CONTRACT NO. 98777

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	726	113B-1, 113B-2	WILLIAMSON	87	1

3-7-08 Letting, Item 010

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAS 2905/FAP 726 (IL 37)
SECTION 113B-1 SN 100-0090
113B-2 SN 100-0091
WILLIAMSON COUNTY
C-99-065-02
PROJECT : BRF-0005(583) (BRS-)
STRUCTURE REPLACEMENTS ON IL 37 OVER BURLINGTON NORTHERN /SANTA FE RAILROAD AND IL 37 OVER LITTLE SALINE CREEK

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3 & 4

0 50' 100' PLAN 1"= 50'

0 5' 10' PROFILE 1"= 50'

0 50' 100' PLAN 1"= 30'

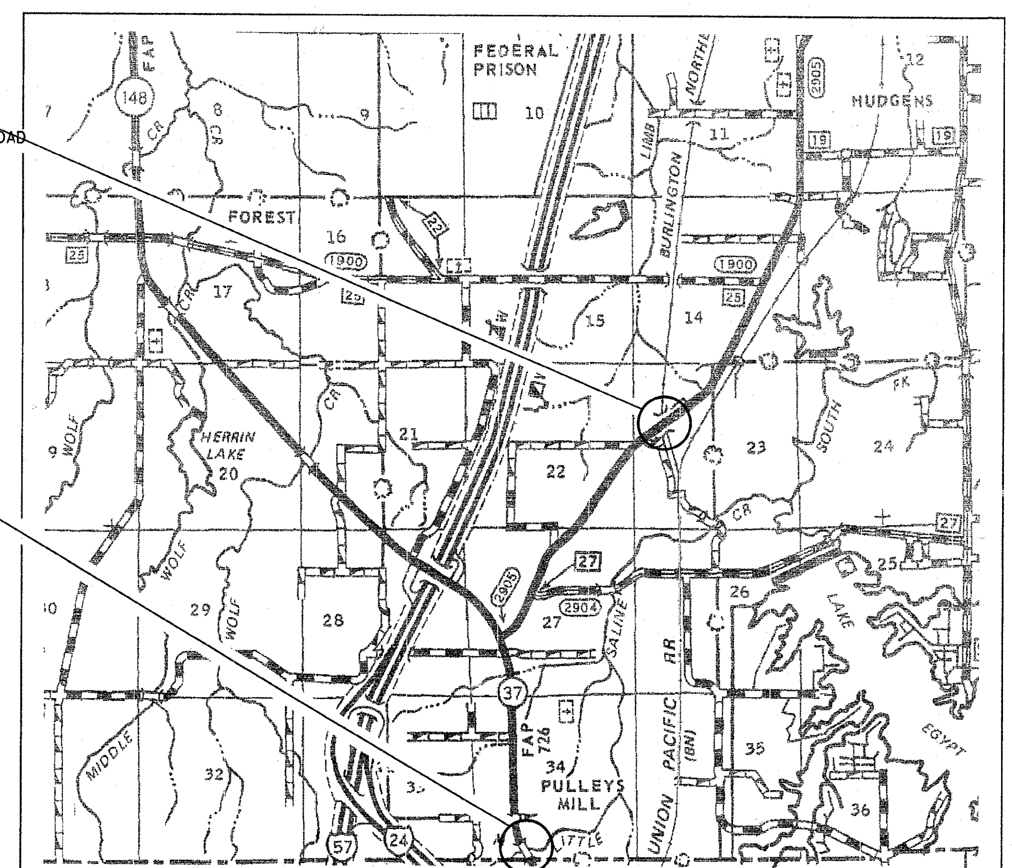
0 1' 2' 3' CROSS SECTION 1"= 5'

SN 100-0027
TRAFFIC DATA
2005 ADT = 5900
13.3% TRUCKS
POSTED SPEED = 55 MPH

SN 100-0028
TRAFFIC DATA
2006 ADT = 5020
10.1% TRUCKS
POSTED SPEED = 55 MPH

PROPOSED BRIDGE ON IL 37 OVER
BURLINGTON NORTHERN/SANTA FE RAILROAD
STRUCTURE NO 100-0090
℄ STR. STA 376+46
3-SPAN W33 BRIDGE;
175'-0" BK TO BK ABUTS; 21°-38' SKEW
EXIST STR NO 100-0027

PROPOSED BRIDGE ON IL 37 OVER
LITTLE SALINE CREEK
STRUCTURE NO 100-0091
℄ STR. STA 531+81.00
SINGLE SPAN
60" WEB PLATE GIRDER BRIDGE
119'-0" BK TO BK ABUTS; 30° SKEW
EXIST STR NO 100-0028



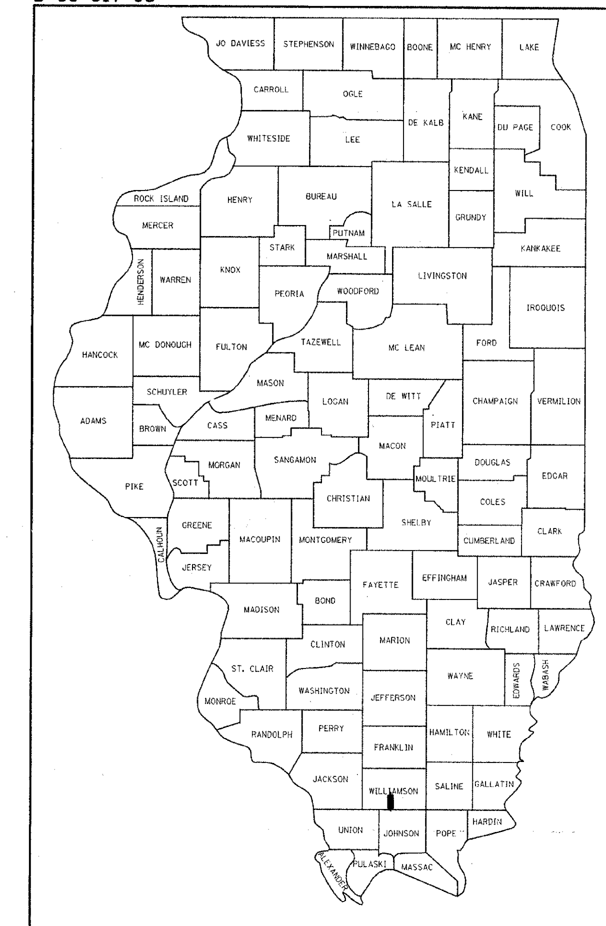
SOUTHERN TOWNSHIP

GROSS LENGTH OF PROJECT = 1580 FT

SN 100-0090
ROADWAY LENGTH = 775 FT
BRIDGE LENGTH = 175 FT
NET LENGTH OF PROJECT = 950 FT

SN 100-0091
ROADWAY LENGTH = 511 FT
BRIDGE LENGTH = 119 FT
NET LENGTH OF PROJECT = 630 FT

D-99-017-03



LOCATION OF SECTION INDICATED THUS:-

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

CONTRACT NO. 98777

PROJECT ENGINEER: DAVID PICHE
DESIGNER: BILL PORTER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec 6 20 07

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 1, 20 08

Interim **ENGINEER OF DESIGN AND ENVIRONMENT**

February 1, 20 08

Christine M. Reed

DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

GENERAL NOTES

THE THICKNESS OF HOT MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT MIX ASPHALT MIXTURE IS PLACED.

FACTORS USED FOR QUANTITY CALCULATIONS ARE AS FOLLOWS:

ALL HOT MIX ASPHALT:	2.016 TONS/CU. YD.
HOT MIX ASPHALT MATERIALS ON PAVEMENT:	0.09 GAL./SQ. YD.
AGGREGATE (PRIME COAT):	0.0015 TONS/SQ. YD.
ALL AGGREGATE:	2.05 TONS/CU. YD.
RIPRAP	1.50 TONS/CU YD

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION OR A CHANGE IN THE SCOPE OF WORK. THE CONTRACTOR, HOWEVER, WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK. CONSTRUCTION PLANS ARE AVAILABLE FOR REVIEW AT THE DISTRICT 9 OFFICE.

IN ADDITION TO THE REQUIREMENTS OF ARTICLE 107.16 THE CONTRACTOR SHALL PROTECT THE SURFACE OF ALL BRIDGE DECK AND BRIDGE APPROACH PAVEMENTS IN A MANNER SATISFACTORY TO THE ENGINEER BEFORE ANY EQUIPMENT IS ALLOWED TO CROSS THE STRUCTURE. PROTECTION SHALL BE PROVIDED FOR ALL EQUIPMENT AS DEFINED IN ARTICLE 101.17 REGARDLESS IF TRACK MOUNTED OR WHEELED.

AT ALL LOCATIONS WHERE HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT SHALL BE INCLUDED IN THE TYPE OF PAVEMENT BEING CONSTRUCTED.

QUANTITIES SHOWN IN THE PLANS FOR BRIDGE DECK GROOVING AND PROTECTIVE COAT INCLUDE THE BRIDGE, THE BRIDGE APPROACH PAVEMENTS, AND THE BRIDGE APPROACH PAVEMENT CONNECTORS (PCC) SPECIAL.

PROTECTIVE COAT SHALL BE APPLIED TO THE BRIDGE, THE BRIDGE APPROACH PAVEMENTS, AND THE BRIDGE APPROACH PAVEMENT CONNECTORS (PCC) SPECIAL IN ACCORDANCE WITH ARTICLE 503.19 OF THE STANDARD SPECIFICATIONS. THE PROTECTIVE COAT SHALL BE APPLIED REGARDLESS OF THE CURING METHOD USED. THE RATE OF APPLICATION FOR EACH COAT ON SAW CUT GROOVED AREAS SHALL BE 25 SQUARE YARDS PER GALLON OF MIXTURE.

REMOVAL OF EXISTING BRIDGE APPROACH PAVEMENTS IS INCLUDED IN THE QUANTITY FOR PAVEMENT REMOVAL - SQ YD.

ALL OBSTRUCTIONS WHICH ARE WITHIN THE CLEAR ZONE SHOWN ON THE TYPICAL SECTION, AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED WITHIN PROJECT LIMITS. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 4 INCHES OR MORE ABOVE THE GROUND LINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 100 mm (4 IN.) OR GREATER.

TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.

PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS, THE RESIDENT ENGINEER SHOULD CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.

STATIONING OF THE PROPOSED SURFACE SHALL BE REQUIRED. STAMP STATIONING EVERY 300 FEET ON ALTERNATING SIDES OF THE PAVEMENT AND AS DIRECTED BY THE ENGINEER. THE STATION SYMBOL STAMPS USED SHALL BE 5 1/2 " TALL AND OF A DESIGN APPROVED BY THE ENGINEER. THE STAMPS SHALL BE FURNISHED BY THE CONTRACTOR AND REMAIN HIS/HER PROPERTY.

ATTAINMENT OF PROPER CROWN SHALL BE FULLY ACCOMPLISHED WITH THE HOT MIX ASPHALT BINDER COURSE.

THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN TRAFFIC CONTROL AND PROTECTION (SPECIAL).

THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 300 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.

THE COST OF REMOVAL OF TEMPORARY PIPE CULVERTS IS INCLUDED IN THE COST TO PROVIDE PIPE CULVERTS, (TEMPORARY) OF THE SIZE AND TYPE SPECIFIED.

GENERAL NOTES SPECIFIC TO SECTION 113B-1 SN 100-0027 (E) SN 100-0090 (P)

THE TYPE 6A TEMPORARY TERMINAL GUARDRAIL SECTIONS SHOWN IN THE PLANS MAY BE REPLACED TO MATCH THE RAILING THAT THE CONTRACTOR CHOOSES TO USE ON THE TEMPORARY BRIDGE. NO EXTRA COMPENSATION SHALL BE ALLOWED IF THE TEMPORARY 6A TERMINALS SPECIFIED IN THE PLANS ARE CHANGED.

GENERAL NOTES SPECIFIC TO SECTION 113B-2 SN 100-0028 (E) SN 100-0091 (P)

COST OF REMOVING "HOT-MIX ASPHALT BASE COURSE WIDENING, 10''" USED FOR STAGE I TRAFFIC IS INCLUDED IN "PAVED SHOULDER REMOVAL-SQ YD."

THE "HOT-MIX ASPHALT BASE COURSE WIDENING, 10''" CONSTRUCTED IN PRE-STAGE I ON PROPOSED STRUCTURE 100-0091 MAY BE INCORPORATED INTO THE FINAL "HOT-MIX ASPHALT SHOULDERS, 8''" DURING STAGE II CONSTRUCTION IF APPROVED BY THE ENGINEER. SUCH CHANGE WILL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION, BUT THE CONTRACTOR WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.

VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW BRIDGE PARAPET. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.

ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC. THE TEMPORARY TRAFFIC SIGNALS SHALL BE SET TO FLASH ALL RED.

THE ALGEBRAIC DIFFERENCE BETWEEN THE PAVEMENT AND SHOULDER SLOPES SHALL NOT EXCEED 8%. THE SHOULDER ON THE OUTSIDE OF SUPERELEVATED CURVES SHALL BE FLATTENED ACCORDINGLY.

ON ALL SUPERELEVATED CURVES, THE PROPOSED BASE COURSE WIDENING SHALL BE CONSTRUCTED WITH A SLOPE CONFORMING TO THE RATE OF SUPERELEVATION OF THE EXISTING PAVEMENT.

TRIM EDGES OF EXISTING BITUMINOUS CONCRETE SURFACE FLUSH WITH EXISTING PAVEMENT PRIOR TO CONSTRUCTING NEW BASE COURSE WIDENING.

COMMITMENTS: NONE

STANDARDS

000001-05
280001-04
420001-07
420401-06
421001-02
482001-02
482006-03
515001-02
630001-07
630201-05
630301-04
631011-04
631031-06
631032-03
631051-01
635006-02
635011-01
666001
701001-01
701006-02
701011-01
701201-02
701301-02
701306-01
701321-09
701326-02
701901
704001-04
780001-01
862001

INDEX OF SHEETS

Prepared By: DISTRICT STUDIES AND PLANS ENGINEER
Examined By: DISTRICT LAND ACQUISITION ENGINEER
Examined By: DISTRICT PROGRAM DEVELOPMENT ENGINEER
Examined By: DISTRICT OPERATIONS ENGINEER
Examined By: DISTRICT CONSTRUCTION ENGINEER
Examined By: DISTRICT MATERIALS ENGINEER
Examined By: DISTRICT PROJECT IMPLEMENTATION ENGINEER
Examined By: ASSISTANT REGIONAL ENGINEER
Approved By: DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Dec 6 2007
DATE

12/5/2007
c:\projects\d901703\d901703pl.m32
50.1060 ' / IN.
porterwc

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	726	113B-1, 113B-2	WILLIAMSON	87	3
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	BRS FAS 2905 RURAL - WILLIAMSON COUNTY HBP FUNDING 80% FEDERAL; 20% STATE CONSTRUCTION TYPE CODE X171-2A SN 100-0090 QUANTITY	BRF FAP 726 RURAL - WILLIAMSON COUNTY HBP FUNDING 80% FEDERAL; 20% STATE CONSTRUCTION TYPE CODE X071-2A SN 100-0091 QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	1216	1137	79
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	121	121	
20200100	EARTH EXCAVATION	CU YD	10842	10479	363
20300100	CHANNEL EXCAVATION	CU YD	525		525
20400100	BORROW EXCAVATION	CU YD	15426	13743	1683
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	404	144	260
25000350	SEEDING, CLASS 7	ACRE	3.1	2.5	0.6
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	400	304	96
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	276	204	72
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	276	204	72
25000700	AGRICULTURAL GROUND LIMESTONE	TON	4.6	3.4	1.2
25001010	SEEDING, CLASS 2 (MODIFIED)	ACRE	2.3	1.7	0.6
25100115	MULCH, METHOD 2	ACRE	1.6	0.5	1.1
25100630	EROSION CONTROL BLANKET	SQ YD	9748	9384	364
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	310	250	60
28000300	TEMPORARY DITCH CHECKS	EACH	7	2	5
28000400	PERIMETER EROSION BARRIER	FOOT	3636	2164	1472
28000500	INLET AND PIPE PROTECTION	EACH	2	2	
28100105	STONE RIPRAP, CLASS A3	SQ YD	1202	1202	
28100107	STONE RIPRAP, CLASS A4	SQ YD	10	10	
28100109	STONE RIPRAP, CLASS A5	SQ YD	1221		1221
28200200	FILTER FABRIC	SQ YD	2557	1174	1383
31100100	SUB-BASE GRANULAR MATERIAL, TYPE A	TON	500	500	
35600716	HOT-MX ASPHALT BASE COURSE WIDENING, 10''	SQ YD	145		145
40200500	AGGREGATE SURFACE COURSE, TYPE A 6''	SQ YD	7		7
40600100	HOT-MIX ASPHALT MATERIALS (PRIME COAT)	GALLON	487	356	131
40600300	AGGREGATE (PRIME COAT)	TON	7	4	3
40600982	HOT - MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	341	163	178
40600990	TEMPORARY RAMP	SQ YD	54	27	27
40603090	HOT - MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	1537	1330	207
40603320	HOT - MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	265	159	106
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	564	288	276
42001300	PROTECTIVE COAT	SQ YD	861	421	440

CODE NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY	BRS FAS 2905 RURAL - WILLIAMSON COUNTY HBP FUNDING 80% FEDERAL; 20% STATE CONSTRUCTION TYPE CODE X171-2A SN 100-0090 QUANTITY	BRF FAP 726 RURAL - WILLIAMSON COUNTY HBP FUNDING 80% FEDERAL; 20% STATE CONSTRUCTION TYPE CODE X071-2A SN 100-0091 QUANTITY
44000100	PAVEMENT REMOVAL	SQ YD	1520	1105	415
44000400	GUTTER REMOVAL	FOOT	1133	1133	
44001114	HOT - MIX ASPHALT SURFACE REMOVAL (ASBESTOS)	SQ YD	475	475	
44004250	PAVED SHOULDER REMOVAL	SQ YD	416		416
48100700	AGGREGATE SHOULDERS, TYPE A 8''	SQ YD	257	85	172
48203029	HOT - MIX ASPHALT SHOULDERS, 8''	SQ YD	2137	1586	551
48203037	HOT - MIX ASPHALT SHOULDERS, 10''	SQ YD	245		245
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	2	1	1
50200100	STRUCTURE EXCAVATION	CU YD	1106	644	462
50300100	FLOOR DRAINS	EACH	14	4	10
50300225	CONCRETE STRUCTURES	CU YD	318.1	268.3	49.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	472	258.8	213.2
50300260	BRIDGE DECK GROOVING	SQ YD	1053	138	915
50300280	CONCRETE ENCASEMENT	CU YD	16.8	11.2	5.6
50300300	PROTECTIVE COAT	SQ YD	1554	925	629
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1	0.5	0.5
50500505	STUD SHEAR CONNECTORS	EACH	6552	3780	2772
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	145450	94150	51300
50800515	BAR SPLICERS	EACH	622	82	540
50901125	STEEL RAILING (TEMPORARY)	FOOT	214		214
51201400	FURNISHING STEEL PILES HP 10 X 42	FOOT	393	393	
51201500	FURNISHING STEEL PILES HP 10 X 57	FOOT	392		392
51201610	FURNISHING STEEL PILES HP12X63	FOOT	658	658	
51202305	DRIVING PILES	FOOT	1051	1051	
51203400	TEST PILE STEEL HP 10 X 42	EACH	2	2	
51203610	TEST PILE STEEL HP 12 X 63	EACH	2	2	
51204650	PILE SHOES	EACH	32	32	
51300105	TEMPORARY BRIDGE COMPLETE	EACH	1	1	
51500100	NAME PLATES	EACH	2	1	1
52100520	ANCHOR BOLTS, 1''	EACH	72	48	24
5421D015	PIPE CULVERTS, CLASS D, TYPE 1 15'' (TEMPORARY)	FOOT	127	127	

•DATE-TIME•
•DGN-SPEC•

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	726	113B-1, 113B-2	WILLIAMSON	87	4
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

SUMMARY OF QUANTITIES

				BRS FAS 2905	BRF FAP 726
				RURAL - WILLIAMSON COUNTY	
			TOTAL	HBP FUNDING	
				80% FEDERAL;	20% STATE
				CONSTRUCTION TYPE CODE X171-2A	CONSTRUCTION TYPE CODE X071-2A
				SN 100-0090	SN 100-0091
CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	QUANTITY	QUANTITY
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	202	79	123
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4''	FOOT	313	153	160
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	1125	875	250
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	8	4	4
* 63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2	
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1(SPECIAL) TANGENT	EACH	6	4	2
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1(SPECIAL) FLARED	EACH	1		1
63200310	GUARDRAIL REMOVAL	FOOT	946	642	304
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	16	16	
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1		1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	0.5	0.5
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	0.5	0.5
70101805	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	EACH	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	2		2
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2	1	1
70106700	TEMPORARY RUMBLE STRIP	EACH	6		6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	4	2	2
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	263	173	90
70300220	TEMPORARY PAVEMENT MARKING - LINE 4''	FOOT	7705	5650	2055
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	2656	1941	715
70400100	TEMPORARY CONCRETE BARRIER	FOOT	475		475
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	212.5		212.5
70500100	TEMPORARY STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	650	650	
70500690	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 11	EACH	2		2
* 78001110	PAINT PAVEMENT MARKING - LINE 4''	FOOT	6963	4200	2763
* 78200405	GUARDRAIL MARKERS	EACH	49	33	16
* 78200500	BARRIER WALL MARKERS	EACH	20	12	8
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	13	8	5
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1760	1400	360
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	6	3	3

				BRS FAS 2905	BRF FAP 726
				RURAL - WILLIAMSON COUNTY	
			TOTAL	HBP FUNDING	
				80% FEDERAL;	20% STATE
				CONSTRUCTION TYPE CODE X171-2A	CONSTRUCTION TYPE CODE X071-2A
				SN 100-0090	SN 100-0091
CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY	QUANTITY	QUANTITY
XX006661	UNINTERRUPTIBLE POWER SUPPLY	EACH	4	2	2
X0321430	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) SPECIAL	SQ YD	298	133	165
X0323988	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	870		870
* X6330115	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL, REMOVE AND RELOCATE	EACH	1		1
X7050167	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	6	4	2
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2		2
50157300	PROTECTIVE SHIELD	SQ YD	409	409	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1	
* Z0065000	SETTING PILES IN ROCK	EACH	16		16
70500670	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	

*SPECIALTY ITEMS

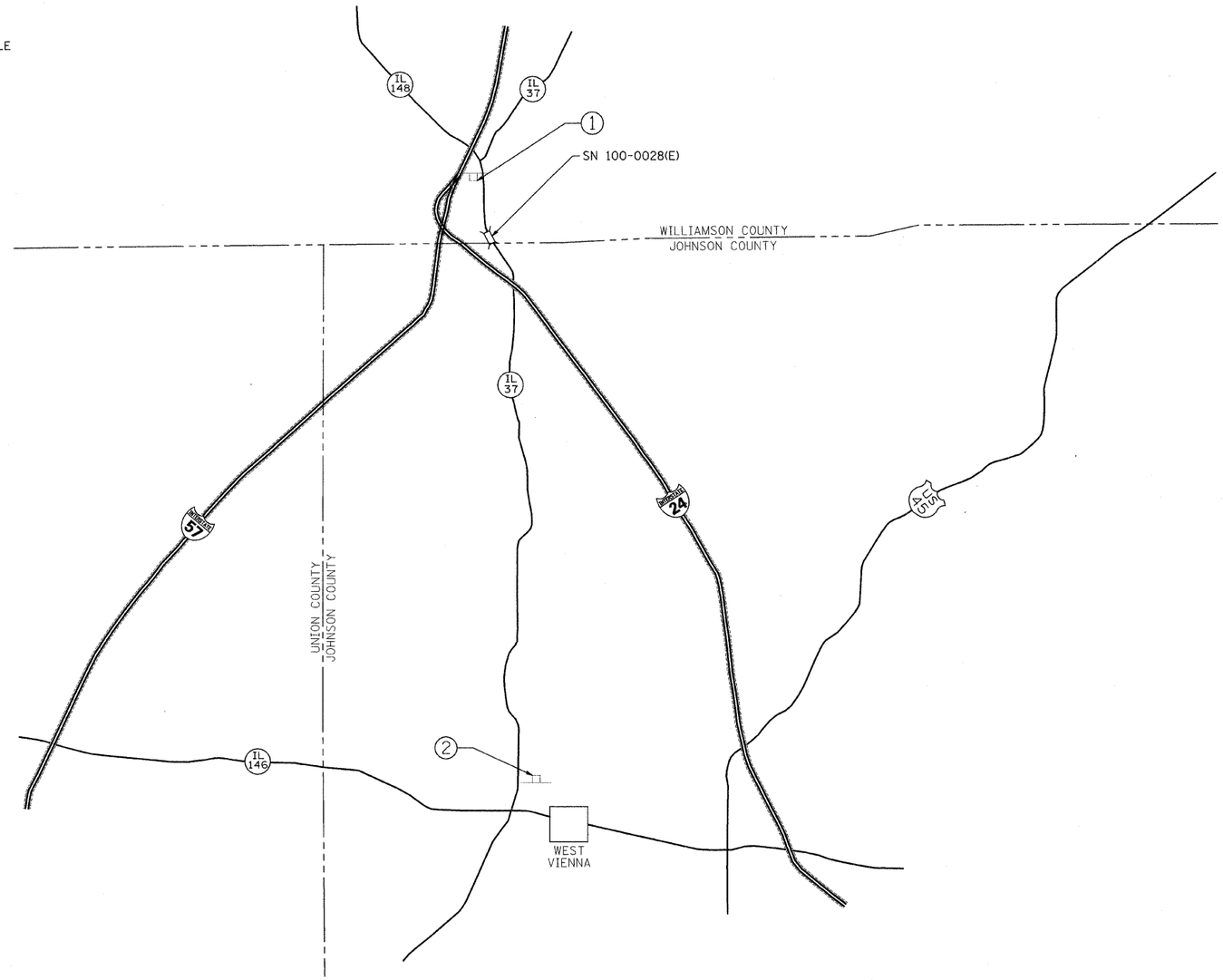
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
726	113B-2	WILLIAMSON	87	5
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 98777

DETOUR SIGNING FOR LANE WIDTH RESTRICTION

N

NO SCALE



1

WIDE LOADS OVER 9'-9"		
DETOUR VIA		
SOUTH	EAST	WEST
INTERSTATE 57	INTERSTATE 24	ILLINOIS 146

60" x 120"

TO BE USED:
STAGE I ONLY

2

WIDE LOADS OVER 9'-9"		
DETOUR VIA		
EAST	WEST	NORTH
ILLINOIS 146	INTERSTATE 24	INTERSTATE 57

60" x 120"

TO BE USED:
STAGE I ONLY

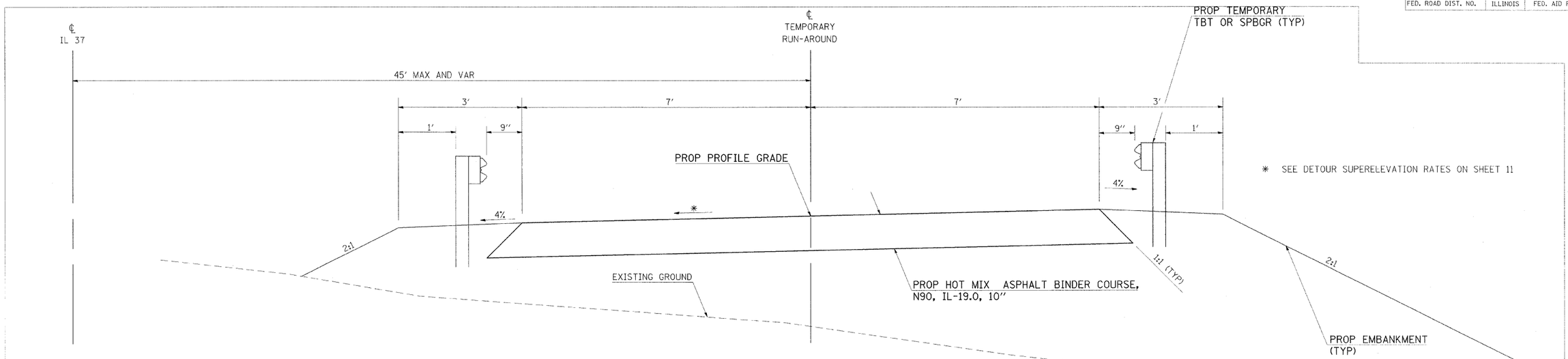
NOTES

1. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN, AND REMOVE THE POSTS AND SIGNS AT THE LOCATIONS SHOWN AND AS DIRECTED BY THE RESIDENT ENGR./TECH. ALL SIGNS SHALL BE POST MOUNTED.
2. THE CONTRACTOR SHALL GIVE I.D.O.T. BUREAU OF OPERATIONS, PERMITS SECTION, TWO WEEKS NOTICE BEFORE IMPLEMENTING ANY LANE WIDTH RESTRICTIONS.
3. THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.

PLOT DATE = 12/12/2007
FILE NAME = c:\projects\n701703\100-0028-02
PLOT SCALE = 50.0000 ' / IN.
USER NAME = porter-wg

DETOUR SIGNING

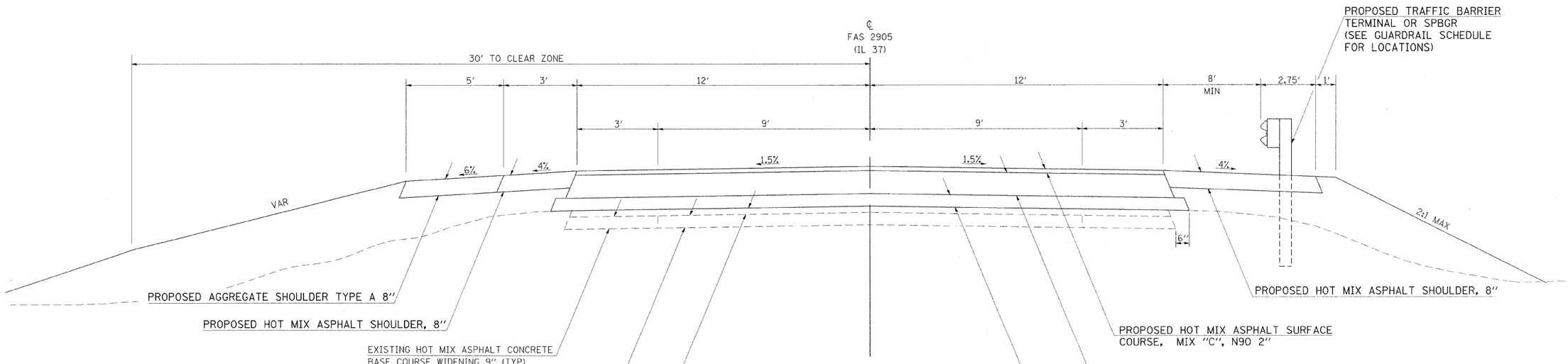
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	113B-1	WILLIAMSON	87	6
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



TYPICAL SECTION

(TEMPORARY ONE LANE RUNAROUND)
LOOKING WEST
TO BE USED : STA 1+50 TO STA 3+41.72
STA 5+07.89 TO STA 7+00

TEMPORARY BRIDGE OMISSION: STA 3+41.72 TO STA 5+07.89



NOTE:
IN AREAS COVERED BY THIS TYPICAL, THE EXISTING BITUMINOUS SURFACED PCC PAVEMENT SHALL BE BROKEN INTO PIECES PER ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.

SECTION OUTSIDE GUARDRAIL LIMITS

SECTION WITHIN GUARDRAIL LIMITS

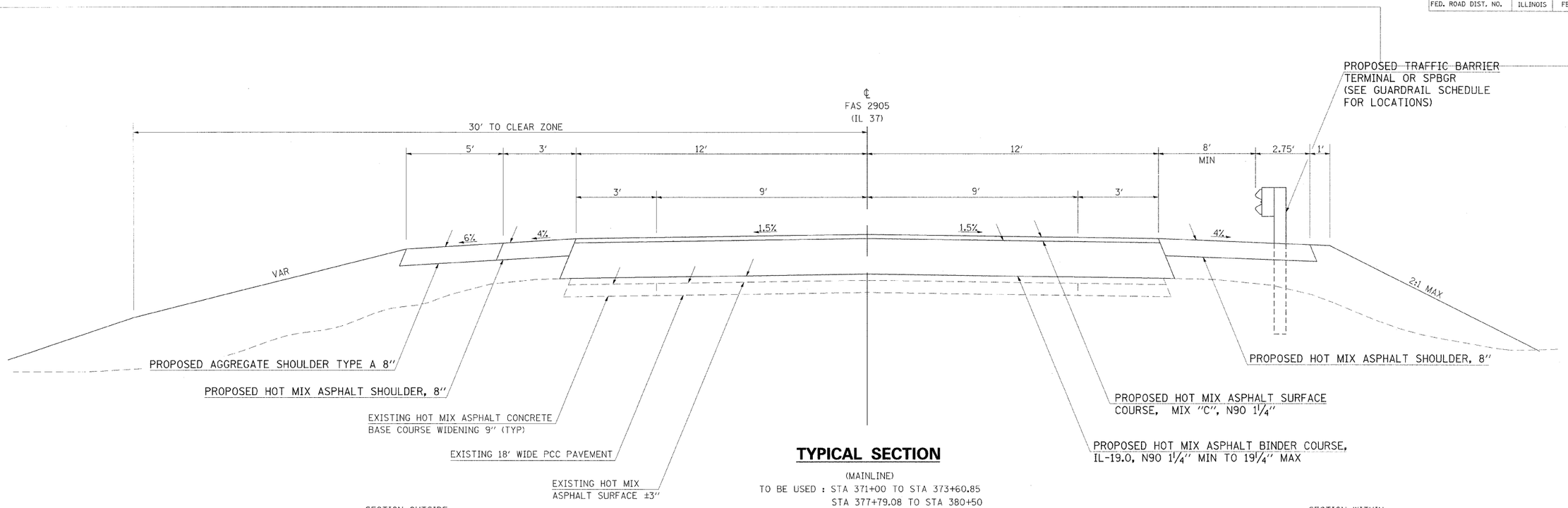
TYPICAL SECTION

(MAINLINE)
TO BE USED : STA 373+60.85 TO STA 375+14.92

BRIDGE & APPROACH PAVEMENT OMISSION:
STA 375+14.92 TO STA 377+79.08

•DATE-TIME•
•DGN-SPEC•

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	1138-1	WILLIAMSON	87	7
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



TYPICAL SECTION

(MAINLINE)

TO BE USED : STA 371+00 TO STA 373+60.85
STA 377+79.08 TO STA 380+50

BRIDGE & APPROACH PAVEMENT OMISSION:
STA 375+14.92 TO STA 377+79.08

SECTION OUTSIDE GUARDRAIL LIMITS

SECTION WITHIN GUARDRAIL LIMITS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

Location(s):	Hot-Mix Asphalt Surface Course
Mixture Use(s):	Hot-Mix Asphalt Surface Course, Mix D, N90
AC/PG:	PG64-22
RAP % (Max):	10
Design Air Voids:	4.0 %, 90 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-9.5 mm or IL 12.5 mm
Friction Aggregate:	D Surface

Location(s):	Hot-Mix Asphalt Binder Course & Base Course Widening
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N90, IL-19.0
AC/PG:	PG64-22
RAP % (Max):	10
Design Air Voids:	4.0 %, 90 Gyration Design
Mixture Composition: (Gradation Mixture)	IL-19.0 mm
Friction Aggregate:	None

Location(s):	Hot-Mix Asphalt Shoulders
Mixture Use(s):	Hot-Mix Asphalt Shoulders
AC/PG:	PG58-22
RAP % (Max):	50
Design Air Voids:	2.0 %, 30 Gyration Design
Mixture Composition: (Gradation Mixture)	HMA Shoulders
Friction Aggregate:	None

•DATE_TIME•
•RXN-SPEC•

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	113B-1	WILLIAMSON	87	8
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BRIDGE APPROACH SCHEDULE

LOCATION STATION TO STATION	POROUS GRANULAR EMBANKMENT (SPECIAL)	SUBBASE GRANULAR MATERIAL, TYPE A THICKNESS VARIES	BRIDGE APPROACH PAVEMENT	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) SPECIAL	PROTECTIVE COAT	BRIDGE DECK GROOVING
	CU YD	TONS	SQ YD	SQ YD	SQ YD	SQ YD
IL 37						
STA 375+14.91 TO 375+29.50		33		66.5	210.5	193
STA 375+29.50 TO 375+59.50	72		144			
BRIDGE OMISSION						
STA 375+59.50 TO 377+34.50						
STA 377+34.50 TO 377+64.50	72	33	144		210.5	193
STA 377+64.50 TO 377+78.88				66.5		
TOTALS	144	**66	288	133	421	*386

* GROOVING FOR ANY APPROACH PAVEMENTS AND CONNECTOR PAVEMENTS IS ADDITIONAL TO QUANTITY NEEDED FOR BRIDGE DECK

**TO BE INCLUDED IN COST OF BRIDGE APPROACH PAVEMENT

PAVEMENT MARKING SCHEDULE

LOCATION IL 37	SHORT-TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING LINE-4"	PAINT PAVEMENT MARKING LINE-4"	PAINT PAVEMENT MARKING LINE-4"
	FOOT	FOOT	FOOT	SQ FT
MAINLINE				
STA 370+55 TO 375+14	88	1836	1836	612
STA 375+14 TO 377+78	28	1056	1056	352
STA 377+78 TO 381+05	57	1,308	1,308	436
RUNAROUND				
STA 0+00 TO 8+50		1,450		
TOTALS	173	5,650	4,200	1,400

PAVEMENT REMOVAL AND MISCELLANEOUS SCHEDULE

LOCATION IL 37	PAVEMENT REMOVAL	HMA SURFACE REMOVAL BUTT JOINT	TEMPORARY RAMP	PIPE CULVERTS CLASS D TYPE 1, 15'' (TEMP.)	GUTTER REMOVAL
	SQ YD	SQ YD	SQ YD	FOOT	
STA 370+54.5 TO 370+86		84	12		
STA 375+14 TO 375+68	144				
STA 377+26 TO 377+78	139				
STA 380+75 TO 381+04.5		79	12		
LT STA 371+00 TO 375+18					418
RT STA 371+00 TO 375+18					418
RT STA 377+20.3 TO 380+17.3					297
RUNAROUND					
STA 2+50				44	
STA 5+75				83	
STA 0+00 TO 1+25	73				
STA 1+25 TO 3+41.72	337				
STA 5+07.89 TO 7+25	338				
STA 7+25 TO 8+49	74				
TOTALS	1105	163	24	127	1133

HOT-MIX ASPHALT SCHEDULE

LOCATION IL 37	SUBBASE GRANULAR MATERIAL, TYPE A	HOT-MIX ASPHALT BINDER COURSE IL-19, N90	HOT-MIX ASPHALT SUFACE COURSE, MIX "C", N90	BITUMINOUS MATERIAL (PRIMECOAT)
	TON	TON	TON	GALLON
MAINLINE				
STA 370+45 TO 371+00			15	15
STA 371+00 TO 373+60.85			49	68
STA 373+60.85 TO 375+14.55	289	299	29	142
BRIDGE & APPROACH				
STA 375+14.55 TO 377+79.45	211			
STA 377+79.45 TO 378+47.24		132	13	63
STA 378+47.24 TO 380+50		150	38	53
STA 380+50 TO 381+05			15	15
RUNAROUND				
STA 0+10 TO 1+24.55		43		
STA 1+24.55 TO 3+41.72		202		
BRIDGE & APPROACH				
STA 3+41.72 TO 5+07.89				
STA 5+07.89 TO 7+25.14		202		
STA 7+25.14 TO 8+41.36		44		
TOTALS	500	1330	159	356

SEEDING SCHEDULE

LOCATION IL 37	SEEDING CLASS 2	SEEDING CLASS 7	NITROGEN (N)	PHOSPHORUS (P)	POTASSIUM (K)	AGRICULTURAL GROUND LIMESTONE	MULCH METHOD 2	TEMPORARY EROSION CONTROL SEEDING
	ACRES	ACRES	LBS	LBS	LBS	TON	ACRES	POUND
LT STA 371+00 TO 377+22	0.08	0.08	14.3	9.6	9.6	0.16	0.01	8
LT STA 372+50 TO 37+650	0.27	0.27	48.3	32.4	32.4	0.54		27
RT STA 371+00 TO 376+25	0.5	0.5	89.4	60.0	60.0	1.0	0.13	50
LT STA 376+75 TO 380+10	0.15	0.15	26.8	18.0	18.0	0.3	0.01	15
RT STA 376+50 TO 380+10	0.7	0.7	125.2	84.0	84.0	1.4	0.35	70
RUNAROUND								
LT STA 2+00 TO 4+10		0.02						2
RT STA 0+51 TO 3+97		0.31						31
LT STA 4+43 TO 6+50		0.02						2
RT STA 4+38 TO 8+48		0.45						45
TOTALS	1.7	2.5	304	204	204	3.4	0.5	250

SHOULDER SCHEDULE

LOCATION IL 37	AGGREGATE SHOULDERS TYPE A, 8"	HOT MIX ASPHALT SHOULDERS, 8"
	SQ YD	SQ YD
RT STA 371+00.0 TO 371+35.8	19.9	12
RT STA 371+35.8 TO 372+08.4		83.1
RT STA 372+08.4 TO 375+14.8		366
RT STA 375+14.8 TO 375+50.8		8
LT STA 371+00.0 TO 371+35.8	19.9	12
LT STA 371+35.8 TO 372+68.1		211.8
LT STA 372+68.1 TO 375+14.8		294.7
LT STA 375+14.8 TO 375+68.3		12
RT STA 377+25.1 TO 377+78.6		12
RT STA 377+78.6 TO 379+32.0		183.2
RT STA 379+32.0 TO 380+04.9		84
RT STA 380+04.9 TO 380+50.0	22.3	15
LT STA 377+42.9 TO 377+78.9		8
LT STA 377+78.9 TO 379+35.6		187.3
LT STA 379+35.6 TO 380+08.7		83.1
LT STA 380+08.7 TO 380+50.0	22.9	13.8
TOTALS	85	1586

DATE-TIME
DGN-SPEC

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	113B-1	WILLIAMSON	87	9
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

TREE REMOVAL SCHEDULE

LOCATION IL 37	TREE REMOVAL 6 TO 15 UNITS DIAMETER	TREE REMOVAL OVER 15 UNITS DIAMETER
	UNIT	UNIT
NORTHWEST QUADRANT		
STA. 375+90, 45' RT.	7	
STA. 375+80, 37' RT	6	
STA. 375+80, 37' RT	7	
STA. 375+80, 37' RT	7	
STA. 375+70, 65' RT	11	
STA. 375+69, 70' RT		16
STA. 375+72, 37' RT	8	
STA. 375+72, 37' RT	8	
STA. 375+65, 60' RT	7	
STA. 375+60, 30' RT	6	
STA. 375+50, 75' RT	10	
STA. 375+50, 75' RT	12	
STA. 375+50, 40' RT	10	
STA. 375+40, 55' RT	6	
STA. 375+40, 55' RT	7	
STA. 375+45, 48' RT	6	
STA. 375+43, 43' RT		17
STA. 375+40, 48' RT	8	
STA. 375+40, 48' RT	6	
STA. 375+38, 43' RT	7	
STA. 375+30, 70' RT	9	
STA. 375+30, 43' RT	11	
STA. 375+30, 46' RT	6	
STA. 375+30, 46' RT	7	
STA. 375+30, 46' RT	10	
STA. 375+30, 65' RT	8	
STA. 375+20, 72' RT	10	
STA. 375+00, 39' RT	6	
STA. 375+15, 100' RT	10	
STA. 375+15, 100' RT	15	
STA. 375+00, 52' RT		18
STA. 374+90, 110' RT	10	
STA. 374+90, 53' RT	7	
STA. 374+82, 52' RT	6	
STA. 374+79, 51' RT	7	
STA. 374+79, 37.5' RT	10	
STA. 374+75, 50' RT	6	
STA. 374+75, 48' RT	6	
STA. 374+75, 38' RT	6	
STA. 374+72, 40' RT	6	
STA. 374+68, 45' RT	9	
STA. 374+62, 40' RT	10	
STA. 374+59, 46' RT	8	
STA. 374+57, 46' RT	9	
STA. 374+57, 47' RT	8	
STA. 374+50, 40' RT	7	
STA. 374+48, 50' RT	9	
STA. 374+46, 49' RT	6	
STA. 374+46, 48' RT	15	
STA. 374+43, 30' RT	12	
STA. 374+33, 47' RT	10	
STA. 374+33, 47' RT	6	
STA. 374+30, 40' RT	6	
STA. 374+25, 40 RT	11	
STA. 373+75, 35' RT	13	
STA. 373+70, 30' RT	6	
STA. 373+65, 30' RT	8	
STA. 373+62, 36' RT	11	
STA. 373+60, 55' RT	6	
STA. 373+58, 36' RT	6	
STA. 373+52, 36' RT	7	
STA. 373+53, 55' RT	10	
STA. 373+53, 53' RT		30 (DEAD)
STA. 373+40, 27' RT	12	
STA. 373+40, 34' RT	7	
STA. 373+25, 35' RT	6	
STA. 373+25, 34' RT	8	
STA. 373+20, 34' RT	13	
STA. 373+18, 36' RT	14	
STA. 373+15, 39' RT	9	
STA. 373+2, 35' RT	6	
STA. 372+57, 32' RT	6	
STA. 372+57, 32' RT	12	
STA. 372+57, 32' RT	13	

LOCATION IL 37	TREE REMOVAL 6 TO 15 UNITS DIAMETER	TREE REMOVAL OVER 15 UNITS DIAMETER
	UNIT	UNIT
NORTHWEST QUADRANT (CONT.)		
STA. 372+30, 32' RT	10	
STA. 372+25, 37' RT	6	
STA. 371+95, 36' RT	7	
STA. 371+95, 36' RT	7	
STA. 371+75, 35' RT	6	
STA. 371+75, 35' RT	6	
NORTHEAST QUADRANT		
STA. 371+40, 38' LT	6	
STA. 371+52, 44' LT	10	
STA. 371+52, 44' LT	9	
STA. 371+56, 37' LT	6	
STA. 371+58, 45' LT	10	
STA. 371+64, 55' LT	6	
STA. 371+75, 42' LT	9	
STA. 371+78, 45' LT	12	
STA. 371+85, 38' LT	10	
STA. 371+97, 32' LT	9	
STA. 372+00, 38' LT	6	
STA. 372+00, 38' LT	8	
STA. 372+00, 38' LT	6	
STA. 372+85, 42' LT	13	
STA. 372+92, 42' LT	9	
STA. 373+12, 42' LT	6	
STA. 373+40, 42' LT	8	
STA. 373+62, 42' LT	8	
STA. 373+72, 57' LT	13	
STA. 373+74, 41' LT	6	
STA. 374+2, 50' LT	6	
STA. 374+2, 50' LT	6	
STA. 374+10, 35' LT	9	
STA. 374+49, 35' LT	10	
STA. 374+52, 45' LT	9	
STA. 374+73, 45'	6	
STA. 374+74, 50'	6	
STA. 374+74, 50'	6	
STA. 374+80, 55' LT	9	
STA. 374+80, 42' LT	12	
STA. 374+82, 45' LT	6	
STA. 374+82, 50' LT	8	
STA. 374+90, 43' LT	7	
STA. 374+90, 55' LT	12	
STA. 375+00, 52' LT	13	
STA. 375+01, 52' LT	7	
STA. 375+13, 48' LT	7	
STA. 375+25, 48' LT	7	
STA. 375+27, 54' LT	7	
STA. 375+32, 59' LT	8	
STA. 375+30, 33' LT	8	
STA. 375+48, 33' LT	8	
STA. 375+48, 35' LT	7	
STA. 375+57, 38' LT	8	
STA. 375+57, 54' LT	7	
STA. 375+57, 64' LT	8	
STA. 376+5, 35' LT	8	
STA. 376+10, 45' LT	12	
SOUTHWEST QUADRANT		
STA. 379+50, 66' RT	6	
STA. 379+25, 66' RT	6	
STA. 378+80, 72' RT	6	
STA. 378+60, 52' RT	7	
STA. 378+35, 70' RT	8	
STA. 378+20, 105' RT	7	
STA. 378+15, 105' RT	7	
STA. 377+70, 120' RT	6	
STA. 377+10, 110' RT		40
STA. 377+00, 30' RT	10	
STA. 376+90, 30' RT	7	
STA. 376+88, 30' RT	6	
STA. 376+80, 30' RT	10	
SOUTHEAST QUADRANT		
STA. 377+60, 30' LT	6	
STA. 378+65, 30' LT	12	
TOTALS	1137	121

EROSION CONTROL SCHEDULE

LOCATION IL 37				STONE RIPRAP CLASS A4	STONE RIPRAP CLASS A3	FILTER FABRIC	PERIMETER EROSION BARRIER	EROSION CONTROL BLANKET	DITCH CHECKS	INLET & PIPE PROTECTION
				SQ YD	SQ YD	SQ YD	FOOT	SQ YD	EACH	EACH
MAINLINE										
LT STA	371+38	TO	372+22				131	351		
LT STA	372+50	TO	376+50				459	1283		
RT STA	371+38	TO	376+25					1711		
LT STA	376+75	TO	380+10				440	672		
RT STA	376+50	TO	380+10					1494		
RT STA	371+00	TO	373+00				207			
STA 375+41 TO 376+34					601	587				
STA 376+51 TO 377+53					601	587				
RUNAROUND										
LT STA	2+00	TO	4+10				27	111		
RT STA	0+51	TO	3+97				381	1497		
LT STA	4+43	TO	6+50				25	112		
RT STA	4+38	TO	8+48				498	2153		
LT STA	2+38									1
RT STA	2+38			5		5				
LT STA	3+40								1	
LT STA	5+10								1	
LT STA	6+19									1
RT STA	6+19			5		5				
TOTALS				10	1202	1184	2168	9384	2	2

DATE-TIME
DGN-SPEC

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	113B-1	WILLIAMSON	87	10
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TERMINALS AND GUARDRAIL

LOCATION IL 37				TRAFFIC BARRIER TERMINAL					SPBGR TYPE A	SPBGR TYPE A (TEMP)	GUARDRAIL REMOVAL	TERM. MARKER D. A.	GUARDRAIL MARKER	BARRIER WALL MARKER
				TYPE 1 SPECIAL		TYPE 6	TYPE 6A (TEMP)	TYPE 2						
				TANGENT	TANGENT (TEMP)									
				EACH	EACH	EACH	EACH	EACH	FOOT	FOOT	FOOT	EACH	EACH	EACH
MAILINE														
RT STA	371+58.4	TO	372+08.4	1								1	1	
RT STA	372+08.4	TO	375+08.4						300				3	
RT STA	375+08.4	TO	375+54.0			1							1	
RT STA	374+58.1	TO	375+62.6								104.5			
LT STA	371+58.3	TO	372+08.3	1								1	1	
LT STA	372+08.3	TO	372+19.1					1						
LT STA	372+55.9	TO	372+62.0					1						
LT STA	372+62.0	TO	375+24.5						262.5				2	
LT STA	375+24.5	TO	375+70.1			1							1	
LT STA	374+68.8	TO	375+73.3								104.5			
RT STA	375+50.96	TO	377+26.15											3
LT STA	375+68.04	TO	377+43.23											3
RT STA	377+23.8	TO	377+69.4			1							1	
RT STA	377+69.4	TO	379+31.9						162.5				2	
RT STA	379+31.9	TO	379+81.9	1								1	1	
RT STA	377+20.0	TO	380+23.0								303			
LT STA	377+40.3	TO	377+85.9			1							1	
LT STA	377+85.9	TO	379+35.9						150				2	
LT STA	379+35.9	TO	379+85.9	1								1	1	
LT STA	377+31.3	TO	378+61.0								130			
RUNAROUND														
LT STA	1+48.8	TO	1+98.8		1							1	1	
LT STA	1+98.8	TO	2+98.8							100			2	
LT STA	2+98.8	TO	3+44.4				1						1	
RT STA	0+23.8	TO	0+73.8		1							1	1	
RT STA	0+73.8	TO	2+98.8							225			2	
RT STA	2+98.8	TO	3+44.4				1						1	
LT STA	3+44.4	TO	5+05.3											3
RT STA	3+44.4	TO	5+05.3											3
LT STA	5+05.3	TO	5+50.9				1						1	
LT STA	5+50.9	TO	6+50.9							100			2	
LT STA	6+50.9	TO	7+00.9		1							1	1	
RT STA	5+05.3	TO	5+50.9				1						1	
RT STA	5+50.9	TO	7+75.9							225			2	
RT STA	7+75.9	TO	8+25.9		1							1	1	
TOTALS				4	4	4	4	2	875	650	642	8	33	12

EARTHWORK SCHEDULE

LOCATION (STAGE)	* EARTH EXCAVATION	SHRINKAGE FACTOR FOR EARTH EXCAVATION	EARTH EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE	** EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	SHRINKAGE FACTOR FOR BORROW EXCAVATION	BORROW EXCAVATION	EXCESS
	CU YD	%	CU YD	CU YD	CU YD	%	CU YD	CU YD
IL 37 AND DETOUR								
STAGE 1	43	25	32	10436	-10404	25	13005	0
STAGE 2	604	25	453	1043	-590	25	738	0
STAGE 3	9832		9832	428	+9404		0	9404
TOTALS	10479						13743	

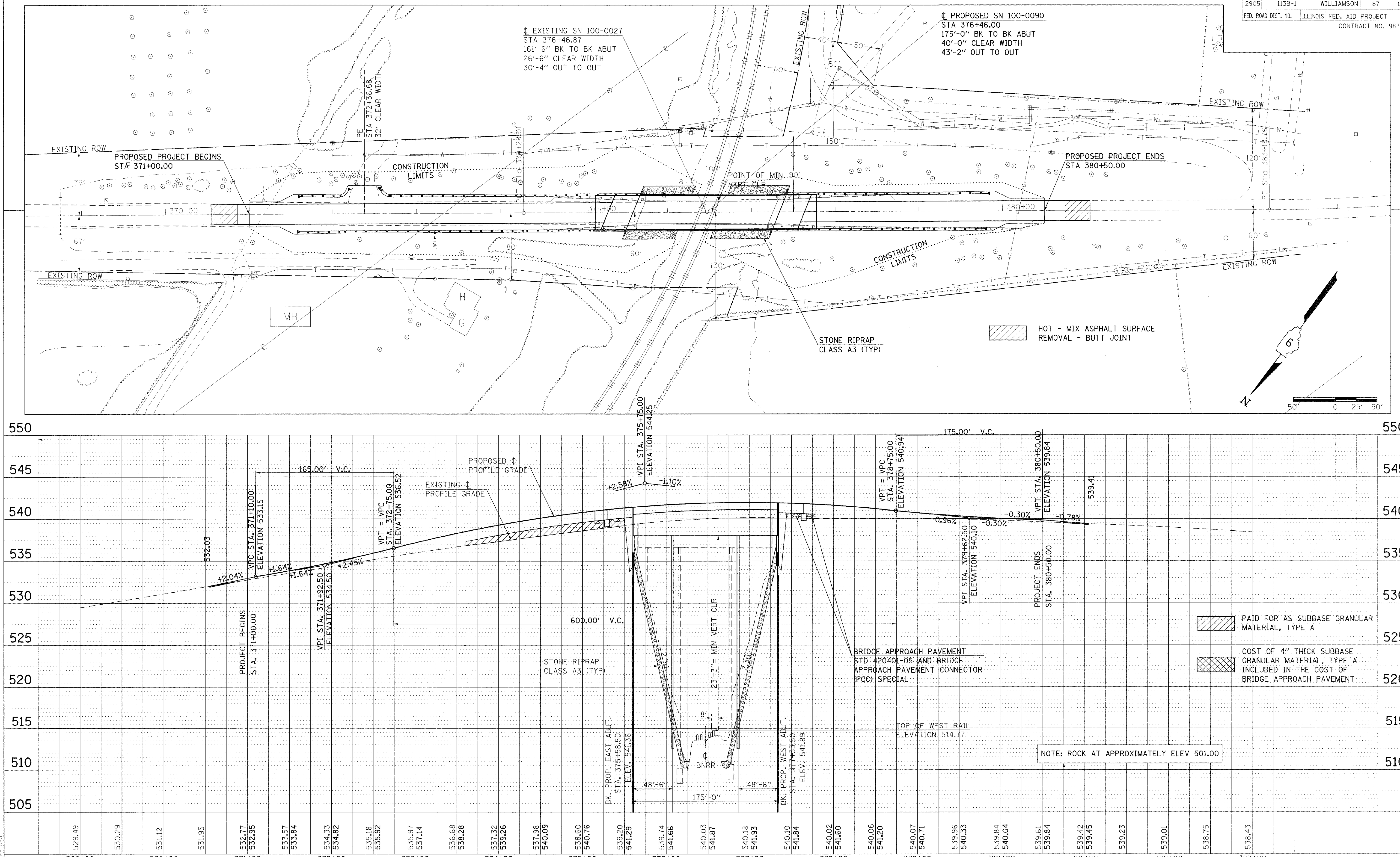
* CUTS FROM CROSS-SECTIONS
** FILLS FROM CROSS-SECTIONS

SUGGESTED EARTHWORK STAGING SEQUENCE
STAGE 1: CONSTRUCTION OF RUNAROUND EMBANKMENT
STAGE 2: CONSTRUCTION OF FILL FOR GRADE RAISE
STAGE 3: REMOVAL OF RUNAROUND AND FINAL GRADING

DATE-TIME
DGN-SPEC

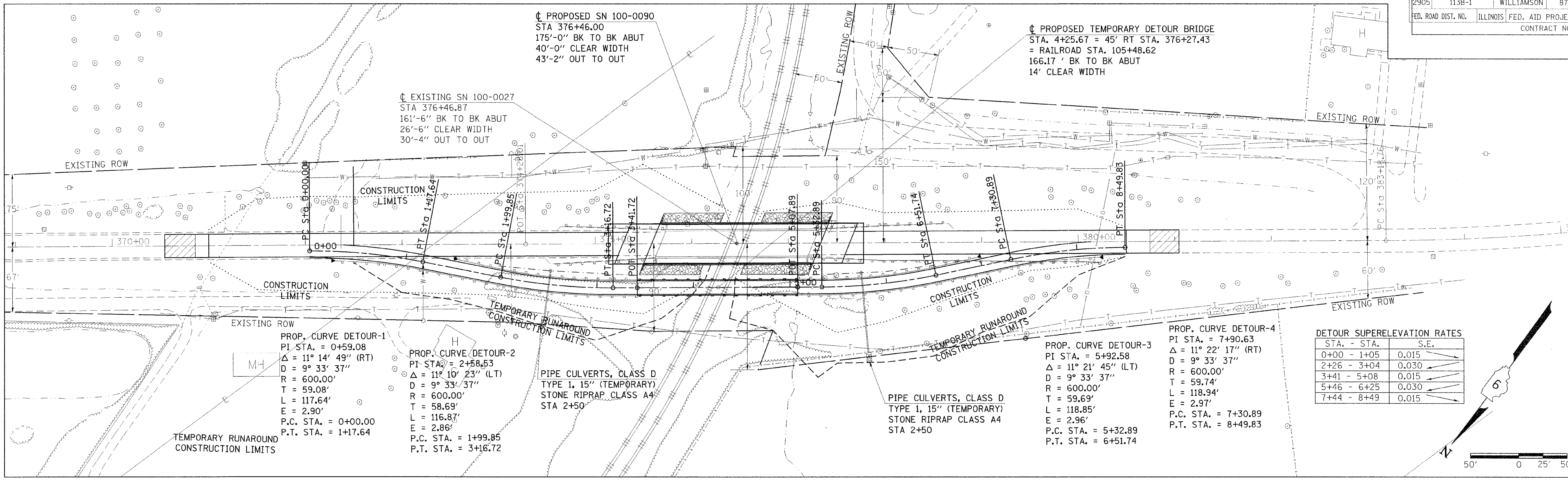
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	11
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

