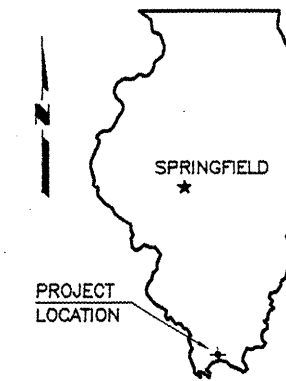


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SURFACE TRANSPORTATION PROGRAM

FAS ROUTE 928 (KARNAK ROAD)
SECTION 05-00060-00-RS
PROJECT NO. RS-928 (105)
JOB NO. C-99-560-06

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 928	05-00060-00-RS	JOHNSON	7	1
PROJECT NO. RS-928 (105)			CONTRACT NO. 99333	

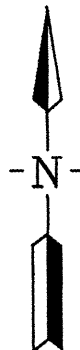
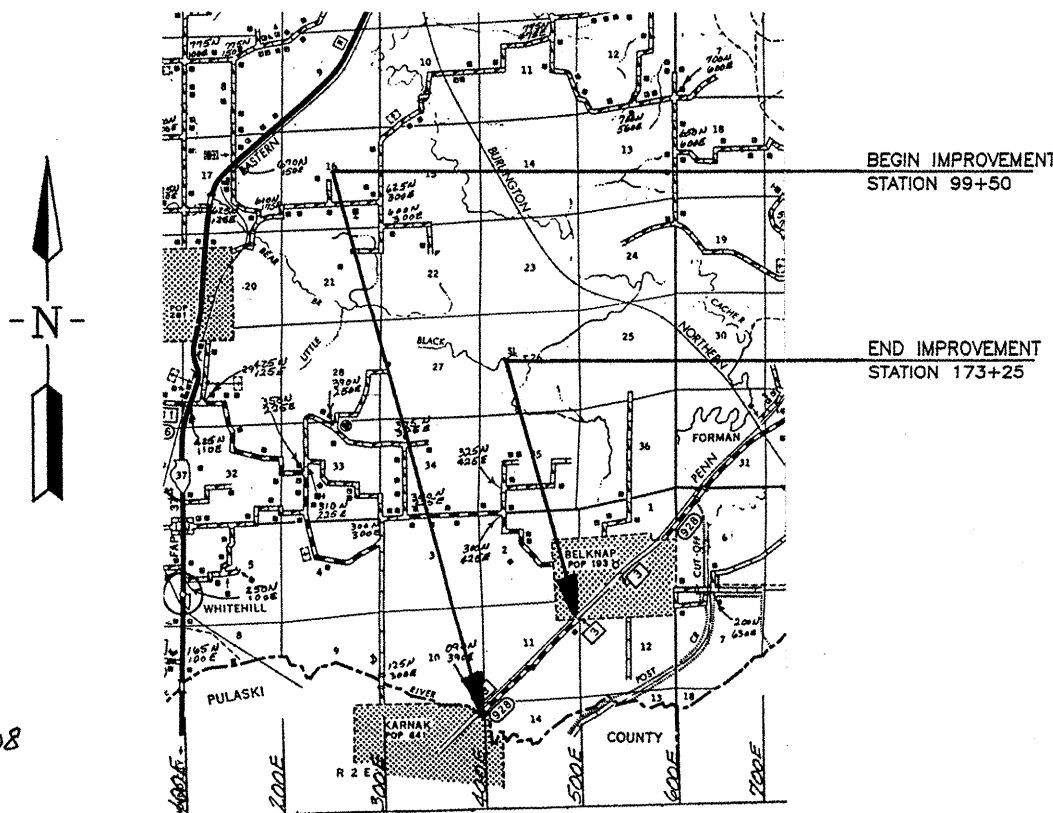


SUMMARY OF QUANTITIES

CODE NO.	PAY ITEM	UNIT	TOTAL
40200800*	AGGREGATE SURFACE COURSE, TYPE B	TON	10
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	370
40600300	AGGREGATE (PRIME COAT)	TON	6
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	2,130
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	630
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	1,190
48101200	AGGREGATE SHOULDERS, TYPE B	TON	3,130
67100100	MOBILIZATION	L SUM	1
72000100	SIGN PANEL - TYPE 1	SQ FT	45.8
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	224
▲ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	23,710
▲ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	92

* SEE SPECIAL PROVISIONS
▲ SPECIALTY ITEMS

JOHNSON COUNTY



LOCATION MAP

SCALE: 1" = 2 MILES

NET LENGTH OF IMPROVEMENT = 7,375.00 FT. = 1.3968 MILES

INDEX OF SHEETS

- COVER SHEET
- TYPICAL SECTIONS
- QUANTITY SCHEDULES
- 6. PLAN & PROFILE
- 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
 - 701901 TRAFFIC CONTROL DEVICES
 - 720001 SIGN PANEL MOUNTING DETAILS
 - 720006-01 SIGN PANEL ERECTION DETAILS
 - 780001-01 TYPICAL PAVEMENT MARKINGS
 - 781001-02 RAISED REFLECTIVE PAVEMENT MARKERS
 - BLR 24-1 MAILBOX TURNOUTS

