

ESCA PROJECT NO. 1035.05		TOTAL SHEETS	SHEET NO.
F.A.P. RTE.	SECTION	COUNTY	
855	9B-1	HAMILTON	40 1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 78343	

- SHEET NO. DESCRIPTION**
- ROADWAY PLANS**
- COVER SHEET
  - GENERAL NOTES AND STANDARDS
  - 7. SUMMARY OF QUANTITIES
  - 10. TYPICAL SECTIONS
  - SCHEDULE OF QUANTITIES
  - 14. FAP 855 (IL 14) PLAN AND PROFILE
  - 16. STAGE CONSTRUCTION PLAN AND DETAILS
  - EROSION CONTROL PLAN
  - SEEDING AND MULCHING DETAILS
  - STEP CONSTRUCTION ON EXISTING FILL DETAILS
  - BUTT JOINT DETAIL
  - FLARED TRAFFIC BARRIER TERMINAL DETAIL
- STRUCTURE PLANS**
- GENERAL PLAN & ELEVATION
  - 24. STAGE CONSTRUCTION DETAILS
  - TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
  - 28. BOX CULVERT DETAILS
  - STEEL RAILING, TYPE 2399
  - BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
  - BORING LOGS
- EXISTING STRUCTURE PLANS**  
SN 033-0007
- 34. EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY
- CROSS SECTIONS**
- 40. FAP 855 (IL 14) CROSS SECTIONS

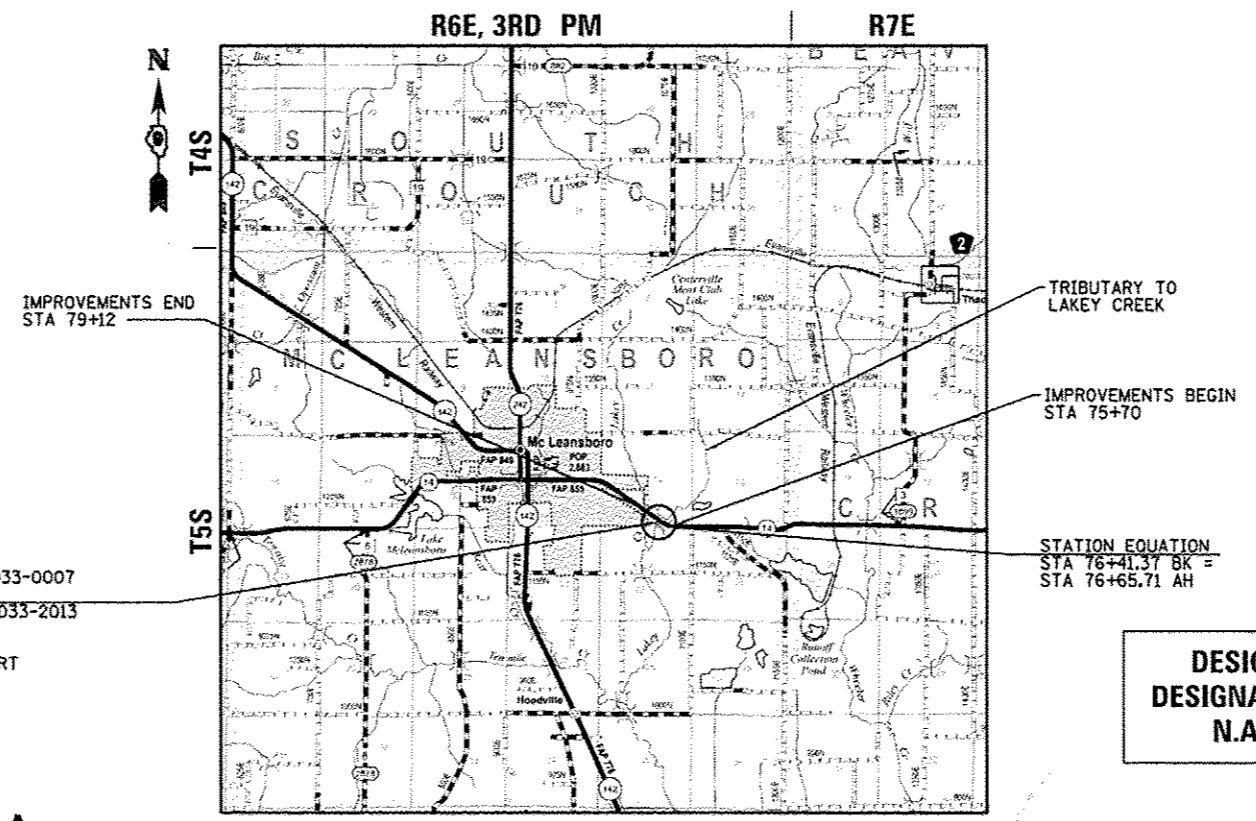
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

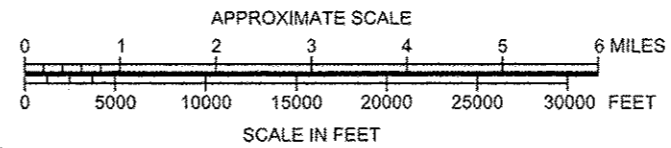
FAP ROUTE 855 (IL 14)  
SECTION 9B-1  
PROJECT ACF-0855 (008)  
HAMILTON COUNTY

C - 99 - 004 - 13

BRIDGE REPLACEMENT  
OVER TRIBUTARY TO LAKEY CREEK



LOCATION MAP



**DESIGN  
DESIGNATION  
N.A.**

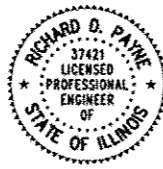
FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (NON URBAN)  
DESIGN SPEED: 55 mph  
POSTED SPEED: 55 mph  
ADT: 2,740 (2014)  
PV: 89.1%  
TRUCKS: 10.9%  
TOWNSHIP: McLEANSBORO

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED August 10 20 15  
Deputy Director of Highways, Region Engineer  
Oct 2 20 15  
Engineer of Design and Environment  
Oct 2 20 15  
Director of Highways, Chief Engineer

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

DISTRICT 9 NO. (618) 549-2171  
PROJECT ENGINEER: DAVID PICHE  
CONTRACT NO. 78343



RICHARD D. PICHE  
37421  
LICENSED PROFESSIONAL ENGINEER  
STATE OF ILLINOIS  
DATE: 06/25/2015  
ILLINOIS PROFESSIONAL LICENSE NO. 37421  
(EXPIRATION DATE: 06-30-15)

GROSS LENGTH = 317.66 FT. = 0.060 MI.  
NET LENGTH = 317.66 FT. = 0.060 MI.

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

**LIST OF ILLINOIS DOT HIGHWAY STANDARDS**

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
420001-08	PAVEMENT JOINTS
420601-05	24' (7.2 m) PCC PAVEMENT
420701-02	PAVEMENT FABRIC
515001-03	NAME PLATE FOR BRIDGES
630001-10	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE I (SPECIAL) GUARDRAIL TERMINALS
631032-08	TRAFFIC BARRIER TERMINAL, TYPE 6A
635001-01	DELINEATORS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
642006	SHOULDER RUMBLE STRIPS, 8 IN.
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
701011-04	OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701201-04	LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701321-14	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-04	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS ≥ 45 MPH
701901-04	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
780001-05	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

**GENERAL NOTES**

- THE ENGINEER SHALL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.
- EXCEPT AS NOTED ON THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.
- TRIM EDGES OF EXISTING HOT MIX ASPHALT SURFACE FLUSH WITH EXISTING PAVEMENT PRIOR TO CONSTRUCTING NEW BASE COURSE.
- WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL MONUMENTS UNTIL AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR REESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.
- THE THICKNESS OF HMA MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA MIXTURE IS PLACED.
- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED ON THIS SHEET OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.
- FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES:
 

ALL HOT-MIX ASPHALT	2.016 TONS/CU YD
ALL AGGREGATE	2.05 TONS/CU YD
BITUMINOUS MATERIALS:	
ON EXISTING PAVEMENT	0.05 LB/SQ FT
INTERMEDIATE LIFTS (FOG COAT)	0.025 LB/SQ FT
ON AGGREGATE SURFACE	0.25 LB/SQ FT
AGGREGATE (PRIME COAT)	0.0015 TONS/SQ YD
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF THE STANDARD SPECIFICATIONS. THE JULIE NUMBER IS 800-892-0123. A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED.
- ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.
- ALL DISTURBED AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE FERTILIZED AND SEEDED. SEEDING SHALL BE CLASS 2A ACCORDING TO THE APPLICABLE ARTICLES OF SECTION 250 OF THE STANDARD SPECIFICATIONS. SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.
- TREES SHALL BE PRESERVED THROUGHOUT THIS SECTION AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER EXCEPT AS DESCRIBED IN NOTE 12. GENERALLY, TREES OUTSIDE THE CLEAR ZONE, AND WHICH DO NOT INTERFERE WITH CONSTRUCTION, SHALL NOT BE DISTURBED.
- ALL OBSTRUCTIONS WHICH ARE WITHIN 30' OF THE CENTERLINE OF THE ROADWAY AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED FROM STATION 75+25 TO 79+57. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 4 IN. OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 4 IN. OR GREATER.
- THE QUANTITY OF SHORT TERM PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION FOR THE INITIAL OPENING OF THE COMPLETED STRUCTURE TO TWO LANE TRAFFIC, AND ONE ADDITIONAL APPLICATION.
- EXISTING TRAFFIC BARRIER TERMINALS TO BE REMOVED SHALL BE PAID FOR AS GUARDRAIL REMOVAL.
- FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SANDBAGS PER BARRICADE.
- ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL DATUM.
- AT ALL LOCATIONS WHERE THE PROPOSED HOT MIX ASPHALT OR CONCRETE PAVEMENT JOINS AN EXISTING HOT MIX ASPHALT OR CONCRETE PAVEMENT, A FULL DEPTH SAWED JOINT SHALL BE CONSTRUCTED. THE COST OF THIS JOINT WILL BE INCLUDED IN THE COST OF THE TYPE OF PAVEMENT BEING CONSTRUCTED.
- PRIOR TO PLACEMENT OF THE FINAL PAVEMENT MARKINGS THE RESIDENT ENGINEER SHOULD CONTACT THE BUREAU OF OPERATIONS AND ARRANGE FOR INSPECTION AND APPROVAL OF THE PAVEMENT MARKING LAYOUT.
- IF THE CONTRACTOR ELECTS TO USE P.C.C. BASE COURSE WIDENING, SUCH WIDENING SHALL BE PRIMED ACCORDING TO ARTICLE 406.02, EXCEPT THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WIDENING.
- ATTAINMENT OF PROPER CROWN OR SUPERELEVATION SHALL BE FULLY ACCOMPLISHED WITH THE HOT MIX ASPHALT SURFACE REMOVAL OR HOT MIX ASPHALT BINDER COURSE OR LEVELING BINDER, WHEN SPECIFIED.

**COMMITMENTS**

- REFER TO COMMITMENT FILE FOR ANY COMMITMENTS AFTER JULY 2, 2015.

**HMA MIXTURES REQUIREMENTS**

LOCATION(S):	HMA SURFACING	LEVELING BINDER	BASE COURSE	HMA SHOULDERS
MIXTURE USE(S):	HMA SURFACE CSE, MIX C, N90	LEVELING BINDER (MM) N90	HMA BINDER CSE, N90	HMA BINDER CSE, N70
AC/PG GRADE:	PG64-22	PG64-22	PG64-22	PG64-22
RAP % (MAX.): ***	SEE SPECIAL PROVISIONS	SEE SPECIAL PROVISIONS	SEE SPECIAL PROVISIONS	SEE SPECIAL PROVISIONS
DESIGN AIR VOIDS:				
MIXTURE COMPOSITION: (GRADATION MIXTURE)	IL-9.5	IL-9.5	IL-19.0	IL-19.0
FRICTION AGGREGATE:	C SURFACE	NONE	NONE	NONE

\*\*\* IF RAP OPTION IS SELECTED, THE ASPHALT CEMENT GRADE MAY NEED TO BE ADJUSTED AS DETERMINED BY THE ENGINEER.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREPARED BY: \_\_\_\_\_  
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *[Signature]*  
DISTRICT LAND ACQUISITION ENGINEER

EXAMINED BY: *[Signature]*  
DISTRICT PROGRAM DEVELOPMENT ENGINEER

EXAMINED BY: *[Signature]*  
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: *[Signature]*  
DISTRICT PROJECT IMPLEMENTATION ENGINEER

EXAMINED BY: *[Signature]*  
DISTRICT CONSTRUCTION ENGINEER

EXAMINED BY: \_\_\_\_\_  
DISTRICT MATERIALS ENGINEER



USER NAME = nhp  
ESCA PROJECT NO. 1805.05  
PLOT SCALE = 0.1667 "/>

DESIGNED - NHP  
DRAWN - DWH  
CHECKED - ELH  
DATE - 05/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & STANDARDS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
655	98-1	HAMILTON	40	2
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT CONTRACT NO. 78343				



SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY 0004	80% FEDERAL 20% STATE BOX CULVERT 0011
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	S. N. 033-2013
35650500	BASE COURSE WIDENING 10"	SQ YD	451	451	
40600275	BITUMINOUS MATERIALS (PRIME COAT)	POUND	858	858	
40600645	LEVELING BINDER (MACHINE METHOD), N90	TON	126	126	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	200	200	
40600990	TEMPORARY RAMP	SQ YD	40	40	
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N90	TON	110	110	
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	440	440	
42001200	PAVEMENT FABRIC	SQ YD	440	440	
44000100	PAVEMENT REMOVAL	SQ YD	270	270	
44000400	GUTTER REMOVAL	FOOT	132	132	
44004250	PAVED SHOULDER REMOVAL	SQ YD	133	133	
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	99	99	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	105	105	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1

14  
\* SPECIALTY ITEM

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 PLOT SCALE: 0.1667 1/16"



USER NAME: nhp	DESIGNED: NHP	REVISED: -
ESCA PROJECT NO. 1035.05	DRAWN: NHP	REVISED: -
PLOT SCALE: 0.1667 1/16"	CHECKED: ELH	REVISED: -
PLOT DATE: 6/25/2015 9:59:19 AM	DATE: 05/15	REVISED: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE SHEET NO. 2 OF 5 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	98-1	HAMILTON	40	4
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78343	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE ROADWAY 0004	80% FEDERAL 20% STATE BOX CULVERT 0011 S.N. 033-2013
CODE NO.	ITEM	UNIT	TOTAL QUANTITY		
50200450	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL FOR STRUCTURES	CU YD	52		52
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	30680		30680
50800515	BAR SPLICERS	EACH	152		152
50900200	STEEL RAILING, TYPE 2399	FOOT	71		71
51500100	NAME PLATES	EACH	1		1
54003000	CONCRETE BOX CULVERTS	CU YD	192.7		192.7
⊗ 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	50	50	
⊗ 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4	
⊗ 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	3	3	
⊗ 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) FLARED	EACH	1	1	
64200108	SHOULDER RUMBLE STRIPS, 8 INCH.	FOOT	816	816	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8	
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	

⊗ SPECIALTY ITEM

ESCA CONSULTANTS, INC.  
 1000 N. WASHINGTON ST.  
 SUITE 200  
 CHICAGO, ILL. 60610  
 TEL: (773) 399-8800  
 FAX: (773) 399-8801  
 WWW.ESCA-CONSULTANTS.COM



USER NAME • nhp	DESIGNED - NHP	REVISED -
ESCA PROJECT NO. 1035.05	DRAWN - NHP	REVISED -
PLOT SCALE • 0.1667" / 1"	CHECKED - ELH	REVISED -
PLOT DATE • 6/25/2015 7:53:33 AM	DATE - 05/15	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES**

SCALE \_\_\_\_\_ SHEET NO. 3 OF 5 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BSS	98-1	HAMILTON	40	5
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 76343	

SUMMARY OF QUANTITIES				CONSTRUCTION CODE	
				80% FEDERAL 20% STATE	80% FEDERAL 20% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	BOX CULVERT
				0004	0011
				ROADWAY	S. N. 033-2013
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	6	6	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6	
70106800	CHANGEABLE MESSAGE SIGN	CAL MD	3	3	
70300100	SHORT TERM PAVEMENT MARKING	FOOT	232	232	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1551	1551	
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	597	597	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	562.5	562.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	375	375	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2	
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	

⊗ SPECIALTY ITEM



USER NAME: hestlogan  
 ESCA PROJECT NO. 1035.05  
 PLOT SCALE: 0.1667" = 1'-0"  
 PLOT DATE: 11/21/2019

DESIGNED: NHP  
 DRAWN: NHP  
 CHECKED: ELH  
 DATE: 05/15

REVISED: -  
 REVISED: -  
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 REVISED: -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

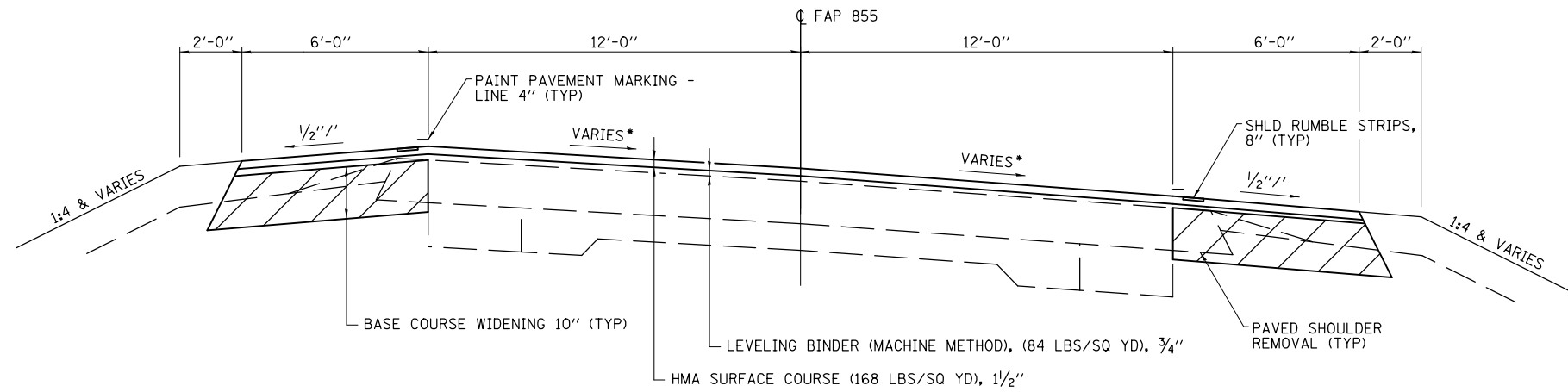
SCALE SHEET NO. 4 OF 5 SHEETS STA. TO STA.

F.A.P. RTE. 855	SECTION 98-1	COUNTY HAMILTON	TOTAL SHEETS 40	SHEET NO. 6
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78343	





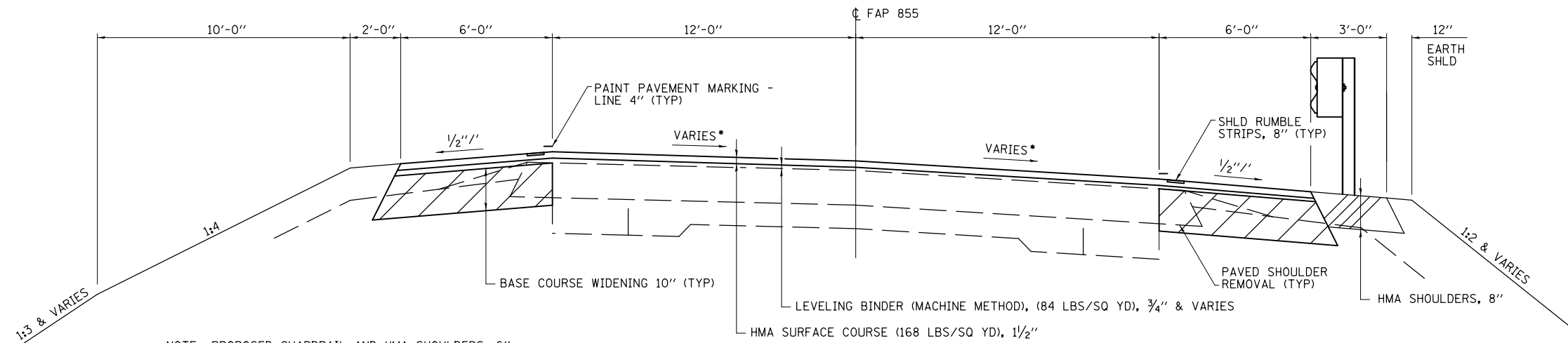




**PROPOSED TYPICAL SECTION  
STA 75+25 TO 75+62**

NOTE: SUPERELEVATION TRANSITION FROM STA 75+25 TO STA 78+10.

• SEE SUPERELEVATION TRANSITION TABLE ON SHEET NO. 12.



**PROPOSED TYPICAL SECTION  
STA 75+62 TO 77+00**

NOTE: SUPERELEVATION TRANSITION FROM STA 75+25 TO STA 78+10.

• SEE SUPERELEVATION TRANSITION TABLE ON SHEET NO. 12.

NOTE: PROPOSED GUARDRAIL AND HMA SHOULDERS, 6" FROM LT STA 76+20 TO LT STA 77+00.

NOTE: THICKNESS OF LEVELING BINDER (MACHINE METHOD) IS VARIABLE DEPTH STA 76+00 TO STA 77+00.

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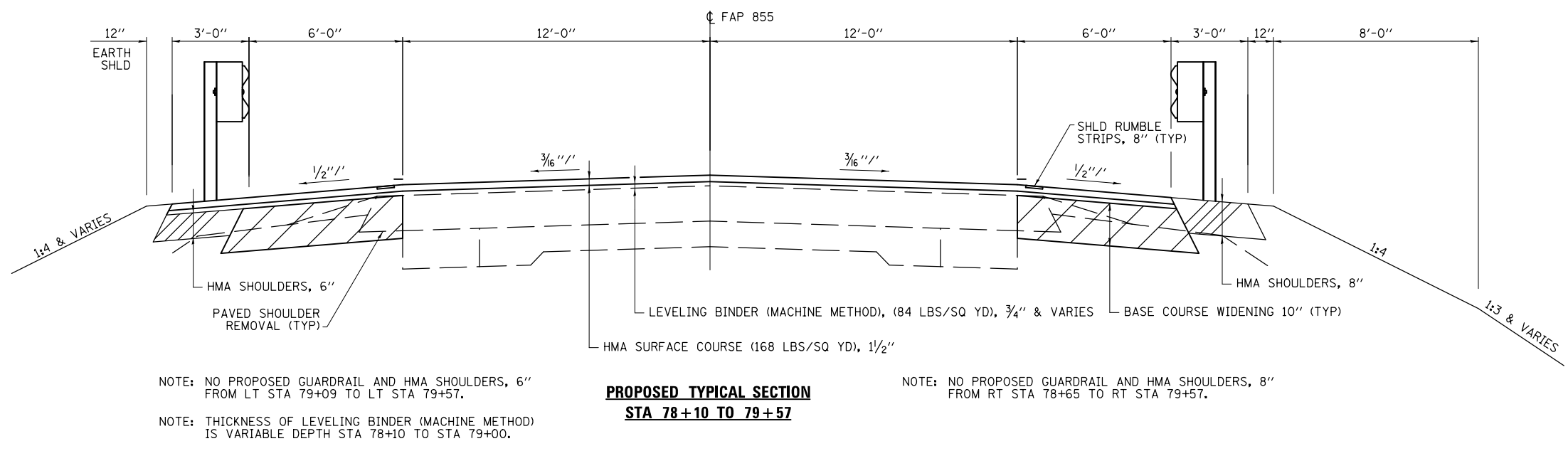
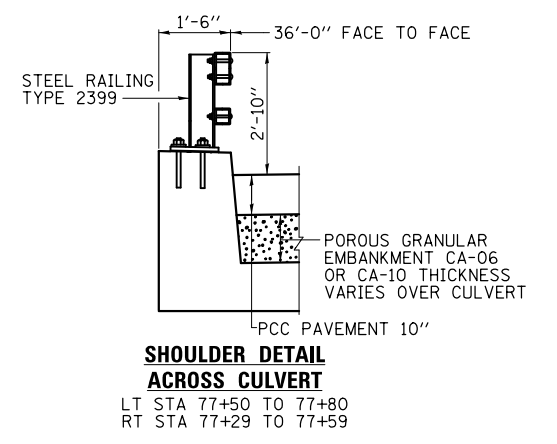
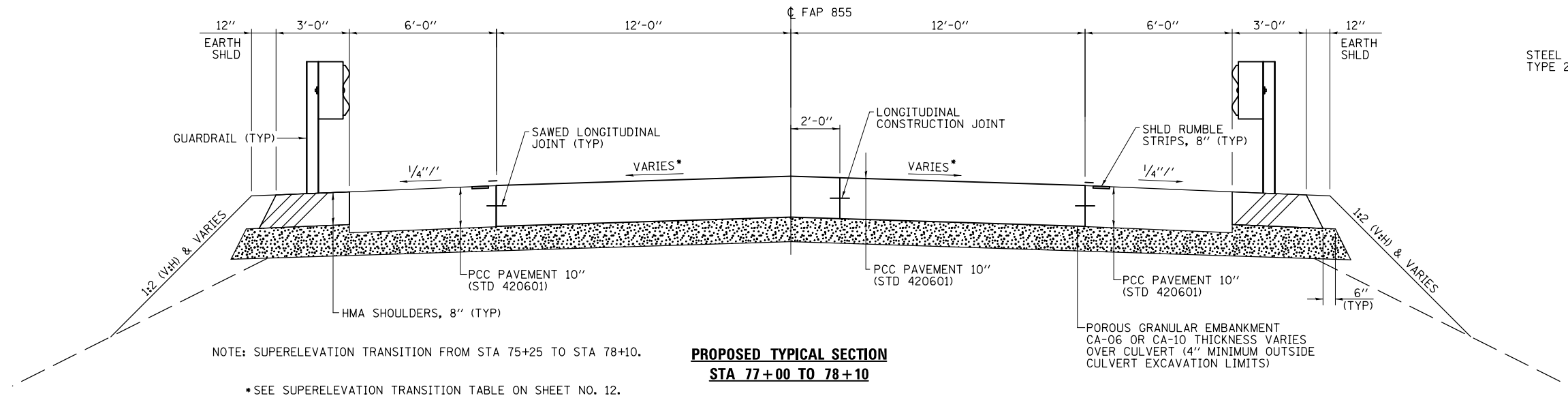
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ESCA PROJECT NO. 1035.05	DRAWN - JLF/NHP	REVISED -
PLOT SCALE = 0.1667' / 1" = 1/6"	CHECKED - ELH	REVISED -
PLOT DATE = 6/5/2015 8:20:02 AM	DATE - 05/15	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TYPICAL SECTIONS**

SCALE: SHEET NO. 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	9
CONTRACT NO. 78343				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PRINT DRIVER = L:\ESB\Bates\9  
 ESCA PROJECT NO. 1035.05  
 PLOT SCALE = 0.1667' / 1"



USER NAME = rhp	DESIGNED - JMS	REVISED -
ESCA PROJECT NO. 1035.05	DRAWN - JLF/NHP	REVISED -
PLOT SCALE = 0.1667' / 1"	CHECKED - ELH	REVISED -
PLOT DATE = 6/5/2015 8:20:32 AM	DATE - 03/15	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TYPICAL SECTIONS</b>	
SCALE:	TO STA.
SHEET NO. 3 OF 3 SHEETS	STA. TO STA.

