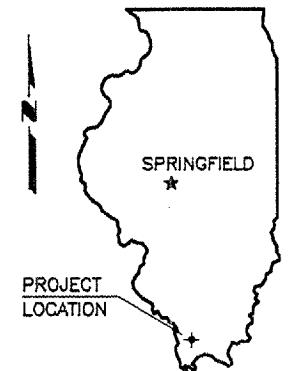


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

SURFACE TRANSPORTATION PROGRAM

FAS ROUTE 924 (LICK CREEK ROAD)
SECTION 05-00094-00-RS
PROJECT NO. RS-924 (121)
JOB NO. C-99-517-05

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	1
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	



SUMMARY OF QUANTITIES

1000

CODE NO.	PAY ITEM	UNIT	TOTAL
X4066416*	BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N70	TON	4,860
X4066616*	BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N70	TON	1,270
X4066770*	LEVELING BINDER (MACHINE METHOD), SUPERPAVE N70	TON	4,420
40200800*	AGGREGATE SURFACE COURSE, TYPE B	TON	80
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	1,620
40600300	AGGREGATE (PRIME COAT)	TON	25
44000004	BITUMINOUS SURFACE REMOVAL 1"	SQ YD	1,861
44300100*	AREA REFLECTIVE CRACK CONTROL TREATMENT	SQ YD	1,661
48101200	AGGREGATE SHOULDERS, TYPE B	TON	2,660
67100100*	MOBILIZATION	L SUM	1
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	5,100
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	78,100
▲ 72000100	SIGN PANEL - TYPE 1	SQ FT	154.8
▲ 72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	462
▲ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	78,100
▲ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	325

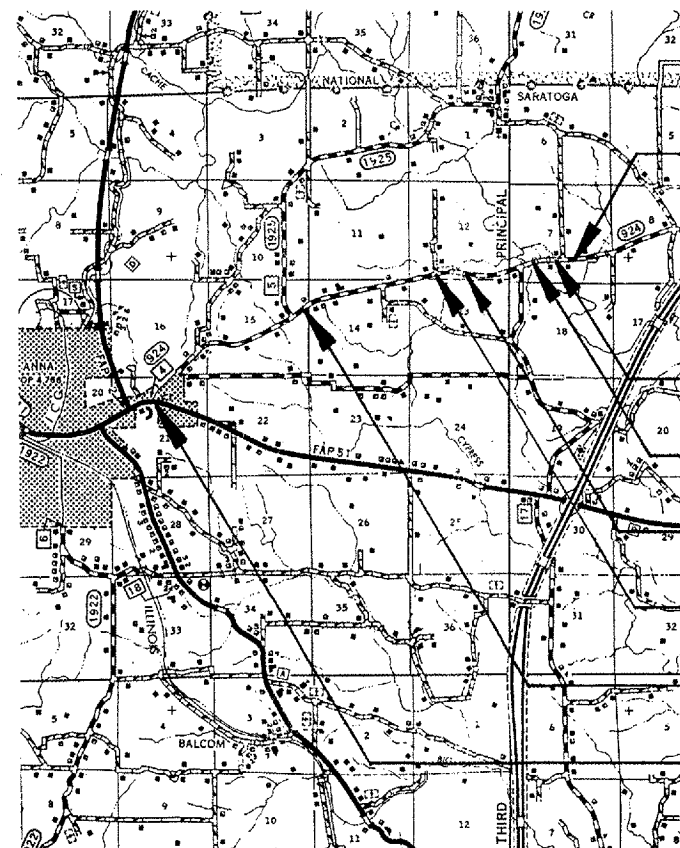
* SEE SPECIAL PROVISIONS

▲ *SPECIALTY ITEMS*

INDEX OF SHEETS

1. COVER SHEET
 2. TYPICAL SECTIONS
 3. RESURFACING SCHEDULE
 - 4.-9. PLAN SHEETS
 10. TYPICAL ENTRANCE & SIDE ROAD DETAILS
 11. MISCELLANEOUS DETAILS
- STANDARDS
- 701001-01 TRAFFIC CONTROL
 - 701006-02 TRAFFIC CONTROL
 - 701011-01 TRAFFIC CONTROL
 - 701301-02 TRAFFIC CONTROL
 - 701306-01 TRAFFIC CONTROL
 - 701311-02 TRAFFIC CONTROL
 - 701501-03 TRAFFIC CONTROL
 - 702001-06 TRAFFIC CONTROL DEVICES
 - 720001 SIGN PANEL MOUNTING DETAILS
 - 720006 SIGN PANEL ERECTION DETAILS
 - 780001-01 TYPICAL PAVEMENT MARKINGS
 - 781001-02 RAISED REFLECTIVE PAVEMENT MARKERS
 - BLR 24-1 MAILBOX TURNOUTS

UNION COUNTY



LOCATION MAP

SCALE: 1" = 2 MILES

NET LENGTH OF IMPROVEMENT = 25,208.96 FT. = 4.7744 MILES

CLASSIFICATION : COLLECTOR
ADT : 4300
DESIGN SPEED : 50 MPH



02/16/06

Edward W. Miller

Edward W. Miller
PROFESSIONAL ENGINEER
#062-025277
EXPIRES NOV. 30, 2007

CONTRACT NO. 99256

E. MILLER ENGINEERING, INC.
CONSULTING ENGINEERS
HARRISBURG, ILLINOIS

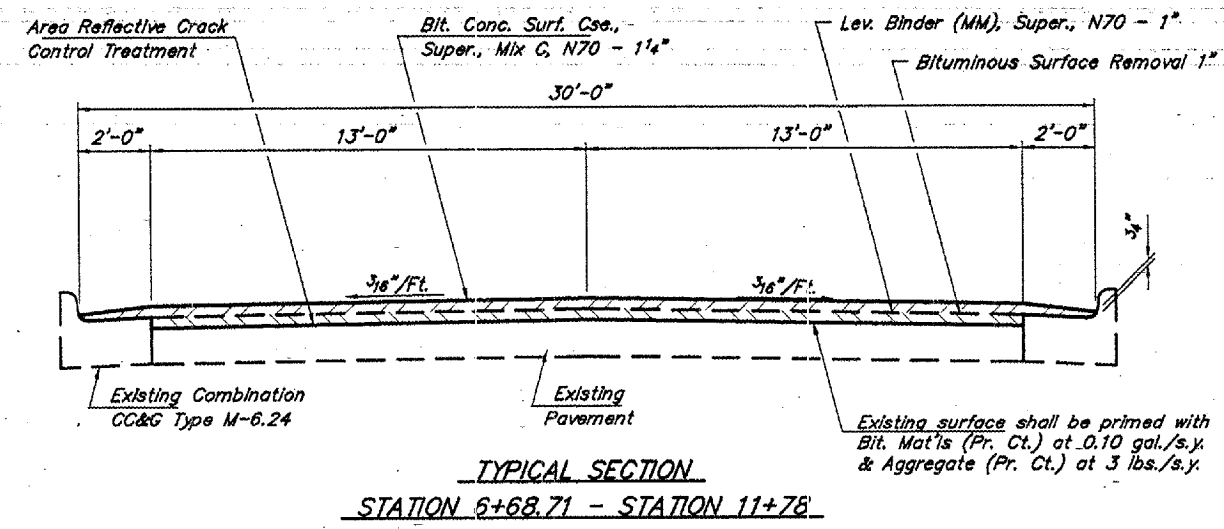
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

