34

WABASH

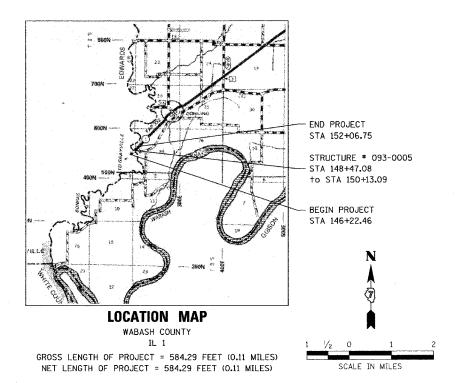
STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 332 (IL 1) SECTION 101B-1 PROJECT: BHF-0005 (544) **WABASH COUNTY** C-97-050-03



D-97-037-03

101B-1



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS June 26 2007 houte M K od / gg. DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER June 29, 2007 Eric E. Harn & Jahren Environment Cyling 29, 20 07 Milton R. Sees, P. E. A. DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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635006-02	



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.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

CONTRACT NO. 74003



THIS SEAL IS VALID FOR THE FOLLOWING SHEETS IN THESE PLANS WHICH WERE PREPARED UNDER MY DIRECT SUPERVISION:

SHEETS 9 TO 34

PLANS PREPARED BY ENGINEERS

640 PIERCE BOULEVARD SUITE 200 • O'FALLON, ILLINOIS 62269 5200 OAKLAND AVENUE • ST. LOUIS, MISSOURI 63110 www.hornershifrin.com

STEPHANIE S. MUENTNICH, PE License Expires 11/30/2007

THIS SEAL IS VALID FOR THE FOLLOWING SHEETS IN THESE PLANS WHICH WERE PREPARED UNDER MY DIRECT SUPERVISION:

SHEETS 1 TO 8

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY FROM CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF STANDARD SPECIFICATION. THE J.U.L.I.E. NUMBER IS 1-800-892-0123. A MINIMUM OF FORTY-EIGHT HOURS ADVANCE NOTICE IS REQUIRED.

THE LOCATION OF ALL UTILITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND ARE INTENDED TO BE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS CONSTRUCTION ACTIVITIES WITH THE VARIOUS UTILITY OWNERS. ALL POTENTIAL CONFLICTS SHALL BE INVESTIGATED AND REMEDIAL ACTION TAKEN PRIOR TO INTERRUPTION OF THE CONTRACTOR'S PROGRESS.

2. EXISTING FACILITIES - VARIATIONS

IN ADDITION TO FIELD SURVEYS AND AERIAL SURVEYS. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION DUE TO CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

3. STATION /OFFSET REFERENCES & HORIZONTAL CONTROL

ALL STATIONS AND OFFSET REFERENCES ARE TO THE ROADWAY CENTERLINE UNLESS OTHERWISE NOTED. THE STATE PLANE COORDINATE SYSTEM HAS BEEN USED FOR THE HORIZONTAL CONTROL.

4. VERTICAL CONTROL

ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON U.S.G.S. MEAN SEA

5. HIGHWAY STANDARDS

ANY REFERENCE WITHIN THESE PLANS TO A STANDARD SHALL BE INTERPRETED TO MEAN THE EDITION INDICATED BY THE SUB-NUMBER LISTED ON THE PREVIOUS SHEET OR THE COPY INCLUDED IN THESE PLANS.

6. APPLICATION RATES

FACTORS USED FOR ESTIMATING PLAN QUANTITIES ARE AS FOLLOWS AND SHALL NOT BE USED FOR THE BASIS OF FINAL QUANTITIES.

HOT-MIX ASPHALT SURFACE COURSE			SQ SQ	YD /	1 I
AGGREGATE (SURFACE, BASE, & BACKFILL) HOT-MIX ASPHALT MATERIALS:	2. 05	TON /	CU	עץ	
PRIME COAT FOR HOT-MIX ASPHALT: - ON PAVEMENT	0.0002	TON /	SA	ΥD	
- ON COLD MILLED SURFACE	0.0004	TON /			
- FOG COAT ON NEW BINDER	0.00012	TON /	SQ	YD	
AGGREGATE (PRIME COAT): - ON EXISTING PAVEMENT	0.002	TON /	SA	VD	
- ON COLD MILLED SURFACE	0.002	TON /			
- FOG COAT ON NEW BINDER	0.001	TON /	SQ	YD	

7. BITUMINOUS MATERIALS (PRIME COAT)

FOR THE PAY ITEM BITUMINOUS MATERIALS (PRIME COAT), THE CONTRACTOR SHALL USE EITHER RC-70 OR AN EMULSIFIED POLYMER PRIME SS-1HP.

8. AGGREGATE SURFACE COURSE, TYPE B

AGGREGATE SURFACE COURSE, TYPE B SHALL BE CRUSHED STONE OR CRUSHED CONCRETE

9. AGGREGATE SHOULDERS, TYPE B

AGGREGATE SHOULDERS, TYPE B SHALL BE CRUSHED STONE, CRUSHED CONCRETE OR RAP.

10. ACCESS DURING CONSTRUCTION

ACCESS TO ENTRANCES, AND SIDEROADS SHALL BE MAINTAINED AT ALL TIMES.

11. BARRICADE STABILIZATION

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

12. SAW CUTS

WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A SAW CUT SHALL BE MADE TO ACHIEVE A NEAT BUTT JOINT. SAWED JOINTS FOR REMOVALS AND BUTT JOINTS SHALL BE CONSIDERED INCLUDED IN ITEM BEING REMOVED OR CONSTRUCTED.

