

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(I)	TAZEWELL	32	1
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

F.A.P. ROUTE 656 (ILLINOIS 29)
SECTION (I) I
PROJECT BHF-0656 (010)
TAZEWELL COUNTY
C-94-020-00

INDEX OF SHEETS

1	TITLE SHEET
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	DETAILS & TYPICAL ROADWAY SECTIONS
5	QUANTITY SCHEDULES
6	PLAN & PROFILE
7 - 10	STAGE CONSTRUCTION TRAFFIC DETAILS
11	LANDSCAPING AND EROSION CONTROL PLAN
12 - 29A	STRUCTURE PLANS
30 - 32	CROSS SECTIONS
	STANDARDS

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

000001-04	701006-02
280001-03	701011-01
420401-05	701201-02
482001-01	701306-01
503001-02	701311-02
515001-02	701321-08
630001-07	701326-02
630301-04	702001-06
631031-06	704001-03
635006-02	780001-01
635011-01	

D-94-101-00

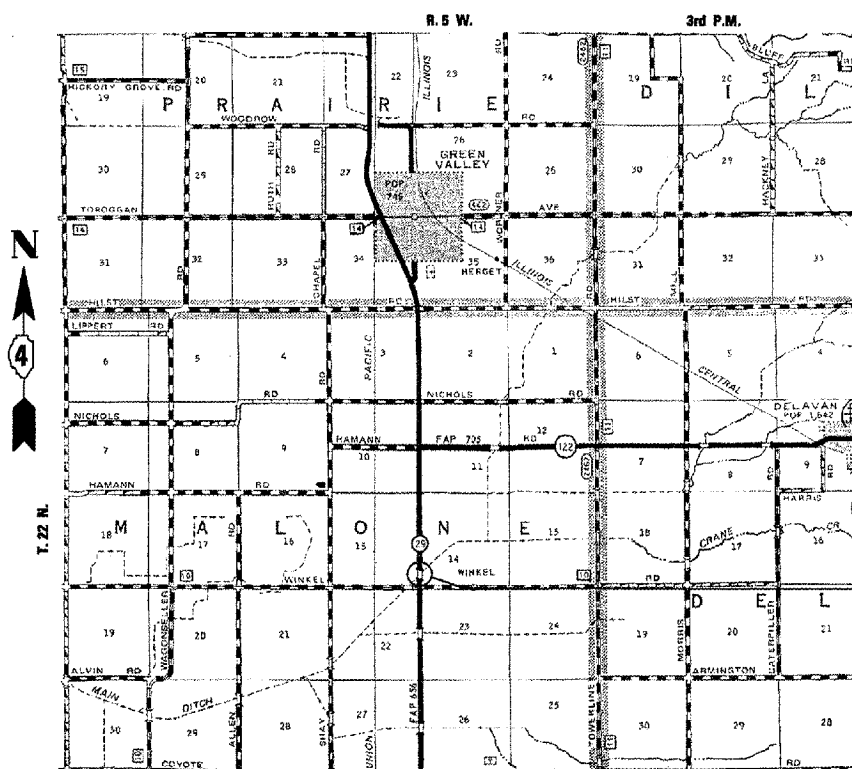
* 32 + 1 = 33 TOTAL SHEETS



LOCATION OF SECTION INDICATED THUS: - [shaded box] -

ADT = 1500 (2005)
% SU = 6.0 (2005)
% MU = 14.0 (2005)

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



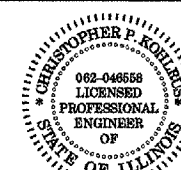
LOCATION MAP

PROPOSED PROJECT ENDS
- STA. 170+28.50

PROPOSED NEW CONCRETE SUPERSTRUCTURE ON EXISTING THREE SPAN SUBSTRUCTURE
132'-8" BK-BK ABUTMENTS
32'-0" CLEAR DECK WIDTH WITH CONCRETE PARAPETS. 35' SKEW RT. FORWARD
S.N. 090-0053

PROPOSED PROJECT BEGINS
- STA. 162+78.50

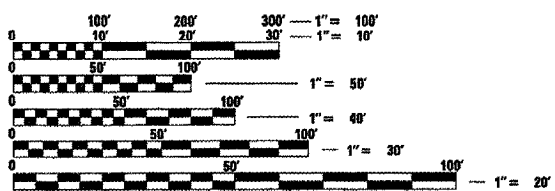
SUPERSTRUCTURE REPLACEMENT OVER CRANE CREEK



Christopher P. Kohlman 6/27/07
EXPIRATION DATE: 11/30/07

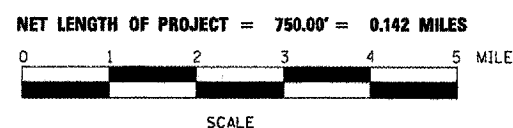
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED *Jason* 20 07
DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE
August 07, 2007
Eric E. Harms
ENGINEER OF DESIGN AND ENVIRONMENT
August 17, 2007
Milton R. Seep P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



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



PROJECT ENGINEER: JIM MILLER (309)-671-345

CONTRACT NO. 68024 CATALOG NO. 032188-00D

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(I)	TAZEWELL	32	2
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

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 CONTRACTOR. 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 LOCATION. 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 1/2" UNLESS UNLESS OTHERWISE SPECIFIED IN A DETAIL SHOWN IN THE PLANS.
- 6.) UNLESS DIRECTED BY THE ENGINEER, PAVEMENT 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 SEPERATELY 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 BE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY 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)

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

BITUMINOUS MATERIALS (PRIME COAT)	0.00038 TON/SQ. YD. (ON PAVEMENT)
BITUMINOUS MATERIALS (PRIME COAT)	0.001425 TON/SQ.YD. (ON AGG)
HOT MIX ASPHALT SURFACE / BINDER	0.056 TON/SQ. YD. PER 1"
AGGREGATE MATERIAL	2.05 TON/CU. YD.
RIPRAP	1.75 TON/CU. YD.
MULCH METHOD	2.0 TON/ACRE
AGRICULTURE GROUND LIMESTONE	2.0 TON/ACRE
NITROGEN FERTILIZER NUTRIENT	90 LBS./ACRE
PHOSPHOROUS FERTILIZER NUTRIENT	90 LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LBS./ACRE
AGGREGATE PRIME COAT	0.002 TON/SQ. YD.
TEMPORARY SEEDING	100 LBS./ACRE

MIXTURE REQUIREMENTS

	HOT MIX ASPHALT SURFACE COURSE MIX C, N50	HOT MIX ASPHALT BASE COURSE WIDENING & SHOULDERS (BOTTOM LIFT)
MIXTURE USE(S)	BITUMINOUS SURFACE	SHOULDER
AC/PG	PG 64-22	PG 64-22
MAX. RAP %	15	25% MAX.
DESIGN AIR VOIDS	4.2% @ N DESIGN = 50	4.0% @ N DESIGN = 30
MIXTURE COMPOSITION	IL 9.5 OR 12.5	IL 19.0 L
FRICITION AGGREGATE	MIX C	N.A.

GENERAL NOTES
 IL. ROUTE 29 OVER CRANE CREEK
 F.A.P. ROUTE 656 - SECTION (I)
 TAZEWELL COUNTY
 STA. 166+53.50
 S.N. 090-0053

COMMITMENTS

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

PLOT DATE = DATE
 FILE NAME = FILES
 MODEL NAME = MODELNAME

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(11)	TAZEWELL	32	3
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT		

SUMMARY OF QUANTITIES

CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
				FAP 656 80% FEDERAL 20% STATE	S.N. 090-0053 80% FEDERAL 20% STATE
				CONSTRUCTION	TYPE CODE
				X071-2A	X071-2A
20200100	EARTH EXCAVATION	CU. YD.	166	166	
20400800	FURNISHED EXCAVATION	CU. YD.	71	71	
25000200	SEEDING, CLASS 2	ACRE	0.9	0.9	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	81	81	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	81	81	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	81	81	
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.8	1.8	
25100630	EROSION CONTROL BLANKET	SQ. YD.	4356	4356	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	90	90	
28000300	TEMPORARY DITCH CHECKS	EACH	8	8	
28000400	PERIMETER EROSION BARRIER	FOOT	1005	1005	
31100200	SUB-BASE GRANULAR MATERIAL, TYPE A	CU. YD.	26	26	
35600708	HOT MIX ASPHALT BASE COURSE WIDENING 8"	SQ. YD.	96	96	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	0.6	0.6	
40603310	HOT MIX ASPHALT SURFACE COURSE MIXTURE C, N50	TON	162	162	
42001165	BRIDGE APPROACH PAVEMENT	SQ. YD.	218	218	
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ. YD.	44	44	
44000155	HOT MIX ASPHALT SURFACE REMOVAL 1 1/2"	SQ. YD.	817	817	
44000100	PAVEMENT REMOVAL	SQ. YD.	176	176	
44004250	PAVED SHOULDER REMOVAL	SQ. YD.	83	83	
48203100	HOT MIX ASPHALT SHOULDERS	TON	383	383	
50102400	CONCRETE REMOVAL	CU. YD.	13.8		13.8
50104720	REMOVAL OF EXISTING CONCRETE DECK	EACH	1		1
50200100	STRUCTURE EXCAVATION	CU. YD.	44		44
50300100	FLOOR DRAINS	EACH	14		14
50300225	CONCRETE STRUCTURES	CU. YD.	11.5		11.5
50300255	CONCRETE SUPERSTRUCTURE	CU. YD.	147.8		147.8
50300260	BRIDGE DECK GROOVING	SQ. YD.	433		433
50300300	PROTECTIVE COAT	SQ. YD.	596		596
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	2030		2030
50500505	STUD SHEAR CONNECTORS	EACH	1980		1980
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	12		12

SUMMARY OF QUANTITIES

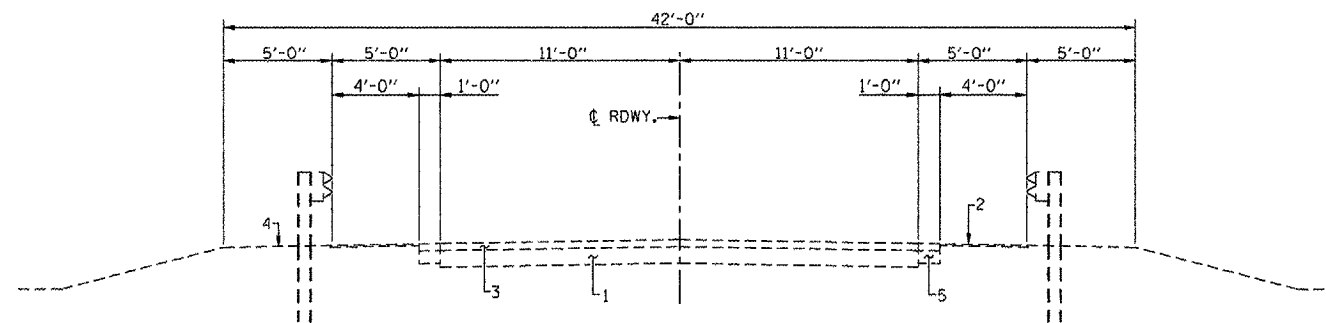
CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
				FAP 656 80% FEDERAL 20% STATE	S.N. 090-0053 80% FEDERAL 20% STATE
				CONSTRUCTION	TYPE CODE
				X071-2A	X071-2A
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	36010		36010
50800515	BAR SPLICERS	EACH	368		368
51500100	NAME PLATES	EACH	1		1
52100010	ELASTOMERIC BEARING ASSEMBLY TYPE I	EACH	6		6
52100020	ELASTOMERIC BEARING ASSEMBLY TYPE II	EACH	6		6
58700300	CONCRETE SEALER	SQ. FT.	220		220
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	525	525	
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
* 63100167	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	616	616	
67000400	ENGINEERS FIELD OFFICE, TYPE A	CAL. MO.	8	8	
67100100	MOBILIZATION	L. SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION STANDARD 701321	EACH	1	1	
70100450	TRAFFIC CONTROL AND PROTECTION STANDARD 701201	L. SUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION STANDARD 701306	L. SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION STANDARD 701326	L. SUM	1	1	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	132	132	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ. FT.	559	559	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2670	2670	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	24	24	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	387.5	387.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	387.5	387.5	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2480	2480	
* 78200410	GUARDRAIL MARKERS, TYPE A	EACH	10	10	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ. FT.	392	392	
52000110	PREFORMED JOINT STRIP SEAL	FOOT	80		80
X7016500	TEMPORARY BRIDGE TRAFFIC SIGNALS (SPECIAL)	EACH	1	1	
* X7200201	WIDTH RESTRICTION SIGNING	L. SUM	1	1	
20013798	CONSTRUCTION LAYOUT	L. SUM	1	1	
20030250	IMPACT ATTENUATOR TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2	2	
20030350	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3	EACH	2	2	

* SPECIALTY ITEM

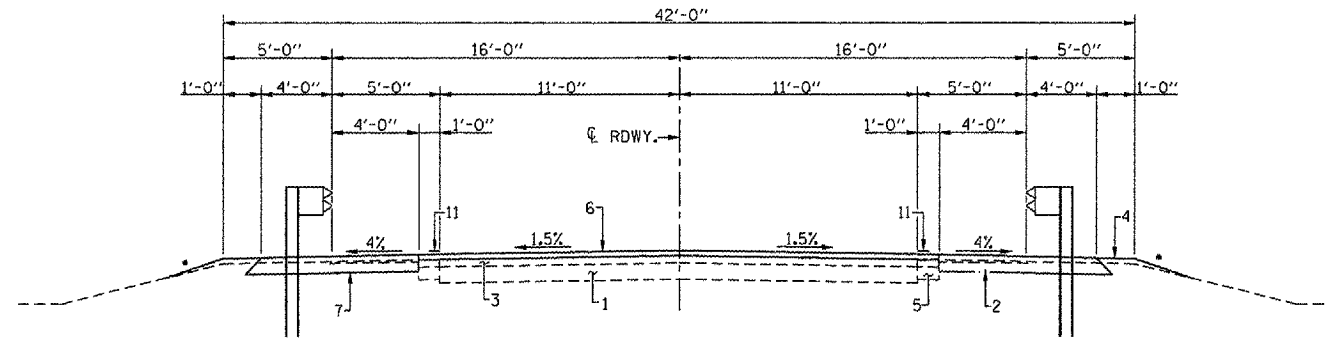
SUMMARY OF QUANTITIES
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

PLOT DATE = 8/24/88
FORM NAME = 44000155
MODEL NAME = 390DEL01M05

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(II)	TAZEWELL	32	4
STA. 162+78.50 TO STA. 170+28.50				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

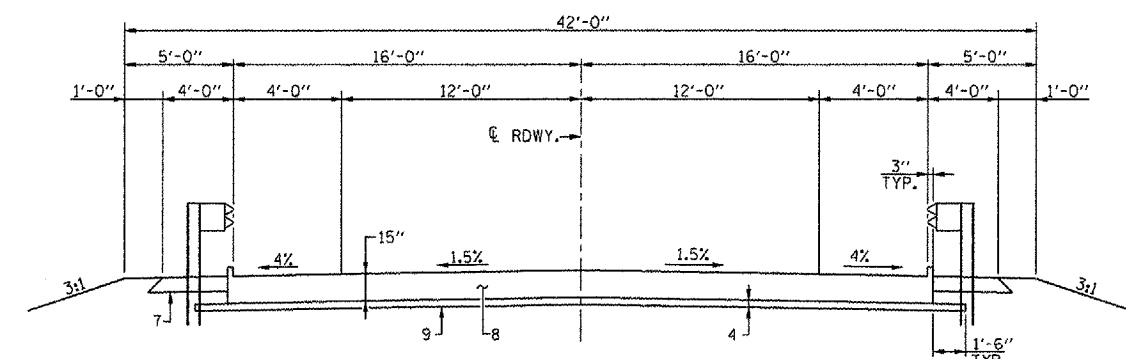


EXISTING PAVEMENT SECTION
(STA. 162+78.50 TO STA. 165+87.17 & STA. 167+19.83 TO STA. 170+28.50)

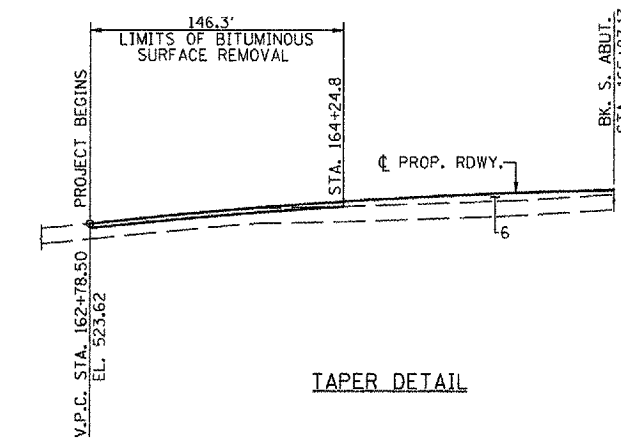


PROPOSED PAVEMENT SECTION
(STA. 162+78.50 TO STA. 165+57.17 & STA. 167+49.83 TO STA. 170+28.50)

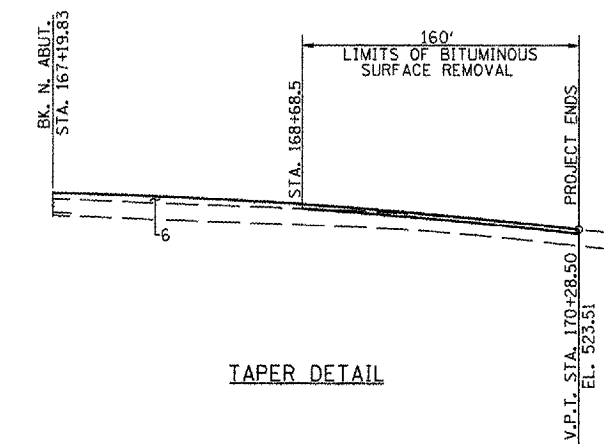
- 3:1 @ GUARDRAIL LOCATIONS
- 4:1 @ NO GUARDRAIL



PROPOSED BRIDGE APPROACH PAVEMENT
(STA. 165+57.17 TO STA. 165+87.17)
(STA. 167+19.83 TO STA. 167+49.83)



TAPER DETAIL



TAPER DETAIL

PAVEMENT LEGEND

1. EXISTING P.C.C. PAVEMENT
2. EXISTING AGGREGATE SHOULDER
3. EXISTING HOT MIX ASPHALT OVERLAY 4" - 6"
4. EARTH SHOULDER
5. EXISTING HOT MIX ASPHALT SHOULDER
6. PROPOSED HOT MIX ASPHALT SURFACE COURSE, MIXTURE C N50 (1 1/2" MIN.)
7. PROPOSED HOT MIX ASPHALT SHOULDER (8")
8. PROPOSED CONCRETE BRIDGE APPROACH PAVEMENT
9. SUB-BASE GRANULAR MATERIAL, TYPE A
10. HOT MIX ASPHALT BASE COURSE WIDENING (8")
11. PAINT PAVEMENT MARKING - LINE 4"

DETAILS AND
TYPICAL ROADWAY SECTIONS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (II)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

PLOT DATE: 8/20/87
DRAWN BY: J. HENDERSON
CHECKED BY: J. HENDERSON
MODEL NAME: 090-0053

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(11)	TAZEWELL	32	5
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	

PAVEMENT MARKING SCHEDULE

LOCATION	LENGTH	PAVEMENT MK. REMOVAL		SHORT TERM PVMT. MARKING		WORK ZONE PVMT. MARKING REMOVAL		PAINT PVMT. MK. LINE 4"	
		WHITE (SQ. FT.)	YELLOW (SQ. FT.)	WHITE (FT.)	YELLOW (FT.)	WHITE (SQ. FT.)	YELLOW (SQ. FT.)	WHITE (SQ. FT.)	YELLOW (SQ. FT.)
STA. 162+65.3 TO STA. 165+87.17 C & NO PASSING	321.87		133						
STA. 167+19.83 TO STA. 170+44.7 C & NO PASSING	324.87		134						
STA. 164+45 TO STA. 165+95.57 RT.	150.57	63							
STA. 167+28.23 TO STA. 168+75 RT.	146.77	62							
STA. 162+78.50 TO STA. 165+98.37 LT. & RT.	319.87				32				
STA. 167+31.03 TO STA. 170+28.50 LT. & RT.	297.47				24				
STA. 162+65.3 TO STA. 170+44.7 C & NO PASSING	779.40								980
STA. 162+78.50 TO STA. 170+28.50 LT. & RT.	750				76		44	1500	
STA. 162+65.3	12					24			
STA. 170+44.7	12					24			
STA. 164+45 TO STA. 168+75 LT.	430					181			
STA. 163+47.05 TO STA. 170+28.50 RT.	681.45					286			
TOTAL		392		132		559			2480

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. 162+78.50 TO STA. 165+87.17	87	65	94	-29
STA. 167+19.83 TO STA. 170+28.50	79	59	101	-42
TOTAL	166	124	195	-71

SCHEDULE PERMANENT SEEDING

LOCATION	SEEDING CLASS 2 (ACRE)	NITROGEN FERT. NUT. (POUND)	PHOSPHORUS FERT. NUT. (POUND)	POTASSIUM FERT. NUT. (POUND)	AGRICULTURAL GROUND LIMESTONE (TON)
STA. 162+78.50 TO STA. 165+87.17 LT. & RT.	0.45	40.5	40.5	40.5	0.9
STA. 167+19.83 TO STA. 170+28.50 LT. & RT.	0.45	40.5	40.5	40.5	0.9
TOTAL	0.90	81	81	81	1.8

SCHEDULE EROSION CONTROL ITEMS

LOCATION	PERIMETER EROSION BARRIER (FT.)	TEMPORARY DITCH CHECK (EACH)	EROSION CONTROL BLANKET (SQ. YD.)	TEMPORARY EROSION CONTROL SEEDING (POUND)
STA. 163+00 TO STA. 165+85 46' RT.	285			
STA. 163+50 TO STA. 165+65 38' LT.	215			
STA. 167+75 TO STA. 170+00 46' RT.	225			
STA. 167+20 TO STA. 170+00 46' LT.	280			
STA. 164+00 48' RT. & 40' LT.		2		
STA. 165+50 48' RT. & 40' LT.		2		
STA. 167+25 48' LT.		1		
STA. 167+75 50' RT.		1		
STA. 168+75 48' LT.		1		
STA. 169+00 48' RT.		1		
STA. 162+78.50 TO STA. 170+28.50			4356	90
TOTAL	1005	8	4356	90

SCHEDULE GUARDRAIL MARKERS & TERMINAL MARKERS

LOCATION	GUARDRAIL MARKERS TYPE A (EACH)	TERMINAL MARKER DIRECT APPLIED (EACH)
STA. 163+90 RT.	1	
STA. 164+70 RT.	1	
STA. 165+50 RT.	1	
STA. 167+74 RT.	1	
STA. 168+54 RT.	1	
STA. 164+53 LT.	1	
STA. 165+33 LT.	1	
STA. 167+55 LT.	1	
STA. 168+35 LT.	1	
STA. 169+15 LT.	1	
STA. 163+35.06 RT.		1
STA. 163+98.94 LT.		1
STA. 169+71.94 LT.		1
STA. 169+08.06 RT.		1
TOTAL	10	4

SCHEDULE BRIDGE APPROACH PAVEMENT

LOCATION	QUANTITY (SQ. YD.)
STA. 165+57.17 TO STA. 165+87.17	109
STA. 167+19.83 TO STA. 167+49.83	109
TOTAL	218

SCHEDULE PAVED SHOULDER REMOVAL

LOCATION	QUANTITY (SQ. YD.)
STA. 164+45 TO STA. 165+96.00 RT.(WIDENING)	34
STA. 167+28.20 TO STA. 168+75 RT.(WIDENING)	33
STA. 165+51.17 TO STA. 165+87.17 LT.	4
STA. 167+19.83 TO STA. 167+55.83 LT.	4
STA. 165+60 TO STA. 167+96.00 RT.	4
STA. 167+28.2 TO STA. 167+64 RT.	4
TOTAL	83

SCHEDULE HOT MIX ASPHALT SURFACE REMOVAL 1 1/2"

LOCATION	QUANTITY (SQ. YD.)
STA. 162+78.50 TO STA. 164+24.8	390
STA. 168+68.5 TO STA. 170+28.50	427
TOTAL	817

GUARDRAIL SCHEDULE

LOCATION	GUARDRAIL REMOVAL (FOOT)	TRAFFIC BARRIER TERMINAL TYPE J SPECIAL (TANGENT) (EACH)	STEEL PLATE GUARDRAIL TYPE A (FOOT)	TRAFFIC BARRIER TERMINAL TYPE 6 (EACH)
STAGE I				
STA. 164+72 TO STA. 166+01 LT.	129			
STA. 166+84 TO STA. 168+63 LT.	179			
STA. 163+98.94 TO STA. 164+48.94 LT.		1		
STA. 164+48.94 TO STA. 165+36.44 LT.			87.50	
STA. 165+36.44 TO STA. 165+67.08 LT.				1
STA. 167+16.30 TO STA. 167+46.94 LT.				1
STA. 167+46.94 TO STA. 169+21.94 LT.			175.00	
STA. 169+21.94 TO STA. 169+71.94 LT.		1		
STAGE II				
STA. 164+44 TO STA. 166+23 RT.	179			
STA. 167+06 TO STA. 168+35 RT.	129			
STA. 163+35.06 TO STA. 163+85.06 RT.		1		
STA. 163+85.06 TO STA. 165+60.06 RT.			175.00	
STA. 165+60.06 TO STA. 165+90.70 RT.				1
STA. 167+39.92 TO STA. 167+70.56 RT.				1
STA. 167+70.56 TO STA. 168+58.06 RT.			87.50	
STA. 168+58.06 TO STA. 169+08.06 RT.		1		
TOTAL	616	4	525.00	4

SCHEDULE PAVEMENT REMOVAL

LOCATION	QUANTITY (SQ. YD.)
STA. 165+51.17 TO STA. 165+87.17	88
STA. 167+19.83 TO STA. 167+55.83	88
TOTAL	176

SCHEDULE BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)

LOCATION	QUANTITY (SQ. YD.)
STA. 165+51.17 TO STA. 165+57.17	22
STA. 167+49.83 TO STA. 167+55.83	22
TOTAL	44

SCHEDULE SUB-BASE GRANULAR MATERIAL, TYPE A

LOCATION	QUANTITY (CU. YD.)
STA. 165+57.17 TO STA. 165+87.17	13
STA. 167+19.83 TO STA. 167+49.83	13
TOTAL	26

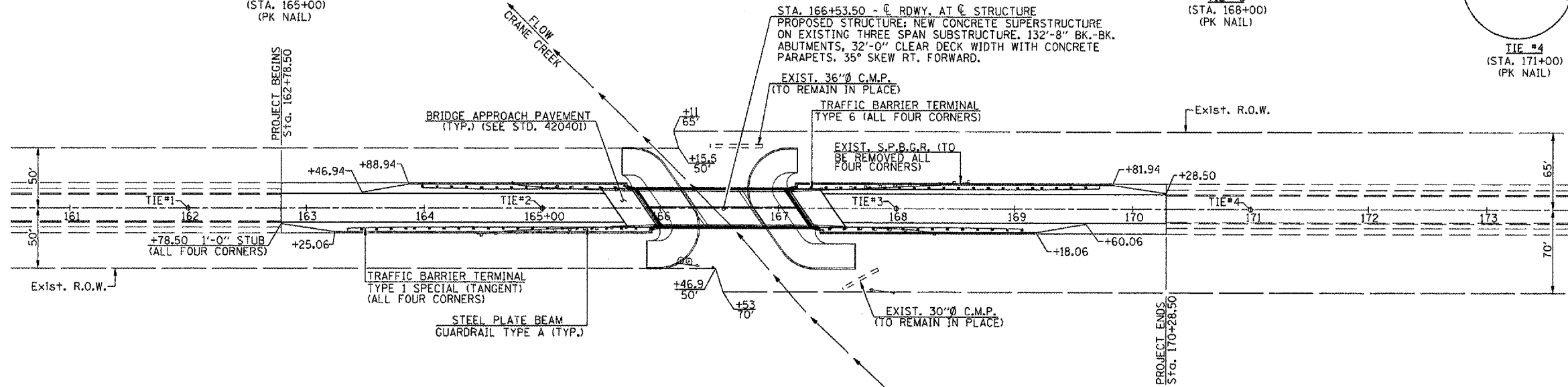
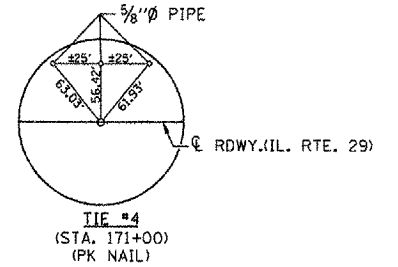
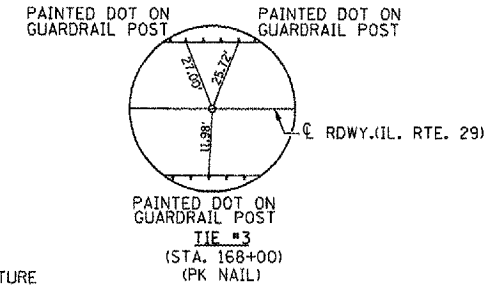
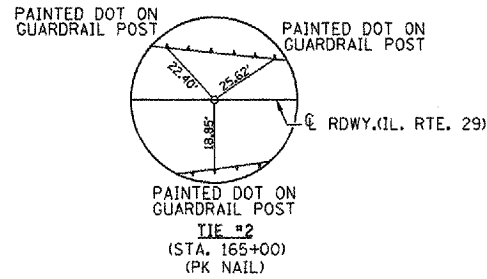
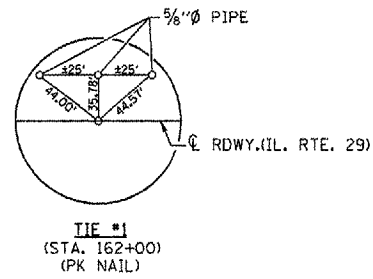
HOT MIX ASPHALT SCHEDULE

