

# CONSTRUCTION PLANS

## FOR

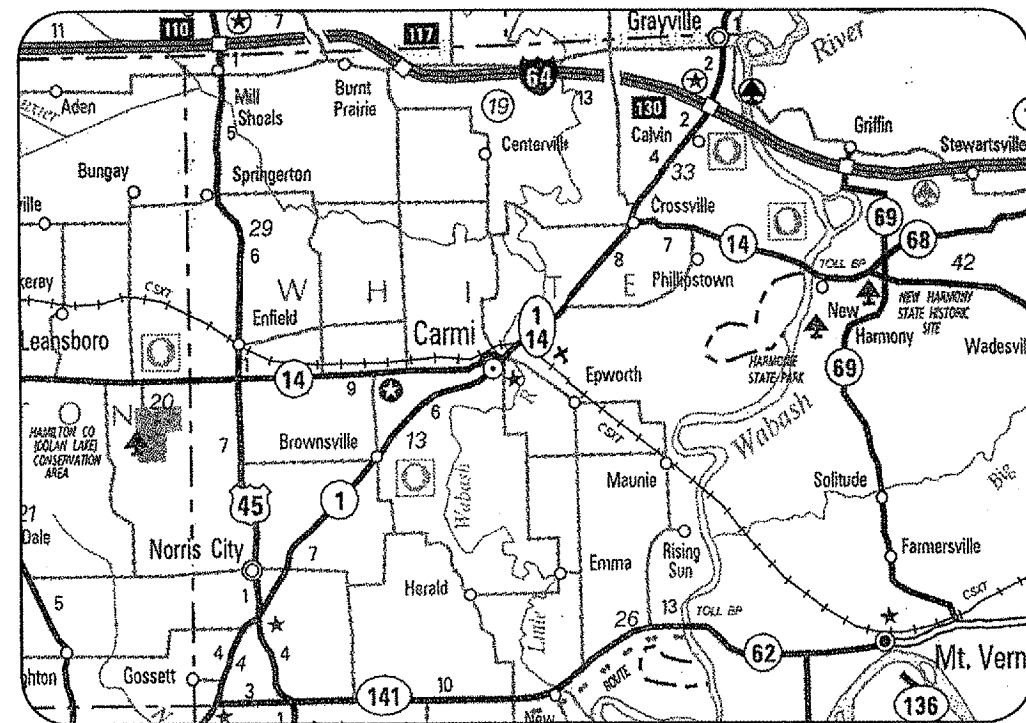
# CARMI MUNICIPAL AIRPORT

## CARMI, WHITE COUNTY, ILLINOIS

# EXTEND PARTIAL PARALLEL TAXIWAY

SCOPE OF WORK

THIS PROJECT CONSISTS OF EXTENDING THE PARTIAL PARALLEL TAXIWAY (1,901' X 35') WITH CONNECTING CROSS-OVER TAXIWAY (185' X 35') TO RUNWAY END 36, WITH ASSOCIATED MARKING, LIGHTING, DRAINAGE, SEEDING AND MULCHING

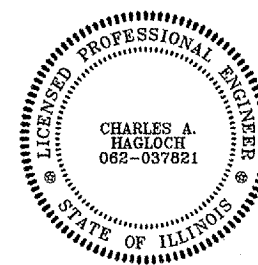


**LOCATION**

ILL. PROJ.: CUL-3683  
 A.I.P. PROJ.: 3-17-0109-B7  
 LATITUDE: 38° 05' 23"  
 LONGITUDE: 88° 07' 23"  
 ELEVATION: 385.0' M.S.L.  
 DATE: MARCH 23, 2007



COVERING  
ELECTRICAL  
DESIGN



PLANS PREPARED BY:

**HANSON**  
 Hanson Professional Services Inc.  
 ELECTRICAL ENGINEER

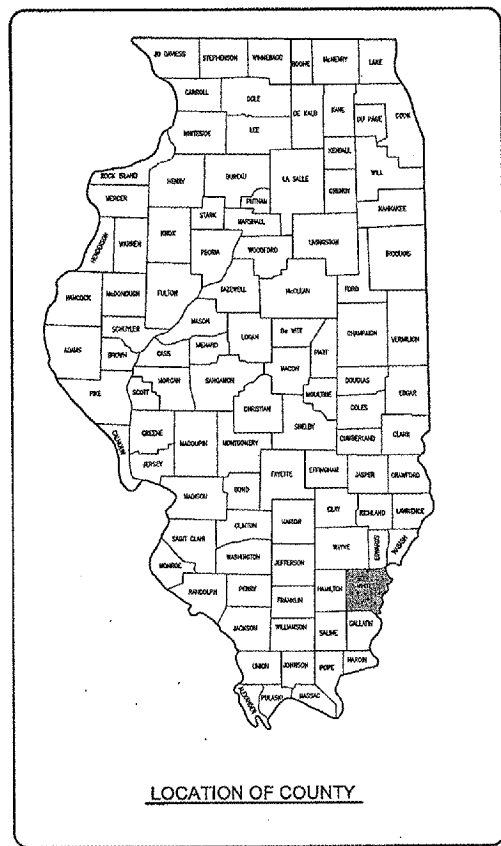
Submitted by: *Kevin N. Lightfoot* ENG'R  
 Date Submitted: MAY 4, 2007  
 Lics. Exp. Date: NOVEMBER 30, 2007

**HANSON**  
 Hanson Professional Services Inc.

Submitted by: *Charles A. Hagloch* ENG'R  
 Date Submitted: MAY 8, 2007  
 Lics. Exp. Date: NOVEMBER 30, 2007

CITY OF CARMI, ILLINOIS

Approved: *Shawn J. Quinn* MAYOR  
 Date: 04/05/07  
 Approved: *Don Wilting* CLERK  
 Date: 4/05/2007



MAY 03, 2007 9:42 AM BAK I:\AIRPORTS\CARMI\801-077XX\AIRPORT\SHEETS\R-001\CVR.DWG - COVER

DATE	REVISION

**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**

A.I.P. PROJ.: 3-17-0109-B7  
 I.L. PROJ.: CUL-3683

ILL. Project No. 801-077XXD-0800	SEP 11/14/06
File Name R-001\CVR.DWG	CCC 11/14/06
Scale NOT TO SCALE	CAH 03/27/07
Date 11/14/06	



EXTEND PARTIAL  
PARALLEL TAXIWAY

COVER SHEET

DATE	REVISION	BY

SUMMARY OF QUANTITIES

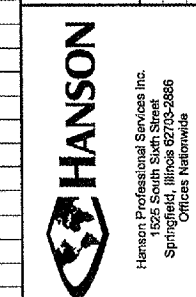
ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITIES	AS BUILT QUANTITIES
AR108158	1/C #8 5 KV UG CABLE IN UD	L.F.	5,226	
AR109200	INSTALL ELECTRICAL EQUIPMENT	L.S.	1	
AR110502	2-WAY CONCRETE ENCASED DUCT	L.F.	41	
AR125410	MITL-STAKE MOUNTED	EA.	25	
AR125415	MITL-BASE MOUNTED	EA.	6	
AR125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EA.	4	
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EA.	1	
AR125901	REMOVE STAKE MOUNTED LIGHT	EA.	7	
AR125904	REMOVE TAXI GUIDANCE SIGN	EA.	2	
AR125964	RELOCATE TAXI GUIDANCE SIGN	EA.	2	
AR125967	RELOCATE REILS	PAIR	1	
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1	
AR150540	HAUL ROUTE	L.S.	1	
AR152410	UNCLASSIFIED EXCAVATION	C.Y.	6,624	
AR156510	SILT FENCE	L.F.	1,507	
AR156511	DITCH CHECK	EA.	5	
AR156513	SEPARATION FABRIC	S.Y.	9,268	
AR156521	HEADWALL PROTECTION	EA.	2	
AR156540	RIPRAP	S.Y.	23	
AR201610	BITUMINOUS BASE COURSE	TON	1,478	
AR208540	OVERSIZE AGGREGATE	TON	4,217	
AR209510	CRUSHED AGGREGATE BASE COURSE	TON	3,065	
AR401610	BITUMINOUS SURFACE COURSE	TON	977	
AR401655	BUTT JOINT CONSTRUCTION	S.Y.	175	
AR401900	REMOVE BITUMINOUS PAVEMENT	S.Y.	604	
AR602510	BITUMINOUS PRIME COAT	GAL.	2,996	
AR603510	BITUMINOUS TACK COAT	GAL.	856	
AR620520	PAVEMENT MARKING-WATERBORNE	S.F.	19,920	
AR620912	TEMPORARY MARK & LIGHT	L.S.	1	
AR701518	18" RCP, CLASS IV	L.F.	80	
AR705410	POROUS BACKFILL	C.Y.	311	
AR705524	4" PERFORATED UNDERDRAIN W/SOCK	L.F.	4,090	
AR705630	UNDERDRAIN INSPECTION HOLE	EA.	12	
AR752418	PRECAST REINFORCED CONC. FES 18"	EA.	2	
AR901510	SEEDING	AC.	11	
AR908510	MULCHING	AC.	11	

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4	PROPOSED STORM WATER POLLUTION PREVENTION PLAN
5	PROPOSED TEMPORARY MARKING AND LIGHTING PLAN
6	PROPOSED TEMPORARY MARKING AND LIGHTING DETAILS
7	PROPOSED CONSTRUCTION PLAN STA. 17+00 TO STA. 21+50
8	PROPOSED CONSTRUCTION PLAN STA. 21+50 TO STA. 38+50
9	PROPOSED PAVEMENT PLAN AND PROFILE STA. 16+00 TO STA. 29+00
10	PROPOSED PAVEMENT PLAN AND PROFILE STA. 29+00 TO STA. 36+19.39
11	PROPOSED DRAINAGE PLAN STA. 16+00 TO STA. 21+50
12	PROPOSED DRAINAGE PLAN STA. 21+50 TO STA. 37+50
13	PROPOSED STAKING PLAN 15+90 TO STA. 21+50
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15	PROPOSED STAKING PLAN 30+00 TO STA. 38+50
16	PROPOSED MARKING PLAN STA. 17+00 TO STA. 33+00
17	PROPOSED MARKING PLAN STA. 33+00 TO STA. 49+00
18	PROPOSED MARKING PLAN STA. 49+00 TO STA. 57+00
19	PROPOSED ELECTRICAL PLAN STA. 16+50 TO STA. 21+50
20	PROPOSED ELECTRICAL PLAN STA. 21+50 TO STA. 38+50
21	PROPOSED ELECTRICAL PLAN STA. 54+50 TO STA. 57+50
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39	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 19+50 TO STA. 20+00
40	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 20+50 TO STA. 21+00
41	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 21+50 TO STA. 22+00
42	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 22+50 TO STA. 23+00
43	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 23+50 TO STA. 24+00
44	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 24+50 TO STA. 25+00
45	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 25+50 TO STA. 26+00
46	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 26+50 TO STA. 27+00
47	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 27+50 TO STA. 28+00
48	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 28+50 TO STA. 29+00
49	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 29+50 TO STA. 30+00
50	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 30+50 TO STA. 31+00
51	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 31+50 TO STA. 32+00
52	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 32+50 TO STA. 33+00
53	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 33+50 TO STA. 34+00
54	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 34+50 TO STA. 35+00
55	PROPOSED TAXIWAY "A" CROSS-SECTIONS STA. 35+50 TO STA. 36+19.39

CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS

ILL. PROJECT NO. 801-077XV-0800  
 Filename: R-002FLP.DWG  
 Scale: NOT TO SCALE  
 Date: 11/14/06  
 LAYOUT: SEP 11/14/06  
 DRAWN: CCC 11/14/06  
 REVIEWED: CAH 03/27/07



EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 SUMMARY OF QUANTITIES  
 AND  
 INDEX TO SHEETS

APR 27, 2007 7:31 AM BAK  
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**SCOPE OF WORK**

THIS PROJECT CONSISTS OF EXTENDING THE PARTIAL PARALLEL TAXIWAY (1,901' X 35') WITH CONNECTING CROSS-OVER TAXIWAY (185' X 35') TO RUNWAY END 36, WITH ASSOCIATED MARKING, LIGHTING, DRAINAGE, SEEDING AND MULCHING.

**AIRPORT SECURITY NOTE**

AIRPORT SECURITY WILL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR WILL CLOSE AND LOCK THE EXISTING GATE IN THE HAUL ROUTE AT THE END OF EACH WORKING DAY.

**UTILITY NOTE**

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

**HEIGHT OF CONSTRUCTION EQUIPMENT**

THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT WILL BE 25 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE A DUMP TRUCK.

**HAUL ROUTE AND VEHICLE PARKING**

THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTE AND PARKING AREA AS SHOWN ON THIS SHEET. THE PROPOSED PARKING AREA WILL BE 400' X 100'. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE PROPOSED HAUL ROUTE AND PARKING AREA THROUGHOUT THE COURSE OF THE PROJECT. ANY AREAS DAMAGED OUTSIDE OF THESE AREAS WILL BE REPAIRED BY THE CONTRACTOR AND AT THE CONTRACTOR'S OWN EXPENSE. AT THE CONCLUSION OF THE PROJECT THE CONTRACTOR WILL GRADE, FERTILIZE, SEED AND MULCH THE HAUL ROUTE AND PARKING AREA AS NEEDED TO RESTORE IT TO ITS ORIGINAL STATE. RESTORATION OF THE HAUL ROUTE AND PARKING AREA WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

**CONTRACTOR RESPONSIBILITIES**

THE CONTRACTOR'S EQUIPMENT PARKING AND STORAGE AREA WILL BE AS SHOWN ON THIS SHEET. THE CONTRACTOR'S EMPLOYEES WILL PARK THEIR VEHICLES IN THIS AREA. ONLY CONTRACTOR VEHICLES WILL BE ALLOWED OUTSIDE THIS AREA.

THE CONTRACTOR AND HIS EMPLOYEES WILL BE RESTRICTED TO THE WORK AREA AND ALL OTHER AREAS OF THE AIRPORT ARE "OFF LIMITS" TO THEM.

ALL WORK PERFORMED SHALL BE DONE IN A ORDERLY AND EFFECTIVE MANNER TO MINIMIZE RUNWAY CLOSURE.

NO TRENCHES OR HOLES WILL REMAIN OPEN OVERNIGHT.

NO RUNWAY SHALL BE CLOSED OVERNIGHT.

**BARRICADES AND TRAFFIC CONES**

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

**TEXAS EASTERN TRANSMISSION PIPELINE**

TEXAS EASTERN WILL BE INSTALLING STEEL CASING AROUND THEIR TRANSMISSION PIPELINE THAT RUNS UNDER THE PROPOSED CONSTRUCTION SITE. THE CONTRACTOR WILL BE REQUIRED TO CORPORATE WITH TEXAS EASTERN PIPELINE CORP. DURING THIS WORK. HANSON PROFESSIONAL SERVICES WILL ASSIST WITH THIS COORDINATION EFFORT. THE COORDINATION, IMPACT TO THE PROJECT AND SCHEDULING OF THE STEEL CASING WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

**EXISTING DRAIN LINE RELOCATION**

THE EXISTING DRAIN LINE SHOWN ON THIS SHEET IS TO BE RELOCATED DURING THIS PROJECT. THE DRAIN LINE RELOCATION IS REQUIRED TO BE COMPLETED AT THE START OF CONSTRUCTION. IT WILL ALSO BE NECESSARY FOR THE CONTRACTOR TO PLACE A TEMPORARY PIPE IN THE RELOCATED DRAIN LINE TO BE ABLE TO GAIN ACCESS TO THE PROPOSED CONSTRUCTION SITE. UPON THE COMPLETION OF THIS PROJECT THE CONTRACTOR WILL BE REQUIRED TO REMOVE THE TEMPORARY PIPE, RESHAPE AND SEED THE DRAIN LINE IN THE TEMPORARY PIPE LOCATION. THE TEMPORARY PIPE, MAINTENANCE OF THE PIPE, REMOVAL, SHAPING AND SEEDING WILL BE AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

BENCHMARK DATA		
NO.	DESCRIPTION	ELEV.
1	IRON PIN	382.12
2	CHISELED SQUARE ON THE NW CORNER OF CONCRETE HEADWALL STA. 17+00 120' RT	381.41

**MATERIAL CERTIFICATION**

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

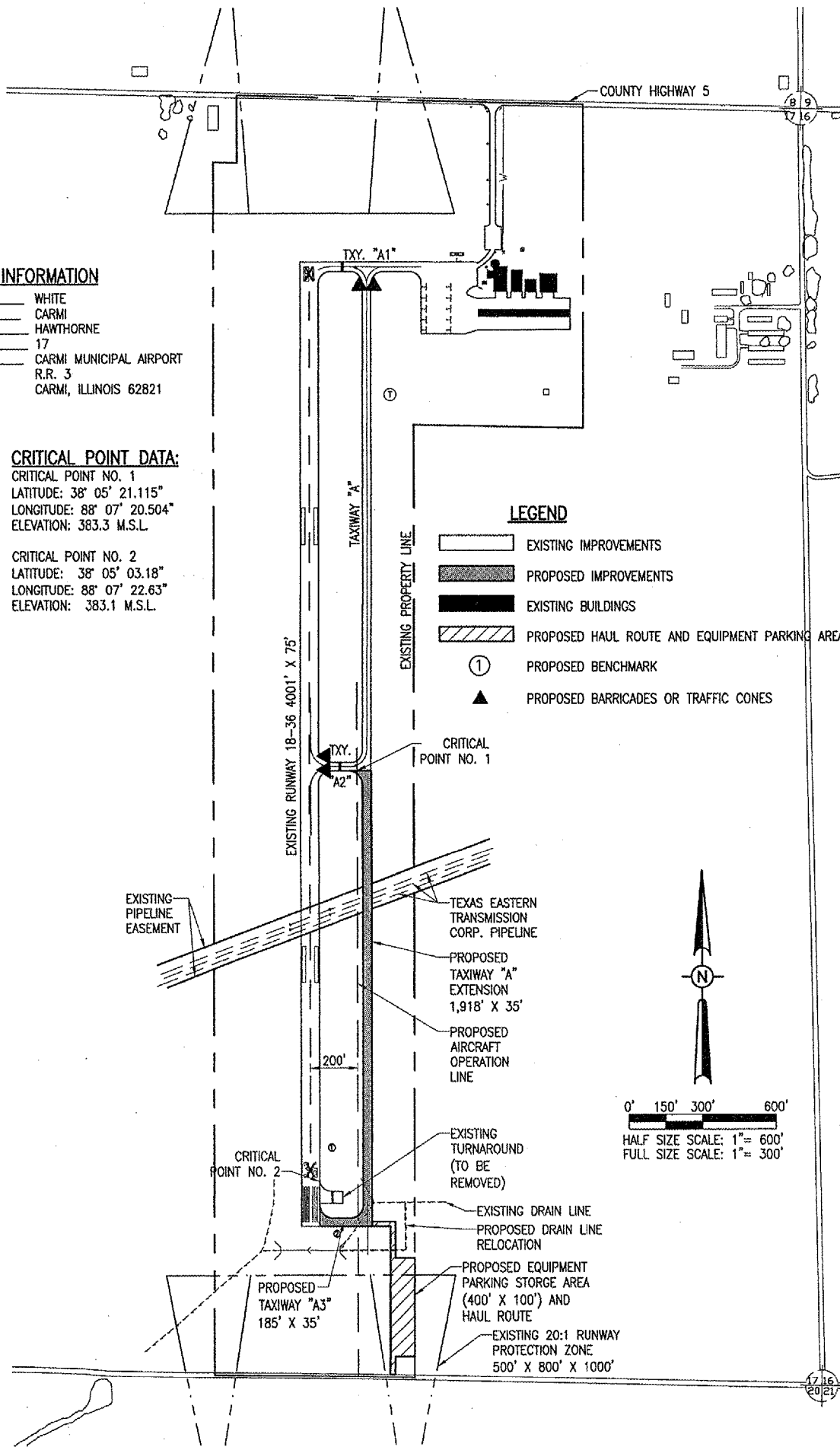
**J.U.L.I.E. INFORMATION**

COUNTY \_\_\_\_\_ WHITE  
 CITY \_\_\_\_\_ CARM  
 TOWNSHIP \_\_\_\_\_ HAWTHORNE  
 SECTION NO. \_\_\_\_\_ 17  
 ADDRESS \_\_\_\_\_ CARM MUNICIPAL AIRPORT  
 R.R. 3  
 CARM, ILLINOIS 62821

**CRITICAL POINT DATA:**

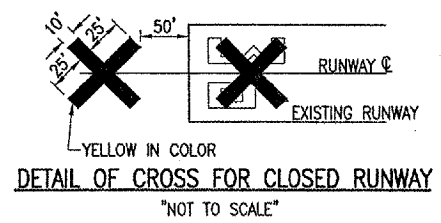
CRITICAL POINT NO. 1  
 LATITUDE: 38° 05' 21.115"  
 LONGITUDE: 88° 07' 20.504"  
 ELEVATION: 383.3 M.S.L.

CRITICAL POINT NO. 2  
 LATITUDE: 38° 05' 03.18"  
 LONGITUDE: 88° 07' 22.63"  
 ELEVATION: 383.1 M.S.L.



**LEGEND**

- EXISTING IMPROVEMENTS
- PROPOSED IMPROVEMENTS
- EXISTING BUILDINGS
- PROPOSED HAUL ROUTE AND EQUIPMENT PARKING AREA
- PROPOSED BENCHMARK
- PROPOSED BARRICADES OR TRAFFIC CONES



**NOTE:**

COST OF CONSTRUCTING, PLACING, MAINTAINING AND REMOVING CROSSES WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE CROSSES WILL BE YELLOW IN COLOR AND SHALL BE MADE OF A SUITABLE MATERIAL AS APPROVED BY THE AIRPORT MANAGER. THE CROSSES WILL BE PLACED OVER THE NUMERALS AND SECURED IN A MANNER APPROVED BY THE MANAGER. THE PROPOSED CROSSES WILL BE PLACED EACH DAY THE RUNWAY IS CLOSED AND REMOVED WHEN THE RUNWAY IS RE-OPENED. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PLACEMENT AND REMOVAL OF THE CROSSES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

**PROPOSED SAFETY PLAN**

GENERAL - THE CARM MUNICIPAL AIRPORT IS COMPRISED OF ONE RUNWAY. THE PROPOSED CONSTRUCTION WILL REQUIRE RUNWAY END 36 TO BE TEMPORARILY DISPLACED AT THE START OF CONSTRUCTION ACTIVITIES. ANY TIME THE CONTRACTOR IS WORKING WITHIN 200' OF THE RUNWAY CENTERLINE THE RUNWAY WILL BE CLOSED. THE RUNWAY WILL BE CLOSED ONLY DURING THE CONSTRUCTION DAY. AT THE END OF EACH CONSTRUCTION DAY THE CONTRACTOR WILL SMOOTH GRADE ALL AREAS WITHIN THE SAFETY AREA TO THE SATISFACTION OF THE RESIDENT ENGINEER AND RE-OPEN THE RUNWAY. ALL WORK INCLUDED IN OPENING AND CLOSING THE RUNWAY WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

IDENTIFICATION - WHEN THE CONTRACTORS VEHICLES AND EQUIPMENT ARE ON THE AIRPORT THEY SHALL BE PROPERLY MARKED WITH THREE (3') FOOT SQUARE CHECKERED FLAGS (INTERNATIONAL ORANGE AND WHITE). THE CONTRACTOR WILL ALSO PROVIDE WORKERS WITH SOME TYPE OF TAG OR GARMENT TO IDENTIFY THE PERSON AS BEING PART OF THE CONSTRUCTION CREW.

RADIO CONTROL - THE CONTRACTOR WILL BE REQUIRED TO BE IN TWO-WAY RADIO CONTACT (122.80 MHZ.) WITH THE AIRPORT UNICOM. THIS WILL KEEP THE CONTRACTOR IN CONSTANT CONTACT WITH THE CARM MUNICIPAL AIRPORT AND ENABLE THE AIRPORT TO IMMEDIATELY CONTACT THE CONTRACTOR IN CASE OF AN AERONAUTIC EMERGENCY THAT WOULD REQUIRE ACTION BY THE CONTRACTOR AND/OR HIS PERSONNEL.

**150-ENGINEER'S FIELD OFFICE NOTES**

THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE FURNISHED, MAINTAINED, AND REMOVED IN ACCORDANCE WITH ITEM AR150510 "ENGINEER'S FIELD OFFICE" AS STATED ON PAGE 168 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE LOCATION OF THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE DETERMINED AT THE PRE-CONSTRUCTION MEETING.

THE ENGINEERING FIRM WILL MAKE PAYMENT FOR ALL LONG DISTANCE TELEPHONE CALLS IN EXCESS OF ONE HUNDRED DOLLARS (\$100.00) PER MONTH.

THE PROPOSED ENGINEER'S FIELD OFFICE WILL BE PAID FOR UNDER ITEMS: AR150510 ENGINEER'S FIELD OFFICE \_\_\_\_ 1 L.S.

**EROSION CONTROL**

THIS PROJECT WILL DISTURB MORE THAN 1 ACRE OF LAND, THEREFORE A N.P.D.E.S. PERMIT WILL BE REQUIRED.

**AIRCRAFT OPERATION LINE**

THE CONTRACTOR WILL LOCATE THIS LINE AT THE START OF CONSTRUCTION AND WILL PLACE FLAGGED LATHE EVERY 150' ALONG IT. THIS LINE WILL BE THE LIMITS THAT ALL CONTRACTOR PERSONNEL MAY VENTURE WHEN A RUNWAY IS NOT CLOSED. THE CONTRACTOR WILL MAINTAIN THE LATHE LINE.

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

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

**CERTIFIED PAYROLLS**

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

CR003

DATE	REVISION	BY
05/08/07	REVISED AS PER IDA REVIEW	CAH

CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS  
 A.I.P. PROJ.: J-17-0109-B7  
 I.L. PROJ.: CUL-3683

REVISED	DATE	BY
SEP	11/14/06	CCC
SEP	11/14/06	CAH
SEP	03/27/07	CAH



EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 PROPOSED SAFETY PLAN

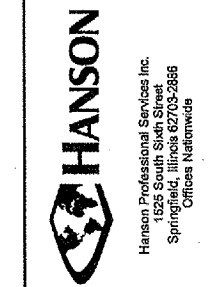
MAY 08, 2007 11:05 AM CAH  
 I:\AIRPORTS\CARM\801-077\X\AIRPORT\SHEETS\R-0035\FY.DWG - SAFETY

DATE	REVISION	BY

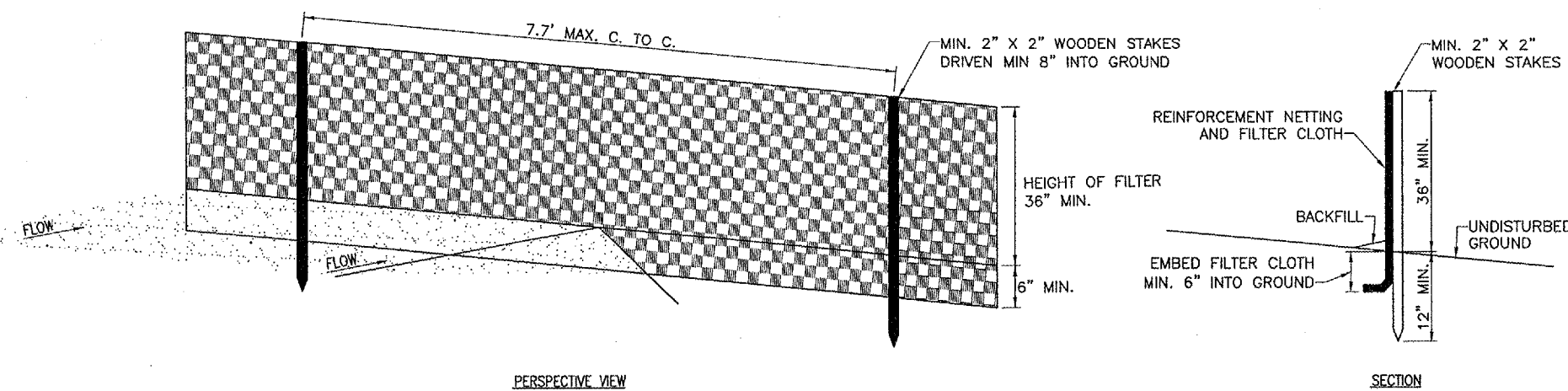
CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

REV.	DATE	BY	DESCRIPTION
1	11/15/06	SEP	LAYOUT
2	11/15/06	CCC	DRAWN
3	03/27/07	CAH	REVIEWED



EXTEND PARTIAL  
PARALLEL TAXIWAY  
PROPOSED STORM WATER  
POLLUTION PREVENTION  
PLAN



FILTER FENCE DETAIL  
"NOT TO SCALE"

**EROSION CONTROL NOTES**

ALL PROPOSED EROSION CONTROL MEASURES SHALL BE COMPLETED AS DETAILED ON THIS EROSION CONTROL PLAN AND IN ACCORDANCE WITH THE SPECIFICATIONS.

EROSION CONTROL MEASURES ARE GOVERNED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S STANDARDS AND SPECIFICATIONS FOR SOIL EROSIONS AND SPECIFICATION FOR SOIL EROSIONS AND SEDIMENT CONTROL.

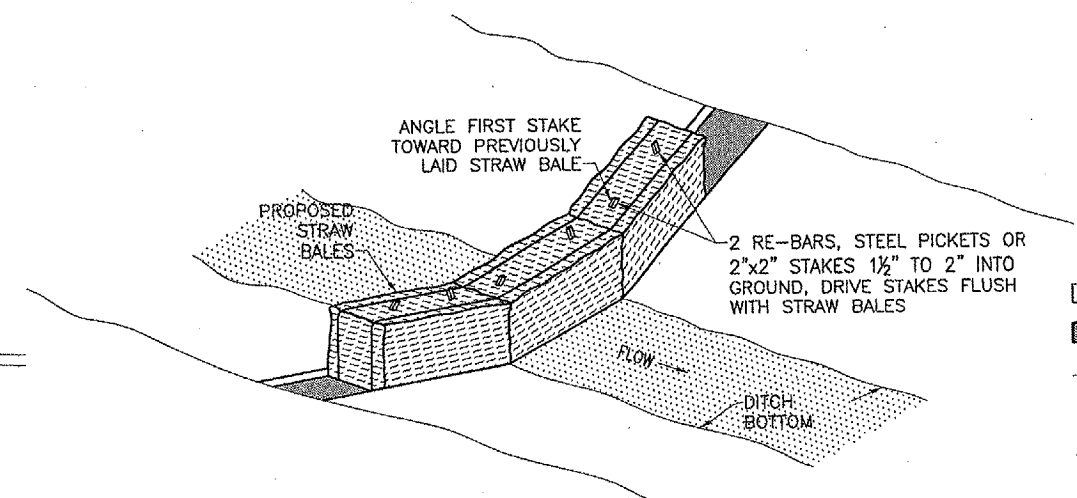
FILTER FENCE FOR HEADWALL PROTECTION AS SHOWN ON THIS SHEET.

INSPECTION OF THE HEADWALL PROTECTION SHALL BE FREQUENT AND REPAIR/REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

EROSION CONTROL FENCE SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM WATER DRAINAGE.

COST OF REMOVAL AND REPLACEMENT SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM AR156510 SILT FENCE.

HEADWALL PROTECTION IS TO INCLUDE ALL INCIDENTALS NECESSARY TO CONSTRUCT THESE ITEMS AND WILL BE PAID FOR UNDER ITEM: AR156521 HEADWALL PROTECTION.

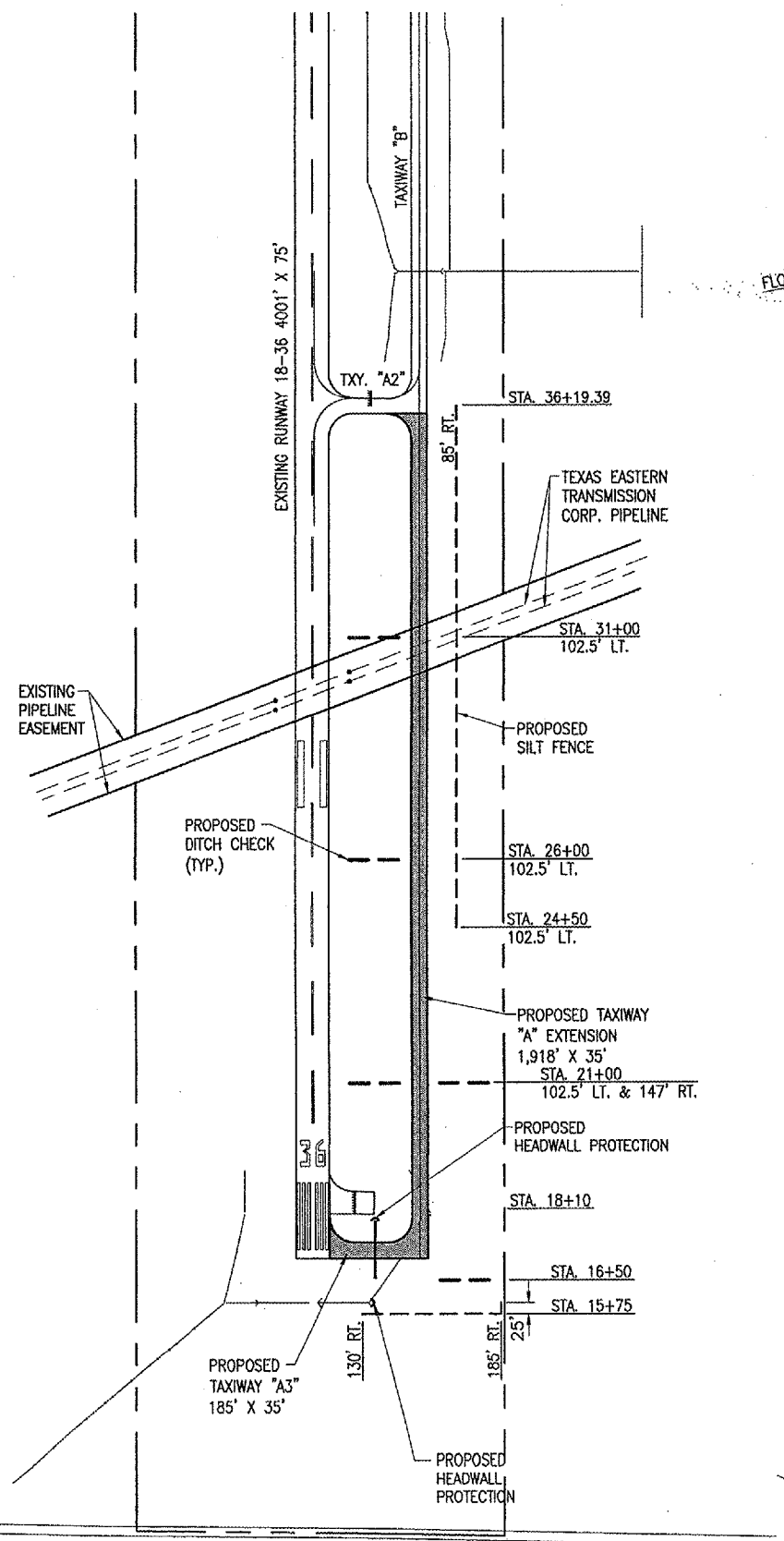
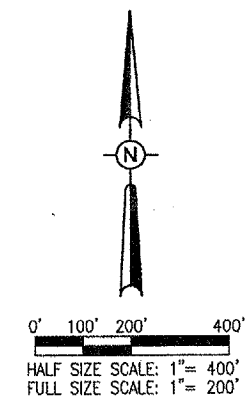


DITCH CHECK DETAIL  
"NOT TO SCALE"

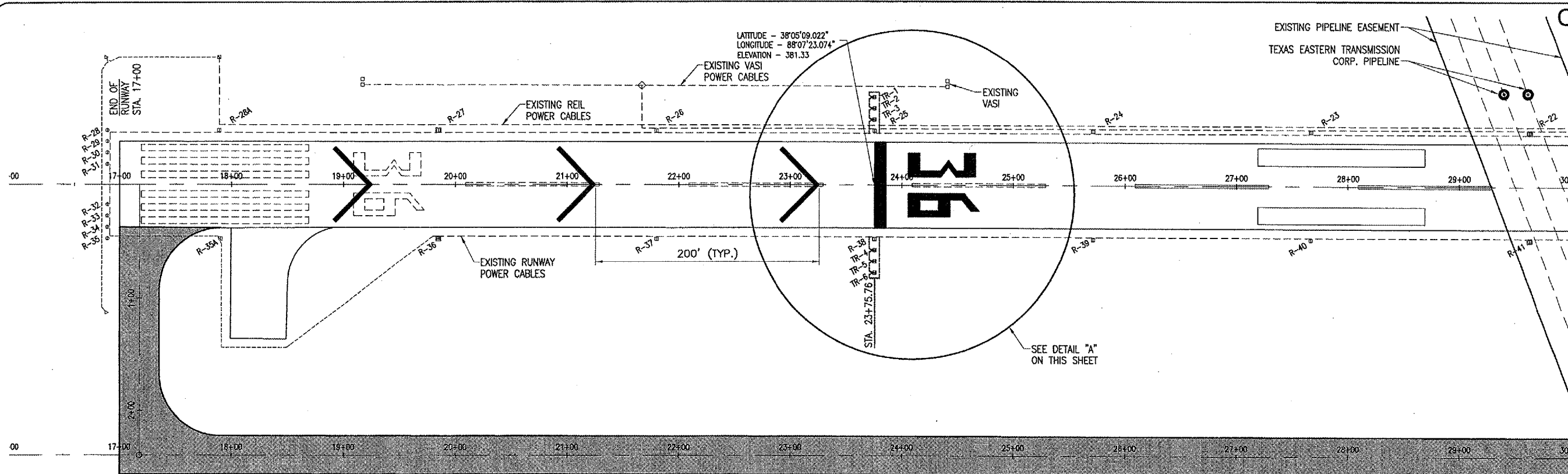
EROSION CONTROL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
AR156510	SILT FENCE	L.F.	1,507
AR156511	DITCH CHECK	EACH	5
AR156521	HEADWALL PROTECTION	EACH	2

**LEGEND**

- EXISTING IMPROVEMENTS
- PROPOSED IMPROVEMENTS
- EXISTING DRAINAGE PIPE
- EXISTING HEADWALL
- EXISTING DRAINAGE DITCH
- EXISTING HEADWALL OR END SECTIONS W/PROTECTION
- PROPOSED DITCH CHECK
- PROPOSED SILT FENCE

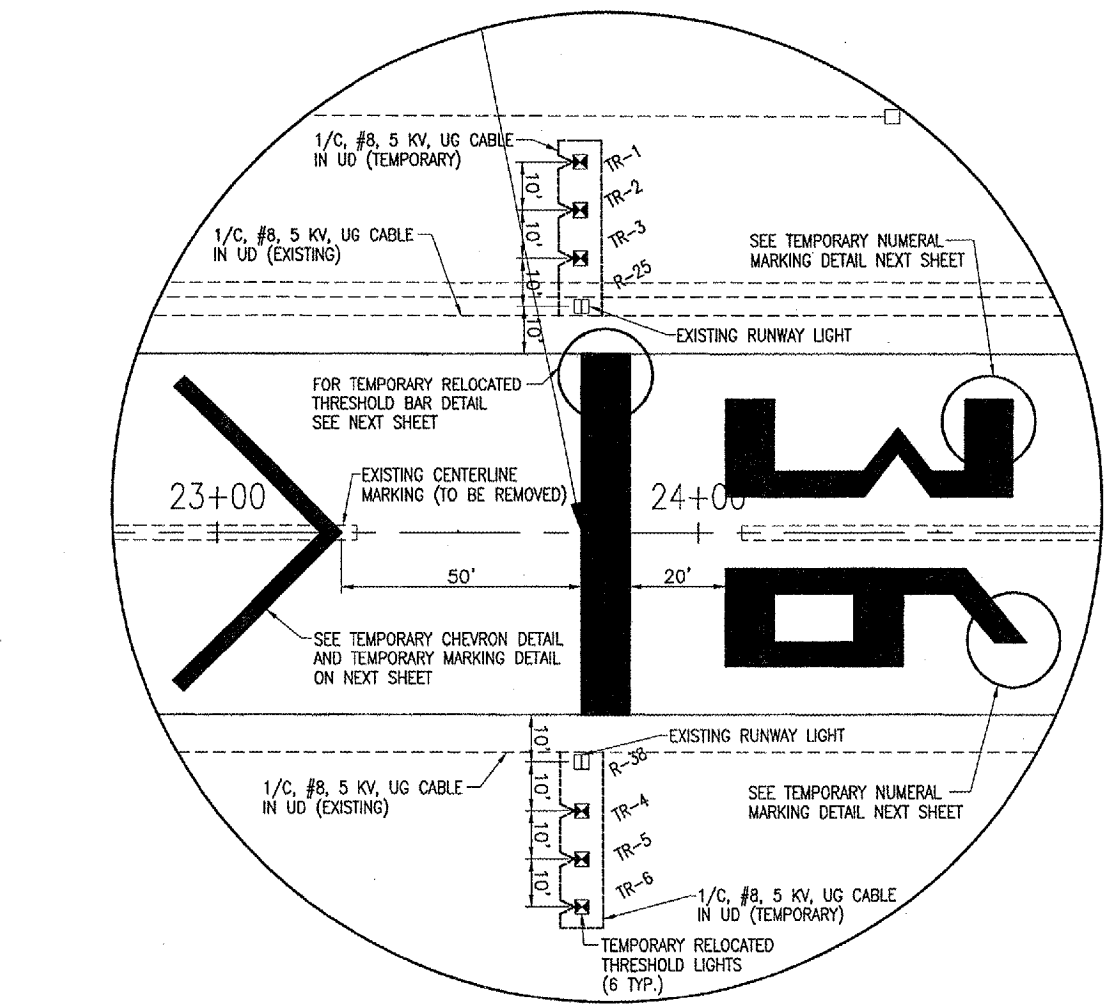


APR 27, 2007 7:33 AM BAK I:\AIRPORTS\CARMi\01-07TAXI\AIRPORT\ SHEETS\R-181SWP.DWG - SWPP



LATITUDE - 38°05'09.022"  
 LONGITUDE - 88°07'23.074"  
 ELEVATION - 381.33

EXISTING PIPELINE EASEMENT  
 TEXAS EASTERN TRANSMISSION  
 CORP. PIPELINE



**DETAIL "A"**  
 FULL SCALE: 1" = 20'  
 HALF SCALE: 1" = 40'

MARKING REMOVAL QUANTITIES			
DESCRIPTION	UNIT AREA	NO. REQUIRED	TOTAL AREA
RUNWAY THRESHOLD STRIPES	862.5	6	5,175
RUNWAY CENTERLINE STRIPES	360	3	1,080
RUNWAY NUMERAL 3	634	1	634
RUNWAY NUMERAL 6	712	1	712
*HOLDLINE TAXIWAY "A2"	280	1	280
*HOLDLINE TAXIWAY "A1"	320	1	320
*CENTERLINE TAXIWAY "A2"	12	1	12
*CENTERLINE TAXIWAY "A1"	22	1	22
TOTAL MARKING REMOVAL			8,235

\* SEE PROPOSED MARKING SHEETS

**MARKING REMOVAL NOTES**

THE AREAS THAT ARE DESIGNATED EXISTING (TO BE REMOVED) WILL BE REMOVED BY SANDBLASTING OR WATER BLASTING.

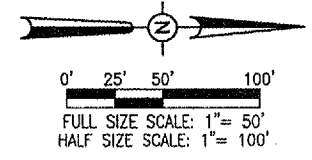
ALL AREAS TO BE REMOVED ARE CALCULATED AREAS. ANY ADDITIONAL AREAS, DUE TO OVER SPRAY, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE TWO HOLDLINES ON TAXIWAYS "A1" AND "A2" WILL NOT BE REMOVED UNTIL THE PROPOSED HOLDLINES AT THEIR PROPOSED LOCATIONS ARE INSTALLED. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE SECOND MOBILIZATION TO REMOVE THE HOLDLINE MARKING.

THE PROPOSED MARKING REMOVAL SHALL BE PAID FOR UNDER ITEM: AR620900 "PAVEMENT MARKING REMOVAL" - PER S.F.

**LEGEND**

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING LIGHTING CABLES
- EXISTING BASE MOUNTED RUNWAY LIGHT
- EXISTING STAKE MOUNTED RUNWAY LIGHT
- EXISTING ELECTRICAL SPLICE CAN
- EXISTING VASI (TO BE DISCONNECTED)
- EXISTING THRESHOLD LIGHTS (TO BE TEMPORARILY RELOCATED)
- EXISTING REILS (TO BE DISCONNECTED)
- EXISTING MARKING (TO REMAIN IN PLACE)
- EXISTING MARKING (TO BE REMOVED)
- PROPOSED TEMPORARY MARKING
- PROPOSED ELECTRICAL CABLES
- PROPOSED TEMPORARILY RELOCATED THRESHOLD LIGHTS



DATE	REVISION	BY

CARMi MUNICIPAL AIRPORT  
 CARMi, ILLINOIS  
 A.I.P. PROJ.: 3-17-0109-B7  
 I.L. PROJ.: CUL-3663

Project No. 801-072XXD.0800	3/20/07
File Name: R-551MRK.DWG	3/20/07
Scale: 1" = 50'	3/20/07
Date: 3/20/07	03/27/07
LAYOUT	SEP
DRAWN	BAK
REVIEWED	CAH

EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 PROPOSED  
 TEMPORARY MARKING  
 AND LIGHTING PLAN

DATE	
REVISION	

**CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS**

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

ILL. Project No. 801-07100.0800 Drawings R-551MRK.DWG Scale NOT TO SCALE Date 3/20/07	LAYOUT SEP 3/20/07 DRAWN BAK 3/20/07 REVIEWED CAH 03/27/07
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**HANSON**  
Hanson Professional Services Inc.  
Springfield, Illinois 62703-2888  
Offices Nationwide

**EXTEND PARTIAL  
PARALLEL TAXIWAY**

**PROPOSED TEMPORARY  
MARKING AND LIGHTING  
NOTES AND DETAILS**

**NOTES DISPLACED THRESHOLD FOR RUNWAY CONSTRUCTION**

THIS PROJECT WILL REQUIRE THE TEMPORARY DISPLACEMENT OF RUNWAY 36 END. THIS DISPLACEMENT WILL BE IN ACCORDANCE WITH THE LAYOUTS AND DETAILS SHOWN ON THE PREVIOUS SHEET AND THIS SHEET.

THE PROPOSED TEMPORARY MARKING WILL CONSIST OF PLACING REFLECTIVE TAPE ON THE EXISTING PAVEMENT AT THE LOCATIONS AND DETAILS SHOWN ON THE PREVIOUS SHEET AND THIS SHEET. 5.

THE REFLECTIVE TAPE WILL BE 4" WIDE, WHITE OR YELLOW IN COLOR. THE PROPOSED TAPE SHALL BE STANDARD HIGHWAY PRESSURE SENSITIVE TRAFFIC MARKING TAPE OR APPROVED EQUAL.

THE TEMPORARY RELOCATED THRESHOLD BAR AND RUNWAY NUMERALS WILL BE WHITE IN COLOR.

THE PROPOSED TEMPORARY CHEVRONS WILL BE YELLOW IN COLOR.

ALL EXISTING RUNWAY LIGHTS SOUTH OF THE TEMPORARY THRESHOLD WILL BE COVERED IN A WAY THAT WILL OMIT NO LIGHT AND BE APPROVED BY THE RESIDENT ENGINEER.

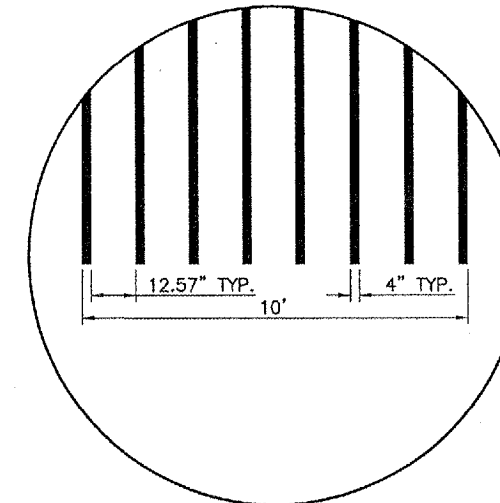
EXISTING THRESHOLD LIGHTS R-29 THRU R-34 WILL BE RELOCATED AS SHOWN ON THE PREVIOUS SHEET TO COMPLETE THE DISPLACED THRESHOLD. UPON REMOVAL OF THE TEMPORARY DISPLACED THRESHOLD, THESE LIGHTS WILL BE RETURNED TO THEIR ORIGINAL LOCATION.

APPROXIMATELY 150' OF NO. 8, 5KV., 1/C TYPE C UG. CABLE WILL BE REQUIRED TO CONNECT BETWEEN RUNWAY LIGHT R-27 TO RUNWAY LIGHT R-36 AND PLACING INTO THE LIGHTING CIRCUIT TEMPORARY THRESHOLD LIGHT NUMBERS TR-1 THROUGH TR-3 AND ALSO TEMPORARY THRESHOLD LIGHT NUMBERS TR-4 THROUGH TR-6. ALL CABLE USED FOR THIS ITEM WILL BE PINNED DOWN TO THE GROUND TO PREVENT MOVEMENT.

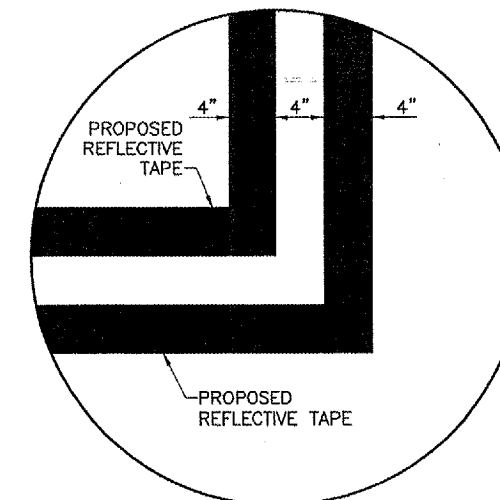
THE EXISTING REILS AND VADI ON RUNWAY END 36 WILL BE TURNED OFF AT THE VAULT DURING THE TEMPORARY DISPLACEMENT. THE EXISTING REILS WILL BE STORED IN A SAFE LOCATION UNTIL THEY ARE REINSTALLED AT THEIR PROPOSED LOCATION. UPON REMOVAL OF THE TEMPORARY DISPLACED THRESHOLD, THE EXISTING VADI WILL BE TURNED BACK ON. THE REILS WILL REMAIN OFF UNTIL THEY ARE FLIGHT CHECKED.