APPROVED 2-16-06
Bill R. Boyd P.E.
LOCAL AGENCY REPRESENTATIVE

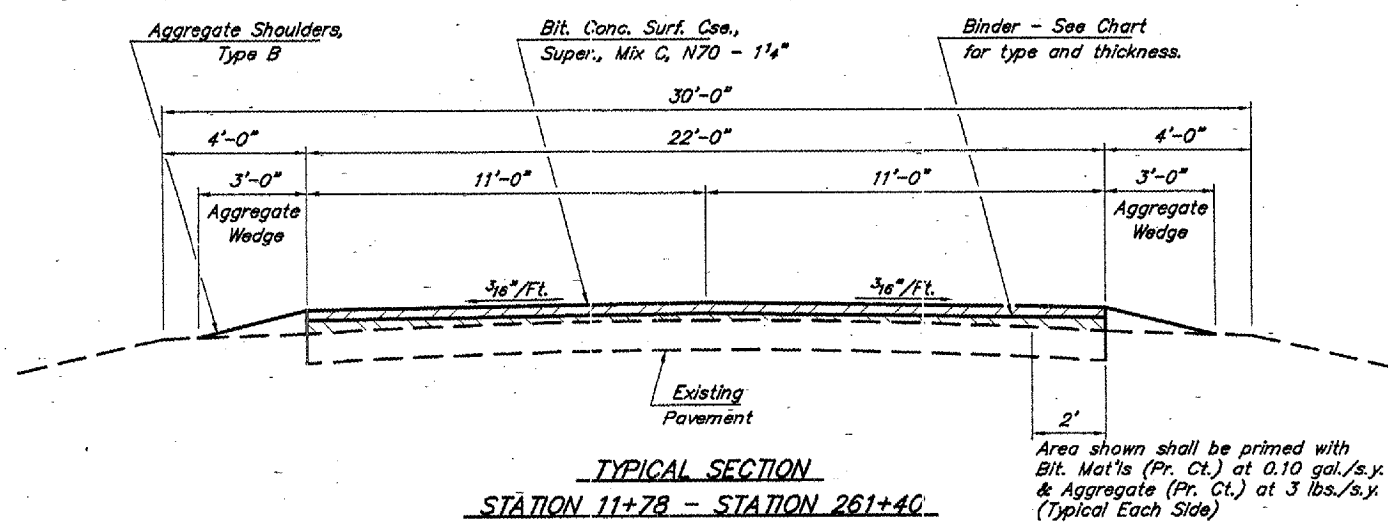
PASSED 2/23/06
Dennis W. Hall
ENGINEER OF LOCAL ROADS AND STREETS

APPROVED 2-24-06
Mary C. Lamie
MARY C. LAMIE, P.E.
DEPUTY DIRECTOR OF HIGHWAYS
REGION FIVE ENGINEER

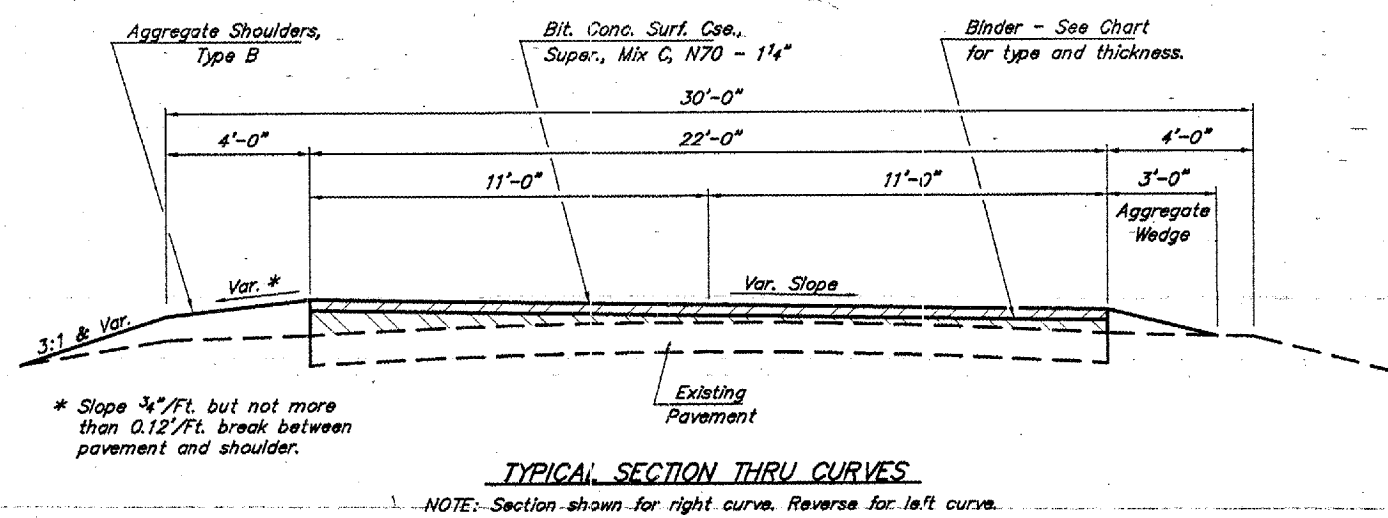
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	2
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	



TYPICAL SECTION
STATION 6+68.71 - STATION 11+78



TYPICAL SECTION
STATION 11+78 - STATION 261+40



TYPICAL SECTION THRU CURVES
NOTE: Section shown for right curve. Reverse for left curve.

GENERAL NOTES

Grade corrections for crown or superelevations shall be constructed with binder prior to the first full lift of binder.

All bridge decks, tapers, and milled butt joints shall be primed the full width of the surface. The general roadway shall be primed as indicated on the typical sections. Prime shall be applied at the rates shown below.

Factors used for quantity calculations are as follows:

- All Bituminous Concrete 112.0 Tons/Sq. Yd./Inch
- All Aggregate 2.025 Tons/Cu. Yd.
- Bit. Mat's. (Prime Coat) 0.10 Gals./Sq. Yd.
- Aggregate (Prime Coat) 0.0015 Tons/Sq. Yd.

STRUCTURAL DESIGN DATA

STA. 6+68 - STA. 26+00
Class I Roadway
Design Period - 8 Years
PC 4540 IBR 3.8
SU 150 TF 0.1134
MU 40 DT 2.794

STA. 26+00 - STA. 45+00
Class I Roadway
Design Period - 8 Years
PC 3485 IBR 3.8
SU 120 TF 0.0812
MU 25 DT 2.647

STA. 45+00 - STA. 101+00
Class I Roadway
Design Period - 8 Years
PC 3485 IBR 2.9
SU 120 TF 0.0812
MU 25 DT 2.837

STA. 101+00 - STA. 261+40
Class III Roadway
Design Period - 8 Years
PC 1215 IBR 2.9
SU 40 TF 0.0273
MU 10 DT 2.396

MATERIAL COEFFICIENT
Exist. Crushed Stone Base - 0.10
Exist. Oil & Chip Surface - 0.15
Bit. Mixture Complete - 0.25
Bit. Conc. Binder Course - 0.33
Bit. Conc. Surface Course - 0.40

BINDER CHART

LEVELING BINDER (MM), SUPERPAVE, N70	
Location	Thickness
Sta. 6+68 - Sta. 11+78	1"
Sta. 36+00 - Sta. 101+00	1"
Sta. 101+00 - Sta. 261+40	3/4"

BIT. CONC. BINDER CSE., SUPERPAVE N70	
Location	Thickness
Sta. 11+78 - Sta. 36+00	2"

SUPERPAVE MIXTURE REQUIREMENTS

Mixture Use:	Leveling Binder (MM), Superpave N70
PG:	PG64-22
RAP% (Max):	10
Design Air Voids:	4% 70 Gyraton Superpave Design
Mixture Composition: (Gradation Mixture)	IL-9.5mm
Friction Aggregate:	None

