

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
**PLANS FOR**  
**PROPOSED LOCAL AGENCY IMPROVEMENT**  
RANDOLPH COUNTY

ROUTE	COUNTY	SECTION	SHEET/OF
FAS 849	RANDOLPH	16-00037-04-RS	1/5
CONTRACT NO. 97696			
FEDERAL AID PROJECT			

INDEX OF SHEETS

SHEET NO      CONTENT

- 1 Cover Sheet
- 2 Summary of Quantities, Typical Sections, General Notes and Hot-Mix Asphalt Mixture Requirements.
- 3 Hot-Mix Asphalt Surface Removal 2" Details.
- 4 Butt-Joint Details and Bridge Deck HMA Surface Removal 2" & Leveling Binder (MM), N50 transition Detail with Cross Section.
- 5 Guardrail Schedule, Paint Pavement Marking Schedule and Class D Patches Schedule.

HIGHWAY STANDARDS

BLR 24-2, 442201-03, 630001-12, 701011-04, 701201-05,  
701301-04, 701306-04, 701901-08, 725001-01, 780001-05,  
781001-04

UTILITIES

Egyptian Water      Ameren IP  
Egyptian Telephone      Village of Baldwin  
Egyptian Electric      City of Sparta  
Clearwave Communications

J.U.L.I.E. 1-800-892-0123

DESIGN INFORMATION

Rural Collector  
Class III Roadway  
Design Speed 50 Mph  
Current ADT (2019) - 2650  
Design Year (2034) - 2650

PAVEMENT DESIGN INFORMATION

Structural Design Traffic: 2650 (Year 2027)

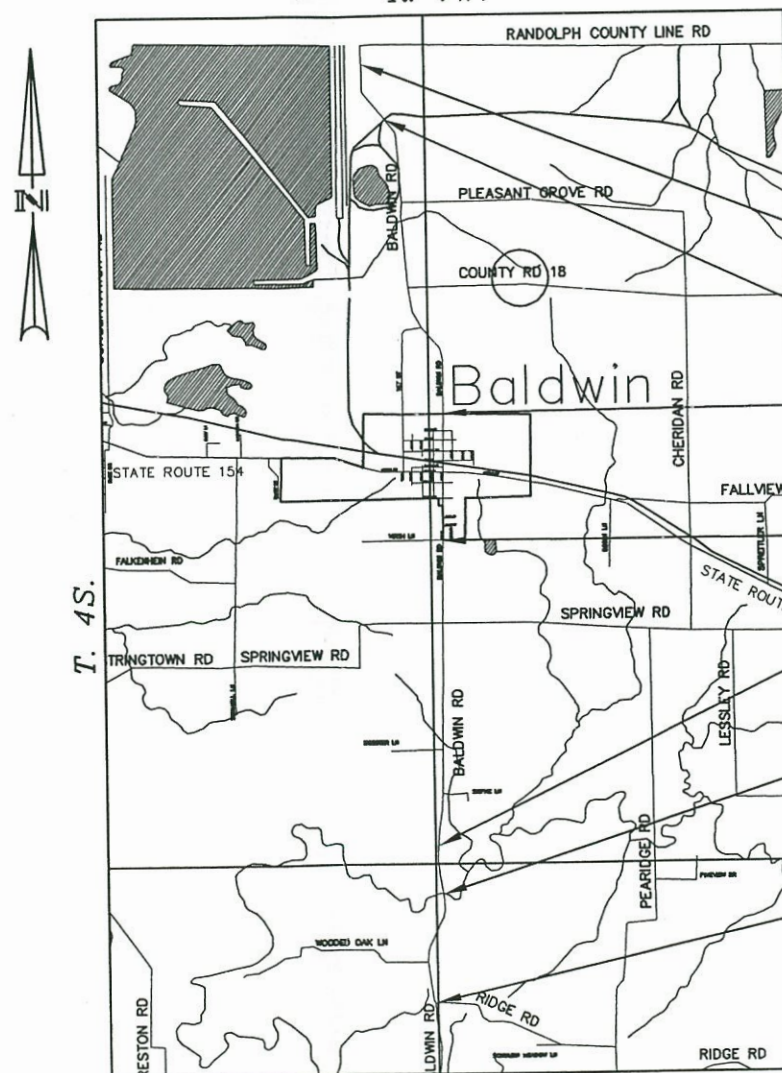
PV 2332  
SU 185  
MU 133

Minimum Soil Support IBR=3

Pavement Structural Materials: HMA Surface Course, Mix "C", N50  
HMA Surface Course, Mix "C", N70

FAS ROUTE 849 (CH 1) (BALDWIN ROAD)  
SECTION 16-00037-04-RS  
SECTION 16-00041-04-RS  
PROJECT NO. V3NH(003)  
JOB NO. C-98-344-16  
STR PROGRAM

R. 7W.



3RD P.M.

