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	ILLINOIS DOT HIGHWAY STANDARDS

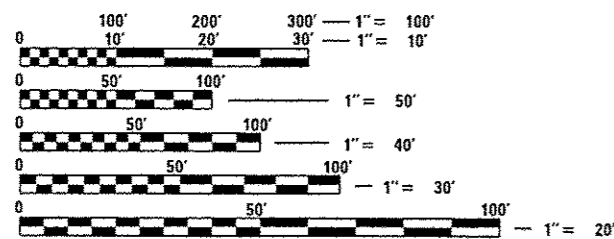
LIST OF ILLINOIS DOT HIGHWAY STANDARDS

000001-06	701001-02
001001-02	701006-05
280001-07	701011-04
420406	701201-04
482001-02	701301-04
515001-03	701311-03
630001-11	701321-16
630301-07	701326-04
631031-15	701901-06
631032-09	704001-08
643001-02	725001-01
	701306-03

LIST OF DISTRICT 4 CADD STANDARDS

205001-D4
630101-D4
780001-D4

ADT = 2900 (2013)
 % HCV = 13.0 (2013)
 % SU = 6.5 (2013)
 % MU = 6.5 (2013)
 TOWNSHIP: SENACHWINE
 FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL



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.

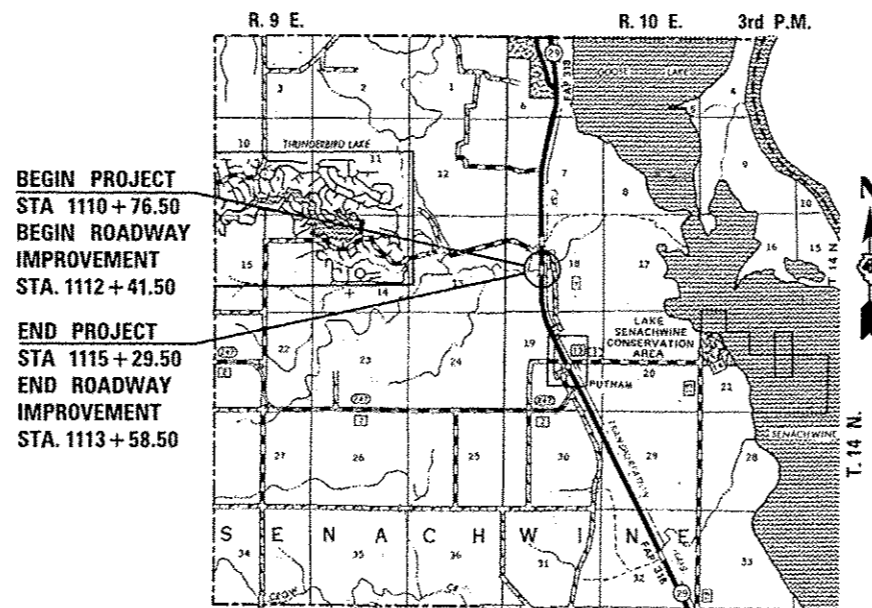
J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-892-0123
 OR 811

PROJECT ENGINEER: NICHOLAS JACK 309-671-3451
 PROJECT MANAGER: CLARK JONES 309-671-3452
 CATALOG NO. 033408-00D
 CONTRACT NO. 68664

STATE OF ILLINOIS 04-28-2017 LETTING ITEM 089
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

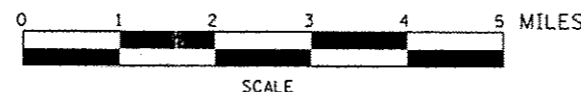
**PROPOSED
 HIGHWAY PLANS**

FAP 318 (IL ROUTE 29)
 SECTION (21B)I-2
 PROJECT NHPP-0318 (016)
 PUTNAM COUNTY
 C-94-202-06



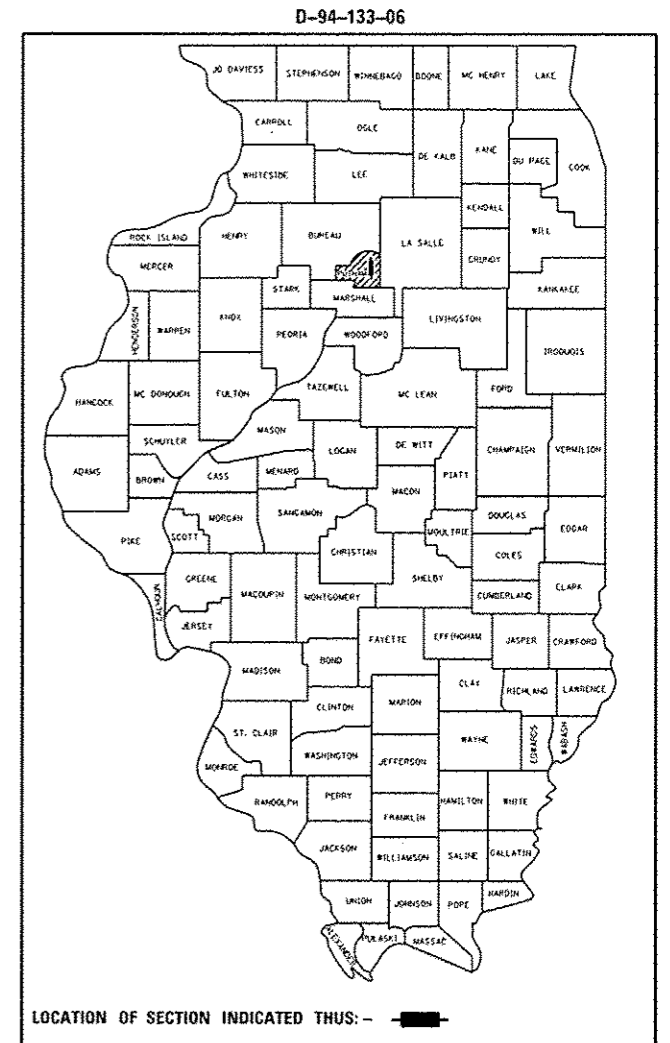
LOCATION PLAN

NET LENGTH OF PROJECT = 453.00 FEET = 0.085 MILES



V&K
Veenstra & Kimm, Inc.
 Springfield, IL. Phone: (217)544-8033
 IL Design Firm No. 184-001939

F.A.P. RTL.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	POTNAM	48	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	68664	



PROJECT DESCRIPTION
 REMOVE & REPLACE EX SUPERSTRUCTURE
 OVER SENACHWINE CREEK
 EX SN 078-0004
 STA 1113+00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED February 2, 2017
James A. James
 REGION THREE ENGINEER

Mar 24, 2017
Mameen M. Addis
 ENGINEER OF DESIGN AND ENVIRONMENT

Mar 24, 2017
Christopher P. Kimm
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

CHRISTOPHER P. KIMM
 03-0465
 LICENSED
 PROFESSIONAL
 ENGINEER
 OF
 STATE OF ILLINOIS
 EXPIRATION: 11/30/2017

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

COMMITMENTS

COMMITMENTS SHALL NOT BE ALTERED WITHOUT THE WRITTEN CONSENT OF ALL PARTIES TO WHICH THE COMMITMENT WAS MADE.

GENERAL NOTES

AVAILABILITY OF ELECTRONIC FILES

MICRO STATION AND GEOPAK FILES OF THIS PROJECT WILL BE MADE AVAILABLE TO THE CONTRACTOR AFTER CONTRACT AWARD. IF THERE IS A CONFLICT BETWEEN THE ELECTRONIC FILES AND THE PRINTED CONTRACT PLANS AND DOCUMENTS, THE PRINTED CONTRACT PLANS AND DOCUMENTS SHALL TAKE PRECEDENCE OVER THE ELECTRONIC FILES. THE CONTRACTOR SHALL ACCEPT ALL RISK ASSOCIATED WITH USING THE ELECTRONIC FILES AND SHALL HOLD THE DEPARTMENT HARMLESS FOR ANY ERRORS OR OMISSIONS IN THE ELECTRONIC FILES AND THE DATA CONTAINED THEREIN. ERRORS OR DELAYS RESULTING FROM THE USE OF THE ELECTRONIC FILES BY THE CONTRACTOR SHALL NOT RESULT IN AN EXTENSION OF TIME FOR ANY INTERIM OR FINAL COMPLETION DATE OR SHALL NOT BE CONSIDERED CAUSE FOR ADDITIONAL COMPENSATION. THE CONTRACTOR SHALL NOT USE, SHARE, OR DISTRIBUTE THESE ELECTRONIC FILES EXCEPT FOR THE PURPOSE OF CONSTRUCTING THIS CONTRACT. ANY CLAIMS BY THIRD PARTIES DUE TO USE OR ERRORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE THIS DISCLAIMER WITH THE TRANSFER OF THESE ELECTRONIC FILES TO ANY OTHER PARTIES AND SHALL INCLUDE APPROPRIATE LANGUAGE BINDING THEM TO SIMILAR RESPONSIBILITIES.

TREE REMOVAL – UTILITY RELOCATION

TREE REMOVAL MAY BE NECESSARY PRIOR TO UTILITY COMPANIES BEING ABLE TO RELOCATE THEIR FACILITIES OUTSIDE THE CONSTRUCTION LIMITS. THE CONTRACTOR SHOULD COORDINATE ANY CONTRACT TREE REMOVAL ACTIVITIES WITH THE UTILITY COMPANIES TO ELIMINATE CONFLICTS AND POTENTIAL DELAYS CAUSED BY UTILITY TREE REMOVAL ACTIVITIES OR INCOMPLETE UTILITY RELOCATIONS.

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

1. 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.

CRITICAL PATH WORK SCHEDULE REQUIREMENT

THE CONTRACTOR WILL SUBMIT TO THE ENGINEER A SATISFACTORY PROGRESS SCHEDULE AND CRITICAL PATH SCHEDULE WHICH SHALL SHOW THE PROPOSED SEQUENCE OF WORK AT THE TIME OF THE PRE-CONSTRUCTION CONFERENCE.

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 BLADING 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.

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)
- * BDE FORM 2290 (WASTE/USE AREA REVIEW)
- * A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
- * COLOR PHOTOGRAPHS DEPICTING THE USE AREA
- * BORROW AREA ENTRY AGREEMENT FORM-D4 PI0101

PLEASE NOTE THAT A MINIMUM OF FOUR WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED ENVIRONMENTAL CLEARANCES AND SIX WEEKS FOR THE REQUIRED BORROW SITE ENVIRONMENTAL CLEARANCES.

SEEDING – SIDE SLOPE RIPPING

ALL SLOPES STEEPER THAN 3 TO 1 AND OVER 15 FT (4.5 M) IN HEIGHT SHALL BE RIPPED THIS SHALL CONSIST OF RIPPING BETWEEN 18 INCHES TO 24 INCHES (450 MM TO 600 MM) DEEP NORMAL TO THE SLOPE. THE INTERVAL OF RIPPING ALONG THE SLOPE SHALL BE 12 FT. (3.6 M). THIS WORK SHALL BE DONE AFTER THE SEED BED HAS BEEN PREPARED BUT BEFORE ANY FERTILIZER OR SEED HAS BEEN APPLIED. THE FERTILIZER AND SEED SHALL BE APPLIED WITHIN A 24-HOUR PERIOD AFTER THE RIPPING HAS BEEN DONE. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE VARIOUS ITEMS OF SEEDING INVOLVED.

PAVEMENT STATIONING NUMBERS & 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 NUMBERS SHALL BE APPROXIMATELY 3/4 INCH (20MM) WIDE, 5 INCHES (125 MM) HIGH AND 5/8 INCH (15 MM) DEEP.

THE PAVEMENT STATION NUMBERS SHALL BE INSTALLED AS SPECIFIED HEREIN:

INTERVAL – 200 FEET (ENGLISH STATIONING) OR 100 METERS (METRIC STATIONING)

BOTTOM OF NUMBERS – 6 INCHES (150 MM) FROM THE INSIDE EDGE OF THE PAVEMENT MARKING


LOCATION:

- * 2,3, & 5 LANE PAVEMENTS – RIGHT EDGE OF PAVEMENT IN DIRECTION OF INCREASING STATIONS
- * MULTI-LANE DIVIDED ROADWAYS – OUTSIDE EDGE OF PAVEMENT IN BOTH DIRECTIONS
- * RAMPS – ALONG BASELINE EDGE OF PAVEMENT

POSITION – STATIONS SHALL BE PLACED SO THEY CAN BE READ FROM THE ADJACENT SHOULDER

FORMAT – ENGLISH (METRIC) PAVEMENT STATIONS SHALL USE THIS FORMAT "XXX (XX+X00)" WHERE X REPRESENTS THE PAVEMENT STATION

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.

 <p>Veenstra & Kimm, Inc. Springfield, IL Phone: (217)544-8033</p>	USER NAME : _____	DESIGNED - _____	REVISED - _____	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, COMMITMENTS & PROJECT SPECIFIC NOTES		F.A.P. RTE. :	SECTION :	COUNTY :	TOTAL SHEETS :	SHEET NO. :
	PLOT SCALE : _____	CHECKED - _____	REVISED - _____				318	(218)-2	PUTNAM	48	2
PLOT DATE : _____	DRAWN - _____	REVISED - _____	_____	SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA. _____	TO STA. _____	CONTRACT NO. 68664			
											ILLINOIS FED. AID PROJECT

BUTT JOINT CUTTING TIME RESTRICTION

BUTT JOINTS SHALL NOT BE MILLED MORE THAN THREE (3) DAYS PRIOR TO PLACEMENT OF THE HMA SURFACE COURSE.

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.

PROJECT SPECIFIC NOTES

1. THE THICKNESS OF THE HOT MIX ASPHALT MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HOT MIXED ASPHALT MIXTURES ARE PLACED.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO ORDERING MATERIALS AND COMMENCING CONSTRUCTION.
3. NO TREE REMOVAL FROM APRIL 1 TO SEPTEMBER 30.
4. THE RESIDENT ENGINEER SHALL SUBMIT A FINAL COUNT OF TREES REMOVED SO THAT THEY WILL BE PROPERLY REPLACED IN THE TREE BACKING PROGRAM. PLEASE CONTACT JIM ALWILL AT 309-671-4484 FOR FINAL COUNT.
5. NAME PLATES THAT WILL BE REMOVED AS A RESULT OF THIS WORK SHALL BE RELOCATED ON THE METAL PLATE BRIDGE RAIL OR CONCRETE PARAPET WALL AS DIRECTED BY THE ENGINEER. THE COST OF REMOVING AND REPLACING THE NAME PLATES, INCLUDING ALL NECESSARY FASTENERS, WILL NOT BE MEASURED OR PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

CALCULATION FACTORS

AGGREGATE SHOULDERS AND BASES: 0.05833 TON /SQ. YD./INCH
 HOT MIX ASPHALT: 0.056 TON /SQ. YD./INCH
 TEMPORARY EROSION CONTROL SEEDING: 100 LBS./ACRE
 STONE RIPRAP: 1.5 TON /CU. YD.
 GUARDRAIL AGGREGATE EROSION CONTROL: 1.5 TON /CU. YD.

STATUS OF UTILITIES TO BE ADJUSTED – NONE

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE USE(S)	HMA FLEX CONNECTOR (1.5")	SHOULDERS 8" (ALL LIFTS)
AC /PC	PG 64-22	PG 64-22
DESIGN AIR VOIDS	4.0% AT N = 50	4.0% AT N = 50
MIXTURE COMPOSITION	IL 9.5	IL 9.5
FRICTION AGGREGATE	MIX C	MIX C
QUALITY MANAGEMENT PROGRAM	QCQA	QCQA

- NOTE: 1) INDIVIDUAL LIFT THICKNESS OF EACH MIX TYPE WILL BE NO LESS THAN 3 TIMES NOMINAL MAXIMUM AGGREGATE SIZE AND NO MORE THAN 6 TIMES NOMINAL MAXIMUM AGGREGATE SIZE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
 2) FOR DESIGN PURPOSES, MIXTURE WEIGHT FOR ALL MIXES IS DETERMINED TO BE 112.0 LB/S.Y./IN., UNLESS OTHERWISE NOTED.
 3) SUBLOT SIZES FOR PFP AND QCP MIXES WILL BE 1000 TONS, UNLESS OTHERWISE AGREED TO BY THE ENGINEER AND THE PAVING CONTRACTOR.

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FEDERAL ROADWAY	80% FEDERAL BRIDGE
				20% STATE 0004	20% STATE 0014
				S.N. 078-0004	S.N. 078-0004
20200100	EARTH EXCAVATION	CU YD	87	87	
20400800	FURNISHED EXCAVATION	CU YD	73	73	
21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	1365	1365	
25000210	SEEDING, CLASS 2A	ACRE	0.5	0.5	
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45	45	
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	45	45	
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45	45	
25100115	MULCH, METHOD 2	ACRE	0.5	0.5	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	50	50	
28100107	STONE RIPRAP, CLASS A4	SO YD	274		274
28200200	FILTER FABRIC	SO YD	274		274
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SO YD	80	80	
44000100	PAVEMENT REMOVAL	SO YD	250	250	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	289	289	

14



USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	CHECKED -	REVISED -
PLOT DATE *	DRAWN -	REVISED -
	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES	
SCALE: NONE	SHEET NO. 1 OF 5 SHEETS
STA.	TO STA.

F.A.P. RTE. 318	SECTION (21B)-2	COUNTY PUTNAM	TOTAL SHEETS 48	SHEET NO. 4
CONTRACT NO. 68664				ILLINOIS FED. AID PROJECT

REV

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY 0004 S.N. 078-0004	80% FEDERAL 20% STATE BRIDGE 0014 S.N. 078-0004
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1
50102400	CONCRETE REMOVAL	CU YD	8.6		8.6
50200100	STRUCTURE EXCAVATION	CU YD	34		34
50300225	CONCRETE STRUCTURES	CU YD	38.4		38.4
50300260	BRIDGE DECK GROOVING	SQ YD	365		365
50300300	PROTECTIVE COAT	SQ YD	420		420
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	108.4		108.4
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	1332		1332
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	46440		46440
50800515	BAR SPLICERS	EACH	350		350
50901050	STEEL RAILING, TYPE SM	FOOT	134		134
51500100	NAME PLATES	EACH	1		1
52200010	TEMPORARY SHEET PILING	SQ FT	221		221
63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	175	175	

14 *

* SPECIALTY ITEMS



USER NAME *	DESIGNED -	REVISED -
PLOT SCALE *	CHECKED -	REVISED -
PLOT DATE *	DRAWN -	REVISED -
	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE SHEET NO. 2 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	1218H-2	PUTNAM	48	5
CONTRACT NO. 68664			ILLINOIS FED. AID PROJECT	

REV

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY 0004 S.N. 078-0004	80% FEDERAL 20% STATE BRIDGE 0014 S.N. 078-0004
				* 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	534	534	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5	5	
67100100	MOBILIZATION	LSUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	LSUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	
• 70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	205	205	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SO FT	69	69	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1026	1026	

14

• SEE SPECIAL PROVISIONS
* SPECIALTY ITEMS



USER NAME *	DESIGNED -	REVISOR -
PLOT SCALE *	CHECKED -	REVISIONS -
PLOT DATE *	DRAWN -	REVISIONS -
	CHECKED -	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. 3 OF 5 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	121B11-2	PUTNAM	48	6
			CONTRACT NO. 68664	
ILLINOIS FED. AID PROJECT				

REV

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY	80% FEDERAL 20% STATE BRIDGE
				0004	0014
				S.N. 078-0004	S.N. 078-0004
70400100	TEMPORARY CONCRETE BARRIER	FOOT	412.5	412.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	300	300	
70600270	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, WIDE), TEST LEVEL 3	EACH	2	2	
70600330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
* 72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1026	1026	
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	2	2	
* 78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	16	16	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	2	2	
• X0322881	TREE TRIMMING	EACH	6	6	
X0327979	PAVEMENT MARKING REMOVAL - GRINDING	SO FT	216	216	
• X5030305	CONCRETE WEARING SURFACE, 5"	SO YD	148		148
• X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	28		28
• Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	111	111	

14

• SEE SPECIAL PROVISIONS
* SPECIALTY ITEMS



USER NAME	DESIGNED	REVISED
PLOT SCALE	CHECKED	REVISED
PLOT DATE	DRAWN	REVISED
	CHECKED	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
SCALE: NONE SHEET NO. 4 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	7
CONTRACT NO. 68664				

REV

703 80 227

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				80% FEDERAL ROADWAY	80% FEDERAL BRIDGE
				0004 S.N. 078-0004	0014 S.N. 078-0004
• Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SO FT	41		41
• Z0013798	CONSTRUCTION LAYOUT	LSUM	1	1	
• Z0073500	TEMPORARY SUPPORT SYSTEM	LSUM	1		1

3

• SEE SPECIAL PROVISIONS



USER NAME *	DESIGNED -	REVISED -
	CHECKED -	REVISED -
PLOT SCALE *	DRAWN -	REVISED -
PLOT DATE *	CHECKED -	REVISED -

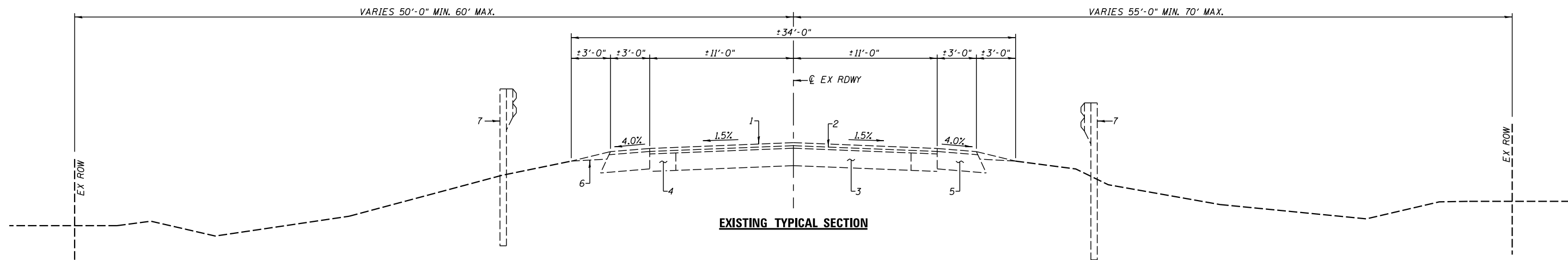
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

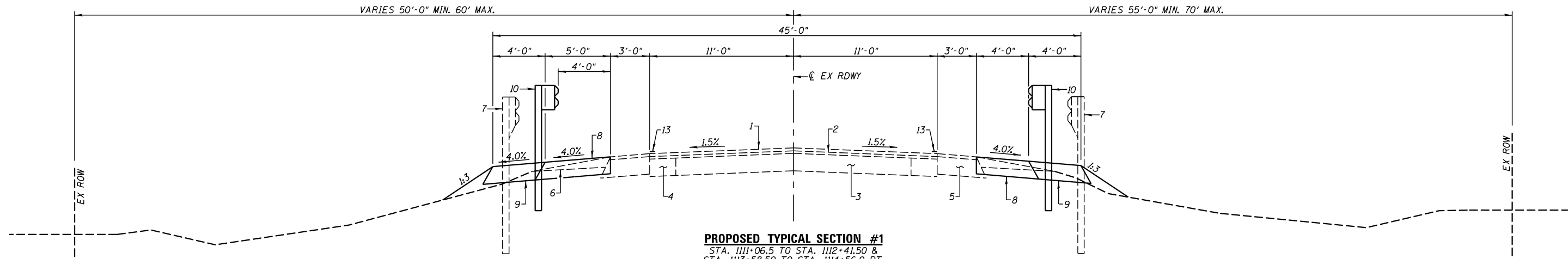
SCALE: NONE SHEET NO. 5 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	421B/1-2	PUTNAM	48	8
CONTRACT NO. 68664			ILLINOIS FED. AID PROJECT	

REV

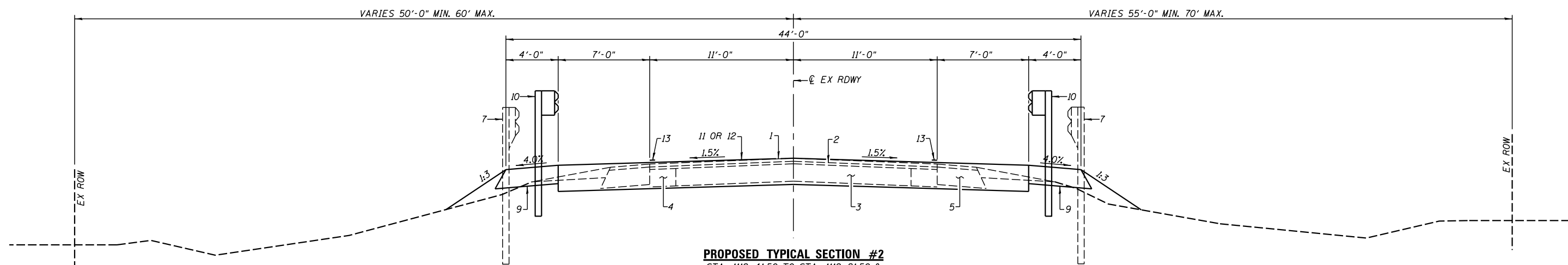


EXISTING TYPICAL SECTION



PROPOSED TYPICAL SECTION #1

STA. 1111+06.5 TO STA. 1112+41.50 &
 STA. 1113+58.50 TO STA. 1114+56.0 RT.
 STA. 1111+24.00 TO STA. 1112+41.50 &
 STA. 1113+58.50 TO STA. 1114+93.50 LT.



PROPOSED TYPICAL SECTION #2

STA. 1112+41.50 TO STA. 1112+81.50 &
 STA. 1113+18.50 TO STA. 1113+58.50
 BRIDGE OMISSION - STA. 1112+81.50 TO STA. 1113+18.50

PAVEMENT LEGEND

- 1. EX HMA SURF CSE
- 2. EX HMA BINDER CSE
- 3. EX BASE CSE
- 4. EX HMA WIDENING
- 5. EX HMA SHLD
- 6. EX AGG WEDGE SHLD
- 7. EX GUARDRAIL
- 8. PR HMA SHLD (8")
- 9. PR GUARDRAIL AGG EROSION CONTROL (8")
- 10. PR GUARDRAIL
- 11. PR PCC APPR PVMT (15")
- 12. PR BR APPR PVMT CONN (HMA)
- 13. PR PVT MARKING



USER NAME =	DESIGNED -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTIONS

SCALE: SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(2)BI-2	PUTNAM	48	9
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

EARTHWORK				
LOCATION	20200100 EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	20400800 FURNISHED EXCAVATION EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU. YD.	CU. YD.	CU. YD.	CU. YD.
STA. 1110+76.5 TO STA. 1112+81.5	43	32	103	-71
STA. 1113+18.5 TO STA. 1115+29.5	44	33	35	-2
TOTAL	87	65	138	-73

PAVEMENT MARKING					
LOCATION	78001110 - PAINT PAVEMENT MARKING - LINE 4"		70300220 TEMPORARY PAVEMENT MARKING - LINE 4"	70300150 SHORT TERM PAVEMENT MARKING	70300150 SHORT TERM PAVEMENT MARKING REMOVAL
	SOLID WHITE FOOT	SKIP DASH (10'/30') YELLOW FOOT	FOOT	FOOT	SQ. FT.
STA. 1110+76.5 TO STA. 1115+29.5 LT. EDGE	453		453		
STA. 1110+76.5 TO STA. 1115+29.5 CENTERLINE		120	120		
STA. 1110+76.5 TO STA. 1115+29.5 RT. EDGE	453		453		
STA. 1110+76.5 TO STA. 1115+29.5 (2 APPLICATIONS)				205	69
SUBTOTAL	906	120			
TOTAL		1026	1026	205	69

PERMANENT SEEDING					
LOCATION	25000210 SEEDING, CLASS 2A	25000400 NITROGEN FERTILIZER NUTRIENT	25000500 PHOSPHORUS FERTILIZER NUTRIENT	25000600 POTASSIUM FERTILIZER NUTRIENT	25100115 MULCH, METHOD 2
	ACRE	POUND	POUND	POUND	ACRE
STA. 1110+76.5 TO STA. 1112+81.5	0.25	22.5	22.5	22.5	0.25
STA. 1113+18.5 TO STA. 1115+29.5	0.25	22.5	22.5	22.5	0.25
TOTAL	0.5	45	45	45	0.5

TEMPORARY CONCRETE BARRIER				
LOCATION	70400100 TEMPORARY CONCRETE BARRIER	70400200 RELOCATE TEMPORARY CONCRETE BARRIER	70600270 IMPACT ATTENUATOR	70600330 RELOCATE IMPACT ATTENUATOR
	FOOT	FOOT	EACH	EACH
STAGE I				
STA. 1110+60.6 TO STA. 1110+94.2			1	
STA. 1110+94.2 TO STA. 1115+05.7	412.5			
STA. 1115+05.7 TO STA. 1115+39.3			1	
STAGE II				
STA. 1111+16.7 TO STA. 1111+50.3				1
STA. 1111+50.3 TO STA. 1114+49.7		300		
STA. 1114+49.7 TO STA. 1114+83.3				1
TOTAL	412.5	300	2	2

GUARDRAIL SCHEDULE					
LOCATION	63000001 SPBGR, TYPE A, 6' POSTS	63100087 TRAFFIC BARRIER TERMINAL, TYPE 6A	63100167 TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	63200310 GUARDRAIL REMOVAL	72501000 TERMINAL MARKER DIRECT APPLIED
	FOOT	EACH	EACH	FOOT	EACH
STA. 1111+16 TO STA. 1112+81 RT.				165	
STA. 1111+16.5 TO STA. 1111+66.5 RT.			1		1
STA. 1111+66.5 TO STA. 1112+29 RT.	62.5				
STA. 1112+29 TO STA. 1112+66.5 RT.		1			
STA. 1111+79 TO STA. 1112+81 LT.				102	
STA. 1111+54 TO STA. 1112+04 LT.			1		1
STA. 1112+04 TO STA. 1112+29 LT.	25				
STA. 1112+29 TO STA. 1112+66.5 LT.		1			
STA. 1113+19 TO STA. 1114+21 RT.				102	
STA. 1113+33.5 TO STA. 1113+71 RT.		1			
STA. 1113+71 TO STA. 1113+96 RT.	25				
STA. 1113+96 TO STA. 1114+46 RT.			1		1
STA. 1113+19 TO STA. 1114+84 LT.				165	
STA. 1113+33.5 TO STA. 1113+71 LT.		1			
STA. 1113+71 TO STA. 1114+33.5 LT.	62.5				
STA. 1114+33.5 TO STA. 1114+83.5 LT.			1		1
TOTAL	175	4	4	534	4

RAISED REFLECTIVE PAVEMENT MARKER		
LOCATION	78100100 RAISED REFLECTIVE PAVEMENT MARKER	78300200 RAISED REFLECTIVE PAVEMENT MARKER REMOVAL
	EACH	EACH
STA. 1112+41.5 TO STA. 1113+58.5	2	
STA. 1112+41.5 TO STA. 1113+58.5		2
TOTAL	2	2



USER NAME =	DESIGNED -	REVISED -
CHECKED -	REVISIONS -	REVISED -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	10
CONTRACT NO. 68664			ILLINOIS FED. AID PROJECT	

21101615 - TOPSOIL FURNISH AND PLACE, 4"	
LOCATION	TOPSOIL FURNISH AND PLACE, 4" SQ. YD.
STA. 1110+76.5 TO STA. 1112+81.5 LT. & RT.	747
STA. 1113+18.5 TO STA. 1115+29.5 LT. & RT.	618
TOTAL	1365

28000250 - TEMPORARY EROSION CONTROL SEEDING	
LOCATION	TEMPORARY EROSION CONTROL SEEDING POUND
STA. 1110+76.5 TO STA. 1112+81.5	25
STA. 1113+18.5 TO STA. 1115+29.5	25
TOTAL	50

42000070 - PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	
LOCATION	BRIDGE APPROACH PAVEMENT CONNECTOR SQ. YD.
STA. 1112+41.5 TO STA. 1112+51.5	40
STA. 1113+08.5 TO STA. 1113+58.5	40
TOTAL	80

44000100 - PAVEMENT REMOVAL	
LOCATION	PAVEMENT REMOVAL SQ. YD.
STA. 1112+41.5 TO STA. 1112+81.5	125
STA. 1113+18.5 TO STA. 1113+58.5	125
TOTAL	250

48203029 - HOT-MIX ASPHALT SHOULDERS, 8"	
LOCATION	HOT-MIX ASPHALT SHOULDERS, 8" SQ. YD.
STA. 1111+24 TO STA. 1112+81.5 LT. (PRE-STAGE CONST.)	88
STA. 1113+18.5 TO STA. 1114+93.5 LT. (PRE-STAGE CONST.)	98
STA. 1111+06.5 TO STA. 1112+41.5 RT.	60
STA. 1113+58.5 TO STA. 1114+56 RT.	43
TOTAL	289

67000400 - ENGINEER'S FIELD OFFICE, TYPE A	
LOCATION	QUANTITY CAL. MO.
STA. 1110+76.5 TO STA. 1115+29.5	5
TOTAL	5

70106500 - TEMPORARY BRIDGE TRAFFIC SIGNALS	
LOCATION	QUANTITY EACH
STA. 1009+96.2 RT.	0.5
STA. 1116+52.7 LT.	0.5
TOTAL	1

78200005 - GUARDRAIL REFLECTORS, TYPE A	
LOCATION	GUARDRAIL REFLECTORS EACH
STA. 1111+16.5 TO STA. 1112+66.5 RT.	4
STA. 1111+54 TO STA. 1112+66.5 LT.	4
STA. 1113+33.5 TO STA. 1114+46 LT.	4
STA. 1113+33.5 TO STA. 1114+83.5 RT.	4
TOTAL	16

X0322881 - TREE TRIMMING	
LOCATION	TREE TRIMMING EACH
TREES N.E. OF STRUCTURE LOCATION DETERMINED BY ENGINEER	6
TOTAL	6

X0327979 - PAVEMENT MARKING REMOVAL - GRINDING	
LOCATION	PAVEMENT MARKING REMOVAL SQ. FT.
STAGE I	
STA. 1110+93 TO STA. 1114+90 LT. EDGE	133
STA. 1109+62.5 TO STA. 1110+89.0 CENTERLINE	42
STA. 1115+11.0 TO STA. 1116+34.5 CENTERLINE	41
TOTAL	216

Z0001002 - GUARDRAIL AGGREGATE EROSION CONTROL	
LOCATION	GUARDRAIL AGGREGATE EROSION CONTROL TON
STA. 1110+76.5 TO STA. 1112+81.5 RT.	29
STA. 1110+88 TO STA. 1112+81.5 LT.	28
STA. 1113+18.75 TO STA. 1115+29.5 LT.	30
STA. 1113+18.75 TO STA. 1114+86.0 RT.	24
TOTAL	111

Z0013798 - CONSTRUCTION LAYOUT	
LOCATION	CONSTRUCTION LAYOUT L. SUM
STA. 1110+76.5 TO STA. 1115+11.5	1
TOTAL	1



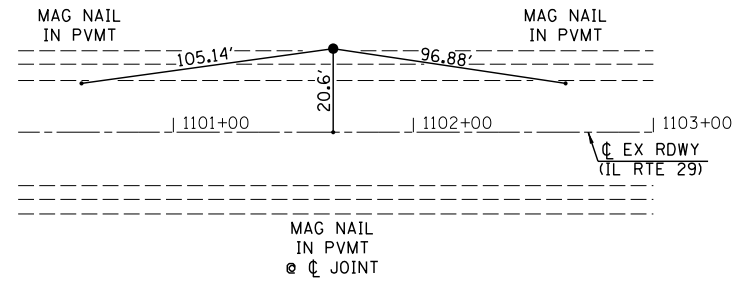
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CHECKED -	REVISOR -	DATE -
PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

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DEPARTMENT OF TRANSPORTATION

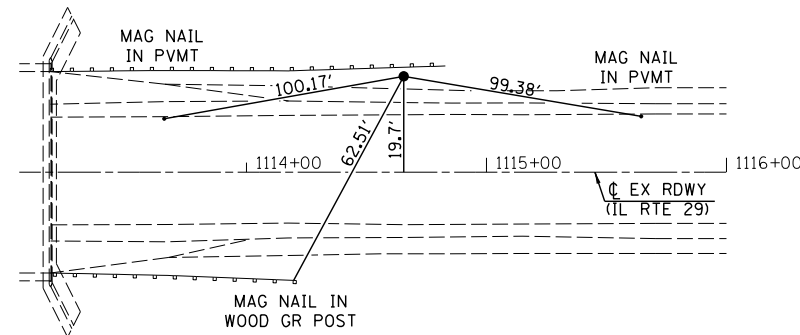
SCHEDULE OF QUANTITIES

SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.

