**TOTAL SHEETS: 31** CA012

## **CONSTRUCTION PLANS FOR** ABRAHAM LINCOLN CAPITAL AIRPORT

SPRINGFIELD AIRPORT AUTHORITY SPRINGFIELD, ILLINOIS

IL. PROJ. NO. SPI-4003 **AIP PROJ. NO. 3-17-0096-XX** 

## REHABILITATE GOLF RAMP & HANGAR TAXIWAYS-PHASE 1

**MAY 13, 2011** 



Call before you dig. INFORMATION FOR EXCAVATORS

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 811.

#### DESIGN INFORMATION

#### GEOMETRIC CRITERIA

MAIN RAMP: AIRPLANE DESIGN GROUP II AIRCRAFT APPROACH CATEGORY B CRITICAL AIRCRAFT – BEECH 1900

#### PAVEMENT DESIGN CRITERIA

17,000# DUAL WHEEL, 5475 ANNUAL DEPARTURES 70,200# DUAL WHEEL, 6 ANNUAL

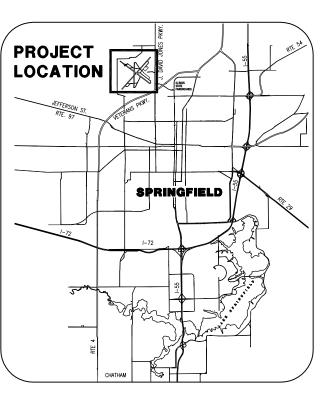
> CALL J.U.L.I.E. BEFORE EXCAVATING 1-800-892-0123

TOWNSHIP: 16 NORTH RANGE: 5 WEST OF THE 4TH P.M.

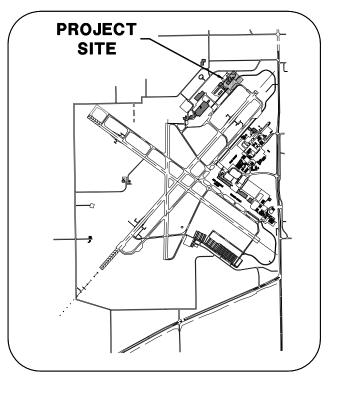
SECTION:

COUNTY:

SANGAMON CIVIL TOWNSHIP: CAPITAL



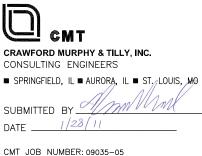
**LOCATION MAP** 



SITE PLAN







	SUMMARY OF QUANTITIES		
ITEM NO.	). ITEM DESCRIPTION UNIT		TOTAL QUANTITY
AR800250	2 - 1/C #8 5KV UG CABLE IN UD	L.F.	30
AR125461	TAXI GUIDANCE SIGN, SPECIAL	EACH	1
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1
AR152480	SHOULDER ADJUSTMENT	S.Y.	800
AR156520	INLET PROTECTION	EACH	3
AR162510	CLASS E FENCE 10'	L.F.	94
AR162900	REMOVE CLASS E FENCE	L.F.	94
AR163510	TEMPORARY FENCE	L.F.	100
AR209606	CRUSHED AGG. BASE COURSE - 6"	S.Y.	9700
AR401900	REMOVE BITUMINOUS PAVEMENT	S.Y.	8600
AR501506	6" PCC PAVEMENT	S.Y.	620
AR501509	9" PCC PAVEMENT	S.Y.	8680
AR501513	13" PCC PAVEMENT	S.Y.	345
AR501530	PCC TEST BATCH	EACH	1
AR501604	4" PCC SIDEWALK	S.F.	2290
AR501690	PCC SIDEWALK REMOVAL	S.F.	345
AR501900	REMOVE PCC PAVEMENT	S.Y.	9050
AR510510	TIE DOWN	EACH	18
AR510515	GROUND ROD	EACH	6
AR620510	PAVEMENT MARKING	S.F.	6120
AR800204	SUBGRADE PREPARATION	S.Y.	9120
AR800205	LANDSCAPE ROCK REMOVAL	S.Y.	800
AR904510	SODDING	S.Y.	800

INDEX TO SHEETS				
Sheet Number Sheet Title				
1	COVER SHEET			
2	INDEX TO SHEETS & SUMMARY OF QUANTITIES			
3	SITE PLAN			
4	CONSTRUCTION ACTIVITY PLAN 1 - GOLF RAMP			
5	CONSTRUCTION ACTIVITY PLAN 2 - GOLF RAMP			
6	CONSTRUCTION ACTIVITY PLAN 3 - GOLF RAMP			
7	CONSTRUCTION ACTIVITY PLAN 4 - GOLF RAMP			
8	CONSTRUCTION ACTIVITY PLAN DETAILS			
9	EXISTING CONDITIONS & REMOVALS - GOLF RAMP			
10	SPECIAL CONDITIONS AND CONSIDERATIONS - 1			
11	EXISTING PAVEMENT STRUCTURE - GOLF RAMP			
12	PAVEMENT REMOVAL PLAN - GOLF RAMP			
13	PROPOSED IMPROVEMENTS - GOLF RAMP			
14	TYPICAL SECTIONS - 1			
15	STAKING PLAN - 1 GOLF RAMP			
16	STAKING PLAN - 2 GOLF RAMP			
17	JOINTING PLAN - GOLF RAMP			
18	JOINTING DETAILS			
19	PAVING & MISCELLANEOUS DETAILS - 1			
20	PAVING & MISCELLANEOUS DETAILS - 2			
21	MARKING PLAN - GOLF RAMP			
22	MARKING & MISCELLANEOUS DETAILS - 1			
23	VORTAC MARKING AND SIGNAGE PLAN			
24	VORTAC MARKING AND SIGNAGE DETAIL			
25	ELECTRICAL DETAILS			
26	FENCE PLAN			
27	FENCE DETAILS 1			
28	FENCE DETAILS 2			
29	INDEX TO CROSS SECTIONS AND TURFING PLAN - GOLF RAMP			
30	EROSION CONTROL DETAILS			
31	RAMP CROSS SECTIONS STA. 200+00 TO STA. 204+20.5			

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FILE: INDEXSUM\_Revised.dwg
UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2011 3:47 PM

#### CA012

REVISIONS				
NUMBER BY DATE				

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



REHABILITATE GOLF RAMP & HANGAR TAXIWAYS-PHASE 1 INDEX TO SHEETS & SUMMARY OF QUANTITIES

## SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

CRAWFORD, MARHY & TILY, NC. CONSULTING ENGINERS License No. 184-000613

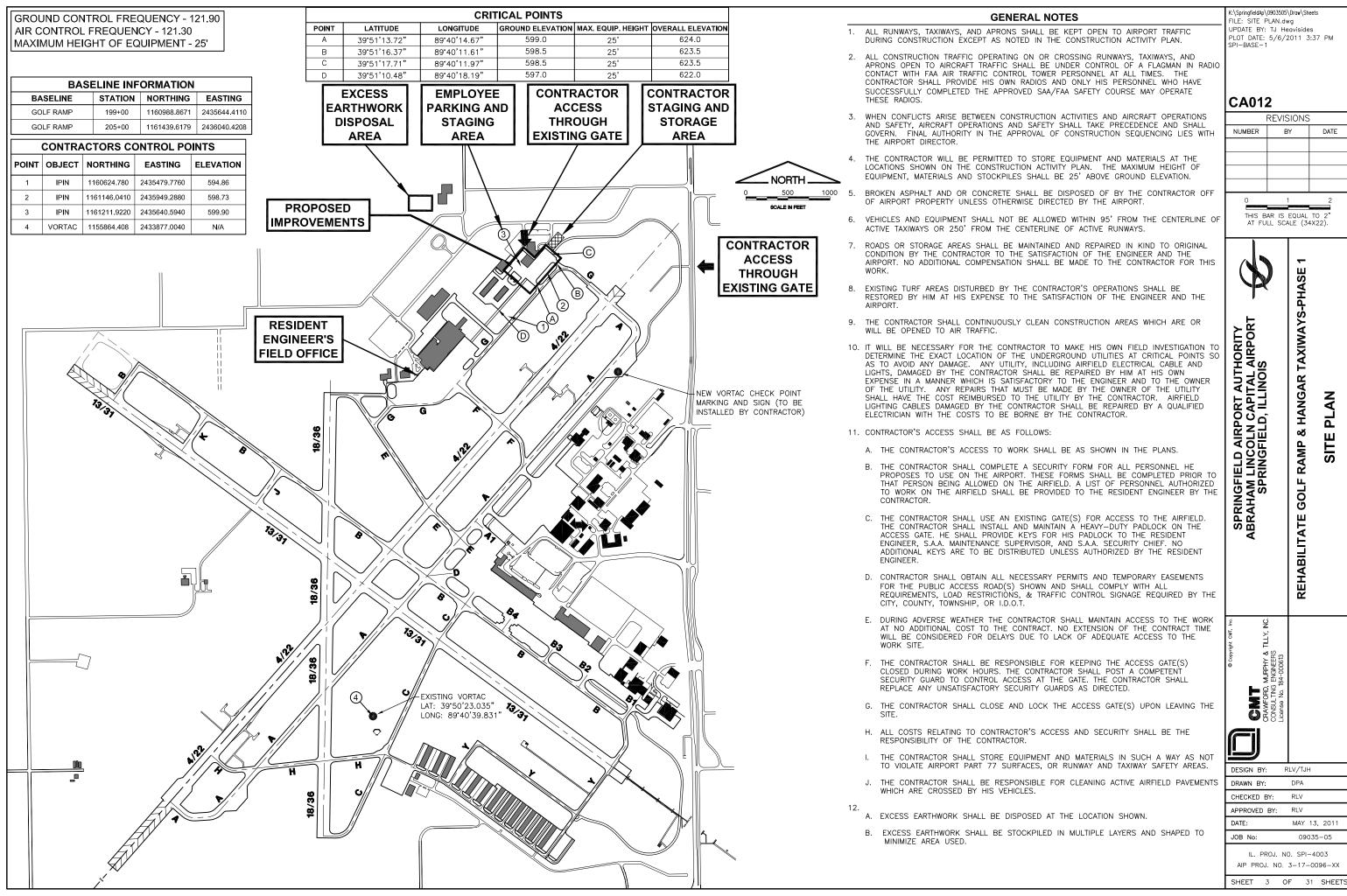




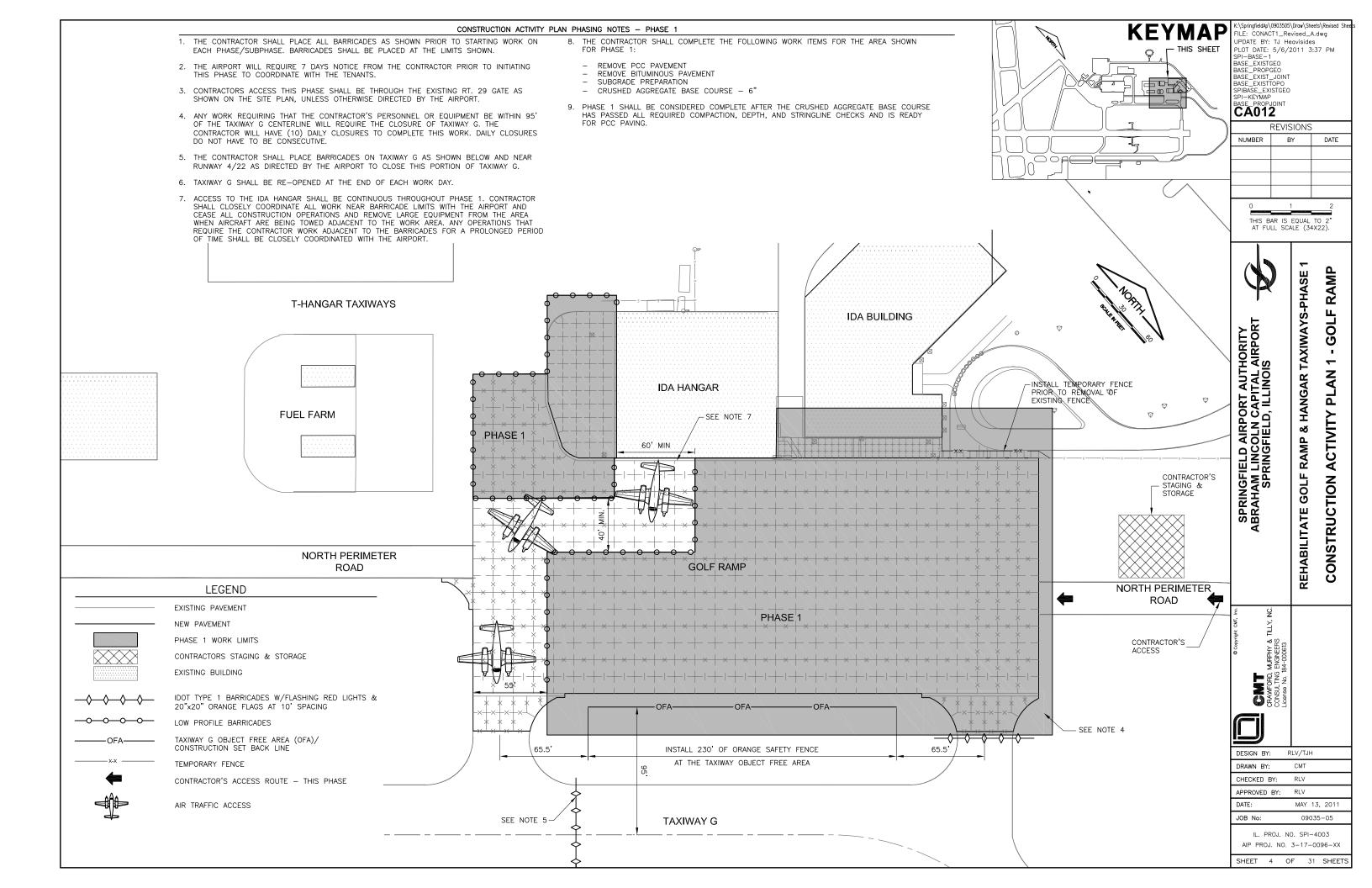
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DRAWN BY:	CMT
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	MAY 13, 2011
JOB No:	09035-05
IL. PROJ.	. NO. SPI-4003

