

11-06-2015 LETTING ITEM 072

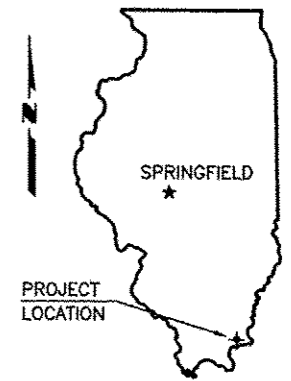


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	1
PROJECT NO. RS-934(108)			CONTRACT NO. 99552	

SURFACE TRANSPORTATION PROGRAM

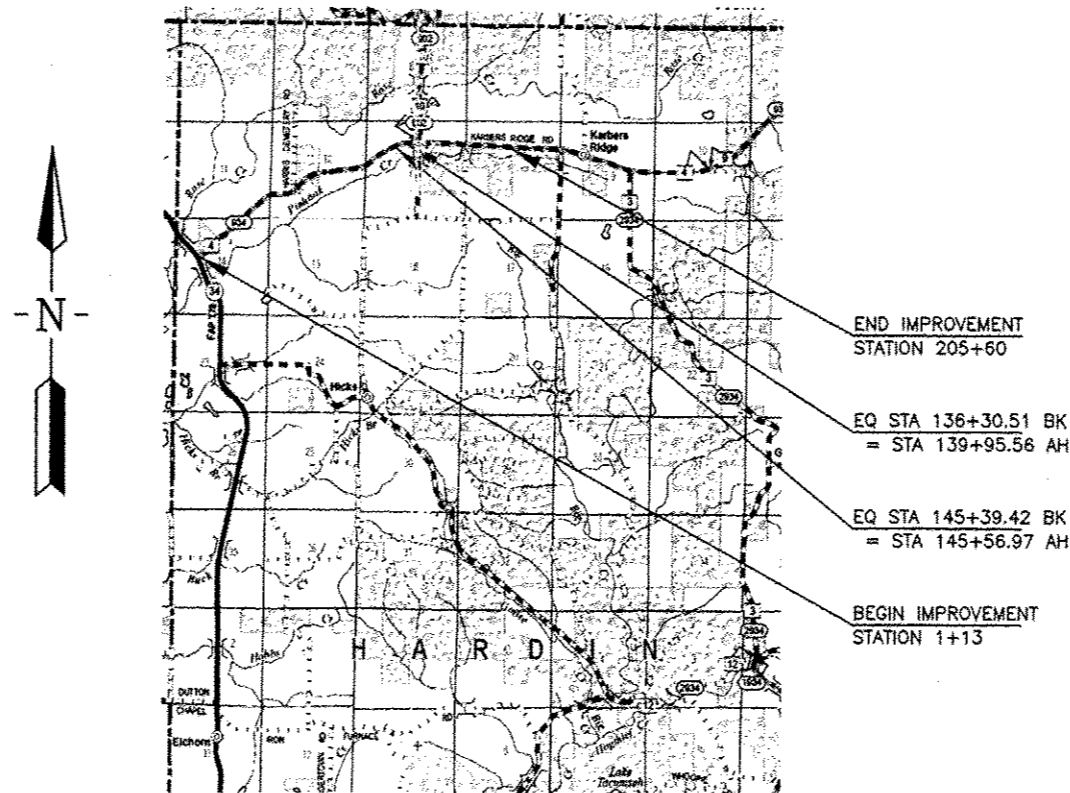
FAS ROUTE 934 (KARBERS RIDGE ROAD), CH 4
SECTION 11-00045-00-RS
PROJECT NO. RS-934(108)
JOB NO. C-99-544-12



HARDIN COUNTY

SEE SHEET 2 FOR INDEX OF SHEETS

(Previously constructed as Section 89-00015-01-RS)



CLASSIFICATION : MAJOR COLLECTOR
ADT : 900
DESIGN SPEED : 50 MPH



John S. Peradotti 6-17-15
John S. Peradotti
PROFESSIONAL ENGINEER
#062-050510
EXPIRES NOV. 30, 2015

LOCATION MAP

SCALE: 1" = 2 MILES

NET LENGTH OF IMPROVEMENT = 20,064.40 FT. = 3.800 MILES

CONTRACT NO. 99552

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

ILLINOIS DEPARTMENT OF TRANSPORTATION	
Approved	<i>Danny Sawry</i> 06/18/15 Hardin County Engineer
Passed	7/17/2015 <i>Dani W. Hill</i> District 9 Engineer of Local Roads and Streets
Releasing for Bid Based on Limited Review	7/17/2015 <i>Jeffrey L. Kavin</i> Deputy Director of Highways, Region 5 Engineer

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	2
PROJECT NO. RS-934(10B)			CONTRACT NO. 99552	

SUMMARY OF QUANTITIES

<u>CODE NO.</u>	<u>PAY ITEM</u>	<u>UNIT</u>	<u>TOTAL</u>
20800150	TRENCH BACKFILL	CU YD	289
* 28100807	STONE DUMPED RIPRAP, CLASS A4	TON	10
* 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	60
* 40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	37,130
40600645	LEVELING BINDER (MACHINE METHOD), N90	TON	5,280
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	134
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	24
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	4,380
48101200	AGGREGATE SHOULDERS, TYPE B	TON	2,010
50105220	PIPE CULVERT REMOVAL	FOOT	50
542A0229	PIPE CULVERTS, CLASS A, TYPE 1 24"	FOOT	12
542A1069	PIPE CULVERTS, CLASS A, TYPE 2 24"	FOOT	64
542A1111	PIPE CULVERTS, CLASS A, TYPE 2 66"	FOOT	72
542A1927	PIPE CULVERTS, CLASS A, TYPE 3 42"	FOOT	78
542A1939	PIPE CULVERTS, CLASS A, TYPE 3 54"	FOOT	78
542C1063	PIPE CULVERTS, CLASS C, TYPE 2 18"	FOOT	18
542C1075	PIPE CULVERTS, CLASS C, TYPE 2 30"	FOOT	12
542C1915	PIPE CULVERTS, CLASS C, TYPE 3 30"	FOOT	8
△ 63000003	STEEL PLATE BEAM GUARDRAIL, TYPE A, 9 FOOT POSTS	FOOT	50
△ 63200310	GUARDRAIL REMOVAL	FOOT	50
△ 63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	1,775
△ 63301995	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 1A	EACH	18
67100100	MOBILIZATION	L SUM	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	4,012
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	71,370
72000100	SIGN PANEL - TYPE 1	SQ FT	242
72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	759
△ 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	71,370
△ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	251
* XX008385	CONCRETE REMOVAL (SPECIAL)	EACH	6
* XX008979	CONCRETE COLLAR	EACH	6

* SEE SPECIAL PROVISIONS

△ *SPECIALTY ITEMS*

INDEX OF SHEETS

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15. MISCELLANEOUS DETAILS
- 16.-17. CROSS SECTIONS
 - STANDARDS 630001-10 STEEL PLATE BEAM GUARDRAIL
 - 701001-02 TRAFFIC CONTROL
 - 701006-05 TRAFFIC CONTROL
 - 701011-04 TRAFFIC CONTROL
 - 701201-04 TRAFFIC CONTROL
 - 701206-03 TRAFFIC CONTROL
 - 701301-04 TRAFFIC CONTROL
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 - BLR 24-2 MAILBOX TURNOUTS

SUMMARY OF QUANTITIES
& INDEX OF SHEETS
FAS ROUTE 934
SECTION 11-00045-00-RS
PROJECT NO. RS-934(10B)
HARDIN COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	3
PROJECT NO. RS-934(108)			CONTRACT NO. 99552	

RESURFACING SCHEDULE					
Location Station to Station	Length Feet	Bituminous Materials Prime Coat Pounds	Leveling Binder (MM)		Hot-Mix Asphalt Surface Cse. Tons
			Full Lift Tons	Crown/SE Correction Tons	
EASTBOUND (RIGHT) LANE					
1+13 to 4+20	307.00	276.7	24.4	9.9	32.6
4+20 to 11+75	755.00	680.4	66.6	22.9	80.2
11+75 to 19+03	728.00	656.1	64.2	36.5	77.3
19+03 to 25+68	665.00	599.4	58.6	28.2	70.6
25+68 to 35+79	1011.00	911.1	89.1	23.9	107.3
35+79 to 43+80	801.00	721.9	70.6	43.9	85.1
43+80 to 51+25	745.00	671.5	65.7	33.4	79.1
51+25 to 60+18	893.00	804.8	78.7	42.2	94.8
60+18 to 62+35	217.00	195.6	19.1	3.9	23.0
62+35 to 72+83	1048.00	944.5	92.4	12.4	111.3
72+83 to 75+85	302.00	272.1	26.6	6.6	32.1
75+85 to 87+77	1192.00	1074.3	105.1	14.0	126.5
87+77 to 108+41	2064.00	1860.2	181.9	48.2	219.2
108+41 to 118+24	983.00	885.9	86.7	27.2	104.4
118+24 to 119+95	171.00	154.2	15.1	10.0	18.1
119+95 to 132+84	1289.00	1161.7	113.6	53.4	136.9
132+84 to 135+03	219.00	197.3	19.3	12.0	23.2
135+03 to 146+84	798.40	719.6	70.4	70.8	84.8
146+84 to 160+95	1411.00	1271.7	124.4	115.7	149.8
160+95 to 166+29	534.00	481.2	47.1	44.2	56.7
166+29 to 205+60	3931.00	3542.8	346.5	367.0	417.4
Subtotals for EastBound (Right) Lane		18083.0	1766.1	1026.3	2130.4
WESTBOUND (LEFT) LANE					
1+13 to 4+20	307.00	276.7	24.4	16.1	32.6
4+20 to 11+75	755.00	680.4	66.6	52.6	80.2
11+75 to 19+03	728.00	656.1	64.2	19.2	77.3
19+03 to 25+68	665.00	599.4	58.6	26.9	70.6
25+68 to 35+79	1011.00	911.1	89.1	65.4	107.3
35+79 to 43+80	801.00	721.9	70.6	20.5	85.1
43+80 to 51+25	745.00	671.5	65.7	26.0	79.1
51+25 to 60+18	893.00	804.8	78.7	32.2	94.8
60+18 to 62+35	217.00	195.6	19.1	8.9	23.0
62+35 to 72+83	1048.00	944.5	92.4	54.9	111.3
72+83 to 75+85	302.00	272.1	26.6	8.5	32.1
75+85 to 87+77	1192.00	1074.3	105.1	20.4	126.5
87+77 to 108+41	2064.00	1860.2	181.9	48.0	219.2
108+41 to 118+24	983.00	885.9	86.7	50.4	104.4
118+24 to 119+95	171.00	154.2	15.1	3.0	18.1
119+95 to 132+84	1289.00	1161.7	113.6	7.7	136.9
132+84 to 135+03	219.00	197.3	19.3	3.1	23.2
135+03 to 146+84	798.40	719.6	70.4	17.5	84.8
146+84 to 160+95	1411.00	1271.7	124.4	14.7	149.8
160+95 to 166+29	534.00	481.2	47.1	13.3	56.7
166+29 to 205+60	3931.00	3542.8	346.5	100.2	417.4
Subtotals for WestBound (Left) Lane		18083.0	1766.1	609.5	2130.4
TOTALS		36166.0	3532.2	1635.8	4260.8