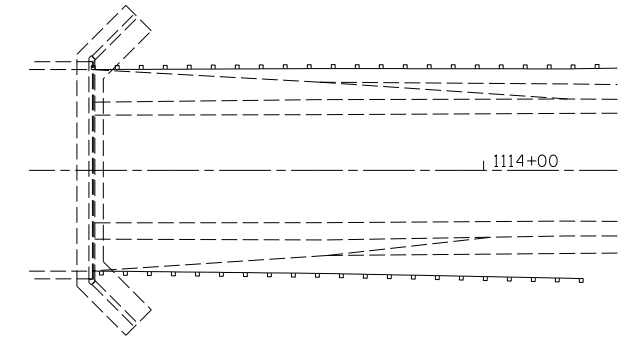
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21BI)-2	PUTNAM	48	11
CONTRACT NO. 68664			ILLINOIS FED. AID PROJECT	



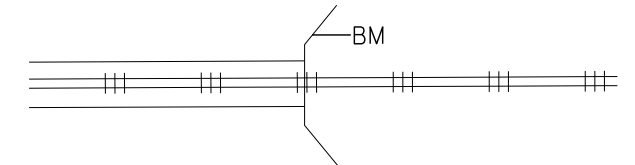
TIE #1
 #5 REBAR WITH IDOT CAP
 20.6' LT STA. 1101+33.29 (EXIST. IL 29)
 N 1650413.2476
 E 2507273.1316



TIE #2
 #5 REBAR WITH IDOT CAP
 20.00' LT STA. 1114+32.75 (EXIST. IL 29)
 N 1651712.0520
 E 2507255.3640



BENCHMARK: NGST232 IN NORTHWEST WINGWALL OF RAILROAD BRIDGE S.N. 078-1210
 STA. 1113+64.4, 110.37' RT., ELEV. 473.15



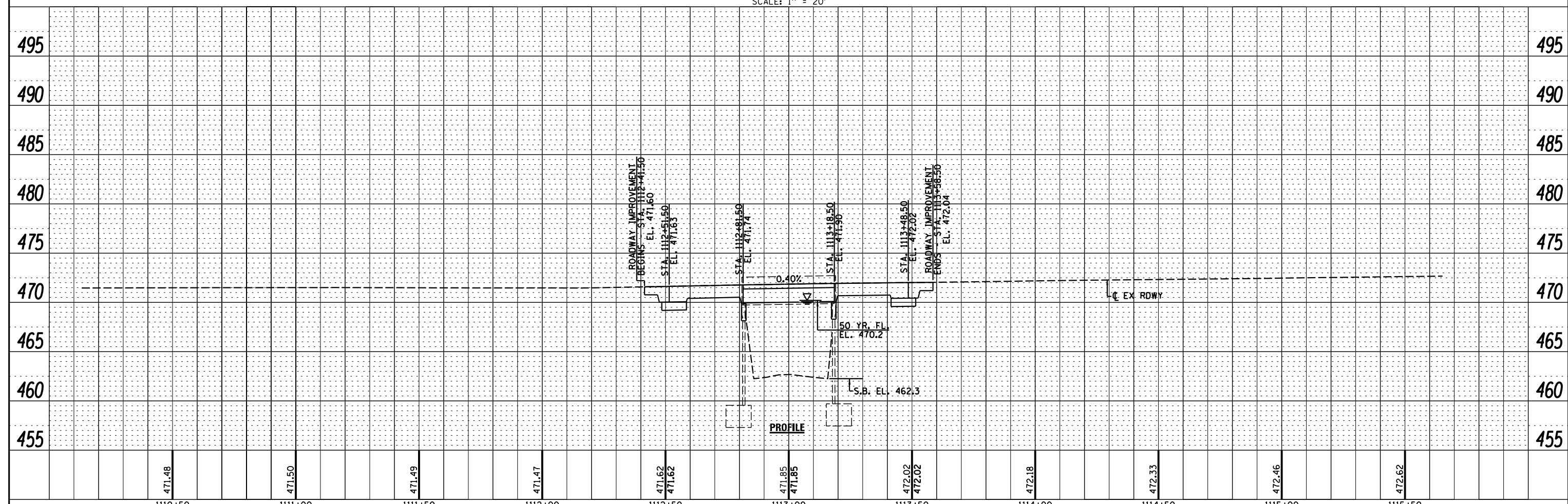
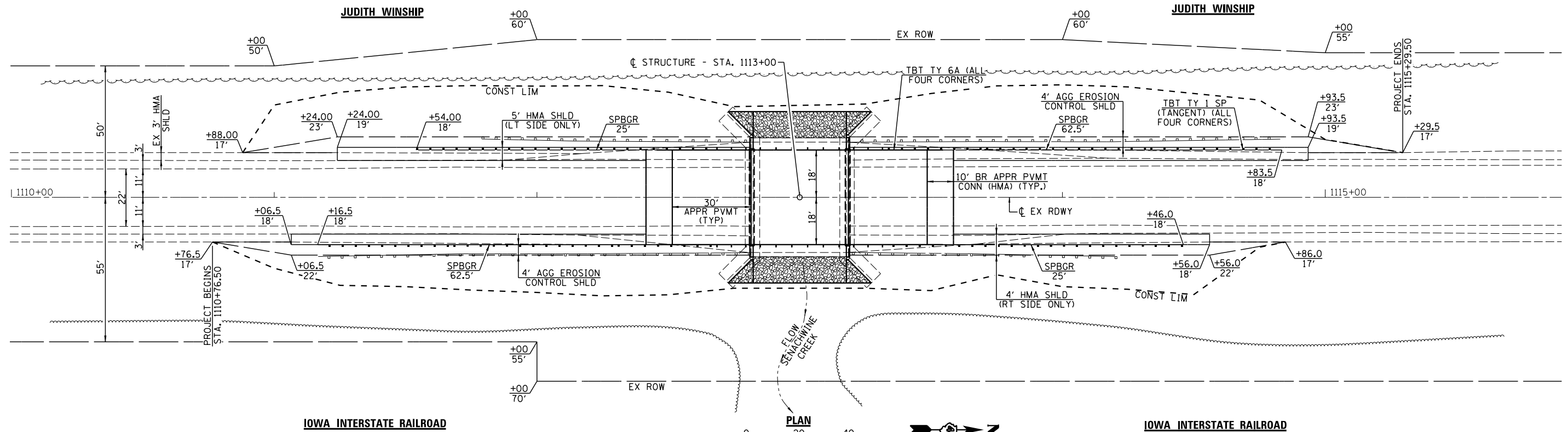
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	12
CONTRACT NO. 68664			ILLINOIS FED. AID PROJECT	

SECTION 18, T.14N., R.3E., 3RD P.M.

PLAN	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	
	NO.	
	CHECKED	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	NOTE BOOK	
	NO.	
	CHECKED	
	NOTATIONS	



471.48	471.50	471.49	471.47	471.62 471.62	471.85 471.85	472.02 472.02	472.18	472.33	472.46	472.62
1110+50	1111+00	1111+50	1112+00	1112+50	1113+00	1113+50	1114+00	1114+50	1115+00	1115+50

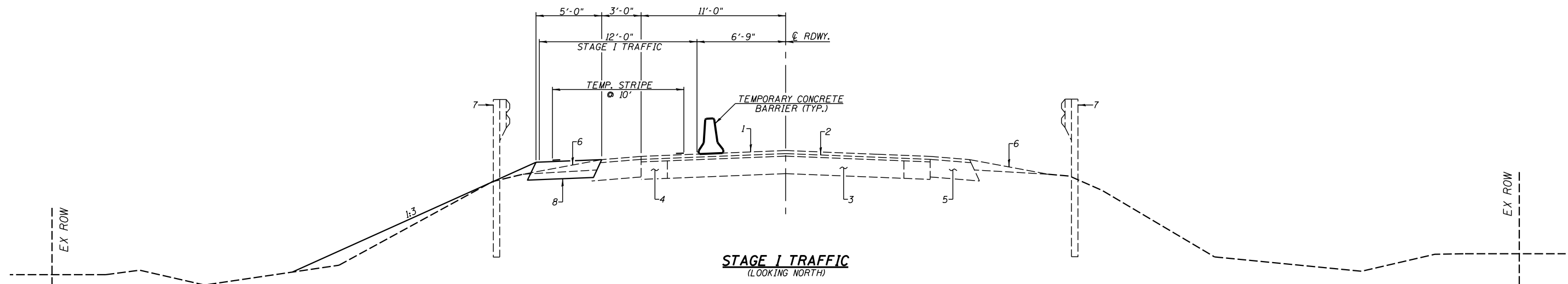
V&K
Veenstra & Kimm, Inc.
Springfield, IL Phone: (217)544-8033

USER NAME = *USER*	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = *DATE*	DATE -	REVISED -

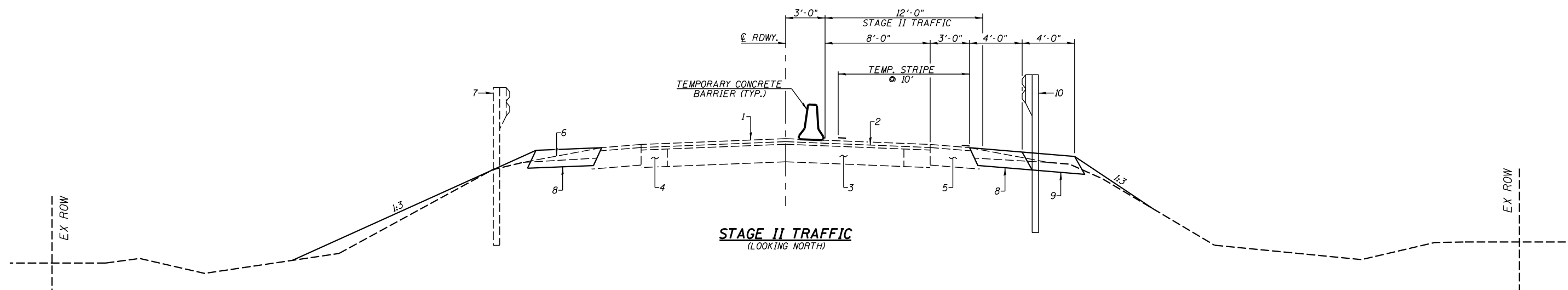
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
SCALE: 1" = 20'
SHEET 1 OF 1 SHEETS
STA. 31+00.00 TO STA. 45+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B1)-2	PUTNAM	48	13
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



STAGE I TRAFFIC
(LOOKING NORTH)



STAGE II TRAFFIC
(LOOKING NORTH)

PAVEMENT LEGEND

- 1. EX HMA SURF CSE
- 2. EX HMA BINDER CSE
- 3. EX BASE CSE
- 4. EX HMA WIDENING
- 5. EX HMA SHLD
- 6. EX AGG WEDGE SHLD
- 7. EX GUARDRAIL
- 8. PR HMA SHLD (8")
- 9. PR AGG EROSION CONTROL (8")
- 10. PR GUARDRAIL
- 11. PR PCC APPR PVMT (15")
- 12. PR BR APPR PVMT CONN (HMA)
- 13. PR PVT MARKING



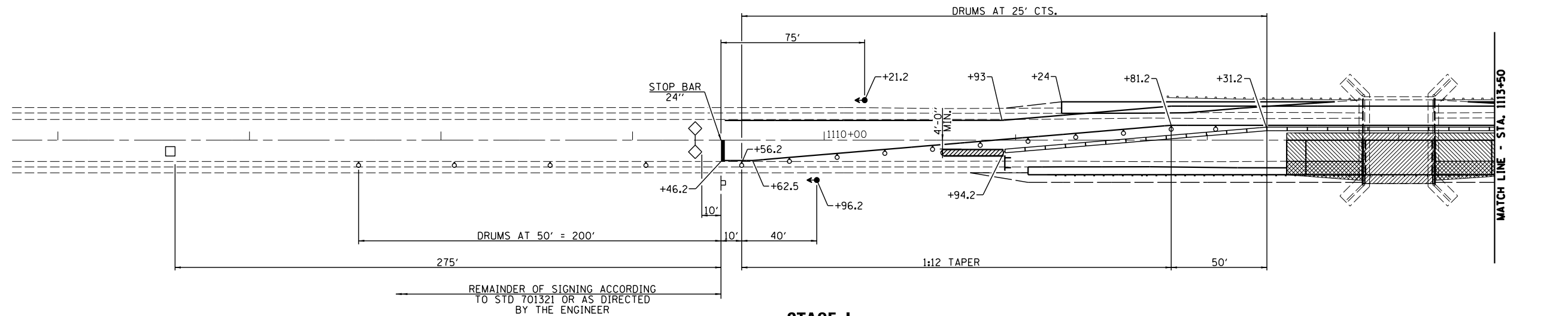
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PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

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DEPARTMENT OF TRANSPORTATION**

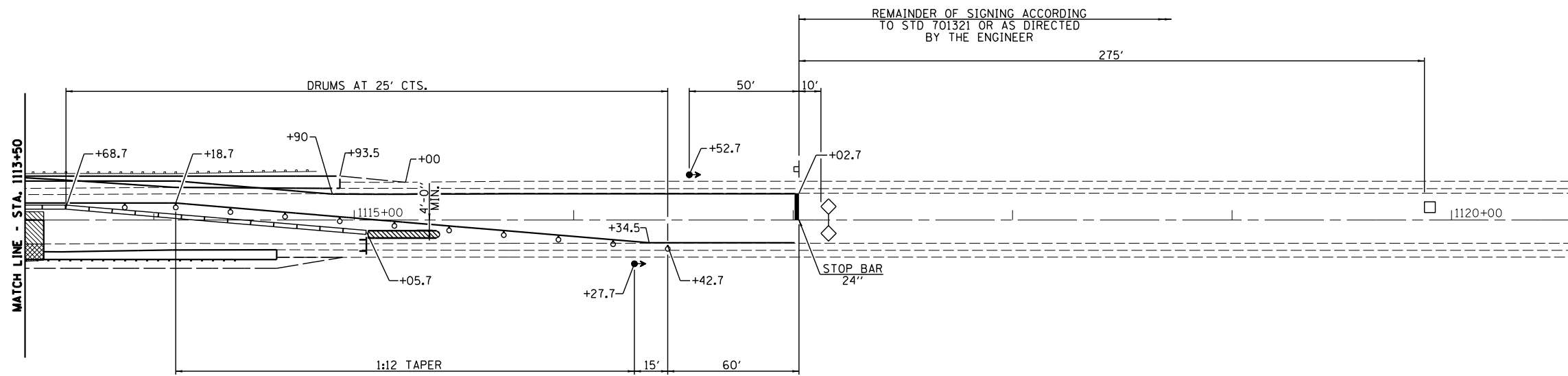
STAGE CONSTRUCTION TRAFFIC DETAILS

SCALE: SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	PUTNAM	48	14
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



STAGE I



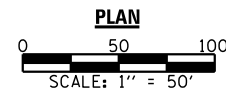
STAGE I

GENERAL NOTES

1. THIS TRAFFIC CONTROL DETAIL SHALL BE USED IN CONJUNCTION WITH STANDARD 701321.
2. EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH THE REVISED STAGE TRAFFIC PATTERNS DURING ALL PHASES OF STAGE CONSTRUCTION SHALL BE REMOVED AS SPECIFIED IN SECTION 783 OF THE STANDARD SPECIFICATIONS AND PAID FOR AS "PAVEMENT MARKING REMOVAL."
3. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES DURING ALL PHASES OF CONSTRUCTION.
4. SIGNING FOR STAGE II SAME AS STAGE I.

SYMBOLS

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

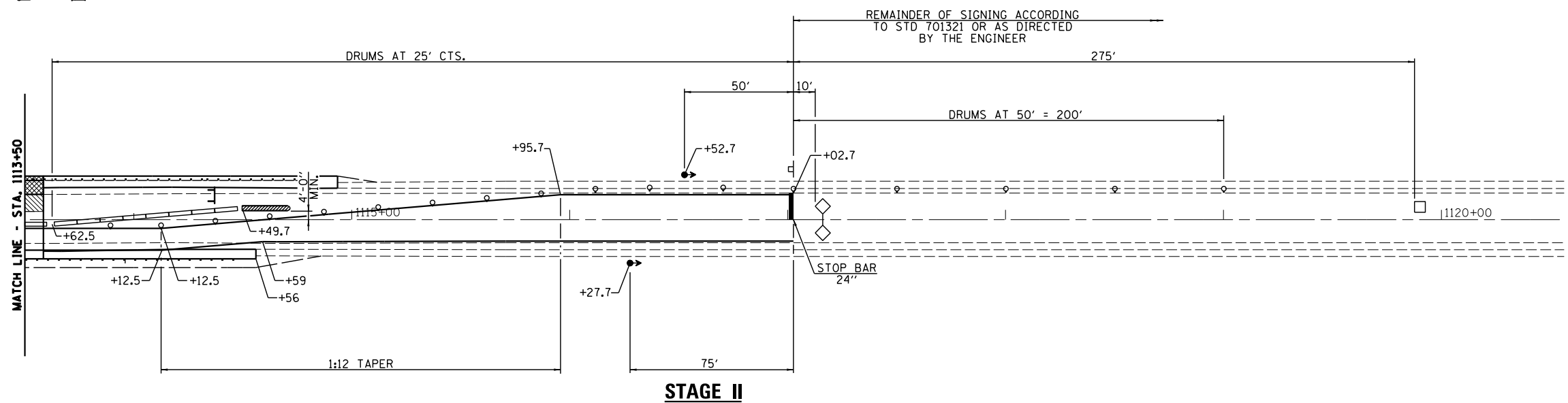
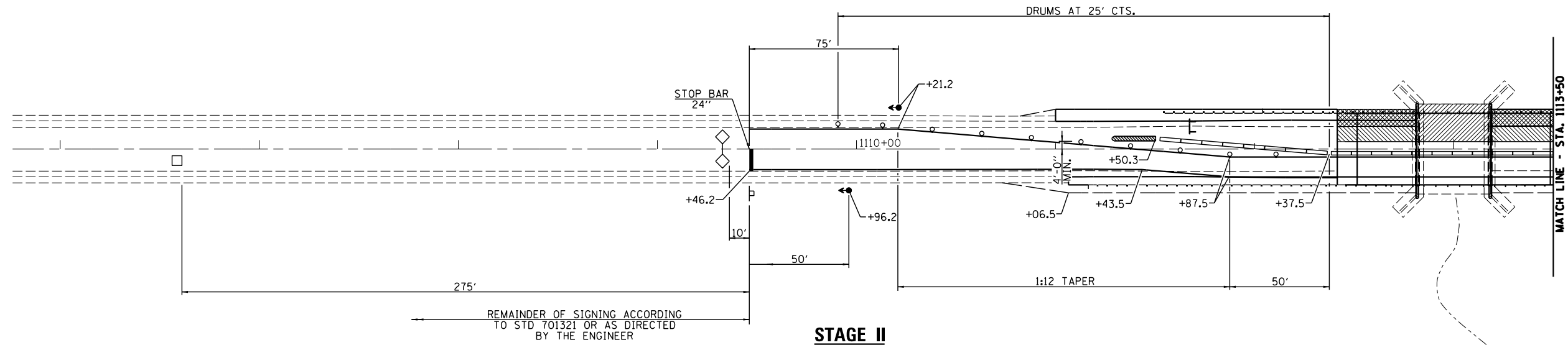


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PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

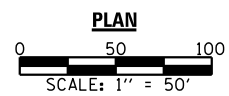
STAGING	
SCALE: 1" = 30'	SHEET NO. 3 OF 4 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	15
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



SYMBOLS

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



USER NAME =	DESIGNED -	REVISED -
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PLOT SCALE =	DRAWN -	REVISED -
PLOT DATE =	CHECKED -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

STAGING	
SCALE: 1" = 30'	SHEET NO. 4 OF 4 SHEETS
STA.	TO STA.

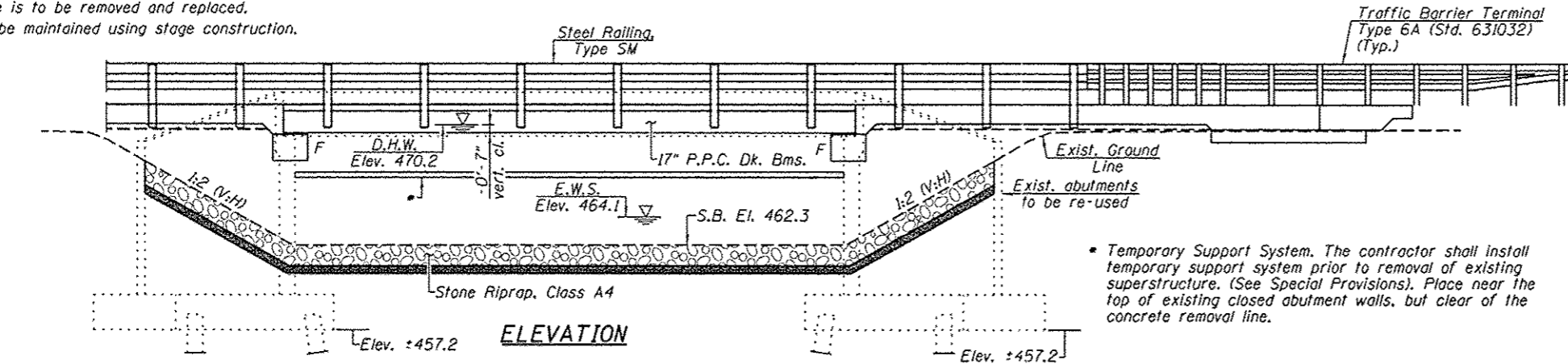
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	16
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

Benchmark: NGST232 in northwest wingwall of railroad bridge S.N. 078-1210
Sta. 1113+64.4, 110.37' Rt., Elev. 473.15

S.N. 078-0004 built in 1963 as F.A. Route 30, Section 21B at Sta. 113+00. The existing structure consists of a single span precast concrete channel beam bridge supported on closed concrete abutments with timber piles. 45'-4" out to out of deck and 37'-6" back to back of abutment length. Existing superstructure is to be removed and replaced.

Traffic is to be maintained using stage construction.

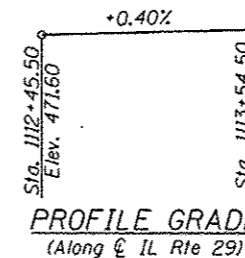
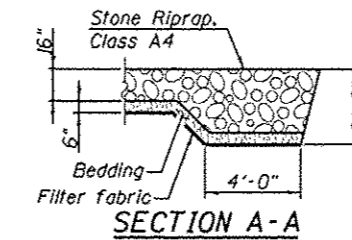
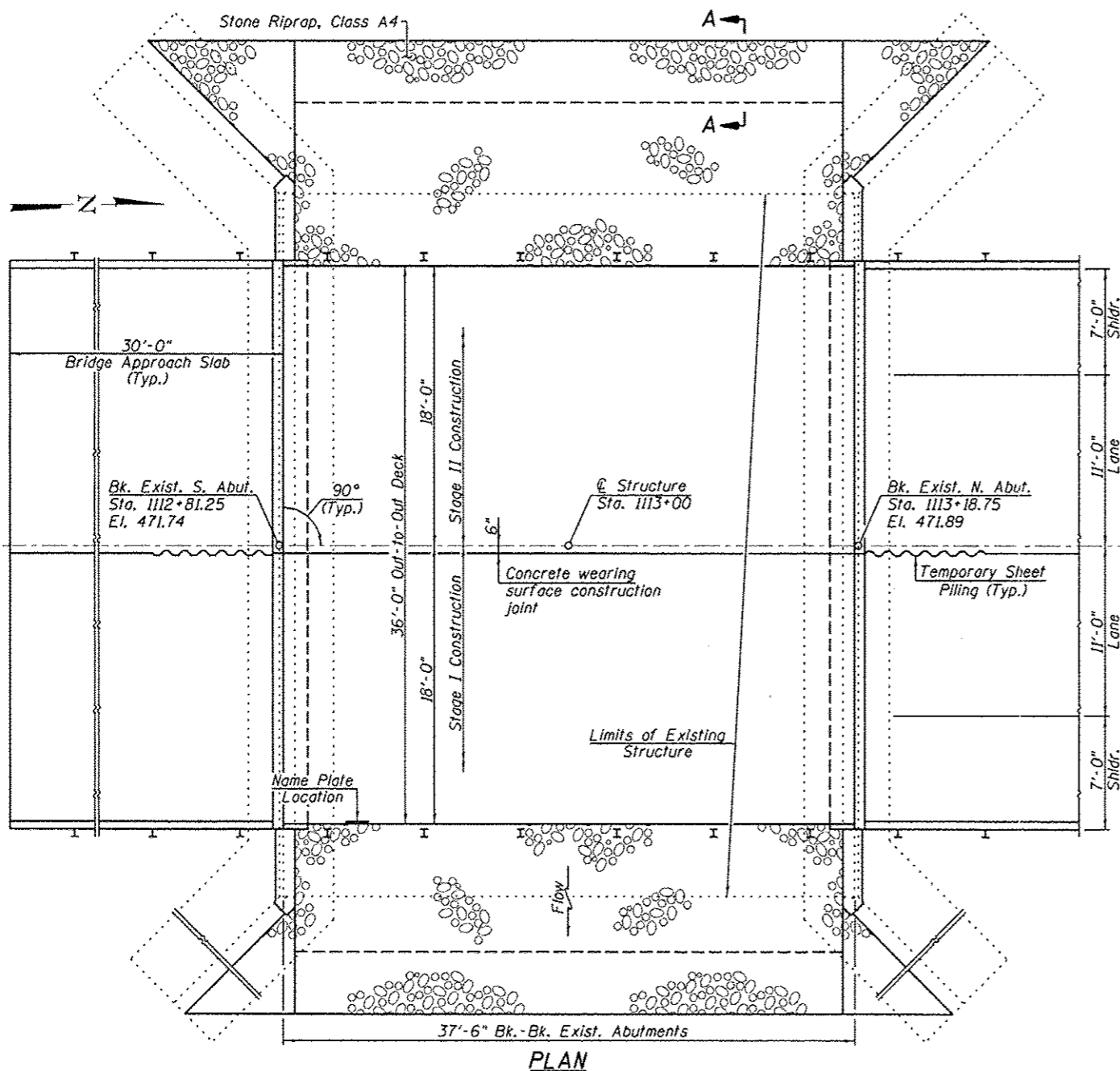
No salvage.



Temporary Support System. The contractor shall install temporary support system prior to removal of existing superstructure. (See Special Provisions). Place near the top of existing closed abutment walls, but clear of the concrete removal line.

INDEX OF SHEETS

- 1 - General Plan & Elevation
- 2 - General Data
- 3 - Stage Construction Details
- 4 - Temporary Concrete Barrier For Stage Construction
- 5 - Concrete Wearing Surface Elevations
- 6-7 - Top of Approach Slab Elevations
- 8 - Superstructure
- 9 - Superstructure Details
- 10-11 - Bridge Approach Slab
- 12 - P.P.C. Deck Beams
- 13 - P.P.C. Deck Beam Details
- 14 - Steel Railing Type SM
- 15 - Concrete Removal and Concrete Repair - South Abutment
- 16 - Concrete Removal and Concrete Repair - North Abutment
- 17 - South Abutment
- 18 - North Abutment
- 19 - Bar Splicer Assembly Details
- 20 - Existing G,P & E Sheet (For Information Only)
- 21 - Existing Abutment Sheet (For Information Only)



DESIGN SPECIFICATIONS (NEW CONSTRUCTION)
2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 & 2016 Interims

DESIGN STRESSES
FIELD UNITS (NEW CONSTRUCTION)
f'c = 3,500 psi
f'c = 5,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)

FIELD UNITS (EXISTING)
f'c = 2,500 psi (Substructure)
fy = 40,000 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)

SEISMIC DATA
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = .039g
Site Coefficient (S) = 1.5

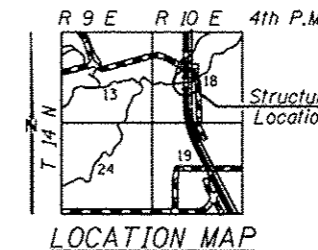
LOADING HL-93 (NEW CONSTRUCTION)
No allowance for future wearing surface.

Note:
Prior to excavation required for riprap installation, the Contractor shall locate the top of existing abutment and wingwall footings. The Contractor shall ensure that the existing footings will not be damaged during excavation and riprap installation. Cost included with Stone Riprap, Class A4.