1 MILE  
[Scale bar]

Gross Length: 27,727.12 Feet = 5.251 Miles  
Net Length: 27,703.32 Feet = 5.247 Miles

Site of Proposed Improvement

Proposed Improvement Ends  
Station 116+22.61

Railroad Omissions  
Sta. 97+15.40 To Sta. 97+25.40  
Sta. 98+57.00 To Sta. 98+70.80

Proposed Improvement Begins  
Station 0+00

Proposed Improvement Ends  
Station 337+74

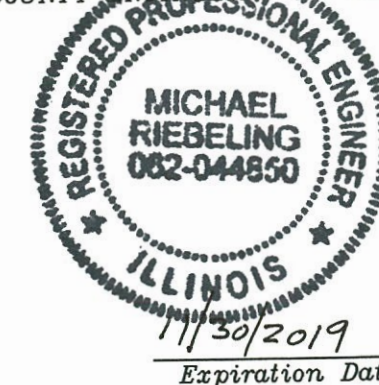
Station Equation  
Sta. 234+62.91(Bk.)=233+17.10(Ahd.)

Station Equation  
Sta. 216+01.43(Bk.)=216+01.73(Ahd.)

Proposed Improvement Begins  
Station 178+15

These plans were prepared by me or a member of my staff working under my personal supervision.

Michael Riebeling, P.E. 02/20/2019  
COUNTY ENGINEER DATE



ILLINOIS DEPARTMENT OF TRANSPORTATION

Approved February 20, 2019

Michael Riebeling  
Randolph County, County Engineer

Passed February 23, 2019

District 8 Engineer of Local Roads & Streets  
Releasing for Bid February 23, 2019  
Based on Limited Review  
Keith Roberts  
Regional Engineer

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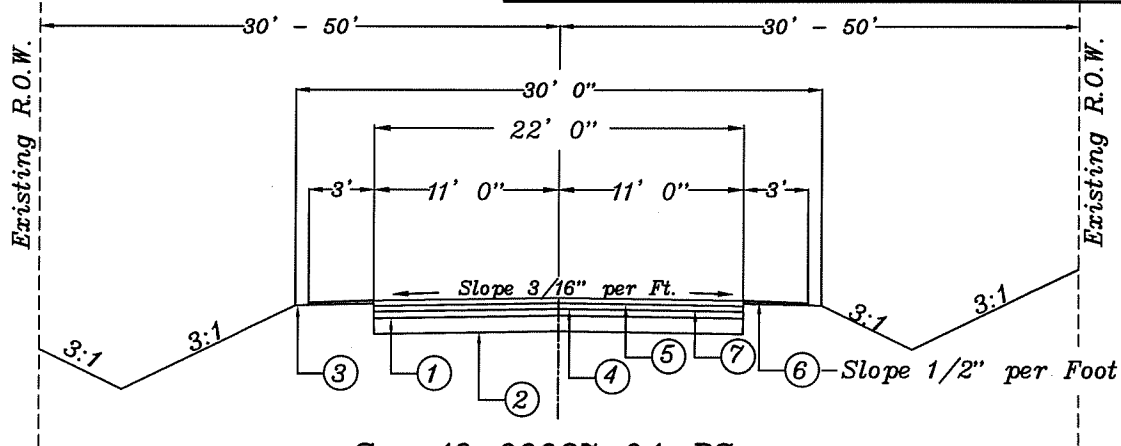
SUMMARY OF QUANTITIES			
PAY ITEM	ITEM	UNIT	QUANTITY
40600290	Bituminous Materials (Tack Coat)	Pound	45,811
40600625	Leveling Binder (Machine Method), N50	Ton	3,319
40600635	Leveling Binder (Machine Method), N70	Ton	2,423
40603310	Hot-Mix Asphalt Surface Course, Mix "C", N50	Ton	3,356
40603315	Hot-Mix Asphalt Surface Course, Mix "C", N70	Ton	2,396
44000157	Hot-Mix Asphalt Surface Removal, 2"	Sq Yd	67,870
44201749	Class D Patches, Type I, 9 Inch	Sq Yd	4
44201759	Class D Patches, Type IV, 9 Inch	Sq Yd	311.3
48102100	Aggregate Wedge Shoulder, Type B	Ton	1,901
*63000003	Steel Plate Beam Guardrail, Type A, 9 Foot Posts	Foot	175
*63100167	Traffic Barrier Terminal, Type 1 (Special) Tangent	Each	4
63200310	Guardrail Removal	Foot	337.5
67100100	Mobilization	L Sum	1
70100450	Traffic Control and Protection, Standard 701201	L Sum	1
70100460	Traffic Control and Protection, Standard 701306	L Sum	1
70300100	Short Term Pavement Marking	Foot	8,319
70300150	Short Term Pavement Marking Removal	Sq Ft	924
70300220	Temporary Pavement Marking - Line 4"	Foot	83,048
*72501000	Terminal Marker - Direct Applied	Each	4
*78000100	Thermoplastic Pavement Marking - Letters And Symbols	Sq Ft	122
*78000650	Thermoplastic Pavement Marking - Line 24"	Foot	60
*78001110	Paint Pavement Marking - Line 4"	Foot	83,048
*78100100	Raised Reflective Pavement Marker	Each	348
*78300200	Raised Reflective Pavement Marker Removal	Each	52
Z0033700	Longitudinal Joint Sealant	Foot	27,704
Z0048665	Railroad Protective Liability Insurance	L Sum	1
*X0323078	Remove and Re-Erect Existing Bridge Rail	Foot	420
X7030005	Temporary Pavement Marking Removal	Sq Ft	27,680
Z0076600	TRAINEES	HR	500
Z0076604	TRAINEES TPG	HR	500