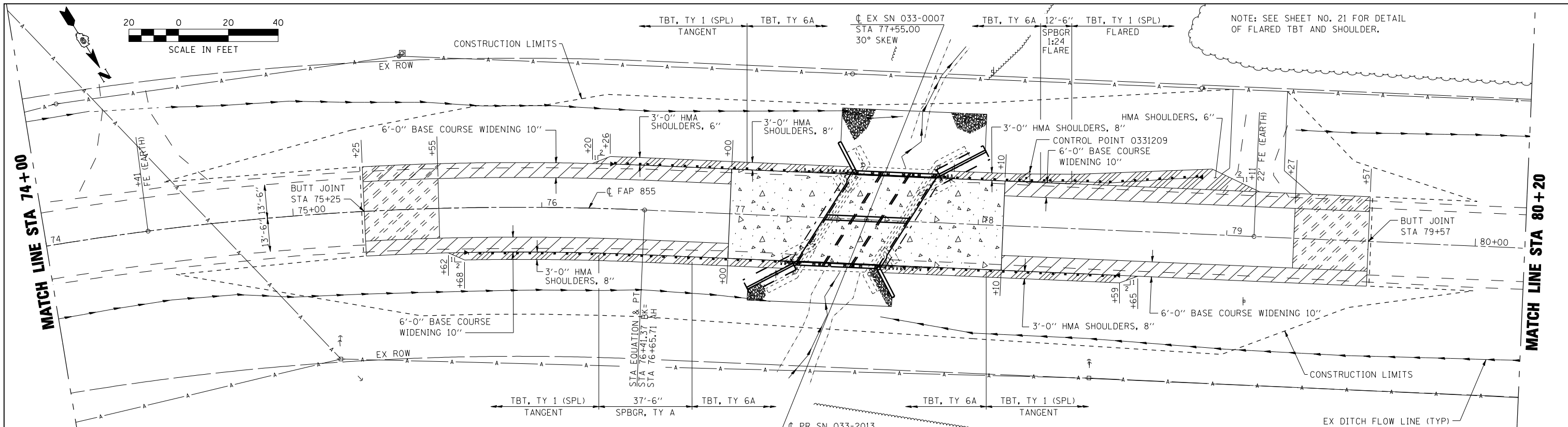
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FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78343	





PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTED		
	FILE NAME		
	NO.		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTED		
	FILE NAME		
	NO.		



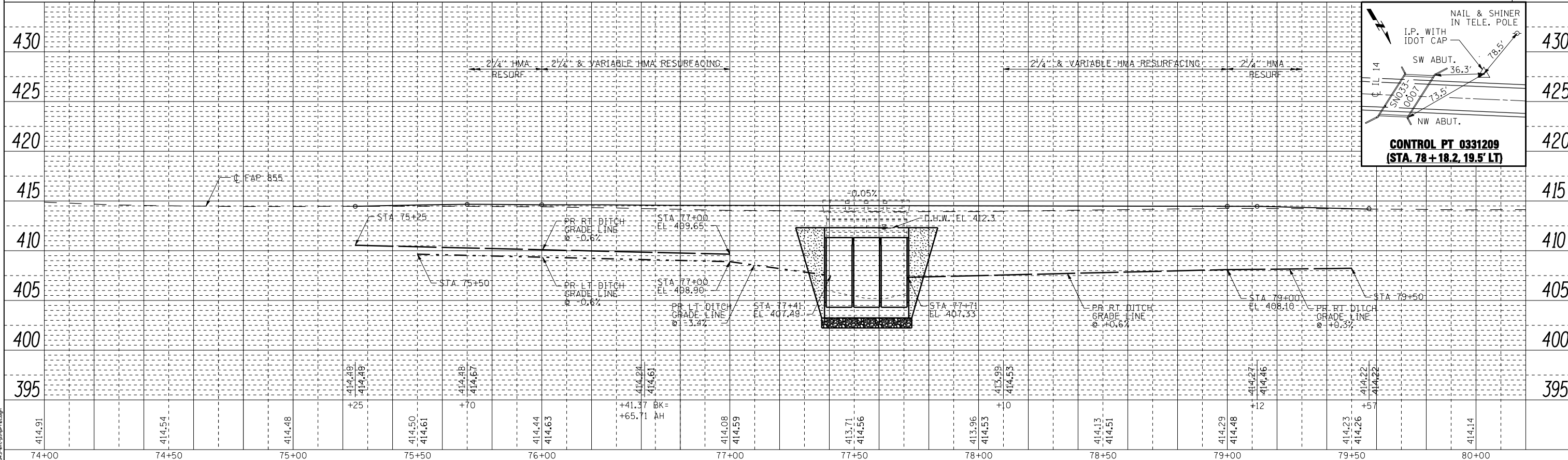
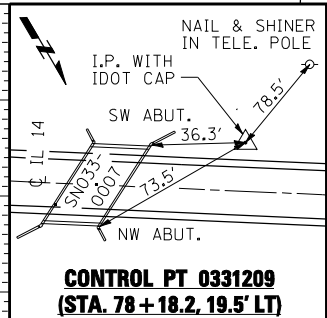
SUPERELEVATION TRANSITION STA 75+25 TO STA 78+10  
SEE SHEET NO. 12 FOR SUPERELEVATION TRANSITION TABLE,  
PROPOSED PAVEMENT ELEVATIONS AND HMA RESURFACING THICKNESS.

HMA SHOULDERS, 6" LOCATED FROM LT STA 76+20 TO LT STA 77+00  
AND FROM LT STA 78+10 TO LT STA 79+09 SHALL BE OVERLAID WITH  
A MINIMUM 2" OF HMA SURFACE COURSE AND LEVELING BINDER TO  
PROVIDE THE PROPOSED SHOULDER PROFILE DURING STAGE II  
CONSTRUCTION. REFER TO SHEET 16 FOR ADDITIONAL DETAILS.

B.M. 704 EL. 413.903  
CHISELED SQUARE ON SE  
WINGWALL OF SN 033-0007,  
STA 77+52, 24' LT.

- LEGEND**
- PCC PAVEMENT 10"
  - BASE COURSE WIDENING 10"
  - HMA SHOULDERS, 6" & 8"
  - HMA SURFACE REMOVAL

**CONTROL POINT TIE**



PRINT DRIVER = LDD,LR,B,PALE  
SCALE = 1"=20' (HORIZ) 1"=5' (VERT)  
FILE NAME = D:\9833-ant-21p-01.dgn



USER NAME = nhp  
ESCA PROJECT NO. 1035.05  
SCALEs: (HORIZ) 1"=20' (VERT) 1"=5'  
PLOT DATE = 6/25/2015

DESIGNED - JMS/NHP  
DRAWN - DWH/NHP  
CHECKED - ELH  
DATE - 06/15

REVISED -  
REVISED -  
REVISED -  
REVISED -

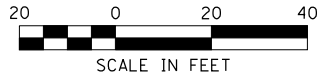
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAP 855 (IL 14) PLAN AND PROFILE**  
SCALE: AS SHOWN SHEET NO. 2 OF 3 SHEETS STA. 74+00 TO STA. 80+20

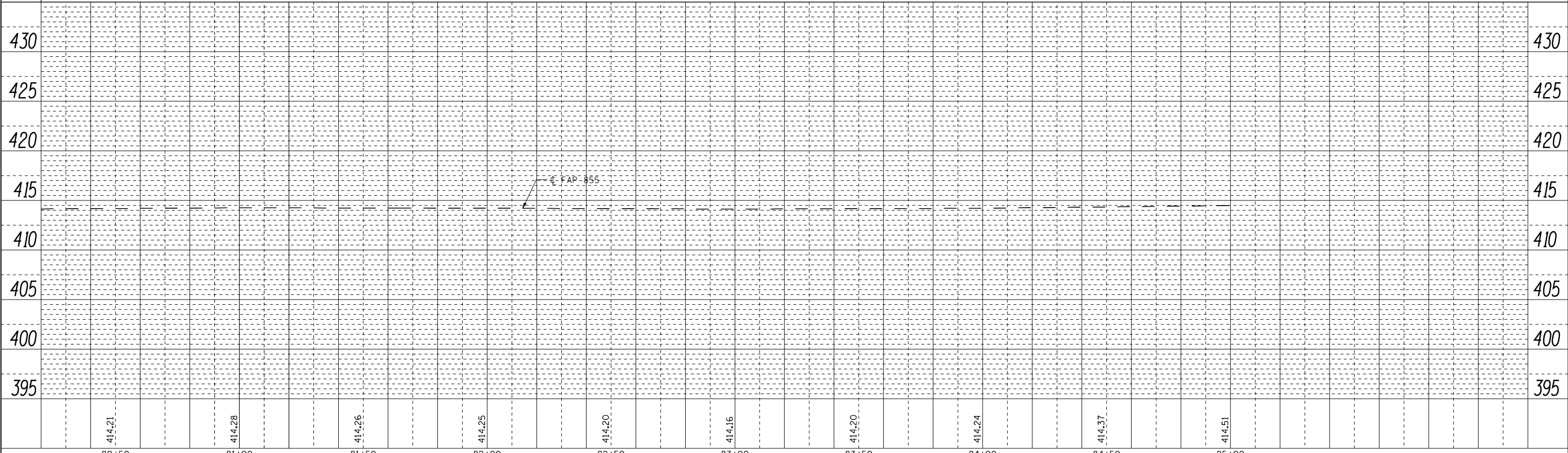
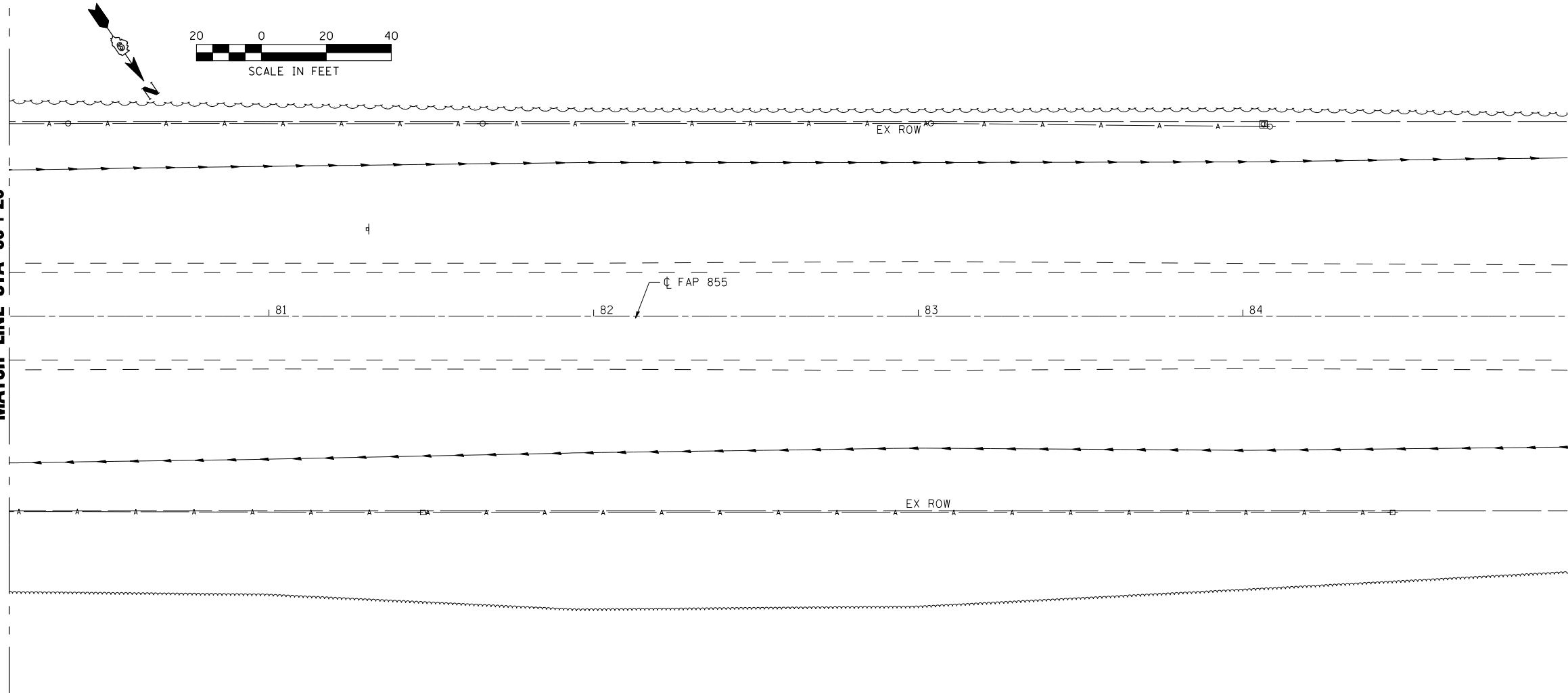
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	13
CONTRACT NO. 78343				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
NOTE BOOK NO.	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	CADD FILE NAME		



MATCH LINE STA 80 + 20



PRINT DRIVER = L:\D.L.R. & P.L.  
 PLOT DATE = 01/15/15  
 PLOT NAME = D:\98343-981-981-01.dgn



USER NAME = nhp	DESIGNED - JMS/NHP	REVISED -
ESCA PROJECT NO. 1035.05	DRAWN - DWH	REVISED -
SCALEs: (HORIZ) 1"=20' (VERT) 1"=5'	CHECKED - RDP	REVISED -
PLOT DATE = 6/25/2015	DATE - 01/15	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FAP 855 (IL 14) PLAN AND PROFILE**

SCALE: AS SHOWN    SHEET NO. 3 OF 3 SHEETS    STA. 80+20 TO STA. 85+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	14
CONTRACT NO. 78343				
FED. ROAD DIST. NO.    ILLINOIS FED. AID PROJECT				

**SCHEDULE OF QUANTITIES**

TEMPORARY CONCRETE BARRIER		
STATION, O/S	TO STATION, O/S	FEET
75+43, 4' RT	76+68, 4' LT	100
76+68, 4' LT	78+43, 4' RT	175
78+43, 4' LT	79+43, 4' RT	100
76+85.5, 19' LT	78+73, 19' LT	187.5
		562.5
TEMPORARY BRIDGE TRAFFIC SIGNALS - 1 EACH		
TEMPORARY RUMBLE STRIPS - 6 EACH		
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH		
IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3 - 2 EACH		
PINNING TEMPORARY CONCRETE BARRIER - 36 EACH		

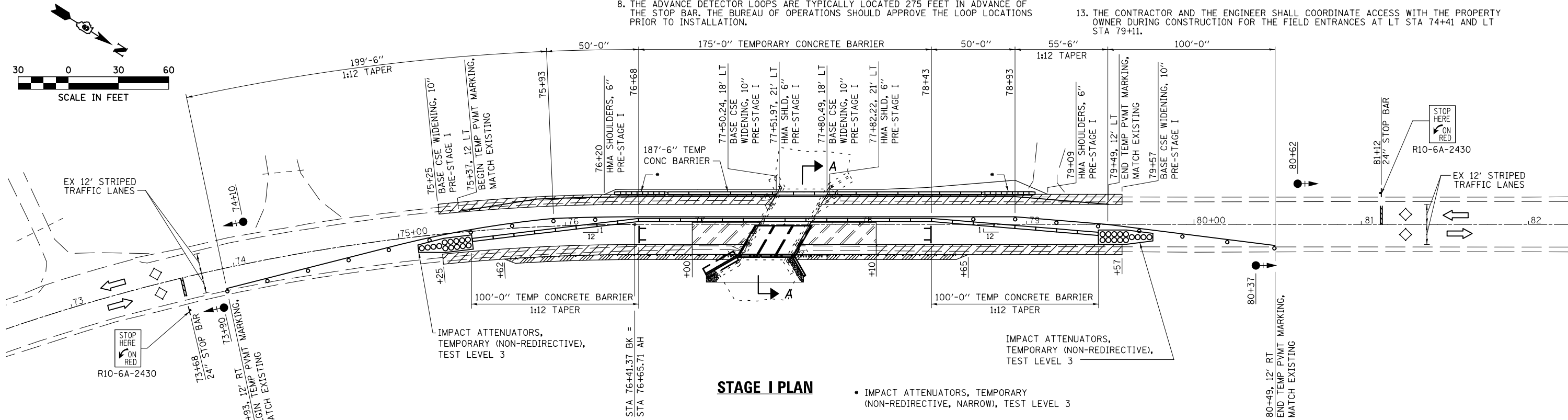
**LEGEND**

- DIRECTION OF TRAFFIC
- TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
- DETECTOR LOOP
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- BASE COURSE WIDENING, 10"
- PAVEMENT REMOVAL
- HMA SHOULDERS, 8"

**GENERAL NOTES**

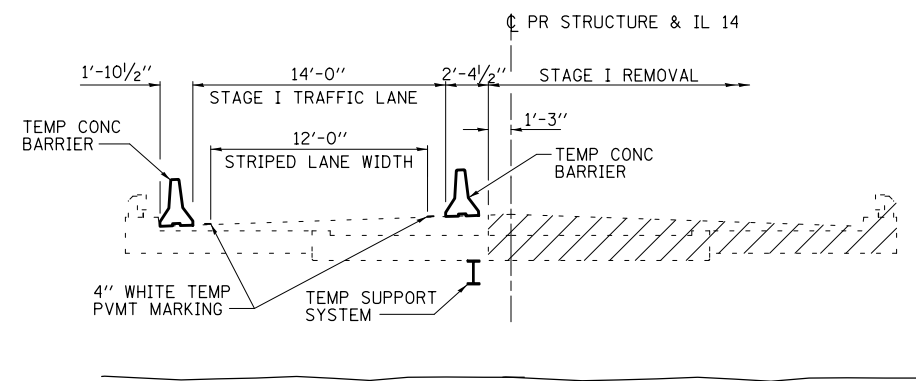
- PRE-STAGE I: CONSTRUCT THE BASE COURSE FROM LT STA 75+25 TO LT STA 79+57 AS SHOWN ON THIS SHEET PRIOR TO PLACING THE SIGNALS IN OPERATION AND PLACEMENT OF THE TEMPORARY BARRIERS. THE BASE COURSE THICKNESS SHALL BE INCREASED TO 11 1/2" AT LT STA 75+25 AND TRANSITION TO 10" THICKNESS AT LT STA 75+70 TO MAINTAIN THE FULL 10" THICKNESS AFTER THE HMA SURFACE REMOVAL DURING STAGE II CONSTRUCTION. THE THICKNESS SHALL ALSO BE INCREASED TO 11 1/2" AT LT STA 79+57 AND TRANSITION TO 10" AT LT STA 79+12. THESE INCREASES IN THICKNESS OF THE BASE COURSE WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT COST PER SQ YD FOR BASE CSE WIDENING 10".
- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. SEE STANDARD 701321 FOR THE COMPLETION OF THE STAGE CONSTRUCTION TRAFFIC CONTROL THAT IS NOT SHOWN THAT INCLUDES, BUT IS NOT LIMITED TO, ADVANCE SIGNING, ADVANCE LOOP PLACEMENT, DRUMS WITH STEADY BURNING LIGHTS, DOUBLE VERTICAL PANELS AND BARRIER WALL/ GUARDRAIL MARKERS.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
- ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321.
- THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-I102(O)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-I103) SHOWN ON SHEET 16 SHALL BE 12'-6" FOR STAGE I CONSTRUCTION.
- THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.

- THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW STEEL RAILING, TYPE 2399. THE GUARDRAIL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
- ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OFF OR COVERED.
- THE STAGE I CONSTRUCTION SHALL INCLUDE COMPLETION OF THE EARTHWORK, BASE COURSE, HMA SHOULDERS, GUARDRAIL AND TRAFFIC BARRIER TERMINALS FROM RT STA 75+25 TO RT STA 79+57 AS REFERENCED ON THIS SHEET AND DESCRIBED IN DETAIL ON THE PLAN AND PROFILE SHEETS. THE LEVELING BINDER (MACHINE METHOD) AND THE HMA SURFACE COURSE SHALL ALSO BE PLACED ON THE TRAFFIC LANE ADJACENT TO THE PROPOSED HMA SHOULDERS TO ALLOW COMPLETION OF THE HMA SHOULDERS PRIOR TO THE INSTALLATION OF THE GUARDRAIL AND TERMINALS. PLACEMENT OF THE LEVELING BINDER AND HMA SURFACE AS INDICATED MAY REQUIRE RELOCATION OF THE TEMPORARY BARRIERS AND THE IMPACT ATTENUATORS DURING THE DAYTIME HOURS AND ALSO PLACEMENT OF A TEMPORARY RAMP IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR WILL SUBMIT A WRITTEN PLAN TO THE ENGINEER FOR APPROVAL THAT DETAILS THE STAGING OF THE HMA RESURFACING FOR STAGE I CONSTRUCTION TO MEET THESE REQUIREMENTS. THE COST ASSOCIATED WITH THE STAGING OF THE HMA RESURFACING, INCLUDING THE TEMPORARY RAMP, WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE VARIOUS HMA PAY ITEMS INCLUDED IN THE PLANS.
- THE CONTRACTOR AND THE ENGINEER SHALL COORDINATE ACCESS WITH THE PROPERTY OWNER DURING CONSTRUCTION FOR THE FIELD ENTRANCES AT LT STA 74+41 AND LT STA 79+11.