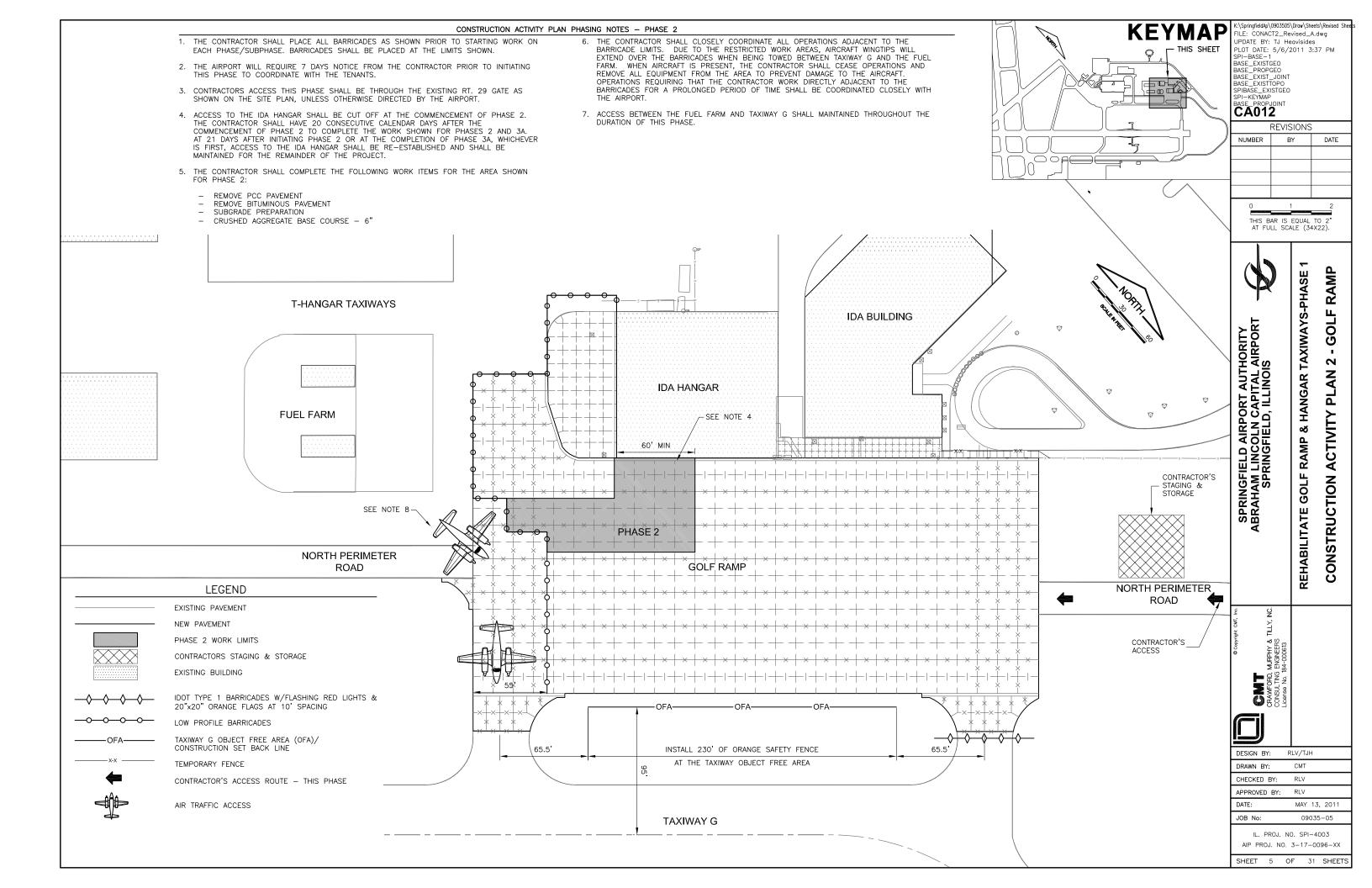
AIP PROJ. NO. 3-17-0096-XX

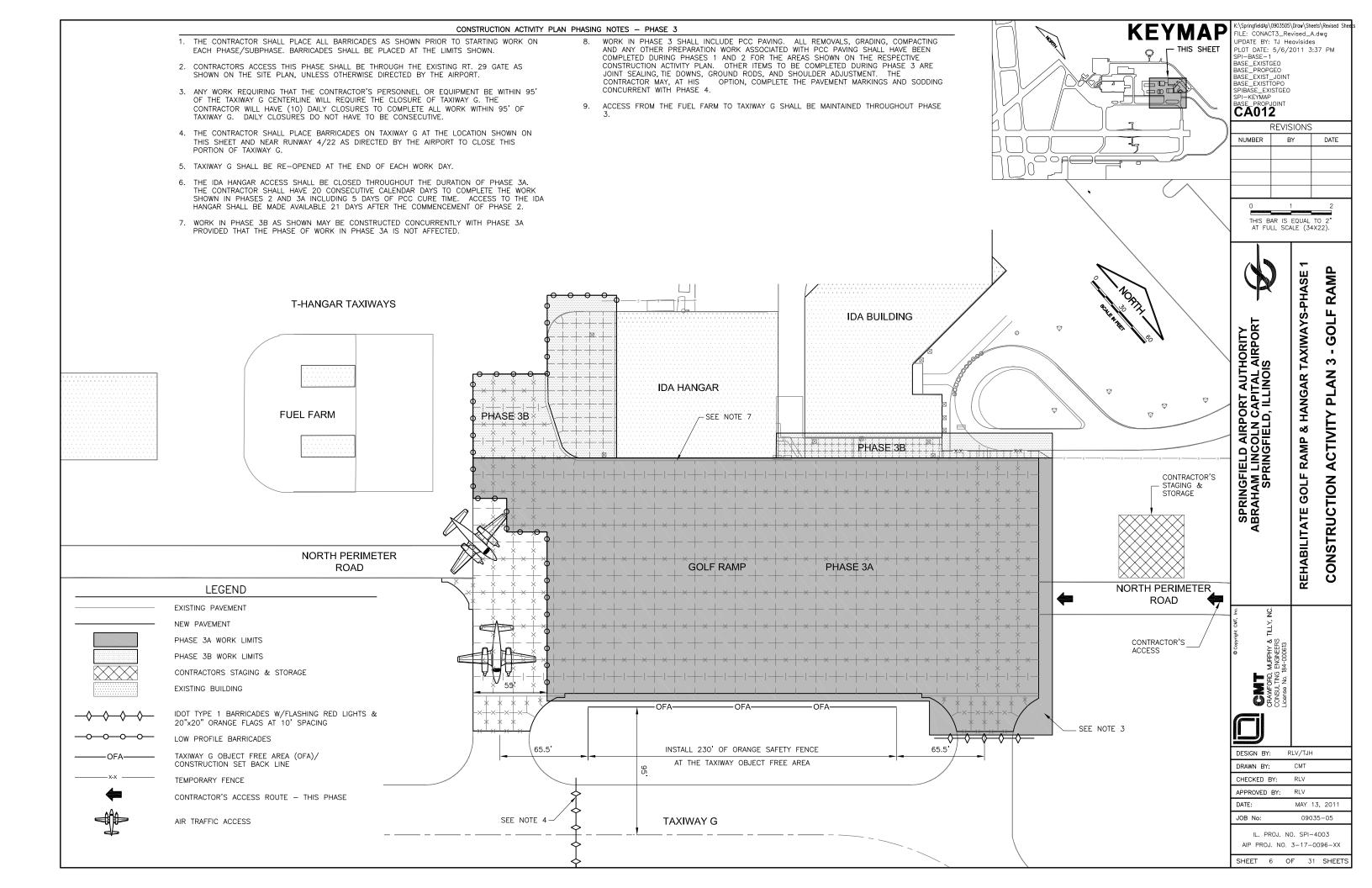
SHEET 2 OF 31 SHEETS

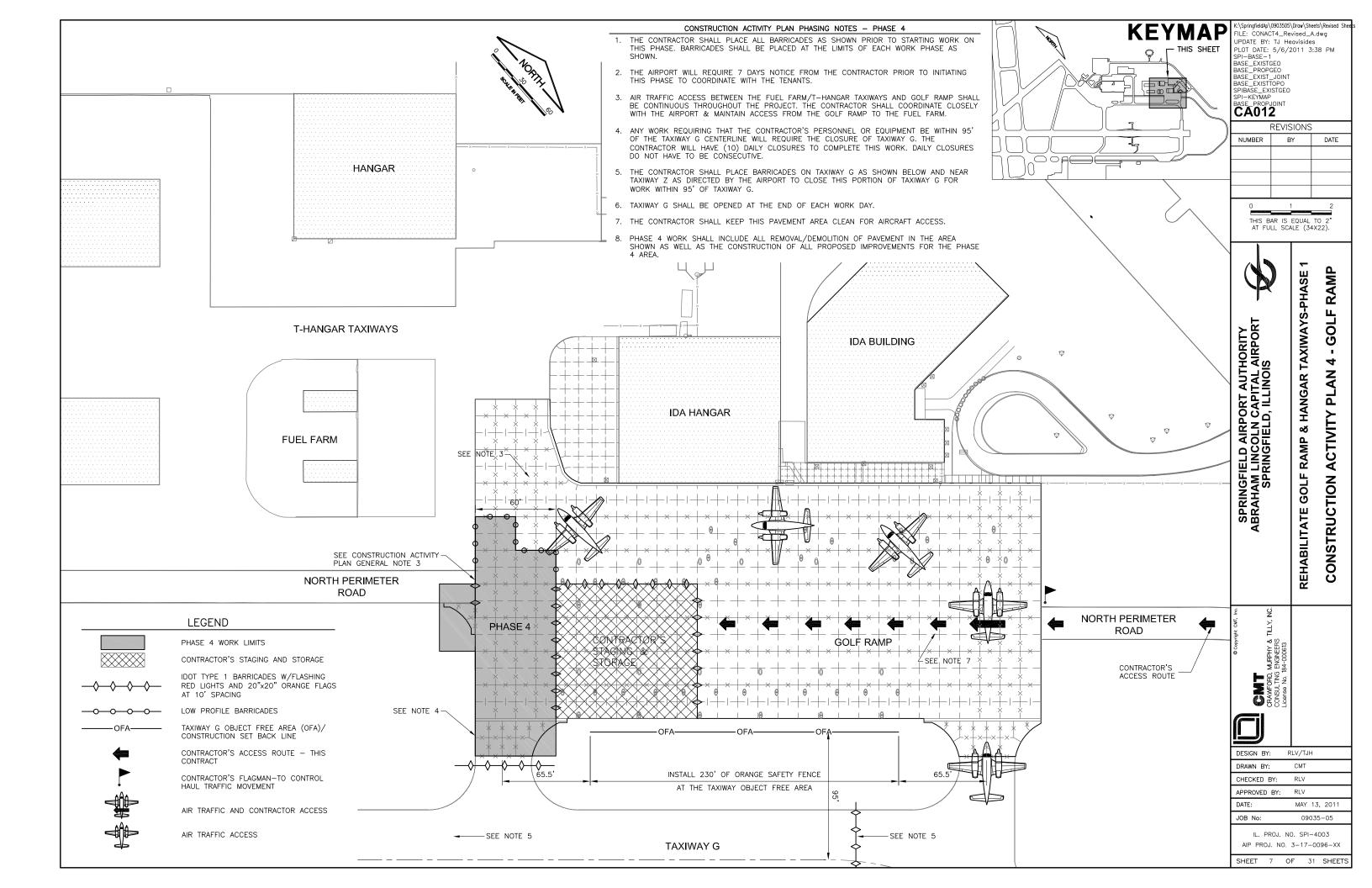


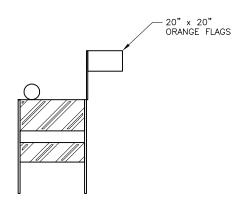
REVISIONS				
NUMBER	BY	DATE		









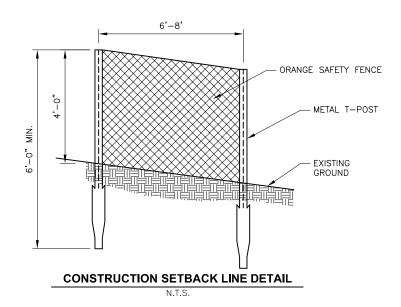


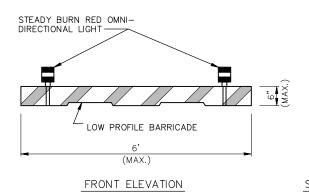
#### FLASHER BARRICADE DETAIL-IDOT TYPE 1

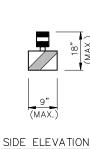
N.T.S.

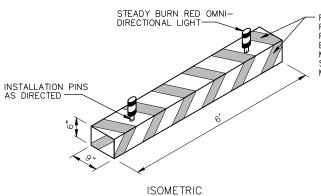
#### **FLASHER BARRICADE NOTES**

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









REFLECTIVE MATERIAL, ORANGE FLOURESCENT AND WHITE FLOURESCENT DIAGONAL SHALL BE PLACED ON ALL FACES. MATERIAL SHALL BE EITHER SCOTCHLITE OR REFLECTIVE MATERIAL.

BEAM BARRICADE DETAILS

N.T.S.

#### **BEAM BARRICADE NOTES**

- 1.) BARRICADE SHALL BE WEIGHTED TO WITHSTAND DISPLACEMENT BY JET OR PROP BLAST.
- 2.) BARRICADE SHALL BE EASILY COLLAPSIBLE UPON CONTACT WITH AIRCRAFT.
- 3.) PLACE AT 10' INTERVALS.
- 4.) NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM. COSTS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

#### **GENERAL NOTES**

- I. ALL CONSTRUCTION BARRICADES SHALL BE IN PLACE PRIOR TO INITIATING EACH PHASE.
- 2. ACCESS TO THE T-HANGAR TAXIWAYS AND TO TAXIWAY GOLF SHALL BE CONTINUOUS THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL MAINTAIN ALL MINIMUM DISTANCES SHOWN IN THE CONSTRUCTION ACTIVITY PLANS OR AS REQUIRED FOR THE CRITICAL OPERATING AIRCRAFT THROUGH THESE AREAS.
- S. CONSTRUCTION BARRICADES SHALL BE SET AT THE LIMITS OF EACH PHASE'S WORK AREA. DURING PAVING OPERATIONS, BARRICADES MAY BE PLACED UP TO 30' BEYOND THE WORK LIMIT TO ALLOW ROOM FOR PAVING OPERATIONS. OFFSETTING THE BARRICADES TO THIS LOCATION SHALL BE COORDINATED WITH THE AIRPORT IN ADVANCE. IN THE EVENT OF A CONFLICT BETWEEN CONSTRUCTION OPERATIONS AND TAXING AIRCRAFT, THE CONTRACTOR SHALL CEASE OPERATIONS AND RETURN THE BARRICADES TO THE EDGE OF THE WORKING LIMITS. ALL BARRICADES SHALL BE LOCATED AT THE EDGE OF THE WORKING LIMITS AT THE END OF EACH WORKING LIMITS AT THE
- 4. ACTUAL WORK LIMITS/PAVING LIMITS MAY BE REVISED WITH THE AIRPORT'S APPROVAL. ALL MINIMUM DISTANCES SHALL BE MAINTAINED, AIR TRAFFIC ACCESS SHALL REMAIN UNAFFECTED, AND THE PROJECT SCHEDULE SHALL REMAIN THE SAME.
- 5. CONTRACTOR SHALL DOWEL PAVEMENTS IN ACCORDANCE WITH THE DETAILS SHOWN ON THE JOINTING DETAILS SHEET. ACTUAL JOINTING METHODS WILL VARY FROM THE JOINTING PLAN SHEET DEPENDING ON WHERE PAVING ENDS FOR A CERTAIN PHASE.
- 6. ALL COSTS TO FURNISH, INSTALL, AND MAINTAIN THE CONSTRUCTION SET BACK LINE SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND WILL NOT BE MEASURED FOR PAYMENT.

