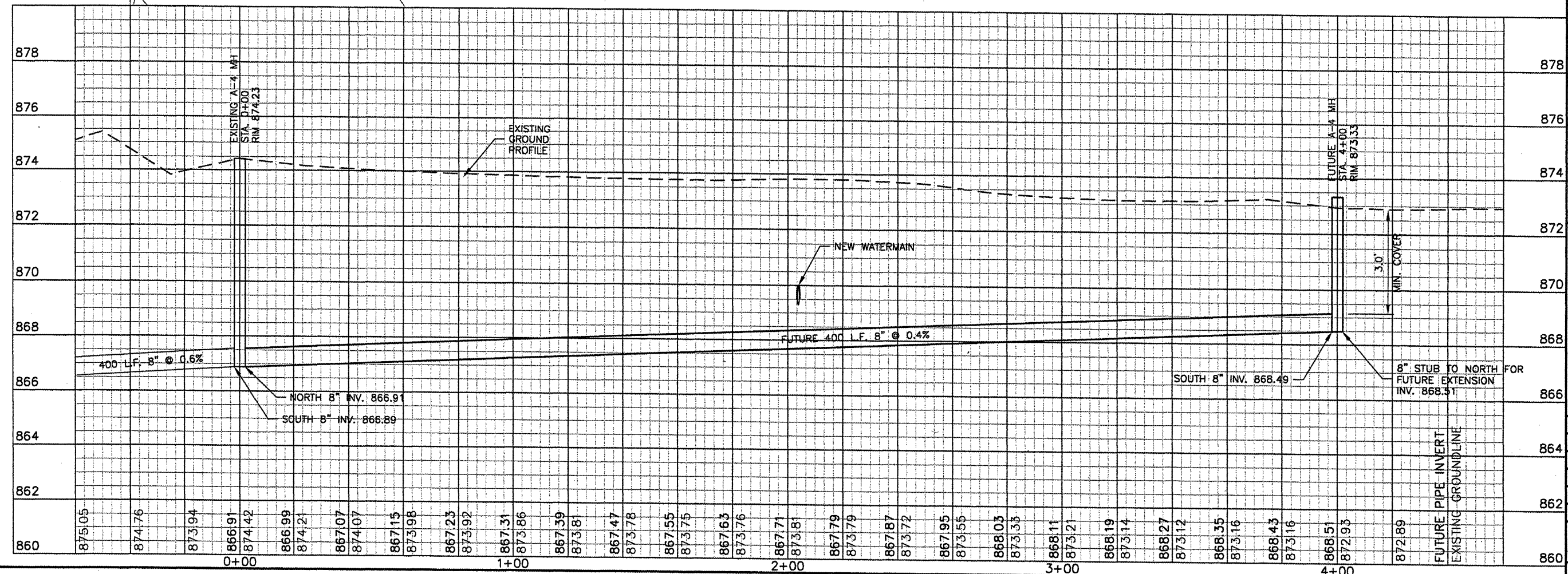
SCALES:  
 1" = 20' HOR  
 1" = 2' VER

**LEGEND**

— s — FUTURE SANITARY SEWER (NOT IN THIS CONTRACT)

● CO NEW CLEANOUT

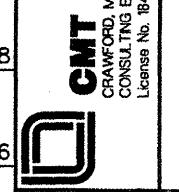
⊙ NEW MANHOLE



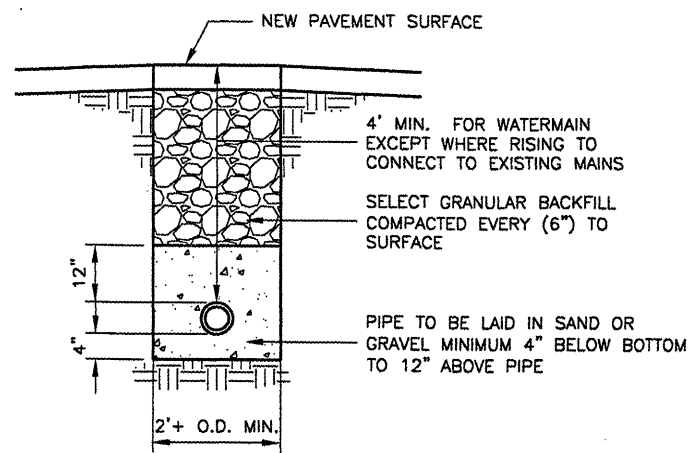
**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY**  
**SANITARY SEWER**  
**PLAN & PROFILE 2**

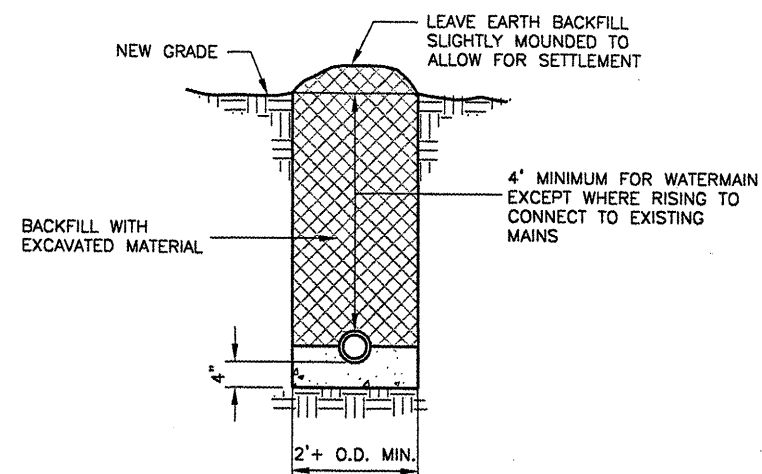
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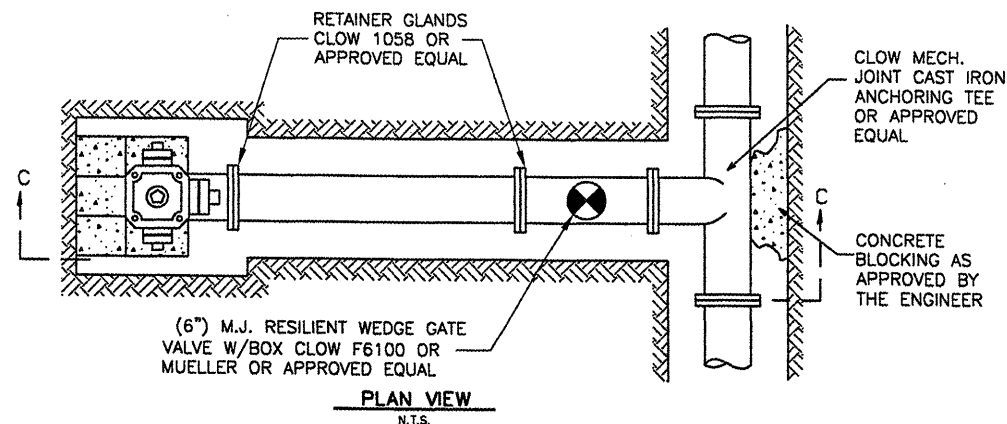
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CHECKED BY:	RW
APPROVED BY:	RW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET 39 OF 66 SHEETS	



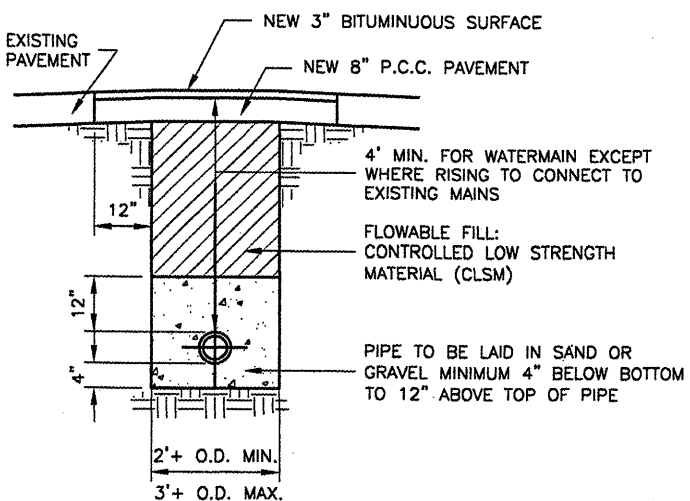
**SEWER AND WATERMAIN INSTALLATION UNDERPAVEMENT DRIVEWAYS AND SIDEWALKS**  
N.T.S.



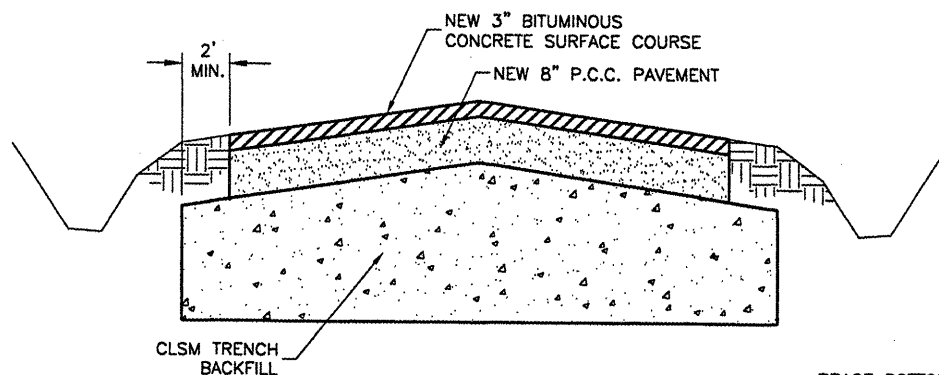
**SEWER AND WATERMAIN INSTALLATION IN TURF AREAS**  
N.T.S.



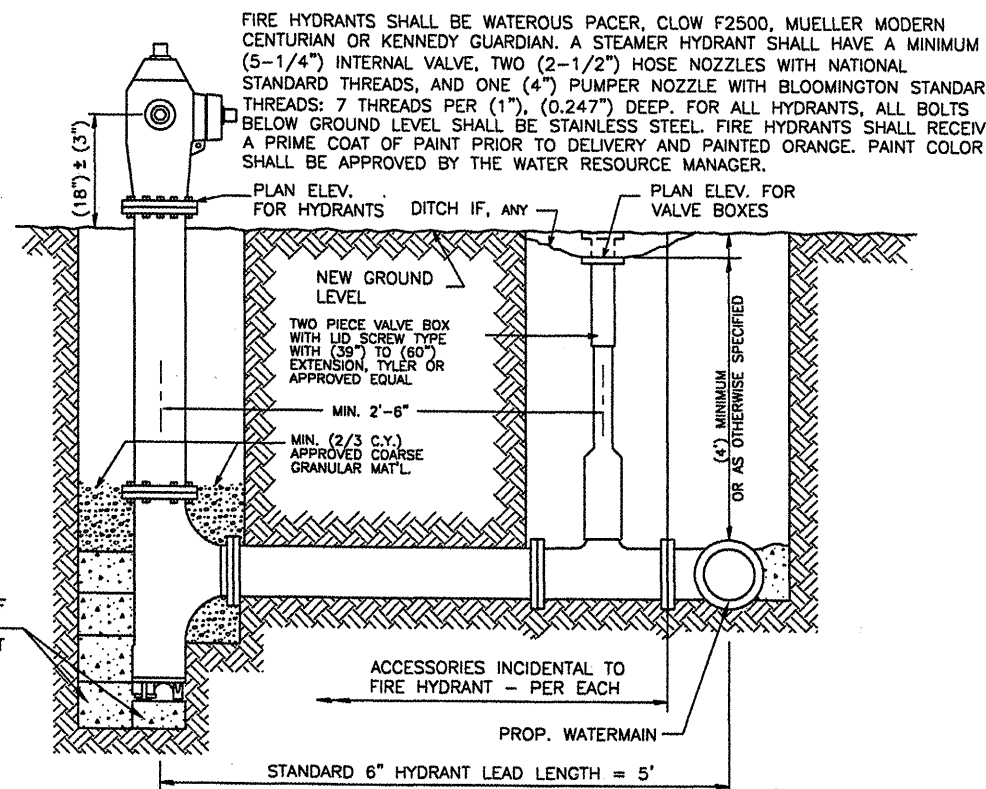
**PLAN VIEW**  
N.T.S.



**WATERMAIN INSTALLATION UNDER OAKLAND AVENUE**  
N.T.S.

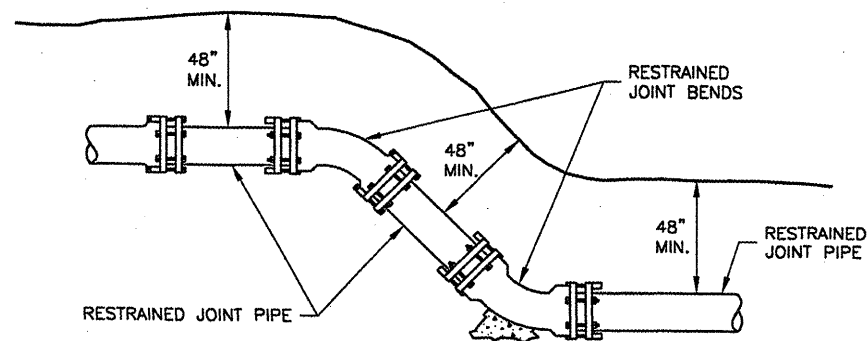


**TYPICAL PAVEMENT REMOVAL & REPLACEMENT**  
N.T.S.

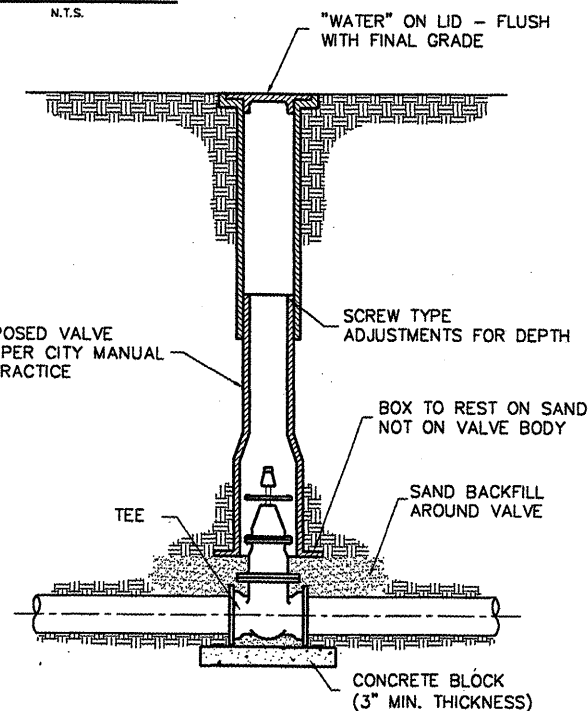


**SECTION C-C**  
**TYPICAL HYDRANT INSTALLATION**  
N.T.S.

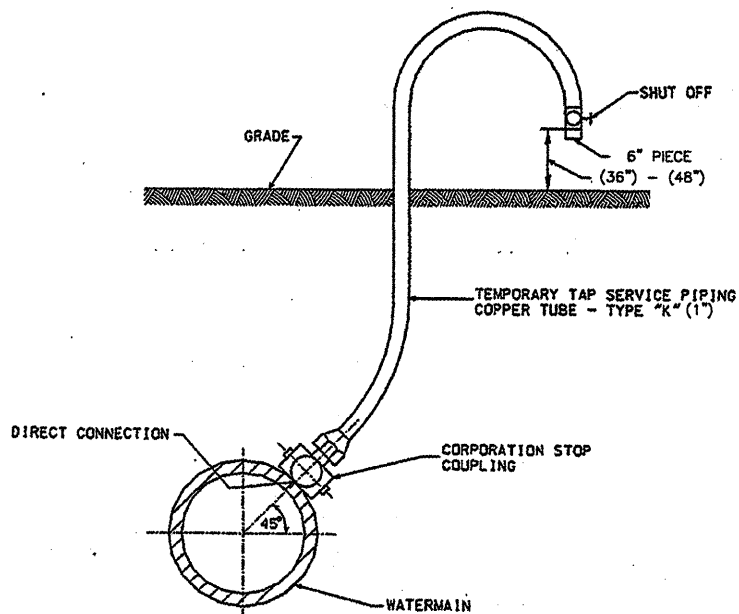
- NOTES:
1. THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", FIFTH EDITION, DATED MAY 1996 SHALL APPLY TO THIS WORK.
  2. ALL WATERMAIN MATERIALS SHALL BE MANUFACTURED IN COUNTRIES SIGNATORY TO THE NORTH AMERICAN FREE TRADE AGREEMENT AND SHALL MEET OR EXCEED AWWA SPECIFICATIONS.
  3. ALL FIRE HYDRANTS, VALVES, AND FITTINGS SHALL BE RESTRAINED.



**TYPICAL FITTINGS IN A VERTICAL PLANE**  
N.T.S.



**TYPICAL VALVE INSTALLATION**  
N.T.S.  
DIV. V / STANDARD DRAWING NO. 14



**SAMPLING & CHLORINATION SERVICE PIPING TAP**  
N.T.S.

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FILE: TYPWTRDET.dwg  
UPDATE BY: Kristy Brod  
PLOT DATE: 4/18/2008 8:53 AM

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**

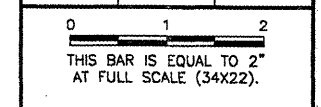
**CONSTRUCT NEW ARFF FACILITY  
WATER MAIN DETAILS**

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CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	40 OF 66 SHEETS



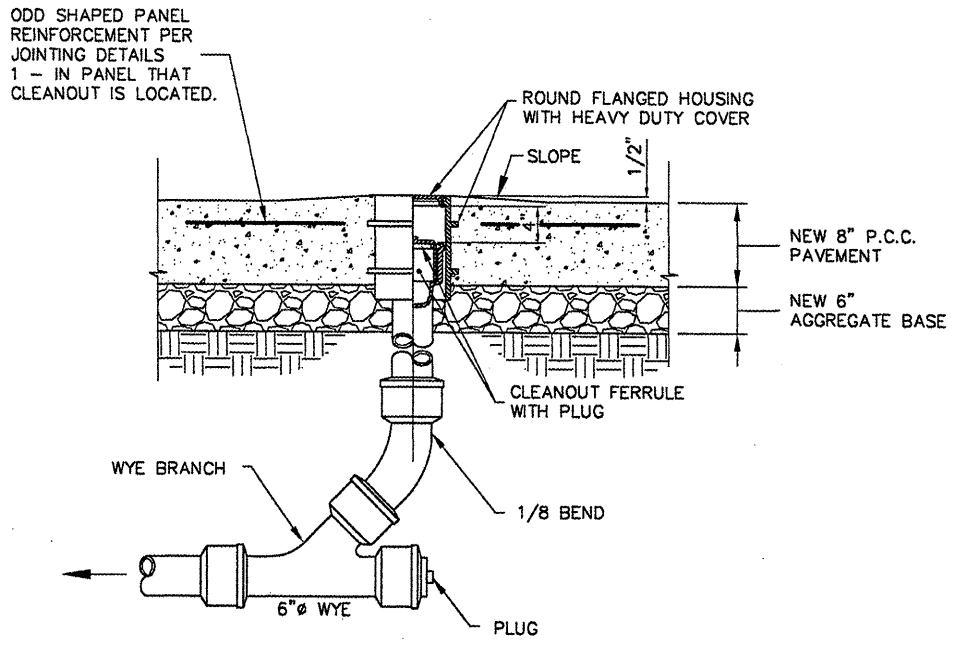
REVISIONS		
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**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS**  
**CONSTRUCT NEW ARFF FACILITY  
 SANITARY SEWER DETAILS**

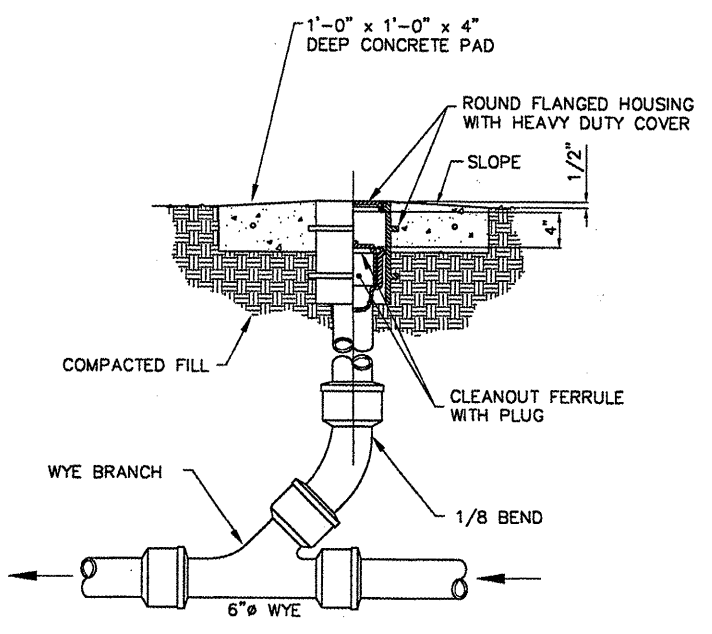
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AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	41 OF 66 SHEETS

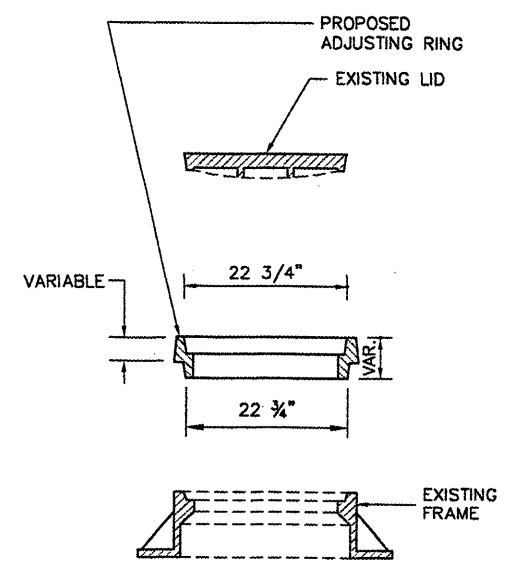


**CLEANOUT DETAIL (A)**  
 N.T.S.  
 (TO BE USED IN A CHANGE OF ALIGNMENT)

- NOTES:**
- CLEANOUTS SHALL BE INCIDENTAL TO THE SANITARY SEWER INSTALLATION.
  - SEE WATERMAIN DETAILS SHEET FOR SANITARY SEWER PIPE INSTALLATION DETAIL.

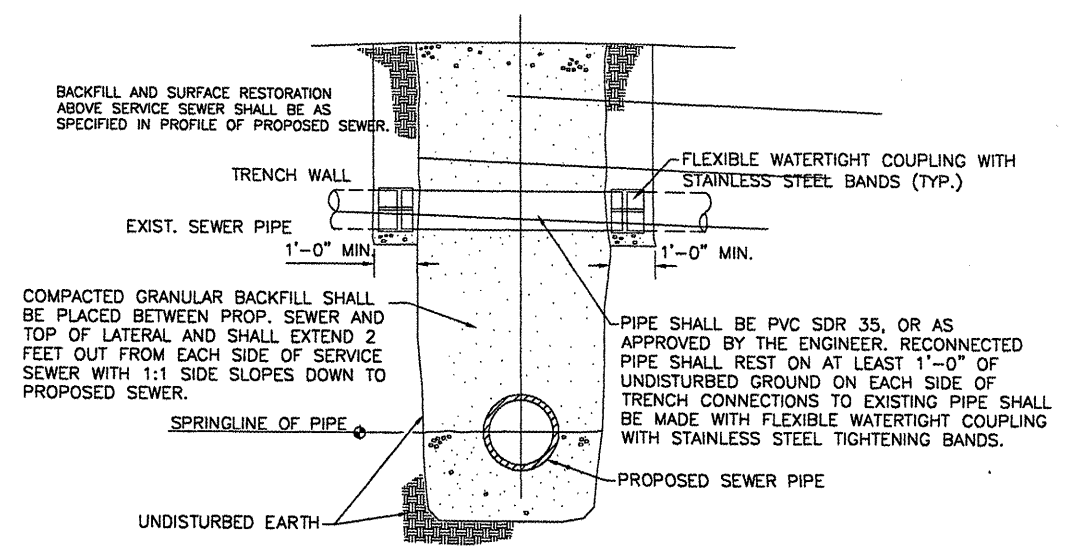


**CLEANOUT DETAIL (B)**  
 N.T.S.  
 (TO BE USED IN A CHANGE OF ALIGNMENT)

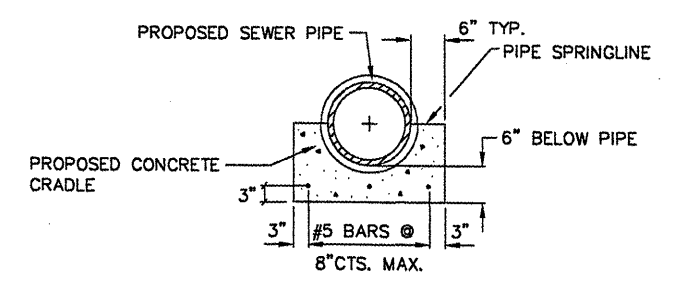


**NOTE:**  
 ACTUAL FRAME DIMENSIONS AND "M" SHALL BE VERIFIED PRIOR TO ORDERING CASTINGS.

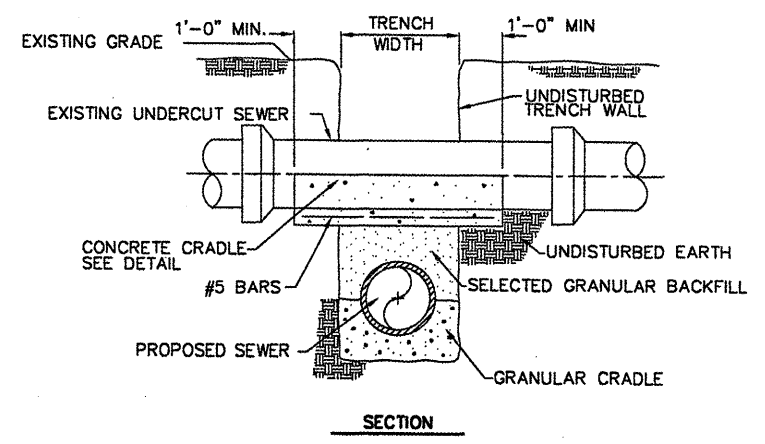
**SANITARY MANHOLE ADJUSTMENT**  
 N.T.S.