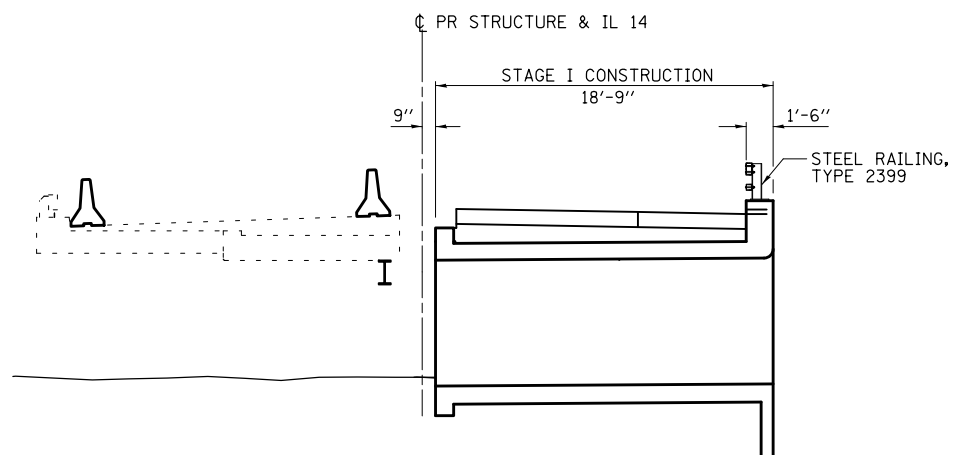


**STAGE I PLAN**

• IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3



**SECTION A-A  
REMOVAL**



**SECTION A-A  
CONSTRUCTION**

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USER NAME = nhp	DESIGNED - NHP	REVISED -
ESCA PROJECT NO. 1035.05	DRAWN - DWH	REVISED -
PLOT SCALE = 0.1667' / 1"	CHECKED - JMS	REVISED -
PLOT DATE = 6/25/2015 10:55:52 AM	DATE - 06/15	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION PLAN AND DETAILS**

SCALE: AS SHOWN SHEET NO. 1 OF 2 SHEETS STA. 73+00 TO STA. 82+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	15
CONTRACT NO. 78343				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

**SCHEDULE OF QUANTITIES**

RELOCATE TEMPORARY CONCRETE BARRIER		
STATION, O/S	TO STATION, O/S	FEET
75+43, 4' LT	76+68, 4' RT	100
76+68, 4' RT	78+43, 4' RT	175
78+43, 4' RT	79+43, 4' LT	100
		375

IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3 - 2 EACH

PINNING TEMPORARY CONCRETE BARRIER - 36 EACH

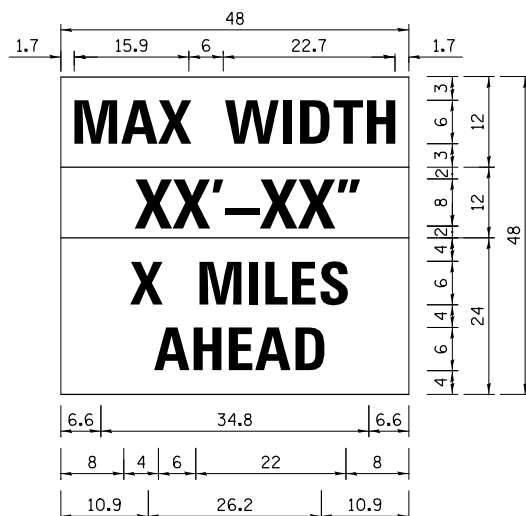
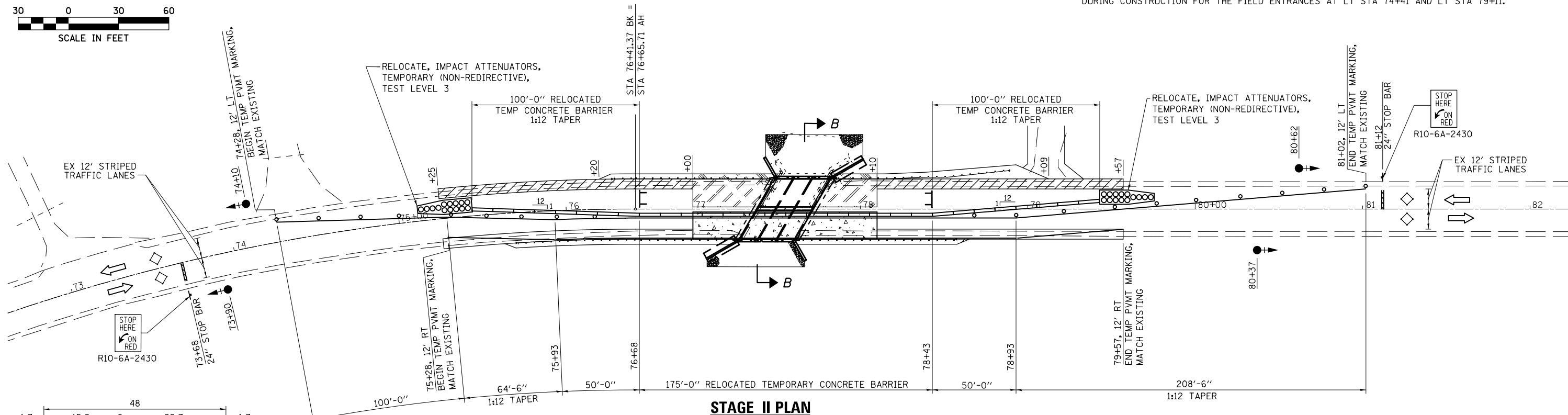
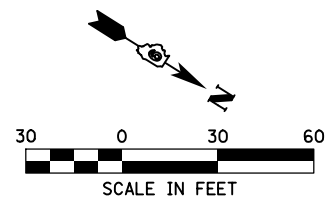
**LEGEND**

- DIRECTION OF TRAFFIC
- TRAFFIC SIGNAL WITH BACKPLATE, SIGNAL DIRECTION INDICATED
- DETECTOR LOOP
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE
- BASE COURSE WIDENING, 10"
- PAVEMENT REMOVAL
- PAVED SHOULDER REMOVAL
- PCC PAVEMENT, 10"

**GENERAL NOTES**

- HMA SHOULDERS, 8" TO BE CONSTRUCTED FROM LT STA 77+00 TO LT STA 78+10, AS SHOWN ON PLAN AND PROFILE SHEET 2, DURING THIS STAGE. HMA SHOULDERS, 6" FROM LT STA 76+20 TO LT STA 77+00 AND FROM LT STA 78+10 TO LT STA 79+09, CONSTRUCTED DURING STAGE I, SHALL BE OVERLAID WITH MINIMUM 2" OF HMA SURFACE COURSE AND LEVELING BINDER TO PROVIDE THE PROPOSED PROFILE DURING THIS STAGE.
- TRAFFIC CONTROL SHALL BE ERECTED AS SHOWN AND ACCORDING TO TRAFFIC CONTROL AND PROTECTION, STANDARD 701321. SEE STANDARD 701321 FOR THE COMPLETION OF THE STAGE CONSTRUCTION TRAFFIC CONTROL THAT IS NOT SHOWN THAT INCLUDES, BUT IS NOT LIMITED TO, ADVANCE SIGNING, ADVANCE LOOP PLACEMENT, DRUMS WITH STEADY BURNING LIGHTS, DOUBLE VERTICAL PANELS AND BARRIER WALL/ GUARDRAIL MARKERS.
- SEE SPECIAL PROVISIONS FOR ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.
- COORDINATE LOCATION OF SIGNALS WITH FINAL WORK AS DIRECTED BY THE ENGINEER.
- CONSTRUCT TEMPORARY RUMBLE STRIPS AT LOCATIONS SHOWN ON STANDARD 701321.
- ADVANCE WIDTH RESTRICTION WARNING SHALL BE INCLUDED IN THE COST OF STANDARD 701321.
- THE DIMENSION SHOWN ON THE WIDTH RESTRICTION SIGN (W12-I102(O)-48) SHOWN ON STANDARD 701321 AND ON THE ADVANCE WARNING SIGN (W12-I103) SHOWN ON THIS SHEET SHALL BE 12'-1" FOR STAGE II CONSTRUCTION.
- THE ADVANCE DETECTOR LOOPS ARE TYPICALLY LOCATED 275 FEET IN ADVANCE OF THE STOP BAR. THE BUREAU OF OPERATIONS SHOULD APPROVE THE LOOP LOCATIONS PRIOR TO INSTALLATION.

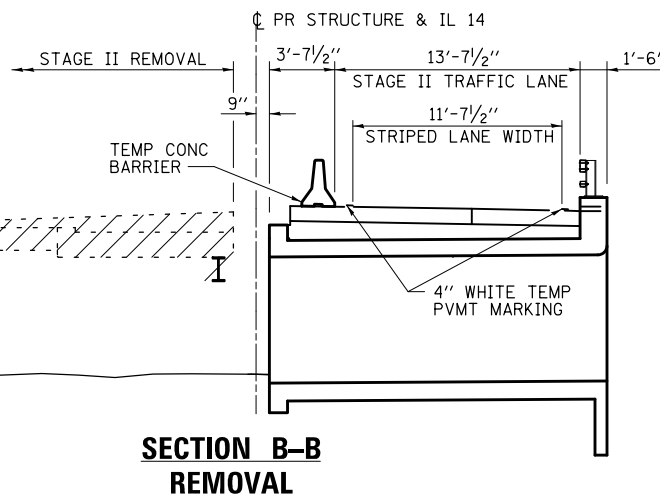
- THE CENTERLINE PAVEMENT MARKING SHOULD BE REMOVED FROM THE STOP BAR TO THE SAND ATTENUATORS OR DRUMS. EDGE LINE PAVEMENT MARKING SHOULD BE REMOVED IF A 10 FOOT LANE WIDTH CANNOT BE MAINTAINED. TEMPORARY EDGE LINES SHOULD BE INSTALLED WHEN THE EDGE LINES ARE REMOVED.
- VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW STEEL RAILING, TYPE 2399. THE GUARDRAIL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.
- ANY TIME THE CONCRETE BARRIER IS NOT IN THE PROPER POSITION, FLAGGERS SHALL BE IN PLACE TO CONTROL TRAFFIC AND THE TEMPORARY TRAFFIC SIGNALS SHALL BE TURNED OFF OR COVERED.
- THE TEMPORARY SIGNALS WILL REMAIN IN OPERATION AND THE TEMPORARY BARRIERS WILL REMAIN IN PLACE UNTIL THE CONCRETE BOX CULVERT AND PCC PAVEMENT 10" IS COMPLETE INCLUDING STEEL RAILING, TYPE 2399. THE REMAINING HMA RESURFACING, HMA SHOULDERS, GUARDRAIL, AND TRAFFIC BARRIER TERMINALS SHALL BE COMPLETED USING THE APPROPRIATE STANDARDS INCLUDED IN THE PLANS AND TRAFFIC SHALL BE OPEN TO BOTH LANES DURING NON-WORKING HOURS. THE CONTRACTOR SHALL SCHEDULE THEIR OPERATIONS SO THERE IS NO MORE THAN TWO WEEKS BETWEEN THE REMOVAL OF THE TEMPORARY BARRIERS AND THE START OF GUARDRAIL AND TERMINAL INSTALLATION.
- THE CONTRACTOR'S OPERATION MAY RESULT IN A DROP-OFF AT THE END OF THE PCC PAVEMENT 10" THAT IS UNDER TRAFFIC PRIOR TO THE HMA RESURFACING. TEMPORARY RAMPS SHALL BE PROVIDED AT THESE LOCATIONS IF NEEDED ACCORDING TO ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST FOR THE TEMPORARY RAMPS AT THESE LOCATIONS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF VARIOUS HMA PAY ITEMS INCLUDED IN THE PLANS.
- THE CONTRACTOR AND THE ENGINEER SHALL COORDINATE ACCESS WITH THE PROPERTY OWNER DURING CONSTRUCTION FOR THE FIELD ENTRANCES AT LT STA 74+41 AND LT STA 79+11.



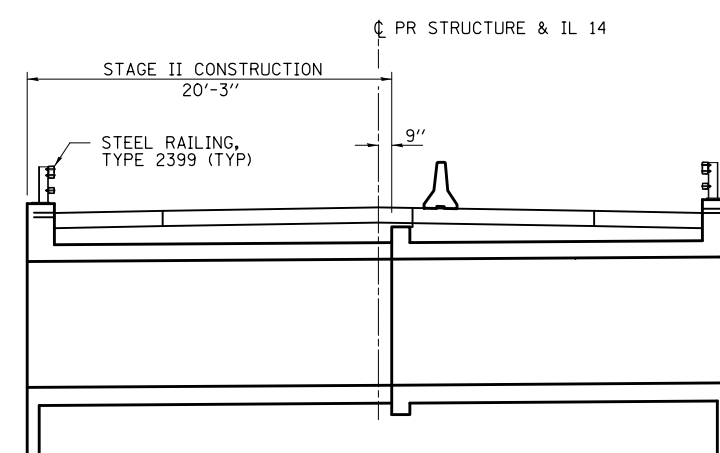
**W12-I103**

W12-I103 (Width Is 8D);  
 No border, Black on White;  
 "MAX WIDTH" D;  
 No border, Black on Orange;  
 "XX'-XX'" D;  
 No border, Black on White;  
 "X MILES" D; "AHEAD" D

**STAGE II PLAN**



**SECTION B-B  
REMOVAL**



**SECTION B-B  
CONSTRUCTION**

NOTE: THIS SIGN SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. ONE SIGN SHALL BE PROVIDED FOR EACH APPROACH TO THE SITE.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION PLAN AND DETAILS

SCALE: AS SHOWN SHEET NO. 2 OF 2 SHEETS STA. 73+00 TO STA. 82+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	16
CONTRACT NO. 78343				

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

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ESCA PROJECT NO. 1035.05	DRAWN = DWH	REVISED =
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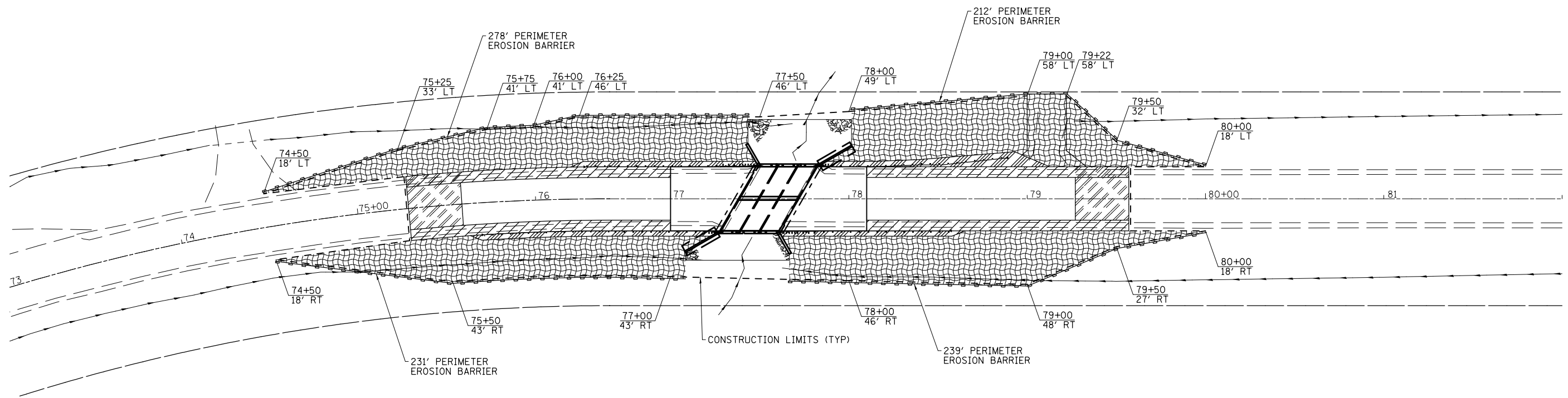


**LEGEND**

- SEEDING, CLASS 2A AND EROSION CONTROL BLANKET
- PERIMETER EROSION BARRIER
- STONE RIPRAP, CLASS A5



STATIONS AND OFFSETS SHOWN ARE TO THE CONSTRUCTION LIMITS. THE PERIMETER EROSION BARRIER WILL BE PLACED 1'-0" OUTSIDE THE CONSTRUCTION LIMITS. THE SEEDING, CLASS 2A AND EROSION CONTROL BLANKET WILL BE PLACED TO THE LIMITS OF THE PERIMETER EROSION BARRIER.



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 PLOT SCALE = 0.1667' / 1"



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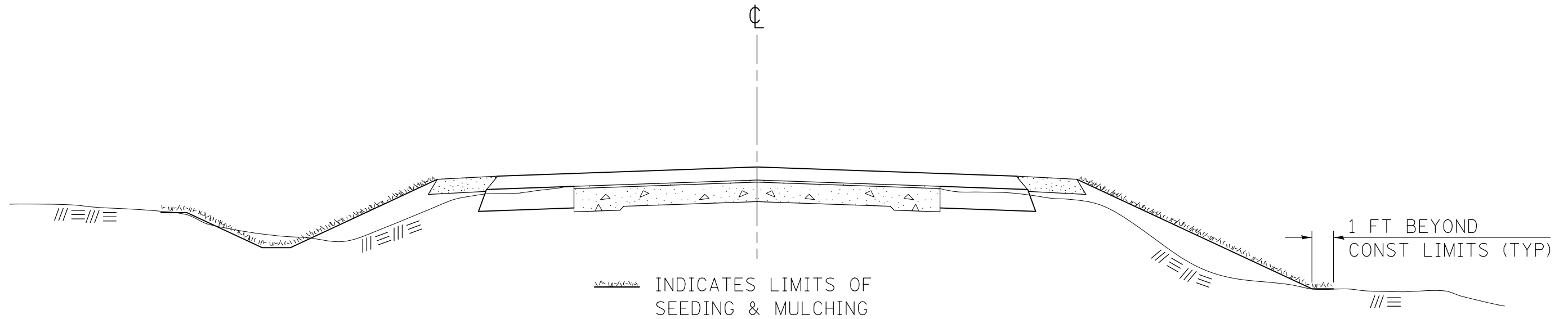
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EROSION CONTROL PLAN**

SCALE: AS SHOWN SHEET NO. 1 OF 1 SHEETS STA. 73+00 TO STA. 82+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	17
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78343	

# SEEDING & MULCHING



## GENERAL NOTES

IN GENERAL, ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION OPERATIONS SHALL BE SEEDED AND MULCHED UPON COMPLETION OF ALL GRADING OPERATIONS.

FERTILIZER NUTRIENTS AND LIMESTONE SHALL BE APPLIED TO ALL SEEDED AREAS.

SECTIONS 250 AND 251 OF THE STANDARD SPECIFICATIONS SHALL GOVERN THIS WORK EXCEPT AS SPECIFIED HEREIN OR AS NOTED IN THE SPECIAL PROVISIONS.

### REVISIONS

REDRAWN	2-15-89
REVISED	8-15-94
REVISED	6-3-99
REVISED	3-27-08

STD. 9-12

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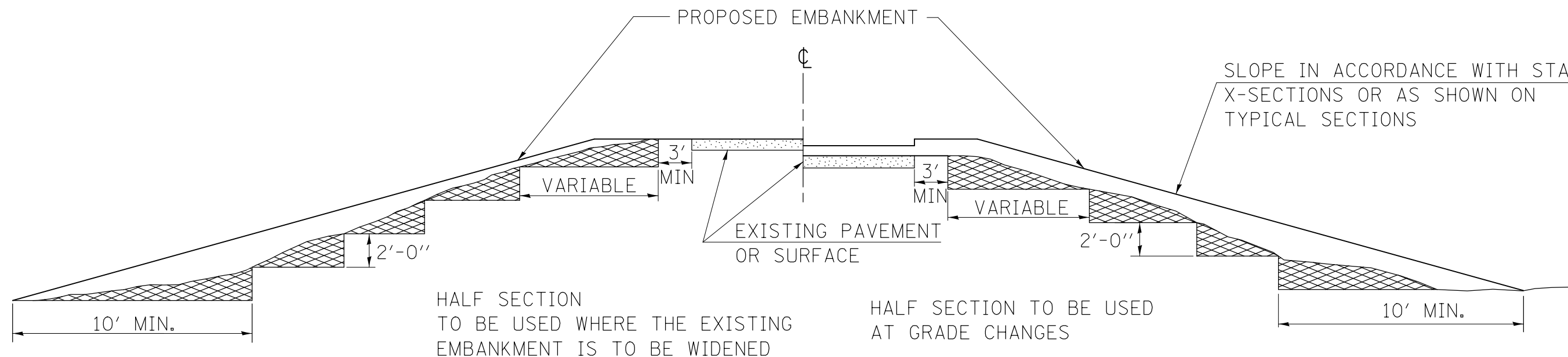
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SEEDING AND MULCHING DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	18
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			<b>CONTRACT NO. 78343</b>	

# TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL



MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99
RESIZED	5-7-08

STD. 9-16

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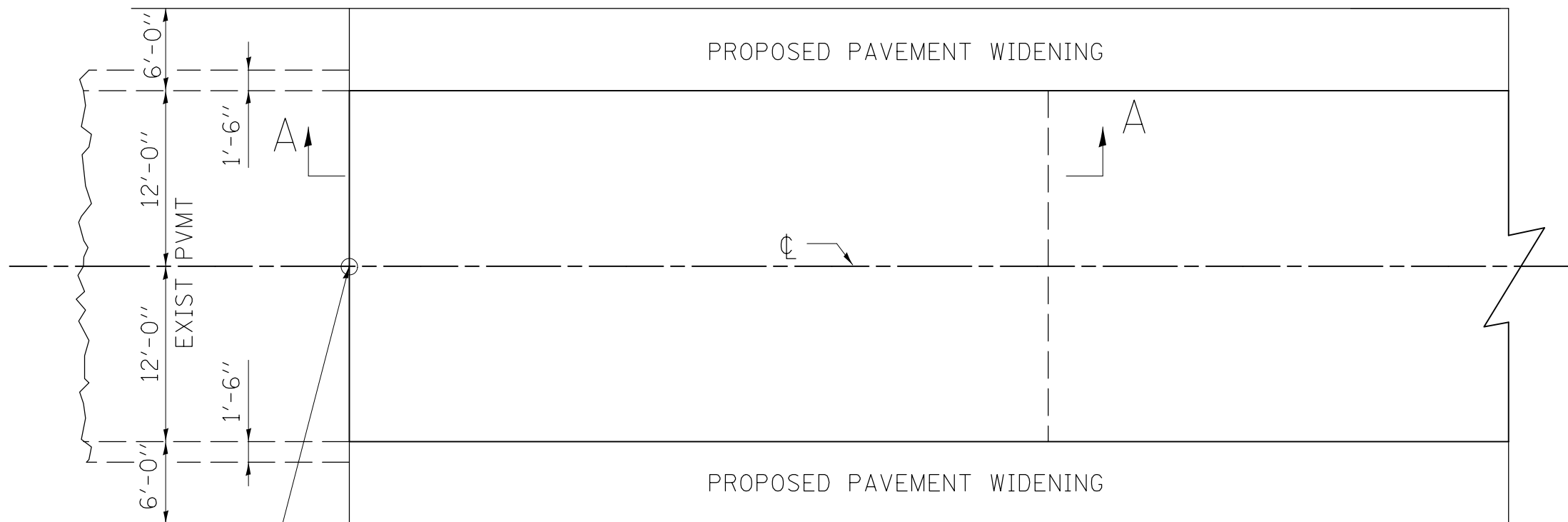
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STEP CONSTRUCTION ON EXISTING FILL DETAILS**

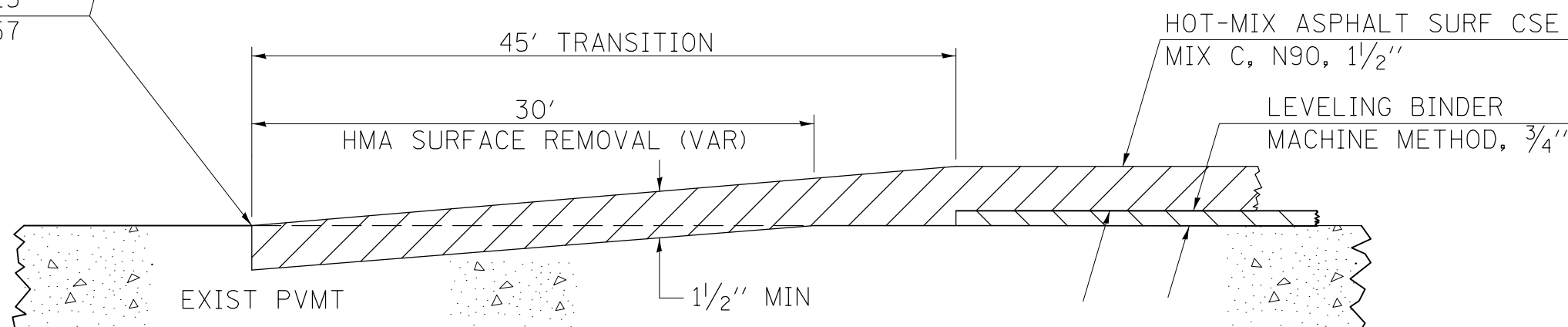
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	19
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78343	