CLASSIFICATION : COLLECTOR
ADT : 395
DESIGN SPEED : 50 MPH

ILLINOIS DEPARTMENT OF TRANSPORTATION	
Approved	3-31-08 <i>Steve Kelley</i> Johnson County, Engineer
Passed	4/8/08 <i>Dennis W. Hillebrand</i> District 9 Engineer of Local Roads and Streets
Releasing for Bid Based on Limited Review	4/8/08 <i>Mary C. Lomis</i> Deputy Director of Highways, Region 5 Engineer

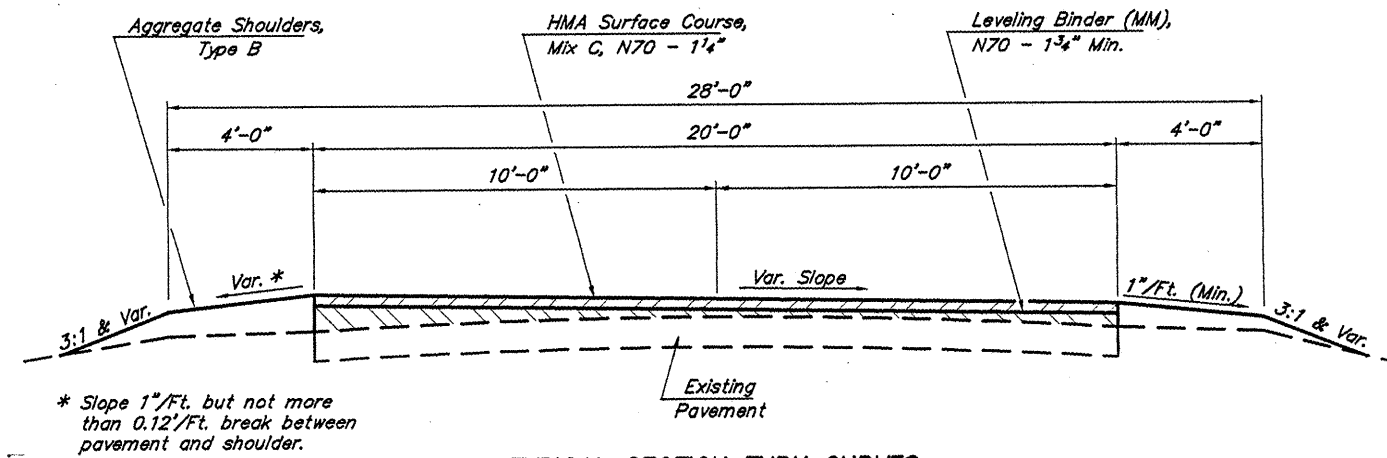
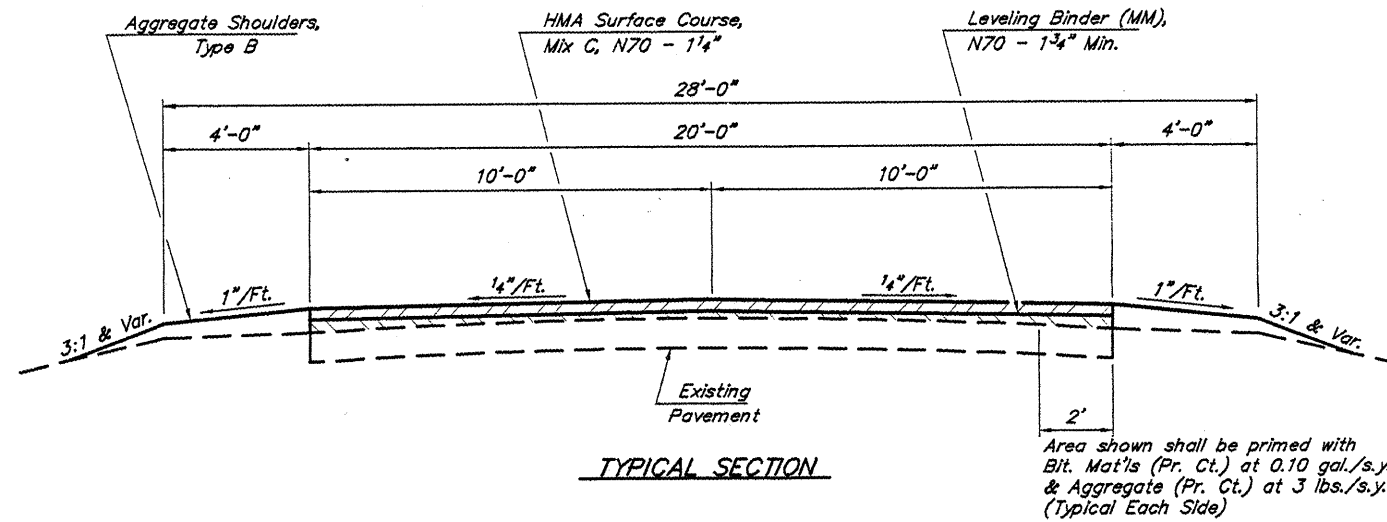
CONTRACT NO. 99333