**RECONNECTION OF SERVICE SEWER, FIELD TILE, OR LATERAL PIPE ACROSS TRENCH IF NECESSARY**  
 N.T.S.



**CONCRETE CRADLE DETAIL (IF NECESSARY)**  
 N.T.S.

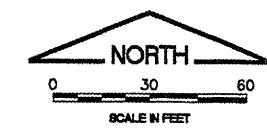
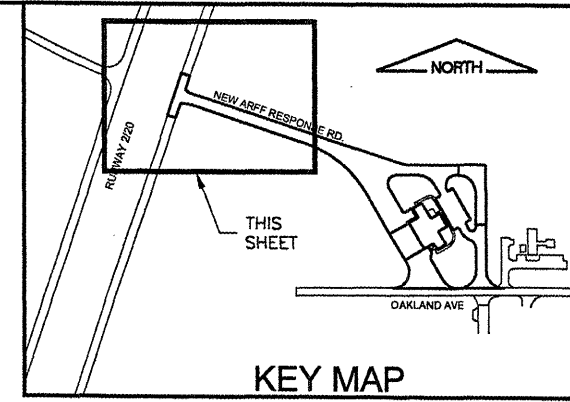
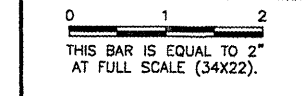


**SUPPORT OF UNDERCUT EXIST. SEWER (IF NECESSARY)**  
 N.T.S.

**NOTE:**  
 CONCRETE SUPPORT FOR AN UNDERCUT SEWER TO BE USED ONLY WHERE REQUIRED BY THE ENGINEER AND SHALL BE PAID FOR PER CUBIC YARD.

**BL064**

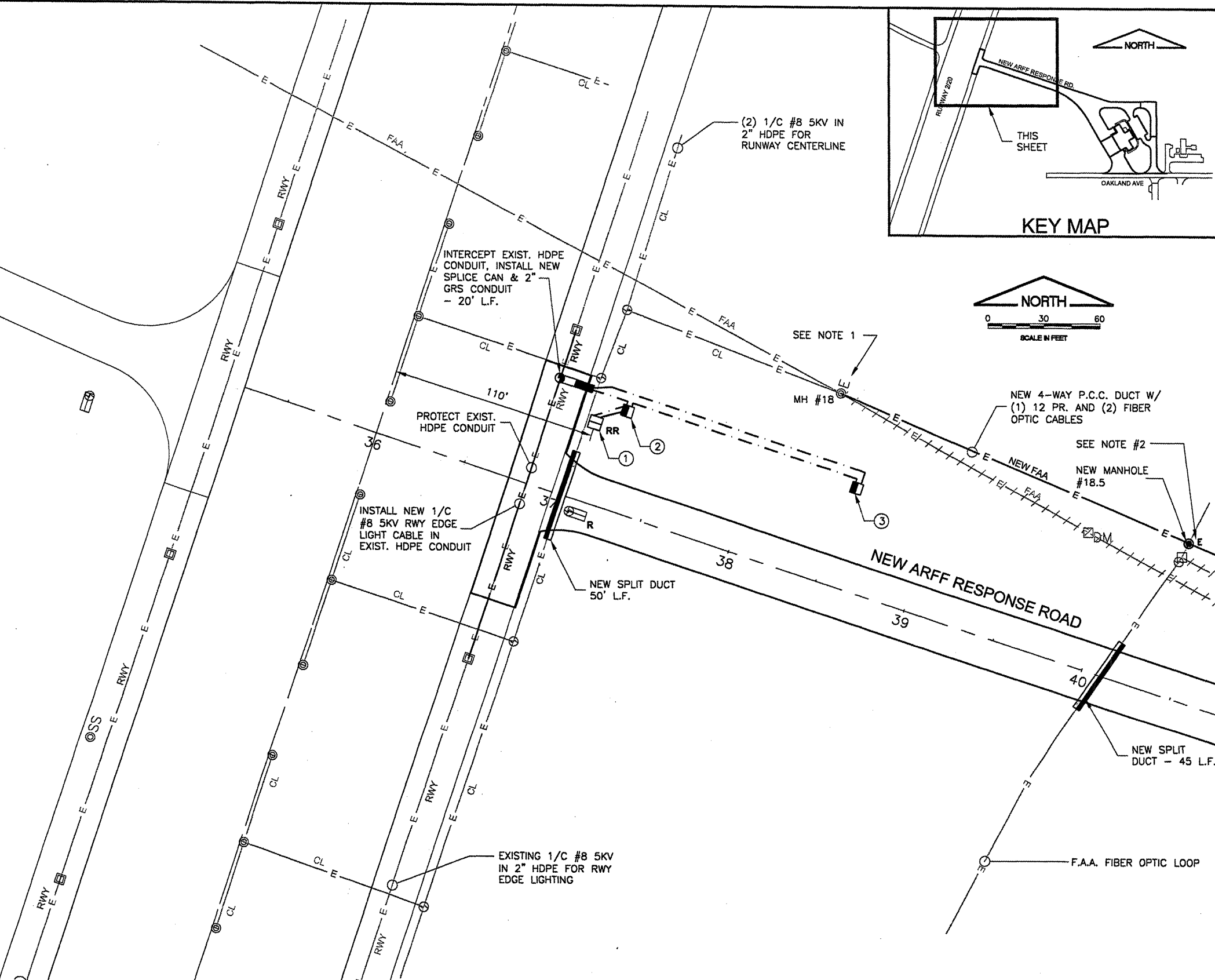
REVISIONS		
NUMBER	BY	DATE



**LEGEND**

	EXISTING RUNWAY CENTERLINE LIGHTING CABLE
	EXISTING RUNWAY EDGE LIGHTING CABLE
	EXISTING F.A.A. CABLE
	NEW F.A.A. CABLE
	NEW RUNWAY EDGE CABLE
	EXISTING ELECTRICAL HANDHOLE
	NEW ELECTRICAL HANDHOLE
	EXISTING SPLICE CAN
	NEW SPLICE CAN
	EXISTING BUILDING
	EXISTING DUCT/CABLE MARKER
	EXISTING BASE MOUNTED RUNWAY EDGE LIGHT
	EXISTING RUNWAY GUIDANCE/DTG SIGN
	RELOCATED DTG SIGN
	NEW RUNWAY GUIDANCE SIGN AND NO.
	EXISTING RUNWAY CENTERLINE LIGHT
	NEW DUCT BANK
	NEW SPLIT DUCT
	REMOVAL
	NEW 1/C #8 5K IN UNIT DUCT FOR RUNWAY CIRCUIT
	TO BE REMOVED

- NOTES:**
- INTERCEPT EXISTING DUCT SYSTEM AT MH #18. SPLICE NEW 12 PR. CONTROL AND (2) FIBER OPTIC CABLES TO EXISTING.
  - INTERCEPT EXISTING FAA FIBER OPTIC LOOP WITH NEW MANHOLE #18.5 AT EXISTING JUNCTION BOX.
  - THE CONTRACTOR SHALL CONSTRUCT THE NEW 4 WAY DUCT BANK, INSTALL MANHOLES AND INSTALL CABLE TO THE MAXIMUM EXTENT POSSIBLE PRIOR TO REMOVING THE EXISTING CABLES FROM SERVICE. ONCE THE EXISTING CABLES HAVE BEEN TAKEN OUT OF SERVICE, THE CONTRACTOR SHALL HAVE 24 HOURS TO COMPLETE THE WORK AND BRING THE CABLE SYSTEM BACK INTO SERVICE.
  - THE CONTRACTOR SHALL PROVIDE AS MUCH NOTICE AS POSSIBLE TO THE AIRPORT AND FAA TO ALLOW THE NECESSARY COORDINATION RELATED TO THE RUNWAY 2 AND 20 ILS SYSTEMS.



**SIGN SCHEDULE**

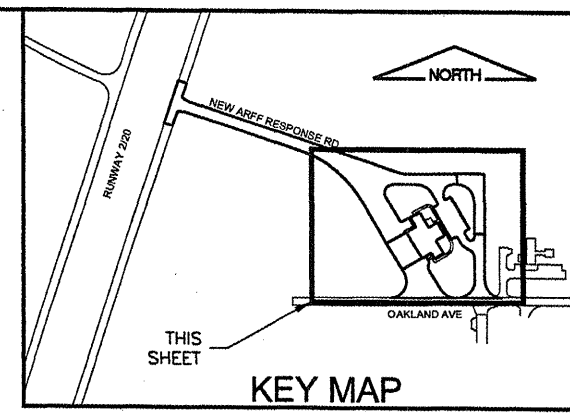
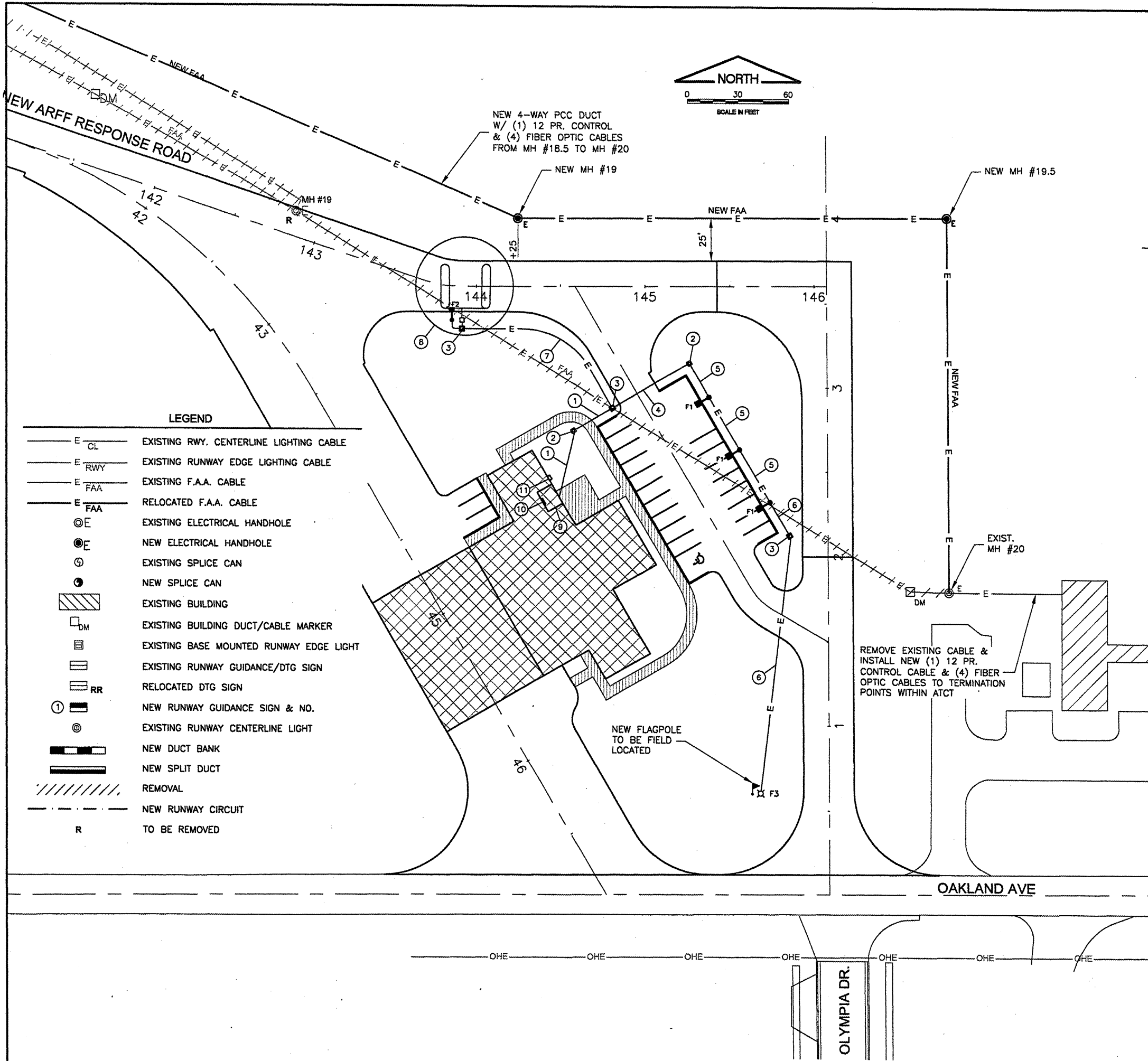
SIGN NO.	SIDE	NEW SIGN LEGEND	WHITE LEGEND WITH BLACK OUTLINE ON RED BACKGROUND	BLACK LEGEND ON YELLOW BACKGROUND	WHITE LEGEND ON BLACK BACKGROUND	NUMBER OF NEW CHARACTERS	REPLACE SIGN FACE	NOTES
①	N S	4 (BLANK)			4		1	RELOCATE DISTANCE REMAINING SIGN. REPLACE SOUTH SIGN PANEL WITH BLANK FACE.
②	NW	(BLANK)	⊖			1		NEW SIGN
③	E W	2-20 	2-20			4		NEW SIGN

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

CONSTRUCT NEW ARFF FACILITY  
 ELECTRICAL PLAN 1

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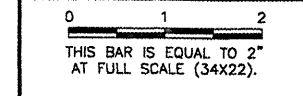
DESIGN BY: KLB  
 DRAWN BY: DPA  
 CHECKED BY: *REW*  
 APPROVED BY: *REW*  
 DATE: 04/01/2008  
 JOB No: 0508509  
 IL. PROJ. NO. BMI-3797  
 AIP PROJ. NO. 3-17-0006-46 & 48  
 SHEET 42 OF 66 SHEETS



K:\Bloomington\0508509\_BMI\_ARFF\Draw\Sheets  
 FILE: ELECPLAN2.dwg  
 UPDATE BY: Kristy Brod  
 PLOT DATE: 4/18/2008 8:35 AM  
 BASE\_EXISTGEO  
 BASE\_EXISTTOPD  
 SITE\_KEYMAP  
 BASE\_PROPELEC  
 BASE\_PROPGEO

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**ELECTRICAL PLAN 2 NOMENCLATURE**

- ① - TWO #10 USE (208V POWER FOR F1, F2 & F3), ONE #10 GROUND IN 1" CONDUIT.  
 - TWO #8 USE (120V POWER FOR GATE OPERATOR), ONE #10 GROUND IN 1" CONDUIT  
 - TWO 6-CONDUCTOR #18 SHIELDED CABLES (CARD READERS, CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER), 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 2" CONDUIT.  
 - TWO 2" CONDUITS WITH PULL WIRE FOR FUTURE USE.  
 - TWO 1" CONDUITS WITH PULL WIRE FOR FUTURE USE.
- ② 4'x4' PRECAST CONCRETE HANDHOLE.
- ③ POLYMER CONCRETE HANDHOLE. HANDHOLE SHALL BE SOLID-BOTTOM DESIGN AND SHALL BE QUAZITE/HUBBELL #PG-2436-DA-42 WITH #PG-2436-HA-00-17 COVER, OR EQUIVALENT. HANDHOLES SHALL BE 24"W X 36"L X 42" DEEP. 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 - TWO #10 USE (208V POWER FOR F1 & F3), ONE #10 GROUND IN 1" CONDUIT.  
 - TWO 2" CONDUITS WITH PULL WIRE FOR FUTURE USE.  
 - TWO 1" CONDUITS WITH PULL WIRE FOR FUTURE USE.
- ⑤ - TWO #10 USE (208V POWER FOR F1 & F3), ONE #10 GROUND IN 1" CONDUIT.
- ⑥ - TWO #10 USE (208V POWER FOR F3), ONE #10 GROUND IN 1" CONDUIT.
- ⑦ - TWO #10 USE (208V POWER FOR F2), ONE #10 GROUND IN 1" CONDUIT.  
 - TWO #8 USE (120V POWER FOR GATE OPERATOR), ONE #10 GROUND IN 1" CONDUIT  
 - TWO 6-CONDUCTOR #18 SHIELDED CABLES (CARD READERS, CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER), 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 2" CONDUIT.
- ⑧ AUTOMATIC GATE. SEE NEW GATE DETAILS FOR ADDITIONAL INFORMATION.
- ⑨ ELECTRICAL ROOM IN BASEMENT.
- ⑩ ACCESS CONTROLS AND LIGHTING CONTROLS.
- ⑪ APPROXIMATE LOCATION FOR PHOTOCCELL.

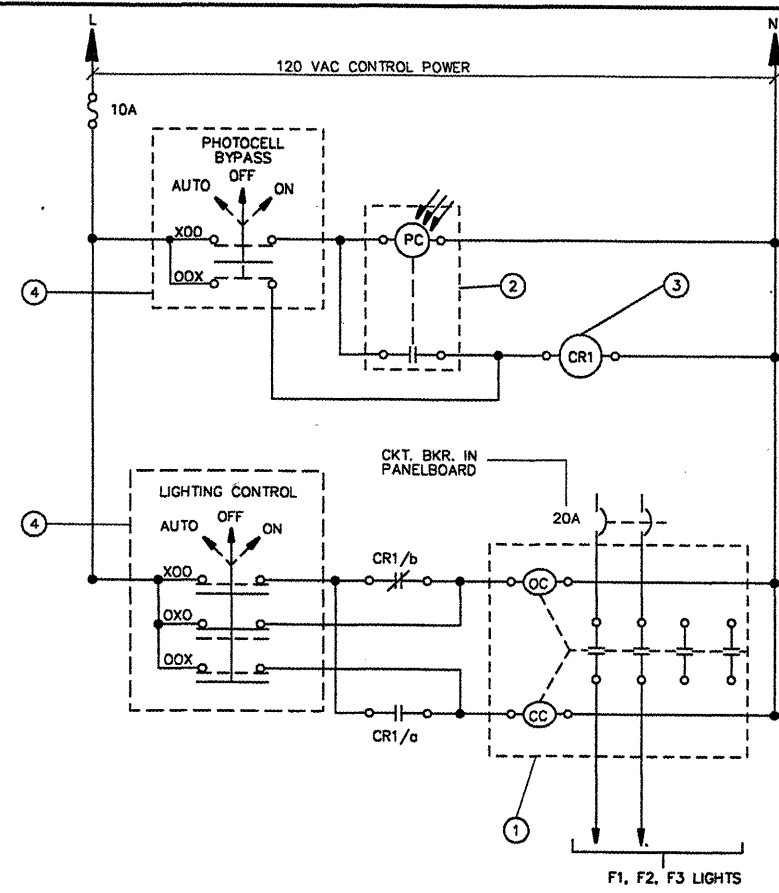
**LEGEND**

	EXISTING RWY. CENTERLINE LIGHTING CABLE
	EXISTING RWY. EDGE LIGHTING CABLE
	EXISTING F.A.A. CABLE
	RELOCATED F.A.A. CABLE
	EXISTING ELECTRICAL HANDHOLE
	NEW ELECTRICAL HANDHOLE
	EXISTING SPLICE CAN
	NEW SPLICE CAN
	EXISTING BUILDING
	EXISTING BUILDING DUCT/CABLE MARKER
	EXISTING BASE MOUNTED RUNWAY EDGE LIGHT
	EXISTING RUNWAY GUIDANCE/DTG SIGN
	RELOCATED DTG SIGN
	NEW RUNWAY GUIDANCE SIGN & NO.
	EXISTING RUNWAY CENTERLINE LIGHT
	NEW DUCT BANK
	NEW SPLIT DUCT
	REMOVAL
	NEW RUNWAY CIRCUIT
	TO BE REMOVED

**BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS  
 CONSTRUCT NEW ARFF FACILITY  
 ELECTRICAL PLAN 2**

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CHECKED BY:	RES
APPROVED BY:	RES
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	43 OF 66 SHEETS



F1, F2, F3 CONTROL SCHEMATIC N.T.S.

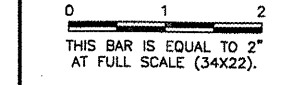
- F1, F2, F3 CONTROL SCHEMATIC NOMENCLATURE
- ① MECHANICALLY-HELD LIGHTING CONTACTOR, 30A, 4-POLE, 600V, SQUARE D CAT. # SMO12V02, OR EQUIVALENT. MOUNT CONTACTOR AND CONTROL RELAY IN HINGED-COVER, NEMA 1 ENCLOSURE, SIZED AS REQUIRED TO HOUSE EQUIPMENT, HOFFMAN OR EQUIVALENT. INSTALL IN ELECTRICAL ROOM-LOCATION TO BE COORDINATED WITH THE ARCHITECT THROUGH THE ENGINEER.
  - ② PHOTOCELL, TORK MODEL #2101, OR EQUIVALENT. MOUNT ON BLDG EXTERIOR AS DIRECTED BY OWNER.
  - ③ CONTROL RELAY CR1, 10A, 120V, DIVERSIFIED ELECTRONICS #KAA-120-AT, OR EQUIVALENT, WITH SOCKET.
  - ④ DOOR-MOUNTED, THREE-POSITION, MAINTAINED-CONTACT, NON-METALLIC SELECTOR SWITCH WITH LEGEND PLATES AS SHOWN.

F1, F2, F3 CONTROL SCHEMATIC  
N.T.S.

LIGHT FIXTURE SCHEDULE				
FIXTURE NO.	MANUFACTURER OR EQUAL	MAKE OR MODEL #	LAMP	LOCATION & MOUNTING
F1	KIM LIGHTING	1A/STL4/250PMH208"/TDP * = COLOR TO BE SELECTED BY THE OWNER	250W PULSE START METAL HALIDE	PARKING LOT LIGHT POLE MOUNT
F2	KIM LIGHTING	1A/STL2/150PMH208"/TDP * = COLOR TO BE SELECTED BY THE OWNER	150W PULSE START METAL HALIDE	AUTOMATIC GATE LIGHT POLE MOUNT
F3	KIM LIGHTING	AFL25/250PMH208"/SM2/BL-P * = COLOR TO BE SELECTED BY THE OWNER	250W PULSE START METAL HALIDE	FLAG POLE LIGHT STANCHION MOUNT
POLE FOR F1	KIM LIGHTING	PRA30-6250/A/TD"/ WITH VIBRATION DAMPER * = COLOR TO BE SELECTED BY THE OWNER	N/A	30' TALL PARKING LOT LIGHT POLE FOUNDATION MOUNT
POLE FOR F2	KIM LIGHTING	PRA20-5188/A/TD"/ * = COLOR TO BE SELECTED BY THE OWNER	N/A	20' TALL AUTOMATIC GATE LIGHT POLE FOUNDATION MOUNT

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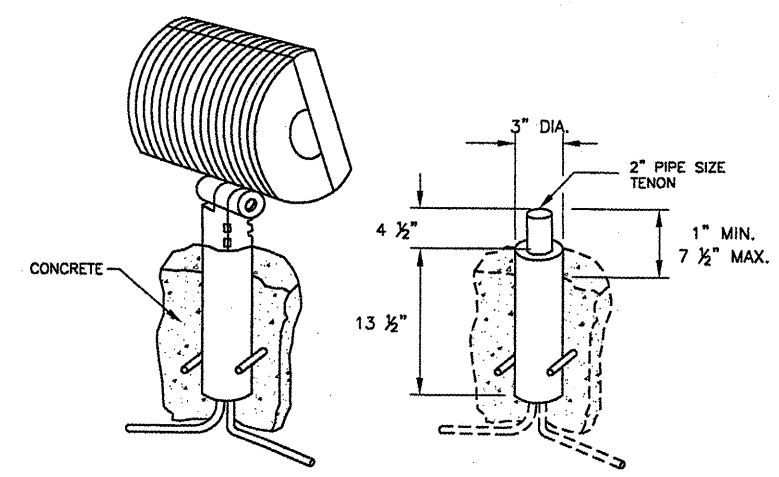


BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 LIGHTING DETAILS

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CHECKED BY:	REW
APPROVED BY:	REW
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	44 OF 66 SHEETS

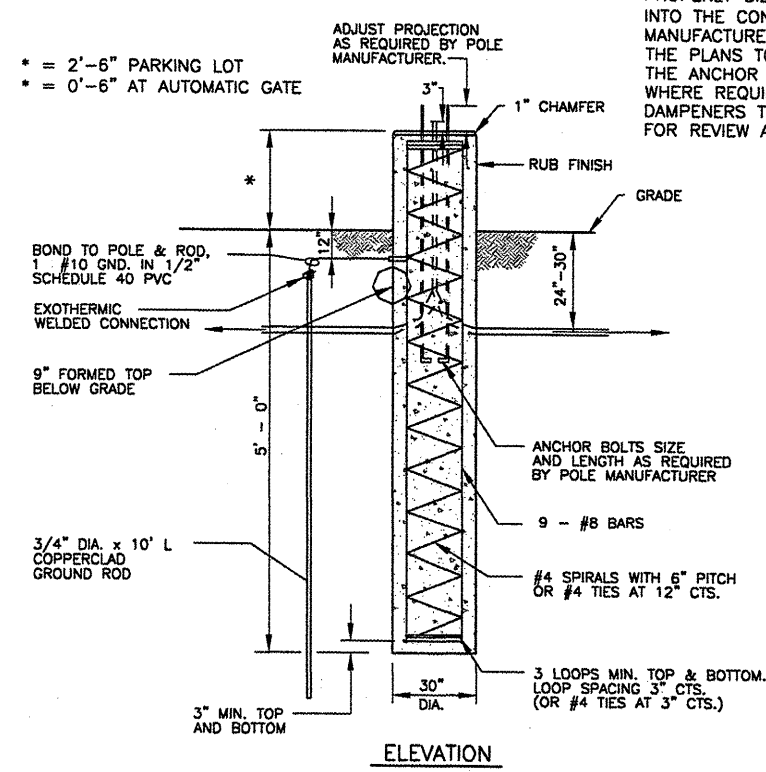


F3 STANCHION MOUNT DETAIL  
N.T.S.

