	INDEX OF SHEETS
1	TITLE SHEET
2	GENERAL NOTES, COMMITMENTS & MIX REQUIREMENTS
3	SUMMARY OF QUANTITIES
4	DETAILS & TYPICAL ROADWAY SECTION
5	SCHEDULE OF QUANTITIES
6	PLAN & PROFILE
7 – 9	STAGE CONSTRUCTION TRAFFIC DETAILS
10 - 23	STRUCTURE PLANS
24 - 35	DISTRICT CADD STANDARDS
36 - 38	CROSS SECTIONS
	STANDARDS

# STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

**DIVISION OF HIGHWAYS** 

# **PROPOSED** HIGHWAY PLANS

FAP 702 (IL 117) SECTION (113BR-1) I PROJECT ACBHF-0702 (230) **WOODFORD COUNTY** C-94-169-06

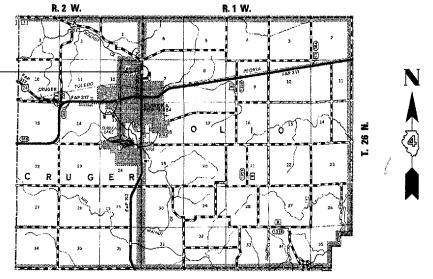
LIST OF ILLINOIS DOT HIGHWAY STANDARDS 000001-04 701201-02 353001-03 701301-02 630001-07 701311-02 630301-04 701321-08 631032-O 702001-06 635006-02 704001-03 635011-01 780001-01 701006-02 781001-02 701011--01

PROPOSED PROJECT ENDS

PROPOSED PRECAST PRESTRESSED CONCRETE DECK BEAM SUPERSTRUCTURE ON EXISTING SINGLE SPAN SUBSTRUCTURE 44'-3 1/2" BK.--BK. ABUTMENTS. 39'-0" CLEAR DECK WIDTH WITH STEEL BRIDGE RAIL, TYPE SM., 0" SKEW

> PROPOSED PROJECT BEGINS -STA. 13 + 30

SUPERSTRUCTURE REPLACEMENT OVER WALNUT CREEK



**LOCATION MAP** 



ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

**CONTRACT NO. 68635** 

NET LENGTH OF PROJECT = 370 FEET = 0.070 MILES SCALE



COUNTY SECTION (113B)I WOODFORD STA. 13+30 TO STA, 17+00 FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT

D-94-096-02

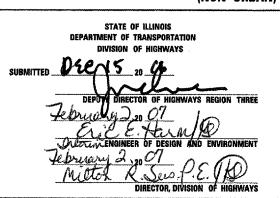


ADT = 2950 (2005)

% SU = 4.0 (2005)% MU = 4.0 (2005)

**TOWNSHIP: CRUGER /OLIO** 

**FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL** (NON-URBAN)



PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

FAP 702 (IL 117) WOODFORD COUNTY SECTION (113B)I

ENVIRONMENTAL REVIEWS PRIOR TO THE USE OF ANY PROPOSED BORROW AREAS, USE AREAS, (TEMPORARY ACCESS ROADS, DETOURS, RUN-AROUNDS, ETC.) AND/OR WASTE AREAS, THE CONTRACTOR SHALL FILE THE REQUIRED ENVIRONMENTAL RESOURCE REQUEST SURVEYS ACCORDING TO SECTION 107.22 OF THE STANDARD SPECIFICATIONS. THESE SURVEYS ARE REQUIRED IN ORDER FOR THE DEPARTMENT TO CONDUCT CULTURAL AND BIOLOGICAL RESOURCE SURVEYS FOR THE PROPOSED SITE.

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS WILL NEED TO BE OBTAINED AND FILED BY THE CONSTRUCTOR. EXCESS WASTE PRODUCTS REMOVED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF AS REQUIRED IN SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- BDE FORM 2289 (ENVIRONMENTAL SURVEY REQUEST)
   A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
   SIGNED PROPERTY OWNER AGREEMENT FORM
   COLOR PHOTOGRAPHS DEPICTING THE USE AREA

PLEASE NOTE THAT A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED ENVIRONMENTAL CLEARANCES.

#### PROPERTY OWNER ACCESS REQUIREMENT

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

#### GENERAL NOTES

- 1.) THE THICKNESS OF BITUMINOUS MIXTURES 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 BITUMINOUS MIXTURE IS PLACED.
- 2.) EXCEPT AS NOTED IN THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- 3.) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED. THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- 4.) SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. AREAS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER AND SEEDED AS SOON AS POSSIBLE.
- 5.) ALL SAW CUTS, NECESSARY TO COMPLETE THE WORK DETAILED IN THESE PLANS, SHALL BE INCLUDED IN THE COST FOR THE VARIOUS PAY ITEMS INVOLVED. THE MINIMUM SAW CUT DEPTH IN THE PAVEMENT SHALL BE 11/2" UNLESS UNLESS OTHERWISE SPECIFIED IN A DETAIL SHOWN IN THE PLANS.
- 6.) UNLESS DIRECTED BY THE ENGINEER, PAYEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A LONGITUDINAL CRACK OR JOINT NOR OVER A TAR OR ASPHALT PAINTED LINE. THE EDGE OF A CENTERLINE OR LANE LINE SHALL BE OFFSET A MINIMUM DISTANCE OF 2" FROM A LONGITUDINAL CRACK OR JOINT. EDGE LINES SHALL BE APPROXIMATELY 2" FROM THE EDGE LINE OF PAVEMENT, SEE SECTION 780 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.
- 7.) ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE COST PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 8.) ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- 9.) IN ADDITION TO THE FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- 10.) THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER, AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT, AND NO COMPENSATION WILL BE ALLOWED.
- 11.) THE LOCATION OF ALL UTILITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND IS INTENDED TO B APPROXIMATE, IT SHALL BE THE CONTRACTOR'S RESPONSIBLITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS, ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS.
- 12.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE J.U.L.I.E. NUMBER IS 800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED.
- 13.) ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM. ALL STATION AND OFFSET REFERENCES ARE TO THE ROADWAY CENTERLINE UNLESS OTHERWISE NOTED. THE STATE PLANE COORDINATE SYSTEM HAS BEEN USED FOR THE HORIZONTAL CONTROL.
- 14.) THE DISTRICT BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST 14 DAYS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS (PH: 309-671-4460)

#### COMMITMENTS: NONE

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES:

HOT MIX ASPHALT MATERIALS (PRIME COAT) HOT MIX ASPHALT MATERIALS (PRIME COAT) HOT MIX ASPHALT SURFACE / BINDER AGGREGATE MATERIAL RIPRAP NITROGEN FERTILIZER NUTRIENT PHOSPHOROUS FERTILIZER NUTRIENT POTASSIUM FERTILIZER NUTRIENT

AGGREGATE PRIME COAT

0,00038 TON/SQ. YD. (ON PAVEMENT) 0.001425 TON/SQ.YD. (ON AGG) 0.056 TON/SQ. YD. PER 1" 2.05 TON/CU, YD. 1.35 TON/CU. YD. 90 LBS./ACRE 90 LBS./ACRE 90 LBS./ACRE 0.002 TON/SQ, YD.

#### MIXTURE REQUIREMENTS

	INITATORI	L REGUIREMENTS	
MIXTURE USE(S)	HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50	LEVELING BINDER (MACHINE METHOD), N50 & TEMPORARY RAMP	PCC 5" BRIDGE DECK OVERLAY
AC/PG	PG 64-22	PG 64-22	0111 1007 04
MAX. RAP %	15	15	CALL I.D.O.T. D-4 MATERIALS FOR EXACT
DESIGN AIR VOIDS	4.2% @ N DESIGN = 50	4.2% & N DESIGN = 50	AGGREGATE OPTIMIZED CLASS BD MIX DESIGN.
MIXTURE COMPOSITION	IL 9.5 OR 12.5	IL 9.5 ONLY	OVERLAY MIX WILL BE CONVENTIONAL BD MIX WITH ADDITIONAL 10%
FRICTION AGGREGATE	MIX D	N/A	CEMENT MATERIAL.

\* IF THE RAP OPTIONS SELECTED THE ASPHALT CEMENT GRADE MAY BE ADJUSTED. THIS WILL BE DETERMINED BY THE ENGINEER.

702 (113B)1 WOODFORD 38 2 STA. 13+30 TO STA. 17+00 FEO. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT

SECTION

COUNTY

CONTRACT NO. 68635

NOTES. DETAILS AND TYPICAL ROADWAY SECTIONS ROUTE 117 OVER WALNUT CREEK F.A.P. RTE. 702 - SECTION (113B)I WOODFORD COUNTY STA.15+45.00 S.N. 102-0018

			SUMMARY OF QUANTI	TIES			
ROADWAY FAP 714 80% FEDERAL 20% STATE	STRUCTURE S.N. 102-0018 80% FEDERAL 20% STATE			***************************************		ROADWAY FAP 702 80% FEDERAL 20% STATE	STRUCTURE S.N. 102-0018 80% FEDERAL 20% STATE
CONSTRUCTION 1000-2A	ON TYPE CODE	CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION 1000~2A	TX080-ZA
154	AS-080X	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	24	24	
0.2		70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO; FT	798	798	
18		70400100	TEMPORARY CONCRETE BARRIER	FOOT	275	275	
18		70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	275	275	
18		* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1776	1776	
968		78200410	GUARDRAIL MARKERS, TYPE A	EACH	8	8	
20		78201000	TERMINAL MARKER DIRECT APPLIED	EACH	4	4	
600 140		78300100	PAVEMENT MARKING REMOVAL	SO FT	513	513	
		78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH			
140					2	2	
0.15		X0301512	GUARDRAIL AGGREGATE EROSION CONTROL	TON	115	115	
9		X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")	SOUFT.	13		13
194		X5030305	CONCRETE WEARING SURFACE, 5"	S <b>Q</b> ₂ YD.,	181		181
44		5200011	O PREFORMED TOTHT STRIP SEAL	FOOT	41		41
34		Z0013798	CONSTRUCTION LAYOUT	L. SUM	1	1	
	181	Z0030250	IMPACT ATTENUATORS TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
140		Z0030350	IMPACT ATTENUATORS RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
	1						
	2.0	Z00 01900	ASBESTOS BEARING PAD REMOVAL	EACH	26		2.6
	2.0	oopje cox	ASBESTOS BEAKING PAD KEMOVAL	EACH	26		26
		Z@O 01900	ASBESTOS BEAKING PAD KEMOVAL	EACH	26		2.6
	2.6	Z00 01900	ASBESTOS BEAKING PAD KEMOVAL	EACH	26		26
	2.6		ASSESTOS BEAKING PAD KEMOVAL	EACH	26		
	2.6 172 299	Z00 01900	ASSESTOS BEAKING PAD KEMOVAL	EACH	26		
	2.6 172 299 1,6 27	200 01900	ASSESTOS BEAKING PAD KEMOVAL	EACH	2.6		
	2.6 172 299 1,6 27 2,640		ASSESTOS BEAKING PAD KEMOVAL	EACH	26		
	2.6 172 299 1,6 27 2,640 48		ASSESTOS BEAKING PAD KEMOVAL	EACH	26		
	2.6 172 299 1,6 27 2,640 48 165		ASSESTOS BEAKING PAD KEMOVAL	EACH	26		
	2.6 172 299 1,6 27 2,640 48		ASSESTOS BEAKING PAD KEMOVAL	EACH	2.6		
75	2.6 172 299 1,6 27 2,640 48 165		ASSESTOS BEAKING PAD KEMOVAL	EACH	26		
4	2.6 172 299 1,6 27 2,640 48 165		ASSESTOS BEAKING PAD KEMOVAL	EACH	2.6		
	2.6 172 299 1,6 27 2,640 48 165		ASSESTOS BEAKING PAD KEMOVAL	EACH	2.6		
4	2.6 172 299 1,6 27 2,640 48 165		ASSESTOS BEAKING PAD KEMOVAL	EACH	2.6		
4	2.6 172 299 1,6 27 2,640 48 165		ASSESTOS BEAKINO PAD KEMOVAL	EACH	2.6		
4 1 1	2.6 172 299 1,6 27 2,640 48 165			EACH	2.6		
4 1 1 1	2.6 172 299 1,6 27 2,640 48 165			EACH	2.6		
4 1 1 1 1	2.6 172 299 1,6 27 2,640 48 165			EACH	2.6		

702 (1138)] WOODFORD		
ETA 17470 TO ETA 17400	38	3
51A. 13730 TO STA. 11700		
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PR	OJECT	

\* SPECIALTY ITEM · SFTY-3N

SUMMARY OF QUANTITIES
ROUTE 117 OVER WALNUT CREEK F.A.P. RTE. 702 - SECTION (113B)I WOODFORD COUNTY STA.15+45.00 S.N. 102-0018

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

PAY ITEM

CODE NO.

20400800 FURNISHED EXCAVATION

25000400 NITROGEN FERTILIZER NUTRIENT

25000500 PHOSPHORUS FERTILIZER NUTRIENT

25000600 POTASSIUM FERTILIZER NUTRIENT

28000250 TEMPORARY EROSION CONTROL SEEDING

40600200 BITUMINOUS MATERIALS (PRIME COAT)

40600625 LEVELING BINDER (MACHINE METHOD), N50

50101500 REMOVAL OF EXISTING SUPERSTRUCTURES

31100300 SUB-BASE GRANULAR MATERIAL TYPE A 4"

35300400 PORTLAND CEMENT CONCRETE BASE COURSE 9"

40600982 HOT MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

40603335 HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50

50400305 PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)

25100630 EROSION CONTROL BLANKET

28000400 PERIMETER EROSION BARRIER

40600990 TEMPORARY RAMP

42001300 PROTECTIVE COAT

44000100 PAVEMENT REMOVAL

50102400 CONCRETE REMOVAL

50300225 CONCRETE STRUCTURES

50300260 BRIDGE DECK GROOVING

50800515 BAR SPLICERS

51500100 NAME PLATES

67100100 MOBILIZATION

70300100

50400105 PRECAST CONCRETE BRIDGE SLAB

50800205 REINFORCEMENT BARS, EPOXY COATED

63000000 STEEL PLATE BEAM GUARDRAIL, TYPE A

# 63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A

70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS

SHORT TERM PAVEMENT MARKING

70300220 TEMPORARY PAVEMENT MARKING - LINE 4"

★ 63100167 TRAFFIC BARRIER TERMINAL TYPE 1. SPECIAL (TANGENT)

70100450 TRAFFIC CONTROL AND PROTECTION STANDARD 701201

TRAFFIC CONTROL AND PROTECTION STANDARD 701321, SPECIAL

50901050 STEEL RAILING, TYPE SM

59000200 EPOXY CRACK INJECTION

25000200 SEEDING, CLASS 2

TOTAL

QUANTITY

154

0.2

18

18

968

600

140

140

0.15

194

44

34

181

140

2.0

2.6

172

299

1,627

2,640

48

165

30

125

UNIT

CU YD.

ACRE

POUND

POUND

POUND

SQ YD

POUND FOOT SO YD

SQ. YD.

TON

TON

SQ. YD

SQ. YD.

TON

SQ YD

SQ. YD

EACH

CU YD.

CU. YD

SO YD.

SO. FT.