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

CULVERT SCHEDULE														
Location	Type	Concrete Rem (Spl) Each	Concrete Collar Each	Trench Backfill Cu. Yds.	Stone Dumped Riprap	P Cul Removal Foot	Pipe Culverts - Foot							
							CIA, Ty 1 24"	CIA, Ty 2 24"	CIA, Ty 3 66"	CIA, Ty 3 42"	CIA, Ty 3 54"	CIC, Ty 2 18"	CIC, Ty 3 30"	CIC, Ty 3 30"
CODE NUMBER		XX008385	XX008979	20800150	28100107	50105220	542A0229	542A1069	542A1111	542A1927	542A1939	542C1063	542C1075	542C1915
21+90 AR	P CUL			21.5				64						
58+12 LT	P CUL	1	1			6						6		
60+42 LT	P CUL	1	1			6						6		
67+80 RT	P CUL	1	1			6							6	
99+57 LT	P CUL	1	1			6							6	
105+76 LT	P CUL	1	1			6						6		
129+39 LT	P CUL	1	1			8								8
141+93 AR	P CUL			84.1						78				
147+07 AR	P CUL			105.7							78			
187+91 AR	P CUL			77.7					72					
194+74 LT	P CUL				10	12	12							
TOTALS		6	6	289.0	10	50	12	64	72	78	78	18	12	8

GUARDRAIL SCHEDULE					
Location	SPBGR, Ty. A, 9 Ft. Posts	Guardrail Removal	Remove & ReErect SPBGR, Ty. A	Remove & ReErect TBT, Ty. 1A	
	Foot	Foot	Foot	Each	
Rt. Sta. 7+70 to Sta. 10+20			200	2	
Lt. Sta. 8+16 to Sta. 10+66			200	2	
Rt. Sta. 128+09 to Sta. 130+59			200	2	
Lt. Sta. 140+50 to Sta. 142+75			175	2	
Lt. Sta. 146+10 to Sta. 148+35	50	50	125	2	
Rt. Sta. 158+04 to Sta. 162+54			400	2	
Rt. Sta. 178+50 to Sta. 180+25			125	2	
Lt. Sta. 187+07 to Sta. 189+32			175	2	
Rt. Sta. 187+09 to Sta. 189+34			175	2	
Totals		50	50	1,775	18

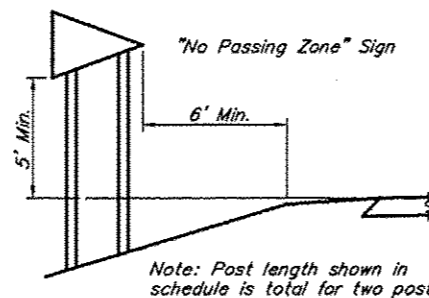
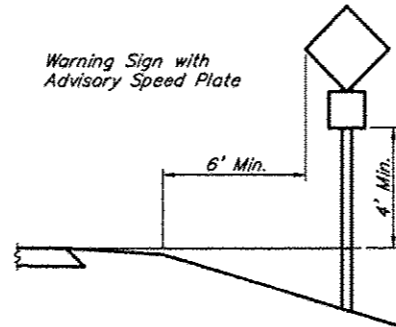
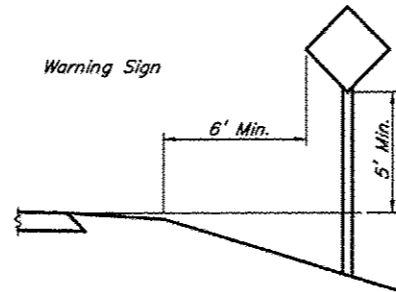
HMA BINDER COURSE, IL-19.0, N90	
Across Road Culvert Location	Tons
Sta. 21+90	3.4
Sta. 141+93	5.3
Sta. 147+07	7.1
Sta. 187+91	8.1
Total	23.9

NOTE: See Sheet 15 for details.

QUANTITY SCHEDULES
FAS ROUTE 934
SECTION 11-00045-00-RS
PROJECT NO. RS-934(108)
HARDIN COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	4
PROJECT NO. RS-934(108)			CONTRACT NO. 99552	

SCHEDULE OF SIGNS				
Location	Name	Signs		Post Length
		No.	Sq. Ft.	
Sta. 4+50 Rt.	CURVE	W1-2L	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 11+35 Rt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 12+00 Lt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 19+15 Lt.	CURVE	W1-2L	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 25+80 Rt.	CURVE	W1-2L	6.25	16.0
Sta. 35+00 Rt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 36+00 Lt.	CURVE	W1-2R	6.25	16.0
Sta. 44+35 Lt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 51+20 Rt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 60+25 Lt.	CURVE	W1-2L	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 62+25 Rt.	CURVE	W1-2L	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 72+90 Lt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 76+30 Rt.	CURVE	W1-2R	6.25	16.0
Sta. 87+30 Lt.	CURVE	W1-2L	6.25	16.0
Sta. 108+20 Rt.	CURVE	W1-2L	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 118+40 Lt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 119+85 Rt.	CURVE	W1-2R	6.25	16.0
Sta. 132+95 Lt.	CURVE	W1-2L	6.25	16.0
Sta. 134+80 Rt.	CURVE	W1-2R	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 147+10 Lt.	CURVE	W1-2L	6.25	16.5
	ADVISORY SPEED	W13-1(50)	2.25	-
Sta. 171+00 Rt.	HILL	W7-1b(10%)	6.25	16.0
Sta. 175+00 Rt.	SIDE ROAD 45°	W2-3	6.25	16.0
Sta. 203+00 Lt.	HILL	W7-1b(7%)	6.25	16.0
Various (12)*	NO PASSING	W14-3	66.60	384.0
TOTALS			241.85	759.0



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. 1+13 to Sta. 205+60	2,470	39,857	29,043

See Standard 780001 for typical pavement markings.

SCHEDULE OF "NO PASSING ZONES"			
WESTBOUND (LEFT) LANE		EASTBOUND (RIGHT) LANE	
Location	Length	Location	Length
Sta. 8+00 to Sta. 24+00 ¹	1,600'	Sta. 1+13 to Sta. 20+01	1,888'
Sta. 39+80 to Sta. 48+85 ¹	905'	Sta. 30+85 ¹ to Sta. 38+75	790'
Sta. 55+55 to Sta. 100+85 ¹	4,530'	Sta. 46+00 ¹ to Sta. 91+60	4,560'
Sta. 105+25 to Sta. 128+85 ¹	2,360'	Sta. 97+80 ¹ to Sta. 119+30	2,150'
Sta. 132+50 to Sta. 162+63 ¹	2,630'	Sta. 124+10 ¹ to Sta. 153+83	2,590'
Sta. 172+30 to Sta. 185+30 ¹	1,300'	Sta. 162+15 ¹ to Sta. 176+65	1,450'
Sta. 198+80 to Sta. 205+60 ²	680'	Sta. 189+50 ¹ to Sta. 205+60 ²	1,610'
TOTALS		14,005'	15,038'

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

² Existing no-passing zone extends beyond project limits.

HMA SURFACE REMOVAL - BUTT JT	
Location	Sq. Yds.
Sta. 1+13 to Sta. 1+29	73
Sta. 205+00 to Sta. 205+60	61
Total	134

* 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 DETAILS

QUANTITY SCHEDULES
FAS ROUTE 934
SECTION 11-00045-00-RS
PROJECT NO. RS-934(108)
HARDIN COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	5
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	

GENERAL NOTES

Crown and/or superelevation corrections shall be constructed in conjunction with the full lift of Leveling Binder.

All Pipe Culverts specified as Class C in the plans shall be Aluminized Steel, Type 2 Corrugated Pipe.

The location of any underground utilities shown on the plans is an approximation and is only included for the convenience of the bidder.

Horizontal and vertical curve data were taken from old plans and are for information only.

Contractor shall verify existing No Passing zones prior to paving operations.

Factors used for quantity calculations are as follows:

- Hot-Mix Asphalt 112.0 Lbs./Sq. Yd./Inch
- Granular Materials 2.025 Tons/Cu. Yd.
- Bit. Materials (Prime Coat),
on HMA Base 0.05 Lbs./Sq. Ft.
- on Agg. Base 0.25 Lbs./Sq. Ft.

STRUCTURAL DESIGN DATA

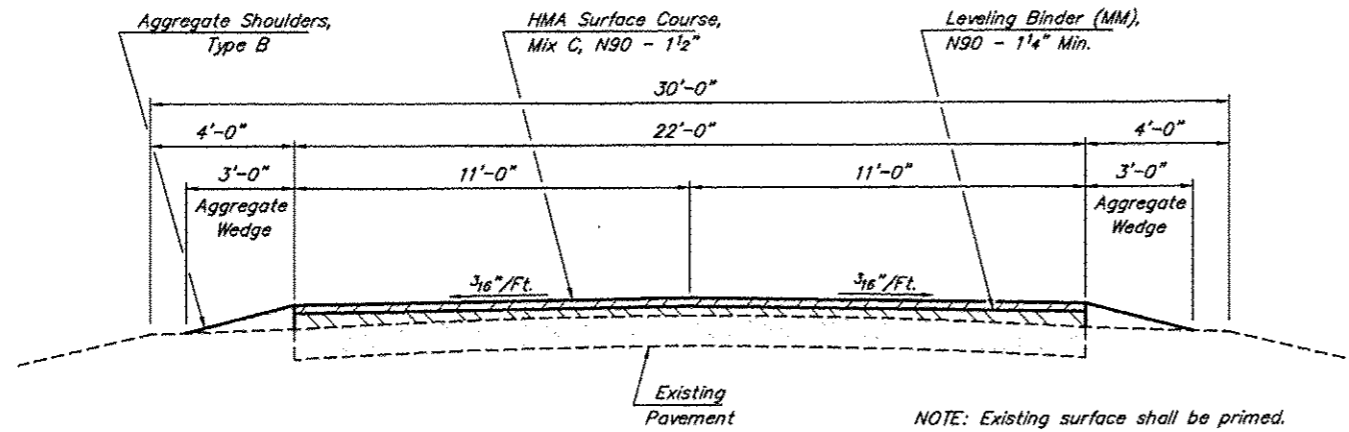
- Class III Roadway
- Design Period - 8 Years
- PC 795 IBR 2.8
- SU 60 TF 0.096
- MU 45 DT 2.943
- Material Coefficient
- Existing Crushed Stone Base - 0.08
- Existing Oil & Chip Surface - 0.15
- Existing BMC Surface - 0.23
- Leveling Binder (MM) - 0.33
- HMA Surface Course - 0.40

ASPHALT MIXTURE REQUIREMENTS

Mixture Use:	HMA Binder Course, IL-19.0, N90
PG:	PG64-22
RAP% (Max):	10
Design Air Voids:	4%, 90 Gyraton Superpave Design
Mixture Composition: (Gradation Mixture)	IL-19.0mm
Friction Aggregate:	None

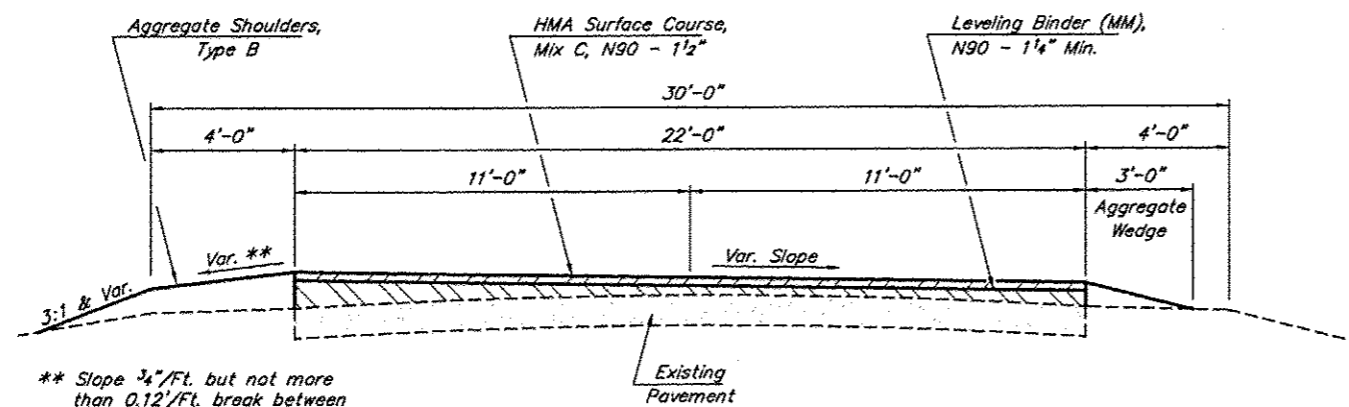
Mixture Use:	Leveling Binder (MM), N90
PG:	PG64-22
RAP% (Max):	10
Design Air Voids:	4%, 90 Gyraton Superpave Design
Mixture Composition: (Gradation Mixture)	IL-9.5mm
Friction Aggregate:	None

Mixture Use:	HMA Surface Course, Mix C, N90
PG:	PG64-22
RAP% (Max):	10
Design Air Voids:	4%, 90 Gyraton Superpave Design
Mixture Composition: (Gradation Mixture)	IL-9.5mm or IL-12.5mm
Friction Aggregate:	C Surface



TYPICAL SECTION

NOTE: Existing surface shall be primed.