Mixture Use:	Binder Course, Superpave N70
PG:	PG64-22
RAP% (Max):	10
Design Air Voids:	4% 70 Gyraton Superpave Design
Mixture Composition: (Gradation Mixture)	IL-19.0mm
Friction Aggregate:	None

Mixture Use:	Surface Course, Superpave, Mix "C", N70
PG:	PG64-22
RAP% (Max):	10
Design Air Voids:	4% 70 Gyraton Superpave Design
Mixture Composition: (Gradation Mixture)	IL-9.5mm
Friction Aggregate:	C Surface

TYPICAL SECTIONS
FAS ROUTE 924
SECTION 05-00094-00-RS
PROJECT NO. RS-924 (121)
UNION COUNTY

646 TSEC 02/17/06 1012 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	3
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	

RESURFACING SCHEDULE

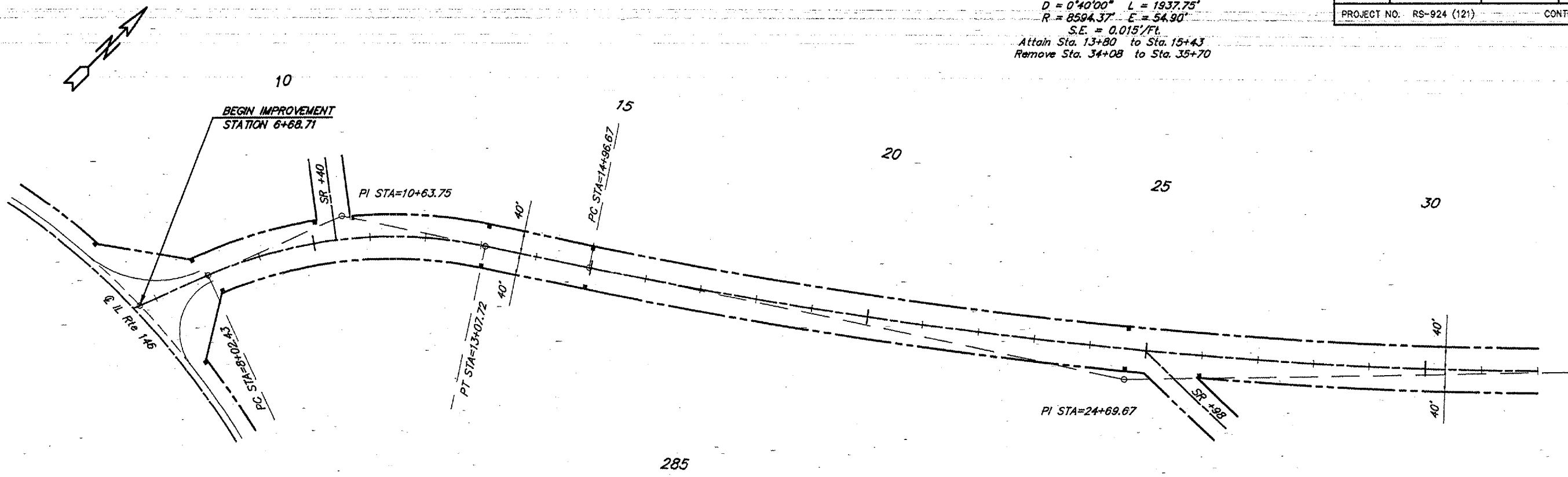
Location Station to Station	Length (For information only) Feet	Bituminous Surface Removal 1" Sq. Yds.	Area Reflective Crack Control Sq. Yds.	Prime Coat		Leveling Blinder Machine Method Tons	Bituminous Concrete Blinder Course Tons	Bituminous Concrete Surface Course Tons
				Bituminous Materials Gallons	Aggregate Tons			
EASTBOUND (RIGHT) LANE								
6+68.71 to 11+78	509.29	828	828	85	1.3	48		60
11+78 to 13+80	202			5	0.1		35	18
13+80 to 36+00	2270			51	0.8		402	196
36+00 to 41+31	531			12	0.2	62		47
41+31 to 58+94	1763			40	0.6	231		156
58+94 to 74+06	1512			35	0.5	199		134
74+06 to 95+52	2146			49	0.7	248		190
95+52 to 106+41	1075.19			25	0.4	95		95
106+41 to 106+53	12			0	0.0	1		1
106+53 to 119+89	1336			31	0.5	129		118
119+89 to 183+38	6349			145	2.2	533		562
183+38 to 197+38	1354.28			40	0.6	90		120
197+38 to 207+12	974			31	0.5	60		86
207+12 to 220+31	1319			30	0.5	86		117
220+31 to 240+31	1809			60	0.9	187		160
240+31 to 249+91	950			22	0.3	132		85
249+91 to 261+40	1137.2			35	0.5	110		101
Subtotals for Eastbound (Right) Lane		828	828	696	10.6	2211	437	2246
WESTBOUND (LEFT) LANE								
6+68.71 to 11+78	509.29	833	833	86	1.3	48		60
11+78 to 13+80	202			5	0.1		50	18
13+80 to 36+00	2270			51	0.8		695	196
36+00 to 41+31	531			12	0.2	63		47
41+31 to 58+94	1763			40	0.6	181		156
58+94 to 74+06	1512			35	0.5	138		134
74+06 to 95+52	2146			49	0.7	203		190
95+52 to 106+41	1075.19			25	0.4	159		95
106+41 to 106+53	12			0	0.0	1		1
106+53 to 119+89	1336			31	0.5	97		118
119+89 to 183+38	6349			145	2.2	559		562
183+38 to 197+38	1354.28			40	0.6	98		120
197+38 to 207+12	974			31	0.5	75		86
207+12 to 220+31	1319			30	0.5	111		117
220+31 to 240+31	1809			60	0.9	173		160
240+31 to 249+91	950			22	0.3	101		85
249+91 to 261+40	1137.2			35	0.5	85		101
Subtotals for Westbound (Left) Lane		833	833	697	10.6	2092	745	2246
TOTALS		1661	1661	1393	21.2	4303	1182	4492

NOTE: Quantities shown do not include materials for entrances, side roads, and mailbox turnouts.

RESURFACING SCHEDULE
FAS ROUTE 924
SECTION 05-00094-00-RS
PROJECT NO. RS-924 (121)
UNION COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	4
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	

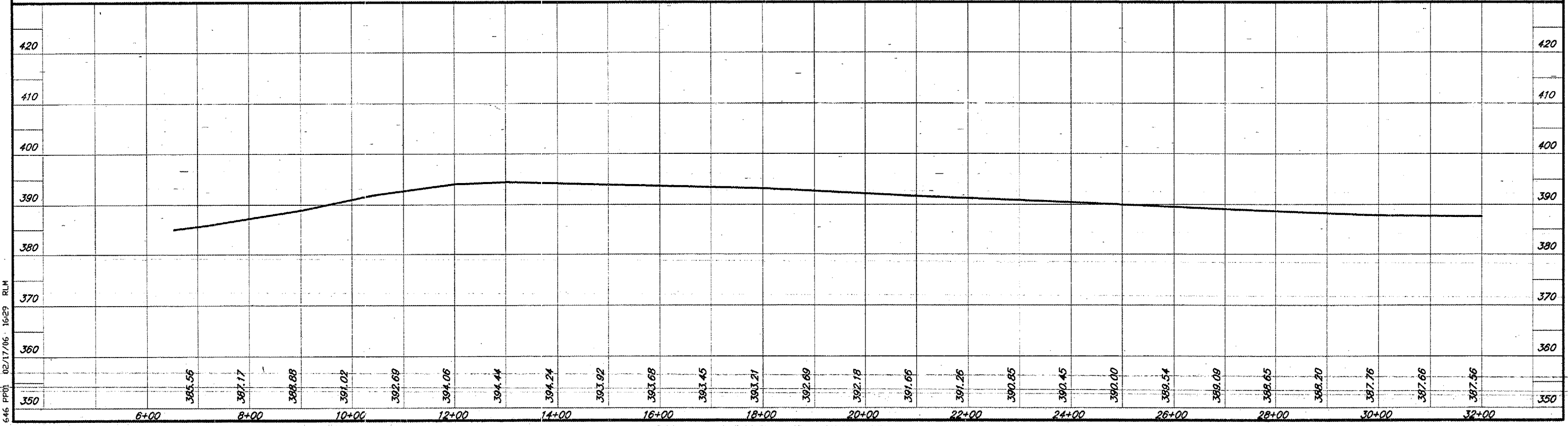
CURVE DATA
 $\Delta = 12^{\circ}55'06''$ $T = 973.00'$
 $D = 0^{\circ}40'00''$ $L = 1937.75'$
 $R = 8594.37'$ $E = 54.90'$
 $S.E. = 0.015'/ft.$
 Attain Sta. 13+80 to Sta. 15+43
 Remove Sta. 34+08 to Sta. 35+70