SQ FT:

POUND

EACH

FOOT

EACH

FOOT

FOOT

EACH

EACH

L. SUM

L, SUM

EACH

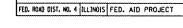
EACH'

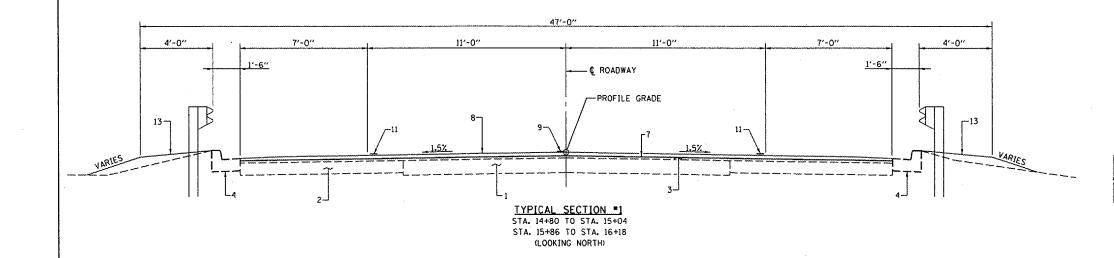
FOOT

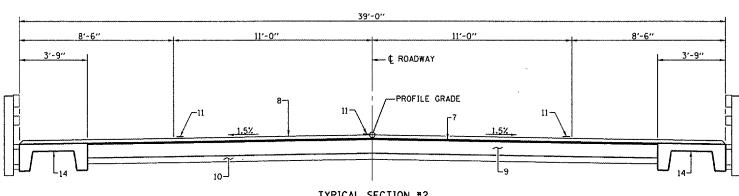
FOOT

CONTRACT NO. 68635 COUNTY TOTAL SHEET NO. WOODFORD 38 4 SECTION

STA. 13+30 TD STA. 17+00







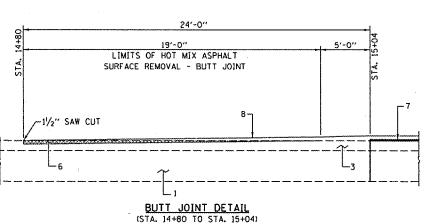
TYPICAL SECTION \*2 STA. 15+04 TO STA. 15+24 STA. 15+66 TO STA. 15+86 (LOOKING NORTH)

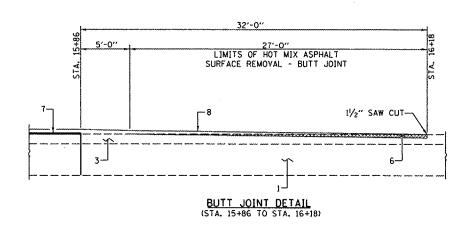
# PAVEMENT LEGEND

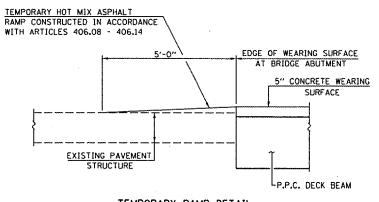
- 1. EXISTING P.C.C. PAVEMENT
- EXISTING P.C.C. BASE COURSE WIDENING 8"
- EXISTING HOT MIX ASPHALT OVERLAY
- 4. EXISTING TYPE B-6.12 CONCRETE CURB & GUTTER
  5. EXISTING PRECAST CONCRETE BRIDGE SLAB
  6. PROPOSED HOT MIX ASPHALT SURFACE REMOVAL BUTT JOINT
  7. PROPOSED LEVELING BINDER (MACHINE METHOD). N50 (MIN. ¾")
- 8. PROPOSED HOT MIX ASPHALT SURFACE COURSE.
- MIX "C", N50 (11/2")
- 9. PROPOSED P.C.C. PAVEMENT 9"
- 10. PROPOSED SUB-BASE GRANULAR MATERIAL TYPE A 4"
  11. PROPOSED PAINT PAVEMENT MARKING LINE 4"

- (STRIPE FOR 11'-0" LANE)

  12. PROPOSED TEMPORARY PAVEMENT MARKING LINE 4" 13. PROPOSED EARTH SHOULDER 14. PROPOSED PROPOSED CONCRETE BRIDGE SLAB







TEMPORARY RAMP DETAIL (STA. 15+19 TO STA. 15+24 & STA. 15+66 TO STA. 15+71)

> DETAILS AND
> TYPICAL ROADWAY SECTIONS
> IL ROUTE 117 OVER WALNUT CREEK
> F.A.P. RTE. 702 - SECTION (113B)] WOODFORD COUNTY STA.15+45.00 S.N. 102-0018

F.A.P. RTE.	SECTION		C	OUNT	Υ	TOTAL	SHEET NO.
702	(1138)[		W	OODF	ORD	38	5
STA.	13+30	1	0 :	STA.	17+0	0	
FED. RO	AD DIST. NO. 4	ILLIN	015	FED.	ATD	PROJECT	

### BITUMINOUS SCHEDULE

LOCATION .	TEMPORARY RAMP (SQ. YD.)	LEVELING BINDER (MACHINE METHOD), N50 (TON)	HOT MIX ASPHALT SURFACE COURSE, MIX "D", N50 (TON)	BITUMINOUS MATERIALS (PRIME COAT) (TON)
STA. 14+80 TO STA. 15+24			15.6	0.07
STA. 15+04 TO STA. 15+24		4.5		
STA. 15+66 TO STA. 15+86		4.5		
STA. 15+66 TO STA. 16+18			18.4	0.08
STA. 15+19 TO STA. 15+24	22			
STA. 15+66 TO STA. 15+71	22			
TOTAL	44	9	34	0.15

## SCHEDULE PERMANENT SEEDING

LOCATION	SEEDING CLASS 2 (ACRE)		PHOSPHORUS FERT, NUT. (POUND)	POTASSIUM FERT. NUT. (POUND)	EROSION CONTROL BLANKET (SQ. YD.)	TEMPORARY EROSION CONTROL SEEDING (POUND)
STA. 13+30 TO STA. 17+00	0.20	18	18	18	968	20
TOTAL	0.20	18	18	18	968	20

# - SCHEDULE HOT MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

LOCATION	QUANTITY (SQ. YD.)
STA, 14+80 TO STA, 14+99	80
STA. 15+91 TO STA. 16+18	114
	TOTAL 194

#### EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CUBIC YARD	CUBIC YARD	CUBIC YARD	CUBIC YARD
STA. 13+30 TO STA.15+04	0	0	83	-83
STA. 15+86 TO STA. 17+00	0	0	71	-71
TOTAL	0	0	154	-154

#### SCHEDULE PERIMETER EROSION BARRIER

LOCATION	QUAN (FE	TITY ET)
STA. 13+50 TO STA, 15+25 RT.	2	00
STA. 14+00 TO STA. 15+25 LT.	15	0
STA. 15+67 TO STA. 16+50 RT.	Į.	00
STA. 15+67 TO STA. 17+00 LT.	15	50

# GUARDRAIL SCHEDULE

<del></del>		-	
- LOCATION	TRAFFIC BARRIER TERMINAL TYPE I SPECIAL (TANGENT) (EACH)	STEEL PLATE BEAM GUARDRAIL TYPE A (FOOT)	TRAFFIC BARRIER TERMINAL, TYPE 6A (EACH)
STAGE I			
STA. 14+09.7 TO STA. 14+59.7 LT.	1		
STA. 14+59.7 TO STA. 15+04 LT.			1
STA. 15+86 TO STA. 16+30.3 LT.			1
STA. 16+30.3 TO STA. 16+80.3 LT.	1		
STAGE II			
STA. 13+34.7 TO STA. 13+84.7 RT.	1		
STA. 13+84.7 TO STA. 14+59.7 RT.		75	
STA. 14+59.7 TO STA. 15+04 RT.			1
STA. 15+86 TO STA. 16+30.3 RT.			1
STA. 16+30.3 TO STA. 16+80.3 RT.	1		
TOTAL	4	75	4

	PAVEME	NT MAR	KING SCHEDL	ILE			
		PAVEMENT MK. REMOVAL		SHORT TERM PVMT. MARKING LINE - 4'		PAINT PVMT. MK, LINE - 4"	
LOCATION	LENGTH (FT.)	WHITE (SO. FT.)	YELLOW SKIP DASH & NO PASSING (SQ. FT.)	WHITE (FT.)	YELLOW (FT.)	WHITE (SO, FT.)	YELLOW SKIP DASH & NO PASSING (SQ. FT.)
STA, 12+70 TO STA, 15+24 RT, (EDGE) ST. 1	254	85					
STA, 15+66 TO STA, 18+50 RT, (EDGE) ST. I	284	95					
STA. 12+32.5 TO STA. 15+24 (¢) ST. I	291.5		52				
STA. 15+66 TO STA. 18+57.5 (¢) ST. I	291.5		101				
STA. 12+70 TO STA. 15+24 LT. (EDGE) ST. II	254	85					
STA, 15+66 TO STA. 18+25 LT. (EDGE) ST. II	284	95					
STA. 12+32.5 TO STA. 18+57.5 (¢)	625			•125			641
STA. 12+70 TO STA. 18+50 LT. (EDGE)	580					580	
STA. 12+70 TO STA. 18+25 RT. (EDGE)	555			<u> </u>		555	
STA, 12+32.5 RT. (STOP BAR)	12						
STA. 18+57.5 LT. (STOP BAR)	12						
TOTAL			513	12	<u> </u>		1776

NOTE: SHORT-TERM PAVEMENT MARKING QUANTITIES ARE FOR TWO APPLICATIONS.
 10% OF TOTAL LENGTH FOR SHORT-TERM PAVEMENT MARKING

SCHEDULE
GUARDRAII & TERMINAL MARKERS

	GUARDRAIL & TERMINAL MARKERS			
	LOCATION		GUARDRAIL MARKERS TYPE A (EACH)	TERMINAL MARKER DIRECT APPLIED (EACH)
STA. 13+34,7 RT.				1
STA, 14+09,7 LT,				1
STA. 16+80.3 LT.				. 1
STA. 16+80.3 RT.				1
STA. 13+90 RT.			1	
STA. 14+70 RT.			1	
STA. 15+50 RT.			1	
STA. 16+30 RT.			1	
STA. 14+60 LT.			1	
STA. 15+15 LT.			1	
STA. 15+70 LT.			1	
STA. 16+25 LT.			1 -	
	•			
		TOTAL	. 8	4

# SUB-BASE GRANULAR MATERIAL TYPE A

LOCATION	QUANTITY (SQ. YD.)
STA. 15+04 TO STA. 15+24	70
STA. 15+66 TO STA. 15+86	70
TOTAL	140

# SCHEDULE PORTLAND CEMENT CONCRETE BASE COURSE 9"

LOCATION	QUANTITY (SQ. YD.)
STA. 15+04 TO STA. 15+24	70
STA. 15+66 TO STA. 15+86	70
TOTAL	140

# SCHEDULE GUARDRAIL AGGREGATE EROSION CONTROL

LOCATION	QUANTITY (NOT)
STA. 13+30 TO STA. 15+23 RT.	42
STA. 13+87.5 TO STA. 15+23 LT.	25
STA. 15+67.3 TO STA. 17+00 RT.	24
STA. 15+67.3 TO STA. 17+00 LT.	24
TOTAL	115

# SCHEDULE RAISED REFLECTIVE PAVEMENT MARKER

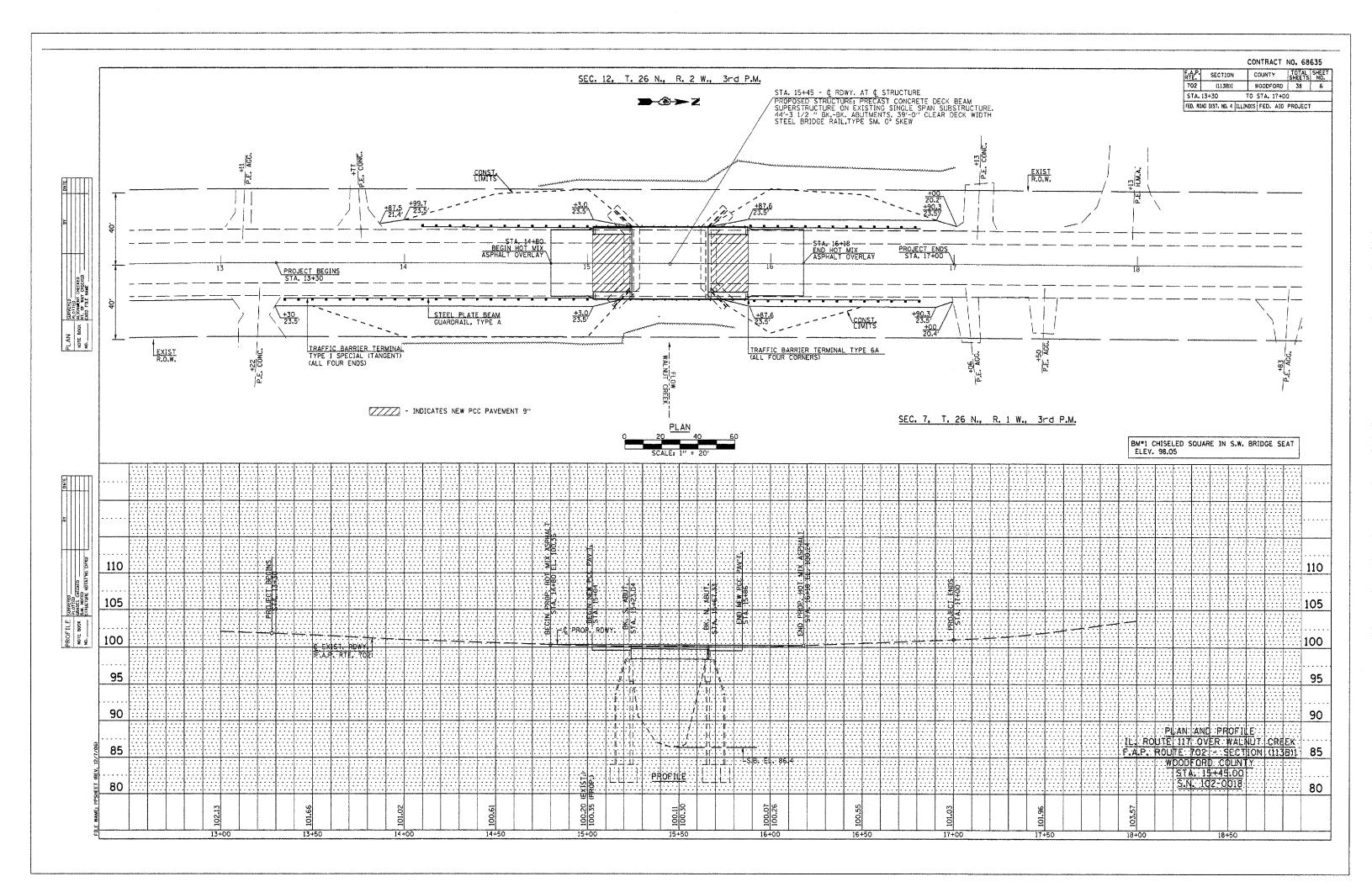
	,		LOCATION		RAISED REFL PAVT MRK REM (EACH)
CT.	14+85	(A)			
	15+65	( <u>(</u> ( <u>)</u>			
JIA.	12 (02	, A,		······································	
				TO	TAL 2

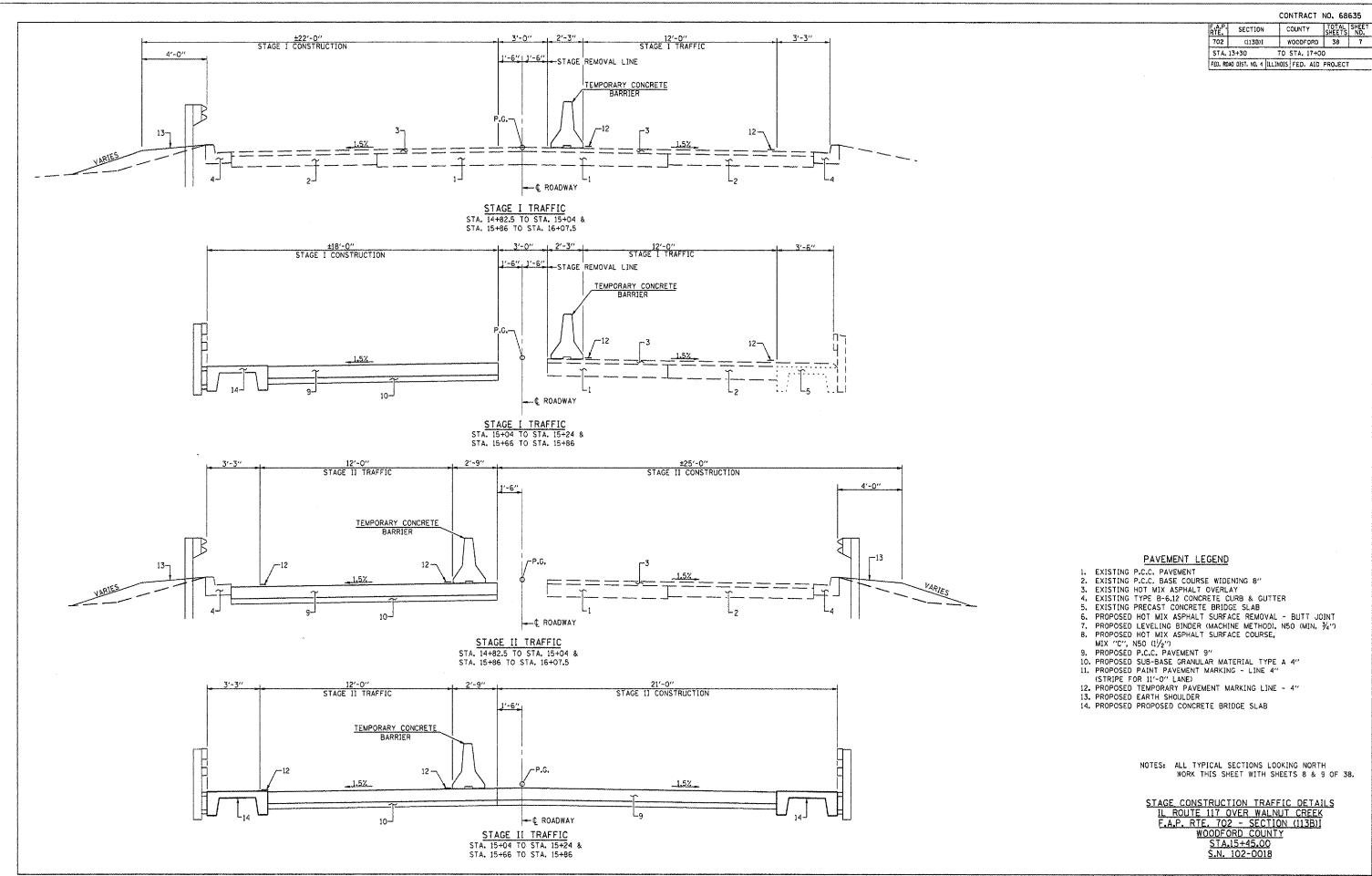
# SCHEDULE PRECAST CONCRETE BRIDGE SLAB

LOCATION	QUANTITY (SQ, YD,)
STA. 15+04 TO STA. 15+23.92 LT. & RT.	143.5
STA. 15+66.08 TO STA. 15+86 LT. & RT.	143,5
TOTAL	287

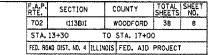
## SCHEDULE PAVEMENT REMOVAL

LOCATION	QUANTITY (SQ, YD.)
STA. 15+04 TO STA. 15+24 STA. 15+66 TO STA. 15+86	70 70
TOTAL	140

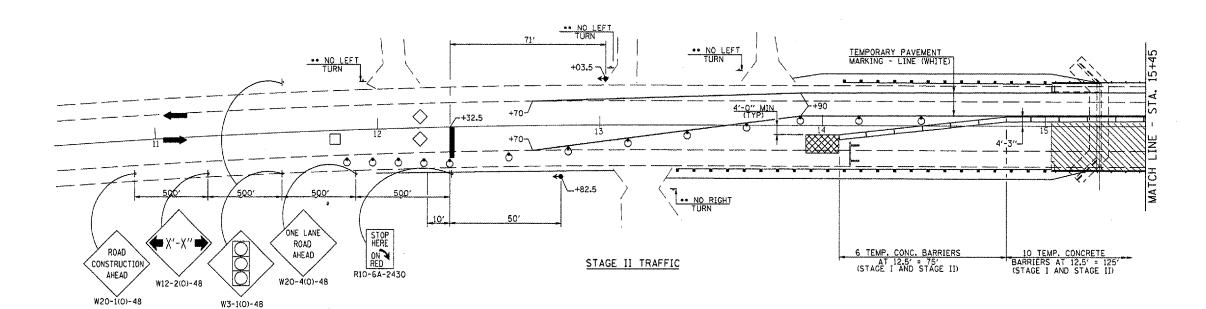








10 TEMP. CONCRETE BARRIERS AT 12.5' = 125' (STAGE I AND STAGE II) (STAGE I AND STAGE II) **> ② >** Z •• NO LEFT \*\* NO LEFT +03.5 --+32.5 +70-+90 MAT TEMPORARY PAVEMENT MARKING ~ LINE (WHITE) -+82.5 I .. NO RIGHT STAGE I TRAFFIC



# SUGGESTED STAGE CONSTRUCTION SEQUENCE

- 1. ERECT TRAFFIC CONTROL FOR STAGE I.
- 2. REMOVE EXISTING DECK LEFT, & STA. 15+45.
- 3. CONSTRUCT PROPOSED STAGE I PRECAST PRESTRESSED DECK ¢ STA. 15+45 AND TEMPORARY RAMP.
- 4. CONSTRUCT PROPOSED GUARDRAIL & TERMINALS LT, STA. 14+09.70 TO STA. 16+80.30.