ALL PROPOSED NO. 8, 5KV., 1/C TYPE C CABLE NEEDED TO TEMPORARILY WIRE THE PROPOSED TEMPORARY THRESHOLD LIGHTS WILL BE DISPOSED OFF OF THE AIRPORT SITE UPON REMOVAL OF THE DISPLACED THRESHOLD. THIS CABLE WILL BE CONSIDERED INCIDENTAL TO THE TEMPORARY MARKING AND LIGHTING AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

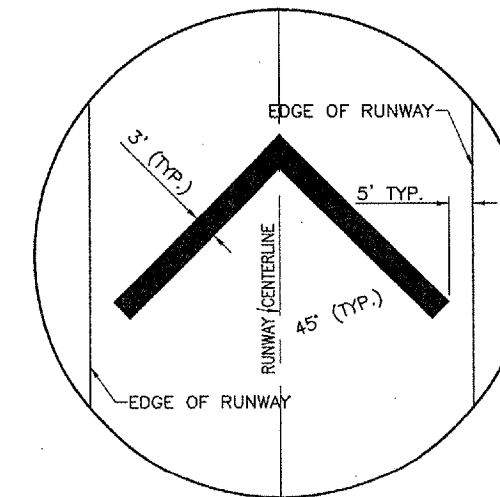
THE TEMPORARY MARKING AND LIGHTING WILL BE PAID FOR UNDER ITEM AR620912 TEMPORARY MARK & LIGHT 1 L.S..



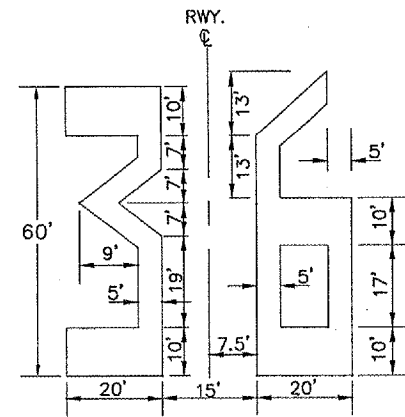
**TEMPORARY RELOCATED  
THRESHOLD BAR DETAIL**  
"NOT TO SCALE"



**TEMPORARY MARKING DETAIL**  
"NOT TO SCALE"



**TEMPORARY CHEVRON DETAIL**  
"NOT TO SCALE"



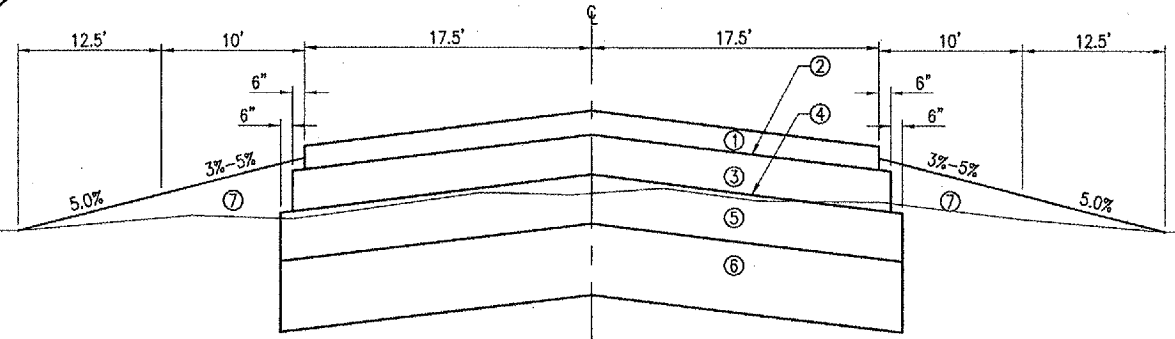
**PROPOSED NUMERAL DETAIL FOR  
RUNWAY END 36**  
"NOT TO SCALE"

**TEMPORARY RUNWAY NUMERAL DIMENSIONING NOTES:**

NUMERALS ARE HORIZONTALLY SPACED 15 FEET APART.

ALL DIMENSIONS ARE EXPRESSED IN INCREMENTS OF FEET.

DOUBLE DIGIT NUMERAL DESIGNATIONS ARE CENTERED ON THE RUNWAY PAVEMENT CENTERLINE BASED ON THE CENTER OF THE OUTER EDGES OF THE TWO NUMERALS.



**LEGEND**  
**PROPOSED TYPICAL SECTION A-A**  
"NOT TO SCALE"

- ① PROPOSED AR401: 2" BITUMINOUS SURFACE COURSE
- ② PROPOSED AR603: BITUMINOUS TACK COAT BETWEEN BITUMINOUS LIFTS (2 LIFTS-1 SURFACE/1 BASE)
- ③ PROPOSED AR201: 3" BITUMINOUS BASE COURSE
- ④ PROPOSED AR602: BITUMINOUS PRIME COAT
- ⑤ PROPOSED AR209: CRUSHED AGGREGATE BASE - 6"
- ⑥ PROPOSED AR208: OVERSIZED AGGREGATE BASE - 8"
- ⑦ EXISTING GROUND

**REMOVE BITUMINOUS PAVEMENT**  
THE AREA(S) DESIGNATED AS [Hatched Pattern] ON THIS SHEET WILL HAVE THE EXISTING PAVEMENT REMOVED (FULL DEPTH) TO A SUITABLE SUBGRADE. ALL REMOVED MATERIAL WILL BE DISPOSED OF OFF THE AIRPORT SITE.

WHERE THE PROPOSED REMOVAL AREA ABUTS THE EXISTING PAVEMENT, THE PAVEMENT WILL BE SAWS AS SHOWN ON THIS SHEET. THE SAWING WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE PROPOSED PAVEMENT REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

ANY ADJACENT PAVEMENT DAMAGED BY THE PAVEMENT REMOVAL OPERATIONS WILL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE.

THIS ITEM OF WORK SHALL BE PAID FOR UNDER ITEM:  
AR401900 "REMOVE BITUMINOUS PAVEMENT" - PER S.Y.

**AR201003 BITUMINOUS BASE COURSE - METHOD 1, SUPERPAVE**

THE BITUMINOUS BASE COURSE (201) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR201003 "BITUMINOUS BASE COURSE-METHOD 1, SUPERPAVE" AS STATED ON PAGE 209 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING ONE LIFT OF BITUMINOUS BASE COURSE (3 INCH DEPTH) ON THE PROPOSED CRUSHED AGGREGATE BASE COURSE FOR THE PROPOSED TAXIWAY EXTENSION.

ALL BITUMINOUS PAVEMENT WILL BE PAVED IN ACCORDANCE WITH PAGE 209 OF THE RECURRING SPECIAL PROVISIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY CONTROL IN THE PRODUCTION AND CONSTRUCTION OF THE BITUMINOUS BASE COURSE.

THE PROPOSED BITUMINOUS BASE COURSE WILL BE DESIGNED TO A SUPERPAVE DESIGN OF (LESS) THAN 60,000 POUNDS FOR RUNWAY/TAXIWAY PAVEMENTS.

201-4.9 ADD THE FOLLOWING TO THIS SECTION:

WHEN HAND SPREADING IS PERMITTED, THE MIXTURE WILL BE DISTRIBUTED AND SPREAD USING HAND TOOLS. WHEN THE WORK IS COMPLETED, THE LAYER WILL HAVE THE REQUIRED THICKNESS AND CONFORM TO THE GRADE AND SURFACE CONTOUR SHOWN ON THE PLANS.

201-4.11 ADD THE FOLLOWING TO THIS PARAGRAPH:

ALL PAVEMENT EDGES (LONGITUDINAL, RADIUS, AND PAVEMENT ENDS) MUST BE LEFT IN PROPER ALIGNMENT AS SHOWN ON THE PLANS. THIS MAY BE ACCOMPLISHED BY THE TRIMMING METHOD OUTLINED ABOVE OR AT THE CONTRACTOR'S OPTION BY SAWING AFTER THE PAVING HAS BEEN COMPLETED. NO ADDITIONAL COMPENSATION WILL BE MADE IF THE SAWING METHOD IS USED.

**COORDINATE DATA - TAXIWAY "A" & "A3" BASELINES**

POINT ID.	BASELINE	STATION	OFFSET	EASTING (X)	NORTHING (Y)
A	RWY 18-36	17+17.50	0	1044764.8863	516149.9396
B	TXY "A3"	0+37.50	0	1044802.5056	516149.8574
C	TXY "A"	17+00.00	0	1045004.8474	516131.9151
D	TXY "A"	17+17.50	0	1045004.8857	516149.4150

**COORDINATE DATA - TAXIWAY "A" & "A3"**

POINT No.	BASELINE	STATION	OFFSET	EASTING (X)	NORTHING (Y)
1	TXY "A3"	17+37.50	17.50' RT.	1044802.3479	516132.3577
2	TXY "A3"	0+38.00	67.50' LT.	1044803.1140	516217.3562
3	TXY "A3"	0+88.00	17.50' LT.	1044853.0046	516167.2470
4	TXY "A3"	0+88.00	67.50' LT.	1044853.1139	516217.2469
5	TXY "A3"	1+72.50	17.50' LT.	1044937.4242	516167.0625
6	TXY "A3"	1+72.50	67.50' LT.	1044937.5335	516217.0624
7	TXY "A"	17+00.00	17.50' RT.	1045022.3474	516131.8768
8	TXY "A"	17+85.00	17.50' LT.	1044987.5334	516216.9535

**AR401611 BITUMINOUS SURFACE COURSE - METHOD 1, SUPERPAVE**

THE BITUMINOUS SURFACE COURSE (401) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR401003 "BITUMINOUS SURFACE COURSE-METHOD 1, SUPERPAVE" AS STATED ON PAGE 269 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM OF WORK SHALL CONSIST OF CONSTRUCTING THE FIRST LIFT OF BITUMINOUS LEVELING COURSE (2 INCH DEPTH) ON A BITUMINOUS BASE COURSE.

ALL BITUMINOUS PAVEMENT WILL BE PAVED IN ACCORDANCE WITH PAGE 269 OF THE RECURRING SPECIAL PROVISIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE QUALITY CONTROL IN THE PRODUCTION AND CONSTRUCTION OF THE BITUMINOUS SURFACE COURSE.

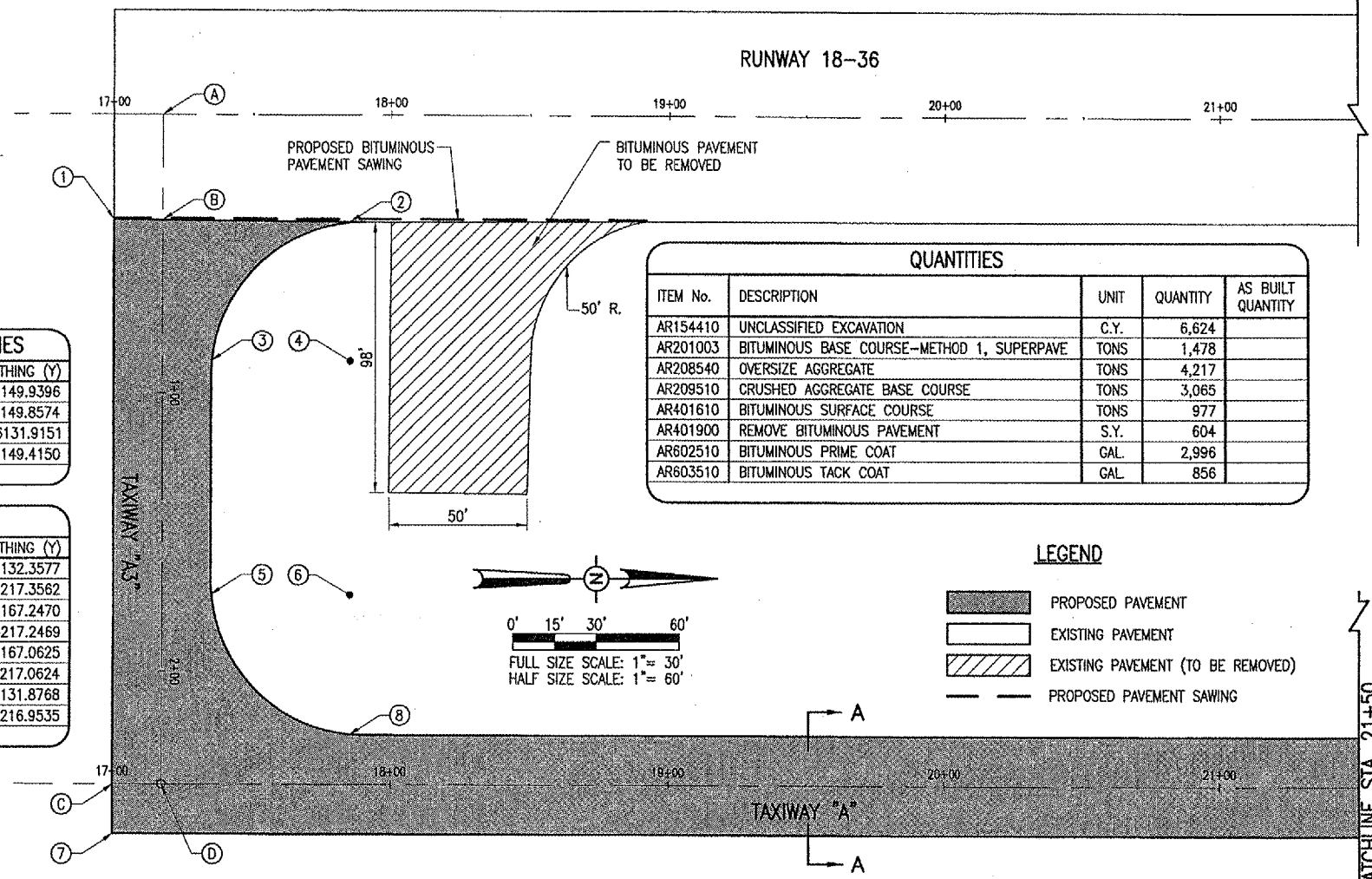
THE PROPOSED BITUMINOUS SURFACE COURSE WILL BE DESIGNED TO A SUPERPAVE DESIGN OF (LESS) THAN 60,000 POUNDS FOR RUNWAY/TAXIWAY PAVEMENTS.

401-4.9 ADD THE FOLLOWING TO THIS SECTION:

WHEN HAND SPREADING IS PERMITTED, THE MIXTURE WILL BE DISTRIBUTED AND SPREAD USING HAND TOOLS. WHEN THE WORK IS COMPLETED, THE LAYER WILL HAVE THE REQUIRED THICKNESS AND CONFORM TO THE GRADE AND SURFACE CONTOUR SHOWN ON THE PLANS.

401-4.12 ADD THE FOLLOWING TO THIS PARAGRAPH:

ALL PAVEMENT EDGES (LONGITUDINAL, RADIUS, AND PAVEMENT ENDS) MUST BE LEFT IN PROPER ALIGNMENT AS SHOWN ON THE PLANS. THIS MAY BE ACCOMPLISHED BY THE TRIMMING METHOD OUTLINED ABOVE OR AT THE CONTRACTOR'S OPTION BY SAWING AFTER THE PAVING HAS BEEN COMPLETED. NO ADDITIONAL COMPENSATION WILL BE MADE IF THE SAWING METHOD IS USED.



**QUANTITIES**

ITEM No.	DESCRIPTION	UNIT	QUANTITY	AS BUILT QUANTITY
AR154410	UNCLASSIFIED EXCAVATION	C.Y.	6,624	
AR201003	BITUMINOUS BASE COURSE-METHOD 1, SUPERPAVE	TONS	1,478	
AR208540	OVERSIZE AGGREGATE	TONS	4,217	
AR209510	CRUSHED AGGREGATE BASE COURSE	TONS	3,065	
AR401610	BITUMINOUS SURFACE COURSE	TONS	977	
AR401900	REMOVE BITUMINOUS PAVEMENT	S.Y.	604	
AR602510	BITUMINOUS PRIME COAT	GAL.	2,996	
AR603510	BITUMINOUS TACK COAT	GAL.	856	

- LEGEND**
- [Solid Grey] PROPOSED PAVEMENT
  - [White] EXISTING PAVEMENT
  - [Hatched] EXISTING PAVEMENT (TO BE REMOVED)
  - [Dashed Line] PROPOSED PAVEMENT SAWING

**AR152410-UNCLASSIFIED EXCAVATION NOTES:**

THE PROPOSED UNCLASSIFIED EXCAVATION SHALL BE PLACED IN ACCORDANCE WITH ITEM 152 "EXCAVATION AND EMBANKMENT" AS STATED ON PAGE 25 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE EARTH SUBGRADE WILL BE FIRST ROUGH CUT TO THE SPECIFIED ELEVATIONS, THE ELEVATIONS SHOWN ON THE STAKING PLAN ARE FOR FINISHED PAVEMENT. SUBGRADE ELEVATIONS WILL BE THE GRADE SHOWN MINUS THE PAVEMENT THICKNESS (INCLUDING BASE).

MATERIAL TO BE USED FOR SHOULDERING WILL BE STORED OUTSIDE OF THE PROPOSED PAVEMENT AREA AND WITHIN THE GRADING LIMITS.

THE MATERIAL TO BE USED FOR THE SHOULDERING WILL BE TOPSOIL OBTAINED FROM THE ON SITE UNCLASSIFIED EXCAVATION.

THE EXCAVATED AREAS WILL BE COMPACTED IN ACCORDANCE WITH PROCEDURES FOR AIRCRAFT WEIGHING (MORE)(LESS) THAN 60,000 POUNDS.

THE PROPOSED SHOULDER MATERIAL WILL ONLY REQUIRE "LIGHT COMPACTION" TO THE SATISFACTION OF THE RESIDENT ENGINEER.

ALL EARTHWORK WILL BE CLASSIFIED AS "UNCLASSIFIED EXCAVATION".

THE PROPOSED UNCLASSIFIED EXCAVATION WILL BE PAID FOR UNDER ITEM:  
AR152410 UNCLASSIFIED EXCAVATION - PER C.Y.

**156-SEPARATION FABRIC NOTES:**

THE SEPARATION FABRIC (156) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR156 "SEPARATION FABRIC" AS STATED ON PAGE 180 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE PROPOSED SEPARATION FABRIC SHALL BE PLACED ON THE SUBGRADE PRIOR TO THE PLACEMENT OF THE PROPOSED OVERSIZE AGGREGATE. THE SEPARATION FABRIC SHALL BE PLACED TO THE WIDTHS SHOWN ON THE PROPOSED PAVEMENT TYPICAL SECTION.

THE PROPOSED SEPARATION FABRIC WILL BE PAID FOR UNDER ITEM:  
AR156513 SEPARATION FABRIC \_\_\_\_\_ PER SQ. YDS.

**AR209-CRUSHED AGGREGATE BASE COURSE NOTES**

THE CRUSHED AGGREGATE BASE COURSE (209) SHALL BE PLACED IN ACCORDANCE WITH ITEM 209 "CRUSHED AGGREGATE BASE COURSE" AS STATED ON PAGE 45 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE CRUSHED AGGREGATE BASE COURSE MATERIAL (CA-6) WILL BE USED TO CONSTRUCT A BASE COURSE FOR THE PROPOSED BITUMINOUS BASE COURSE (201). THE CRUSHED AGGREGATE BASE COURSE MATERIAL WILL BE 6" IN DEPTH AND COMPACTED TO NOT LESS THAN 95 PERCENT DENSITY.

THE PROPOSED AGGREGATE FOR THE BASE COURSE MATERIAL SHALL MEET THE REQUIREMENTS OF GRADATION "B" IN TABLE 1 OF THE SUPPLEMENTAL SPECIFICATIONS.

209-3.2 EQUIPMENT. ADD THE FOLLOWING PARAGRAPHS TO THIS SECTION:

"PROVISIONS SHALL BE MADE BY THE CONTRACTOR FOR FURNISHING WATER AT THE PLANT AND AT THE SITE OF THE WORK BY EQUIPMENT OF AMPLE CAPACITY AND OF SUCH DESIGN AS TO ASSURE UNIFORM MIXING AND APPLICATION."

THE CONTRACTOR WILL PROVIDE THE RESIDENT ENGINEER A PROCTOR CURVE SHOWING OPTIMUM DENSITY AND MOISTURE FOR THE SUPPLIED BASE COURSE MATERIAL.

THE COMPACTION CONTROL TEST TO BE USED SHALL BE FAA COMPACTION CONTROL TEST T-611 FOR AIRCRAFT WEIGHING LESS THAN 60,000 LBS.

209-4.1, DELETE THE FIFTH SENTENCE AND REPLACE IT WITH THE FOLLOWING:

"IF AT THE TIME THE AGGREGATES ARE WEIGHED THEY CONTAIN MORE THAN SIX (6) PERCENT OF ABSORBED AND FREE MOISTURE BY WEIGHT, A DEDUCTION FOR THE MOISTURE IN EXCESS OF THIS AMOUNT SHALL BE MADE IN DETERMINING THE PAY QUANTITY."

THE 209 CRUSHED AGGREGATE BASE COURSE WILL BE PLACED WITH A PAVING MACHING AND STRINGLINE OPERATION. THE PAVING MACHINE AND STRINGLINE GRADE CONTROL OPERATION WILL COMPLY WITH 201 AND 401 SPECIFICATIONS.

APR 27, 2007 7:35 AM BAK I:\AIRPORTS\CARM\B01-07TKYVAIRPORT SHEETS\R-121CON.DWG - STA. 16+50 TO STA. 21+50

DATE	REVISION	BY

CARM MUNICIPAL AIRPORT  
CARM, ILLINOIS  
A.I.P. PROJ.: 3-17-0109-B7  
I.L. PROJ.: CUL-3683

HEI Project No. B01-07TKYD 0800	LAYOUT	SEP	11/15/06
Drawings R-121CON.DWG	DRAWN	CCC	11/15/06
Scale 1"=30'	REVIEWED	CAH	03/27/07
Date 11/15/06			



EXTEND PARTIAL  
PARALLEL TAXIWAY  
PROPOSED  
CONSTRUCTION PLAN  
STA. 17+00 TO STA. 21+50

MATCHLINE STA. 21+50

MATCHLINE STA. 30+00

TAXIWAY "A"

**AR401655 BUTT JOINT CONSTRUCTION NOTES**

THE PROPOSED BUTT JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ITEM AR401655 "BUTT JOINT CONSTRUCTION" AS STATED ON PAGE 295 OF THE SUPPLEMENTAL SPECIFICATION AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM SHALL CONSIST OF REMOVING THE EXISTING BITUMINOUS PAVEMENT SURFACE BY MILLING IN ORDER TO CONSTRUCT A BUTT JOINT FOR THE TRANSITION OF THE PROPOSED BITUMINOUS OVERLAY AT THE LOCATIONS AS SHOWN ON THE PLANS.

THE PAVEMENT SURFACE WILL THEN BE MILLED TO A DEPTH OF 0.17 FT. AT THE BUTT END AND WILL TAPER TO 0 IN. AT THE OPPOSITE END. THE PLANER MUST BE CAPABLE OF MILLING THE SURFACE TO THE DESIRED ELEVATIONS AND GRADES.

ANY ADJACENT PAVEMENT DAMAGED BY THE MILLING OPERATIONS WILL BE REPAIRED AT THE CONTRACTOR'S OWN EXPENSE.

ALL BITUMINOUS PAVEMENT MILLING AREAS WILL BE LOCATED AND MARKED BY THE RESIDENT ENGINEER.

THE PAVEMENT MILLING WILL BE PAID FOR UNDER ITEM: AR401655 "BUTT JOINT CONSTRUCTION" 175 S.Y.

**AR603-BITUMINOUS TACK COAT NOTES:**

THE BITUMINOUS TACK COAT (603) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR603 "BITUMINOUS TACK COAT" AS STATED ON PAGE 62 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE PROPOSED BITUMINOUS TACK COAT SHALL BE PLACED ON THE PROPOSED BITUMINOUS PAVEMENT PRIOR TO THE PLACEMENT OF THE NEXT LIFT OF PROPOSED BITUMINOUS SURFACE COURSE. THE PROPOSED BITUMINOUS PAVEMENT SHALL HAVE A TACK COAT OF BITUMINOUS MATERIAL APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS.

THE PROPOSED BITUMINOUS TACK COAT WILL BE PAID FOR UNDER ITEM: AR603510 BITUMINOUS TACK COAT - PER GAL.

**COORDINATE DATA - TAXIWAY "A" & "A3" BASELINES**

POINT ID.	BASELINE	STATION	OFFSET	EASTING (X)	NORTHING (Y)
E	TXY "A"	36+01.22	0	1045009.0053	518033.0746
F	TXY "A"	36+19.32	0	1045009.0436	518050.5805

**COORDINATE DATA - TAXIWAY "A" & "A3"**

POINT No.	BASELINE	STATION	OFFSET	EASTING (X)	NORTHING (Y)
9	TXY "A"	35+51.10	67.50' LT.	1044941.3787	517983.1550
10	TXY "A"	35+51.10	17.50' LT.	1044991.3786	517983.0457
11	TXY "A"	36+01.10	67.50' LT.	1044941.5054	518033.1549
12	TXY "A"	36+01.08	17.50' RT.	1045026.5053	518033.0538

**AR602-BITUMINOUS PRIME COAT NOTES:**

THE BITUMINOUS PRIME COAT (602) SHALL BE PLACED IN ACCORDANCE WITH ITEM AR602 "BITUMINOUS PRIME COAT" AS STATED ON PAGE 58 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THE PROPOSED BITUMINOUS PRIME COAT SHALL BE PLACED ON THE PROPOSED AGGREGATE BASE COURSE PRIOR TO THE PLACEMENT OF THE FIRST LIFT OF PROPOSED BITUMINOUS BASE COURSE. THE PROPOSED AGGREGATE BASE COURSE SHALL HAVE A PRIME COAT OF BITUMINOUS MATERIAL APPLIED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS.

THE PROPOSED BITUMINOUS PRIME COAT WILL BE PAID FOR UNDER ITEM: AR602510 BITUMINOUS PRIME COAT - PER GAL.

**PAVEMENT SAWING NOTES**

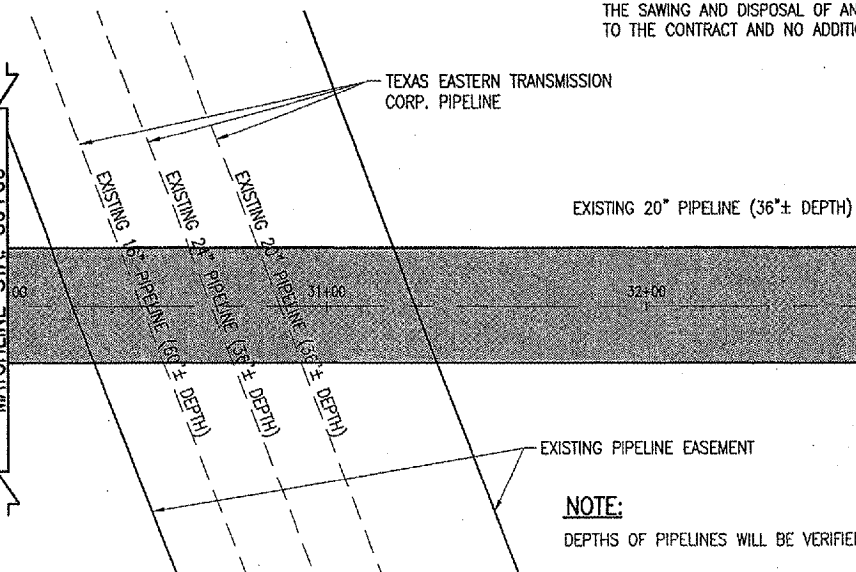
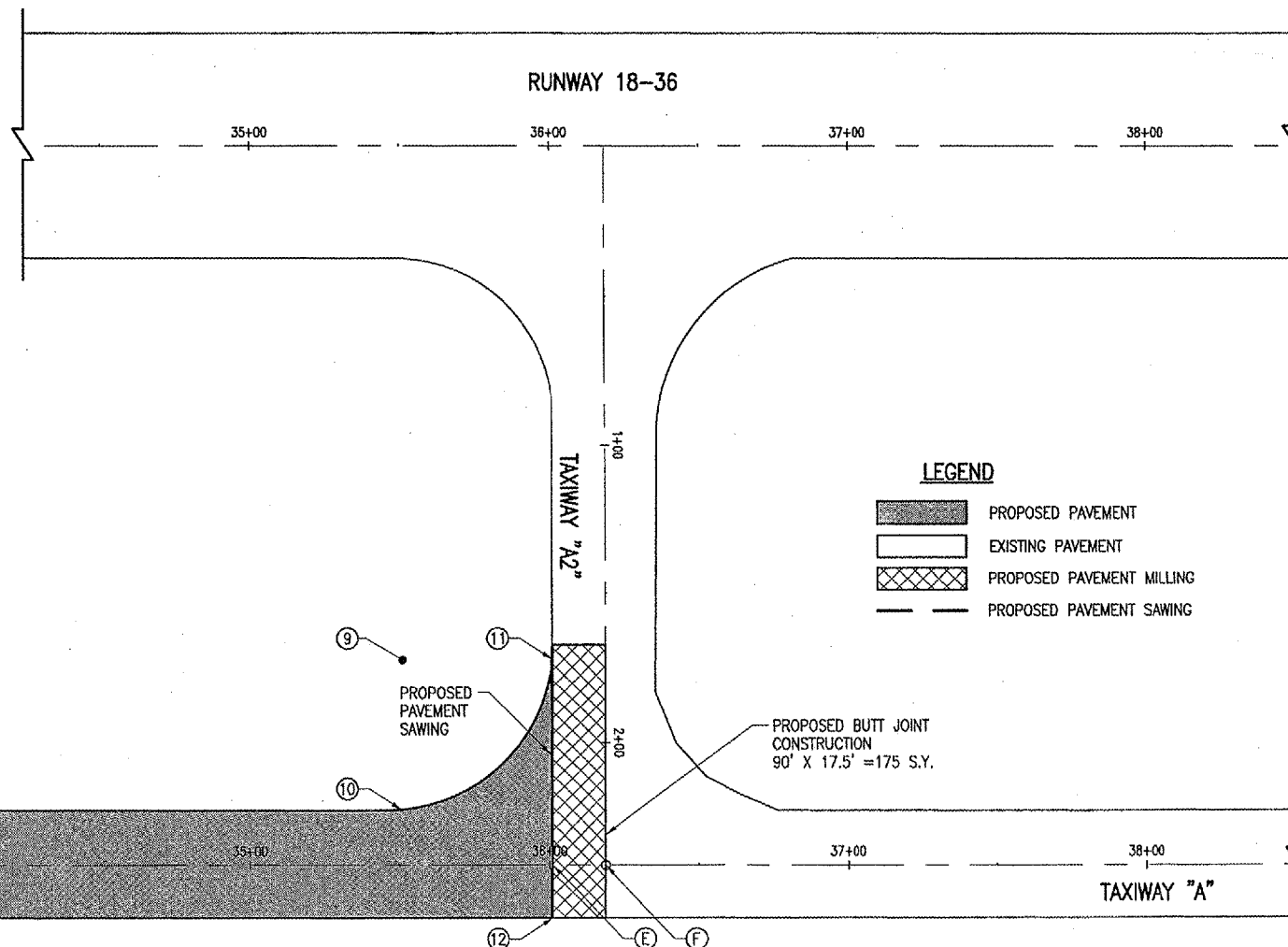
THE EDGE OF THE EXISTING PAVEMENT WILL BE SAWED FULL DEPTH.

THE PROPOSED SAWING WILL REMOVE THE ROLLED DOWN EDGE AND PROVIDE A STRAIGHT PAVEMENT EDGE TO BUTT AGAINST.

THE RESIDENT ENGINEER WILL MARK THE PROPOSED SAW LINE IN THE FIELD.

ANY BITUMINOUS PAVEMENT CUT FROM THE SAWING OPERATIONS WILL BE COLLECTED AND DISPOSED OF OFF THE AIRPORT SITE.

THE SAWING AND DISPOSAL OF ANY WASTE MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED

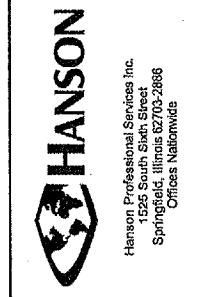


**NOTE:**  
DEPTHS OF PIPELINES WILL BE VERIFIED PRIOR TO ANY EXCAVATION.

DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**  
 A.I.P. PROJ.: 3-17-0109-B7  
 I.L. PROJ.: CUL-3663

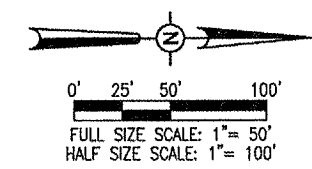
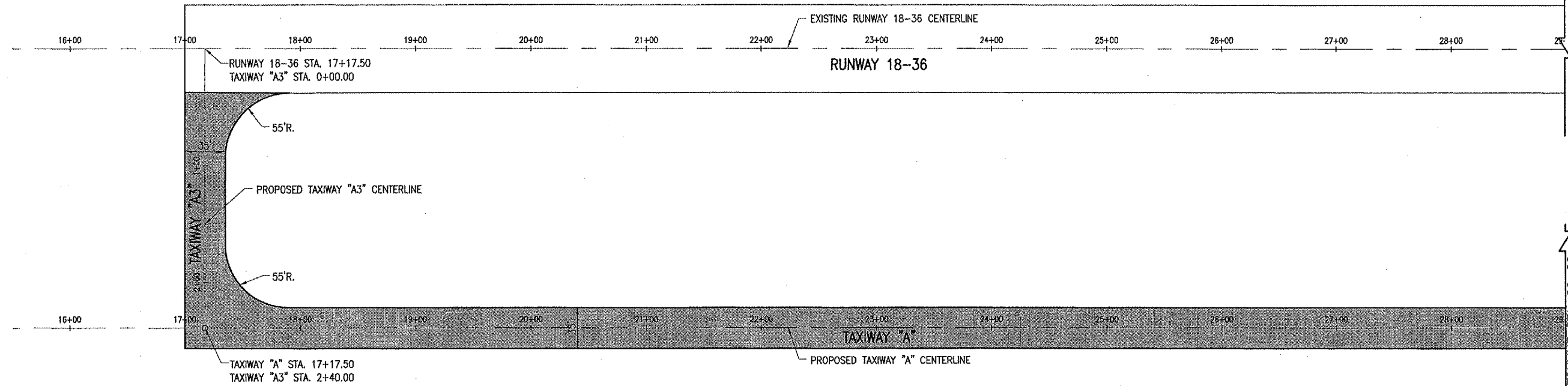
FILE PROJECT No. 801-07TXVD_0800	DATE 11/15/06
EXAMINER R-121CON/DWG	SCALE
DATE 11/15/06	SCALE
LAYOUT	SEP 11/15/06
DRAWN	CCC 11/15/06
REVIEWED	CAH 03/27/07



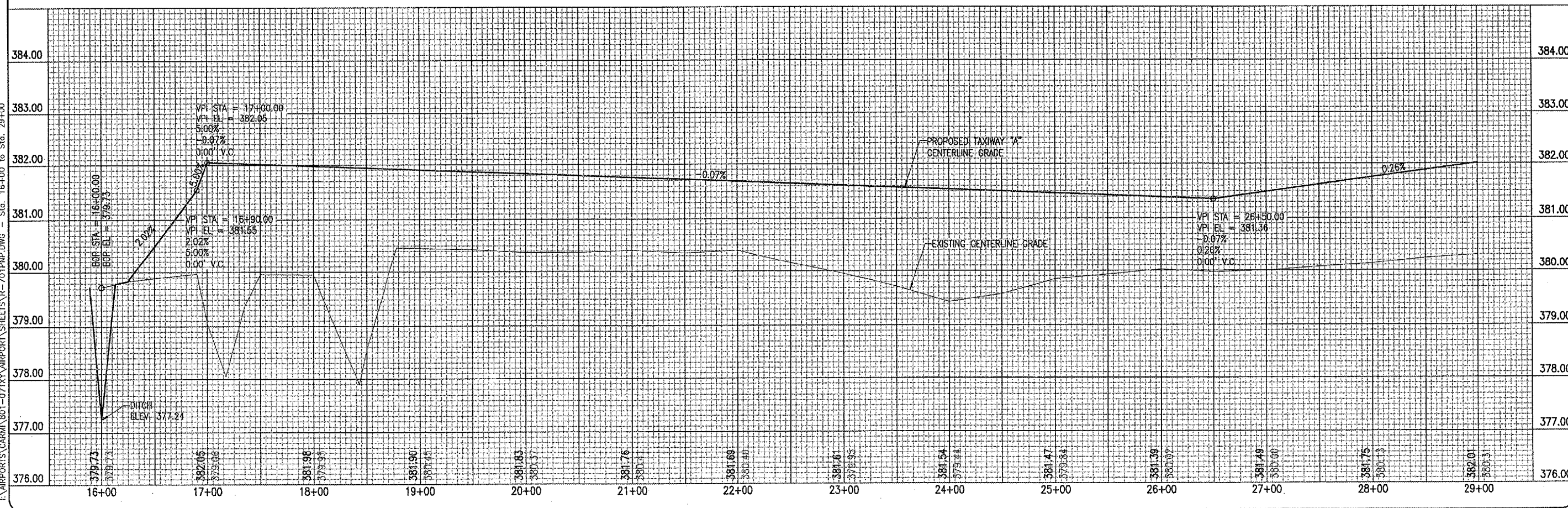
**EXTEND PARTIAL PARALLEL TAXIWAY**  
**PROPOSED CONSTRUCTION PLAN**  
 STA. 21+50 TO STA. 38+50

APR 30, 2007 1:57 PM CCC  
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APR 27, 2007 7:36 AM BAK  
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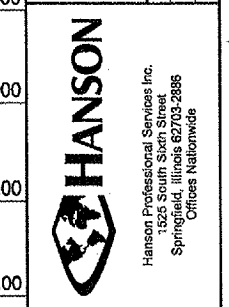


DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT**  
CARM, ILLINOIS

ILL. PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

REL. Project No. 801-07TX/D 0800	DATE	BY
Filename: R-701PMP.DWG	11/15/06	SEP
Scale: 1" = 50'	11/15/06	CCC
Date: 11/15/06	03/27/07	CAH
LAYOUT	REVIEWED	
DRAWN		

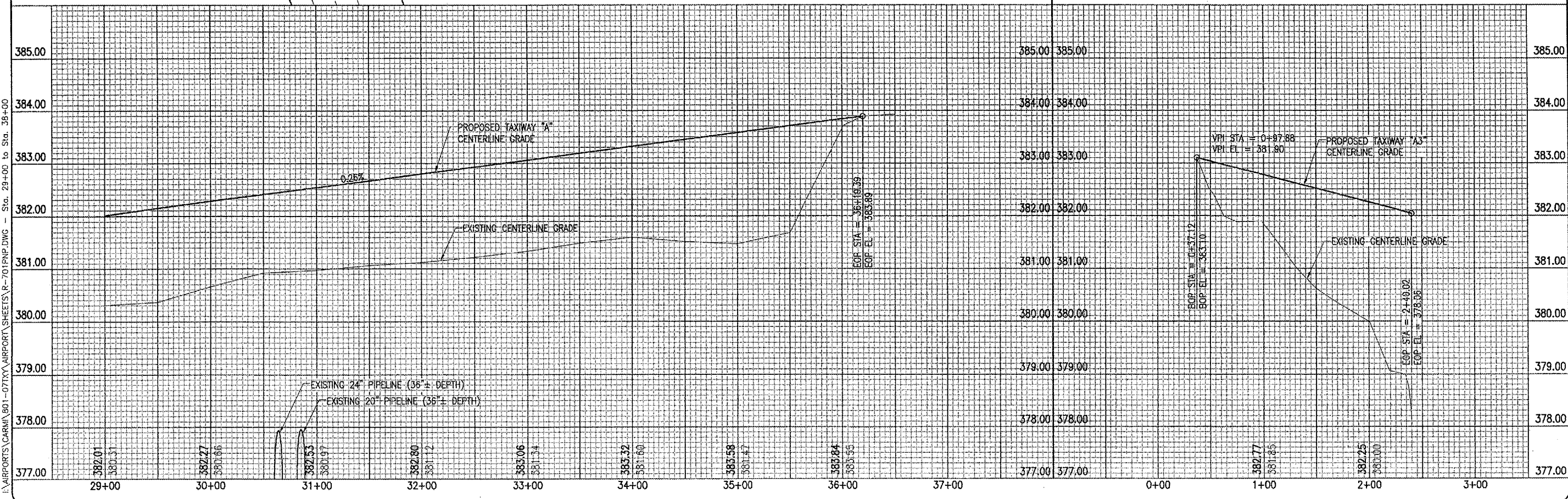
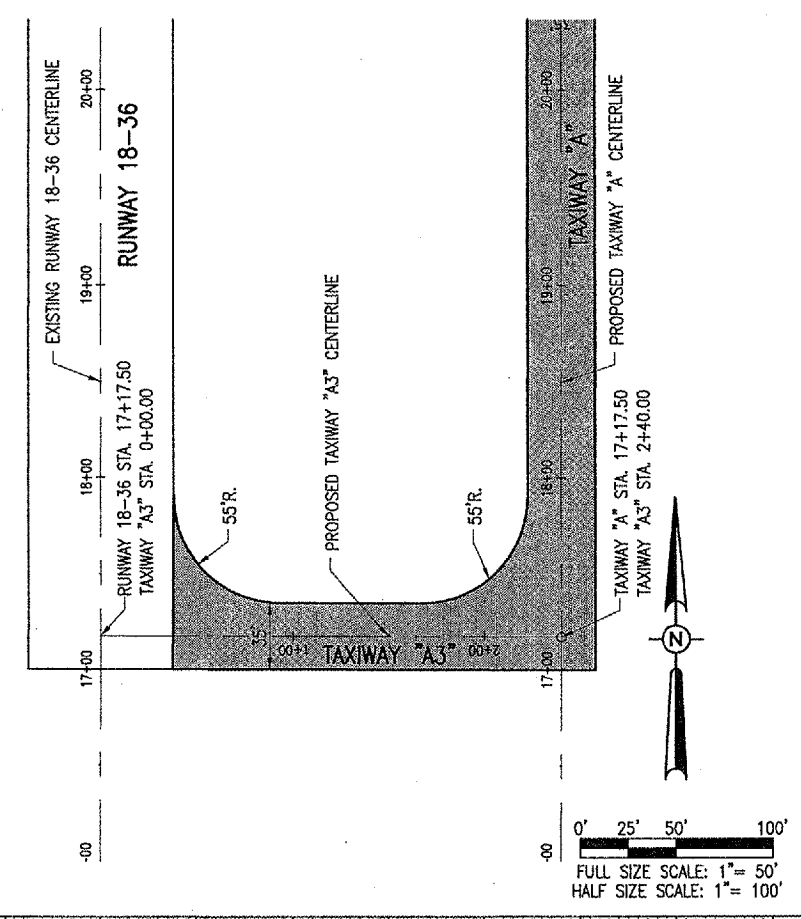
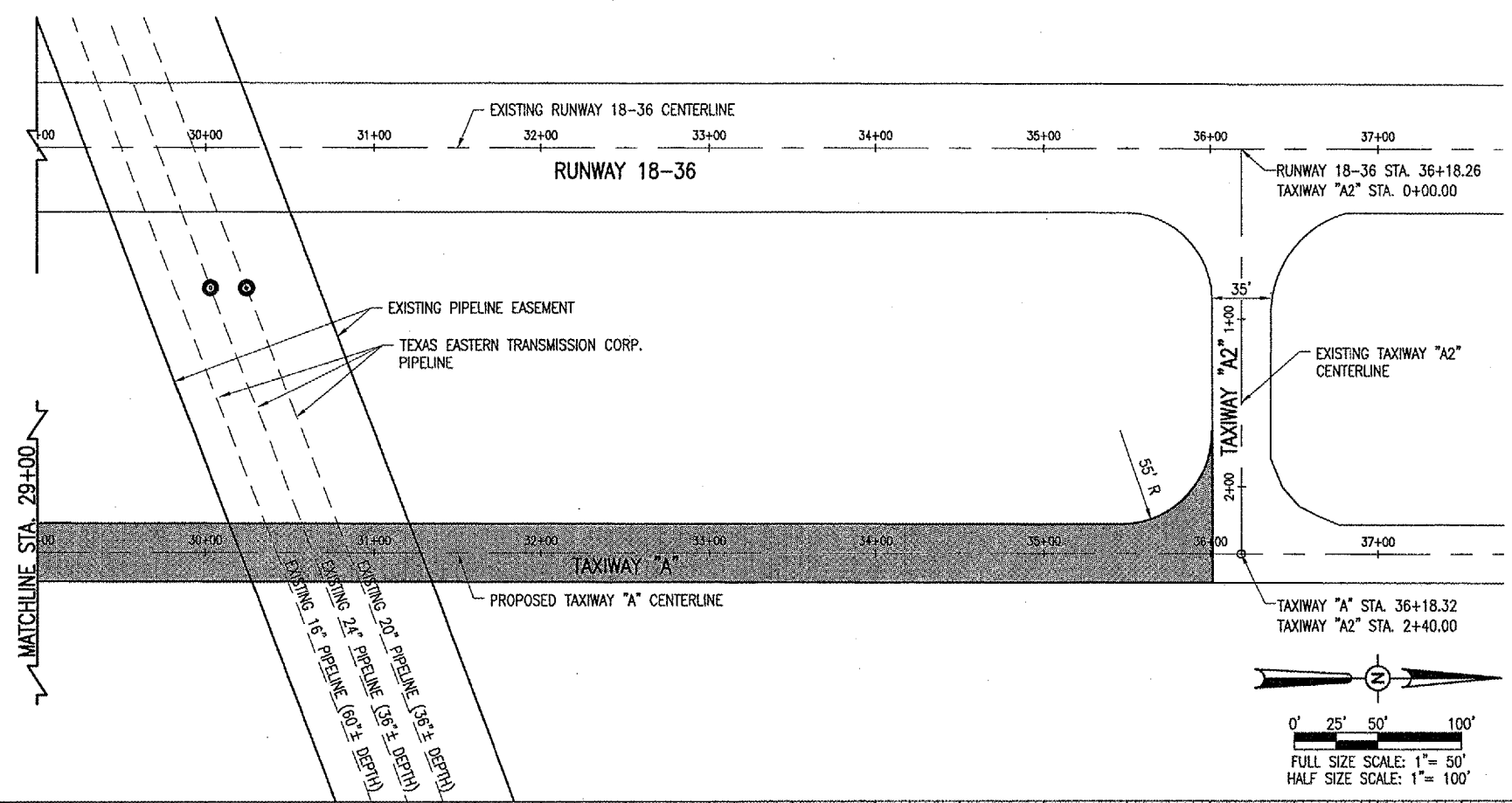


**EXTEND PARTIAL PARALLEL TAXIWAY**

PROPOSED PAVEMENT PLAN & PROFILE  
STA. 16+00 TO STA. 29+00

**9**

9 of 55 sheets

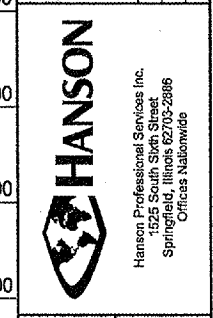


DATE	REVISION	BY

CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS

IL. PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

HEI Project No. 801-07XYD.0800	SEP 11/15/06
Drawings R-701PMP.DWG	CCC 11/15/06
Scale 1" = 50'	CAH 03/27/07
Date 11/15/06	

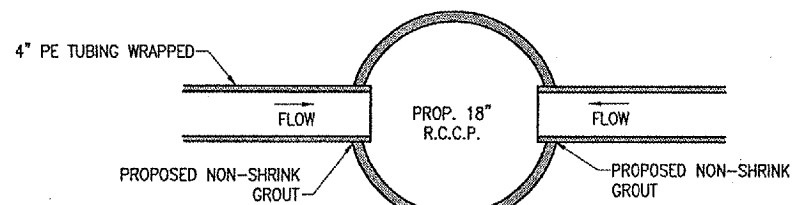


EXTEND PARTIAL  
PARALLEL TAXIWAY

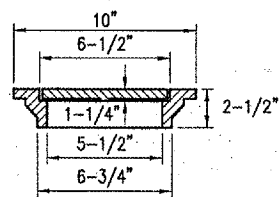
PROPOSED PAVEMENT  
PLAN & PROFILE

STA. 29+00 TO STA. 36+19.39

APR 30, 2007 2:12 PM CCC  
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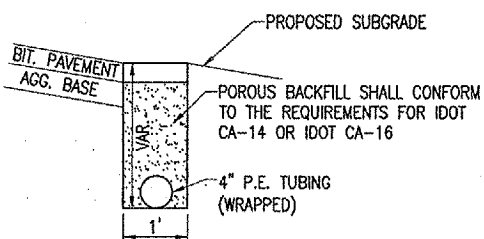


**PIPE UNDERDRAIN CONNECTION**  
"NOT TO SCALE"

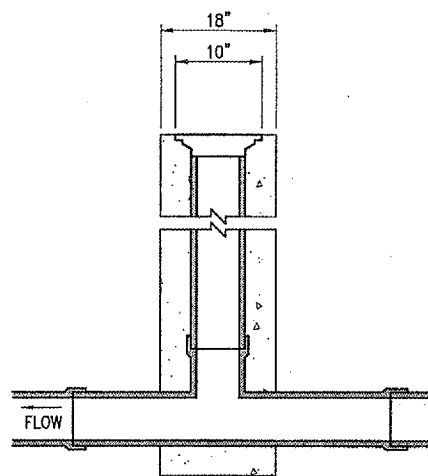


**CAST IRON FRAME AND COVER**

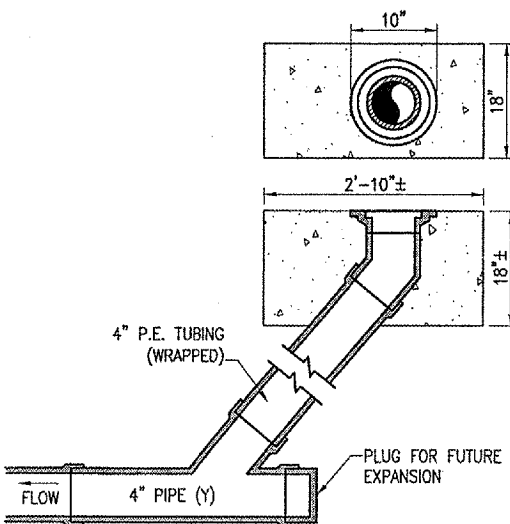
NEENAH R-6013, DEETER 1810,  
EAST JORDAN 2790-6 OR  
APPROVED EQUAL



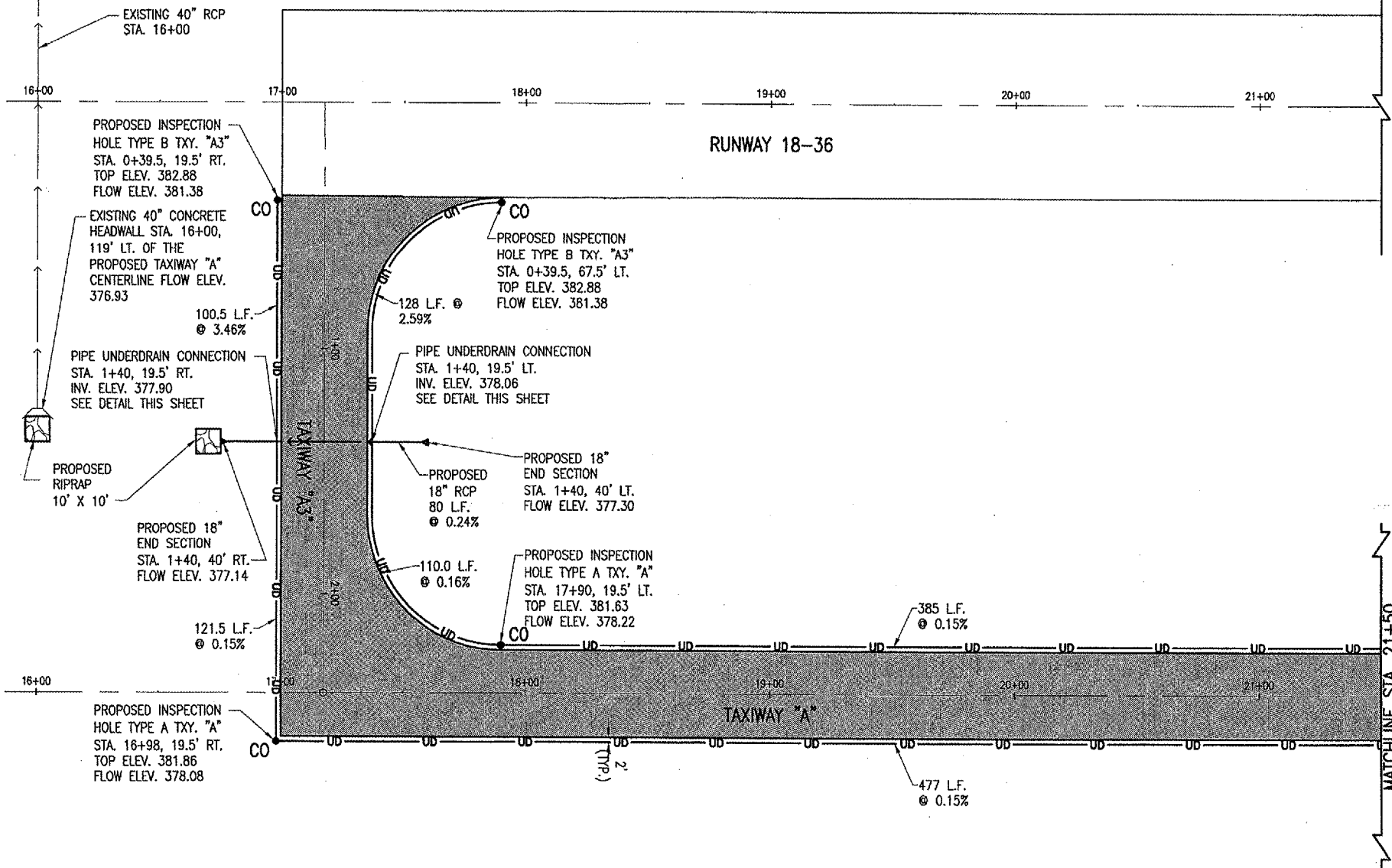
**UNDERDRAIN DETAIL**  
"NOT TO SCALE"



**INSPECTION HOLE-TYPE A**



**INSPECTION HOLE-TYPE B**



**UNDERDRAIN NOTES**

THE CONTRACTOR SHALL INSTALL THE PROPOSED 4" P.E. TUBING UNDERDRAINS TO THE DEPTH AND GRADES SHOWN ON THIS SHEET. THE UNDERDRAINS SHALL BE INSTALLED AFTER THE AGGREGATE HAS BEEN COMPLETED.

