

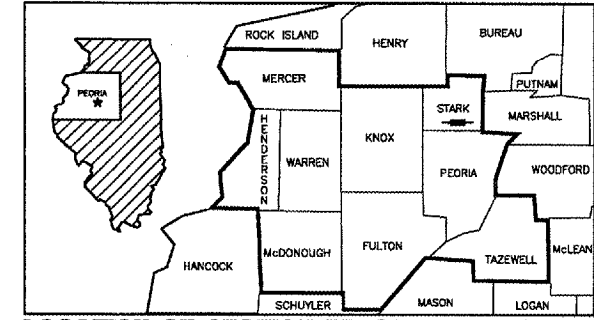
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
**PLANS FOR PROPOSED
SURFACE TRANSPORTATION-RURAL
STARK COUNTY**

F.A.S. 373 (STARK-SPEER ROAD)
SECTION 01-00149-00-RS
PROJECT RS-373 (108)
JOB NO. C-94-103-03
CONTRACT NO. 89316

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 373 (CH #3)	*	STARK CO.	4	1
STA. 101+30		TO STA. 185+00		
F.H.W.A. REG.		ILLINOIS	PROJECT **	

*01-00149-00-RS
**RS-373 (108)

**QC/QA BITUMINOUS
SUPERPAVE PROJECT**



LOCATION OF SECTION INDICATED THUS: →

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

John Laballe 6-6-05
PASSED: DISTRICT FOUR ENGINEER OF LOCAL ROADS & STREETS DATE

John 06/06/05
RELEASING FOR BID BASED DEPUTY DIRECTOR OF HIGHWAYS, DATE
ON LIMITED REVIEW: REGION THREE ENGINEER

BITUMINOUS MIXTURE REQUIREMENTS

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE TO THIS PROJECT.

MIXTURE USE(S):	SURFACE COURSE	BINDER COURSE
AC/PG:	PG 64-22	PG 64-22
RAP%:(MAX)**	15%	25%
DESIGN AIR VOIDS:	4.2% @ Ndes=50	4.2% @ Ndes=50
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL 9.5 or 12.5	IL 19.0
FRICITION AGGREGATE:	MIXTURE D	

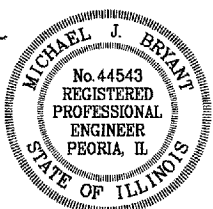
**IF > 15% RAP IS USED, THE CONTRACTOR MAY BE REQUIRED TO USE A SOFTER GRADE OF ASPHALT AS DETERMINED BY THE MATERIALS ENGINEER.

CALL JULIE 1-800-892-0123
WITH THE FOLLOWING:
COUNTY: STARK
CITY-TOWNSHIP: VALLEY TOWNSHIP
SEC. & 1/4 SEC. NO. SW 1/4 SEC. 5, T12N, R6W, 3rd PM
48 HOURS BEFORE YOU DIG.
EXCLUDING SAT., SUN., & HOLIDAYS

