04-27-2018 LETTING ITEM 086

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	1
	ILLINOIS	CONTRACT NO. 68637		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

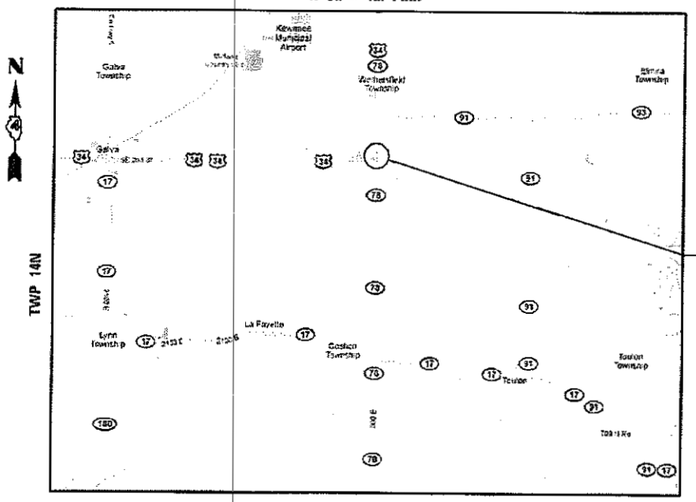
PROPOSED
HIGHWAY PLANS

FAP ROUTE 22 (IL 78)
SECTION (14BR-1)BR
PROJECT STP-P9UP(227)
BRIDGE REPLACEMENT & ROADWAY IMPROVEMENTS
HENRY COUNTY
C-94-171-06

D-94-105-06

LOCATION OF SECTION INDICATED THUS:- ■

R 5E - 4th P.M.



WETHERSFIELD TOWNSHIP

0 1.60 MILES 3.20 MILES

LOCATION MAP

GROSS AND NET LENGTH = 905 FT = 0.171 MILE

IMPROVEMENT LOCATION

IL ROUTE 78 OVER INDIAN CREEK
EXISTING STRUCTURE: 037-0072
PROPOSED STRUCTURE: 037-0177
BEGIN PROJECT: STA 89+95.00
END PROJECT: STA 99+00.00

SEE SHEET 2 FOR GENERAL NOTES AND STANDARDS

IMPROVEMENTS LOCATED IN WETHERSFIELD TOWNSHIP

ROADWAY DESIGNATION: MINOR ARTERIAL (RURAL)
ADT: 2,750(2011)
SU: 2.59%(2011)
MU: 6.48%(2011)
POSTED SPEED: 55 MPH

ALIGNMENT, TIES, BENCHMARKS	HORIZONTAL	0 200' 400'
PLAN & PROFILE	HORIZONTAL	0 50' 100'
	VERTICAL	0 5' 10'
MAINTENANCE OF TRAFFIC	HORIZONTAL	0 50' 100'
EROSION CONTROL PLAN	HORIZONTAL	0 50' 100'
CROSS SECTIONS	HORIZONTAL	0 10' 20'
	VERTICAL	0 5' 10'

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 MANAGER: RON NOLTE (309) 671-3470
PROJECT ENGINEER: RICH DOTSON (309) 671-3455
CONTRACT NO. 68637
CATALOG NO. 032329-00P

PREPARED BY:
LIN ENGINEERING, LTD.
WESTMONT, IL 60559
(630) 323-5168

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Feb 02 2018
Kenneth A. Barnett (KSD)
REGION THREE ENGINEER
Mar 23 2018
ENGINEER OF DESIGN AND ENVIRONMENT
Mar 23 2018
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

FRED M. LIN
062-056704
LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

FRED M. LIN, P.E.
ILLINOIS REGISTERED ENGINEER NO. 062-056704
REGISTRATION EXPIRES NOV. 30, 2019

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

HIGHWAY STANDARDS

000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-09	PAVEMENT JOINTS
420401-12	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
442201-03	CLASS C AND D PATCHES
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
482011-03	HMA SHLD, STRIPS/SHLDS, WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
515001-03	NAME PLATE FOR BRIDGES
630301-08	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-15	TRAFFIC BARRIER TERMINAL, TYPE 6
701001-02	OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701011-04	OFF-ROAD OPERATIONS, 2L, 2W, DAY ONLY
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701306-04	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS DAY ONLY, FOR SPEEDS >= 45 MPH
701321-17	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS >= 45 MPH
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
780001-05	TYPICAL PAVEMENT MARKINGS
781001-04	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

DISTRICT STANDARDS

205001-D4	SLOPE STEPS DETAIL
406101-D4	BUTT JOINTS
440001-D4	HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
630101-D4	GUARDRAIL EROSION CONTROL TREATMENTS
667101-D4	PERMANENT SURVEY TIE & PERMANENT SURVEY MARKERS TYI - TYII
780001-D4	TYPICAL PAVEMENT MARKINGS

GENERAL NOTES

1. ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITIONS AS INDICATED BY THE SUB NUMBER SHOWN IN THE LIST OF STANDARDS INCLUDED IN THESE PLANS.

2. AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS THE EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF SAW CUTS AND JOINTS IS CONSIDERED AS INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.

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

4. BRIDGE FLOWS SHALL BE MAINTAINED THROUGHOUT THE PROJECT. NORMAL FLOWS SHALL BE ALLOWED TO PASS AT THE RATE IT ENTERS THE JOBSITE. HIGH FLOWS SHALL BE ALLOWED TO PASS WITHOUT CAUSING DAMAGE TO UPSTREAM PROPERTIES.

5. 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.

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

   a. ALL ENGINEER'S FIELD OFFICES SHALL CONTAIN ONE FULLY-EQUIPPED FIRST-AID CABINET. THIS ITEM WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE PAY ITEM FOR ENGINEER'S FIELD OFFICE OF THE TYPE SPECIFIED.

7. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS, SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION, BUT SHALL BE CONSIDERED AS INCLUDED IN THE COST OF THE ASSOCIATED PAY ITEMS.

8. EXISTING AND PROPOSED ROADWAY PROFILE GRADES AND ELEVATIONS ARE PROVIDED IN THE PLANS TO AID THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MATCH THE PROPOSED ROADWAY PROFILE AND SURFACE TO THE EXISTING ROADWAY PROFILE AND SURFACE.

9. IF ANY UNSUITABLE MATERIAL IS ENCOUNTERED DURING CONSTRUCTION, IT WILL BE NECESSARY TO REMOVE THE UNSUITABLE MATERIAL AND REPLACE IT WITH A SUITABLE MATERIAL AS APPROVED BY THE ENGINEER. THE REMOVAL OF UNSUITABLE MATERIAL SHALL BE PAID AS PER ARTICLE 109.04, "PAYMENT FOR EXTRA WORK" AND SUITABLE MATERIAL SHALL BE CONSIDERED AS INCLUDED IN THE COST OF PAY ITEM "20400800 - FURNISH EXCAVATION".

10. ONLY THOSE TREES DESIGNATED BY THE ENGINEER OR LISTED IN THE TREE REMOVAL SCHEDULE SHALL BE REMOVED. THE CONTRACTOR SHALL PROTECT ALL REMAINING TREES FROM DAMAGE DUE TO HIS OPERATIONS.

11. AVAILABILITY OF ELECTRONIC FILES
MICROSTATION AND GEOPAK FILES OF THIS PROJECT WILL BE MADE AVAILABLE TO THE CONTRACTOR. 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 SOLE 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.

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

13. CLEARING
AT LOCATIONS WHERE CLEARING MAY BE REQUIRED 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 THE EXCAVATION PAY ITEMS IN THE PLANS. PAYMENT FOR RESEEDING OR RESODDING WILL BE AS PROVIDED IN THE PLANS.

14. 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.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- BDE FORM 2289 (CULTURAL AND NATURAL RESOURCES REVIEW OF BORROW AREAS)
- 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

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS SHALL 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.

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

15. THE RESIDENT ENGINEER SHALL CONTACT OPERATIONS TO VERIFY THE LOCATION OF NO PASSING ZONES PRIOR TO PLACEMENT OF CENTERLINE STRIPING.

16. 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.

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

18. GROOVING IS ONLY TO BE USED IN THE EVENT OF A WINTER SHUTDOWN TO REMOVE THE PAINT PAVEMENT MARKINGS THE FOLLOWING SEASON.

19. 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 (20 MM) 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 (150MM) 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+XOO)" 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.

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

21. 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.

22. A FULL-DEPTH SAW CUT SHALL BE REQUIRED AT THE JOINT BETWEEN THE PAVEMENT THAT IS TO BE LEFT IN PLACE AND THE EXISTING SHOULDER THAT IS TO BE REMOVED. THE CONTRACTOR MAY HAVE THE OPTION OF USING A WHEEL SAW TO GRIND UP THE EXISTING SHOULDER AND LEAVE THE FINELY GROUND PIECES ON SITE UNDER THE NEW SHOULDER AND ON THE FORE SLOPE, WITH THE APPROVAL OF THE ENGINEER. MAXIMUM SIZE OF PIECES SHALL BE NO MORE THAN 3" (75MM). LARGER PIECES SHALL BE PICKED UP/REMOVED FROM THE JOBSITE. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR VARIATIONS IN ASSUMED THICKNESS. THIS WORK SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE REMOVAL ITEMS.

23. AREAS OF TREE REMOVAL, AS SPECIFIED IN THE PLANS PER ACRE, SHALL BE CLEARED ACCORDING TO SECTION 201 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

24. AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE REINFORCEMENT BARS FROM BROKEN CONCRETE PREVIOUSLY DUMPED AT VARIOUS LOCATIONS WHERE PROPOSED IMPROVEMENTS ARE SPECIFIED. THE ENGINEER SHALL DETERMINE IF THE BROKEN CONCRETE CAN THEN REMAIN IN PLACE TO BE USED AS RIPRAP OR BE HAULED OFF THE JOBSITE. THIS WORK SHALL BE PAID FOR AS PER ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

HOT-MIX ASPHALT MIXTURE REQUIREMENTS		OMP
MIXTURE TYPE	AIR VOIDS @ NDES	
PAVEMENT RESURFACING		
HOT-MIX ASPHALT SURFACE COURSE, MIX "D" , N50, (IL 9.5 MM)	4.0% @ N=50	QC/QA
HOT-MIX ASPHALT BINDER COURSE (IL 9.5 MM)	4.0% @ N=50	QC/QA
HOT- MIX ASPHALT SHOULDERS, 10"	4.0% @ N=50	QC/QA
1.5" HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50, (IL 9.5 MM)	4.0% @ N=50	QC/QA
8.5" HOT-MIX ASPHALT BINDER COURSE (IL 9.5 MM)	4.0% @ N=50	QC/QA
OMP DESIGNATION: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)		

NOTES:
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/SQ YD/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.

COMMITMENTS

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

NO COMMITMENTS WERE MADE FOR THIS PROJECT.

STATUS OF UTILITIES

COMPANY	ROUTE	OFFSET	MIN. DEPTH	LOCATION	TYPE OF UTILITY	TYPE OF CONFLICT	DISPOSITION
FRONTIER	IL 78	48' LT.	2'-0"	STA. 89+95 TO 95+50 +/-	BURRIED COPPER CABLE	NEW BRIDGE	CAUTION
FRONTIER	IL 78	26'-32' LT.	2'-0"	STA. 95+50 +/- TO 96+50	BURRIED COPPER CABLE	NEW GUARDRAIL & SHOULDER IMPROVEMENTS	CAUTION
AMEREN ILLINOIS	IL 78	85'-110 LT.		STA. 90+00 TO 99+00	OVERHEAD ELECTRIC & UTILITY POLES	PROJECT LIMITS	CAUTION

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED -	IS	REVISED -
	DRAWN -	RP	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED -	ST	REVISED -
PLOT DATE = 1/31/2018	DATE -	01/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATUS OF UTILITIES
IL ROUTE 78 OVER INDIAN CREEK

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	3
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	ROADWAY	STRUCTURAL
				0005		0010
				80% FED./ 20% STATE FUNDS	100% STATE FUNDS	SN 037-0177
20200100	EARTH EXCAVATION	CU YD	105	105		
20200500	EARTH EXCAVATION (WIDENING)	CU YD	175	175		
20400800	FURNISHED EXCAVATION	CU YD	125	125		
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	2,060	2,060		
25000210	SEEDING, CLASS 2A	ACRE	0.50	0.50		
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	50	50		
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	50	50		
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	50	50		
25100115	MULCH, METHOD 2	ACRE	0.50	0.50		
28000400	PERIMETER EROSION BARRIER	FOOT	1,604	1,604		
28000500	INLET AND PIPE PROTECTION	EACH	1	1		
28100105	STONE RIPRAP, CLASS A3	SQ YD	16			16
28100107	STONE RIPRAP, CLASS A4	SQ YD	1,073			1,073
28200200	FILTER FABRIC	SQ YD	1,501	412		1,089

• SPECIALTY ITEM

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

PLOT SCALE = 2.0000 ' / in.
PLOT DATE = 2/1/2018

DESIGNED - IS
DRAWN - RP
CHECKED - ST
DATE - 01/2018

REVISED - -- -------
REVISED - -- -------
REVISED - -- -------
REVISED - -- -------

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 78 OVER INDIAN CREEK

SCALE: | SHEET NO. 1 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	4
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	ROADWAY	STRUCTURAL
				0005		0010
				80% FED./ 20% STATE FUNDS	100% STATE FUNDS	SN 037-0177
40600295	POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)	POUND	5,290	5,290		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	163	163		
40602978	HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50	TON	170	170		
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	156	156		
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	160	160		
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	178	178		
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	1,050	1,050		
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1			1
50105220	PIPE CULVERT REMOVAL	FOOT	59	59		
50200100	STRUCTURE EXCAVATION	CU YD	168			168
50200300	COFFERDAM EXCAVATION	CU YD	381			381
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1			1
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1			1
50300100	FLOOR DRAINS	EACH	12			12

• SPECIALTY ITEM

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

PLOT SCALE = 2.0000 '/ in.
PLOT DATE = 1/31/2018

DESIGNED -	IS	REVISED -
DRAWN -	RP	REVISED -
CHECKED -	ST	REVISED -
DATE -	01/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 78 OVER INDIAN CREEK

SCALE: | SHEET NO. 2 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	5
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	ROADWAY	STRUCTURAL
				0005		0010
				80% FED./ 20% STATE FUNDS	100% STATE FUNDS	SN 037-0177
50300225	CONCRETE STRUCTURES	CU YD	195.1			195.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	174.4			174.4
50300260	BRIDGE DECK GROOVING	SQ YD	678			678
50300300	PROTECTIVE COAT	SQ YD	846			846
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	114.5			114.5
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1			1
50500505	STUD SHEAR CONNECTORS	EACH	3,528			3,528
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	103,310			103,310
50800515	BAR SPLICERS	EACH	797			797
51201610	FURNISHING STEEL PILES HP12X63	FOOT	1,267			1,267
51202305	DRIVING PILES	FOOT	1,267			1,267
51203610	TEST PILE STEEL HP12X63	EACH	2			2
51204650	PILE SHOES	EACH	24			24
51500100	NAME PLATES	EACH	1			1

• SPECIALTY ITEM

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

PLOT SCALE = 2.0000 ' / in.
PLOT DATE = 1/31/2018

DESIGNED - IS | REVISED -
DRAWN - RP | REVISED -
CHECKED - ST | REVISED -
DATE - 01/2018 | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 78 OVER INDIAN CREEK

SCALE: | SHEET NO. 3 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	6
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
					ROADWAY	ROADWAY	STRUCTURAL
					0005		0010
					80% FED./ 20% STATE FUNDS	100% STATE FUNDS	SN 037-0177
	52100520	ANCHOR BOLTS, 1"	EACH	48			48
	52200010	TEMPORARY SHEET PILING	SQ FT	138			138
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	60			60
	60500060	REMOVING INLETS	EACH	2	2		
•	63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	75.0	75.0		
•	63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4		
•	63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	4	4		
	63200310	GUARDRAIL REMOVAL	FOOT	730	730		
*	66700205	PERMANENT SURVEY MARKERS, TYPE I	EACH	2	2		
	67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12		
	67100100	MOBILIZATION	L SUM	1	1		
	70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1		
	70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1		
	70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1		

• SPECIALTY ITEM

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				ROADWAY	ROADWAY	STRUCTURAL
				0005		0010
				80% FED./ 20% STATE FUNDS	100% STATE FUNDS	SN 037-0177
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	36	36		
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1		
70300100	SHORT TERM PAVEMENT MARKING	FOOT	4,369	4,369		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	1,564	1,564		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	4,305	4,305		
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	64	64		
70400100	TEMPORARY CONCRETE BARRIER	FOOT	781.5	781.5		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	772	772		
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2		
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2		
• 72000100	SIGN PANEL, TYPE 1	SQ FT	12	12		
• 72000300	SIGN PANEL, TYPE 3	SQ FT	30	30		
• 72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	3	3		

• SPECIALTY ITEM

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

PLOT SCALE = 2.0000 ' / in.
PLOT DATE = 2/1/2018

DESIGNED - IS | REVISED -
DRAWN - RP | REVISED -
CHECKED - ST | REVISED -
DATE - 01/2018 | REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 78 OVER INDIAN CREEK

SCALE: | SHEET NO. 5 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	8
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: ROADWAY 0005 80% FED./ 20% STATE FUNDS	CONSTRUCTION CODE: ROADWAY 0005 100% STATE FUNDS	CONSTRUCTION CODE: STRUCTURAL 0010 SN 037-0177
•	72400200	REMOVE SIGN PANEL ASSEMBLY - TYPE B	EACH	1	1		
•	72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4		
	72800100	TELESCOPING STEEL SIGN SUPPORT	FOOT	63	63		
	73700100	REMOVE GROUND MOUNTED SIGN SUPPORT	EACH	4	4		
•	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	3,620	3,620		
•	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	10	10		
•	78200005	GUARDRAIL REFELECTORS, TYPE A	EACH	22	22		
•	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	10	10		
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	1,392	1,392		
	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	2,017	2,017		
	X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	103			103
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	270	270		
*	X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	4,305	4,305		
*	X7830090	GROOVING FOR RECESSED PAVEMENT MARKING 25"	FOOT	64	64		

• SPECIALTY ITEM

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - IS	REVISED -
	DRAWN - RP	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - ST	REVISED -
PLOT DATE = 2/2/2018	DATE - 01/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
IL ROUTE 78 OVER INDIAN CREEK

SCALE: | SHEET NO. 6 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	9
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
					ROADWAY	ROADWAY	STRUCTURAL
					0005		0010
					80% FED. / 20% STATE FUNDS	100% STATE FUNDS	SN 037-0177
	Z0001002	GUARDRAIL AGGREGATE EROSION CONTROL	TON	36	36		
	Z0004552	APPROACH SLAB REMOVAL	SQ YD	146	146		
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1		
	Z0034105	MATERIAL TRANSFER DEVICE	TON	326	326		
	Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	102			102
Ø	Z0076600	TRAINEES	HOUR	1,000	1,000		
Ø	Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	1,000	1,000		

• SPECIALTY ITEM
Ø 0042

LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois	DESIGNED - IS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RP	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 2/2/2018	DATE - 01/2018	REVISED -	

SUMMARY OF QUANTITIES
IL ROUTE 78 OVER INDIAN CREEK

SCALE: | SHEET NO. 7 OF 7 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	10
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

SEEDING, CLASS 2A

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)	AREA (AC)
89+95.00	93+93.51	LT	3,088	0.07
95+06.79	99+00.00	LT	3,543	0.08
89+96.26	93+78.21	RT	9,116	0.21
94+91.19	99+00.00	RT	2,791	0.06
			TOTAL	0.43
			ROUNDED TOTAL	0.50

MULCH, METHOD 2

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)	AREA (AC)
89+95.00	93+93.51	LT	3,088	0.07
95+06.79	99+00.00	LT	3,543	0.08
89+96.26	93+78.21	RT	9,116	0.21
94+91.19	99+00.00	RT	2,791	0.06
			TOTAL	0.43
			ROUNDED TOTAL	0.50

NITROGEN FERTILIZER NUTRIENT

SEEDING, CLASS 2A	0.50	ACRE
APPLICATION RATE = 90 POUND / ACRE		
QUANTITY	45	POUND
ROUNDED TOTAL	50	POUND

PHOSPHORUS FERTILIZER NUTRIENT

SEEDING, CLASS 2A	0.50	ACRE
APPLICATION RATE = 90 POUND / ACRE		
QUANTITY	45	POUND
ROUNDED TOTAL	50	POUND

POTASSIUM FERTILIZER NUTRIENT

SEEDING, CLASS 2A	0.50	ACRE
APPLICATION RATE = 90 POUND / ACRE		
QUANTITY	45	POUND
ROUNDED TOTAL	50	POUND

TOPSOIL FURNISH AND PLACE, 4"

FROM STATION	TO STATION	LT/RT	AREA (SQ YD)
89+95.00	93+93.51	LT	343
95+06.79	99+00.00	LT	1,013
89+96.26	93+78.21	RT	310
94+91.19	99+00.00	RT	394
		TOTAL	2,060

PERIMETER EROSION BARRIER

FROM STATION	TO STATION	LT/RT	LENGTH (FT)
89+95.00	93+93.51	LT	401
95+14.33	99+00.00	LT	394
89+95.00	93+71.34	RT	390
94+92.55	99+00.00	RT	419
		TOTAL	1,604

INLET AND PIPE PROTECTION

STATION	LT/RT	EACH
95+44.25	LT	1
	TOTAL	1

HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT

FROM STATION	TO STATION	AREA (SQ YD)
89+95.00	90+25.00	80
98+70.00	99+00.00	83
	TOTAL	163

PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB

FROM STATION	TO STATION	AREA (SQ YD)
93+33.21	93+53.04	80
95+31.96	95+51.79	80
	TOTAL	160

EXCAVATION TABLE

EARTH EXCAVATION	WIDENING	EARTH EXC. ADJ. FOR SHRINKAGE (25%)	EMBANKMENT	TOPSOIL FURNISH AND PLACE, 4"	EARTHWORK BALANCE (+/-)
(CU YD)	(CU YD)	(CU YD)	(CU YD)	(SQ YD)	(CU YD)
105	175	79	125	2,060	46

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

FROM STATION	TO STATION	AREA (SQ YD)
90+25.00	93+65.95	1,000
95+19.09	98+70.00	1,017
	TOTAL	2,017

HOT-MIX ASPHALT BINDER COURSE, IL-9.5, N50

FROM STATION	TO STATION	TON
89+95.00	90+25.00	6
90+25.00	91+81.61	27
91+81.61	92+32.99	18
92+32.99	93+33.21	53
95+51.79	98+70.00	60
98+70.00	99+00.00	6
	TOTAL	170

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

FROM STATION	TO STATION	TON
89+95.00	93+33.21	77
95+51.79	99+00.00	79
	TOTAL	156

POLYMERIZED BITUMINOUS MATERIALS (TACK COAT)

FROM STATION	TO STATION	LT/RT	POUND
89+95.00	93+33.21	CL	2,658
95+51.79	99+00.00	CL	2,632
		TOTAL	5,290
		ROUNDED TOTAL	5,290

COMBINATION CURB AND GUTTER REMOVAL

FROM STATION	TO STATION	LT/RT	LENGTH (FT)
93+42.76	93+91.17	LT	49
95+02.37	95+42.35	LT	40
93+43.57	93+82.81	RT	40
95+93.86	95+42.39	RT	49
		ROUNDED TOTAL	178

HOT-MIX ASPHALT SHOULDERS, 10"

FROM STATION	TO STATION	LT/RT	AREA (SQ YD)
89+02.00	93+33.21	LT	281
95+51.79	99+00.00	LT	234
89+02.00	93+33.21	RT	304
95+51.79	99+00.00	RT	231
		TOTAL	1,050

TRAFFIC BARRIER TERMINAL, TYPE 6

FROM STATION	TO STATION	LT/RT	EACH
93+35.96	93+72.86	LT	1
95+21.79	95+58.69	LT	1
93+26.31	93+63.21	RT	1
95+12.14	95+49.04	RT	1
		TOTAL	4

REMOVING INLETS

STATION	OFFSET	EACH
95+44.22	15.48' LT	1
95+44.25	14.98' RT	1
	TOTAL	2

GUARDRAIL REMOVAL

FROM STATION	TO STATION	LT/RT	LENGTH (FT)
93+42.76	95+42.35	RT	365
93+42.68	95+42.39	LT	365
		TOTAL	730

STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS

FROM STATION	TO STATION	LT/RT	LENGTH (FT)
95+58.69	95+96.19	LT	37.5
92+88.81	93+26.31	RT	37.5
		TOTAL	75.0

TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED

FROM STATION	TO STATION	LT/RT	EACH
92+73.71	93+35.96	LT	1
95+96.19	96+58.44	LT	1
92+26.56	92+88.81	RT	1
95+49.04	96+11.29	RT	1
		TOTAL	4

RAISED REFLECTIVE PAVEMENT MARKER

FROM STATION	TO STATION	EACH
89+95.00	93+83.00	5
95+02.00	99+00.00	5
	TOTAL	10

SHORT TERM PAVEMENT MARKING

FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FT)
STAGE 1				
PAVEMENT MARKING TAPE, TYPE IV 4"				
85+17.92	12.91' RT	98+25.00	12.54' RT	1,332
89+13.12	13.43' LT	96+95.06	13.22' LT	782
STAGE 2				
85+07.43	13.09' LT	98+25.00	13.18' LT	1,322
88+70.59	12.88' RT	97+38.71	12.53' RT	869
PAVEMENT MARKING TAPE, TYPE IV 24"				
STAGE 1				
87+09.63	2.94' RT	87+09.35	11.93' RT	9
98+86.00	13.22' LT	98+86.00	4.22' LT	9
99+88.46	37.93' LT	100+01.09	37.93' LT	13
99+98.06	46.22' RT	100+12.06	46.22' RT	14
STAGE 2				
86+95.62	12.19' LT	86+95.80	2.55' LT	10
98+86.00	13.22' LT	98+86.00	4.22' LT	9
			TOTAL	4,369

PAVEMENT MARKING REMOVAL - WATER BLASTING

FROM STATION	OFFSET	TO STATION	OFFSET	AREA (SQ FT)
STAGE 1				
EX PAVEMENT MARKING 4" WHITE SOLID LINE				
89+95.00	13.22' LT	99+00.00	13.20' LT	302
89+95.00	12.78' RT	99+00.00	12.34' RT	302
EX PAVEMENT MARKING 4" YELLOW DOUBLE SOLID LINE				
89+95.00	0.00' LT	99+00.00	0.00' LT	604
STAGE 2				
EX PAVEMENT MARKING 4" YELLOW DOUBLE SOLID LINE				
87+19.37	0.00' LT	89+95.00	0.00' LT	184
			TOTAL	1,392

SHORT TERM PAVEMENT MARKING REMOVAL

FROM STATION	OFFSET	TO STATION	OFFSET	AREA (SQ FT)
STAGE 1				
PAVEMENT MARKING TAPE, TYPE IV 4"				
85+17.92	12.91' RT	98+25.00	12.54' RT	444
89+13.12	13.43' LT	96+95.06	13.22' LT	261
PAVEMENT MARKING TAPE, TYPE IV 24"				
87+09.63	2.94' RT	87+09.35	11.39' RT	18
98+86.00	13.22' LT	96+95.06	13.22' LT	18
99+88.46	37.93' LT	100+01.09	37.93' LT	26
99+98.06	46.22 LT	100+12.06	46.22' LT	28
STAGE 2				
PAVEMENT MARKING TAPE, TYPE IV 4"				
85+07.43	13.09' LT	98+25.00	13.18' LT	441
88+70.59	12.88' RT	97+38.71	12.53' RT	290
PAVEMENT MARKING TAPE, TYPE III 24"				
86+95.62	12.19' LT	86+95.80	2.55' LT	20
98+86.00	13.22' LT	98+86.00	4.22' LT	18
			TOTAL	1,564

MODIFIED URETHANE PAVEMENT MARKING - LINE 4"

FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FT)
89+95.00	12.0' LT	99+00.00	11.98' LT	905
89+95.00	12.0' RT	99+00.00	12.02' RT	905
89+95.00	0.00'	99+00.00	0.00'	1,810
			ROUNDED TOTAL	3,620

TEMPORARY CONCRETE BARRIER

FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FT)
89+09.25	4.00' RT	89+70.00	1.06' LT	61.0
89+70.00	1.06' LT	96+30.81	1.06' LT	661.0
96+30.81	1.06' LT	96+90.09	3.33' RT	59.5
			TOTAL	781.5

IMPACT ATTENUATORS, TEMPORARY
(FULLY REDIRECTIVE, NARROW), TEST LEVEL 3

FROM STATION	OFFSET	TO STATION	OFFSET	EACH
88+89.3	RT	89+09.3	RT	1
96+90.0	RT	97+10.0	RT	1
			TOTAL	2

IMPACT ATTENUATORS, RELOCATE
(FULLY REDIRECTIVE), TEST LEVEL 3

FROM STATION	OFFSET	TO STATION	OFFSET	EACH
88+99.6	LT	89+19.6	LT	1
96+90.0	LT	97+10.0	LT	1
			TOTAL	2

RELOCATE TEMPORARY CONCRETE BARRIER

FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH (FT)
89+19.60	0.14' LT	89+70.00	4.06' RT	51
89+70.00	4.06' RT	96+18.86	4.07' RT	649
96+18.86	4.07' RT	96+90.00	4.00' LT	72
			TOTAL	772

PIPE CULVERT REMOVAL

STATION	LENGTH (FT)
95+44.27	59
TOTAL	59

REMOVE GROUND MOUNTED SIGN SUPPORT

FROM STATION	TO STATION	LT/RT	EACH
90+29.06	28.60'	RT	1
92+69.68	24.90'	RT	1
97+07.00	28.60'	RT	1
96+11.51	24.90'	LT	1
		TOTAL	4

REMOVE PANEL SIGN ASSEMBLY - TYPE A

FROM STATION	TO STATION	LT/RT	EACH
90+29.06	28.60'	RT	1
92+69.68	24.90'	RT	1
96+11.51	24.90'	LT	1
		TOTAL	3

REMOVE SIGN PANEL ASSEMBLY - TYPE B

FROM STATION	TO STATION	LT/RT	EACH
97+07.00	28.60'	RT	1
		TOTAL	1

TELESCOPING STEEL SIGN SUPPORT

FROM STATION	TO STATION	LT/RT	POST 1 (FT)	POST 2 (FT)	TOTAL LENGTH (FT)
90+29.06	28.60'	RT	15.2	-	15.2
92+69.68	24.90'	RT	12.1	-	12.1
97+07.00	28.60'	RT	11.4	12.2	23.6
96+11.51	24.90'	LT	12.1	-	12.1
				TOTAL	63

SIGN PANEL, TYPE 1

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)
90+29.06	28.60'	RT	9.00
90+29.06	28.60'	RT	2.25
		TOTAL	11.25
		ROUNDED TOTAL	12

SIGN PANEL, TYPE 3

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)
97+07.00	28.60'	RT	29.17
		ROUNDED TOTAL	30

GUARDRAIL REFLECTORS, TYPE A

FROM STATION	TO STATION	LT/RT	EACH (AT 25')
92+82.46	93+87.86	LT	5
95+06.79	96+49.69	LT	6
92+35.31	93+78.21	RT	6
94+97.14	96+02.54	RT	6
		TOTAL	22

TERMINAL MARKER-DIRECT APPLIED

STATION	OFFSET	EACH
92+73.71	LT	1
96+58.44	LT	1
96+26.56	RT	1
96+11.29	RT	1
	TOTAL	4

GUARDRAIL AGGREGATE EROSION CONTROL

FROM STATION	TO STATION	LT/RT	TON
92+38.48	93+87.86	LT	8
91+86.31	93+78.21	LT	10
91+95.06	95+06.79	RT	10
94+97.14	96+46.52	RT	8
		TOTAL	36

FILTER FABRIC

FROM STATION	TO STATION	LT/RT	AREA (SQ FT)	AREA (SQ YD)
92+47.23	93+87.86	LT	845	94
95+06.79	96+84.91	LT	1,020	113
91+95.06	93+78.21	RT	995	111
94+97.14	96+37.77	RT	847	94
			SUBTOTAL	412
			FROM STRUCTURE BILL OF MATERIAL	1,089
			TOTAL	1,501

APPROACH SLAB REMOVAL

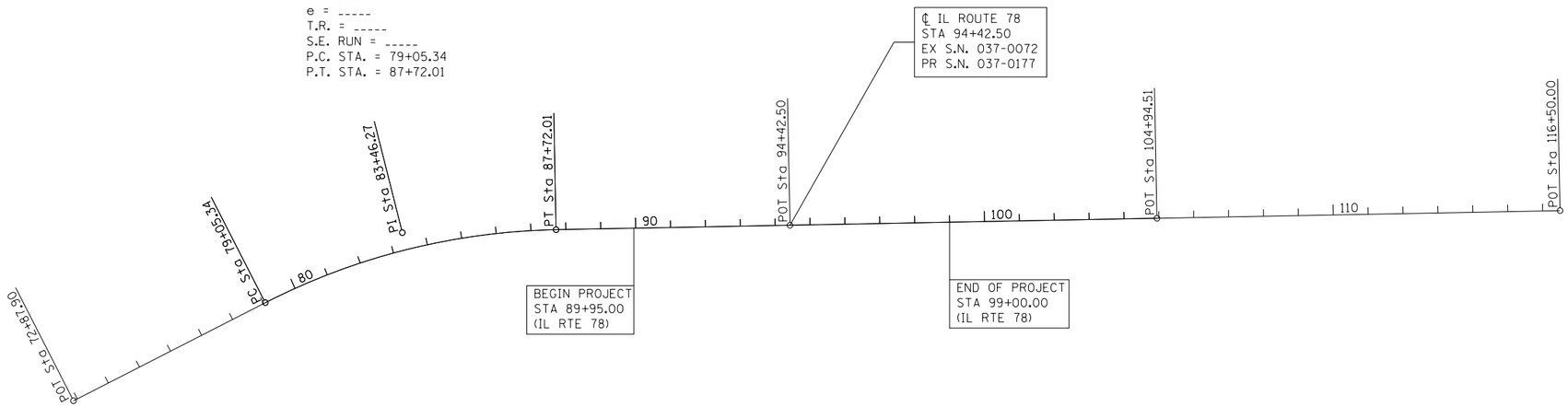
FROM STATION	TO STATION	OFFSET	AREA (SQ YD)
93+65.95	93+86.95	CL	73
94+98.09	95+19.09	CL	73
		TOTAL	146

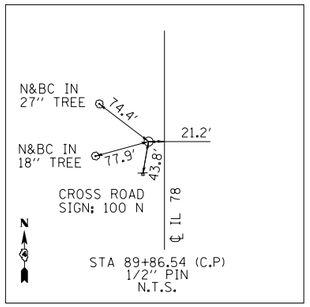
MATERIAL TRANSFER DEVICE

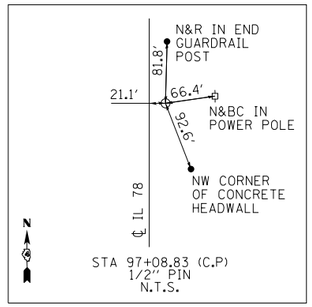
PAY ITEM	TON
40603310	156
40603210	170
TOTAL	326

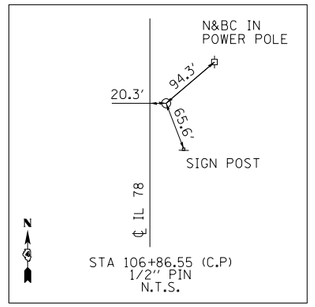
BENCHMARK: CHISELED "□" ON SE PARAPET WALL OF S.N. 037-0072.
ELEV. = 745.23 (NGVD 1929)

EXIST. CURVE C1
PI STA. = 83+46.27
Δ = 26° 00′ 00″ (RT)
D = 3° 00′ 00″
R = 1,909.86′
T = 440.93′
L = 866.67′
E = 50.24′
e = -----
T.R. = -----
S.E. RUN = -----
P.C. STA. = 79+05.34
P.T. STA. = 87+72.01







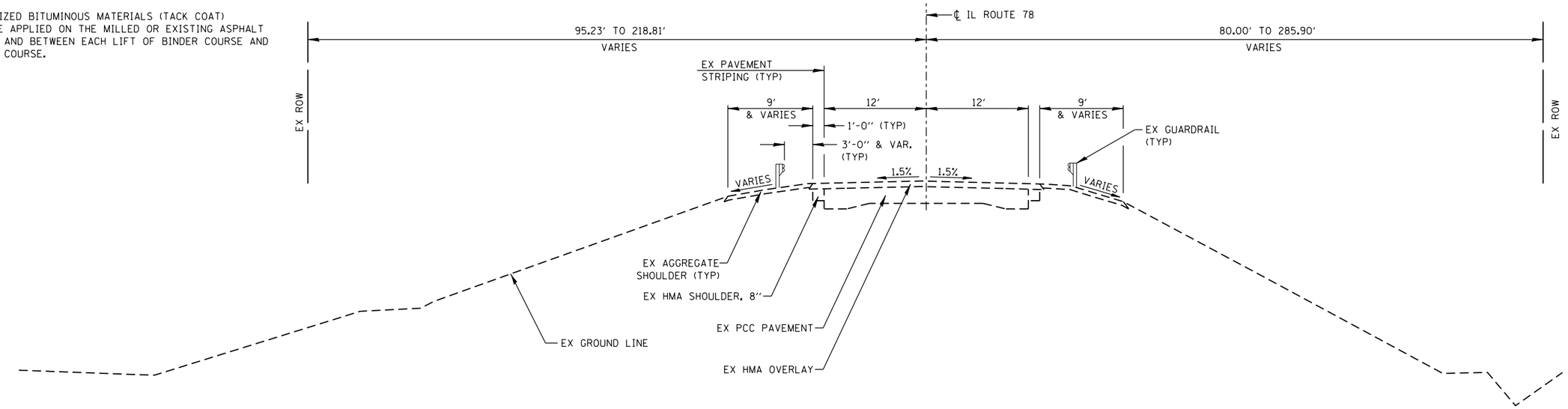


LIN ENGINEERING, LTD. Consulting Engineers, Westmont, Illinois		DESIGNED - IS	REVISED - -- -------	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ALIGNMENT, TIES AND BENCHMARKS IL ROUTE 78 OVER INDIAN CREEK
		DRAWN - RP	REVISED - -- -------		
	PLOT SCALE = 400.0000 ′ / in.	CHECKED - ST	REVISED - -- -------		
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED - -- -------		SCALE: / SHEET NO. 1 OF 1 SHEETS / STA. / TO STA.

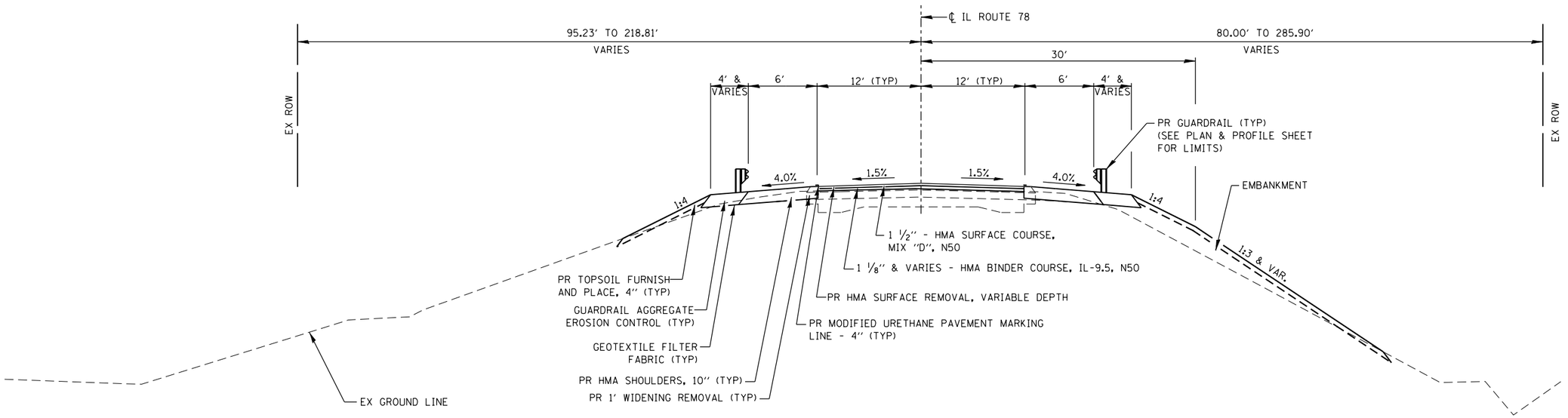
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	15
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

NOTES:

1. POLYMERIZED BITUMINOUS MATERIALS (TACK COAT) SHALL BE APPLIED ON THE MILLED OR EXISTING ASPHALT SURFACE AND BETWEEN EACH LIFT OF BINDER COURSE AND SURFACE COURSE.