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



03-05-08
Edward W. Miller
Edward W. Miller
PROFESSIONAL ENGINEER
#062-025277
EXPIRES NOV. 30, 2009

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 928	05-00060-00-RS	JOHNSON	7	2
PROJECT NO. RS-928 (105)			CONTRACT NO. 99333	



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

STRUCTURAL DESIGN DATA

Class IV Roadway
 Design Period - 8 Years
 PC 365 IBV 6.5
 SU 20 TF 0.0042
 MU 10 DT 1.470

MATERIAL COEFFICIENT

Exist. Crushed Stone Base - 0.08
 Exist. Oil & Chip Surface - 0.15
 Leveling Binder - 0.33
 HMA Surface Course - 0.40

HOT-MIX ASPHALT BINDER COURSE			Tons
Location			
Lt. Sta. 99+75	- Sta. 103+40		50.0
Rt. Sta. 102+10	- Sta. 113+20		168.7
Rt. Sta. 115+40	- Sta. 123+90		82.7
Lt. Sta. 132+90	- Sta. 137+80		100.1
Rt. Sta. 137+10	- Sta. 143+60		127.3
Lt. Sta. 152+90	- Sta. 157+40		56.8
Lt. Sta. 158+80	- Sta. 161+70		38.4
TOTAL			624.0

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

GENERAL NOTES

Crown and superelevation corrections shall be constructed prior to placing a full lift of Leveling Binder. If correction thickness will be greater than 2 1/4" then Hot-Mix Asphalt Binder Course, IL-19.0, N70 shall be used for the correction as directed by the Engineer. (See table below).

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 Hot-Mix Asphalt 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.

ASPHALT MIXTURE REQUIREMENTS

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

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

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

TYPICAL SECTIONS
 FAS ROUTE 928
 SECTION 05-00060-00-RS
 PROJECT NO. RS-928 (105)
 JOHNSON COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 928	05-00060-00-RS	JOHNSON	7	3
PROJECT NO. RS-928 (105)			CONTRACT NO. 99333	

Location	Centerline (Yellow Dashed)	Edge Line (White Solid)	No Passing (Yellow Solid)
Sta. 99+50 to Sta. 173+25	1,560	14,750	7,400

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. 95+00 ² to Sta. 109+00	1,400'	Sta. 104+00 to Sta. 118+00 ¹	1,400'
Sta. 128+00 ¹ to Sta. 141+00	1,300'	Sta. 137+00 to Sta. 150+00 ¹	1,300'
Sta. 148+50 ¹ to Sta. 153+50	500'	Sta. 158+00 to Sta. 163+00 ¹	500'
Sta. 160+50 ¹ to Sta. 165+50	500'	Sta. 169+50 to Sta. 174+50 ²	500'
TOTALS		3,700'	

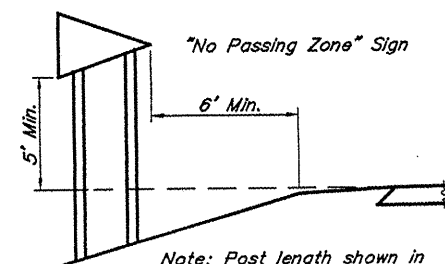
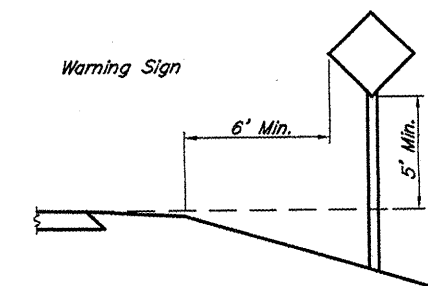
¹ Denotes location of "No Passing Zone" signs to be erected in accordance with Sign Schedule & Mounting Detail.

