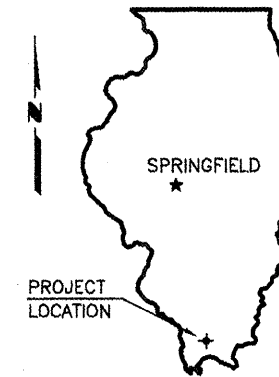




STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	1
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009



FAS ROUTE 924 (LICK CREEK ROAD)
SECTION 09-00062-00-RS
PROJECT NO. ARA-RS-924 (124)
JOB NO. C-99-541-09

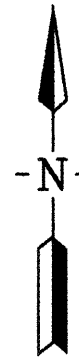
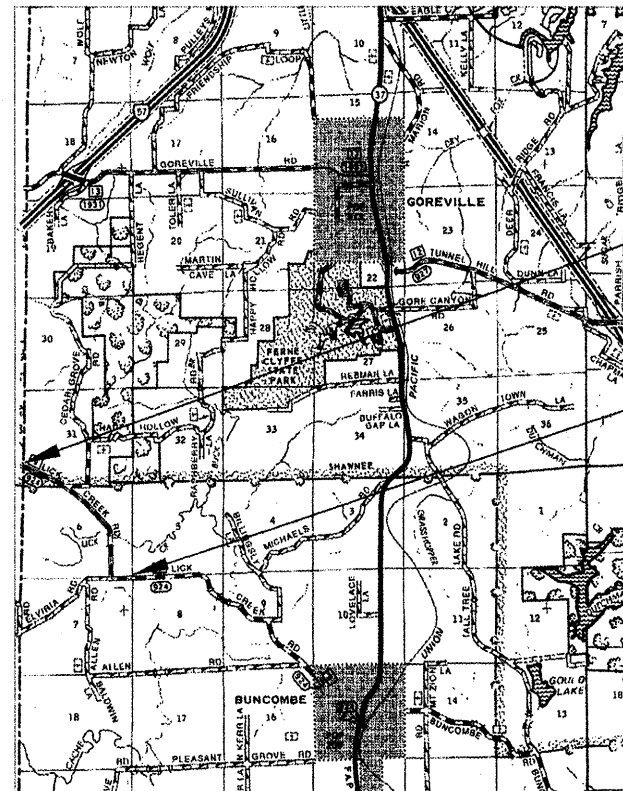
SUMMARY OF QUANTITIES

CODE NO.	PAY ITEM	UNIT	TOTAL
40200800*	AGGREGATE SURFACE COURSE, TYPE B	TON	50
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	2,520
40600300	AGGREGATE (PRIME COAT)	TON	40
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	1,990
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	112
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	480
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	1,790
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	233
48101200	AGGREGATE SHOULDERS, TYPE B	TON	1,480
67100100	MOBILIZATION	L SUM	1
72000100	SIGN PANEL - TYPE 1	SQ FT	58.5
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	138.5
▲ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	33,980
▲ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	141
▲ 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	1

* SEE SPECIAL PROVISIONS

▲ SPECIALTY ITEMS

JOHNSON COUNTY



BEGIN IMPROVEMENT
STATION 0+60

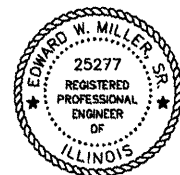
END IMPROVEMENT
STATION 105+60

INDEX OF SHEETS

1. COVER SHEET
 2. TYPICAL SECTIONS
 3. RESURFACING SCHEDULE
 - 4.-8. PLAN & PROFILE
 9. TYPICAL ENTRANCE & SIDE ROAD DETAILS
 10. MISCELLANEOUS DETAILS
- STANDARDS
- 701001-02 TRAFFIC CONTROL
 - 701006-03 TRAFFIC CONTROL
 - 701011-02 TRAFFIC CONTROL
 - 701301-03 TRAFFIC CONTROL
 - 701306-02 TRAFFIC CONTROL
 - 701311-03 TRAFFIC CONTROL
 - 701901-01 TRAFFIC CONTROL DEVICES
 - 720001-01 SIGN PANEL MOUNTING DETAILS
 - 720006-02 SIGN PANEL ERECTION DETAILS
 - 780001-02 TYPICAL PAVEMENT MARKINGS
 - BLR 24-2 MAILBOX TURNOUTS

CLASSIFICATION : COLLECTOR
ADT : 175
DESIGN SPEED : 40 MPH

ILLINOIS DEPARTMENT OF TRANSPORTATION	
Approved	12-16-09 <i>Steve Kelly</i> Johnson County, Engineer
Passed	12-17-09 <i>Richard W. Melcher</i> District 9 Engineer of Local Roads and Streets
Releasing for Bid Based on Limited Review	12-17-09 <i>Mary C. Lammie</i> Deputy Director of Highways, Region 5 Engineer



Edward W. Miller

Edward W. Miller
PROFESSIONAL ENGINEER
#062-025277
EXPIRES NOV. 30, 2011

LOCATION MAP

SCALE: 1" = 2 MILES

NET LENGTH OF IMPROVEMENT = 10,500.00 FT. = 1.9886 MILES

CONTRACT NO. 99372

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

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	2
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

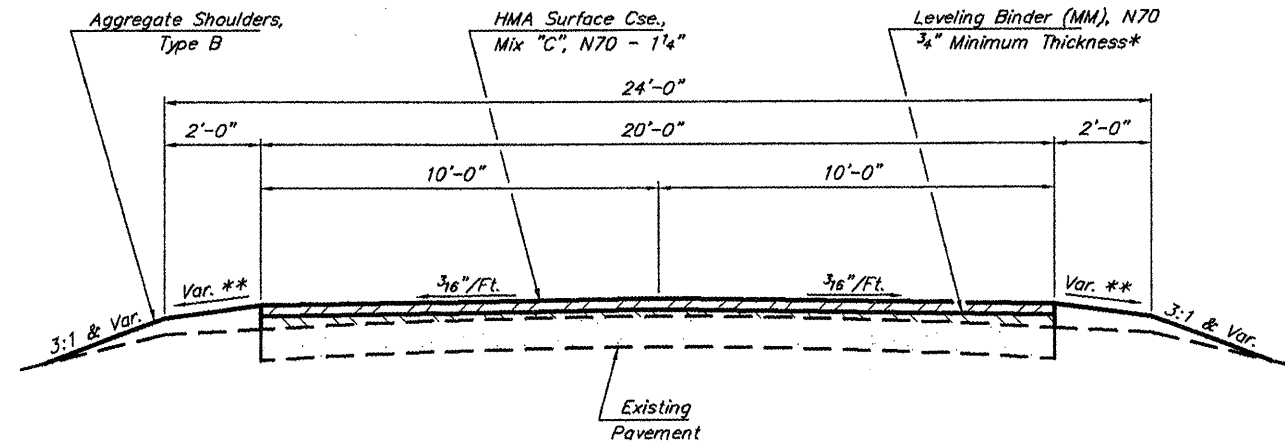
GENERAL NOTES

Crown and superelevation corrections shall be constructed prior to placing the 3/4" lift of Leveling Binder. If material thickness will be greater than 3" then Hot-Mix Asphalt Binder Course, IL-19.0, N70 shall be used for the correction as directed by the Engineer. (See Resurfacing Schedule for locations)

Prime shall be applied to the full width of the existing roadway surface at the rates shown below.

Factors used for quantity calculations are as follows:

All Hot-Mix Asphalt..... 112.0 Lbs./Sq. Yd./Inch
 All Aggregate 2.025 Tons/Cu. Yd.
 Bit. Matls. (Prime Coat) 0.10 Gals./Sq. Yd.
 Aggregate (Prime Coat) 0.0015 Tons/Sq. Yd.