EXISTING TYPICAL SECTION

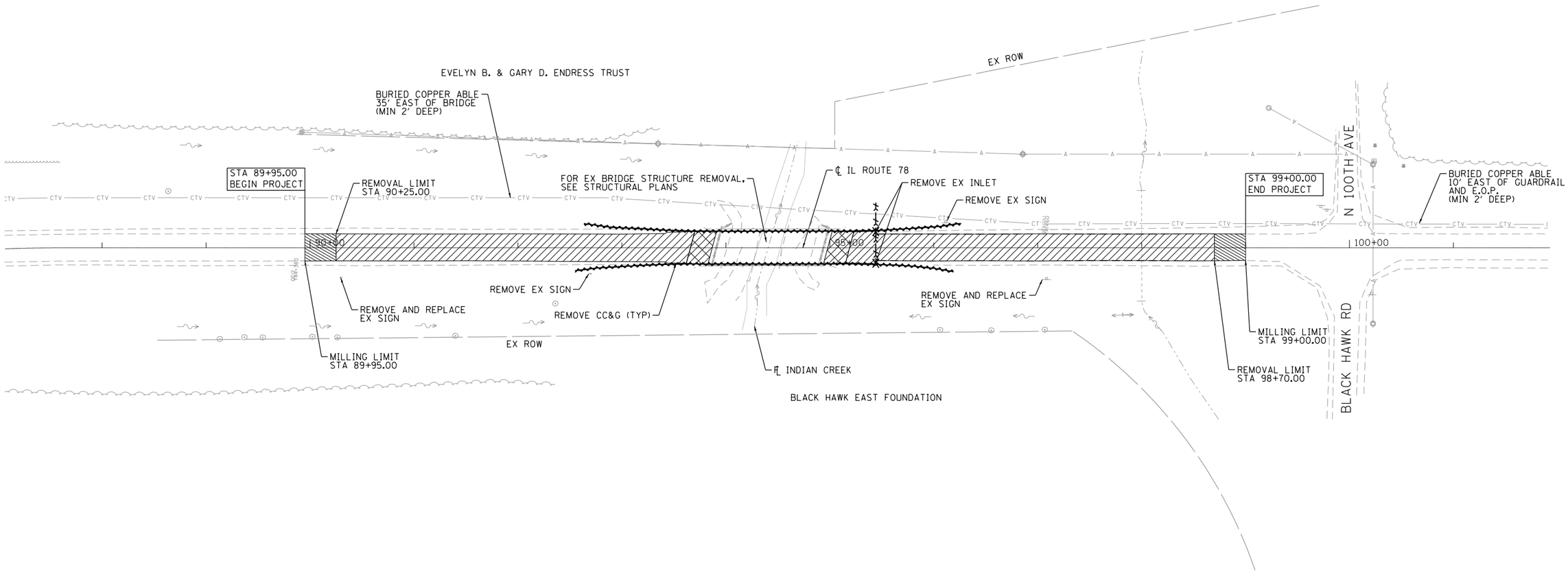


PROPOSED TYPICAL SECTION

STA 89+95.00 TO STA 93+33.21
STA 95+51.79 TO STA 99+00.00
STRUCTURE AND BRIDGE APPROACH
AND PAVEMENT CONNECTOR OMISSION
STA. 93+33.21 TO STA. 95+51.79

LIN ENGINEERING, LTD. Consulting Engineers, Westmont, Illinois		DESIGNED - IS	REVISED - -- -------	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**TYPICAL SECTIONS IL ROUTE 78 OVER INDIAN CREEK**
		DRAWN - RP	REVISED - -- -------		
	PLOT SCALE = 100.0000 ft / in.	CHECKED - ST	REVISED - -- -------		
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED - -- -------		SCALE: N.T.S. | SHEET NO. 1 OF 1 SHEETS | STA. 89+95.00 TO STA. 99+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	16
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			



LEGEND

- HOT-MIX ASPHALT SURFACE REMOVAL- BUTT JOINT
- HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH
- APPROACH SLAB REMOVAL
- GUARDRAIL REMOVAL
- PIPE CULVERT REMOVAL

N

0 50' 100'

SCALE: 1" = 50'

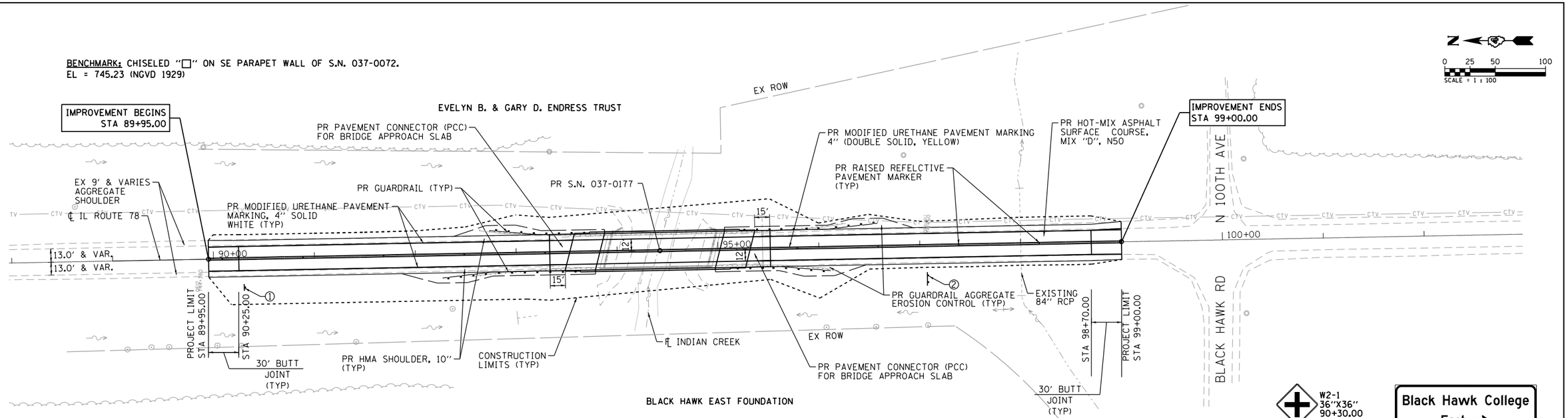
LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois		DESIGNED - IS	REVISED - -- -------	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
		DRAWN - RP	REVISED - -- -------	
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED - -- -------	
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED - -- -------	

REMOVAL PLAN
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. 89+95.00 TO STA. 99+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	17
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

BENCHMARK: CHISELED "□" ON SE PARAPET WALL OF S.N. 037-0072.
EL = 745.23 (NGVD 1929)

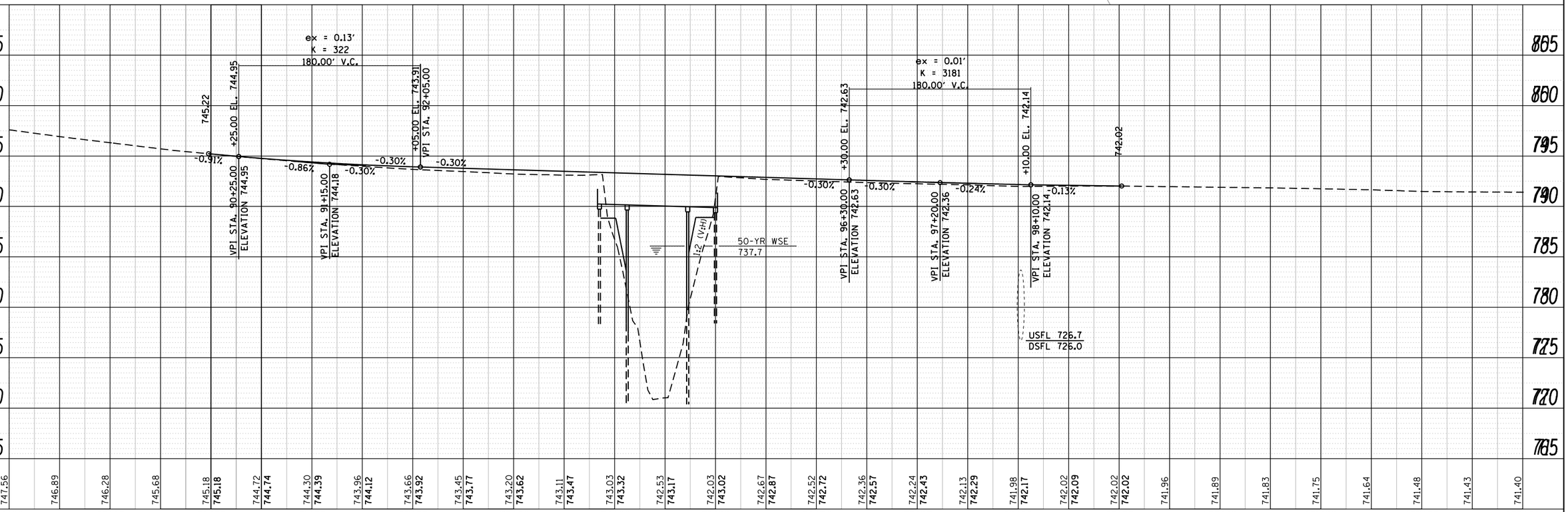


LIMITS OF PR BUTT JOINT
STA 80+95.00 TO STA 90+25.00
STA 98+70.00 TO STA 99+00.00

PR TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)
STA 92+73.71 TO STA 93+35.96 (LT)
STA 95+96.19 TO STA 96+58.44 (LT)
STA 92+26.56 TO STA 92+88.81 (RT)
STA 95+49.04 TO STA 96+11.29 (RT)

PR STEEL PLATE BEAM GUARD RAIL, TYPE A
STA 95+58.69 TO STA 95+96.19 (LT)
STA 92+88.81 TO STA 93+26.31 (RT)

PR TRAFFIC BARRIER TERMINAL, TYPE G
STA 93+35.96 TO STA 93+72.86 (LT)
STA 95+21.79 TO STA 95+58.69 (LT)
STA 93+26.31 TO STA 93+63.21 (RT)
STA 95+12.14 TO STA 95+49.04 (RT)



LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois	DESIGNED - IS	REVISED - -- -------	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - IS	REVISED - -- -------	PLAN & PROFILE IL ROUTE 78 OVER INDIAN CREEK
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED - -- -------	SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. 89+95.00 TO STA. 99+00.00
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED - -- -------	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	18
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE:

PRE-STAGE

TRAFFIC:

1. UTILIZE IDOT STANDARD 701201 AND 701326 TO CONSTRUCT PAVEMENT WIDENING ON NORTHBOUND AND SOUTHBOUND SHOULDER OF IL ROUTE 78.

CONSTRUCTION:

1. REMOVE EXISTING 1' WIDENING AND EXISTING HMA OVERLAY ON TOP OF NORTHBOUND LANE FROM STA 89+95.00 TO STA 93+33.21 AND STA 95+51.79 TO STA 97+00.00, AS SHOWN IN MOT STAGE 1 PLAN AND MOT TYPICAL SECTION ON SHEETS NO. 20, 23 AND 24.

2. CONSTRUCT NORTHBOUND 10'' HMA SHOULDER ALONG IL ROUTE 78 FROM STA 89+02.00 TO STA 89+95.00, UPTO ADJACENT EXISTING PAVEMENT ELEVATION. THE HMA SHOULDER CONSTRUCTED OUTSIDE THE PROJECT LIMITS SHALL REMAIN IN PLACE AFTER STAGE CONSTRUCTION.

3. CONSTRUCT NORTHBOUND HMA SHOULDER ALONG IL ROUTE 78 FROM STA 89+95.00 TO STA 93+33.21 AND FROM STA 95+51.79 TO STA 97+00.00 UP TO THE ADJACENT EXISTING PAVEMENT ELEVATION, AS SHOWN IN MOT STAGE 1 PLAN AND MOT TYPICAL SECTION ON SHEETS NO. 20, 23 AND 24.

STAGE 1

TRAFFIC:

1. CLOSE WEST HALF OF IL ROUTE 78 IN ACCORDANCE WITH HIGHWAY STANDARD 701201 AND 701321 AND AS SHOWN ON THE MOT STAGE 1 PLAN SHEETS NO. 23 AND 24.

CONSTRUCTION:

1. REMOVE/MILL SOUTHBOUND EXISTING HMA PAVEMENT FROM STA 89+95.00 TO STA 93+33.21 AND FROM STA 95+51.79 TO STA 96+00.00.

2. CONSTRUCT EAST SIDE GRADING, PROPOSED BRIDGE, GUARDRAIL, GUARDRAIL AGGREGATE EROSION CONTROL AND PAVEMENT FROM STA 89+95.00 TO STA 96+00.00. HMA SHOULDER CONSTRUCTED IN PRE-STAGE SHALL BE RESURFACED TO MATCH THE PROPOSED THICKNESS, ELEVATION AND SLOPE.

3. REMOVE EXISTING 1' WIDENING AND EXISTING HMA OVERLAY ON TOP OF SOUTHBOUND LANE FROM STA 96+00.00 TO STA 97+40.00, AS SHOWN IN MOT STAGE 1 PLAN AND MOT TYPICAL SECTIONS ON SHEETS NO. 20, 23 AND 24.

4. CONSTRUCT SOUTHBOUND HMA SHOULDER ALONG IL ROUTE 78 FROM STA 96+00.00 TO STA 97+40.00 UP TO THE ADJACENT EXISTING PAVEMENT ELEVATION, AS SHOWN IN MOT STAGE 1 PLAN AND MOT TYPICAL SECTION ON SHEETS NO. 20, 23 AND 24.

5. CONSTRUCT SOUTHBOUND 10'' HMA SHOULDER ALONG IL ROUTE 78 FROM STA 88+58.75 TO STA 89+95.00, UPTO ADJACENT EXISTING PAVEMENT ELEVATION. THE HMA SHOULDER CONSTRUCTED OUTSIDE THE PROJECT LIMITS SHALL REMAIN IN PLACE AFTER STAGE CONSTRUCTION.

STAGE 2

TRAFFIC:

1. CLOSE EAST HALF OF IL ROUTE 78 IN ACCORDANCE WITH HIGHWAY STANDARD 701201 AND 701321 AND AS SHOWN IN MOT STAGE 1 PLAN AND MOT TYPICAL SECTIONS ON SHEETS NO. 20, 25 AND 26.

CONSTRUCTION:

1. REMOVE/MILL NORTHBOUND EXISTING HMA PAVEMENT FROM STA 89+95.00 TO STA 93+33.21 AND FROM STA 95+51.79 TO STA 96+00.00.

2. CONSTRUCT WEST SIDE GRADING, PROPOSED BRIDGE, GUARDRAIL, GUARDRAIL AGGREGATE EROSION CONTROL, 10'' HMA SHOULDER AND PAVEMENT FROM STA 89+95.00 TO STA 96+00.00, AS SHOWN ON THE PROPOSED PLAN SHEET NO. 18. HMA SHOULDER CONSTRUCTED IN PRE-STAGE SHALL BE RESURFACED TO MATCH THE PROPOSED THICKNESS, ELEVATION AND SLOPE.

STAGE 3A

TRAFFIC:

1. UTILIZE HIGHWAY STANDARD 701201 AND/OR 701326 FOR CLOSURE AND CONSTRUCTION OF NORTHBOUND GUARDRAIL AGGREGATE EROSION CONTROL AND HMA SHOULDER TO MATCH EXISTING PAVEMENT ELEVATION.

CONSTRUCTION:

1. REMOVE EXISTING 1' WIDENING AND EXISTING HMA OVERLAY ON TOP OF NORTHBOUND LANE FROM STA 96+00.00 TO STA 99+00.00 AND CONSTRUCT HMA SHOULDER TO MATCH THE ADJACENT EXISTING PAVEMENT ELEVATION, AS SHOWN IN THE MOT TYPICAL SECTION ON SHEET NO. 21. HMA SHOULDER CONSTRUCTED IN PRE-STAGE FROM STA 96+00.00 TO STA 97+00.00 SHALL REMAIN IN PLACE.

2. CONSTRUCT NORTHBOUND GUARDRAIL AGGREGATE EROSION CONTROL ALONG IL ROUTE 78 FROM STA 96+00.00 TO STA 99+00.00 TO MATCH ADJACENT NEWLY CONSTRUCTED HMA SHOULDER ELEVATION.

STAGE 3B

TRAFFIC:

1. UTILIZE HIGHWAY STANDARD 701201 AND/OR 701326 FOR CLOSURE AND CONSTRUCTION OF SOUTHBOUND GUARDRAIL AGGREGATE EROSION CONTROL AND HMA SHOULDER TO MATCH EXISTING PAVEMENT ELEVATION.

CONSTRUCTION:

1. REMOVE EXISTING 1' WIDENING AND EXISTING HMA OVERLAY ON TOP OF SOUTHBOUND LANE FROM STA 96+00.00 TO STA 99+00.00 AND CONSTRUCT HMA SHOULDER TO MATCH THE ADJACENT EXISTING PAVEMENT ELEVATION, AS SHOWN IN THE MOT TYPICAL SECTION ON SHEET NO. 21. HMA SHOULDER CONSTRUCTED IN STAGE 1 FROM STA 96+00.00 TO STA 97+40.00 SHALL REMAIN IN PLACE.

2. CONSTRUCT SOUTHBOUND GUARDRAIL AGGREGATE EROSION CONTROL ALONG IL ROUTE 78 FROM STA 96+00.00 TO STA 99+00.00 TO MATCH ADJACENT NEWLY CONSTRUCTED HMA SHOULDER ELEVATION.

STAGE 4

TRAFFIC:

1. UTILIZE HIGHWAY STANDARD 701201 FOR CLOSURE AND CONSTRUCTION OF SOUTHBOUND PAVEMENT, HMA SHOULDER AND GUARDRAIL AGGREGATE EROSION CONTROL.

CONSTRUCTION:

1. REMOVE/MILL SOUTHBOUND EXISTING HMA PAVEMENT AND CONSTRUCT PROPOSED HMA PAVEMENT FROM STA 96+00.00 TO STA 99+00.00, AS SHOWN IN THE MOT TYPICAL SECTION ON SHEET NO. 22.

2. RESURFACE SOUTHBOUND HMA SHOULDER AND GUARDRAIL AGGREGATE EROSION CONTROL TO MATCH THE PROPOSED THICKNESS, ELEVATION AND SLOPE FROM STA 96+00.00 TO STA 99+00.00, AS SHOWN IN THE PROPOSED CROSS SECTIONS.

3. INSTALL SOUTHBOUND PROPOSED GUARDRAIL, AS SHOWN ON THE PLAN SHEET NO. 18.

STAGE 5

TRAFFIC:

1. UTILIZE HIGHWAY STANDARD 701201 FOR CLOSURE AND CONSTRUCTION OF NORTHBOUND PAVEMENT, HMA SHOULDER AND GUARDRAIL AGGREGATE EROSION CONTROL.

CONSTRUCTION:

1. REMOVE/MILL NORTHBOUND EXISTING HMA PAVEMENT AND CONSTRUCT PROPOSED HMA PAVEMENT FROM STA 96+00.00 TO STA 99+00.00, AS SHOWN IN THE MOT TYPICAL SECTION ON SHEET NO. 22.

2. RESURFACE NORTHBOUND HMA SHOULDER AND GUARDRAIL AGGREGATE EROSION CONTROL TO MATCH THE PROPOSED THICKNESS, ELEVATION AND SLOPE FROM STA 96+00.00 TO STA 99+00.00, AS SHOWN IN THE PROPOSED CROSS SECTIONS.

3. INSTALL NORTHBOUND PROPOSED GUARDRAIL, AS SHOWN ON THE PLAN SHEET NO. 18.

POST STAGE 5

CONSTRUCTION:

1. REMOVE TEMPORARY PAVEMENT MARKING AND INSTALL PROPOSED PAVEMENT MARKING AS SHOWN ON THE PLAN SHEET NO. 18.

GENERAL NOTE:

1. EXISTING PAVEMENT MARKING WHEREVER DISTURBED DURING THE STAGE CONSTRUCTION OUTSIDE THE PROJECT LIMITS SHALL BE REINSTATED TO ITS ORIGINAL CONFIGURATION AT NO ADDITIONAL COST.

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

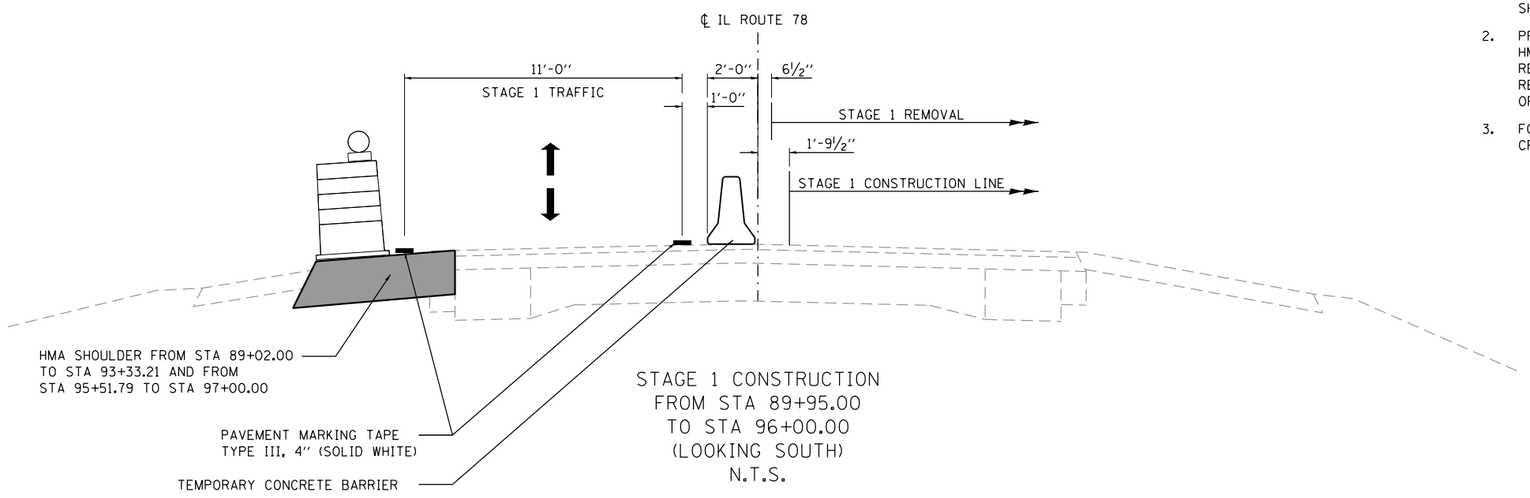
	DESIGNED - IS	REVISED - -- -------	
	DRAWN - RP	REVISED - -- -------	
PLOT SCALE = 100.0000 '/ in.	CHECKED - ST	REVISED - -- -------	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED - -- -------	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC – STAGING/CONSTRUCTION SEQUENCE
IL ROUTE 78 OVER INDIAN CREEK

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

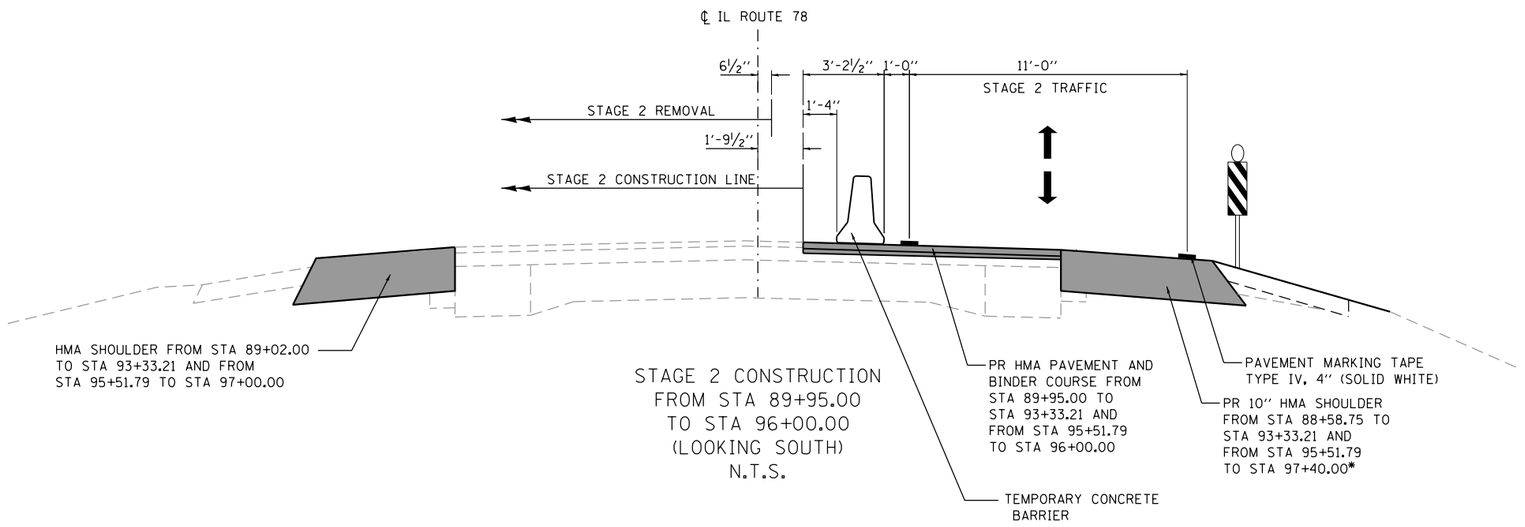
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	19
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			



STAGE 1 CONSTRUCTION
FROM STA 89+95.00
TO STA 96+00.00
(LOOKING SOUTH)
N.T.S.

NOTES:

1. FOR STATION LIMITS AND SCOPE OF WORK UNDER STAGE CONSTRUCTION SEE MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE ON SHEET NO. 19.
2. PRE-STAGE, STAGE 1 AND STAGE 2 CONSTRUCTION:
   HMA SHOULDER CONSTRUCTED IN PRE-STAGE AND STAGE 1 SHALL REMAIN IN PLACE AND SHALL MATCH THE PROPOSED CONDITION IN RESPECTIVE STAGE OF CONSTRUCTION AS STATED IN MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE ON SHEET NO. 19.
3. FOR FINAL/PROPOSED ELEVATIONS AND SLOPES SEE PROPOSED CROSS SECTIONS.

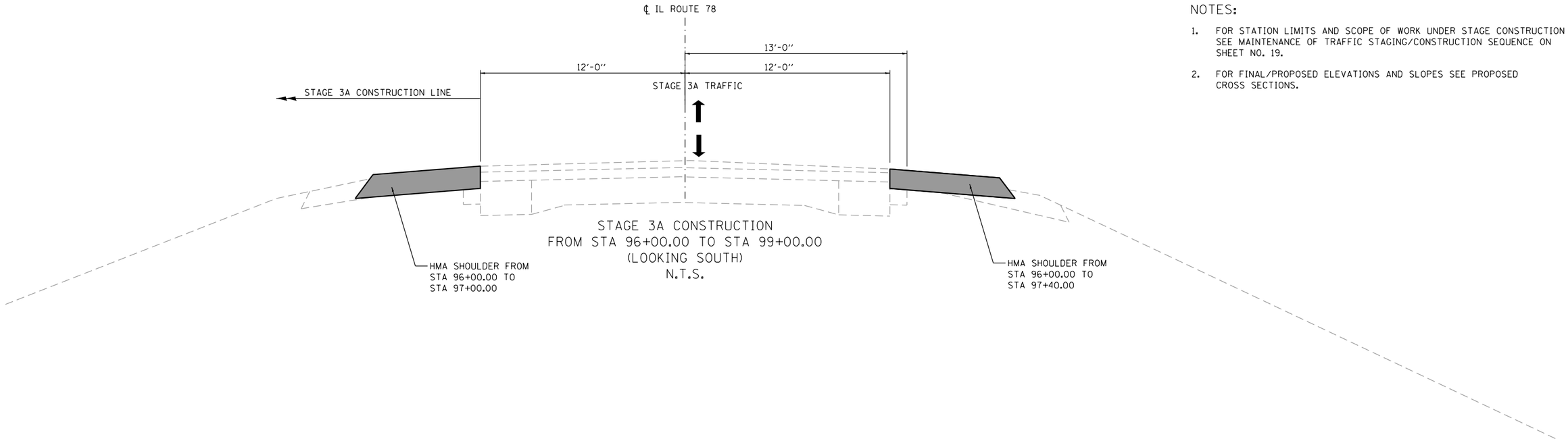


STAGE 2 CONSTRUCTION
FROM STA 89+95.00
TO STA 96+00.00
(LOOKING SOUTH)
N.T.S.

* FROM STA 96+00.00 TO 97+40.00, CONSTRUCTED HMA SHOULDER MATCH THE EXISTING PAVEMENT ELEVATION.

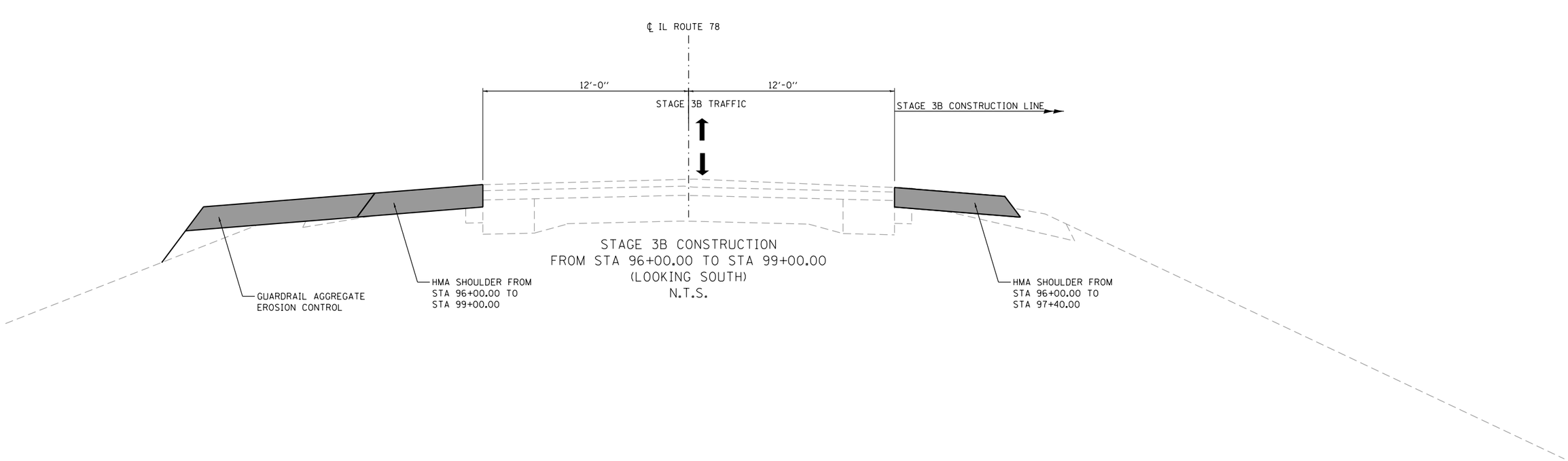
LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois		DESIGNED - IS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC – TYPICAL SECTIONS IL ROUTE 78 OVER INDIAN CREEK
		DRAWN - RP	REVISED -		
	PLOT SCALE = 6.0000 ' / in.	CHECKED - ST	REVISED -		
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -		SCALE: N.T.S. | SHEET NO. 1 OF 3 SHEETS | STA. 89+95.00 TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	20
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			



NOTES:

1. FOR STATION LIMITS AND SCOPE OF WORK UNDER STAGE CONSTRUCTION SEE MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE ON SHEET NO. 19.
2. FOR FINAL/PROPOSED ELEVATIONS AND SLOPES SEE PROPOSED CROSS SECTIONS.

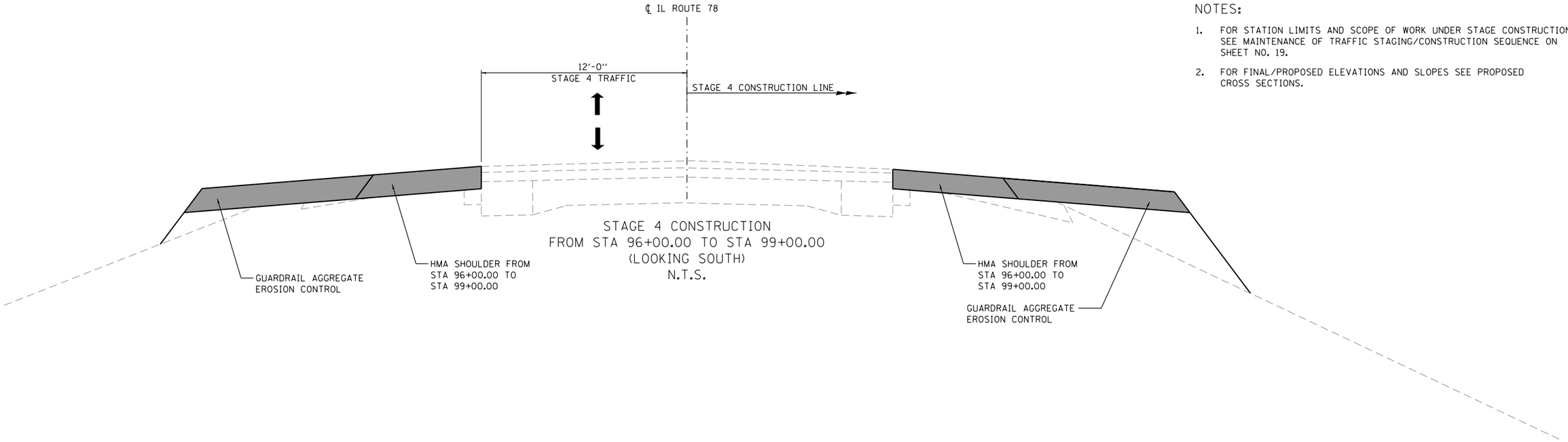


LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois		DESIGNED - IS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC – TYPICAL SECTIONS IL ROUTE 78 OVER INDIAN CREEK
	PLOT SCALE = 6.0000 ' / in.	DRAWN - RP	REVISED -		SCALE: N.T.S. | SHEET NO. 2 OF 3 SHEETS | STA. 96+00.00 TO STA. 99+00.00
	PLOT DATE = 1/31/2018	CHECKED - ST	REVISED -		
		DATE - 01/2018	REVISED -		

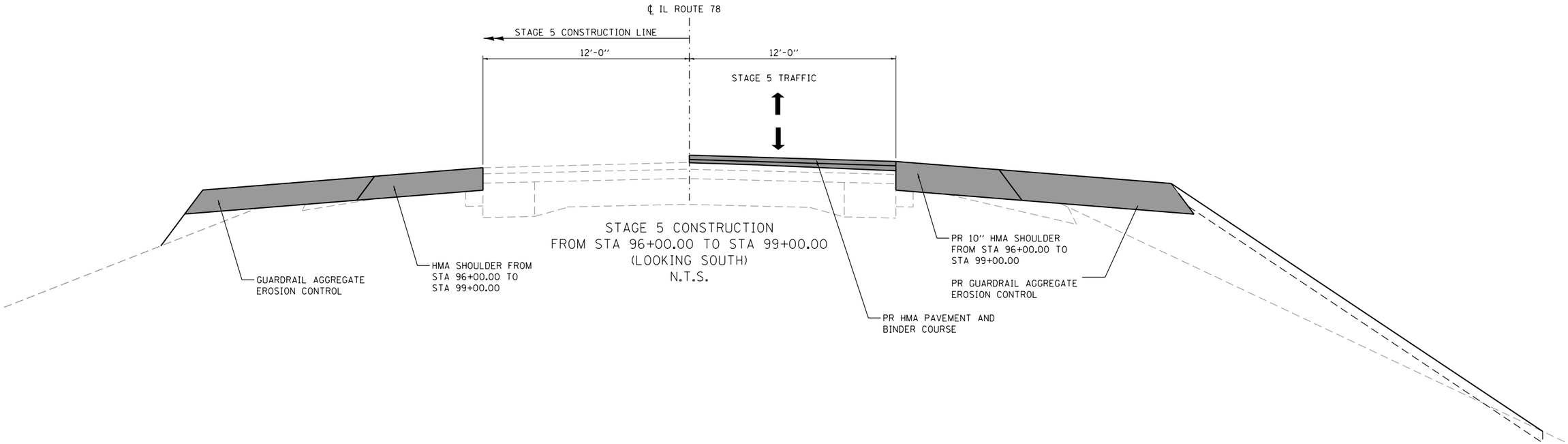
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	21
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

NOTES:

1. FOR STATION LIMITS AND SCOPE OF WORK UNDER STAGE CONSTRUCTION SEE MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE ON SHEET NO. 19.
2. FOR FINAL/PROPOSED ELEVATIONS AND SLOPES SEE PROPOSED CROSS SECTIONS.



STAGE 4 CONSTRUCTION
FROM STA 96+00.00 TO STA 99+00.00
(LOOKING SOUTH)
N.T.S.



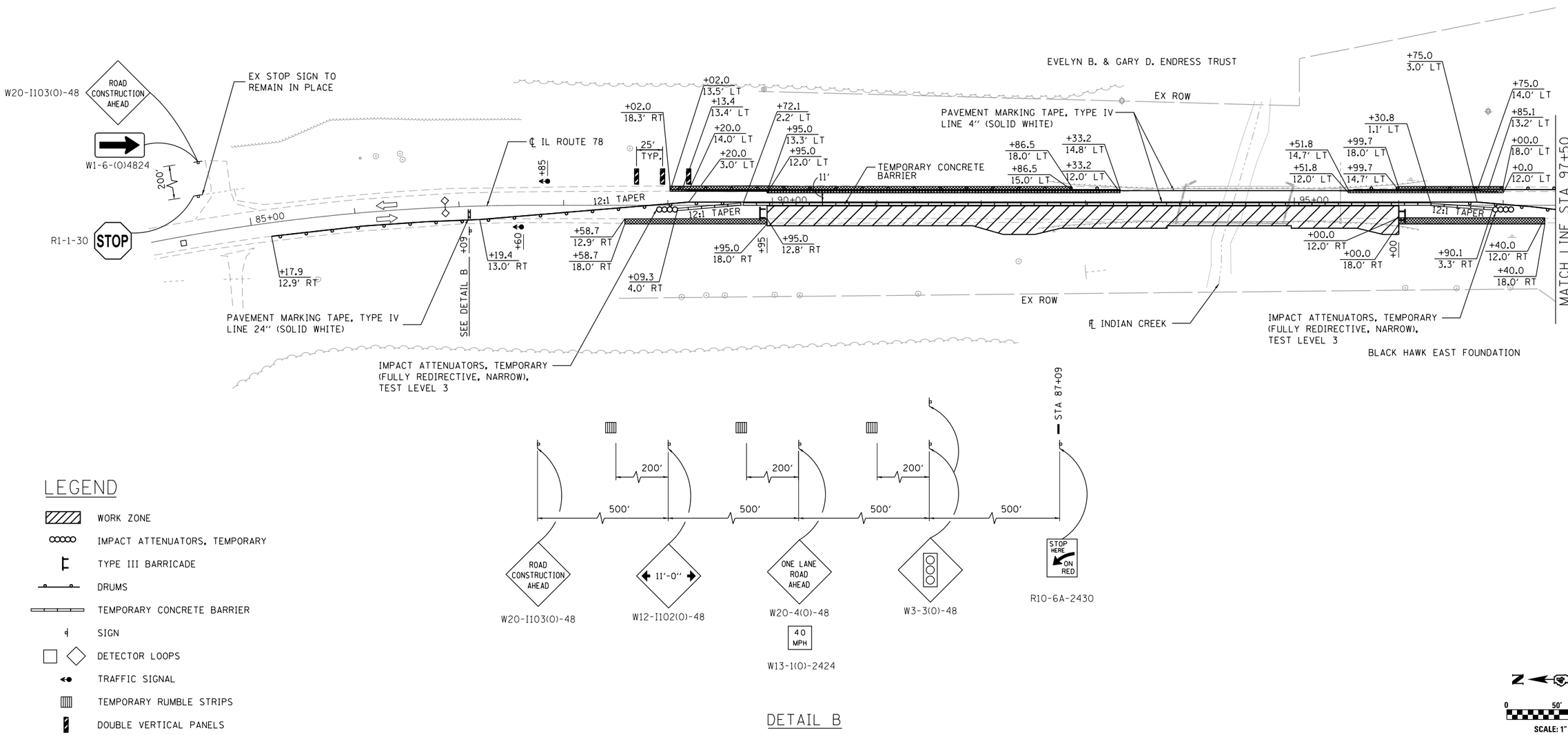
STAGE 5 CONSTRUCTION
FROM STA 96+00.00 TO STA 99+00.00
(LOOKING SOUTH)
N.T.S.