LOCATION	H.M.A. BASE COURSE WIDENING 8" (SQ. YD.)	H.M.A. SHOULDER (TON)	H.M.A. SURFACE COURSE MIXTURE C, N50 (TON)	BITUMINOUS MATERIALS (PRIME COAT) (TON)
STA. 163+75 TO STA. 165+96 RT.	50			
STA. 167+28.2 TO STA. 169+35 RT.	46			
STA. 162+78.50 TO STA. 165+57.17			82	0.3
STA. 167+49.83 TO STA. 170+28.50			80	0.3
STA. 162+78.50 TO STA. 166+01.17 RT.		115		
STA. 163+46.94 TO STA. 165+71.77 LT.		76		
STA. 167+05.13 TO STA. 170+28.50 LT.		115		
STA. 167+34.53 TO STA. 169+60.06 RT.		77		
TOTAL	96	383	162	0.6

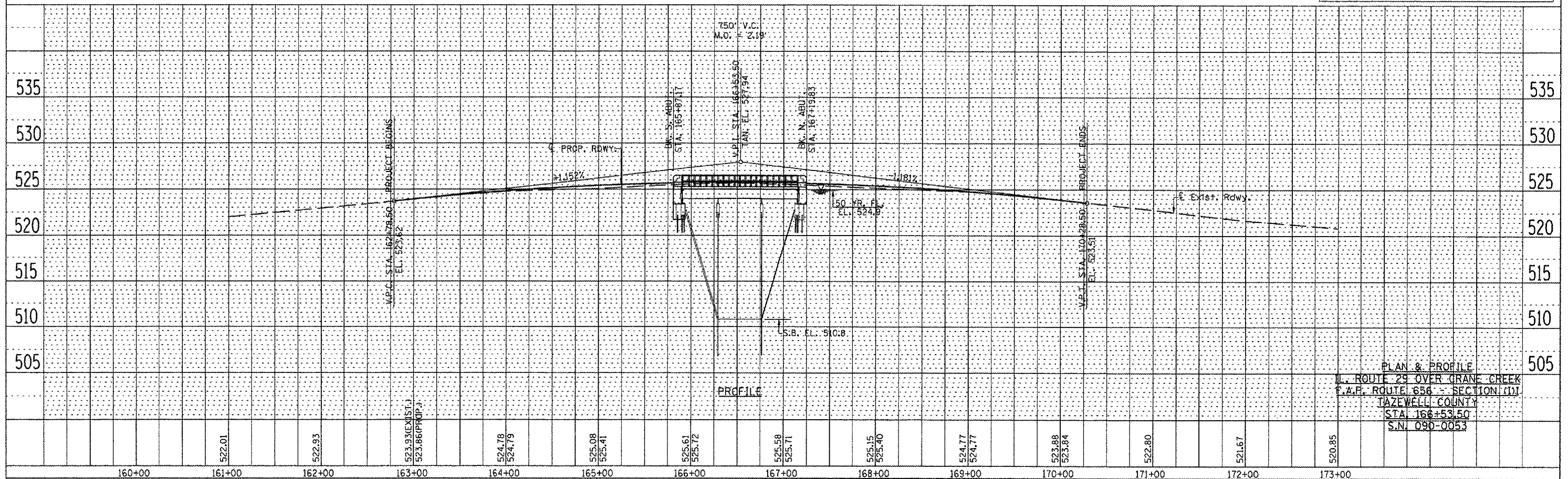
QUANTITY SCHEDULES
 IL. ROUTE 29 OVER CRANE CREEK
 E.A.P. ROUTE 656 - SECTION (11)
 TAZEWELL COUNTY
 STA. 166+53.50
 S.N. 090-0053

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	111	TAZEWELL	32	6
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SECTION 14, T. 22 N., R. 5 W. OF THE 3rd P.M.



B.M. - CHISELED "□" IN N.E. WINGWALL OF BRIDGE
S.N. 090-0053 ELEV. 527.57



DATE	BY

PLAN

REVISIONS

NO. DATE DESCRIPTION

DATE	BY

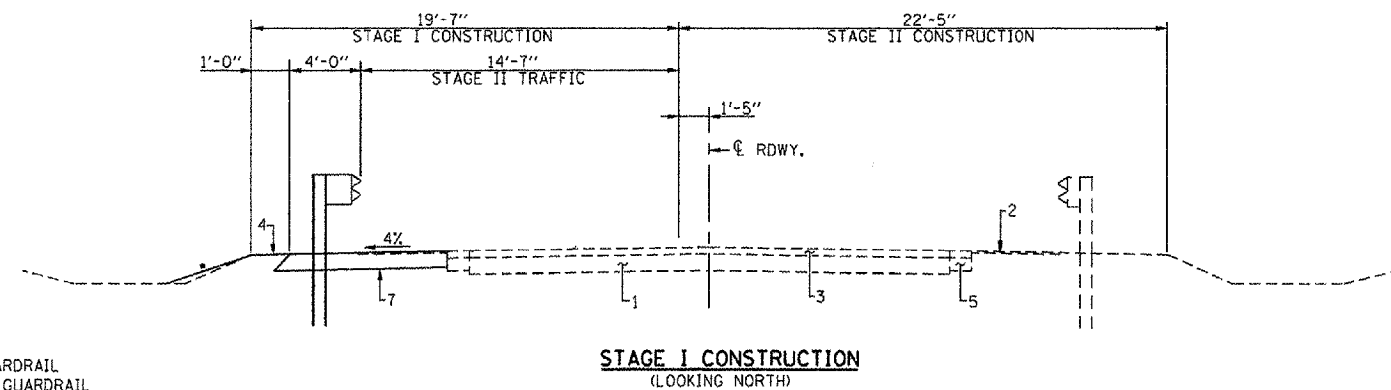
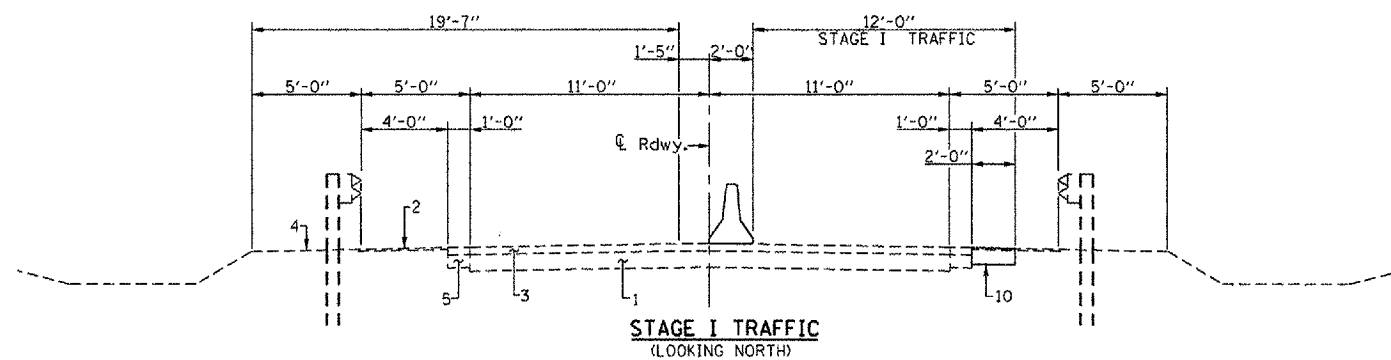
PROFILE

REVISIONS

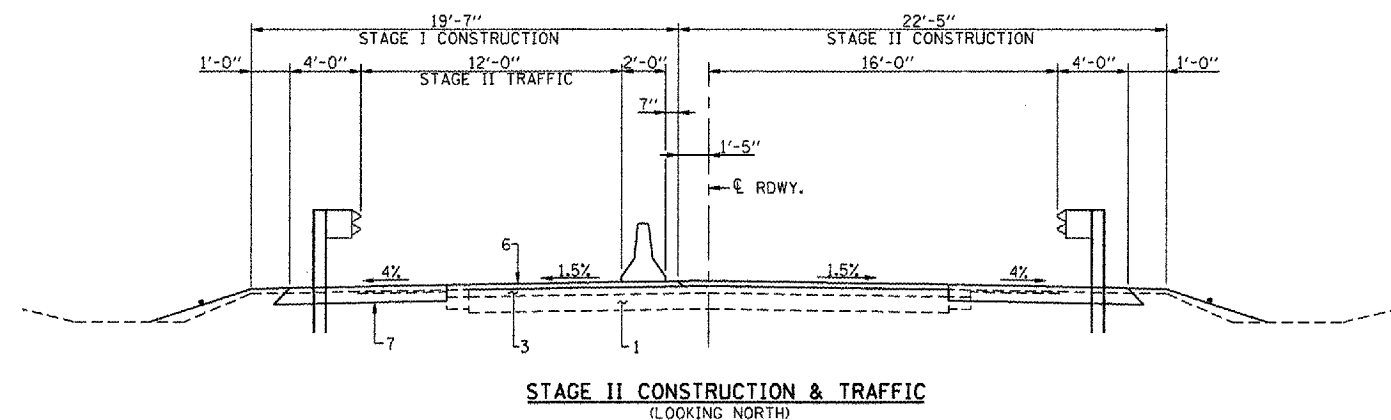
NO. DATE DESCRIPTION

PLOT DATE = 8/24/85
FILE NAME = 68024.DWG
PLOT NAME = 68024.DWG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(II)	TAZEWELL	32	7
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				



• - 3:1 AT GUARDRAIL
4:1 AT NO GUARDRAIL

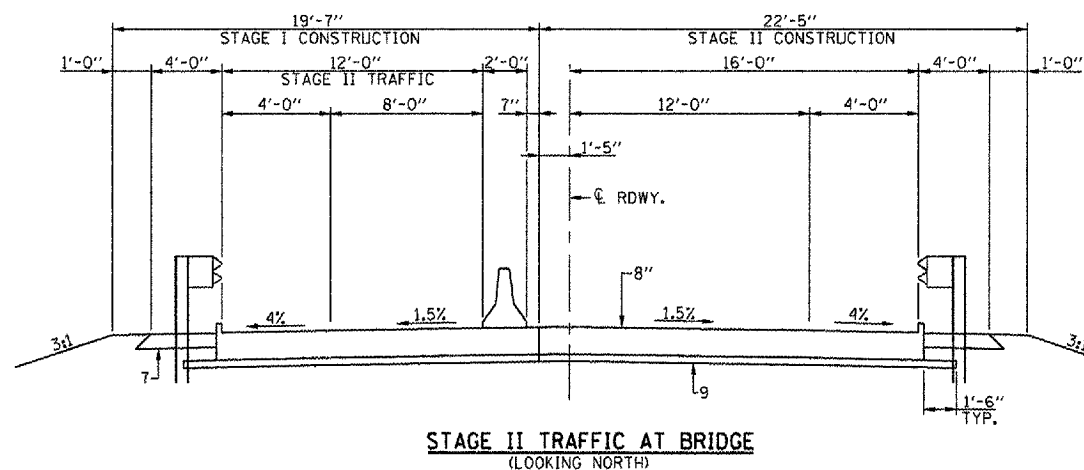


PAVEMENT LEGEND

1. EXISTING P.C.C. PAVEMENT
2. EXISTING AGGREGATE SHOULDER
3. EXISTING HOT MIX ASPHALT OVERLAY 4" - 6"
4. EARTH SHOULDER
5. EXISTING HOT MIX ASPHALT SHOULDER
6. PROPOSED HOT MIX ASPHALT SURFACE COURSE, MIXTURE C N50 (1 1/2" MIN.)
7. PROPOSED HOT MIX ASPHALT SHOULDER (8")
8. PROPOSED CONCRETE BRIDGE APPROACH PAVEMENT
9. SUB-BASE GRANULAR MATERIAL, TYPE A
10. HOT MIX ASPHALT BASE COURSE WIDENING (8")
11. PAINT PAVEMENT MARKING - LINE 4"

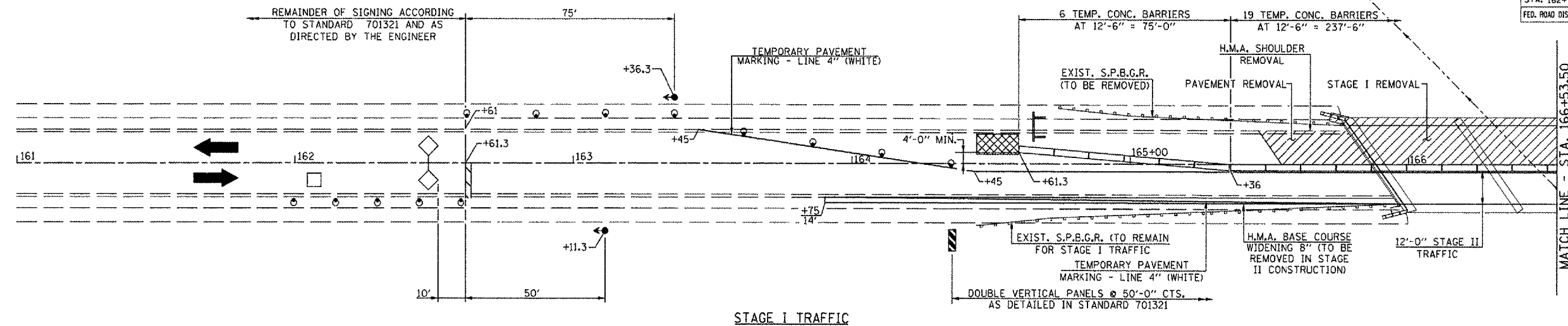
NOTE: WORK THIS SHEET WITH SHEETS 8 & 9 OF 31.

STAGE CONSTRUCTION TRAFFIC DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (II)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

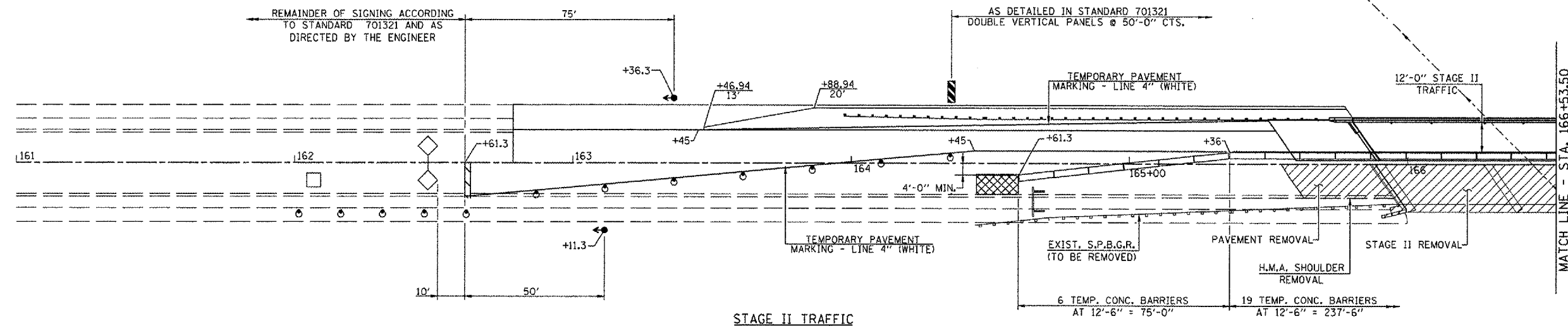


PLOT DATE = 8/14/88
JOB NO. = 184-001907
MODEL NAME = BRIDGE.DWG

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(I)	TAZEWELL	32	8
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT



HOT MIX ASPHALT BASE COURSE WIDENING
STA. 163+75 TO STA. 165+96.0 RT. - 2'-0"



SUGGESTED STAGE CONSTRUCTION SEQUENCE

STAGE I

1. CONSTRUCT H.M.A. BASE COURSE WIDENING 8" RT. STA. 163+75 TO STA. 165+96 & STA. 167+28.7 TO STA. 169+35- (2'-0" WIDE).
2. ERECT TRAFFIC CONTROL FOR STAGE I.
3. REMOVE EXISTING SUPERSTRUCTURE LEFT, @ STA. 166+53.50.
4. CONSTRUCT PROPOSED STAGE I REINFORCED CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURE UNITS.
5. CONSTRUCT PROPOSED H.M.A. SHOULDERS LT. STA. 163+46.94 TO STA. 165+75.97 & STA. 167+08.63 TO STA. 170+28.50.
6. CONSTRUCT PROPOSED GUARDRAIL & TERMINALS LT. STA. 163+98.94 TO STA. 165+67.08 & STA. 167+48.05 TO STA. 169+71.94.
7. CONSTRUCT P.C.C. APPROACH PAVEMENT COURSE AND H.M.A. SURFACE COURSE.

STAGE II

1. ERECT TRAFFIC CONTROL FOR STAGE II.
2. REMOVE EXISTING SUPERSTRUCTURE RT. @ STA. 166+53.50
3. CONSTRUCT PROPOSED STAGE II REINFORCED CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURE UNITS.
4. CONSTRUCT PROPOSED H.M.A. SHOULDERS SHOULDERS RT. STA. 162+78.50 TO STA. 165+98.37 & STA. 167+31.03 TO STA. 169+60.06.
5. CONSTRUCT PROPOSED GUARDRAIL & TERMINALS RT. STA. 163+35.06 TO STA. 165+89.59 & STA. 167+39.81 TO STA. 169+08.06.
6. CONSTRUCT P.C.C. APPROACH PAVEMENT COURSE AND H.M.A. SURFACE COURSE.

FINAL

1. INSTALL SHORT-TERM PAVEMENT MARKINGS AND REMOVE ALL STAGE TRAFFIC CONTROL AND RE-ESTABLISH NORMAL TRAFFIC PATTERNS.
2. REMOVE SHORT TERM PAVEMENT MARKINGS AND COMPLETE FINAL STRIPING, SEEDING AND MISCELLANEOUS CLEANUP.

GENERAL NOTES

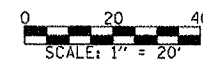
1. THIS TRAFFIC CONTROL DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD 701321 AND 701326 (WIDENING).
2. THE CONTRACTOR SHALL NOTIFY THE DISTRICT 4 TRAFFIC SECTION OF THE BUREAU OF OPERATIONS AT LEAST ONE WEEK PRIOR TO IMPLEMENTING STAGE TRAFFIC CONTROL.
3. EXISTING PAVEMENT MARKINGS THAT CONFLICT 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".
4. THE CONTRACTOR SHALL MAINTAIN FULL OPERATIONAL STATUS OF ALL SIDEROADS AND ACCESS TO ALL PRIVATE AND COMMERCIAL PROPERTIES DURING ALL PHASES OF CONSTRUCTION.
5. EACH DETECTOR LOOP SHALL BE CONNECTED TO A SEPARATE DETECTOR AMPLIFIER.
6. SIGNING FOR STAGE II SAME AS STAGE I.

SYMBOLS

- WORK AREA
- 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

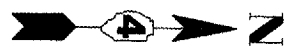
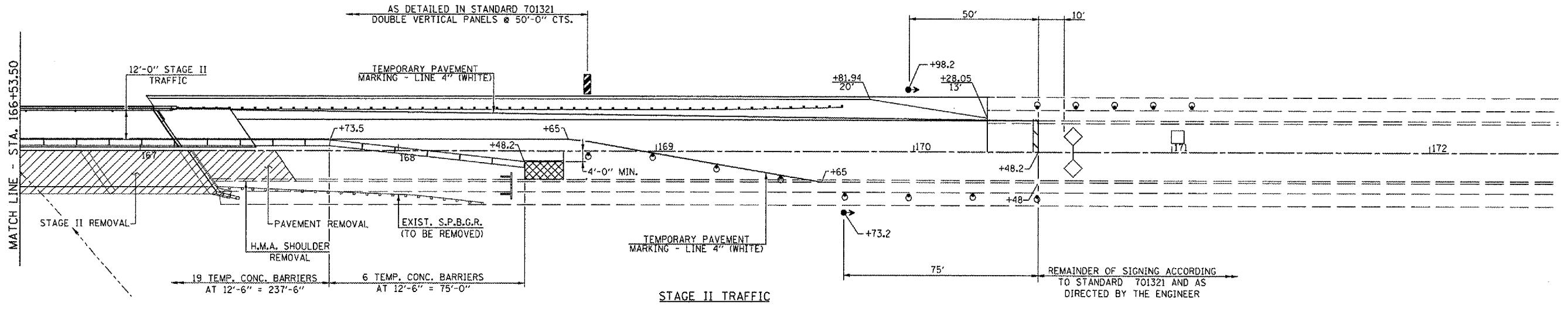
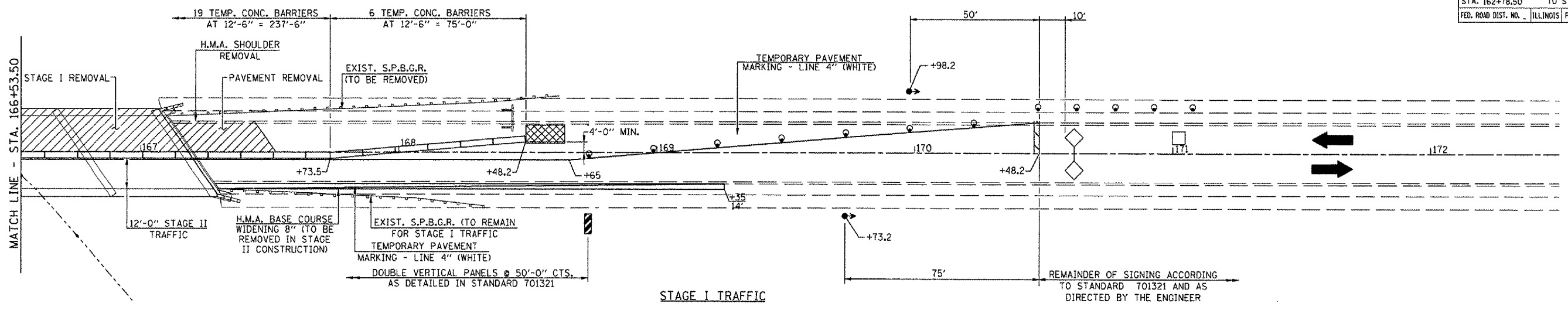
WORK THIS SHEET WITH SHEETS 7 & 9 OF 31.
SEE SHEET NO. 9 FOR TRAFFIC CONTROL & TEMPORARY PAVEMENT MARKING SCHEDULES.

STAGE CONSTRUCTION TRAFFIC DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (I)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053



PLOT DATE = #DATE#
FILE NAME = #FILES#
MODEL NAME = #MODELNAME#

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
656	(II)	TAZEWELL	32
STA. 162+78.50		TO STA. 170+28.50	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



TRAFFIC CONTROL SCHEDULE

LOCATION STATION TO STATION	TEMP. CONC. BARRIER (FOOT)	RELOCATE TEMP. CONC. BARRIER (FOOT)	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)	IMPACT ATTENUATOR, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)
STAGE I				
STA. 164+21.3 TO STA. 164+36.3			1	
STA. 164+61.3 TO STA. 168+48.2	387.5			
STA. 168+73.2 TO STA. 168+88.2			1	
STAGE II				
STA. 164+21.3 TO STA. 164+36.3				
STA. 164+61.3 TO STA. 168+48.2		387.5		1
STA. 168+73.2 TO STA. 168+88.2				1
TOTAL	387.5	387.5	2	2

SCHEDULE
TEMPORARY PAVEMENT MARKING

LOCATION STATION TO STATION	TEMP. PAV'T. MARKING LINE - 4" (FOOT)	TEMP. PAV'T. MARKING LINE - 24" (FOOT)
STAGE I		
STA. 162+65.3 RT.		12
STA. 163+75 TO STA. 169+35 RT.	560	
STA. 163+45 TO STA. 170+48 (Q)	703	
STA. 170+44.7 LT.		12
STAGE II		
STA. 163+45 TO STA. 170+48 LT.	703	
STA. 162+61 TO STA. 169+65 (Q)	704	
TOTAL	2670	24

SYMBOLS

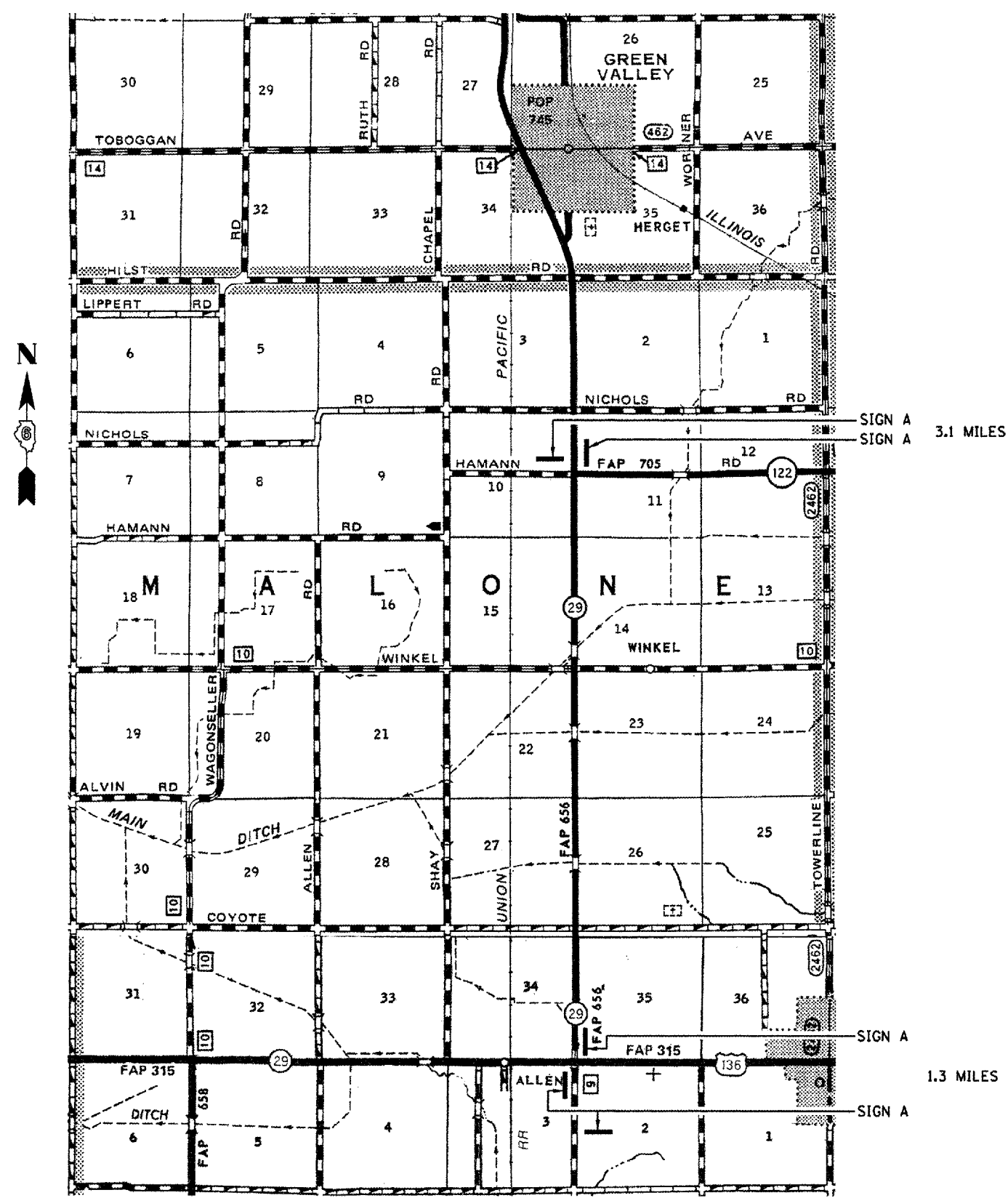
- WORK AREA
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS

NOTE:
SIGNING FOR STAGE II SAME AS STAGE I.
FOR GENERAL NOTES SEE SHEET 8 OF 31.
WORK THIS SHEET WITH SHEETS 7 & 8 OF 31.