THE 4" P.E. TUBING SHALL BE CAPPED AT THE ENDS WHICH DO NOT CONNECT INTO STRUCTURES.

THE TRENCH SHALL BE BACKFILLED AND COMPACTED WITH POROUS BACKFILL CA-14 OR CA-16 MATERIAL. THE TRENCH LOCATED IN THE PROPOSED PAVEMENT AREAS WILL BE BACKFILLED AS SHOWN IN THE DETAIL ON THIS SHEET. THE TRENCH LOCATED IN TURF AREAS SHALL BE BACKFILLED UP TO WITHIN 1 FT. OF THE EXISTING GROUND ELEVATION. THE REMAINING 1 FT. OF TRENCH WILL BE BACKFILLED AND COMPACTED WITH EARTH MATERIAL.

THE POROUS BACKFILL SHALL CONFORM TO THE REQUIREMENTS FOR IDOT CA-14 OF IDOT CA-16.

THE CONNECTION TO THE PROPOSED 18" RCP WILL BE CONSIDERED INCIDENTAL TO THE "4" PERFORATED UNDERDRAIN W/ SOCK" ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE PROPOSED UNDERDRAINS AND BACKFILLED MATERIAL WILL BE PAID FOR UNDER THE FOLLOWING ITEMS:

- AR705410 "POROUS BACKFILL" - PER CY.
- AR705524 "4" PERFORATED UNDERDRAIN W/ SOCK" -PER L.F.

**INSPECTION HOLE NOTES**

DIAMETER OF PIPE AS SPECIFIED.

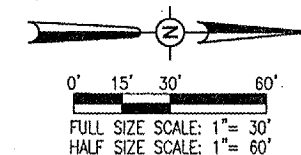
TOP OF INSPECTION HOLES SHALL BE 2" ABOVE FINISH GROUND LINE AT LOCATION SHOWN ON PLANS.

1/2" CHAMFER TO BE USED ON ALL EXPOSED EDGES OF INSPECTION HOLES.

THE CONCRETE SHALL BE STRUCTURAL PORTLAND CEMENT CONCRETE (NON-REINFORCED)

**LEGEND**

- EXISTING PAVEMENT
- EXISTING RCP
- EXISTING HEADWALL
- PROPOSED PAVEMENT
- PROPOSED 4" PERFORATED UNDERDRAIN W/ SOCK
- PROPOSED RCP
- PROPOSED UNDERDRAIN INSPECTION HOLE
- PROPOSED FLARED END SECTION



DATE	REVISION	BY

CARMI MUNICIPAL AIRPORT  
CARMI, ILLINOIS

A.I.P. PROJ.: 3-17-0109-B7

IL PROJ.: CUL-3683

UL Project No. 801-07TXD.0800	
File Name: R-131DRN.DWG	
Scale: 1" = 30'	
Date: 11/15/06	
LAYOUT	SEP 11/15/06
DRAWN	CCC 11/15/06
REVIEWED	CAH 03/27/07

Hanson Professional Services, Inc.  
1525 South Sixth Street  
Springfield, Illinois 62703-2866  
Offices Nationwide

EXTEND PARTIAL  
PARALLEL TAXIWAY  
PROPOSED  
DRAINAGE PLAN  
STA. 16+00 TO STA. 21+50

DATE	REVISION	BY

**CARMi MUNICIPAL AIRPORT**  
CARMi, ILLINOIS

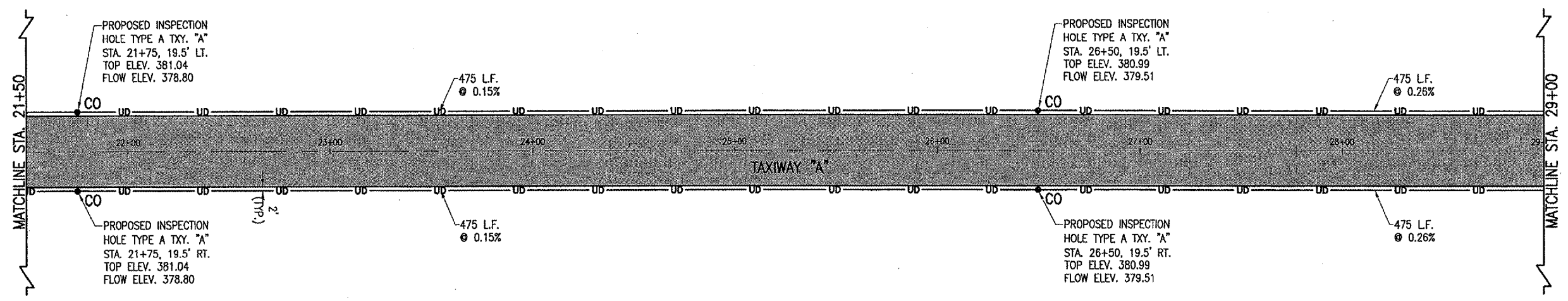
IL PROJ.: CUL-3663 A.I.P. PROJ.: 3-17-0109-B7

REVISED	DATE	BY

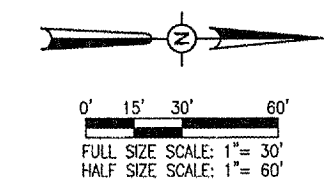
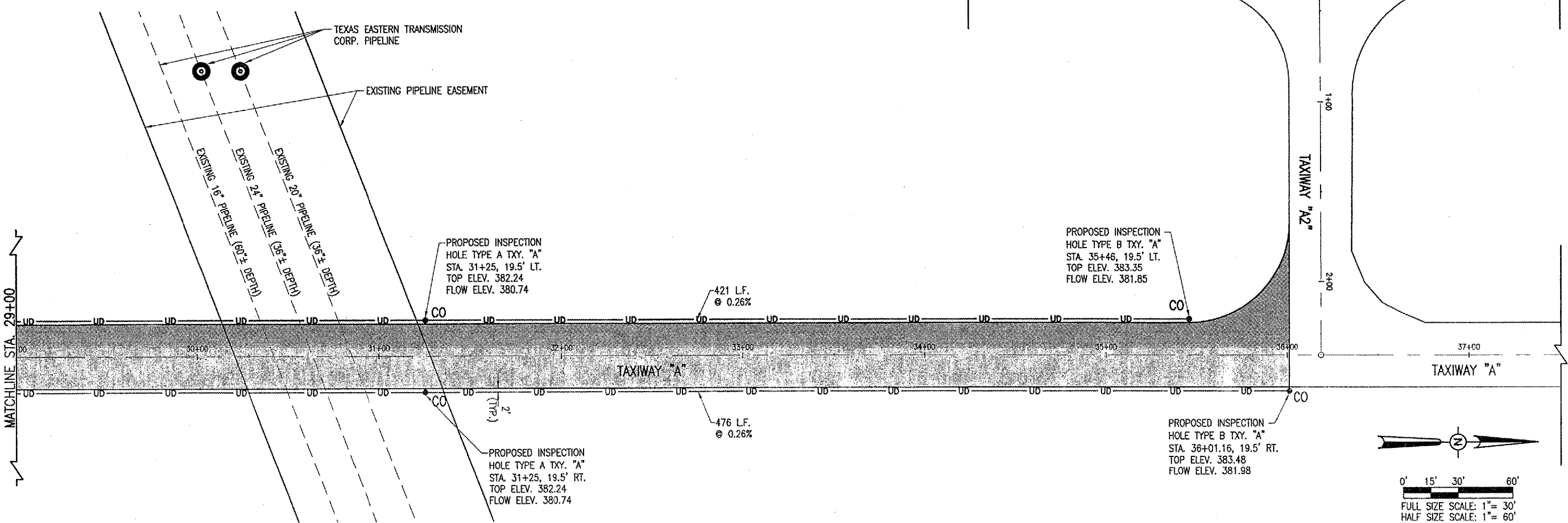
**HANSON**  
Hanson Professional Services Inc.  
1526 South Sixth Street  
Springfield, Illinois 62703-2888  
Offices Nationwide

**EXTEND PARTIAL PARALLEL TAXIWAY**

PROPOSED DRAINAGE PLAN  
STA. 21+50 TO STA. 37+50



- LEGEND**
- EXISTING PAVEMENT
  - PROPOSED PAVEMENT
  - PROPOSED 4" PERFORATED UNDERDRAIN W/SOCK
  - PROPOSED UNDERDRAIN INSPECTION HOLE



APR 30, 2007 3:01 PM CCC  
I:\AIRPORTS\CARMi\801-071XY\AIRPORT\SHEETS\R-131DRN.DWG - Layout2

**901 SEEDING NOTES**

THE PROPOSED SEEDING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ITEM 901 "SEEDING" AS STATED ON PAGE 120 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

ALL DISTURBED AREAS LOCATED WITHIN THE PROPOSED GRADING AND SEEDING LIMITS WILL BE SEEDED IN ACCORDANCE WITH THE ABOVE NOTED SPECIFICATION. ALL AREAS OUTSIDE THE DESIGNATED GRADING AND SEEDING LIMITS WILL ALSO BE SEEDED BUT AT THE CONTRACTOR'S OWN EXPENSE.

ALL MATERIALS AND/OR DEBRIS RESULTING FROM THE SEEDING OPERATIONS WILL BE REMOVED FROM THE PAVEMENTS AND MISCELLANEOUS STRUCTURES PRIOR TO OPENING THE RUNWAY AND TAXIWAY.

901-3.4 MAINTENANCE OF SEEDED AREAS. DELETE THE SECOND PARAGRAPH OF THIS SECTION AND ADD THE FOLLOWING:

"THE CONTRACTOR WILL BE REQUIRED TO ESTABLISH A GOOD STAND OF GRASS OF UNIFORM COLOR AND DENSITY TO THE SATISFACTION OF THE RESIDENT ENGINEER. IF AT THE TIME WHEN THE CONTRACT HAS BEEN OTHERWISE COMPLETED, IT IS NOT POSSIBLE TO MAKE AN ADEQUATE DETERMINATION OF COLOR, DENSITY, AND UNIFORMITY OF SUCH STAND OF GRASS, THE ITEM OF WORK WILL BE REVIEWED AT A LATER DATE DETERMINED BY THE ILLINOIS DIVISION OF AERONAUTICS."

DATE SEEDING COMPLETED \_\_\_\_\_

THE PROPOSED SEEDING WILL BE PAID FOR UNDER ITEMS: AR901510 SEEDING \_\_\_\_\_ 11 ACRES

**908 MULCHING NOTES**

THE PROPOSED MULCHING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ITEM 908 "MULCHING" AS STATED ON PAGE 127 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, ADOPTED JULY 1, 2004.

THIS ITEM SHALL CONSIST OF THE FURNISHING, TRANSPORTING, AND PLACING MULCH OVER THE SEEDED AREA. DISTURBED AREAS OUTSIDE THE GRADING LIMITS SHALL ALSO BE MULCHED AND PARTICIPATION WILL BE THE SAME AS FOR SEEDED AREAS.

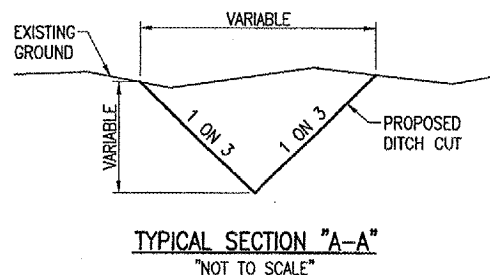
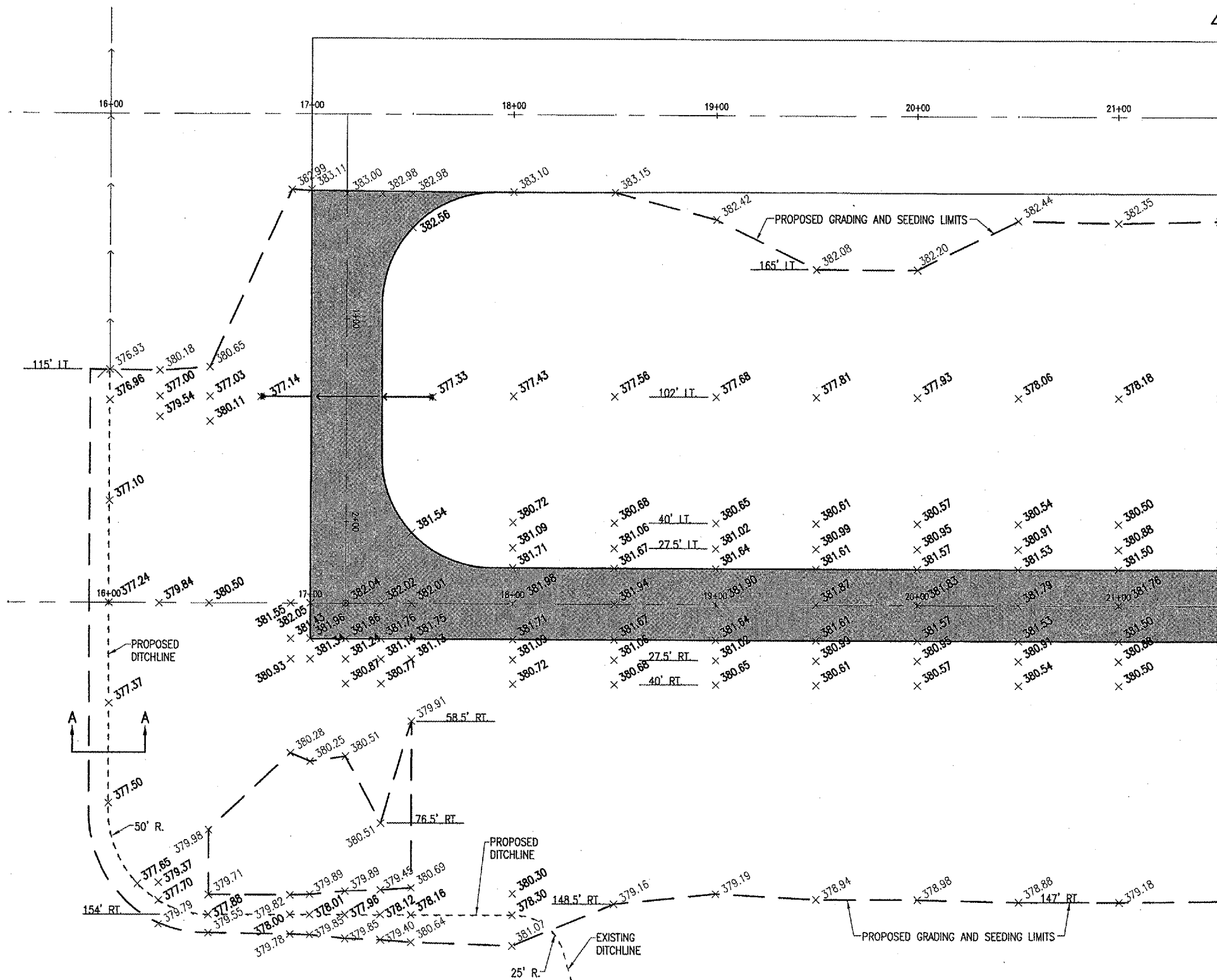
908-2.1 MULCH MATERIAL: THE CONTRACTOR MAY EITHER FURNISH STRAW OR HYDROMULCH AS THE TYPE OF MULCH MATERIAL TO BE USED ON THIS PROJECT.

908-3.1 MULCHING: THE HYDRAULIC MULCH SHALL BE APPLIED AS A SLURRY OF 2,500 POUNDS OF MULCH AND NOT LESS THAN 2,500 GALLONS OF WATER PER ACRE.

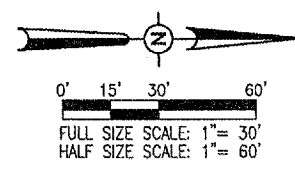
908-3.4 STRUCTURE CLEANING: AFTER THE PROPOSED MULCH HAS BEEN APPLIED, THE CONTRACTOR WILL CLEAN THE MULCH OFF ALL STRUCTURES (DRAINAGE, ELECTRICAL, LIGHTS, ETC.).

DATE MULCHING COMPLETED \_\_\_\_\_

THE PROPOSED MULCHING WILL BE PAID FOR UNDER ITEMS: AR908510 MULCHING \_\_\_\_\_ 11 ACRES



- LEGEND**
- EXISTING PAVEMENT
  - PROPOSED PAVEMENT
  - PROPOSED GRADING AND SEEDING LIMITS
  - PROPOSED 18" RCP
  - EXISTING GRADE
  - PROPOSED GRADE
  - PROPOSED FLARED END SECTION

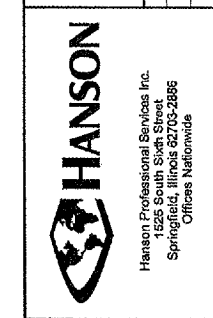


DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT  
CARMI, ILLINOIS**

MATCHLINE STA. 21+50

UT Project No. 801-07TXD_0800	SEP 11/15/06
Drawn: R-19151K.DWG	BAK 11/15/06
Scale: 1"=30'	CAH 03/27/07
Date: 11/15/06	

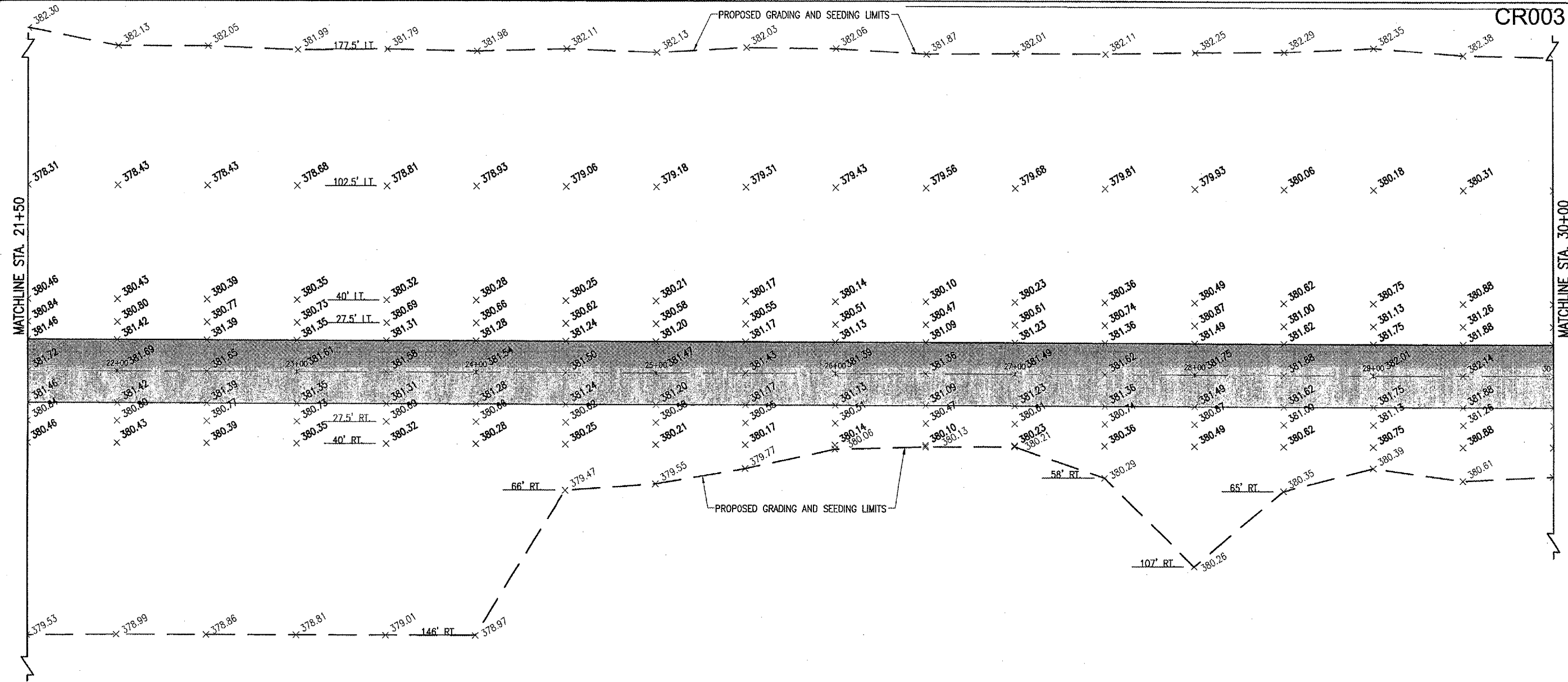


**EXTEND PARTIAL  
PARALLEL TAXIWAY**

PROPOSED  
STAKING PLAN

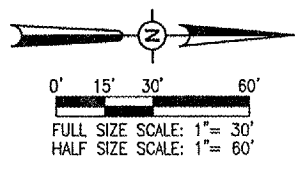
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APR 27, 2007 7:39 AM BAK I:\AIRPORTS\CARMI\801-07TXD\AIRPORTSHEETS\R-19151K.DWG -- STA. 16+50 TO STA. 21+50



**LEGEND**

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- PROPOSED GRADING AND SEEDING LIMITS
- +382.61 EXISTING GRADE
- +382.93 PROPOSED GRADE



BY	REVISION	DATE

CARMI MUNICIPAL AIRPORT  
CARMI, ILLINOIS

IL. PROJ.: CUL-3663  
A.I.P. PROJ.: 3-17-0109-B7

HEI Project No.	801-07TXD 0800
File Name	R-191STK.DWG
Scale	1" = 30'
Date	11/15/06
LAYOUT	SEP 11/15/06
DRAWN	BAK 11/15/06
REVIEWED	CAH 03/27/07

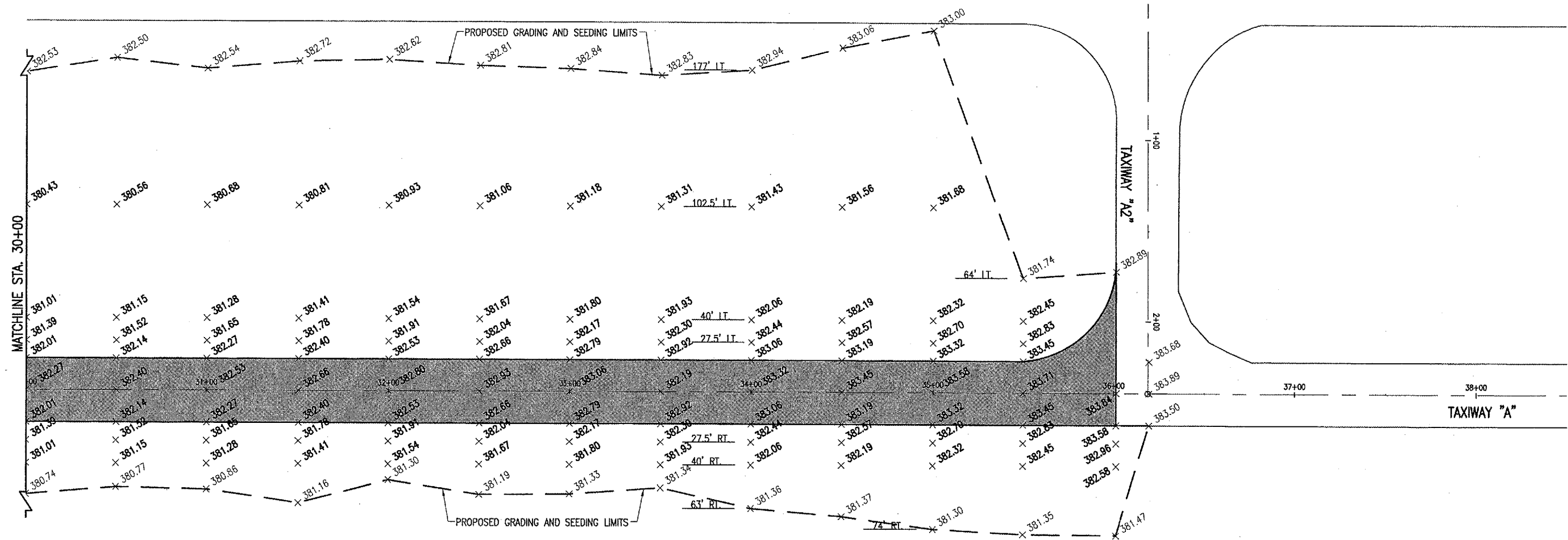
**HANSON**  
Hanson Professional Services Inc.  
1024 South State Street  
Springfield, IL 62763-2686  
Offices Nationwide

EXTEND PARTIAL  
PARALLEL TAXIWAY

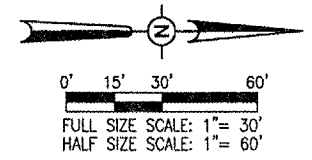
PROPOSED  
STAKING PLAN

STA. 21+50 TO STA. 30+00

APR 27, 2007 7:40 AM BAK  
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- LEGEND**
- EXISTING PAVEMENT
  - PROPOSED PAVEMENT
  - PROPOSED GRADING AND SEEDING LIMITS
  - +382.67 EXISTING GRADE
  - +382.93 PROPOSED GRADE



DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**

I.L. PROJ.: CUL-3683  
 A.I.P. PROJ.: 3-17-0109-67

I.E.I. Project No. 801-07TX00-0800	
Filename: R-191STK.DWG	
Scale: 1" = 30'	Date: 11/15/06
LAYOUT	SEP 11/15/06
DRAWN	BAK 11/15/06
REVIEWED	CAH 03/27/07

**HANSON**

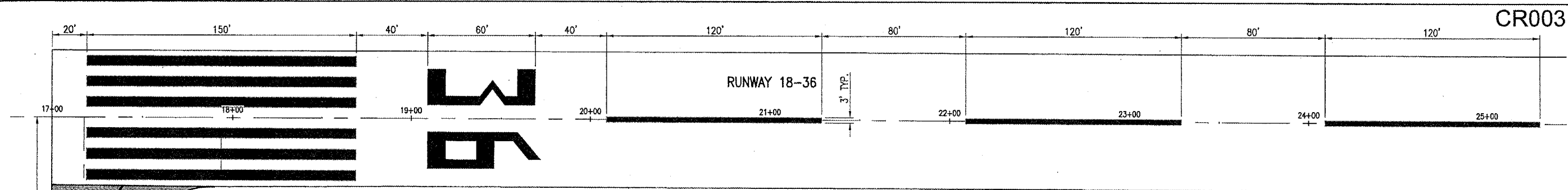
Hanson Professional Services Inc.  
 1525 South Sixth Street  
 Springfield, Illinois 62703-2886  
 Offices Nationwide

**EXTEND PARTIAL  
 PARALLEL TAXIWAY**

PROPOSED  
 STAKING PLAN

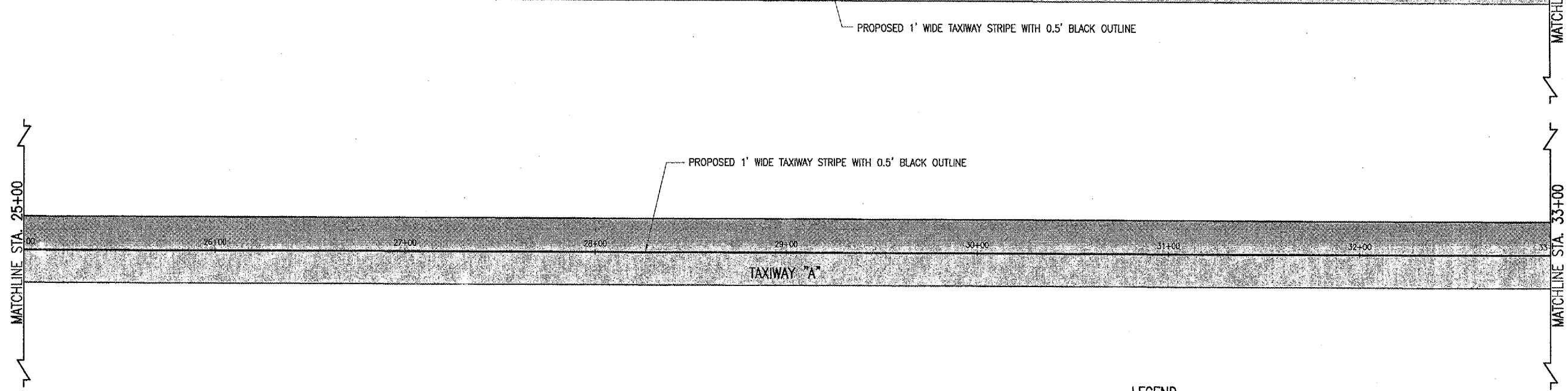
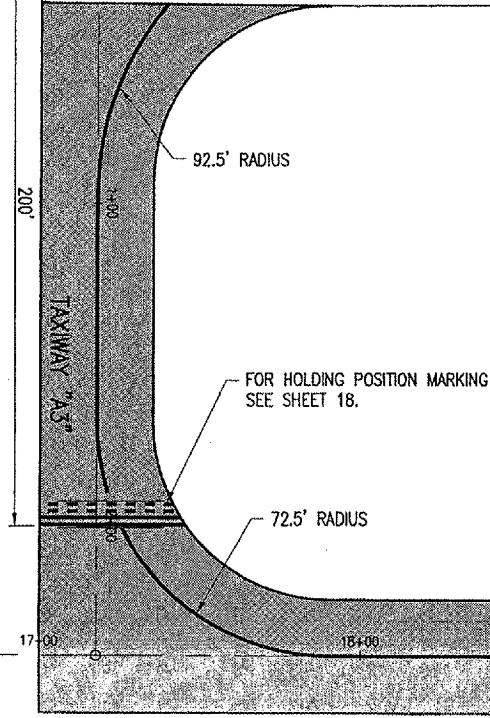
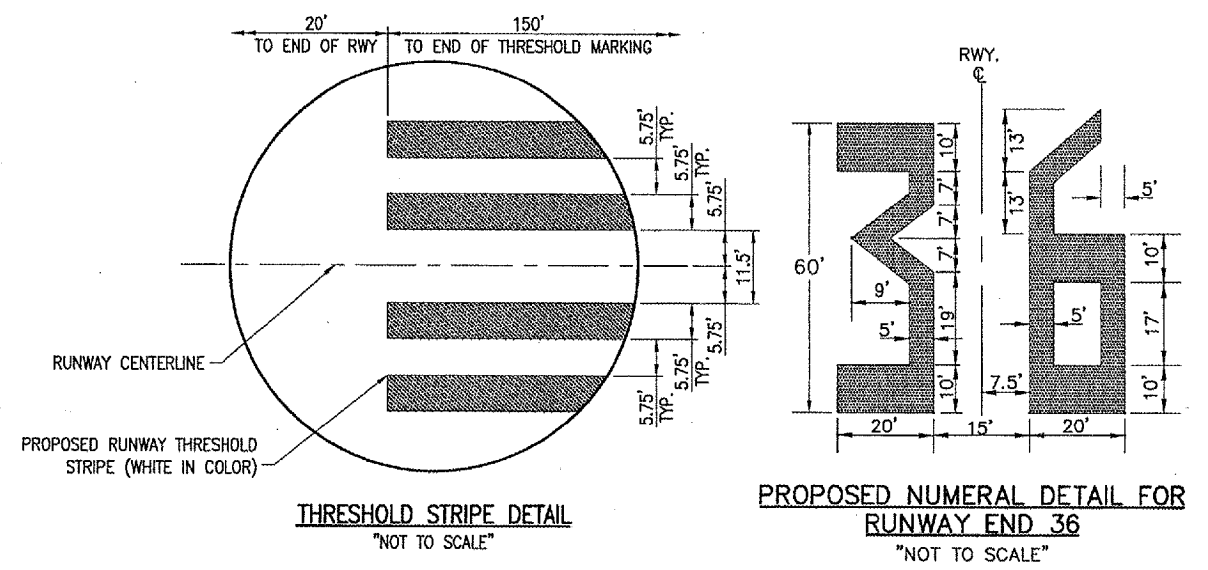
STA. 30+00 TO STA. 38+50

APR 27, 2007 7:41 AM BAK  
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CR003

MARKING QUANTITIES			
DESCRIPTION	UNIT AREA	NO. REQUIRED	TOTAL AREA
RUNWAY THRESHOLD STRIPES	862.5	6	5,175
RUNWAY CENTERLINE STRIPES	360	3	1,080
RUNWAY NUMERAL 3	634	1	634
RUNWAY NUMERAL 6	712	1	712
TOTAL WHITE			7,601
DESCRIPTION	UNIT AREA	NO. REQUIRED	TOTAL AREA
TAXIWAY CENTERLINE	5,618	1	5,618
HOLDING LINE: TXY "A3"	132	1	132
HOLDING LINE: TXY "A2"	147	1	147
HOLDING LINE: TXY "A1"	142	1	142
TOTAL YELLOW			6,019
DESCRIPTION	UNIT AREA	NO. REQUIRED	TOTAL AREA
TAXIWAY CENTERLINE BLACK OUTLINE	5,618	1	5,618
HOLDING LINE BLACK OUTLINE: TXY "A3"	215	1	215
HOLDING LINE BLACK OUTLINE: TXY "A2"	239	1	239
HOLDING LINE BLACK OUTLINE: TXY "A1"	228	1	228
TOTAL BLACK			6,300
TOTAL MARKING			19,920

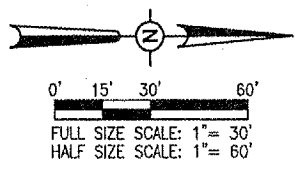


MATCHLINE STA. 25+00

MATCHLINE STA. 25+00  
 MATCHLINE STA. 33+00

**LEGEND**

	EXISTING PAVEMENT
	PROPOSED PAVEMENT
	EXISTING MARKING
	PROPOSED MARKING



DATE	REVISION	BY

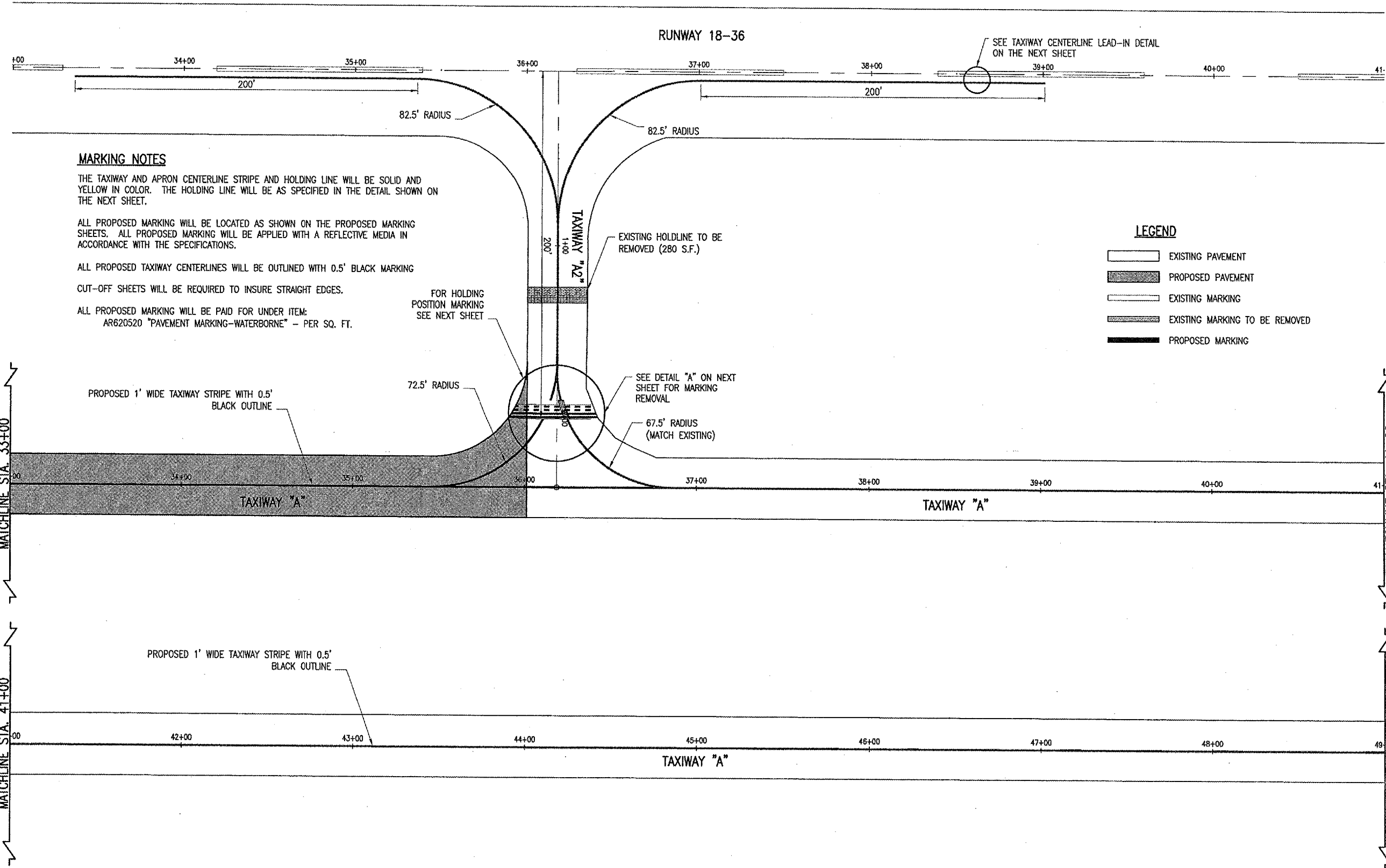
**CARMI MUNICIPAL AIRPORT**  
 CARMI, ILLINOIS  
 I.L. PROJ.: CUL-3683  
 A.I.P. PROJ.: 3-17-0109-87

I.P. Project No. 801-07TXD_0800 Filename: R-151\MRK.DWG Scale: 1"=30' Date: 02/16/07	LAYOUT: MDR 02/16/07 DRAWN: MDR 02/16/07 REVIEWED: CAH 03/27/07
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**EXTEND PARTIAL PARALLEL TAXIWAY**  
 PROPOSED MARKING PLAN  
 STA. 17+00 TO STA. 33+00





**MARKING NOTES**

THE TAXIWAY AND APRON CENTERLINE STRIPE AND HOLDING LINE WILL BE SOLID AND YELLOW IN COLOR. THE HOLDING LINE WILL BE AS SPECIFIED IN THE DETAIL SHOWN ON THE NEXT SHEET.

ALL PROPOSED MARKING WILL BE LOCATED AS SHOWN ON THE PROPOSED MARKING SHEETS. ALL PROPOSED MARKING WILL BE APPLIED WITH A REFLECTIVE MEDIA IN ACCORDANCE WITH THE SPECIFICATIONS.

ALL PROPOSED TAXIWAY CENTERLINES WILL BE OUTLINED WITH 0.5' BLACK MARKING

CUT-OFF SHEETS WILL BE REQUIRED TO INSURE STRAIGHT EDGES.

ALL PROPOSED MARKING WILL BE PAID FOR UNDER ITEM:  
AR620520 "PAVEMENT MARKING-WATERBORNE" - PER SQ. FT.

**LEGEND**

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING MARKING
- EXISTING MARKING TO BE REMOVED
- PROPOSED MARKING

DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT  
CARMI, ILLINOIS**

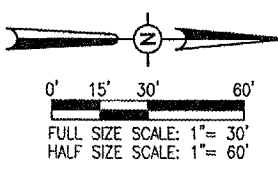
IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

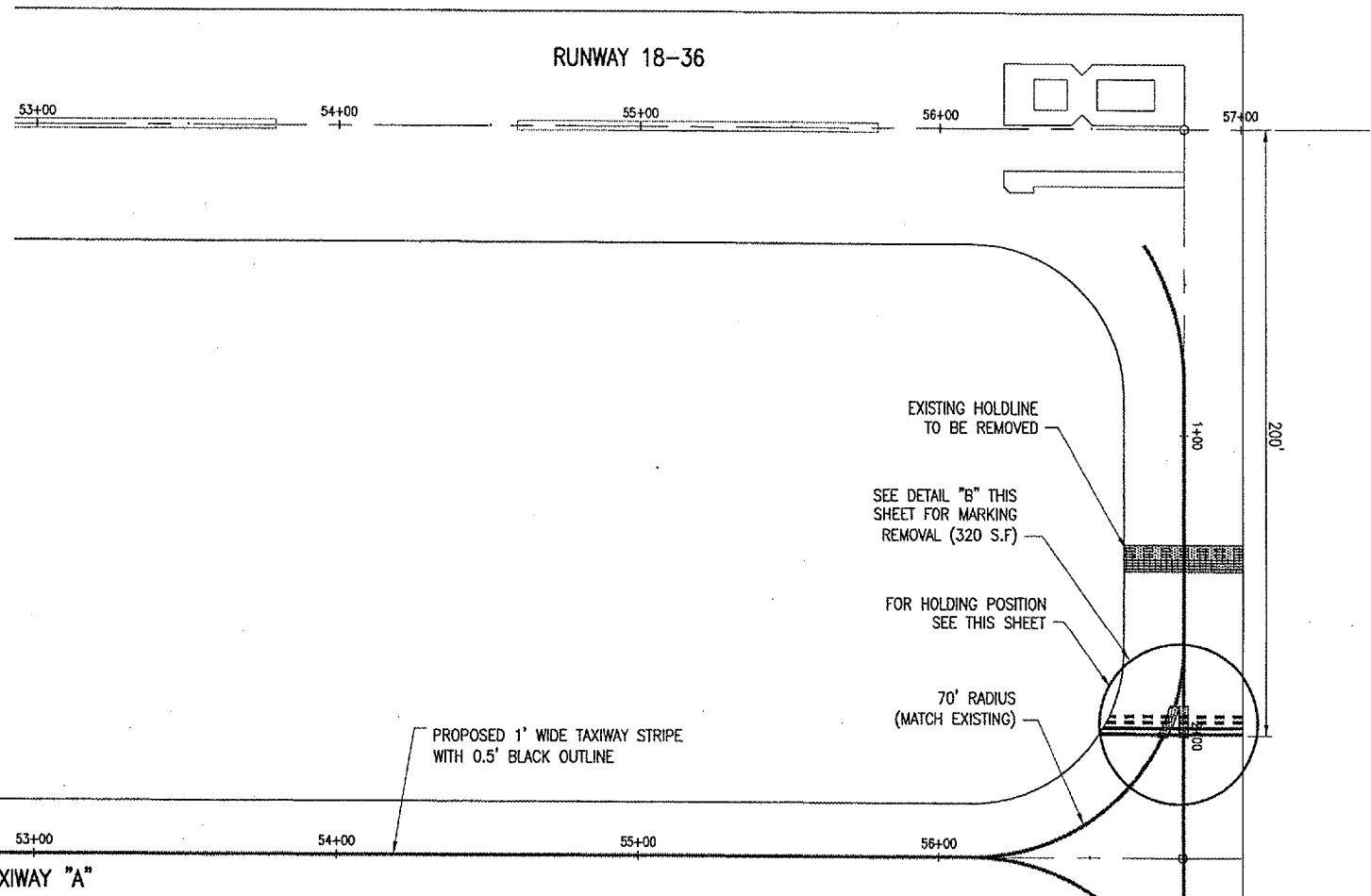
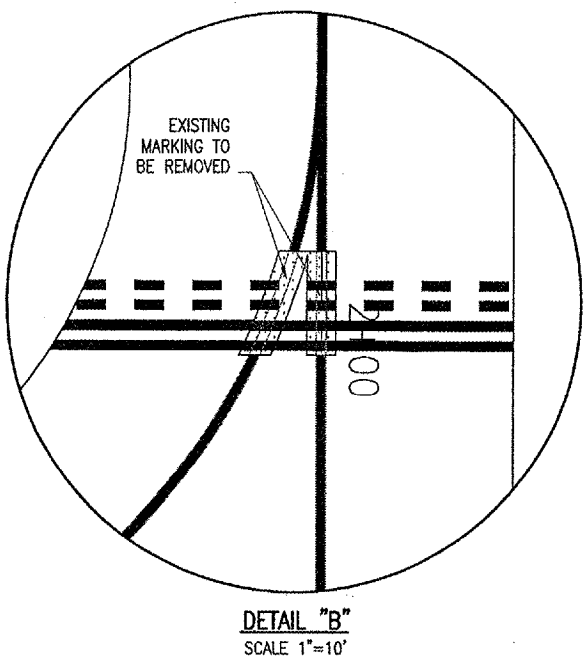
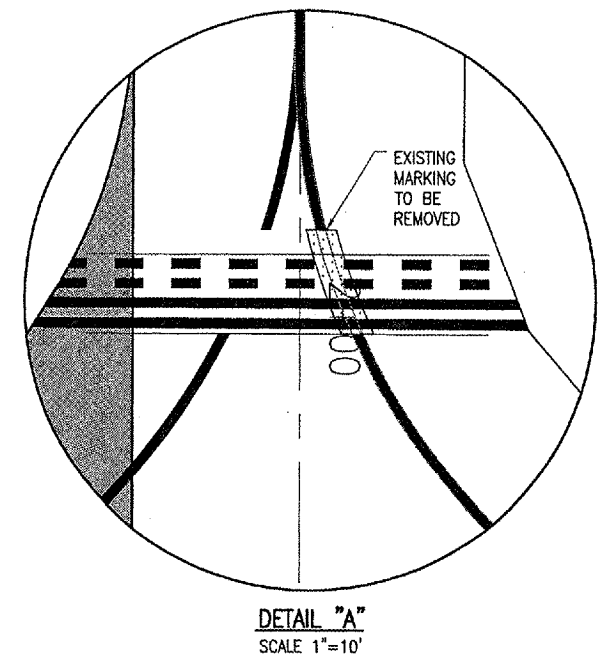
IRI Project No. 801-07TXD.0800 Engineer: R-151MRK.DWG Scale: 1"=30' Date: 02/16/07	LAYOUT MDR 02/16/07 DRAWN MDR 02/16/07 REVIEWED CAH 03/27/07
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**EXTEND PARTIAL  
PARALLEL TAXIWAY**  
  
**PROPOSED  
MARKING PLAN**  
 STA. 33+00 TO STA. 49+00

APR 27, 2007 7:41 AM BAK I:\AIRPORTS\CARMI\801-07TXD\AIRPORT SHEETS\R-151MRK.DWG - STA. 33+00 TO STA. 49+00





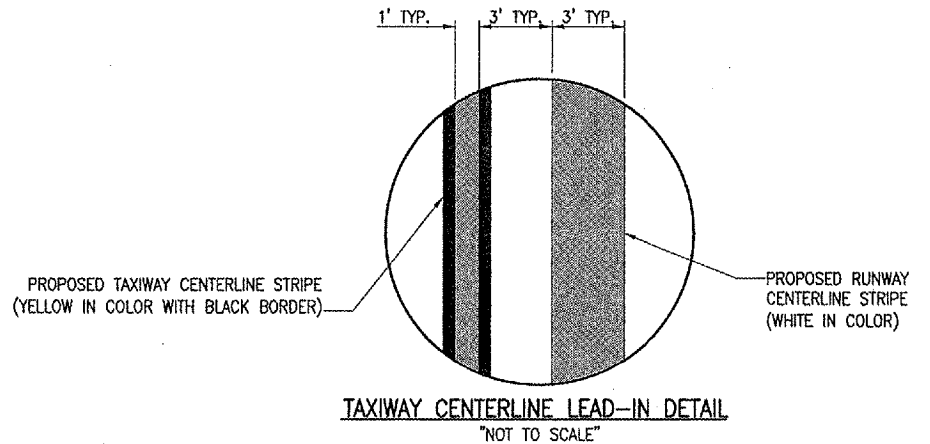
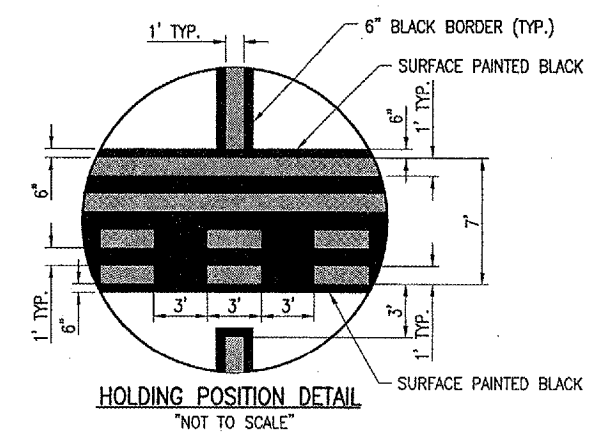
MATCHLINE STA. 49+00

**MARKING REMOVAL NOTES**

THE AREAS THAT ARE DESIGNATED EXISTING MARKING (TO BE REMOVED) WILL BE REMOVED BY SANDBLASTING OR SHOT BLASTING.