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois		DESIGNED - IS	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAINTENANCE OF TRAFFIC – TYPICAL SECTIONS IL ROUTE 78 OVER INDIAN CREEK
		DRAWN - RP	REVISED -		
	PLOT SCALE = 6.0000 ' / in.	CHECKED - ST	REVISED -		
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -		SCALE: N.T.S. | SHEET NO. 3 OF 3 SHEETS | STA. 96+00.00 TO STA. 99+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	22
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

NOTE:

1. FOR MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE, SEE SHEET NO. 19.



DETAIL B

LEGEND

- WORK ZONE
- IMPACT ATTENUATORS, TEMPORARY
- TYPE III BARRICADE
- DRUMS
- TEMPORARY CONCRETE BARRIER
- SIGN
- DETECTOR LOOPS
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIPS
- DOUBLE VERTICAL PANELS
- HMA SHOULDER

N

0 50' 100'

SCALE: 1" = 50'

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - IS	REVISED -	
	DRAWN - RP	REVISED -	
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

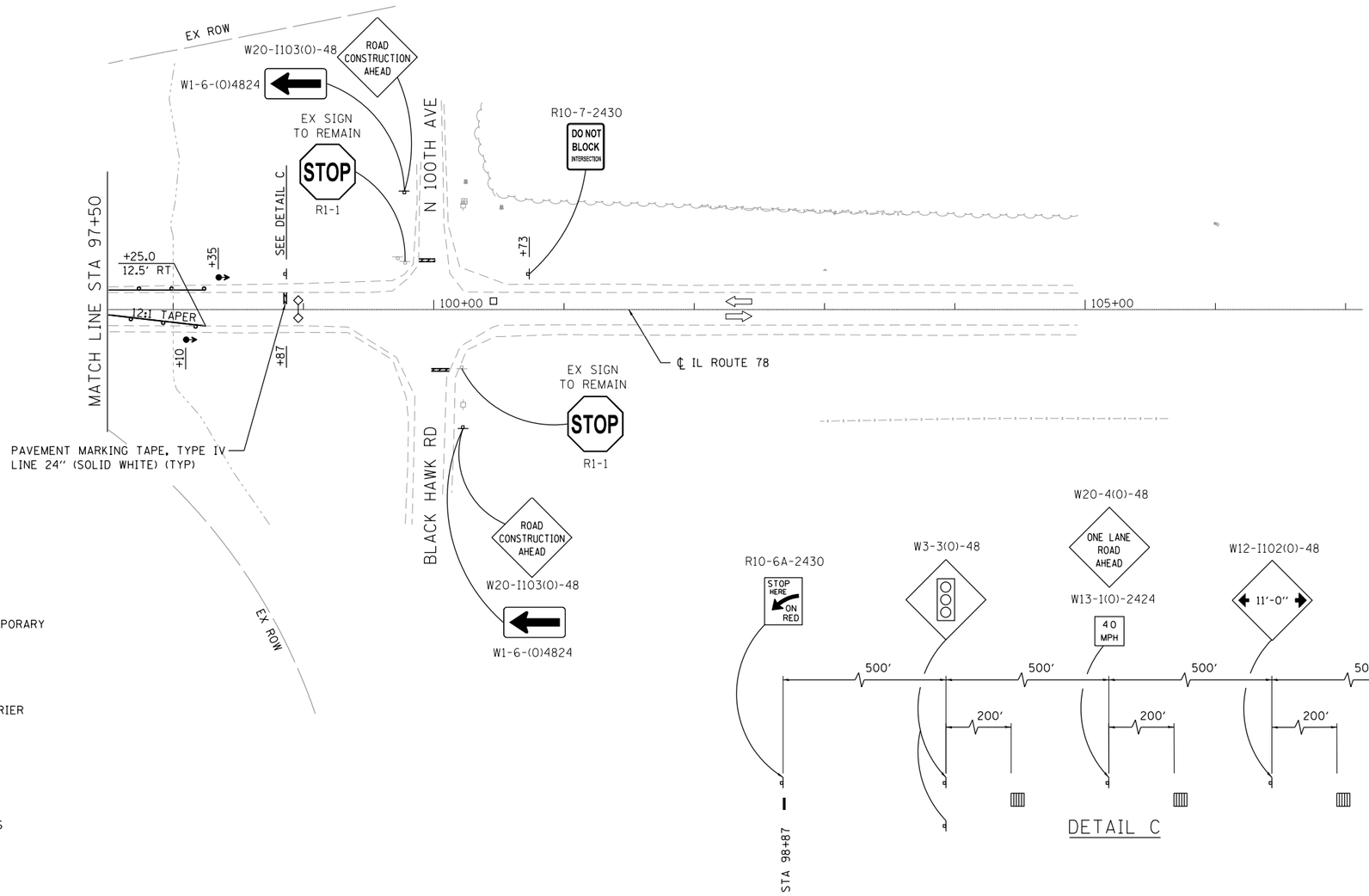
MAINTENANCE OF TRAFFIC – STAGE 1
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=50' | SHEET NO. 1 OF 2 SHEETS | STA. 89+95.00 | TO STA. 97+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	23
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

NOTE:

1. FOR MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE, SEE SHEET NO. 19.



LEGEND

- WORK ZONE
- IMPACT ATTENUATORS, TEMPORARY
- TYPE III BARRICADE
- DRUMS
- TEMPORARY CONCRETE BARRIER
- SIGN
- DETECTOR LOOPS
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIPS
- DOUBLE VERTICAL PANELS

LIN ENGINEERING, LTD. Consulting Engineers, Westmont, Illinois		DESIGNED - IS	REVISED -
		DRAWN - RP	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

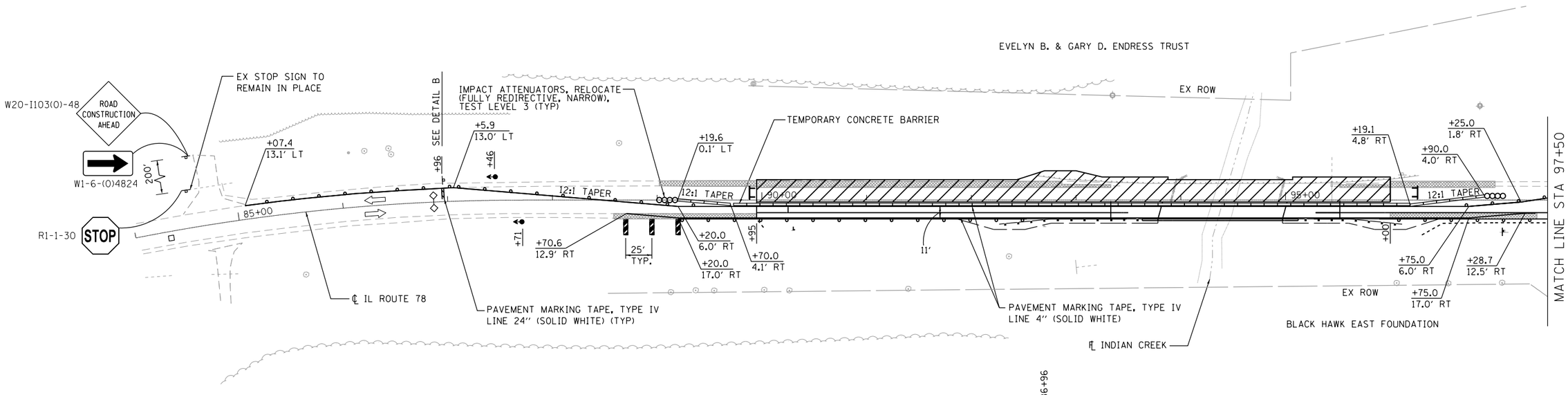
MAINTENANCE OF TRAFFIC – STAGE 1
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=50' | SHEET NO. 2 OF 2 SHEETS | STA. 97+50.00 TO STA. 99+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	24
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

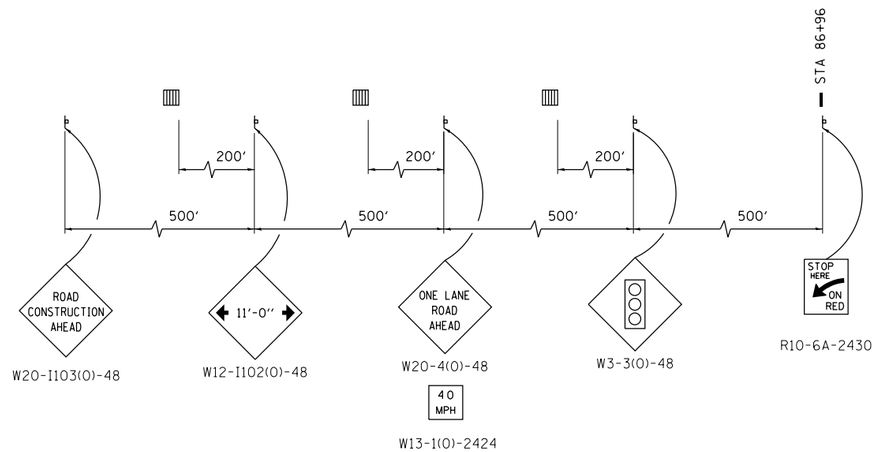
NOTE:

1. FOR MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE, SEE SHEET NO. 19.



LEGEND

- WORK ZONE
- IMPACT ATTENUATORS, TEMPORARY
- TYPE III BARRICADE
- DRUMS
- TEMPORARY CONCRETE BARRIER
- SIGN
- DETECTOR LOOPS
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIPS
- DOUBLE VERTICAL PANELS
- HMA SHOULDER



DETAIL B

N

0 50' 100'

SCALE: 1" = 50'

LIN ENGINEERING, LTD. Consulting Engineers Westmont, Illinois	DESIGNED - IS	REVISED - -- -------	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
	DRAWN - RP	REVISED - -- -------	
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED - -- -------	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED - -- -------	

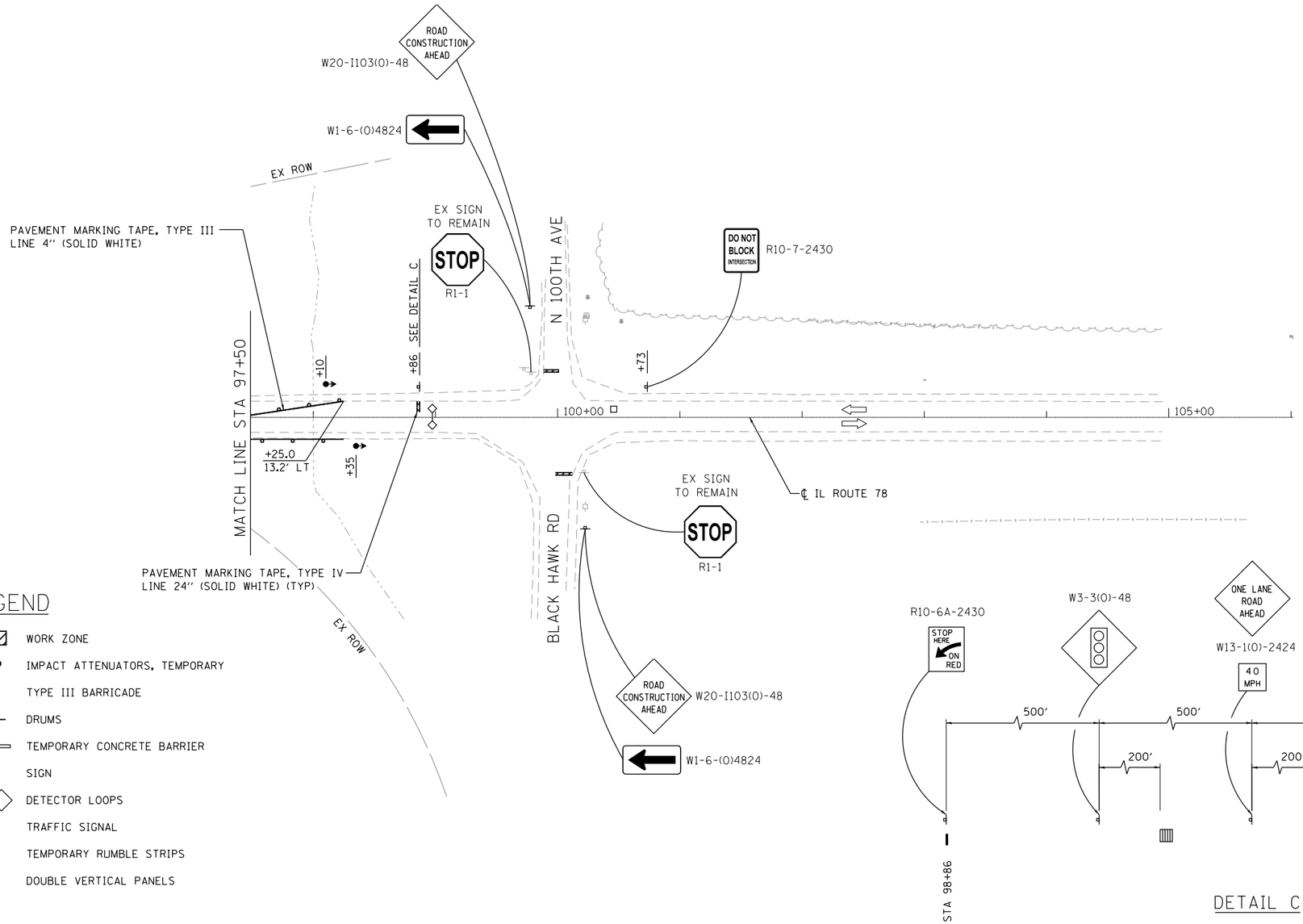
MAINTENANCE OF TRAFFIC – STAGE 2
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=50' | SHEET NO. 1 OF 2 SHEETS | STA. 89+95.00 TO STA. 97+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	25
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

NOTE:

1. FOR MAINTENANCE OF TRAFFIC STAGING/CONSTRUCTION SEQUENCE, SEE SHEET NO. 19.



LEGEND

- WORK ZONE
- IMPACT ATTENUATORS, TEMPORARY
- TYPE III BARRICADE
- DRUMS
- TEMPORARY CONCRETE BARRIER
- SIGN
- DETECTOR LOOPS
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIPS
- DOUBLE VERTICAL PANELS

DETAIL C

0 50' 100'

SCALE: 1"=50'

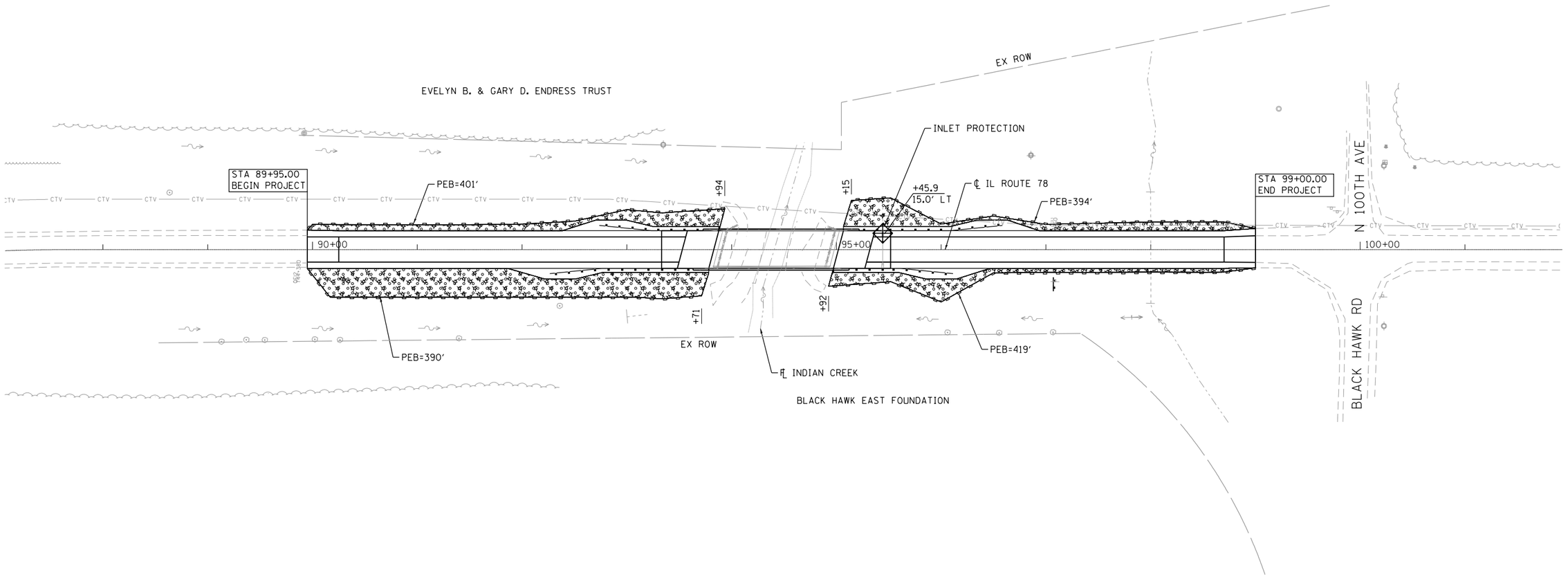
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois		DESIGNED - IS	REVISED -
		DRAWN - RP	REVISED -
	PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC – STAGE 2
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=50' | SHEET NO. 2 OF 2 SHEETS | STA. 97+50.00 TO STA. 99+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	26
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- SEEDING, CLASS 2A
- MULCH, METHOD 2
- PERIMETER EROSION BARRIER (PEB)
- INLET AND PIPE PROTECTION

N

0 50' 100'

SCALE: 1" = 50'

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Westmont, Illinois

	DESIGNED - IS	REVISED - -- -------	
	DRAWN - RP	REVISED - -- -------	
PLOT SCALE = 100.0000 ' / in.	CHECKED - ST	REVISED - -- -------	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED - -- -------	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EROSION CONTROL PLAN
IL ROUTE 78 OVER INDIAN CREEK

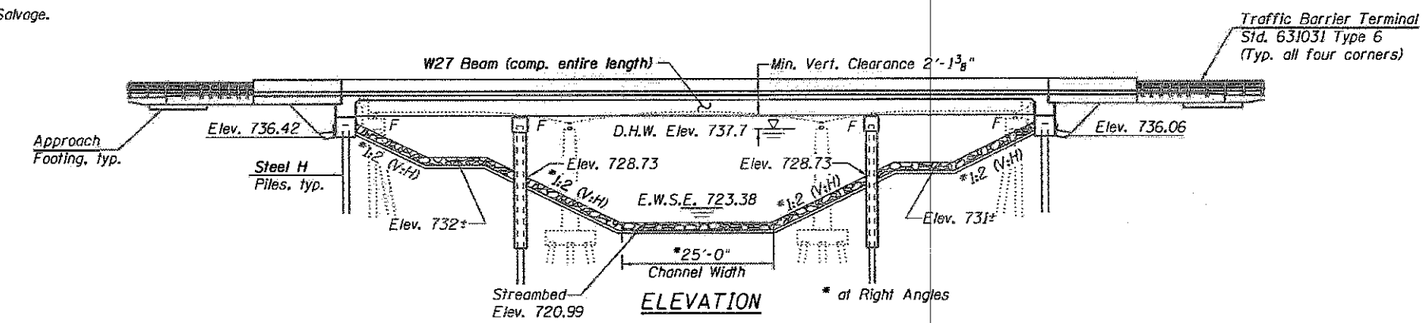
SCALE: 1"=50' | SHEET NO. 1 OF 1 SHEETS | STA. 89+95.00 | TO STA. 99+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	27
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

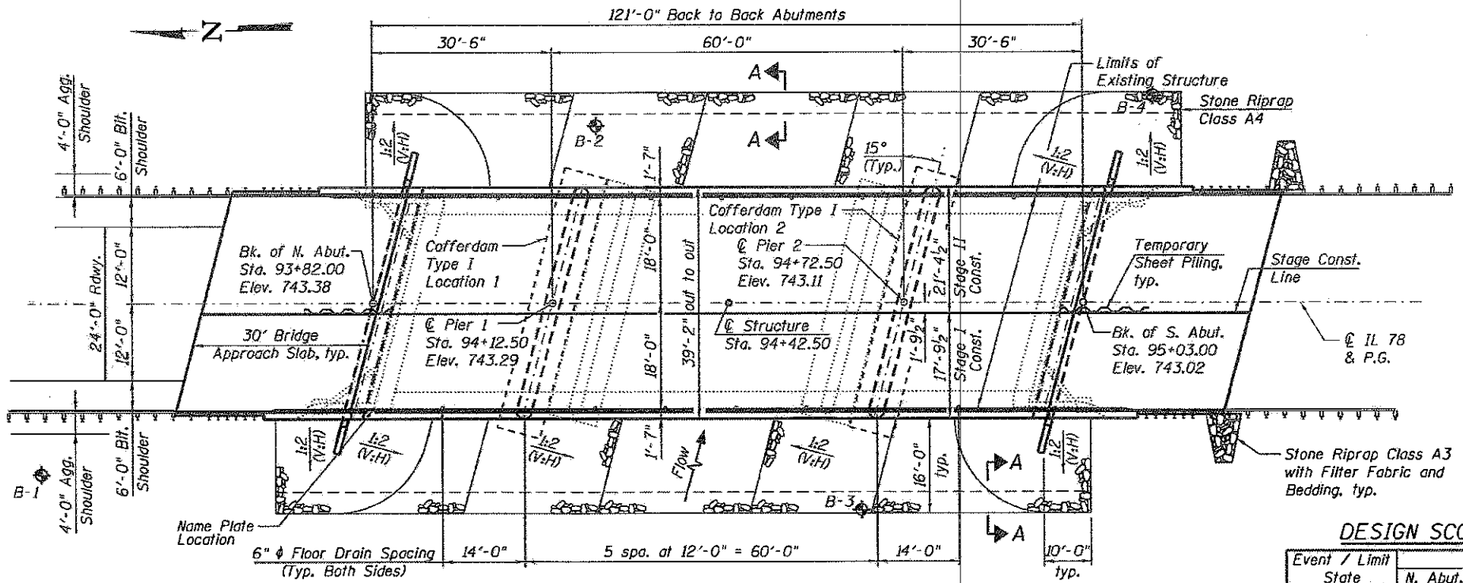
Bench Mark: Chiseled square on southeast parapet wall of S.N. 037-0072. Elev. 745.23 (NGVD 1929).

Existing Structure: S.N. 037-0072 was built in 1958 as SBI 30, Section 14BR-1 at Sta. 94+42.50. In 1984 expansion joints and bridge railing were replaced. Existing structure is 3-span continuous bridge with variable depth concrete T-beams, stub abutments and solid wall piers. 113'-6" bk. to bk. abutments, 35'-8" out to out deck with a 15 degree left ahead skew. The Contractor shall remove and replace the existing structure. Staged Construction shall be utilized to maintain one lane of traffic during construction.

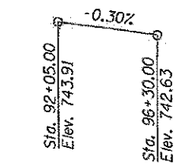
No Salvage.



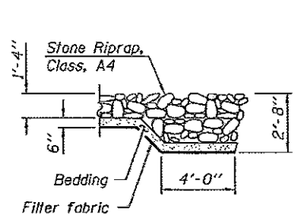
ELEVATION



PLAN



PROFILE GRADE
(along ℄ IL Rte. 78)



SECTION A-A

INDEX OF SHEETS

LOADING HL-93

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

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 4,000 psi (Superstructure Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.098g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.151g
Soil Site Class = D

WATERWAY INFORMATION

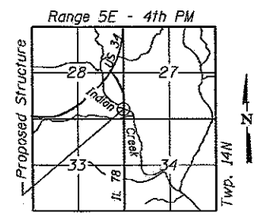
Drainage Area = 17.59 sq. mi.
Exist. Low Grade Elev. 742.83 @ Sta. 94+99.25
Prop. Low Grade Elev. 742.83 @ Sta. 94+99.25

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	2987	636	803	735.2	0.5	0.3	735.7	735.5
Design	50	4843	852	1055	737.7	0.7	0.5	738.4	738.2
Base	100	5706	922	1129	738.4	0.9	0.6	739.3	739.0
Max. Calc.	500	7811	1094	1267	740.5	1.2	1.1	741.7	741.6

10 Yr. Velocity thru Exist. Bridge = 4.4 fps 10 Yr. Velocity thru Prop. Bridge = 3.5 fps

DESIGN SCOUR ELEVATION TABLE

Event / Limit State	Design Scour Elevations (ft.) N. Abut.	Pier 1	Pier 2	S. Abut.	Item 113
0100	736.4	721.5	721.5	736.1	5
0200	736.4	721.0	721.0	736.1	
Design	736.4	718.5	718.5	736.1	
Check	736.4	718.5	718.5	736.1	



LOCATION SKETCH

LICENSED STRUCTURAL ENGINEER
MICHAEL T. HALEY
081-005991
CHATHAM
STATE OF ILLINOIS

Michael T. Haley 3/8/2018
Michael T. Haley — Date
Licensed Structural Engineer
State of Illinois No. 081-00599
Expires 11/30/2018

APPROVED
For Structural Adequacy Only
Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION
IL ROUTE 78 OVER INDIAN CREEK
F.A.P. RTE. 22 - SEC. (14BR-1)BR
HENRY COUNTY
STATION 94+42.50
STRUCTURE NO. 037-0177

FILE NAME = E:\USERS\cgy\Desktop\037-0177\4_Final Design\ODH Files\CADD Sheets\037-0177-68637.dgn

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Consulting Engineers
Springfield, Illinois

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	CHECKED - BDC	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/24/2018 11:41:35 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	28
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts $^{7}/_{8}$ in. ϕ holes $^{15}/_{16}$ in. ϕ unless otherwise noted.

Calculated weight of Structural Steel = 77,110 lb (270 Gr 50)
6,150 lb (M270 Gr 36)

All new structural steel shall be galvanized. See Special Provision for "Hot Dip Galvanizing for Structural Steel".

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $^{1}/_{8}$ in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

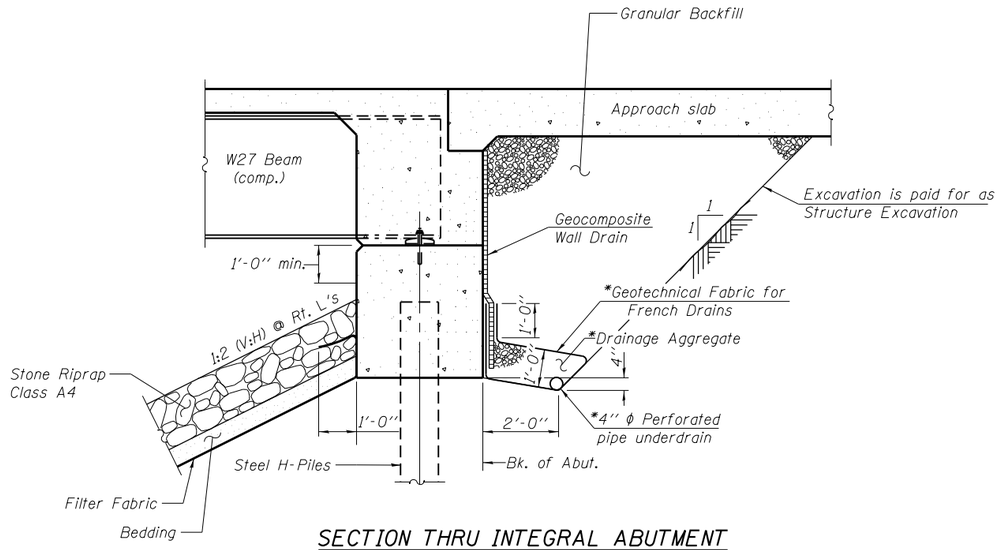
Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

The finishing machine rails shall be placed on the top of the top flange of the exterior beams within the deck pour. Beam blocks shall be placed between beams at all tie locations in each bay for the full width of the deck pour.

STATION 94+42.50
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 22 SEC. (14BR-1)BR
LOADING HL-93
STRUCTURE NO. 037-0177

NAME PLATE

See Std. 515001



SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

*Included in the cost of Pipe Underdrains for Structures. (See Special Provisions)

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

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A3	Sq. Yd.	-	16	16
Stone Riprap, Class A4	Sq. Yd.	-	1073	1073
Filter Fabric	Sq. Yd.	-	1089	1089
Removal of Existing Structures	Each	-	1	1
Structure Excavation	Cu. Yd.	-	168	168
Cofferdam Excavation	Cu. Yd.	-	381	381
Cofferdam (Type 1) (Location - 1)	Each	-	1	1
Cofferdam (Type 1) (Location - 2)	Each	-	1	1
Floor Drains	Each	12	-	12
Concrete Structures	Cu. Yd.	-	195.1	195.1
Concrete Superstructure	Cu. Yd.	174.4	-	174.4
Bridge Deck Grooving	Sq. Yd.	678	-	678
Protective Coat	Sq. Yd.	846	-	846
Concrete Superstructure (Approach Slab)	Cu. Yd.	114.5	-	114.5
Furnishing and Erecting Structural Steel	Lump Sum	1	-	1
Stud Shear Connectors	Each	3528	-	3528
Reinforcement Bars, Epoxy Coated	Pound	82,080	21,230	103,310
Bar Splicers	Each	473	324	797
Furnishing Steel Piles HP 12X63	Foot	-	1267	1267
Driving Piles	Foot	-	1267	1267
Test Pile Steel HP 12X63	Each	-	2	2
Name Plates	Each	1	-	1
Pile Shoes	Each	-	24	24
Anchor Bolts, 1"	Each	-	48	48
Temporary Sheet Piling	Sq. Ft.	-	138	138
Geocomposite Wall Drain	Sq. Yd.	-	60	60
Granular Backfill for Structures	Cu. Yd.	-	103	103
Pipe Underdrains for Structures 4"	Foot	-	102	102

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Consulting Engineers
Springfield, Illinois

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	CHECKED - BDC	REVISED	
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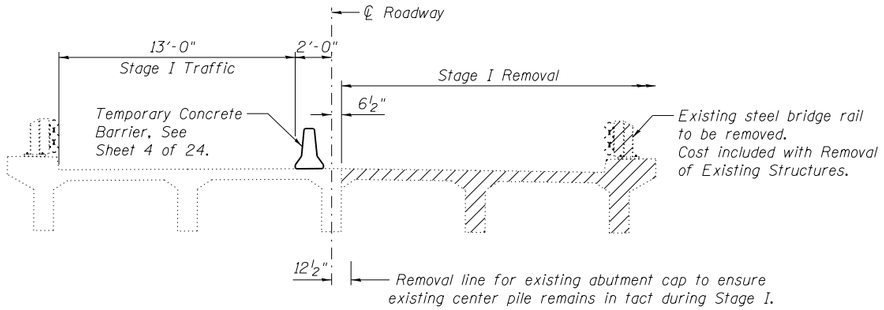
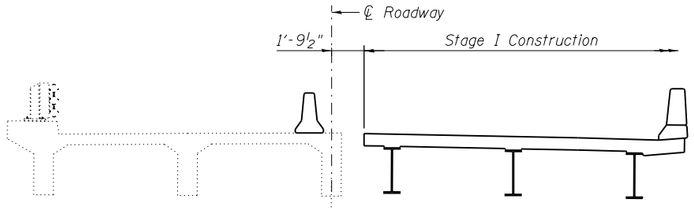
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA
STRUCTURE NO. 037-0177
SHEET NO. 2 OF 24 SHEETS

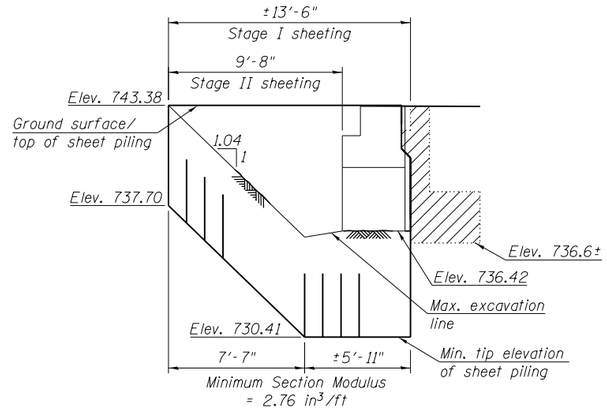
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	29
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		



STAGE I REMOVAL



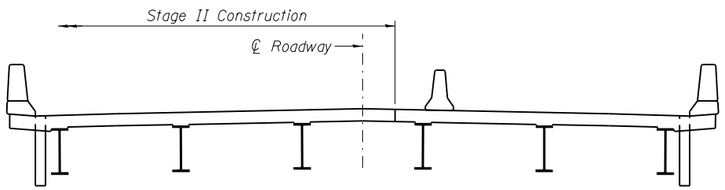
STAGE I CONSTRUCTION



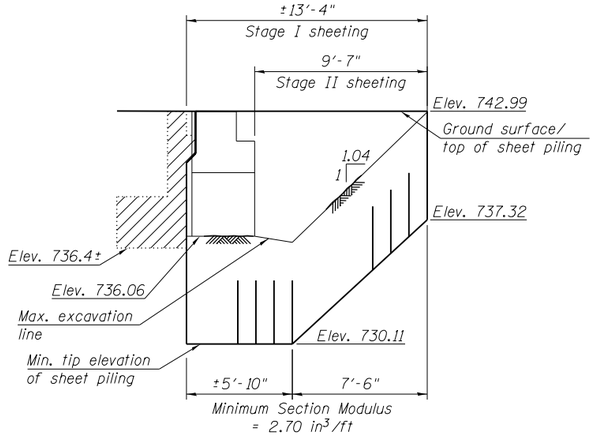
TEMPORARY SHEET PILING

(At North Abutment)

STAGE II REMOVAL



STAGE II CONSTRUCTION



TEMPORARY SHEET PILING

(at South Abutment)

Notes:

All staged construction cross sections are looking South.

For quantity of Temporary Concrete Barrier. see Roadway Plans.

Contractor shall take precaution to not expose piles adjacent to the stage removal line under the portion of substructure units to remain during stage I removal procedure.

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.

Hatched area indicates Removal of Existing Structures.

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Springfield, Illinois

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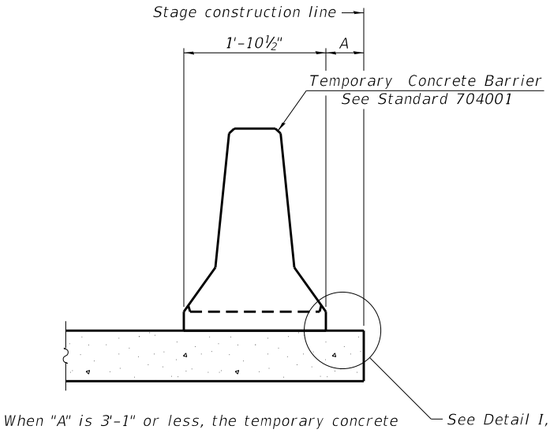
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

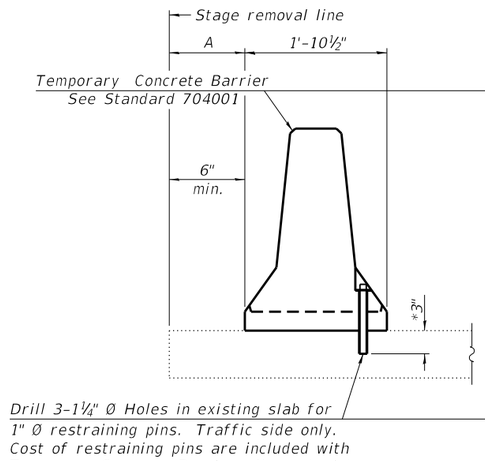
STAGE CONSTRUCTION DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 3 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	30
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			



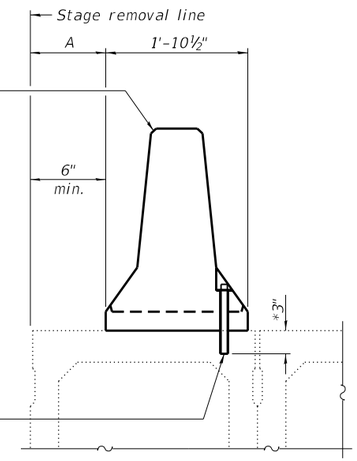
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



Drill 3-1¼" Ø Holes in existing slab for 1" Ø 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".