CURVE DATA
 $\Delta = 36^{\circ}02'17''$ $T = 261.32'$
 $D = 7^{\circ}07'56''$ $L = 505.29'$
 $R = 803.34'$ $E = 41.43'$
 $S.E. = 0.059'/ft.$
 Attain Sta. 7+18 to Sta. 8+33
 Remove Sta. 12+65 to Sta. 13+80

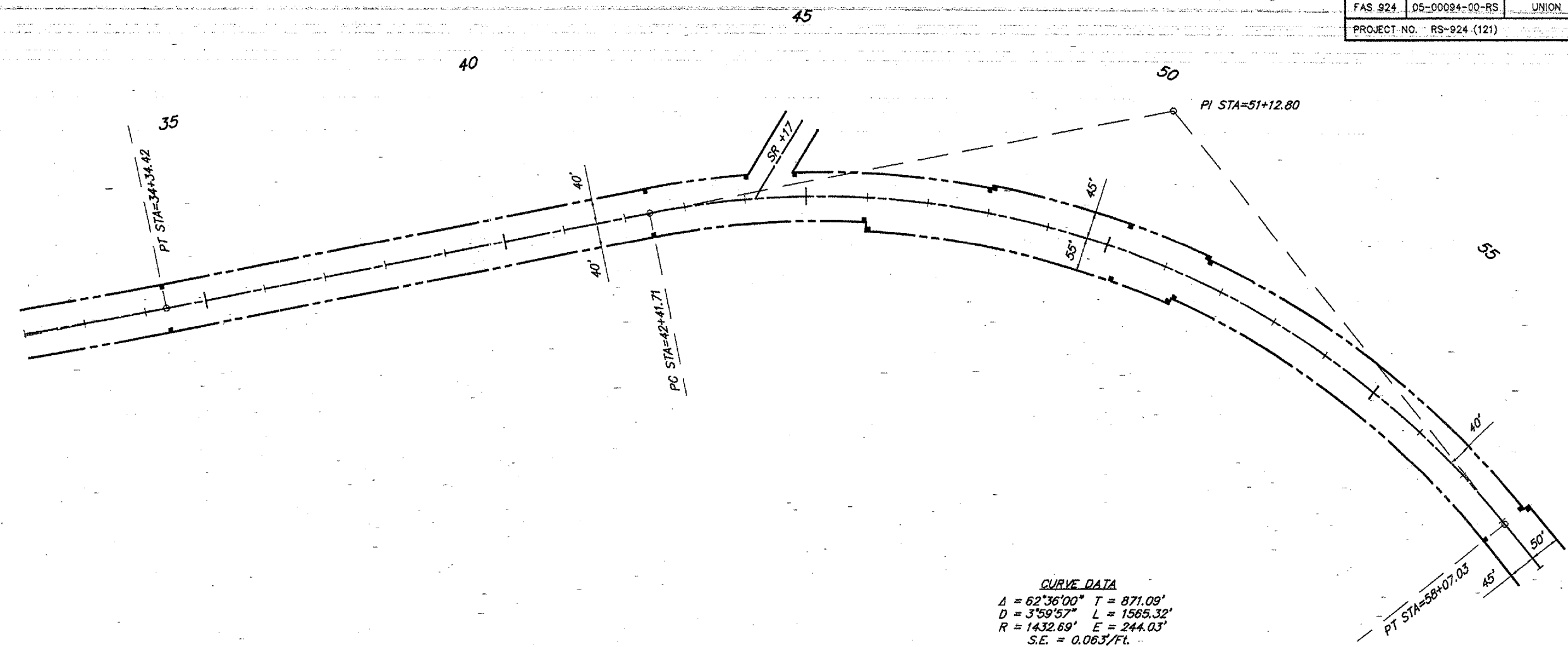
SCALES:
 1" = 200' HOR
 1" = 20' VER

NOTE: Location and number of entrances shall be determined in the field by the Engineer.



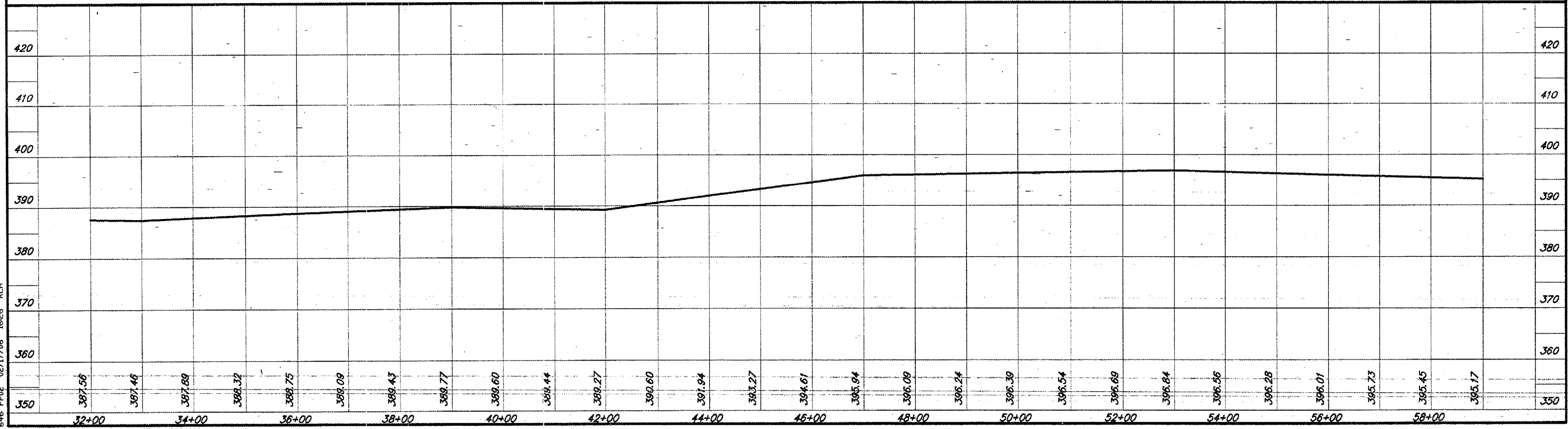
646 P01 02/17/06 16:29 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	5
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	



CURVE DATA
 $\Delta = 62^{\circ}36'00''$ $T = 871.09'$
 $D = 3^{\circ}59'57''$ $L = 1565.32'$
 $R = 1432.69'$ $E = 244.03'$
 $S.E. = 0.063'/ft.$
 Attain Sta. 41+31 to Sta. 42+82
 Remove Sta. 57+43 to Sta. 58+94