OPERATES
24 HOURS
365 DAYS

Gerald Fitzpatrick 5/31/05
GERALD FITZPATRICK DATE
STARK COUNTY ENGINEER

Michael J. Bryant 5/31/05
MICHAEL J. BRYANT DATE
REGISTERED PROFESSIONAL ENGINEER
ILLINOIS NO. 44543 EXPIRES 11-30-05



INDEX OF SHEETS

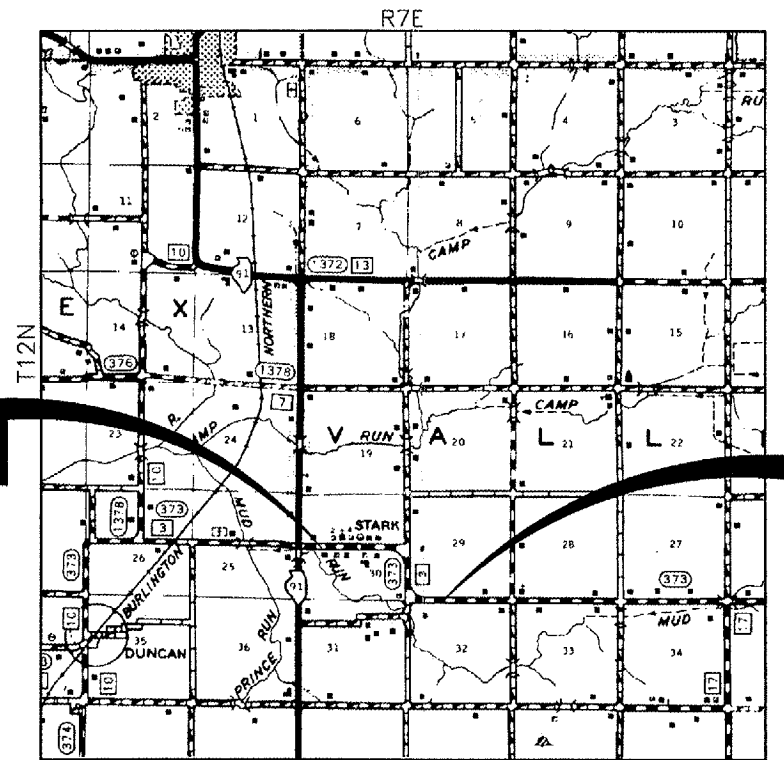
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|-----------|---|
| SHEET NO. | SHEET TITLE |
| 1. | COVER SHEET |
| 2. | TYPICAL SECTIONS, DETAILS OF ENTRANCES, SIDE ROADS, AND MAILBOX TURNOUT |
| 3. | SUMMARY OF QUANTITIES, QUANTITIES NOT OTHERWISE SHOWN |
| 4. | PROJECT SCHEMATIC, CURVE DATA, AND S.E. RATES |

COMMITMENTS

NONE.

LIST OF STANDARDS

- 701301-02 LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS
- 701306-01 LANE CLOSURE 2L, 2W SLOW MOVING OPERATIONS-DAY ONLY FOR SPEEDS ≥ 45 MPH
- 701311-02 LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
- 702001-05 TRAFFIC CONTROL DEVICES
- 780001-01 TYPICAL PAVEMENT MARKINGS
- BLR18-4 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS



LOCATION MAP
NO SCALE

TOTAL LENGTH OF IMPROVEMENT = 8370 FEET = 1.585 MILES
3R GUIDE LINES, MAJOR COLLECTOR
DESIGN SPEED = 55 M.P.H.
VARIANCES GRANTED: NONE
PREPARED BY