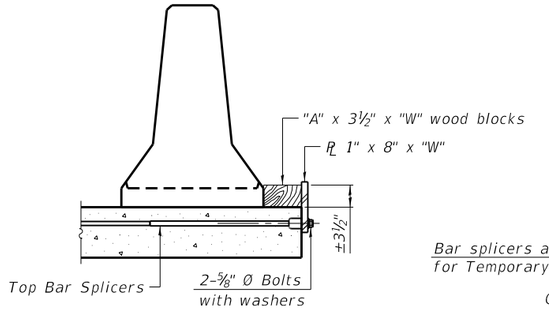
EXISTING SLAB



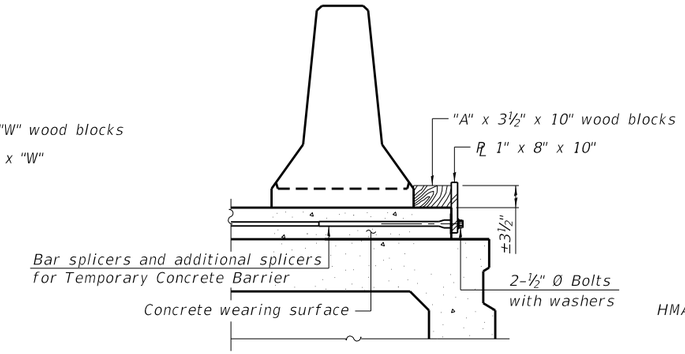
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

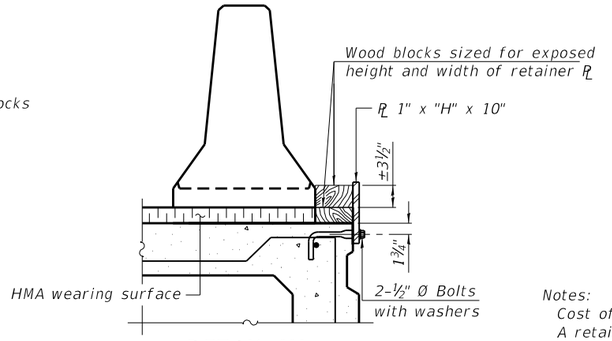
SECTIONS THRU SLAB OR DECK BEAM



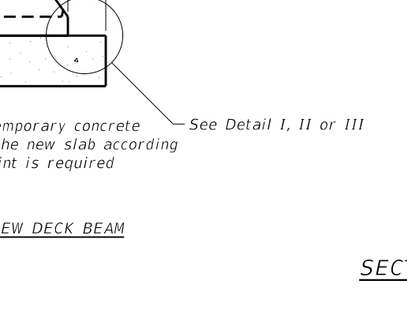
DETAIL I



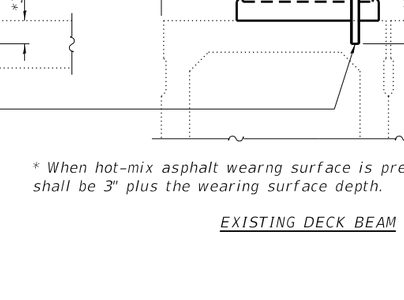
DETAIL II



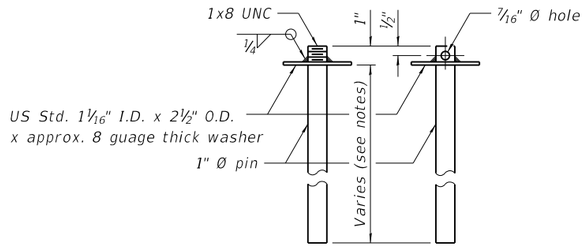
DETAIL III



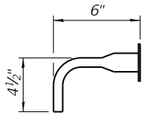
STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)



RESTRAINING PIN



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 ℄ 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 1½", 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

8-11-2017

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Springfield, Illinois

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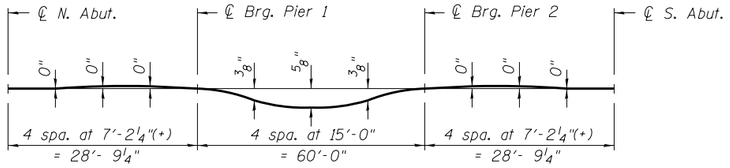
	CHECKED - CGY	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:00 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
STRUCTURE NO. 037-0177
SHEET NO. 4 OF 24 SHEETS

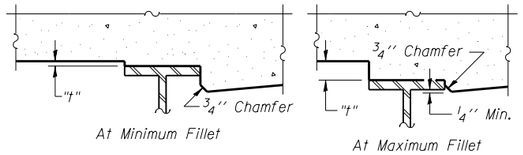
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	31
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			



DEAD LOAD DEFLECTION DIAGRAM

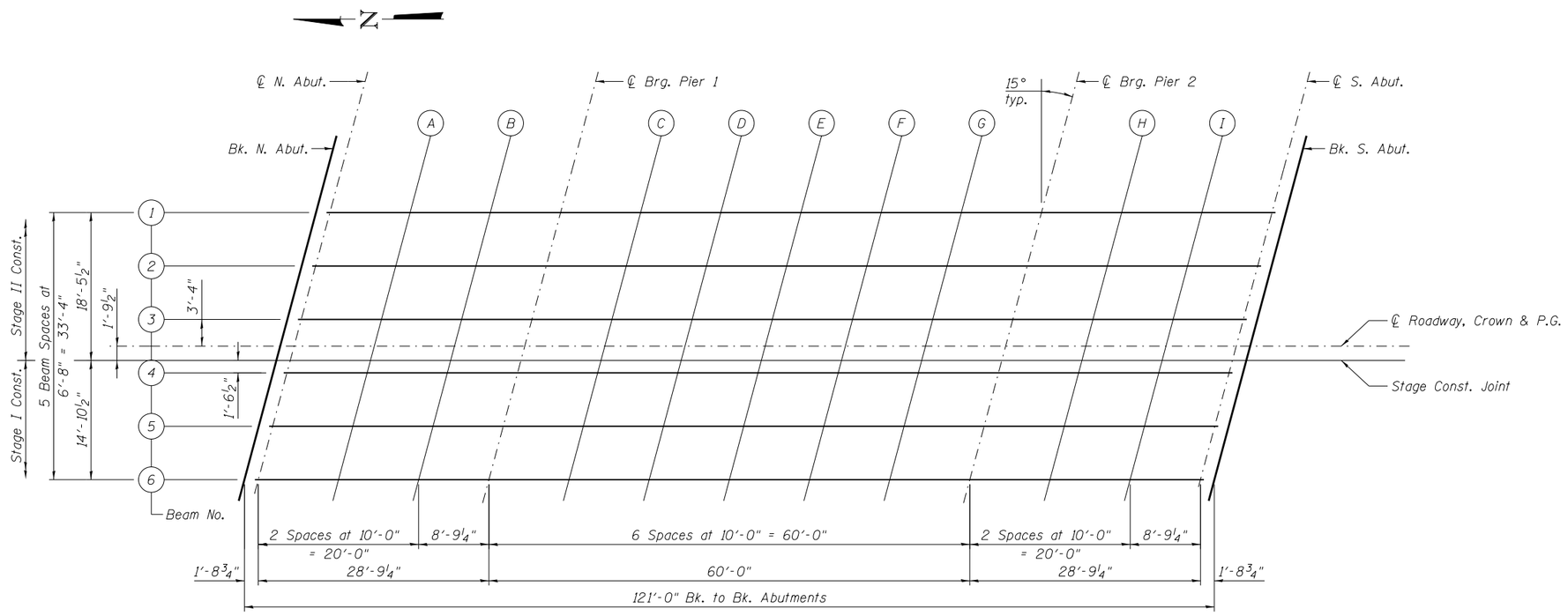
(Includes weight of concrete only.)

Note:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheet 6 of 24.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet 6 of 24, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



PLAN

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LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

USER NAME = Lin_44	DESIGNED - CGY	REVISED
	CHECKED - BDC	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:01 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS
STRUCTURE NO. 037-0177
SHEET NO. 5 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	32
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+86.47	-16.67	743.08	743.08
℄ N. Abut.	93+88.20	-16.67	743.08	743.08
A	93+98.20	-16.67	743.05	743.04
B	94+08.20	-16.67	743.02	743.01
℄ Brg. Pier 1	94+16.97	-16.67	742.99	742.99
C	94+26.97	-16.67	742.96	742.98
D	94+36.97	-16.67	742.93	742.98
E	94+46.97	-16.67	742.90	742.96
F	94+56.97	-16.67	742.87	742.92
G	94+66.97	-16.67	742.84	742.86
℄ Brg. Pier 2	94+76.97	-16.67	742.81	742.81
H	94+86.97	-16.67	742.78	742.77
I	94+96.97	-16.67	742.75	742.75
℄ S. Abut.	95+05.74	-16.67	742.72	742.72
Bk. S. Abut.	95+07.46	-16.67	742.72	742.72

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+84.68	-10.00	743.21	743.21
℄ N. Abut.	93+86.41	-10.00	743.21	743.21
A	93+96.41	-10.00	743.18	743.18
B	94+06.41	-10.00	743.15	743.14
℄ Brg. Pier 1	94+15.18	-10.00	743.12	743.12
C	94+25.18	-10.00	743.09	743.12
D	94+35.18	-10.00	743.06	743.11
E	94+45.18	-10.00	743.03	743.09
F	94+55.18	-10.00	743.00	743.05
G	94+65.18	-10.00	742.97	743.00
℄ Brg. Pier 2	94+75.18	-10.00	742.94	742.94
H	94+85.18	-10.00	742.91	742.91
I	94+95.18	-10.00	742.88	742.88
℄ S. Abut.	95+03.95	-10.00	742.86	742.86
Bk. S. Abut.	95+05.68	-10.00	742.85	742.85

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+82.90	-3.33	743.32	743.32
℄ N. Abut.	93+84.62	-3.33	743.32	743.32
A	93+94.62	-3.33	743.29	743.29
B	94+04.62	-3.33	743.26	743.25
℄ Brg. Pier 1	94+13.39	-3.33	743.23	743.23
C	94+23.39	-3.33	743.20	743.23
D	94+33.39	-3.33	743.17	743.22
E	94+43.39	-3.33	743.14	743.20
F	94+53.39	-3.33	743.11	743.16
G	94+63.39	-3.33	743.08	743.11
℄ Brg. Pier 2	94+73.39	-3.33	743.05	743.05
H	94+83.39	-3.33	743.02	743.02
I	94+93.39	-3.33	742.99	742.99
℄ S. Abut.	95+02.16	-3.33	742.97	742.97
Bk. S. Abut.	95+03.89	-3.33	742.96	742.96

℄ ROADWAY, CROWN & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+82.00	0.00	743.38	743.38
℄ N. Abut.	93+83.73	0.00	743.37	743.37
A	93+93.73	0.00	743.34	743.34
B	94+03.73	0.00	743.31	743.31
℄ Brg. Pier 1	94+12.50	0.00	743.29	743.29
C	94+22.50	0.00	743.26	743.28
D	94+32.50	0.00	743.23	743.27
E	94+42.50	0.00	743.20	743.25
F	94+52.50	0.00	743.17	743.21
G	94+62.50	0.00	743.14	743.16
℄ Brg. Pier 2	94+72.50	0.00	743.11	743.11
H	94+82.50	0.00	743.08	743.07
I	94+92.50	0.00	743.05	743.05
℄ S. Abut.	95+01.27	0.00	743.02	743.02
Bk. S. Abut.	95+03.00	0.00	743.02	743.02

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+81.52	1.79	743.35	743.35
℄ N. Abut.	93+83.25	1.79	743.35	743.35
A	93+93.25	1.79	743.32	743.31
B	94+03.25	1.79	743.29	743.28
℄ Brg. Pier 1	94+12.02	1.79	743.26	743.26
C	94+22.02	1.79	743.23	743.25
D	94+32.02	1.79	743.20	743.25
E	94+42.02	1.79	743.17	743.23
F	94+52.02	1.79	743.14	743.19
G	94+62.02	1.79	743.11	743.13
℄ Brg. Pier 2	94+72.02	1.79	743.08	743.08
H	94+82.02	1.79	743.05	743.05
I	94+92.02	1.79	743.02	743.02
℄ S. Abut.	95+00.79	1.79	742.99	742.99
Bk. S. Abut.	95+02.52	1.79	742.99	742.99

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+81.11	3.33	743.33	743.33
℄ N. Abut.	93+82.84	3.33	743.32	743.32
A	93+92.84	3.33	743.29	743.29
B	94+02.84	3.33	743.26	743.26
℄ Brg. Pier 1	94+11.61	3.33	743.24	743.24
C	94+21.61	3.33	743.21	743.23
D	94+31.61	3.33	743.18	743.22
E	94+41.61	3.33	743.15	743.20
F	94+51.61	3.33	743.12	743.16
G	94+61.61	3.33	743.09	743.11
℄ Brg. Pier 2	94+71.61	3.33	743.06	743.06
H	94+81.61	3.33	743.03	743.02
I	94+91.61	3.33	743.00	743.00
℄ S. Abut.	95+00.38	3.33	742.97	742.97
Bk. S. Abut.	95+02.10	3.33	742.97	742.97

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+79.32	10.00	743.23	743.23
℄ N. Abut.	93+81.05	10.00	743.23	743.23
A	93+91.05	10.00	743.20	743.19
B	94+01.05	10.00	743.17	743.16
℄ Brg. Pier 1	94+09.82	10.00	743.14	743.14
C	94+19.82	10.00	743.11	743.13
D	94+29.82	10.00	743.08	743.13
E	94+39.82	10.00	743.05	743.11
F	94+49.82	10.00	743.02	743.07
G	94+59.82	10.00	742.99	743.01
℄ Brg. Pier 2	94+69.82	10.00	742.96	742.96
H	94+79.82	10.00	742.93	742.92
I	94+89.82	10.00	742.90	742.90
℄ S. Abut.	94+98.59	10.00	742.87	742.87
Bk. S. Abut.	95+00.32	10.00	742.87	742.87

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	93+77.54	16.67	743.11	743.11
℄ N. Abut.	93+79.26	16.67	743.10	743.10
A	93+89.26	16.67	743.07	743.07
B	93+99.26	16.67	743.04	743.04
℄ Brg. Pier 1	94+08.03	16.67	743.02	743.02
C	94+18.03	16.67	742.99	743.01
D	94+28.03	16.67	742.96	743.00
E	94+38.03	16.67	742.93	742.98
F	94+48.03	16.67	742.90	742.94
G	94+58.03	16.67	742.87	742.89
℄ Brg. Pier 2	94+68.03	16.67	742.84	742.84
H	94+78.03	16.67	742.81	742.80
I	94+88.03	16.67	742.78	742.77
℄ S. Abut.	94+96.81	16.67	742.75	742.75
Bk. S. Abut.	94+98.53	16.67	742.74	742.74

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Springfield, Illinois

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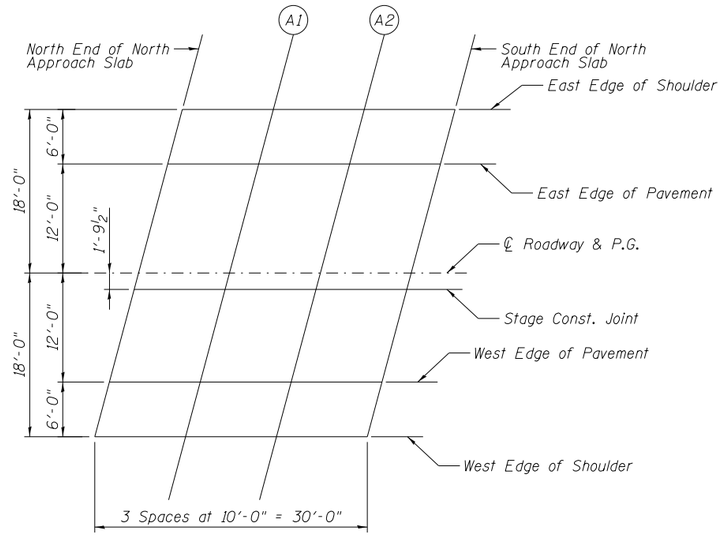
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

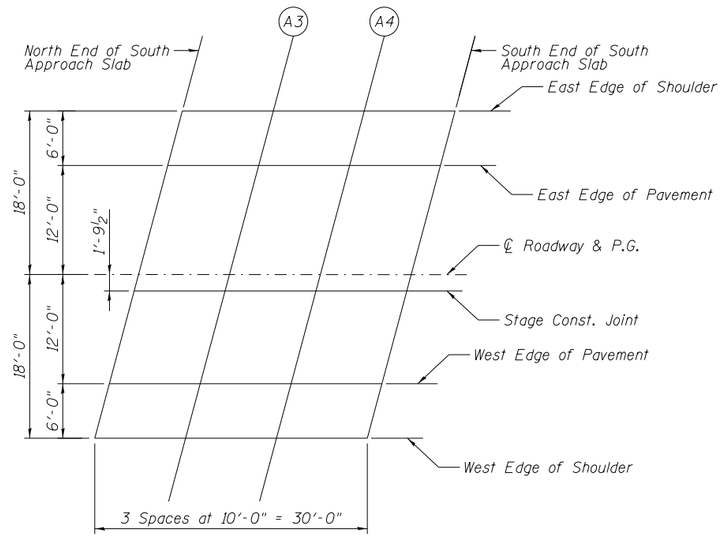
TOP OF SLAB ELEVATIONS
STRUCTURE NO. 037-0177
SHEET NO. 6 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	33
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			



PLAN
(North Approach)

N



PLAN
(South Approach)

EAST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	93+57.86	-18.00	743.14
A1	93+67.86	-18.00	743.11
A2	93+77.86	-18.00	743.08
S. End N. Appr. Slab	93+87.86	-18.00	743.05
N. End S. Appr. Slab	95+06.79	-18.00	742.69
A3	95+16.79	-18.00	742.66
A4	95+26.79	-18.00	742.63
S. End S. Appr. Slab	95+36.79	-18.00	742.60

STAGE CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	93+52.56	1.79	743.44
A1	93+62.56	1.79	743.41
A2	93+72.56	1.79	743.38
S. End N. Appr. Slab	93+82.56	1.79	743.35
N. End S. Appr. Slab	95+01.48	1.79	742.99
A3	95+11.48	1.79	742.96
A4	95+21.48	1.79	742.93
S. End S. Appr. Slab	95+31.48	1.79	742.90

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	93+56.25	-12.00	743.27
A1	93+66.25	-12.00	743.24
A2	93+76.25	-12.00	743.21
S. End N. Appr. Slab	93+86.25	-12.00	743.18
N. End S. Appr. Slab	95+05.18	-12.00	742.82
A3	95+15.18	-12.00	742.79
A4	95+25.18	-12.00	742.76
S. End S. Appr. Slab	95+35.18	-12.00	742.73

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	93+49.82	12.00	743.29
A1	93+59.82	12.00	743.26
A2	93+69.82	12.00	743.23
S. End N. Appr. Slab	93+79.82	12.00	743.20
N. End S. Appr. Slab	94+98.75	12.00	742.84
A3	95+08.75	12.00	742.81
A4	95+18.75	12.00	742.78
S. End S. Appr. Slab	95+28.75	12.00	742.75

℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	93+53.04	0.00	743.47
A1	93+63.04	0.00	743.44
A2	93+73.04	0.00	743.41
S. End N. Appr. Slab	93+83.04	0.00	743.38
N. End S. Appr. Slab	95+01.96	0.00	743.02
A3	95+11.96	0.00	742.99
A4	95+21.96	0.00	742.96
S. End S. Appr. Slab	95+31.96	0.00	742.93

WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	93+48.22	18.00	743.17
A1	93+58.22	18.00	743.14
A2	93+68.22	18.00	743.11
S. End N. Appr. Slab	93+78.22	18.00	743.08
N. End S. Appr. Slab	94+97.14	18.00	742.72
A3	95+07.14	18.00	742.69
A4	95+17.14	18.00	742.66
S. End S. Appr. Slab	95+27.14	18.00	742.63

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Springfield, Illinois

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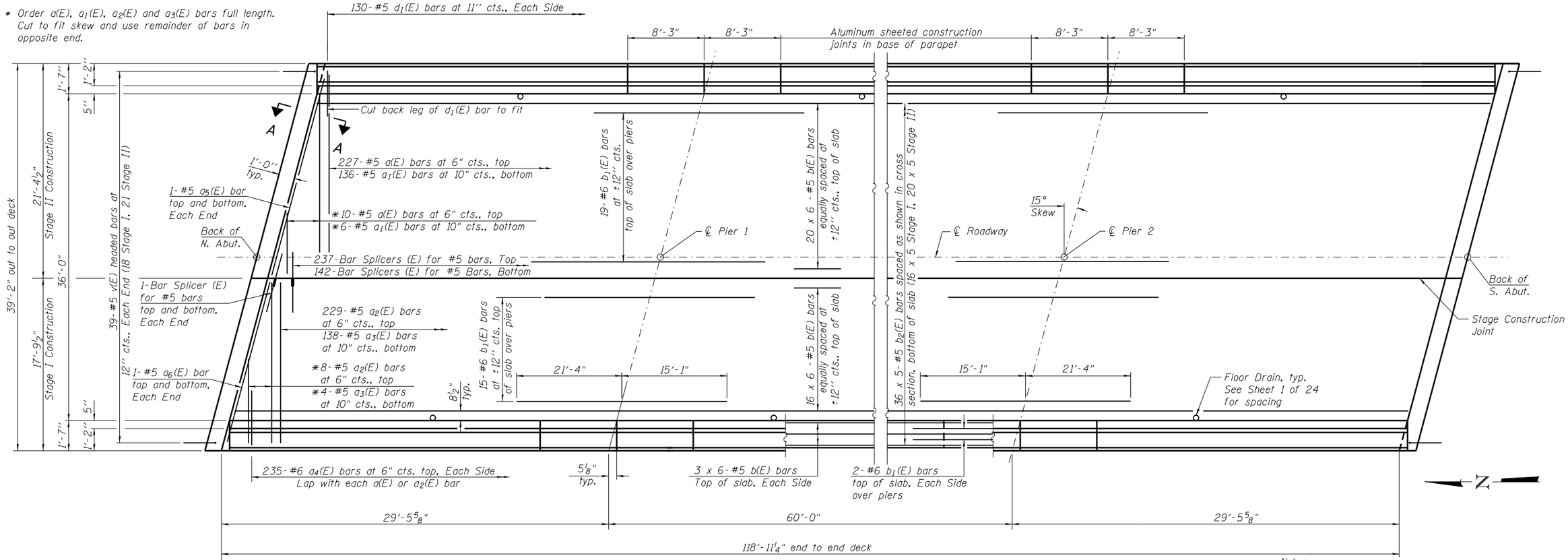
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 037-0177
SHEET NO. 7 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	34
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

* Order a(E), a_1(E), a_2(E) and a_3(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

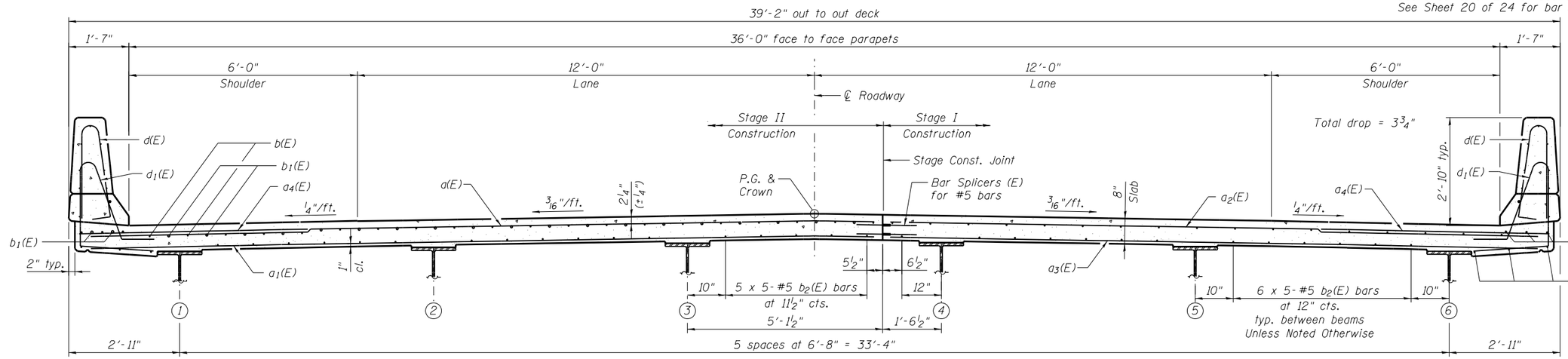


PLAN

MINIMUM BAR LAP

#5 bar = 3'-6"

Notes:
See Sheet 9 of 24 for superstructure details and Bill of Material.
Bars indicated thus 20 x 3- #5 etc. indicates 20 lines of bars with 3 lengths per line.
See Sheet 9 of 24 for parapet reinforcement.
See Sheet 11 of 24 for Section A-A.
See Sheet 20 of 24 for bar splicer details.



CROSS SECTION

(Looking South)
(Floor Drains not shown for clarity)

NEAR PIER

NEAR MIDSPAN

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		CHECKED - RPW	REVISED
	PLOT SCALE =	DRAWN - RMH	REVISED
	PLOT DATE = 1/31/2018 8:37:02 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 037-0177
SHEET NO. 8 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	35
		CONTRACT NO. 68637		
		ILLINOIS	FED. AID PROJECT	

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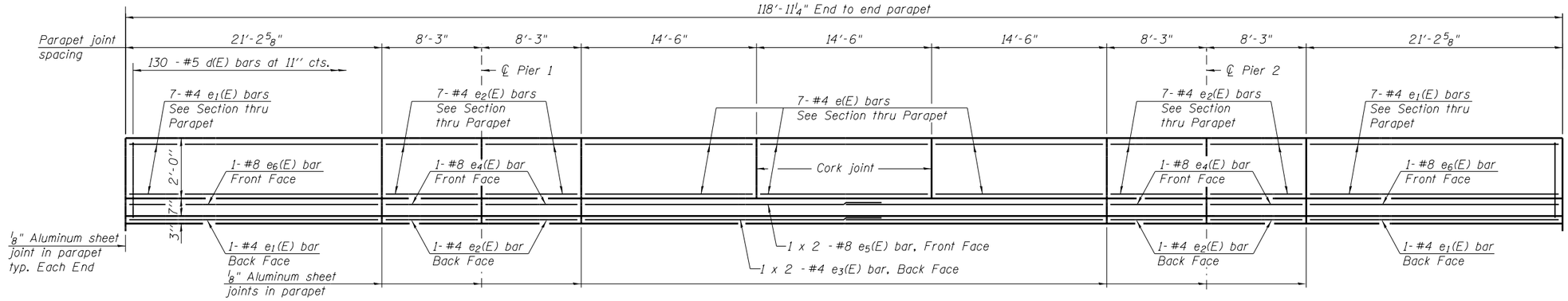
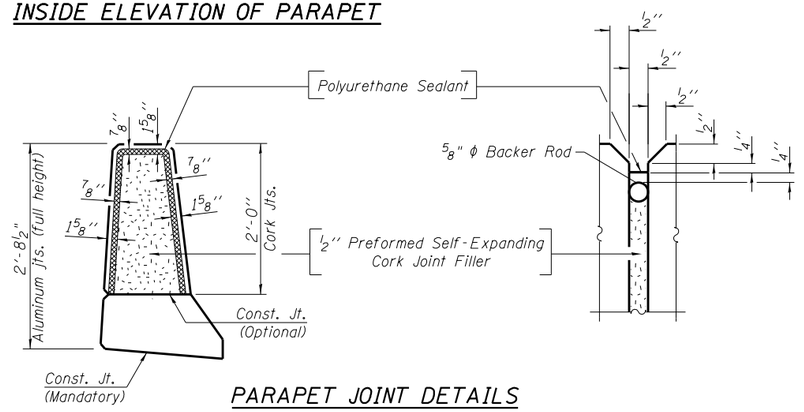


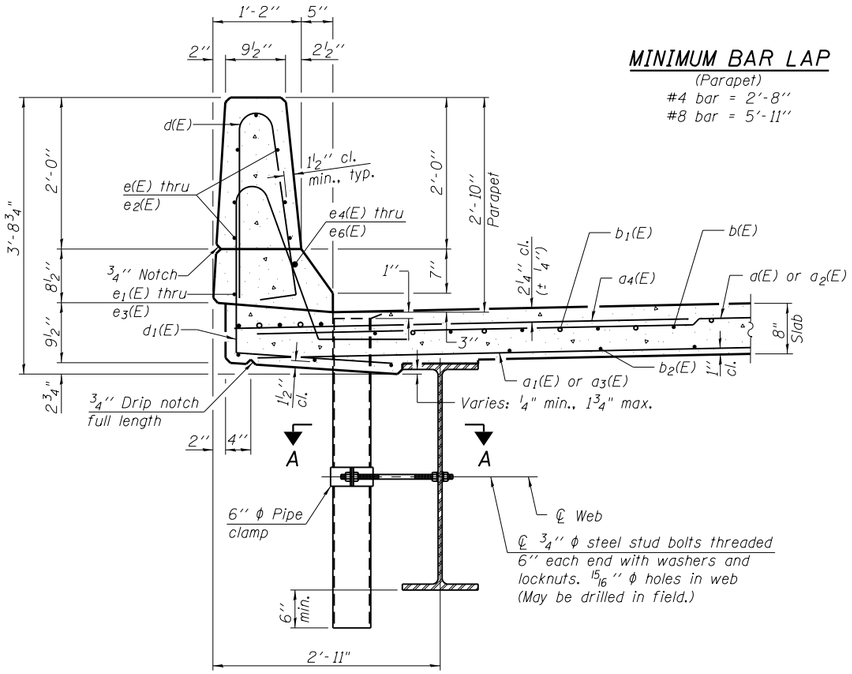
INSIDE ELEVATION OF PARAPET



PARAPET JOINT DETAILS

MINIMUM BAR LAP

(Parapet)
#4 bar = 2'-8"
#8 bar = 5'-11"



SECTION THRU PARAPET

Notes:

Drains shall be located clear of all diaphragms.

Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

The outside surface of aluminum floor drains need not be painted. The outside surface of fiberglass floor drains shall be pigmented or coated by the manufacturer with a color that matches the galvanized beams. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coating's Spec. SSPC-SP1 prior to painting.

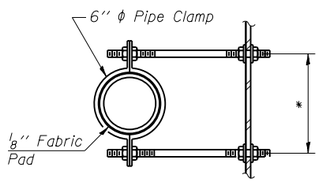
The top portion of aluminum floor drains shall be coated to minimize reaction with wet concrete.

The clamping device shall be galvanized according to AASHTO M 232. Cost of clamping device included with Floor Drains.

The ⅛" Aluminum sheet shall be ASTM B 209 alloy 3003-H14 and coated to minimize reaction with wet concrete. Cost included with Concrete Superstructure.

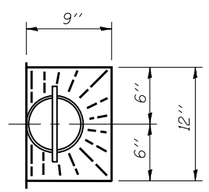
The Polyurethane Sealant shall be according to Article 1050.04 of the Std. Spec. and the color shall be gray.

Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

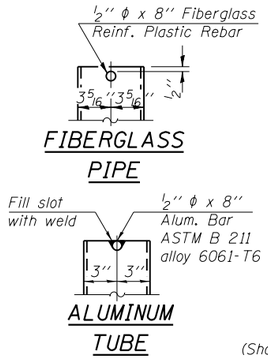


SECTION A-A

*Dimension as required by Pipe Clamp

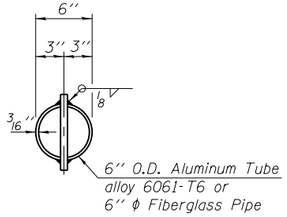


TOP PLAN



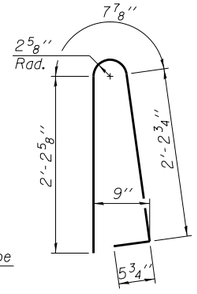
FIBERGLASS PIPE

ALUMINUM TUBE

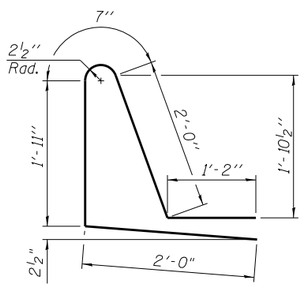


TOP PLAN

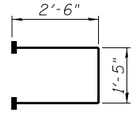
(Showing Aluminum Tube)



BAR d(E)

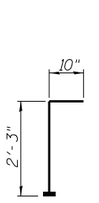


BAR d1(E)



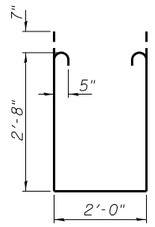
BAR s(E)

(Headed)



BAR v(E)

(Headed)



BAR s1(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	237	#5	20'-10"	
d1(E)	142	#5	20'-6"	
d2(E)	237	#5	17'-3"	
d3(E)	142	#5	16'-11"	
d4(E)	470	#6	6'-6"	
d5(E)	4	#5	21'-7"	
d6(E)	4	#5	17'-11"	
b(E)	252	#5	22'-9"	
b1(E)	76	#6	36'-5"	
b2(E)	180	#5	26'-8"	
d(E)	260	#5	5'-7"	
d1(E)	260	#5	7'-8"	
e(E)	42	#4	14'-2"	
e1(E)	32	#4	20'-10"	
e2(E)	64	#4	7'-11"	
e3(E)	4	#4	23'-2"	
e4(E)	8	#8	7'-11"	
e5(E)	4	#8	24'-9"	
e6(E)	4	#8	20'-10"	
m(E)	6	#6	18'-1"	
m1(E)	6	#6	21'-9"	
m2(E)	16	#6	6'-5"	
m3(E)	8	#6	2'-7"	
m6(E)	24	#5	4'-0"	
s(E)	82	#5	6'-5"	
s1(E)	72	#5	8'-6"	
v(E)	78	#5	3'-1"	
Reinforcement Bars, Epoxy Coated			Pound	42430
Concrete Superstructure			Cu. Yd.	167.6

Bars indicated thus 1 x 2- #8 etc. indicates 1 line of bars with 2 lengths per line.

FILE NAME = E:\0886-1\Struct\SN 037-0177\4.Final Design\DGN files\CADD Sheets\037077-68637.dgn

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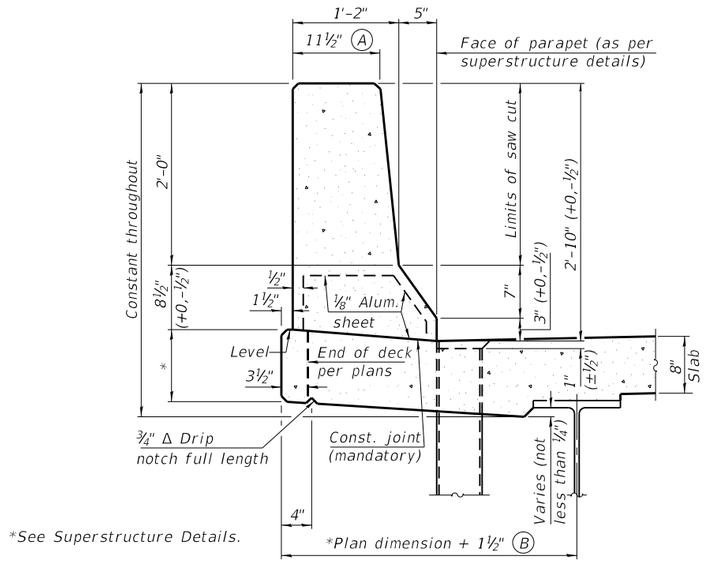
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

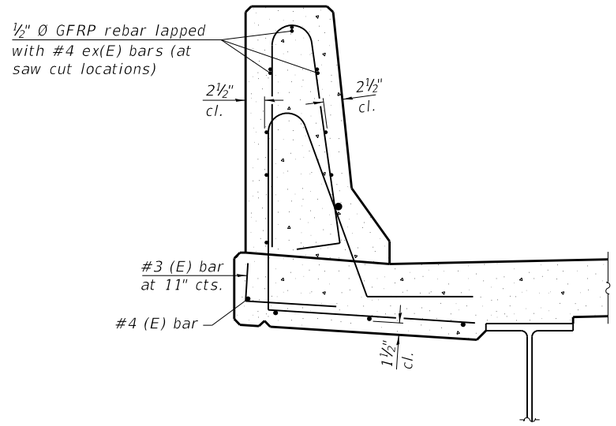
SUPERSTRUCTURE DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 9 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	36
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			



34" F SHAPE PARAPET SECTION

(Showing dimensions)



SECTION

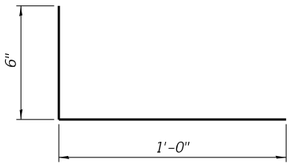
(34" parapet shown – 42" parapet similar)
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

GENERAL NOTES

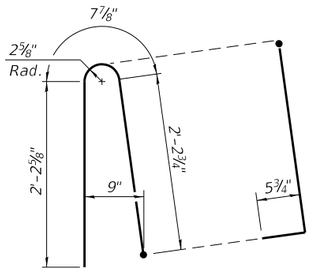
All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. for 34" parapet or = 0.0223 cu. yds./ft. for 42" parapet.

Place aluminum sheet in curb portion at and near piers. Full thickness saw cut at all joint locations in lieu of cork joint filler.

Steel superstructure shown. Other superstructure types similar.

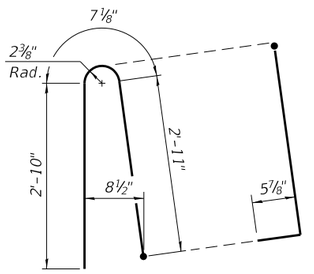


#3 (E) BAR



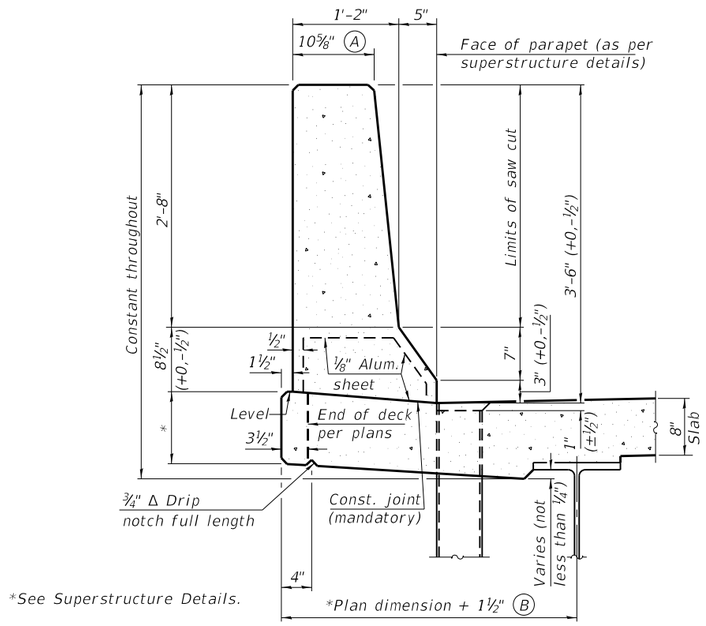
ALTERNATE BAR d(E)

(For 34" parapet when conduit is present)



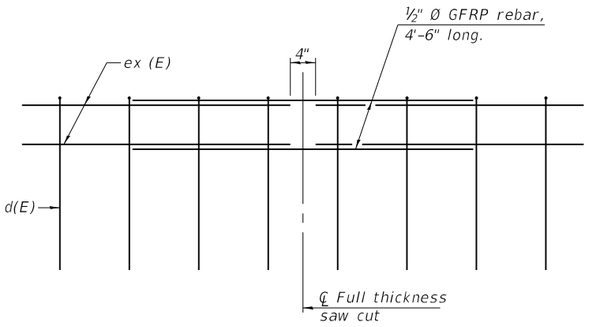
ALTERNATE BAR d(E)

(For 42" parapet when conduit is present)



42" F SHAPE PARAPET SECTION

(Showing dimensions)



GFRP REBAR STIFFENING DETAIL

(Place as shown in parapet section at each parapet joint location.)