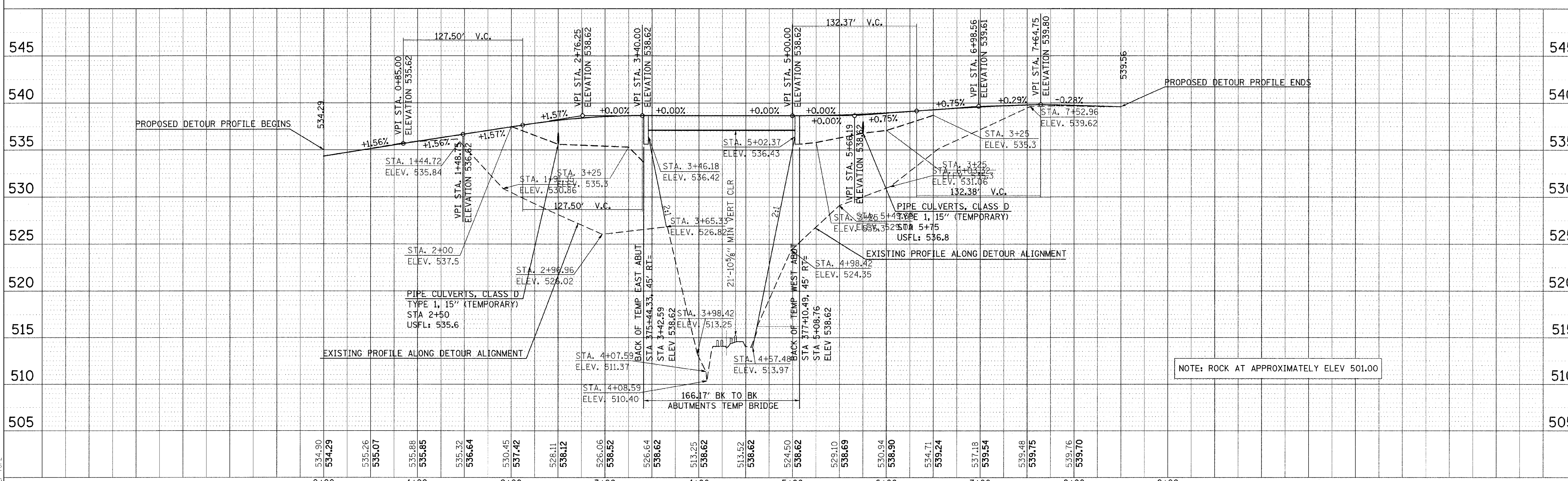
CONTRACT NO. 98777



PLAN AND PROFILE (IL RT 37 /SN 100-0090)

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	12
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
		CONTRACT NO. 98777		

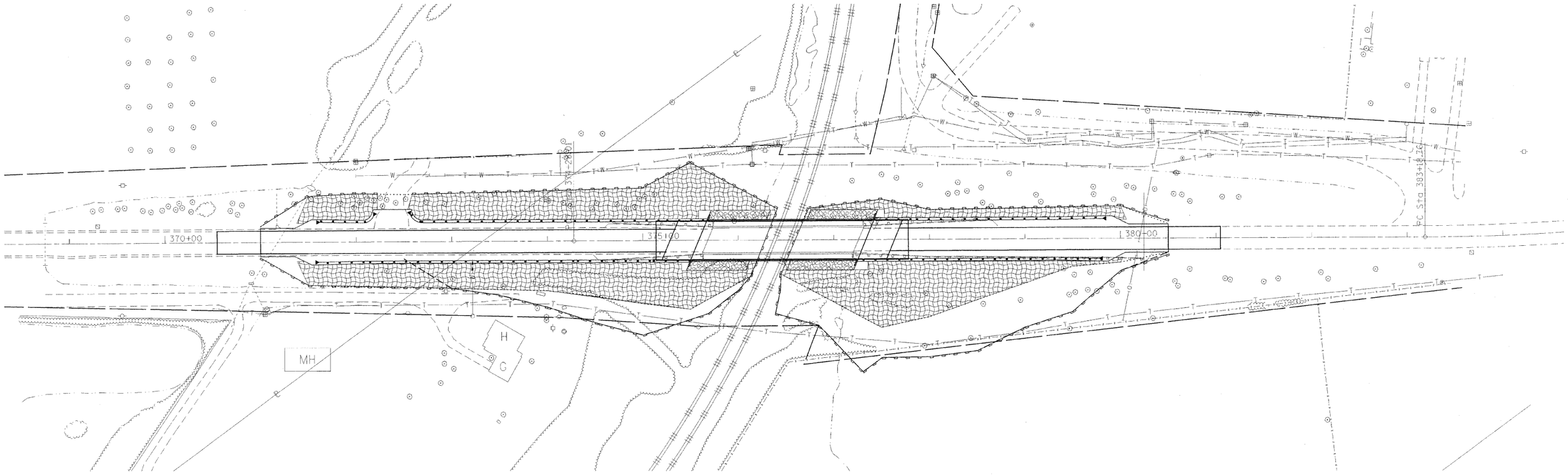




PLAN AND PROFILE (TEMPORARY RUNAROUND)

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 98777



PERIMETER EROSION BARRIER

STONE RIPRAP, CLASS A3

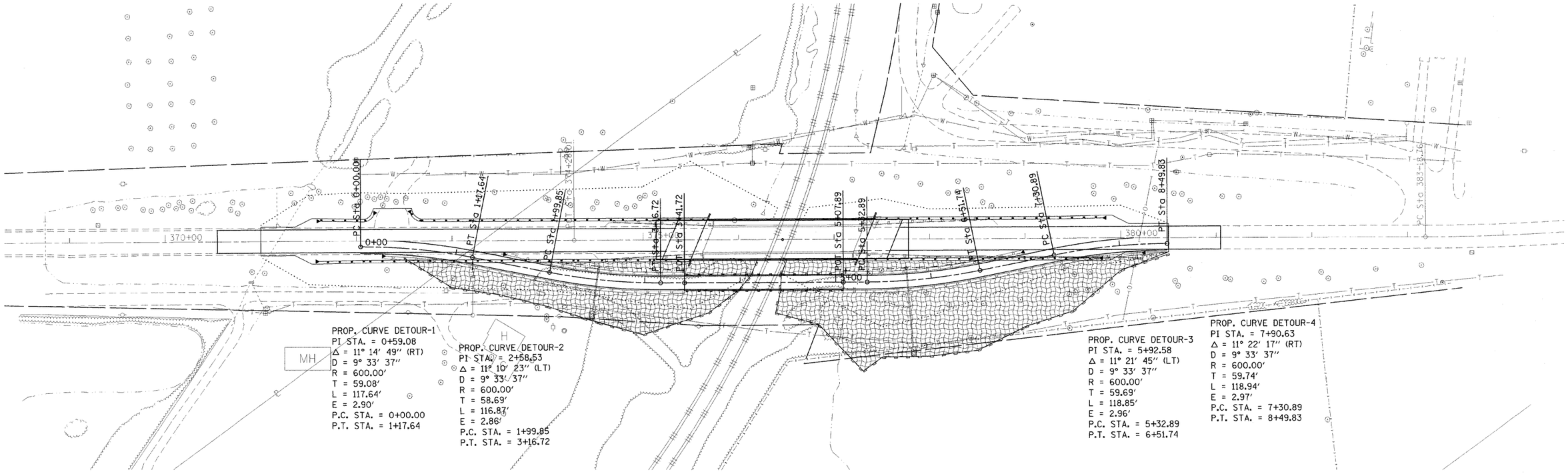
EROSION CONTROL BLANKET

-DATE TIME-

IL RT 37/SN 100-0090 – EROSION CONTROL

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	14
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 98777



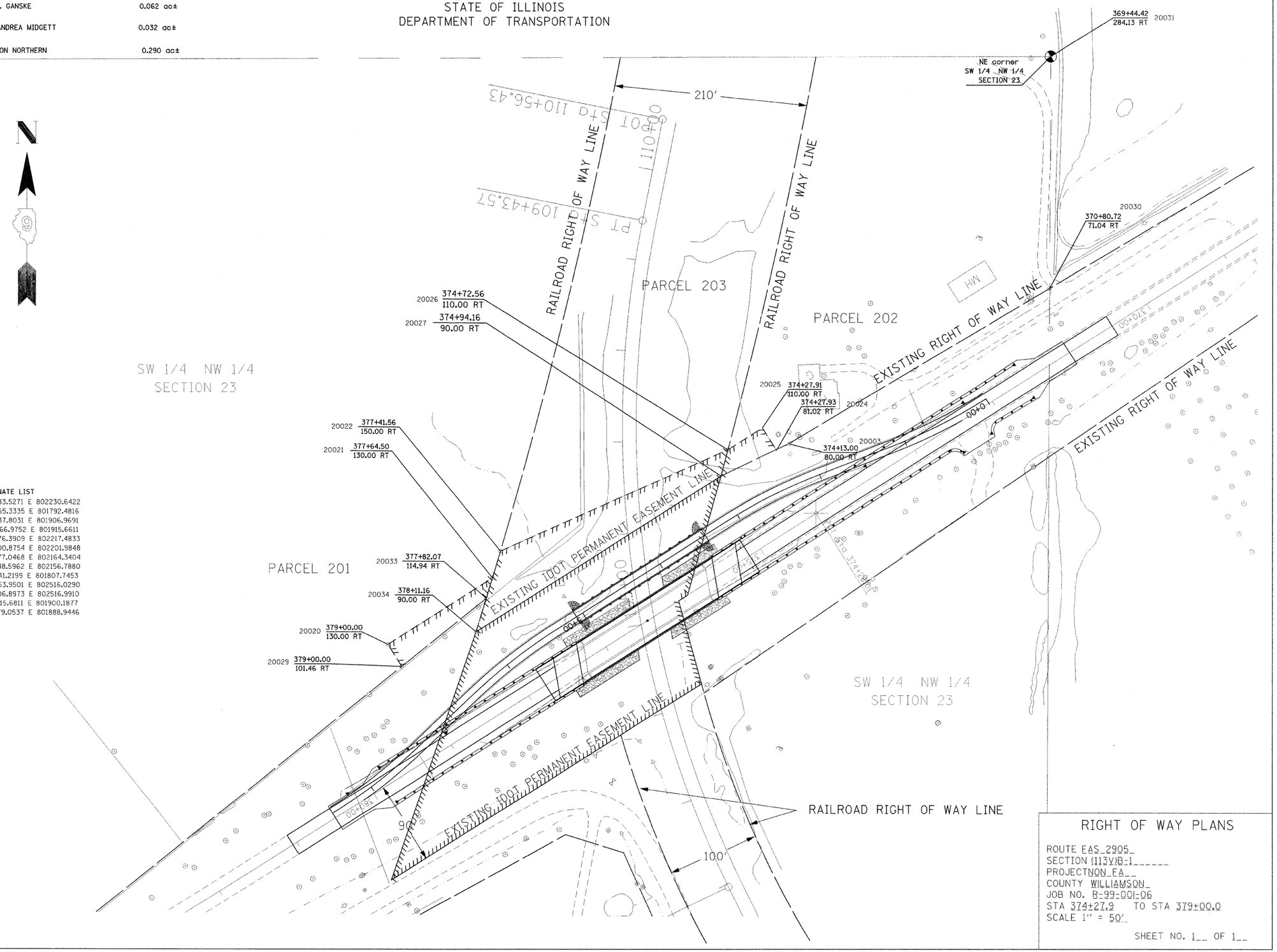
DATE_TIME

TEMPORARY RUNAROUND – EROSION CONTROL

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	113B-1	WILLIAMSON	87	15
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PARCEL NO.	NAME	ROW	TE
201	DONALD D. GANSKE		0.062 ac±
202	JAMES & ANDREA MIDGETT		0.032 ac±
203	BURLINGTON NORTHERN		0.290 ac±

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



COORDINATE LIST

Pt 20003 N 353383.5271 E 802230.6422
Pt 20020 N 353165.3335 E 801792.4816
Pt 20021 N 353237.8031 E 801906.9691
Pt 20022 N 353266.9752 E 801915.6611
Pt 20024 N 353376.3909 E 802217.4833
Pt 20025 N 353400.8754 E 802201.9848
Pt 20026 N 353377.0468 E 802164.3404
Pt 20027 N 353348.5962 E 802156.7880
Pt 20029 N 353141.2199 E 801807.7453
Pt 20030 N 353553.9501 E 802516.0290
Pt 20031 N 353806.8973 E 802516.9910
Pt 20033 N 353215.6811 E 801900.1877
Pt 20034 N 353179.0537 E 801888.9446

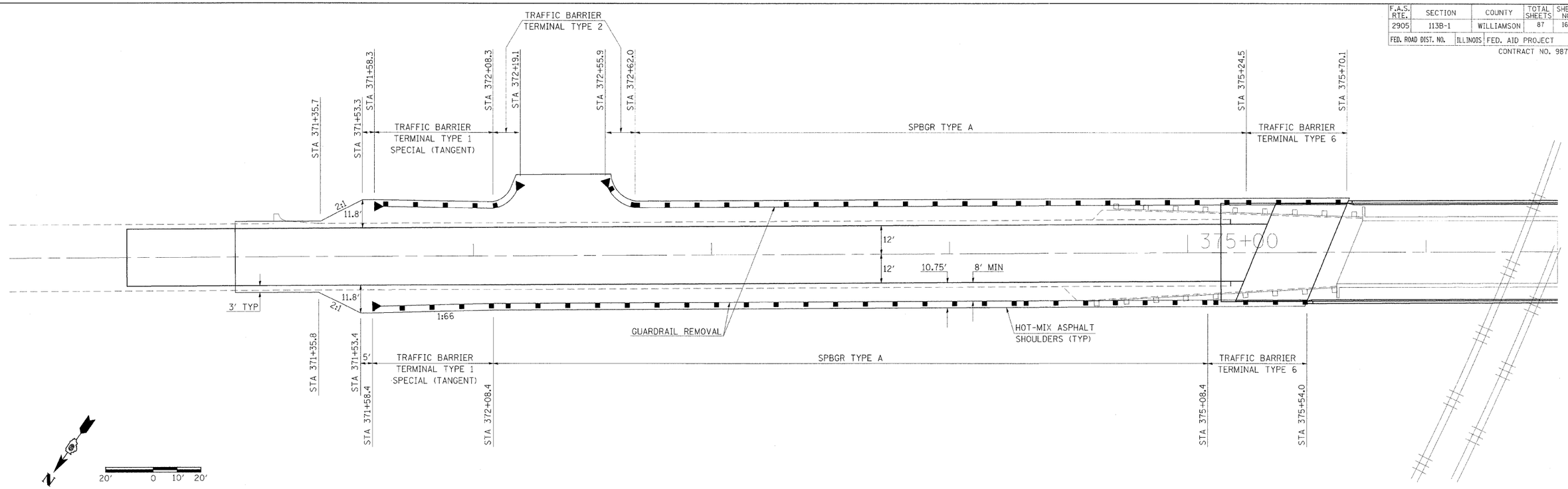
RIGHT OF WAY PLANS

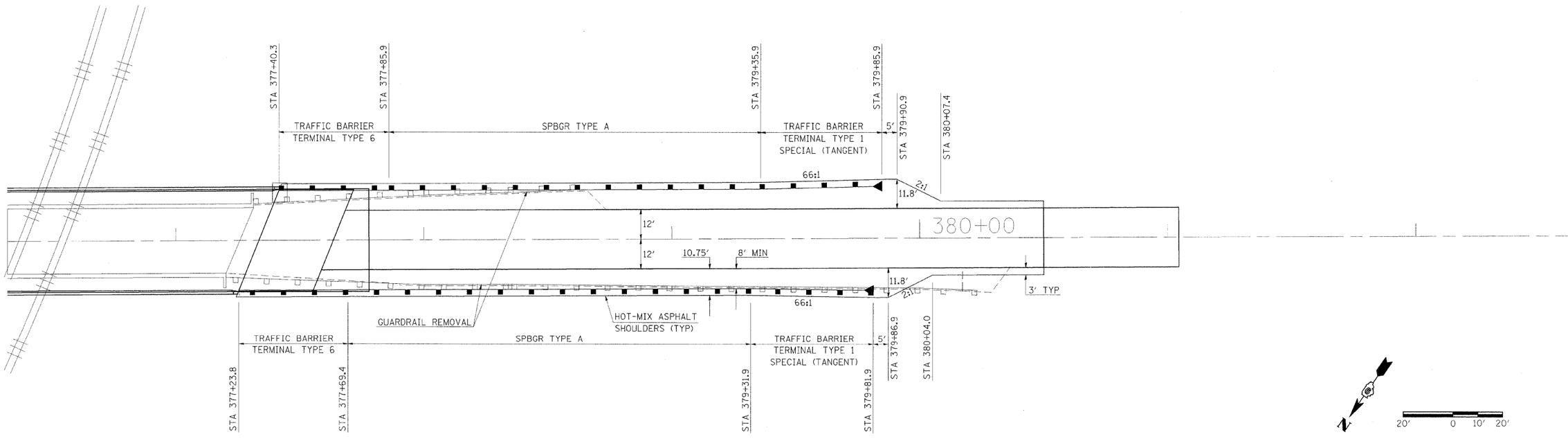
ROUTE FAS 2905
SECTION (113V)B-1
PROJECT NON FA
COUNTY WILLIAMSON
JOB NO. R-99-001-06
STA 374+27.9 TO STA 379+00.0
SCALE 1" = 50'

SHEET NO. 1 OF 1

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	16
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 98777



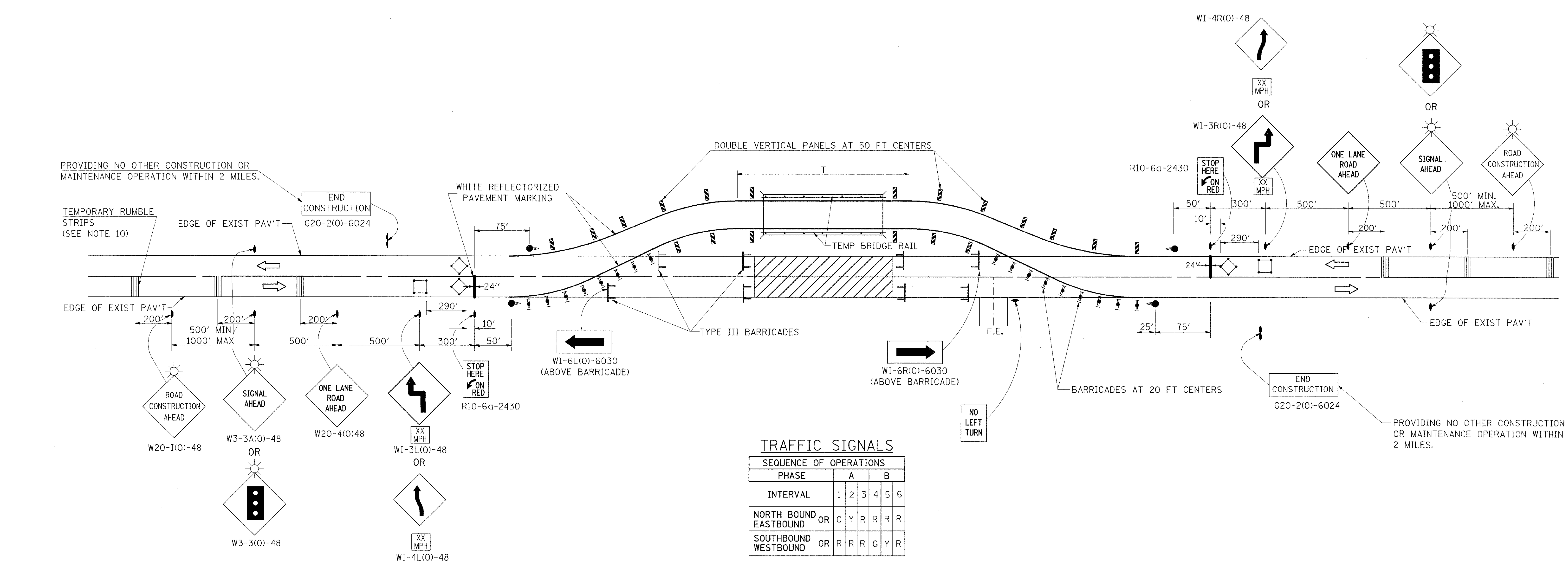


DETAIL – GUARDRAIL & HOT – MIX ASPHALT SHOULDER AT BRIDGE

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	726	113B-1, 113B-2	WILLIAMSON	87	17
STA.			TO STA.		
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 98777

TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES TO BE USED WITH ONE LANE DETOUR



TRAFFIC SIGNALS

SEQUENCE OF OPERATIONS							
PHASE		A			B		
INTERVAL		1	2	3	4	5	6
NORTH BOUND EASTBOUND	OR	G	Y	R	R	R	R
SOUTHBOUND WESTBOUND	OR	R	R	R	G	Y	R

SYMBOLS

- INDUCTION LOOP DETECTOR
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- BARRICADE OR DRUM WITH STEADY BURNING LIGHT
- DOUBLE VERTICAL PANEL
- TRAFFIC SIGNAL
- FLASHING BEACON
- TYPE III BARRICADE

TYPICAL APPLICATION

BRIDGE CONSTRUCTION

CULVERT CONSTRUCTION

TWO-LANE, TWO WAY TRAFFIC, RURAL TEMPORARY ONE LANE RUNAROUND DAY OR NIGHT OPERATIONS.

WHERE, AT ANY TIME, ANY VEHICLE, EQUIPMENT, MEN OR THEIR ACTIVITIES REQUIRE THE CLOSURE OF BOTH LANES AND A TEMPORARY ONE LANE RUNAROUND IS CONSTRUCTED.

GENERAL NOTES

1. THE ENGINEER MUST BE NOTIFIED AT LEAST 72 HOURS PRIOR TO PLACING THE TEMPORARY SIGNALS IN OPERATION SO THAT ARRANGEMENTS CAN BE MADE TO INSPECT THE INSTALLATION AND SET THE TIMING OF THE SIGNALS.
2. BIDIRECTIONAL STEADY BURNING AMBER LIGHTS SHALL BE ATTACHED TO THE TEMPORARY BRIDGE RAIL AT 25 FOOT CENTERS AND KEPT BURNING FROM DUSK UNTIL DAWN EACH NIGHT THE TEMPORARY BRIDGE RAIL IS IN USE.
3. ALL BARRICADE LIGHTS SHALL BE BIDIRECTIONAL.
4. ON PAVED RUNAROUNDS, REFLECTIVE EDGE LINES SHALL BE USED WHEN THE CLOSURE TIME EXCEEDS FOUR DAYS OR WHEN THE NORMAL POSTED SPEED OUTSIDE THE AREA OF OPERATIONS EXCEEDS 50 MILES PER HOUR. REFLECTORIZED PAVEMENT MARKING TAPE SHALL BE USED FOR MARKING THE EDGE LINES ON THE EXISTING PAVEMENT. EITHER TAPE OR REFLECTORIZED PAVEMENT MARKING PAINT MAY BE USED FOR MARKINGS ON THE PAVED RUN-AROUNDS. RAISED REFLECTIVE PAVEMENT MARKERS AT 25 FT CENTERS MAY BE USED IN LIEU OF TAPE OR PAINT WHERE THE PAVEMENT MARKING IS TO BE PLACED ADJACENT TO BARRICADES OR VERTICAL PANELS.
5. THE EXISTING CENTERLINE AND EDGE LINE MARKINGS WHICH CONFLICT WITH THE DETOUR TRAFFIC PATTERN SHALL BE REMOVED AS SOON AS TRAFFIC IS DIRECTED TO THE DETOUR. THE COST OF PAVEMENT MARKING REMOVAL IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, SPECIAL. REPLACEMENT WITH TEMPORARY OR PERMANENT PAVEMENT MARKING IS TO BE DONE AS SOON AS THE HIGHWAY IS REOPENED AND PAID FOR WITH THE TYPE OF PAVEMENT MARKING BEING APPLIED.
6. A CURVE SIGN WILL BE REQUIRED AT THE EXIT END OF THE RUNAROUNDS IF (T) IS EQUAL TO OR GREATER THAN 1,000 FEET.
7. THE ADVISORY SAFE SPEED TO BE SHOWN BELOW THE REVERSE CURVE (TURN) SIGNS SHALL BE DETERMINED AT THE SIGHT AND APPROVED BY THE ENGINEER.
8. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
9. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT THE FIELD CONDITIONS.
10. TEMPORARY RUMBLE STRIPS SHALL BE INSTALLED WHERE SHOWN, WHEN REQUIRED. THE COST SHALL BE INCLUDED IN PRICE FOR TRAFFIC CONTROL AND PROTECTION, (SPECIAL) - EACH.
11. THE SIGNAL INSTALLATION SHALL MEET THE REQUIREMENTS OF ARTICLE 701.18(b)
12. MAINTENANCE OF THE TEMPORARY ONE-LANE RUNAROUND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

STD. 9-33

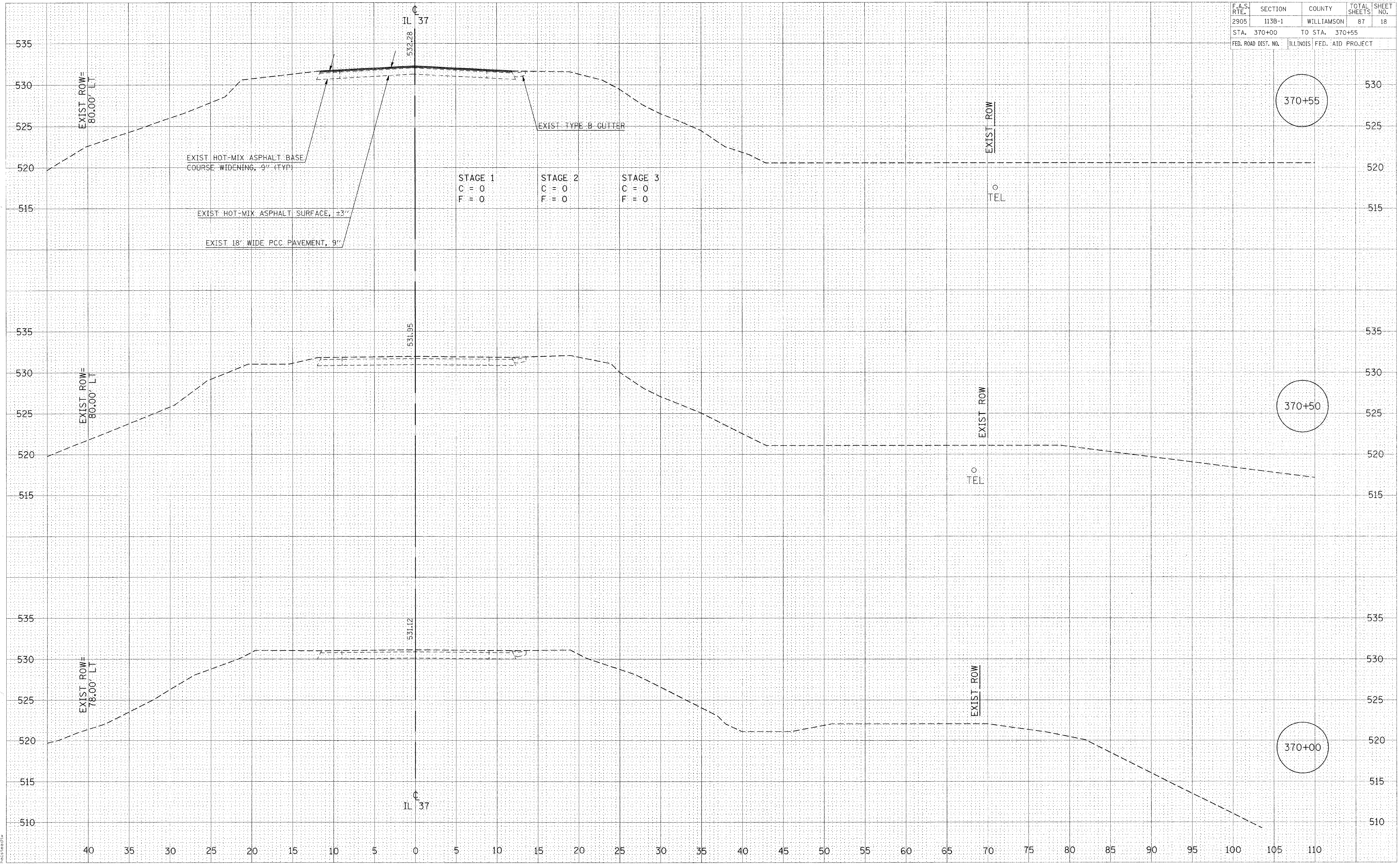
REVISIONS	
REDRAWN	9-20-93
REVISED	8-23-94
REVISED	2-28-97
REVISED	7-10-01
REVISED	01-09-07

12/3/2007

TRAFFIC CONTROL AND PROTECTION, SPECIAL

CONTRACT NO. 98777

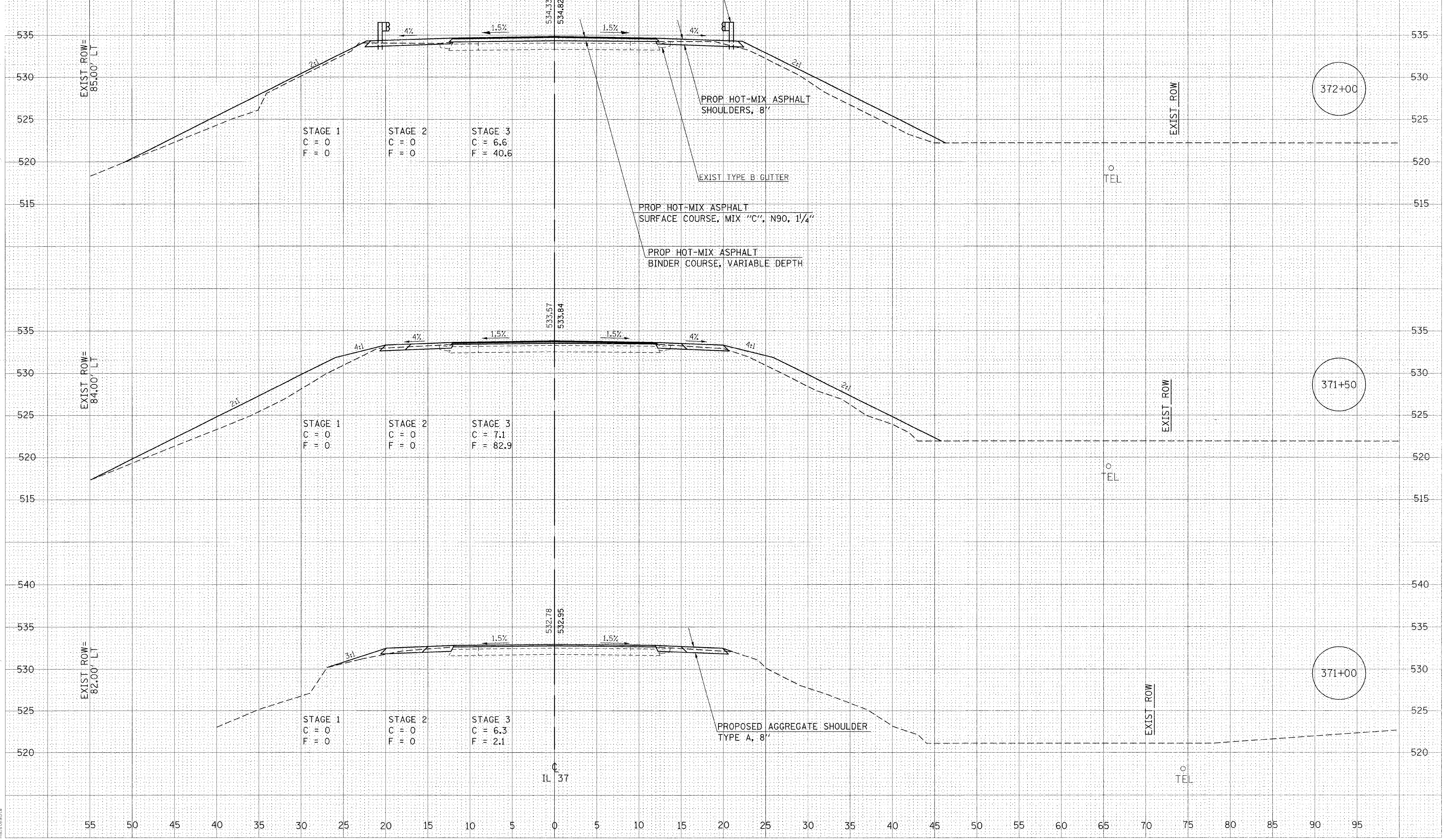
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	18
STA. 370+00	TO STA. 370+55			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

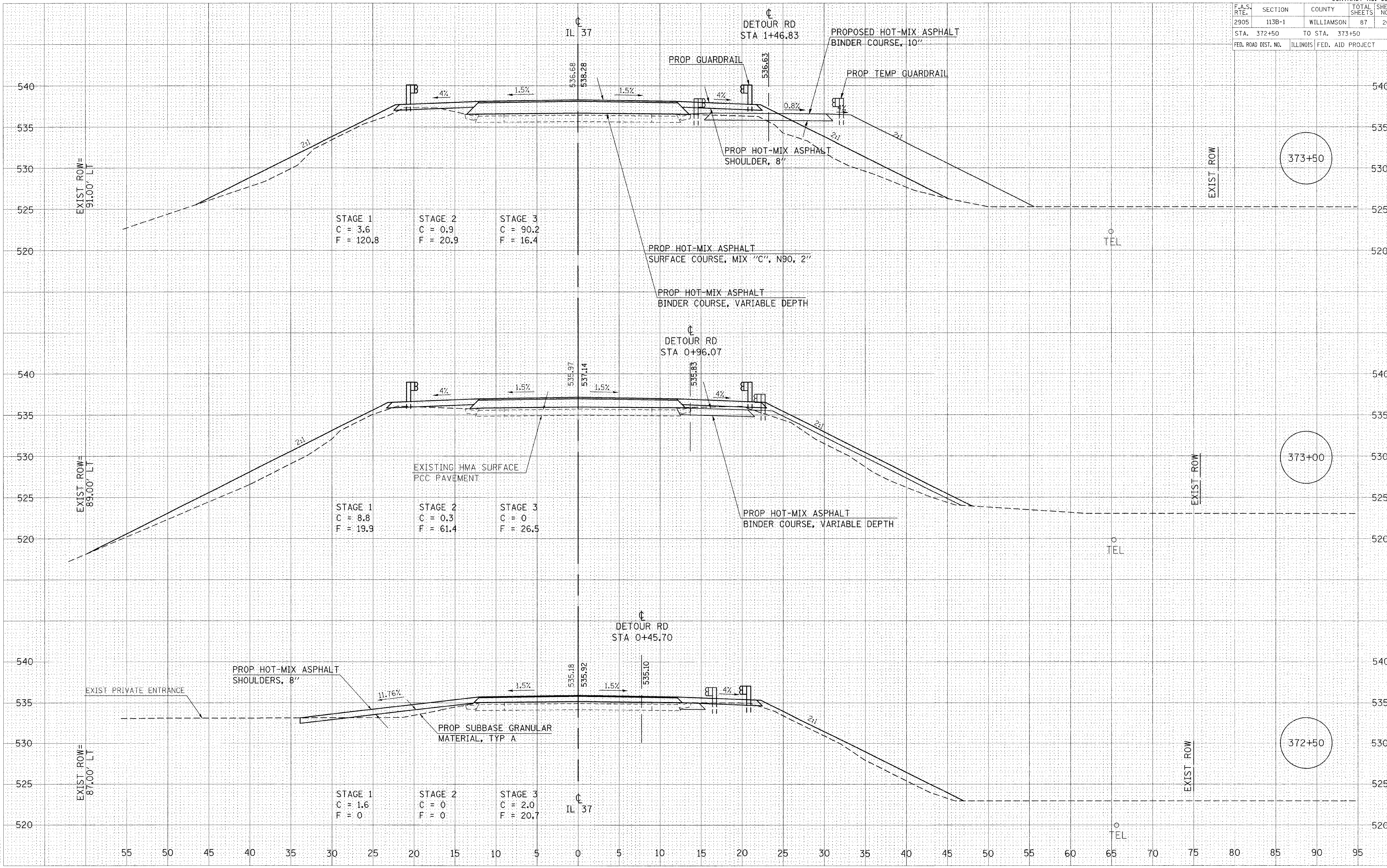
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	19
STA. 371+00	TO STA. 372+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS - IL 37 OVER BNRR

CONTRACT NO. 98777

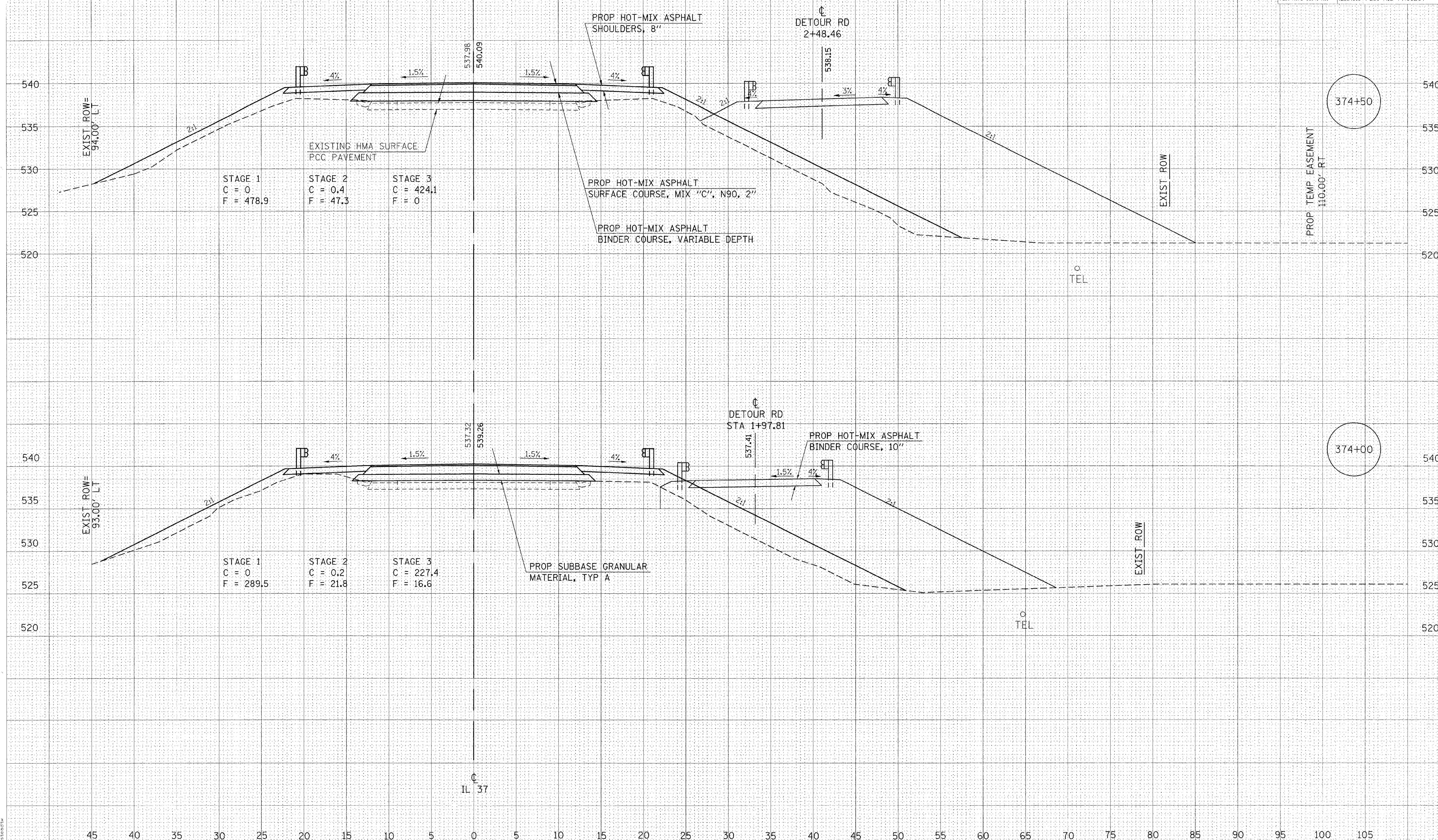
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	20
STA. 372+50	TO STA. 373+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

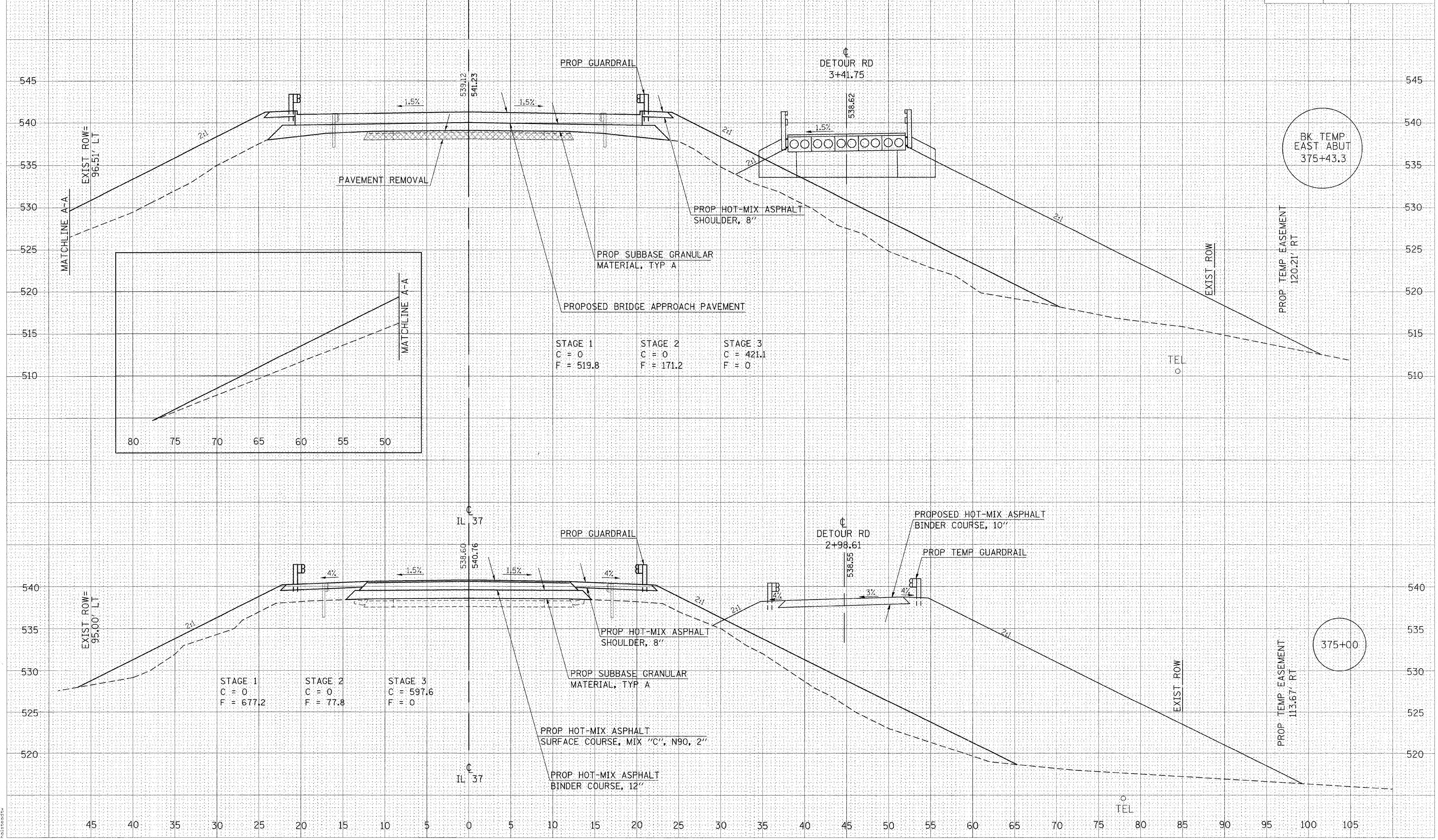
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	21
STA. 374+00		TO STA. 374+50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

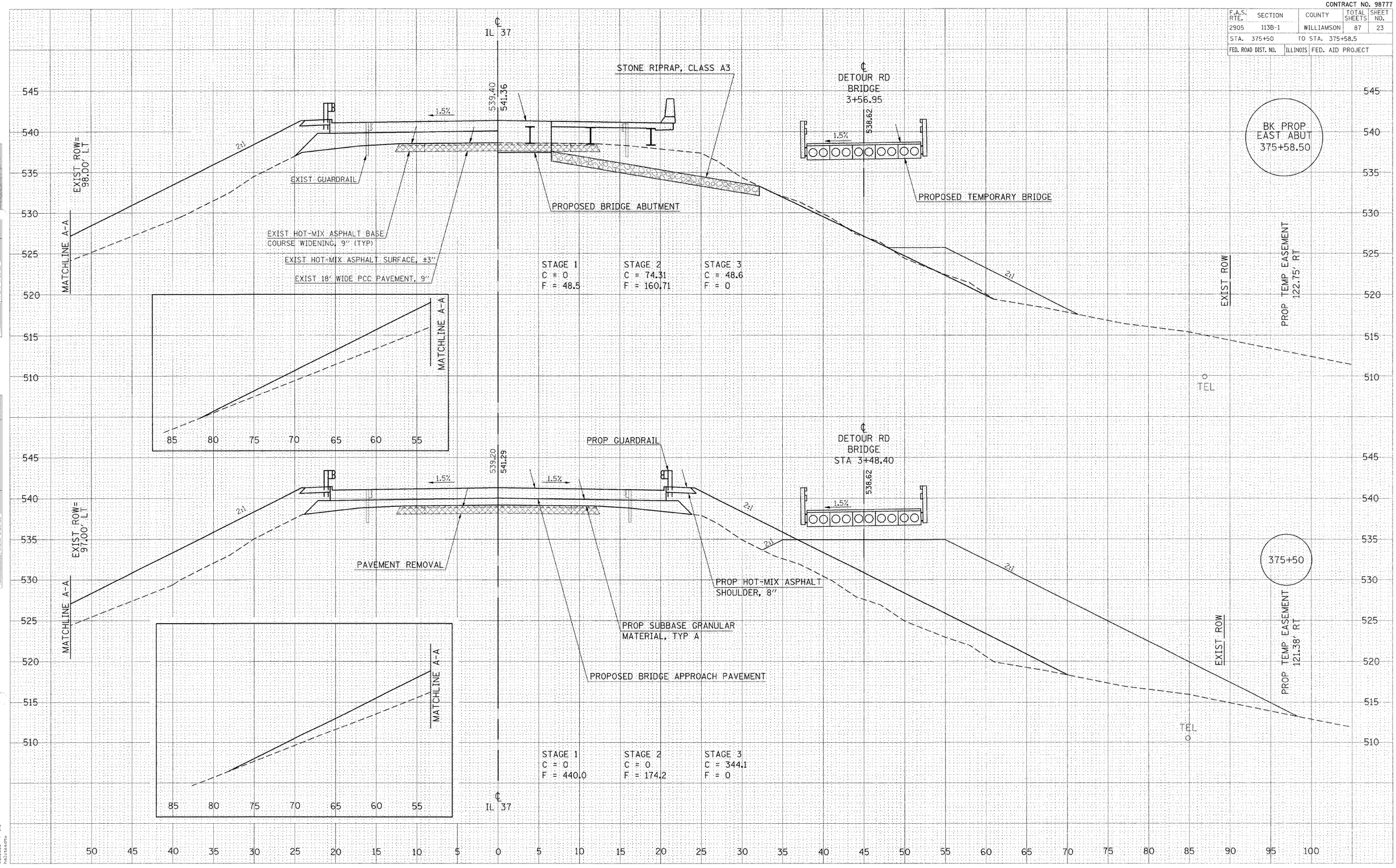
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	22
STA. 375+00	TO STA. 375+43.3			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

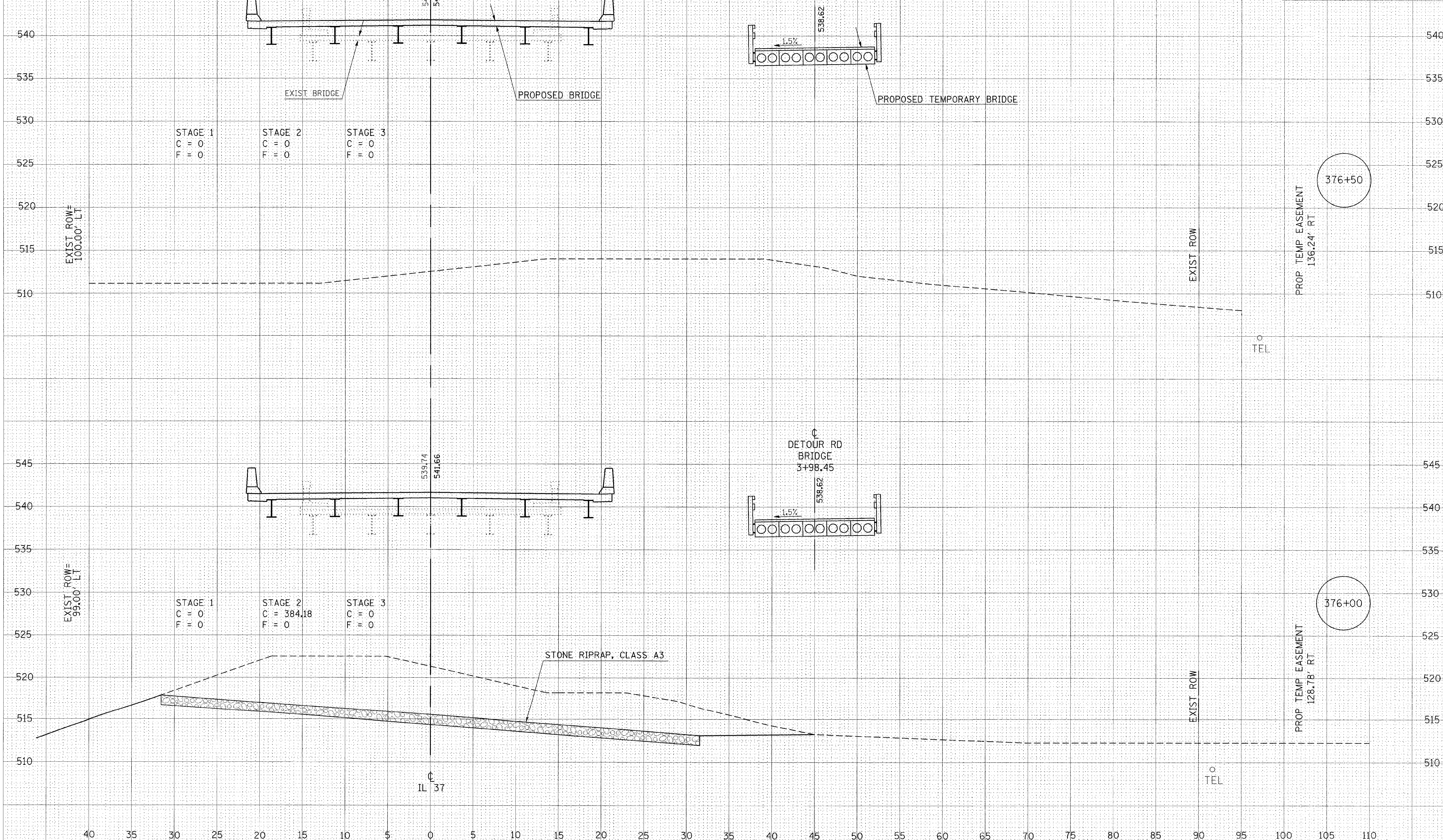
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	23
STA. 375+50	TO STA. 375+58.5			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

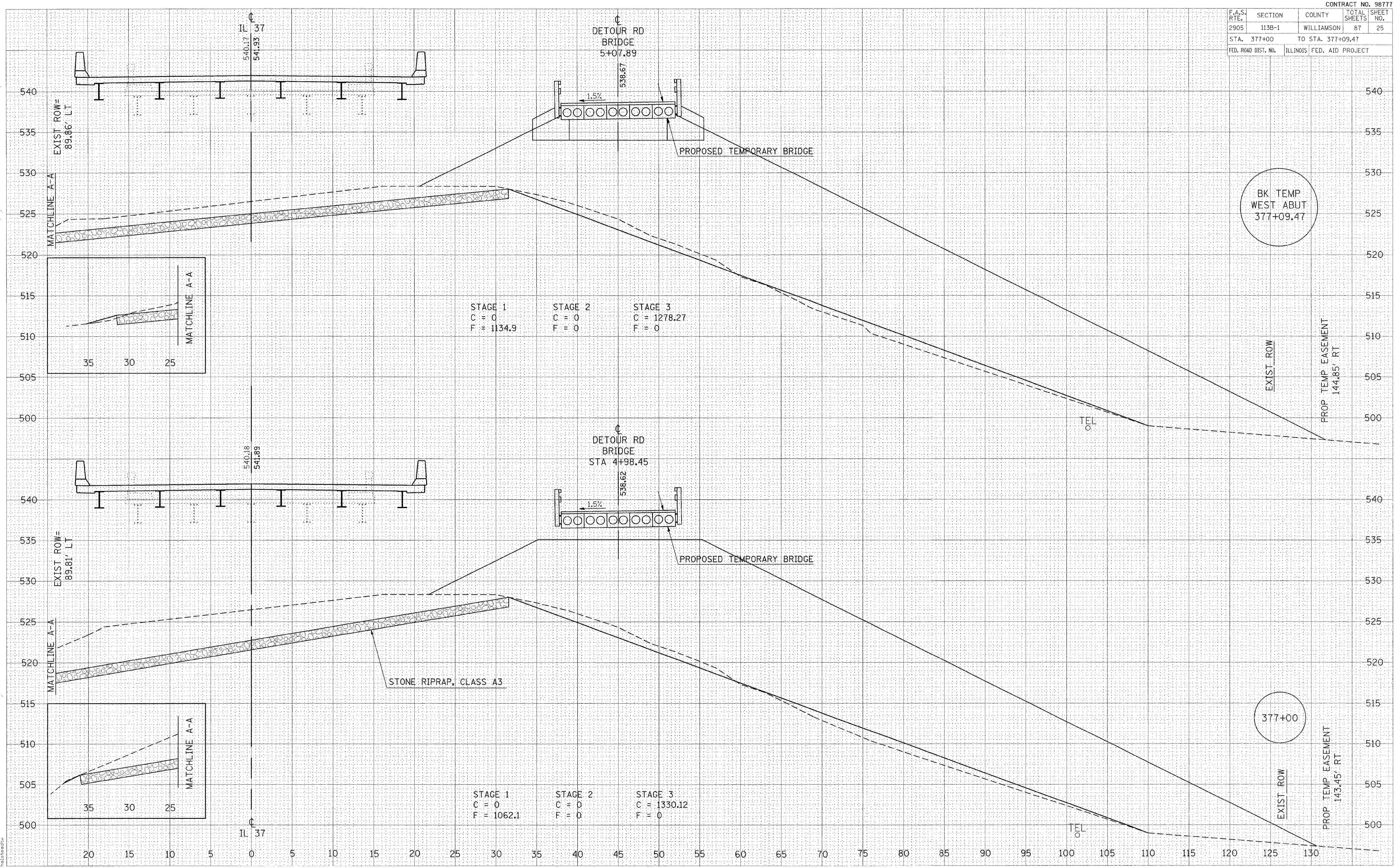
CONTRACT NO. 98777

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	24
STA. 376+00	TO STA. 376+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CONTRACT NO. 98777

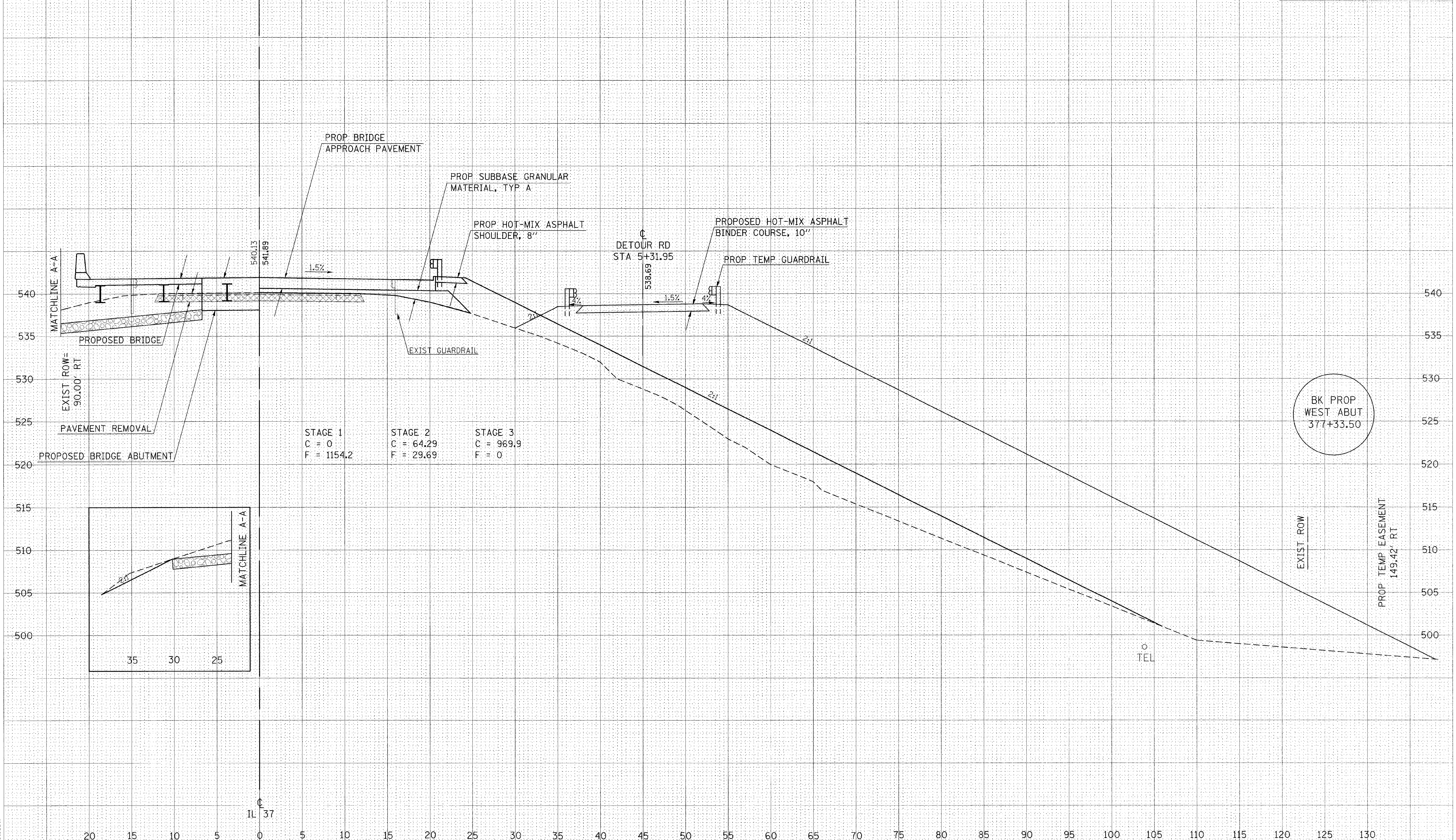
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	25
STA. 377+00	TO STA. 377+09.47			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