SCALES:
 1" = 200' HOR
 1" = 20' VER

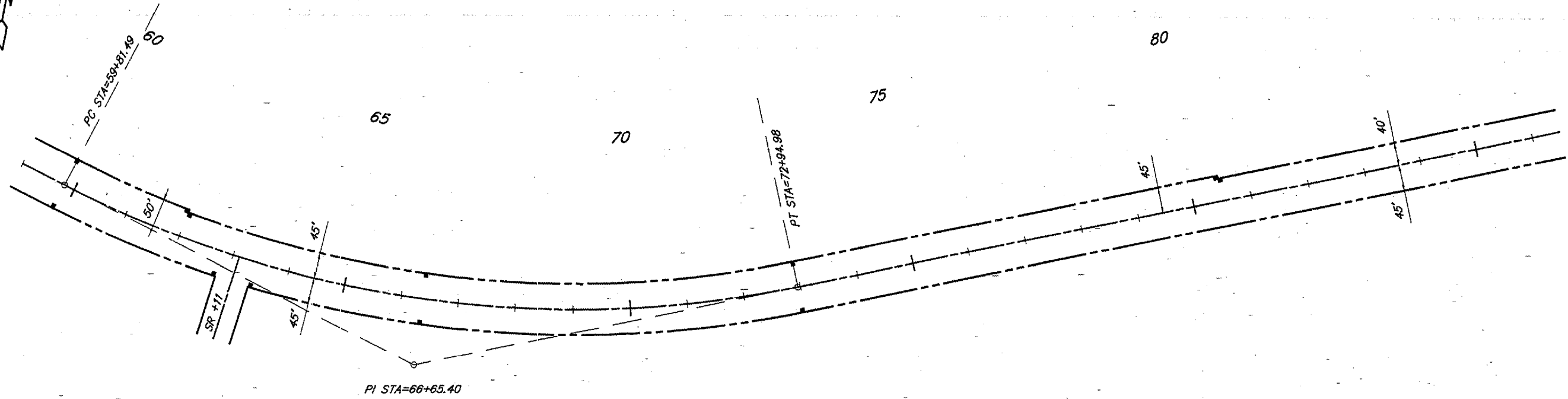
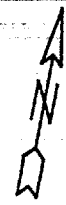


646 PP02 02/17/06 16x26 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	6
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	

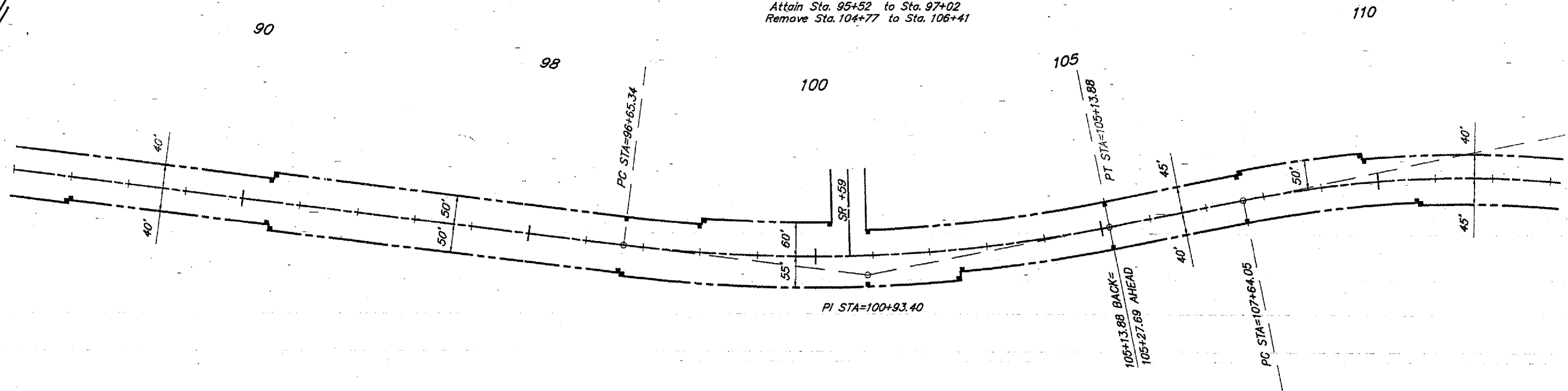
85

CURVE DATA
 $\Delta = 39^{\circ}24'00''$ $T = 683.91'$
 $D = 2^{\circ}59'59''$ $L = 1313.48'$
 $R = 1910.08'$ $E = 118.75'$
 $S.E. = 0.053'/ft.$
 Attain Sta. 58+94 to Sta. 60+44
 Remove Sta. 72+56 to Sta. 74+06



SCALES:
 1" = 200' HOR

CURVE DATA
 $\Delta = 18^{\circ}40'00''$ $T = 428.06'$
 $D = 2^{\circ}12'00''$ $L = 848.54'$
 $R = 2604.51'$ $E = 34.94'$
 $S.E. = 0.042'/ft.$
 Attain Sta. 95+52 to Sta. 97+02
 Remove Sta. 104+77 to Sta. 106+41



SCALES:
 1" = 200' HOR

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	7
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	



115

120

125

130

135

140

PI STA=113+37.10

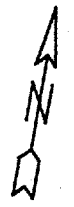
PT STA=118+77.51

CURVE DATA

$\Delta = 33^{\circ}24'00''$ $T = 573.05'$
 $D = 2^{\circ}59'59''$ $L = 1113.46'$
 $R = 1910.08'$ $E = 84.11'$
 $S.E. = 0.053'/ft.$

SCALES:
1" = 200' HOR

Attain Sta. 106+53 to Sta. 108+03
 Remove Sta. 118+39 to Sta. 119+89



140

145

150

155

160

165

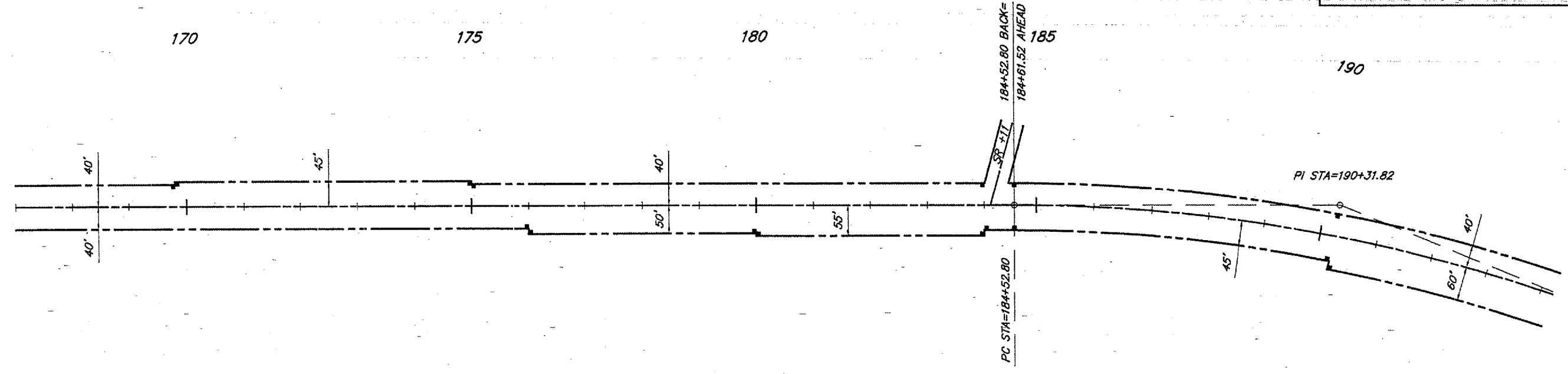
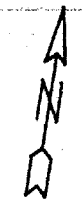
SP #92