SFP 34-42

2-17-2017

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		CHECKED - CGY	REVISED
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	PLOT DATE = 1/31/2018 8:37:03 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE PARAPET SLIPFORMING OPTION
STRUCTURE NO. 037-0177

SHEET NO. 10 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	37
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

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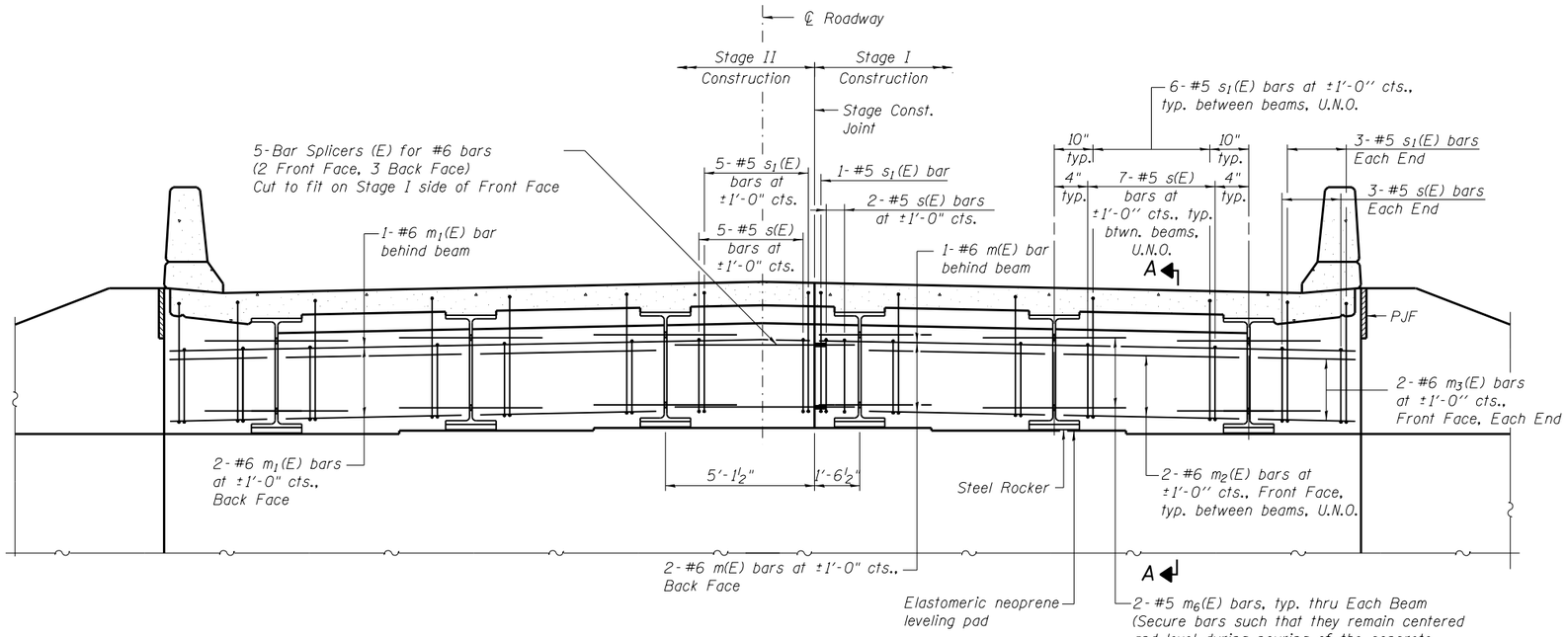
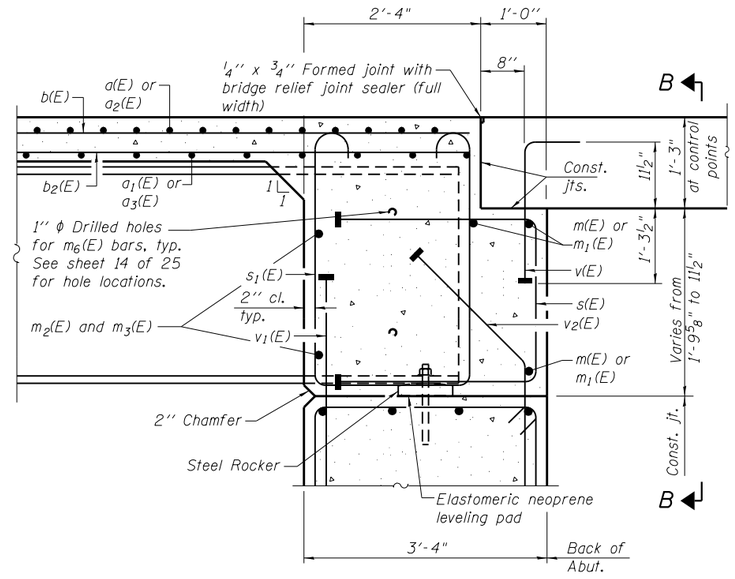


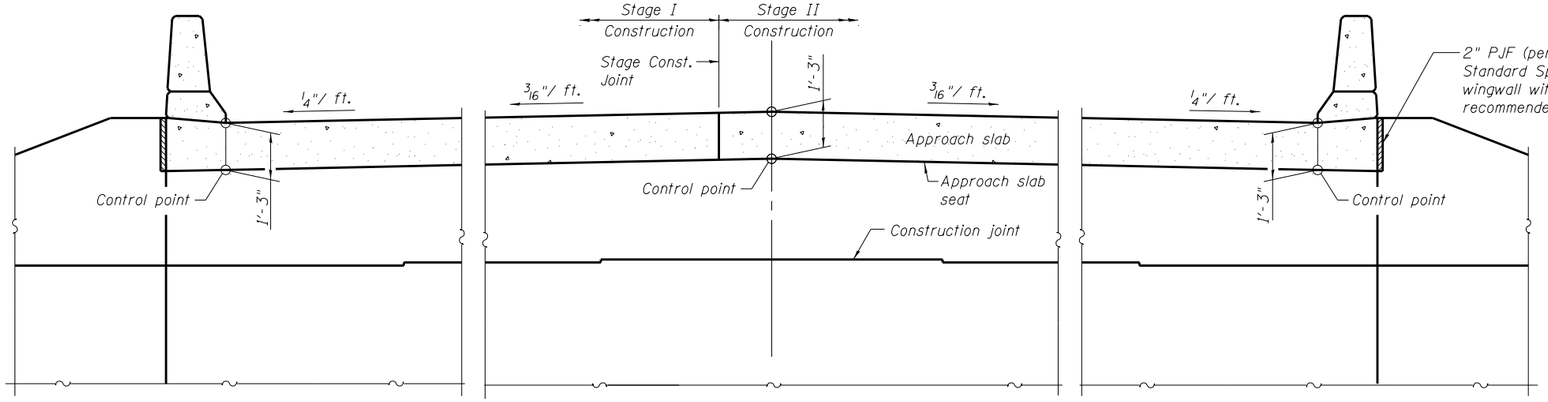
DIAPHRAGM ELEVATION AT SOUTH ABUTMENT

(Looking South)
(All horizontal dimensions at right angles to ℄ roadway)
(North Abutment is similar)

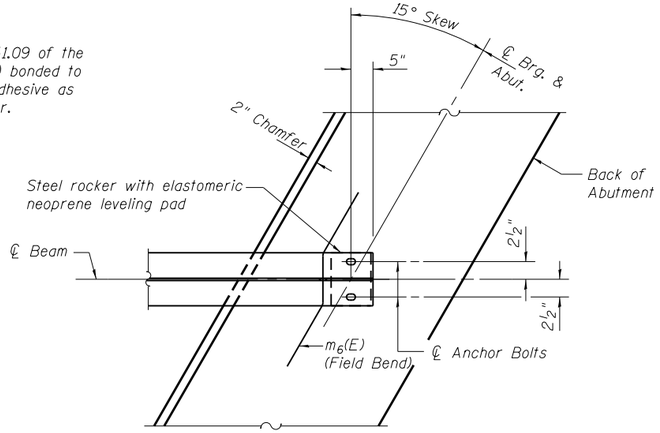


SECTION A-A

(at Rt. L's)



SECTION B-B



PARTIAL PLAN AT ABUTMENT

(Showing bottom flange of beam)

Notes:

Reinforcement bars in diaphragm are billed with superstructure on sheet 9 of 24.

Concrete in diaphragm is included with Concrete Superstructure on sheet 9 of 24.

For details of bars s(E), s (E) and v(E) see sheet 9 of 24.

The s(E) and s (E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.

The approach slab seat shall have a constant slope determined from the control points shown.

For bearing details see sheet 15 of 24.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

FILE NAME = E:\0806-1\Struct\SN 037-0177\4_Final Design\DGN Files\CADD_Sheets\037017-68637.dgn

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Springfield, Illinois

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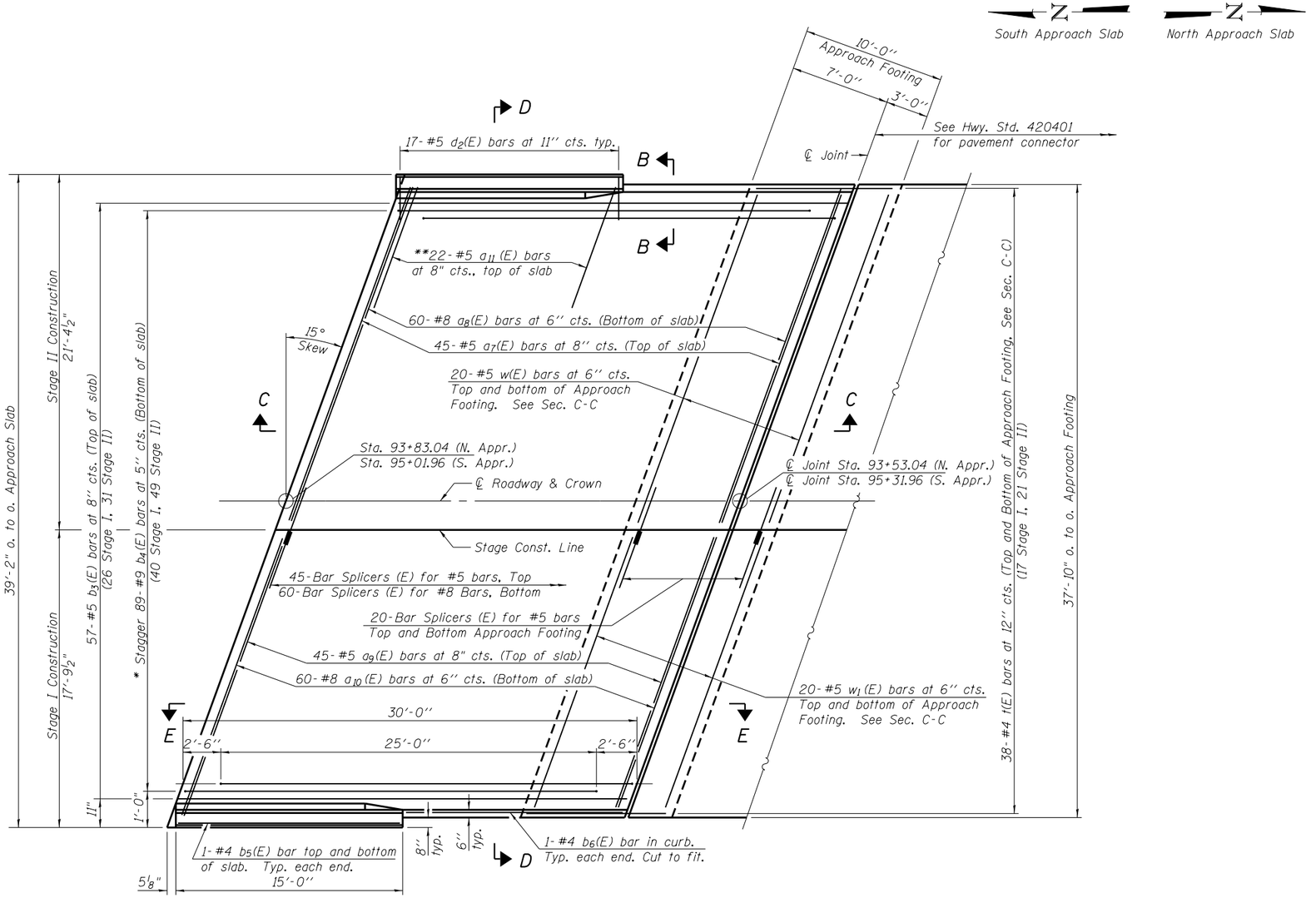
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DIAPHRAGM DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 11 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	38
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

Notes:
See sheet 13 of 24 for Sections C-C & D-D and View E-E.
a_7(E) thru a_{10}(E) bar spacings measured along ℄ Rdwy.
The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab length.

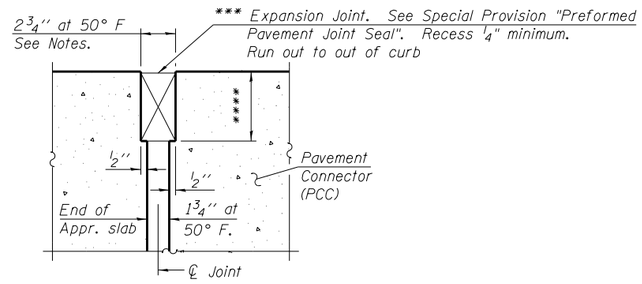
*** Cost included with Concrete Superstructure (Approach Slab).
**** Per manufacturer recommendations.



PLAN

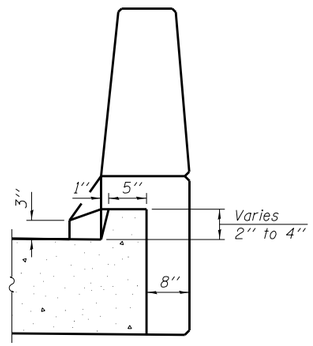
(South approach shown, North approach similar)

* Tilt #9 b_4(E) bars as required to maintain clearance.
** Lap with a_7(E) or a_9(E) bars, typ. each parapet.



DETAIL A

(@ Rt. L's)



VIEW B-B

FILE NAME = E:\0886-1\Structsn 037-0177-4 Final Design\DGN files\CADD Sheets\0370177-68637.dgn

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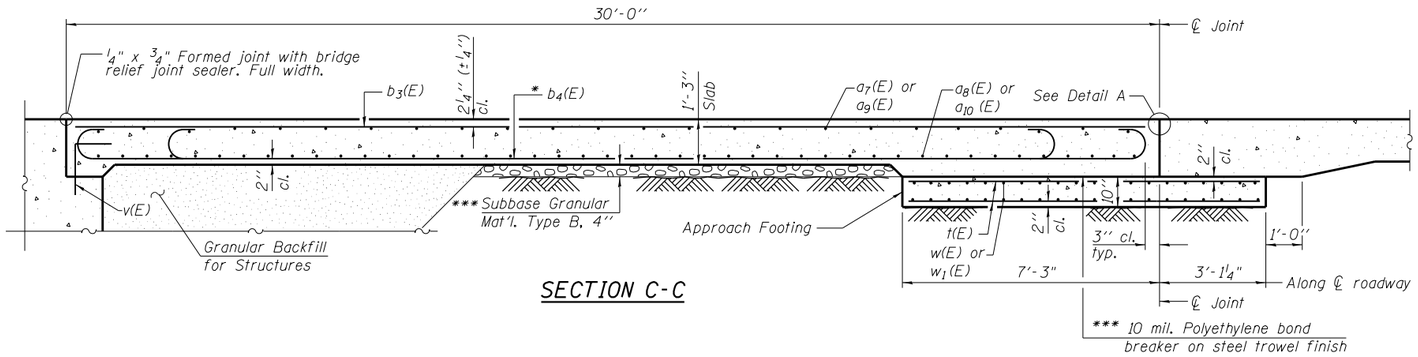
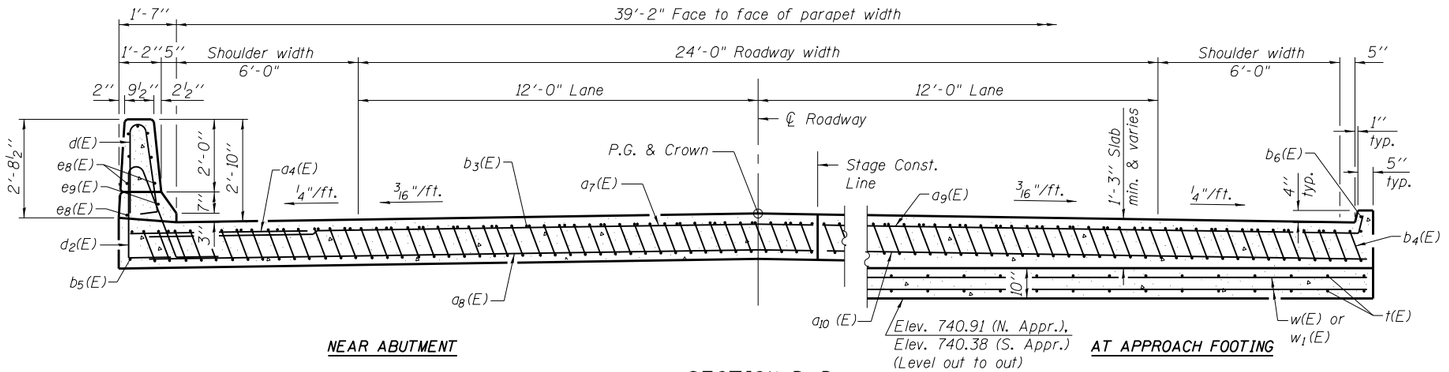
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 12 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	39
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

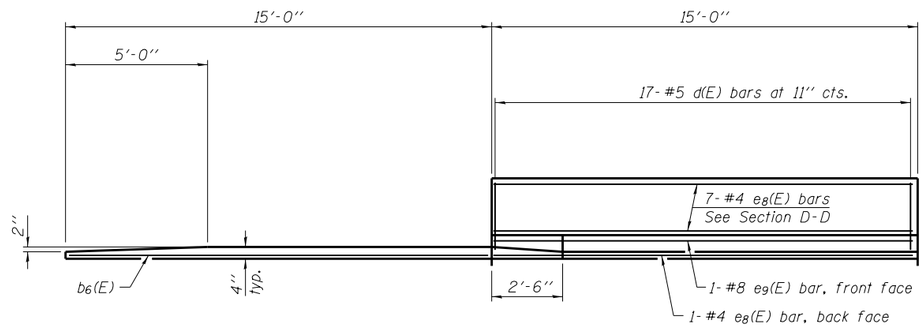


SECTION C-C

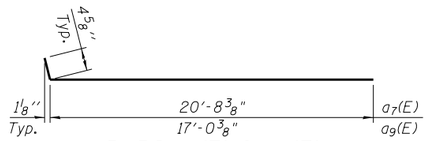


SECTION D-D

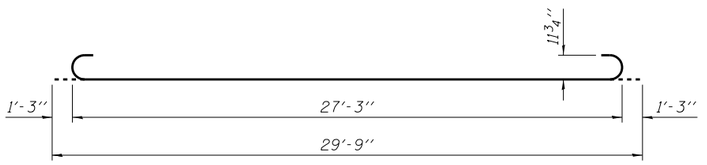
(See Plan for dimensions not shown)



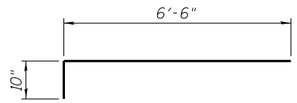
VIEW E-E



BARS a7(E) & a9(E)

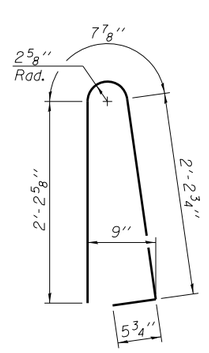


BAR b4(E)

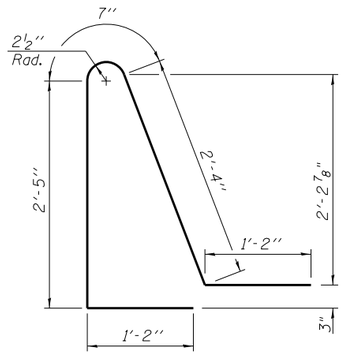


BAR a11(E)

Notes:
See sheet 12 of 24 for Detail A and View B-B.
Parapet concrete shall be paid for as Concrete Superstructure.
Approach Slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 9 of 24.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.
For Granular Backfill for Structures and drainage treatment details, see sheet 2 of 24.
For additional parapet details, see sheet 9 of 24.
For bar splicer details, see sheet 20 of 24.



BAR d(E)



BAR d2(E)

* Tilt #9 b4(E) bars as required to maintain clearance.

*** Cost included with Concrete Superstructure (Approach Slab).

TWO APPROACHES BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a7(E)	90	#5	21'-1"	
a8(E)	120	#8	21'-1"	
a9(E)	90	#5	17'-5"	
a10 (E)	120	#8	17'-5"	
a11 (E)	88	#5	7'-4"	
b3(E)	114	#5	29'-8"	
b4(E)	178	#9	29'-9"	
b5(E)	8	#4	14'-8"	
b6(E)	4	#4	14'-11"	
d(E)	68	#5	5'-7"	
d2(E)	68	#5	7'-8"	
e8(E)	32	#4	14'-8"	
e9(E)	4	#8	14'-8"	
t(E)	152	#4	10'-0"	
w(E)	80	#5	21'-1"	
w1(E)	80	#5	17'-5"	
Concrete Superstructure			Cu. Yd.	6.8
Concrete Superstructure (Approach Slab)			Cu. Yd.	114.5
Concrete Structures			Cu. Yd.	24.2
Reinforcement Bars, Epoxy Coated			Pound	43880

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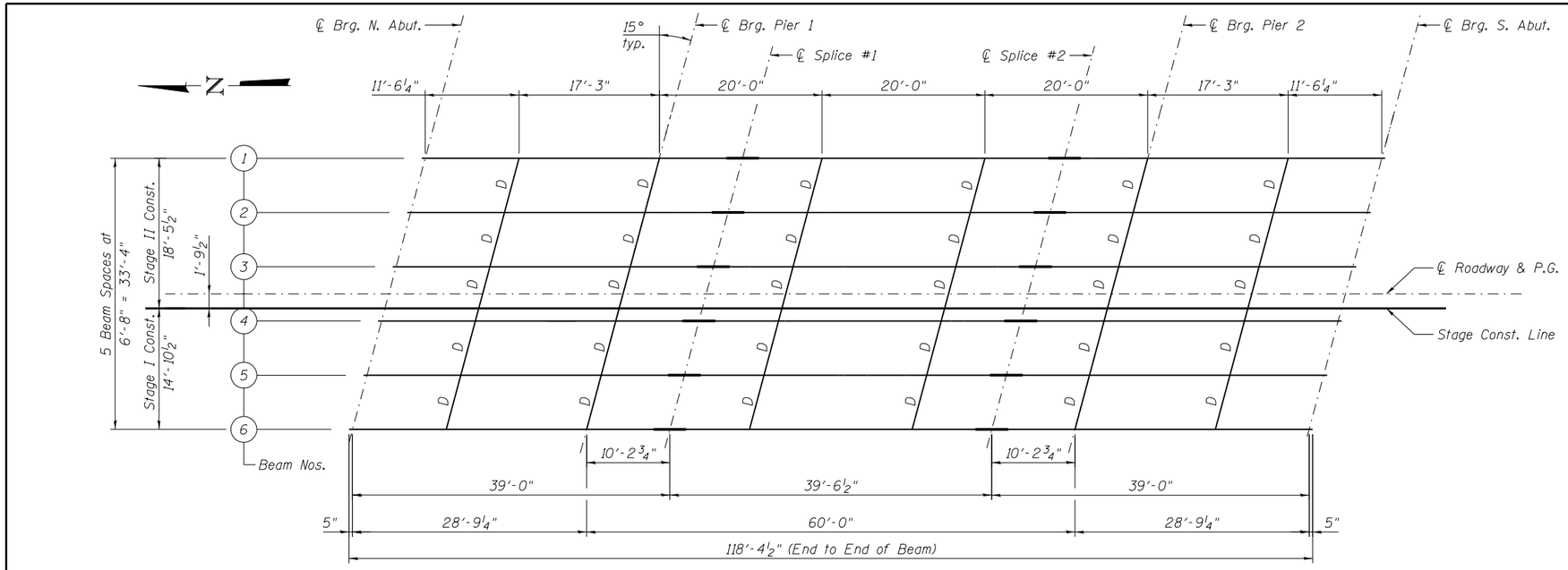
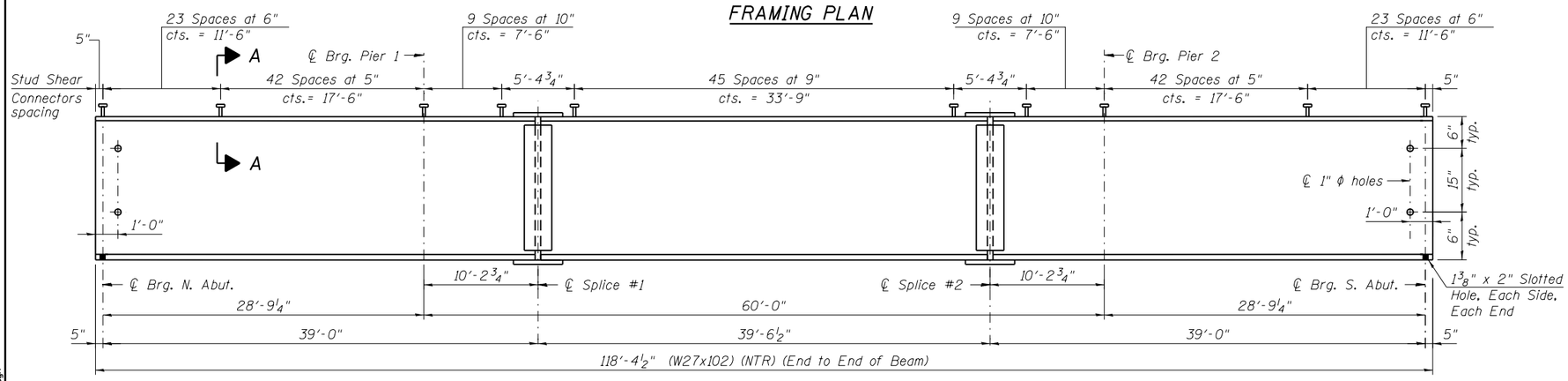
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 13 OF 24 SHEETS

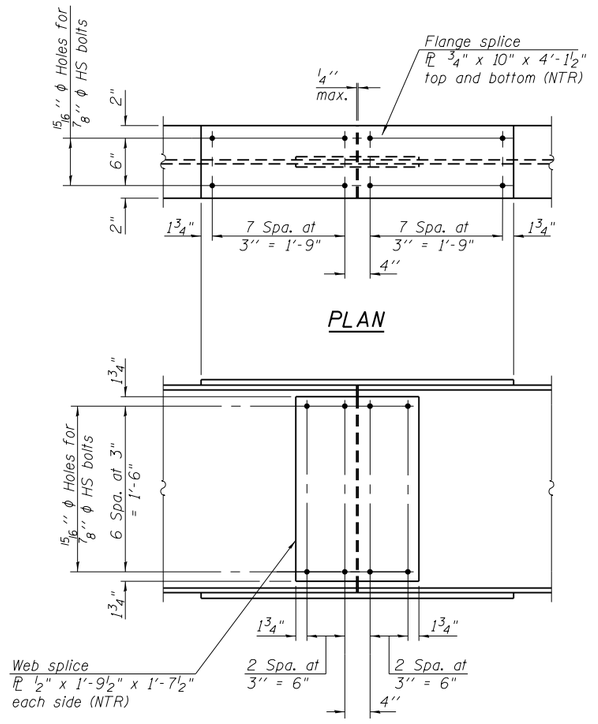
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	40
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		



FRAMING PLAN



BEAM ELEVATION

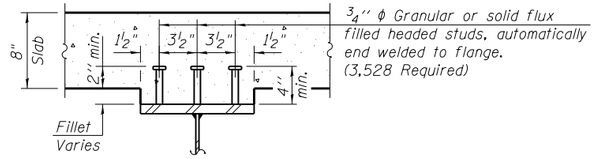


PLAN

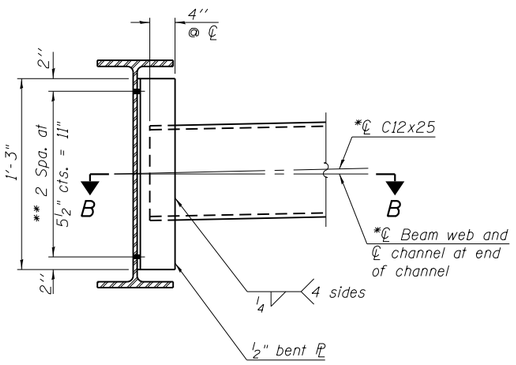
ELEVATION

SPLICE DETAIL

(12 Required)

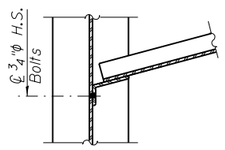


SECTION A-A



DIAPHRAGM D

(30 Required)



SECTION B-B

TOP OF BEAM ELEVATIONS

(For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
℄ Brg. N. Abut.	742.35	742.49	742.60	742.60	742.50	742.38
℄ Brg. Pier 1	742.23	742.37	742.48	742.48	742.39	742.26
℄ Splice #1	742.19	742.33	742.44	742.44	742.35	742.22
℄ Splice #2	742.08	742.21	742.32	742.33	742.23	742.10
℄ Brg. Pier 2	742.06	742.19	742.30	742.31	742.21	742.08
℄ Brg. S. Abut.	741.99	742.14	742.25	742.25	742.15	742.03

Notes:

Two hardened washers required for each set of oversized holes.

**Alternate C12x30 channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.*

***¾" ϕ HS bolts, 15/16" ϕ holes. For diaphragms at stage construction line, provide 13/16" x 1⅞" vertical slotted holes at west side of beam 3 in angle and for east side of beam 4 provide oversized holes in angle and beam. Bolts in slotted holes shall be finger tightened prior to the deck slab pouring and then fully tightened after completion of the second stage pour.*

Slots shall be positioned such that the bolts start at one end with no concrete load and finish near the opposite end after the deck pour.

NOTES:

Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.

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

All beams and splice plates shall be AASHTO M270 Grade 50 (NTR).

All new structural steel shall be hot dip galvanized in accordance with the Special Provision "Hot Dip Galvanizing for Structural Steel".

FILE NAME = E:\0886-1\Struct\SN 037-0177\4_Final Design\DGN Files\CADD_Sheets\0370177-68637.dgn

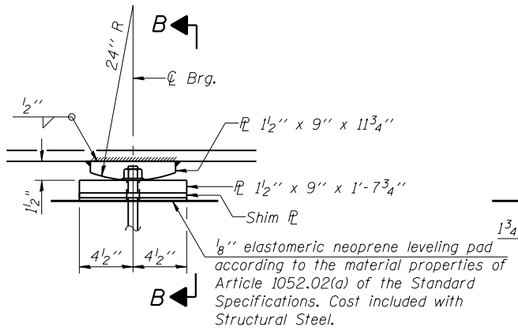
LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME = Lin.44	DESIGNED - CGY	REVISED
	CHECKED - BDC	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:05 AM	CHECKED - SSK	REVISED

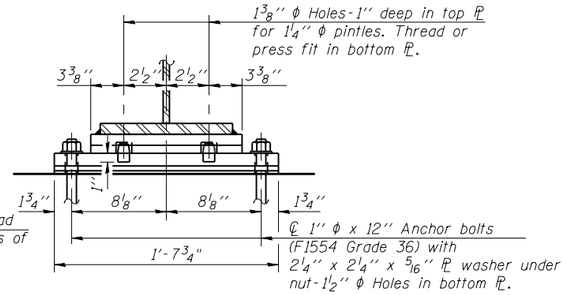
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN AND STEEL DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 14 OF 24 SHEETS

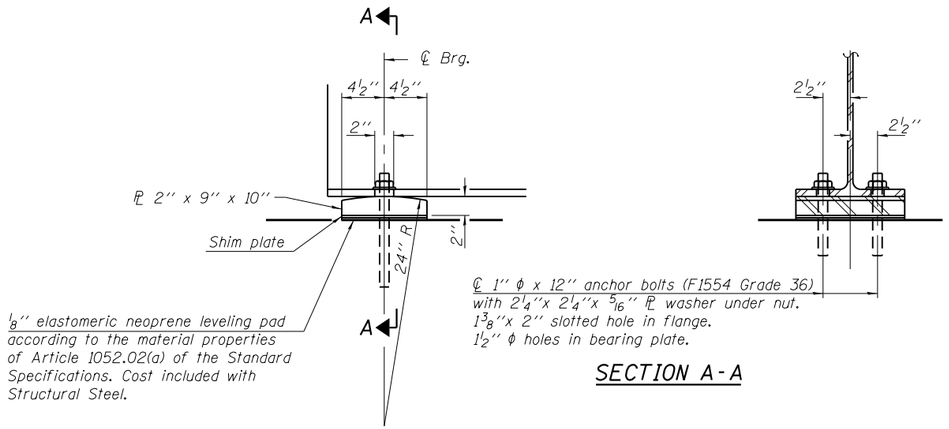
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	41
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		



ELEVATION AT PIER



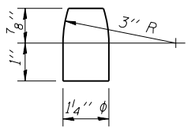
SECTION B-B



ELEVATION AT ABUTMENT

℄ 1" ϕ x 12" anchor bolts (F1554 Grade 36) with 2 1/4"x 2 1/4"x 5/16" ℄ washer under nut.
1 3/8"x 2" slotted hole in flange.
1 1/2" ϕ holes in bearing plate.

SECTION A-A



PINTLE

FIXED BEARINGS

SHIM PLATE TABLE

Location	Thickness
N. Abut., Beam 4	1/8"
Pier 1, Beam 4	1/8"
Pier 2, Beam 4	1/8"
S. Abut., Beam 4	1/8"

INTERIOR GIRDER MOMENT TABLE

		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
I_s	(in^4)	3620	3620	3620
$I_c(n)$	(in^4)	11692	-	11692
$I_c(3n)$	(in^4)	8773	-	8773
$I_c(cr)$	(in^4)	-	5534	-
S_s	(in^3)	267	267	267
$S_c(n)$	(in^3)	429	-	429
$S_c(3n)$	(in^3)	389	-	389
$S_c(cr)$	(in^3)	-	543	-
DC1	(k/')	0.793	0.793	0.793
M_{DC1}	('k)	2	200	157
DC2	(k/')	0.150	0.150	0.150
M_{DC2}	('k)	0	38	30
DW	(k/')	0.300	0.300	0.300
M_{DW}	('k)	0	76	59
LLDF		0.691	0.639	0.606
M_{L+IM}	('k)	285	439	444
M_u (Strength I)	('k)	501	1180	1098
$\phi_f M_n$	('k)	1796	1185	2153
f_s DC1	(ksi)	0.09	8.99	7.06
f_s DC2	(ksi)	0.00	0.84	0.93
f_s DW	(ksi)	0.00	1.68	1.82
f_s (L+IM)	(ksi)	7.97	9.70	12.42
f_s (Service II)	(ksi)	10.45	24.12	25.91
$0.95R_hF_{yf}$	(ksi)	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	-	-	-
$\phi_f F_n$	(ksi)	-	-	-
V_f	(k)	21.7	24.6	21.7

GIRDER REACTION TABLE

		Abut.		Pier	
LLDF		0.758	0.528	0.719	0.527
OCF		-	1.054	-	-
R_{DC1}	(k)	13.2	12.5	43.2	43.1
R_{DC2}	(k)	0.8	0.8	8.0	8.0
R_{DW}	(k)	1.7	1.7	16.0	16.0
R_{L}	(k)	42.0	30.8	75.4	55.3
R_{IM}	(k)	11.6	8.5	16.7	12.2
R_{Total}	(k)	69.3	54.3	159.3	134.6

Notes:

The structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50.

All bearing plates, anchor bolts, nuts, washers and pintles shall be galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel".

Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Beams shall be braced for stability during erection and remain braced until deck is poured and cured.

Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.

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

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

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

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

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

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

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

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

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

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

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

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

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_{s(L+IM)}$

$0.95R_hF_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_{s(L+IM)}$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	48

FILE NAME = E:\0886-1\Struct\SN 037-0177x4_Final Design\DGN Files\CADD_Sheets\037-0177-68637.dgn

LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

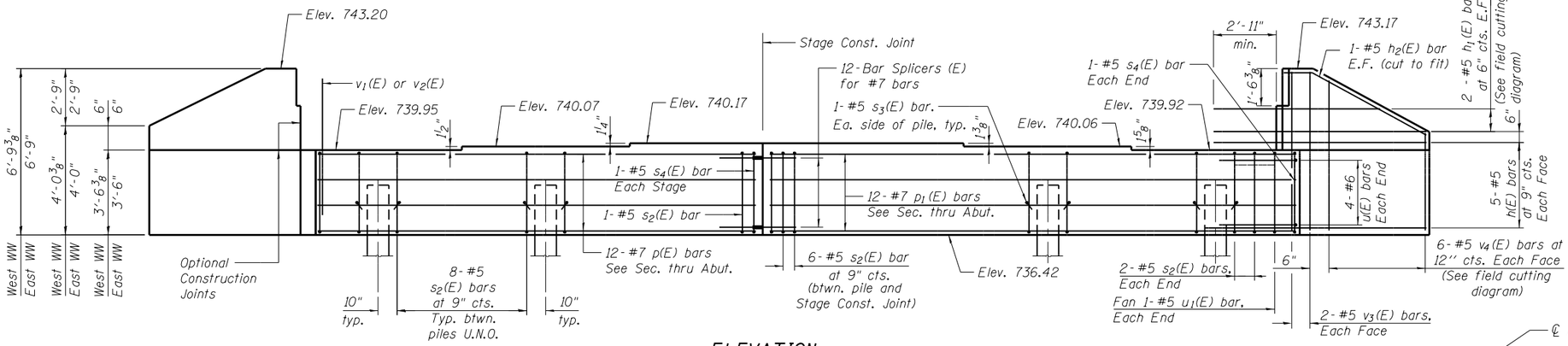
USER NAME = Lin.44	DESIGNED - BDC	REVISED	
	CHECKED - BDC	REVISED	
PLOT SCALE =	DRAWN - RMH	REVISED	
PLOT DATE = 1/31/2018 8:37:05 AM	CHECKED - SSK	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 15 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	42
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.



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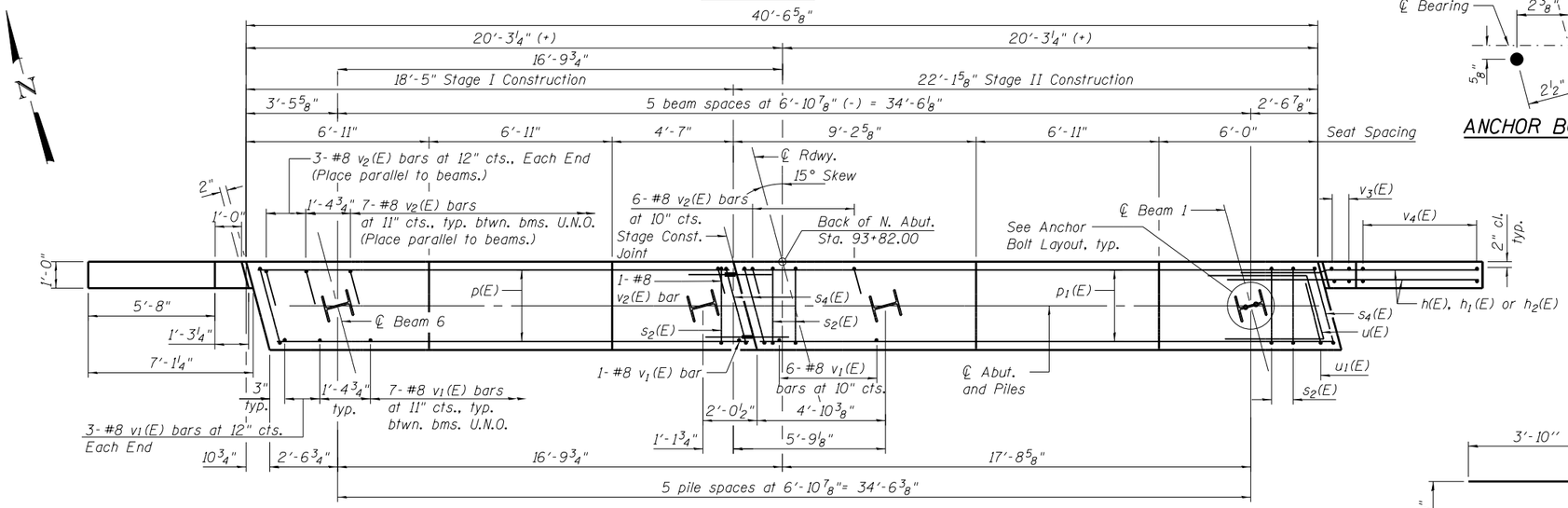

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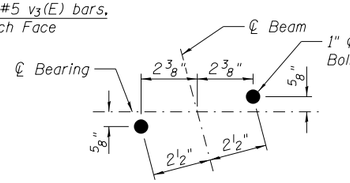
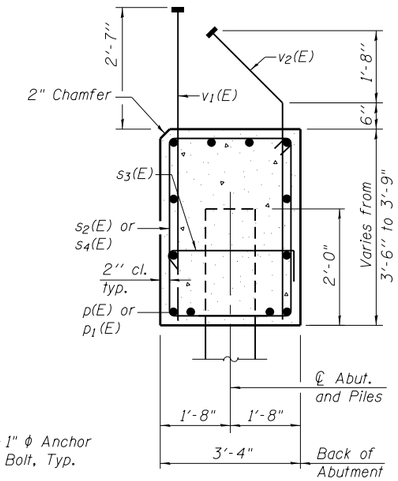


ANCHOR BOLT LAYOUT

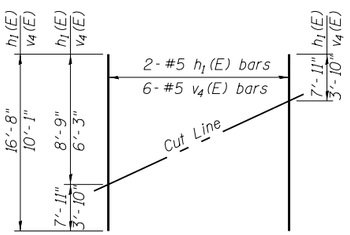


SEC. THRU ABUT.

Dimensions at right angles to abutment.