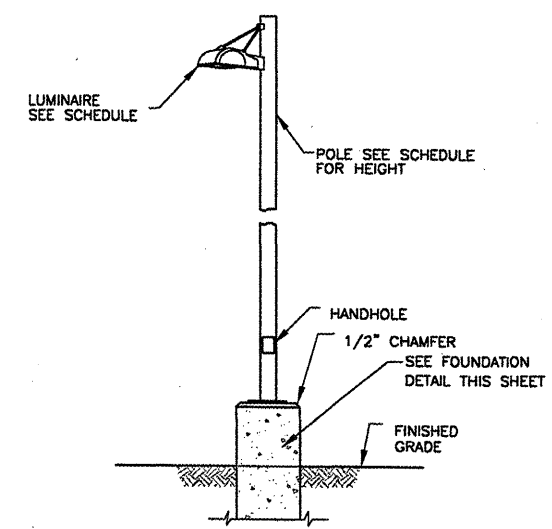
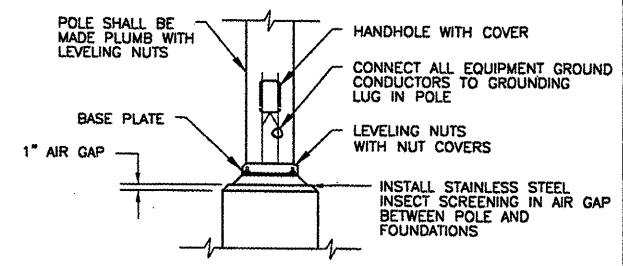
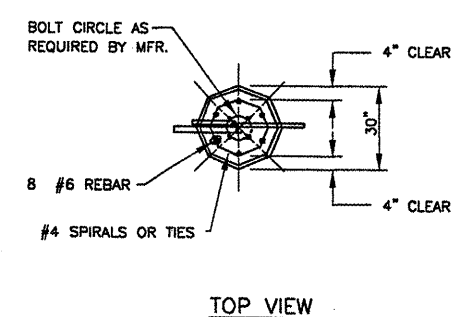
POLE ANCHOR BOLTS AND VIBRATION DAMPENERS

WHILE IT IS THE POLE MANUFACTURER'S RESPONSIBILITY TO FURNISH PROPERLY SIZED ANCHOR BOLTS, THE MINIMUM ANCHOR BOLT EMBEDMENT INTO THE CONCRETE POLE FOUNDATION SHALL BE 36". THE POLE MANUFACTURER SHALL EVALUATE THE POLE AND FOUNDATION DETAILS ON THE PLANS TO PROPERLY SIZE THE ANCHOR BOLTS, AND SHALL INCLUDE THE ANCHOR BOLTS IN THE POLE SUBMITTAL FOR REVIEW AND COMMENT. WHERE REQUIRED, THE POLE MANUFACTURER SHALL SUBMIT THE VIBRATION DAMPENERS TO BE UTILIZED WITH THE POLES WITH THE POLE SUBMITTAL FOR REVIEW AND COMMENT.

- \* = 2'-6" PARKING LOT
- \* = 0'-6" AT AUTOMATIC GATE



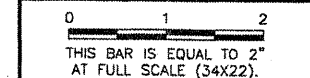
F1 AND F2 POLE BASE DETAIL  
N.T.S.



F1 AND F2 LIGHT STANDARDS  
N.T.S.

**BL064**

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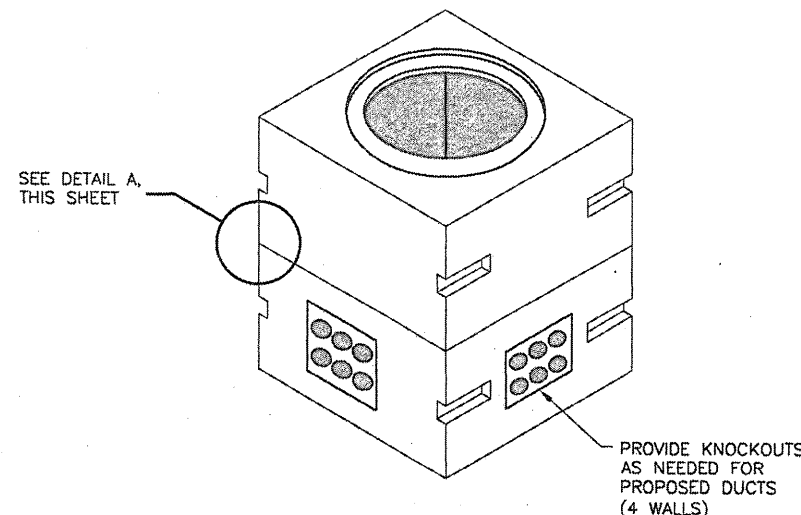


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 BLOOMINGTON, ILLINOIS**

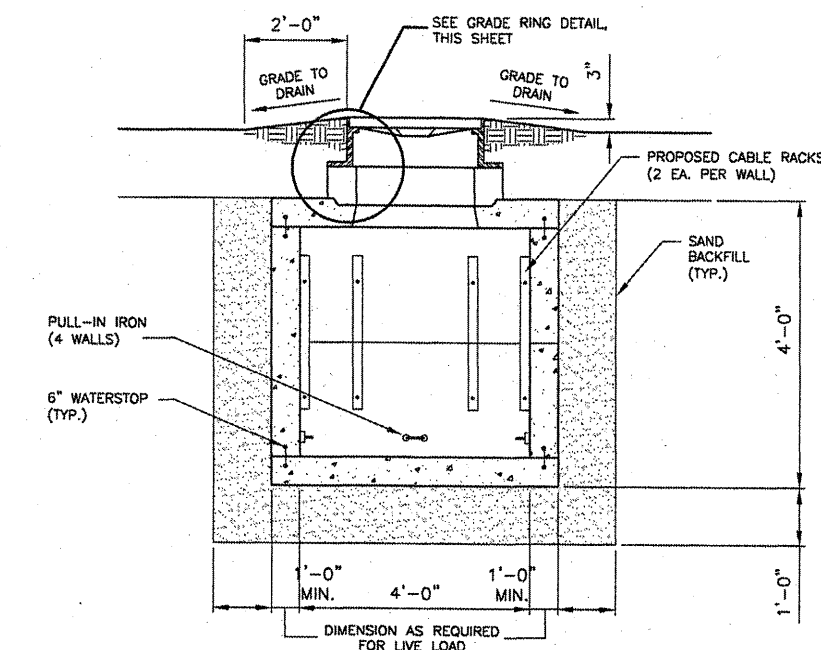
**CONSTRUCT NEW ARFF FACILITY  
 ELECTRICAL DETAILS 1**

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CHECKED BY:	REN
APPROVED BY:	REN
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JOB No:	0508509
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AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	45 OF 66 SHEETS



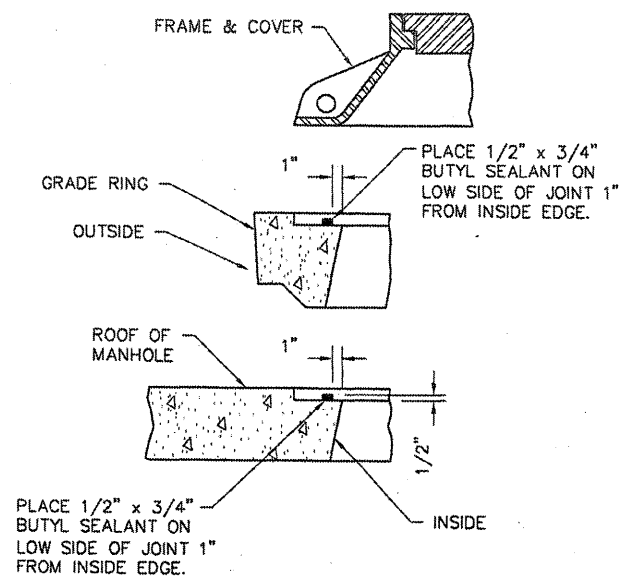
**ELECTRICAL HANDHOLE DETAIL**  
N.T.S.



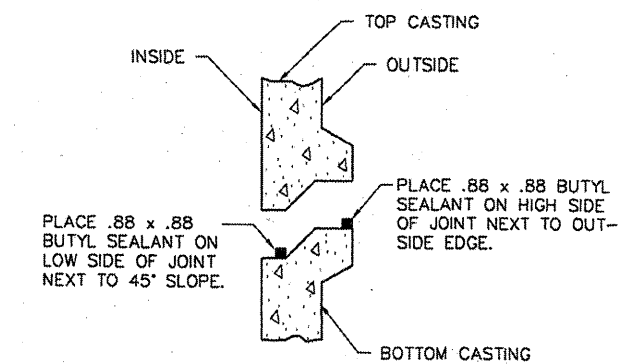
**ELECTRICAL HANDHOLE DETAIL**  
N.T.S.

**ELECTRICAL HANDHOLE NOTES**

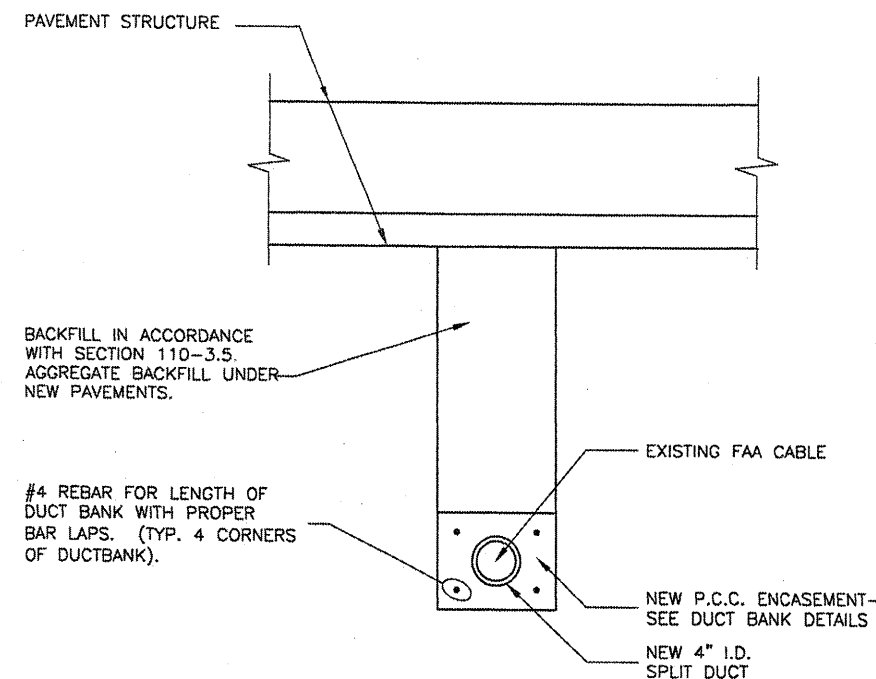
- THE MANHOLE/GRADE RING/MANHOLE LID ASSEMBLY SHALL BE CONSTRUCTED TO MEET OR EXCEED THE FOLLOWING LOADINGS:
  - EARTHLOAD = 2 FEET FILL AT 130 LBS/FT<sup>3</sup>.
  - SURCHARD = 2 FEET FILL AT 130 LBS/FT<sup>3</sup>.
  - LIVE LOAD = A.A.S.H.T.O. HS-20 TRUCK WITH 20% IMPACT
  - f<sub>c</sub> = 4,500 P.S.I.
  - f<sub>y</sub> = 60,000 P.S.I.
  - ULTIMATE STRENGTH DESIGN METHOD
 THE SUPPLIER SHALL PROVIDE CERTIFICATION THAT THE MANHOLES MEET OR EXCEED THESE REQUIREMENTS PRIOR TO INSTALLATION.
- THE MANHOLE CONSTRUCTION AND INSTALLATION SHALL BE WATERTIGHT. ALL CONSTRUCTION JOINTS AND DUCTS SHALL BE SEALED TO PREVENT WATER ENTRY. ALL UNUSED DUCT BANK OPENINGS IN MANHOLES SHALL BE SEALED WITH METAL PLATES TREATED FOR CORROSION RESISTANCE AND BOLTED INTO PLACE. MATING SURFACES SHALL BE SEALED USING BUTYL SEALANT.
- THE MANHOLE LID ASSEMBLY SHALL BE INSTALLED SLIGHTLY ABOVE THE SURROUNDING FINAL GRADE AND THE EARTH SHALL BE GRADED UP TO IT.
- THE MANHOLE LID SHALL BE LOCKABLE UTILIZING A PENTAGON BOLT ASSEMBLY.
- PROPOSED ELECTRICAL HANDHOLES SHALL BE THE FOLLOWING INTERIOR DIMENSIONS:  
 ELECTRICAL HANDHOLE - 4' = 4' L x 4' W x 4' H



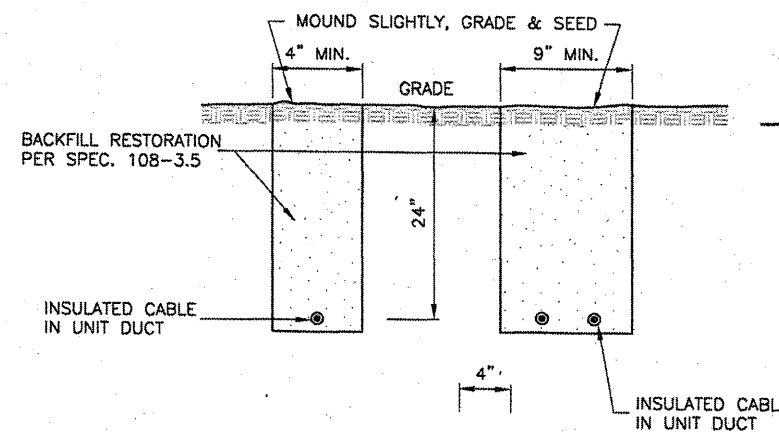
**GRADE RING DETAIL**  
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**DETAIL A**  
N.T.S.



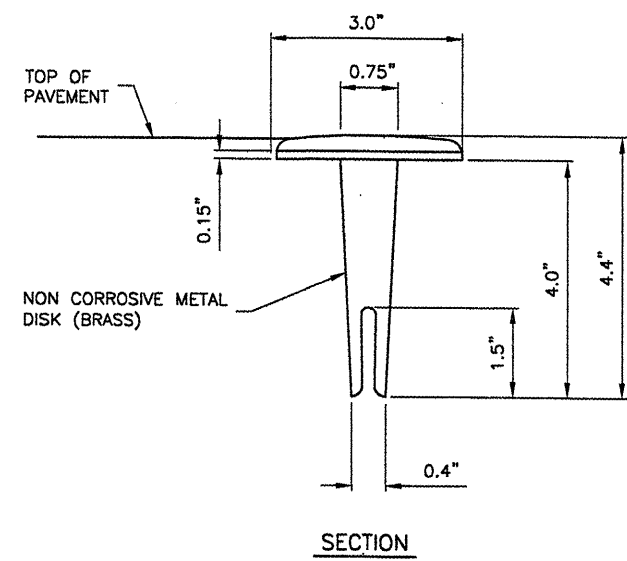
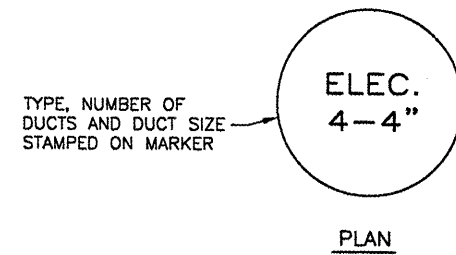
**SPLIT DUCT DETAIL**  
N.T.S.



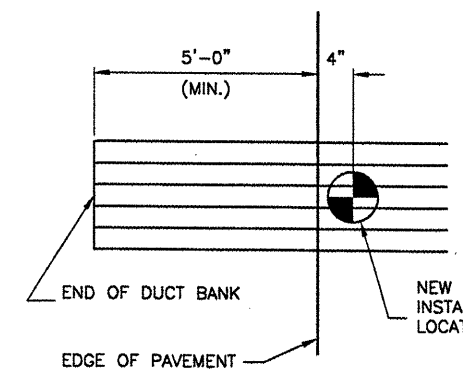
**TRENCH DETAIL**  
N.T.S.

**NOTES**

- TRENCHES WITH MORE THAN 2 CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE. IF SPECIFIED ON PLANS, TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.
- DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- SAND BACKFILL SHALL BE USED IF THE EXISTING SOIL DOES NOT MEET THE BACKFILL REQUIREMENTS.
- ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO ITEM 108.

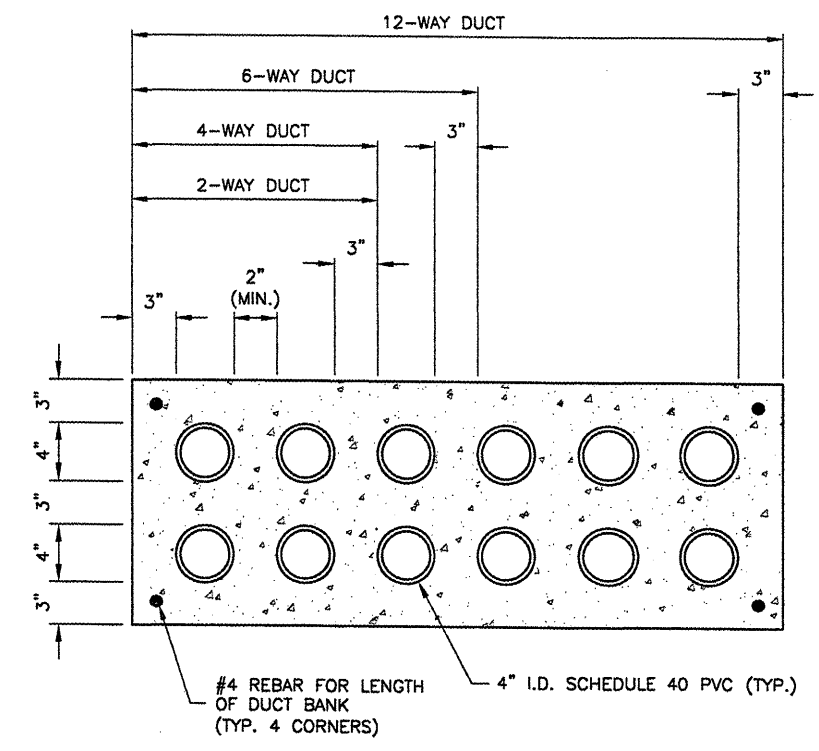


**DUCT MARKER DETAILS**  
N.T.S.



DUCT MARKERS SHALL BE RECESSED AND GROUTED INTO THE PAVEMENTS.

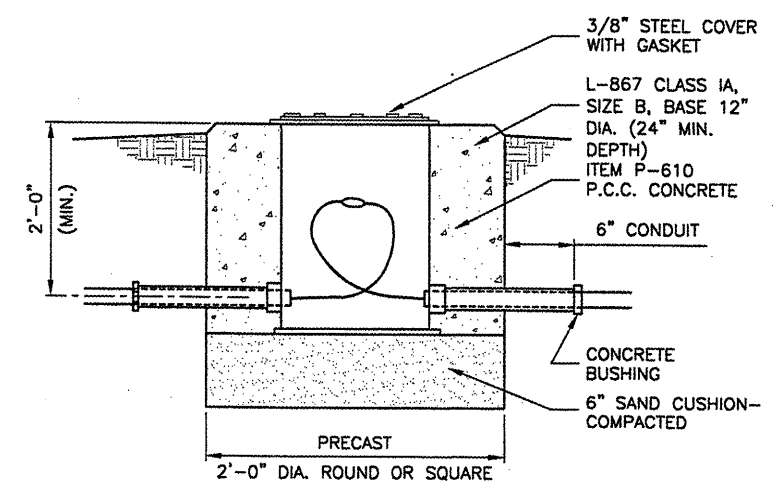
**MARKER PLACEMENT**



**DUCT BANK DETAIL**  
N.T.S.

**NOTES**

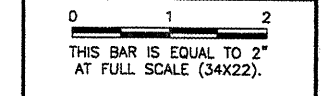
1. DIMENSIONS SHOWN ARE MINIMUM.
2. TOP OF CONCRETE ENCASEMENT TO BE NOT LESS THAN 18" BELOW FINISHED SUBGRADE.
3. DUCT CONCRETE SHALL BE ITEM 610 STRUCTURAL P.C.C. CONCRETE.
4. ALL DUCT SHALL BE 4" INSIDE DIAMETER.
5. LOCATIONS SHOWN ARE APPROXIMATE. DUCT BANKS SHALL BE INSTALLED AT LOCATIONS DESIGNATED BY THE ENGINEER.
6. CONTRACTOR SHALL INSTALL DUCT BANKS AT A DEPTH WHICH WILL NOT CONFLICT WITH ELEVATION SENSITIVE UTILITIES.
7. A PULL WIRE SHALL BE PROVIDED IN EACH UNUSED CONDUIT. UNUSED DUCT SHALL BE SEALED WITH PVC PLUGS/CAPS TO THE SATISFACTION OF THE ENGINEER.
8. DUCT BANKS SHALL EXTEND A MINIMUM OF 5' BEYOND THE NEW EDGE OF PAVEMENT.