TYPICAL SECTION THRU CURVES

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

** Slope 3/4"/Ft. but not more than 0.12'/Ft. break between pavement and shoulder.

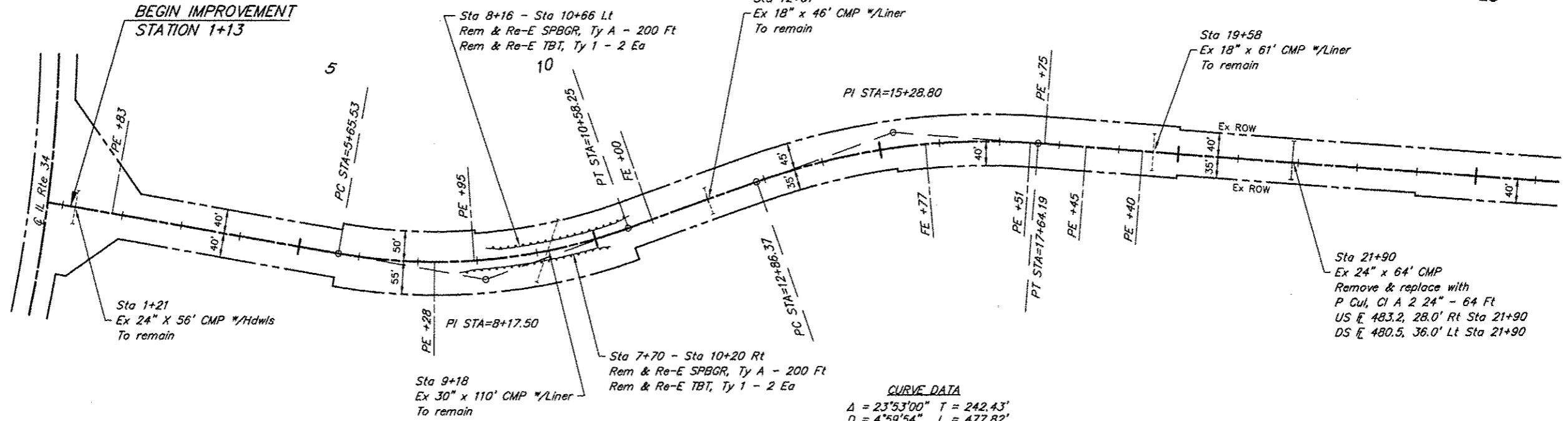
TYPICAL SECTIONS
FAS ROUTE 934
SECTION 11-00045-00-RS
PROJECT NO. RS-934 (108)
HARDIN COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	6
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	

CURVE DATA
 $\Delta = 29^{\circ}33'00''$ $T = 251.97'$
 $D = 5^{\circ}59'50''$ $L = 492.73'$
 $R = 955.37'$ $E = 32.67'$
 $S.E. = 0.077'/ft.$
 Attain Sta. 4+20 to Sta. 6+22
 Remove Sta. 9+73 to Sta. 11+75

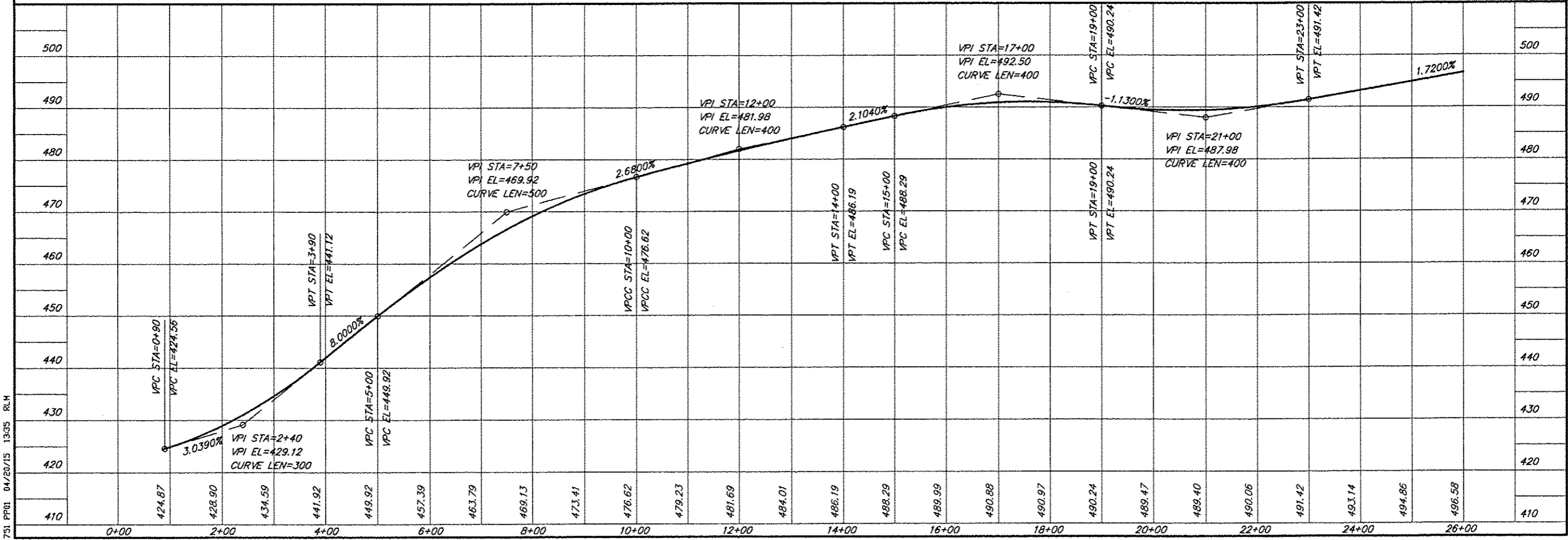
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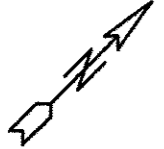


SCALES:
 1" = 200' HOR
 1" = 20' VER

CURVE DATA
 $\Delta = 23^{\circ}53'00''$ $T = 242.43'$
 $D = 4^{\circ}59'54''$ $L = 477.82'$
 $R = 1146.28'$ $E = 25.36'$
 $S.E. = 0.072'/ft.$
 Attain Sta. 11+75 to Sta. 13+66
 Remove Sta. 17+12 to Sta. 19+03

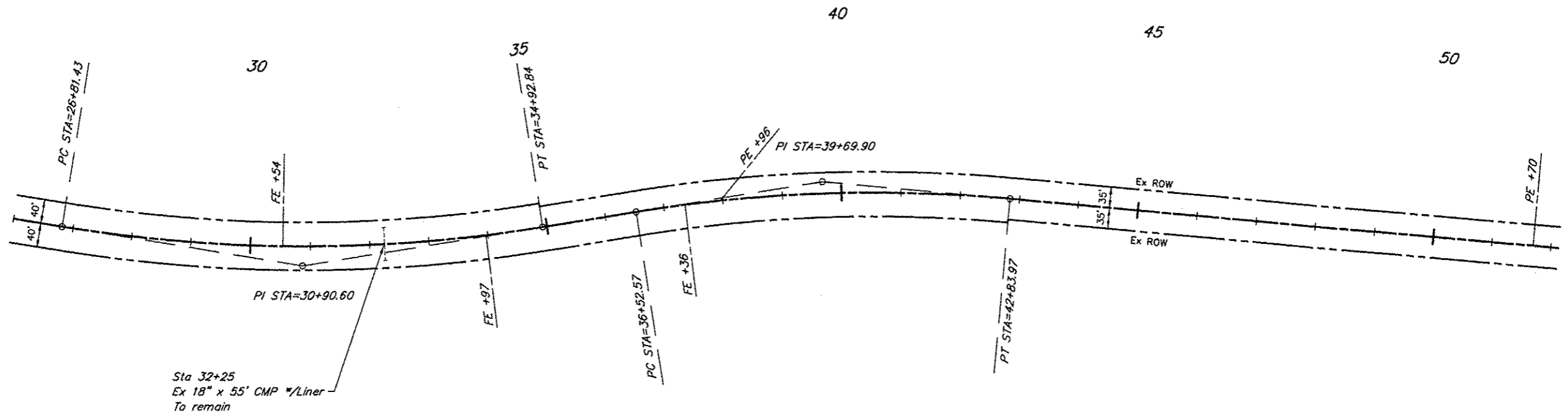


751 PFD 04/20/15 13:35 RLM



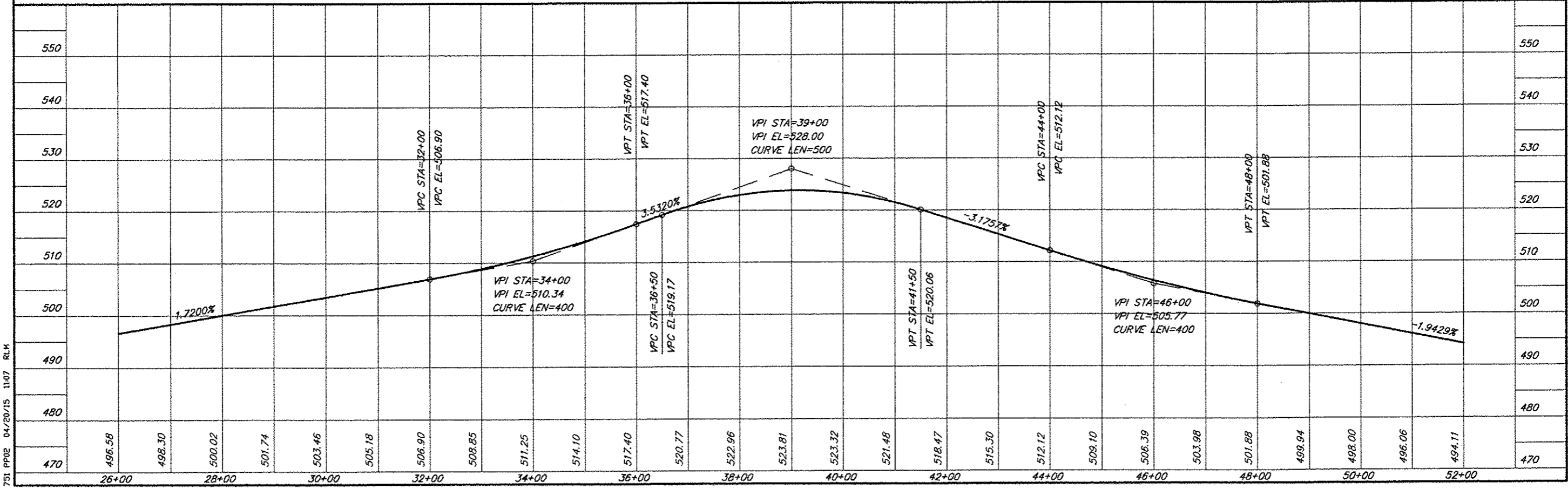
CURVE DATA
 $\Delta = 18^{\circ}15'20''$ $T = 409.17'$
 $D = 2^{\circ}14'59''$ $L = 811.41'$
 $R = 2546.64'$ $E = 32.66'$
 $S.E. = 0.050'/ft.$
 Attain Sta. 25+68 to Sta. 27+20
 Remove Sta. 34+27 to Sta. 35+79

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	7
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	