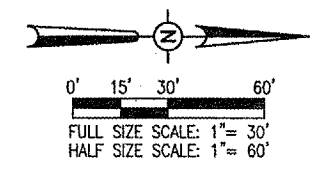
ALL AREAS TO BE REMOVED ARE CALCULATED AREAS. ANY ADDITIONAL AREAS, DUE TO OVER SPRAY, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE PROPOSED MARKING REMOVAL SHALL BE PAID FOR UNDER ITEM:  
AR620900 "PAVEMENT MARKING REMOVAL" - PER S.F.



**LEGEND**

- EXISTING PAVEMENT
- PROPOSED PAVEMENT
- EXISTING MARKING
- EXISTING MARKING (TO BE REMOVED)
- PROPOSED MARKING



STOP PROPOSED MARKING AT STA. 44+64.51

REVISION	DATE	BY

**CARMI MUNICIPAL AIRPORT**  
CARMI, ILLINOIS

REL. Project No. 801-071X'D.0600	FILENAME: R-151MRK.DWG	DATE: 02/16/07
Scale: 1"=30'	LAYOUT	MDR 02/16/07
Scale: 1"=30'	DRAWN	MDR 02/16/07
Scale: 1"=30'	REVIEWED	CAH 03/27/07

**HANSON**  
Hanson Professional Services Inc.  
1525 South Sixth Street  
Springfield, Illinois 62703-2885  
Offices Nationwide

**EXTEND PARTIAL PARALLEL TAXIWAY**

**PROPOSED MARKING PLAN**

STA. 49+00 TO STA. 57+00

APR 27, 2007 7:42 AM BAK I:\AIRPORTS\CARMI\B01-071XX\AIRPORT\ SHEETS\R-151MRK.DWG - STA. 49+00 TO STA. 57+00

PER FAA AC 150/5340-30B DESIGN AND INSTALLATION DETAILS FOR AIRPORT VISUAL AIDS, A SAFETY GROUND MUST BE INSTALLED AT EACH LIGHT FIXTURE. A SAFETY GROUND SHALL BE INSTALLED AT EACH STAKE MOUNTED LIGHT AND EACH TRANSFORMER BASE/LIGHT CAN ASSOCIATED WITH RUNWAY LIGHTS, TAXIWAY LIGHTS, AND LIGHTED TAXI GUIDANCE SIGNS. THE SAFETY GROUND SHALL BE A #6 AWG BARE COPPER CONDUCTOR CONNECTED TO THE GROUND LUG ON THE RESPECTIVE L-867 TRANSFORMER BASE/LIGHT CAN OR MOUNTING STAKE AND A 3/8-INCH DIAMETER BY 8-FOOT LONG (MINIMUM) UL LISTED COPPER CLAD GROUND ROD. SEE ELECTRICAL DETAIL SHEETS FOR ADDITIONAL INFORMATION ON THIS REQUIREMENT.

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES OF HIS OPERATIONAL PLANS AND SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH MAINS AND SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 1-800-892-0123. CONTACT AIRPORT PERSONNEL FOR ASSISTANCE IN LOCATING AIRPORT CABLES.

**NOTES:**

ALL TAXIWAY LIGHTS ARE TO BE LOCATED 10' FROM THE PAVEMENT EDGE, AND THE NEAR EDGE OF THE TAXIWAY SIGNS WILL BE LOCATED 15' FROM THE EDGE OF PAVEMENT.

REFER TO THE LIGHTING STANDARD SHEET AND SPECIFICATION FOR DETAILS FOR THE STAKE AND BASE LIGHTS AND TAXIWAY SIGNS.

LIGHTING CABLE WILL BE 1/C No. 8, 5 KV. TYPE C UNDERGROUND CABLE IN UNIT DUCT. CABLE BENDS WILL BE 3'-0" OR GREATER.

LIGHTING CABLE SHALL BE BURIED AT A MINIMUM DEPTH OF 18 INCHES AND 12 FEET FROM THE PAVEMENT EDGE. THE SPACING OF MULTI CABLES IN THE SAME TRENCH SHALL BE SEPARATED BY 3 INCHES, CABLE TO CABLE. FOR ELECTRICAL TRENCH DETAILS REFER TO THE ELECTRICAL DETAIL SHEET.

ALL PROPOSED LIGHTS AND SIGNS WILL BE TAGGED IN ACCORDANCE WITH LIGHT NUMBER SHOWN ON THE PLANS.

IN AREAS WHERE THERE IS A CONGESTION OF EXISTING CABLES, THE PROPOSED CABLES WILL BE HAND-DUG IN PLACE. AT ALL OTHER LOCATIONS, THE CABLE MAY BE TRENCHED OR PLOWED INTO PLACE.

THE REMOVED LIGHT FIXTURES AND ISOLATION TRANSFORMERS WILL BE TURNED OVER TO THE AIRPORT MANAGER. IF THE MANAGER DOES NOT WANT THE SALVAGED MATERIAL, THEN THE CONTRACTOR WILL DISPOSE OF THE MATERIALS. THE CONCRETE BASES AND METAL STAKES WILL BE DISPOSED OF OFF THE AIRPORT SITE BY THE CONTRACTOR.

ALL PROPOSED TAXIWAY LIGHTS WILL BE TYPE L-861-T, WITH 30 WATT INCANDESCENT LAMP.

ALL OF THE ABOVE LIGHTS WILL BE MANUFACTURED IN ACCORDANCE TO FAA SPECIFICATION AC NO. 150/5345-46B, LATEST EDITION.

THE CONCRETE USED IN THE CONSTRUCTION OF THESE ITEMS SHALL BE IN ACCORDANCE WITH ITEM 610.

PRIOR TO INSTALLING THE PROPOSED TAXIWAY LIGHTS, THE CONTRACTOR WILL APPLY AN OXIDE-INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS, BREAKABLE COUPLING, AND ALL PLACES WHERE METAL COMES INTO CONTACT WITH METAL. THE ANTI-SEIZE COMPOUND WILL BE AS MANUFACTURED BY I.T.T. BRAND NAME "CONTAX" OR APPROVED EQUAL.

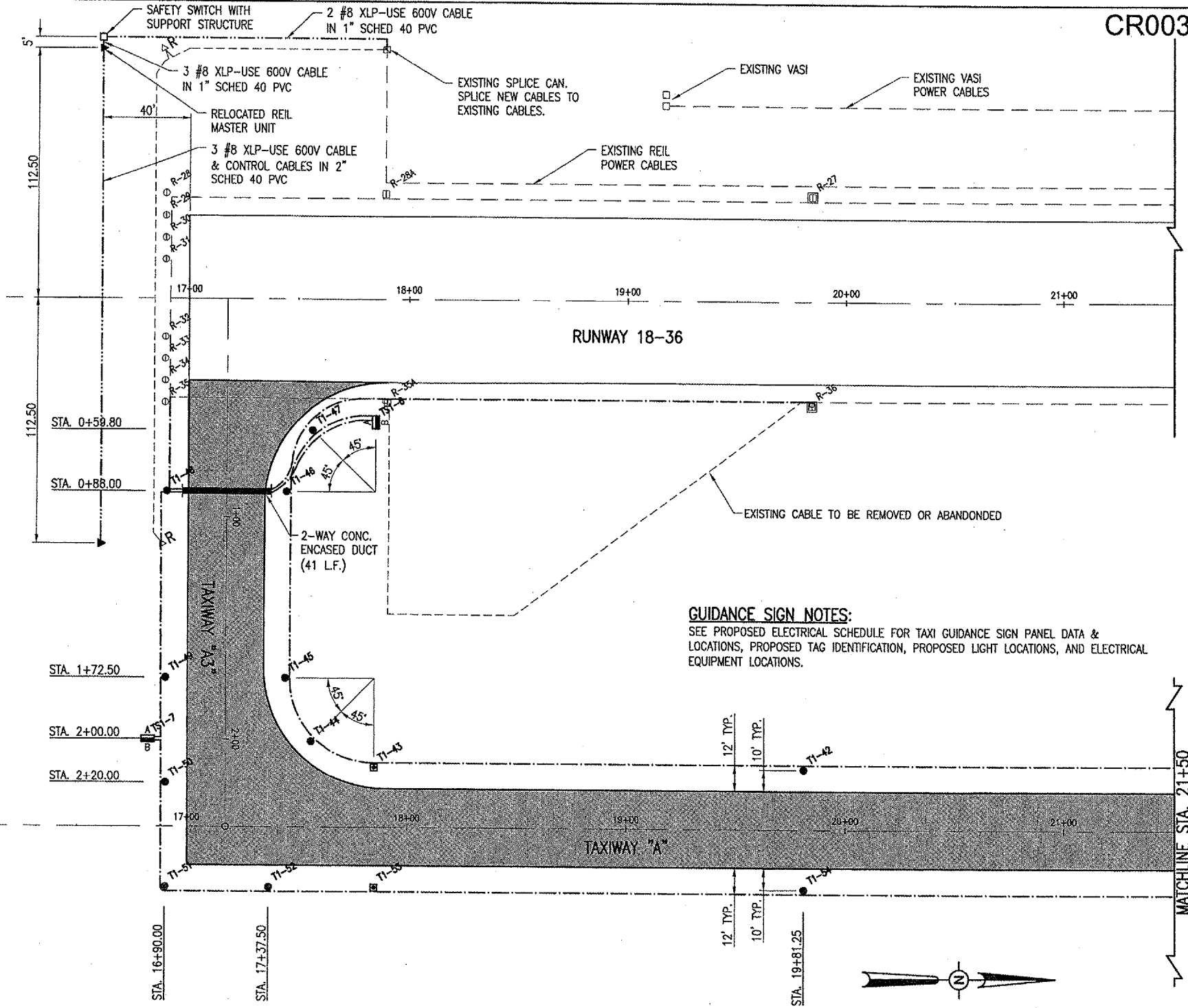
ALL BASE PLATE MOUNTING BOLTS AND STAKE MOUNTING BOLTS SHALL BE STAINLESS STEEL.

THE CONTRACTOR WILL LOCATE ALL BURIED CABLES PRIOR TO THE PLACEMENT OF NEW CABLES. IN AREAS OF MULTIPLE CABLES, THE PROPOSED CABLES SHALL BE PLACED BY HAND DIGGING.

THE EXISTING TAXI GUIDANCE SIGNS (TO BE RELOCATED) WILL BE REMOVED, STORED, AND PREPARED FOR RELOCATION BY ADDING ANOTHER SIGN MODULE TO THE EXISTING SIGN AND CHANGING THE SIGN LEGENDS TO READ AS SHOWN ON SHEET 22. THE EXISTING SIGN BASES WILL BE REMOVED AND DISPOSED OF OFF THE AIRPORT SITE. IF THE EXISTING SIGN LOCATION WILL NOT BE USED BY A PROPOSED TAXI GUIDANCE SIGN, THEN THE CONTRACTOR WILL CONNECT THE EXISTING CABLES BACK TOGETHER, BURY THEM, PLACE DIRT IN THE HOLE LEFT FROM THE REMOVAL OF THE SIGN BASE, SEED AND MULCH THE DISTURBED AREA. ALL THIS WORK WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE REMOVAL TO THE TAXI GUIDANCE SIGN AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. PAYMENT WILL BE MADE UNDER ITEM AR125964, RELOCATE TAXI GUIDANCE SIGN.

THE TWO EXISTING ONE MODULE TAXI GUIDANCE SIGNS LOCATED ON TAXIWAY "A1" WILL BE REMOVED AND TURNED OVER TO THE AIRPORT MANAGER. IF THE AIRPORT MANAGER DOESN'T WANT THEM, THEN THE CONTRACTOR WILL DISPOSE OF THEM OFF THE AIRPORT SITE. THE EXISTING CONCRETE BASES WILL BE REMOVED AND DISPOSED OF OFF THE AIRPORT SITE. IF THE EXISTING SIGN LOCATION WILL NOT BE USED BY A PROPOSED TAXI GUIDANCE SIGN, THEN THE CONTRACTOR WILL CONNECT THE EXISTING CABLES BACK TOGETHER, BURY THEM, PLACE DIRT IN THE HOLE LEFT FROM THE REMOVAL OF THE SIGN BASE, SEED AND MULCH THE DISTURBED AREA. ALL THIS WORK WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE REMOVAL TO THE TAXI GUIDANCE SIGN AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. PAYMENT WILL BE MADE UNDER ITEM AR125904, REMOVE TAXI GUIDANCE SIGN.

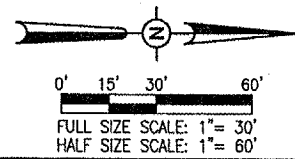
THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER OR THE ENGINEER ASSUMES ANY RESPONSIBILITY WHATSOEVER IN RESPECT TO THE ACCURACY OR SUFFICIENCY OF THE INFORMATION AND THERE IS NO GUARANTEE, EITHER EXPRESSED OR IMPLIED, THAT THE CONDITIONS INDICATED ARE REPRESENTATIVES OF THOSE TO BE ENCOUNTERED IN THE CONSTRUCTION.



**GUIDANCE SIGN NOTES:**  
SEE PROPOSED ELECTRICAL SCHEDULE FOR TAXI GUIDANCE SIGN PANEL DATA & LOCATIONS, PROPOSED TAG IDENTIFICATION, PROPOSED LIGHT LOCATIONS, AND ELECTRICAL EQUIPMENT LOCATIONS.

**LEGEND**

- PROPOSED PAVEMENT
- EXISTING PAVEMENT
- EXISTING LIGHTING CABLES
- EXISTING BASE MOUNTED RUNWAY LIGHT
- EXISTING STAKE MOUNTED RUNWAY LIGHT
- EXISTING ELECTRICAL SPLICE CAN
- EXISTING VASI
- EXISTING THRESHOLD LIGHTS
- PROPOSED 1/C #8 5KV FAA L-824 CABLE IN UD
- PROPOSED 2/C #8 XLP-USE 600V CABLE IN UD
- PROPOSED REIL POWER & CONTROL CABLES
- PROPOSED ELECTRICAL DUCT/DUCT EXTENSION
- PROPOSED STAKE MOUNTED TAXIWAY LIGHT
- PROPOSED BASE MOUNTED TAXIWAY LIGHT
- PROPOSED TAXIWAY GUIDANCE SIGN
- PROPOSED SAFETY SWITCH w/ SUPPORT STRUCTURE
- EXISTING R.E.I.L. (RELOCATED)
- EXISTING LIGHTING CABLES (TO BE ABANDONED OR REMOVED)
- EXISTING R.E.I.L. (TO BE RELOCATED)



QUANTITIES				
ITEM No.	DESCRIPTION	UNIT	QUANTITY	AS BUILT QUANTITY
AR108158	1/C #8 5 KV UG CABLE IN UD	L.F.	5,226	
AR110502	2-WAY CONCRETE ENCASED DUCT	L.F.	41	
AR125410	MIL-STAKE MOUNTED	EACH	25	
AR125415	MIL-BASE MOUNTED	EACH	6	
AR125443	TAXI GUIDANCE SIGN, 3 CHARACTER	EACH	4	
AR125444	TAXI GUIDANCE SIGN, 4 CHARACTER	EACH	1	
AR125901	REMOVE STAKE MOUNTED LIGHT	EACH	7	
AR125904	REMOVE TAXI GUIDANCE SIGN	EACH	2	
AR125964	RELOCATE TAXI GUIDANCE SIGN	EACH	2	
AR125967	RELOCATE REILS	PAIR	1	

APR 27, 2007 7:42 AM BAK I:\AIRPORTS\CARMI\B01-07\TXI\AIRPORT\SHEETS\R-141ELE.DWG - STA. 16+50 TO STA. 21+50

DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT  
CARMI, ILLINOIS**

A.I.P. PROJ.: 3-17-0109-B7  
ILL. PROJ.: CUL-3683

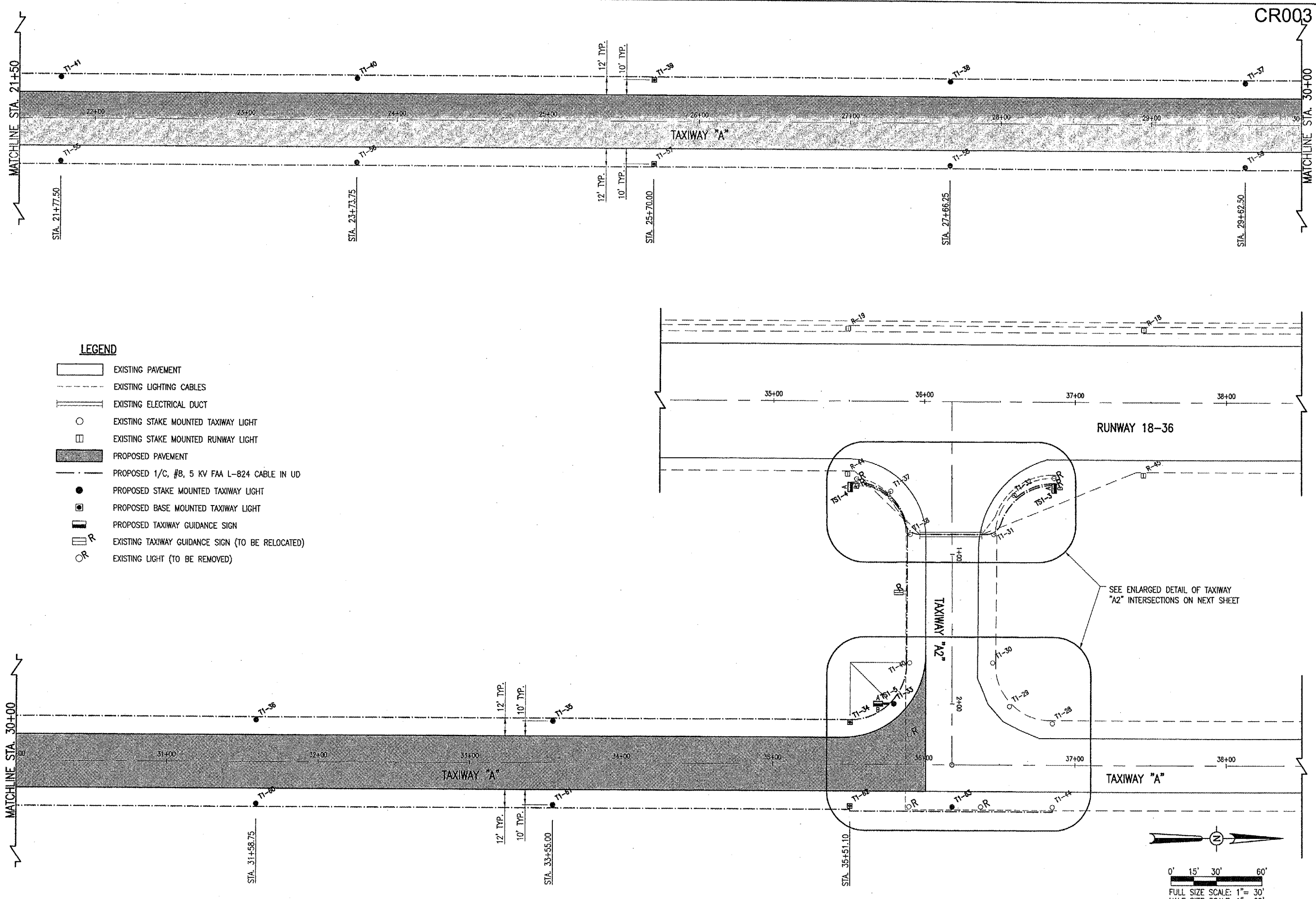
REL. Project No. 801-07TX10_0800	DATE 11/15/06
Drawn: R-141ELE.DWG	DATE 11/15/06
Scale: 1" = 30'	DATE 11/15/06
Date: 11/15/06	DATE 03/27/07
LAYOUT	SEP
DRAWN	CCC
REVIEWED	CAH



**EXTEND PARTIAL  
PARALLEL TAXIWAY**

PROPOSED  
ELECTRICAL PLAN  
STA. 16+50 TO STA. 21+50

APR 27, 2007 7:43 AM BAK  
 I:\AIRPORTS\CARM\801-07TAXI\AIRPORT\ SHEETS\R-14\ELE.DWG - STA. 16+50 TO STA. 38+50



- LEGEND**
- EXISTING PAVEMENT
  - EXISTING LIGHTING CABLES
  - EXISTING ELECTRICAL DUCT
  - EXISTING STAKE MOUNTED TAXIWAY LIGHT
  - EXISTING STAKE MOUNTED RUNWAY LIGHT
  - PROPOSED PAVEMENT
  - PROPOSED 1/C, #8, 5 KV FAA L-824 CABLE IN UD
  - PROPOSED STAKE MOUNTED TAXIWAY LIGHT
  - PROPOSED BASE MOUNTED TAXIWAY LIGHT
  - PROPOSED TAXIWAY GUIDANCE SIGN
  - EXISTING TAXIWAY GUIDANCE SIGN (TO BE RELOCATED)
  - EXISTING LIGHT (TO BE REMOVED)

DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS**

IL. PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-01-09-B7

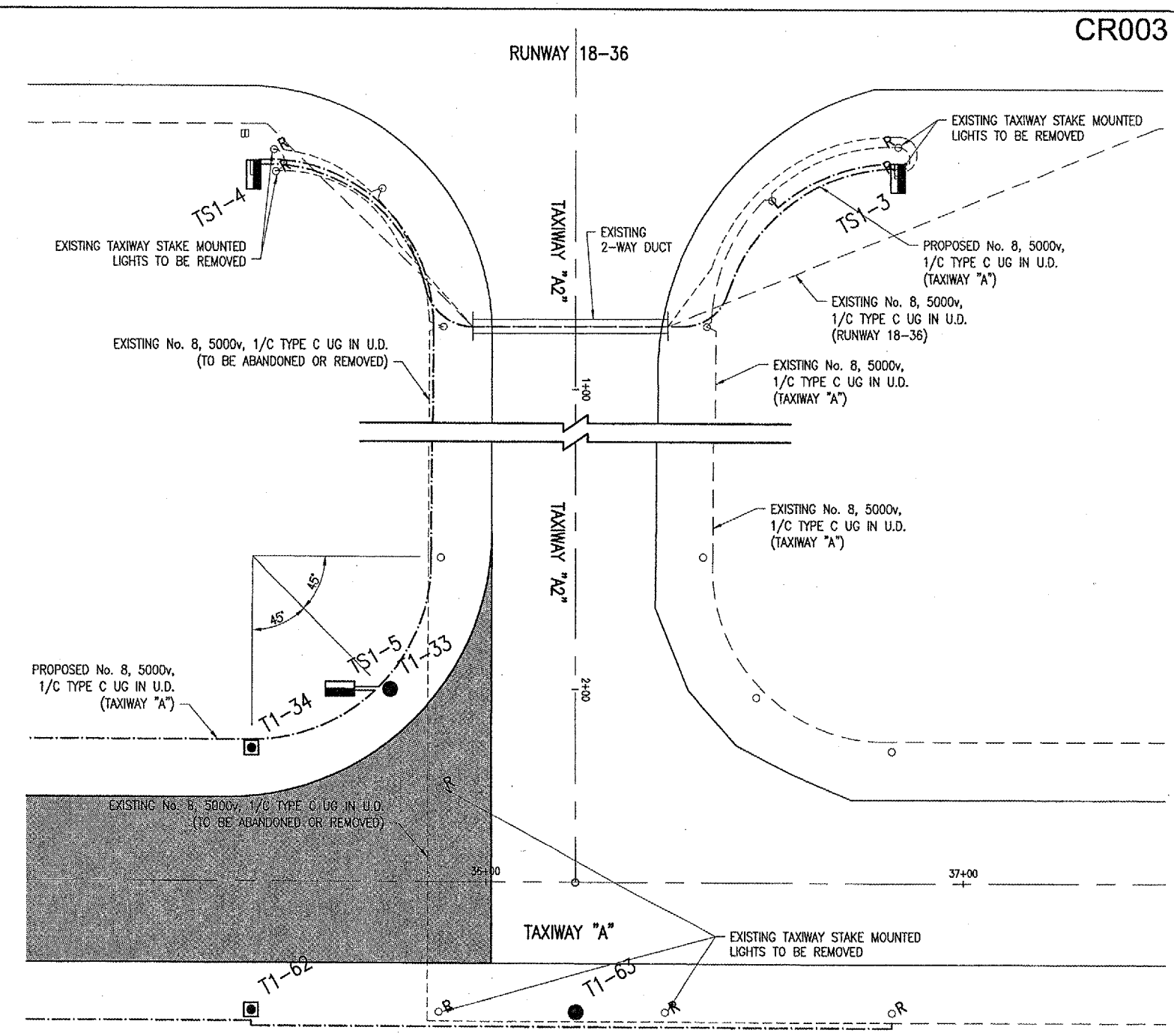
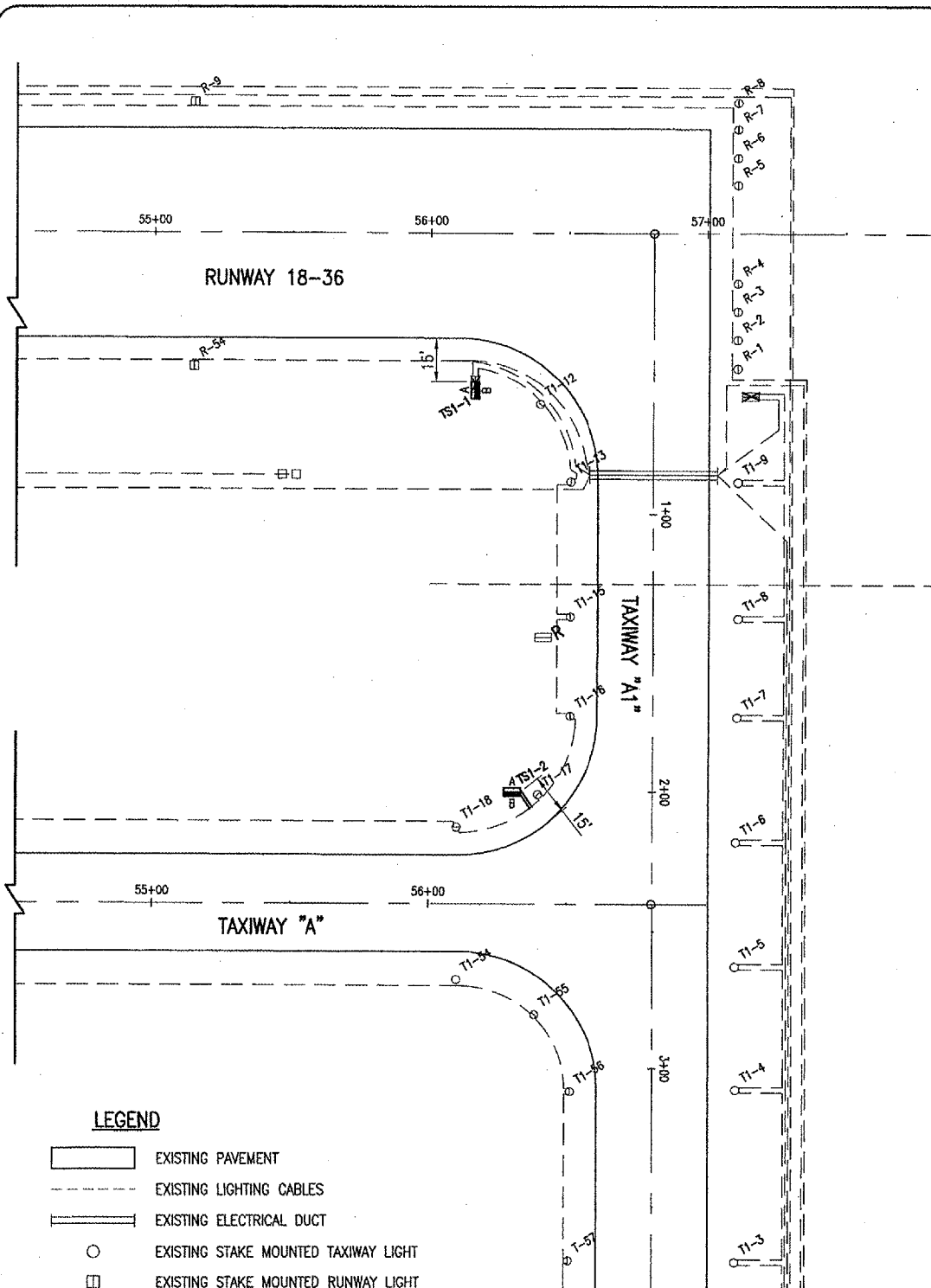
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Date 11/15/06		CAH 03/27/07
LAYOUT	SEP	11/15/06
DRAWN	CCC	11/15/06
REVIEWED	CAH	03/27/07

**HANSON**

Hanson Professional Services Inc.  
 1525 South Sixth Street  
 Springfield, Illinois 62705-2886  
 Offices Nationwide

**EXTEND PARTIAL  
 PARALLEL TAXIWAY**

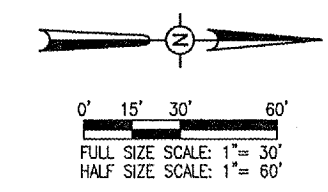
PROPOSED  
 ELECTRICAL PLAN  
 STA. 21+50 TO STA. 38+50



ENLARGED DETAIL OF TAXIWAY "A2" INTERSECTIONS  
NOT TO SCALE

APR 27, 2007 7:43 AM BAK  
I:\AIRPORTS\CARM\801-077XX\AIRPORT\SHEETS\R-14\ELE.DWG - STA. 54+50 TO STA. 57+50

- LEGEND**
- EXISTING PAVEMENT
  - EXISTING LIGHTING CABLES
  - EXISTING ELECTRICAL DUCT
  - EXISTING STAKE MOUNTED TAXIWAY LIGHT
  - EXISTING STAKE MOUNTED RUNWAY LIGHT
  - EXISTING VASI
  - EXISTING THRESHOLD LIGHTS
  - PROPOSED PAVEMENT
  - PROPOSED 1/C #8 5KV FAA L-824 CABLE IN UD
  - PROPOSED STAKE MOUNTED TAXIWAY LIGHT
  - PROPOSED TAXIWAY GUIDANCE SIGN
  - EXISTING LIGHTING CABLES (TO BE ABANDONED OR REMOVED)
  - EXISTING TAXIWAY GUIDANCE SIGN (TO BE RELOCATED)
  - EXISTING TAXIWAY GUIDANCE SIGN (TO BE REMOVED)
  - EXISTING LIGHT (TO BE REMOVED)



DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT  
CARM, ILLINOIS**

A.I.P. PROJ.: 3-17-0109-B7  
IL PROJ.: CUL-3683

HEL Project No. 801-077XXD-0800	FILENAME R-14\ELE.DWG	DATE 11/15/06
Scale 1" = 30'	Scale 1" = 30'	Scale 1" = 30'
DATE 11/15/06	DATE 11/15/06	DATE 03/27/07
LAYOUT SEP	DRAWN CCC	REVIEWED CAH

Hanson Professional Services Inc.  
1000 S. Main Street  
Springfield, Illinois 62703-2886  
Offices Nationwide

**EXTEND PARTIAL  
PARALLEL TAXIWAY**

PROPOSED  
ELECTRICAL PLAN

STA. 54+50 TO STA. 57+50

GUIDANCE SIGN PANEL DATA

PROPOSED SIGN NUMBERS	LOCATION	SIDE A	SIDE B	PROPOSED CHARACTERS	COMMENTS
TS1-1	RUNWAY END 18	A1 →		3	NEW SIGN
TS1-2	TAXIWAY "A1"	A1 A →	A1 18	4	REMOVE AND RELOCATE SIGN, ADD ONE MODULE, CHANGE SIGN PANELS
TS1-3	TAXIWAY "A2"		← A2	3	REMOVE TWO TAXIWAY LIGHTS, INSTALL NEW SIGN AT SAME LOCATION
TS1-4	TAXIWAY "A2"	A2 →		3	REMOVE TWO TAXIWAY LIGHTS, INSTALL NEW SIGN AT SAME LOCATION
TS1-5	TAXIWAY "A2"	← A A2 A →	A2 36 18	7	REMOVE AND RELOCATE SIGN, ADD ONE MODULE, CHANGE SIGN PANELS
TS1-6	RUNWAY END 18		← A3	3	NEW SIGN
TS1-7	TAXIWAY "A3"	← A A3	A3 36	4	NEW SIGN

**CR003**

EXAMPLE	DESCRIPTION
A	YELLOW LETTERING ON BLACK BACKGROUND WITH YELLOW BORDER
A2 →	BLACK LETTERING ON YELLOW BACKGROUND
36	WHITE LETTERING ON RED BACKGROUND
	BLACK PANEL

NAV-AID TAGS (TO BE REPLACED)

EXISTING	PROPOSED	EXISTING	PROPOSED
T1-1	T1-1	T1-31	T1-28
T1-2	T1-2	T1-32	T1-29
T1-3	T1-3	T1-33	-
T1-4	T1-4	T1-34	-
T1-5	T1-5	T1-35	-
T1-6	T1-6	T1-36	-
T1-7	T1-7	T1-37	T1-30
T1-8	T1-8	T1-38	T1-31
T1-9	T1-9	TS1-39	-
TS1-10	-	T1-40	T1-32
TS1-11	-	T1-41	-
T1-12	T1-10	T1-42	-
T1-13	T1-11	T1-43	-
TS1-14	-	T1-44	T1-64
T1-15	T1-12	T1-45	T1-65
T1-16	T1-13	T1-46	T1-66
T1-17	T1-14	T1-47	T1-67
T1-18	T1-15	T1-48	T1-68
T1-19	T1-16	T1-49	T1-69
T1-20	T1-17	T1-50	T1-70
T1-21	T1-18	T1-51	T1-71
T1-22	T1-19	T1-52	T1-72
T1-23	T1-20	T1-53	T1-73
T1-24	T1-21	T1-54	T1-74
T1-25	T1-22	T1-55	T1-75
T1-26	T1-23	T1-56	T1-76
T1-27	T1-24	T1-57	T1-77
T1-28	T1-25	T1-58	T1-78
T1-29	T1-26	T1-59	T1-79
T1-30	T1-27	T1-60	T1-80

NAVIGATIONAL AID COORDINATES

LIGHT No.	BASELINE	STATION	OFFSET	EASTING (X)	NORTHING (Y)
T1-33	TXY "A2"	2+00.00	38.63' RT.	1044969.0432	518012.0610
T1-34	TXY "A"	35+51.10	27.50' LT.	1044981.3959	517983.0676
T1-35	TXY "A"	33+55.00	27.50' LT.	1044980.9668	517786.9717
T1-36	TXY "A"	31+58.75	27.50' LT.	1044980.5374	517590.7221
T1-37*	TXY "A"	29+62.50	27.50' LT.	1044980.1079	517394.4726
T1-38	TXY "A"	27+66.25	27.50' LT.	1044979.6785	517198.2231
T1-39	TXY "A"	25+70.00	27.50' LT.	1044979.2490	517001.9735
T1-40*	TXY "A"	23+73.75	27.50' LT.	1044978.8201	516805.7240
T1-41	TXY "A"	21+77.50	27.50' LT.	1044978.3911	516609.4744
T1-42	TXY "A"	19+81.25	27.50' LT.	1044977.9621	516413.2249
T1-43*	TXY "A"	17+85.00	27.50' LT.	1044977.5334	516216.9753
T1-44	TXY "A3"	2+00.78	39.22' LT.	1044965.7560	516188.7165
T1-45	TXY "A3"	1+72.50	27.50' LT.	1044937.4461	516177.0625
T1-46	TXY "A3"	0+88.00	27.50' LT.	1044852.9461	516177.2472
T1-47	TXY "A3"	0+59.80	39.22' LT.	1044824.7678	516189.0246
T1-48	TXY "A3"	0+88.00	27.50' RT.	1044852.8259	516122.2473
T1-49	TXY "A3"	1+72.50	27.50' RT.	1044937.3258	516122.0626
T1-50	TXY "A3"	2+20.00	27.50' RT.	1044984.8256	516121.9587
T1-51	TXY "A"	16+90.00	27.50' RT.	1045032.3254	516121.8548
T1-52	TXY "A"	17+37.50	27.50' RT.	1045032.4293	516169.3548
T1-53*	TXY "A"	17+58.00	27.50' RT.	1045032.5331	516216.8547
T1-54	TXY "A"	19+81.25	27.50' RT.	1045032.9620	516413.1047
T1-55	TXY "A"	21+77.50	27.50' RT.	1045033.3910	516609.3542
T1-56*	TXY "A"	23+73.75	27.50' RT.	1045033.8200	516805.6037
T1-57	TXY "A"	25+70.00	27.50' RT.	1045034.2489	517001.8533
T1-58	TXY "A"	27+66.25	27.50' RT.	1045034.6783	517198.1027
T1-59*	TXY "A"	29+62.50	27.50' RT.	1045035.1078	517394.3523
T1-60	TXY "A"	31+58.75	27.50' RT.	1045035.5372	517590.6018
T1-61	TXY "A"	33+55.00	27.50' RT.	1045035.9667	517786.8513
T1-62	TXY "A"	35+51.10	27.50' RT.	1045036.3957	517982.9473
T1-63	TXY "A"	36+18.93	27.50' RT.	1045036.8247	518050.7849

NAVIGATIONAL AID COORDINATES (GUIDANCE SIGNS)

LIGHT No.	BASELINE	STATION	OFFSET	EASTING (X)	NORTHING (Y)
TS1-1	RWY 18-36	56+16.00	53.00' RT.	1044826.4123	520048.3147
TS1-2	TXY "A1"	2+00.00	48.00' RT.	1044973.4974	520065.0597
TS1-3	RWY 18-36	36+86.00	53.00' RT.	1044822.1913	518118.3119
TS1-4	RWY 18-36	35+51.00	53.00' RT.	1044821.8960	517983.2672
TS1-5	TXY "A2"	2+00.00	46.00' RT.	1044969.0434	518004.6915
TS1-6	RWY 18-36	17+85.00	53.00' RT.	1044818.0338	516217.3233
TS1-7	TXY "A3"	2+00.00	32.50' RT.	1044964.8147	516117.0025

NAVIGATIONAL AID COORDINATES (R.E.I.L.)

LIGHT No.	BASELINE	STATION	OFFSET	EASTING (X)	NORTHING (Y)
R.E.I.L. 1	RWY 18-36	16+90.00	112.50' LT.	1044652.2608	516092.6859
R.E.I.L. 2	RWY 18-36	16+90.00	112.50' RT.	1044877.2603	516092.1942

ELECTRICAL EQUIPMENT COORDINATES

STRUCTURE	BASELINE	STATION	OFFSET	NORTHING	EASTING
H-FRAME	RWY 18-36	16+90.00	117.50' LT.	1044647.2663	516092.6968
DUCT END	TXY "A3"	0+88.00	20.50' LT.	1044852.9308	516170.2472
DUCT END	TXY "A3"	0+88.00	20.50' RT.	1044852.8412	516129.2473

\* - BASE MOUNTED LIGHT

APR 27, 2007 7:43 AM BAK I:\AIRPORTS\CARMIL\801-077XX\AIRPORT\SHEETS\R-14\ELE.DWG - SCHEDULE

DATE		REVISION		BY	
CARMI MUNICIPAL AIRPORT CARMIL, ILLINOIS					
A.I.P. PROJ.: 3-17-0109-B7 IL PROJ.: CUL-3683					
I.E. Project No. 801-077XXD 0800	Revision: R-14\ELE.DWG	Scale: N/A	Date: 11/15/06	LAYOUT: SEP 11/15/06	DRAWN: CCC 11/15/06
HANSON			Hanson Professional Services, Inc. 1525 South Sixth Street Springfield, Illinois 62703-2886 Offices Nationwide		
EXTEND PARTIAL PARALLEL TAXIWAY			PROPOSED ELECTRICAL SCHEDULE		
22					
22 of 55 sheets					

DATE	
REVISION	

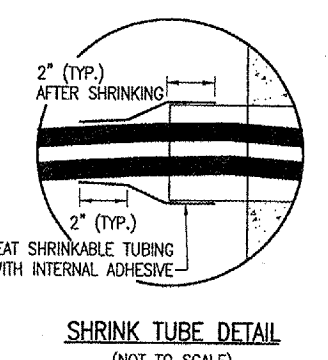
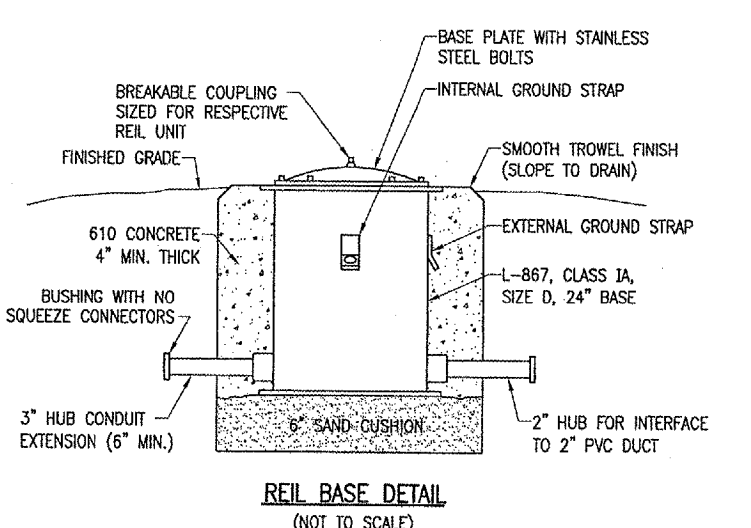
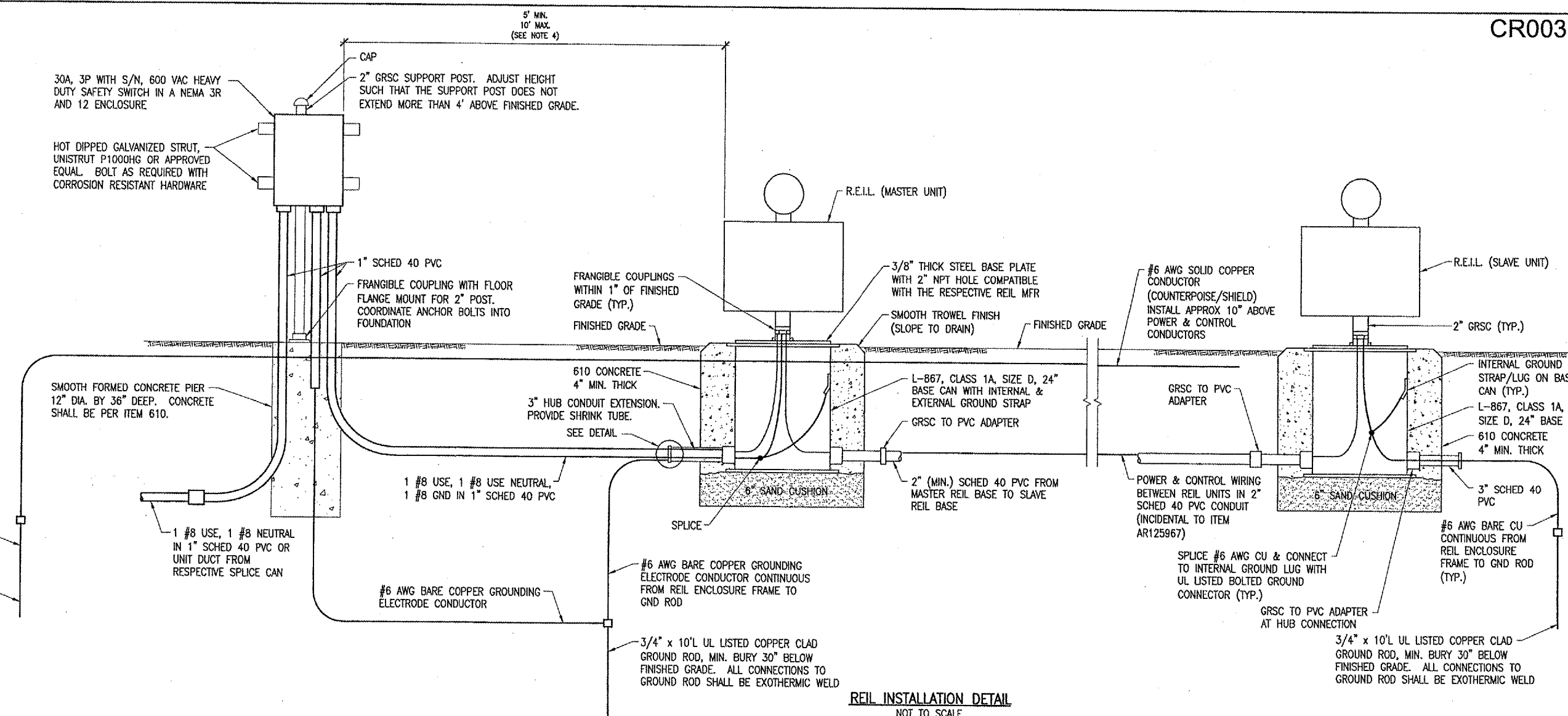
CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS

PROJECT NO.	801-077XVD 0800
DATE	02/16/07
DESIGNED BY	KNL
DRAWN BY	MV
CHECKED BY	CAH
DATE	03/27/07

**HANSON**  
Hanson Professional Services Inc.  
Springfield, Illinois 62703-2886  
Offices Nationwide

EXTEND PARTIAL  
PARALLEL TAXIWAY

REIL  
INSTALLATION  
DETAILS



**REIL INSTALLATION DETAIL**  
NOT TO SCALE

**REIL RELOCATION NOTES**

1. THE EXISTING REILS ARE GODFREY ENGINEERING PART NO. GE420-100F. THE MANUFACTURER IS NO LONGER IN BUSINESS. CONTRACTOR SHALL CONFIRM & RECORD EXISTING WIRING & CONNECTIONS PRIOR TO RELOCATING REIL UNITS. VERIFY INSTALLATION & WIRING REQUIREMENTS WITH THE RESPECTIVE REIL MANUFACTURER'S INSTRUCTIONS.
2. THE PROPOSED 120 VAC POWER CABLES FROM THE EXISTING SPLICE CAN TO THE SAFETY SWITCH AT THE MASTER REIL UNIT SHALL BE 2-1/C #8 XLP-USE 600V UG CABLE (HOT & NEUTRAL) IN 1" UNIT DUCT OR SCHED 40 PVC CONDUIT. THE PROPOSED 120 VAC POWER CABLES FROM THE SAFETY SWITCH TO THE REIL MASTER UNIT SHALL BE 3-1/C #8 XLP-USE 600V UG CABLE (HOT, NEUTRAL, & GND) IN 1" SCHED 40 PVC CONDUIT. THE CONTRACTOR SHALL ALSO FURNISH AND INSTALL THE POWER AND CONTROL CABLES BETWEEN THE MASTER AND SLAVE REIL UNITS. THE SIZE, TYPE AND NUMBER OF CABLES TO BE INSTALLED BETWEEN THE REIL UNITS SHALL BE AS DETAILED HEREIN AND PER THE MANUFACTURER'S RECOMMENDATIONS. THE CABLE WILL BE TRENCHED AT A MINIMUM DEPTH OF 18". ALL POWER, CONTROL, & GROUNDING CONDUCTORS WILL BE INCIDENTAL TO ITEM AR125967 RELOCATE REILS.
3. ANY AND ALL TRENCHES AND DISTURBED AREAS WILL BE BACKFILLED AND RESTORED TO A SMOOTH GRADE AND SEEDED TO THE SATISFACTION OF THE ENGINEER. ALL TRENCH SETTLEMENT SHALL BE CORRECTED FOR A PERIOD OF ONE YEAR. RESTORATION, GRADING, AND SEEDING OF AREAS DISTURBED DURING THE REIL RELOCATION AND INSTALLATION OF THE PROPOSED CABLE WILL BE INCIDENTAL TO ITEM AR125967 RELOCATE REILS.
4. SAFETY SWITCH FOR REILS SHALL BE LOCATED OUTSIDE OF THE RUNWAY SAFETY AREA (80' MIN. PERPENDICULAR FROM RUNWAY PAVEMENT EDGE).
5. REILS SHALL BE AIMED AT ANGLE 10 DEGREES VERTICALLY AND TOED OUT 15 DEGREES FROM THE LINE PARALLEL TO THE RUNWAY CENTERLINE.
6. RELOCATION OF REILS SHALL BE PAID FOR UNDER ITEM AR125967 RELOCATE REILS - PER PAIR.

NOTE:  
FOR THE PURPOSE OF ENHANCING SAFETY, EACH BASE MUST HAVE INSTALLED, BY THE MANUFACTURER, AN INTERNAL AND EXTERNAL GROUND STRAP THAT IS AVAILABLE FOR THE PURPOSE OF ATTACHING A GROUND LUG THAT IS CONNECTED TO AN EARTH GROUND OR A SAFETY GROUND CONDUCTOR INSTALLED WITH THE RESPECTIVE CIRCUIT. FOR AIRPORT PROJECTS RECEIVING FEDERAL FUNDS THIS REQUIREMENT IS MANDATORY PER FAA AC 150/5345-42F.

