

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

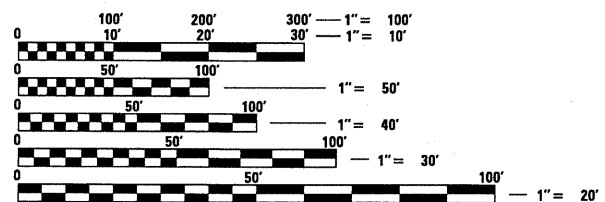
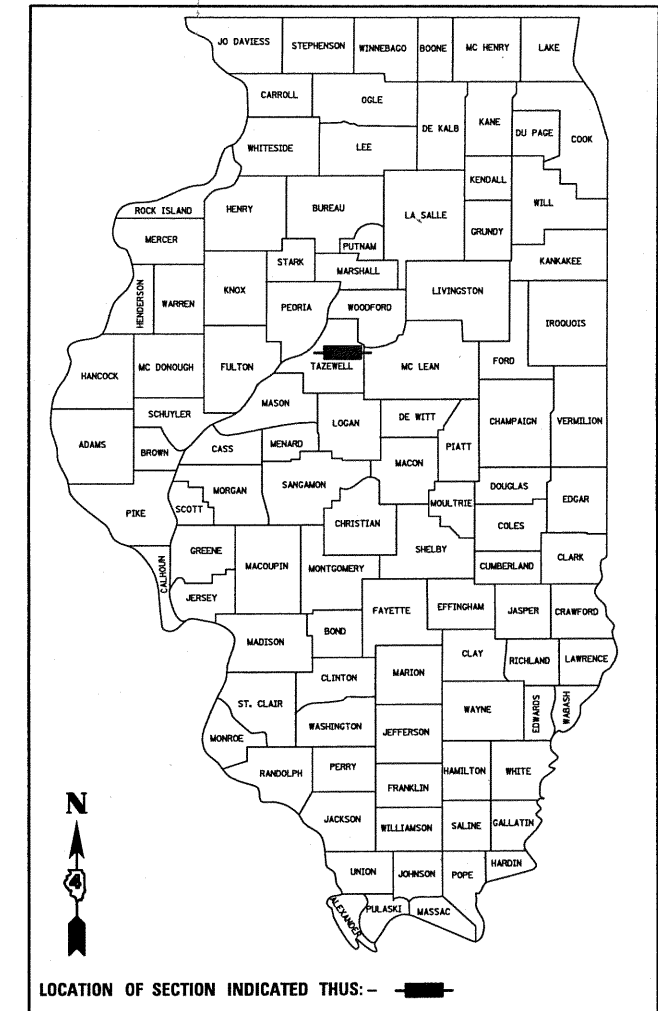
F.A.P. ROUTE 693 (IL 9)
SECTION (119 BR-2)BR
PROJECT ACF-ARRA-0693(065)
BRIDGE REPLACEMENT
IL 9 OVER MACKINAW RIVER TRIBUTARY
TAZEWELL COUNTY
C-94-197-06

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	1
FED. ROAD DIST. NO. 4	ILLINOIS	CONTRACT NO. 68660		

*65+1 = 66

D-94-129-06

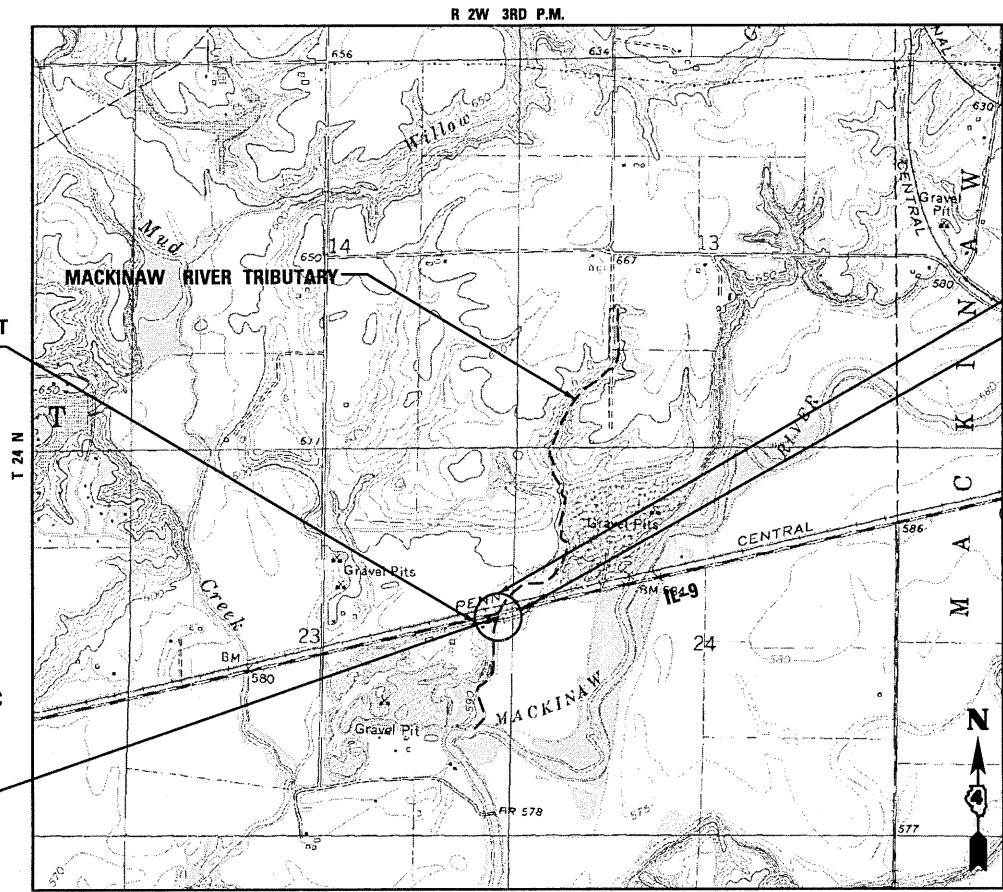
FOR INDEX OF SHEETS, SEE SHEET NO. 2



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
OR 811

PROJECT DESCRIPTION
REMOVE AND REPLACE THE EXISTING STRUCTURE WITH SINGLE SPAN 54" PPC I-BEAM BRIDGE ON OPEN ABUTMENTS
EXIST. S.N. 090-0064
PROP. S.N. 090-0177
AT STA. 772+88.16



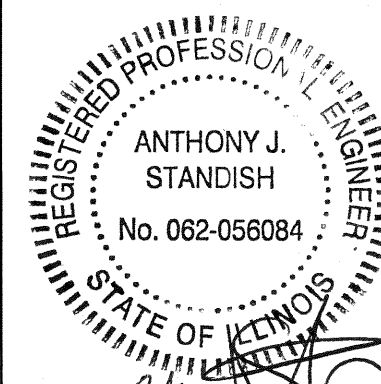
BEGIN PROJECT STA. 768+90

PROJECT LOCATION

END PROJECT STA. 778+90

SCALE = 1" = .25 MILE

GROSS PROJECT LENGTH = 1000 FEET (0.189 MI)
NET PROJECT LENGTH = 1000 FEET (0.189 MI)



Anthony J. Standish
7/9/2010
exp. 11/2011

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED *Aug 14 2010*

DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
October 11 2010
Scott E. Still P.E./e
ENGINEER OF DESIGN AND ENVIRONMENT

October 20 10
Christine M. Reed/e
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



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OF THE STATE OF ILLINOIS

PROJECT ENGINEER: MR. CHRIS MAUSHARD (309) 671-3453
PROJECT CONSULTANT LIAISON ENGINEER: MR. SOBHI LABABIDI (309) 671-3460
CONTRACT NO. 68660
CATALOG NO. 033404-00D

INDEX OF SHEETS

1	TITLE SHEET
2	GENERAL NOTES
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5-6	SCHEDULE OF QUANTITIES
7	ALIGNMENT, TIES & BENCHMARKS
8-9	PLAN AND PROFILES
10	SUGGESTED STAGE CONSTRUCTION AND TRAFFIC CONTROL
11-12	EROSION AND SEDIMENT CONTROL
13-17	RIGHT-OF-WAY PLATS
18-39	STRUCTURAL SHEETS
40-41	PROJECT SPECIFIC DETAILS
42-52	CROSS SECTIONS
53-65	DISTRICT STANDARDS HIGHWAY STANDARDS

TDOT HIGHWAY STANDARDS

280001-05	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
420401-08	BRIDGE APPROACH PAVEMENT CONNECTOR
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
515001-03	NAME PLATES FOR BRIDGES
542201-02	REINFORCED CONCRETE END SECTIONS FOR PIPE CULVERTS, 15" THRU 36" DIAMETER SKEWED WITH ROADWAY
630001-08	STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631031-08	TRAFFIC BARRIER TERMINAL, TYPE 6
667101-01	PERMANENT SURVEY MARKERS
701006-03	OFF-ROAD OPERATIONS, 2L, 2W 15' TO 24" FROM PAVEMENT EDGE
701321-10	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-03	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS > 45 MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATION OF TYPES A & B METAL POSTS
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUT FOR DETECTION LOOPS

DISTRICT STANDARDS

205001-D4	SLOPE STEPS DETAIL
280001-D4	TYPICAL APPLICATION OF SILT FILTER FENCE
281001-D4	RIPRAP DITCH FOR EROSION PROTECTION
406101-D4	BUTT JOINTS
540001-D4	COLLAR FOR BOX CULVERT EXTENSIONS
542016-D4	PIPE CULVERT EXTENSION COLLAR (WITHOUT END SECTION)
630101-D4	GUARDRAIL EROSION CONTROL TREATMENT
635101-D4	GUARDRAIL & BARRIER WALL DELINEATION
667101-D4	PERMANENT SURVEY TIE & PERMANENT SURVEY MARKERS TY. 1 & TY. 2

COMMITMENTS

COMMITMENTS ARE NOT TO BE ALTERED WITHOUT WRITTEN APPROVAL OF ALL PARTIES TO WHICH THE COMMITMENTS WAS MADE.

NO COMMITMENTS HAVE BEEN MADE FOR THIS PROJECT.

UTILITIES - LOCATIONS / INFORMATION ON PLANS

THE LOCATIONS OF EXISTING WATER MAINS, GAS MAINS, SEWERS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THEY ARE NOT GUARANTEED. ALL UTILITY LOCATIONS SHOWN ON THE CROSS SECTIONS ARE BASED ON THE APPROXIMATE DEPTH SUPPLIED BY THE UTILITY COMPANY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE UTILITY COMPANIES AND BY FIELD INSPECTION.

PLAN ELEVATIONS - U. S. G. S. MEAN SEA LEVEL DATUM

ALL ELEVATIONS SHOWN REFER TO U. S. G. S. DATUM AT MEAN SEA LEVEL UNLESS OTHERWISE NOTED.

PROPERTY OWNER ACCESS REQUIREMENTS

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.

CLEARING

AT LOCATIONS WHERE CLEARING IS INDICATED ON THE PLANS BEYOND THE LIMITS OF THE PROPOSED EXCAVATION OR EMBANKMENT, THE CONTRACTOR SHALL RESTORE THE DISTURBED EARTH BY GRADING AND SHAPING TO BLEND WITH THE ADJACENT GROUND. THE CLEARING WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EXCAVATION PAY ITEMS IN THE PLANS. PAYMENT FOR RESEEDING OR RESODDING WILL BE AS PROVIDED IN THE PLANS.

TREE REMOVAL

THE DISTRICT FOUR TREE COMMITTEE SHOULD BE CONTACTED AND PRIOR APPROVAL OBTAINED FOR ANY TREE REMOVAL BEYOND THE LIMITS/LOCATIONS INCLUDED IN THE PLANS.

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 - D4 P101 00
- COLOR PHOTOGRAPHS DEPICTING THE USE AREA
- BORROW AREA ENTRY AGREEMENT FORM - D4 P16101

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

AGGREGATE (SHOULDERS), TYPE B

AGGREGATE (SHOULDERS), TYPE B SHALL BE REQUIRED FOR ALL GRANULAR CONSTRUCTION OF SIDE ROADS, ENTRANCES, AND MAILBOX TURNOUTS, WHETHER OR NOT PORTIONS OF THE SURFACES THUS CONSTRUCTED ARE TO BE COVERED WITH A BITUMINOUS SURFACE, EXCEPT WHERE NOTED DIFFERENTLY ON THE PLANS.

PAVEMENT STATION NUMBERS AND PLACEMENT

THE CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS REQUIRED TO IMPRINT PAVEMENT STATION NUMBERS IN THE FINISHED SURFACE OF THE PAVEMENT AND/OR OVERLAY. THE NUMBER SHALL BE APPROXIMATELY 3/4" WIDE, 5" HIGH, AND 5/8 " DEEP. THE PAVEMENT STATION NUMBERS SHALL BE INSTALLED AS SPECIFIED HEREIN:

- INTERVALS - 100 FEET
- LOCATIONS - RIGHT EDGE OF PAVEMENT IN DIRECTION OF INCREASING STATIONS.
- POSITION - STATIONS SHALL BE PLACED OS THEY CAN BE READ FROM THE ADJACENT SHOULDER.
- FORMAT - xxx+xx

THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCLUDED IN THE COST OF THE ASSOCIATED PAVEMENT AND/OR OVERLAY PAY ITEMS.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

Mixture Use(s):	HMA SURFACE COURSE, MIX "D", N50	HMA BINDER COURSE, IL 19, N50
RAP % (Max)**:	PG 64-22	PG 64-22
AC/PC:	15%	25%
Design Air Voids:	4.0% @ NDES = 50	4.0% @ NDES = 50
Mixture Composition:		
(Gradation Mixture)	IL 9.5, IL 12.5	IL 19
Friction Aggregate	MIXTURE D	N/A

HOT-MIX ASPHALT MIXTURE REQUIREMENTS (CONTINUED)

Mixture Use(s):	HMA SHOULDER (LOWER LIFT)	HMA SHOULDER (SURFACE LIFT)
RAP % (Max)**:	PG 64-22	PG 64-22
AC/PC:	25%	15%
Design Air Voids:	4.0% @ NDES = 50	3.0% @ NDES = 50
Mixture Composition:		
(Gradation Mixture)	IL 19	IL 19 OR 12.5
Friction Aggregate	N/A	MIXTURE "C"

PAVING SURFACE COURSE

CONTINUOUS PAVING OPERATIONS ON THE MAIN ROADWAY SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION OF THE HOT-MIX ASPHALT SURFACE. NO INTERRUPTIONS FOR SIDE ROADS, ENTRANCES, TURN LANES, ETC. WILL BE ALLOWED.

ORDERING LENGTH CONFIRMATION - DRAINAGE ITEMS

THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER IN REGARD TO THE EXACT LENGTH OF THE BOX/PIPE CULVERTS, STORM SEWERS, AND/OR PIPE DRAINS REQUIRED PRIOR TO ORDERING THESE ITEMS.

EXISTING DRAINAGE PIPES CONNECTED TO NEW STRUCTURES

IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS, THE CONNECTING OF EXISTING DRAIN TILES, PIPE CULVERTS, OR STORM SEWERS TO THE PROPOSED DRAINAGE SYSTEM STRUCTURES WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCLUDED IN THE PAY ITEMS PROVIDED.

TRANSITION PAYMENT METHOD - NEW/OLD CONSTRUCTION

THREE METER (3M) (10 FT.) TRANSITIONS SHALL BE USED TO MATCH PROPOSED ITEMS OF WORK TO EXISTING ITEMS IN THE FIELD UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEM OF WORK SPECIFIED.

ENGINEERS FIELD OFFICE

ADD THE FOLLOWING SENTENCE TO THE END OF PARAGRAPH 670.02 (I) AND 670.04 (E):
ALL OF THE TELEPHONE LINES PROVIDED SHALL HAVE UNPUBLISHED NUMBERS.

SIGNING

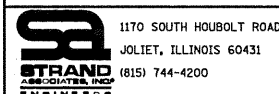
SIGN LOCATIONS MAY VARY FROM THE STATIONS SHOWN ON THE PLANS IN ACCORDANCE WITH DIRECTIONS FROM THE ENGINEER AT THE TIME OF CONSTRUCTION. SIGN LOCATIONS MAY BE ADJUSTED IN THE FIELD TO AVOID ANY FOUND UTILITIES.

ALL WOOD POST LOCATIONS SHALL BE VERIFIED WITH THE BUREAU OF OPERATIONS, TRAFFIC SECTION, BEFORE INSTALLATION.

PROJECT SPECIFIC

1. WHERE SECTION OR SUB-SECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUB-SECTION MONUMENTS DISRUPTED BY HIS/HER OPERATIONS.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
3. BARRICADES: ALL UNBALLASTED TYPE I AND TYPE II BARRICADES SHALL HAVE A MINIMUM OF TWO (2) SANDBAGS ON THE BOTTOM RAIL. A TYPE III BARRICADE SHALL REQUIRE A MINIMUM OF FOUR (4) SANDBAGS

FILE NAME = n:\j16388-6393\6546\025\mcorae\final\plans\roadway\04-181-gmmrse.dgn



1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = rjand	DESIGNED <i>VLF</i>	REVISED -
	DRAWN <i>VLF</i>	REVISED -
PLOT SCALE = 40.0000' / IN.	CHECKED <i>AJS</i>	REVISED -
PLOT DATE = 7/9/2010	DATE <i>3/31/10</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GENERAL NOTES/COMMITMENTS			
SCALE: AS SHOWN	SHEET NO. OF	SHEETS	STA. TO STA.

F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 2
FED. ROAD DIST. NO. (ILLINOIS) FED. AID PROJECT			CONTRACT NO. 68660	

NO.	PAY ITEM	UNIT	80% FED. 100% ST. 80% FED. 20% ST.			TOTAL
			0004	07A	0011	
20100500	TREE REMOVAL, ACRES	ACRE	0.75			0.75
20200100	EARTH EXCAVATION	CU YD	1175			1175
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	120			120
20400800	FURNISHED EXCAVATION	CU YD	3290			3290
X2070304	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD			240	240
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	8510			8510
*25000200	SEEDING, CLASS 2	ACRE	2			2
*25000400	NITROGEN FERTILIZER NUTRIENT	POUND	160			160
*25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	160			160
*25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	160			160
25100630	EROSION CONTROL BLANKET	SQ YD	8510			8510
28000305	TEMPORARY DITCH CHECKS	FOOT	56			56
28000400	PERIMETER EROSION BARRIER	FOOT	2255			2255
28100109	STONE RIPRAP, CLASS A5	SQ YD	200		980	1180
28200200	FILTER FABRIC	SQ YD	200		980	1180
40600215	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	TON	0.75			0.75
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	395			395
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	169			169
42001430	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	SQ YD	48			48
44000100	PAVEMENT REMOVAL	SQ YD	671			671
44000151	HOT-MIX ASPHALT SURFACE REMOVAL, 1/2"	SQ YD	1482			1482
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	677			677
50100100	REMOVAL OF EXISTING STRUCTURES	EACH			1	1
50105220	PIPE CULVERT REMOVAL	FOOT	12			12
50200100	STRUCTURE EXCAVATION	CU YD			317	317
50300225	CONCRETE STRUCTURES	CU YD			68	68
50300255	CONCRETE SUPERSTRUCTURE	CU YD			287	287
50300260	BRIDGE DECK GROOVING	SQ YD			580	580
50300300	PROTECTIVE COAT	SQ YD			737	737
50401105	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAM, 54 IN.	FOOT			642	642
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND			69540	69540
50800515	BAR SPLICERS	EACH			397	397
51200958	FURNISHING METAL SHELL PILES 14 X 0.250	FOOT			385	385
51202305	DRIVING PILES	FOOT			385	385
51203200	TEST PILE METAL SHELLS	EACH			2	2
51204650	PILE SHOES	EACH			16	16
51500100	NAME PLATES	EACH			1	1
54001001	BOX CULVERT END SECTIONS, CULVERT NO.1	EACH	2			2
54002070	EXPANSION BOLTS 3/4 INCH x 15 INCH	EACH	20			20
54010304	PRECAST CONCRETE BOX CULVERTS 3' X 4'	FOOT	33			33
54213681	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"	EACH	2			2

NO.	PAY ITEM	UNIT	80% FED. 100% ST. 80% FED. 20% ST.			TOTAL
			0004	07A	0011	
54248510	CONCRETE COLLAR	CU YD	2			2
542A0241	PIPE CULVERTS, CLASS A, TYPE 1 36"	FOOT	27			27
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD			84	84
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT			177	177
*63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	925			925
63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4			4
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4			4
63200310	GUARDRAIL REMOVAL	FOOT	1449			1449
66600105	FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS	EACH	11			11
66700205	PERMANENT SURVEY MARKERS TYPE I	EACH	1			1
66700605	PERMANENT SURVEY TIES	EACH	4			4
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6			6
67100100	MOBILIZATION	LSUM	1			1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1			1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	LSUM	1			1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	5			5
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1			1
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	0.5			0.5
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	168			168
70300220	TEMPORARY PAVMENT MARKING - LINE 4"	FOOT	2250			2250
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1058			1058
70400100	TEMPORARY CONCRETE BARRIER	FOOT	375			375
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	375			375
72400500	RELOCATE SIGN PANEL ASSEMBLY - TYPE A	EACH	1			1
72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	6			6
*73000100	WOOD SIGN SUPPORT	FOOT	15			15
*78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	2250			2250
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	13			13
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	20			20
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4			4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	752			752
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	14			14
Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	291			291
*X0320678	TREE WHIP MIXTURE	EACH	100			100
Z0073002	TEMPORARY SOIL RETENTION SYSTEM	SQ FT			891	891
Z0062456	TEMPORARY PAVEMENT	SQ YD	264			264
X2503100	MOWING	UNIT		10		10
Z0013798	CONSTRUCTION LAYOUT	L SUM	1			1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON - REDIRECTIVE), TEST LEVEL 3	EACH	2			2
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON - REDIRECTIVE), TEST LEVEL 3	EACH	2			2
Z0073400	TEMPORARY SUPPORT SYSTEM	EACH			2	2

*SPECIALTY ITEM

FILE NAME = s:\p16380-6395\6346\015\micos\Yrinal.plana\roadway\04_182-500\dgn

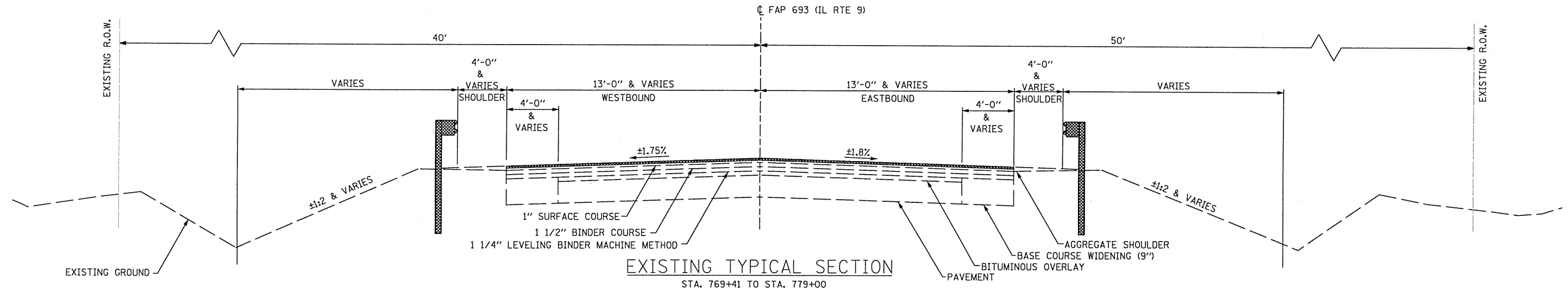


USER NAME = ryand	DESIGNED VLF	REVISED -
PLOT SCALE = 100.0000 ' / IN.	DRAWN VLF	REVISED -
PLOT DATE = 7/9/2010	CHECKED AJS	REVISED -
	DATE 3/31/10	REVISED -

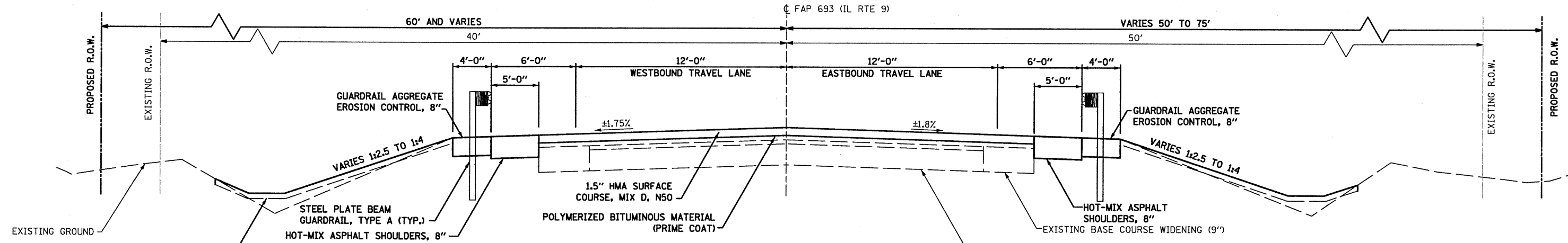
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES			
SCALE: AS SHOWN	SHEET NO.	OF	SHEETS
STA.	TO STA.		

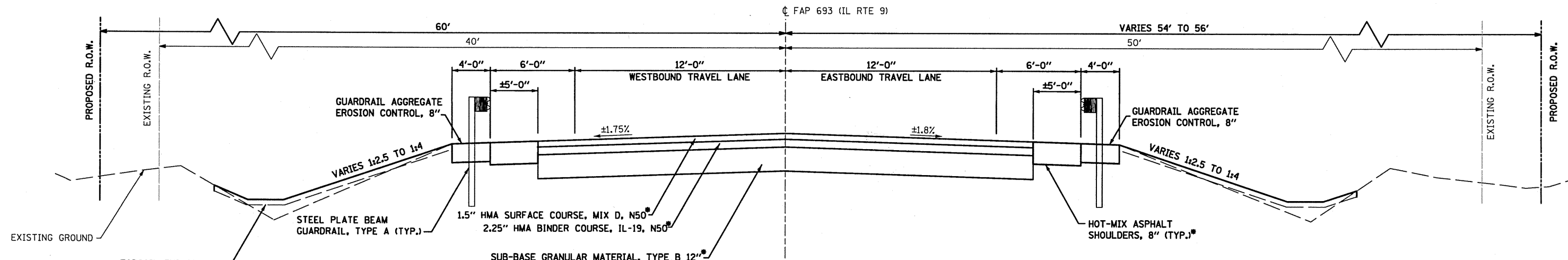
F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 3
FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT				
CONTRACT NO. 68660				



EXISTING TYPICAL SECTION
 STA. 769+41 TO STA. 779+00



PROPOSED TYPICAL SECTION
 (MILL & OVERLAY)
 STA. 769+94 TO STA. 772+05
 STA. 773+71 TO STA. 778+03



PROPOSED TYPICAL SECTION
 (BRIDGE APPROACH PAVEMENT CONNECTOR)
 STA. 772+05 TO STA. 772+11
 STA. 773+65 TO STA. 773+71

LEGEND:
 REMOVAL ITEMS

NOTE: ALL CROSS SECTIONS ARE LOOKING EAST.

*TO BE PAID FOR AS BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE).

FILE NAME =	USER NAME = ryend	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED TYPICAL SECTION			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ar\jo\6300-6399\6346\815\micros\final	ans\roadway\04.104- typical.dgn	DRAWN VLF	REVISED -					693	(119 BR-2) BR	TAZEWELL	65	4
PLOT SCALE = 100.0000' / IN.	CHECKED AJ5	REVISOR -	REVISOR -		CONTRACT NO. 68660							
PLOT DATE = 7/9/2010	DATE 3/31/10	REVISOR -	REVISOR -		FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT							

STAGE 1		EARTH EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	FOR INFORMATION ONLY		FURNISHED EXCAVATION	TOPSOIL FURNISH AND PLACE, 4"
LOCATION		EARTH EXCAVATION		EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	
STATION	STATION	CU YD	CU YD	CU YD	CU YD	CU YD	SQ YD
769+00	769+50	0	0	0	0	0	111.11
769+50	770+00	15.00	1.5	11.48	5.00	6.48	197.22
770+00	770+50	40.00	4	30.60	10.00	20.60	186.11
770+50	771+00	65.00	6.5	49.73	10.00	39.73	194.44
771+00	771+50	75.00	7.5	57.38	10.00	47.38	200.00
771+50	772+00	75.00	7.5	57.38	10.00	47.38	200.00
772+00	772+50	40.00	4	30.60	10.00	20.60	94.44
773+50	774+00	20.00	2	15.30	75.00	-59.70	147.22
774+00	774+50	35.00	3.5	26.78	140.00	-113.23	302.78
774+50	775+00	35.00	3.5	26.78	160.00	-133.23	327.78
775+00	775+50	40.00	4	30.60	195.00	-164.40	355.56
775+50	776+00	40.00	4	30.60	210.00	-179.40	363.89
776+00	776+50	40.00	4	30.60	175.00	-144.40	363.89
776+50	777+00	45.00	4.5	34.43	195.00	-160.58	369.44
777+00	777+50	40.00	4	30.60	220.00	-189.40	361.11
777+50	778+00	35.00	3.5	26.78	240.00	-213.23	352.78
778+00	778+50	20.00	2	15.30	145.00	-129.70	177.78
STAGE 1 TOTAL		660.00	66.00	504.90	1810.00	-1310.00	4310.00

NOTE: SHRINKAGE FACTOR USED 0.15

STAGE 2		EARTH EXCAVATION	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	FOR INFORMATION ONLY		FURNISHED EXCAVATION	TOPSOIL FURNISH AND PLACE, 4"
LOCATION		EARTH EXCAVATION		EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)	
STATION	STATION	CU YD	CU YD	CU YD	CU YD	CU YD	SQ YD
770+00	770+50	25.00	2.50	19.13	10.00	9.13	55.56
770+50	771+00	30.00	3.00	22.95	15.00	7.95	180.56
771+00	771+50	25.00	2.50	19.13	60.00	-40.88	263.89
771+50	772+00	30.00	3.00	22.95	120.00	-97.05	272.22
772+00	772+50	15.00	1.50	11.48	75.00	-63.53	133.33
773+00	773+50	0.00	0.00	0.00	0.00	0.00	144.44
773+50	774+00	45.00	4.50	34.43	230.00	-195.58	277.78
774+00	774+50	35.00	3.50	26.78	215.00	-188.23	266.67
774+50	775+00	35.00	3.50	26.78	215.00	-188.23	266.67
775+00	775+50	40.00	4.00	30.60	235.00	-204.40	280.56
775+50	776+00	40.00	4.00	30.60	245.00	-214.40	319.44
776+00	776+50	40.00	4.00	30.60	205.00	-174.40	344.44
776+50	777+00	40.00	4.00	30.60	210.00	-179.40	358.33
777+00	777+50	40.00	4.00	30.60	185.00	-154.40	363.89
777+50	778+00	40.00	4.00	30.60	185.00	-154.40	308.33
778+00	778+50	35.00	3.50	26.78	165.00	-138.23	247.22
778+50	779+00	0.00	0.00	0.00	0.00	0.00	116.67
STAGE 2 TOTAL		515.00	51.50	393.98	2370.00	-1980.00	4200.00

NOTE: SHRINKAGE FACTOR USED 0.15

STAGE 1 SUB-TOTAL	660.00	66.00				-1310.00	4310.00
STAGE 2 SUB-TOTAL	515.00	51.50				-1980.00	4200.00
EARTHWORK TOTAL	1175.00	120.00				-3290.00	8510.00

LOCATION		TEMPORARY BRIDGE TRAFFIC SIGNALS (EACH)	TEMPORARY CONCRETE BARRIER (FOOT)	RELOCATE TEMPORARY CONCRETE BARRIER (FOOT)	CHANGEABLE MESSAGE SIGN (CAL MO)	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 (EACH)
769+55	778+60	1			0.5		
770+95	774+70		375	375			
770+95						1	1
774+70						1	1
TOTAL		1	375	375	0.5	2	2

LOCATION		BOX CULVERT END SECTION, CULVERT NO.1	EXPANSION BOLTS 3/4" X 15"	PRECAST CONCRETE BOX CULVERT 3' X 4'	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"	CONCRETE COLLAR	PIPE CULVERT, CLASS A, TYPE 1 36"	PIPE CULVERT REMOVAL
		(EACH)	(EACH)	(FOOT)	(EACH)	(CU YD)	(FOOT)	(FOOT)
778+06	RT	1	10	17		0.41		
778+06	LT	1	10	16		0.41		
777+00	LT				1	0.54	14	6
776+67	RT				1	0.54	13	6
TOTAL		2	20	33	2	2	27	12

LOCATION			STEEL PLATE BEAM GURADRAIL, TYPE A, 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL, TYPE 6	GUARDRAIL REMOVAL	GUARDRAIL AGGREGATE EROSION CONTROL	TERMINAL MARKER - DIRECT APPLIED	GUARDRAIL MARKERS, TYPE A
STATION	STATION	RT/LT	FOOT	EACH	EACH	FOOT	TON	EACH	EACH
770+58.87	771+08.87	LT		1					
771+08.87	771+71.37	LT	62.5						
771+71.37	772+15.12	LT			1				
770+65.00	772+56.00	LT				191			
770+58.87		LT						1	
770+58.87	772+15.12	LT							3
773+29.00	778+50.00	LT					102		
773+39.27	773+83.02	LT			1				
773+83.02	777+58.02	LT	375.00						
777+58.02	778+08.02	LT		1					
772+97.00	778+00.00	LT				503			
778+08.02		LT						1	
773+39.27	778+08.02	LT							7
770+08.00	772+47.00	LT					38		
769+93.97	770+43.97	RT		1					
770+43.97	771+93.97	RT	150.00						
771+93.97	772+37.72	RT			1				
769+96.00	772+90.00	RT				294		1	
769+93.97		RT							
769+93.97	772+37.72	RT							4
769+41.00	772+47.00	RT					58		
773+61.21	774+04.96	RT							
774+04.96	777+42.46	RT	337.5						
777+42.46	777+92.46	RT		1					
773+31.00	777+92.00	RT				461			
777+92.46		RT						1	
773+61.21	777+92.46	RT							6
773+61.00	778+43.00	RT					93		
TOTAL			925	4	4	1449	291	4	20

LOCATION			SEEDING, CLASS 2A		NITROGEN FERTILIZER NUTRIENT		PHOSPHORUS FERTILIZER NUTRIENT		POTASSIUM FERTILIZER NUTRIENT		EROSION CONTROL BLANKET			
STATION	STATION	LT/RT	AVG WIDTH (FOOT)	AVG LENGTH (FOOT)	AREA (SQ FT)	AREA (ACRE)	RATE (LBS/ACRE)	POUND (LBS)	RATE (LBS/ACRE)	POUND (LBS)	RATE (LBS/ACRE)	POUND (LBS)	AREA (SQ FT)	AREA (SQ YD)
769+00	769+50	RT	50	20	1000	0.023	90	2.07	90	2.07	90	2.07	1000	111.11
769+50	770+00	RT	50	35.5	1775	0.041	90	3.67	90	3.67	90	3.67	1775	197.22
770+00	770+50	RT	50	33.5	1675	0.038	90	3.46	90	3.46	90	3.46	1675	186.11
770+50	771+00	RT	50	35	1750	0.040	90	3.62	90	3.62	90	3.62	1750	194.44
771+00	771+50	RT	50	36	1800	0.041	90	3.72	90	3.72	90	3.72	1800	200.00
771+50	772+00	RT	50	36	1800	0.041	90	3.72	90	3.72	90	3.72	1800	200.00
772+00	772+50	RT	50	17	850	0.020	90	1.76	90	1.76	90	1.76	850	94.44
772+50	773+00	RT	50	0	0		90	0.00	90	0.00	90	0.00	0	0.00
773+00	773+50	RT	50	0	0		90	0.00	90	0.00	90	0.00	0	0.00
773+50	774+00	RT	50	26.5	1325	0.030	90	2.74	90	2.74	90	2.74	1325	147.22
774+00	774+50	RT	50	54.5	2725	0.063	90	5.63	90	5.63	90	5.63	2725	302.78
774+50	775+00	RT	50	59	2950	0.068	90	6.10	90	6.10	90	6.10	2950	327.78
775+00	775+50	RT	50	64	3200	0.073	90	6.61	90	6.61	90	6.61	3200	355.56
775+50	776+00	RT	50	65.5	3275	0.075	90	6.77	90	6.77	90	6.77	3275	363.89
776+00	776+50	RT	50	65.5	3275	0.075	90	6.77	90	6.77	90	6.77	3275	363.89
776+50	777+00	RT	50	66.5	3325	0.076	90	6.87	90	6.87	90	6.87	3325	369.44
777+00	777+50	RT	50	65	3250	0.075	90	6.71	90	6.71	90	6.71	3250	361.11
777+50	778+00	RT	50	63.5	3175	0.073	90	6.56	90	6.56	90	6.56	3175	352.78
778+00	778+50	RT	50	32	1600	0.037	90	3.31	90	3.31	90	3.31	1600	177.78
770+00	770+50	LT	50	10	500	0.011	90	1.03	90	1.03	90	1.03	500	55.56
770+50	771+00	LT	50	32.5	1625	0.037	90	3.36	90	3.36	90	3.36	1625	180.56
771+00	771+50	LT	50	47.5	2375	0.055	90	4.91	90	4.91	90	4.91	2375	263.89
771+50	772+00	LT	50	49	2450	0.056	90	5.06	90	5.06	90	5.06	2450	272.22
772+00	772+50	LT	50	24	1200	0.028	90	2.48	90	2.48	90	2.48	1200	133.33
772+50	773+00	LT	50	0	0	0.000	90	0.00	90	0.00	90	0.00	0	0.00
773+00	773+50	LT	50	26	1300	0.030	90	2.69	90	2.69	90	2.69	1300	144.44
773+50	774+00	LT	50	50	2500	0.057	90	5.17	90	5.17	90	5.17	2500	277.78
774+00	774+50	LT	50	48	2400	0.055	90	4.96	90	4.96	90	4.96	2400	266.67
774+50	775+00	LT	50	48	2400	0.055	90	4.96	90	4.96	90	4.96	2400	266.67
775+00	775+50	LT	50	50.5	2525	0.058	90	5.22	90	5.22	90	5.22	2525	280.56
775+50	776+00	LT	50	57.5	2875	0.066	90	5.94	90	5.94	90	5.94	2875	319.44
776+00	776+50	LT	50	62	3100	0.071	90	6.40	90	6.40	90	6.40	3100	344.44
776+50	777+00	LT	50	64.5	3225	0.074	90	6.66	90	6.66	90	6.66	3225	358.33
777+00	777+50	LT	50	65.5	3275	0.075	90	6.77	90	6.77	90	6.77	3275	363.89
777+50	778+00	LT	50	55.5	2775	0.064	90	5.73	90	5.73	90	5.73	2775	308.33

LOCATION			LENGTH	WIDTH	AREA	HMA SURFACE COURSE, MIX "D", N50	BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)	HMA SURFACE REMOVAL - BUTT JOINT	HMA SURFACE REMOVAL, 1/2"	POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)	HMA SHOULDERS, 8"	TEMPORARY PAVEMENT	PAVEMENT REMOVAL
STATION	STATION	LT/RT	FOOT	FOOT	SQ YD	TON	SQ YD	SQ YD	SQ YD	TON	SQ YD	SQ YD	SQ YD
769+94	770+24	LT/RT	30	26	87	10		87					
770+24	771+68	LT/RT	144	26	416	35			416				
769+94	772+05	LT/RT	211	26	610				0.25				
770+59	771+95	LT	136	5	76					76			
773+60	778+08	LT	448	5	249					249			
769+94	772+20	RT	226	5	126								
770+60	772+31	LT	171	4	76						76	76	
773+27	777+50	LT	423	4	188						188	188	
769+94	772+15	RT	221	5	123					123			
771+68	772+05	LT/RT	37	26	111	12		111					
772+05	772+11	LT/RT	6	36	24		24						24
772+11	772+71	LT/RT	60	32	195								195
773+81	777+93	RT	412	5	229					229			
773+15	773+65	LT/RT	50	31	164								164
773+65	773+71	LT/RT	6	36	24		24						24
773+71	774+09	LT/RT	38	26	110	12		110					
773+71	778+03	LT/RT	432	27	1296				0.5				
774+09	777+78	LT/RT	369	26	1066	90			1066				
777+78	778+08	LT/RT	30	26	87	10		87					
TOTAL						169	48	395	1482	0.75	677	264	671

APPLICATION RATES	
FOR ALL HOT MIXES: 112 LBS/SQ YD/IN	
FOR AGGREGATE SHOULDERS TYPE B: 2.05 TON/CU YD	
FOR BITUMINOUS MATERIAL (PRIME COAT):	FOR AGGREGATE (PRIME COAT)
-ON GRANULAR BASE: 0.5 GAL/ SQ YD	-ON EXISTING PAVEMENT: 4 LBS/SQ YD
-ON EXISTING PAVEMENT: 0.05 GAL/SQ YD	-ON COLD MILLED SURFACE: 4 LBS/SQ YD
-ON COLD MILLED SURFACE: 0.1 GAL/SQ YD	-ON NEW PAVEMENT: 2 LBS/SQ YD
-ON NEW PAVEMENT: 0.03 GAL/SQ YD	
CONVERSION: (0.004 TON=GALLON), (2000 LBS=1 TON)	

LOCATION			COLOR	TYPE	LENGTH	WIDTH	AREA	PAVEMENT MARKING REMOVAL	EPOXY PAVEMENT MARKING - LINE	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	SHORT TERM PAVEMENT MARKING	TEMPORARY PAVEMENT MARKING - LINE 4"	WORK ZONE PAVEMENT MARKING REMOVAL
STATION	STATION				(FT)	(IN)	(SQ FT)	SQ FT	FOOT	EACH	EACH	FOOT	FOOT	SQ FT
768+90	778+90	RT EOP (STAGE I)	WHITE	SOLID	1000	4	334							334
768+90	778+90	RT EOP (STAGE II)	WHITE	SOLID	1000	4	334							334
768+90	778+90	LT EOP (STAGE II)	WHITE	SOLID	1000	4	334							334
768+90	778+90	LT EOP (STAGE III)	WHITE	SOLID	1000	4	334						1000	
768+90	778+90	RT EOP (STAGE III)	WHITE	SOLID	1000	4	334						1000	
768+90	778+90	CL (STAGE III)	YELLOW	SKIP DASH	250	4	84					168	250	56
768+90	778+90	LT EOP	WHITE	SOLID	1000	4	334	334	1000					
768+90	778+90	RT EOP	WHITE	SOLID	1000	4	334	334	1000					
768+90	778+90	CL	YELLOW	SKIP DASH	250	4	84	84	250	13	14			
TOTAL								752	2250	13	14	168	2250	1058

LOCATION		TEMPORARY DITCH CHECKS (FOOT)	PERIMETER EROSION BARRIER (FOOT)	STONE RIPRAP, CLASS A5 (SQ YD)	FILTER FABRIC (SQ YD)
771+50		48.6' LT	14		
772+00		32.2' RT	14		
773+50		49.4' LT	14		
778+07		57.44 RT	14		
769+41	779+00	LT		1060	
769+41	779+00	RT		1195	
776+50	777+50	LT		200	200
TOTAL		56	2255	200	200

LOCATION			PERMANENT SURVEY MARKER TYPE 1 (EACH)	PERMANENT SURVEY TIES (EACH)
772+58.81	20.08	RT	1	4
TOTAL			1	4

LOCATION			FURNISHING AND ERECTING RIGHT-OF-WAY MARKERS (EACH)
770+50	39.3	LT	1
771+00	60	LT	1
775+33	60	LT	1
777+00	70	LT	1
777+50	70	LT	1
779+00	40	LT	1
773+50	50	RT	1
774+00	65	RT	1
775+50	75	RT	1
778+00	75	RT	1
778+50	50	RT	1
TOTAL			11

LOCATION		RELOCATE SIGN PANEL ASSEMBLY - TYPE A (EACH)	RELOCATE SIGN PANEL - TYPE 1 (SQ FT)	WOOD SIGN SUPPORT (FOOT)
770+33	RT	1	6	15
TOTAL		1	6	15

LOCATION		TREE REMOVAL, ACRES (ACRES)	TREE WHIP MIXTURE (EACH)	MOWING (UNIT)
769+50	779+00	0.75	100	10
TOTAL		0.75	100	10

LOCATION	TRAFFIC CONTROL AND PROTECTION		ENGINEERS FIELD OFFICE, TYPE A (CAL MO)	MOBILIZATION (L SUM)	CONSTRUCTION LAYOUT (L SUM)	TRAFFIC CONTROL SURVEILLANCE (CAL DAY)
	STANDARD 701321 (EACH)	STANDARD 701326 (L SUM)				
IL 9	1	1	6	1	1	186
TOTAL	1	1	6	1	1	186

FILE NAME = n:\a\102888-6399\6346\015\micross\1\road\planning\roadway\04_103-schedule.dgn



1170 SOUTH HOUBOLT ROAD JOLIET, ILLINOIS 60431 (815) 744-4200	USER NAME = ryand PLOT SCALE = 100.0000 ' / IN. PLOT DATE = 7/9/2018	DESIGNED VLF DRAWN VLF CHECKED AJS DATE 3/31/10	REVISED - REVISED - REVISED - REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

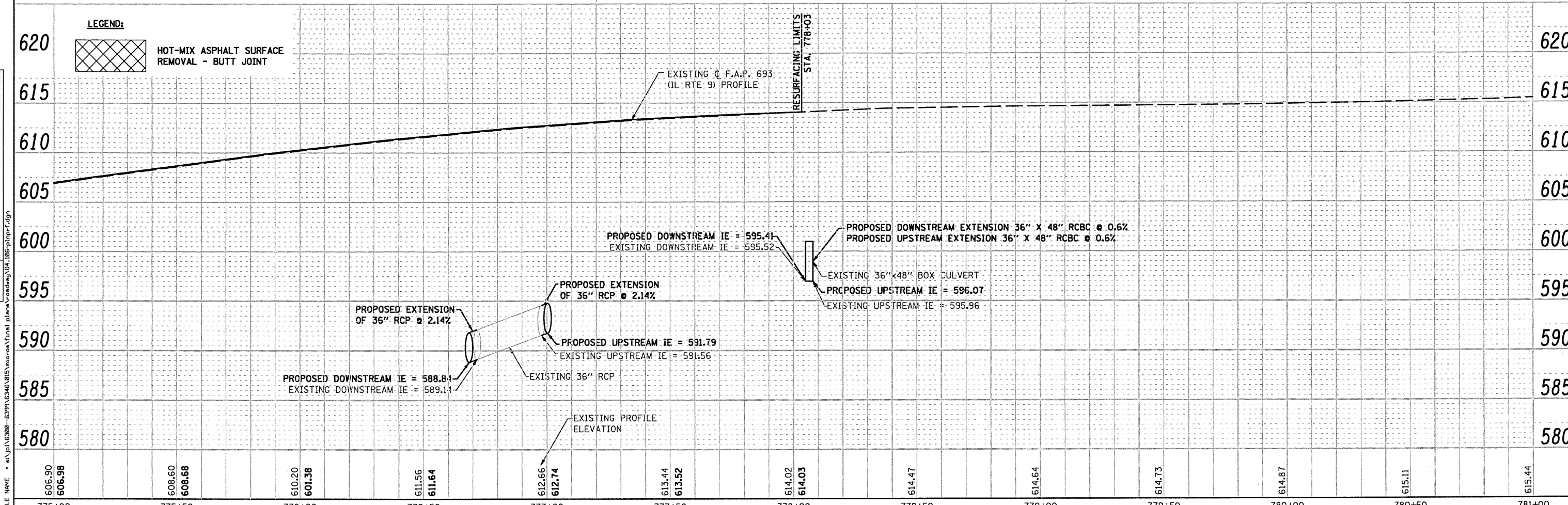
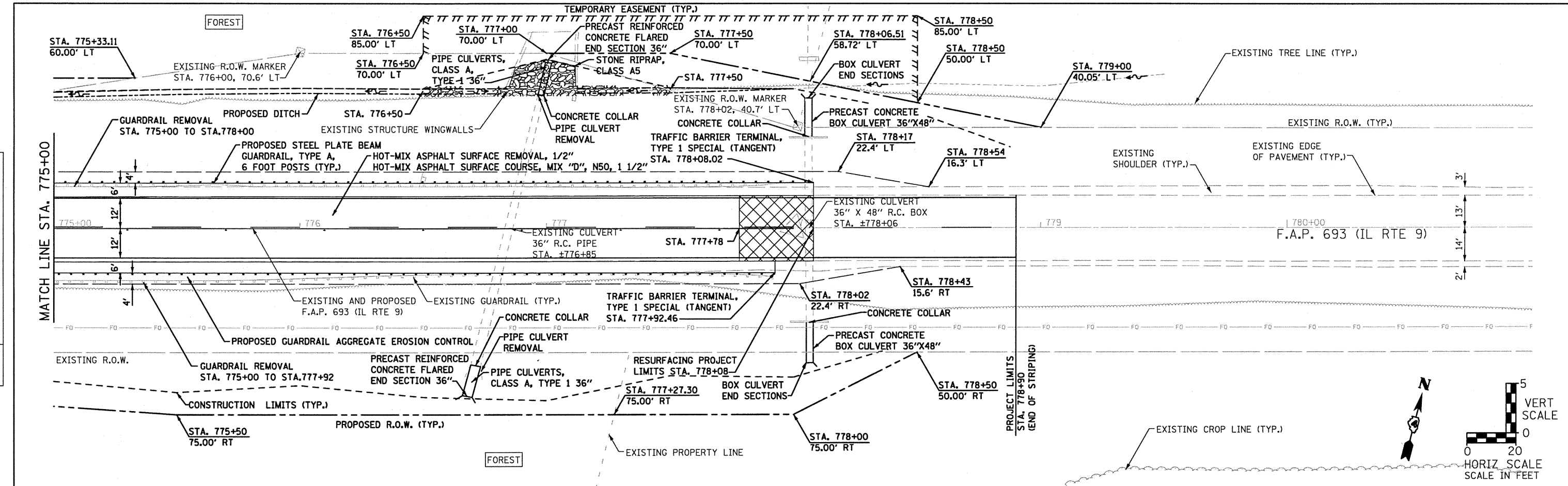
SCHEDULE OF QUANTITIES

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	6
CONTRACT NO.				
FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT				

PLAN	REVISED	DATE
NO.	BY	
NO.	CHECKED	
NO.	DATE	

PROFILE	REVISED	DATE
NO.	BY	
NO.	CHECKED	
NO.	DATE	



606.90 606.98	608.60 608.68	610.20 601.38	611.56 611.64	612.66 612.74	613.44 613.52	614.02 614.03	614.47	614.64	614.73	614.87	615.11	615.44
775+00	775+50	776+00	776+50	777+00	777+50	778+00	778+50	779+00	779+50	780+00	780+50	781+00

1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200
BRAND ASSOCIATES, INC. ENGINEERS

USER NAME = rjgend	DESIGNED VLF	REVISED -
CHECKED AJS	DRAWN VLF	REVISED -
PLOT SCALE = 48.0000' / IN.	CHECKED AJS	REVISED -
PLOT DATE = 7/9/2018		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - IL 9 OVER MACKINAW RIVER TRIBUTARY
SCALE: AS SHOWN SHEET NO. OF SHEETS STA. 775+00 TO STA. 781+00

F.A.P. RTE. 693	SECTION (119 BR-2) BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 9
CONTRACT NO. 68660				
FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT				

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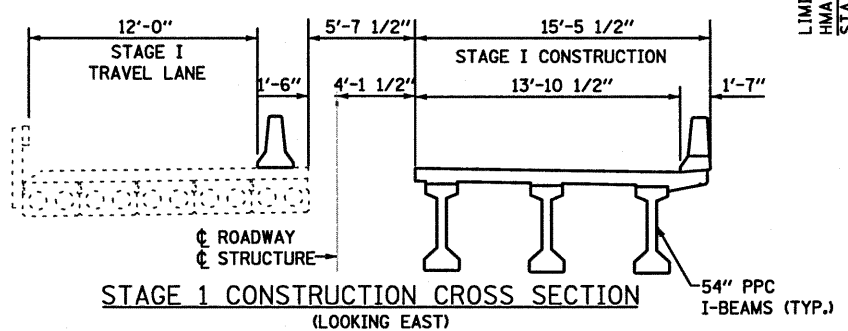
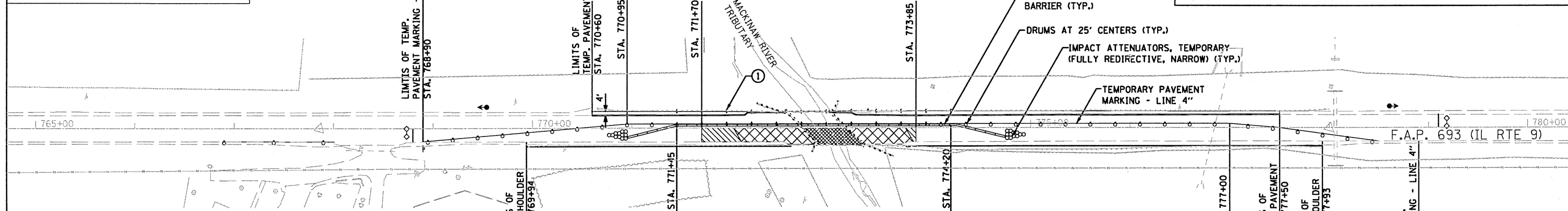
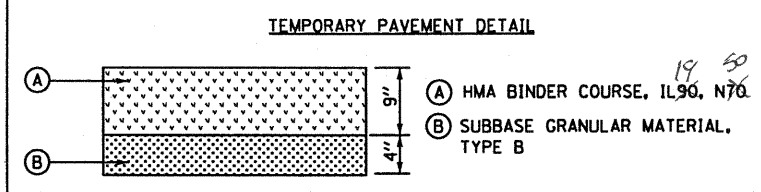
LEGEND

	REMOVAL OF EXISTING STRUCTURES
	PAVEMENT REMOVAL
	WORK ZONE

KEY NOTES:
 ① BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011.