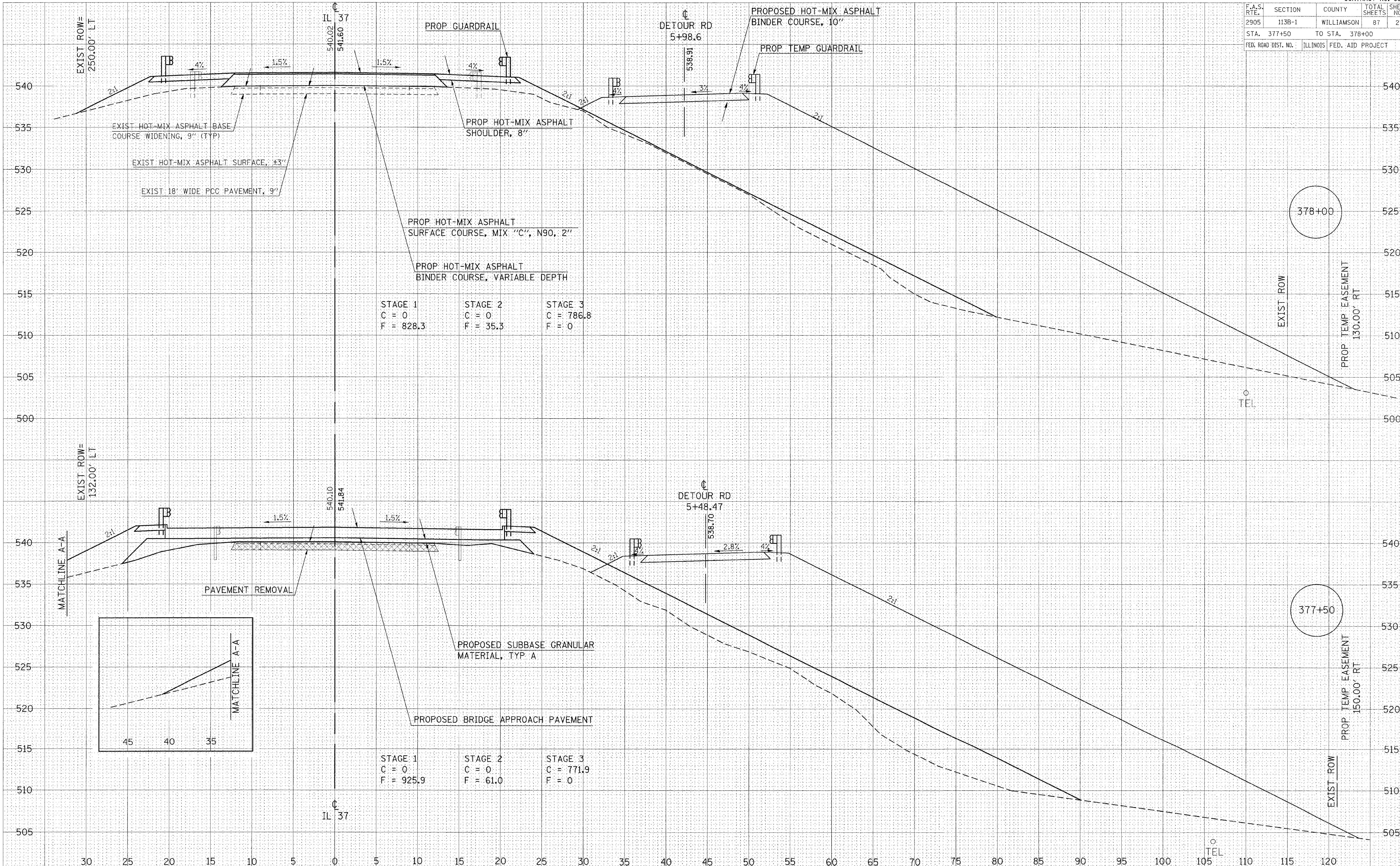
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	26
STA. 377+33.50	TO STA. 377+33.50			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

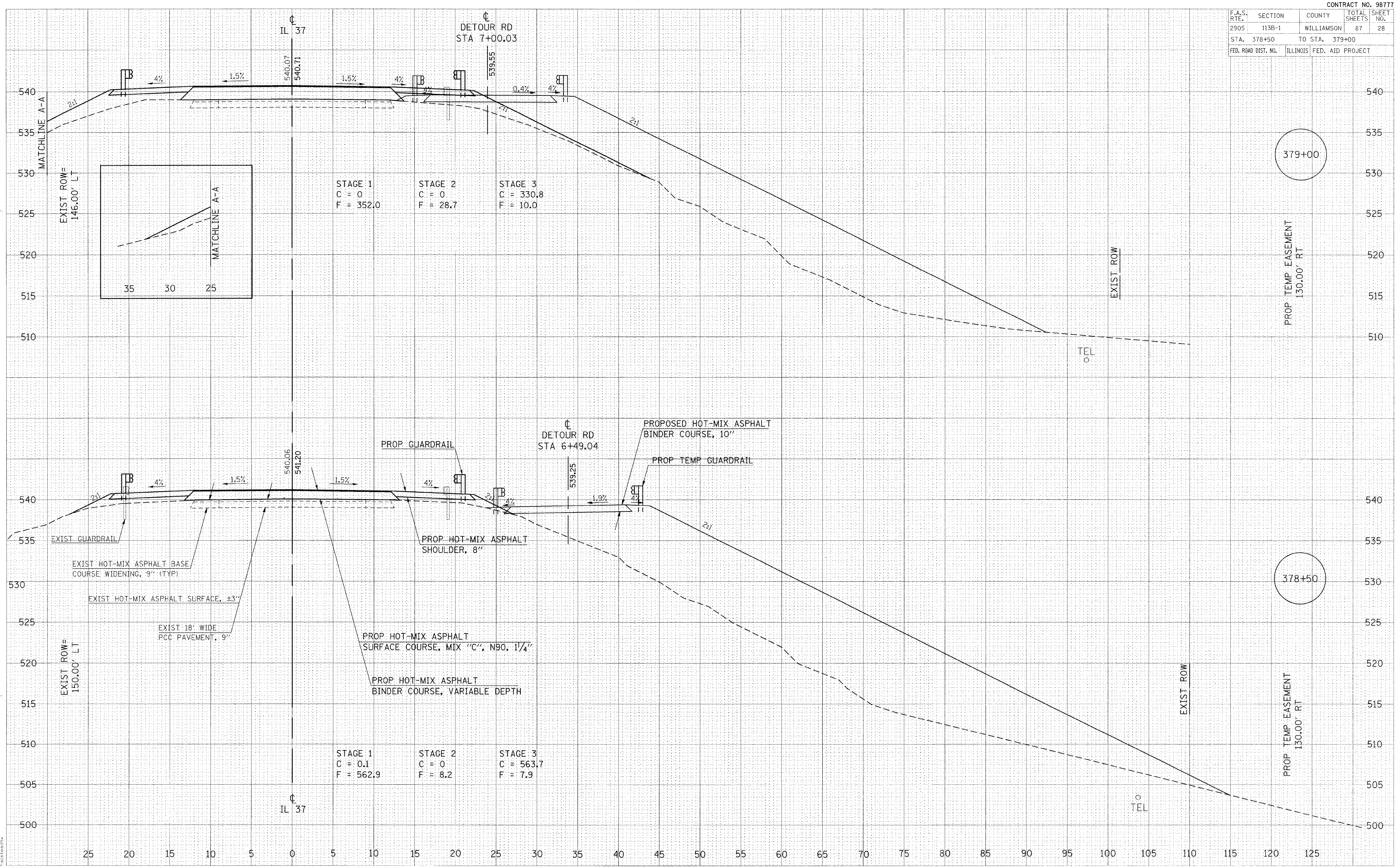
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	27
STA. 377+50		TO STA. 378+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

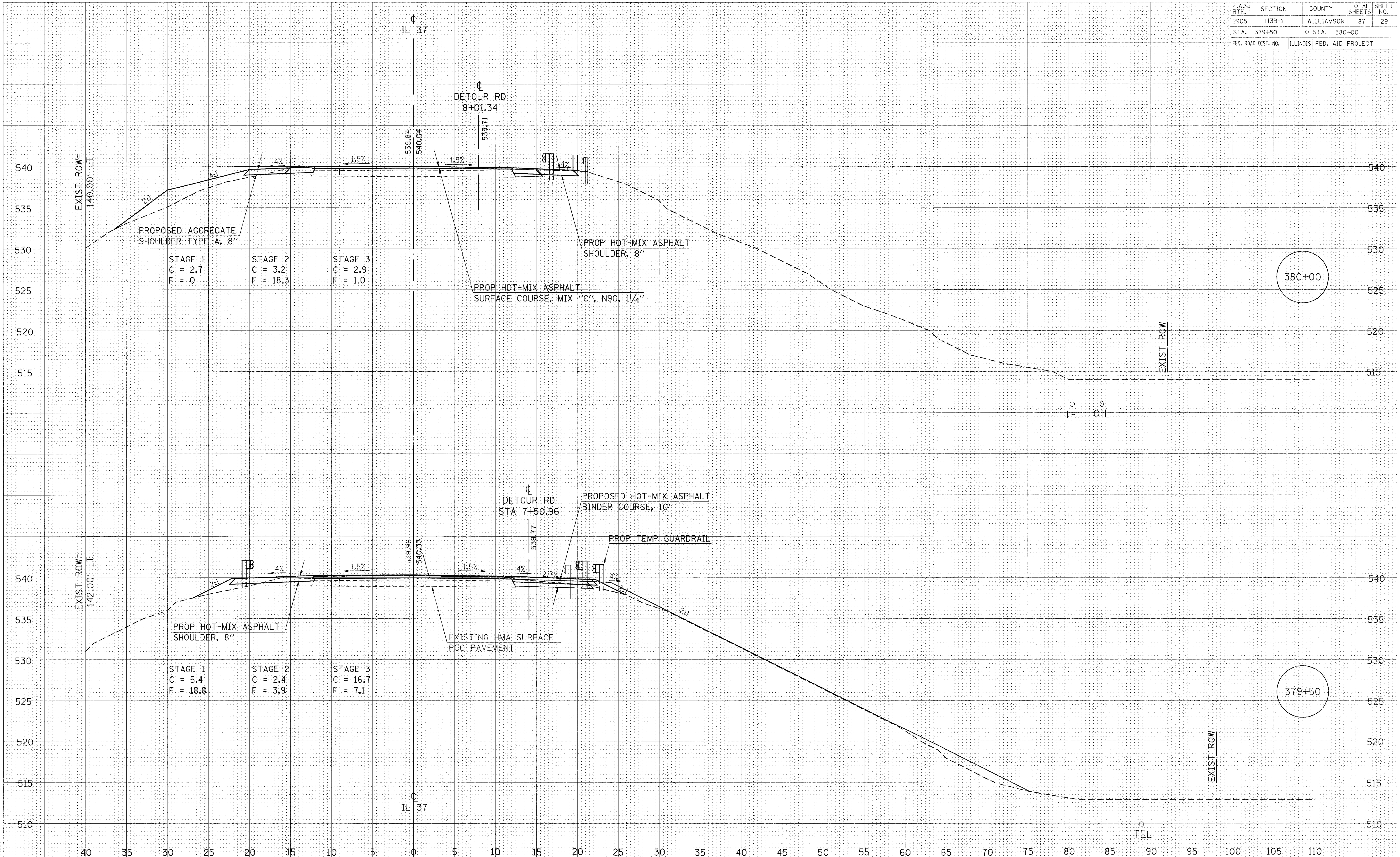
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	28
STA. 378+50		TO STA. 379+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

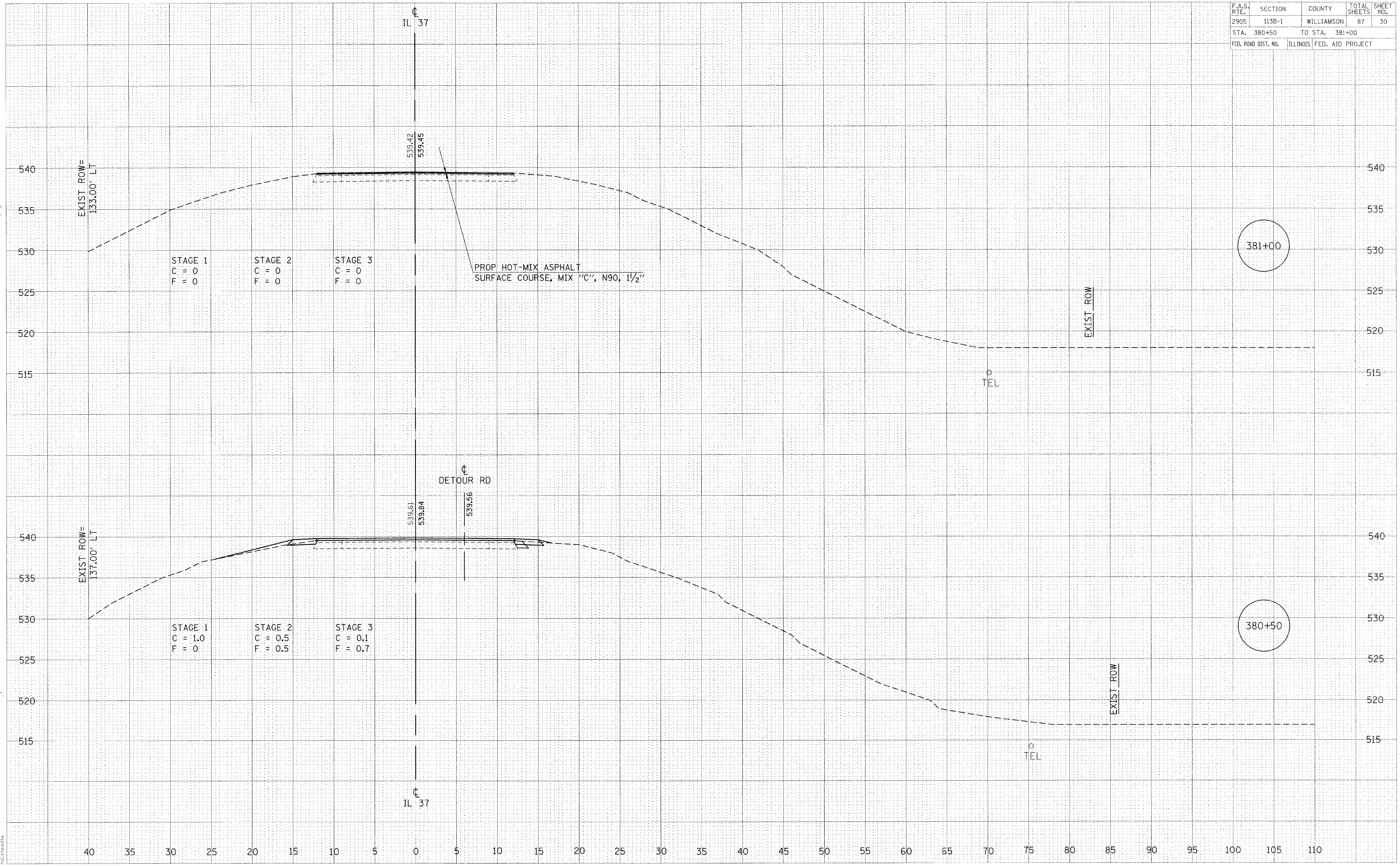
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	29
STA. 379+50	TO STA. 380+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER BNRR

CONTRACT NO. 98777

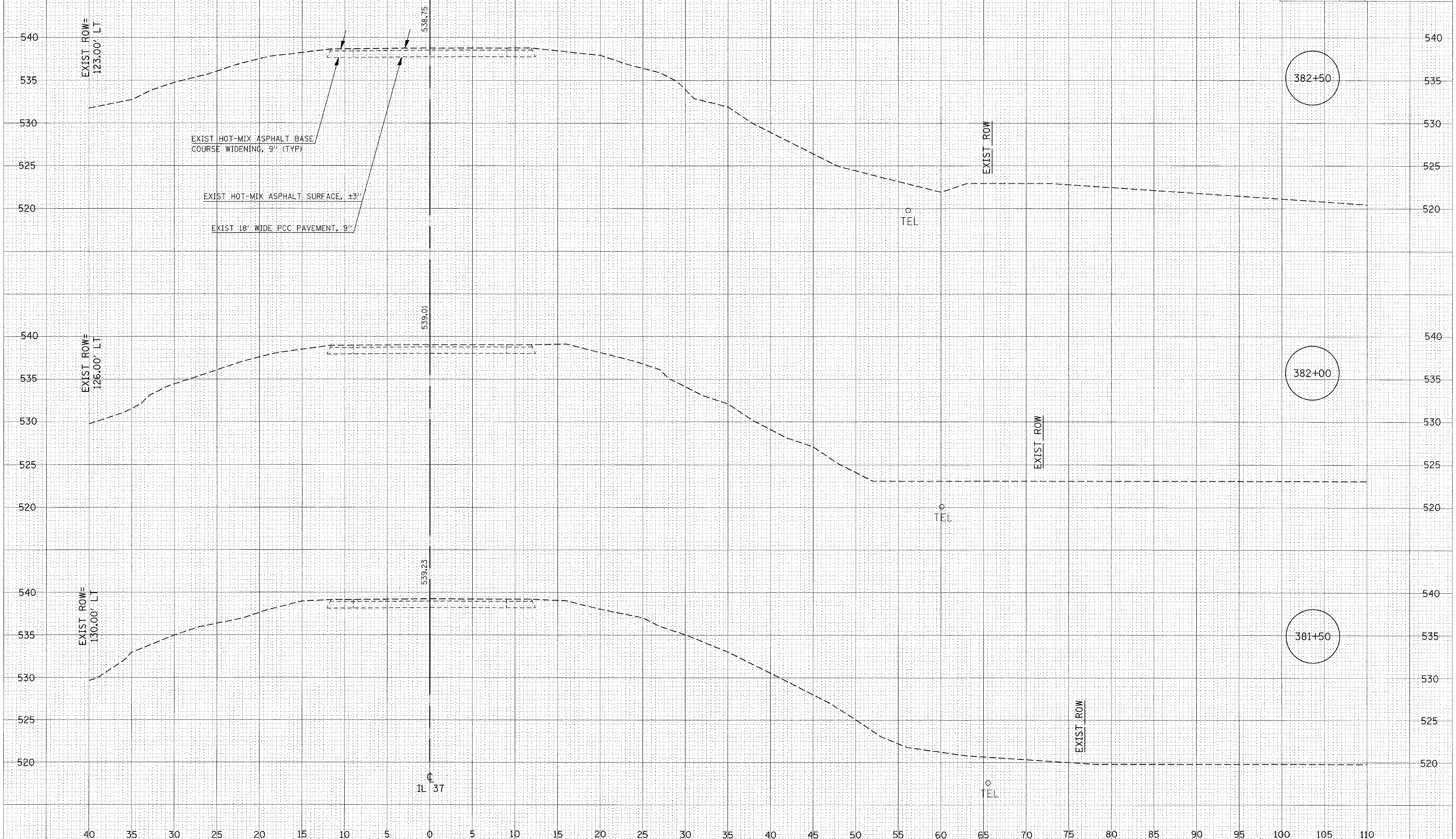
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	30
STA. 380+50	TO STA. 381+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS - IL 37 OVER BNRR

CONTRACT NO. 98777

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	31
STA. 381+50	TO STA. 382+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

CROSS SECTIONS – IL 37 OVER BNRR

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	32
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 1 OF 18

BENCHMARK

Square cut in S.E. wingwall of S.N. 100-0027, Elev. 540.51

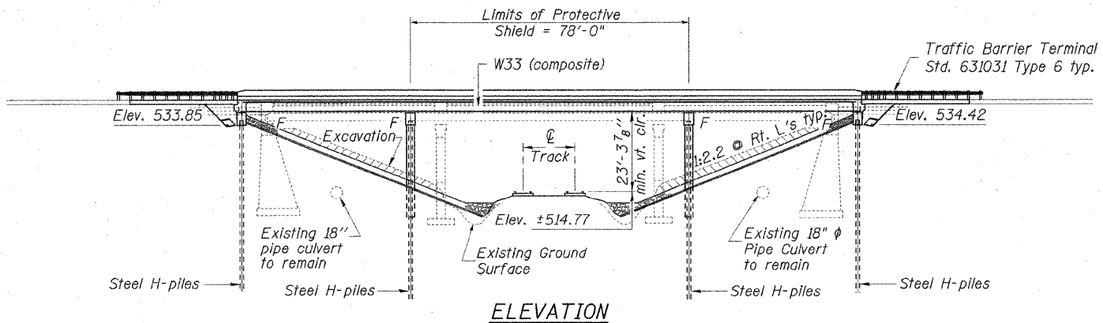
EXISTING STRUCTURE

S.N. 100-0027 built in 1940 as S.B.I. Rt. 147, Sec. 113VBF at Sta. 376+46.87 as a 3-span WF structure 161'-6" Bk.- Bk. Abutments, supported on spread footings.

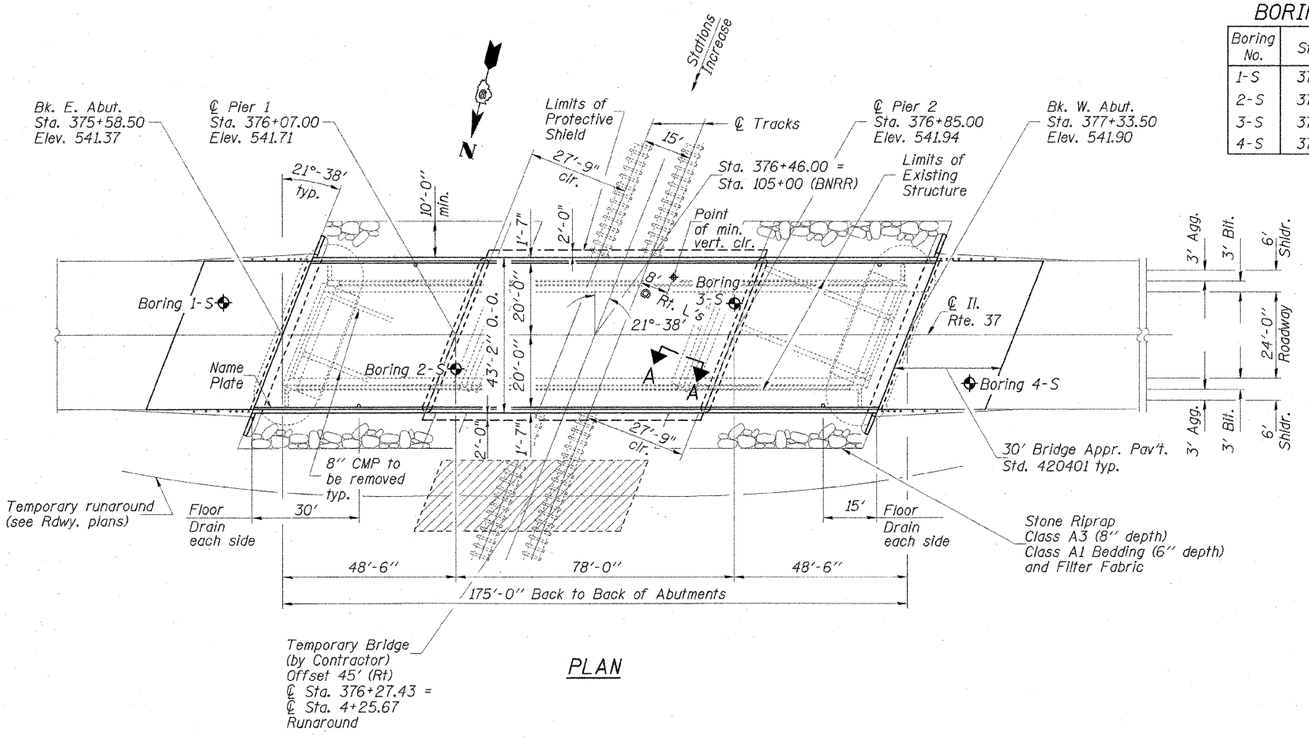
Nearest mile post #324 is 2433 ft. southeast of ℄ structure.

PROPOSED STRUCTURE

Existing bridge to be removed and replaced with a three span wide flange beam and concrete deck bridge on integral abutments and concrete encased pile bent piers. Traffic to be maintained utilizing temporary runaround.
No Salvage



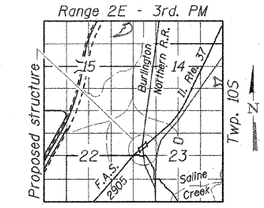
ELEVATION



PLAN

BORING DATA

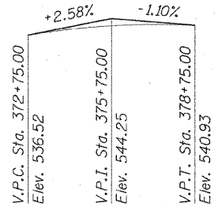
Boring No.	Station	Offset
1-S	375+38	11' Lt.
2-S	376+09	10' Rt.
3-S	376+85	9' Lt.
4-S	377+56	12' Rt.



LOCATION SKETCH

STATION 376+46.00
BUILT 200_ BY
STATE OF ILLINOIS
F.A.S. RT 2905 SEC. 113B-1
LOADING HL-93
STR. NO. 100-0090

NAME PLATE
See Std. 515001



PROFILE GRADE
(along ℄ roadway)

Sta. 106+00	Sta. 105+00	Sta. 104+00
Elev. 514.66	Elev. 514.27	Elev. 514.40

TOP OF EAST RAIL ELEVATION

Sta. 106+00	Sta. 105+00	Sta. 104+00
Elev. 514.88	Elev. 514.77	Elev. 514.73

TOP OF WEST RAIL ELEVATION

INDEX OF SHEETS

LOADING HL-93

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications
US, 3rd. Edition-2004 w/2005 Interims

DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Bedrock Acceleration Coefficient (A) = 0.13g
Site Coefficient (S) = 1.5

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

12-05-2007
LICENSED STRUCTURAL ENGINEER
WILLIAM L. BAILEY, JR.
5087
STATE OF ILLINOIS
Expl. 11-30-2008

NOTES:

1. See Sheet 2 of 18 for Section A-A.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

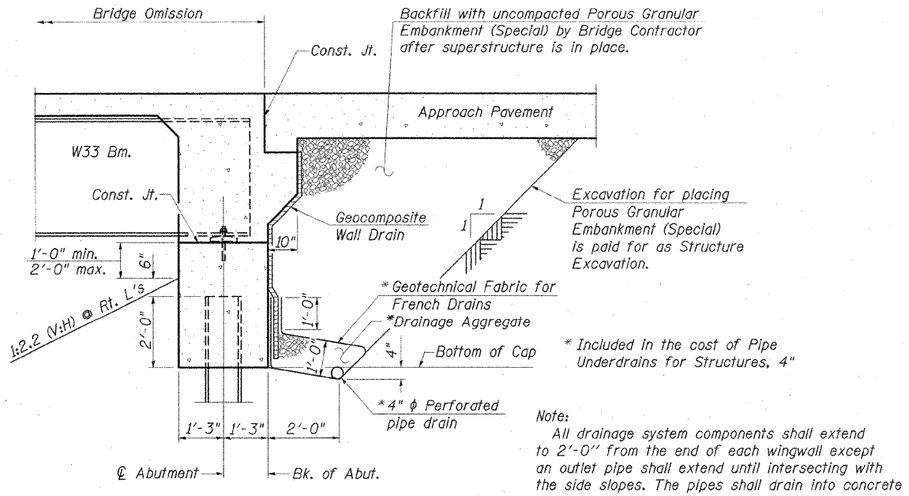
L:\IDOT\060660\SNL000090\drawr\sheets\GENERAL_PLAN.DGN
12/6/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	33
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 2 OF 18

GENERAL NOTES

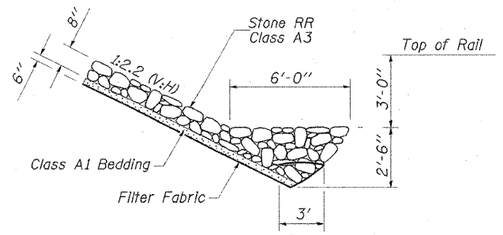
1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ, holes $\frac{15}{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 143,820 (AASHTO M270 Grade 50)
   14,920 (AASHTO M270 Grade 36)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to their designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
8. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".
9. The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
10. Slipforming of parapets shall not be permitted.



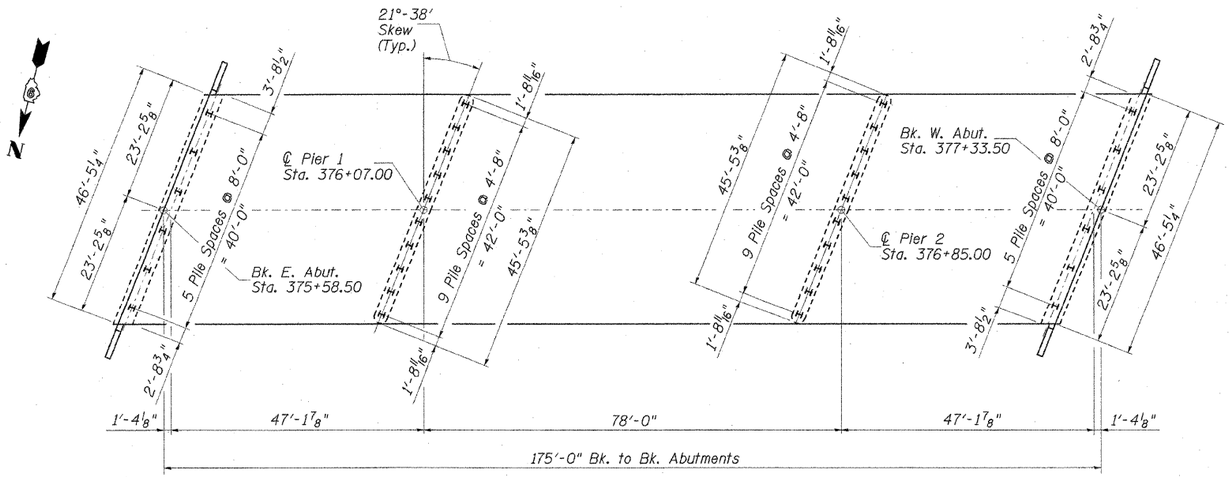
SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures, 4"

Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



SECTION A-A



FOOTING LAYOUT

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment (Special)	Cu. Yd.		144	144
Stone Riprap, Class A3	Sq. Yd.		1202	1202
Filter Fabric	Sq. Yd.		1174	1174
Removal of Existing Structures	Each			1
Protective Shield	Sq. Yd.	409		409
Structure Excavation	Cu. Yd.		644	644
Floor Drains	Each	4		4
Concrete Structures	Cu. Yd.		268.3	268.3
Concrete Superstructure	Cu. Yd.	258.8		258.8
Concrete Encasement	Cu. Yd.		11.2	11.2
Bridge Deck Grooving	Sq. Yd.	1124		1124
Protective Coat	Sq. Yd.	925		925
Furnishing and Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	3780		3780
Reinforcement Bars, Epoxy Coated	Pound	67,970	26,180	94,150
Furnishing Steel Piles HP 10x42	Foot		393	393
Furnishing Steel Piles HP 12x63	Foot		658	658
Driving Piles	Foot		1051	1051
Test Pile Steel HP 10x42	Each		2	2
Test Pile Steel HP 12x63	Each		2	2
Pile Shoes	Each		32	32
Temporary Bridge Complete	Each			1
Name Plates	Each	1		1
Anchor Bolts, 1"	Each	48		48
Geocomposite Wall Drain	Sq. Yd.		79	79
Pipe Underdrains for Structures, 4"	Foot		153	153
Bar Splicers	Each	82		82

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
NOTES AND BILL OF MATERIAL
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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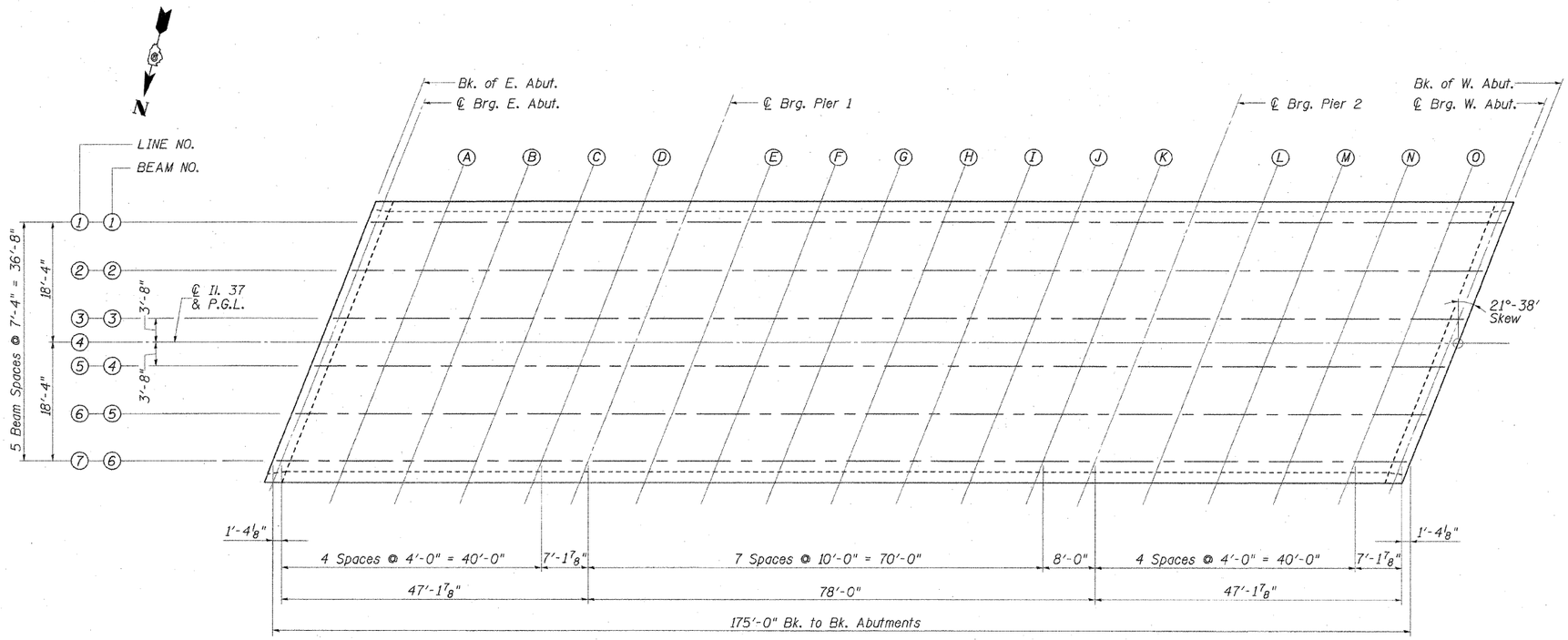
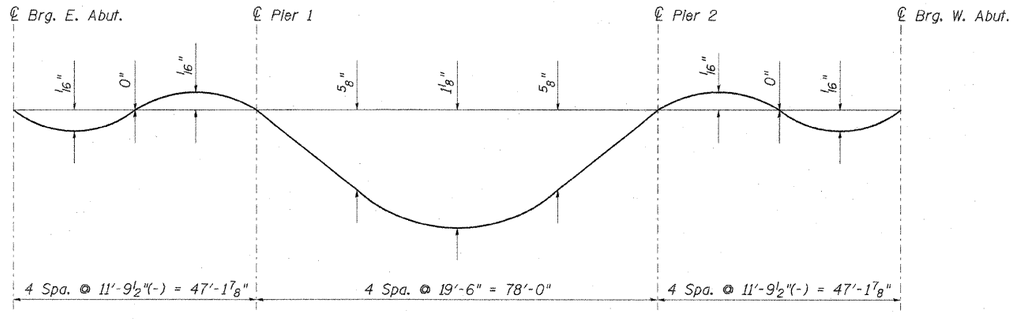
12/6/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	34
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 3 OF 18



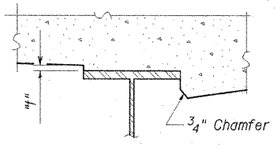
LAYOUT PLAN FOR DECK ELEVATIONS



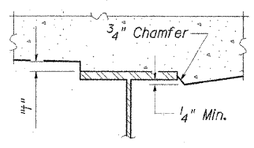
DEAD LOAD DEFLECTION DIAGRAM

(INCLUDES WEIGHT OF CONCRETE ONLY)

NOTE: The above deflections are not for use in the field if the engineer is working from the theoretical grade elevations adjusted for dead load deflection shown on sheet 4 of 18.



AT MINIMUM FILLET



AT MAXIMUM FILLET

METHOD OF DETERMINING FILLET HEIGHTS "t"

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the stations shown on Sheet 4. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet 4, minus slab thickness equals the fillet heights "t" above top flange of girders.

NOTES:

1. Work this Sheet with Sheet 4 of 18.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK ELEVATIONS 1
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	35
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 4 OF 18

BEAM 1 - (LINE NO.1)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. East Abut.	375+65.77	-18.333	541.110	541.110
℄ Brg. E. Abut.	375+67.11	-18.333	541.120	541.120
1 A	375+77.11	-18.333	541.196	541.200
1 B	375+87.11	-18.333	541.266	541.269
1 C	375+97.11	-18.333	541.329	541.327
1 D	376+07.11	-18.333	541.387	541.381
℄ Pier 1	376+14.27	-18.333	541.424	541.424
1 E	376+24.27	-18.333	541.471	541.496
1 F	376+34.27	-18.333	541.511	541.570
1 G	376+44.27	-18.333	541.546	541.629
1 H	376+54.27	-18.333	541.574	541.665
1 I	376+64.27	-18.333	541.597	541.676
1 J	376+74.27	-18.333	541.613	541.665
1 K	376+84.27	-18.333	541.623	541.642
℄ Pier 2	376+92.27	-18.333	541.627	541.627
1 L	377+02.27	-18.333	541.626	541.620
1 M	377+12.27	-18.333	541.619	541.618
1 N	377+22.27	-18.333	541.605	541.610
1 O	377+32.27	-18.333	541.586	541.589
℄ Brg. W. Abut.	377+39.43	-18.333	541.568	541.568
Bk. West Abut.	377+40.77	-18.333	541.565	541.565

BEAM 2 - (LINE NO.2)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. East Abut.	375+62.86	-11.000	541.234	541.234
℄ Brg. E. Abut.	375+64.20	-11.000	541.245	541.245
2 A	375+74.20	-11.000	541.322	541.327
2 B	375+84.20	-11.000	541.394	541.397
2 C	375+94.20	-11.000	541.459	541.457
2 D	376+04.20	-11.000	541.518	541.512
℄ Pier 1	376+11.36	-11.000	541.557	541.557
2 E	376+21.36	-11.000	541.605	541.631
2 F	376+31.36	-11.000	541.648	541.706
2 G	376+41.36	-11.000	541.684	541.767
2 H	376+51.36	-11.000	541.714	541.805
2 I	376+61.36	-11.000	541.738	541.818
2 J	376+71.36	-11.000	541.756	541.808
2 K	376+81.36	-11.000	541.768	541.788
℄ Pier 2	376+89.36	-11.000	541.773	541.773
2 L	376+99.36	-11.000	541.774	541.769
2 M	377+09.36	-11.000	541.769	541.769
2 N	377+19.36	-11.000	541.757	541.762
2 O	377+29.36	-11.000	541.740	541.743
℄ Brg. W. Abut.	377+36.52	-11.000	541.723	541.723
Bk. West Abut.	377+37.86	-11.000	541.720	541.720

BEAM 3 - (LINE NO.3)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. East Abut.	375+59.95	-3.667	541.324	541.324
℄ Brg. E. Abut.	375+61.29	-3.667	541.335	541.335
3 A	375+71.29	-3.667	541.415	541.419
3 B	375+81.29	-3.667	541.488	541.492
3 C	375+91.29	-3.667	541.555	541.553
3 D	376+01.29	-3.667	541.616	541.610
℄ Pier 1	376+08.45	-3.667	541.656	541.656
3 E	376+18.45	-3.667	541.706	541.732
3 F	376+28.45	-3.667	541.751	541.809
3 G	376+38.45	-3.667	541.789	541.871
3 H	376+48.45	-3.667	541.821	541.911
3 I	376+58.45	-3.667	541.847	541.926
3 J	376+68.45	-3.667	541.866	541.918
3 K	376+78.45	-3.667	541.880	541.900
℄ Pier 2	376+86.45	-3.667	541.887	541.887
3 L	376+96.45	-3.667	541.889	541.884
3 M	377+06.45	-3.667	541.886	541.885
3 N	377+16.45	-3.667	541.876	541.880
3 O	377+26.45	-3.667	541.860	541.864
℄ Brg. W. Abut.	377+33.61	-3.667	541.845	541.845
Bk. West Abut.	377+34.95	-3.667	541.842	541.842

℄ IL. RTE. 37 & P.G.L. (LINE NO. 4)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. East Abut.	375+58.50	0.000	541.370	541.370
℄ Brg. E. Abut.	375+59.84	0.000	541.381	541.381
4 A	375+69.84	0.000	541.461	541.465
4 B	375+79.84	0.000	541.535	541.539
4 C	375+89.84	0.000	541.603	541.601
4 D	375+99.84	0.000	541.665	541.659
℄ Pier 1	376+07.00	0.000	541.705	541.705
4 E	376+17.00	0.000	541.757	541.782
4 F	376+27.00	0.000	541.802	541.860
4 G	376+37.00	0.000	541.841	541.924
4 H	376+47.00	0.000	541.874	541.964
4 I	376+57.00	0.000	541.901	541.980
4 J	376+67.00	0.000	541.921	541.973
4 K	376+77.00	0.000	541.936	541.955
℄ Pier 2	376+85.00	0.000	541.943	541.943
4 L	376+95.00	0.000	541.946	541.941
4 M	377+05.00	0.000	541.944	541.944
4 N	377+15.00	0.000	541.935	541.939
4 O	377+25.00	0.000	541.920	541.924
℄ Brg. W. Abut.	377+32.16	0.000	541.906	541.906
Bk. West Abut.	377+33.50	0.000	541.902	541.902

BEAM 4 - (LINE NO. 5)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. East Abut.	375+57.05	+3.667	541.300	541.300
℄ Brg. E. Abut.	375+58.39	+3.667	541.311	541.311
5 A	375+68.39	+3.667	541.392	541.397
5 B	375+78.39	+3.667	541.467	541.471
5 C	375+88.39	+3.667	541.536	541.535
5 D	375+98.39	+3.667	541.599	541.593
℄ Pier 1	376+05.55	+3.667	541.640	541.640
5 E	376+15.55	+3.667	541.692	541.718
5 F	376+25.55	+3.667	541.738	541.797
5 G	376+35.55	+3.667	541.778	541.861
5 H	376+45.55	+3.667	541.812	541.902
5 I	376+55.55	+3.667	541.840	541.919
5 J	376+65.55	+3.667	541.861	541.913
5 K	376+75.55	+3.667	541.877	541.896
℄ Pier 2	376+83.55	+3.667	541.885	541.885
5 L	376+93.55	+3.667	541.889	541.884
5 M	377+03.55	+3.667	541.887	541.887
5 N	377+13.55	+3.667	541.879	541.884
5 O	377+23.55	+3.667	541.865	541.869
℄ Brg. W. Abut.	377+30.71	+3.667	541.851	541.851
Bk. West Abut.	377+32.05	+3.667	541.848	541.848

BEAM 5 - (LINE NO.6)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. East Abut.	375+54.14	+11.000	541.160	541.160
℄ Brg. E. Abut.	375+55.48	+11.000	541.172	541.172
6 A	375+65.48	+11.000	541.255	541.259
6 B	375+75.48	+11.000	541.332	541.335
6 C	375+85.48	+11.000	541.402	541.401
6 D	375+95.48	+11.000	541.467	541.461
℄ Pier 1	376+02.64	+11.000	541.509	541.509
6 E	376+12.64	+11.000	541.563	541.589
6 F	376+22.64	+11.000	541.611	541.670
6 G	376+32.64	+11.000	541.653	541.735
6 H	376+42.64	+11.000	541.688	541.779
6 I	376+52.64	+11.000	541.718	541.797
6 J	376+62.64	+11.000	541.741	541.793
6 K	376+72.64	+11.000	541.758	541.778
℄ Pier 2	376+80.64	+11.000	541.768	541.768
6 L	376+90.64	+11.000	541.774	541.768
6 M	377+00.64	+11.000	541.774	541.774
6 N	377+10.64	+11.000	541.768	541.772
6 O	377+20.64	+11.000	541.755	541.759
℄ Brg. W. Abut.	377+27.80	+11.000	541.743	541.743
Bk. West Abut.	377+29.14	+11.000	541.740	541.740

BEAM 6 - (LINE NO.7)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. East Abut.	375+51.23	+18.333	540.987	540.987
℄ Brg. E. Abut.	375+52.57	+18.333	540.999	540.999
7 A	375+62.57	+18.333	541.084	541.088
7 B	375+72.57	+18.333	541.162	541.166
7 C	375+82.57	+18.333	541.235	541.233
7 D	375+92.57	+18.333	541.301	541.295
℄ Pier 1	375+99.73	+18.333	541.345	541.345
7 E	376+09.73	+18.333	541.401	541.426
7 F	376+19.73	+18.333	541.450	541.509
7 G	376+29.73	+18.333	541.494	541.576
7 H	376+39.73	+18.333	541.531	541.621
7 I	376+49.73	+18.333	541.562	541.641
7 J	376+59.73	+18.333	541.587	541.639
7 K	376+69.73	+18.333	541.606	541.626
℄ Pier 2	376+77.73	+18.333	541.617	541.617
7 L	376+87.73	+18.333	541.625	541.620
7 M	376+97.73	+18.333	541.627	541.627
7 N	377+07.73	+18.333	541.622	541.627
7 O	377+17.73	+18.333	541.612	541.616
℄ Brg. W. Abut.	377+24.89	+18.333	541.601	541.601
Bk. West Abut.	377+26.23	+18.333	541.598	541.598

NOTES:

1. Work this Sheet with Sheet 3 of 18.

REVISIONS	
NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK ELEVATIONS 2

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	36
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 5 OF 18

SOUTH CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End E. Appr. Pav't.	375+36.60	-20.417	540.808
A	375+46.60	-20.417	540.902
B	375+56.60	-20.417	540.991
Bk. E. Abut.	375+66.60	-20.417	541.073

SOUTH EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End E. Appr. Pav't.	375+33.26	-12.000	540.950
A	375+43.26	-12.000	541.047
B	375+53.26	-12.000	541.137
Bk. E. Abut.	375+63.26	-12.000	541.221

℄ ROADWAY & P.G.L.

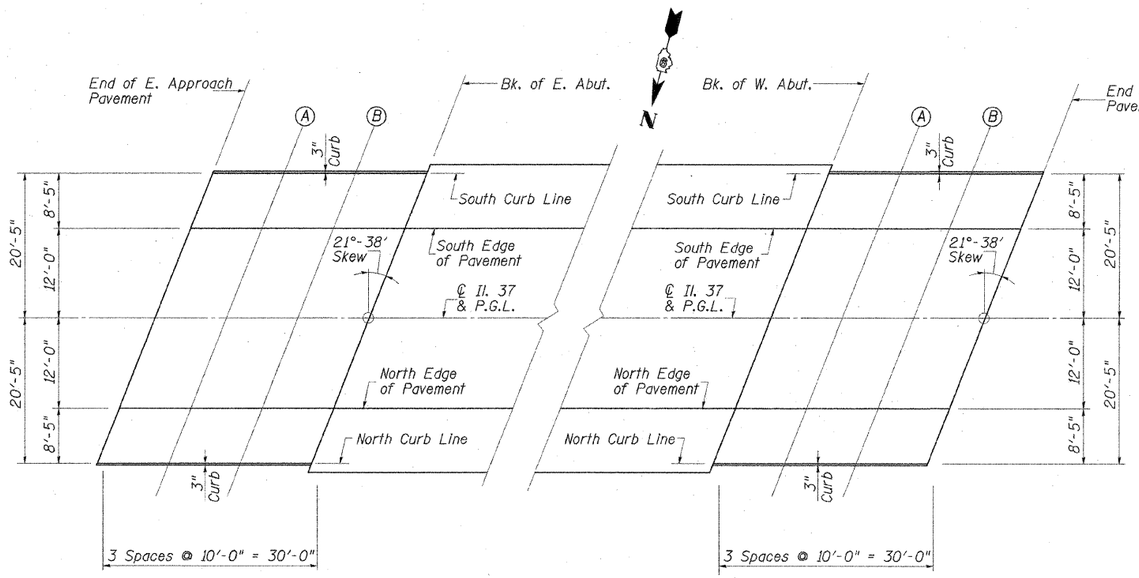
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End E. Appr. Pav't.	375+28.50	0.000	541.090
A	375+38.50	0.000	541.189
B	375+48.50	0.000	541.282
Bk. E. Abut.	375+58.50	0.000	541.370

NORTH EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End E. Appr. Pav't.	375+23.74	+12.000	540.853
A	375+33.74	+12.000	540.955
B	375+43.74	+12.000	541.051
Bk. E. Abut.	375+53.74	+12.000	541.141

NORTH CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End E. Appr. Pav't.	375+20.40	+20.417	540.642
A	375+30.40	+20.417	540.746
B	375+40.40	+20.417	540.844
Bk. E. Abut.	375+50.40	+20.417	540.937



LAYOUT PLAN
EAST APPROACH PAVEMENT

LAYOUT PLAN
WEST APPROACH PAVEMENT

SOUTH CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. W. Abut.	377+41.60	-20.417	541.519
A	377+51.60	-20.417	541.488
B	377+61.60	-20.417	541.450
End W. Appr. Pav't.	377+71.60	-20.417	541.407

SOUTH EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. W. Abut.	377+38.26	-12.000	541.703
A	377+48.26	-12.000	541.674
B	377+58.26	-12.000	541.639
End W. Appr. Pav't.	377+68.26	-12.000	541.597

℄ ROADWAY & P.G.L.

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. W. Abut.	377+33.50	0.000	541.902
A	377+43.50	0.000	541.876
B	377+53.50	0.000	541.844
End W. Appr. Pav't.	377+63.50	0.000	541.805

NORTH EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. W. Abut.	377+28.74	+12.000	541.725
A	377+38.74	+12.000	541.702
B	377+48.74	+12.000	541.672
End W. Appr. Pav't.	377+58.74	+12.000	541.637

NORTH CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. W. Abut.	377+25.40	+20.417	541.556
A	377+35.40	+20.417	541.535
B	377+45.40	+20.417	541.508
End W. Appr. Pav't.	377+55.40	+20.417	541.474

REVISIONS	
NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROACH PAVEMENT ELEVATIONS

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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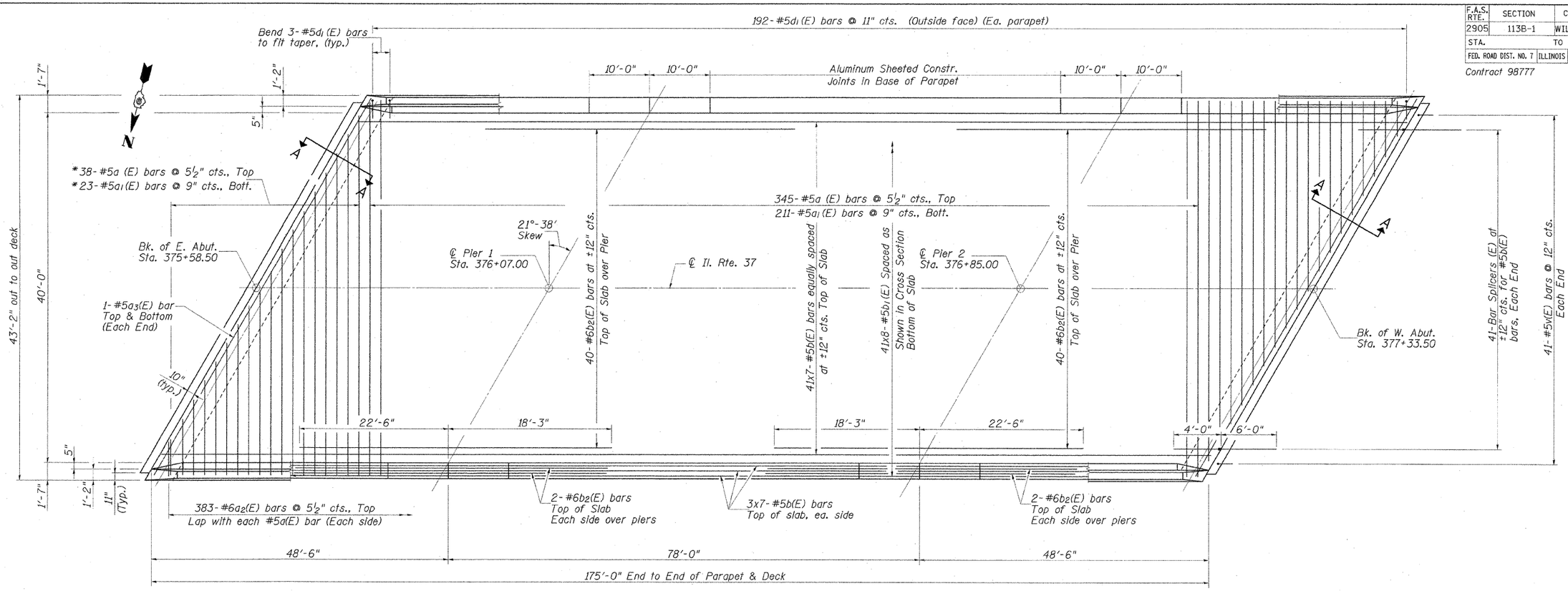
12/5/2007

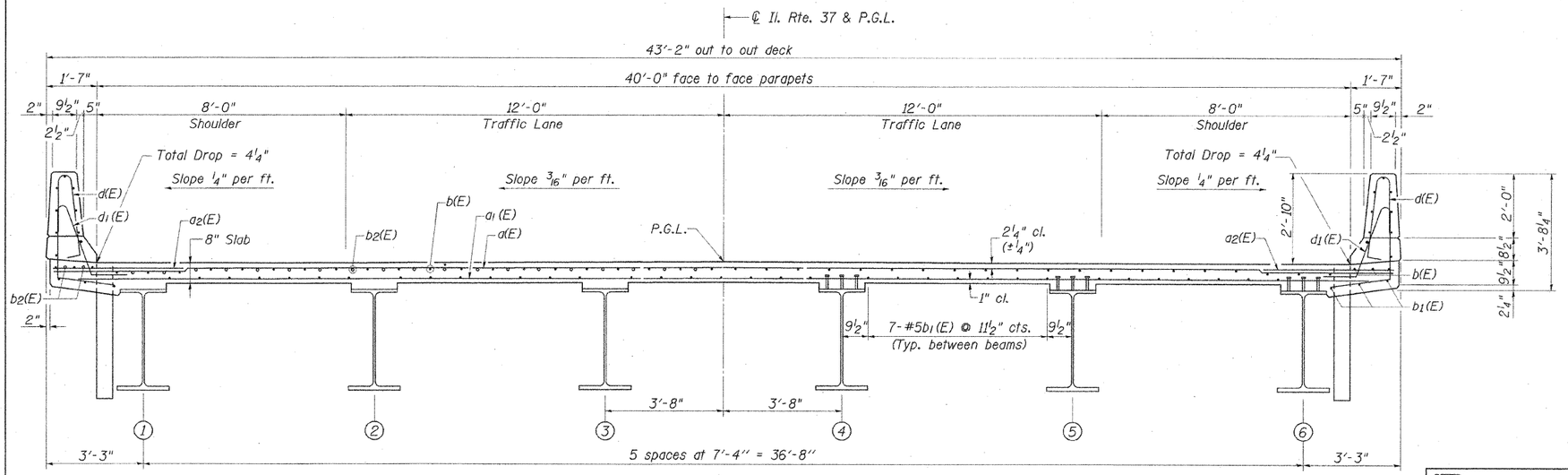
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	37
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777



DECK PLAN

*Order a(E) and a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end



NEAR PIER — TYPICAL CROSS SECTION (Looking West) — NEAR MIDSPAN

MIN. BAR LAP

*5 bar = 2'-2"
*6 bar = 2'-7"

NOTES:

1. See Sheet 7 of 18 for superstructure and parapet details and Bill of Materials.
2. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
3. See Sheet 15 of 18 for bar splicer details.
4. See Sheet 7 of 18 for drain details.
5. See Sheet 8 of 18 for Section A-A.
6. See Sheet 1 of 18 for location of deck drains.