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

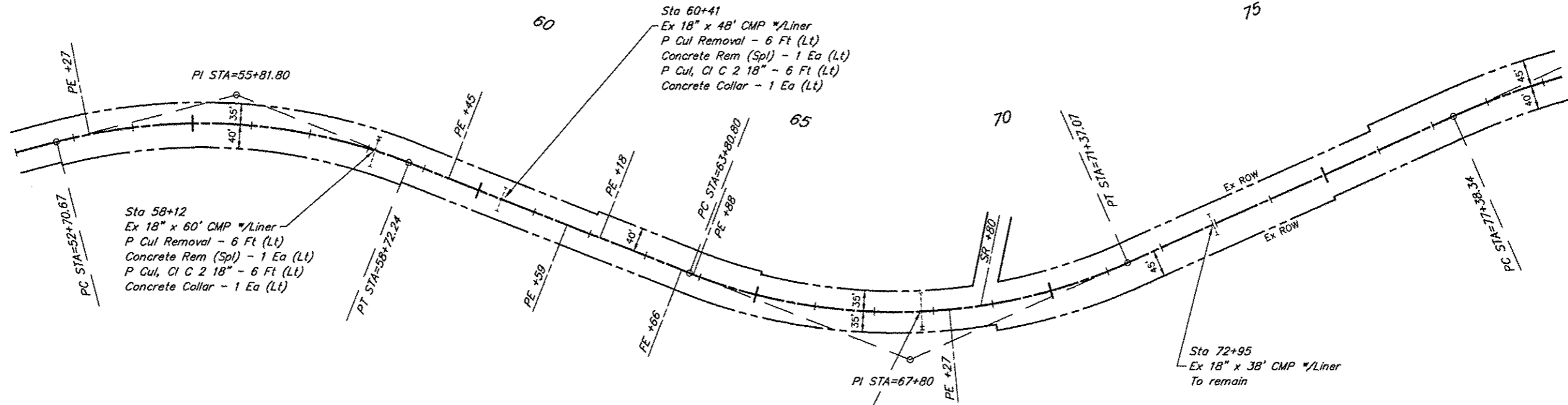
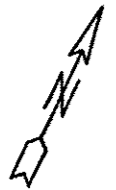
CURVE DATA
 $\Delta = 14^{\circ}12'20''$ $T = 317.33'$
 $D = 2^{\circ}14'59''$ $L = 631.40'$
 $R = 2546.64'$ $E = 19.69'$
 $S.E. = 0.043'/ft.$
 Attain Sta. 35+79 to Sta. 37+07
 Remove Sta. 42+52 to Sta. 43+80



751 PPO2 04/20/15 11:07 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	8
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	

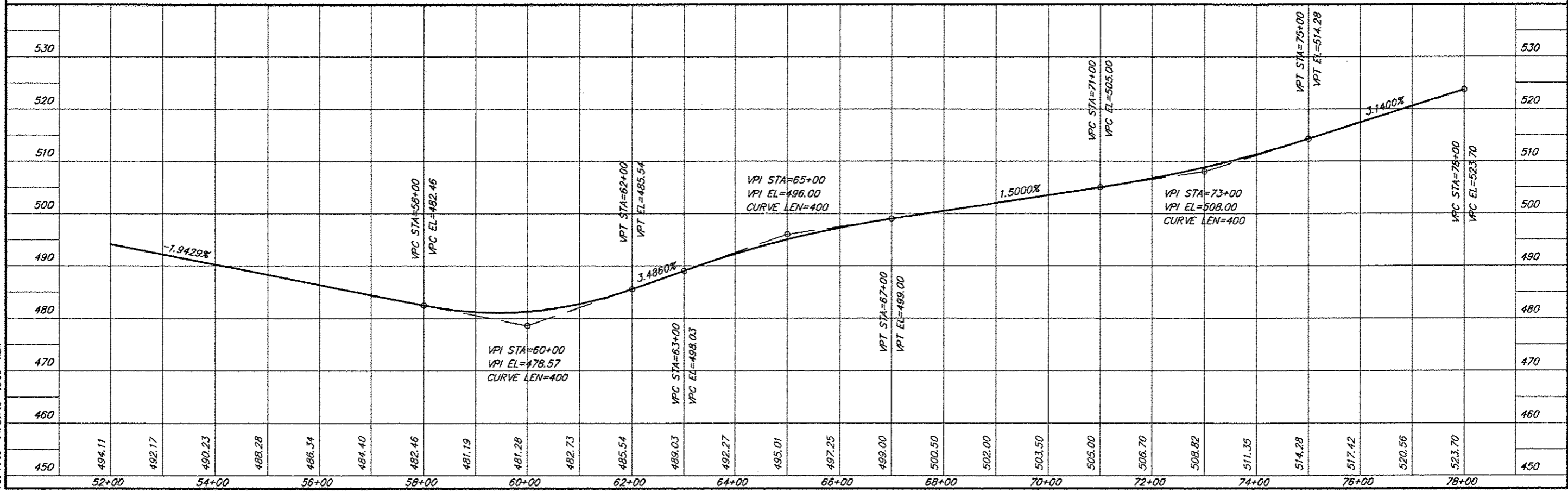
CURVE DATA
 $\Delta = 45^{\circ}21'20''$ $T = 399.20'$
 $D = 5^{\circ}59'50''$ $L = 756.27'$
 $R = 955.37'$ $E = 80.05'$
 $S.E. = 0.077'/ft.$
 Attain Sta. 62+35 to Sta. 64+37
 Remove Sta. 70+81 to Sta. 72+83



CURVE DATA
 $\Delta = 36^{\circ}04'40''$ $T = 311.14'$
 $D = 5^{\circ}59'50''$ $L = 601.57'$
 $R = 955.37'$ $E = 49.39'$
 $S.E. = 0.077'/ft.$
 Attain Sta. 51+25 to Sta. 53+27
 Remove Sta. 58+16 to Sta. 60+18

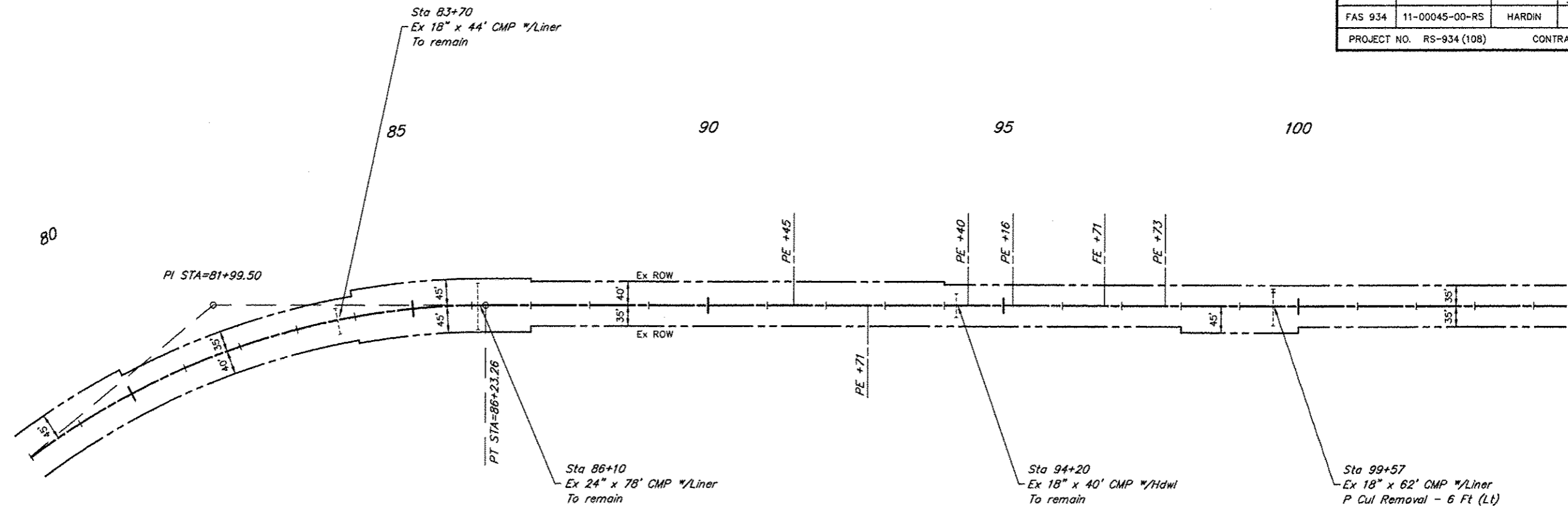
Sta 67+80
 Ex 30" x 68' CMP w/Liner
 P Cul Removal - 6 Ft (Rt)
 Concrete Rem (Spl) - 1 Ea (Rt)
 P Cul, CI C 2 30" - 6 Ft (Rt)
 Concrete Collar - 1 Ea (Rt)

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



751 PPO3 04/20/15 1336 RLM

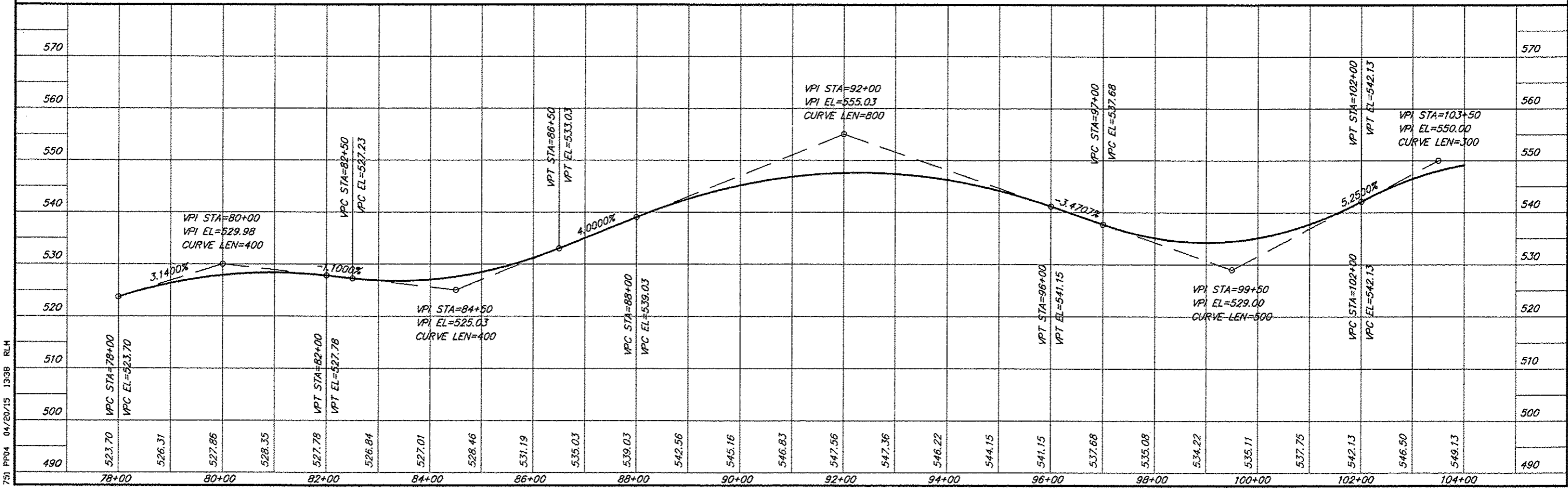
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	9
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	



CURVE DATA
 $\Delta = 39^\circ 48' 40''$ $T = 461.17'$
 $D = 4^\circ 29' 56''$ $L = 884.92'$
 $R = 1273.57'$ $E = 80.92'$
 $S.E. = 0.076'/ft.$
 Attain Sta. 75+85 to Sta. 77+98
 Remove Sta. 85+64 to Sta. 87+77