# BUTT JOINT



STA 75+25  
STA 79+57



## SECTION A-A

REVISIONS

DRAWN	10-17-90
REVISED	01-11-07
REVISED	3-25-08
REVISED	

STD. 9-86

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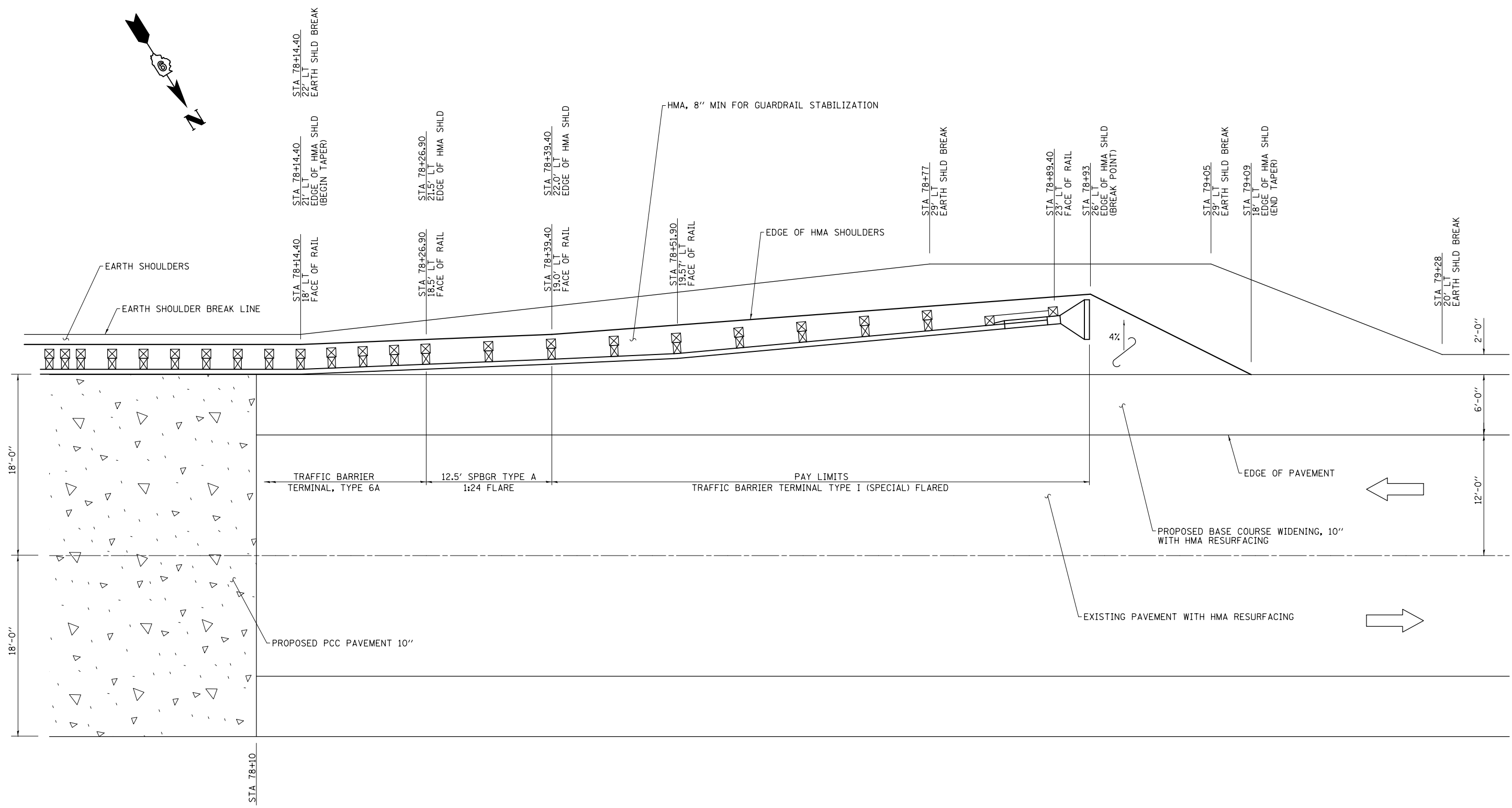
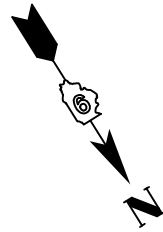
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PLOT DATE = 6/5/2015 7:16:43 PM	DATE - 03/15	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT DETAIL**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	20
CONTRACT NO. 78343				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



- NOTES:
- SEE STANDARDS 630001, 630201, AND 630301 FOR ADDITIONAL DETAILS.
  - SEE THE PLAN AND PROFILE SHEET NO. 2 FOR THE LOCATION AND DETAIL OF THE FIELD ENTRANCE AT LT STA 79+11.
  - RT HMA SHOULDER AND GUARDRAIL NOT SHOWN.

USER = nhp DATE = 6/5/2015  
 FILE NAME = D:\78343\mt-detail104.dgn



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 ESCA PROJECT NO. 1035.05  
 PLOT SCALE = 0.1667' / 1"

DESIGNED - JMS  
 DRAWN - NHP  
 CHECKED - RDP  
 DATE - 03/15

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FLARED TRAFFIC BARRIER TERMINAL DETAIL**

SCALE: SHEET NO. 1 OF 1 SHEETS STA. 77+80 TO STA. 79+30

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	21
CONTRACT NO. 78343				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

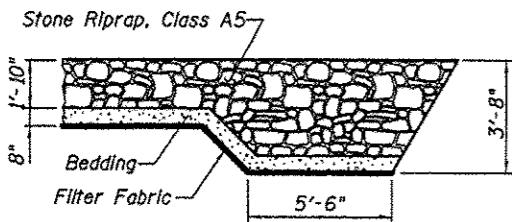
BENCHMARK: BM 704 - Chiseled square on southerly corner of easterly abutment of SN 033-0007 along IL 14, Sta. 77+52, 24' LT Elev. 413.90 (NAVD 88)

EXISTING STRUCTURE: SN 033-0007 was originally built in 1922 as S.B.I. Rte. 14, Section 9B, and was widened in 1952 as S.B.I. Route 14, Section 9BY. The structure consists of a single-span cast-in-place concrete slab on closed abutments supported by spread footings. Inside face to inside face of abutments is 28'-0". Superstructure width is 42'-4" out-to-out. There is a 30° skew left-forward. Traffic shall be maintained utilizing stage construction.

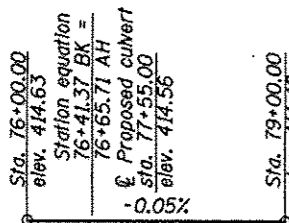
No salvage.  
Precast alternate is not allowed.

STATION 77+55.00  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.P. RT. 855 SEC. 9B-1  
LOADING HL-93  
STRUCTURE NO. 033-2013

NAME PLATE  
(See highway std. 515001)



SECTION A-A



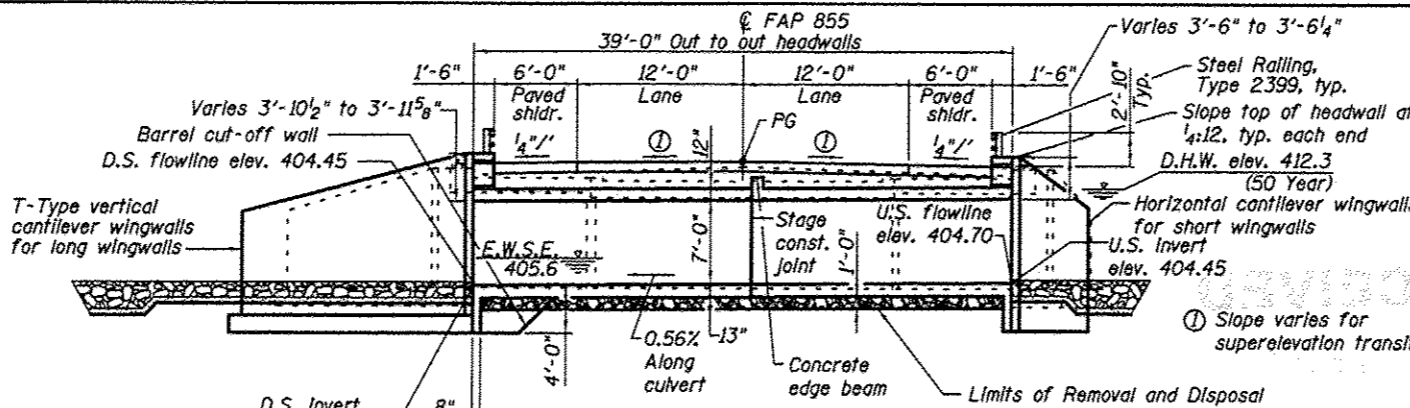
PROFILE GRADE  
(Along & roadway)

WATERWAY INFORMATION

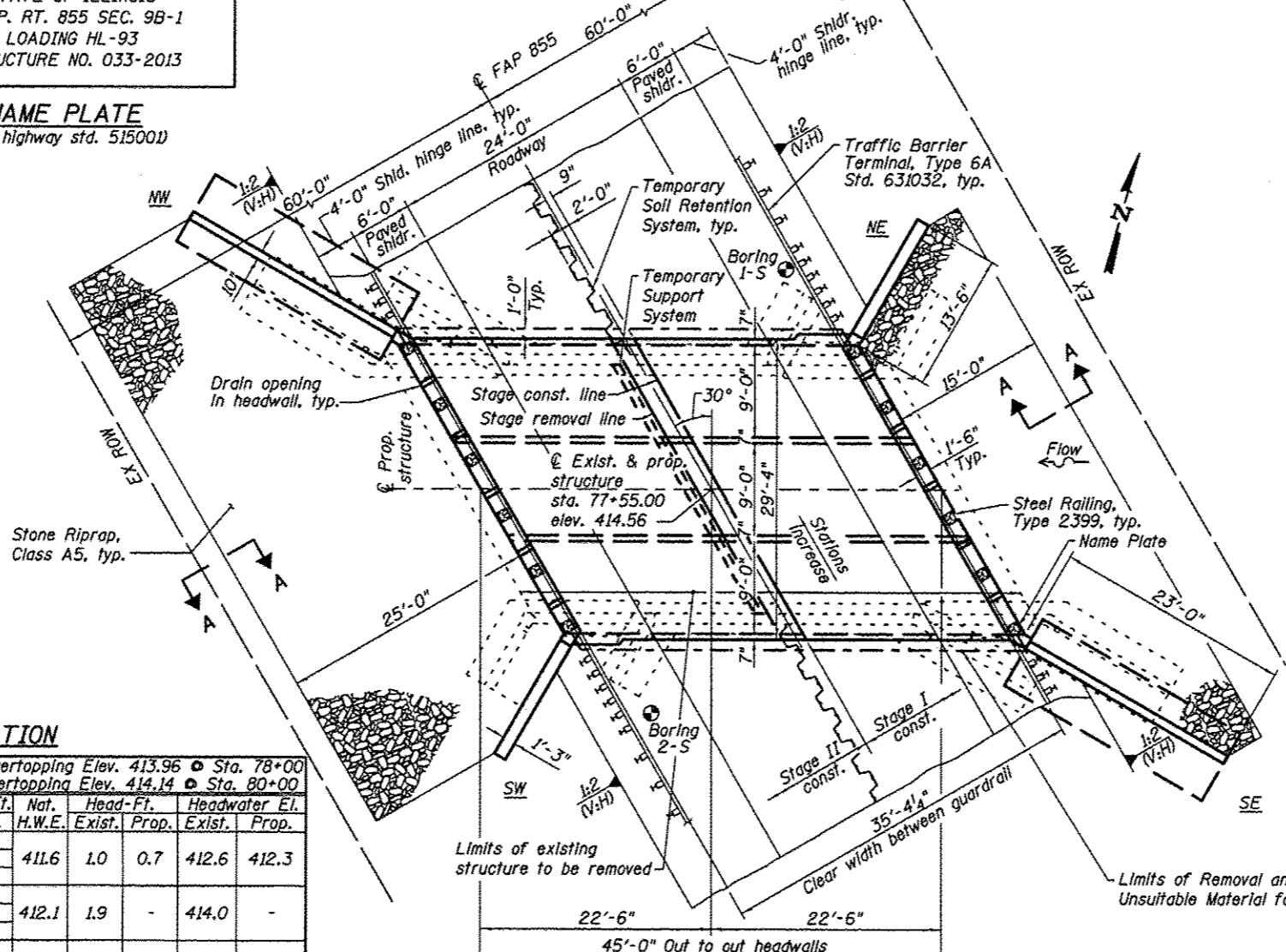
Drainage Area = 4.1 Sq. Mi.      Exist. Overtopping Elev. 413.96 @ Sta. 78+00  
Prop. Overtopping Elev. 414.14 @ Sta. 80+00

Freq. Yr.	Exist. SN	Q-C.F.S.		Opening - Sq. Ft.		Nat. H.W.E.	Head-Ft.		Headwater El.	
		Exist.	Prop.	Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
10	SN 033-0007	953	1129	143	182	411.6	1.0	0.7	412.6	412.3
	SN 033-0006	722	546	127	127					
	Total	1675	1675	270	309					
Existing Overtop	SN 033-0007	1363	1542	148	-	412.1	1.9	-	414.0	-
	SN 033-0006	1133	954	142	-					
	Total	2496	2496	290	-					
Design	SN 033-0007	1517	1663	148	182	412.3	2.1	1.4	414.4	413.7
	SN 033-0006	1272	1126	148	148					
	Total	2789	2789	296	330					
Proposed Overtop	SN 033-0007	1708	1766	-	182	412.4	-	2.0	414.4	-
	SN 033-0006	1282	1224	-	151					
	Total	2990	2990	-	333					
Base	SN 033-0007	1957	2000	148	182	412.5	2.2	2.0	414.7	414.5
	SN 033-0006	1339	1296	154	154					
	Total	3296	3296	302	336					
200	SN 033-0007	2432	2455	148	182	412.6	2.3	2.2	414.9	414.8
	SN 033-0006	1417	1394	157	157					
	Total	3849	3849	305	339					

10 Year Velocity through Existing Structure: 8.7 ft/s  
10 Year Velocity through Proposed Structure: 6.2 ft/s



LONGITUDINAL SECTION  
(Dimensions at rt. angle to & FAP 855)  
(Looking North)



PLAN

DESIGN SPECIFICATIONS

2012 AASHTO LRFD  
Bridge Design Specifications  
6th Edition with 2013 Interims

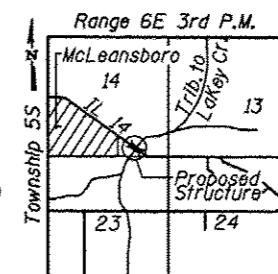
LOADING HL-93

Allow 50 psf for future wearing surface.

DESIGN STRESSES

FIELD UNITS

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



LOCATION SKETCH

STRUCTURE INDEX OF SHEETS

General Plan & Elevation	Sheet No. 1 of 10
Stage Construction Details	Sheet No. 2 & 3 of 10
Temporary Concrete Barrier For Stage Construction	Sheet No. 4 of 10
Box Culvert Details	Sheet No. 5 thru 7 of 10
Steel Railing, Type 2399	Sheet No. 8 of 10
Bar Splicer Assembly and Mechanical Splicer Details	Sheet No. 9 of 10
Boring Logs	Sheet No. 10 of 10

GENERAL NOTES

- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- Precast alternate is not allowed.
- Modify existing channel to match culvert at each end as directed by the Engineer, cost included in the pay item for Stone Riprap, Class A5.
- Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Stone Riprap, Class A5	Sq. Yd.	260
Filter Fabric	Sq. Yd.	260
Removal of Existing Structures	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	52
Reinforcement Bars, Epoxy Coated	Pound	30680
Bar Splicers	Each	152
Steel Railing, Type 2399	Foot	71
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	192.7
Granular Backfill for Structures	Cu. Yd.	245
Rock Fill - Foundation	Ton	105
Temporary Soil Retention System	Sq. Ft.	248
Temporary Support System	L. Sum	1

See Roadway Plans for quantities of Temporary Concrete Barrier, Earth Excavation, and Pavement Removal.

& FAP 855 CURVE DATA

PI sta. 73+10.00  
Δ = 33°-40'-00" (RT)  
D = 4°-55'-43"  
R = 1,162.54'  
T = 351.73'  
L = 683.10'  
E = 52.04'  
S.E. = 0.041'  
S.E. transition = sta. 75+25.00 to sta. 78+10.00  
PC sta. 69+58.27  
PT sta. 76+41.37  
station equation 76+41.37 BK = sta. 76+65.71 AH



EXPIRES 11-30-16

SIGNATURE

04-14-15

APPROVED  
For Structural Adequacy Only

Engineer of Bridges & Structures

GENERAL PLAN & ELEVATION  
IL 14 OVER TRIBUTARY TO LAKEY CREEK  
FAP ROUTE 855 - SECTION 9B-1

HAMILTON COUNTY  
STATION 77+55.00

STRUCTURE NO. 033-2013



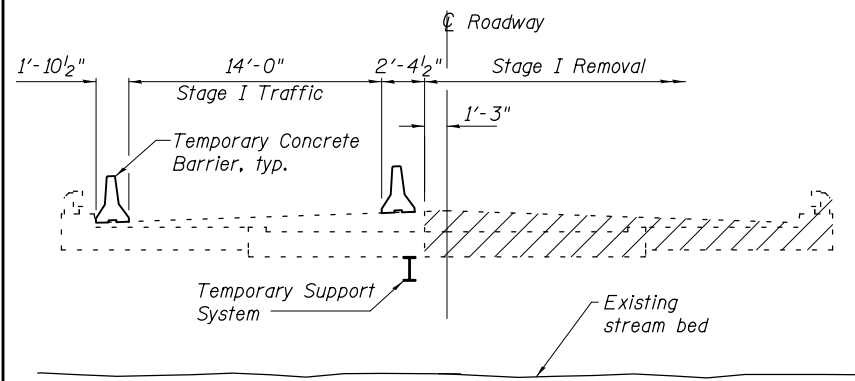
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CHECKED - ELH 04/15  
DRAWN - DWH 01/15  
CHECKED - RDP 04/15

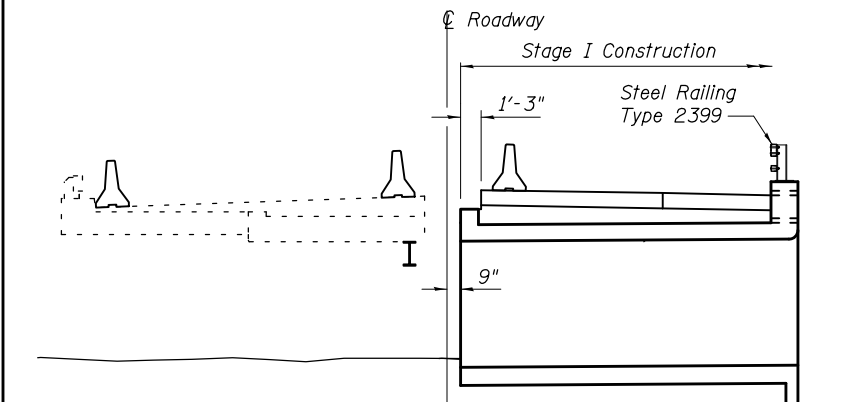
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 10 SHEETS

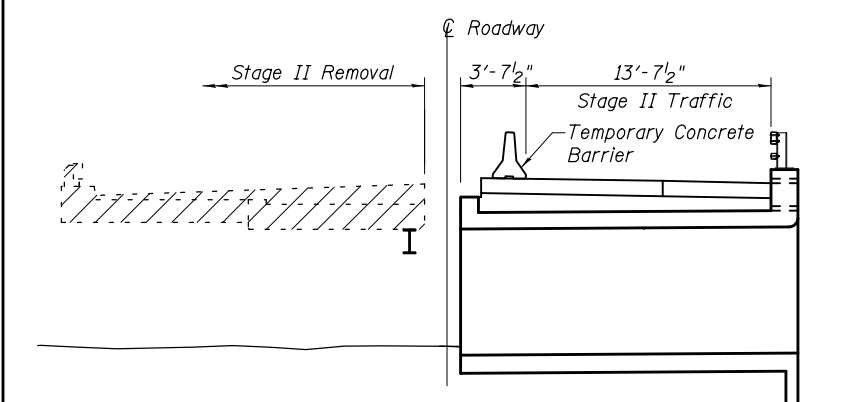
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	22
CONTRACT NO. 78343			ILLINOIS FED. AID PROJECT	



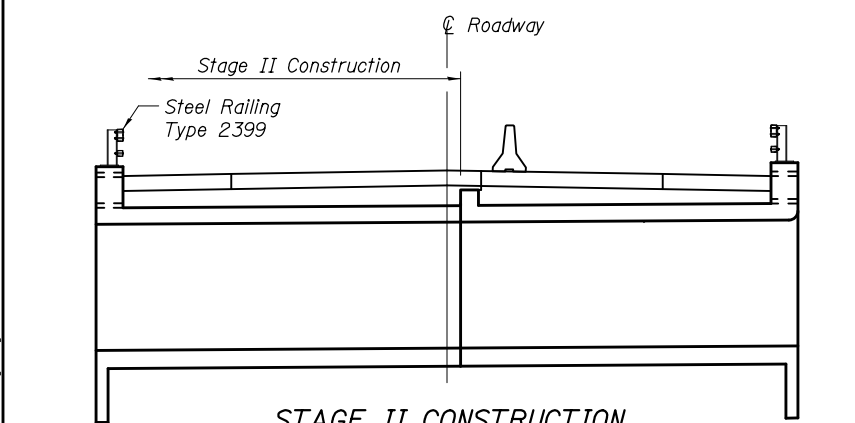
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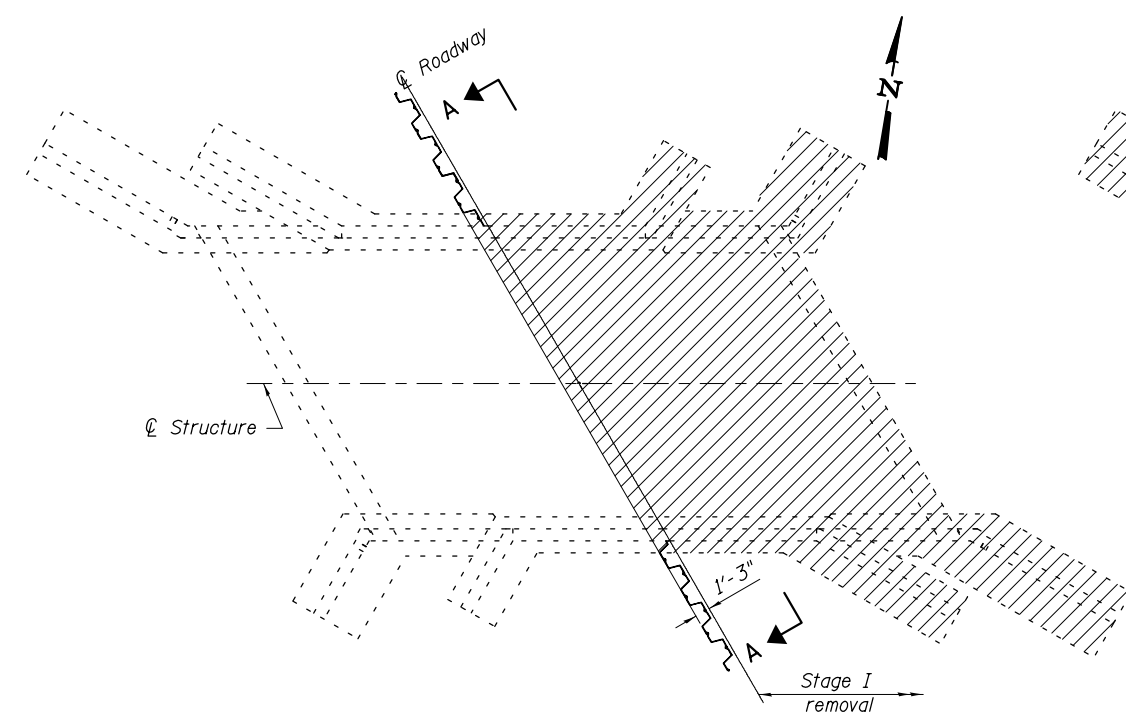
**STAGE I CONSTRUCTION**