APR 27, 2007 7:45 AM BAK I:\AIRPORTS\CARMi\801-077XVD\AIRPORT SHEETS\E-502.DWG - Work

REVISION	DATE

BY  
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HEI Project No. 801-077XVD-0800  
 File Name: R-541E.DWG  
 Scale: NOT TO SCALE  
 Date: 11/16/06

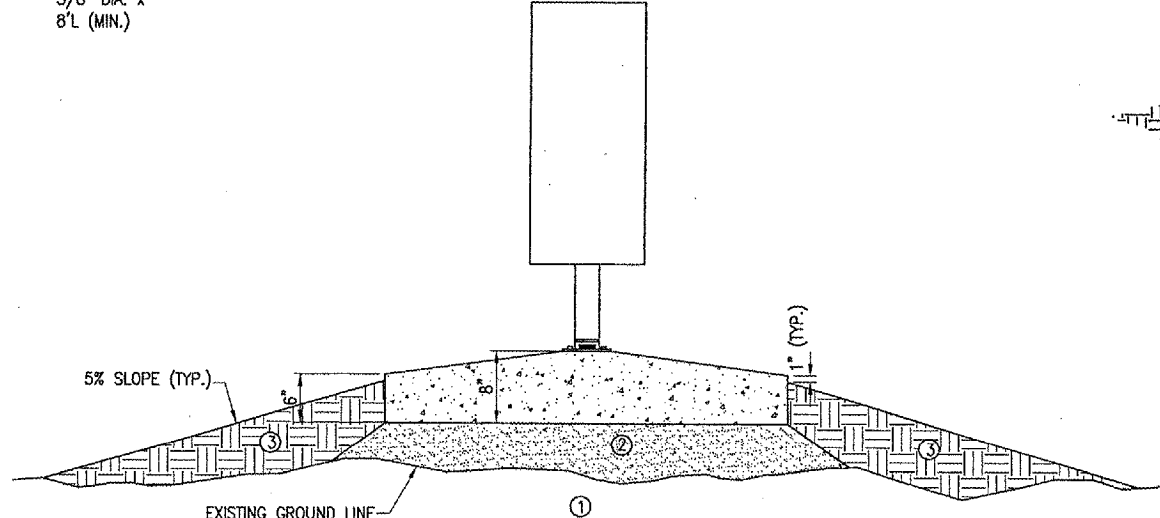
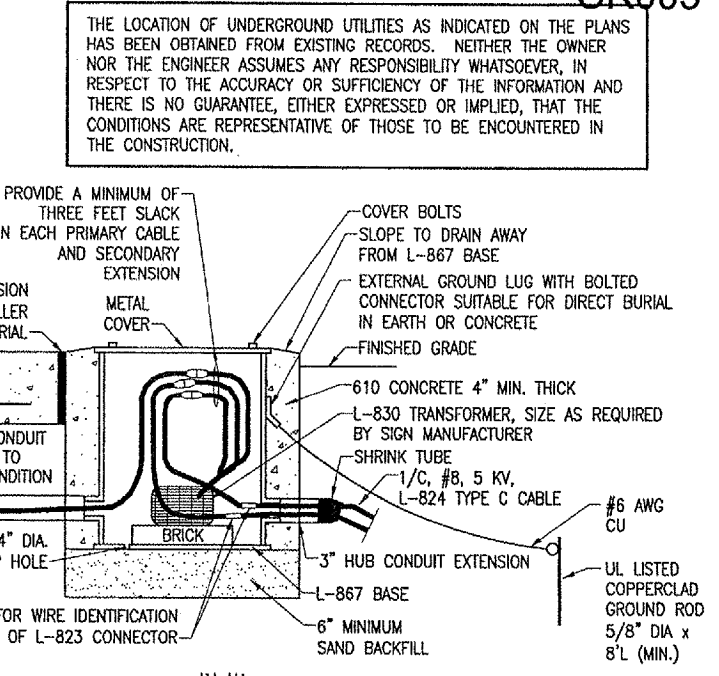
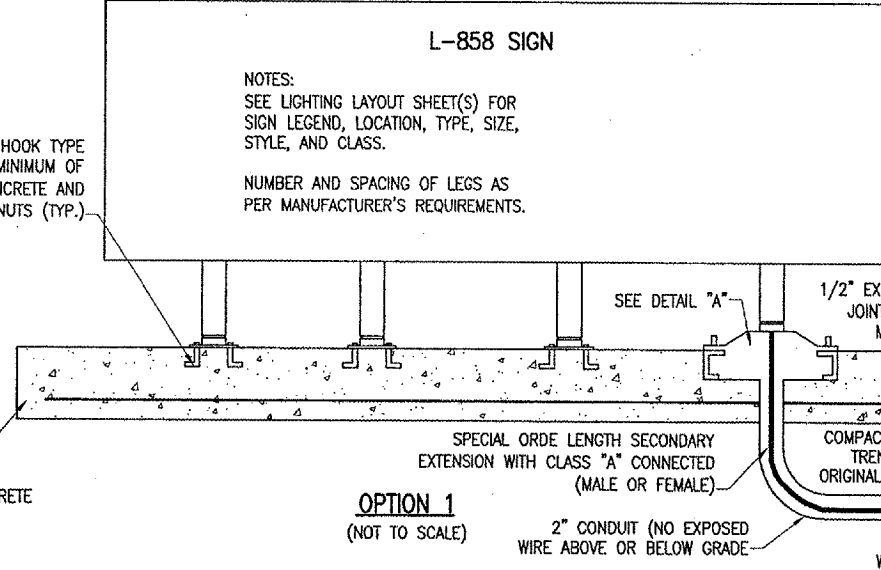
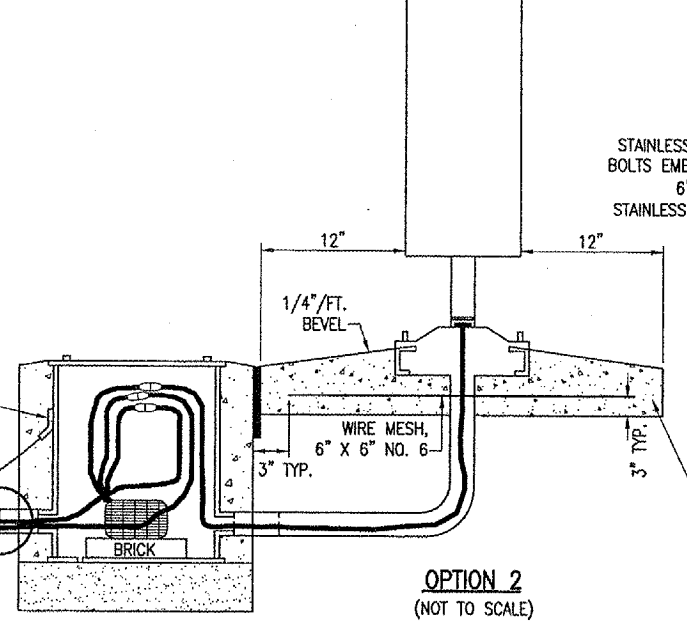
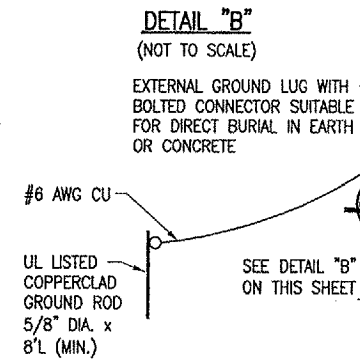
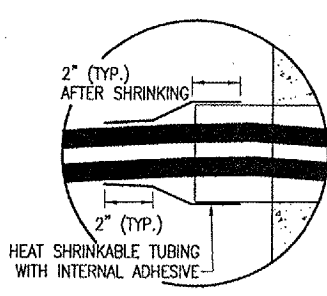
LAYOUT	SEP	11/16/06
DRAWN	CCC	11/16/06
REVIEWED	CAH	03/27/07

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 Springfield, Illinois 62703-2886  
 Offices Nationwide

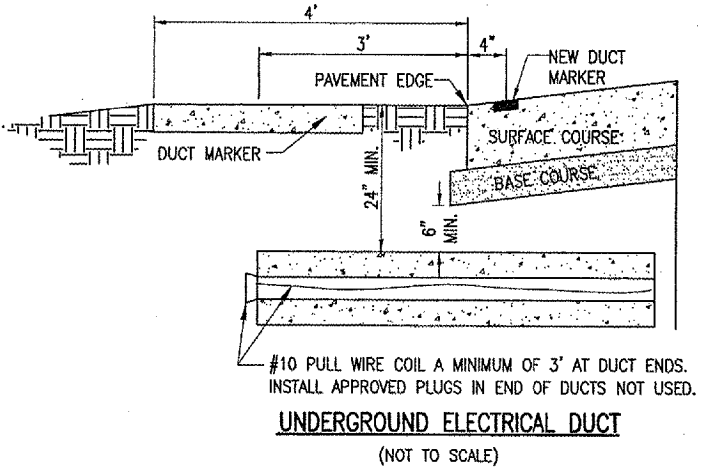
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 PARALLEL TAXIWAY

ELECTRICAL DETAILS

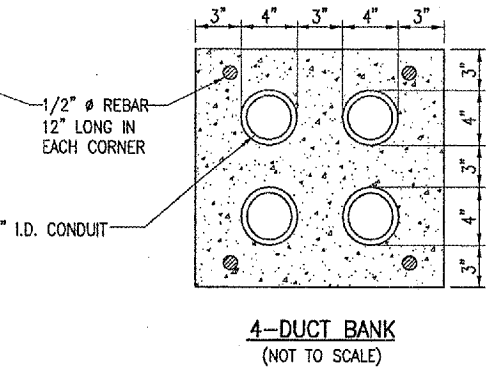
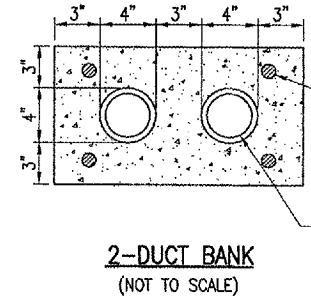
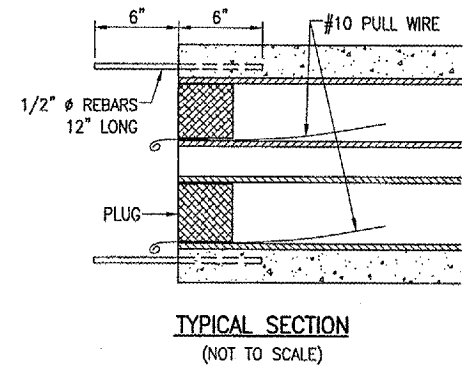
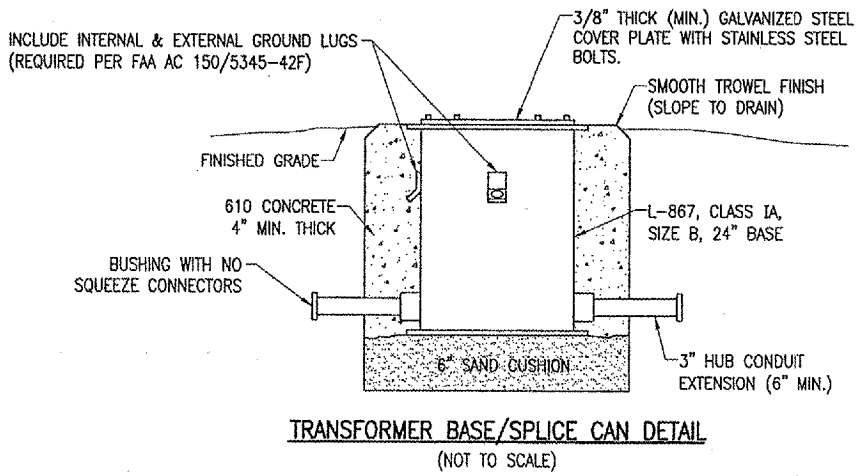
CARMi MUNICIPAL AIRPORT  
 CARMi, ILLINOIS  
 A.I.P. PROJ.: 3-17-0109-B7  
 ILL. PROJ.: CUL-3683



- ① EXISTING SOD TO BE STRIPPED AND REMOVED
- ② SAND BACKFILL, VARIABLE DEPTH
- ③ PROPOSED TOPSOIL BACKFILL MATERIAL

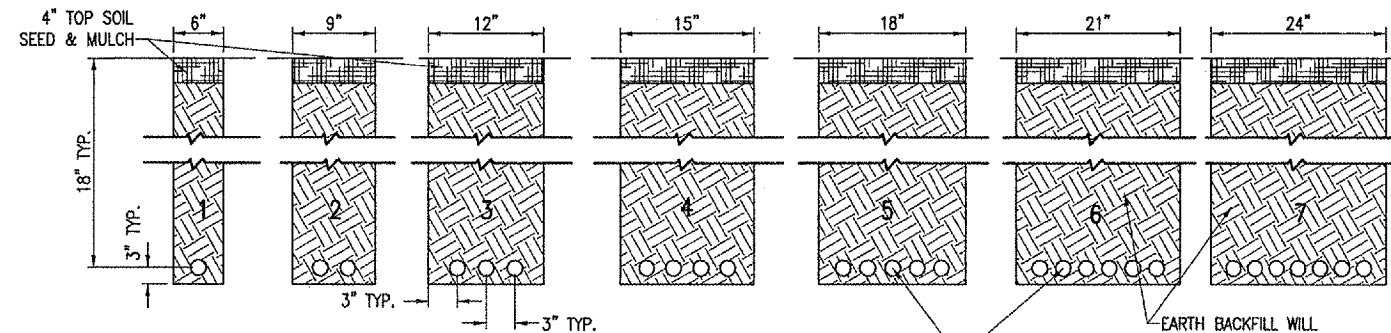


**GENERAL NOTES**  
 SEE LIGHTING LAYOUT SHEET FOR SIGN LEGEND, LOCATION, TYPE, SIZE, STYLE, AND CLASS.  
 SEE SHEETS 26 THROUGH 27 FOR ELECTRICAL NOTES.

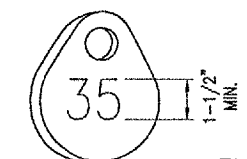
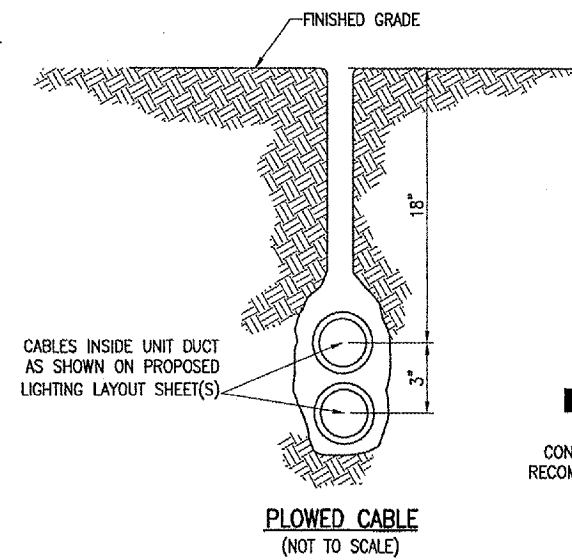


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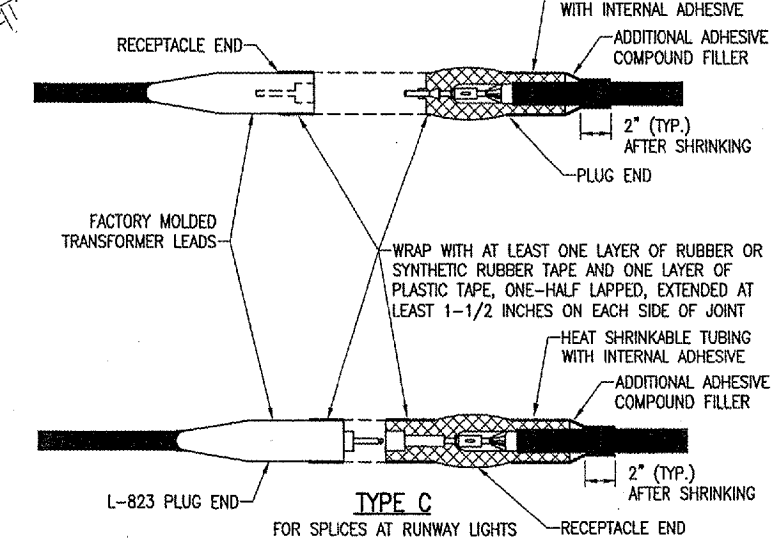
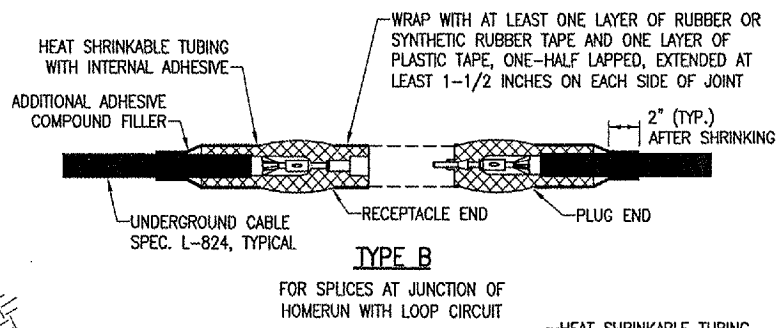
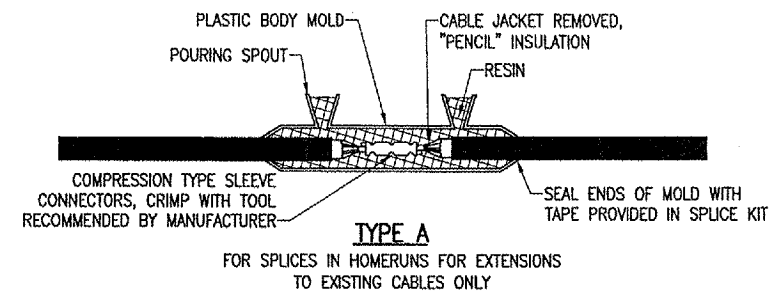




**NOTES:**  
 DETAIL NUMBERS INDICATE NO. OF CABLES.  
 TRENCHES WITH MORE THAN SEVEN CABLES SHALL BE INCREASED 3" IN WIDTH FOR EACH ADDITIONAL CABLE; IF SPECIFIED ON PLANS TWO PARALLEL TRENCHES MAY BE CONSTRUCTED.  
 DEPTH OF TRENCHES SHALL BE AS SHOWN ABOVE UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
 ALL DISTURBED SURFACES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION. COST IS INCIDENTAL TO TRENCH.

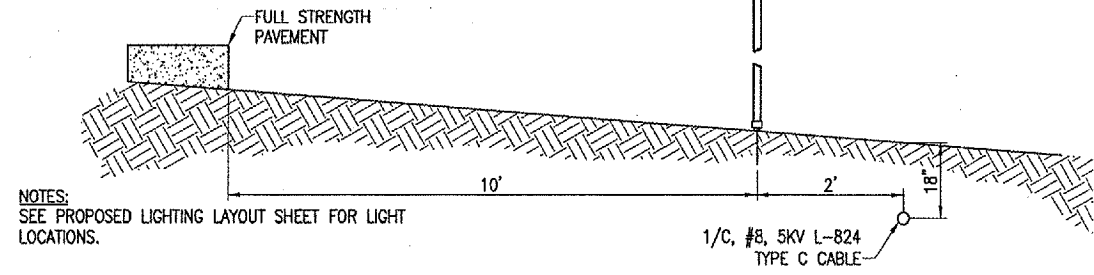
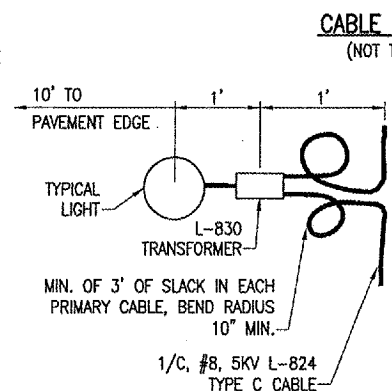
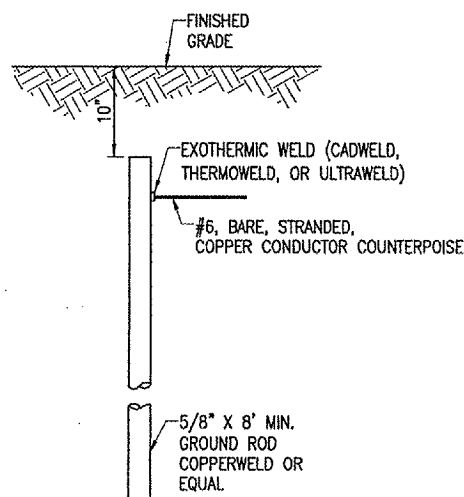


**NOTE:**  
 AFFIX NON-CORROSIVE TAG TO FIXTURE FACING RUNWAY WITH SET SCREW, WIRE TIE, OR METAL BAND. NUMERALS SHALL BE ENGRAVED FOR PERMANENT READABILITY.



**NOTES:**  
 SEE PROPOSED LIGHTING LAYOUT SHEET(S) FOR SPLICE TYPE.  
 INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.

**CABLE SPLICES**  
 (NOT TO SCALE)



**PROFILE VIEW**

**LIGHT AND CABLE INSTALLATION DETAIL**  
 (NOT TO SCALE)

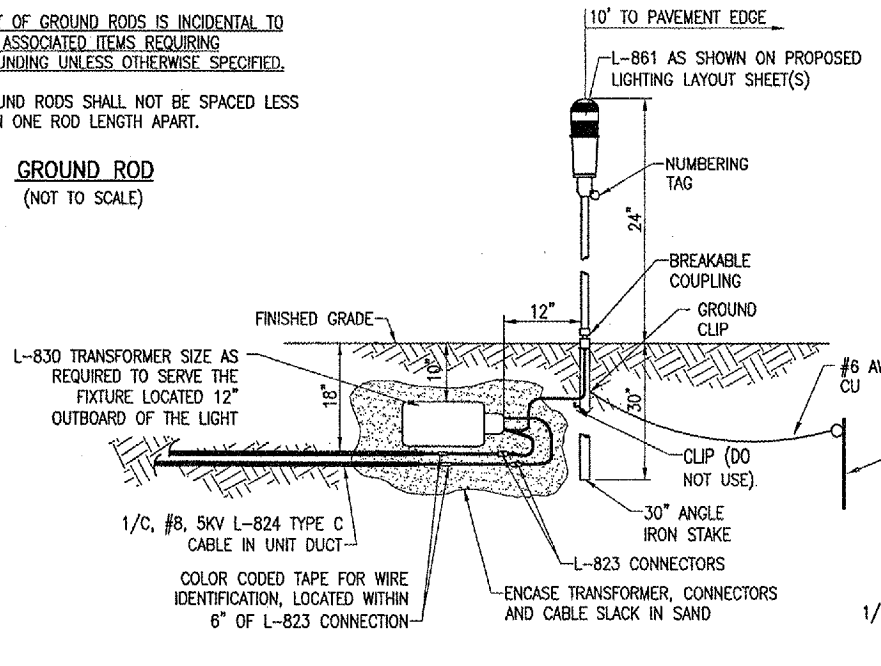
**NOTES:**  
 TYPE AND MINIMUM NUMBER OF GROUND RODS SHALL BE AS SPECIFIED ON THE PLAN.

THE RESISTANCE TO GROUND OF THE COUNTERPOISE GROUNDING SYSTEM SHALL NOT EXCEED 25 OHMS.

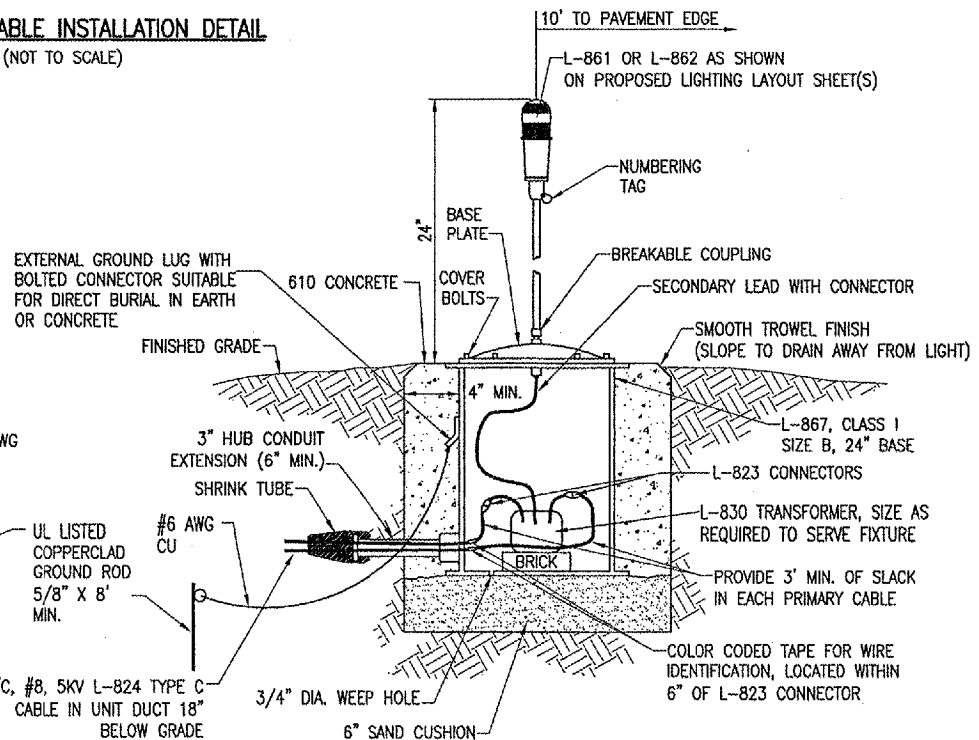
COST OF GROUND RODS IS INCIDENTAL TO THE ASSOCIATED ITEMS REQUIRING GROUNDING UNLESS OTHERWISE SPECIFIED.

GROUND RODS SHALL NOT BE SPACED LESS THAN ONE ROD LENGTH APART.

**GROUND ROD**  
 (NOT TO SCALE)



**MEDIUM INTENSITY LIGHT - STAKE MOUNTED**  
 (NOT TO SCALE)



**MEDIUM/HIGH INTENSITY LIGHT - BASE MOUNTED**  
 (NOT TO SCALE)

BY	
REVISION	
DATE	

CARMi MUNICIPAL AIRPORT  
 CARMi, ILLINOIS  
 A.I.P. PROJ.: 3-17-0109-87  
 I.L. PROJ.: CUL-3683

REV. Project No.	801-07TXD.0800
Drawn	R-542ELE.DWG
Scale	NOT TO SCALE
Date	11/16/06
LAYOUT	SEP 11/16/06
DRAWN	CCC 11/16/06
REVIEWED	CAH 03/27/07

EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 ELECTRICAL DETAILS

APR 27, 2007 7:47 AM BAK I:\AIRPORTS\CARMi\801-07TXD\AIRPORT\_SHEETS\R-542ELE.DWG - ELEC DETAILS

**GENERAL NOTES**

1. THE ELECTRICAL INSTALLATION, AS A MINIMUM, SHALL MEET THE NATIONAL ELECTRICAL CODE AND LOCAL REGULATIONS.
2. THE CONTRACTOR SHALL ASCERTAIN THAT ALL LIGHTING SYSTEM COMPONENTS FURNISHED BY HIM, INCLUDING FAA APPROVED EQUIPMENT, ARE COMPATIBLE IN ALL RESPECTS WITH EACH OTHER AND THE REMAINDER OF THE NEW/EXISTING SYSTEM. ANY NONCOMPATIBLE COMPONENTS FURNISHED BY THIS CONTRACTOR SHALL BE REPLACED BY HIM AT NO ADDITIONAL COST TO THE AIRPORT SPONSOR WITH A SIMILAR UNIT, APPROVED BY THE ENGINEER (DIFFERENT MODEL OR DIFFERENT MANUFACTURE) THAT IS COMPATIBLE WITH THE REMAINDER OF THE AIRPORT LIGHTING SYSTEM.
3. IN CASE THE CONTRACTOR ELECTS TO FURNISH AND INSTALL AIRPORT LIGHTING EQUIPMENT REQUIRING ADDITIONAL WIRING, TRANSFORMERS, ADAPTERS, MOUNTINGS, ETC., TO THOSE SHOWN ON THE DRAWINGS AND/OR LISTED IN THE SPECIFICATION, ANY COST FOR THESE ITEMS SHALL BE INCIDENTAL TO THE EQUIPMENT COST.
4. THE CONTRACTOR INSTALLED EQUIPMENT (INCLUDING FAA APPROVED) SHALL NOT GENERATE ANY ELECTROMAGNETIC INTERFERENCE IN THE EXISTING AND/OR NEW COMMUNICATIONS, WEATHER, AIR NAVIGATION, AND AIR TRAFFIC CONTROL EQUIPMENT. ANY EQUIPMENT GENERATING SUCH INTERFERENCE SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST WITH THE EQUIPMENT MEETING THE APPLICABLE SPECIFICATIONS AND NOT GENERATING ANY INTERFERENCE.
5. WHEN A SPECIFIC TYPE, STYLE, CLASS, ETC. OF FAA APPROVED EQUIPMENT IS SPECIFIED ONLY THAT TYPE, STYLE, CLASS, WILL BE ACCEPTABLE, EVEN THOUGH EQUIPMENT OF OTHER TYPES STYLES, CLASSES, ETC. MAY BE APPROVED.
6. ANY AND ALL INSTRUCTIONS FROM THE ENGINEER TO THE CONTRACTOR REGARDING CHANGES IN OR DEVIATIONS FROM THE PLANS AND SPECIFICATIONS SHALL BE IN WRITING WITH COPIES SENT TO THE AIRPORT SPONSOR AND THE FAA FIELD OFFICE (ADO/AFO). THE CONTRACTOR SHALL NOT ACCEPT ANY VERBAL INSTRUCTIONS FROM THE RESIDENT ENGINEER REGARDING ANY CHANGES FROM THE PLANS AND SPECIFICATIONS.
7. A MINIMUM OF THREE COPIES OF THE INSTRUCTION BOOK SHALL BE SUPPLIED WITH EACH DIFFERENT TYPE OF EQUIPMENT. THE BOOKS DESCRIBING A MORE SOPHISTICATED TYPE OF EQUIPMENT, SUCH AS REGULATORS, PAPEL, REIL, ETC. AS A MINIMUM SHALL CONTAIN THE FOLLOWING:
  - A. A DETAILED DESCRIPTION OF THE OVERALL EQUIPMENT AND ITS INDIVIDUAL COMPONENTS.
  - B. THEORY OF OPERATION INCLUDING THE FUNCTION OF EACH COMPONENT.
  - C. INSTALLATION INSTRUCTIONS.
  - D. START-UP INSTRUCTIONS.
  - E. PREVENTATIVE MAINTENANCE REQUIREMENTS.
  - F. CHART FOR TROUBLE-SHOOTING.
  - G. COMPLETE POWER AND CONTROL DETAILED WIRING DIAGRAM(S), SHOWING EACH CONDUCTOR/ CONNECTION/COMPONENT - "BLACK" BOXES ARE NOT ACCEPTABLE. THE DIAGRAM OF THE NARRATIVE SHALL SHOW VOLTAGE/CURRENTS/WAVE SHAPES AT STRATEGIC LOCATIONS TO BE USED WHEN CHECKING AND/OR TROUBLE-SHOOTING THE EQUIPMENT. WHEN THE EQUIPMENT HAS SEVERAL MODES OF OPERATION, SUCH AS SEVERAL BRIGHTNESS STEPS, THESE PARAMETERS SHALL BE INDICATED FOR ALL DIFFERENT MODES.
  - H. PARTS LIST WHICH WILL INCLUDE ALL MAJOR AND MINOR COMPONENTS SUCH AS RESISTORS, DIODES, ETC. IT SHALL INCLUDE A COMPLETE NOMENCLATURE OF EACH COMPONENT AND, IF APPLICABLE, THE NAME OF ITS MANUFACTURE AND THE CATALOG NUMBER.
  - I. SAFETY INSTRUCTIONS.

**POWER AND CONTROL NOTES**

1. PROVIDE LEGEND PLATES FOR ALL ELECTRICAL EQUIPMENT TO IDENTIFY FUNCTION, CIRCUIT VOLTAGE AND PHASE. WHERE THE EQUIPMENT CONTAINS FUSES, ALSO IDENTIFY THE FUSE OR THE FUSE LINK AMPERE RATING. WHERE THE EQUIPMENT DOES NOT HAVE SUFFICIENT AREA TO INSTALL LEGEND PLATES, THE LEGEND PLATES SHALL BE INSTALLED ON THE WALL NEXT TO THE UNIT. LEGEND PLATES SHALL BE WEATHERPROOF ENGRAVED PLASTIC OR PHENOLIC MATERIAL, 1/4" HIGH BLACK LETTERS ON A WHITE BACKGROUND UNLESS NOTED OTHERWISE. SECURE WITH WEATHERPROOF ADHESIVE AND MACHINE SCREWS. FURNISH ADDITIONAL LEGEND PLATES WHERE REQUIRED BY CODE, FOR ADDITIONAL EQUIPMENT, AS DETAILED HEREIN ON THE PLANS, AND AS NOTED IN THE SPECIAL PROVISION SPECIFICATIONS.
2. COLOR CODE ALL PHASE WIRING BY THE USE OF COLORED WIRE INSULATION AND/OR COLORED TAPE. WHERE TAPE IS USED, THE WIRE INSULATION SHALL BE BLACK. BLACK AND RED SHALL BE USED FOR SINGLE-PHASE, THREE WIRE SYSTEMS AND BLACK, RED AND BLUE SHALL BE USED FOR THREE-PHASE SYSTEMS. NEUTRAL CONDUCTORS, SIZE NO. 6 AWG OR SMALLER, SHALL BE IDENTIFIED BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH. NEUTRAL CONDUCTORS LARGER THAN NO. 6 AWG SHALL BE IDENTIFIED EITHER BY A CONTINUOUS WHITE OR NATURAL GRAY OUTER FINISH ALONG ITS ENTIRE LENGTH OR BY THE USE OF WHITE TAPE AT ITS TERMINATIONS AND INSIDE ACCESSIBLE WIREWAYS.
3. ALL BRANCH CIRCUIT CONDUCTORS CONNECTED TO A PARTICULAR PHASE SHALL BE IDENTIFIED WITH THE SAME COLOR. THE COLOR CODING SHALL BE EXTENDED TO THE POINT OF UTILIZATION.
4. IN CONTROL WIRING THE SAME COLOR SHALL BE USED THROUGHOUT THE SYSTEM FOR THE SAME FUNCTION, SUCH AS 10%, 30%, 100% BRIGHTNESS CONTROL, ETC.
5. LOW VOLTAGE (600 V.) AND HIGH VOLTAGE (5000 V.) CONDUCTORS SHALL BE INSTALLED IN SEPARATE WIREWAYS.
6. NEATLY LACE WIRING IN DISTRIBUTION PANELS, WIREWAYS, SWITCHES AND JUNCTION/PULL BOXES.
7. THE MINIMUM SIZE OF PULL/JUNCTION BOXES, REGARDLESS OF THE QUANTITY AND SIZE OF THE CONDUCTORS SHOWN, SHALL BE AS FOLLOWS:
  - A. IN STRAIGHT PULLS THE LENGTH OF THE BOX SHALL NOT BE LESS THAN EIGHT TIMES THE TRADE DIAMETER OF THE LARGER CONDUIT. THE TOTAL AREA (INCLUDING THE CONDUIT CROSS-SECTIONAL AREA) OF A BOX END SHALL BE AT LEAST 3 TIMES GREATER THAN THE TOTAL TRADE CROSS-SECTIONAL AREA OF THE CONDUITS TERMINATING AT THE END.
  - B. IN ANGLE PULLS OR 'U' PULLS THE DISTANCE BETWEEN EACH CONDUIT ENTRY INSIDE THE BOX AND THE OPPOSITE WALL OF THE BOX SHALL NOT BE LESS THAN SIX (6) TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT. THIS DISTANCE SHALL BE INCREASED FOR ADDITIONAL ENTRIES BY THE AMOUNT OF THE SUM OF THE DIAMETERS OF ALL OTHER CONDUIT ENTRIES ON THE SAME WALL AS THE BOX. THE DISTANCE BETWEEN CONDUIT ENTRIES ENCLOSING THE SAME CONDUCTOR SHALL NOT BE LESS THAN SIX TIMES THE TRADE DIAMETER OF THE LARGEST CONDUIT.
8. A RUN OF CONDUIT BETWEEN TERMINATIONS AT EQUIPMENT ENCLOSURES, SQUARE DUCTS AND PULL/JUNCTION BOXES, SHALL NOT CONTAIN MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360 DEGREES TOTAL), INCLUDING THOSE BENDS LOCATED IMMEDIATELY AT THE TERMINATIONS, CAST, CONDUIT TYPE OUTLETS SHALL NOT BE TREATED AS PULL/JUNCTION BOXES.
9. EQUIPMENT CABINETS SHALL NOT BE USED AS PULL/JUNCTION BOXES. ONLY WIRING TERMINATING AT THE EQUIPMENT SHALL BE BROUGHT INTO THESE ENCLOSURES.
10. SPLICES AND JUNCTION POINTS SHALL BE PERMITTED ONLY IN JUNCTION BOXES, DUCTS EQUIPPED WITH REMOVABLE COVERS, AND AT EASILY ACCESSIBLE LOCATIONS.
11. CIRCUIT BREAKERS IN POWER DISTRIBUTION PANEL(S) SHALL BE THERMAL-MAGNETIC MOLDED CASE, PERMANENT TRIP WITH 100 AMPERE, MINIMUM FRAME.
12. DUAL LUGS SHALL BE USED WHERE TWO (2) WIRES, SIZE NO. 6 OR LARGER, ARE TO BE CONNECTED TO THE SAME TERMINAL.
13. ALL WALL MOUNTED EQUIPMENT ENCLOSURES SHALL BE MOUNTED ON WOODEN MOUNTING BOARDS, AND/OR GALVANIZED STEEL STRUT SUPPORT.
14. WOODEN EQUIPMENT MOUNTING BOARDS SHALL BE PLYWOOD, EXTERIOR TYPE, 3/4 INCH, MINIMUM, THICKNESS, BOTH SIDES PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF GRAY OIL-BASED PAINT.
15. RIGID STEEL CONDUIT SHALL BE USED THROUGHOUT THE INSTALLATION UNLESS OTHERWISE SPECIFIED. THE MINIMUM TRADE SIZE SHALL BE 3/4 INCH.
16. ALL RIGID CONDUIT SHALL BE TERMINATED AT CONSTANT CURRENT REGULATORS WITH A SECTION (10" MINIMUM) OF FLEXIBLE CONDUIT.
17. UNLESS OTHERWISE SHOWN, ALL EXPOSED CONDUITS SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES WITH THE LINES OF THE STRUCTURE.
18. ALL STEEL CONDUITS, FITTINGS, NUTS, BOLTS, ETC. SHALL BE GALVANIZED.
19. USE CONDUIT BUSHINGS AT EACH CONDUIT TERMINATION. WHERE NO. 4 AWG OR LARGER UNDERGROUND WIRE IS INSTALLED, USE INSULATED BUSHINGS.
20. USE DOUBLE LOCK NUTS AT EACH CONDUIT TERMINATION.
21. WRAP ALL PRIMARY AND SECONDARY POWER TRANSFORMER CONNECTIONS WITH SUFFICIENT LAYERS OF INSULATING TAPE AND COVER WITH INSULATING VARNISH FOR FULL VALUE OF CABLE INSULATION VOLTAGE.
22. UNLESS OTHERWISE NOTED, ALL INDOOR SINGLE CONDUCTOR CONTROL WIRING SHALL BE NO. 12 AWG.
23. THE FOLLOWING SHALL APPLY TO RELAY/CONTACTOR PANELS/ENCLOSURES:
  - A. ALL COMPONENTS SHALL BE MOUNTED IN DUST PROOF ENCLOSURE(S) WITH VERTICALLY HINGED COVERS.
  - B. THE ENCLOSURE(S) SHALL HAVE AMPLE SPACE FOR THE CIRCUIT COMPONENTS, TERMINAL BLOCKS AND INCOMING AND INTERNAL WIRING.
  - C. ALL CONTROL CONDUCTOR TERMINATIONS SHALL BE OF THE OPEN-EYE CONNECTOR/SCREW TYPE. SOLDERED CLOSED-EYE TERMINATIONS, OR TERMINATIONS WITHOUT CONNECTORS ARE NOT ACCEPTABLE.
  - D. WHEN THE ENCLOSURE COVER IS OPENED, ALL CIRCUIT COMPONENTS, WIRING AND TERMINALS SHALL BE EXPOSED AND ACCESSIBLE WITHOUT REMOVAL OF ANY PANELS, COVERS, ETC., EXCEPT THOSE COVERING HIGH VOLTAGE COMPONENTS.
  - E. ACCESS TO, OR REMOVAL OF A CIRCUIT COMPONENT OR TERMINAL BLOCK WILL NOT REQUIRE THE REMOVAL OF ANY OTHER CIRCUIT COMPONENT OR TERMINAL BLOCK.
  - F. EACH CIRCUIT COMPONENT SHALL BE CLEARLY IDENTIFIED INDICATING ITS CORRESPONDING NUMBER SHOWN ON THE DRAWINGS AND ITS FUNCTION.
  - G. A COMPLETE WIRING DIAGRAM (SCHEMATIC DIAGRAM) SHALL BE MOUNTED ON THE INSIDE OF THE COVER. THE DIAGRAM SHALL REPRESENT EACH CONDUCTOR BY A SEPARATE LINE.
  - H. THE DIAGRAM SHALL IDENTIFY EACH CIRCUIT COMPONENT AN NUMBERING AND COLOR OF EACH TERMINAL CONDUCTOR AND TERMINAL.
  - I. ALL WIRING SHALL BE NEATLY TRAINED AND LACED.
  - J. MINIMUM WIRE SIZE SHALL BE NO. 12 AWG.

CR003

DATE	REVISION	BY

HEI Project No. 801-071XXD.0800  
 Filename: R-543ELE.DWG  
 Scale: NOT TO SCALE  
 Date: 11/16/06

LAYOUT SEP 11/16/06  
 DRAWN CCC 11/16/06  
 REVIEWED CAH 03/27/07

CARMI MUNICIPAL AIRPORT  
 CARMI, ILLINOIS

IL PROJ.: CUL-3683 A.I.P. PROJ.: J-17-0109-87



EXTEND PARTIAL  
 PARALLEL TAXIWAY

ELECTRICAL NOTES

MAY 03, 2007 9:57 AM BAK I:\AIRPORTS\CARMI\801-071XXD\AIRPORT\SHEETS\R-543ELE.DWG - ELEC NOTES

DATE	REVISION	BY

**FIELD LIGHTING NOTES**

- UNLESS OTHERWISE NOTED, ALL UNDERGROUND AIRFIELD LIGHTING SERIES CIRCUIT CONDUCTORS WHETHER DEB OR IN DUCT/CONDUIT SHALL BE FAA APPROVED 5000 VOLT L-824 TYPE. ALL UNDERGROUND FIELD POWER LOW VOLTAGE (600 VOLT & BELOW) CIRCUIT CONDUCTORS WHETHER DEB OR IN DUCT/CONDUIT SHALL BE UL LISTED 600 VOLT, TYPE XLP-USE-2 COPPER CONDUCTORS. CONDUCTORS SIZES SHALL BE AS SPECIFIED, HEREIN.
- NO COMPONENTS OF PRIMARY CIRCUIT SUCH AS CABLE, CONNECTORS AND TRANSFORMERS SHALL BE BROUGHT ABOVE GROUND AT EDGE LIGHTS, SIGNS, REIL, PAPI, ETC.
- THERE SHALL BE NO EXPOSED POWER/CONTROL CABLES BETWEEN THE POINT WHERE THEY LEAVE THE UNDERGROUND (DEB OR L-867 BASES) AND WHERE THEY ENTER THE EQUIPMENT (SUCH AS TAXIWAY SIGNS, PAPI, REIL, ETC.) ENCLOSURES. THESE CABLES SHALL BE ENCLOSED IN RIGID CONDUIT OR IN FLEXIBLE, WATERTIGHT CONDUIT WITH BREAKABLE COUPLING(S) AT THE GRADE OR THE HOUSING COVER, AS SHOWN IN APPLICABLE DETAILS.
- THE JOINTS OF THE L-823 PRIMARY CONNECTORS SHALL BE WRAPPED WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF THE JOINT, AS SHOWN ON SHEET NO. 25.
- THE CABLE ENTRANCE INTO THE FIELD-ATTACHED L-823 CONNECTORS SHALL BE ENCLOSED BY A HEAT-SHRINKABLE TUBING WITH CONTINUOUS INTERNAL ADHESIVE, AS SHOWN ON SHEET NO. 25.
- L-823 TYPE II, TWO-CONDUCTOR SECONDARY CONNECTORS SHALL BE CLASS 'A' (FACTORY MOLDED).
- THERE SHALL BE NO SPLICES IN THE SECONDARY CABLE(S) WITHIN THE STEMS OF A RUNWAY/TAXIWAY EDGE/THRESHOLD LIGHTING FIXTURE AND THE WIREWAYS LEADING TO TAXIWAY SIGNS AND PAPI/REIL EQUIPMENT.
- ELECTRICAL INSULATING GREASE SHALL BE APPLIED WITHIN THE L-823, SECONDARY, TWO CONDUCTOR CONNECTORS TO PREVENT WATER ENTRANCE. THESE CONNECTORS SHALL NOT BE TAPED.
- DEB ISOLATION TRANSFORMERS SHALL BE BURIED AT A DEPTH OF TEN (10") INCHES ON A LINE CROSSING THE LIGHT AND PERPENDICULAR TO THE RUNWAY/TAXIWAY CENTERLINE AT A LOCATION TWELVE (12") INCHES FROM THE LIGHT OPPOSITE FROM THE RUNWAY/TAXIWAY.
- A SLACK OF THREE (3') FEET, MINIMUM, SHALL BE PROVIDED IN THE PRIMARY CABLE AT EACH TRANSFORMER/CONNECTOR TERMINATION. AT STAKE-MOUNTED LIGHTS, THE SLACK SHALL BE LOOSELY COILED IMMEDIATELY BELOW THE ISOLATION TRANSFORMER.
- DIRECTION OF PRIMARY CABLES SHALL BE IDENTIFIED BY COLOR CODING AS FOLLOWS: WHEN FACING LIGHT WITH BACK TO PAVEMENT, CABLE TO THE LEFT IS CODED RED AND CABLE TO RIGHT IS CODED BLUE. THIS APPLIES TO STAKE MOUNTED LIGHTS AND BASE MOUNTED LIGHTS WHERE THE BASE HAS ONLY ONE ENTRANCE.
- L-867 BASES SHALL BE SIZE B, 24" DEEP, CLASS I, UNLESS OTHERWISE NOTED.
- BASE MOUNTED BREAKABLE COUPLINGS SHALL NOT HAVE WEEP HOLES TO THE OUTSIDE. PLUGGED UP HOLES SHALL NOT BE ACCEPTABLE. IT SHALL BE A 1/4" DIAMETER, MINIMUM, OR EQUIVALENT OPENING FOR DRAINAGE FROM THE SPACE AROUND THE SECONDARY CONNECTOR INTO THE L-867 BASE.
- THE ELEVATION OF THE BREAKABLE COUPLING GROOVE SHALL NOT EXCEED 1-1/2" ABOVE THE EDGE OF THE COVER IN CASE OF BASE MOUNTED COUPLINGS, OR THE TOP OF THE STAKE IN CASE OF STAKE MOUNTED COUPLINGS.

- WHERE THE BREAKABLE COUPLING IS NOT AN INTEGRAL PART OF THE LIGHT FIXTURE STEM OR MOUNTING LEG, A BEAD OF SILICON SEAL SHALL BE APPLIED COMPLETELY AROUND LIGHT STEM OR WIREWAY AT BREAKABLE COUPLING TO PROVIDE A WATERTIGHT SEAL.
- TOPS OF THE STAKES SUPPORTING LIGHT FIXTURES SHALL BE FLUSH WITH THE SURROUNDING GRADE.
- PLASTIC LIGHTING FIXTURE COMPONENTS, SUCH AS LAMP HEADS, STEMS, BREAKABLE COUPLINGS, BASE COVERS, BRACKETS, STAKES, SHALL NOT BE ACCEPTABLE.
- THE TOLERANCE FOR THE HEIGHT OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE: ONE (1) INCH. IN CASE OF STAKE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE STAKE AND THE TOP OF THE LENS. IN CASE OF BASE MOUNTED LIGHTS, THE SPECIFIED LIGHTING FIXTURE HEIGHT SHALL BE MEASURED BETWEEN THE TOP OF THE BASE FLANGE AND THE TOP OF THE LENS, THUS INCLUDING THE BASE COVER, THE FRANGIBLE COUPLING, THE STEM, THE LAMP HOUSING AND THE LENS.
- THE TOLERANCE FOR THE LATERAL SPACING (LIGHT LANE TO RUNWAY/TAXIWAY CENTERLINE) OF RUNWAY/TAXIWAY EDGE LIGHTS SHALL BE ONE (1) INCH. THIS ALSO APPLIES AT INTERSECTIONS TO LATERAL SPACING BETWEEN LIGHTS OF A RUNWAY/TAXIWAY AND THE INTERSECTING RUNWAY/TAXIWAY.
- ENTRANCES INTO L-867 BASES SHALL BE SEALED WITH HEAT SHRINK AS SHOWN IN DETAIL "B" ON SHEET NO. 24.
- GALVANIZED/PAINTED EQUIPMENT/COMPONENT SURFACES SHALL NOT BE DAMAGED BY DRILLING, FILING, ETC. DRAIN HOLES IN METAL TRANSFORMER HOUSINGS SHALL BE MADE BEFORE GALVANIZING.
- EDGE LIGHT NUMBERING TAGS SHALL BE FACING THE PAVEMENT.
- CABLE/SPLICE/DUCT MARKERS SHALL BE PRECAST CONCRETE OF THE SIZE SHOWN. LETTERS/NUMBERS/ARROWS FOR THE LEGEND TO BE IMPRESSED INTO THE TOPS OF THE MARKERS SHALL BE PRE-ASSEMBLED AND SECURED IN THE MOLD BEFORE THE CONCRETE IS POURED. LEGEND INSCRIBED BY HAND IN WET CONCRETE SHALL NOT BE ACCEPTABLE.
- ALL UNDERGROUND CABLE RUNS SHALL BE IDENTIFIED BY CABLE MARKERS AT 200 FEET MAXIMUM SPACING, WITH AN ADDITIONAL MARKER AT EACH CHANGE OF DIRECTION OF THE CABLE RUN. CABLE MARKERS SHALL BE INSTALLED IMMEDIATELY ABOVE THE CABLES.
- THERE SHALL BE NO SPLICES BETWEEN THE ISOLATION TRANSFORMERS. L-823 CONNECTORS ARE ALLOWED AT TRANSFORMER CONNECTIONS ONLY, UNLESS OTHERWISE SHOWN.
- APPLY AN OXIDE INHIBITING, ANTI-SEIZING COMPOUND TO ALL SCREWS, NUTS AND BREAKAGE COUPLING THREADS.
- LOCATIONS OF ENDS OF ALL UNDERGROUND DUCTS SHALL BE IDENTIFIED BY DUCT MARKERS.
- WHERE A PARALLEL, CONSTANT VOLTAGE PAPI SYSTEM IS PROVIDED, THE "T" SPLICES SHALL BE OF THE CAST TYPE.
- CONCRETE USED FOR SLABS, FOOTINGS, BACKFILL AROUND TRANSFORMER HOUSINGS, MARKINGS, ETC. SHALL BE 3000 PSI, AIR-ENTRAINED.
- ALL POWER AND CONTROL CABLES IN MAN/HAND HOLES SHALL BE TAGGED. USE EMBOSSED COPPER STRIPS TO BE ATTACHED AT BOTH ENDS TO THE CABLE BY THE USE OF PLASTIC STRAPS. MINIMUM OF TWO TAGS SHALL BE PROVIDED ON EACH CABLE IN A MAN/HAND HOLE-ONE AT THE CABLE ENTRANCE AND ONE AT THE CABLE EXIT.