**GENERAL NOTES:**

1. Short-Term Pavement Marking shall be applied to the Milled Surface, Leveling Binder and Surface Course.  
2. All Construction Signs shall be 48 inch Fluorescent Orange.  
3. Commitments: None.  
4. Longitudinal Joint Sealant shall be Applied under the Hot-Mix Asphalt Surface Course  
5. Application rate for Tack Coat on Milled Surface shall be 0.05 Lb/Sq. Ft.  
Application rate for Tack Coat on Leveling Binder shall be 0.025 Lb/Sq. Ft.
- \* Denotes Specialty Item

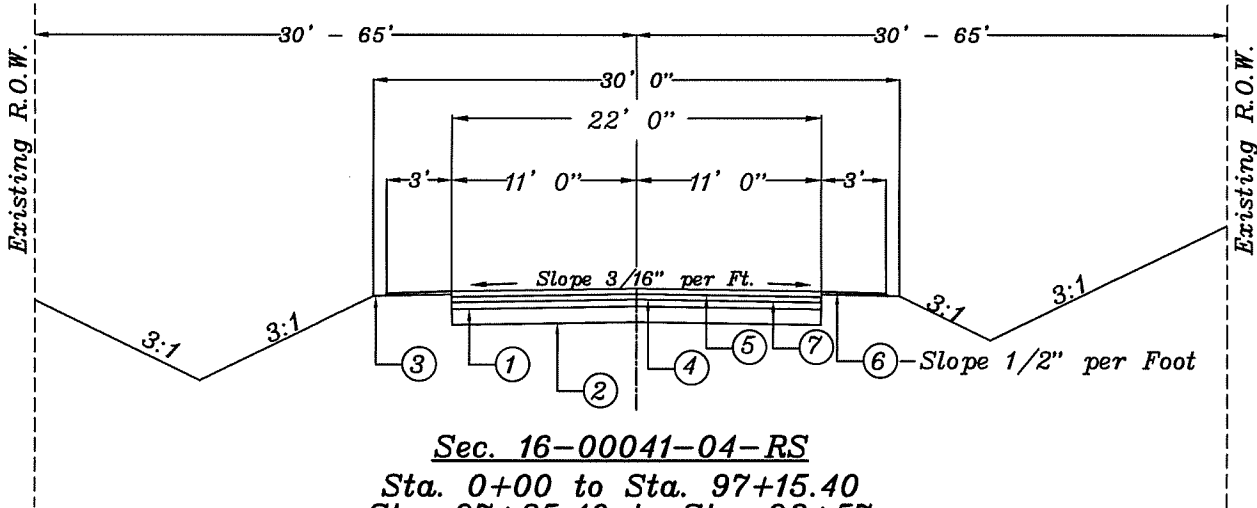
HOT-MIX ASPHALT MIXTURE REQUIREMENTS		
MIXTURE USE	STA. 178+15 to STA. 337+74 SURFACE & LEVELING BINDER	STA. 0+00 to STA. 116+22.61 SURFACE & LEVELING BINDER
PG	PG 64-22	PG 64-22
RAP %(MAX)	See Special Provisions	See Special Provisions
DESIGN AIR VOIDS	4.0% @ Ndes=50	4.0% @ Ndes=70
MIX COMPOSITION (GRADATION MIXTURE)	IL 9.5	IL 9.5
FRICTION AGG	Mixture C	Mixture C
MIXTURE WEIGHT	112 Lb/Sy/In	112 Lb/Sy/In