#### STAGE II

- 1. ERECT TRAFFIC CONTROL FOR STAGE II.

- 4. CONSTRUCT PROPOSED GUARDRAIL & TERMINALS RT, STA. 13+34.70 TO STA. 16+80.30.

#### FINAL

- 1. REMOVE ALL STAGE TRAFFIC CONTROL AND RE-ESTABLISH NORMAL TRAFFIC PATTERNS.
- COMPLETE HOT MIX ASPHALT SURFACE REMOVAL, BINDER AND SURFACE COURSE UNDER TRAFFIC WITH FLAGGERS. 3. FINAL STRIPING, SEEDING AND MISCELLANEOUS CLEANUP.

#### GENERAL NOTES

- 1. THIS TRAFFIC CONTROL DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD 701321.
- EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE REVISED STAGE TRAFFIC PATTERNS DURING ALL PHASES OF STAGE CONSTRUCTION SHALL BE REMOVED AS SPECIFIC IN SECTION 783 OF THE STANDARD SPECIFICATIONS AND PAID FOR AS "PAVEMENT MARKING REMOVAL".
- 3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PRIVATE AND COMMERCIAL PROPERTIES DURING ALL PHASES OF CONSTRUCTION.
- 4. EACH DETECTOR LOOP SHALL BE CONNECTED TO A SEPERATE DETECTOR AMPLIFIER.
- 5. SIGNING FOR STAGE II SAME AS STAGE I.

SYMBOLS WORK AREA

b SIGN

TYPE III BARRICADE

- DRUM WITH STEADY BURNING LIGHT
- **◆◆ TRAFFIC SIGNAL**
- TEMPORARY RUMBLE STRIP
- □ ♦ INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- ♦ TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

••THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS, AS DIRECTED BY THE RESIDENT ENGR./TECH. ALL SIGNS SHALL BE POST MOUNTED.

THE ABOVE NOTED WORK, INCLUDING SIGNS, POSTS, HARDWARE, ALL TYPE III BARRICADES AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL & PROTECTION STD. 701321 (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.

NOTE: WORK THIS SHEET WITH SHEETS 7 & 9 OF 38.

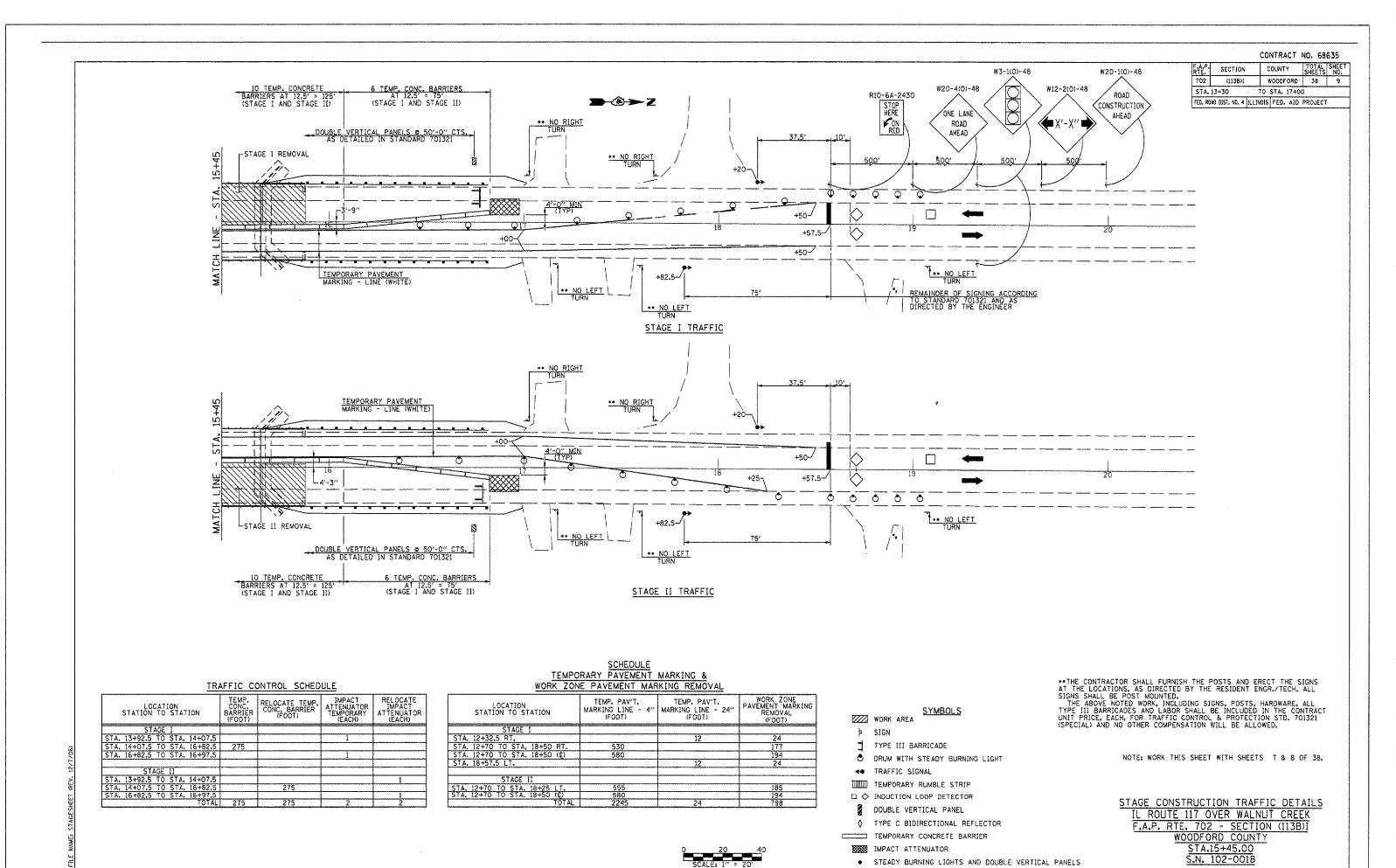
STAGE CONSTRUCTION TRAFFIC DETAILS IL ROUTE 117 OVER WALNUT CREEK F.A.P. RTE. 702 - SECTION (113B)I

WOODFORD COUNTY STA.15+45.00 S.N. 102-0018

CONSULTING CIVIL AND STRUCTURAL ENGINEERS SPRINGFIELD, IL. PHONE: (217) 544-8033

6 TEMP, CONC. BARRIERS

ALLEN HENDERSON & ASSOCIATES, INC.



Benchmark: Chiseled "□" on top of S.W. Abutment Cap, El. 98.05 Existing Structure: S.N. 102-0018 was origionally built as S.B.I. Route 117 Section 113 In 1928 at Sta. 15+45. The original structure was a single span R.C. Deck Girder with R.C. Closed Abutments. In 1979, the superstructure was removed and replaced with P.P.C. Deck Beams under F.A.P. 702 Section (1138)I at Sta. 15+45. Proposed Improvement: Existing P.P.C. Deck Beams are to be removed and replaced and the substructure repaired. Traffic to be maintained utilizing stage construction. --- 17" x 36" P.P.C. Deck Beam Precast Concrete , Bridge Slab (Typ.) ELEVATION Stage Construction Line (P.P.C. Deck Beams) Stations Increase

Note: These plans have been developed in accordance with the September 14, 2006 memo to all Deputy Directors of Highways from Milton R. Sees by Ralph E. Anderson. Per the memo, the existing structure was inspected and analyzed for the proposed Stage I Traffic and determined to be adequate. However, the remaining life of the structure was not established. Therefore, verification of the structural adequacy of the existing structure is required prior to the start of construction.

ROUTE NO. SECTION COUNTY SHEET NO. F.A.P. 702 (113B)I WOODFORD 10 38 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

Contract No. 68635

#### GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.

Plan dimensions and details relative to 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 cause for additional compensation or a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

All construction joints shall be bonded.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to manufacturuer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

The minimum thickness of the concrete overlay shall be 5" and varies as required to adjust for the new profile grade and beam comber.

The Contractor is advised that the existing P.P.C. Deck Beams are in a deteriorated condition with reduced load bearing capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removing and replacement of the superstructure.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations prepared and sealed by an Illinois Licensed Structural Engineer verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position, if necessary, shims shall be used under the crane mat to insure uniform contact with the underlying beams. Prior to placement of the timber mats, the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum, and grouting and curing the shear keys.

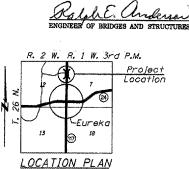
No instream work will be allowed on this project.

All structural steel shall be shop painted with inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Preformed Joint Strip Seal.

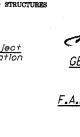
Repairs of abutments shall be completed prior to placement of the new deck

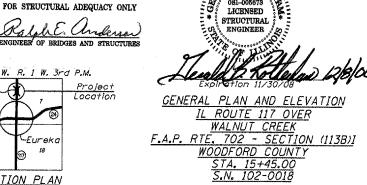
TOTAL BILL OF MATERIAL

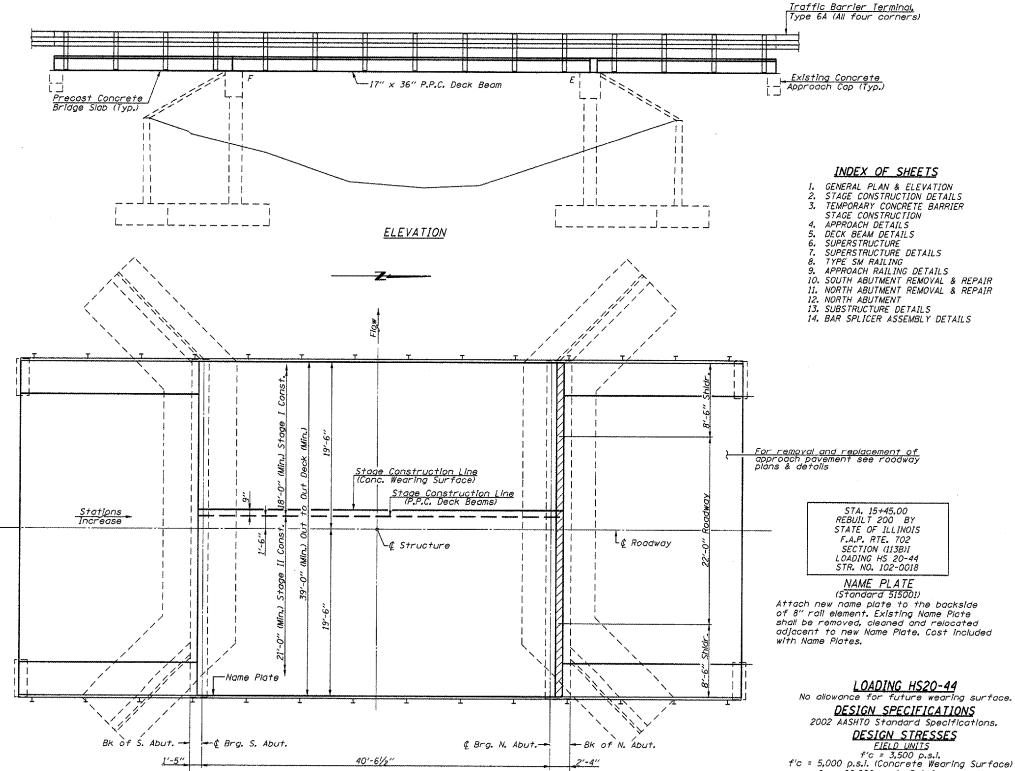
ITEM	UNIT	SUPER	SUB	TOTAL
Protective Coat	Sq. Yd.	181		181
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.		2.0	2,0
Concrete Structures	Cu. Yd.		2.6	2.6
Bridge Deck Grooving	Sq. Yd.	172		172
Precast Concrete Bridge Slab	Sq. Ft.	299		299
Precast Prestressed Concrete Deck Beams (17" Depth)	Sq. Ft.	1627	****	1627
Reinforcement Bars, Epoxy Coated	Pound	2240	400	2640
Bar Splicers	Each	42	6	48
Steel Railing, Type SM	Foot	165		165
Name Plates	Each	1		1
Epoxy Crack Injection	Foot		30	30
Structural Repair of Concrete		***************************************	~~~~~	
(Depth Equal To Or Less Than 5")	Sq. Ft.		15	15
Concrete Wearing Surface, 5"	Sq. Yd.	181	***********	181
Preformed Joint Strip Seal	Foot	41		41
Asbestos Bearing Pad Removal	Each	26		26



APPROVED







Designed: G.B.R. Checked: M.A.H.

Drawn: F.L.L. Checked: <u>G.B.R.</u>

44'-31/2" Bk. to Bk. Abuts.

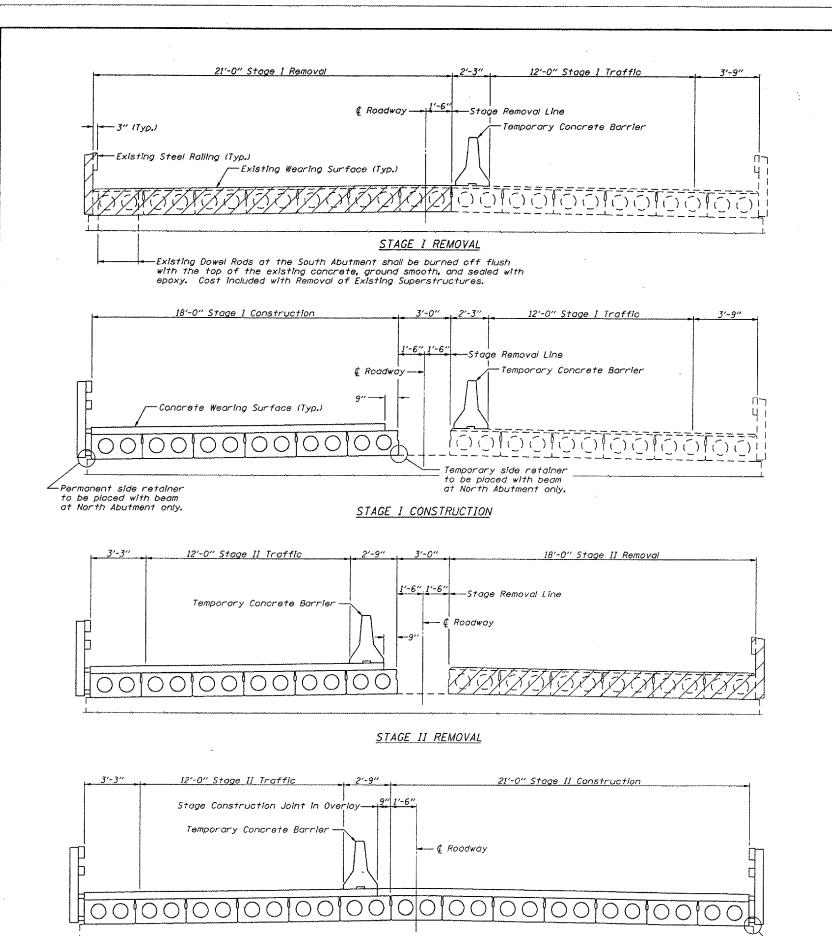
<u>PL AN</u>

fy = 60,000 p.s.i. (Reinforcement)

PRECASI PRESTRESSED UNITS

f'c = 5,000 p.s.i.
f'ci = 4,000 p.s.i.
f's = 270,000 p.s.i. (/²/0 low lax strands)
f'si = 201,960 p.s.i. (/²/0 low lax strands)

PRECAST CONCRETE UNITS
f'c = 4,500 p.s.l.
f'Y = 60,000 p.s.l.(Reinforcement)

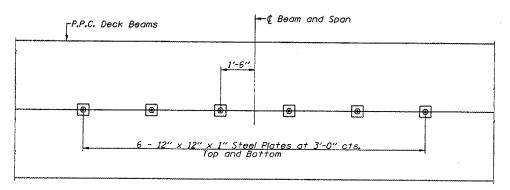


ROUTE NO. SECTION COUNTY SHEETS NO.