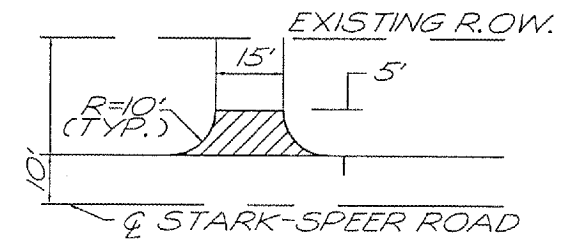
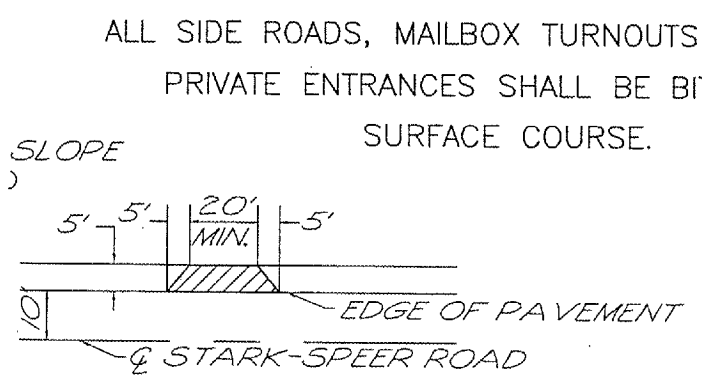
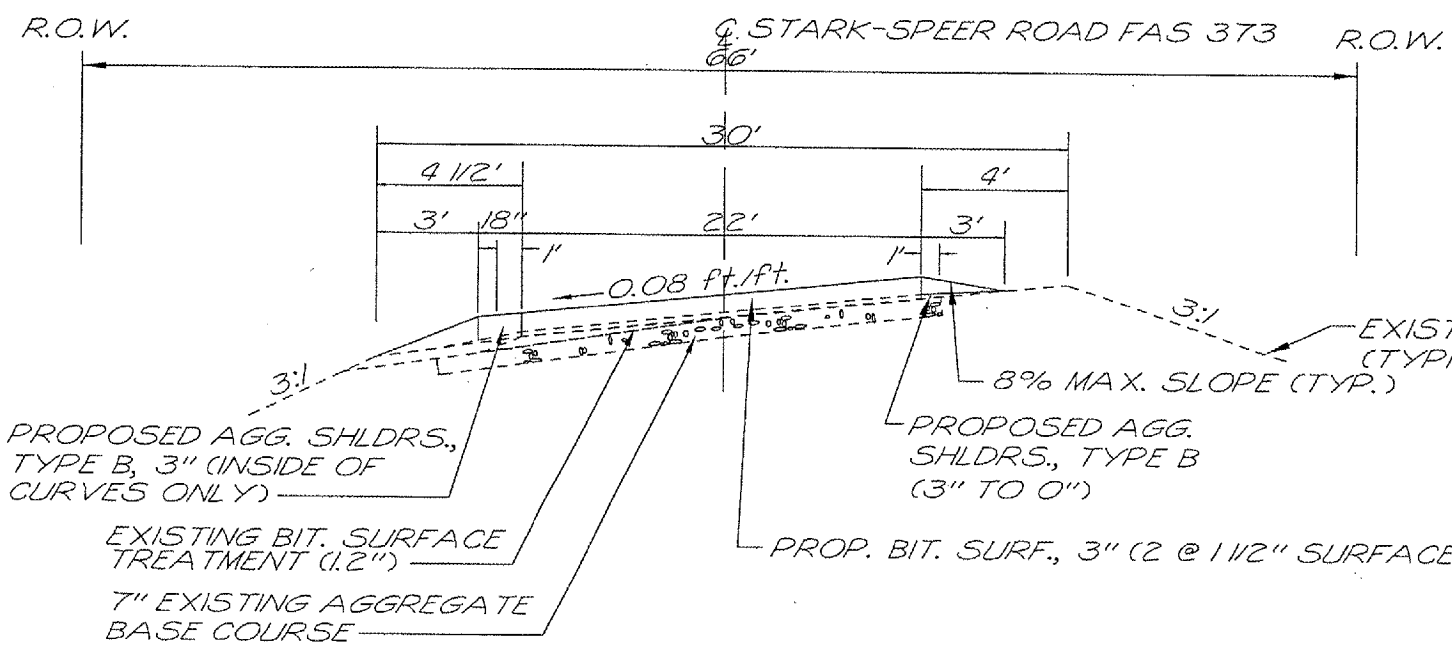
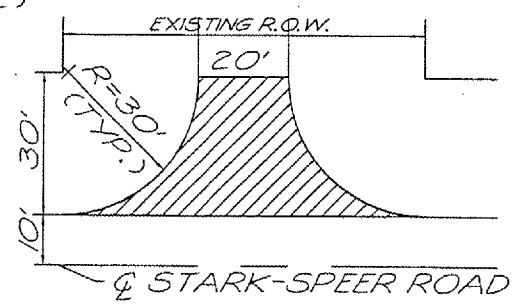