APPROVED
For Structural Adequacy Only
[Signature]
Engineer of Bridges & Structures



Mark A. Henderson 11/31/17
Exp. Date: 11/30/2018



GENERAL PLAN & ELEVATION
IL ROUTE 29 OVER
SENACHWINE CREEK OVERFLOW
F.A.P. ROUTE 318 - SEC. (21B)-2
PUTNAM COUNTY
STA. 1113+00.00
STRUCTURE NO. 078-0004



USER NAME *	DESIGNED - KES	REVISED -
PLOT SCALE *	CHECKED - MAH	REVISED -
PLOT DATE *	DRAWN - JRP	REVISED -
	CHECKED - MAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

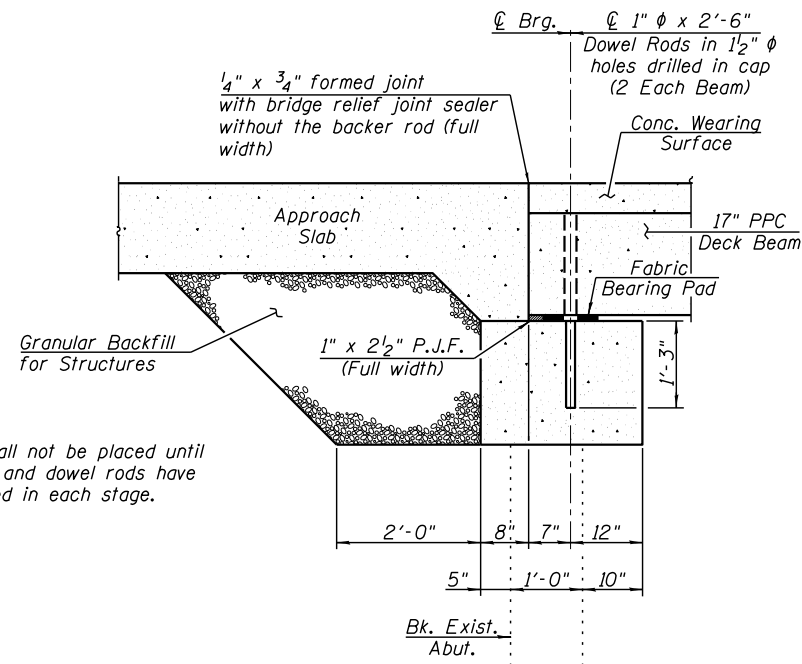
GENERAL PLAN & ELEVATION
STRUCTURE NO. 078-0004

SHEET NO. 1 OF 21 SHEETS

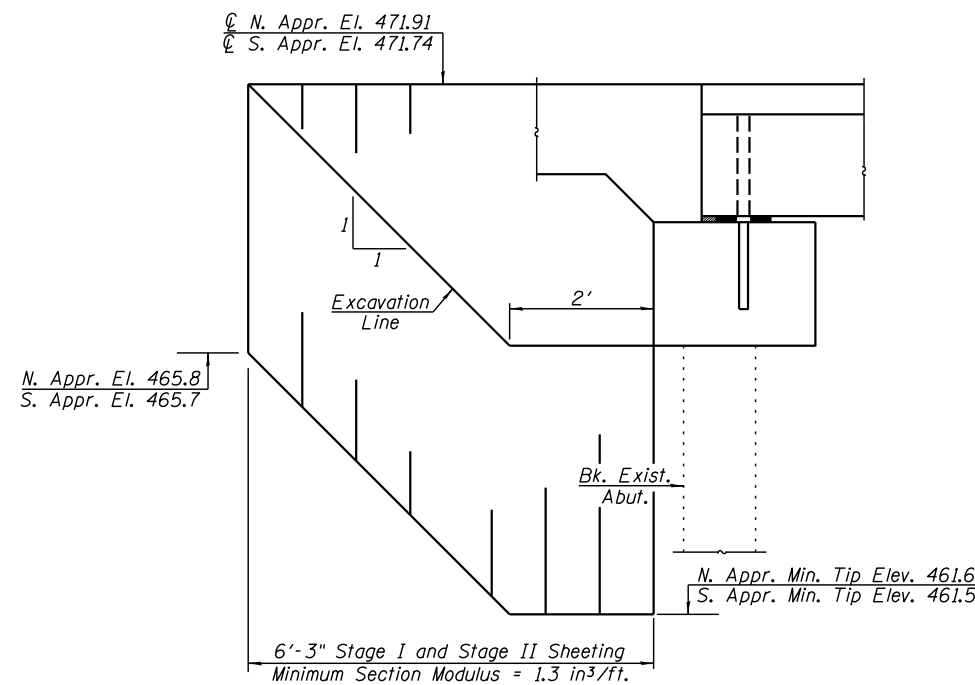
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	17
			CONTRACT NO. 68664	
ILLINOIS FED. AID PROJECT				

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A4	Sq. Yd.			274
Filter Fabric	Sq. Yd.			274
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yd.			8.6
Structure Excavation	Cu. Yd.		34	34
Concrete Structures	Cu. Yd.		38.4	38.4
Bridge Deck Grooving	Sq. Yd.	365		365
Protective Coat	Sq. Yd.	420		420
Concrete Superstructure (Approach Slab)	Cu. Yd.	108.4		108.4
P.P. Concrete Deck Beams (17" Depth)	Sq. Ft.	1332		1332
Reinforcement Bars, Epoxy Coated	Pound	39260	7180	46440
Bar Splicers	Each	250	100	350
Steel Railing, Type SM	Foot	134		134
Name Plates	Each	1		1
Temporary Sheet Piling	Sq. Ft.		221	221
Concrete Wearing Surface, 5"	Sq. Yd.	148		148
Granular Backfill For Structures	Cu. Yd.		28	28
Structural Repair of Concrete (<5")	Sq. Ft.		41	41
Temporary Support System	L. Sum		1	1



SECTION THRU PROPOSED ABUTMENT



TEMPORARY SHEET PILING DETAIL

If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

WATERWAY INFORMATION

Drainage Area = 36.821 sq. mi. Existing Overtopping Elev. 471.56 @ Sta. 1112+00 Proposed Overtopping Elev. 476.75 @ Sta. 6119+00

Flood Event	Discharge (cfs)		Opening (sq.ft.)		Head - ft.		Headwater Elev.			
	Exist.	Prop.	Exist.	Prop.	H.W.E. ft.	Exist.	Prop.	Exist.	Prop.	
10	Main Channel	4013	4013	855	855	468.0	1.1	1.1	469.1	469.1
	Relief Structure	400	400	194	194					
	Total	4413	4413	1049	1049					
50	Main Channel	6053	6053	949	949	470.2	1.3	1.3	471.5	471.5
	Relief Structure	1074	1074	232	232					
	Total	7127	7127	1181	1181					
100	Main Channel	7101	7101	949	949	470.8	1.7	1.7	472.4	472.4
	Relief Structure	1289	1289	232	232					
	Total	8390	8390	1181	1181					
Overtopping 25 year main 75 year relief	Main Channel	4906(25) 6614(75)	4906(25) 6614(75)	949	949	469.3(25) 470.5(75)	1.5	1.5	472.0	472.0
	Relief Struct.	1124(25) 1206(75)	1124(25) 1206(75)	232	232					
	Total	6030(25) 7820(75)	6030(25) 7820(75)	1181	1181					
500	Main Channel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Relief Structure	N/A	N/A	N/A	N/A					
	Total	N/A	N/A	N/A	N/A					

10 Yr. velocity through Ex. Bridge = 4.4 fps

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.)			Item 113
	S. Abut.	N. Abut.		
Q100	457.2	457.2		5
Q200	457.2	457.2		
Design	457.2	457.2		
Check	457.2	457.2		

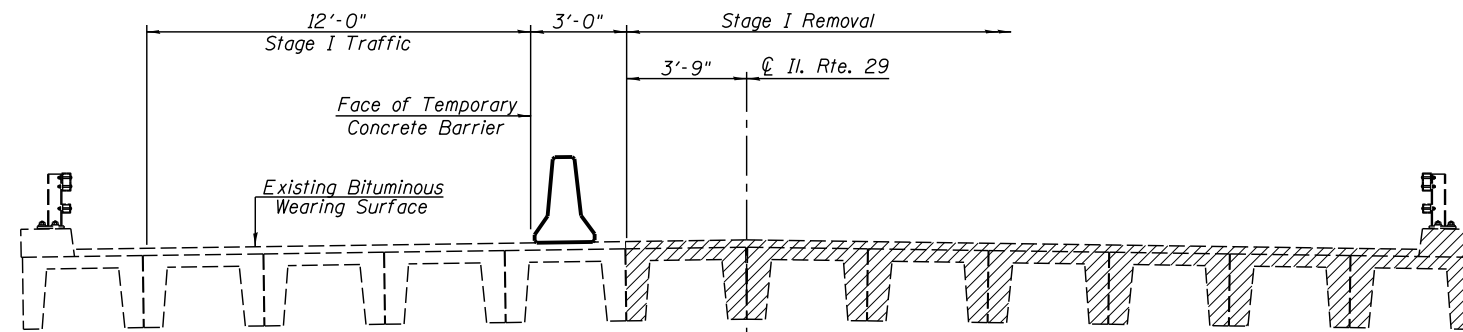
STATION 1113+00.00
RE-BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 318 - SEC. (21B)I-2
LOADING HL93
STR. NO. 078-0004

NAME PLATE
(See Std. 515001)

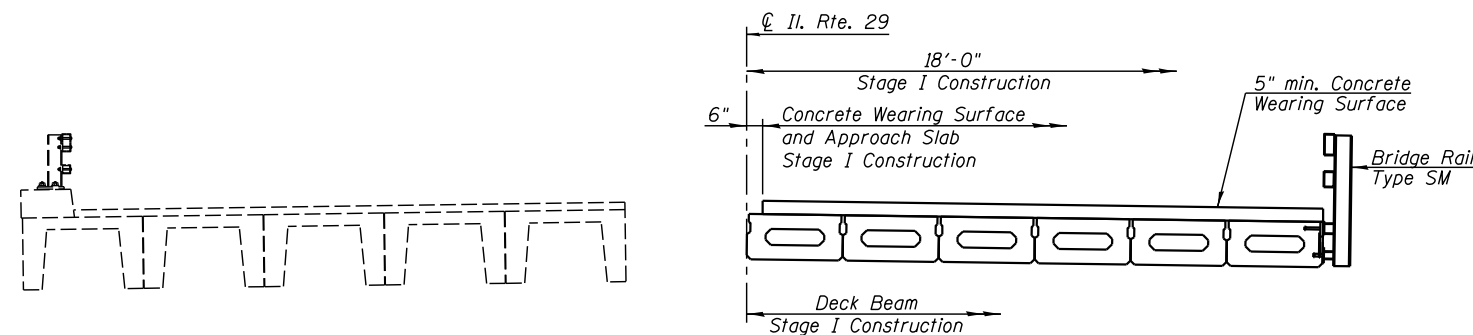
Existing Name Plate shall be cleaned and relocated next to the new Name Plate.

GENERAL NOTES

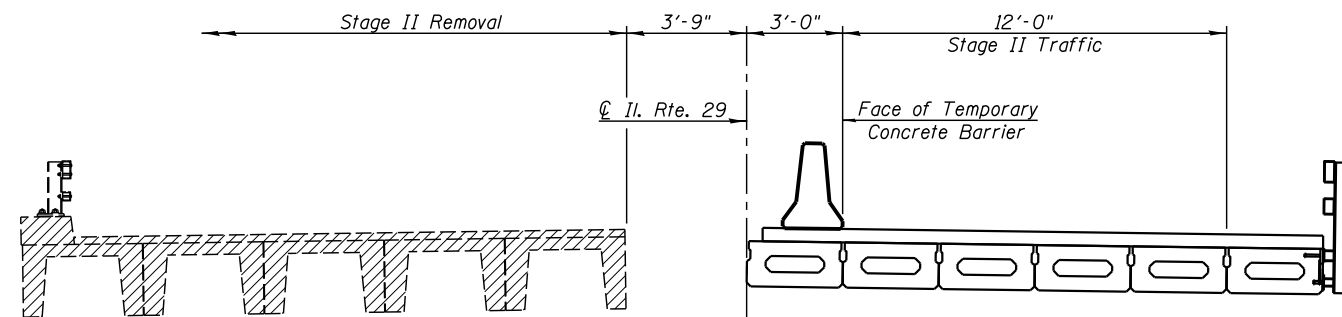
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior 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.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The existing abutments shall be braced against horizontal movement prior to removal of the existing concrete beams. Cost included with Temporary Support System.



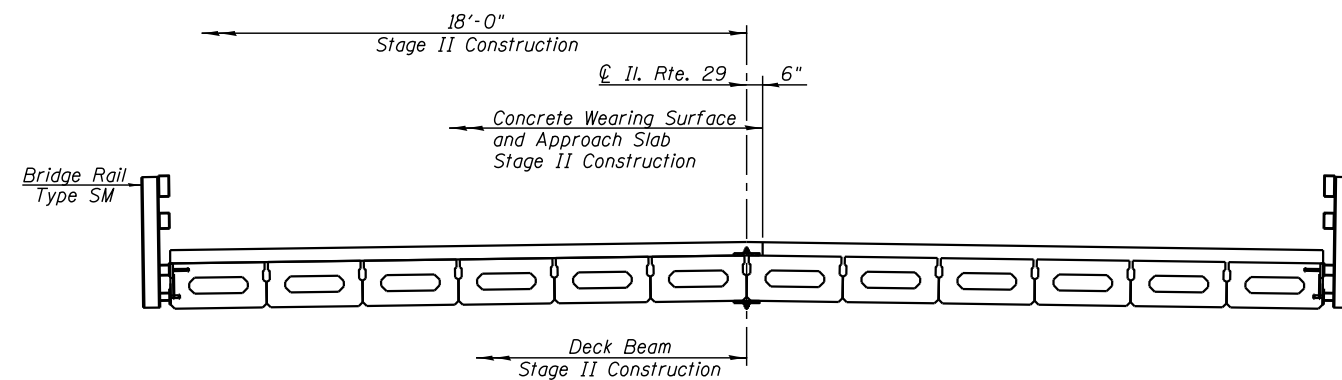
STAGE I REMOVAL
(Looking North)



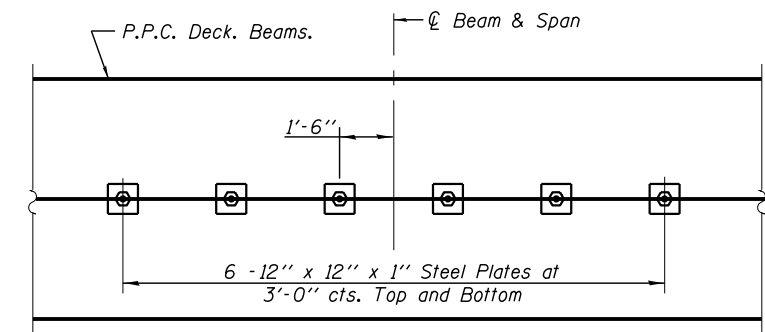
STAGE I CONSTRUCTION
(Looking North)



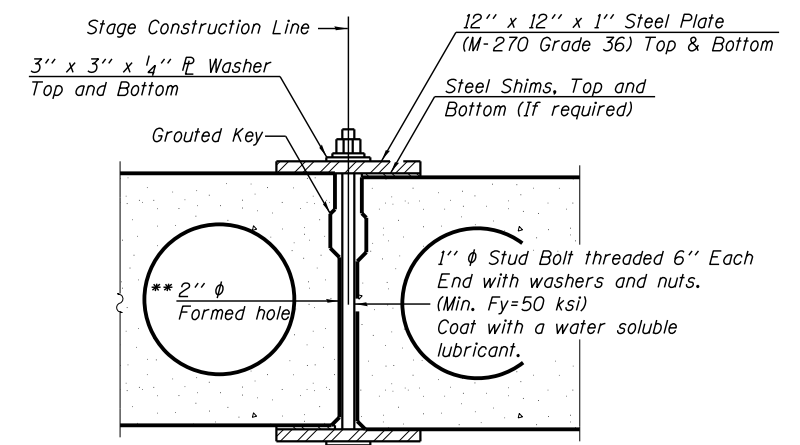
STAGE II REMOVAL
(Looking North)



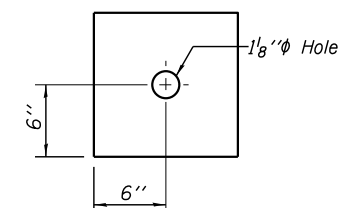
STAGE II CONSTRUCTION
(Looking North)



PLAN



SECTION



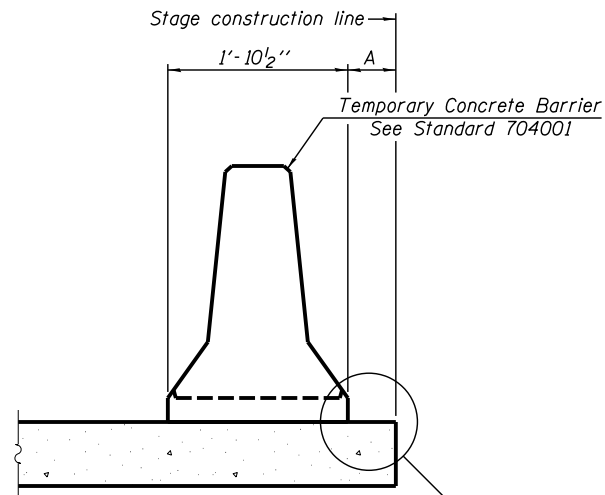
CLAMPING PLATE

SHEAR KEY CLAMPING DETAILS AT STAGE CONST. JT.

Cost included with Precast Prestressed Concrete Deck Beams (17" Depth).
See Stage Construction Details for traffic lanes.

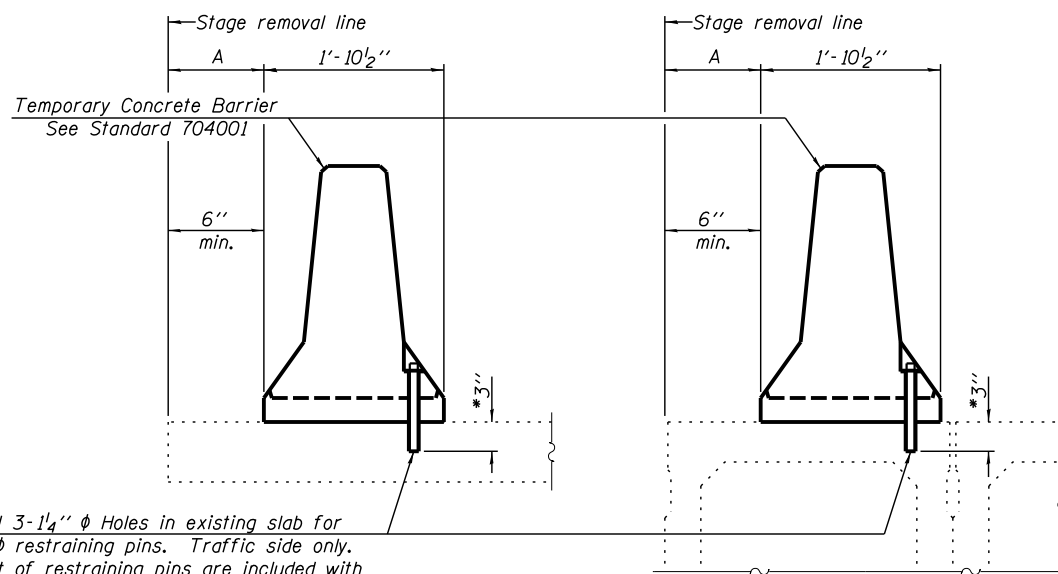
** Cast semicircular recesses in the sides of each beam adjacent to the stage construction line. These recesses should align to form a hole at the appropriate locations for the clamping device bolts.

Note: For quantity of temporary concrete barrier, see Roadway Plans.
For details of temporary concrete barrier, see sheet 4 of 21.
Hatched area indicates Removal of Existing Superstructures.



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



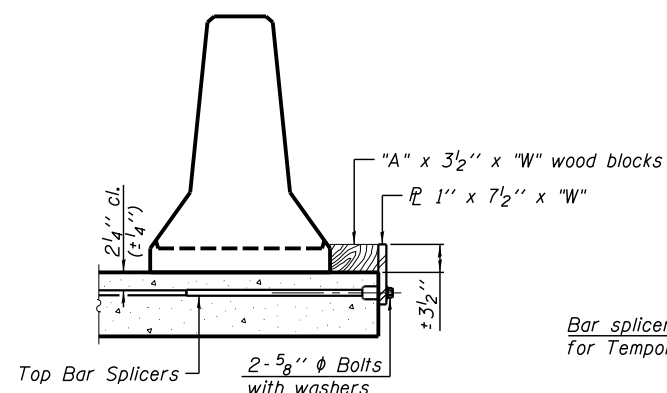
Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

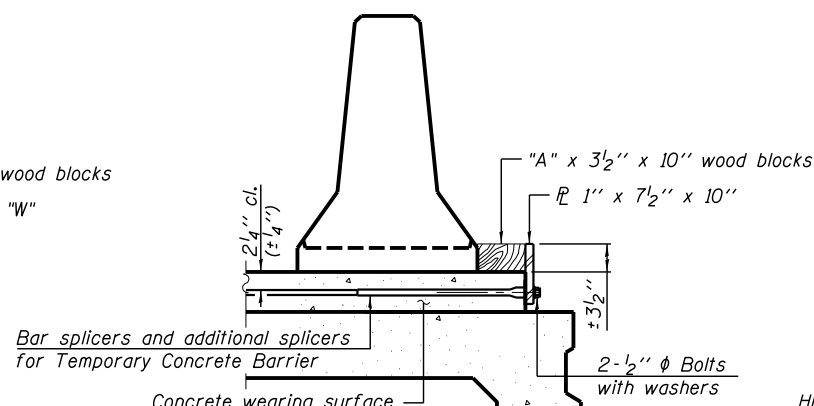
EXISTING SLAB

EXISTING DECK BEAM

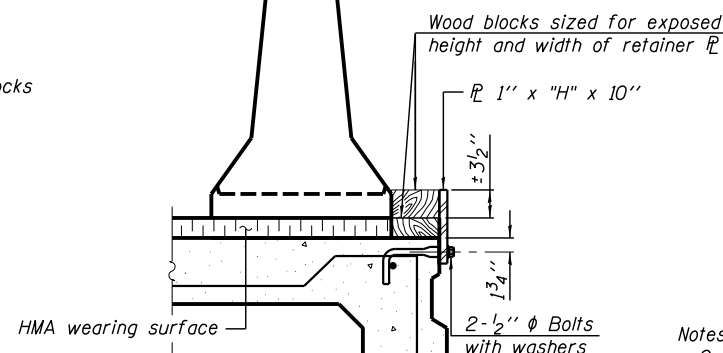
SECTIONS THRU SLAB OR DECK BEAM



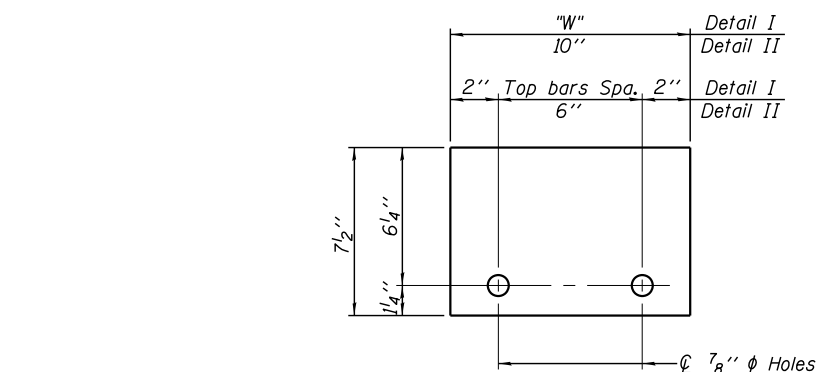
DETAIL I



DETAIL II

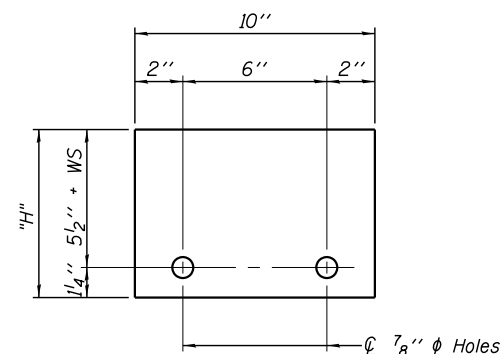


DETAIL III



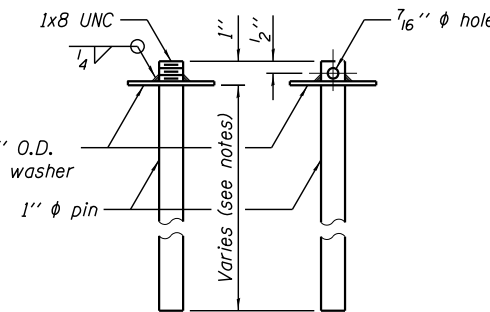
STEEL RETAINER 1" x 7 1/2" x "W"

(Detail I and II)



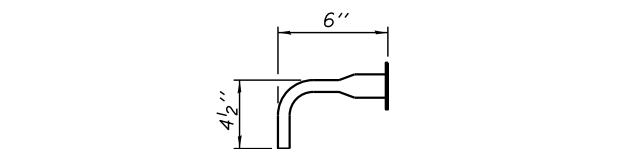
STEEL RETAINER 1" x "H" x 10"

(Detail III)



RESTRAINING PIN

US Std. 1 1/16" I.D. x 2 1/2" O.D. x approx. 8 gauge thick washer



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate ϕ of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1 1/2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
 Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
 Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27 11-22-16



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	CHECKED - MAH	REVISED -

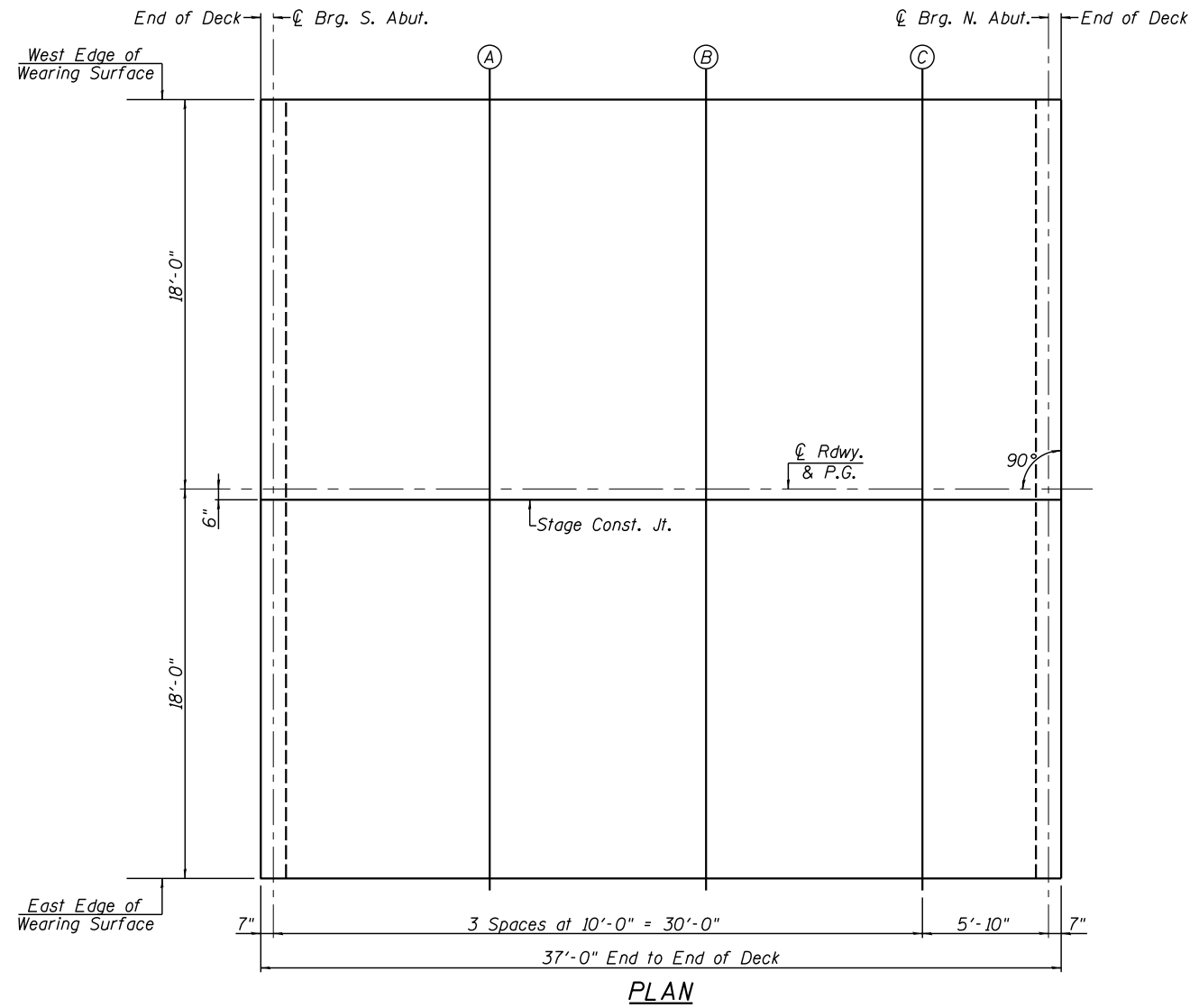
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 078-0004

SHEET NO. 4 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	PUTNAM	48	20
CONTRACT NO. 68664				

ILLINOIS FED. AID PROJECT



WEST EDGE OF WEARING SURFACE

Location	Station	Offset	Theoretical Grade Elevations
S. End of Deck	1112+81.50	-18.00	471.47
☉ Brg. S. Abut.	1112+82.08	-18.00	471.48
A	1112+92.08	-18.00	471.52
B	1113+02.08	-18.00	471.56
C	1113+12.08	-18.00	471.60
☉ Brg. N. Abut.	1113+17.92	-18.00	471.62
N. End of Deck	1113+18.50	-18.00	471.62

☉ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
S. End of Deck	1112+81.50	0.00	471.74
☉ Brg. S. Abut.	1112+82.08	0.00	471.75
A	1112+92.08	0.00	471.79
B	1113+02.08	0.00	471.83
C	1113+12.08	0.00	471.87
☉ Brg. N. Abut.	1113+17.92	0.00	471.89
N. End of Deck	1113+18.50	0.00	471.89

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of Deck	1112+81.50	0.50	471.74
☉ Brg. S. Abut.	1112+82.08	0.50	471.74
A	1112+92.08	0.50	471.78
B	1113+02.08	0.50	471.82
C	1113+12.08	0.50	471.86
☉ Brg. N. Abut.	1113+17.92	0.50	471.88
N. End of Deck	1113+18.50	0.50	471.88

EAST EDGE OF WEARING SURFACE

Location	Station	Offset	Theoretical Grade Elevations
S. End of Deck	1112+81.50	18.00	471.47
☉ Brg. S. Abut.	1112+82.08	18.00	471.48
A	1112+92.08	18.00	471.52
B	1113+02.08	18.00	471.56
C	1113+12.08	18.00	471.60
☉ Brg. N. Abut.	1113+17.92	18.00	471.62
N. End of Deck	1113+18.50	18.00	471.62



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	CHECKED - MAH	REVISED -
PLOT SCALE =	DRAWN - JRP	REVISED -
PLOT DATE =	CHECKED - MAH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONCRETE WEARING SURFACE ELEVATIONS
STRUCTURE NO. 078-0004**

SHEET NO. 5 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B1)-2	PUTNAM	48	21
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

WEST INSIDE FACE OF CURB S. APPROACH SLAB

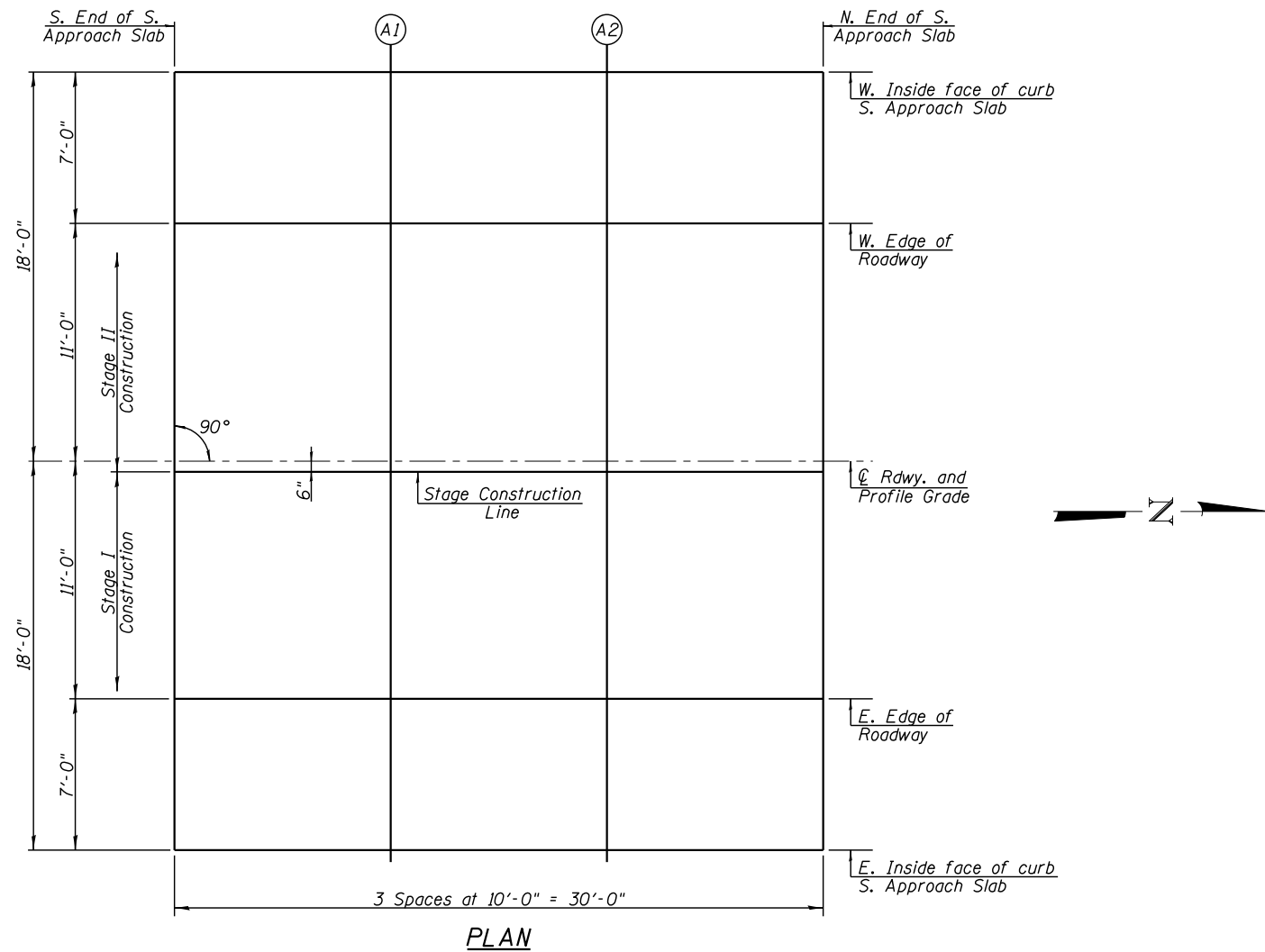
Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	1112+51.50	-17.83'	471.35
A1	1112+61.50	-17.83'	471.39
A2	1112+71.50	-17.83'	471.43
N. End of S. Appr. Slab	1112+81.50	-17.83'	471.47