## CONTRACTOR ACCESS ROUTE NOTES

- 1. THE PROPOSED CONTRACTOR'S ACCESS ROUTE (EXISTING
- NORTHEAST PERIMETER ROAD) PAVEMENT STRUCTURE IS:

   3" BITUMINOUS SURFACE COURSE (PLACED 2005 AND 2008)
- EXCELLENT CONDITION
  3" BITUMINOUS SURFACE COURSE (PLACED 1988)
- 6" CRUSHED AGGREGATE BASE COURSE (PLACED 1988)
- 2. THE CONTRACTOR MAY USE THE EXISTING NORTHEAST PERIMETER ROAD FOR ACCESS IF HE FEELS THE PAVEMENT STRUCTURE IS SUFFICIENT TO SUPPORT HIS OPERATIONS WITHOUT DAMAGE OR DISTRESS
- 3. IF THE CONTRACTOR ELECTS NOT TO USE THE EXISTING PERIMETER ROAD PAVEMENT, HE SHALL CONSTRUCT AN ACCESS ROUTE SUFFICIENT TO SUPPORT HIS OPERATIONS ON THE NORTH SIDE OF THE EXISTING PERIMETER ROAD. THIS ALTERNATE ACCESS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 4. ALL PAVEMENTS OR TURF AREAS UTILIZED BY THE CONTRACTOR FOR AN ACCESS ROUTE, STAGING, OR STORAGE SHALL BE REPAIRED AND RESTORED TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE AIRPORT. NO ADDITIONAL COMPENSATION TO PROTECT, REPAIR, OR RESTORE THESE AREAS SHALL BE MADE.

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#### CA012

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NUMBER	BY	DATE		

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ORT AUTHORITY SAPITAL AIRPORT , ILLINOIS

SPRINGFIELD AIRPORT ABRAHAM LINCOLN CAPI SPRINGFIELD, ILL TAXIWAYS-PHASE

REHABILITATE GOLF RAMP & HANGAR TAXIWAYS-PH
CONSTRUCTION ACTIVITY PLAN DETAIL

CMT CRAWFORD MURPHY & TILLY, NC. CONSULTING ENGINEERS LICENSE No. 184-000613



DESIGN BY: RLV/TJH

DRAWN BY: DPA

CHECKED BY: RLV

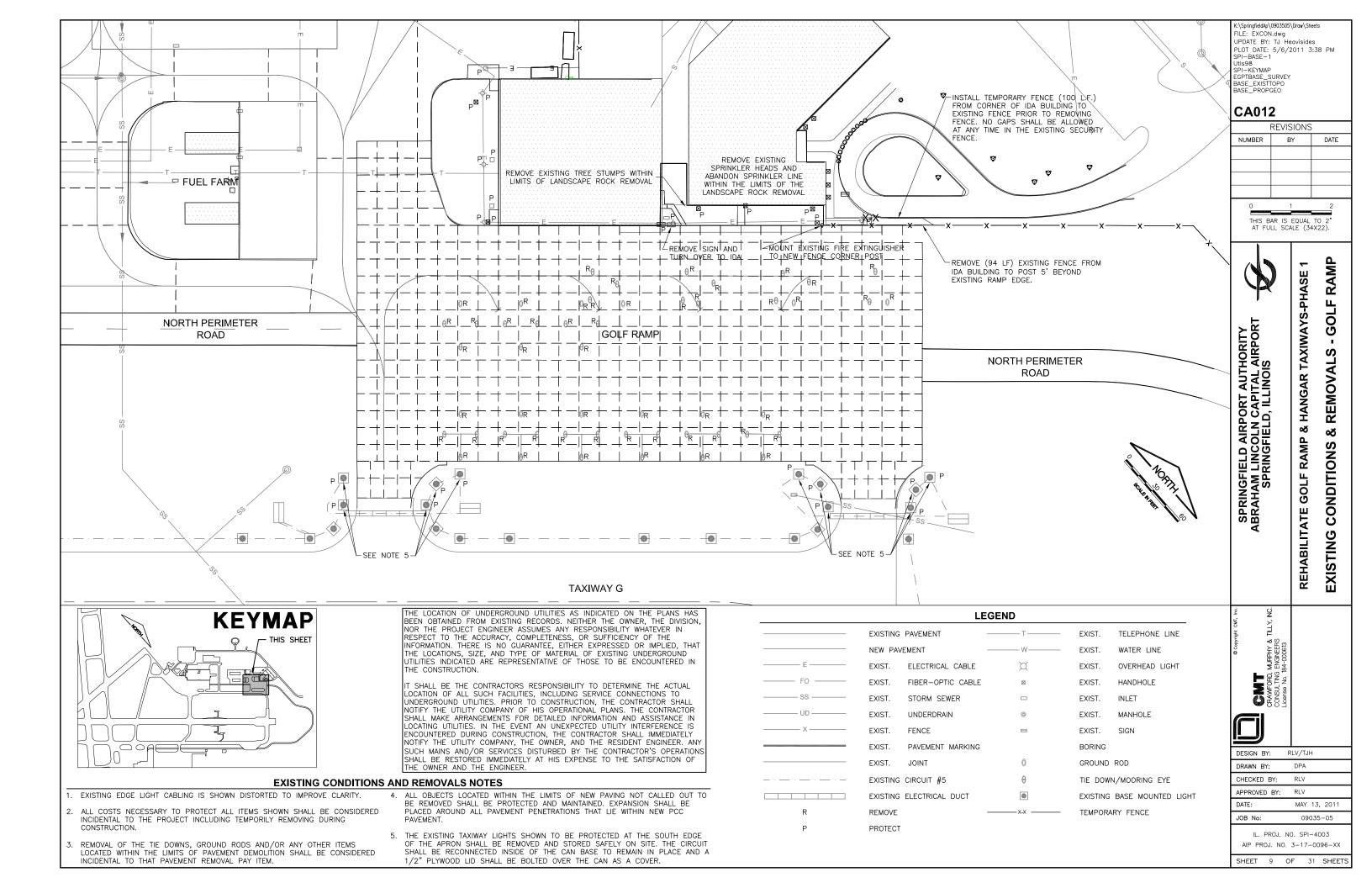
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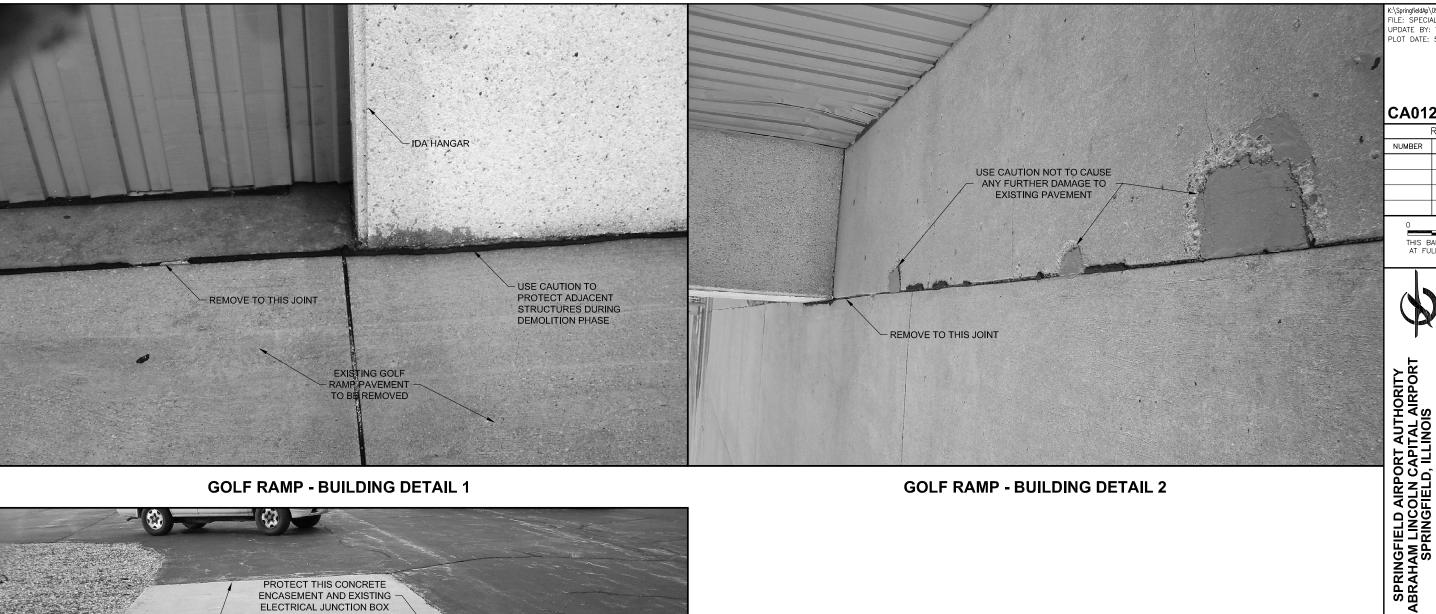
DATE: MAY 13, 2011

JOB No: 09035-05

IL. PROJ. NO. SPI-4003 AIP PROJ. NO. 3-17-0096-XX

SHEET 8 OF 31 SHEETS





#### **GOLF RAMP - BUILDING DETAIL 1**



**GOLF RAMP - EXISTING ELECTRICAL JUNCTION BOX** 

#### **GOLF RAMP - BUILDING DETAIL 2**

#### NOTES

1. PRIOR TO THE COMMENCEMENT OF ANY PAVEMENT DEMOLITION, THE CONTRACTOR SHALL DOCUMENT, IN THE PRESENCE OF THE RESIDENT ENGINEER, THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL ADJACENT CONDITIONS. AT THE END OF CONSTRUCTION, ANY ITEMS SAID TO HAVE BEEN DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPAIRED BY HIM/HER AT NO ADDITIONAL COST TO THE CONTRACT.

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FILE: SPECIALCONDITIONS.dwg UPDATE BY: TJ Heavisides PLOT DATE: 5/6/2011 3:38 PM

#### CA012

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NUMBER	BY	DATE		

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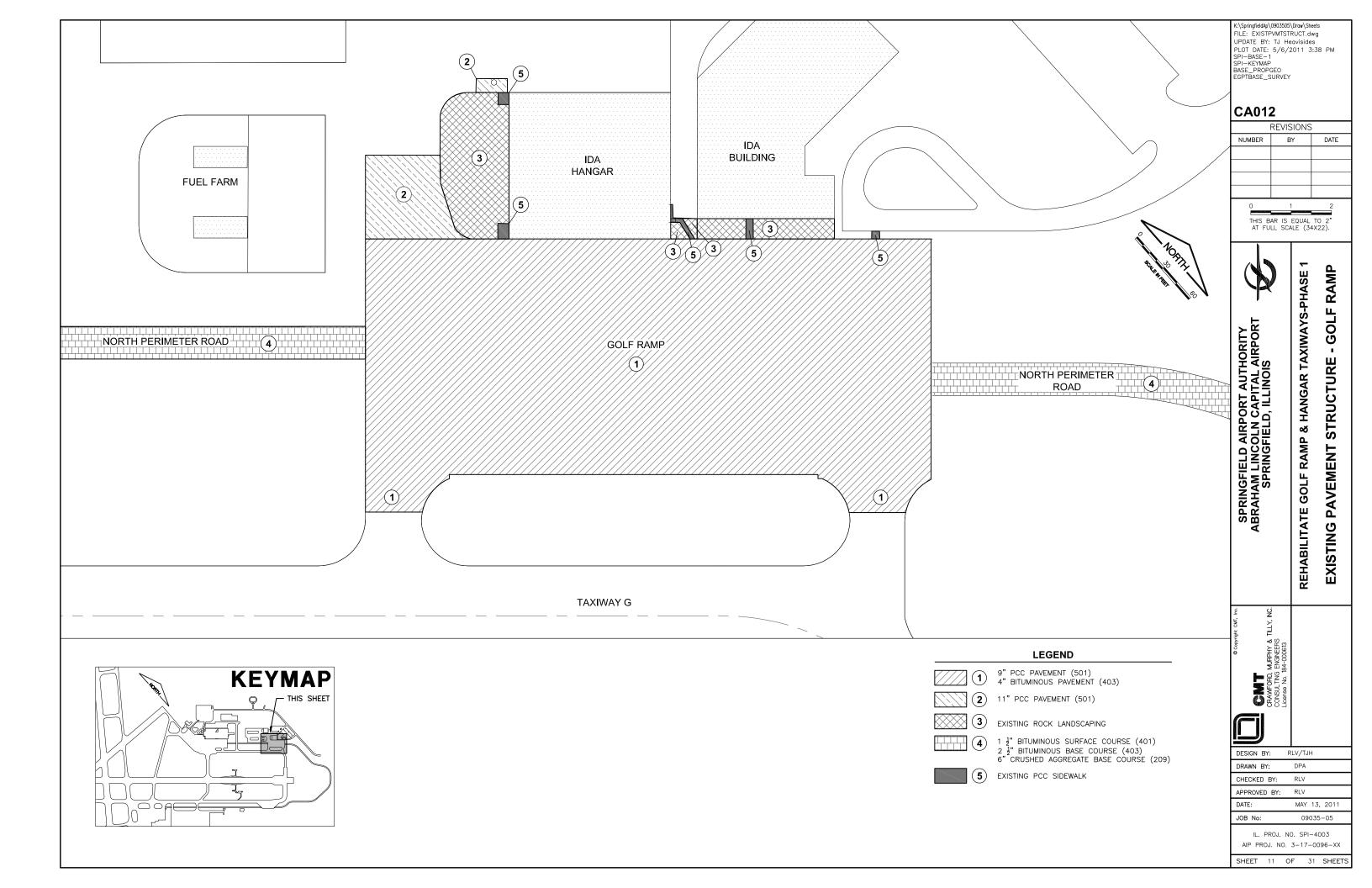
REHABILITATE GOLF RAMP & HANGAR TAXIWAYS-PHASE SPECIAL CONDITIONS AND CONSIDERATIONS