REVISIONS NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE — DRAWN BY: GLD
DATE: 12/14/07 — CHECKED BY: WLB

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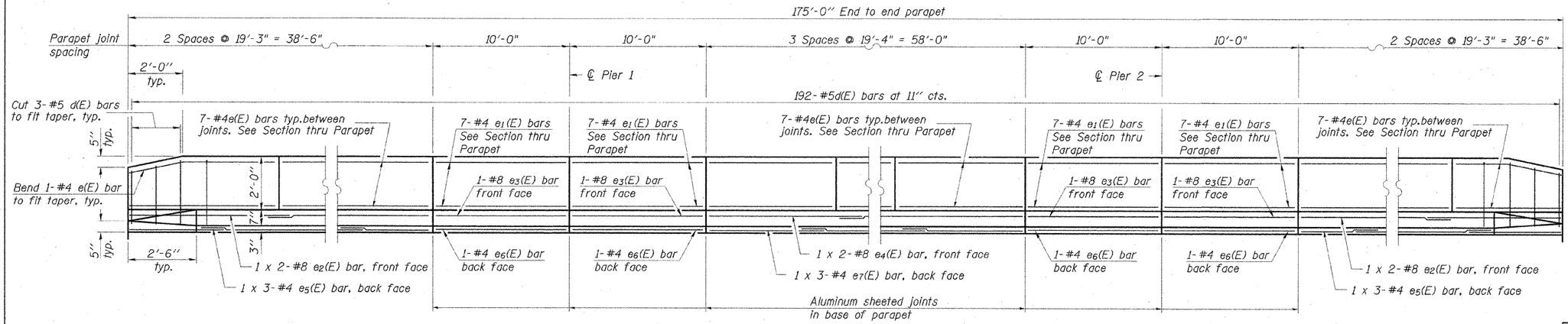
12/5/2007

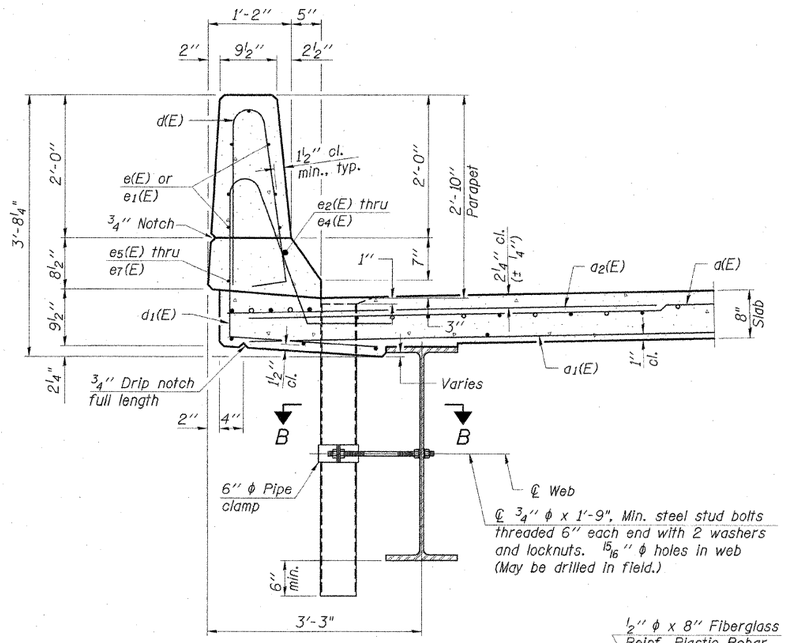
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	38
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 7 OF 18



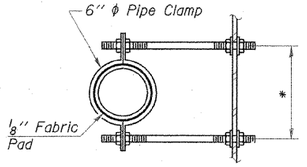
INSIDE ELEVATION OF PARAPET

(South Parapet Shown, North Opposite)



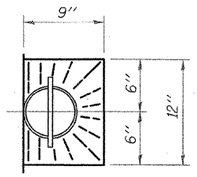
SECTION THRU PARAPET

(Slipforming of parapets shall not be permitted)

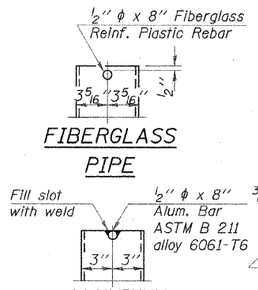


SECTION B-B

* Dimension as required by Pipe Clamp

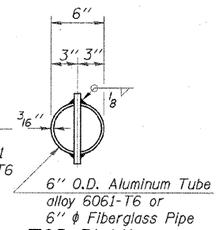


TOP PLAN



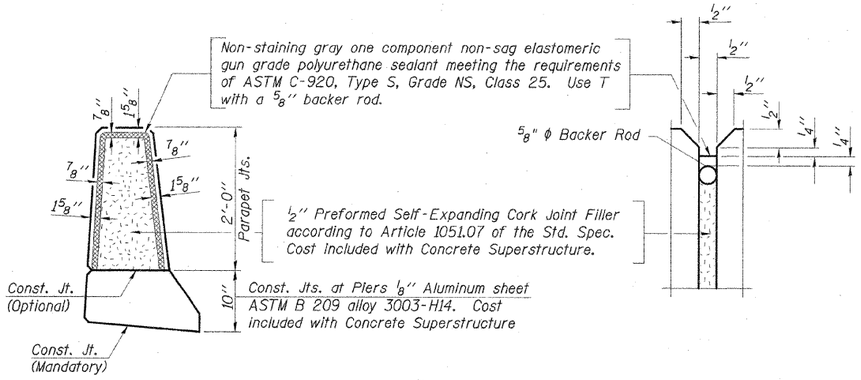
FIBERGLASS PIPE

ALUMINUM TUBE

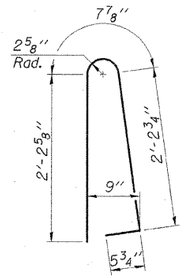


TOP PLAN

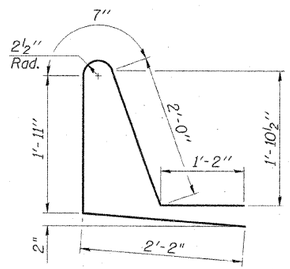
(Showing Aluminum Tube)



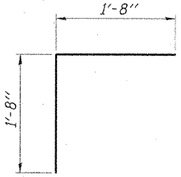
PARAPET JOINT DETAILS



BAR d(E)



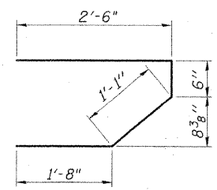
BAR d1(E)



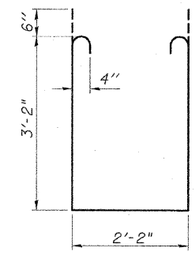
BAR v(E)

MINIMUM BAR LAP

(Parapet)
#4 bar = 1'-4"
#8 bar = 3'-5"



BAR s(E)



BAR s1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	383	#5	42'-6"	
a1(E)	234	#5	41'-6"	
a2(E)	766	#6	6'-0"	
a3(E)	4	#5	45'-10"	
b(E)	329	#5	26'-10"	
b1(E)	328	#5	23'-9"	
b2(E)	88	#6	40'-9"	
d(E)	384	#5	5'-7"	P
d1(E)	384	#5	7'-10"	P
e(E)	98	#4	18'-11"	
e1(E)	56	#4	9'-8"	
e2(E)	8	#8	20'-10"	
e3(E)	8	#8	9'-8"	
e4(E)	4	#8	30'-7"	
e5(E)	12	#4	13'-8"	
e6(E)	8	#4	9'-8"	
e7(E)	6	#4	20'-2"	
m(E)	4	#6	44'-2"	
m1(E)	8	#6	46'-2"	
m2(E)	36	#6	10'-0"	
m3(E)	10	#6	7'-6"	
m4(E)	4	#6	3'-2"	
s(E)	92	#5	5'-9"	⊐
s1(E)	82	#4	9'-6"	⊔
v(E)	82	#5	3'-4"	⊏
Reinforcement Bars, Epoxy Coated		Pound	67,970	
Concrete Superstructure		Cu. Yd.	258.8	
Bar Splicers		Each	82	

NOTES:

1. Bars indicated thus 1x2-#4 etc. indicates 1 line of bars with 2 lengths per line.

Notes:
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Steel Structures Painting Council's Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

REVISIONS	
NAME	DATE

CMT
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ILLINOIS DEPARTMENT OF TRANSPORTATION
PARAPET DETAILS
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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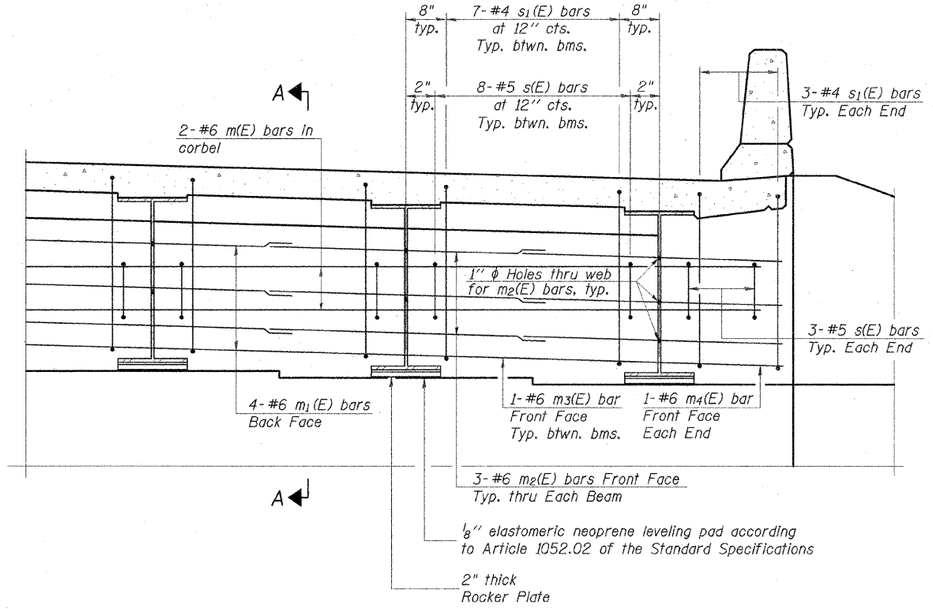
2/6/2007

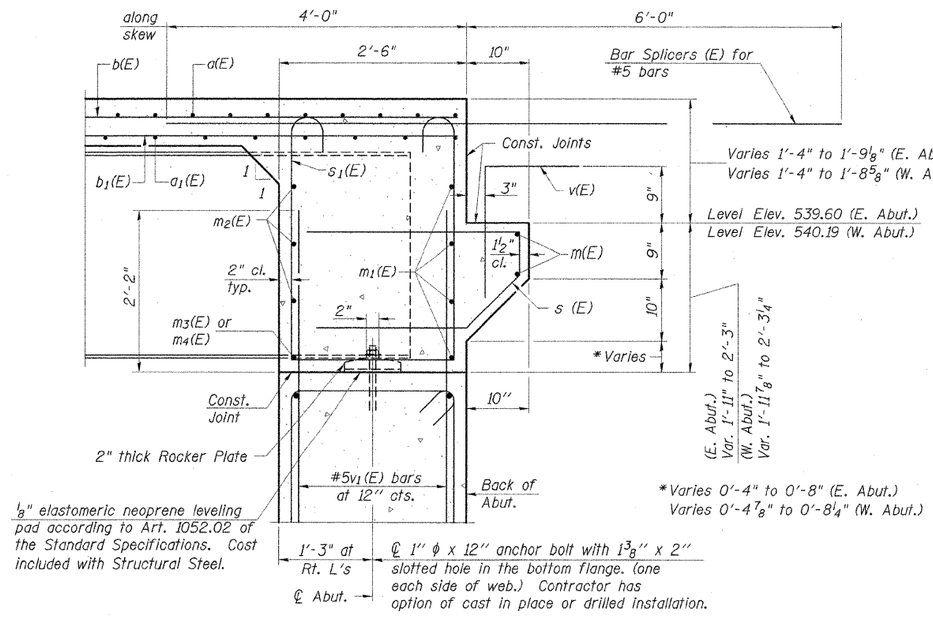
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	39
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 8 OF 18



DIAPHRAGM ELEVATION AT ABUTMENT

(Looking East at East Abut., West Abut. similar)



SECTION A-A

Dimensions at right angles to abutment, except as shown.

MIN. BAR LAP

#6 bar = 2'-9"

NOTES:

1. Reinforcement bars in diaphragm are billed with superstructure on Sheet 7 of 18.
2. Concrete in diaphragm is included with Concrete Superstructure on Sheet 7 of 18.
3. For details of bars s(E) & s_1(E) see Sheet 7 of 18.
4. The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
5. For location of holes in web see Sheet 10 of 18.
6. For bar splicer details see Sheet 15 of 18.

REVISIONS NAME	DATE

CMT
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ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT DIAPHRAGM DETAILS

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

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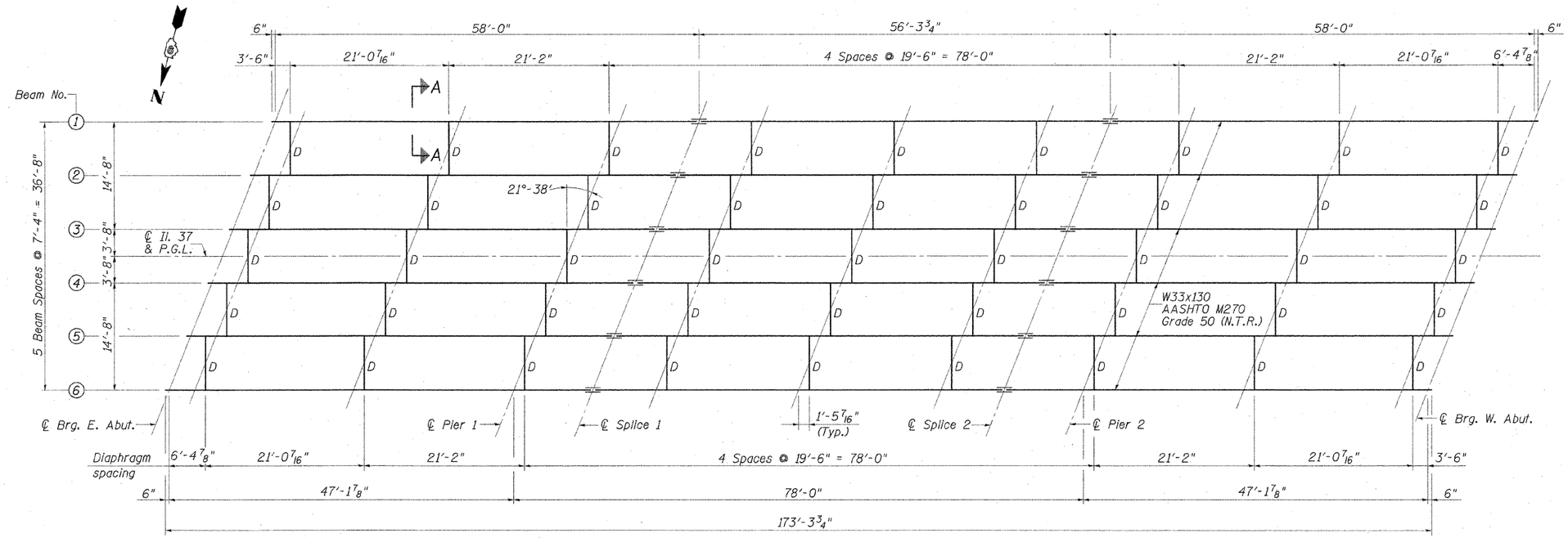
12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	40
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 9 OF 18

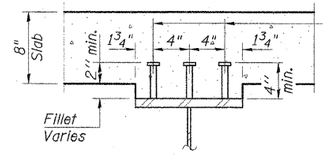


FRAMING PLAN

TOP OF BEAM ELEVATIONS

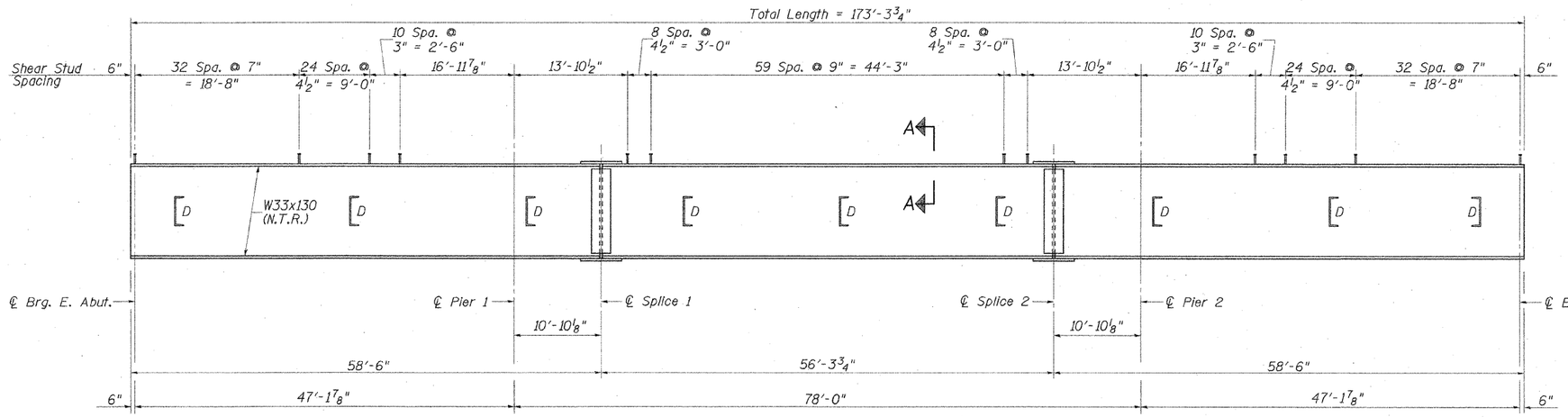
(For Fabrication Only)

LOCATION	BEAM 1	BEAM 2	BEAM 3	BEAM 4	BEAM 5	BEAM 6
℄ Brg. E. Abut.	540.409	540.533	540.624	540.600	540.461	540.288
℄ Pier 1	540.638	540.770	540.870	540.854	540.723	540.559
℄ Splice 1	540.691	540.825	540.927	540.913	540.783	540.621
℄ Splice 2	540.837	540.981	541.093	541.089	540.970	540.818
℄ Pier 2	540.841	540.987	541.101	541.099	540.981	540.831
℄ Brg. W. Abut.	540.857	541.012	541.134	541.140	541.031	540.890



3/4" ϕ Granular or solid flux filled headed studs, automatically end welded to flange. (3780 Required)

SECTION A-A



BEAM ELEVATION

NOTES:

1. All stringers shall be AASHTO M270, Grade 50 steel (N.T.R.).
2. Load carrying components designed "N.T.R." shall conform to the supplemental requirements for notch toughness (Zone 2).
3. All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

REVISIONS NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

FRAMING PLAN & ELEVATION

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

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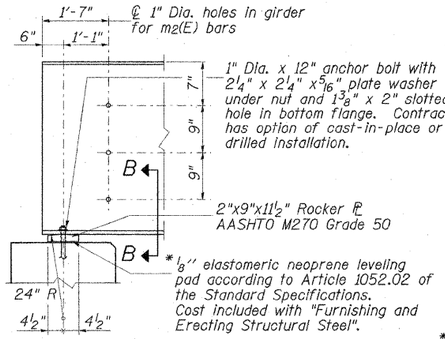
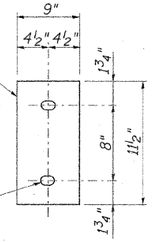
12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	41
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 10 OF 18

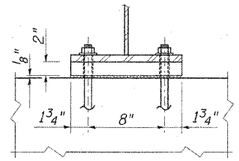


END OF BEAM ELEVATION



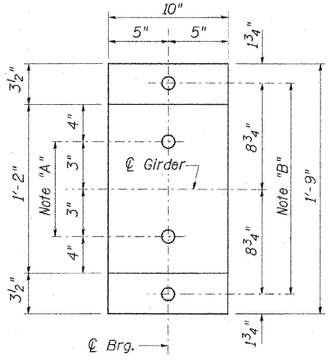
PLAN
ELASTOMERIC NEOPRENE LEVELING PAD (ABUT.)
(12 Required)

*Provide an additional ⅜" shim for Beam 3 at East Abutment.

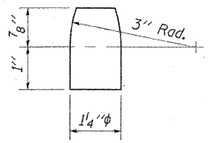


SECTION B-B

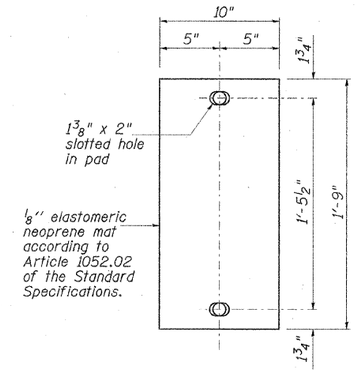
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade and diameter specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts may be either cast in place or installed in holes drilled after the supported member is in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



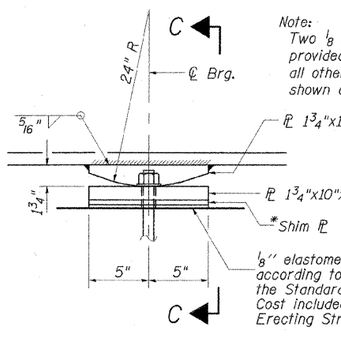
PLAN AT PIER



DETAIL OF PINTLE



PLAN - ELASTOMERIC NEOPRENE MAT (PIER)
(12 Required)

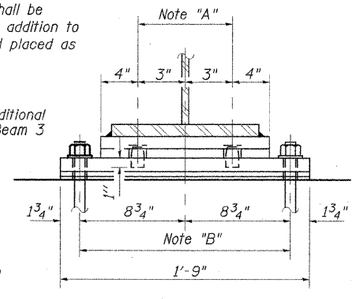


Note:
Two ⅛ in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

ELEVATION AT PIER

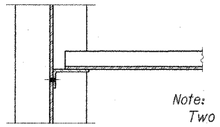
Note "A"
1⅜"ϕ Holes-1" deep in top ℄ for 1¼" ϕ pintles. Thread or press fit in bottom ℄.

FIXED BEARING AT PIER 1 & PIER 2
(12 Required)



SECTION C-C

Note "B"
1" ϕ x 1'-0" Anchor bolts with 2¼" x 2¼" x 5/16" ℄ washer under nut 1½" ϕ Holes in bottom ℄.

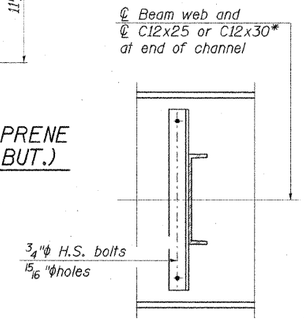


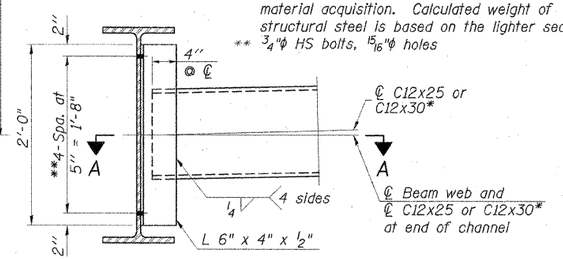
SECTION A-A

Note:
Two hardened washers required for each set of oversized holes.

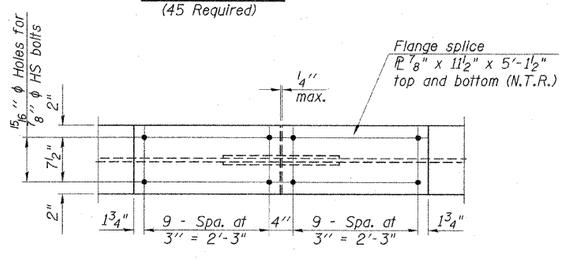
* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section.

** ¾"ϕ HS bolts, 15/16"ϕ holes

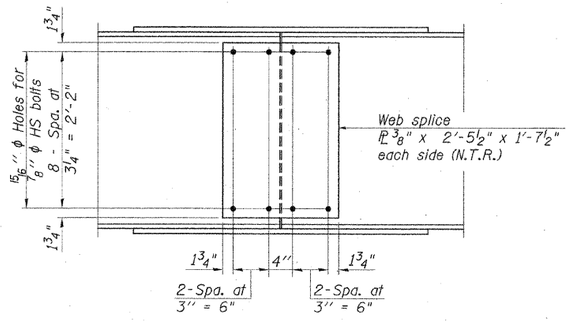




DIAPHRAGM D
(45 Required)



PLAN



ELEVATION

SPLICE DETAIL
(12 Required)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Anchor Bolts, 1"	Each	48

Notes:
1. H.S. bolts for splices shall be ⅞"ϕ AASHTO M164 (ASTM A325) bolts.
2. All splice plate material shall be AASHTO M270 Grade 50 (N.T.R.)
3. Load carrying components designed "N.T.R." shall conform to the supplemental requirements for notch toughness (Zone 2).

INTERIOR BEAM GIRDER MOMENT TABLE

		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Span 2
I_s	(in^4)	6710	6710	6710
$I_c(n)$	(in^4)	18,519	——	18,519
$I_c(3n)$	(in^4)	13,734	——	13,734
S_s	(in^3)	406	406	406
$S_c(n)$	(in^3)	603	——	603
$S_c(3n)$	(in^3)	547	——	547
DC1	(k/')	0.913	1.063	0.913
M_{DC1}	('k)	82.5	458.4	291.5
DC2	(k/')	0.150	——	0.150
M_{DC2}	('k)	17.9	——	58.6
DW	(k/')	0.367	0.367	0.367
M_{DW}	('k)	43.7	136.0	143.3
M_{L+Imp}	('k)	542.4	466.2	854.8
M_u(Strength I)	('k)	1140.3	1592.9	2148.5
$\phi_r M_n$	('k)	3206.1	——	3055.5
f_s DC1	(ksi)	2.44	13.55	8.62
f_s DC2	(ksi)	0.39	——	1.29
f_s DW	(ksi)	0.96	4.02	3.14
f_s 1.3(L+I)	(ksi)	14.03	17.91	22.11
f_s (Service II)	(ksi)	17.82	35.48	35.16
f_s (Total)(Strength I)	(ksi)	——	47.08	——
V_r	(k)	23.9	——	21.7

INTERIOR BEAM REACTION TABLE
HL93 Loading

		E. Abut. or W. Abut.	Pier 1 or Pier 2
R_{DC1}	(k)	13.0	65.7
R_{DC2}	(k)	2.4	10.6
R_{DW}	(k)	5.8	25.9
R_{L+Imp}	(k)	73.1	106.0
R_{Total}	(k)	94.3	208.2

NOTES:

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in^4 and in^3).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) due to short-term composite live loads (in^4 and in^3).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in^4 and in^3).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+Imp}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+Imp}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

V_r: Factored shear range computed according to Article 6.10.10.

REVISIONS	
NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
FRAMING DETAILS & TABLES
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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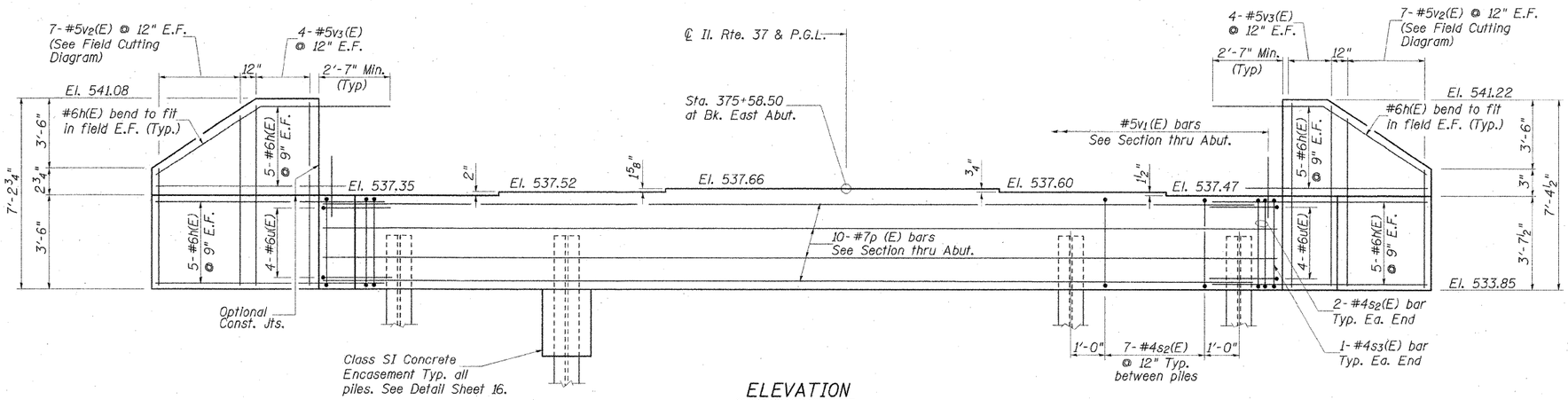
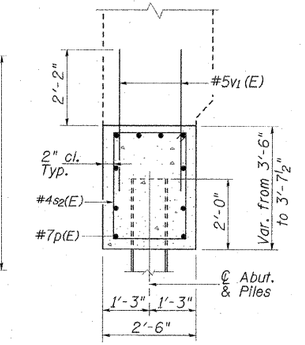
12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	42
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

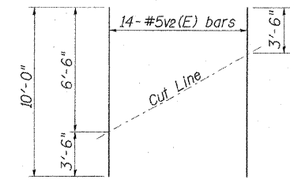
Contract 98777 SHEET 11 OF 18



ELEVATION

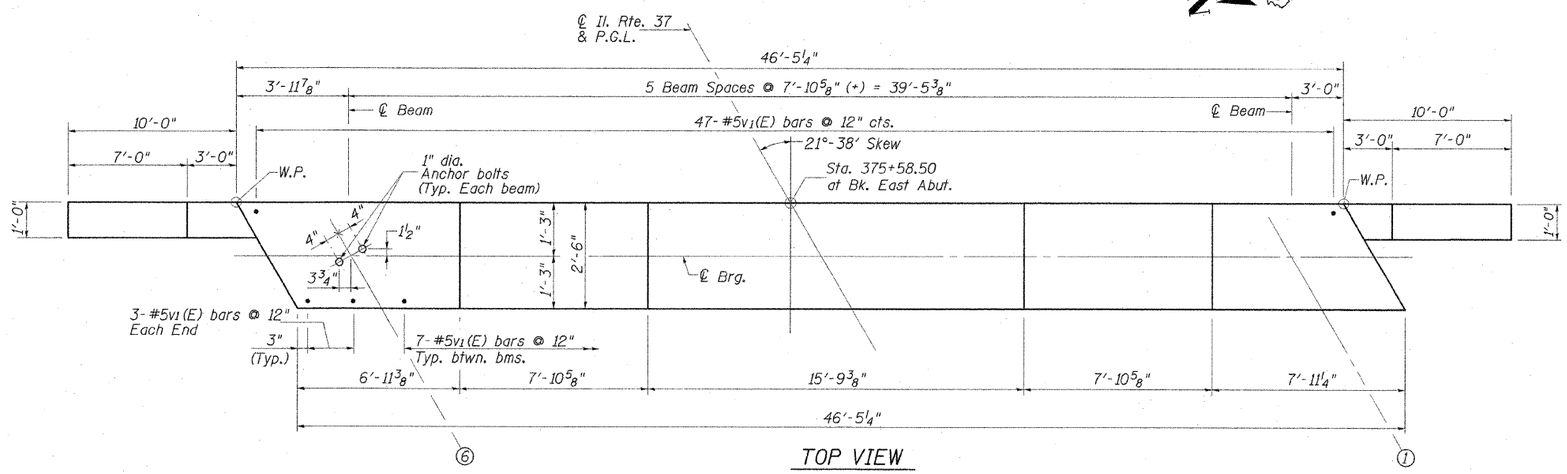


SECTION THRU ABUTMENT

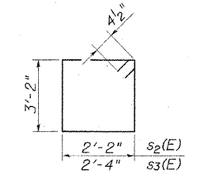


FIELD CUTTING DIAGRAM

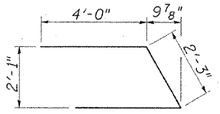
Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite face.



TOP VIEW



BAR $s_2(E)$ & $s_3(E)$

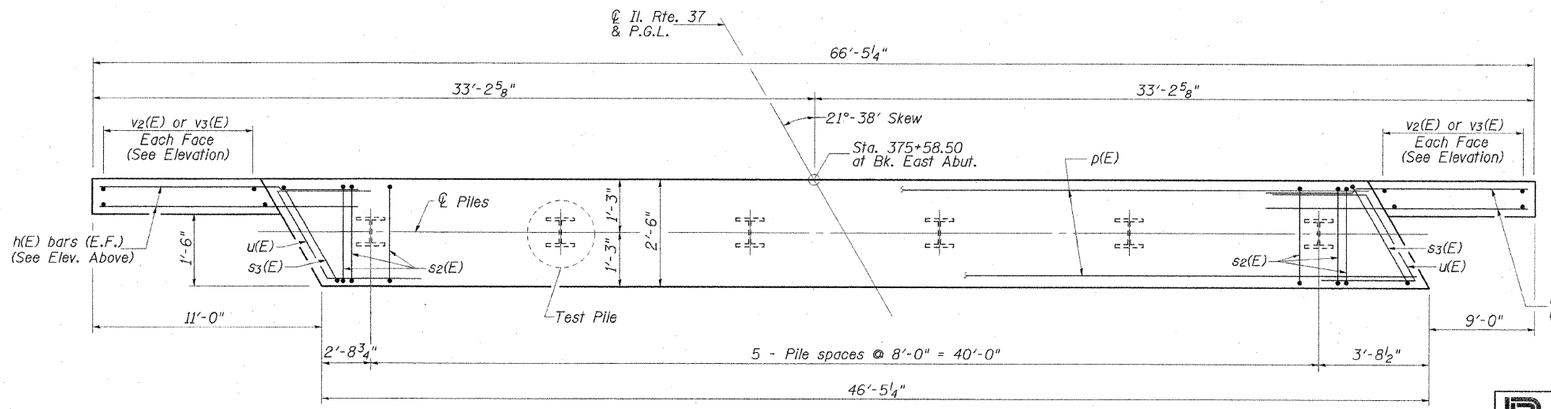


BAR u (E)

EAST ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-0"	——
P (E)	10	#7	46'-1"	——
s_2 (E)	39	#4	11'-5"	☐
s_3 (E)	2	#4	11'-9"	☐
u(E)	8	#6	10'-3"	◺
v_1 (E)	88	#5	4'-4"	——
v_2 (E)	14	#5	10'-0"	——
v_3 (E)	16	#5	6'-11"	——

Concrete Structures	Cu. Yd.	20.4
Concrete Encasement	Cu. Yd.	2.1
Reinforcement Bars, Epoxy Coated	Pound	2820
Structure Excavation	Cu. Yd.	142
Furnishing Steel Piles HP 10x42	Foot	180
Driving Piles	Foot	180
Test Pile Steel HP 10x42	Each	1
Pile Shoes	Each	6



PILE CAP PLAN

PILE DATA

PILE TYPE AND SIZE:	HP 10x42 with Metal Shoes
NOMINAL REQUIRED BEARING:	335 kips
FACTORED RESISTANCE AVAILABLE:	167 kips
ESTIMATED PILE LENGTH:	36.0 Ft.
NUMBER OF PRODUCTION PILES:	5
NUMBER OF TEST PILES:	1

NOTES:

1. Pour steps monolithically with cap.
2. Space reinforcement to miss anchor bolts.
3. See Sheet 2 of 18 for abutment backfill requirements.
4. See Sheet 16 of 18 for steel H-pile details.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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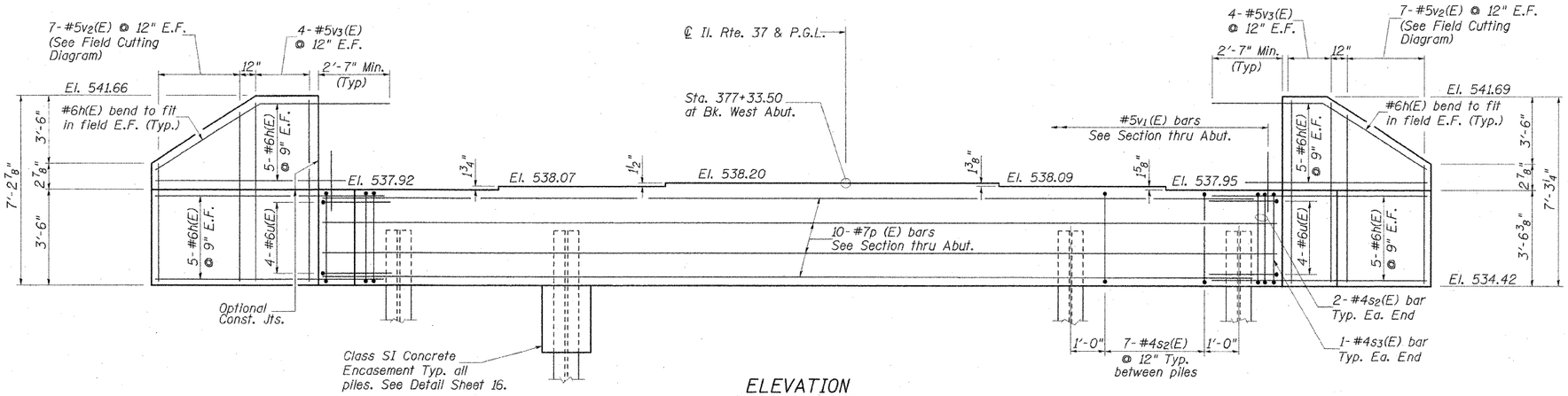
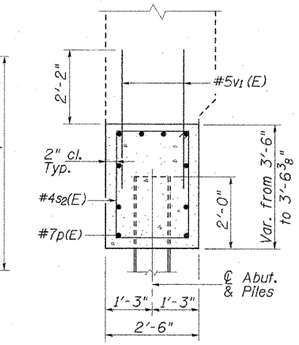
12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	43
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

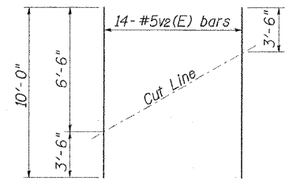
Contract 98777 SHEET 12 OF 18



ELEVATION

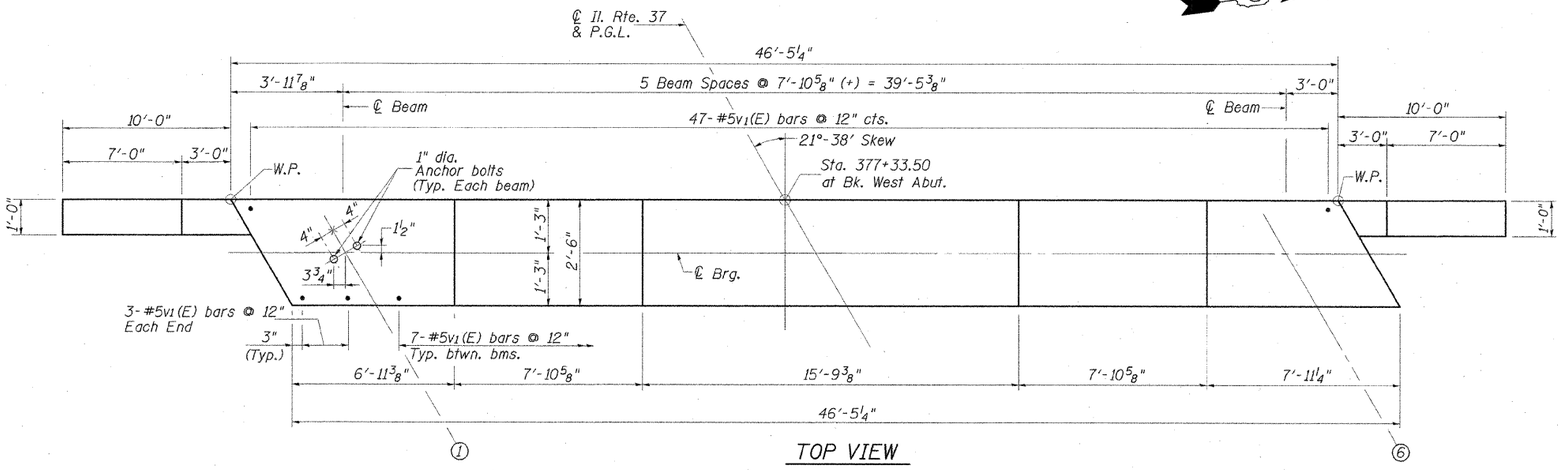


SECTION THRU ABUTMENT

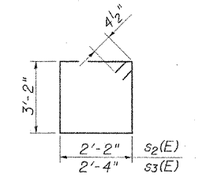


FIELD CUTTING DIAGRAM

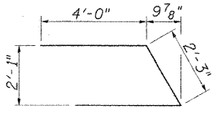
Order $v_2(E)$ full length. Cut as shown and use remainder of bars in opposite face.



TOP VIEW



BAR $s_2(E)$ & $s_3(E)$

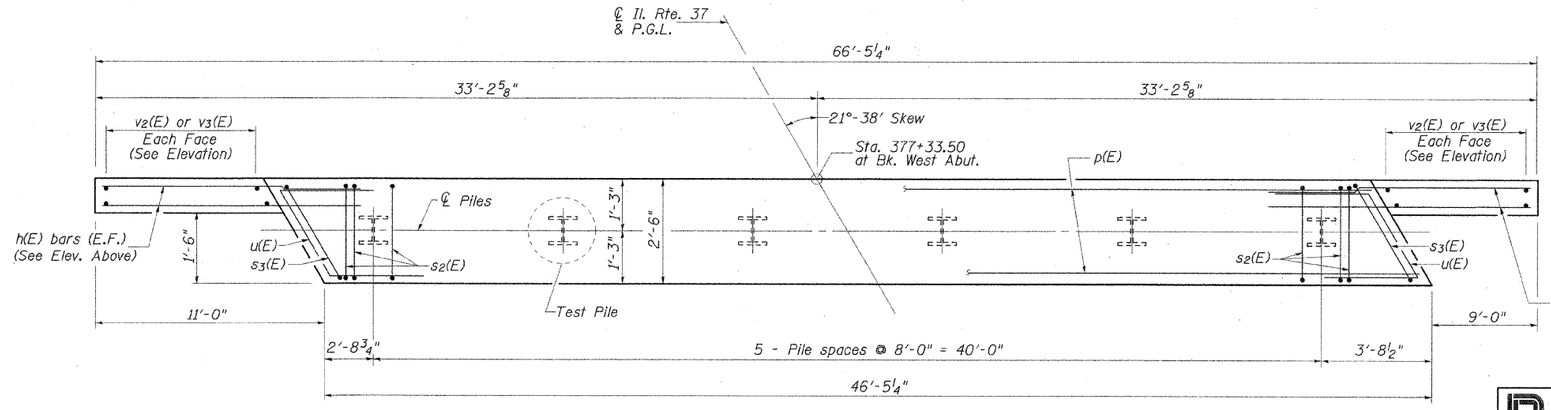


BAR u (E)

WEST ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	13'-0"	——
P (E)	10	#7	46'-1"	——
s_2 (E)	39	#4	11'-5"	□
s_3 (E)	2	#4	11'-9"	□
u (E)	8	#6	10'-3"	⌐
v_1 (E)	88	#5	4'-4"	——
v_2 (E)	14	#5	10'-0"	——
v_3 (E)	16	#5	6'-11"	——

Concrete Structures	Cu. Yd.	20.2
Concrete Encasement	Cu. Yd.	2.1
Reinforcement Bars, Epoxy Coated	Pound	2820
Structure Excavation	Cu. Yd.	141
Furnishing Steel Piles HP 10x42	Foot	213
Driving Piles	Foot	213
Test Pile Steel HP 10x42	Each	1
Pile Shoes	Each	6



PILE CAP PLAN

PILE DATA

PILE TYPE AND SIZE:	HP 10x42 with Metal Shoes
NOMINAL REQUIRED BEARING:	335 kips
FACTORED RESISTANCE AVAILABLE:	167 kips
ESTIMATED PILE LENGTH:	42.5 Ft.
NUMBER OF PRODUCTION PILES:	5
NUMBER OF TEST PILES:	1

NOTES:

1. Pour steps monolithically with cap.
2. Space reinforcement to miss anchor bolts.
3. See Sheet 2 of 18 for abutment backfill requirements.
4. See Sheet 16 of 18 for steel H-pile details.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

WEST ABUTMENT

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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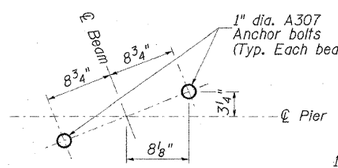
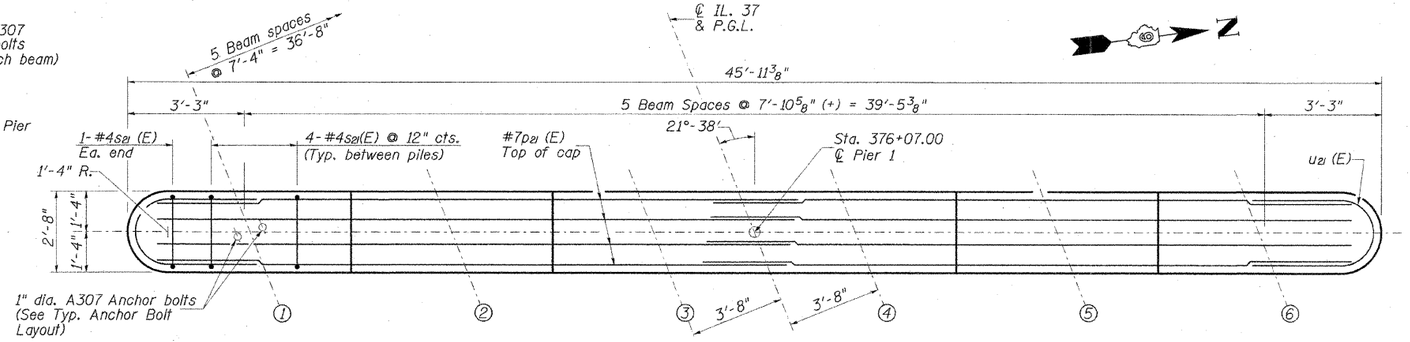
12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	44
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

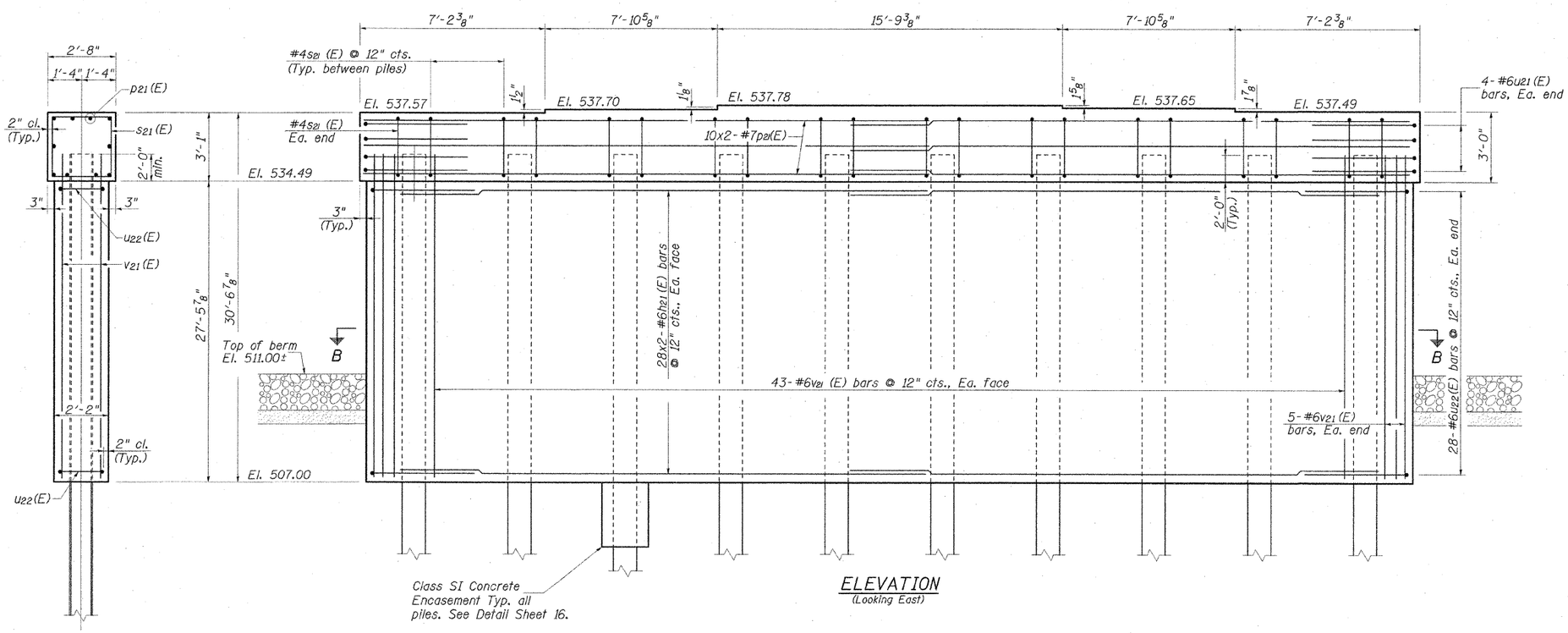
Contract 98777 SHEET 13 OF 18



TYP. ANCHOR BOLT LAYOUT

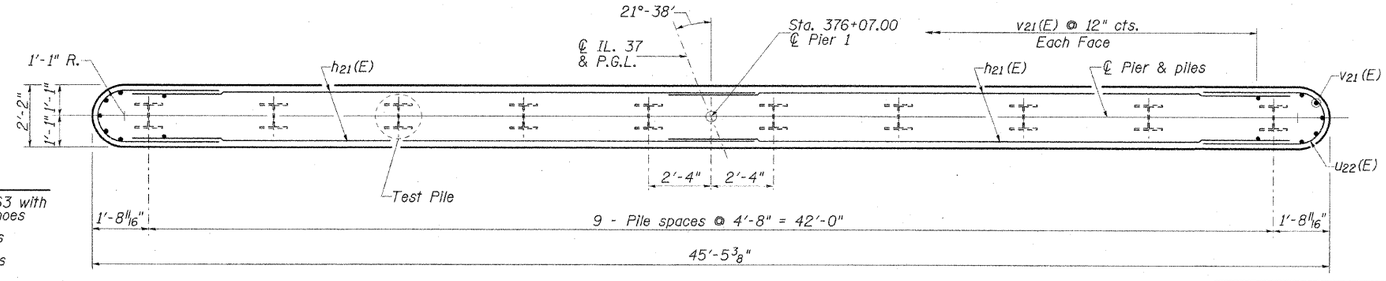


TOP PLAN



ELEVATION
(Looking East)

END VIEW



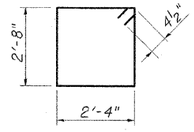
SECTION B-B

BILL OF MATERIAL

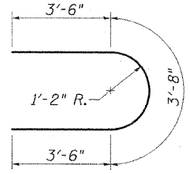
Bar	No.	Size	Length	Shape
h21 (E)	112	#6	23'-0"	——
p21 (E)	20	#7	23'-5"	——
s21 (E)	38	#4	10'-9"	□
u21 (E)	8	#6	10'-8"	⌓
u22 (E)	56	#6	8'-5"	⌓
v21 (E)	96	#6	29'-4"	——

Structure Excavation	Cu. Yd.	164
Concrete Structures	Cu. Yd.	113.4
Concrete Encasement	Cu. Yd.	3.5
Reinforcement Bars, Epoxy Coated	Pound	10,170
Furnishing Steel Piles, HP 12x63	Foot	320
Driving Piles	Foot	320
Test Pile Steel HP12x63	Each	1
Pile Shoes	Each	10

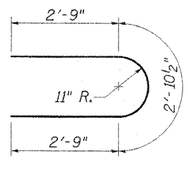
MIN. BAR LAP
#6 bar = 2'-7"
#7 bar = 3'-5"



BAR s21(E)



BAR u21(E)



BAR u22(E)

PILE DATA

PILE TYPE AND SIZE:	HP 12x63 with Metal Shoes
NOMINAL REQUIRED BEARING:	497 kips
FACTORED RESISTANCE AVAILABLE:	248 kips
ESTIMATED PILE LENGTH:	35.5 Ft.
NUMBER OF PRODUCTION PILES:	9
NUMBER OF TEST PILES:	1

NOTES
1. Pour steps monolithically with cap.
2. Space reinforcement in cap to miss anchor bolts.
3. See Sheet 16 of 18 for steel H-pile details.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER 1

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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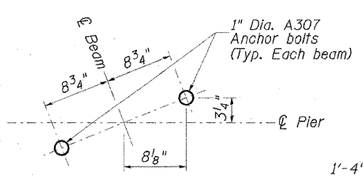
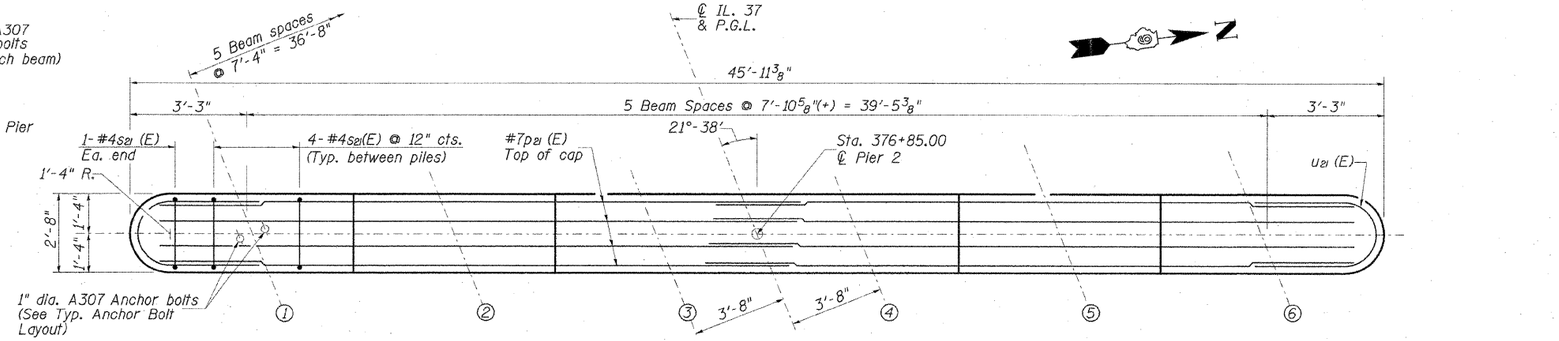
12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	45
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

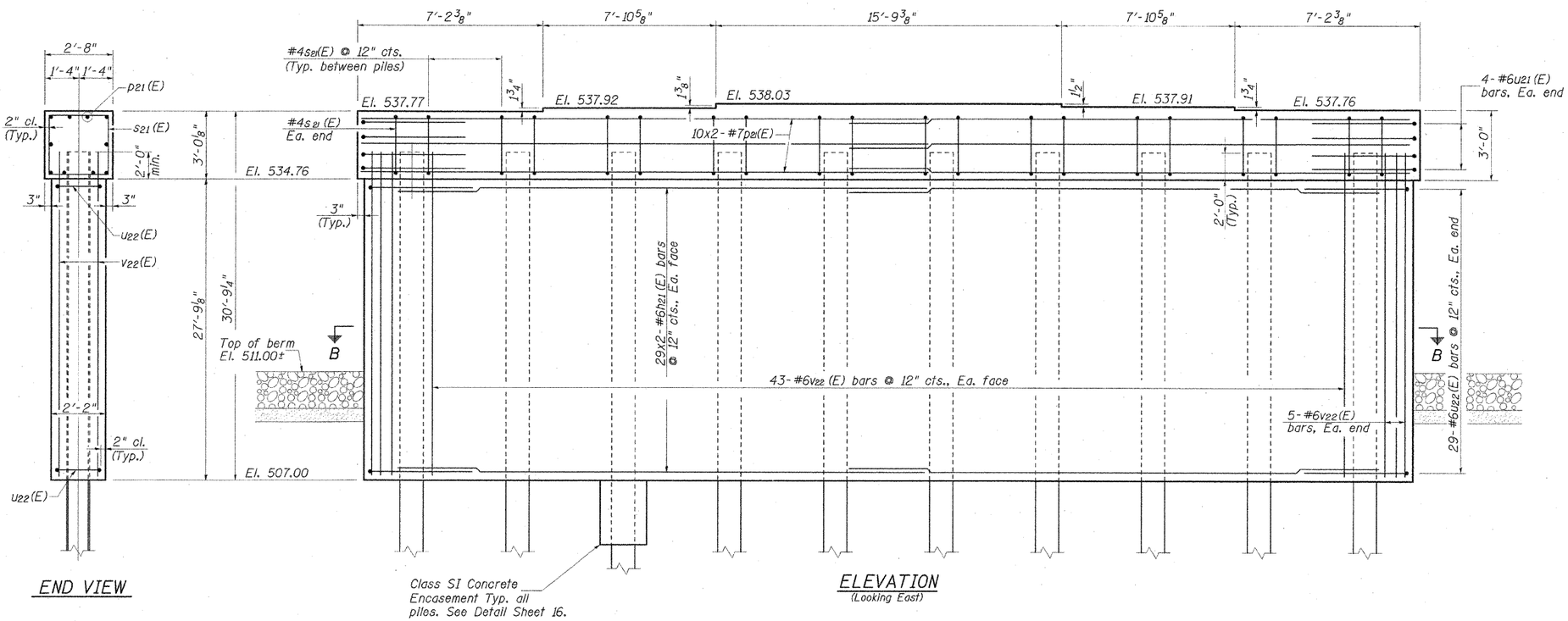
Contract 98777 SHEET 14 OF 18



TYP. ANCHOR BOLT LAYOUT

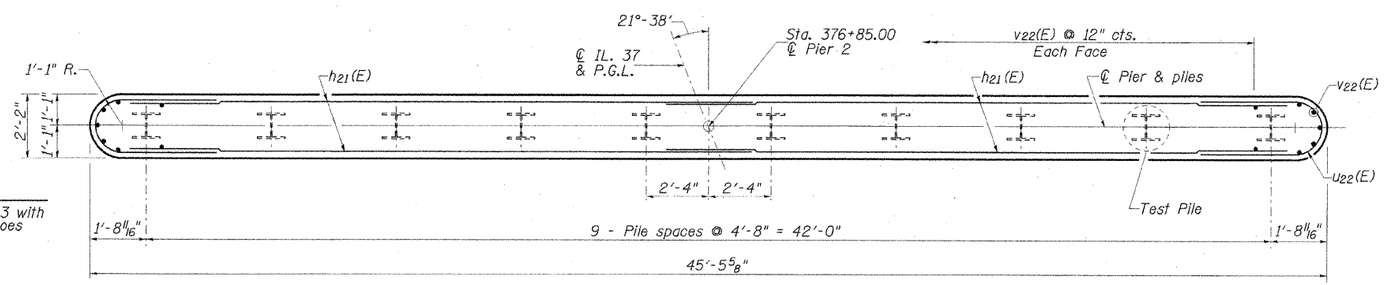


TOP PLAN



END VIEW

ELEVATION
(Looking East)



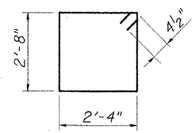
SECTION B-B

BILL OF MATERIAL

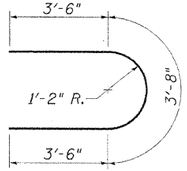
Bar	No.	Size	Length	Shape
h21 (E)	116	#6	23'-0"	
p21 (E)	20	#7	23'-5"	
s21 (E)	38	#4	10'-9"	
u21 (E)	8	#6	10'-8"	
u22 (E)	58	#6	8'-5"	
v22 (E)	96	#6	29'-7"	
Structure Excavation		Cu. Yd.	197	
Concrete Structures		Cu. Yd.	114.3	
Concrete Encasement		Cu. Yd.	3.5	
Reinforcement Bars, Epoxy Coated		Pound	10,370	
Furnishing Steel Piles, HP 12x63		Foot	338	
Driving Piles		Foot	338	
Test Pile Steel HP12x63		Each	1	
Pile Shoes		Each	10	

MIN. BAR LAP

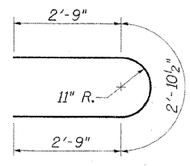
#6 bar = 2'-7"
#7 bar = 3'-5"



BAR s21(E)



BAR u21(E)



BAR u22(E)

NOTES

1. Pour steps monolithically with cap.
2. Space reinforcement in cap to miss anchor bolts.
3. See Sheet 16 of 18 for steel H-pile details.

