

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	1
		ILLINOIS	CONTRACT NO. 74222	

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STATE OF ILLINOIS 11-04-2016 LETTING ITEM 022
 DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 821 (IL 15)
 SECTION (18BY1)B-1
 PROJECT: ACF-0821(047)
 STRUCTURE REPLACEMENT
 WAYNE COUNTY
 C-97-010-07

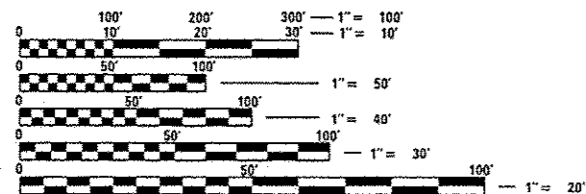
D-97-009-07



LOCATION OF SECTION INDICATED THUS: - ■ -
 ADT = 3,200 (2015)
 % SU = 5.9 (2015)
 % MU = 4.7 (2015)
 TOWNSHIP: ARRINGTON
 FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (NON-URBAN)

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

006001-06	701011-04
001001-02	701201-04
001006	701301-04
280001-07	701306-03
420406	701311-03
515001-03	701321-15
542401-02	701326-04
601001-05	701901-05
601101-02	704001-08
630001-10	725001
630301-06	780001-05
631031-14	781001-05
701001-02	782006
701006-05	

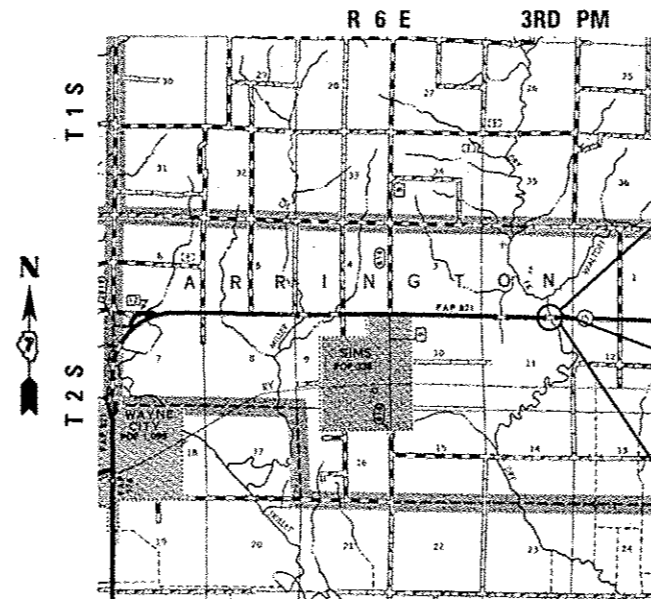


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

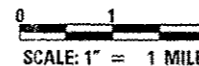
PROJECT ENGINEER: TOM RONAN 217-342-8320

CONTRACT NO. 74222



LOCATION MAP

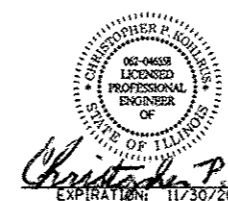
NET LENGTH OF IMPROVEMENT = 930.00 FEET = 0.176 MILES



PROJECT BEGINS
 STA. 1242 + 10

PROPOSED INTEGRAL ABUTMENT
 PPC I-BEAM BRIDGE
 135'-0" BK-BK ABUTMENTS
 39'-2" OUT-OUT DECK WIDTH
 0 DEGREE SKEW
 EX SN 096-0007
 PR SN 096-0075

PROJECT ENDS
 STA. 1251 + 40



Christopher P. Koblitz 7/27/16
 EXPIRATION: 11/30/2017

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 SUBMITTED August 10 20 16
Jeffery A. Smith REGION FOUR ENGINEER
 Sept 30 20 16
Muhammad M. Adonis, P.E. ENGINEER OF DESIGN AND ENVIRONMENT
 Sept 30 20 16
Chris Ceman, P.E. DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

GENERAL NOTES

THIS SECTION SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS; THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED APRIL 1, 2016; THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS" ADOPTED APRIL 1, 2016; AND THE SPECIAL PROVISIONS INCLUDED IN THE PROPOSAL.

THE WORK INCLUDED IN SECTION (188Y)B-1 CONSISTS OF BASE COURSE WIDENING, THE COMPLETE REMOVAL AND REPLACEMENT OF EXISTING STRUCTURE NUMBER 096-0007 WITH A NEW STRUCTURE, BRIDGE APPROACH PAVEMENTS, HOT-MIX ASPHALT RESURFACING, RIPRAP, GUARDRAIL, TRAFFIC CONTROL, PAVEMENT MARKING, AND ANY OTHER WORK NECESSARY TO COMPLETE THE SECTION. THE WORK SHALL BE COMPLETED UTILIZING STAGE CONSTRUCTION WITH TEMPORARY TRAFFIC SIGNALS. THE EXISTING STRUCTURE NUMBER 096-0007, CARRIES ILLINOIS ROUTE 15 OVER DRY FORK CREEK AND IS LOCATED APPROXIMATELY 1.5 MILES EAST OF SIMS ROAD IN WAYNE COUNTY.

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIAL. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR WILL BE PAID FOR THE QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

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

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09.

ALL EXCAVATION ABOVE THE BOTTOM OF THE RIPRAP EXCAVATION LINE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH EXCAVATION. THE 2:1 (H:V) SLOPE LINE IS PROJECTED FROM THE STREAM BED THROUGH THE ABUTMENT TO THE TOP OF THE EXISTING GROUND LINE.

THE CONTRACTOR SHALL PROVIDE INTERNET ACCESSIBILITY TO THE HOT-MIX ASPHALT PLANT QUALITY CONTROL LAB SO THAT HOT-MIX ASPHALT PLANT REPORTS CAN BE E-MAILED TO THE DISTRICT HEADQUARTERS. THIS WORK SHALL BE INCLUDED IN THE COST OF ALL HOT-MIX ASPHALT ITEMS.

A UNIFORMLY STRAIGHT SAW CUT SHALL BE MADE AT LOCATIONS WHERE PROPOSED NEW CONSTRUCTION WILL ABUT EXISTING HOT-MIX ASPHALT SURFACES. THE SAW CUT SHALL BE MADE FULL DEPTH THROUGH THE EXISTING SURFACE. THIS WORK WILL BE CONSIDERED INCLUDED IN THE COST OF THE CONTRACT ITEMS INVOLVED AND NO EXTRA COMPENSATION WILL BE ALLOWED.

THE THICKNESS OF THE PAVEMENT TO BE REMOVED IS 15". THE THICKNESS OF THE PAVED SHOULDER TO BE REMOVED IS 8".

THE EXISTING PAVEMENT SHALL BE PATCHED IN ACCORDANCE WITH SECTION 442 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS. THE QUANTITY OF PATCHING SHOWN ON THE PLANS IS AN ESTIMATE ONLY AND THE FINAL LOCATIONS AND QUANTITY SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE PAY ITEM TEMPORARY RAMP HAS BEEN INCLUDED FOR THE CONSTRUCTION OF TEMPORARY RAMPS IN ACCORDANCE WITH ARTICLE 406.08 OF THE STANDARD SPECIFICATIONS. THE COST SHALL INCLUDE BOTH THE INSTALLATION AND THE REMOVAL OF THE TEMPORARY RAMPS.

THE MATERIAL USED FOR AGGREGATE SHOULDERS, TYPE B AND AGGREGATE SURFACE COURSE, TYPE B SHALL BE CRUSHED STONE OR CRUSHED CONCRETE.

THE COST OF TEMPORARY PAVEMENT MARKING FOR STAGED CONSTRUCTION IS INCLUDED IN THE COST OF STANDARD 701321. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACEMENT AS STATED IN ARTICLE 703.07 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. REMOVAL OF TEMPORARY PAVEMENT MARKING SHALL BE PAID FOR AS STATED IN ARTICLE 783.06 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.

THE EXISTING PAVEMENT MARKINGS THAT CONFLICT WITH STAGE I & II OF STANDARD 701321 SHALL BE REMOVED. THE REMOVED MARKINGS WILL BE PAID FOR AS PAVEMENT MARKING REMOVAL-WATER BLASTING.

PAINT PAVEMENT MARKING LINE - 4" SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS, AS SHOWN IN THE PLANS, AND AS DETERMINED BY THE ENGINEER. THE TOTAL QUANTITY CALCULATED CONSISTS OF 233 FEET OF YELLOW AND 1860 FEET OF WHITE.

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 781 OF THE STANDARD SPECIFICATIONS. THE TOTAL QUANTITY OF RAISED REFLECTIVE PAVEMENT MARKERS CONSISTS OF 12 TWO-WAY AMBER MARKERS.

GENERAL NOTES (Cont'd)

ALL WORK NECESSARY TO ATTACH THE 4" PIPE DRAINS TO THE ABUTMENT DRAIN PIPES, TRENCHING IN THE PIPE DRAINS AND INSTALLING THE PIPE INTO THE CONCRETE HEADWALLS IS INCLUDED IN THE CONTRACT UNIT PRICE PER FOOT FOR PIPE DRAIN 4". THE ESTIMATED QUANTITY OF 58' WAS CALCULATED BY TAKING THE DIFFERENCE BETWEEN THE STRUCTURE PIPE UNDERDRAIN ELEVATIONS, DITCH ELEVATIONS AND ROW ELEVATIONS.

THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM INFORMATION FURNISHED BY THE UTILITY OWNERS AND SHOULD BE CONSIDERED APPROXIMATE. FIELD MARKINGS OF FACILITIES IN CRITICAL AREAS MAY BE OBTAINED BY PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE THROUGH THE J.U.L.I.E. SYSTEM BY CALLING (800) 892-0123.

THE FOLLOWING MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT:

BINDER COURSE
 APPLICATION: HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-19.0
 FRICTION AGGREGATE: N/A

SURFACE COURSE (1.5")
 APPLICATION: HOT-MIX ASPHALT SURFACE COURSE, MIX "C" N70
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-9.5
 FRICTION AGGREGATE: MIXTURE C

HOT-MIX ASPHALT SHOULDERS (TOP 1 1/2" LIFT)
 APPLICATION: HOT-MIX ASPHALT SHOULDERS
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-9.5
 FRICTION AGGREGATE: MIXTURE C

HOT-MIX ASPHALT SHOULDERS (BOTTOM LIFT) & HOT-MIX ASPHALT SHOULDERS, 8"
 APPLICATION: HOT-MIX ASPHALT SHOULDERS
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-19.0
 FRICTION AGGREGATE: N/A


CLASS D PAVEMENT PATCHING
 APPLICATION: HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-19.0
 FRICTION AGGREGATE: N/A

PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB
 APPLICATION: HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70
 PG GRADE: PG 64-22
 DESIGN AIR VOIDS: 4.0% @ NDESIGN = 70
 MIXTURE COMPOSITION: IL-19.0
 FRICTION AGGREGATE: N/A

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN THE CALCULATING PLAN QUANTITIES:

AGGREGATE SHOULDERS	2.05 TONS/CU. YD.
BITUMINOUS MATERIALS (PRIME COAT)	
ON MILLED SURFACES	0.05 LBS./SQ. FT.
FOG COAT	0.025 LBS./SQ. FT.
HOT-MIX ASPHALT	112 LBS./SQ. YD/INCH

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	PLOT DATE = 8/2/2016		

 **Allen Henderson & Associates, Inc.**
 Civil and Structural Engineers Springfield, IL.
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

GENERAL NOTES			
SCALE: N/A	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(188Y)B-1	WAYNE	55	2
CONTRACT NO. 74222				
ILLINOIS PED. AID PROJECT				

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		ROADWAY 0004	BRIDGE 0011
20200100	EARTH EXCAVATION	CU YD	1874	1874	
20300100	CHANNEL EXCAVATION	CU YD	2195	2195	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	180	180	
28000305	TEMPORARY DITCH CHECKS	FOOT	150	150	
28000400	PERIMETER EROSION BARRIER	FOOT	1812	1812	
28000500	INLET AND PIPE PROTECTION	EACH	2	2	
28100209	STONE RIPRAP, CLASS A5	TON	1451	237	1214
28200200	FILTER FABRIC	SQ YD	1588	263	1325
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8"	SQ YD	202	202	
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	92	92	
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	8	8	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	1110	1110	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	147	147	

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		ROAD 0004	BRIDGE 0011
40600990	TEMPORARY RAMP	SQ YD	80	80	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	218	218	
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	149	149	
42000070	PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLAB	SQ YD	48	48	
44000100	PAVEMENT REMOVAL	SQ YD	137	137	
44004250	PAVED SHOULDER REMOVAL	SQ YD	264	264	
44201827	CLASS D PATCHES, TYPE II, 15 INCH	SQ YD	75	75	
44201831	CLASS D PATCHES, TYPE III, 15 INCH	SQ YD	36	36	
48101200	AGGREGATE SHOULDERS, TYPE B	TON	361	361	
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	593	593	
48203100	HOT-MIX ASPHALT SHOULDERS	TON	103	103	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1	1	
50105220	PIPE CULVERT REMOVAL	FOOT	87	87	

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 USER NAME = steffennk
 DESIGNED -
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 PLOT SCALE = 1/8" = 100.0000' / in.
 PLOT DATE = 9/2/2016
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Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL.
 62703 Phone: (217)644-8033 IL Design Firm
 No. 184-001907

SUMMARY OF QUANTITIES
 SCALE: N/A SHEET 1 OF 4 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
021	188Y1B-1	WAYNE	55	3
CONTRACT NO. 74222				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		ROADWAY 0004	BRIDGE 0011
50200100	STRUCTURE EXCAVATION	CU YD	52		52
50200300	COFFERDAM EXCAVATION	CU YD	92		92
50201101	COFFERDAM (TYPE 1) (LOCATION - 1)	EACH	1		1
50201102	COFFERDAM (TYPE 1) (LOCATION - 2)	EACH	1		1
50300100	FLOOR DRAINS	EACH	8		8
50300225	CONCRETE STRUCTURES	CU YD	200.8		200.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	208.8		208.8
50300260	BRIDGE DECK GROOVING	SO YD	740		740
50300280	CONCRETE ENCASEMENT	CU YD	9.8		9.8
50300300	PROTECTIVE COAT	SO YD	928		928
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	111.7		111.7
50400805	FURNISHING AND ERECTING PRECAST PRESTRESSED CONCRETE I-BEAMS, 36 IN.	FOOT	789		789
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	94880		94880
50800515	BAR SPLICERS	EACH	824		824

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		ROAD 0004	BRIDGE 0011
50800530	MECHANICAL SPLICERS	EACH	126		126
51201610	FURNISHING STEEL PILES HP12X63	FOOT	1650		1650
51202305	DRIVING PILES	FOOT	1650		1650
51203610	TEST PILE STEEL HP12X63	EACH	1		1
51500100	NAME PLATES	EACH	1		1
52100540	ANCHOR BOLTS, 1 1/2"	EACH	8		8
52200010	TEMPORARY SHEET PILING	SQ FT	284		284
52200020	TEMPORARY SOIL RETENTION SYSTEM	SQ FT	452		452
54215553	METAL END SECTIONS 18"	EACH	2	2	
54215559	METAL END SECTIONS 24"	EACH	2	2	
542D0223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	78	78	
542D0229	PIPE CULVERTS, CLASS D, TYPE 1 24"	FOOT	72	72	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	74		74
60100905	PIPE DRAINS 4"	FOOT	58	58	

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		ROADWAY 0004	BRIDGE 0011
*63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	775	775	
*63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4	
*63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4	
63200310	GUARDRAIL REMOVAL	FOOT	376	376	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6	
67100100	MOBILIZATION	L SUM	1	1	
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1	
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1	
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1	
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1	1	
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10	

SUMMARY OF QUANTITIES			80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE	
CODE NO	ITEM	UNIT		ROAD 0004	BRIDGE 0011
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	186	186	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	31	31	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2093	2093	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	612.5	612.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	612.5	612.5	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
*72501000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
*78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	2093	2093	
*78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	9	9	
*78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3	3	
*78200005	GUARDRAIL REFLECTORS, TYPE A	EACH	14	14	

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PLOT DATE = 8/2/2016

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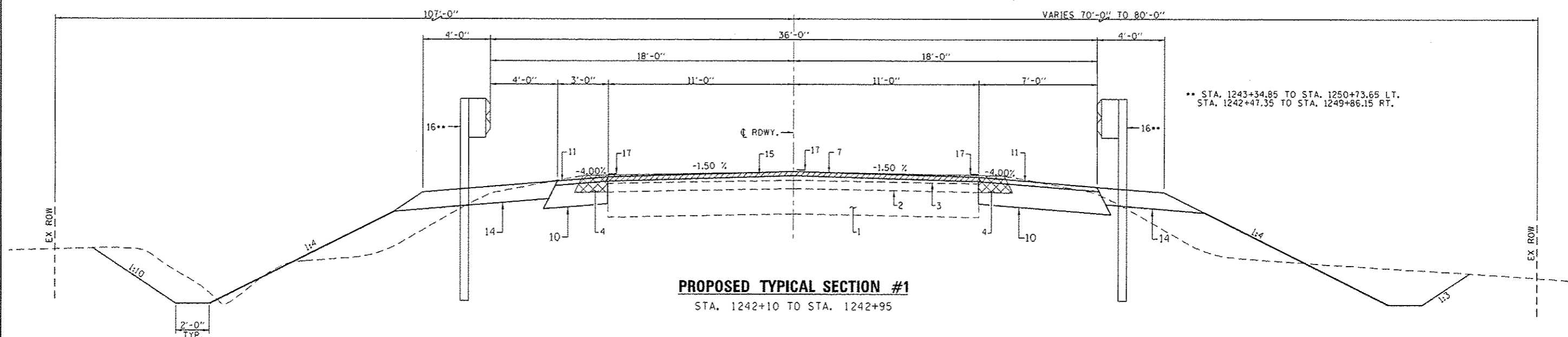
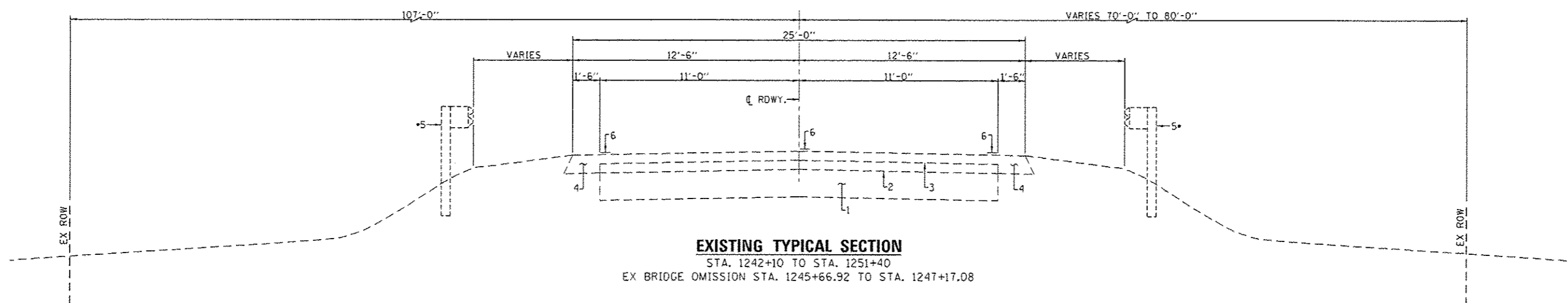


Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL Design Firm
No. 184-001907

SUMMARY OF QUANTITIES
SCALE: N/A SHEET 3 OF 4 SHEETS STA. TO STA.

F.A.P. RTE. 021	SECTION 118BY118-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 5
CONTRACT NO. 74222			ILLINOIS FED. AID PROJECT	

* STA. 1244+27 TO STA. 1247+45 RT &
STA. 1244+90 TO STA. 1247+45 LT



** STA. 1243+34.85 TO STA. 1250+73.65 LT.
STA. 1242+47.35 TO STA. 1249+86.15 RT.

PAVEMENT LEGEND

1. EX PCC PAVEMENT (9")
2. EX HMA SURFACE (3")
3. EX HMA OVERLAY (3")
4. EX HMA SHOULDER (6")
5. EX GUARDRAIL
6. EX PAYMENT MARKING
7. PR HMA SURFACE COURSE, 1 1/2"
8. PR HMA BINDER COURSE, 2 1/4"
9. PR HMA BINDER COURSE, VARIES (SEE MILLING DETAILS)
10. PR HMA SHOULDERS, 8"
11. PR HMA SHOULDERS, (1 1/2")
12. PR HMA SHOULDERS (VARIABLE DEPTH)
13. PR PCC BASE COURSE WIDENING 8"
14. PR AGGREGATE SHOULDERS, 6"
15. PR HMA SURFACE REMOVAL, VARIABLE DEPTH
16. PR GUARDRAIL
17. PR PAINT PAVEMENT MARKING - LINE 4"

▨ HMA SURFACE REMOVAL, VARIABLE DEPTH

▩ PAVED SHOULDER REMOVAL

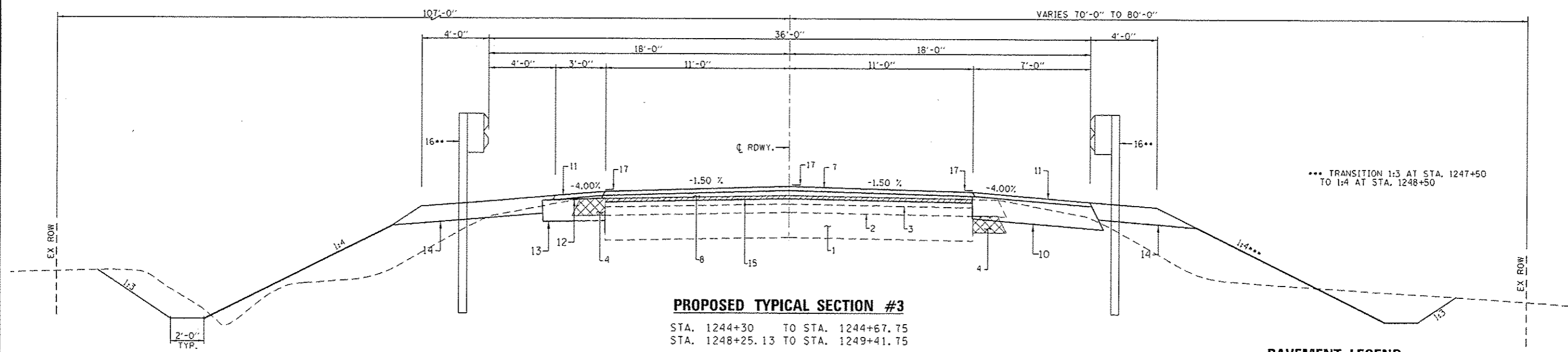
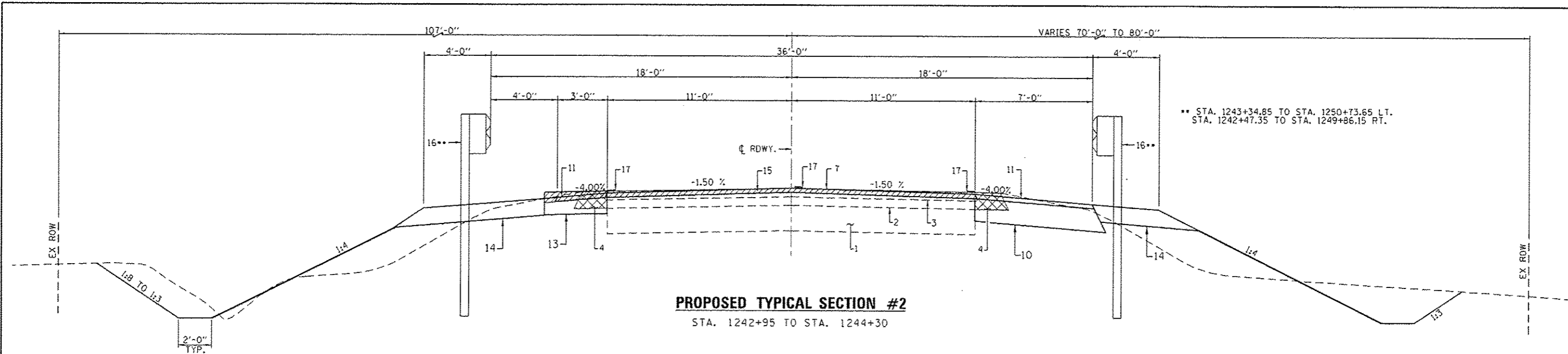
NOTE: DITCH FORESLOPES AND BACKSLOPES VARY. SEE CROSS SECTIONS.

USER NAME = staffennk	DESIGNED -	REVISED -
PLOT SCALE = 6.0000" / 1"	DRAWN -	REVISED -
PLOT DATE = 8/2/2016	CHECKED -	REVISED -
	DATE -	REVISED -

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TYPICAL SECTIONS		
SCALE: VARIES	SHEET NO. 1 OF 4 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(188Y)8-1	WAYNE	55	7
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



- PAVEMENT LEGEND**
1. EX PCC PAVEMENT (9")
 2. EX HMA SURFACE (3")
 3. EX HMA OVERLAY (3")
 4. EX HMA SHOULDER (6")
 5. EX GUARDRAIL
 6. EX PAVEMENT MARKING
 7. PR HMA SURFACE COURSE, 1 1/2"
 8. PR HMA BINDER COURSE, 2 1/4"
 9. PR HMA BINDER COURSE, VARIES (SEE MILLING DETAILS)
 10. PR HMA SHOULDERS, 8"
 11. PR HMA SHOULDERS, (1 1/2")
 12. PR HMA SHOULDERS (VARIABLE DEPTH)
 13. PR PCC BASE COURSE WIDENING 8"
 14. PR AGGREGATE SHOULDERS, 6"
 15. PR HMA SURFACE REMOVAL, VARIABLE DEPTH
 16. PR GUARDRAIL
 17. PR PAINT PAVEMENT MARKING - LINE 4"

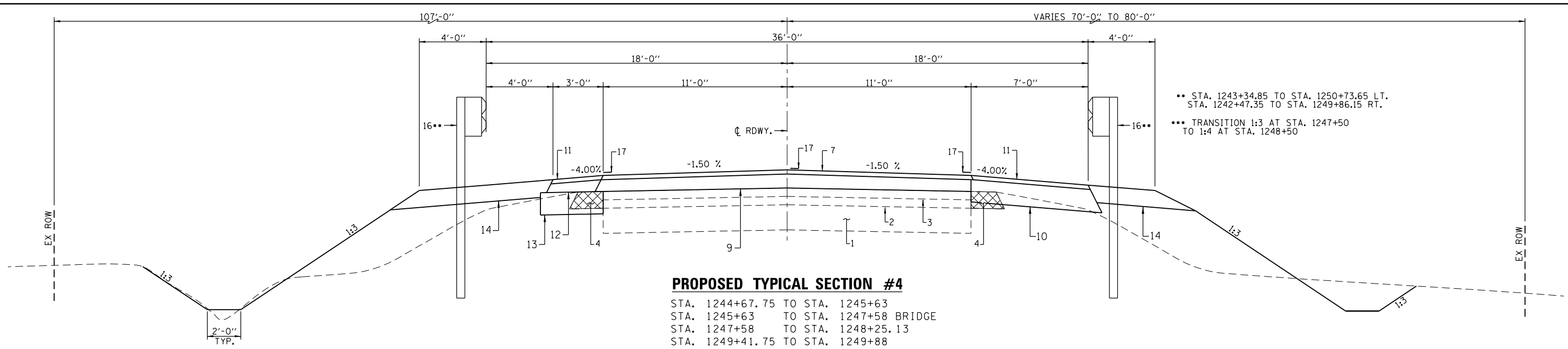
HMA SURFACE REMOVAL, VARIABLE DEPTH
 PAVED SHOULDER REMOVAL
 NOTE: DITCH FORESLOPES AND BACKSLOPES VARY, SEE CROSS SECTIONS.

USER NAME = staffamh	DESIGNED -	REVISED -
PLOT SCALE = 0.0000' / 1"	DRAWN -	REVISED -
PLOT DATE = 8/2/2016	CHECKED -	REVISED -
	DATE -	REVISED -

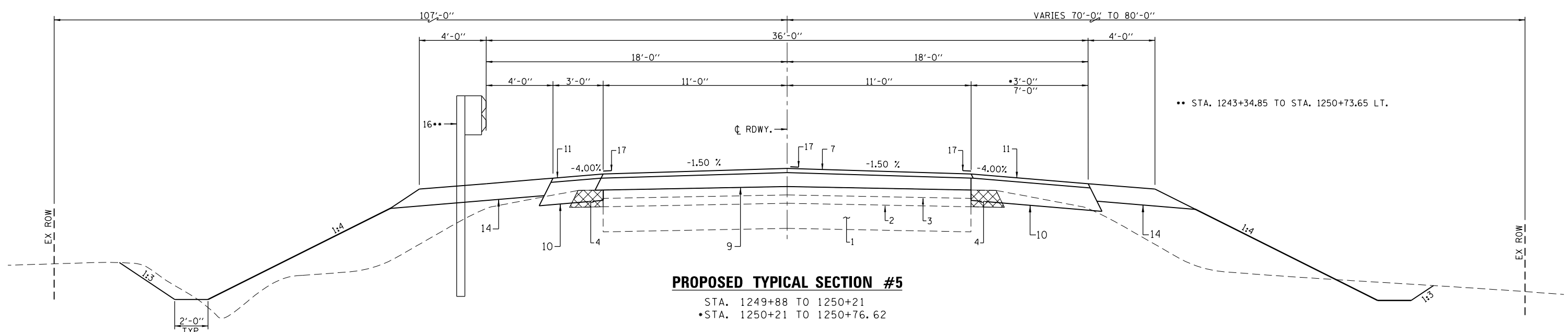
Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

TYPICAL SECTIONS	
SCALE: VARIES	SHEET NO. 2 OF 4 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(108Y)108-1	WAYNE	55	8
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
CONTRACT NO. 74222				



•• STA. 1243+34.85 TO STA. 1250+73.65 LT.
 STA. 1242+47.35 TO STA. 1249+86.15 RT.
 ••• TRANSITION 1:3 AT STA. 1247+50
 TO 1:4 AT STA. 1248+50



•• STA. 1243+34.85 TO STA. 1250+73.65 LT.

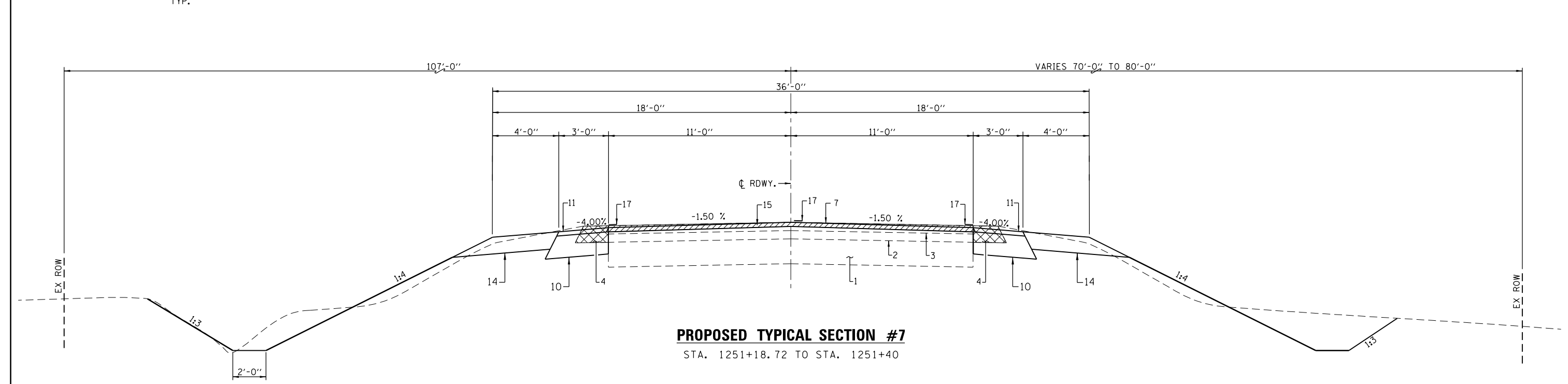
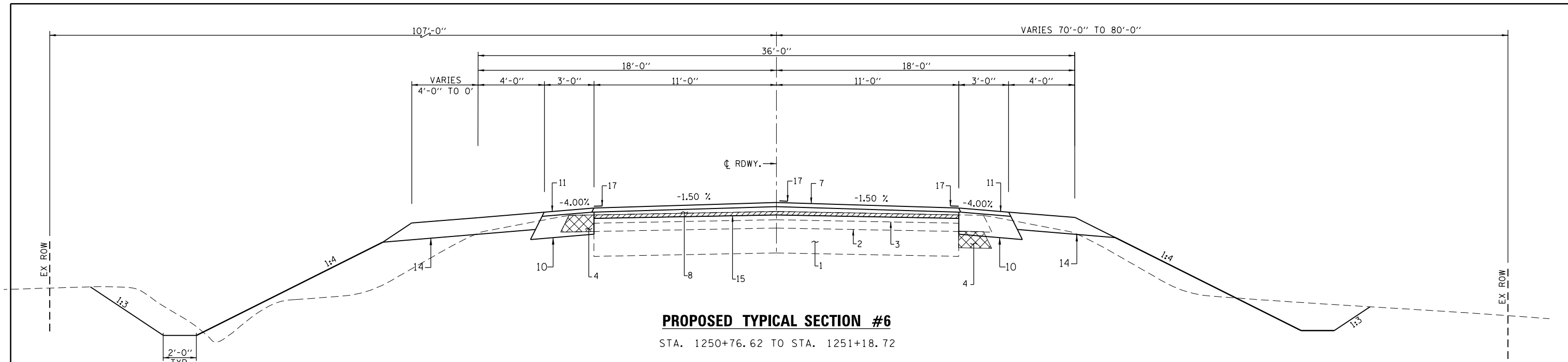
- HMA SURFACE REMOVAL, VARIABLE DEPTH
- PAVED SHOULDER REMOVAL

NOTE: DITCH FORESLOPES AND BACKSLOPES VARY. SEE CROSS SECTIONS.

PAVEMENT LEGEND

1. EX PCC PAVEMENT (9")
2. EX HMA SURFACE (3")
3. EX HMA OVERLAY (3")
4. EX HMA SHOULDER (6")
5. EX GUARDRAIL
6. EX PAVEMENT MARKING
7. PR HMA SURFACE COURSE, 1 1/2"
8. PR HMA BINDER COURSE, 2 1/4"
9. PR HMA BINDER COURSE, VARIES (SEE MILLING DETAILS)
10. PR HMA SHOULDERS, 8"
11. PR HMA SHOULDERS, (1 1/2")
12. PR HMA SHOULDERS (VARIABLE DEPTH)
13. PR PCC BASE COURSE WIDENING 8"
14. PR AGGREGATE SHOULDERS, 6"
15. PR HMA SURFACE REMOVAL, VARIABLE DEPTH
16. PR GUARDRAIL
17. PR PAINT PAVEMENT MARKING - LINE 4"

USER NAME = steffenmk	DESIGNED -	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	TYPICAL SECTIONS		F.A.P. RTE. 821	SECTION (18BY1)B-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 8A	
PLOT SCALE = 6.0000' / in.	CHECKED -	REVISED -		SCALE: VARIES	SHEET NO. 3 OF 4 SHEETS	STA. TO STA.	CONTRACT NO. 74222				
PLOT DATE = 8/2/2016	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							



- PAVEMENT LEGEND**
- 1. EX PCC PAVEMENT (9")
 - 2. EX HMA SURFACE (3")
 - 3. EX HMA OVERLAY (3")
 - 4. EX HMA SHOULDER (6")
 - 5. EX GUARDRAIL
 - 6. EX PAVEMENT MARKING
 - 7. PR HMA SURFACE COURSE, 1 1/2"
 - 8. PR HMA BINDER COURSE, 2 1/4"
 - 9. PR HMA BINDER COURSE, VARIES (SEE MILLING DETAILS)
 - 10. PR HMA SHOULDERS, 8"
 - 11. PR HMA SHOULDERS, (1 1/2")
 - 12. PR HMA SHOULDERS (VARIABLE DEPTH)
 - 13. PR PCC BASE COURSE WIDENING 8"
 - 14. PR AGGREGATE SHOULDERS, 6"
 - 15. PR HMA SURFACE REMOVAL, VARIABLE DEPTH
 - 16. PR GUARDRAIL
 - 17. PR PAINT PAVEMENT MARKING - LINE 4"
- HMA SURFACE REMOVAL, VARIABLE DEPTH
 PAVED SHOULDER REMOVAL
- NOTE: DITCH FORESLOPES AND BACKSLOPES VARY. SEE CROSS SECTIONS.