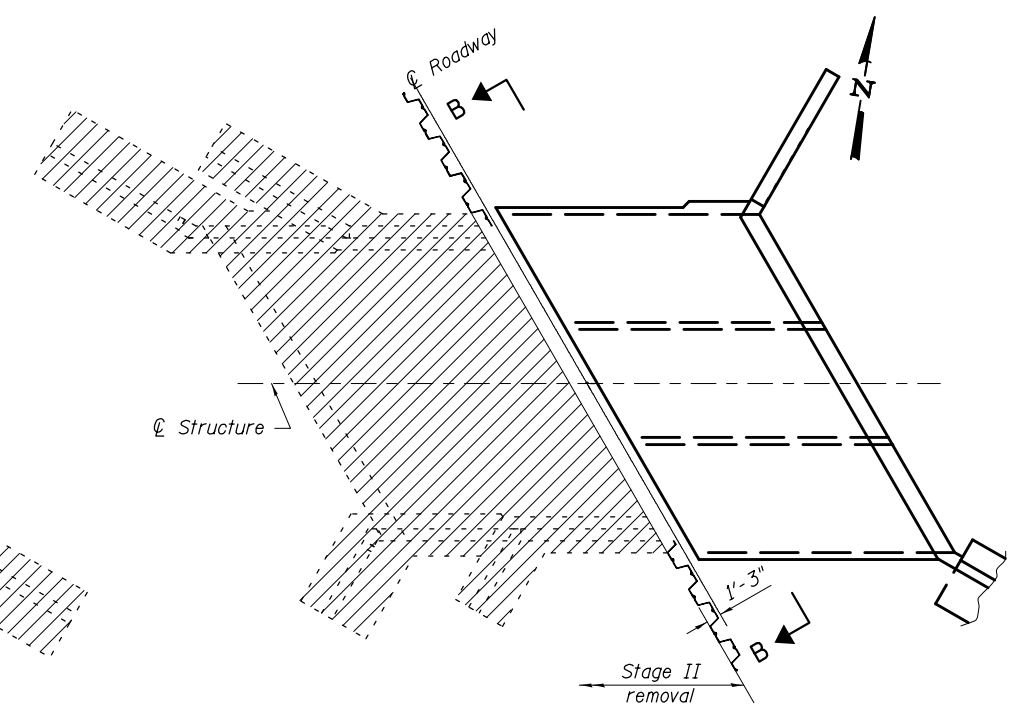
**STAGE II REMOVAL**



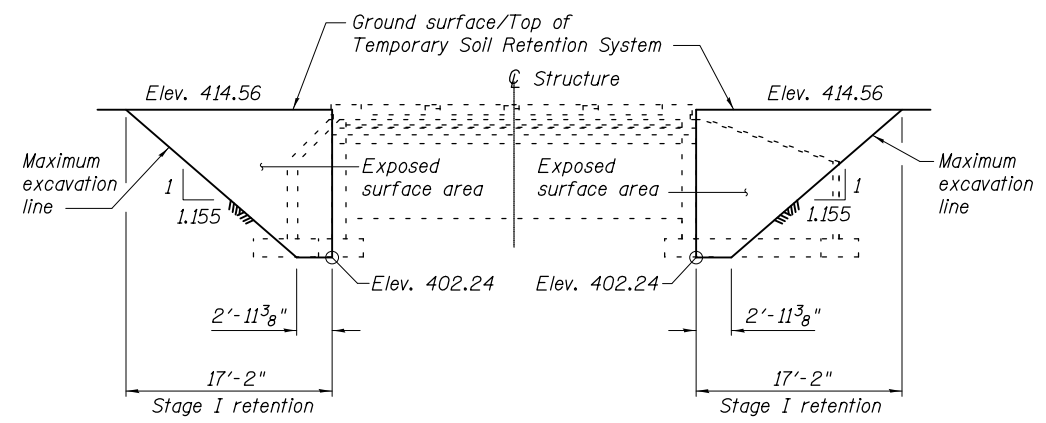
**STAGE II CONSTRUCTION**



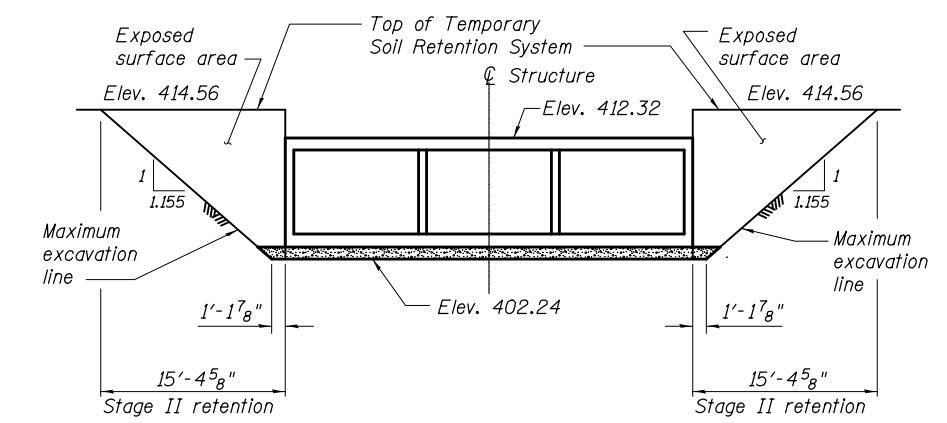
**PLAN**  
(Showing stage I removal)



**PLAN**  
(Showing stage II removal)



**VIEW A-A**  
(Showing Temporary Soil Retention System for Stage I Construction)



**VIEW B-B**  
(Showing Temporary Soil Retention System for Stage II Construction)

**STAGE CONSTRUCTION NOTES**

1. All staging sections looking north.
2. Hatched areas indicate removal.
3. Removal of existing concrete railing is included with Removal of Existing Structures.
4. See Roadway plans for quantity of Temporary Concrete Barrier.
5. Dimensions are at right angle to Centerline Roadway unless noted otherwise.
6. Stage I traffic based on 02/02/10 structure Core Results, 05/21/10 Damage Inspection Report, and 03/03/14 field check

**TEMPORARY SOIL RETENTION SYSTEM**

1. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.
2. Existing structure details are taken from existing plans.
3. Dimensions and slopes are shown along the Temporary Soil Retention System unless noted otherwise.

(Sheet 1 of 2)

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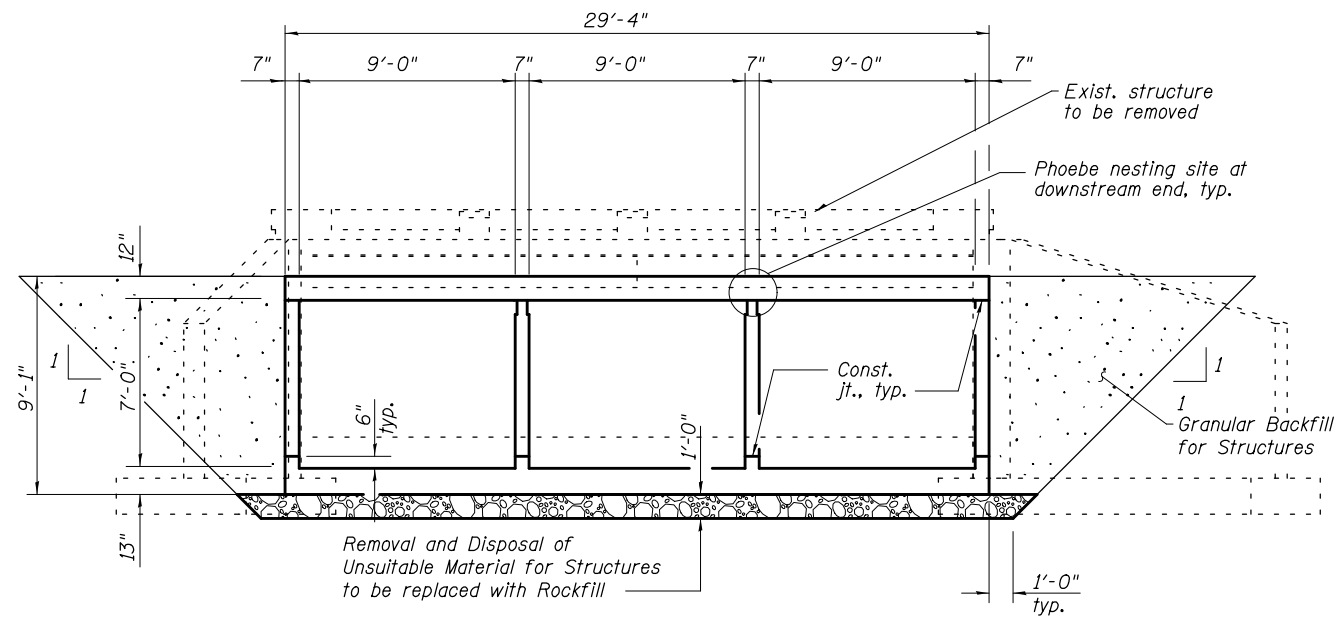
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 033-2013**

SHEET NO. 2 OF 10 SHEETS

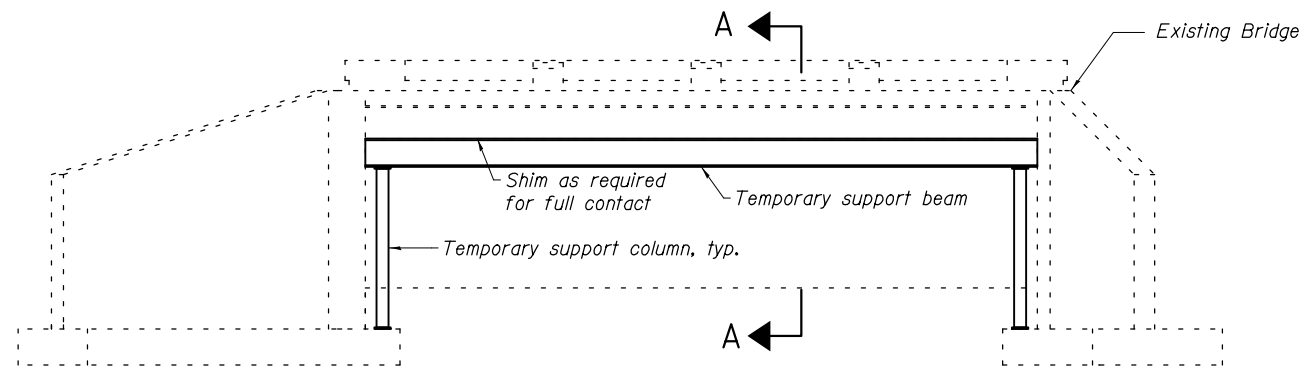
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CONTRACT NO. 78343				
ILLINOIS FED. AID PROJECT				



**SECTION THRU BARREL**

(Dimensions at rt. angle to barrel)

1. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
2. Excavation for construction of the box culvert, including the excavation necessary to construct the granular backfill, is included in Earth Excavation, see roadway plans.

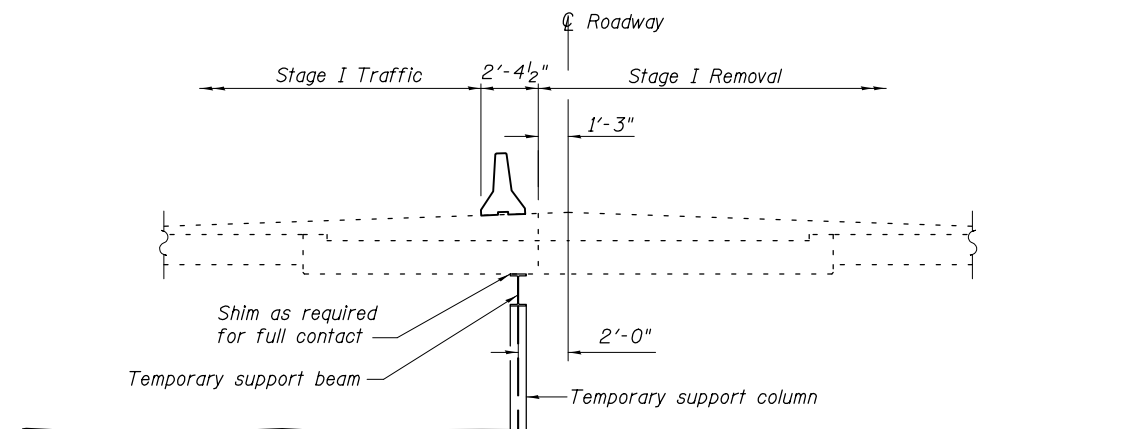


**ELEVATION**

**Notes:**

1. Place Temporary Support prior to Stage I Removal.
2. Place Temporary Support along skew.
3. Temporary Support System shall not be painted.
4. Existing structure details are taken from existing plans.
5. The Contractor shall submit complete design details and calculations sealed by an Illinois Licensed Structural Engineer to the Engineer for structural review and approval.

**TEMPORARY SUPPORT SYSTEM**



**SECTION A-A**

(Dimensions at rt. angle to  $\phi$  FAP 855)  
(Looking North)

(Sheet 2 of 2)

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**STAGE CONSTRUCTION DETAILS  
STRUCTURE NO. 033-2013**

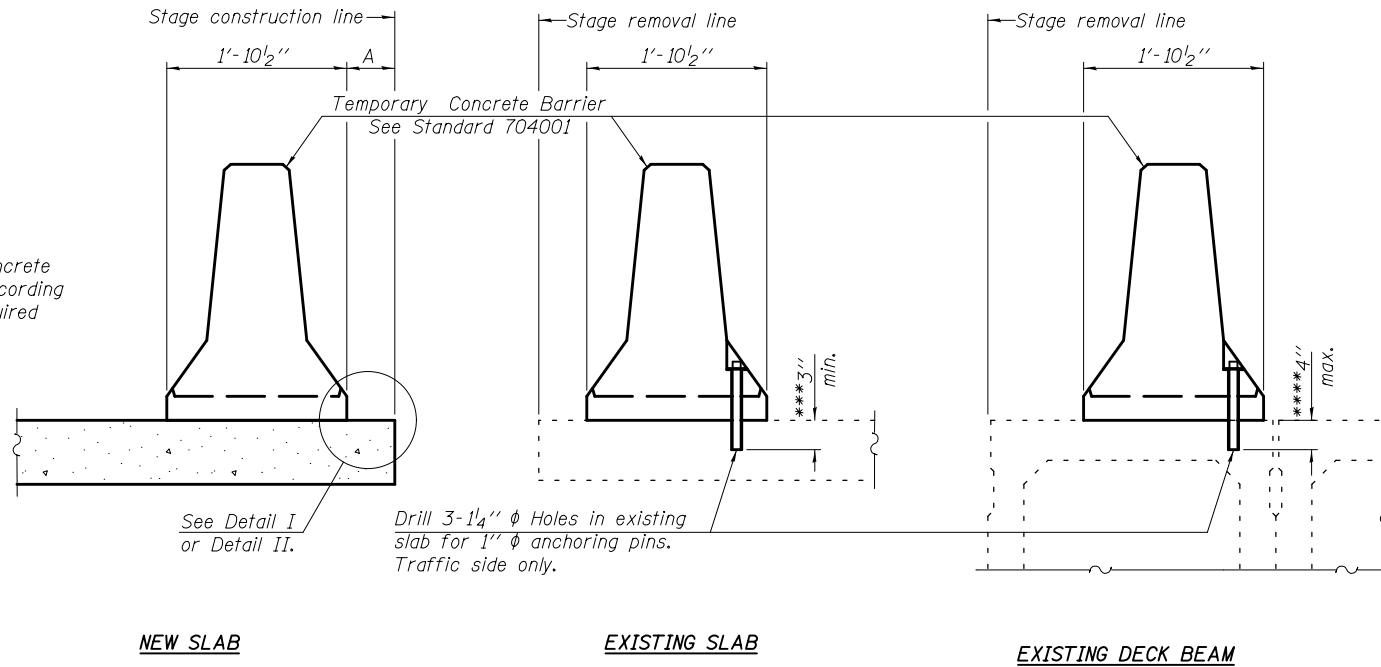
SHEET NO. 3 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	24
CONTRACT NO. 78343				

ILLINOIS FED. AID PROJECT



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



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

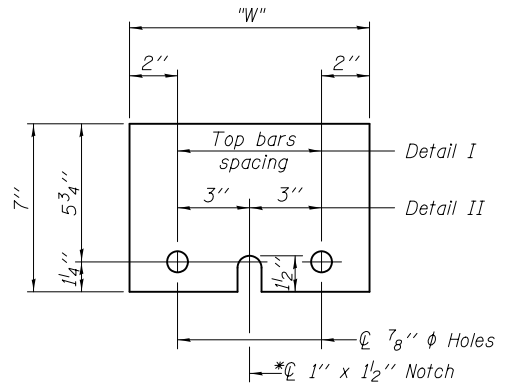
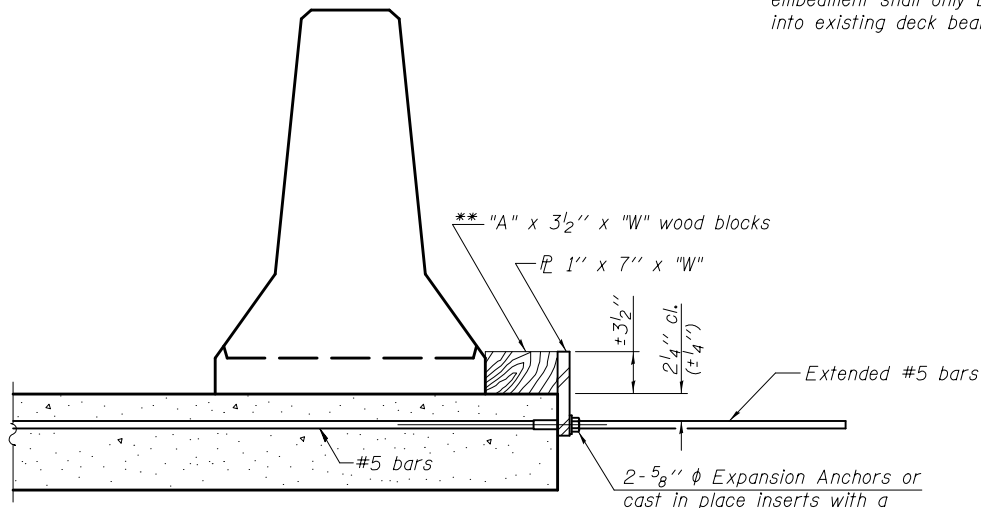
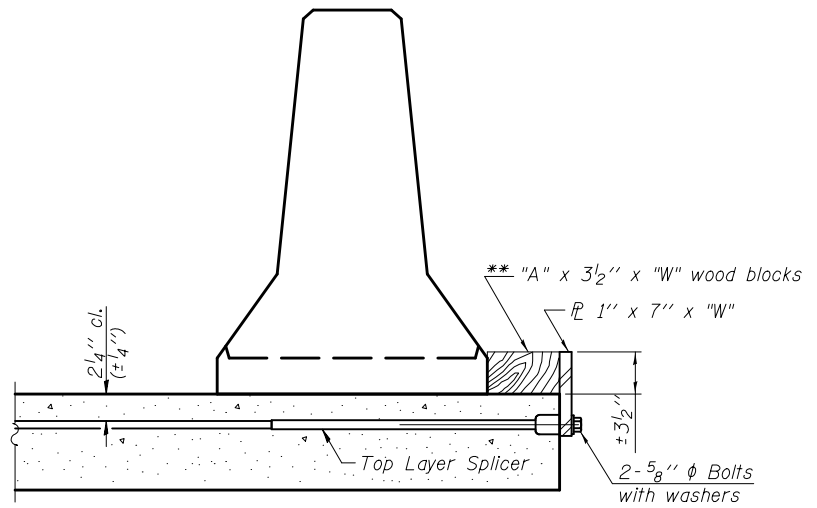
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel  $\bar{L}$  to the top layer of couplers with 2- $\frac{5}{8}$ "  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel  $\bar{L}$  to the concrete slab or concrete wearing surface with 2- $\frac{5}{8}$ "  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

Cost of retainer assembly is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

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



**RETAINER ASSEMBLY**

\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

R-27

1-12-15

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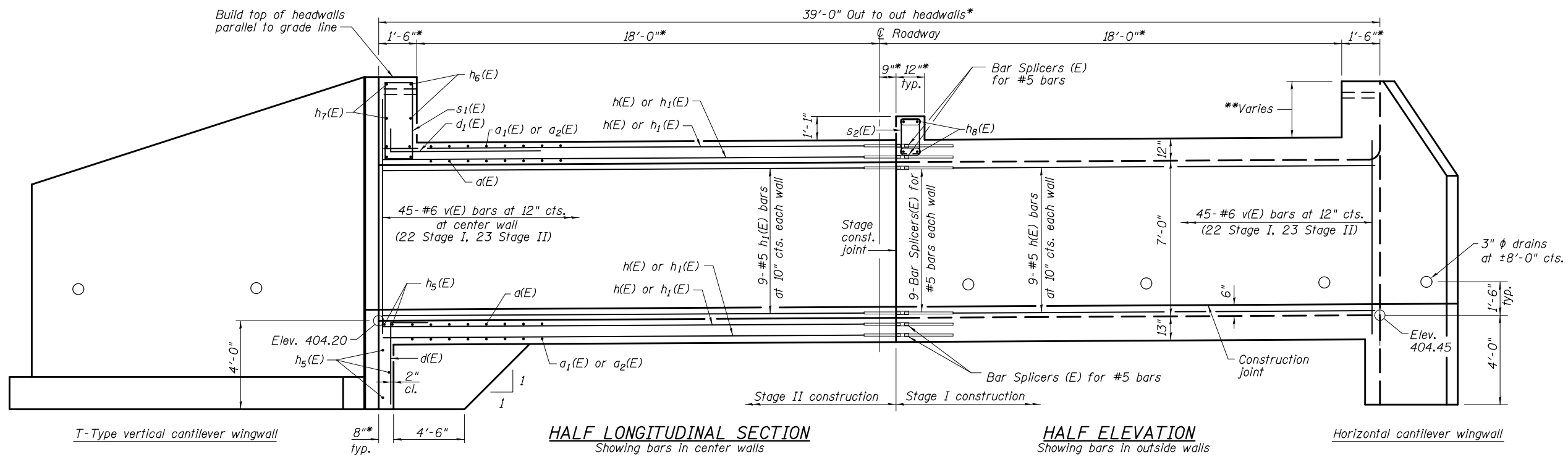
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NO. 033-2013**

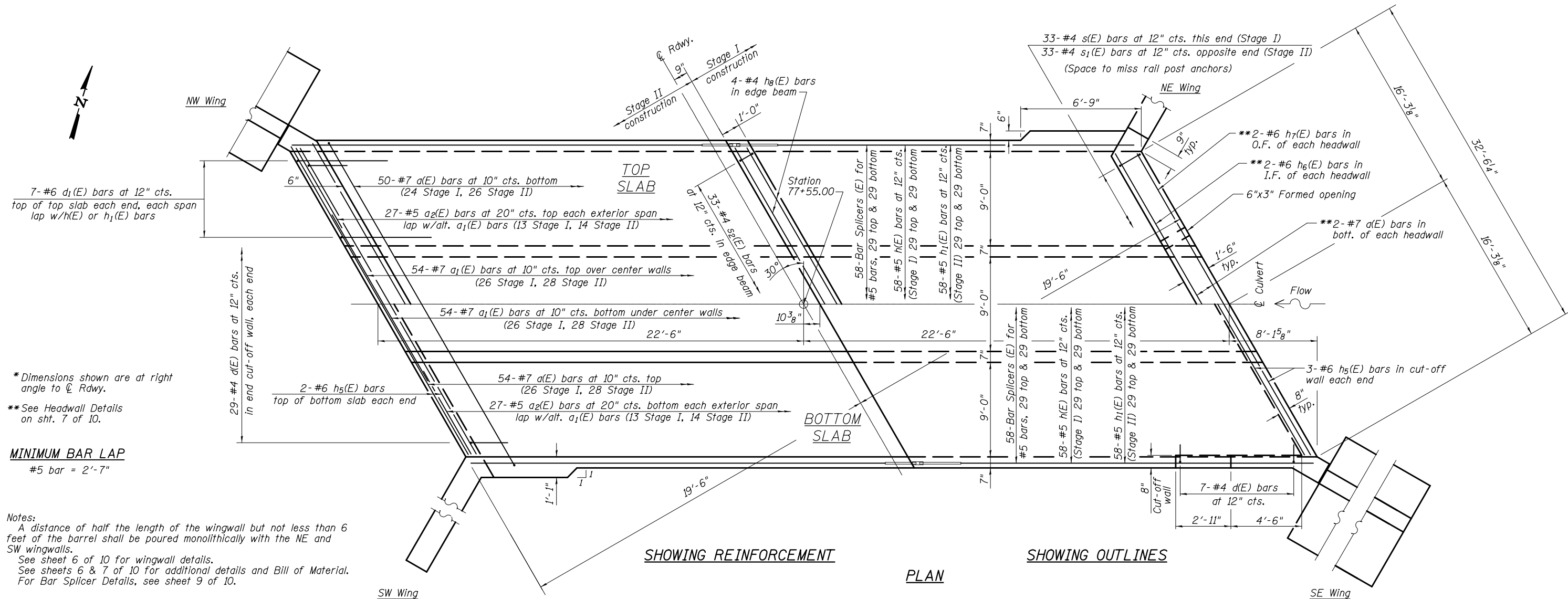
SHEET NO. 4 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	25
CONTRACT NO. 78343				

ILLINOIS FED. AID PROJECT



**HALF LONGITUDINAL SECTION** Showing bars in center walls  
**HALF ELEVATION** Showing bars in outside walls  
 T-Type vertical cantilever wingwall  
 Horizontal cantilever wingwall



**SHOWING REINFORCEMENT**  
**SHOWING OUTLINES**  
**PLAN**

\*Dimensions shown are at right angle to  $\phi$  Rdwy.  
 \*\*See Headwall Details on sht. 7 of 10.