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

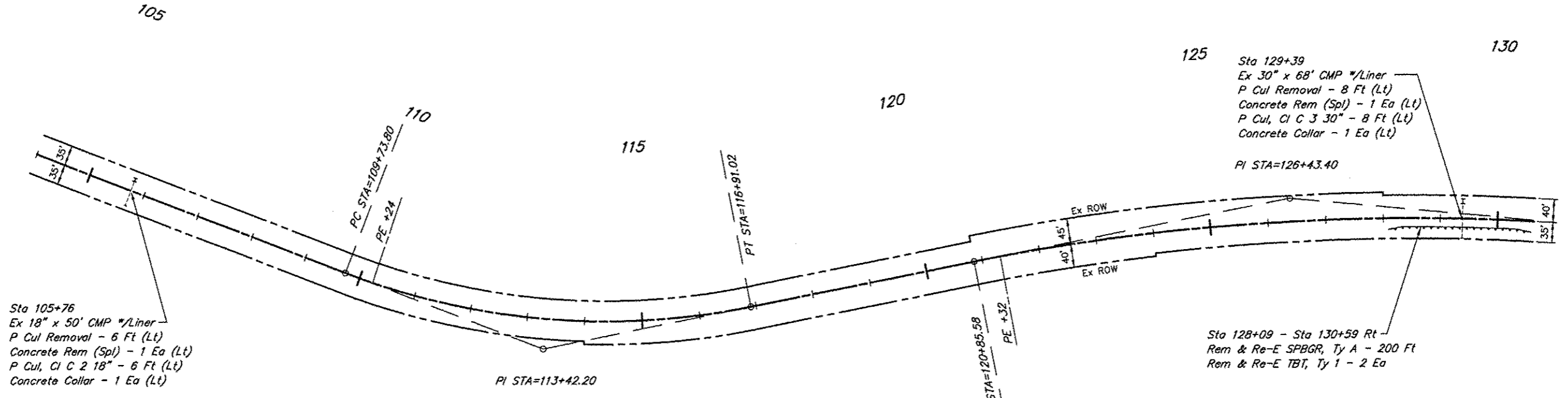
Sta 99+57
 Ex 18" x 62' CMP */Liner
 P Cul Removal - 6 Ft (Lt)
 Concrete Rem (Spl) - 1 Ea (Lt)
 P Cul, CI C 2 18" - 6 Ft (Lt)
 Concrete Collar - 1 Ea (Lt)



751 PFD4 04/20/15 13:38 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	10
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	

CURVE DATA
 $\Delta = 32^{\circ}16'00''$ $T = 368.40'$
 $D = 4^{\circ}29'56''$ $L = 717.22'$
 $R = 1273.57'$ $E = 52.21'$
 $S.E. = 0.068'/ft$
 Attain Sta. 108+41 to Sta. 110+24
 Remove Sta. 116+41 to Sta. 118+24



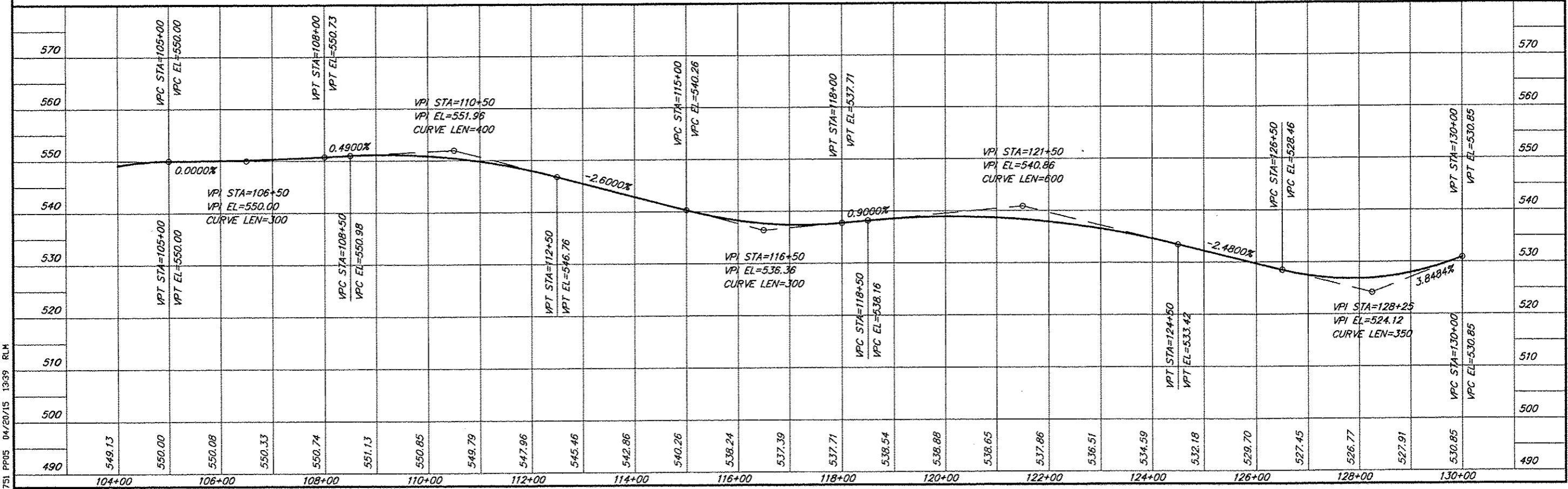
Sta 105+76
 Ex 18" x 50' CMP w/Liner
 P Cul Removal - 6 Ft (Lt)
 Concrete Rem (Spl) - 1 Ea (Lt)
 P Cul, CI C 2 18" - 6 Ft (Lt)
 Concrete Collar - 1 Ea (Lt)

Sta 129+39
 Ex 30" x 68' CMP w/Liner
 P Cul Removal - 8 Ft (Lt)
 Concrete Rem (Spl) - 1 Ea (Lt)
 P Cul, CI C 3 30" - 8 Ft (Lt)
 Concrete Collar - 1 Ea (Lt)
 PI STA=126+43.40

Sta 128+09 - Sta 130+59 Rt
 Rem & Re-E SPBGR, Ty A - 200 Ft
 Rem & Re-E TBT, Ty 1 - 2 Ea

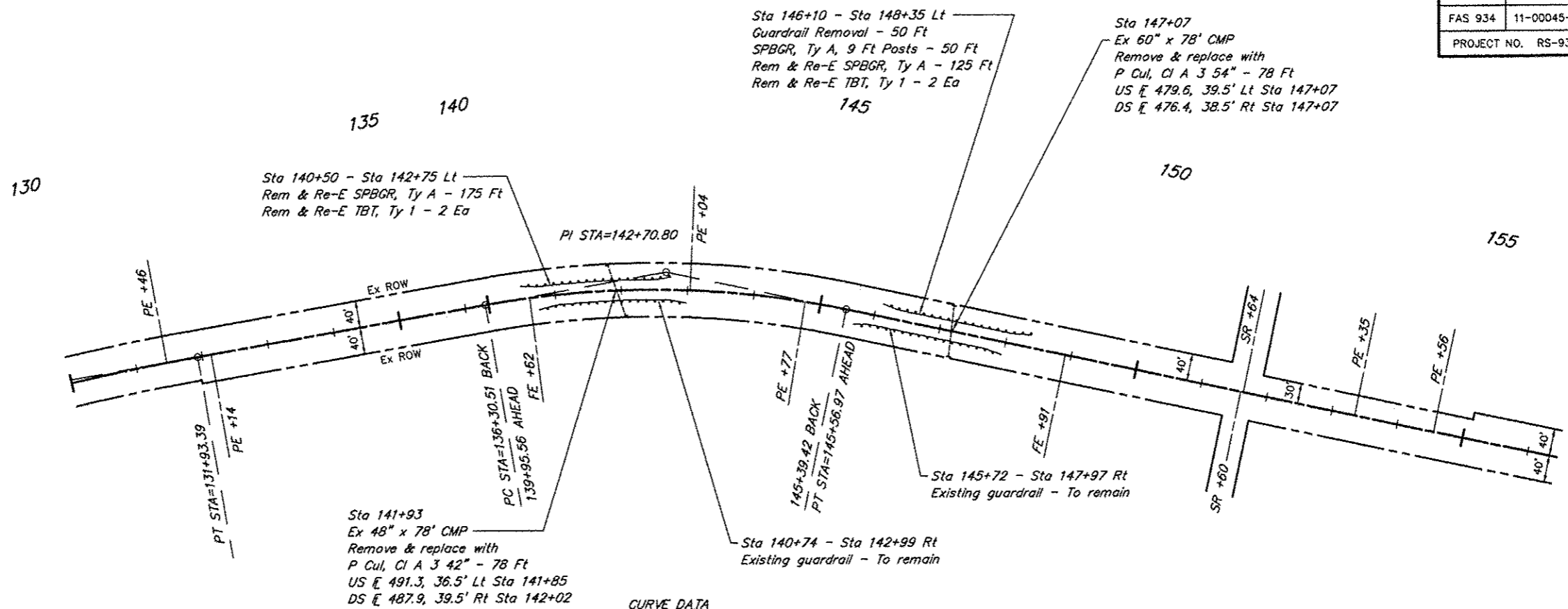
CURVE DATA
 $\Delta = 16^{\circ}37'00''$ $T = 557.82'$
 $D = 1^{\circ}30'00''$ $L = 1107.81'$
 $R = 3819.83'$ $E = 40.52'$
 $S.E. = 0.036'/ft$
 Attain Sta. 119+95 to Sta. 121+14
 Remove Sta. 131+65 to Sta. 132+84

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



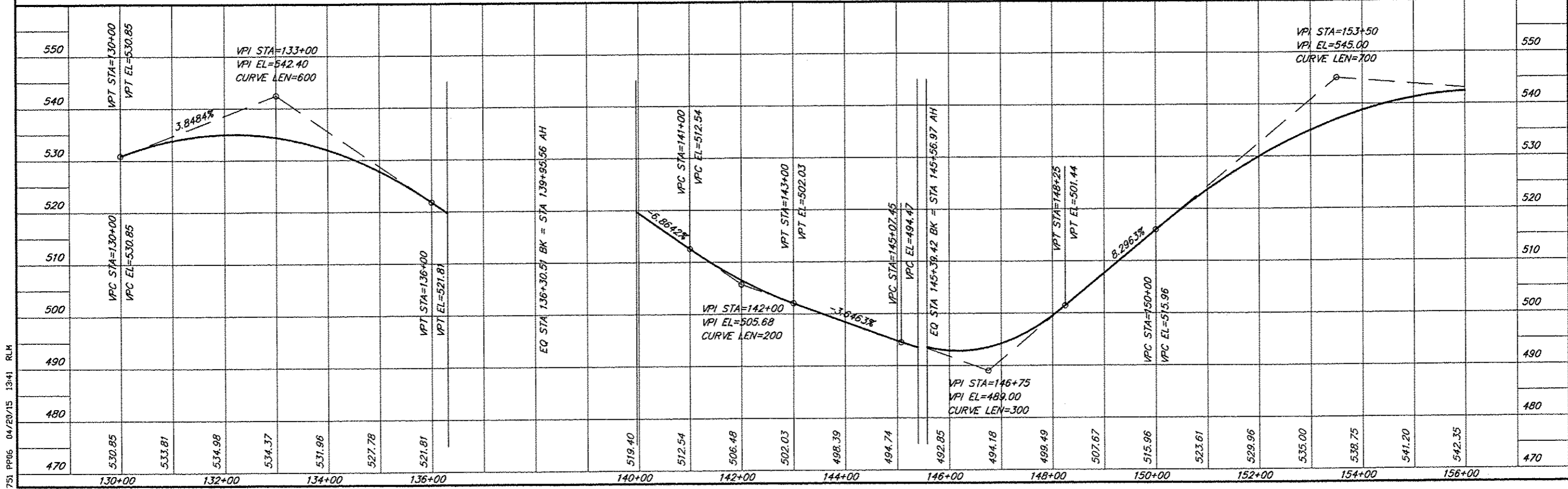
751 P005 04/20/15 13:39 RLH

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	11
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	