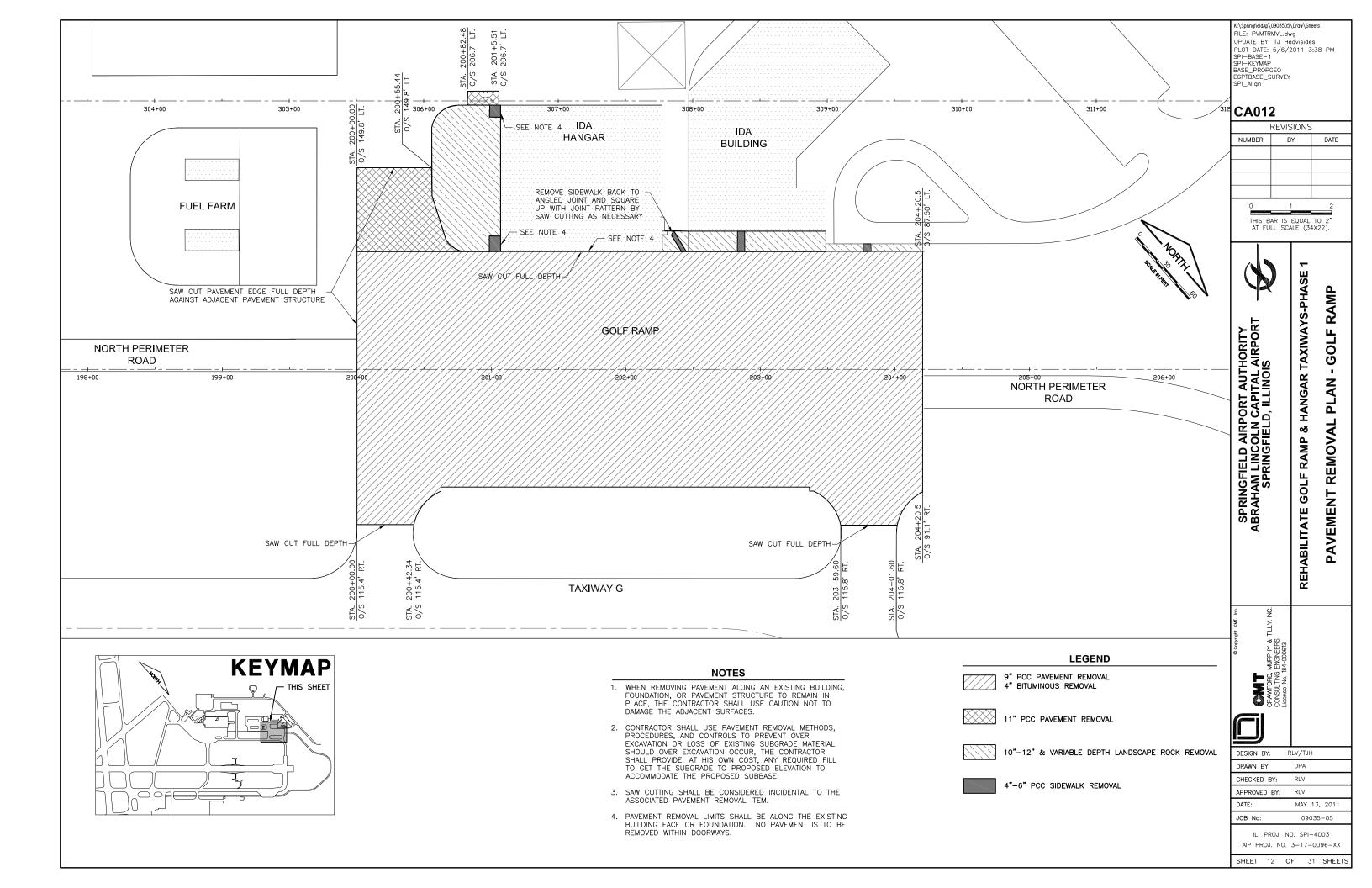
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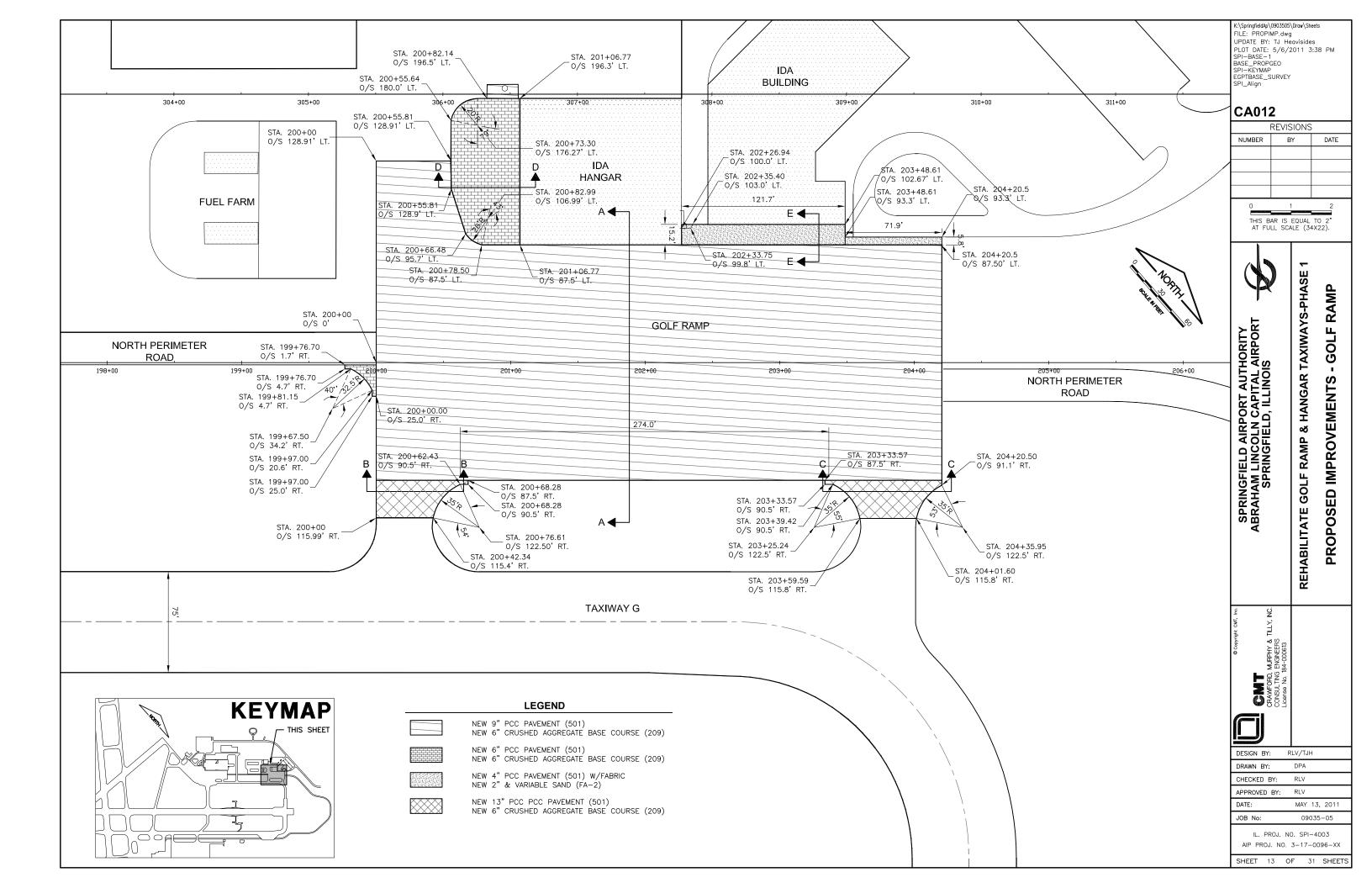


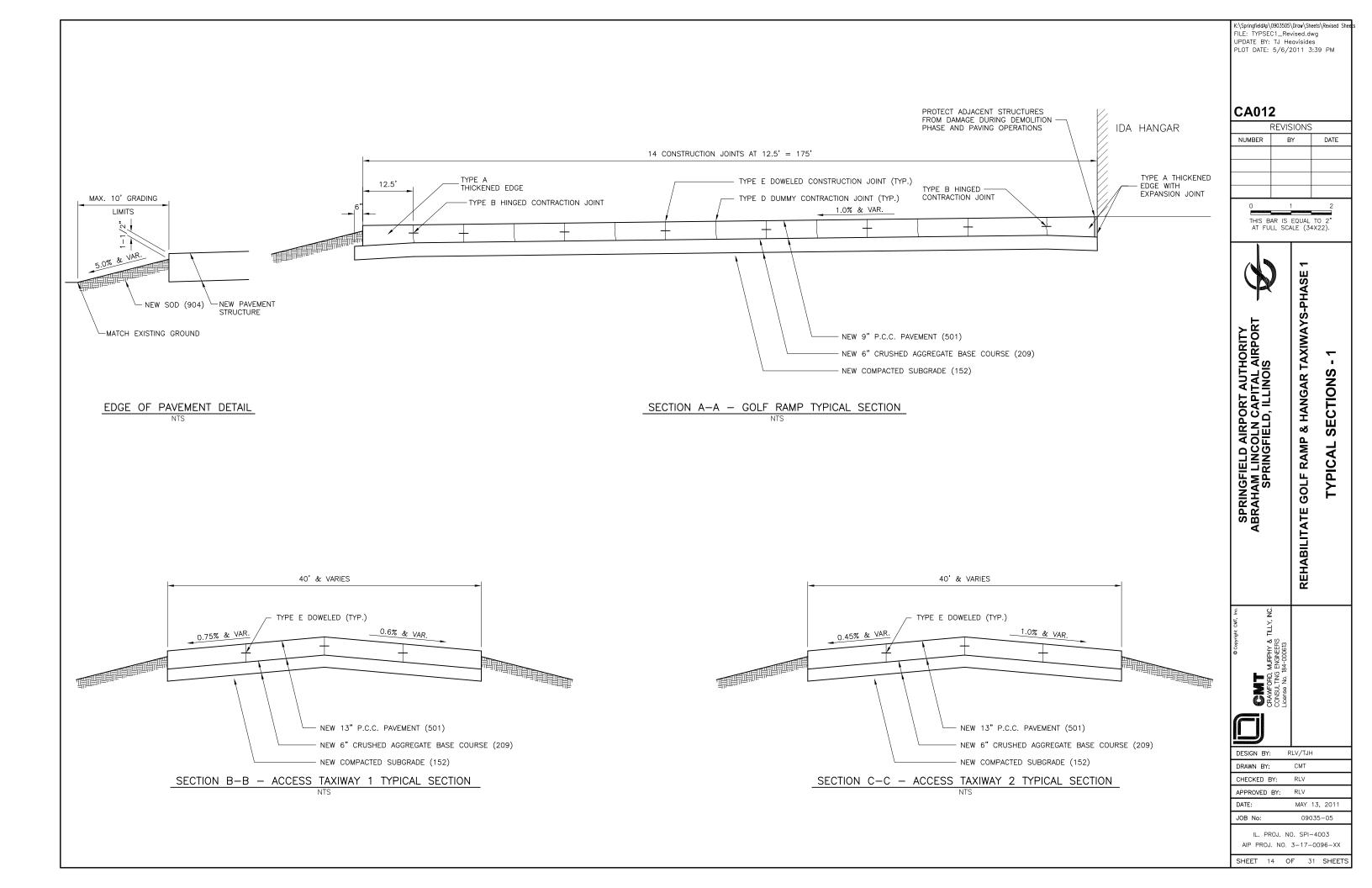
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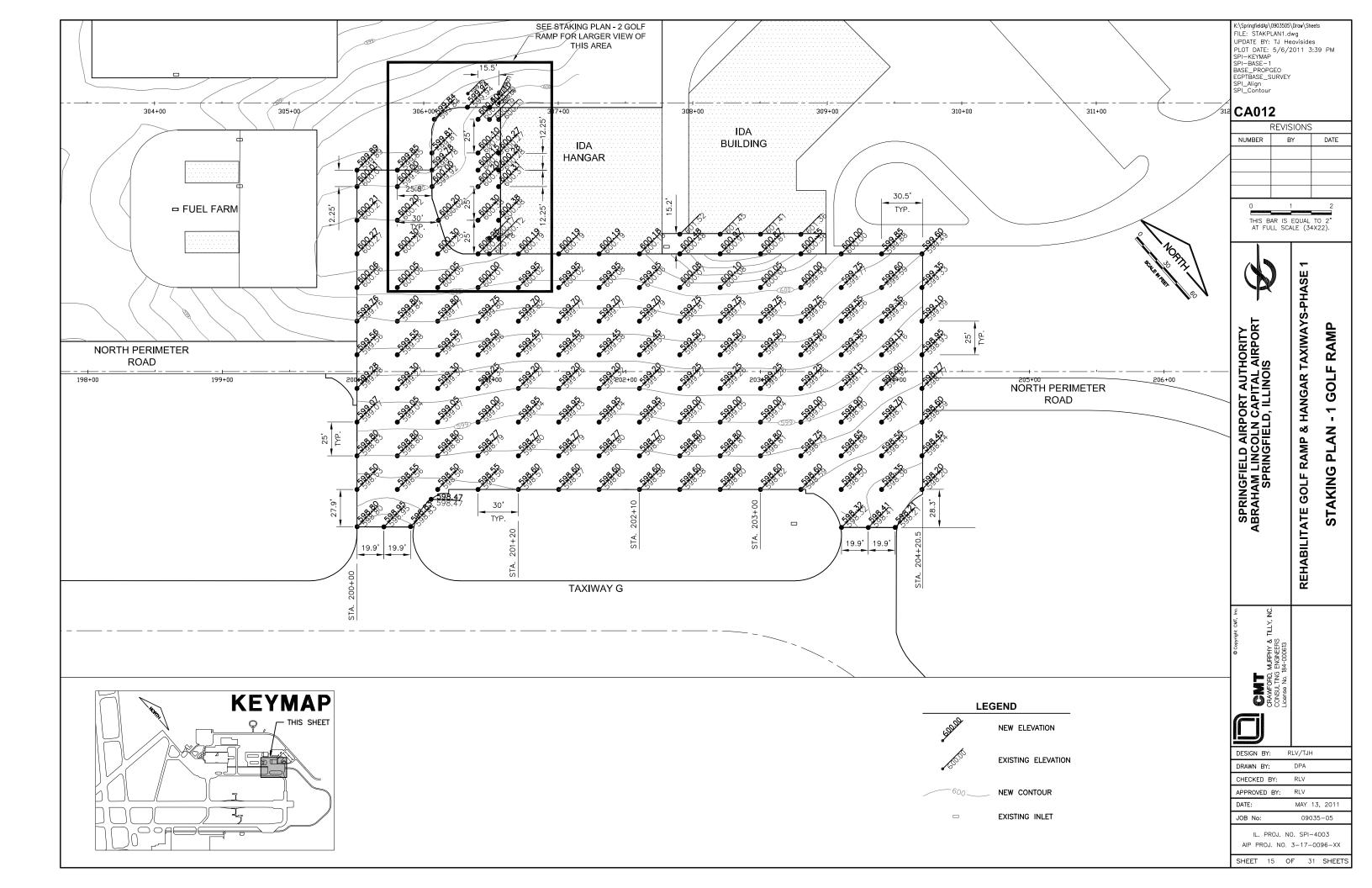
AIP PROJ. NO. 3-17-0096-XX SHEET 10 OF 31 SHEETS

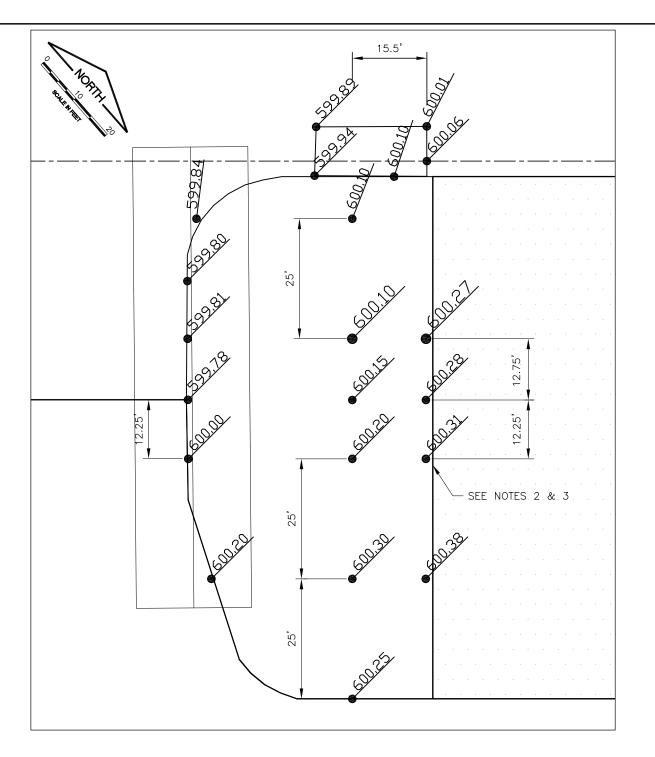


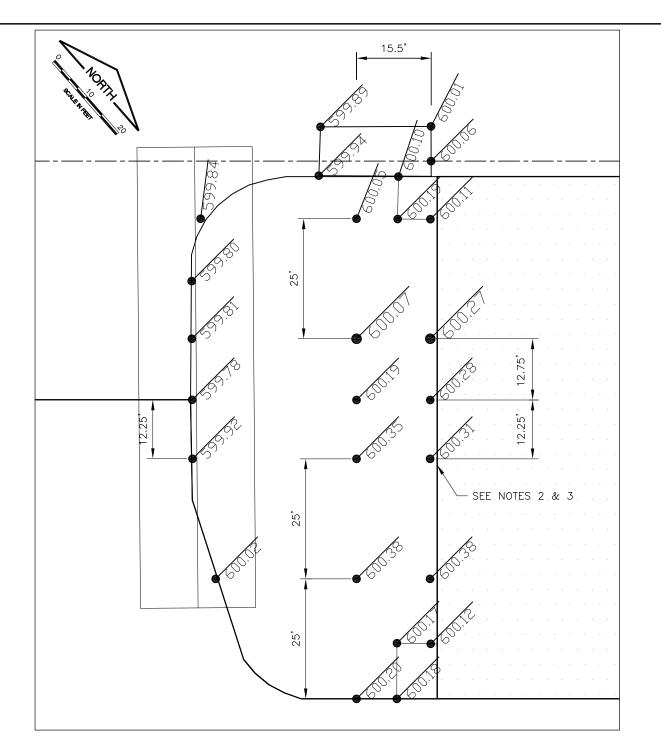












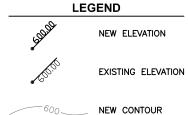
#### PROPOSED ELEVATIONS

**KEYMAP** 

#### NOTES

- WHEN REMOVING PAVEMENT ALONG AN EXISTING BUILDING, FOUNDATION, OR PAVEMENT STRUCTURE TO REMAIN IN PLACE, THE CONTRACTOR SHALL USE CAUTION NOT TO DAMAGE THE ADJACENT SURFACES.
- 2. EXISTING GRADES SHOWN AGAINST THE IDA HANGAR BUILDING ARE SURVEYED ELEVATIONS FOR THE EXISTING LANDSCAPE ROCK. NEW PCC PAVEMENT SHALL BE CONSTRUCTED AGAINST THE HANGAR FOUNDATION AT APPROXIMATELY 1.5" - 2" BELOW THE EXISTING SIDING.