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

Location Station to Station	Length Feet	Prime Coat		Leveling Binder (MM)		Hot-Mix Asphalt Binder Course	Hot-Mix Asphalt Surface Course
		Bituminous Materials Gallons	Aggregate Tons	Full Lift Tons	Crown / SE Correction Tons	Tons	Tons
EASTBOUND (RIGHT) LANE							
99+50 to 106+90	740.00	21.5	0.3	83.0	14.8	68.4	58.6
106+90 to 107+03	13.00	0.3		1.5		2.6	1.1
107+03 to 113+55	652.00	14.9	0.3	73.1	2.6	97.7	52.1
113+55 to 133+53	1998.00	45.8	0.6	224.1	54.8	82.7	159.9
133+53 to 138+75	522.00	11.9	0.2	58.5	21.2	17.5	41.8
138+75 to 144+21	546.00	12.5	0.2	61.2	2.8	109.8	43.7
144+21 to 150+46	625.00	14.3	0.2	70.1	29.5		50.0
150+46 to 156+19	573.00	13.1	0.2	64.3	29.3		45.8
156+19 to 173+25	1706.00	43.7	0.7	191.3	70.2		135.9
Subtotals for Eastbound (Right) Lane		178.0	2.7	827.1	225.2	378.7	588.9
WESTBOUND (LEFT) LANE							
99+50 to 106+90	740.00	21.5	0.3	83.0	7.0	50.0	58.6
106+90 to 107+03	13.00	0.3		1.5	0.4		1.1
107+03 to 113+55	652.00	14.9	0.3	73.1	30.1		52.1
113+55 to 133+53	1998.00	45.8	0.6	224.1	73.7	10.5	159.9
133+53 to 138+75	522.00	11.9	0.2	58.5	6.7	89.6	41.8
138+75 to 144+21	546.00	12.5	0.2	61.2	34.7		43.7
144+21 to 150+46	625.00	14.3	0.2	70.1	20.3		50.0
150+46 to 156+19	573.00	13.1	0.2	64.3	8.1	56.8	45.8
156+19 to 173+25	1706.00	43.7	0.7	191.3	49.9	38.4	135.9
Subtotals for Westbound (Left) Lane		178.0	2.7	827.1	230.9	245.3	588.9
TOTALS		356.0	5.4	1654.2	456.1	624.0	1177.8

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

Location	Name	Signs		Post Length
		No.	Sq. Ft.	
Sta. 132+80 Rt.	REVERSE CURVE	W1-4R	6.25	16.0
Sta. 144+75 Lt.	REVERSE CURVE	W1-4R	6.25	16.0
Various (6)*	NO PASSING	W14-3	33.30	192.0
TOTALS			45.80	224.0



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

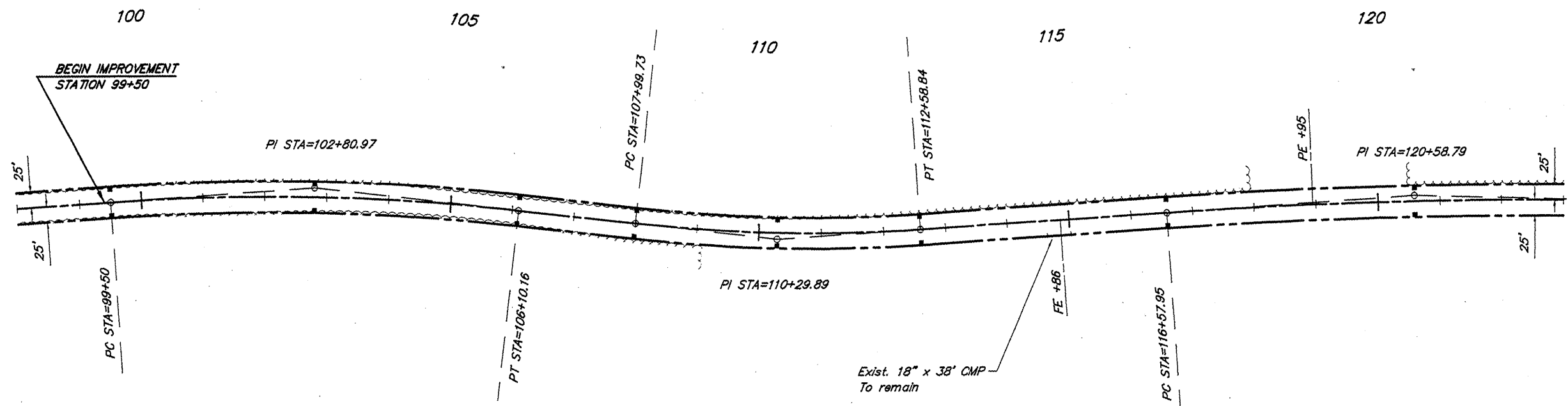
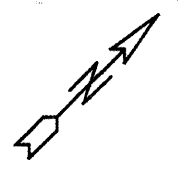
* See Schedule of "No Passing Zones" for sign locations. Each location will have one sign of 5.55 Sq. Ft. and two posts with a combined length of 32.0 Ft. Quantities shown are totals.