USER NAME = steffernik	DESIGNED -	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	TYPICAL SECTIONS		F.A.P. RTE. 821	SECTION (18BY1)B-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 8B	
PLOT SCALE = 6.0000' / in.	CHECKED -	REVISED -		SCALE: VARIES	SHEET NO. 4 OF 4 SHEETS	STA. TO STA.	CONTRACT NO. 74222				
PLOT DATE = 8/2/2016	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

EARTHWORK SCHEDULE	EARTH EXCAVATION	EARTH EXCAVATION ADJ FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STATIONING	CU YD	CU YD	CU YD	CU YD
STA. 1242+10 TO STA. 1245+93	778	584	534	+50
STA. 1247+28 TO STA. 1251+40	1096	822	924	-102
TOTAL	1874	1406	1458	-52*

*NO FURNISHED EXCAVATION WILL BE REQUIRED. EXCESS CHANNEL EXCAVATION WILL BE USED FOR SHORTAGE.

CHANNEL EXCAVATION SCHEDULE	CHANNEL EXCAVATION
STATIONING	CU YD
STA. 1245+93 TO STA. 1247+28, 105' LT TO 82' RT	2195
TOTAL	2195

SHOULDER REMOVAL SCHEDULE	PAVED SHOULDER REMOVAL
STATIONING	SO YD
STA. 1242+10 TO STA. 1245+66.42 LT & RT	119
STA. 1247+17.5 TO STA. 1251+40 LT & RT	141
STA. 1245+57 TO STA. 1245+66.42 LT	4
TOTAL	264

PAVEMENT REMOVAL SCHEDULE	PAVEMENT REMOVAL
STATIONING	SQ YD
STA. 1245+57 TO STA. 1245+66.42	23
STA. 1247+17.5 TO STA. 1247+64	114
TOTAL	137

CULVERT REMOVAL SCHEDULE	PIPE CULVERT REMOVAL
STATIONING	FOOT
STA. 1246+99 TO STA. 1247+29 LT	30
STA. 1247+13.6 TO STA. 1247+70.2 RT	57
TOTAL	87

SEEDING SCHEDULE	SEEDING, CLASS 2 (SPECIAL)
STATIONING	ACRE
STA. 1242+10 TO STA. 1246+00 LT	0.5
STA. 1246+85 TO STA. 1251+40 LT	0.4
STA. 1242+10 TO STA. 1246+25 LT	0.4
STA. 1246+80 TO STA. 1251+40 RT	0.5
TOTAL	1.8

PIPE DRAIN SCHEDULE	PIPE DRAINS 4"
STATIONING	FOOT
STA. 1245+91, 36' LT. TO 40' LT.	4
STA. 1245+91, 36' RT. TO 38' RT.	2
STA. 1247+30, 36' LT. TO 84' LT.	48
STA. 1247+30, 36' RT. TO 40' RT.	4
TOTAL	58

PIPE CULVERT		OFFSET	PIPE CULVERT, CLASS D, TY 1, 18"	PIPE CULVERT, CLASS D, TY 1, 24"	METAL END SECTIONS, 18"	METAL END SECTIONS, 24"	
STATION	TO	STATION	SIDE (FOOT)	FOOT	FOOT	EACH	EACH
1250+09	TO	1250+87	RT 52/48	78	-	2	-
1250+64	TO	1251+36	LT 95	-	72	-	2
TOTALS:			-	-	78	72	2

PAVING SCHEDULE							
STATIONING	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	BITUMINOUS MATERIALS (TACK COAT)	HOT-MIX ASPHALT BINDER COURSE IL-19.0, N70	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	HOT-MIX ASPHALT SHOULDERS, 8"	HOT-MIX ASPHALT SHOULDERS	AGGREGATE SHOULDERS
SO YD	POUND	TON	TON	SO YD	TON	TON	
STA. 1242+10 TO STA. 1242+95	207.8	93.5	0.0	17.5	94.4	7.9	30.7
STA. 1242+95 TO STA. 1244+30	386.3	148.5	0.0	27.7	105.0	12.6	69.2
STA. 1244+30 TO STA. 1244+67.75	92.3	62.3	11.6	7.8	29.4	4.3	19.3
STA. 1244+67.75 TO STA. 1245+63	218.2	178.1	61.7	18.3	74.1	18.2	48.8
STA. 1245+63 TO STA. 1247+58	BRIDGE OMISSION		-	-	-	-	-
STA. 1247+58 TO STA. 1248+25.13	149.4	120.1	38.6	12.6	52.2	12.4	34.4
STA. 1248+25.13 TO STA. 1249+41.75	285.1	192.4	35.9	23.9	90.7	17.6	59.8
STA. 1249+41.75 TO STA. 1249+88	113.1	76.3	19.4	9.5	36.0	12.5	23.7
STA. 1249+88 TO STA. 1250+21	80.7	54.5	13.9	6.8	32.0	6.6	16.9
STA. 1250+21 TO STA. 1250+76.62	136.0	91.8	23.4	11.4	37.1	6.3	28.5
STA. 1250+76.62 TO STA. 1251+18.72	102.9	69.5	13.0	8.6	28.1	3.4	21.6
STA. 1251+18.72 TO STA. 1251+40	52.0	23.4	0.0	4.4	14.2	0.9	7.7
TOTALS:	1824	1110	218	149	593	103	361

TEMPORARY RAMP SCHEDULE		TEMPORARY RAMP
STATIONING	SQ YD	
STA. 1242+10 TO STA. 1242+15	12.2	
STA. 1245+58 TO STA. 1245+63	12.2	
STA. 1247+58 TO STA. 1247+63	12.2	
STA. 1248+25 TO STA. 1248+37.5	30.6	
STA. 1251+35 TO STA. 1251+40	12.2	
TOTAL	80	

WIDENING SCHEDULE		PORTLAND CEMENT BASE COURSE WIDENING 8"
STATIONING	SQ YD	
STA. 1242+95 TO STA. 1244+25 LT	44	
STA. 1244+25 TO STA. 1245+00 LT	28	
STA. 1245+00 TO STA. 1245+67 LT	28	
STA. 1247+16.6 TO STA. 1248+00 LT	35	
STA. 1248+00 TO STA. 1249+00 LT	38	
STA. 1249+00 TO STA. 1249+88 LT	29	
TOTAL	202	

PAVEMENT MARKING SCHEDULE			LENGTH	SHORT TERM PAVEMENT MARKING	SHORT TERM PAVEMENT MARKING REMOVAL	TEMPORARY PAVEMENT MARKING - LINE 4"	PAVEMENT MARKING REMOVAL (FOR TEMP PAVT MARKING)	PAINT PAVEMENT MARKING - LINE 4"	RAISED REFLECTIVE PAVEMENT MARKER	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)
STATION	TO	STATION	FEET	FOOT	SO FT	FOOT	SO FT	FOOT	EACH	EACH
1242+10	TO	1245+63	353	70.6	11.8	794.3	264.8	794	4	-
1245+63	TO	1247+58	195	39.0	6.5	438.8	146.3	439	-	3
1247+58	TO	1251+40	382	76.4	12.7	859.5	286.5	860	5	-
TOTALS:			930	186	31	2093	698	2093	9	3

PAVEMENT MARKING REMOVAL SCHEDULE	PAVEMENT MARKING REMOVAL
(FOR REMOVAL OF EXISTING PAVEMENT MARKINGS)	SO FT
STATIONING	SO FT
STA. 1241+65 TO STA. 1251+06.5 LT	314
STA. 1241+65 TO STA. 1244+60.5 CENTERLINE	27
STA. 1248+35.5 TO STA. 1251+06.5 CENTERLINE	23
STA. 1241+65 TO STA. 1243+61 RT	66
STA. 1249+35 TO STA. 1251+06.5 RT	58
TOTAL	488

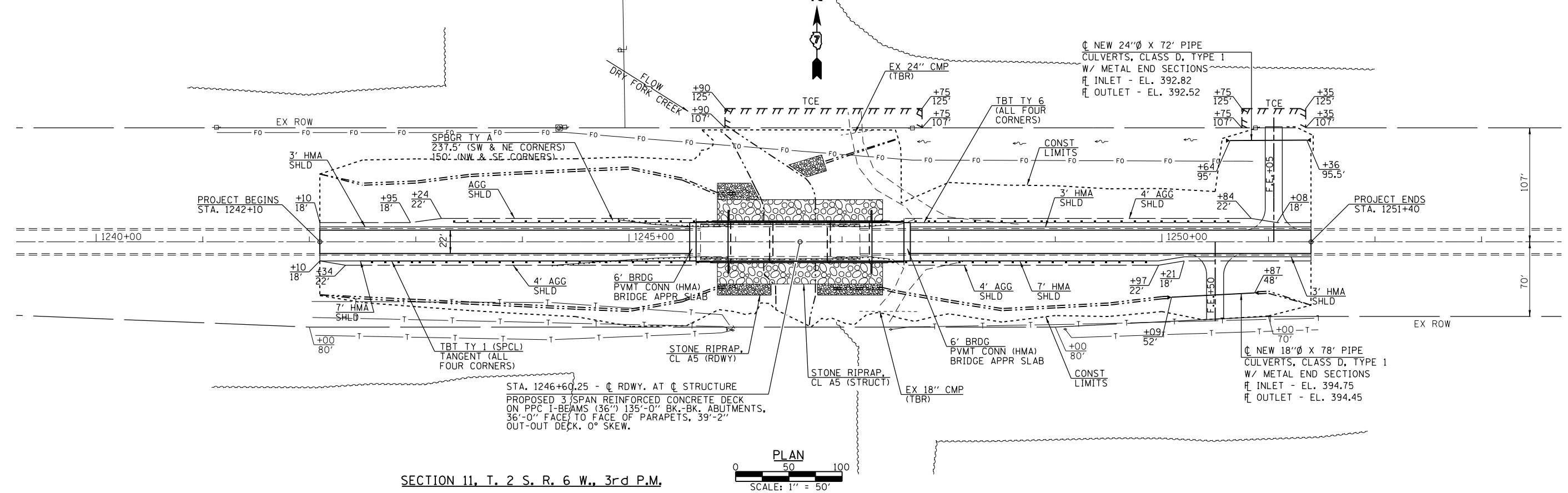
GUARDRAIL SCHEDULE									
STATION	TO	STATION	SIDE	FOOT	EACH	EACH	EACH	EACH	
1243+34.85	TO	1243+84.84	LT			1		1	
1243+84.84	TO	1245+34.85	LT	150			2		
1245+34.85	TO	1245+78.00	LT		1		1		
1247+43.00	TO	1247+86.15	LT		1		1		
1247+86.15	TO	1250+23.65	LT	237.5			3		
1250+23.65	TO	1250+23.65	LT			1		1	
1242+47.35	TO	1242+97.35	RT			1		1	
1242+97.35	TO	1245+34.85	RT	237.5			3		
1245+34.85	TO	1245+78.00	RT		1		1		
1247+43.00	TO	1247+86.15	RT		1		1		
1247+86.15	TO	1249+36.15	RT	150			2		
1249+36.15	TO	1249+86.15	RT			1		1	
TOTALS:				-	775	4	4	14	4

GUARDRAIL REMOVAL SCHEDULE					QUANTITY
STATION	TO	STATION	SIDE	FOOT	QUANTITY
1244+28	TO	1245+93	LT	165	
1244+90	TO	1245+93	LT	103	
1246+91	TO	1247+45	LT	54	
1246+91	TO	1247+45	LT	54	
TOTALS:					376

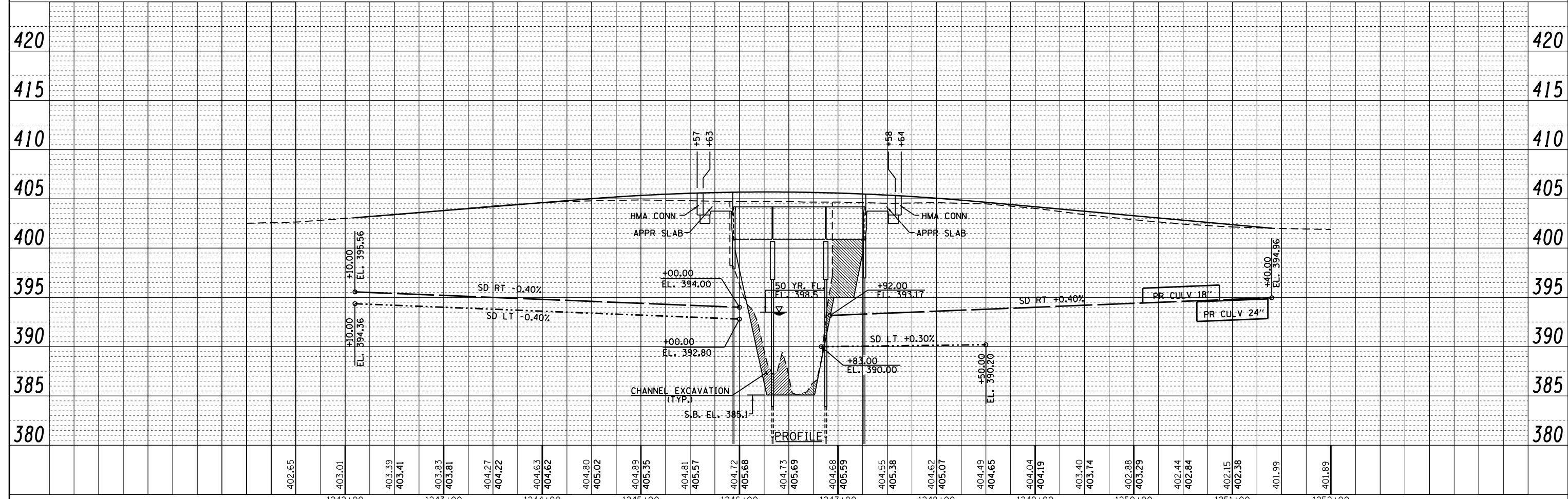
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	NOTE BOOK
	NO.
	CHECKED
	FILE NAME

DATE	
BY	
PROFILE	SURVEYED
	PLOTTED
	GRADES CHECKED
	NO.
	STRUCTURE
	NOT AT THIS OFFICE

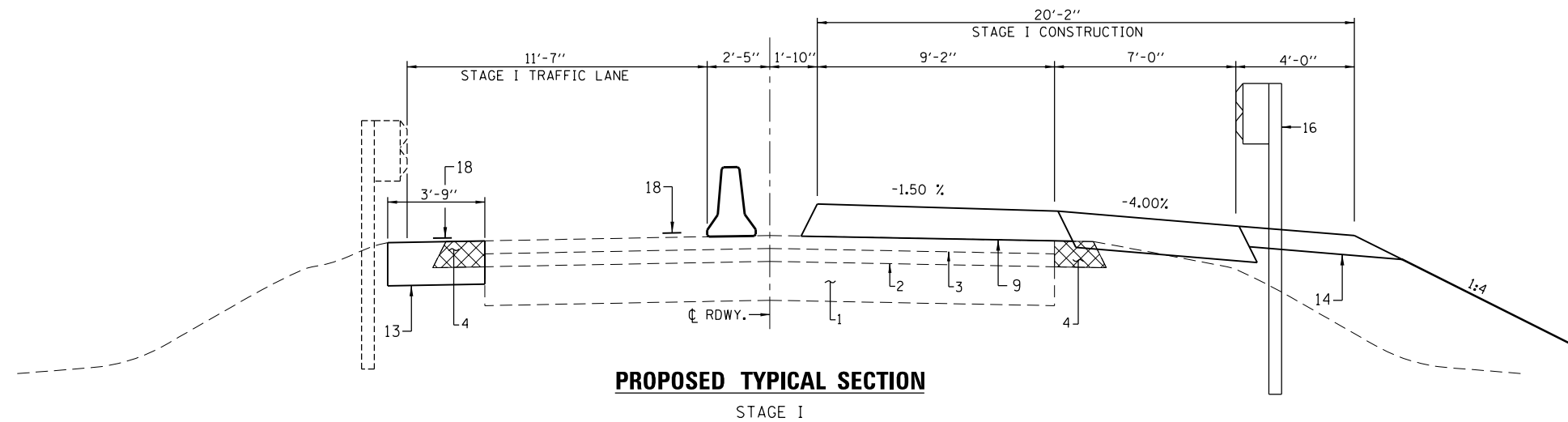
SECTION 2, T. 2 S. R. 6 W., 3rd P.M.



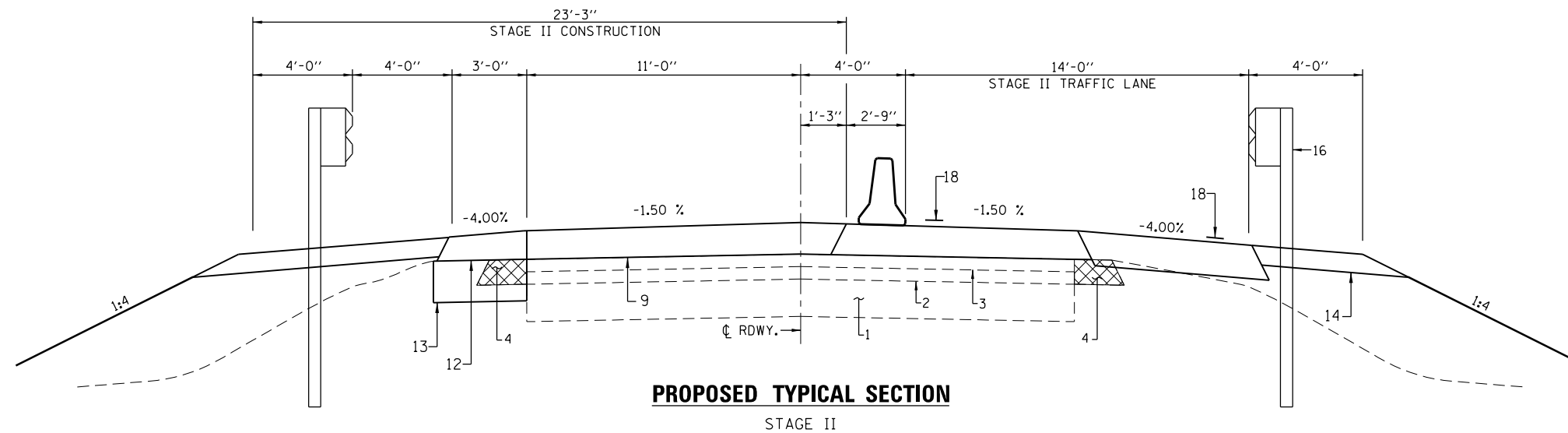
SECTION 11, T. 2 S. R. 6 W., 3rd P.M.



USER NAME = steffernik	DESIGNED -	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	PLAN & PROFILE		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -		SCALE: 1" = 50'	SHEET NO. 1 OF 1 SHEETS	STA. 1239+25 TO STA. 1253+70	821	(18BY)B-1	WAYNE	55	14
PLOT DATE = 8/2/2016	CHECKED -	REVISED -					CONTRACT NO. 74222				
							FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PROPOSED TYPICAL SECTION
STAGE I



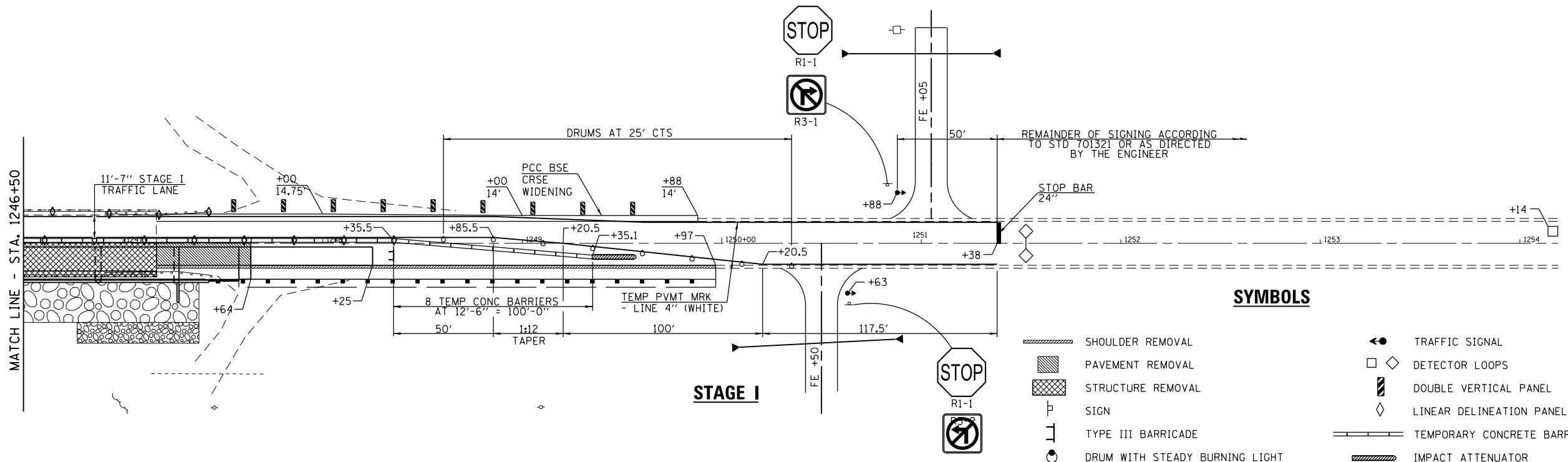
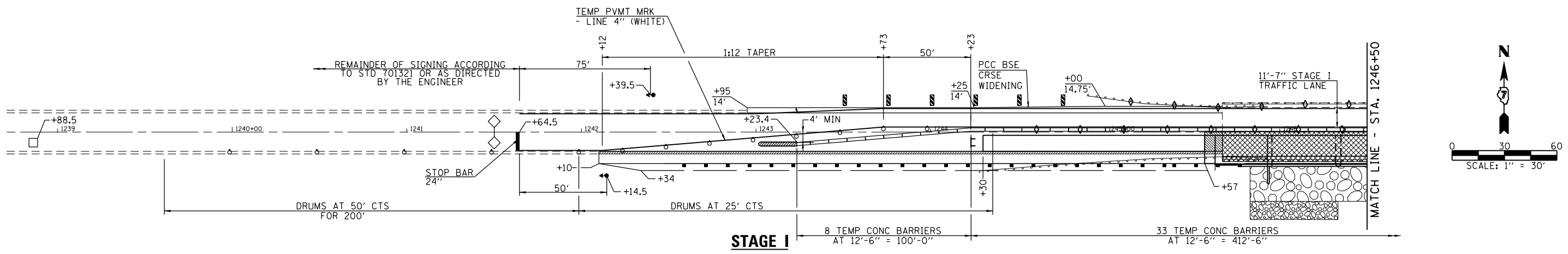
PROPOSED TYPICAL SECTION
STAGE II

PAVEMENT LEGEND

1. EX PCC PAVEMENT (9'')
2. EX HMA SURFACE (3'')
3. EX HMA OVERLAY (3'')
4. EX HMA SHOULDER (6'')
5. EX GUARDRAIL
6. EX PAVMENT MARKING
7. PR HMA SURFACE COURSE, 1 1/2" (min.)
8. PR HMA BINDER COURSE, 2 1/4"
9. PR HMA BINDER COURSE, VARIES (SEE MILLINIG DETAILS)
10. PR HMA SHOULDERS, 8"
11. PR HMA SHOULDERS (1 1/2'')
12. PR HMA SHOULDERS (VARIABLE DEPTH)
13. PR PCC BASE COURSE WIDENING, 8"
14. PR AGGREGATE SHOULDERS, 6"
15. PR HMA SURFACE REMOVAL, VARIABLE DEPTH
16. PR GUARDRAIL
17. PR PAINT PAVEMENT MARKING - LINE 4"
18. PR TEMP PAVEMENT MARKING

▨ PAVED SHOULDER REMOVAL

USER NAME = steffenmk	DESIGNED -	REVISED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	STAGE CONSTRUCTION TRAFFIC DETAILS		F.A.P. RTE. = 821	SECTION (18BY1)B-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 15	
PLOT SCALE = 6.0000' / in.	DRAWN -	REVISED -		SCALE: VARIES	SHEET NO. 1 OF 3 SHEETS	STA. TO STA.	CONTRACT NO. 74222				
PLOT DATE = 8/2/2016	CHECKED -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
	DATE -	REVISED -									



SYMBOLS

	SHOULDER REMOVAL		TRAFFIC SIGNAL
	PAVEMENT REMOVAL		DETECTOR LOOPS
	STRUCTURE REMOVAL		DOUBLE VERTICAL PANEL
	SIGN		LINEAR DELINEATION PANELS (PER SPCL PROV)
	TYPE III BARRICADE		TEMPORARY CONCRETE BARRIER
	DRUM WITH STEADY BURNING LIGHT		IMPACT ATTENUATOR

SUGGESTED STAGE CONSTRUCTION SEQUENCE

PRE-STAGE I

1. REMOVE EXISTING HMA SHOULDER FROM STA. 1242+95 TO STA. 1249+88 LT. AND REPLACE WITH PCC BASE COURSE WIDENING 8".
2. CONSTRUCT FE AND PIPE CULVERT STA. 1250+50 RT.
3. CONSTRUCT FE AND PIPE CULVERT STA. 1251+05 LT.

STAGE I

1. ERECT TRAFFIC CONTROL FOR STAGE I CONSTRUCTION.
2. REMOVE EXISTING HMA SHOULDER FROM STA. 1242+10 TO STA. 1249+97 RT.
3. REMOVE EXISTING PAVEMENT FROM STA. 1245+57 TO STA. 1247+64 RT.
4. REMOVE EXISTING STRUCTURE RIGHT, C 1246+42 AND GUARDRAIL.
5. CONSTRUCT PROPOSED STAGE I STRUCTURE, C 1246+60.25 RT.
6. CONSTRUCT HMA SURFACE REMOVAL, VARIABLE DEPTH FROM STA. 1244+30 TO STA. 1244+67.75 RT
7. CONSTRUCT PROPOSED HMA BINDER COURSE FROM STA. 1244+30 TO STA. 1248+25 RT AND TEMPORARY RAMP FROM STA. 1248+25 TO STA. 1248+32.5 RT
8. CONSTRUCT PROPOSED HMA SHOULDERS, 8", FIRST LIFT OF AGGREGATE SHOULDERS, 6" AND GUARDRAIL FROM STA. 1242+10 TO STA. 1249+97 RT.

STAGE II

1. ERECT TRAFFIC CONTROL FOR STAGE II CONSTRUCTION.
2. REMOVE EXISTING HMA SHOULDER FROM STA. 1242+10 TO STA. 1243+37 LT. & FROM STA. 1249+88 TO STA. 1251+40 LT.
3. REMOVE EXISTING PAVEMENT FROM STA. 1245+57 TO STA. 1247+64 LT.
4. REMOVE EXISTING STRUCTURE LEFT, C 1246+42 AND GUARDRAIL.
5. CONSTRUCT PROPOSED STAGE II STRUCTURE, C 1246+60.25 LT.
6. CONSTRUCT HMA SURFACE REMOVAL, VARIABLE DEPTH FROM STA. 1244+30 TO STA. 1244+67.75 LT.
7. CONSTRUCT HMA BINDER COURSE FROM STA. 1244+30 TO STA. 1248+25 LT AND TEMPORARY RAMP FROM STA. 1248+25 TO STA. 1248+32.5 LT.
8. CONSTRUCT PROPOSED HMA SHOULDERS, 8", FIRST LIFT OF AGGREGATE SHOULDERS, 6" AND GUARDRAIL FROM STA. 1242+10 TO STA. 1251+40 LT.

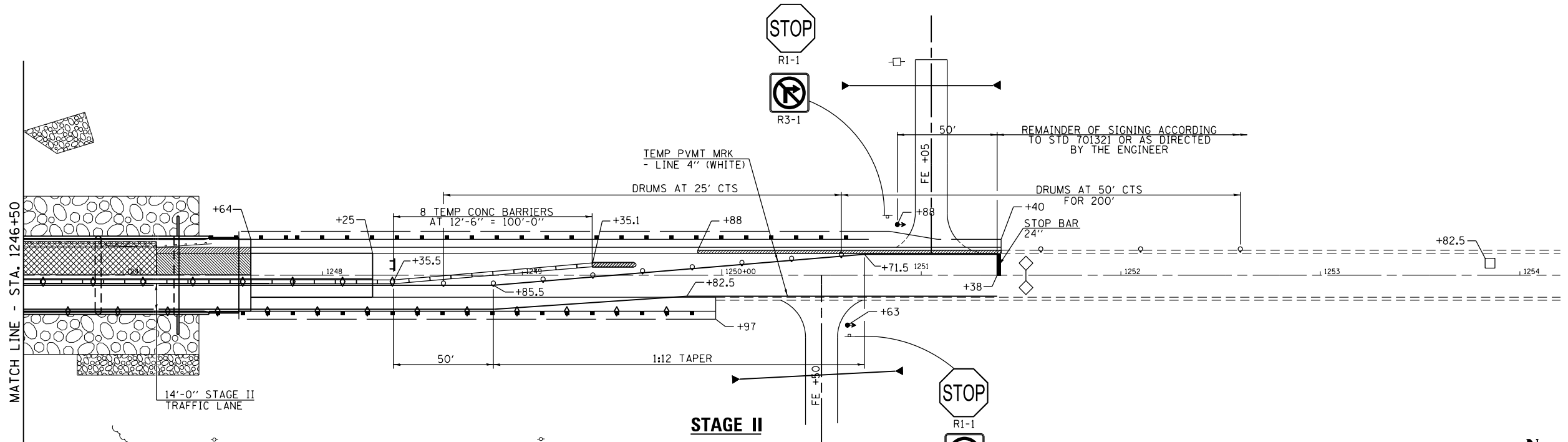
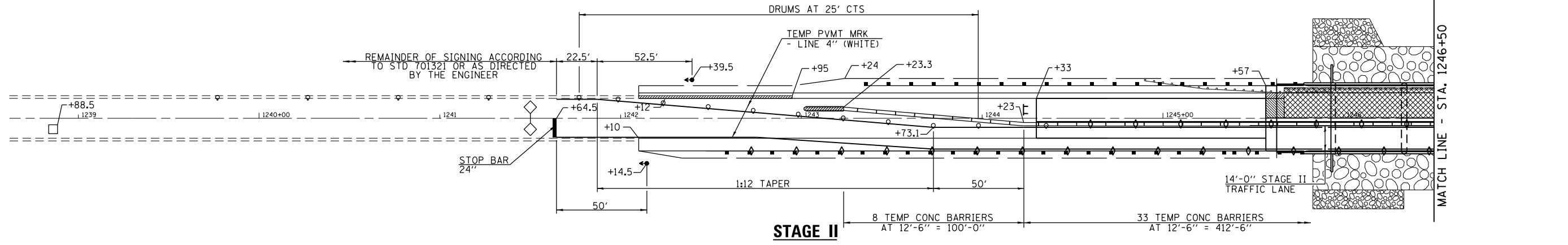
FINAL

1. REMOVE ALL STAGE TRAFFIC CONTROL AND RE-ESTABLISH NORMAL TRAFFIC PATTERNS.
2. CONSTRUCT HMA SURFACE REMOVAL, VARIABLE DEPTH FROM STA. 1242+10 TO STA. 1244+30 AND FROM STA. 1248+25 TO STA. 1249+41.75.
3. CONSTRUCT HMA BINDER COURSE FROM STA. 1248+25 TO STA. 1251+18.72.
4. CONSTRUCT HMA SURFACE COURSE, HMA SHOULDERS AND TOP LIFT OF AGGREGATE SHOULDERS, 6" FROM STA. 1242+10 TO STA. 1251+40.
5. COMPLETE FINAL STRIPING, SEEDING AND MISCELLANEOUS CLEAN-UP.

GENERAL NOTES

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

USER NAME = steffernk	DESIGNED -	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<p>STAGE CONSTRUCTION TRAFFIC DETAILS</p> <p>SCALE: 1" = 30" SHEET NO. 2 OF 3 SHEETS STA. 1238+60 TO STA. 1254+20</p>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 60.0000' / in.	DRAWN -	REVISED -				821	(18BY)B-1	WAYNE	55	16	
PLOT DATE = 8/2/2016	CHECKED -	REVISED -		CONTRACT NO. 74222							
	DATE -	REVISED -		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							

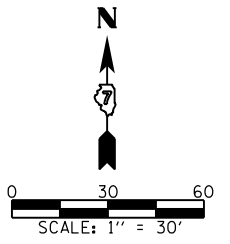


MATCH LINE - STA. 1246+50

MATCH LINE - STA. 1246+50

SYMBOLS

- SHOULDER REMOVAL
- PAVEMENT REMOVAL
- STRUCTURE REMOVAL
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- DETECTOR LOOPS
- DOUBLE VERTICAL PANEL
- LINEAR DELINEATION PANELS (PER SPCL PROV)
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR



TEMPORARY CONCRETE BARRIER SCHEDULE					
LOCATION STATION TO STATION	TEMP CONC BARRIER (FOOT)	RELOCATE TEMP CONC BARRIER (FOOT)	IMPACT ATTENUATOR (EACH)	RELOCATE IMPACT ATTENUATOR (EACH)	PINNING TEMP CONC BARRIER (EACH)
STAGE I					
STA 1243+01.4 TO STA 1243+23.4	612.5		1		75
STA 1243+23.4 TO STA 1249+35.1					
STA 1249+35.1 TO STA 1249+57.1					
STAGE II					
STA 1243+01.4 TO STA 1243+23.4	612.5			1	81
STA 1243+23.4 TO STA 1249+35.1					
STA 1249+35.1 TO STA 1249+57.1					
TOTAL	612.5	612.5	2	2	156

USER NAME = steffernik	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 60.0000' / in.	CHECKED -	REVISED -	
PLOT DATE = 8/2/2016	DATE -	REVISED -	

Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

STAGE CONSTRUCTION TRAFFIC DETAILS

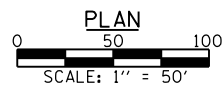
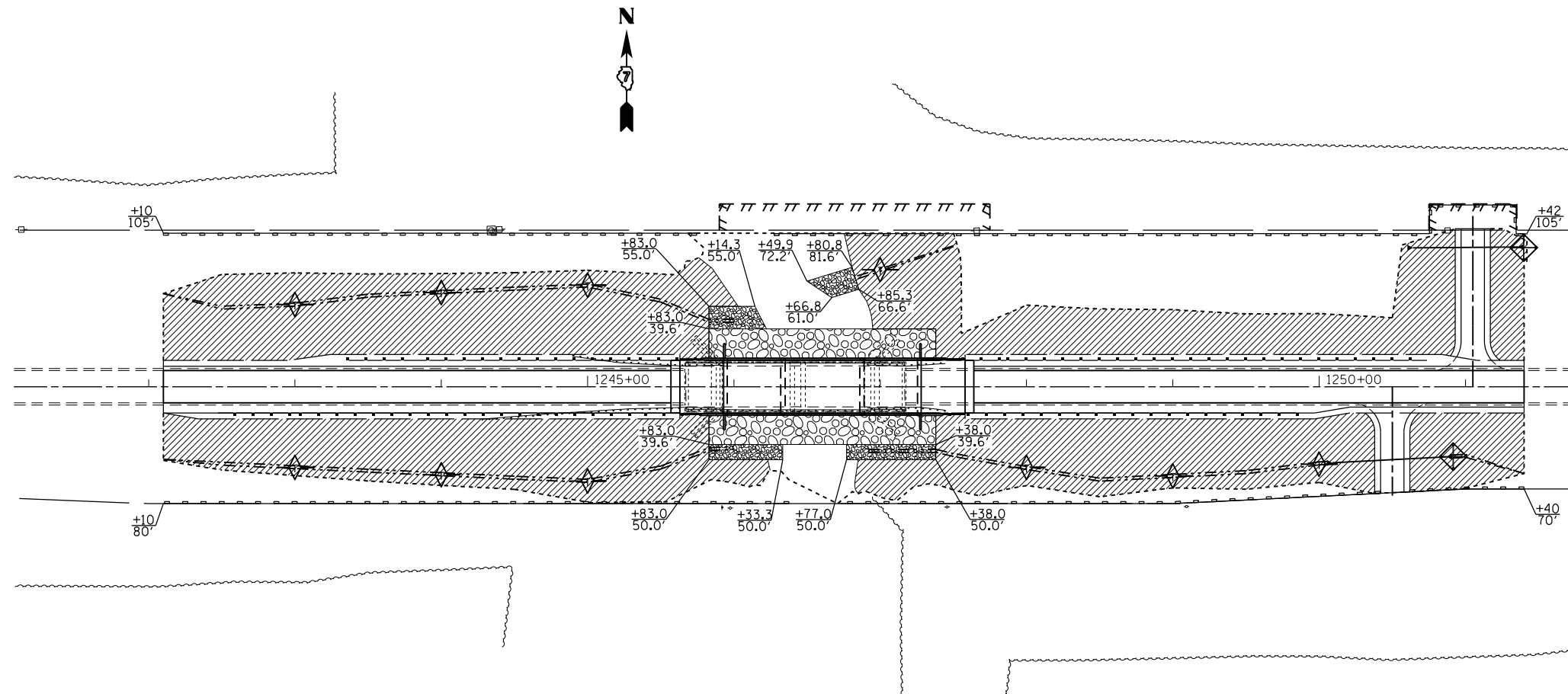
SCALE: 1" = 30' SHEET NO. 3 OF 3 SHEETS STA. 1238+60 TO STA. 1254+20

F.A.P. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.