PRIOR TO STAGE 1 CONSTRUCTION

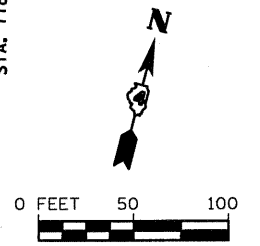
1. PLACE PERIMETER EROSION BARRIER ON DISTURBED SLOPES AS SHOWN ON EROSION CONTROL PLANS.
2. INSTALL TEMPORARY PAVEMENT ON NORTH SIDE EDGE OF TRAVEL WAY TO THE EXISTING GUARDRAIL. USE TRAFFIC CONTROL STANDARD 701326.



STAGE 1 CONSTRUCTION OF SOUTH SIDE

1. INSTALL ALL TRAFFIC CONTROL DEVICES, SIGNS, TRAFFIC SIGNALS AND TEMPORARY MARKINGS AS DETAILED ON TRAFFIC CONTROL & PROTECTION STANDARD 701321.
2. PLACE TEMPORARY CONCRETE BARRIER.
3. EXISTING GUARDRAIL ON NORTH SIDE TO REMAIN IN PLACE DURING STAGE I CONSTRUCTION.
4. INSTALL TEMPORARY SOIL RETENTION SYSTEM.
5. REMOVE GUARDRAIL AND EXISTING STRUCTURE ON SOUTH SIDE.
6. CONSTRUCT STAGE I PORTION OF PROPOSED STRUCTURE, APPROACH SLAB, APPROACH PAVEMENT CONNECTORS, HMA SHOULDERS, AGGREGATE SHOULDERS, GUARDRAIL AND ALL OTHER WORK FOR SOUTH SIDE OF ROADWAY.

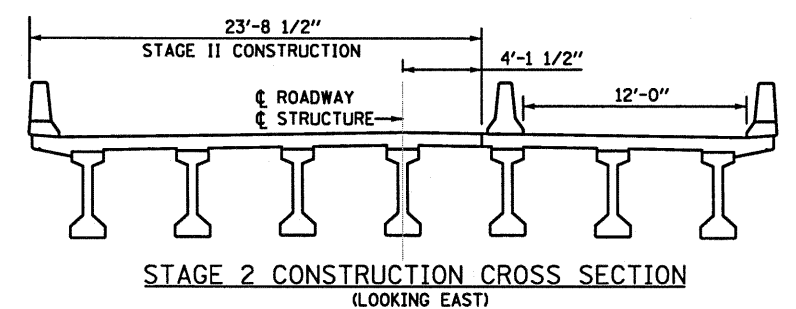
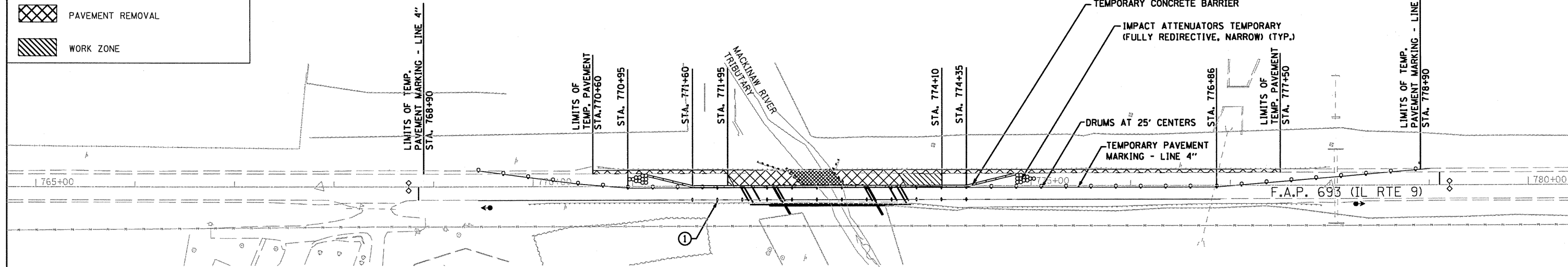
INSTALL FLASHING LIGHTS ON THE TRAFFIC SIGNAL WARNING SIGNS. PAYMENT FOR THE FLASHING LIGHTS SHALL BE INCLUDED IN THE COST OF STD. 701321.



LEGEND

	REMOVAL OF EXISTING STRUCTURES
	PAVEMENT REMOVAL
	WORK ZONE

KEY NOTES:
 ① BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011-D4.



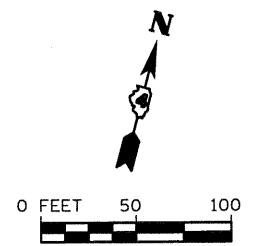
STAGE 2 CONSTRUCTION OF NORTH SIDE

1. RELOCATE TEMPORARY CONCRETE BARRIERS, TEMPORARY IMPACT ATTENUATORS AND TEMPORARY MARKINGS AS DETAILED ON TRAFFIC CONTROL & PROTECTION STANDARD 701321.
2. REMOVE GUARDRAIL, TEMPORARY PAVEMENT, AND REMAINING EXISTING STRUCTURE FOR NORTH SIDE.
3. CONSTRUCT PROPOSED STRUCTURE, APPROACH SLAB, APPROACH PAVEMENT CONNECTORS, PROPOSED HMA SHOULDERS, PROPOSED AGGREGATE SHOULDERS, GUARDRAIL AND ALL OTHER WORK FOR NORTH SIDE OF ROADWAY.
4. REMOVE TRAFFIC CONTROL PAVEMENT MARKINGS, TEMPORARY CONCRETE BARRIER, TEMPORARY IMPACT ATTENUATORS, TEMPORARY RUMBLE STRIPS AND TEMPORARY SIGNALS.

STAGE 3 CONSTRUCTION RESURFACING

LIMITS OF RESURFACING STA. 769+94 TO STA. 778+03

1. INSTALL TRAFFIC CONTROL DEVICES AND SIGNS AS DETAILED ON TRAFFIC CONTROL AND PROTECTION STANDARD 701306.
2. MILL AND RESURFACE WITHIN RESURFACING LIMITS
3. HMA SURFACE REMOVAL - BUTT JOINTS WILL BE UTILIZED WHEN TRANSITIONING FROM THE EXISTING PAVEMENT TO THE RESURFACING AND FOR THE TRANSITION FROM THE RESURFACING TO THE BRIDGE APPROACH SLAB.
4. PLACE PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS.



1170 SOUTH HOBBS ROAD
 JOLIET, ILLINOIS 60431
 (815) 744-4200

FILE NAME =	USER NAME = rjand	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUGGESTED STAGE CONSTRUCTION AND TRAFFIC CONTROL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
as\j016308-6399\6346\015\micros\Final	lena\roadway\04-187-staging.dgn	DRAWN VLF	REVISED -			693	(119 BR-2)BR	TAZEWELL	65	10	
PLOT SCALE = 100,0000 ' / IN.	CHECKED AJ5	DATE 3/31/10	REVISED -			CONTRACT NO. 68660					
PLOT DATE = 7/9/2010	DATE 3/31/10	REVISED -	SCALE: AS SHOWN			SHEET NO.	OF	SHEETS	STA.	TO	STA.

EROSION CONTROLS AND SEDIMENT CONTROLS-BEGINNING OF CONSTRUCTION

1. THE AREA BETWEEN THE EXISTING AND PROPOSED PERMANENT/TEMPORARY EASEMENT BOUNDARIES AND LIMITS OF THE PROJECT SHALL BE IMPROVED AND MANAGED FOR THE PURPOSES OF CONTROLLING EROSION WITHIN THE AREA, REDUCING WATER FLOW BY TEMPORARY DIVERSION AND MINIMIZING SILTATION INTO THE CONSTRUCTION ZONE, AND ESTABLISHING VEGETATIVE COVER FOR THE PURPOSE OF BECOMING PERMANENT VEGETATION ACTING AS AN EROSION BARRIER. RESPONSIBILITIES OF THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION WILL CONSIST OF THE FOLLOWING:
 - (A) AREAS OF EXISTING VEGETATION (WOODS AND GRASSLANDS) OUTSIDE PROPOSED CONSTRUCTION SLOPE LIMITS SHALL BE IDENTIFIED AND PROTECTED FROM BRUSH CUTTING, TREE REMOVAL AND OTHER ACTIVITIES WHICH WOULD BE DETRIMENTAL TO THEIR MAINTENANCE AND DEVELOPMENT,
 - (B) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CLEARING AND GRUBBING.
 - (C) AS SOON AS REASONABLE ACCESS IS AVAILABLE (INCLUDING TREE REMOVAL) TO ALL LOCATION WHERE WATER DRAINS AWAY FROM THE PROJECT, EROSION CONTROL SHALL BE INSTALLED AS INDICATED BY THE PLANS AND AS DIRECTED BY THE ENGINEER
 - (D) AT LOCATIONS WHERE SIGNIFICANT AMOUNTS OF WATER DRAIN ONTO THE CONSTRUCTION ZONE FROM OUTSIDE ADJACENT AREAS, EROSION CONTROL FENCE, TEMPORARY DITCH CHECKS, OR RIPRAP DITCH CHECKS SHALL BE UTILIZED TO LOCALLY DIVERT WATER, REDUCE FLOW RATES AND COLLECT OUTSIDE SILTATION INSIDE THE RIGHT-OF-WAY LINES. EROSION CONTROL ITEMS SHALL NOT BE INSTALLED WHERE POTENTIAL FLOODING MAY OCCUR TO UPSTREAM PRIVATE PROPERTY WHICH COULD CAUSE CROP DAMAGES OR OTHER UNDESIRABLE CONDITIONS.
2. FILTER AREAS SHALL PROTECT THE CONSTRUCTION SITE FROM WINDS, EXCESS SUN, NOISE AND DUST.

STABILIZATION PRACTICES DURING CONSTRUCTION:

1. DURING BRIDGE CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION SLOPE LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED FROM DAMAGING EFFECTS OF CONSTRUCTION. THE CONTRACTOR SHALL NOT USE THIS AREA FOR THE PARKING OF VEHICLES OR CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS, OR OTHER CONSTRUCTION RELATED ACTIVITIES.
 - (A) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED AND APPROVED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUN-OFF IN COMPLIANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.
 - (B) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT WEEKLY OR AFTER A SIGNIFICANT RAINFALL EVENT. THE TEMPORARY EROSION CONTROL MAINTENANCE WILL BE PERFORMED IN ACCORDANCE WITH ARTICLE 280.05 OF THE STANDARD SPECIFICATIONS.
 - (C) SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
 - (D) EROSION CONTROL AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AS DIRECTED BY THE ENGINEER AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING. THE COST OF THIS REMOVAL SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE EROSION CONTROL AND SEDIMENT CONTROL MEASURES. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

MAINTENANCE OF SITE AFTER CONSTRUCTION

1. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED TO BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED. ALL TRAPPED SEDIMENT IS REQUIRED TO BE PROPERLY STABILIZED OR DISPOSED IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS.
2. SIDE SLOPES MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING.
3. CONSTRUCTION IS COMPLETE AFTER ACCEPTANCE IS RECEIVED AT THE FINAL INSPECTION. ALL SOIL EROSION/ SEDIMENTATION CONTROL SITE INSPECTIONS WILL BE DOCUMENTED WITH ALL INFORMATION BEING ACCURATE AND COMPLETE

SEDIMENT AND EROSION CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE ONSET OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER.

FILE NAME = s:\j\1\6398-6399\6346\015\mcrca\final\plans\roadway\04_108-erosion.dgn



1170 SOUTH HOBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

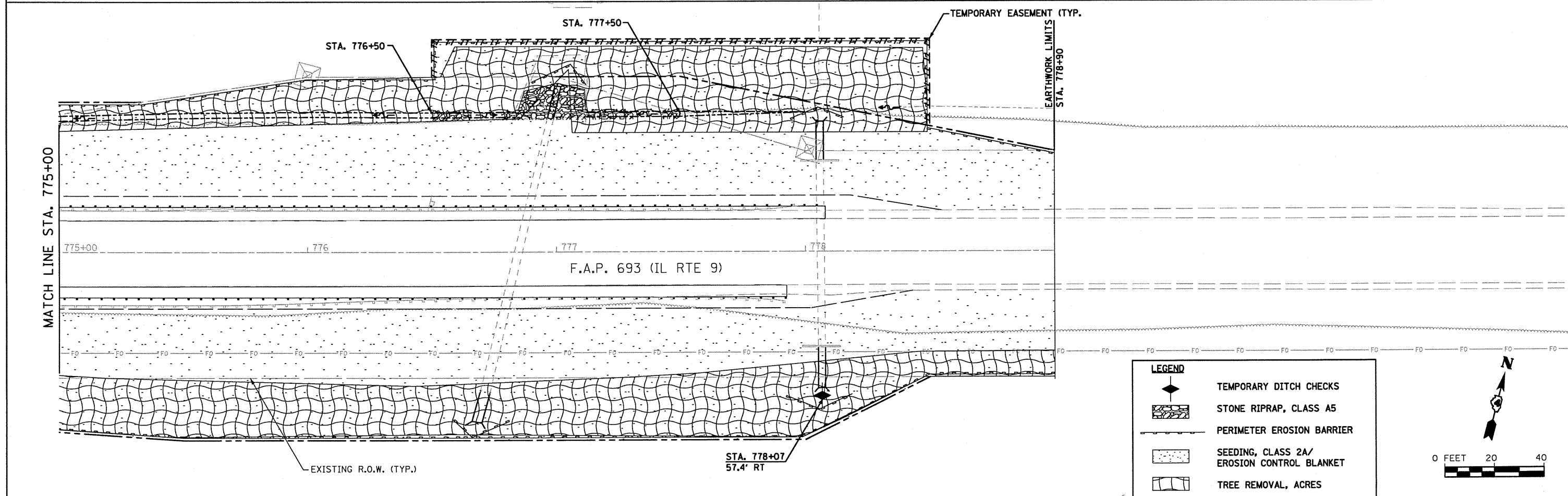
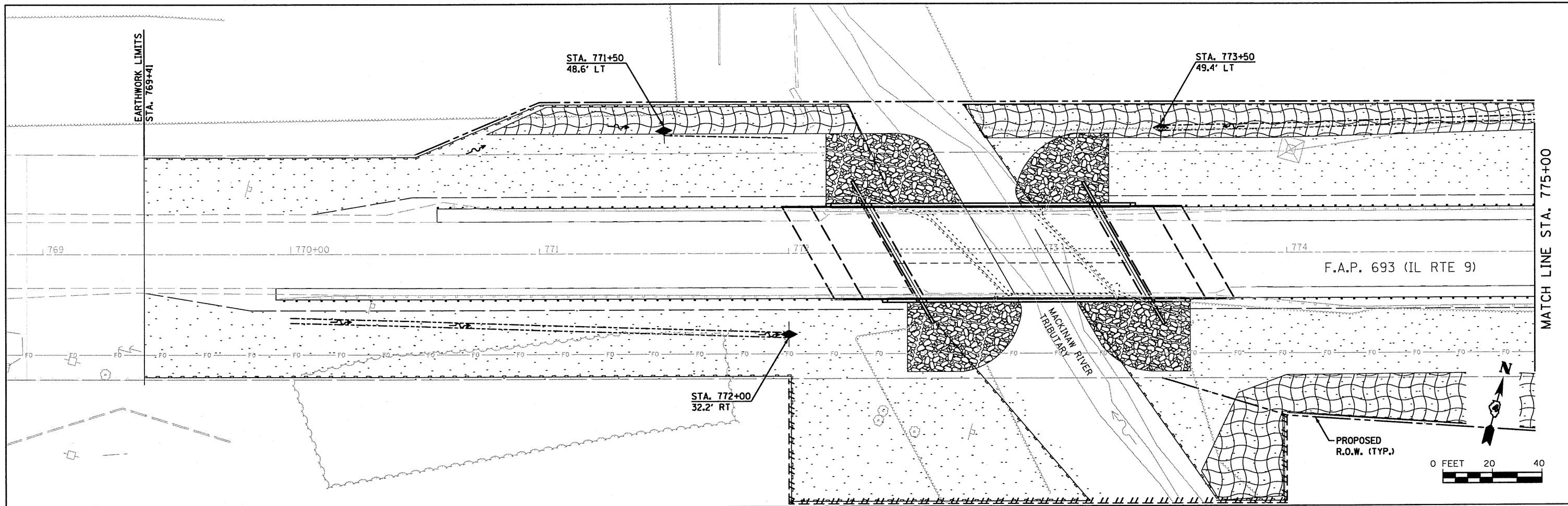
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PLOT DATE = 7/9/2018	CHECKED <i>AJS</i>	REVISED -
	DATE 3/31/10	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

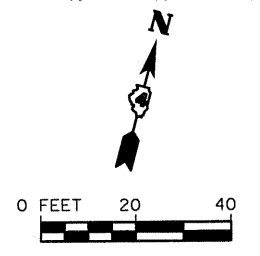
EROSION CONTROL NOTES

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	11
CONTRACT NO. 68660				
FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT				



LEGEND	
	TEMPORARY DITCH CHECKS
	STONE RIPRAP, CLASS A5
	PERIMETER EROSION BARRIER
	SEEDING, CLASS 2A/ EROSION CONTROL BLANKET
	TREE REMOVAL, ACRES



1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
STRAND
ENGINEERS
(815) 744-4200

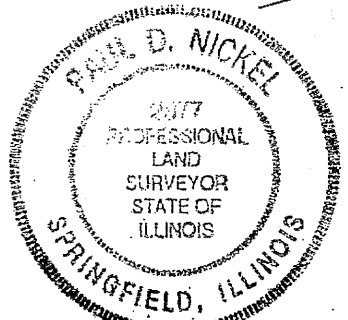
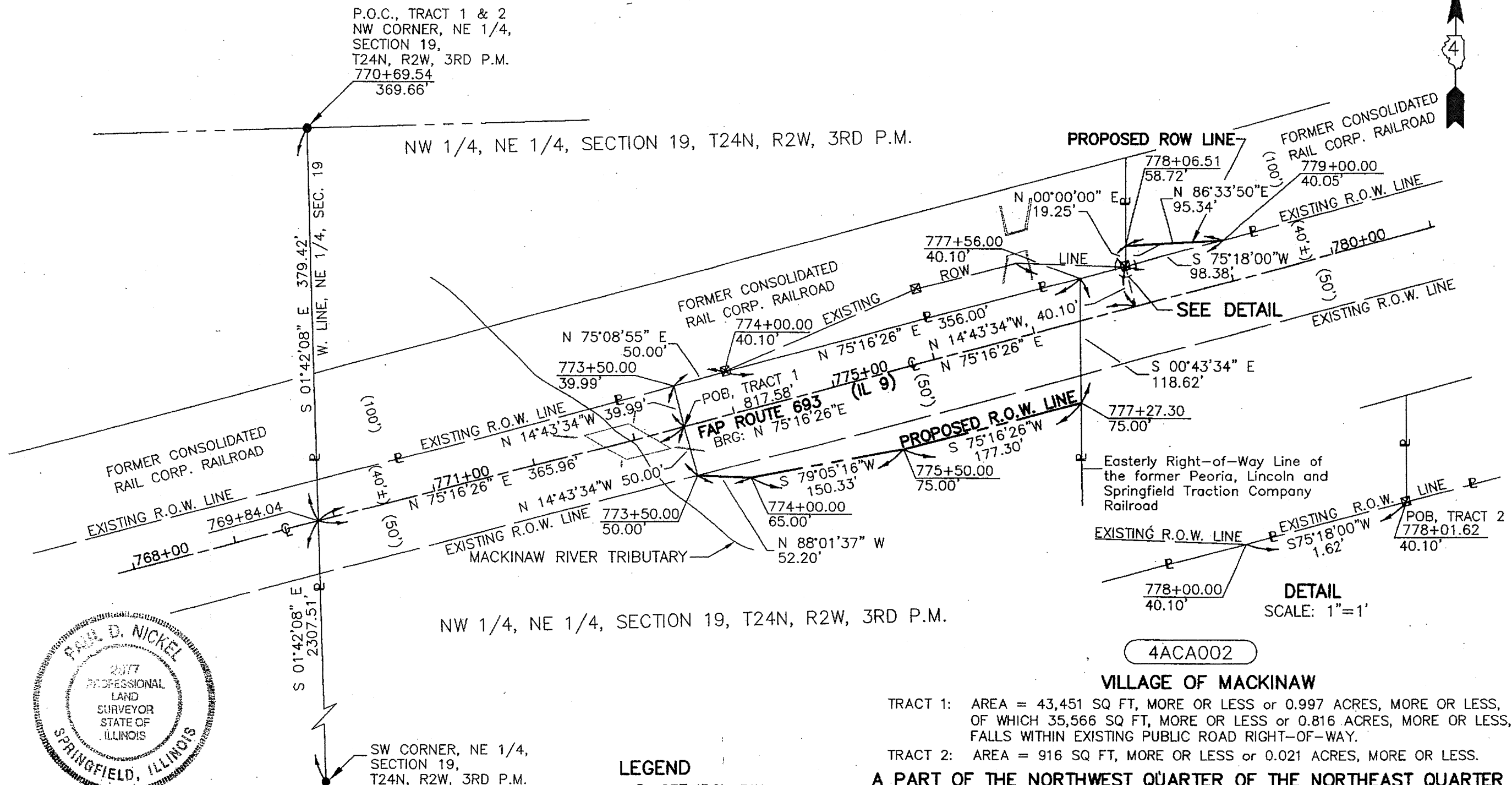
FILE NAME =	USER NAME = ryend	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION CONTROL	F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 12
CONTRACT NO. 68660	SCALE:	SHEET NO. OF SHEETS	STA. 769+00 TO STA. 781+00			FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT				
PLOT SCALE = 48.0000' / IN.	DRAWN VLF	REVISOR -								
PLOT DATE = 7/9/2010	CHECKED AJS	REVISOR -								

BEARINGS ARE BASED ON IL STATE PLANE
COORDINATES, NAD 83, WEST ZONE



CATALOG NO. : 033404-00
CONTRACT NO. : 68660

DATE				
BY				
COMPUTED				
CHECKED				
INKED				
INK CHECKED				
R. O. W. PLAT				
NOTE BOOK				
No.				



THIS IS TO CERTIFY THAT THIS PLAT AND THE SURVEY UPON WHICH IT IS BASED WERE MADE UNDER MY DIRECTION FOR THE ILLINOIS DEPARTMENT OF TRANSPORTATION. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

Paul D. Nickel 2-25-09
ILLINOIS PROFESSIONAL LAND SURVEYOR No. 2877 DATE
LIC. EXP. 11-30-2010

- LEGEND**
- SET IRON PIN
 - FOUND IRON PIN OR PIPE
 - FOUND STONE
 - ▲ FOUND MAG NAIL
 - ⊞ PROPERTY LINE
 - ⊞ RIGHT-OF-WAY MARKER
 - EXISTING ROW LINE
 - - - PROPOSED ROW LINE
 - () RECORD DATA

TRACT 1: AREA = 43,451 SQ FT, MORE OR LESS or 0.997 ACRES, MORE OR LESS, OF WHICH 35,566 SQ FT, MORE OR LESS or 0.816 ACRES, MORE OR LESS, FALLS WITHIN EXISTING PUBLIC ROAD RIGHT-OF-WAY.
TRACT 2: AREA = 916 SQ FT, MORE OR LESS or 0.021 ACRES, MORE OR LESS.

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER

SECTION 19 TOWNSHIP 24 NORTH, RANGE 2 WEST, 3RD PRINCIPAL MERIDIAN
TAZEWELL COUNTY

RIGHT OF WAY PLAT

FAP ROUTE 693 (IL 9) CONSTRUCTION SECTION (119 BR-2)BR
SCALE: 1" = 100' FEBRUARY 20 09 JOB NO. R-94-002-09

4ACA002

VILLAGE OF MACKINAW

DETAIL
SCALE: 1"=1'

CADD DRAWING
PROJECT:
FILE:

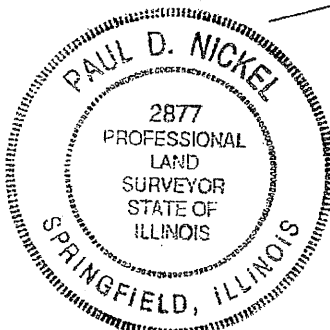
4ACA002

BEARINGS ARE BASED ON IL STATE PLANE
COORDINATES, NAD 83, WEST ZONE



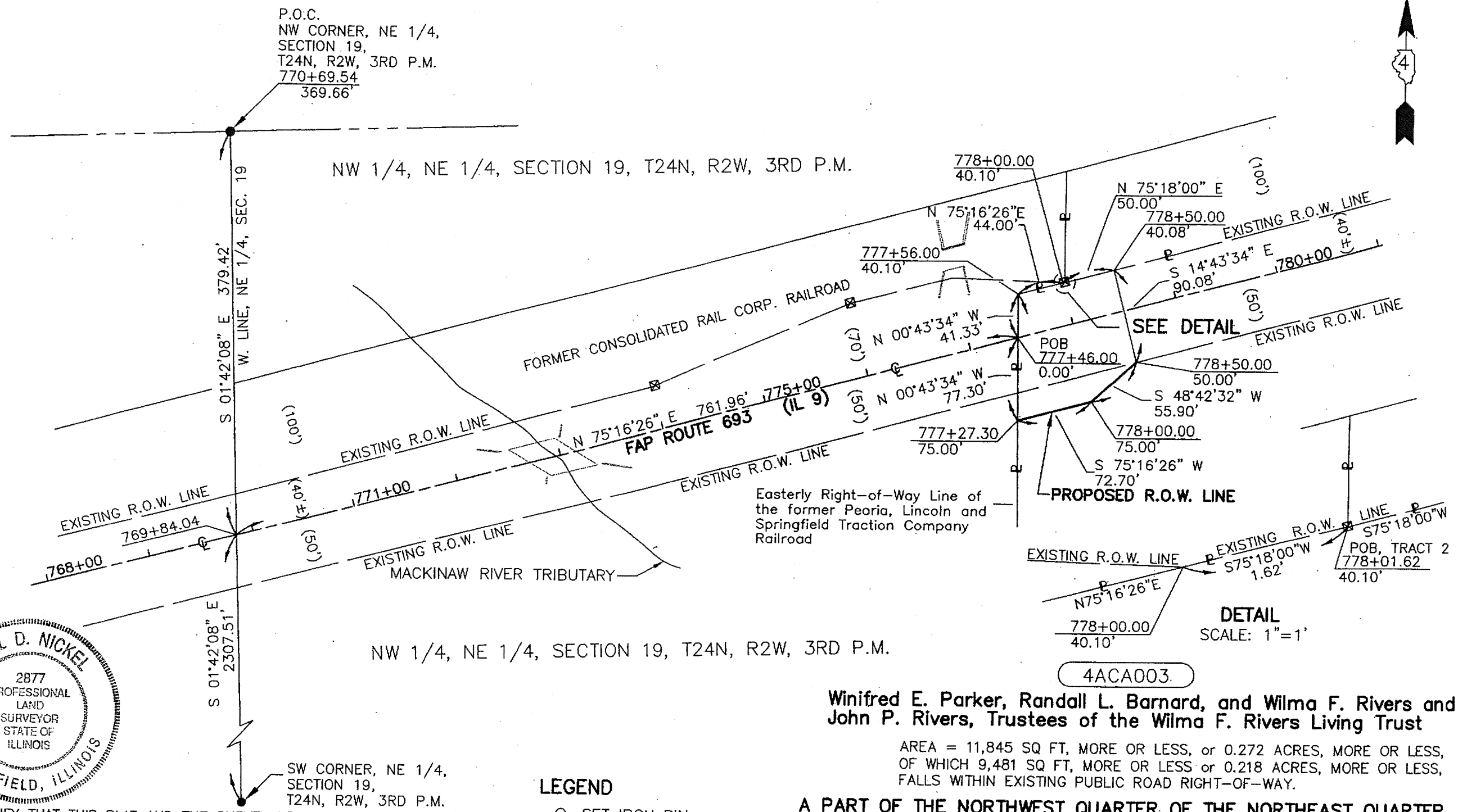
CATALOG NO. : 033404-00
CONTRACT NO. : 68660

DATE		COMPUTED	
BY		CHECKED	
		INKED	
		INK CHECKED	
R. O. W. PLAT		NOTE BOOK	
			No.



THIS IS TO CERTIFY THAT THIS PLAT AND THE SURVEY UPON WHICH IT IS BASED WERE MADE UNDER MY DIRECTION FOR THE ILLINOIS DEPARTMENT OF TRANSPORTATION. THIS PROFESSIONAL SERVICE CONFORMS TO THE CURRENT ILLINOIS MINIMUM STANDARDS FOR A BOUNDARY SURVEY.

Paul D. Nickel 4-3-09
ILLINOIS PROFESSIONAL LAND SURVEYOR No. 2877 DATE
LIC. EXP. 11-30-2010



- LEGEND**
- SET IRON PIN
 - FOUND IRON PIN OR PIPE
 - FOUND STONE
 - ▲ FOUND MAG NAIL
 - ⊠ PROPERTY LINE
 - ⊞ RIGHT-OF-WAY MARKER
 - EXISTING ROW LINE
 - - - PROPOSED ROW LINE
 - () RECORD DATA

Winifred E. Parker, Randall L. Barnard, and Wilma F. Rivers and John P. Rivers, Trustees of the Wilma F. Rivers Living Trust

AREA = 11,845 SQ FT, MORE OR LESS, or 0.272 ACRES, MORE OR LESS, OF WHICH 9,481 SQ FT, MORE OR LESS or 0.218 ACRES, MORE OR LESS, FALLS WITHIN EXISTING PUBLIC ROAD RIGHT-OF-WAY.

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER

SECTION 19 TOWNSHIP 24 NORTH, RANGE 2 WEST, 3RD PRINCIPAL MERIDIAN
TAZEWELL COUNTY

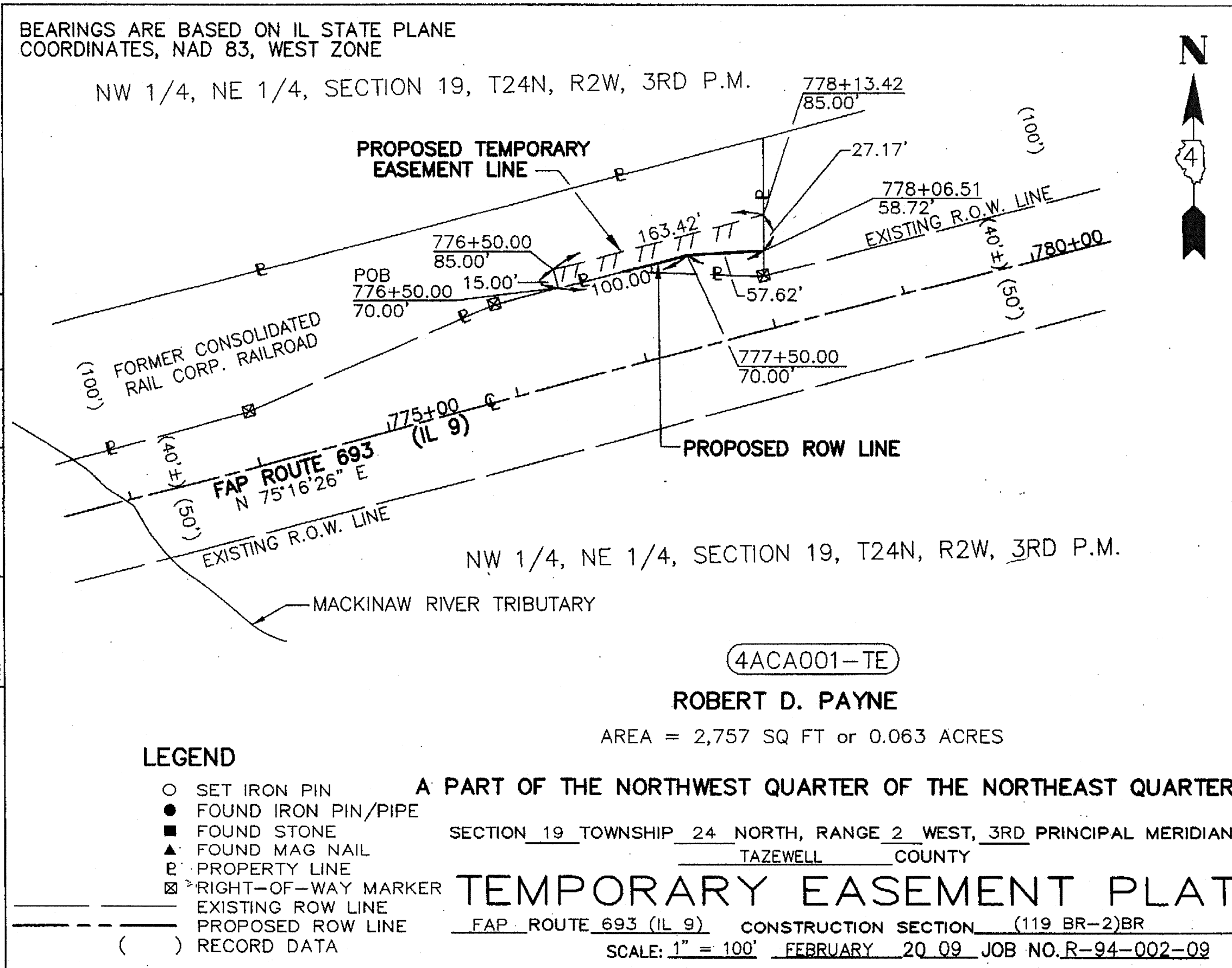
RIGHT OF WAY PLAT

FAP ROUTE 693 (IL 9) CONSTRUCTION SECTION (119 BR-2)BR
SCALE: 1" = 100' APRIL 20 09 JOB NO. R-94-002-09

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CATALOG NO. : 033404-00
CONTRACT NO. : 68660

DATE				
BY				
COMPUTED				
CHECKED				
INKED				
INK CHECKED				
T.E. PLAT				
NOTE BOOK				
No.				



4ACA001-TE

ROBERT D. PAYNE

AREA = 2,757 SQ FT or 0.063 ACRES

LEGEND

- SET IRON PIN
- FOUND IRON PIN/PIPE
- FOUND STONE
- ▲ FOUND MAG NAIL
- PROPERTY LINE
- ⊠ RIGHT-OF-WAY MARKER
- EXISTING ROW LINE
- - - PROPOSED ROW LINE
- () RECORD DATA

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER

SECTION 19 TOWNSHIP 24 NORTH, RANGE 2 WEST, 3RD PRINCIPAL MERIDIAN
TAZEWELL COUNTY

TEMPORARY EASEMENT PLAT

FAP ROUTE 693 (IL 9) CONSTRUCTION SECTION (119 BR-2)BR

SCALE: 1" = 100' FEBRUARY 20 09 JOB NO. R-94-002-09

CADD DRAWING PROJECT: FILE:

Signed

Recorded

BOOK DOCUMENT NO.

PAGE 16 of 65

4ACA001-TE

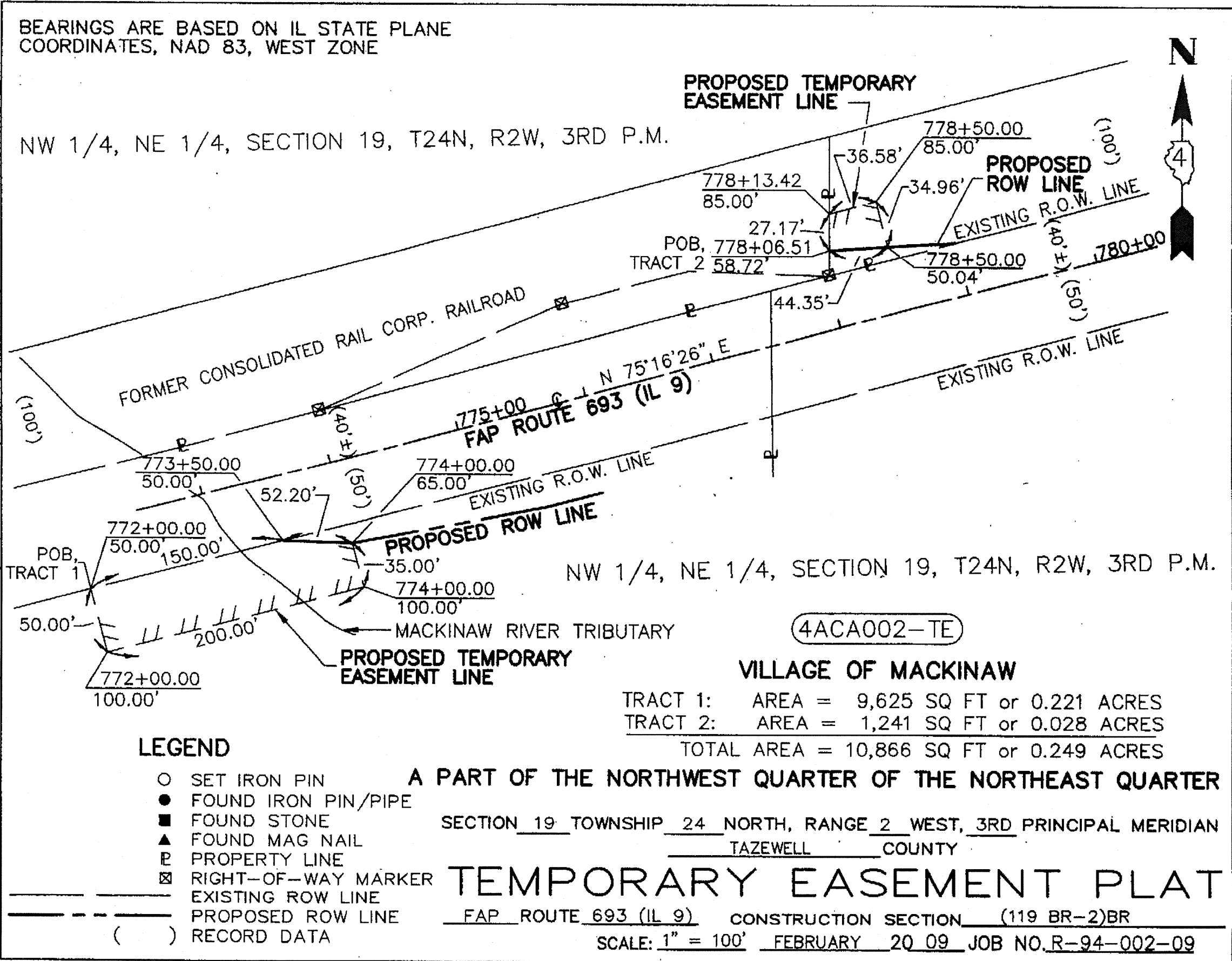
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CATALOG NO. : 033404-00
CONTRACT NO. : 68660

BEARINGS ARE BASED ON IL STATE PLANE
COORDINATES, NAD 83, WEST ZONE

NW 1/4, NE 1/4, SECTION 19, T24N, R2W, 3RD P.M.

DATE				
BY				
COMPUTED		INKED		
CHECKED		INK CHECKED		
T.E. PLAT		NOTE BOOK		No.



NW 1/4, NE 1/4, SECTION 19, T24N, R2W, 3RD P.M.

4ACA002-TE

VILLAGE OF MACKINAW

TRACT 1: AREA = 9,625 SQ FT or 0.221 ACRES
TRACT 2: AREA = 1,241 SQ FT or 0.028 ACRES
TOTAL AREA = 10,866 SQ FT or 0.249 ACRES

LEGEND

- SET IRON PIN
- FOUND IRON PIN/PIPE
- FOUND STONE
- ▲ FOUND MAG NAIL
- P PROPERTY LINE
- ⊠ RIGHT-OF-WAY MARKER
- EXISTING ROW LINE
- - - PROPOSED ROW LINE
- () RECORD DATA

A PART OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER

SECTION 19 TOWNSHIP 24 NORTH, RANGE 2 WEST, 3RD PRINCIPAL MERIDIAN
TAZEWELL COUNTY

TEMPORARY EASEMENT PLAT

FAP ROUTE 693 (IL 9) CONSTRUCTION SECTION (119 BR-2)BR

SCALE: 1" = 100' FEBRUARY 20 09 JOB NO. R-94-002-09

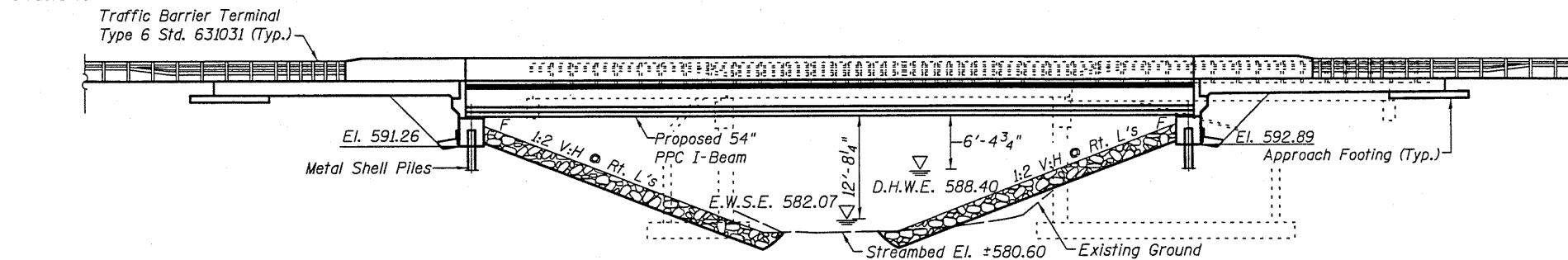
CADD DRAWING
PROJECT:
FILE:

Benchmark: Benchmark disk set in concrete post in Northeast quad of intersection of N. Hoffman Avenue and State Highway 9 ±57' north of \varnothing IL-9 and ±106' east of \varnothing N. Hoffman Avenue. Elevation 591.41

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Existing Structure: S.N. 090-0064 built in 1928 as SBI Route 164, Section 119-B. The superstructure was replaced in 1975 with (11)- 21" x 36" PPC Deck Beams and a bituminous overlay. The substructure consists of RC closed abutments on untreated timber piles. Structure measures 44'-9⁵/₈" bk to bk abutments and 33'-0" out-to-out of deck. Existing structure is to be removed. Traffic to be maintained using stage construction. Wide load detour to be provided.