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	1112+51.50	-11.00'	471.46
A1	1112+61.50	-11.00'	471.50
A2	1112+71.50	-11.00'	471.54
N. End of S. Appr. Slab	1112+81.50	-11.00'	471.58

☐ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	1112+51.50	0.00'	471.62
A1	1112+61.50	0.00'	471.66
A2	1112+71.50	0.00'	471.70
N. End of S. Appr. Slab	1112+81.50	0.00'	471.74



STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	1112+51.50	0.50'	471.62
A1	1112+61.50	0.50'	471.66
A2	1112+71.50	0.50'	471.70
N. End of S. Appr. Slab	1112+81.50	0.50'	471.74

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	1112+51.50	11.00'	471.46
A1	1112+61.50	11.00'	471.50
A2	1112+71.50	11.00'	471.54
N. End of S. Appr. Slab	1112+81.50	11.00'	471.58

EAST INSIDE FACE OF CURB S. APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of S. Appr. Slab	1112+51.50	17.83'	471.35
A1	1112+61.50	17.83'	471.39
A2	1112+71.50	17.83'	471.43
N. End of S. Appr. Slab	1112+81.50	17.83'	471.47



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PLOT SCALE =	CHECKED - MAH	REVISED -
PLOT DATE =		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SOUTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 078-0004**

SHEET NO. 6 OF 21 SHEETS

F.A.P. RTE. 318	SECTION (21B1)-2	COUNTY PUTNAM	TOTAL SHEETS 48	SHEET NO. 22
CONTRACT NO. 68664				ILLINOIS FED. AID PROJECT

WEST INSIDE FACE OF CURB N. APPROACH SLAB

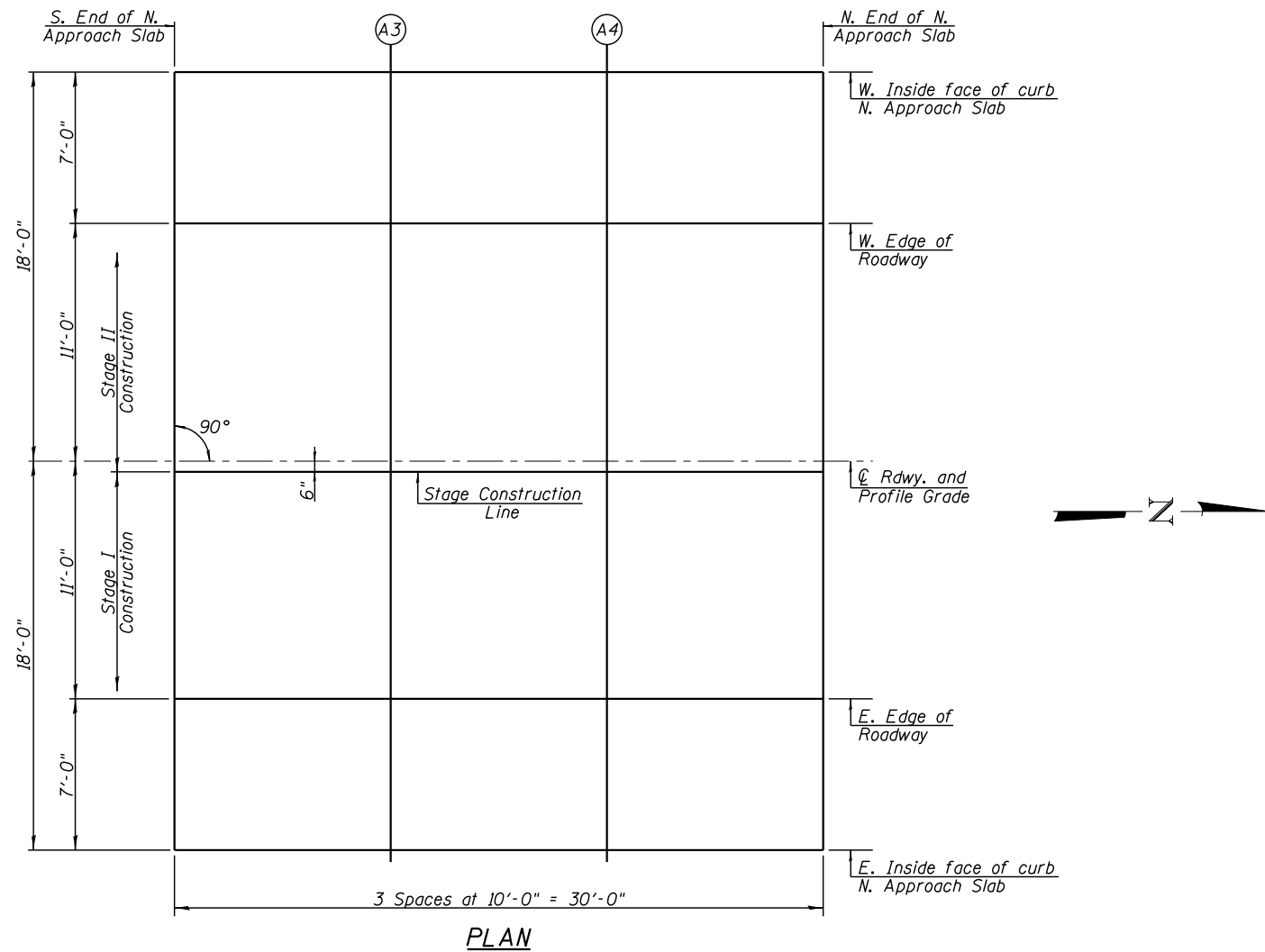
Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	1113+18.50	-17.83'	471.62
A3	1113+28.50	-17.83'	471.66
A4	1113+38.50	-17.83'	471.70
N. End of N. Appr. Slab	1113+48.50	-17.83'	471.74

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	1113+18.50	-11.00'	471.73
A3	1113+28.50	-11.00'	471.77
A4	1113+38.50	-11.00'	471.81
N. End of N. Appr. Slab	1113+48.50	-11.00'	471.85

☐ ROADWAY & PROFILE GRADE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	1113+18.50	0.00'	471.89
A3	1113+28.50	0.00'	471.93
A4	1113+38.50	0.00'	471.97
N. End of N. Appr. Slab	1113+48.50	0.00'	472.01



PLAN

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	1113+18.50	0.50'	471.88
A3	1113+28.50	0.50'	471.92
A4	1113+38.50	0.50'	471.96
N. End of N. Appr. Slab	1113+48.50	0.50'	472.00

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	1113+18.50	11.00'	471.73
A3	1113+28.50	11.00'	471.77
A4	1113+38.50	11.00'	471.81
N. End of N. Appr. Slab	1113+48.50	11.00'	471.85

EAST INSIDE FACE OF CURB N. APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
S. End of N. Appr. Slab	1113+18.50	17.83'	471.62
A3	1113+28.50	17.83'	471.66
A4	1113+38.50	17.83'	471.70
N. End of N. Appr. Slab	1113+48.50	17.83'	471.74



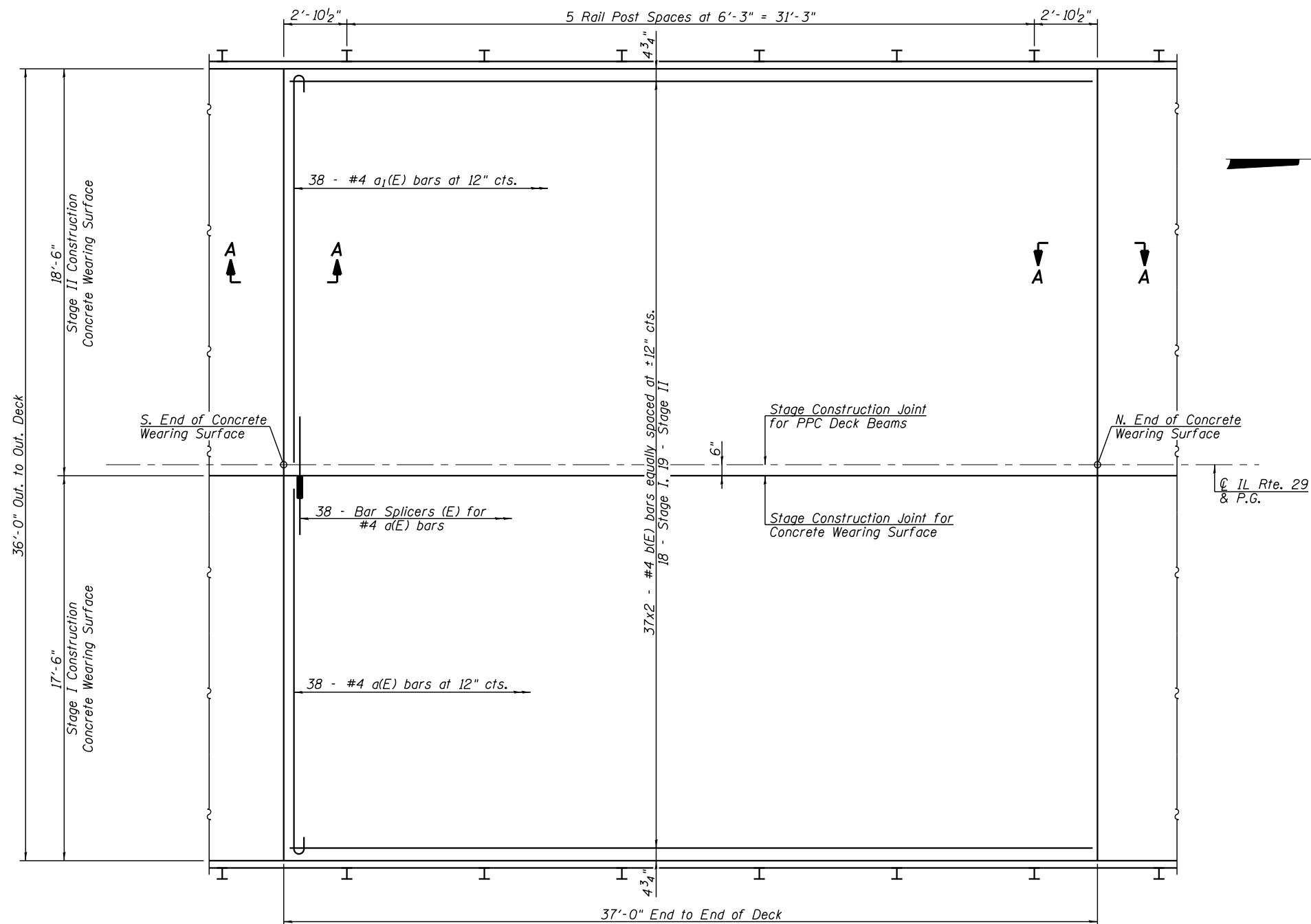
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CHECKED - MAH	DRAWN - JRP	REVISED -
PLOT SCALE =	CHECKED - MAH	REVISED -
PLOT DATE =		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

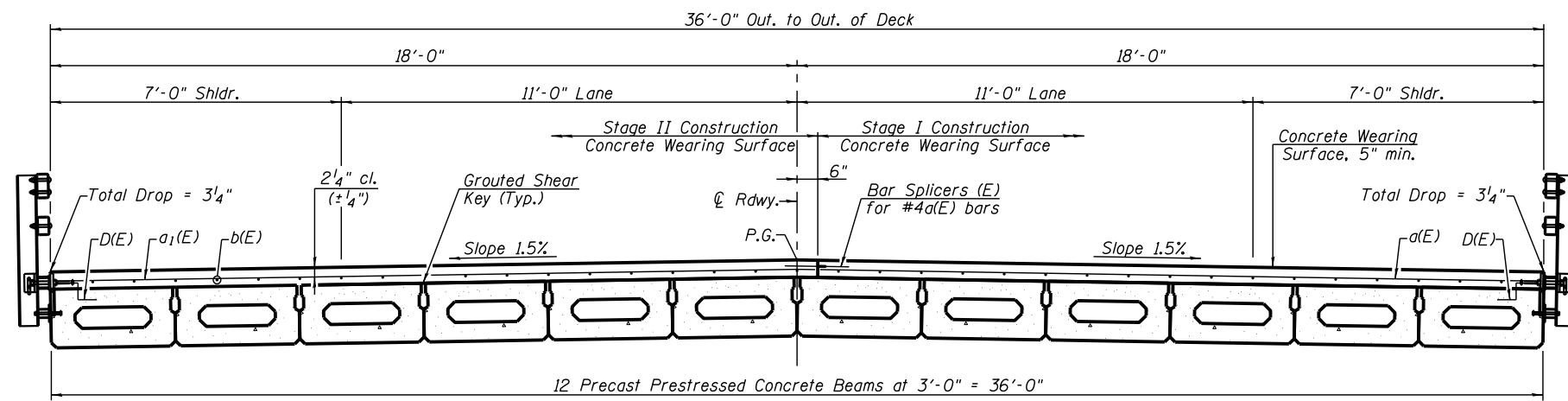
**TOP OF NORTH APPROACH SLAB ELEVATIONS
STRUCTURE NO. 078-0004**

SHEET NO. 7 OF 21 SHEETS

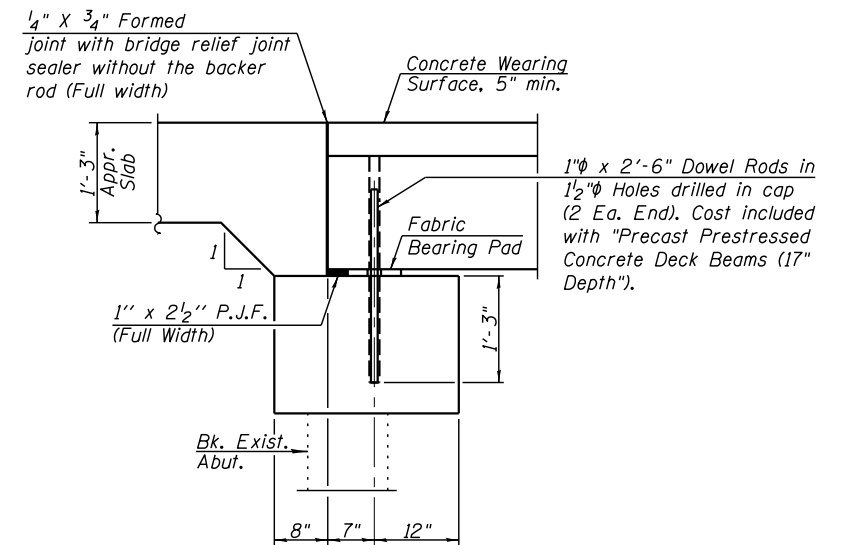
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B1)-2	PUTNAM	48	23
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



PLAN



CROSS SECTION
(Looking North)



SECTION A-A
(At Right Angles)

Notes:
 All concrete wearing surfaces shall be placed prior to casting approach slab.
 See Sheet 9 of 21 for Superstructure Details, Bar Details and Bill of Material.
 See sheet 13 of 21 for fabric bearing pad details.
 See sheet 14 of 21 for railing details.
 See sheet 19 of 21 for bar splicer details.
 Bars indicated thus 37 x 2-#4 etc. indicates 37 lines of bars with 2 lengths per line.

MINIMUM BAR LAP
 #4 bar = 2'-7"



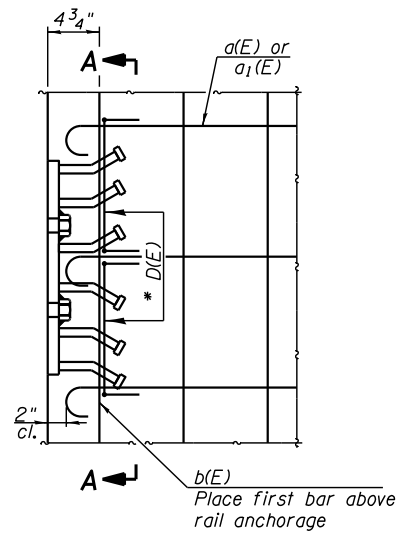
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PLOT SCALE =	CHECKED - MAH	REVISED -
PLOT DATE =	DRAWN - JRP	REVISED -
	CHECKED - MAH	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
 STRUCTURE NO. 078-0004

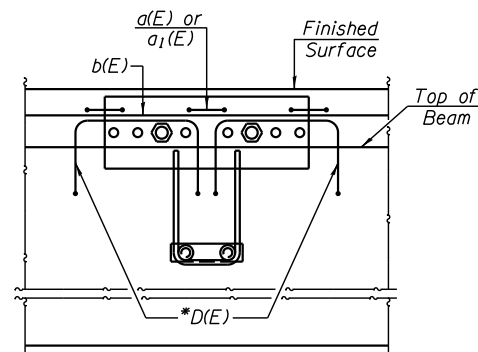
SHEET NO. 8 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	24
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



PLAN

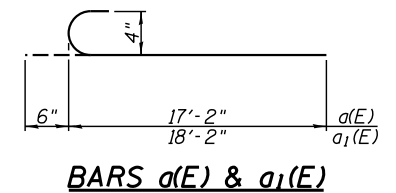
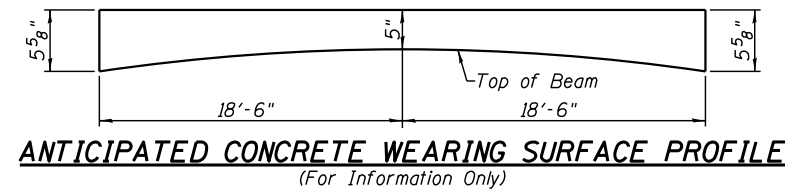
* Bar D(E) detail shown on sheet 13 of 21.



SECTION A-A

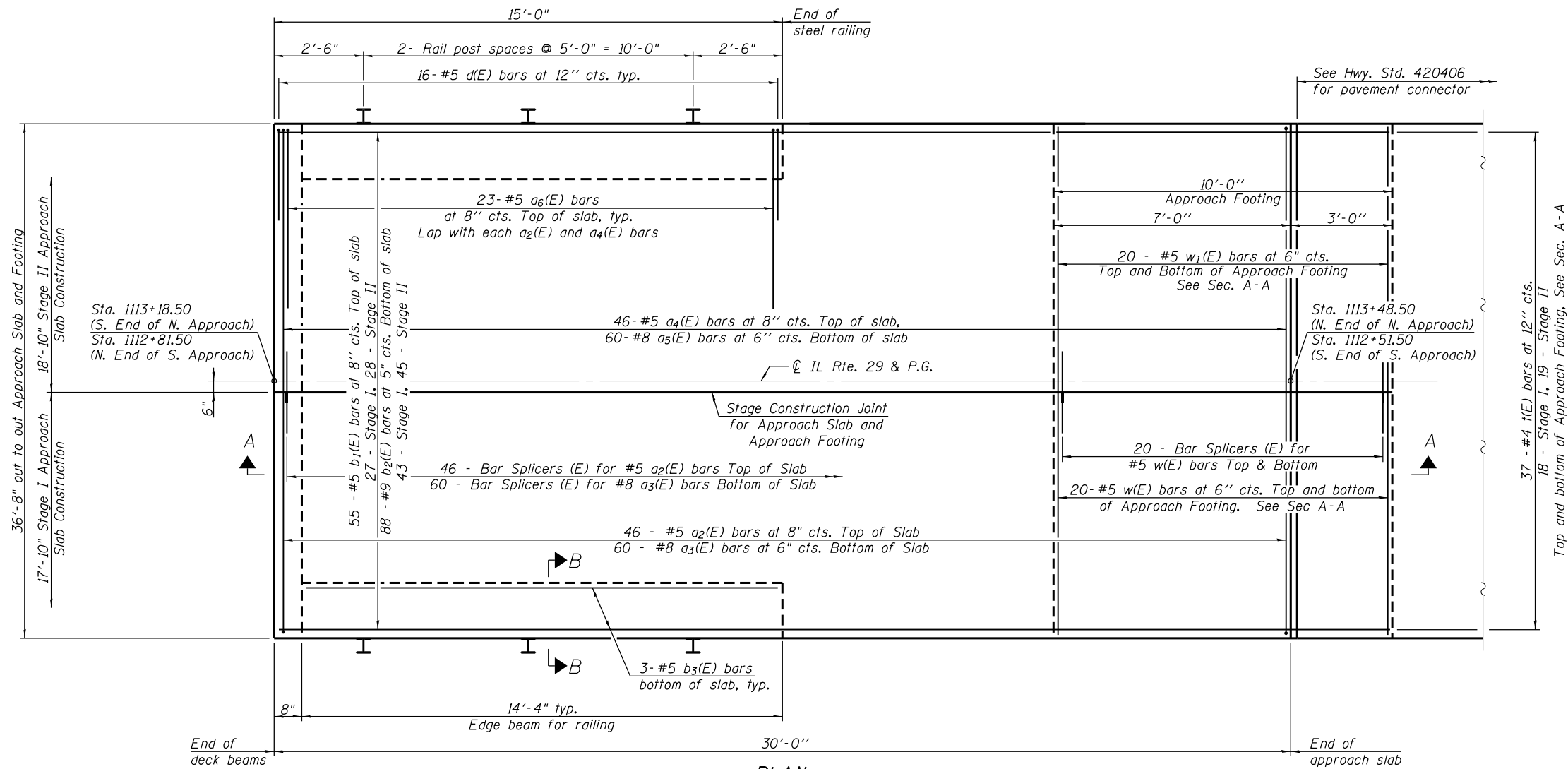
**REINFORCEMENT DETAIL AT RAIL
POST ANCHORAGE LOCATIONS**

Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam. Drilling into the beam will not be permitted.
See sheet 13 of 21 for Section Thru Fascia Beam.

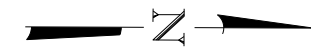


**CONCRETE WEARING SURFACE
BILL OF MATERIAL**

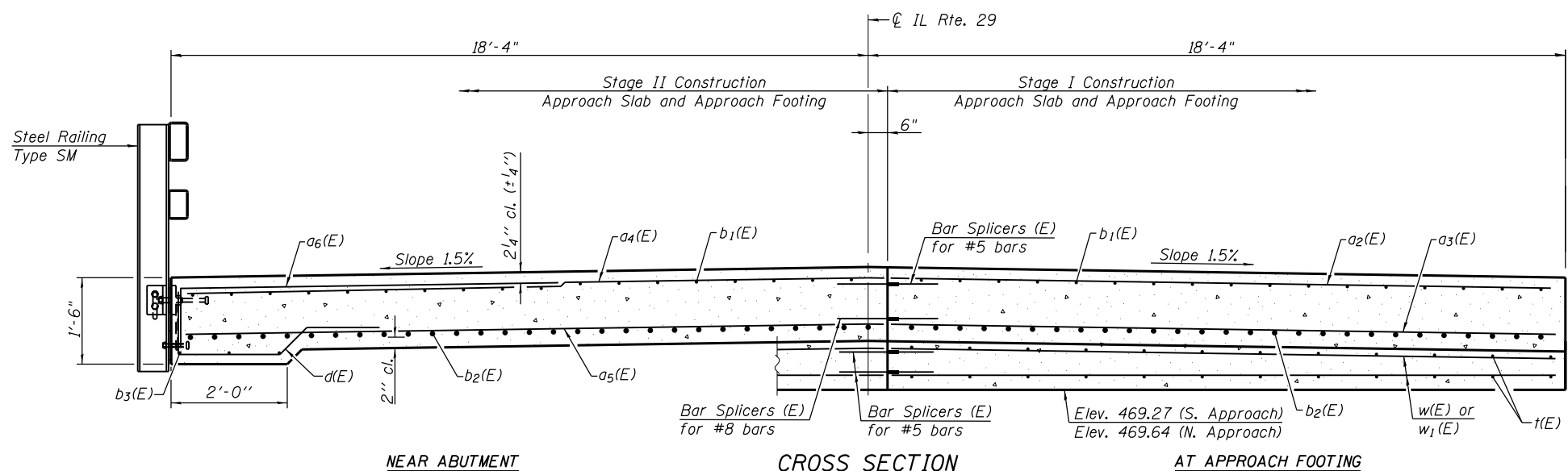
Bar	No.	Size	Length	Shape
a(E)	38	#4	17'-8"	C
a ₁ (E)	38	#4	18'-8"	C
b(E)	74	#4	19'-8"	—
Reinforcement Bars, Epoxy Coated			Pound	1900
Concrete Wearing Surface, 5"			Sq. Yd.	148



PLAN
(North Approach Shown)



Notes:
See sheet 11 of 21 for Sections A-A & B-B.



NEAR ABUTMENT

CROSS SECTION
(Looking North)

AT APPROACH FOOTING

BA-CIP-R34C-0

11-22-16

(Sheet 1 of 2)



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PLOT DATE =	DRAWN - JRP	REVISED -
	CHECKED - MAH	REVISED -

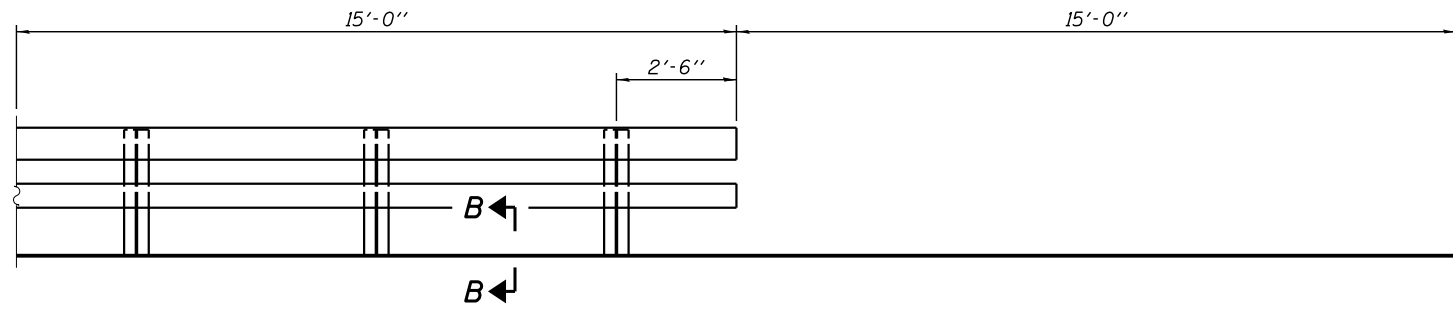
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 078-0004

SHEET NO. 10 OF 21 SHEETS

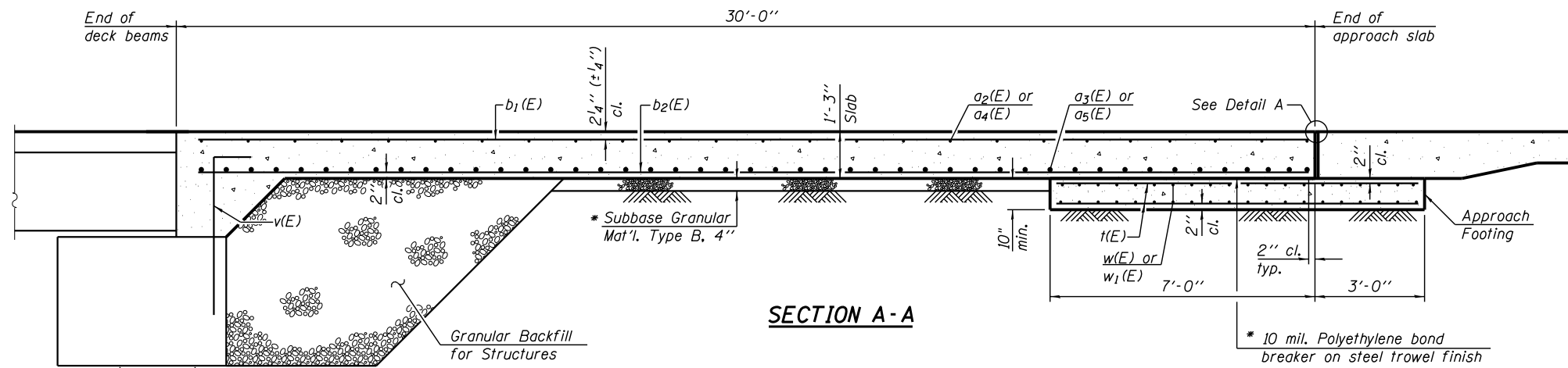
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	26
CONTRACT NO. 68664				

ILLINOIS FED. AID PROJECT



INSIDE ELEVATION OF RAILING AND CURB

Notes:
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures detail, See sheet 2 of 21.
 For railing details, see sheet 14 of 21.
 For v(E) bar details, see sheets 17 and 18 of 21.