821 (18BY1)B-1 WAYNE 55 17

CONTRACT NO. 74222


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



LEGEND

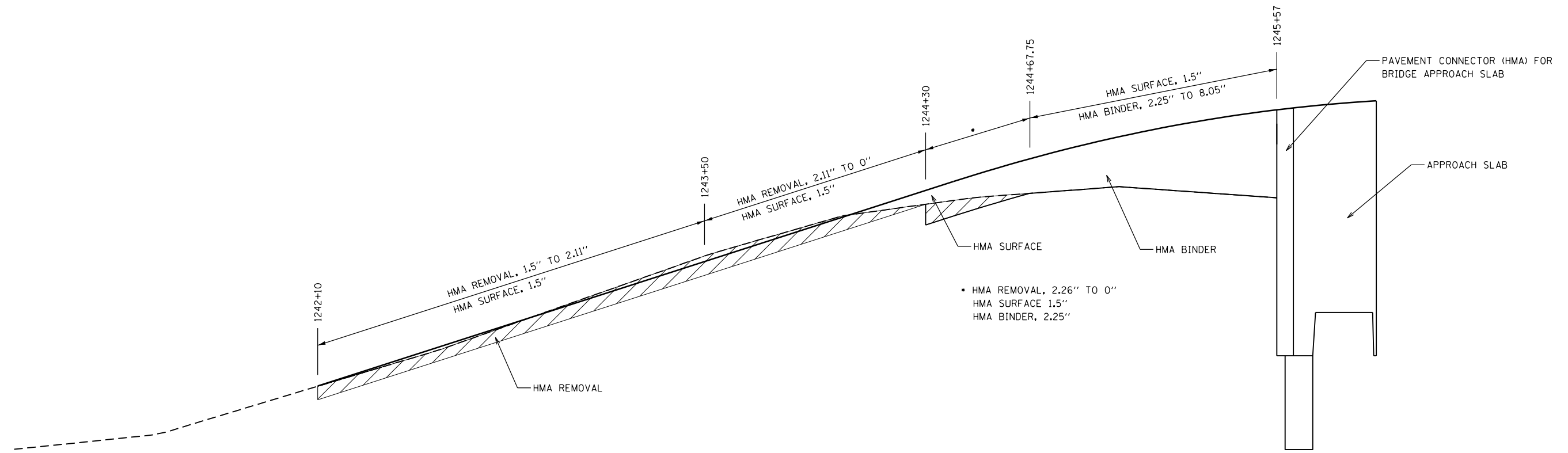
-  - TEMPORARY DITCH CHECK
-  - INLET & PIPE PROTECTION
-  - PERIMETER EROSION BARRIER
-  - STONE RIPRAP, CLASS A5 (ROADWAY (QTY))
-  - STONE RIPRAP, CLASS A5 (STRUCTURE QTY)
-  - TEMPORARY EROSION CONTROL SEEDING

USER NAME =	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE =	CHECKED -	REVISED -
PLOT DATE = 8/2/2016	DATE -	REVISED -

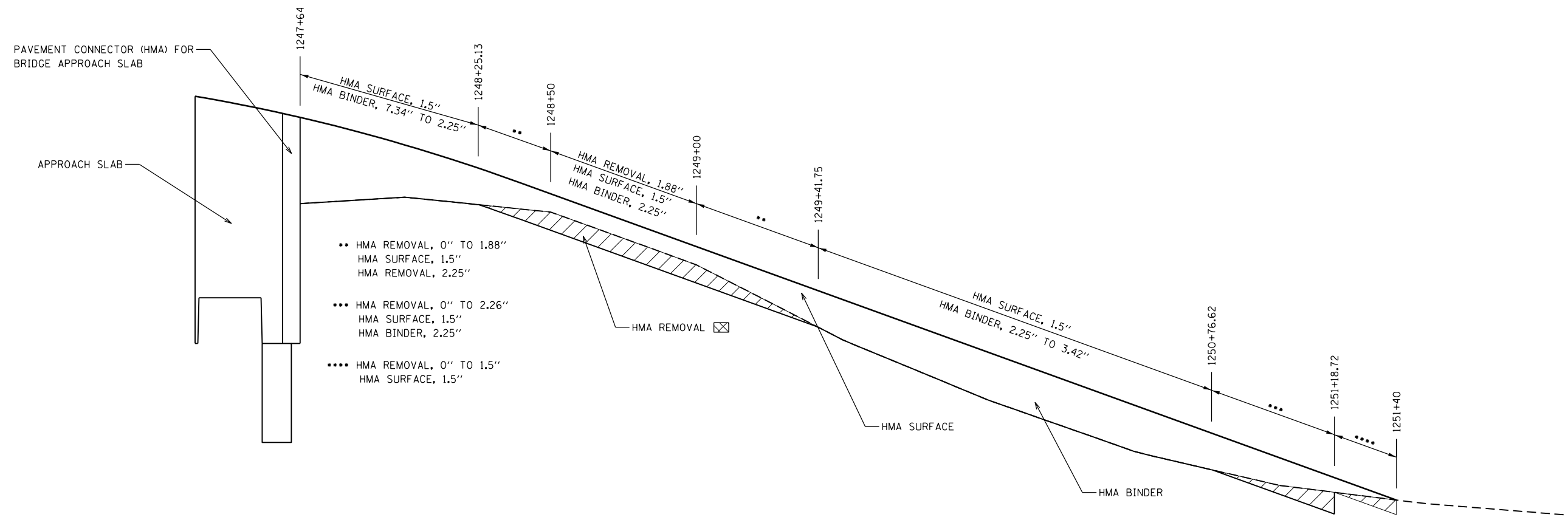
 **Allen Henderson & Associates, Inc.**
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

EROSION CONTROL PLAN			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY)B-1	WAYNE	55	18
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



- HMA REMOVAL, 2.26" TO 0"
- HMA SURFACE, 1.5"
- HMA BINDER, 2.25"



- HMA REMOVAL, 0" TO 1.88"
- HMA SURFACE, 1.5"
- HMA REMOVAL, 2.25"
- HMA REMOVAL, 0" TO 2.26"
- HMA SURFACE, 1.5"
- HMA BINDER, 2.25"
- HMA REMOVAL, 0" TO 1.5"
- HMA SURFACE, 1.5"

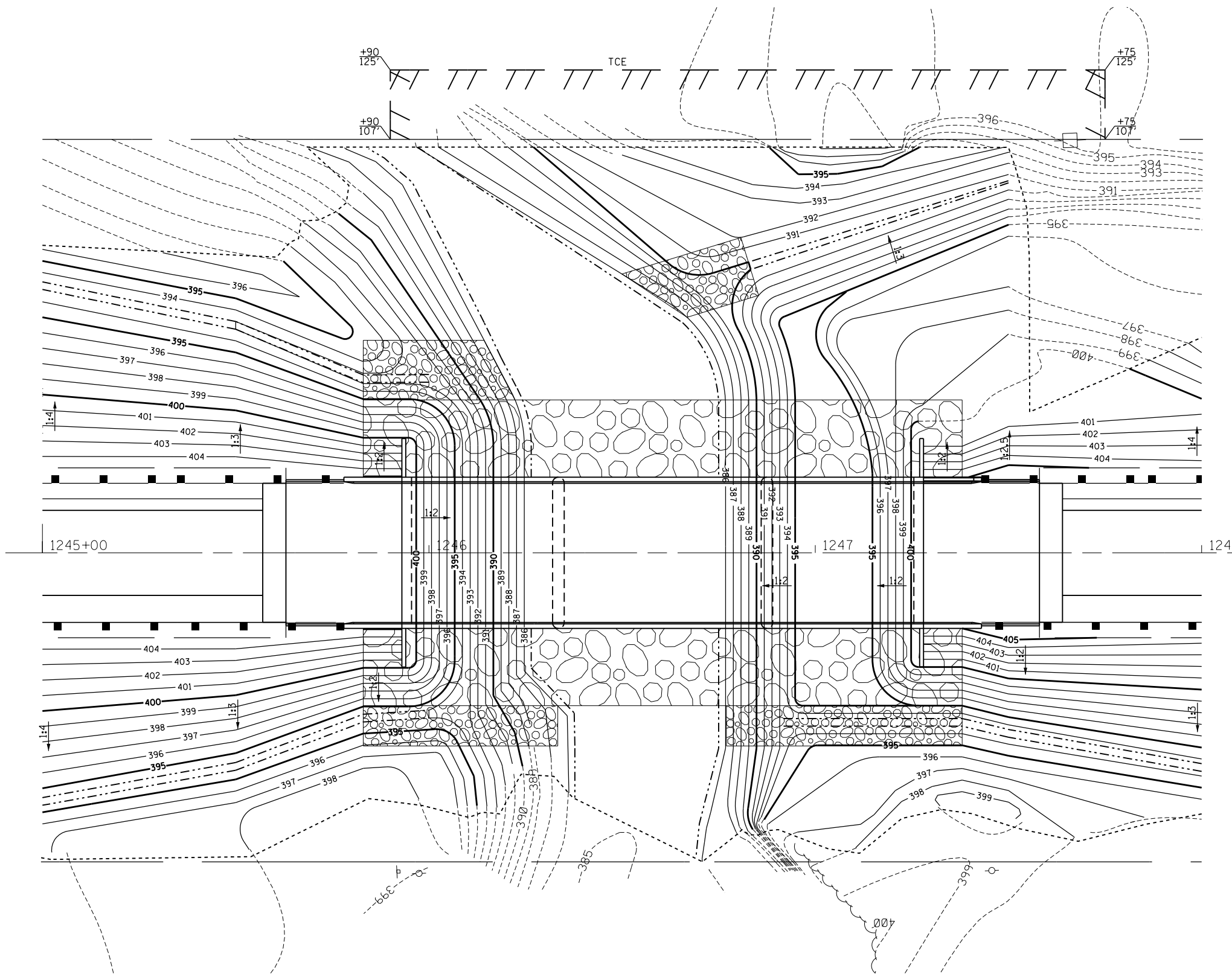
USER NAME = steffenmk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 8/2/2016	DATE -	REVISED -



Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

MILLING & PAVING DETAILS	
SCALE: NONE	STATION: TO STA.
SHEET NO. 1 OF 1 SHEETS	

F.A.P. RTE. 821	SECTION (18BY1)B-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 19
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



LEGEND

- 395 --- EXISTING CONTOUR
- 400 — PROPOSED MAJOR CONTOUR
- 399 — PROPOSED MINOR CONTOUR

USER NAME = steffenmk	DESIGNED -	REVISED -	 Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	GRADING PLAN		F.A.P. RTE. 821	SECTION (18BY1)B-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 20
PLOT SCALE = 30.0000' / in.	CHECKED -	REVISED -		SCALE: 1" = 15'		SHEET NO. 1 OF 1 SHEETS	STA. TO STA.		CONTRACT NO. 74222	
PLOT DATE = 8/2/2016	DATE -	REVISED -		FED. ROAD DIST. NO.		ILLINOIS		FED. AID PROJECT		

B.M. - Cut square in the southwest corner of the bridge curb of structure 096-0007, elev. 405.27.

Existing Structure: S.N. 096-0007 was originally constructed in 1922, as SBI 15, Section 18B and reconstructed in 1957 as SBI 15, Section 18-BY-1. The original structure consisted of a continuous two span reinforced concrete thru girder superstructure supported on pile supported closed abutments and a solid wall pier on pile supported footings. In 1957, the structure was widened from a 20' to a 28' roadway width. The superstructure is 33.9' wide and 151.0' in length consisting of continuous two span, 6 steel beams with a reinforced concrete slab and two pile bent supported approach slabs with no skew. The existing structure shall be completely replaced. One lane of traffic is to be maintained using stage construction.

Salvage - No Salvage.

Existing Approach span, bent & piles to be removed. (Included in the cost of Removal of Existing Structures) (See Special Provisions)

* Drains shall be located clear of all bracing and 10' clear of substructure units.

INDEX OF SHEETS

- 1. General Plan & Elevation
- 2. General Data
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier
- 5 & 6. Top of Slab Elevations
- 7. Top of West Approach Slab Elevations
- 8. Top of East Approach Slab Elevations
- 9. Superstructure
- 10. Superstructure Details
- 11 & 12. Diaphragm Details
- 13 & 14. Bridge Approach Slab Details
- 15. Framing Plan and Beam Details
- 16 & 17. 36" PPC I-Beam
- 18. 36" PPC I-Beam Details
- 19. West Abutment
- 20. East Abutment
- 21. Pier 1
- 22. Pier 2
- 23. HP Pile Details
- 24. Bar Splicer Assembly
- 25 - 27. Boring Logs

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition with 2008 & 2009 Interims

DESIGN STRESSES

FIELD UNITS

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

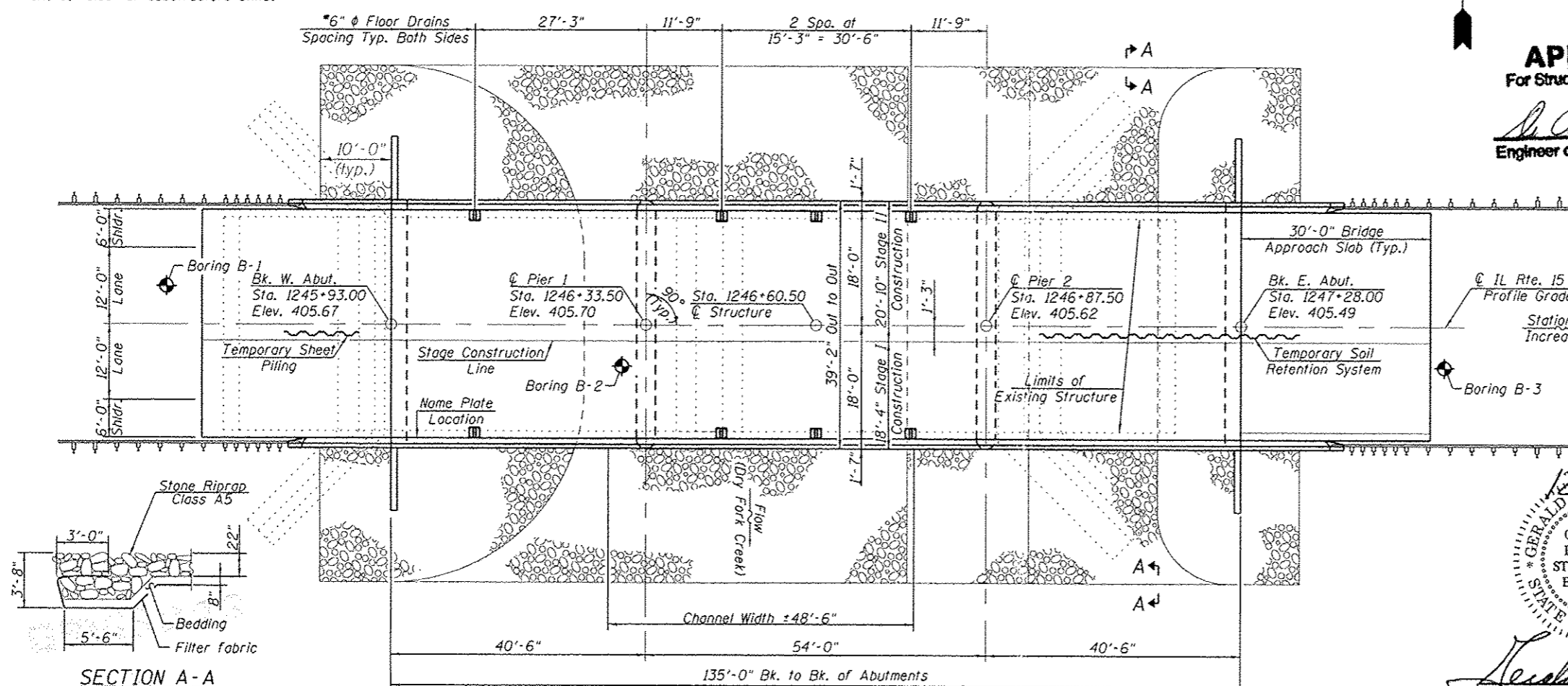
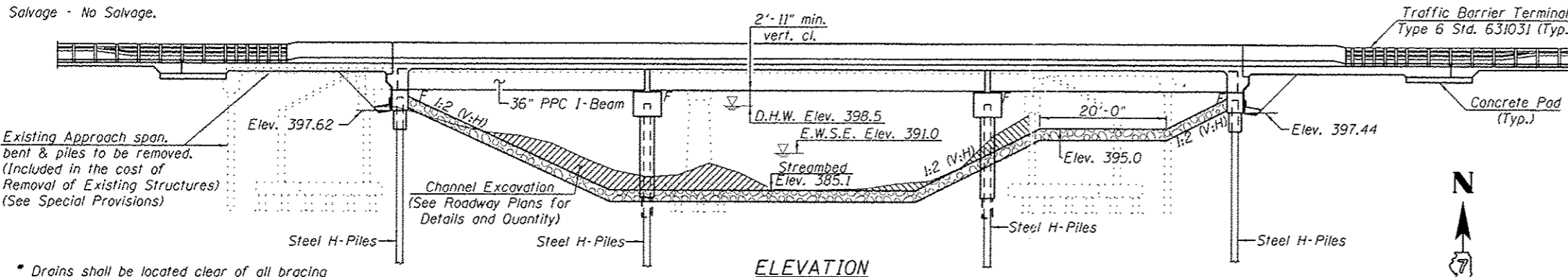
PRECAST PRESTRESSED UNITS

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

SEISMIC DATA

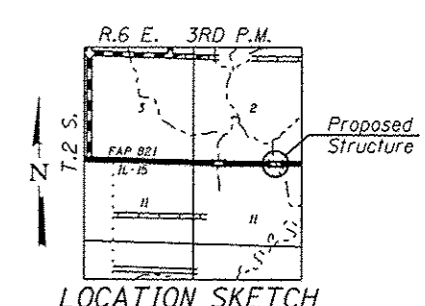
Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.286g
Design Spectral Acceleration at 0.2 sec. (S_S) = 0.687g
Soil Site Class = D

Note: See roadway plans for details and quantity of additional riprap required beyond the limits shown on the bridge plans.



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

12/17/2014
081-005673
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS
[Signature]
Expires 11-30-2016



WATERWAY INFORMATION

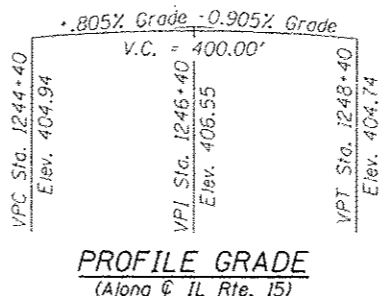
Drainage Area = 61.29 sq.mi. Low Grade Elev. 401.6 @ Sta. 1237+00

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Nat. H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	50	6377	814	908	398.5	1.9	1.9	400.4	400.4	
Base	100	7340	833	931	398.7	2.3	2.3	401.0	401.0	
Overtopping	200	8408	861	967	398.9	2.8	2.8	401.7	401.7	
Max. Calc.	500									

10 Year Velocity through Existing Bridge = 4.9 ft/s
10 Year Velocity through Proposed Bridge = 4.4 ft/s

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	397.8	372.1	372.1	397.5



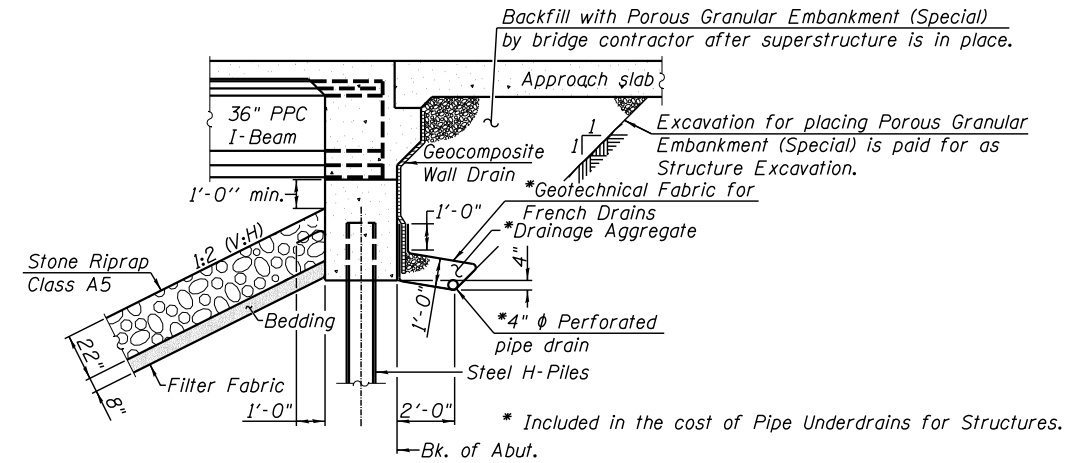
STATION 1246+60.50
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 821 SEC. 18BY11B-1
LOADING HL-93
STR. NO. 096-0075

NAME PLATE
See Std. 515001

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 15 OVER DRY FORK CREEK
F.A.P. ROUTE 821 SECTION 18BY11B-1
WAYNE COUNTY
STATION 1246+60.50
STRUCTURE NO. 096-0075

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5	TON		1214	1214
Filter Fabric	Sq. Yd.		1325	1325
Removal of Existing Structures	Each		1	1
Structure Excavation	Cu. Yd.		52	52
Cofferdam Excavation	Cu. Yd.		92	92
Floor Drains	Each	8		8
Concrete Structures	Cu. Yd.		200.8	200.8
Concrete Superstructure	Cu. Yd.	208.8		208.8
Concrete Superstructure (Approach Slab)	Cu. Yd.	111.7		111.7
Bridge Deck Grooving	Sq. Yd.	740		740
Concrete Encasement	Cu. Yd.		9.8	9.8
Protective Coat	Sq. Yd.	928		928
Furnishing & Erecting Precast Prestressed Concrete I Beams 36"	Foot	789		789
Reinforcement Bars, Epoxy Coated	Pound	75620	19260	94880
Bar Splicers	Each	656	168	824
Furnishing Steel Piles HP 12x63	Foot		1650	1650
Driving Piles	Foot		1650	1650
Test Pile Steel HP 12x63	Each		1	1
Name Plates	Each	1		1
Anchor Bolts, 1/2"	Each		8	8
Geocomposite Wall Drain	Sq. Yd.		74	74
Temporary Sheet Piling	Sq. Ft.		284	284
Pipe Underdrain for Structures 4"	Foot		144	144
Temporary Soil Retention System	Sq. Ft.		452	452
Porous Granular Embankment, Special	Cu. Yd.		140	140
Cofferdam (Type 1), Location 1	Each		1	1
Cofferdam (Type 1), Location 2	Each		1	1
Mechanical Splicers	Each	18	108	126

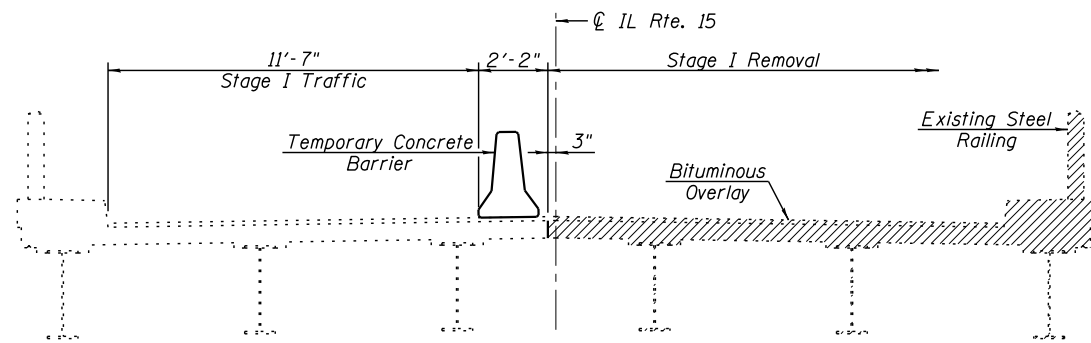


SECTION THRU INTEGRAL ABUTMENT

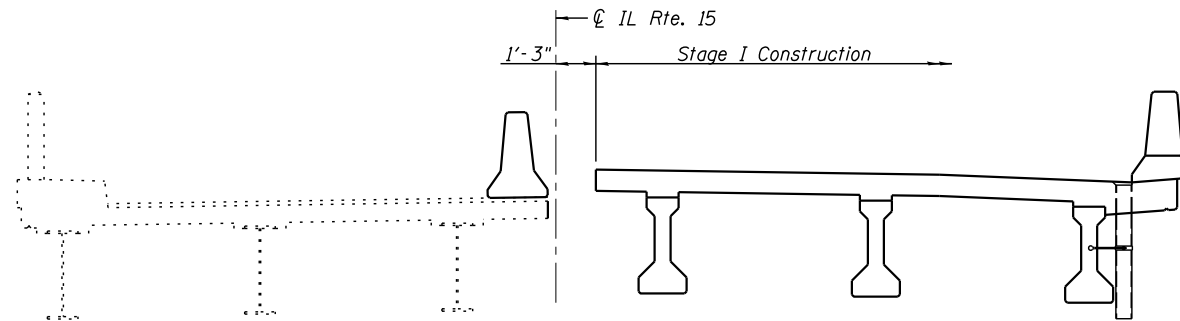
Note: All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall run down the slope and empty into headwall at ditch grade/toe. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 60110).

GENERAL NOTES

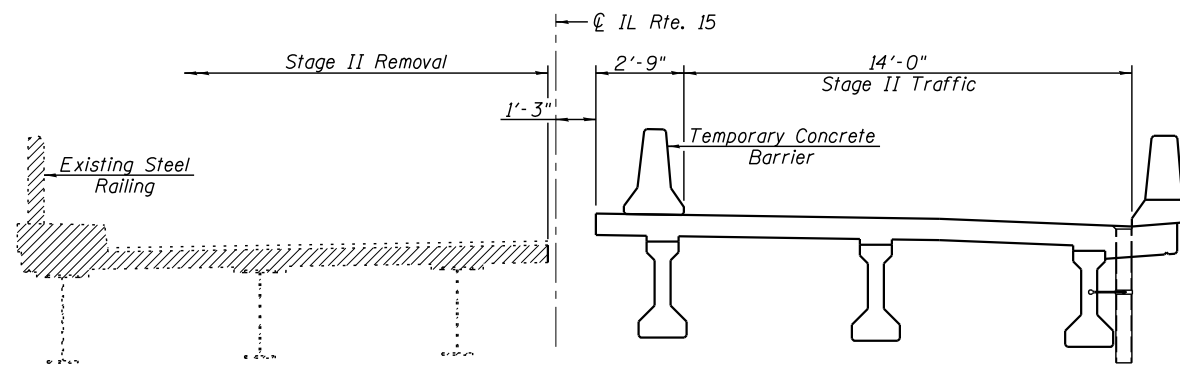
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
- Reinforcement bars designated (E) shall be epoxy coated.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- 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.
- Slipforming of the parapet is not allowed.



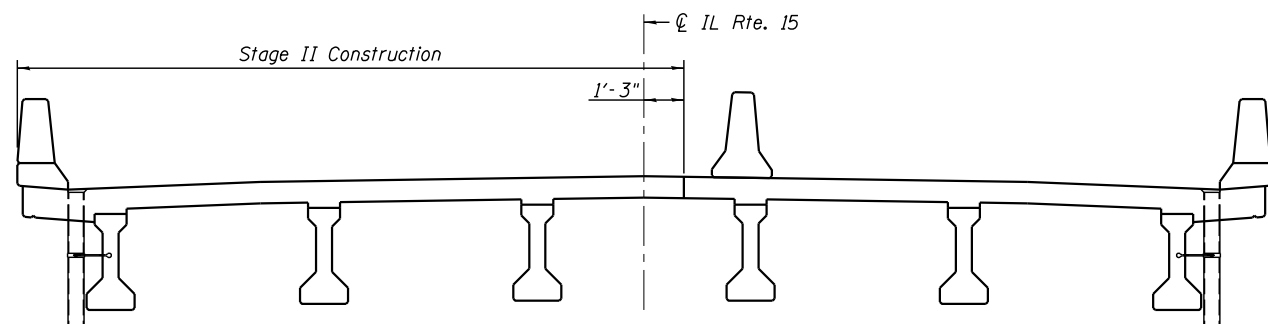
STAGE I REMOVAL
(Looking East)



STAGE I CONSTRUCTION
(Looking East)



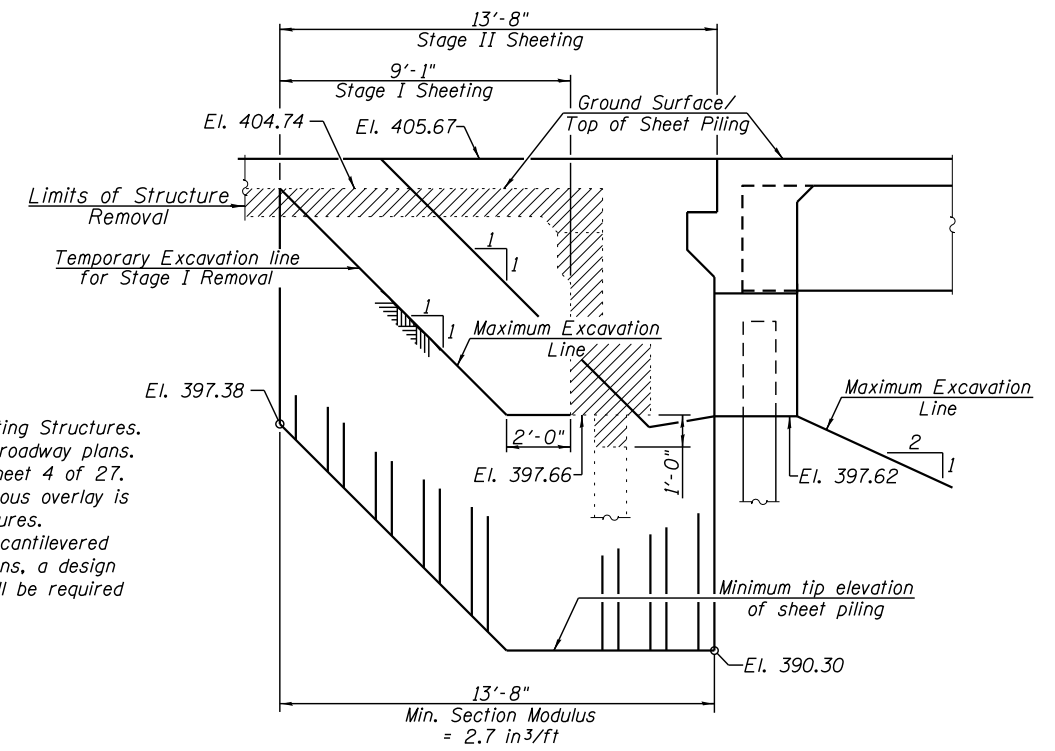
STAGE II REMOVAL
(Looking East)



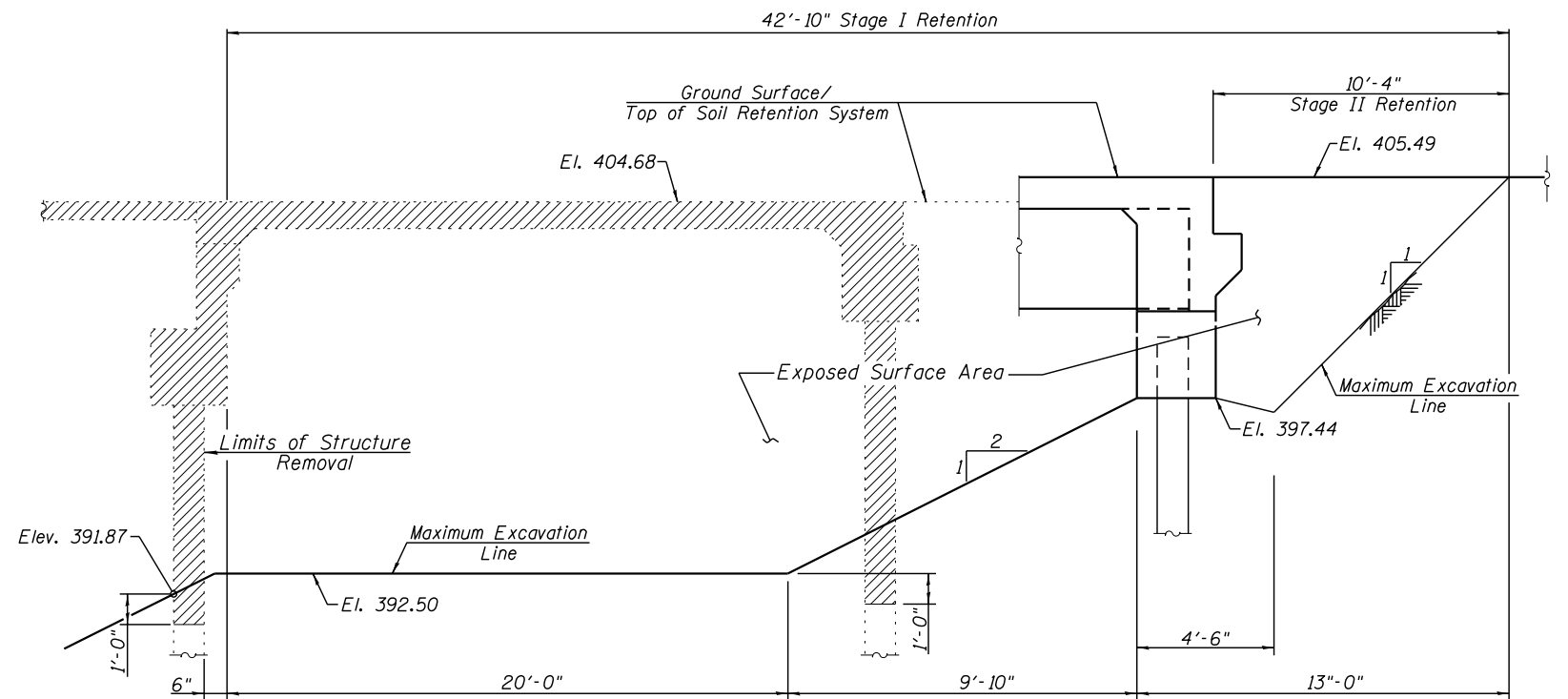
STAGE II CONSTRUCTION
(Looking East)

Notes:

Hatched areas indicate Limits of Removal of Existing Structures. For quantity of Temporary Concrete Barrier, see roadway plans. For details of Temporary Concrete Barrier see Sheet 4 of 27. Cost of removing existing steel railing and bituminous overlay is included in the cost of Removal of Existing Structures. 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.