PI STA=165+68
 $\Delta = 0^{\circ}58'00''$ L

SCALES:
1" = 200' HOR

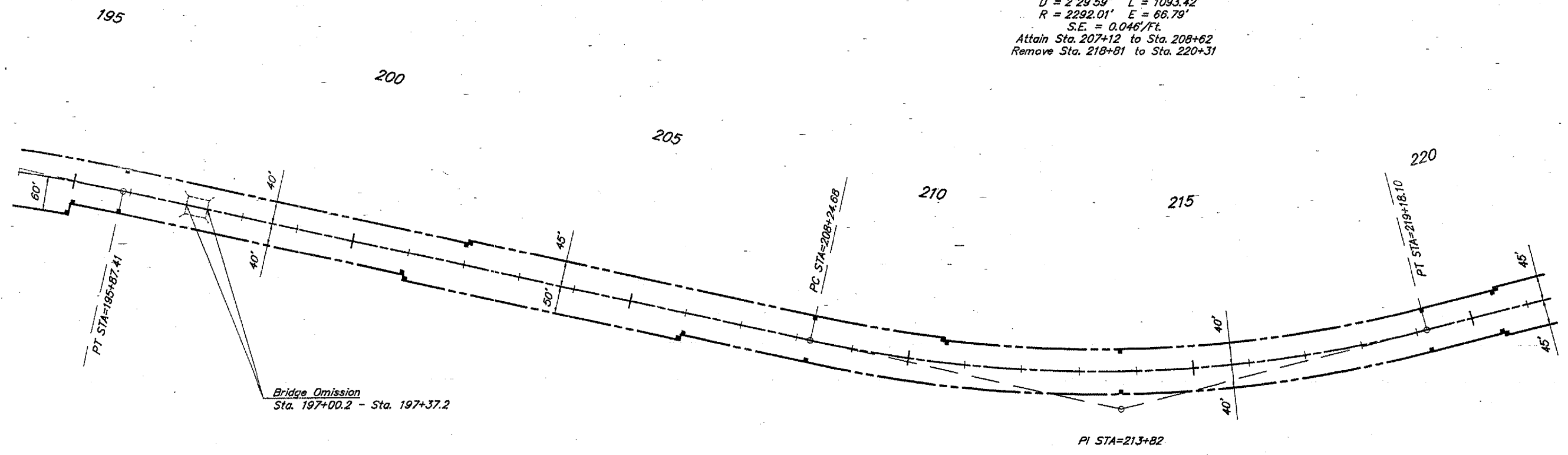
646 PPK 02/17/06 16:21 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00024-00-RS	UNION	11	8
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	



SCALES:
1" = 200' HOR

CURVE DATA
 $\Delta = 22^{\circ}31'00''$ $T = 570.30'$
 $D = 2^{\circ}00'00''$ $L = 1125.89'$
 $R = 2864.93'$ $E = 56.21'$
 $S.E. = 0.038'/ft.$
 Attain Sta. 183+38 to Sta. 184+97
 Remove Sta. 195+52 to Sta. 197+02

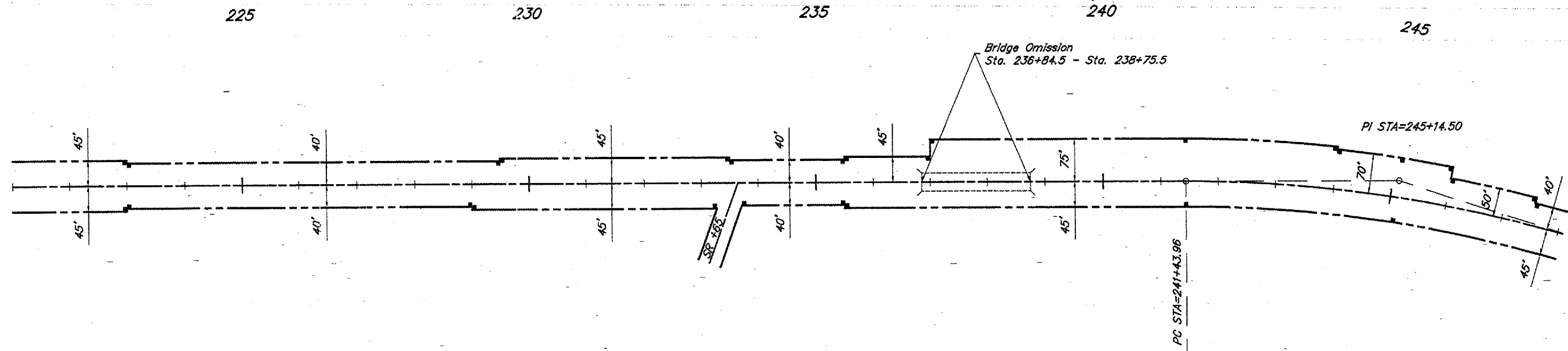


CURVE DATA
 $\Delta = 27^{\circ}20'00''$ $T = 557.32'$
 $D = 2^{\circ}29'59''$ $L = 1093.42'$
 $R = 2292.01'$ $E = 66.79'$
 $S.E. = 0.046'/ft.$
 Attain Sta. 207+12 to Sta. 208+62
 Remove Sta. 218+81 to Sta. 220+31

SCALES:
1" = 200' HOR

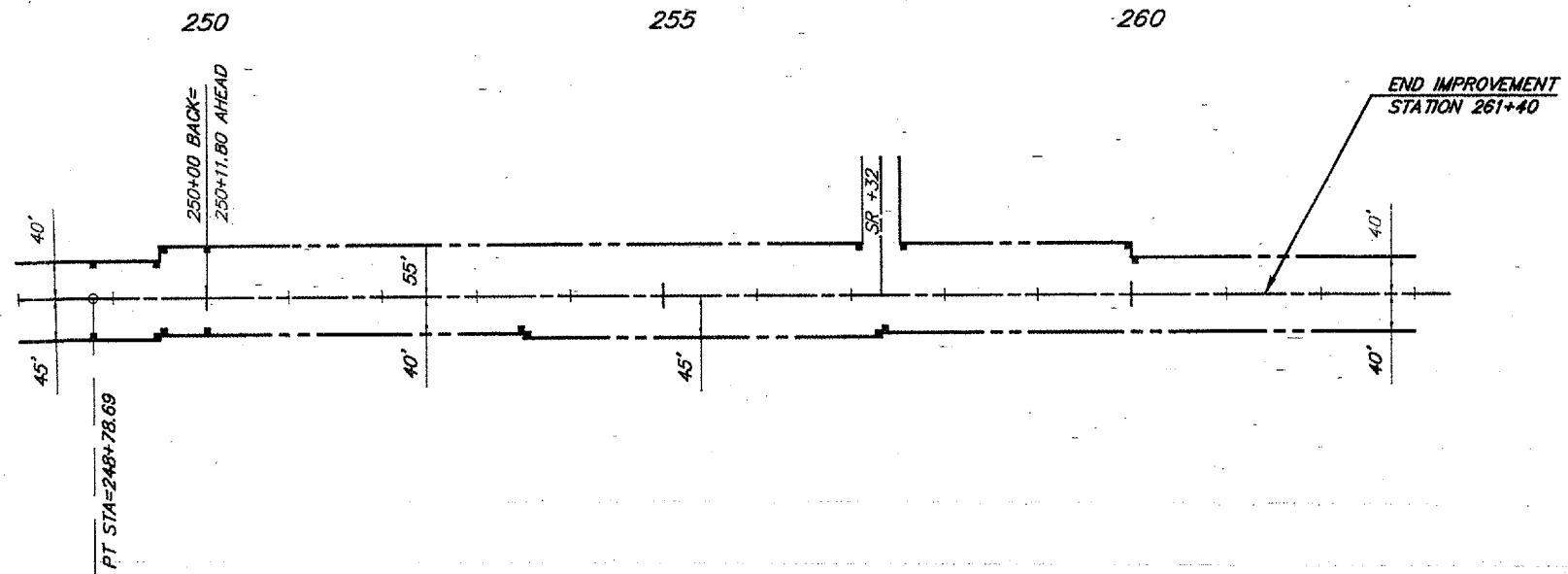
646 PPS 02/17/06 1617 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	9
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	