**SPLICE CAN DETAIL**  
N.T.S.

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**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
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**CONSTRUCT NEW ARFF FACILITY**  
**ELECTRICAL DETAILS 2**

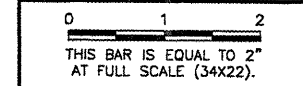
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APPROVED BY:	<i>REW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	48 OF 66 SHEETS

BL064

REVISIONS		
NUMBER	BY	DATE



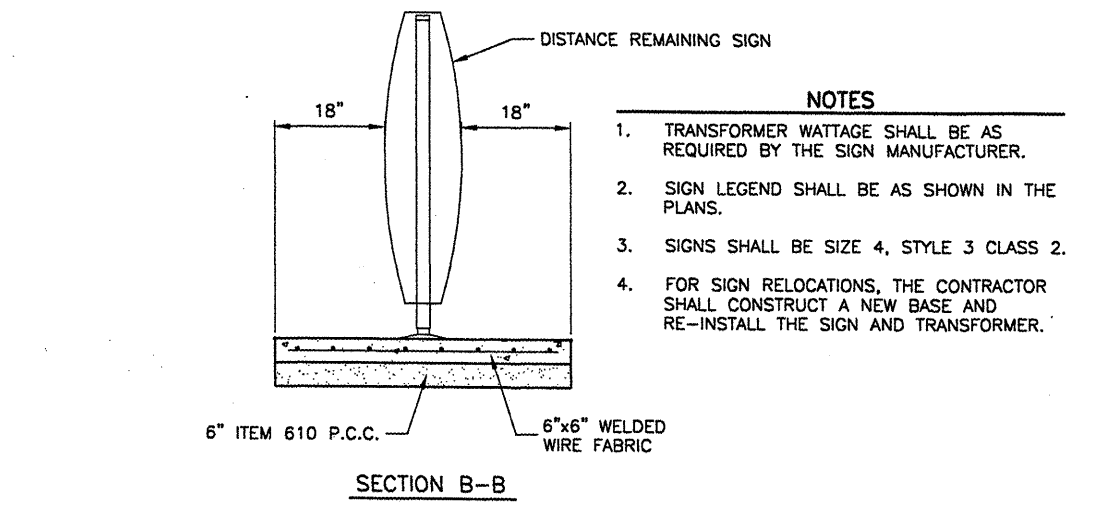
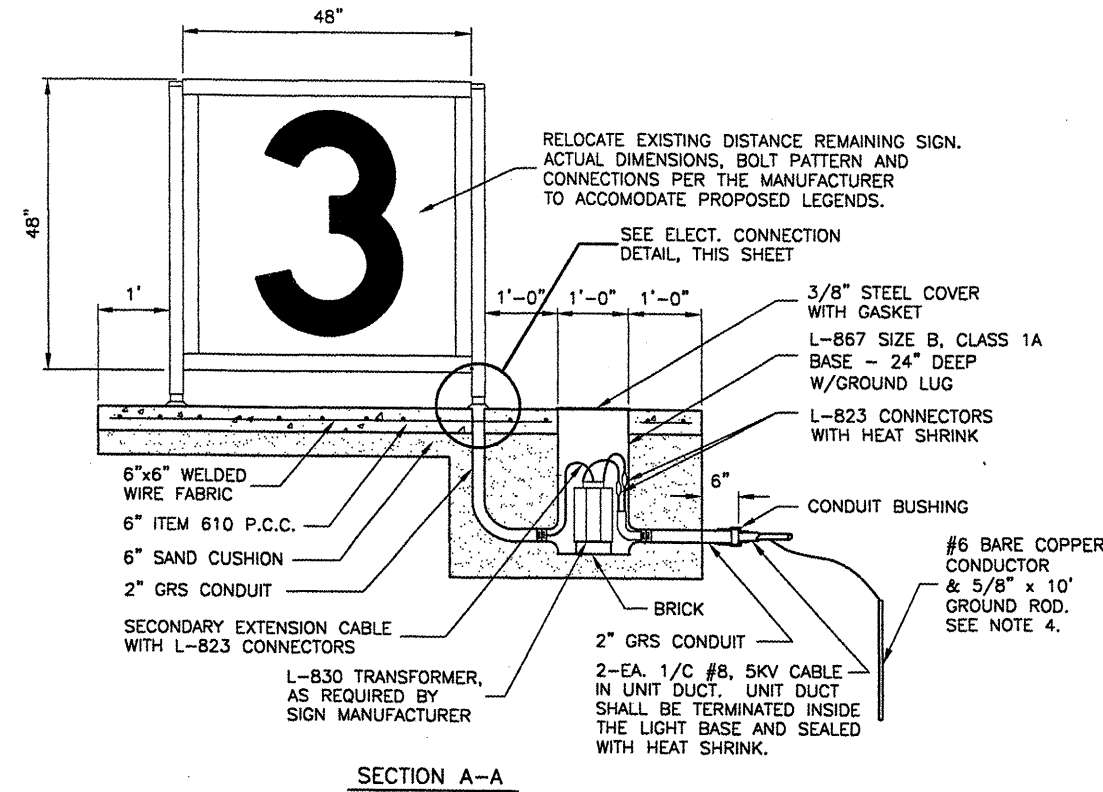
BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 AIRFIELD SIGNAGE DETAILS

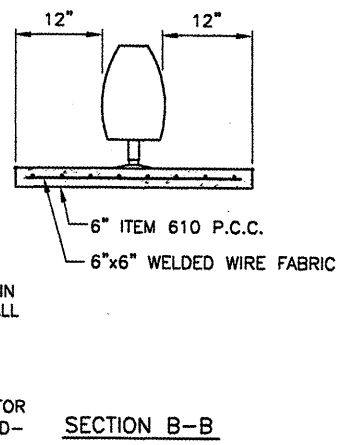
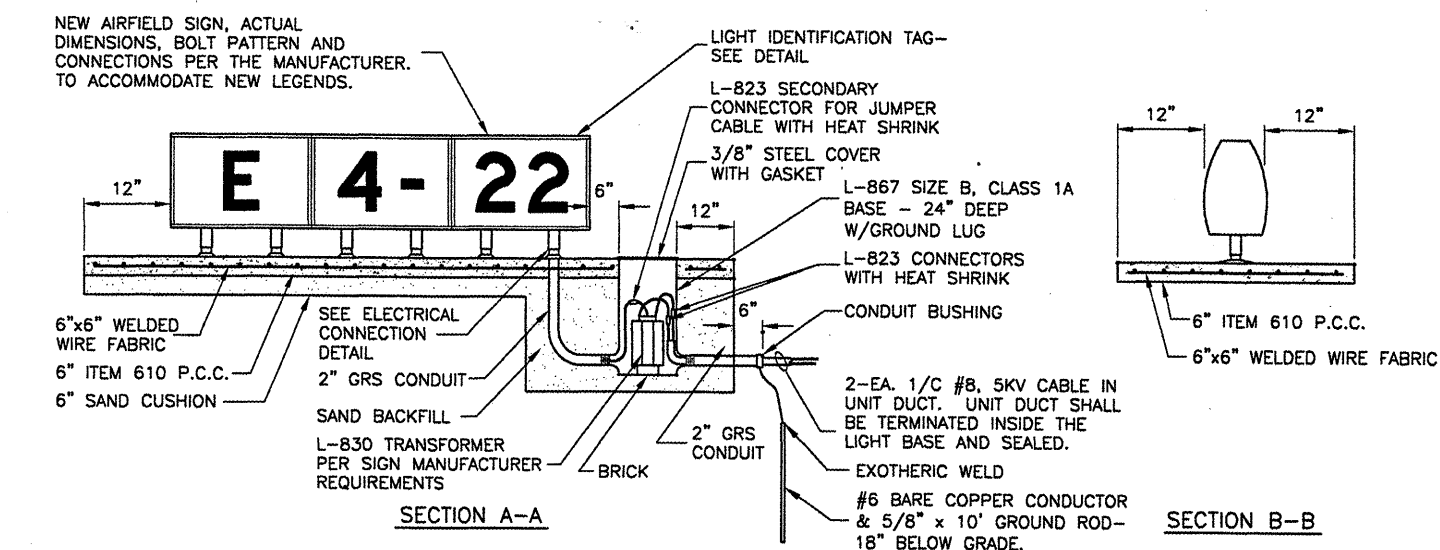
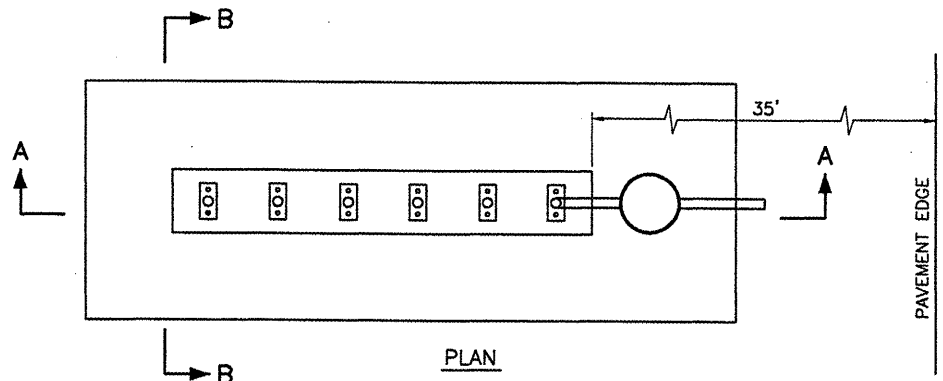
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APPROVED BY:	REN
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	47 OF 66 SHEETS

- AIRFIELD SIGNAGE NOTES**
1. SIGN SCHEDULE IS SUBJECT TO FAA APPROVAL OF THE SIGNAGE PLAN.
  2. CHANGES TO NEW LEGENDS MAY OCCUR SUBJECT TO 1 ABOVE.
  3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH NEW LEGENDS FOR APPROVAL PRIOR TO STARTING MANUFACTURE.
  4. EXISTING SIGNS ARE LUMACURVE.

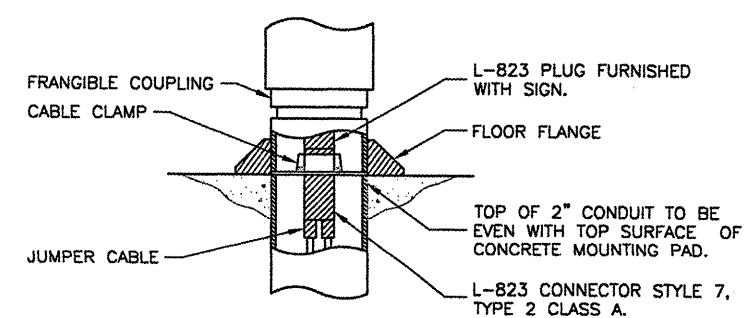


- NOTES**
1. TRANSFORMER WATTAGE SHALL BE AS REQUIRED BY THE SIGN MANUFACTURER.
  2. SIGN LEGEND SHALL BE AS SHOWN IN THE PLANS.
  3. SIGNS SHALL BE SIZE 4, STYLE 3 CLASS 2.
  4. FOR SIGN RELOCATIONS, THE CONTRACTOR SHALL CONSTRUCT A NEW BASE AND RE-INSTALL THE SIGN AND TRANSFORMER.

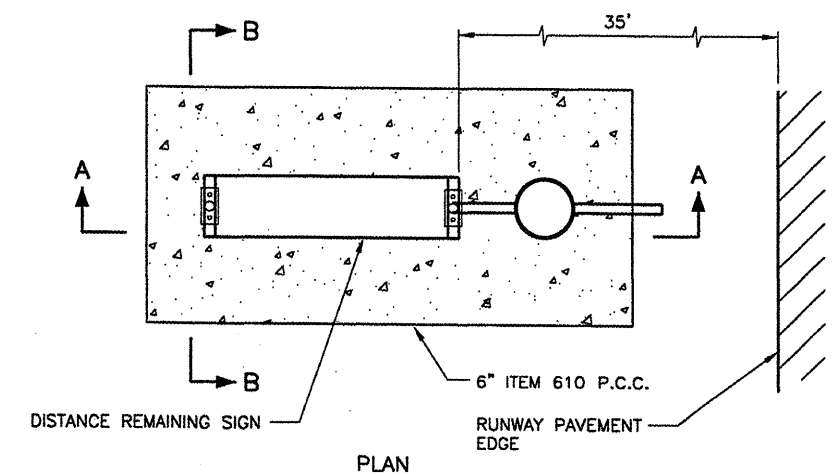


- NOTES**
1. TRANSFORMER WATTAGE SHALL BE AS REQUIRED BY SIGN MANUFACTURER.
  2. SIGN LEGEND SHALL BE AS SHOWN IN THE PLANS.
  3. SIGNS SHALL BE SIZE 2, STYLE 2 OR 3, CLASS 2.

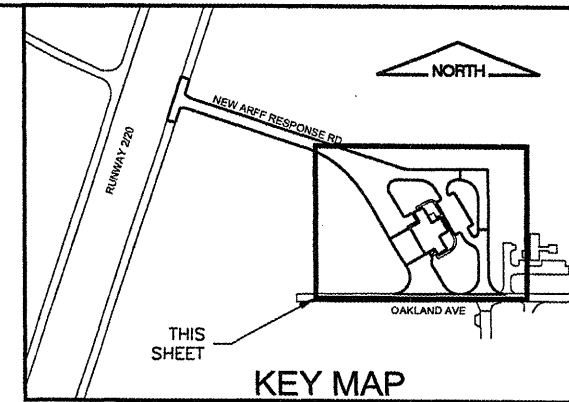
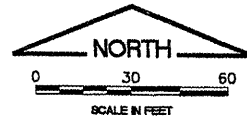
**NEW L-858 AIRFIELD SIGN DETAILS**  
 N.T.S.



**ELECTRICAL CONNECTION DETAIL**  
 N.T.S.



**RELOCATED RUNWAY DISTANCE REMAINING SIGN DETAILS**  
 N.T.S.



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 PLOT DATE: 4/18/2008 8:35 AM  
 BASE\_EXISTTOPO  
 FLOOR\_ENG-UCS  
 SITE\_KEYMAP  
 BASE\_PROPGE0

**BL064**

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

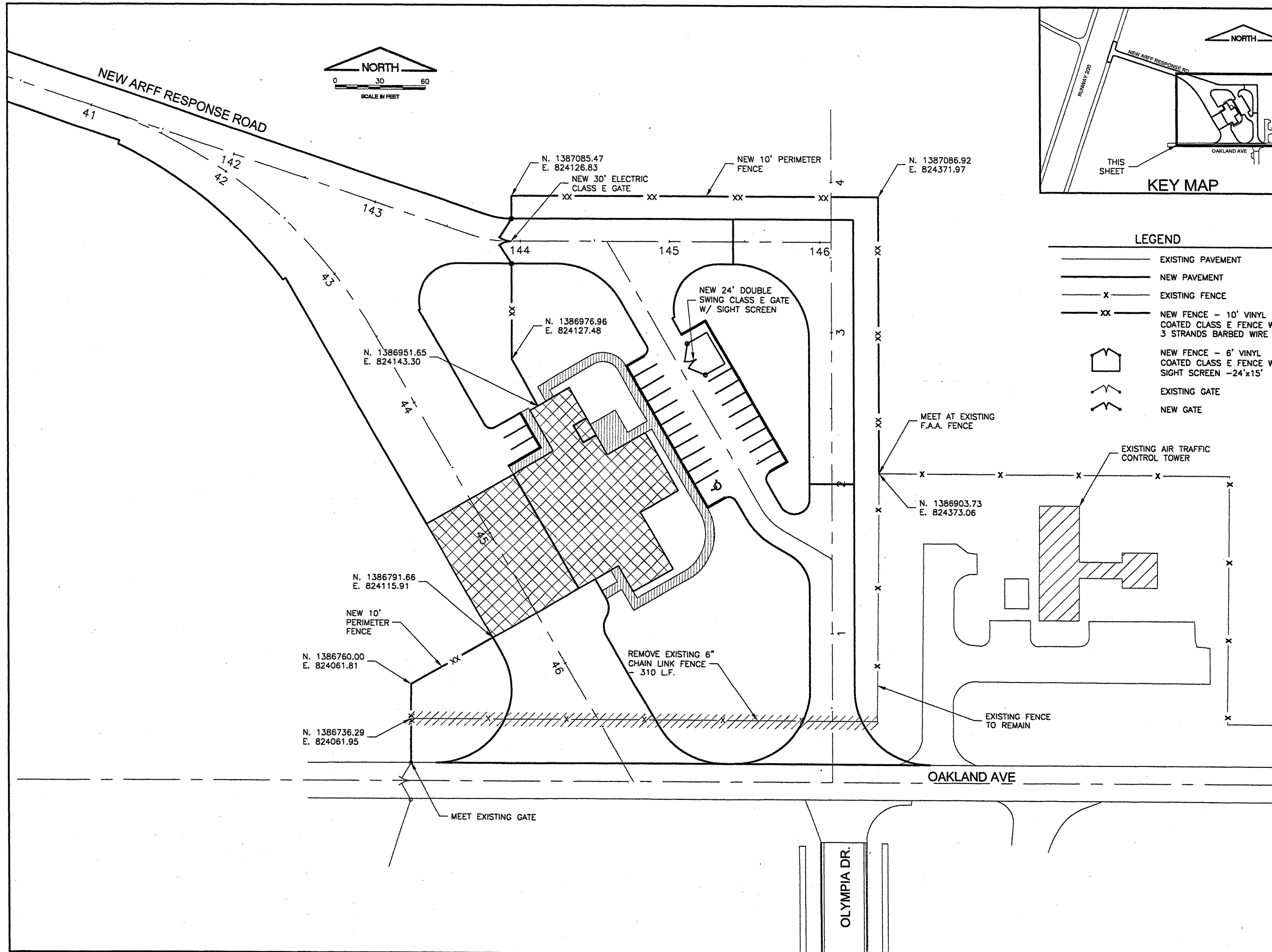
CONSTRUCT NEW ARFF FACILITY  
 FENCING PLAN

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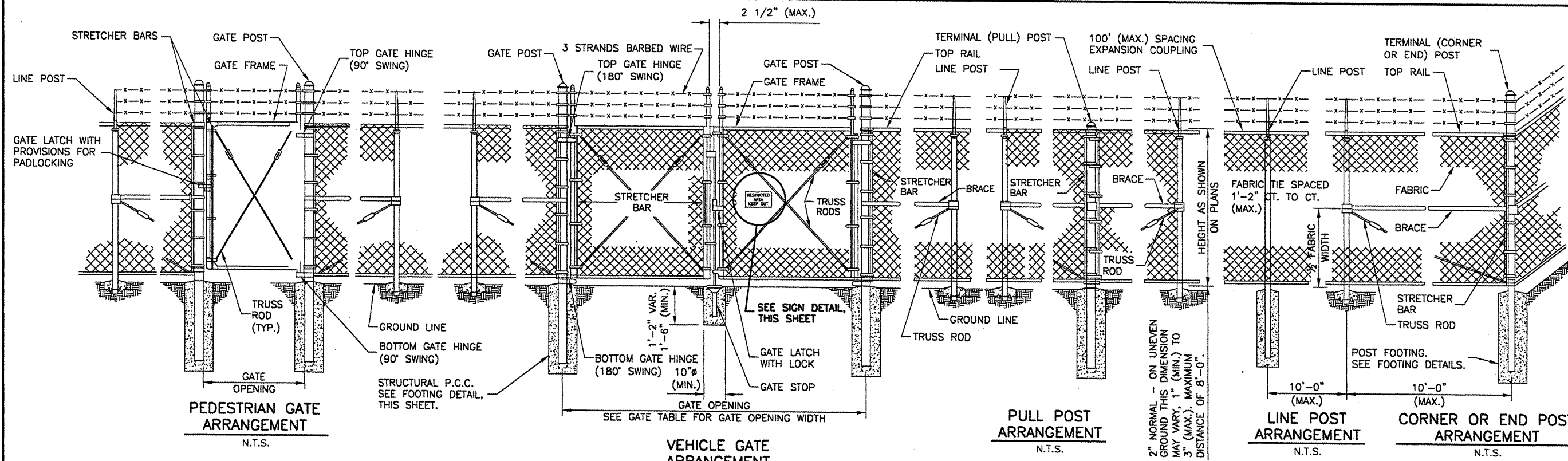
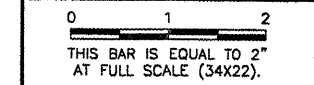
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DRAWN BY:	DPA
CHECKED BY:	REN
APPROVED BY:	REN
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	48 OF 66 SHEETS



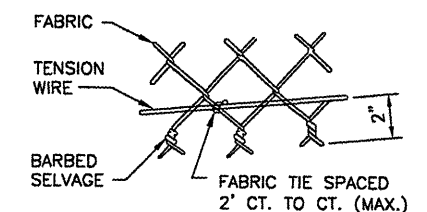
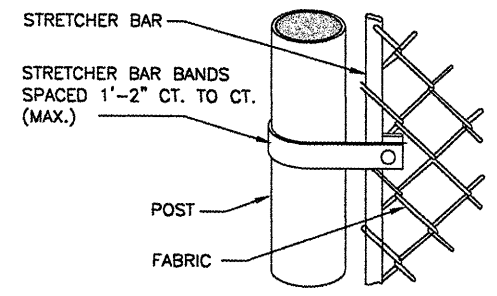
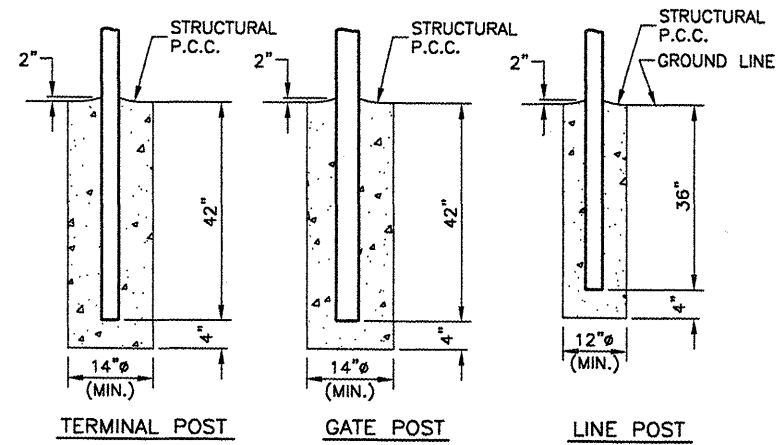


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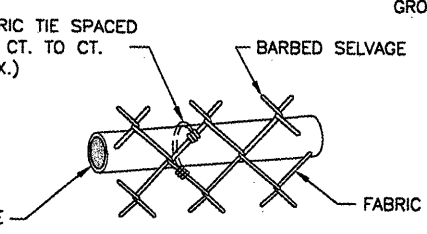
REVISIONS		
NUMBER	BY	DATE



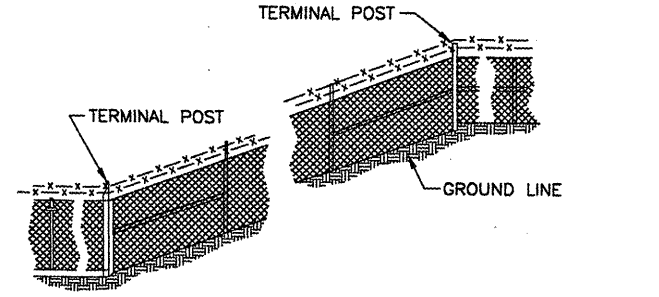
PULL POSTS SHALL BE PLACED AT LOCATIONS DETERMINED BY THE ENGINEER. THEY SHALL BE PLACED AT 660 FT. INTERVALS BETWEEN POSTS TO WHICH THE ENDS OF THE FABRIC ARE CLAMPED OR MIDWAY BETWEEN SUCH POSTS WHEN THE DISTANCE IS LESS THAN 1320 FT. AND GREATER THAN 660 FT.



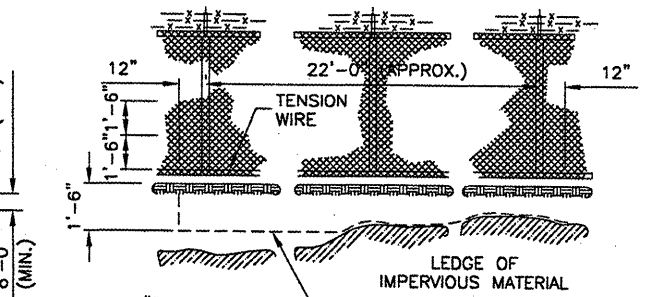
**TYING FABRIC TO TENSION WIRE**  
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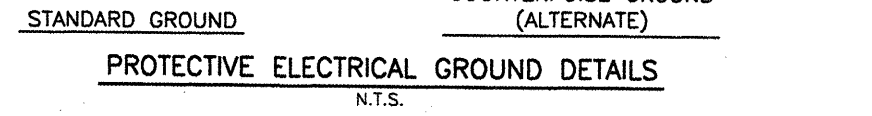
**TYING FABRIC TO PIPE**  
N.T.S.



**FENCE INSTALLATION ON SLOPES**  
N.T.S.



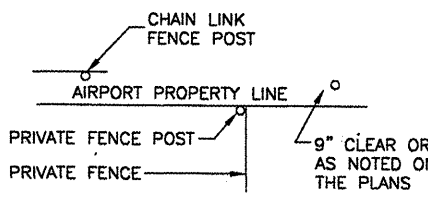
**COUNTERPOISE GROUND (ALTERNATE)**  
N.T.S.



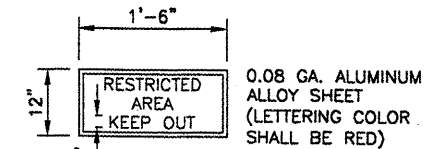
**PROTECTIVE ELECTRICAL GROUND DETAILS**  
N.T.S.