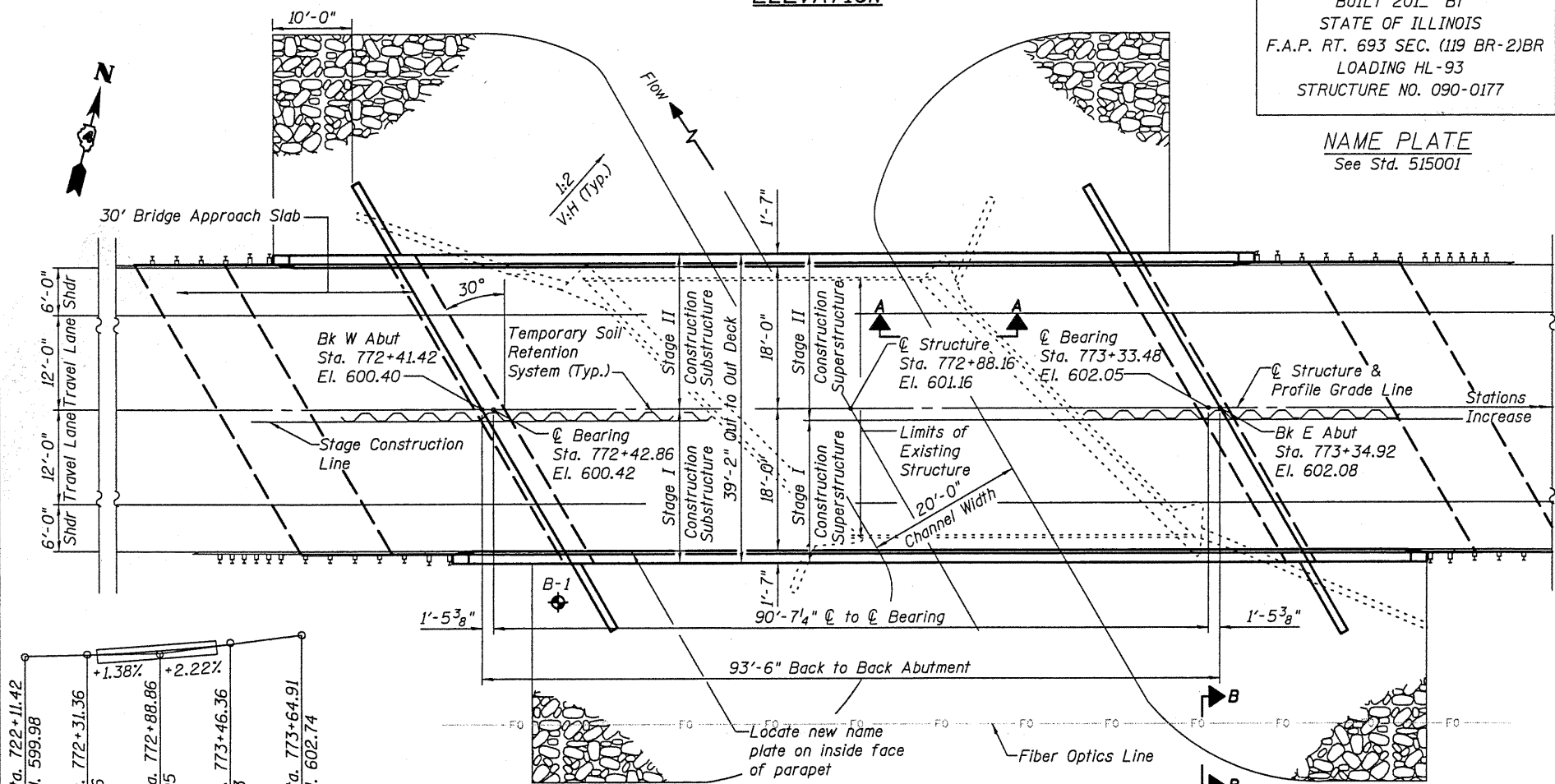
Salvage all steel used for bracing and support. All salvaged steel should be shipped to East Peoria Maintenance Yard at 604 Camp St., East Peoria, IL 61611. Contact Brain Ruder at (309) 699-3822. Cost incidental to Removal of Existing Structures.



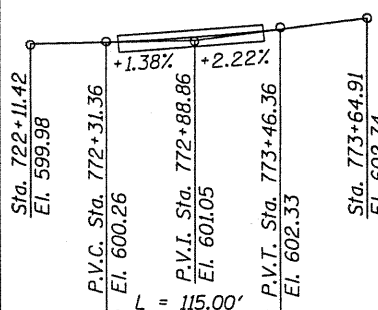
ELEVATION

STATION 772+88.16
BUILT 20L BY
STATE OF ILLINOIS
F.A.P. RT. 693 SEC. (119 BR-2)BR
LOADING HL-93
STRUCTURE NO. 090-0177

NAME PLATE
See Std. 515001



PLAN



PROFILE GRADE

(F.A.P. 693 along \varnothing of roadway)

DESIGNED - RRD
CHECKED - AJS
DRAWN - KAS
CHECKED - AJS

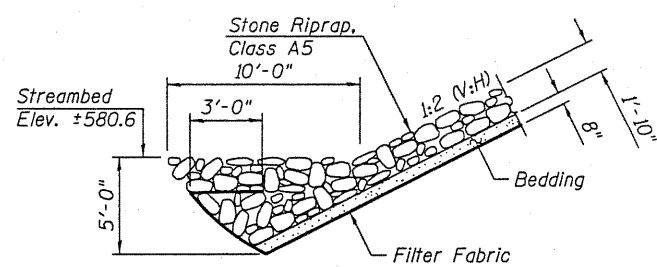
WATERWAY INFORMATION

Drainage Area = 3.3 square miles		Low Grade Elev. 600.24 @ Sta. 772+29							
Flood Yr.	Freq. C.F.S.	Opening Sq. Ft.	Nat. Head - Ft.	Headwater El.					
		Exist. Prop.	Exist. Prop.	Exist. Prop.					
Design	50	1810	211	280	586.70	0.65	0.44	587.35	587.14
Base	100	2160	229	314	589.05	1.42	0.69	590.47	589.74
Overtopping	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Max. Calc.	500	3030	268	391	590.40	2.15	0.91	592.55	591.31

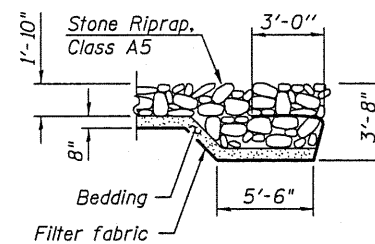
10-year velocity through existing bridge = 6.77 fps 10 year velocity through proposed bridge = 5.55 fps
Scour counter measures to be provided. No scour is anticipated.

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	West Abut.	East Abut.
	591.26	592.89



SECTION A-A



SECTION B-B

SCOPE OF WORK

Complete removal of Existing Superstructure, and Approach Slabs. Removal of Existing Abutments and Wingwalls. Construct Reinforced Concrete Bridge Deck, P.P.C. I-Beams, Approach Slab, and Abutments.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at substructures specified or approved by the Engineer before ordering the remainder of piles.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.
The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

APPROVED
For Structural Adequacy Only

Ralph E. Anderson (SE)
Engineer of Bridges & Structures

ILLINOIS STRUCTURAL NO. 081-005819 (Expires 11/30/10)

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Bill of Material and Suggested Stage Construction
- 3 Temporary Concrete Barrier Details
- 4-5 Top of Slab Elevations
- 6 Top of Approach Slab Elevations
- 7 Superstructure
- 8 Superstructure Details
- 9 Diaphragm Details
- 9a Concrete Parapet Slipforming Option
- 10 Framing Plan
- 11-12 Beam Details
- 13-14 Bridge Approach Slab
- 15-16 Abutment Details
- 17 Metal Shell Pile Details
- 18 Suggested Stage Construction Bracing Details
- 19 Bar Splicer and Assembly Details
- 20-21 Soil Boring Logs
- 22 Existing Structure Plan/Original Construction Drawing

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 Interims

LOADING HL-93

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.119
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.191
Soil Site Class = D

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS

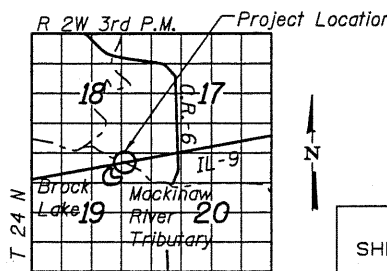
f'c = 6,000 psi
f'ci = 5,000 psi
fpu = 270,000 psi (1/2" low lax. strands)
fpbt = 201,960 psi (1/2" low lax. strands)



Anthony J. Standish

GENERAL PLAN AND ELEVATION
IL-9 OVER
MACKINAW RIVER TRIBUTARY
F.A.P. 693 - SECTION (119 BR-2)BR
TAZEWELL COUNTY
STA. 772+88.16
S.N. 090-0177

STRAND ASSOCIATES, INC.



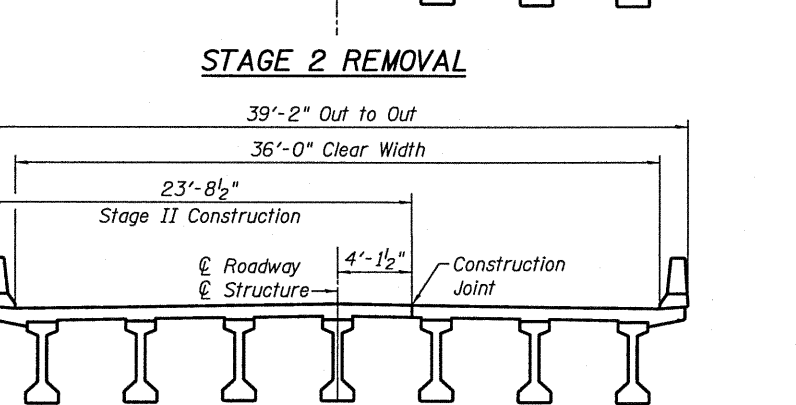
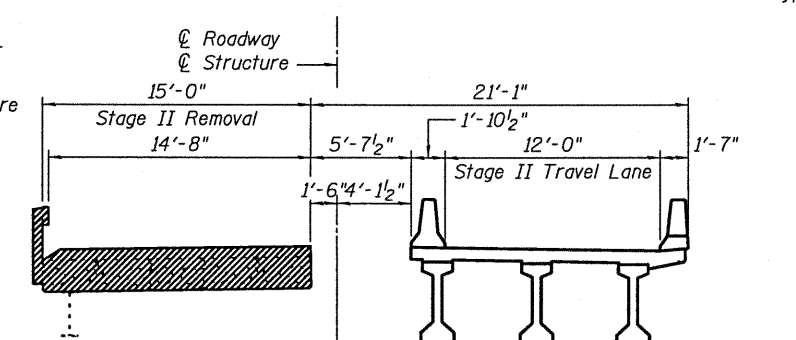
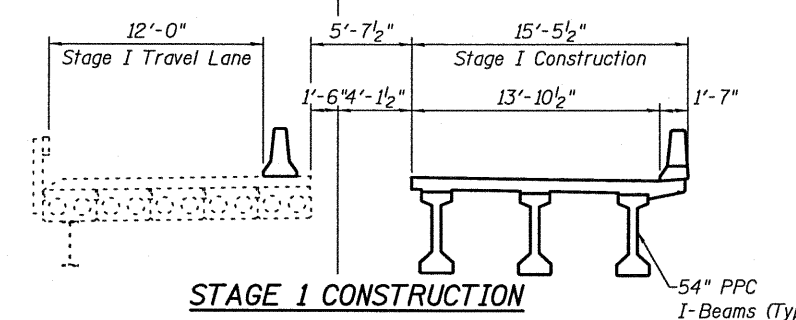
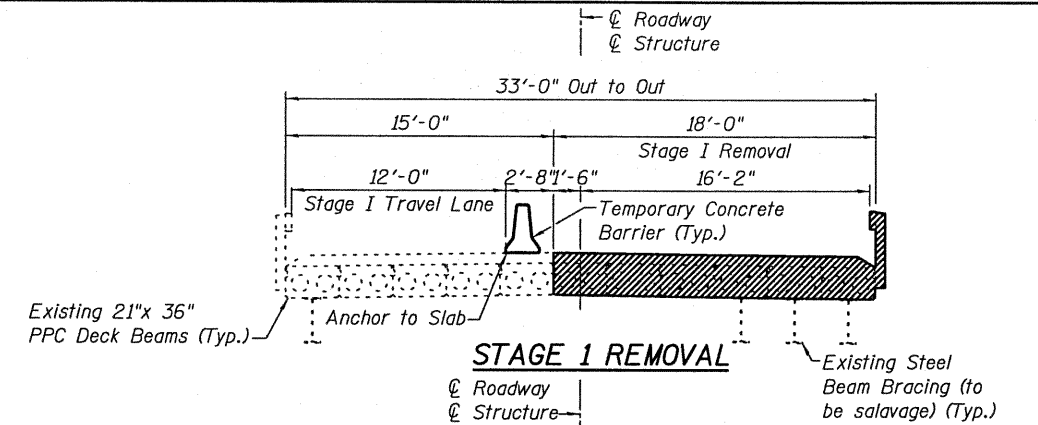
LOCATION SKETCH

SHEET NO. 1	F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 18
22 SHEETS	CONTRACT NO. 68660		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	CU YD	-	240	240
Stone Riprap, Class A5	SQ YD	-	980	980
Filter Fabric	SQ YD	-	980	980
Removal of Existing Structures	EACH	-	1	1
Structure Excavation	CU YD	-	317	317
Concrete Structures	CU YD	-	68	68
Concrete Superstructure	CU YD	287	-	287
Bridge Deck Grooving	SQ YD	580	-	580
Protective Coat	SQ YD	714	23	737
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54 In.	FOOT	642	-	642
Reinforcement Bars, Epoxy Coated	POUND	56,320	13,220	69,540
Bar Splicers	EACH	369	28	397
Furnishing Metal Shell Piles 14x0.250	FOOT	-	385	385
Driving Piles	FOOT	-	385	385
Test Pile Metal Shells	EACH	-	2	2
Pile Shoes	EACH	-	16	16
Name Plates	EACH	1	-	1
Geocomposite Wall Drain	SQ YD	-	84	84
Pipe Underdrains for Structures 4"	FOOT	-	177	177
Temporary Soil Retention System	SQ FT	-	891	891
Temporary Support System	EACH	-	2	2

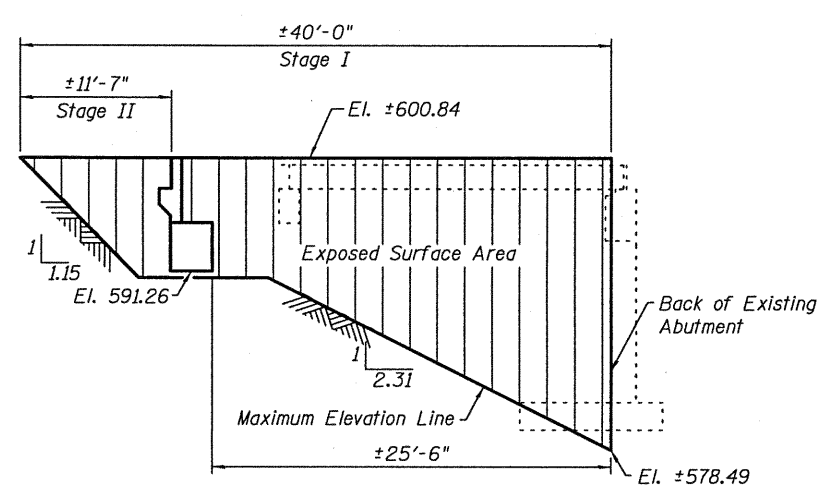
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



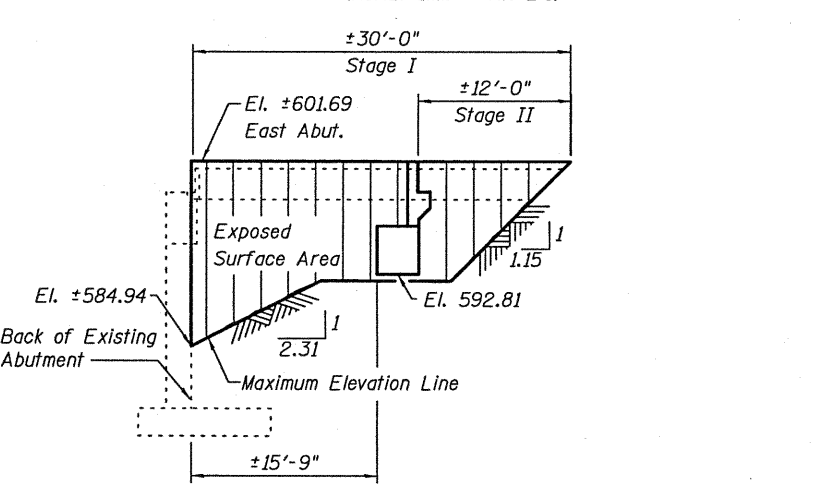
LEGEND
 [Hatched] Removal of Existing Structures
 [Solid] Proposed Concrete

Note:
 All cross sections are looking East.
 All existing approach structures to be removed as directed by the engineer. Cost included in Removal of Existing Structures.

BILL OF MATERIALS AND SUGGESTED STAGE CONSTRUCTION
 S.N. 090-0177
 STRAND ASSOCIATES, INC.



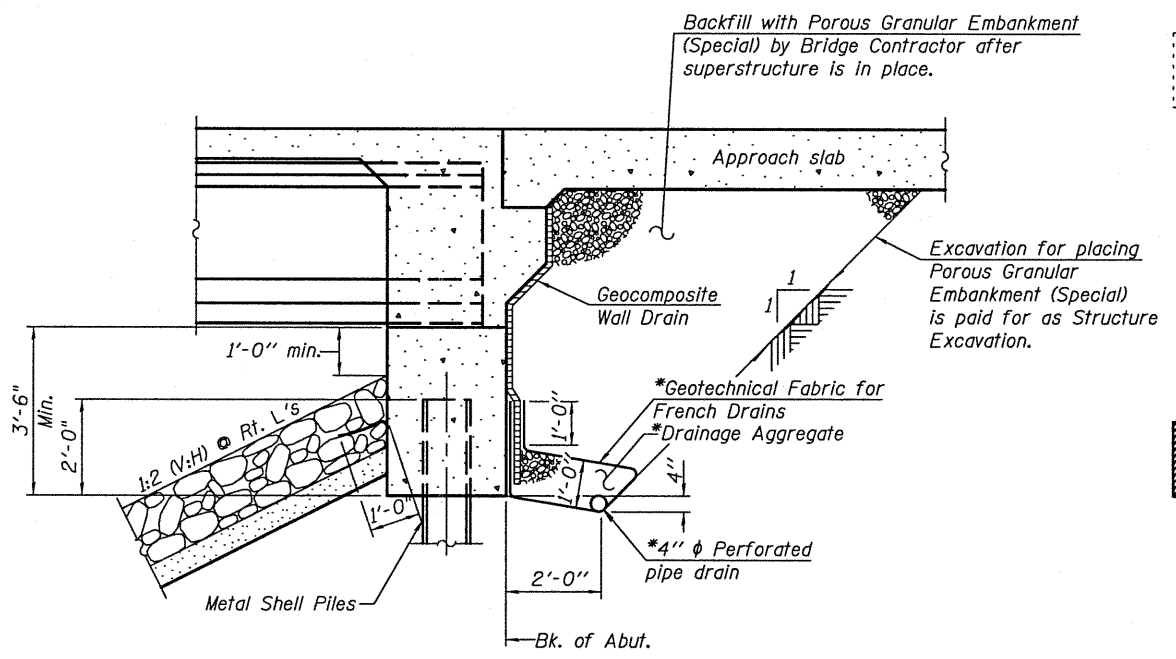
**WEST ABUTMENT
TEMPORARY SOIL RETENTION SYSTEM**
 (Horiz. dim. • Rt. L's)



**EAST ABUTMENT
TEMPORARY SOIL RETENTION SYSTEM**
 (Horiz. dim. • Rt. L's)

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

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS



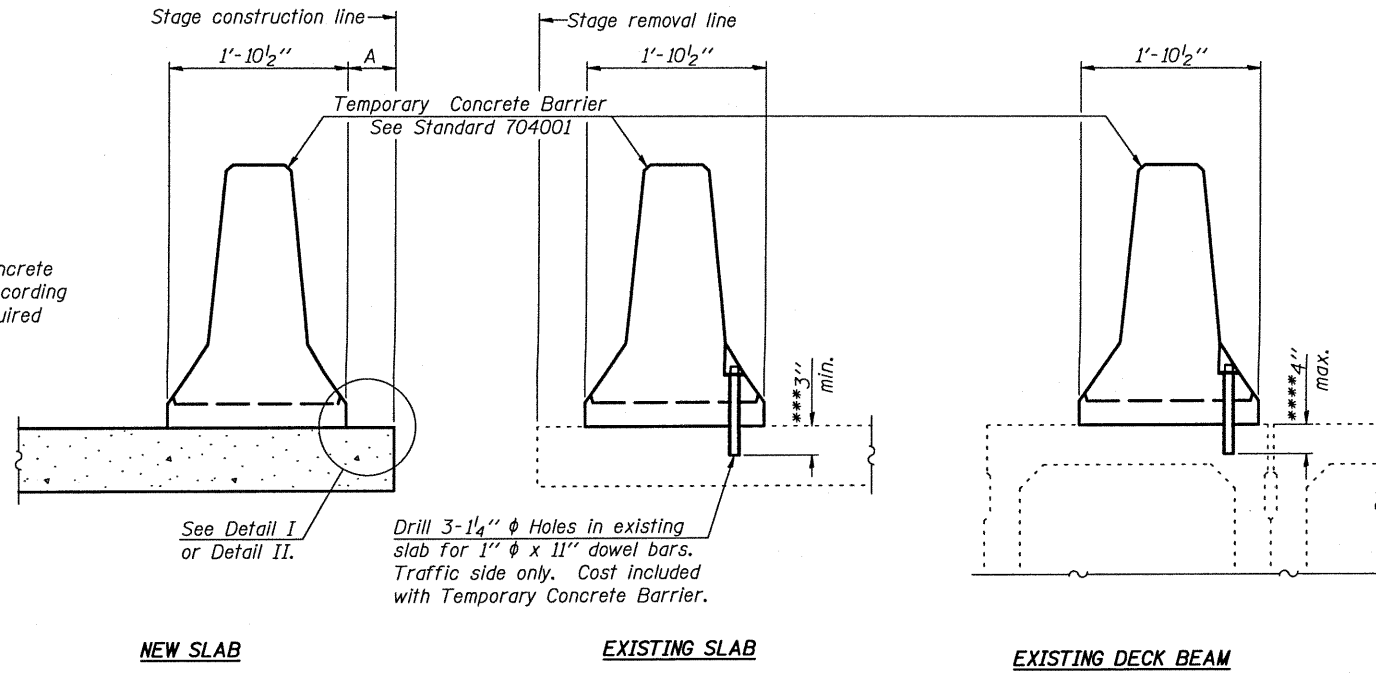
SECTION THRU INTEGRAL ABUTMENT
 (Horiz. dim. • Rt. L's)

*Included in the cost of Pipe Underdrains for Structures.
 Note:
 All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110).

SHEET NO. 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22 SHEETS	693	(119 BR-2)BR	TAZEWELL	65	19
FED. ROAD DIST. NO.			ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 68660					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

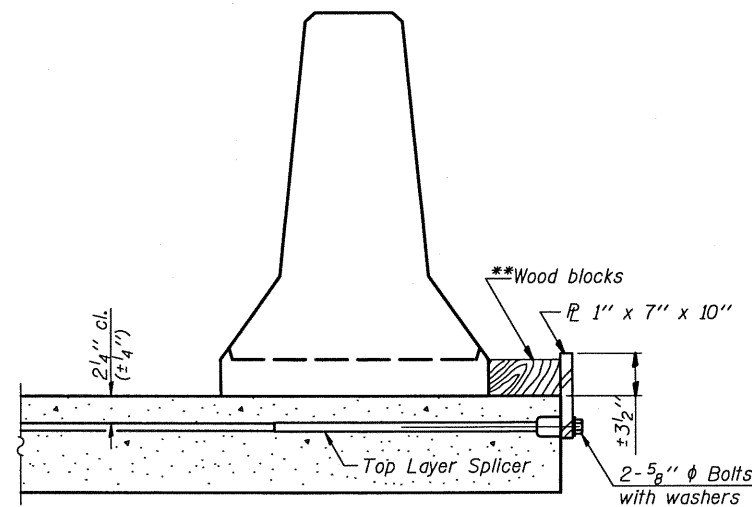


NEW SLAB

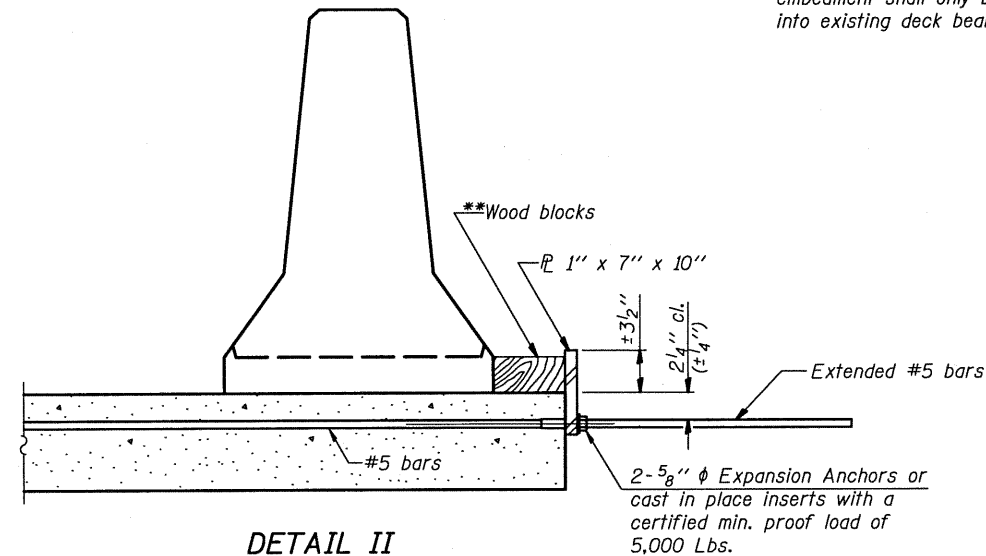
EXISTING SLAB

EXISTING DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM



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.

NOTES

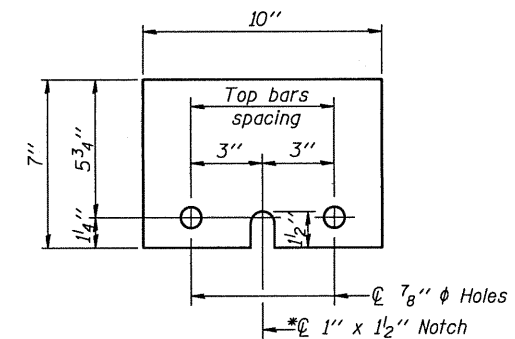
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x10" steel \bar{P} to the concrete slab or concrete wearing surface 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.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



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

* Required only with Detail II

DESIGNED	KHM
CHECKED	AJS
DRAWN	KAS
CHECKED	RRD

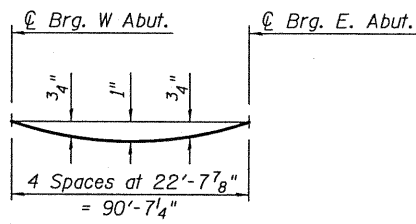
R-27

10-1-08

TEMPORARY CONCRETE BARRIER
FOR STAGE CONSTRUCTION
S.N. 090-0177
STRAND ASSOCIATES, INC.

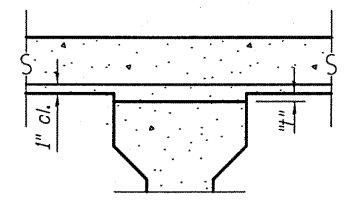
SHEET NO. 3	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	20
21 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

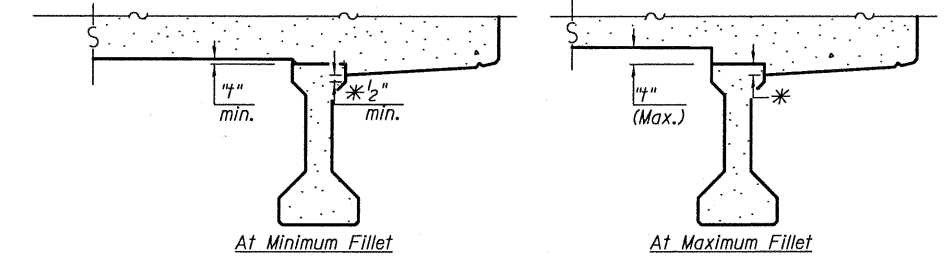


DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams).

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections on sheet 5 of 22.



INTERIOR BEAMS



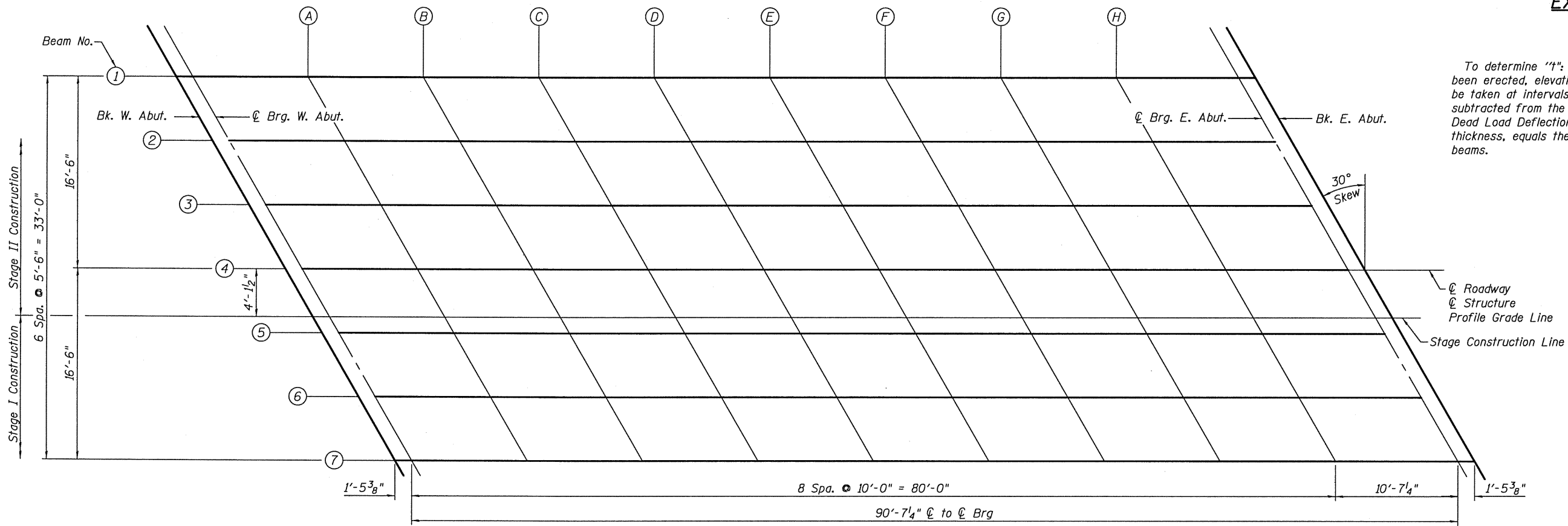
At Minimum Fillet

At Maximum Fillet

* Variable (not less than 1/2")

EXTERIOR BEAMS

To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheet 5 of 22. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheet 5 of 22, minus slab thickness, equals the fillet heights "t" above top flanges of beams.



PLAN



TOP OF SLAB ELEVATIONS (1 OF 2)
S.N. 090-0177

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

SHEET NO. 4 22 SHEETS	F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 21
	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+31.89	16.50	599.98	599.98
CL Brg. W. Abut.	772+33.34	16.50	600.00	600.00
A	772+43.34	16.50	600.15	600.17
B	772+53.34	16.50	600.30	600.35
C	772+63.34	16.50	600.45	600.52
D	772+73.34	16.50	600.62	600.70
E	772+83.34	16.50	600.79	600.87
F	772+93.34	16.50	600.97	601.04
G	773+03.34	16.50	601.16	601.21
H	773+13.34	16.50	601.35	601.38
CL Brg. E. Abut.	773+23.95	16.50	601.57	601.57
Back of E. Abut.	773+25.39	16.50	601.60	601.60

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+35.07	11.00	600.14	600.14
CL Brg. W. Abut.	772+36.51	11.00	600.16	600.16
A	772+46.51	11.00	600.30	600.33
B	772+56.51	11.00	600.45	600.51
C	772+66.51	11.00	600.61	600.69
D	772+76.51	11.00	600.78	600.86
E	772+86.51	11.00	600.96	601.04
F	772+96.51	11.00	601.14	601.21
G	773+06.51	11.00	601.33	601.38
H	773+16.51	11.00	601.53	601.56
CL Brg. E. Abut.	773+27.13	11.00	601.74	601.74
Back of E. Abut.	773+28.57	11.00	601.77	601.77

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+38.24	5.50	600.27	600.27
CL Brg. W. Abut.	772+39.69	5.50	600.29	600.29
A	772+49.69	5.50	600.44	600.46
B	772+59.69	5.50	600.59	600.64
C	772+69.69	5.50	600.75	600.82
D	772+79.69	5.50	600.92	601.00
E	772+89.69	5.50	601.10	601.18
F	772+99.69	5.50	601.28	601.36
G	773+09.69	5.50	601.48	601.53
H	773+19.69	5.50	601.68	601.71
CL Brg. E. Abut.	773+30.30	5.50	601.89	601.89
Back of E. Abut.	773+31.74	5.50	601.92	601.92

BEAM 4/PGL/C ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+41.42	0.00	600.40	600.40
CL Brg. W. Abut.	772+42.86	0.00	600.42	600.42
A	772+52.86	0.00	600.57	600.60
B	772+62.86	0.00	600.73	600.78
C	772+72.86	0.00	600.89	600.96
D	772+82.86	0.00	601.06	601.14
E	772+92.86	0.00	601.24	601.32
F	773+02.86	0.00	601.43	601.50
G	773+12.86	0.00	601.62	601.68
H	773+22.86	0.00	601.83	601.86
CL Brg. E. Abut.	773+33.48	0.00	602.05	602.05
Back of E. Abut.	773+34.92	0.00	602.08	602.08

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+43.80	-4.13	600.50	600.50
CL Brg. W. Abut.	772+45.24	-4.13	600.52	600.52
A	772+55.24	-4.13	600.67	600.70
B	772+65.24	-4.13	600.83	600.88
C	772+75.24	-4.13	601.00	601.07
D	772+85.24	-4.13	601.17	601.25
E	772+95.24	-4.13	601.35	601.43
F	773+05.24	-4.13	601.54	601.61
G	773+15.24	-4.13	601.74	601.79
H	773+25.24	-4.13	601.94	601.97
CL Brg. E. Abut.	773+35.86	-4.13	602.16	602.16
Back of E. Abut.	773+37.30	-4.13	602.19	602.19

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+44.60	-5.50	600.36	600.36
CL Brg. W. Abut.	772+46.04	-5.50	600.38	600.38
A	772+56.04	-5.50	600.53	600.56
B	772+66.04	-5.50	600.69	600.75
C	772+76.04	-5.50	600.86	600.93
D	772+86.04	-5.50	601.03	601.11
E	772+96.04	-5.50	601.22	601.30
F	773+06.04	-5.50	601.41	601.48
G	773+16.04	-5.50	601.60	601.66
H	773+26.04	-5.50	601.81	601.84
CL Brg. E. Abut.	773+36.65	-5.50	602.03	602.03
Back of E. Abut.	773+38.10	-5.50	602.06	602.06

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+47.77	-11.00	600.32	600.32
CL Brg. W. Abut.	772+49.21	-11.00	600.34	600.34
A	772+59.21	-11.00	600.50	600.53
B	772+69.21	-11.00	600.66	600.71
C	772+79.21	-11.00	600.83	600.90
D	772+89.21	-11.00	601.01	601.09
E	772+99.21	-11.00	601.19	601.27
F	773+09.21	-11.00	601.38	601.45
G	773+19.21	-11.00	601.58	601.63
H	773+29.21	-11.00	601.79	601.82
CL Brg. E. Abut.	773+39.83	-11.00	602.01	602.01
Back of E. Abut.	773+41.27	-11.00	602.04	602.04

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Back of W. Abut.	772+50.95	-16.50	600.26	600.26
CL Brg. W. Abut.	772+52.39	-16.50	600.28	600.28
A	772+62.39	-16.50	600.44	600.47
B	772+72.39	-16.50	600.60	600.66
C	772+82.39	-16.50	600.77	600.85
D	772+92.39	-16.50	600.95	601.03
E	773+02.39	-16.50	601.14	601.22
F	773+12.39	-16.50	601.33	601.41
G	773+22.39	-16.50	601.53	601.59
H	773+32.39	-16.50	601.74	601.77
CL Brg. E. Abut.	773+43.00	-16.50	601.97	601.97
Back of E. Abut.	773+44.45	-16.50	602.00	602.00

DESIGNED RRD
CHECKED AJS
DRAWN KAS
CHECKED AJS

TOP OF SLAB ELEVATIONS (2 OF 2)
S.N. 090-0177

STRAND ASSOCIATES, INC.

SHEET NO. 5	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	22
22 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
NORTH EDGE OF PAVEMENT

NORTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	772+01.03	18.00	600.40
A1	772+11.03	18.00	600.24
A2	772+21.03	18.00	600.09
E. End West Appr. Slab	772+31.03	18.00	599.95
W. End East Appr. Slab	773+24.53	18.00	601.55
A3	773+34.53	18.00	601.76
A4	773+44.53	18.00	601.97
E. End East Appr. Slab	773+54.53	18.00	601.84

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	772+04.49	12.00	600.47
A1	772+14.49	12.00	600.31
A2	772+24.49	12.00	600.16
E. End West Appr. Slab	772+34.49	12.00	600.11
W. End East Appr. Slab	773+27.99	12.00	601.74
A3	773+37.99	12.00	601.96
A4	773+47.99	12.00	602.10
E. End East Appr. Slab	773+57.99	12.00	601.89

PROFILE GRADE LINE

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	772+11.42	0.00	600.55
A1	772+21.42	0.00	600.40
A2	772+31.42	0.00	600.26
E. End West Appr. Slab	772+41.42	0.00	600.40
W. End East Appr. Slab	773+34.92	0.00	602.08
A3	773+44.92	0.00	602.30
A4	773+54.92	0.00	602.14
E. End East Appr. Slab	773+64.92	0.00	601.93

STAGE CONSTRUCTION JOINT

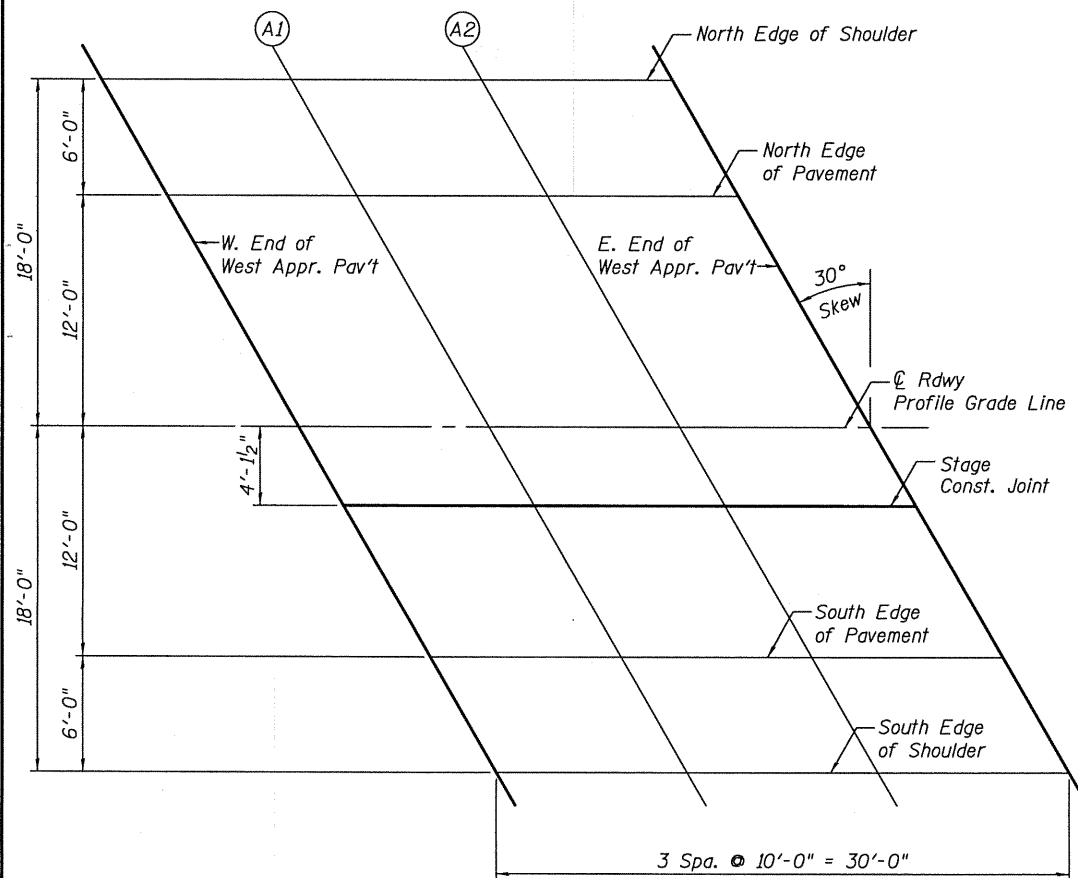
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	772+13.80	-4.13	600.44
A1	772+23.80	-4.13	600.30
A2	772+33.80	-4.13	600.23
E. End West Appr. Slab	772+43.80	-4.13	600.37
W. End East Appr. Slab	773+37.30	-4.13	602.07
A3	773+47.30	-4.13	602.24
A4	773+57.30	-4.13	602.02
E. End East Appr. Slab	773+67.30	-4.13	601.81

SOUTH EDGE OF PAVEMENT

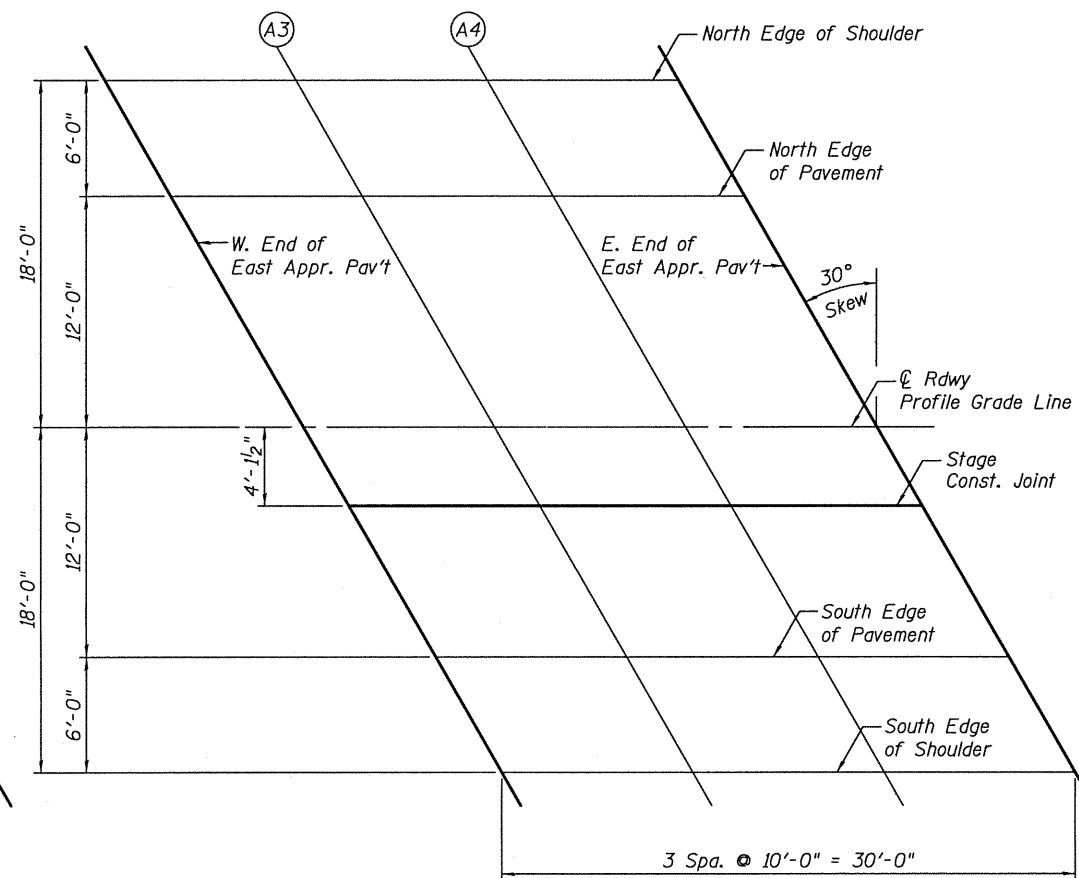
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	772+18.35	-12.00	600.25
A1	772+28.35	-12.00	600.11
A2	772+38.35	-12.00	600.17
E. End West Appr. Slab	772+48.35	-12.00	600.31
W. End East Appr. Slab	773+41.85	-12.00	602.04
A3	773+51.85	-12.00	602.02
A4	773+61.85	-12.00	601.80
E. End East Appr. Slab	773+71.85	-12.00	601.60

SOUTH EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Slab	772+21.81	-18.00	600.08
A1	772+31.81	-18.00	599.95
A2	772+41.81	-18.00	600.09
E. End West Appr. Slab	772+51.81	-18.00	600.24
W. End East Appr. Slab	773+45.31	-18.00	601.99
A3	773+55.31	-18.00	601.82
A4	773+65.31	-18.00	601.61
E. End East Appr. Slab	773+75.31	-18.00	601.40



PLAN
West Approach



PLAN
East Approach



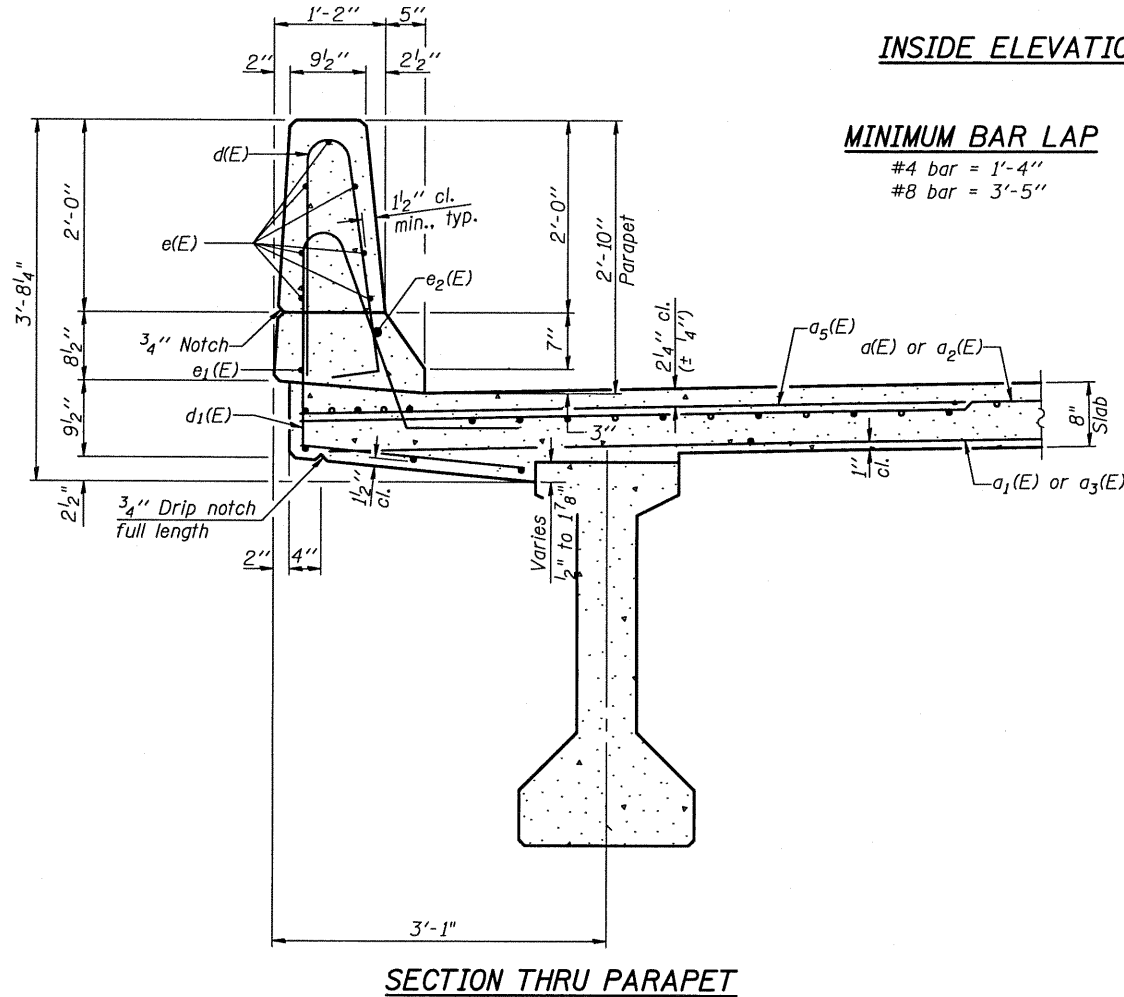
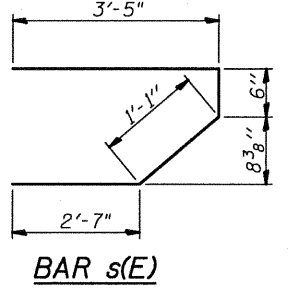
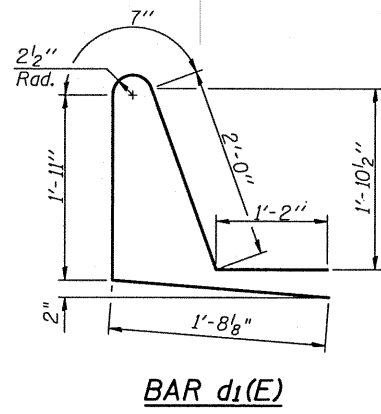
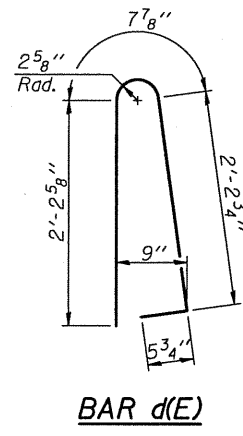
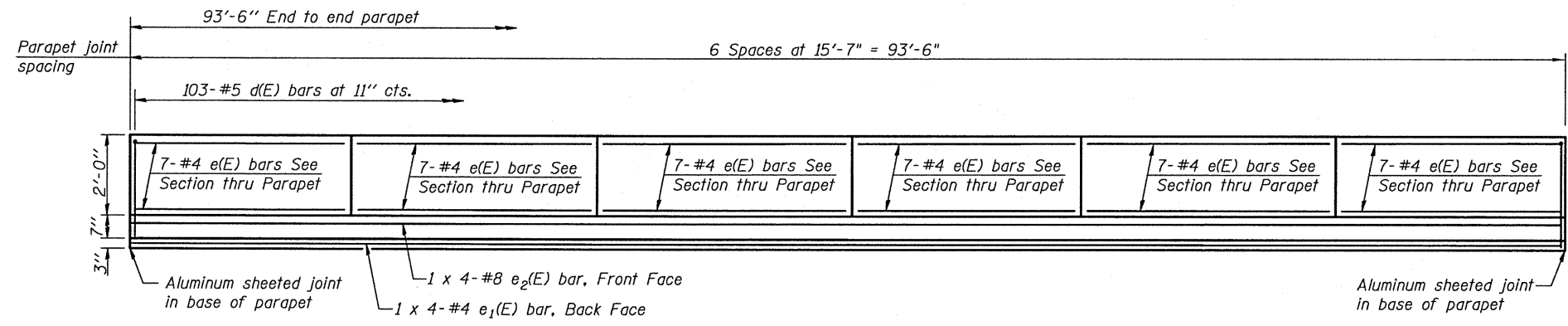
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

TOP OF APPROACH SLAB ELEVATIONS
S.N. 090-0177

STRAND ASSOCIATES, INC.