**GROUNDING NOTES**

- ALL GROUND CONNECTIONS TO GROUND RODS, BUSES, PANELS, ETC. SHALL BE MADE WITH PRESSURE TYPE SOLDERLESS LUGS AND GROUND CLAMPS SOLDERED OR BOLT AND WASHER TYPE CONNECTIONS ARE NOT ACCEPTABLE. CLEAN ALL METAL SURFACES BEFORE MAKING GROUND CONNECTIONS. CONNECTIONS TO GROUND RODS SHALL BE EXOTHERMIC WELD WHERE SPECIFIED HEREIN.
- TOP OF GROUND RODS SHALL BE TEN (10) INCHES BELOW GRADE, UNLESS SPECIFIED OTHERWISE HEREIN, FOR RESPECTIVE APPLICATIONS.
- THE RESISTANCE TO GROUND OF THE VAULT GROUNDING SYSTEM WITH THE COMMERCIAL POWER LINE NEUTRAL DISCONNECTED SHALL NOT EXCEED 10 OHMS.

**CARMI MUNICIPAL AIRPORT  
CARMI, ILLINOIS**

A.I.P. PROJ.: 3-17-0109-B7  
IL PROJ.: CUL-3683

IEL Project No. 801-077XV.0800 Filename R-544ELE.DWG Scale NOT TO SCALE Date 11/16/06	LAYOUT SEP 11/16/06 DRAWN CCC 11/16/06 REVIEWED CAH 03/27/07
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**EXTEND PARTIAL  
PARALLEL TAXIWAY**

ELECTRICAL NOTES

MAY 02, 2007 4:03 PM BAK I:\AIRPORTS\CARMI\801-077XV\AIRPORT SHEETS\R-544ELE.DWG - ELEC NOTES

**ELECTRICAL LEGEND - ONE-LINE DIAGRAM**

	CABLE TERMINATOR/LUG
	TRANSFORMER
	DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	CIRCUIT BREAKER
	THERMAL MAGNETIC CIRCUIT BREAKER
	FUSE
	TRANSIENT VOLTAGE SURGE SUPPRESSOR OR SURGE PROTECTOR DEVICE
	GROUND - GROUND ROD, GROUNDING ELECTRODE, OR AT EARTH POTENTIAL
	INDICATING LIGHT
	MOTOR
	LOAD, MOTOR, # = HORSEPOWER
	ELECTRIC UTILITY METER BASE
	JUNCTION BOX WITH SPLICE
	EQUIPMENT, XXX = DEVICE DESCRIPTION
	GROUND BUS OR TERMINAL
	NEUTRAL BUS
	PANELBOARD WITH MAIN LUGS
	PANELBOARD WITH MAIN BREAKER
	FUSE PANEL WITH MAIN FUSE PULLOUT
	DUPLEX RECEPTACLE 120V SINGLE PHASE GROUNDING TYPE
	CONTROL STATION
	TRANSFER SWITCH
	ENGINE GENERATOR SET

**ELECTRICAL LEGEND - SCHEMATIC**

	NORMALLY OPEN (N.O.) CONTACT
	NORMALLY CLOSED (N.C.) CONTACT
	STARTER COIL, * = STARTER NUMBER
	OVERLOAD RELAY CONTACT
	CONTROL RELAY, * = CONTROL RELAY NUMBER
	RELAY, * = RELAY NUMBER
	TOGGLE SWITCH / 2 POSITION SWITCH
	2-POSITION SELECTOR SWITCH
	3-POSITION SELECTOR SWITCH (H-O-A SHOWN)
	2 POLE DISCONNECT SWITCH
	3 POLE DISCONNECT SWITCH
	PHOTOCELL
	TERMINAL BLOCK, * = TERMINAL NUMBER
	DEVICE TERMINAL, * = DEVICE TERMINAL NUMBER
	INTERNAL PANEL WIRING
	FIELD WIRING
	FUSE
	GROUND BUS OR TERMINAL
	NEUTRAL BUS
	GROUND, GROUND ROD
	INDUSTRIAL CONTROL RELAY OR LIGHTING CONTACTOR
	S1 CUTOUT HANDLE REMOVED
	S1 CUTOUT HANDLE INSERTED
	N.O. THERMAL SWITCH
	N.C. THERMAL SWITCH

**ELECTRICAL ABBREVIATIONS**

A.F.F.	ABOVE FINISHED FLOOR
A. AMP	AMPERES
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CR	CONTROL RELAY
CU	COPPER
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ES	EMERGENCY STOP
ETM	ELAPSE TIME METER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRSC	GALVANIZED RIGID STEEL CONDUIT
HID	HIGH INTENSITY DISCHARGE
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
J	JUNCTION BOX
KVA	KILOVOLT AMPERE(S)
KW	KILOWATTS
LC	LIGHTING CONTACTOR
LTFMC	LIQUID TIGHT FLEXIBLE METAL CONDUIT (UL LISTED)
LP	LIGHTING PANEL
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCUAR MIL
MDP	MAIN DISTRIBUTION PANEL
MH	METAL HALIDE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OHE	OVERHEAD ELECTRIC
OL	OVERLOAD
PB	PULL BOX
PC	PHOTO CELL
PDB	POWER DISTRIBUTION BLOCK
PNL	PANEL

**ELECTRICAL ABBREVIATIONS (CONTINUED)**

RCPT	RECEPTACLE
R	RELAY
S	STARTER
SPD	SURGE PROTECTION DEVICE
SPST	SINGLE POLE SINGLE THROW
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UG	UNDERGROUND
USE	UNDERGROUND ELECTRIC
V	VOLTS
W/	WITH
W/O	WITHOUT
WP	WEATHER PROOF
XFER	TRANSFER
XFMR	TRANSFORMER

**AIRPORT EQUIPMENT ABBREVIATIONS**

CCR	CONSTANT CURRENT REGULATOR
MIRL	MEDIUM INTENSITY RUNWAY LIGHT
MIL	MEDIUM INTENSITY TAXIWAY LIGHT
NDB	NON-DIRECTIONAL BEACON
PAPI	PRECISION APPROACH PATH INDICATOR
PLASI	PULSE LIGHT APPROACH SLOPE INDICATOR
REIL	RUNWAY END IDENTIFIER LIGHT
VASI	VISUAL APPROACH SLOPE INDICATOR
WC	WIND CONE

**NOTES:**

- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES, AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
- CONTRACTOR SHALL COORDINATE WORK AND ANY POWER OUTAGES WITH THE RESPECTIVE FACILITY OWNER PERSONNEL AND THE AIRPORT MANAGER.
- COLOR CODE PHASE AND NEUTRAL CONDUCTOR INSULATION FOR NO. 6 AWG OR SMALLER. PROVIDE COLORED INSULATION OR COLORED MARKING TAPE FOR PHASE AND NEUTRAL CONDUCTORS FOR NO. 4 AWG AND LARGER. INSULATED GROUND CONDUCTORS SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND/OR KCMIL. STANDARD COLORS FOR POWER WIRING AND BRANCH CIRCUITS SHALL BE AS FOLLOWS:

120/240 VAC, 1 PHASE, 3 WIRE  
 PHASE A      BLACK  
 PHASE B      RED  
 NEUTRAL      WHITE  
 GROUND      GREEN

REVISION	
DATE	

PROJECT: 801-077XXD-0800  
 ELEM: E-501.DWG  
 SCALE: NONE  
 DATE: 02/05/07

LAYOUT: KNL 02/05/07  
 DRAWN: MW 02/05/07  
 REVIEWED: CAH 03/27/07

CARMi MUNICIPAL AIRPORT  
 CARMi, ILLINOIS

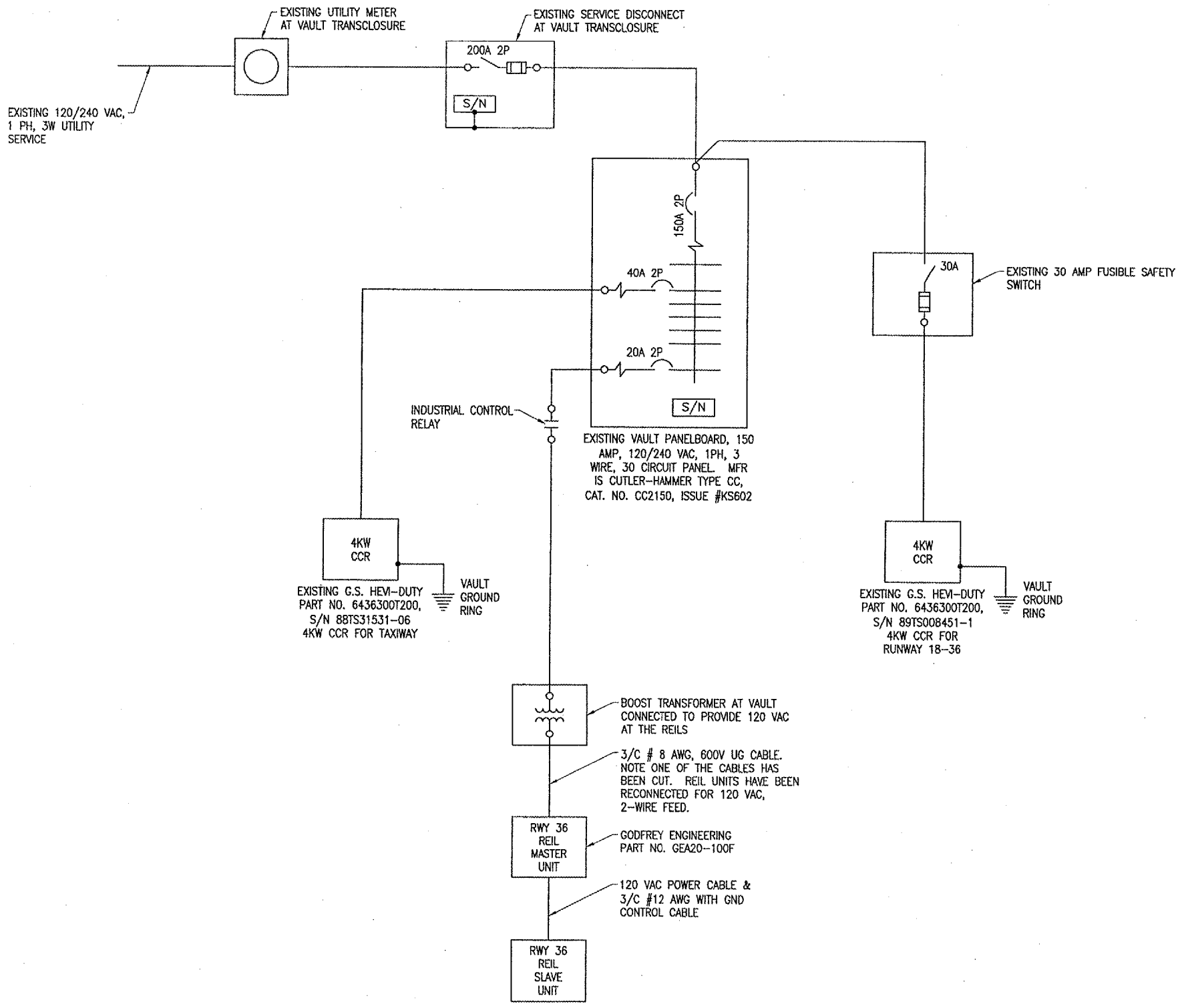
A.I.P. PROJ.: 3-17-0109-87  
 I.L. PROJ.: CUL-3683

PROJECT No.	801-077XXD-0800
ELEM	E-501.DWG
SCALE	NONE
DATE	02/05/07
LAYOUT	KNL 02/05/07
DRAWN	MW 02/05/07
REVIEWED	CAH 03/27/07



EXTEND PARTIAL  
 PARALLEL TAXIWAY

ELECTRICAL LEGEND  
 AND ABBREVIATIONS



EXISTING VAULT ELECTRICAL ONE LINE DIAGRAM

NOTES

1. ALL VAULT WORK AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT MANAGER AND THE RESIDENT ENGINEER.
2. BASED ON INFORMATION FROM RECORD DRAWINGS THE EXISTING VAULT WAS INSTALLED IN 1975. BASED ON INFORMATION FROM THE AIRPORT, MODIFICATIONS AND ADDITIONS HAVE TAKEN PLACE SINCE THE ORIGINAL INSTALLATION. EXISTING INFORMATION NOTED ON THE PLANS IS BASED ON RECORD DRAWINGS AND INFORMATION IN PART, PROVIDED BY OTHERS. THE ACTUAL CONDITIONS MIGHT VARY FROM THOSE INDICATED ON THE PLANS. CONTRACTOR SHALL FIELD VERIFY & CONFIRM EXISTING CONDITIONS.
3. THE EXISTING CONSTANT CURRENT REGULATOR FOR THE TAXIWAY SHALL BE REPLACED WITH A 7.5 KW UNIT TO ACCOMMODATE THE ADDITIONAL TAXIWAY LIGHTING LOADS ASSOCIATED WITH THE TAXIWAY EXTENSION. THE EXISTING CONSTANT CURRENT REGULATOR SHALL BE TURNED OVER TO THE AIRPORT AND RELOCATED TO STORAGE AS DIRECTED BY THE AIRPORT MANAGER.

DATE	REVISION	BY

CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS

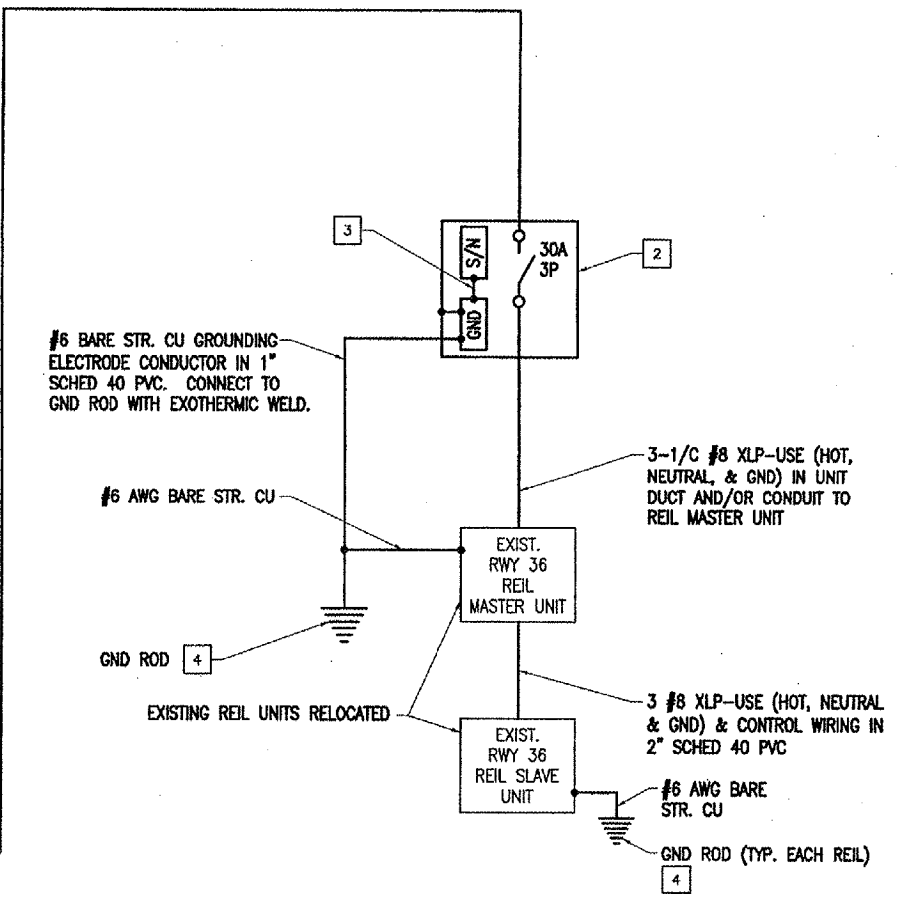
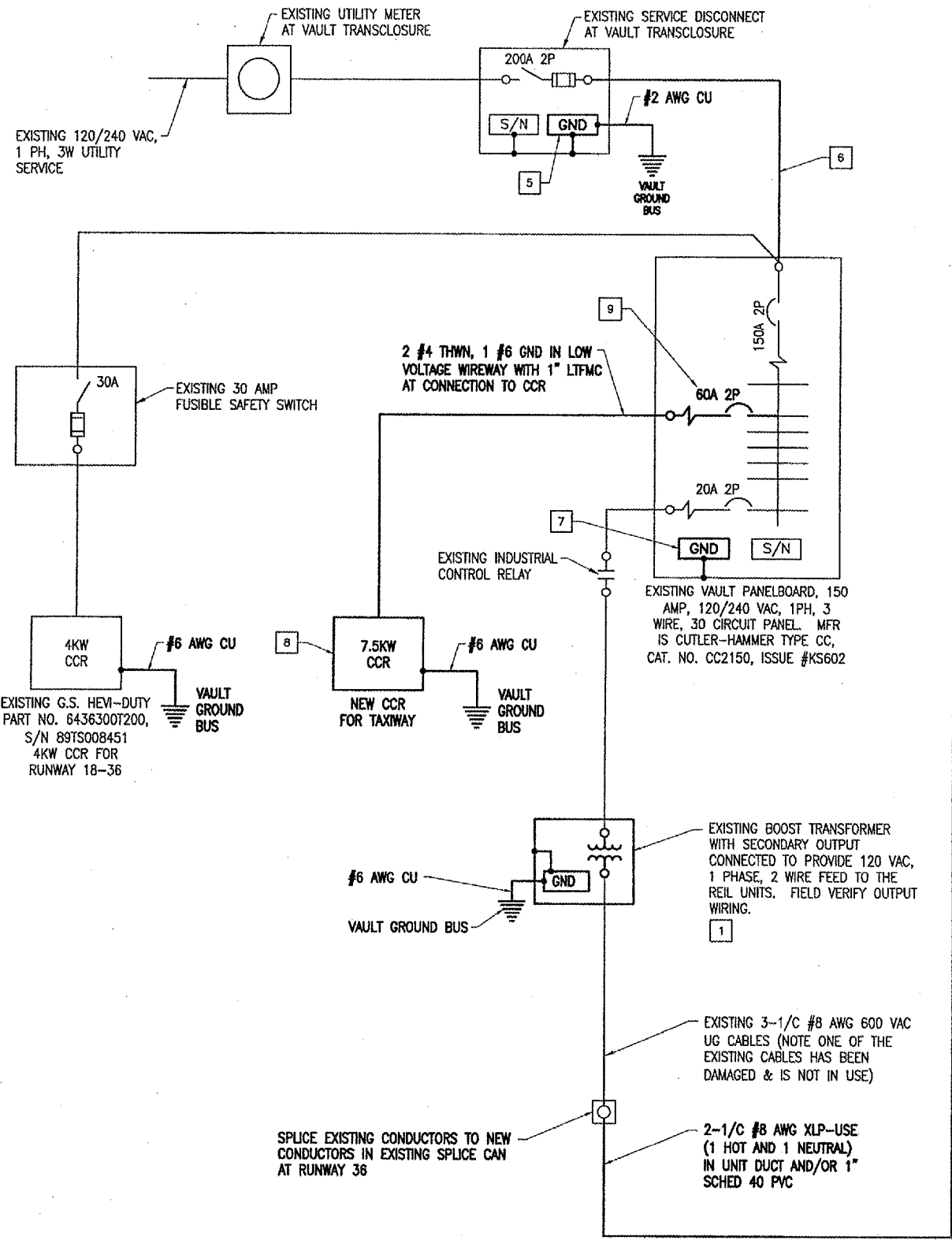
IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-87

HEL Project No. 801-07TXD 0800	02/05/07
Drawings E-601.DWG	KNL
Scale NONE	MY
Date 02/05/07	CAH
LAYOUT	03/27/07
DRAWN	
REVIEWED	



EXTEND PARTIAL  
PARALLEL TAXIWAY  
EXISTING VAULT  
ELECTRICAL ONE LINE  
DIAGRAM

APR 27 2007 7:50 AM BAK  
I:\AIRPORTS\CARMi\801-07TXD\AIRPORT SHEETS\E-601.DWG - Work



NEW ELECTRICAL ONE LINE DIAGRAM FOR VAULT

NOTES

1. ALL VAULT WORK AND/OR POWER OUTAGES SHALL BE COORDINATED WITH THE AIRPORT MANAGER.
2. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH NFPA 70 (NEC MOST CURRENT ISSUE IN FORCE), THE RESPECTIVE EQUIPMENT MANUFACTURER'S DIRECTIONS AND ALL OTHER APPLICABLE LOCAL CODES, LAWS, ORDINANCES AND REQUIREMENTS IN FORCE. ANY INSTALLATIONS WHICH VOID THE U.L. LISTING, ETL LISTING, (OR OTHER THIRD PARTY LISTING) AND/OR THE MANUFACTURER'S WARRANTY OF A DEVICE WILL NOT BE PERMITTED.
3. ALL EQUIPMENT NOT LABELED AS "EXISTING" IS NEW.
4. ADDITIONAL EXISTING CIRCUITS NOT SHOWN FOR CLARITY.
5. HIGH VOLTAGE & LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME RACEWAY.
6. LTFMC DENOTES LIQUID TIGHT FLEXIBLE METAL CONDUIT UL LISTED TO MEET NEC 350.6.
7. VAULT WORK SHALL BE PAID FOR UNDER ITEM AR109200.
8. STEP DOWN TRANSFORMER FOR REILS SHALL BE LOCATED AS SHOWN ON THE PROPOSED ELECTRICAL PLAN SHEETS. FIELD VERIFY LOCATION OF STEP DOWN TRANSFORMER AND ASSOCIATED SAFETY SWITCHES WITH RESIDENT ENGINEER.
9. RELOCATION OF REILS SHALL BE PAID FOR UNDER ITEM AR125967 RELOCATE REILS -- PER PAIR.
10. PROVIDE HOT DIPPED GALVANIZED STEEL STRUT SUPPORT, UNISTRUT P1000HG, OR APPROVED EQUAL, TO MOUNT EQUIPMENT.

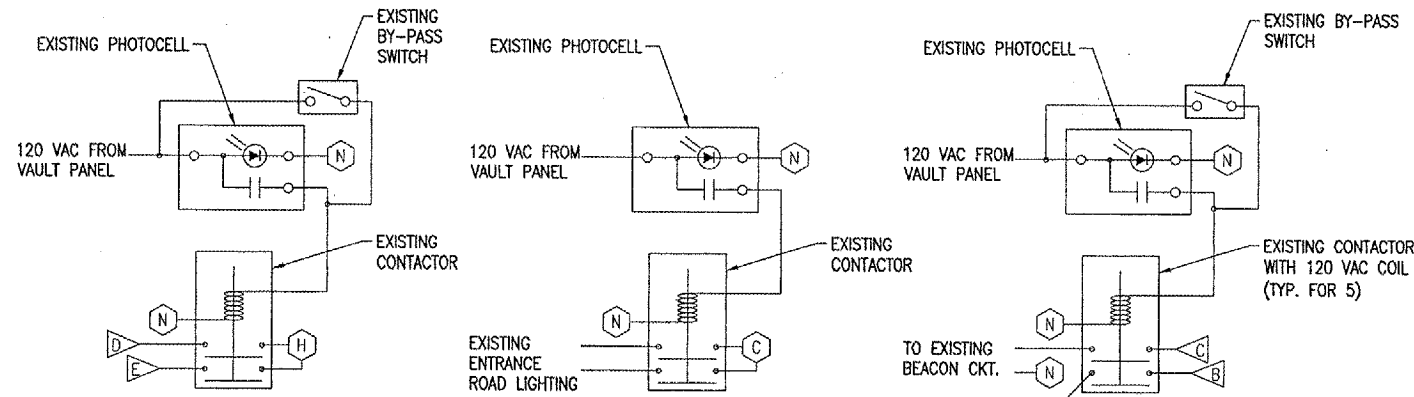
KEYED NOTES

- 1 TRANSFORMER SECONDARY NEUTRAL SHALL BE BONDED TO GROUND.
- 2 30 AMP, 3 POLE, 600 VAC, UL LISTED HEAVY DUTY NOT FUSIBLE SAFETY SWITCH IN A NEMA 3R & 12 ENCLOSURE WITHOUT KNOCKOUTS, SQUARE D CLASS 3110, CAT. NO. HU361AWK WITH NEUTRAL ASSEMBLY, OR APPROVED EQUAL. INCLUDE EQUIPMENT GROUND KIT. USE CENTER POLE FOR SINGLE PHASE APPLICATION WITH ONLY ONE HOT CONDUCTOR. LOCATE NEAR MASTER REIL UNIT OUTSIDE RUNWAY SAFETY AREA.
- 3 BOND NEUTRAL TO GROUND WITH #8 AWG CU BONDING JUMPER OR BONDING SCREW IN CONFORMANCE WITH 2005 NEC 250.32
- 4 10'L x 3/4" DIA UL LISTED COPPERCLAD GND ROD. MIN. BURY 30" BELOW GRADE. ALL CONNECTIONS TO GND RODS SHALL BE EXOTHERMIC WELD.
- 5 FURNISH & INSTALL GROUND LUGS/BAR IN SERVICE DISCONNECT TO ACCOMMODATE GROUND WIRES. NEUTRAL SHALL BE BONDED TO GROUND. BOND SERVICE DISCONNECT ENCLOSURE TO VAULT GROUND BUS WITH #2 AWG COPPER GROUNDING ELECTRODE CONDUCTOR.
- 6 FURNISH & INSTALL #6 AWG COPPER EQUIPMENT GROUND WIRE FROM SERVICE DISCONNECT TO VAULT PANELBOARD. ROUTE WITH EXISTING FEEDER CONDUCTORS.
- 7 FURNISH & INSTALL COPPER EQUIPT. GROUND BAR WITH 12 TERMINALS/TAPS SUITABLE FOR #14 AWG TO #4 AWG CONDUCTORS, ILSCO CAT. NO. D167-12 OR EQUAL.
- 8 SEE SPECIAL PROVISION SPECS ITEM 109 FOR NEW CONSTANT CURRENT REGULATOR REQUIREMENTS.
- 9 FURNISH & INSTALL A NEW CIRCUIT BREAKER FOR THE CONSTANT CURRENT REGULATOR SIZED PER THE RESPECTIVE CCR MANUFACTURER'S RECOMMENDATION AND NEC.

BY	
REVISION	
DATE	
CARMi MUNICIPAL AIRPORT CARMi, ILLINOIS	
A.I.P. PROJ.: 3-17-0109-B7	
IL PROJ.: CUL-3683	
Project No.	801-077XID-0800
Filename	E-602.DWG
Scale	NONE
Date	02/16/07
LAYOUT	KNL 02/16/07
DRAWN	MV 02/19/07
REVIEWED	CAH 03/27/07
 Hanson Professional Services Inc. 1525 South Sixth Street Springfield, Illinois 62703-2986 Offices Nationwide	
EXTEND PARTIAL PARALLEL TAXIWAY NEW ELECTRICAL ONE LINE DIAGRAM FOR VAULT	
30	
30 of 55 sheets	

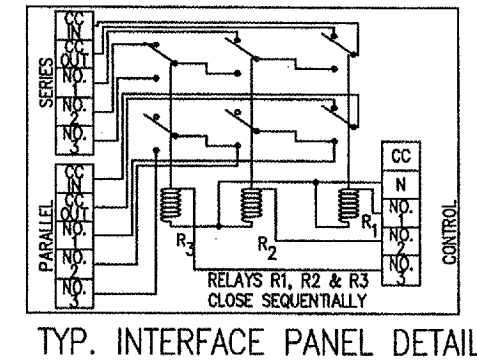
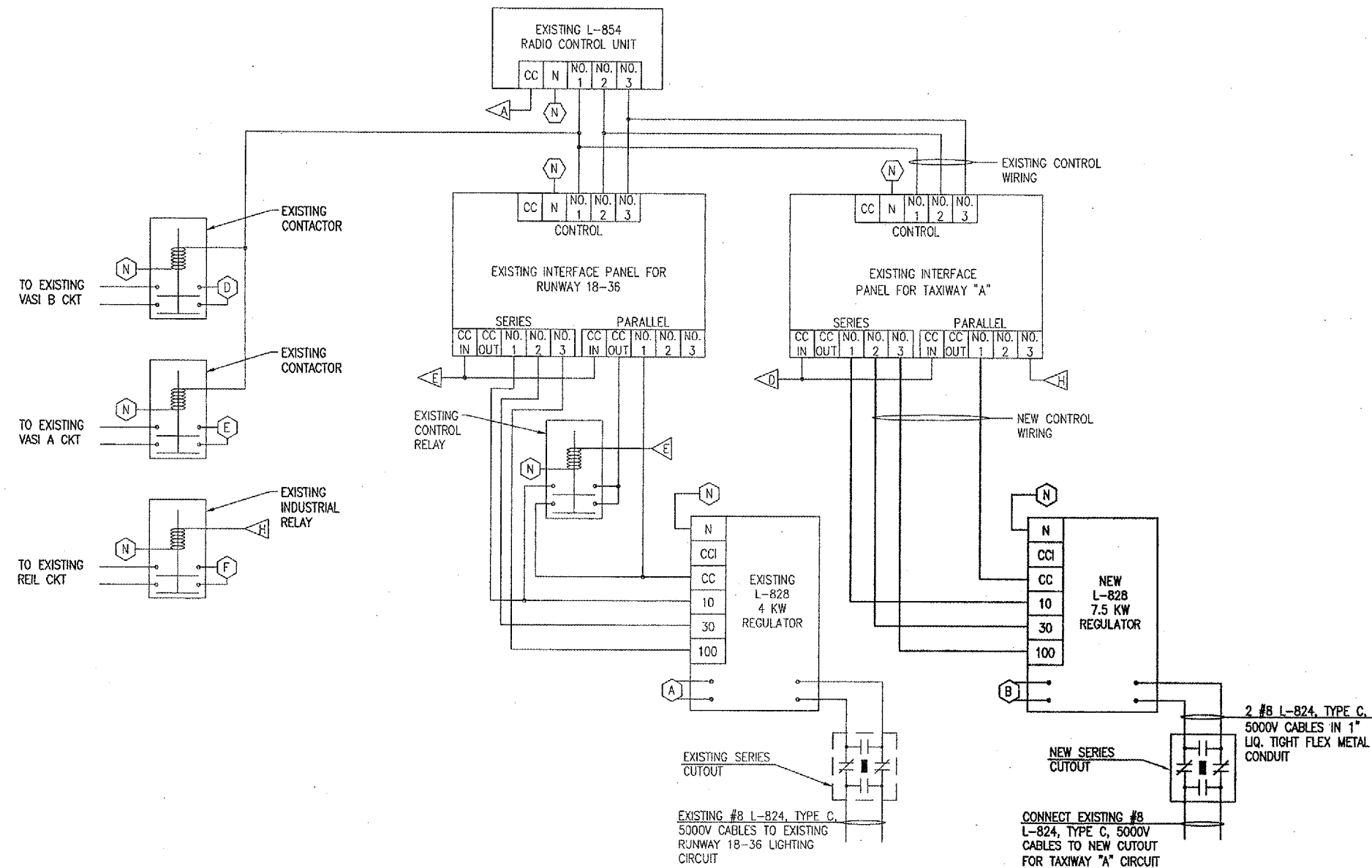
NOTES

- ALL ELECTRICAL EQUIPMENT WILL BE WIRED IN ACCORDANCE WITH THE SCHEMATIC WIRING DIAGRAM AND ALL APPLICABLE CODES.
- ALL CONTROL CABLE WILL BE NO. 12 AWG COPPER, 600 VOLT CABLE.
- ALL ELECTRICAL EQUIPMENT WILL BE PROPERLY LABELED AND ALL ELECTRICAL CABLES WILL BE TAGGED.
- ALL ELECTRICAL CABLES INSIDE THE VAULT WILL BE IN CONDUIT OR DUCT.
- THE RUNWAY/TAXIWAY CIRCUITS WILL BE CONTROLLED BY THE L-854 RADIO CONTROL UNIT IN THE FOLLOWING MANNER:  
 3 CLICKS - 10% BRIGHTNESS  
 5 CLICKS - 30% BRIGHTNESS  
 7 CLICKS - 100% BRIGHTNESS
- RADIO CONTROL UNIT, PHOTOCELL, CONTROL RELAYS, CONTACTORS, CCR FOR RWY 18-36 AND THE RESPECTIVE INTERFACE PANEL, & CUTOUT ARE EXISTING. INTERFACE PANEL FOR TAXIWAY CCR IS EXISTING.
- 7.5 KW CONSTANT CURRENT REGULATOR FOR TAXIWAY AND ASSOCIATED CUTOUT, 240 VAC POWER WIRING, CONTROL WIRING, & 5000V L-824 CABLES ARE NEW AND SHALL BE FURNISHED & INSTALLED UNDER ITEM AR109200.
- EQUIPMENT GROUND WIRES SHALL BE INCLUDED WITH EACH NEW BRANCH/FEEDER CIRCUIT & THE NEW CONTROL CIRCUIT, TO THE CONSTANT CURRENT REGULATOR.



SHEET LEGEND

- (A) FEED FROM 30A, 2P FUSIBLE SAFETY SWITCH (RWY 18-36 CCR)
- (B) VAULT PANEL 240 VAC CKT (TAXIWAY "A" CCR)
- (C) VAULT PANEL 240 VAC CKT (ENTRANCE ROAD LIGHTS)
- (D) VAULT PANEL 240 VAC CKT (VASI B)
- (E) VAULT PANEL 240 VAC CKT (VASI A)
- (F) VAULT PANEL 240 VAC CKT (REILS)
- (G) RESERVED
- (H) VAULT PANEL 120/240 VAC CKT (CONTROL FOR CCR'S)
- (N) N DESIGNATES NEUTRAL FROM THE RESPECTIVE PANEL THAT POWERS THE DEVICE. FOR CONTROL CIRCUIT INPUTS TO CCR'S N SHALL BE FROM THE RESPECTIVE INTERFACE PANEL CIRCUIT NEUTRAL CONNECTION.
- (A) VAULT PANEL 120 VAC CKT (L-854 RADIO)
- (B) VAULT PANEL 120 VAC CKT (WIND-TEE)
- (C) VAULT PANEL 120 VAC CKT (BEACON)
- (D) 120 VAC POWER FOR TAXIWAY INTERFACE PANEL
- (E) 120 VAC POWER FOR RUNWAY INTERFACE PANEL
- (A) PARALLEL NO. 3 OUTPUT FROM INTERFACE PANEL FOR TAXIWAY CCR



AIRFIELD LIGHTING SCHEMATIC WIRING DIAGRAM

BY	
REVISION	
DATE	

CARMI MUNICIPAL AIRPORT  
CARMI, ILLINOIS

A.I.P. PROJ.: 3-17-0109-87

ILL. PROJ.: CUL-3683

HEL Project No. 801-077XXD_0800	DATE	02/05/07
Drawn: E-803.DWG	LAYOUT	KNL
Scale: NONE	DRAWN	MV
Date: 02/05/07	REVIEWED	CAH

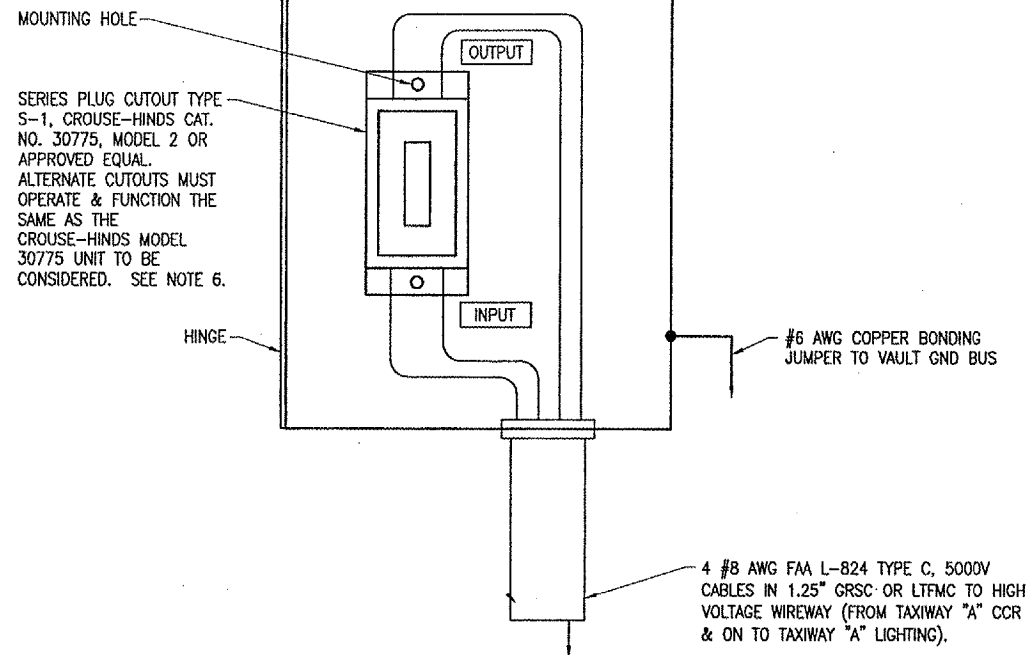
**HANSON**

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1525 South Sixth Street  
Springfield, Illinois 62703-2886  
Offices Nationwide

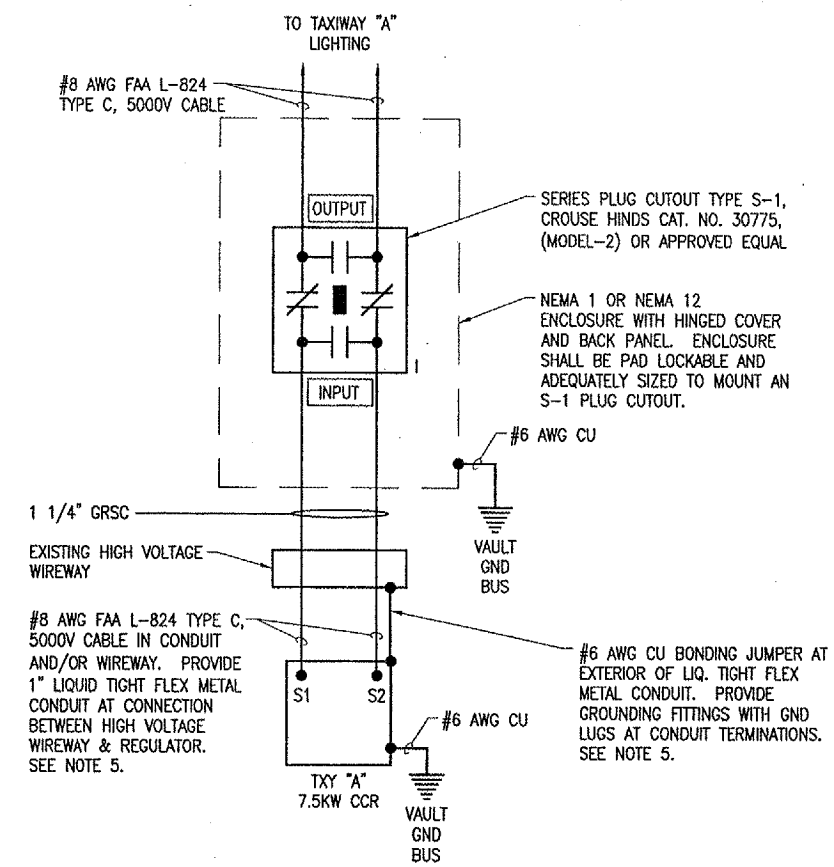
EXTEND PARTIAL  
PARALLEL TAXIWAY  
AIRFIELD LIGHTING  
WIRING SCHEMATIC

APR 27, 2007 7:52 AM BAK I:\AIRPORTS\CARMI\B01-077XX\AIRPORT\_SHEETS\E-803.DWG - Work

14"H x 12"W x 8"D (APPROXIMATE DIMENSIONS)  
NEMA 1 OR NEMA 12 ENCLOSURE WITH HINGED COVER & BACK PANEL. NOTE FRONT DOOR OF ENCLOSURE NOT SHOWN FOR CLARITY. ADJUST ENCLOSURE DIMENSIONS AS NECESSARY TO ACCOMMODATE THE RESPECTIVE CUTOUT.



**SERIES PLUG CUTOUT MOUNTING DETAIL**  
NOT TO SCALE



**HIGH VOLTAGE WIRING SCHEMATIC**

LEGEND PLATE SCHEDULE	
DEVICE	LEGEND PLATE LABEL
RUNWAY 18/36 CCR	RUNWAY 18/36
TAXIWAY A CCR	TAXIWAY A
CUTOUT ENCLOSURE FOR TAXIWAY A CCR	TAXIWAY A
CUTOUT LINE SIDE CONNECTION	INPUT
CUTOUT LOAD SIDE CONNECTION	OUTPUT
HIGH VOLTAGE WIREWAY	HIGH VOLTAGE
LOW VOLTAGE WIREWAY	LOW VOLTAGE
SAFETY SWITCH FOR RWY 36 REILS	REIL DISCONNECT FED FROM VAULT

**NOTES**  
ALL LEGEND PLATES SHALL BE ENGRAVED PHENOLIC OR PLASTIC MATERIAL, BLACK LETTERS ON A WHITE BACKGROUND.

**NOTES**

1. PROVIDE PHENOLIC ENGRAVED LEGEND PLATES FOR EACH CONSTANT CURRENT REGULATOR (EXISTING & NEW) NOTING THE RUNWAY AND/OR TAXIWAY SERVED.
2. PLUG CUTOUT CABINET SHALL BE FURNISHED WITH A PHENOLIC ENGRAVED LEGEND PLATE THAT IDENTIFIES THE RESPECTIVE RUNWAY/TAXIWAY CIRCUIT OR REGULATOR.
3. PROVIDE PHENOLIC ENGRAVED LEGEND PLATES FOR CUTOUT TO IDENTIFY THE RESPECTIVE REGULATOR OUTPUT CONNECTION AND THE RESPECTIVE CIRCUIT LOAD CONNECTION.
4. BOND PLUG CUTOUT CABINET TO THE VAULT GROUND BUS WITH A #6 AWG COPPER BONDING JUMPER.
5. LIQUID TIGHT FLEXIBLE METAL CONDUIT AND ASSOCIATED FITTINGS SHALL BE U.L. LISTED TO MEET THE REQUIREMENTS OF NEC 350.6, SUITABLE FOR GROUNDING AND SUNLIGHT RESISTANT. LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS USED FOR FLEXIBILITY (INCLUDING CONNECTIONS TO CCR'S & TRANSFORMERS) SHALL REQUIRE AN EXTERNAL BONDING JUMPER OR INTERNAL EQUIPMENT GROUNDING CONDUCTOR PER NEC 350.60. EXTERNAL BONDING JUMPERS USED WITH CCR INSTALLATIONS SHALL BE #6 AWG COPPER (MINIMUM). INTERNAL EQUIPMENT GROUNDING CONDUCTORS USED WITH CCR OUTPUT SERIES CIRCUIT WIRING SHALL BE #8 AWG COPPER (MINIMUM). DO NOT INSTALL LIQUID TIGHT FLEXIBLE METAL CONDUIT THAT IS NOT UL LISTED.
6. CROUSE-HINDS CAT. NO. 30771, (MODEL-3) SERIES PLUG CUTOUTS ARE NOT ACCEPTABLE, BECAUSE THE HANDLE IS NOT REMOVABLE. OTHER CUTOUTS THAT DO NOT FUNCTION THE SAME AS THE CROUSE-HINDS CAT. NO. 30775 (MODEL-2) ARE NOT ACCEPTABLE.
7. MAINTAIN SEPARATION OF HIGH VOLTAGE AND LOW VOLTAGE CIRCUITS. HIGH VOLTAGE AND LOW VOLTAGE CIRCUITS SHALL NOT BE INSTALLED IN THE SAME WIREWAY, CONDUIT, OR RACEWAY. COORDINATE HIGH VOLTAGE WIRING ENTRIES INTO THE CCR HIGH VOLTAGE SECTION. COORDINATE LOW VOLTAGE WIRING ENTRIES INTO THE LOW VOLTAGE SECTION.

**LEGEND**

- "I" DENOTES PLUG CUTOUT WITH PLUG INSERTED
- "P" DENOTES PLUG CUTOUT WITH PLUG PULLED
- "CCR" DENOTES CONSTANT CURRENT REGULATOR

BY	REVISION	DATE

CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-87

IEL Project No. 801-077X10.0800			
Filename E-604.DWG			
Scale NONE			
Date 02/05/07			
LAYOUT	KNL	02/05/07	
DRAWN	MV	02/05/07	
REVIEWED	CAH	03/27/07	

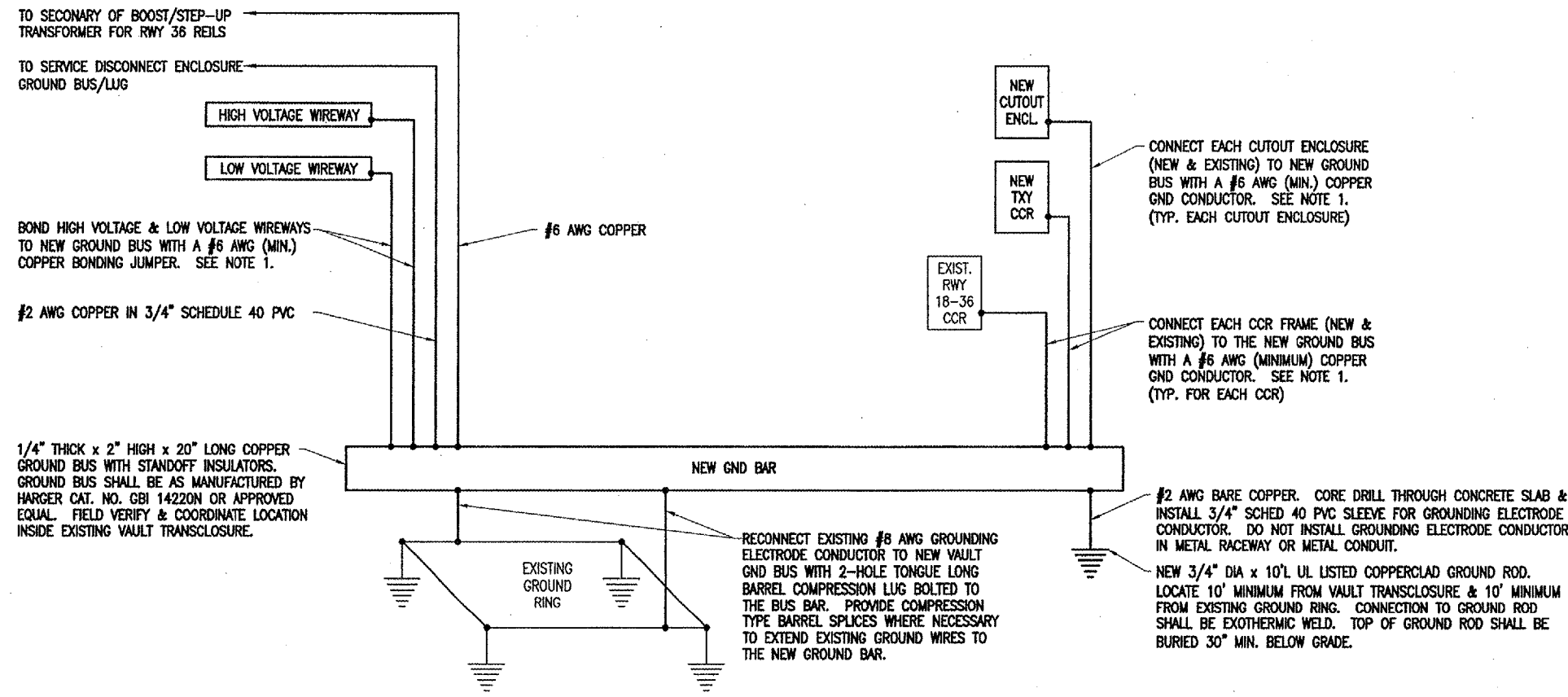


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Springfield, Illinois 62703-2886  
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EXTEND PARTIAL  
PARALLEL TAXIWAY

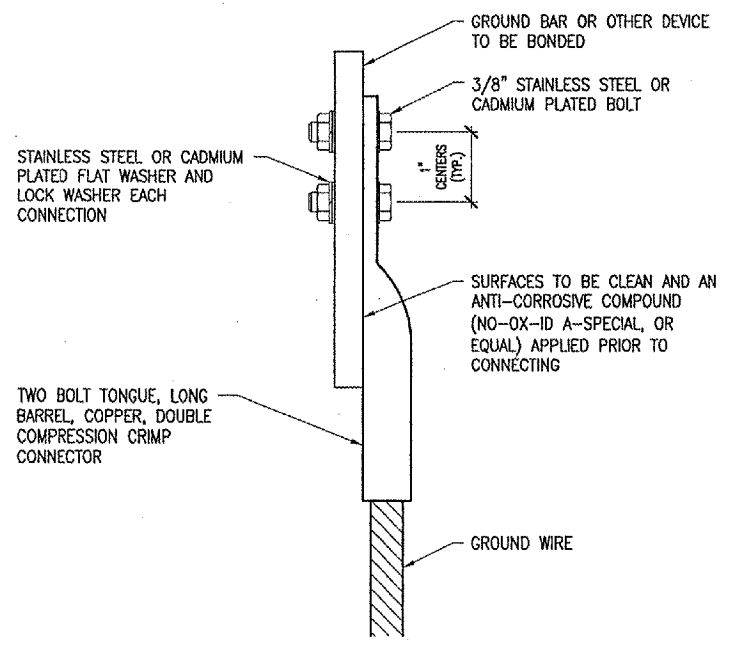
HIGH VOLTAGE  
WIRING SCHEMATIC





CCR GROUND BUS RISER

- NOTES
1. CONNECTIONS TO GROUND BUS BAR SHALL BE WITH 2-HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE BUS BAR.
  2. ALL INSULATED GROUND WIRES SHALL HAVE GREEN COLORED INSULATION FOR ALL CONDUCTOR AWG AND KCMIL.
  3. CONSTANT CURRENT REGULATORS SHALL BE SHUT OFF PRIOR TO DISCONNECTING EXISTING FRAME GROUNDS AND SHALL REMAIN OFF UNTIL GROUNDING UPGRADES AND NEW GROUND CONNECTIONS ARE COMPLETED.
  4. ALL WORK SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER ITEM AR109200 "INSTALL ELECTRICAL EQUIPMENT" PER LUMP SUM.
  5. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS. REPORT ANY VARIATIONS TO THE RESIDENT ENGINEER. EXISTING EQUIPMENT CONNECTED TO THE EXISTING GROUND SYSTEM SHALL BE RECONNECTED TO THE NEW GROUND BAR.