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

**INSTALLATION AT CORNERS**  
N.T.S.

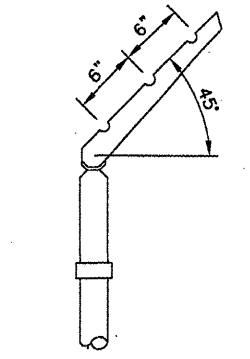


**PRIVATE FENCE TERMINAL**  
N.T.S.



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

**SIGN DETAIL**  
N.T.S.



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

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CONSTRUCT NEW ARFF FACILITY  
 FENCE DETAILS 1

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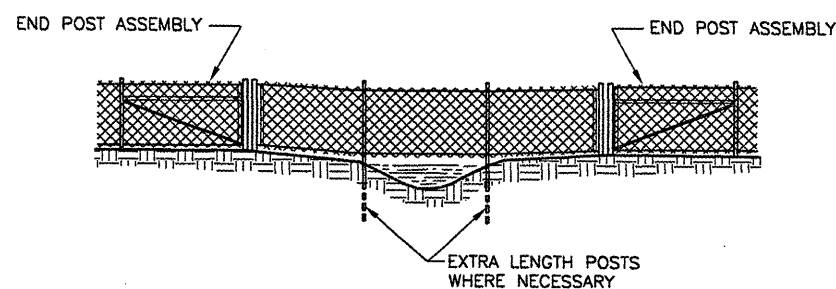
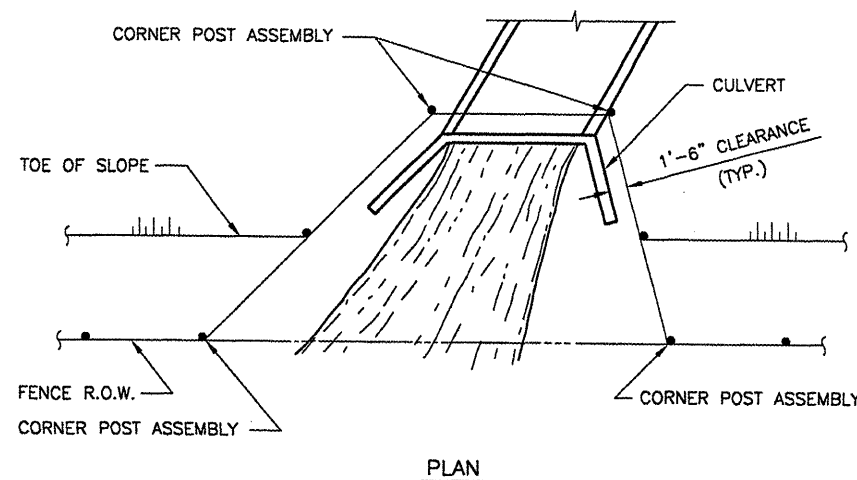
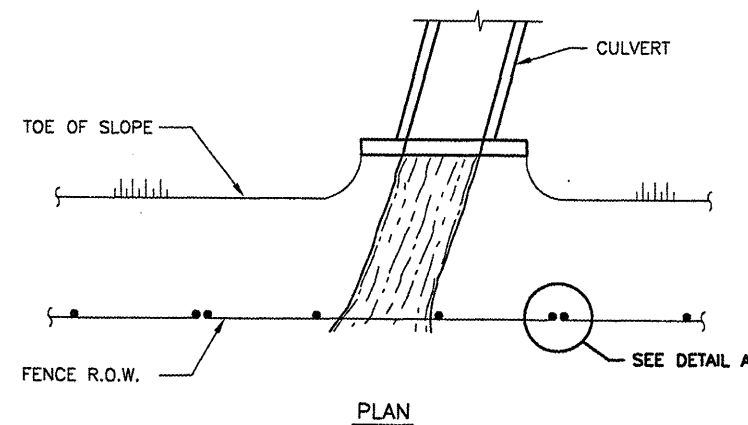
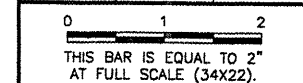


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DRAWN BY:	CMT
CHECKED BY:	REN
APPROVED BY:	REN
DATE:	04/01/2008
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SHEET	49 OF 66 SHEETS

- 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.

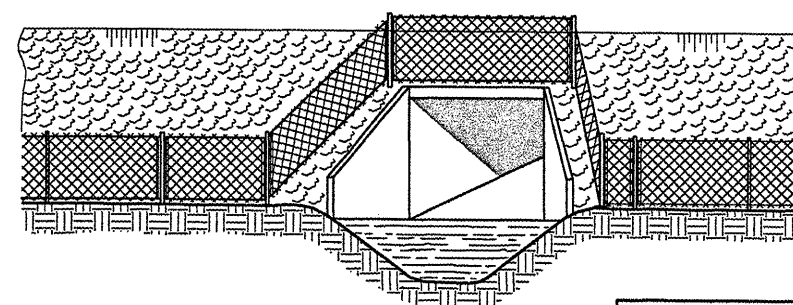
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NUMBER	BY	DATE



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.

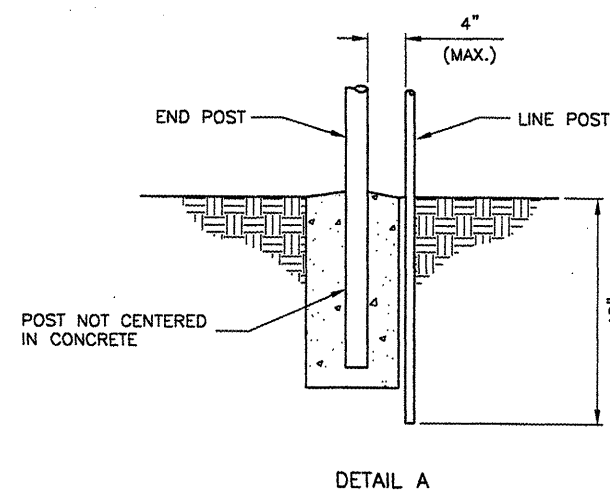
ELEVATION



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.

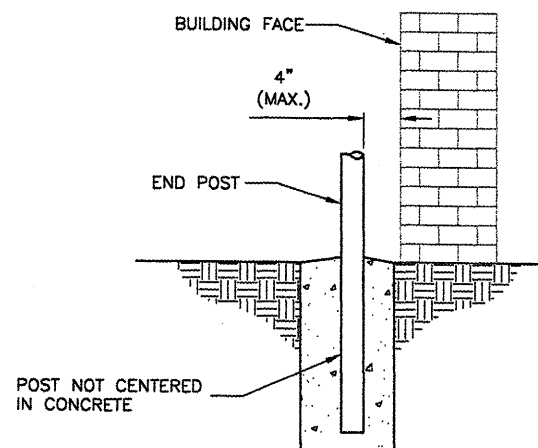
ELEVATION

FENCE INSTALLATION AROUND HEADWALL DETAILS  
 N.T.S.



DETAIL A

FENCE INSTALLATION OVER STREAM DETAILS  
 N.T.S.



FENCE INSTALLATION AT BUILDING FACE  
 N.T.S.

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 FENCE DETAILS 2

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APPROVED BY:	<i>REN</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	50 OF 66 SHEETS

**BL064**

REVISIONS

NUMBER	BY	DATE

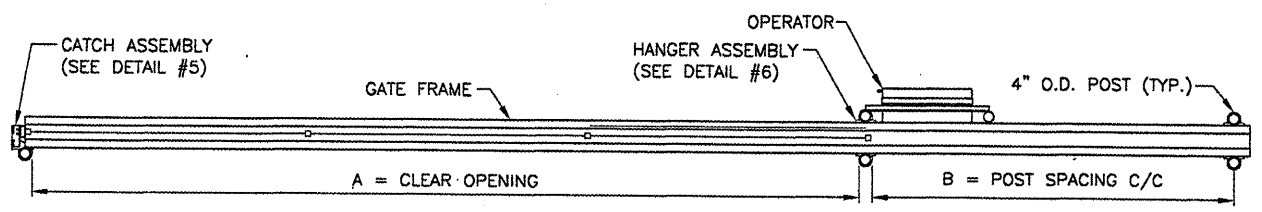
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 THIS BAR IS EQUAL TO 2"  
 AT FULL SCALE (34X22).

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

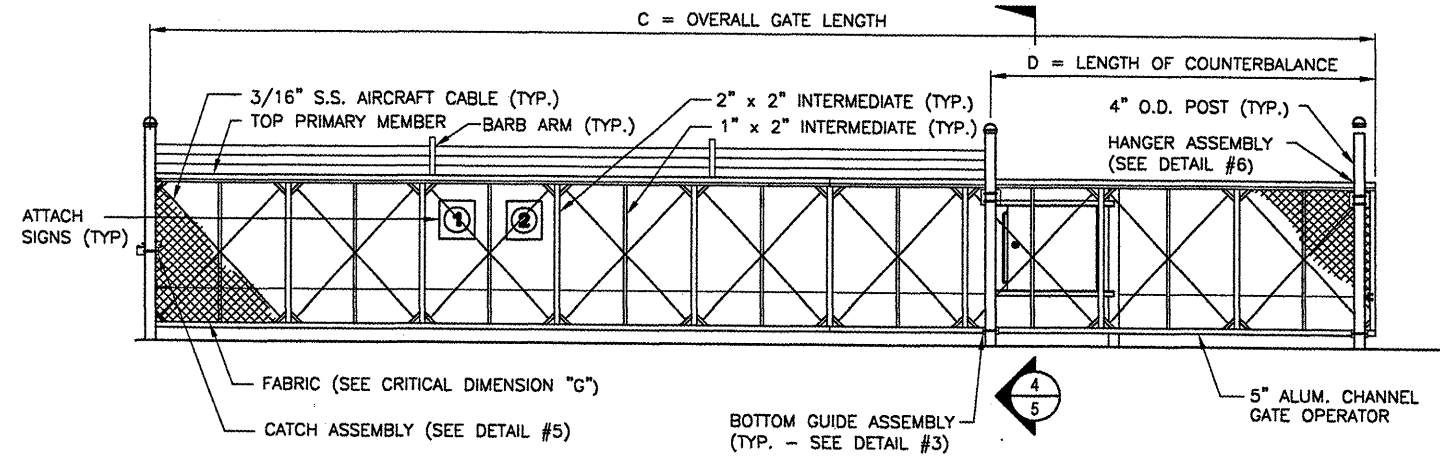
CONSTRUCT NEW ARFF FACILITY  
 ELECTRIC GATE DETAILS 1

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 DRAWN BY: CMT  
 CHECKED BY: *RW*  
 APPROVED BY: *RW*  
 DATE: 04/01/2008  
 JOB No: 0508509  
 IL PROJ. NO. BMI-3797  
 AIP PROJ. NO. 3-17-0006-46 & 48  
 SHEET 51 OF 66 SHEETS



1 PLAN VIEW  
 5 SCALE: N.T.S.



2 ELEVATION  
 5 Scale: N.T.S.

**CANTILEVER SLIDE GATE CRITICAL DIMENSION CHART**

Letter	Description	Dimension
A	CLEAR OPENING	30'-0"
B	COUNTERBALANCE POST SPACING C/C	14'-1"
C	OVERALL GATE LENGTH	45'-0"
D	COUNTERBALANCE LENGTH	15'-0"
E	NOMINAL GATE HEIGHT	10'-0"
F	POST HEIGHT	10'-6"
G	FABRIC HEIGHT	9'-0"

**SIGNS**  
 CONTRACTOR SHALL FURNISH AND INSTALL SIGNS AS INDICATED IN TABLE BELOW

SIGN	DIMENSIONS	LETTERING		TEXT
		BACKGROUND 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	SEE WARNING SIGN DETAIL			

**NOTES**  
 1) SIGNS SHALL BE INSTALLED ON BOTH SIDES OF GATE.

**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**

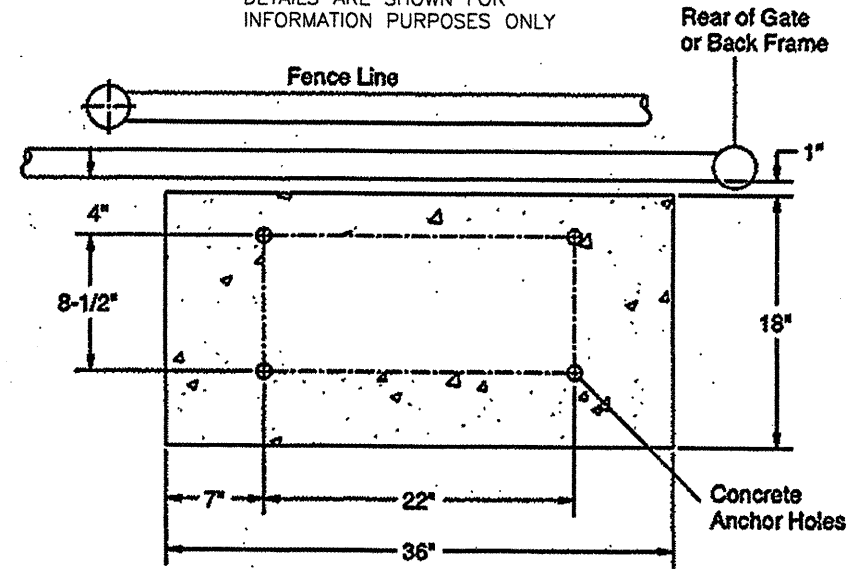
- CANTILEVERED GATE SHALL BE SUFFICIENTLY RIGID TO WITHSTAND FLEXING OR BENDING DURING WINDY CONDITIONS. CONTRACTOR SHALL PROVIDE STIFFENERS, STRUCTURAL SHAPES IN EXCESS OF THE MINIMUM SPECIFIED DIMENSIONS OR ADDITIONAL ROLLERS AND POSTS SUFFICIENT TO PREVENT DISPLACEMENT OF THE GATE BY WIND OR BY UNAUTHORIZED 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.

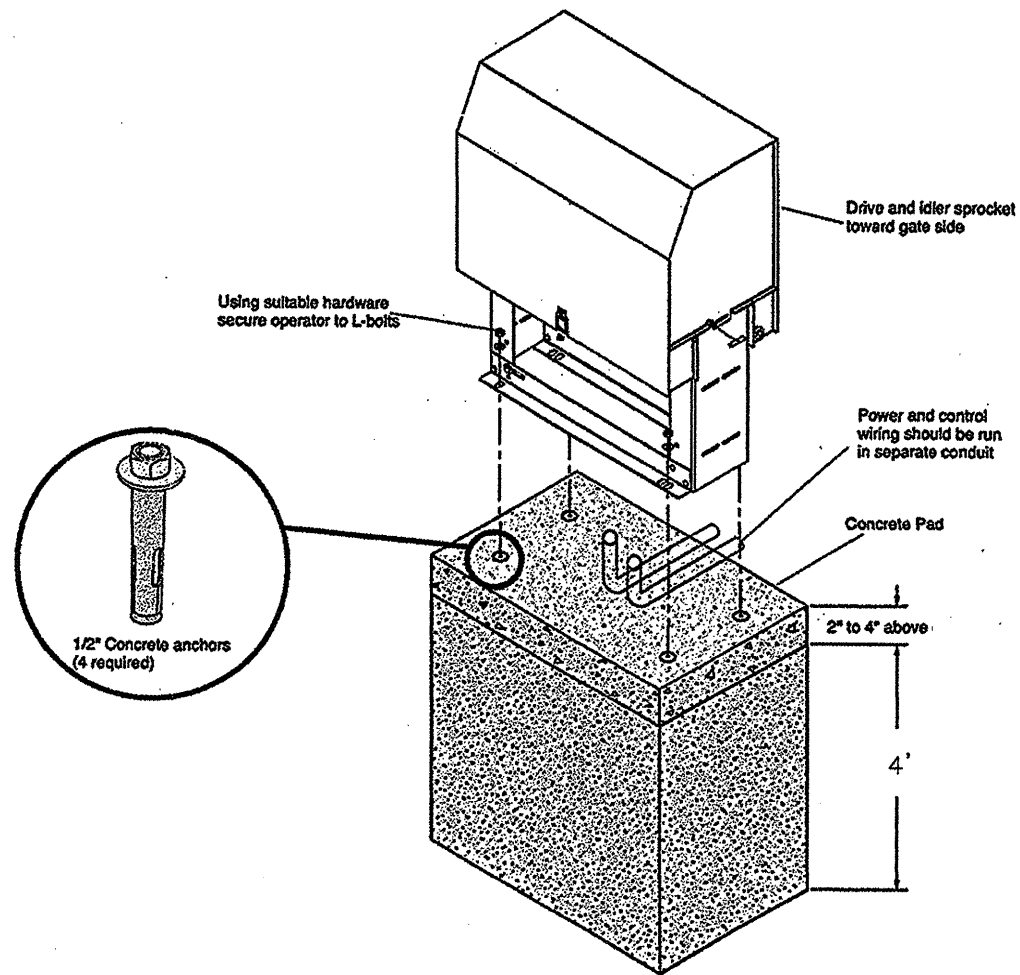


WARNING SIGN DETAIL

NOTE;  
DETAILS ARE SHOWN FOR  
INFORMATION PURPOSES ONLY



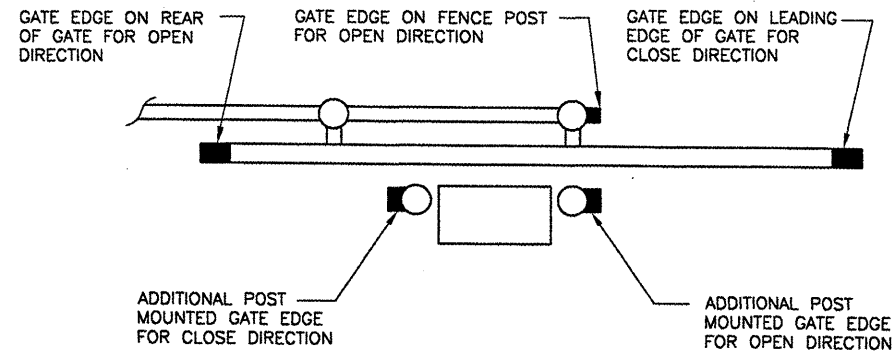
PLAN VIEW



ELEVATION VIEW

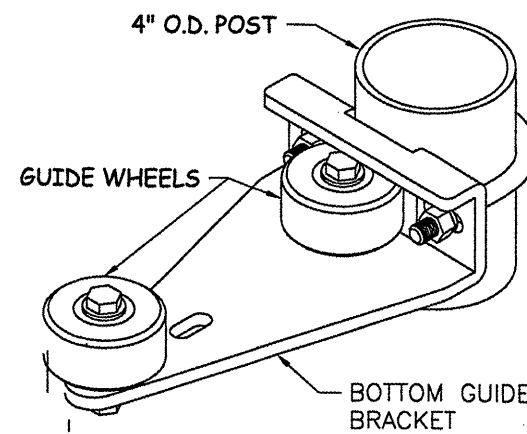
GATE OPERATOR DETAILS

N.T.S.



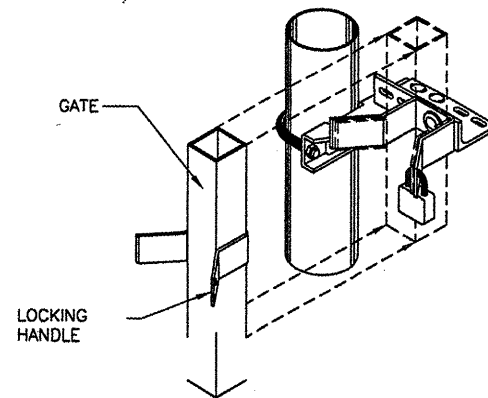
SECONDARY GATE OPERATOR ENTRAPMENT  
PROTECTION CONTACT SENSORS

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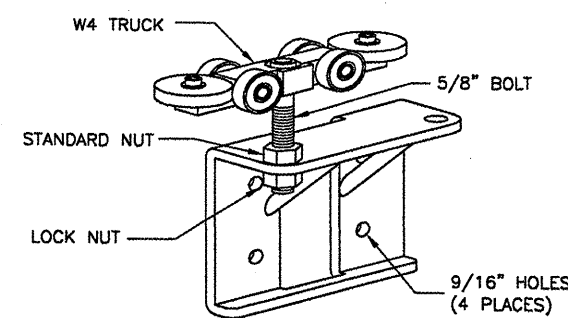
3  
5 BOTTOM GUIDE

N.T.S.



5  
5 CATCH ASSEMBLY

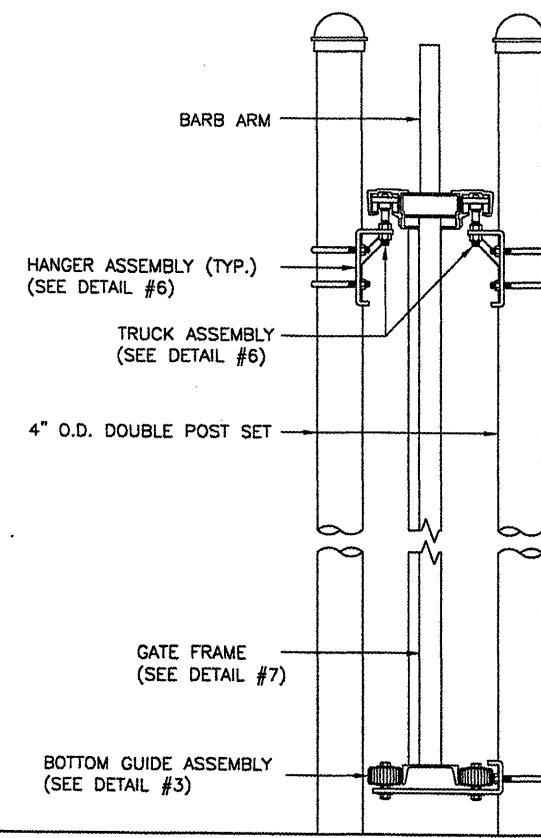
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6  
5 GATE HANGER ASSEMBLY

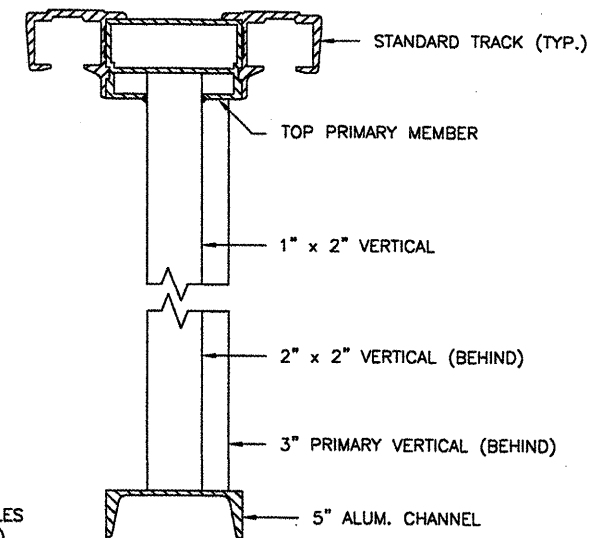
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CANTILEVER SLIDE GATE DETAILS



4  
5 ASSEMBLY SECTION

N.T.S.



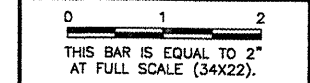
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5 GATE FRAME SECTION

N.T.S.

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UPDATE BY: Kristy Brod  
PLOT DATE: 4/18/2008 8:36 AM

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BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
ELECTRIC GATE DETAILS 2

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DRAWN BY: DPA

CHECKED BY: *RLW*

APPROVED BY: *RLW*

DATE: 04/01/2008

JOB No: 0508509

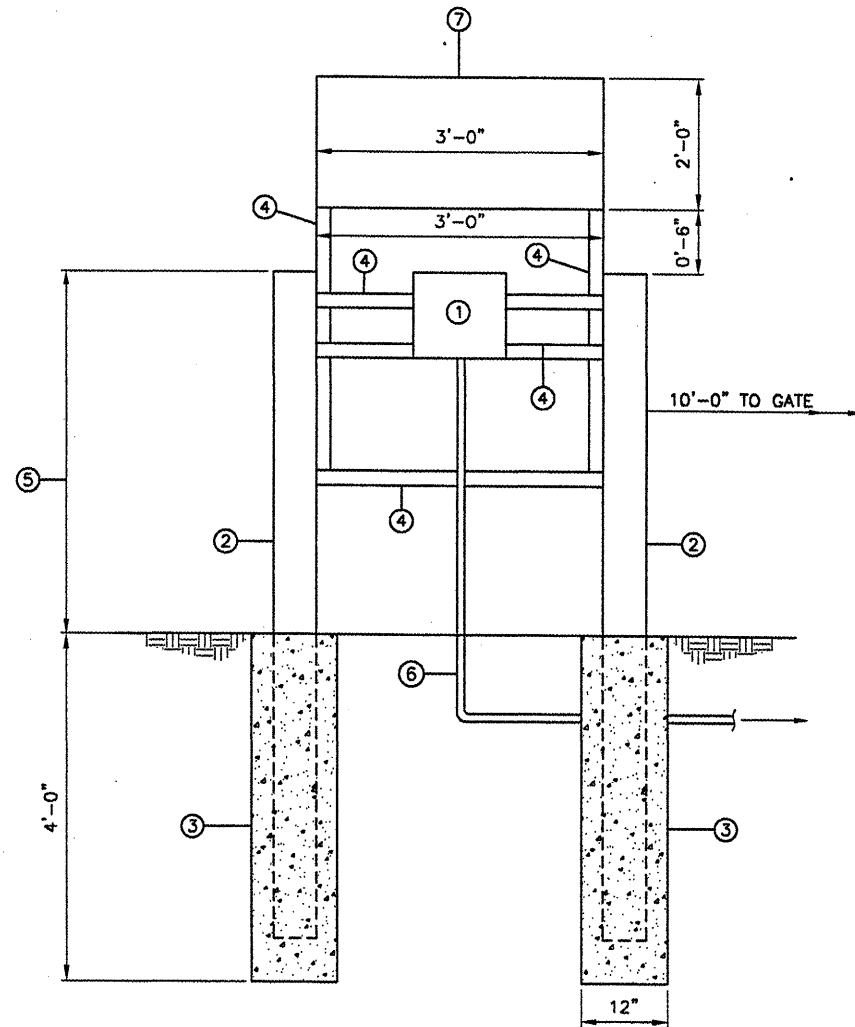
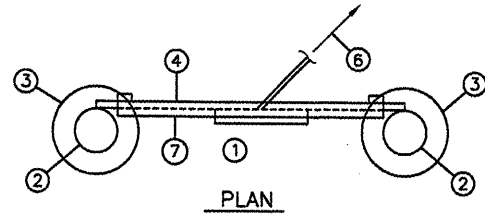
IL PROJ. NO. BMI-3797

AIP PROJ. NO. 3-17-0006-46 & 48

SHEET 52 OF 66 SHEETS

CARD READER NOMENCLATURE

- ① INDALA WEATHERPROOF LONG RANGE CARD READER, OR EQUIVALENT. SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ② CONCRETE-FILLED 6" DIAMETER STEEL POST, PAINTED YELLOW.
- ③ CONCRETE FOUNDATION.
- ④ 2" WIDE x 1/4" THICK STEEL, WELDED TO 6" PIPE AND PAINTED YELLOW.
- ⑤ AS RECOMMENDED BY GATE OPERATOR INSTALLER, NOMINALLY 4.5'.
- ⑥ 6-CONDUCTOR #18 SHIELDED CABLE IN 1" CONDUIT. CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER.
- ⑦ DIRECTORY DISPLAY SIGN, BOLTED TO 2" WIDE BY 1/4" THICK SHEET.