ROUTE	COUNTY	SECTION	SHEET/O.
FAS 849	RANDOLPH	16-00037-04-RS	2/5
CONTRACT NO. 97696			



**Sec. 16-00037-04-RS**  
 Sta. 178+15 to Sta. 216+01.43(Bk.)  
 Sta. 216+01.73(Ah.) to Sta. 234+62.91(Bk.)  
 Sta. 233+17.10(Ah.) to Sta. 337+74

- 1 Existing Hot-Mix Asphalt - 5"  
2 Existing Aggregate Base Course - 8"  
3 Existing Turf Shoulder  
4 Proposed Leveling Binder (Machine Method), N50 - 1 1/2"  
5 Proposed Hot-Mix Asphalt Surface Course Mix "C", N50 - 1 1/2"  
6 Proposed Aggregate Wedge Shoulder, Type B  
7 Hot-Mix Asphalt Surface Removal, 2"



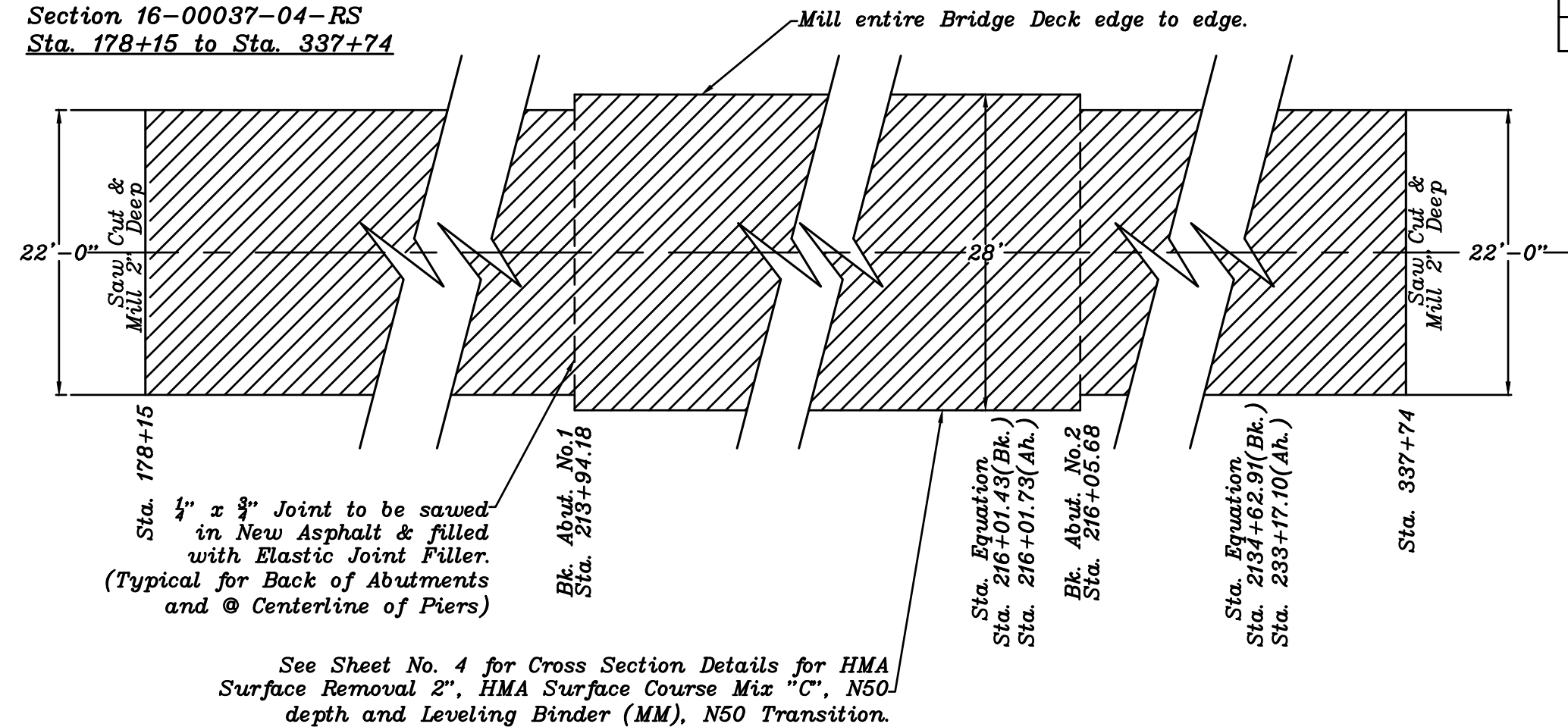
**Sec. 16-00041-04-RS**  
 Sta. 0+00 to Sta. 97+15.40  
 Sta. 97+25.40 to Sta. 98+57  
 Sta. 98+70.80 to Sta. 116+22.61