#### **EXISTING ELEVATIONS**



EXISTING INLET

K:\SpringfieldAp\0903505\Draw\Sheets
FILE: STAKING PLAN-2 GOLF RAMP.d UPDATE BY: TJ Heavisides
PLOT DATE: 5/6/2011 3:39 PM
SPI-KEYMAP
SPI-BASE-1
BASE\_PROPGEO
EGPTBASE\_SURVEY
SPI\_Align
SPI\_Contour

#### CA012

REVISIONS			
NUMBER	BY	DATE	

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

SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

REHABILITATE GOLF RAMP & HANGAR TAXIWAYS-PHASE **GOLF RAMP** -2 STAKING PLAN

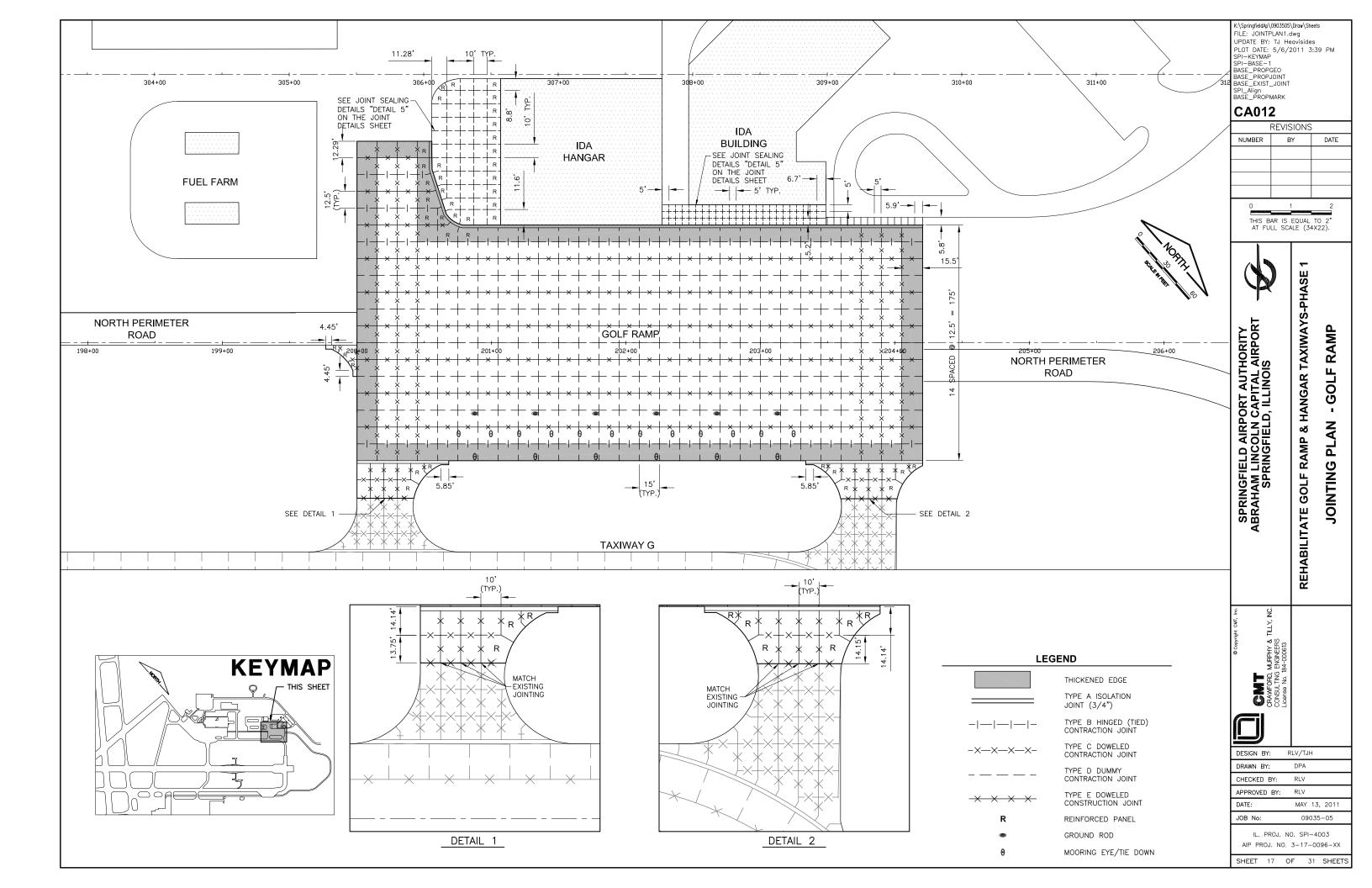
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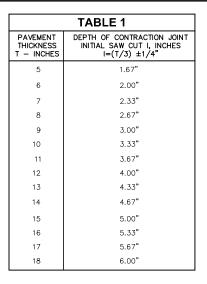


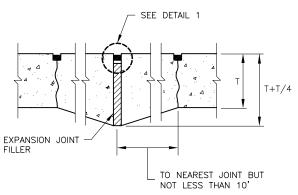
RLV/TJH DESIGN BY: CMT DRAWN BY: CHECKED BY: RLV APPROVED BY: DATE: MAY 13, 2011 JOB No: 09035-05 IL. PROJ. NO. SPI-4003 AIP PROJ. NO. 3-17-0096-XX

SHEET 16 OF 31 SHEETS

3. THE AREA ALONG THIS EDGE OF THE HANGAR SHALL BE SLOPED TO DRAIN AWAY FROM THE BUILDING.

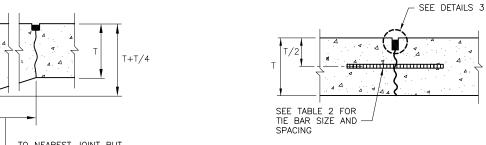


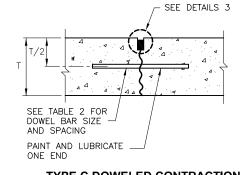




TYPE A THICKENED ISOLATION

SYMBOL ///////





#### TYPE B HINGED (TIED) CONTRACTION

SYMBOL -I-I-

TYPE C DOWELED CONTRACTION

SYMBOL -X-X-X-

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

**TAXIWAYS-PHASE** 

HANGAR

Š

RAMP

GOLF

**EHABILITATE** 

DETAIL

JOINTING

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PLOT DATE: 5/6/2011 3:39 PM

REVISIONS

BY

DATE

UPDATE BY: TJ Heavisides

CA012

NUMBER

SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

TABLE 2						
PAVEMENT	DOWEL BAR DETAILS		TIE BAR DETAILS			
THICKNESS T - INCHES	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"

**JOINT SEALING DIMENSIONS** 

HOT /

COLD

1/2

1/2

5/8

1 - 3/8

DETAIL 4

PRE FORMED

3/8" COMPRESSED

N/A

N/A

1-1/2"

DETAIL 5

COLD

3/16"

N/A

N/A

DETAIL 1 DETAIL 2 DETAIL 3

HOT /

COLD

1/2

1/2

5/8

-3/8

COLD

3/4

3/4

N/A

N/A

W=WIDTH O

RESERVOIR

OF SEALANT

RESERVOIR

B=BACKER

DIAMETER

S=SECOND

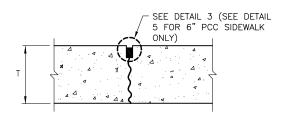
DEPTH (IN.)

SAWCUT

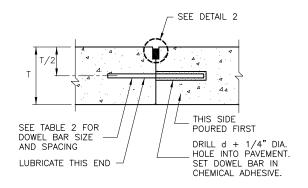
MINIMUM

SEALANT

D=DEPTH

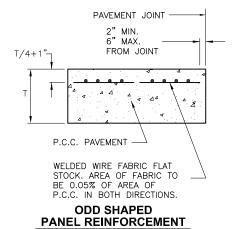


TYPE D DUMMY CONTRACTION SYMBOL - - - -



TYPE E DOWELED CONSTRUCTION

SYMBOL X X X

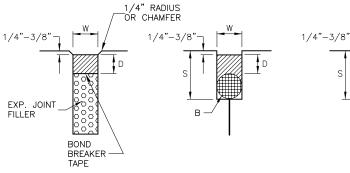


SYMBOL "R"

#### **JOINT NOTES**

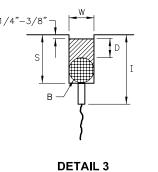
- 1.) ALL EDGES OF NEW SLABS, FREE STANDING OR CLOSURE, SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF 1/8" TO 1/4" TO FACILITATE SAWING OF THE SEALANT RESERVOIR. A RADIUS > 1/4" WILL NOT BE ACCEPTABLE.
- 2.) THE INITIAL SAWCUT FOR ALL LONGITUDINAL & TRANSVERSE CONTRACTION JOINTS SHALL BE SAWED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

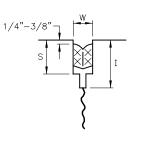
#### **JOINT SEALING DETAILS**



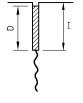
**DETAIL 2** 

**DETAIL 1** 





**DETAIL 4** 

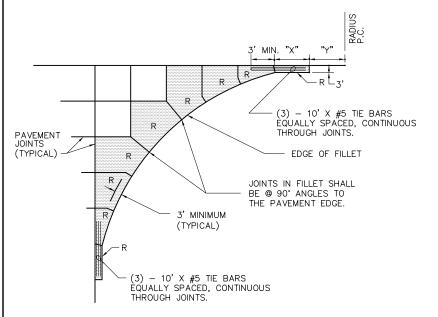


DET. (ALSO SEE

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I I	CMT CRAWFORD, MURPHY & TILY, NC. CONSULTING ENGINEERS License No. 184-000613	
<b></b>	DESIGN BY: R	RLV/TJH
<	DRAWN BY:	DPA
<b>\$</b>	CHECKED BY:	RLV
(	APPROVED BY:	RLV
	DATE:	MAY 13, 2011
AIL 5	JOB No:	09035-05
E TABLE 1)	IL. PROJ. NO AIP PROJ. NO.	D. SPI-4003 3-17-0096-XX

SHEET 18 OF 31 SHEETS

THE INITIAL SAWCUT SHALL BE MADE TO THE

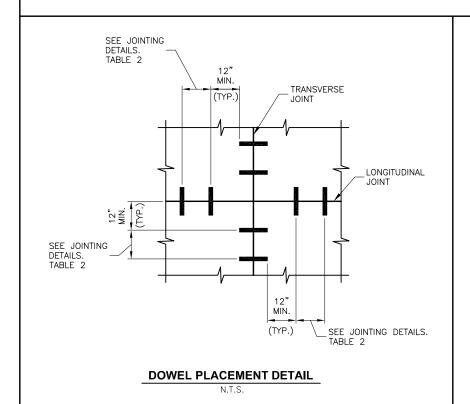


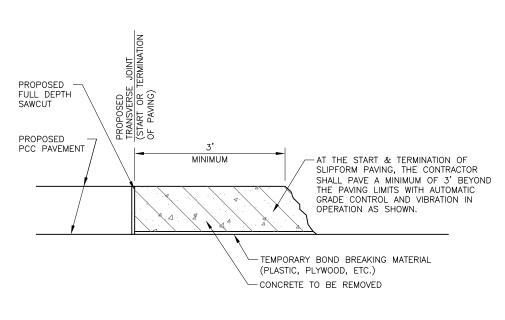
DENOTES ODD SHAPED REINFORCED PANELS TO BE REINFORCED WITH WELDED WIRE FABRIC AS SHOWN ON JOINTING DETAILS SHEET. ALL NON RECTANGULAR SHAPED PANELS SHALL BE REINFORCED. (REINFORCEMENT NOT SHOWN)

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 & FILLET REINFORCING LAYOUT

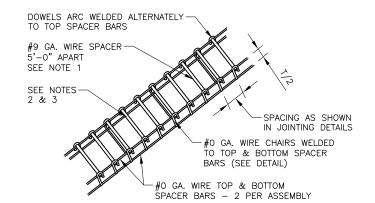
T.S.



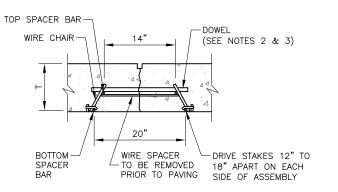


REQUIREMENTS AT START & TERMINATION OF SLIPFORM PAVING

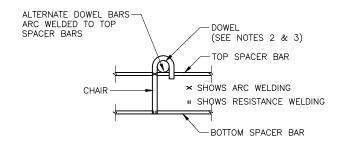
N.T.S.



#### DOWEL BASKET ASSEMBLY DETAIL



#### **DOWEL BAR INSTALLATION DETAIL**



## TYPICAL DOWEL BASKET ELEVATION DETAIL SHOWING CHAIR

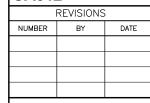
## DOWEL BASKET DETAILS N.T.S.

#### **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.
- 2. DOWEL BAR DIAMETER, LENGTH & SPACING SHALL BE AS SHOWN IN TABLE 2.
- 3. DOWELS SHALL BE EPOXY COATED FULL LENGTH OF DOWEL. IMMEDIATELY PRIOR TO PAVING, THE FREE END OF EACH DOWEL SHALL BE LUBRICATED OR OILED, FOR HALF THE LENGTH OF THE DOWEL.