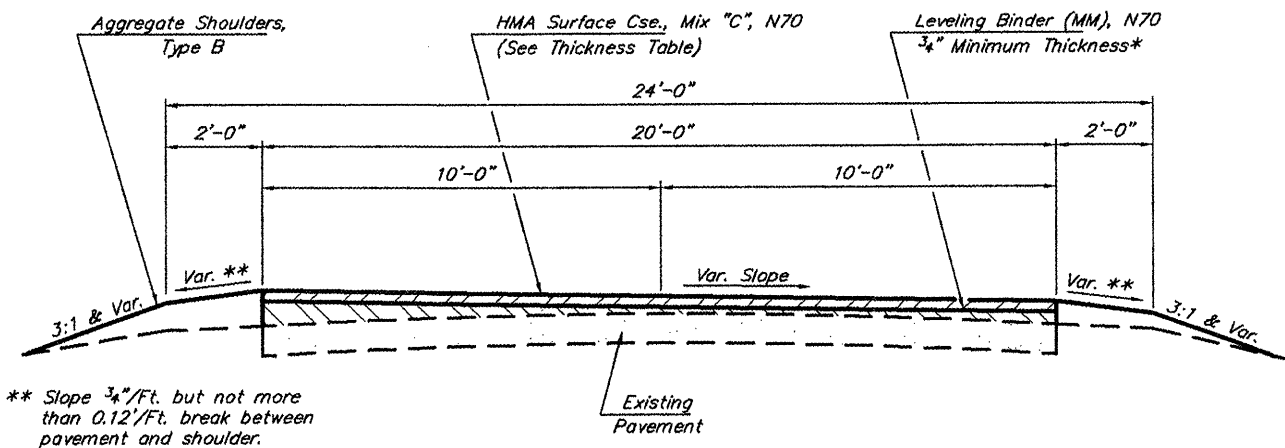


TYPICAL SECTION

STRUCTURAL DESIGN DATA

Class IV Roadway
 Design Period - 8 Years
 PC 150 IBR 2.5
 SU 15 TF 0.0038
 MU 10 DT 1.827

Material Coefficient
 Existing Agg. Base Course - 0.08
 Existing Oil & Chip Surface - 0.15
 Existing BMC - 0.17
 Proposed Leveling Binder - 0.33
 Proposed HMA Surface - 0.40



** Slope 3/16"/ft. but not more than 0.12"/ft. break between pavement and shoulder.

TYPICAL SECTION THRU CURVES

NOTE: Section shown for right curve. Reverse for left curve.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

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

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

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

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	3
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

RESURFACING SCHEDULE

Location Station to Station	Length Feet	Prime Coat		Leveling Binder (MM)		Hot-Mix Asphalt Binder Course Tons	Hot-Mix Asphalt Surface Course Tons
		Bituminous Materials Gallons	Aggregate Tons	Full Lift Tons	Crown/SE Correction Tons		
		EASTBOUND (RIGHT) LANE					
0+60 to 5+12	452.00	58.6	0.9	24.6	20.4		41.0
5+12 to 11+31	619.00	70.8	1.0	29.8	12.7		49.5
11+31 to 18+82	751.00	86.0	1.3	36.1	73.4		60.1
18+82 to 23+23	441.00	50.5	0.8	21.2	19.8		35.3
23+23 to 24+35	112.00	12.8	0.2	5.4	4.4		8.9
24+35 to 26+48	213.00	24.3	0.3	10.6		36.7	17.1
26+48 to 30+00	352.00	40.3	0.7	16.9	34.3	0.3	28.2
30+00 to 34+12	412.00	47.2	0.7	19.8	19.4		32.9
34+12 to 36+49	237.00	27.1	0.4	11.4	5.0	18.0	19.0
36+49 to 45+60	911.00	104.3	1.5	43.8	21.8		72.9
45+60 to 49+33	373.00	42.7	0.7	17.9	36.6		29.8
49+33 to 60+52	1119.00	128.0	1.9	53.8	56.6	4.0	89.6
60+52 to 65+35	483.00	55.3	0.8	23.2	15.6	31.6	38.6
65+35 to 66+69	134.00	15.3	0.2	6.7		2.4	16.3
66+69 to 69+26	257.00	29.4	0.5	12.4	3.4		27.2
69+26 to 71+89	263.00	30.1	0.4	12.6	5.9	22.3	21.1
71+89 to 89+22	1733.00	198.4	3.0	83.3	32.6		138.7
89+22 to 94+44	522.00	59.7	0.9	25.1	31.0	17.3	41.7
94+44 to 105+60	1116.00	127.7	1.9	53.6	26.4		89.3
Subtotals for EastBound (Right) Lane		1208.5	18.1	508.2	419.3	132.6	857.2
WESTBOUND (LEFT) LANE							
0+60 to 5+12	452.00	58.6	0.9	24.6	17.9	8.3	41.0
5+12 to 11+31	619.00	70.8	1.0	29.8	5.7	77.3	49.5
11+31 to 18+82	751.00	86.0	1.3	36.1	26.4		60.1
18+82 to 23+23	441.00	50.5	0.8	21.2	8.5	38.3	35.3
23+23 to 24+35	112.00	12.8	0.2	5.4	5.5		8.9
24+35 to 26+48	213.00	24.3	0.3	10.2	10.9		17.1
26+48 to 30+00	352.00	40.3	0.7	16.9	8.9	63.8	28.2
30+00 to 34+12	412.00	47.2	0.7	19.8	26.3		32.9
34+12 to 36+49	237.00	27.1	0.4	11.4	14.1		19.0
36+49 to 45+60	911.00	104.3	1.5	43.8	46.9		72.9
45+60 to 49+33	373.00	42.7	0.7	17.9	3.1	131.9	29.8
49+33 to 60+52	1119.00	128.0	1.9	53.8	47.4		89.6
60+52 to 65+35	483.00	55.3	0.8	23.2	12.8		38.6
65+35 to 66+69	134.00	15.3	0.2	6.5			16.3
66+69 to 69+26	257.00	29.4	0.5	12.4	19.8		27.2
69+26 to 71+89	263.00	30.1	0.4	12.6	10.0		21.1
71+89 to 89+22	1733.00	198.4	3.0	83.3	79.4		138.7
89+22 to 94+44	522.00	59.7	0.9	25.1	20.7	18.4	41.7
94+44 to 105+60	1116.00	127.7	1.9	53.6	51.8		89.3
Subtotals for WestBound (Left) Lane		1208.5	18.1	507.6	416.1	338.0	857.2
TOTALS		2417.0	36.2	1015.8	835.4	470.6	1714.4

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

**LOCATIONS FOR
HOT-MIX ASPHALT BINDER COURSE**

Location	Tons
EASTBOUND (RIGHT) LANE	
Sta. 24+40 - Sta. 26+50	37.0
Sta. 34+75 - Sta. 36+25	18.0
Sta. 60+20 - Sta. 61+70	19.0
Sta. 64+30 - Sta. 65+50	19.0
Sta. 69+65 - Sta. 71+40	22.3
Sta. 89+40 - Sta. 90+50	17.3
WESTBOUND (LEFT) LANE	
Sta. 3+65 - Sta. 4+40	8.3
Sta. 5+30 - Sta. 10+60	77.3
Sta. 19+50 - Sta. 22+70	38.3
Sta. 27+25 - Sta. 29+40	63.8
Sta. 45+60 - Sta. 48+90	131.9
Sta. 91+10 - Sta. 92+30	18.4
TOTAL	470.6

NOTE: Locations and quantities are estimated and should be verified and adjusted in the field as directed by the Engineer.