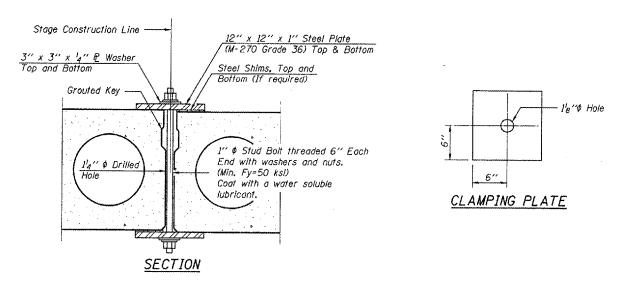
F.A.P. 702 (1138)1 WOODFORD 38 11

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT
COntract No. 68635

SHEET NO. 2 OF 14 SHEETS



PLAN AT STAGE CONSTRUCTION LINE



# SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

See Article 504.06 (d) of the Standard Specifications for Stage Construction of Precast Prestressed Concrete Deck Beams.

Cost included with "Precast Prestressed Concrete Deck Beams".

See Stage Construction Details for traffic lanes.

Notes: All Cross sections are looking North,
Hatched area indicates "Removal of Existing Superstructures."
Cost of removal of the existing wearing surface, existing precast concrete bridge slab and steel railing (Including the railing on the approach) are included with "Removal of Existing Superstructures".
For quantity of Temporary Concrete Barrier see Roadway Plans,
For Permanent & Temporary Side Retainer details see Sheet 13 of 14.

STAGE CONSTRUCTION DETAILS

IL ROUTE 117 OVER

WALNUT CREEK

F.A.P. RTE. 702 - SECTION (113B)I

WOODFORD COUNTY

STA. 15+45.00

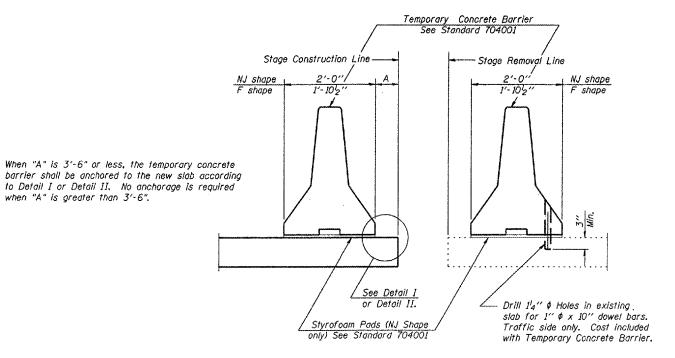
S.N. 102-0018

Permanent side retainer to be placed with beam at North Abutment only.

STAGE II CONSTRUCTION

ROUTE NO. SECTION COUNTY F.A.P. 702 (1138)] WOODFORD 38 12 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT Contract No. 68635

SHEET NO. 3



# NOTES

Detail I - With Bar Splicer or Couplers: Connect one (1) 1"x7"x10" steel P to the top layer of couplers with 2-58" \$ bolts screwed to coupler at approximate & of each barrier panel.

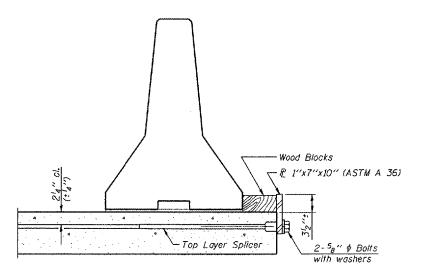
Detail II - With Extended Reinforcement Bars: Connect one (1) 1"x7"x10" steel  $\mathbb{P}$  to the concrete slab with 2- $\frac{5}{8}$ "  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate & of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.

# SECTIONS THRU SLAB

placed.

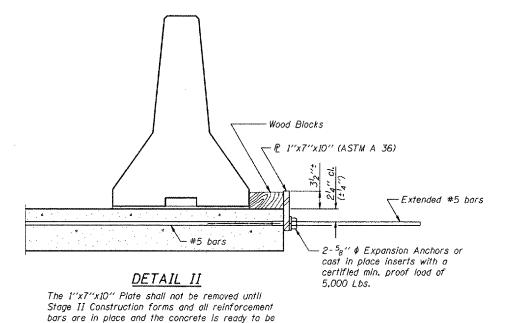
EXISTING SLAB



# DETAIL I

when "A" is greater than 3'-6".

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



Top bars spacing Detail I 3" Detail II - € 7<sub>B</sub>" Ø Holes \* £ 1"x12" Notch

P 1"x7"x10"

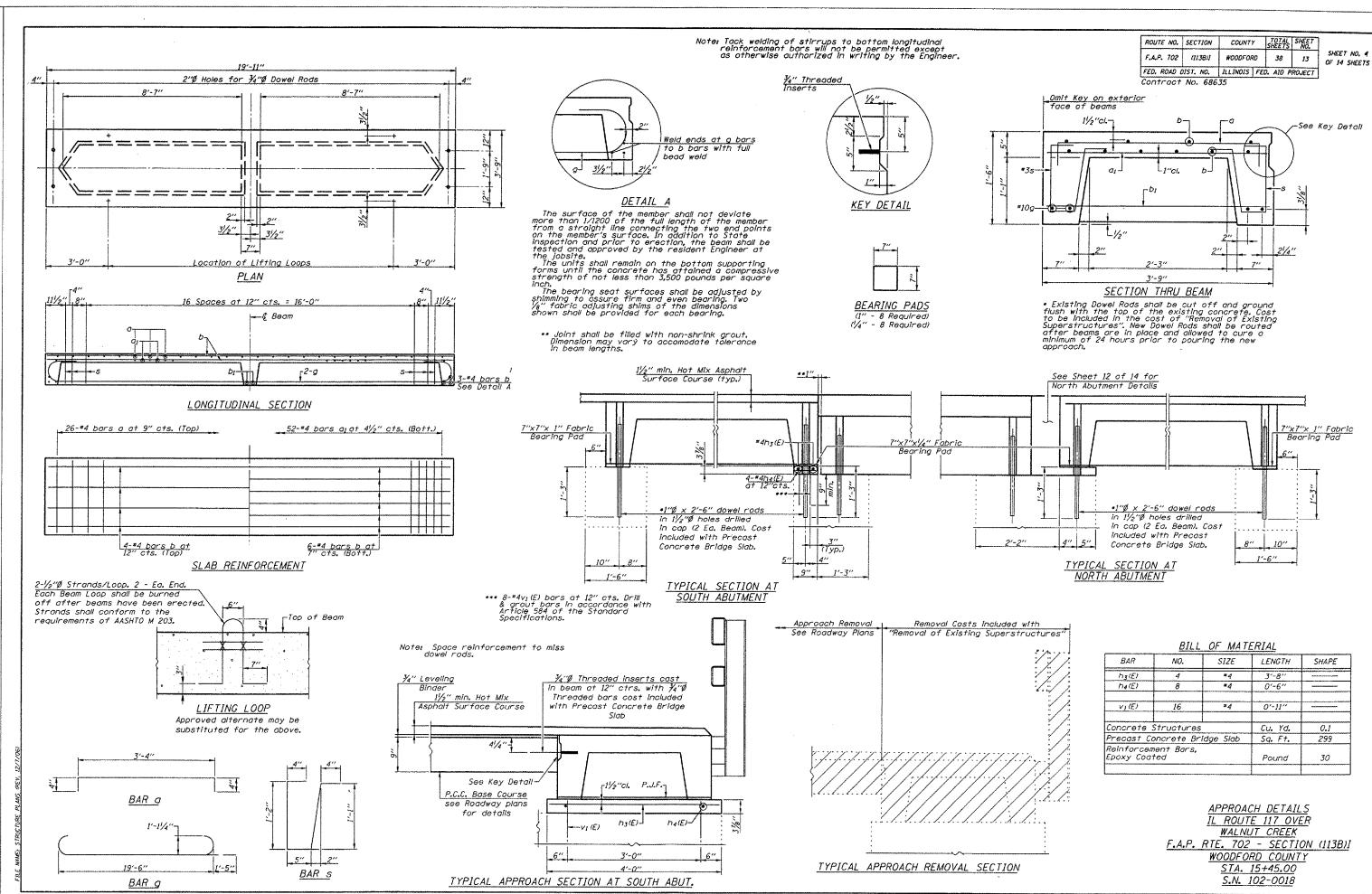
\* Required only with Detail II

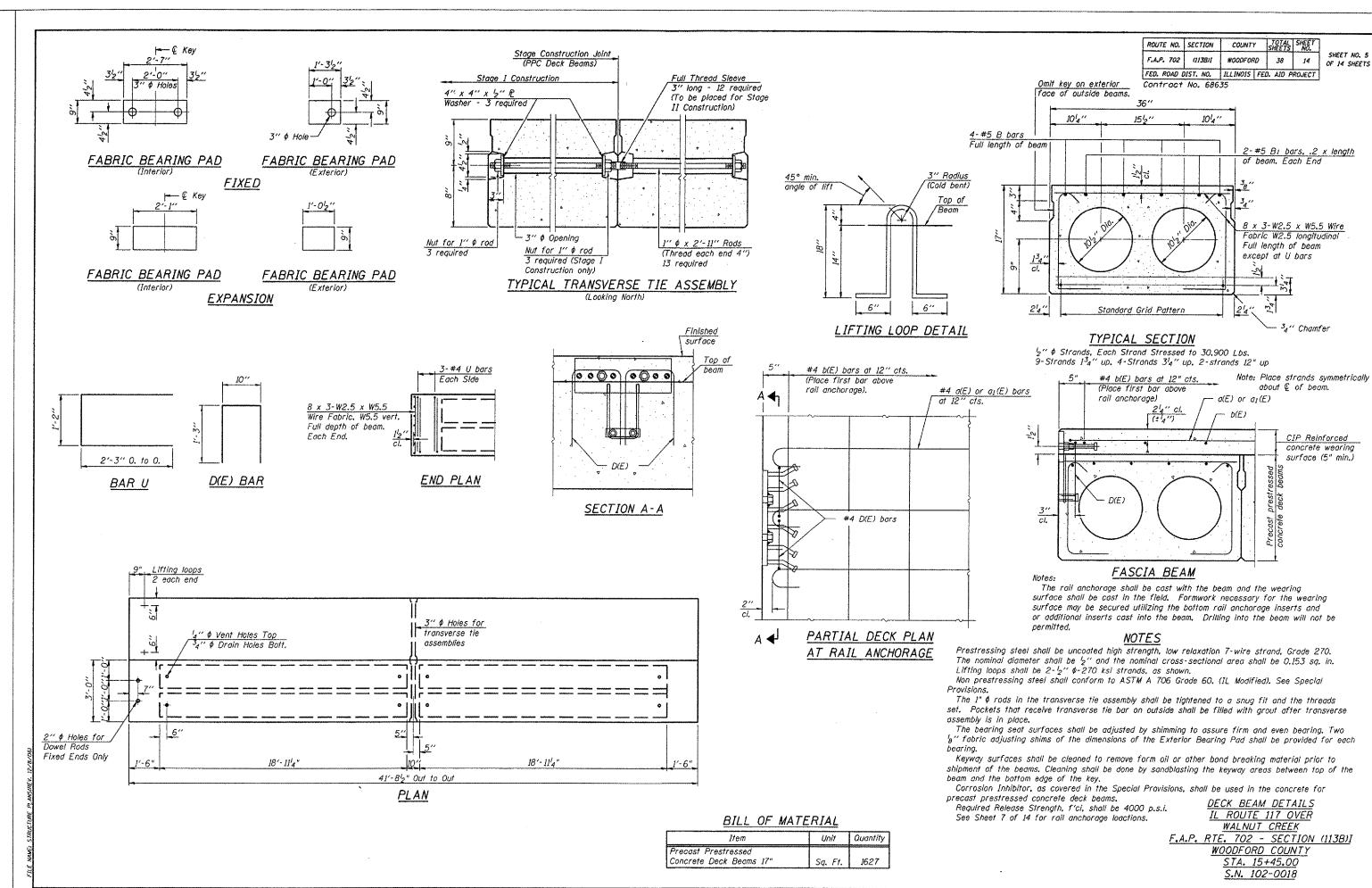
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION <u>IL ROUTE 117 OVER</u> WALNUT CREEK F.A.P. RTE. 702 - SECTION (113B)I WOODFORD COUNTY STA. 15+45.00 S.N. 102-0018