SIGN SCHEDULE & MOUNTING DETAIL

QUANTITY SCHEDULES
FAS ROUTE 928
SECTION 05-00060-00-RS
PROJECT NO. RS-928 (105)
JOHNSON COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 928	05-00060-00-RS	JOHNSON	7	4
PROJECT NO. RS-928 (105)			CONTRACT NO. 99333	

CURVE DATA
 $\Delta = 10^{\circ}11'45''$ $T = 230.16'$
 $D = 2^{\circ}13'15''$ $L = 459.11'$
 $R = 2580.00'$ $E = 10.25'$
 $S.E. = 0.043'/ft.$
 Attain Sta. 107+02 to Sta. 108+28
 Remove Sta. 112+30 to Sta. 113+56

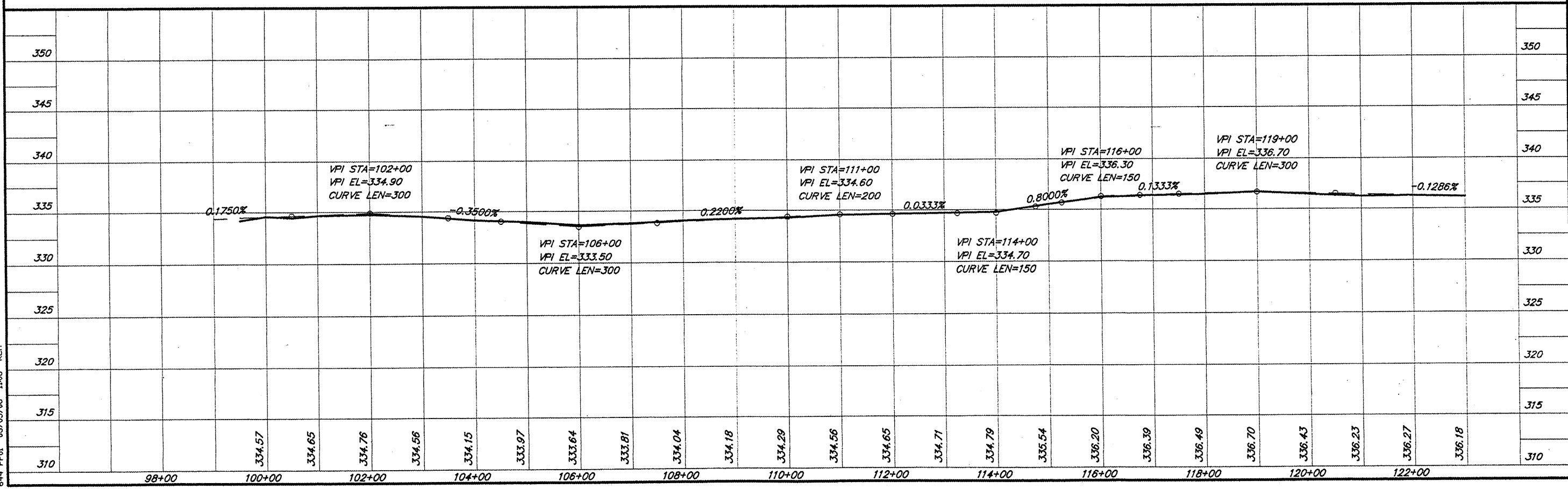


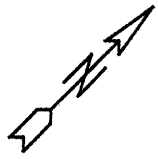
CURVE DATA
 $\Delta = 10^{\circ}17'14''$ $T = 330.97'$
 $D = 1^{\circ}33'30''$ $L = 660.15'$
 $R = 3676.79'$ $E = 14.87'$
 $S.E. = 0.032'/ft.$
 Attain Sta. 98+67 to Sta. 99+71
 Remove Sta. 105+89 to Sta. 106+93

CURVE DATA
 $\Delta = 5^{\circ}14'45''$ $T = 400.84'$
 $D = 0^{\circ}39'17''$ $L = 801.12'$
 $R = 8750.00'$ $E = 9.18'$
 Normal Crown