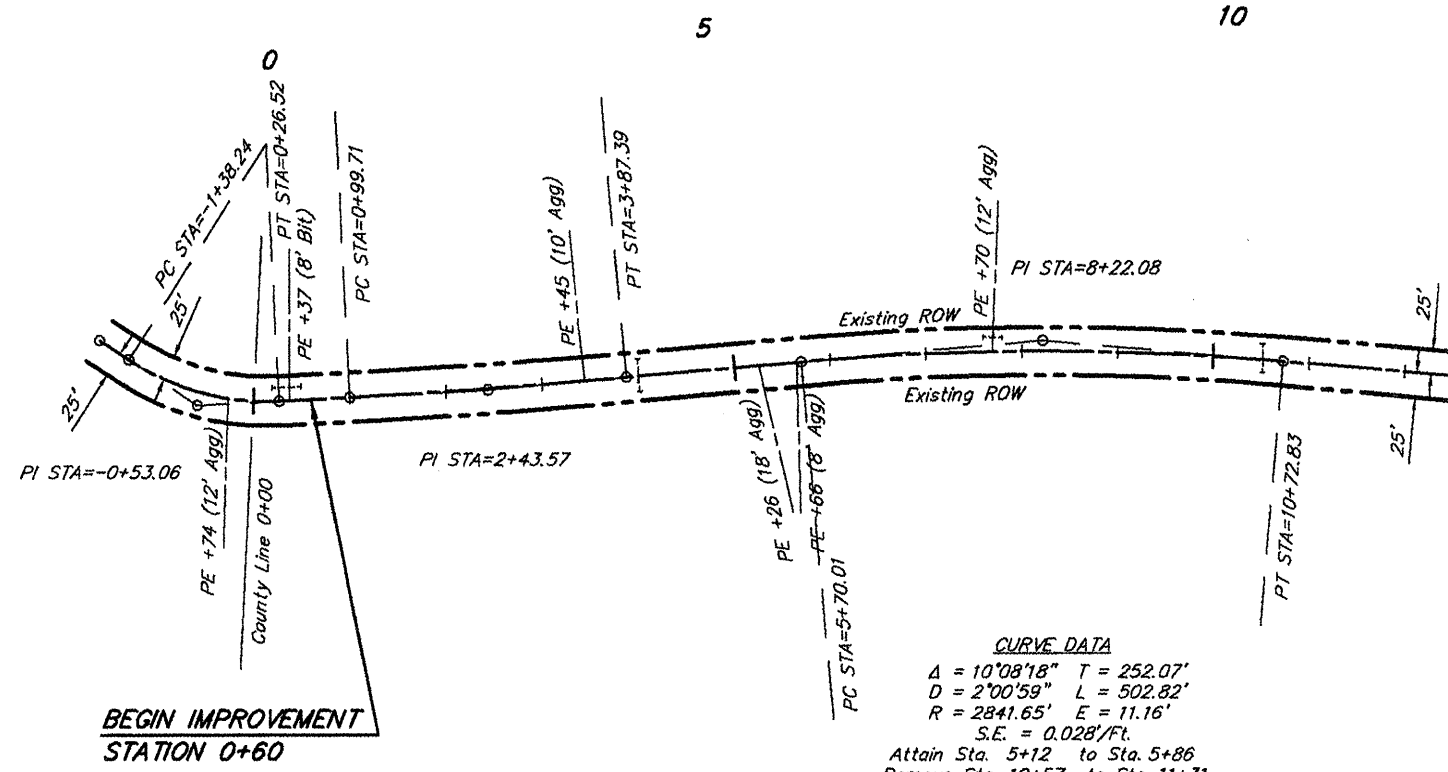


CURVE DATA
 $\Delta = 35^{\circ}52'42''$ $T = 85.18'$
 $D = 21^{\circ}46'35''$ $L = 164.76'$
 $R = 263.11'$ $E = 13.44'$
 $S.E. = 0.080'/ft.$
 Attain Sta. -1+75 to Sta. -0+56
 Remove Sta. -0+44 to Sta. 0+100

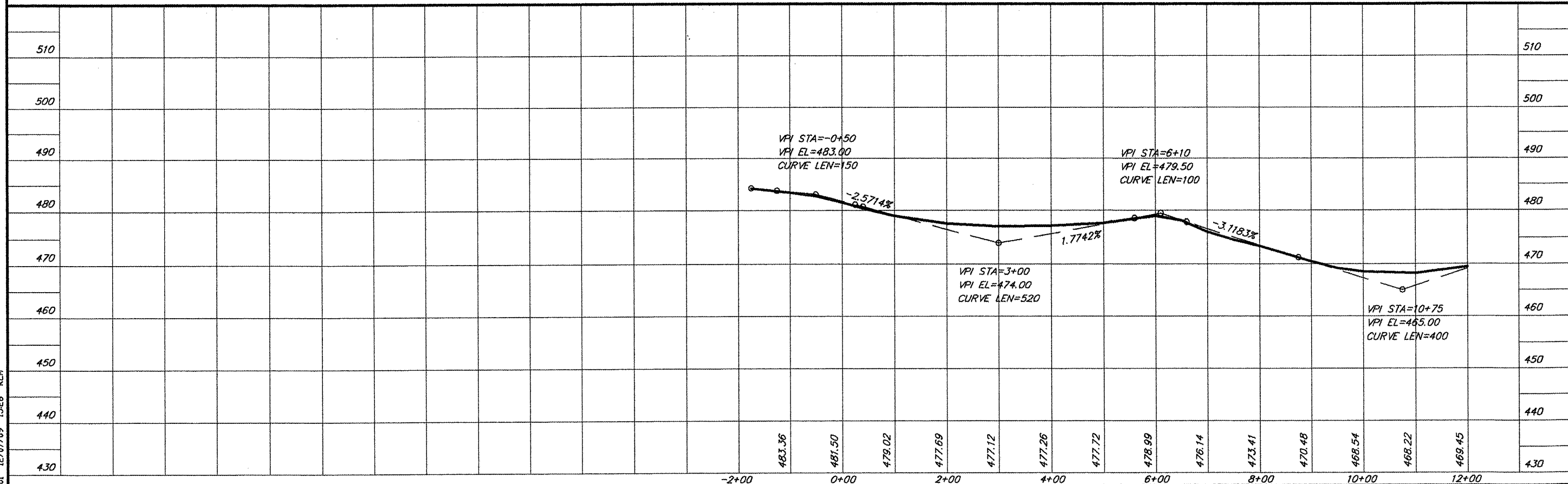
CURVE DATA
 $\Delta = 2^{\circ}11'57''$ $T = 143.85'$
 $D = 0^{\circ}45'52''$ $L = 287.67'$
 $R = 7494.72'$ $E = 1.38'$
 Normal Crown

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	4
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

NOTE: All existing pipe culverts are to remain.