K:\SpringfieldAp\0903505\Draw\Sheets FILE: PAVDET1.dwg UPDATE BY: TJ Heavisides PLOT DATE: 5/6/2011 3:39 PM

#### CA012



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



SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS TAXIWAYS-PHASE 1

REHABILITATE GOLF RAMP & HANGAR TAXIWAYS-PAVING & MISCELLANEOUS DETAILS

CRAWFORD, MURPHY & TILLY, NC. CONSULTING ENGINERS License No. 184-000613



 DESIGN BY:
 RLV/TJH

 DRAWN BY:
 DPA

 CHECKED BY:
 RLV

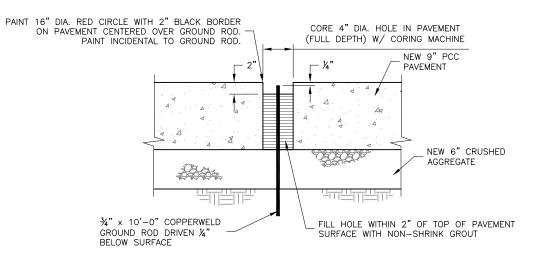
 APPROVED BY:
 RLV

 DATE:
 MAY 13, 2011

 JOB No:
 09035-05

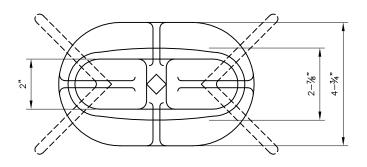
IL. PROJ. NO. SPI-4003 AIP PROJ. NO. 3-17-0096-XX

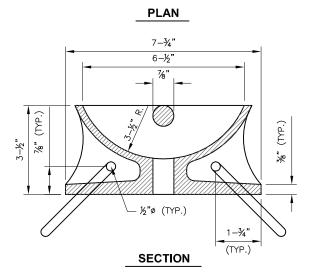
SHEET 19 OF 31 SHEETS



#### **GROUNDING POINT DETAIL**

N.T.S.





#### NOTES:

- MOORING CASTINGS SHALL BE NEENAH SEMI-STEEL AIRPORT MOORING EYE CATALOG NO. R3490 OR APPROVED EQUIVALENT.
- 2. ANCHOR RODS SHALL BE #3 DEFORMED REBAR, 15" LONG AND SHALL BE BENT DOWNWARD AT 45^. TWO ANCHOR BARS PER MOORING EYE ARE REQUIRED.
- 3. MOORING EYES SHALL BE INSTALLED DURING THE PAVING OPERATION.

#### MOORING EYE/TIE DOWN DETAIL

N.T.S.

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#### CA012

REVISIONS			
NUMBER	BY	DATE	

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



RAMP & HANGAR TAXIWAYS-PHASE 1

7

MISCELLANEOUS DETAILS

రం

**PAVING** 

GOLF

REHABILITATE

SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

CRAWFORD MIRPHY & TILLY, NC.
CONSULTING ENGINEERS



DESIGN BY: RLV/TJH

DRAWN BY: DPA

CHECKED BY: RLV

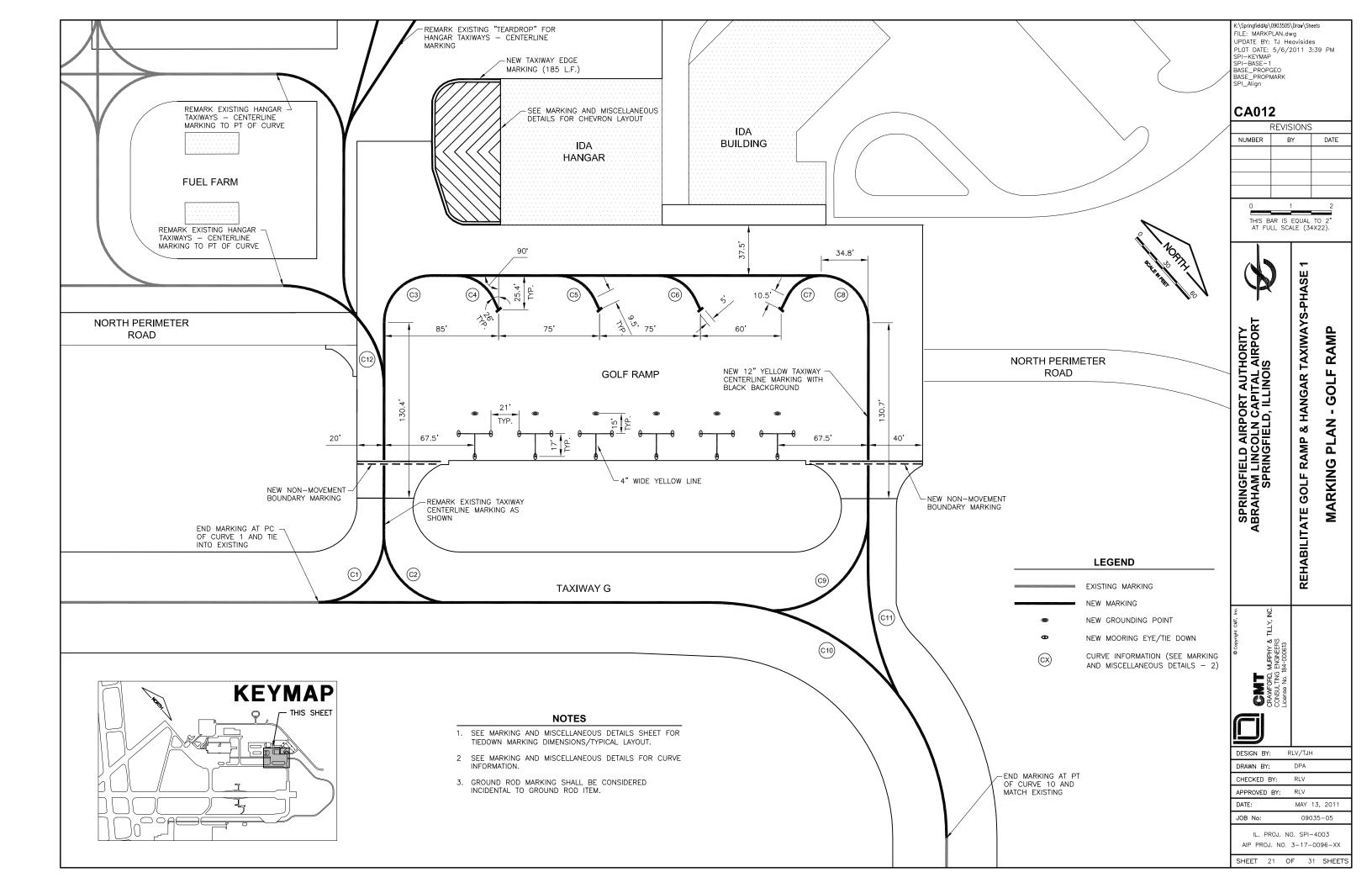
APPROVED BY: RLV

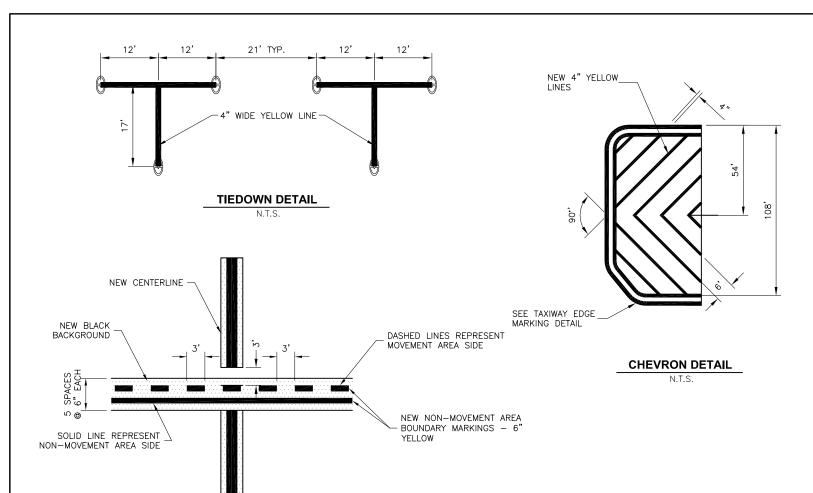
DATE: MAY 13, 2011

JOB No: 09035-05

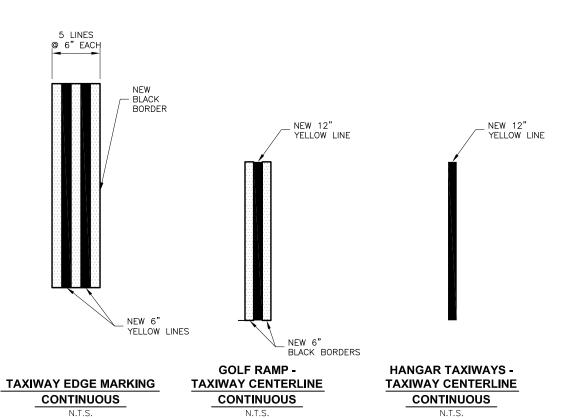
IL. PROJ. NO. SPI-4003 AIP PROJ. NO. 3-17-0096-XX

SHEET 20 OF 31 SHEETS





#### NON-MOVEMENT AREA **BOUNDARY MARKING**



		GOLF RAI	MP - MARK	ING COOR	DINATES	
CURVE	POINT	NORTHING	EASTING	STATION	OFFSET	CURVE ELEMENTS
C1	PC	1160915.34	2435836.55	199+71.6	192.9' RT	RADIUS= 50.0'
	RP	1160947.29	2435799.78	199+71.4	144.0' RT	LENGTH= 75.15'
	PT	1160982.99	2435832.95	200+20.0	145.5' RT	DELTA= 88°23'48.07"
C2	PC	1160984.00	2435896.92	200+63.0	192.9' RT	RADIUS= 50.0'
	RP	1161023.76	2435864.29	200+71.3	142.2' RT	LENGTH= 69.05'
	PT	1160982.99	2435832.95	200+20.0	145.5' RT	DELTA= 76°55'52.90"
С3	PC	1161089.12	2435712.47	200+20.2	15.0' LT	RADIUS= 35.0'
	RP	1161115.39	2435735.60	200+55.2	15.0' LT	LENGTH= 54.94'
	PT	1161138.49	2435709.31	200+55.2	50.0' LT	DELTA= 89°55'52.34"
C4	PC	1161152.74	2435721.83	200+74.2	50.0' LT	RADIUS= 30.0'
	RP	1161132.94	2435744.37	200+74.2	20.0' LT	LENGTH= 33.54'
	PT	1161161.87	2435752.31	201+01.2	33.1' LT	DELTA= 64°02'54.61"
C5	PC	1161209.10	2435771.34	201+49.2	50.0' LT	RADIUS= 30.0'
	RP	1161189.30	2435793.88	201+49.2	20.0' LT	LENGTH= 33.54'
	PT	1161218.23	2435801.82	201+76.2	33.1' LT	DELTA= 64°02'54.61"
C6	PC	1161265.46	2435820.86	202+24.2	50.0' LT	RADIUS= 30.0'
	RP	1161245.66	2435843.39	202+24.2	20.0' LT	LENGTH= 33.54'
	PT	1161274.59	2435851.33	202+51.2	33.1' LT	DELTA= 64°02'54.61"
C7	PC	1161356.30	2435900.67	203+45.2	50.0' LT	RADIUS= 28.0'
	RP	1161337.82	2435921.70	203+45.2	22.0' LT	LENGTH= 31.28'
	PT	1161327.01	2535895.87	203+20.0	34.3' LT	DELTA= 64°00'00"
C8	PC	1161356.34	2435900.70	203+45.2	50.0' LT	RADIUS= 35.0'
	RP	1161333.24	2435926.99	203+45.2	15.0' LT	LENGTH= 55.03'
	PT	1161359.50	2435950.13	203+80.2	15.0' LT	DELTA= 90°04'53.25"
C9	PC	1161262.51	2436060.26	203+80.0	131.8' RT	RADIUS= 75.0'
	RP	1161211.70	2436009.60	203+08.4	127.3' RT	LENGTH= 107.49'
	PT	1161164.86	2436063.95	203+09.1	199.0' RT	DELTA= 85°50'41.47"
C10	PC	1161134.50	2436029.16	202+63.3	192.9' RT	RADIUS= 175.0'
	RP	1161018.98	2436160.62	202+63.3	367.9' RT	LENGTH= 275.00'
	PT	1161150.37	2436276.21	204+38.3	368.0' RT	DELTA= 90°02'05.13"
C11	PC	1161237.13	2436089.01	203+80.0	170.2' RT	RADIUS= 200.0'
	RP	1161391.65	2436222.84	205+84.4	168.7' RT	LENGTH= 94.52'
	PT	1161193.66	2436117.99	204+02.1	261.2' RT	DELTA= 26°29'31.94"
C12	PC	1161057.64	2435748.21	199+45.2	42.5' LT	RADIUS= 75.0'
	RP	1161001.36	2435698.64	199+45.2	32.5' RT	LENGTH= 117.9'
	PT	1161050.86	2435642.30	200+20.2	32.6' RT	DELTA= 90°04'07.74"