SCALES:
1" = 200' HOR

CURVE DATA
 $\Delta = 18^{\circ}22'00''$ $T = 370.54'$
 $D = 2^{\circ}29'59''$ $L = 734.72'$
 $R = 2292.01'$ $E = 29.76'$
 $S.E. = 0.046'/ft.$
 Attain Sta. 240+31 to Sta. 241+81
 Remove Sta. 248+41 to Sta. 249+91



SCALES:
1" = 200' HOR

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	10
PROJECT NO.: RS-924 (121)			CONTRACT NO. 99256	

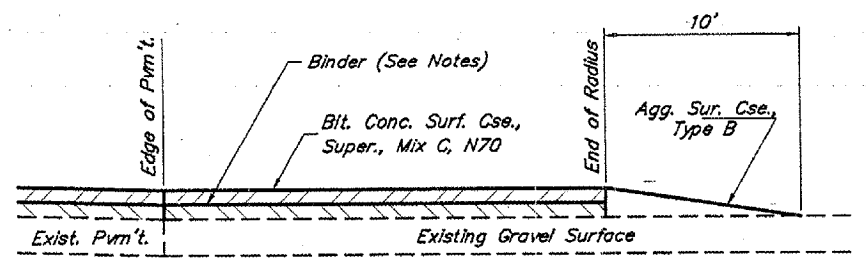
Angle of Intersection	Side Road		Private Entrance	
	Acute L	Obtuse L	Acute L	Obtuse L
90° - 80°	25'	25'	15'	15'
79° - 70°	25'	40'	15'	25'
69° - 60°	25'	60'	15'	35'
59° - 50°	20'	75'	10'	40'
49° - 40°	20'	100'	10'	60'
39° - 30°	15'	150'	10'	100'

NOTES

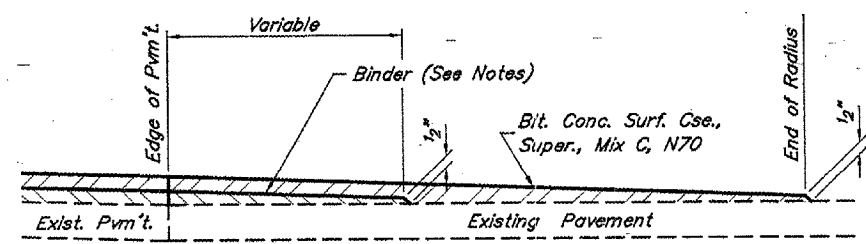
Thickness of binder (if applicable) and surface course shall be equal to the mainline resurfacing.

Where bituminous material is to be placed, the existing surface shall be primed.

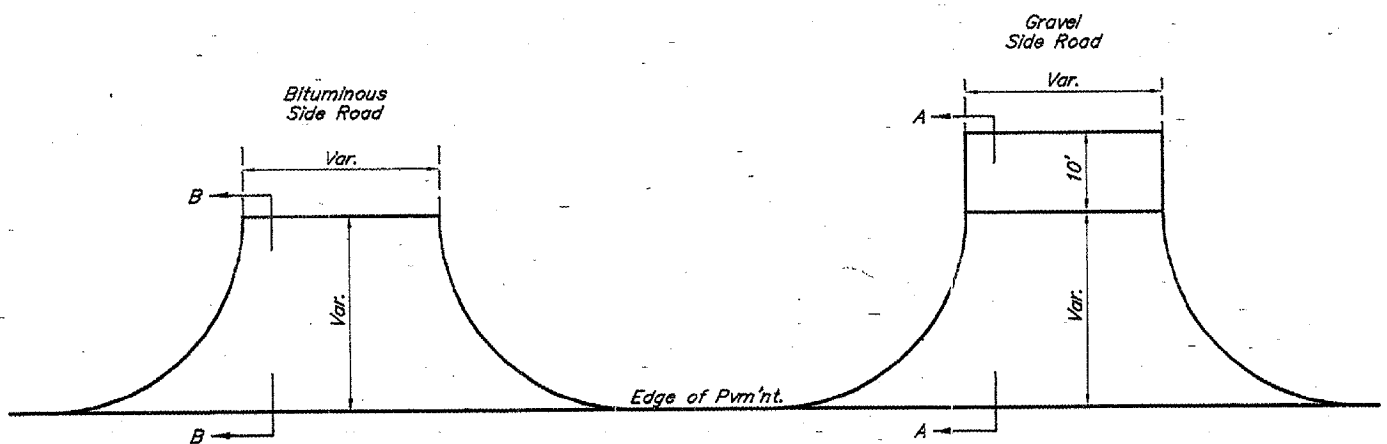
The actual number, and locations, of entrances and side roads shall be determined in the field by the Engineer.



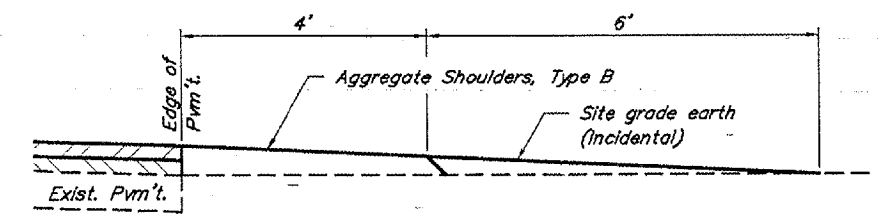
SECTION A-A SIDE ROAD - GRAVEL
(Est. No. = 2)



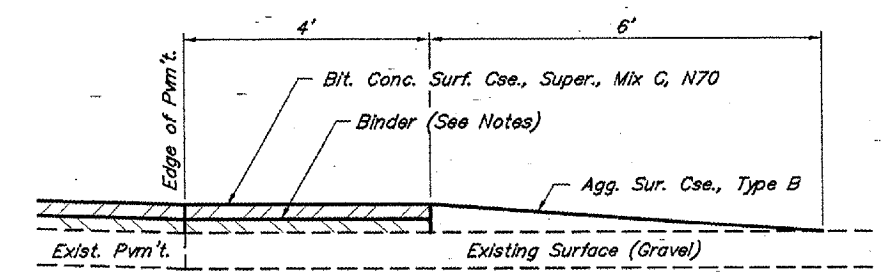
SECTION B-B SIDE ROAD - BITUMINOUS
(Est. No. = 7)