- 1 Existing Hot-Mix Asphalt - 7 1/2"  
2 Existing Aggregate Base Course - 7 1/2"  
3 Existing Turf Shoulder  
4 Proposed Leveling Binder (Machine Method), N70 - 1 1/2"  
5 Proposed Hot-Mix Asphalt Surface Course Mix "C", N70 - 1 1/2"  
6 Proposed Aggregate Wedge Shoulder, Type B  
7 Hot-Mix Asphalt Surface Removal, 2"

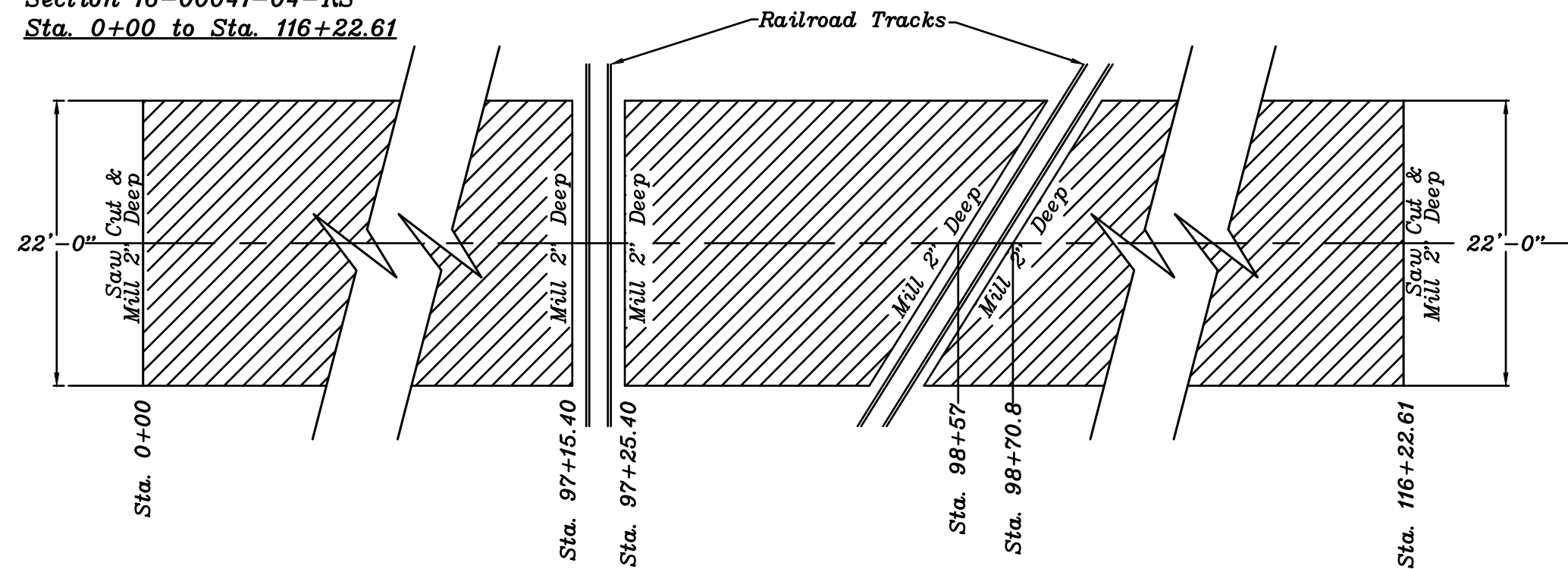
# HOT-MIX ASPHALT SURFACE REMOVAL, 2"