SCALES:
 1" = 200' HOR
 1" = 10' VER

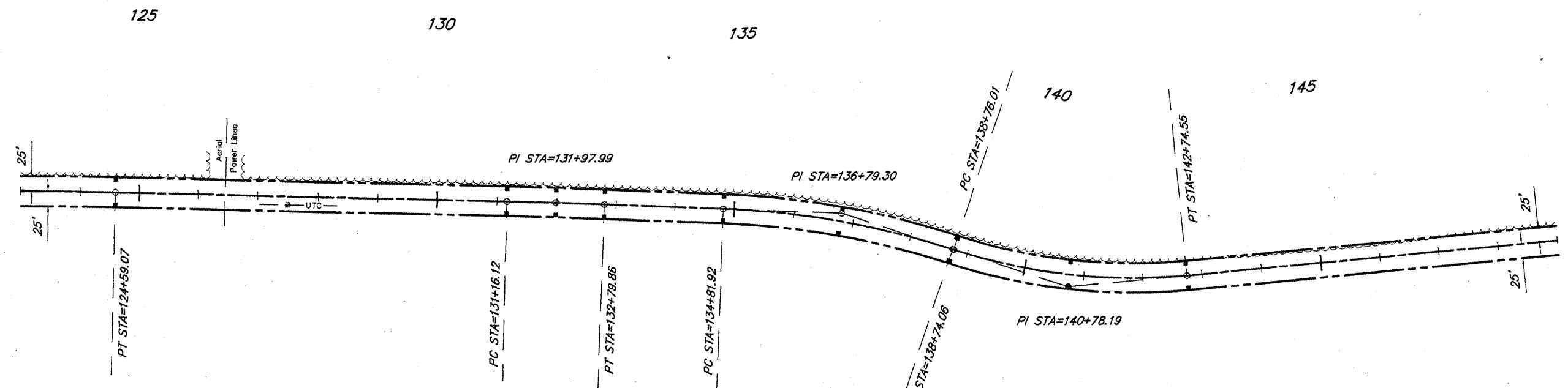
644 PPOI 03/05/08 1106 RLM





ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 928	05-00060-00-RS	JOHNSON	7	5
PROJECT NO. RS-928 (105)			CONTRACT NO. 99333	

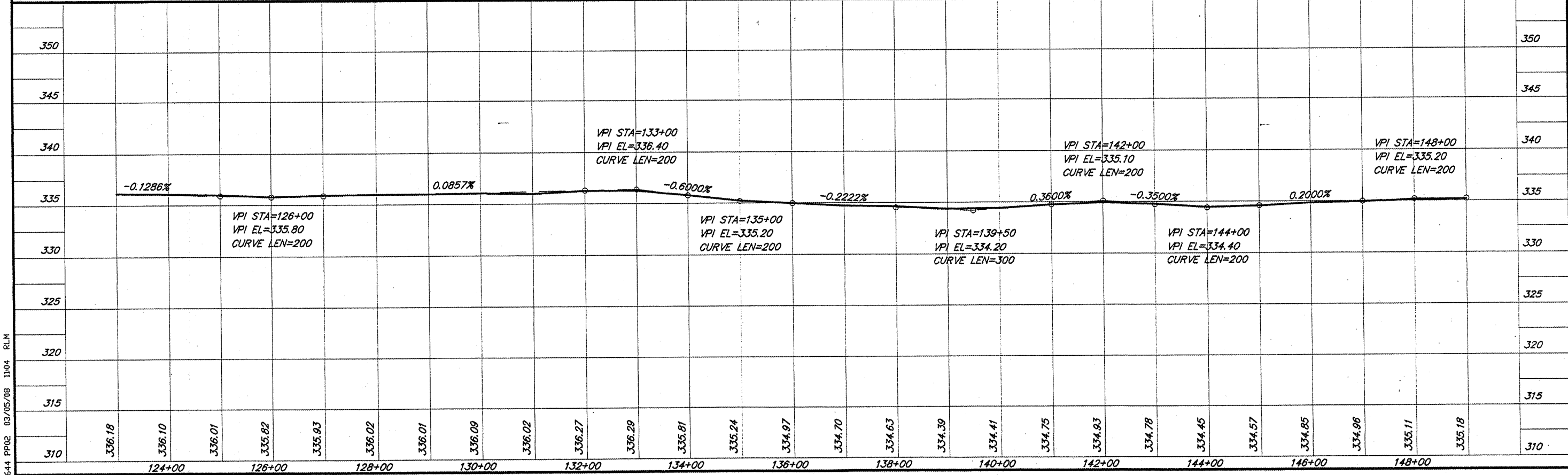
CURVE DATA
 $\Delta = 23^{\circ}47'11''$ $T = 202.18'$
 $D = 5^{\circ}58'06''$ $L = 398.54'$
 $R = 960.00'$ $E = 21.06'$
 $S.E. = 0.077'/ft.$
 Attain Sta. 138+75 to Sta. 140+69
 Remove Sta. 142+23 to Sta. 144+17