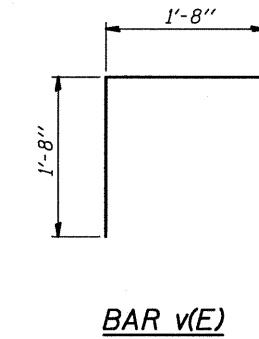
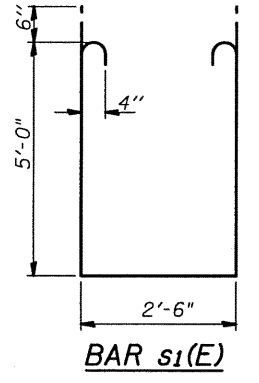
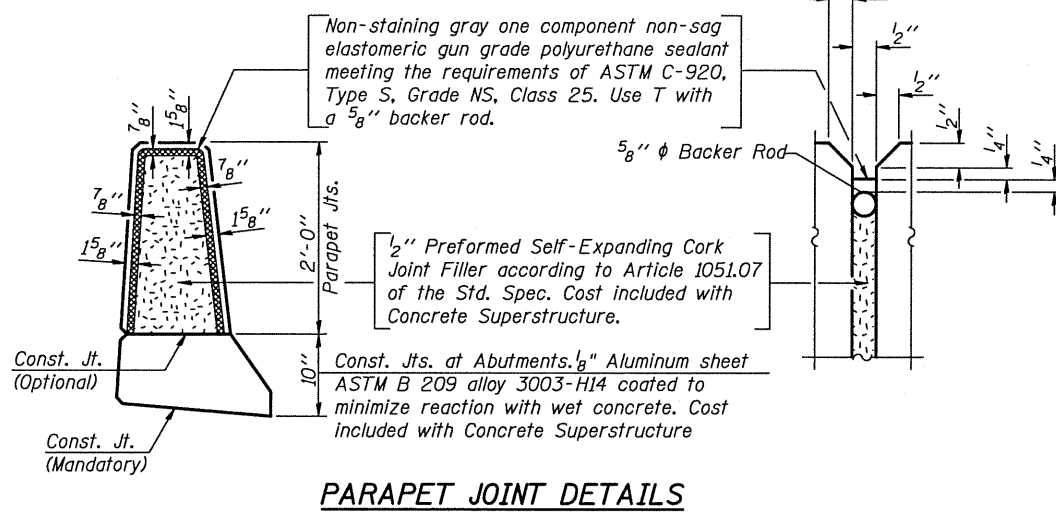
SHEET NO. 6	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	23
22 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



INSIDE ELEVATION OF PARAPET

MINIMUM BAR LAP
#4 bar = 1'-4"
#8 bar = 3'-5"



**SUPERSTRUCTURE
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
d(E)	161	#5	23'-4"	—
a1(E)	114	#5	23'-4"	—
a2(E)	161	#5	15'-1"	—
a3(E)	114	#5	15'-1"	—
a4(E)	4	#5	17'-6"	—
a5(E)	322	#6	6'-6"	—
a6(E)	4	#5	27'-0"	—
b(E)	172	#5	24'-8"	—
b1(E)	155	#5	20'-1"	—
d(E)	206	#5	5'-7"	—
d1(E)	206	#5	7'-5"	—
e(E)	84	#4	15'-3"	—
e1(E)	8	#4	24'-4"	—
e2(E)	8	#8	26'-0"	—
m(E)	10	#6	17'-6"	—
m1(E)	10	#6	27'-0"	—
m2(E)	28	#6	8'-10"	—
m3(E)	12	#6	3'-10"	—
m4(E)	4	#6	2'-1"	—
s(E)	72	#5	7'-8"	—
s1(E)	62	#4	13'-6"	—
v(E)	80	#5	3'-4"	—
Reinforcement Bars, Epoxy Coated			Lbs.	28,890
Concrete Superstructure			Cu. Yds.	162

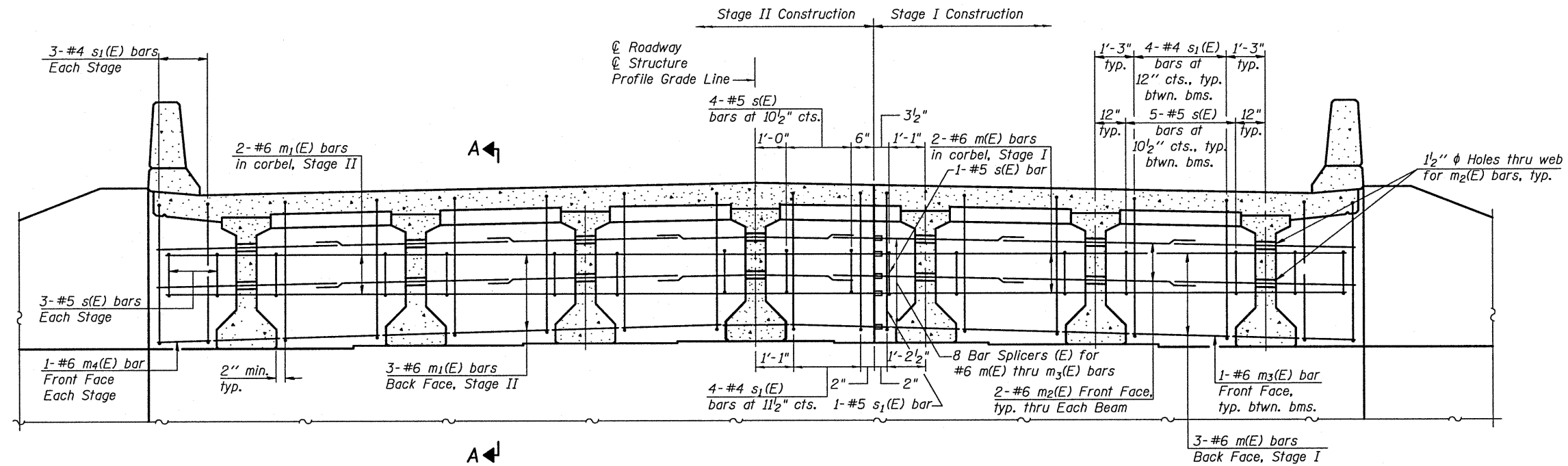
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

DESIGNED	KHM
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

**SUPERSTRUCTURE DETAILS
S.N. 090-0177
STRAND ASSOCIATES, INC.**

SHEET NO. 8 22 SHEETS	F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 25
	CONTRACT NO. 68660			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

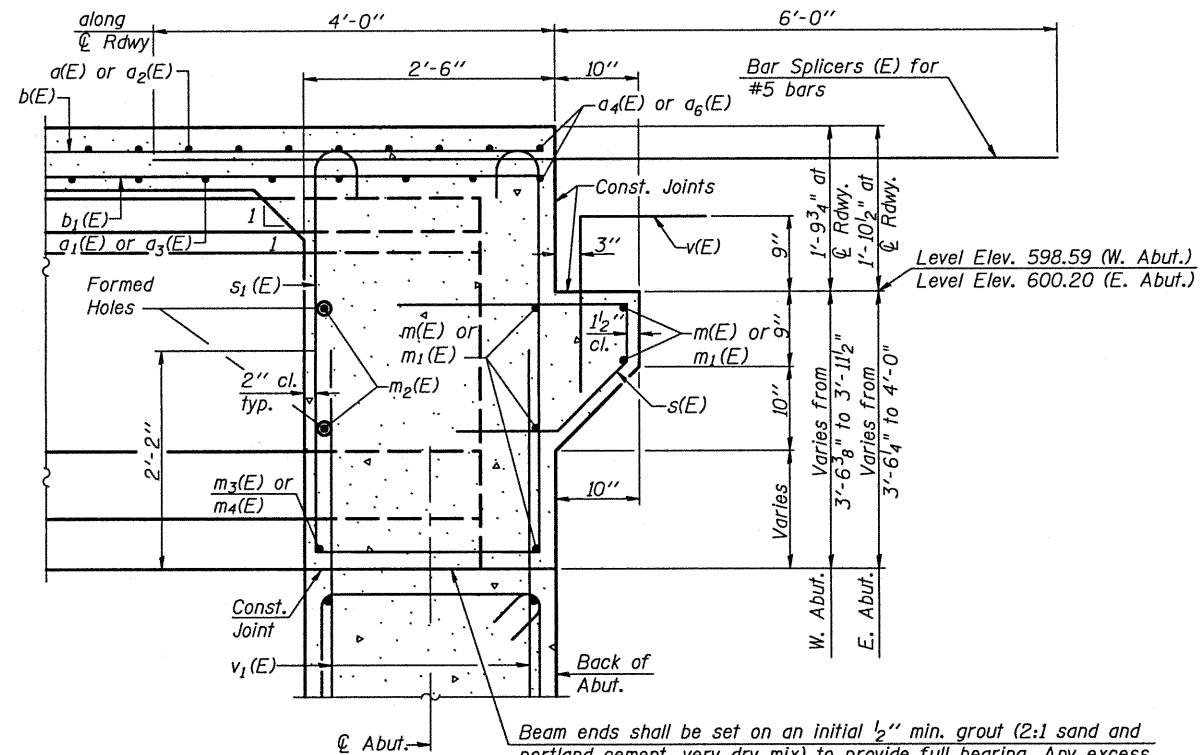


DIAPHRAGM ELEVATION AT ABUTMENT

(East Abut. Looking East, West Abut. Similar)

Notes:

- Reinforcement bars in diaphragm are billed with superstructure on sheet 8 of 22.
- Concrete in diaphragm is included with Concrete Superstructure on sheet 8 of 22.
- For details of bars s(E), s₁(E) and s₂(E) see sheet 8 of 22.
- The s(E), s₁(E) and s₂(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
- Contractor to cut m₂(E) and m₃(E) bar at Stage Construction Line. Remaining portion of bar to be saved and spliced in Stage II Construction.



Beam ends shall be set on an initial 1/2" min. grout (2:1 sand and portland cement, very dry mix) to provide full bearing. Any excess grout squeezed out from under the beam shall be removed. Cost included with Concrete Structures.

SECTION A-A

Dimensions at right angles to abutment, except as shown.

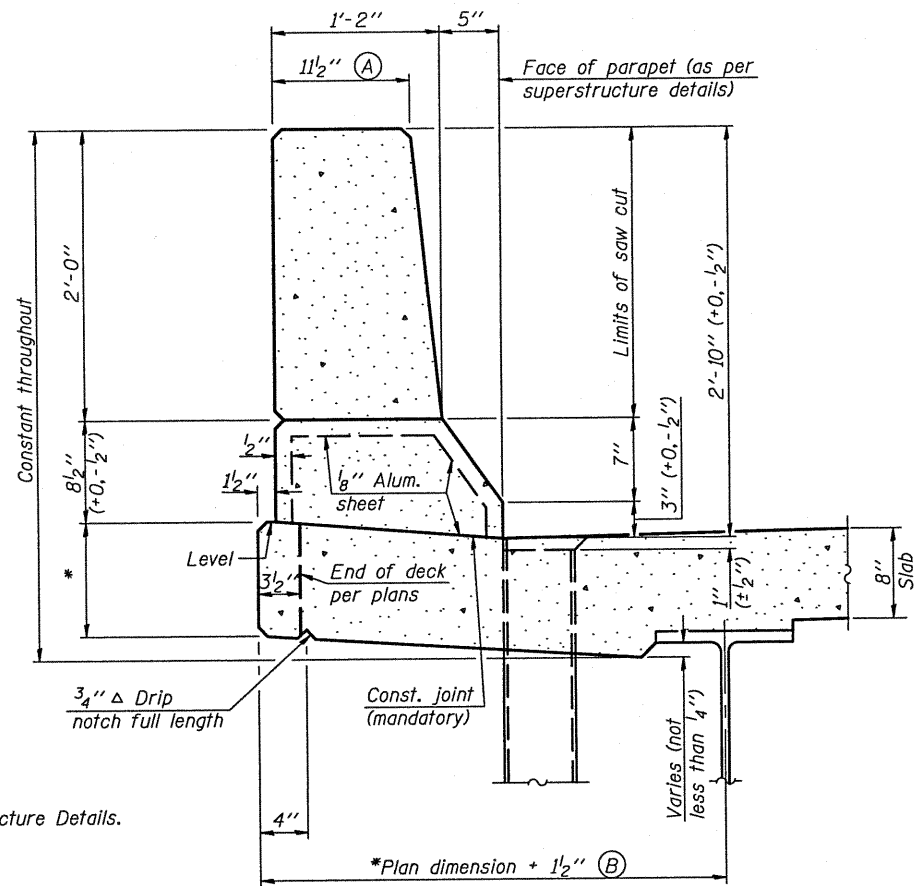
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

DIAPHRAGM DETAILS
S.N. 090-0177

STRAND ASSOCIATES, INC.

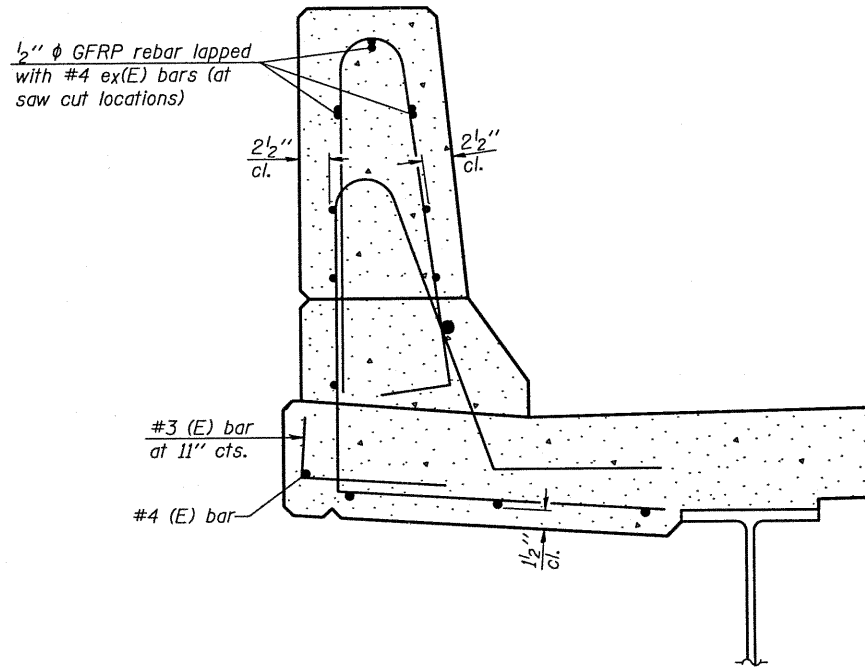
SHEET NO. 9	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	26
22 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



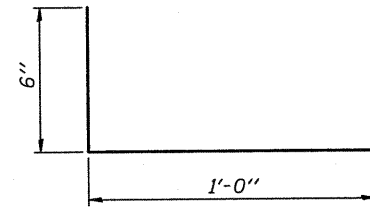
SECTION
(Showing dimensions)

* See Superstructure Details.

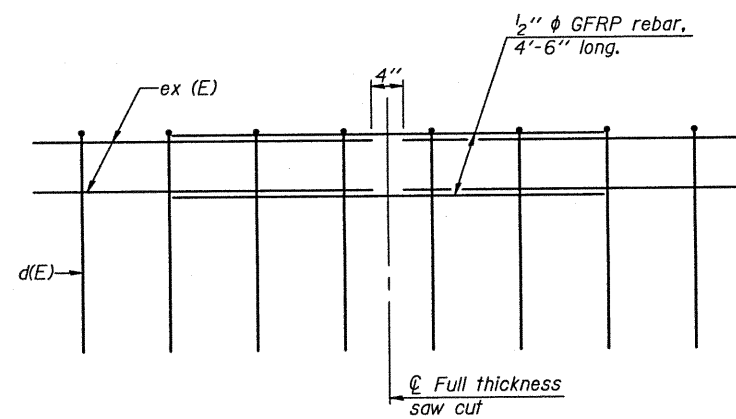


SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

GENERAL NOTES
All dimensions shall remain the same as shown on superstructure details, 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 = 0.0165 cu. yds./ft. of parapet.
Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.
Steel superstructure shown. Other superstructure types similar.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section at each parapet joint location.)

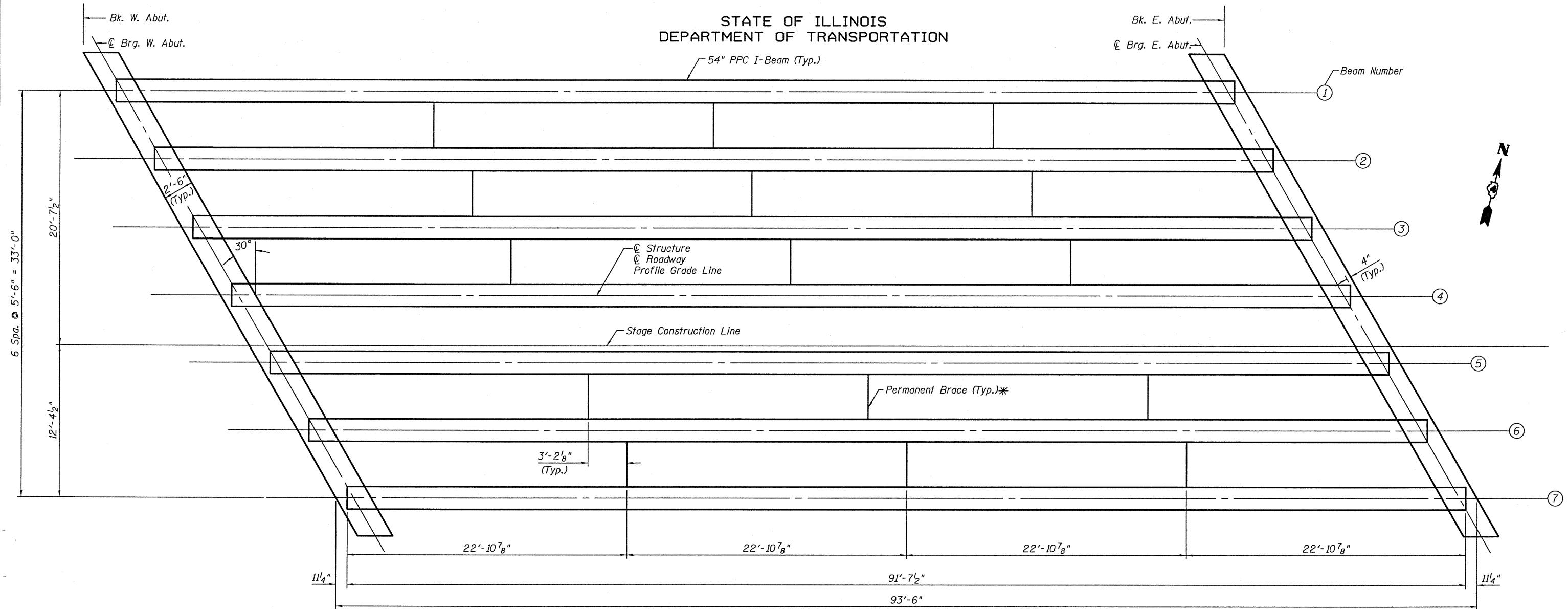
CONCRETE PARAPET SLIPFORMING OPTION
S.N. 090-0177
STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

SFP-34 7-1-10

SHEET NO. 9a	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	26a
22 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



FRAMING PLAN

*Cost included in Furnishing and Erecting
Precast Prestressed I-Beams, 54 In.
See Sheet 12 of 22 for details.

INTERIOR BEAM MOMENT TABLE		
		0.5 Sp.
I	(in ⁴)	213,715
I'	(in ⁴)	478,017
S_b	(in ³)	8,559
S_b'	(in ³)	12,506
S_t	(in ³)	7,362
S_t'	(in ³)	30,293
$DC1$	(k/')	1.27
M_{DC1}	(k)	1300.9
$DC2$	(k/')	0.13
M_{DC2}	(k)	132.3
DW	(k/')	0.26
M_{DW}	(k)	263.7
$M_L + IM$	(k)	1,297.3

INTERIOR BEAM REACTION TABLE		
		Abut.
R_{DC1}	(k)	57.3
R_{DC2}	(k)	5.9
R_{DW}	(k)	11.8
$R_L + IM$	(k)	81.22
R_{Total}	(k)	156.2

- I : Non-composite moment of inertia of beam section (in.⁴).
- I' : Composite moment of inertia of beam section (in.⁴).
- S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
- S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in.³).
- S_t : Non-composite section modulus for the top fiber of the prestressed beam (in.³).
- S_t' : Composite section modulus for the top fiber of the prestressed beam (in.³).
- $DC1$: Un-factored non-composite dead load (kips/ft.).
- M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).
- $DC2$: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW : Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_L + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

FRAMING PLAN
S.N. 090-0177
STRAND ASSOCIATES, INC.

SHEET NO. 10	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	27
22 SHEETS					
CONTRACT NO. 68660					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

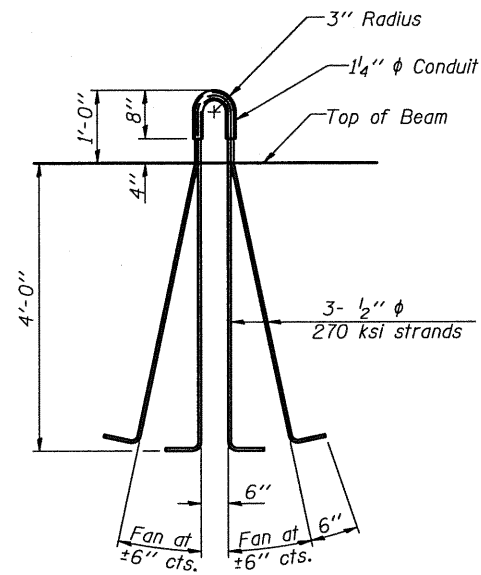
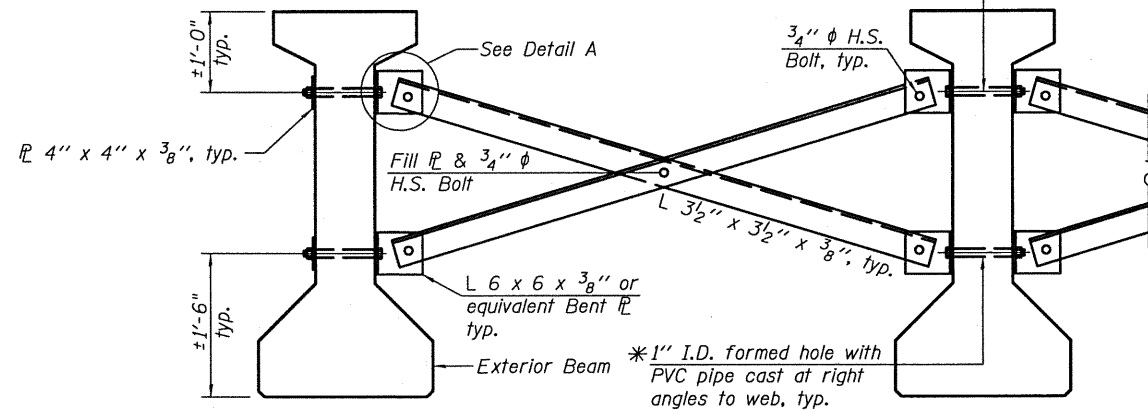
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NOTES

Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams.
Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates and studs shall be galvanized according to AASHTO M111. Threaded rods shall be ASTM F 1554 Grade 55.

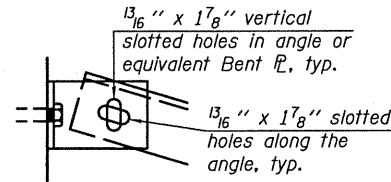
* Fabricator shall locate to miss strands within permissible tolerances.

$\frac{3}{4}$ " ϕ A307 Bolts with lock nuts., typ.
Bolts through the concrete web shall be tightened to snug tight only.



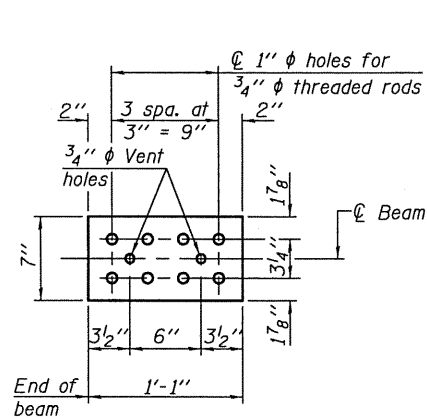
LIFTING LOOP DETAIL

Notes:
All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted. Two hardened washers are required for each set of oversized holes.
All holes shall be $\frac{15}{16}$ " ϕ unless otherwise noted. $\frac{5}{16}$ " x 3" x 3" plate washers are required over all slotted holes.
All bolts shall be galvanized according to AASHTO M232. Bracing shall be installed as beams are erected and tightened as soon as possible during erection.

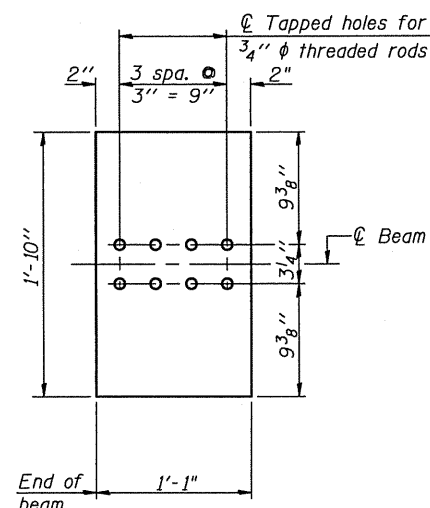


DETAIL A

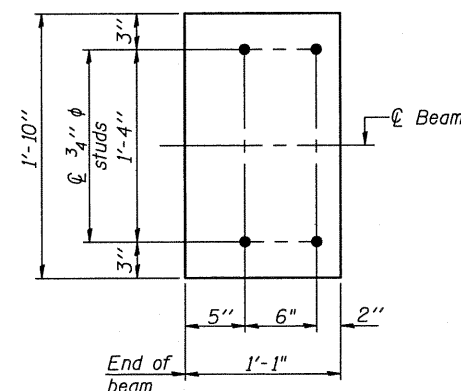
PERMANENT BRACING DETAILS FOR
54" PPC I-BEAMS



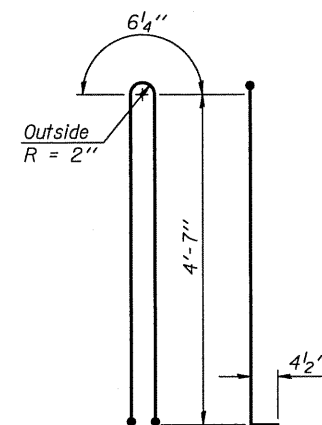
TOP PLATE



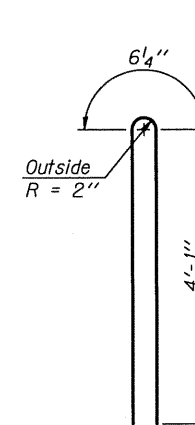
BOTTOM PLATE
(Showing threaded rods)



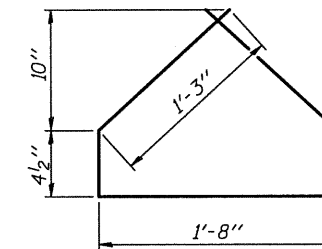
BOTTOM PLATE
(Showing studs)



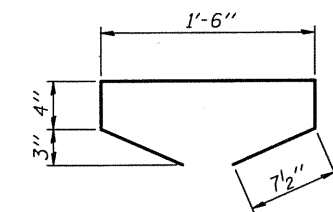
BAR G1



BAR G2



BAR G4



BAR G5

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete I-Beams, 54"	Ft.	642

54" P.P.C. I-BEAM BEAM DETAILS (2 OF 2)
S.N. 090-0177

STRAND ASSOCIATES, INC.

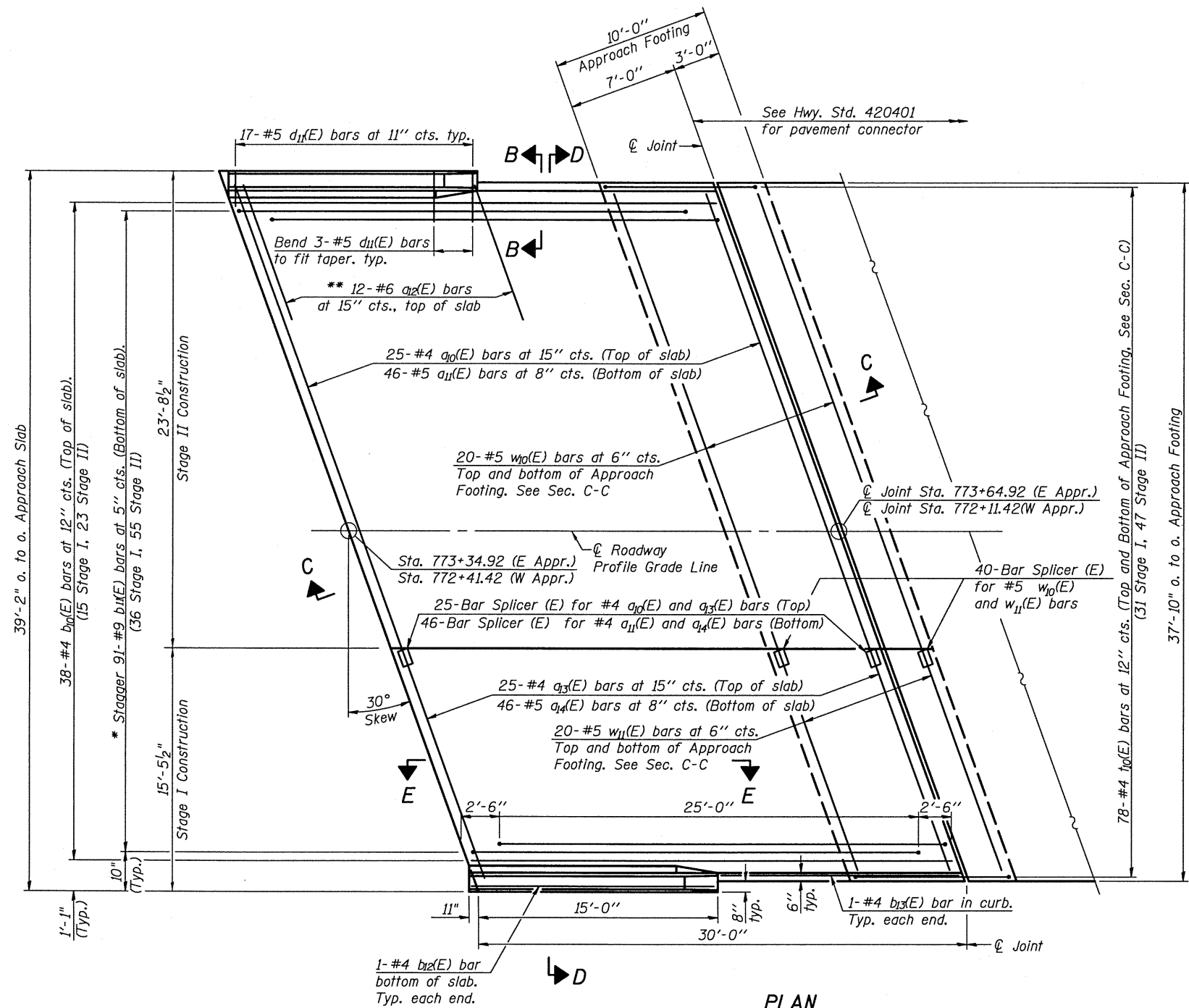
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

See bearing details for pintle hole locations when required.

SHEET NO. 12	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22 SHEETS	693	(119 BR-2)BR	TAZEWELL	65	29
			CONTRACT NO. 68660		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

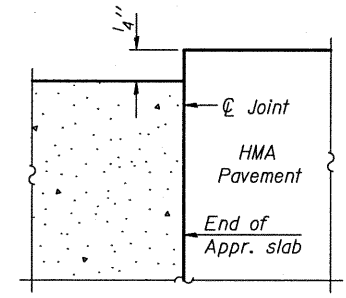
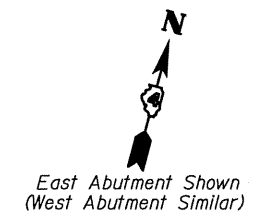
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet 14 of 22 for Sections C-C & D-D and View E-E.
 $a_{10}(E)$, $a_{11}(E)$, and $w_{10}(E)$ bar spacings measured parallel to CL Rdwy.



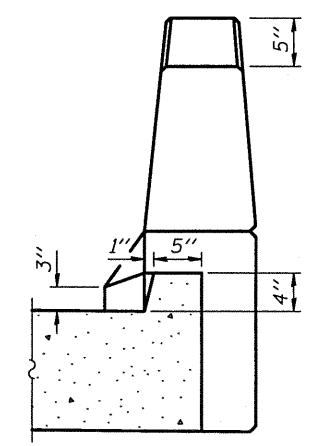
PLAN

* Tilt #9 $b_{11}(E)$ bars as required to maintain clearance.
** Alternate with $a_{10}(E)$ bars, typ. each parapet.



FLEXIBLE PAVEMENT

DETAIL A



VIEW B-B

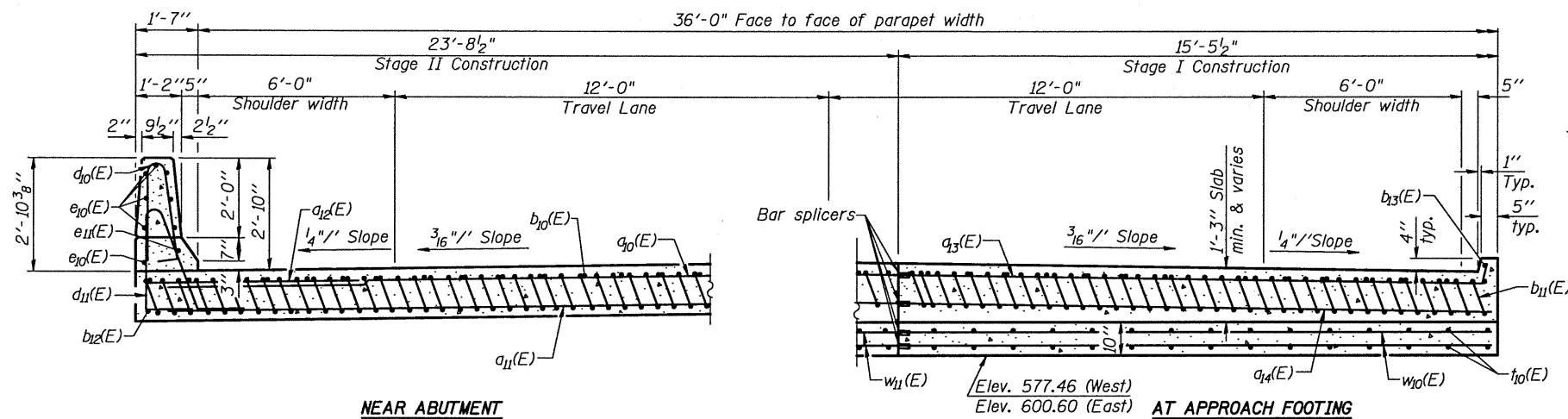
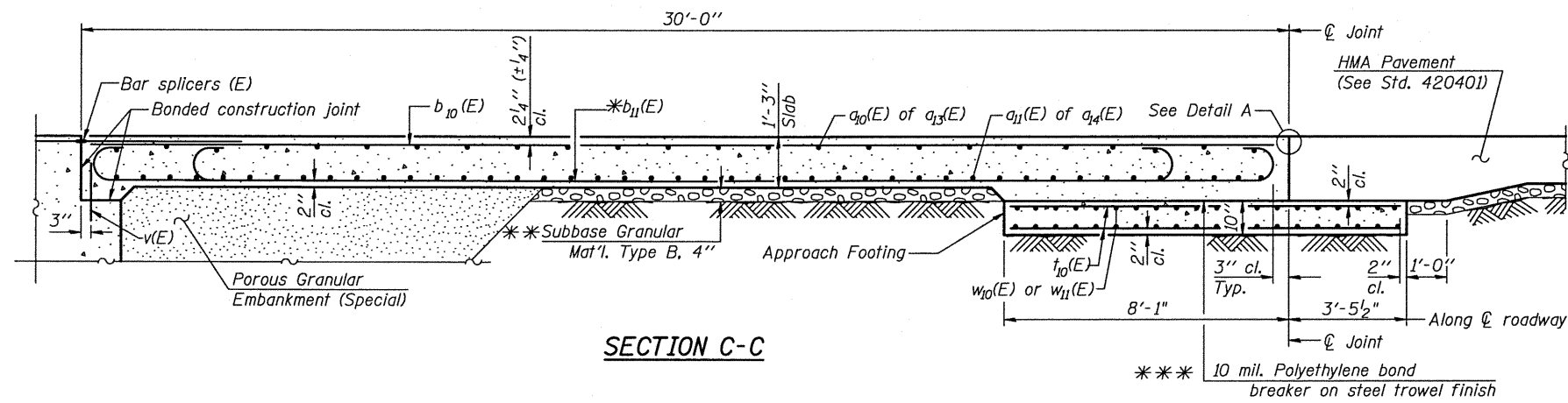
DESIGNED	KHM
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

BRIDGE APPROACH SLAB DETAILS (1 OF 2)
S.N. 090-0177
STRAND ASSOCIATES, INC.

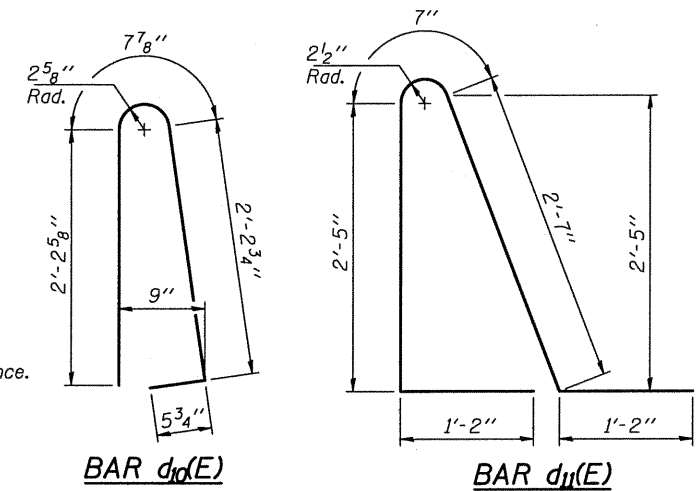
SHEET NO. 13	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2) BR	TAZEWELL	65	30
21 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
See sheet 13 of 22 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For $v(E)$ bar details, see sheet 8 of 22.
The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
For bar splicer details, see sheet 19 of 22.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 22.



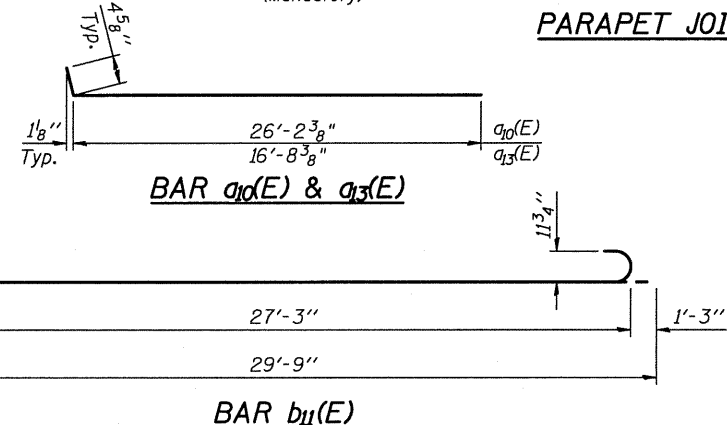
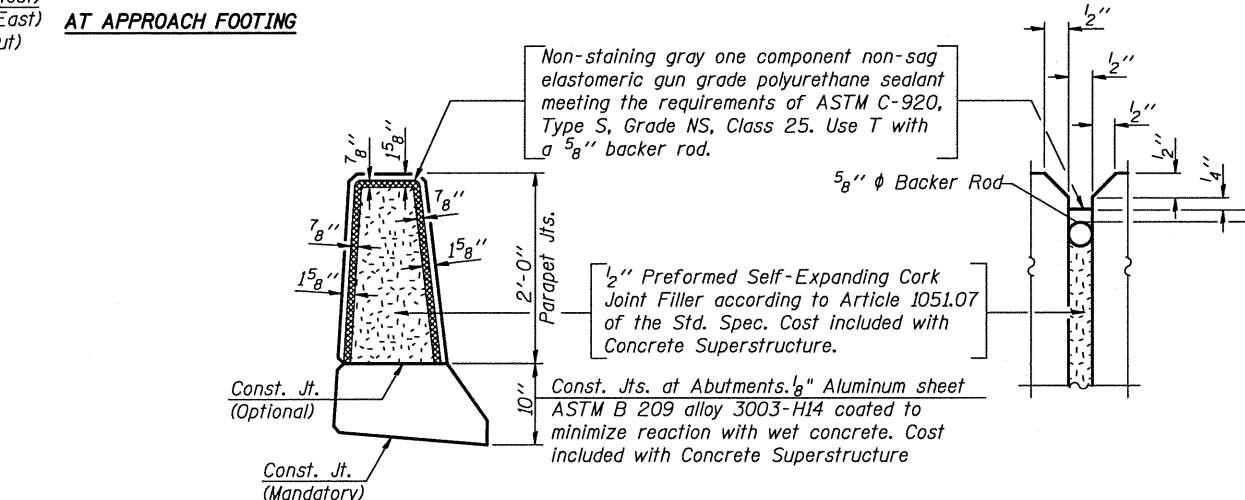
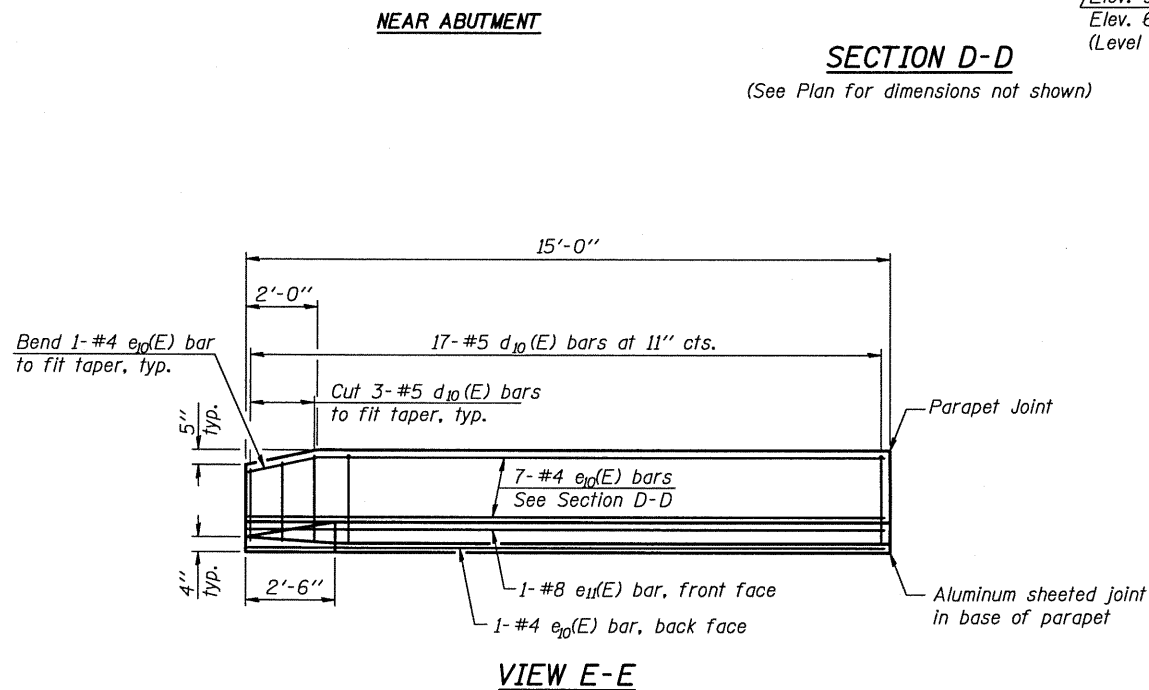
* Tilt #9 $b(E)$ bars as required to maintain clearance.
** Alternate with $a_0(E)$ bars, typ. each parapet.
*** Cost included with Concrete Superstructure.



TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$a_0(E)$	50	#4	26'-7"	—
$a_{11}(E)$	92	#5	26'-2"	—
$a_2(E)$	48	#6	6'-0"	—
$a_3(E)$	50	#4	17'-1"	—
$a_4(E)$	92	#5	16'-8"	—
$b_0(E)$	76	#4	29'-8"	—
$b_{11}(E)$	182	#9	29'-9"	—
$b_2(E)$	4	#4	14'-8"	—
$b_3(E)$	4	#4	15'-4"	—
$d_0(E)$	68	#5	5'-7"	—
$d_{11}(E)$	68	#5	7'-11"	—
$e_0(E)$	32	#4	14'-8"	—
$e_{11}(E)$	4	#8	14'-8"	—
$t_0(E)$	156	#4	11'-2"	—
$w_0(E)$	80	#5	26'-2"	—
$w_{11}(E)$	80	#5	16'-8"	—
Concrete Superstructure		Cu. Yd.	125	
Concrete Structures		Cu. Yd.	27	
Reinforcement Bars, Epoxy Coated		Pound	27,430	*
Reinforcement Bars, Epoxy Coated		Pound	4,740	**

* Included in Superstructure Quantity
** Included in Substructure Quantity



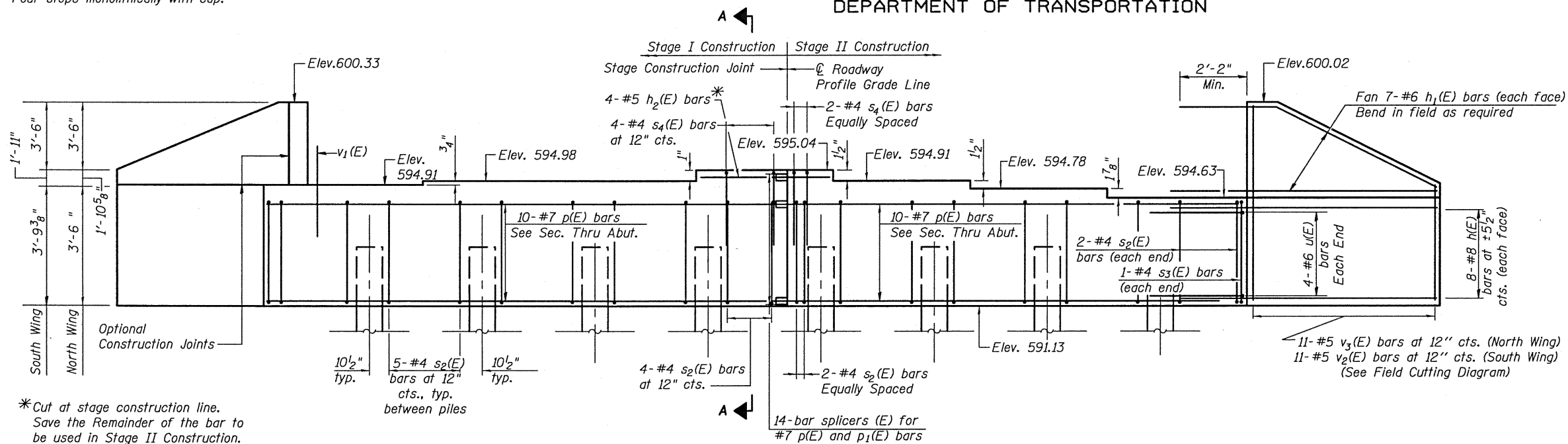
BRIDGE APPROACH SLAB DETAILS (2 OF 2)
S.N. 090-0177
STRAND ASSOCIATES, INC.