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#### CA012

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



REHABILITATE GOLF RAMP & HANGAR TAXIWAYS-PHASE

# SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS

MARKING & MISCELLANEOUS DETAILS

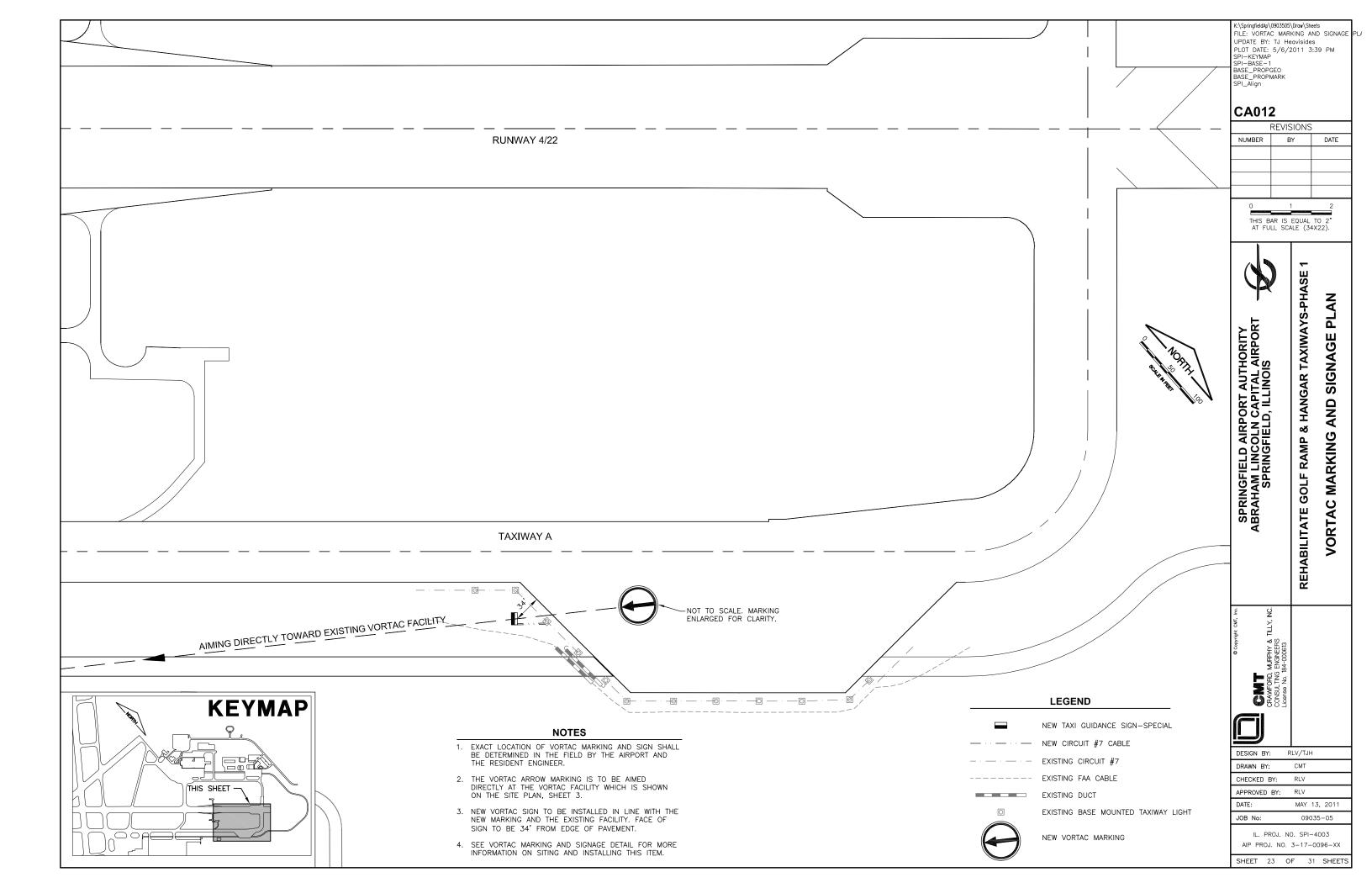
CRAWFORD, N CONSULTING E License No. 18

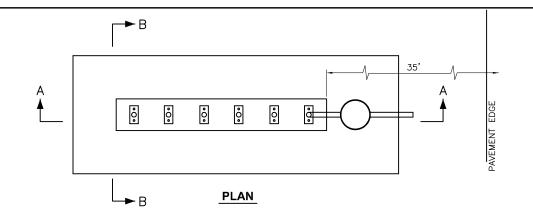


DESIGN BY:	RLV/TJH
DRAWN BY:	DPA
CHECKED BY:	RLV
APPROVED BY:	RLV
DATE:	MAY 13, 2011
JOB No:	09035-05

IL. PROJ. NO. SPI-4003 AIP PROJ. NO. 3-17-0096-XX

SHEET 22 OF 31 SHEETS





SEE ELECTRICAL

2" GRS CONDUIT

L-830 TRANSFORMER

PER SIGN MANUFACTURER -

SAND BACKFILL

REQUIREMENTS

CONNECTION

DETAIL

NEW AIRFIELD SIGN, ACTUAL DIMENSIONS, BOLT PATTERN AND CONNECTIONS PER THE MANUFACTURER.

TO ACCOMMODATE NEW LEGENDS.

6"x6" WELDED\_

6" ITEM 610 P.C.C.-

6" SAND CUSHION -

WIRE FABRIC

#### **AIRFIELD SIGN NOTES**

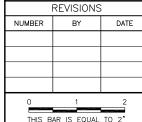
- 1. TRANSFORMER WATTAGE SHALL BE AS REQUIRED BY SIGN MANUFACTURER.
- 2. SIGN LEGEND SHALL BE AS SHOWN IN THE PLANS.
- 3. SIGNS SHALL BE SIZE 2, STYLE 2 OR 3, CLASS 2.
- 4. SEE "NEW BASE MOUNTED EDGE LIGHT" DETAIL FOR GROUNDING DETAILS.

#### **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.

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#### CA012



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

SPRINGFIELD AIRPORT ABRAHAM LINCOLN CAPI SPRINGFIELD, ILL

TAXIWAYS-PHASE ORT AUTHORITY SAPITAL AIRPORT , ILLINOIS

DET IGNAGE HANGAR S AND ॐ

RAMP MARKING GOLF VORTAC REHABILITATE

CRAWFORD, CONSULTING

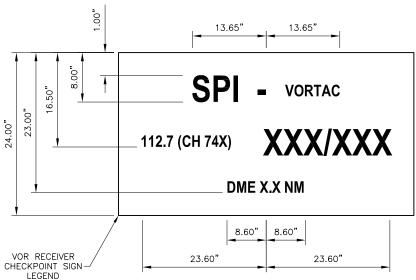
RLV/TJH DESIGN BY: DRAWN BY: CMT RLV CHECKED BY APPROVED BY: RLV DATE: MAY 13, 2011 JOB No: 09035-05

> IL. PROJ. NO. SPI-4003 AIP PROJ. NO. 3-17-0096-XX

SHEET 24 OF 31 SHEETS

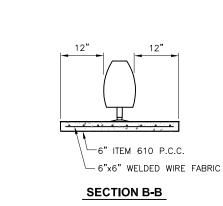
L-823 PLUG FURNISHED FRANGIBLE COUPLING WITH SIGN. CABLE CLAMP FLOOR FLANGE TOP OF 2" CONDUIT TO BE - EVEN WITH TOP SURFACE OF CONCRETE MOUNTING PAD. JUMPER CABLE L-823 CONNECTOR STYLE 7, TYPE 2 CLASS A.

#### **ELECTRICAL CONNECTION DETAIL**



- 1. HORIZONTAL RECTANGLE 52" x 24" BLANK
- 2. COLORS: LEGEND BLACK BACKGROUND YELLOW(RETROFLECTIVE)
- 3. TEXT: MODIFIED GOTHIC STYLE HEIGHT 3" AND 7"; STROKE .30"
- 4. MAXIMUM MOUNTED HEIGHT = 30"
- 5. "X" IN LEGEND DENOTES NUMERALS TO BE PROVIDED TO THE CONTRACTOR PRIOR TO MANUFACTURE. THE "X" FOR CH74X IS THE ACTUAL CHARACTER TO PLACE ON THE SIGN.
- 6. THE VOR RECEIVER CHECKPOINT SIGN SHALL BE PAID FOR UNDER "TAXI GUIDANCE SIGN, SPECIAL".

#### **VOR RECEIVER CHECKPOINT SIGN LEGEND**



#### L-858 AIRFIELD SIGN DETAILS N.T.S.

SEE NOTE 4.

L-867 SIZE B, CLASS 1A -BASE - 24" DEEP

2-EA. 1/C #8, 5KV CABLE IN UNIT DUCT. UNIT DUCT SHALL

#6 BARE COPPER CONDUCTOR & 5/8" x 10' GROUND ROD.

BE TERMINATED INSIDE THE

LIGHT BASE AND SEALED.

L-823 CONNECTORS

WITH HEAT SHRINK CONDUIT BUSHING

LIGHT IDENTIFICATION TAG-

L-823 SECONDARY -CONNECTOR FOR JUMPER CABLE WITH HEAT SHRINK 3/8" STEEL COVER

SEE DETAIL

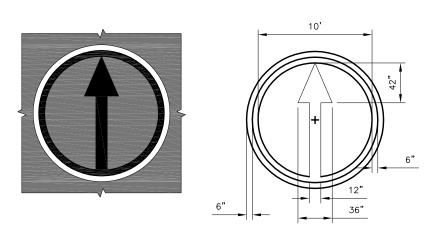
WITH GASKET

2" GRS

CONDUIT

∠ BRICK

**SECTION A-A** 



#### **NOTES**

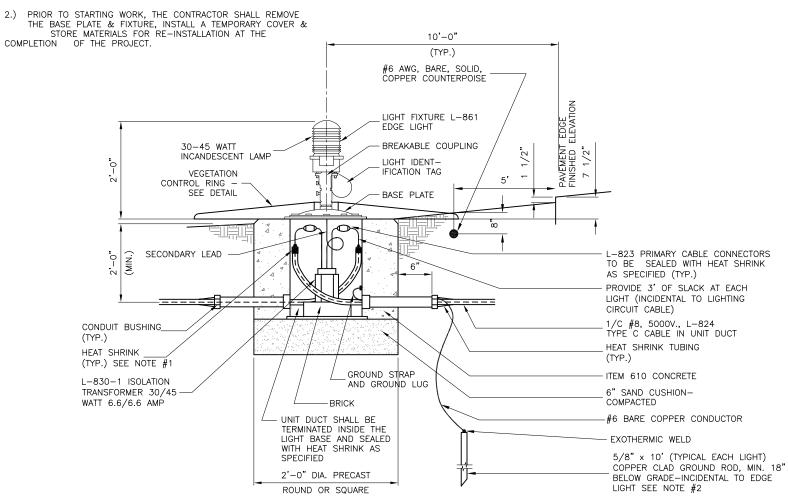
- 1 ARROW IS TO BE ALIGNED TOWARD THE VORTAC FACILITY. SEE SITE PLAN FOR LOCATION ON THIS FACILITY.
- 2. INTERIOR OF CIRCLE IS TO BE PAINTED BLACK.
- 3. CIRCLE SHALL BE BORDERED ON INSIDE AND OUTSIDE WITH A 6" BLACK BORDER.
- 4. COORDINATE PROPOSED LOCATION WITH AIRPORT THROUGH RESIDENT ENGINEER PRIOR TO MARKING.
- 5. THE VOR RECEIVER CHECK POINT MARKINGS SHALL BE PAID FOR UNDER "PAVEMENT MARKINGS".

#### **VOR RECEIVER CHECKPOINT MARKINGS**

N.T.S.

#### NOTES:

1.) CONTRACTOR SHALL PROTECT EXISTING TAXIWAY EDGE LIGHTS.



**EXISTING BASE MOUNTED EDGE LIGHTS TO REMAIN** 

CABLE JACKET REMOVED,
"PENCIL" INSULATION

PLASTIC BODY MOLD

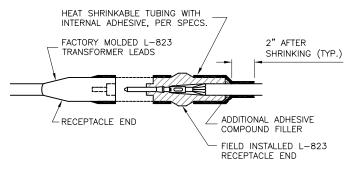
POURING SPOUT

RESIN

COMPRESSION TYPE SLEEVE
CONNECTOR. CRIMP WITH TOOL
RECOMMENDED BY MANUFACTURER
SEAL ENDS OF MOLD WITH
TAPE PROVIDED IN SPLICE KIT

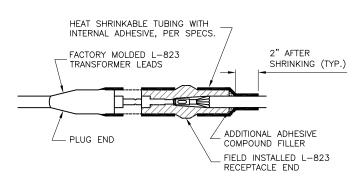
FOR IN-LINE CONNECTIONS OF EXISTING CABLES CUT DURING CONSTRUCTION.

#### TYPE A



FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.

#### TYPE C



FOR SPLICES AT TAXIWAY LIGHTS AND SIGNS.

#### TYPE D

### CABLE SPLICES-IF NEEDED

#### **CABLE SPLICE NOTES**

- 1. INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
- 2. THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS
- THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.

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#### CA012

REVISIONS					
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SPRINGFIELD AIRPORT AUTHORITY ABRAHAM LINCOLN CAPITAL AIRPORT SPRINGFIELD, ILLINOIS WAYS-PHASE 1