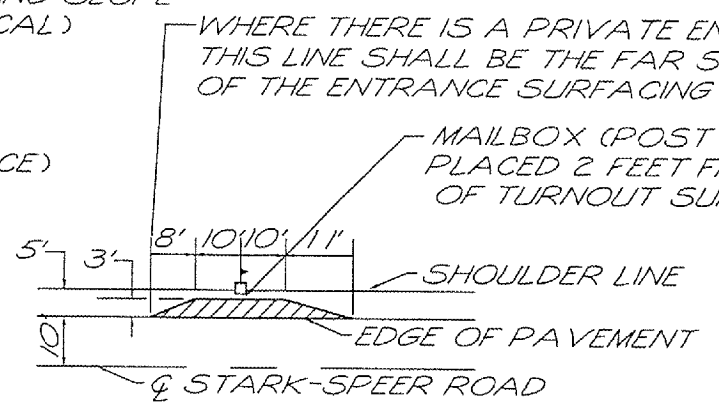
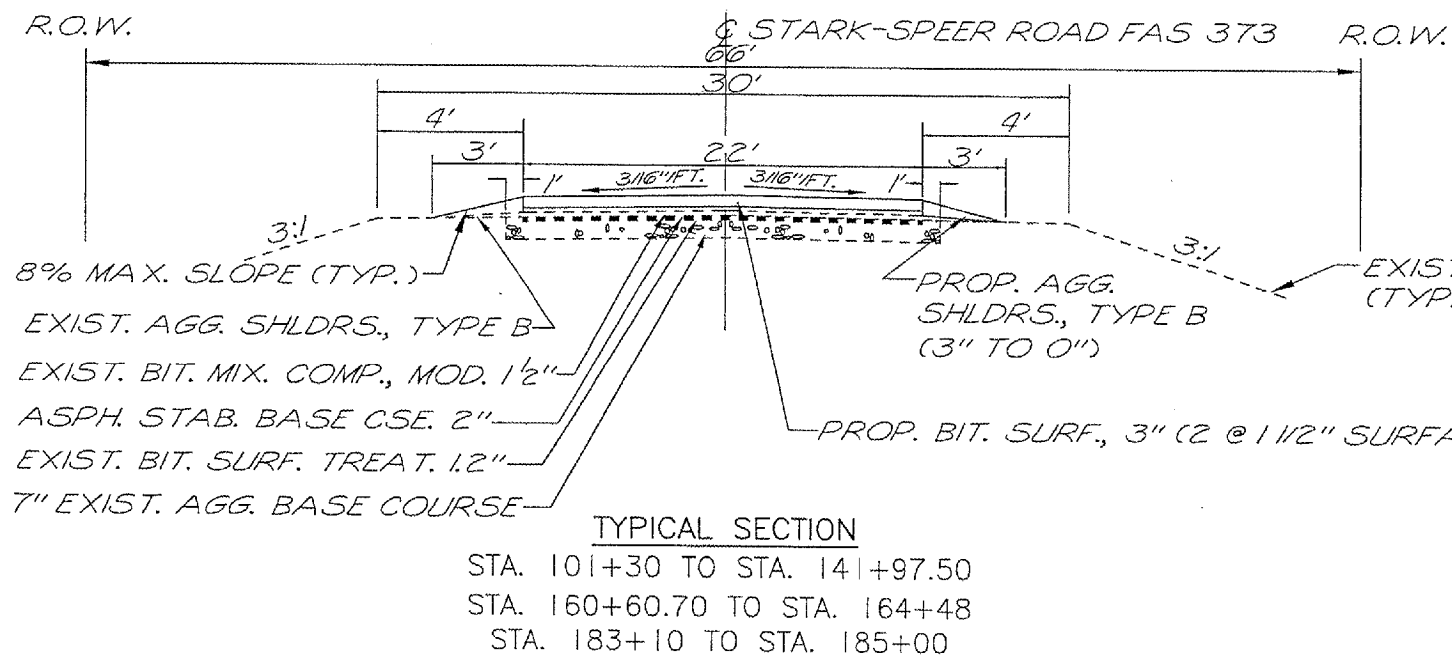
DAILY AND ASSOCIATES ENGINEERS, INC.
CHAMPAIGN - PEORIA, ILLINOIS