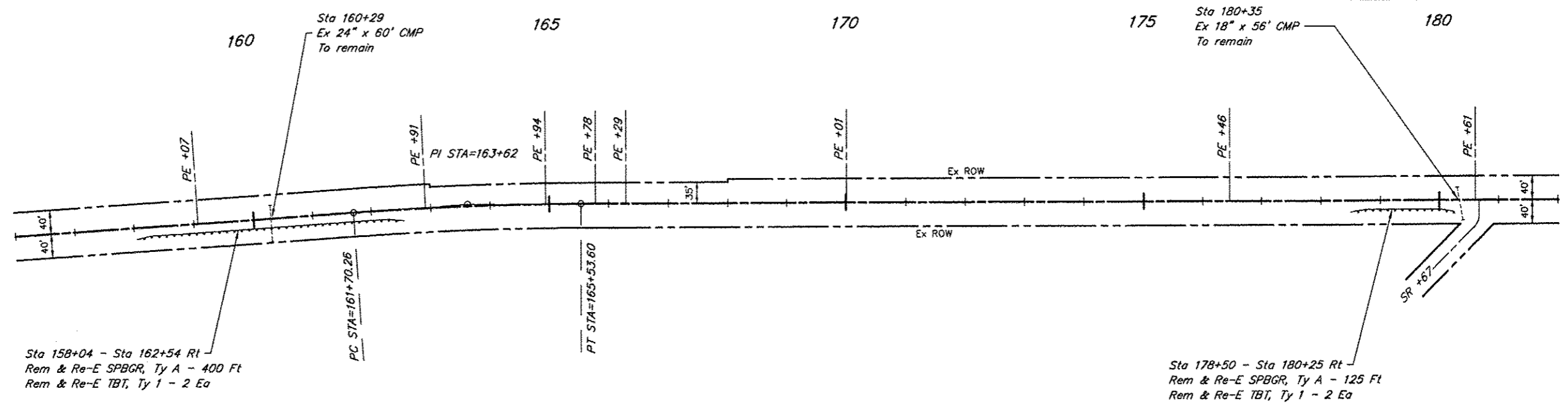
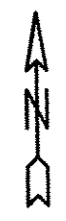
SCALES:
 1" = 200' HOR
 1" = 20' VER

CURVE DATA
 $\Delta = 21^{\circ}45'00''$ $T = 275.24'$
 $D = 3^{\circ}59'57''$ $L = 543.86'$
 $R = 1432.69'$ $E = 26.20'$
 $S.E. = 0.064'/ft.$
 Attain Sta. 135+03 to Sta. 140+43
 Remove Sta. 144+92 to Sta. 146+84



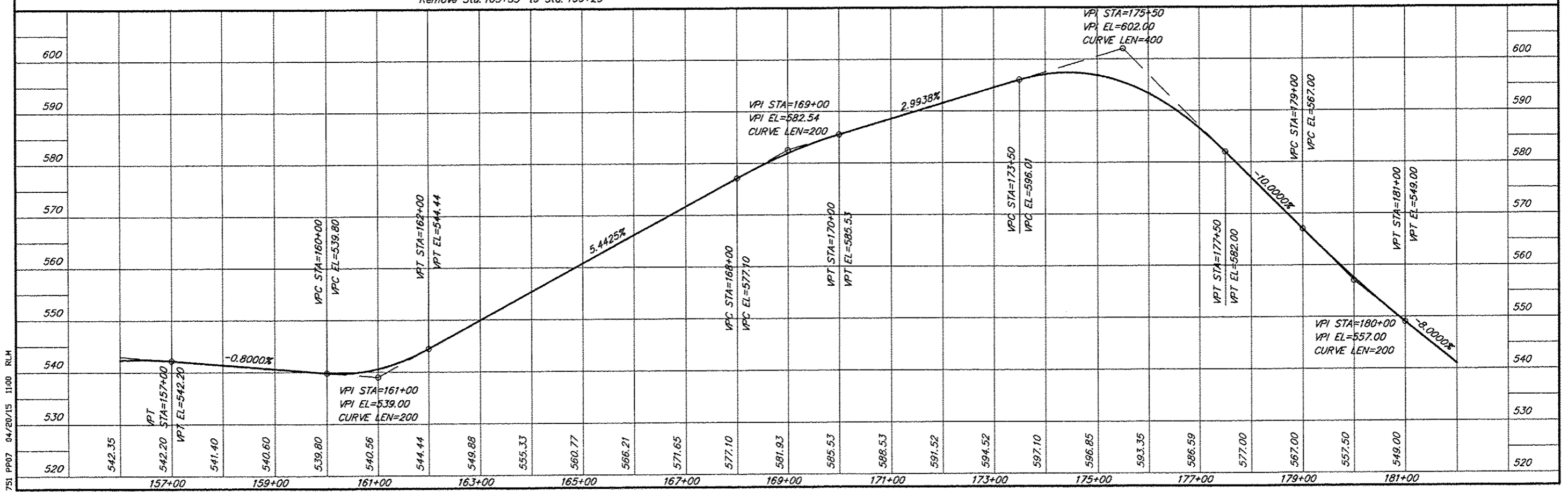
751 PP05 04/20/15 13-11 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	12
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	



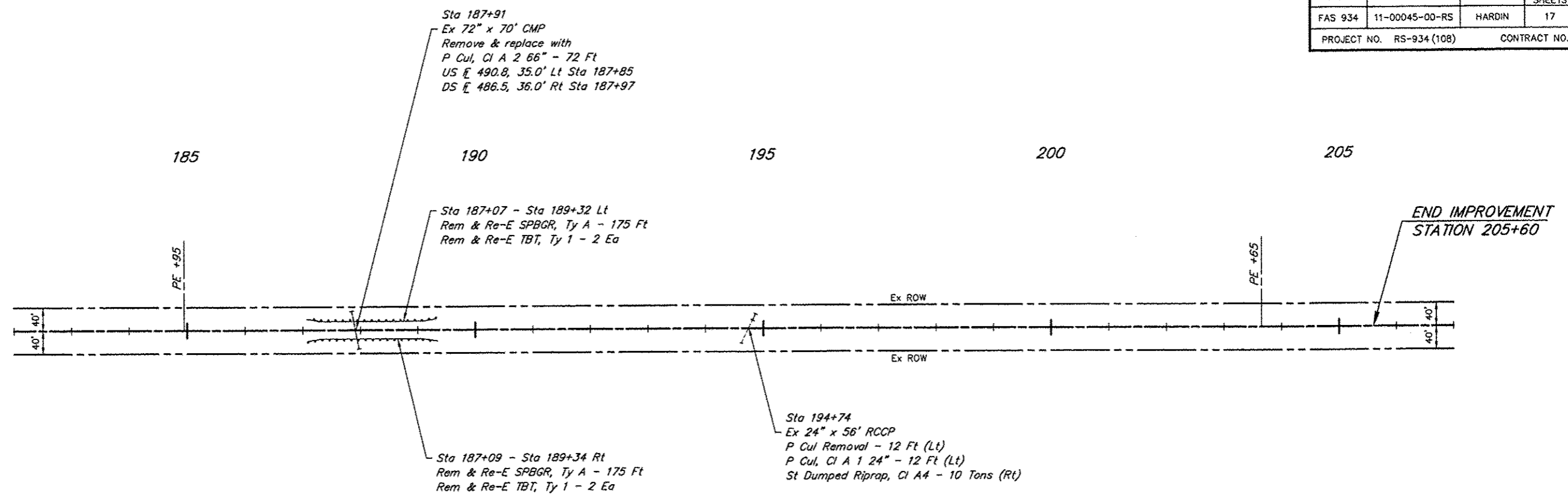
CURVE DATA
 $\Delta = 3^{\circ}50'00''$ $T = 191.74'$
 $D = 1^{\circ}00'00''$ $L = 393.34'$
 $R = 5729.65'$ $E = 3.21'$
 $S.E. = 0.026'/ft.$
 Attain Sta. 160+95 to Sta. 161+91
 Remove Sta. 165+33 to Sta. 166+29

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

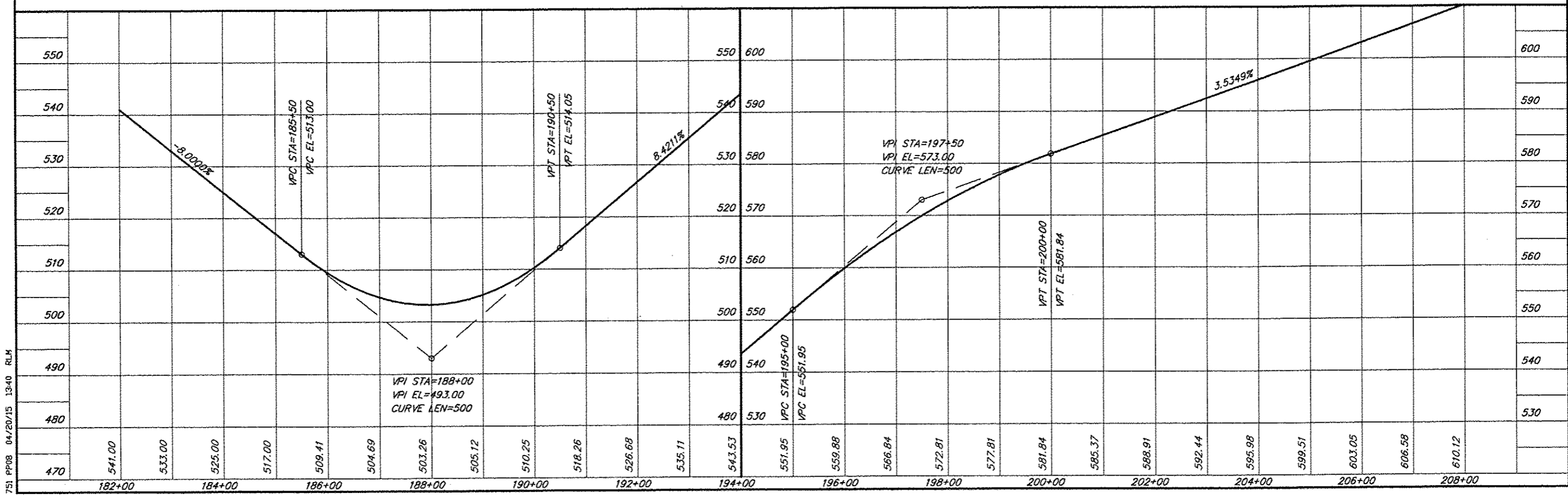


751 PP07 04/20/15 11:00 RLM

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	13
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	



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

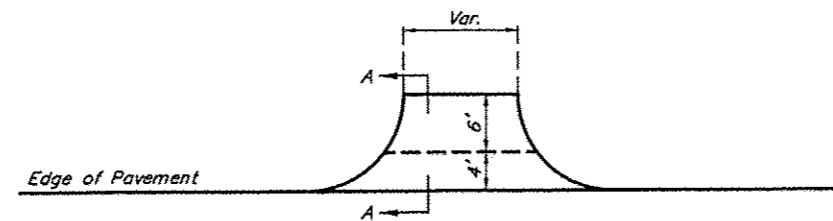
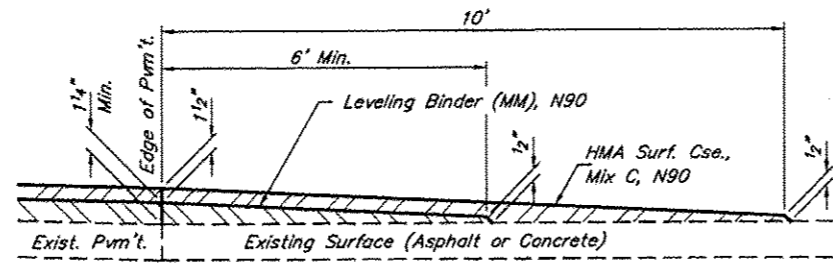
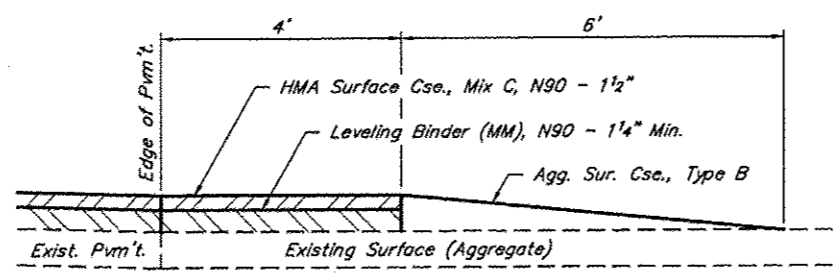
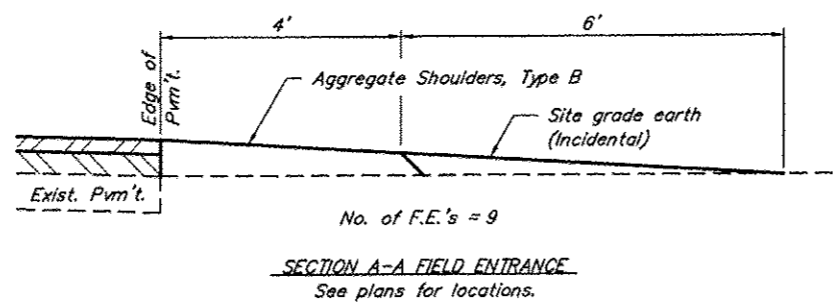