ROUTE	COUNTY	SECTION	SHEET/0
FAS 849	RANDOLPH	16-00037-04-RS	3/5
CONTRACT NO. 97696			

Section 16-00037-04-RS  
Sta. 178+15 to Sta. 337+74



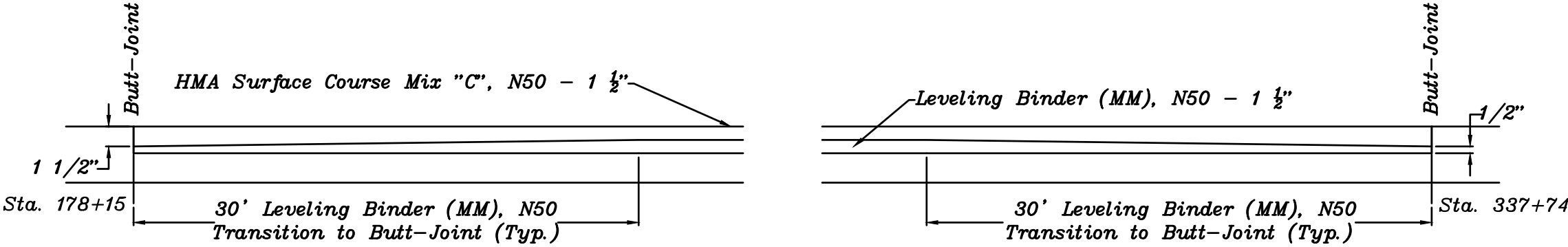
Section 16-00041-04-RS  
Sta. 0+00 to Sta. 116+22.61



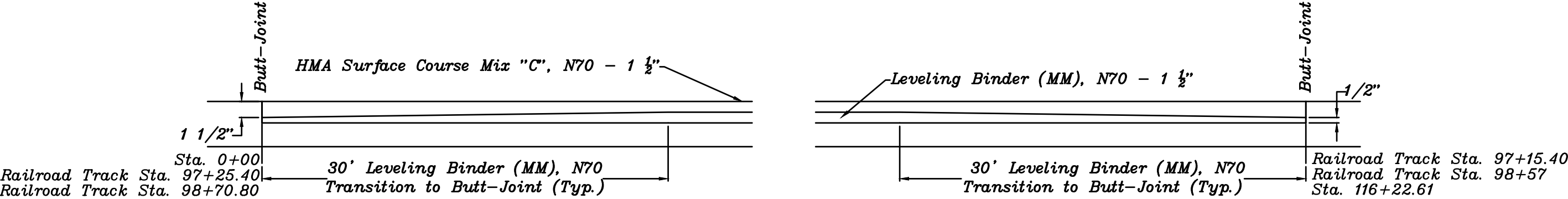
HOT-MIX ASPHALT SURFACE REMOVAL, 2"

SECTION 16-00037-04-RS  
BUTT-JOINT DETAIL (TYPICAL FOR ALL STATIONS LISTED)