DESIGNED	KHM
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

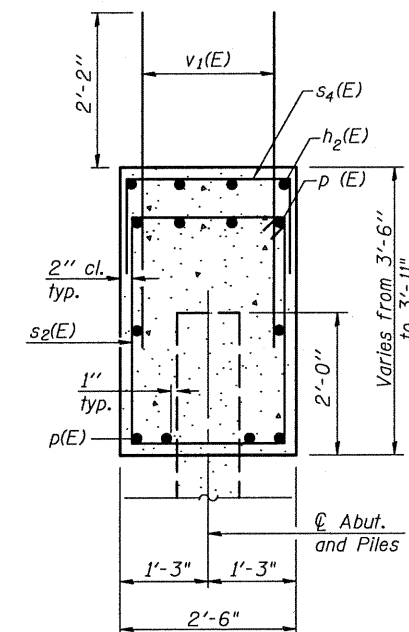
SHEET NO. 14	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	31
22 SHEETS	CONTRACT NO. 68660				
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
Four steps monolithically with cap.



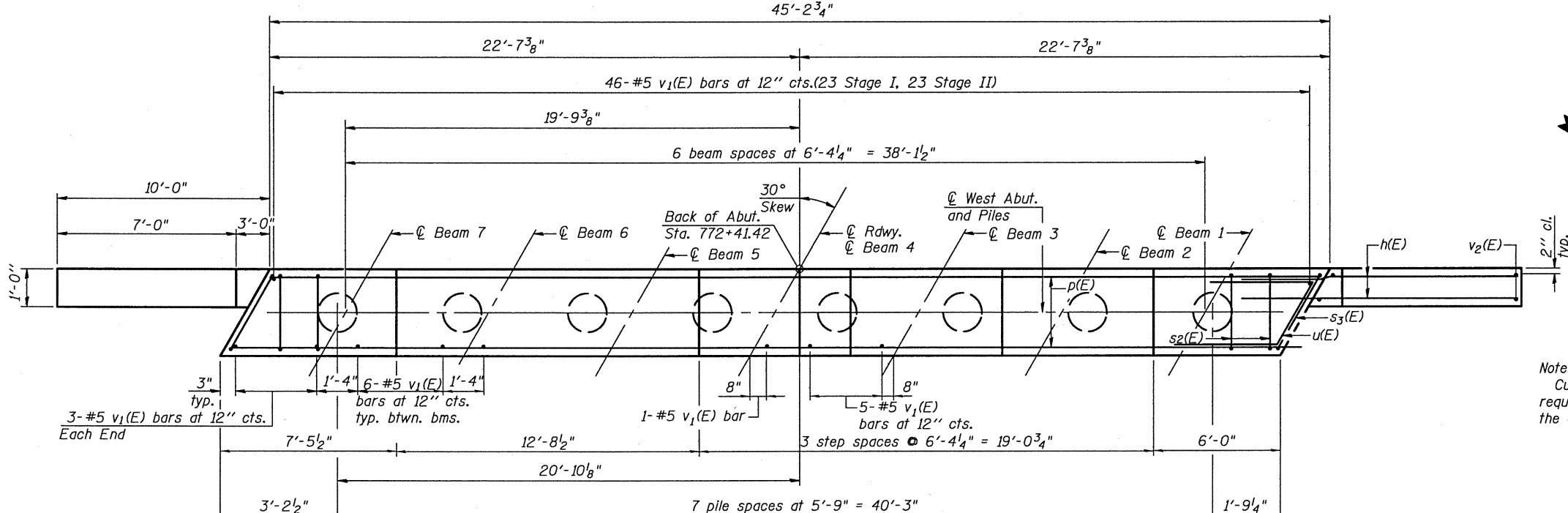
ELEVATION



SEC. A-A THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	32	#8	16'-0"	—
h1(E)	28	#6	13'-11"	—
h2(E)	4	#5	6'-0"	—
p(E)	20	#7	23'-8"	—
s2(E)	42	#4	11'-5"	□
s3(E)	2	#4	12'-1"	□
s4(E)	6	#4	6'-6"	□
u(E)	8	#6	8'-5"	∟
v1(E)	88	#5	4'-4"	—
v2(E)	11	#5	14'-2"	—
v3(E)	11	#5	13'-6"	—
Structure Excavation		Cu. Yd.	158	
Concrete Structures		Cu. Yd.	20	
Reinforcement Bars, Epoxy Coated		Pound	4,130	
Furnishing Metal Shell Piles 14x0.250		Foot	196	
Driving Piles		Foot	196	
Test Pile Metal Shells		Each	1	
Pile Shoes		Each	8	

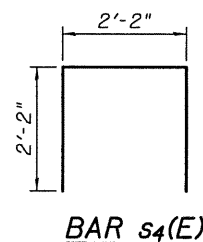


PLAN

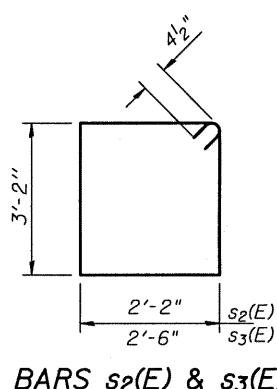
PILE DATA

Type & Size: Metal Shell - 14" dia. x 0.25" walls with Pile Shoes
Nominal Required Bearing: 416 kips
Factored Resistance Available: 208 kips
Est. Length: 28
No. Production Piles: 7
No. Test Piles: 1

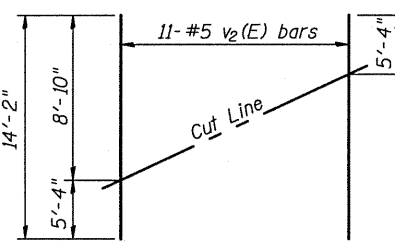
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS



BAR s4(E)

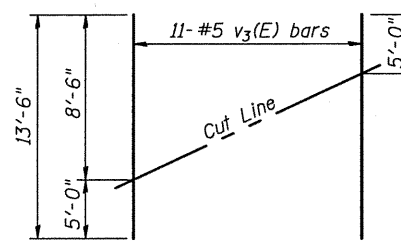


BARS s2(E) & s3(E)



FIELD CUTTING DIAGRAM

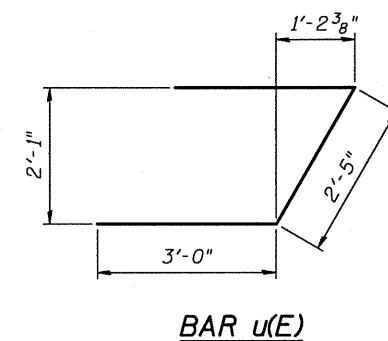
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



FIELD CUTTING DIAGRAM

Order v3(E) full length. Cut as shown and use remainder of bars in opposite face.

Note:
Cut p(E) bars in field as required and as directed by the engineer.



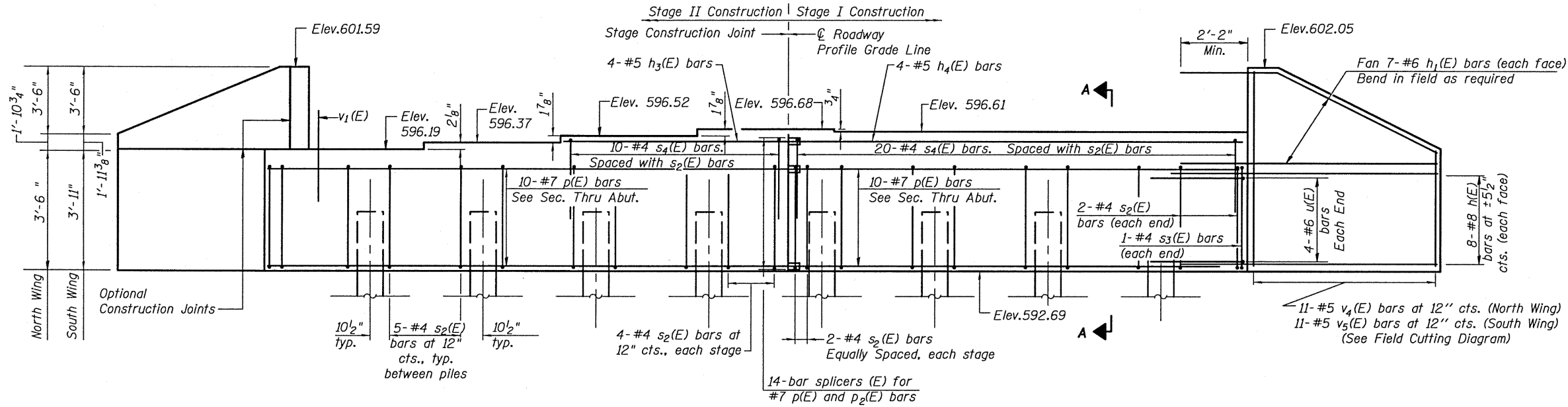
BAR u(E)

WEST ABUTMENT DETAILS
S.N. 090-0177
STRAND ASSOCIATES, INC.

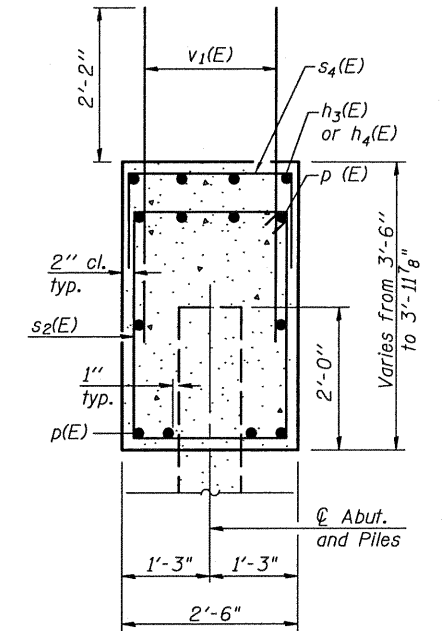
SHEET NO. 15	F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 32
22 SHEETS	CONTRACT NO. 68660		ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:
Four steps monolithically with cap.



ELEVATION

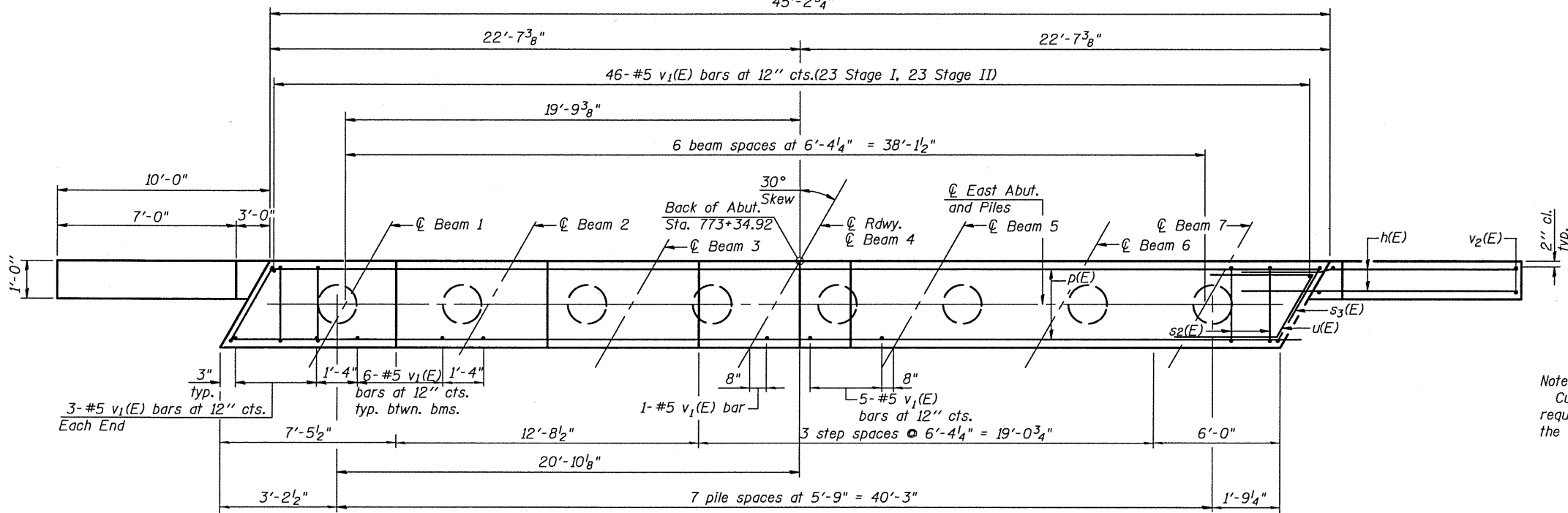


SEC. A-A THRU ABUT.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h(E)$	32	#8	16'-0"	—
$h_1(E)$	28	#6	13'-11"	—
$h_3(E)$	4	#5	9'-10"	—
$h_4(E)$	4	#5	23'-8"	—
$p(E)$	20	#7	23'-8"	—
$s_2(E)$	42	#4	11'-5"	□
$s_3(E)$	2	#4	12'-1"	□
$s_4(E)$	30	#4	6'-6"	□
$u(E)$	8	#6	8'-5"	J
$v_1(E)$	88	#5	4'-4"	—
$v_4(E)$	11	#5	13'-6"	—
$v_5(E)$	11	#5	14'-6"	—
Structure Excavation	Cu. Yd.		159	
Concrete Structures	Cu. Yd.		21	
Reinforcement Bars, Epoxy Coated	Pound		4,350	
Furnishing Metal Shell Piles 14x0.250	Foot		189	
Driving Piles	Foot		189	
Test Pile Metal Shells	Each		1	
Pile Shoes	Each		8	

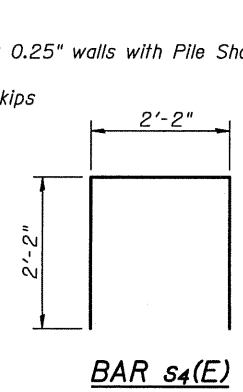
Note:
Cut $p(E)$ bars in field as required and as directed by the engineer.



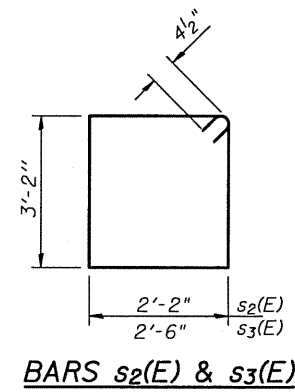
PLAN

PILE DATA

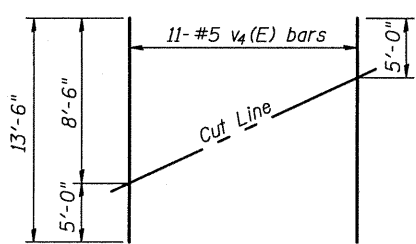
Type & Size: Metal Shell - 14" dia. x 0.25" walls with Pile Shoes
Nominal Required Bearing: 416 kips
Factored Resistance Available: 208 kips
Est. Length: 27
No. Production Piles: 7
No. Test Piles: 1



BAR $s_4(E)$

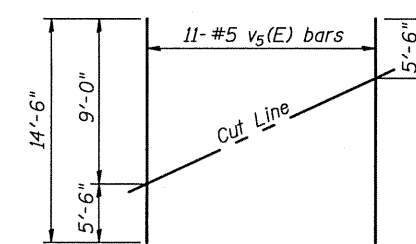


BARS $s_2(E)$ & $s_3(E)$



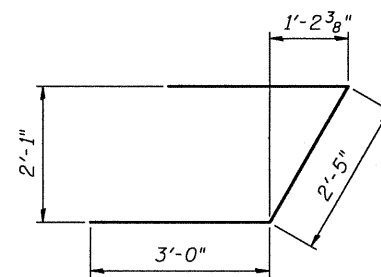
FIELD CUTTING DIAGRAM

Order $v_4(E)$ full length. Cut as shown and use remainder of bars in opposite face.



FIELD CUTTING DIAGRAM

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



BAR $u(E)$

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

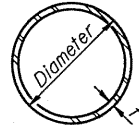
For details of Bar Splicers, see sheet 19 of 22.
For details of piles see sheet 17 of 22.

**EAST ABUTMENT DETAILS
S.N. 090-0177**

STRAND ASSOCIATES, INC.

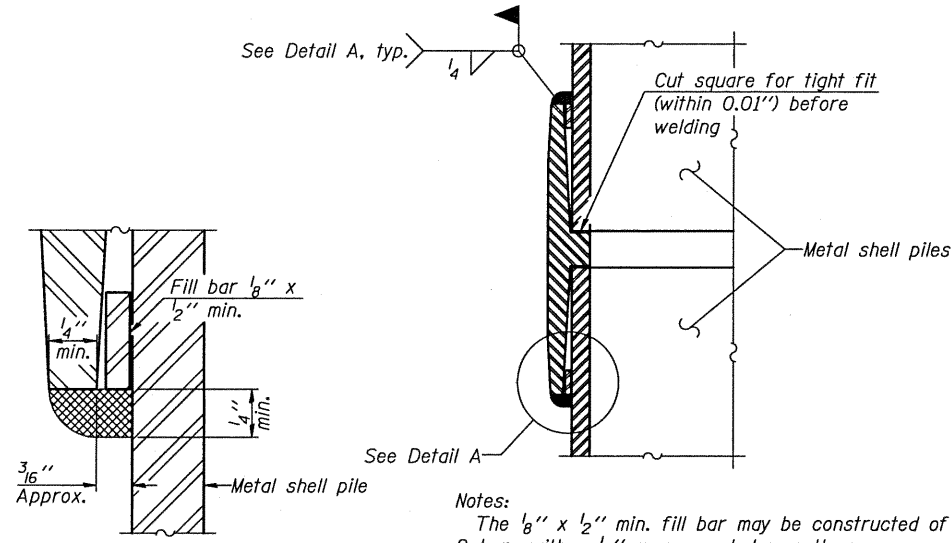
SHEET NO. 16 22 SHEETS	F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 33
	EAST ABUTMENT DETAILS		CONTRACT NO. 68660		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



METAL SHELL PILE TABLE

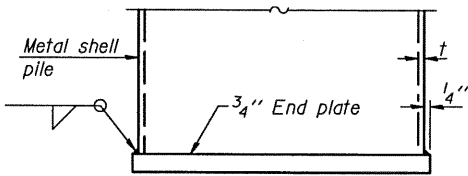
Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.179"	22.60	0.0274
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361



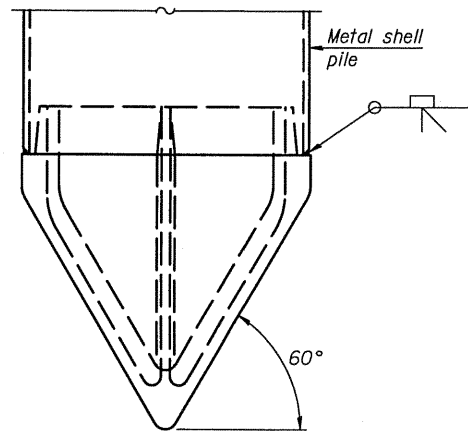
DETAIL A

Notes:
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
Pile segments shall be driven to solid contact with splicer before welding.

WELDED COMMERCIAL SPLICE



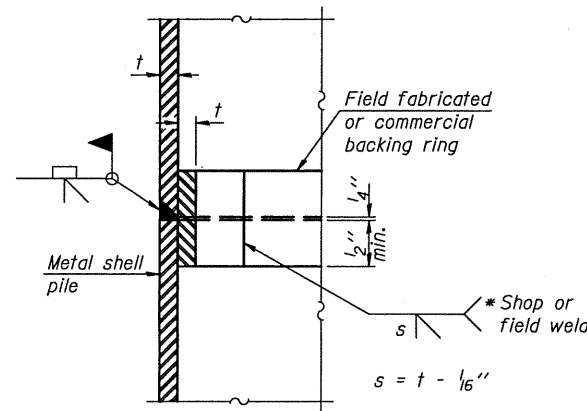
END PLATE ATTACHMENT



METAL SHELL PILE SHOE ATTACHMENT

(See Note A)

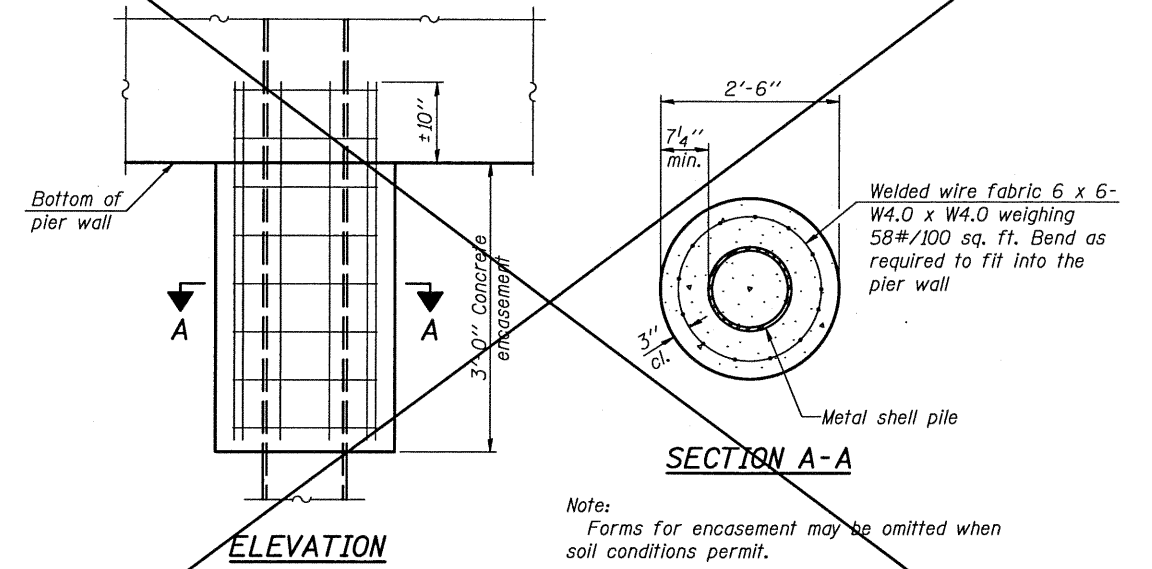
Note A:
When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld.



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.

Note:
The metal shell piles shall be according to ASTM A 252 Grade 3.

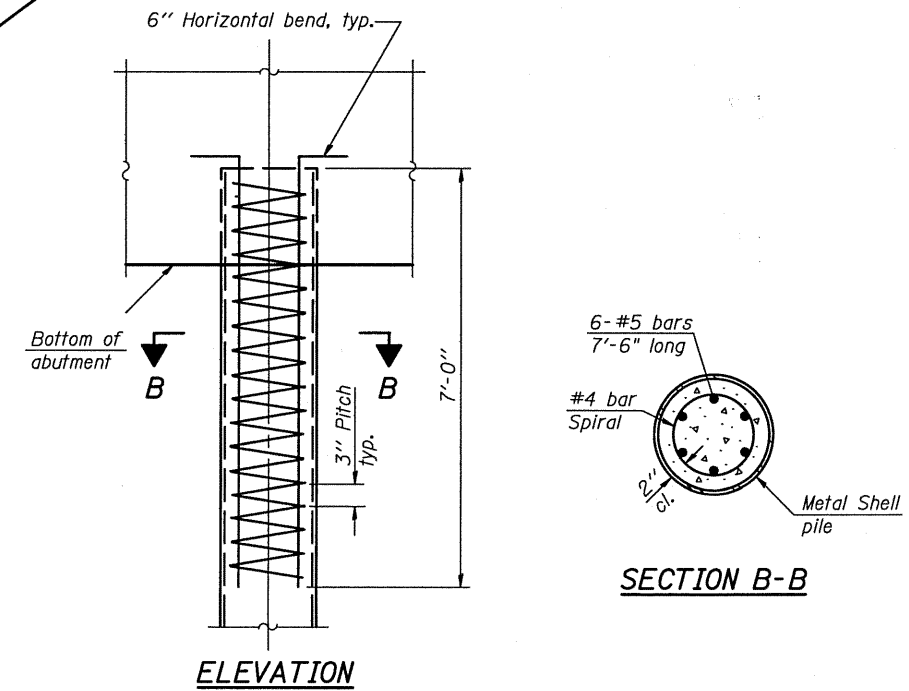


ELEVATION

SECTION A-A

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

CONCRETE ENCASEMENT AT PIERS



ELEVATION

SECTION B-B

METAL SHELL REINFORCEMENT AT ABUTMENTS

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

F-MS

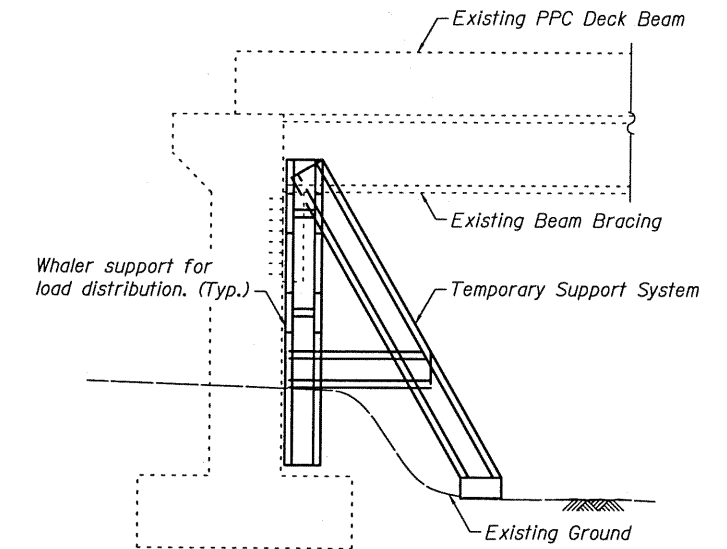
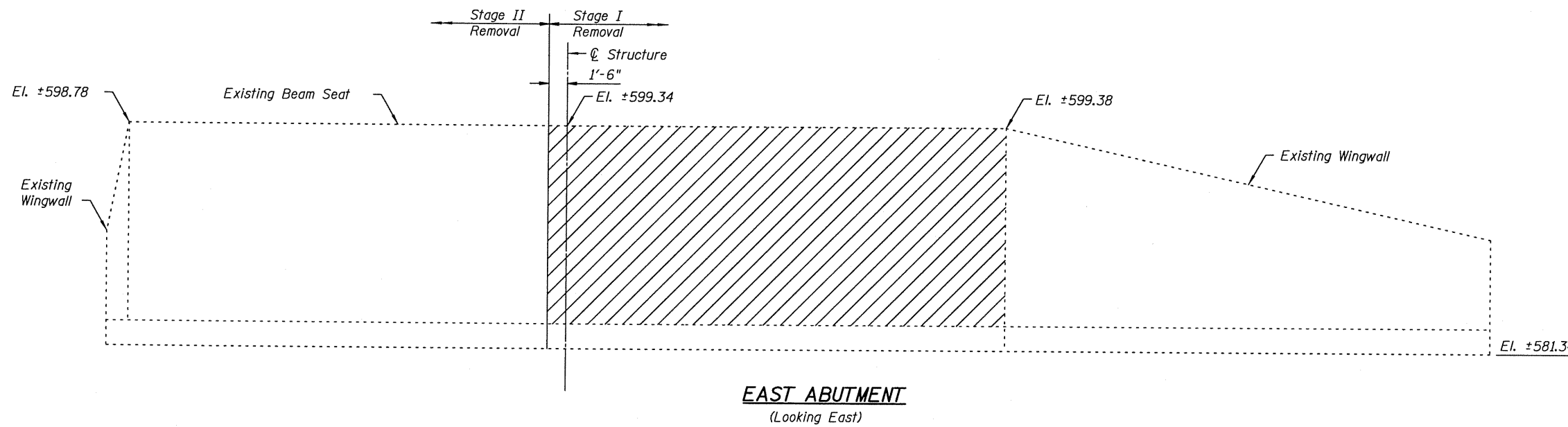
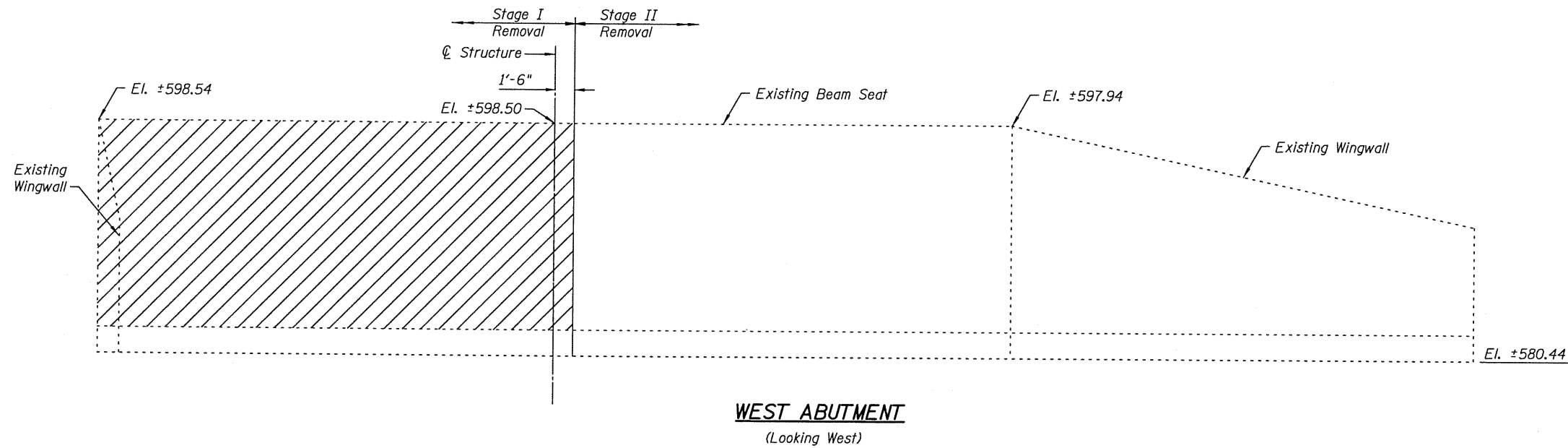
10-1-08

METAL SHELL PILE DETAILS
S.N. 090-0177

STRAND ASSOCIATES, INC.

SHEET NO. 17	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	34
22 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION THROUGH ABUTMENT

Note:
Temporary Support System is to be designed per the special provisions. Above sketch is given for information only and does not depict final Temporary Support System.

BILL OF MATERIAL

Item	Unit	Total
Temporary Support System	Each	2

LEGEND

Area to be braced*

* Paid for as Temporary Support System

Note:
All elevations to be verified by contractor before temporary support system is designed.
Contractor can obtain existing drawings with a written request to the District.

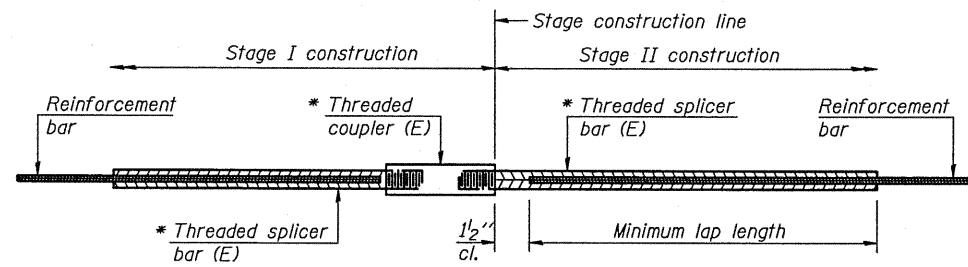
DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

SUGGESTED STAGE CONSTRUCTION BRACING DETAILS
S.N. 090-0177

STRAND ASSOCIATES, INC.

SHEET NO. 18	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	35
22 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



STANDARD BAR SPLICER ASSEMBLY

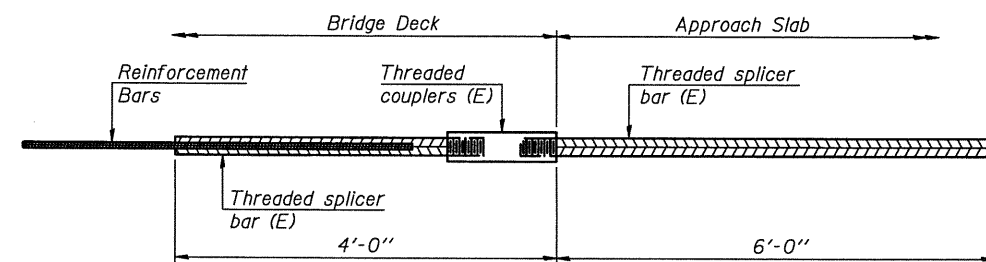
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

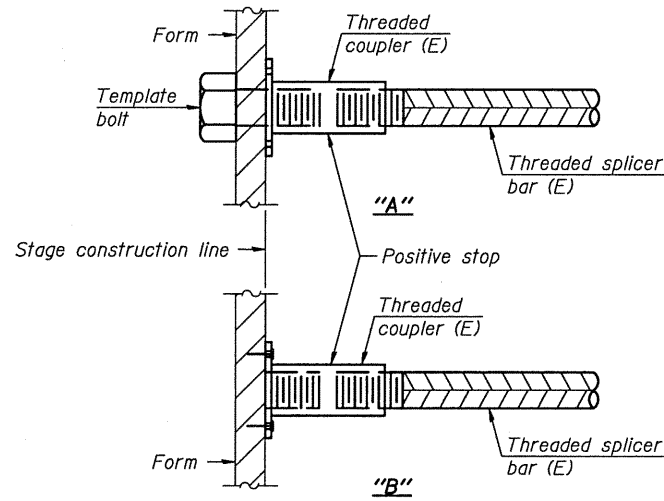
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	279	Table 3
Diaphragms	#6	16	Table 3
West Abutment	#7	14	Table 4
East Abutment	#7	14	Table 4



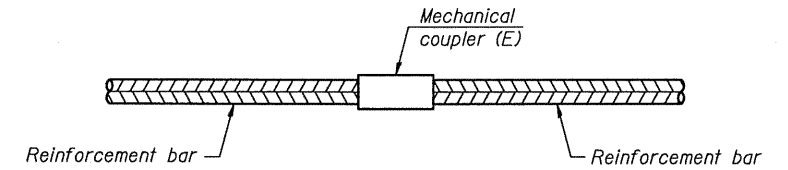
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 74



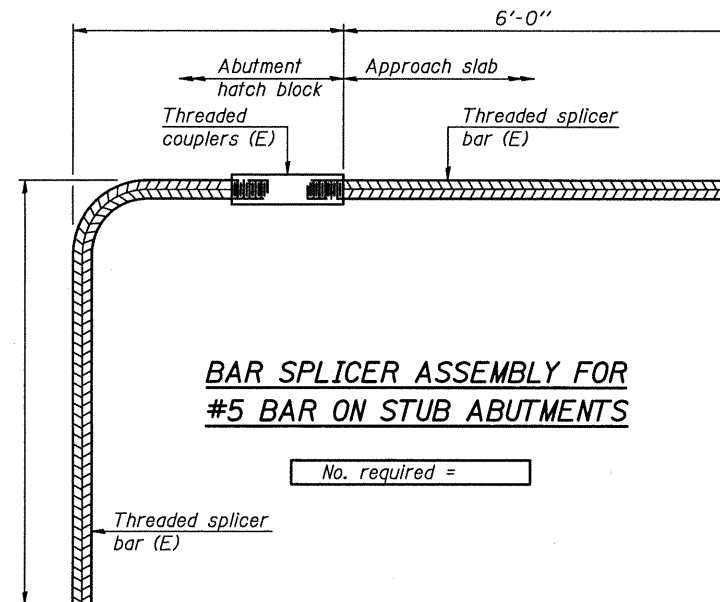
INSTALLATION AND SETTING METHODS

"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.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
All reinforcement shall be lapped and tied to the splicer bars.
Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
See special provision for Mechanical Splicers.
See approved list of bar splicer assemblies and mechanical splicers for alternatives.

**BAR SPLICER AND ASSEMBLY DETAILS
S.N. 090-0177**

STRAND ASSOCIATES, INC.

DESIGNED	RRD
CHECKED	AJS
DRAWN	KAS
CHECKED	AJS

BSD-1

11-1-09

SHEET NO. 19	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	693	(119 BR-2)BR	TAZEWELL	65	36
22 SHEETS	CONTRACT NO. 68660				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

09.25

Existing Structure: Single Span R.C.C. Superstructure (44'-9 3/4" BK to BK Abut.) on R.C. Closed Abut. 16'-0" roadway. Built as SBI RT 164, Sec. 119B in 1928 at Sta. 773+17.5 Superstructure to be removed and replaced in part at a time by Contractor utilizing stage construction as shown. BM: Chiseled "I" on Southwest wingwall Elev. 100.00

STATE OF ILLINOIS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
119	*	Tazewell	28	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

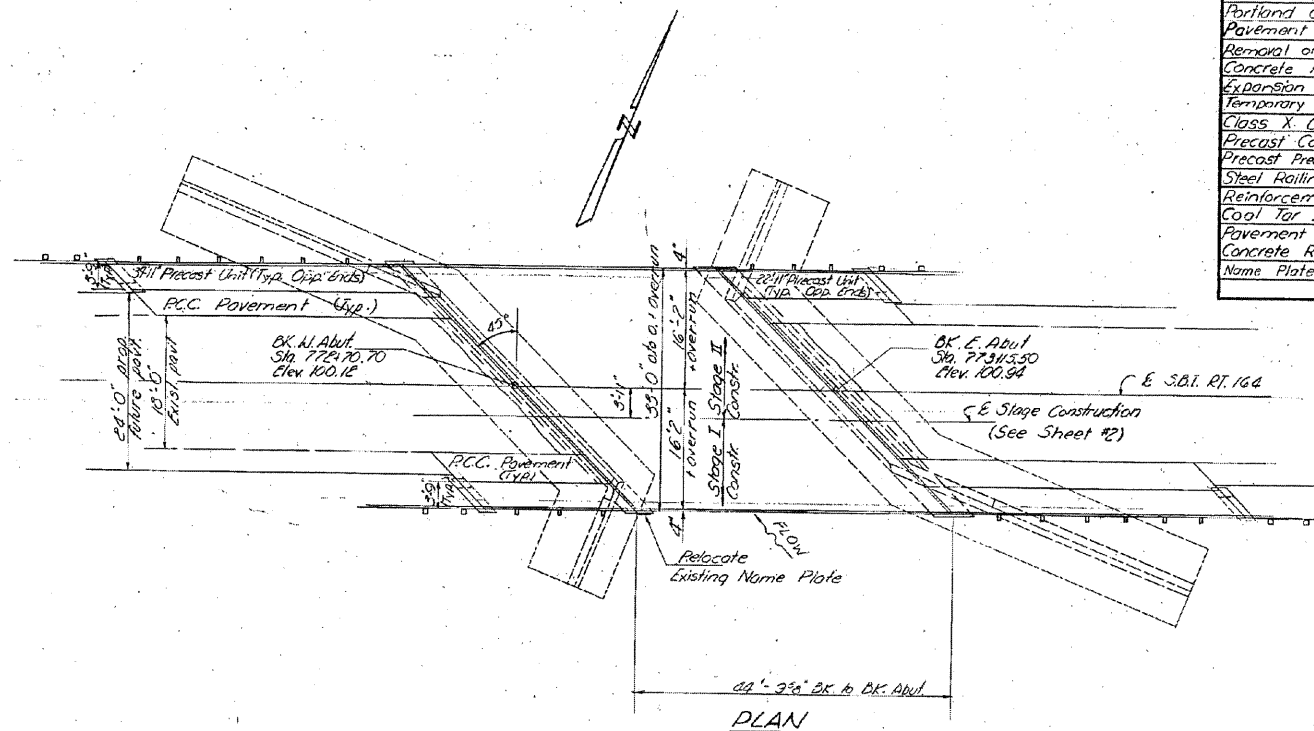
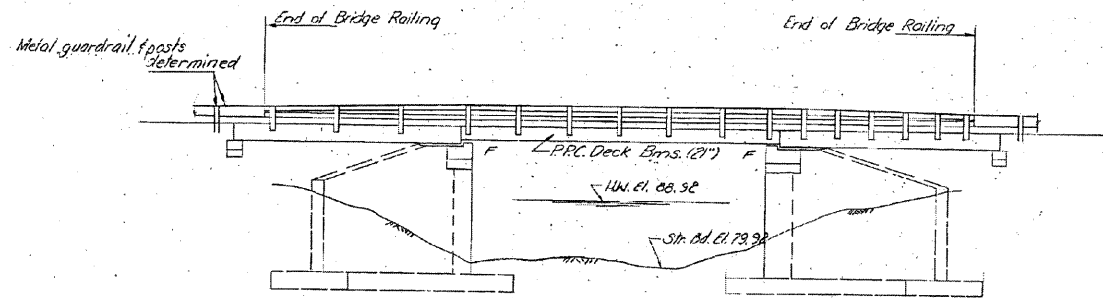
* 119 (BR, BR-2, BR-3)

GENERAL NOTES

All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
An alternate strand pattern using Extra High Strength Prestressing Strand (270 ksi.) is permitted.
Expansion bolts shall consist of self drilling expansion anchors and 3/8 x 12" hooked bolts.
Limits of Cool Tar Interlayer Protective Coat shall be one foot beyond end of deck beams and out to out of deck.
Shoulder transition to wingwall shall be shaped with broken concrete. Cost incidental.

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Bituminous Concrete Surface Course, Class I	Ton	30		30
Portland Cement Concrete Pavement (10")	Sq. Yd.	53		53
Pavement Fabric	Sq. Yd.	53		53
Removal of Existing Superstructure	Each	1		1
Concrete Removal	Cu. Yd.		16	16
Expansion Bolts 3/8"	Each	82	192	274
Temporary Guardrail	Lin. Ft.	45		45
Class X Concrete	Cu. Yd.		44.9	44.9
Precast Concrete Bridge Slab	Sq. Ft.	473		473
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq. Ft.	1471		1471
Steel Railing, Type W	Lin. Ft.	192		192
Reinforcement Bars	Pound		2090	2090
Cool Tar Interlayer Protective Coat	Sq. Yd.	164		164
Pavement Removal and Portland Cement Concrete Replacement, Type II (10")	Sq. Yd.	12		12
Name Plate	Each			1



STATION 772+93.10
REBUILT 197 BY
STATE OF ILLINOIS
S.B.I. RT. 164 SEC. 119BR-2
LOADING HS20
NAME PLATE
See Std. 2113-1

DESIGNED *Nuria L. Rankin, P.E.*
CHECKED *Ch. Tom Chen*
DRAWN *R. Doty*
CHECKED *C. T. C.*

EXAMINED *May 21 1971*
PASSED *W. C. Baumann*
APPROVED *Richard H. Holten*

PRECAST PRESTRESSED UNITS

$f_c = 5,000$ psi
 $f_{ci} = 4,000$ psi
 $f_s = 248,000$ psi (Strands)
 $f_{si} = 173,600$ psi (Strands)

PRECAST UNITS

$f_c = 4,500$ psi
 $f_{ci} = 1,800$ psi
 $f_s = 20,000$ psi
 $n = 8$

FIELD UNITS

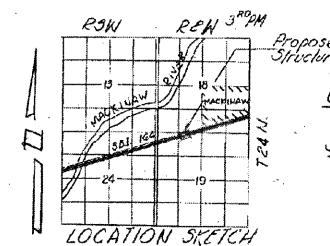
$f_c = 1,400$ psi Super
 $f_c = 1,000$ psi Sub
 $f_c = 75$ psi Paving
 $f_s = 20,000$ psi Reinf.
 $n = 10$

Loading HS 20-44

Design Specifications: AASHTO 1969, as applicable.