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

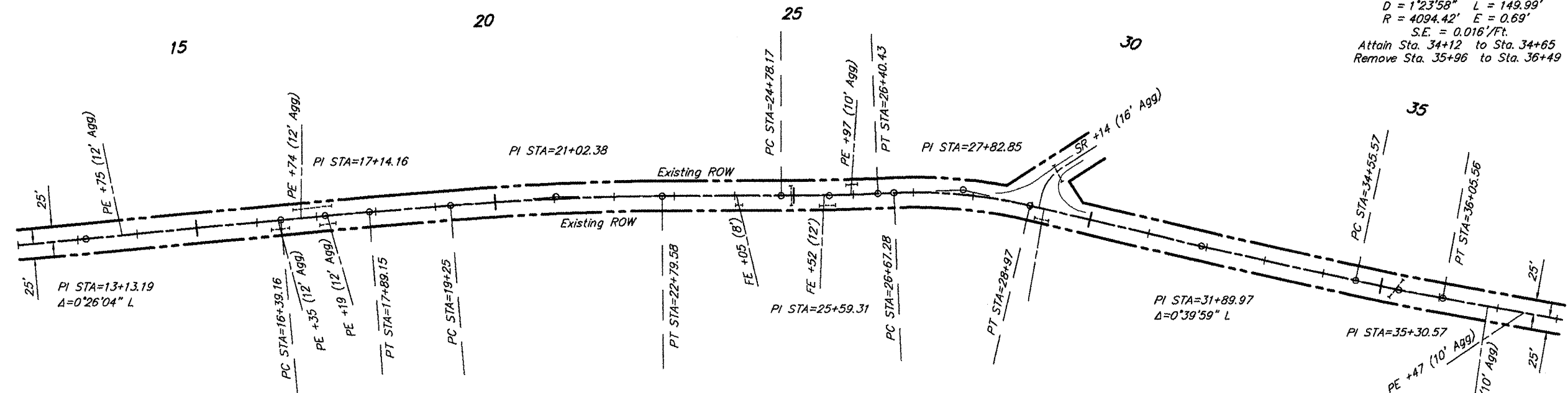


PLAN & PROFILE STA. -1+75 - STA. 12+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	5
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

CURVE DATA
 $\Delta = 2^{\circ}14'05''$ $T = 81.14'$
 $D = 1^{\circ}22'38''$ $L = 162.25'$
 $R = 4160.00'$ $E = 0.79'$
 $S.E. = 0.015'/ft.$
 Attain Sta. 24+35 to Sta. 24+87
 Remove Sta. 25+96 to Sta. 26+48

CURVE DATA
 $\Delta = 2^{\circ}05'56''$ $T = 75.00'$
 $D = 1^{\circ}23'58''$ $L = 149.99'$
 $R = 4094.42'$ $E = 0.69'$
 $S.E. = 0.016'/ft.$
 Attain Sta. 34+12 to Sta. 34+65
 Remove Sta. 35+96 to Sta. 36+49

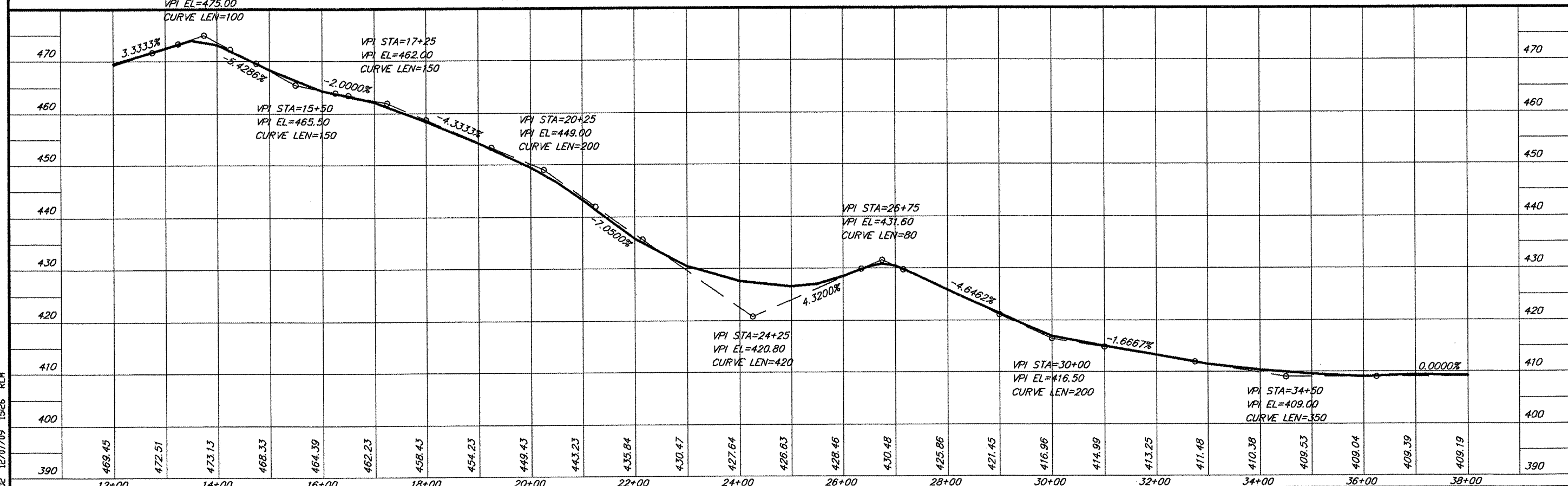


SCALES:
 1" = 200' HOR
 1" = 20' VER

CURVE DATA
 $\Delta = 0^{\circ}58'03''$ $T = 75.01'$
 $D = 0^{\circ}38'42''$ $L = 150.02'$
 $R = 8883.99'$ $E = 0.32'$
 $S.E. = 0.015'/ft.$
 Normal Crown

CURVE DATA
 $\Delta = 4^{\circ}21'18''$ $T = 177.38'$
 $D = 1^{\circ}13'42''$ $L = 354.58'$
 $R = 4665.00'$ $E = 3.37'$
 $S.E. = 0.015'/ft.$
 Attain Sta. 18+82 to Sta. 19+34
 Remove Sta. 22+71 to Sta. 23+23

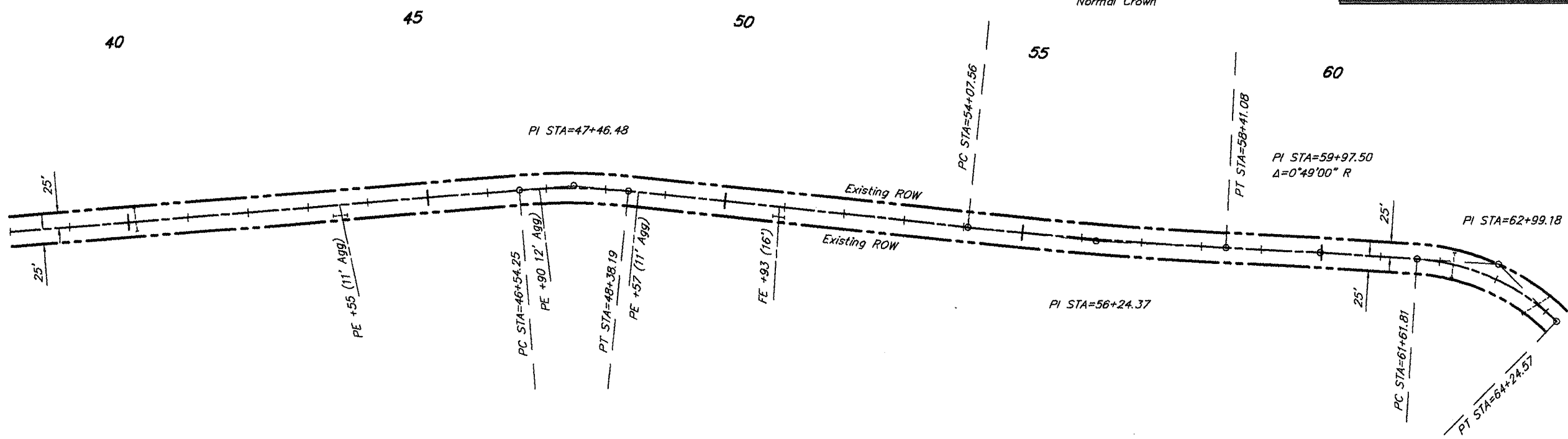
CURVE DATA
 $\Delta = 15^{\circ}34'36''$ $T = 115.58'$
 $D = 6^{\circ}46'50''$ $L = 229.73'$
 $R = 845.00'$ $E = 7.87'$
 $S.E. = 0.067'/ft.$
 Attain Sta. 26+48 to Sta. 27+82
 Remove Sta. 28+59 to Sta. 30+00