TEMPORARY SHEET PILING DETAIL - WEST ABUTMENT
(Looking North)



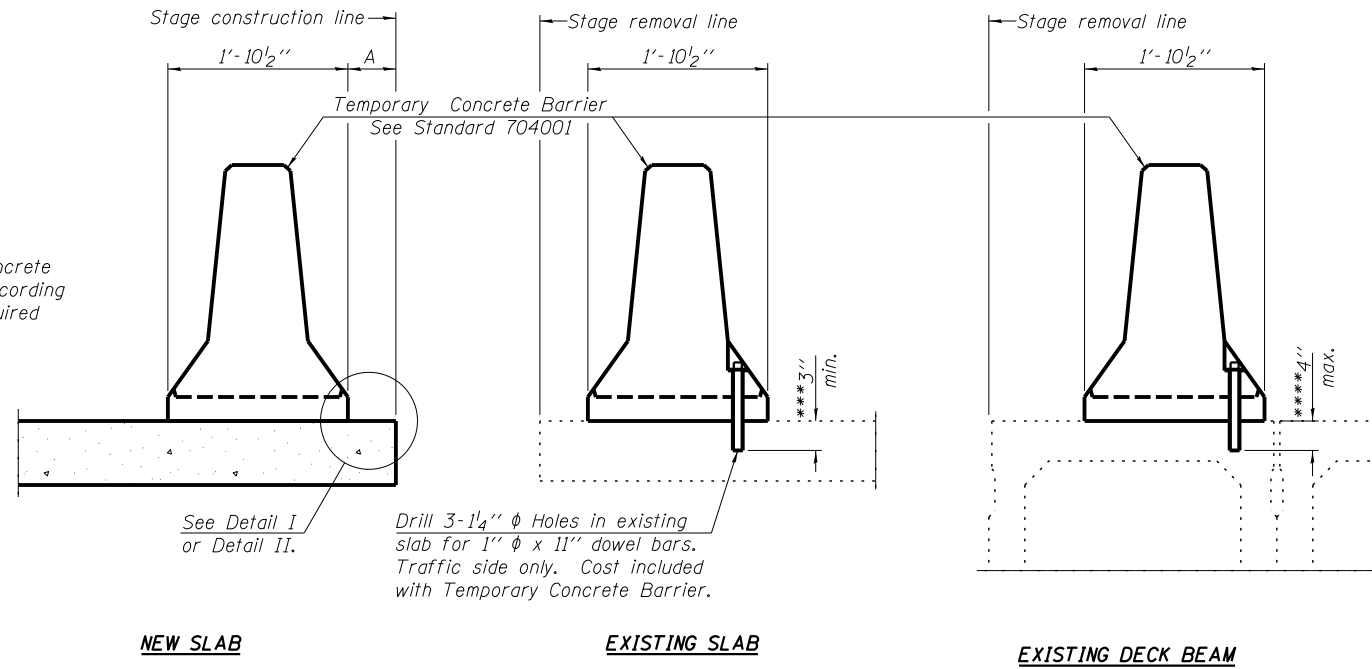
TEMPORARY SOIL RETENTION SYSTEM - EAST ABUTMENT
(Looking East)

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

Estimated Exposed Area to be Retained = Stage I = 401 sq. ft.
Stage II = 51 sq. ft.

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -		Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	STAGE CONSTRUCTION DETAILS STR. NO. 096-0075	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
		CHECKED - GBR	REVISED -				821	(18BY)B-1	WAYNE	55	23		
PLOT SCALE =		DRAWN - JRP	REVISED -				CONTRACT NO. 74222						
PLOT DATE =		CHECKED - GBR	REVISED -				ILLINOIS FED. AID PROJECT						

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

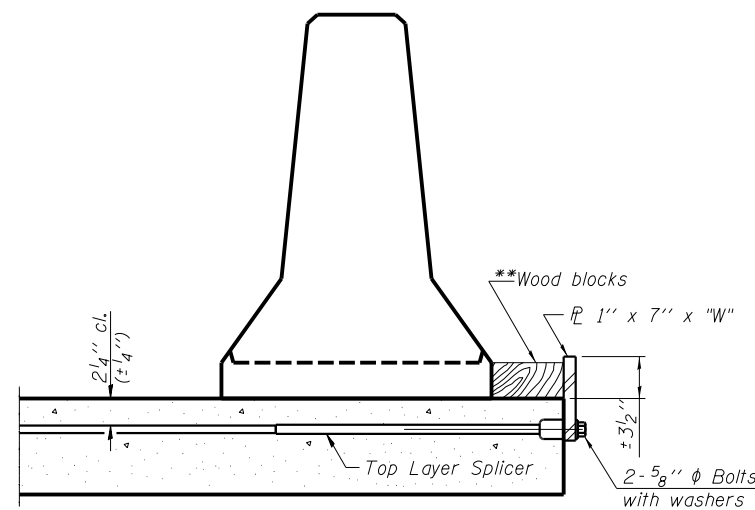
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

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

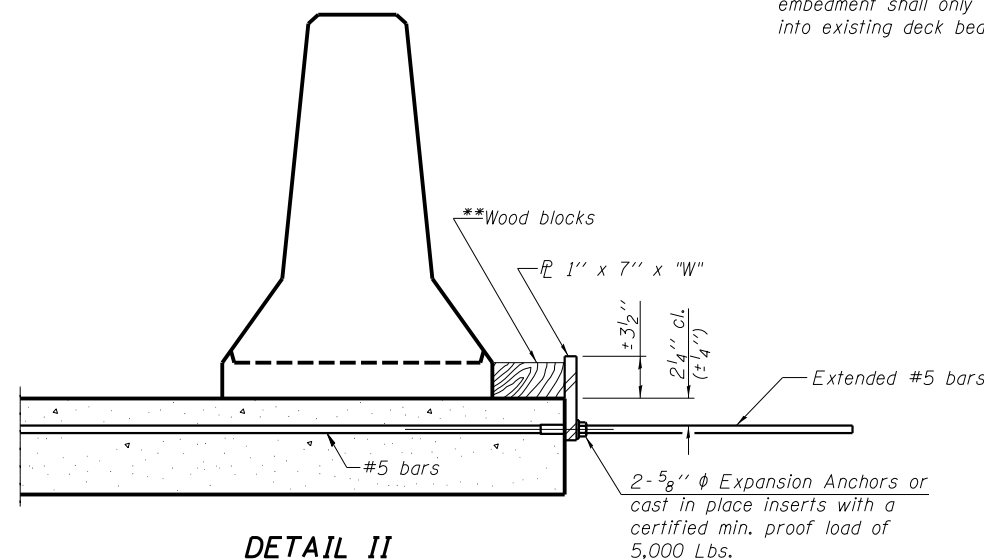
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** 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.



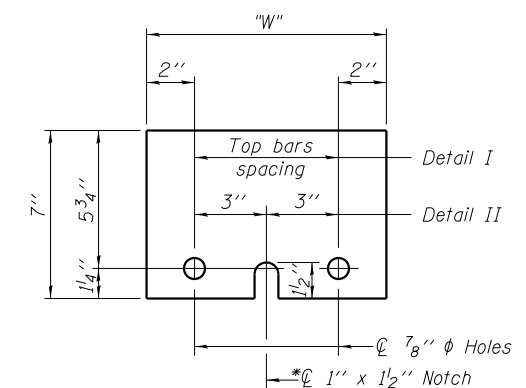
DETAIL I



DETAIL II

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

"W" = Top bars spacing + 4"



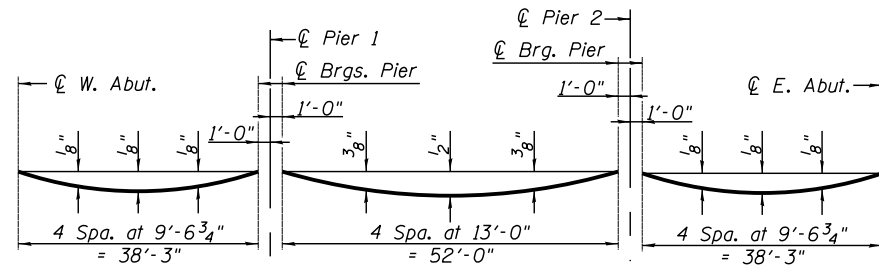
STEEL RETAINER \bar{L} 1" x 7" x "W"

* Required only with Detail II

R-27

7-1-10

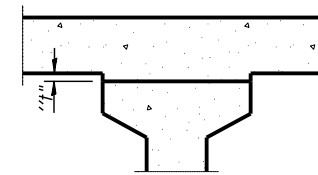
FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -	<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907</p>	<p>TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 096-0075</p>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - GBR	REVISED -	821			(18BY1)B-1	WAYNE	55	24	
PLOT SCALE =	DRAWN - JRP	REVISED -	CONTRACT NO. 74222							
PLOT DATE =	CHECKED - GBR	REVISED -	ILLINOIS FED. AID PROJECT							



DEAD LOAD DEFLECTION DIAGRAM

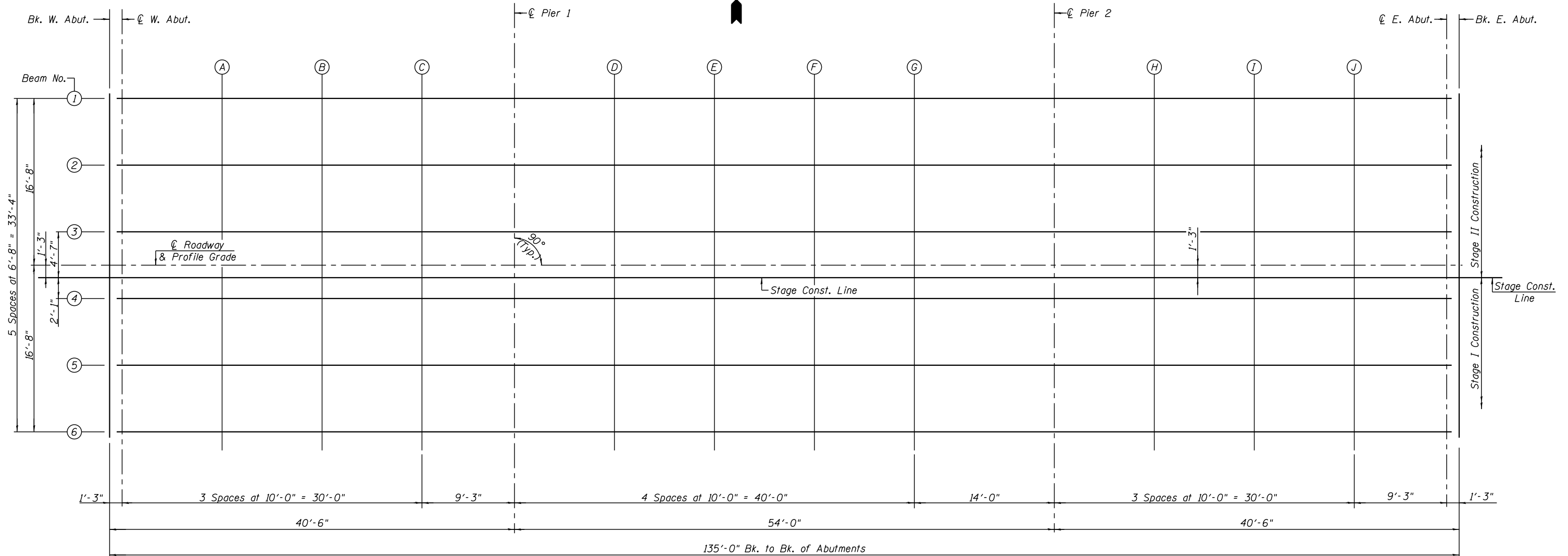
(Includes weight of concrete, excluding beams).

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 6 of 28.



To determine "t": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflections" shown on sheet 6 of 27, minus slab thickness, equals the fillet heights "t" above top flanges of beams.

FILLET HEIGHTS



PLAN

PI-E

7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -		Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	TOP OF SLAB ELEVATIONS STRUCTURE NO. 096-0075	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - GBR	REVISED -				821	(18BY)B-1	WAYNE	55	25
PLOT SCALE =		DRAWN - JRP	REVISED -				CONTRACT NO. 74222				
PLOT DATE =		CHECKED - GBR	REVISED -				SHEET NO. 5 OF 27 SHEETS			ILLINOIS FED. AID PROJECT	

BEAMS 1 & 6				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abut	1245+93.00	16.67	405.39	405.39
☉ W. Abut.	1245+94.25	16.67	405.39	405.39
A	1246+04.25	16.67	405.40	405.41
B	1246+14.25	16.67	405.41	405.42
C	1246+24.25	16.67	405.41	405.42
☉ Pier 1	1246+33.50	16.67	405.41	405.41
D	1246+43.50	16.67	405.41	405.44
E	1246+53.50	16.67	405.40	405.45
F	1246+63.50	16.67	405.39	405.44
G	1246+73.50	16.67	405.37	405.40
☉ Pier 2	1246+87.50	16.67	405.34	405.34
H	1246+97.50	16.67	405.31	405.32
I	1247+07.50	16.67	405.28	405.29
J	1247+17.50	16.67	405.24	405.25
☉ E. Abut.	1247+26.75	16.67	405.21	405.21
Bk. E. Abut.	1247+28.00	16.67	405.20	405.20

BEAMS 2 & 5				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abut	1245+93.00	10.00	405.52	405.52
☉ W. Abut.	1245+94.25	10.00	405.52	405.52
A	1246+04.25	10.00	405.53	405.54
B	1246+14.25	10.00	405.54	405.55
C	1246+24.25	10.00	405.54	405.55
☉ Pier 1	1246+33.50	10.00	405.54	405.54
D	1246+43.50	10.00	405.54	405.57
E	1246+53.50	10.00	405.53	405.57
F	1246+63.50	10.00	405.52	405.56
G	1246+73.50	10.00	405.50	405.53
☉ Pier 2	1246+87.50	10.00	405.47	405.47
H	1246+97.50	10.00	405.44	405.45
I	1247+07.50	10.00	405.41	405.42
J	1247+17.50	10.00	405.37	405.38
☉ E. Abut.	1247+26.75	10.00	405.33	405.33
Bk. E. Abut.	1247+28.00	10.00	405.33	405.33

BEAMS 3 & 4				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abut	1245+93.00	3.33	405.62	405.62
☉ W. Abut.	1245+94.25	3.33	405.62	405.62
A	1246+04.25	3.33	405.63	405.64
B	1246+14.25	3.33	405.64	405.66
C	1246+24.25	3.33	405.65	405.65
☉ Pier 1	1246+33.50	3.33	405.65	405.65
D	1246+43.50	3.33	405.64	405.67
E	1246+53.50	3.33	405.63	405.68
F	1246+63.50	3.33	405.62	405.67
G	1246+73.50	3.33	405.60	405.64
☉ Pier 2	1246+87.50	3.33	405.57	405.57
H	1246+97.50	3.33	405.54	405.55
I	1247+07.50	3.33	405.51	405.53
J	1247+17.50	3.33	405.48	405.48
☉ E. Abut.	1247+26.75	3.33	405.44	405.44
Bk. E. Abut.	1247+28.00	3.33	405.43	405.43

STAGE CONSTRUCTION LINE				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abut	1245+93.00	1.25	405.65	405.65
☉ W. Abut.	1245+94.25	1.25	405.65	405.65
A	1246+04.25	1.25	405.67	405.68
B	1246+14.25	1.25	405.67	405.69
C	1246+24.25	1.25	405.68	405.69
☉ Pier 1	1246+33.50	1.25	405.68	405.68
D	1246+43.50	1.25	405.67	405.70
E	1246+53.50	1.25	405.66	405.71
F	1246+63.50	1.25	405.65	405.70
G	1246+73.50	1.25	405.63	405.67
☉ Pier 2	1246+87.50	1.25	405.60	405.60
H	1246+97.50	1.25	405.58	405.59
I	1247+07.50	1.25	405.54	405.56
J	1247+17.50	1.25	405.51	405.52
☉ E. Abut.	1247+26.75	1.25	405.47	405.47
Bk. E. Abut.	1247+28.00	1.25	405.47	405.47

☉ ROADWAY & PROFILE GRADE				
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted for Dead Load Deflection
Bk. W. Abut	1245+93.00	0.00	405.67	405.67
☉ W. Abut.	1245+94.25	0.00	405.67	405.67
A	1246+04.25	0.00	405.69	405.70
B	1246+14.25	0.00	405.69	405.71
C	1246+24.25	0.00	405.70	405.71
☉ Pier 1	1246+33.50	0.00	405.70	405.70
D	1246+43.50	0.00	405.69	405.72
E	1246+53.50	0.00	405.68	405.73
F	1246+63.50	0.00	405.67	405.72
G	1246+73.50	0.00	405.65	405.69
☉ Pier 2	1246+87.50	0.00	405.62	405.62
H	1246+97.50	0.00	405.60	405.61
I	1247+07.50	0.00	405.56	405.58
J	1247+17.50	0.00	405.53	405.54
☉ E. Abut.	1247+26.75	0.00	405.49	405.49
Bk. E. Abut.	1247+28.00	0.00	405.49	405.49

PI-E1

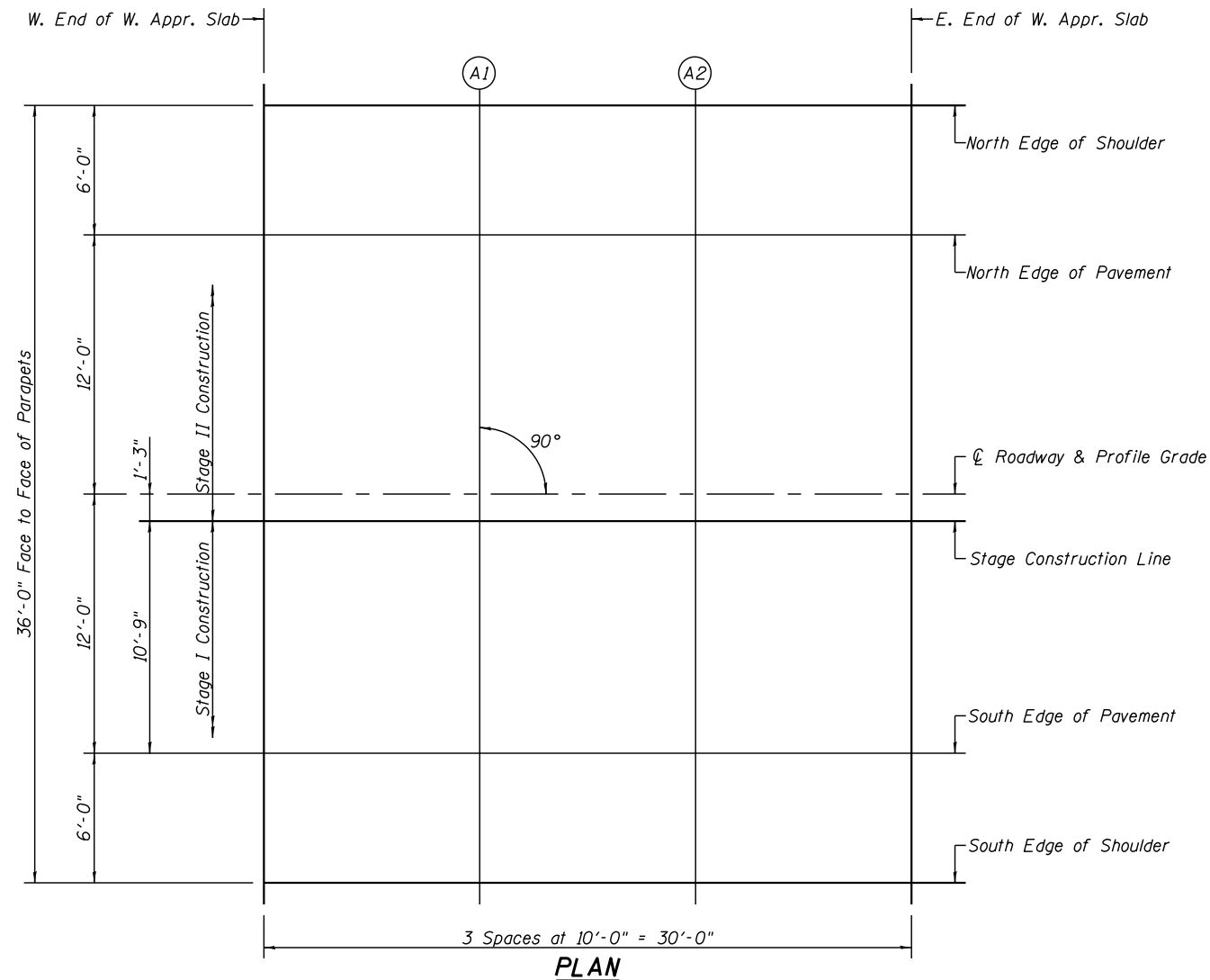
NORTH EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1245+63.00	-18.00	405.29
A1	1245+73.00	-18.00	405.32
A2	1245+83.00	-18.00	405.34
E. End of W. Appr. Slab	1245+93.00	-18.00	405.36

NORTH EDGE OF PAVEMENT			
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1245+63.00	-12.00	405.42
A1	1245+73.00	-12.00	405.45
A2	1245+83.00	-12.00	405.47
E. End of W. Appr. Slab	1245+93.00	-12.00	405.48

☉ ROADWAY & PROFILE GRADE			
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1245+63.00	0.00	405.61
A1	1245+73.00	0.00	405.63
A2	1245+83.00	0.00	405.65
E. End of W. Appr. Slab	1245+93.00	0.00	405.67



STAGE CONSTRUCTION LINE			
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1245+63.00	1.25	405.59
A1	1245+73.00	1.25	405.61
A2	1245+83.00	1.25	405.63
E. End of W. Appr. Slab	1245+93.00	1.25	405.65



SOUTH EDGE OF PAVEMENT			
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1245+63.00	12.00	405.42
A1	1245+73.00	12.00	405.45
A2	1245+83.00	12.00	405.47
E. End of W. Appr. Slab	1245+93.00	12.00	405.48

SOUTH EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
W. End of W. Appr. Slab	1245+63.00	18.00	405.29
A1	1245+73.00	18.00	405.32
A2	1245+83.00	18.00	405.34
E. End of W. Appr. Slab	1245+93.00	18.00	405.36

PA-E

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -		Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	TOP OF WEST APPROACH SLAB ELEVATIONS STRUCTURE NO. 096-0075	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - GBR	REVISED -	821				(18BY1)B-1	WAYNE	55	27	
PLOT SCALE =	DRAWN - JRP	REVISED -	CONTRACT NO. 74222								
PLOT DATE =	CHECKED - GBR	REVISED -	SHEET NO. 7 OF 27 SHEETS								

ILLINOIS FED. AID PROJECT

NORTH EDGE OF SHOULDER			
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1247+28.00	-18.00	405.17
A3	1247+38.00	-18.00	405.13
A4	1247+48.00	-18.00	405.08
E. End of E. Appr. Slab	1247+58.00	-18.00	405.03

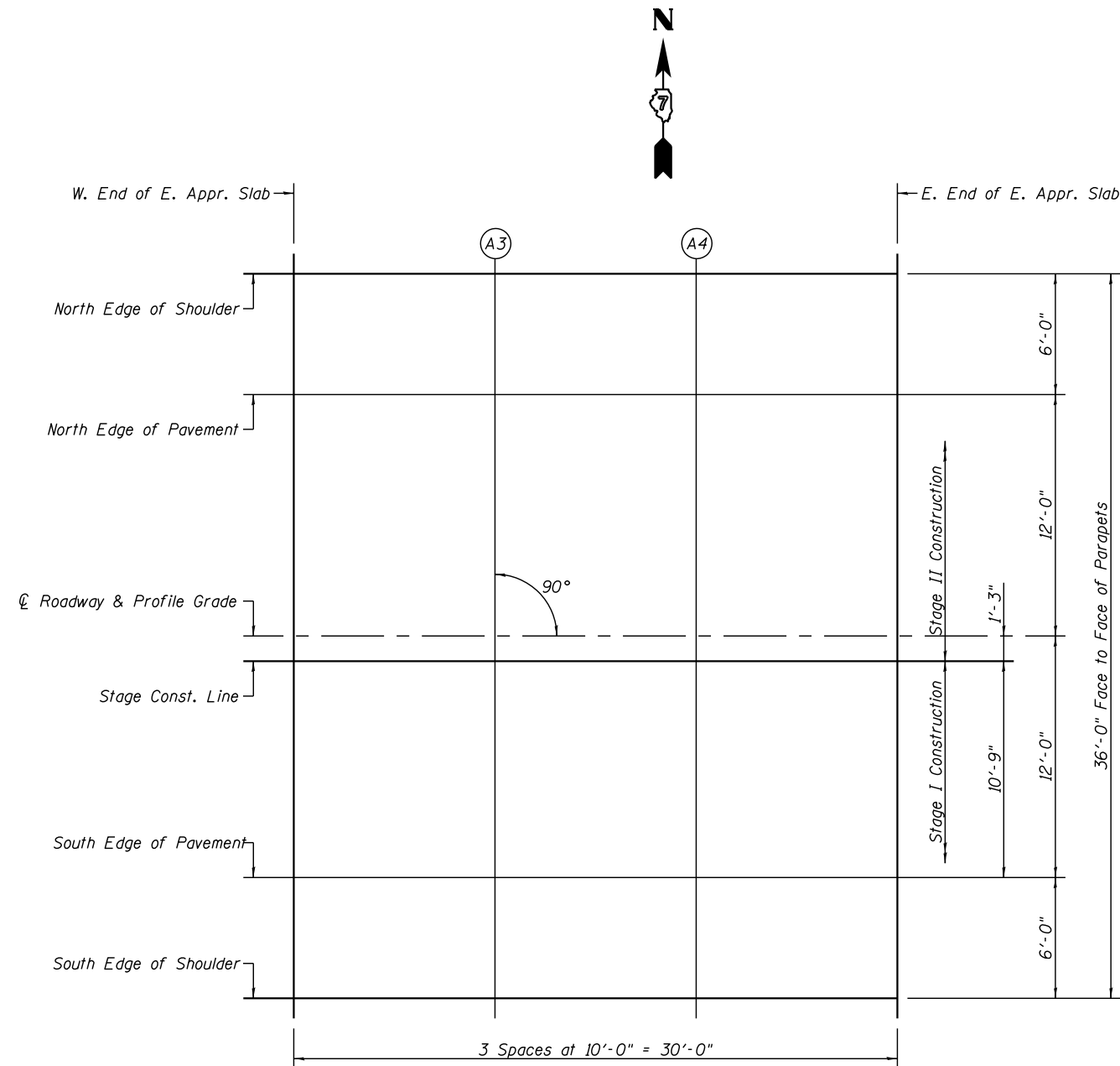
NORTH EDGE OF PAVEMENT			
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1247+28.00	-12.00	405.30
A3	1247+38.00	-12.00	405.25
A4	1247+48.00	-12.00	405.20
E. End of E. Appr. Slab	1247+58.00	-12.00	405.15

C ROADWAY & PROFILE GRADE			
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1247+28.00	0.00	405.49
A3	1247+38.00	0.00	405.44
A4	1247+48.00	0.00	405.39
E. End of E. Appr. Slab	1247+58.00	0.00	405.34

STAGE CONSTRUCTION LINE			
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1247+28.00	1.25	405.47
A3	1247+38.00	1.25	405.42
A4	1247+48.00	1.25	405.37
E. End of E. Appr. Slab	1247+58.00	1.25	405.32


SOUTH EDGE OF PAVEMENT			
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1247+28.00	12.00	405.30
A3	1247+38.00	12.00	405.25
A4	1247+48.00	12.00	405.20
E. End of E. Appr. Slab	1247+58.00	12.00	405.15

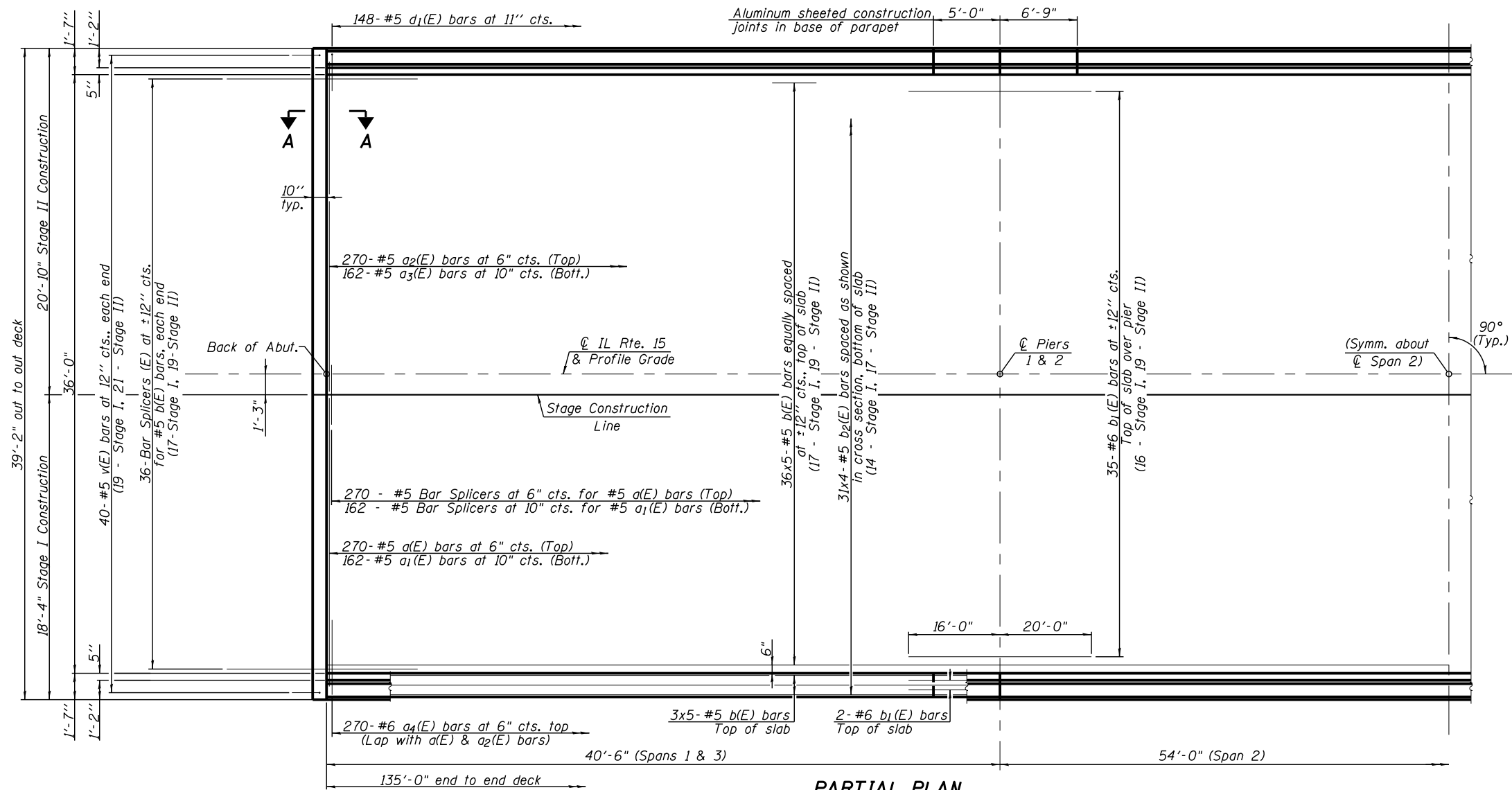
SOUTH EDGE OF SHOLDER			
Location	Station	Offset	Theoretical Grade Elevations
W. End of E. Appr. Slab	1247+28.00	18.00	405.17
A3	1247+38.00	18.00	405.13
A4	1247+48.00	18.00	405.08
E. End of E. Appr. Slab	1247+58.00	18.00	405.03



PLAN

PA-E

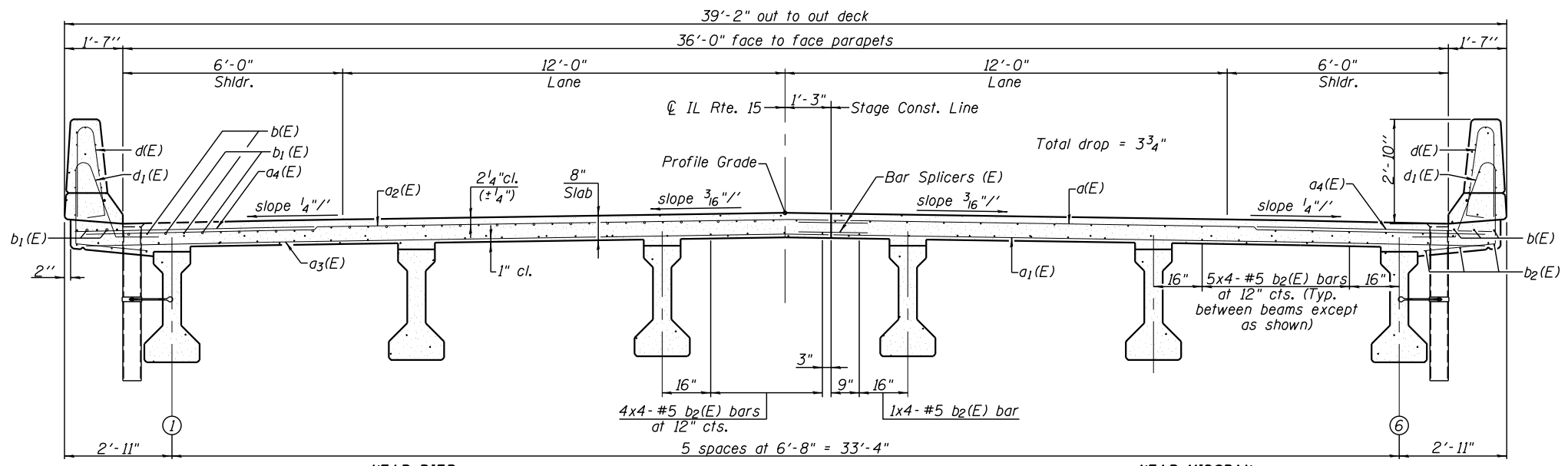
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	CHECKED - GBR	REVISED -	821			(18BY1)B-1	WAYNE	55	28	
PLOT SCALE =	DRAWN - JRP	REVISED -	CONTRACT NO. 74222							
PLOT DATE =	CHECKED - GBR	REVISED -	ILLINOIS FED. AID PROJECT							



PARTIAL PLAN

MIN. BAR LAP
#5 - 2'-6"

Notes:
See Sheet 10 of 27 for superstructure details and Bill of Material.
Bars indicated thus 36 x 5-#5 etc. indicates 36 lines of bars with 5 lengths per line.
See Sheet 10 of 27 for parapet reinforcement.
For Section A-A see Sheet 11 of 27.
For diaphragm details see Sheet 12 of 27.