751 PP08 04/20/15 13-40 RLM

SCHEDULE OF PRIVATE ENTRANCES					
Location	Width	Binder Tons	Surface Tons	Agg. Tons	
Sta. 1+83 Lt. G	18'	2.3	1.3	1.9	
Sta. 7+28 Rt. G	30'	1.5	1.8	2.0	
Sta. 7+70 Lt. G	14'	2.3	1.2	1.8	
Sta. 17+51 Rt. B	12'	1.2	1.8	-	
Sta. 17+75 Lt. G	16'	1.2	1.3	1.3	
Sta. 18+45 Rt. G	16'	2.0	1.3	1.8	
Sta. 19+40 Rt. G	18'	2.7	1.3	2.2	
Sta. 37+96 Lt. G	16'	2.0	1.8	2.1	
Sta. 51+70 Lt. G	40'	2.9	2.2	3.2	
Sta. 53+27 Lt. G	40'	2.9	2.2	3.2	
Sta. 59+45 Lt. G	16'	2.0	1.3	1.8	
Sta. 61+59 Rt. B	16'	1.4	2.1	-	
Sta. 62+18 Lt. G	14'	1.5	1.2	1.4	
Sta. 63+88 Lt. G	12'	1.8	1.1	1.5	
Sta. 68+27 Rt. B	13'	0.7	1.8	-	
Sta. 91+45 Lt. G	12'	1.8	1.1	1.5	
Sta. 92+71 Rt. B	14'	1.5	2.0	-	
Sta. 94+40 Lt. G	13'	1.4	1.1	1.3	
Sta. 95+16 Lt. G	12'	1.3	1.1	1.2	
Sta. 97+73 Lt. G	14'	1.2	1.2	1.2	
Sta. 110+24 Lt. G	14'	1.0	1.2	1.1	
Sta. 121+32 Rt. G	14'	1.9	1.2	1.6	
Sta. 131+46 Lt. G	12'	1.1	1.1	1.1	
Sta. 132+14 Rt. G	15'	2.0	1.2	1.7	
Sta. 143+04 Lt. G	16'	1.0	1.3	1.2	
Sta. 144+77 Rt. G	14'	3.3	1.2	2.3	
Sta. 153+35 Lt. B	14'	0.7	1.9	-	
Sta. 154+56 Lt. G	16'	1.0	1.3	1.2	
Sta. 159+07 Lt. G	12'	0.9	1.1	1.0	
Sta. 162+91 Lt. G	12'	0.9	1.1	1.0	
Sta. 164+94 Lt. G	12'	0.9	1.1	1.0	
Sta. 165+78 Lt. G	12'	0.9	1.1	1.0	
Sta. 166+29 Lt. B	10'	0.6	1.6	-	
Sta. 170+01 Lt. G	14'	1.0	1.2	1.1	
Sta. 176+46 Lt. G	16'	1.0	1.3	1.2	
Sta. 180+61 Lt. G	12'	0.9	1.1	1.0	
Sta. 184+95 Lt. G	12'	0.9	1.1	1.0	
Sta. 203+65 Lt. G	96'	4.4	4.4	6.1	
Totals		60.0	55.7	54.0	

B = Bituminous Surface
G = Gravel Surface

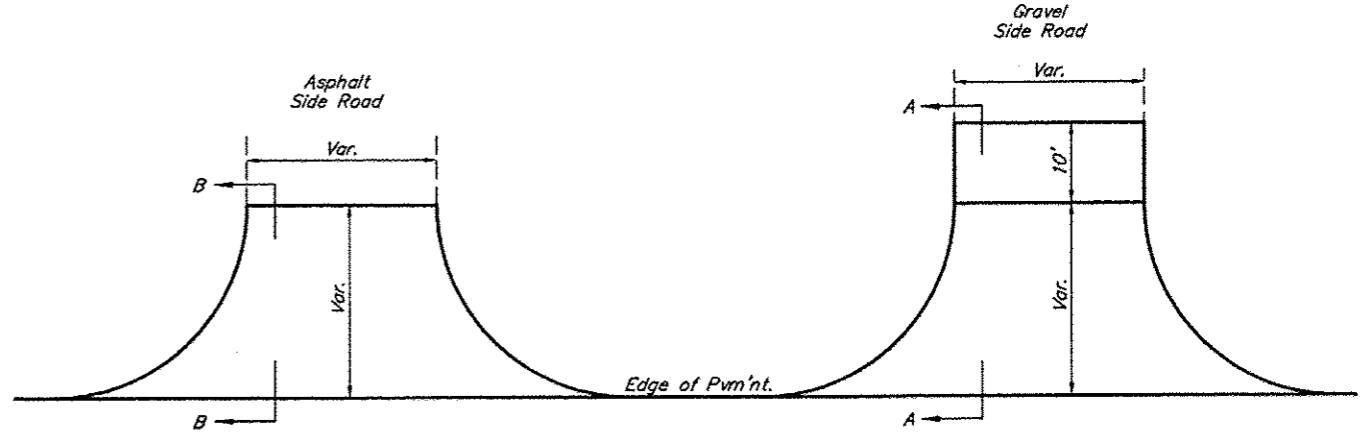
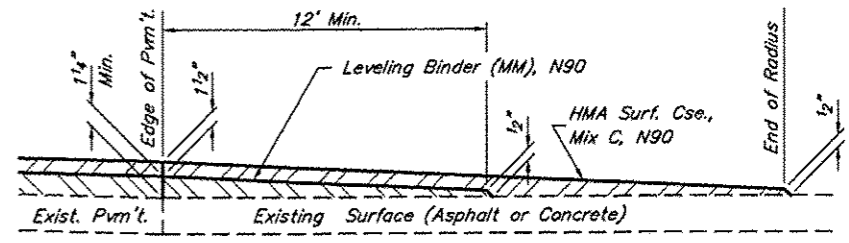
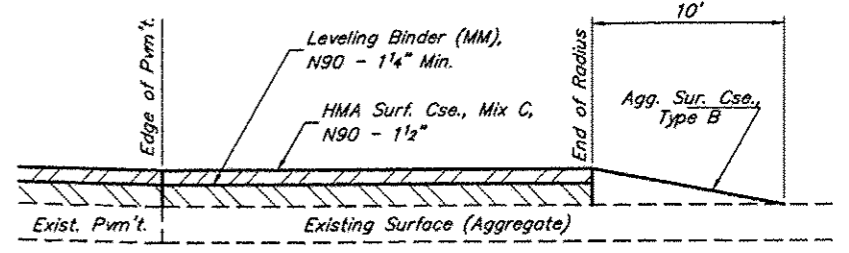
NOTE: Where HMA material is to be placed, the existing surface shall be primed as elsewhere specified.



SCHEDULE OF SIDE ROADS					
Location	Width	Binder Tons	Surface Tons	Agg. Tons	
Sta. 68+80 Lt. B	18'	5.9	6.7	-	
Sta. 151+60 Rt. B	20'	6.6	6.7	-	
Sta. 151+64 Lt. B	22'	2.1	6.5	-	
Sta. 180+67 Rt. B	16'	11.9	8.5	-	
Totals		26.5	28.4	-	

B = Bituminous Surface
G = Gravel Surface

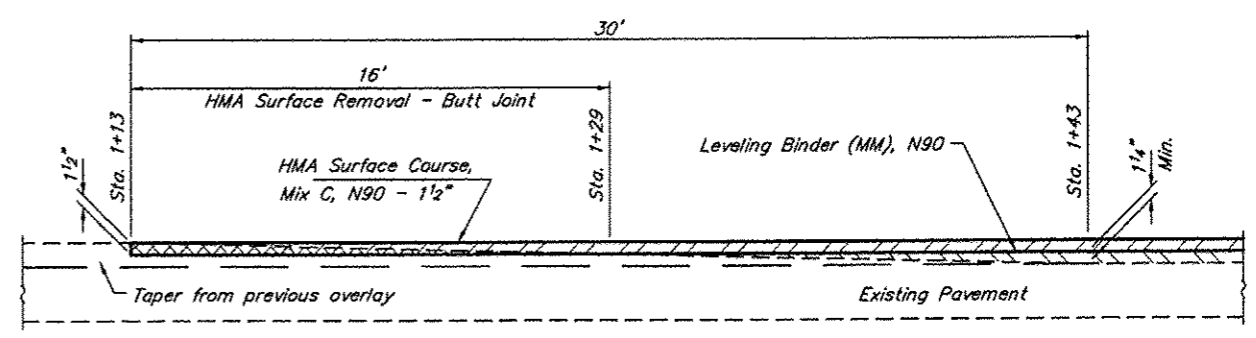
NOTE: Where HMA material is to be placed, the existing surface shall be primed as elsewhere specified.



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'

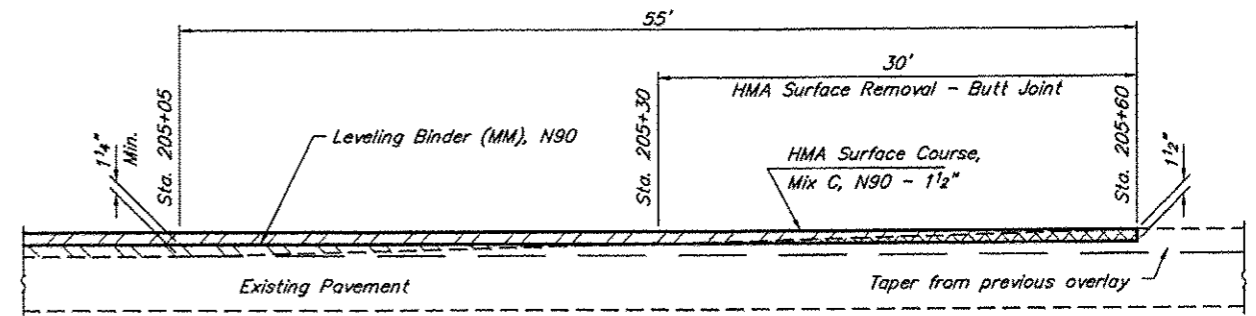
ENTRANCE & SIDE ROAD DETAILS
FAS ROUTE 934
SECTION 11-00045-00-RS
PROJECT NO. RS-934(108)
HARDIN COUNTY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	15
PROJECT NO. RS-934(108)			CONTRACT NO. 99552	



NOTE: Existing surface to be primed as elsewhere specified.