CAD DRAWING NO. 5607-10c.dwg

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May 24, 2005 - 3:53pm

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 373 CH. #3	*	STARK CO.	4	2
STA. 101+30		TO STA. 185+00		
F.H.W.A. REG.		ILLINOIS	PROJECT **	

*01-00149-00-RS
**RS-373 (108)



PAVEMENT DESIGN
 SDT (2015) PV 442, SU 35, MU 25
 CLASS III ROAD OR STREET DP= 15 YEARS
 MINIMUM SOIL SUPPORT IFR = 3.0
 TRAFFIC FACTOR 0.10148 Df REQUIRED = 2.90
 Df PROVIDED: EXIST. AGGREGATE BASE = 7x0.08 = 0.56
 EXIST. BIT. SURF. TREATMT. = 1.2x0.20 = 0.24
 EXIST. BIT. COMPL MOD = 1.5x0.33 = 0.50
 EXIST. COLD MIX. MATL = 2x0.22 = 0.44
 PROP. SURFACE = 3x0.40 = 1.20
 TOTAL = 2.94

TYPICAL SECTIONS, DETAILS OF ENTRANCES, SIDE ROADS AND MAILBOX TURNOUT

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 Jun 08, 2005 8:40am

STATION TO STATION	LENGTH (FT)	WIDTH (FT)	AREA (SY)	BIT. MAT'LS PR. COAT (GALLON)	RATE OF APPLICATION	AGGREGATE PR. COAT (TON)	RATE OF APPLICATION	BC SC SUPER (TON)	AGG. SHLDR. TYPE B, 3" (TON)	SHORT-TERM PAVT. MARKING (FT)	WORK ZONE PAVT. MARK REM (FT)
101+30 TO 142+00	4070	22	9949	995	0.1 GAL/SY	14.9	3 LB/SY	1672	95	407	407
142+00 TO 185+00	4300	22	10511	1051	0.1 GAL/SY	15.8	3 LB/SY	1766	495	430	430
SUBTOTALS			20460	2046		30.7		3438	590	837	837
PRIVATE ENTRANCES (15)								112 #/SY/IN (TON)			
103+88, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
112+15, RT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
120+66, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
121+36, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
122+17, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
123+00, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
123+60, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
124+47, RT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
125+11, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
125+32, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
126+79, RT. (ROCK ISLAND TRAIL)			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
126+87, LT. (ROCK ISLAND TRAIL)			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
127+77, RT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
129+24, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
130+50, LT.			13	1.3	0.1 GAL/SY	0.02	3 LB/SY	2.2			
FIELD ENTRANCES (10)											
111+89, LT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
122+75, RT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
126+32, RT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
129+64, RT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
135+55, RT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
140+27, RT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
140+27, LT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
162+57, LT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
162+70, RT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
169+56, LT.			13.9	1.4	0.1 GAL/SY	0.02	3 LB/SY	2.3			
MAILBOX TURNOUTS (7)											
104+70, LT.			10	1.0	0.1 GAL/SY	0.02	3 LB/SY	1.7			
111+61, LT.			10	1.0	0.1 GAL/SY	0.02	3 LB/SY	1.7			
120+44, LT.			10	1.0	0.1 GAL/SY	0.02	3 LB/SY	1.7			
124+47, LT. DBL. MAILBOX			10	1.0	0.1 GAL/SY	0.02	3 LB/SY	1.7			
126+00, LT. DBL. MAILBOX			10	1.0	0.1 GAL/SY	0.02	3 LB/SY	1.7			
128+52, LT. DBL. MAILBOX			10	1.0	0.1 GAL/SY	0.02	3 LB/SY	1.7			
130+58, LT.			10	1.0	0.1 GAL/SY	0.02	3 LB/SY	1.7			
SIDE ROADS (4)											
145+58, LT.			110	11.0	0.1 GAL/SY	0.17	3 LB/SY	*37.0			
157+60, LT.			110	11.0	0.1 GAL/SY	0.17	3 LB/SY	*37.0			
168+28, RT.			110	11.0	0.1 GAL/SY	0.17	3 LB/SY	*37.0			
179+90, RT.			110	11.0	0.1 GAL/SY	0.17	3 LB/SY	*37.0			
SUBTOTALS			844	84.5		1.30		216.0			
LEVELING CORRECTION											286.0
GRAND TOTALS				2130		32		3940			

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 373	*	STARK CO.	4	3
F.H.W.A. REG.		ILLINOIS	PROJECT **	
*01-00149-00-RS				
**RS-373 (108)				

PAINT PAVEMENT MARKING LINE 4" (FT)	YELLOW			WHITE
	SKIP	SOLID	DOUBLE	SOLID
STA. 100+12 TO 101+30 LT RADII	0	0	0	347.8
STA. 100+12 TO 101+30 RT RADII	0	0	0	269.0
STA. 100+12 TO 101+30 CENTERLINE	29.5	0	0	0
STA. 101+30 TO 140+58	982	0	0	7856
STA. 140+58 TO 143+78	80 LT	320 RT	0	640
STA. 143+78 TO 159+45	0	0	3134	3134
STA. 159+45 TO 161+95	62.5 RT	250 LT	0	500
STA. 161+95 TO 166+20	106.3 RT	0	0	950
STA. 166+20 TO 171+20	125 LT	500 RT	0	1000
STA. 171+20 TO 180+60	0	0	1880	1880
STA. 180+60 TO 185+00	110 RT	440 LT	0	880