PLAN & PROFILE STA. 12+00 - STA. 38+00

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	6
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

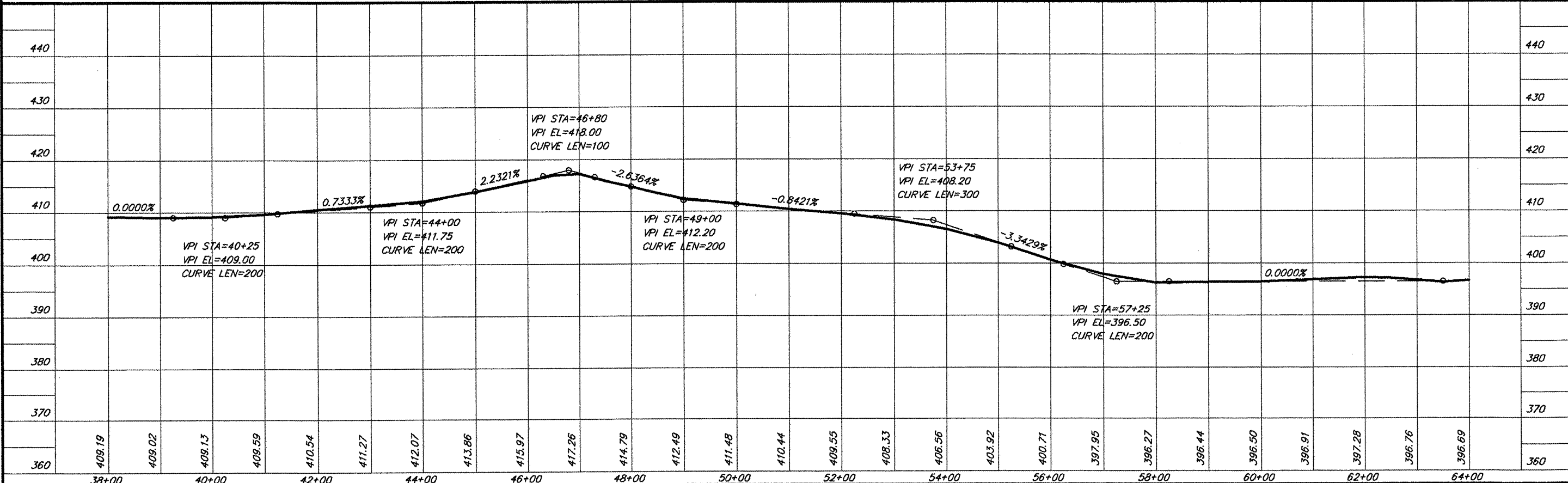
CURVE DATA
 $\Delta = 3^{\circ}04'27''$ $T = 216.82'$
 $D = 0^{\circ}42'33''$ $L = 433.53'$
 $R = 8080.00'$ $E = 2.91'$
 Normal Crown



CURVE DATA
 $\Delta = 10^{\circ}32'20''$ $T = 92.23'$
 $D = 5^{\circ}43'46''$ $L = 183.94'$
 $R = 1000.00'$ $E = 4.24'$
 $S.E. = 0.060'/ft.$
 Attain Sta. 45+60 to Sta. 46+89
 Remove Sta. 48+04 to Sta. 49+33

CURVE DATA
 $\Delta = 41^{\circ}14'49''$ $T = 137.37'$
 $D = 15^{\circ}41'51''$ $L = 262.76'$
 $R = 365.00'$ $E = 24.99'$
 $S.E. = 0.080'/ft.$
 Attain Sta. 60+52 to Sta. 62+05
 Remove Sta. 63+82 to Sta. 65+35

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

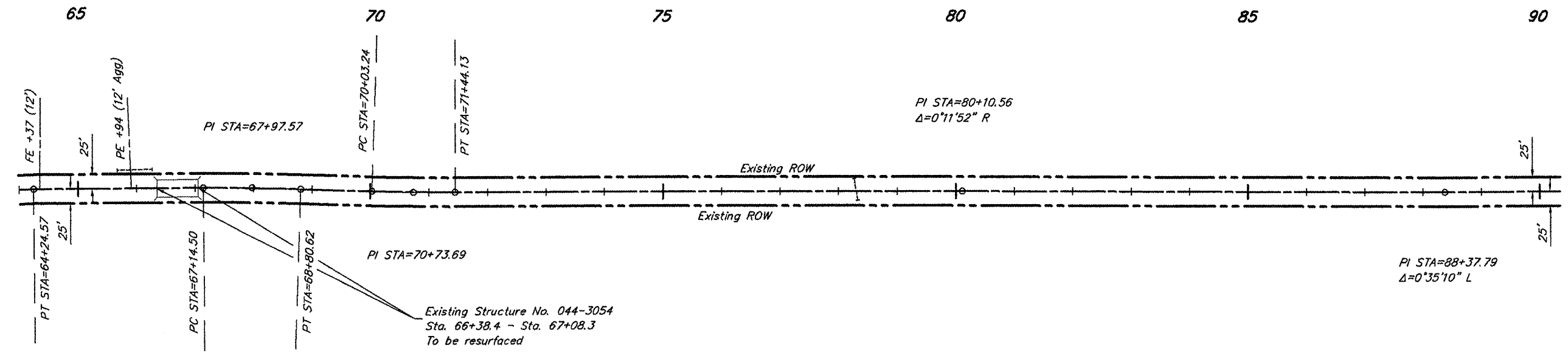


PLAN & PROFILE STA. 38+00 - STA. 64+00

685 PPD3 12/07/09 15:25 RLM

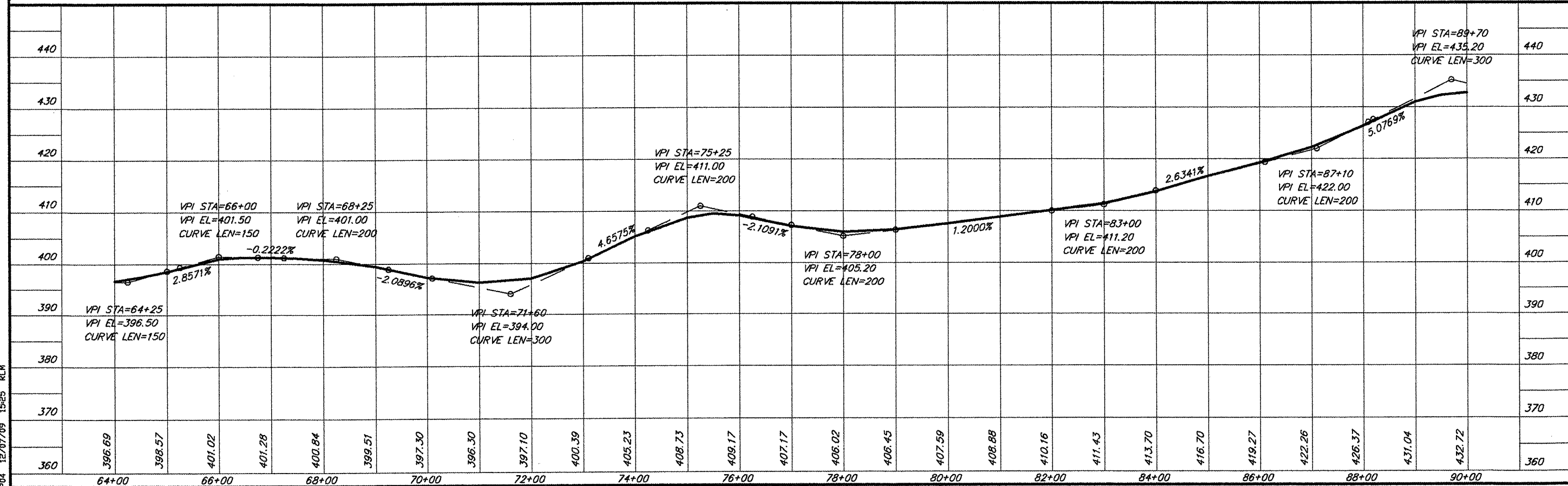
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	7
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