PILE DATA

PILE TYPE AND SIZE:	HP 12x63 with Metal Shoes
NOMINAL REQUIRED BEARING:	497 kips
FACTORED RESISTANCE AVAILABLE:	248 kips
ESTIMATED PILE LENGTH:	37.5 Ft.
NUMBER OF PRODUCTION PILES:	9
NUMBER OF TEST PILES:	1

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

PIER 2
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: CLD
DATE: 12/14/07 CHECKED BY: WLB

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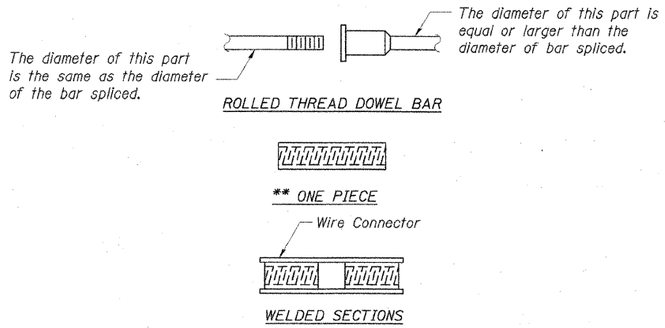
12/5/2007

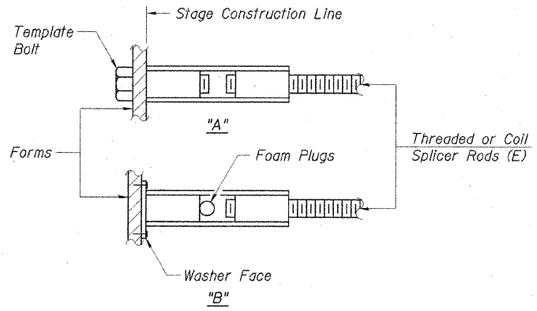
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	46
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 15 OF 18



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

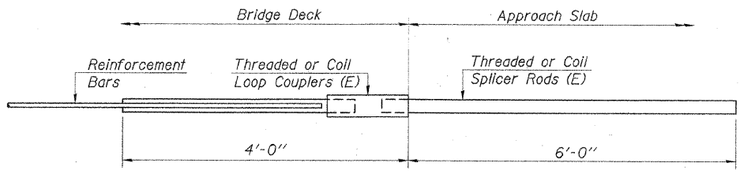
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

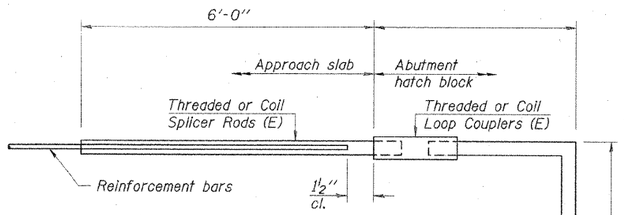
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



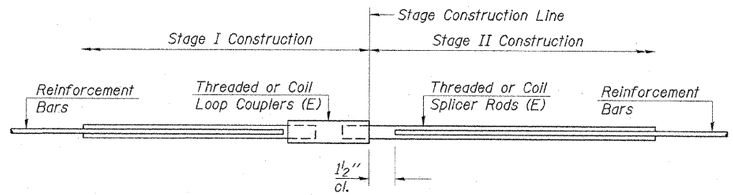
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 82



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
		Deck
		Diaphragm
		Abutments

REVISIONS	
NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS

F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BURLINGTON NORTHERN RAILROAD
SECTION (113V)B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

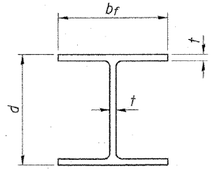
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

BSD-1 11-1-06

L:\IDOT\060660\SN.1000090\dr-aw\sheets\BAR SPLICER DTL5.dgn
12/5/2007

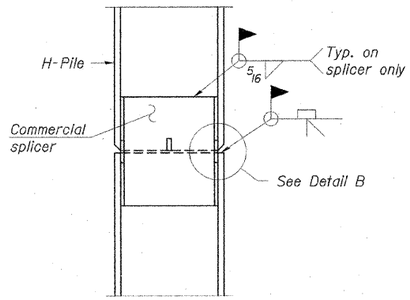
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	47
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 16 OF 18

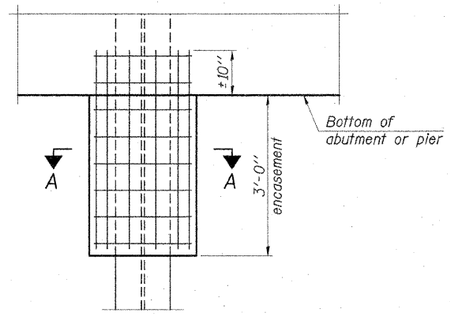


STEEL PILE TABLE

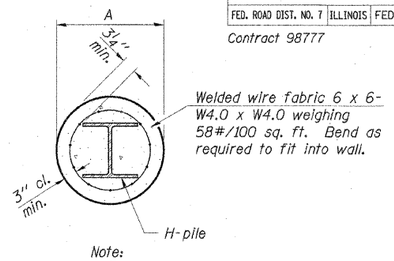
Designation	Depth d	Flange width b_f	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



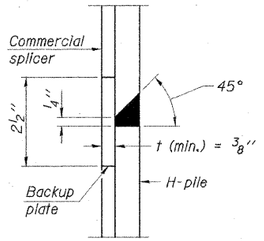
ELEVATION



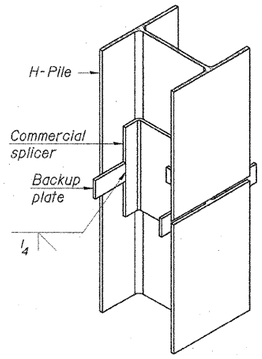
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

PILE ENCASEMENT

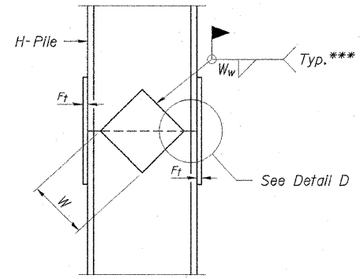


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



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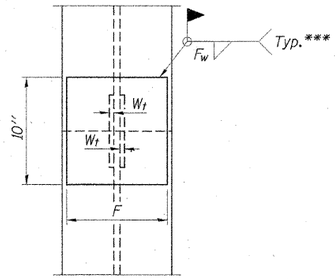
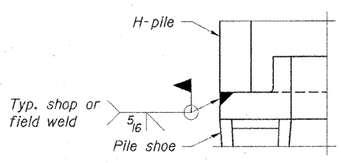


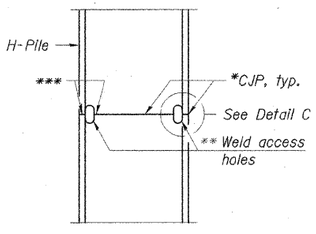
END VIEW



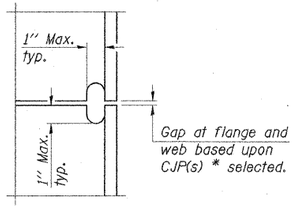
ELEVATION

DETAIL A

H-PILE SHOE ATTACHMENT

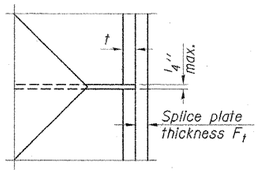


ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F_t	F_w	W	W_t	W_w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds 1/4" from end of each pile.

REVISIONS NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION
STEEL H-PILE DETAILS
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

F-HP 11-1-06

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12/5/2007

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	48
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 17 OF 18

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log — Sheet 1 of 2

Illinois Route 37 Over BN Railroad
Route: ILL 37 Structure Number: 100-0027 Date: 9/3/2002
Section: Bored By: Bryan Keller
County: Williamson Location: 1.7 Miles North of Illinois 148 Checked By: Rob Graeff

Boring No 1-S
Station 375+38
Offset 11' LT CL
Ground Surface 539.8 Ft

Surf Wat Elev:
Ground Water Elevation
when Drilling
At Completion
At: Hrs:

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
					3	1.6S	24
Bituminous Pavement					3		
538.3							
	1				1		
Stiff, very moist, brown, Silty Clay A-6	1	1.4B	19		2	1.4S	34
	1				2		
535.3				510.3			
Stiff to very stiff, very moist, brown, Clay to Silty Clay A7-6	1			Very stiff, moist, brown, Silty Clay A-6	1		
5.0	1	2.0B	20	30.0	2	2.1S	17
	2				5		
532.8				507.8			
	WH			Very stiff, moist, brown, Clay A7-6 with some Gravel	1		
Very stiff, moist, brown, Silty Clay A-6	1	3.2B	17		4	2.5B	20
	3				5		
				505.3			
10.0	1			Very stiff, moist, brown mottled grey, Silty Clay to Clay A7-6 with some Gravel	1		
	1	2.1B	18	35.0	3	2.1S	19
	2				5		
527.8				502.3			
Stiff, moist, brown, Silty Clay A-6	1			Hard, dry, brown, Sandstone	2		
	2	1.6S	20		100/4"		
	4						
15.0	1			499.8	40.0	100/1"	
	2	1.6S	17	Hard, dry, brown, Sandstone Cored from 40.0 ft to 45.0 ft. 17% Recovery 0% RQD			
	3						
522.8							
Very stiff, moist, brown mottled grey, Silty Clay A-6	1						
	3	2.1S	24				
	4						
520.3				494.8	45.0		
Stiff, moist to very moist, brown mottled grey, Silty Clay A-6	1			Hard, dry, brown to tan Sandstone Cored from 45.0 ft to 50.0 ft. 97% Recovery 0% RQD			
20.0	1	1.2S	25				
	3						
517.8							
Soft to medium, very moist, grey, Silty Clay Loam A-6	1						
	2	0.5B	25				
	1						
515.3							
25.0	1			489.8	50.0		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log — Sheet 1 of 2

Illinois Route 37 Over BN Railroad
Route: ILL 37 Structure Number: 100-0027 Date: 9/10/2002
Section 113 V.B. F. Bored By: Bryan Keller
County: Williamson Location: 1.7 Miles North of Illinois 148 Checked By: Rob Graeff

Boring No 2-S
Station 376+09
Offset 10' RT CL
Ground Surface 540.7 Ft

Surf Wat Elev:
Ground Water Elevation
when Drilling
At Completion
At: Hrs:

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Core Bridge Deck				Soft to medium, very moist, brown, Silty Clay Loam A-6	WH	0.5B	24
539.7					1		
				513.7			
Suspend Augers				Medium, very moist, brown, Silty Clay A-6 with some Gravel	WH		
					1	0.8B	24
					1		
				511.2			
				Soft, very moist, brown, Silty Clay A-6 with some Gravel and Boulders	WH		
5.0				30.0	WH	0.4B	28
					WH		
				508.7			
				Very stiff, very moist, brown, Silty Clay A-6	WH		
					1	2.2S	20
					2		
				505.2			
10.0				Stiff, very moist, brown mottled grey, Silty Clay A-6	1		
				35.0	1	1.1S	23
					1		
				503.7			
				Stiff, moist, brown mottled grey, Clay to Silty Clay A7-6	1		
					1	1.4S	20
					2		
				501.2			
15.0				Hard dry, brown, Sandstone	40.0	100/10"	
				500.2			
				Herd, dry, brown to tan, Sandstone with a Clay Seam Cored from 40.5 ft to 45.5 ft. 97% Recovery 72% RQD			
20.0					45.0		
				495.2			
518.7				Hard, dry, tan to brown, Sandstone with Clay Seams Cored from 45.5 ft to 50.5 ft. 80% Recovery 42% RQD			
Medium, very moist, brown, Silty Clay A-6	WH						
	WH	0.9B	24				
	WH						
516.2							
25.0	WH				50.0		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2

Route: ILL 37
Section:
County: Williamson
Date: 9/3/2002

Boring No: 1-S
Station: 375+38
Offset: 11' LT CL
Ground Surface: 539.8 Ft

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Hard dry, brown, Sandstone with a Clay Seam Cored from 50.0 ft to 55.0 ft 47% Recovery 71% RQD							
484.6	55.0				60.0		
Hard, dry, brown to grey Sandstone Cored from 55.0 ft to 60.0 ft 55% Recovery 33% RQD							
479.8	60.0				65.0		
Hard, dry, grey, Sandstone with Clay Shale Seams Cored from 60.0 ft to 65.0 ft. 37% Recovery 18% RQD				No free water observed.			
474.8	65.0			Elevation referenced to Back of Abutment Sta 375+66 CL Elevation = 540.29			
Bottom of hole = 65.0 ft				To convert "N" values to "N60" values multiply by 1.25.	70.0		

Sheet 2 of 2

Route: ILL 37
Section: 113 V.B. F.
County: Williamson
Date: 9/10/2002

Boring No: 2-S
Station: 376+09
Offset: 10' RT CL
Ground Surface: 540.7 Ft

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
490.2							
Hard, dry, brown to tan, Sandstone with Clay Layers Cored from 50.5 ft to 55.5 ft 52% Recovery 53% RQD							
485.2	65.0				60.0		
Hard, dry, grey to brown, Sandstone with a Clay Seam Cored from 55.5 ft to 60.5 ft. 100% Recovery 89% RQD				No free water observed.			
480.2	60.0			Elevation referenced to Center of Existing Structure at N. Abut Elevation = 540.3 ft			
Bottom of hole = 60.5 ft				To convert "N" values to "N60" values multiply by 1.25.	65.0		

L:\IDOT\060606\SN_1000090\drawsheets\BORING LOGS 1.dgn
12/5/2007

REVISIONS	
NAME	DATE

CMT
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CONSULTING ENGINEERS
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ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

BORING LOGS 1
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2905	113B-1	WILLIAMSON	87	49
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 18 OF 18

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log

Illinois Route 37 Over BN Railroad — Sheet 1 of 2
Route: ILL 37 — Structure Number: 100-0027 — Date: 9/10/2002
Section 113 V.B F. — Bored By: Bryan Keller
County: Williamson — Location: 1.7 Miles North of Illinois 148 — Checked By: Rob Graeff

Boring No 3-S
Station 377+85
Offset 9' LT CL
Ground Surface 541.1 Ft

Surf Wat Elev:
Ground Water Elevation
when Drilling 499.1
At Completion
At: Hrs:

DEPTH	BLOW	Qu tsf	W%		DEPTH	BLOW	Qu tsf	W%
Core Deck 540.1				Stiff, moist, brown, Silty Clay A7-6		1 2	1.7S	21
Suspend Augers				514.1				
				Very stiff, moist, brown, Silty Clay A-6		1 2 3	2.6S	19
				511.6				
	5.0			Stiff, moist to very moist, brown, Silty Clay A-6 with Coal Chips	30.0	1 2 9	1.6S	21
				509.1				
				Medium, very moist, grey mottled brown, Clay A7-6		1 2 2	0.9B	29
				506.6				
	10.0			Stiff, moist to very moist, grey, Silty Clay Loam A-6	35.0	WH 1 2	1.2B	26
				504.1				
				Very stiff, moist, grey mottled brown, Clay A7-6		WH 3 4	2.9S	17
				501.6				
	15.0			Stiff, moist, grey mottled brown, Clay A7-6 with a weathered Sandstone Layer	40.0	1 11 21	1.4S	27
				499.1				
				Hard, dry, brown, Sandstone		100/7"		
521.6								
Stiff, moist, brown mottled grey, Silty Clay Loam A-6	20.0	1 2 2	1.8S	17	45.0	100/5"		
519.1								
Very stiff, moist, brown, Silty Clay A-6		1 2 2	2.5P	17				
516.6					491.6			
	25.0	WH		Hard, dry, brown Weathered	50.0	3		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2
Route: ILL 37
Section: 113 V.B F.
County: Williamson
Date: 9/10/2002

Boring No: 3-S
Station: 377+85
Offset: 9' LT CL
Ground Surface: 541.1 Ft

DEPTH	BLOW	Qu tsf	W%		DEPTH	BLOW	Qu tsf	W%
Sandstone with a Clay Shale Layer		21 22						
486.6								
Hard, dry, brown, Sandstone	55.0	100/1"			80.9			
				Free water observed at 42.0 ft.				
				Elevation referenced to center of Existing Structure at N Abut Elevation = 540.3 ft.				
Hard, dry, grey, Clay Shale 481.1	60.0	100/6"			85.0			
				To convert "N" values to "N60" values multiply by 1.25.				
Bottom of hole = 60.0 ft.								

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation Boring Log

Illinois Route 37 Over BN Railroad — Sheet 1 of 2
Route: ILL 37 — Structure Number: 100-0027 — Date: 9/13/2002
Section 113 V.B F. — Bored By: Bryan Keller
County: Williamson — Location: 1.7 Miles North of Illinois 148 — Checked By: Rob Graeff

Boring No 4-S
Station 377+56
Offset 12' RT CL
Ground Surface 541.2 Ft

Surf Wat Elev:
Ground Water Elevation
when Drilling 496.7
At Completion 499.5
At: Hrs:

DEPTH	BLOW	Qu tsf	W%		DEPTH	BLOW	Qu tsf	W%
Bituminous Pavement 540.2				Very stiff, moist, brown, Clay A7-6		2 3	2.7B	22
				514.2				
Stiff, very moist, brown, Silty Clay A-6		1 1 1	1.5B	23		3 5 5	1.4B	17
536.7								
Very stiff, moist to very moist, brown, Silty Clay Loam A-6	5.0	1 2 2	2.1B	20	30.0	1 1 2	1.1S	22
534.2					509.2			
Stiff, very moist, brown, Silty Clay Loam A-6		WH 1 1	1.2B	25		1 1 1	0.9B	29
531.7					506.7			
Soft to medium, very moist, brown, Clay to Silty Clay Loam A-6 with some Gravel	10.0	WH 1 1	0.5B	23	35.0	WH 1 2	1.1B	21
529.2					504.2			
Stiff, very moist, brown mottled grey, Clay to Silty Clay A7-6 with some Gravel		1 1 1	1.2B	25		1 3 3	2.1B	26
	15.0	1 1 2	1.8B	23	40.0	1 4 3	1.1B	#424
524.2								
Very stiff, moist, brown mottled grey, Clay A7-6		1 1 1	2.2B	21				
521.7					496.7			
Stiff, very moist to moist, brown Clay A7-6	20.0	WH 1 2	1.3S	26	496.2 45.0	Hard, dry, brown, Sandstone Bottom of hole = 45.0 ft	100/6"	
						Free water observed at 44.5 ft		
		1 1 2	1.4B	21		Elevation referenced to center of Existing Structure at N Abut Elevation = 540.3 ft.		
516.7								
	25.0	1				To convert "N" values to "N60" values multiply by 1.25.	50.0	

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

REVISIONS	
NAME	DATE

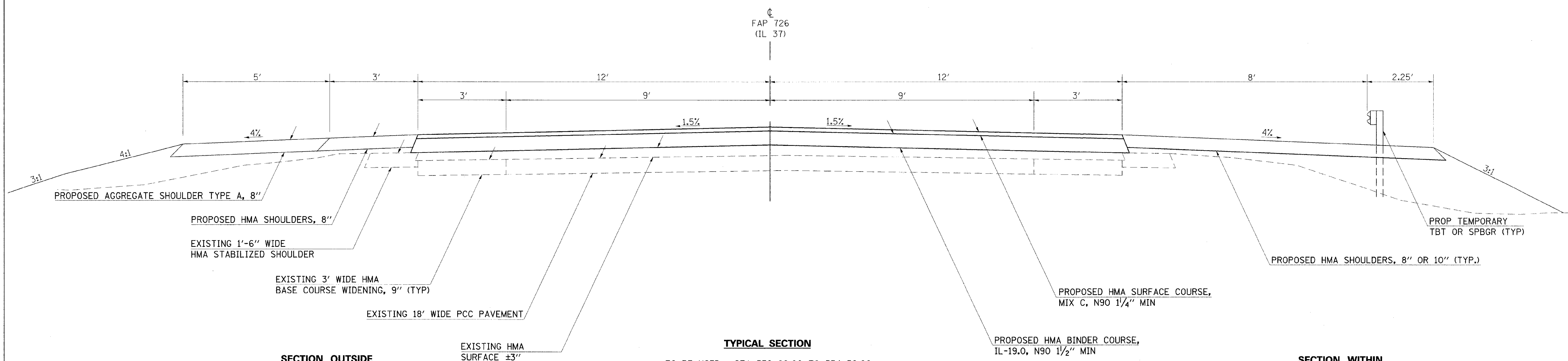
CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
BORING LOGS 2
F.A.S. ROUTE 2905 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
BN/SF RAILROAD
SECTION 113B-1 STA. 376+46.00
STR. NO. 100-0090 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

L:\IDOT\06066G\SN_1000090\draw\sheets\BORING LOGS 2.dgn
12/5/2007

CONTRACT NO 98777

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
726	113B-2	WILLIAMSON	87	50
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



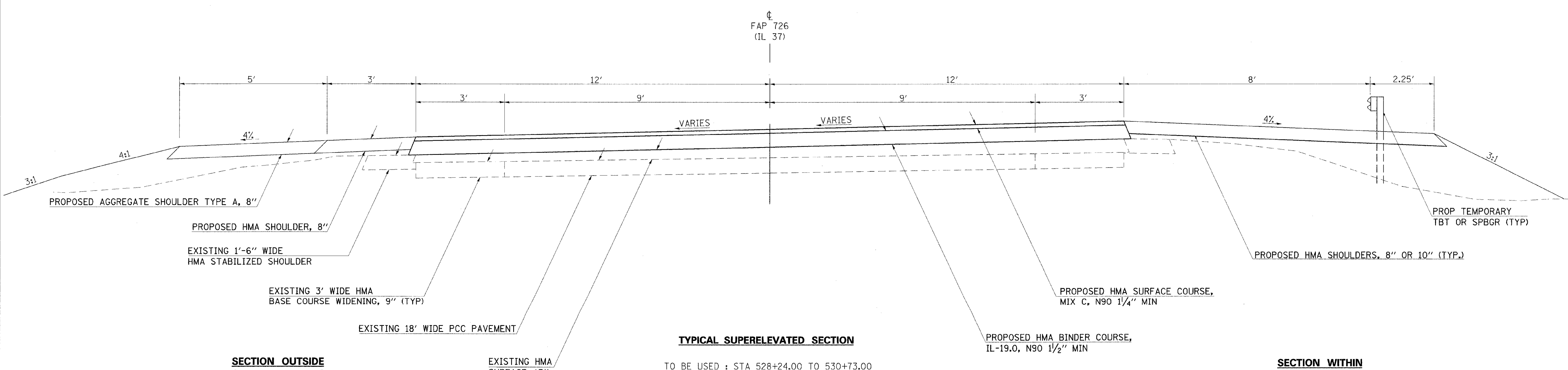
SECTION OUTSIDE GUARDRAIL LIMITS

TYPICAL SECTION

TO BE USED : STA 532+89.00 TO 534+52.00

LOOKING UPSTATION

SECTION WITHIN GUARDRAIL LIMITS



TYPICAL SUPERELEVATED SECTION

TO BE USED : STA 528+24.00 TO 530+73.00

LOOKING UPSTATION

SECTION OUTSIDE GUARDRAIL LIMITS

SECTION WITHIN GUARDRAIL LIMITS

12/3/2007
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50.0000 ' / IN.
haisteadtw

TYPICAL SECTIONS - LITTLE SALINE CREEK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
726	113B-2	WILLIAMSON	87	51
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 98777

TERMINALS AND GUARDRAIL SCHEDULE

LOCATION STATION TO STATION	TRAFFIC BARRIER TERMINALS			SPBGR	GUARDRAIL	TERMINAL	TRAFFIC BARRIER TERMINALS	
	TYPE 1 SPECIAL TANGENT	TYPE 6	TYPE 1 SPECIAL FLARED	TYPE A	MARKER	MARKER DIRECT APPLIED	TEMPORARY TYPE 1 SPL.	REMOVE AND RELOCATE
	EACH	EACH	EACH	FOOT	EACH	EACH	EACH	EACH
FAP 729 (IL 37)								
PRESTAGE 1								
LT STA 530+64 TO 531+14						1	1	
LT STA 532+73.75 TO 533+23.75						1	1	
STAGE 1								
RT STA 529+16.35 TO 529+66.35	1				1	1		
RT STA 529+66.35 TO 530+66.35				100	2			
RT STA 530+66.35 TO 531+12		1			1			
RT STA 532+26 TO 532+71.65		1			1			
RT STA 532+71.65 TO 533+09.15				37.5	2			
RT STA 533+09.15 TO 533+59.15	1				1	1		
STAGE 2								
LT STA 530+02.85 TO 530+52.85					1			1
LT STA 530+52.85 TO 530+90.35				37.5	2			
LT STA 530+90.35 TO 531+36		1			1			
LT STA 532+50 TO 532+95.65		1			1			
LT STA 532+95.65 TO 533+70.65				75	2			
LT STA 533+70.65 TO 534+08.15			1		1	1		
TOTALS	2	4	1	250	16	5	2	1

EROSION CONTROL SCHEDULE

LOCATION STATION TO STATION	STONE RIPRAP CLASS A5	FILTER FABRIC	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER	EROSION CONTROL BLANKET
	SQ YD	SQ YD	EACH	FOOT	SQ YD
FAS 726 (IL 37)					
STAGE 1					
STA 529+12 TO 531+15					161
STA 531+52 TO 533+74					176
STA 527+68 TO 531+08				362	
STA 531+01 TO 531+27				30	
STA 531+73 TO 532+18				47	
STA 531+52 TO 534+10				265	
STA 534+23 TO 535+08				83	
STA 529+91			1		
STA 531+08			1		
STA 531+60			1		
STA 532+74			1		
STA 530+94 TO 532+38	610.5	691.5			
STAGE 2					
STA 532+62 TO 533+17					27
STA 527+68 TO 531+89				420	
STA 532+41 TO 532+61				25	
STA 532+53 TO 534+13				169	
STA 534+39 TO 535+08				71	
STA 532+62			1		
STA 531+24 TO 532.68	610.5	691.5			
TOTALS	1221	1383	5	1472	364

EARTHWORK SCHEDULE

SN 100-0091 LOCATION	* EARTH EXCAVATION	CHANNEL EXCAVATION (UNSUITABLE)	SHRINKAGE FACTOR FOR EARTH EXCAVATION	EARTH EXCAVATION TO BE USED IN EMBANKMENT ADJUSTED FOR SHRINKAGE	** EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	SHRINKAGE FACTOR FOR BORROW EXCAVATION	BORROW EXCAVATION
	CU YD	CU YD	%	CU YD	CU YD	CU YD	%	CU YD
IL 37								
STA. 527+50 TO 531+21.50	172		25	129	832	-703	25	937
STA. 531+21.50 TO 532+40.50		525						
STA. 532+40.50 TO 535+50	191		25	143	786	-643	25	857
TOTALS	363	525		272	1618	-1346		1794

* CUTS FROM CROSS-SECTIONS
** FILLS FROM CROSS-SECTIONS

TREE REMOVAL SCHEDULE

LOCATION IL 37	TREE REMOVAL 6 TO 15 UNITS DIAMETER
	UNITS
SOUTH EAST QUADRANT	
STA. 533+00, 60' LT	10
STA. 533+05, 53' LT	12
STA. 533+22, 48' LT	7
STA. 533+22, 48' LT	10
STA. 533+22, 48' LT	8
STA. 533+22, 48' LT	8
STA. 533+35, 62' LT	12
STA. 533+47, 48' LT	6
STA. 533+75, 50' LT	6
TOTALS	79

REMOVAL SCHEDULE

LOCATION STATION TO STATION	GUARDRAIL REMOVAL	PAVEMENT REMOVAL	PAVED SHOULDER REMOVAL
	FOOT	SQ YD	SQ YD
FAS 726 (IL 37)			
PRE STAGE I			
LT STA 529+92 TO 531+63			75.4
LT STA 530+88.63 TO 531+13.55	25		
LT STA 532+73.81 TO STA 532+99.62	26		
LT STA 532+19 TO 533+77			69.2
STAGE I			
RT STA 530+62.77 TO 531+38.79	76		
RT STA 531+97.82 TO 532+73.30	76		
RT STA 530+74 TO 531+53		115.2	
RT STA 532+02 TO 532+88		126.5	
RT STA 528+24.00 TO 531+43			70.7
RT STA 532+00 TO 534+54			56.3
STAGE II			
LT STA 531+13.55 TO 531+64.88	51		
LT STA 532+23.75 TO 532+73.81	50		
LT STA 530+74 TO 531+61		89.6	
LT STA 532+12 TO STA 532+88		83.1	
LT STA 529+92 TO 531+63			75.4
LT STA 532+19 TO 533+77			69.2
TOTALS	304	415	416

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MARKING SCHEDULE

LOCATION STATION TO STATION	TEMP PVT MK LINE 4''		PAINT PVT MK LINE 4''		SHORT -TERM PAVEMENT MARKING	PAVEMENT MARKING REMOVAL
	WHITE	YELLOW	WHITE	YELLOW		
	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT
FAS 726 (IL 37)						
PRE STAGE I						
CL STA 527+75 TO 530+25						105
LT STA 529+92 TO 533+77	385					129
CL STA 533+50 TO 536+00						57.5
STAGE I						
CL STA 528+70 TO 534+95		625				
RT STA 529+65 TO 530+74						36.25
RT STA 532+88 TO 533+85						32.25
STAGE II						
RT STA 529+65 TO 533+85	420					
CL STA 528+70 TO 534+95		625				
POST STAGE II						
CL STA 527+69 TO 536+00					90	
LT STA 527+69 TO 535+09			740			
RT STA 527+69 TO 535+09			740			
STA 527+69 TO 530+25 (CL DASH + SOLID)				320		
STA 530+25 TO 533+50 (CL DOUBLE)				650		
STA 533+50 TO 536+00 (CL DASH + SOLID)				313		
TOTALS	805	1250	1480	1283	90	360

BRIDGE APPROACH SCHEDULE

LOCATION STATION TO STATION	POROUS GRANULAR EMBANKMENT(SPCL)	BRIDGE DECK GROOVING	BRIDGE APPROACH PAVEMENT	PROTECTIVE COAT
	CU YD	SQ YD	SQ YD	SQ YD
IL 37				
STA 530+91.50 TO 531+21.50	130		138	
STA 532+40.50 TO 532+70.50	130		138	
STA 530+76.10 TO 531+21.50		207		220
STA 532+40.50 TO 532+85.89		207		220
TOTALS	260	414	276	440

BRIDGE DECK GROOVING AND PROTECTIVE COAT QUANTITIES ARE FOR APPROACH PAVEMENTS AND CONNECTORS ONLY

SHOULDER SCHEDULE

LOCATION STATION TO STATION	HOT-MIX ASPHALT SHOULDERS 8''	HOT-MIX ASPHALT SHOULDERS 10''	AGGREGATE SHOULDERS TYPE A, 8''	HOT-MIX ASPHALT BASE COURSE WIDENING - 10''
	SQ YD	SQ YD	SQ YD	SQ YD
FAS 726 (IL 37)				
PRE STAGE I				
LT STA 529+92 TO 531+63				75
LT STA 532+19 TO 533+65				70
STAGE I				
RT STA 528+24 TO 529+65	102			
RT STA 530+74 TO 531+06.25	9			
RT STA 532+27.33 TO 532+88	15			
RT STA 533+85 TO 534+54	34			
RT STA 529+65 TO 530+74		136		
RT STA 532+88 TO 533+85		109		
RT STA 528+24 TO 529+06			44	
RT STA 533+72 TO 534+13			21	
RT STA 534+26 TO 534+54			16	
STAGE II				
LT STA 528+24 TO 531+34.33	182			
LT STA 532+33.66 TO 534+54	209			
LT STA 528+24 TO 529+87			91	
TOTALS	551	245	172	145

HOT-MIX ASPHALT SCHEDULE

LOCATION STATION TO STATION	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	HOT-MIX ASPHALT SURFACE COURSE, MIX C, N90	BITUMINOUS MATERIALS (PRIME COAT)
	TON	TON	GALLON
STA 527+69 TO 528+24		14	
STA 528+24 TO 530+76		47	
STA 532+85.89 TO 534+54		32	
STA 534+54 TO 535+09		13	
STA 527+99 TO 530+76	109		
STA 532+85 TO 534+76	98		
STA 528+24 TO 530+76			40
STA 532+85 TO 534+52			61
TOTALS	207	106	101

SEEDING AND FERTILIZING SCHEDULE

LOCATION STATION TO STATION	SEEDING CLASS 2	SEEDING CLASS 7	NITROGEN (N)	PHOSPHOROUS (P)	POTASSIUM (K)	MULCH METHOD 2	AGRICULTURAL GROUND LIMESTONE	TEMPORARY EROSION CONTROL SEEDING
	ACRES	ACRES	POUND	POUND	POUND	ACRES	TON	POUND
RT STA 528+00 TO 531+00	0.21	0.21	33.6	25	25	0.40	0.42	21
RT STA 532+25 TO 535+00	0.15	0.15	24	18	18	0.26	0.3	15
LT STA 528+00 TO 531+25	0.15	0.15	24	18	18	0.30	0.3	15
LT STA 532+75 TO 534+75	0.09	0.09	14.4	11	11	0.14	0.18	9
TOTALS	0.60	0.60	96	72	72	1.1	1.20	60

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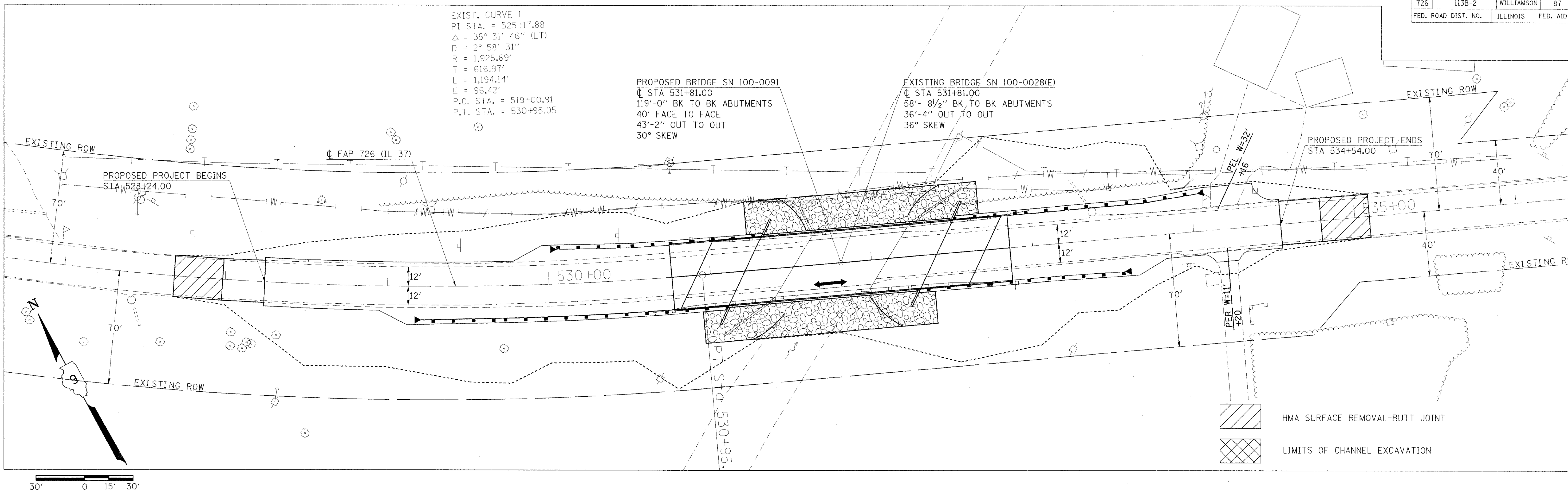
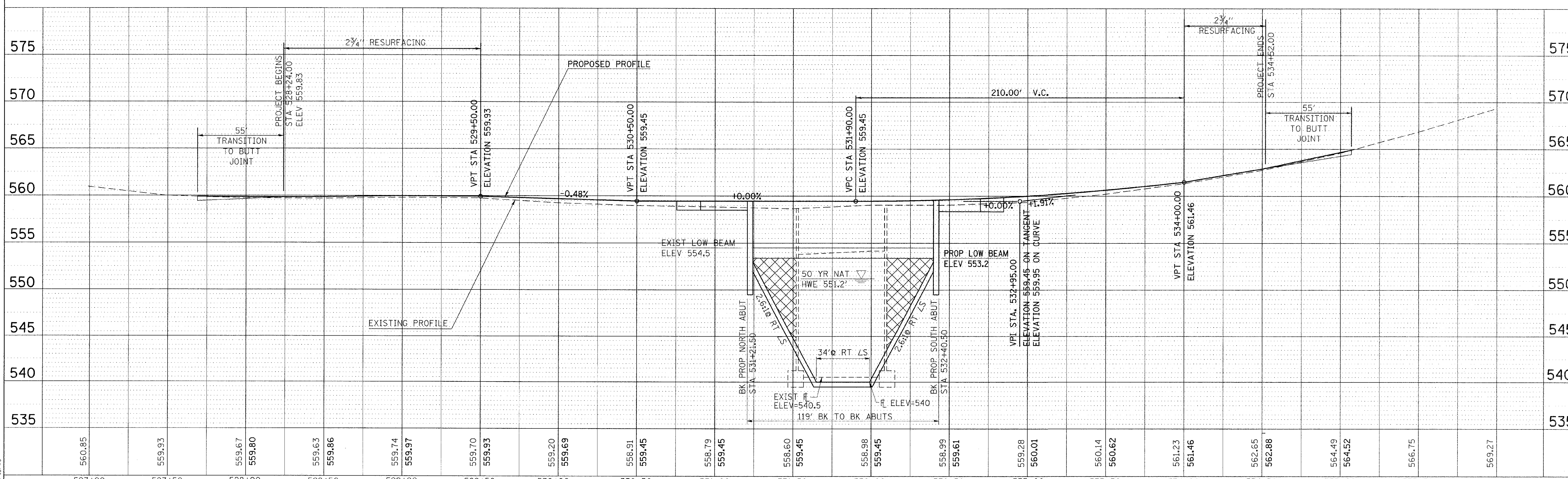
CONTRACT NO 98777

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
726	113B-2	WILLIAMSON	87	53
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



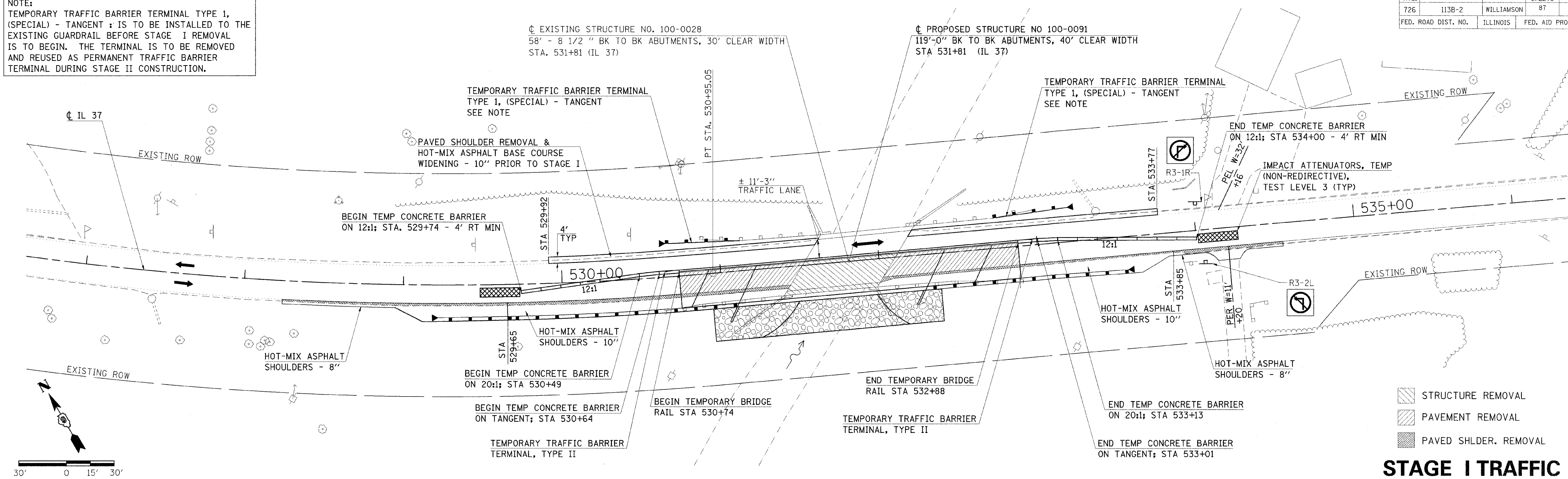


PLAN/PROFILE – IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO 98777

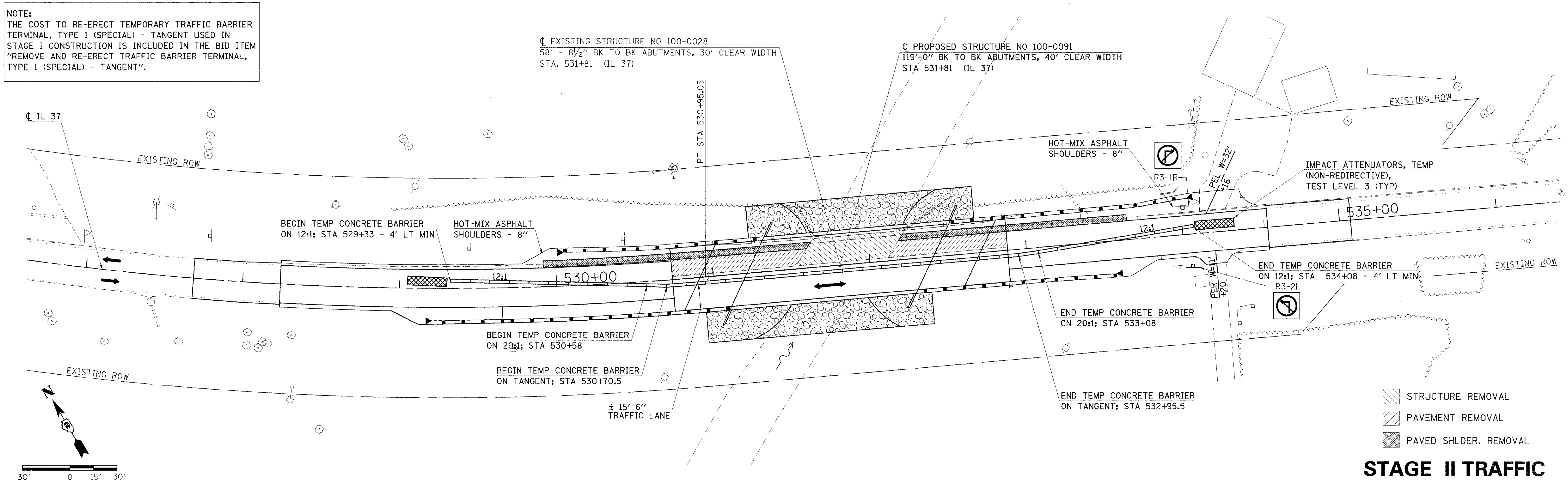
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
726	113B-2	WILLIAMSON	87	54
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

NOTE:
TEMPORARY TRAFFIC BARRIER TERMINAL TYPE 1, (SPECIAL) - TANGENT : IS TO BE INSTALLED TO THE EXISTING GUARDRAIL BEFORE STAGE I REMOVAL IS TO BEGIN. THE TERMINAL IS TO BE REMOVED AND REUSED AS PERMANENT TRAFFIC BARRIER TERMINAL DURING STAGE II CONSTRUCTION.



STAGE I TRAFFIC

NOTE:
THE COST TO RE-ERECT TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) - TANGENT USED IN STAGE I CONSTRUCTION IS INCLUDED IN THE BID ITEM "REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) - TANGENT".



STAGE II TRAFFIC

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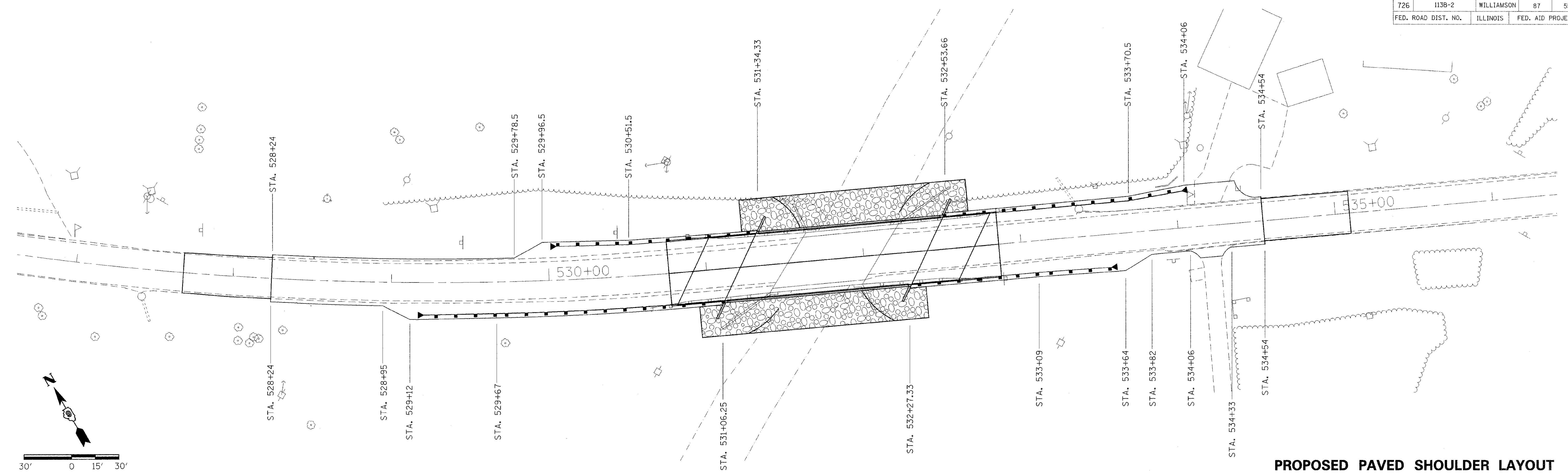
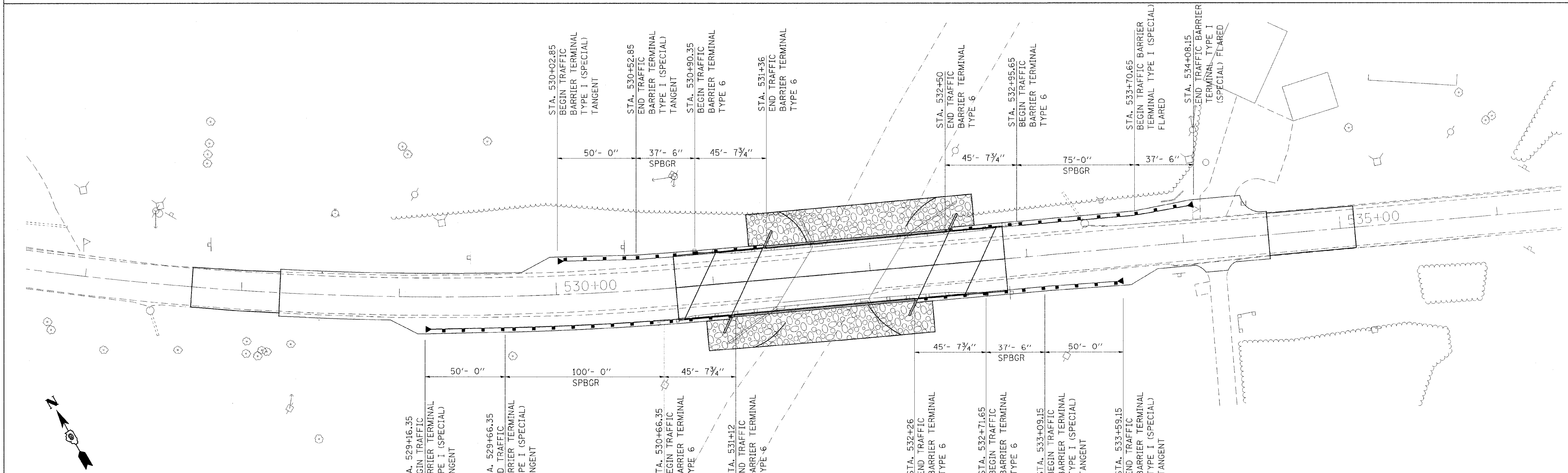
STAGE CONSTRUCTION - SN 100-0091
IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO 98777

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
726	113B-2	WILLIAMSON	87	55
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



PROPOSED PAVED SHOULDER LAYOUT

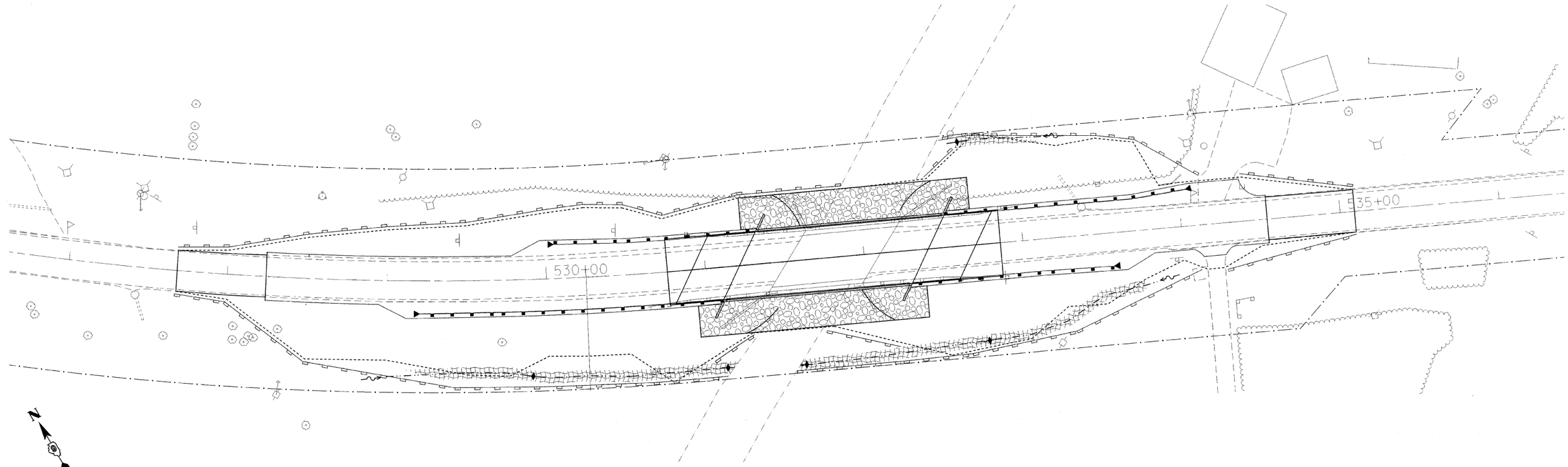


PROPOSED GUARDRAIL LAYOUT

PAVED SHOULDER/GUARDRAIL LAYOUT
IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO 98777

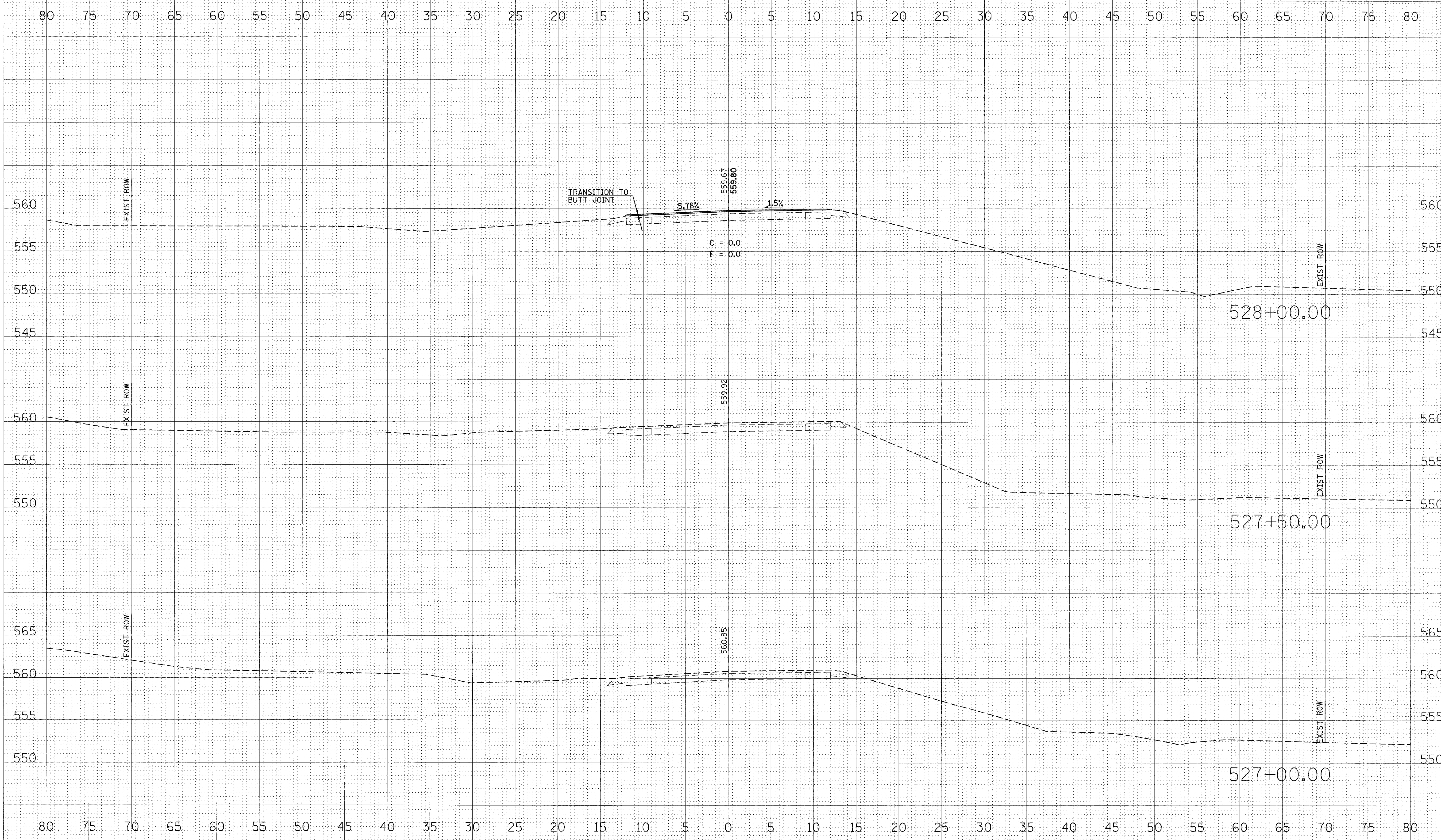
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
726	113B-2	WILLIAMSON	87	56
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



EROSION CONTROL –
IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	57
STA. 527+00.00 TO STA. 528+00.00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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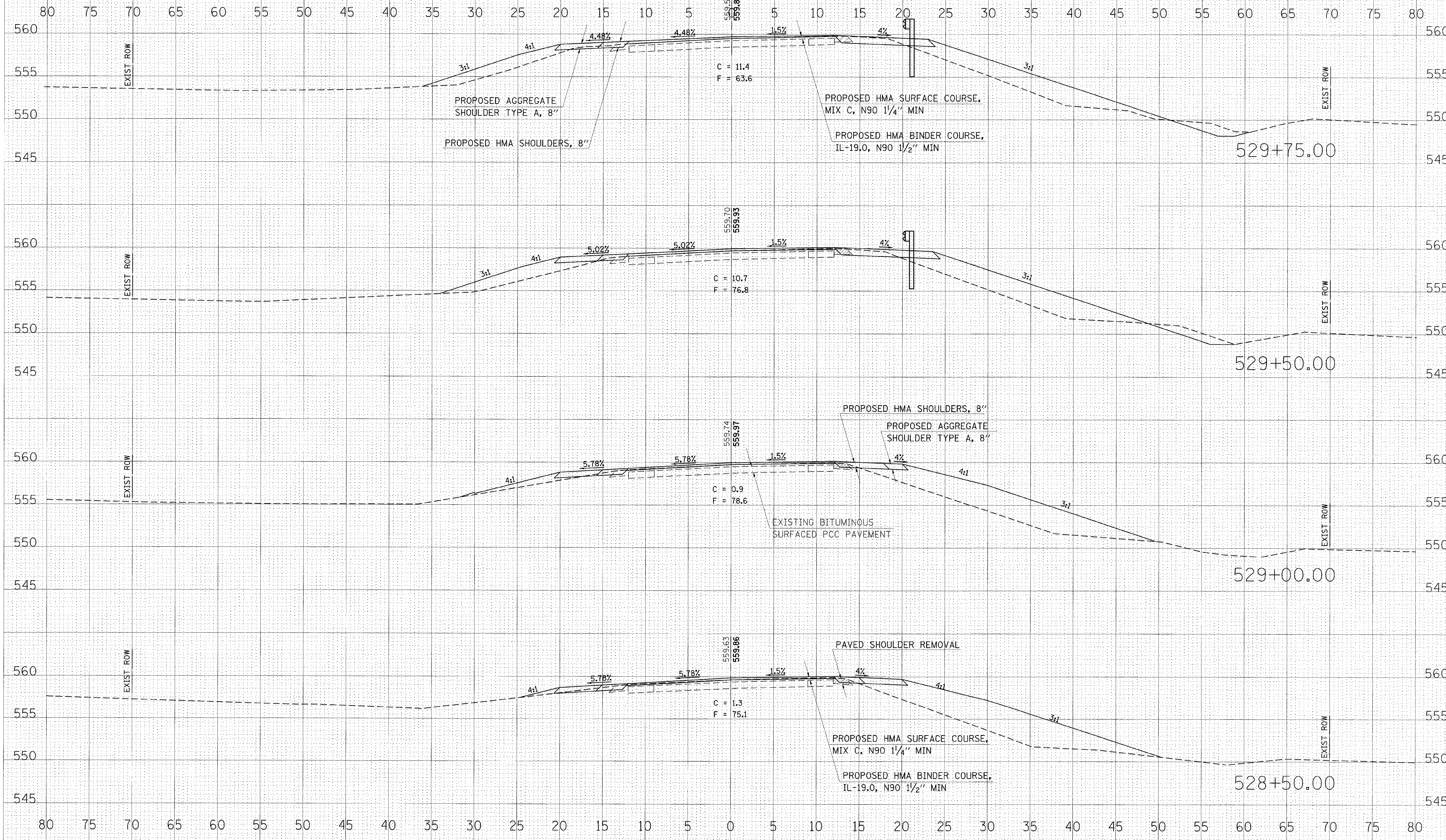
CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	58

STA. 528+50.00 TO STA. 529+75.00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT



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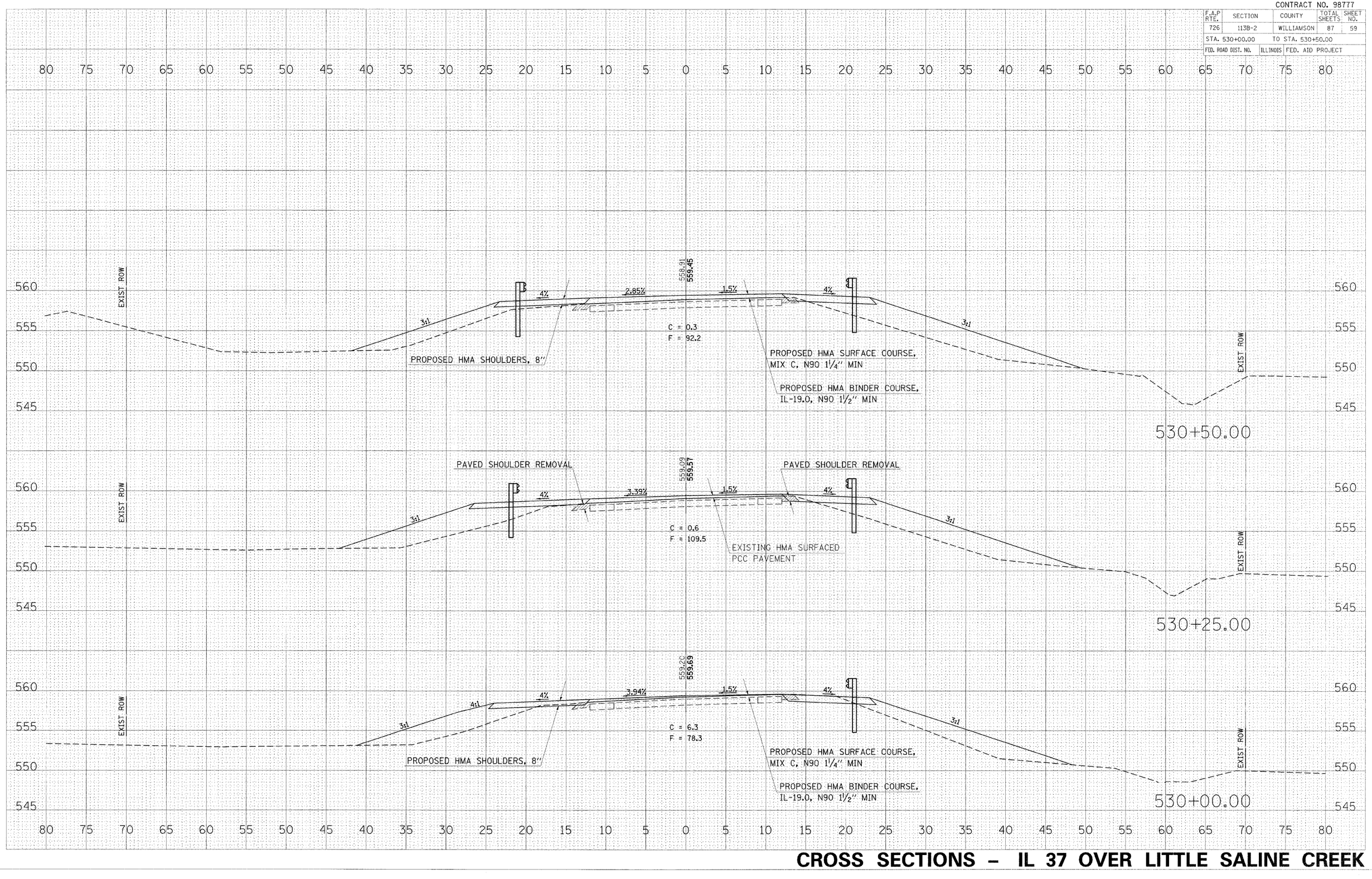
CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	59
STA. 530+00.00		TO STA. 530+50.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



FINAL SURVEY | ORIGINAL SURVEY
NOTE BOOK
NO.
SURVEYED
PLOTTED
TEMPLATE
TEAM
AREAS CHECKED
BY
DATE

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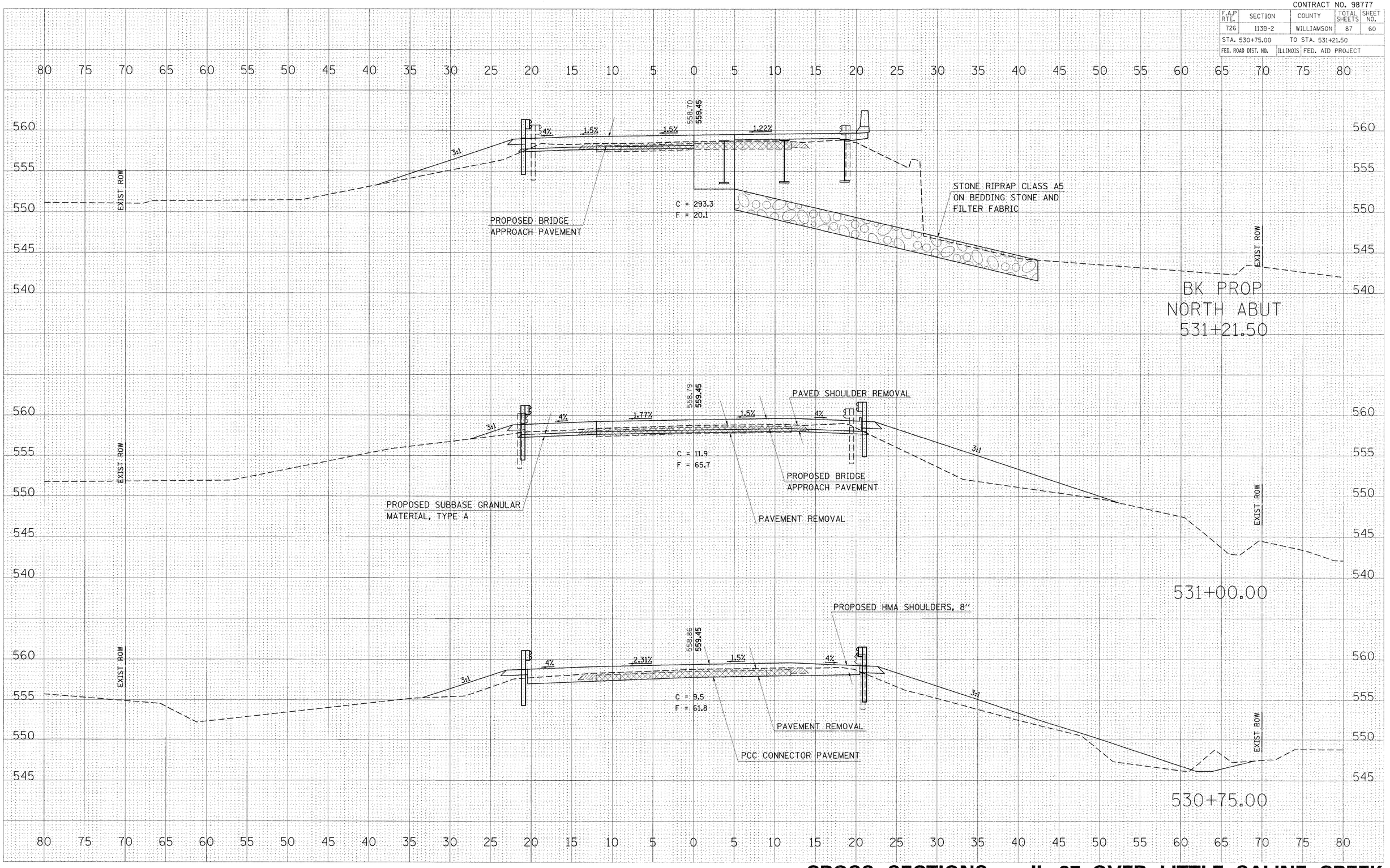
CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	60
STA. 530+75.00		TO STA. 531+21.50		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED

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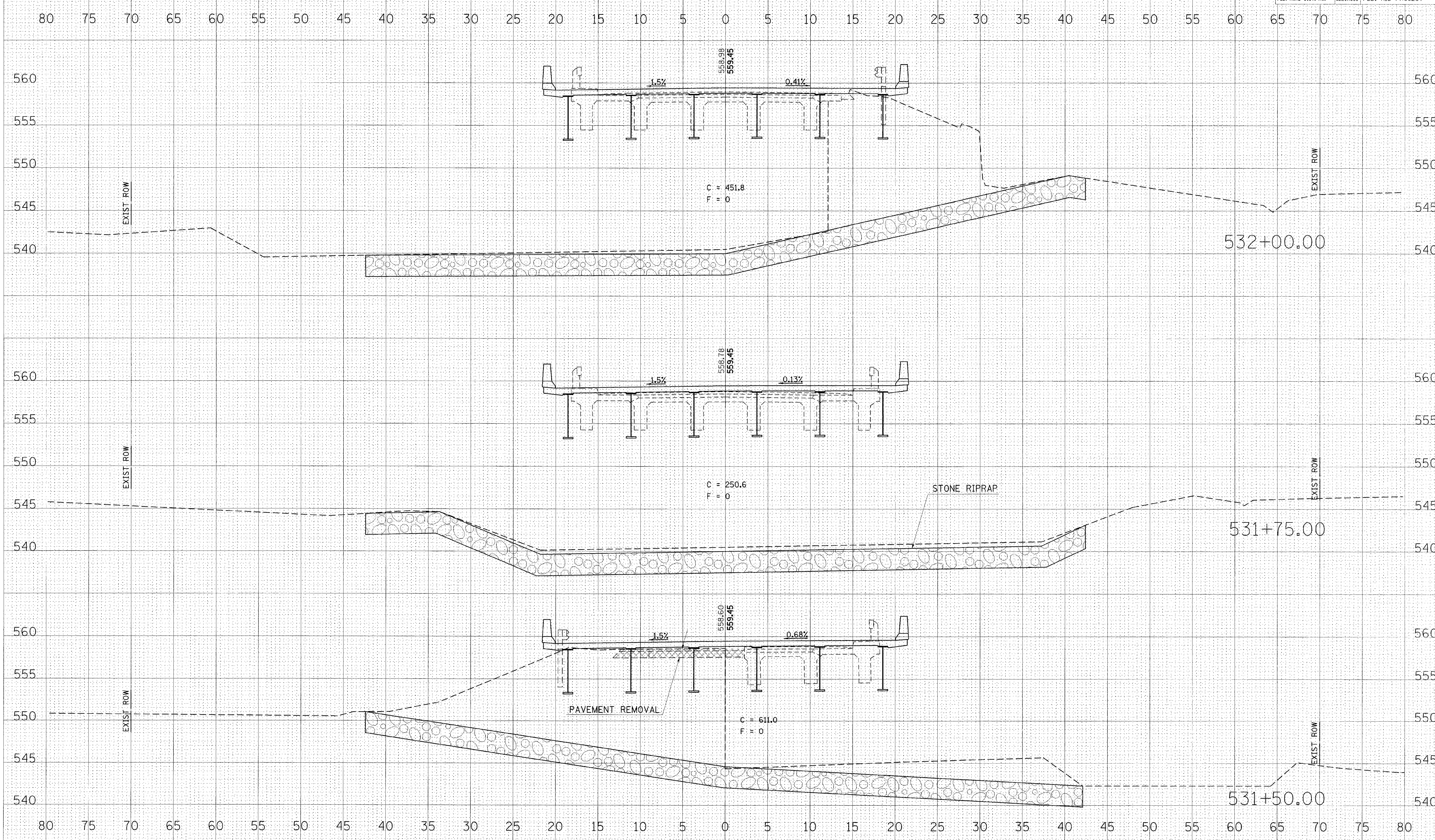
CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	61
STA. 531+50.00	TO STA. 532+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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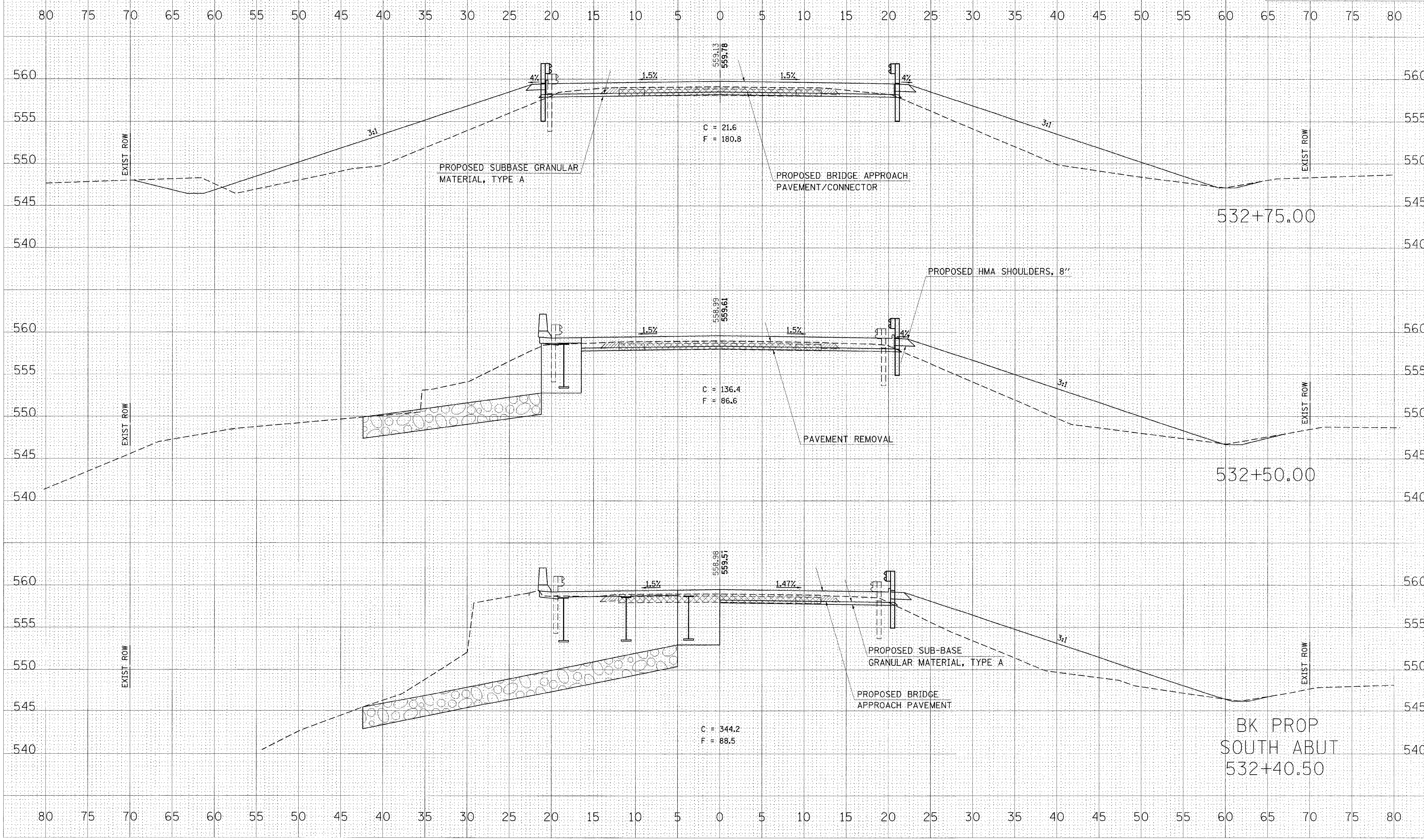
CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	62
STA. 532+40.50	TO STA. 532+75.00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

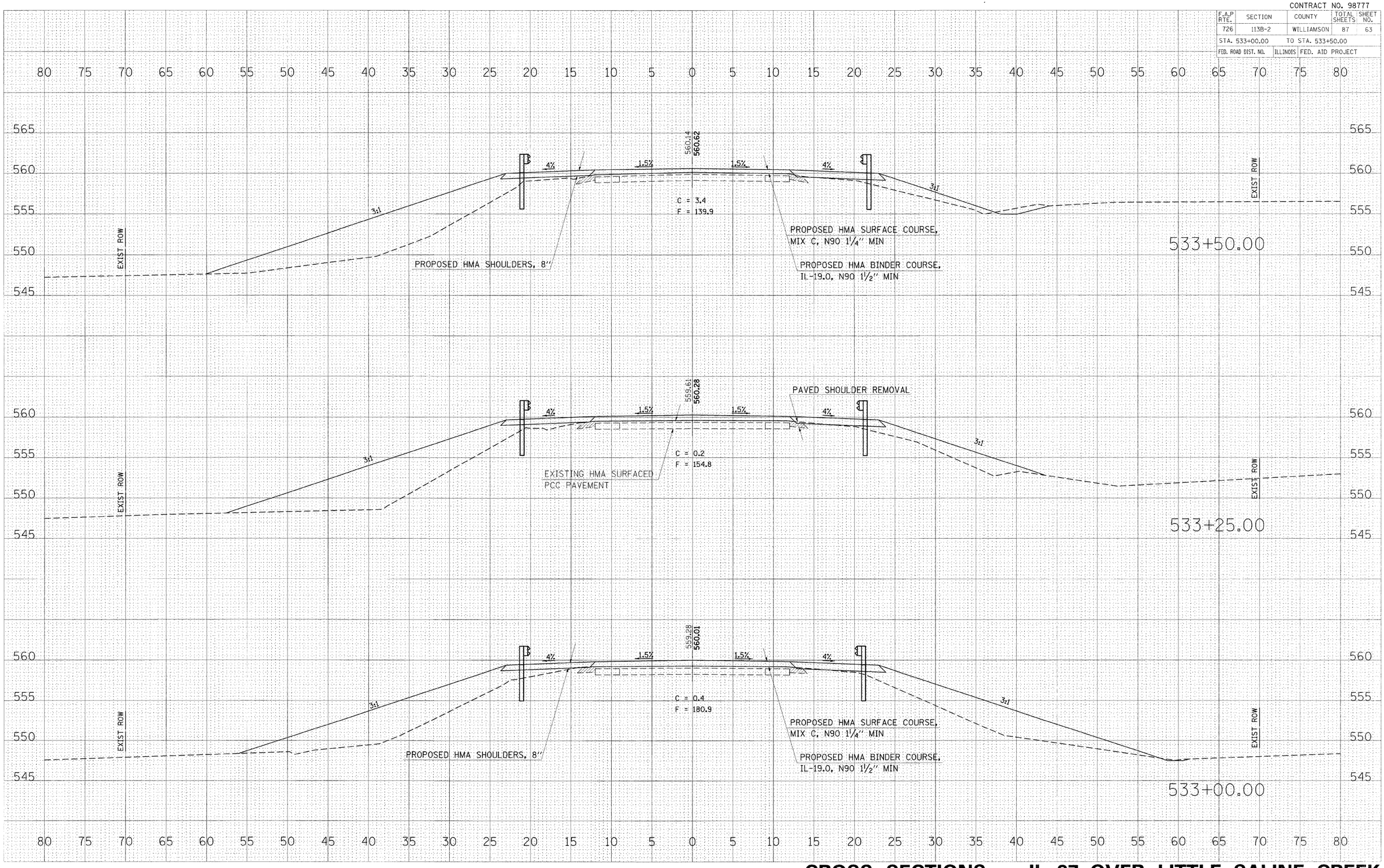


PLOT DATE = 12/3/2007
PLOT SCALE = 5.0000 '/ IN.
USER NAME = halsteadtw

CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	63
STA. 533+00.00		TO STA. 533+50.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

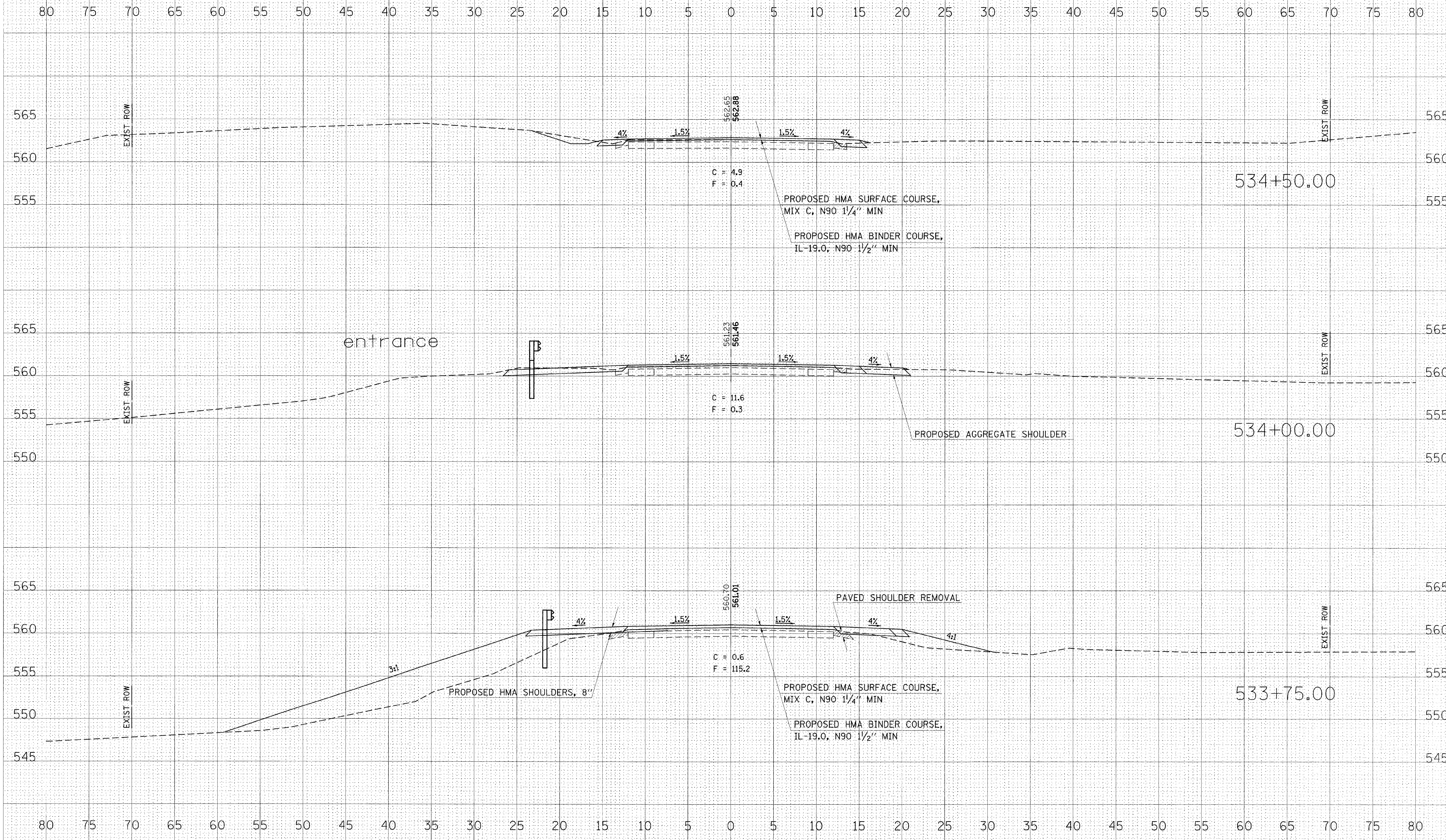


CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

PLOT DATE = 12/3/2007
FILE NAME = c:\projects\p901783\00-0020.sht
PLOT SCALE = 5.0000 ' / IN.
USER NAME = halsteadtw

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	64
STA. 533+75.00	TO STA. 534+50.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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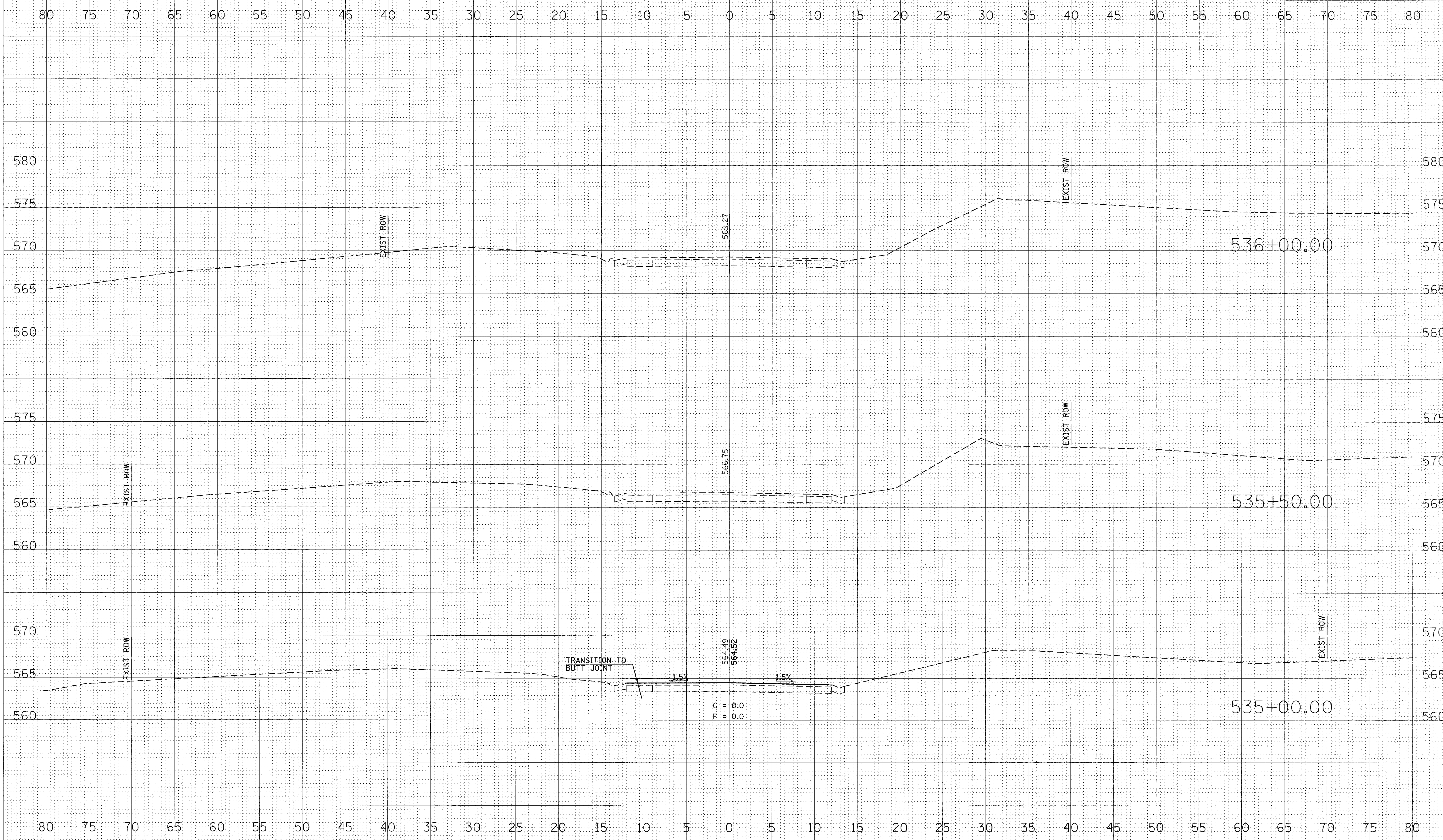
PLOT SCALE = 5.0000 '/ IN.
USER NAME = halsteadw

CROSS SECTIONS – IL 37 OVER LITTLE SALINE CREEK

CONTRACT NO. 98777

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	65
STA. 535+00.00	TO STA. 536+00.00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | BY | DATE

ORIGINAL SURVEY | NOTE BOOK | NO. | SURVEYED | PLOTTED | TEMPLATE | XLAS | AREAS CHECKED | BY | DATE

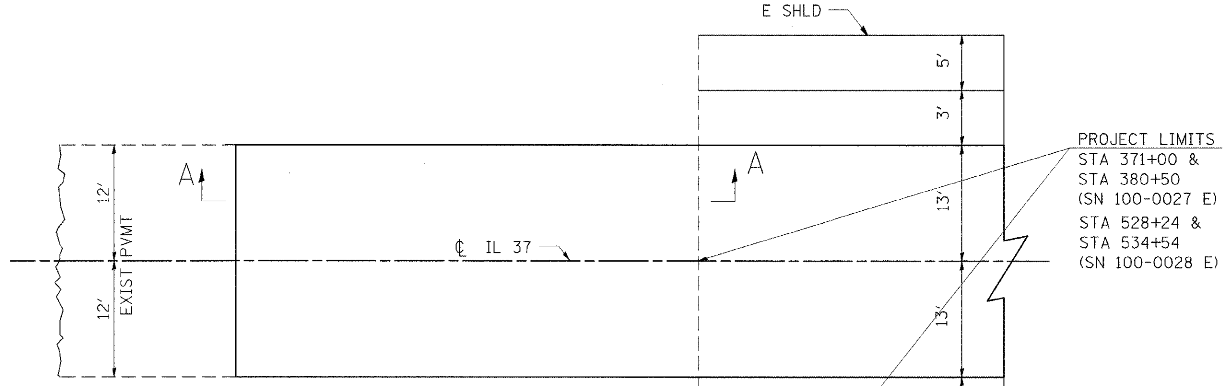
PLOT DATE = 12/3/2007
PLOT SCALE = 5.0000 ' / IN.
USER NAME = halsteadtw

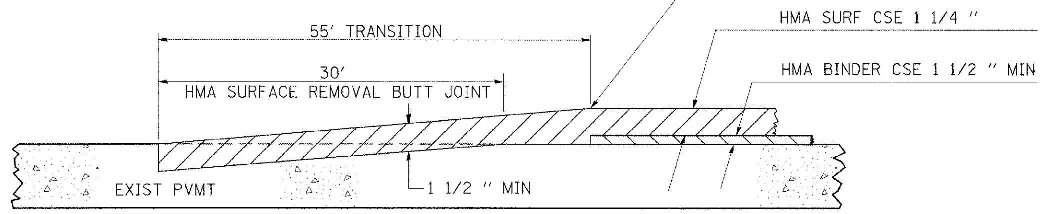
CROSS SECTIONS - IL 37 OVER LITTLE SALINE CREEK

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	726	113B-1, 113B-2	WILLIAMSON	87	66
STA.			TO STA.		
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 98777

BUTT JOINT



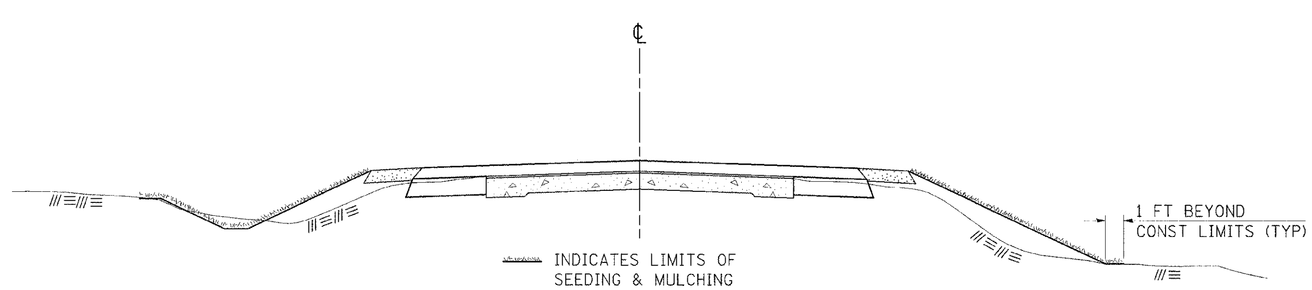


SECTION A-A

REVISIONS	
DRAWN	10-17-90
REVISED	01-11-07
REVISED	
REVISED	

STD. 9-86

SEEDING & MULCHING



GENERAL NOTES

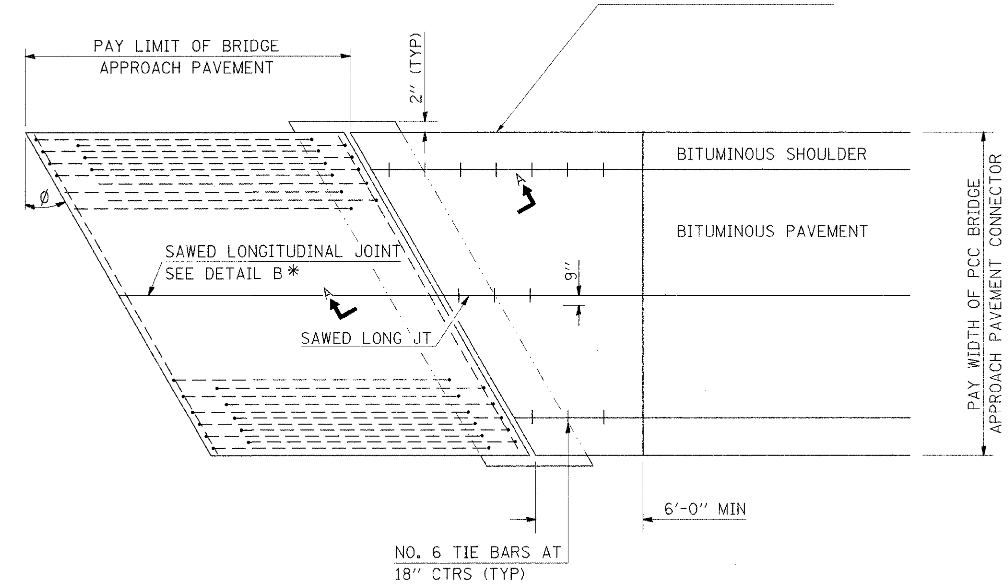
IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

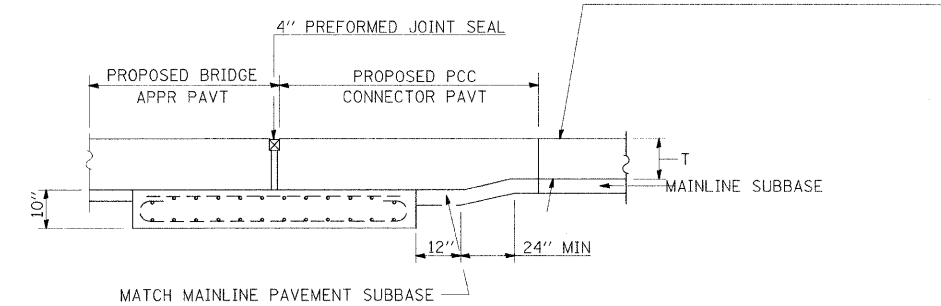
THE RATES OF APPLICATION OF FERTILIZER, MULCH AND LIMESTONE SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

PCC PAVEMENT CONNECTOR



BRIDGE APPROACH PAVEMENT CONNECTOR (PCC) SPECIAL
(MODIFICATION TO STD 420401)



SECTION A-A

12/3/2007
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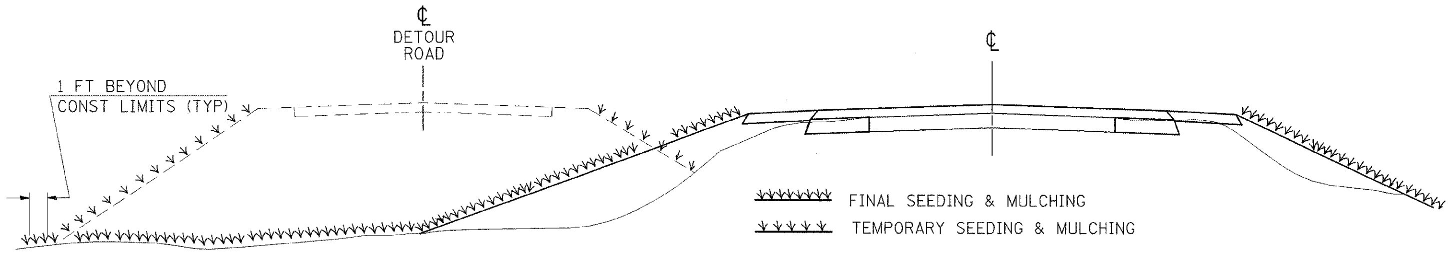
DETAILS: BUTT JOINT; SEEDING AND MULCHING; PCC PAVEMENT CONNECTOR

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	726	113B-1, 113B-2	WILLIAMSON	87	67
STA.			TO STA.		
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	

CONTRACT NO. 98777

SEEDING & MULCHING

(WITH DETOUR ROAD)



GENERAL NOTES

THE DETOUR SLOPES SHALL BE SEEDED IMMEDIATELY UPON COMPLETION OF THE STAGE I GRADING.

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS SHALL BE APPLIED TO ALL SEEDED AREAS. LIMESTONE SHALL BE APPLIED TO ALL AREAS OF FINAL SEEDING.

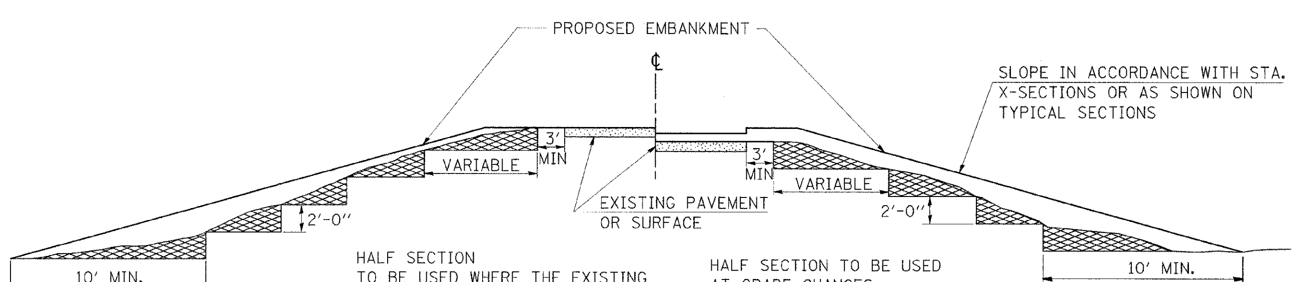
THE RATES OF APPLICATION OF SEED, FERTILIZER, MULCH AND LIMESTONE, THE METHOD OF MULCHING AND THE SEED MIXTURES SHALL BE AS SPECIFIED IN THE SPECIAL PROVISIONS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
REVISED	
REVISED	

STD. 9-13

TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL



HALF SECTION TO BE USED WHERE THE EXISTING EMBANKMENT IS TO BE WIDENED

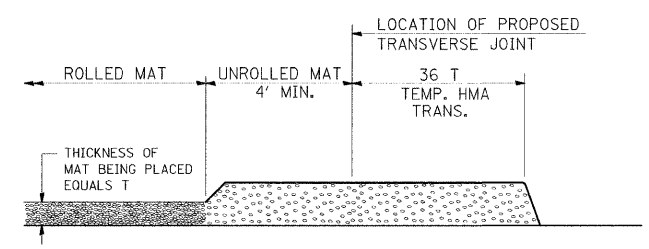
HALF SECTION TO BE USED AT GRADE CHANGES

MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99
REVISED	

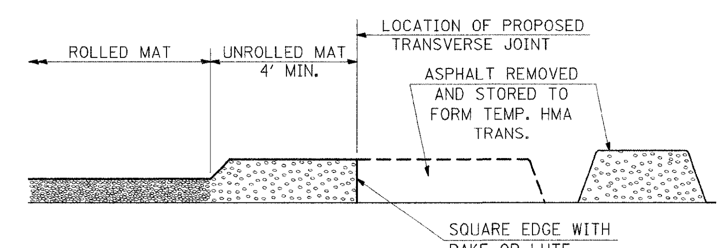
STD. 9-16

TEMPORARY HOT-MIX ASPHALT TRANSITIONS



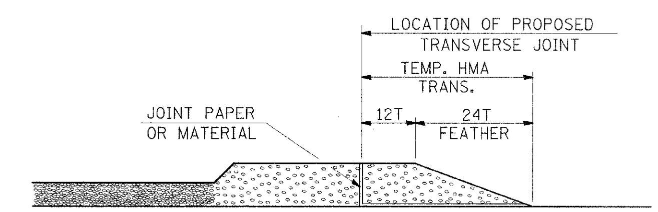
STEP I

1. PLACE HOT-MIX ASPHALT MAT, LENGTH 36 TIMES THE THICKNESS OF THE MAT BEING PLACED PAST THE PROPOSED TRANSVERSE JOINT LOCATION USING NORMAL OPERATING PROCEDURES.
2. EXTREME CARE SHOULD BE TAKEN TO MAINTAIN ENOUGH MATERIAL IN FRONT OF THE SCREED TO MAINTAIN REQUIRED PAVING DEPTH.



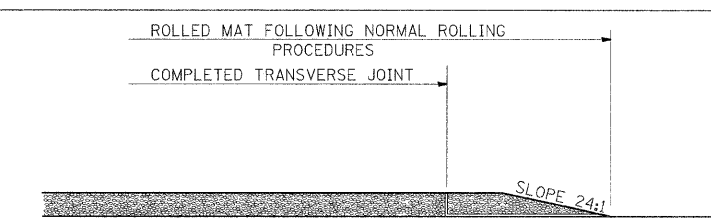
STEP II

1. MOVE THE PAVER OUT OF THE WAY AND REMOVE THE ASPHALT FROM THE AREA OF THE PROPOSED TEMPORARY HOT-MIX ASPHALT TRANSITION.
2. SQUARE UP THE END OF THE MAT WITH A RAKE OR LUTE.
3. NOTE THAT THE MAT WITHIN 4' OF THE END OF JOINT IS NOT TO BE ROLLED AT THIS TIME.



STEP III

1. JOINT PAPER OR OTHER PRESELECTED JOINT MATERIAL IS THEN PLACED IN THE CLEARED AREA AND THE EXCESS ASPHALT USED TO HAND FORM A TRANSITION TO THE DIMENSIONS SHOWN ABOVE.
2. NOTE THAT IN CONSTRUCTING THE TRANSITION, THE MAT DEPTH IS CONTINUED AS PART OF THE TRANSITION BEFORE FORMING THE FEATHER.



STEP IV

1. COMPLETE TEMPORARY TRANSITION BY ROLLING.
2. TO RESUME PAVING, AT THE JOINT, REMOVE TEMPORARY TRANSITION AND DISPOSE OF THE MATERIAL ACCORDING TO ART. 202.03 OF THE STD. SPECS. (COST INCLUDED IN THE CONTRACT).
3. CONSTRUCTING THE TEMPORARY TRANSITIONS WILL NOT BE PAID FOR SEPARATELY IN ACCORDANCE WITH ARTICLE 406.14 OF THE STANDARD SPECIFICATIONS.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-16-94
REVISED	01-09-07
REVISED	

STD. 9-26

DETAILS: SEEDING AND MULCHING; STEP CONSTRUCTION ON EXISTING FILL; BITUMINOUS SHOUDER AT GUARDRAIL TERMINAL; TEMPORARY HMA TRANSITIONS

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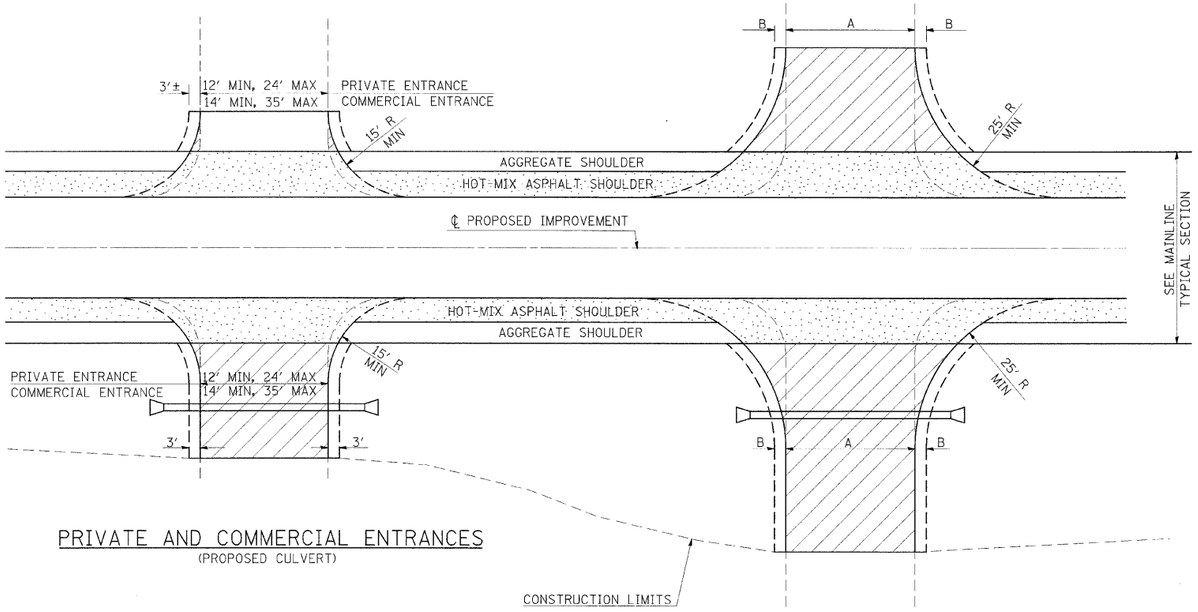
RURAL SIDE APPROACH DETAILS

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	726	113B-1, 113B-2	WILLIAMSON	87	68
STA.		TO STA.			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 98777

PRIVATE AND COMMERCIAL ENTRANCES



PRIVATE AND COMMERCIAL ENTRANCES
(PROPOSED CULVERT)

SIDEROADS

SIDEROADS
(PROPOSED CULVERT)

SIDEROAD DIMENSIONS (MIN.)

ADT	A (FT)	B (FT)
0 TO 250	18'	2'
250 TO 400	20'	2'
GREATER THAN 400	22'	4'

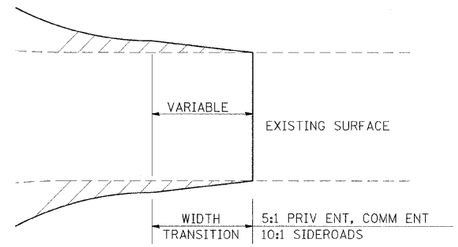
FIELD ENTRANCE TREATMENT

CONSTRUCT MAINLINE HOT-MIX ASPHALT AND AGGREGATE SHOULDERS THROUGH FIELD ENTRANCES.

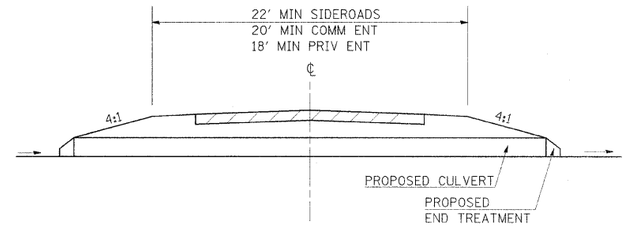
IF A PIPE IS REQUIRED, PROVIDE A 25' WIDE EARTH EMBANKMENT WITH 15' RADII AT THE INTERSECTION.

WIDTH TRANSITION DETAIL TO EXISTING

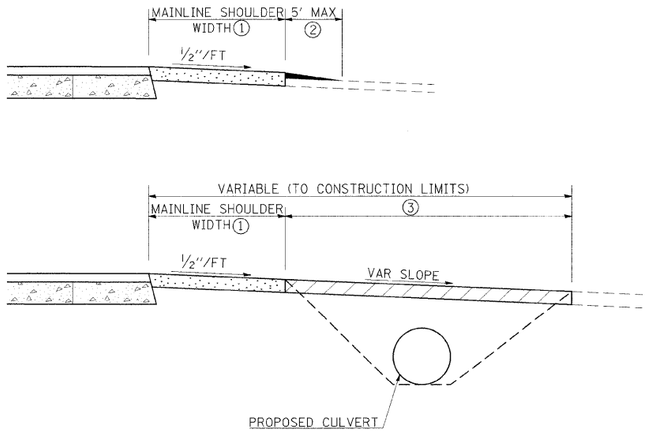
(IF APPLICABLE)



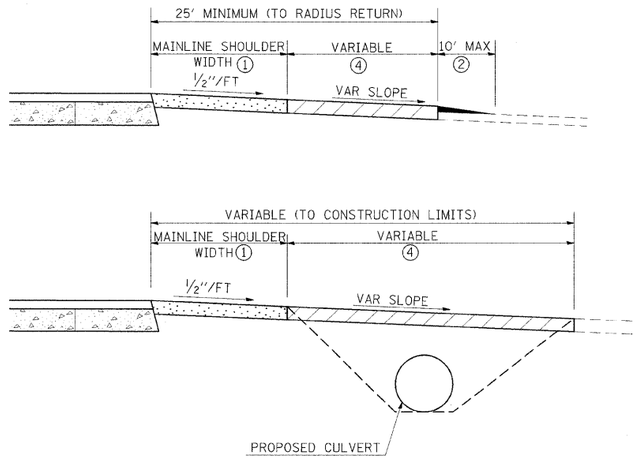
DETAIL FOR CALCULATING CULVERT LENGTH



PRIVATE AND COMMERCIAL ENTRANCES



SIDEROADS



LEGEND

① CONSTRUCT HOT-MIX ASPHALT SHOULDER "FULL SHOULDER WIDTH" THROUGH ENTRANCE/INTERSECTION UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

② IF REQUIRED, AGGREGATE TAPER FOR EXISTING GRAVEL SURFACE; HOT-MIX ASPHALT TAPER FOR EXISTING HIGHER TYPE SURFACES.

③ 6" AGGREGATE SURFACE COURSE FOR EXISTING GRAVEL SURFACE; 2" HOT-MIX ASPHALT RESURFACING ON 4" AGGREGATE BASE COURSE FOR EXISTING HOT-MIX ASPHALT SURFACE; PCC DRIVEWAY PAVEMENT (6" - PE; 7" - CE) FOR EXISTING CONCRETE SURFACE.

④ 3" MINIMUM HOT-MIX ASPHALT RESURFACING ON 8" MINIMUM AGGREGATE BASE COURSE FOR EXISTING GRAVEL SURFACE OR OIL & CHIP SURFACE; MATCH EXISTING FOR EXISTING HIGHER TYPE SURFACES.

GENERAL NOTES

1. ENTRANCE LOCATIONS ARE TO COMPLY WITH IDOT'S POLICY "ACCESS TO STATE HIGHWAYS".
2. IN GENERAL, RELOCATED PRIVATE ENTRANCES ARE TO HAVE A 16' WIDE SURFACE WITH 3' WIDE SHOULDERS (22' WIDE EMBANKMENT).
3. SEE PLANS FOR PROPOSED PROFILE GRADES AT ENTRANCES/SIDEROADS. THE DESIRABLE MAXIMUM PROFILE GRADE FOR ENTRANCES ARE 12% FOR PE; 10% FOR CE.
4. ENTRANCE PIPE CULVERTS ARE TO BE A MINIMUM 15" DIAMETER AND NORMALLY REPLACED IN KIND; SIDEROAD PIPE CULVERTS ARE GENERALLY TO BE CONCRETE (18" MINIMUM DIAMETER).
5. THE INTERSECTION RADII OF SIDEROADS CONSTRUCTED TO FULL POLICY STANDARDS SHOULD COMPLY WITH THAT NOTED IN THE BUREAU OF LOCAL ROADS ADMINISTRATIVE POLICIES MANUAL (5-8-13).

REVISIONS	
DRAWN	3-15-91
REVISED	10-02-91
REVISED	5-15-92
REVISED	1-20-00
REVISED	01-11-07

STD. 9-83

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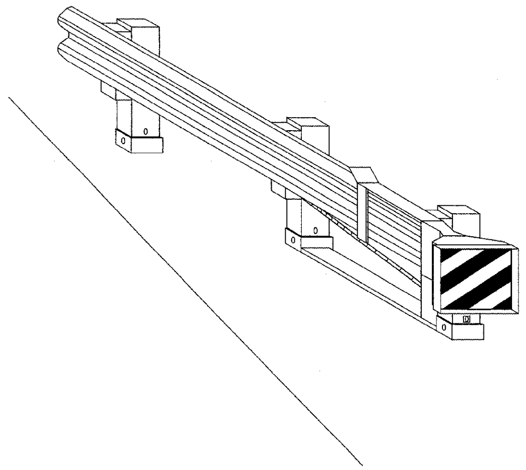
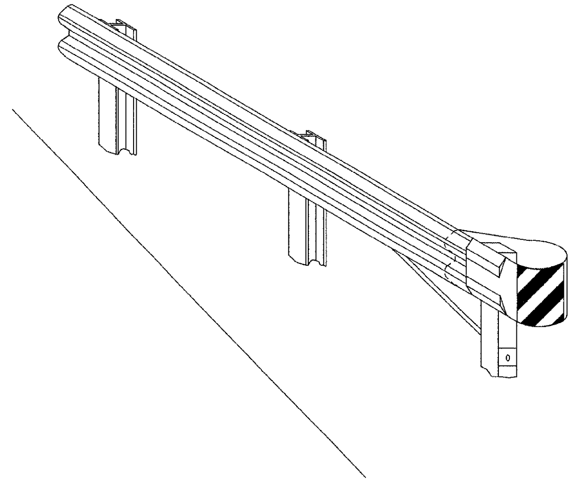
DETAIL: RURAL SIDE APPROACH

F.A.S. RTE.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
2905	726	113B-1, 113B-2	WILLIAMSON	87	69
STA.			TO STA.		
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	

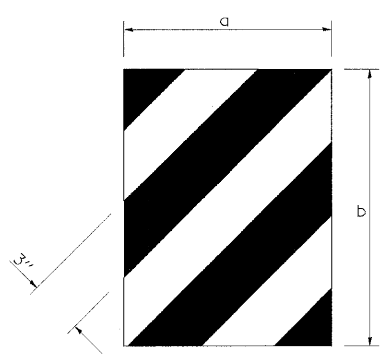
CONTRACT NO. 98777

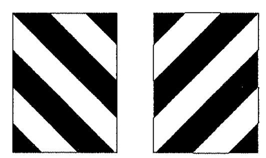


CASE I



CASE II



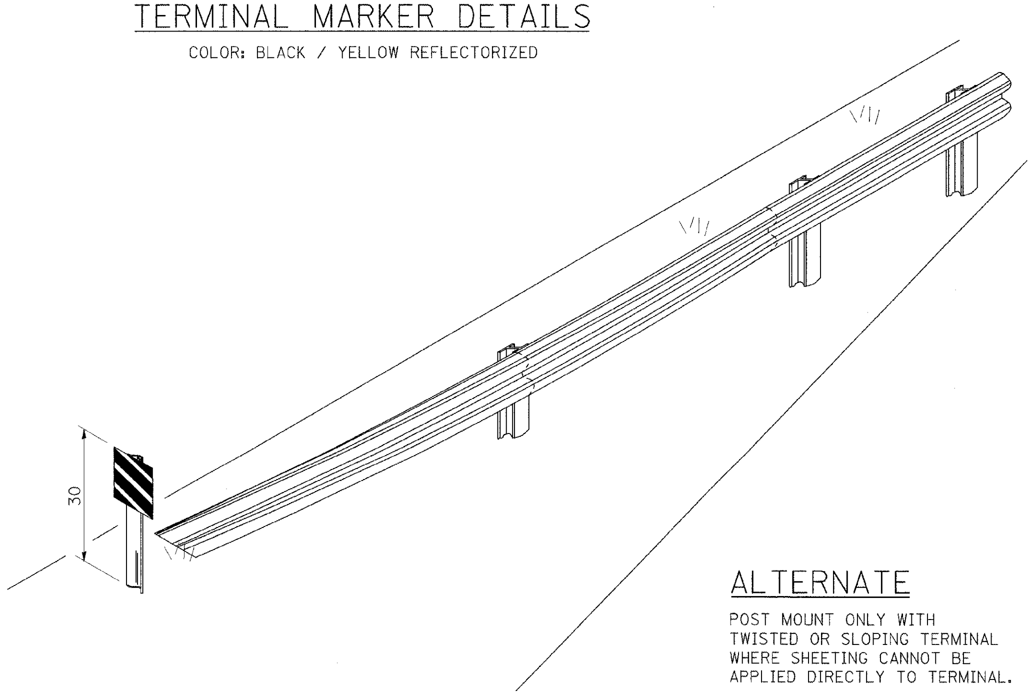


LEFT RIGHT

DIMENSION	CASE I	CASE II
a	15"	18"
b	20"	16"

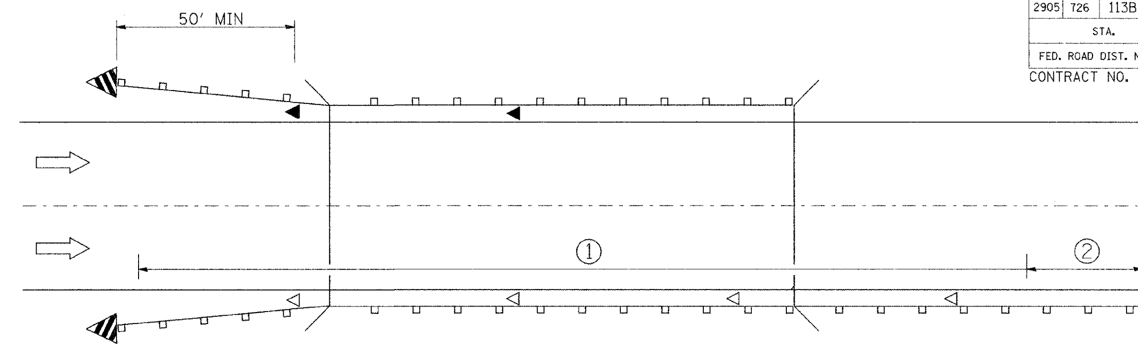
TERMINAL MARKER DETAILS

COLOR: BLACK / YELLOW REFLECTORIZED



ALTERNATE

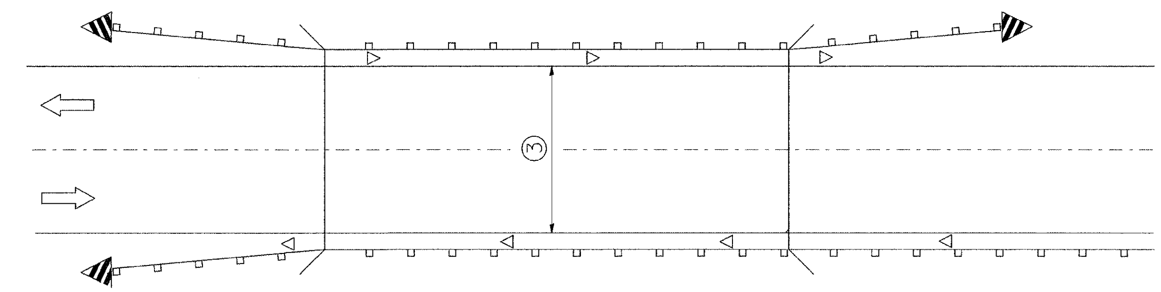
POST MOUNT ONLY WITH TWISTED OR SLOPING TERMINAL WHERE SHEETING CANNOT BE APPLIED DIRECTLY TO TERMINAL.



① SPACING 80 FEET MAX FOR FIRST 400 FEET OR CURVE SPACING SHOWN IN STANDARD 635001, WHICHEVER IS LESS (MIN 4 REFLECTORS REGARDLESS OF LENGTH).

② AFTER 400 FEET, TRANSITION TO NORMAL DELINEATOR SPACING SHOWN IN STANDARD 635001, AND CONTINUE AS REQUIRED.

ONE-WAY TRAFFIC



③ BIDIRECTIONAL SILVER/SILVER SHOULD BE USED IN LIEU OF MONODIRECTIONAL SILVER ON BOTH SIDES OF TWO-LANE BRIDGES WHERE THE PAVEMENT IS LESS THAN 24 IN WIDER THAN THE PAVEMENT APPROACHING THE BRIDGE.