TOTAL				17,456.8
TOTAL				25,476.1

PAINT PAVEMENT MARKING LINE 12" (FT)	WHITE
STA. 100+00 TO 101+30 (ISLAND)	51.6
TOTAL	52

PAINT PAVEMENT MARKING LINE 24" (FT)	WHITE
STA. 100+00 TO 101+30 (STOP BARS)	35.8
TOTAL	36

*** IL 91 / FAS 373 INTERSECTION

SUMMARY OF QUANTITIES

CONSTRUCTION TYPE CODE: 1000			
CODE NO.	ITEMS	UNITS	TOTAL
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GAL.	2130
40600300	AGGREGATE (PRIME COAT)	TON	32
40600980	BIT SURF REM BUTT JT	SQ YD	147
48101200	AGGREGATE SHOULDERS, TYPE B	TON	590
70101700	TRAFFIC CONTROL & PROTECTION	L.SUM	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	837
70300200	TEMPORARY PAVEMENT MARKING	FOOT	18833
70301000	WORK ZONE PAVEMENT MARKING REM	SQ FT	837
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	25476
* 78001150	PAINT PAVEMENT MARKING - LINE 12"	FOOT	52
* 78001180	PAINT PAVEMENT MARKING - LINE 24"	FOOT	36
** X4066414	BCSC SUPER "C" N50	TON	3940
LSUM 1			

** INCLUDES 286 TONS FOR LEVELING CORRECTION

* SPECIALTY ITEMS

SUMMARY OF QUANTITIES, QUANTITIES NOT OTHERWISE SHOWN

TEMPORARY PAVEMENT MARKING (FT)	YELLOW	WHITE
STA. 101+30 TO 143+77.5	1061.9	8495.0
STA. 143+77.5 TO 158+80.73	375.8	3006.5
STA. 158+80.73 TO 166+27.87	186.8	1494.2
STA. 166+27.87 TO 181+29.68	375.5	3003.6
STA. 181+29.68 TO 185+00	92.6	740.6
TOTAL	2093	16740