STAGE CONSTRUCTION TRAFFIC DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (II)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

PLOT DATE = 8/24/88
FILE NAME = #FILES#
MODEL NAME = #MODELNAME#

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(II)	TAZEWELL	32	10
STA. 162+78.50 TO STA. 170+28.50				
FED. ROAD DIST. NO. . ILLINOIS FED. AID PROJECT				



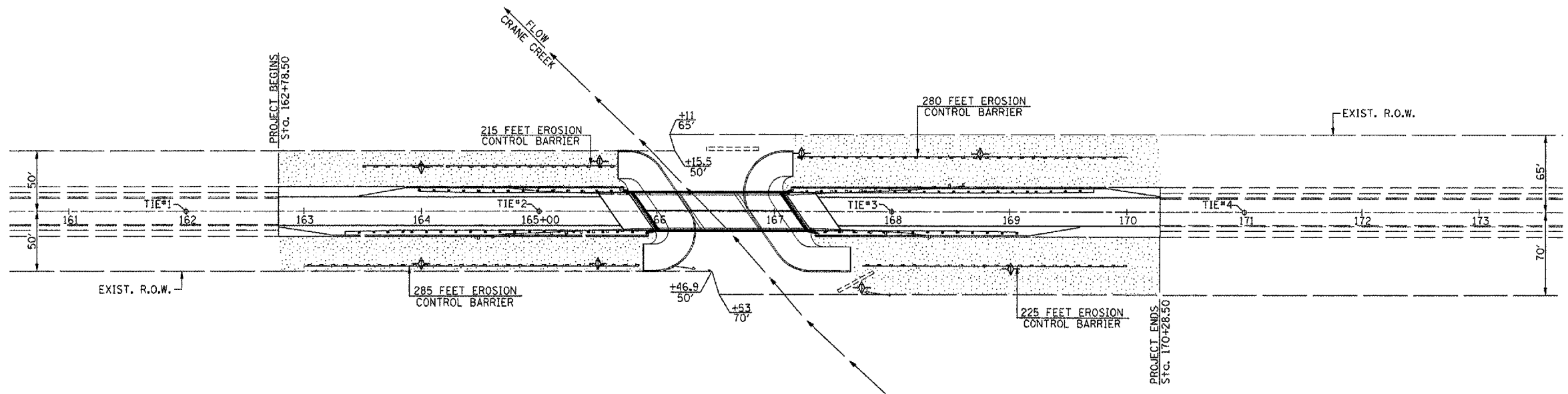
SEE ATTACHED SPECIAL PROVISION DRAWINGS FOR SIGN SPECIFICATIONS.
SIGN A = W12-I 103

WIDTH RESTRICTION SIGNING LOCATIONS

WIDTH RESTRICTION SIGNING DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (II)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

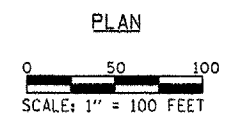
PLUT DATE = 8/24/85
FILE NAME = #FILES
MODEL NAME = #MODEL.NAMES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(11)	TAZEWELL	32	11
STA. 162+78.50		TO STA. 170+28.50		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



LEGEND

- PAVEMENT & STRUCTURE REMOVAL LIMITS
- SEEDING, CLASS 2 WITH MULCH, METHOD 2
- PERIMETER EROSION BARRIER
- AGGREGATE (EROSION CONTROL)
- TEMPORARY EROSION CONTROL SEEDING



LANDSCAPING AND EROSION
CONTROL PLAN
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

PLOT DATE = 04/27/05
FILE NAME = 05FILES
MODEL NAME = 0502L10005

Benchmark: Chiseled "□" on N.E. Wingwall of S.N. 090-0053 at Sta. 167+32 Elev. 527.57

Existing Structure: S.N. 090-0053. Built as S.B.I. 24, Section H,1 (W,RS) in 1961. The superstructure consists of a reinforced concrete deck supported by steel wide flange beams. The structure length is 132'-8" Bk.-Bk. Abutments and 33'-8" Out.-Out. Deck. The substructure consists of reinforced concrete pile bent piers and pile bent abutments.

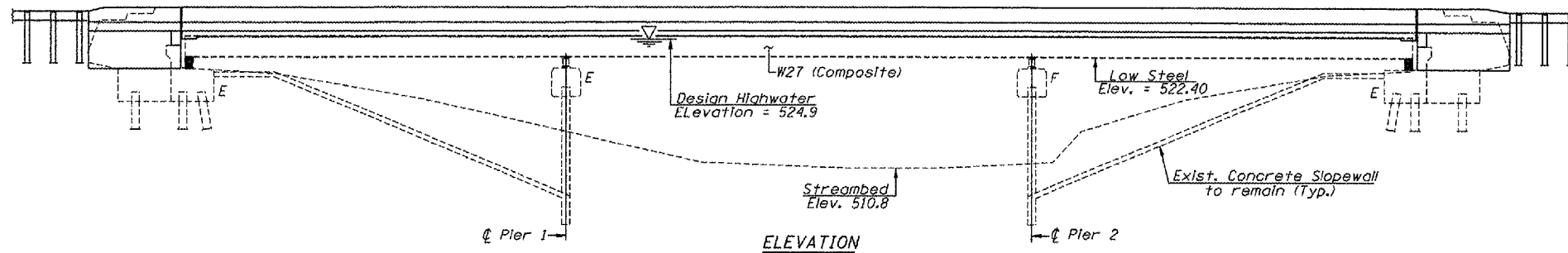
One lane of traffic shall be maintained using Stage Construction.
No salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	12
FED. ROAD DIST. NO. 4 ILLINOIS		FED. AID PROJECT		

CONTRACT NO. 68024

SHEET NO. 1
OF 18 SHEETS



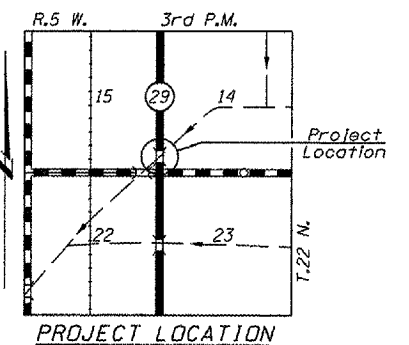
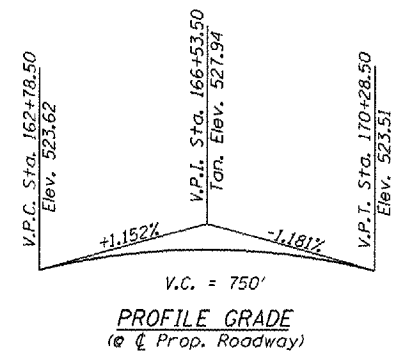
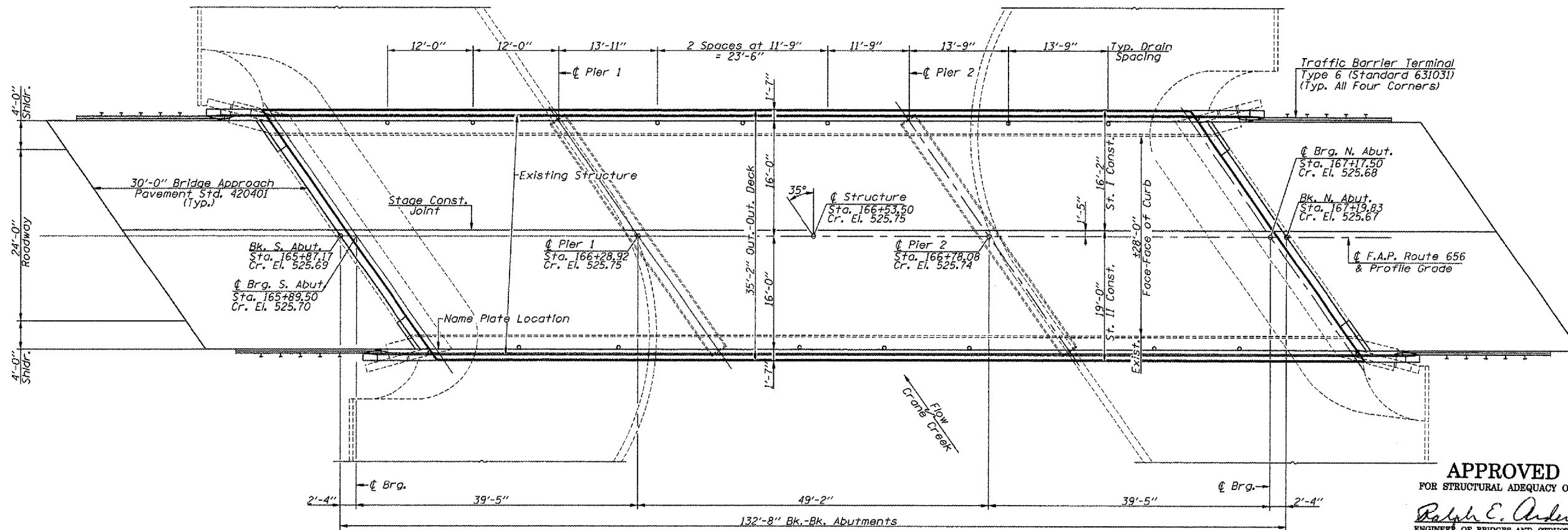
SEISMIC DATA
Seismic Performance Category = A
Bedrock Acceleration Coefficient = 0.04g
Site Coefficient = 1.20

DESIGN SPECIFICATIONS
2002 A.A.S.H.T.O. Specifications with
2003 Interim Specifications.

LOADING HS 20-44
No Future Wearing Surface is allowed.

DESIGN STRESSES

FIELD UNITS
f'c = 3500 psi
fy = 60000 psi (Reinf.)
fy = 36000 psi (A-36) (Existing Structural Steel)



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



Mark A. Henderson 4/27/07
EXPIRATION DATE 11/30/08

STA. 166+53.50
BUILT 200. BY
STATE OF ILLINOIS
F.A.P. ROUTE 656 - SECTION (1)BR
LOADING HS 20-44
STR. NO. 090-0053

NAME PLATE
(Refer to Standard 515001)

Note: Clean and relocate existing name plate adjacent to new name plate. Cost included with Name Plates.

WATERWAY INFORMATION

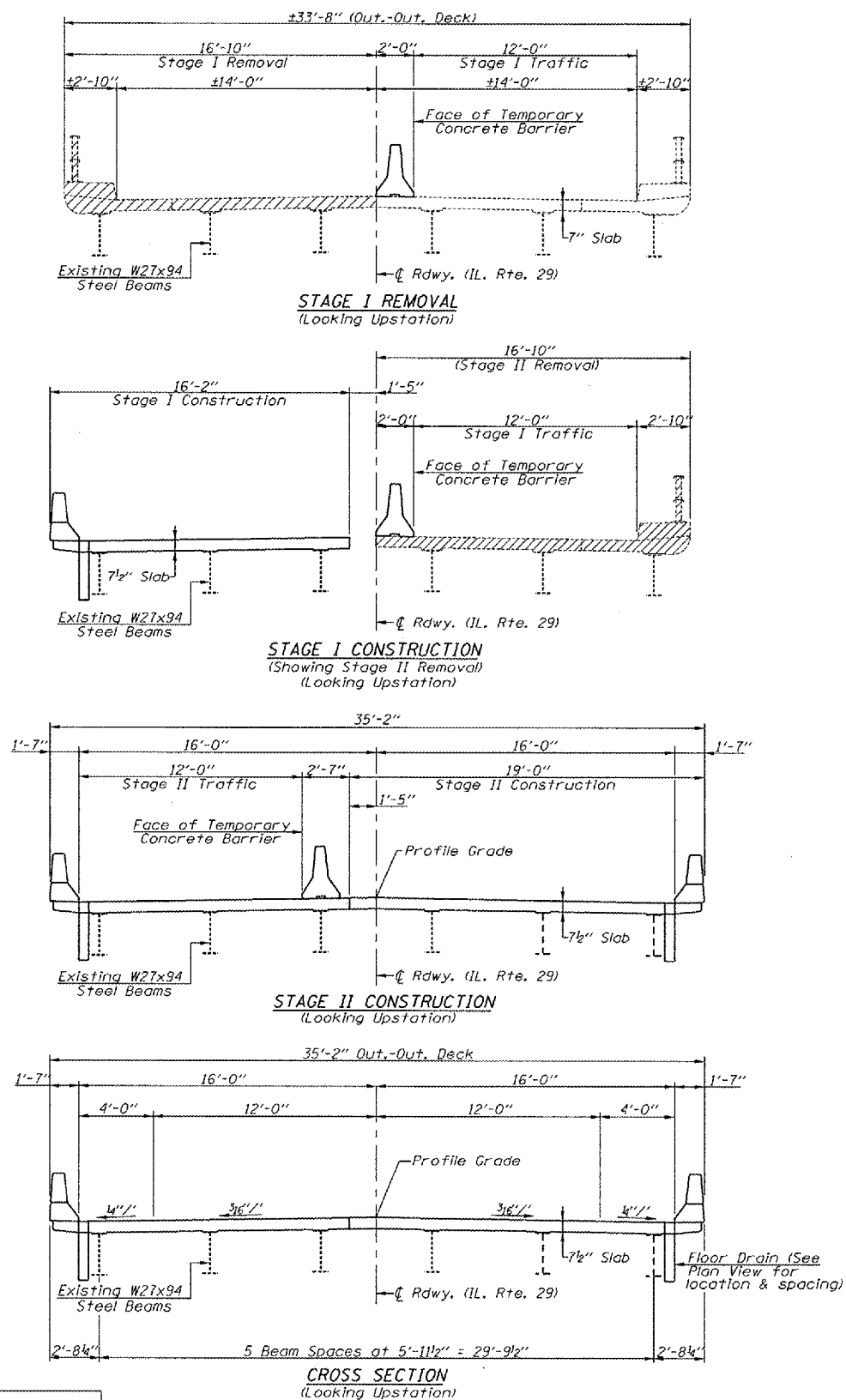
Drainage Area = 38.9 mi ²		Low Grade Elev. = 520.5 ft.		@ Sta. 174+00					
Flood	Freq. Yr.	0	Opening ft. ²		Head - ft.		Headwater El.		
			Exist.	Prop.	H.W.E.	Exist.	Prop.	Exist.	Prop.
Design	50	5860	655	655	524.9	0.2	0.2	525.1	525.1
Base	100	6800	655	655	525.3	0.2	0.2	525.5	525.5
Overtopping	20	4500	655	655	524.5	0.1	0.1	524.6	524.6
Max. Calc.									

DESIGNED - MAH
CHECKED - APH
DRAWN - JRP
CHECKED - MAH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	13
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 2
OF 18 SHEETS



TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Removal	Cu.Yd.		13.8	13.8
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu.Yd.		44	44
Floor Drains	Each	14		14
Concrete Structures	Cu.Yd.		11.5	11.5
Concrete Superstructure	Cu.Yd.	147.8		147.8
Bridge Deck Grooving	Sq. Yd.	433		433
Protective Coat	Sq.Yd.	596		596
Furnishing and Erecting Structural Steel	Pound	2030		2030
Stud Shear Connectors	Each	1980		1980
Jack and Remove Existing Bearings	Each	12		12
Reinforcement Bars, Epoxy Coated	Pound	33260	2750	36010
Bar Splicers	Each	360	8	368
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each	6		6
Elastomeric Bearing Assembly, Type II	Each	6		6
Concrete Sealer	Sq. Ft.	220		220
Preformed Joint Strip Seal	Foot	80		80

* Includes cost of removing existing steel bridge railing.

GENERAL NOTES

- Field welding of construction accessories will not be permitted to beams or girders.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.
- 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 prior to construction and ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.
- Two 1/8" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims. For Type I Elastomeric bearings, two 1/8" adjusting shims shall be provided for each bearing and placed as detailed.
- Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that cannot be removed by grinding 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- Bridge seat sealer shall be applied to the seat area of both abutments.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- All construction joints shall be bonded.
- The contractor shall obtain a construction permit from the Illinois Department of Natural Resources (IDNR), Office of Water Resources for any temporary construction activity placed in the water except cofferdams. This shall include the placement of material for run-arounds, causeways, etc. Any permit application by the Contractor shall refer to the IDNR permit number which was issued for the permanent construction.
- Existing structural steel shall only be cleaned and painted as required by the special provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
- All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M 300, Type 1.
- Field painting of structural steel shall be done under a separate painting contract.
- Fasteners shall be high strength bolts AASHTO M 164 Type 1 or 2. Bolts 3/4" diameter, open holes 1/8" diameter unless otherwise noted.

Notes:
Removal of existing metal handrail included with "Removal of Existing Concrete Deck".
Hatched area indicates "Removal of Existing Concrete Deck".
For quantity of Temporary Concrete Barrier, see Roadway Plans.

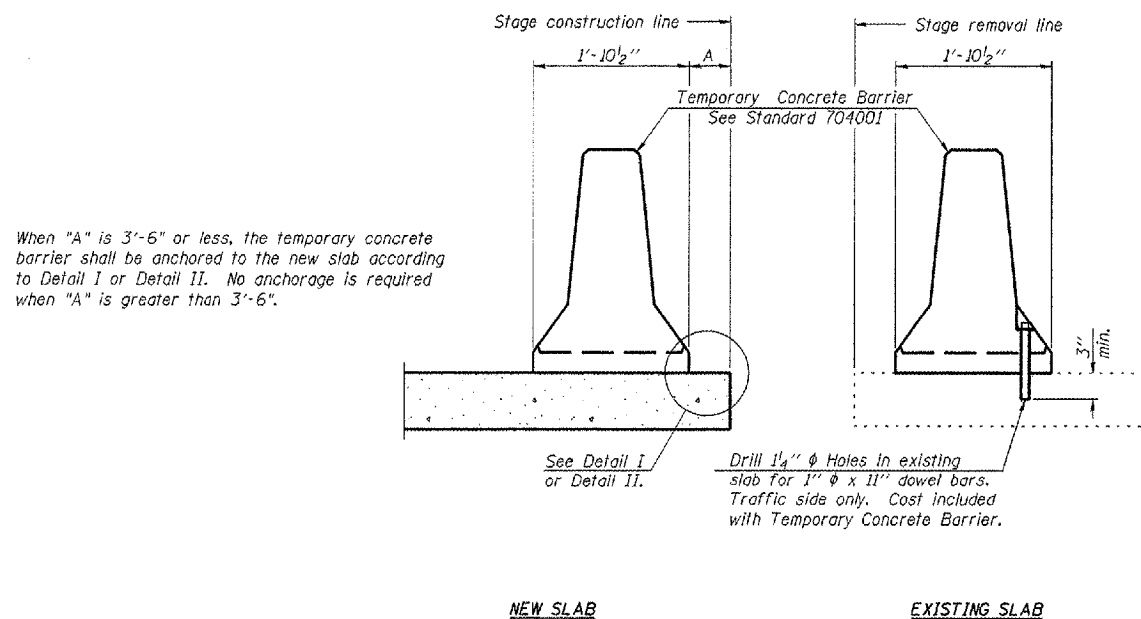
STAGING DETAILS, GENERAL NOTES
AND TOTAL BILL OF MATERIAL
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	14
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 3
OF 18 SHEETS



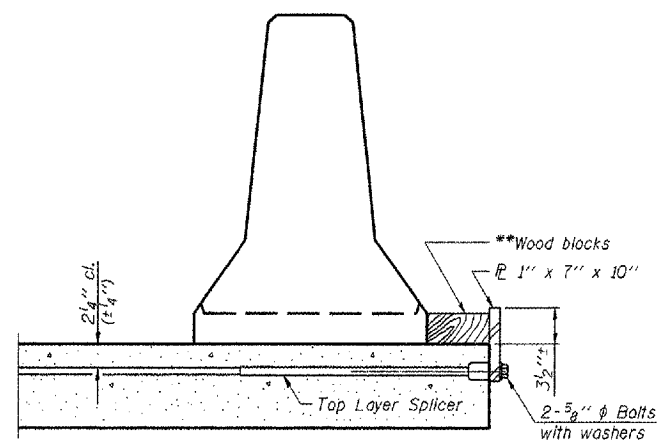
SECTION THRU SLAB

NOTES

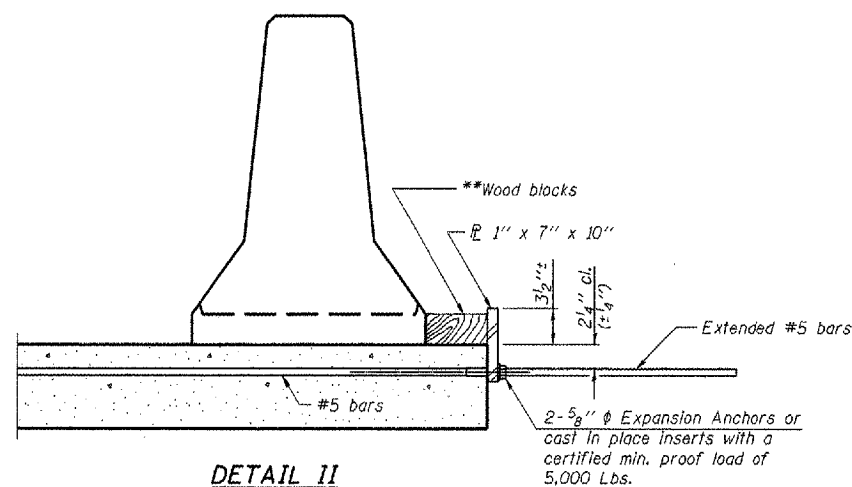
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{r} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{c} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{r} to the concrete slab with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{c} 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.

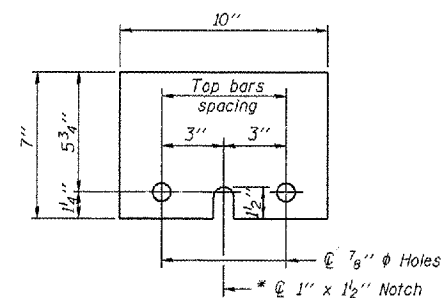


DETAIL I



DETAIL II

** 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.



STEEL RETAINER \bar{r} 1" x 7" x 10"

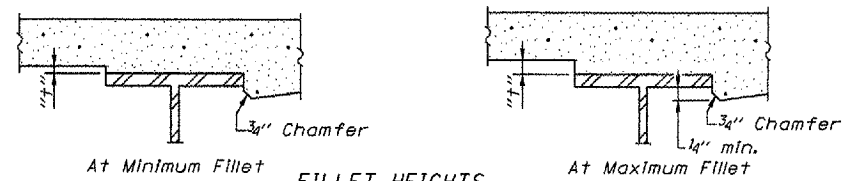
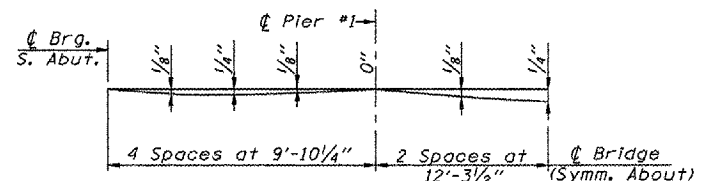
* Required only with Detail II

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	15
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 4
OF 18 SHEETS



BEAM 1

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+76.74	14.90'	525.42	525.42
☉ Brg. S. Abut.	165+79.07	14.90'	525.43	525.43
A	165+89.07	14.90'	525.45	525.46
B	165+99.07	14.90'	525.47	525.48
C	166+09.07	14.90'	525.48	525.48
☉ Brg. Pier 1	166+18.49	14.90'	525.49	525.49
D	166+28.49	14.90'	525.50	525.51
E	166+38.49	14.90'	525.50	525.52
F	166+48.49	14.90'	525.51	525.52
G	166+58.49	14.90'	525.50	525.51
☉ Brg. Pier 2	166+67.65	14.90'	525.50	525.50
H	166+77.65	14.90'	525.49	525.50
I	166+87.65	14.90'	525.48	525.49
J	166+97.65	14.90'	525.47	525.48
☉ Brg. N. Abut.	167+07.07	14.90'	525.45	525.45
Bk. N. Abut.	167+09.40	14.90'	525.45	525.45

BEAM 2

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+80.91	8.94'	525.54	525.54
☉ Brg. S. Abut.	165+83.24	8.94'	525.55	525.55
A	165+93.24	8.94'	525.57	525.57
B	166+03.24	8.94'	525.58	525.59
C	166+13.24	8.94'	525.59	525.60
☉ Brg. Pier 1	166+22.66	8.94'	525.60	525.60
D	166+32.66	8.94'	525.61	525.62
E	166+42.66	8.94'	525.61	525.63
F	166+52.66	8.94'	525.61	525.63
G	166+62.66	8.94'	525.61	525.62
☉ Brg. Pier 2	166+71.82	8.94'	525.60	525.60
H	166+81.82	8.94'	525.60	525.60
I	166+91.82	8.94'	525.58	525.60
J	167+01.82	8.94'	525.57	525.58
☉ Brg. N. Abut.	167+11.24	8.94'	525.55	525.55
Bk. N. Abut.	167+13.57	8.94'	525.55	525.55

BEAM 3

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+85.08	2.98'	525.64	525.64
☉ Brg. S. Abut.	165+87.41	2.98'	525.65	525.65
A	165+97.41	2.98'	525.67	525.67
B	166+07.41	2.98'	525.68	525.69
C	166+17.41	2.98'	525.69	525.69
☉ Brg. Pier 1	166+26.83	2.98'	525.70	525.70
D	166+36.83	2.98'	525.70	525.71
E	166+46.83	2.98'	525.71	525.72
F	166+56.83	2.98'	525.71	525.72
G	166+66.83	2.98'	525.70	525.71
☉ Brg. Pier 2	166+75.99	2.98'	525.69	525.69
H	166+85.99	2.98'	525.68	525.69
I	166+95.99	2.98'	525.67	525.68
J	167+05.99	2.98'	525.66	525.66
☉ Brg. N. Abut.	167+15.41	2.98'	525.64	525.64
Bk. N. Abut.	167+17.74	2.98'	525.63	525.63

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+86.18	1.42'	525.67	525.67
☉ Brg. S. Abut.	165+88.51	1.42'	525.67	525.67
A	165+98.51	1.42'	525.69	525.70
B	166+08.51	1.42'	525.71	525.72
C	166+18.51	1.42'	525.72	525.72
☉ Brg. Pier 1	166+27.93	1.42'	525.72	525.72
D	166+37.93	1.42'	525.73	525.74
E	166+47.93	1.42'	525.73	525.75
F	166+57.93	1.42'	525.73	525.74
G	166+67.93	1.42'	525.73	525.73
☉ Brg. Pier 2	166+77.09	1.42'	525.72	525.72
H	166+87.09	1.42'	525.71	525.71
I	166+97.09	1.42'	525.69	525.71
J	167+07.09	1.42'	525.68	525.69
☉ Brg. N. Abut.	167+16.51	1.42'	525.66	525.66
Bk. N. Abut.	167+18.84	1.42'	525.65	525.65

RDWY. & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+85.17	0'	525.69	525.69
☉ Brg. S. Abut.	165+89.50	0'	525.70	525.70
A	165+99.50	0'	525.72	525.72
B	166+09.50	0'	525.73	525.74
C	166+19.50	0'	525.74	525.74
☉ Brg. Pier 1	166+28.92	0'	525.75	525.75
D	166+38.92	0'	525.75	525.76
E	166+48.92	0'	525.75	525.77
F	166+58.92	0'	525.75	525.77
G	166+68.92	0'	525.75	525.75
☉ Brg. Pier 2	166+78.08	0'	525.74	525.74
H	166+88.08	0'	525.73	525.73
I	166+98.08	0'	525.72	525.73
J	167+08.08	0'	525.70	525.71
☉ Brg. N. Abut.	167+17.50	0'	525.68	525.68
Bk. N. Abut.	167+19.83	0'	525.67	525.67