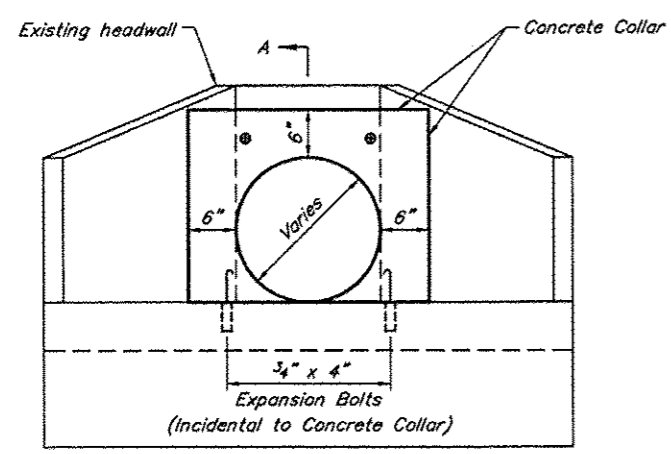
BEGINNING BUTT JOINT



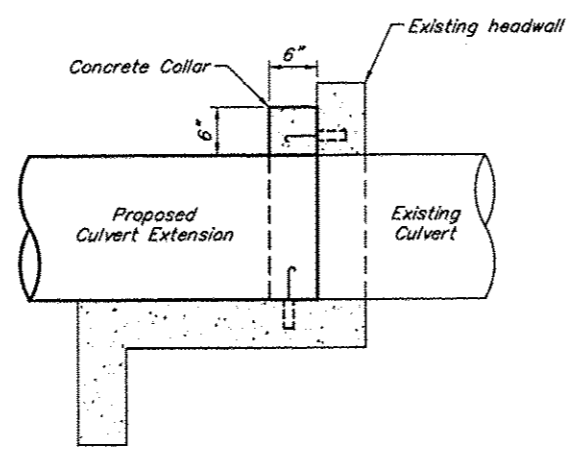
NOTE: Existing surface to be primed as elsewhere specified.

ENDING BUTT JOINT

NOTES:
Existing culvert extension to be removed as Pipe Culvert Removal.
Existing concrete collar to be removed as Concrete Removal (Special).
See Special Provisions.

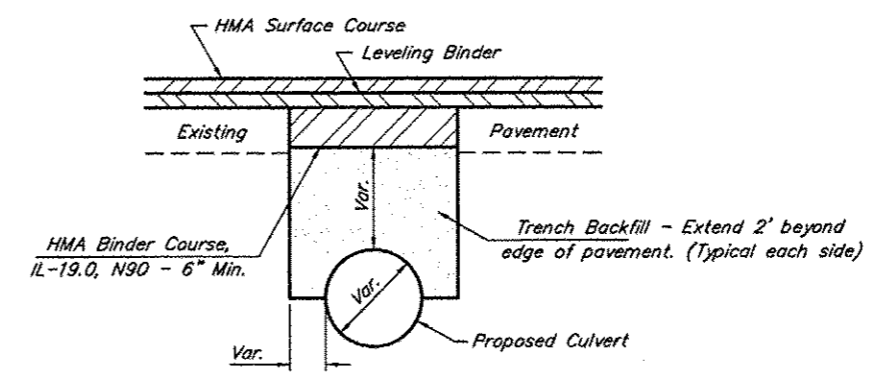


ELEVATION



SECTION A-A

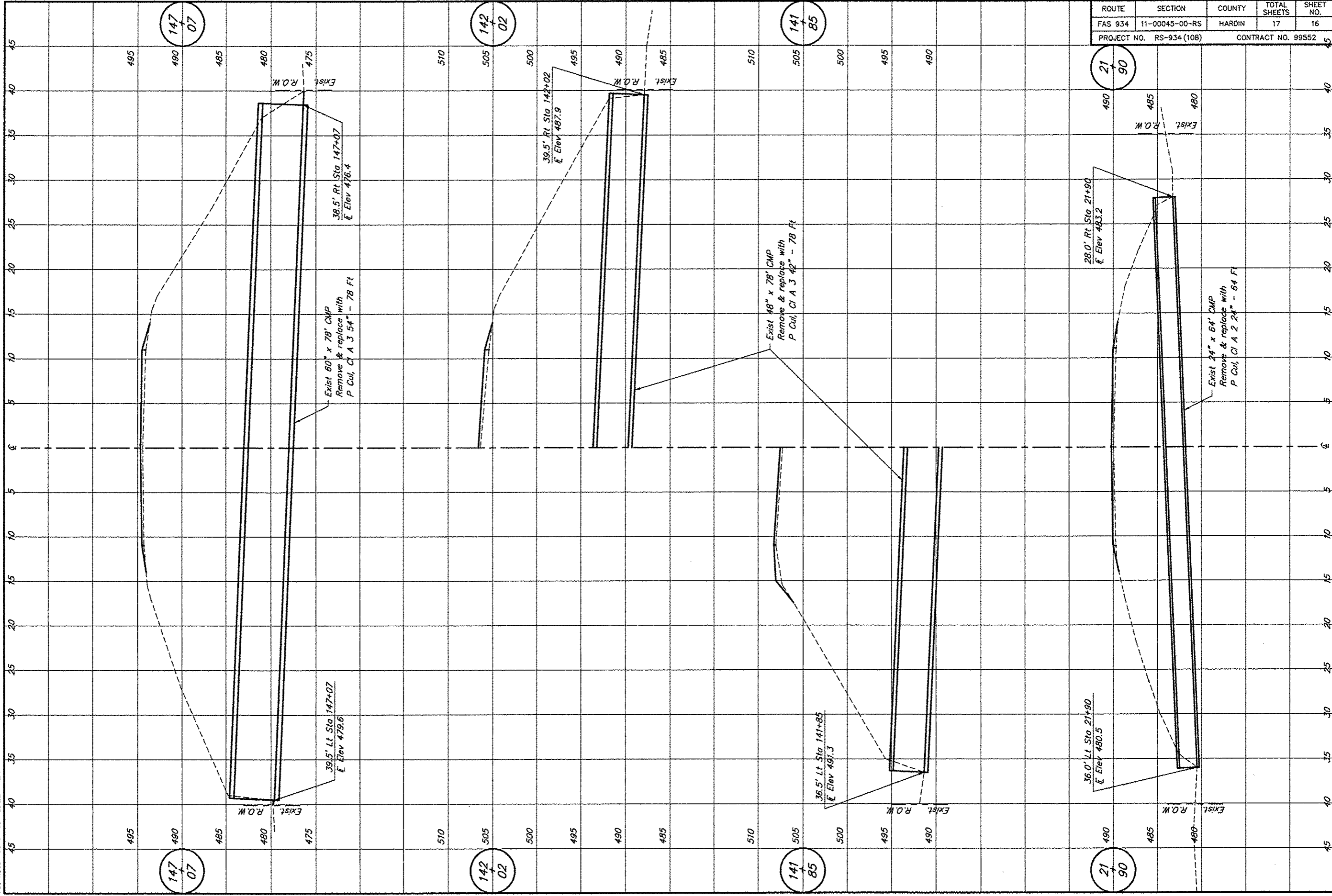
CONCRETE COLLAR
(See plans for location & culvert sizes)



**ACROSS ROAD CULVERT
INSTALLATION DETAIL**

NOTE: See plans for locations, culvert sizes & quantities.

MISCELLANEOUS DETAILS
FAS ROUTE 934
SECTION 11-00045-00-RS
PROJECT NO. RS-934 (108)
HARDIN COUNTY



147
+
07

142
+
02

141
+
85

21
+
90

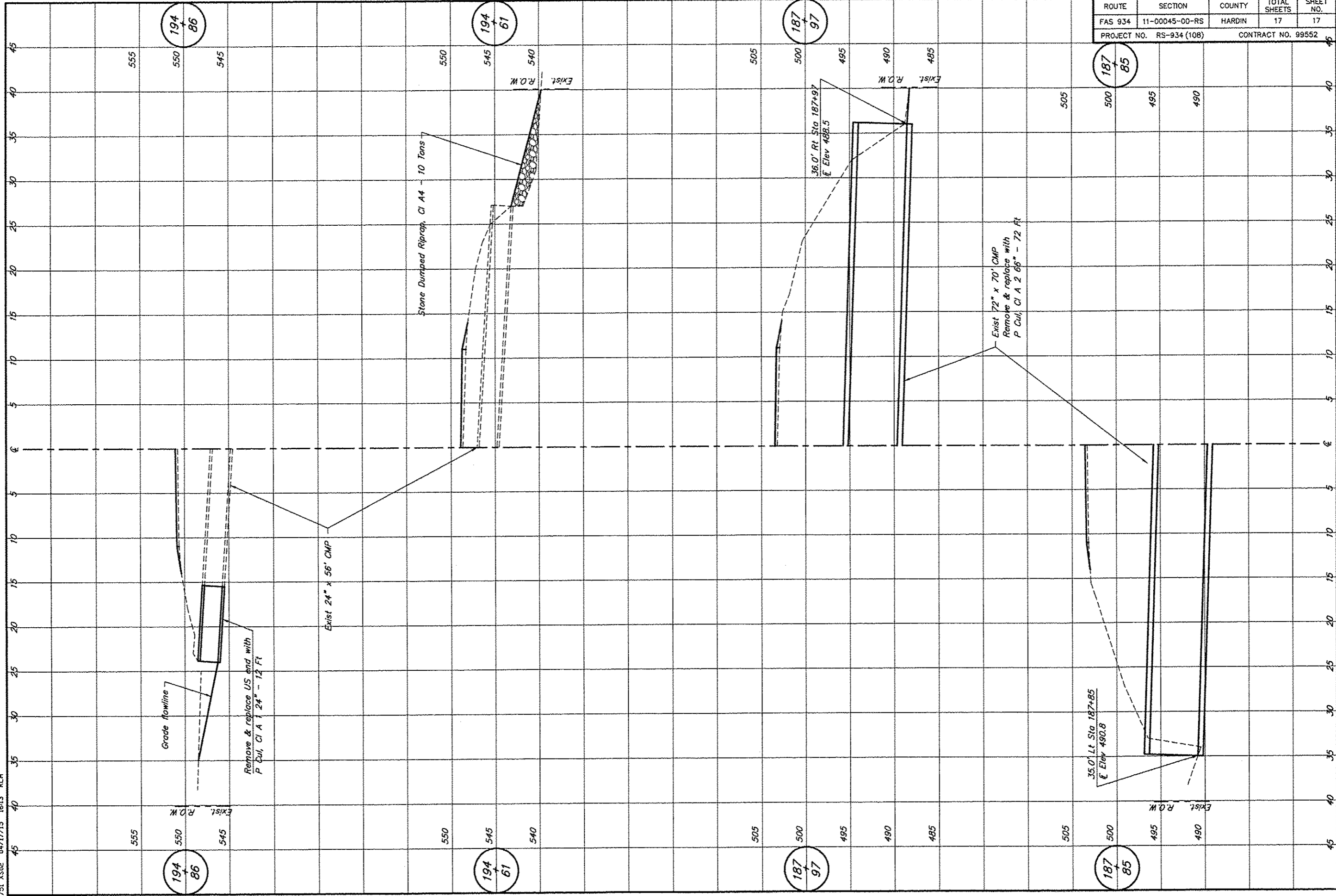
147
+
07

142
+
02

141
+
85

21
+
90

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	16
PROJECT NO. RS-934 (108)		CONTRACT NO. 99552		



ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 934	11-00045-00-RS	HARDIN	17	17
PROJECT NO. RS-934 (108)			CONTRACT NO. 99552	

194
86

194
61

187
97

187
85

194
86

194
61

187
97

187
85

555

550

545

550

545

540

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500

495

490

Exist. R.O.W.

Exist. R.O.W.

Exist. R.O.W.

Exist. R.O.W.

Grade flowline

Remove & replace US end with
P. Cul, CI A 24" - 12 Ft

Exist 24" x 56" CMP

Stone Dumped Riprap, CI A4 - 10 Tons

36.0' Rt. Slo. Sta 187+97
Elev 488.5

Exist 72" x 70" CMP
Remove & replace with
P. Cul, CI A 2 66" - 72 Ft

35.0' Lt. Slo. Sta 187+85
Elev 490.8