GROUNDING LUG CONNECTION DETAIL

2 HOLE LONG BARREL COMPRESSION LUG TABLE		
WIRE SIZE	BURNDY CAT. NO.	THOMAS & BETTS CAT. NO.
#8 AWG STRANDED	YA8C-2TC38	256-30695-1157
#6 AWG SOLID	YA6C-2TC38	---
#6 AWG STRANDED	YA6C-2TC38	256-30695-1158
#2 AWG STRANDED	YA2C-2TC38	256-30695-1160
#2 AWG SOLID	YA3C-2TC38	256-30695-1160
#1/0 AWG STRANDED	YA25-2TC38	256-30695-1162
#2/0 AWG STRANDED	YA26-2TC38	256-30695-1116
#3/0 AWG STRANDED	YA27-2TC38	54818BE
#4/0 AWG STRANDED	YA28-2TC38	256-30695-1117

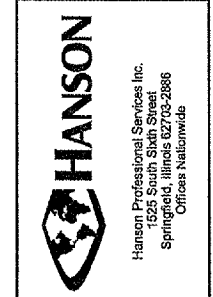
- NOTES
1. ALL CONNECTIONS TO GROUND BUS BAR SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE BUS BAR.
  2. GROUND WIRE CONNECTIONS TO EQUIPMENT SHALL BE WITH 2 HOLE TONGUE LONG BARREL COMPRESSION LUGS BOLTED TO THE DEVICE OR WITH THE RESPECTIVE EQUIP MANUFACTURER'S LUG OR TERMINAL WHERE APPLICABLE.
  3. GROUNDING ELECTRODE CONDUCTORS, BONDING JUMPERS, & INDIVIDUAL GROUND WIRES SHALL NOT BE INSTALLED IN METAL CONDUIT. WHERE PLASTIC CONDUIT IS USED FOR INDIVIDUAL GROUND WIRES, DO NOT COMPLETELY RENCIRCLE THE CONDUIT WITH FERROUS AND/OR MAGNETIC MATERIALS. WHERE METAL CLAMPS ARE INSTALLED USE NYLON BOLTS, NUTS, WASHERS, & SPACERS TO INTERRUPT A COMPLETE METALLIC PATH FROM ENCIRCLING THE CONDUIT.
  4. ALL CONNECTIONS SHALL BE COATED WITH A CORROSION PREVENTATIVE COMPOUND (SANCHEM INC. NO-OX-ID A-SPECIAL, OR BURNDY PENETROX E, OR APPROVED EQUAL) BEFORE JOINING. ALL COPPER BUS BARS SHALL BE CLEANED PRIOR TO MAKING CONNECTIONS TO REMOVE SURFACE OXIDATION. CLEAN SURFACES, OF RESPECTIVE DEVICES TO BE BONDED, TO BARE METAL, PER NEC 250-12.

BY	REVISION	DATE

CARMi MUNICIPAL AIRPORT  
CARMi, ILLINOIS

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-87

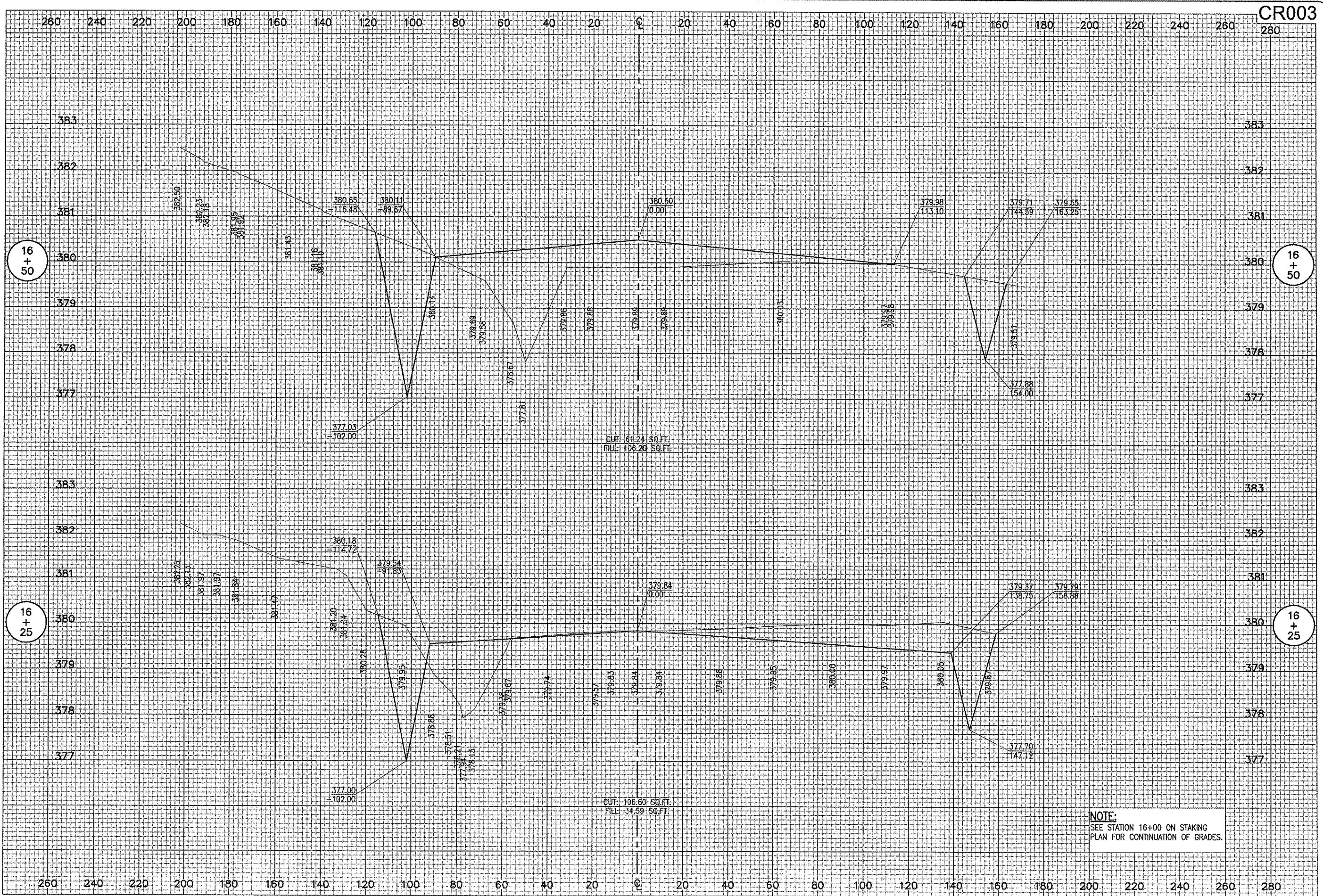
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Drawn KNL	Checked NY	Reviewed CAH



EXTEND PARTIAL  
PARALLEL TAXIWAY  
CCR GROUND BUS RISER  
AND GROUNDING DETAILS

APR 27, 2007 7:54 AM BAK  
E:\AIRPORTS\CARMi\801-077XVD\AIRPORT\SHEET\E-605.DWG - Work

APR 27, 2007 7:55 AM BAK  
 I:\AIRPORTS\CARM\801-07TXY\AIRPORT\5-SHEETS\R-301XS.DWG - STA. 16+25 TO STA. 16+50



CR003

16 + 50

16 + 50

16 + 25

16 + 25

**NOTE:**  
 SEE STATION 16+00 ON STAKING  
 PLAN FOR CONTINUATION OF GRADES.

DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS**

IL PROJ.: CUL-3683 A.I.P. PROJ.: J-17-0109-B7

LAYOUT	SEP	03/09/07
DRAWN	CCC/ZSH	03/09/07
REVIEWED	CAH	03/27/07

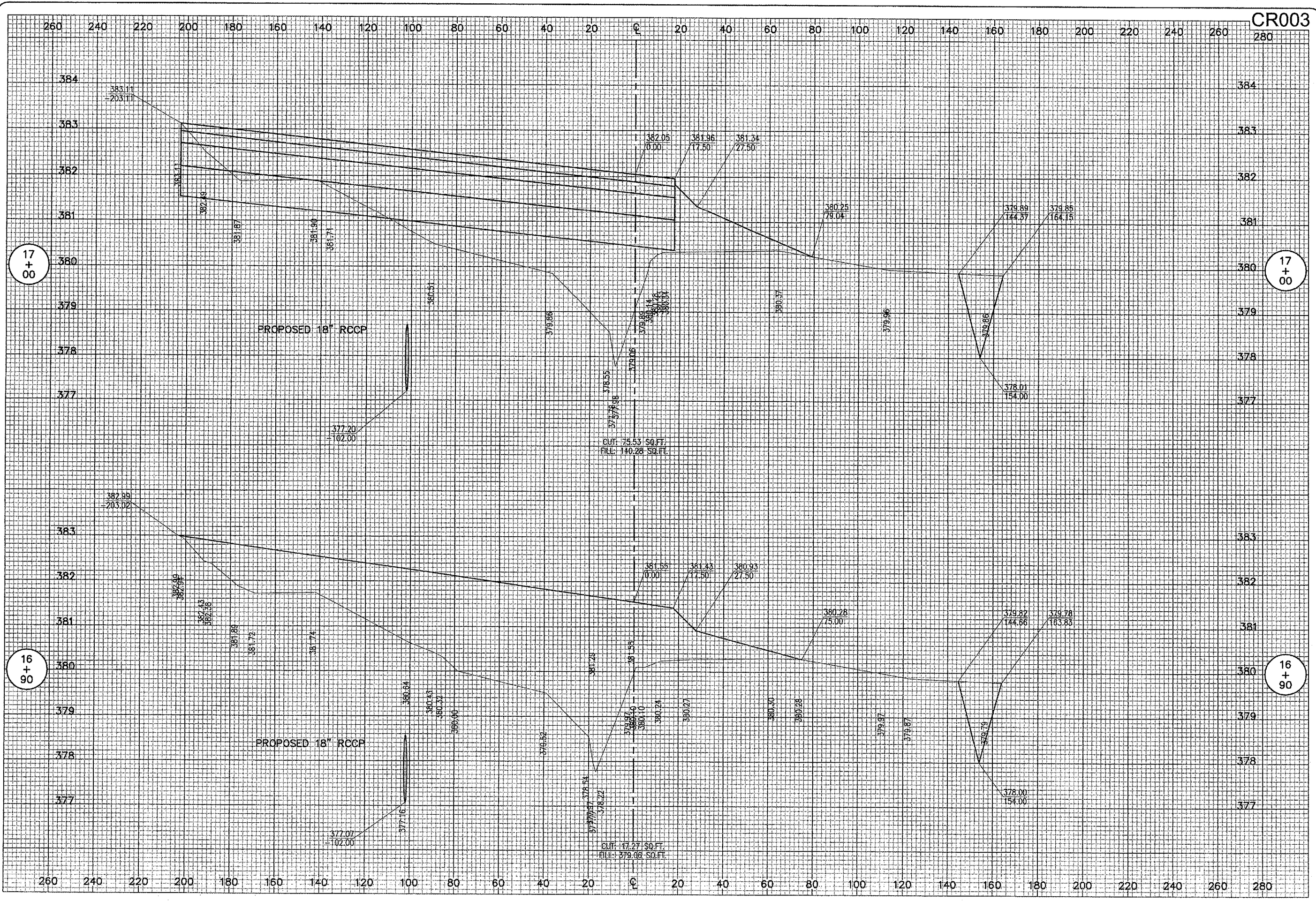
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 Date: 03/09/07



**EXTEND PARTIAL  
 PARALLEL TAXIWAY**

PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 16+25 TO STA. 16+50

APR 27, 2007 7:55 AM BAK  
 I:\AIRPORTS\CARMI\801-07TX1\AIRPORT\SHEETS\R-302XS.DWG - STA. 16+90 TO STA. 17+00



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DATE	REVISION	BY

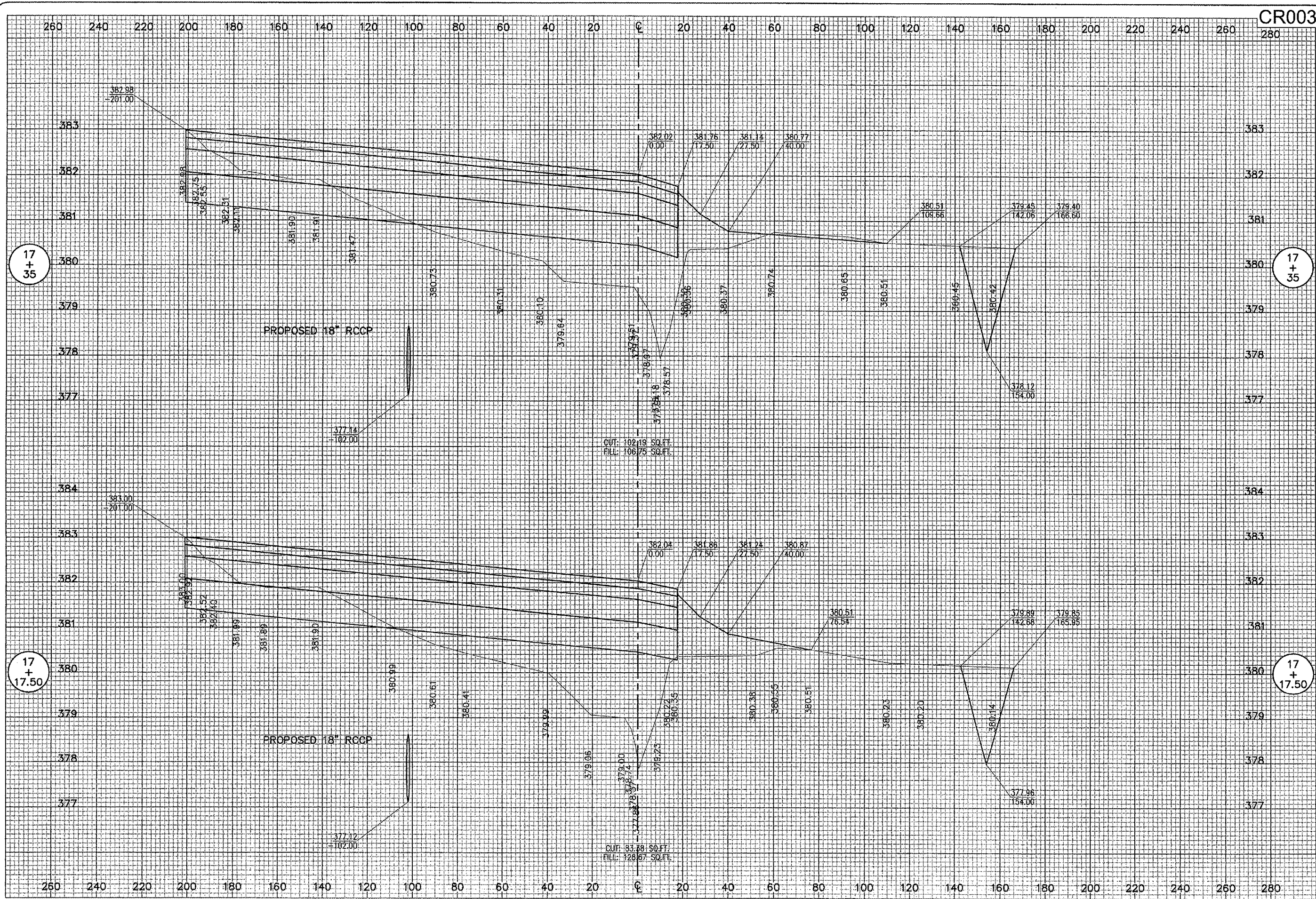
**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**  
 I.L. PROJ.: CUL-3663  
 A.L.P. PROJ.: 3-17-0109-87

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LAYOUT	SEP 03/09/07
DRAWN	CCC/ZSH 03/09/07
REVIEWED	CAH 03/27/07



**EXTEND PARTIAL  
 PARALLEL TAXIWAY**  
**PROPOSED TAXIWAY "A"**  
**CROSS-SECTIONS**  
 STA. 16+90 TO STA. 17+00

APR 27, 2007 7:56 AM BAK  
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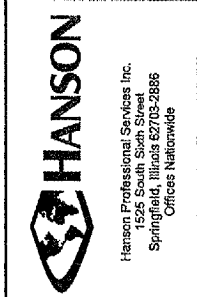
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DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT**  
**CARM, ILLINOIS**

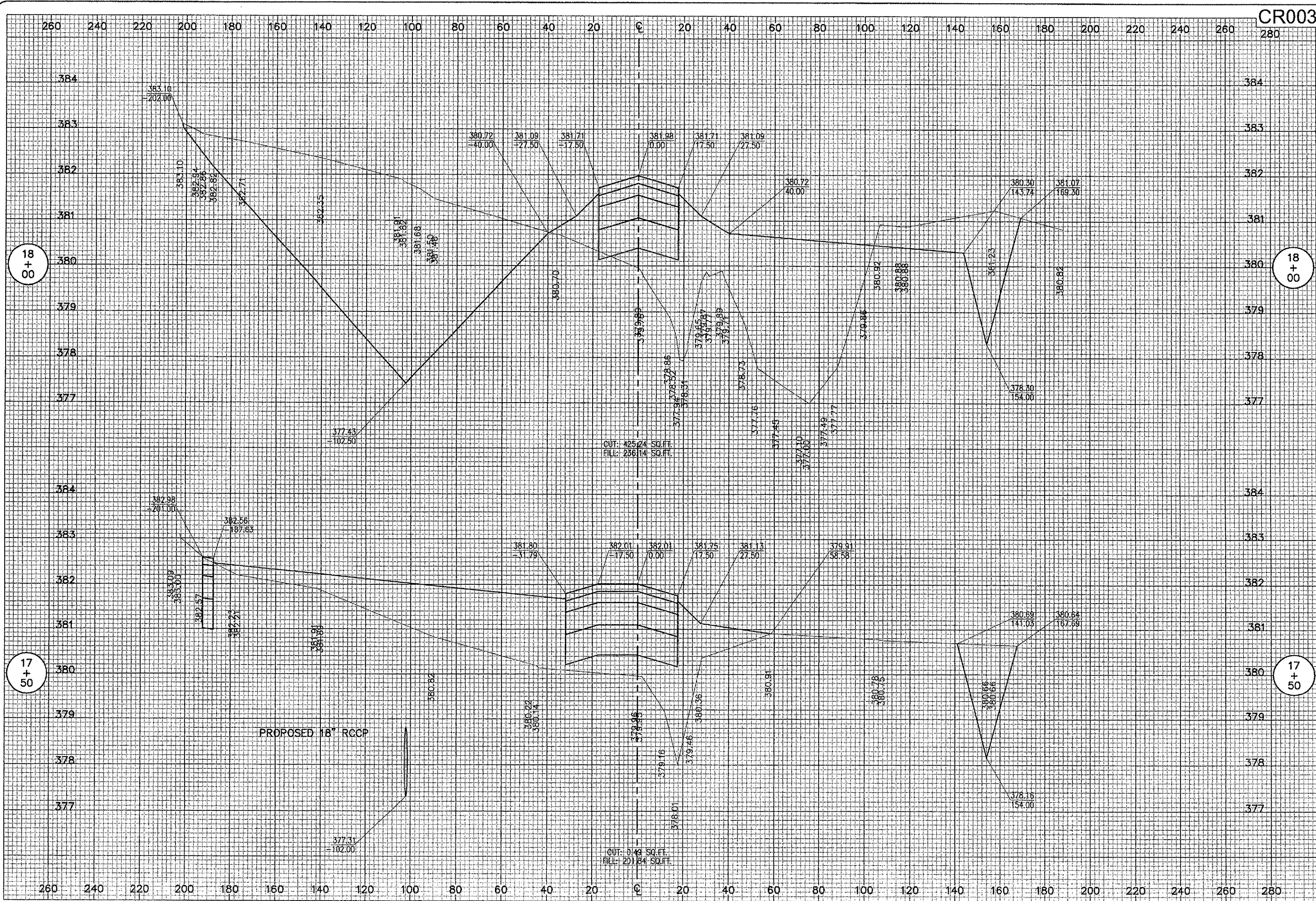
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**EXTEND PARTIAL PARALLEL TAXIWAY**  
**PROPOSED TAXIWAY "A"**  
**CROSS-SECTIONS**  
 STA. 17+17.50 TO STA. 17+35

APR 27, 2007 7:56 AM BAK  
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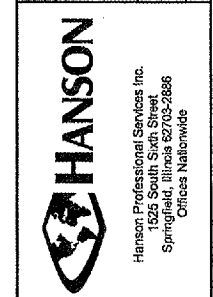
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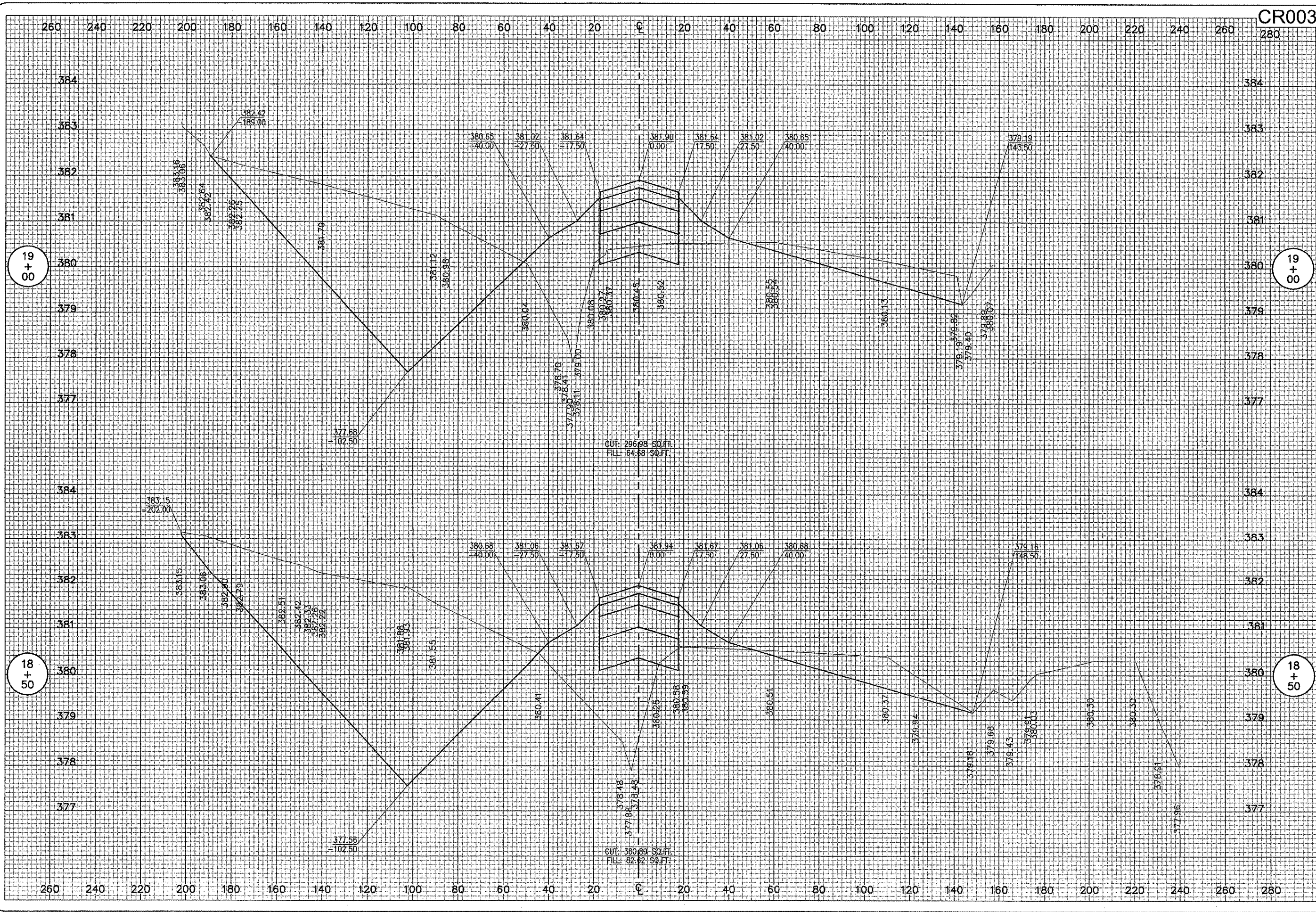
DATE	REVISION	BY

IL PROJ.: CUL-3683  
 A.I.P. PROJ.: 3-17-0109-B7

LAYOUT	SEP	03/09/07
DRAWN	CCC/ZSH	03/09/07
REVIEWED	CAH	03/27/07



EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 17+50 TO STA. 18+00



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DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT**  
 CARM, ILLINOIS

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

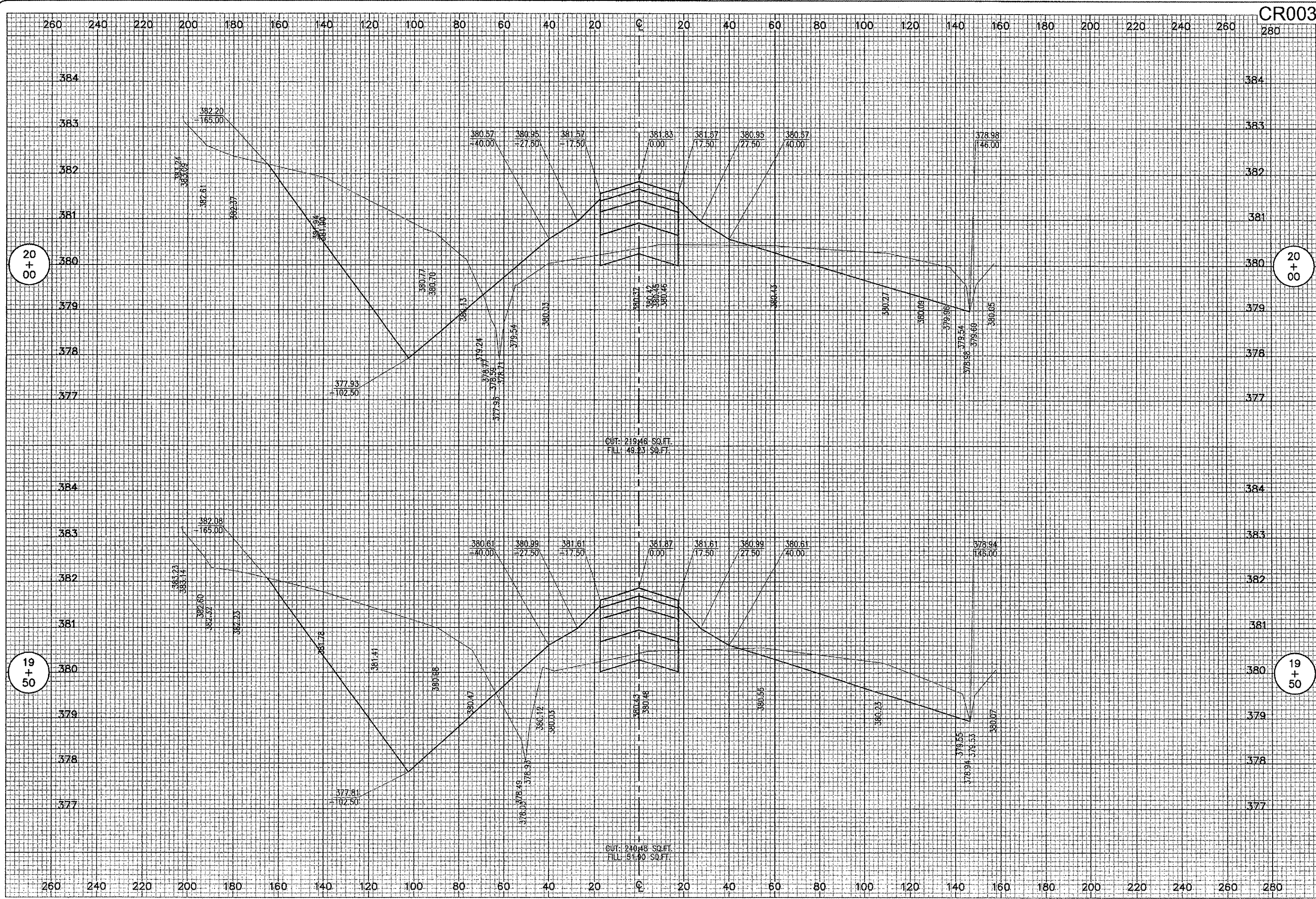
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**EXTEND PARTIAL  
 PARALLEL TAXIWAY**  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 18+50 TO STA. 19+00

APR 27, 2007 7:56 AM BAK  
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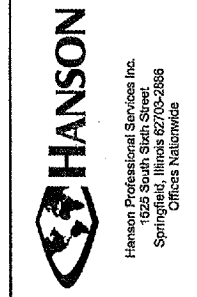
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DATE	REVISION	BY

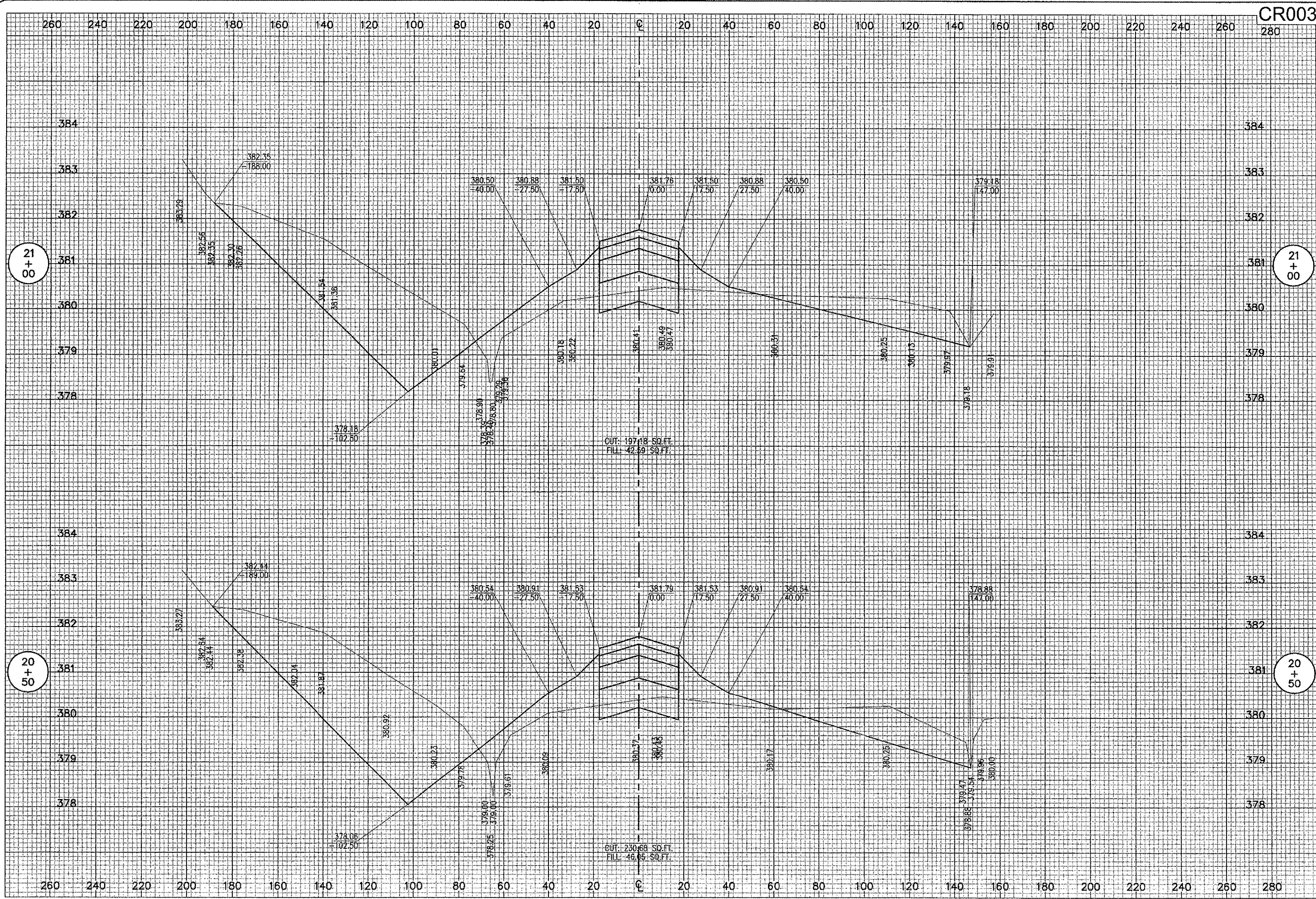
CARMI MUNICIPAL AIRPORT  
 CARMI, ILLINOIS  
 I.L. PROJ.: CUL-35683  
 A.I.P. PROJ.: 3-17-0108-B7

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EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 19+50 TO STA. 20+00

APR 27, 2007 7:58 AM BAK  
 I:\AIRPORTS\CARMI\801-071X\AIRPORT\SHEETS\R-307XS.DWG - STA. 20+50 TO STA. 21+00



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DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

I.E. Project No. 801-071X.D 0800 Drawing: R-307XS.DWG Scale: 1"=20' Horiz., 1"=1' Vert. Date: 03/09/07	LAYOUT DRAWN REVIEWED	SEP CCC/ZSH CAH	03/09/07 03/09/07 03/27/07
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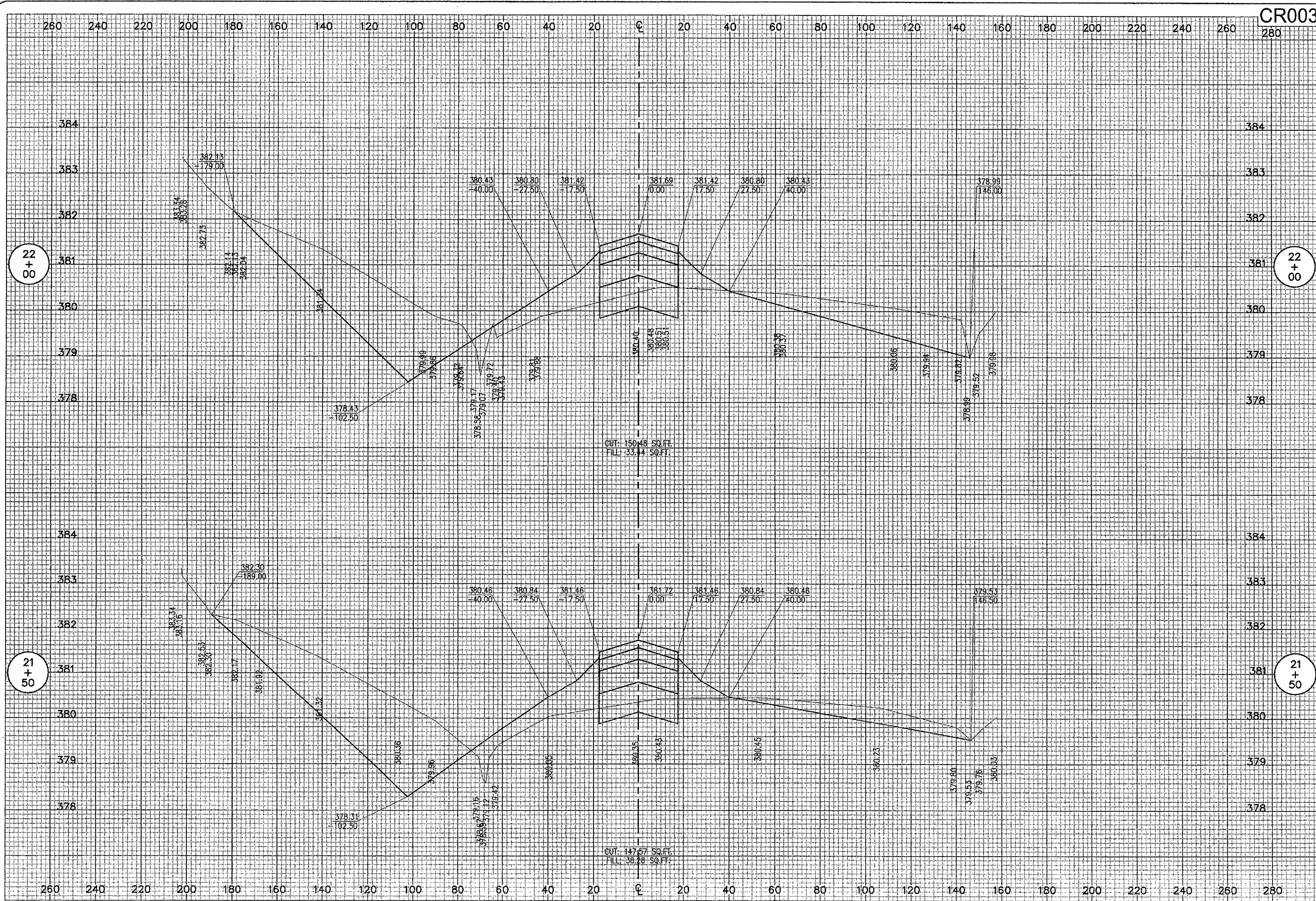


**EXTEND PARTIAL PARALLEL TAXIWAY**  
**PROPOSED TAXIWAY "A" CROSS-SECTIONS**  
 STA. 20+50 TO STA. 21+00

40

40 of 55 sheets





CR003

DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS**

IL PROJ.: CUL-3663 A.I.P. PROJ.: 3-17-0109-87

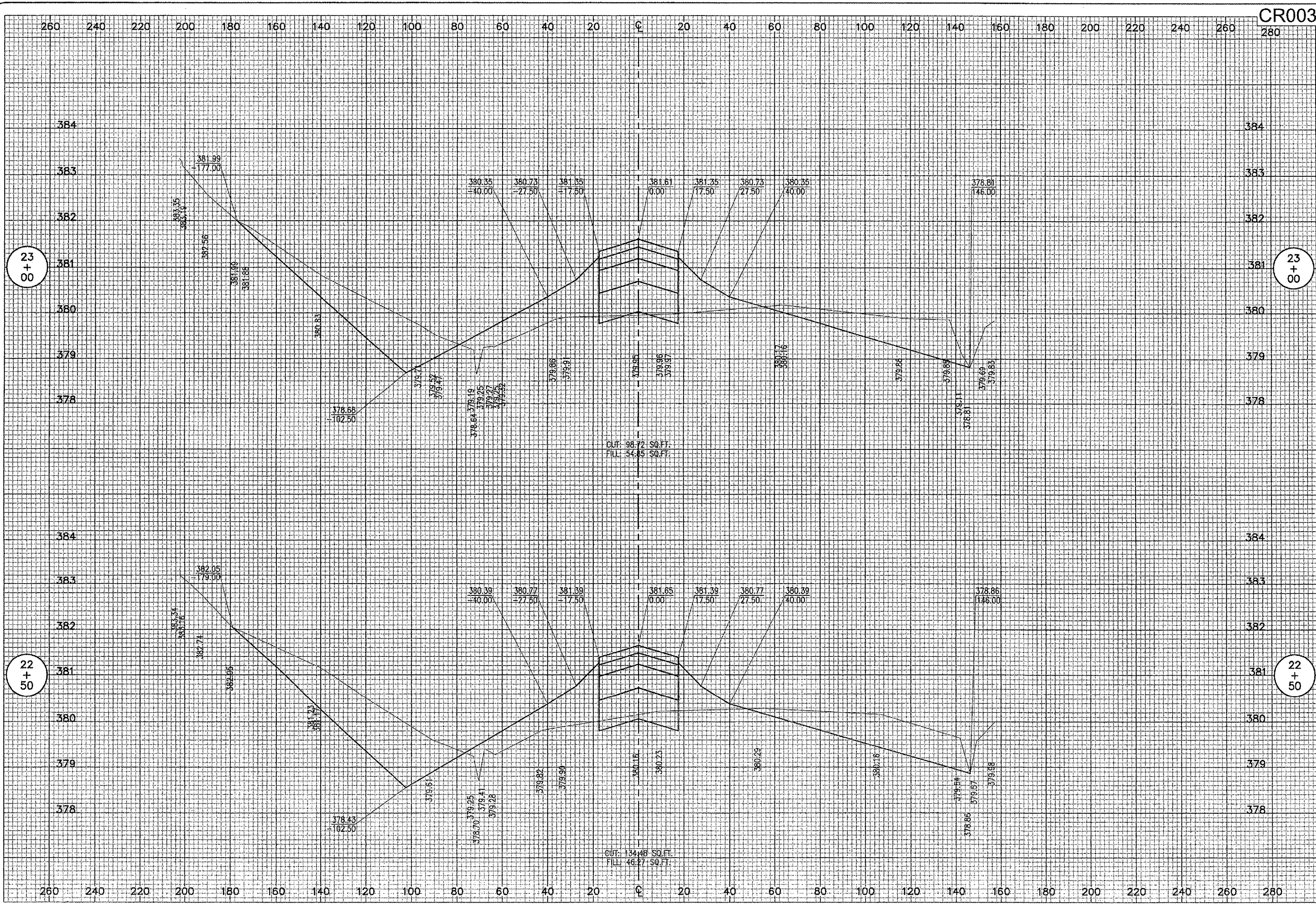
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 Springfield, Illinois 62703-2886  
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**EXTEND PARTIAL  
 PARALLEL TAXIWAY**  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 21+50 TO STA. 22+00

APR 27, 2007 8:00 AM BAK  
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DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT**  
**CARM, ILLINOIS**

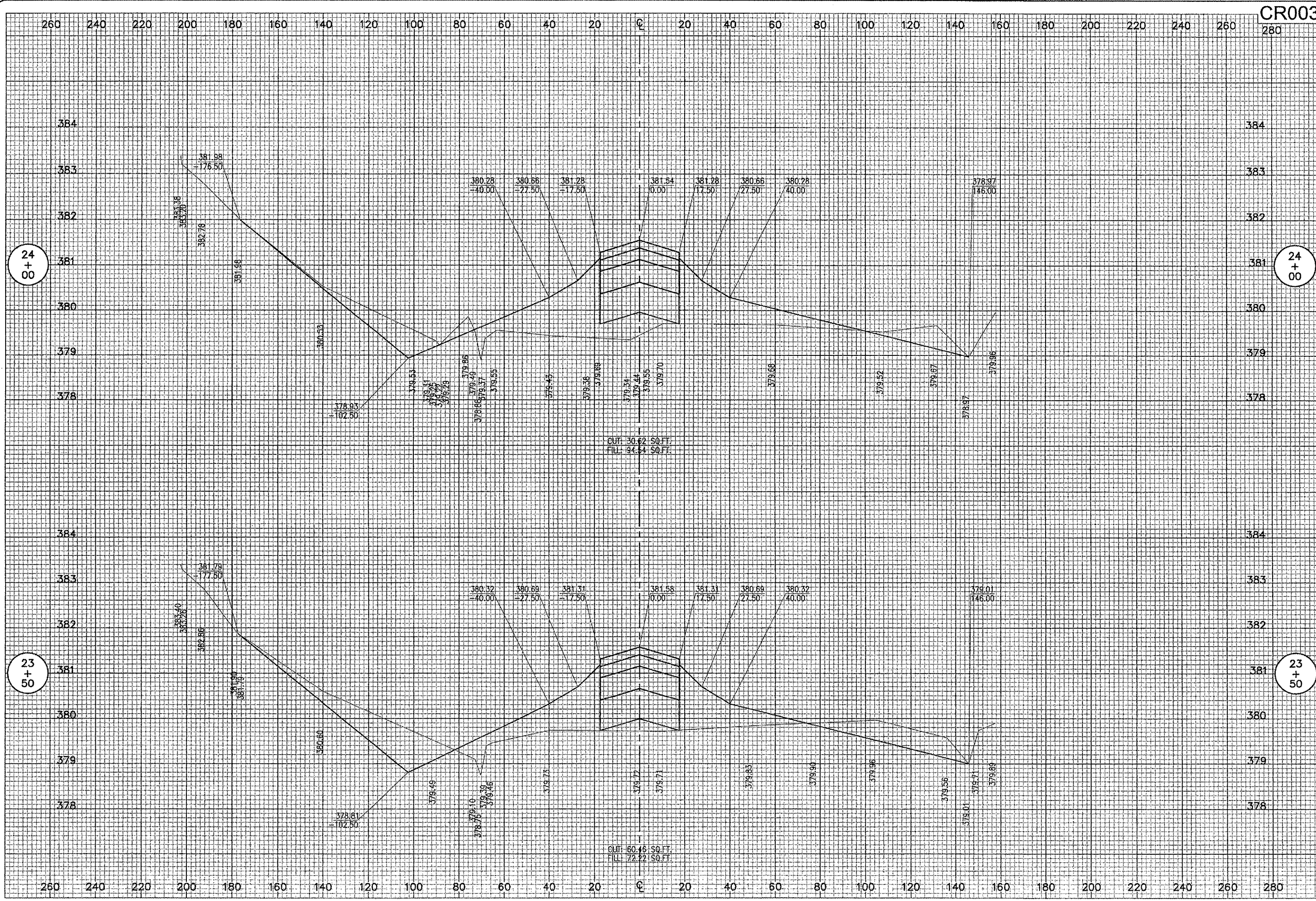
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Date: 03/09/07	
LAYOUT	SEP 03/09/07
DRAWN	CCC/ZSH 03/09/07
REVIEWED	CAH 03/27/07



**EXTEND PARTIAL PARALLEL TAXIWAY**

PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 22+50 TO STA. 23+00



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DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-01-09-87

LAYOUT	SEP	03/09/07
DRAWN	CCC/ZSH	03/09/07
REVIEWED	CAH	03/27/07

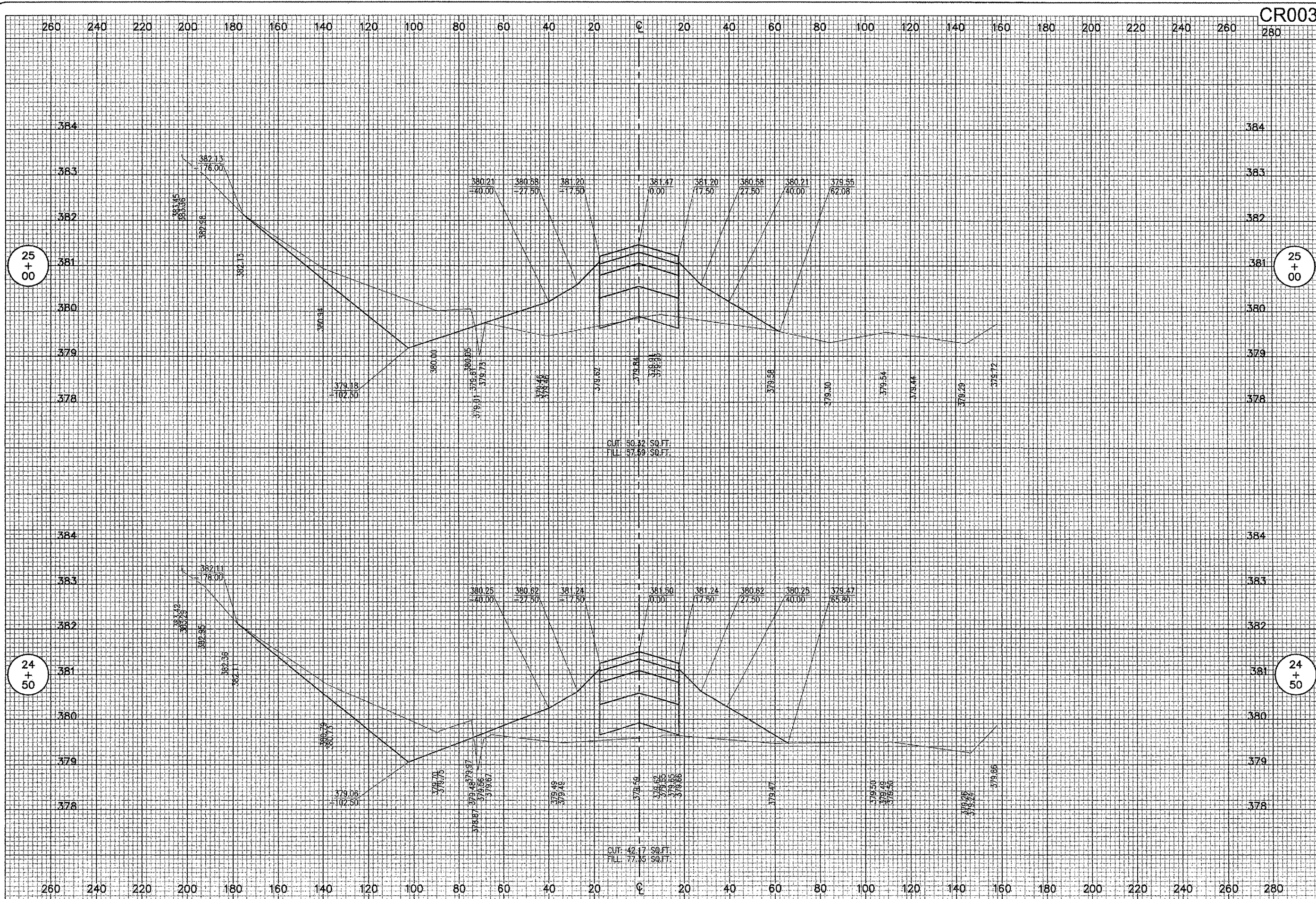
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 Date 03/09/07