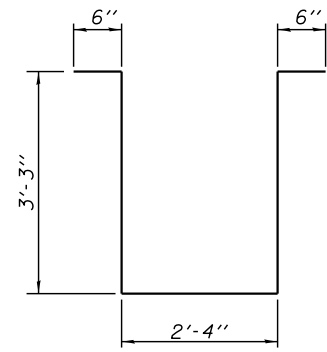
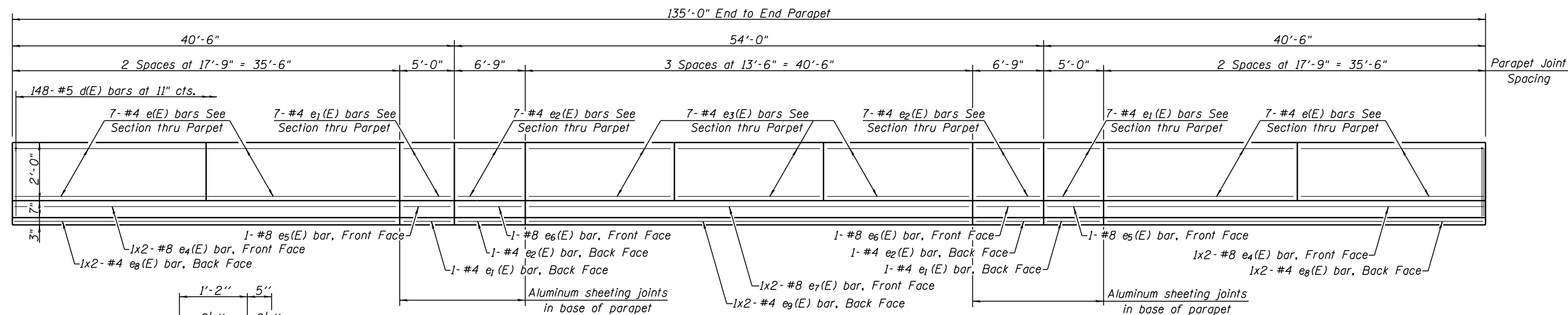


CROSS SECTION
(Looking East)

P11-2-0

7-1-10

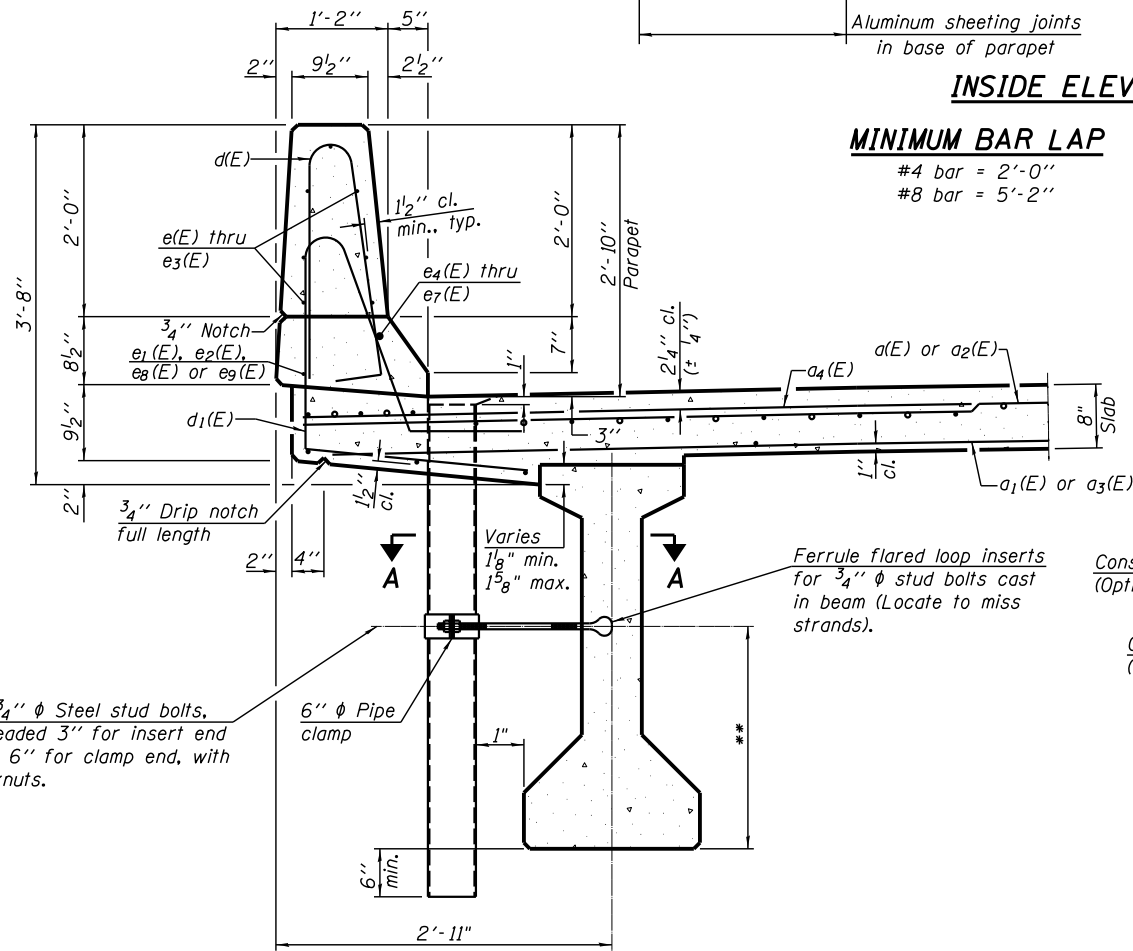
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	CHECKED - GBR	REVISED -	821			(18BY)B-1	WAYNE	55	29	
PLOT SCALE =	DRAWN - JRP	REVISED -	CONTRACT NO. 74222							
PLOT DATE =	CHECKED - GBR	REVISED -	ILLINOIS FED. AID PROJECT							



INSIDE ELEVATION OF PARAPET

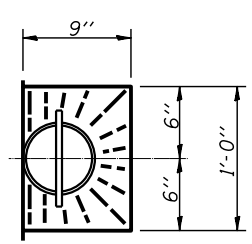
MINIMUM BAR LAP

#4 bar = 2'-0"
#8 bar = 5'-2"

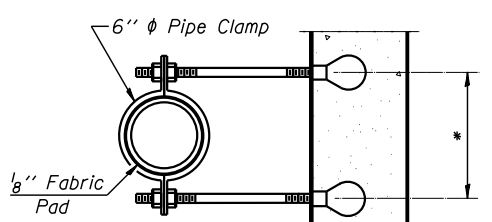


SECTION THRU PARAPET

**For insert locations See sheet 16 & 17 of 27.

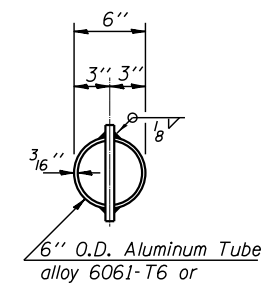


TOP PLAN



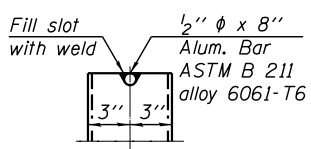
SECTION A-A

*Dimension as required by Pipe Clamp

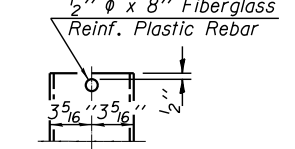


TOP PLAN

(Showing Aluminum Tube)



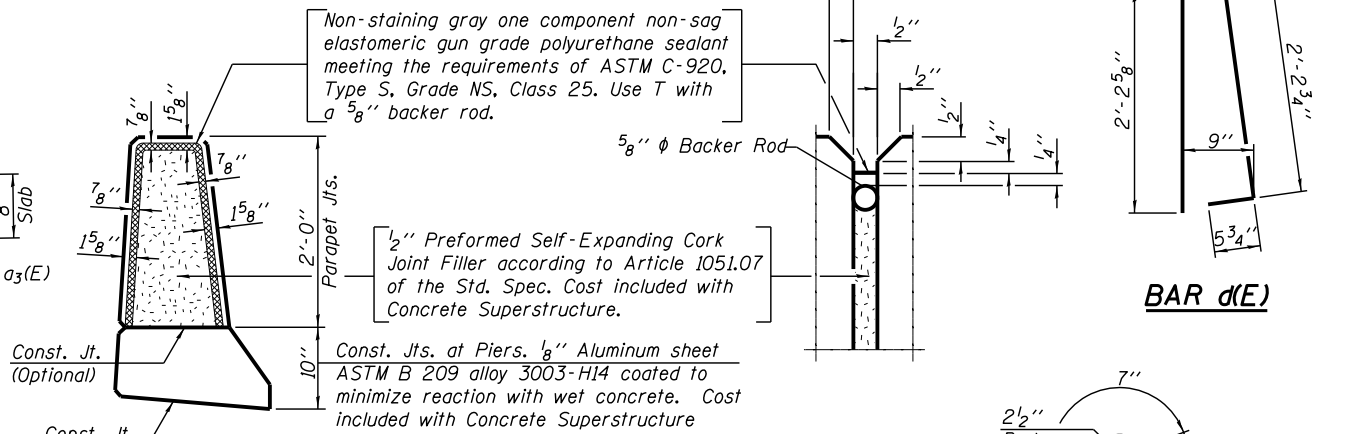
ALUMINUM TUBE



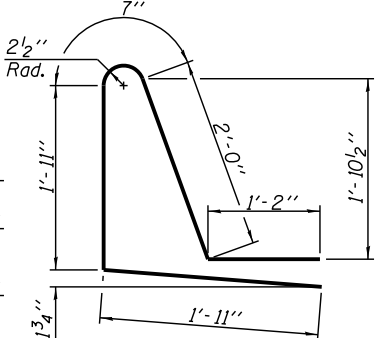
FIBERGLASS PIPE

Notes:
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
The exterior surfaces of the floor drains shall be coated or pigmented by the manufacturer with a color that matches the concrete.
The clamping device and inserts shall be galvanized according to AASHTO M 232. Cost of clamping device and galvanizing included with Floor Drains.

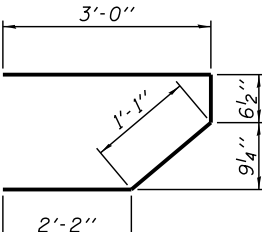
PARAPET JOINT DETAILS



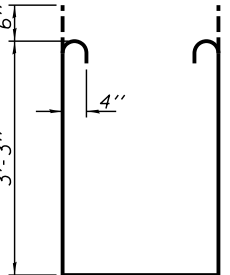
BAR d(E)



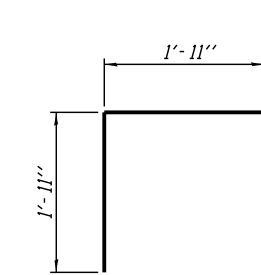
BAR d1(E)



BAR s(E)



BAR s1(E)



BAR v(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	270	#5	17'-8"	—
a1(E)	162	#5	16'-8"	—
a2(E)	270	#5	20'-4"	—
a3(E)	162	#5	19'-3"	—
a4(E)	540	#6	6'-6"	—
b(E)	210	#5	29'-5"	—
b1(E)	78	#6	36'-0"	—
b2(E)	124	#5	36'-2"	—
d(E)	296	#5	5'-7"	—
d1(E)	296	#5	7'-7"	—
e(E)	56	#4	17'-5"	—
e1(E)	32	#4	4'-8"	—
e2(E)	32	#4	6'-5"	—
e3(E)	42	#4	13'-2"	—
e4(E)	8	#8	20'-2"	—
e5(E)	4	#8	4'-8"	—
e6(E)	4	#8	6'-5"	—
e7(E)	4	#8	22'-8"	—
e8(E)	8	#4	18'-7"	—
e9(E)	4	#4	21'-1"	—
m(E)	10	#6	17'-10"	—
m1(E)	10	#6	20'-6"	—
m2(E)	24	#6	10'-0"	—
m3(E)	30	#6	4'-10"	—
m4(E)	4	#6	1'-10"	—
m5(E)	40	#4	5'-10"	—
m6(E)	12	#8	5'-6"	—
s(E)	72	#5	6'-10"	—
s1(E)	64	#4	9'-8"	—
s2(E)	60	#4	9'-10"	—
v(E)	80	#5	3'-10"	—
Reinforcement Bars, Epoxy Coated Concrete Superstructure		Lbs.	46790	
		Cu. Yds.	202.1	

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

PI-I-D

7-1-10

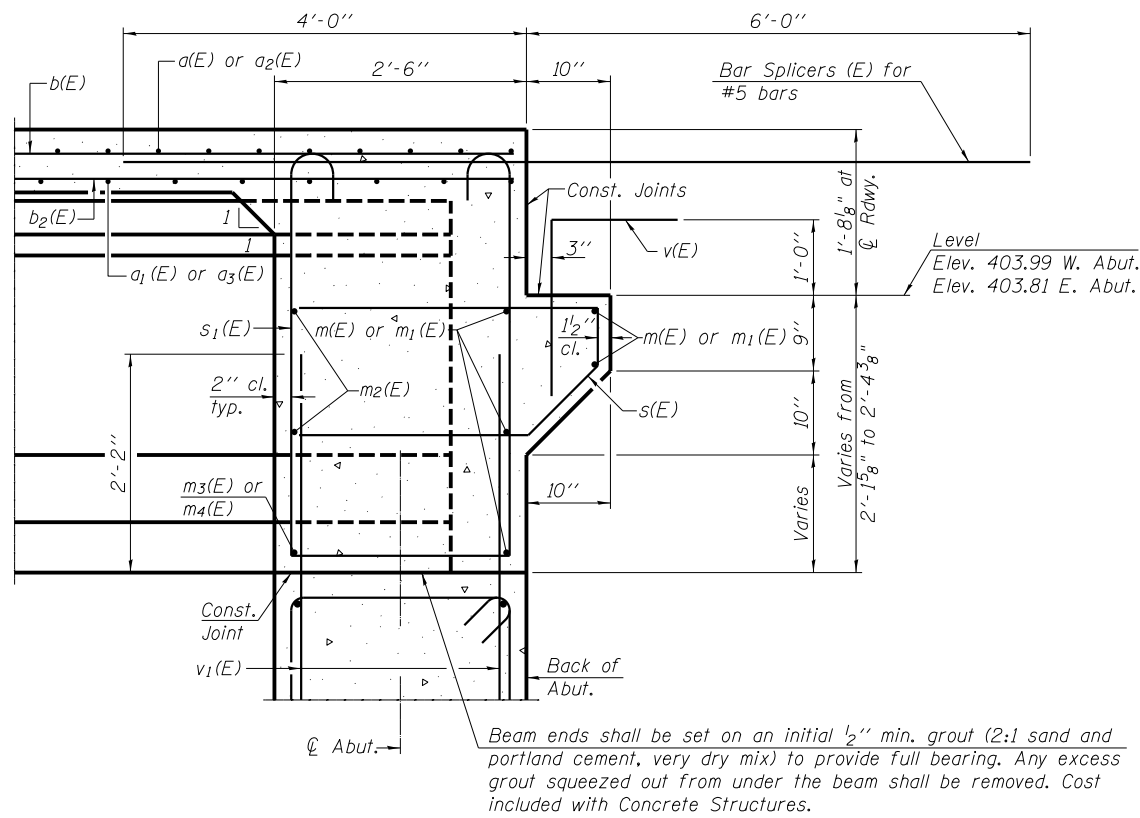
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		CHECKED - GBR	REVISED -
		DRAWN - JRP	REVISED -
		CHECKED - GBR	REVISED -

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No. 184-001907

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 096-0075

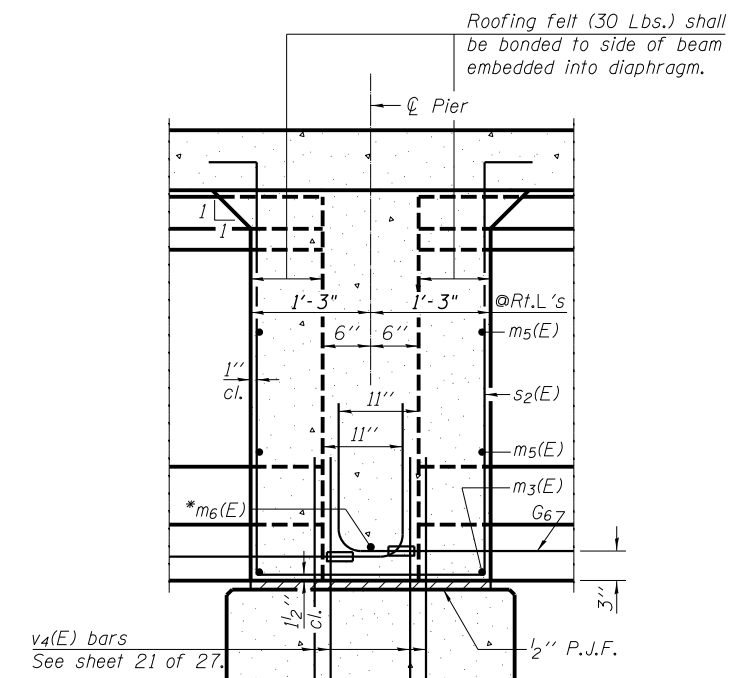
SHEET NO. 10 OF 27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY)B-1	WAYNE	55	30
			CONTRACT NO. 74222	
ILLINOIS FED. AID PROJECT				



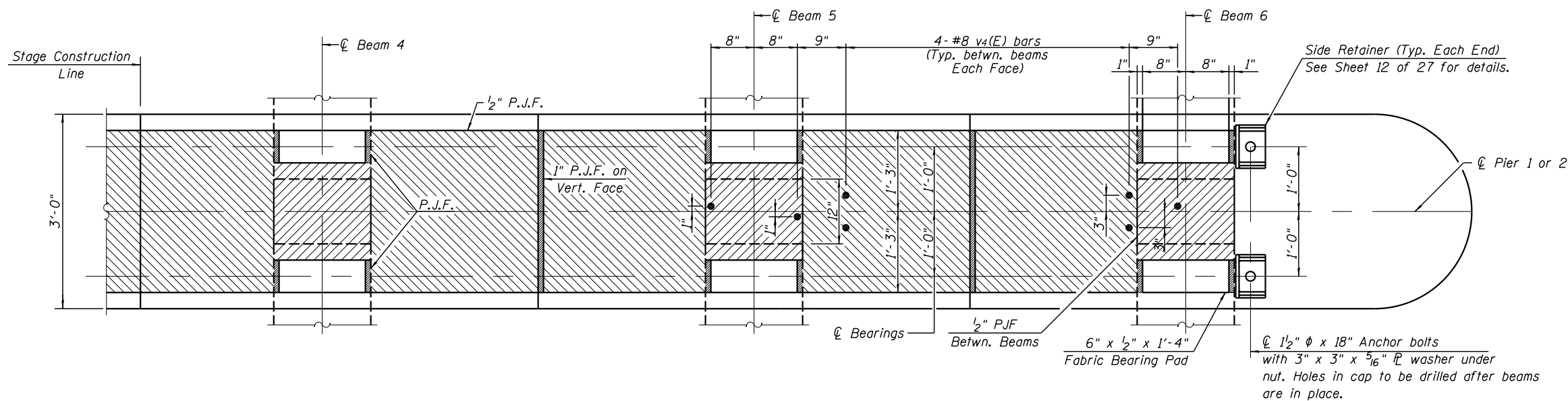
SECTION A-A

Note: See sheet 12 of 27 for location of Sections A-A and B-B.



SECTION B-B

* Tightly fasten the #8 bars together with No. 9 wire ties.



PLAN AT PIER
(Showing bearing pad and PJF details)

FILE NAME =
PI-2DDI

USER NAME =
DESIGNED - JRS
CHECKED - GBR
DRAWN - JRP
PLOT SCALE =
PLOT DATE =

REVISED -
REVISED -
REVISED -
REVISED -



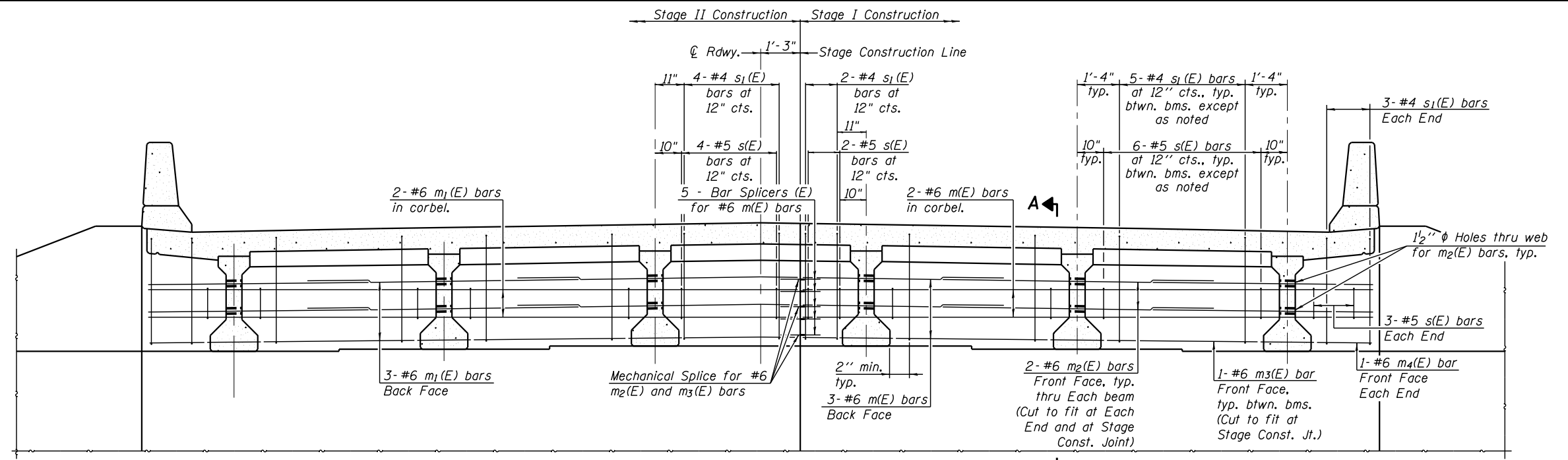
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No. 184-001907

DIAPHRAGM DETAILS
STRUCTURE NO. 096-0075

SHEET NO. 11 OF 27 SHEETS

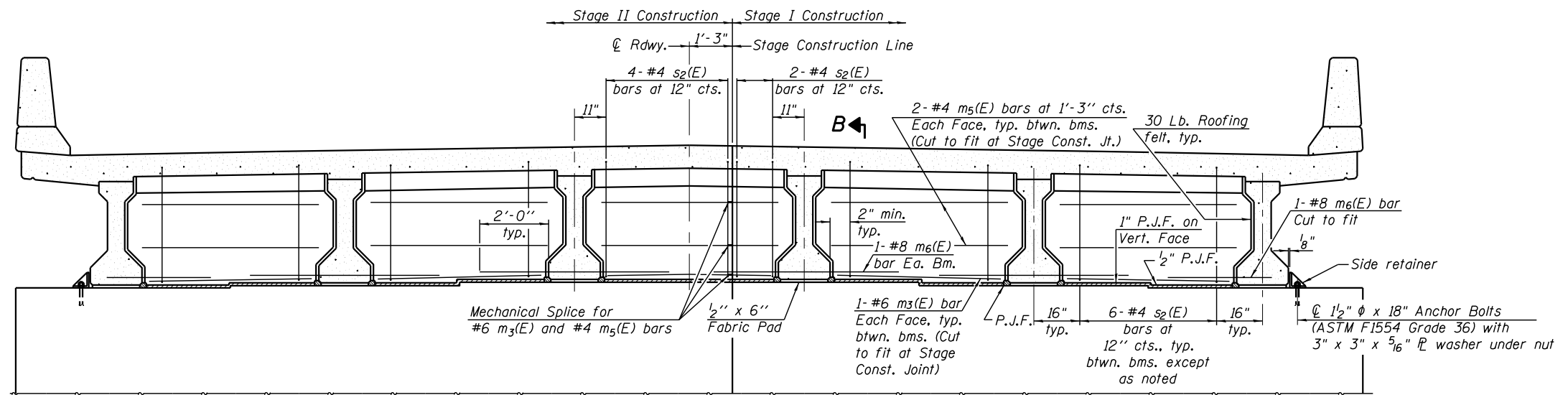
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	31
CONTRACT NO. 74222				

ILLINOIS FED. AID PROJECT



DIAPHRAGM ELEVATION AT EAST ABUTMENT

(Looking East)
(West Abutment similar by rotation of 180°)

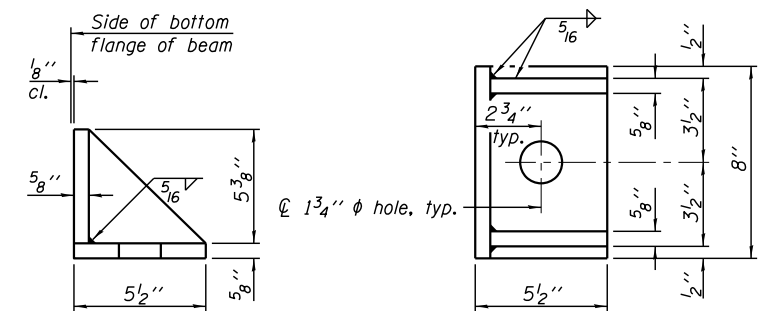


DIAPHRAGM ELEVATION AT PIERS

(Looking East)

- Notes:
- Reinforcement bars in diaphragm are billed with superstructure on sheet 10 of 27.
 - Concrete in diaphragm is included with Concrete Superstructure on sheet 10 of 27.
 - For details of bars s(E), s1(E) and s2(E) see sheet 10 of 27.
 - The s(E), s1(E) and s2(E) bars shall be placed parallel to the beams.
 - Spacing for these bars shall be at right angles to the beams.
 - See sheet 11 of 27 for Sections A-A and B-B.
 - Cost of 30 Lb. roofing felt is included with Concrete Superstructure.
 - The side retainer shall be galvanized after shop fabrication according to AASHTO M 111.
 - Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications.
 - Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 - Anchor bolts for side retainers may be either cast in place or installed in holes drilled after the supporting member is in place and prior to pouring the deck.
 - Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 - Cost of side retainer shall be included with Concrete Structures.

MIN. BAR LAP
#6 bar = 3'-4"



SIDE RETAINER

(2 required each side of pier.)
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

PI-2DI

7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -
		CHECKED - GBR	REVISED -
		DRAWN - JRP	REVISED -
		CHECKED - GBR	REVISED -



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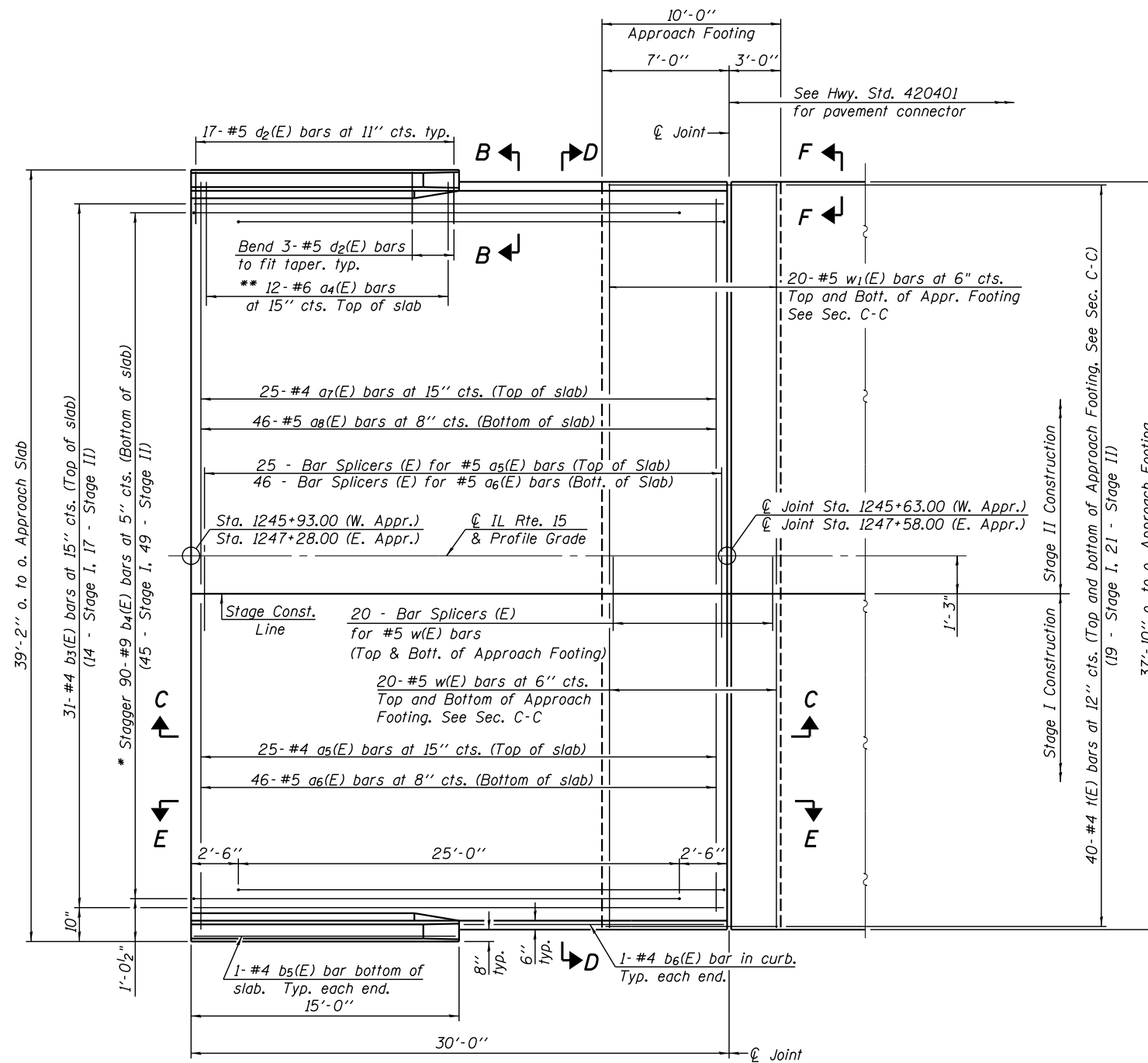
DIAPHRAGM DETAILS
STRUCTURE NO. 096-0075

SHEET NO. 12 OF 27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 74222				

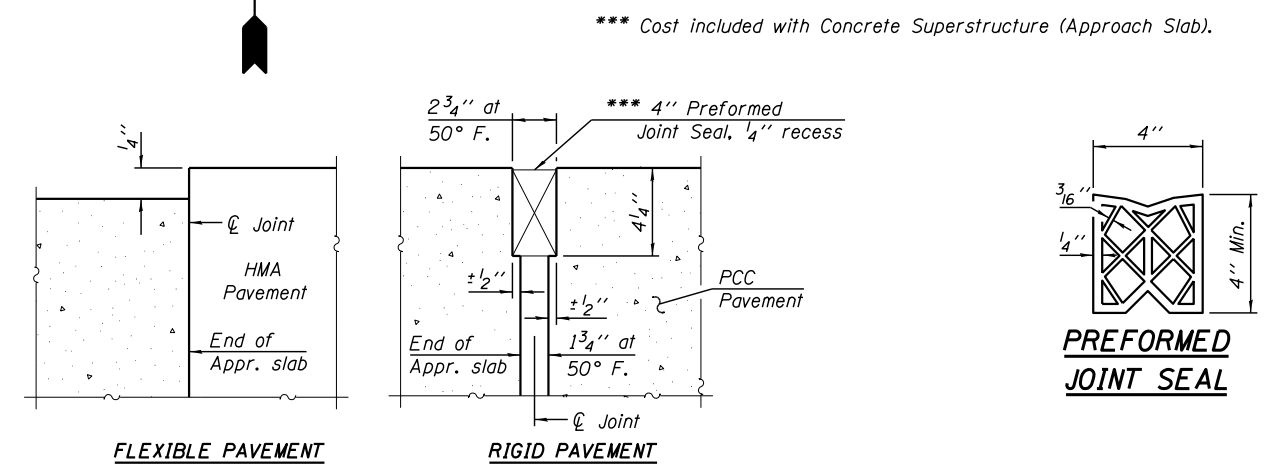
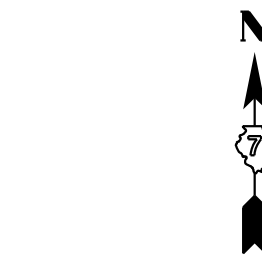
ILLINOIS FED. AID PROJECT

Notes:
See sheet 14 of 27 for Sections C-C & D-D and View E-E.
a₅(E), a₆(E), a₇(E), and a₈(E) bar spacings measured along \bar{C} Rdwy.

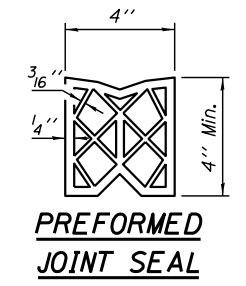


PLAN - EAST APPROACH
(West Approach Similar)

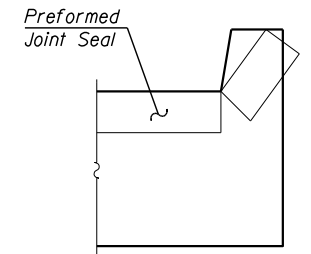
- * Tilt #9 b₃(E) bars as required to maintain clearance.
- ** Space between a₅(E) & a₈(E) bars, typ. ea. parapet.



DETAIL A

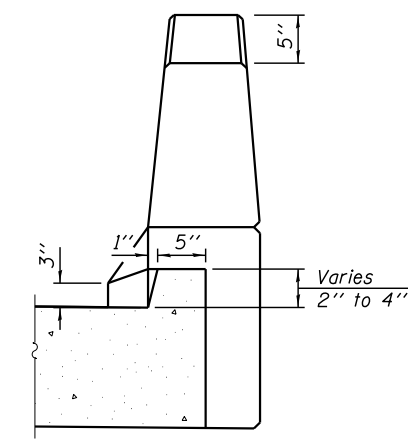


PREFORMED JOINT SEAL



VIEW F-F

Angle Preformed Joint Seal at 45° at curbs when req'd for drainage.