SCALES:
 1" = 200' HOR
 1" = 10' VER

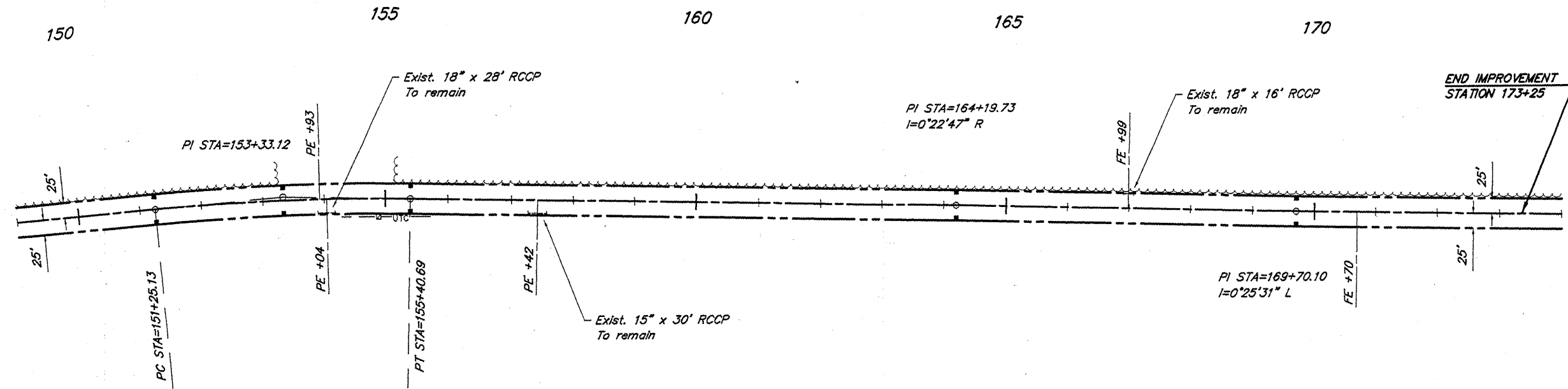
CURVE DATA
 $\Delta = 0^{\circ}49'07''$ $T = 81.87'$
 $D = 0^{\circ}30'00''$ $L = 163.73'$
 $R = 11460.00'$ $E = 0.29'$
 $S.E. = 0.065'/ft.$
 Normal Crown

CURVE DATA
 $\Delta = 16^{\circ}09'51''$ $T = 197.38'$
 $D = 4^{\circ}07'19''$ $L = 392.14'$
 $R = 1390.00'$ $E = 13.94'$
 $S.E. = 0.065'/ft.$
 Attain Sta. 133+55 to Sta. 135+25
 Remove Sta. 137+05 to Sta. 138+75



644 PFD2 03/05/08 1104 RLM

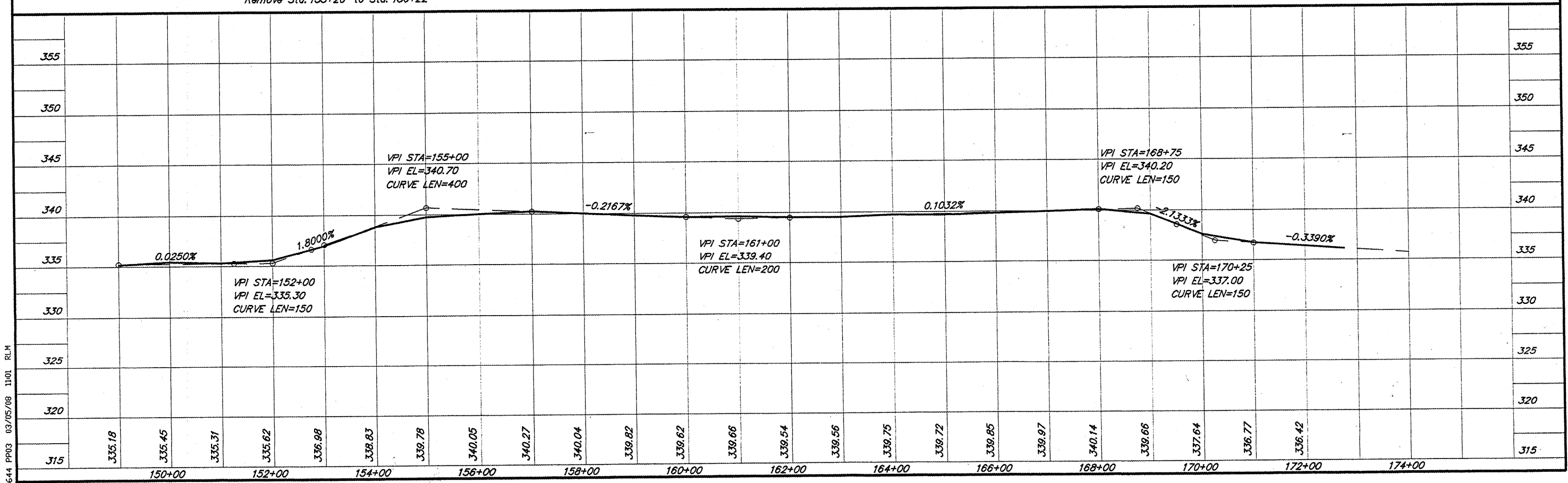
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 928	05-00060-00-RS	JOHNSON	7	6
PROJECT NO. RS-928 (105)			CONTRACT NO. 99333	



CURVE DATA

$\Delta = 6^{\circ}17'26''$ $T = 207.99'$
 $D = 1^{\circ}30'50''$ $L = 415.56'$
 $R = 3785.00'$ $E = 5.71'$
 S.E. = 0.031'/ft.
 Attain Sta. 150+44 to Sta. 151+46
 Remove Sta. 155+20 to Sta. 156+22