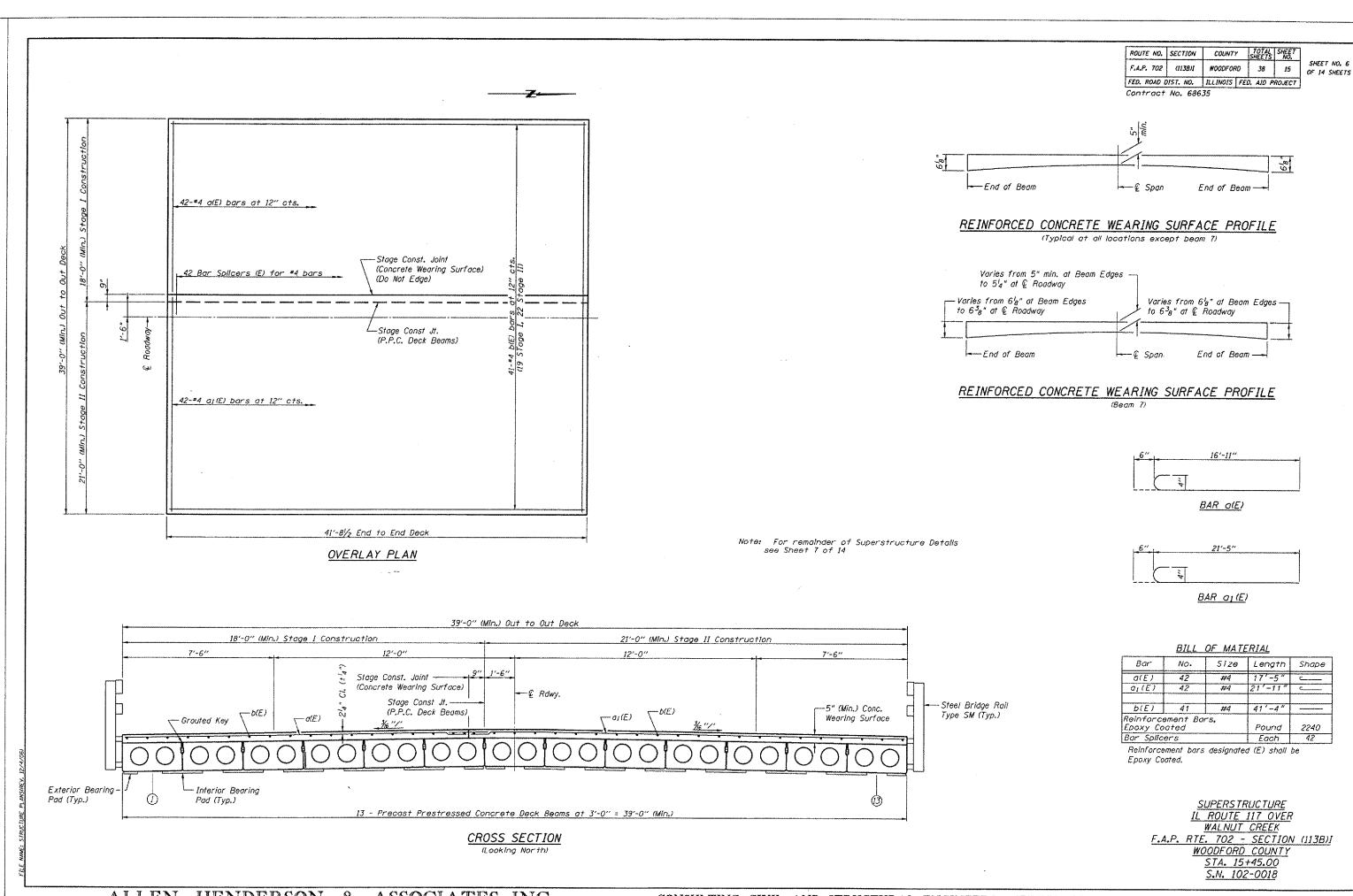
R-27

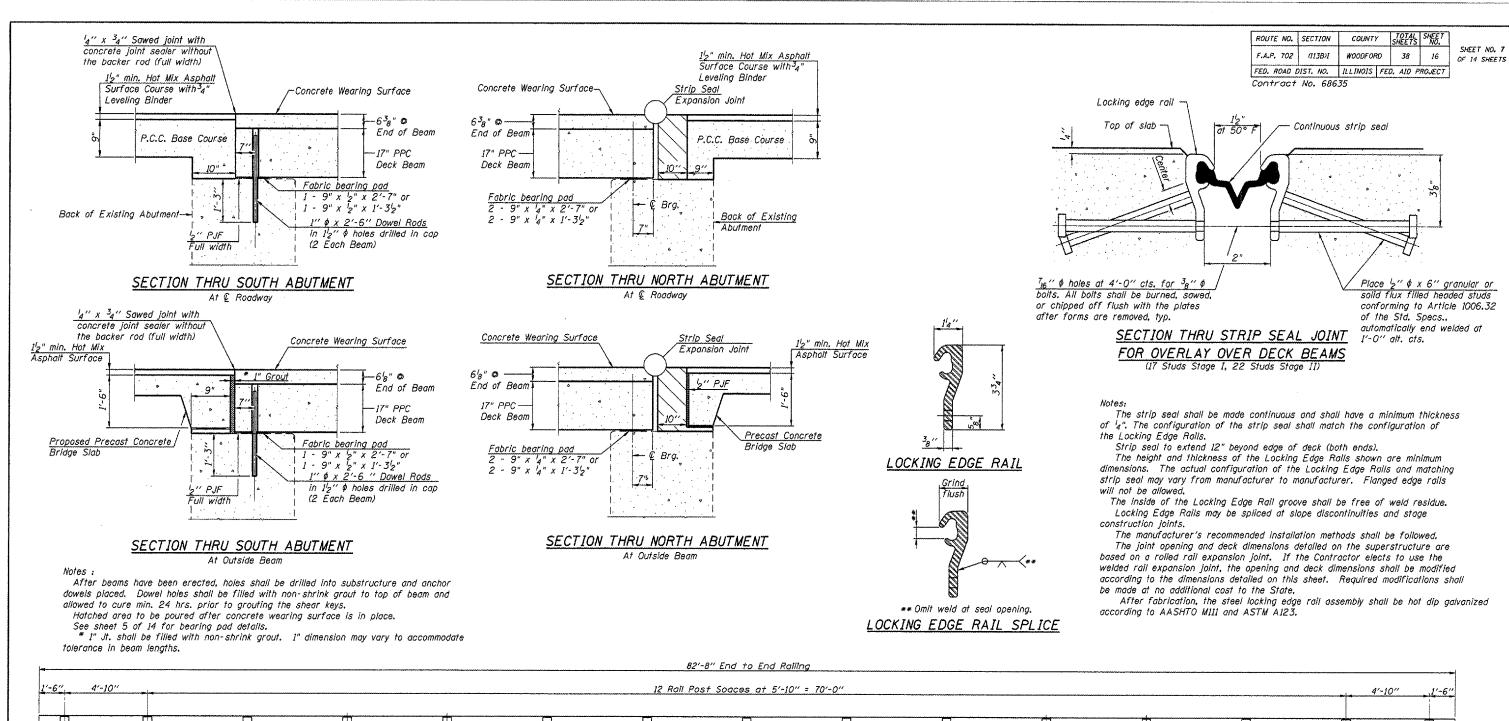
10-22-04

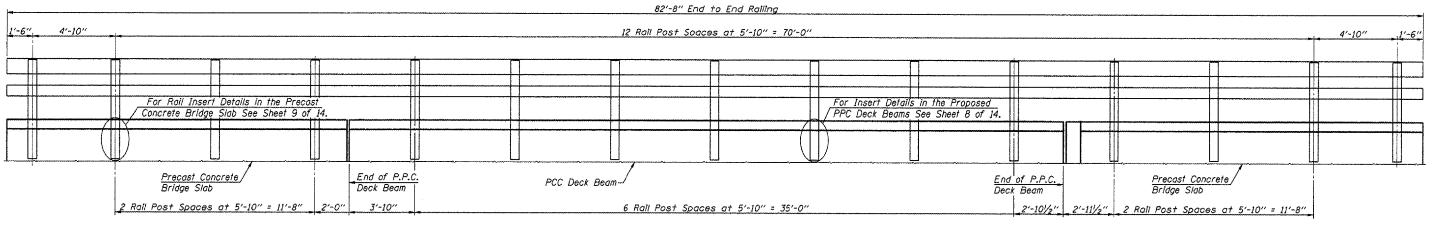
NEW SLAB











# RAIL POST SPACING FOR STEEL BRIDGE RAIL

Note: The rail post spaces shown on the existing precast concrete approach beams are per the existing plans.

Actual spacing may vary in the field. It shall be the Contractors responsibility to verify such dimensions and make necessary approved adjustments to the rail post spacing of the proposed ppc deck beams prior to construction or ordering of materials. Maximum rail post spacing = 6'-3"