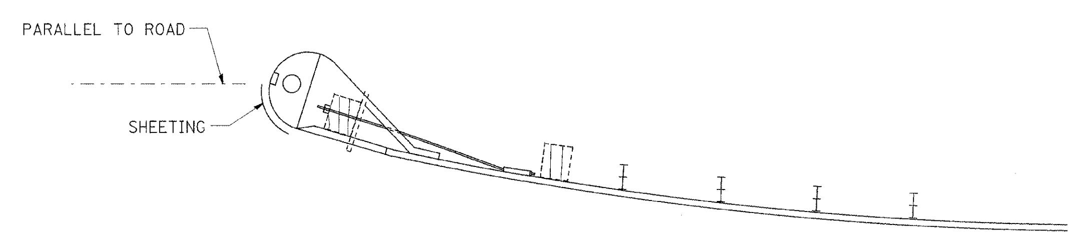
◁ MONODIRECTIONAL SILVER

◀ MONODIRECTIONAL AMBER

TERMINAL MARKER - BLACK/YELLOW LEFT OR RIGHT AS APPROPRIATE

TWO-WAY TRAFFIC

GUARDRAIL/ BARRIER WALL/
BRIDGE RAIL REFLECTIORS



SHEETING POSITION: CASE II

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SHOWN.

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halsteadtw

REFLECTOR AND TERMINAL MARKER PLACEMENT

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	70
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 1 OF 18

BENCHMARK

Brass washer in N.E. wingwall of S.N. 100-0028
Elev. 559.402

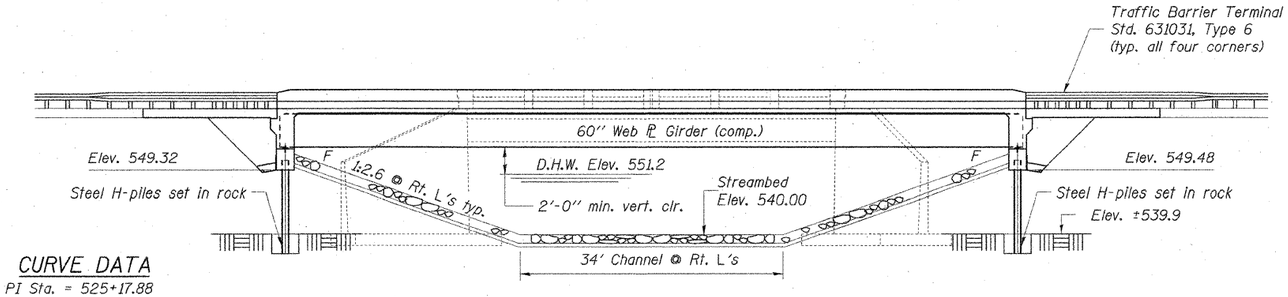
EXISTING STRUCTURE

S.N. 100-0028. Built in 1931 as S.B.I. Rte. 147, Section 113B at Station 531+81 as a 1-span reinforced concrete beam 58'-8½" Bk. to Bk. abutments, supported on spread footings. Bridge widening in 1953 to 30 ft. bridge clear width.

PROPOSED STRUCTURE

Existing bridge to be removed and replaced with a simple span steel plate girder and concrete deck bridge on integral abutments. Traffic to be maintained utilizing stage construction.

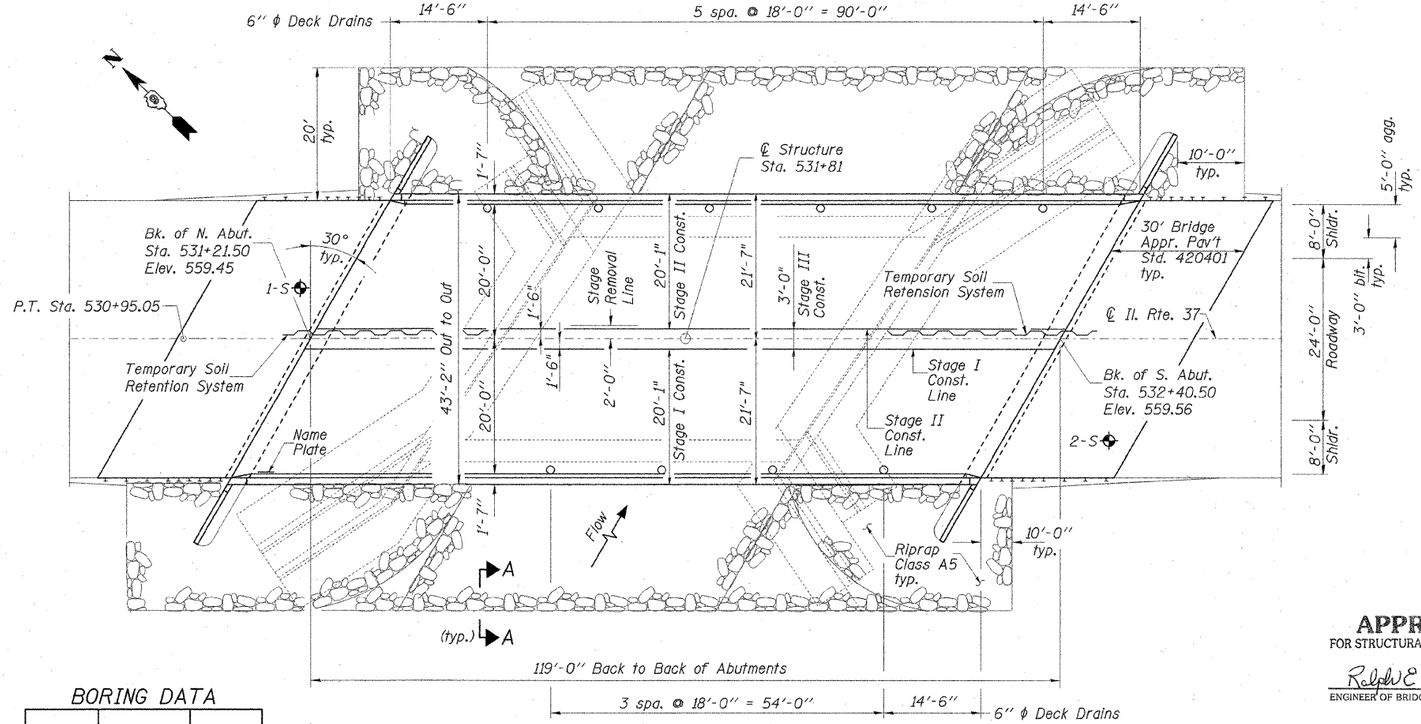
No salvage.



ELEVATION

CURVE DATA

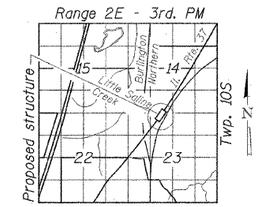
PI Sta. = 525+17.88
Δ = 35°-31'-46" (LT)
D = 2°-58'-31"
R = 1,925.69'
T = 616.97'
L = 1,194.14'
E = 96.42'
e = variable (see sketch)
P.C. Sta. = 519+00.91
P.T. Sta. = 530+95.05



PLAN

BORING DATA

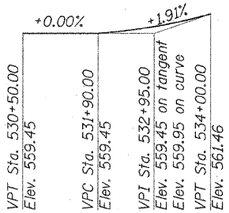
Boring No.	Station	Offset
1-S	531+20	8' Lt.
2-S	532+47	14' Rt.



LOCATION SKETCH

STATION 531+81.00
BUILT 200_ BY
STATE OF ILLINOIS
F.A.P. RT 726 SEC. 113B-2
LOADING HL-93
STR. NO. 100-0091

NAME PLATE
See Std. 515001



PROFILE GRADE

Design Scour Elevation (feet)	N. Abutment	S. Abutment
	549.39	549.49

LOADING HL-93

Allow 50 psf for future wearing surface

DESIGN SPECIFICATIONS

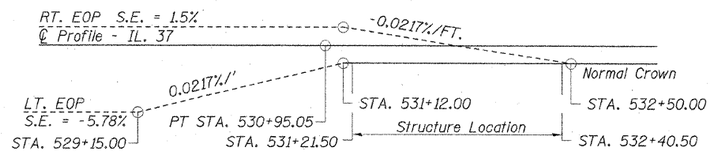
2004 AASHTO LRFD Bridge Design Specifications with 2005 Interims

DESIGN STRESSES

FIELD UNITS
f'_c = 3,500 psi
f_y = 60,000 psi (reinforcement)
f_y = 50,000 psi (structural steel)
M270 Grade 50W

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Bedrock Acceleration Coefficient (A) = 0.13%g
Site Coefficient (S) = 1.5



SUPERELEVATION TRANSITION SKETCH

INDEX OF SHEETS

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E Anderson
ENGINEER OF BRIDGES AND STRUCTURES

12-05-2007
LICENSED STRUCTURAL ENGINEER
WILLIAM L. BAILEY, JR.
5087
STATE OF ILLINOIS
Exp. 11-30-2008

NOTES:

1. See Sheet 2 of 18 for riprap details and Section A-A.

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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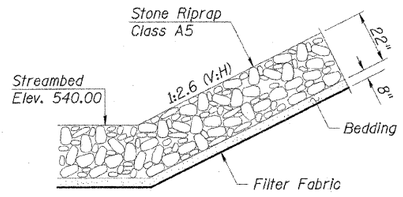
12/6/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	71
STA. N/A		TO STA. N/A		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

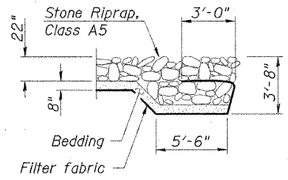
Contract 98777 SHEET 2 OF 18

GENERAL NOTES

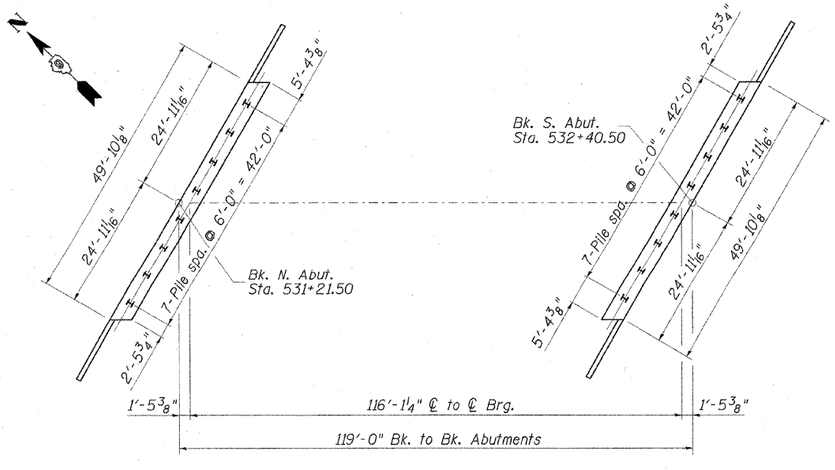
1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts in painted areas and M164 Type 3 in unpainted areas. Bolts $^{3}/_{4}$ in. ϕ, holes $^{13}/_{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 175,870 lb.
3. All structural steel shall be AASHTO M 270 Grade 50W.
4. No field welding is permitted except as specified in the contract documents.
5. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
6. Reinforcement bars designated (E) shall be epoxy coated.
7. Structural steel shall only be painted for a distance equal to the depth of embedment into the concrete cap plus 3 inches. Those areas shall be primed in the shop with a Department approved zinc rich primer. No field painting shall be required. All structural steel shall be cleaned as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".
8. Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
9. Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
10. Slipforming of parapets shall not be permitted.



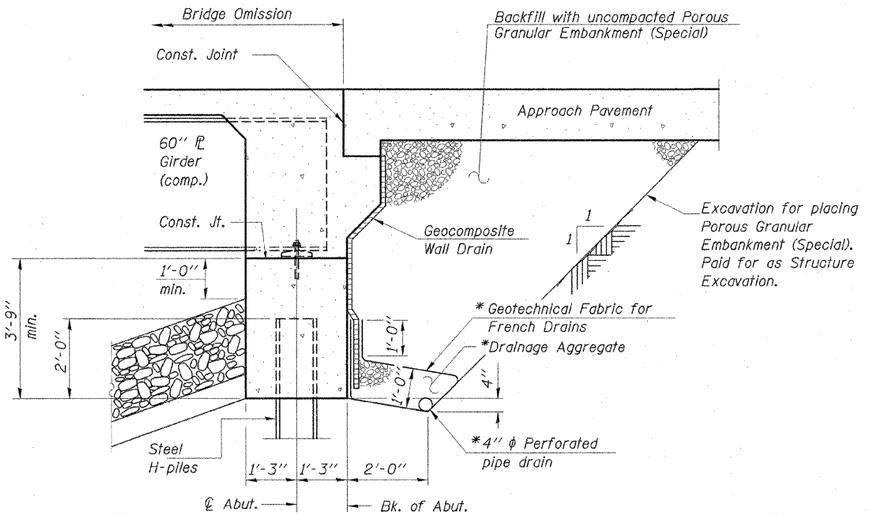
STONE RIPRAP DETAIL



SECTION A-A
(See Sheet 1 for Plan location)



FOOTING LAYOUT



*Included in the cost of Pipe Underdrains for Structures 4"

All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101)

SECTION THRU INTEGRAL ABUTMENT

WATERWAY INFORMATION

Exist. Low Grade Elev. 558.60 @ Sta. 531+50
Drainage Area = 6.99 sq. mi.
Prop. Low Grade Elev. 559.61 @ Sta. 533+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1670	345.6	565.8	549.6	0.6	0.5	550.2	550.1
Design	50	2490	416.8	706.6	551.2	0.8	0.5	552.0	551.7
Base	100	2830	439.0	753.3	551.7	0.9	0.6	552.6	552.3
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	3640	492.4	870.3	552.9	1.2	0.7	554.1	553.6

10-Year velocity through existing bridge = 4.83 fps
10-Year velocity through proposed bridge = 2.95 fps

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		260	260
Stone Riprap, Class A5	Sq. Yd.		1221	1221
Filter Fabric	Sq. Yd.		1383	1383
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		462	462
Floor Drains	Each	10		10
Concrete Structures	Cu. Yd.		49.8	49.8
Concrete Superstructure	Cu. Yd.	213.2		213.2
Concrete Encasement	Cu. Yd.		5.6	5.6
Bridge Deck Grooving	Sq. Yd.	915		915
Protective Coat	Sq. Yd.	629		629
Furnishing and Erecting Structural Steel	L. Sum	0.5		0.5
Stud Shear Connectors	Each	2772		2772
Reinforcement Bars, Epoxy Coated	Pound	43,670	7,630	51,300
Bar Splicers	Each	520	20	540
Steel Railing (Temporary)	Foot	214		214
Furnishing Steel Piles HP 10x57	Foot		392	392
Name Plates	Each	1		1
Anchor Bolts, 1"	Each	24		24
Geocomposite Wall Drain	Sq. Yd.		123	123
Pipe Underdrains for Structures 4"	Foot		160	160
Temporary Soil Retention System	Sq. Ft.		870	870
Setting Piles in Rock	Each		16	16

REVISIONS NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION
NOTES AND BILL OF MATERIAL
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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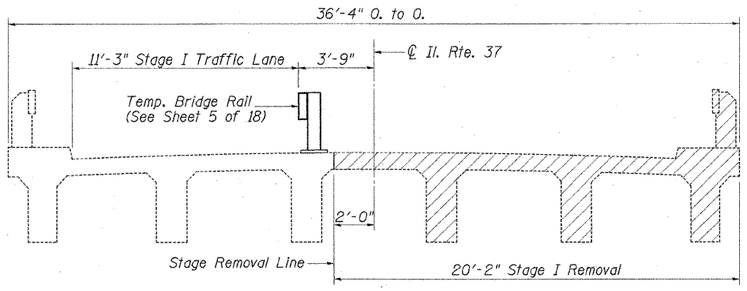
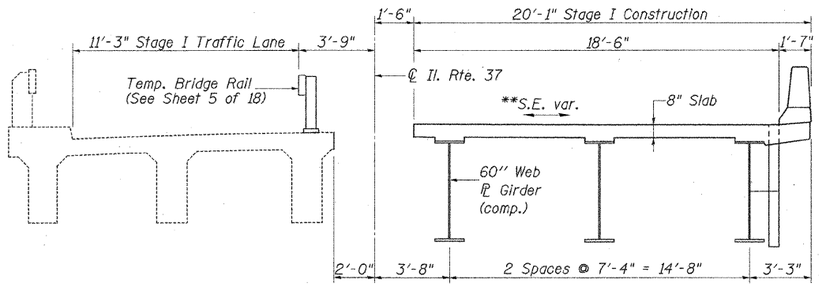
12/6/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	72
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

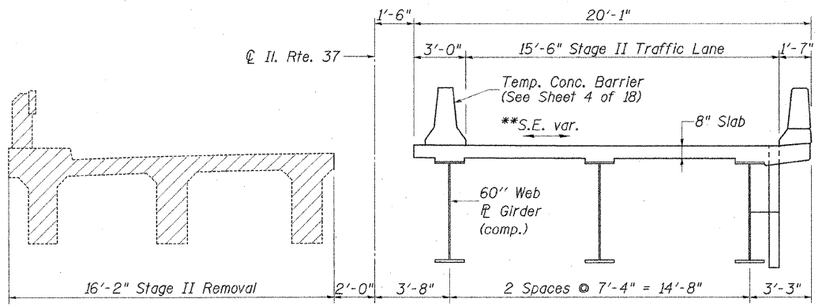
Contract 98777 SHEET 3 OF 18



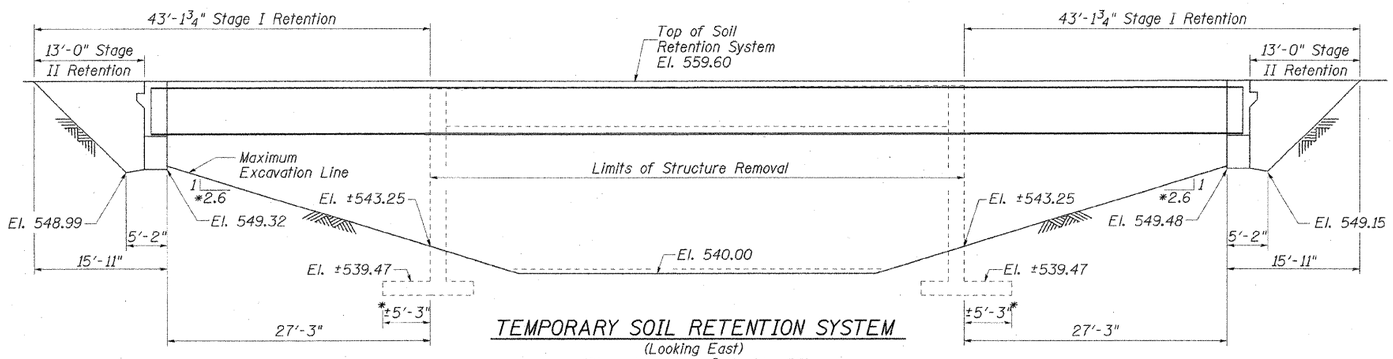
CROSS SECTION - STAGE I REMOVAL
(Looking South)



CROSS SECTION - STAGE I CONSTRUCTION
(Looking South)

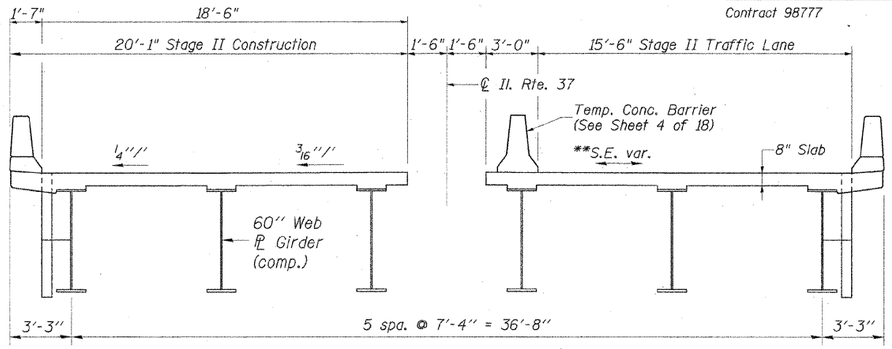


CROSS SECTION - STAGE II REMOVAL
(Looking South)

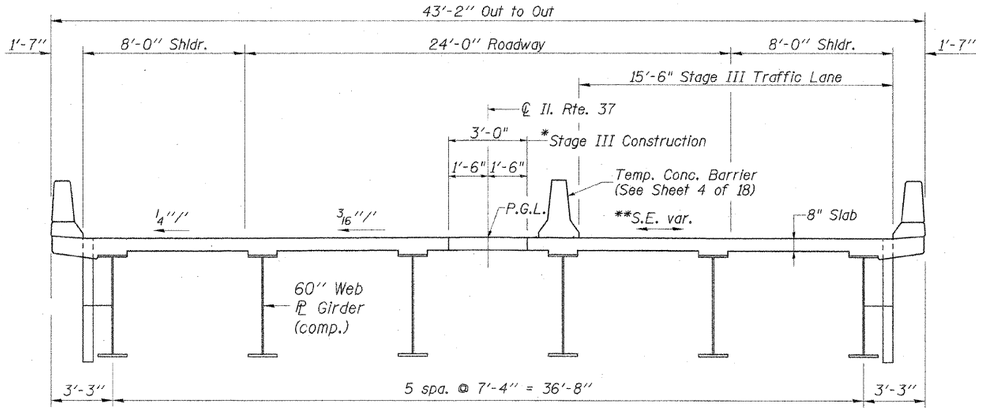


TEMPORARY SOIL RETENTION SYSTEM
(Looking East)
(Dimensions along ℄ Il. Rte. 37)

**Eastbound S.E. varies:
-1.29% @ N. Abut. (Sta. 531+21.50) to
+1.30% @ S. Abut. (Sta. 532+40.50)



CROSS SECTION - STAGE II CONSTRUCTION
(Looking South)



CROSS SECTION - STAGE III CONSTRUCTION
(Looking South)

STAGING NOTES:

1. Hatched areas indicate "Removal of Existing Structures."
2. Removal of existing bridge rail and existing wearing surface is included in the cost of "Removal of Existing Structures."
3. For quantities of "Temporary Concrete Barrier" see Roadway Plans.
4. * Stage III deck pour shall not be made until both of the following requirements are met:
   a.) At least 72 hours shall have elapsed from the end of the Stage II pour.
   b.) The concrete strength shall have attained a minimum modulus of rupture of 0.65 ksi or a minimum compressive strength of 3.5 ksi.

NOTE:

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

* ⊥ to existing abutment

REVISIONS	
NAME	DATE

CMT
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CONSULTING ENGINEERS
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ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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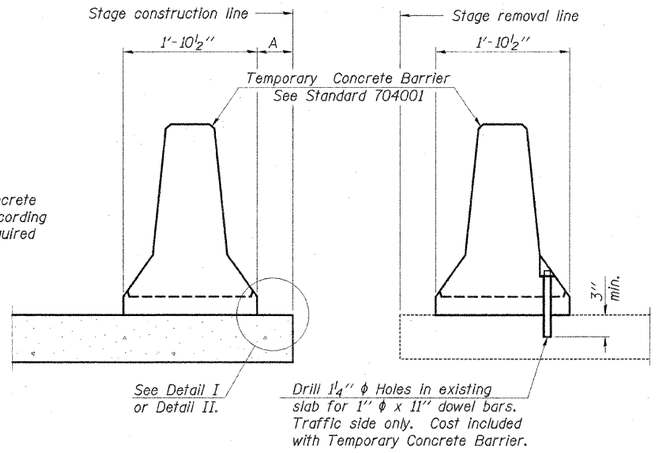
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	73
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 4 OF 18



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".

NEW SLAB EXISTING SLAB

SECTIONS THRU SLAB

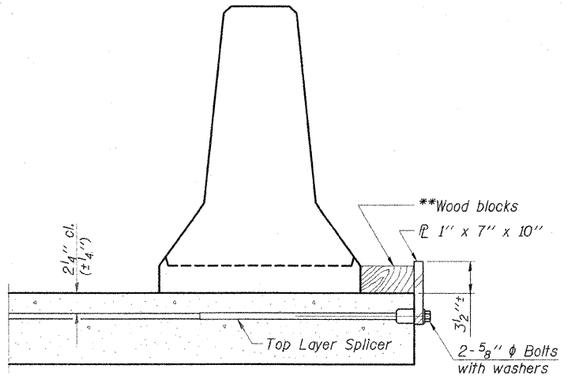
NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

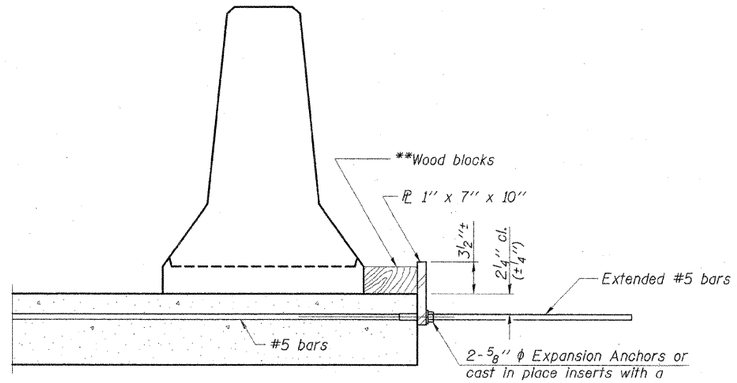
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel ℙ to the concrete slab with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

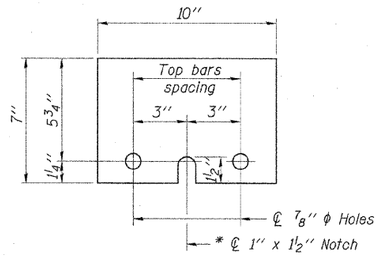
The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 1" x 7" x 10"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

REVISIONS	
NAME	DATE

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CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
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ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY CONCRETE BARRIER
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

R-27 11-1-06

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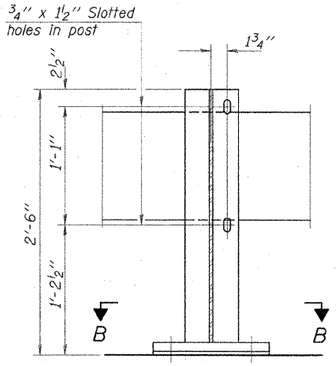
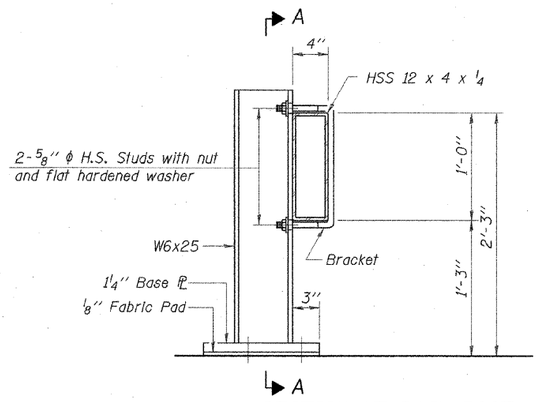
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	74
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

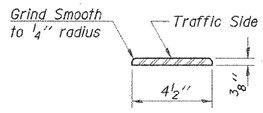
Contract 98777 SHEET 5 OF 18



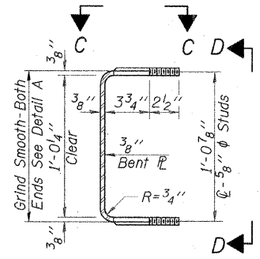
SECTION A-A



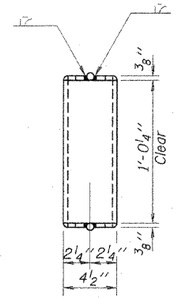
SECTION AT RAIL POST



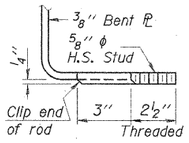
DETAIL A



SECTION THRU BRACKET

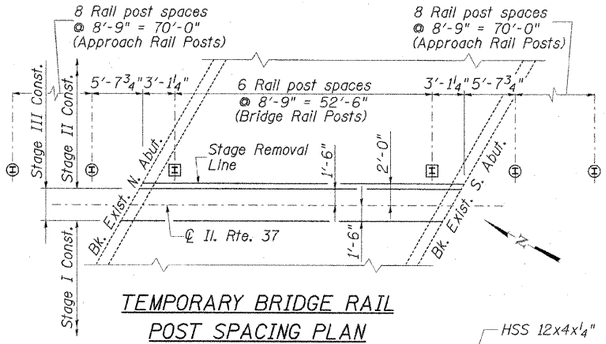


VIEW D-D

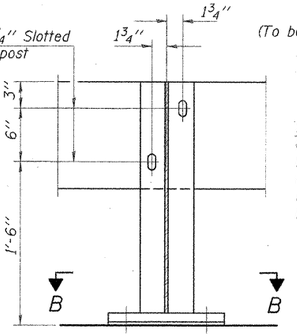


VIEW E-E

Notes:
See Rail Post spacing detail this sheet.
The contact surfaces between post flange, rail and inside face of bracket for Alternate I shall be free of all lubricants.
The nut for 5/8" ϕ high strength studs used in Alternate I to connect bracket to post shall be tightened to a snug fit and given an additional one half turn.



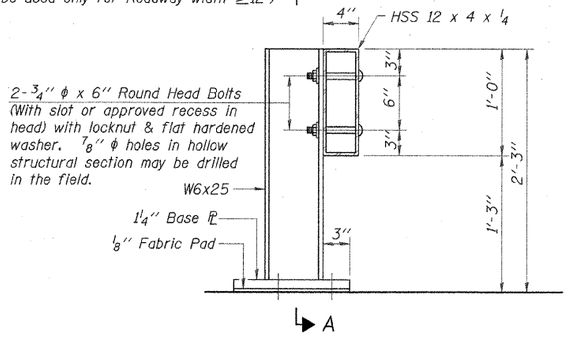
TEMPORARY BRIDGE RAIL POST SPACING PLAN



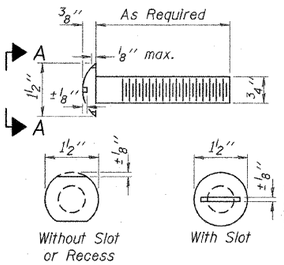
SECTION A-A

ALTERNATE I

(To be used only for Roadway width ≥12')

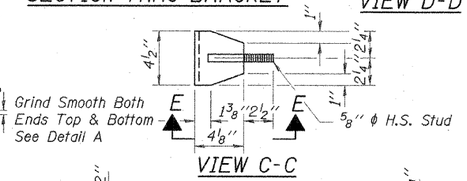


SECTION AT RAIL POST



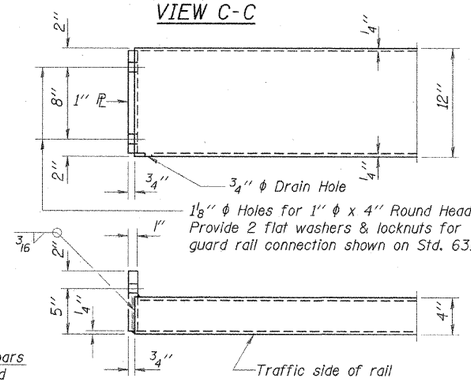
VIEW A-A

ROUND HEAD BOLT

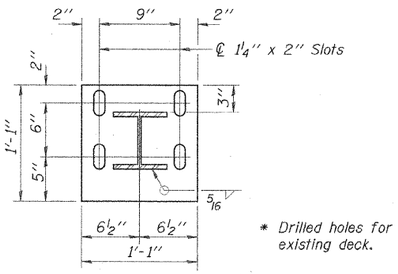


INSERT DETAIL

VIEW C-C



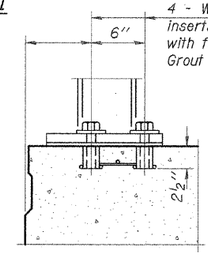
END OF RAIL DETAILS



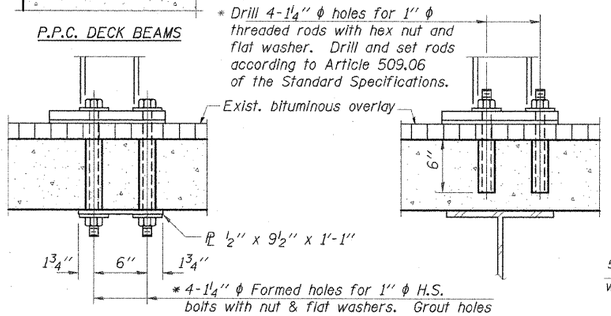
SECTION B-B

* Drilled holes for existing deck.

ALTERNATE II

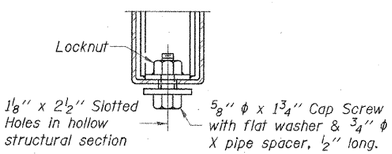


P.P.C. DECK BEAMS

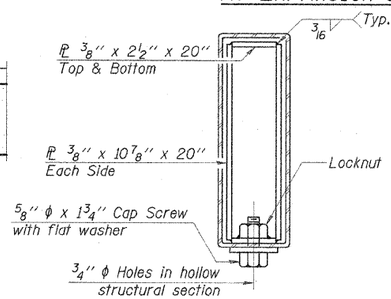


NEW & EXISTING DECKS

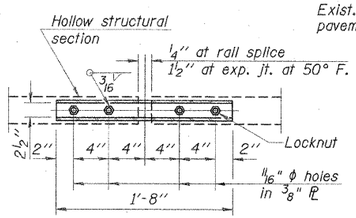
ANCHORAGE DETAILS



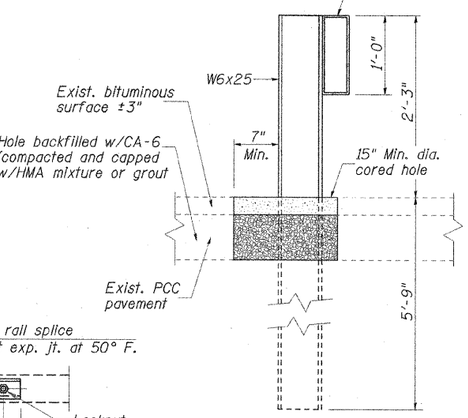
RAIL SPLICE CONNECTION AT EXPANSION JT.



SECTION AT RAIL SPLICE



PLAN-BOTT. SPLICE PL TYPICAL



SECTION AT RAIL POST

(On Existing Bridge Approaches)

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing (Temporary)	Foot	214

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

TEMPORARY BRIDGE RAIL DETAILS

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

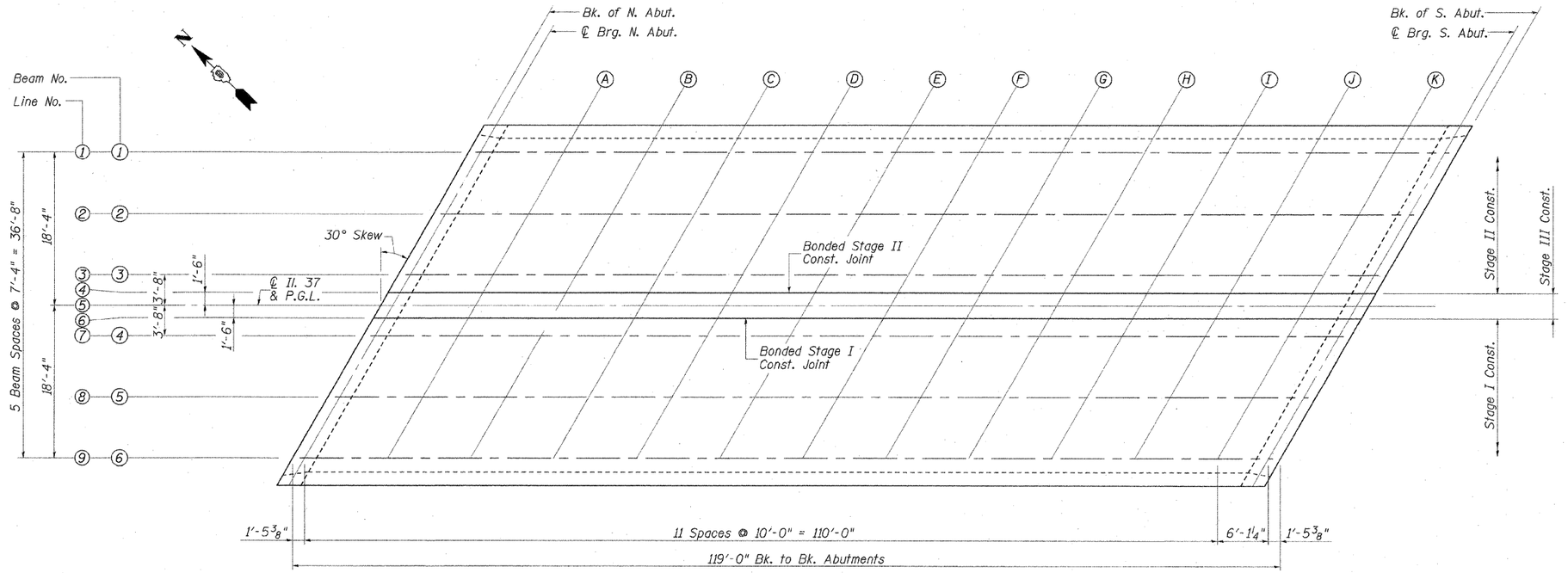
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

R-25 11-1-06 (10'-9" Maximum Post Spacing)

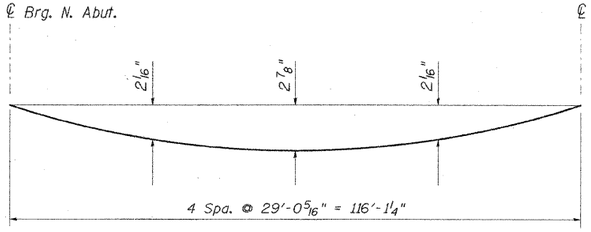
L:\IDOT\060660\SA_100009\drgw\sheets\TEMP BRIDGE RAIL R-25.dgn
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	75
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 6 OF 18



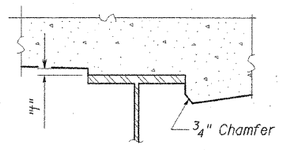
LAYOUT PLAN FOR DECK ELEVATIONS



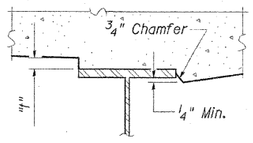
DEAD LOAD DEFLECTION DIAGRAM

(INCLUDES WEIGHT OF CONCRETE ONLY)

NOTE: The above deflections are not for use in the field if the engineer is working from the theoretical grade elevations adjusted for dead load deflection shown on Sheet 7.



AT MINIMUM FILLET



AT MAXIMUM FILLET

METHOD OF DETERMINING FILLET HEIGHTS "I"

After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at the stations shown on Sheet 7. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet 7, minus slab thickness equals the fillet heights "I" above top flange of girders.

NOTES:

1. Work this Sheet with Sheet 7 of 18.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

DECK ELEVATIONS 1
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

L:\DOT\060660\SN_100009\drawsheets\DECK ELEVATION 1.dgn
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	76
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 7 OF 18

GIRDER 1 - (LINE NO.1)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+32.08	-18.333	559.131	559.131
℄ Brg. N. Abut.	531+33.52	-18.333	559.131	559.131
1 A	531+43.52	-18.333	559.131	559.197
1 B	531+53.52	-18.333	559.131	559.257
1 C	531+63.52	-18.333	559.131	559.306
1 D	531+73.52	-18.333	559.131	559.342
1 E	531+83.52	-18.333	559.131	559.364
1 F	531+93.52	-18.333	559.131	559.370
1 G	532+03.52	-18.333	559.139	559.368
1 H	532+13.52	-18.333	559.156	559.356
1 I	532+23.52	-18.333	559.182	559.340
1 J	532+33.52	-18.333	559.217	559.320
1 K	532+43.52	-18.333	559.261	559.301
℄ Brg. S. Abut.	532+49.64	-18.333	559.292	559.292
Bk. South Abut.	532+51.08	-18.333	559.300	559.300

GIRDER 2 - (LINE NO.2)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+27.85	-11.000	559.278	559.278
℄ Brg. N. Abut.	531+29.29	-11.000	559.278	559.278
2 A	531+39.29	-11.000	559.278	559.345
2 B	531+49.29	-11.000	559.278	559.405
2 C	531+59.29	-11.000	559.278	559.454
2 D	531+69.29	-11.000	559.278	559.490
2 E	531+79.29	-11.000	559.278	559.511
2 F	531+89.29	-11.000	559.278	559.517
2 G	531+99.29	-11.000	559.282	559.511
2 H	532+09.29	-11.000	559.295	559.496
2 I	532+19.29	-11.000	559.317	559.475
2 J	532+29.29	-11.000	559.348	559.452
2 K	532+39.29	-11.000	559.389	559.429
℄ Brg. S. Abut.	532+45.41	-11.000	559.418	559.418
Bk. South Abut.	532+46.85	-11.000	559.425	559.425

GIRDER 3 - (LINE NO.3)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+23.62	-3.667	559.393	559.393
℄ Brg. N. Abut.	531+25.06	-3.667	559.393	559.393
3 A	531+35.06	-3.667	559.393	559.459
3 B	531+45.06	-3.667	559.393	559.519
3 C	531+55.06	-3.667	559.393	559.568
3 D	531+65.06	-3.667	559.393	559.604
3 E	531+75.06	-3.667	559.393	559.626
3 F	531+85.06	-3.667	559.393	559.632
3 G	531+95.06	-3.667	559.394	559.623
3 H	532+05.06	-3.667	559.403	559.604
3 I	532+15.06	-3.667	559.421	559.579
3 J	532+25.06	-3.667	559.449	559.552
3 K	532+35.06	-3.667	559.485	559.526
℄ Brg. S. Abut.	532+41.18	-3.667	559.512	559.512
Bk. South Abut.	532+42.62	-3.667	559.519	559.519

BONDED STAGE II CONST. JOINT (LINE NO.4)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+22.37	-1.500	559.427	559.427
℄ Brg. N. Abut.	531+23.81	-1.500	559.427	559.427
4 A	531+33.81	-1.500	559.427	559.493
4 B	531+43.81	-1.500	559.427	559.553
4 C	531+53.81	-1.500	559.427	559.602
4 D	531+63.81	-1.500	559.427	559.638
4 E	531+73.81	-1.500	559.427	559.660
4 F	531+83.81	-1.500	559.427	559.666
4 G	531+93.81	-1.500	559.427	559.656
4 H	532+03.81	-1.500	559.435	559.636
4 I	532+13.81	-1.500	559.452	559.611
4 J	532+23.81	-1.500	559.479	559.582
4 K	532+33.81	-1.500	559.514	559.554
℄ Brg. S. Abut.	532+39.93	-1.500	559.540	559.540
Bk. South Abut.	532+41.37	-1.500	559.547	559.547

PGL - (LINE NO.5)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+21.50	0.000	559.450	559.450
℄ Brg. N. Abut.	531+22.94	0.000	559.450	559.450
5 A	531+32.94	0.000	559.450	559.517
5 B	531+42.94	0.000	559.450	559.576
5 C	531+52.94	0.000	559.450	559.626
5 D	531+62.94	0.000	559.450	559.662
5 E	531+72.94	0.000	559.450	559.683
5 F	531+82.94	0.000	559.450	559.689
5 G	531+92.94	0.000	559.450	559.679
5 H	532+02.94	0.000	559.458	559.658
5 I	532+12.94	0.000	559.474	559.632
5 J	532+22.94	0.000	559.499	559.603
5 K	532+32.94	0.000	559.534	559.574
℄ Brg. S. Abut.	532+39.06	0.000	559.559	559.559
Bk. South Abut.	532+40.50	0.000	559.566	559.566

BONDED STAGE I CONST. JOINT (LINE NO.6)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+20.63	+1.500	559.470	559.470
℄ Brg. N. Abut.	531+22.07	+1.500	559.469	559.469
6 A	531+32.07	+1.500	559.466	559.532
6 B	531+42.07	+1.500	559.463	559.589
6 C	531+52.07	+1.500	559.459	559.635
6 D	531+62.07	+1.500	559.456	559.668
6 E	531+72.07	+1.500	559.453	559.686
6 F	531+82.07	+1.500	559.450	559.689
6 G	531+92.07	+1.500	559.447	559.675
6 H	532+02.07	+1.500	559.450	559.650
6 I	532+12.07	+1.500	559.462	559.620
6 J	532+22.07	+1.500	559.483	559.587
6 K	532+32.07	+1.500	559.514	559.554
℄ Brg. S. Abut.	532+38.19	+1.500	559.537	559.537
Bk. South Abut.	532+39.63	+1.500	559.543	559.543

GIRDER 4 - (LINE NO.7)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+19.38	+3.667	559.499	559.499
℄ Brg. N. Abut.	531+20.82	+3.667	559.498	559.498
7 A	531+30.82	+3.667	559.490	559.557
7 B	531+40.82	+3.667	559.482	559.608
7 C	531+50.82	+3.667	559.474	559.650
7 D	531+60.82	+3.667	559.466	559.678
7 E	531+70.82	+3.667	559.458	559.691
7 F	531+80.82	+3.667	559.450	559.689
7 G	531+90.82	+3.667	559.442	559.671
7 H	532+00.82	+3.667	559.440	559.640
7 I	532+10.82	+3.667	559.446	559.604
7 J	532+20.82	+3.667	559.461	559.565
7 K	532+30.82	+3.667	559.486	559.527
℄ Brg. S. Abut.	532+36.94	+3.667	559.506	559.506
Bk. South Abut.	532+38.38	+3.667	559.511	559.511

GIRDER 5 - (LINE NO.8)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+15.15	+11.000	559.607	559.607
℄ Brg. N. Abut.	531+16.59	+11.000	559.604	559.604
8 A	531+26.59	+11.000	559.580	559.647
8 B	531+36.59	+11.000	559.556	559.683
8 C	531+46.59	+11.000	559.532	559.708
8 D	531+56.59	+11.000	559.508	559.720
8 E	531+66.59	+11.000	559.484	559.718
8 F	531+76.59	+11.000	559.461	559.700
8 G	531+86.59	+11.000	559.437	559.666
8 H	531+96.59	+11.000	559.415	559.615
8 I	532+06.59	+11.000	559.401	559.560
8 J	532+16.59	+11.000	559.397	559.501
8 K	532+26.59	+11.000	559.402	559.442
℄ Brg. S. Abut.	532+32.71	+11.000	559.409	559.409
Bk. South Abut.	532+34.15	+11.000	559.412	559.412

GIRDER 6 - (LINE NO.9)

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEV. ADJUSTED FOR DEAD LOAD DEFLECTION
Bk. North Abut.	531+10.92	+18.333	559.725	559.725
℄ Brg. N. Abut.	531+12.36	+18.333	559.724	559.724
9 A	531+22.36	+18.333	559.684	559.750
9 B	531+32.36	+18.333	559.644	559.770
9 C	531+42.36	+18.333	559.604	559.780
9 D	531+52.36	+18.333	559.564	559.776
7 E	531+62.36	+18.333	559.524	559.758
9 F	531+72.36	+18.333	559.484	559.723
9 G	531+82.36	+18.333	559.445	559.673
9 H	531+92.36	+18.333	559.405	559.606
9 I	532+02.36	+18.333	559.372	559.530
9 J	532+12.36	+18.333	559.348	559.451
9 K	532+22.36	+18.333	559.333	559.373
℄ Brg. S. Abut.	532+28.48	+18.333	559.328	559.328
Bk. South Abut.	532+29.92	+18.333	559.328	559.328

NOTES:

1. Work this Sheet with Sheet 6 of 18.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK ELEVATIONS 2
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

L:\IDOT\060660\SN_0100091\draw\sheets\DECK ELEVATION 2.dgn
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	77
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 8 OF 18

EAST CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End N. Appr. Pav't.	530+79.92	-20.476	559.757
A	530+89.92	-20.417	559.756
B	530+99.92	-20.417	559.756
Bk. N. Abut.	531+09.92	-20.417	559.756

EAST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End N. Appr. Pav't.	530+84.56	-12.029	559.630
A	530+94.56	-12.000	559.630
B	531+04.56	-12.000	559.630
Bk. N. Abut.	531+14.56	-12.000	559.623

℄ ROADWAY & P.G.L.

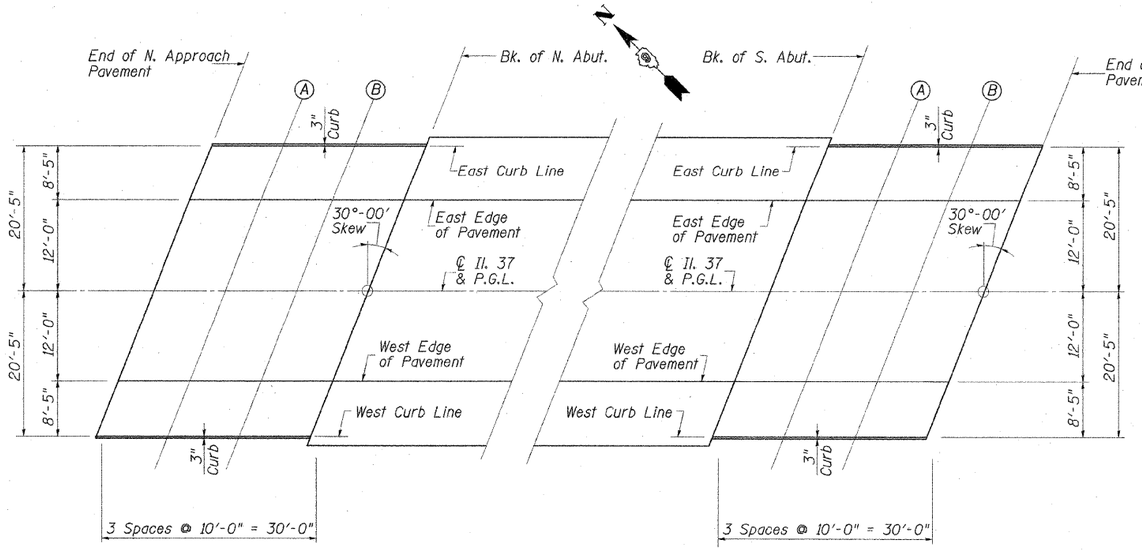
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End N. Appr. Pav't.	530+91.50	-0.003	559.450
A	531+01.50	0.000	559.450
B	531+11.50	0.000	559.450
Bk. N. Abut.	531+21.50	0.000	559.450

WEST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End N. Appr. Pav't.	530+98.43	+12.000	559.019
A	531+08.43	+12.000	559.206
B	531+18.43	+12.000	559.263
Bk. N. Abut.	531+28.43	+12.000	559.263

WEST CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
End N. Appr. Pav't.	531+03.05	+20.417	558.935
A	531+13.05	+20.417	559.087
B	531+23.05	+20.417	559.087
Bk. N. Abut.	531+33.05	+20.417	559.087



LAYOUT PLAN
NORTH APPROACH PAVEMENT

LAYOUT PLAN
SOUTH APPROACH PAVEMENT

EAST CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. S. Abut.	532+28.92	-20.417	559.306
A	532+38.92	-20.417	559.302
B	532+48.92	-20.417	559.306
End S. Appr. Pav't.	532+58.92	-20.417	559.360

EAST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. S. Abut.	532+33.56	-12.000	559.399
A	532+43.56	-12.000	559.417
B	532+53.56	-12.000	559.454
End S. Appr. Pav't.	532+63.56	-12.000	559.516

℄ ROADWAY & P.G.L.

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. S. Abut.	532+40.50	0.000	559.566
A	532+50.50	0.000	559.616
B	532+60.50	0.000	559.676
End S. Appr. Pav't.	532+70.50	0.000	559.745

WEST EDGE OF PAVEMENT

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. S. Abut.	532+47.43	+12.000	559.412
A	532+57.43	+12.000	559.469
B	532+67.43	+12.000	559.535
End S. Appr. Pav't.	532+77.43	+12.000	559.610

WEST CURB LINE

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION
Bk. S. Abut.	532+52.05	+20.417	559.262
A	532+62.05	+20.417	559.323
B	532+72.05	+20.417	559.393
End S. Appr. Pav't.	532+82.05	+20.417	559.472

REVISIONS	
NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROACH PAVEMENT ELEVATIONS

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

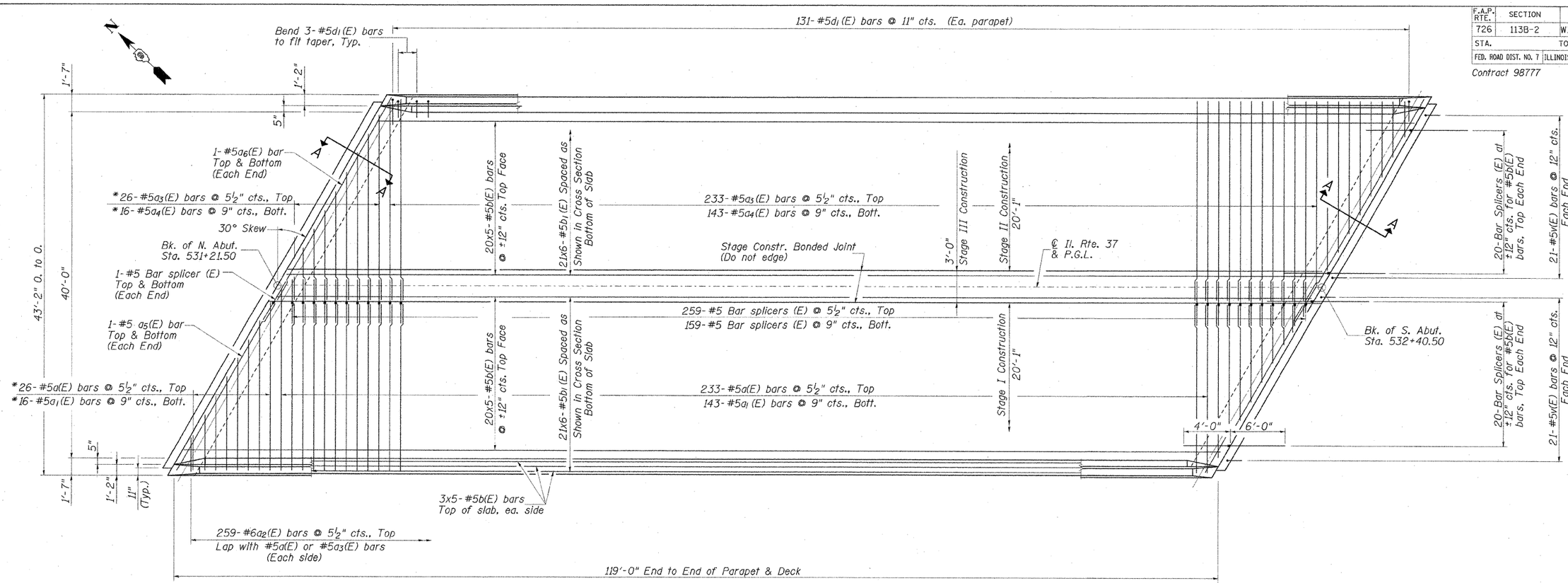
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

L:\IDOT\060660\SN_1000091\drawsheets\APPROACH PAVT ELEV.DGN
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	78
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

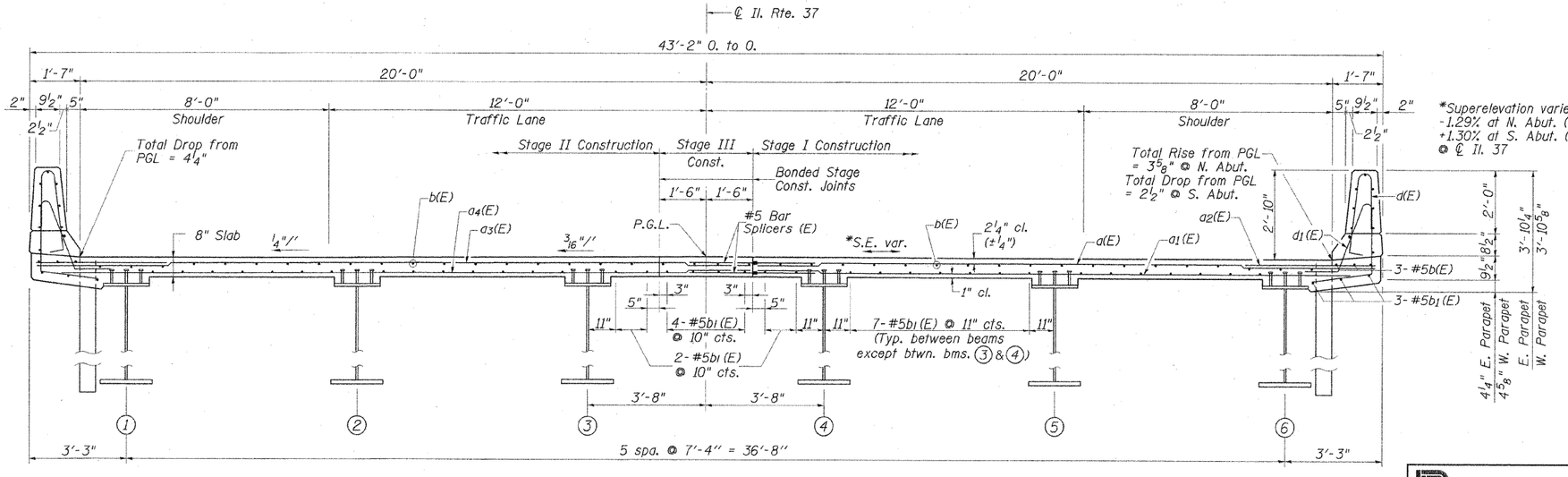
Contract 98777

SHEET 9 OF 18



*Order a(E), a1(E), a3(E) and a4(E) bars full length. Cut to fit skew and use remainder of bars in opposite end

DECK PLAN



*Superelevation varies from -1.29% at N. Abut. (Sta. 531+21.50) to +1.30% at S. Abut. (Sta. 532+40.50) @ ℄ Il. 37

TYPICAL CROSS SECTION

MIN. BAR LAP

*5 bar = 2'-2"

NOTES:

1. See Sheet 10 of 18 for superstructure and parapet details and Bill of Materials.
2. See Sheet 16 of 18 for bar splicer details.
3. See Sheet 10 of 18 for drain details.
4. See Sheet 11 of 18 for Section A-A.
5. See Sheet 1 of 18 for location of deck drains.