BEAM 4

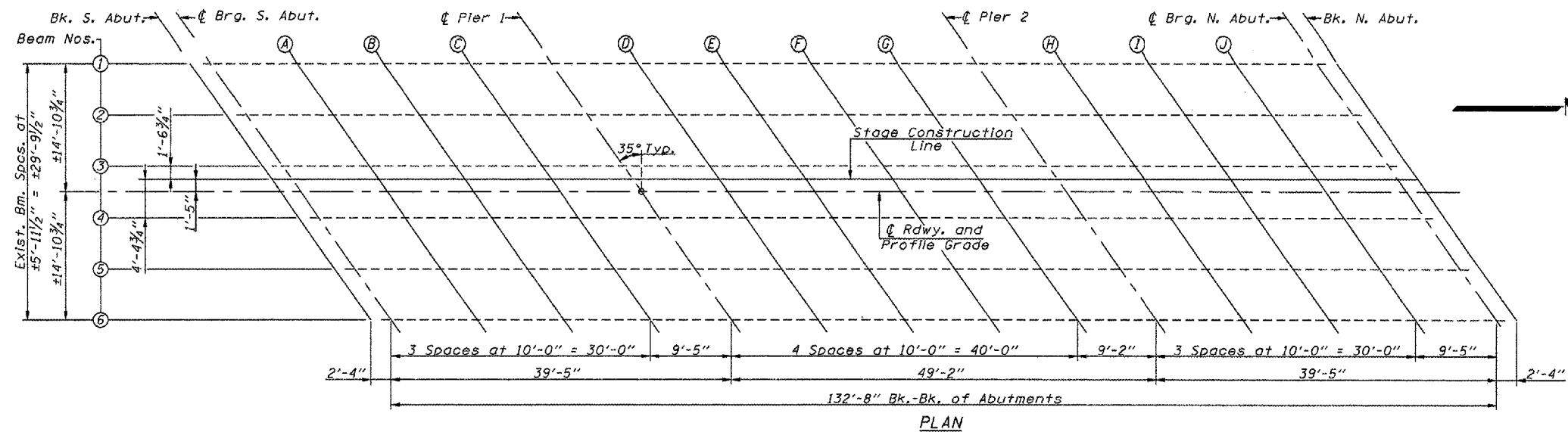
Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+89.26	2.98'	525.65	525.65
☉ Brg. S. Abut.	165+91.59	2.98'	525.66	525.66
A	166+01.59	2.98'	525.67	525.68
B	166+11.59	2.98'	525.68	525.70
C	166+21.59	2.98'	525.69	525.70
☉ Brg. Pier 1	166+31.01	2.98'	525.70	525.70
D	166+41.01	2.98'	525.71	525.71
E	166+51.01	2.98'	525.71	525.72
F	166+61.01	2.98'	525.70	525.72
G	166+71.01	2.98'	525.70	525.71
☉ Brg. Pier 2	166+80.17	2.98'	525.69	525.69
H	166+90.17	2.98'	525.68	525.68
I	167+00.17	2.98'	525.67	525.68
J	167+10.17	2.98'	525.65	525.65
☉ Brg. N. Abut.	167+19.59	2.98'	525.63	525.63
Bk. N. Abut.	167+21.92	2.98'	525.62	525.62

BEAM 5

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+93.43	8.94'	525.57	525.57
☉ Brg. S. Abut.	165+95.76	8.94'	525.57	525.57
A	166+05.76	8.94'	525.58	525.59
B	166+15.76	8.94'	525.60	525.61
C	166+25.76	8.94'	525.60	525.61
☉ Brg. Pier 1	166+35.18	8.94'	525.61	525.61
D	166+45.18	8.94'	525.61	525.62
E	166+55.18	8.94'	525.61	525.63
F	166+65.18	8.94'	525.61	525.62
G	166+75.18	8.94'	525.60	525.61
☉ Brg. Pier 2	166+84.34	8.94'	525.59	525.59
H	166+94.34	8.94'	525.58	525.58
I	167+04.34	8.94'	525.57	525.58
J	167+14.34	8.94'	525.55	525.55
☉ Brg. N. Abut.	167+23.76	8.94'	525.53	525.53
Bk. N. Abut.	167+26.09	8.94'	525.52	525.52

BEAM 6

Location	Station	Offset	Theoretical Grade Elevation	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. S. Abut.	165+97.60	14.90'	525.46	525.46
☉ Brg. S. Abut.	165+99.93	14.90'	525.47	525.47
A	166+09.93	14.90'	525.48	525.49
B	166+19.93	14.90'	525.49	525.50
C	166+29.93	14.90'	525.50	525.50
☉ Brg. Pier 1	166+39.35	14.90'	525.50	525.50
D	166+49.35	14.90'	525.51	525.51
E	166+59.35	14.90'	525.50	525.52
F	166+69.35	14.90'	525.50	525.51
G	166+79.35	14.90'	525.49	525.50
☉ Brg. Pier 2	166+88.51	14.90'	525.48	525.48
H	166+98.51	14.90'	525.47	525.47
I	167+08.51	14.90'	525.45	525.46
J	167+18.51	14.90'	525.43	525.44
☉ Brg. N. Abut.	167+27.93	14.90'	525.41	525.41
Bk. N. Abut.	167+30.26	14.90'	525.40	525.40

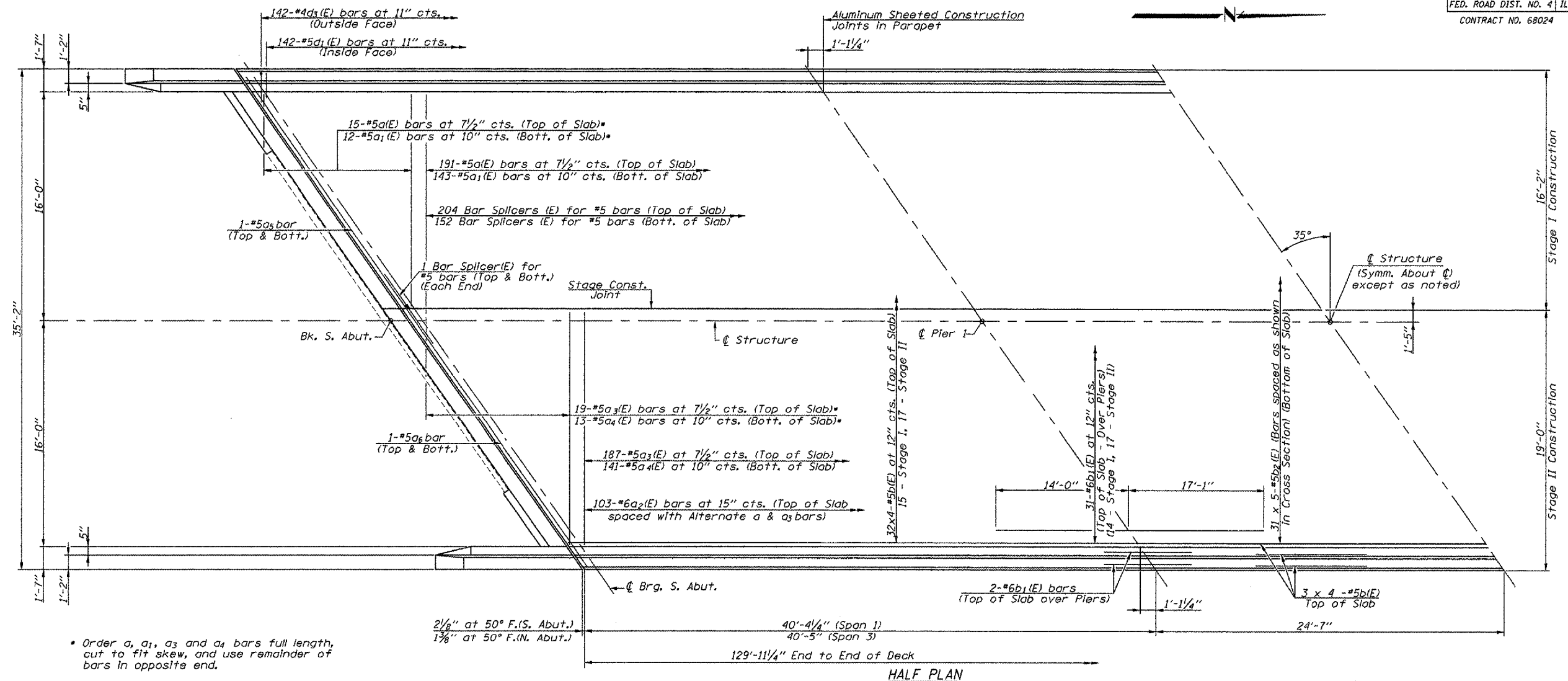


TOP OF SLAB ELEVATIONS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

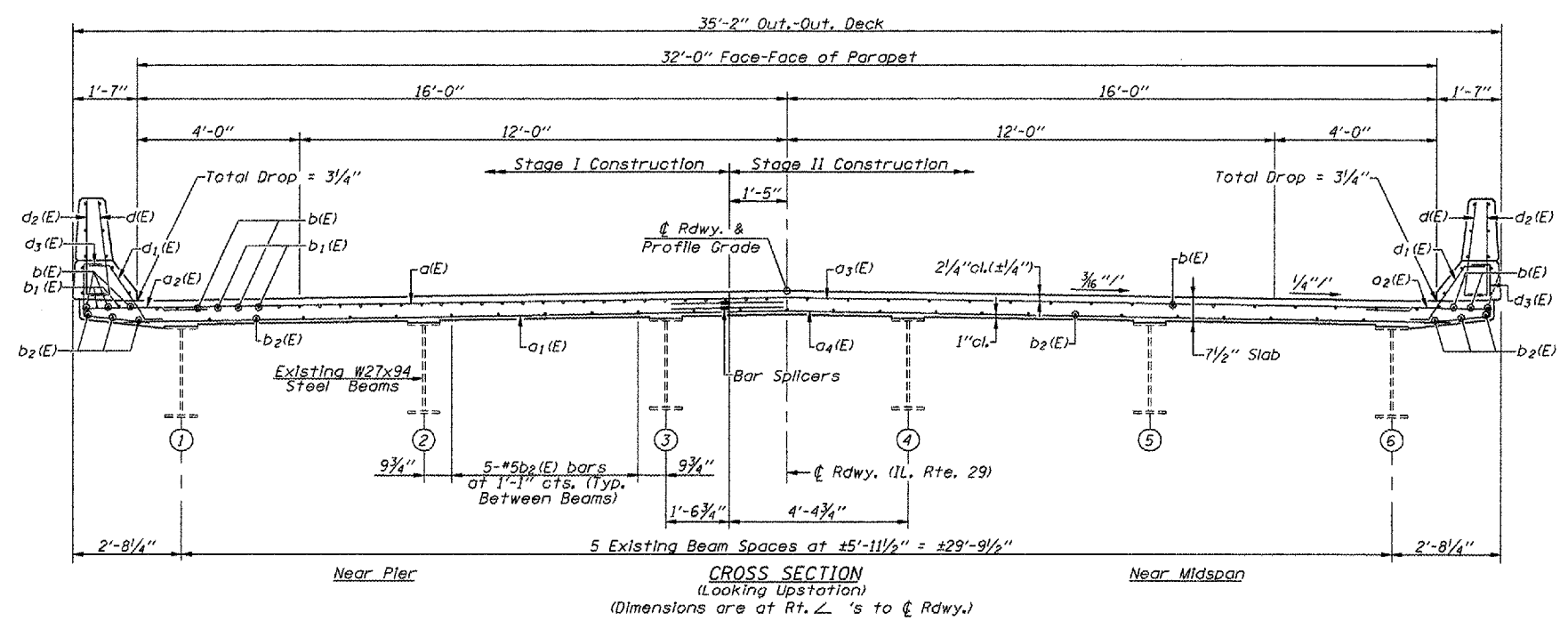
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(II)	TAZEWELL	32	16
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 5
OF 18 SHEETS



* Order a_1 , a_3 and a_4 bars full length, cut to fit skew, and use remainder of bars in opposite end.



Notes:
See Sheet 6 of 18 for superstructure details and Bill of Material.
Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 20x3-#5 etc. Indicates 20 lines of bars with 3 lengths per line.
See Sheet 6 of 18 for parapet reinforcement.

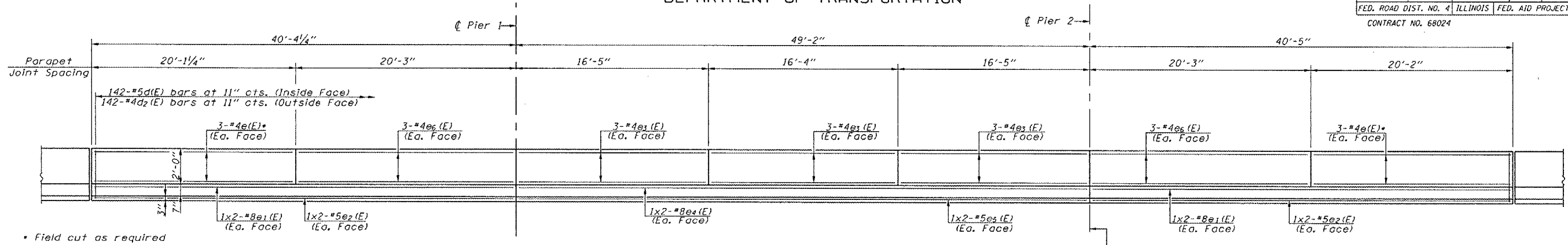
MIN. BAR LAPS
#5 bars = 2'-2"

SUPERSTRUCTURE
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (II)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(I)	TAZEWELL	32	17
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

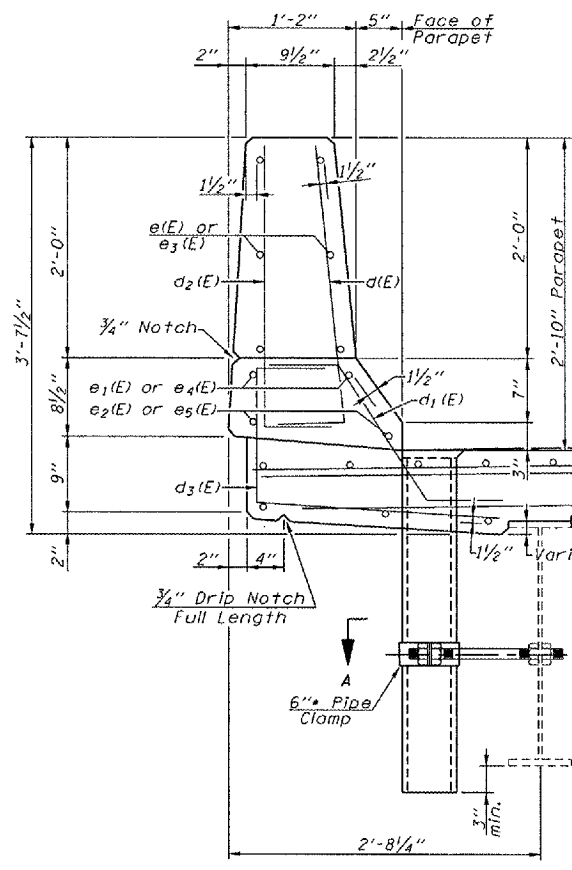
SHEET NO. 6
OF 18 SHEETS



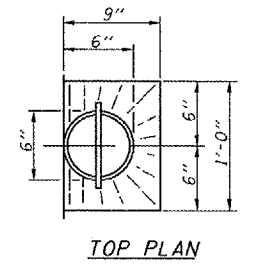
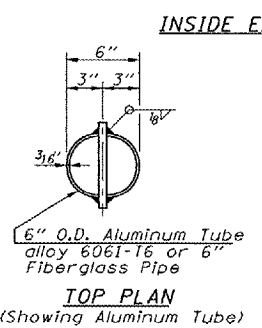
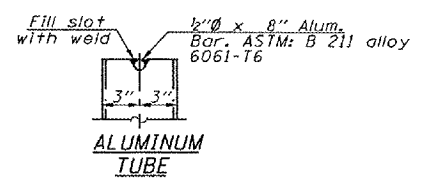
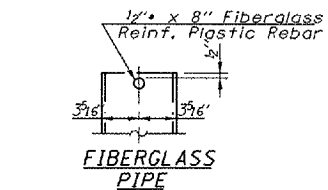
* Field cut as required

PARAPET MIN. BAR LAPS

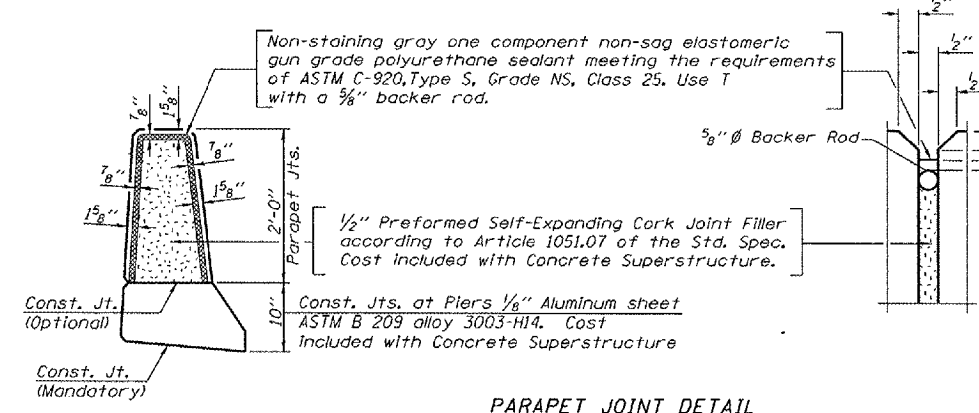
- *4 Bars = 1'-8"
- *5 Bars = 2'-2"
- *8 Bars = 4'-6"



SECTION THRU PARAPET



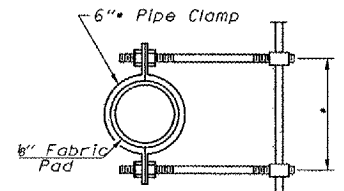
INSIDE ELEVATION OF PARAPET



PARAPET JOINT DETAIL

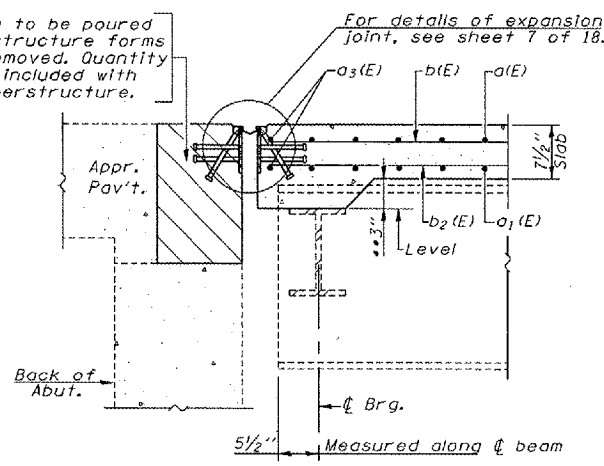
Notes:
Floor drains shall not be painted.
Fiberglass pipe shall conform to ASTM D 2996 with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

3/4" Steel Stud Bolts Threaded 6" Each End with washers and lock nuts. 3/8" holes in web. (May be drilled in field)



SECTION A-A

Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



SECTION A-A

** Dimension at beam No. 1 (S. Abut.) & beam No. 6 (N. Abut.)
Dimension taken from exist. plans.

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	206	#5	15'-8"	—
a1(E)	155	#5	14'-9"	—
a2(E)	206	#6	4'-6"	—
a3(E)	206	#5	18'-6"	—
a4(E)	154	#5	17'-7"	—
a5(E)	4	#5	19'-2"	—
a6(E)	4	#5	22'-6"	—
b(E)	152	#5	34'-0"	—
b1(E)	70	#6	31'-1"	—
b2(E)	155	#5	27'-8"	—
d(E)	284	#5	3'-0"	L
d1(E)	284	#5	2'-5"	L
d2(E)	284	#4	3'-0"	L
d3(E)	284	#4	3'-6"	L
e(E)	24	#4	20'-9"	—
e1(E)	16	#8	23'-0"	—
e2(E)	16	#5	21'-10"	—
e3(E)	36	#4	16'-1"	—
e4(E)	8	#8	26'-9"	—
e5(E)	8	#5	25'-7"	—
e6(E)	24	#4	20'-0"	—
Reinforcement Bars, Epoxy Coated		Pounds	33260	
Concrete Superstructure		Cu. Yds.	147.8	
Floor Drains		Each	14	
Bar Splicers		Each	360	

Reinforcement bars designated (E) shall be epoxy coated.
Bars indicated thus 1x "X" #5 etc. indicates 1 line of bars with "X" lengths per line.

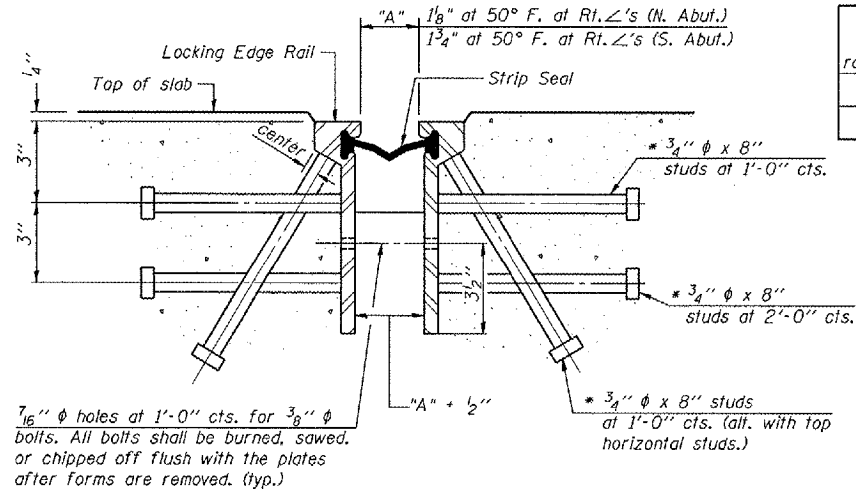
SUPERSTRUCTURE DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (I)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

DESIGNED - MAH
CHECKED - APH
DRAWN - JRP
CHECKED - MAH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(1)	TAZEWELL	32	18
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

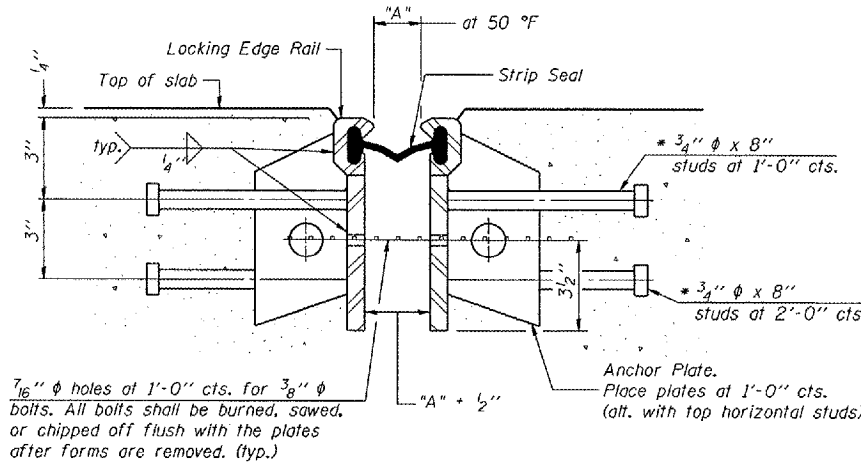
SHEET NO. 7
OF 18 SHEETS



SECTION THRU ROLLED RAIL EXP. JOINT
(212 Studs Required)

Required Strip Seal rated movement	Design Movement	Location
1"	1"	N. Abut.
2"	1 5/8"	S. Abut.

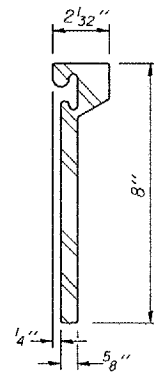
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



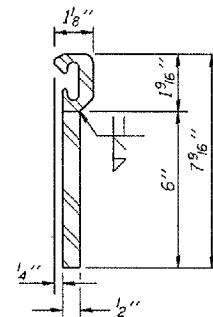
SECTION THRU WELDED RAIL EXP. JOINT
(128 Studs Required)
(84 Anchor Plates Required)

GENERAL NOTES

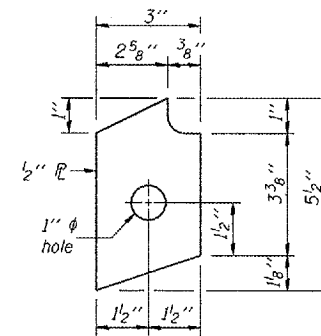
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.
The manufacturer's recommended installation methods shall be followed.
After fabrication is complete, all metal portions of the locking edge rail system shall be hot dipped galvanized in accordance with ASTM A385.



ROLLED (EXTRUDED) RAIL

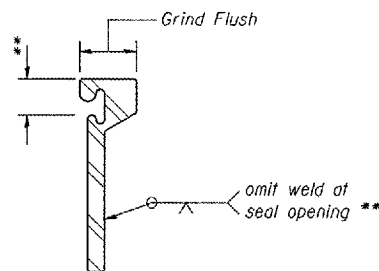


WELDED RAIL



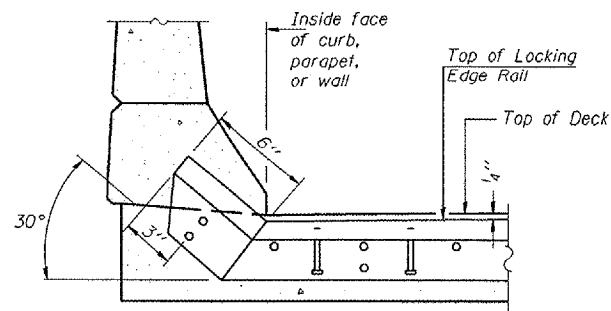
ANCHOR PLATE
(for welded rail)

LOCKING EDGE RAILS

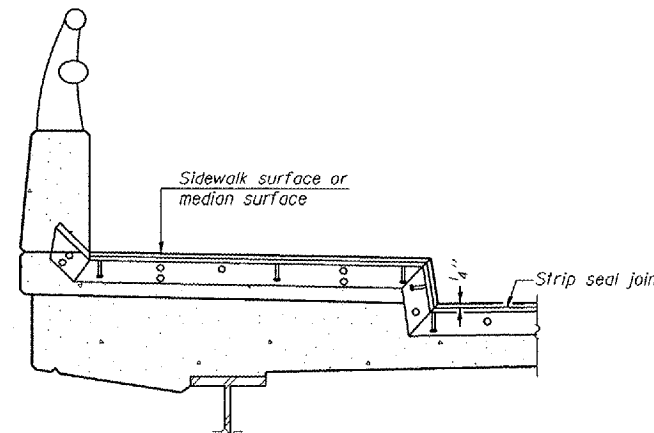


LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.



AT CURB, PARAPET, OR WALL



AT SIDEWALK OR MEDIAN*

TYPICAL END TREATMENTS

* Shorter plates with a single row of studs at 12" centers may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	80

Note: The contractor shall not have the option of using the Preformed Joint Seal on this project.