SUPERSTRUCTURE DETAILS

IL ROUTE 117 OVER

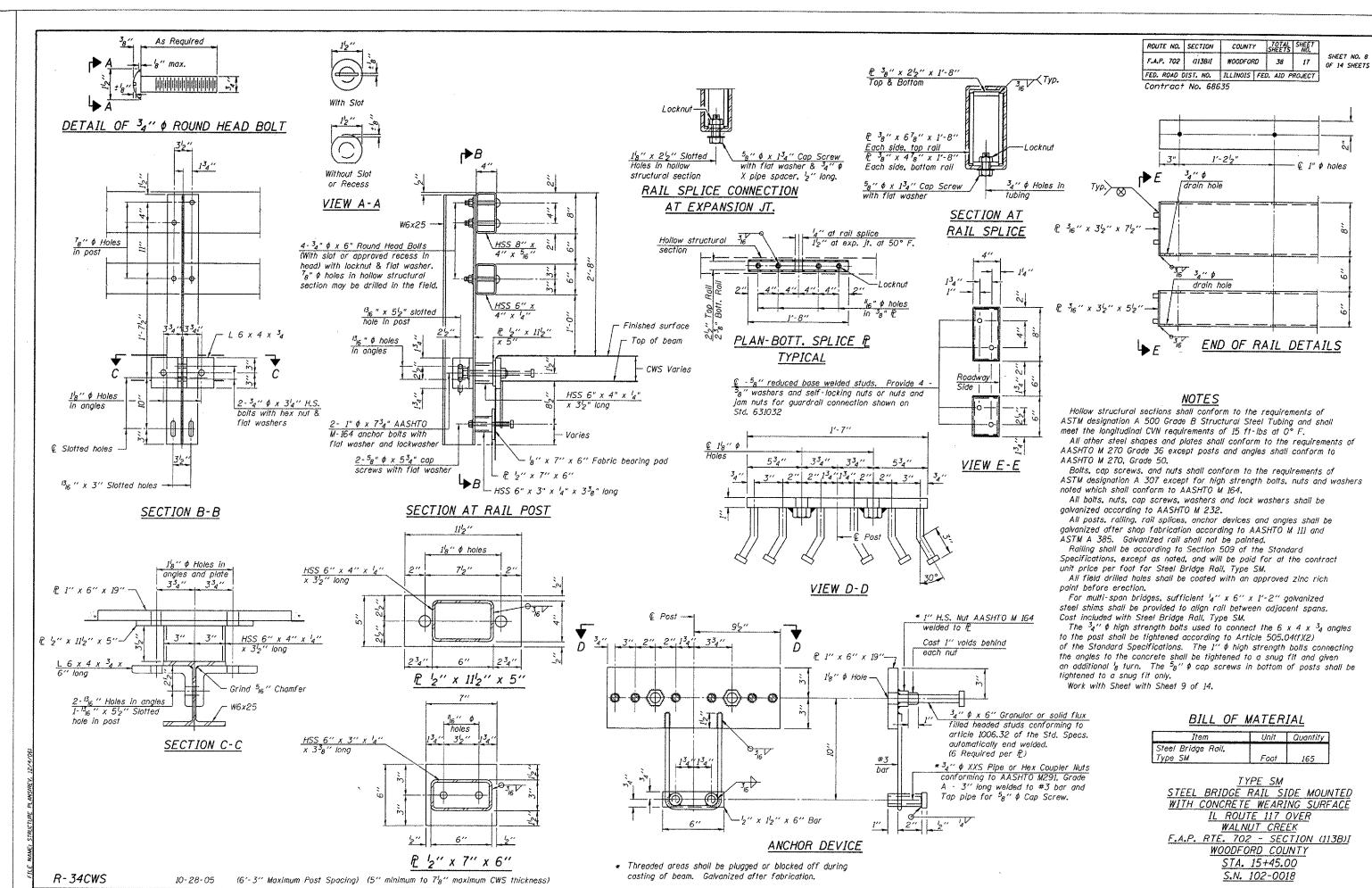
WALNUT CREEK

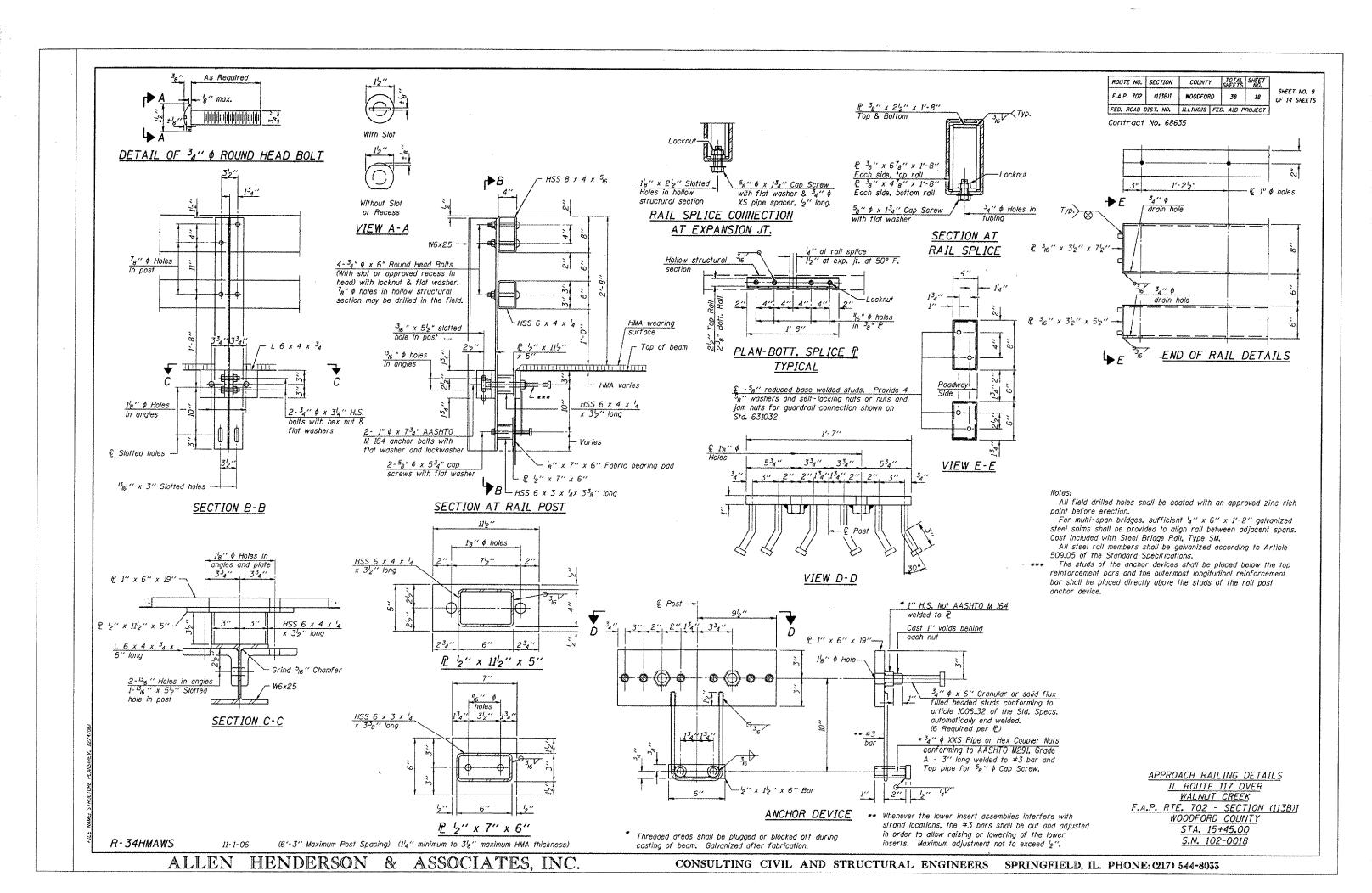
F.A.P. RTE. 702 - SECTION (113B)1

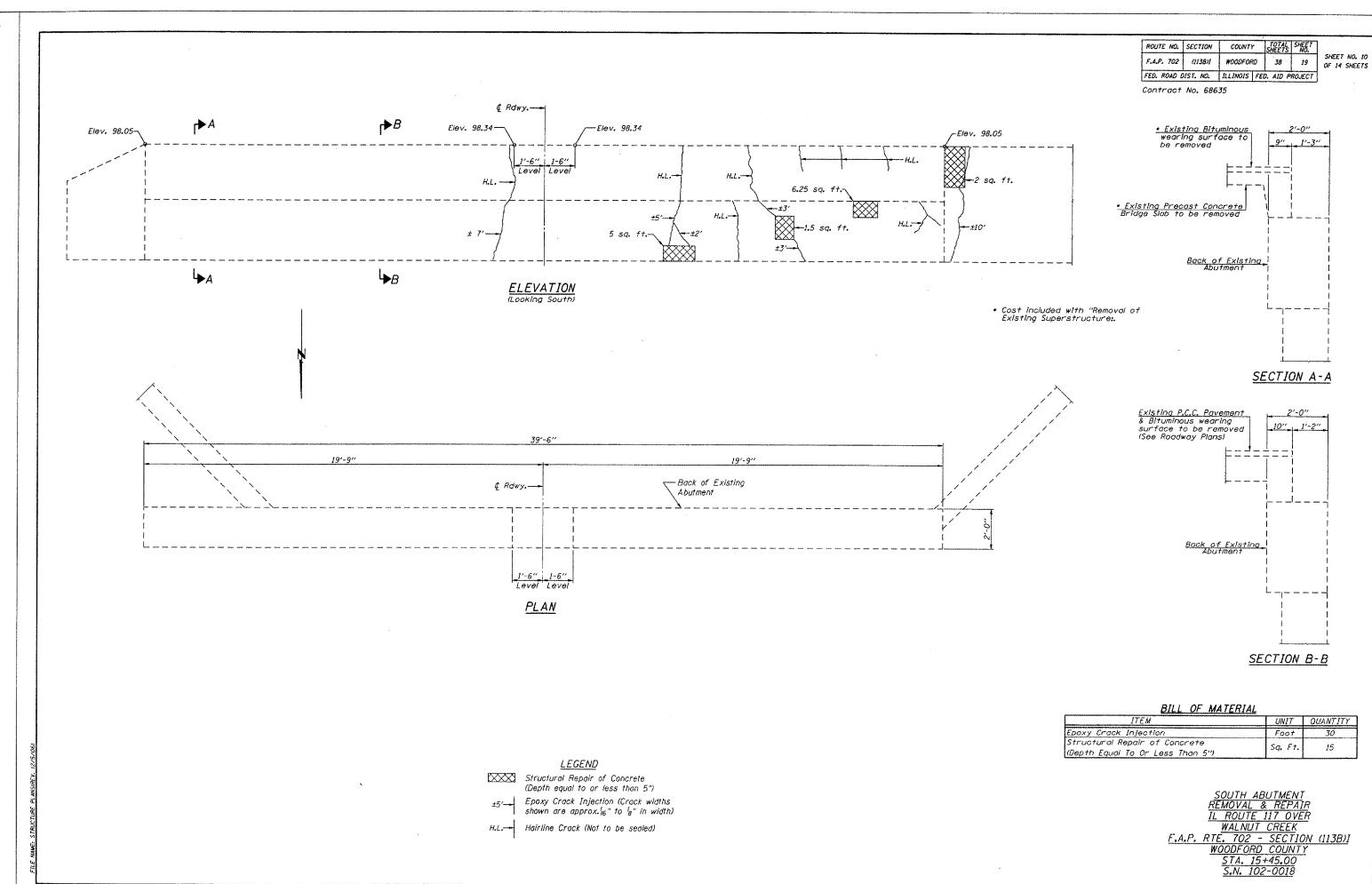
WOODFORD COUNTY

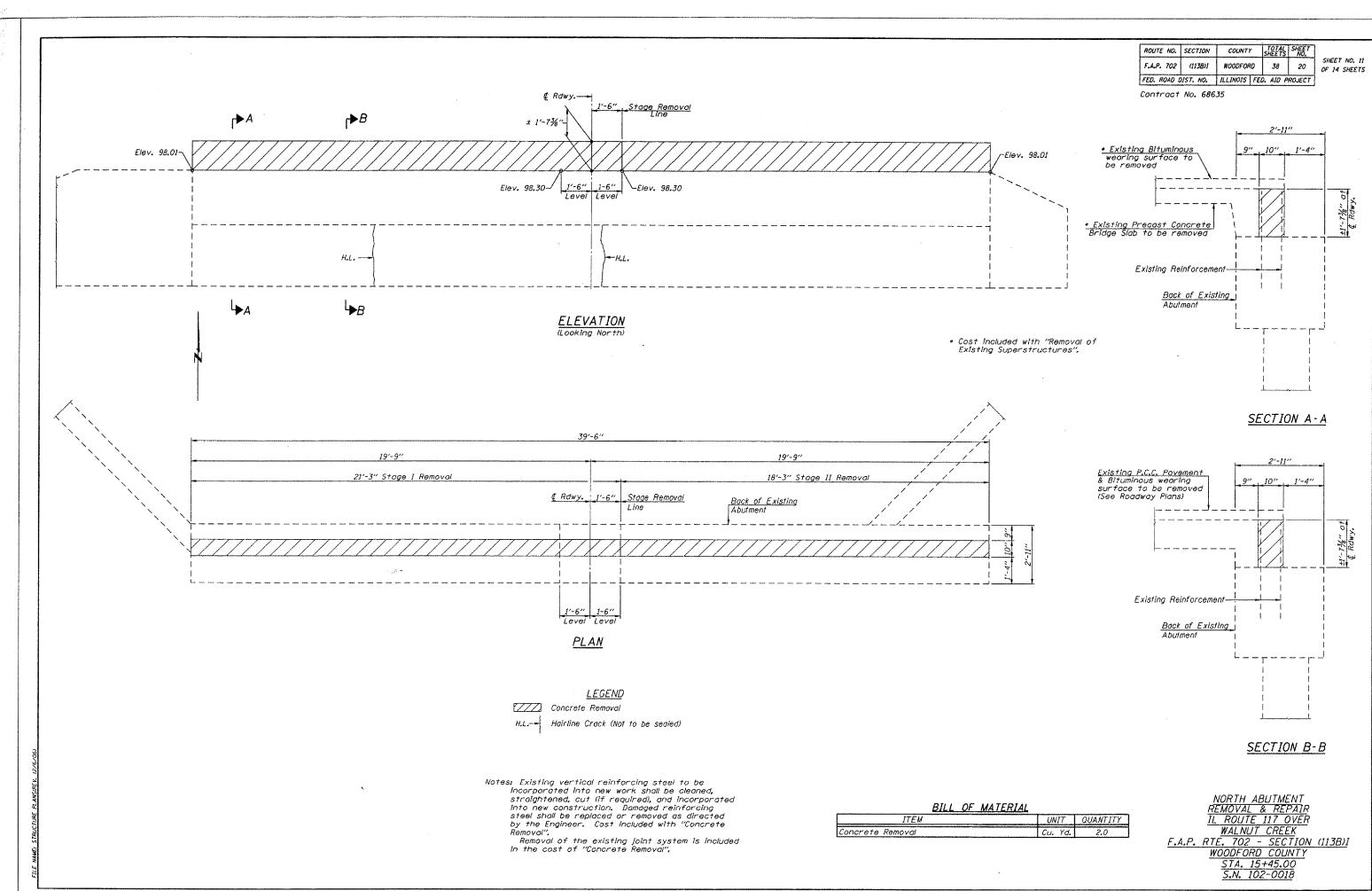
STA. 15+45.00

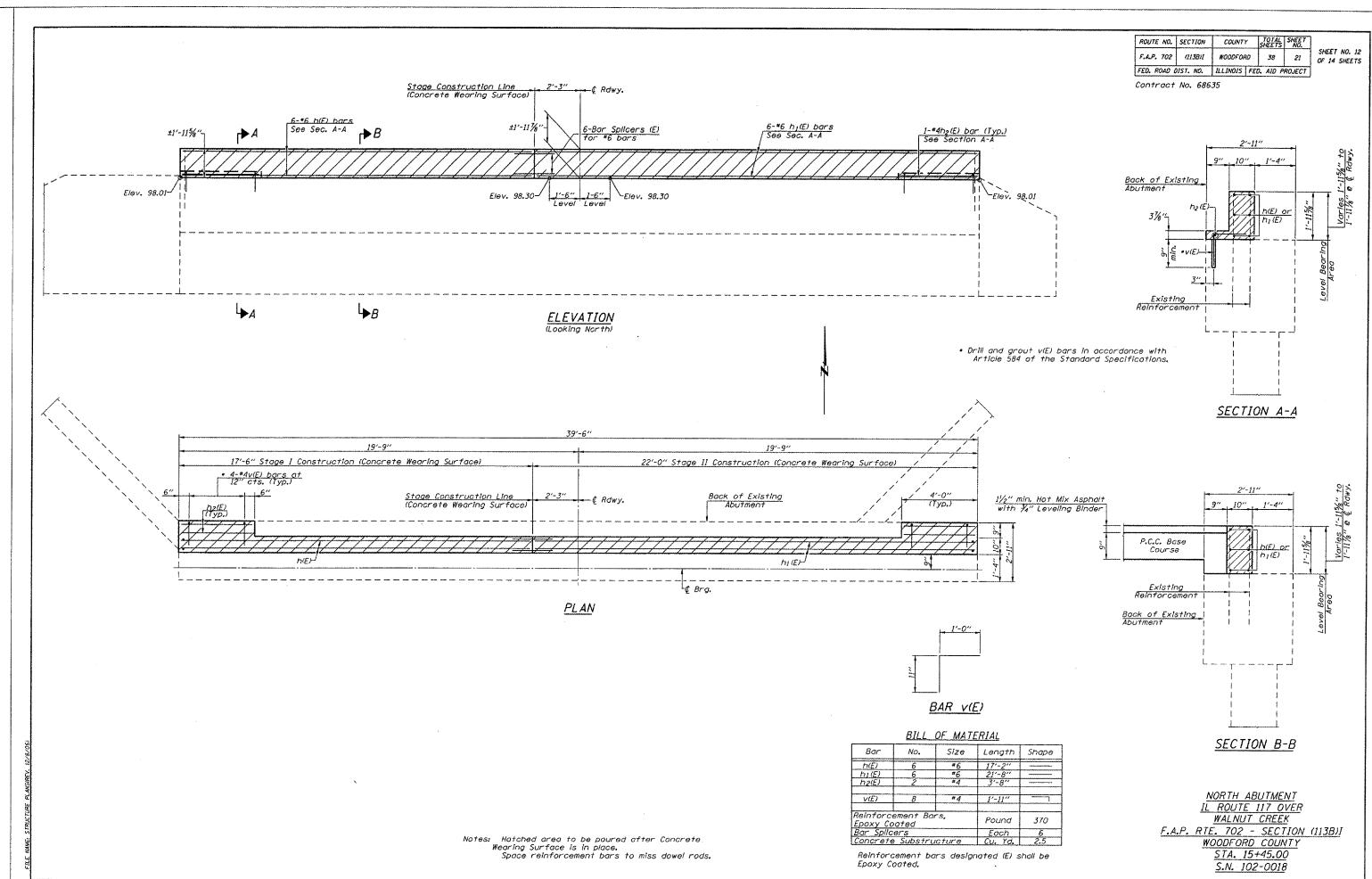
S.N. 102-0018







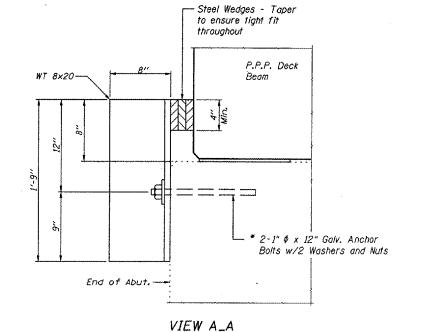




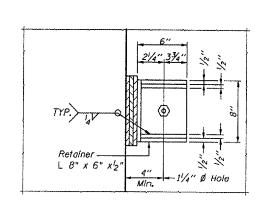
ROUTE NO. SECTION COUNTY F.A.P. 702 (1138)[ WOODFORD 38 22 OF 14 SHEETS FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

SHEET NO. 13

Contract No. 68635



P.P.P. Deck Steel Wedges - Taper to ensure tight fit throughout Retainer Angle 4" 1" \$ x 12" Anchor Bolt Min. w/ Washer and Nut



Note: Burn off anchor bolts flush with the top of the existing concrete, grind smooth, and seal with epoxy after the Concrete Wearing Surface has cured and prior to placement of the PPC Deck Beam at © Roadway. Cost included with PPC Deck Beam (17" Depth)

ELEVATION

VIEW B-B

## PERMANENT SIDE RETAINER AT NORTH ABUTMENT

1" Ø x 12" Galv. Anchor

Bolt w/ Washer and Nut

Steel Wedges - Taper

WT 8×20

PLAN

to ensure tight fit

throughout

\* Epoxy grout 1"\$ anchor bolts in 9" (min.), drilled holes according to Section 584 of the Standard Specification. Cost of retainer and accessories are included with PPC Deck Beams (17" Depth)

# TEMPORARY SIDE RETAINER AT NORTH ABUTMENT

# ANCHOR BOLTS FOR RETAINERS GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming. The anchor bolts, furnished and installed and including the epoxy grout or

capsules shall not be paid for separately but shall be included in the unit bid price for PPC Deck Beams (17" Depth). The Contractor may use, at his option, the capsule or the adhesive cartridge

type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

- 1. A threaded rod stud with nut and washer of the type specified.
- 2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Туре
N. Abut.	A325

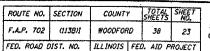
ASTM F 1554 Grade 105. ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

> SUBSTRUCTURE DETAILS IL ROUTE 117 OVER WALNUT CREEK F.A.P. RTE. 702 - SECTION (113B)I WOODFORD COUNTY STA. 15+45.00 S.N. 102-0018

# Existing Dowel Back of Existina --Fabric Bearing Pad Rod Spacina Abutment - Existing Dowel Rods at the South Abutment shall be burned off flush with the top of the Proposed Dowel Rod Spacing existing concrete, ground smooth, and sealed with epoxy. Cost included with Removal of Existing Superstructures.

PLAN

DOWEL ROD SPACING (SOUTH ABUTMENT)



OF 14 SHEETS

Contract No. 68635

# 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 fied 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:

Minimum Capacity (Tension in kips) =  $1.25 \times fy \times A_1$ 

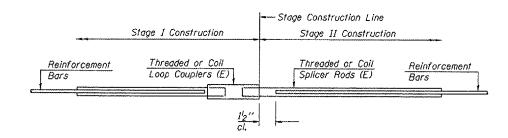
Minimum \*Pull-out Strength = 1.25 x fs<sub>ollow</sub> x A<sub>t</sub> (Tension in kips)

Where fy = Yield strength of lapped reinforcement bars in ksi.

fs<sub>allow</sub>= Allowable tensile stress in lapped reinforcement bars in ksi (Service Load) A<sub>1</sub> = Tensile stress area of lapped reinforcement bars. \* = 28 day concrete

	BAR SPLIC	ER ASSEMBLI	ES	
		Strength Requirements		
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length		Min. Pull-Out Strength kips - tension	
#4	1'-8''	14.7	- 5.9	
#5	2'-0"	23.0	9.2	
#6	2'-7"	33.1	13.3	
#7	3'-5"	45.1	18.0	
#8	4'-6''	58.9	23.6	
#9	5′-9″	75.0	30.0	
#10	7′-3′′	95.0	38.0	
#11	9'-0"	117.4	46.8	

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications. except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



# STANDARD

Bar Size	No. Assemblies Required	Location
#4	42	Conc. Wearing Surface
#6	6	North abutment

BAR SPLICER ASSEMBLY DETAILS IL ROUTE 117 OVER WALNUT CREEK F.A.P. RTE. 702 - SECTION (113B)I WOODFORD COUNTY STA. 15+45.00 S.N. 102-0018

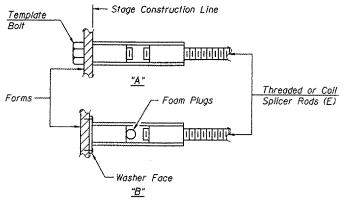
The diameter of this part is equal or larger than the The diameter of this part diameter of bar spliced. is the same as the diameter of the bar spliced.

ROLLED THREAD DOWEL BAR

\*\* ONE PIECE Wire Connector WELDED SECTIONS

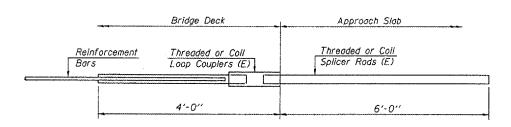
# BAR SPLICER ASSEMBLY ALTERNATIVES

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



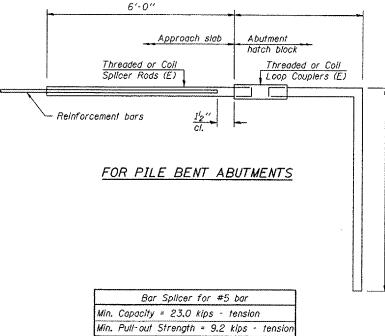
# INSTALLATION AND SETTING METHODS

"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.



# FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar Min. Capacity = 23.0 kips - tension Min. Pull-out Strength = 9.2 kips - tension No. Required =



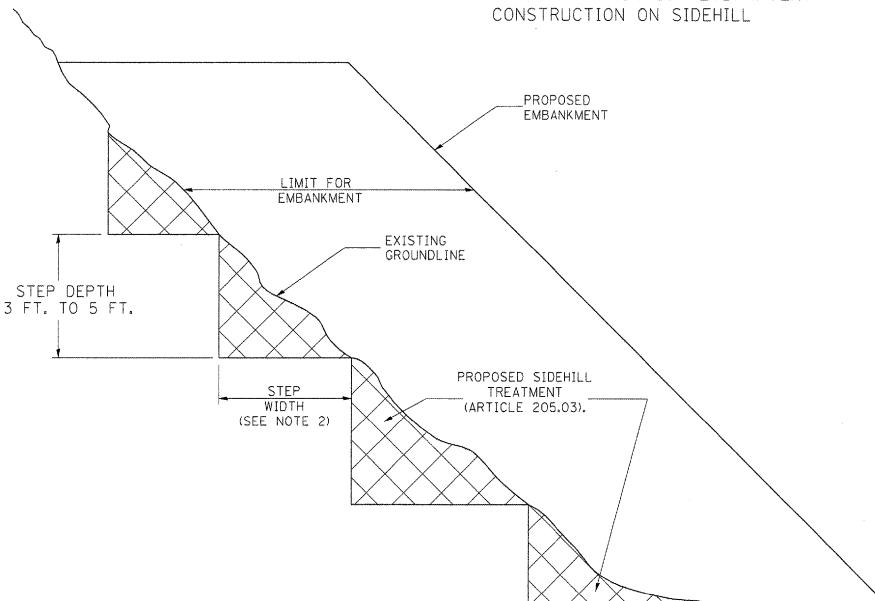
No. Required =

BSD-1

10-22-04

# SLOPE STEPS DETAIL

TYPICAL CROSS-SECTION EMBANKMENT



# GENERAL NOTES:

- 1. Slope Steps will be required for all 300(12) minimum thickness "silver fills" and on a fills with a height of 3.0m(10').
- 2. The Step width shall be twice the Step depth but not less than 6 feet.
- 3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

All dimensions are in millimeters (inches) unless otherwise noted.

REPLACEMENT MATERIAL:

STANDARD EMBANKMENT (IN ACCORDANCE WITH 205 OF THE STANDARD SPECIFACATION). REVISIONS
RENUM. L-5.03, NEW REVISION
BOX, REVISED TITLE BOX,
REVISED GENERAL NOTES.

DISTRICT CADD STANDARD SLOPE STEPS

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAIL CADD STD. NO. 205001-04 SCALE: NOT DRAWN TO SCALE DATE \$8DATE\$8

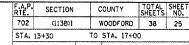
DRAWN BY CADD CHECKED BY

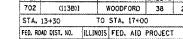
205001-D4

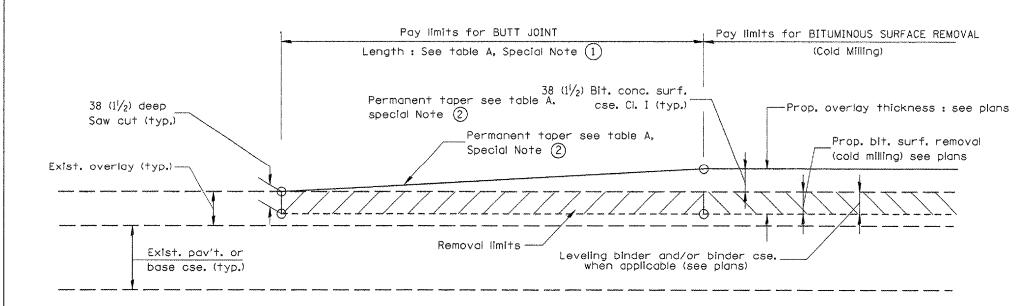
BE REVIEWED INDEPENDENTLY FOR TREATMENT REQUIRED. WITH NOTE ON APPLICABLE TYPICAL SECTIONS.

NOTE: EACH PROJECT SHOULD BE . REFER TO THIS DETAIL V

DESIGNER 1.







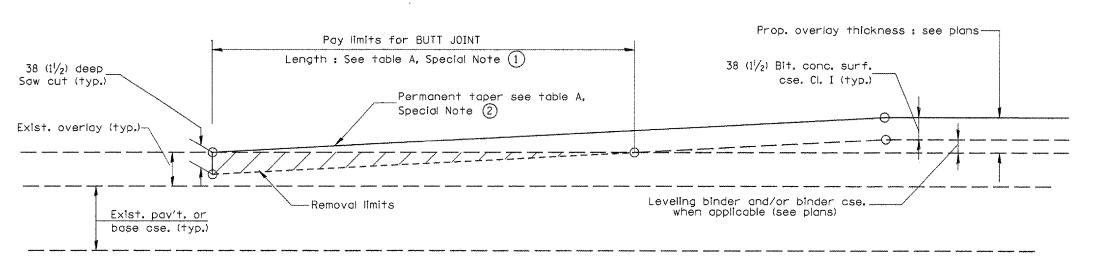
CASE 1: WITH BITUMINOUS SURFACE REMOVAL (COLD MILLING)

### TABLE A (LENGTHS AND TAPER RATES)

TEINGTIS AND TAPEN NATES					
SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS		
1	LENGTH OF BUTT JOINT	18.0 m(60′)	9.0 m(30')		
2	PERMANENT TAPER RATE	1:480	1:240		
3	TEMPORARY RAMP TAPER RATE	1:80	1:40		
4	TEMPORARY RAMP LENGTH	3.0 m(10′)	1.5 m(5')		
(5)	LENGTH OF BUTT JOINT	3,0 m(10′)	3.0 m(10')		

# GENERAL NOTES

- 1. The work shall be done in accordance with Article 406.18 and the Special Provision for Butt Joints.
- 2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.03 and the Special Provisions for Butt Joints.
- 3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.06.