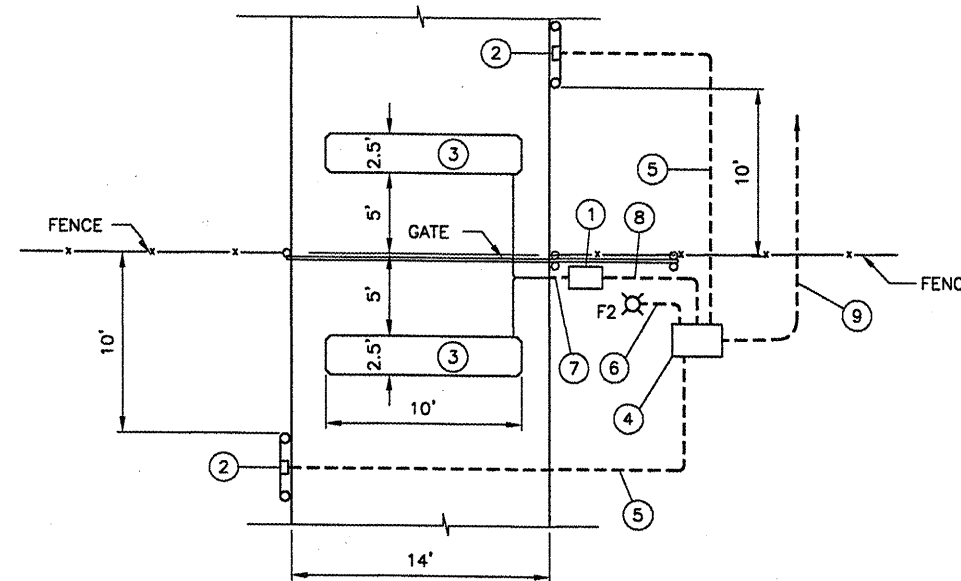


CARD READER INSTALLATION  
N.T.S.

NOMENCLATURE

- ① CANTILEVER GATE OPERATOR, CHAMBERLAIN LIFTMASTER MODEL SL575, 1/2 HP, 120V, SINGLE-PHASE, OR EQUIVALENT, SUITABLE FOR A MAXIMUM GATE WEIGHT OF 1200 LBS. SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ② INDALA WEATHERPROOF LONG RANGE CARD READER, OR EQUIVALENT. SEE PLANS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- ③ DETECTOR LOOPS.
- ④ POLYMER CONCRETE HANDHOLE. HANDHOLE SHALL BE SOLID-BOTTOM DESIGN AND SHALL BE QUAZITE/HUBBELL #PG-2436-DA-42 WITH #PG-2436-HA-00-17 COVER, OR EQUIVALENT. HANDHOLES SHALL BE 24"W X 36"L X 42" DEEP. 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.
- ⑤ 6-CONDUCTOR #18 SHIELDED CABLE IN 1" CONDUIT. CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER.
- ⑥ TWO #10 THWN (208V), ONE #10 GROUND IN 1" CONDUIT.
- ⑦ LOOP DETECTOR CABLES IN CONDUIT.
- ⑧ - TWO #8 THWN (120V), ONE #10 GROUND IN 1" CONDUIT.  
- 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL FROM AARF BUILDING) IN 1" CONDUIT.
- ⑨ - TWO #10 USE (208V POWER FOR F2), ONE #10 GROUND IN 1" CONDUIT.  
- TWO #8 USE (120V POWER FOR GATE OPERATOR), ONE #10 GROUND IN 1" CONDUIT  
- TWO 6-CONDUCTOR #18 SHIELDED CABLES (CARD READERS, CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER), 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 2" CONDUIT. SEE ELECTRICAL PLAN 2 FOR CONTINUATION.

NOTE:  
ALL CONDUIT AND WIRING FROM POLYMER CONCRETE HANDHOLE TO AUTOMATIC GATE EQUIPMENT (OPERATOR, CARD READERS, SENSOR LOOPS, F2 LIGHT FIXTURE, ETC.) SHALL BE CONSIDERED INCIDENTAL TO THE AUTOMATIC GATE INSTALLATION AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.

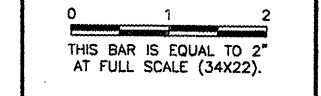


GATE NO. XX  
N.T.S.

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UPDATE BY: Kristy Brod  
PLOT DATE: 4/18/2008 8:36 AM

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BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
ELECTRIC GATE DETAILS 3

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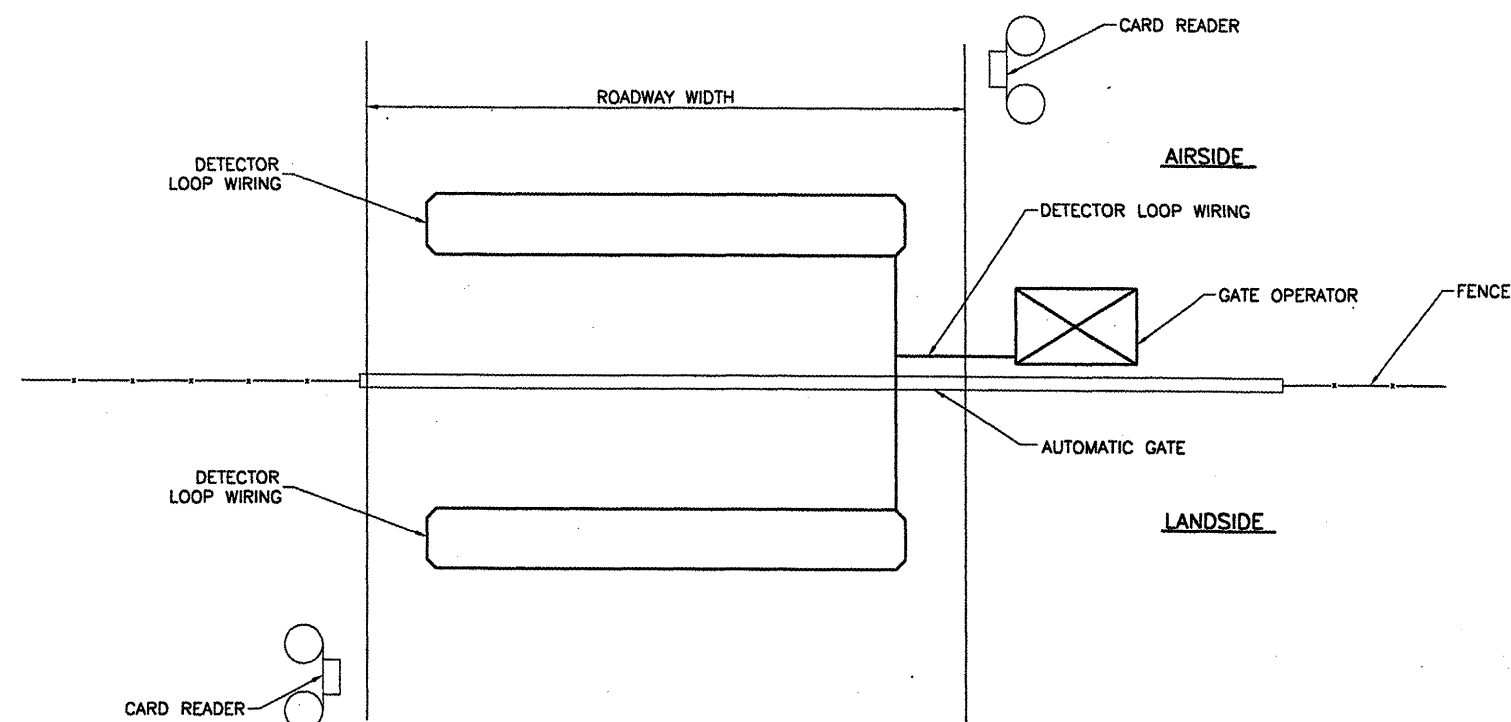
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DRAWN BY:	CMT
CHECKED BY:	RLV
APPROVED BY:	RLV
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JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	53 OF 66 SHEETS

**BL064**

REVISIONS

NUMBER	BY	DATE

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



**TYP. GATE PLAN**  
 N.T.S.

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

**SUMMARY OF OPERATION**

1. THE GATES SHALL HAVE AN AUTOMATIC GATE OPERATOR WITH TWO PROXIMITY CARD READERS AND REMOTE GATE OPEN CONTROL FROM ACCESS CONTROLLER IN AARF BLDG. ONCE THE GATE IS OPENED IT WILL REMAIN OPEN FOR THE TIME SPECIFIED BY THE OWNER AFTER THE LOOP PICKUPS DETERMINE THAT THERE ARE NO VEHICLES OVER THE PICKUP LOOPS.
2. ACTUATING THE GATE OPENERS VIA THE CARD READER REQUIRES THE VEHICLE TO APPROACH THE GATE ENTRANCE AND STOP. THE DRIVER ACTIVATES THE GATE OPERATOR BY SWEEPING HIS CARD. THE ACCESS CONTROL DEVICE TRANSMITS AN IMPULSE TO ACTIVATE THE GATE OPERATOR TO OPEN THE GATE. AFTER THE GATE IS FULLY OPENED AND STOPPED, THE VEHICLE PROCEEDS THROUGH THE OPENING, PASSING OVER THE LOOPS. WHILE THE VEHICLE IS IN THE LOOP SENSING RANGE, AN IMPULSE IS TRANSMITTED TO THE GATE OPERATOR TO HOLD THE GATE IN THE OPEN POSITION. WHEN THE LOOP HAS BEEN CLEARED, THE AUTOMATIC TIMER IS ACTIVATED AND, WHEN THE USER-DETERMINED TIME HAS ELAPSED, IT WILL ACTIVATE THE GATE OPERATOR TO CLOSE THE GATE.

**NOTES**

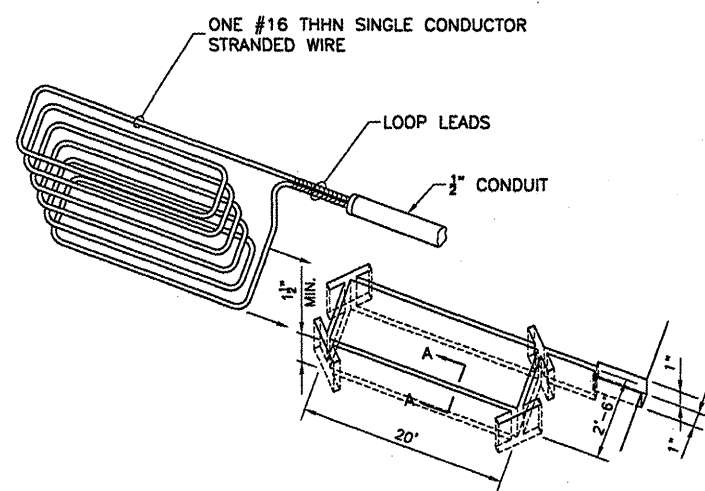
1. LOOP LEADS ARE LIMITED TO 100 FEET.
2. LOOP LEADS MUST HAVE FOUR (4) TWISTS PER FOOT.
3. LOOP AND LOOP LEADS MUST BE LOCATED, AT LEAST, 18" FROM ANY ELECTRICAL POWER SERVICE OR STEEL REINFORCEMENT.
4. LOOP LEADS MUST BE IN SEPARATE CONDUIT BETWEEN LOOP AND DETECTOR. THEY MUST NOT SHARE CONDUIT WITH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

**CAUTION:**

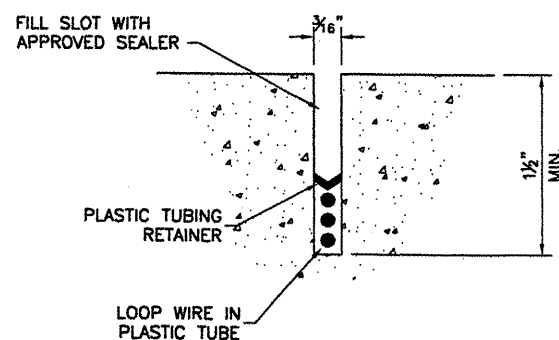
- DO NOT SPLICE WIRE.
- DO NOT FRACTURE WIRE INSULATION. LOOPS SHORTED TO GROUND WILL CAUSE DETECTOR MALFUNCTION. WHEN PLACING WIRE IN THE SLOT. DO NOT USE SCREWDRIVER OR OTHER SHARP TOOLS.

**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).



**PERSPECTIVE VIEW OF  
 DETECTOR LOOP SAW SLOT**



**SECTION A-A**

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

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

CONSTRUCT NEW ARFF FACILITY  
 ELECTRIC GATE DETAILS 4

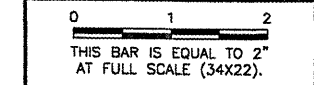
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 DATE: 04/01/2008  
 JOB No: 0508509

IL. PROJ. NO. BMI-3797  
 AIP PROJ. NO. 3-17-0006-46 & 48  
 SHEET 54 OF 66 SHEETS

**BL064**

REVISIONS		
NUMBER	BY	DATE



**BLOOMINGTON-NORMAL AIRPORT AUTHORITY**  
**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**  
  
**CONSTRUCT NEW ARFF FACILITY**  
**ONE-LINE DIAGRAM**

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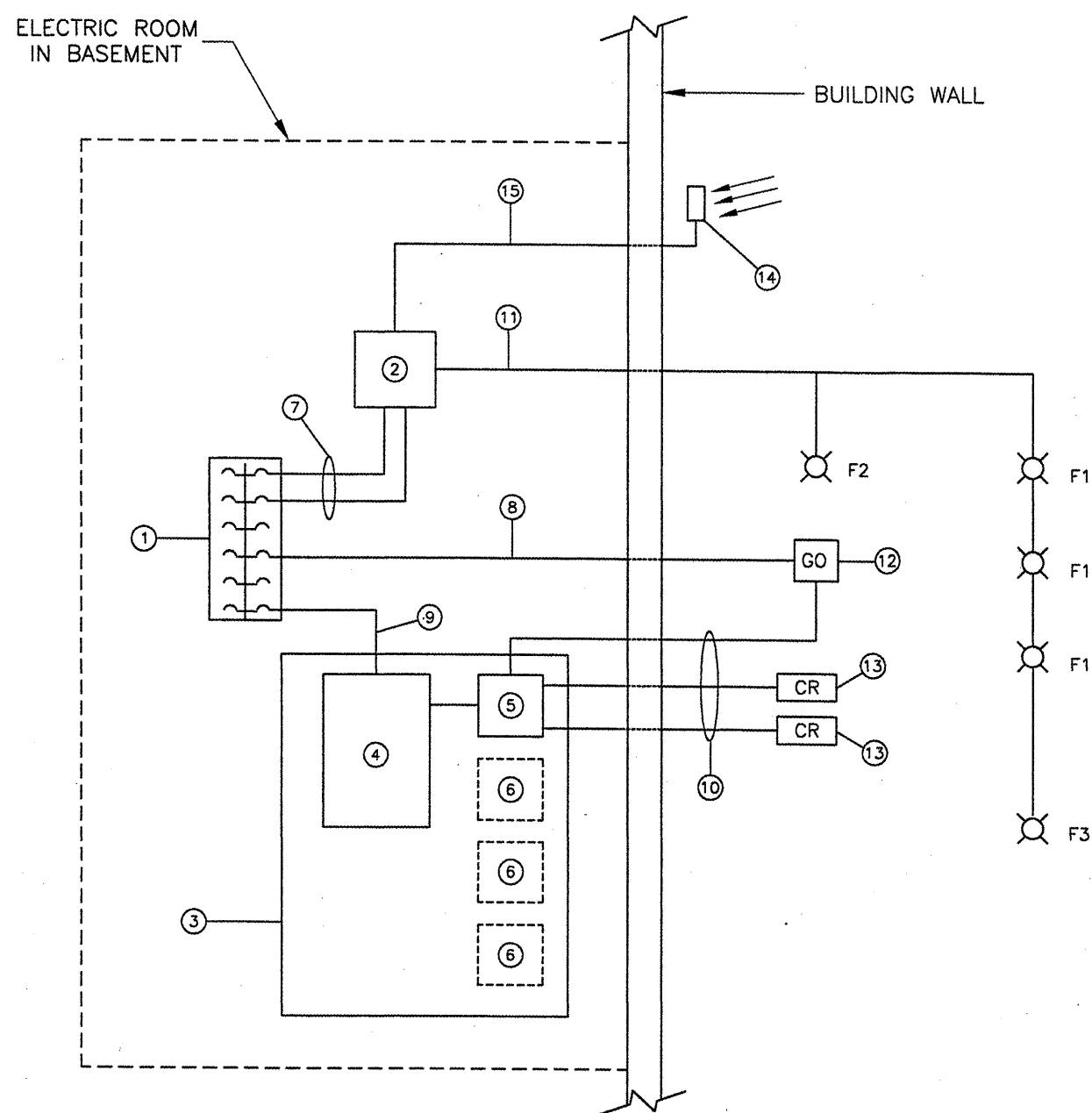
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CHECKED BY:	<i>TCW</i>
APPROVED BY:	<i>TCW</i>
DATE:	04/01/2008
JOB No:	0508509
IL PROJ. NO.	BMI-3797
AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	55 OF 66 SHEETS

**ONE-LINE DIAGRAM NOMENCLATURE**

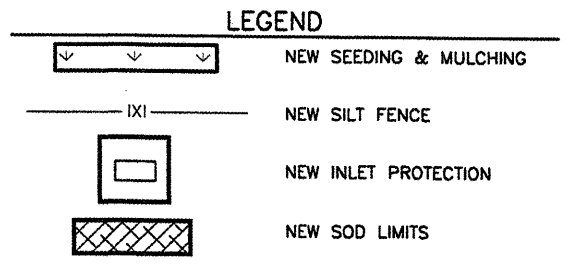
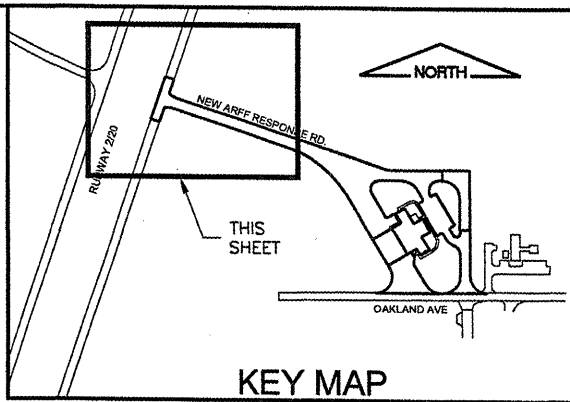
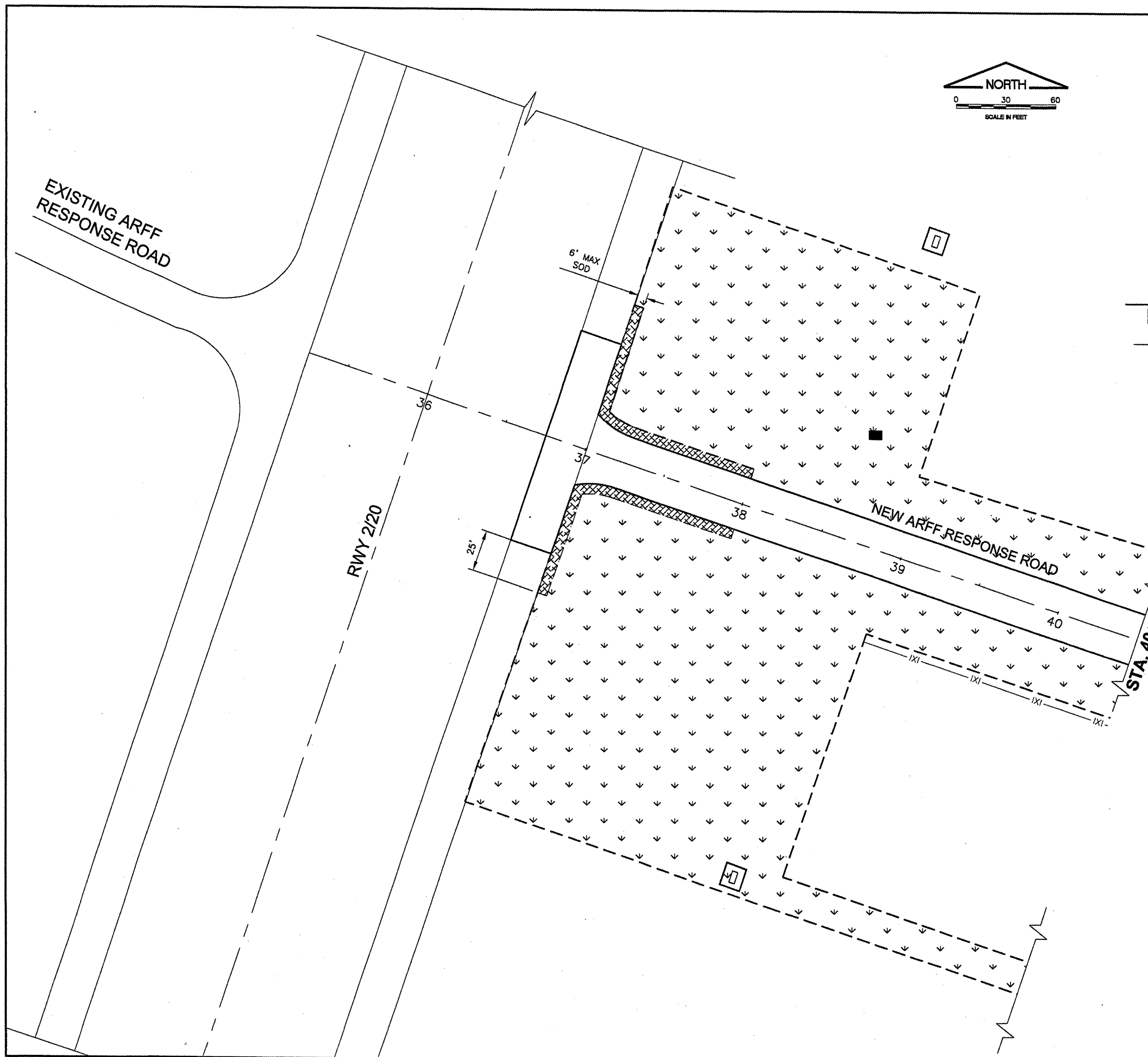
- ① LIGHTING PANELBOARD (N.I.C.) FURNISHED AND INSTALLED BY AARF BUILDING CONTRACTOR. THE FOLLOWING CIRCUIT BREAKERS SHALL BE PROVIDED:  
 - 20A, 1P, LABELED "PARKING LOT, FLAG POLE, GATE LIGHTING CONTROL"  
 - 20A, 2P, LABELED "PARKING LOT, FLAG POLE, GATE LIGHTS"  
 - 20A, 1P, LABELED "GATE OPERATOR"  
 - 20A, 1P, LABELED "ACCESS CONTROLLER"  
 CONTRACTOR SHALL COORDINATE THIS WORK WITH THE AARF BUILDING CONTRACTOR THROUGH THE ENGINEER.
- ② LIGHTING CONTROLLER. CONTRACTOR SHALL COORDINATE THE LOCATION OF THIS EQUIPMENT IN THE ELECTRICAL ROOM WITH THE AARF BUILDING ARCHITECT THROUGH THE ENGINEER.
- ③ ACCESS CONTROLLER EQUIPMENT MOUNTING PANEL, SIZED AS REQUIRED TO MOUNT CURRENT AND FUTURE EQUIPMENT. CONTRACTOR SHALL COORDINATE THIS WORK WITH THE ACCESS CONTROLLER SUPPLIER. CONTRACTOR SHALL COORDINATE THE LOCATION OF THIS EQUIPMENT IN THE ELECTRICAL ROOM WITH THE AARF BUILDING ARCHITECT THROUGH THE ENGINEER.
- ④ ACCESS CONTROLLER, HIRSCH DIGI\*TRAC M16N2, OR EQUIVALENT. NOMINAL DIMENSIONS: 18"Hx15"Wx6"D.
- ⑤ INTELLIGENT READER INTERFACE, HIRSCH MATCH MRIA IN MB2 ENCLOSURE, OR EQUIVALENT. NOMINAL DIMENSIONS: 8"Hx6"Wx4"D.
- ⑥ FUTURE INTELLIGENT READER INTERFACE UNITS.
- ⑦ TWO #12 THWN (120V), TWO #12 THWN (208V), ONE #12 GROUND IN 3/4" CONDUIT.
- ⑧ TWO #8 USE (120V), ONE #10 GROUND IN 1" CONDUIT.
- ⑨ TWO #12 THWN (120V), ONE #12 GROUND IN 3/4" CONDUIT.
- ⑩ TWO 6-CONDUCTOR #18 SHIELDED CABLES (CARD READERS, CONTRACTOR SHALL VERIFY WITH CARD READER SUPPLIER), 2/C #14 SHIELDED CABLE (GATE OPEN CONTROL) IN 2" CONDUIT.
- ⑪ TWO #10 USE (208V POWER FOR F1, F2 & F3), ONE #10 GROUND IN 1" CONDUIT.
- ⑫ CANTILEVER GATE OPERATOR, CHAMBERLAIN LIFTMASTER MODEL SL575, 1/2 HP, 120V, SINGLE-PHASE, OR EQUIVALENT.
- ⑬ INDALA WEATHERPROOF LONG RANGE CARD READER, OR EQUIVALENT.
- ⑭ PHOTOCCELL, TORK MODEL #2101, OR EQUIVALENT. MOUNT ON BLDG EXTERIOR. CONTRACTOR SHALL COORDINATE THE LOCATION OF THIS EQUIPMENT WITH THE AARF BUILDING ARCHITECT THROUGH THE ENGINEER.
- ⑮ THREE #12 THWN IN 3/4" CONDUIT. IF METALLIC CONDUIT IS USED, INSTALL GROUNDING BUSHING WHERE CONDUIT ENTERS NEMA 1 ENCLOSURE AND BOND CONDUIT TO BUILDING GROUND SYSTEM.