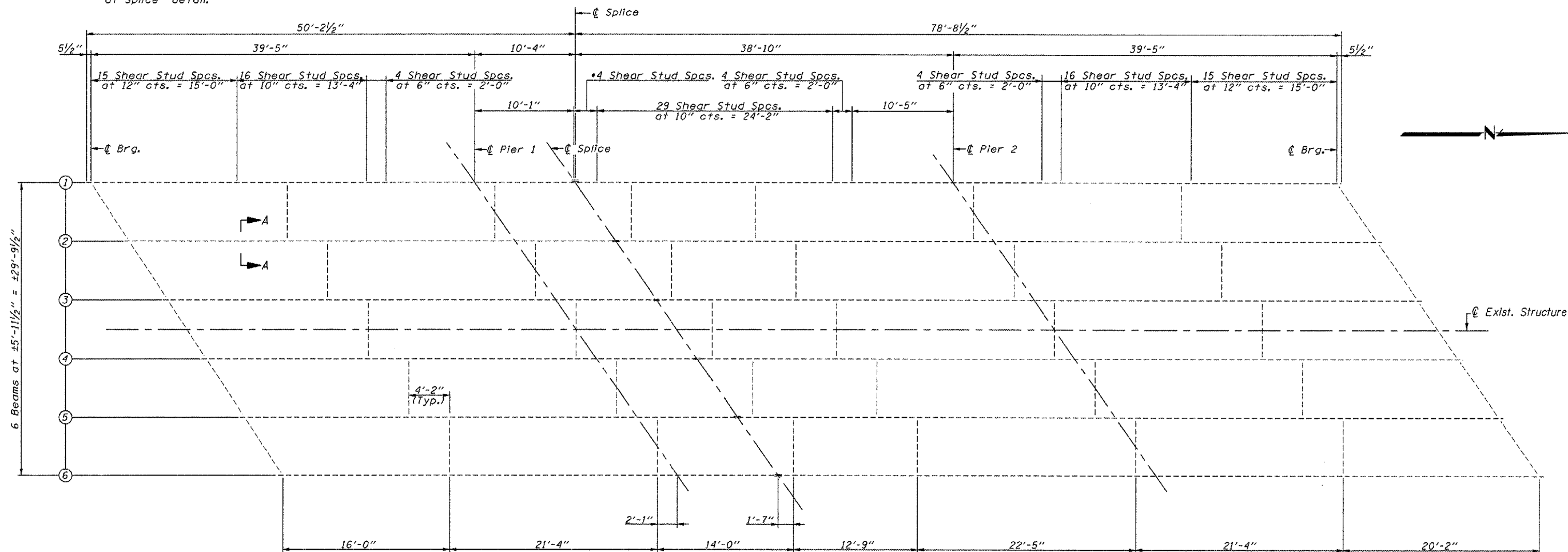
BRIDGE JOINT SYSTEM - EXPANSION (STRIP SEAL)
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (1)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

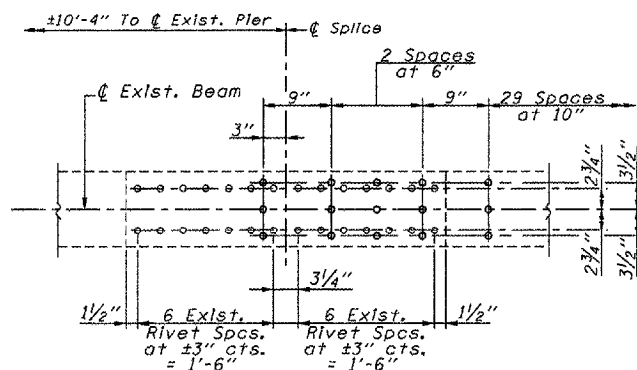
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	19
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
				CONTRACT NO. 68024

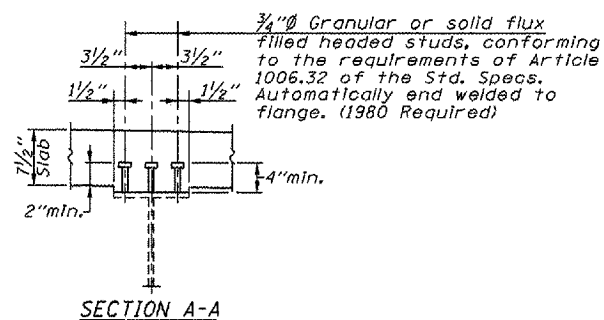
• Space shear studs to miss rivets on existing splice plates. See "Layout at Splice" detail.



PLAN
(Shear Studs Typ. All Beams)
(Existing Beams - 27 WF 94)



LAYOUT AT SPLICE DETAIL



SECTION A-A

	0.4 Span 1 0.6 Span 3	Pier 1 and Pier 2	0.5 Span 2
I_s	(in ⁴) 3080	3080	3080
I_c (n=9)	(in ⁴) 8993	—	8993
I_c (n=27)	(in ⁴) 6663	—	6663
S_s	(in ³) 224	224	224
S_c (n=9)	(in ³) 357	—	357
S_c (n=27)	(in ³) 324	—	324
ϕ	(K/ft.) .672	.822	.672
$M\ell$	(K) 71.9	158.0	69.6
$s\ell$	(K/ft.) .150	—	.150
$M_{s\ell}$	(K) 18.2	—	20.8
$M\ell$	(K) 201.5	110.9	232.6
M (Imp)	(K) 60.5	32.6	66.8
$s_3(M\ell + I)$	(K) 436.7	239.2	499.0
M_0	(K) 684.8	516.4	766.2
M_u	(K) 1020	—	1020
$fs\ell$ (non-comp)	(k.s.i.) 3.67	8.46	3.54
$fs\ell$ (comp)	(k.s.i.) 0.67	—	0.77
$fs\ell_3(M\ell + I)$	(k.s.i.) 14.68	12.81	16.77
fs (Overload)	(k.s.i.) 19.0	21.3	21.1
fs (Total)	(k.s.i.) —	27.7	—
VR	(K) 45.9	—	48.7

	Abuts.	Piers
$R\ell$	(K) 12.2	40.4
$R\ell$	(K) 32.6	39.4
Imp	(K) 9.8	11.6
R (Total)	(K) 54.6	91.4

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing fs (Total) & fs (Overload)

I_c and S_c are the moment of inertia and section modulus of the composite section used in computing fs (Total) & fs (Overload).

VR is the maximum live load + impact shear range in span.
 M_a (Applied Moment) = $1.3 [M\ell + Ms\ell + \frac{1}{3}(M\ell + I)]$.

fs (Overload) is the sum of the stresses due to $M\ell + Ms\ell + \frac{1}{3}(M\ell + I)$.

fs (Total) is the sum of the stresses due to $1.3 [M\ell + Ms\ell + \frac{1}{3}(M\ell + I)]$.

$M\ell$ - Moment due to dead load on non-composite section.

$Ms\ell$ - Moment due to dead load on composite section.

$M\ell$ - Moment due to live load on non-composite section or composite section.

I - Live load impact.

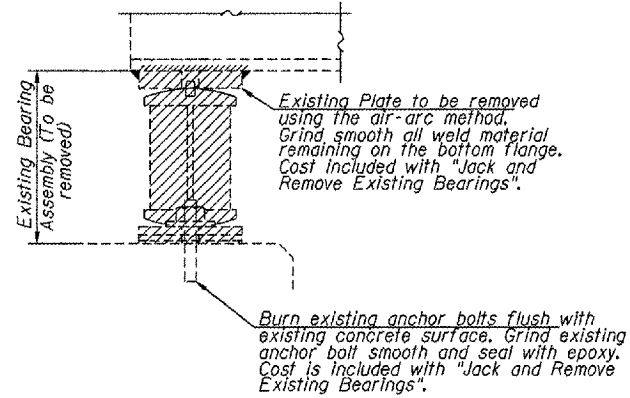
DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

STRUCTURAL STEEL DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

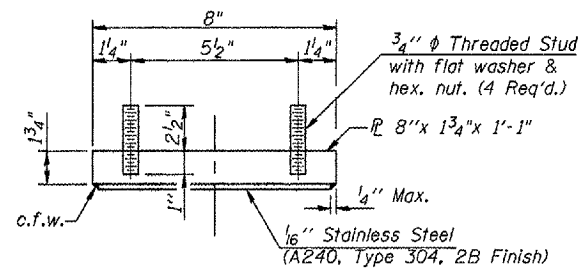
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	20
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

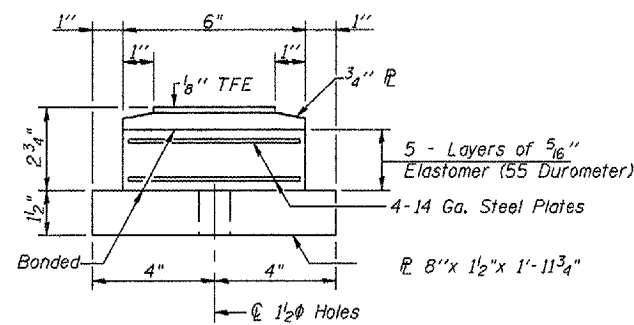
SHEET NO. 9
OF 18 SHEETS



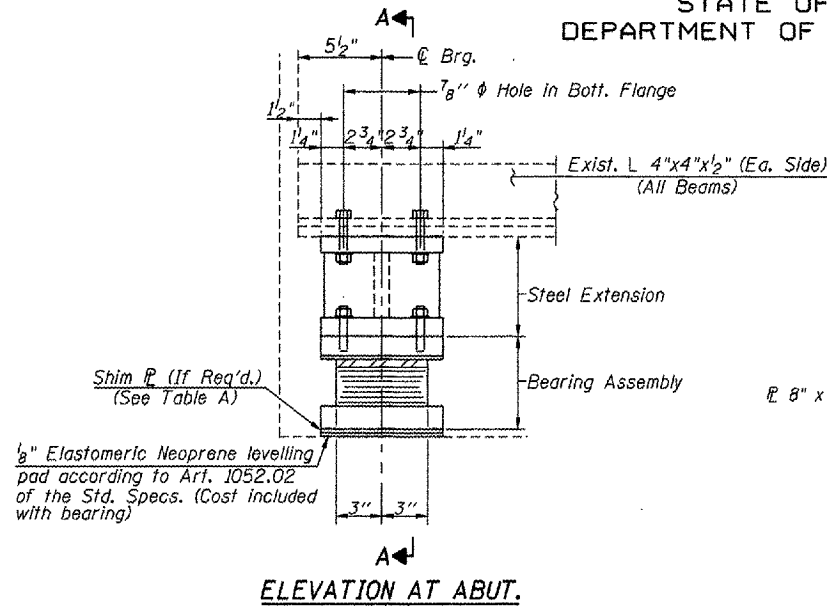
EXISTING BEARING REMOVAL DETAIL



TOP BEARING ASSEMBLY

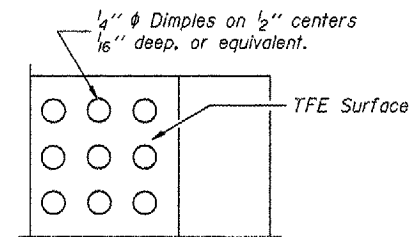


BOTTOM BEARING ASSEMBLY

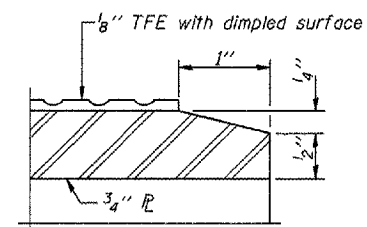


ELEVATION AT ABUT.

TYPE II ELASTOMERIC EXP. BRG.



PLAN-TFE SURFACE

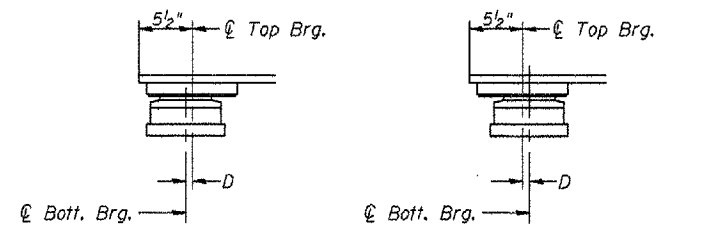


SECTION THRU TFE

Notes:

The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.



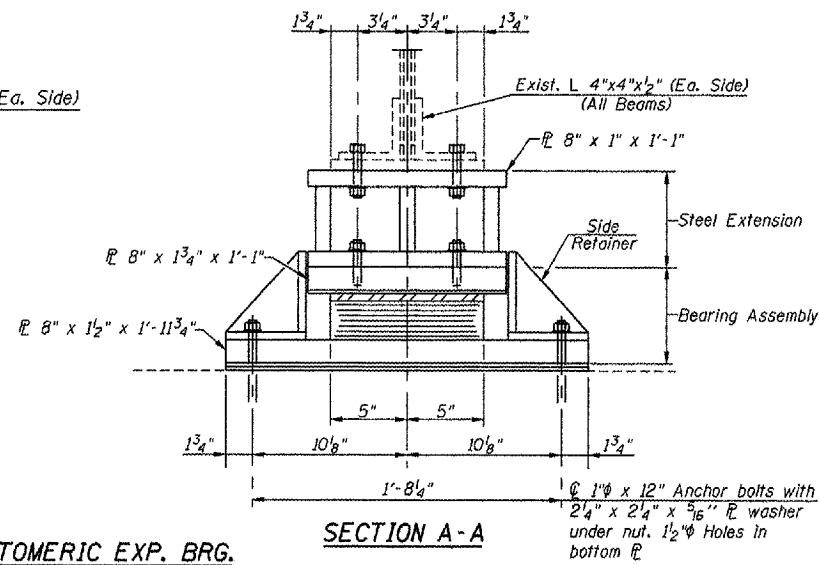
BELOW 50°F.

ABOVE 50°F.

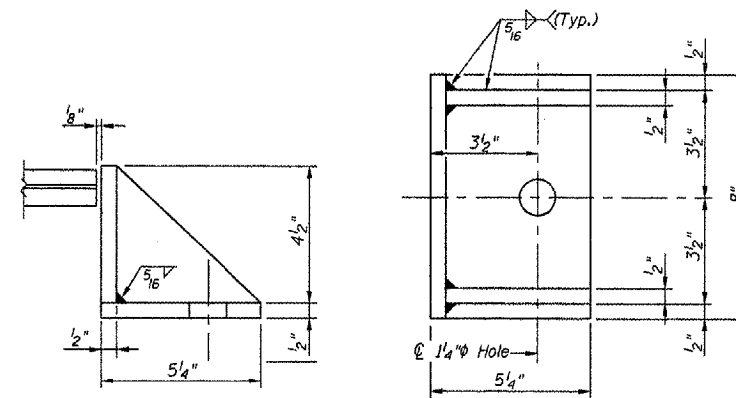
(Move bott. brg. away from fixed brg.) (Move bott. brg. toward fixed brg.)

SETTING ANCHOR BOLTS AT EXP. BRG.

D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

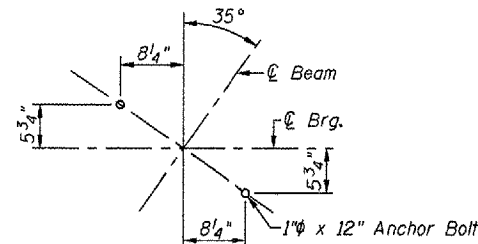


SECTION A-A



SIDE RETAINER

Weight included with Structural Steel.



ANCHOR BOLT SETTING DETAIL
(SOUTH ABUTMENT)

TABLE A

(Shim Plate Thickness)

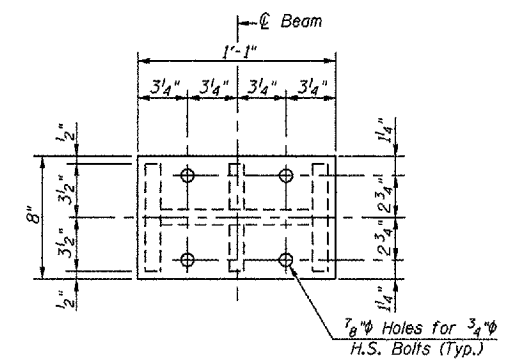
Beam No.	1	2	3	4	5	6
S. Abutment	0"	1/8"	0"	1/8"	1/4"	7/16"

* Thicknesses shown are from existing plans. Contractor shall field verify prior to ordering material.

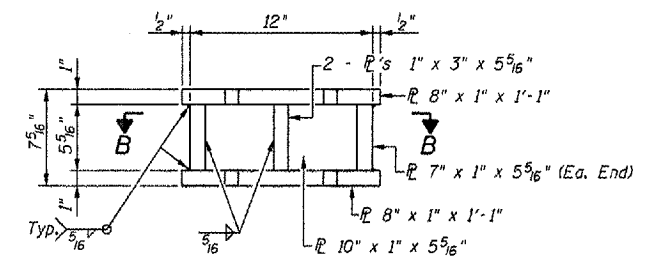
Notes:

For anchor bolt installation details, see Sheet 11 of 18. See Sheet 10 of 18 for Jack and Remove Existing Bearings procedure.

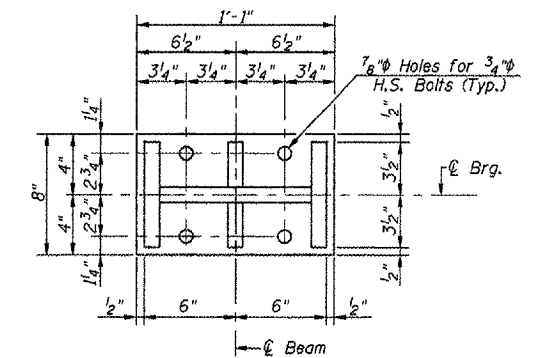
All dimensions are at right angles unless noted otherwise. Anchor bolts, side retainers, shim plates and steel extensions are included with "Furnishing and Erecting Structural Steel".



PLAN - TOP PLATE



STEEL EXTENSION AT NORTH ABUTMENT



SECTION B-B

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	960

BEARING DETAILS - SOUTH ABUTMENT

IL. ROUTE 29 OVER CRANE CREEK

F.A.P. ROUTE 656 - SECTION (11)

TAZEWELL COUNTY

STA. 166+53.50

S.N. 090-0053

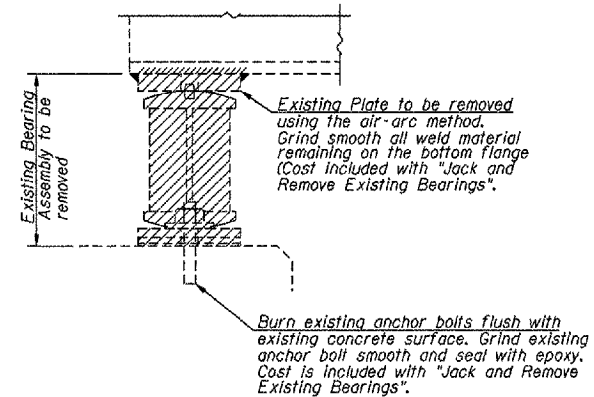
DESIGNED - MAH
CHECKED - APH
DRAWN - JRP
CHECKED - MAH

I-2-E2 10-31-02

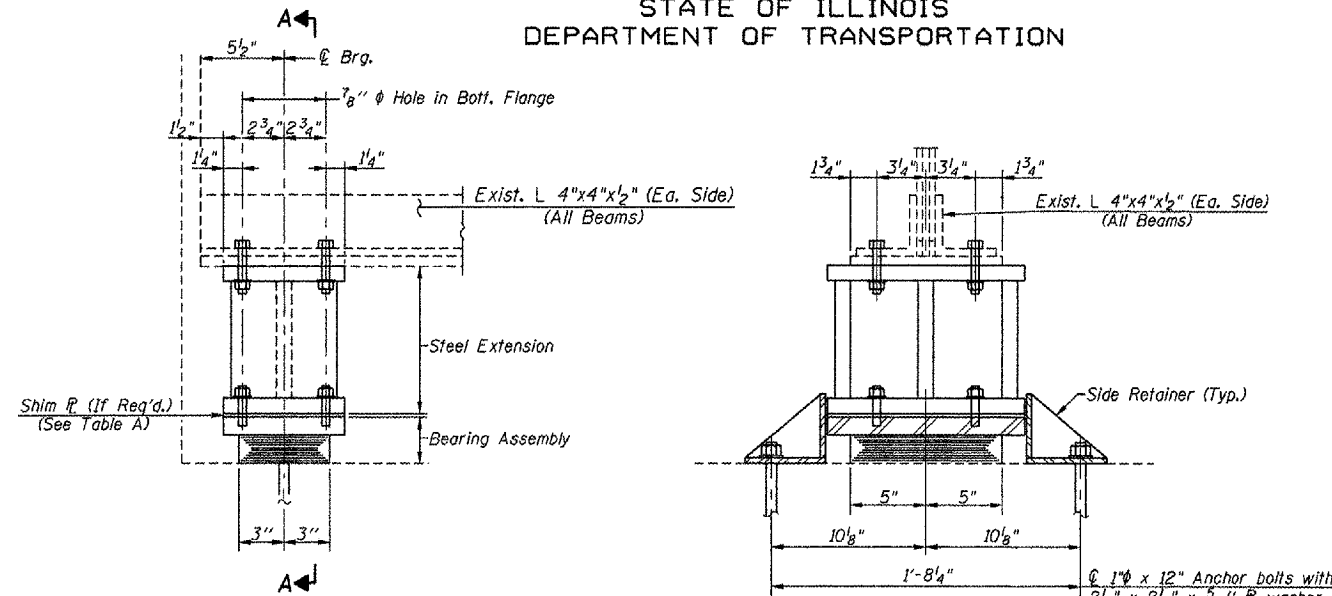
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(II)	TAZEWELL	32	21
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

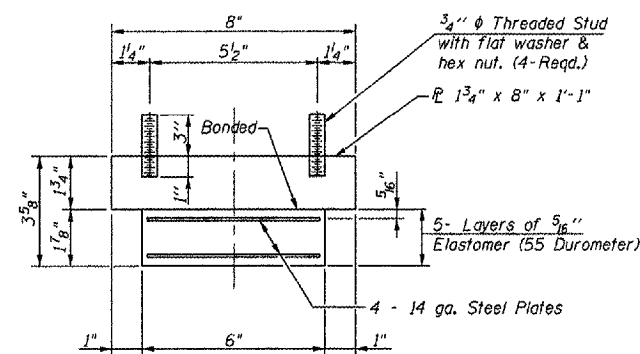
SHEET NO. 10
OF 18 SHEETS



EXISTING BEARING REMOVAL DETAIL



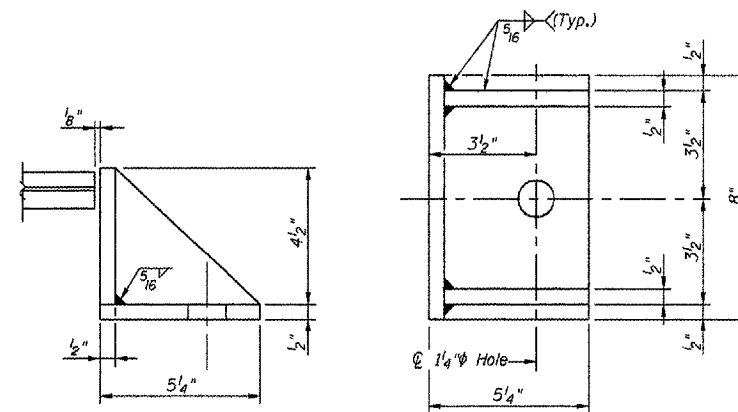
TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

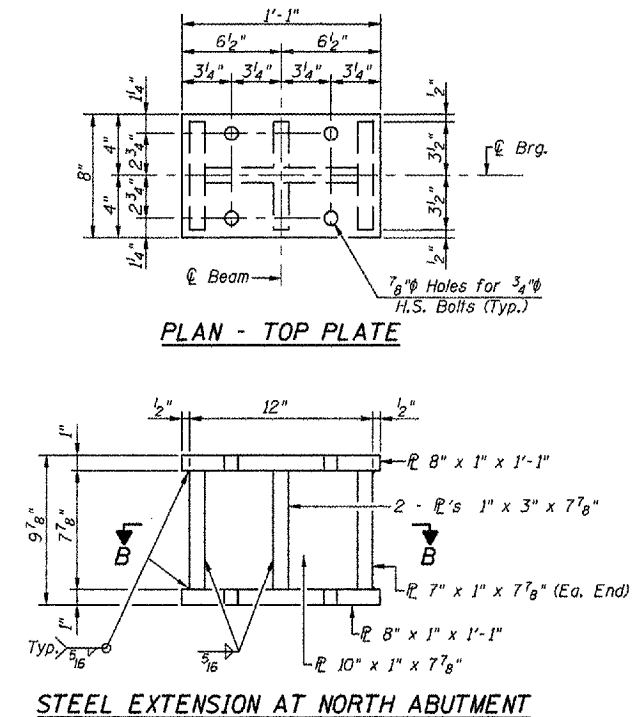
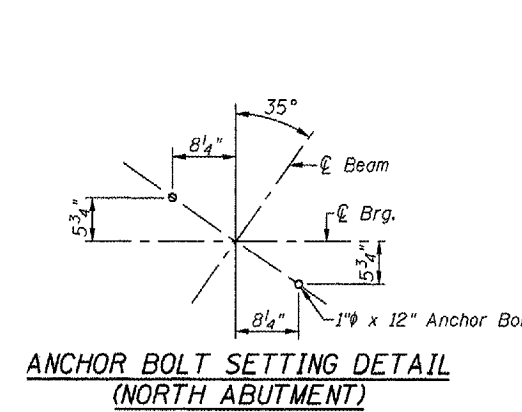
Note: Shim plates shall not be placed under Bearing Assembly.

All dimensions are at right angles unless noted otherwise.



Weight included with Structural Steel.

Note: See sheet 11 of 18 for Anchor Bolt installation.



SECTION B-B

JACK AND REMOVE EXISTING BEARING PROCEDURE (PER STAGE)

- The contractor shall submit plans for jacking to the Engineer for approval prior to commencing any work at the bearings.
- Jacking and removing existing bearings shall be done after deck removal is completed and before the new deck is poured.
- All beams at one abutment in each stage of construction shall be jacked simultaneously.
- Raising of the existing beams at the abutments shall be limited to the minimum height required for the removal of the bearings. Raising of the beams shall be accomplished by the use of a jack or series of jacks. The maximum reaction at each beam with the deck removed is 2 kips. The minimum jack capacity for each beam is 1.5 tons at the abutments.
- Remove the existing anchor bolts flush with the concrete bearing seat and grind smooth and seal with epoxy. The existing bottom plate, rockers and top plate shall be removed. Grind smooth all weld material remaining on the bottom flange.
- The new bearings with steel extensions are to match the existing bearing assembly heights.
- The new bearings and steel extensions shall be installed and the jacks shall be lowered before the new deck is poured.

DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

I-2-E1 10-31-02

TABLE A
(Shim Plate Thickness)

Beam No.	1	2	3	4	5	6
N. Abutment	5/8"	1/2"	3/8"	0"	0"	0"

* Thicknesses shown are from existing plans. Contractor shall field verify prior to ordering material.

Notes:

For anchor bolt installation details, see sheet 11 of 18. Shim plates shall not be placed under Bearing Assembly. All dimensions are at right angles unless noted otherwise. Anchor bolts, side retainers, shim plates and steel extensions are included with "Furnishing and Erecting Structural Steel".

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	1070

BEARING DETAILS - NORTH ABUTMENT
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (II)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

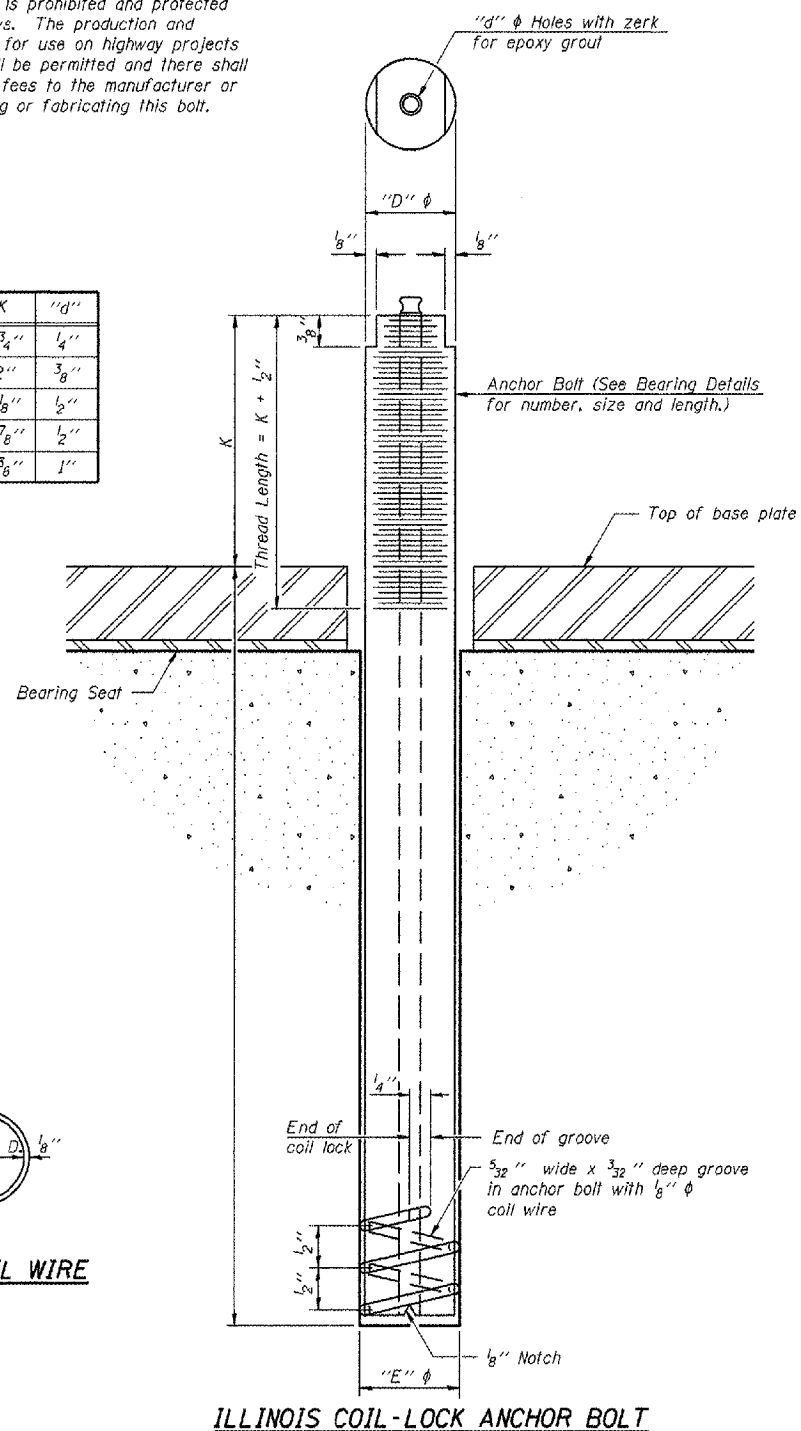
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	22
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 68024				

SHEET NO. 11
OF 18 SHEETS

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 3/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
The coil wire shall be made of any suitable soft steel wire.
The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

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	Type
N. Abut.	A307
S. Abut.	A307

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.