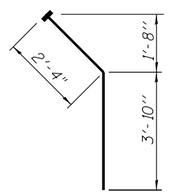
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	20	#5	9'-11"	
h_1(E)	4	#5	16'-8"	
h_2(E)	4	#5	7'-0"	
p(E)	12	#7	18'-1"	
p_1(E)	12	#7	21'-9"	
s_2(E)	43	#5	13'-3"	
s_3(E)	12	#5	4'-0"	
s_4(E)	4	#5	13'-6"	
u(E)	8	#6	10'-8"	
u_1(E)	2	#5	8'-10"	
v_1(E)	41	#8	5'-11"	
v_2(E)	41	#8	6'-2"	
v_3(E)	8	#5	6'-5"	
v_4(E)	12	#5	10'-1"	
Structure Excavation		Cu. Yd.	84	
Concrete Structures		Cu. Yd.	21.1	
Reinforcement Bars, Epoxy Coated		Pound	3640	
Furnishing Steel Piles HP12x63		Foot	265	
Driving Piles		Foot	265	
Pile Shoes		Each	6	
Test Pile Steel HP12x63		Each	1	



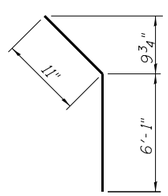
FIELD CUTTING DIAGRAM

Order h_1(E) and v_4(E) full length. Cut as shown and use remainder of bars in opposite face.



BAR v_2(E)

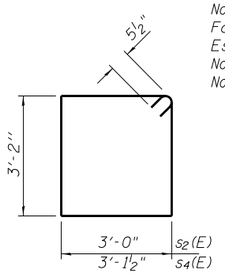
(Headed)



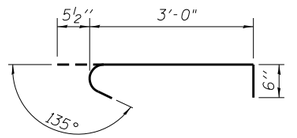
BAR h_2(E)

PILE DATA

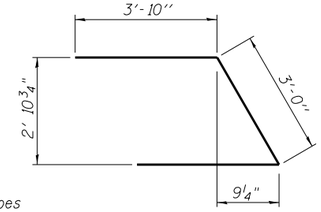
Type: Steel HP12x63 with pile shoes
Nominal Required Bearing: 497 kips
Factored Resistance Available: 273 kips
Est. Length: 53 ft.
No. Production Piles: 5
No. Test Piles: 1



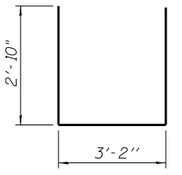
BARS s_2(E) & s_4(E)



BAR s_3(E)



BAR u(E)



BAR u_1(E)

For details of piles see sheet 21 of 24.
For details of Bar Splicers see sheet 20 of 24.
For drainage details see sheet 2 of 24.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

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LIN ENGINEERING, LTD.
Consulting Engineers
Springfield, Illinois

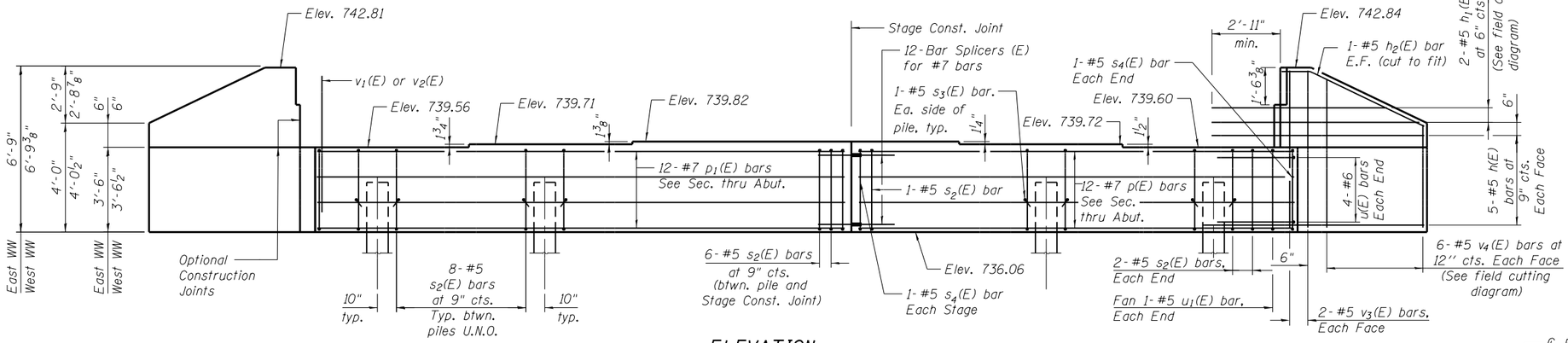
USER NAME = Lin.44	DESIGNED - SSK	REVISED
	CHECKED - RPW	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:06 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 037-0177
SHEET NO. 16 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	43
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss anchor bolts.



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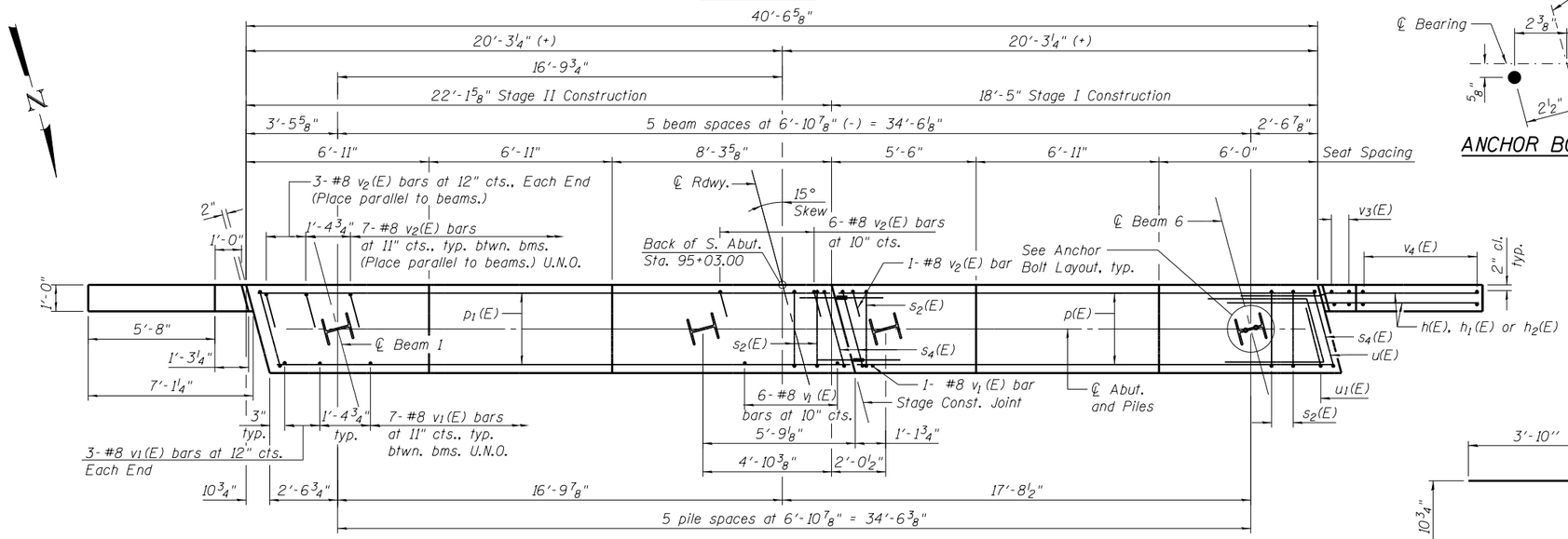

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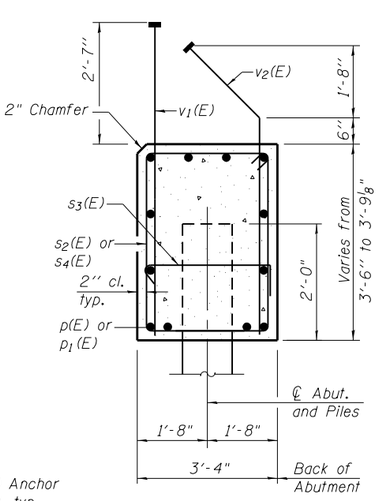
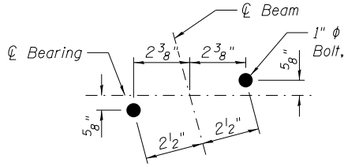


SEC. THRU ABUT.

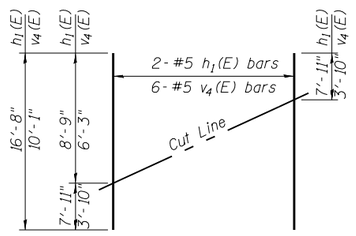
Dimensions at right angles to abutment.



ANCHOR BOLT LAYOUT

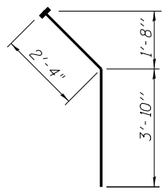
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h(E)$	20	#5	9'-11"	
$h_1(E)$	4	#5	16'-8"	
$h_2(E)$	4	#5	7'-0"	
$p(E)$	12	#7	18'-1"	
$p_1(E)$	12	#7	21'-9"	
$s_2(E)$	43	#5	13'-3"	
$s_3(E)$	12	#5	4'-0"	
$s_4(E)$	4	#5	13'-6"	
$u(E)$	8	#6	10'-8"	
$u_1(E)$	2	#5	8'-10"	
$v_1(E)$	41	#8	5'-11"	
$v_2(E)$	41	#8	6'-2"	
$v_3(E)$	8	#5	6'-5"	
$v_4(E)$	12	#5	10'-1"	
Structure Excavation	Cu. Yd.		84	
Concrete Structures	Cu. Yd.		21.1	
Reinforcement Bars, Epoxy Coated	Pound		3640	
Furnishing Steel Piles HP12x63	Foot		342	
Driving Piles	Foot		342	
Pile Shoes	Each		6	



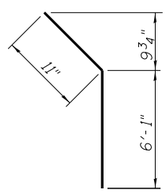
FIELD CUTTING DIAGRAM

Order $h_1(E)$ and $v_4(E)$ full length. Cut as shown and use remainder of bars in opposite face.



BAR $v_2(E)$

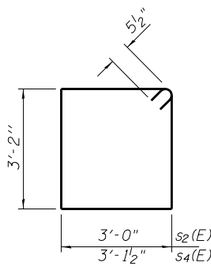
(Headed)



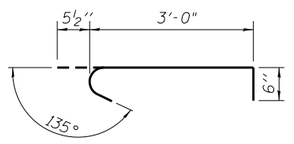
BAR $h_2(E)$

PILE DATA

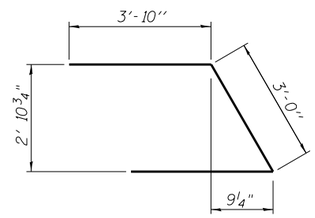
Type: Steel HP12x63 with pile shoes
Nominal Required Bearing: 497 kips
Factored Resistance Available: 273 kips
Est. Length: 57 ft.
No. Production Piles: 6



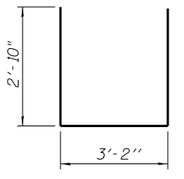
BARS $s_2(E)$ & $s_4(E)$



BAR $s_3(E)$



BAR u(E)



BAR $u_1(E)$

For details of piles see sheet 21 of 24.
For details of Bar Splicers see sheet 20 of 24.
For drainange details see sheet 2 of 24.
Headed bars shall conform to ASTM A970 with threaded attachment; Class HA; and reinforcement bars conforming to ASTM A706. Cost included with Reinforcement Bars, Epoxy Coated.

FILE NAME = E:\0806-1\Struct\SN 037-0177\4_Final Design\DGN Files\CADD_Sheets\037017-68637.dgn

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Consulting Engineers
Springfield, Illinois

USER NAME = Lin_44	DESIGNED - SSK	REVISED
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PLOT SCALE =	DRAWN - RMH	REVISED
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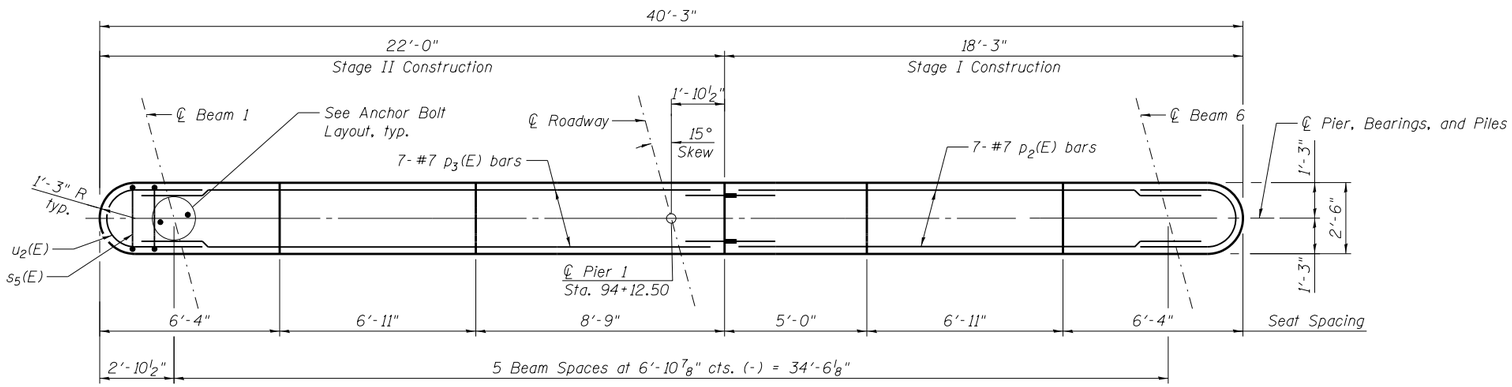
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

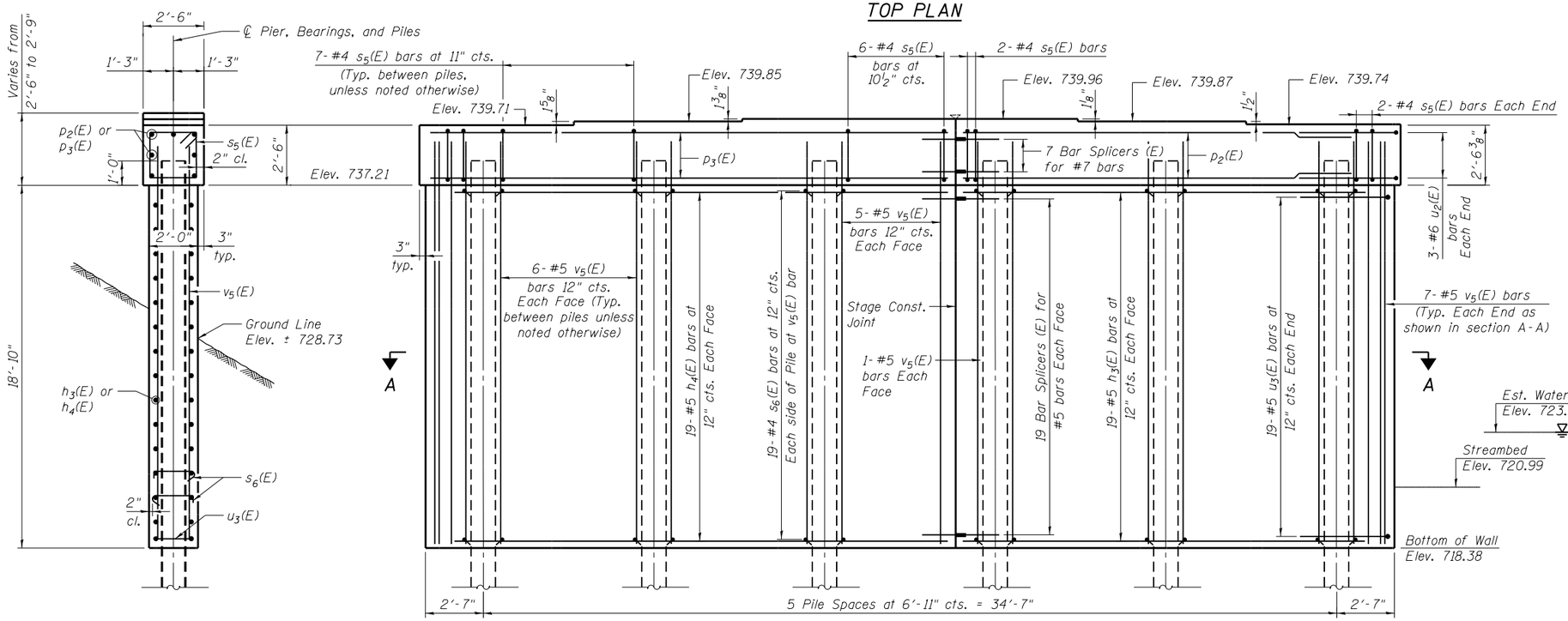
SOUTH ABUTMENT
STRUCTURE NO. 037-0177
SHEET NO. 17 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	44
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

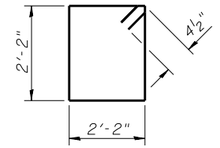
Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 21 of 24.
For details of bar splicers, see sheet 20 of 24.



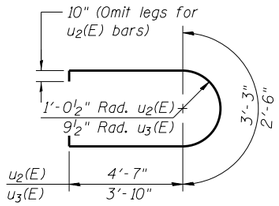
TOP PLAN



ELEVATION
(Looking South)



BAR s5(E)

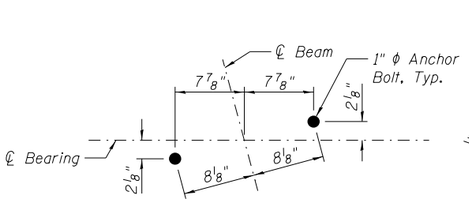


BARS u2(E) & u3(E)

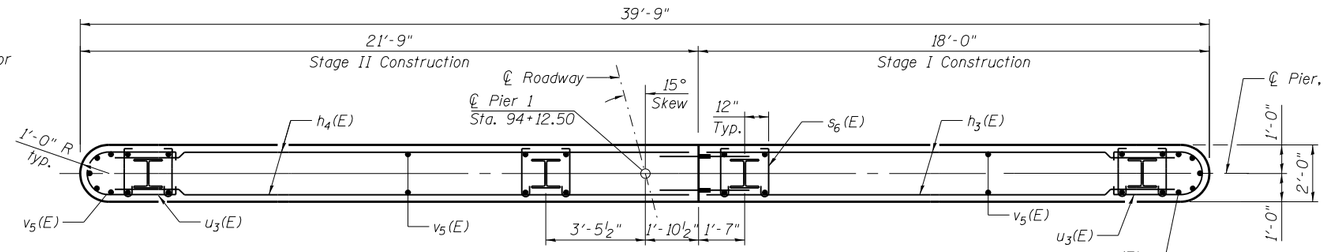
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_3(E)$	38	#5	16'-9"	——
$h_4(E)$	38	#5	20'-6"	——
$p_2(E)$	7	#7	16'-9"	——
$p_3(E)$	7	#7	20'-6"	——
$s_5(E)$	40	#4	9'-5"	□
$s_6(E)$	228	#4	2'-9"	⊐
$u_2(E)$	6	#6	12'-5"	⊐⊏
$u_3(E)$	38	#5	11'-10"	⊐⊏
$v_5(E)$	74	#5	20'-8"	——
Concrete Structures		Cu. Yd.	64.6	
Reinforcement Bars, Epoxy Coated		Pound	4860	
Furnishing Steel Piles, HP 12x63		Foot	360	
Driving Piles		Foot	360	
Pile Shoes		Each	6	
Cofferdam (Type 1) (Location 1)		Each	1	
Cofferdam Excavation		Cu. Yd.	191	

END VIEW



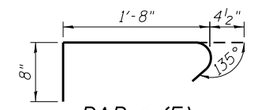
ANCHOR BOLT LAYOUT



SECTION A-A

PILE DATA

Type: Steel HP 12x63 with pile shoes
Nominal Required Bearing: 497 kips
Factored Resistance Available: 273 kips
Est. Length: 60 ft.
No. Production Piles: 6



BAR s6(E)

FILE NAME = E:\0886-1\Structsn 037-0177\4.Final Design\DGN files\CADD Sheets\0370177-68637.dgn

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Springfield, Illinois

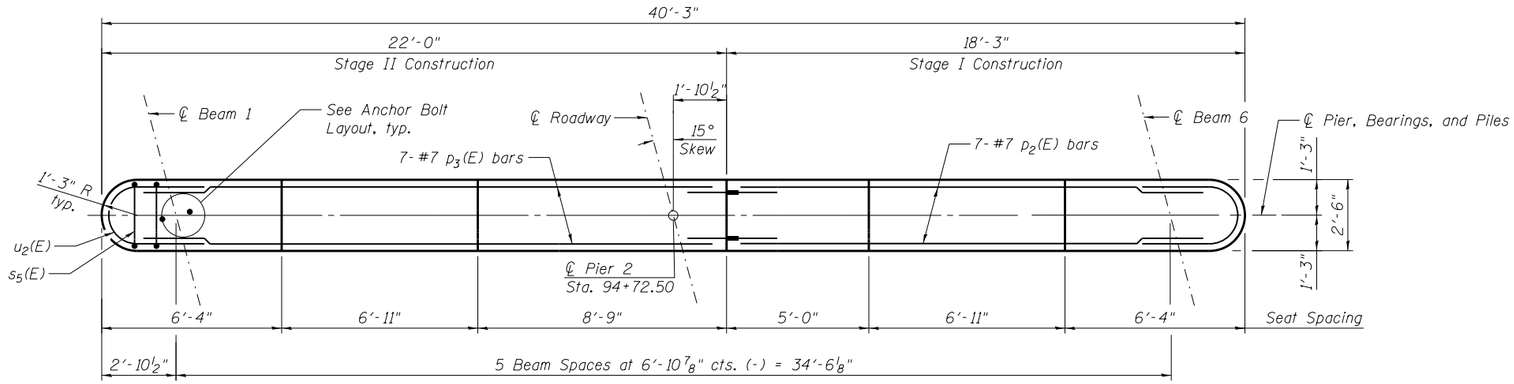
USER NAME = Lin.44	DESIGNED - BDC	REVISED
	CHECKED - RPW	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:08 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

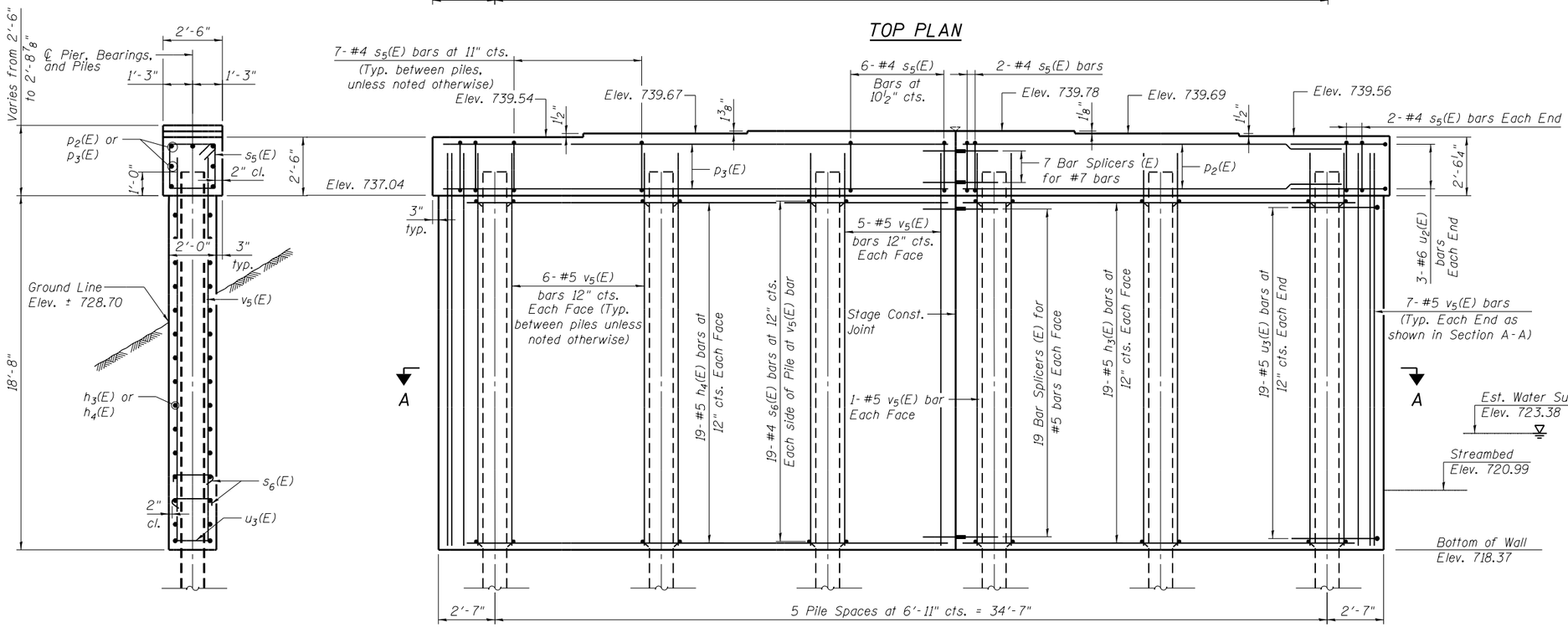
PIER 1 DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 18 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	45
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

Notes:
Space reinforcement in cap to miss anchor bolts.
Pour steps monolithically with cap.
For details of piles, see sheet 21 of 24.
For details of bar splicers, see sheet 20 of 24.

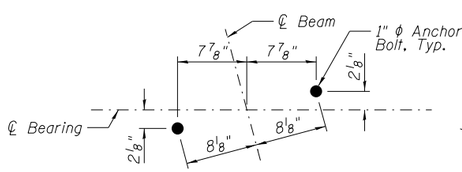


TOP PLAN

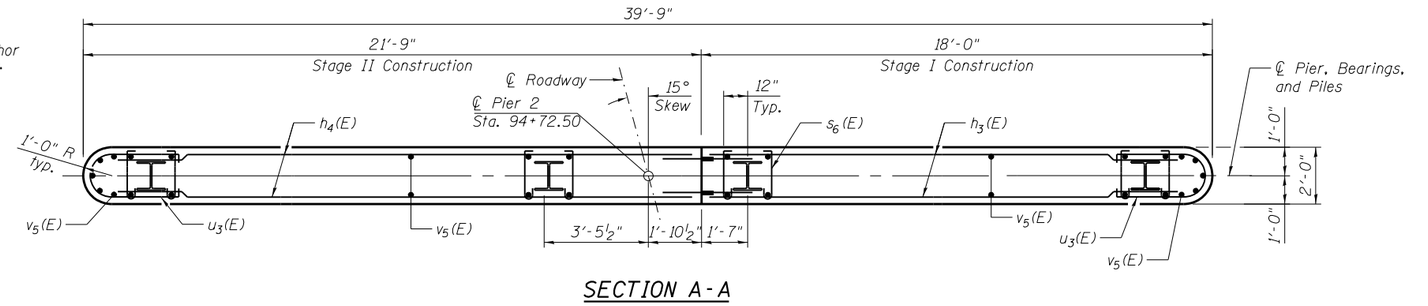


END VIEW

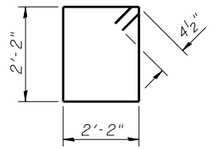
ELEVATION
(Looking South)



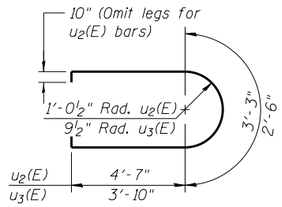
ANCHOR BOLT LAYOUT



SECTION A-A



BAR s5(E)



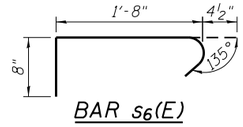
BARS u2(E) & u3(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$h_3(E)$	38	#5	16'-9"	—
$h_4(E)$	38	#5	20'-6"	—
$p_2(E)$	7	#7	16'-9"	—
$p_3(E)$	7	#7	20'-6"	—
$s_5(E)$	40	#4	9'-5"	□
$s_6(E)$	228	#4	2'-9"	⊐
$u_2(E)$	6	#6	12'-5"	⊐⊐
$u_3(E)$	38	#5	11'-10"	⊐⊐
$v_5(E)$	74	#5	20'-8"	—
Concrete Structures		Cu. Yd.	64.1	
Reinforcement Bars, Epoxy Coated		Pound	4860	
Furnishing Steel Piles HP12x63		Foot	300	
Driving Piles		Foot	300	
Test Pile Steel HP12x63		Each	1	
Pile Shoes		Each	6	
Cofferdam (Type 1) (Location 2)		Each	1	
Cofferdam Excavation		Cu. Yd.	190	

PILE DATA

Type: Steel HP 12x63 with pile shoes
Nominal Required Bearing: 497 kips
Factored Resistance Available: 273 kips
Est. Length: 60 Ft.
No. Production Piles: 5
No. Test Piles: 1



BAR s6(E)

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Springfield, Illinois

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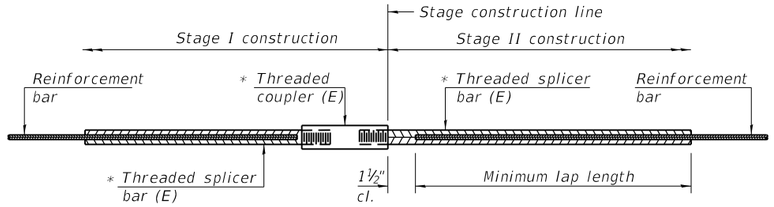
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 19 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	46
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

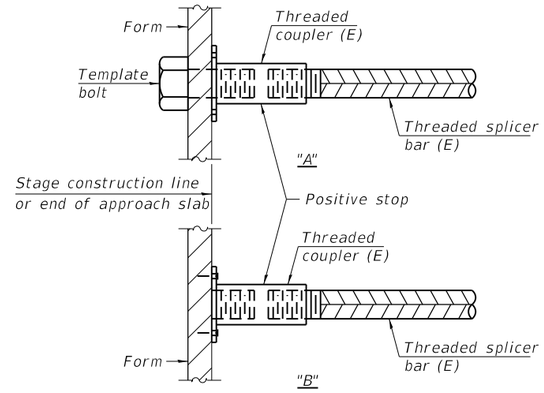


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

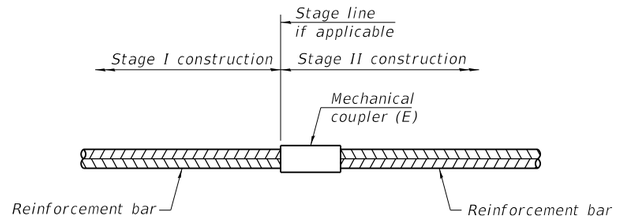
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Abutments	#7	24	5'-0"
Piers	#5	76	3'-7"
Piers	#7	14	5'-0"
Deck Slab	#5	383	3'-6"
Diaphragms	#6	10	5'-0"
Approach Footings	#5	80	3'-2"
Approach Slabs	#5	90	3'-4"
Approach Slabs	#8	120	4'-9"



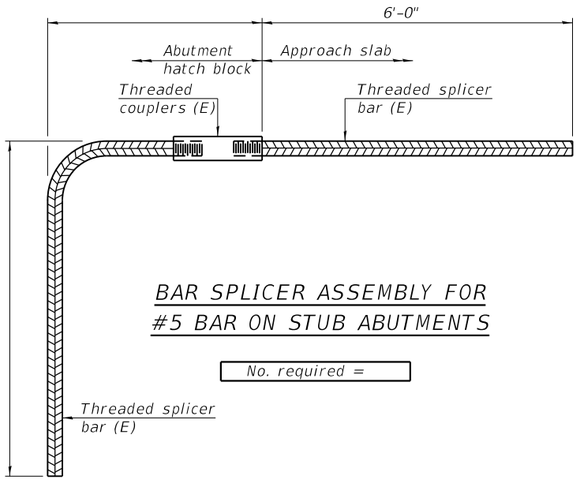
INSTALLATION AND SETTING METHODS

"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



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 2-17-2017

FILE NAME = E:\0806-1\Struct\SN 037-0177\4.Final Design\DGN files\CADD.Sheets\037017-68637.dgn

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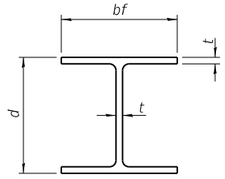
DEPARTMENT OF TRANSPORTATION

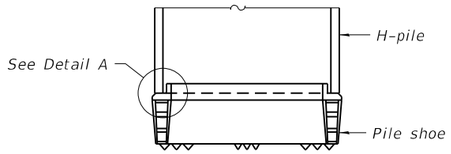
BAR SPLICER ASSEMBLY DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 20 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	47
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

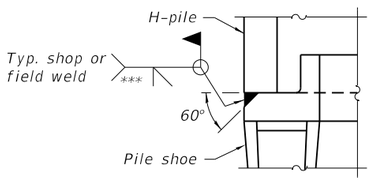


STEEL PILE TABLE

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



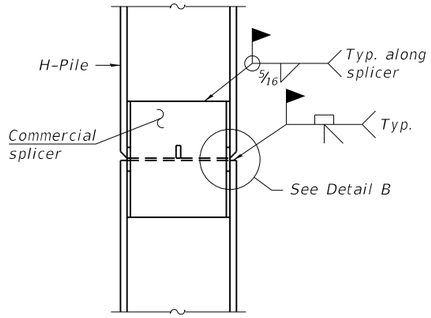
ELEVATION



DETAIL A

SHOE ATTACHMENT

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



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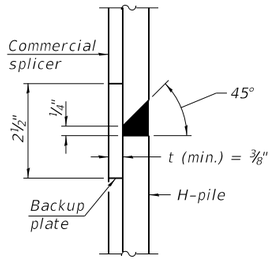
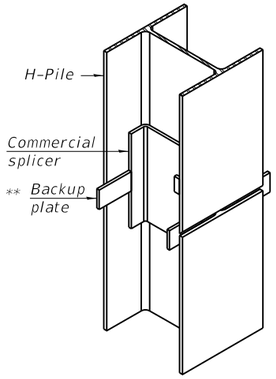
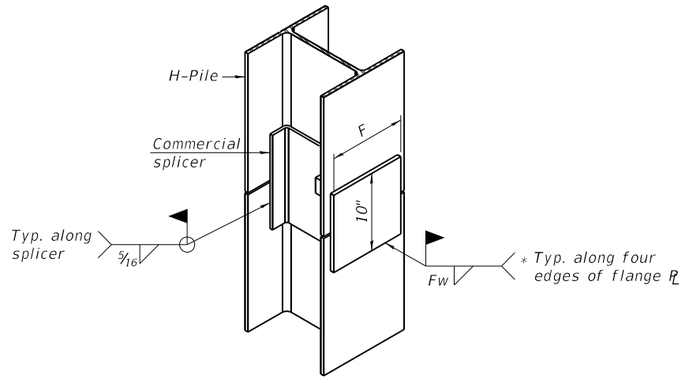


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



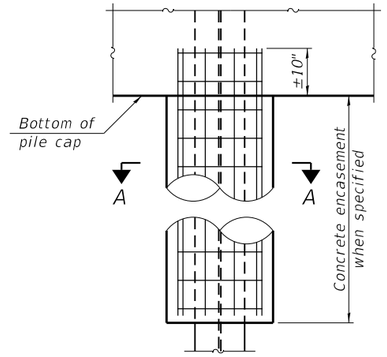
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

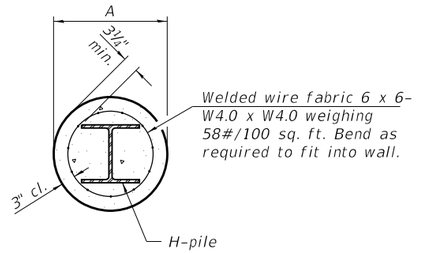
* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup plates that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).



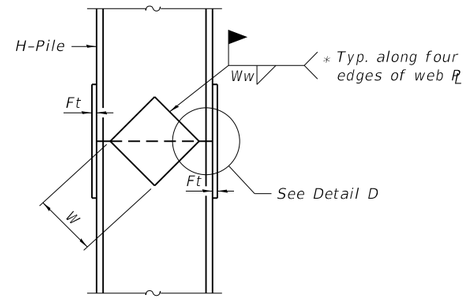
ELEVATION



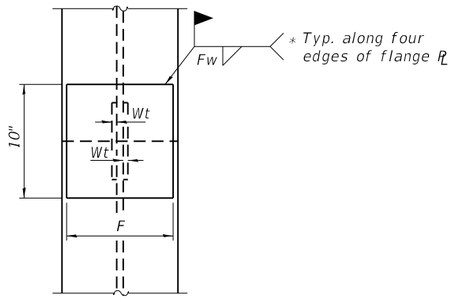
SECTION A-A

INDIVIDUAL PILE CONCRETE ENCASEMENT

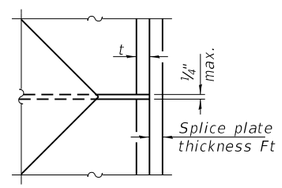
(Forms for encasement may be omitted when soil conditions permit).



ELEVATION



END VIEW



DETAIL D

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

WELDED PLATE FIELD SPLICE

F-HP 8-11-2017

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Consulting Engineers
Springfield, Illinois

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PLOT SCALE = | DRAWN - RMH | REVISED
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CHECKED - CGY | REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS
STRUCTURE NO. 037-0177
SHEET NO. 21 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	48
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

FILE NAME = E:\0806-1\Struct\SN 037-0177\4_Final Design\ODN Files\CADD_Sheets\037017-68637.dgn

ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/8/10

ROUTE IL 78 DESCRIPTION Bridge Over Indian Creek
SECT. (14-BR-1)BR STRUCT. NO. 037-0177 DRILLED BY B. Williamson
COUNTY Henry LOCATION S27/28, TWP. 14N, RNG. 5E

Boring No. B-1 N. Abutment
Station 93+35
Offset 29.00ft RT
Surface Elev. 742.10 ft

Surface Water Elev. 720.8
Groundwater Elev.:
when drilling 720.1
at Completion 712.1
after ____ Hrs. ____

DEPTH	BLOWS		Qu tsf	W %
	Stiff brown SILTY CLAY LOAM, moist			
	2 2 2	P	1.25	21
	2 2 3	B	1.35	25
-5				
	2 2 3	B	1.56	21
734.10				
	Stiff dark brown SILTY CLAY LOAM, moist to very moist			
	2 3 3	P	1.0	19
-10				
	0 2 3	P	1.0	33
	1 2 5	B	1.37	20
-15				
726.10				
	Very loose dark brown SANDY LOAM, moist			
	1 1 1			24
724.10				
	Very loose gray SANDY LOAM, very moist to wet			
	0 1 1			26
-20				
	1 2 1			28
719.10				
	Loose to medium dense gray fine to medium SAND, saturated			
	0 2 2			
-25				

DEPTH	BLOWS		Qu tsf	W %
	Medium dense gray fine to medium SAND, saturated			
	4 6 6			
-30				
	6 5 5			
710.10				
	Loose gray SILT, very moist			
	4 2 2			24
-35				
705.10				
	Stiff gray SILTY LOAM, moist			
	3 4 5	P	1.25	20
-40				
	3 6 10	P	1.75	20
-45				
	4 4 4	P	1.5	11
-50				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations. Depths. Offset. and Elevations are in Feet

ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/8/10

STRUCTURE NO. 037-0177
ROUTE IL 78
SECTION (14-BR-1)BR
COUNTY Henry

Boring No. B-1 N. Abutment
Station 93+35
Offset 29.00ft RT
Elevation 692.10 ft

DEPTH	BLOWS		Qu tsf	W %
	Stiff gray SILTY LOAM, moist			
689.10				
	Medium dense gray fine to medium SAND, saturated			
	4 10 10			
687.10 -55				
	Very dense gray SHALE with limestone fragments			
	33 100/3"			
684.10				
	End of Boring at 58.0' - Auger Refusal			
-60				
-65				
-70				
-75				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations. Depths. Offset. and Elevations are in Feet

ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/7/10

ROUTE IL 78 DESCRIPTION Bridge Over Indian Creek
SECT. (14-BR-1)BR STRUCT. NO. 037-0177 DRILLED BY B. Williamson
COUNTY Henry LOCATION S27/28, TWP. 14N, RNG. 5E

Boring No. B-2 N. Pier
Station 94+20
Offset 30.00ft LT
Surface Elev. 730.50 ft

Surface Water Elev. 720.8
Groundwater Elev.:
when drilling 717.5
at Completion ____
after ____ Hrs. ____

DEPTH	BLOWS		Qu tsf	W %
	Medium stiff dark brown SILTY CLAY LOAM, moist			
	1 1 1	P	1.0	24
727.50				
	Soft dark brown SILTY CLAY LOAM, very moist			
	1 1 1	P	<0.25	29
-5				
724.50				
	Very soft brown-gray SILTY CLAY LOAM, moist to very moist			
	1 2 2	P	<0.25	25
	1 1 2	P	<0.25	27
-10				
	Tree root in Sample 5.			
	1 2 3			24
717.50				
	Medium dense brown fine to medium SAND, saturated			
	2 7 6			
-15				
	12" Blow-in sand at 16' - Washed out.			
	4 7 11			
	12" Blow-in sand at 18.5' - Washed out.			
	4 10 11			
-20				
709.50				
	Very stiff gray SILTY LOAM, moist			
	3 4 7	P	2.5	11
	3 3 4	S	2.56	10
-25				

DEPTH	BLOWS		Qu tsf	W %
	Very stiff gray SILTY LOAM, moist			
	3 7 10	S	2.64	13
702.50				
	Medium dense to loose gray fine to medium SAND, saturated			
	3 6 11			
-30				
	3 6 9			
-35				
	3 1 4			
-40				
	11' Blow-in sand at 43.5' - Washed out.			
686.50				
	Very dense gray SHALE with limestone fragments			
	23 100/3"			10
-45				
	100/5"			15
-50				

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations. Depths. Offset. and Elevations are in Feet

FILE NAME = E:\0886-1\Structsn 037-0177\4.Final Design\DGN files\CADD.Sheets\037017-68637.dgn

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME = Lin.44	DESIGNED - SSK	REVISED
	CHECKED - CGY	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:10 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 037-0177
SHEET NO. 22 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	49
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/7/10

STRUCTURE NO. 037-0177
ROUTE IL 78
SECTION (14-BR-1)BR
COUNTY Henry

Boring No. B-2 N. Pier
Station 94+20
Offset 30.00ft LT
Elevation 680.50 ft

DEPTH	BLOWS	Qu tsf	W %
Very dense gray SHALE with limestone fragments			
677.50	40 100/5"		11
End of Boring at 53.0' - Auger Refusal			
-55			
-60			
-65			
-70			
-75			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations. Depths. Offset. and Elevations are in Feet

ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/9/10

ROUTE IL 78 DESCRIPTION Bridge Over Indian Creek
SECT. (14-BR-1)BR STRUCT. NO. 037-0177 DRILLED BY B. Williamson
COUNTY Henry LOCATION S27/28, TWP. 14N, RNG. 5E

Boring No. B-3 S. Pier
Station 94+65
Offset 35.00ft RT
Surface Elev. 729.80 ft

Surface Water Elev. 720.8
Groundwater Elev.:
when drilling 717.8
at Completion
after ____ Hrs.