VIEW B-B

BA-0 7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -
		CHECKED - GBR	REVISED -
	PLOT SCALE =	DRAWN - JRP	REVISED -
	PLOT DATE =	CHECKED - GBR	REVISED -

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No. 184-001907

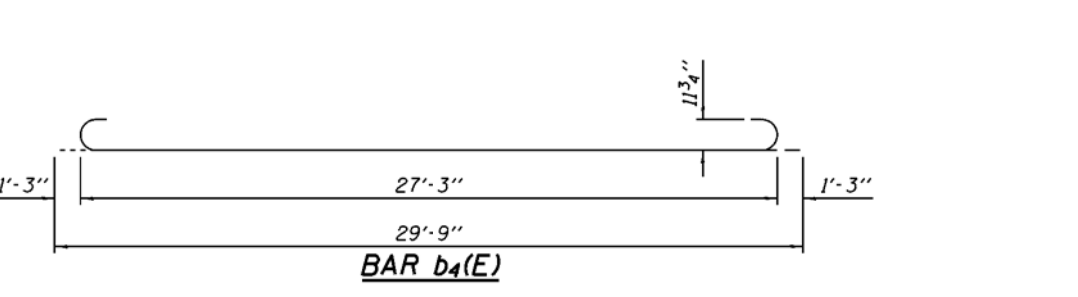
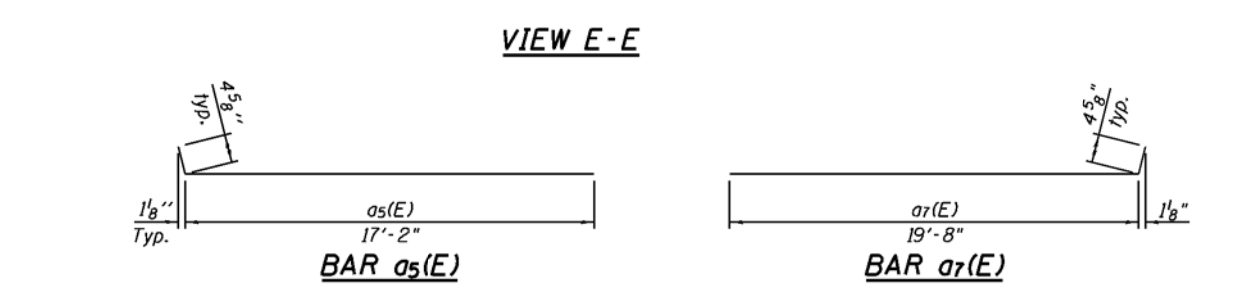
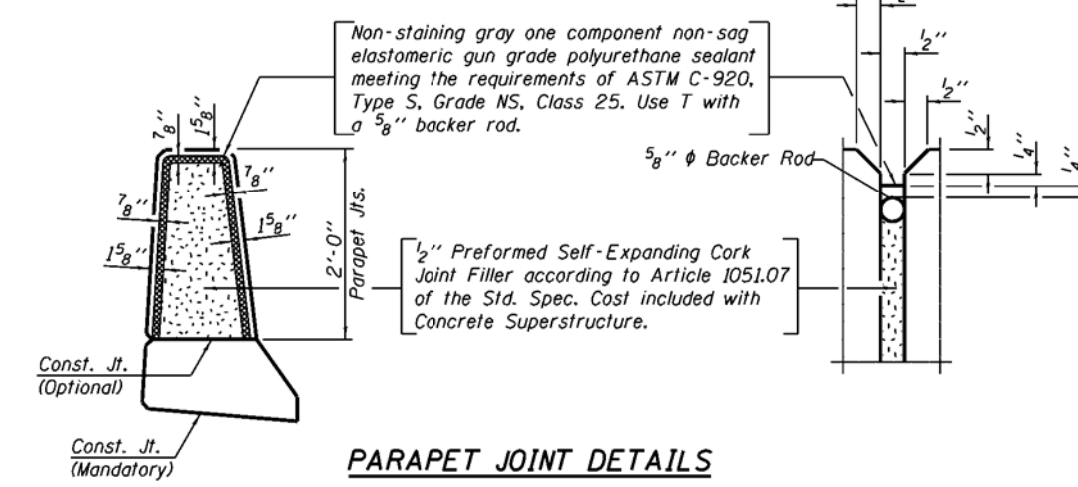
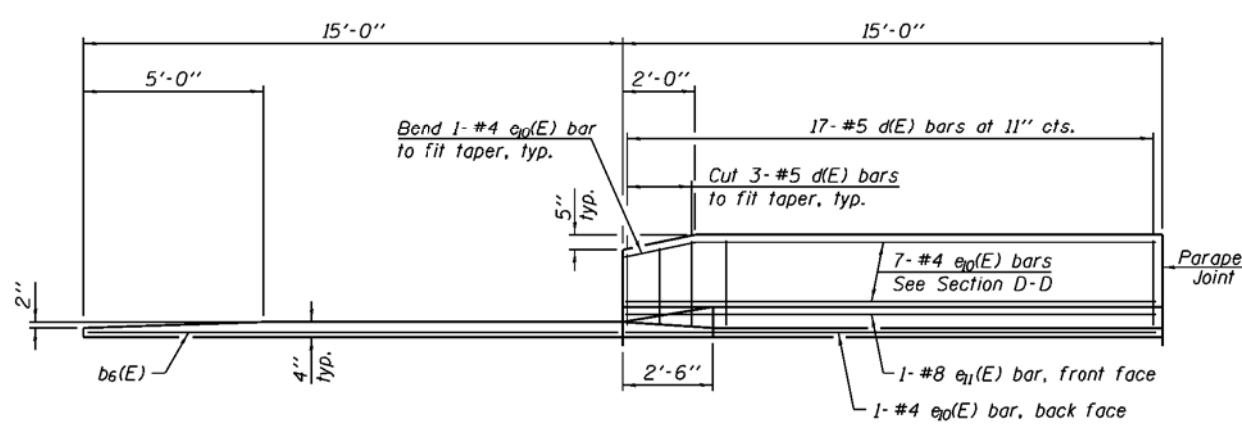
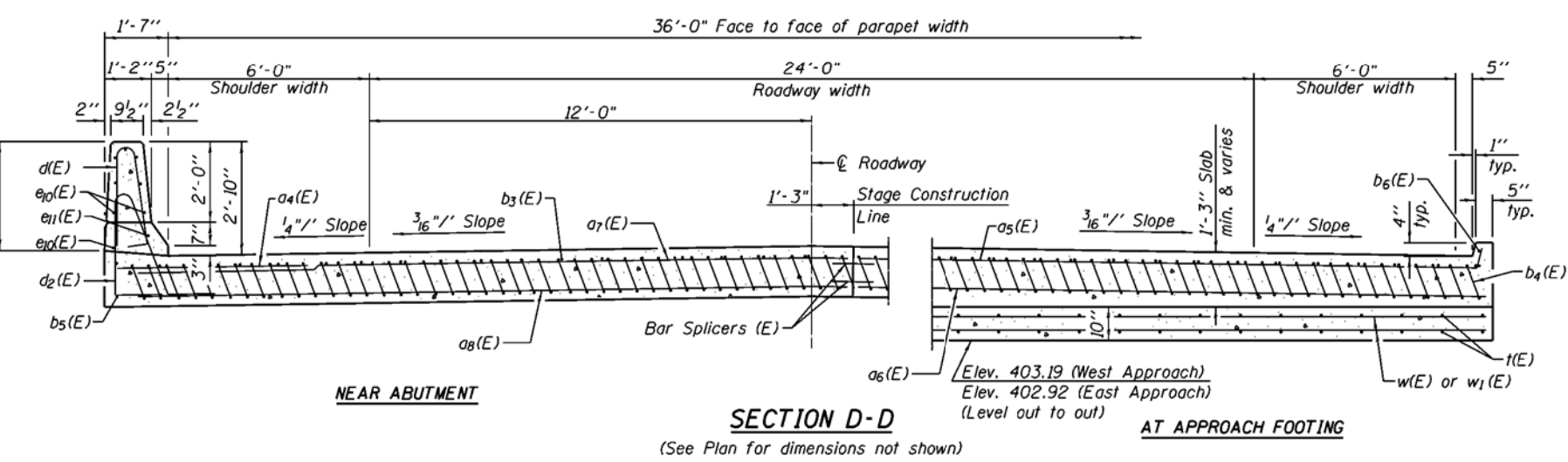
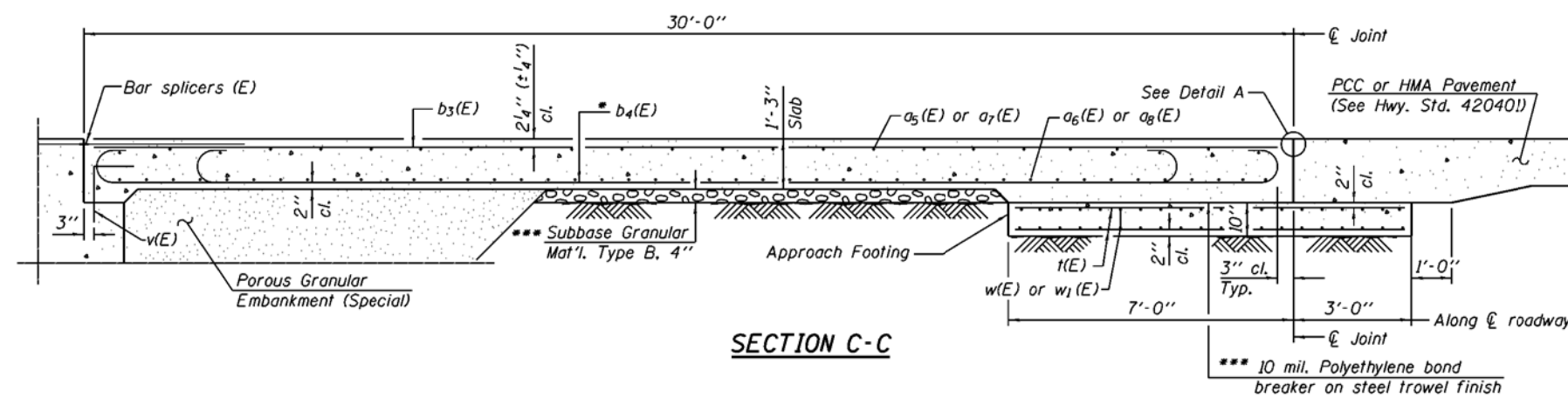
BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 096-0075

SHEET NO. 13 OF 27 SHEETS

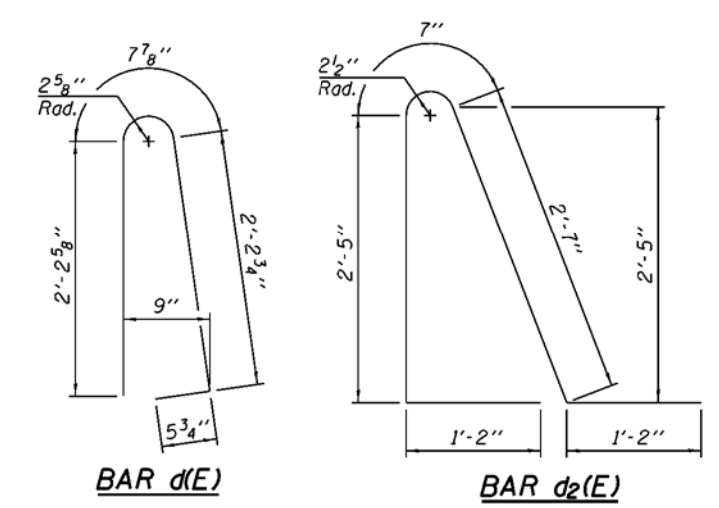
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	33
CONTRACT NO. 74222				

ILLINOIS FED. AID PROJECT

(Sheet 1 of 2)



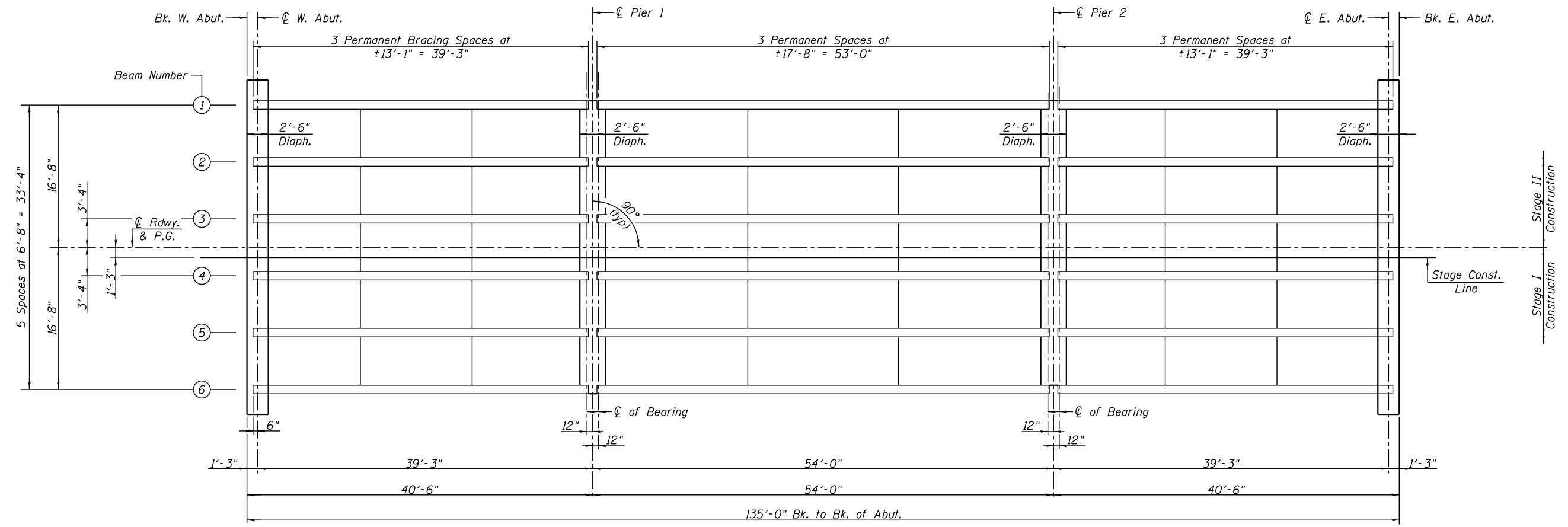
Notes:
 See sheet 13 of 27 for Detail A and View B-B.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v(E) bar details, see sheet 10 of 27.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 For bar splicer details, see sheet 24 of 27.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 27.
 For additional parapet details, see sheet 10 of 27.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).



* 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
a4(E)	48	#6	6'-6"	—
a5(E)	50	#4	17'-7"	—
a6(E)	92	#5	17'-4"	—
a7(E)	50	#4	20'-1"	—
a8(E)	92	#5	19'-10"	—
b3(E)	62	#4	29'-8"	—
b4(E)	180	#9	29'-9"	—
b5(E)	4	#4	14'-8"	—
b6(E)	4	#4	14'-8"	—
d(E)	68	#5	5'-7"	—
d2(E)	68	#5	7'-11"	—
e10(E)	32	#4	14'-8"	—
e11(E)	4	#8	14'-8"	—
t(E)	160	#4	9'-8"	—
w(E)	40	#5	17'-5"	—
w1(E)	40	#5	19'-11"	—
Concrete Superstructure		Cu. Yd.	6.7	
Concrete Structures		Cu. Yd.	23.4	
Reinforcement Bars, Epoxy Coated		Pound	28830	
Concrete Superstructure (Approach Slab)		Cu. Yd.	111.7	



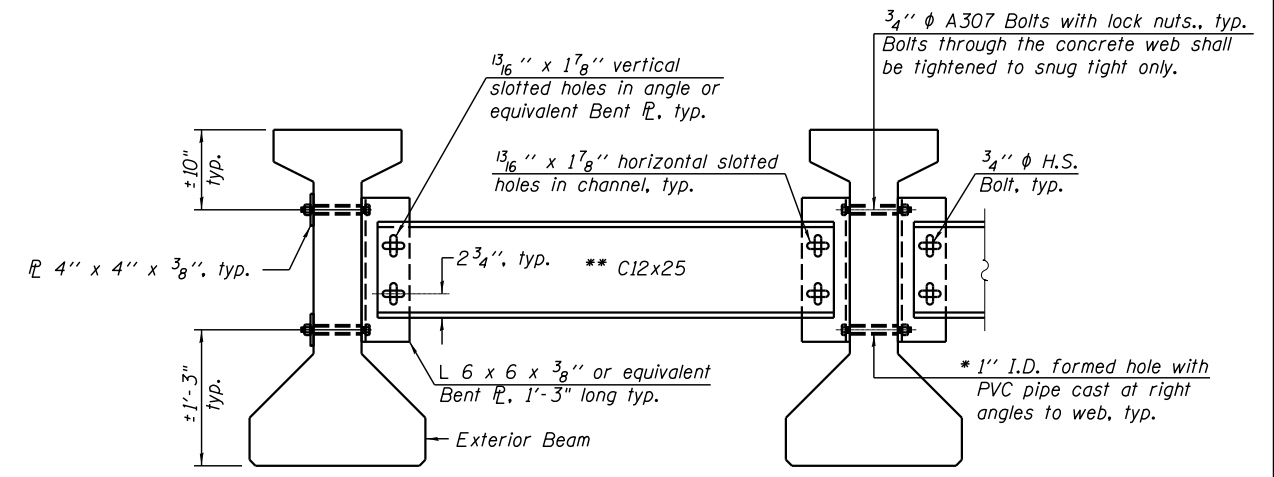
FRAMING PLAN

	0.4 Sp. 1 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
I	(in ⁴) 48648		48648
I'	(in ⁴) 176141		176141
S_b	(in ³) 3165		3165
S_b'	(in ³) 5957		5957
S_t	(in ³) 2358		2358
S_t'	(in ³) 27394		27394
$DC1$	(k/ft) 1.05		1.05
M_{DC1}	(k) 185		357
$DC2$	(k/ft) 0.15	0.15	0.15
M_{DC2}	(k) 14	34	21
DW	(k/ft) 0.334	0.334	0.334
M_{DW}	(k) 32	76	46
$M_{\Sigma} + IM$	(k) 400	394	471

	Abut.	Pier 1 Span 1 Pier 2 Span 3	Pier 1 Span 2 Pier 2 Span 2
R_{DC1}	(k) 20.2	20.2	27.4
*** R_{DC2}	(k) 2.1	3.9	3.9
*** R_{DW}	(k) 4.6	8.8	8.8
*** $R_{\Sigma} + IM$	(k) 56.5	43.8	43.8
R_{Total}	(k) 83.4	76.7	83.9

*** The total R_{DC2} , R_{DW} and $R_{\Sigma} + IM$ are assumed to be distributed evenly to each bearing line at a pier regardless of the span ratios. The bearing design at a pier is based on the maximum reactions of either span.

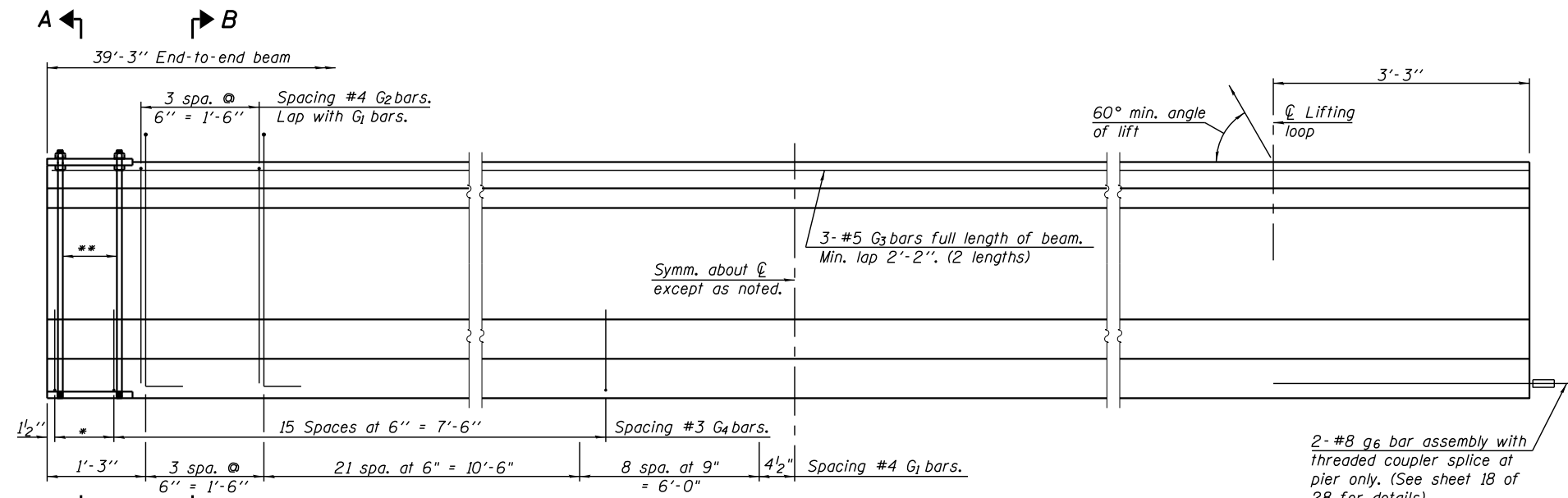
- I : Non-composite moment of inertia of beam section (in.⁴).
- I' : Composite moment of inertia of beam section (in.⁴).
- S_b : Non-composite section modulus for the bottom fiber of the prestressed beam (in.³).
- S_b' : Composite section modulus for the bottom fiber of the prestressed beam (in.³).
-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



- Notes:**
- All material for bracing shall be hot dip galvanized according to AASHTO M111 unless otherwise noted.
 - Two hardened washers are required for each set of oversized holes.
 - All holes shall be 15/16" ϕ unless otherwise noted.
 - 5/16" x 3" x 3" plate washers are required over all slotted holes.
 - All bolts shall be galvanized according to AASHTO M232.
 - Bracing shall be installed as beams are erected and tightened as soon as possible during erection.
 - Permanent bracing shall not be paid for separately, but shall be included in the cost of Furnishing and Erecting Precast Prestressed Concrete I-Beams.

- * Fabricator shall locate to miss strands within permissible tolerances.
- ** Alternate C12x30 channels are permitted to facilitate material acquisition.

**PERMANENT BRACING DETAILS
FOR 36" PPC I- BEAMS**

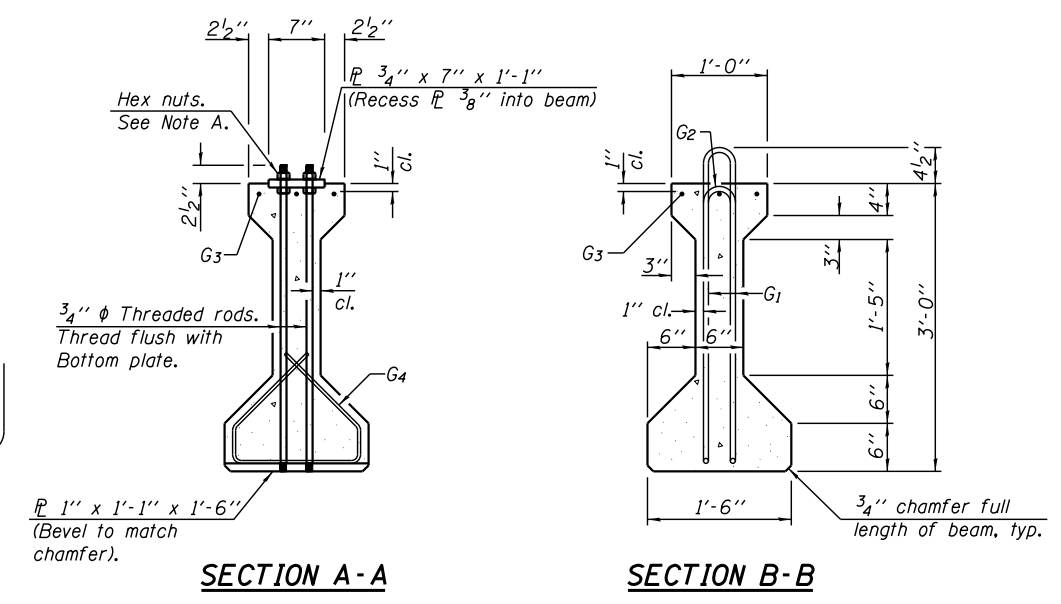


* 3 spaces at 3" = 9".
 ** 4-3/4" φ threaded dowel rods at 3" cts., Each Face

ELEVATION OF BEAM
 (Showing reinforcement & dimensions)

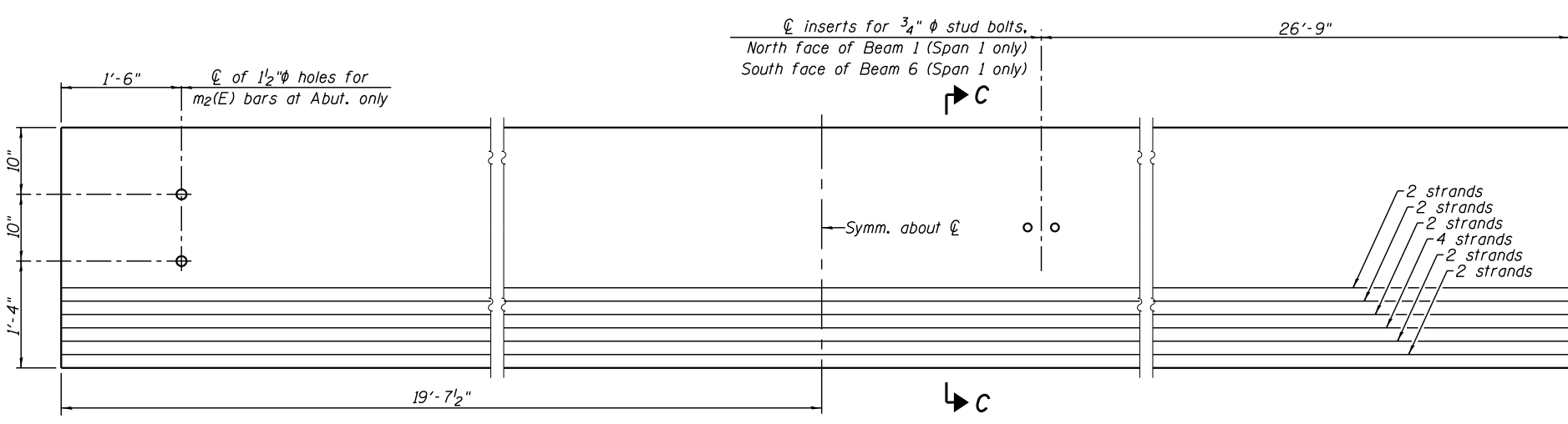
2-#8 g6 bar assembly with threaded coupler splice at pier only. (See sheet 18 of 28 for details).

Note A:
 Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.

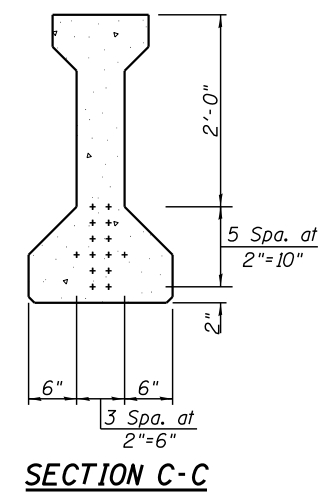


SECTION A-A

SECTION B-B



ELEVATION OF BEAM
 (Showing prestressing steel)



SECTION C-C

*****BAR LIST
 ONE BEAM ONLY**

Bar	No.	Size	Length	Shape
G1	66	#4	7'-5"	∩ L
G2	8	#4	5'-8"	∩
G3	6	#5	20'-9"	—
G4	38	#3	4'-1"	⊂
G6	2	#8	6'-6"	⌋

***For information only

Notes:
 See sheet 18 of 27 for additional details and Bill of Material.
 Required release strength, f'ci, shall be 5000 psi.

PI-4-36

7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -
		CHECKED - GBR	REVISED -
		DRAWN - JRP	REVISED -
		CHECKED - GBR	REVISED -

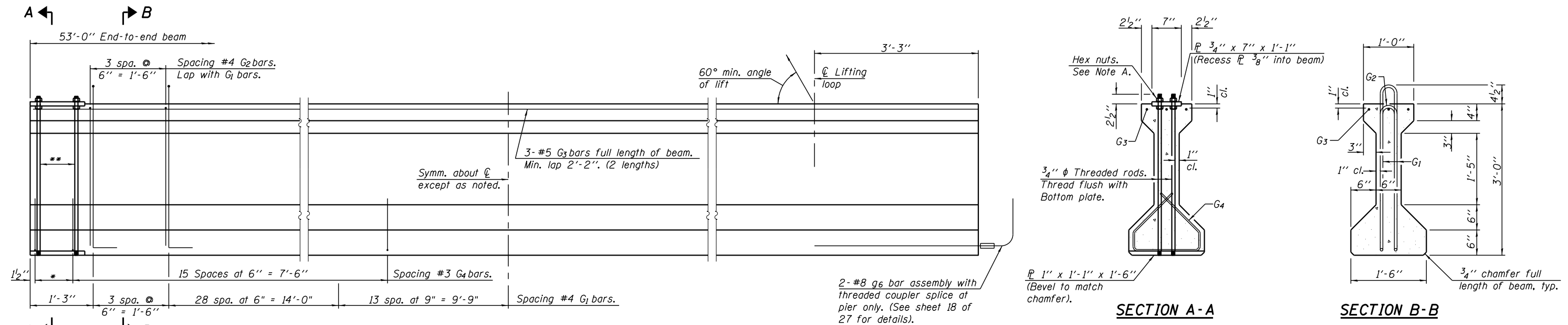


Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

36" PPC I-BEAM (SPANS 1 & 3)
STRUCTURE NO. 096-0075

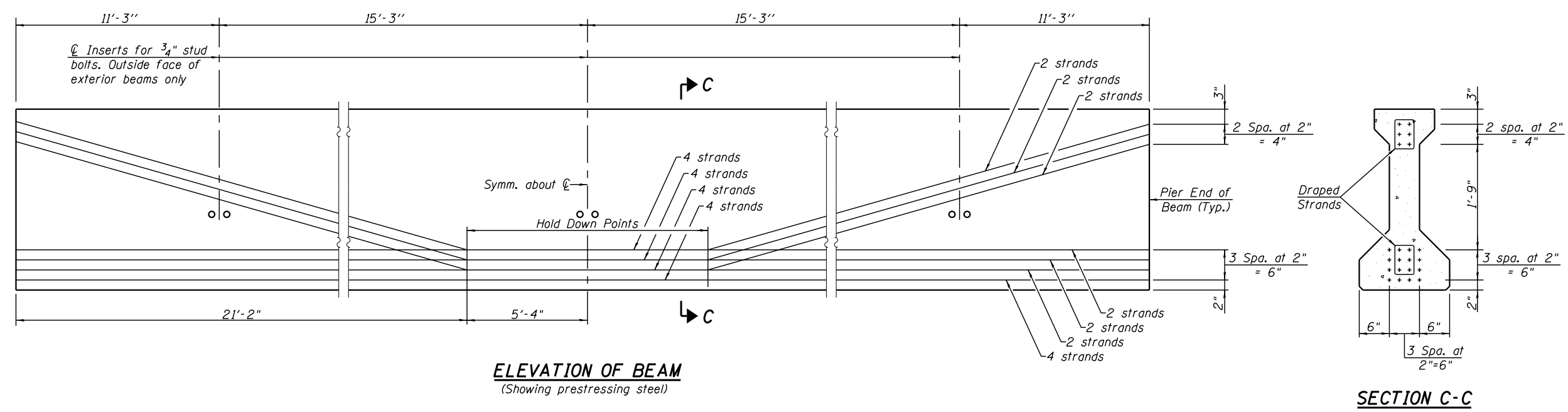
SHEET NO. 16 OF 27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY)B-1	WAYNE	55	36
CONTRACT NO. 74222				
ILLINOIS FED. AID PROJECT				



* 3 spaces at 3" = 9".
 ** 4- 3/4" ϕ threaded dowel rods at 3" cts., Each Face

Note A:
 Hex nuts (top and bottom) with lock washers (top). Only tighten sufficiently to compress lock washers.



*****BAR LIST**
ONE BEAM ONLY

Bar	No.	Size	Length	Shape
G ₁	90	#4	7'-5"	∩ L
G ₂	8	#4	5'-8"	∩
G ₃	6	#5	27'-7"	—
G ₄	38	#3	4'-1"	∩
G ₆	4	#8	6'-6"	U

***For information only

Notes:
 See sheet 18 of 27 for additional details and Bill of Material.
 Required release strength, f'_{ci} , shall be 5000 psi.

PI-4-36

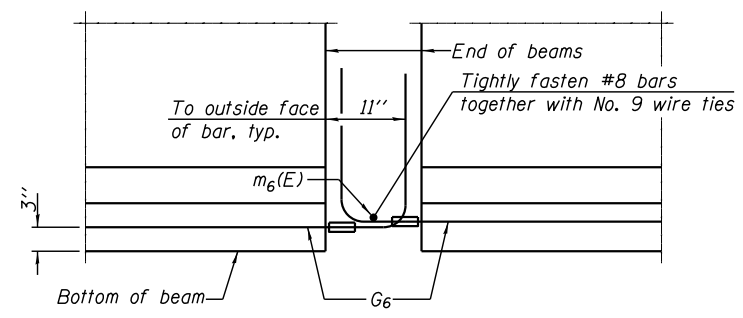
7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -		Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	36" PPC I-BEAM (SPAN 2) STRUCTURE NO. 096-0075	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - GBR	REVISED -	821				(18BY)B-1	WAYNE	55	37	
PLOT SCALE =	DRAWN - JRP	REVISED -	CONTRACT NO. 74222								
PLOT DATE =	CHECKED - GBR	REVISED -	ILLINOIS FED. AID PROJECT								

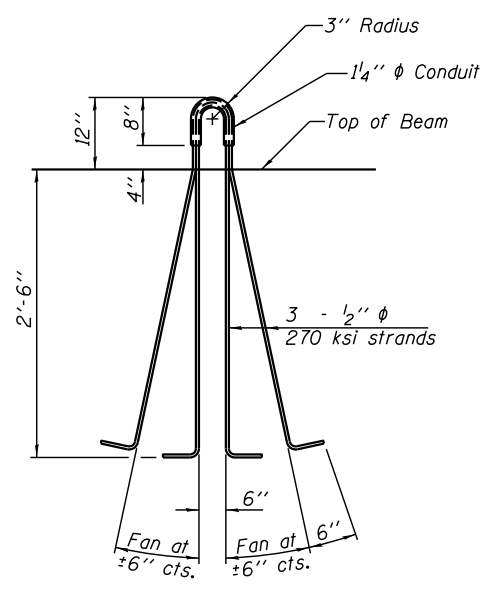
NOTES

Inserts for $\frac{3}{4}$ " ϕ threaded dowel rods, when specified, are to be two strut, ferrule type for interior beams and single ferrule, flared loop type for exterior beams. Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be $\frac{1}{2}$ " and the nominal cross-sectional area shall be 0.153 sq. in.

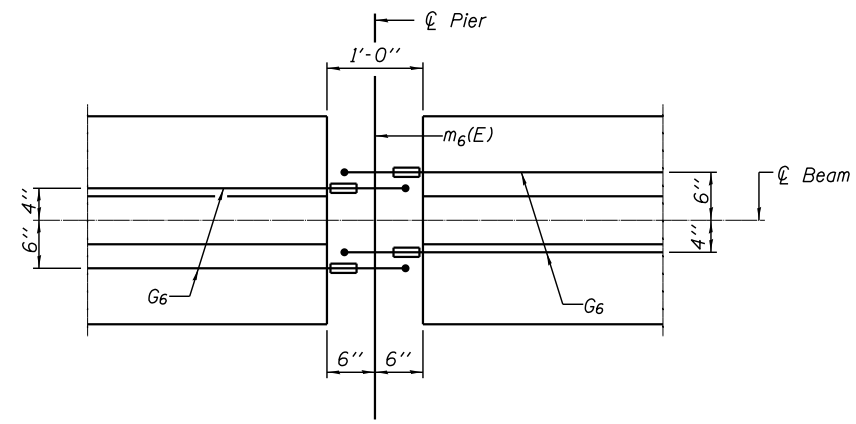
Reinforcement bars shall conform to ASTM A 706, Grade 60. A minimum $2\frac{1}{2}$ " ϕ lifting pin shall be used to engage the lifting loops during handling. Tilt G_6 bars when necessary to maintain $1\frac{1}{2}$ " clearance. The top and bottom plates shall be AASHTO M270 Grade 50. The bottom plates shall be galvanized according to AASHTO M111. Top plates and threaded rods need not be galvanized. Threaded rods shall be ASTM F 1554 Grade 55. The G_6 bar assembly shall have the threaded ends oversized to ensure no reduction in cross sectional area after threading. The coupler splice shall be capable of developing 125 percent of the yield strength of the reinforcement bar. Beams requiring G_6 bar assemblies shall not be released from the fabricator until they have attained 45 days of age or older.