**MINIMUM BAR LAP**  
 #5 bar = 2'-7"

**Notes:**  
 A distance of half the length of the wingwall but not less than 6 feet of the barrel shall be poured monolithically with the NE and SW wingwalls.  
 See sheet 6 of 10 for wingwall details.  
 See sheets 6 & 7 of 10 for additional details and Bill of Material.  
 For Bar Splicer Details, see sheet 9 of 10.

(Sheet 1 of 3)

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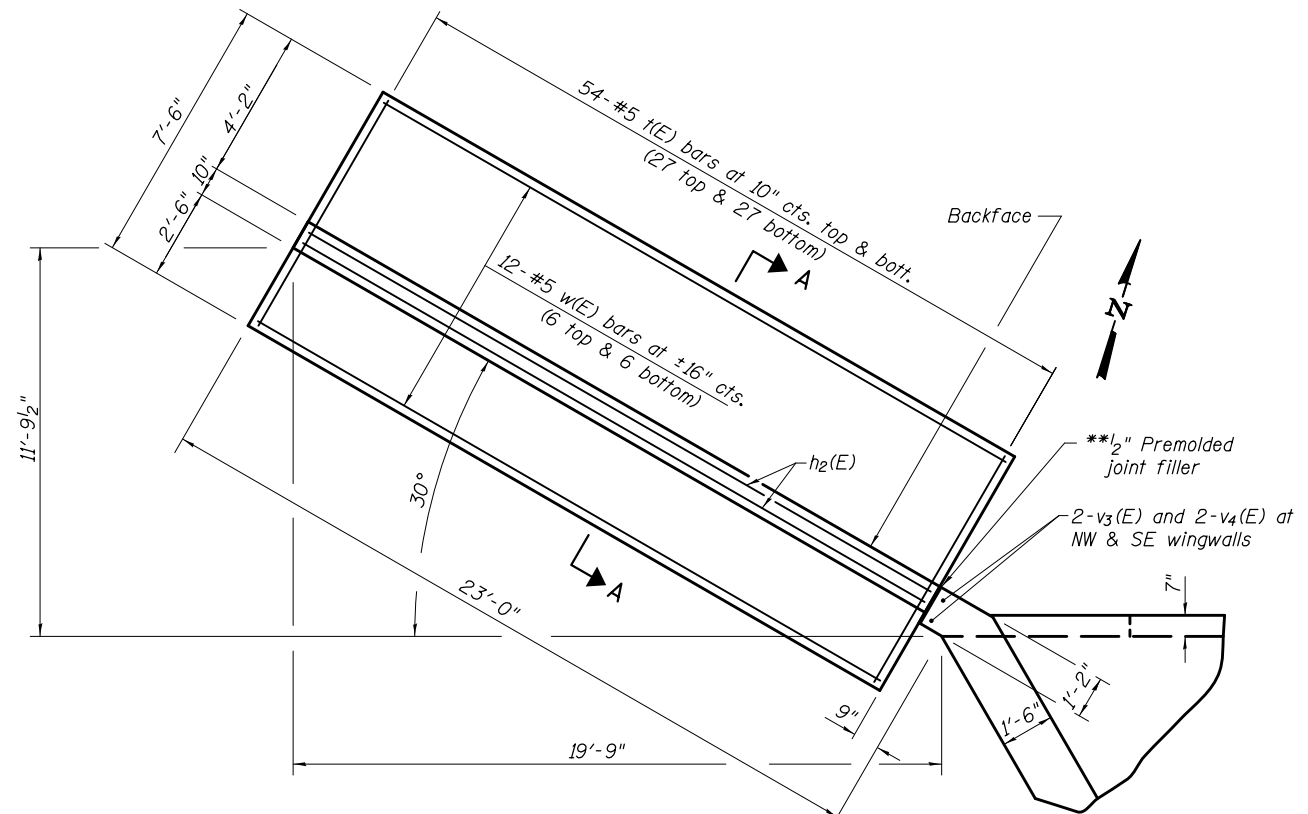
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT DETAILS**  
**STRUCTURE NO. 033-2013**

SHEET NO. 5 OF 10 SHEETS

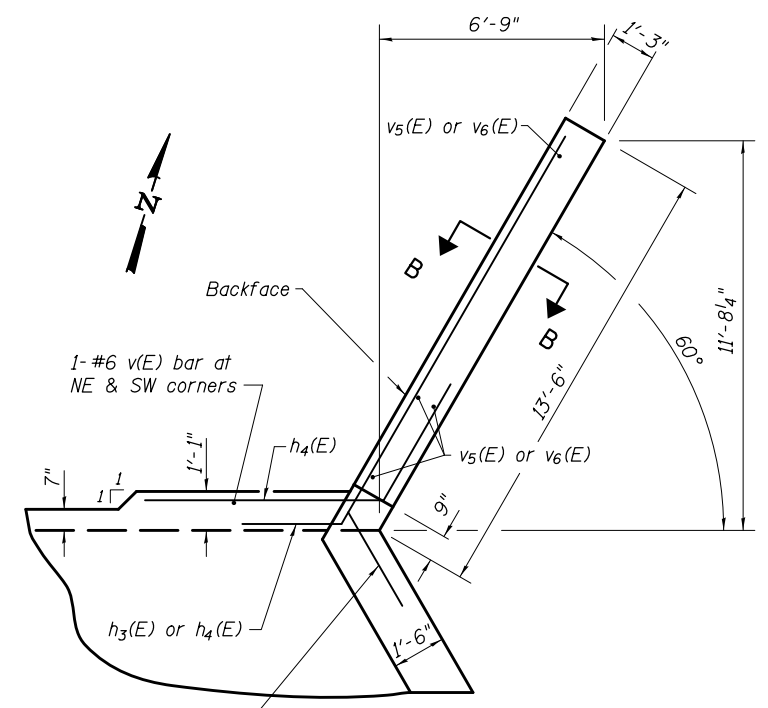
F.A.P. RTE. 855	SECTION 9B-1	COUNTY HAMILTON	TOTAL SHEETS 40	SHEET NO. 26
CONTRACT NO. 78343				

ILLINOIS FED. AID PROJECT



T-Type vertical cantilever wingwall

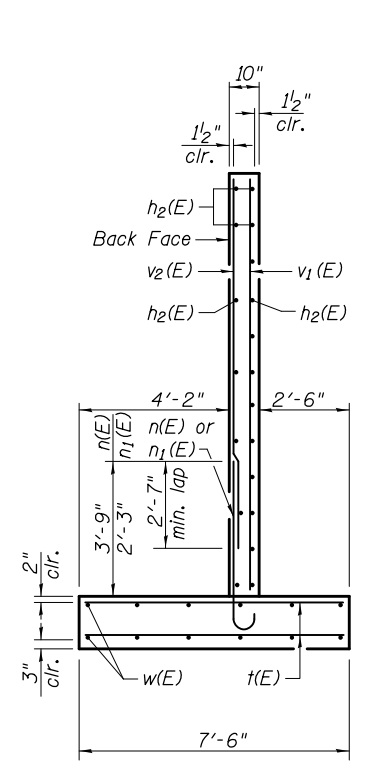
PLAN



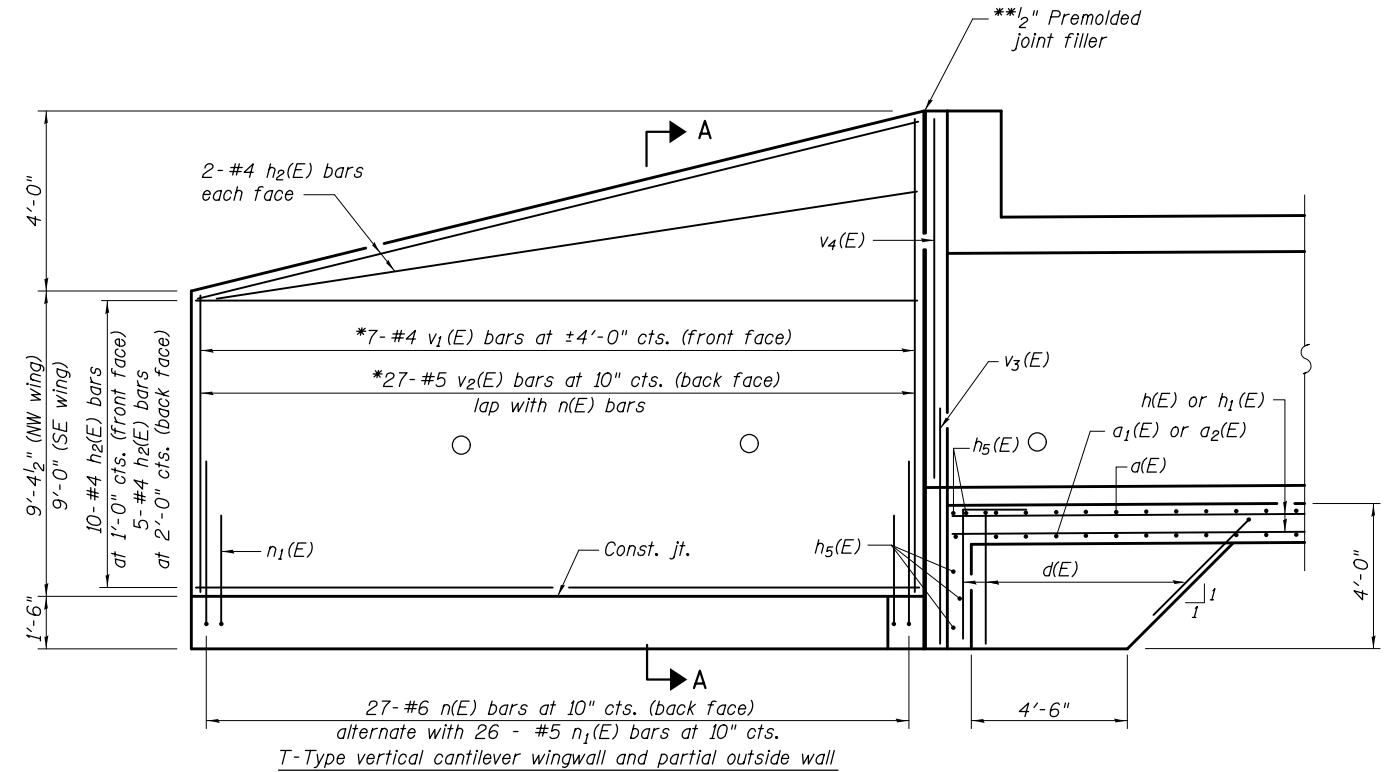
Horizontal cantilever wingwall

PLAN

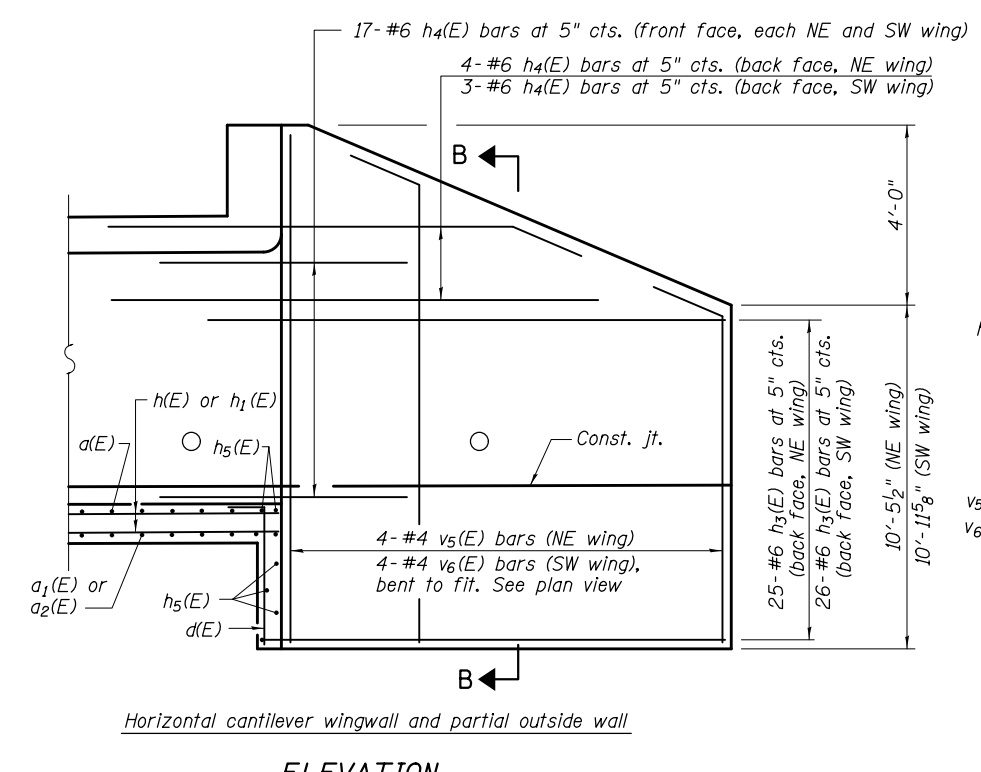
\*Order  $v_1(E)$ , &  $v_2(E)$  full length, cut to fit and use remainder of bars in opposite T-Type vertical cantilever wingwall.  
 \*\*See corner details on sht. 7 of 10.



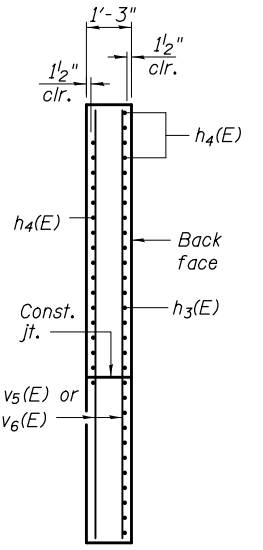
SECTION A-A



ELEVATION



ELEVATION



SECTION B-B

(Sheet 2 of 3)

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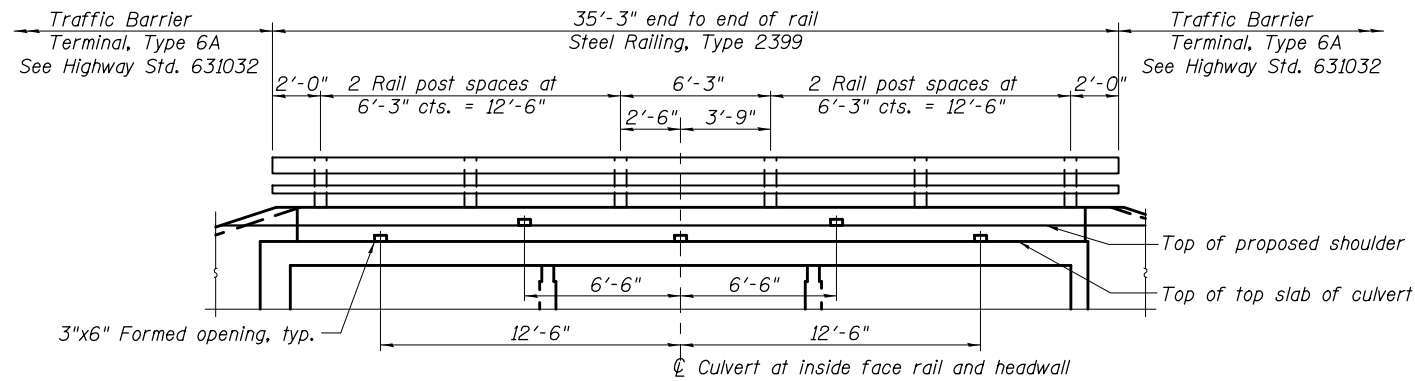
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

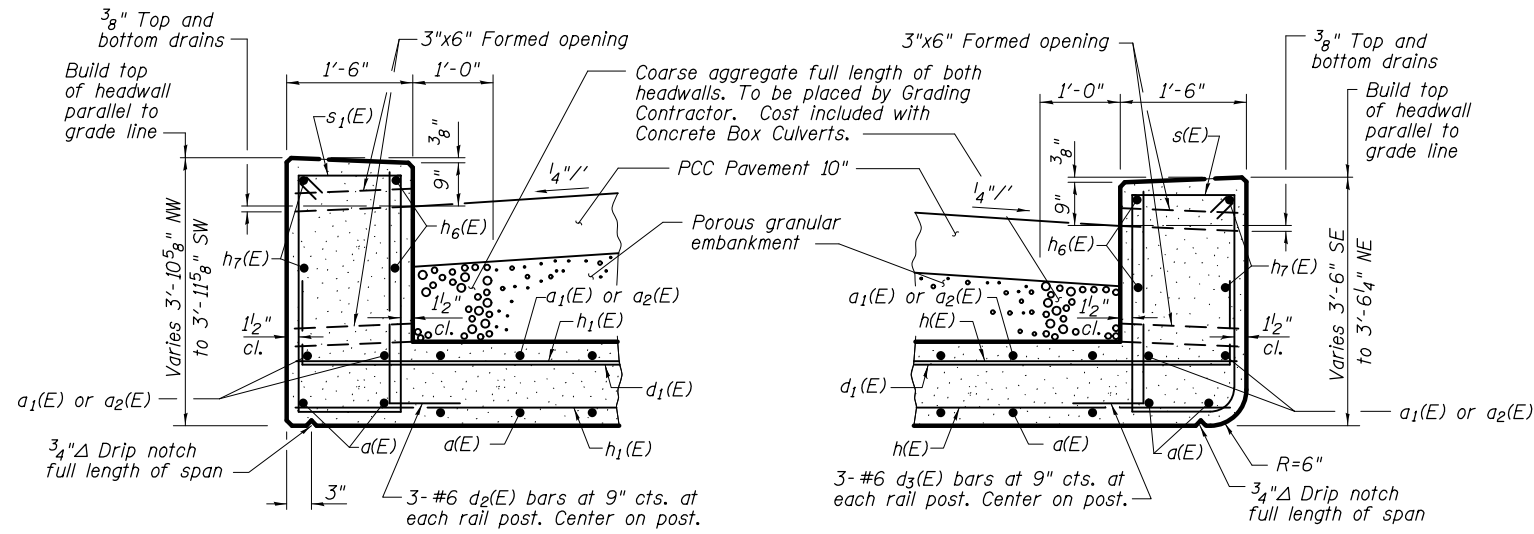
**BOX CULVERT DETAILS**  
**STRUCTURE NO. 033-2013**

SHEET NO. 6 OF 10 SHEETS

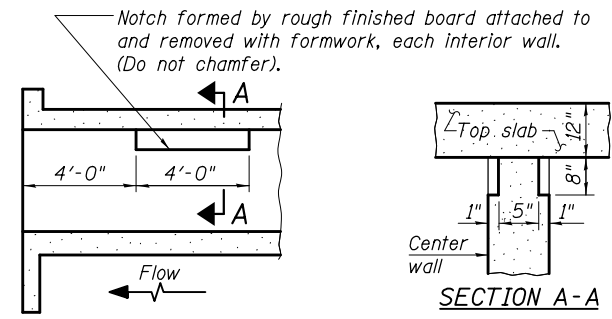
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 78343				
ILLINOIS FED. AID PROJECT				



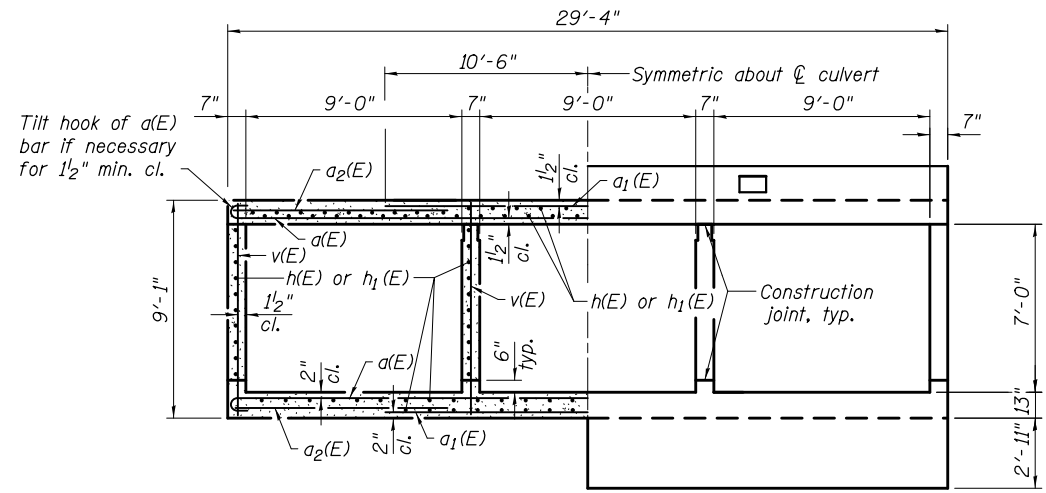
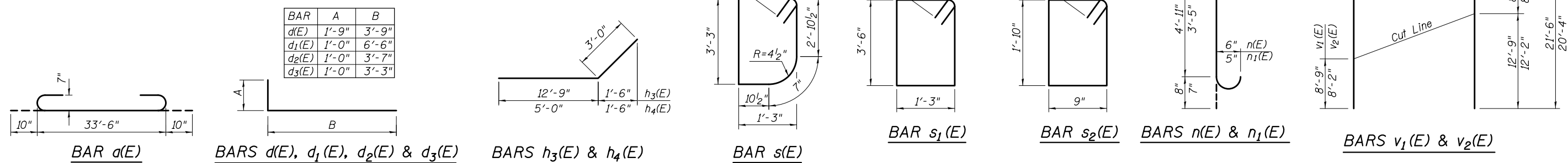
**INSIDE ELEVATION OF RAILING**  
(Dimensions along inside face of rail and headwall)



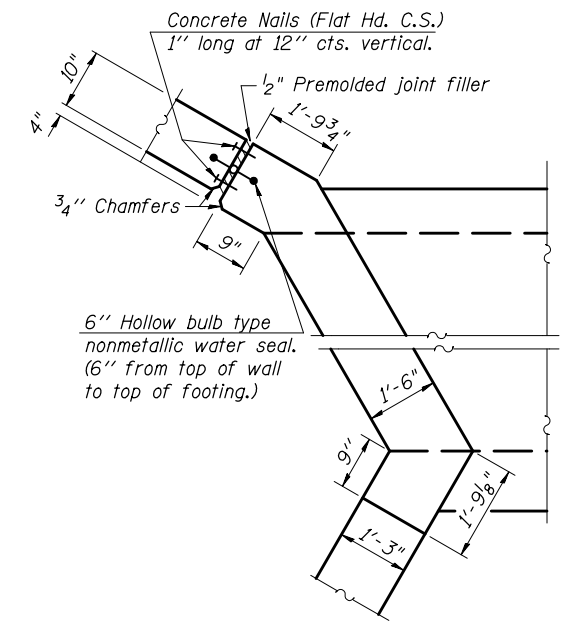
**HEADWALL DETAILS**  
AT DOWNSTREAM END      AT UPSTREAM END



**PHOEBE NESTING SITE DETAILS**  
(Downstream end only)



**SECTION THRU BARREL**  
(Dimensions at rt. angle to barrel)  
**HALF SECTION THRU BARREL      HALF END ELEVATION**



**CORNER DETAIL**

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	108	#7	35'-2"	U
a1(E)	108	#7	24'-3"	U
a2(E)	108	#5	7'-3"	U
d(E)	72	#4	5'-6"	U
d1(E)	42	#6	7'-6"	U
d2(E)	18	#6	4'-7"	U
d3(E)	18	#6	4'-3"	U
h(E)	152	#5	21'-4"	U
h1(E)	152	#5	23'-0"	U
h2(E)	38	#4	21'-11"	U
h3(E)	39	#6	15'-9"	U
h4(E)	41	#6	8'-0"	U
h5(E)	10	#6	33'-7"	U
h6(E)	4	#6	32'-9"	U
h7(E)	4	#6	33'-4"	U
h8(E)	4	#4	33'-6"	U
n(E)	54	#6	5'-7"	U
n1(E)	52	#5	4'-0"	U
s(E)	33	#4	9'-7"	U
s1(E)	33	#4	10'-3"	U
s2(E)	33	#4	5'-11"	U
t(E)	108	#5	7'-3"	U
v(E)	182	#6	8'-8"	U
v1(E)	7	#4	21'-6"	U
v2(E)	27	#5	20'-4"	U
v3(E)	4	#4	6'-11"	U
v4(E)	4	#4	10'-1"	U
v5(E)	4	#4	14'-2"	U
v6(E)	4	#4	14'-8"	U
w(E)	24	#5	22'-0"	U
Concrete Box Culverts	Cu. Yd.		192.7	
Reinforcement Bars, Epoxy Coated	Pound		30680	

(Sheet 3 of 3)

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**BOX CULVERT DETAILS**  
**STRUCTURE NO. 033-2013**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	28