DEPTH	BLOWS	Qu tsf	W %
Soft dark brown SILTY CLAY LOAM, moist	1 1 1	P 0.5	28
	3 2 3	P 0.5	23
723.60			
Very soft brown-gray SILTY CLAY LOAM, moist	0 2 1	P <0.25	24
	1 1 2	P <0.25	13
718.80			
Loose brown fine to medium SAND, saturated	0 3 3		
	1 2 3		
9" Blow-in sand at 16.0' - Washec out.	4 10 12		
712.60			
Medium dense to dense brown fine to coarse SAND, saturated			
12" Blow-in sand at 18.5' - Washec out.	10 13 15		
12" Blow-in sand at 21' - Washec out.	15 15 17		
706.60			
Very stiff gray SILTY LOAM, moist	5 7 7	P 2.0	10
-25			

DEPTH	BLOWS	Qu tsf	W %
Very stiff gray SILTY LOAM, moist			
	3 9 10	P 2.5	14
12" Blow-in sand at 26' - Washed out.			
701.80			
Medium dense gray fine to coarse SAND, saturated	5 6 14		
36" Blow-in sand at 28.5' - Washed out.			
-30			
697.80			
Medium dense gray fine SAND, saturated	13 14 12		
-35			
692.80			
Hard gray SILTY LOAM, moist	13 20 26	P 4.5+	16
-40			
686.80			
Very dense gray SHALE	16 100/2"		11
-45			
	100/3"		11
-50			

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ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/9/10

STRUCTURE NO. 037-0177
ROUTE IL 78
SECTION (14-BR-1)BR
COUNTY Henry

Boring No. B-3 S. Pier
Station 94+65
Offset 35.00ft RT
Elevation 679.80 ft

DEPTH	BLOWS	Qu tsf	W %
Very dense gray SHALE			
	21 100/3"		8
674.80			
End of Boring at 55.0' - Auger Refusal			
-55			
-60			
-65			
-70			
-75			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations. Depths. Offset. and Elevations are in Feet

FILE NAME = E:\0886-1\Structsn 037-0177\4.Final Design\DGN files\CADD.Sheets\037017-68637.dgn

LIN ENGINEERING,LTD.
Consulting Engineers
Springfield, Illinois

USER NAME = Lin_44	DESIGNED - SSK	REVISED
	CHECKED - CGY	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:12 AM	CHECKED - SSK	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 037-0177
SHEET NO. 23 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	50
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/8/10

ROUTE IL 78 DESCRIPTION Bridge Over Indian Creek
SECT. (14-BR-1)BR STRUCT. NO. 037-0177 DRILLED BY B. Williamson
COUNTY Henry LOCATION S27/28, TWP. 14N, RNG. 5E

Boring No. B-4 S. Abutment
Station 95+15
Offset 15.00ft LT
Surface Elev. 732.70 ft

Surface Water Elev. 720.8
Groundwater Elev.:
when drilling 721.7
at Completion
after ____ Hrs. ____

DEPTH	BLOWS	Qu tsf	W %
Very stiff brown SILTY CLAY LOAM, moist			
	4 4 4	P 2.0	16
729.70			
Very stiff to stiff dark brown SILTY CLAY LOAM, moist			
	3 5 7	P 2.75	26
-5			
	2 3 4	P 1.75	25
724.70			
Very loose brown-gray SANDY LOAM, moist			
	1 1 2		17
722.70 -10			
Loose to very loose gray fine to medium SAND, saturated			
	1 3 3		
	1 1 2		
-15			
716.70			
Very soft gray SILTY CLAY LOAM, very moist			
	2 3 3	P <0.25	31
	2 2 3	P <0.25	30
-20			
711.70			
Medium dense gray fine to medium SAND, saturated			
	6 10 12		
709.70			
Stiff to very stiff gray SILTY LOAM, moist			
	5 5 6	P 1.5	20
-25			

DEPTH	BLOWS	Qu tsf	W %
Very stiff gray SILTY LOAM, moist			
	7 7 8	P 2.0	13
12" Blow-in sand at 28.5' - Washed out.			
	6 6 7	S 2.52	11
-30			
700.70			
Very loose gray fine to medium SAND, saturated			
12" Blow-in sand at 33.5' - Washed out.	0 0 0		
-35			
696.70			
Dense gray fine to coarse SAND, saturated			
	7 15 16		11
-40			
688.20	3 18		
Very dense gray SHALE	100/5"		
-45			
	100/5"		
-50			

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Stations. Depths. Offset. and Elevations are in Feet

ILLINOIS DEPARTMENT OF TRANSPORTATION
Testing Service Corporation
STRUCTURE BORING LOG

Date 9/8/10

STRUCTURE NO. 037-0177
ROUTE IL 78
SECTION (14-BR-1)BR
COUNTY Henry

Boring No. B-4 S. Abutment
Station 95+15
Offset 15.00ft LT
Elevation 682.70 ft

DEPTH	BLOWS	Qu tsf	W %
Very dense gray SHALE			
	33 100/4"		13
679.20			
End of Boring at 53.5' - Auger Refusal			
-55			
-60			
-65			
-70			
-75			

SPT. (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations. Depths. Offset. and Elevations are in Feet

FILE NAME = E:\0886-1\Structure\SN 037-0177x4.Final Design\DGN files\CADD Sheets\037-0177-68637.dgn

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Consulting Engineers
Springfield, Illinois

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	CHECKED - CGY	REVISED
PLOT SCALE =	DRAWN - RMH	REVISED
PLOT DATE = 1/31/2018 8:37:13 AM	CHECKED - SSK	REVISED

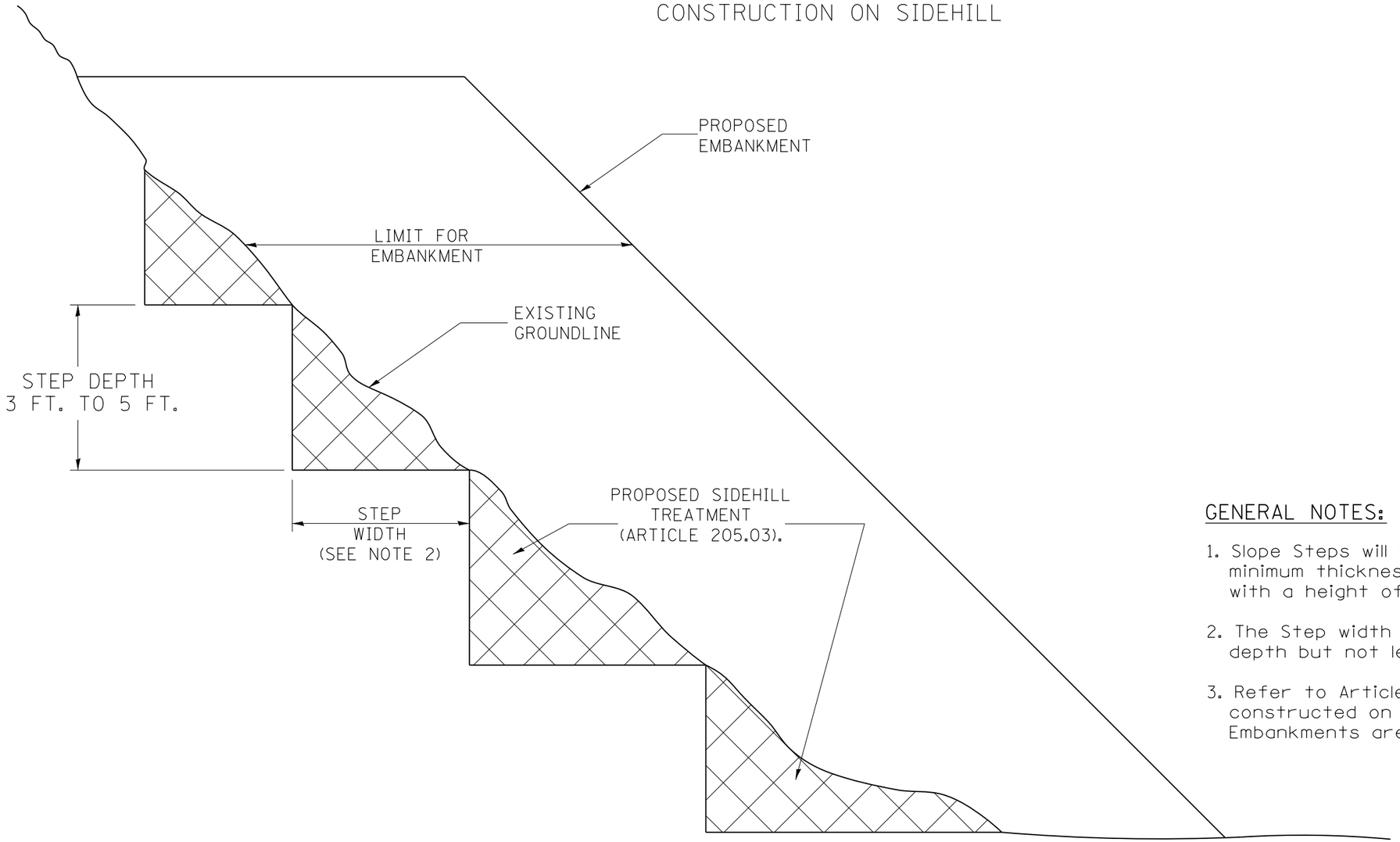
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORINGS
STRUCTURE NO. 037-0177
SHEET NO. 24 OF 24 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	51
		CONTRACT NO. 68637		
	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 a fills with a height of 10'(3.0m).

2. The Step width shall be twice the Step depth but not less than 6 feet.

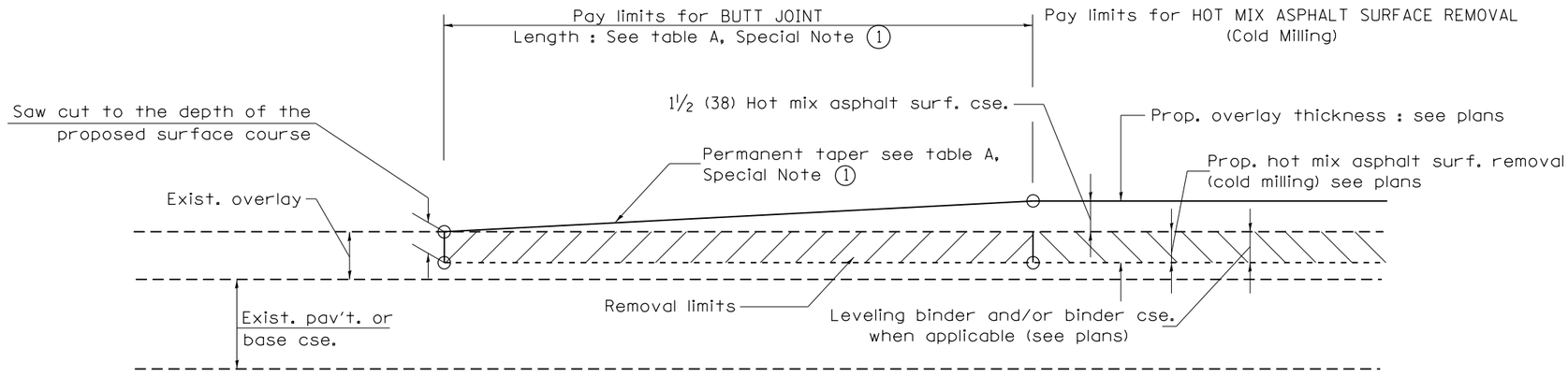
3. Refer to Article 205.03 for Embankment to be constructed on Hillside or Slopes, or if existing Embankments are to be widened.

REPLACEMENT MATERIAL:

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

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

1-1-97	RENUM. L-5.03, NEW REVISION BOX, REVISED TITLE	T.P.				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SLOPE STEPS DETAIL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	BOX, REVISED GENERAL NOTES.							22	(14BR-1)BR	HENRY	70	52
10-16-06	REVISED TO 2007 SPEC.	M.A.									CONTRACT NO. 68637	
							NOT TO SCALE CADD STD. 205001-D4	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



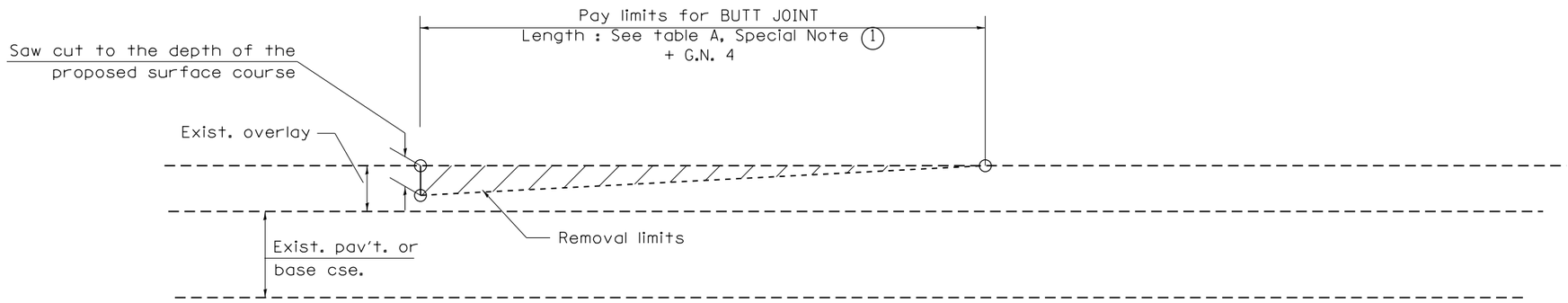
CASE 1 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

TABLE A
TAPER RATES

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
(1)	BUTT JOINT TAPER RATE	1:480	1:240
(2)	TEMPORARY RAMP TAPER RATE	1:80	1:40

GENERAL NOTES

1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.
4. The length of butt joint is based on the taper rate times change in cold miling depth within the butt joint pay limits, unless otherwise indicated.



CASE 2 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

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

01-01-97	RENUM. C-23.01, NEW REVISION BOX	T.P.
04-01-97	CORRECTION TO DEPTH	J.A.
09-15-05	REVISED DESIGNER NOTE	M.M.A.
10-16-06	REVISED TO 2007 SPEC.	M.A.
08-21-13	MAJOR MODIFICATIONS	R.D.
02-29-16	MINOR CORRECTIONS	R.D.
04-12-16	MINOR CORRECTIONS	R.D.

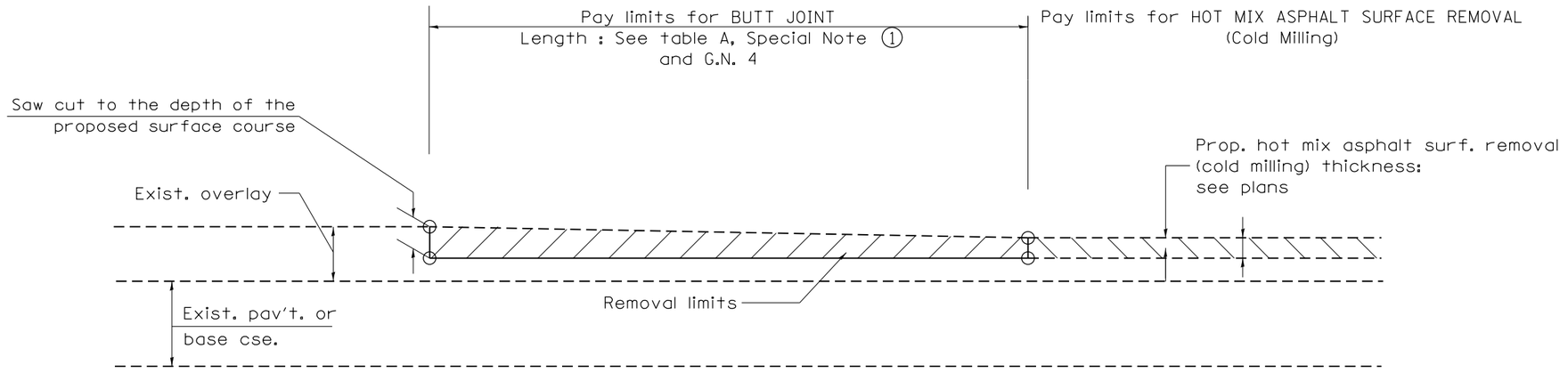
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS

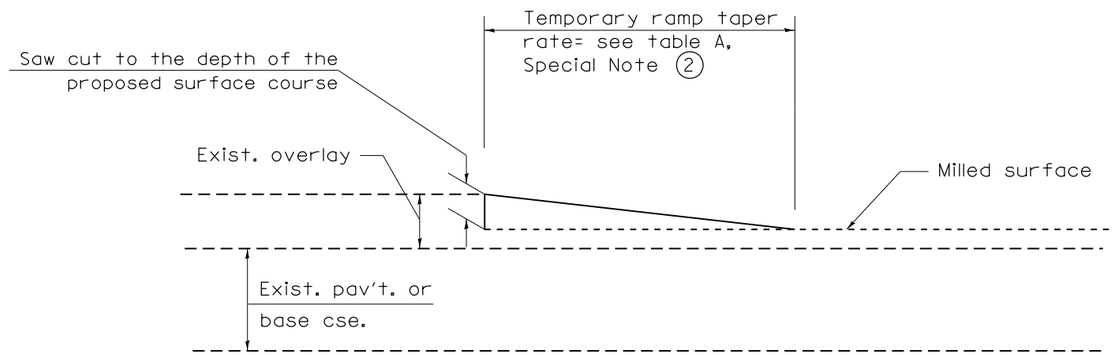
NOT TO SCALE

SHT. 1 OF 3
CADD STD. 406101-D4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	53
		CONTRACT NO. 68637		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CASE 3 : HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER



DETAIL TEMPORARY RAMP

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

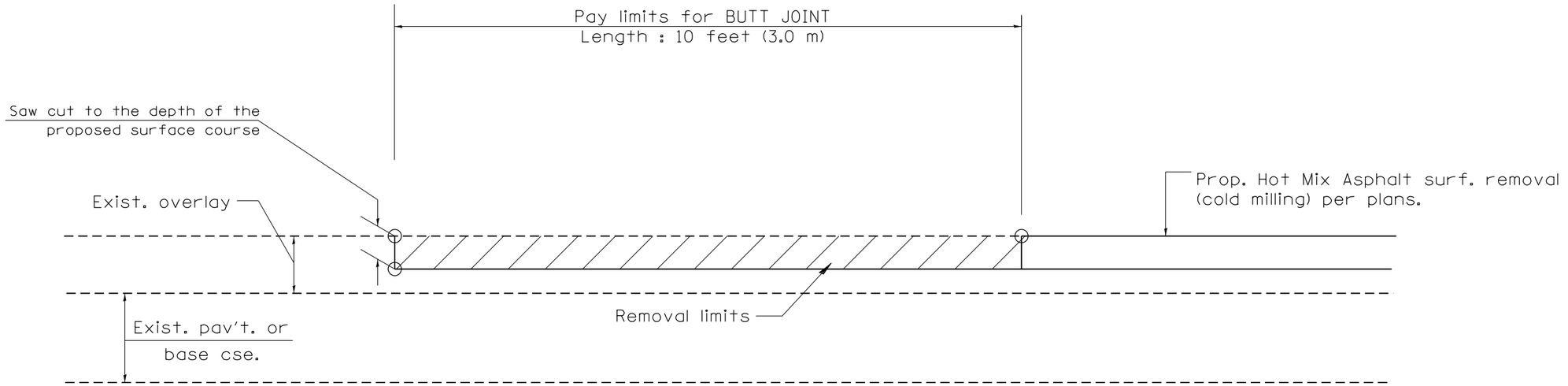
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS

NOT TO SCALE

SHT. 2 OF 3
CADD STD. 406101-D4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	54
		CONTRACT NO. 68637		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CASE 4 : SINGLE LIFT OVERLAY WITH EQUIVALENT DEPTH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING) TIE-IN TO EXISTING BITUMINOUS TAPER

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

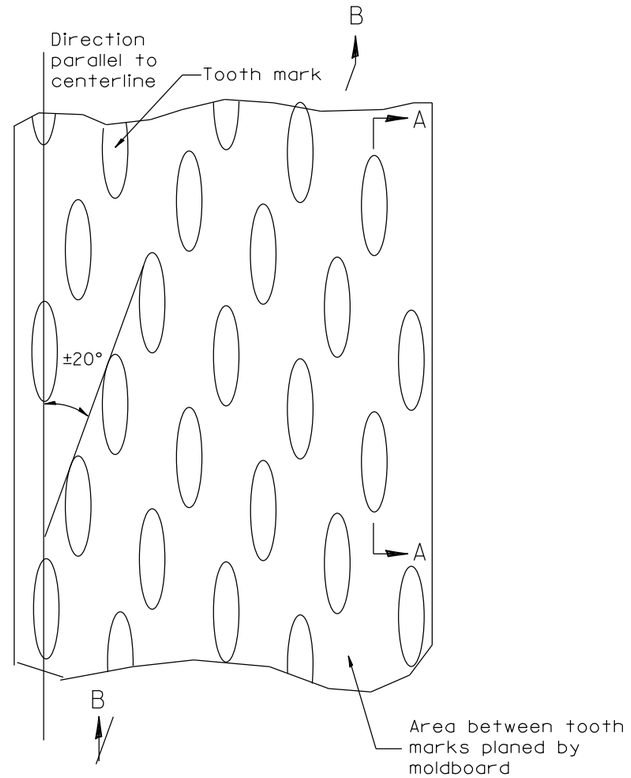
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS

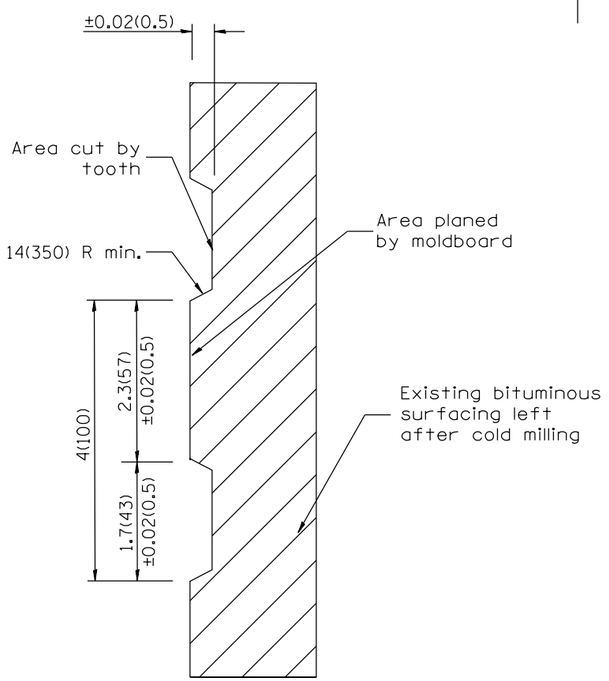
NOT TO SCALE

SHT. 3 OF 3
CADD STD. 406101-D4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	55
		CONTRACT NO. 68637		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



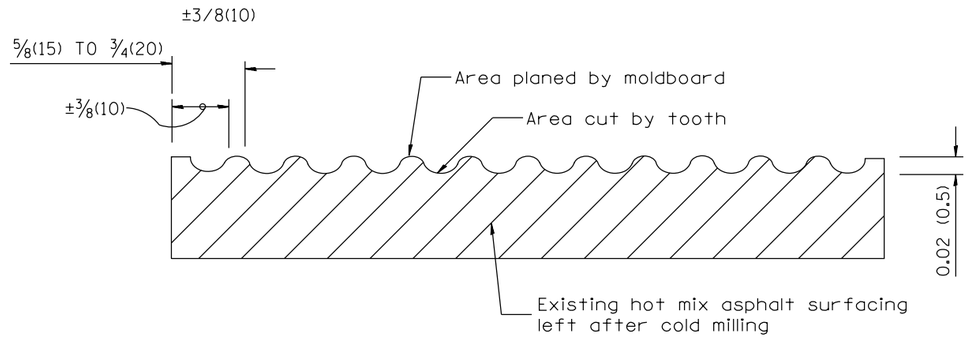
PLAN



SECTION A-A

General notes:

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



SECTION B-B PROJECTED
PERPENDICULAR TO CENTERLINE

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

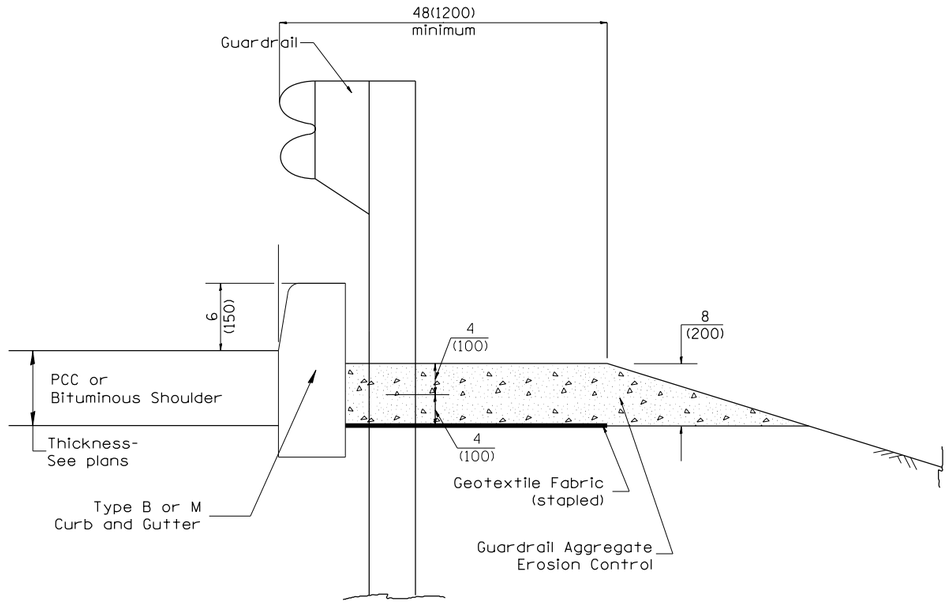
01-01-97	RENUM. C-104.01, NEW REVISION BOX	T.P.			
04-20-98	REMOVED MILLING DETAIL FROM STANDARD	J.A.			
09-08-98	CORRECT NOTE LEADER PLACEMENT	R.W.			
10-16-06	REVISED TO 2007 SPEC.	M.A.			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

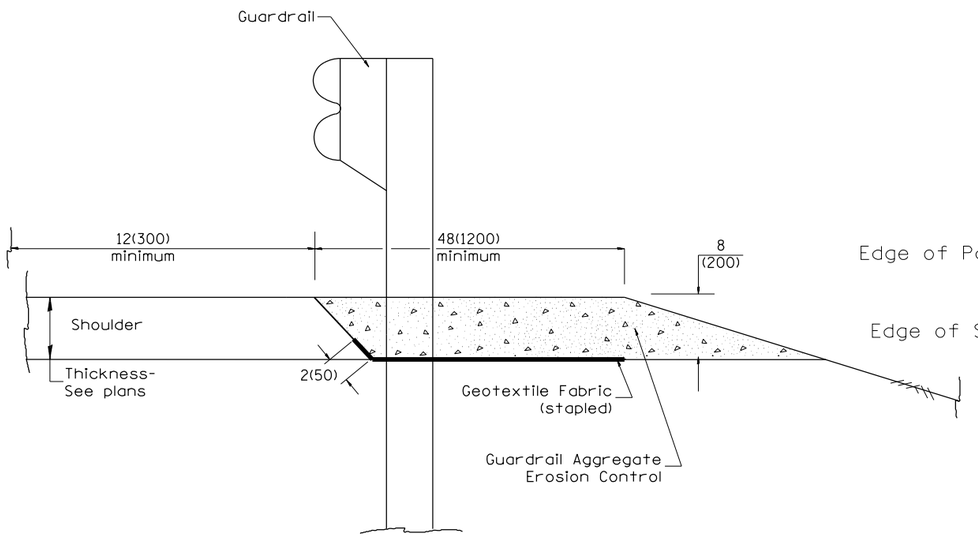
HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

NOT TO SCALE — CADD STD. 440001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	56
		CONTRACT NO. 68637		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



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.

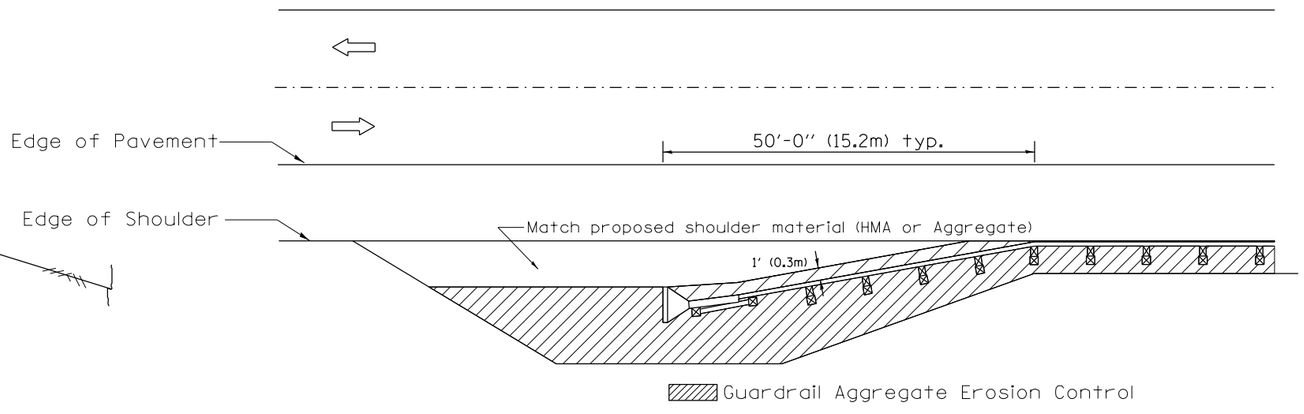
4. The aggregate shall be deposited, compacted and shaped by either mechanical or hand methods, in a manner reasonably true to line and grade.

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.

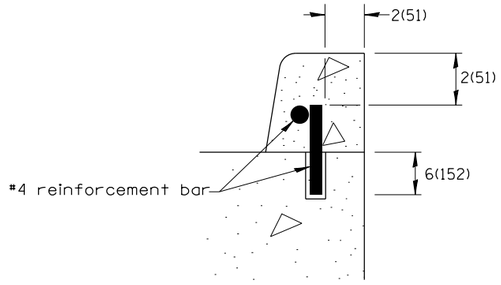


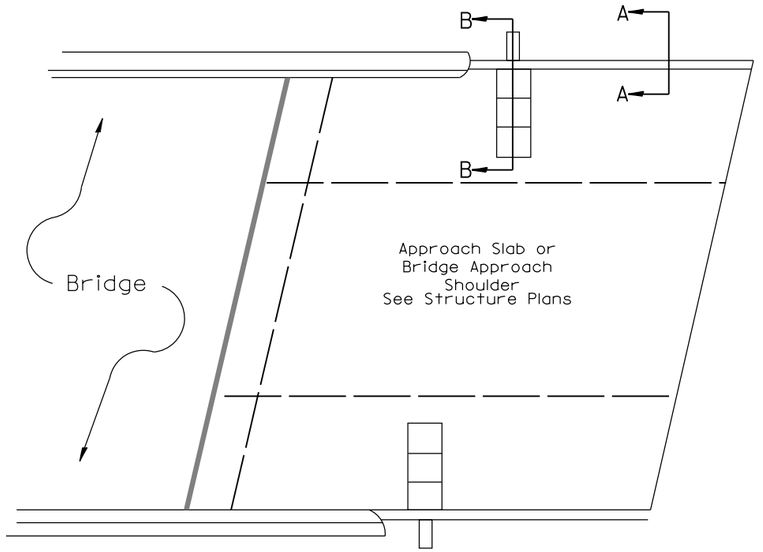
All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. C-22.01, NEW REVISION BOX	T.P.	3-7-11	Added Detail showing plan view	R.D.	**STATE OF ILLINOIS**	**GUARDRAIL EROSION CONTROL TREATMENTS**	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
03-01-97	CORRECT STD. NUMBERS IN NOTES PG. 2	J.A.	8-10-12	Revised curb "B" and aggregate	R.D.	**DEPARTMENT OF TRANSPORTATION**	SHT. 1 OF 2	22	(14BR-1)BR	HENRY	70	57
11-03-00	CORRECTION TO NOTES	M.A.	7-15-15	Addressed shoulder inlet curb	R.D.						CONTRACT NO. 68637	
10-16-06	REVISED TO 2007 SPEC.	M.A.				NOT TO SCALE	CADD STD. 630101-D4	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

DETAIL ''A''

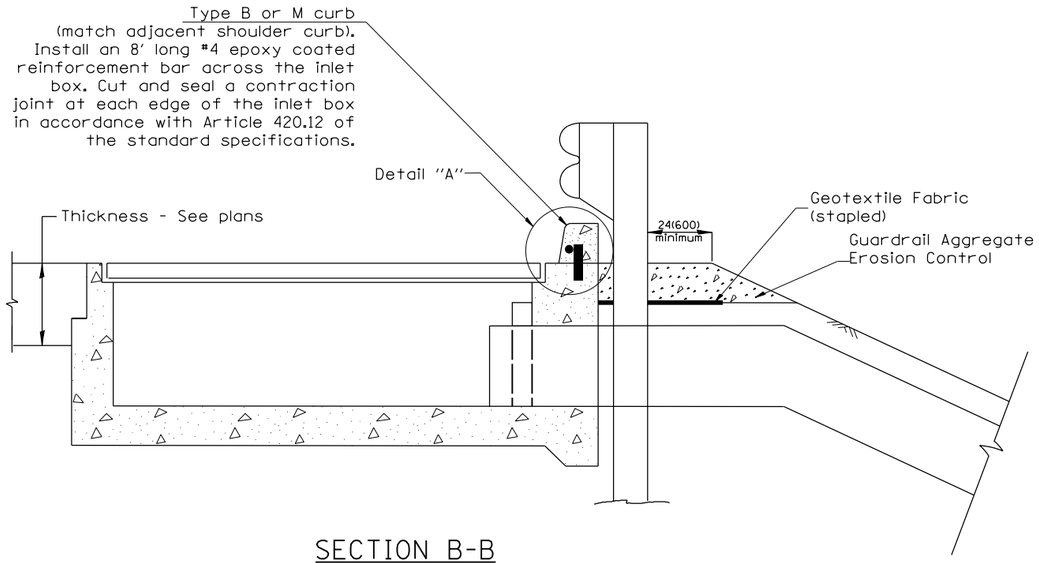
#4 reinforcement bars may be cast in PCC apron and precast inlet box or drilled and anchored with an apporoved chemical adhesive at 2' spacing. Cost of curb and reinforcement are included in the cost of shoulder inlet.