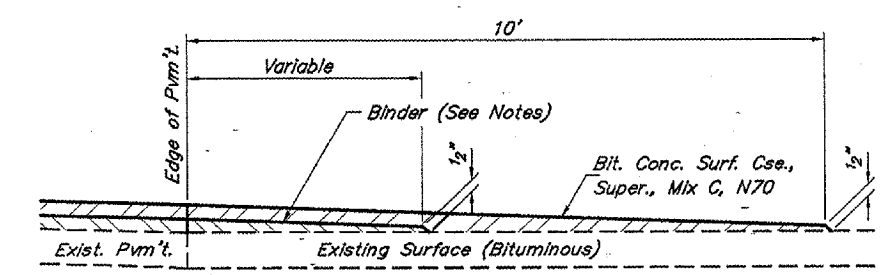
TYPICAL SIDE ROAD DETAILS



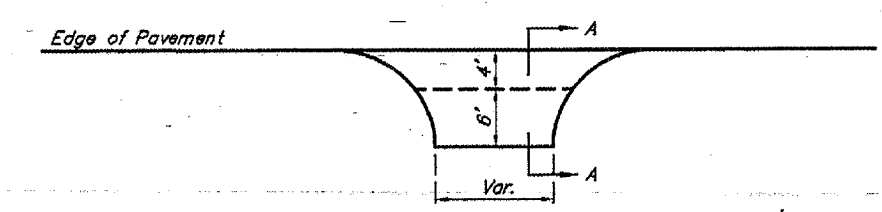
SECTION A-A FIELD ENTRANCE
(Est. No. = 7)



SECTION A-A PRIVATE ENTRANCE - GRAVEL
(Est. No. = 40)



SECTION A-A PRIVATE ENTRANCE - BITUMINOUS
(Est. No. = 23)



TYPICAL ENTRANCE DETAILS

TYPICAL SIDE ROAD AND ENTRANCE DETAILS
FAS ROUTE 924
SECTION 05-00094-00-RS
PROJECT NO. RS-924 (121)
UNION COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	05-00094-00-RS	UNION	11	11
PROJECT NO. RS-924 (121)			CONTRACT NO. 99256	

Location	Centerline (Yellow Dashed)	Edge Line (White Solid)	No Passing (Yellow Solid)
Sta. 6+68.71 to Sta. 261+40	23,685	49,705	4,710

See schedule below for limits of "No Passing Zones".
See Standard 78001 for typical pavement markings.

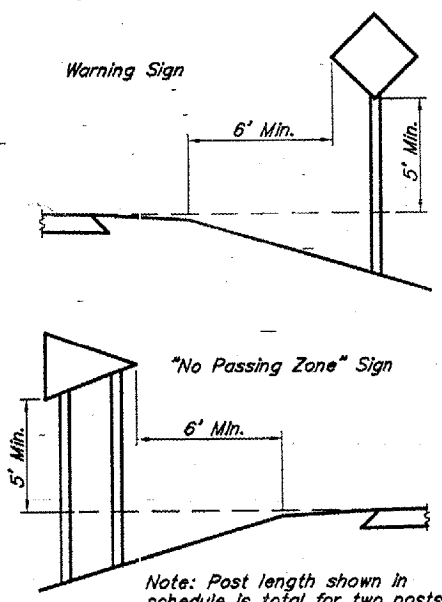
EAST BOUND LANE		WEST BOUND LANE	
Location	Length	Location	Length
Sta. 6+70 to Sta. 11+00	430'	Sta. 6+70 to Sta. 18+00 ¹	1,130'
Sta. 35+50 ¹ to Sta. 79+00	4,350'	Sta. 44+50 to Sta. 82+00 ¹	4,350'
Sta. 89+75 ¹ to Sta. 113+50	2,375'	Sta. 98+00 to Sta. 122+50 ¹	2,450'
Sta. 128+50 ¹ to Sta. 139+50	1,100'	Sta. 137+50 to Sta. 148+50 ¹	1,000'
Sta. 157+00 ¹ to Sta. 166+00	900'	Sta. 166+00 to Sta. 175+00 ¹	900'
Sta. 197+75 ¹ to Sta. 214+00	1,625'	Sta. 206+50 to Sta. 223+00 ¹	1,650'
Sta. 248+75 ¹ to Sta. 255+50	675'	Sta. 257+75 to Sta. 264+25 ²	650'
TOTALS	11,455'		12,230'

¹ Denotes location of "No Passing Zone" signs to be erected in accordance with Sign Schedule & Mounting Detail.

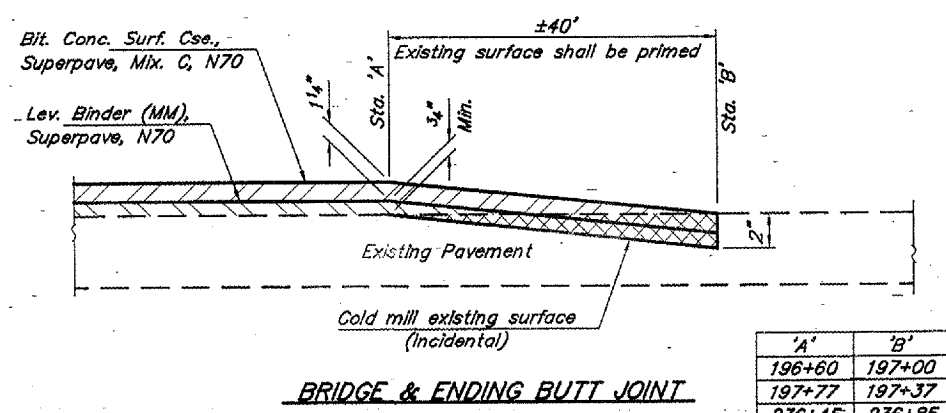
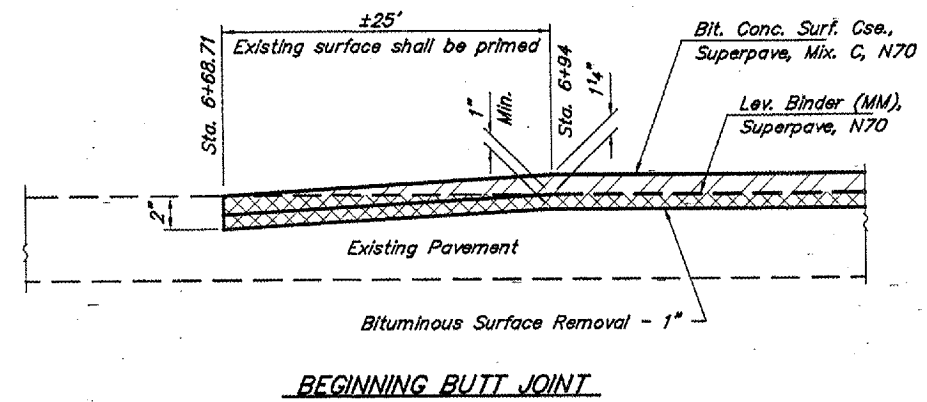
² "No Passing Zone" markings extend beyond limits of improvement due to existing alignment.

Location	Name	Signs		Post Length
		No.	Sq. Ft.	
Sta. 49+00 Lt.	SIDE ROAD 45°	W2-3	9.00	16.5
Sta. 68+00 Lt.	SIDE ROAD 90°	W2-2	9.00	16.5
Sta. 95+50 Rt.	SIDE ROAD 90°	W2-2	9.00	16.5
Sta. 105+50 Lt.	SIDE ROAD 90°	W2-2	9.00	16.5
Various (12)*	NO PASSING	W14-3	118.80	396.0
TOTALS			154.80	462.0

* See Schedule of "No Passing Zones" for sign locations. Each location will have one sign of 9.90 Sq. Ft. and two posts with a combined length of 33.0 Ft. Quantities shown are totals.



SIGN SCHEDULE & MOUNTING DETAIL



'A'	'B'
196+60	197+00
197+77	197+37
236+45	236+85
239+15	238+75
261+00	261+40

MISCELLANEOUS DETAILS
FAS ROUTE 924
SECTION 05-00094-00-RS
PROJECT NO. RS-924 (121)
UNION COUNTY

646 MBCT 02/17/06 1107 RLM