CONTRACT NO. 78343

SHEET NO. 7 OF 10 SHEETS

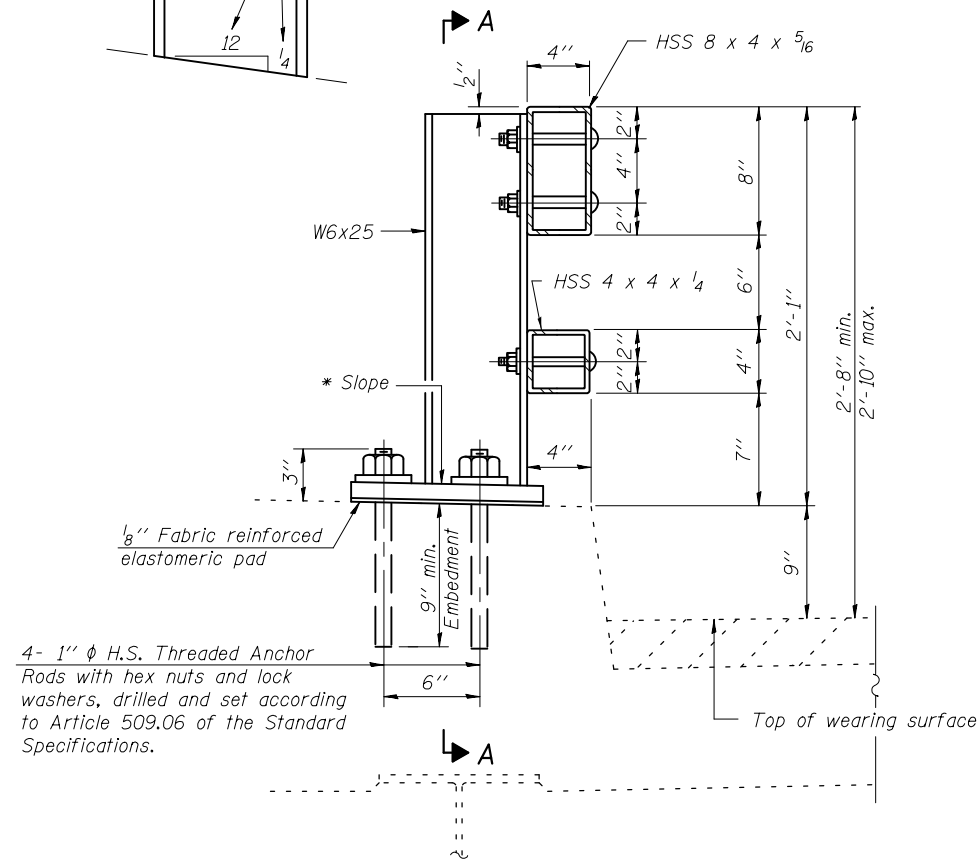
ILLINOIS FED. AID PROJECT

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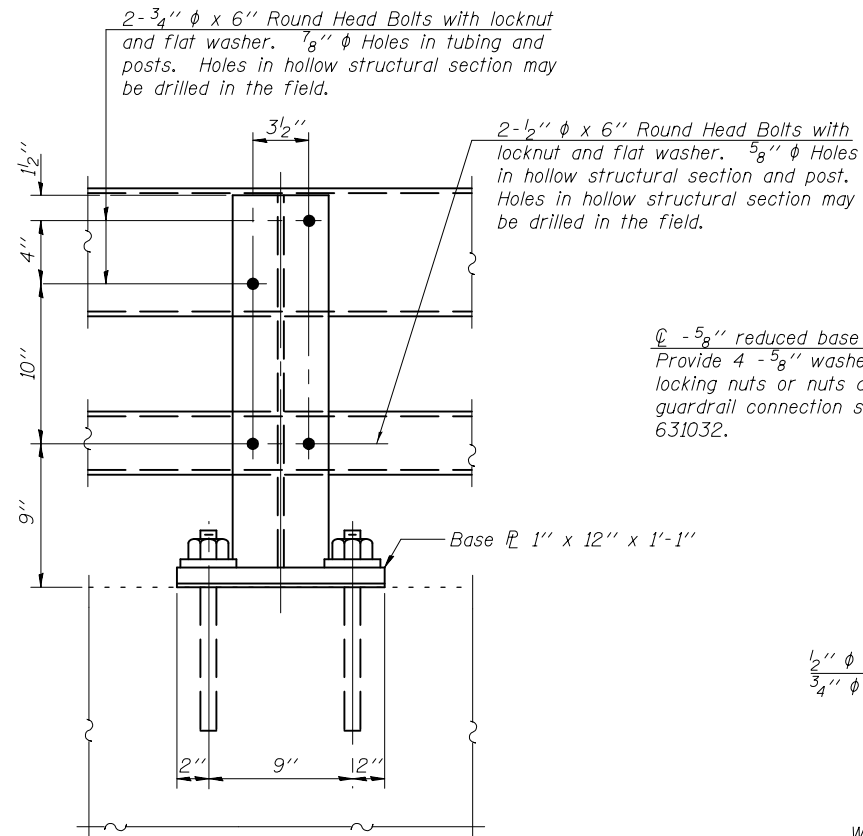


USER NAME	DESIGNED	CHECKED	DRAWN	DATE
nhp	SHL	RDP	DWH	01/15
ESCA PROJECT NO. 1035.05				04/15
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PLOT DATE = 6/4/2015				04/15

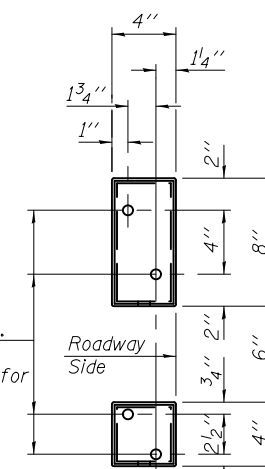
\* Cut bottom end of post to curb slope.



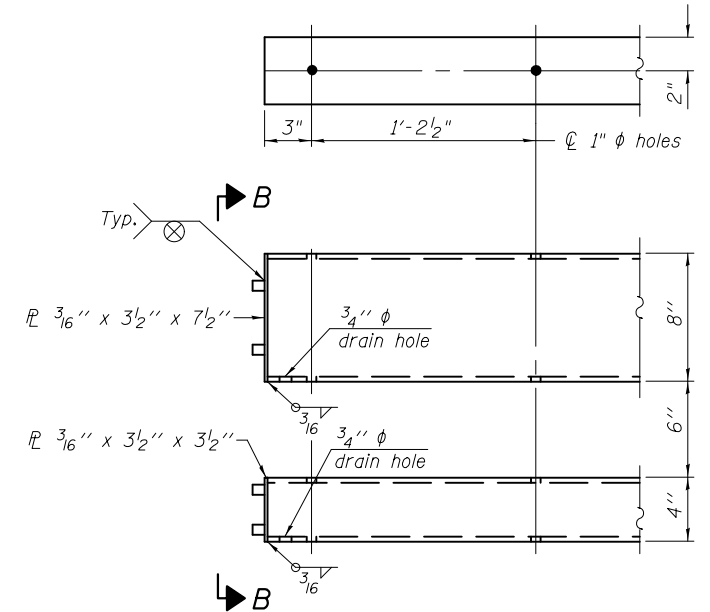
SECTION AT RAIL POST



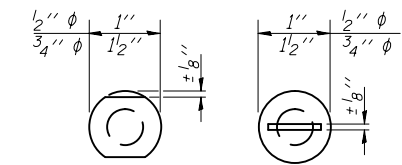
SECTION A-A



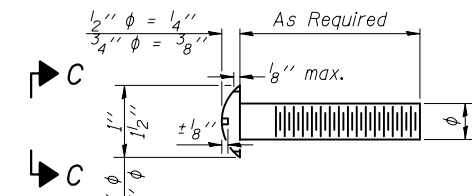
VIEW B-B



END OF RAIL DETAILS



VIEW C-C

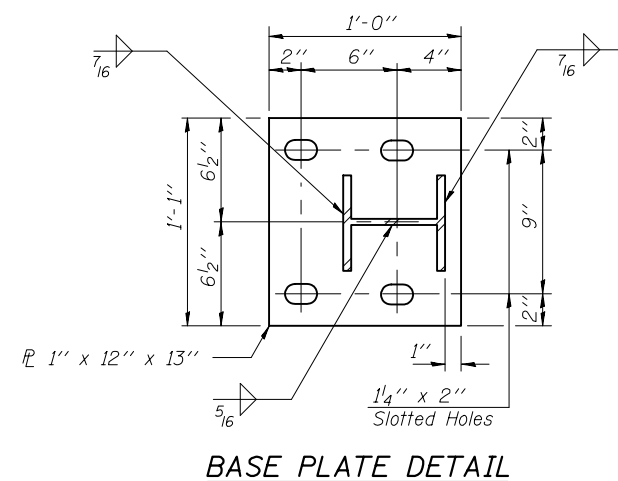


DETAIL OF 1/2"  $\phi$  & 3/4"  $\phi$  ROUND HEAD BOLTS

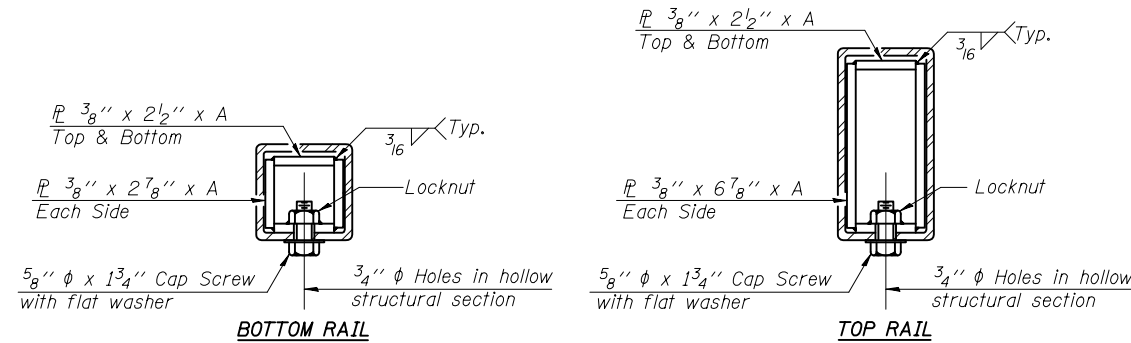
4- 1"  $\phi$  H.S. Threaded Anchor Rods with hex nuts and lock washers, drilled and set according to Article 509.06 of the Standard Specifications.

$\phi$  - 5/8" reduced base welded studs. Provide 4 - 5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.

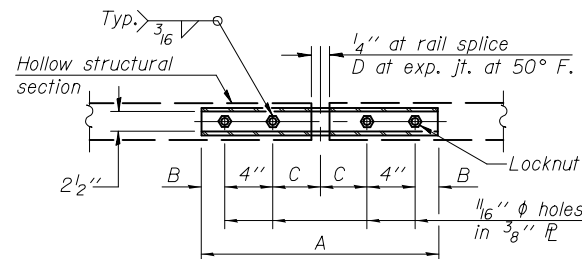
Notes:  
 Posts shall not be located closer than 1'-3" to an existing bridge expansion joint or end of bridge.  
 Steel Bridge Rail expansion joint shall be provided between any two (2) posts which span a bridge expansion joint. Bolts located at expansion joint shall be provided with locknuts and shall be tightened only to a point that will allow railing movement.  
 Provide one 1/8" and two 1/16" steel shims for 25% of the posts. Shims shall be similar to base plates in size and holes.  
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



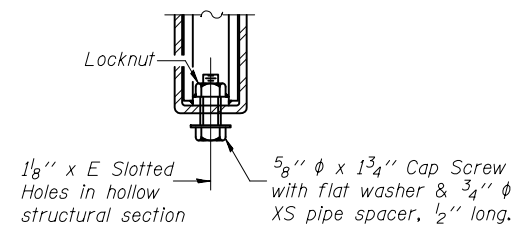
BASE PLATE DETAIL



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE TYPICAL



RAIL SPLICE CONNECTION AT EXPANSION JT.

SPLICE DIMENSIONS

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

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

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type 2399	Foot	71

R-31

1-12-15

(6'-3" Maximum Post Spacing)

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE 2399  
 STRUCTURE NO. 033-2013

SHEET NO. 8 OF 10 SHEETS

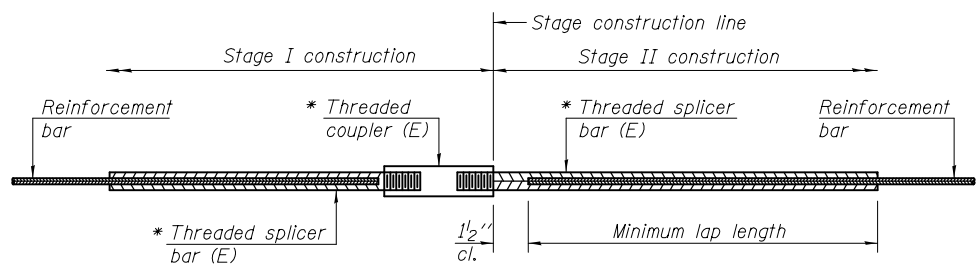
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	29
CONTRACT NO. 78343				

ILLINOIS FED. AID PROJECT

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USER NAME	DESIGNED	REVISION
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ESCA PROJECT NO. 1035.05	ELH 02/15	-
PLOT SCALE = 0.25" = 1'-0"	DWH 01/15	-
PLOT DATE = 6/4/2015 4:59:05 PM	RDP 02/15	-



**STANDARD BAR SPLICER ASSEMBLY**

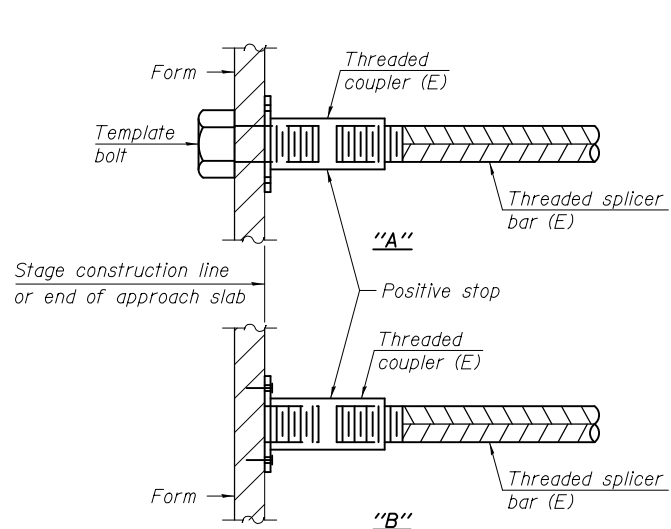
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"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

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

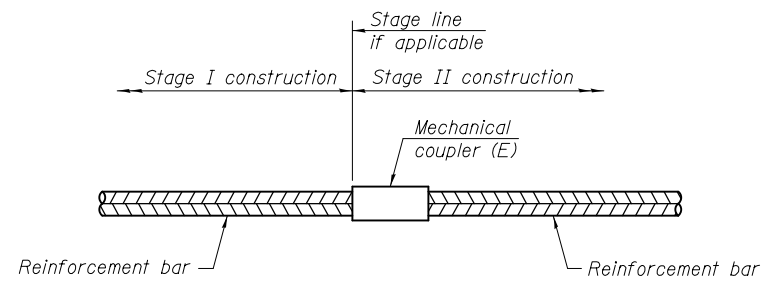
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top slab - top	#5	29	3
Top slab - bottom	#5	29	3
Bottom slab - top	#5	29	3
Bottom slab - bottom	#5	29	3
Walls	#5	36	4



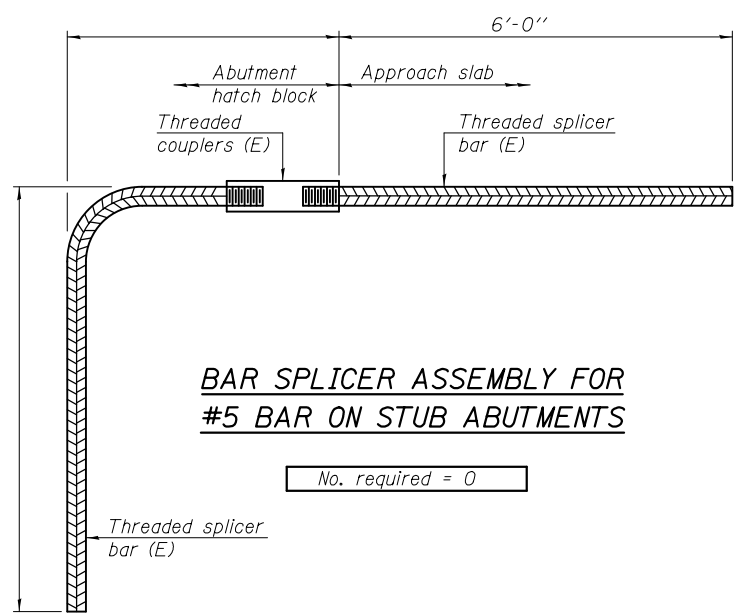
**INSTALLATION AND SETTING METHODS**

"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
NA		



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = 0

**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.

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BSD-1 8-31-12



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 033-2013

SHEET NO. 9 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	30
CONTRACT NO. 78343				

ILLINOIS FED. AID PROJECT

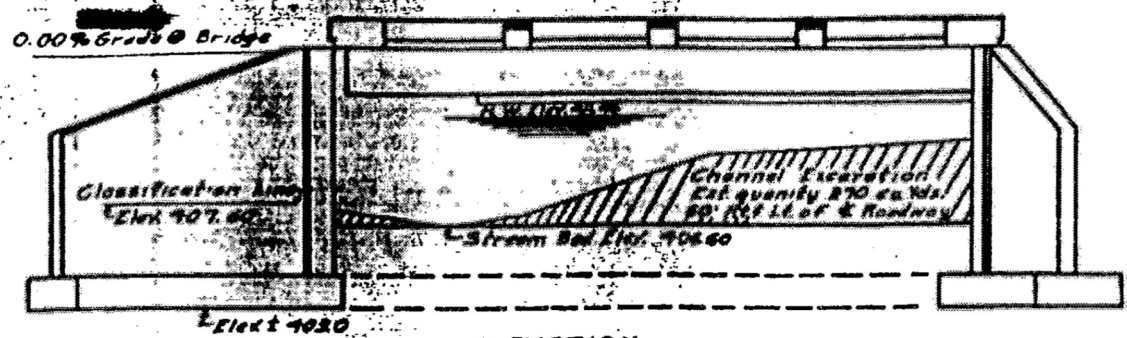


B.M. Top of S.E. Wing of Existing Bridge  
Elev. 919.00

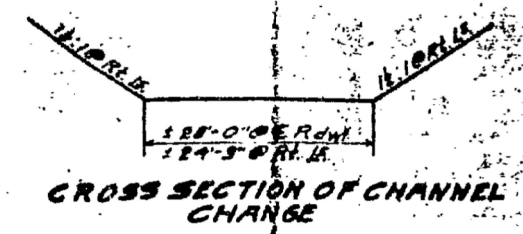
Existing Bridge: R.C. Slab One Span @ 28' on  $\pm$   
10'-0" R.C. Closed  
Abutments. Partitions shown  
on plan. Proposed  $\pm$  shown  
on plan.

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

Project No.	Section	County	Sheet No.	Total Sheets
033-007	9B-1	HAMILTON	18	10



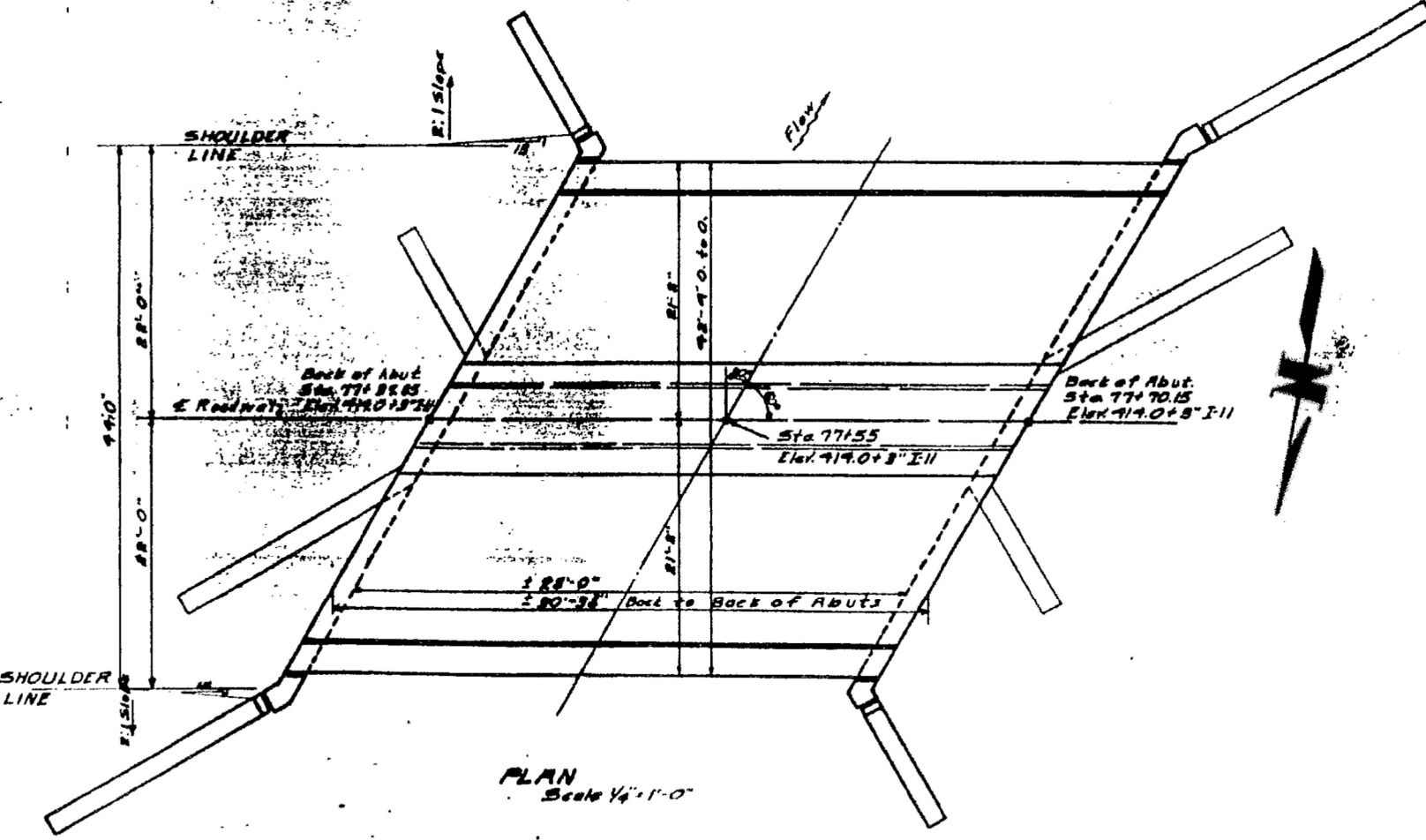
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CROSS SECTION OF CHANNEL CHANGE

STATION 77+55  
BUILT 1951 BY  
STATE OF ILLINOIS  
S.B.I. RT. 14 SEC. 9B-Y  
LOADING H-20

LETTERING FOR NAME PLATE  
SEE STANDARD 1580



PLAN Scale  $\frac{1}{4}$ " = 1'-0"

TOTAL BILL OF MATERIAL

ITEM	SUPER	SUB	TOTAL
Class A Concrete cu yd	22.7	50.4	73.1
Handrail Concrete cu yd	1.9		1.9
Class A Excavation cu yd		2.0	2.0
Exp Belts (L.S.)	60	48	108
Class A Excavation			40
Class B Excavation			180
Channel Excavation			270
Name Plate			One
Reinforcement Steel lbs	7810	2370	10180

GENERAL NOTES

Class "A" Concrete shall be used throughout except as noted.  
Handrail Concrete shall be used in Handrail and Posts.  
Concrete floor slab on each side shall be poured in one continuous operation and finished in accordance with Section of Standard Specs.  
Handrail should be constructed in accordance to Art 5117 of Standard Specs.  
Contract unit price for Exp Belts shall include furnishing, drilling holes and setting of Exp Belts.  
Class "A" Excavation includes all excavation for structure above classification line shown on plans.  
Class "B" Excavation includes all excavation for structure below classification line shown on plans.  
Channel Excavation is to extend 60' Rt. and 60' Lt. of  $\pm$  of Roadway.  
Waterproofing back of new abutments & wing walls from bottom of slab or top of wall to top of footing.  
All bars shall be round ASTM A305-69. The size number is the number of 8 in the nominal diameter.

WATERWAY INFORMATION

Drainage Area	670 Acres
Character	Level, rolling, clay, wooded cultivated
Talbot's constant	"C" .50
Opening Required	65 sq. ft.
Present Opening	72 sq. ft.
Proposed Opening	116 sq. ft.