CURVE DATA
 $\Delta = 2^{\circ}01'05''$ $T = 70.45'$
 $D = 1^{\circ}25'57''$ $L = 140.89'$
 $R = 4000.00'$ $E = 0.62'$
 $S.E. = 0.017'/ft.$
 Attain Sta. 69+58 to Sta. 70+13
 Remove Sta. 71+34 to Sta. 71+89



CURVE DATA
 $\Delta = 2^{\circ}22'46''$ $T = 83.07'$
 $D = 1^{\circ}25'57''$ $L = 166.12'$
 $R = 4000.00'$ $E = 0.86'$
 $S.E. = 0.017'/ft.$
 Attain Sta. 66+69 to Sta. 67+24
 Remove Sta. 68+71 to Sta. 69+26

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



PLAN & PROFILE STA. 64+00 - STA. 90+00

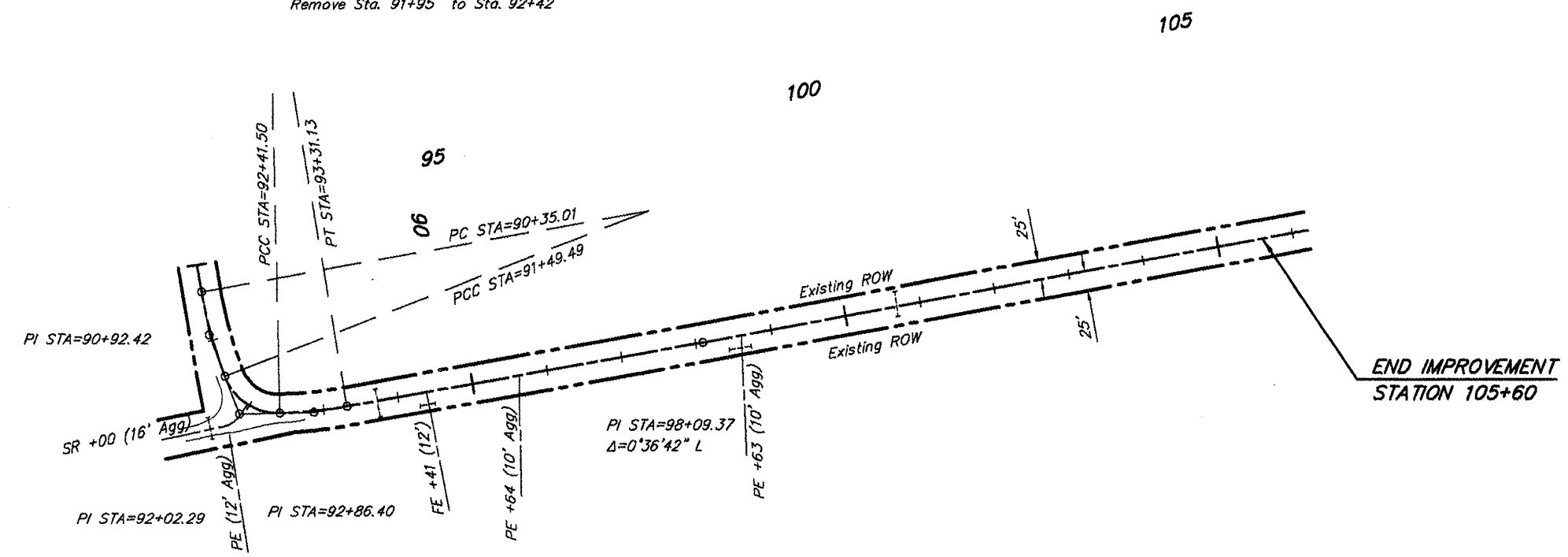
685 P04 12/07/09 15:25 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	8
PROJECT NO. ARA-RS-924 (124)			CONTRACT NO. 99372	

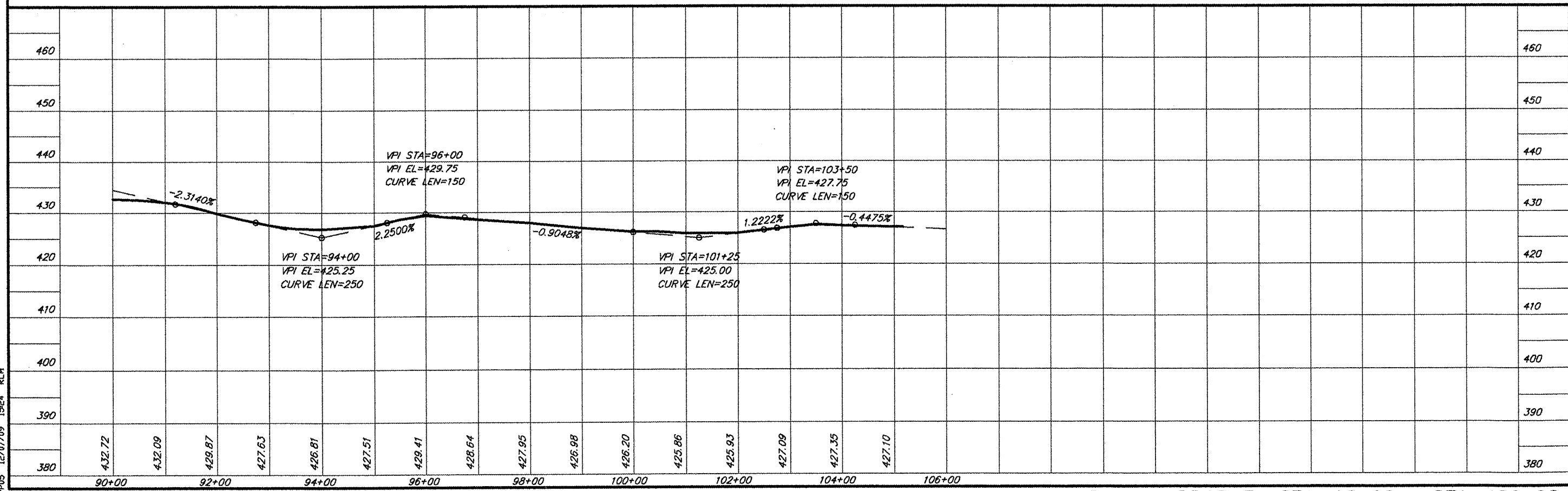
CURVE DATA
 $\Delta = 10^{\circ}55'57''$ $T = 57.42'$
 $D = 9^{\circ}32'57''$ $L = 114.48'$
 $R = 600.00'$ $E = 2.74'$
 $S.E. = 0.076'/ft.$
 Attain Sta. 89+22 to Sta. 90+79

CURVE DATA
 $\Delta = 70^{\circ}17'27''$ $T = 52.80'$
 $D = 76^{\circ}23'40''$ $L = 92.01'$
 $R = 75.00'$ $E = 16.72'$
 $S.E. = 0.080'/ft.$
 Attain Sta. 91+49 to Sta. 91+95
 Remove Sta. 91+95 to Sta. 92+42