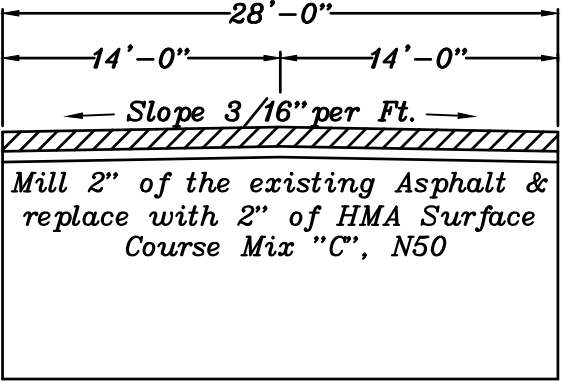
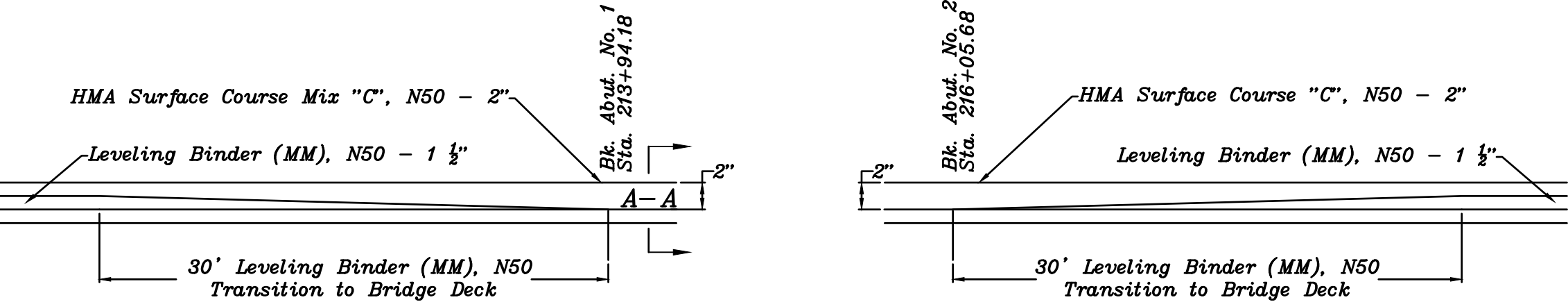
ROUTE	COUNTY	SECTION	SHEET/0
FAS 849	RANDOLPH	16-00037-04-RS	4/5
CONTRACT NO. 97696			



SECTION 16-00041-04-RS  
BUTT-JOINT DETAIL (TYPICAL FOR ALL STATIONS LISTED)



SECTION 16-00037-04-RS  
LEVELING BINDER TRANSITION TO 2" SURFACE ON BRIDGE DECK



SECTION A-A

GUARDRAIL SCHEDULE					
EXISTING GUARDRAIL TO BE REMOVED			PROPOSED GUARDRAIL		
STATION	DESCRIPTION	TOTAL FT.	STATION	DESCRIPTION	TOTAL FT.
Sta. 212+55.43 To 212+80.43 Right	TBT TY 1	25	Sta. 212+55.43 To 213+05.43 Right	TBT TY 1 (Sp) Tang.	1 Each
Sta. 212+80.43 To 213+80.43 Right	SPBGR TY A	100	Sta. 213+05.43 To 213+80.43 Right	SPBGR TY A	75
Sta. 213+05.43 To 213+30.43 Left	TBT TY 1	25	Sta. 213+05.43 To 213+55.43 Right	TBT TY 1 (Sp) Tang.	1 Each
Sta. 213+30.43 To 213+80.43 Left	SPBGR TY A	50	Sta. 213+55.43 To 213+80.43 Right	SPBGR TY A	25
Sta. 216+19.43 To 216+44.43 Right	TBT TY 1	25	Sta. 216+19.43 To 216+69.43 Right	TBT TY 1 (Sp) Tang.	1 Each
Sta. 216+19.43 To 217+06.93 Left	SPBGR TY A	87.5	Sta. 216+19.43 To 216+94.43 Right	SPBGR TY A	75
Sta. 217+06.93 To 217+31.93 Left	TBT TY 1	25	Sta. 216+94.43 To 217+44.43 Right	TBT TY 1 (Sp) Tang.	1 Each
			Total for all SPBGR, Type A, 9 Foot Posts = 175 Foot		
Total for all Guardrail Removal = 337.5 Foot			Total for all TBT, Type 1 (Special) Tangent = 4 Each		

\*All Existing Traffic Barrier Terminals, Type 5A shall remain in place.