PLAN VIEW

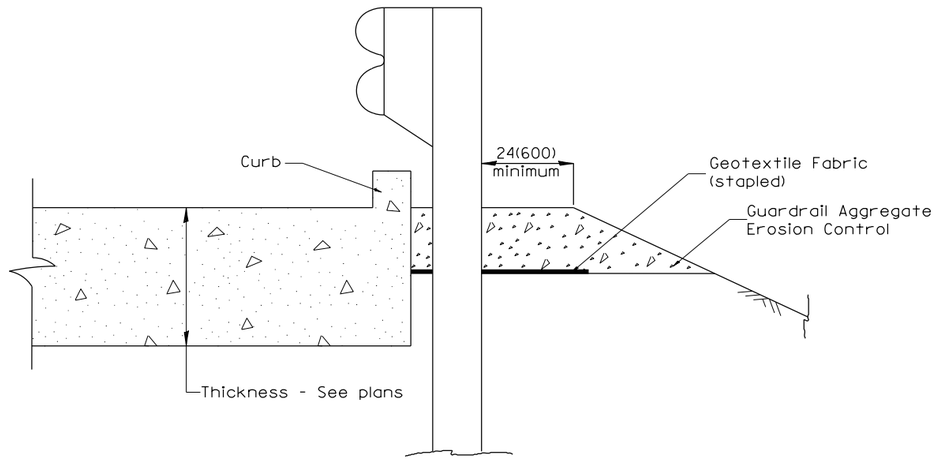
APPROACH SLAB OR SHOULDER PLACEMENT



SECTION B-B

TYPICAL SECTION AT INLETS

TYPE E, F & G (HIGHWAY STANDARD 610001)



SECTION A-A

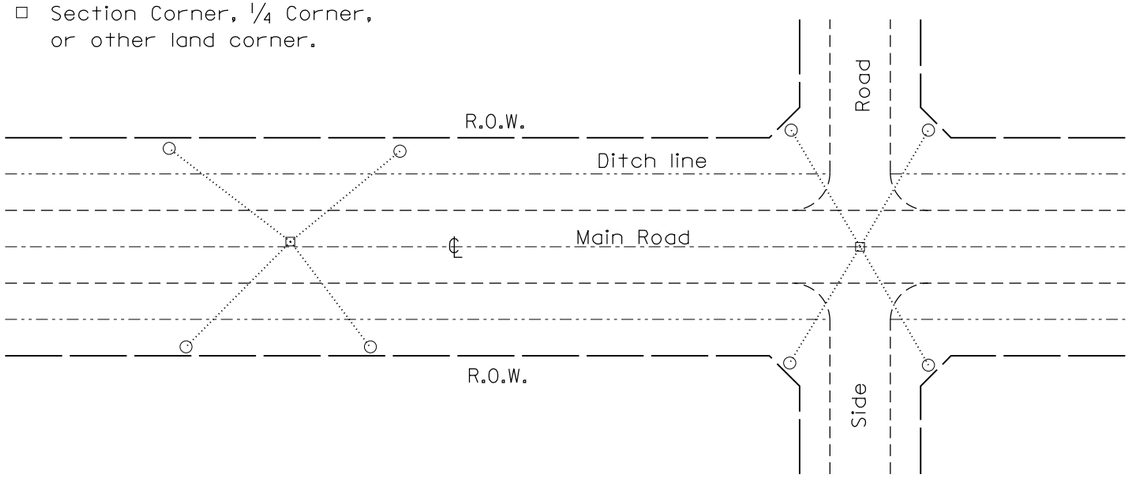
TYPICAL SECTION WITH BRIDGE APPROACH CURB

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

FILE NAME =		USER NAME = Lin			DESIGNED	-	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GUARDRAIL EROSION CONTROL TREATMENTS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
E:\0806\Phase II\Plan Sheets\D4_Stnds_630101 (2 OF 2).dgn					DRAWN	-	REVISED -						22	(14BR-1)BR	HENRY	70	58
		PLOT SCALE = 100.0000 '/ in.			CHECKED	-	REVISED -			SHT. 2 OF 2					CONTRACT NO. 68637		
Default		PLOT DATE = 1/31/2018			DATE	-	REVISED -			NOT TO SCALE	SHEET OF SHEETS	STA.	CADD STD. 630101-D4	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	

PERMANENT SURVEY TIES

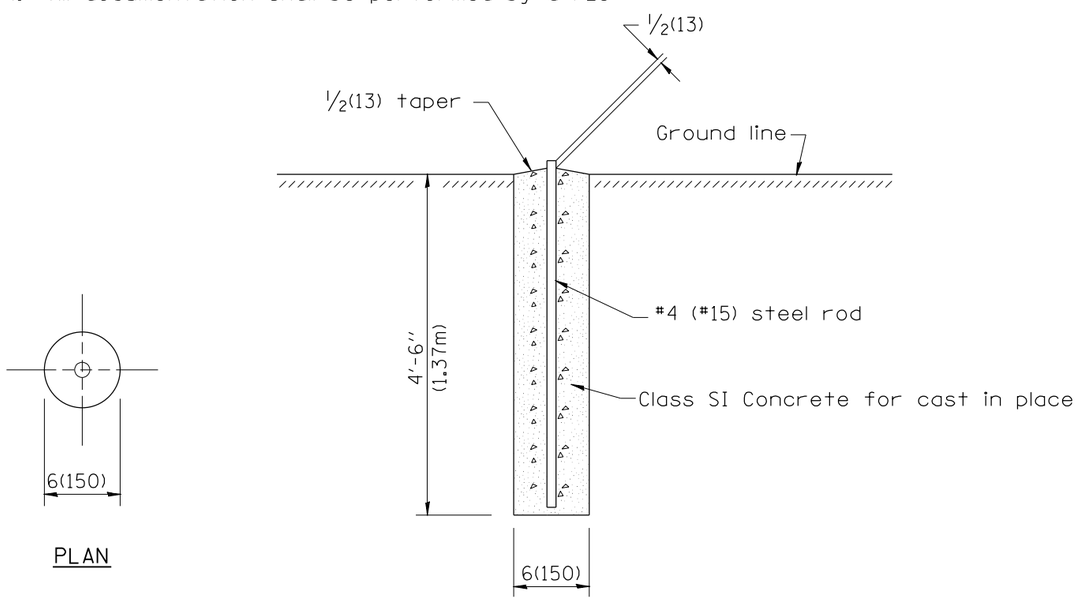
○ Permanent Survey Tie
□ Section Corner, 1/4 Corner, or other land corner.



TYPICAL APPLICATION

GENERAL NOTES

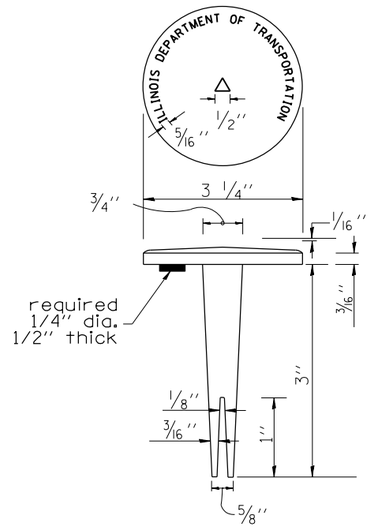
1. The marker shall be cast in place of Class SI Concrete.
2. Tie marker shall be installed after the final seeding has been completed unless otherwise specified by the Engineer.
3. The tie distances to the section corner shall be measured and recorded by the surveyor setting the PSM. All ties shall be turned over to the IDOT Chief of Surveys or Chief of Plats for recordation.
4. All documentation shall be performed by a PLS



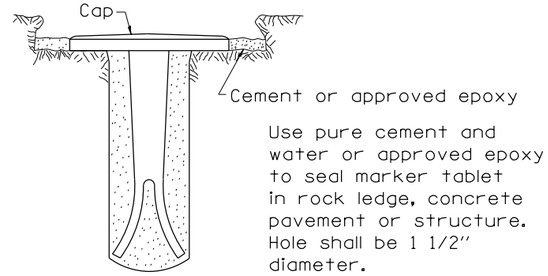
PLAN

SECTION

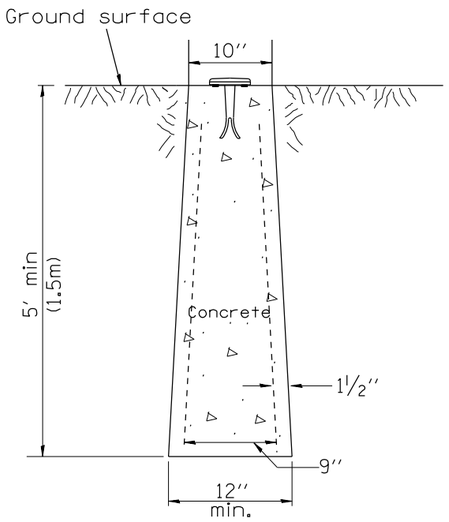
PERMANENT SURVEY MARKERS



BRASS TABLET



TYPE I



TYPE II
CAST-IN-PLACE MARKER

GENERAL NOTES

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

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

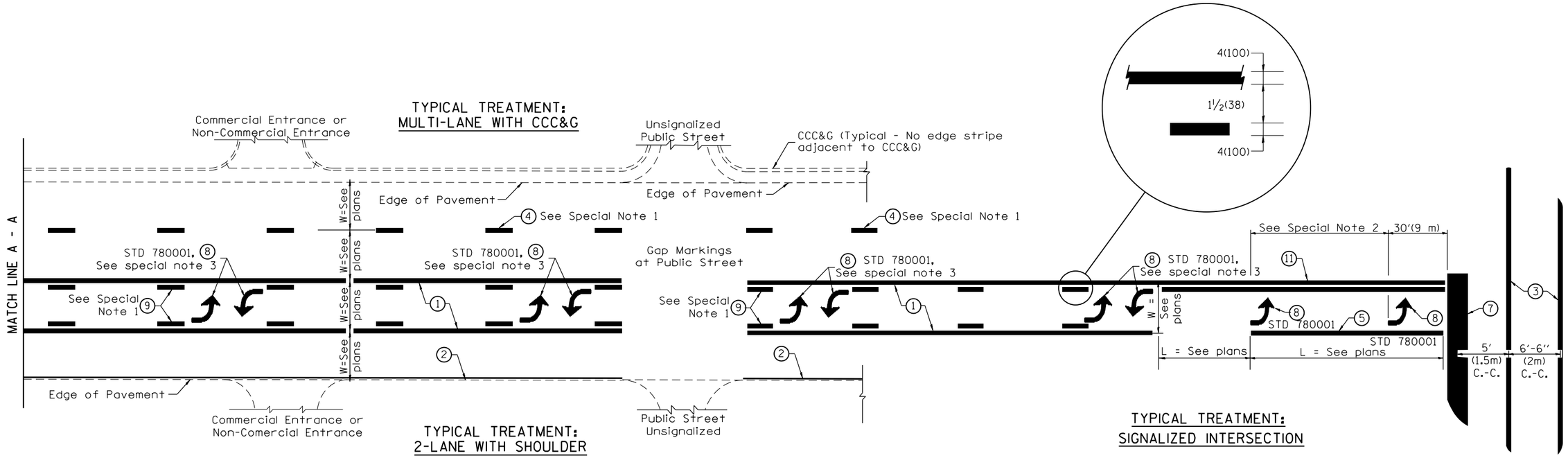
01-01-97	RENUM. D-3.01, NEW REVISION BOX, REVISED	T.P.	10-16-06	REVISED TO 2007 SPEC.	M.A.
	TITLE BOX, ADD DESIGNER NOTE		01-04-11	REVISED FOR CORRECTIONS	R.D.
07-07-98	ADD DESIGNER NOTE	J.A.	08-21-13	CHANGED MIN. DIAMETER	R.D.
05-24-06	REMOVED GEN. NOTE UNDER TIES	M.A.	08-25-15	REVISED MATERIAL	R.D.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMANENT SURVEY TIE &
PERMANENT SURVEY MARKERS TY.I – TY.II

NOT TO SCALE — CADD STD. 667101-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	59
		CONTRACT NO. 68637		
FED. ROAD DIST. NO.	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) — 10' (3.05m) / 30' (9.14m) / 10' (3.05m) (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 — 33' (10m) (See Std. 780001 and Special Notes 2 & 3)
9. 4(100) Skip-Dash (Yellow) — 10' (3.05m) / 30' (9.14m) / 10' (3.05m) (See Special Note 1)
10. 12(300) Diagonal (Yellow) (See Table A)
11. 4(100) Double Solid (Yellow) — 11(280) C.-C., See Table A, 45°

SPECIAL NOTES

1. Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversly 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

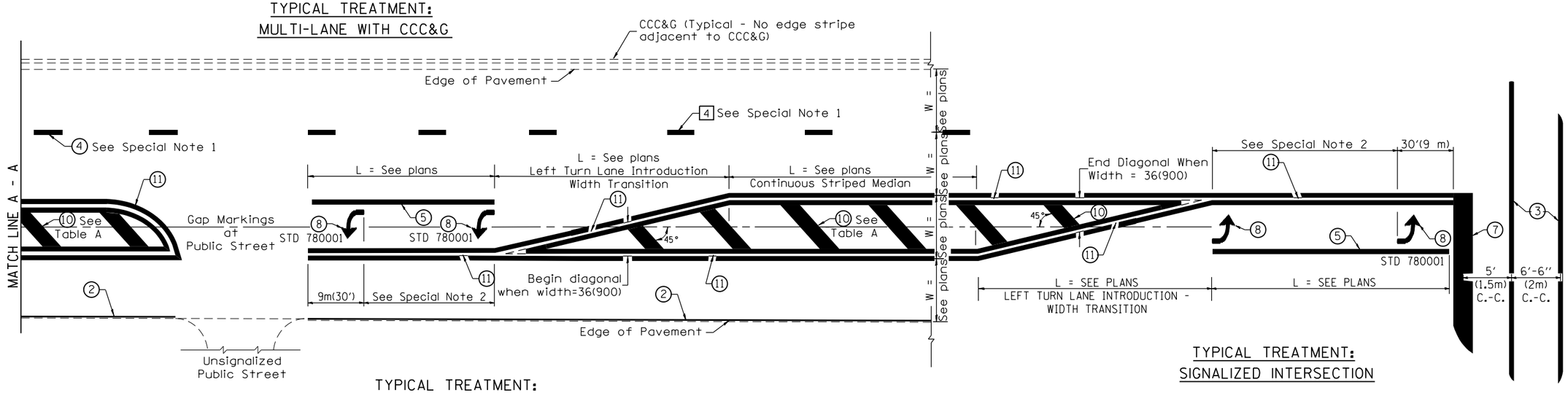
1. Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
2. See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.
3. Refer to Article 780.13 for letter, number and symbol areas (sq. ft.)
4. Areas are grooved 1" beyond each edge for the following symbols:
   Through Arrow= 14.8 sq. ft.
   Large Left or Right Arrow= 21.9 sq. ft.
   2 Arrow Combination Left (or Right) and Through= 34.9 sq. ft.
   Wrong Way Arrow= 29.5 sq. ft.
   Railroad Crossing Symbol= 69.8 sq. ft.
   (For further information, refer to BDE Special Provision: Grooving for Recessed Pavement Markings)

01-01-97	RENUM. F-8.03, NEW REVISION BOX	T.P.	10-16-06	REVISED TO 2007 SPEC.		
02-07-97	ADD BI DIRECTIONAL DIMENSION	J.A.	2/29/16	ADDED GROOVING AREAS	R.D.	
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.				
08-02	ADD CROSSWALK DMNS. WITH T.S.	M.A.				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL PAVEMENT MARKINGS
NOT TO SCALE
SHT. 1 OF 2
CADD STD. 780001-D4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	60
		CONTRACT NO. 68637		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



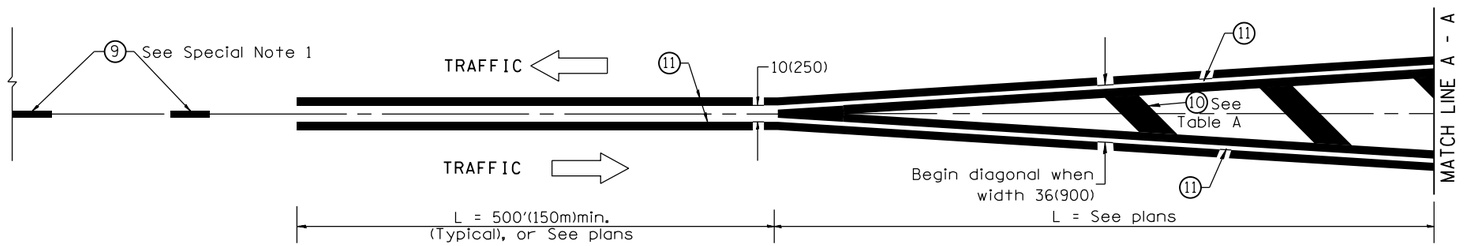
TYPICAL MEDIAN TRANSITIONS

FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A

RECOMMENDED SPACING BETWEEN DIAGONAL LINES

SPEED LIMIT RANGE	CONTINUOUS	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)
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)



MEDIAN INTRODUCTION - WIDTH TRANSITIONS

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

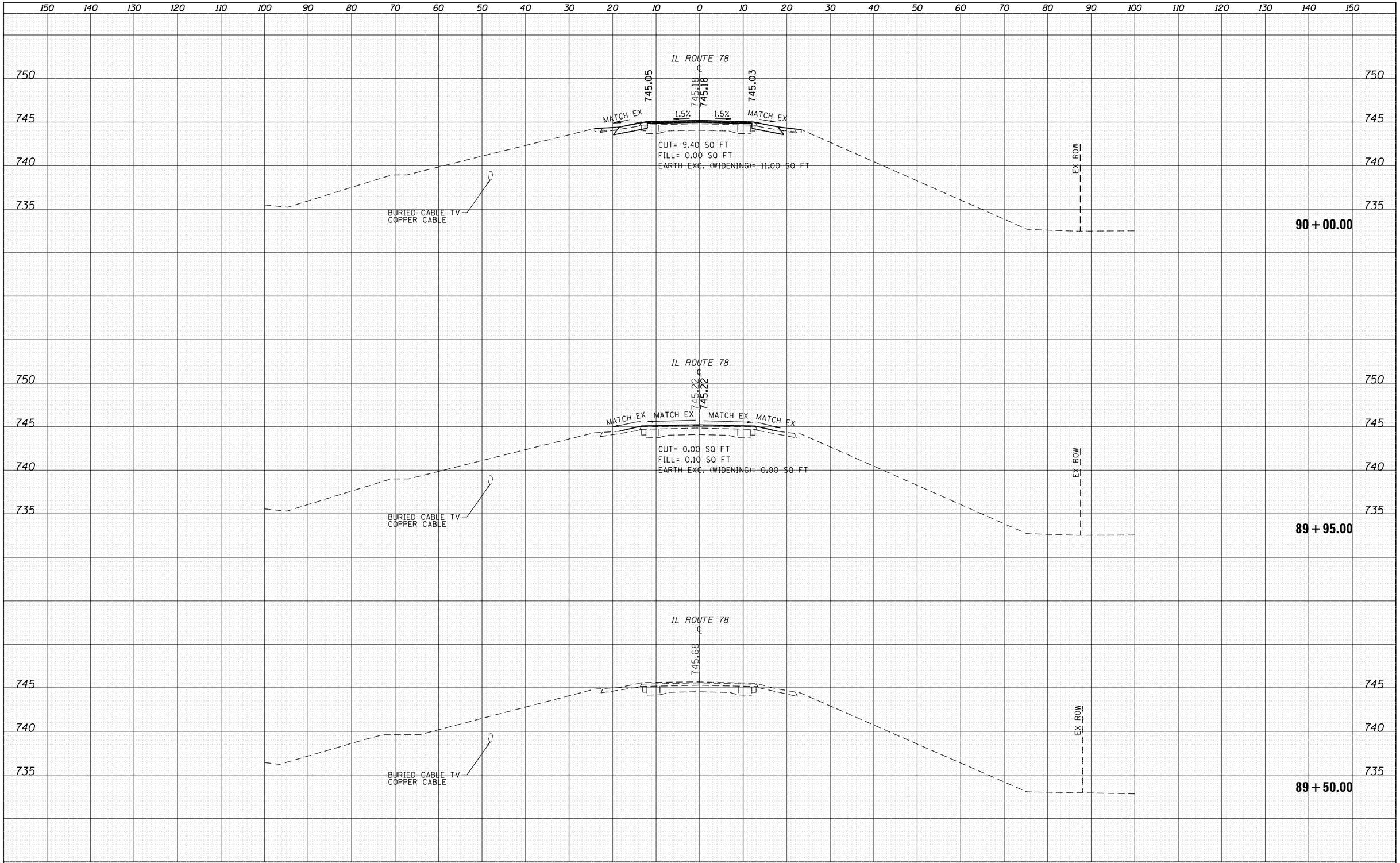
TYPICAL PAVEMENT MARKINGS

NOT TO SCALE

SHT. 2 OF 2
CADD STD. 780001-D4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	61
		CONTRACT NO. 68637		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - IS	REVISED -	
	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 1 OF 9 SHEETS | STA. 89+50.00 TO STA. 90+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	62
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

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

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

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745
740
735

IL ROUTE 78 ℄

743.32 744.21 744.30 744.39 744.21 743.66

1:8.7 4.0% 1.5% 1.5% 4.0% 1:4.2

EX ROW

CUT= 5.00 SQ FT
FILL= 0.00 SQ FT
EARTH EXC. (WIDENING)= 9.00 SQ FT

BURIED CABLE TV
COPPER CABLE

91+00.00

IL ROUTE 78 ℄

743.75 744.56 744.72 744.74 744.56 743.88

1:10 4.0% 1.5% 1.5% 4.0% 1:10.6

EX ROW

CUT= 7.10 SQ FT
FILL= 0.00 SQ FT
EARTH EXC. (WIDENING)= 9.70 SQ FT

BURIED CABLE TV
COPPER CABLE

90+50.00

IL ROUTE 78 ℄

743.99 744.77 744.95 744.95 744.77 743.99

1:10.7 4.0% 1.5% 1.5% 4.0% 1:9.6

EX ROW

CUT= 7.60 SQ FT
FILL= 0.00 SQ FT
EARTH EXC. (WIDENING)= 9.90 SQ FT

BURIED CABLE TV
COPPER CABLE

90+25.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

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	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 2 OF 9 SHEETS | STA. 90+25.00 TO STA. 91+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	63
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

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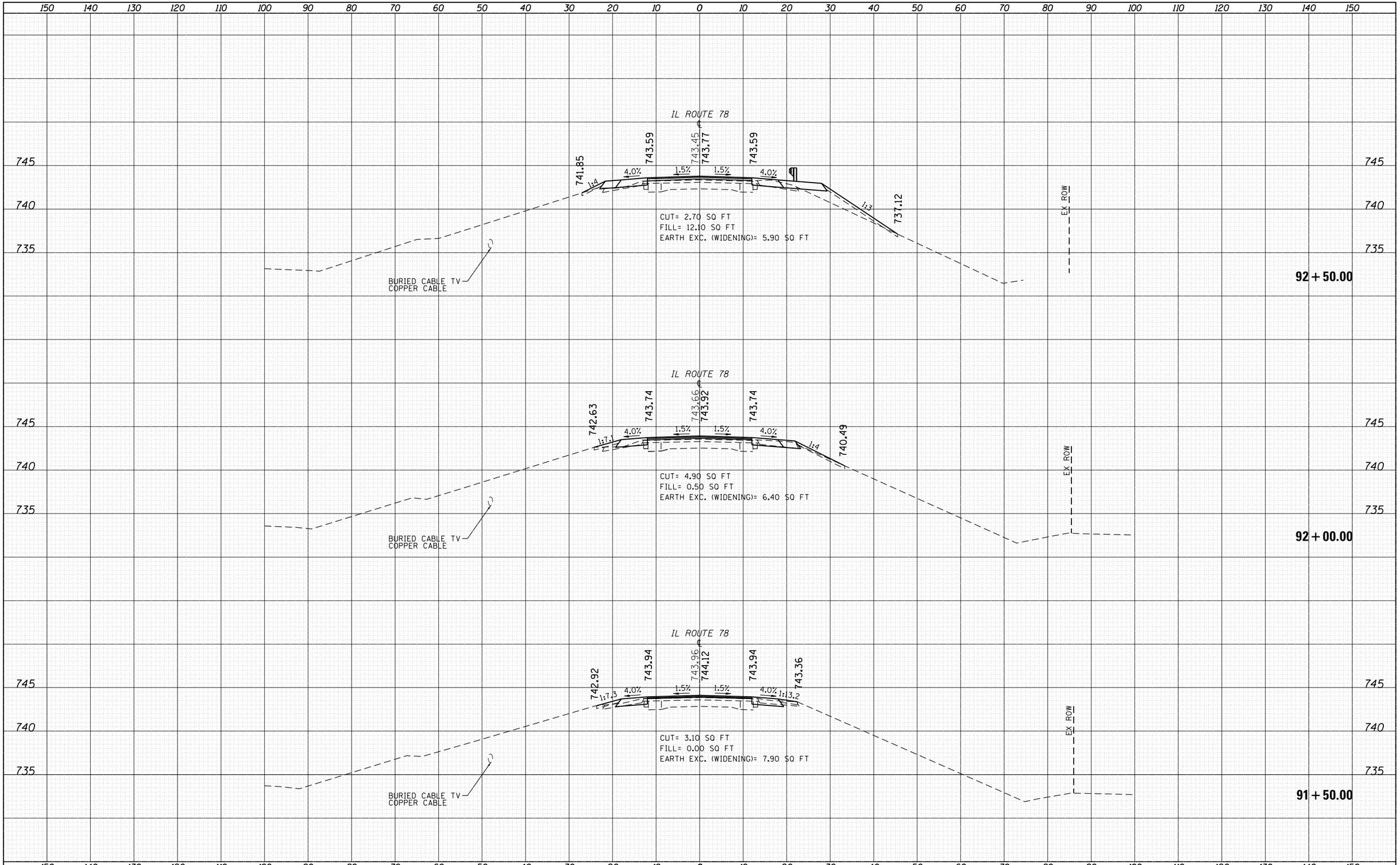


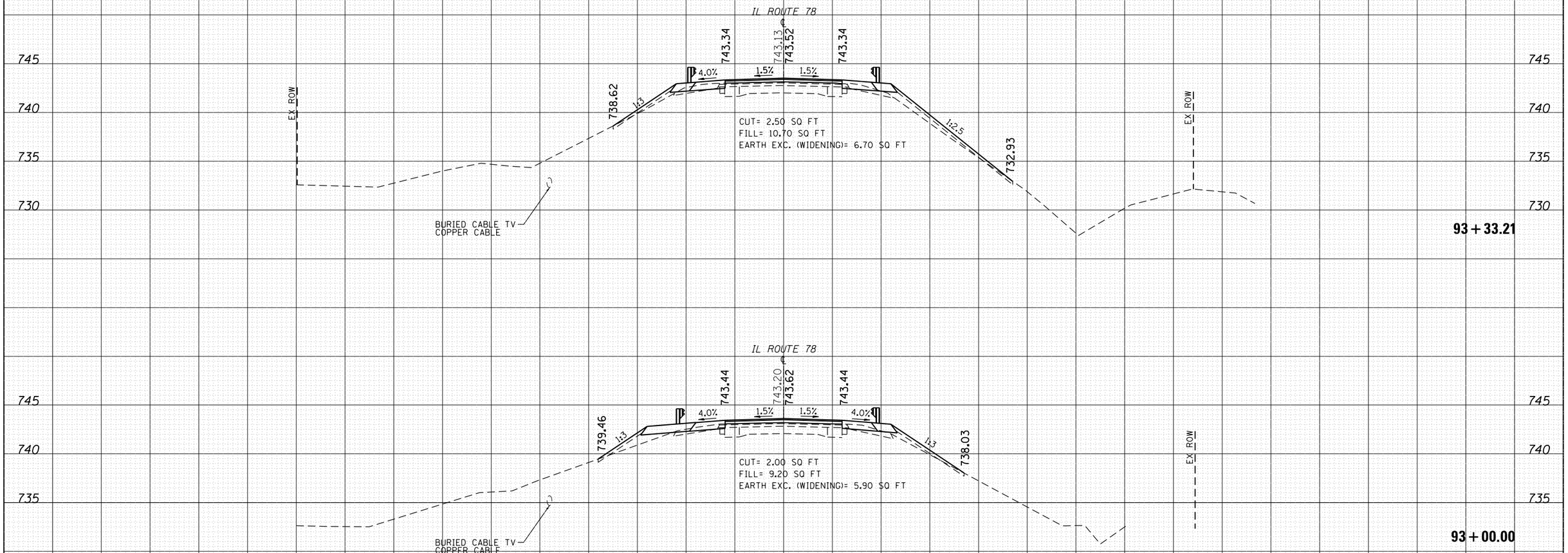
LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois	DESIGNED - IS	REVISED -	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**
	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 3 OF 9 SHEETS | STA. 91+50.00 TO STA. 92+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	64
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

FOR BRIDGE CROSS SECTIONS, SEE STRUCTURAL SHEETS



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

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

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

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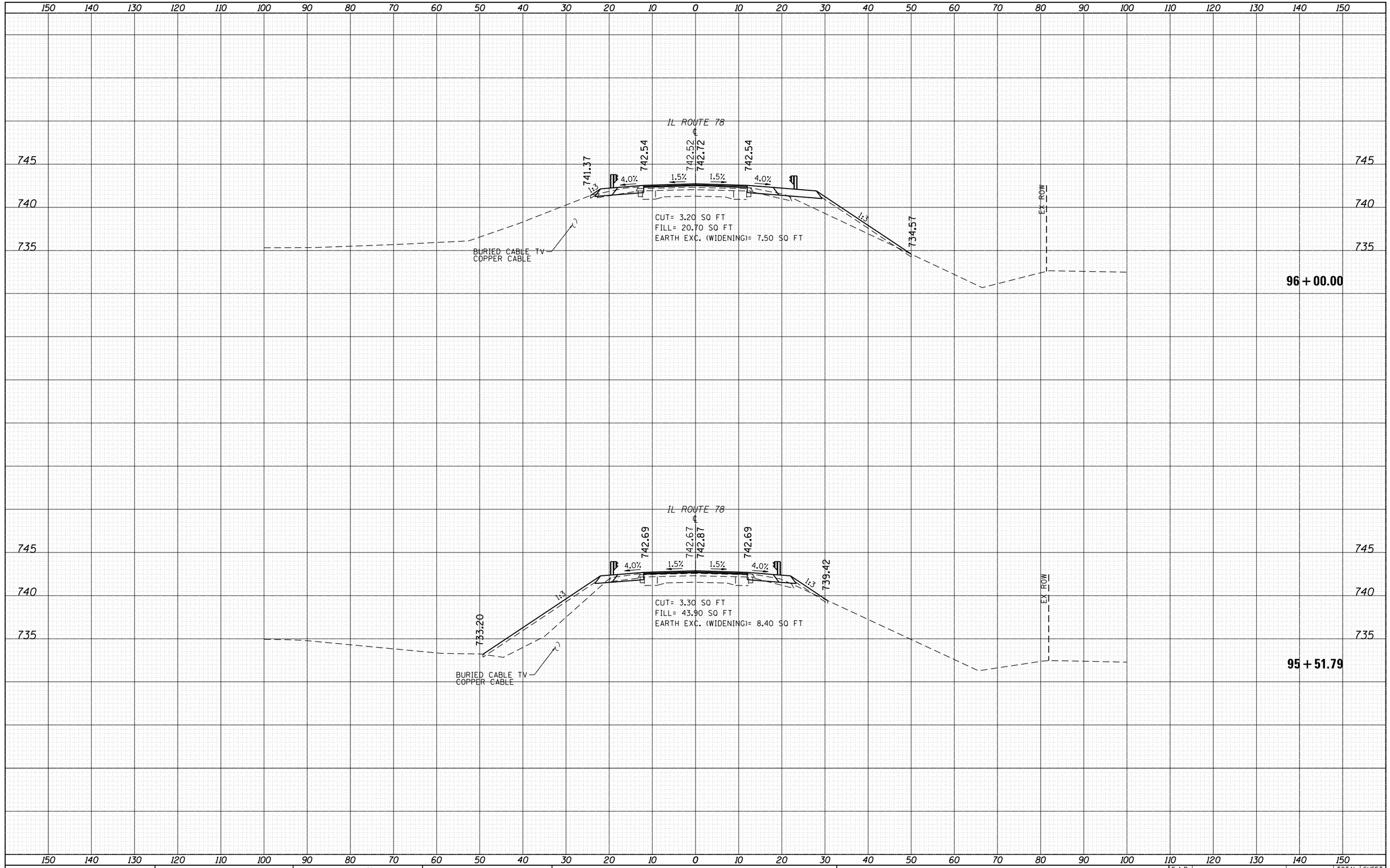
	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 4 OF 9 SHEETS | STA. 93+00.00 TO STA. 93+33.21

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	65
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		



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

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

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - IS	REVISED -	
	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 5 OF 9 SHEETS | STA. 95+51.79 | TO STA. 96+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	66

CONTRACT NO. 68637

ILLINOIS | FED. AID PROJECT

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

BY	DATE

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

BY	DATE

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745
740
735
730

IL ROUTE 78

741.44 742.25 742.24 742.43 742.25 741.26

1:10.5 4.0% 1.5% 1.5% 4.0% 1:4.5

CUT= 2.50 SQ FT
FILL= 0.00 SQ FT
EARTH EXC. (WIDENING)= 7.20 SQ FT

BURIED CABLE TV
COPPER CABLE

EX ROW

97+00.00

IL ROUTE 78

740.42 742.39 742.36 742.57 742.39 741.32

1:3 4.0% 1.5% 1.5% 4.0% 1:4.5

CUT= 4.90 SQ FT
FILL= 0.30 SQ FT
EARTH EXC. (WIDENING)= 6.80 SQ FT

BURIED CABLE TV
COPPER CABLE

EX ROW

96+50.00

LIN ENGINEERING,LTD. Consulting Engineers Westmont, Illinois		DESIGNED - IS	REVISED -
		DRAWN - IS	REVISED -
	PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -
	PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -

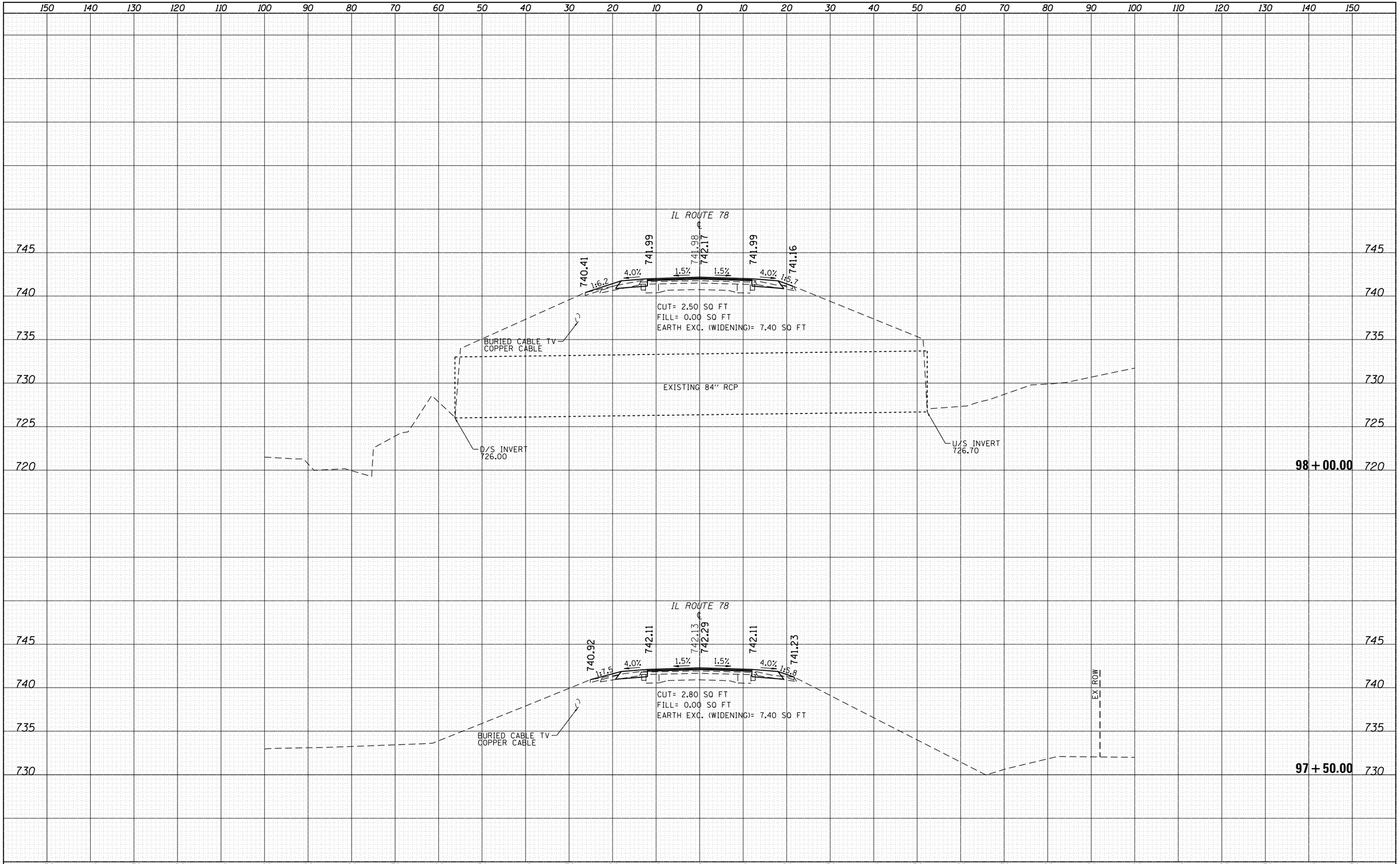
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 6 OF 9 SHEETS | STA. 96+50.00 | TO STA. 97+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	67
		CONTRACT NO. 68637		
		ILLINOIS FED. AID PROJECT		

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



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

LIN ENGINEERING, LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - IS	REVISED -	
	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 7 OF 9 SHEETS | STA. 97+50.00 | TO STA. 98+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	68
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

745
740
735

IL ROUTE 78

742.02 ℄

MATCH EX MATCH EX MATCH EX MATCH EX

CUT= 0.10 SQ FT
FILL= 0.10 SQ FT
EARTH EXC. (WIDENING)= 0.10 SQ FT

BURIED CABLE TV
COPPER CABLE

99+00.00

IL ROUTE 78

740.47 741.88 742.03 ℄ 742.06 741.88 741.27

1:7.1 4.0% 1.5% 1.5% 4.0% 1:9.3

CUT= 6.40 SQ FT
FILL= 0.10 SQ FT
EARTH EXC. (WIDENING)= 9.20 SQ FT

BURIED CABLE TV
COPPER CABLE

98+70.00

IL ROUTE 78

740.59 741.91 742.02 ℄ 742.09 741.91 741.20

1:7.7 4.0% 1.5% 1.5% 4.0% 1:8

CUT= 5.70 SQ FT
FILL= 0.10 SQ FT
EARTH EXC. (WIDENING)= 8.90 SQ FT

BURIED CABLE TV
COPPER CABLE

98+50.00

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

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

LIN ENGINEERING,LTD.
Consulting Engineers
Westmont, Illinois

	DESIGNED - IS	REVISED -	
	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

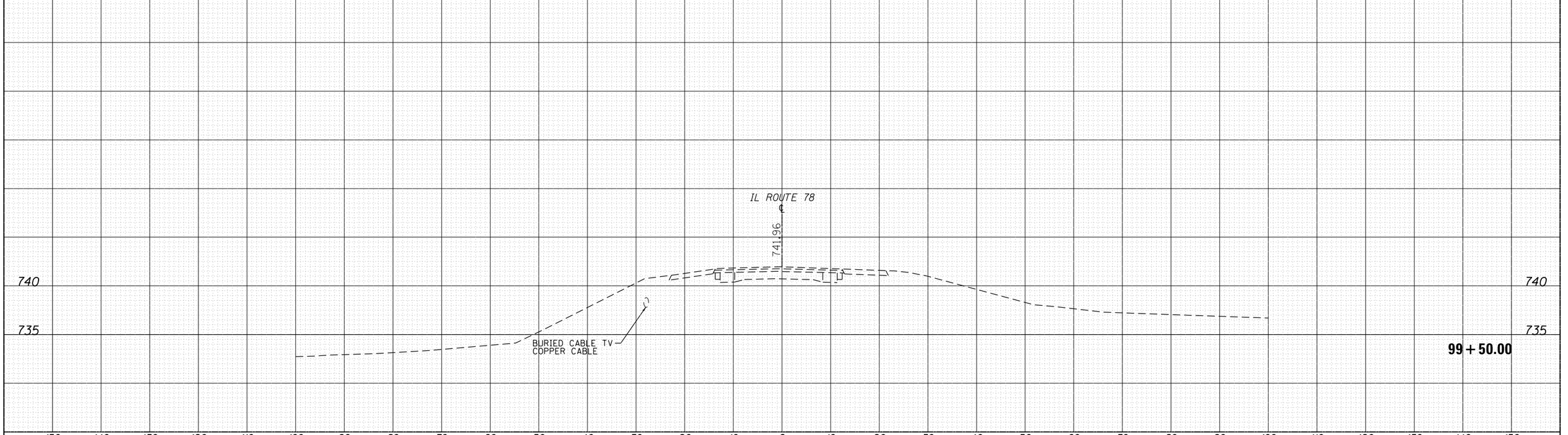
CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 8 OF 9 SHEETS | STA. 98+50.00 | TO STA. 99+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	69
		CONTRACT NO. 68637		
	ILLINOIS FED. AID PROJECT			

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

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150



150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

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

LIN ENGINEERING, LTD.
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Westmont, Illinois

	DESIGNED - IS	REVISED -	
	DRAWN - IS	REVISED -	
PLOT SCALE = 20.0000 ' / in.	CHECKED - ST	REVISED -	
PLOT DATE = 1/31/2018	DATE - 01/2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
IL ROUTE 78 OVER INDIAN CREEK

SCALE: 1"=10'H, 5'V | SHEET NO. 9 OF 9 SHEETS | STA. 99+50.00 | TO STA. 99+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
22	(14BR-1)BR	HENRY	70	70
		CONTRACT NO. 68637		
	ILLINOIS	FED. AID PROJECT		