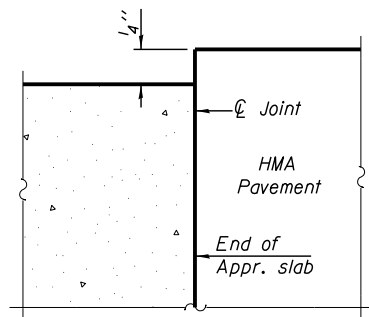


SECTION A-A

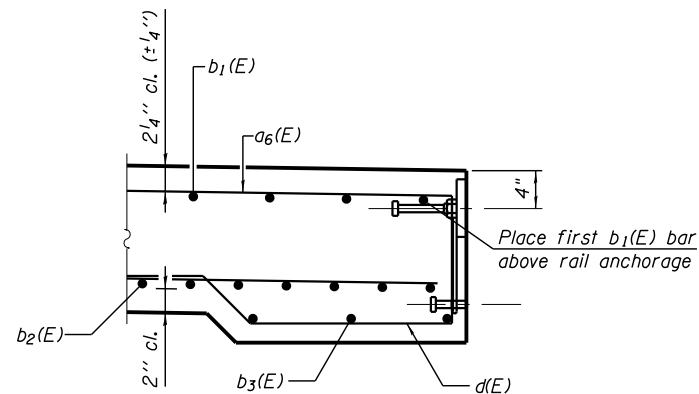
* Cost included with Concrete Superstructures (Approach Slab)

**TWO APPROACHES
BILL OF MATERIAL**

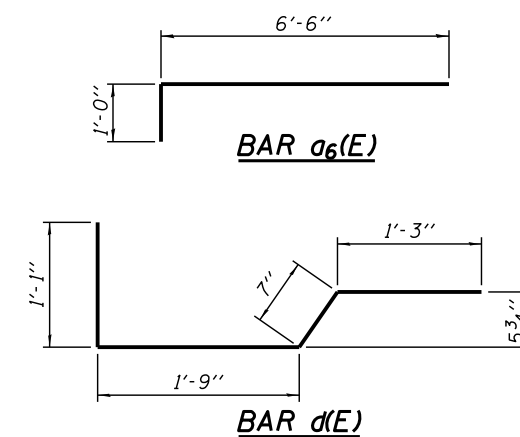
Bar	No.	Size	Length	Shape	
a ₂ (E)	92	#5	17'-6"	—	
a ₃ (E)	120	#8	17'-6"	—	
a ₄ (E)	92	#5	18'-6"	—	
a ₅ (E)	120	#8	18'-6"	—	
a ₆ (E)	92	#5	7'-6"	┌	
b ₁ (E)	110	#5	29'-8"	—	
b ₂ (E)	176	#9	29'-8"	—	
b ₃ (E)	12	#5	14'-0"	—	
d(E)	64	#5	4'-8"	└	
t(E)	148	#4	9'-8"	—	
w(E)	80	#5	17'-6"	—	
w ₁ (E)	80	#5	18'-6"	—	
Concrete Superstructure (Approach Slab)				Cu. Yd.	108.4
Concrete Structures				Cu. Yd.	22.6
Reinforcement Bars, Epoxy Coated				Pound	41,320



**FLEXIBLE PAVEMENT
DETAIL A**



SECTION B-B



BAR a₆(E)

BAR d(E)

BA-CIP-R34C-0

11-22-16

(Sheet 2 of 2)



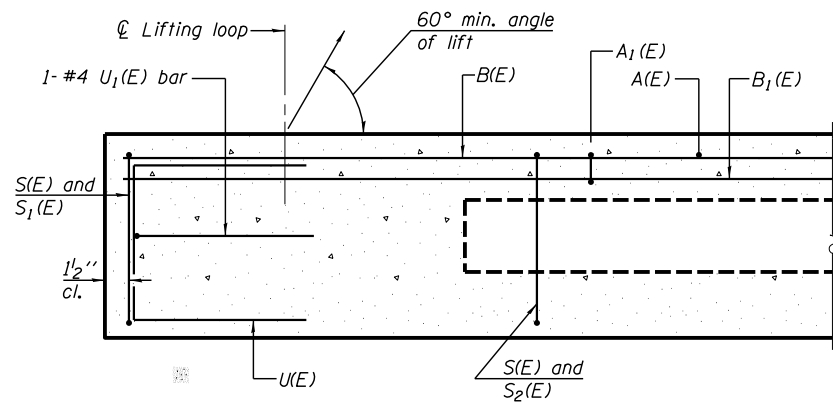
USER NAME =	DESIGNED - KES	REVISED -
CHECKED - MAH	REVISIONS -	
PLOT SCALE =	DRAWN - JRP	REVISIONS -
PLOT DATE =	CHECKED - MAH	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

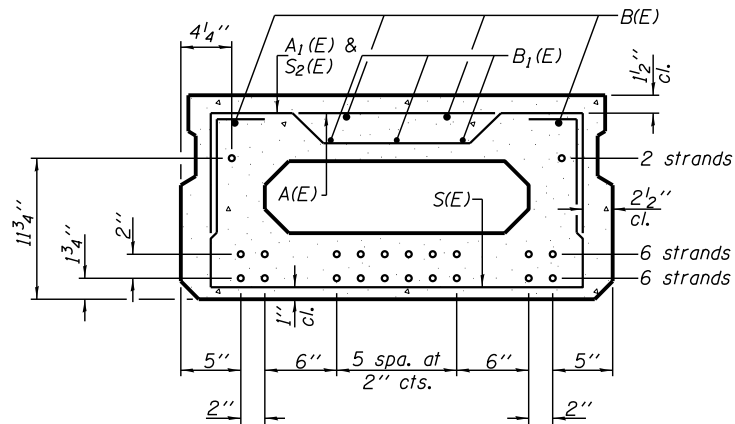
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 078-0004

SHEET NO. 11 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	PUTNAM	48	27
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



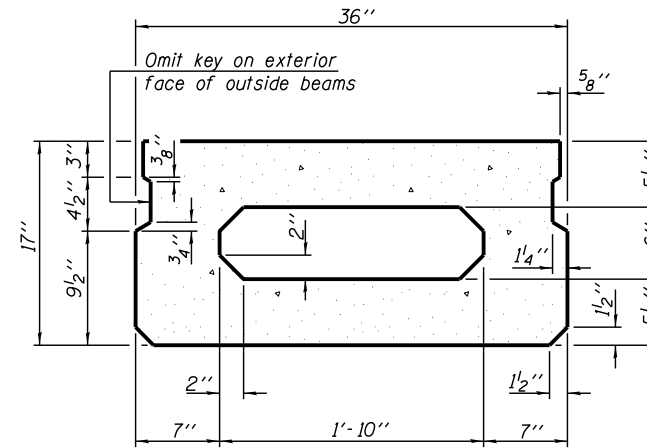
SECTION A-A



SECTION B-B

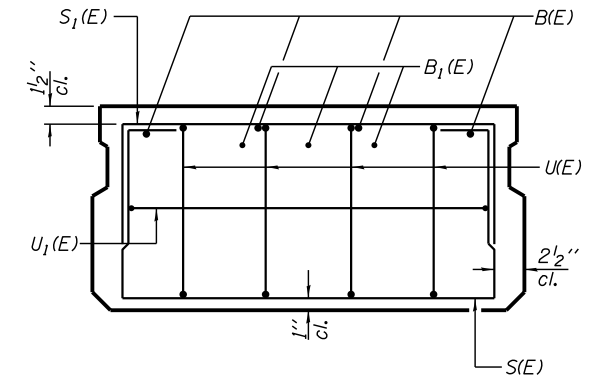
(Showing reinforcement and permissible strand locations)

Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

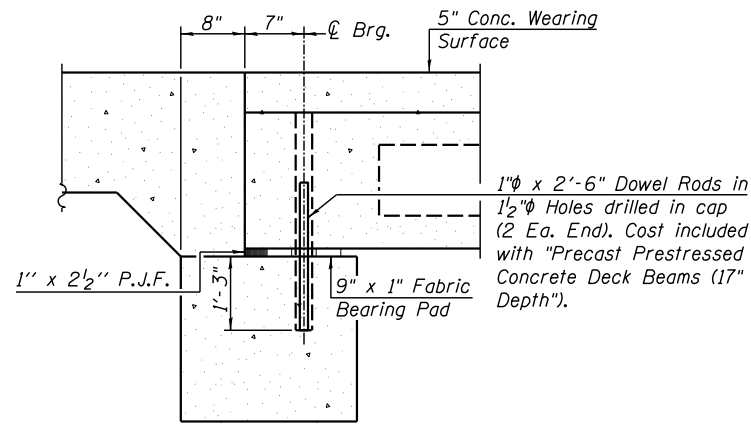


SECTION B-B

(Showing dimensions)



VIEW C-C



SECTION THRU ABUTMENT

(At Right Angles)

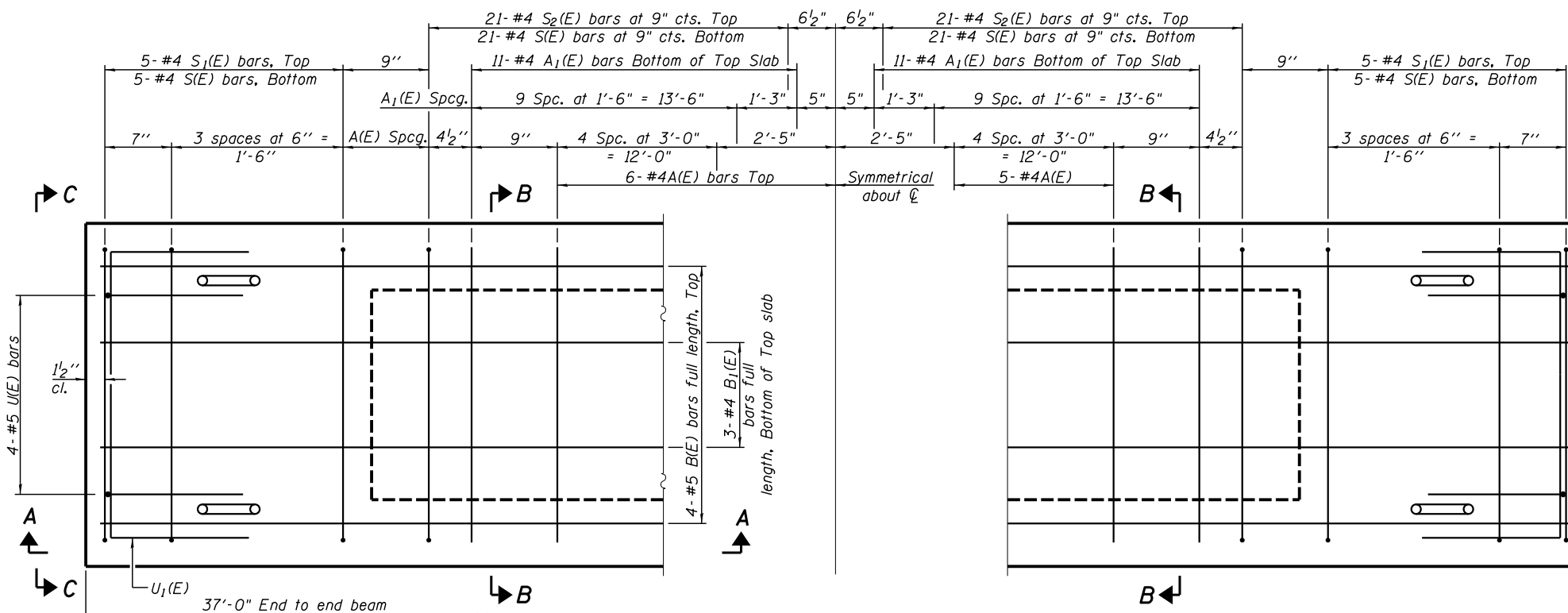
MINIMUM BAR LAP

- #4 bar = 1'-11"
- #5 bar = 2'-6"

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4 inches in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

Notes:

Typical interior beam shown. See Reinforcement Detail at Rail Post Anchorage Locations on sheet 9 of 21 and Section Thru Fascia Beam on sheet 13 of 21 for reinforcement required at rail post locations. See sheet 14 of 21 for rail post spacing. See sheet 3 of 21 for shear key clamping details at Stage Construction Joint. See sheet 14 of 21 for anchorage device cast with beam.



PLAN VIEW

BAR LIST
ONE BEAM ONLY

(For information only)

Bar	No.	Size	Length	Shape
A(E)	11	#4	2'-7"	—
A1(E)	22	#4	2'-10"	—
B(E)	4	#5	36'-9"	—
B1(E)	3	#4	36'-9"	—
S(E)	52	#4	5'-9"	U
S1(E)	10	#4	4'-3"	U
S2(E)	42	#4	4'-6"	U
U(E)	8	#5	3'-8"	U
U1(E)	2	#4	5'-0"	U

Note: See sheet 13 of 21 for additional details and Bill of Material.



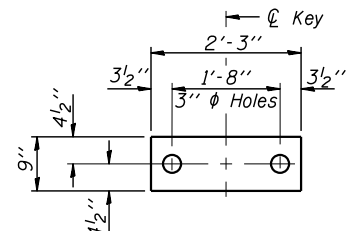
USER NAME =	DESIGNED - KES	REVISED -
PLOT SCALE =	CHECKED - MAH	REVISED -
PLOT DATE =	DRAWN - JRP	REVISED -
	CHECKED - MAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

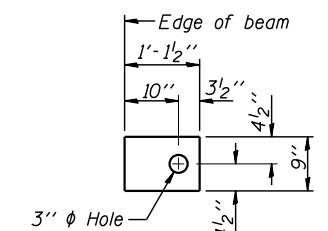
17" x 36" PPC DECK BEAM
STRUCTURE NO. 078-0004

SHEET NO. 12 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(2)BI-2	PUTNAM	48	28
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



FABRIC BEARING PAD
(Interior)

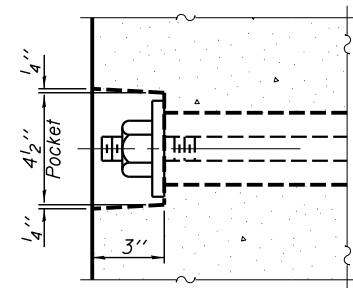


FABRIC BEARING PAD
(Exterior)

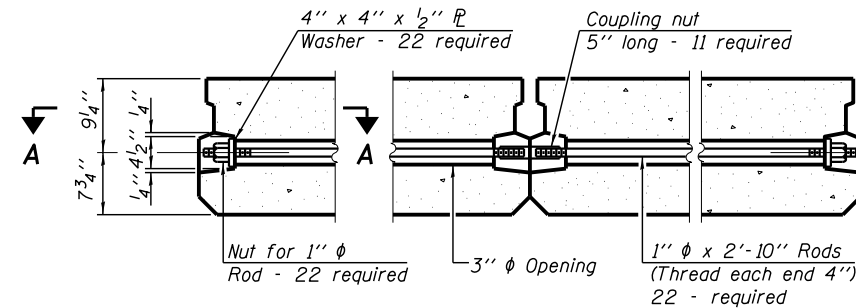
FIXED

Notes:

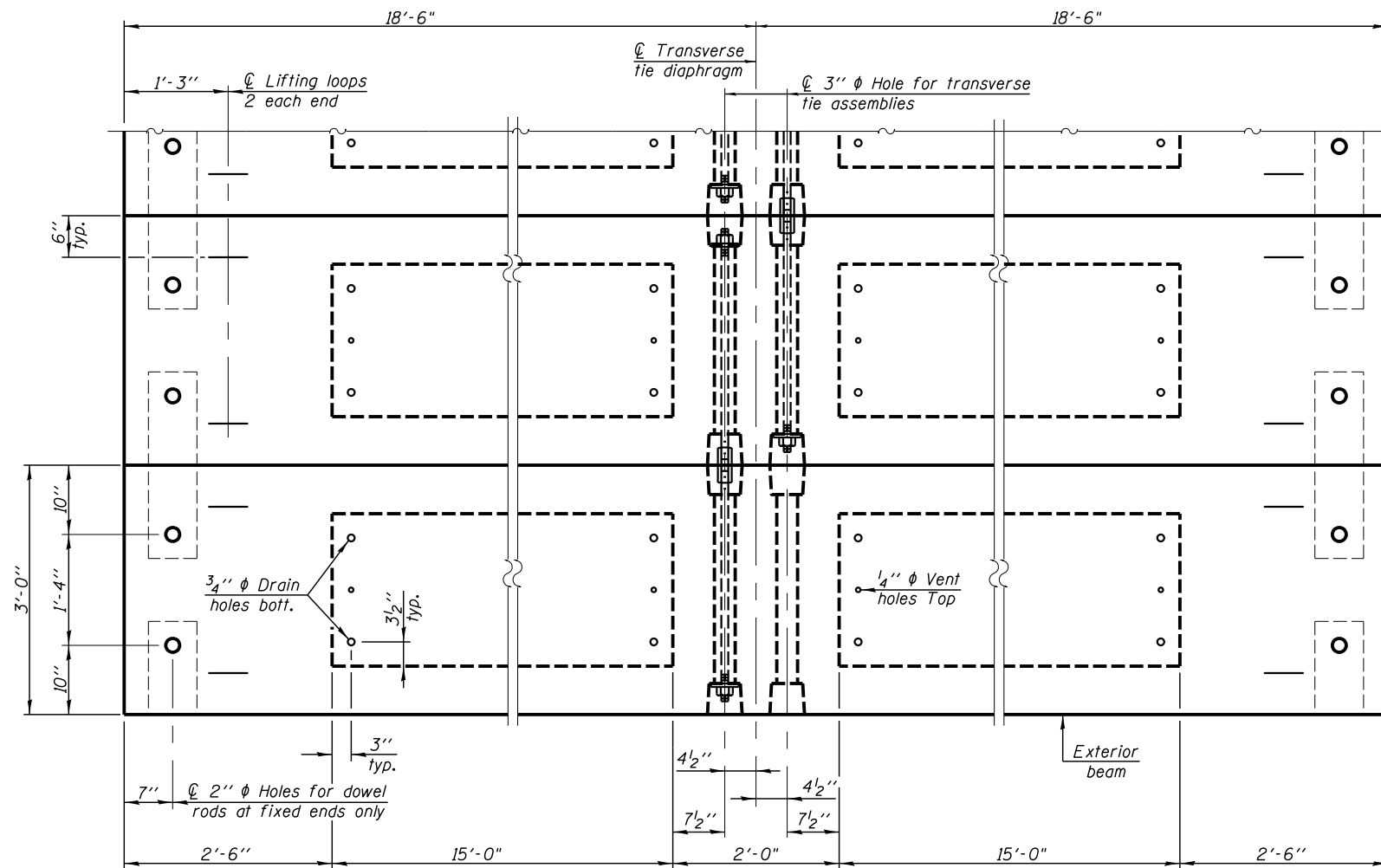
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



SECTION A-A

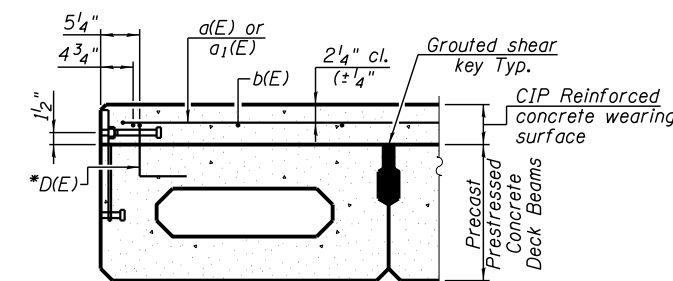


TYPICAL TRANSVERSE TIE ASSEMBLY

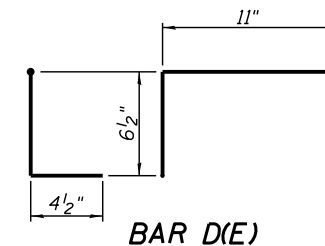


PLAN VIEW

Note: Connect beams in pairs with the transverse tie configuration shown.



SECTION THRU FASCIA BEAM

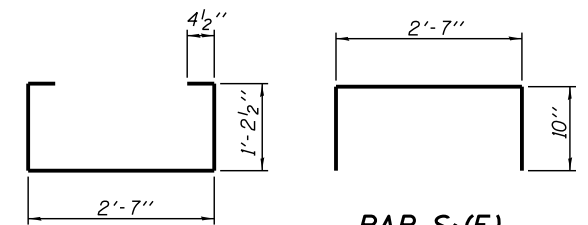


BAR D(E)

* Place 2-#4 D(E) bars in fascia beams at each post location shown on Sheet 8 of 21. D(E) bar included in cost of beam. (12 D(E) bars required per fascia beam).

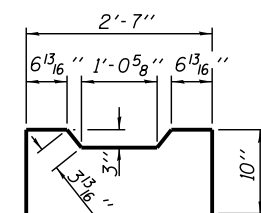
NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" diameter rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place. Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location. A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.07 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams. Compressive strength of prestressed concrete, f'c, shall be 6000 psi. Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.



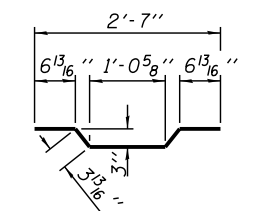
BAR S1(E)

BAR S(E)



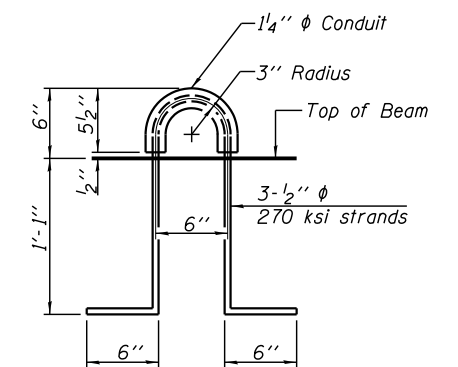
BAR U(E)

BAR S2(E)



BAR U1(E)

BAR A1(E)



LIFTING LOOP DETAIL

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (17" depth)	Sq. Ft.	1332
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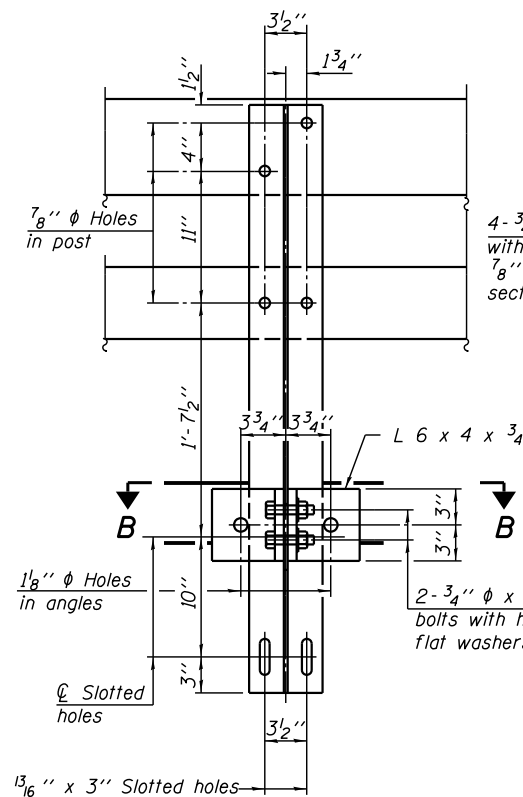
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PLOT SCALE =	CHECKED - MAH	REVISED -
PLOT DATE =	DRAWN - JRP	REVISED -
	CHECKED - MAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

17" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 078-0004

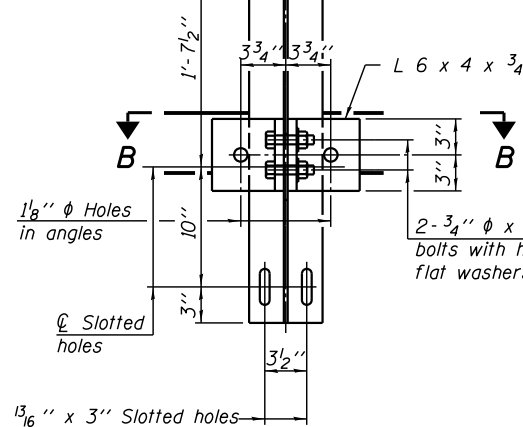
SHEET NO. 13 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	PUTNAM	48	29
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

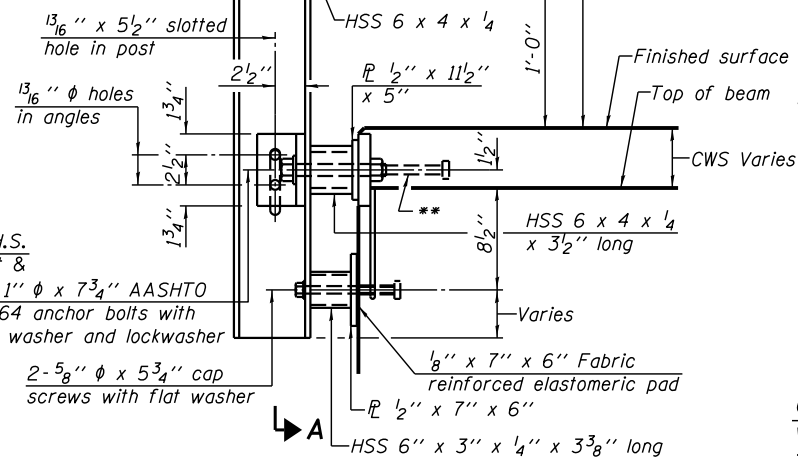


SECTION A-A

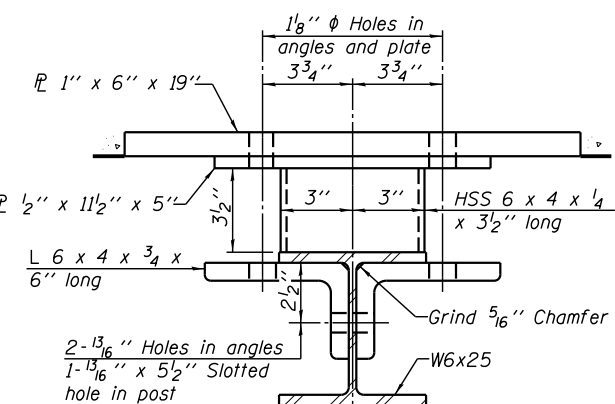
4-3/4" ϕ x 6" Round Head Bolts with locknut & flat washer.
7/8" ϕ holes in hollow structural section may be drilled in the field.



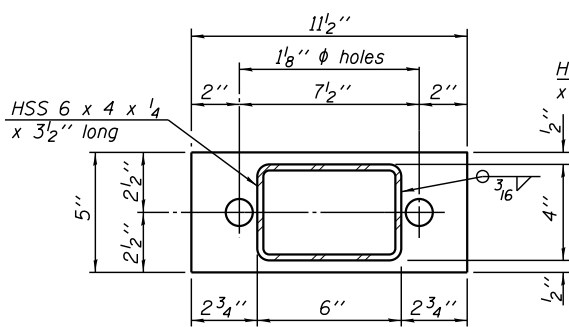
SECTION B-B



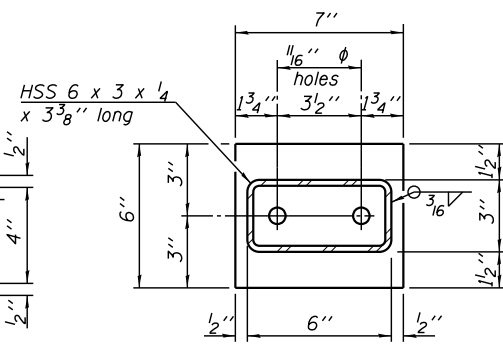
SECTION AT RAIL POST



SECTION B-B



SECTION B-B

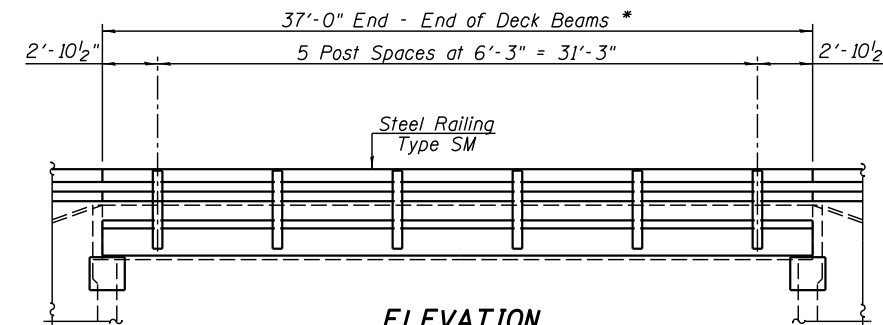


SECTION B-B

*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

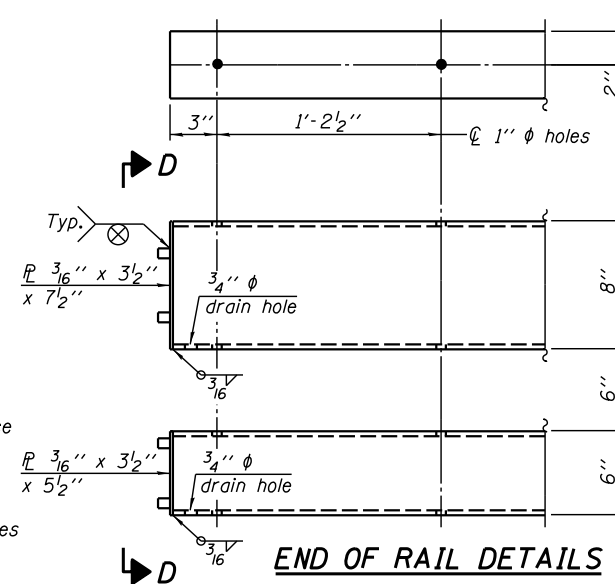
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
STRUCTURE NO. 078-0004

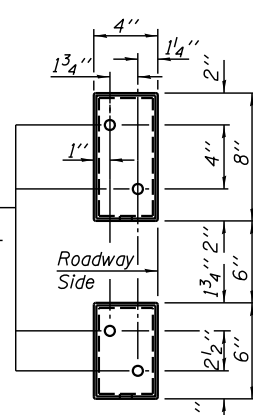


ELEVATION

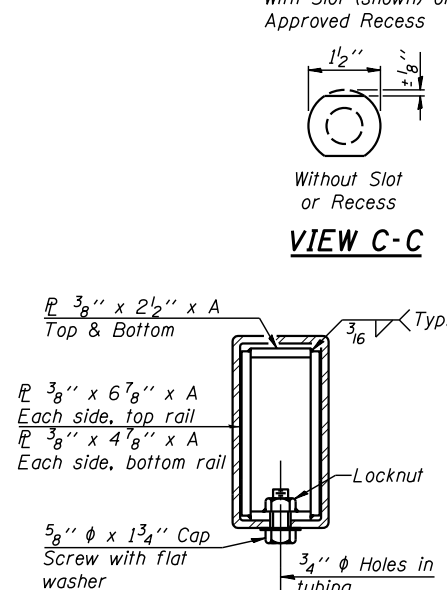
* See sheet 10 of 21 for rail post spacing on bridge approach slab



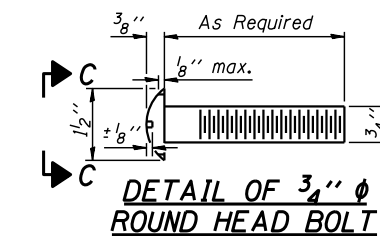
END OF RAIL DETAILS



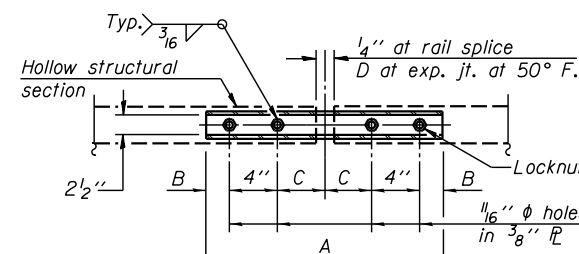
VIEW D-D



VIEW C-C

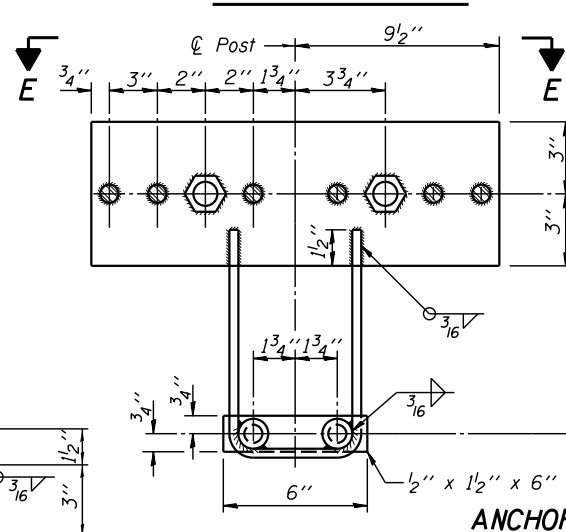


DETAIL OF 3/4" ϕ ROUND HEAD BOLT

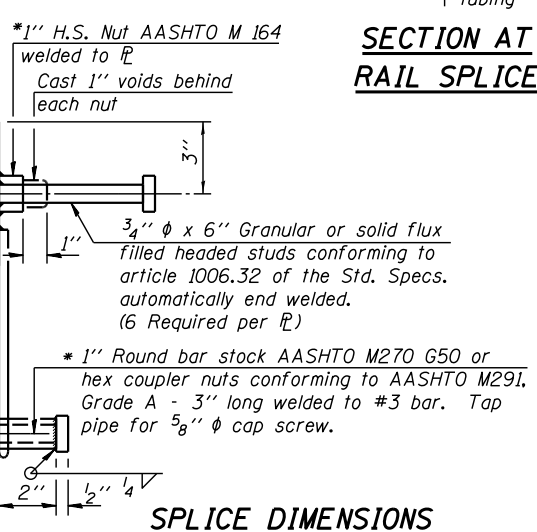


PLAN-BOTT. SPLICE P TYPICAL

RAIL SPLICE CONNECTION AT EXPANSION JT.



ANCHOR DEVICE



SECTION AT RAIL SPLICE

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	

T = Total movement at expansion joint as shown on the design plans.