CLASS D PATCHES SCHEDULE			
STATION	DESCRIPTION	AREA/SQ YD	TYPE
Sta. 279+28 To 279+68 Right Lane	6' x 40'	30	IV
Sta. 279+47 To 279+53 Right Lane	5' x 6'		
* All one Patch			
Sta. 280+05.5 To 280+11.05 Right Lane	6' x 6'	4	I
Sta. 284+73 To 286+25 Right Lane	6' x 152'	101.3	IV
Sta. 287+90 To 289+50 Right Lane	6' x 160'	106.7	IV
Sta. 314+06 To 315+16 Left Lane	6' x 110'	73.3	IV
Total for all Type I Patches = 4 Sq. Yd.			
Total for all Type IV Patches = 311.3 Sq. Yd.			

PAINT PAVEMENT MARKING SCHEDULE		
LOCATION	LIMITS	LENGTH
<u>16-00037-04-RS</u>		
<u>NO PASSING ZONES</u>		
Right	Sta. 184+25 To Sta. 216+01.43 (Bk.)	3,176 Ft.
Right	Sta. 216+01.73 (Ah.) To Sta. 234+62.91 (Bk.)	1,861 Ft.
Right	Sta. 233+17.10 (Ah.) To 235+85	268 Ft.
Left	Sta. 192+95 To Sta. 216+01.43 (Bk.)	2,306 Ft.
Left	Sta. 216+01.73 (Ah.) To Sta. 234+62.91 (Bk.)	1,861 Ft.
Left	Sta. 233+17.10 (Ah.) To 245+75	1,258 Ft.
Right	Sta. 247+02 To Sta. 254+50	748 Ft.
Left	Sta. 256+50 To Sta. 263+60	710 Ft.
Right	Sta. 284+95 To Sta. 296+90	1,195 Ft.
Left	Sta. 293+70 To Sta. 306+15	1,245 Ft.
Right	Sta. 303+10 To Sta. 311+33	823 Ft.
Left	Sta. 312+25 To Sta. 319+25	700 Ft.
<u>TOTAL NO PASSING ZONES</u>		16,151 Ft.
<u>SKIP DASH</u>		
	Sta. 178+15 To Sta. 192+95	1,480 Ft.
	Sta. 235+85 To Sta. 293+70	5,785 Ft.
	Sta. 296+90 To Sta. 303+10	620 Ft.
	Sta. 306+15 To Sta. 337+74	<u>3,159 Ft.</u>
11,044 FT. @ 25%=		<u>2,761 Ft.</u>
<u>TOTAL YELLOW LINE</u>		18,912 Ft.
<u>EDGE LINE</u>		
Lt. & Rt.	Sta. 178+15 To Sta. 216+01.43 (Bk.)	7,573 Ft.
Lt. & Rt.	Sta. 216+01.73 (Ah.) To Sta. 234+62.91 (Bk.)	3,722 Ft.
Lt. & Rt.	Sta. 233+17.10 (Ah.) To Sta. 337+74	<u>20,914 Ft.</u>
		32,209 Ft.
(Excludes 3 gaps @ Sideroads)		<u>-180 Ft.</u>
<u>TOTAL WHITE LINE</u>		32,029 Ft.
<u>16-00041-04-RS</u>		
<u>NO PASSING ZONES</u>		
Right	Sta. 13+27 To Sta. 34+56	2,129 Ft.
Left	Sta. 24+30 To Sta. 45+80	2,150 Ft.
Right	Sta. 47+20 To Sta. 55+10	790 Ft.
Left	Sta. 58+36 To Sta. 63+70	534 Ft.
Right	Sta. 91+88 To Sta. 97+92	604 Ft.
Left	Sta. 96+88 To Sta. 102+00	<u>512 Ft.</u>
<u>TOTAL NO PASSING ZONES</u>		6,719 Ft.
<u>SKIP DASH</u>		
	Sta. 0+00 To Sta. 24+30	2,430 Ft.
	Sta. 34+56 To Sta. 96+88	6,232 Ft.
	Sta. 97+92 To Sta. 116+22.61	<u>1,831 Ft.</u>
10,493 FT. @ 25%=		<u>2,623 Ft.</u>
<u>TOTAL YELLOW LINE</u>		9,342 Ft.
<u>EDGE LINE</u>		
Lt. & Rt.	Sta. 0+00 To Sta. 116+22.61	23,245 Ft.
(Excludes 6 gaps @ Sideroads & Entrances)		<u>-480 Ft.</u>
<u>TOTAL WHITE LINE</u>		22,765 Ft.
<u>TOTAL PAINT PAVEMENT MARKING LINE 4"= 83,048 Ft.</u>		