**ONE-LINE DIAGRAM NOTES**

- 1.) CONDUITS INSIDE AARF BUILDING SHALL BE MET TO MATCH THE REST OF THE CONDUITS. CONDUITS OUTSIDE AARF BUILDING SHALL BE SCHEDULE 40 PVC.
- 2.) ALL MATERIAL, LABOR, EQUIPMENT, ETC. INSIDE THE AARF BUILDING THAT IS RELATED TO THE LIGHTING CONTROLS INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO THE LIGHTING CONTROLS PAY ITEM AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.
- 3.) ALL CONDUITS, WIRING, MATERIAL, LABOR, EQUIPMENT, ETC. INSIDE THE AARF BUILDING THAT IS RELATED TO THE ACCESS CONTROLS INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO THE ACCESS CONTROLS PAY ITEM AND WILL NOT BE MEASURED OR PAID FOR SEPARATELY.



**ONE-LINE DIAGRAM**  
 NTS

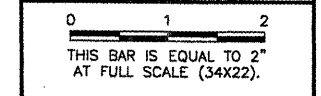


- NOTES:**
- CONTRACTOR SHALL SEED, MULCH, AND LAY EXCELSIOR BLANKET AT THE LOCATION WHERE THE EARTH CHECK DAM IS CONSTRUCTED.
  - TURFING LIMITS SHOWN ARE APPROXIMATE. ACTUAL TURFING LIMITS SHALL BE DETERMINED BY THE ENGINEER.
  - AN ADDITIONAL 4500 SY OF EXCELSIOR BLANKET, 500 L.F. OF SILT FENCE, AND 50 S.Y. OF SODDING HAVE BEEN INCLUDED IN THE QUANTITIES FOR ADDITIONAL DISTURBED AREAS AS REQUIRED BY THE ENGINEER.
  - RESTORATION AND TURFING OF DISTURBED AREAS BEYOND THE LIMITS SHOWN (SUCH AS EDGE LIGHTING, CABLING, SIGNAGE, ACCESS, STAGING, ETC.) SHALL BE INCIDENTAL TO THE PROJECT.

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 PLOT DATE: 4/18/2008 8:36 AM  
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 SITE\_KEYMAP  
 BASE\_PROPTURF  
 BASE\_PROPDRAIN  
 BASE\_PROPGEO

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 BLOOMINGTON, ILLINOIS**

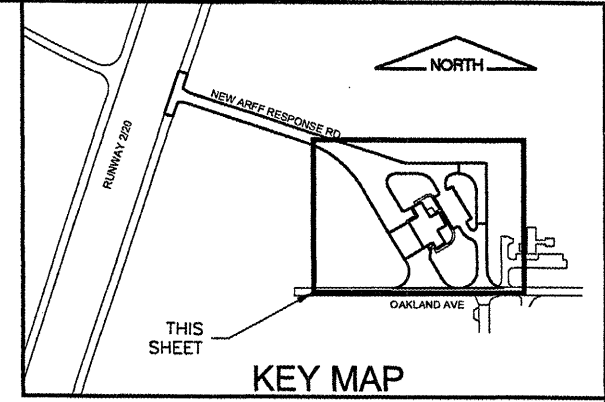
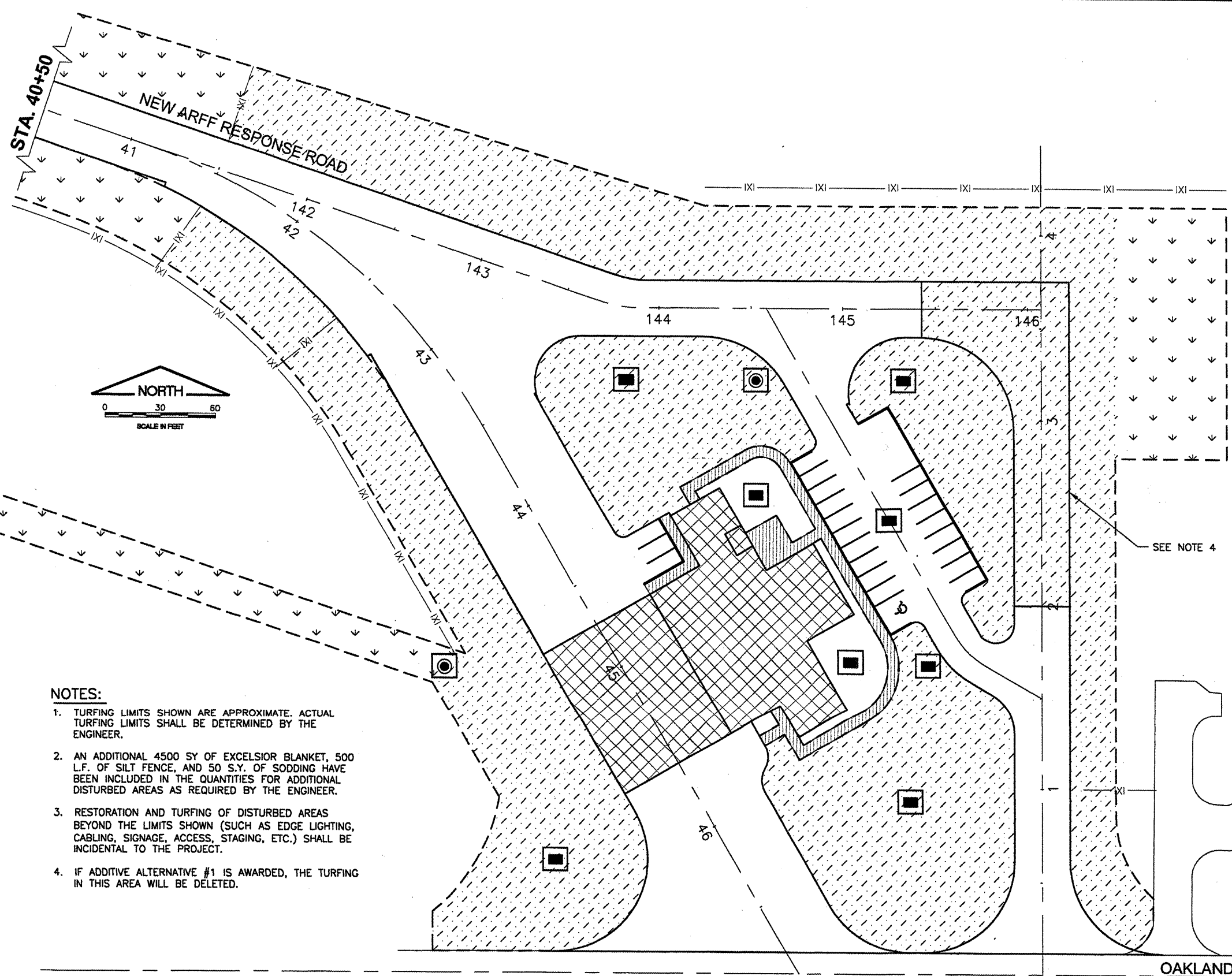
**CONSTRUCT NEW ARFF FACILITY  
 EROSION CONTROL & TURFING PLAN 1**

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AIP PROJ. NO.	3-17-0006-46 & 48
SHEET	56 OF 66 SHEETS





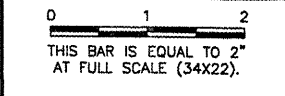
- LEGEND**
- NEW SEEDING & MULCHING - AIRFIELD MIXTURE
  - NEW SEEDING & MULCHING - LAWN MIXTURE
  - NEW SILT FENCE
  - NEW INLET PROTECTION
  - NEW SOD LIMITS

- NOTES:**
1. TURFING LIMITS SHOWN ARE APPROXIMATE. ACTUAL TURFING LIMITS SHALL BE DETERMINED BY THE ENGINEER.
  2. AN ADDITIONAL 4500 SY OF EXCELSIOR BLANKET, 500 L.F. OF SILT FENCE, AND 50 S.Y. OF SODDING HAVE BEEN INCLUDED IN THE QUANTITIES FOR ADDITIONAL DISTURBED AREAS AS REQUIRED BY THE ENGINEER.
  3. RESTORATION AND TURFING OF DISTURBED AREAS BEYOND THE LIMITS SHOWN (SUCH AS EDGE LIGHTING, CABLING, SIGNAGE, ACCESS, STAGING, ETC.) SHALL BE INCIDENTAL TO THE PROJECT.
  4. IF ADDITIVE ALTERNATIVE #1 IS AWARDED, THE TURFING IN THIS AREA WILL BE DELETED.

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 SITE\_KEYMAP  
 BASE\_PROPCDRAIN  
 BASE\_PROPTURF

**BL064**

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

**CONSTRUCT NEW ARFF FACILITY  
 EROSION CONTROL & TURFING PLAN 2**

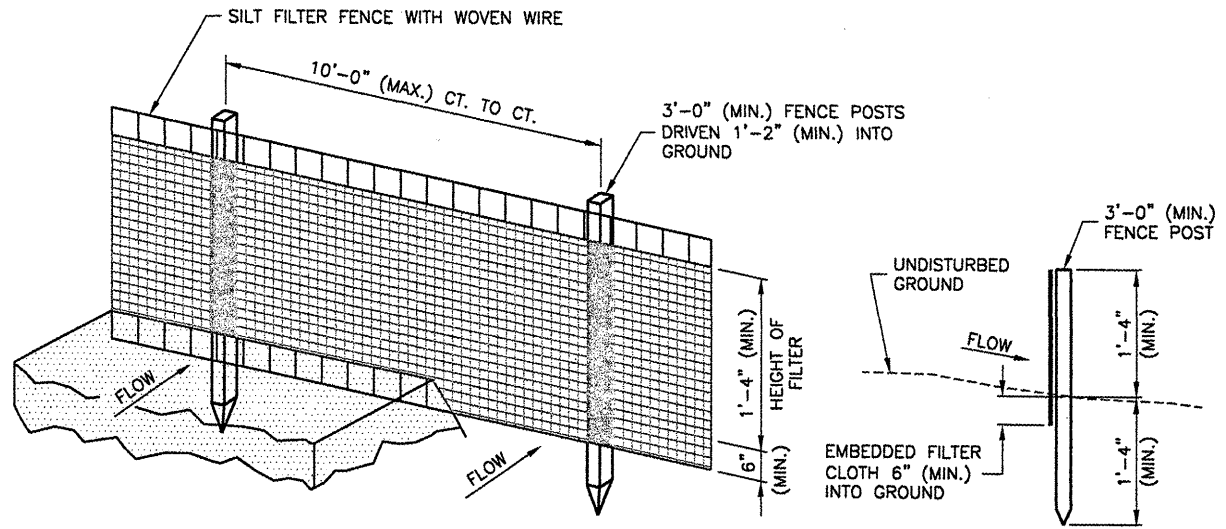
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SHEET	57 OF 66 SHEETS

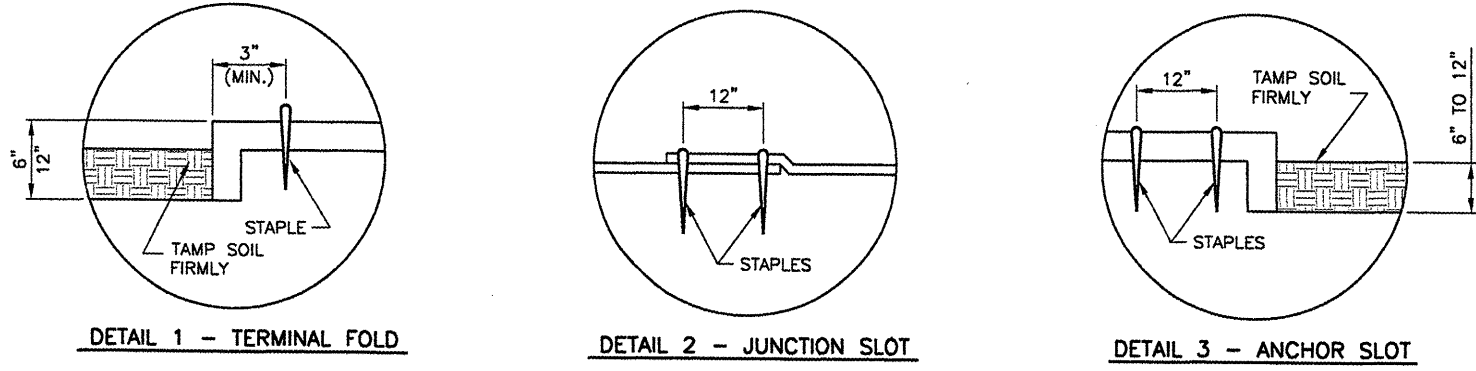
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 THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).

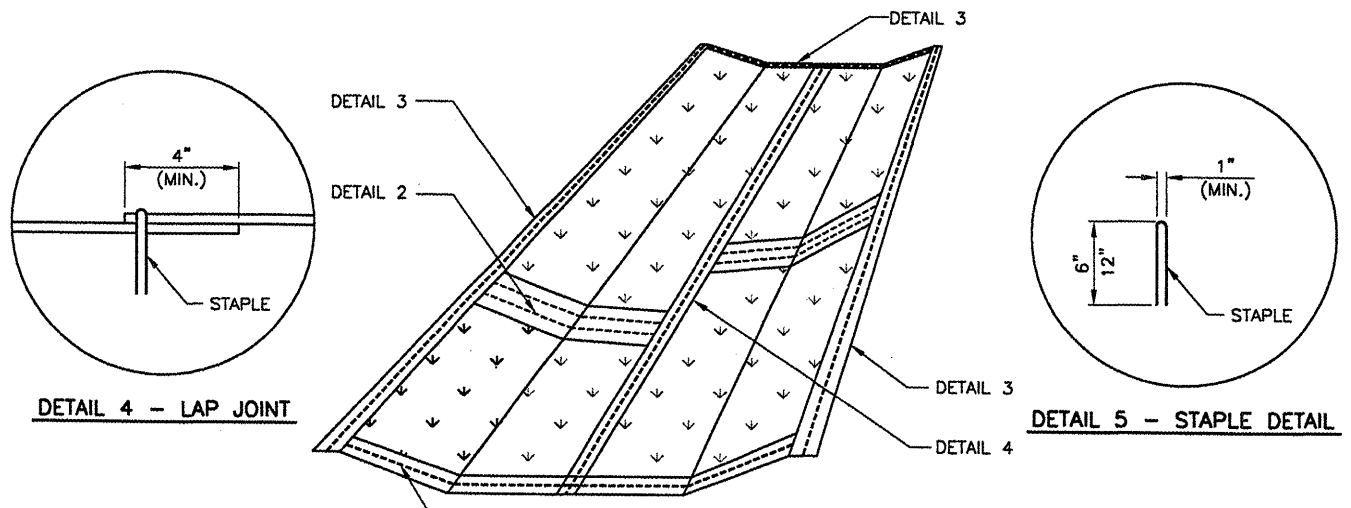


**PERSPECTIVE VIEW**  
**EROSION CONTROL FABRIC FENCE DETAIL**  
 N.T.S.



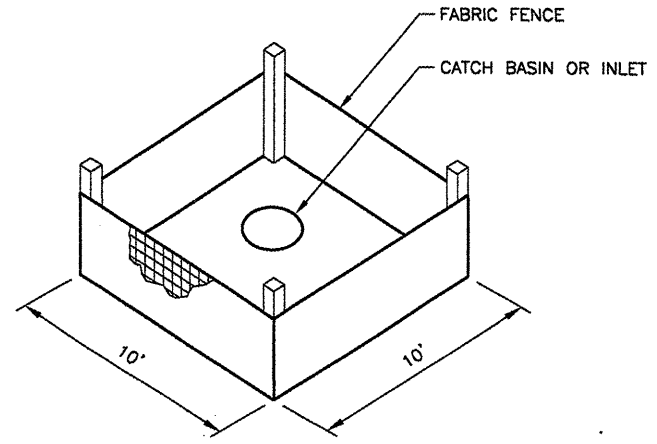
**DETAIL 1 - TERMINAL FOLD**      **DETAIL 2 - JUNCTION SLOT**      **DETAIL 3 - ANCHOR SLOT**

- NOTES**
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
  2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 2'-0" AT TOP AND MID SECTION.
  3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" MINIMUM AND FOLDED.
  4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE. MAINTENANCE, WHICH INCLUDES THE REPLACEMENT OF DAMAGED FENCE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE EROSION CONTROL FENCE.



**PLAN**  
**EXCELSIOR BLANKET DETAILS**  
 N.T.S.

- 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.



**INLET PROTECTION WITH FABRIC**  
 N.T.S.

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CONSTRUCT NEW ARFF FACILITY  
 EROSION CONTROL DETAILS

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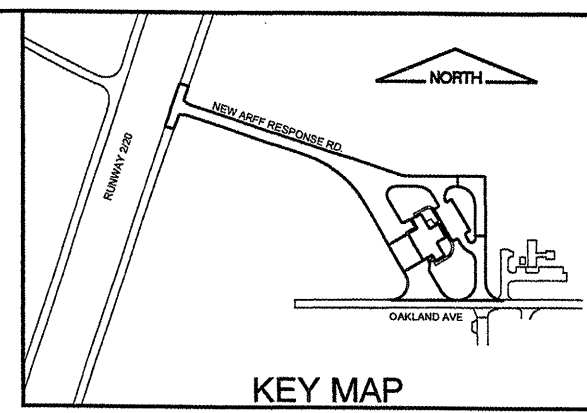
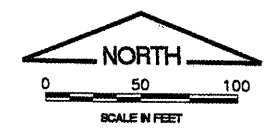
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SHEET	58 OF 66 SHEETS

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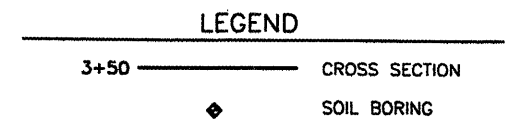
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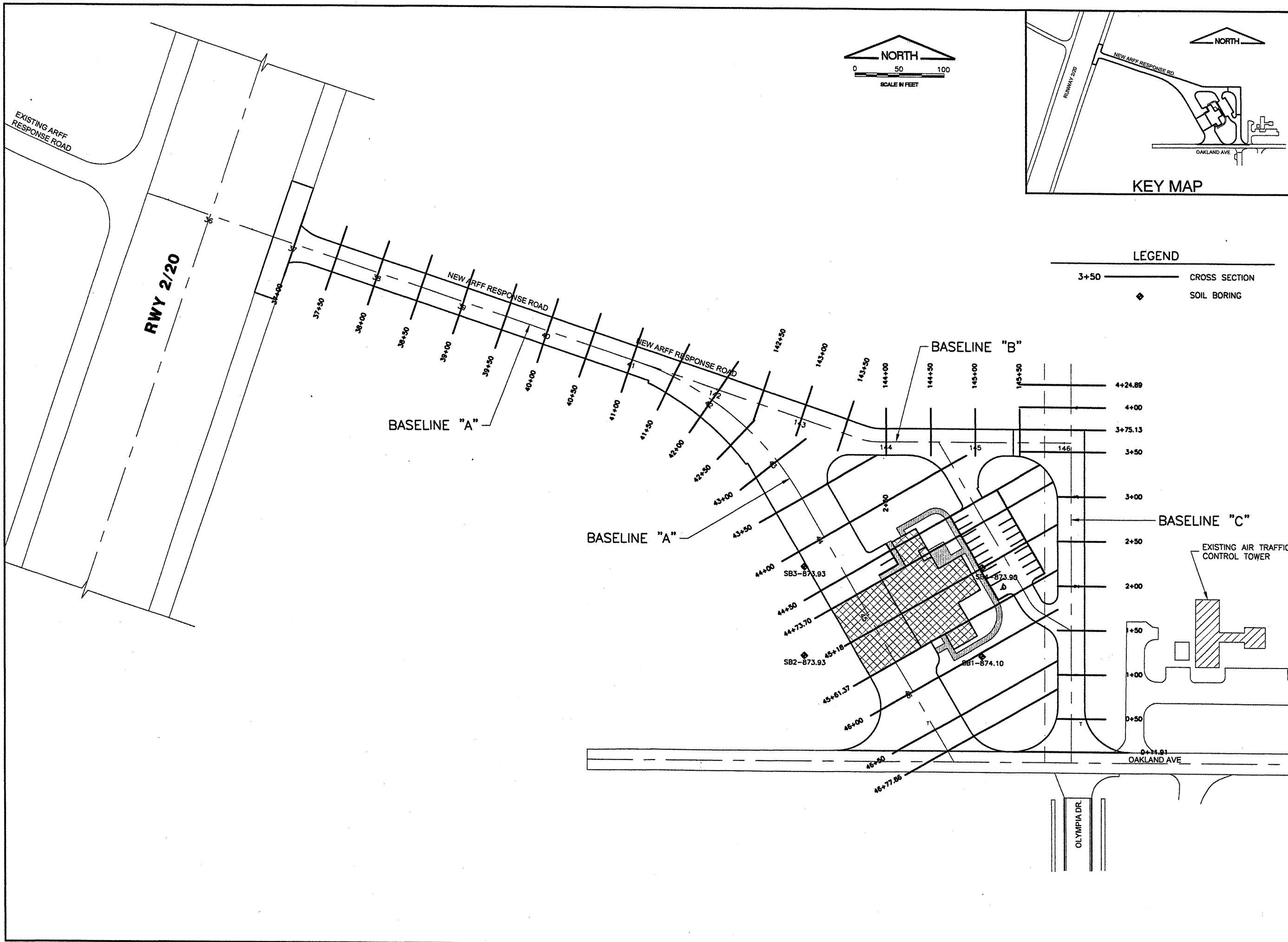
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KEY MAP



LEGEND



BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS

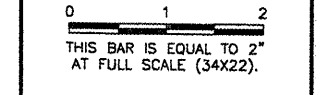
CONSTRUCT NEW ARFF FACILITY  
 INDEX TO CROSS SECTIONS

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IL PROJ. NO. BMI-3797	
AIP PROJ. NO. 3-17-0006-46 & 48	
SHEET 59 OF 66 SHEETS	

**BL064**

REVISIONS		
NUMBER	BY	DATE



**EARTHWORK SUMMARY  
 BASE BID**

STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
---------	--------------------------------	------------------------------

ARFF RESPONSE ROAD/DRIVEWAY		
37+00	43.92	0.08
37+50	22.08	12.03
38+00	0.00	186.35
38+50	0.00	456.64
39+00	0.00	61.61
39+50	0.00	22.80
40+00	0.25	11.37
40+50	0.30	14.03
41+00	4.06	8.35
41+50	54.97	0.20
42+00	31.32	3.34
42+50	4.55	25.43
43+00	0.38	33.82
43+50	2.29	121.19
44+00	0.00	188.27
44+50	11.15	455.92
44+73.70	19.46	458.46
45+18	10.47	416.08
45+61.37	5.57	438.33
46+00	23.19	186.70
46+50	94.56	18.81
46+77.86	49.29	30.20

STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
---------	--------------------------------	------------------------------

ARFF RESPONSE ROAD/SERVICE		
143+00	0.00	43.04
143+50	0.00	43.99
144+00	0.00	34.30
144+50	0.00	36.93
145+00	0.00	39.63
145+50	0.00	71.55

SERVICE ROAD		
0+11.91	153.74	0.00
0+50	23.62	0.53
1+00	13.99	1.44
1+50	15.92	0.74
2+00	0.00	34.53
2+50	0.00	40.46
3+00	0.00	50.22
3+50	0.00	158.80
3+75.13	0.00	157.84
4+00	0.00	56.94
4+24.89	0.00	0.00

**EARTHWORK SUMMARY  
 BASE BID + ADDITIVE ALTERNATE #1**

STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
---------	--------------------------------	------------------------------

ARFF RESPONSE ROAD/DRIVEWAY		
37+00	43.92	0.08
37+50	22.08	12.03
38+00	0.00	186.35
38+50	0.00	456.64
39+00	0.00	61.61
39+50	0.00	22.80
40+00	0.25	11.37
40+50	0.30	14.03
41+00	4.06	8.35
41+50	54.97	0.20
42+00	31.32	3.34
42+50	4.55	25.43
43+00	0.38	33.82
43+50	2.29	121.19
44+00	0.00	188.27
44+50	11.15	455.92
44+73.70	19.46	458.46
45+18	10.47	416.08
45+61.37	5.57	438.33
46+00	23.19	186.70
46+50	94.56	18.81
46+77.86	49.29	30.20

STATION	EXCAVATE END AREA (S.F.)	EMBANK END AREA (S.F.)
---------	--------------------------------	------------------------------

ARFF RESPONSE ROAD/SERVICE		
143+00	0.00	43.04
143+50	0.00	43.99
144+00	0.00	34.30
144+50	0.00	36.93
145+00	0.00	39.63
145+50	0.00	36.55

SERVICE ROAD		
0+11.91	153.74	0.00
0+50	23.62	0.53
1+00	13.99	1.44
1+50	15.92	0.74
2+00	3.99	3.52
2+50	0.63	6.09
3+00	0.00	15.22
3+50	0.00	103.45
3+75.13	0.00	102.49
4+00	0.00	56.94
4+24.89	0.00	0.00

**NOTE:**  
 1.) THE QUANTITY OF EMBANKMENT IN PLACE OF THE EARTH CHECK DAM SHALL ADD 300 CY.  
 2.) IF THE ADDITIVE ALTERNATE #1 IS AWARDED, 445 CY OF EMBANKMENT IN PLACE WILL BE DELETED FROM THE CONTRACT.