Notes:
For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.
Steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	134

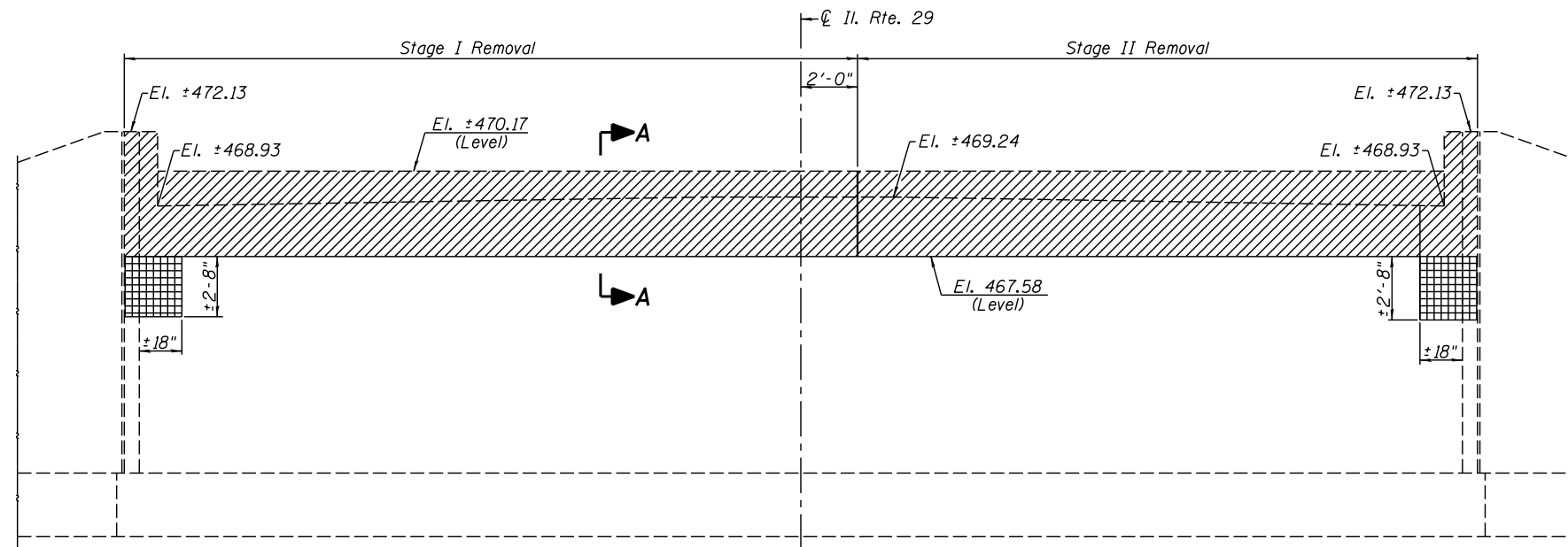


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PLOT SCALE =	CHECKED - MAH	REVISD -
PLOT DATE =	DRAWN - JRP	REVISD -
	CHECKED - MAH	REVISD -

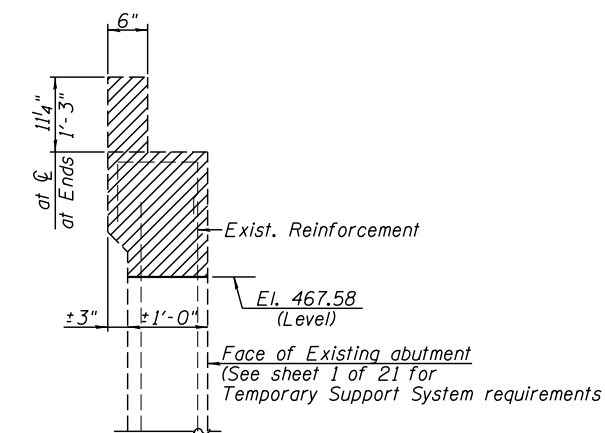
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE
STRUCTURE NO. 078-0004
SHEET NO. 14 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	30
				CONTRACT NO. 68664
ILLINOIS FED. AID PROJECT				



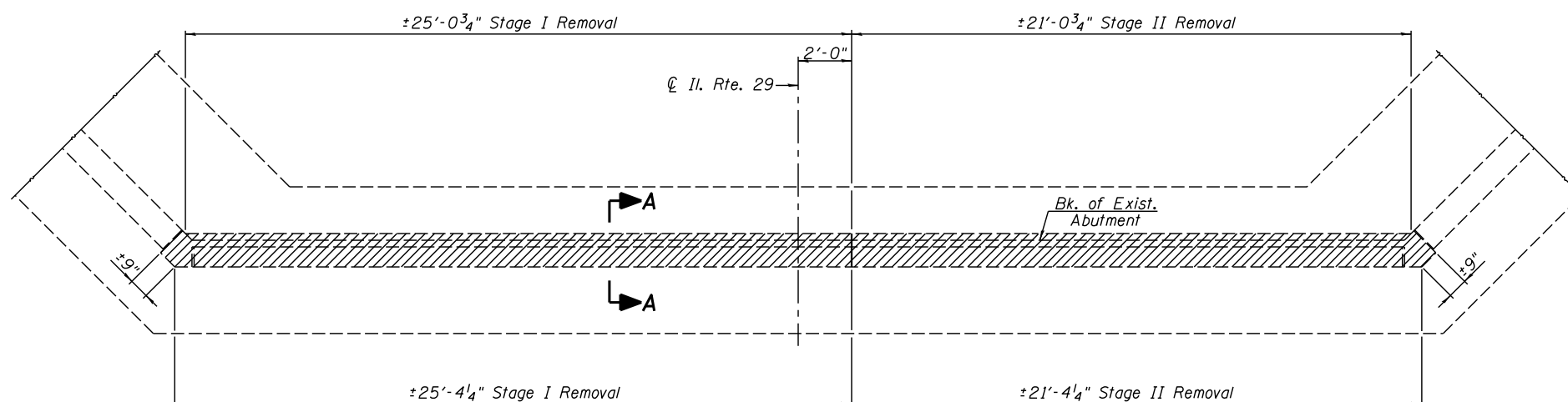
ELEVATION
(South Abutment Looking South)



SECTION A-A

* Existing reinforcement extending into the area of the new abutment cap shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars being reused that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing reinforcement not extending into the new construction shall be cut at the removal line and removed. The exposed portion will be cleaned and coated with a layer of epoxy. Cost included with Concrete Removal.



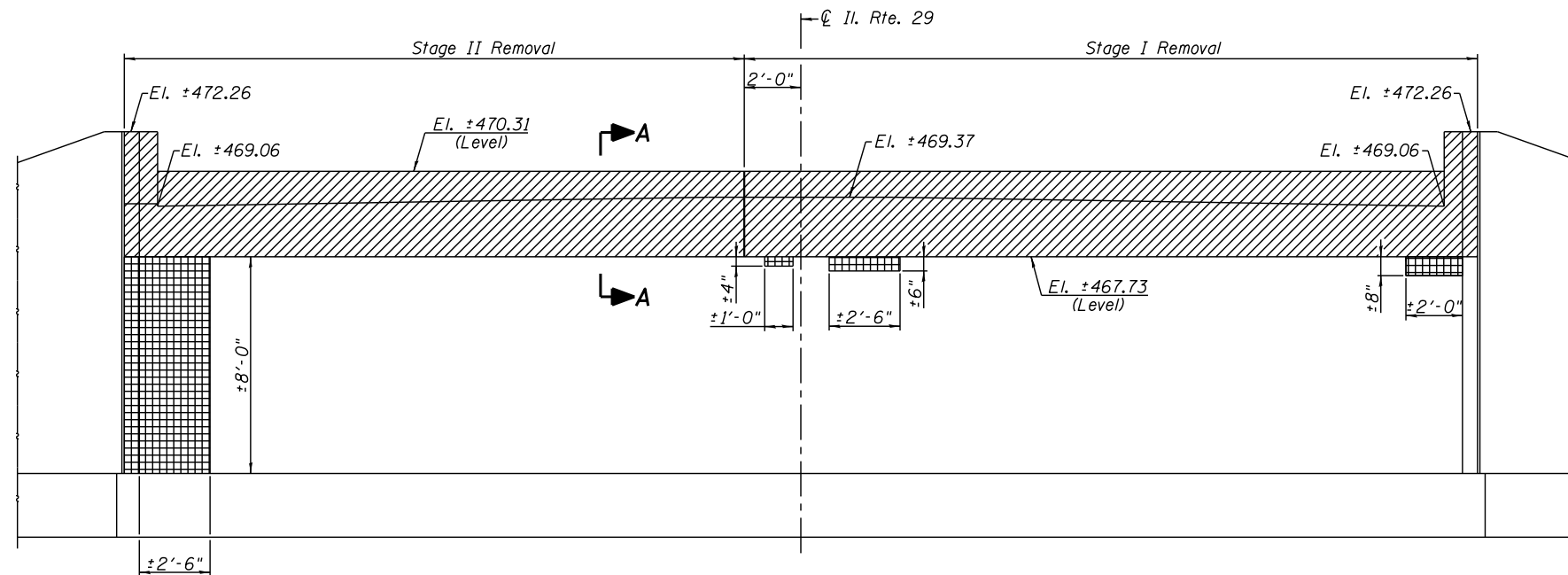
PLAN

**SOUTH ABUTMENT
BILL OF MATERIAL**

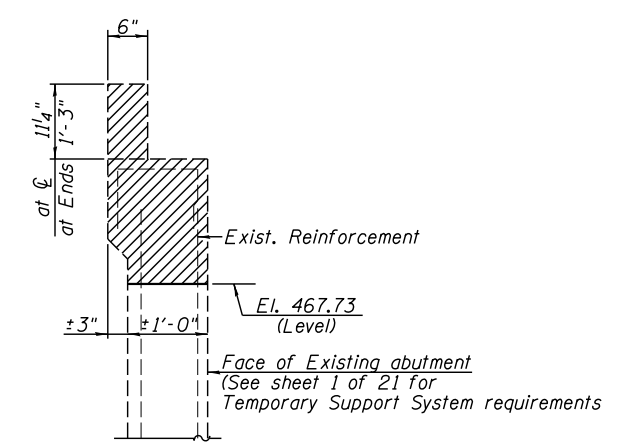
Item	Unit	Quantity
Concrete Removal	Cu. Yd.	4.3
Structural Repair of Concrete (Depth Equal to or Less Than 5")	Sq. Ft.	12

LEGEND

- Indicates concrete removal
- Structural Repair of Concrete (Depth equal to or less than 5")



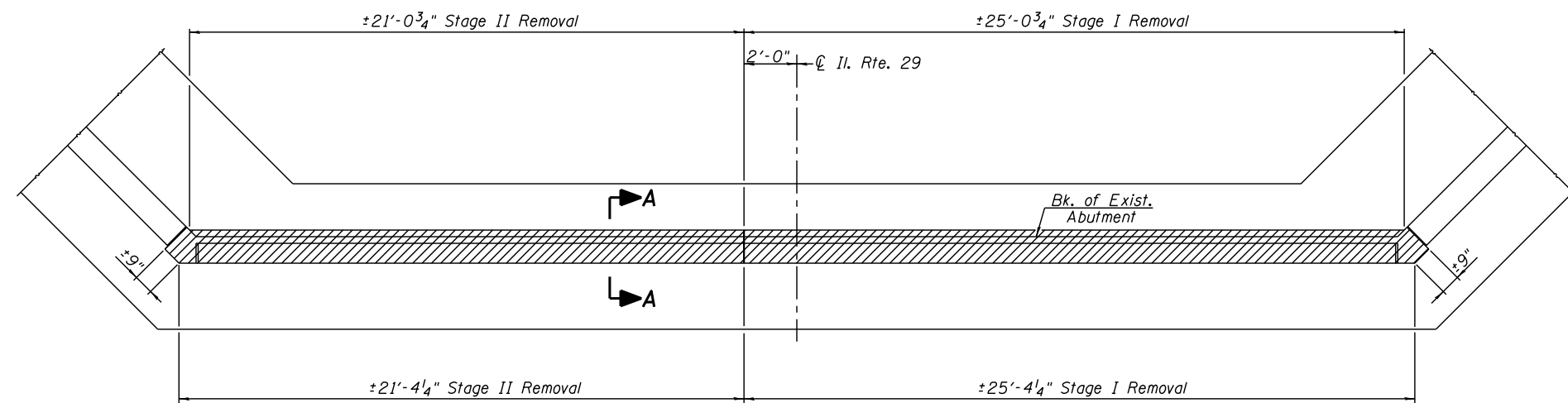
ELEVATION
(North Abutment Looking North)



SECTION A-A

* Existing reinforcement extending into the area of the new abutment cap shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars being reused that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Existing reinforcement not extending into the new construction shall be cut at the removal line and removed. The exposed portion will be cleaned and coated with a layer of epoxy. Cost included with Concrete Removal.



PLAN

**NORTH ABUTMENT
BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	4.3
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.	29

LEGEND

- Indicates concrete removal
- Structural Repair of Concrete (Depth equal to or less than 5")



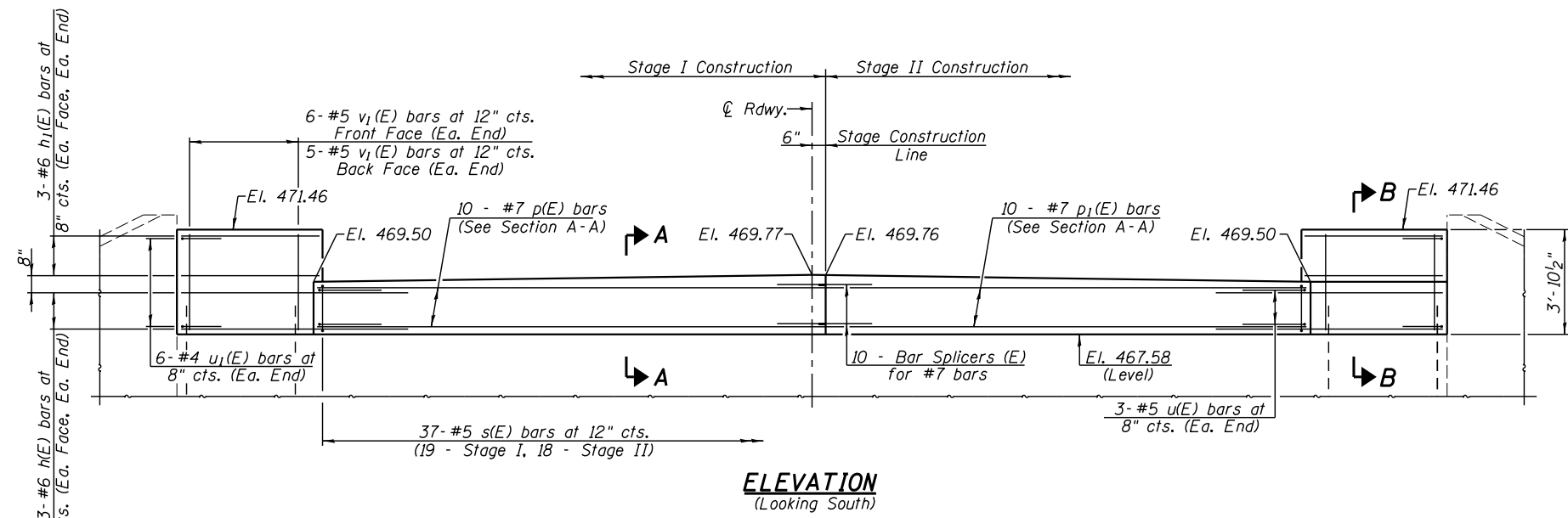
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	CHECKED - MAH	REVISED -
PLOT SCALE =	DRAWN - JRP	REVISED -
PLOT DATE =	CHECKED - MAH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

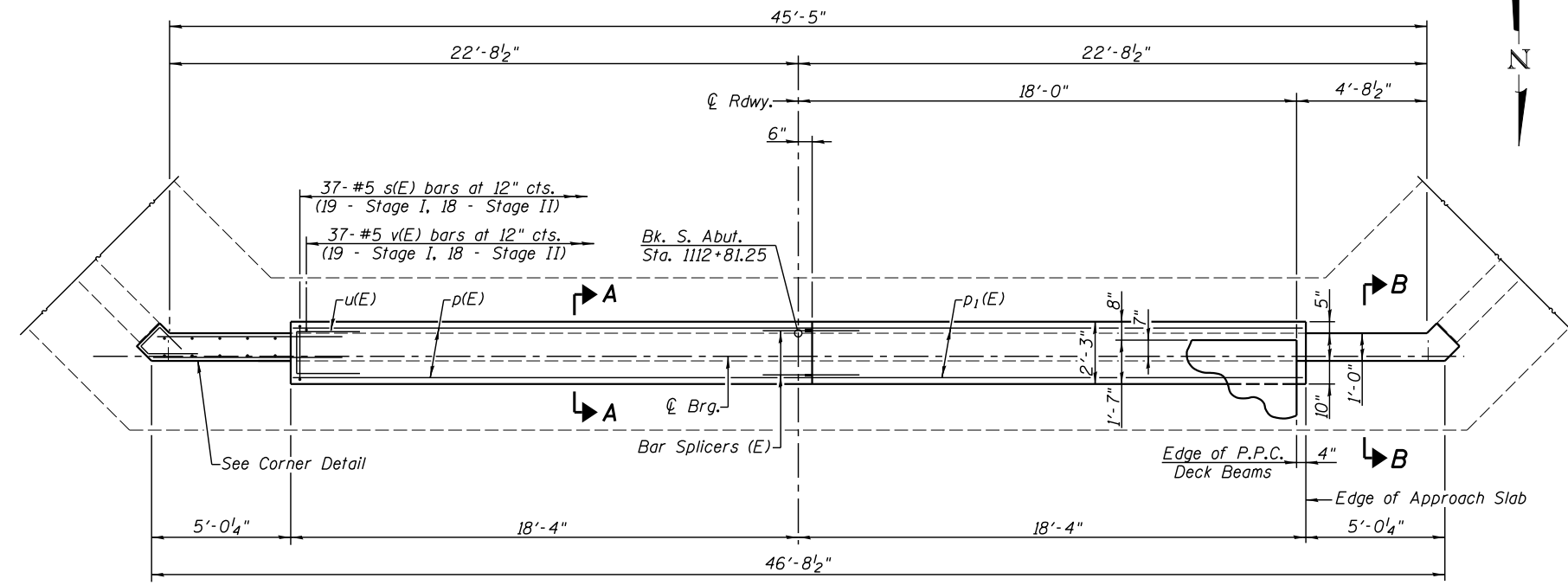
**CONCRETE REMOVAL AND CONCRETE REPAIR - NORTH ABUTMENT
STRUCTURE NO. 078-0004**

SHEET NO. 16 OF 21 SHEETS

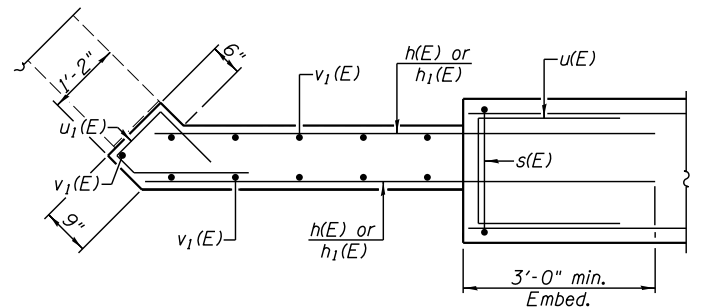
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21BI)-2	PUTNAM	48	32
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



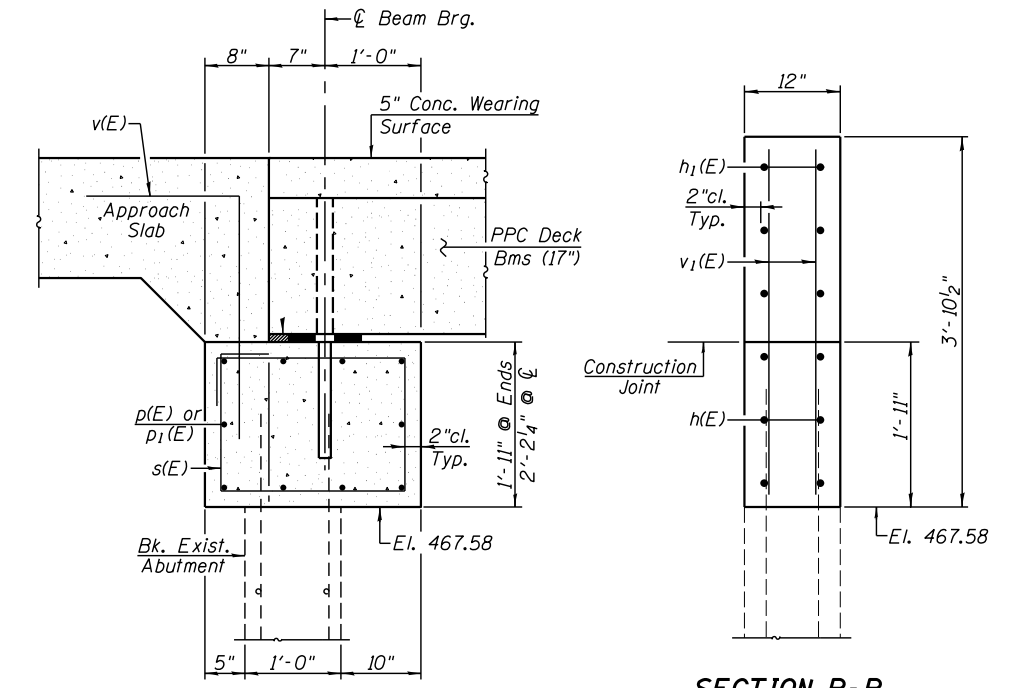
ELEVATION
(Looking South)



PLAN

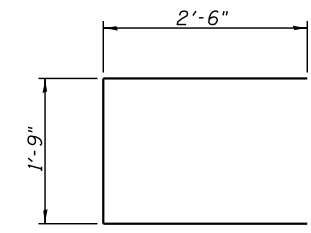


CORNER DETAIL

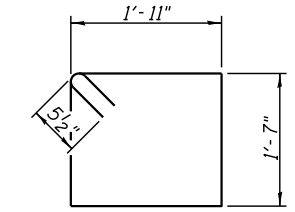


SECTION A-A

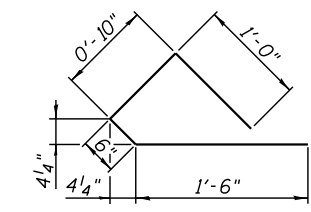
SECTION B-B



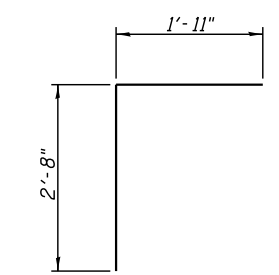
BAR u(E)



BAR s(E)



BAR u1(E)



BAR v(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#6	8'-0"	—
h1(E)	12	#6	4'-10"	—
p(E)	10	#7	18'-6"	—
p1(E)	10	#7	17'-6"	—
s(E)	37	#5	7'-11"	□
u(E)	6	#5	6'-9"	□
u1(E)	12	#4	3'-10"	◇
v(E)	37	#5	4'-7"	┌
v1(E)	22	#5	3'-8"	—

Concrete Structures	Cu. Yd.	7.9
Reinforcement Bars (Epoxy Coated)	Pound	1610
Structure Excavation	Cu. Yd.	17

For details of bar splicers, see sheet 19 of 21.

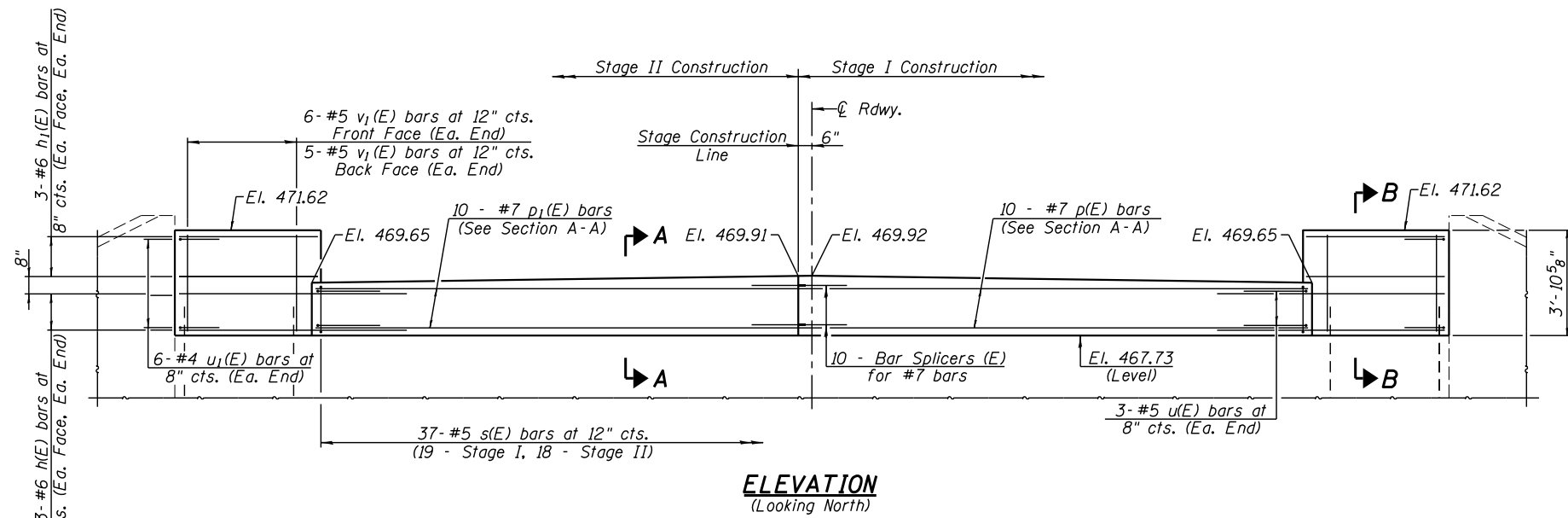


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PLOT SCALE =	CHECKED - MAH	REVISED -
PLOT DATE =	DRAWN - JRP	REVISED -
	CHECKED - MAH	REVISED -

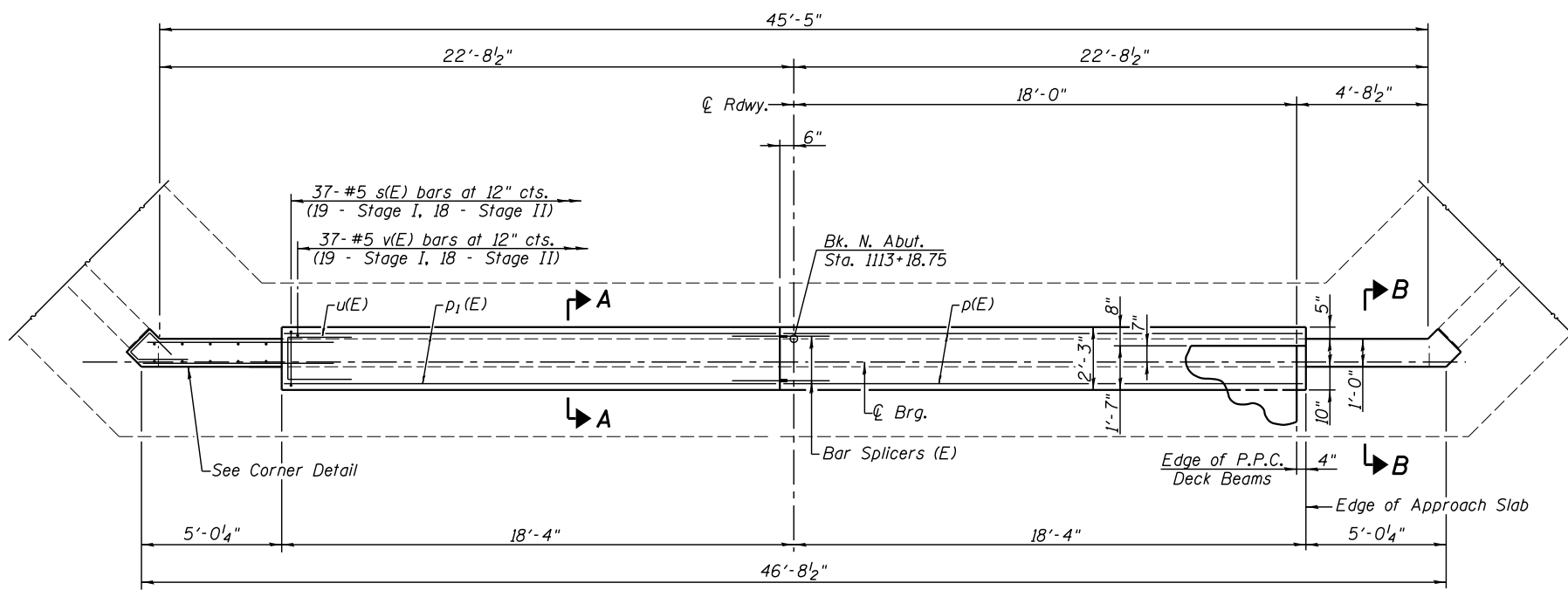
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 078-0004
SHEET NO. 17 OF 21 SHEETS

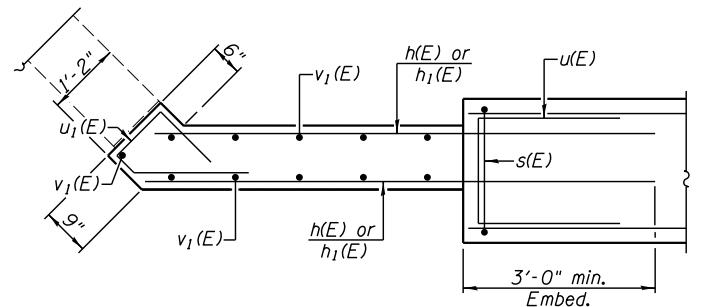
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	PUTNAM	48	33
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				



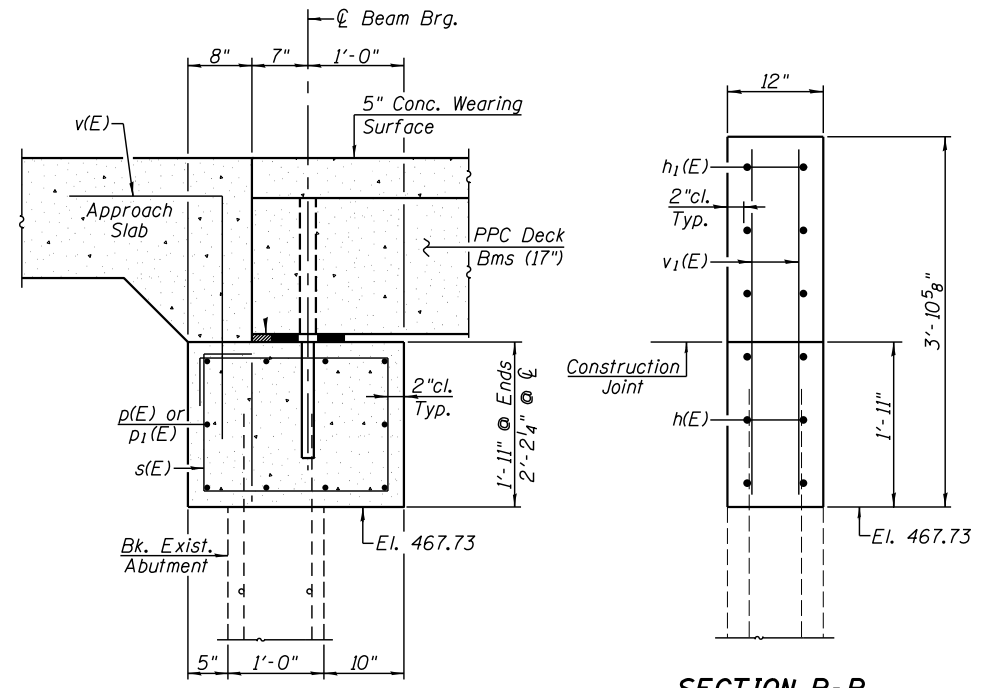
ELEVATION
(Looking North)



PLAN

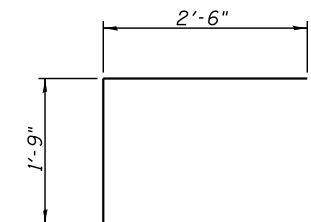


CORNER DETAIL

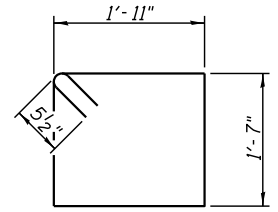


SECTION A-A

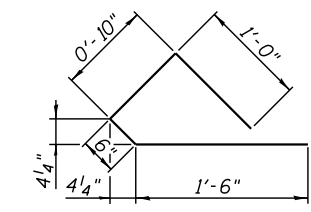
SECTION B-B



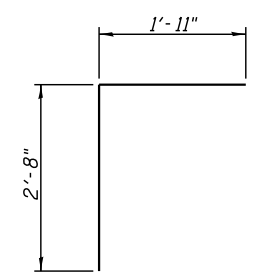
BAR u(E)



BAR s(E)



BAR u1(E)



BAR v(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	12	#6	8'-0"	—
h1(E)	12	#6	4'-10"	—
p(E)	10	#7	18'-6"	—
p1(E)	10	#7	17'-6"	—
s(E)	37	#5	7'-11"	□
u(E)	6	#5	6'-9"	□
u1(E)	12	#4	3'-10"	△
v(E)	37	#5	4'-7"	┌
v1(E)	22	#5	3'-8"	—

Concrete Structures	Cu. Yd.	7.9
Reinforcement Bars (Epoxy Coated)	Pound	1610
Structure Excavation	Cu. Yd.	17

For details of bar splicers, see sheet 19 of 21.