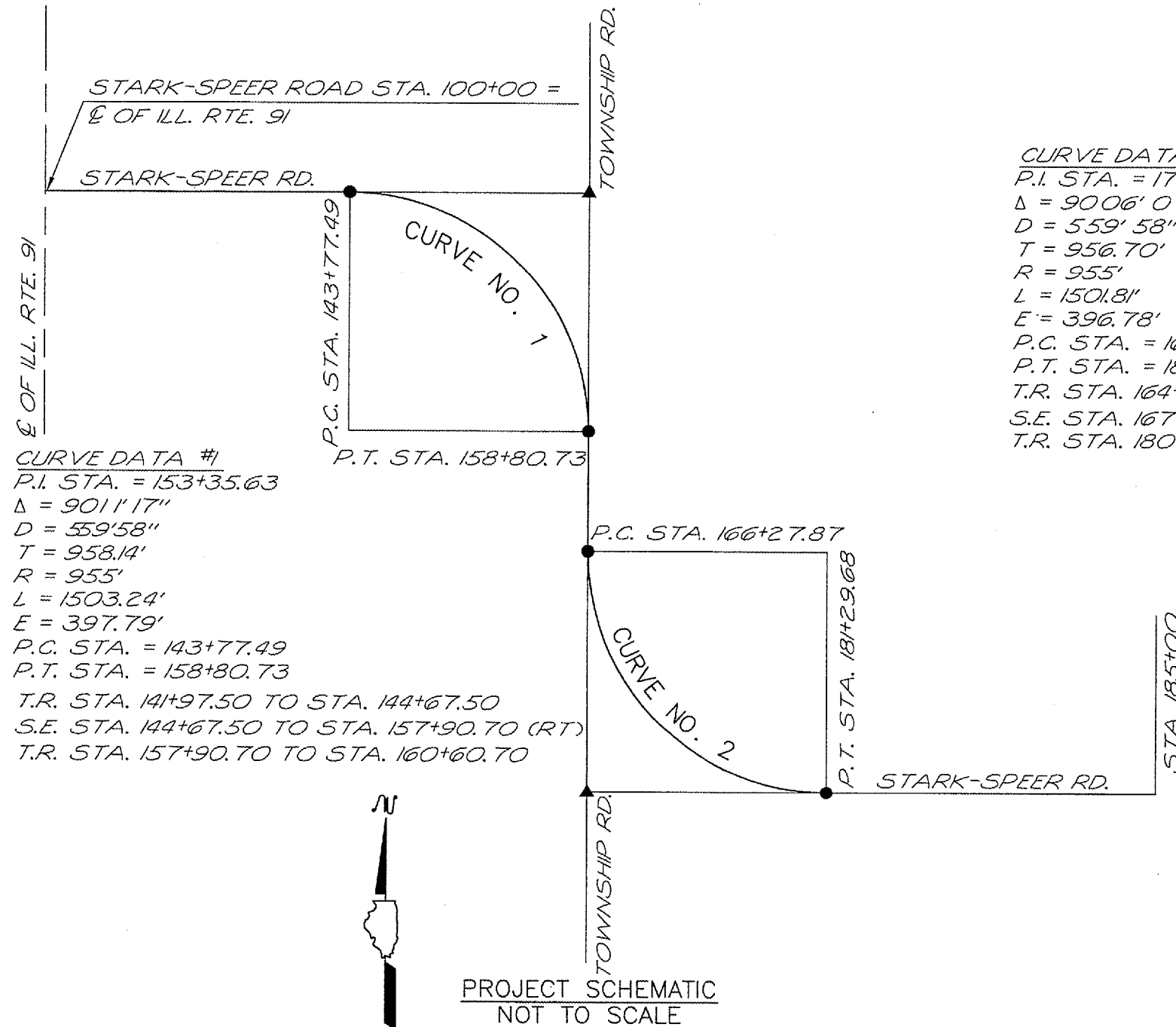
BITUMINOUS SURFACE REMOVAL BUTT JOINT	SQ YD
STA. 101+30 TO 101+60	73.3
STA. 184+70 TO 185+00	73.3
TOTAL	147

*SIDEROADS HAVE 6" OF SURFACE COURSE. EXACT LIFT THICKNESS TO BE DETERMINED BY THE ENGINEER.

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Jun 08, 2005 - 8:59am

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 373 CH. #3	*	STARK CO.	4	4
F.H.W.A. REG.		ILLINOIS	PROJECT **	

*01-00149-00-RS
**RS-373 (108)



CURVE DATA #2
 P.I. STA. = 175+84.57
 $\Delta = 90^{\circ}06'07.5''$
 D = 559'58"
 T = 956.70'
 R = 955'
 L = 1501.81'
 E = 396.78'
 P.C. STA. = 166+27.87
 P.T. STA. = 181+29.68
 T.R. STA. 164+48 TO STA. 167+18
 S.E. STA. 167+18 TO STA. 180+40 (LT)
 T.R. STA. 180+40 TO STA. 183+10

CURVE DATA #1
 P.I. STA. = 153+35.63
 $\Delta = 90^{\circ}11'17''$
 D = 559'58"
 T = 958.14'
 R = 955'
 L = 1503.24'
 E = 397.79'
 P.C. STA. = 143+77.49
 P.T. STA. = 158+80.73
 T.R. STA. 141+97.50 TO STA. 144+67.50
 S.E. STA. 144+67.50 TO STA. 157+90.70 (RT)
 T.R. STA. 157+90.70 TO STA. 160+60.70



PROJECT SCHEMATIC
NOT TO SCALE

T.R. = TRANSITION
 S.E. = SUPER ELEVATED
 N.C. = NORMAL CROWN

CURVE DATA AND SUPER ELEVATION RATES

CURVE NO.	SE RATE FT/FT	SUPER ATTAIN.	FULL SUPER	SUPER REMOVED	TRANS. LENGTH
1	0.08	141+97.50	144+67.50	157+90.70	270'
		144+67.50	157+90.70	160+60.70	
2	0.08	164+48	167+18	180+40	270'
		167+18	180+40	183+10	

PROJECT SCHEMATIC,
CURVE DATA AND S.E. RATES