BLOOMINGTON-NORMAL AIRPORT AUTHORITY  
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 BLOOMINGTON, ILLINOIS

CONSTRUCT NEW ARFF FACILITY  
 EARTHWORK SUMMARY

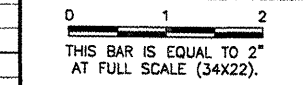
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DATE:	04/01/2008
JOB No:	0508509
IL. PROJ. NO. BMI-3797	
AIP PROJ. NO. 3-17-0006-46 & 48	
SHEET 60 OF 66 SHEETS	

**BL064**

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 CENTRAL ILLINOIS REGIONAL AIRPORT  
 BLOOMINGTON, ILLINOIS**

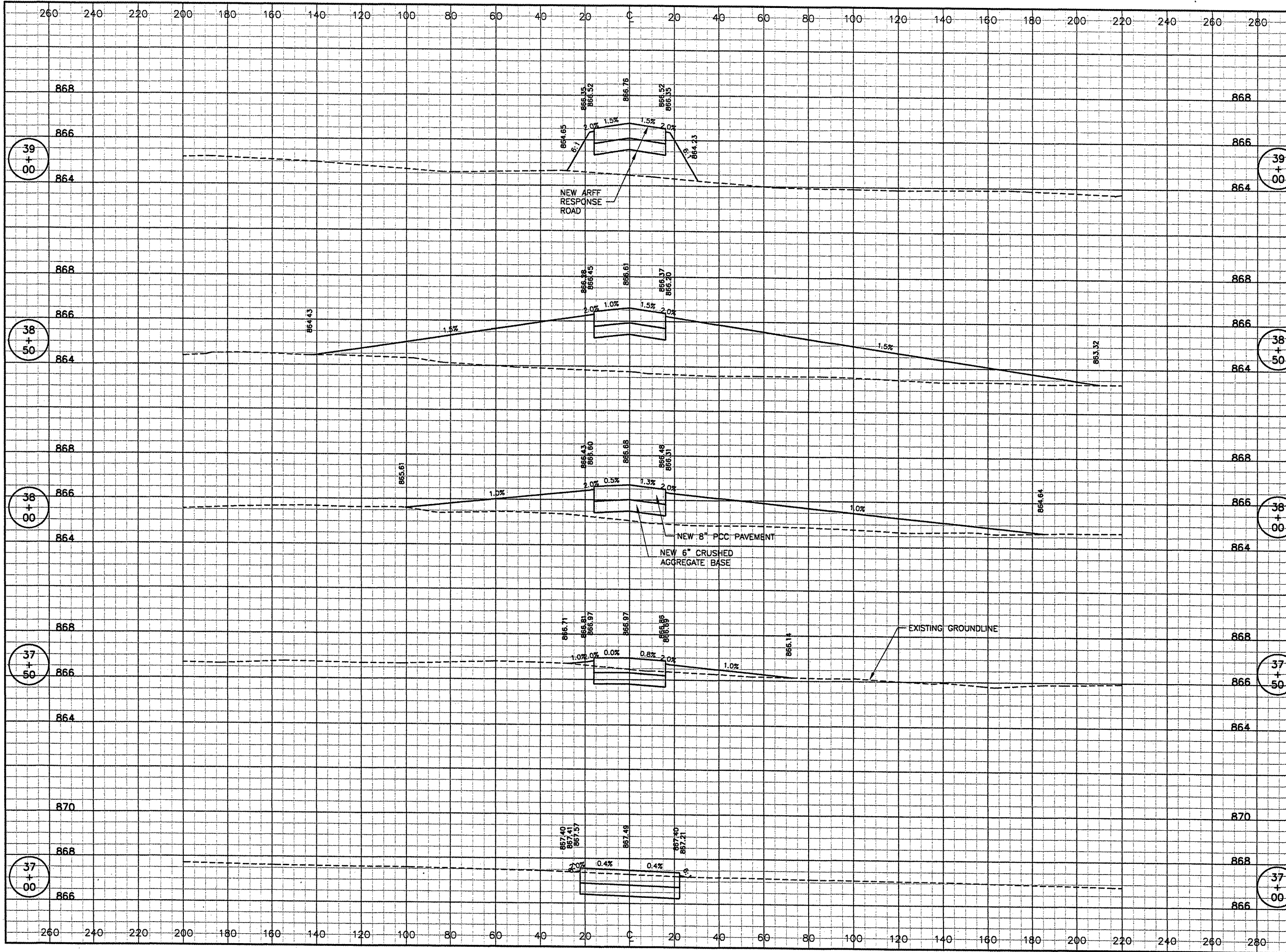
**CONSTRUCT NEW ARFF FACILITY  
 BASELINE A  
 CROSS SECTIONS 1  
 STA. 37+00 TO STA. 39+00**

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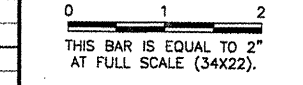


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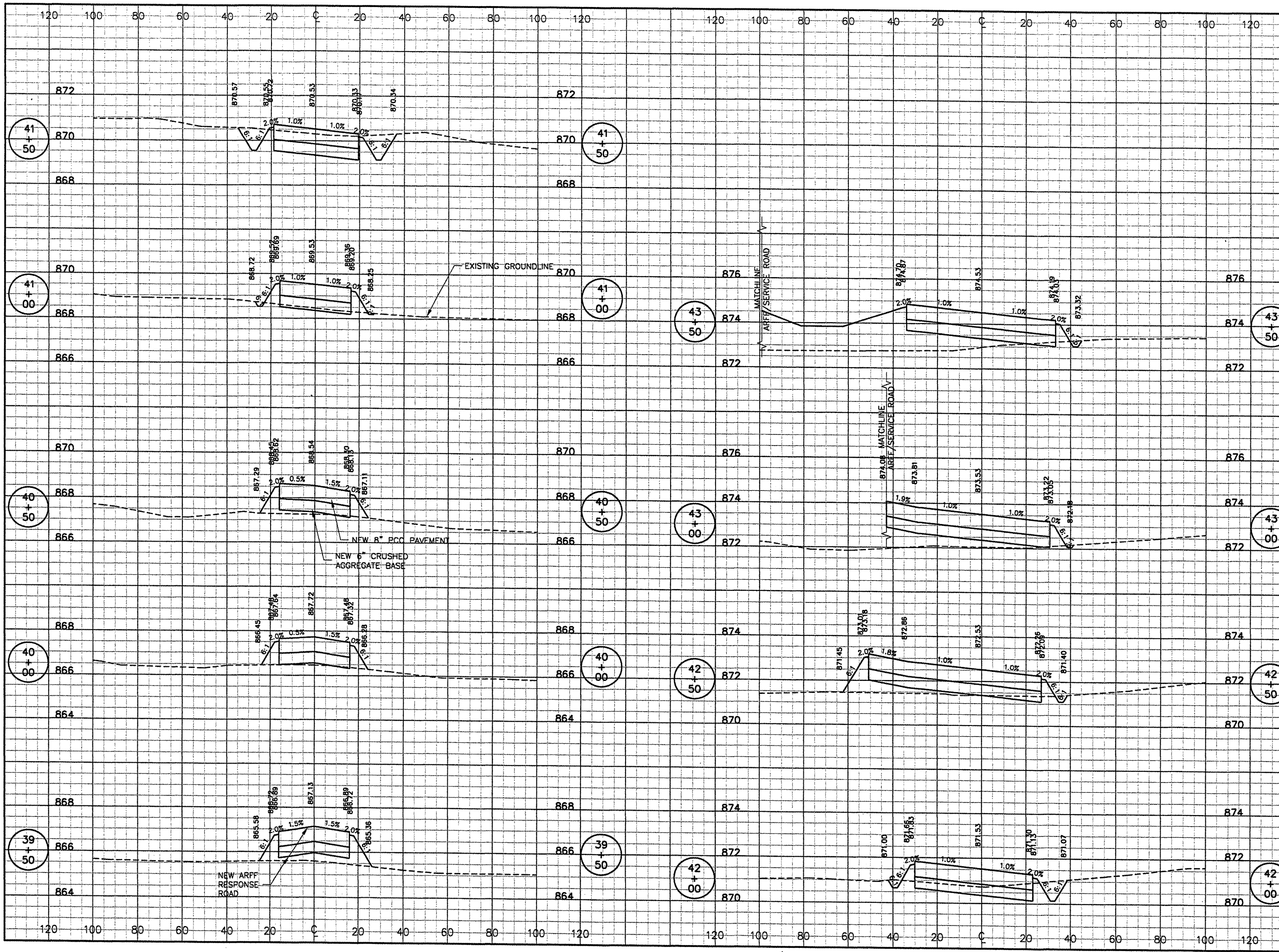


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**BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY**  
**BASELINE A**  
**CROSS SECTIONS 2**  
**STA. 39+50 TO STA. 43+50**

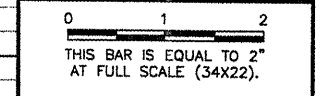
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SHEET	62 OF 66 SHEETS



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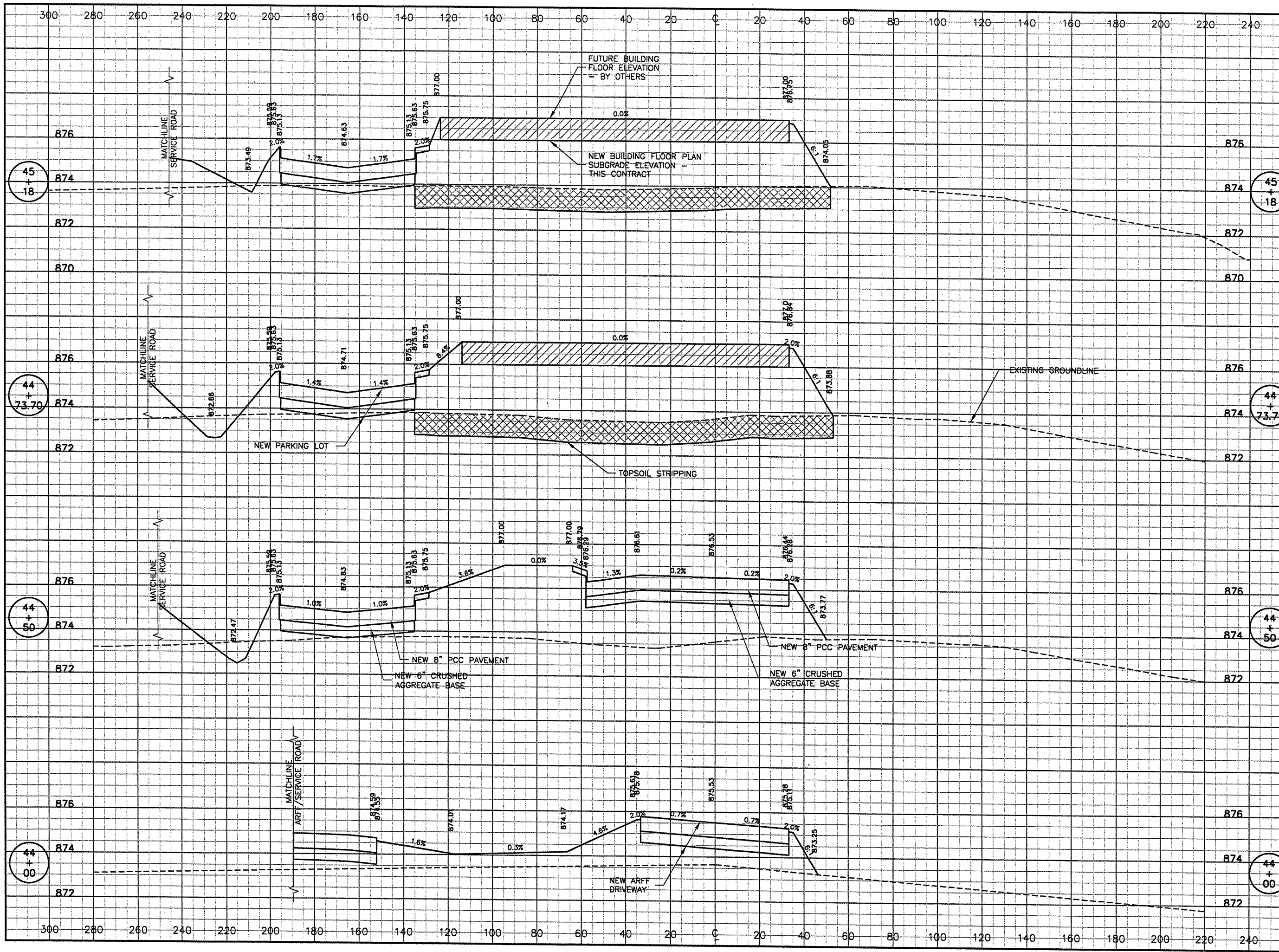


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**CONSTRUCT NEW ARFF FACILITY  
 BASELINE A  
 CROSS SECTIONS 3  
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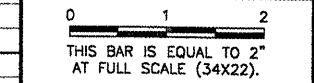
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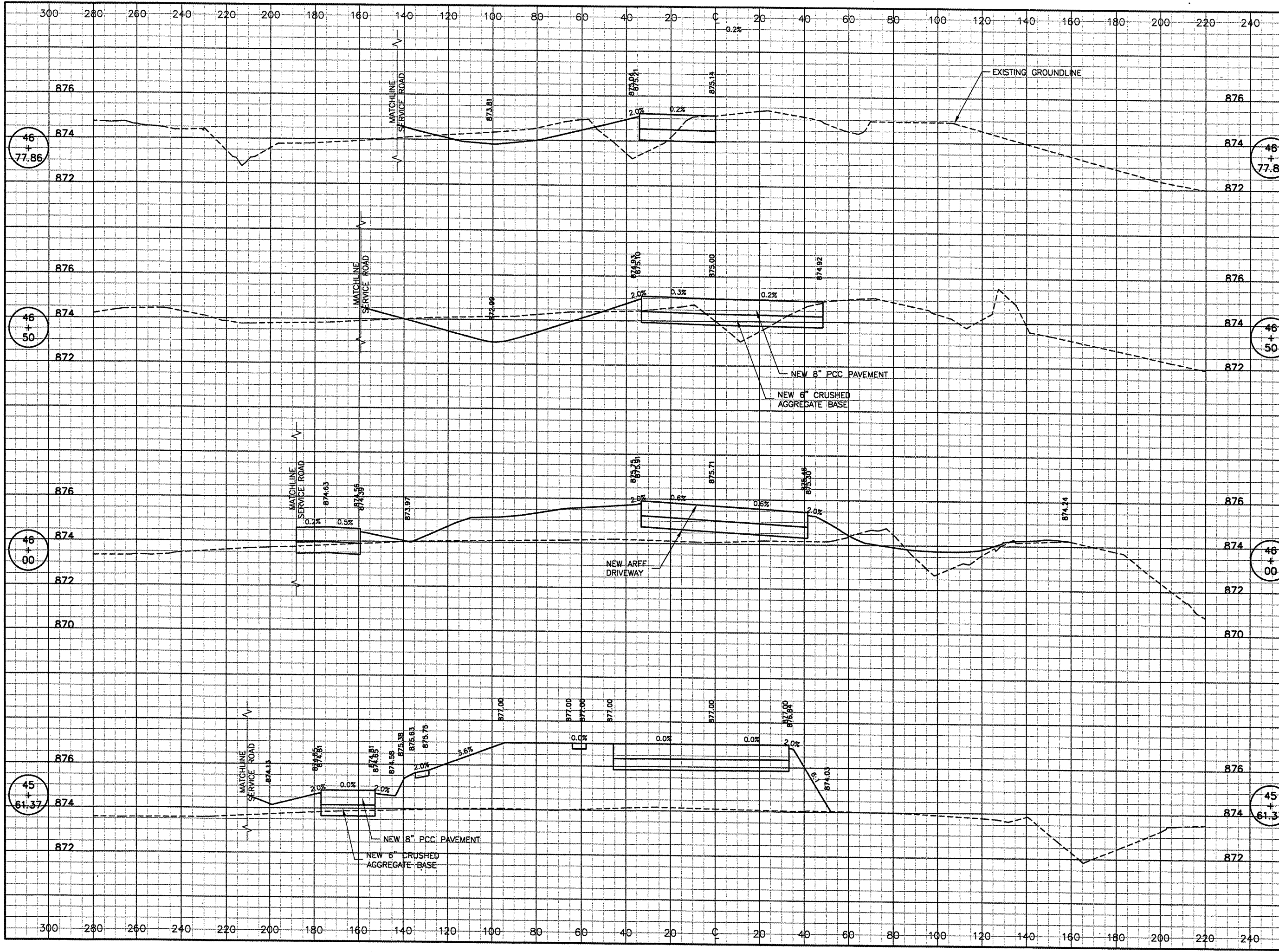
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 BASELINE A  
 CROSS SECTIONS 4  
 STA. 45+61.37 TO STA. 46+77.86**

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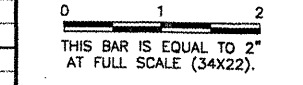
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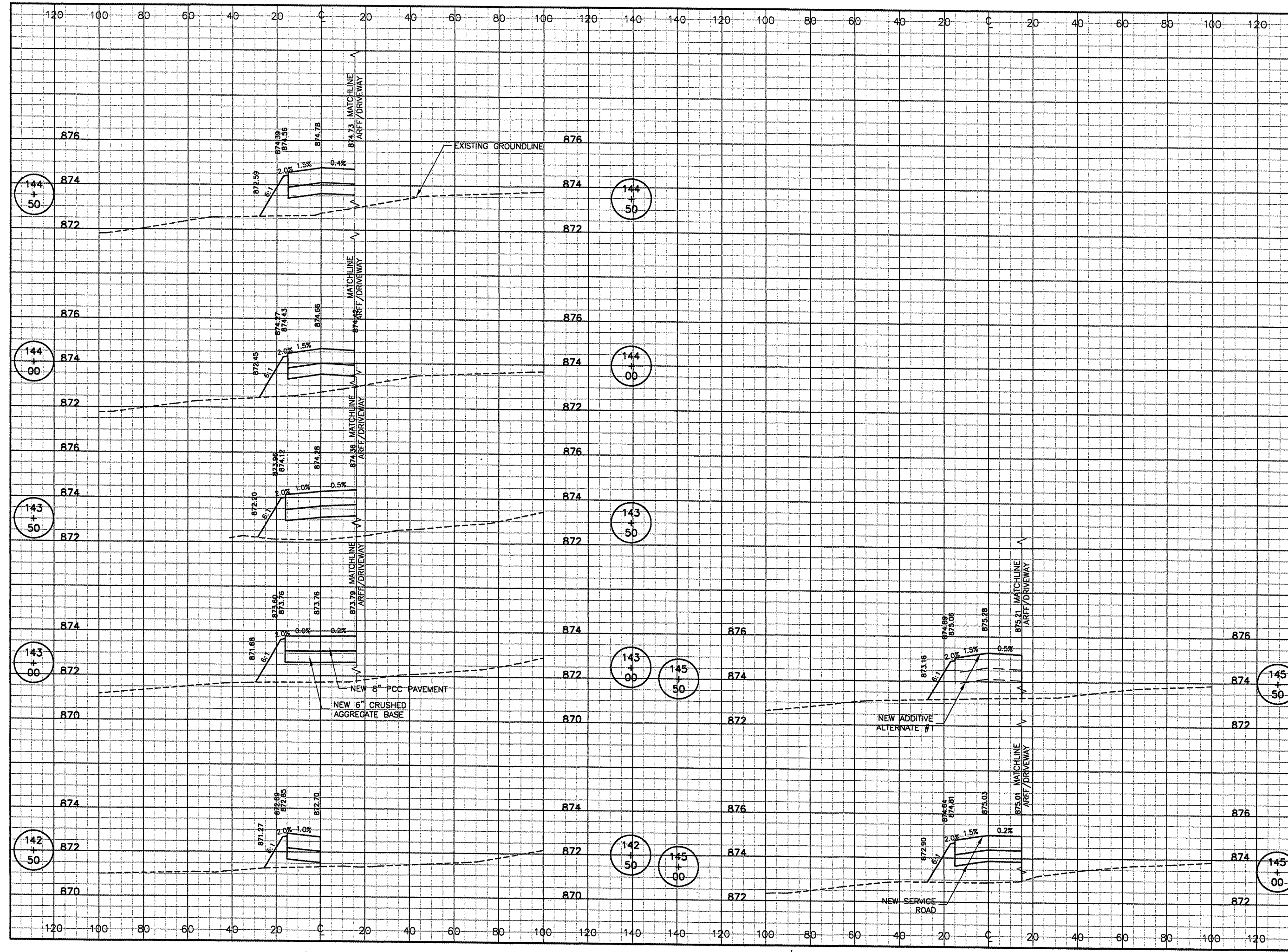
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CONSTRUCT NEW ARFF FACILITY  
 BASELINE B  
 CROSS SECTIONS  
 STA. 142+50 TO STA. 145+50

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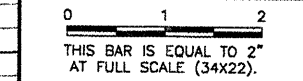


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**CENTRAL ILLINOIS REGIONAL AIRPORT**  
**BLOOMINGTON, ILLINOIS**

**CONSTRUCT NEW ARFF FACILITY**  
**BASELINE C**  
**CROSS SECTIONS**  
**STA. 0+11.91 TO STA. 4+24.89**

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