DESIGN STRESSES

$f_s = 20,000$ psi	Reinforcement Steel
$f_c = 1,400$ psi	Superstructure
$f_c = 800$ psi	Substructure
$n = 10$	

S.B.I. RT. 14 SEC. 9B-Y  
HAMILTON COUNTY  
STATION 77+55

H20-44 Loading

FOR INFORMATION ONLY

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE PLANS - FOR INFORMATION ONLY  
STRUCTURE NO. 033-0007

SCALE: SHEET NO. 1 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	32
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 78343	

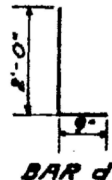
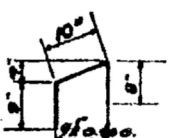
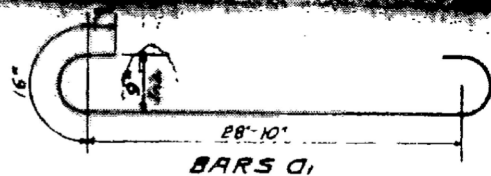


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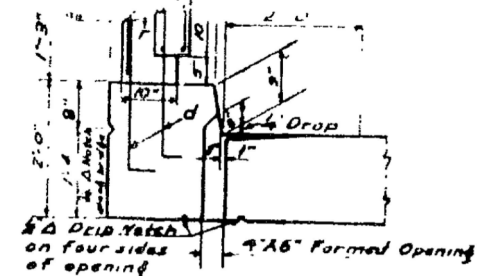
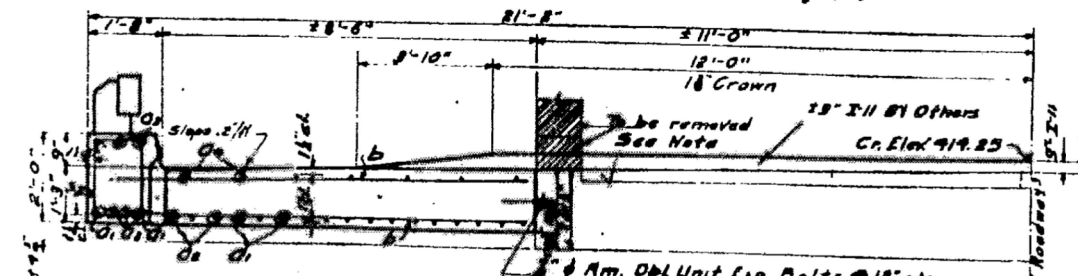
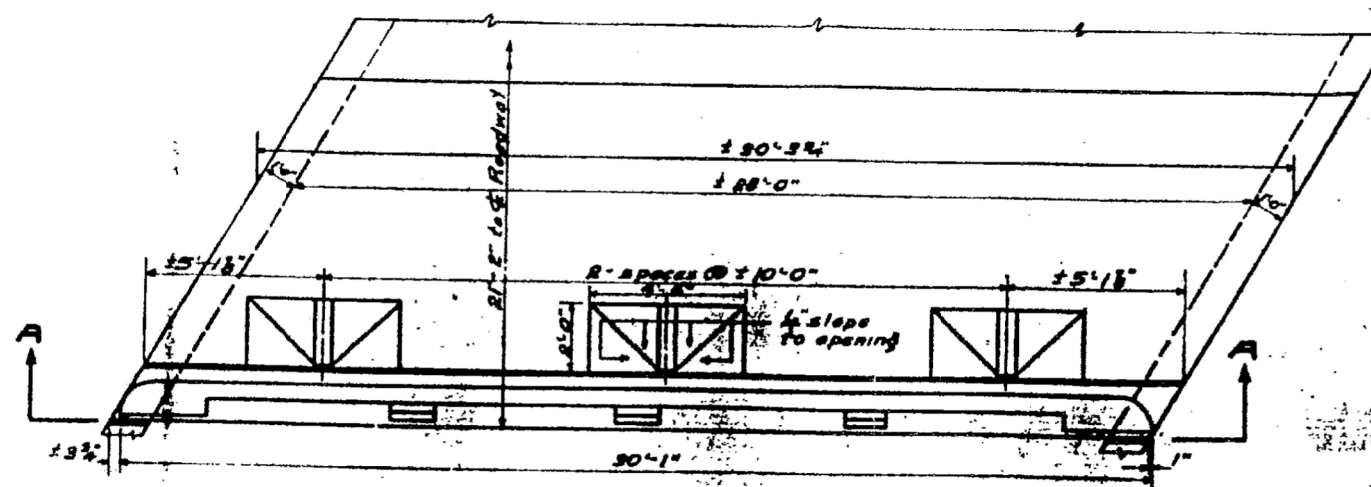
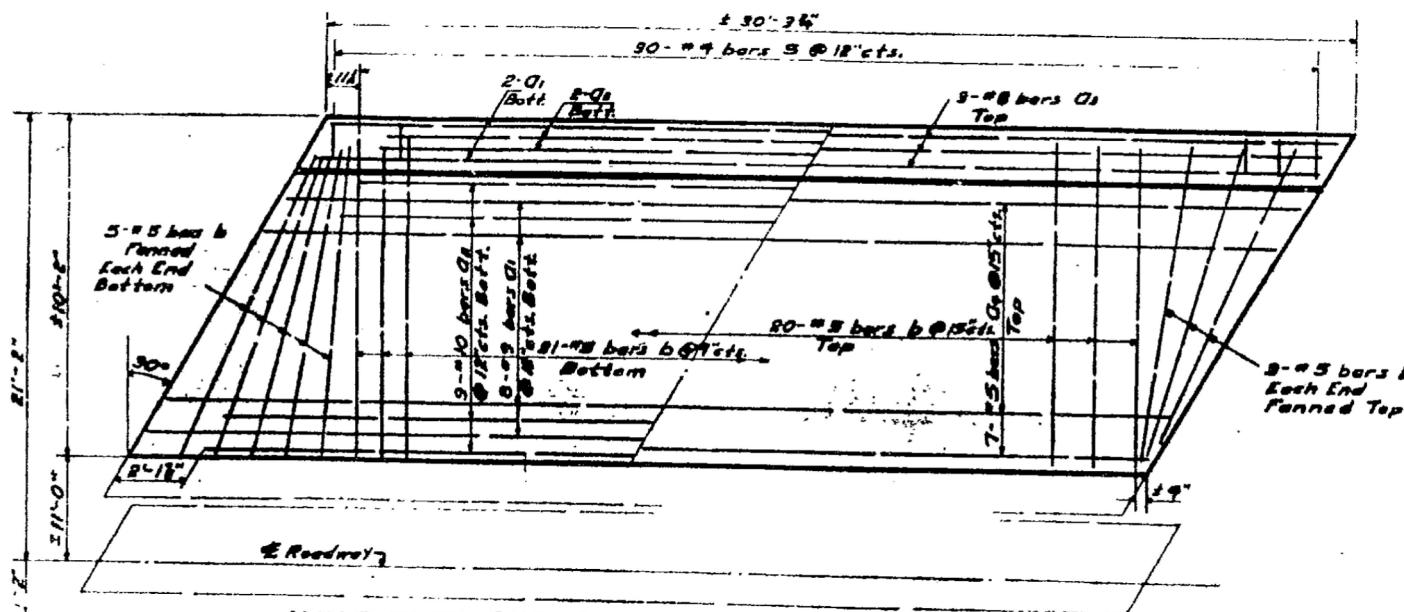
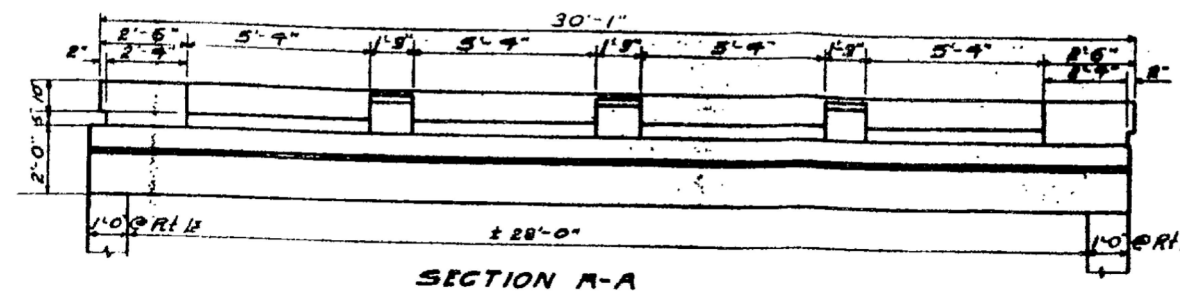
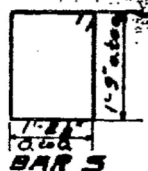
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PROJECT	Hamilton	TOTAL SHEETS	40	33
SHEET NO.	18	CONTRACT NO.	78343	

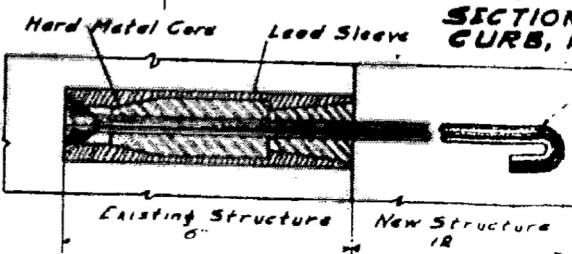


Note: Existing Handrail to be removed by Contractor to existing gutter line as shown by cross-hatched area in Cross-section. Estimated quantity of Masonry removal, 5.6 cubic Yards.



**BILL OF MATERIAL SUPERSTRUCTURE**

BAR NO.	SIZE	LENGTH	SHAPE
1	1/2"	11'-0"	
2	1/2"	11'-0"	
3	1/2"	11'-0"	
4	1/2"	11'-0"	
5	1/2"	11'-0"	
6	1/2"	11'-0"	
7	1/2"	11'-0"	
8	1/2"	11'-0"	
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22	1/2"	11'-0"	
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25	1/2"	11'-0"	
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27	1/2"	11'-0"	
28	1/2"	11'-0"	
29	1/2"	11'-0"	
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31	1/2"	11'-0"	
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93	1/2"	11'-0"	
94	1/2"	11'-0"	
95	1/2"	11'-0"	
96	1/2"	11'-0"	
97	1/2"	11'-0"	
98	1/2"	11'-0"	
99	1/2"	11'-0"	
100	1/2"	11'-0"	



DESIGNED - NHP  
DRAWN - DWH  
CHECKED - RDP  
DATE - 12/14

**SUPERSTRUCTURE**

S.B.I. RT. 14 SEC. 9-B-Y  
HAMILTON COUNTY  
STATION 77+55

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
855	9B-1	HAMILTON	40	33
CONTRACT NO. 78343				



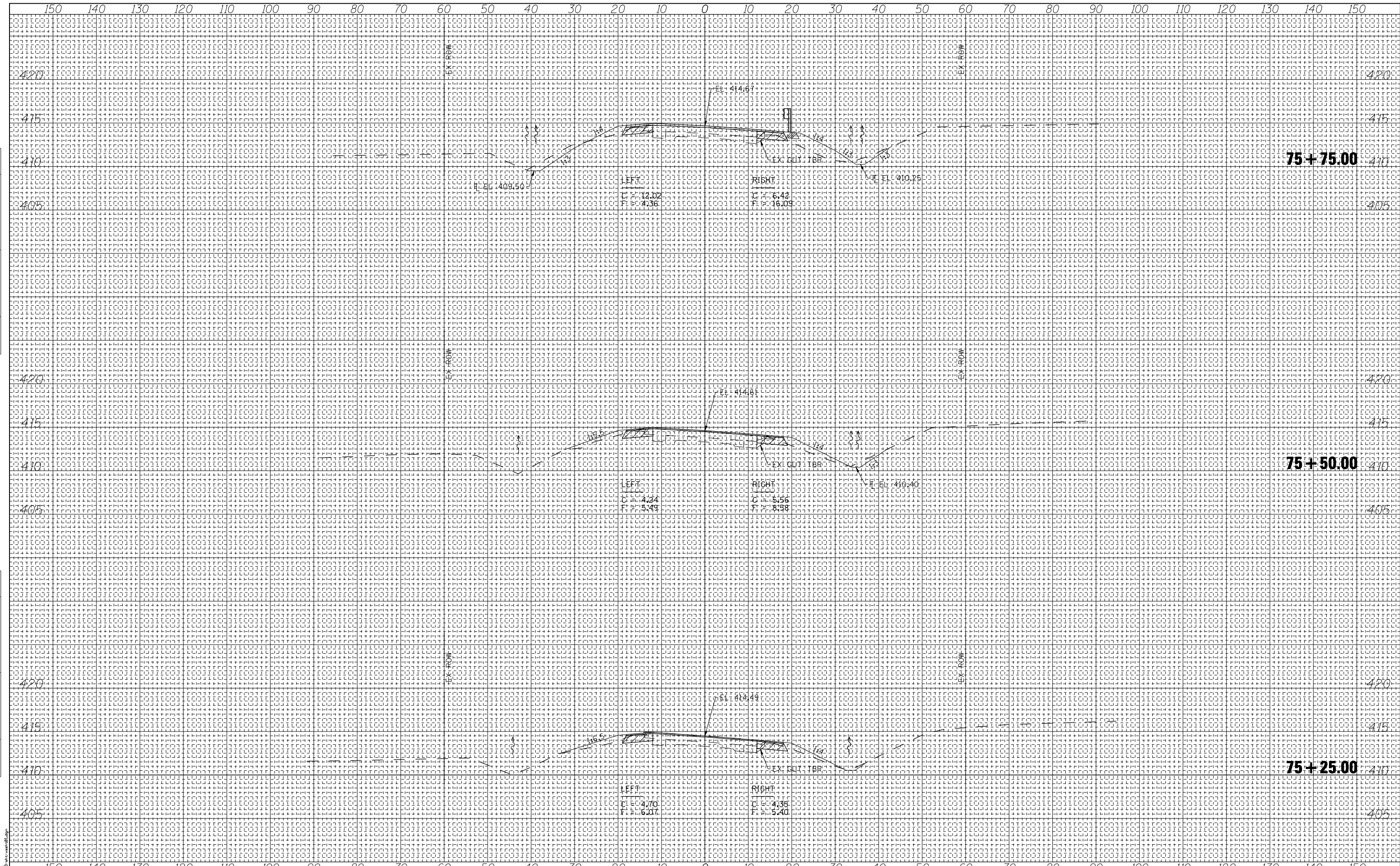
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PLOT DATE = 6/5/2015 7:49:26 PM	DATE - 12/14	REVISED -





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

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



ESCA CONSULTANTS, INC.  
 1000 N. WISCONSIN ST. SUITE 200  
 CHICAGO, IL 60610  
 TEL: 312.281.1100  
 FAX: 312.281.1101  
 WWW.ESCA-CONSULTANTS.COM

USER NAME = nhp	DESIGNED - JMS/NHP	REVISED -
ESCA PROJECT NO. 1035.05	DRAWN - NHP	REVISED -
SCALEs: (HORIZ) 1"=10' (VERT) 1"=5'	CHECKED - ELH	REVISED -
DATE = 6/25/2015 12:01:43 PM	DATE - 06/15	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

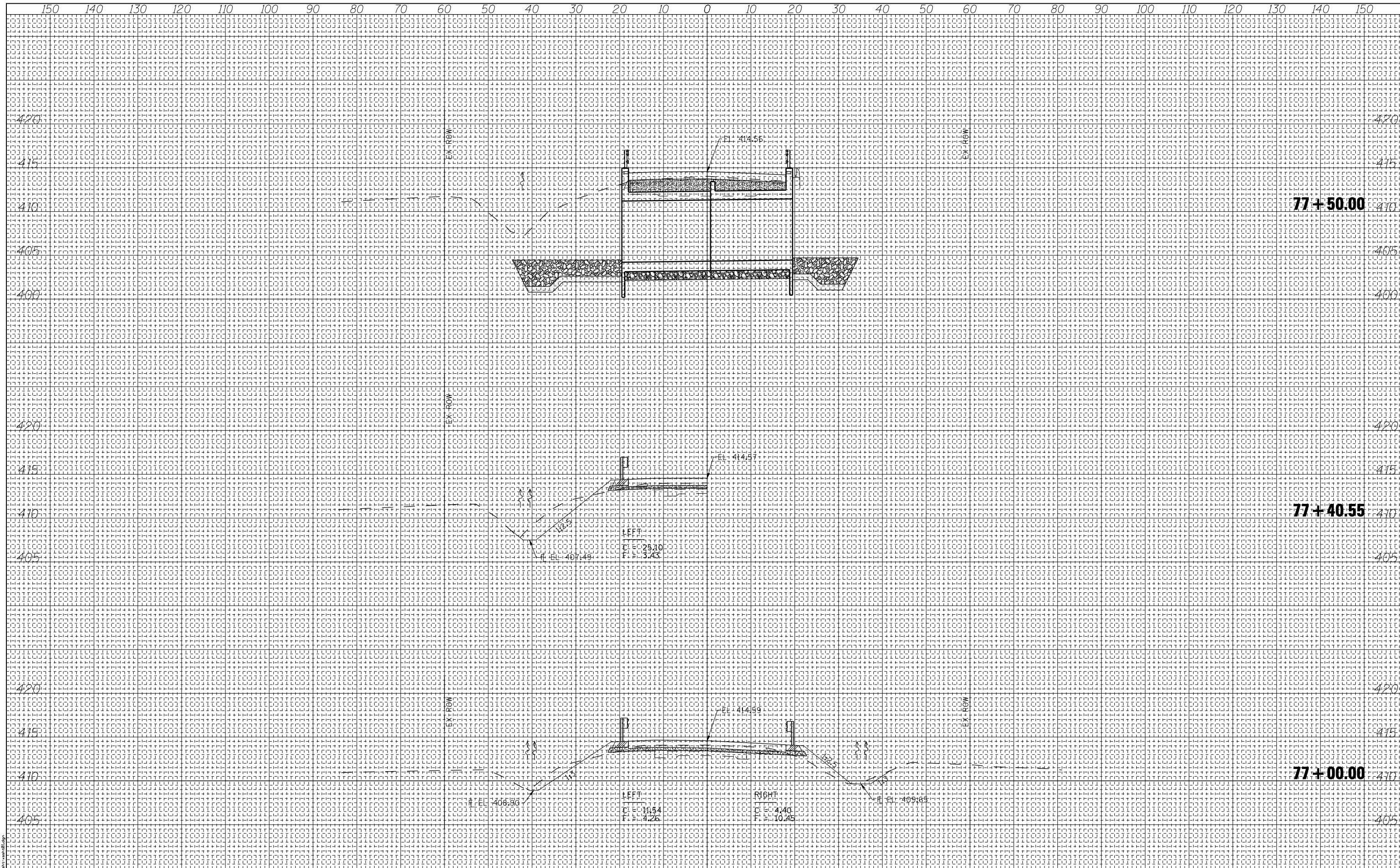
<b>FAP 855 (IL 14) CROSS SECTIONS</b>	
SCALE: AS SHOWN	SHEET NO. 2 OF 6 SHEETS
STA. 75+25.00	TO STA. 75+75.00

F.A.P. RTE. 855	SECTION 9B-1	COUNTY HAMILTON	TOTAL SHEETS 40	SHEET NO. 36
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
		CONTRACT NO. 78343		



BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED PLOTTED  
 SURVEY NOTE BOOK TEMPLATE  
 NO. AREAS CHECKED

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SURVEYED PLOTTED  
 SURVEY NOTE BOOK TEMPLATE  
 NO. AREAS CHECKED

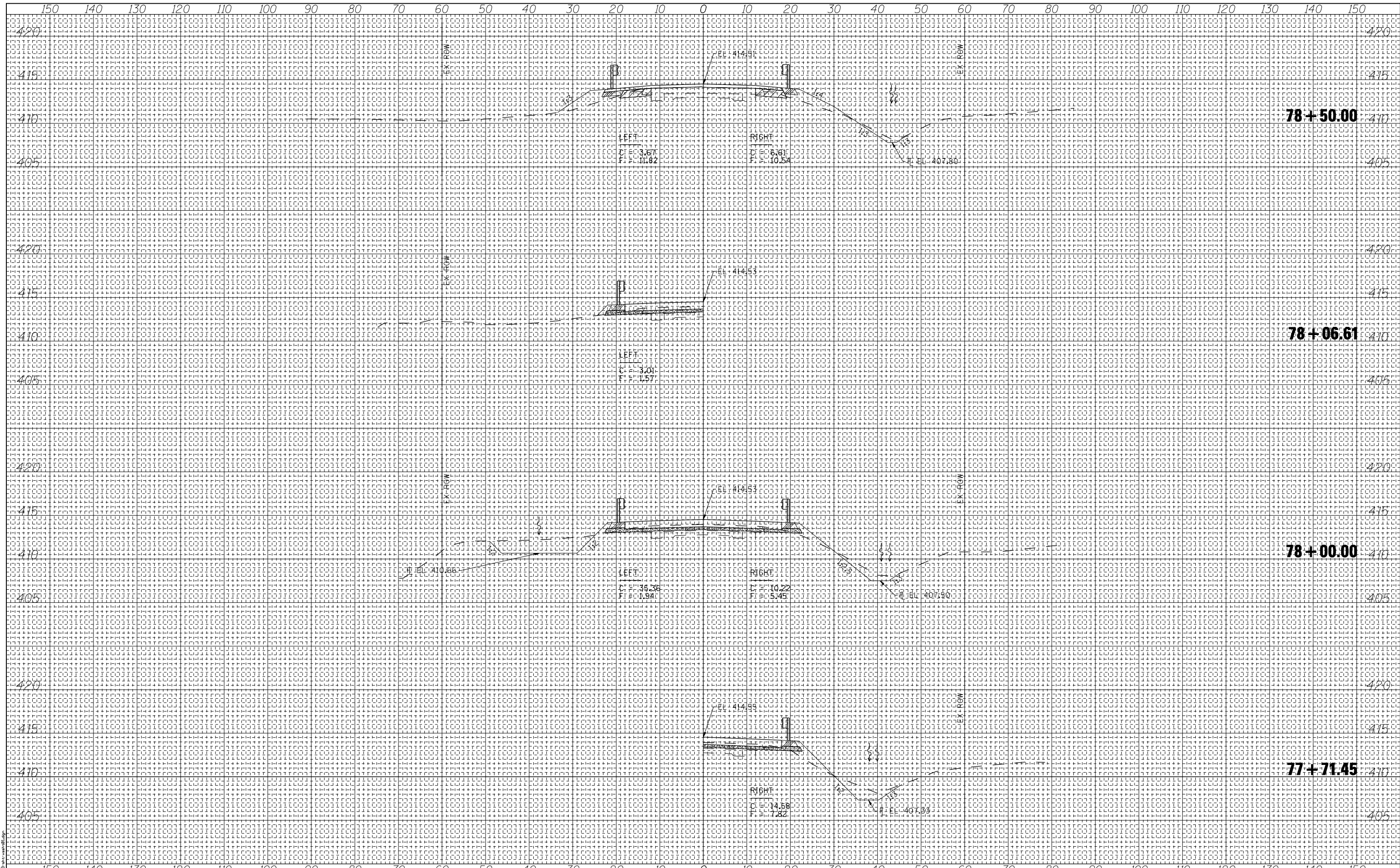


PRINT DRIVER: LEO LEBLANC  
 PLOT DATE: 6/25/2015 12:02:35 PM  
 FILE NAME: D:\2015\11\78343\11\78343.dwg

			USER NAME = nhp ESCA PROJECT NO. 1035.05 SCALES: (HORIZ) 1"=10' (VERT) 1"=5' PLOT DATE = 6/25/2015 12:02:35 PM			DESIGNED - JMS/NHP DRAWN - NHP CHECKED - ELH DATE - 06/15			REVISED - REVISED - REVISED - REVISED -			<b>STATE OF ILLINOIS          DEPARTMENT OF TRANSPORTATION</b>			<b>FAP 855 (IL 14) CROSS SECTIONS</b>			F.A.P. RTE. 855 SECTION 9B-1 COUNTY HAMILTON ILLINOIS FED. AID PROJECT		TOTAL SHEETS 40 SHEET NO. 38 CONTRACT NO. 78343	
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DATE	
BY	
FINAL SURVEY NO.	
SURVEYED PLOTTED TEMPLATE AREAS CHECKED	
NOTE BOOK NO.	

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



PRINT DRIVER: L:\DLS\B\0411  
 MODEL: 11000  
 FILE NAME: I:\DLS\855\14\77+71.45.dwg



USER NAME = nhp	DESIGNED - JMS/NHP	REVISED -
ESCA PROJECT NO. 1035.05	DRAWN - NHP	REVISED -
SCALEs: (HORIZ) 1"=10' (VERT) 1"=5'	CHECKED - ELH	REVISED -
PLOT DATE = 6/25/2015 12:03:02 PM	DATE - 06/15	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FAP 855 (IL 14) CROSS SECTIONS**

SCALE: AS SHOWN SHEET NO. 5 OF 6 SHEETS STA. 77+71.45 TO STA. 78+50.00

F.A.P. RTE. 855	SECTION 9B-1	COUNTY HAMILTON	TOTAL SHEETS 40	SHEET NO. 39
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 78343	