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 Furnishing and Erecting Structural Steel.

PLAN-COIL WIRE

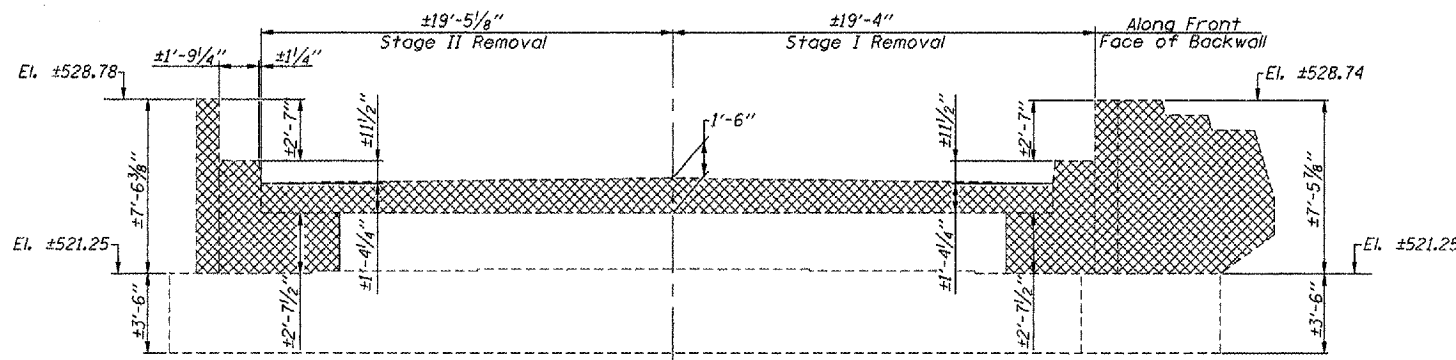
ILLINOIS COIL-LOCK ANCHOR BOLT

ANCHOR BOLT DETAILS
FOR BEARINGS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

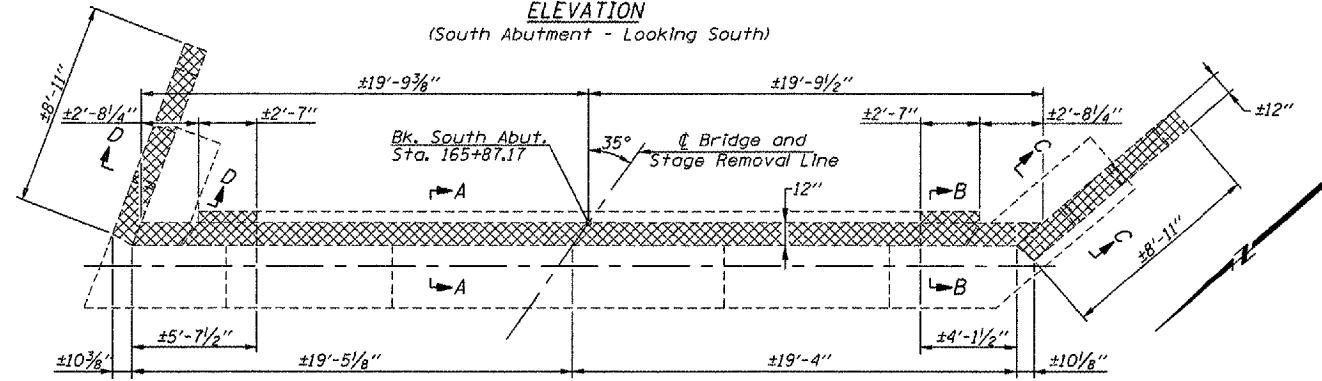
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(1)	TAZEWELL	32	23
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

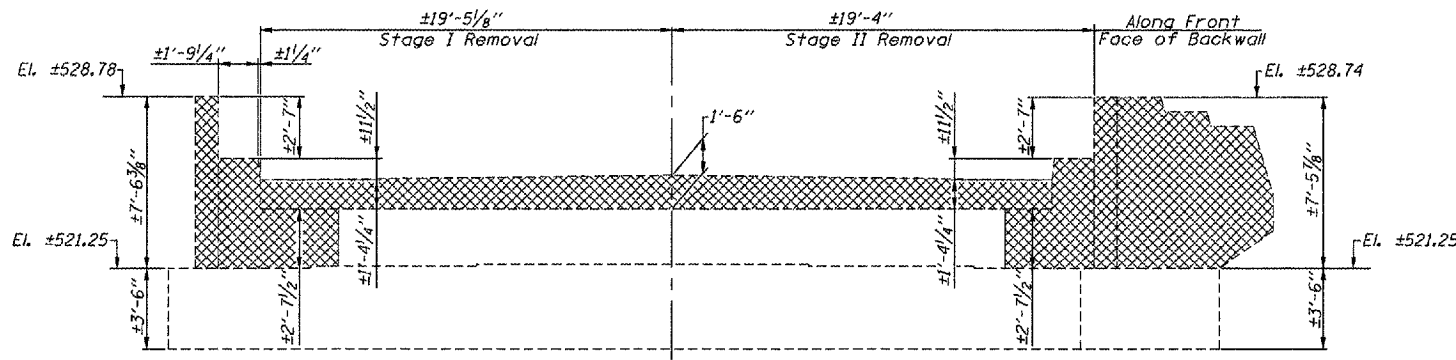
SHEET NO. 12
OF 18 SHEETS



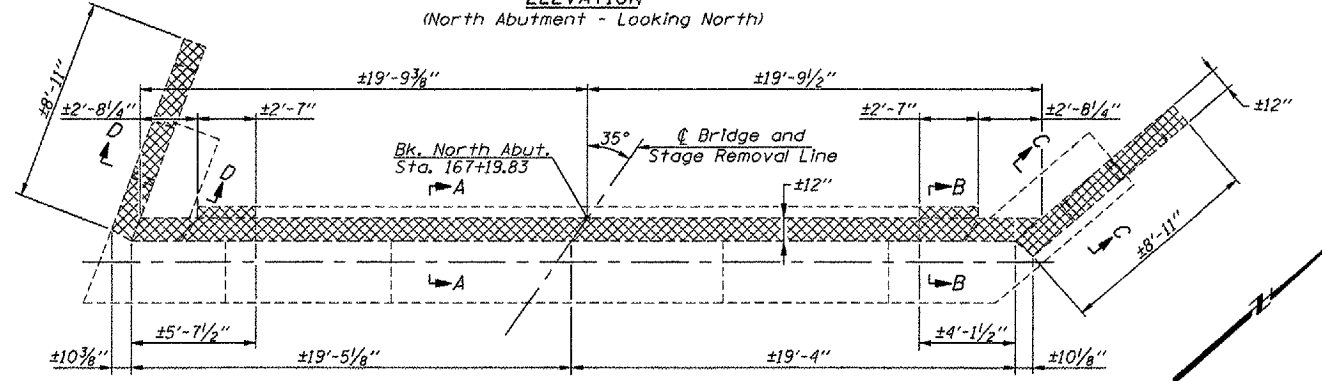
ELEVATION
(South Abutment - Looking South)



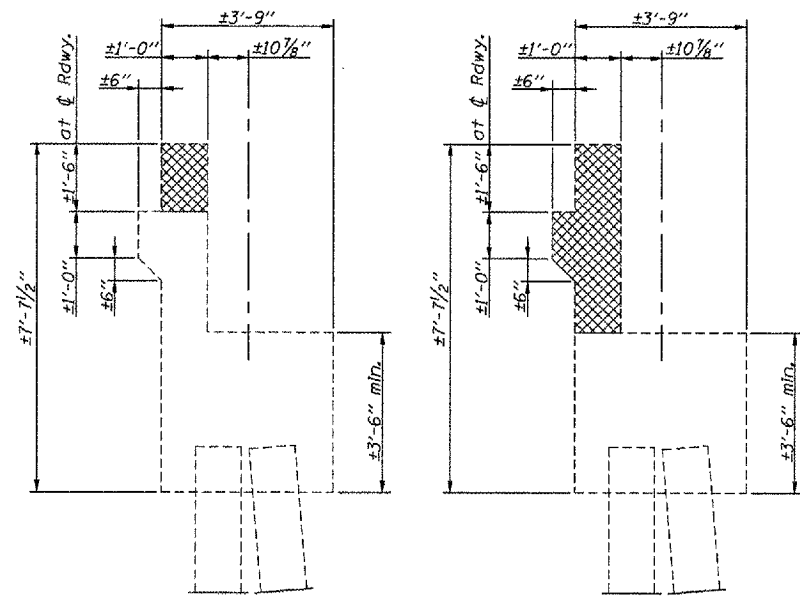
PLAN
(South Abutment)



ELEVATION
(North Abutment - Looking North)

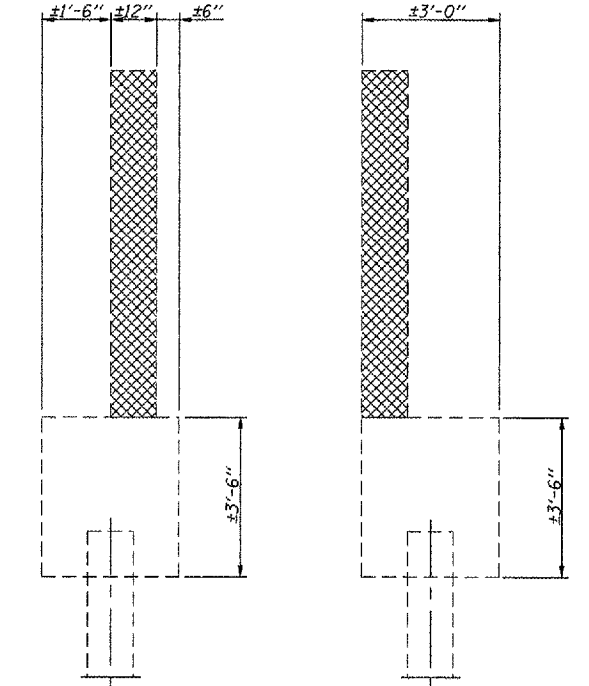


PLAN
(North Abutment)



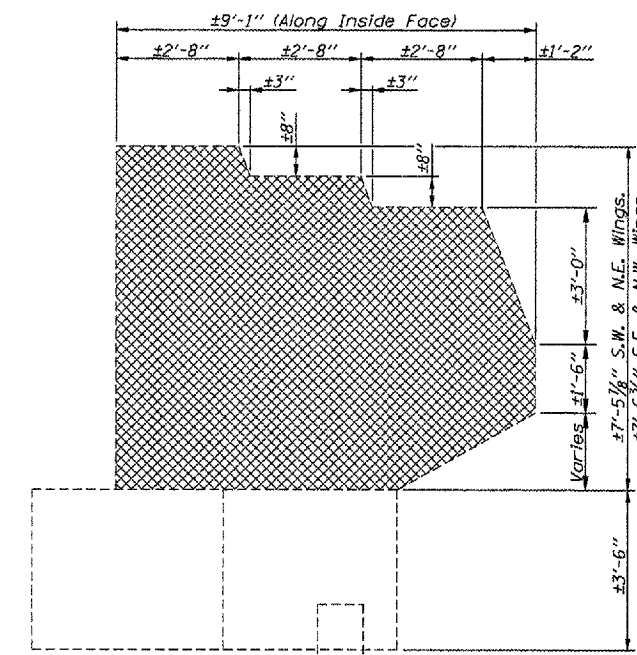
SECTION A-A

SECTION B-B



SECTION C-C

SECTION D-D



WINGWALL ELEVATION

BILL OF MATERIAL
TWO ABUTMENTS

Item	Unit	Total
Concrete Removal	Cu. Yd.	13.8

Notes:
Cross Hatched areas indicate "Concrete Removal".
Existing reinforcement extending into new concrete shall be cleaned, straightened, and incorporated into new construction. Cost included with "Concrete Removal".

DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

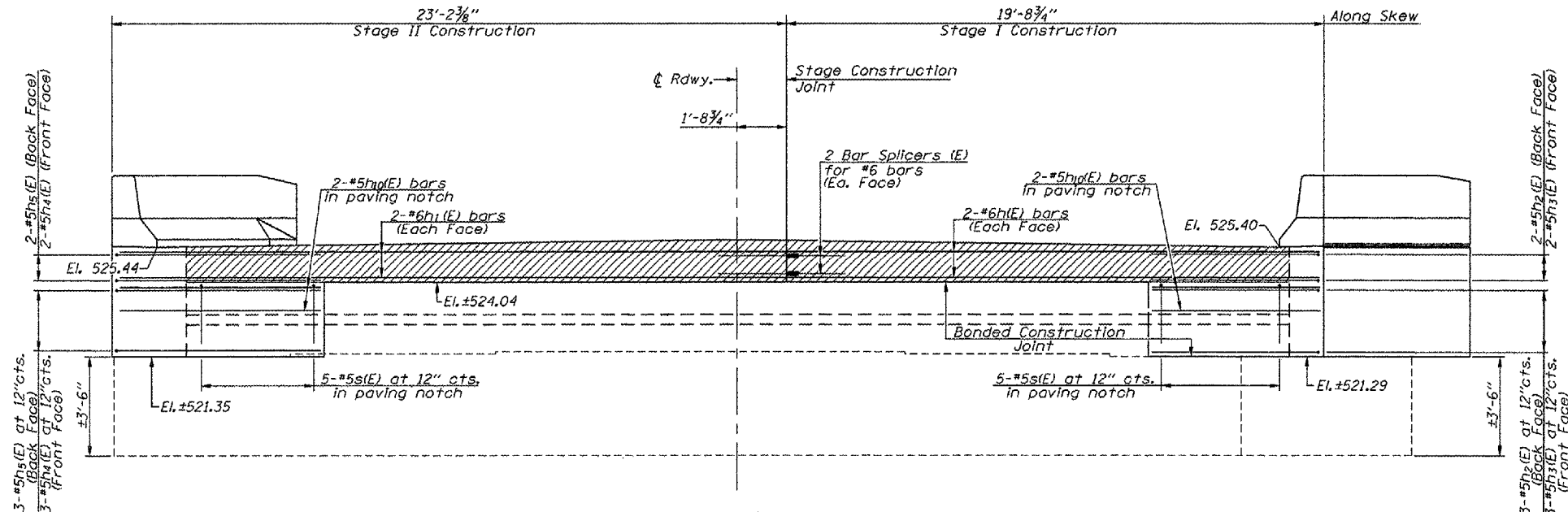
ABUTMENT CONCRETE REMOVAL DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (1)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

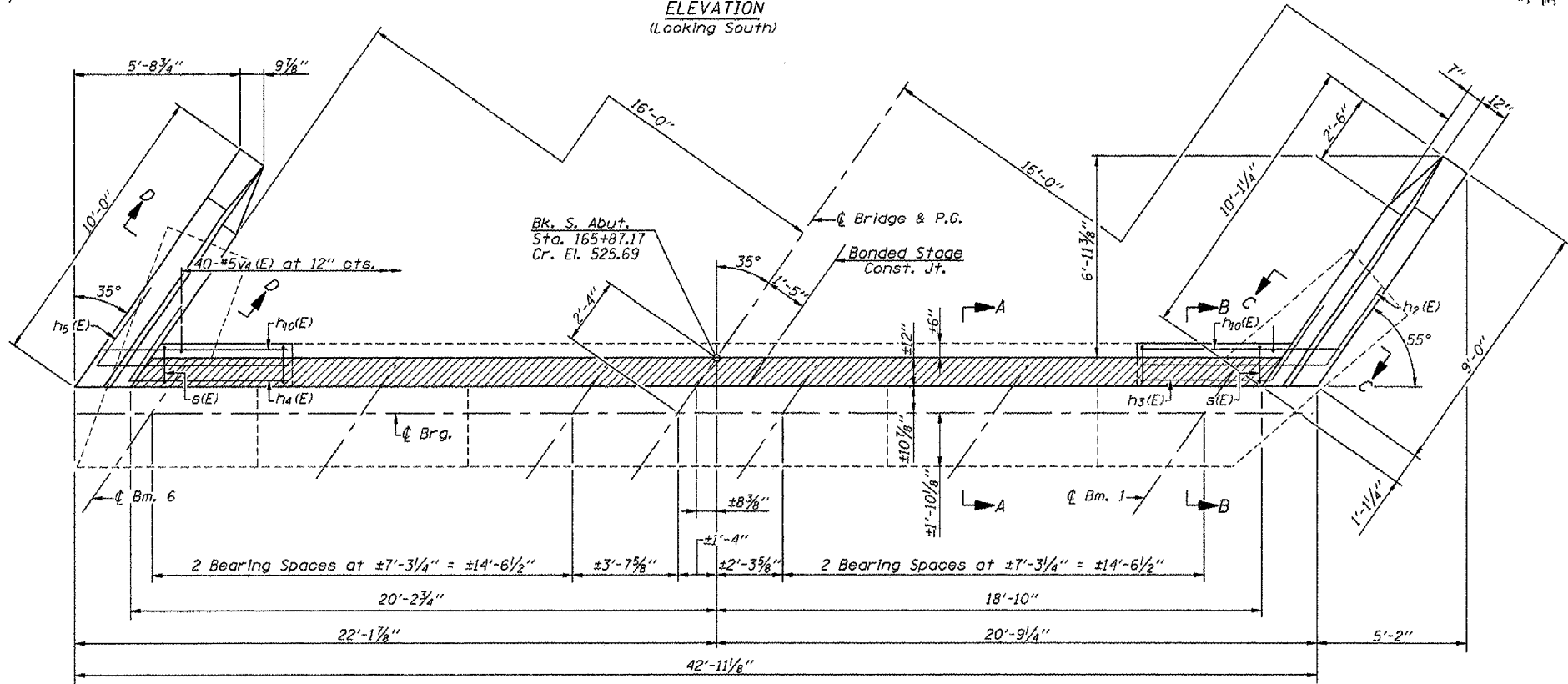
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	24
FED. ROAD DIST. NO. 4	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 68024

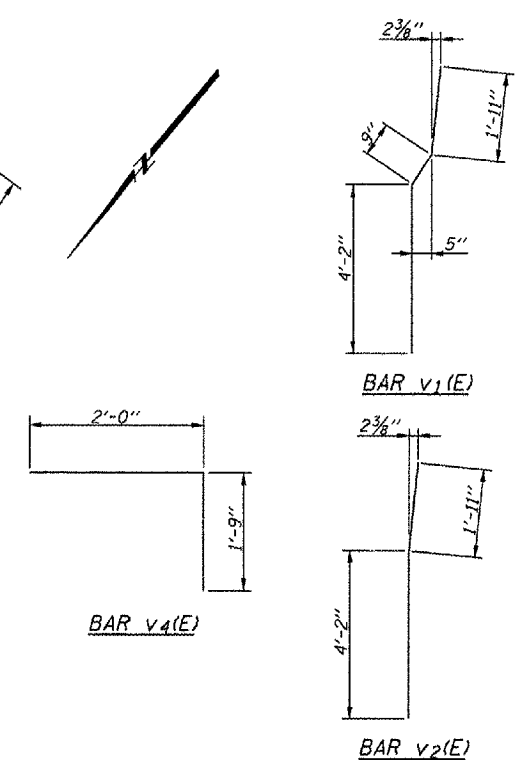
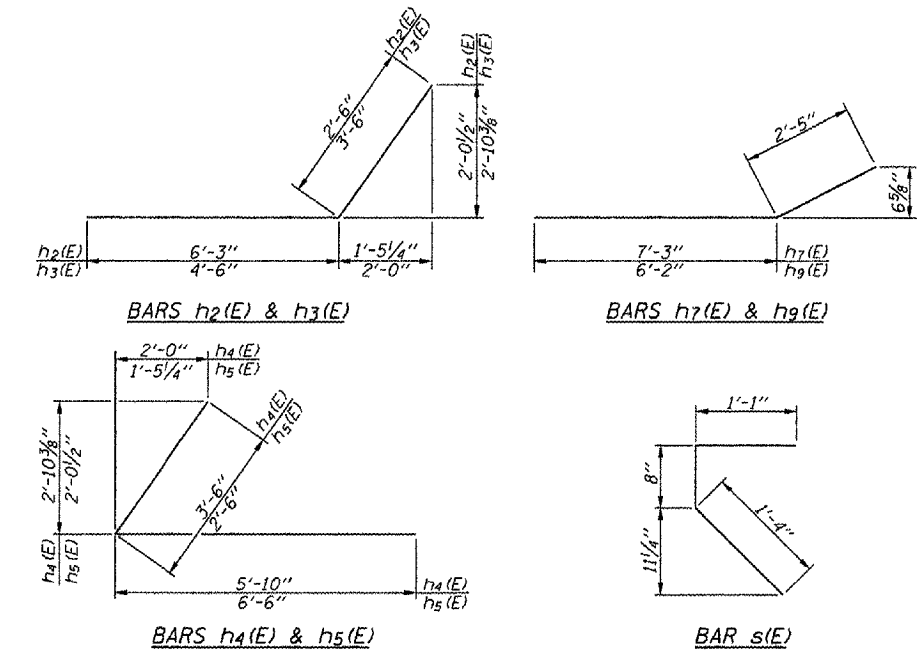
SHEET NO. 13
OF 18 SHEETS



ELEVATION
(Looking South)



PLAN



SOUTH ABUTMENT
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#6	19'-4"	—
h1(E)	4	#6	22'-10"	—
h2(E)	5	#5	8'-9"	—
h3(E)	5	#5	8'-0"	—
h4(E)	5	#5	9'-4"	—
h5(E)	5	#5	9'-0"	—
h6(E)	8	#4	8'-8"	—
h7(E)	6	#4	9'-8"	—
h8(E)	8	#4	9'-8"	—
h9(E)	6	#4	8'-7"	—
h10(E)	4	#5	6'-4"	—
h11(E)	2	#4	9'-3"	—
h12(E)	2	#4	9'-1"	—
s(E)	10	#5	3'-1"	—
v(E)	21	#6	6'-4"	—
v1(E)	15	#6	6'-10"	—
v2(E)	6	#6	6'-1"	—
v3(E)	20	#6	4'-0"	—
v4(E)	40	#5	3'-9"	—
Structure Excavation		Cu.Yd.	22	
Concrete Structures		Cu.Yd.	5.8	
Reinforcement Bars, Epoxy Coated		Pound	1375	
Bar Splicers		Each	4	

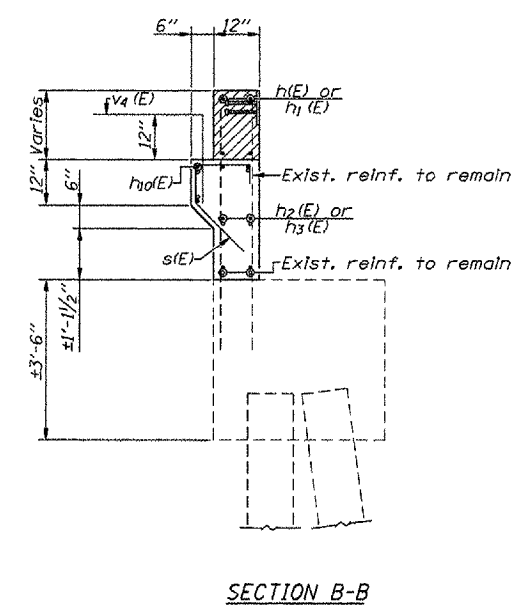
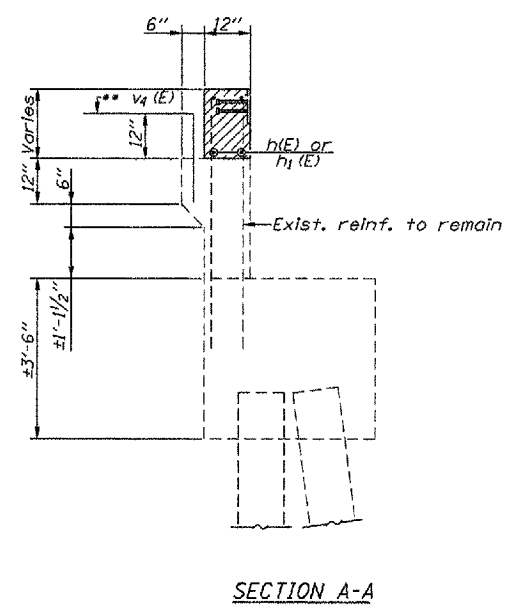
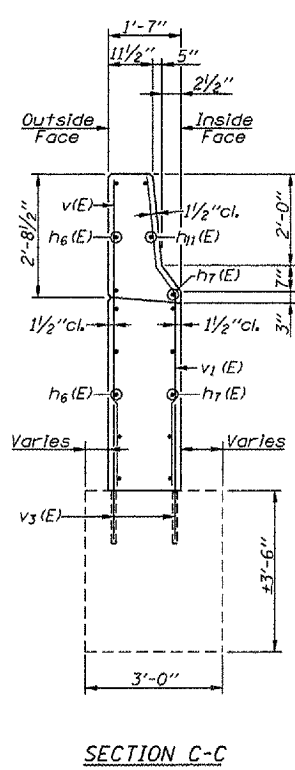
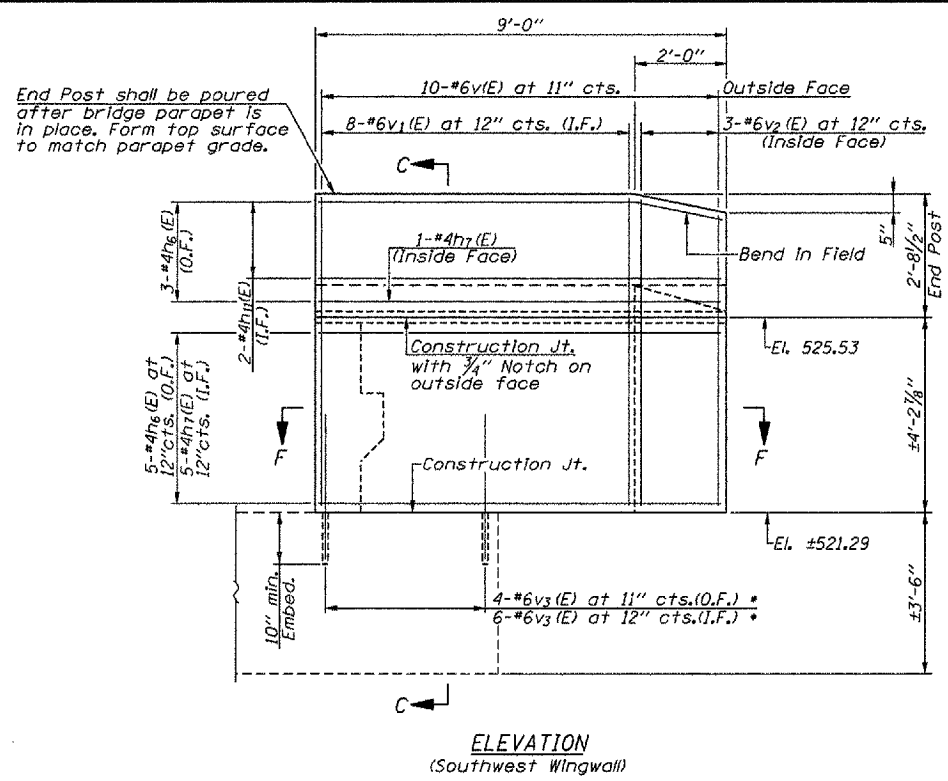
Notes:
Hatched area to be poured after superstructure forms have been removed.
Quantity of concrete for hatched area and end post is included in "Concrete Superstructure" on Sheet 6 of 18.
Existing reinforcement extending into the removed area and extending into the proposed construction shall be cleaned, straightened and incorporated into the new construction.
Existing reinforcement extending into the removed area and not into the proposed construction shall be cut off flush with the existing concrete surface and sealed with epoxy. Cost included with "Concrete Removal".
Reinforcement bars designated (E) shall be epoxy coated.
For anchor bolt installation details, see Sheets 9 & 11 of 18.
All edges shall have a 3/4" chamfer except as noted.
Work this sheet with Sheet 14 of 18.