CASE 2: NO BITUMINOUS SURFACE REMOVAL (COLD MILLING)

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT CADD STANDARD

BUTT JOINTS CADD STD NO. 406101-D4 SHEET 1 OF 3

SCALE: NOT DRAWN TO SCALE DRAWN BY CADD DATE \$\$DATE\$\$

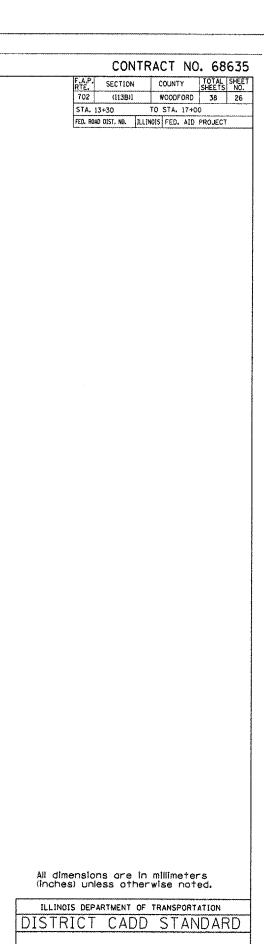
406101-D4 (1)

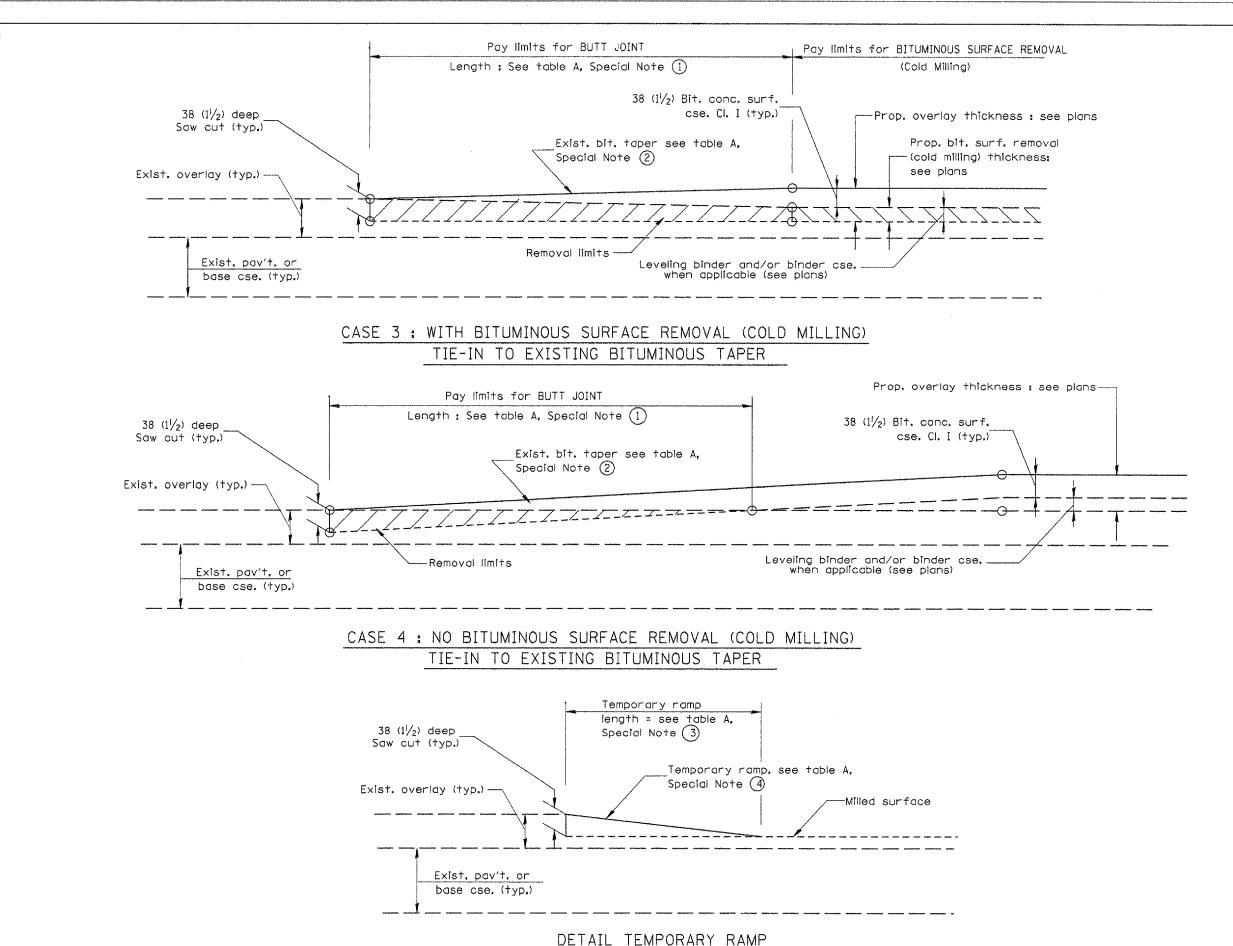
DESIGNER NOTES:

1. Include District Special Provision for Butt Joints & for Bituminous Surface Removal (Cold Milling).

2. The butt joints pay item includes the saw cut & temporary ramp. Payment for the Butt Joint applies whether or not the project features Bituminous Surface Removal (Cold Milling).

•DGN-ONLY•





\*DGN-ONLY\*

406101-D4 (2)

SHEET 2 OF 3

DRAWN BY CADD

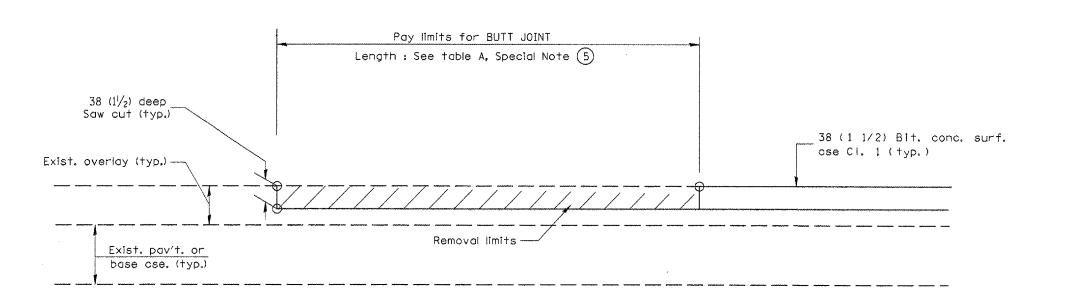
BUTT JOINTS

CADD STD NO. 406101-D4

SCALE: NOT DRAWN TO SCALE

CONTRACT NO. 68635

RTE.	SECTION	٧	C	OUNT:	Y	SHEETS	SHE
702	(1138)	I	٧	OODF	ORD	38	2'
STA. 1	3+30	•	ra	STA.	17+0	0	
FFD. ROA	D DIST. NO.	BIIN	015	FFD.	AID	PROJECT	



CASE 5: WITH BITUMINOUS SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER

All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT CADD STANDARD

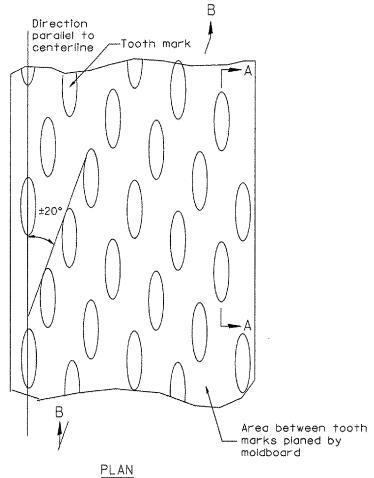
BUTT JOINTS

CADD STD NO. 406101-D4 SHEET 3 OF 3 SCALE; NOT DRAWN TO SCALE

406101-D4 (3)

CONTRACT NO. 68635

RTE.	SECTION		COUNTY		SHEETS	SHE
702	(113B)I		WOODF	ORD	38	28
STA.	13+30	ТО	STA.	17+0	0	
FED. RO	AD DIST. NO.	ILLINOIS	FED.	AID	PROJECT	•



# General notes:

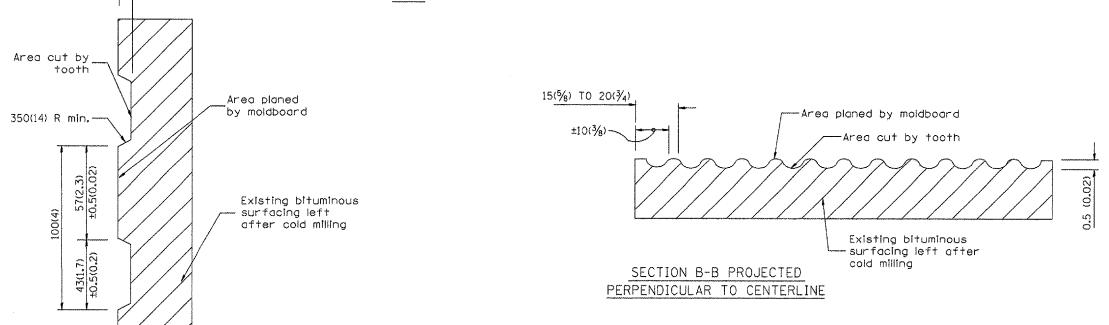
- 1. Coldmilling shall consist of two processes:
  Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
- 2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.

DATE REVISIONS

1- 1-97 RENUM. C-104.01. NEW REVISION BOX

4-20-98 REMOVED MILLING DETAIL FROM STD.

9-08-98 CORRECT NOTE LEADER PLACEMENT



All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

B. BITUMINOUS SURFACE REMOVAL

(COLD MILLING)

CADD STD NO. 440001-D4
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD

SCALE: NOT DRAWN TO SCALE
DATE \*\*DATE\*\*

CHECKED BY

\*DGN-ONLY\*

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PROVISION,

DESIGNER NOTE
1. INCLUDE DISTRICT SPECIAL

±0.5(0.02)

SECTION A-A

440001-D4

F.A.P.	SECTION	(	COUNT	Y	TOTAL	SHE
702	(1138)]	1	VOODF	ORD	38	25
STA. 1	3+30	TÓ	STA.	17+0	0	
FED. ROA	D DIST. NO IL	LINOIS	FED.	AID	PROJECT	

GENERAL NOTES: EROSION CONTROL CURB

- 1. This work shall consist of grading as needed, installing hardware and treated timber boards, furnishing and placing mastic material and incidental bituminous surfacing in front of Steel Plate Beam Guardrail in accordance with Plan Details.
- 2. Timber shall be treated in accordance with Article 1007.12. All preservatives specified in the article will be allowed. Waterborne preservatives "asa" and "cca" shall have a minimum retention of 6.4 kg/m³ (0.40 lbs./cu. ft.)

# GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

- This work shall consist of grading as needed, furnishing and installing geotextile fabric and staples, and furnishing, placing and shaping crushed aggregate around and behind Steel Plate Beam Guardrail posts in accordance with Plan Details.
- 2. Before placing the aggregate and the Geotextile Fabric, weeds and grass shall be removed from the area to be covered.
- After the area has been prepared, and in a dry condition, the Geotextile fabric shall be placed with a 300(12) minimum overlap. A knife cut for guardrail post installation is necessary.
- 4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.
- 5. The Contractor shall have the option of placing the guardrail before or after the Geotextile Fabric and Aggregate are in place. If the guardrail is placed after the Geotextile Fabric and Aggregate, then any voids must be filled and the aggregate returned to line and grade.
- 6. Materials shall meet the following requirements:
- A. The crushed aggregate shall be CA1 gradation in accordance with Article 1004.01(c) of the Standard Specifications.
- B. The Geotextile Fabric shall be nonwoven fabric in accordance with Article 1080.02 of the Standard Specifications.

Guardrall-600(24) minimum Treated Timber Curb 600(24) lap Into Bridge Approach Curb M12(1/2) galvanized U-bolts with nuts and washers Maximum Spacing 3.8m(12'-6") Bituminous Shoulder Thickness-50(2) Erosion Control See plans Aggregate Geotextile Fabric\_ Incidental Bituminous (stapled) Surfacing

Provision)

Special

District Provision)

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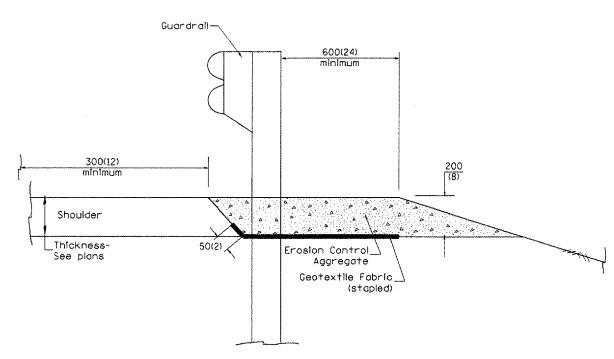
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District

Seepage

TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

All dimensions are in millimeters (inches) unless otherwise noted.

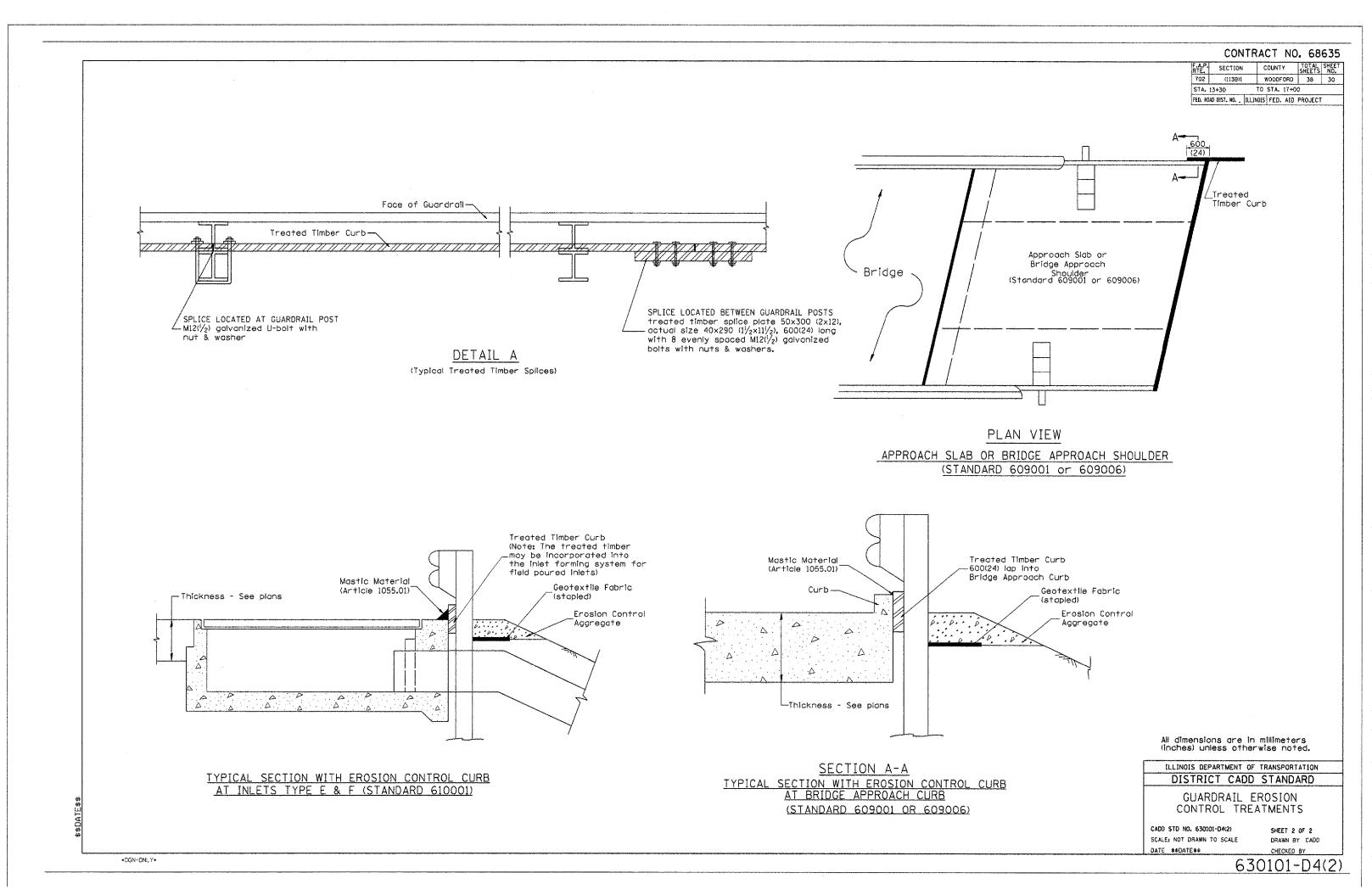
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

REVISIONS BY
RENUM. C-22.01, NEW REVISION BOX T.P.
ORRECT STD. NUMBERS IN NOTES PG. 2 J.A.
CORRECTION TO NOTES M.A.
CORRECTION TO NOTES M.A.
CONTROL TREATMENTS

CADD STD NO. 630101-D4(1)
SCALE: NOT DRAWN TO SCALE
DATE \$\$DATE\$\$

SHEET 1 OF 2 DRAWN BY CADD CHECKED BY

630101-D4(1)



# CONTRACT NO. 68635

R	TE.	SECTION		COUNT	Y	SHEETS	NO.
7	702	(113B)I		WOOD	ORD	38	31
S	TA. 13+	30	1	O STA,	17+0	٥	
FE	D. ROAD D	IST. NO.	ILLIN	OIS FED.	AID	PROJECT	

Spacing 24 m (80 ft.) max. for first 122 m (400 ft.) or curve spacing shown in Standard 635001, whichever is less (min, 4 reflectors regardless of length),

> Greater than \_3 m (101)

② After 122 m (400 ft.), transition to normal delineator spacing shown in Standard 635001, and continue as required.

Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the bridge pavement is less than 610 (24) wider than the pavement approaching the bridge,

TWO-WAY TRAFFIC

# ONE-WAY TRAFFIC

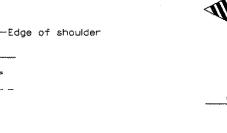
Begin reflectors at

3 m (10') point

## GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS

# LEGEND

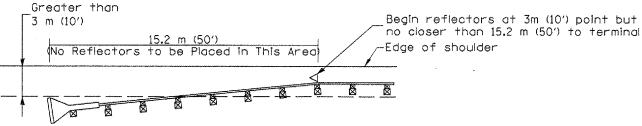
- ✓ Monodirectional silver
- Monodirectional amber
- Terminal Marker Black/Yellow Left or Right as appropriate



NOTE: Omit terminal marker when terminal over 3 m (10') from edge of paved shoulder or break point of unpaved shoulder, or when terminal buried in backslope.

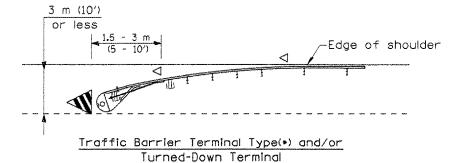
Traffic Barrier Terminal Type(\*) and/or Turned-Down Terminal

[Terminal over 3 m (10') from edge of shoulder] \*See Plans for Type

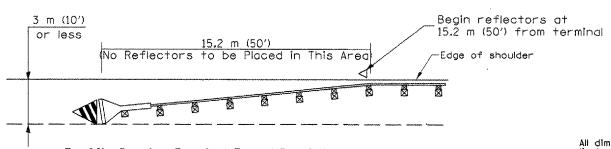


NOTE: Omit terminal marker when terminal over (10') from edge of paved shoulder or break point of unpaved shoulder.

Traffic Barrier Terminal Type 1 (Special) [Terminal over 3 m (10') from edge of shoulder]



[Terminal over 3 m (10') or less from edge of shoulder] \*See Plans for Type



Traffic Barrier Terminal Type 1(Specia) [Terminal 3 m (10') or less from edge of shoulder] All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT CADD STANDARD GUARDRAIL AND BARRIER WALL DELINEATION

CADD STD. NO. 635101-D4 SCALE: NOT DRAWN TO SCALE

SHEET 1 OF 3 DRAWN BY CADD DATE \$\$DATE\$\$ CHECKED BY

TERMINAL MARKER PLACEMENT

DESIGNER NOTE:

1. INCLUBE APPROPRIATE SPECIAL PROVISIONS FOR "GUARD RAIL FROM INTERIA SPECIAL PROVISIONS 94-74; "GUARDRAIL AND 2. IF POST MOUNT TERMINAL MARKER IS USED, INCLUDE STATE

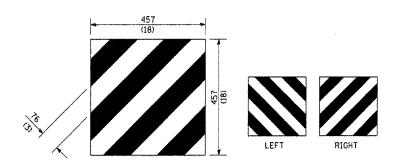
DELINEATION POLICY: 1.
BARRIER WALL DELINEATION
STD. 720011.

\*DGN-ONLY\*

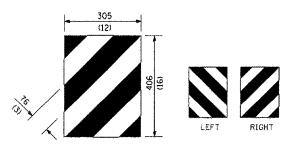
635101-D4 (1)

### CONTRACT NO. 68635

F.A.P. RTE.	SECTION	C	OUNT	Ϋ́	TOTAL SHEETS	SHEE!
702	(1138)]	1	VOODF	ORD	38	32
STA. 13+30		TO STA. 17+0			10	
FFD. BO	AD DIST. NO	ILL INOIS	FFD	AID	PON IECT	



For Traffic Barrier Terminal Type 1 (Special)



For Traffic Barrier Terminal Type (\*)

and Post Mount

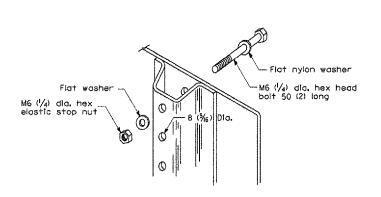
\* See Plans for Type

# TERMINAL MARKER DETAILS

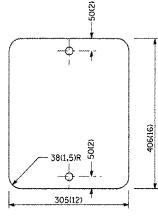
Color: Black / Yellow reflectorized

OM - I100 (L or R) Direct applied reflective sheeting

OM - I200 (L or R) Post mounted

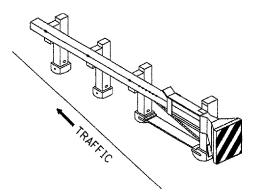


DETAIL OF MOUNTING TERMINAL MARKER TO POST

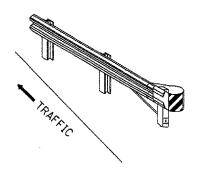


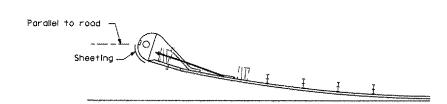
STANDARD TERMINAL MARKER

POST MOUNTED TERMINAL MARKER ASSEMBLY



Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type 1 (Special)

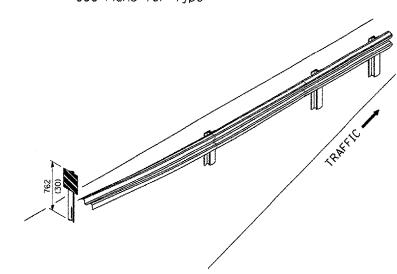




Sheeting Position for
Traffic Barrier Terminal Type (\*)

\* See Plans for Type

# Standard Treatment - Direct Applied Sheeting Traffic Barrier Terminal Type (\*) \* See Plans for Type



ALTERNATE TREATMENT - POST MOUNTED
(For turned-down terminal where sheeting cannot be direct applied)

# TERMINAL MARKER TREATMENTS

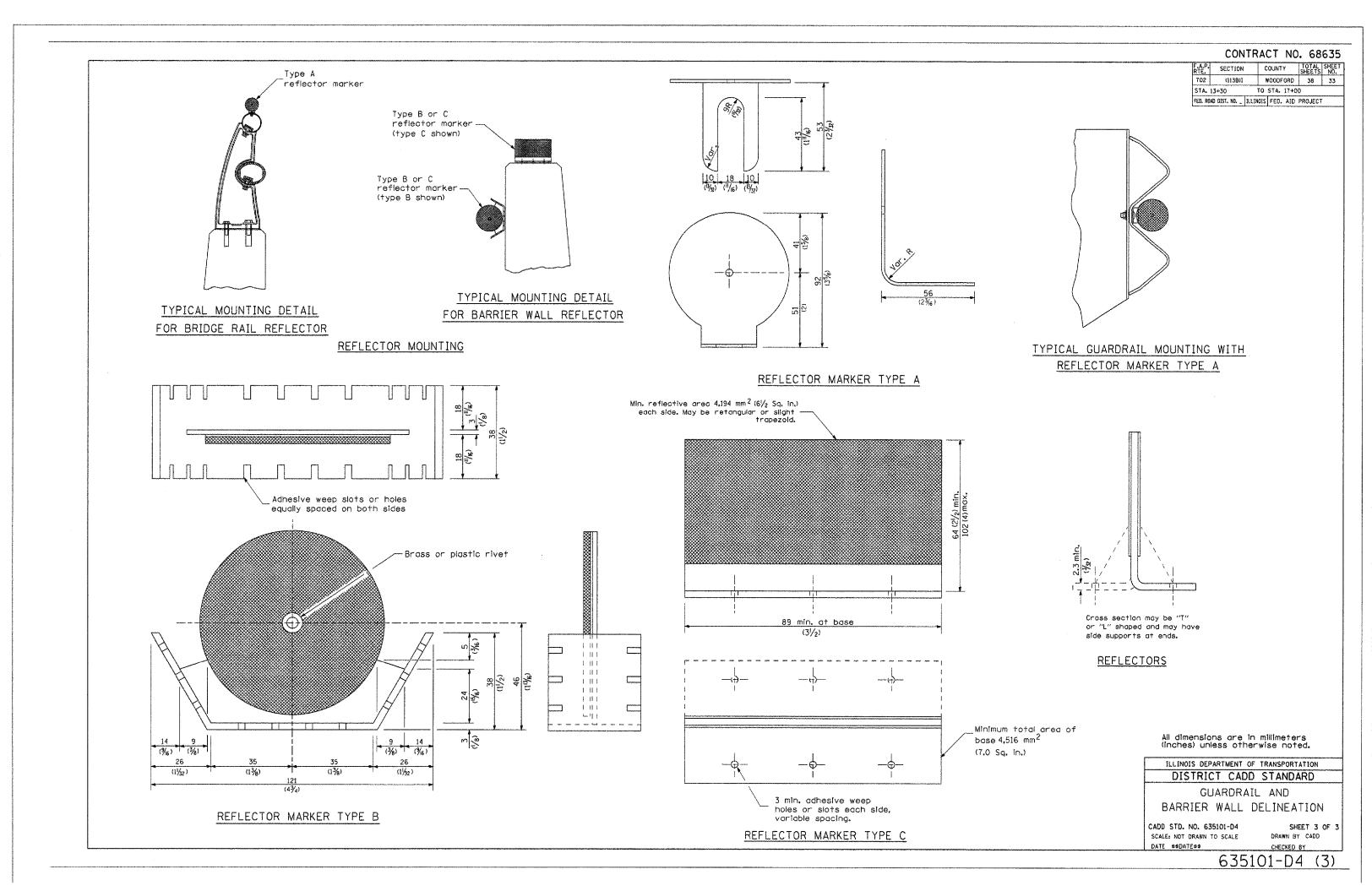
#### GENERAL NOTES

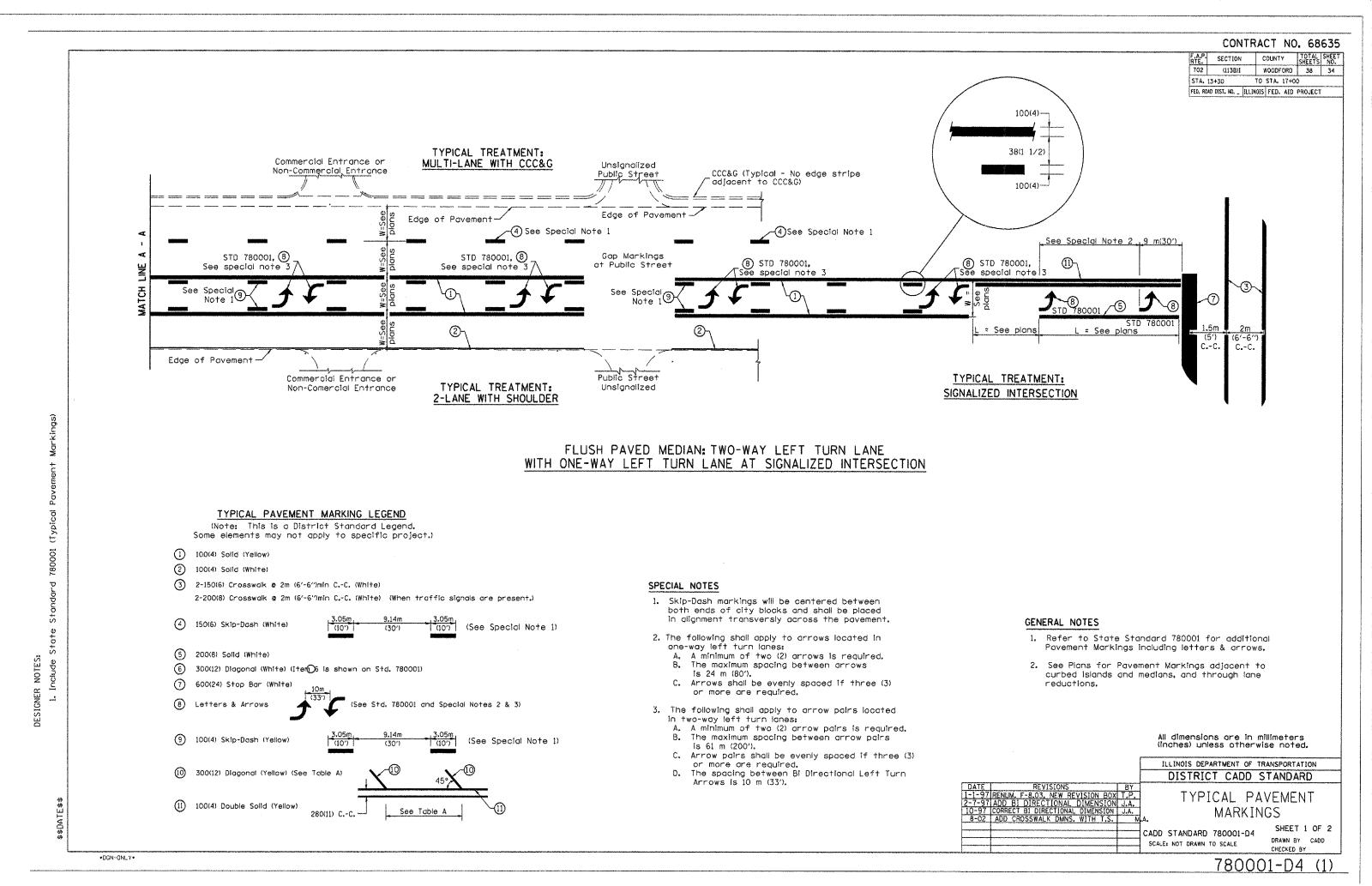
All dimensions are in millimeters (inches) unless otherwise noted.

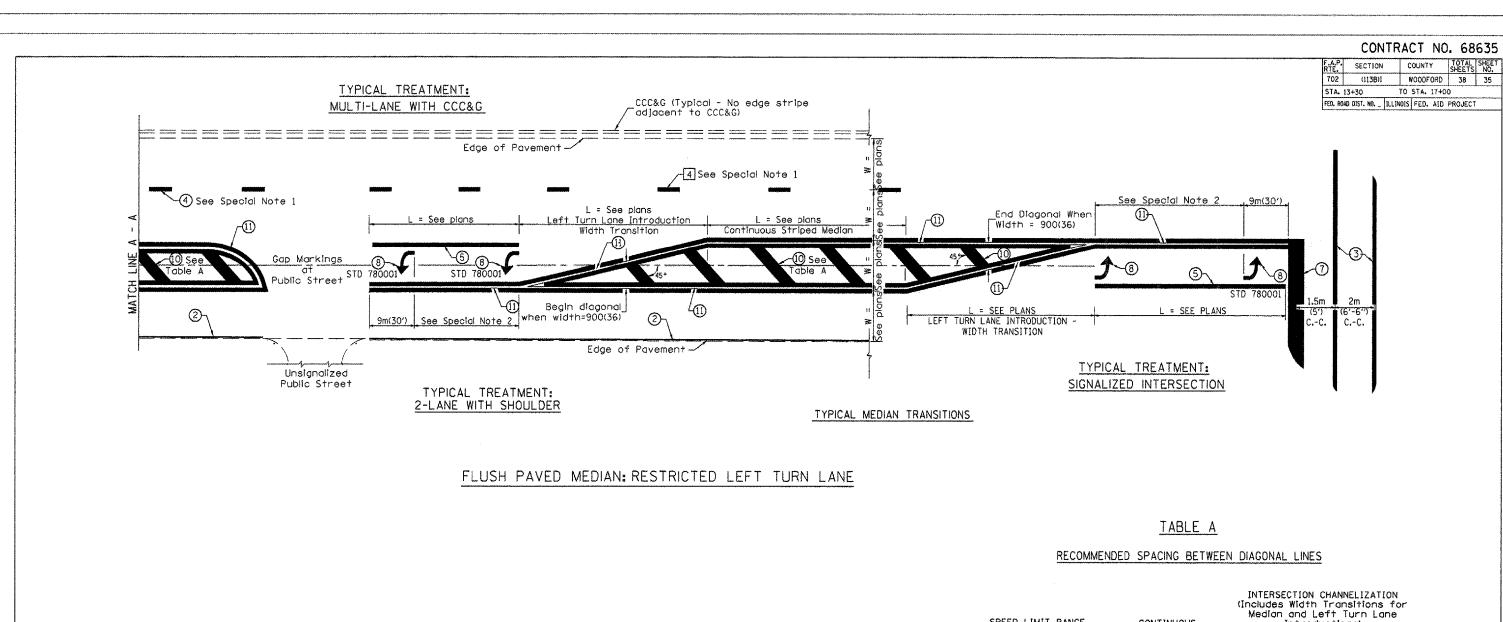
ILLINOIS	DEPART	MENT OF	TRANSPO	RTATION
DIST	RICT	CADD	STAN	DARD

GUARDRAIL AND BARRIER WALL DELINEATION

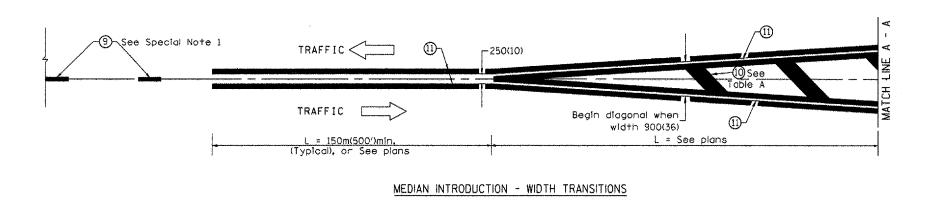
CADD STD. NO. 635101-D4 SCALE: NOT DRAWN TO SCALE DATE 66DATE55 SHEET 2 OF 3 DRAWN BY CADD CHECKED BY







SPEED LIMIT RANGE	CONTINUOUS	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)
Less Than 50 km/h (30 mph)	15m (50')	5m (15')
50 - 70 km/h (30 - 45 mph)	23m (75')	6m (20')
Over 70 km/h (45 mph)	46m (150')	9m (30')



All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT CADD STANDARD

> TYPICAL PAVEMENT MARKINGS

CADD STANDARD 780001-D4

SCALE: NOT DRAWN TO SCALE

CHECKED BY 780001-D4 (2)

SHEET 2 OF 2

DRAWN BY CADD