OLF RAMP & HANGAR TAXIWAY ELECTRICAL DETAILS

REHABILITATE

CINT CRAWFORD MURPHY & TILY, NC. CONSULTING ENGINEERS



DESIGN BY: RLV/TJH

DRAWN BY: DPA

CHECKED BY: RLV

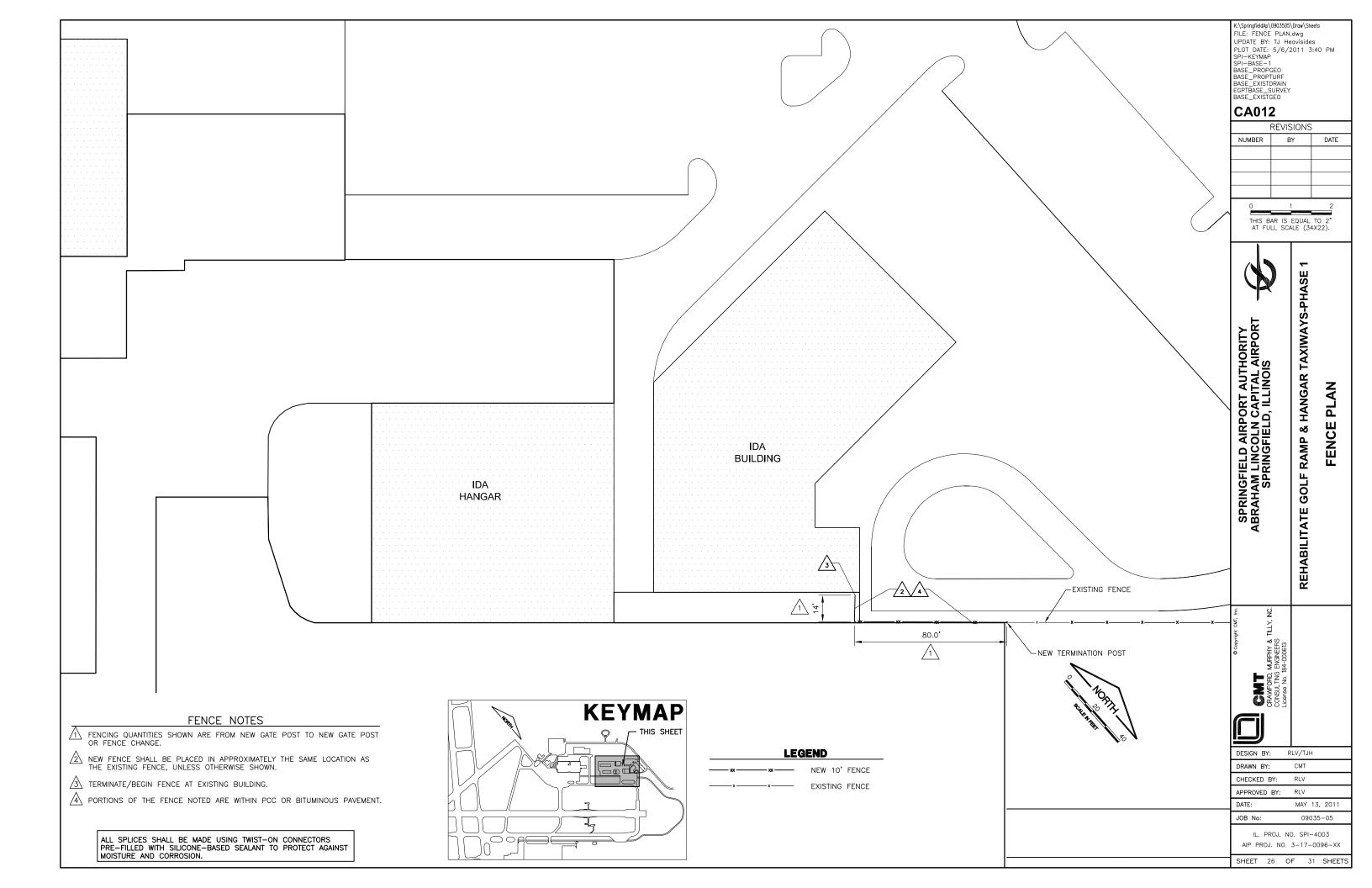
APPROVED BY: RLV

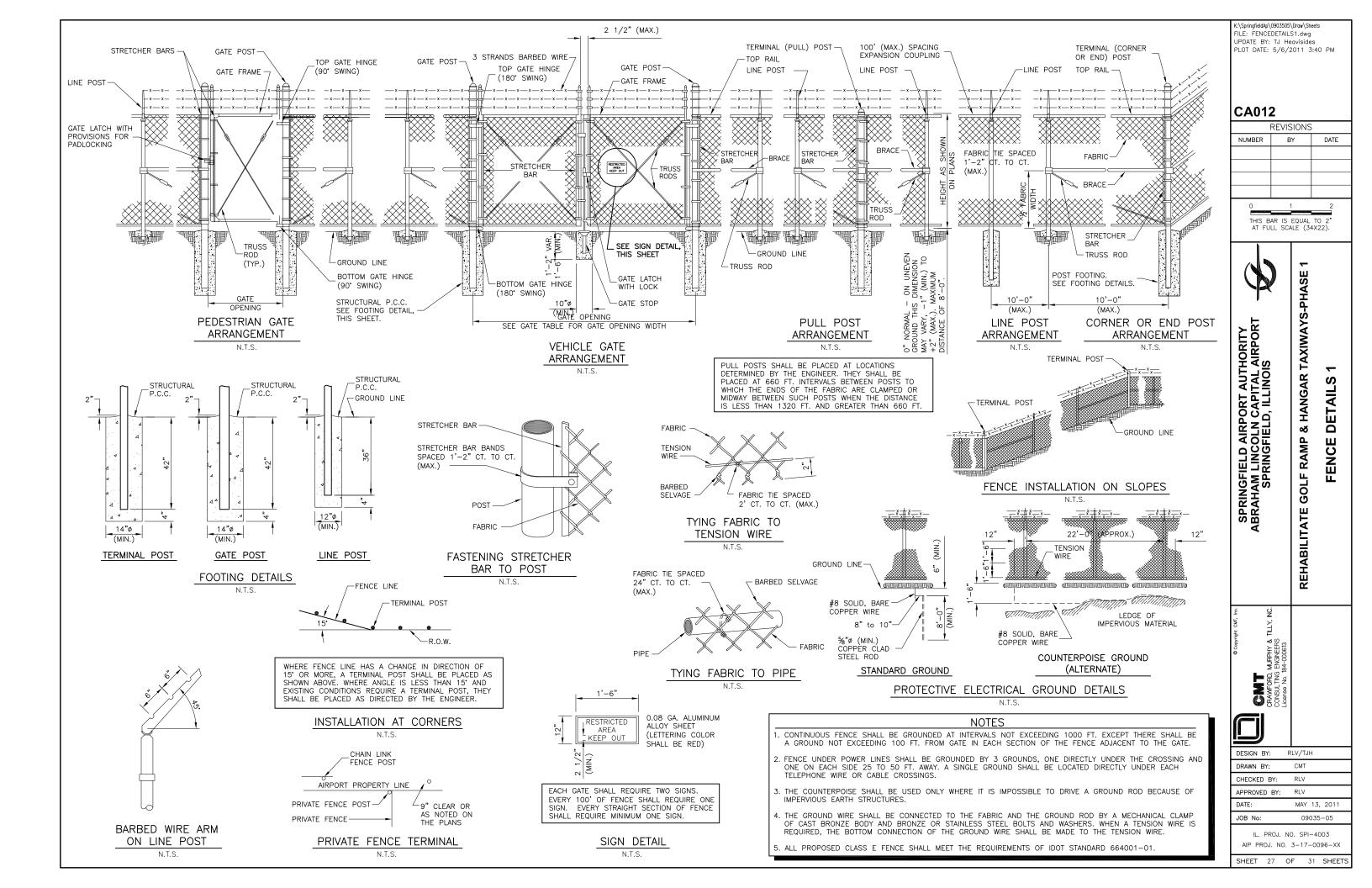
DATE: MAY 13, 2011

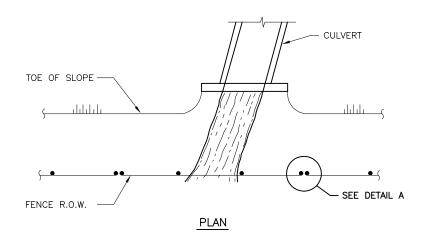
JOB No: 09035-05

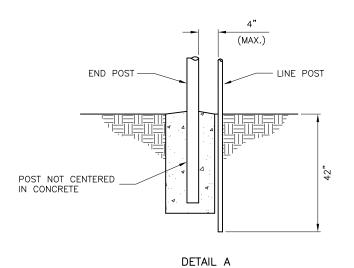
IL. PROJ. NO. SPI-4003 AIP PROJ. NO. 3-17-0096-XX

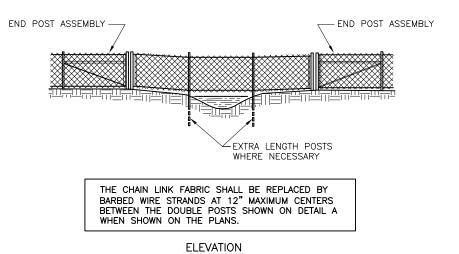
SHEET 25 OF 31 SHEETS



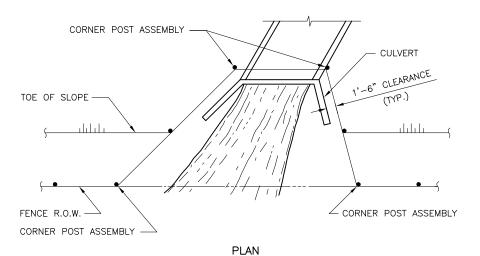








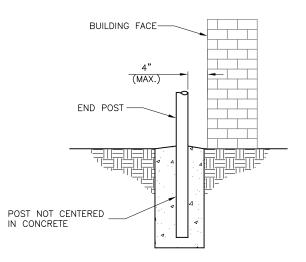
FENCE INSTALLATION OVER STREAM DETAILS



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 ÉNGINEER

ELEVATION

### FENCE INSTALLATION AROUND HEADWALL DETAILS



FENCE POST SHAPE, SIZE AND WEIGHT						
	FENCE POST MATERIAL					
	ROUND STEEL	PIPE SCH. 40	ROUND STEEL PIPE SS 40		ROLL FORMED C SECTION	
POST TYPE	DIAMETER	WEIGHT	DIAMETER	WEIGHT	SIZE	WEIGHT
CORNER, END, PULL	4.0" O.D.	9.11 LB/FT	4.0" O.D.	6.57 LB/LF	3.25" X 2.5"	4.50 LB/FT
LINE POST	2.875" O.D.	5.79 LB/FT	2.875" O.D.	4.64 LB/LF	3.25" X 2.5"	4.50 LB/FT
TOP RAIL	1.66" O.D.	2.77 LB/FT	1.66" O.D.	1.84 LF/LF	1.625" X 1.25"	1.35 LB/FT
GATE POST	6.25" O.D.	18.97 LB/FT	N/A	N/A	N/A	N/A

SHALL BE USED.

FENCE INSTALLATION AT BUILDING FACE

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#### CA012

REVISIONS				
NUMBER	BY	DATE		

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



RPORT

# GOLF RAMP & HANGAR TAXIWAYS-PHASE FENCE DETAILS 2

SPRINGFIELD AIRPORT AUTHORITY
ABRAHAM LINCOLN CAPITAL AIRPORT
SPRINGFIELD, ILLINOIS
REHABILITATE GOLF RAMP & HANGAR TAXIWAYS

CRAWFORD, MURPHY & TILL CONSULTING ENGINEERS License No. 184-000613



DESIGN BY: RLV/TJH

DRAWN BY: CMT

CHECKED BY: RLV

APPROVED BY: RLV

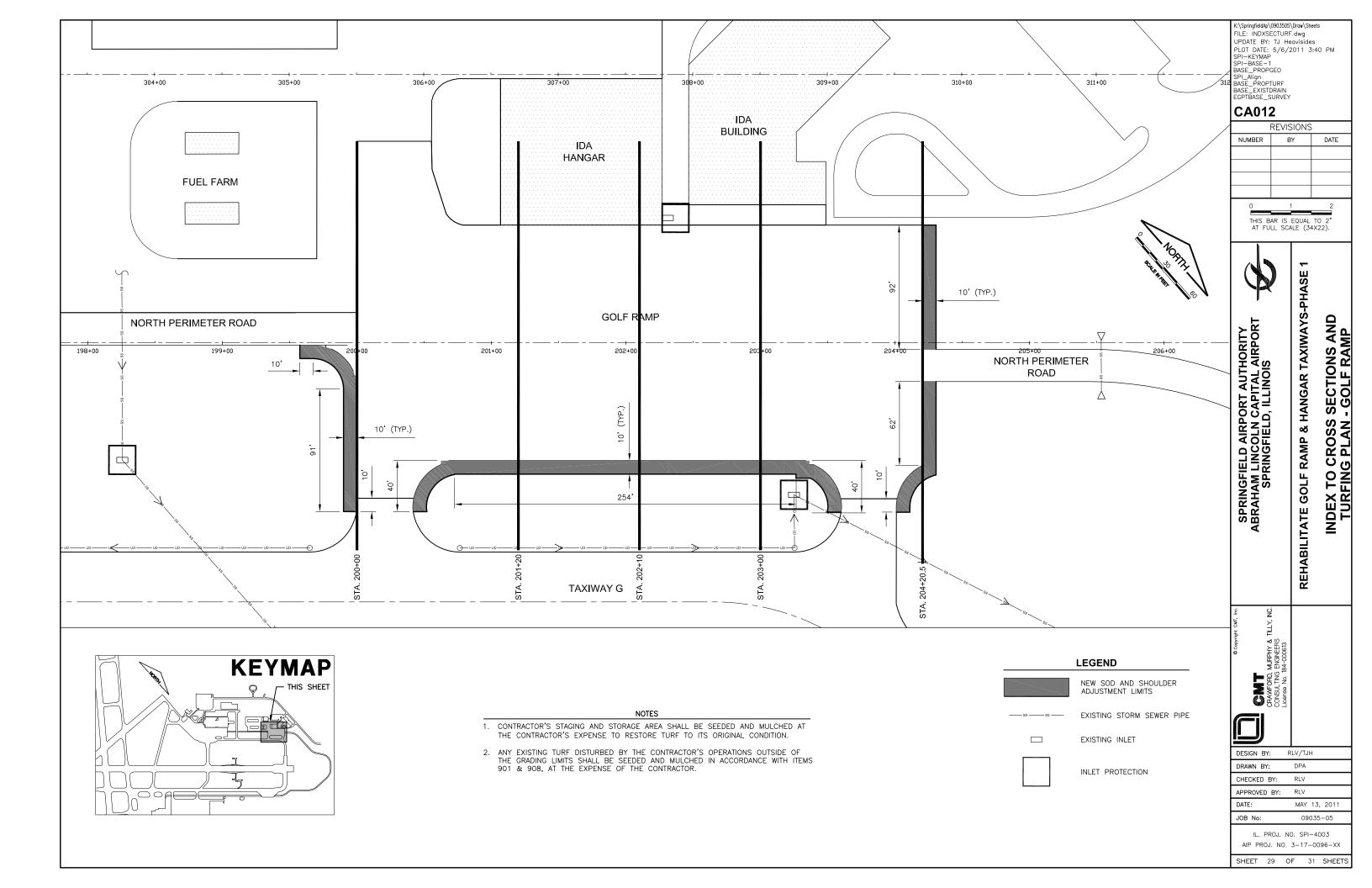
DATE: MAY 13, 2011

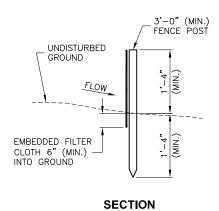
JOB No: 09035-05

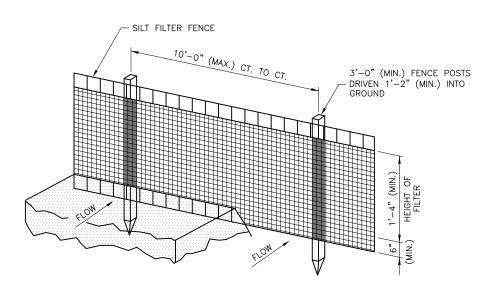
IL. PROJ. NO. SPI-4003

AIP PROJ. NO. 3-17-0096-XX

SHEET 28 OF 31 SHEETS





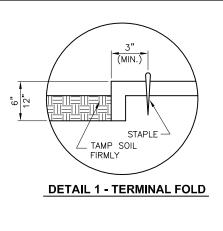


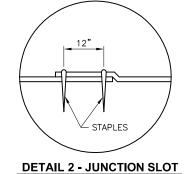
#### **EROSION CONTROL FABRIC FENCE DETAILS**

PERSPECTIVE VIEW

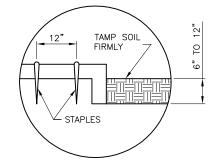
#### **EROSION CONTROL FABRIC FENCE NOTES**

- 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.





-DETAIL 3



**DETAIL 3 - ANCHOR SLOT** 

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

**TAXIWAYS-PHASE** 

HANGAR

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RAMP

GOLF

DETAIL

CONTROL

**EROSION** 

REVISIONS

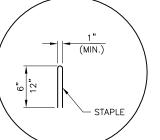
BY

DATE

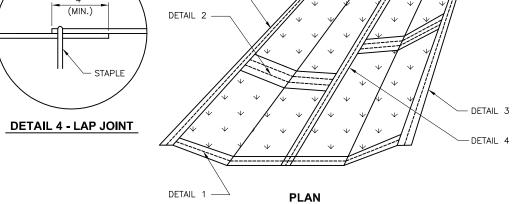
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NUMBER



**DETAIL 5 - STAPLE DETAIL** 

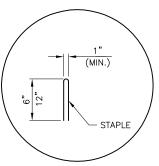


DETAIL 3

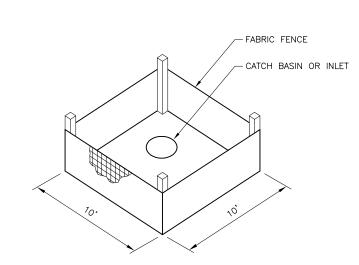
#### **EXCELSIOR BLANKET DETAILS**

#### **EXCELSIOR BLANKET NOTES**

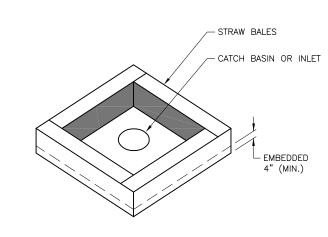
- 1. STAPLES TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY APART AND IN ROWS APPROXIMATELY 3' APART.
- 2. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
- 3. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.



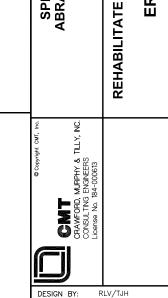




**INLET PROTECTION WITH FABRIC** 



**INLET PROTECTION WITH STRAW BALES** 



DRAWN BY:

CHECKED BY:

RLV APPROVED BY: DATE: MAY 13, 2011 JOB No: 09035-05 IL. PROJ. NO. SPI-4003

DPA

RLV

AIP PROJ. NO. 3-17-0096-XX

SHEET 30 OF 31 SHEETS