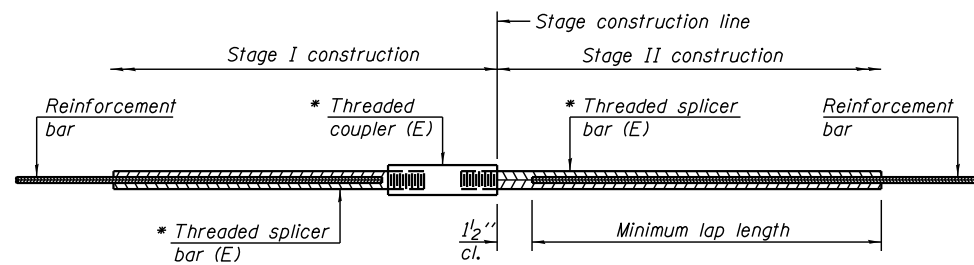


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	CHECKED - MAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 078-0004
SHEET NO. 18 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	PUTNAM	48	34
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

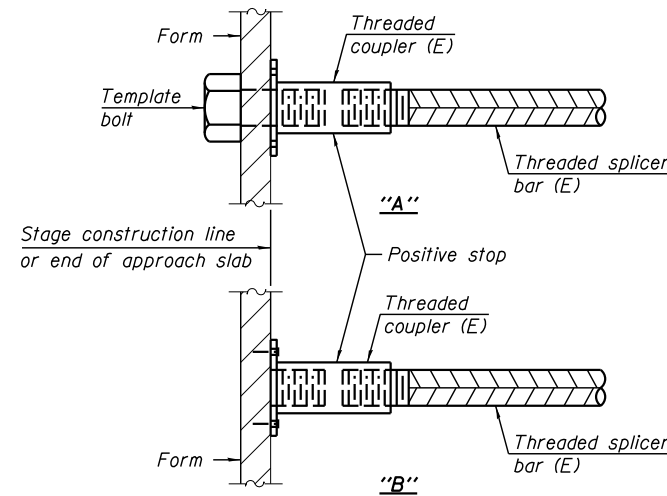


STANDARD BAR SPLICER ASSEMBLY

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

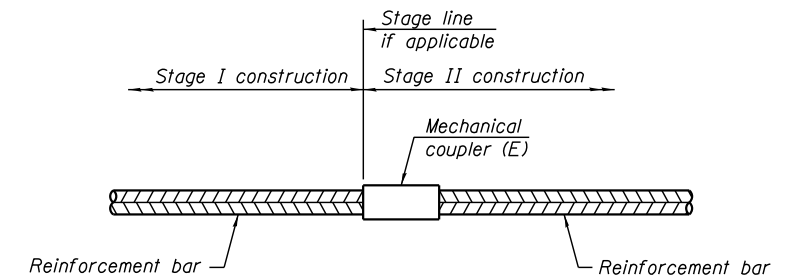
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Concrete Wearing Surface	#4	38	2'-7"
Top of Approach Slab	#5	92	3'-7"
Bottom of Approach Slab	#8	120	5'-1"
Approach Slab Footing	#5	80	3'-2"
N. Abutment Cap	#7	10	5'-0"
S. Abutment Cap	#7	10	5'-0"



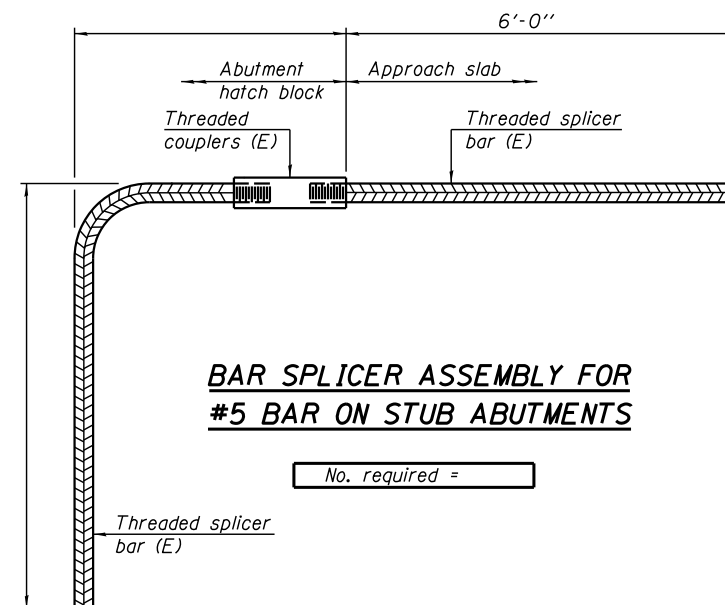
INSTALLATION AND SETTING METHODS

"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 approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

11-22-16



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PLOT DATE =	CHECKED - MAH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 078-0004

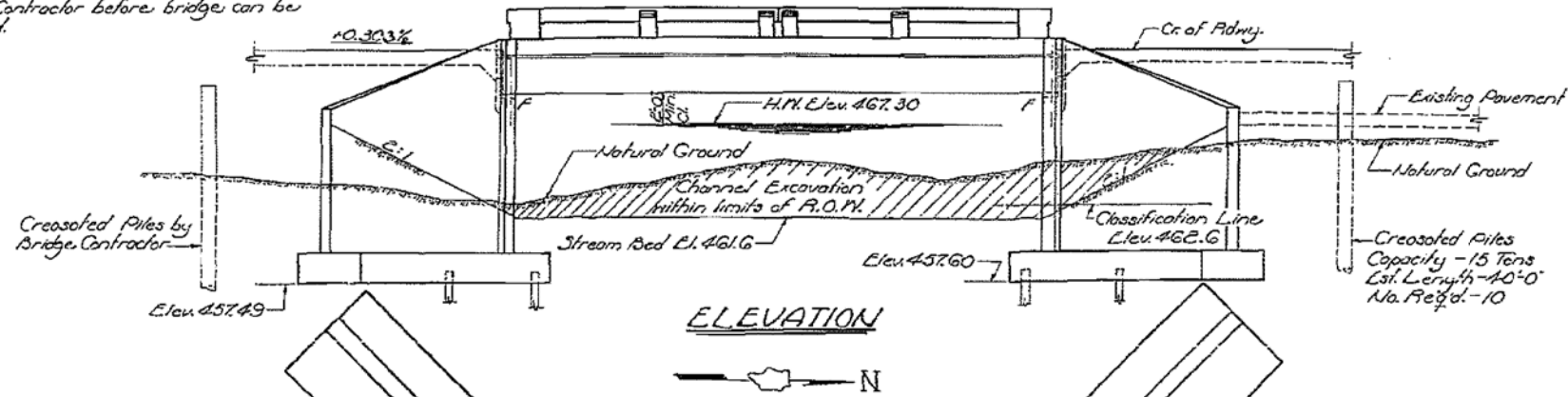
SHEET NO. 19 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	35
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

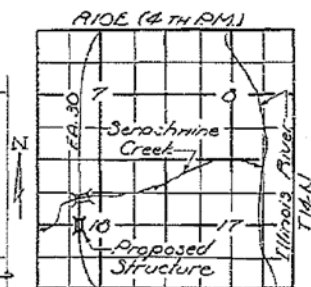
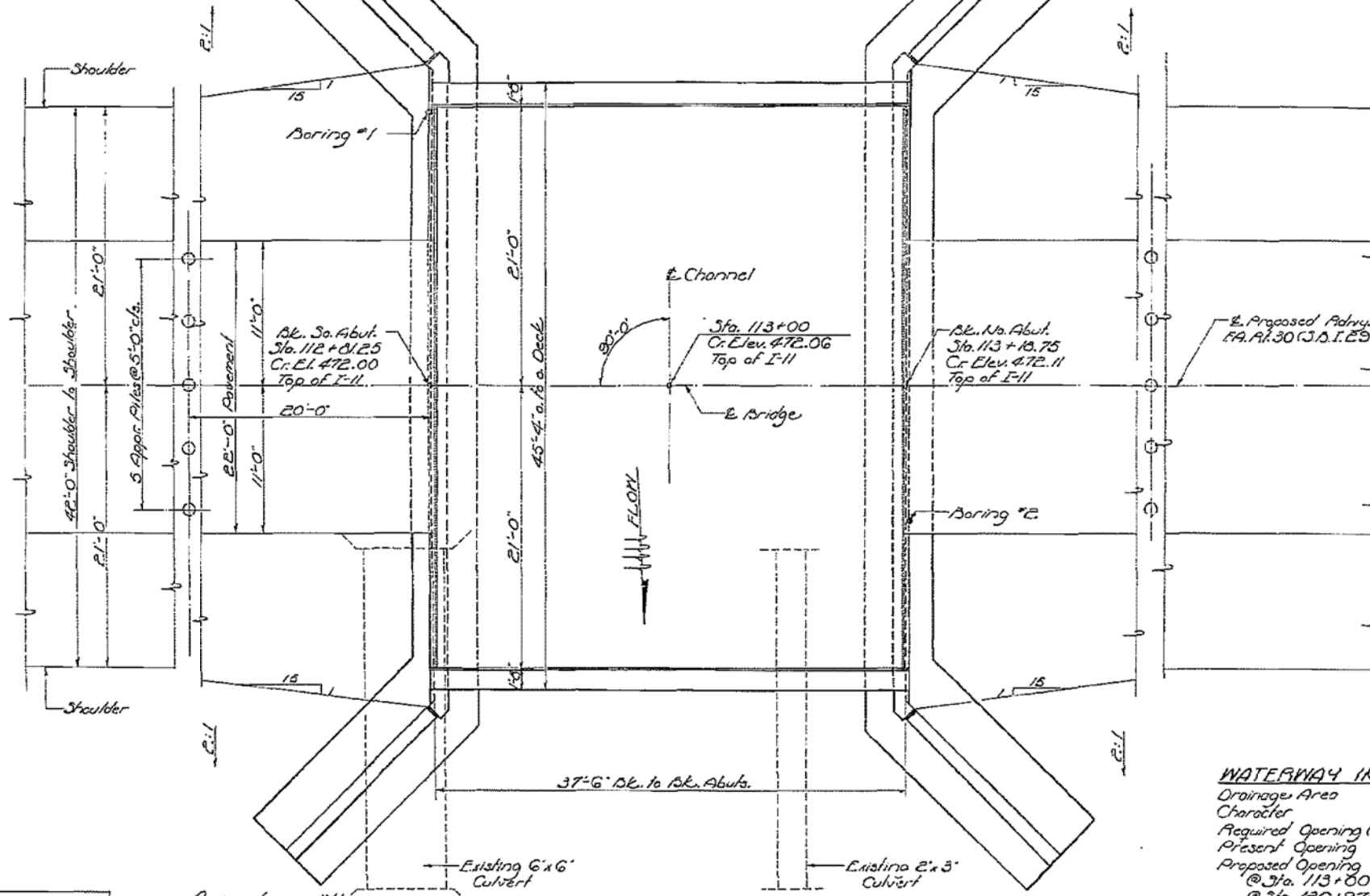
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1
113	21-B	PUTNAM	118	48	4 SHEETS
F.A. PROJ. F-7(30)					

D.M. Temporary D.M. #2 - square cut in S.W. corner of South Abutment of R.R. Bridge #1210 114' Ft. Sta. 112+50 Elev. 473.43. Existing Culverts 6'x6' and 2'x3' shall be removed by Bridge Contractor before bridge can be constructed.



GENERAL NOTES
Class X Concrete shall be used throughout except in handrails. The handrail concrete in rail posts and railing shall be poured in separate operations.
The Contractor shall drive 1 test pile near S. Abut. as directed by the Engineer before ordering remainder of piles.
For backfill behind abutments held off the top by Superstructure, see Article 50.10 of the Standard Specifications.
The following surfaces of the bridge shall be waterproofed, backs of abutment and wingwalls from ground surface to top of footing. Waterproofing shall be done in accordance with Article 31.21 of the Standard Specifications.
Bridge Deck Sealant Surface Course shall be applied to the entire bridge deck one (1) inch up on both curbs. See Specs. Fe. 10.1 Protective Coat shall be applied to the inside face and top of curbs.



STATION 113+00
BUILT 1964
STATE OF ILLINOIS
F.A. RT. 30 ~ SEC. 21-B
F.A. PROJ. F-7(30)
LOADING H20-S16
NAME PLATE
For Lettering See Std. E-113

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Channel Excavation	Cu Yds.			530
Emulsion Sand Mixture	Gal.	90		90
Bituminous Concrete Surface Course Sub-Class F-11 (1/2 Thick)	Tons	16		16
Penetrating Primer	Gal.	2		2
Class A Excavation for Structures	Cu. Yds.		55	55
Class B Excavation for Structures	Cu. Yds.		270	270
Precast Concrete Bridge Slab	Sq. Ft.	1665		1665
Handrail Concrete	Cu. Yds.	1.9		1.9
Class A Concrete	Cu. Yds.	4.2	131.4	135.6
Reinforcement Bars	Pounds	620	7210	7830
Creosoted Piles	Lin Ft.		2512	2512
Test Piles (Timber)	Each		1	1
Name Plates	Each		1	1
Protective Coat	Sq Yds	33		33

WATERWAY INFORMATION
Drainage Area 2,300 Acres
Character Polling
Required Opening (25 Yrs.) 800 Sq. Ft.
Present Opening None
Proposed Opening @ Sta. 113+80 200 Sq. Ft.
@ Sta. 126+75 600 Sq. Ft.
Total Proposed Opening 800 Sq. Ft.

FOR INFORMATION ONLY

DESIGN STRESSES (FIELD)
F_c = 1400 p.s.i. Super
F_c = 1000 p.s.i. Sub.
F_s = 20,000 p.s.i. Reinf.
v_c = 75 p.s.i. Footing
n = 10
LOADING H20-S16-44

STRESSES (PRECAST UNITS)
F_c = 4,500 p.s.i.
F_c = 1,000 p.s.i.
F_s = 20,000 p.s.i.
n = 8

**GENERAL PLAN & ELEVATION
SENACHWINE CREEK OVERFLOW
PROJ. F-7(30)
F.A. RT. 30 ~ SEC. 21-B
PUTNAM COUNTY
STA. 113+00**

DESIGNED C.W. Bink
CHECKED R. N. Taylor
DRAWN C.W.B. m/jacobs
CHECKED L.X.T.
OCT 6 1961
EXAMINED H.G. Putnam
PASSED
APPROVED



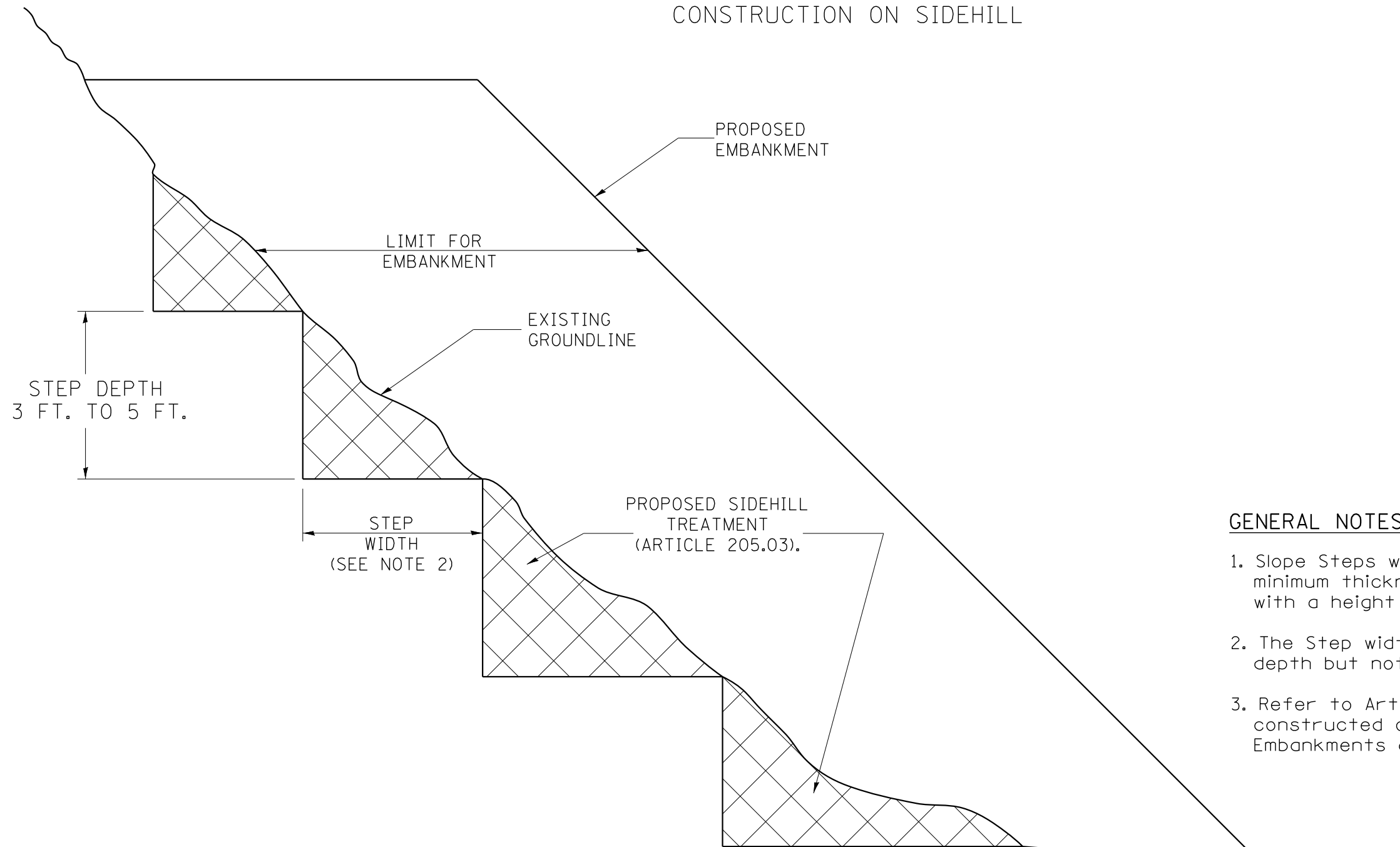
USER NAME =	DESIGNED - KES	REVISOR -
	CHECKED - MAH	REVISOR -
PLOT SCALE =	DRAWN - JRP	REVISOR -
PLOT DATE =	CHECKED - MAH	REVISOR -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING GENERAL PLAN & ELEVATION
STRUCTURE NO. 078-0004
SHEET NO. 20 OF 21 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	36
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

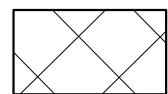
SLOPE STEPS DETAIL
 TYPICAL CROSS-SECTION EMBANKMENT
 CONSTRUCTION ON SIDEHILL



GENERAL NOTES:

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

REPLACEMENT MATERIAL:



STANDARD EMBANKMENT
 (IN ACCORDANCE WITH ARTICLE
 205 OF THE STANDARD SPECIFICATIONS).

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

1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE BOX, REVISED GENERAL NOTES.	T.P.
10-16-06	REVISED TO 2007 SPEC.	M.A.

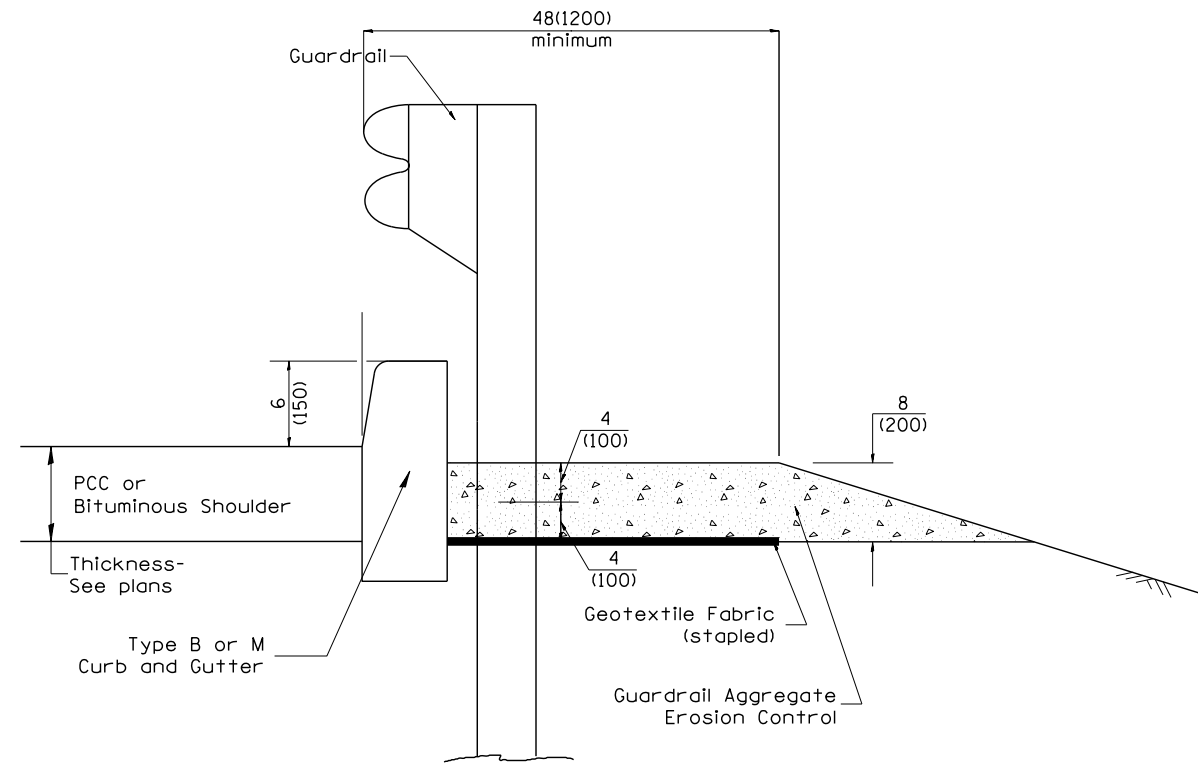
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

SLOPE STEPS DETAIL

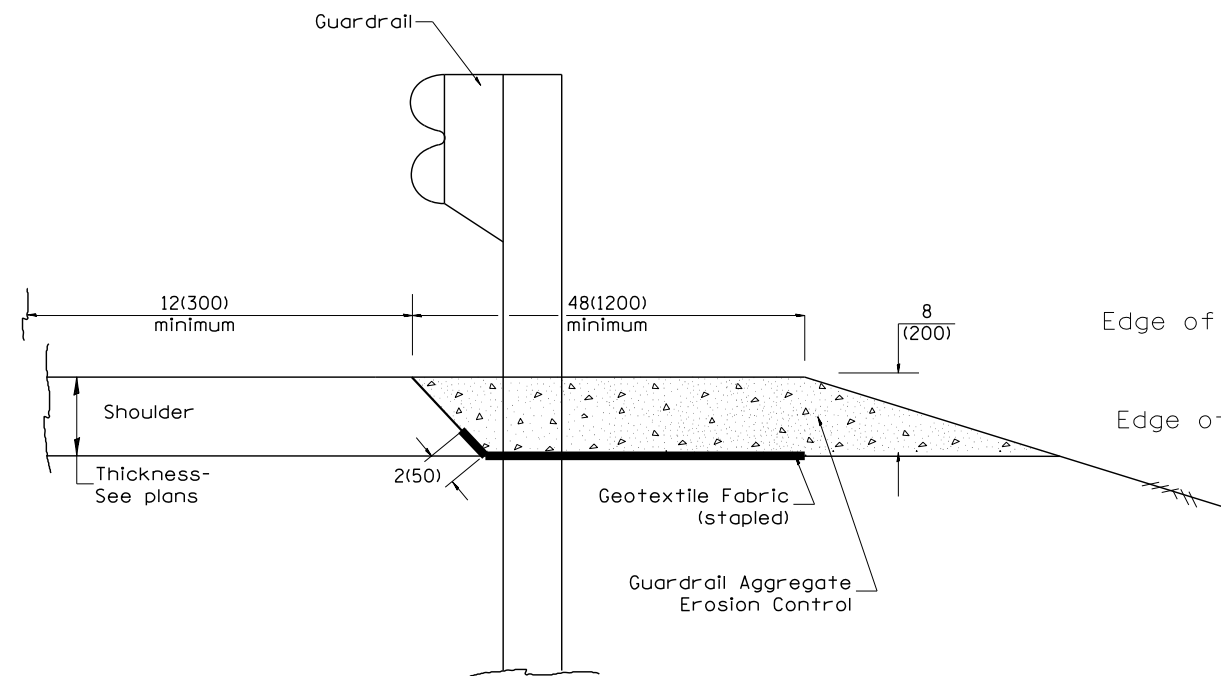
NOT TO SCALE

CADD STD. 205001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	38
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 68664	



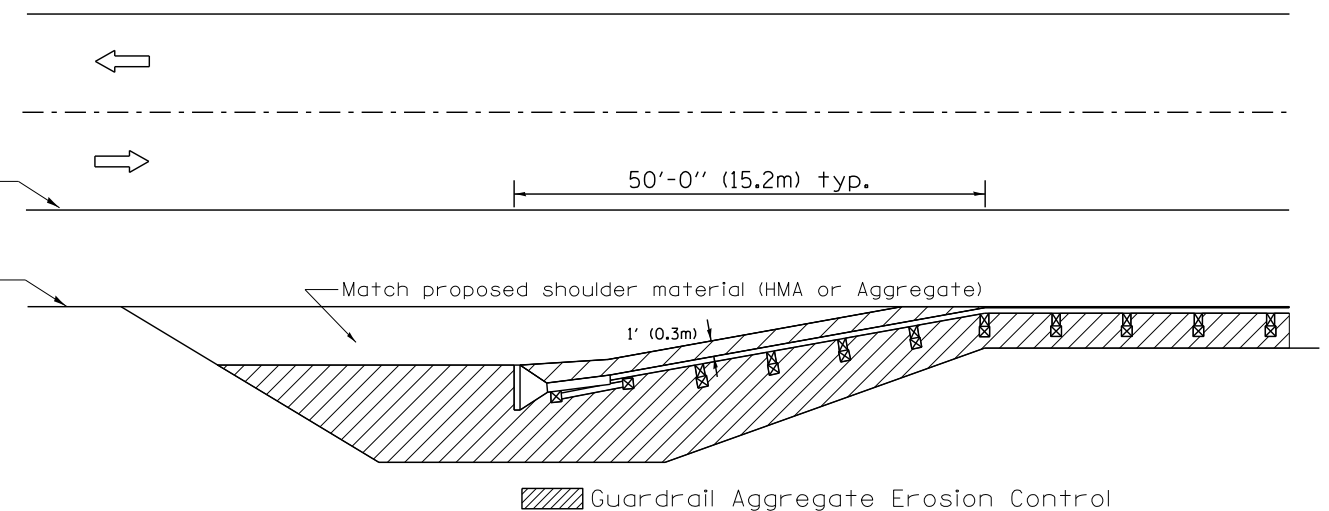
TYPICAL SECTION WITH EROSION CONTROL CURB



TYPICAL SECTION WITHOUT EROSION CONTROL CURB

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 12(300) 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 inches (millimeters) unless otherwise noted.

01-01-97	RENUM. C-22.01, NEW REVISION BOX	T.P.	3-7-11	Added Detail showing plan view	R.D.
03-01-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.	8-10-12	Revised curb "B" and aggregate	R.D.
11-03-00	CORRECTION TO NOTES	M.A.	7-15-15	Addressed shoulder inlet curb	R.D.
10-16-06	REVISED TO 2007 SPEC.	M.A.			

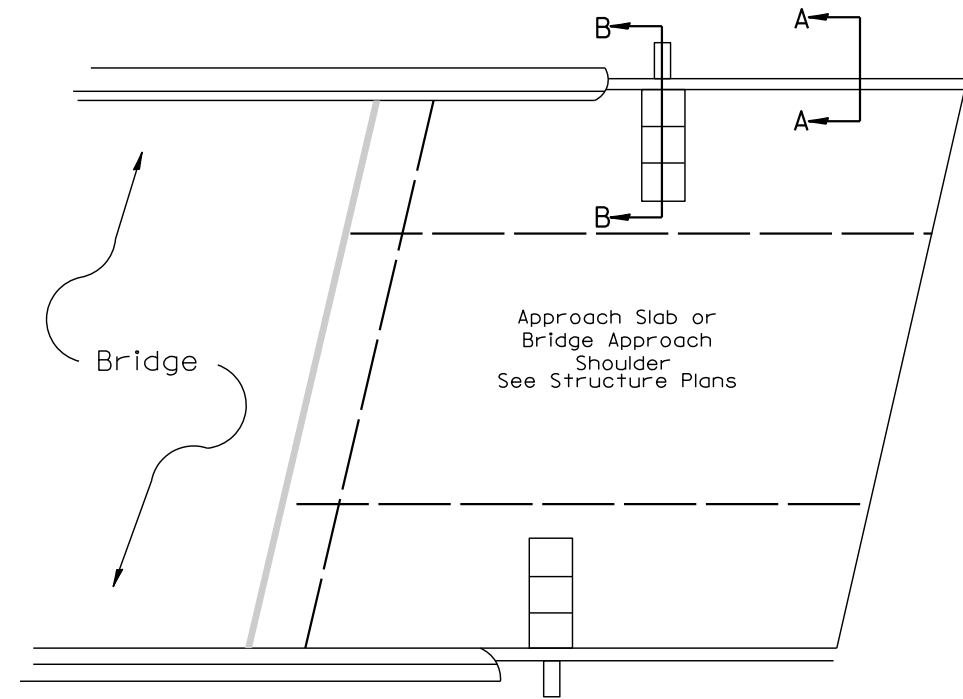
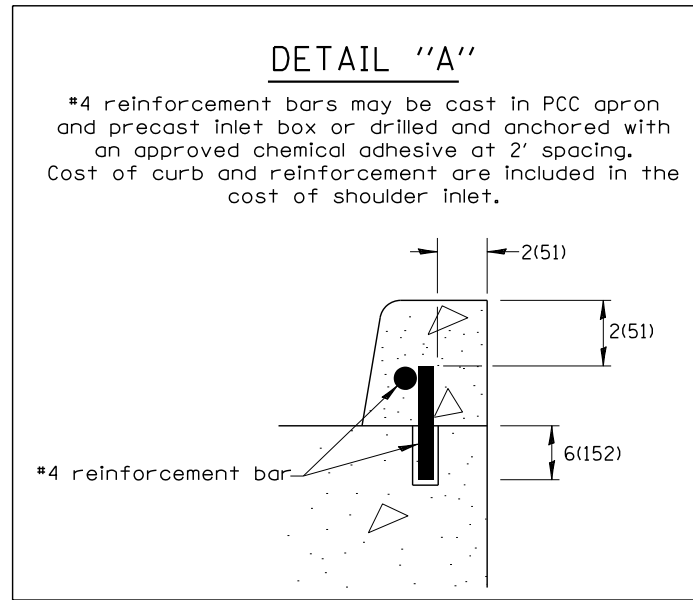
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

GUARDRAIL EROSION CONTROL TREATMENTS

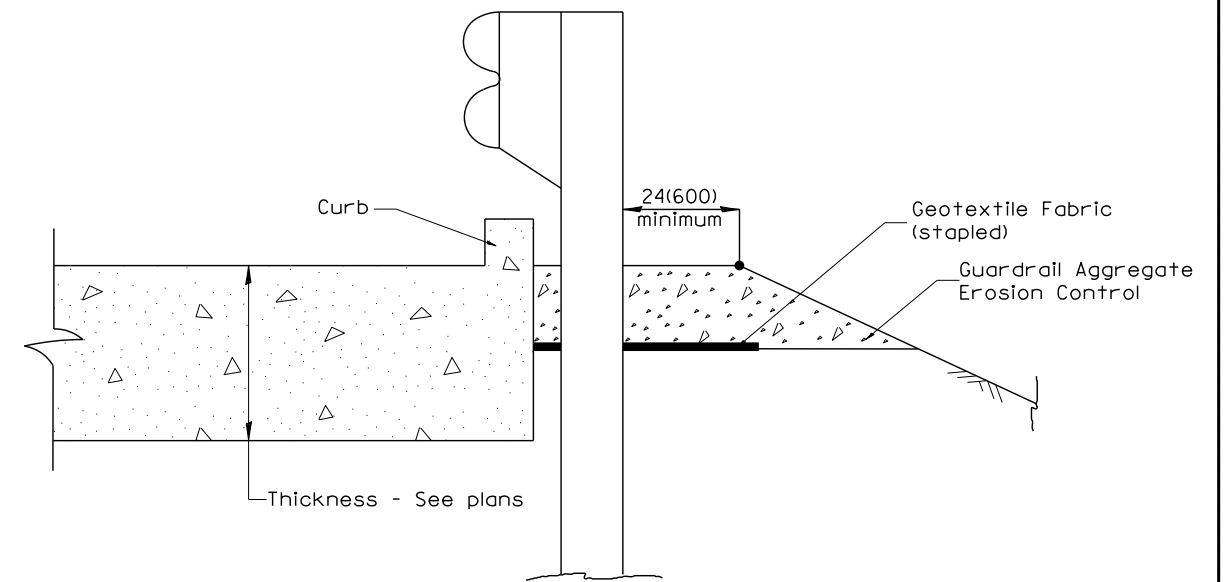
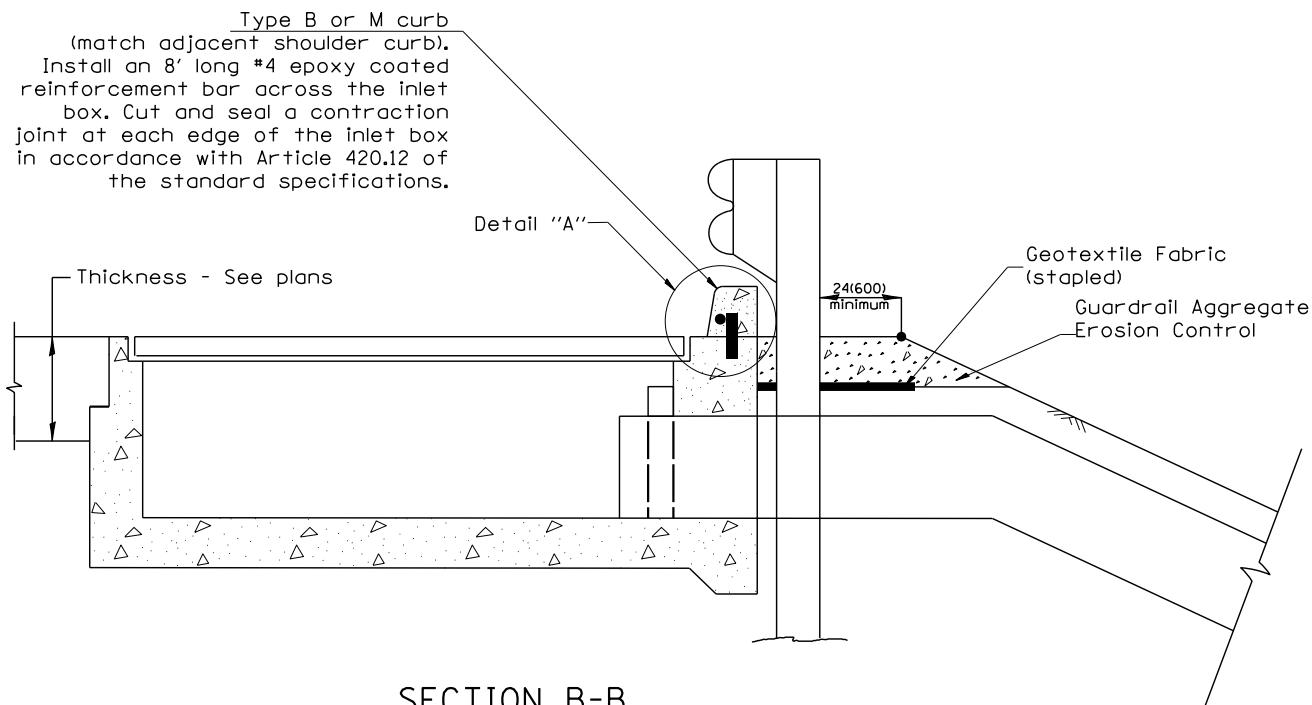
NOT TO SCALE