WATERWAY INFORMATION

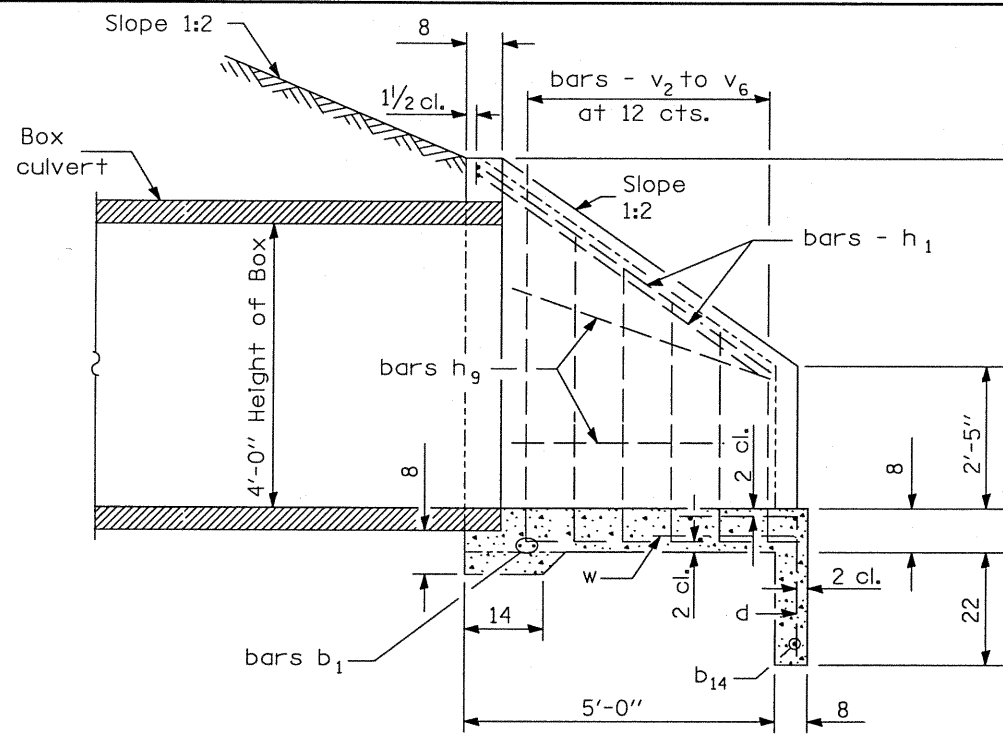
Drainage Area 1408 Acres
Character
Required Opening (50 yr. flood) 315 Sq. Ft.
Present Opening 315 Sq. Ft.
Proposed Opening 315 Sq. Ft.
Ordinary Water Elev. 81.45
Low Water Elev. 81.45
 $Q = 14060$ cfs



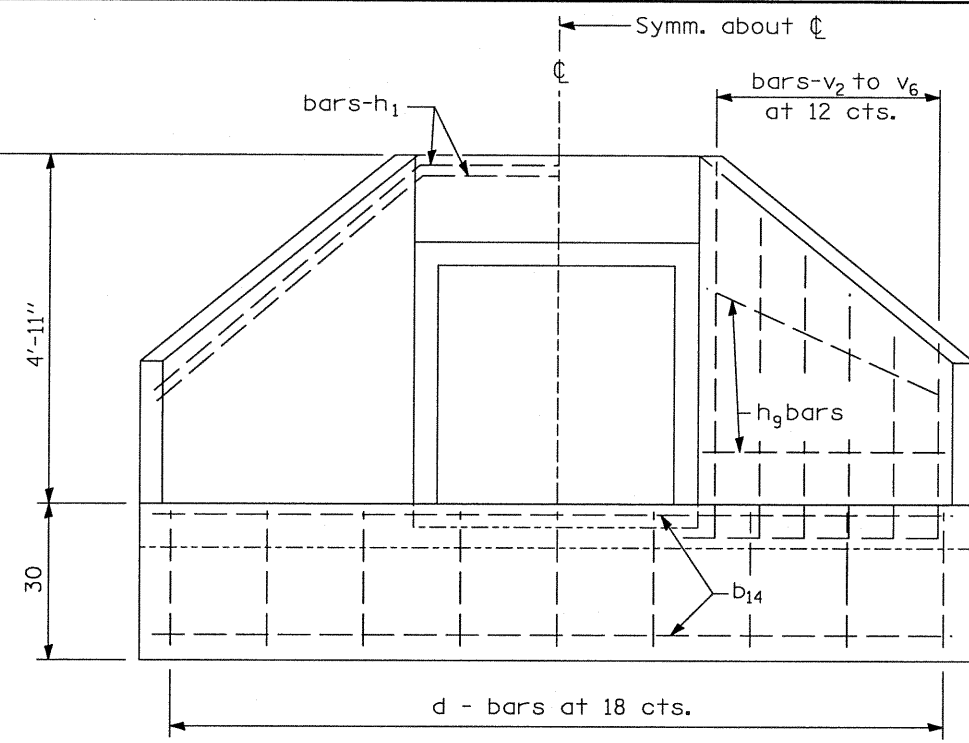
GENERAL PLAN AND ELEVATION
ILL. RT. 9 OVER STREAM
SBI, RT. 164 SECTION 119 BR-2
TAZEWELL COUNTY
STATION 772+93.10

DESIGNED *RRD*
CHECKED *AJS*
DRAWN *KAS*
CHECKED *AJS*

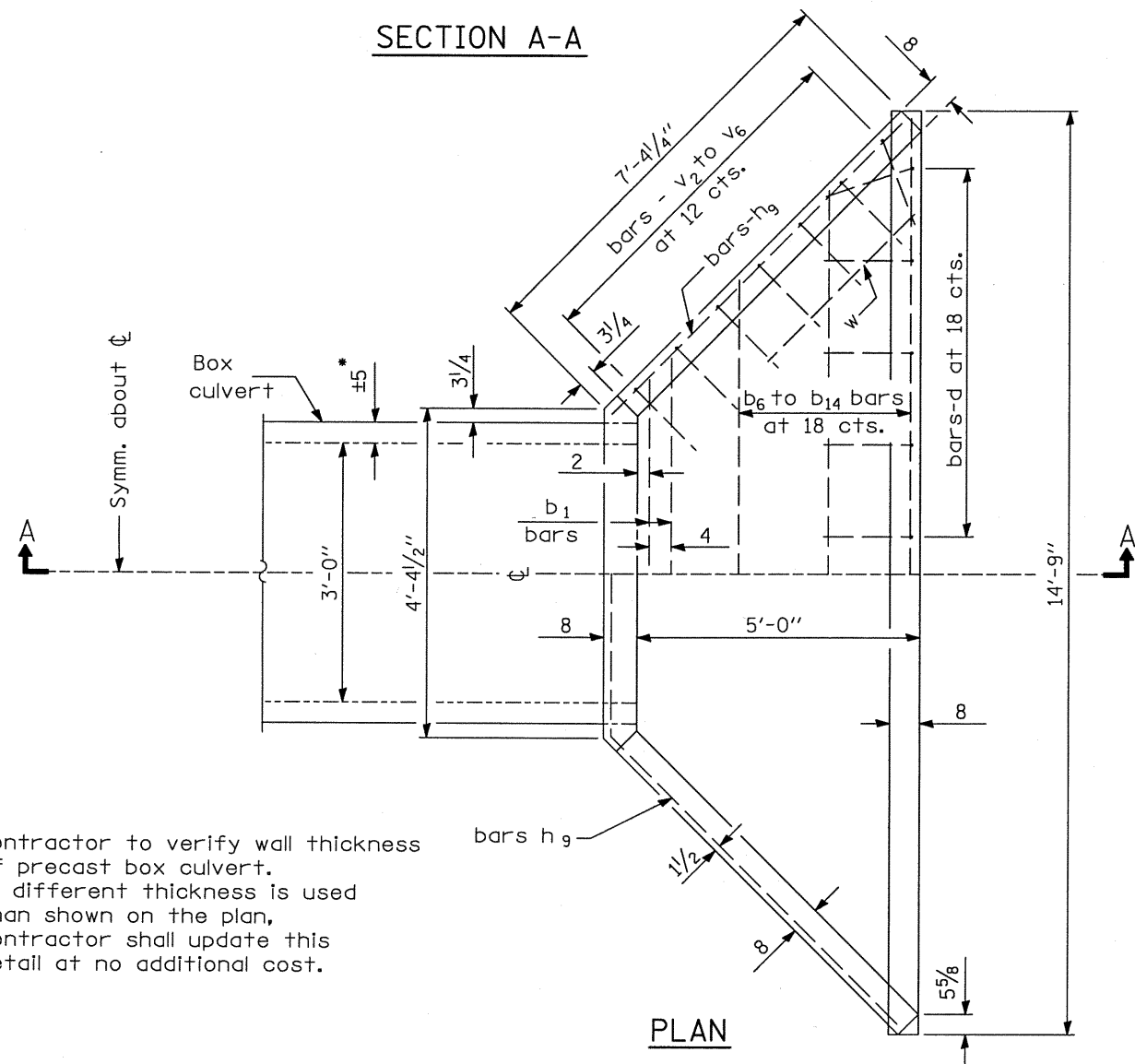
SHEET NO. 22	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22 SHEETS	693	(119BR-2) BR	TAZEWELL	65	39
EXISTING STRUCTURE PLAN			CONTRACT NO. 68660		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		



SECTION A-A



END ELEVATION



PLAN

* Contractor to verify wall thickness of precast box culvert. If different thickness is used than shown on the plan, contractor shall update this detail at no additional cost.

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches unless otherwise shown.

All work and materials to construct end section will be paid for as BOX CULVERT END SECTION.

REINFORCED CONCRETE END SECTIONS AT RIGHT ANGLES WITH ROADWAY

(Sheet 1 of 2)

FILE NAME = s:\p1\6388-6390\6346\015\m\area\formal\plans\roadway\04-11R-deta1.dgn

STRAND
ENGINEERS
1170 SOUTH HOUBOLT ROAD
JOLIET, ILLINOIS 60431
(815) 744-4200

USER NAME = ryand	DESIGNED RRD	REVISED -
PLOT SCALE = 0:25.453 m / IN.	DRAWN RRD	REVISED -
PLOT DATE = 7/9/2010	CHECKED AJS	REVISED -
	DATE 3/31/10	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT SPECIFIC DETAILS			
SCALE: AS SHOWN	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	40
CONTRACT NO. 68660				
FED. ROAD DIST. NO. 4 (ILLINOIS) FED. AID PROJECT				

DIMENSIONS OF STRAIGHT BARS

Bar	Size	Length
b ₁	No. 5	5'-9"
b ₆	No. 4	9'-0"
b ₁₀	No. 4	12'-0"
b ₁₄	No. 4	14'-6"
h ₉	No. 4	6'-3"
w	No. 4	4'-0"

DIMENSIONS OF BENT BARS

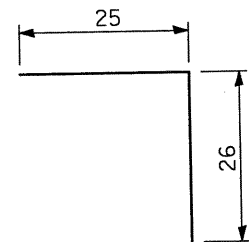
No. 5-bars v ₂ to v ₆			No. 5 -bars h ₁			
BARS	c	TOTAL LENGTH	BARS	a	b	TOTAL LENGTH
v ₂	5'-0"	7'-0"	h ₁	3'-8"	6'-8"	17'-0"
v ₃	4'-6"	6'-6"				
v ₄	4'-0"	6'-0"				
v ₅	3'-6"	5'-6"				
v ₆	3'-0"	5'-0"				

BARS IN ONE END SECTION

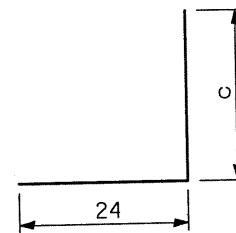
D48-2	
Bars	No.
d	10
b ₁	2
b ₆	1
b ₁₀	1
b ₁₄	2
h ₁	2
h ₉	4
v ₂	2
v ₃	4
v ₄	2
v ₅	2
v ₆	4
w	2

QUANTITIES

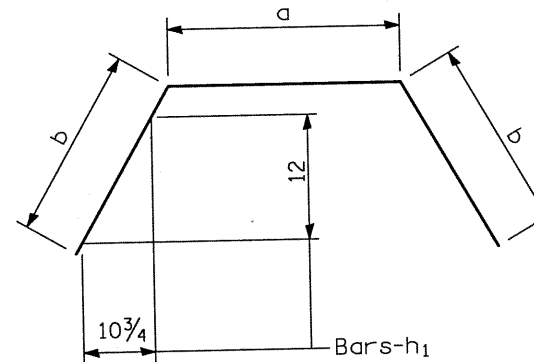
Concrete 2 End Secs. cu. yds.	Reinf. Bars 2 End Secs. lbs.
7.6	460



No. 4 BAR-d



BARS - v₂ to v₆

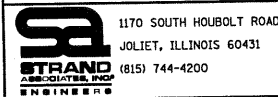


BARS - h₁

**REINFORCED CONCRETE END SECTIONS
AT RIGHT ANGLES WITH ROADWAY**

(Sheet 2 of 2)

FILE NAME = m:\p1\6398--6399\6346\015\micross\final_plans\roadway\04_118-detail.dgn



USER NAME = ryend	DESIGNED <i>RRD</i>	REVISED -
PLOT SCALE = 8:25.453 in / IN.	DRAWN <i>RRD</i>	REVISED -
PLOT DATE = 7/9/2010	CHECKED <i>AJS</i>	REVISED -
	DATE <i>3/31/10</i>	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

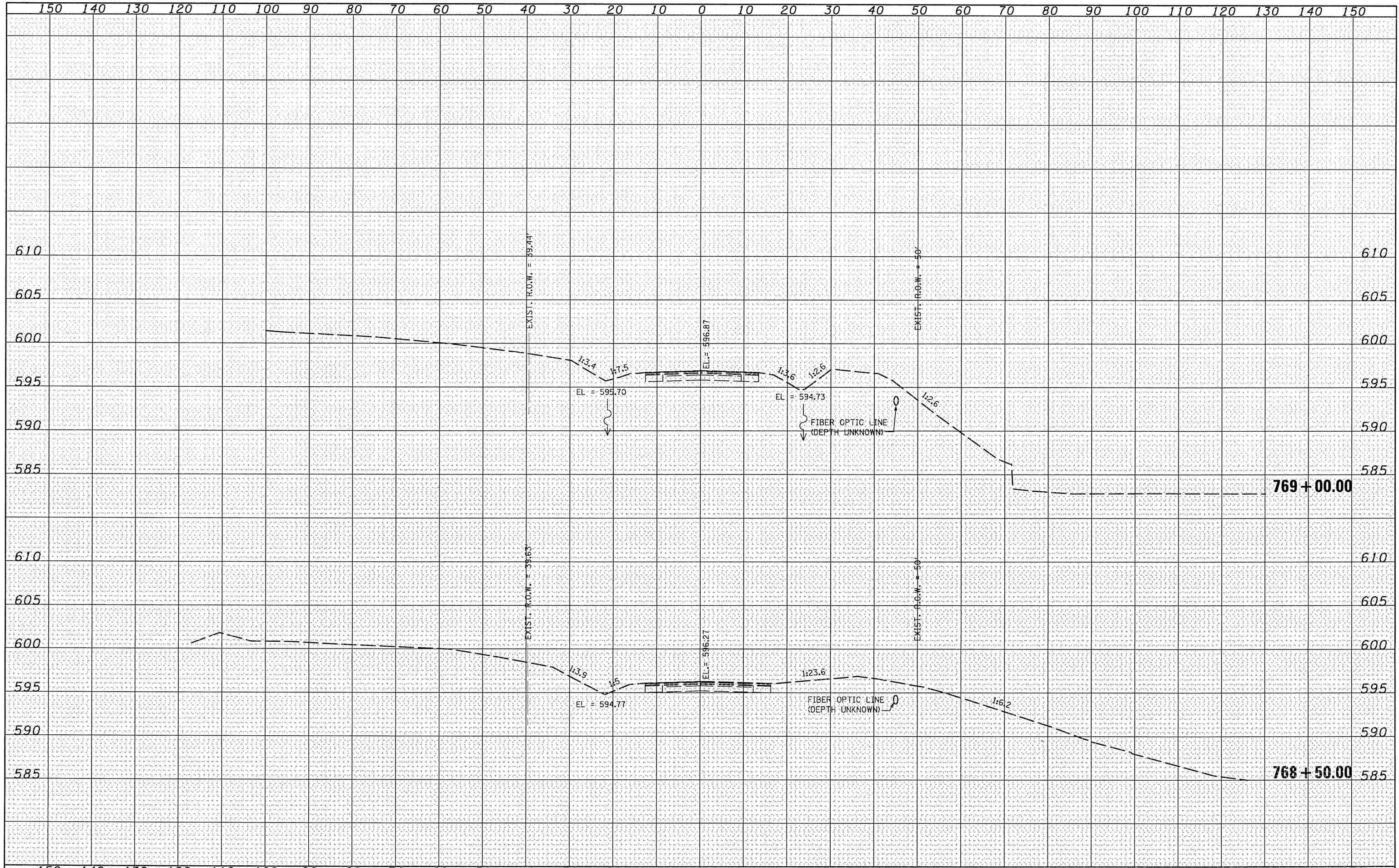
PROJECT SPECIFIC DETAILS

SCALE: AS SHOWN SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	41
CONTRACT NO. 68660				
FED. ROAD DIST. NO. 4 (ILLINOIS) FED. AID PROJECT				

BY	DATE
DESIGNED	
CHECKED	
DRAWN	
REVISIONS	
NO.	
FINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	

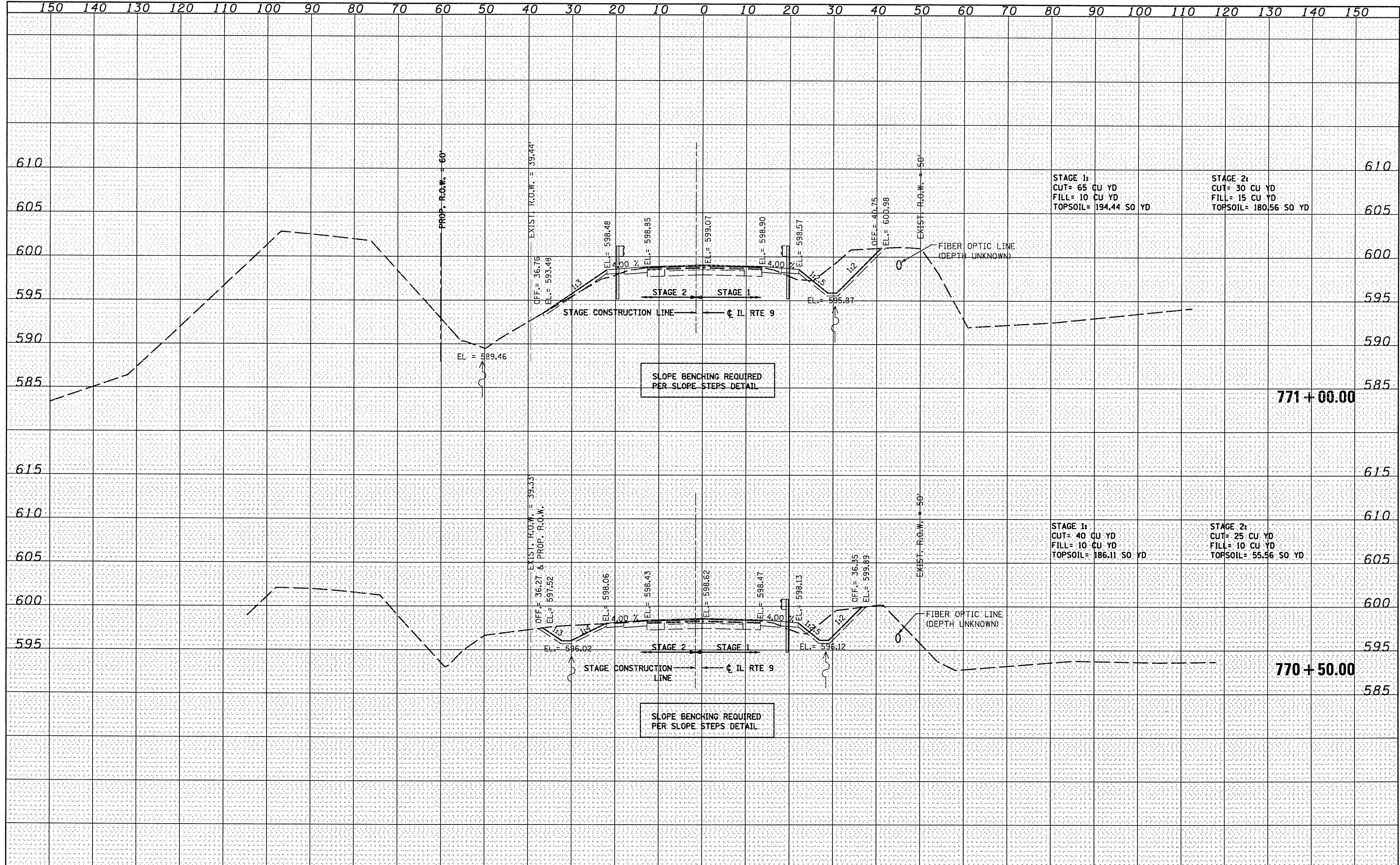
BY	DATE
DESIGNED	
CHECKED	
DRAWN	
REVISIONS	
NO.	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	



FILE NAME =	USER NAME = rjgnd	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLT SCALE = 20.0000' / IN.	DRAWN VLF	REVISED -	REVISED -						693	(119 BR-2)BR	TAZEWELL	65	42
PLT DATE = 7/9/2018	CHECKED AJS	REVISED -	REVISED -		CONTRACT NO. 68660				FED. ROAD DIST. NO. 4 (ILLINOIS) FED. AID PROJECT				
					SCALE:	SHEET NO.	OF	SHEETS	STA. 768+50.00	TO STA. 769+00.00			

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

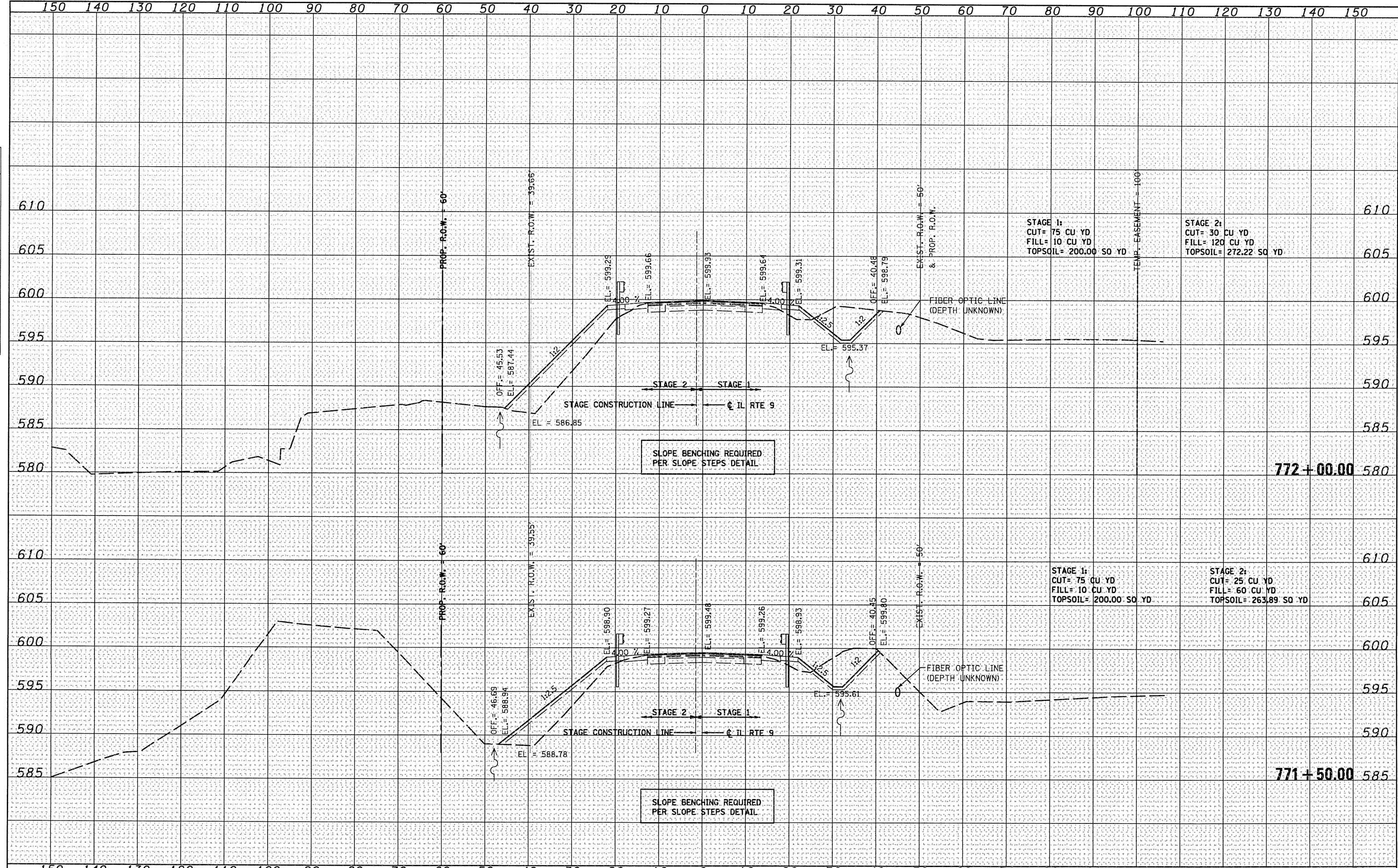
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BY	
ORIGINAL SURVEY	
PLOTTED	
DATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =	USER NAME = rjand	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
advoj\04.111-xssht1.dgn	CHECKED AJS	REVISED -	REVISED -		693	(119 BR-2)BR	TAZEWELL	65	44				
PLOT SCALE = 20.0000' / IN.	DRAWN VLF	REVISED -	REVISED -		SCALE: SHEET NO. OF SHEETS STA. 770+50.00 TO STA. 771+00.00				CONTRACT NO. 68660				
PLOT DATE = 7/9/2018	CHECKED AJS	REVISED -	REVISED -		FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT								

DATE	
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NOTE BOOK	
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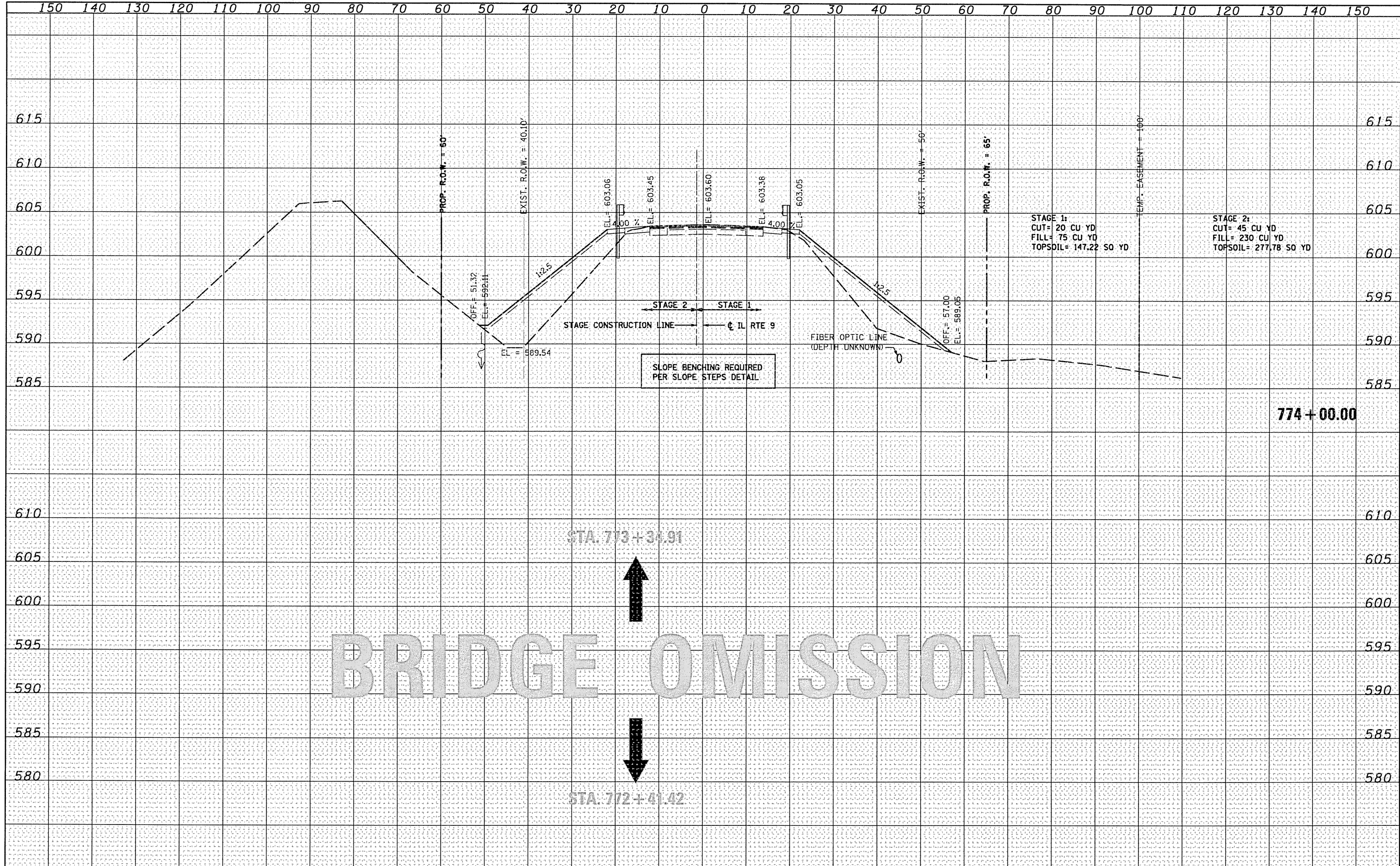
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NOTE BOOK	
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NO.	



FILE NAME =	USER NAME = ryand	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
adweg\04_111-xsh.tldgn	CHECKED AJS	REVISED -	693					(119 BR-2)BR	TAZEWELL	65	45	
PLOT SCALE = 20.0000' / IN.	DRAWN VLF	REVISED -	CONTRACT NO. 68660									
PLOT DATE = 7/9/2018	CHECKED AJS	REVISED -	FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT									
SCALE:				SHEET NO. OF SHEETS		STA. 771+50.00 TO STA. 772+00.00						

DATE	
BY	
SURVEYED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



STAGE 1:
CUT= 20 CU YD
FILL= 75 CU YD
TOPSOIL= 147.22 SO YD

STAGE 2:
CUT= 45 CU YD
FILL= 230 CU YD
TOPSOIL= 277.78 SO YD

SLOPE BENCHING REQUIRED
PER SLOPE STEPS DETAIL

BRIDGE OMISSION

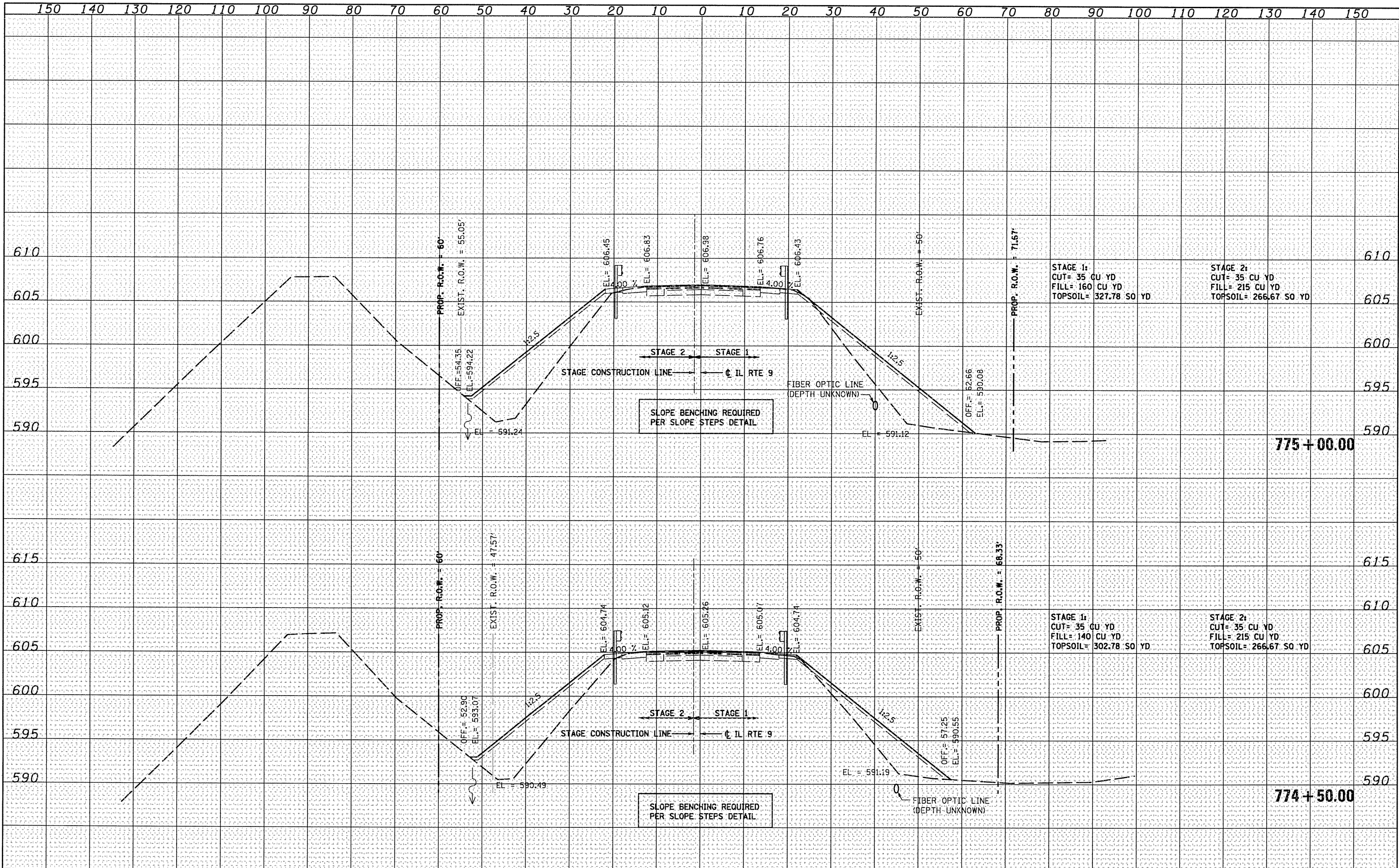
STA. 713+34.91

STA. 712+41.42

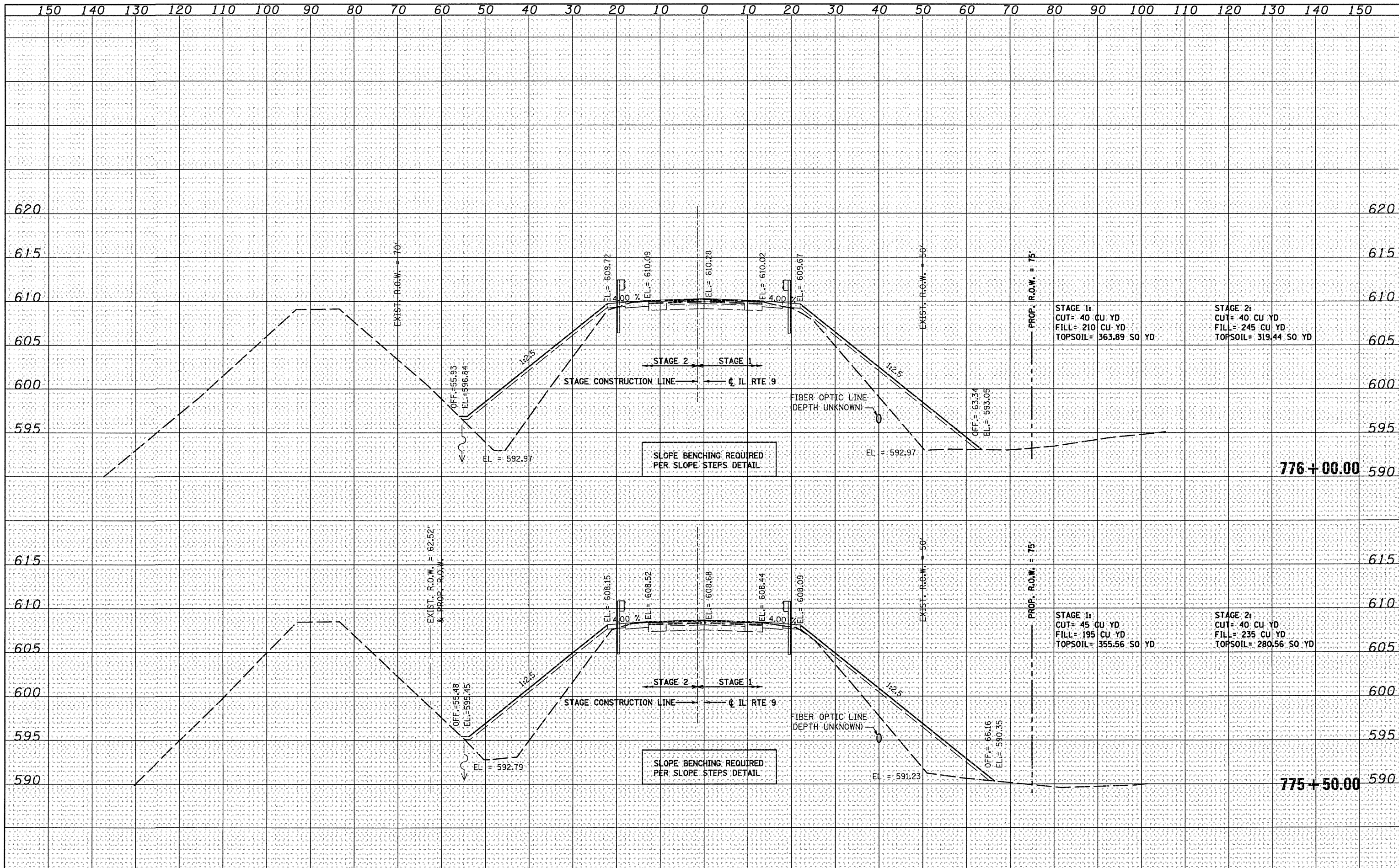
FILE NAME =	USER NAME = rjand	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
adveq\04_111-xssht1.dgn	CHECKED AJS	REVISED -	REVISED -		693	(119 BR-2)BR	TAZEWELL	65	46				
PLOT SCALE = 20.0000' / IN.	DRAWN VLF	REVISED -	REVISED -		CONTRACT NO. 68660								
PLOT DATE = 7/9/2018	CHECKED AJS	REVISED -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA. 773+50.00 TO STA. 774+00.00	FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT			

DATE	
BY	
NO.	
AREAS CHECKED	
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AREAS CHECKED	



FILE NAME =	USER NAME = rjend	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS	F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 47	
adweg\04_111-xsh1.dgn	CHECKED AJS	REVISED -	SCALE:			SHEET NO. OF SHEETS	STA. 774+50.00 TO STA. 775+00.00	CONTRACT NO. 68660		FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT	
PLOT SCALE = 20.0000' / IN.	DRAWN VLF	REVISED -									
PLOT DATE = 7/9/2010	CHECKED AJS	REVISED -									



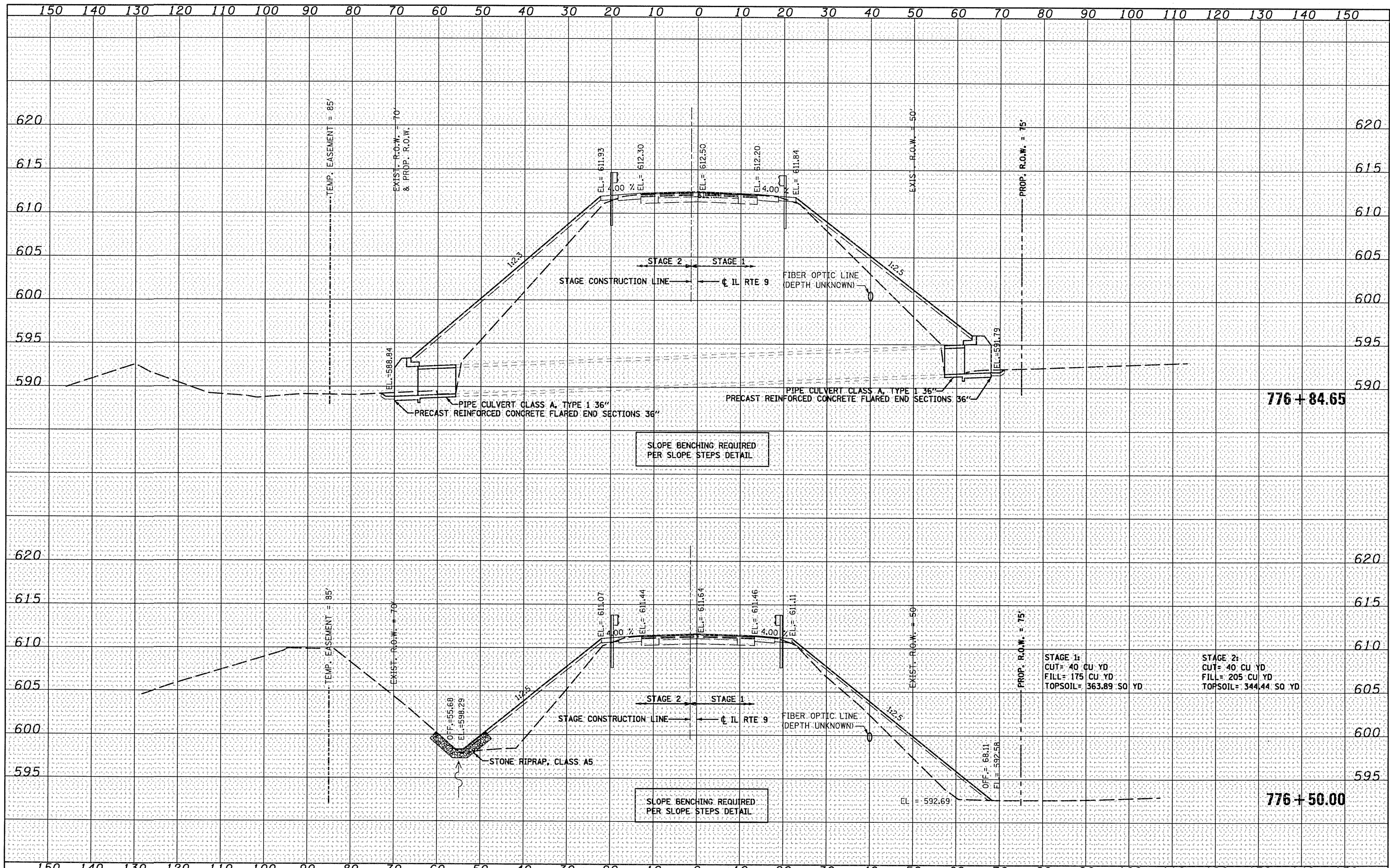
DATE	
BY	
SURVEY	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
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DATE	
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SURVEY	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

FILE NAME =	USER NAME = rjgend	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
si:\joi\6300-6399\6346\015\micro\final plans\roadway\04_111-xashtl.dgn	CHECKED AJS	REVISED -	693					(119 BR-2)BR	TAZEWELL	65	48	
PLOT SCALE = 20.0000' / IN.	DRAWN VLF	REVISED -	CONTRACT NO. 68660									
PLOT DATE = 7/9/2010	CHECKED AJS	REVISED -	FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT									
SCALE:				SHEET NO. OF SHEETS STA. 775+50.00 TO STA. 776+00.00								

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

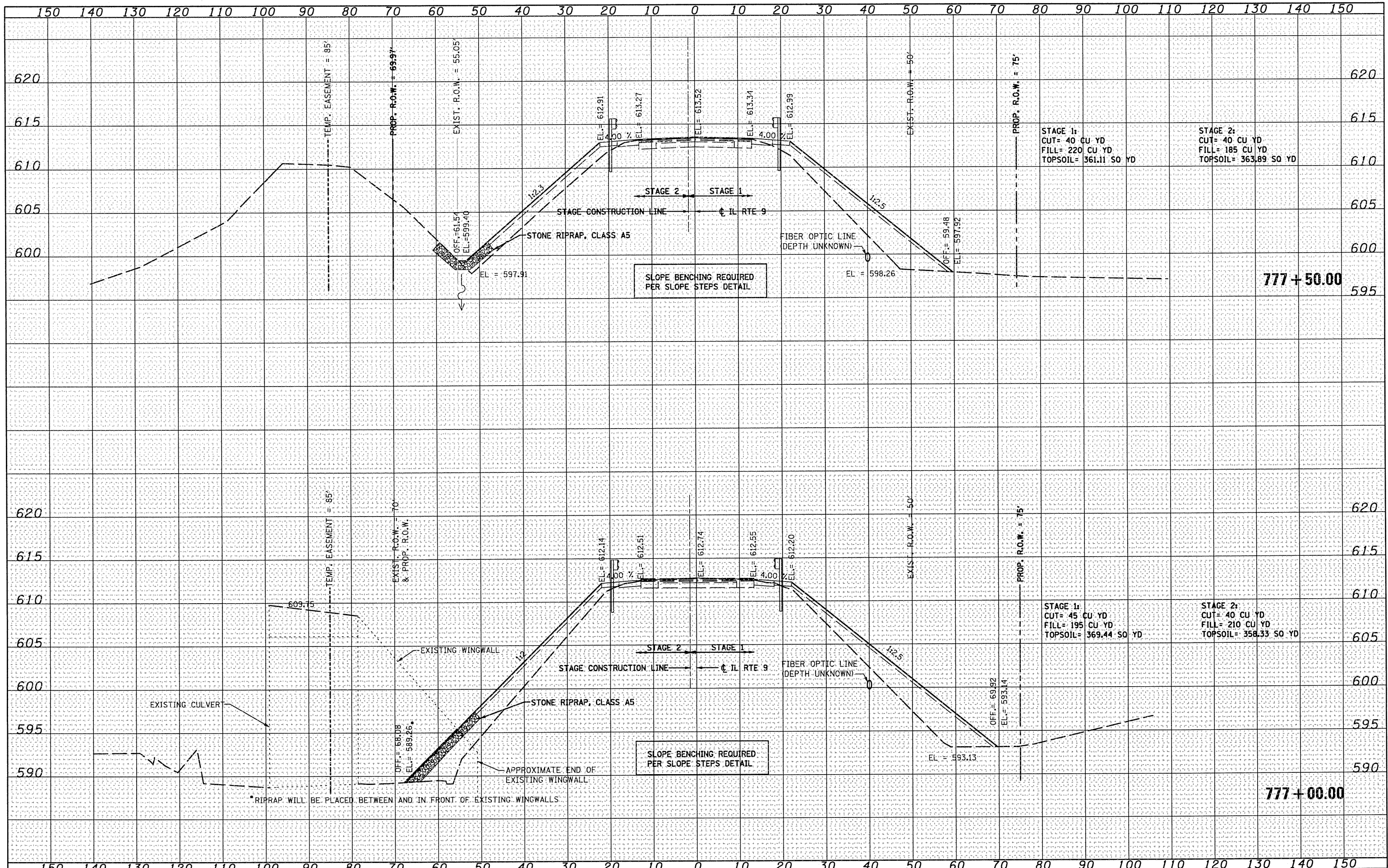
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BY	
SURVEYED	
FLORIT	
TEMPLATE	
AREAS	
CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
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PLOT SCALE = 28.0000' / IN.	DRAWN VLF	CHECKED AJS	REVISOR -							
PLOT DATE = 7/9/2018	CHECKED AJS	REVISOR -	REVISOR -							
SCALE: SHEET NO. OF SHEETS STA. 776+50.00 TO STA. 776+84.65						CONTRACT NO. 68660				
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT										

DATE	
BY	
FINAL SURVEY	
SURVEYED	
POINT TO	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO.	

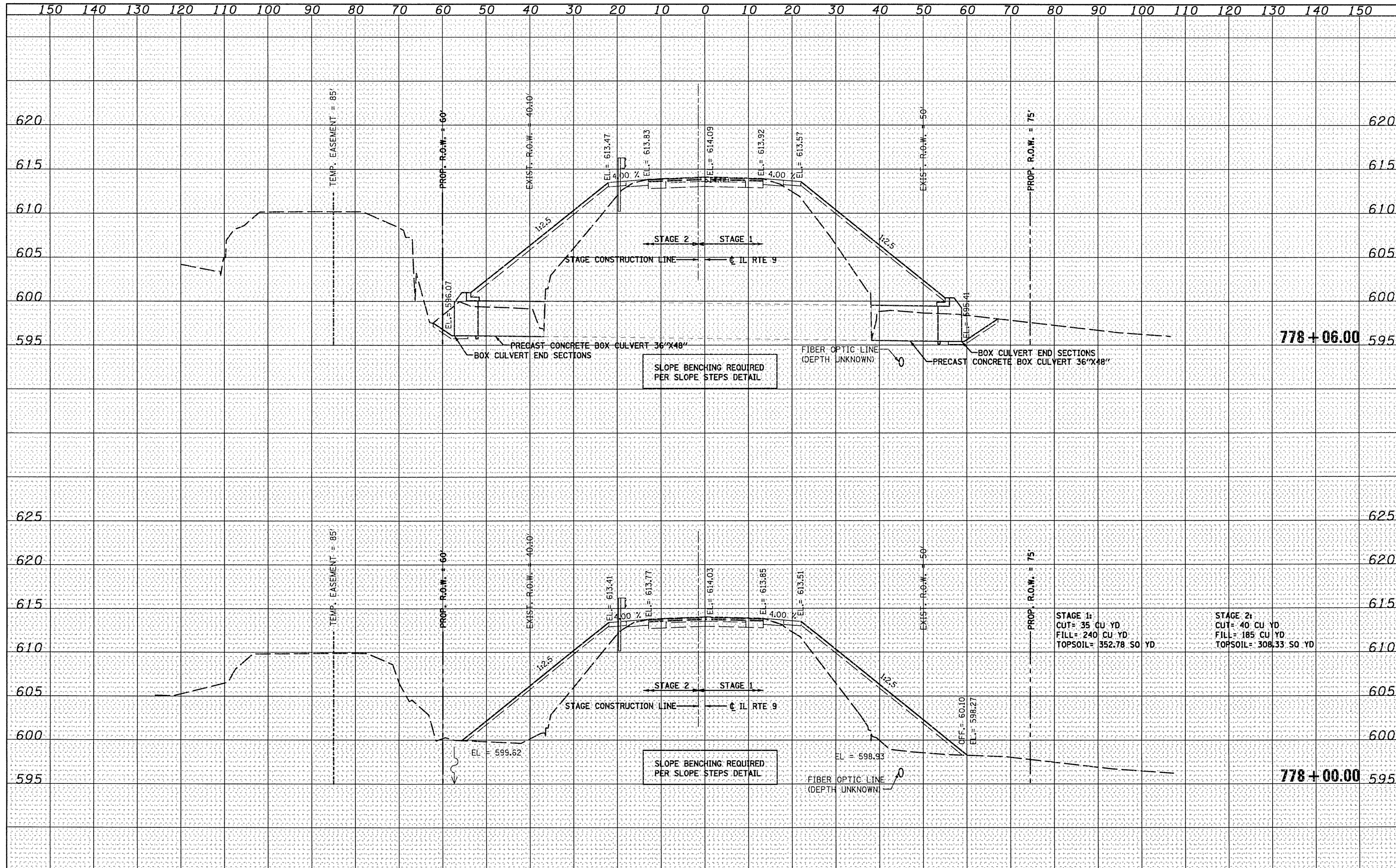
DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
POINT TO	
TEMPLATE	
AREAS	
AREAS CHECKED	
NOTE BOOK	
NO.	