DESIGNED - MAH
CHECKED - APH
DRAWN - JRP
CHECKED - MAH

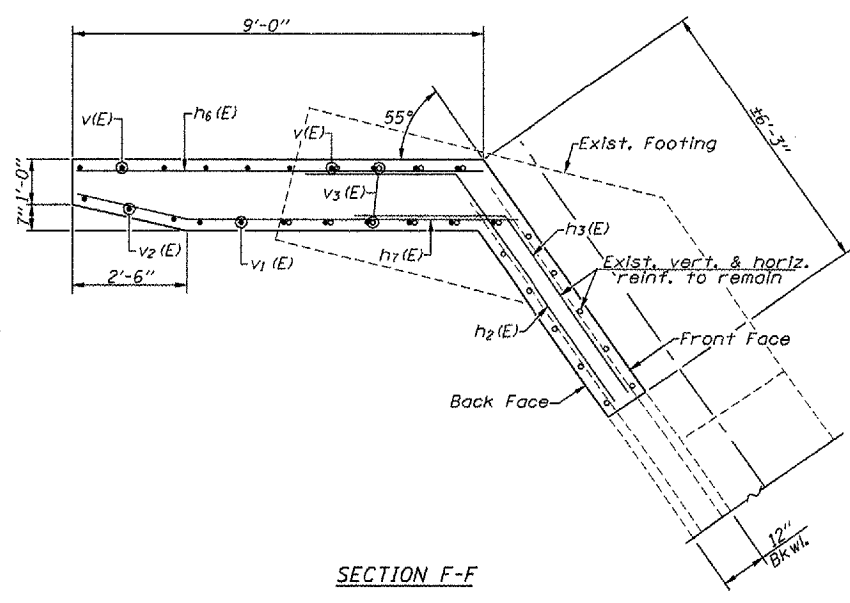
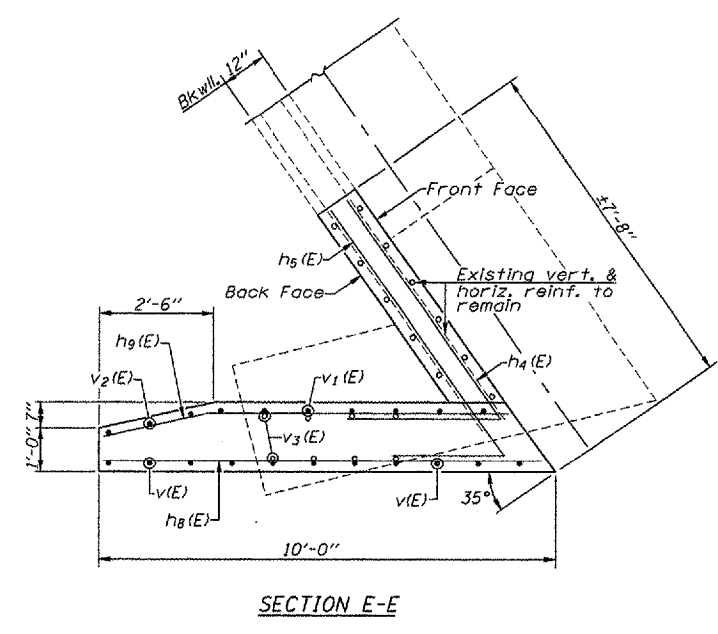
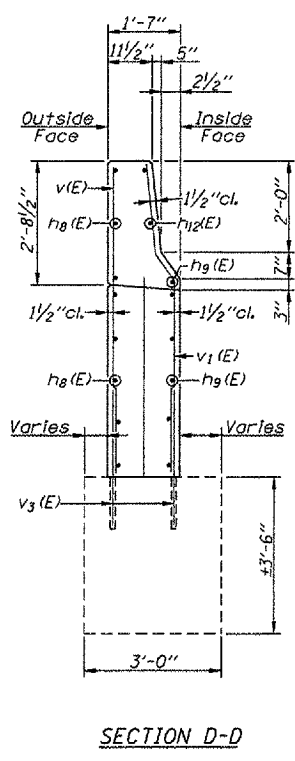
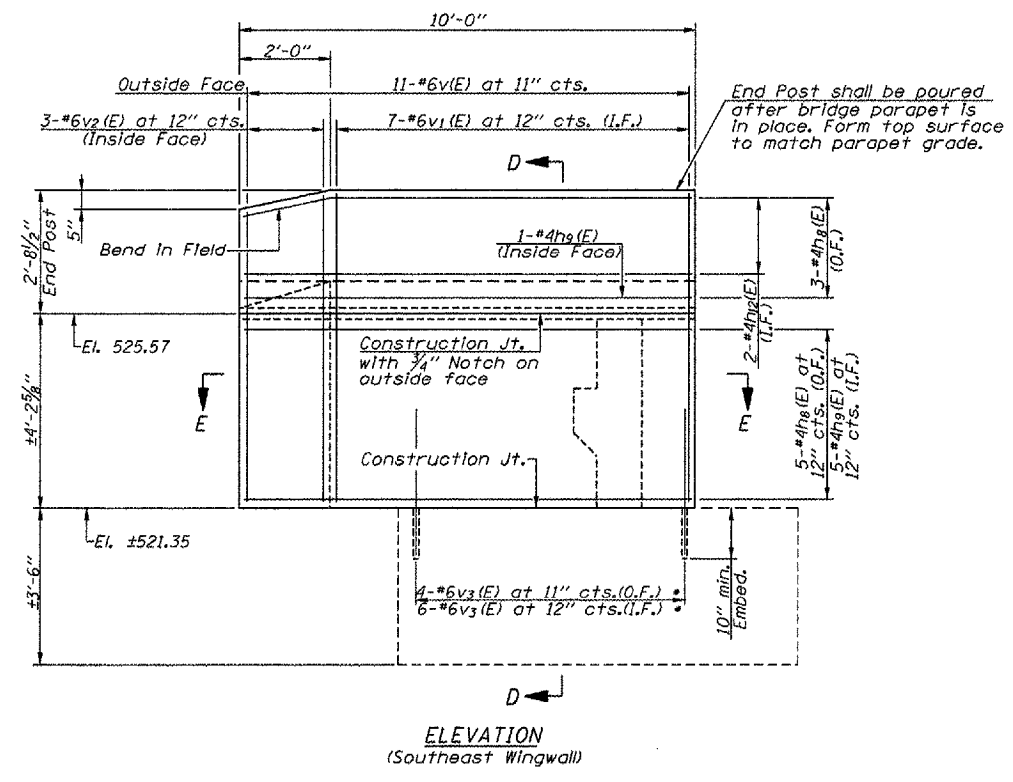
SOUTH ABUTMENT
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	25
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 14
OF 18 SHEETS



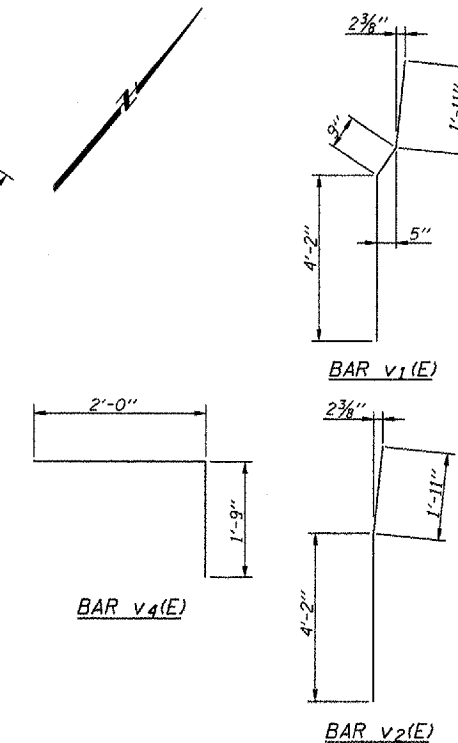
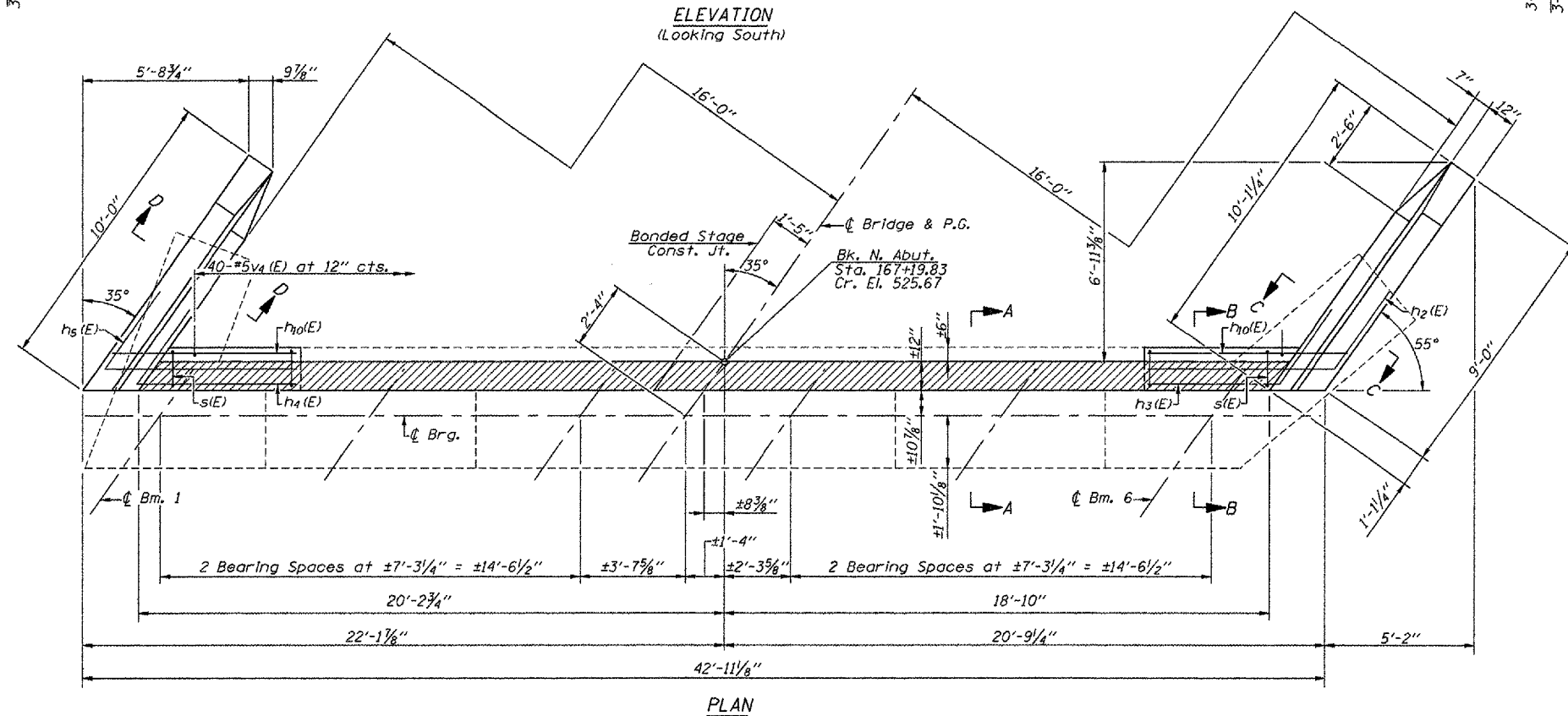
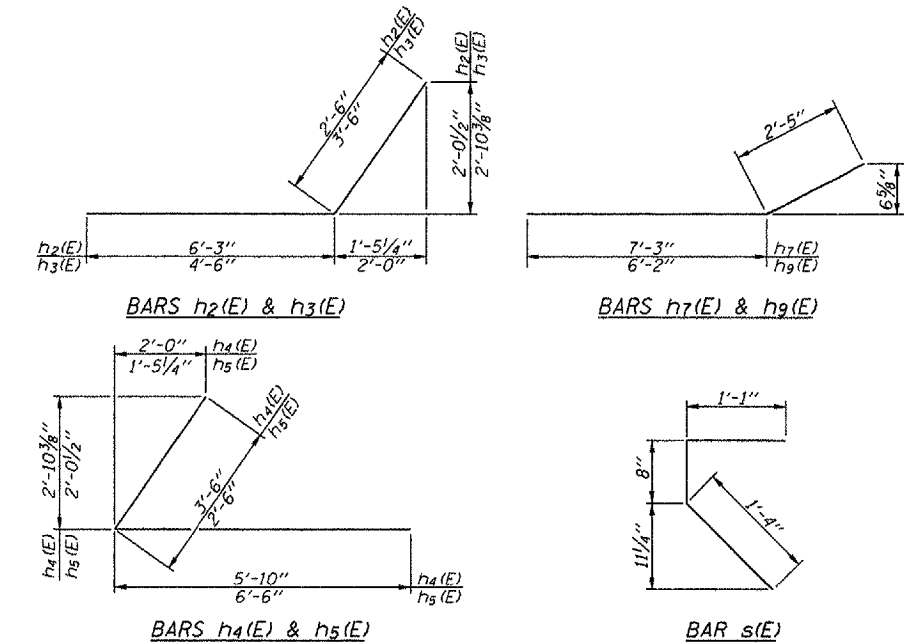
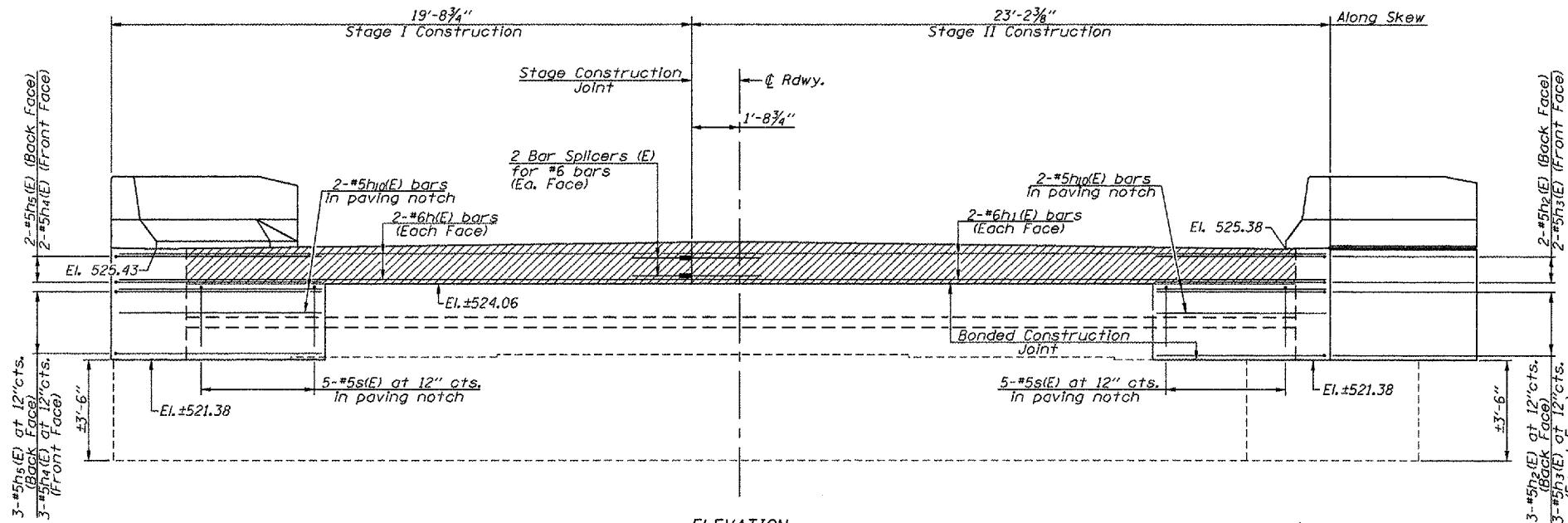
** Epoxy grout #5v4(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.



* Drill and epoxy grout v3(E) bars into existing footing according to Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.

DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

SOUTH ABUTMENT DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053



**NORTH ABUTMENT
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h1(E)	4	#6	19'-4"	—
h2(E)	4	#6	22'-10"	—
h3(E)	5	#5	8'-9"	—
h4(E)	5	#5	9'-4"	—
h5(E)	5	#5	9'-0"	—
h6(E)	8	#4	8'-8"	—
h7(E)	6	#4	9'-8"	—
h8(E)	8	#4	9'-8"	—
h9(E)	6	#4	8'-7"	—
h10(E)	4	#5	6'-4"	—
h11(E)	2	#4	9'-3"	—
h12(E)	2	#4	9'-1"	—
s(E)	10	#5	3'-1"	—
v(E)	21	#6	6'-4"	—
v1(E)	15	#6	6'-10"	—
v2(E)	6	#6	6'-1"	—
v3(E)	20	#6	4'-0"	—
v4(E)	40	#5	3'-9"	—
Structure Excavation		Cu.Yd.	22	
Concrete Structures		Cu.Yd.	5.7	
Reinforcement Bars, Epoxy Coated		Pound	1375	
Bar Splicers		Each	4	

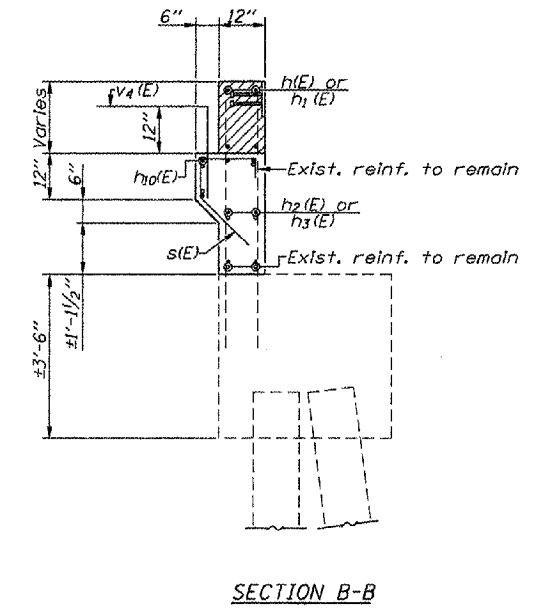
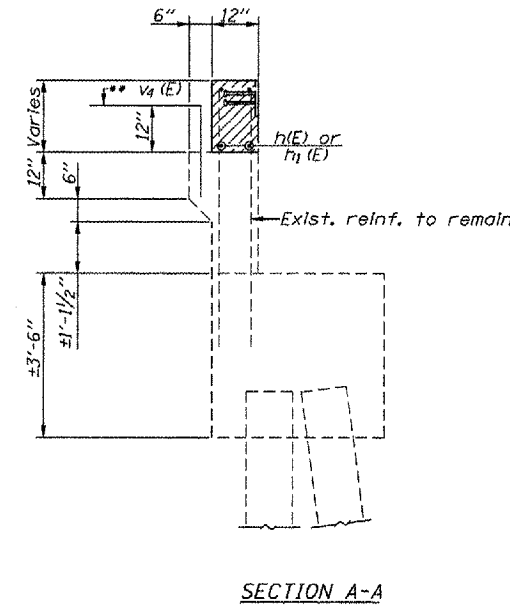
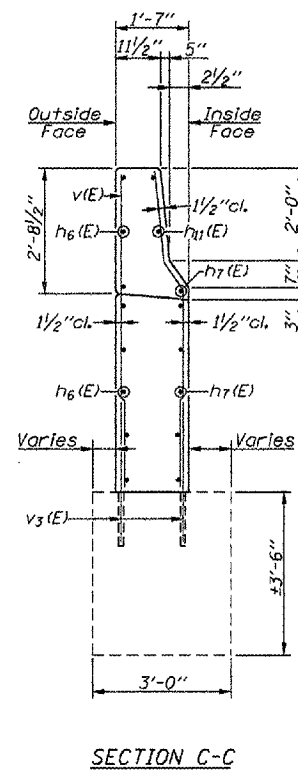
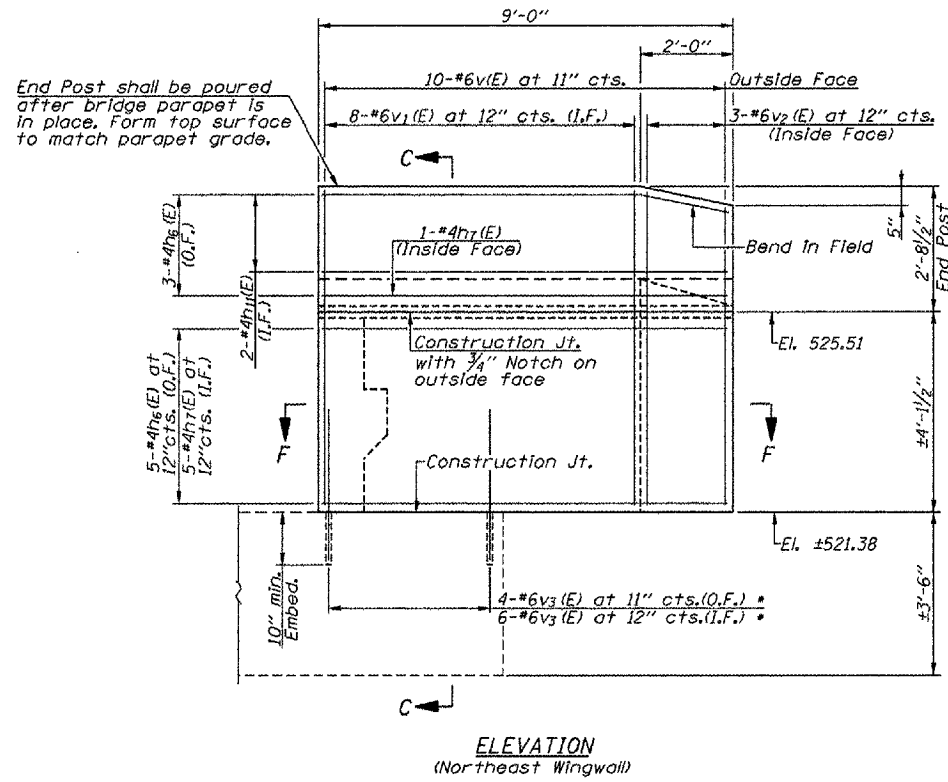
Notes:
Hatched area to be poured after superstructure forms have been removed.
Quantity of concrete for hatched area and end post is included in "Concrete Superstructure" on Sheet 6 of 18.
Existing reinforcement extending into the removed area and extending into the proposed construction shall be cleaned, straightened and incorporated into the new construction.
Existing reinforcement extending into the removed area and not into the proposed construction shall be cut off flush with the existing concrete surface and sealed with epoxy. Cost included with "Concrete Removal".
Reinforcement bars designated (E) shall be epoxy coated.
For anchor bolt installation details, see Sheets 10 & 11 of 18.
All edges shall have a 3/4" chamfer except as noted.
Work this sheet with Sheet 16 of 18.

DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

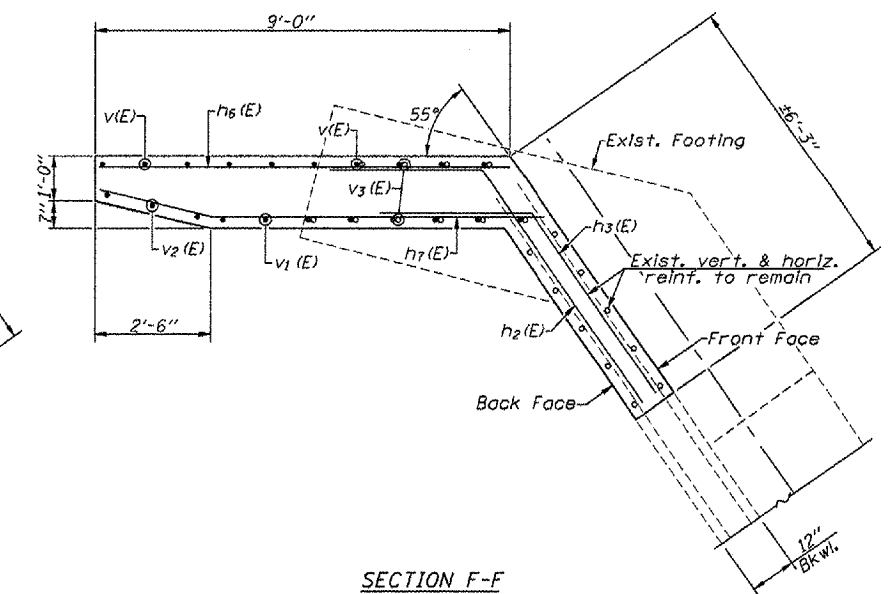
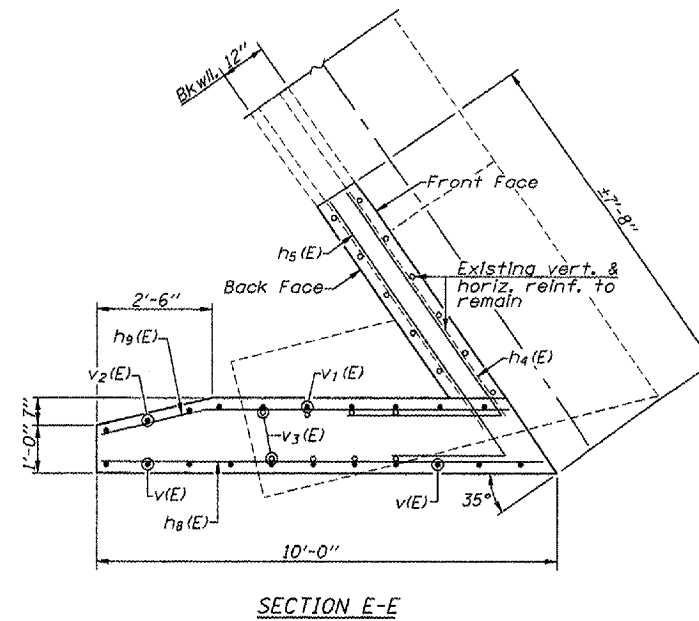
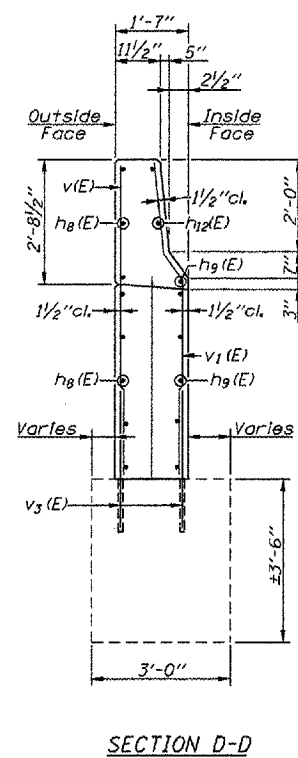
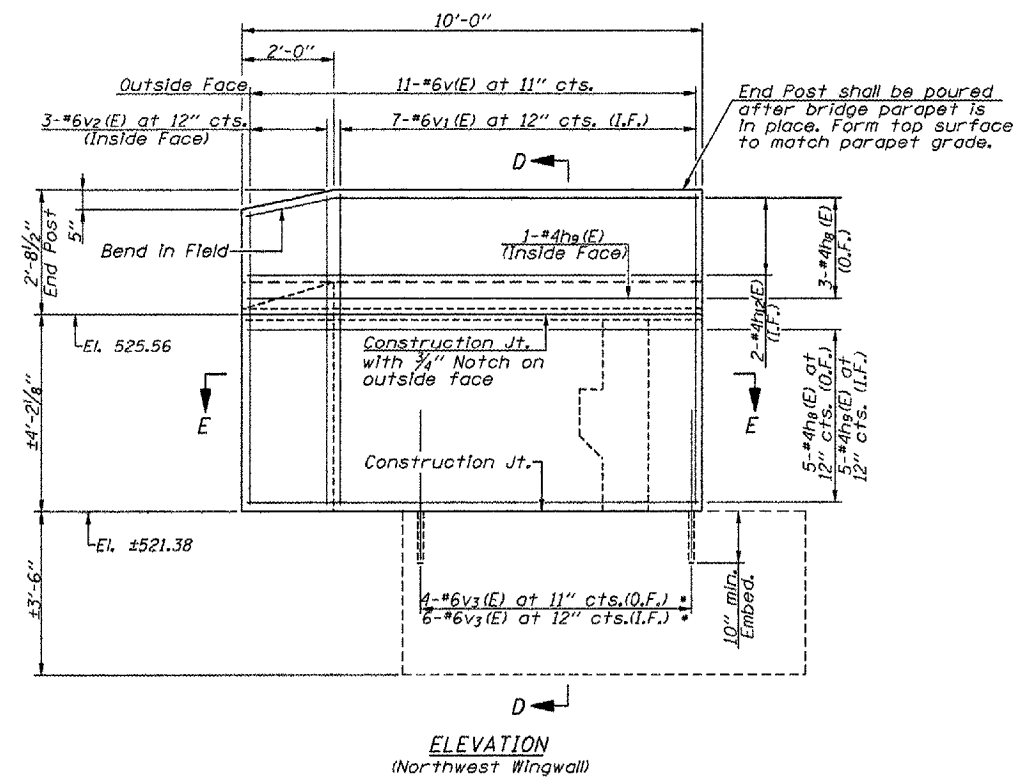
**NORTH ABUTMENT
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(11)	TAZEWELL	32	27
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 16
OF 18 SHEETS



** Epoxy grout #5v₄(E) bars in 9" min. drilled holes according to Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.



DESIGNED	- MAH
CHECKED	- APH
DRAWN	- JRP
CHECKED	- MAH

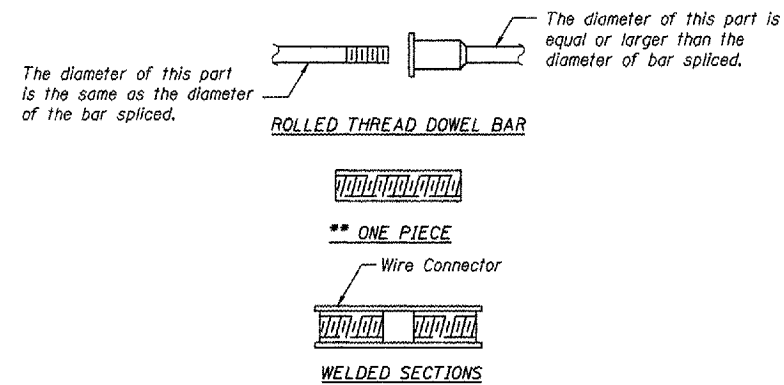
* Drill and epoxy grout v₃(E) bars into existing footing according to Section 584 of the Standard Specifications. Cost included with Reinforcement Bars, Epoxy Coated.