**EXTEND PARTIAL  
 PARALLEL TAXIWAY**

**PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS**

STA. 23+50 TO STA. 24+00



CR003

DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS**

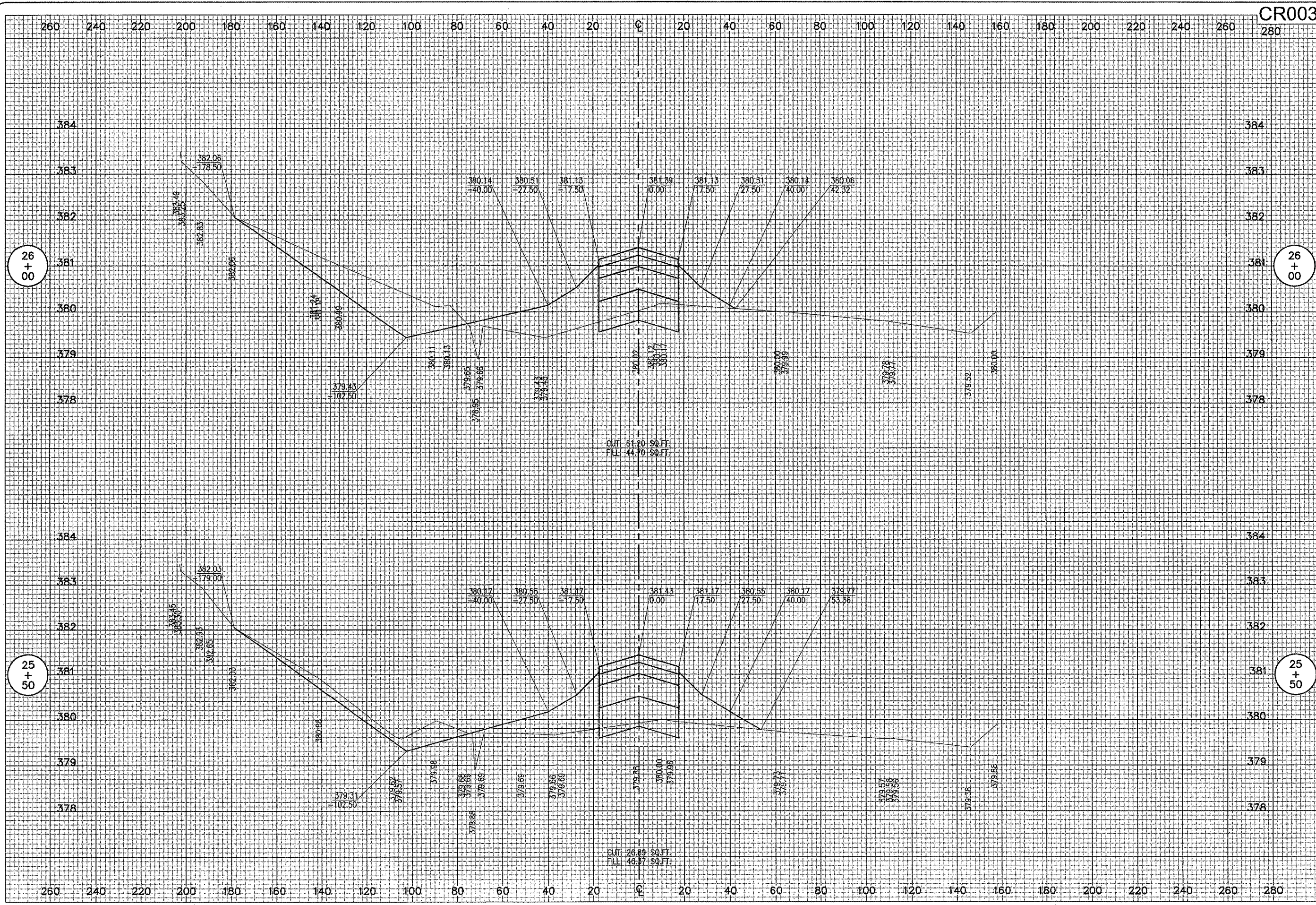
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HD Project No. 801-07TAXI 0800 Filename R-311XS.DWG Scale 1"=20' Horiz. 1"=1' Vert. Date 03/09/07	LAYOUT DRAWN CCC/ZSH REVIEWED CAH	SEP 03/09/07 CCC/ZSH 03/09/07 CAH 03/27/07
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**EXTEND PARTIAL  
 PARALLEL TAXIWAY**  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 24+50 TO STA. 25+00

APR 27, 2007 8:01 AM BAK  
 I:\AIRPORTS\CARMIL\801-07TXX\AIRPORT\SHEETS\R-312XS.DWG - STA. 25+50 TO STA. 26+00



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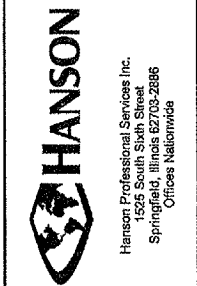
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DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT  
 CARMIL, ILLINOIS**

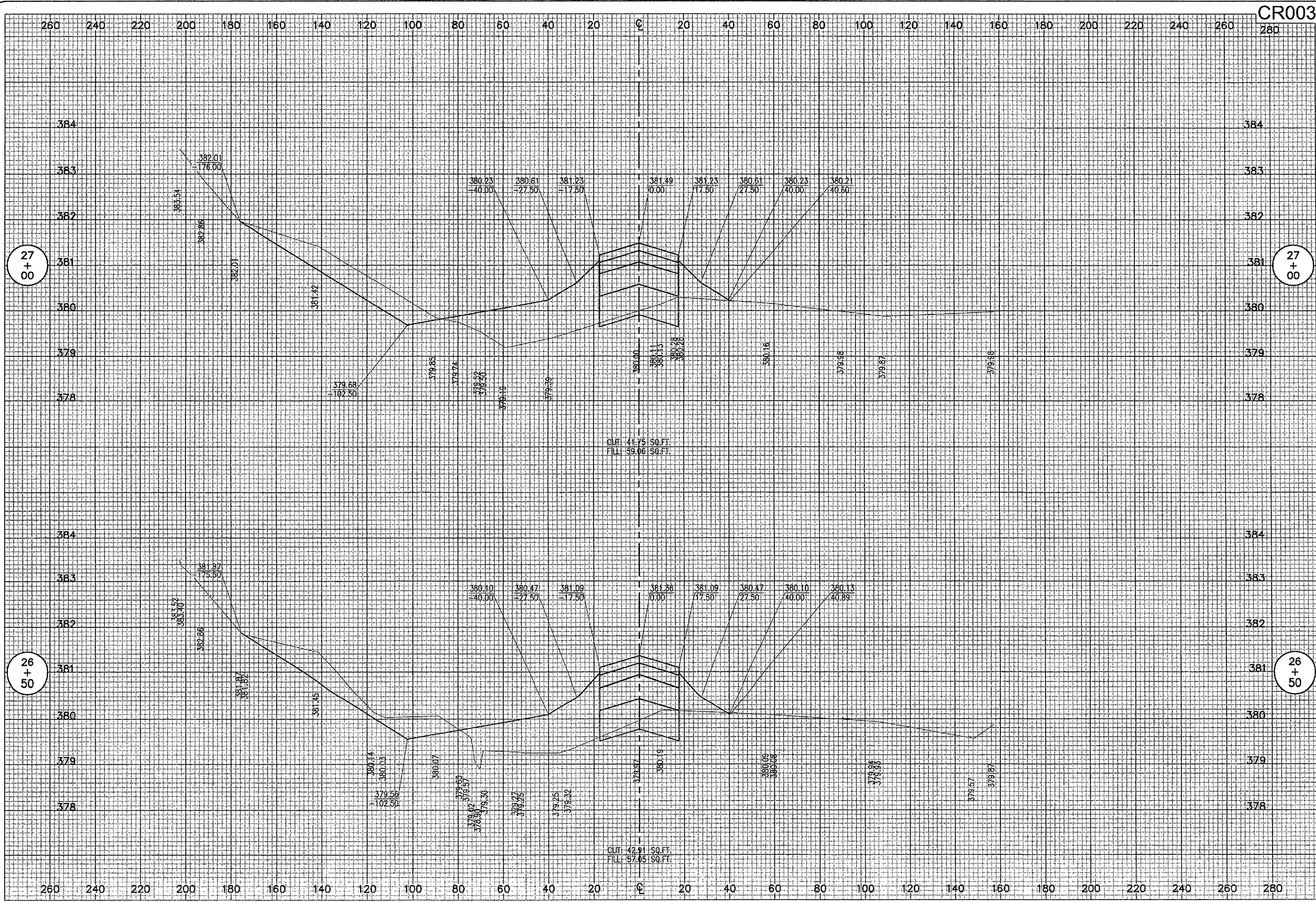
IL PROJ.: CU-5683 A.I.P. PROJ.: 3-17-0109-B7

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Drawn	R-312XS.DWG
Scale	1"=20' Horiz. 1"=1' Vert.
Date	03/09/07
LAYOUT	SEP 03/09/07
DRAWN	CCC/ZSH 03/09/07
REVIEWED	CAH 03/27/07



**EXTEND PARTIAL  
 PARALLEL TAXIWAY**

**PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 25+50 TO STA. 26+00**



DATE	REVISION	BY

**CARMi MUNICIPAL AIRPORT  
 CARMi, ILLINOIS**

A.I.P. PROJ.: 3-17-0109-B7  
 I.L. PROJ.: CUL-3683

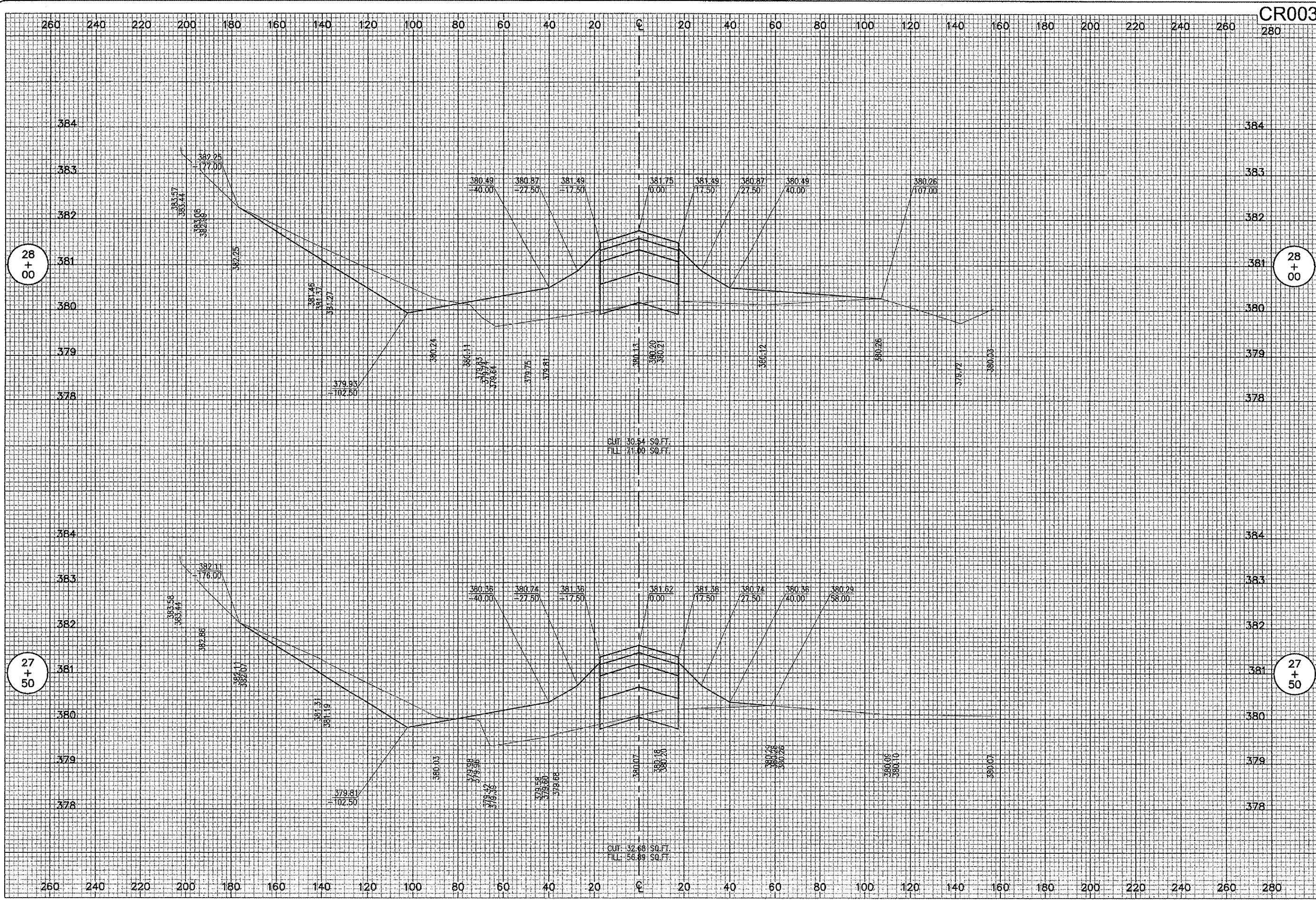
H&B Project No. 801-07TXVD 0800 Filename R-313XS.DWG Scale 1"=20' Horiz, 1"=1' Vert. Date 03/09/07	LAYOUT SEP 03/09/07 DRAWN CCC/ZSH 03/09/07 REVIEWED CAH 03/27/07
---	--



**EXTEND PARTIAL  
 PARALLEL TAXIWAY**

PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 26+50 TO STA. 27+00

APR 27, 2007 8:03 AM BAK  
 I:\AIRPORTS\CARMIL\801-07TX\AIRPORT SHEETS\R-314XS.DWG - STA. 27+50 TO STA. 28+00



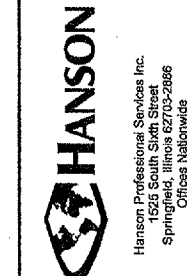
CR003

DATE	REVISION	BY

**CARMIL MUNICIPAL AIRPORT  
 CARMIL, ILLINOIS**

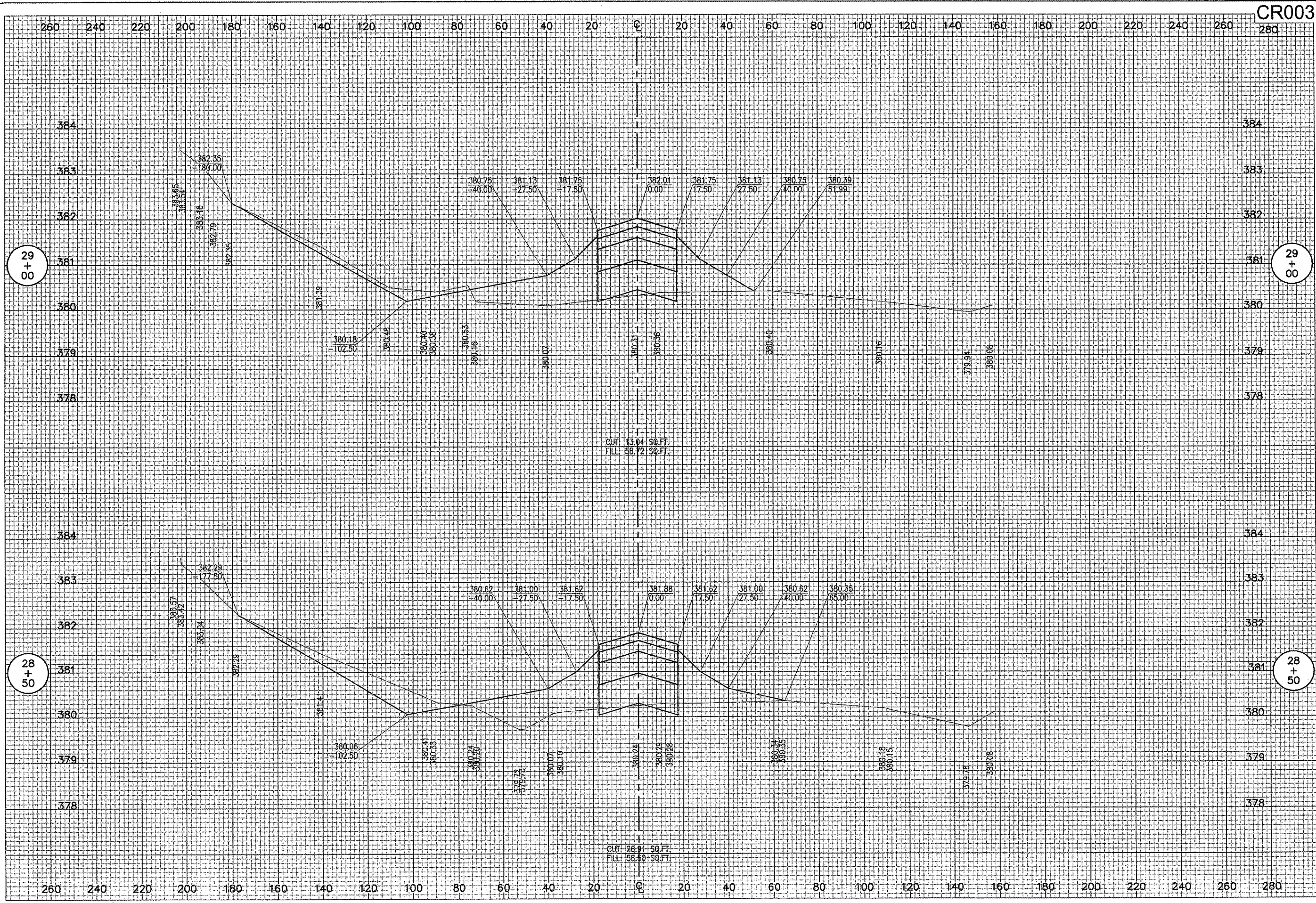
IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

I.E.I. Project No. 801-07TXD 0800 Filename: R-314XS.DWG Scale: 1"=20' Horiz., 1"=1' Vert. Date: 03/09/07	
LAYOUT	SEP 03/09/07
DRAWN	CCC/ZSH 03/09/07
REVIEWED	CAH 03/27/07



**EXTEND PARTIAL  
 PARALLEL TAXIWAY**  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 27+50 TO STA. 28+00

APR 27, 2007 8:03 AM BAK  
 I:\AIRPORTS\CARM\801-07TAXI\AIRPORT\SHEETS\R-315XS.DWG - STA. 28+50 TO STA. 29+00



CR003

29 + 00

29 + 00

28 + 50

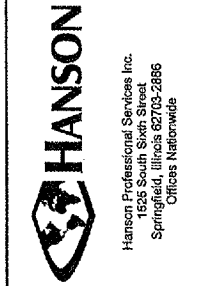
28 + 50

DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS**

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-01-09-B7

IPI Project No. 801-07TAXI 0800 Filename R-315XS.DWG Scale 1"=20' Horiz, 1"=1' Vert. Date 03/09/07	LAYOUT SEP 03/09/07 DRAWN CCC/ZSH 03/09/07 REVIEWED CAH 03/27/07
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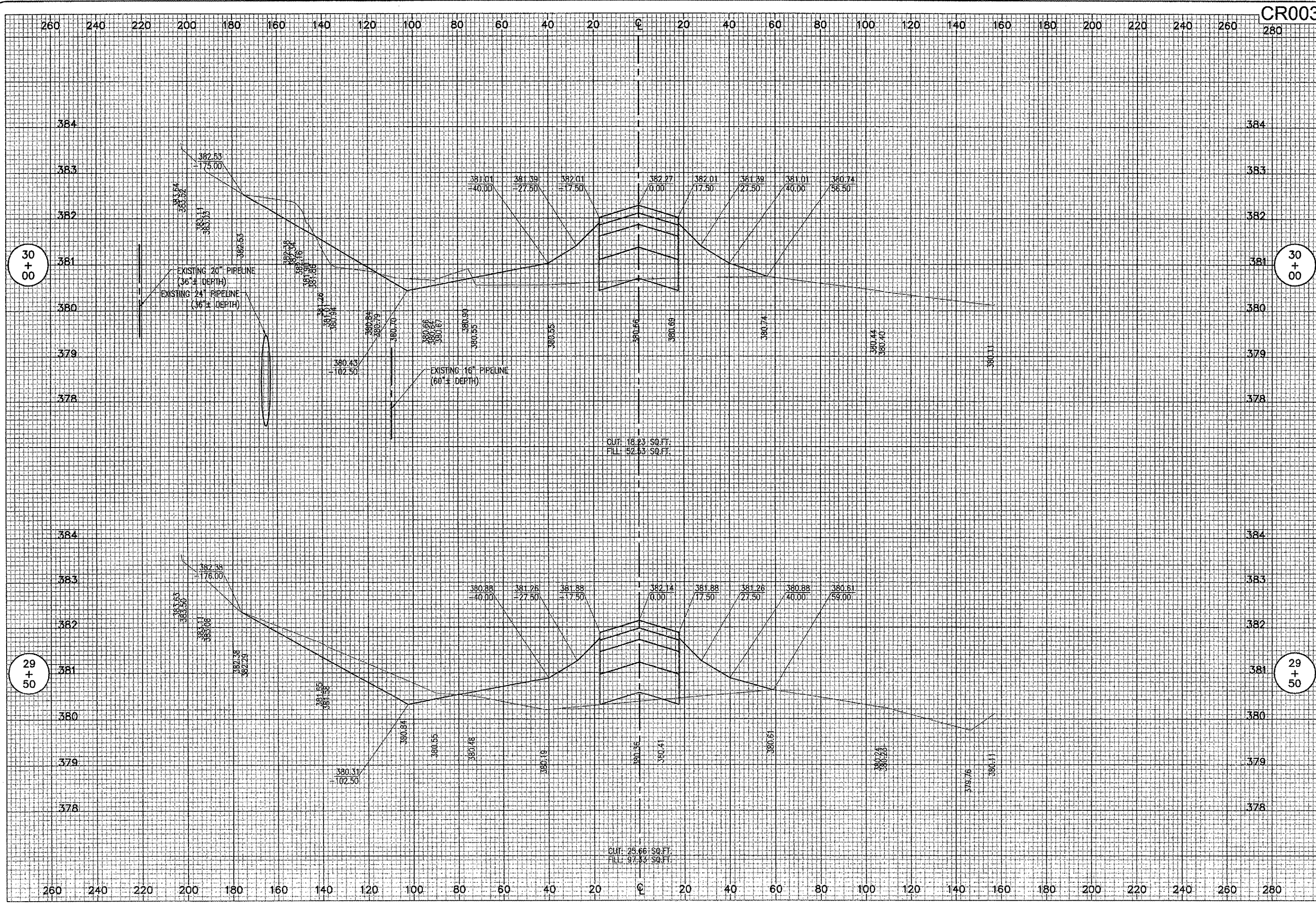


**EXTEND PARTIAL  
 PARALLEL TAXIWAY**

**PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 28+50 TO STA. 29+00**



APR 30, 2007 3:35 PM CCC  
 I:\AIRPORTS\CARM\801-071XY\AIRPORT\SHEETS\R-316XS.DWG - STA. 29+50 TO STA. 30+00



CR003

DATE	REVISION	BY

CARMI MUNICIPAL AIRPORT  
 CARMI, ILLINOIS

ILL. PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-B7

PL Project No. 801-071XYD\_0800  
 Filename: R-316XS.DWG  
 Scale: 1"=20' Horiz., 1"=1' Vert.  
 Date: 03/09/07

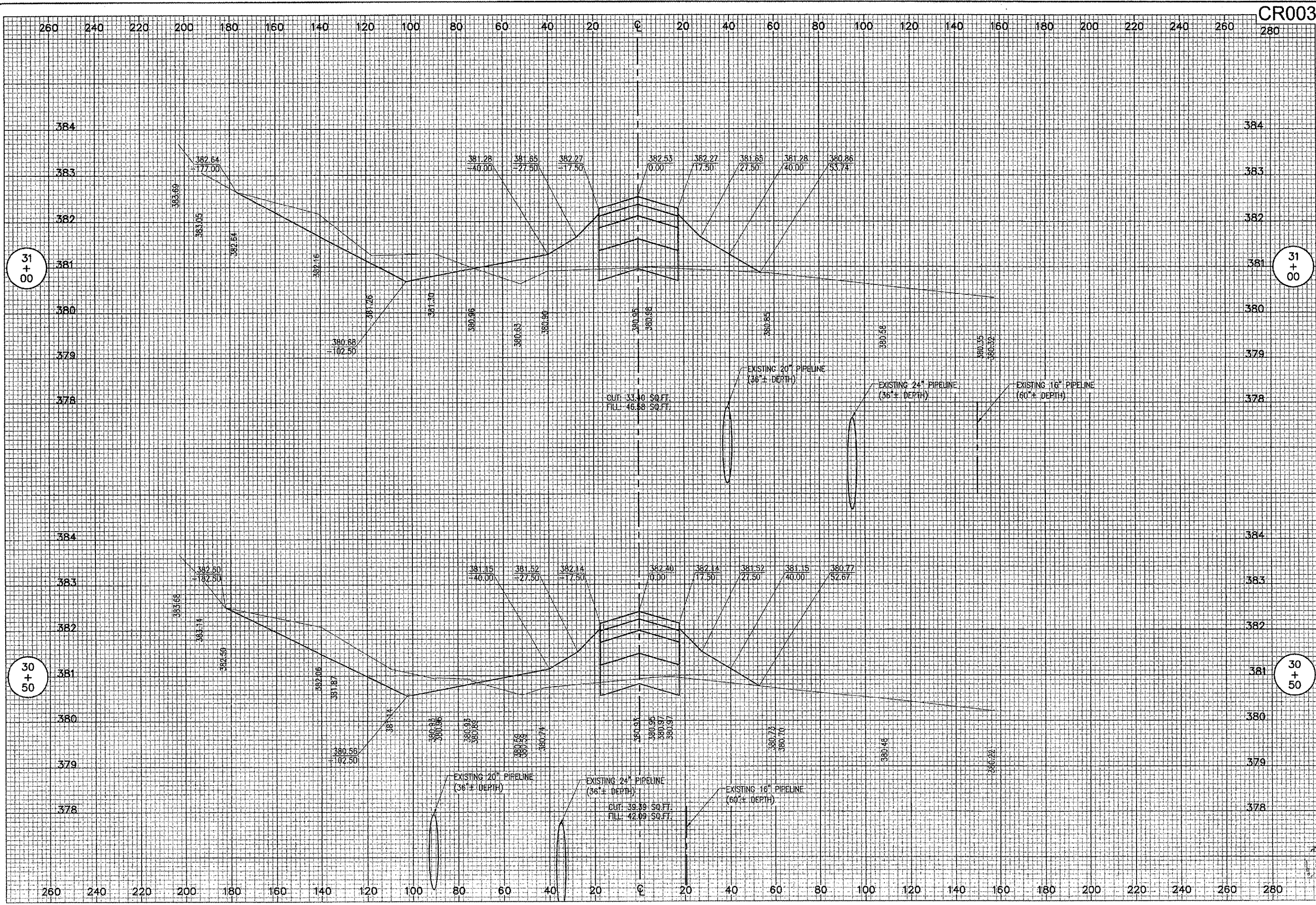
LAYOUT	SEP	03/09/07
DRAWN	CCC/ZSH	03/09/07
REVIEWED	CAH	03/27/07



Hanson Professional Services Inc.  
 1525 South Sixth Street  
 Springfield, Illinois 62703-2886  
 Offices Nationwide

EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 29+50 TO STA. 30+00

APR 30, 2007 3:35 PM CCC  
 I:\AIRPORTS\CARMI\801-07TKY\AIRPORT\SHEETS\801-07TKY.DWG - STA. 30+50 TO STA. 31+00



CR003

31  
+  
00

31  
+  
00

30  
+  
50

30  
+  
50

DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT  
 CARMI, ILLINOIS**

A.I.P. PROJ.: 3-17-0109-87  
 I.L. PROJ.: CUL-3683

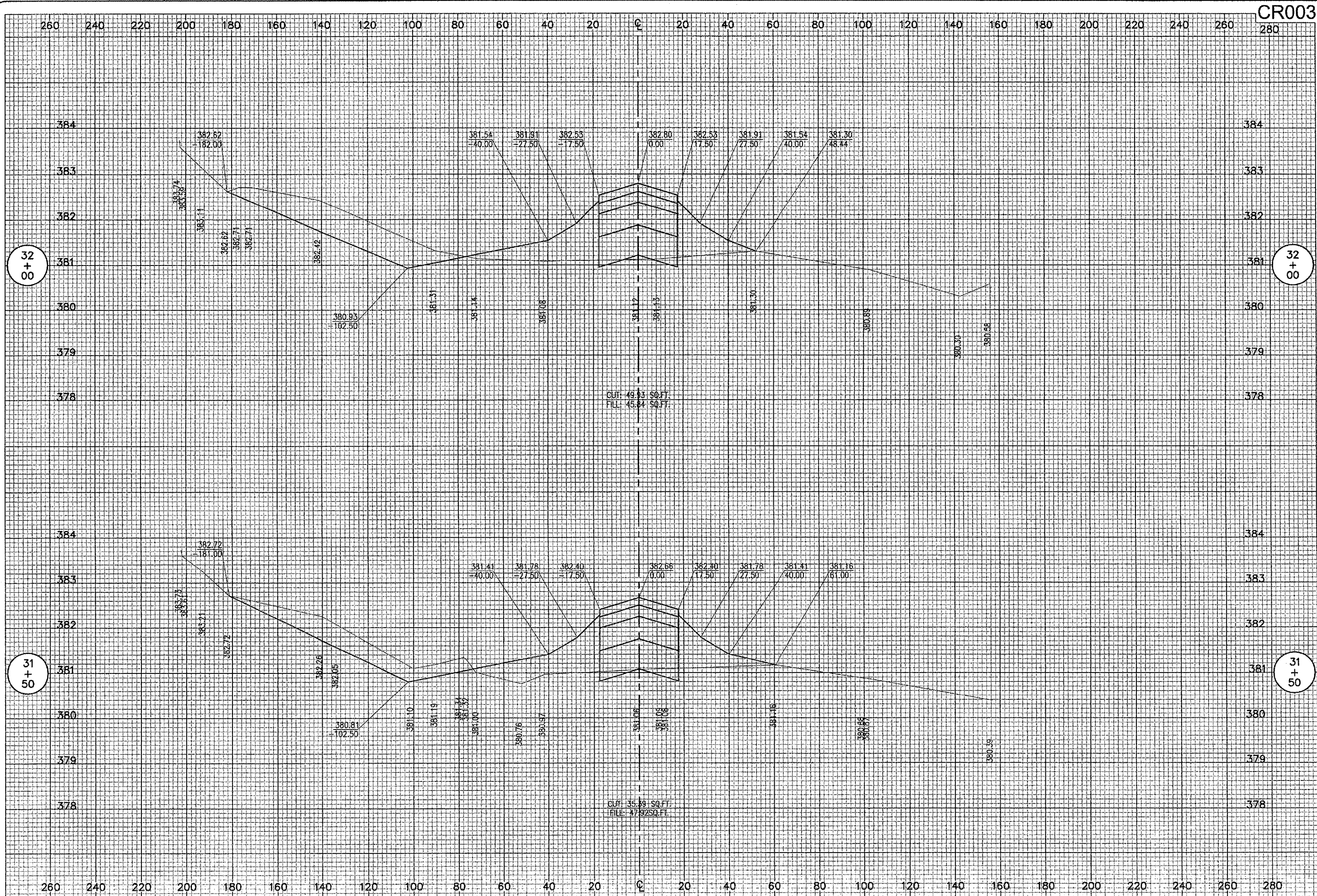
LAYOUT	SEP	03/09/07
DRAWN	CCC/ZSH	03/09/07
REVIEWED	CAH	03/27/07

HEI Project No. 801-07TKYD.0800  
 Filename: R-317XS.DWG  
 Scale: 1"=20' Horiz., 1"=1' Vert.  
 Date: 03/09/07



**EXTEND PARTIAL  
 PARALLEL TAXIWAY**  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 30+50 TO STA. 31+00

APR 27, 2007 8:05 AM BAK  
 U:\AIRPORTS\CARMI\801-07TXX\AIRPORT\SHEETS\R-318XS.DWG - STA. 31+50 TO STA. 32+00

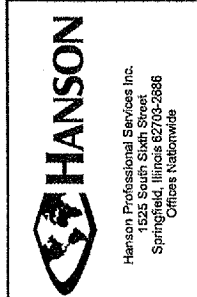


DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**

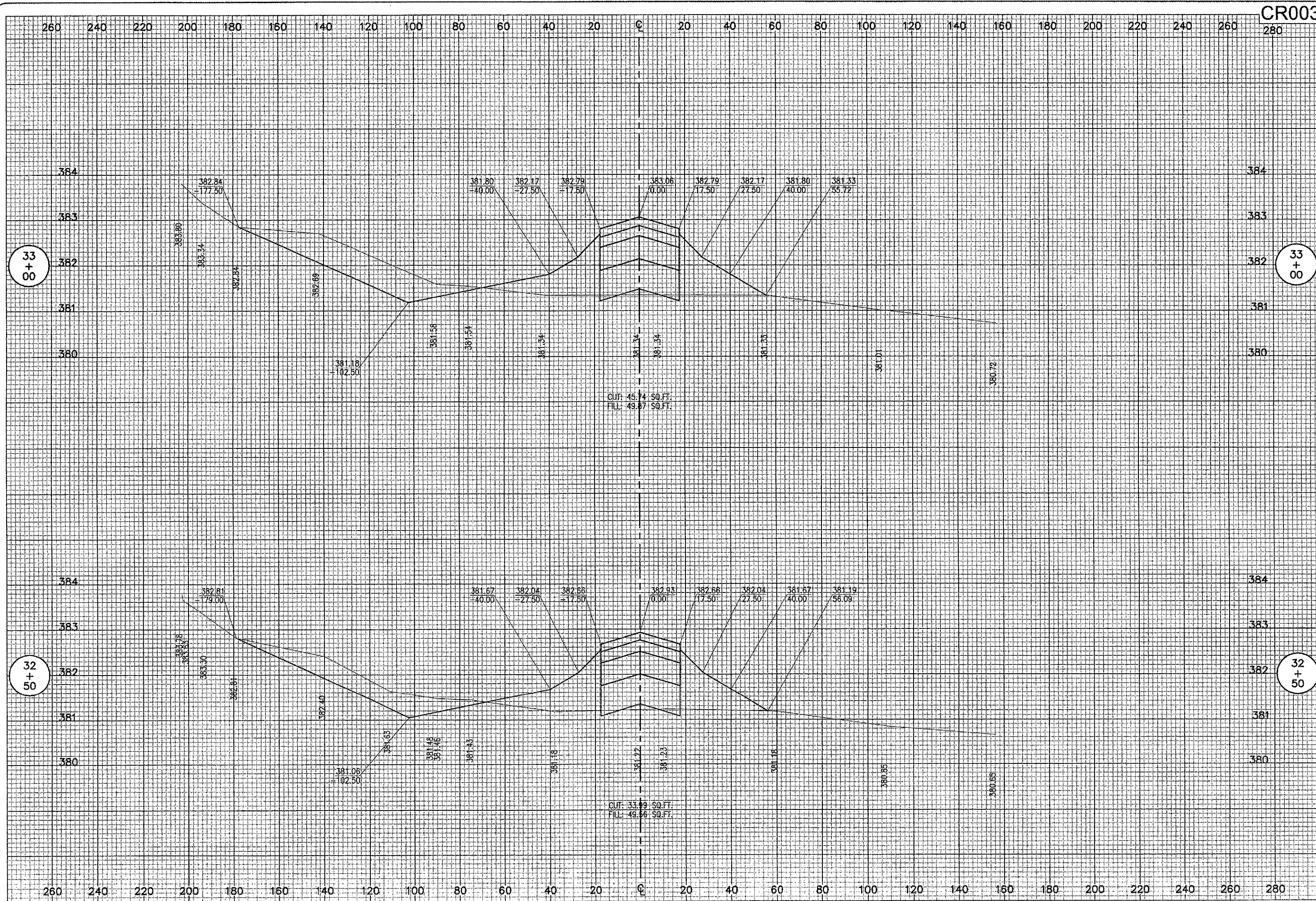
IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-87

Project No.	801-07TXXD 0800
Filename	R-318XS.DWG
Scale	1"=20' Horiz., 1"=1' Vert.
Date	03/09/07
LAYOUT	SEP 03/09/07
DRAWN	CCC/ZSH 03/09/07
REVIEWED	CAH 03/27/07



**EXTEND PARTIAL PARALLEL TAXIWAY**  
**PROPOSED TAXIWAY "A" CROSS-SECTIONS**  
 STA. 31+50 TO STA. 32+00

APR 27, 2007 8:06 AM BAK  
 I:\AIRPORTS\CARM\801-07TAXY\AIRPORT\SHEETS\R-319XS.DWG - STA. 32+50 TO STA. 33+00



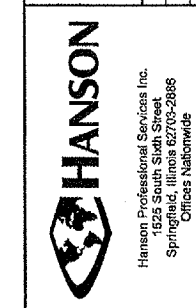
CR003

DATE	REVISION	BY

**CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS**

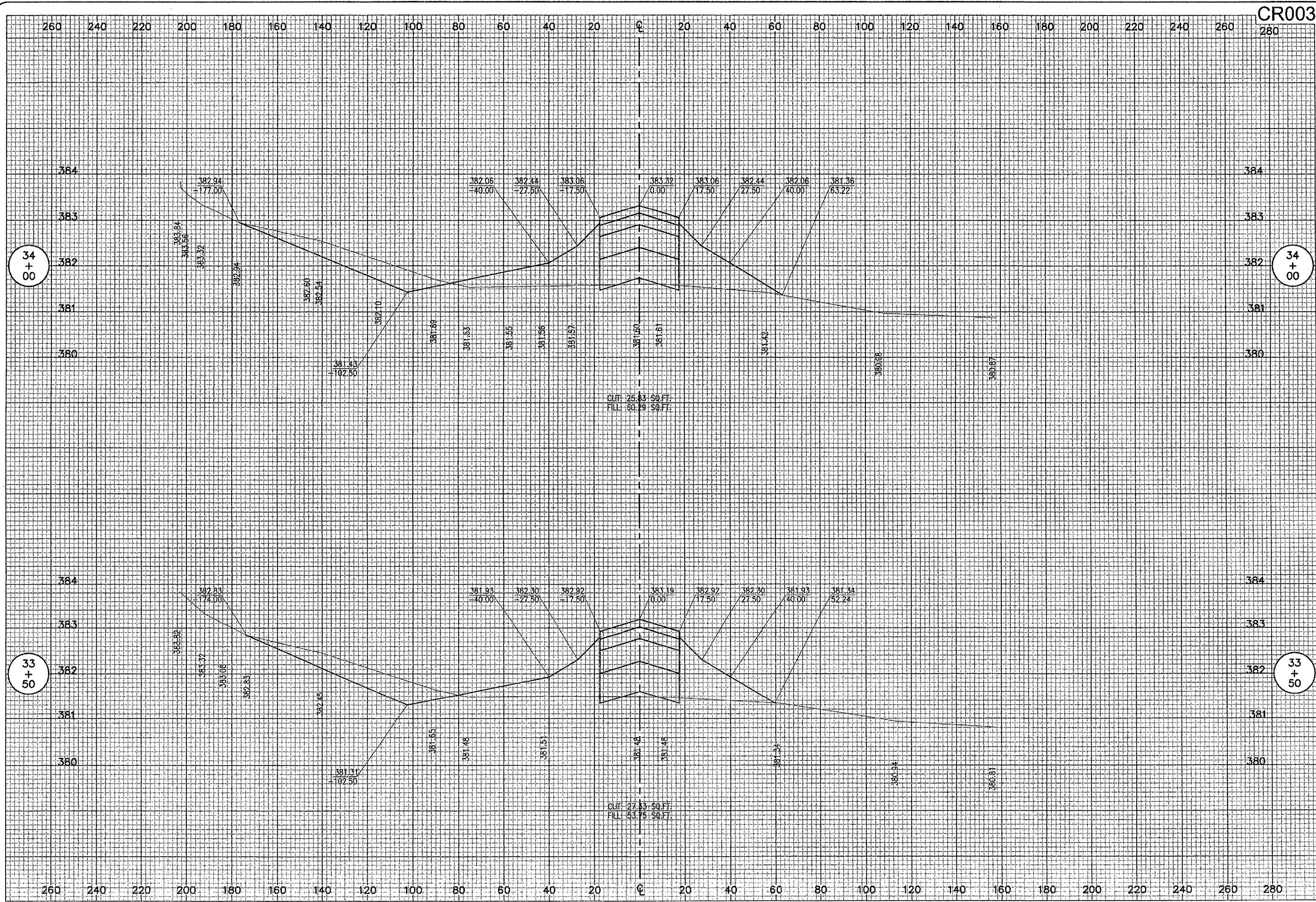
IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0109-87

FILE PROJECT NO. 801-07TAXY.D800	SEP 03/09/07
FILENAME R-319XS.DWG	CCC/ZSH 03/09/07
SCALE 1"=20' Horiz., 1"=1' Vert.	CAH 03/27/07
DATE 03/09/07	



**EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 32+50 TO STA. 33+00**

APR 27, 2007 8:06 AM BAK  
 I:\AIRPORTS\CARMI\B01-07TXY\AIRPORT\SHEETS\R-320XS.DWG - STA. 33+50 TO STA. 34+00



DATE	REVISION	BY

**CARMI MUNICIPAL AIRPORT**  
**CARMI, ILLINOIS**

IL PROJ.: CUL-3683  
 A.I.P. PROJ.: 3-17-0109-B7

HEI Project No.	801-07TXYD 0800
Filename	R-320XS.DWG
Scale	1"=20' Horiz., 1"=1' Vert.
Date	03/09/07
LAYOUT	SEP 03/09/07
DRAWN	COC/ZSH 03/09/07
REVIEWED	CAF 03/27/07

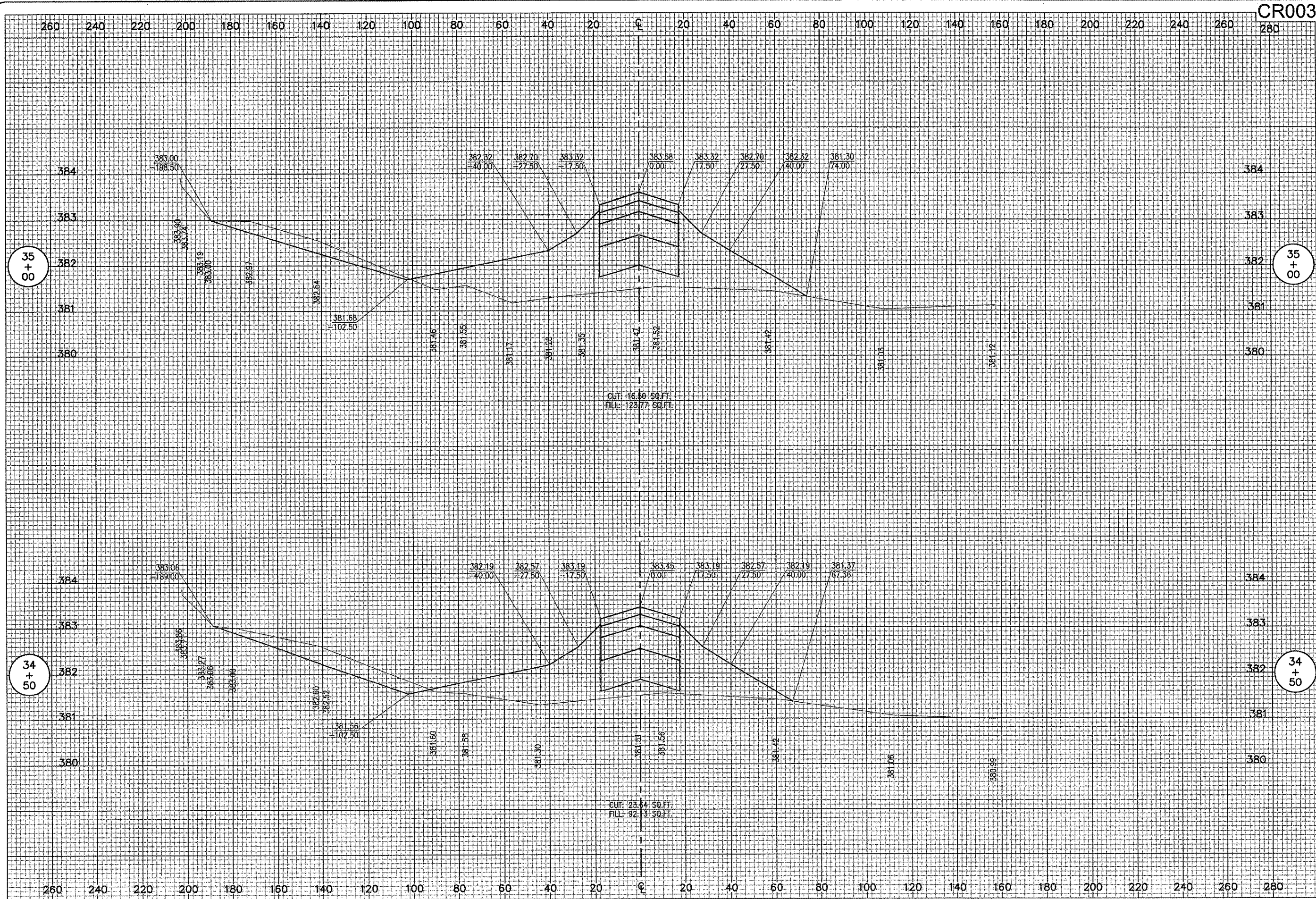
**HANSON**

Hanson Professional Services Inc.  
 1525 South Sixth Street  
 Springfield, Illinois 62703-2886  
 Offices Nationwide

**EXTEND PARTIAL PARALLEL TAXIWAY**

PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 33+50 TO STA. 34+00

APR 27, 2007 8:07 AM BAK  
 I:\AIRPORTS\CARM\801-07TAXY\AIRPORT\SHEETS\R-321.XSDWG - STA. 34+50 TO STA. 35+00



CR003

35  
+  
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35  
+  
00

34  
+  
50

34  
+  
50

CUT: 16.50 SQ.FT.  
 FILL: 123.77 SQ.FT.

CUT: 23.64 SQ.FT.  
 FILL: 92.33 SQ.FT.

DATE	REVISION	BY

CARM MUNICIPAL AIRPORT  
 CARM, ILLINOIS

IL PROJ.: CUI-3683 A.I.P. PROJ.: 3-17-0109-B7

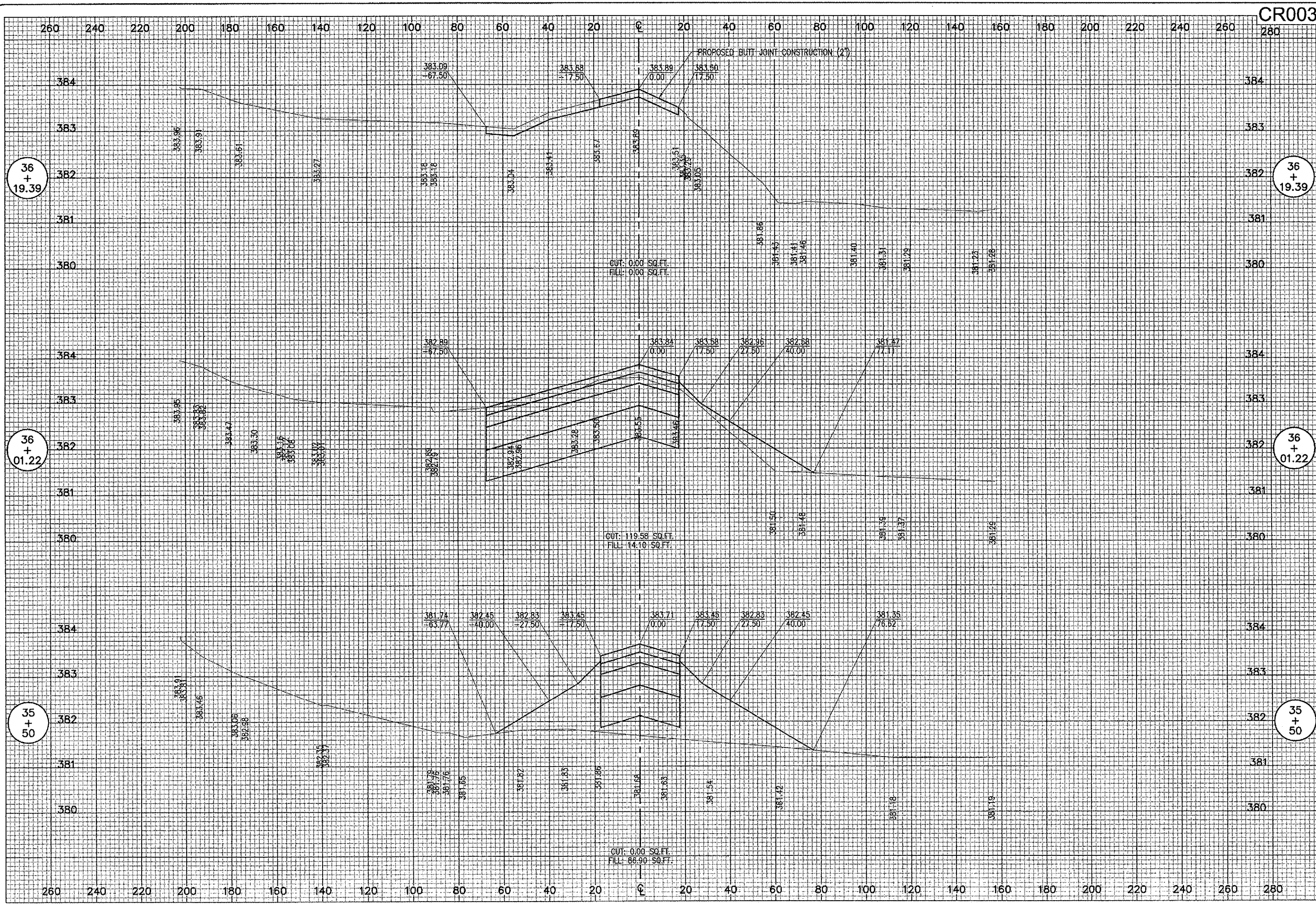
LAYOUT	SEP	03/09/07
DRAWN	COC/ZSH	03/09/07
REVIEWED	CAH	03/27/07

HEL Project No. 801-07TAXY\_0800  
 Filename R-321.XSDWG  
 Scale 1"=20' Horiz, 1"=1' Vert.  
 Date 03/09/07



EXTEND PARTIAL  
 PARALLEL TAXIWAY  
 PROPOSED TAXIWAY "A"  
 CROSS-SECTIONS  
 STA. 34+50 TO STA. 35+00

APR 27, 2007 8:08 AM BAK  
 I:\AIRPORTS\CARMI\801-07TY\AIRPORT\SHEETS\R-322XS.DWG - STA. 35+50 TO STA. 36+19.39



CR003

DATE	REVISION	BY

**CARMi MUNICIPAL AIRPORT**  
**CARMi, ILLINOIS**

IL PROJ.: CUL-3683 A.I.P. PROJ.: 3-17-0108-87

HE Project No. 801-07TYD_0800	LAYOUT	SEP	03/09/07
Drawings R-322XS.DWG	DRAWN	CCC/TSH	03/09/07
Scale 1"=20' Horiz, 1"=1' Vert.	REVIEWED	CAH	03/27/07
Date 03/09/07			



**EXTEND PARTIAL PARALLEL TAXIWAY**  
**PROPOSED TAXIWAY "A" CROSS-SECTIONS**  
 STA. 35+50 TO STA. 36+19.39