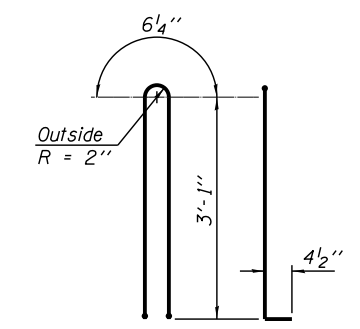
ELEVATION OF BEAM AT PIER



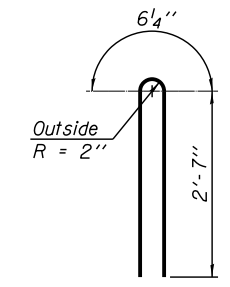
LIFTING LOOP DETAIL



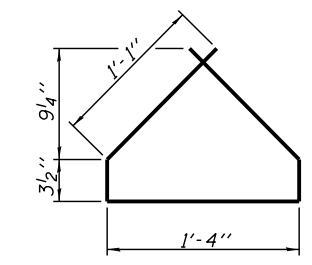
PLAN OF BEAM AT PIER



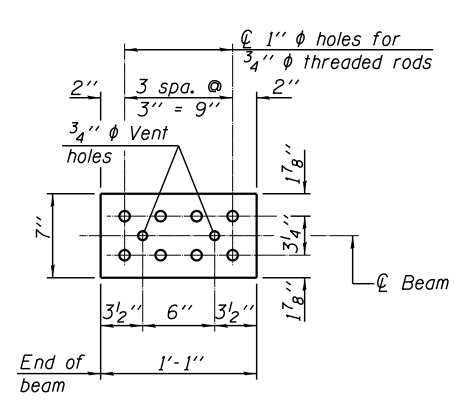
BAR G1



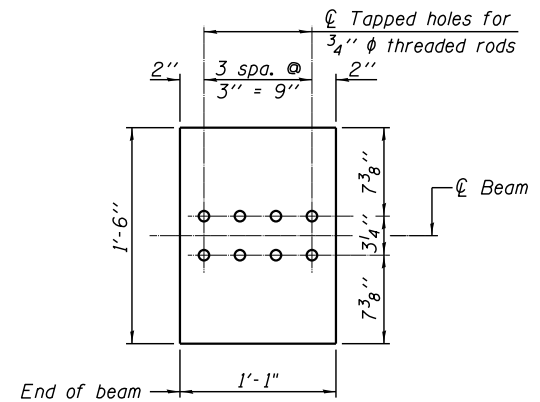
BAR G2



BAR G4

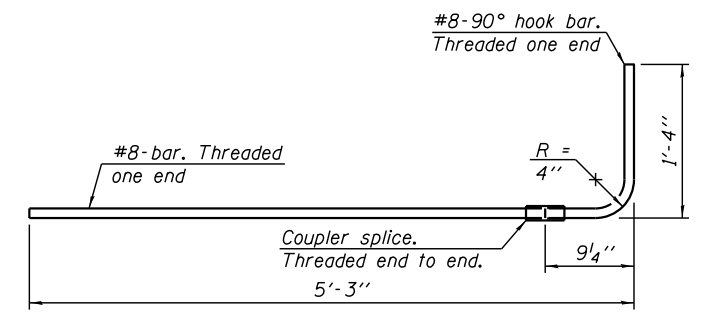


TOP PLATE



BOTTOM PLATE

See bearing details for pintle hole locations when required.



G6 BAR ASSEMBLY

BILL OF MATERIAL

Item	Unit	Total
Furnishing and Erecting Precast Prestressed Concrete	Ft.	789
1-Beams 36"		

PI-4-36D

7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -
		CHECKED - GBR	REVISED -
		DRAWN - JRP	REVISED -
		CHECKED - GBR	REVISED -

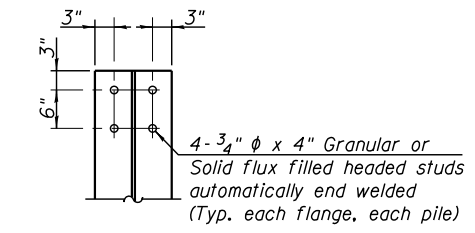
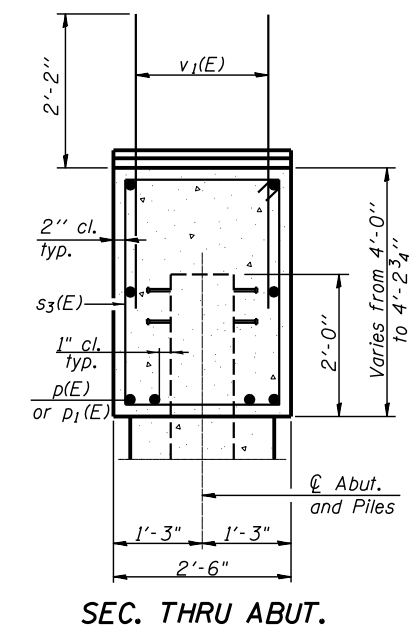
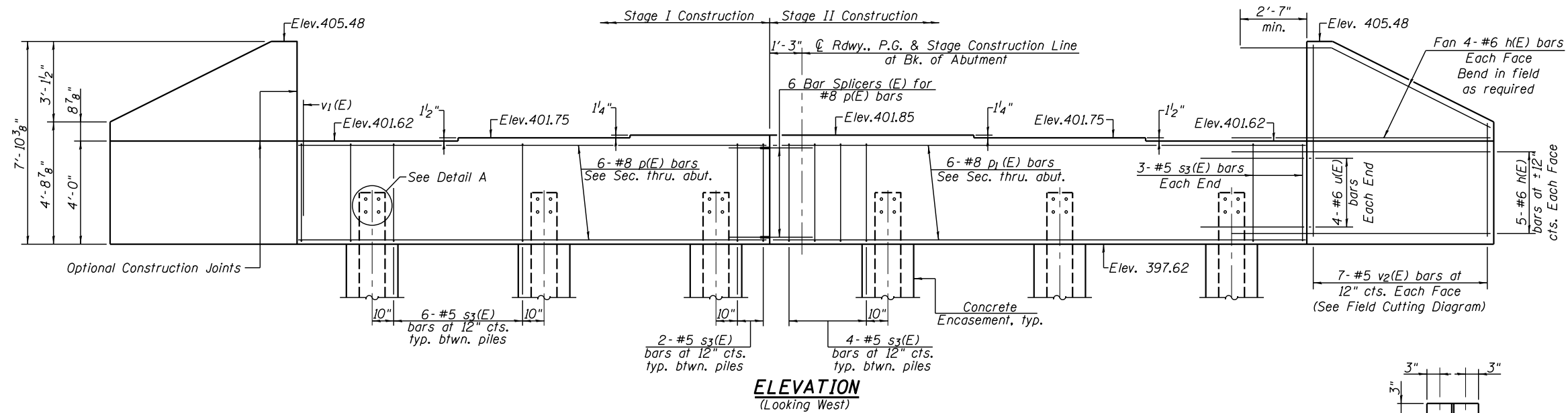


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No. 184-001907

36" PPC I-BEAM DETAILS
STRUCTURE NO. 096-0075
SHEET NO. 18 OF 27 SHEETS

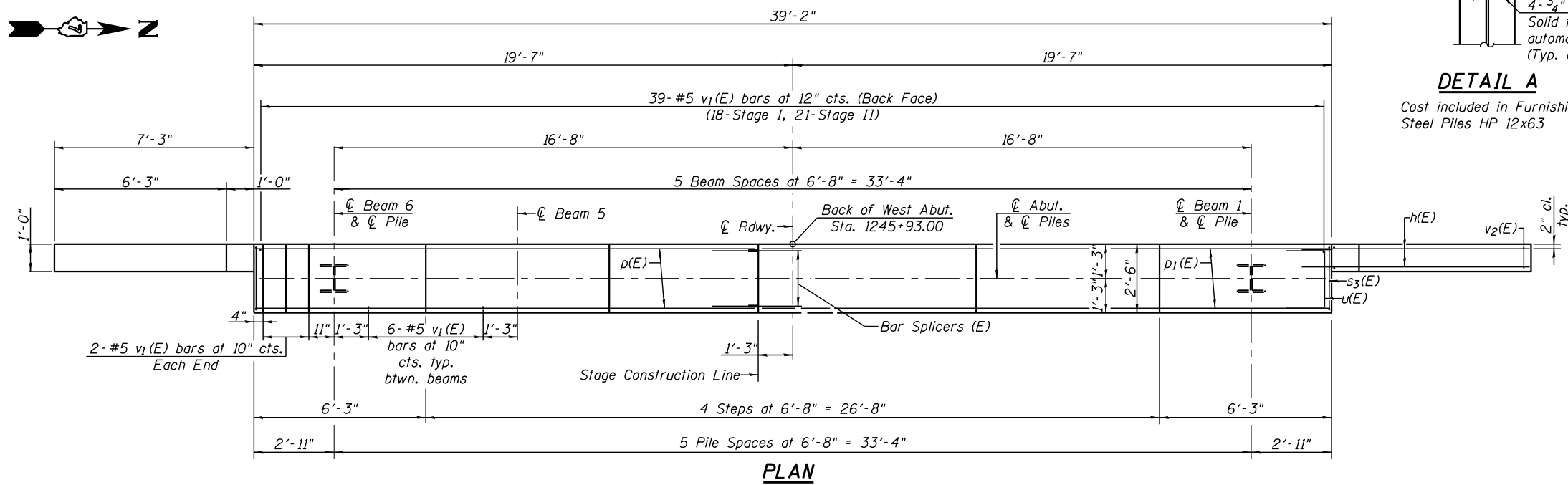
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	38
			CONTRACT NO. 74222	
ILLINOIS FED. AID PROJECT				

Notes:
Pour steps monolithically with cap.

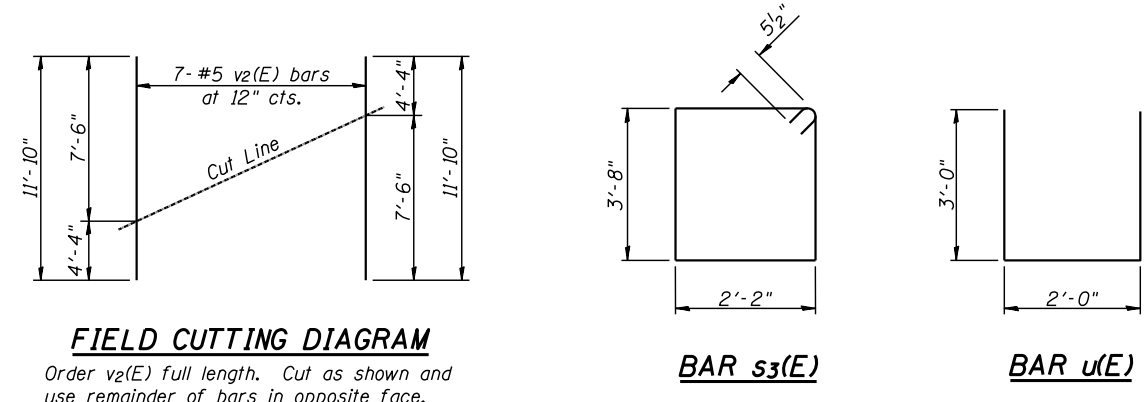


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	36	#6	10'-0"	—
p(E)	8	#8	18'-1"	—
p1(E)	8	#8	20'-7"	—
s3(E)	36	#5	12'-7"	□
u(E)	8	#6	8'-0"	□
v1(E)	73	#5	4'-4"	—
v2(E)	14	#5	11'-10"	—
Structure Excavation			Cu. Yd.	26
Concrete Structures			Cu. Yd.	18.4
Reinforcement Bars, Epoxy Coated			Pound	2440
Furnishing Steel Piles, HP 12x63			Foot	276
Driving Steel Piles			Foot	276
Concrete Encasement			Cu. Yd.	2.1



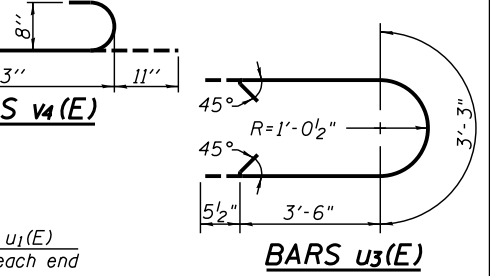
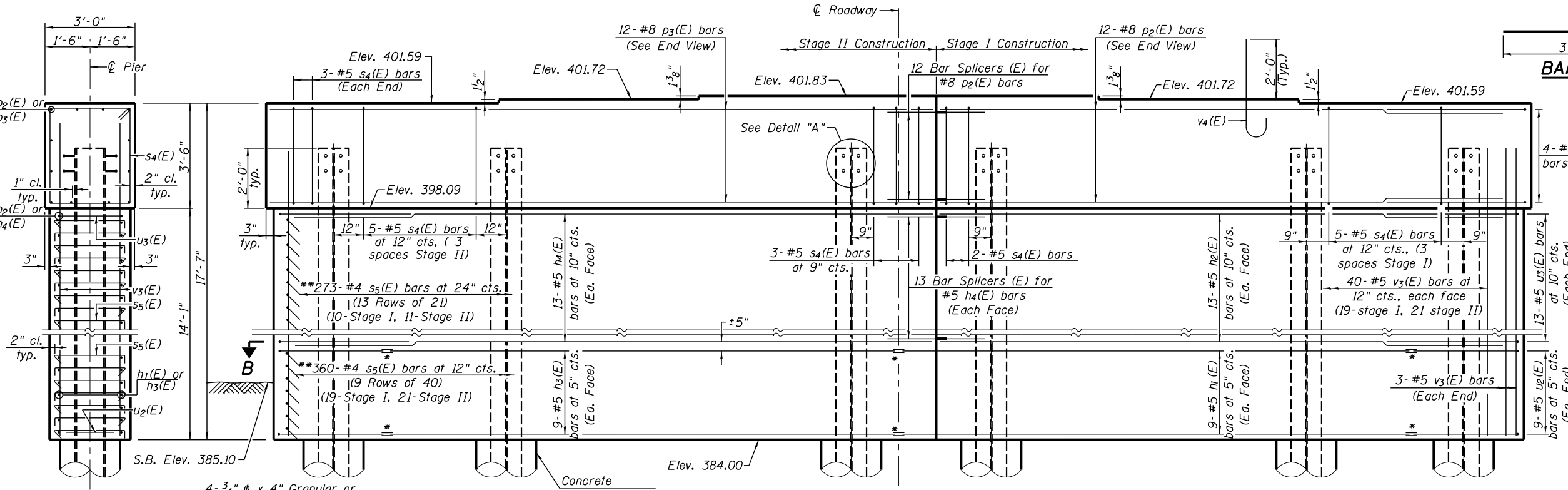
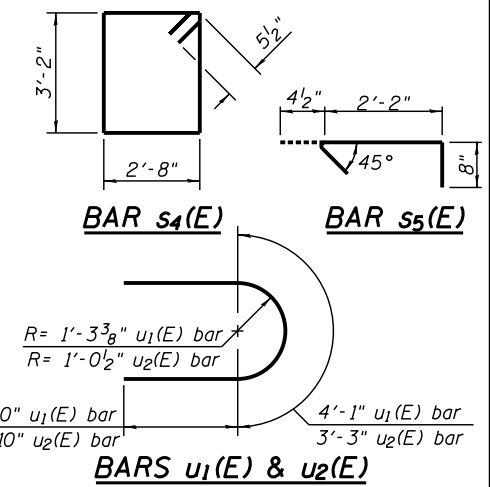
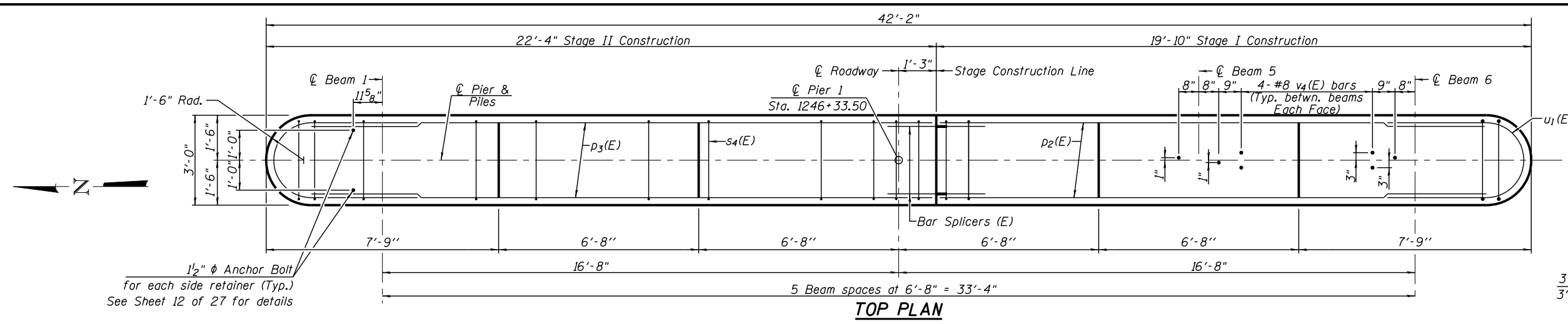
PILE DATA
Type: HP 12x63
Nominal Required Bearing: 458 kips
Factored Resistance Available: 252 kips
Est. Length: 46'
No. Production Piles: 6
No. Test Piles: 0



For details of Bar Splicers, see sheet 24 of 27.
For details of piles and Concrete Encasement, see sheet 23 of 27.

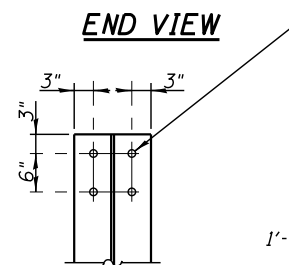
AI-0 7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -		Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	WEST ABUTMENT STRUCTURE NO. 096-0075	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - GBR	REVISED -	821				(18BY)B-1	WAYNE	55	39	
PLOT SCALE =	DRAWN - JRP	REVISED -	CONTRACT NO. 74222								
PLOT DATE =	CHECKED - GBR	REVISED -	ILLINOIS FED. AID PROJECT								

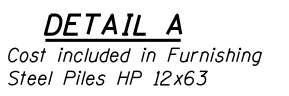


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	18	#5	15'-6"	—
h2(E)	26	#5	18'-0"	—
h3(E)	18	#5	16'-0"	—
h4(E)	26	#5	20'-8"	—
p2(E)	12	#8	18'-0"	—
p3(E)	12	#8	20'-8"	—
s4(E)	41	#5	12'-7"	□
s5(E)	633	#4	3'-3"	┘
u1(E)	8	#6	10'-1"	—
u2(E)	18	#5	10'-11"	—
u3(E)	26	#5	11'-2"	—
v3(E)	86	#5	15'-11"	—
v4(E)	30	#8	4'-2"	—
Concrete Structures		Cu. Yd.	70.3	
Concrete Encasement		Cu. Yd.	2.8	
Reinforcement Bars, Epoxy Coated		Pound	7190	
Furnishing Steel Piles HP 12x63		Foot	560	
Driving Piles		Foot	560	
Cofferdam (Type 1), Location 1		Each	1	



4-3/4" ϕ x 4" Granular or Solid flux filled headed studs automatically end welded (Typ. each flange, each pile)

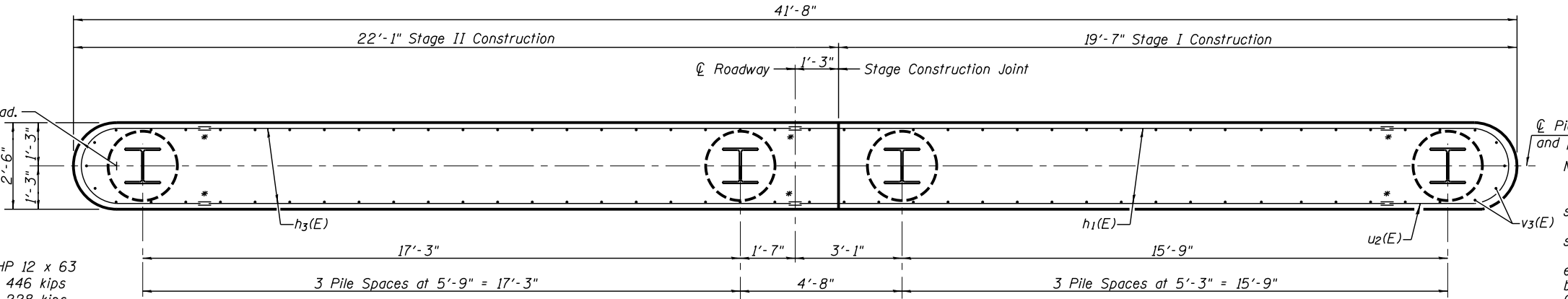


Cost included in Furnishing Steel Piles HP 12x63

PILE DATA

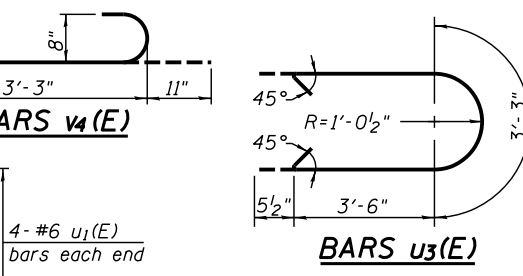
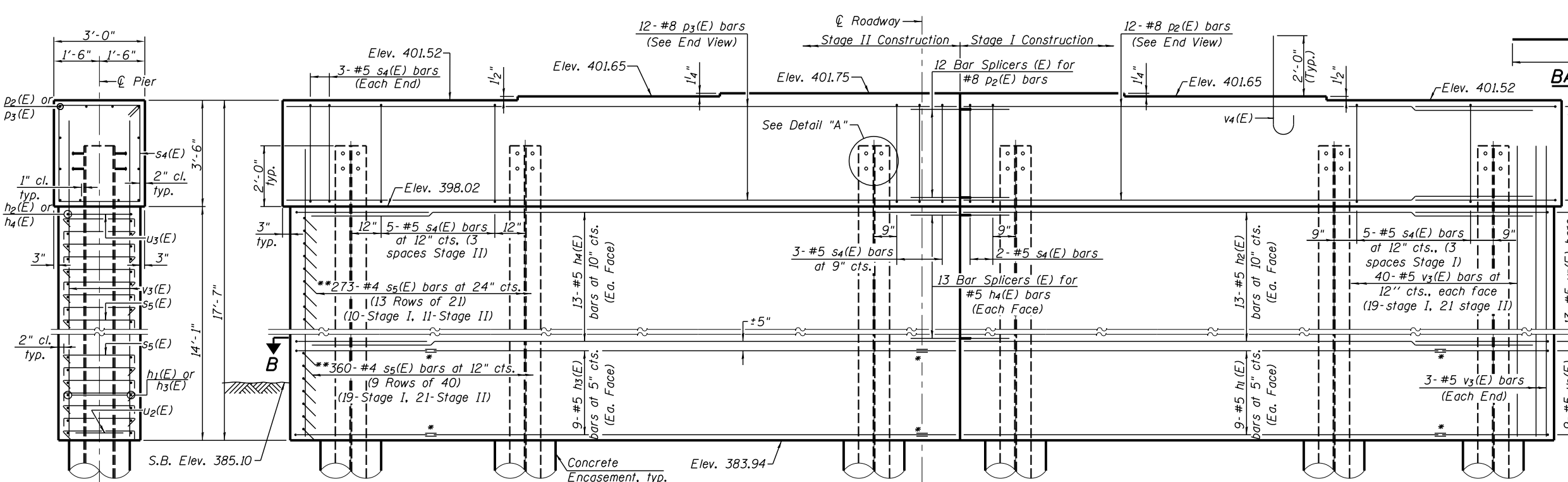
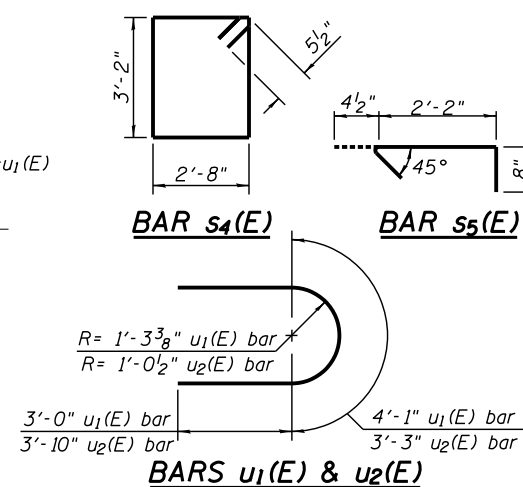
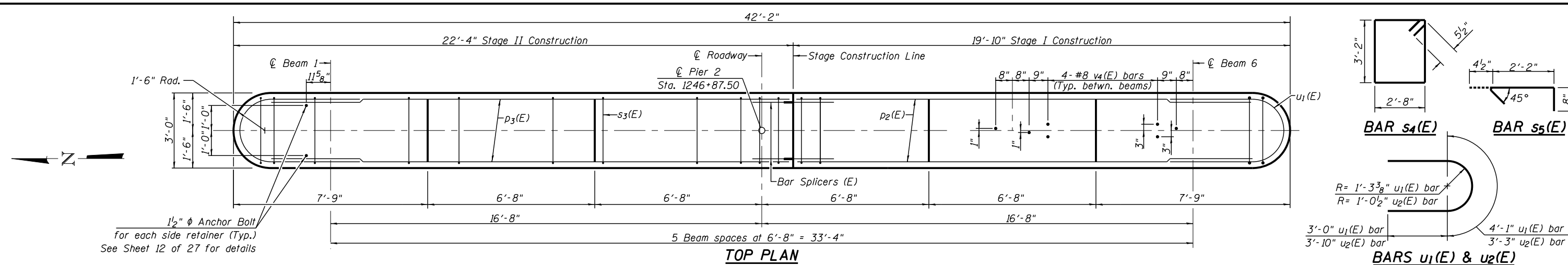
Type:	HP 12 x 63
Nominal Required Bearing:	446 kips
Allowable Resistance Available:	228 kips
Est. Length:	70 ft.
No. Production Piles:	8
No. Test Piles:	0

* Mechanical Splice for h1(E), h3(E) and u2(E) bars.
** Alternate end of bar.



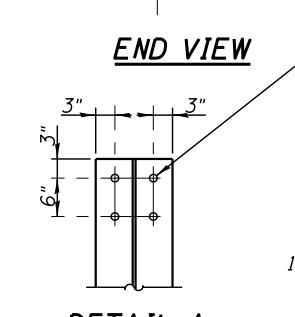
SECTION B-B

Notes:
Pour steps monolithically with cap.
For details of Bar Splicers, see sheet 24 of 27.
For details of Piles and Concrete Encasement, see sheet 23 of 27.
If a portion of the pier wall or concrete encasement is underwater, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.
Space reinforcement in cap to miss anchor bolts.



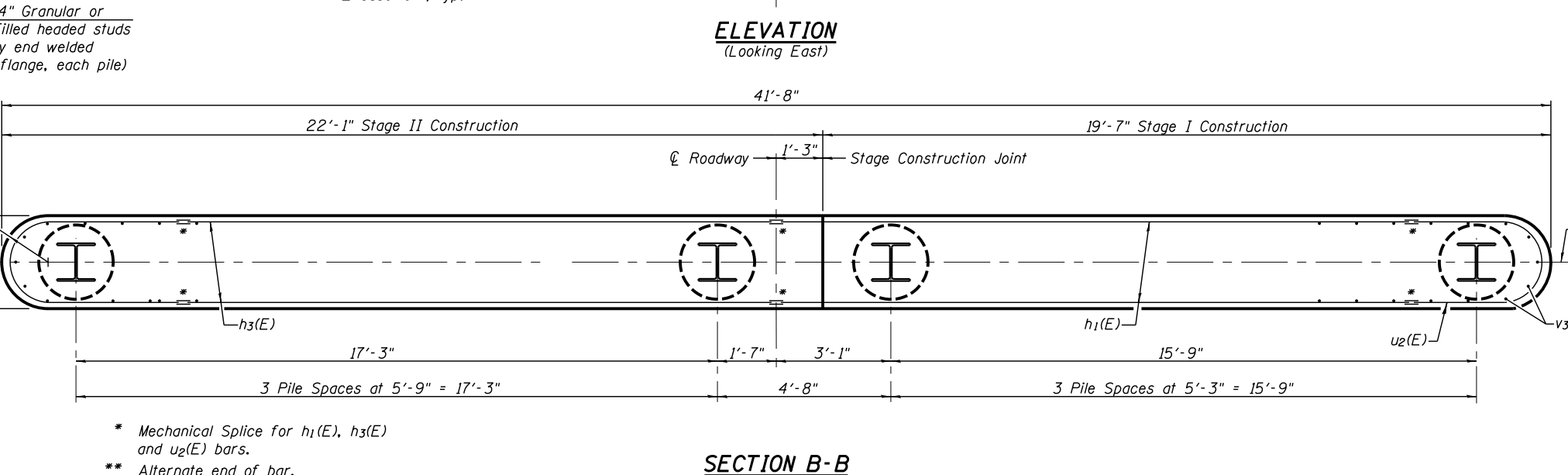
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	18	#5	15'-6"	
h2(E)	26	#5	18'-0"	
h3(E)	18	#5	16'-0"	
h4(E)	26	#5	20'-8"	
p2(E)	12	#8	18'-0"	
p3(E)	12	#8	20'-8"	
s4(E)	41	#5	12'-7"	
s5(E)	633	#4	3'-3"	
u1(E)	8	#6	10'-1"	
u2(E)	18	#5	10'-11"	
u3(E)	26	#5	11'-2"	
v3(E)	86	#5	15'-11"	
v4(E)	30	#8	4'-2"	
Cofferdam Excavation		Cu. Yd.	92	
Concrete Structures		Cu. Yd.	70.3	
Concrete Encasement		Cu. Yd.	2.8	
Reinforcement Bars, Epoxy Coated		Pound	7190	
Furnishing Steel Piles HP 12x63		Foot	490	
Driving Piles		Foot	490	
Test Pile Steel HP 12x63		Each	1	
Cofferdam (Type 1), Location 2		Each	1	

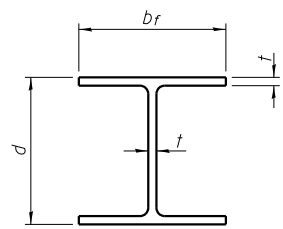


PILE DATA

Type:	HP 12 x 63
Nominal Required Bearing:	446 kips
Allowable Resistance Available:	228 kips
Est. Length:	70 ft.
No. Production Piles:	7
No. Test Piles:	1

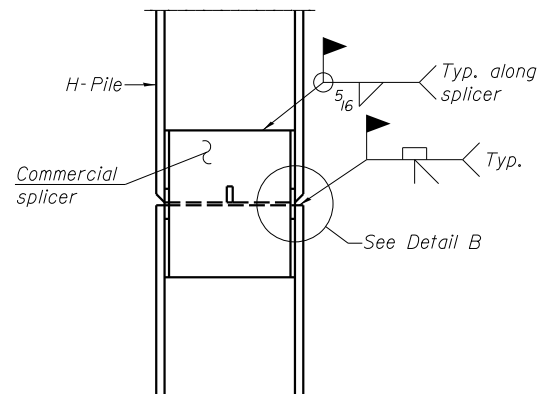


Notes:
 Pour steps monolithically with cap.
 For details of Bar Splicers, see sheet 24 of 27.
 For details of Piles and Concrete Encasement, see sheet 23 of 27.
 If a portion of the pier wall or concrete encasement is underwater, reinforcement may be placed underwater into forms.
 Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.
 Space reinforcement bars in cap to miss anchor bolts.

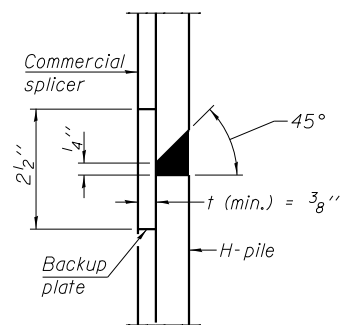


STEEL PILE TABLE

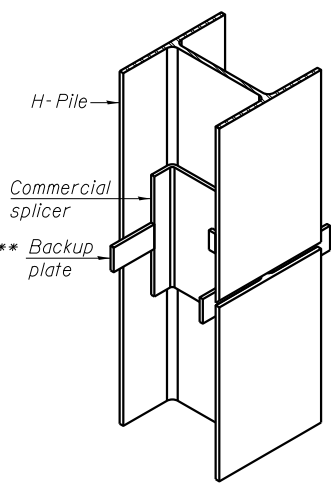
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1 1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1 1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
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

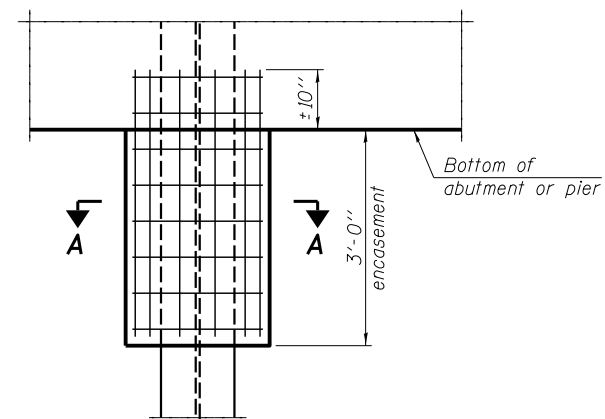


DETAIL "B"



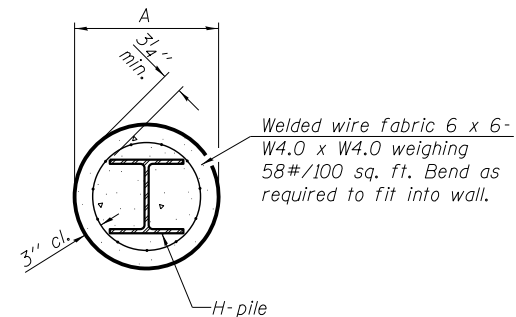
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



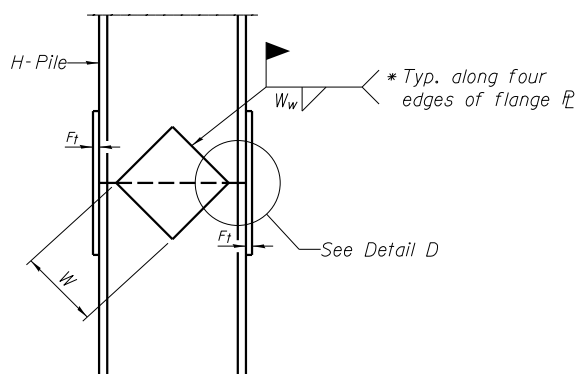
ELEVATION

PILE ENCASEMENT



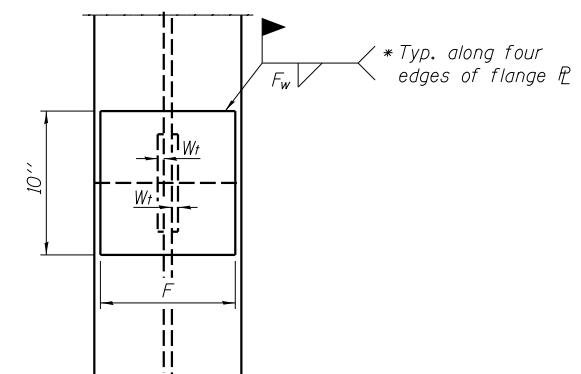
SECTION A-A

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



ELEVATION

DETAIL D



END VIEW

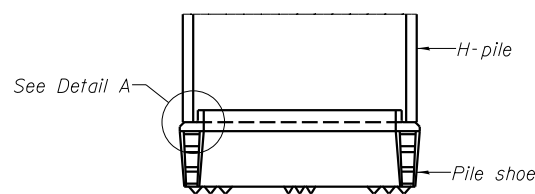
Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 1/2"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 1/2"	1/2"
x89	12 1/2"	3/4"	1 1/16"	7 3/4"	5 1/2"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 1/2"	1/2"
HP 12x84	10"	7/8"	1 1/16"	6 1/2"	5 1/2"	1/2"
x74	10"	7/8"	1 1/16"	6 1/2"	5 1/2"	1/2"
x63	10"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

WELDED PLATE FIELD SPLICE

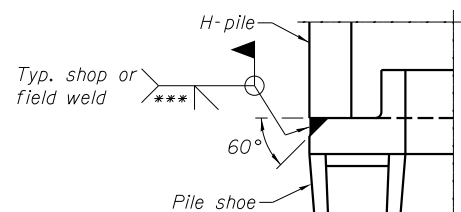
Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

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.).