FILE NAME =	USER NAME = ryand	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS			F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 50
DESIGNED VLF	CHECKED AJS	REVISED -	SCALE:		SHEET NO.	OF SHEETS	STA. 777+00.00 TO STA. 777+50.00	FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT				
DRAWN VLF	CHECKED AJS	REVISED -										
PLOT DATE = 7/9/2018												

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

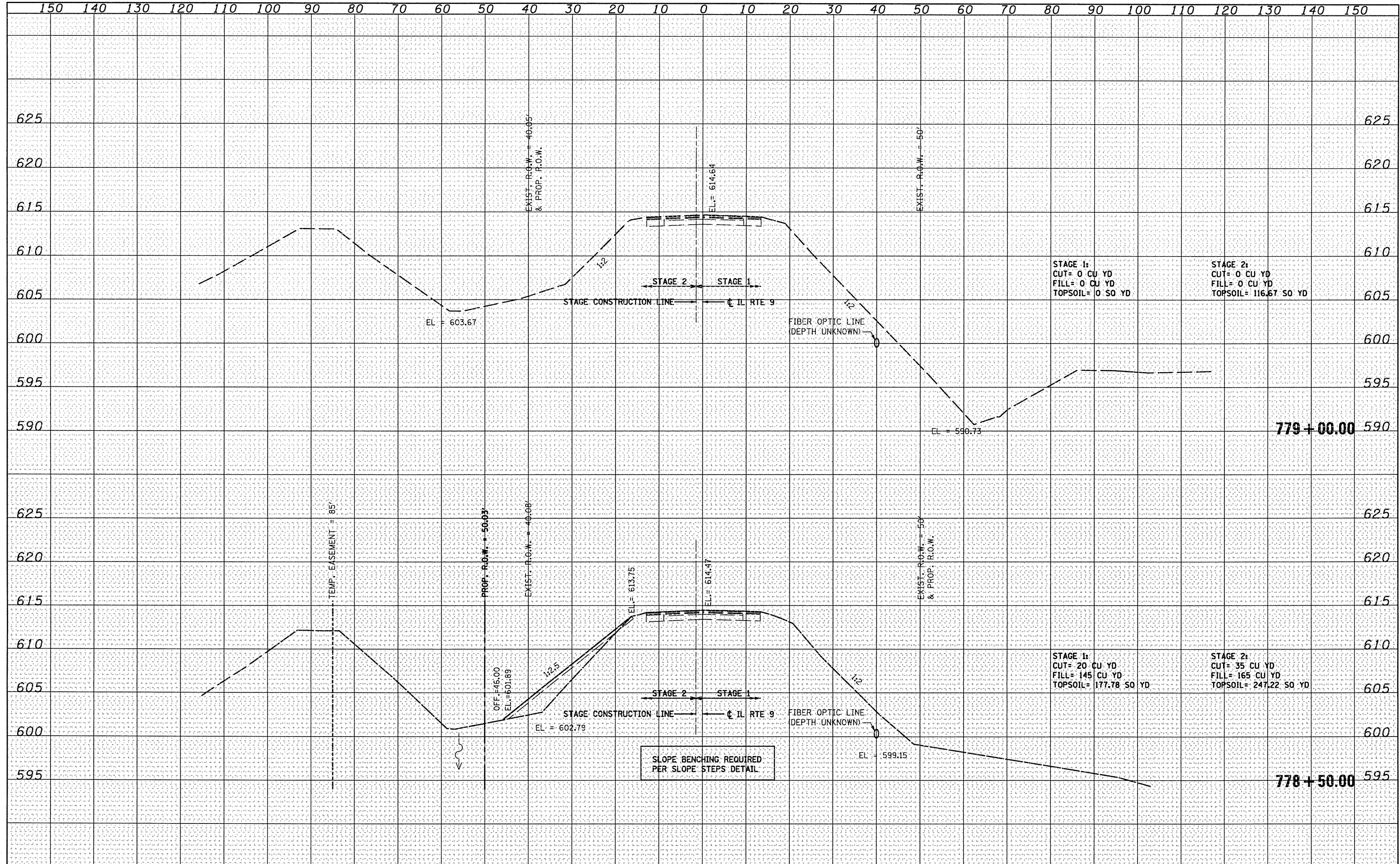
DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	



FILE NAME =	USER NAME = rjgend	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
\\joi\6388-6399\6346\015\micro\final plans\roadway\04-111-xssht1.dgn	CHECKED AJS	REVISED -	693			(119 BR-2)BR	TAZEWELL	65	51		
PLOT SCALE = 28.0000' / IN.	DRAWN VLF	REVISED -	CONTRACT NO. 68660								
PLOT DATE = 7/9/2018	CHECKED AJS	REVISED -	FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT								
SCALE:						SHEET NO.	OF	SHEETS	STA. 778+00.00 TO STA. 778+06.00		

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

DATE	
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SURVEYED	
TEMPLATE	
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ORIGINAL SURVEY	
NOTE BOOK	
NO.	

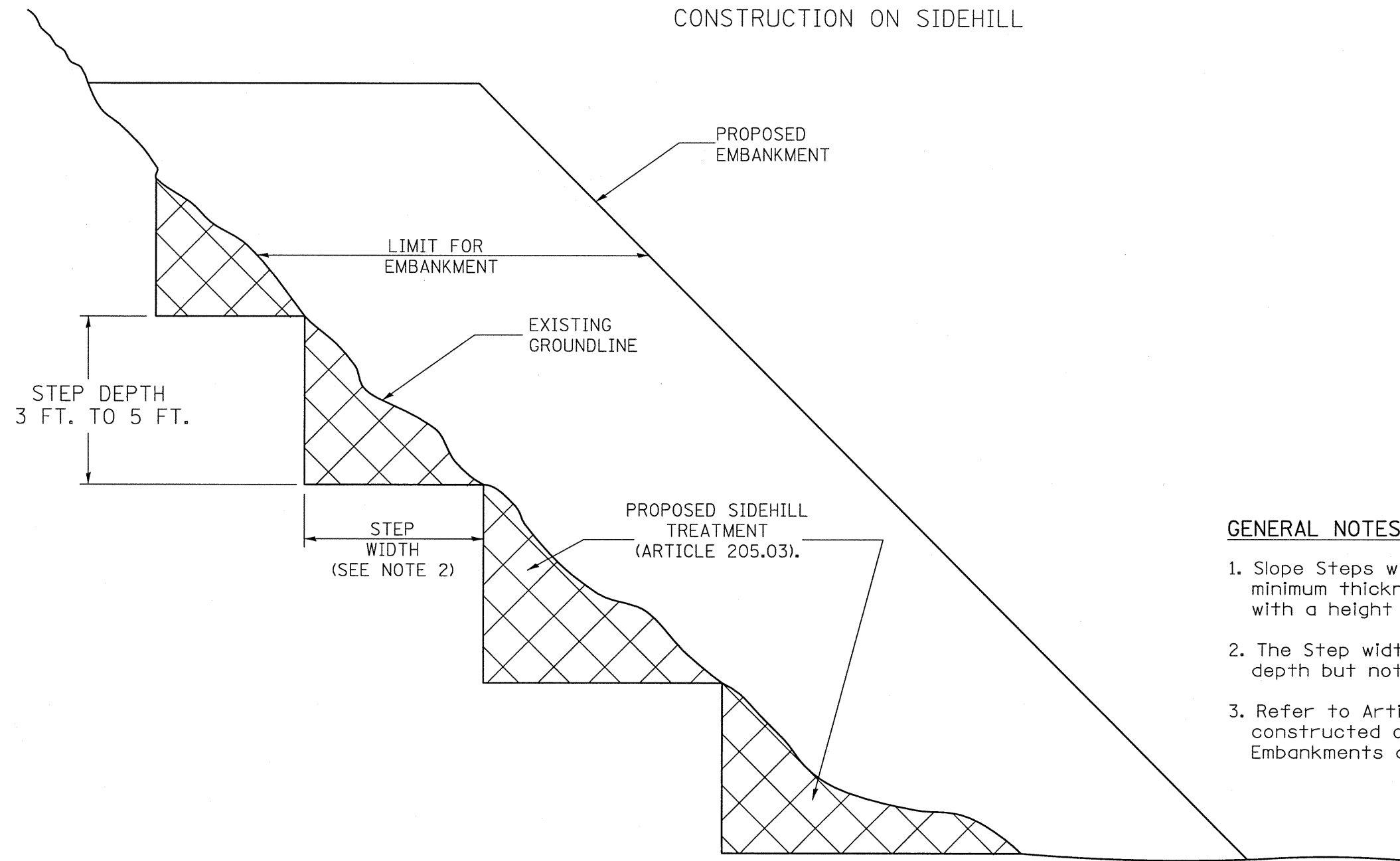


FILE NAME =	USER NAME = rjend	DESIGNED VLF	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 9 CROSS SECTIONS				F.A.P. RTE. 693	SECTION (119 BR-2)BR	COUNTY TAZEWELL	TOTAL SHEETS 65	SHEET NO. 52
adwy\04.111-xssht1.dgn		CHECKED AJS	REVISED -		SCALE:				SHEET NO. OF SHEETS	STA. 778+50.00 TO STA. 779+00.00	CONTRACT NO. 68660		
PLOT SCALE = 20.0000' / IN.		DRAWN VLF	REVISED -		FED. ROAD DIST. NO. 4 [ILLINOIS] FED. AID PROJECT								
PLOT DATE = 7/9/2018		CHECKED AJS	REVISED -										

F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
639	(119 BR-2)BR	TAZEWELL	65	53
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____	ILLINOIS	FED. AID PROJECT		

SLOPE STEPS DETAIL

TYPICAL CROSS-SECTION EMBANKMENT CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

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

DESIGNER NOTE:
 1. EACH PROJECT SHOULD BE REVIEWED INDEPENDENTLY FOR TREATMENT REQUIRED.
 2. REFER TO THIS DETAIL WITH NOTE ON APPLICABLE TYPICAL SECTIONS.

REPLACEMENT MATERIAL:



STANDARD EMBANKMENT
(IN ACCORDANCE WITH
205 OF THE STANDARD SPECIFACATION).

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

DATE	REVISIONS	BY
1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.

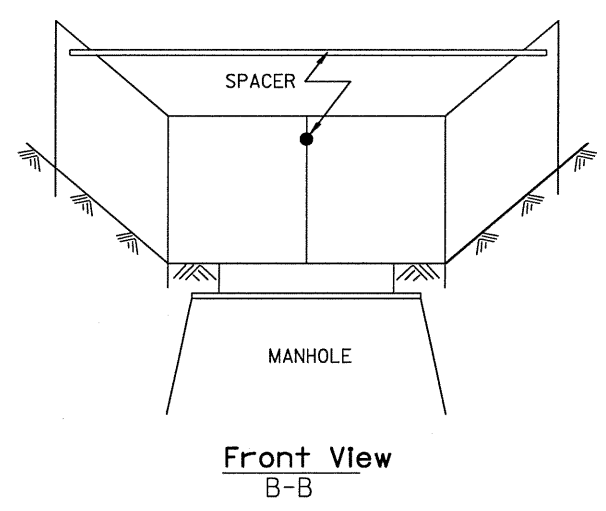
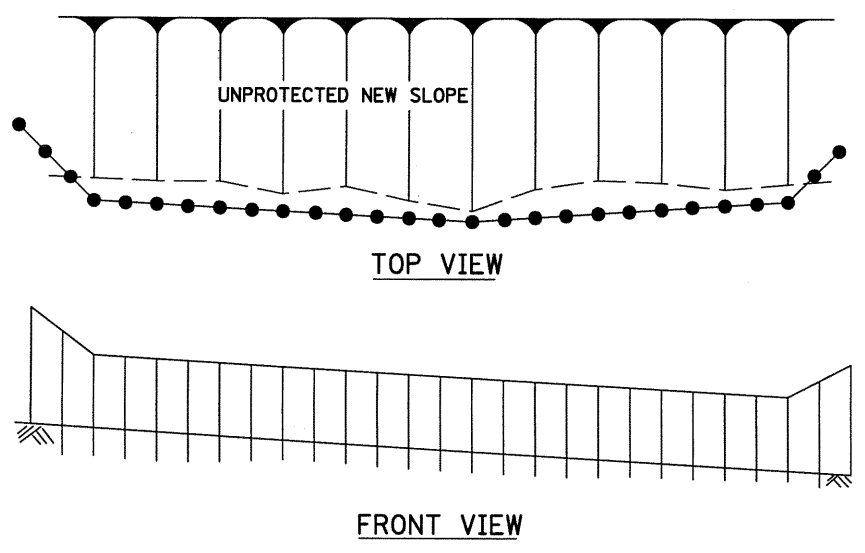
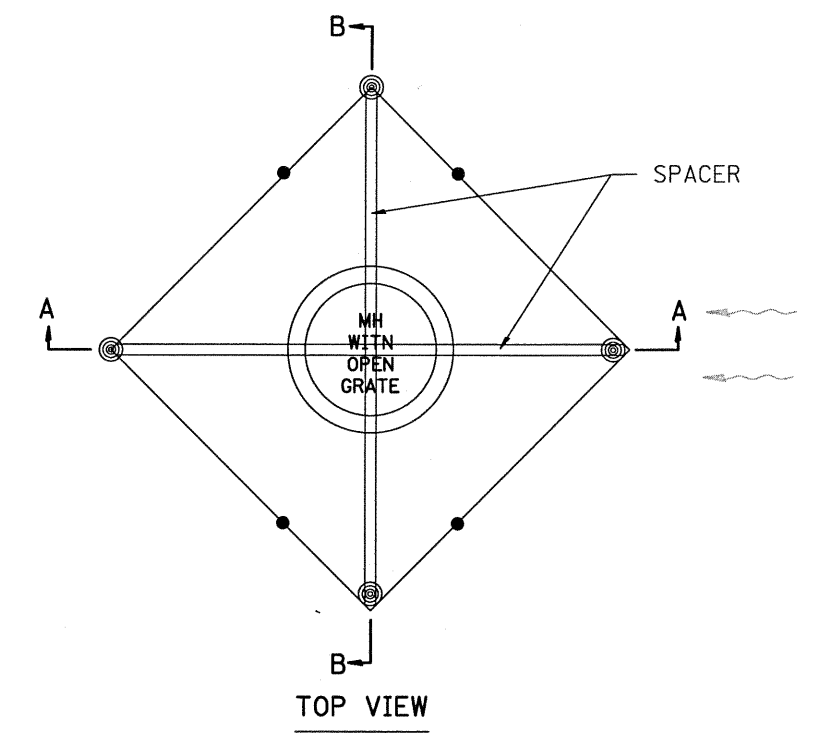
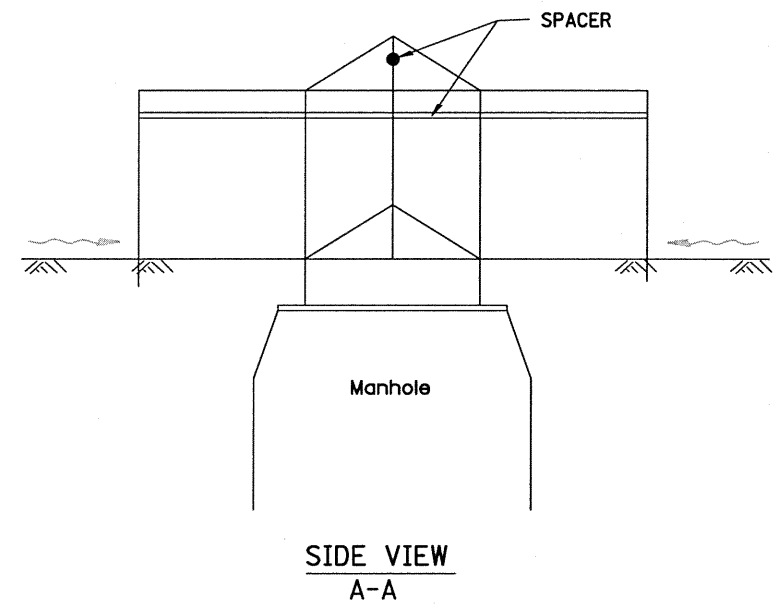
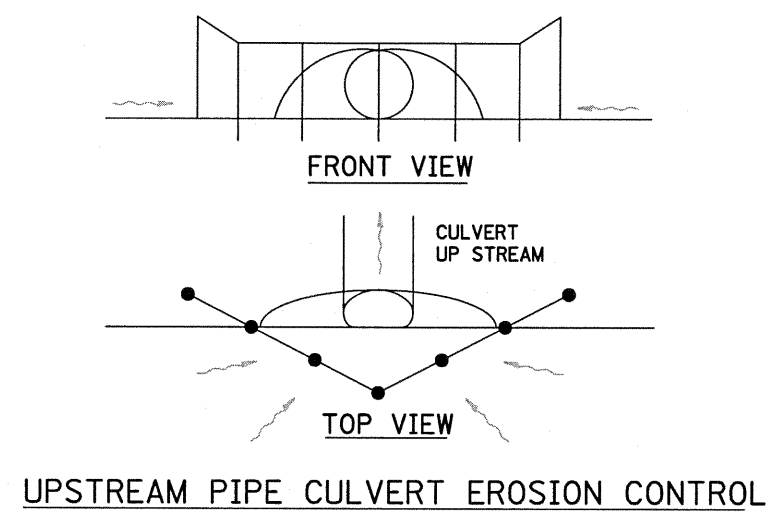
SLOPE STEPS DETAIL

CADD STD. NO. 205001-D4
SCALE: NOT DRAWN TO SCALE
DATE **DATE**

DRAWN BY CADD
CHECKED BY

205001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	54
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



EROSION CONTROL AT OPEN GRATE MAN HOLE

GENERAL NOTES:

1. This work shall be performed in accordance with Sections 280 & 1081, of the Standard Specifications.
2. Additional Timber or Metal Post shall be installed, as needed.

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

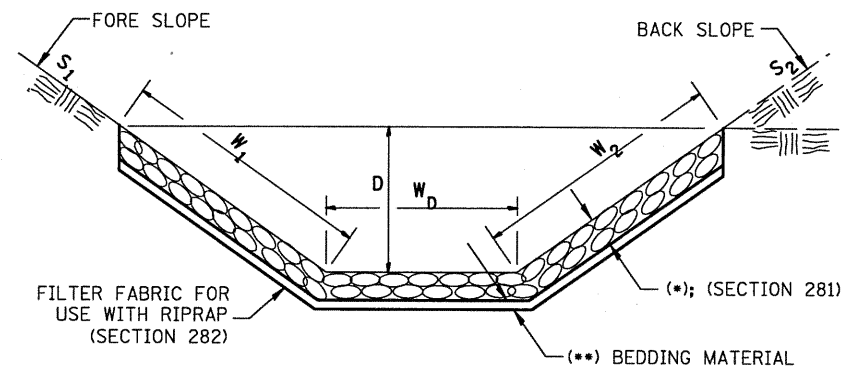
ILLINOIS DEPARTMENT OF TRANSPORTATION	
SPECIAL DETAIL SHEET	
TYPICAL APPLICATION OF SILT FILTER FENCE	
CADD DETAIL 280001-D4	DRAWN BY CADD
SCALE: NOT DRAWN TO SCALE	CHECKED BY

DATE	REVISIONS	BY
1-1-97	RENUM. A-12.05, NEW REVISION BOX	T.P.
3-11-03	ELIMINATED SILT FENCE DITCH CHECK	M.M.A.

Designer NOTES: 1. Designer to modify this Special Detail sheet, as needed, for inclusion in plans. 2. Include Highway Standard 280001 "TEMPORARY EROSION CONTROL SYSTEM."

\$\$\$DATE\$\$\$

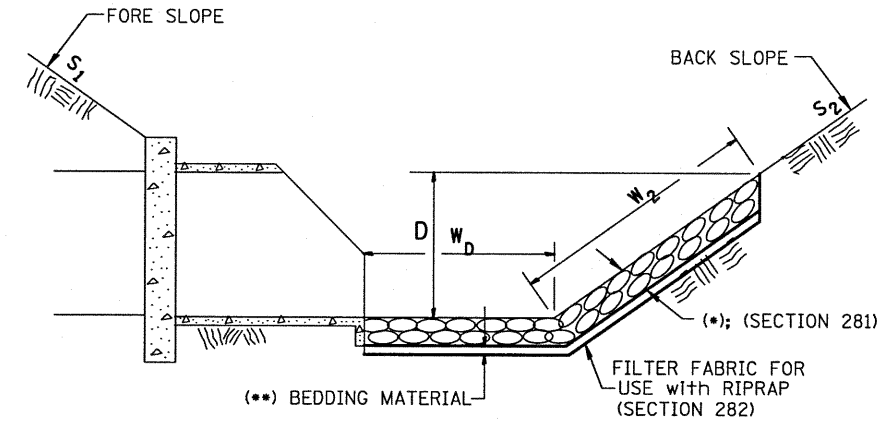
**CASE 1
(DITCH)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	m (lin ft)	m (lin ft)	m tons (tons)	m ² (sq yds)
776+50 TO 777+50	(14)	(100)	(195)	(160)
TOTAL				

(1) WIDTH = $W_1 + W_2 + W_D$

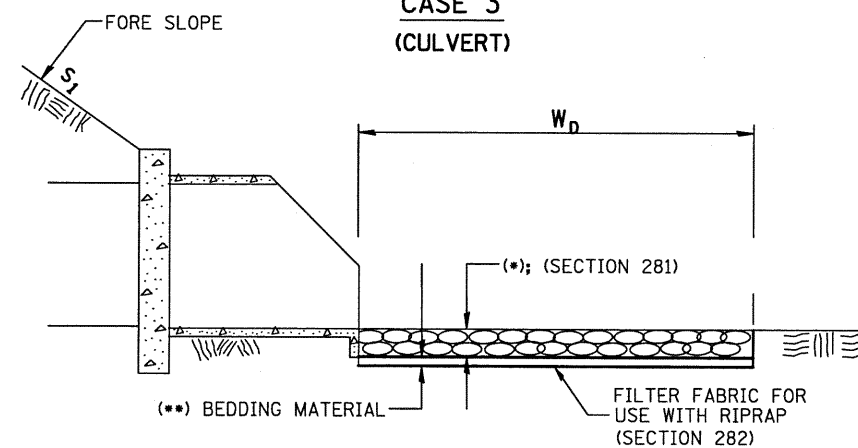
**CASE 2
(CULVERT & SLOPE)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	m (lin ft)	m (lin ft)	m tons (tons)	m ² (sq yds)
TOTAL				

(1) WIDTH = $W_2 + W_D$

**CASE 3
(CULVERT)**



(*)				
LOCATION	WIDTH (1)	LENGTH	RIPRAP	FABRIC
STA TO STA	m (lin ft)	m (lin ft)	m tons (tons)	m ² (sq yds)
TOTAL				

(1) WIDTH = W_D

1. Designer to modify this Special Detail Sheet, as needed for inclusion in plans.
2. (*) Designer to specify pay item including material, quality, and gradation.
3. (**) Designer to specify thickness of bedding material.
4. Include District Special Provision if needed.

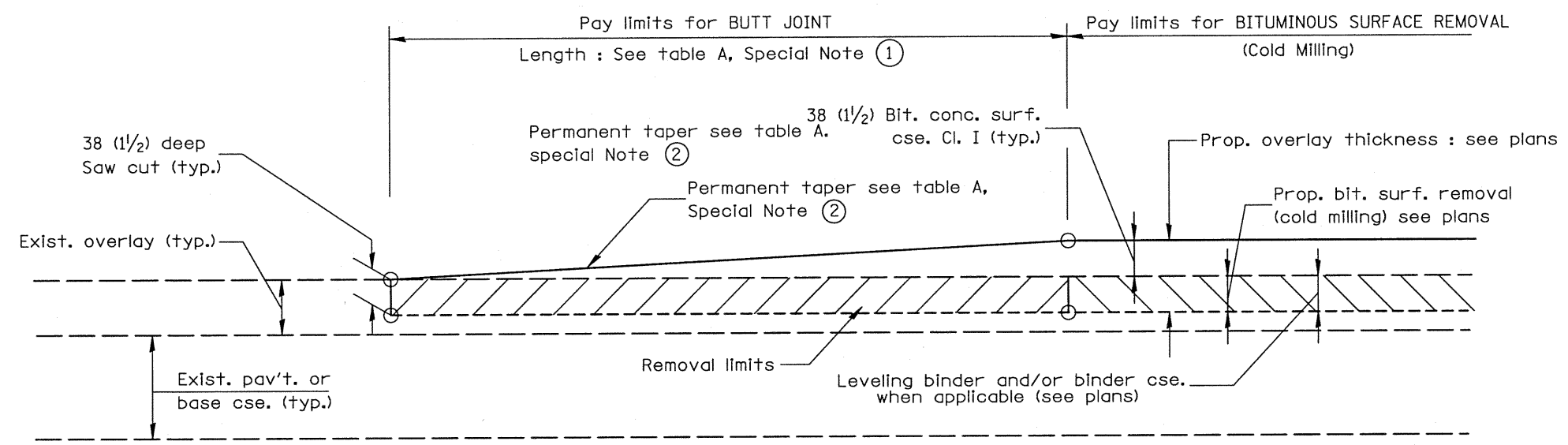
DATE**

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
SPECIAL DETAIL SHEET
RIPRAP DITCH FOR EROSION PROTECTION
CADD DETAIL 281001-D4
SCALE: NOT DRAWN TO SCALE
DRAWN BY CADD
CHECKED BY
DATE **DATE**

DATE	REVISIONS	BY
1-1-97	RENUM. A-12.02, NEW REVISION BOX	T.P.
12-1-97	CORRECT FILTER FABRIC LEADER ARROW	J.A.



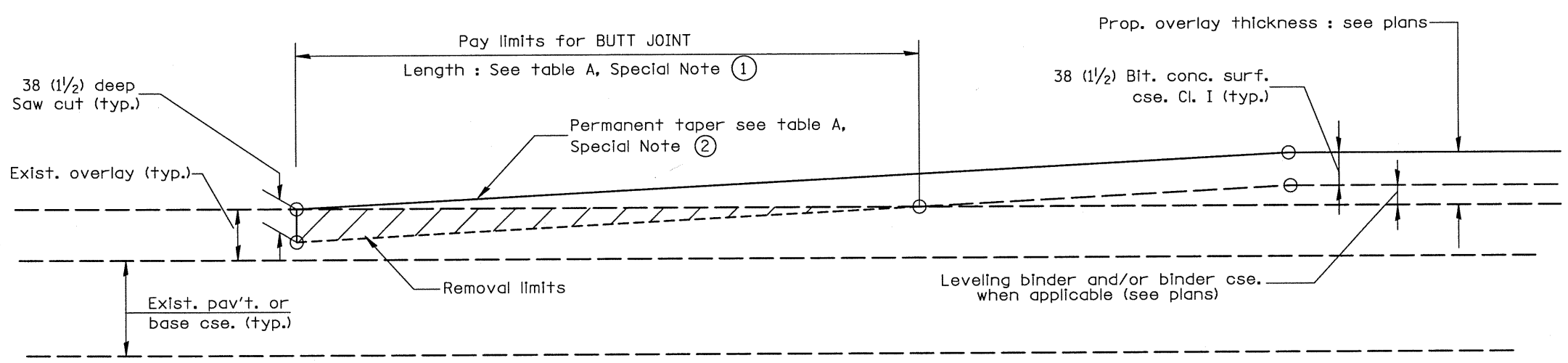
CASE 1 : WITH BITUMINOUS SURFACE REMOVAL (COLD MILLING)

TABLE A
(LENGTHS AND TAPER RATES)

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

GENERAL NOTES

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



CASE 2 : NO BITUMINOUS SURFACE REMOVAL (COLD MILLING)

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

DATE	REVISIONS	BY
1-1-97	RENUM. C-23.01, NEW REVISION BOX	T.P.
4-1-97	CORRECTION TO DEPTH	J.A.

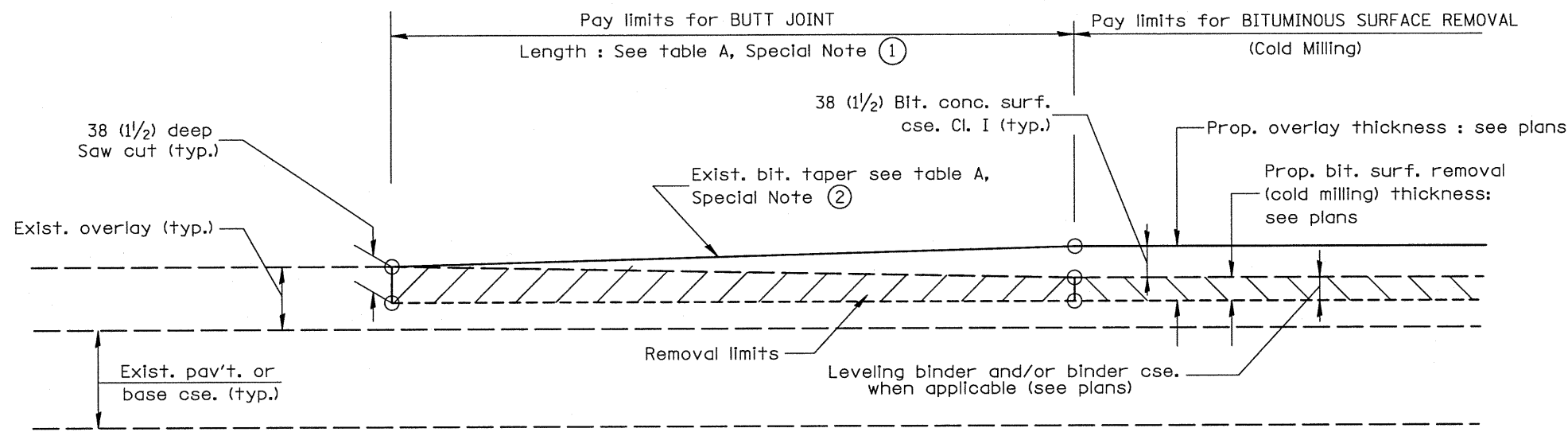
BUTT JOINTS
CADD STD NO. 406101-D4 SHEET 1 OF 2
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
DATE **DATE** CHECKED BY

406101-D4 (1)

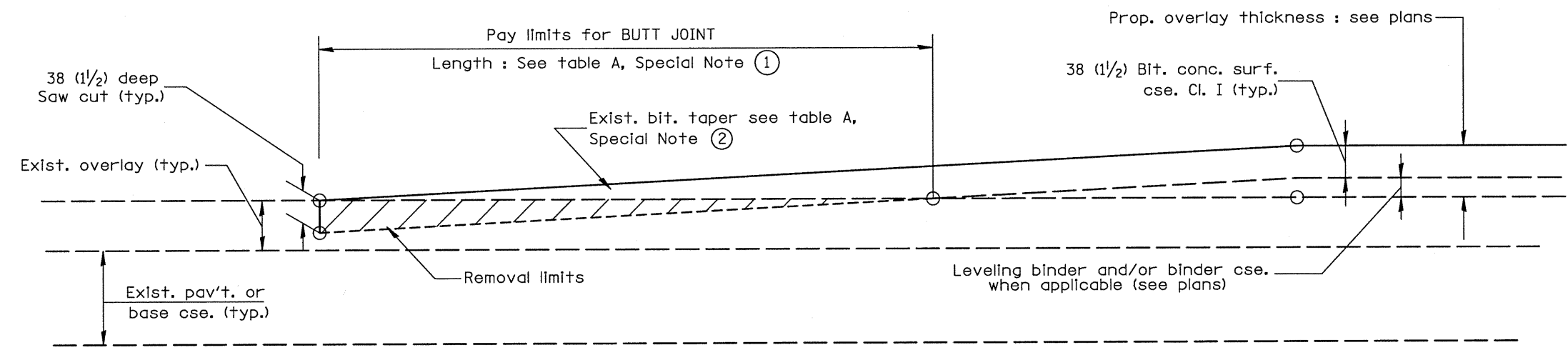
DESIGNER NOTES:
1. Include District Special Provision for Butt Joints & for Bituminous Surface Removal (Cold Milling). Payment for the Butt Joint applies whether or not the project features Bituminous Surface Removal (Cold Milling).
2. The butt joints pay item includes the saw cut & temporary ramp.

\$\$\$DATE\$\$\$

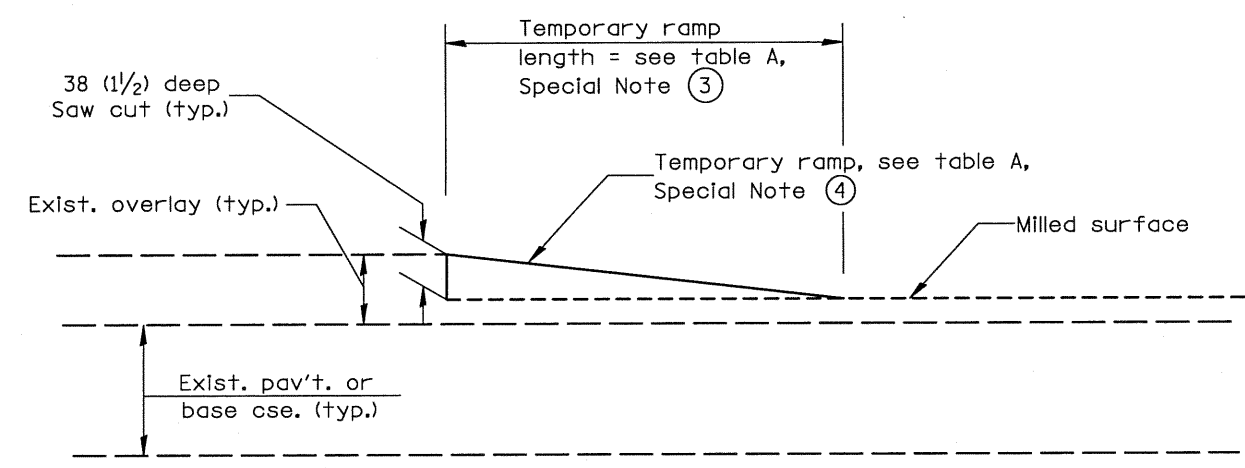
F.A.E. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
639	(119 BR-2)BR	TAZEWELL	65	57
STA. _____		TO STA. _____		
FED. ROAD DIST. NO. _____		ILLINOIS FED. AID PROJECT		



**CASE 3 : WITH BITUMINOUS SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



**CASE 4 : NO BITUMINOUS SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



DETAIL TEMPORARY RAMP

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

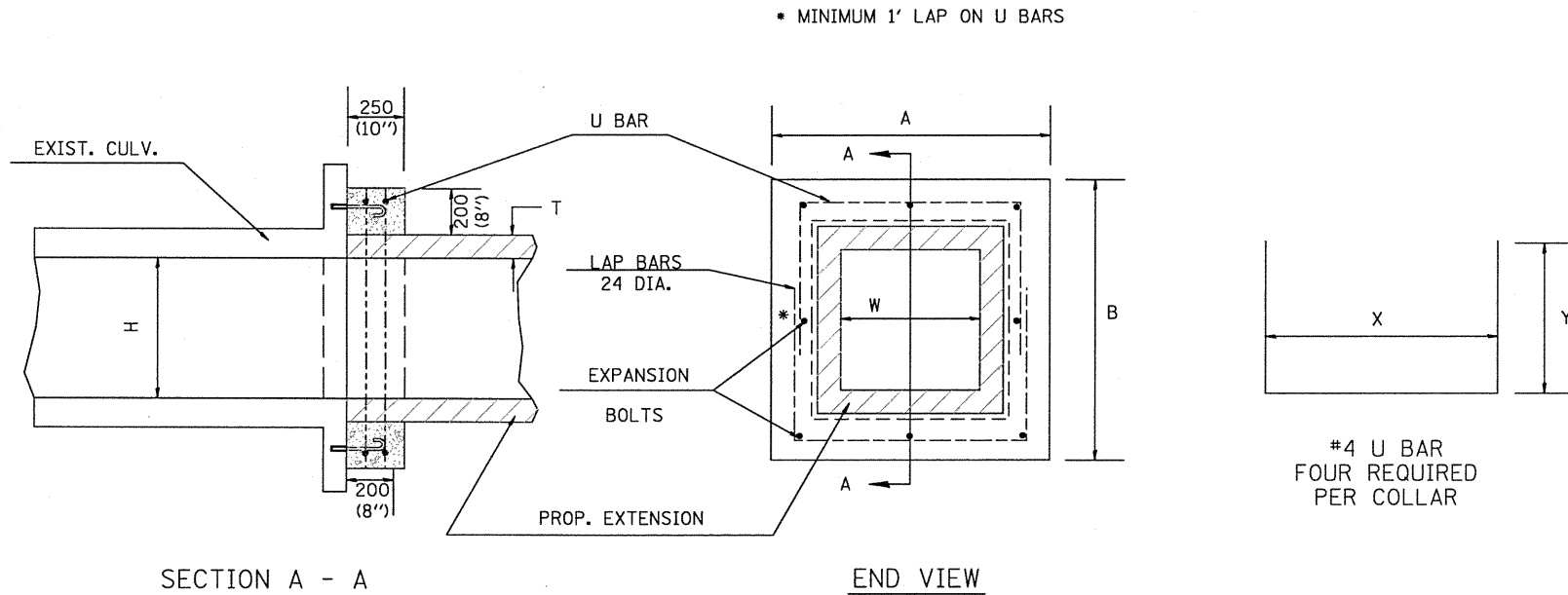
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

BUTT JOINTS
CADD STD NO. 406101-D4 SHEET 2 OF 2
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
DATE **DATE** CHECKED BY

406101-D4 (2)

DATE

DGN-ONLY



GENERAL NOTES

- The collar shall be constructed entirely of CLASS SI CONCRETE and in accordance with the applicable portions of section 503 of the Standard Specifications. REINFORCEMENT BARS shall conform to section 508.
- Expansion bolts shall consist of approved expansions anchors, and M20 (3/4'') hook bolts which conform to Section 1006.09. These bolts shall extend at least 200(8'') into the new concrete.

* Dimensions for ASTM C789.

DIMENSIONS

EXISTING BOX		A	B	T *	EACH COLLAR				
W	H				CL SI	REINFORCEMENT BARS		EXPANSION BOLTS	
mm (ft)	mm (ft)				m ³ (CU YD)	X	Y	kg (POUNDS)	NO.
600(2)	600(2)	1.22m (4'-0'')	1.22m (4'-0'')	100(4'')	0.21(0.27)	1.02m (3'-4'')	660(26'')	16(21)	8
900(3)	600(2)	1.52m (5'-0'')	1.22m (4'-0'')	100(4'')	0.24(0.32)	1.32m (4'-4'')	660(26'')	18(23)	8
900(3)	750(2.5)	1.52m (5'-0'')	1.37m (4'-6'')	100(4'')	0.26(0.34)	1.32m (4'-4'')	737(29'')	19(25)	8
900(3)	900(3)	1.52m (5'-0'')	1.52m (5'-0'')	100(4'')	0.28(0.36)	1.32m (4'-4'')	813(32'')	20(26)	8
900(3)	1200(4)	1.57m (5'-2'')	1.88m (6'-2'')	125(5'')	0.31(0.41)	1.37m (4'-6'')	991(39'')	22(29)	10
1200(4)	900(3)	1.88m (6'-2'')	1.57m (5'-2'')	125(5'')	0.31(0.41)	1.68m (5'-6'')	838(33'')	22(29)	10
1200(4)	1200(4)	1.88m (6'-2'')	1.88m (6'-2'')	125(5'')	0.34(0.45)	1.68m (5'-6'')	991(39'')	25(32)	12
1200(4)	1500(5)	1.93m (6'-4'')	2.24m (7'-4'')	150(6'')	0.39(0.51)	1.73m (5'-8'')	1.17m (3'-10'')	28(36)	14
1500(5)	1200(4)	2.24m (7'-4'')	1.93m (6'-4'')	150(6'')	0.39(0.51)	2.03m (6'-8'')	1.02m (3'-4'')	28(36)	14
1500(5)	1500(5)	2.24m (7'-4'')	2.24m (7'-4'')	150(6'')	0.42(0.55)	2.03m (6'-8'')	1.17m (3'-10'')	29(38)	16
1500(5)	1800(6)	2.29m (7'-6'')	2.59m (8'-6'')	175(7'')	0.46(0.60)	2.08m (6'-10'')	1.35m (4'-5'')	32(42)	16
1800(6)	1200(4)	2.59m (8'-6'')	1.98m (6'-6'')	175(7'')	0.43(0.56)	2.39m (7'-10'')	1.04m (3'-5'')	30(39)	14
1800(6)	1500(5)	2.59m (8'-6'')	2.29m (7'-6'')	175(7'')	0.46(0.60)	2.39m (7'-10'')	1.19m (3'-11'')	32(42)	16
1800(6)	1800(6)	2.59m (8'-6'')	2.59m (8'-6'')	175(7'')	0.49(0.64)	2.39m (7'-10'')	1.35m (4'-5'')	35(45)	16
1800(6)	2400(8)	2.64m (8'-8'')	3.25m (10'-8'')	200(8'')	0.57(0.74)	2.44m (8'-0'')	1.68m (5'-6'')	39(51)	18
2400(8)	2400(8)	3.25m (10'-8'')	3.25m (10'-8'')	200(8'')	0.63(0.82)	3.05m (10'-0'')	1.68m (5'-6'')	43(56)	20

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

QUANTITIES

CALC. BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE, BUREAU OF PROJECT IMPLEMENTATION, DOCUMENTATION SECTION

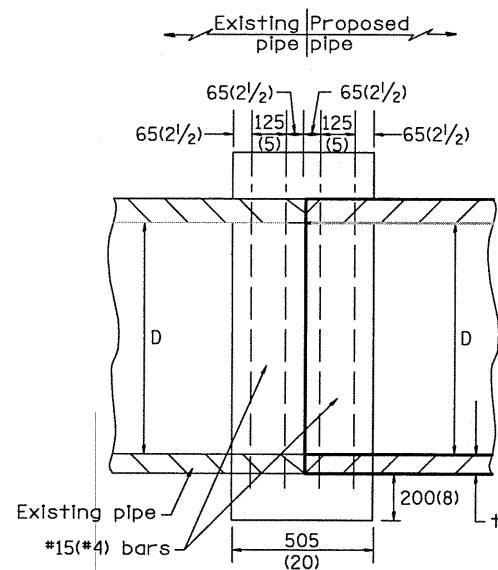
DGN-ONLY

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT CADD STANDARD

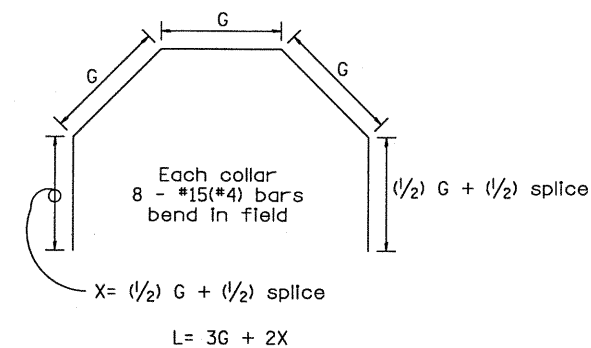
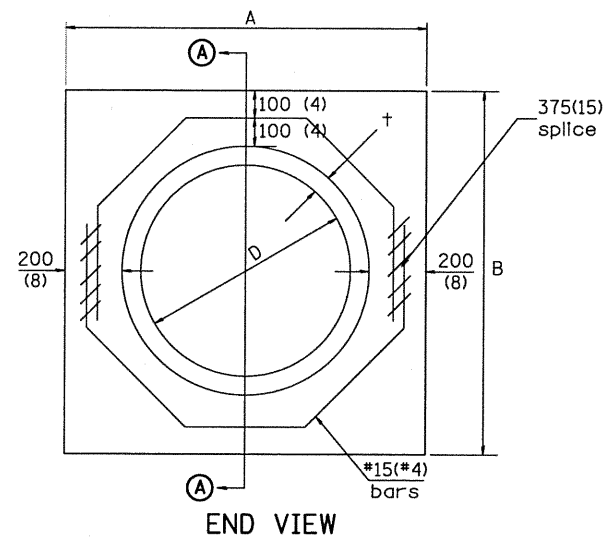
COLLAR FOR
 BOX CULVERT
 EXTENSIONS

CADD STANDARD 540001-D4
 SCALE: NOT DRAWN TO SCALE
 DATE **DATE** DRAWN BY CADD CHECKED BY

DATE	REVISIONS	BY
1-1-97	RENUM. J-12.01, METRICS, NEW REVISION BOX, REVISED TITLE BOX, ADDED QUANTITY CALCULATION BOX.	T.P.



SECTION A - A



Each Collar								
Reinforcement Bars								
D m (in)	t m (in)	A m (ft)	B m (ft)	CL. SI CONC. m ³ (cu. yd)	G m (in)	X m (in)	L m (ft)	Weight kg (lb)
300 (12)	51 (2.00)	0.814 (2.67)	0.814 (2.67)	0.270 (0.4)	253 (9 15/16)	317 (12)	1.393 (4.57)	11 (24)
375 (15)	57 (2.25)	0.902 (2.96)	0.902 (2.96)	0.315 (0.4)	290 (11 3/8)	335 (13 3/16)	1.541 (5.05)	12 (27)
450 (18)	64 (2.50)	0.991 (3.25)	0.991 (3.25)	0.362 (0.5)	327 (12 13/16)	354 (13)	1.689 (5.54)	14 (30)
525 (21)	70 (2.75)	1.079 (3.54)	1.079 (3.54)	0.411 (0.5)	364 (14 1/4)	372 (14 5/8)	1.836 (6.02)	15 (32)
600 (24)	76 (3.00)	1.167 (3.83)	1.167 (3.84)	0.460 (0.6)	401 (15)	391 (15 5/16)	1.984 (6.51)	16 (35)
675 (27)	83 (3.25)	1.259 (4.13)	1.259 (4.13)	0.516 (0.7)	438 (17 1/4)	409 (16 1/16)	2.131 (6.99)	17 (37)
750 (30)	89 (3.50)	1.347 (4.42)	1.347 (4.42)	0.570 (0.7)	475 (18)	428 (16)	2.279 (7.48)	18 (40)
825 (33)	95 (3.75)	1.436 (4.71)	1.436 (4.71)	0.624 (0.8)	512 (20)	446 (17 1/2)	2.426 (7.96)	19 (43)
900 (36)	102 (4.00)	1.524 (5.00)	1.524 (5.00)	0.682 (0.9)	549 (21)	465 (18 3/16)	2.574 (8.44)	20 (45)
1050 (42)	114 (4.50)	1.701 (5.58)	1.701 (5.58)	0.800 (1.0)	622 (24)	501 (19)	2.869 (9.41)	23 (50)
1200 (48)	127 (5.00)	1.881 (6.17)	1.881 (6.17)	0.930 (1.2)	696 (27 5/16)	538 (21 3/16)	3.164 (10.38)	25 (55)

GENERAL NOTES

1. THE COLLAR SHALL BE CONSTRUCTED ENTIRELY OF CLASS SI CONCRETE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 503 OF THE STANDARD SPECIFICATIONS. REINFORCEMENT BARS SHALL CONFORM TO SECTION 508.

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

QUANTITIES	
CALC. BY: R. J. D.	2-2-98
CHECKED BY: R. D. H.	DATE: 2-6-98
	DATE:

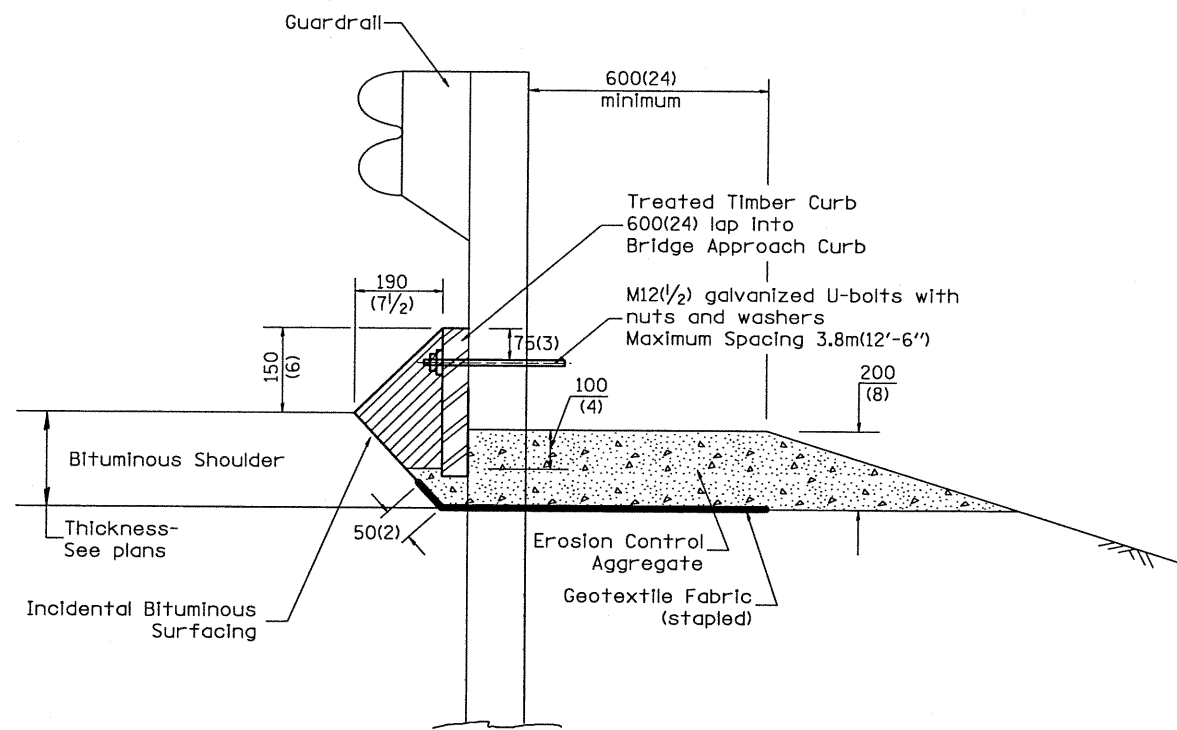
QUANTITY CALCULATIONS ARE ON FILE AT THE DISTRICT 4 OFFICE; BUREAU OF PROJECT IMPLEMENTATION; DOCUMENTATION SECTION

DATE	REVISIONS	BY
1-1-97	RENUM. B-8.03, NEW REVISION BOX ADDED QUANTITY CALCULATION BOX, REVISED TITLE BOX	T.P.
4-1-97	CORRECT BAR	J.A.
2-10-98	REVISE QUANTITIES	J.A.
9-1-00	CORRECT WEIGHT	J.A.