REVISIONS	
NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

SCALE: NONE
DRAWN BY: GLD
DATE: 12/14/07
CHECKED BY: WLB

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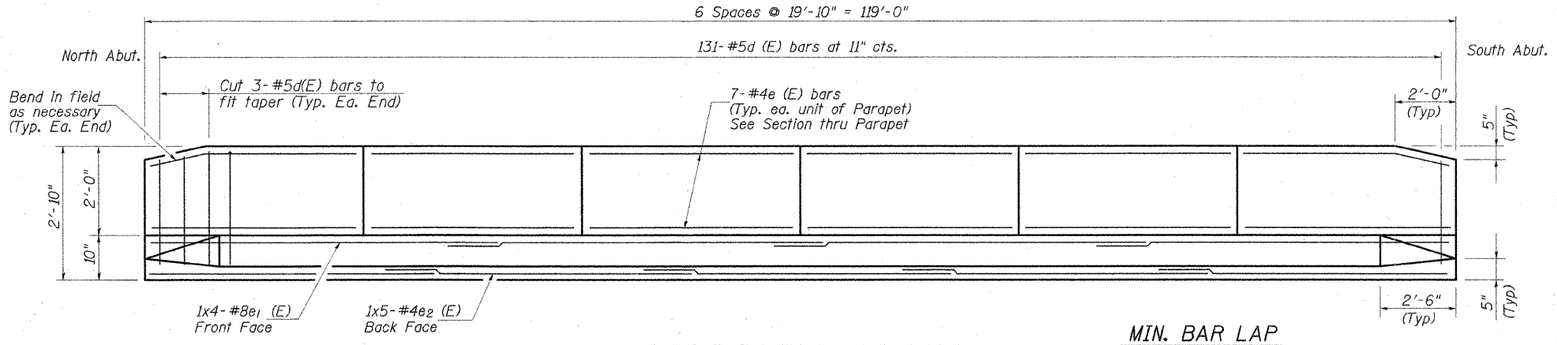
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	79
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 10 OF 18



INSIDE ELEVATION OF PARAPET

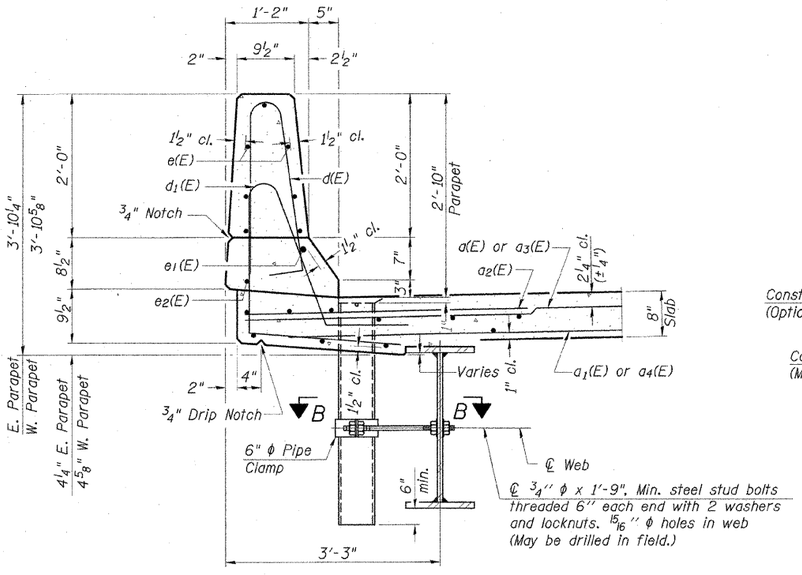
(East Parapet Shown, West Opposite)

MIN. BAR LAP

(Parapet)

*4 bar = 1'-4"

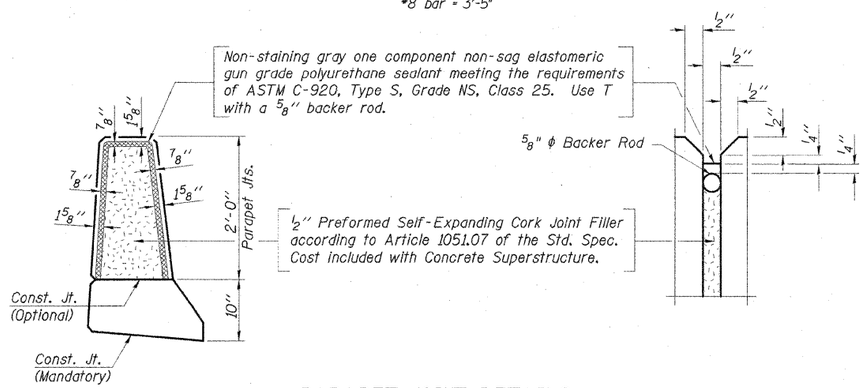
*8 bar = 3'-5"



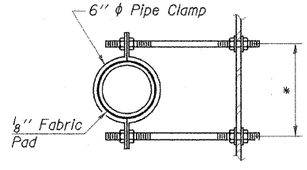
℄ ¾" ϕ x 1'-9". Min. steel stud bolts threaded 6" each end with 2 washers and locknuts. 15/16" ϕ holes in web (May be drilled in field.)

SECTION THRU PARAPET

(Slipforming of parapets shall not be permitted)

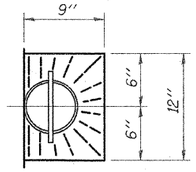


PARAPET JOINT DETAILS

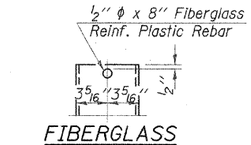


SECTION B-B

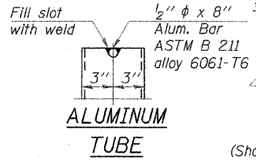
* Dimension as required by Pipe Clamp



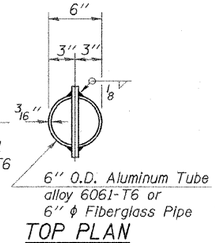
TOP PLAN



FIBERGLASS PIPE

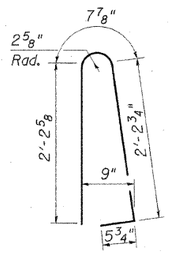


ALUMINUM TUBE

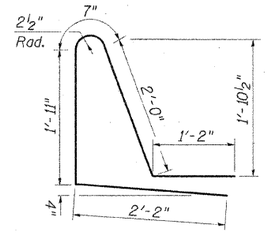


TOP PLAN

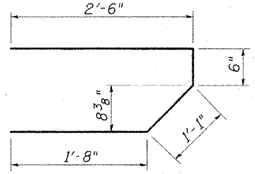
(Showing Aluminum Tube)



BAR d (E)



BAR d1 (E)

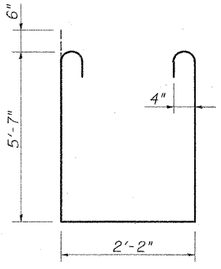


BAR s (E)

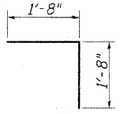
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a (E)	259	#5	19'-7"	
a1 (E)	159	#5	18'-11"	
a2 (E)	518	#6	6'-0"	
a3 (E)	259	#5	22'-9"	
a4 (E)	159	#5	22'-1"	
a5 (E)	4	#5	22'-7"	
a6 (E)	4	#5	26'-3"	
b (E)	230	#5	25'-6"	
b1 (E)	252	#5	21'-7"	
d (E)	262	#5	5'-7"	
d1 (E)	262	#5	7'-10"	
e (E)	84	#4	19'-6"	
e1 (E)	8	#8	32'-3"	
e2 (E)	10	#4	24'-10"	
m (E)	4	#6	21'-9"	
m1 (E)	4	#6	24'-11"	
m2 (E)	8	#6	22'-10"	
m3 (E)	8	#6	26'-0"	
m4 (E)	18	#6	9'-3"	
m5 (E)	8	#6	8'-0"	
m6 (E)	4	#6	3'-5"	
m7 (E)	2	#6	2'-3"	
m8 (E)	2	#6	5'-5"	
m9 (E)	18	#6	10'-3"	
s (E)	92	#5	5'-9"	
s1 (E)	81	#4	14'-4"	
v (E)	84	#5	3'-4"	

Concrete Superstructure	Cu. Yd.	213.3
Reinforcement Bars, Epoxy Coated	Pound	40,560
Bar Splicers	Each	520



BAR s1 (E)



BAR v (E)

NOTES:

1. Bars indicated thus 3x2-#4 etc. indicates 3 lines of bars with 2 lengths per line.

REVISIONS NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

PARAPET DETAILS

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
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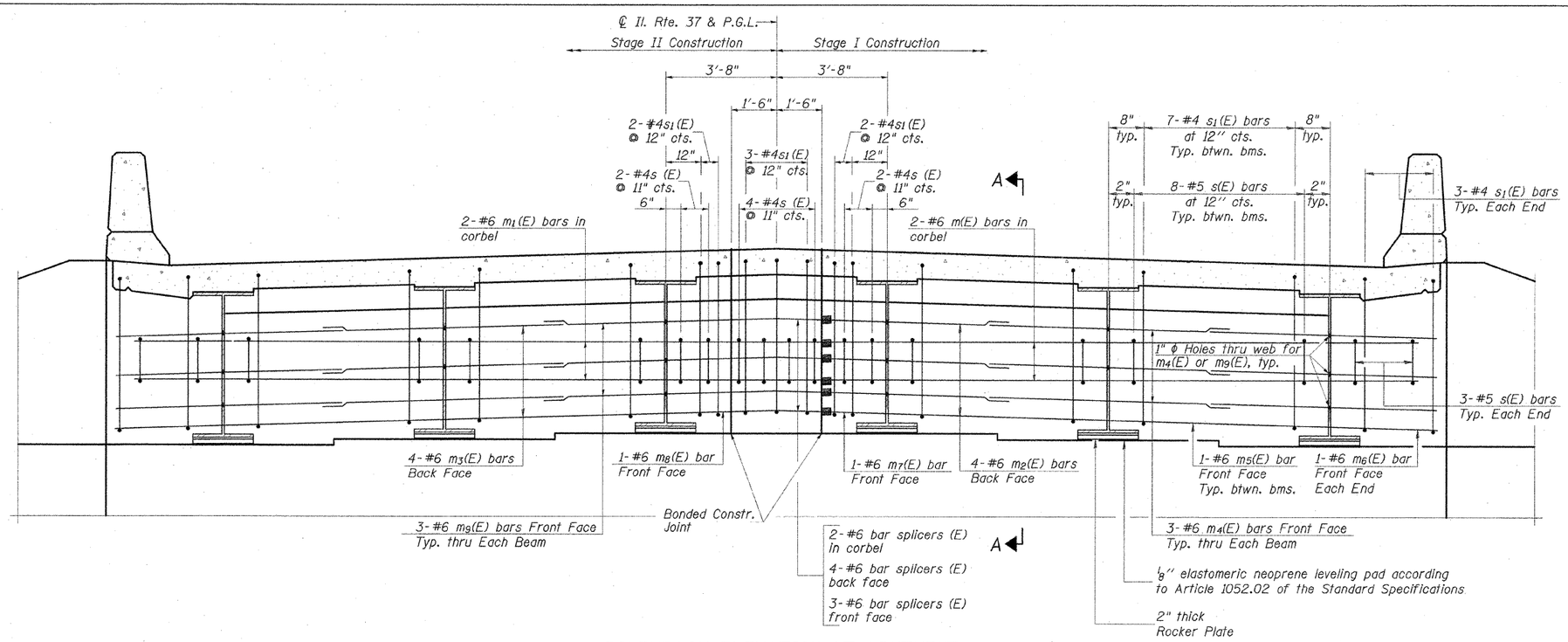
12/6/2007

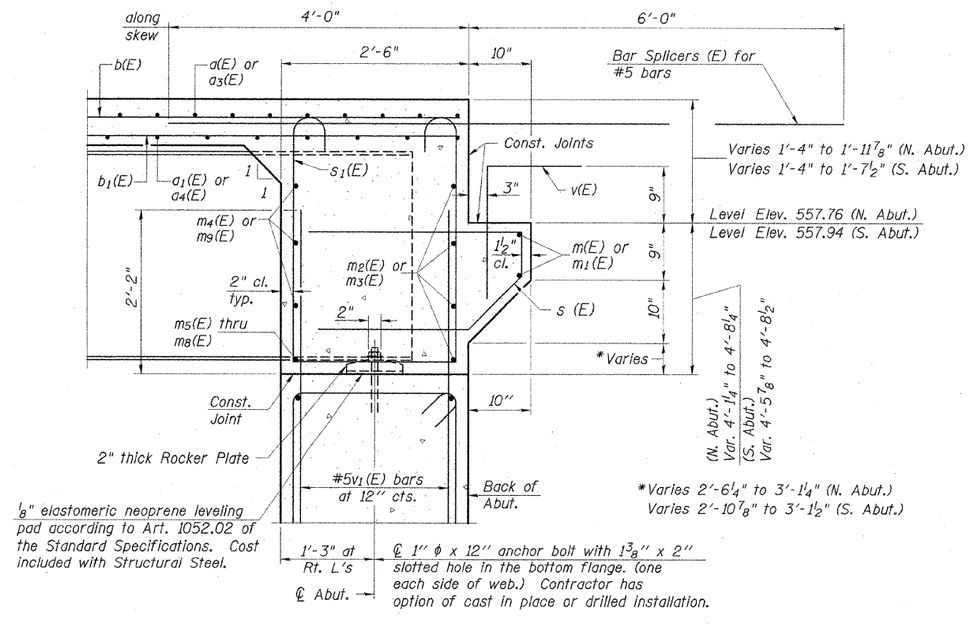
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	80
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 11 OF 18



DIAPHRAGM ELEVATION AT ABUTMENT

(Looking South at South Abut., North Abut. similar)



SECTION A-A

Dimensions at right angles to abutment, except as shown.

MIN. BAR LAP

#6 bar = 2'-9"

NOTES:

1. Reinforcement bars in diaphragm are billed with superstructure on Sheet 10 of 18.
2. Concrete in diaphragm is included with Concrete Superstructure on Sheet 10 of 18.
3. For details of bars s(E) & s_1(E) see Sheet 10 of 18.
4. The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
5. For location of holes in web see Sheet 12 of 18.
6. For bar splicer details see Sheet 16 of 18.

REVISIONS NAME	DATE

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ABUTMENT DIAPHRAGM DETAILS

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
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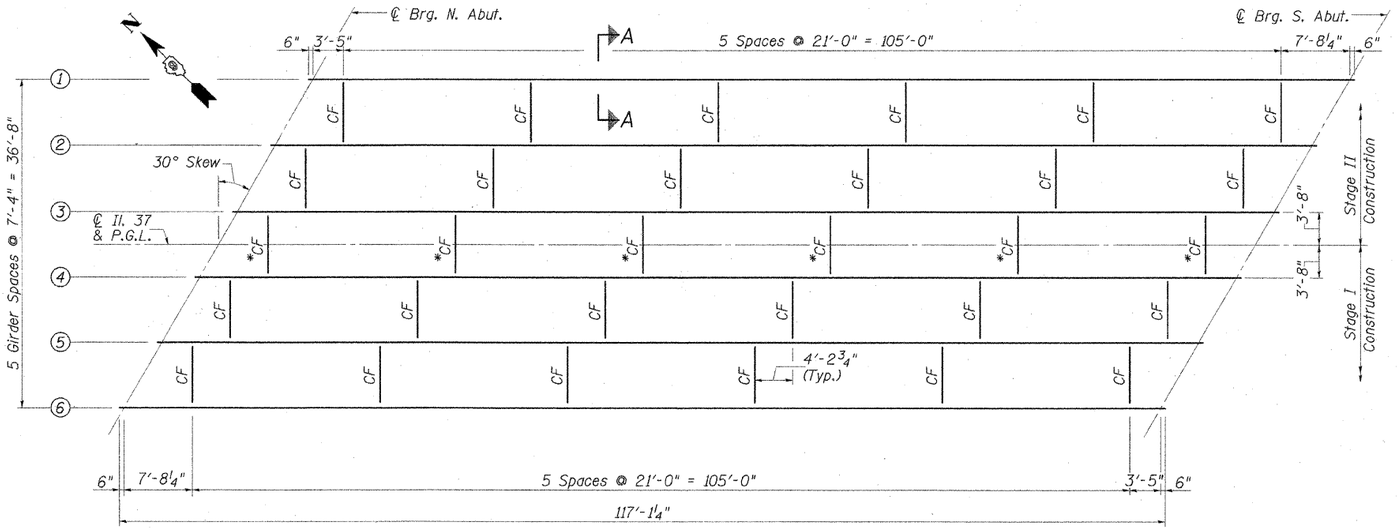
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	81
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 12 OF 18

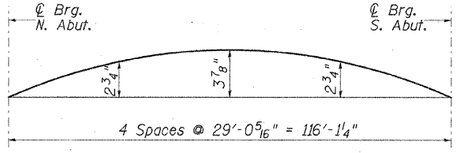


FRAMING PLAN

* Provide Detail "A" Sheet 13 of 18 during Stage I & Stage II deck pours.

TOP OF WEB ELEVATIONS FOR FABRICATION ONLY

Girder / Location	Girder 1	Girder 2	Girder 3
℄ N. Abut.	558.34	558.49	558.60
℄ S. Abut.	558.50	558.63	558.72
Girder / Location	**Girder 4**	**Girder 5**	**Girder 6**
℄ N. Abut.	558.71	558.81	558.93
℄ S. Abut.	558.72	558.62	558.54

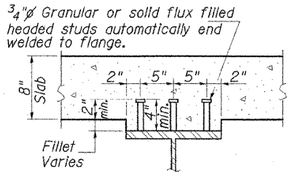


CAMBER DIAGRAM

Girders 1 thru 6

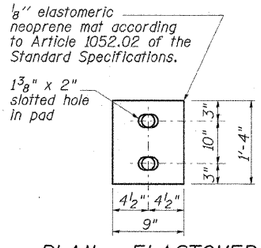
INTERIOR GIRDER MOMENT TABLE		0.5 Span
I_s	(in^4)	41,197
$I_c(n)$	(in^4)	105,626
$I_c(3n)$	(in^4)	74,019
S_s	(in^3)	1604
$S_c(n)$	(in^3)	2238
$S_c(3n)$	(in^3)	2019
DC1	(k/')	1.028
M_{DC1}	('k)	1739
DC2	(k/')	0.140
M_{DC2}	('k)	236
DW	(k/')	0.367
M_{DW}	('k)	618
M_{L+Imp}	('k)	2039
M_u(Strength I)	('k)	6964
$\phi_f M_n$	('k)	10,490
f_s DC1	(ksi)	13.01
f_s DC2	(ksi)	1.40
f_s DW	(ksi)	3.67
f_s 1.3(L+I)	(ksi)	14.21
f_s (Service II)	(ksi)	32.29
f_s (Total)(Strength I)	(ksi)	
V_f	(k)	43.1

INTERIOR GIRDER REACTION TABLE HL93 Loading		N. Abut. & S. Abut.
R_{DC1}	(k)	59.5
R_{DC2}	(k)	29.4
R_{DW}	(k)	87.2
R_{L+Imp}	(k)	18.4
R_{Total}	(k)	194.5



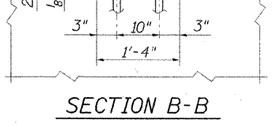
SECTION A-A

(Total no. of studs req'd. = 2772)

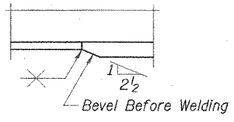


PLAN - ELASTOMERIC NEOPRENE MAT (ABUT.)

(12 Required)



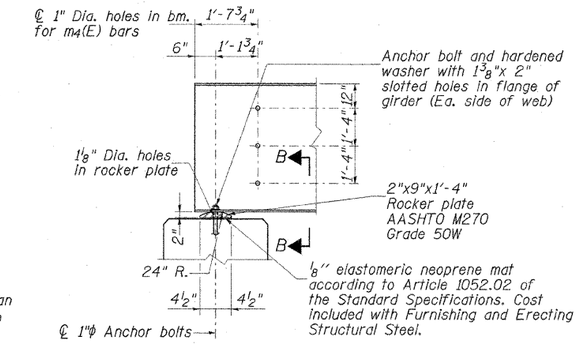
SECTION B-B



FLANGE PLATE THICKNESS TRANSITION

NOTES:

1. Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade and diameter specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
2. Anchor bolts may be either cast in place or installed in holes drilled after the supported member is in place.
3. Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.



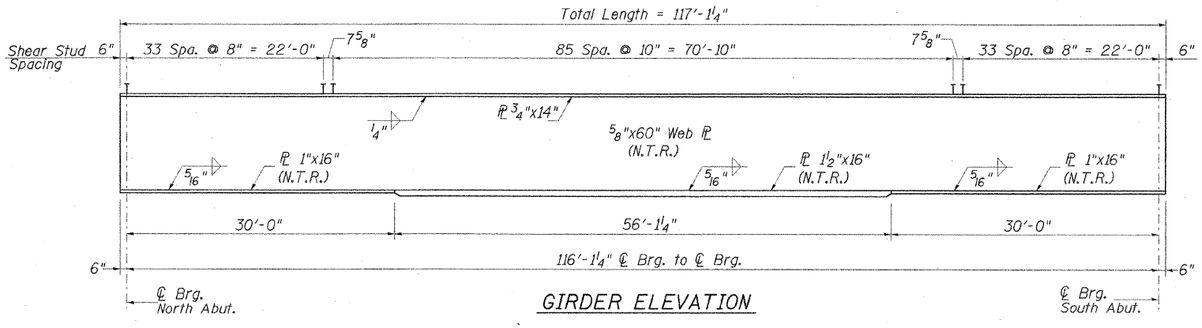
END OF GIRDER ELEVATION

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Anchor Bolts, 1"	Each	24

NOTES:

1. All steel for flanges, webs, cross frames, connection plates, and bearings shall be AASHTO M270 Grade 50W.
2. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



GIRDER ELEVATION

NOTES:

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I. and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I. and Service II) due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I. and Service II) due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+Imp}: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+Imp}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+Imp}$

V_f: Factored shear range computed according to Article 6.10.10.

REVISIONS NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

FRAMING PLAN & DETAILS

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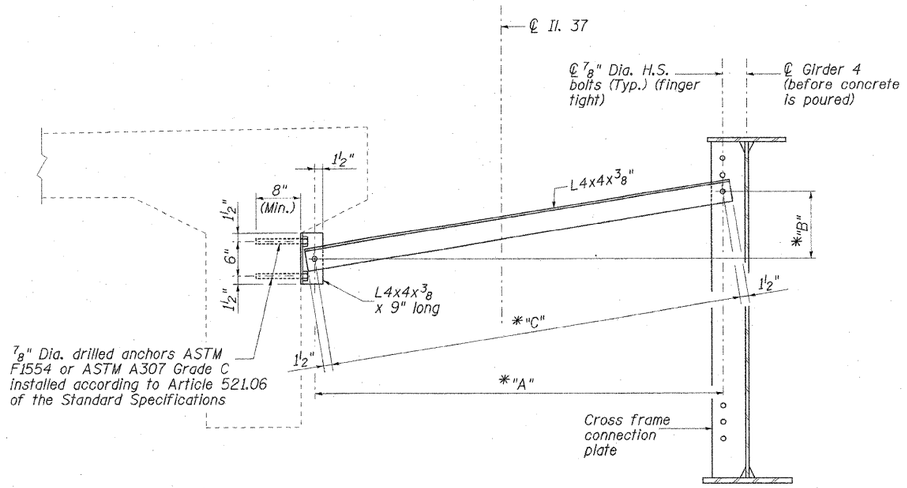
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	82
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 13 OF 18

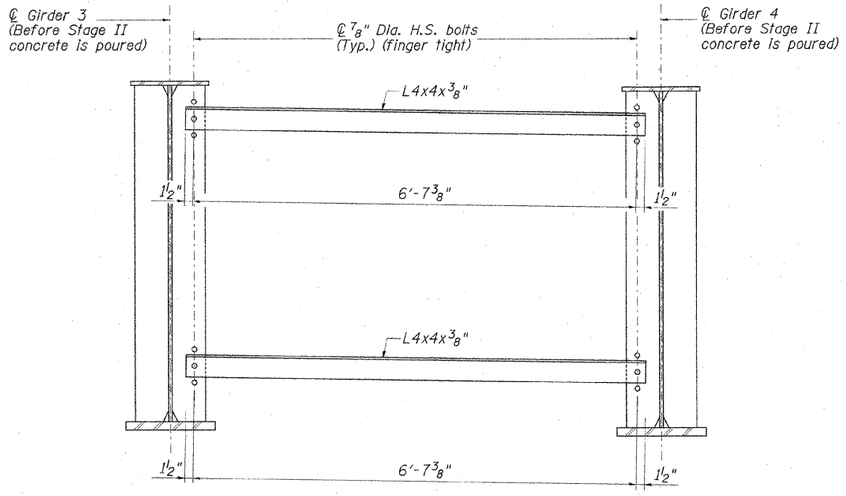


DETAIL "A"

TEMPORARY BRACING FOR STAGE I CONSTRUCTION

(No. Required = 6)

*The dimensions "A", "B", and "C" between the holes in the cross frame connection plate and the L4x4x3/8 shall be measured in the field. The holes in the brace shall be field drilled at dimensions "C". Included in the cost of "Furnishing and Erecting Structural Steel."



DETAIL "A"

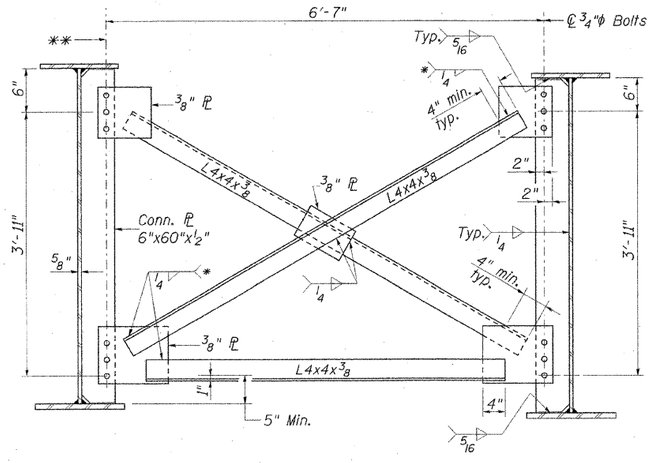
TEMPORARY BRACING FOR STAGE II CONSTRUCTION

(No. Required = 6)

NOTES:

1. Remove Temporary Bracing for Stage II Construction and install typical interior cross frames between girders 3 and 4. Allow at least 72 hours to elapse following the Stage II deck pour prior to removing temporary braces.
2. All materials and installation and removal of temporary braces shall be included in "Furnishing and Erecting Structural Steel."

Note: All steel for flanges, webs, cross frames, connection plates, and bearings shall be AASHTO M270 Grade 50W.



TYPICAL INTERIOR CROSS FRAME

(30 Required)

All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

* Fillet weld angles along 3 sides on one face of gusset plate.

** Use 1½" vertical x 13/16" slotted holes in connection plates at South side of Beam #3 only. Provide 5/16" plate washers for slotted holes.

REVISIONS NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
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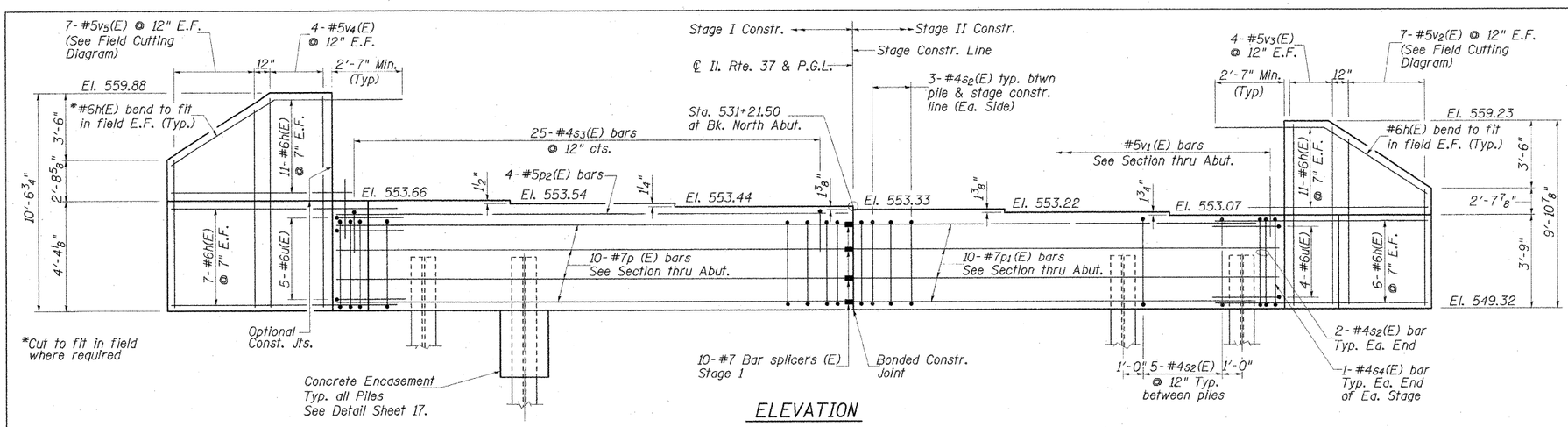
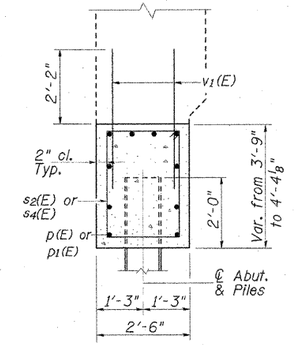
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	83
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

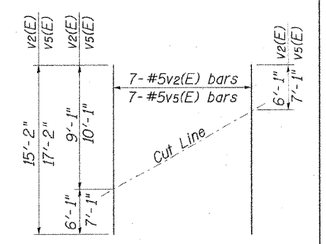
Contract 98777 SHEET 14 OF 18



ELEVATION

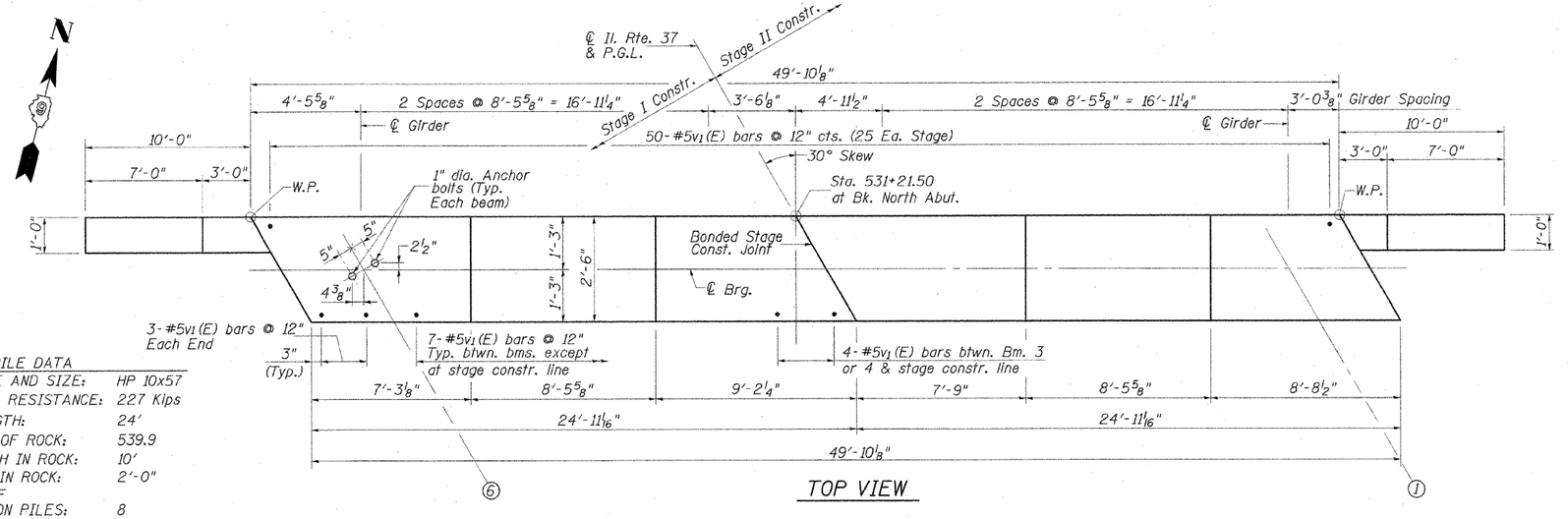


SECTION THRU ABUTMENT



FIELD CUTTING DIAGRAM

Order v_2(E) & v_5(E) full length. Cut as shown and use remainder of bars in opposite face.

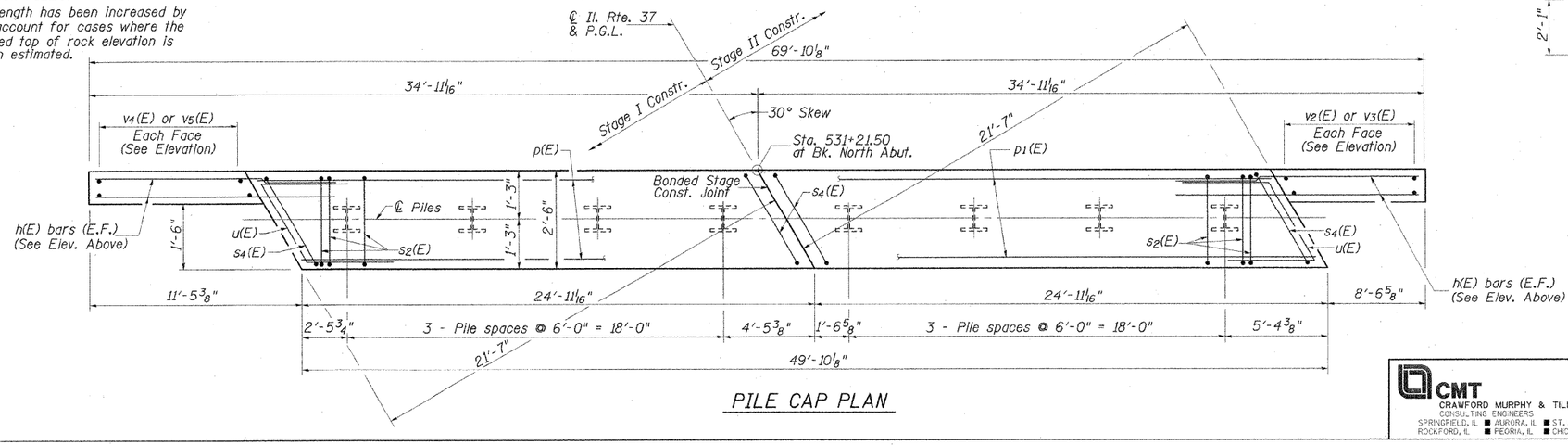


TOP VIEW

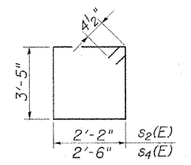
PILE DATA

PILE TYPE AND SIZE:	HP 10x57
FACTORED RESISTANCE:	227 Kips
*PILE LENGTH:	24'
EST. TOP OF ROCK:	539.9
MIN. DEPTH IN ROCK:	10'
MIN. DIA. IN ROCK:	2'-0"
NUMBER OF PRODUCTION PILES:	8

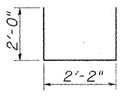
*The pile length has been increased by 2 ft. to account for cases where the encountered top of rock elevation is lower than estimated.



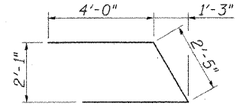
PILE CAP PLAN



BAR s2(E) & s4(E)



BAR s3(E)



BAR u (E)

NORTH ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	70	#6	13'-6"	——
p (E)	10	#7	24'-5"	——
p1(E)	10	#7	24'-7"	——
p2(E)	4	#5	24'-5"	——
s_2 (E)	40	#4	11'-11"	⌝
s_3 (E)	25	#4	6'-2"	⌐
s_4 (E)	4	#4	12'-7"	⌝
u (E)	9	#6	10'-5"	◺
v_1 (E)	92	#5	4'-4"	——
v_2 (E)	7	#5	15'-2"	——
v_3 (E)	8	#5	9'-7"	——
v_4 (E)	8	#5	10'-3"	——
v_5 (E)	7	#5	17'-2"	——
Concrete Structures			Cu. Yd.	25.5
Concrete Encasement			Cu. Yd.	2.8
Reinforcement Bars, Epoxy Coated			Pound	3940
Structure Excavation			Cu. Yd.	236
Bar Splicers			Each	10
Furnishing Steel Piles HP 10x57			Foot	192
Setting Piles in Rock			Each	8

NOTES:

1. Pour steps monolithically with cap.
2. Space reinforcement to miss anchor bolts.
3. See Sheet 2 of 18 for abutment backfill requirements.
4. See Sheet 16 of 18 for bar splicer details.

REVISIONS NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
NORTH ABUTMENT
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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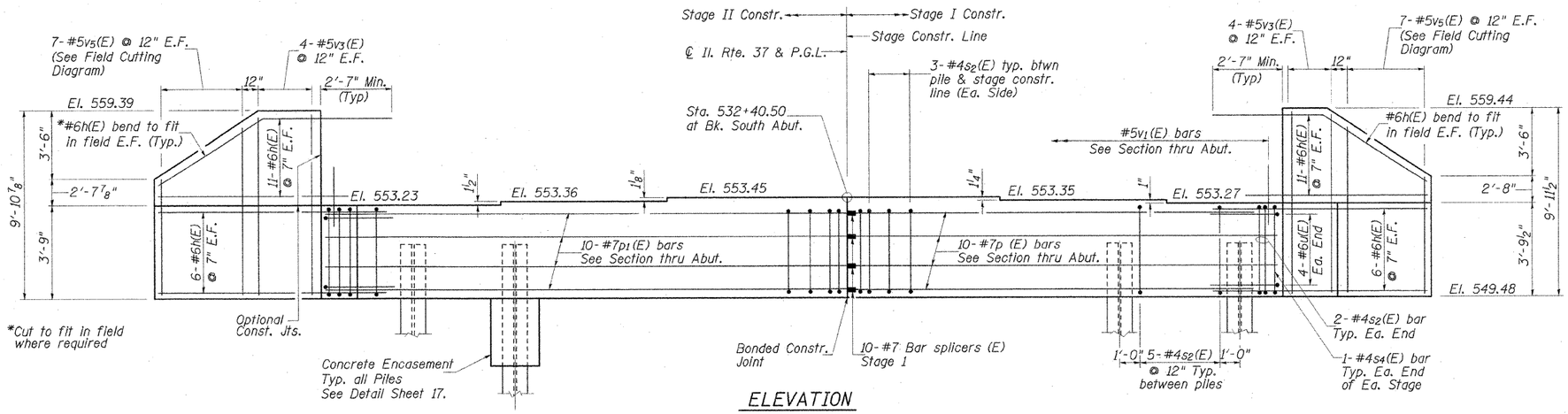
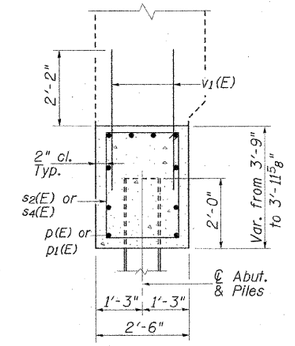
12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	84
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

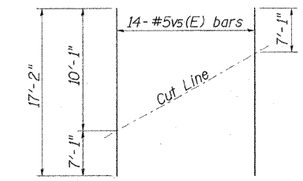
Contract 98777 SHEET 15 OF 18



ELEVATION

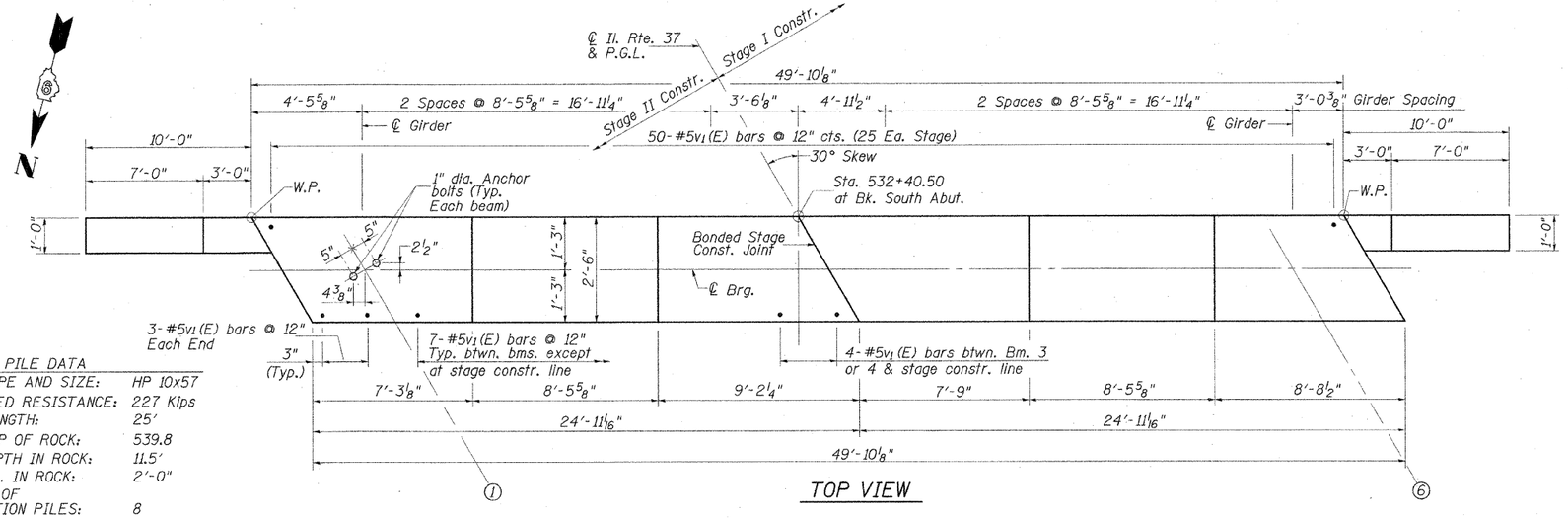


SECTION THRU ABUTMENT



FIELD CUTTING DIAGRAM

Order v_5(E) full length. Cut as shown and use remainder of bars in opposite face.

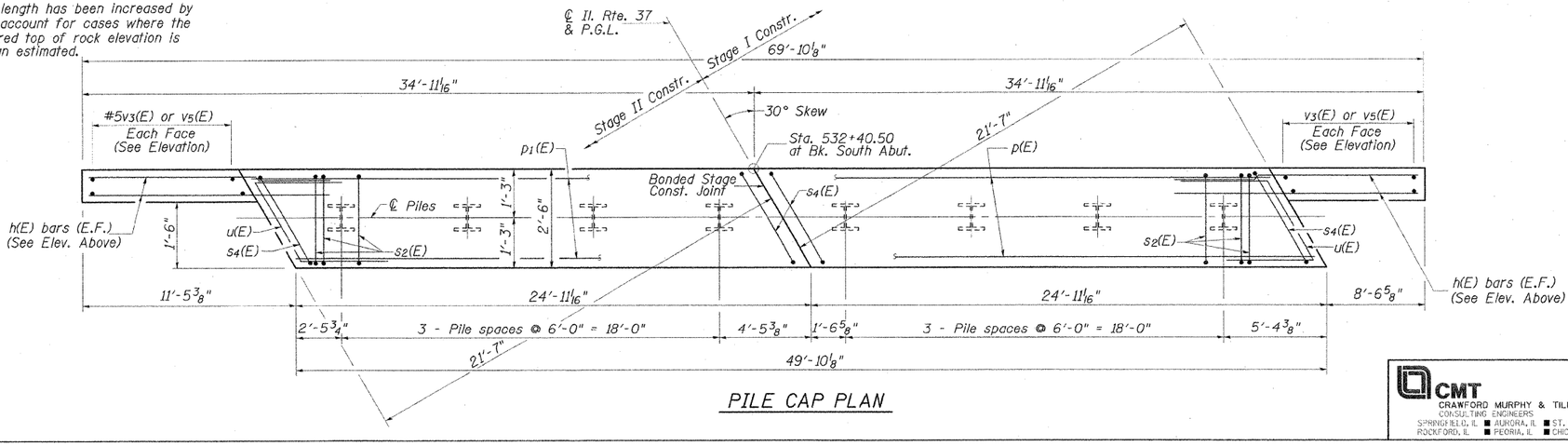


TOP VIEW

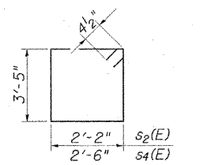
PILE DATA

PILE TYPE AND SIZE:	HP 10x57
FACTORED RESISTANCE:	227 Kips
*PILE LENGTH:	25'
EST. TOP OF ROCK:	539.8
MIN. DEPTH IN ROCK:	11.5'
MIN. DIA. IN ROCK:	2'-0"
NUMBER OF PRODUCTION PILES:	8

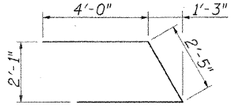
*The pile length has been increased by 2 ft. to account for cases where the encountered top of rock elevation is lower than estimated.



PILE CAP PLAN



BAR s_2(E) & s_4(E)



BAR u (E)

SOUTH ABUT. BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	68	#6	13'-6"	
p (E)	10	#7	24'-5"	
p1(E)	10	#7	24'-7"	
s2 (E)	40	#4	11'-11"	
s4 (E)	4	#4	12'-7"	
u (E)	8	#6	10'-5"	
v1 (E)	92	#5	4'-4"	
v3 (E)	16	#5	9'-7"	
v5 (E)	14	#5	17'-2"	
Concrete Structures			Cu. Yd.	24.3
Concrete Encasement			Cu. Yd.	2.8
Reinforcement Bars, Epoxy Coated			Pound	3690
Structure Excavation			Cu. Yd.	226
Bar Splicers			Each	10
Furnishing Steel Piles HP 10x57			Foot	200
Setting Piles in Rock			Each	8

NOTES:

1. Pour steps monolithically with cap.
2. Space reinforcement to miss anchor bolts.
3. See Sheet 2 of 18 for abutment backfill requirements.
4. See Sheet 16 of 18 for bar splicer details.

REVISIONS NAME	DATE

CMT
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ILLINOIS DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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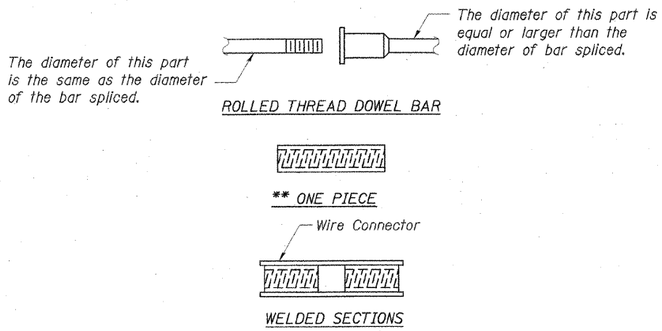
12/5/2007

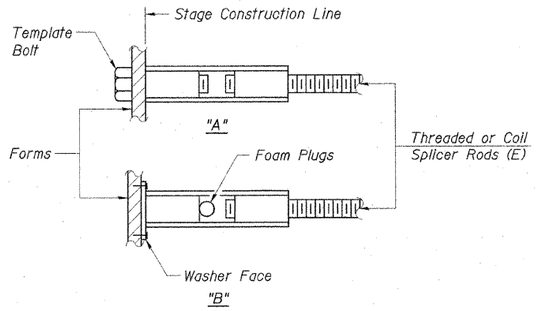
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	85
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 16 OF 18



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

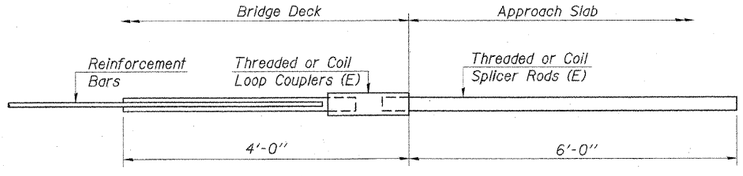
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

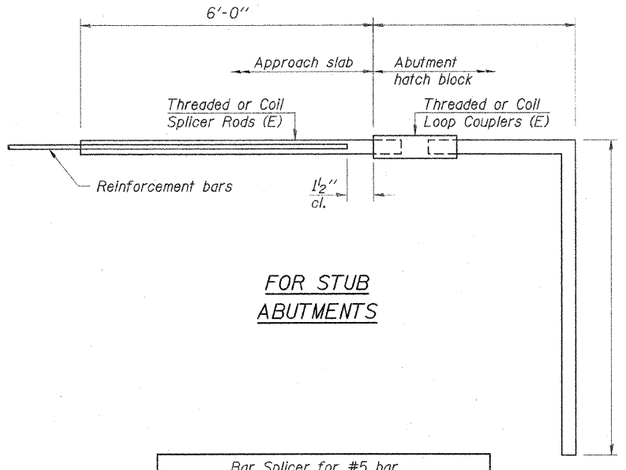
Where f_y = Yield strength of lapped reinforcement bars in ksi.
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



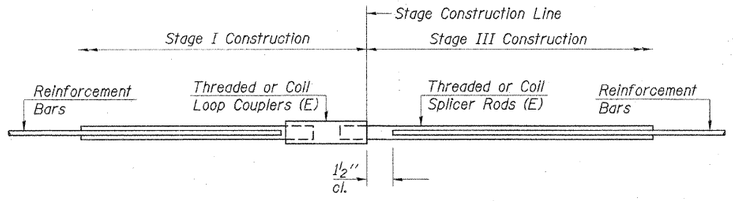
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 80



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#5	422	Deck
#6	18	Diaphragm
#5	20	Abutments

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPICER ASSEMBLY DETAILS
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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12/5/2007

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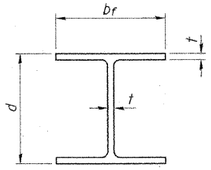
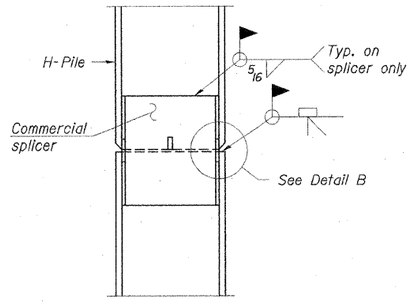
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	86
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 17 OF 18

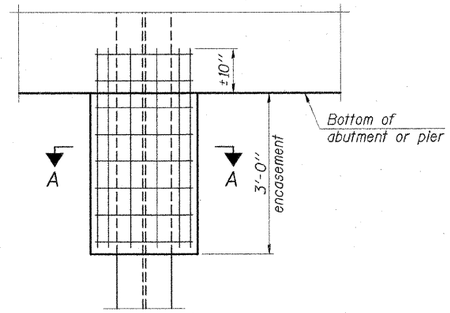


STEEL PILE TABLE

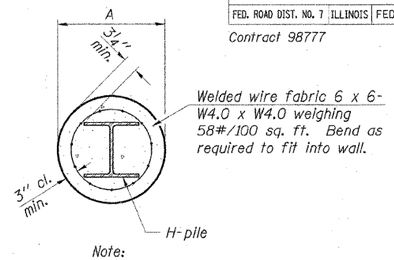
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



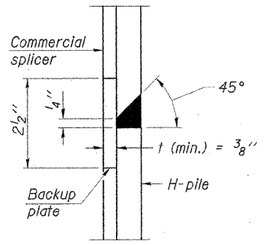
ELEVATION



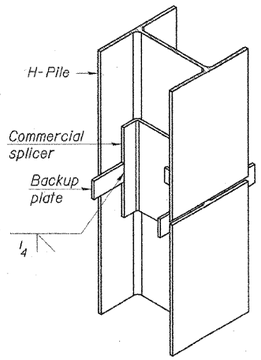
SECTION A-A

Note:
Forms for encasement may be omitted when soil conditions permit.

PILE ENCASEMENT

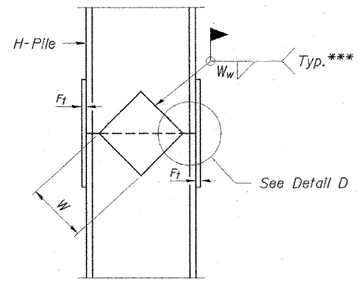


DETAIL "B"

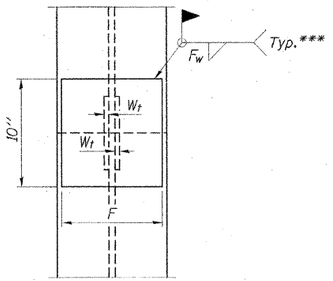


ISOMETRIC VIEW

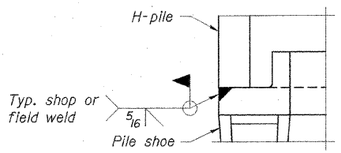
WELDED COMMERCIAL SPLICE



ELEVATION



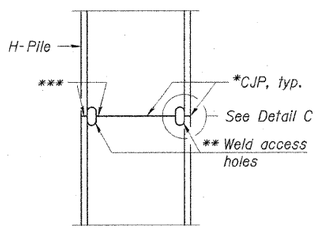
END VIEW



ELEVATION

DETAIL A

H-PILE SHOE ATTACHMENT



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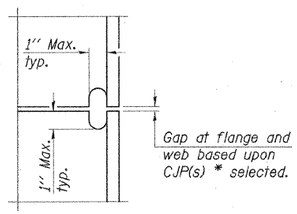
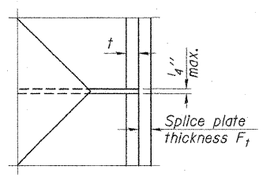


DETAIL C

COMPLETE PENETRATION WELD SPLICE



DETAIL D

Designation	F	Ft	Fw	W	Wt	Ww
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

* Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.

** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.

*** Interrupt welds 1/4" from end of each pile.

REVISIONS	
NAME	DATE

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ILLINOIS DEPARTMENT OF TRANSPORTATION

STEEL H-PILE DETAILS

F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY

SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

F-HP 11-1-06

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12/5/2007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
726	113B-2	WILLIAMSON	87	87
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

Contract 98777 SHEET 18 OF 18

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation
Boring Log
Sheet 1 of 2

Illinois 37
Route: Illinois 37 Structure Number: 100-0028 Date: 8/15/2002
Section 113 B-Y Bored By: Bryan Keller
County: Williamson Location: Checked By: Rob Graeff

Boring No 2-S
Station
Offset 14' Rt CL
Ground Surface 559.3 Ft

Surf Wat Elev: 542.6
Ground Water Elevation
when Drilling 542.3
At Completion
At: Hrs:

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Crushed Aggregate				Weathered Sandstone with Clay Shale Layers	43		
					12		
557.3							
Stiff, very moist, brown, Silty Clay A-6	1				7		
	1	1.1S	18		34		
	1				47		
554.8				529.8			
Stiff, moist, grey, Silt Loam A-4 5.0	3			Hard, dry, brown, Sandstone with Clay Seams Cored from 30.0 ft to 35.0 ft. 88% Recovery 68% RQD 30.0	100/2"		
	6	1.7S	15				
	4						
	1						
	5	1.2S	16				
	3						
549.8				524.3	35.0		
Medium, moist to very moist, grey, Loam to Silty Clay Loam A-6 10.0	1			Hard, dry, grey to brown, Sandstone with Clay Seams Cored from 35.0 ft to 40.0 ft. 100% Recovery 68% RQD			
	1	0.9S	19				
	1						
547.3							
Soft to medium, very moist, grey, Silty Clay Loam A-6	WH						
	WH	0.5B	21				
	WH						
544.8				519.3	40.0		
Soft, very moist, grey, Silty Clay Loam A-6 with a Sand Layer 15.0	1			Hard, dry, grey, Sandstone Cored from 40.0 ft to 45.0 ft 93% Recovery 55% RQD			
	1	0.4B	18				
	2						
542.3							
Loose, wet, brown, fine to medium, Silty Sand with Gravel 71% Sand; 13% Silt 4% Clay; 12% Gravel	2						
	3		18				
	2						
539.8							
Hard, dry, brown, Sandstone 20.0	2						
	100/12"						
				514.3	45.0		
				Hard, dry, grey, Sandstone Cored from 45.0 ft to 50.0 ft. 100% Recovery 50% RQD			
534.8							
Hard, dry, brown and grey, 25.0	2			509.3	50.0		

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2
Route: Illinois 37 Date: 8/15/2002
Section: 113 B-Y
County: Williamson

Boring No: 2-S
Station:
Offset: 14' Rt CL
Ground Surface: 559.3 Ft

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Bottom of hole = 50.0 ft							
Free water observed at 17.0 ft.							
Elevation referenced from center of Existing Structure. Elevation = 359.5 ft.							
To convert "N" values to "N60" values multiply by 1.25. 55.0				80.0			

ILLINOIS DEPARTMENT OF TRANSPORTATION
District Nine Materials

Bridge Foundation
Boring Log
Sheet 1 of 2

Illinois 37
Route: Illinois 37 Structure Number: 100-0028 Date: 8/14/2002
Section 113 B-Y Bored By: Bryan Keller
County: Williamson Location: Checked By: Rob Graeff

Boring No 1-S
Station 531+20
Offset 8' LT CL
Ground Surface 559.4 Ft

Surf Wat Elev: 542.6
Ground Water Elevation
when Drilling 542.4
At Completion
At: Hrs:

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Bituminous Pavement over Concrete				with Sandstone Layers 533.9			
				Hard, dry, brown, Sandstone, with Clay Shale Layers Cored from 25.5 ft to 30.5 ft 82% Recovery 60% RQD			
557.4							
Medium, very moist, brown, Silty Clay Loam A-6	1						
	1	0.7S	22				
	1						
554.9							
Very stiff, moist to very moist, brown, Silty Clay Loam A-6 5.0	1						
	2	2.1S	17				
	3						
552.4							
Stiff, moist, grey, Silty Clay Loam A-6 with some Gravel Layers	2						
	3	1.1S	13				
	3						
549.9							
Medium, moist, grey, Silty Clay Loam A-6 10.0	1						
	1	0.7S	22				
	WH						
547.4							
Stiff, moist, grey, Silt Loam to Silty Clay Loam A-6	1						
	1	1.1S	20				
	2						
544.9							
Medium, moist, brown mottled grey, Silt Loam A-4 15.0	2						
	11	0.7B	18				
	8						
542.4							
Medium, very moist, brown, fine Silty Sand with some Boulders 77% Sand; 9% Silt 12% Clay; 2% Gravel 539.9	1						
	6		14				
	5						
Hard, dry, brown, Sandstone 20.0	100/7"						
				513.9	45.0		
537.4				513.4			
Hard, dry, reddish, Sandstone with Clay Shale Layers	100/9"			NOTE: Lost core barrel and 30 feet of drill rods at 46.0 ft. Unable to retrieve core barrel.			
534.9							
Hard, dry, grey, Clay Shale 25.0	100/12"			50.0			

N-Std Pentr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

Sheet 2 of 2
Route: Illinois 37 Date: 8/14/2002
Section: 113 B-Y
County: Williamson

Boring No: 1-S
Station: 531+20
Offset: 8' LT CL
Ground Surface: 559.4 Ft

DEPTH	BLOW	Qu tsf	W%	DEPTH	BLOW	Qu tsf	W%
Bottom of hole = 46.0 ft							
Free water observed at 17.0 ft.							
Elevation referenced to Center of Existing Structure. Elevation = 559.5 ft.							
To convert "N" values to "N60" values multiply by 1.25. 55.0				80.0			

REVISIONS	
NAME	DATE

CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO
ROCKFORD, IL ■ PEORIA, IL ■ CHICAGO, IL

ILLINOIS DEPARTMENT OF TRANSPORTATION
BORING LOGS
F.A.P. ROUTE 726 (IL. RTE. 37)
ILLINOIS ROUTE 37 OVER
LITTLE SALINE CREEK
SECTION 113B-2 STA. 531+81.00
STR. NO. 100-0091 - WILLIAMSON COUNTY
SCALE: NONE DRAWN BY: GLD
DATE: 12/14/07 CHECKED BY: WLB

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12/5/2007