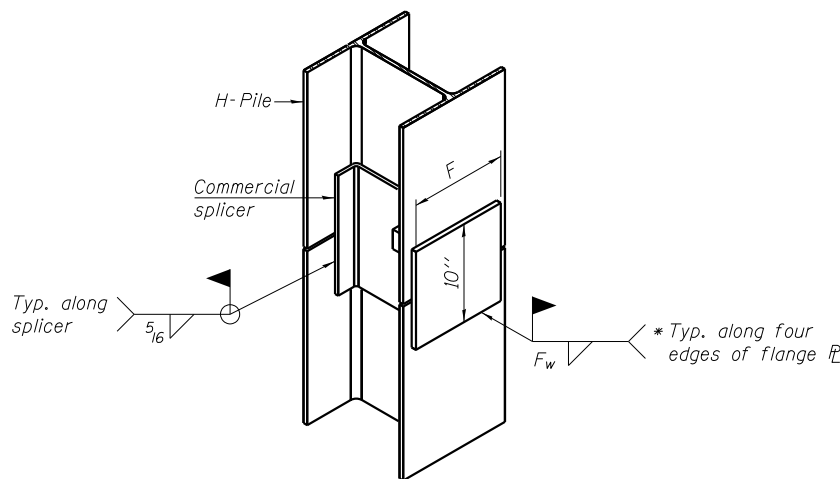


ELEVATION



DETAIL A

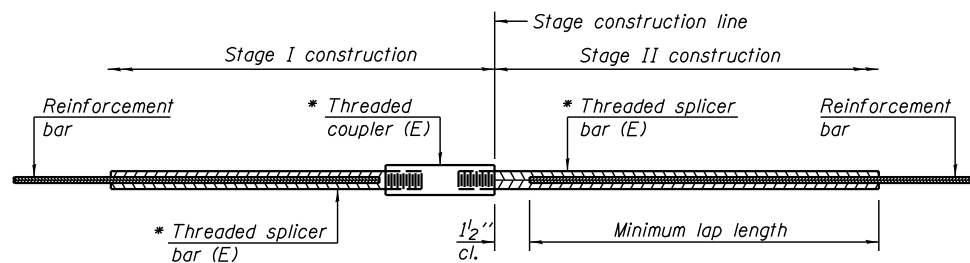
H-PILE SHOE ATTACHMENT



ISOMETRIC VIEW

F-HP 7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED - _____		Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	HP PILE DETAILS STRUCTURE NO. 096-0075 SHEET NO. 23 OF 27 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE =	DRAWN - JRP	REVISI - _____	821				(18BY1)B-1	WAYNE	55	43	
PLOT DATE =	CHECKED - GBR	REVISI - _____	CONTRACT NO. 74222								
			ILLINOIS FED. AID PROJECT								



STANDARD BAR SPLICER ASSEMBLY

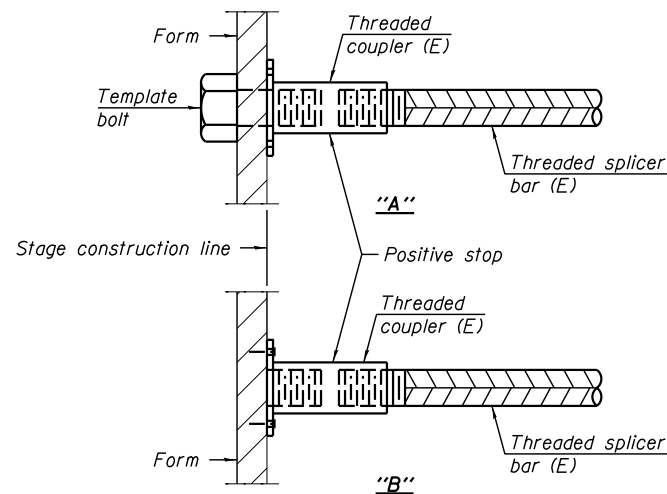
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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, Top bar lap, Class B

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

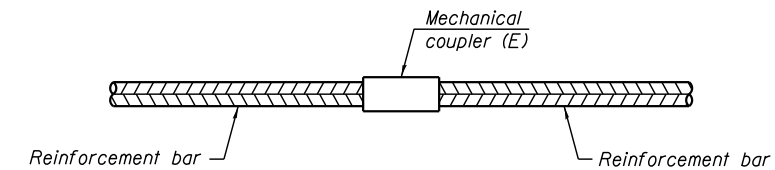
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Pier 1 Wall	#5	26	4
Pier 2 Wall	#5	26	4
Pier 1 Cap	#8	12	4
Pier 2 Cap	#8	12	4
West Abutment Cap	#8	6	4
East Abutment Cap	#8	6	4
Top of Deck	#5	270	4
Bottom of Deck	#5	162	3
Top of West Approach	#5	25	4
Bottom of West Approach	#5	46	3
Top of East Approach	#5	25	4
Bottom of East Approach	#5	46	3
Top of West Approach Footing	#5	20	4
Top of East Approach Footing	#5	20	4
Bottom of West Approach Footing	#5	20	3
Bottom of East Approach Footing	#5	20	3
West Abutment Diaphragm	#6	5	4
East Abutment Diaphragm	#6	5	4



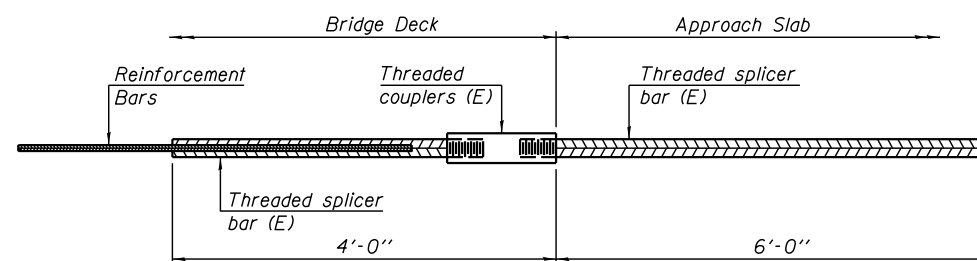
INSTALLATION AND SETTING METHODS

"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.



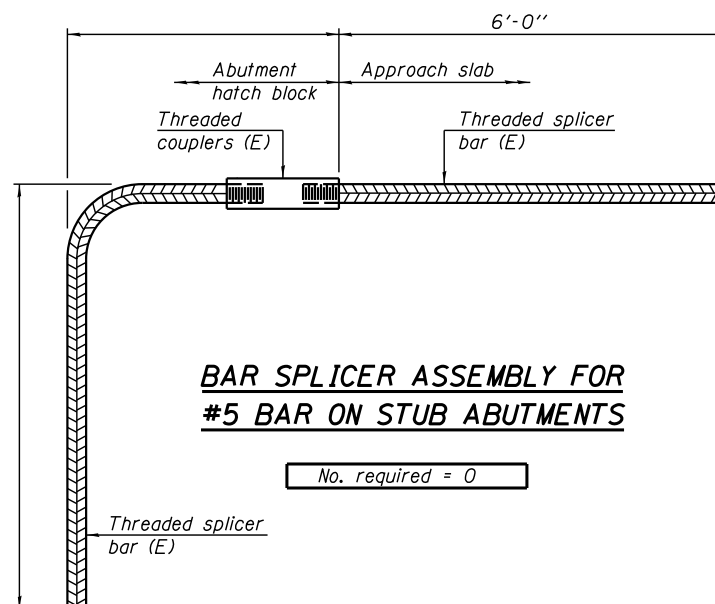
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1 Wall	#5	54
Pier 2 Wall	#5	54
West Abut. Dia.	#6	3
East Abut. Dia.	#6	3
Pier 1 Dia.	#4	4
Pier 1 Dia.	#6	2
Pier 2 Dia.	#4	4
Pier 2 Dia.	#6	2



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

No. required = 72



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 special provision for Mechanical Splicers.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1

7-1-10

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED - _____
		CHECKED - GBR	REVISED - _____
	PLOT SCALE =	DRAWN - JRP	REVISED - _____
	PLOT DATE =	CHECKED - GBR	REVISED - _____



Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 096-0075

SHEET NO. 24 OF 27 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY)B-1	WAYNE	55	44
CONTRACT NO. 74222				

ILLINOIS FED. AID PROJECT



ROCK CORE LOG

Date 9/22/08

ROUTE FAP 821 DESCRIPTION Dry Fork LOGGED BY E. Sandschafer

SECTION (18BY1)B-1 LOCATION Sec 2 - SE 1/4, Sec 11 - NE 1/4, SEC. TWP. 2 S, RNG. 6 E, 3 PM

COUNTY Wayne CORING METHOD Rotary surf set diamond bit

STRUCT. NO. 096-0007 CORING BARREL TYPE & SIZE NW, conv dbl bbl, split inner

Station 1245+42 Core Diameter 2.08 in

BORING NO. 3 E Abut Top of Rock Elev. 335.40 ft

Station 1247+28 Begin Core Elev. 334.60 ft

Offset 7.00 ft

Ground Surface Elev. 404.90 ft

DEPTH (ft)	CORRECTION (#)	RECOVERY (%)	RQD (%)	CORE Diameter (min/ft)	STRENGTH (tsf)	REMARKS
334.80	B3C1	85	73	1.2		Gray, slight to moderate weathering, SILTY CLAY SHALE.
332.20						Gray, slightly weathered, SANDSTONE.
						Rock core B3C1 from 73.8' to 74.3' depth Qu = 234 tsf.
	B3C2	84	69	1.1		Rock core B3C2 from 76.3' to 76.8' depth Qu = 464 tsf.
324.60						Extent of exploration. Drilled additional 1' depth into Shale, no change in material.
						Benchmark: BM 469 Cut square on bridge curb in SW corner of existing structure, Sta 1245+70, 15' Rt = 405.27' elevation. Provided by Program Development.

Color pictures of the cores Available on request.
Cores will be stored for examination until 09/22/09.
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
BBS, form 138 (Rev. 8-99)

FILE NAME =	USER NAME =	DESIGNED - JRS	REVISED -
		CHECKED - GBR	REVISED -
	PLOT SCALE =	DRAWN - JRP	REVISED -
	PLOT DATE =	CHECKED - GBR	REVISED -



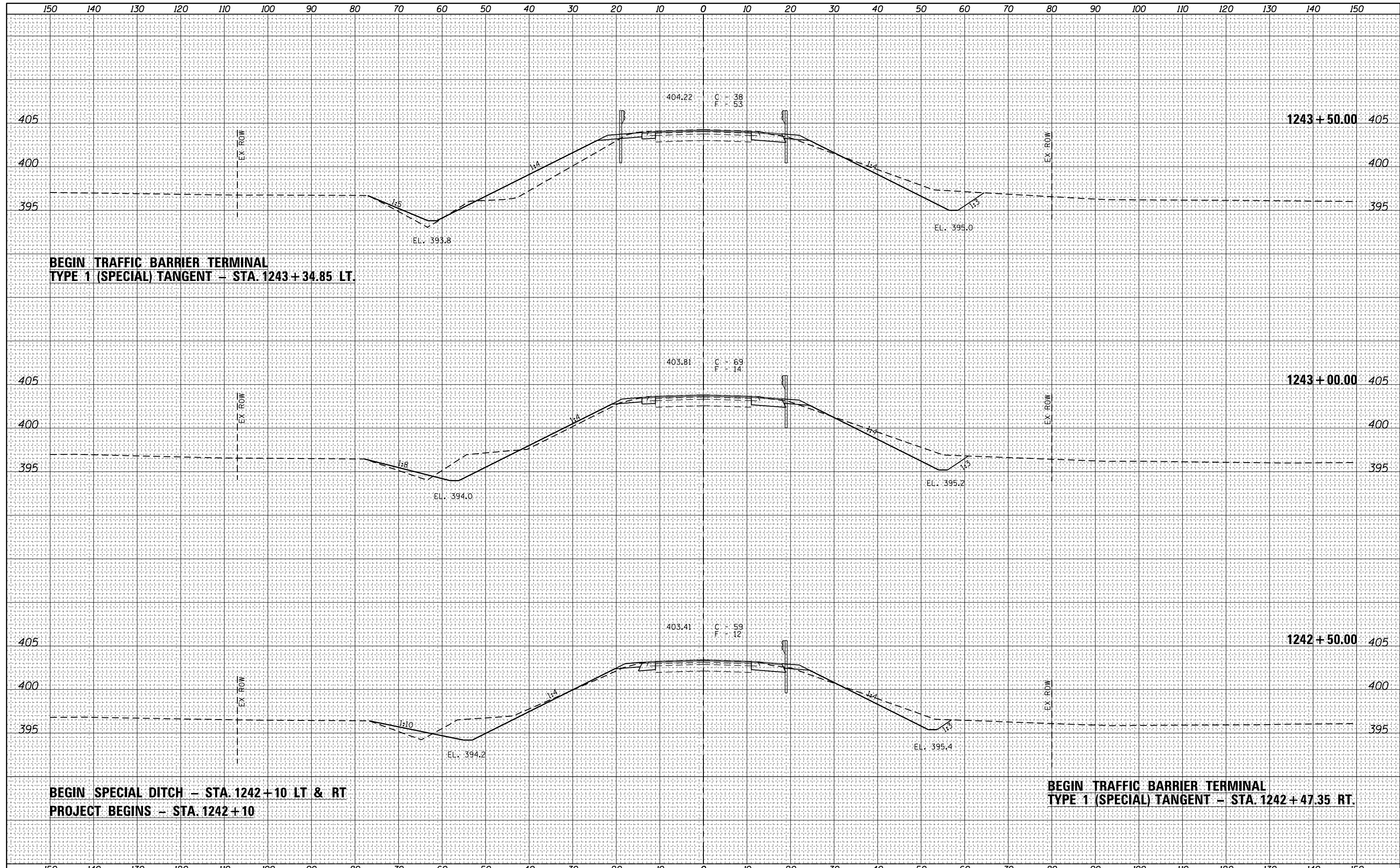
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Civil and Structural Engineers Springfield, IL
62703 Phone: (217)544-8033 IL Design Firm
No. 184-001907

BORING LOGS
STRUCTURE NO. 096-0075

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	47
			CONTRACT NO. 74222	
ILLINOIS FED. AID PROJECT				

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

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



USER NAME : steffennik	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE : 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE : 8/2/2016	DATE -	REVISED -

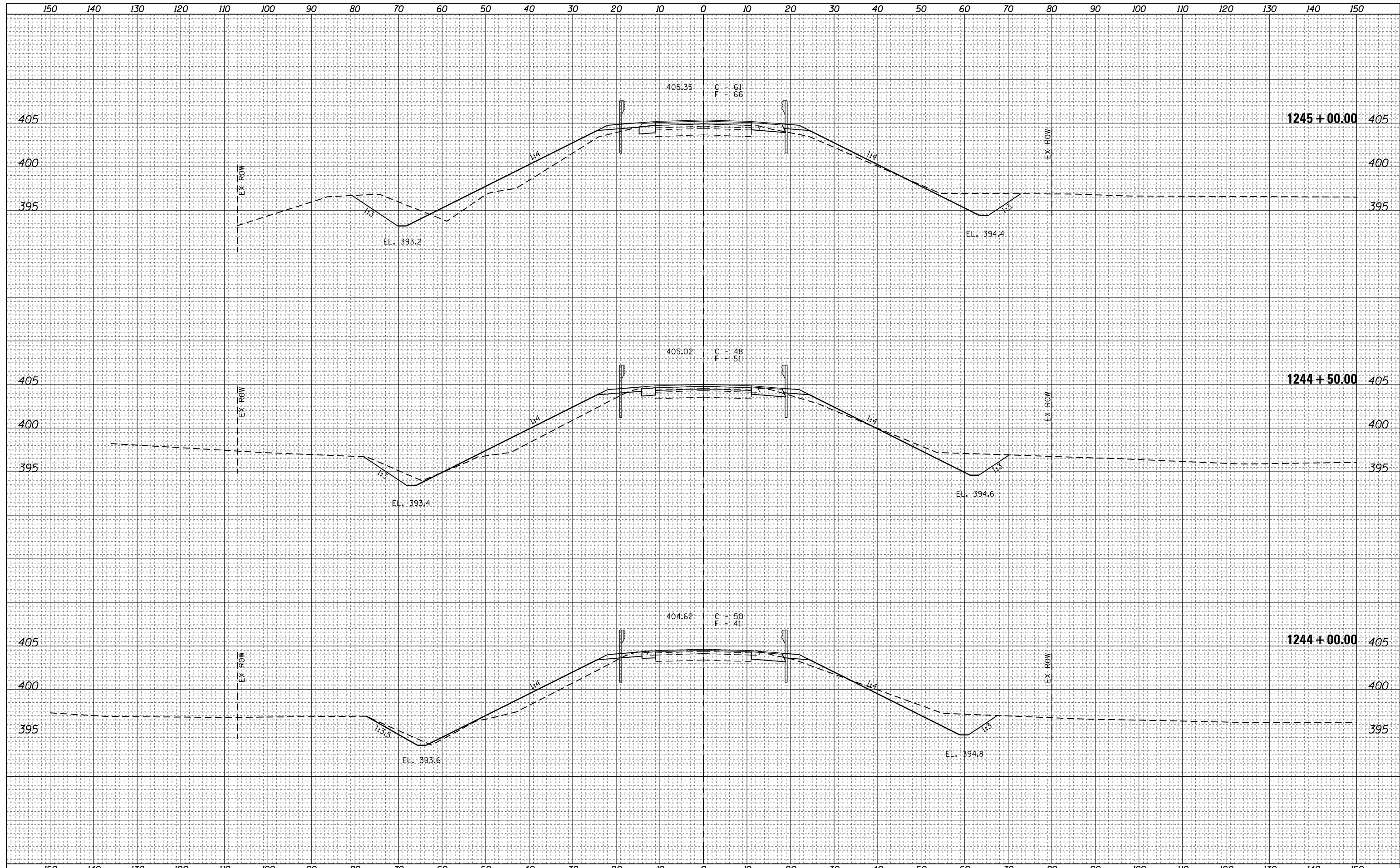
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 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

CROSS SECTIONS		
SCALE: VARIES	SHEET NO. 2 OF 8 SHEETS	STA. 1242+50.00 TO STA. 1243+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	49
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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



USER NAME = steffennik	DESIGNED -	REVISIED -
	DRAWN -	REVISIED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISIED -
PLOT DATE = 8/2/2016	DATE -	REVISIED -

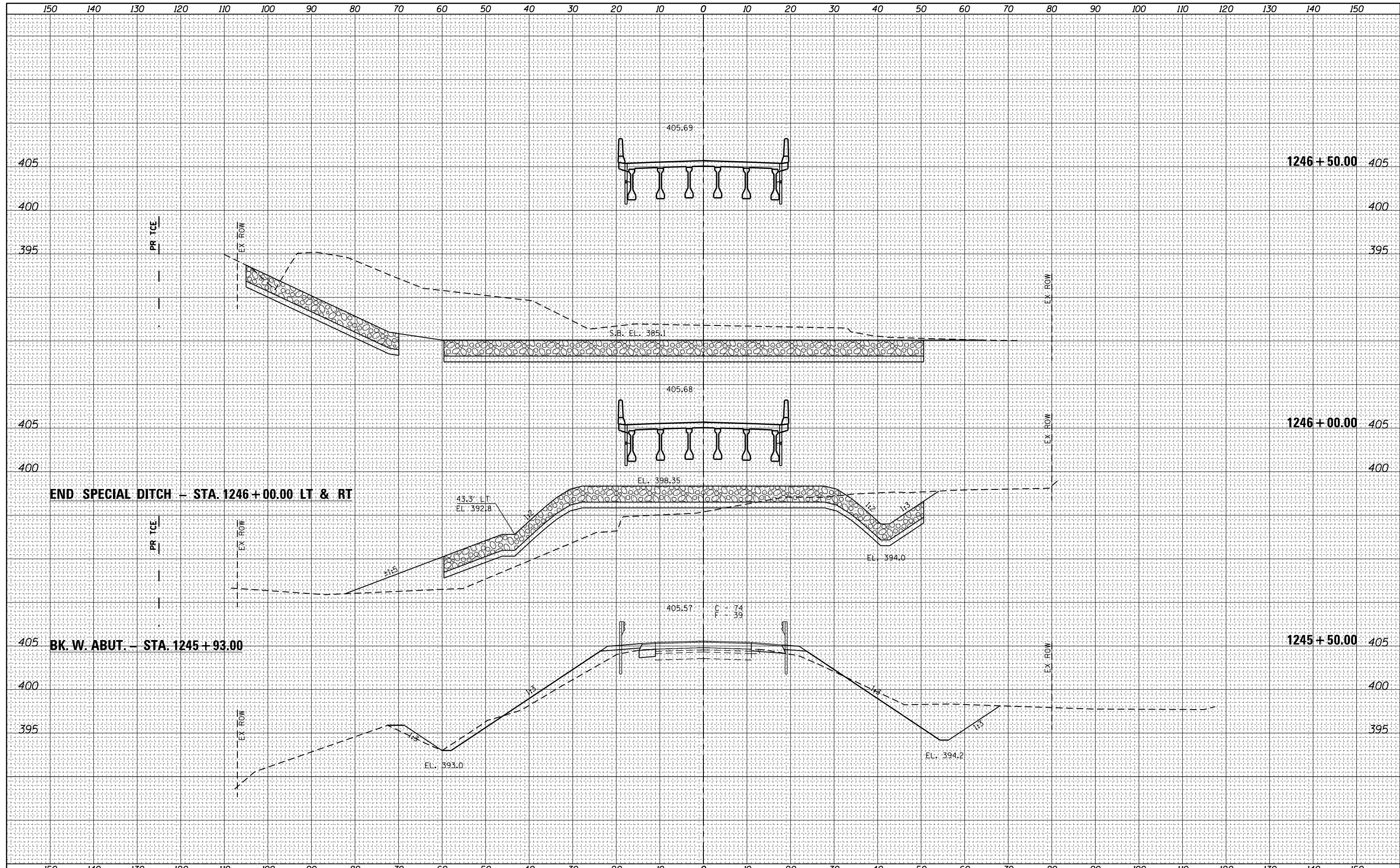
Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

CROSS SECTIONS		
SCALE: VARIES	SHEET NO. 3 OF 8 SHEETS	STA. 1244+00.00 TO STA. 1245+00.00

F.A.P. RTE. 821	SECTION (18BY1)B-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 50
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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



END SPECIAL DITCH - STA. 1246+00.00 LT & RT

BK. W. ABUT. - STA. 1245+93.00

USER NAME : steffennik
 PLOT SCALE : 20.0000' / in.
 PLOT DATE : 8/2/2016

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

REVISED -
 REVISED -
 REVISED -
 REVISED -



Allen Henderson & Associates, Inc.
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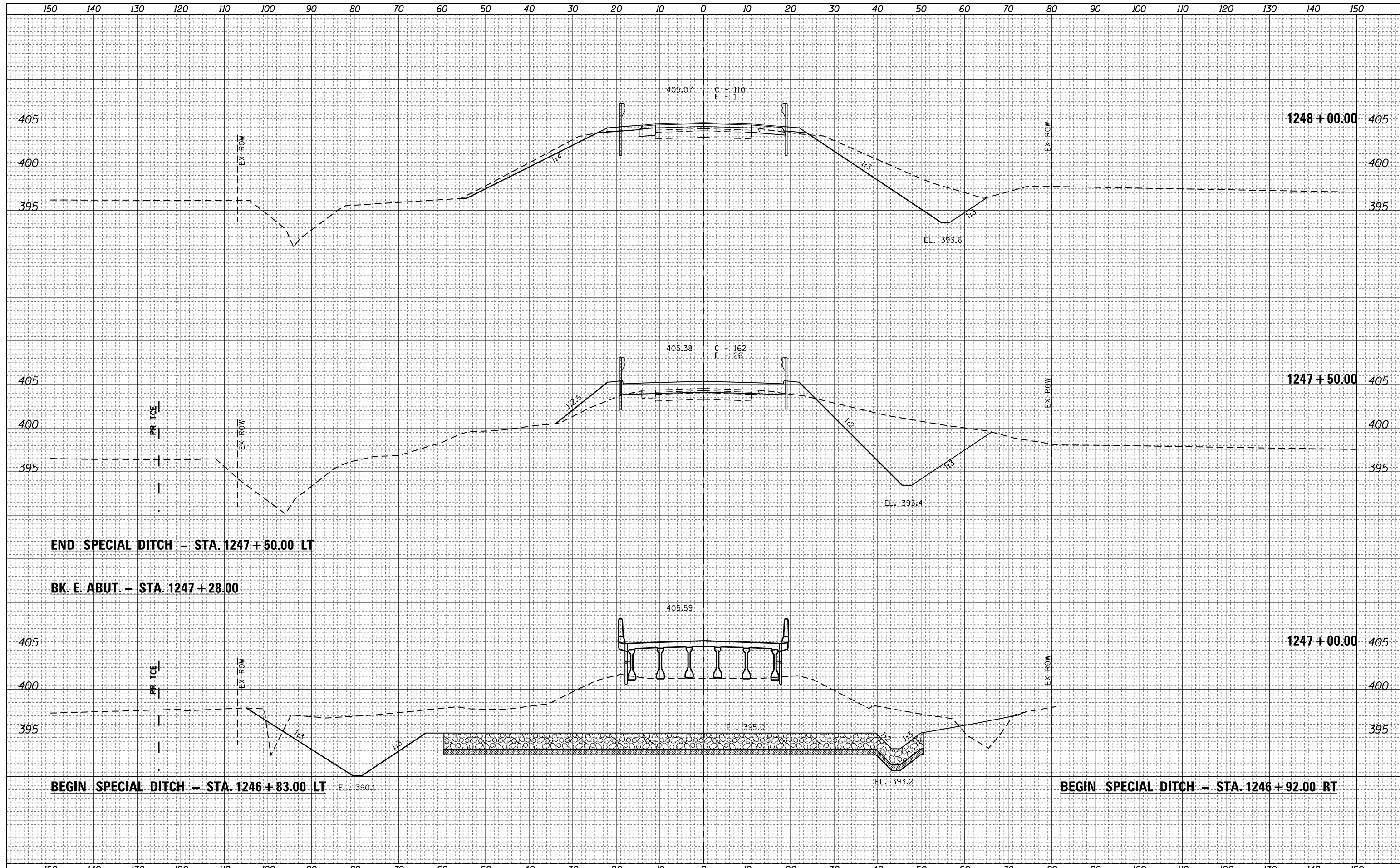
CROSS SECTIONS

SCALE: VARIES SHEET NO. 4 OF 8 SHEETS STA. 1245+50.00 TO STA. 1246+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	51
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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



END SPECIAL DITCH - STA. 1247+50.00 LT

BK. E. ABUT. - STA. 1247+28.00

BEGIN SPECIAL DITCH - STA. 1246+83.00 LT

BEGIN SPECIAL DITCH - STA. 1246+92.00 RT

USER NAME : steffennik	DESIGNED -	REVISED -
PLOT SCALE : 20.0000' / in.	DRAWN -	REVISED -
PLOT DATE : 8/2/2016	CHECKED -	REVISED -
	DATE -	REVISED -



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No. 184-001907

CROSS SECTIONS

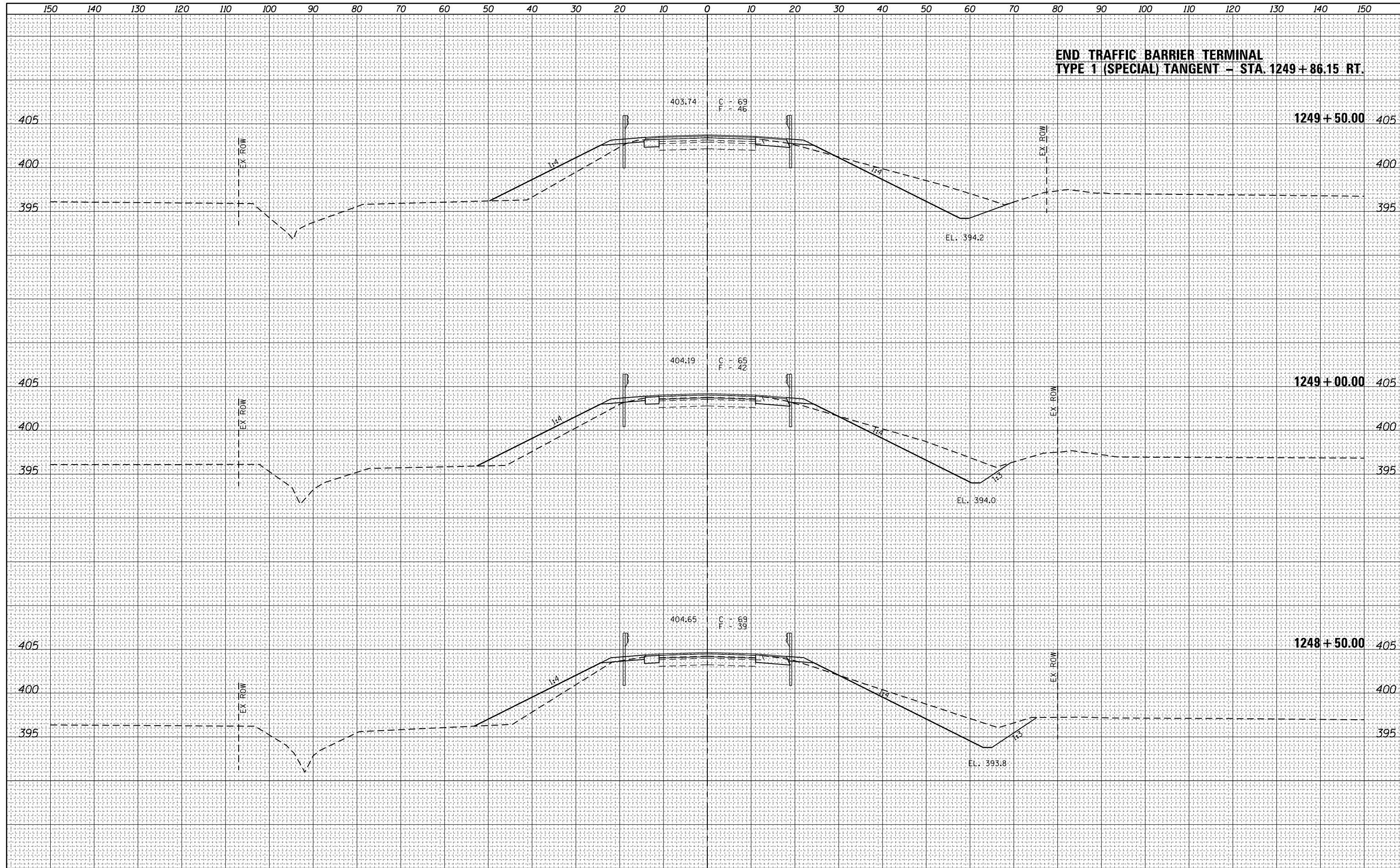
SCALE: VARIES SHEET NO. 5 OF 8 SHEETS STA. 1247+00.00 TO STA. 1248+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	52
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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

**END TRAFFIC BARRIER TERMINAL
TYPE 1 (SPECIAL) TANGENT - STA. 1249 + 86.15 RT.**



USER NAME : steffennik	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE : 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE : 8/2/2016	DATE -	REVISED -

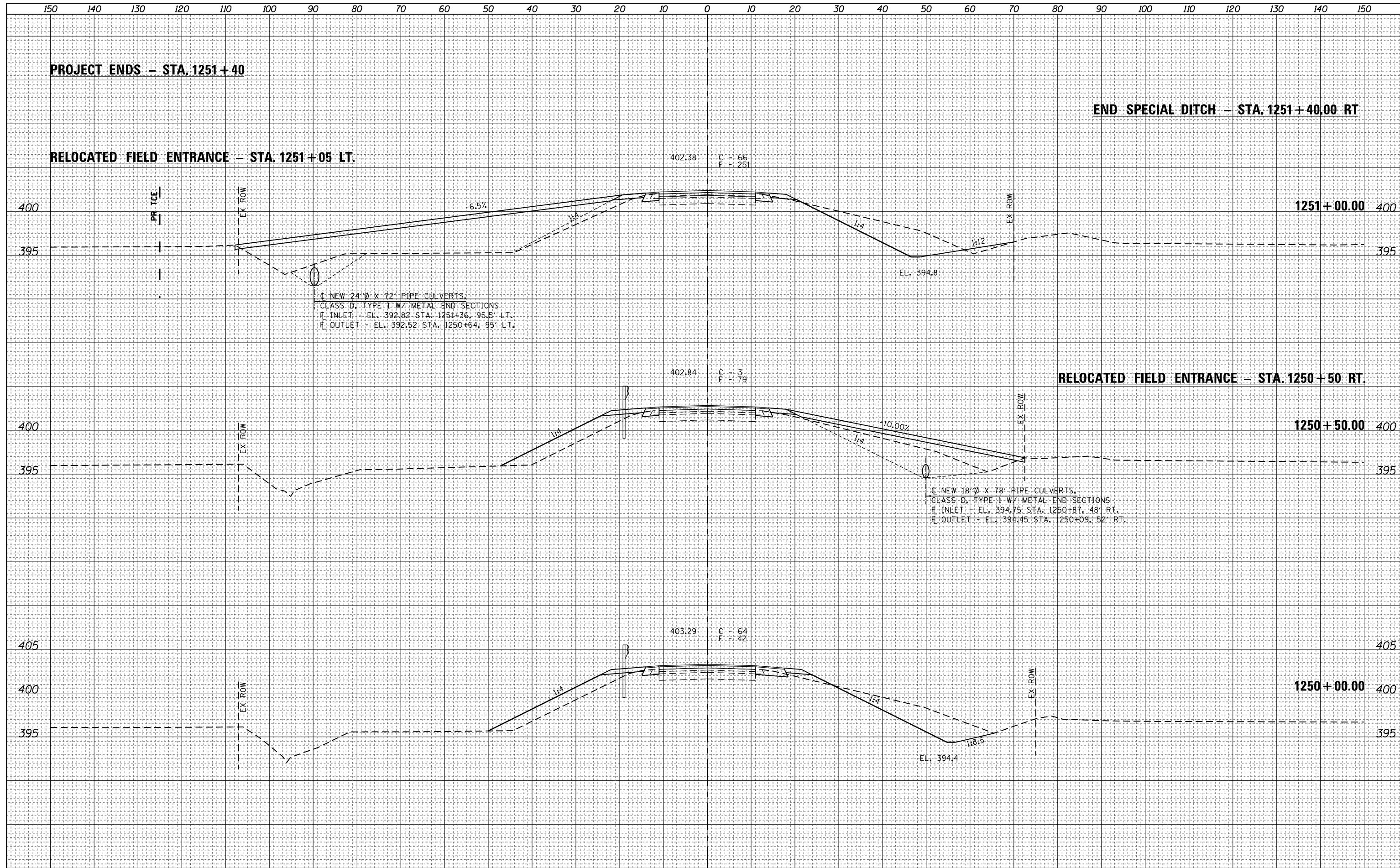
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No. 184-001907

CROSS SECTIONS		
SCALE: VARIES	SHEET NO. 6 OF 8 SHEETS	STA. 1248+50.00 TO STA. 1249+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
821	(18BY1)B-1	WAYNE	55	53
CONTRACT NO. 74222				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

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



NEW 24" Ø X 72' PIPE CULVERTS.
 CLASS D, TYPE I W/ METAL END SECTIONS
 I INLET - EL. 392.82 STA. 1251+36.95' LT.
 I OUTLET - EL. 392.52 STA. 1250+64.95' LT.

NEW 18" Ø X 78' PIPE CULVERTS.
 CLASS D, TYPE I W/ METAL END SECTIONS
 I INLET - EL. 394.75 STA. 1250+87.48' RT.
 I OUTLET - EL. 394.45 STA. 1250+09.52' RT.

USER NAME = steffennk	DESIGNED -	REVISIED -
	DRAWN -	REVISIED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISIED -
PLOT DATE = 8/2/2016	DATE -	REVISIED -

Allen Henderson & Associates, Inc.
 Civil and Structural Engineers Springfield, IL
 62703 Phone: (217)544-8033 IL Design Firm
 No. 184-001907

CROSS SECTIONS		F.A.P. RTE. 821	SECTION (18BY1)B-1	COUNTY WAYNE	TOTAL SHEETS 55	SHEET NO. 54
SCALE: VARIES	SHEET NO. 7 OF 8 SHEETS	STA. 1250+00.00 TO STA. 1251+00.00		CONTRACT NO. 74222		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT						