NORTH ABUTMENT DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (11)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

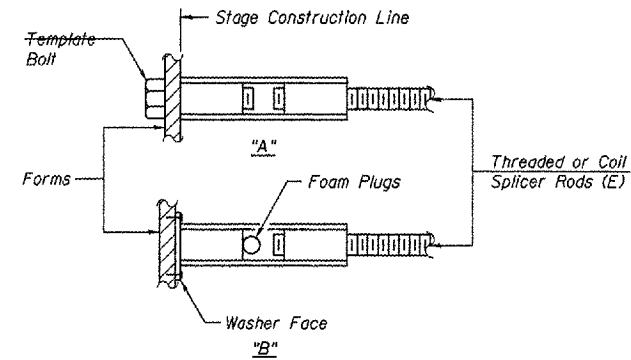
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(I)	TAZEWELL	32	28
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 17
OF 18 SHEETS



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.

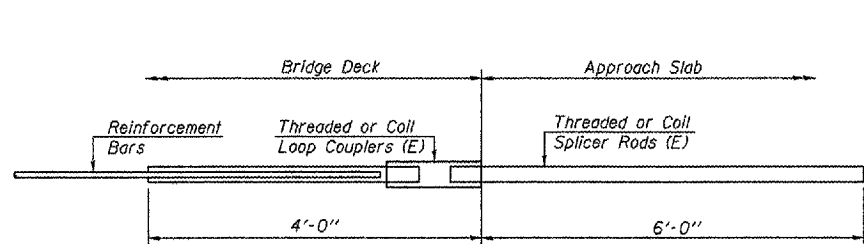
NOTES

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:

- Minimum Capacity = $1.25 \times f_y \times A_s$
(Tension in kips)
- Minimum *Pull-out Strength = $0.66 \times f_y \times A_s$
(Tension in kips)

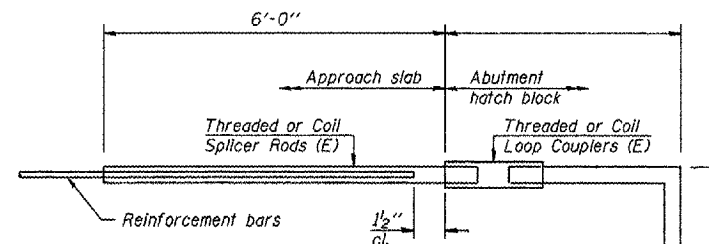
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_s = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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



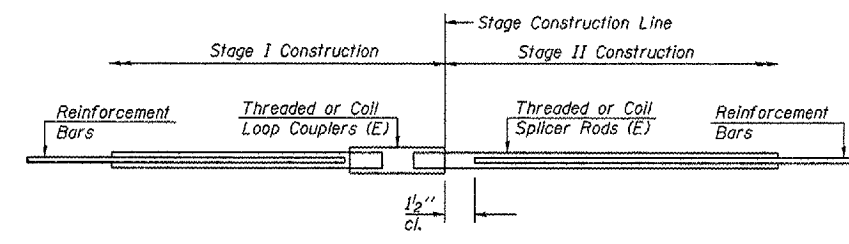
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



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

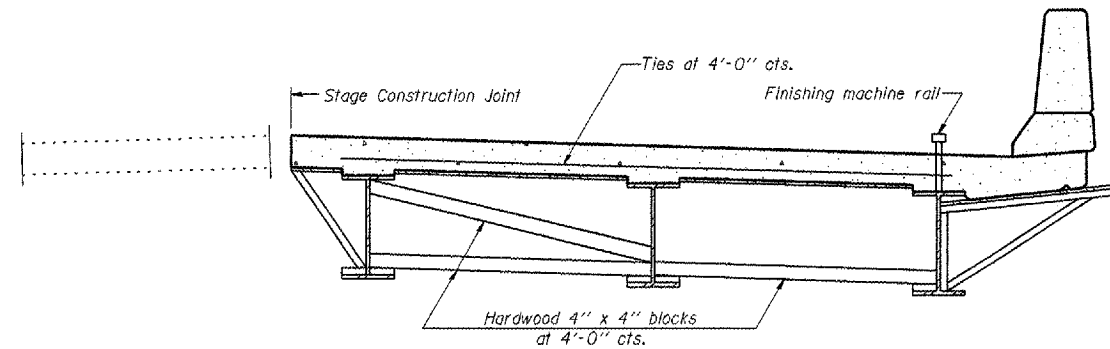
Bar Size	No. Assemblies Required	Location
#5	206	Top of Deck
#5	154	Bot. of Deck
#6	8	Abutment
Total	368	

BAR SPLICER ASSEMBLY DETAILS
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (I)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 656	(D)	TAZEWELL	32	29
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68024				

SHEET NO. 18
OF 18 SHEETS



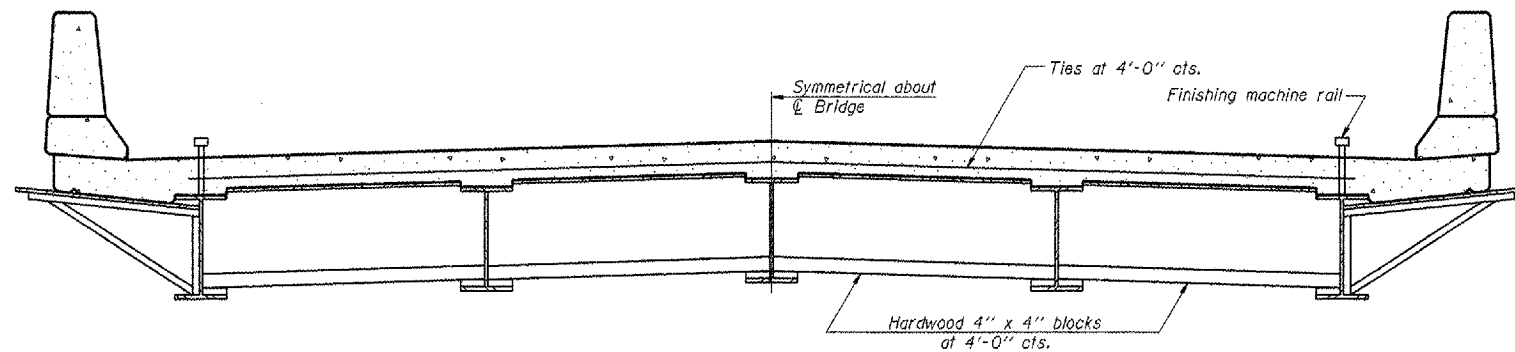
**FORM BRACES FOR
STAGE CONSTRUCTION**

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.



**FORM BRACES FOR
STANDARD CONSTRUCTION**

**CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES WITH
W27 BEAMS AND SMALLER
IL. ROUTE 29 OVER CRANE CREEK
F.A.P. ROUTE 656 - SECTION (D)
TAZEWELL COUNTY
STA. 166+53.50
S.N. 090-0053**

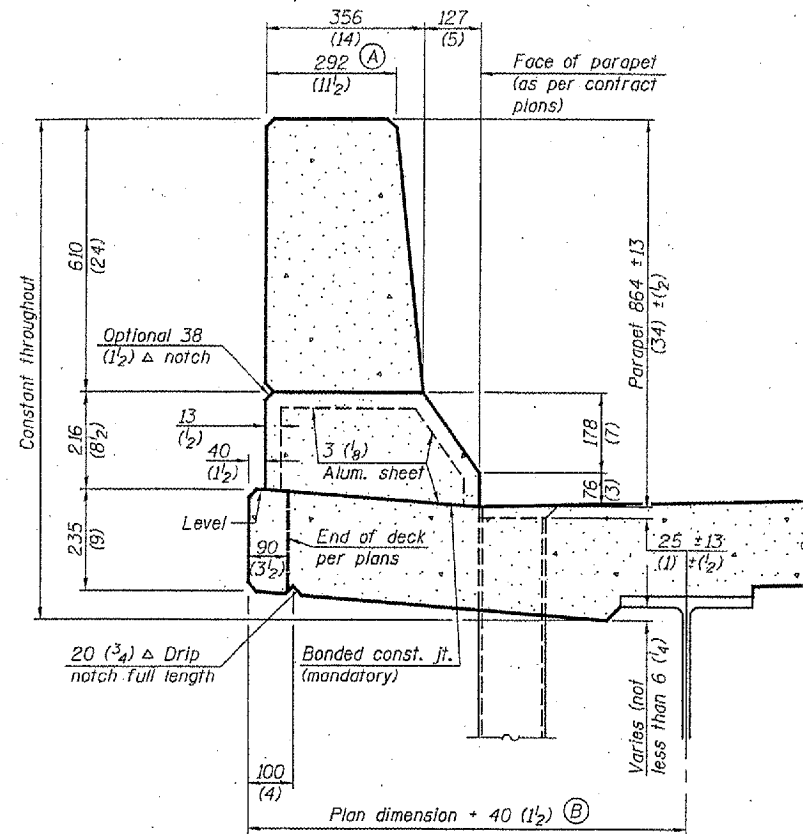
SB-1

11-1-06

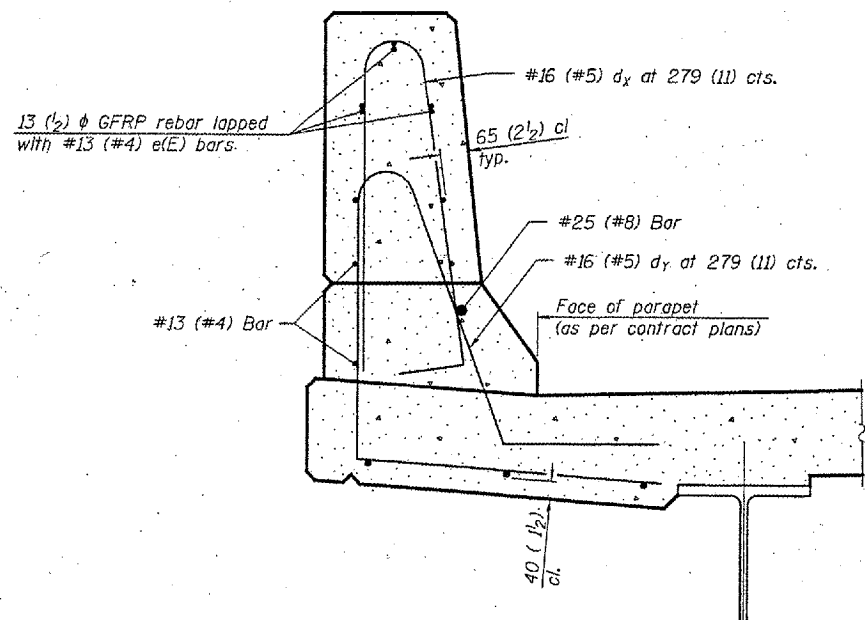
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FAP	SECTION	COUNTY	DISTRICT	SHEET	SHEET NO.	
656	(C)I	TAZEWELL	32	29A		
FED. ROAD DIST. NO. 7					ILLINOIS	FED. AID PROJECT

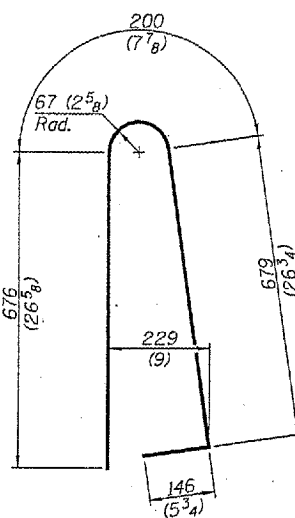
Contract #



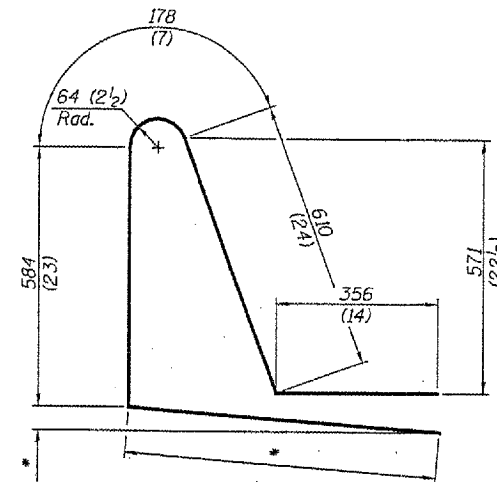
SECTION
(Showing dimensions)



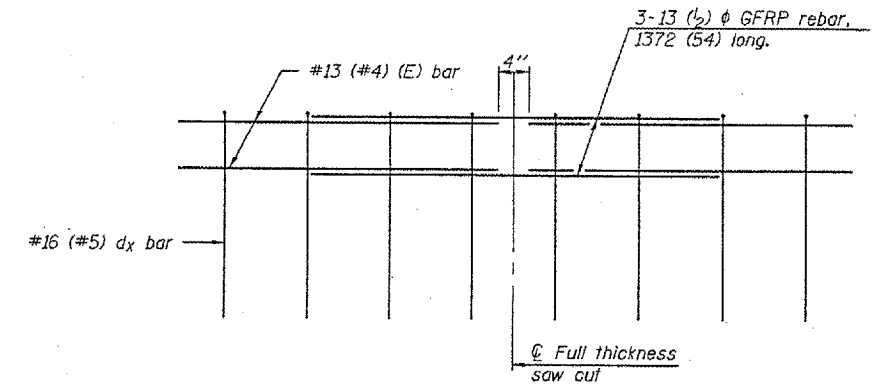
SECTION
(Showing required reinforcement)



BAR dx(e)



BAR dy(e)
* Per contract plans



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section)

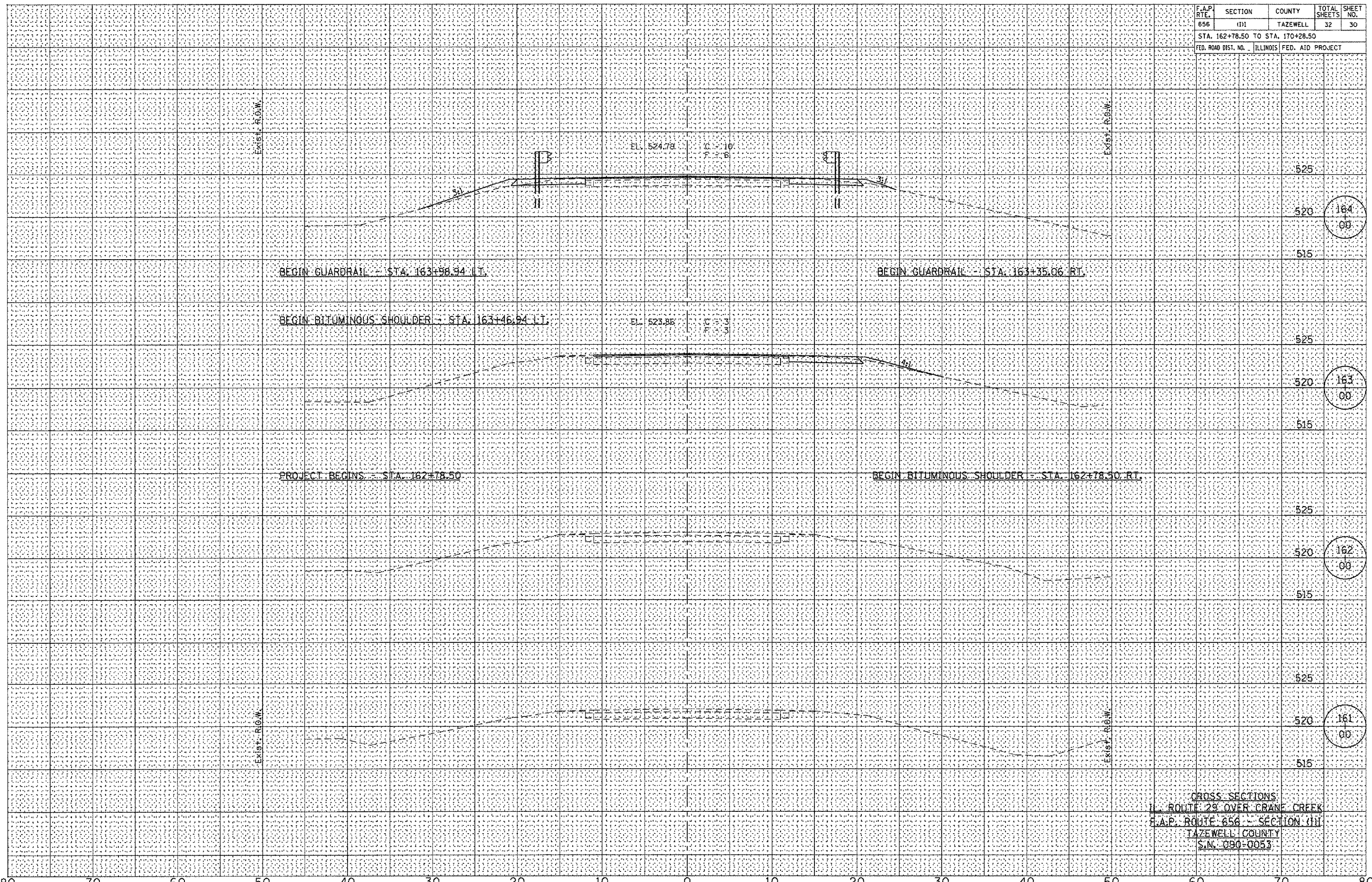
GENERAL NOTES
All dimensions shall remain the same as shown on contract plans, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0422 m³/m (0.165 cu. yds./ft.) of parapet. Place aluminum sheet in curb portion of and near piers. Full thickness saw cut at all other locations. Adjust/add joint locations to maintain 3 to 6 meter (10 to 20 foot) spacing.

**CONCRETE PARAPET
SLIPFORMING OPTION**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(II)	TAZEWELL	32	30
STA. 162+78.50 TO STA. 170+28.50				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

FINAL SURVEY CHECKED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. DATE
 AREA CHECKED BY DATE

ORIGINAL SURVEY CHECKED BY DATE
 SURVEY PLOTTED BY DATE
 NOTE BOOK NO. DATE
 AREA CHECKED BY DATE



164
00

163
00

162
00

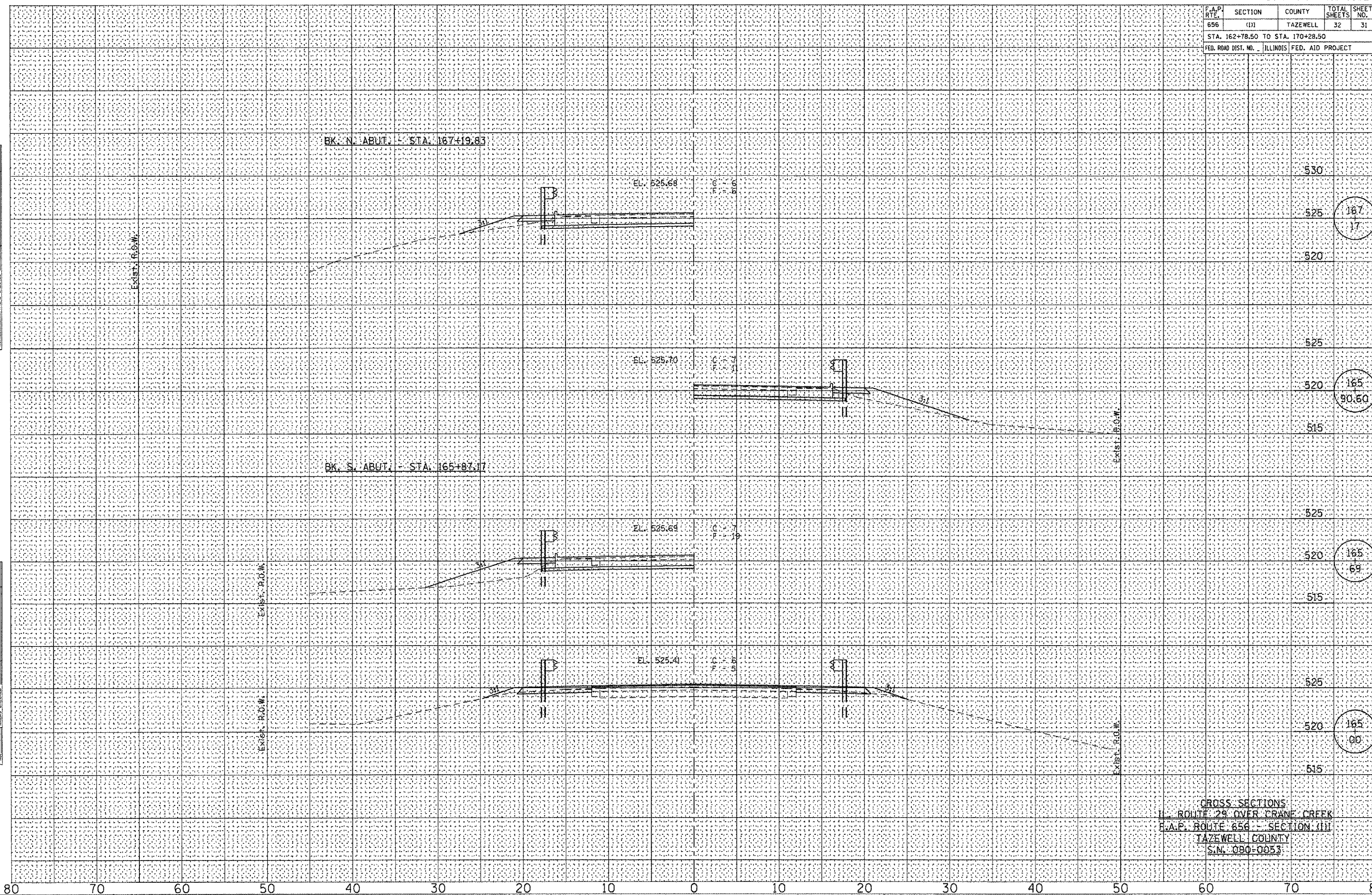
161
00

CROSS SECTIONS
 ROUTE 29 OVER CRANE CREEK
 F.A.P. ROUTE 656 - SECTION (II)
 TAZEWELL COUNTY
 S.N. 090-0053

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(II)	TAZEWELL	32	31
STA. 162+78.50 TO STA. 170+28.50				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DATE	
BY	
DESIGNED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	

DATE	
BY	
DESIGNED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



167
17

165
90.60

165
69

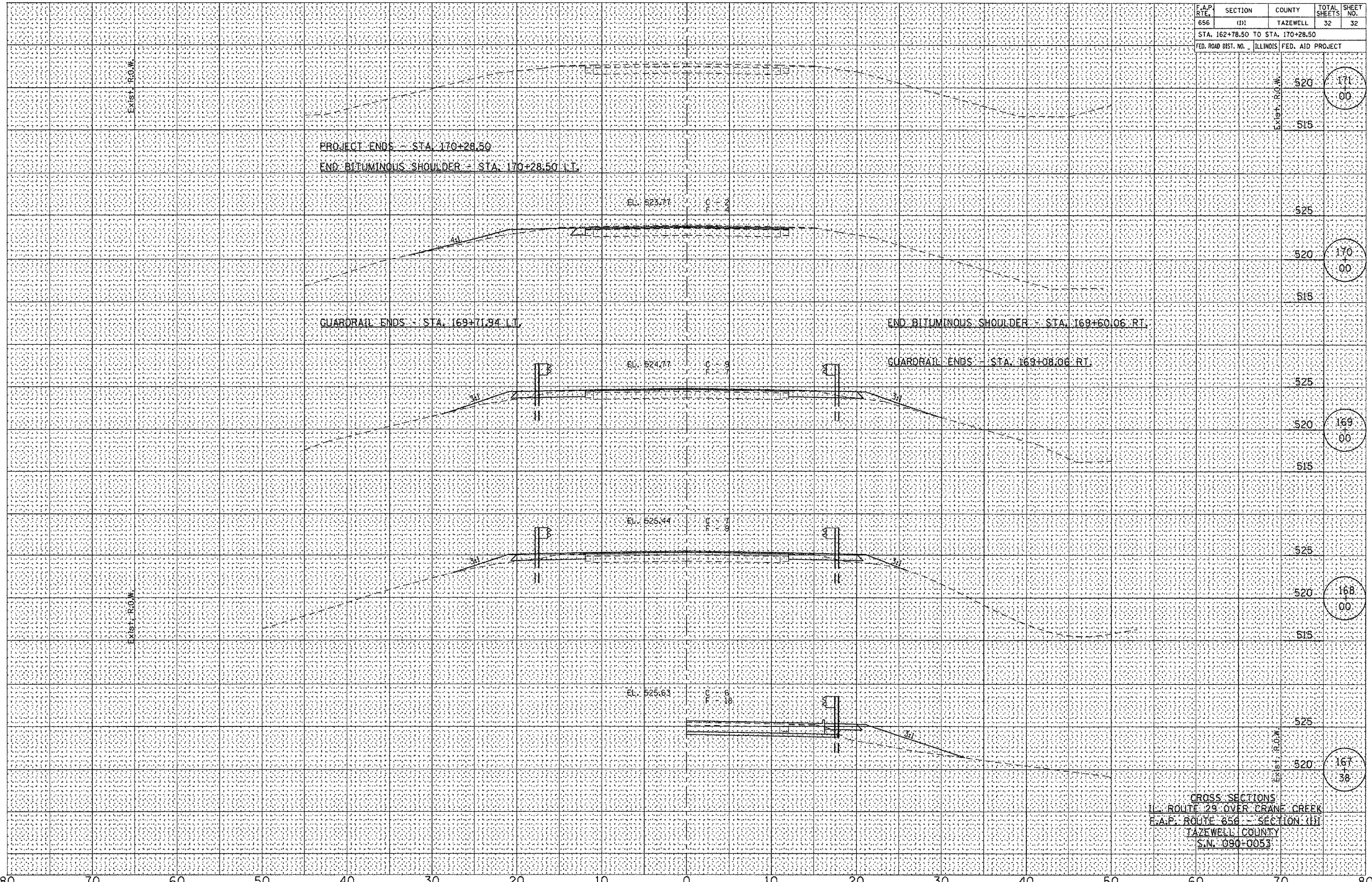
165
00

CROSS SECTIONS
 ROUTE 29 OVER CRANE CREEK
 F.A.P. ROUTE 656 - SECTION (II)
 TAZEWELL COUNTY
 S.N. 090-0053

F.A.P. SITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
656	(D)	TAZEWELL	32	32
STA. 162+78.50 TO STA. 170+28.50				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

DATE: _____
 BY: _____
 ORIGINAL SURVEY NO. _____
 COPIED SURVEY NO. _____
 PLOTTED SURVEY NO. _____
 TEMPLATE SURVEY NO. _____
 AREA SURVEY NO. _____
 CHECKED SURVEY NO. _____

DATE: _____
 BY: _____
 ORIGINAL SURVEY NO. _____
 COPIED SURVEY NO. _____
 PLOTTED SURVEY NO. _____
 TEMPLATE SURVEY NO. _____
 AREA SURVEY NO. _____
 CHECKED SURVEY NO. _____



CROSS SECTIONS
 I.L. ROUTE 29 OVER CRANE CREEK
 F.A.P. ROUTE 656 - SECTION (D)
 TAZEWELL COUNTY
 S.N. 090-0053

171
00

170
00

169
00

168
00

167
38