CURVE DATA
 $\Delta = 8^{\circ}33'32''$ $T = 44.90'$
 $D = 9^{\circ}32'57''$ $L = 89.63'$
 $R = 600.00'$ $E = 1.68'$
 $S.E. = 0.076'/ft.$
 Remove Sta. 92+87 to Sta. 94+44



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



PLAN & PROFILE STA. 90+00 - STA. 106+00

685 PFO5 12/07/09 1564 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	9
PROJECT NO. ARA-RS-924 (124)		CONTRACT NO. 99372		

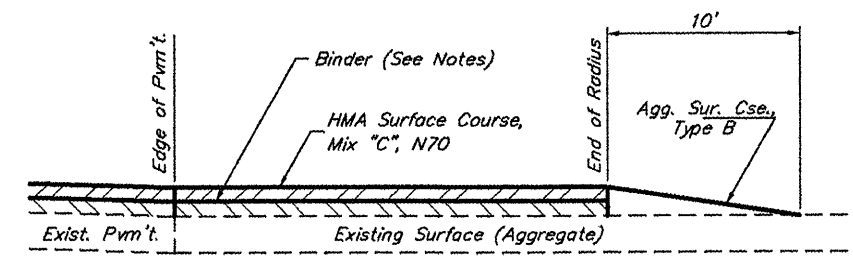
Angle of Intersection	SCHEDULE OF RADII			
	Side Road		Private Entrance	
	Acute L.	Obtuse L.	Acute L.	Obtuse L.
90° - 80°	25'	25'	15'	15'
79° - 70°	25'	40'	15'	25'
69° - 60°	25'	60'	15'	35'
59° - 50°	20'	75'	10'	40'
49° - 40°	20'	100'	10'	60'
39° - 30°	15'	150'	10'	100'

NOTES

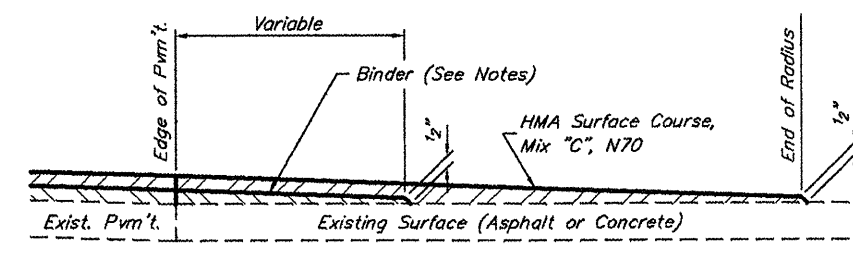
Thickness and type, of binder and surface course, shall be equal to the mainline resurfacing.

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

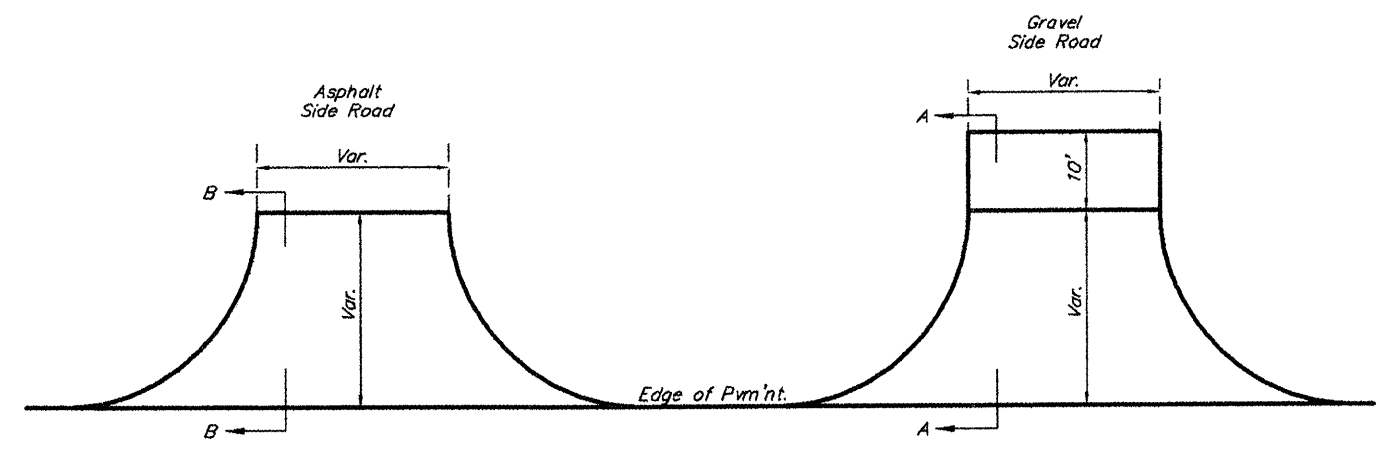
The actual number and locations, of entrances and side roads, shall be determined in the field by the Engineer.



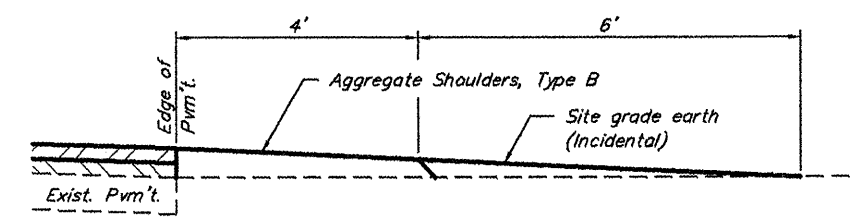
SECTION A-A SIDE ROAD - AGGREGATE
(Est. No. = 2)



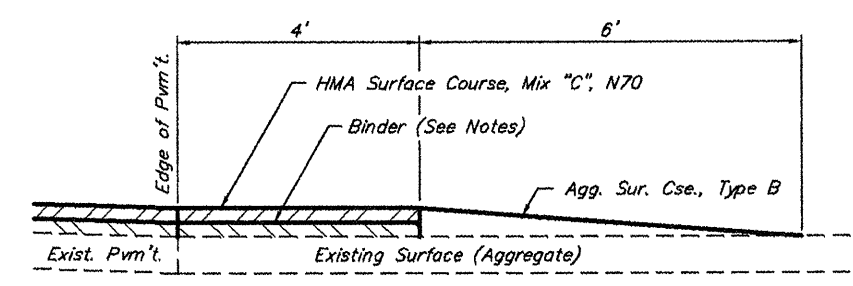
SECTION B-B SIDE ROAD - ASPHALT
(Est. No. = 0)



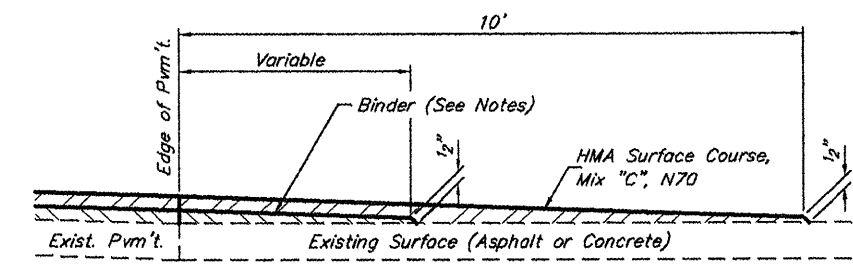
TYPICAL SIDE ROAD DETAILS



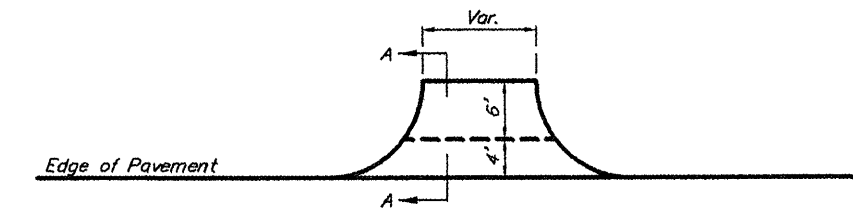
SECTION A-A FIELD ENTRANCE
(Est. No. = 5)