SHT. 1 OF 2
CADD STD. 630101-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)1-2	PUTNAM	48	39
CONTRACT NO. 68664			ILLINOIS FED. AID PROJECT	

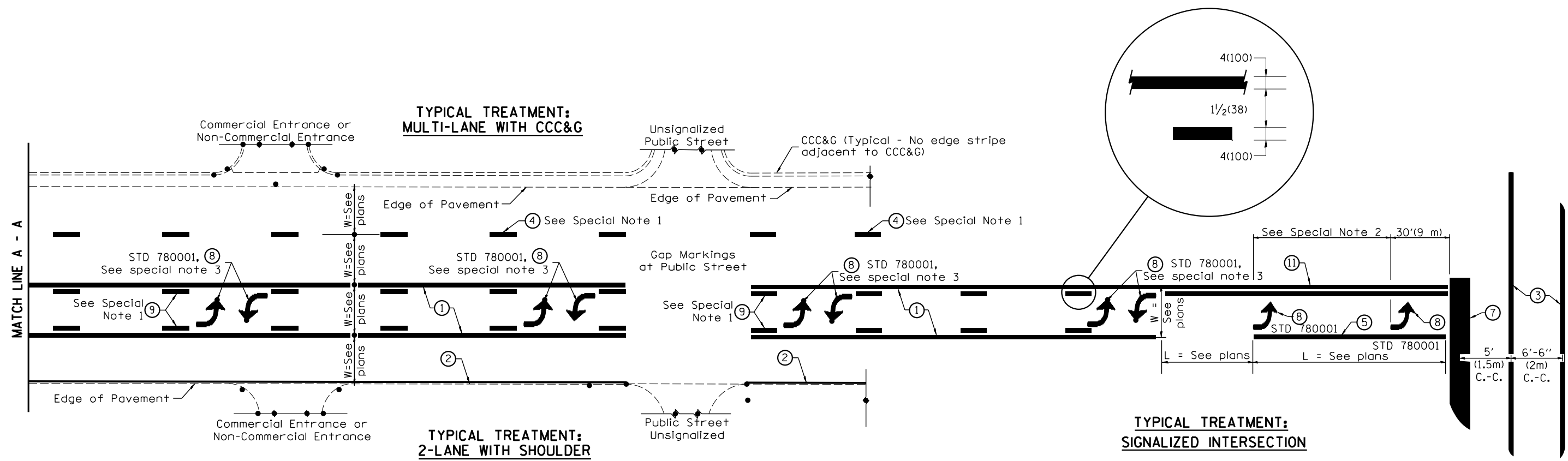


PLAN VIEW
APPROACH SLAB OR SHOULDER PLACEMENT



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

FILE NAME =	USER NAME = \$USER*	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL EROSION CONTROL TREATMENTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
#FILE#		DRAWN -	REVISED -			318	(21B)1-2	PUTNAM	48	40	
	PLOT SCALE = \$SCALE*	CHECKED -	REVISED -			SHT. 2 OF 2					
#MODELNAME#	PLOT DATE = \$DATE*	DATE -	REVISED -			NOT TO SCALE	SHEET OF SHEETS	STA.	CADD STD. 630101-D4	CONTRACT NO. 68664	
ILLINOIS FED. AID PROJECT											



FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION

TYPICAL PAVEMENT MARKING LEGEND

(Note: This is a District Standard Legend. Some elements may not apply to specific project.)

- ① 4(100) Solid (Yellow)
- ② 4(100) Solid (White)
- ③ 2-6(150) Crosswalk @ 6'-6" (2m)min C.-C. (White)
2-8(200) Crosswalk @ 6'-6" (2m)min C.-C. (White) (When traffic signals are present.)
- ④ 6(150) Skip-Dash (White) (See Special Note 1)
- ⑤ 8(200) Solid (White)
- ⑥ 12(300) Diagonal (White) (Item ⑥ is shown on Std. 780001)
- ⑦ 24(600) Stop Bar (White)
- ⑧ Letters & Arrows (See Std. 780001 and Special Notes 2 & 3)
- ⑨ 4(100) Skip-Dash (Yellow) (See Special Note 1)
- ⑩ 12(300) Diagonal (Yellow) (See Table A) ⑩
- ⑪ 4(100) Double Solid (Yellow) ⑪

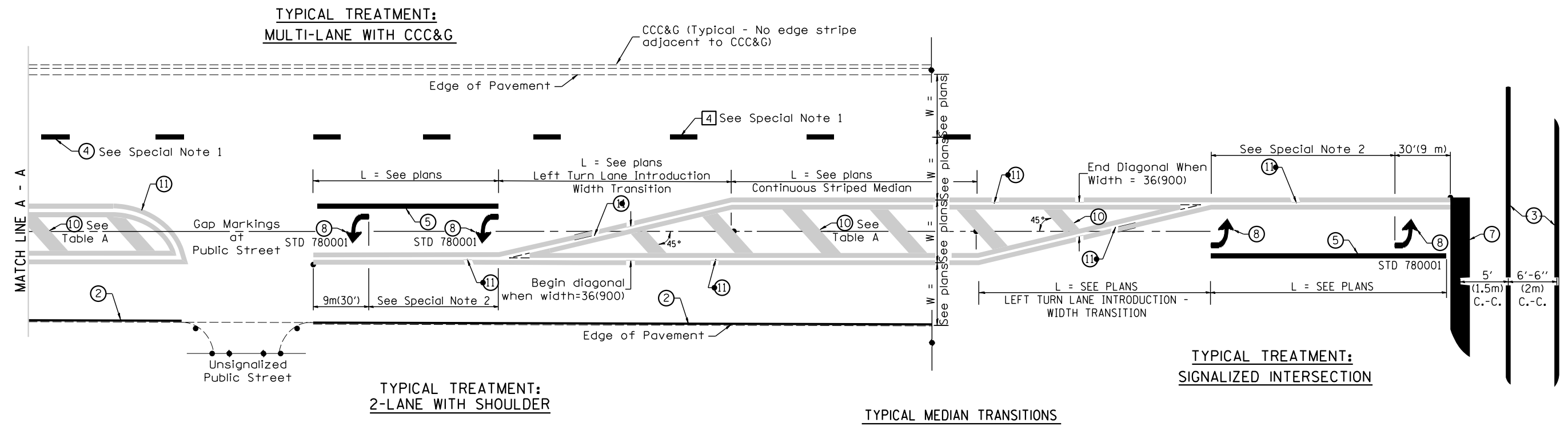
SPECIAL NOTES

1. Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversely across the pavement.
2. The following shall apply to arrows located in one-way left turn lanes:
 - A. A minimum of two (2) arrows is required.
 - B. The maximum spacing between arrows is 80' (24 m).
 - C. Arrows shall be evenly spaced if three (3) or more are required.
3. The following shall apply to arrow pairs located in two-way left turn lanes:
 - A. A minimum of two (2) arrow pairs is required.
 - B. The maximum spacing between arrow pairs is 200' (61 m).
 - C. Arrow pairs shall be evenly spaced if three (3) or more are required.
 - D. The spacing between Bi Directional Left Turn Arrows is 33' (10 m).

GENERAL NOTES

1. Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
2. See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.

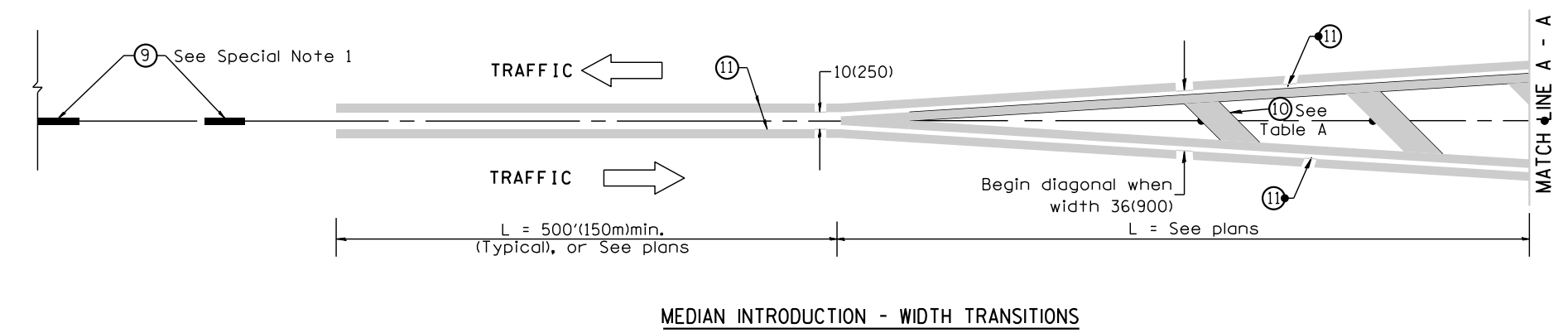
01-01-97	RENUM. F-8.03, NEW REVISION BOX	T.P.	10-16-06	REVISED TO 2007 SPEC.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKINGS	NOT TO SCALE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
02-07-97	ADD BI DIRECTIONAL DIMENSION	J.A.						318	(21B)-2	PUTNAM	48	41
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.						CONTRACT NO. 68664			SHT. 1 OF 2 CADD STD. 780001-D4	
08-02	ADD CROSSWALK DMNS. WITH T.S.	M.A.						ILLINOIS FED. AID PROJECT				



FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A
RECOMMENDED SPACING BETWEEN DIAGONAL LINES

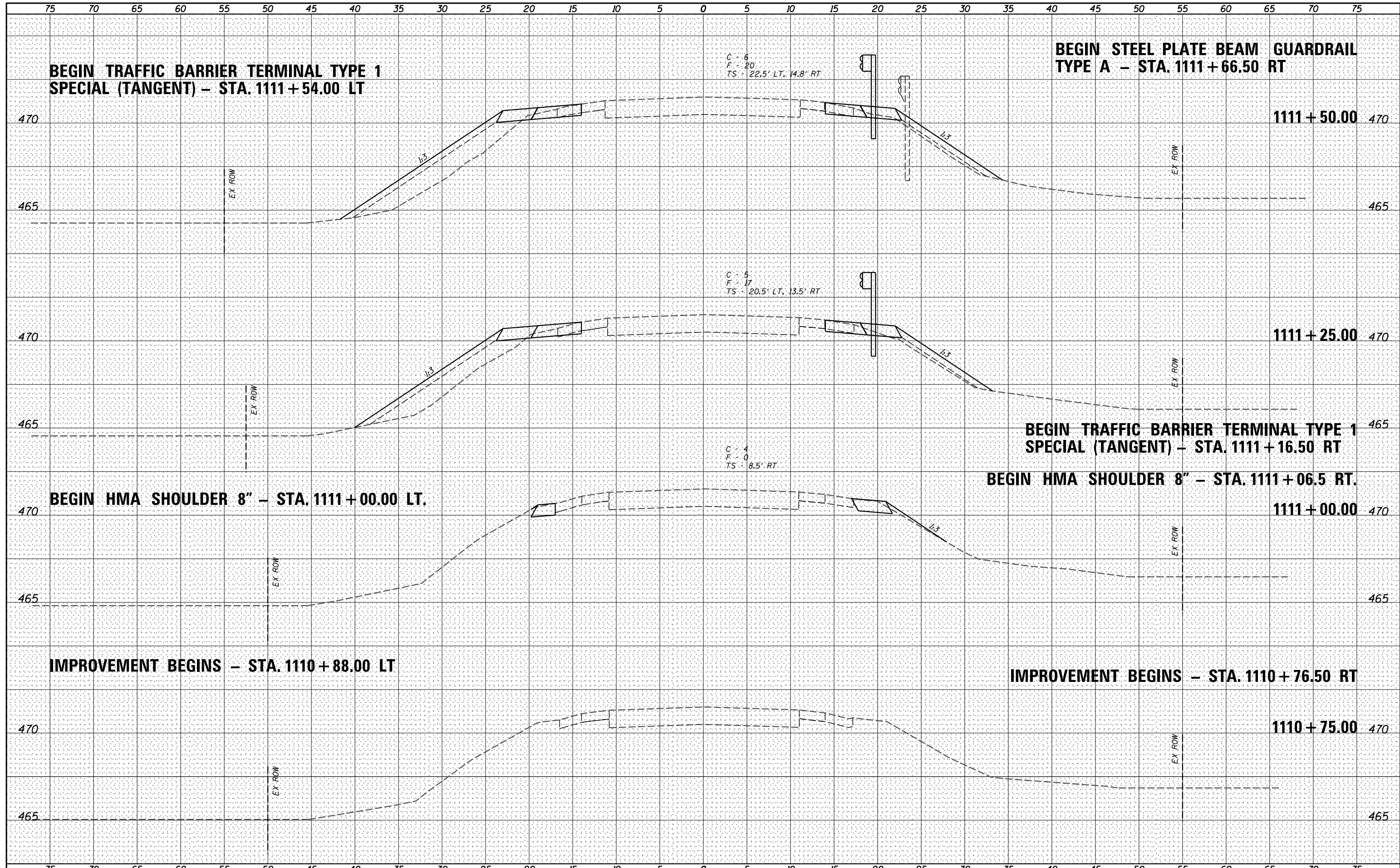
SPEED LIMIT RANGE	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)	
	CONTINUOUS	
Less Than 30 mph (50 km/h)	50' (15m)	15' (5m)
30 - 45 mph (50 - 70 km/h)	75' (23m)	20' (6m)
Over 45 mph (70 km/h)	150' (46m)	30' (9m)



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

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



V&K
 Veenstra & Kimm, Inc.
 Springfield, IL Phone: (217)544-8033

USER NAME = *USER*	DESIGNED -	REVISED -
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PLOT DATE = *DATE*	CHECKED -	REVISED -
	DATE -	REVISED -

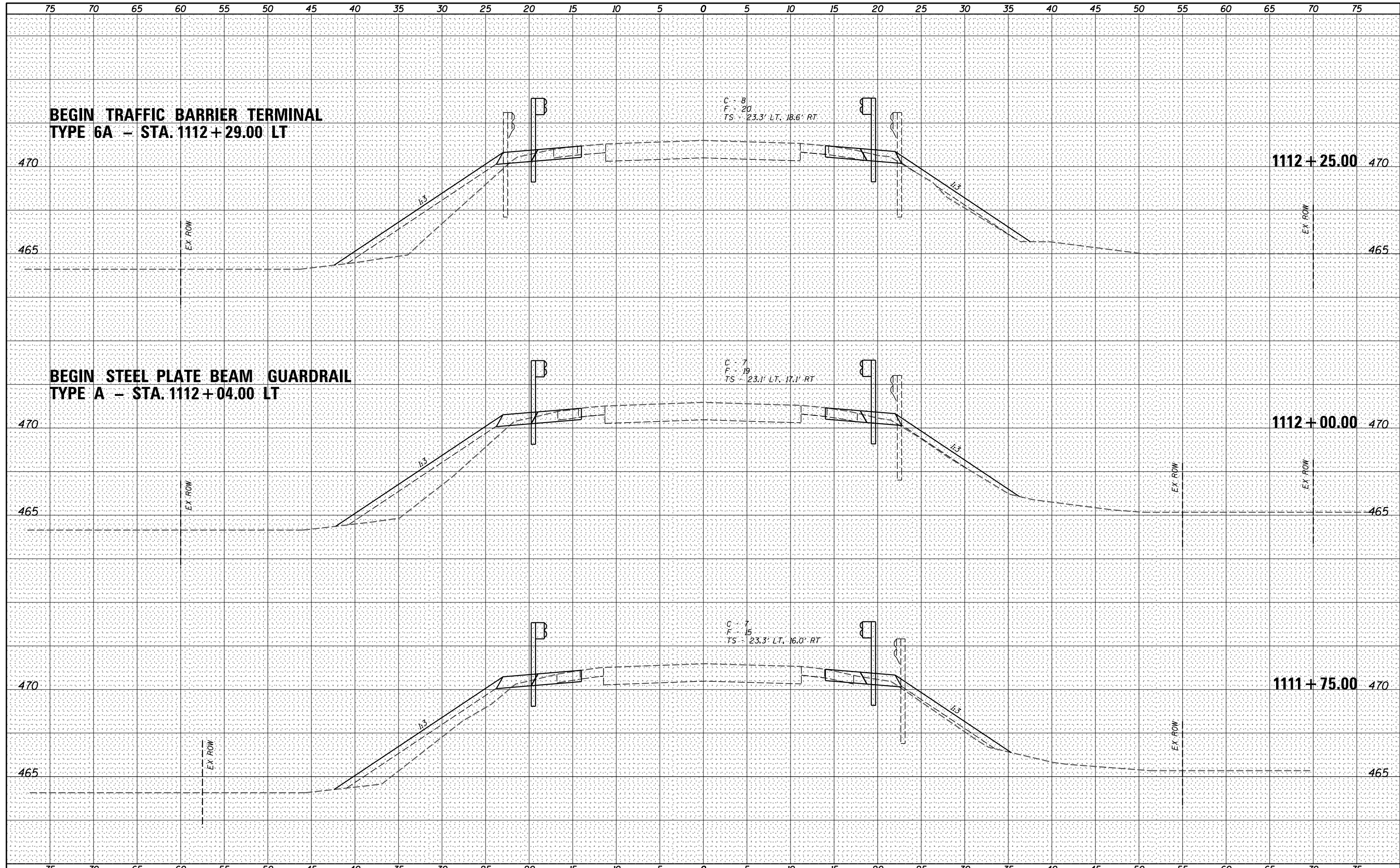
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS		
SCALE:	SHEET NO. 1 OF 6 SHEETS	STA. 1110+75.00 TO STA. 1111+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	43
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____

DATE _____
 BY _____
 SURVEYED _____
 PLOTTED _____
 TEMPLATE _____
 NOTE BOOK _____
 AREAS CHECKED _____
 NO. _____



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 Springfield, IL Phone: (217)544-8033

USER NAME = *USERS*	DESIGNED -	REVISED -
PLOT SCALE = *SCALE*	DRAWN -	REVISED -
PLOT DATE = *DATE*	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

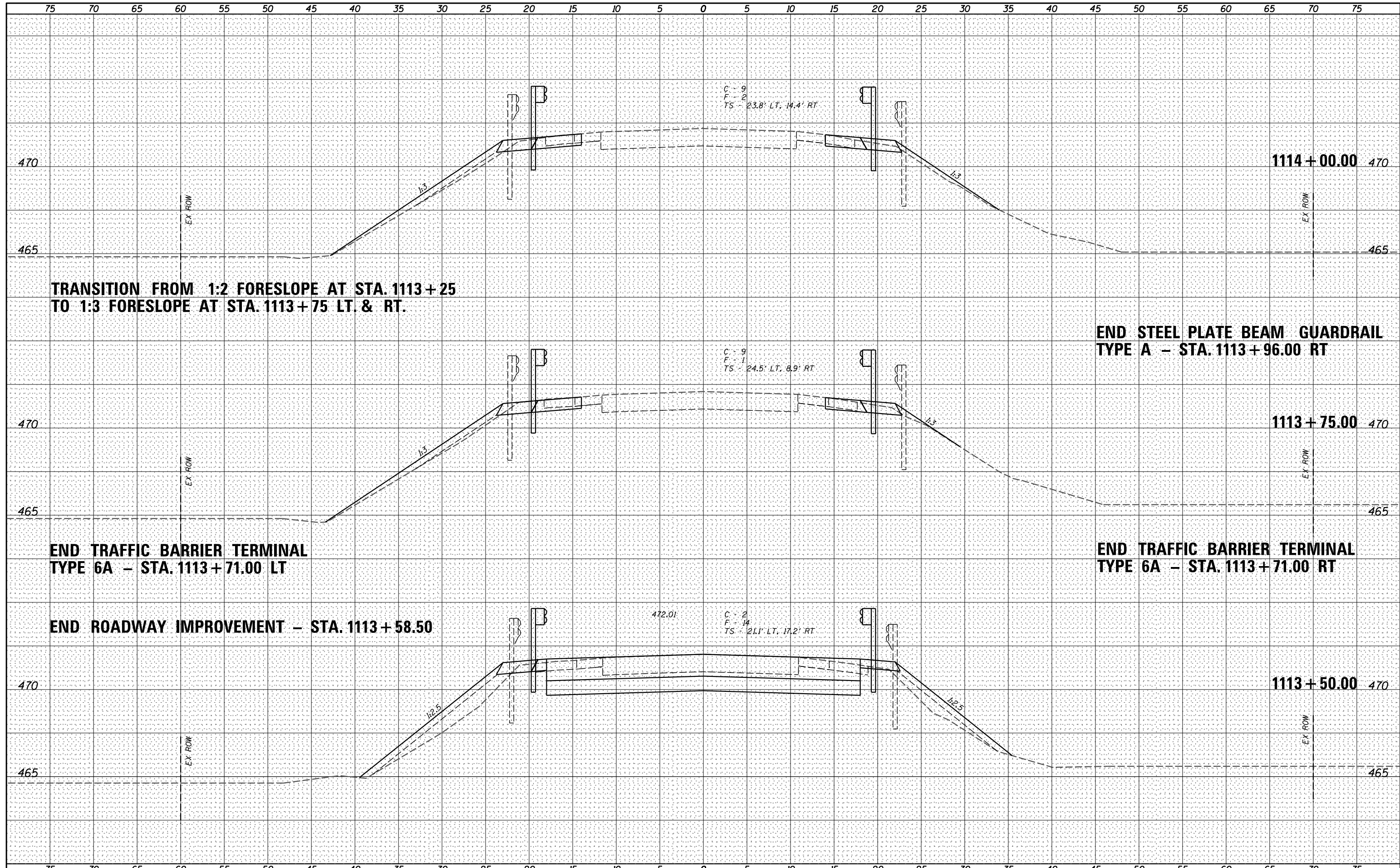
CROSS SECTIONS

SCALE: SHEET NO. 2 OF 6 SHEETS STA. 1111+75.00 TO STA. 1112+25.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)I-2	PUTNAM	48	44
CONTRACT NO. 68664				
ILLINOIS FED. AID PROJECT				

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

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



TRANSITION FROM 1:2 FORESLOPE AT STA. 1113 + 25 TO 1:3 FORESLOPE AT STA. 1113 + 75 LT. & RT.

END STEEL PLATE BEAM GUARDRAIL TYPE A - STA. 1113 + 96.00 RT

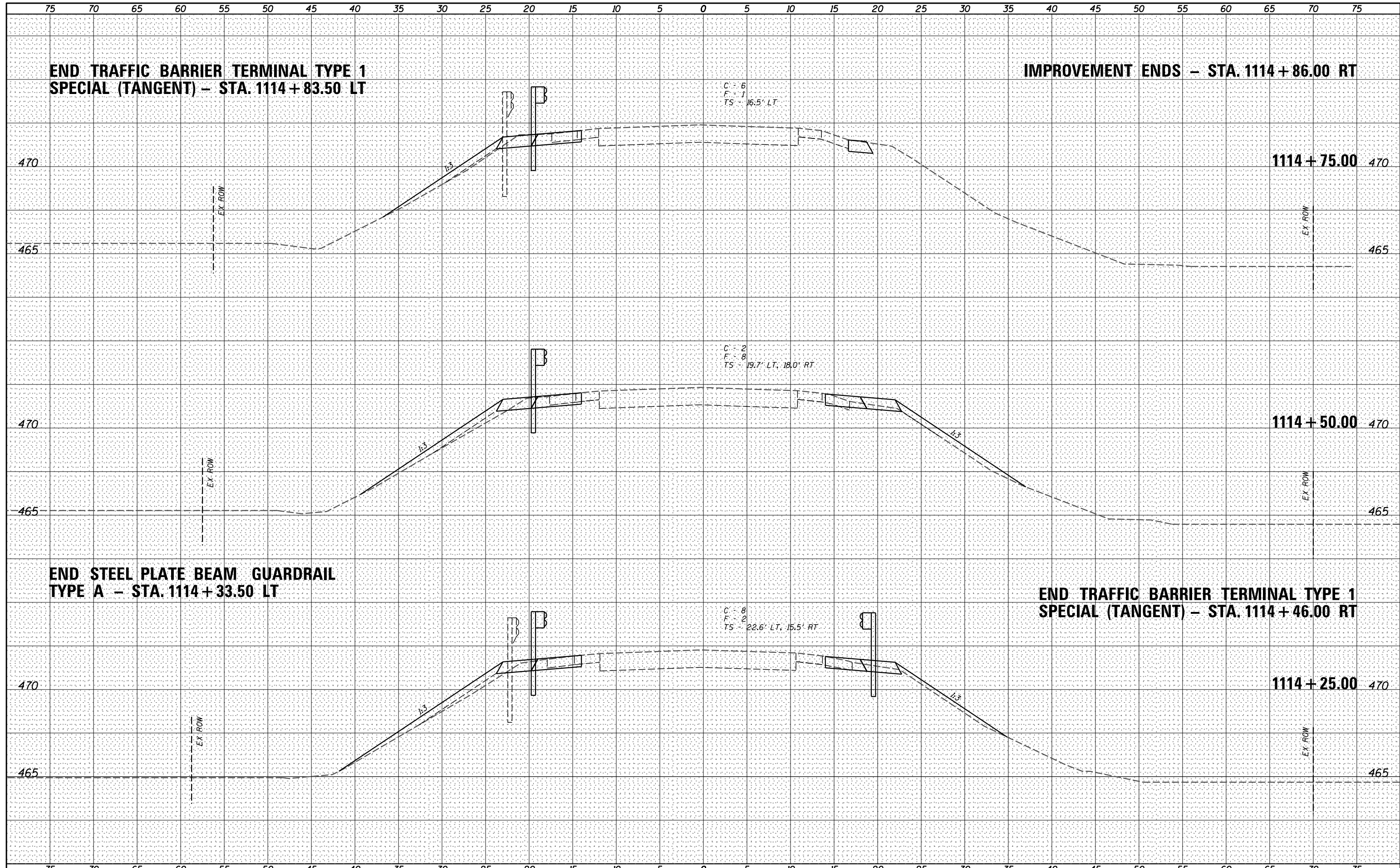
END TRAFFIC BARRIER TERMINAL TYPE 6A - STA. 1113 + 71.00 LT

END TRAFFIC BARRIER TERMINAL TYPE 6A - STA. 1113 + 71.00 RT

END ROADWAY IMPROVEMENT - STA. 1113 + 58.50

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

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



**END TRAFFIC BARRIER TERMINAL TYPE 1
SPECIAL (TANGENT) – STA. 1114 + 83.50 LT**

IMPROVEMENT ENDS – STA. 1114 + 86.00 RT

C = 6
F = 1
TS = 16.5' LT

1114 + 75.00

C = 2
F = 8
TS = 19.7' LT, 18.0' RT

1114 + 50.00

**END STEEL PLATE BEAM GUARDRAIL
TYPE A – STA. 1114 + 33.50 LT**

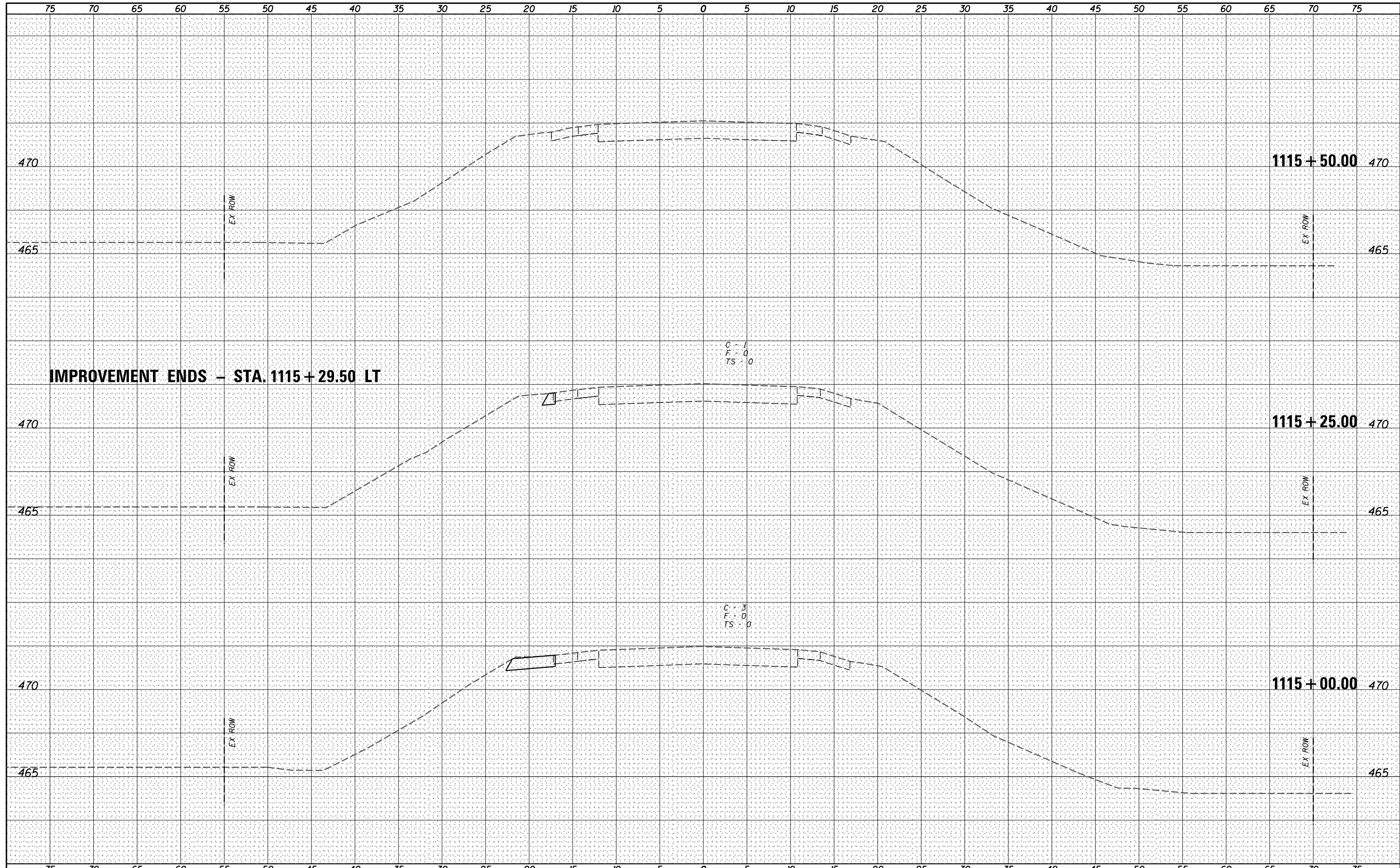
**END TRAFFIC BARRIER TERMINAL TYPE 1
SPECIAL (TANGENT) – STA. 1114 + 46.00 RT**

C = 8
F = 2
TS = 22.6' LT, 15.5' RT

1114 + 25.00

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

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



IMPROVEMENT ENDS - STA. 1115+29.50 LT



USER NAME = *USER*	DESIGNED -	REVISIED -
PLOT SCALE = *SCALE*	DRAWN -	REVISIED -
PLOT DATE = *DATE*	CHECKED -	REVISIED -
	DATE -	REVISIED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CROSS SECTIONS

SCALE: SHEET NO. 6 OF 6 SHEETS STA. 1115+00.00 TO STA. 1115+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	(21B)-2	PUTNAM	48	48
CONTRACT NO. 68664				
<small>ILLINOIS FED. AID PROJECT</small>				