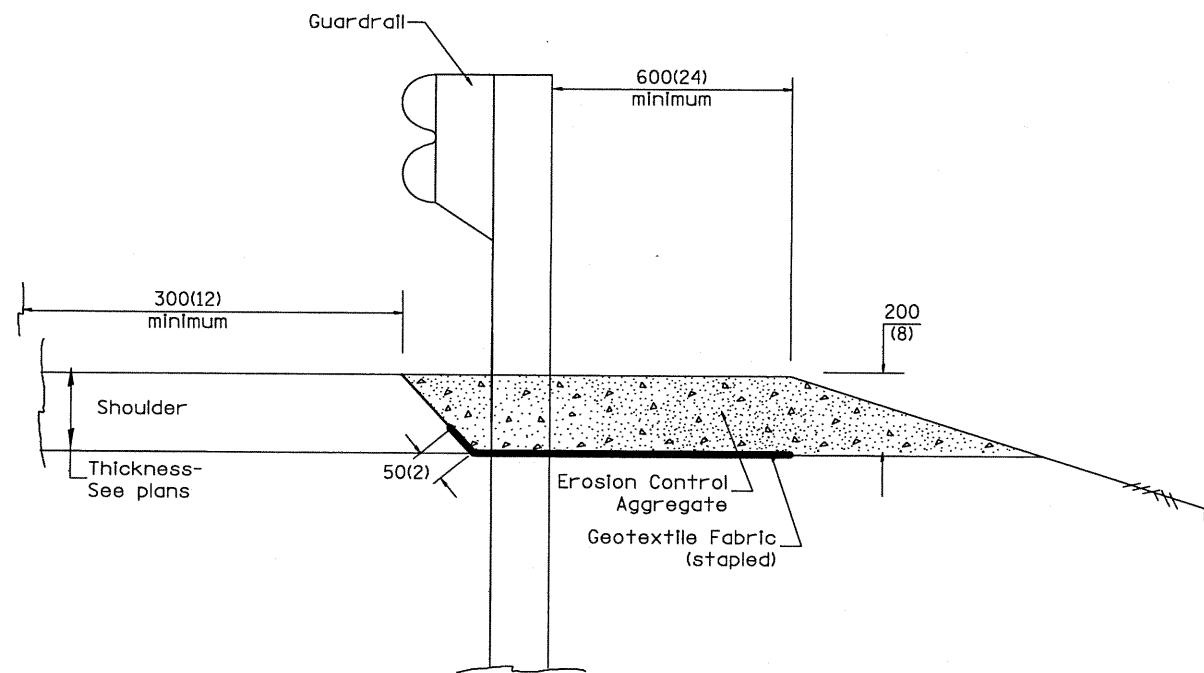
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD
PIPE CULVERT EXTENSION COLLAR (WITHOUT END SECTION)
CADD STANDARD 542016-D4
SCALE: NOT DRAWN TO SCALE
DATE: **DATE**
DRAWN BY: CADD
CHECKED BY:

1. Use EROSION CONTROL CURB at guardrail installations where grades are equal to or greater than 1% and at inlets. (Include District Special Provision)
 2. Use GUARDRAIL AGGREGATE EROSION CONTROL at guardrail installations where grades are less than 1% (Include District Special Provision)
 3. Include State Standards 609001, 609006 or 610001 if applicable.
 4. Include the following District Cadd Standards as needed: Slope Drains for Exposed Pipes; Slope Drains for Buried Pipes; Seepage Collars for Buried Pipes; Seepage Collars for Exposed Pipes; Concrete Thrust Blocks and Pipe Elbow.
 5. Include District Special Provision "Aggregate Quality" for projects located in the Western Area of the District - approx. dividing line is IL 97.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	60
STA.	TO STA.			
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

GENERAL NOTES: EROSION CONTROL CURB

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

GENERAL NOTES: GUARDRAIL AGGREGATE EROSION CONTROL

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

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

GUARDRAIL EROSION CONTROL TREATMENTS

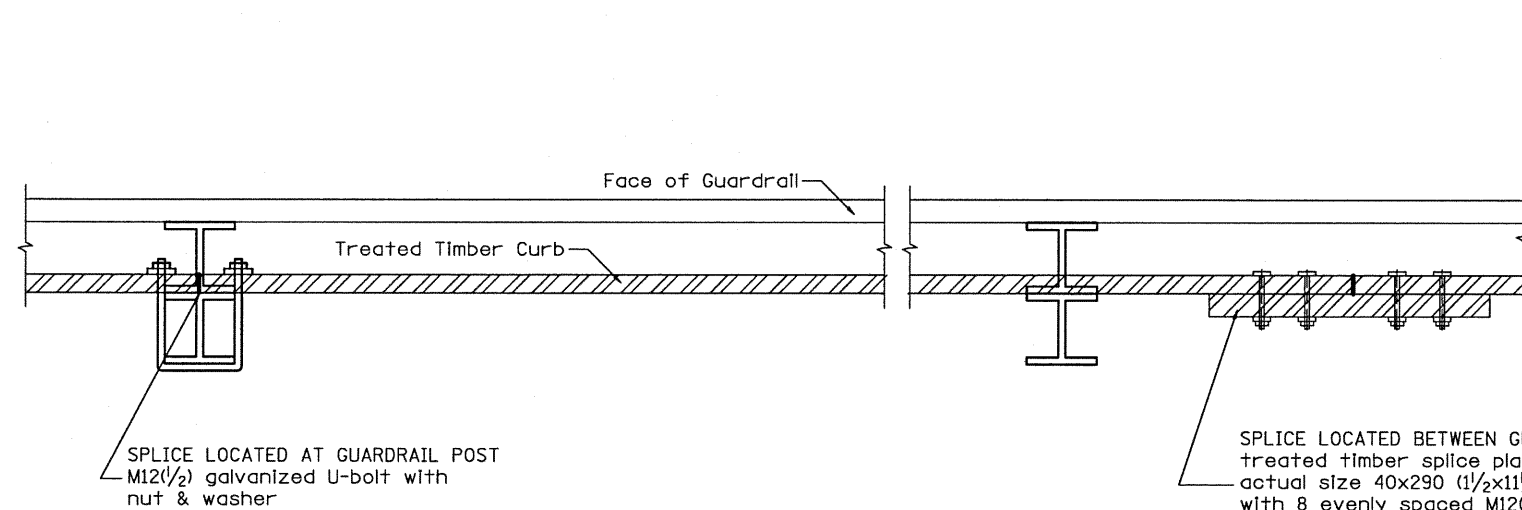
DATE	REVISIONS	BY
1-1-97	RENUM. C-22.01, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.
11-3-00	CORRECTION TO NOTES	M.A.

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

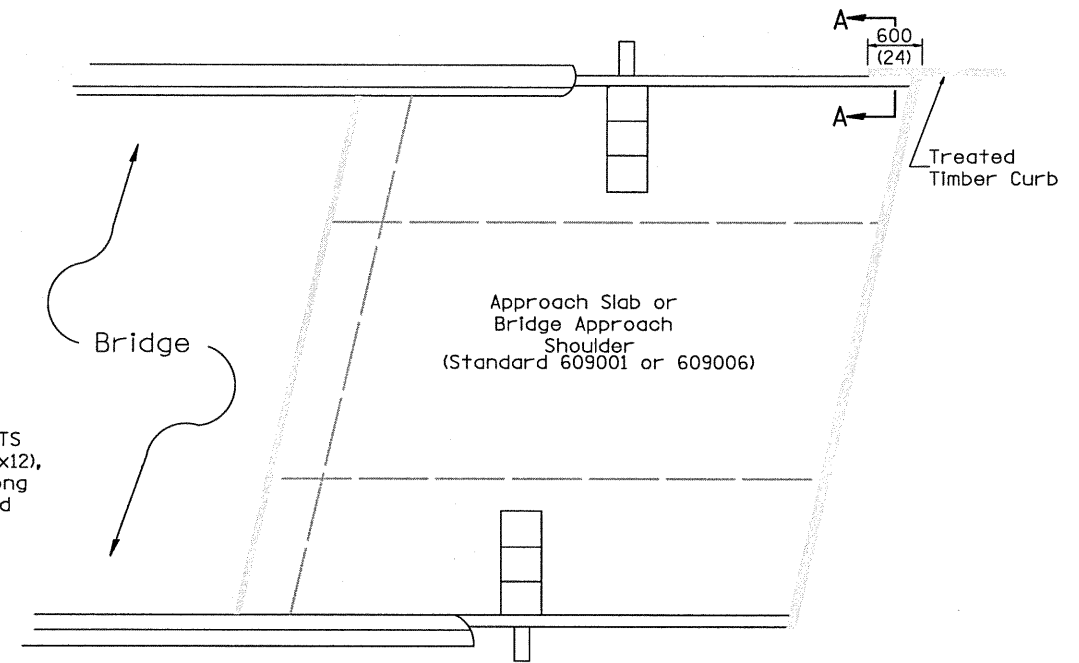
SHEET 1 OF 2
DRAWN BY CADD
CHECKED BY

630101-D4(1)

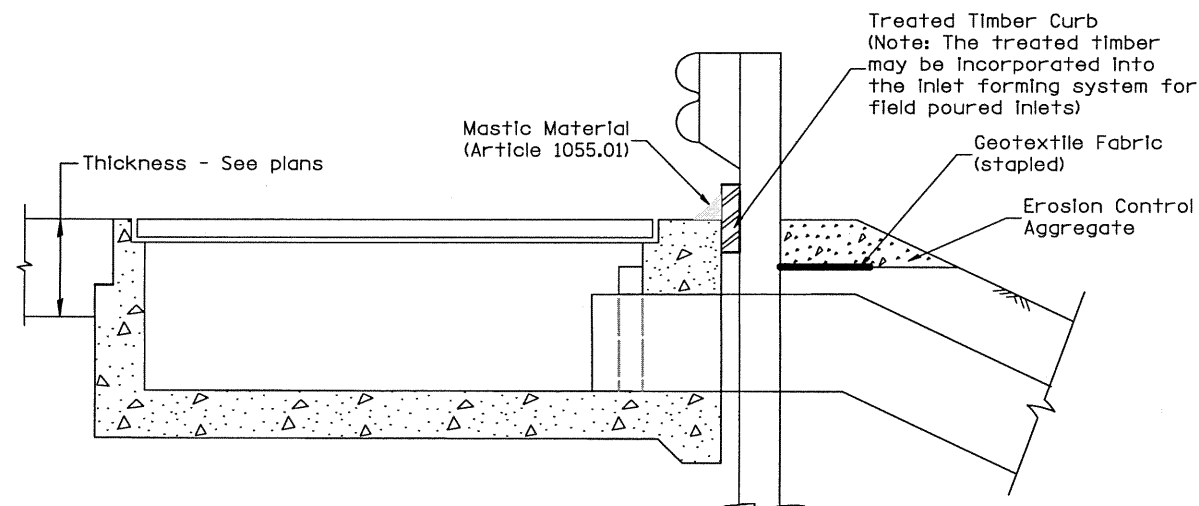
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	61
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



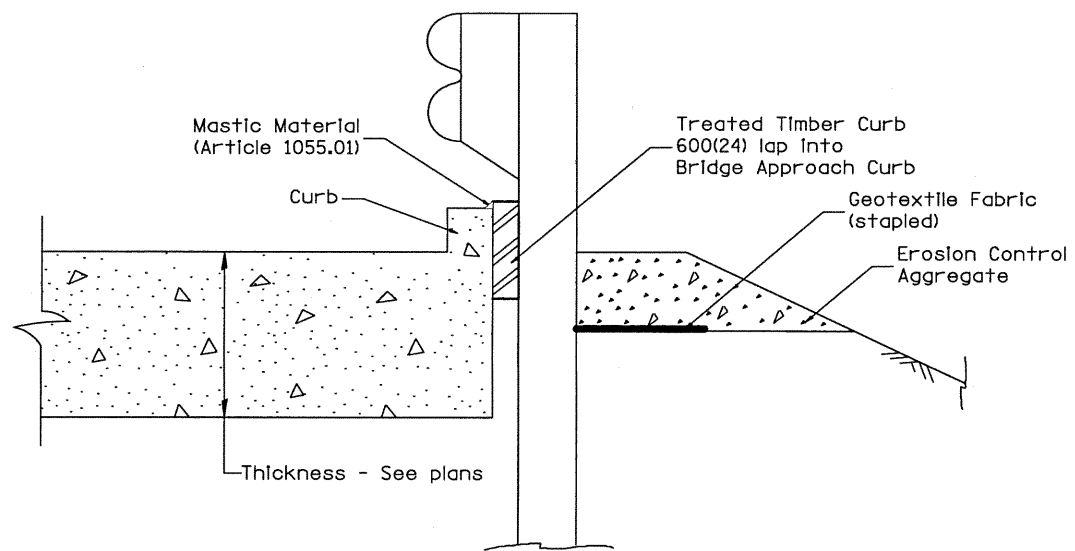
DETAIL A
(Typical Treated Timber Splices)



PLAN VIEW
APPROACH SLAB OR BRIDGE APPROACH SHOULDER
(STANDARD 609001 or 609006)



TYPICAL SECTION WITH EROSION CONTROL CURB
AT INLETS TYPE E & F (STANDARD 610001)



SECTION A-A
TYPICAL SECTION WITH EROSION CONTROL CURB
AT BRIDGE APPROACH CURB
(STANDARD 609001 OR 609006)

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

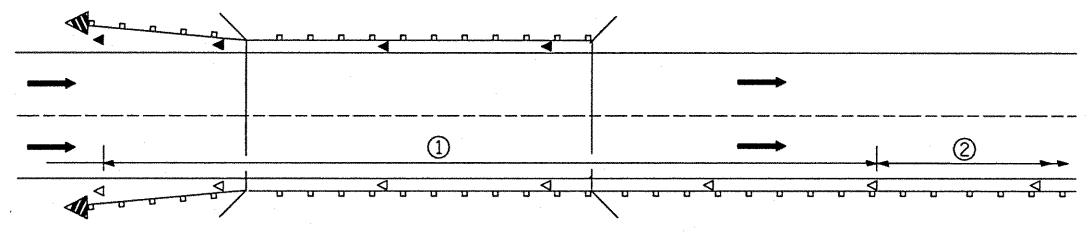
ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL EROSION CONTROL TREATMENTS	
CADD STD NO. 630101-D4(2)	SHEET 2 OF 2
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
DATE **DATE**	CHECKED BY

\$\$\$DATE\$\$\$

DGN-ONLY

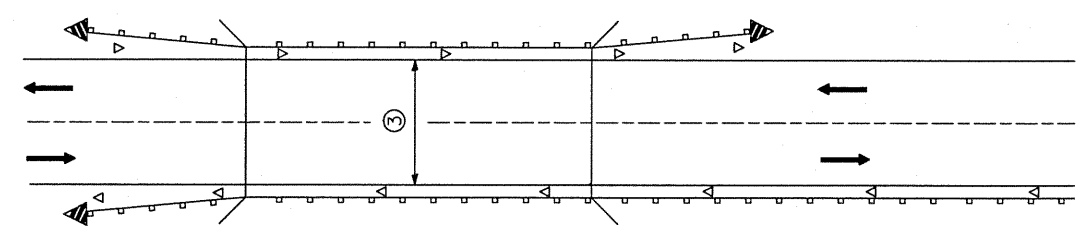
630101-D4(2)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	62
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		



- ① Spacing 24 m (80 ft.) max. for first 122 m (400 ft.) or curve spacing shown in Standard 635001, whichever is less (min. 4 reflectors regardless of length).
- ② After 122 m (400 ft.), transition to normal delineator spacing shown in Standard 635001, and continue as required.

ONE-WAY TRAFFIC



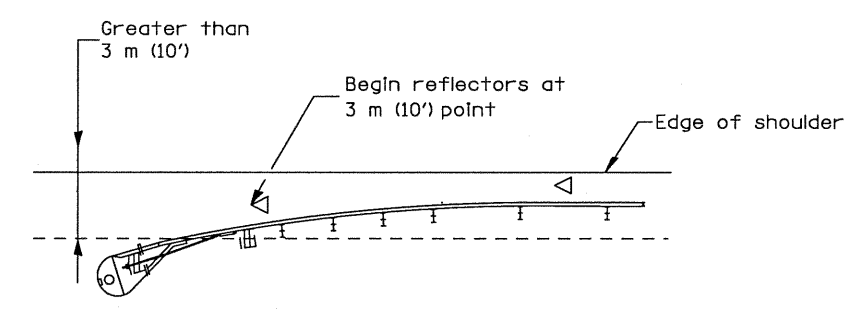
- ③ Bidirectional silver/silver should be used in lieu of monodirectional silver on both sides of two-lane bridges where the bridge pavement is less than 610 (24) wider than the pavement approaching the bridge.

TWO-WAY TRAFFIC

GUARDRAIL / BARRIER WALL / BRIDGE RAIL REFLECTORS

LEGEND

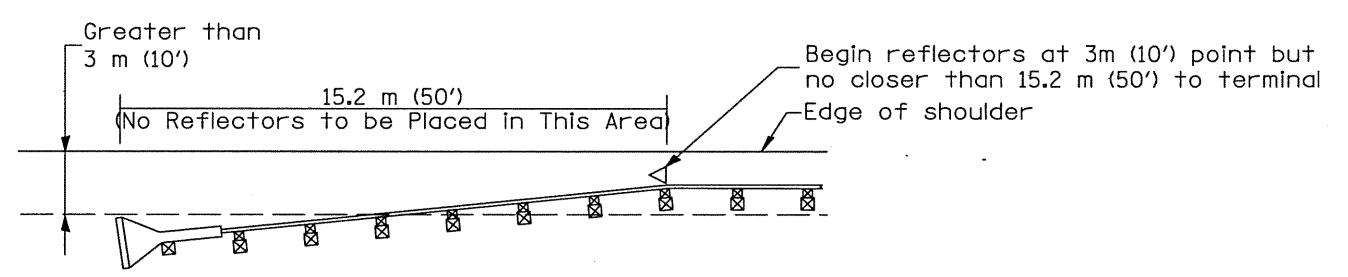
- ◁ Monodirectional silver
- ◁ Monodirectional amber
- ▴ Terminal Marker - Black/Yellow
Left or Right as appropriate



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

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

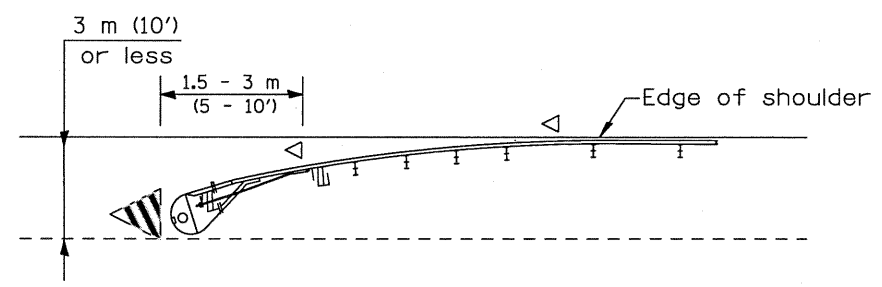
[Terminal over 3 m (10') from edge of shoulder]
•See Plans for Type



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

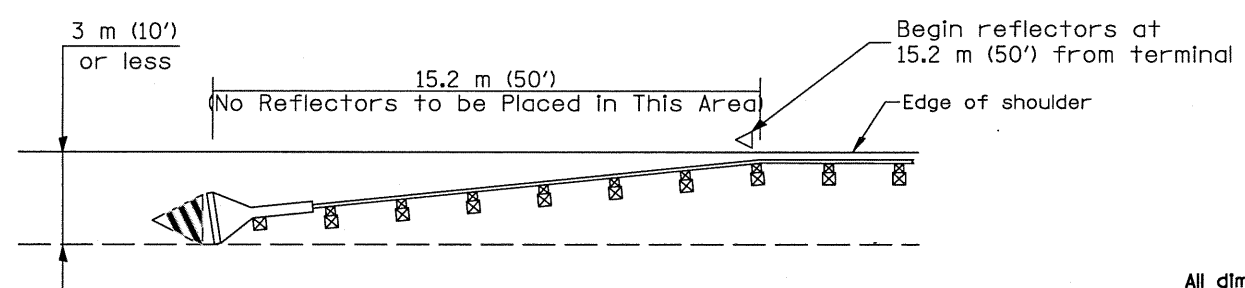
Traffic Barrier Terminal Type 1 (Special)

[Terminal over 3 m (10') from edge of shoulder]



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

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



Traffic Barrier Terminal Type 1 (Special)

[Terminal 3 m (10') or less from edge of shoulder]

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

**ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD**

**GUARDRAIL AND
BARRIER WALL DELINEATION**

CADD STD. NO. 635101-D4 SHEET 1 OF 3
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
DATE **DATE** CHECKED BY

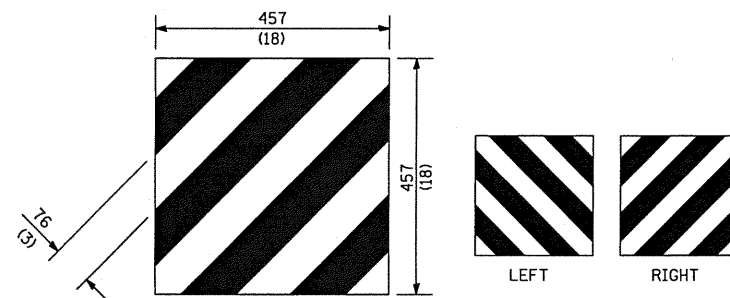
DATE	REVISIONS	BY
1-1-97	RENUM. E-10.02, NEW REVISION BOX	T.P.
3-1-97	CORRECT STD. SPEC. *	J.A.

TERMINAL MARKER PLACEMENT

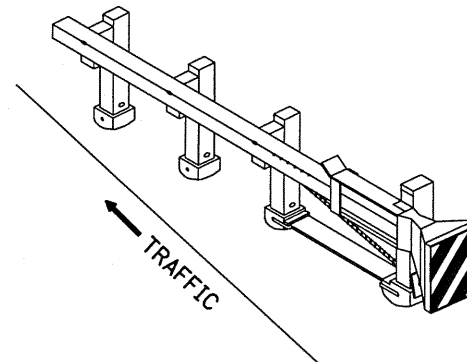
DESIGNER NOTE:
1. INCLUDE APPROPRIATE SPECIAL PROVISIONS FOR "GUARD RAIL DELINEATION POLICY: 1. TERMINAL MARKER, 2. TERMINAL MARK POST, AND 3. GUARDRAIL AND BARRIER WALL MARKERS."
FROM INTERIM SPECIAL PROVISIONS 94-74; "GUARDRAIL AND BARRIER WALL DELINEATION."
2. IF POST MOUNT TERMINAL MARKER IS USED, INCLUDE STATE STD. T20011.

DATE

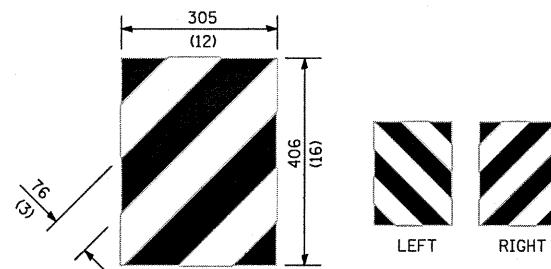
F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	63
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS	FED. AID PROJECT	



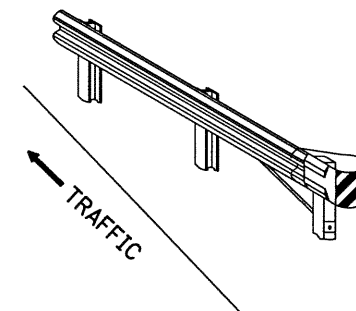
For Traffic Barrier Terminal Type 1 (Special)



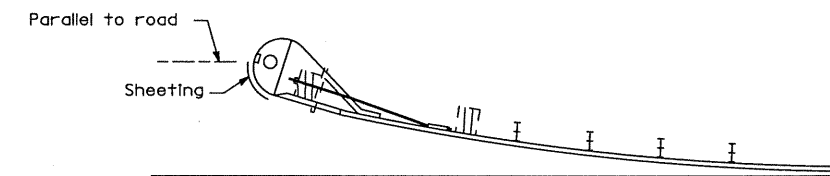
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type 1 (Special)



For Traffic Barrier Terminal Type (*)
and Post Mount
• See Plans for Type



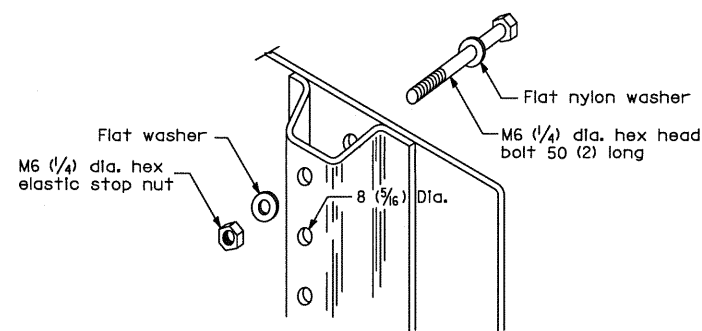
Standard Treatment - Direct Applied Sheeting
Traffic Barrier Terminal Type (*)
• See Plans for Type



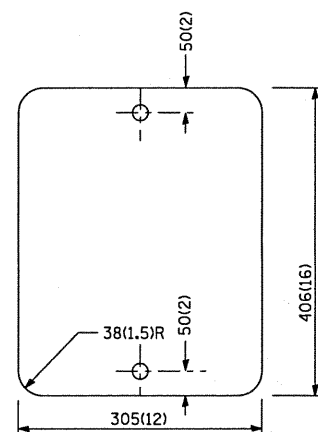
Sheeting Position for
Traffic Barrier Terminal Type (*)
• See Plans for Type

TERMINAL MARKER DETAILS

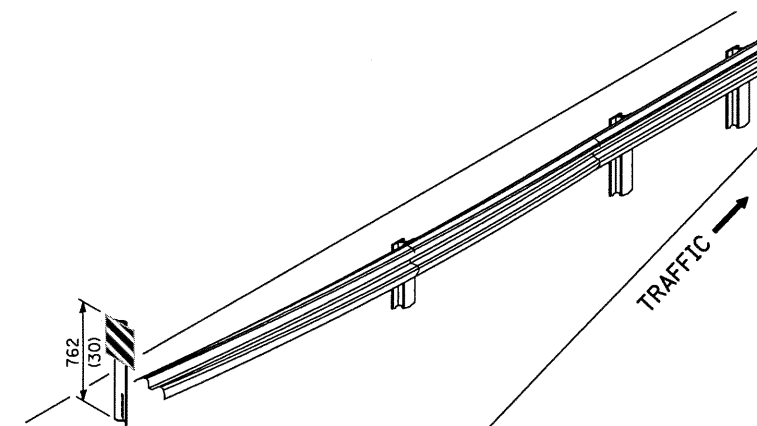
- Color: Black / Yellow reflectorized
- OM - I100 (L or R) Direct applied reflective sheeting
- OM - I200 (L or R) Post mounted



DETAIL OF MOUNTING TERMINAL MARKER TO POST



STANDARD TERMINAL MARKER



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

TERMINAL MARKER TREATMENTS

GENERAL NOTES

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

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT CADD STANDARD

GUARDRAIL AND
BARRIER WALL DELINEATION

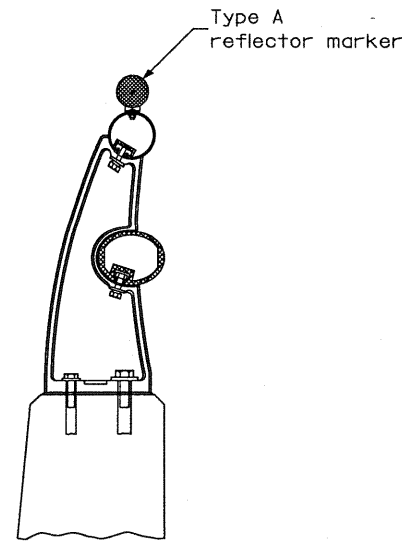
CADD STD. NO. 635101-D4 SHEET 2 OF 3
SCALE: NOT DRAWN TO SCALE DRAWN BY CADD
DATE **DATE** CHECKED BY

635101-D4 (2)

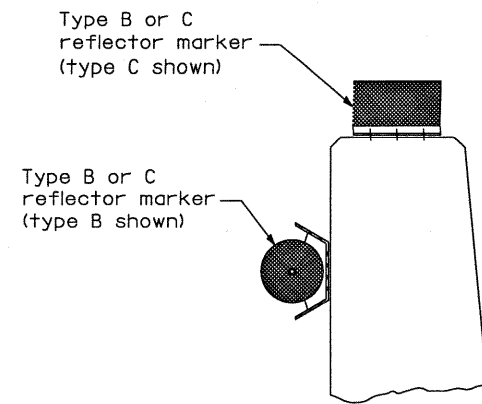
\$\$\$DATE\$\$\$

DGN-ONLY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	64
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

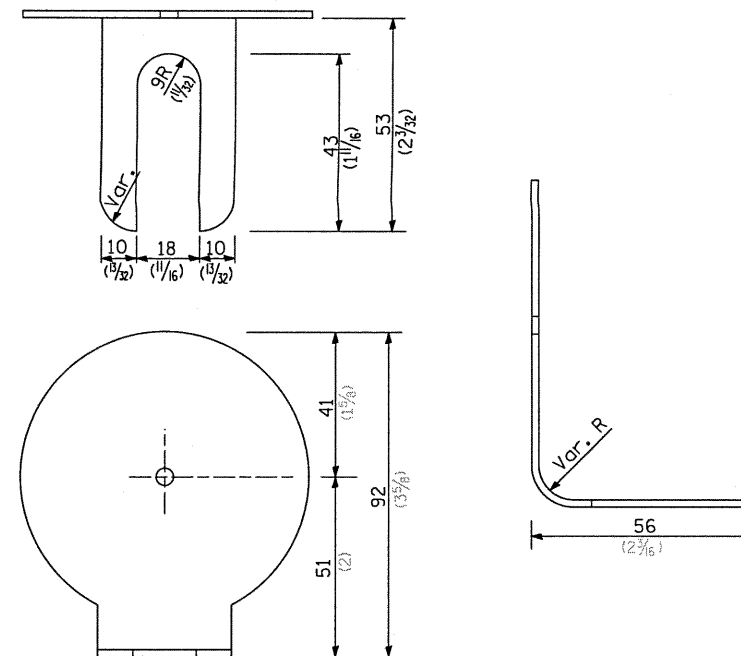


TYPICAL MOUNTING DETAIL FOR BRIDGE RAIL REFLECTOR

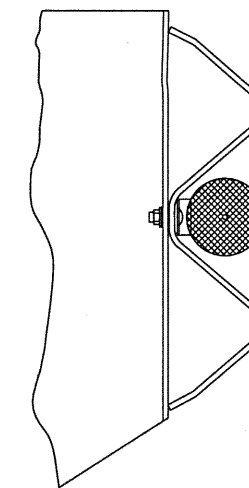


TYPICAL MOUNTING DETAIL FOR BARRIER WALL REFLECTOR

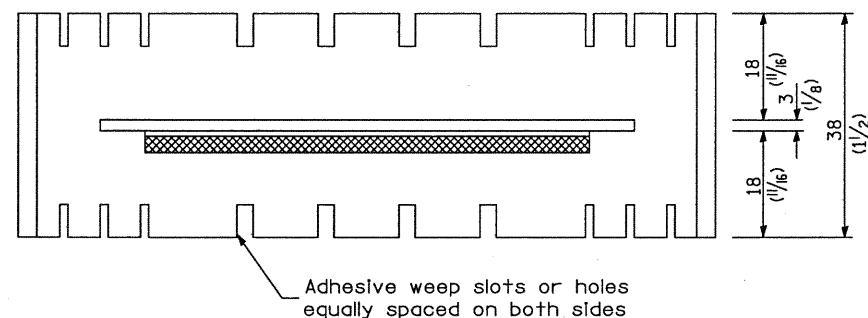
REFLECTOR MOUNTING



REFLECTOR MARKER TYPE A

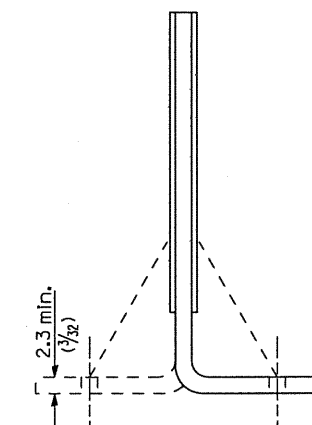
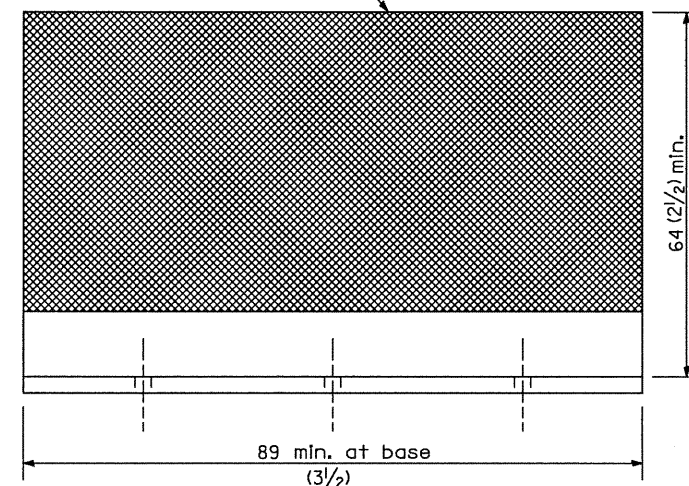


TYPICAL GUARDRAIL MOUNTING WITH REFLECTOR MARKER TYPE A



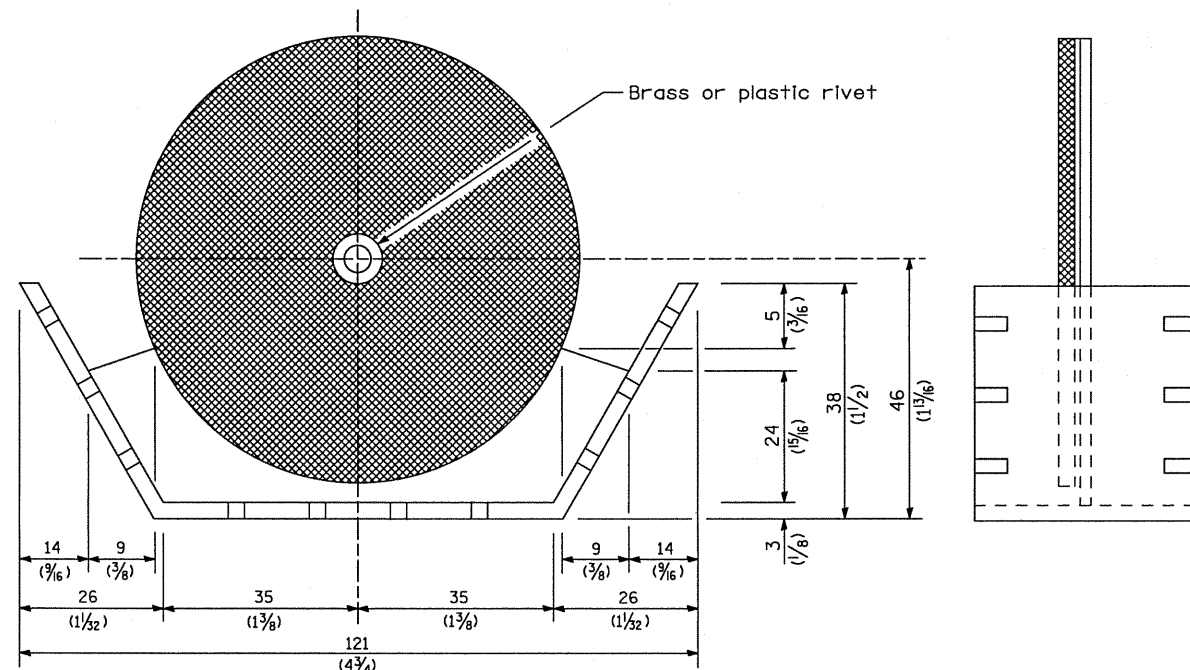
Adhesive weep slots or holes equally spaced on both sides

Min. reflective area 4,194 mm² (6 1/2 Sq. In.) each side. May be rectangular or slight trapezoid.

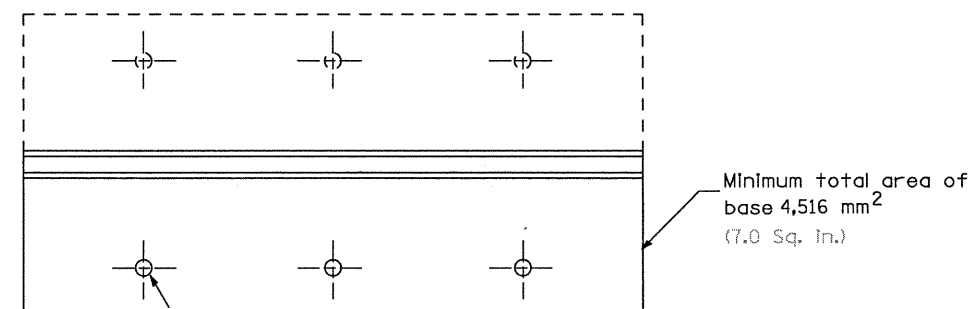


Cross section may be "T" or "L" shaped and may have side supports at ends.

REFLECTORS



REFLECTOR MARKER TYPE B



REFLECTOR MARKER TYPE C

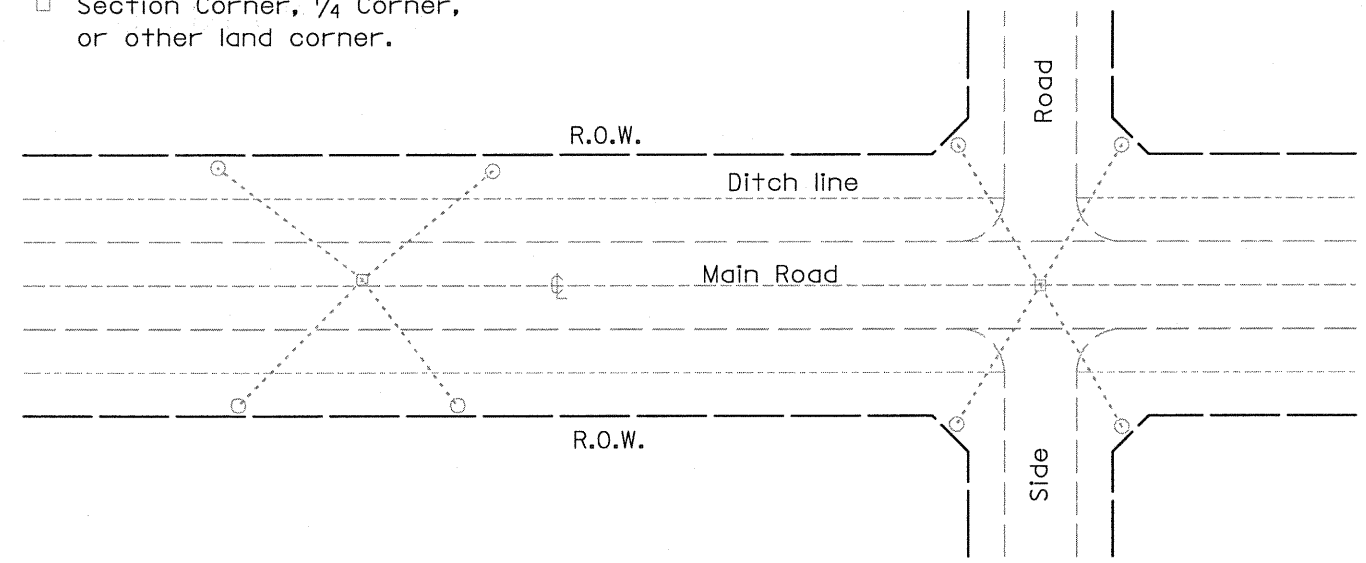
All dimensions are in millimeters (inches) unless otherwise noted.

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
GUARDRAIL AND BARRIER WALL DELINEATION	
CADD STD. NO. 635101-D4	SHEET 3 OF 3
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
DATE **DATE**	CHECKED BY

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
693	(119 BR-2)BR	TAZEWELL	65	65
STA.		TO STA.		
FED. ROAD DIST. NO. 4		ILLINOIS FED. AID PROJECT		

PERMANENT SURVEY TIES

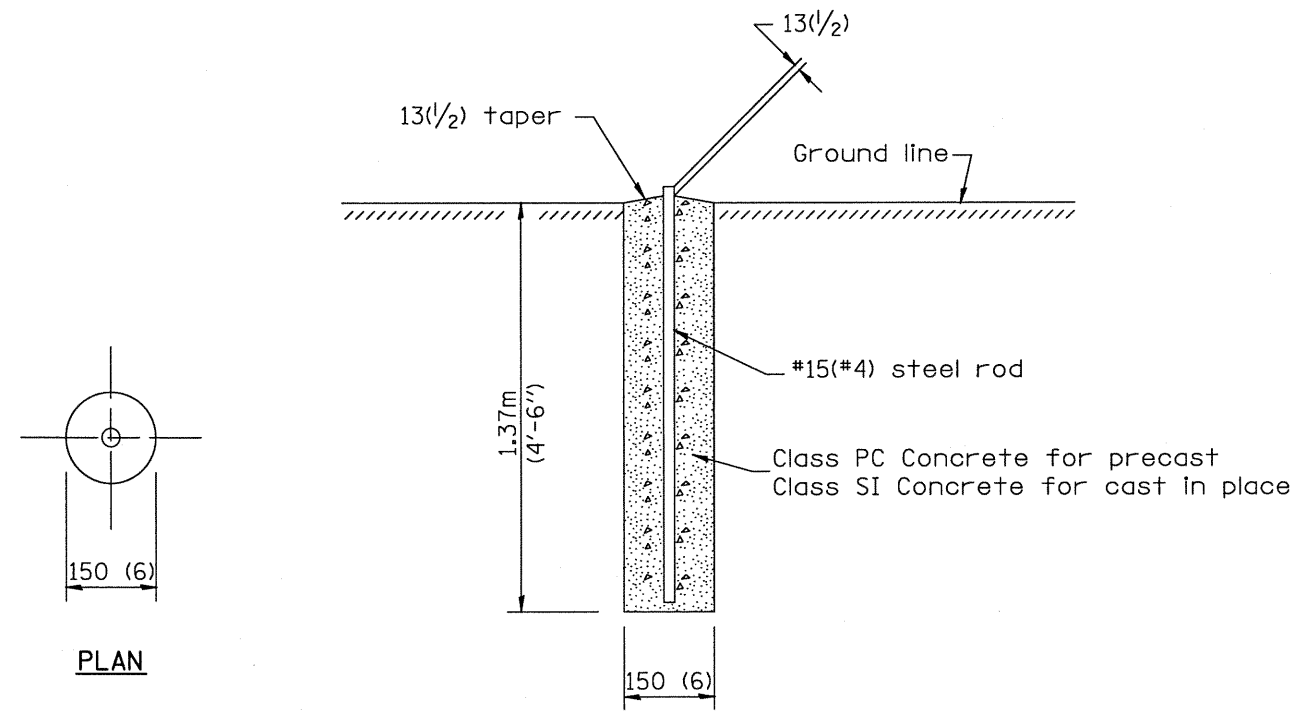
- Permanent Survey Tie
- Section Corner, 1/4 Corner, or other land corner.



TYPICAL APPLICATION

GENERAL NOTES

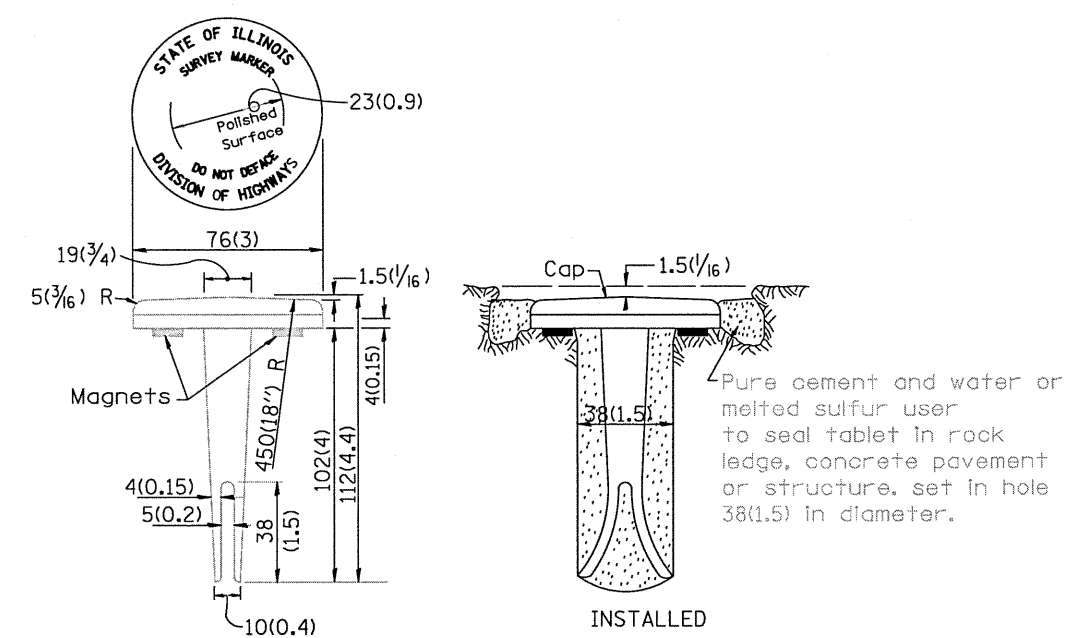
1. The marker may be either precast of Class PC Concrete, or cast in place of Class SI Concrete.
2. Tie marker shall be installed after the final seeding has been completed unless otherwise specified by the Engineer.
3. The tie distances shall be measured and given to the IDOT Chief of Surveys.
4. Marker measurement shall be done by PLS.



PLAN

SECTION

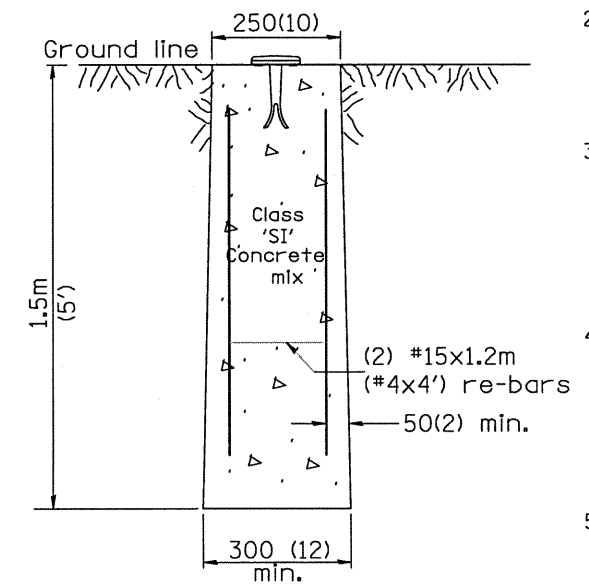
PERMANENT SURVEY MARKERS



BRONZE TABLET - No Scale TYPE I

GENERAL NOTES

1. All type II markers shall be cast in place, and precast markers will not be allowed.
2. Two permanent magnets, each having a diameter of 19 (3/4) and a thickness of 6 (1/4), or equivalent, shall be attached to the underside of the tablet with an approved epoxy bonding agent.
3. The location of the markers shall be in accordance with the plans in general, the markers will be placed at the P.T.'s and P.C.'s of horizontal curves and spaces along the tangents in a way that a minimum of two markers are always inter-visible, and not to exceed 300m(1000').
4. The markers shall be placed under the direction of the Engineer and shall be installed in a workmanlike manner in order that there will be no further settlement or horizontal shifting. The monuments shall be placed in a way that the survey point will fall within the portion of the plaque provided for that purpose.
5. The project designation, the centerline station, the survey point, and the elevation shall be permanently marked by the use of metal dies after marker has been installed.



MARKER CAST IN PLACE TYPE II

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

ILLINOIS DEPARTMENT OF TRANSPORTATION	
DISTRICT CADD STANDARD	
PERMANENT SURVEY TIE & PERMANENT SURVEY MARKERS TY.I - TY.II	
CADD STD. NO. 667101-D4	
SCALE: NOT DRAWN TO SCALE	DRAWN BY CADD
DATE **DATE**	CHECKED BY

DATE	REVISIONS	BY
1-1-97	RENUM. D-3.01, NEW REVISION BOX	T.P.
7-7-98	ADD DESIGNER NOTE, REVISED TITLE BOX	J.A.
	ADD DESIGNER NOTE	

DESIGNER NOTE:
 1. ADD DISTRICT SPECIAL PROVISION.
 2. MODIFIES STATE STD 667101 TO CALL FOR "BRONZE" TABLET.
 DATE