SCALES:
 1" = 200' HOR
 1" = 10' VER



644 PPO3 03/05/08 11:01 PLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 928	05-00060-00-RS	JOHNSON	7	7
PROJECT NO. RS-928 (105)			CONTRACT NO. 99333	

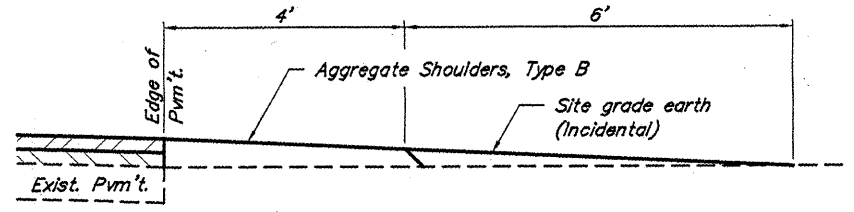
SCHEDULE OF RADII		
Angle of Intersection	Private Entrance	
	Acute L	Obtuse L
90° - 80°	15'	15'
79° - 70°	15'	25'
69° - 60°	15'	35'
59° - 50°	10'	40'
49° - 40°	10'	60'
39° - 30°	10'	100'

NOTES

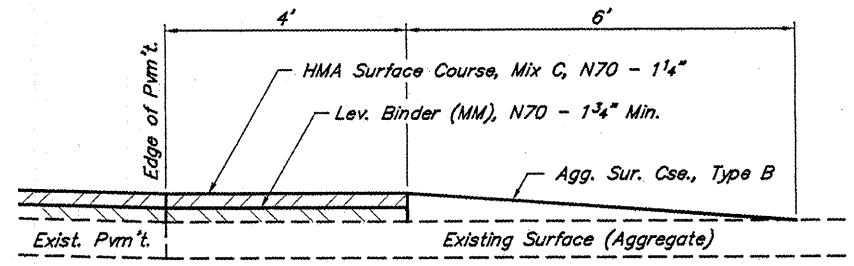
Thickness of binder and surface course shall be equal to the mainline resurfacing.

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

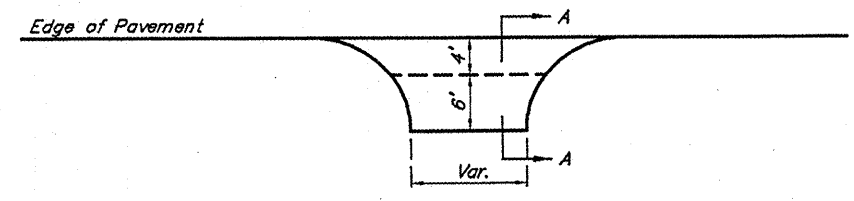
The actual number, and locations, of entrances shall be determined in the field by the Engineer.



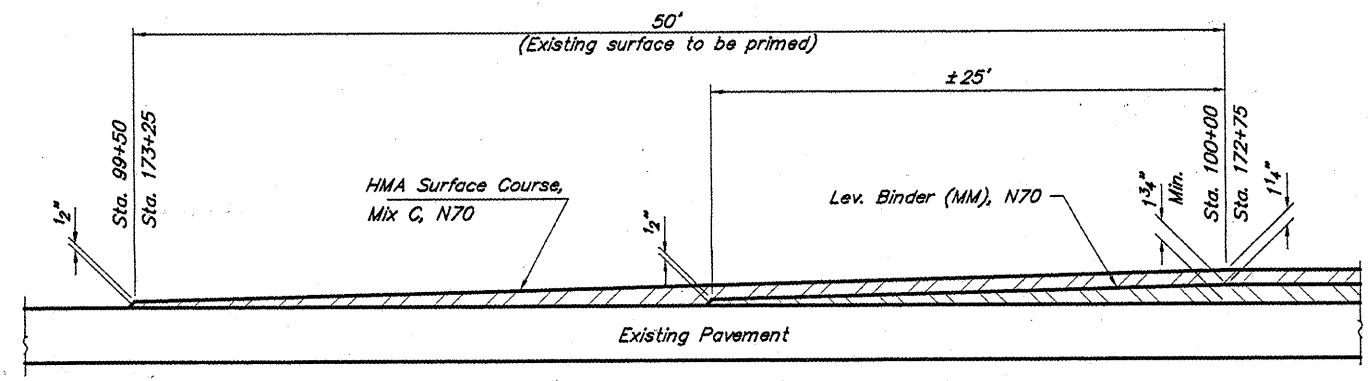
SECTION A-A FIELD ENTRANCE
(Est. No. = 3)



SECTION A-A PRIVATE ENTRANCE - AGGREGATE
(Est. No. = 4)



TYPICAL ENTRANCE DETAILS



BEGINNING & ENDING TAPER

MISCELLANEOUS SECTIONS
FAS ROUTE 928
SECTION 05-00060-00-RS
PROJECT NO. RS-928 (105)
JOHNSON COUNTY