SECTION A-A PRIVATE ENTRANCE - AGGREGATE
(Est. No. = 19)



SECTION A-A PRIVATE ENTRANCE - ASPHALT
(Est. No. = 1)



TYPICAL ENTRANCE DETAILS

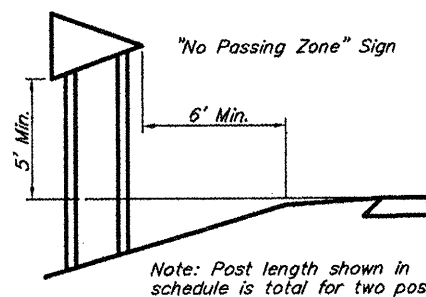
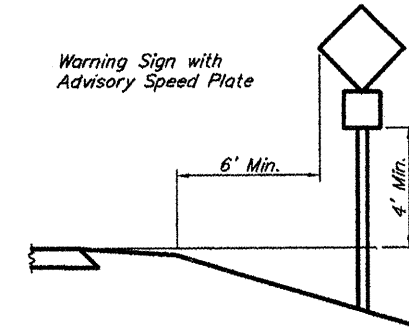
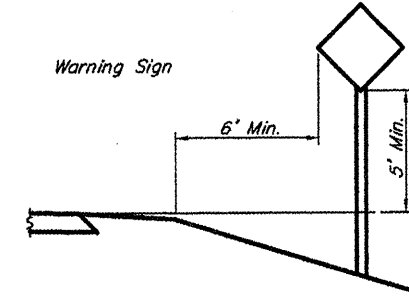
TYPICAL SIDE ROAD & ENTRANCE DETAILS

685 PE-SR 12/07/09 15:00 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 924	09-00062-00-RS	JOHNSON	10	10
PROJECT NO. ARA-RS-924 (124)		CONTRACT NO. 99372		

SCHEDULE OF SIGNS					
Location	Name	Signs		Post Length	
		No.	Sq. Ft.		
Sta. 4+00 Lt.	CURVE	W1-2R	6.25	16.5	
	ADVISORY SPEED	W13-1(30)	2.25	-	
Sta. 58+00 Rt.	CURVE	W1-2R	6.25	16.5	
	ADVISORY SPEED	W13-1(35)	2.25	-	
Sta. 67+75 Lt.	CURVE	W1-2L	6.25	16.5	
	ADVISORY SPEED	W13-1(35)	2.25	-	
Sta. 86+50 Rt.	TURN	W1-1L	6.25	16.5	
	ADVISORY SPEED	W13-1(15)	2.25	-	
Sta. 92+00 Rt.	ARROW	W1-6	8.00	28.0	
Sta. 92+05 Rt.	ARROW	W1-6	8.00	28.0	
Sta. 97+50 Lt.	TURN	W1-1R	6.25	16.5	
	ADVISORY SPEED	W13-1(15)	2.25	-	
TOTALS			58.50	138.5	

* See Schedule of "No Passing Zones" for sign locations. Each location will have one sign of 5.55 Sq. Ft. and two posts with a combined length of 32.0 Ft. Quantities shown are totals.



Note: Post length shown in schedule is total for two posts.

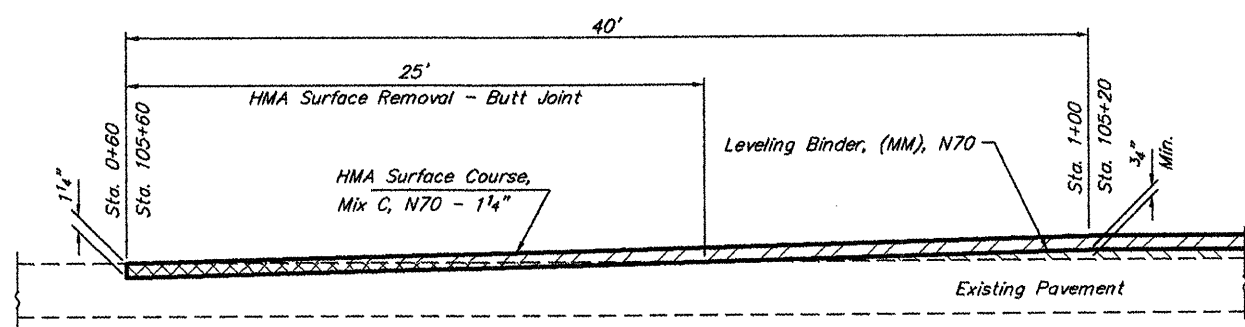
SCHEDULE OF PAVEMENT MARKING LINE 4" (LIN. FT.)			
Location	Centerline (Yellow Dashed)	Edge Line (White Solid)	No Passing (Yellow Solid)
Sta. 0+60 to Sta. 105+60	1,750	20,750	11,480

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

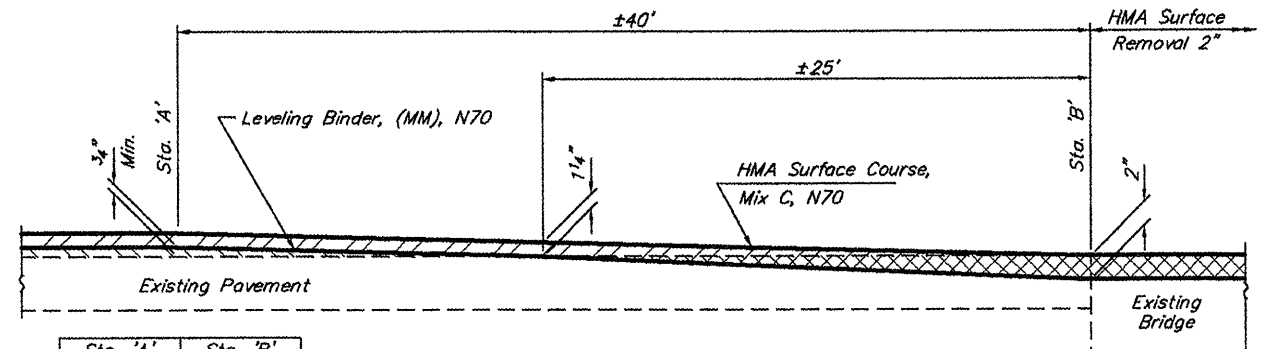
SCHEDULE OF "NO PASSING ZONES"			
EAST BOUND LANE		WEST BOUND LANE	
Location	Length	Location	Length
Sta. 0+60 to Sta. 16+25	1,565'	Sta. 0+60 to Sta. 34+75 ¹	3,415'
Sta. 20+25 ¹ to Sta. 26+75	650'	Sta. 48+00 to Sta. 53+75 ¹	575'
Sta. 40+00 ¹ to Sta. 45+75	575'	Sta. 63+00 to Sta. 82+00 ¹	1,900'
Sta. 55+00 ¹ to Sta. 74+50	1,950'	Sta. 90+75 to Sta. 100+00 ¹	925'
Sta. 82+75 ¹ to Sta. 92+00	925'		
TOTALS		5,665'	

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

SIGN SCHEDULE & MOUNTING DETAIL



BEGINNING & ENDING BUTT JOINT



Sta. 'A'	Sta. 'B'
65+98	66+38
67+48	67+08

BRIDGE PAVING DETAIL

MISCELLANEOUS DETAILS

685 MDET 12/07/09 1519 RLM