13. THICKNESS OF RESURFACING

THE THICKNESS OF HOT-MIX ASPHALT MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS, DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN EXISTING SURFACE OR BASED ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

14. 4" PAINT PAVEMENT MARKING

THE PROPOSED 4" SOLID YELLOW AND 4" SOLID WHITE PAINT PAVEMENT MARKING SHOWN IN THE SCHEDULE OF QUANTITIES ARE PROVIDED FOR THE CLARIFICATION OF THE CONTRACTOR. ALL 4" PAINT PAVEMENT MARKING SHOWN IN THE PLANS IS CONSIDERED AS PART OF THE PAY ITEM FOR 78001110 PAINT PAVEMENT MARKING - LINE 4"

MIXTURE DESIGN									
MIXTURE USE	SURFACE COURSE	BINDER COURSE							
AC/PG:	PG 64-22	PG 64-22							
DESIGN AIR VOIDS:	4.0% @ NDES=70	4.0% @ NDES=70							
MIXTURE COMPOSITION	IL 9.5 OR 12.5	IL 19.0							
(GRADATION MIXTURE)									
VOLUMETRIC REQUIRMENTS									
FRICTION AGGREGATE:	MIX "C"	N/A							
FIELD DENSITY									

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DEPARTMENT OF TRANSPORTATION

GENERAL NOTES & MIXTURE DESIGNS

SCALE: VERT. NONE HORIZ. NONE DATE 06/20/07

DRAWN BY KMO CHECKED BY SSM

CONTRACT NO. 74003 TOTAL SHEETS NO.

34

COUNTY

WABASH

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

SECTION

332

STA.

		CONTINA	01 110.	17000	
 F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
332	101B-1	WABASH	34	3	
STA.		TO STA.			

JIM.		10	O I Mi			
FED. ROAD	DIST. NO.	ILLINOIS	FED.	AID	PROJECT	

					SN 093-0005 (IL 1)		
CODED PAYITEM	DESCRIPTION UNIT		TOTAL QUANTITY	WABASH COUNTY 80% FEDERAL / 20% STATE STP RURAL STATE FUNDS CONSTRUCTION TYPE CODE			
				I000-2A	X080-2A		
20200100	EARTH EXCAVATION	CU YD	99	99			
20400800	FURNISHED EXCAVATION	CU YD	96	96			
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0. 25	0.25			
28000300	TEMPORARY DITCH CHECKS	EACH	3	3			
28100109 28000400	STONE RIPRAP, CLASS A5 PERIMETER EROSION BARRIER	5Q YO FOOT	603 1380	1380	603		
28200200	FILTER FABRIC	SQ YO	603	A 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	603		
35650500	BASE COURSE WIDENING 10"	SQ YD	150	150			
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	165	165			
40600300	AGGREGATE (PRIME COAT)	TON	1	1			
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	8	8			
40603315	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	TON	28	28			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	179	179			
42000500	PORTLAND CEMENT CONCRETE PAVEMENT 10"	SQ YD	24		24		
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	89		89		
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	257	257			
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1		1		
50102400	CONCRETE REMOVAL	CU YD	9	9			
50300260	BRIDGE DECK GROOVING	SQ YD	611		6//		
50300300	PROTECTIVE COAT	SQ YD	611		611		
50400105	PRECAST CONCRETE BRIDGE SLAB	SQ FT	299		299		
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	4157		4157		
50800205	REINFORCEMENT BARS (EPOXY COATED)	POUND	7590		7590		
50800515	BAR SPLICERS	EACH	i4B		168		
50901 05 0	STEEL RAILING, TYPE SM	FOOT	332		332		
51500100	NAME PLATES	EACH	1		1		
59000200	EPOXY CRACK INJECTION	FOOT	45		45		
63000000	STEEL PLATE BEAM GUARD RAIL, TYPE A	FOOT	400	400			
63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	4	4			
63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4	. 4			
63200310	GUARDRAIL REMOVAL	FOOT	471	471			

* SPECIALTY ITEMS

REVISIONS
NAME DATE

SUMMARY OF QUANTITIES
SHEET 1 OF 2

SCALE; VERT. N/A DRAWN BY KMO DATE 06/20/07 CHECKED BY SSM

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				SN 093-00	05 (IL 1)
CODED PAYITEM	DESCRIPTION	UNIT	TOTAL QUANTITY	WABASH (80% FEDERAL / STP RURAL ST CONSTRUCTION IOOO-2A	20% STATE FATE FUNDS
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	3	3	
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	5	5	
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1	A.A
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	778	778	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	575	575	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	550	550	
78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1934	1934	
78001130	PAINT PAVEMENT MARKING - LINE 6"	FOOT	242	242	
¥ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	12	
× 78200410	GUARDRAIL MARKERS, TYPE A	EACH	18	18	
(78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	694	694	
X0324744	REMOVAL OF EXISTING PRECAST CONCRETE UNIT	SQ FT	299		299
52000110	PREFORMED JOINT STRIP SEAL	FOOT	33		33
X0325303	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5")	SQ FT	7		7
X5030305	CONCRETE WEARING SURFACE 5"	SQ YD	0/3:		6/3
-Z0001900-	ASBESTOS BEARING PAD REMOVAL	-EACH-	-22-		um22-a

					A A A A A A A A A A A A A A A A A A A
2010/04/4/4					

* SPECIALTY ITEMS

	REVISIONS NAME	DATE	ILLINOIS DEPARTMENT O	F TRANSPORTATION
			SUMMARY OF SHEET 2	
Rev.			SCALE: VERT. N/A HORIZ. N/A DATE 06/20/07	DRAWN BY KMO CHECKED BY SSM

t Date: 6/25/2007 Time: kOk-4PM Tred By: koldendorph Tidbie: 'dot,tbl

				PAV	ING				, , , , , , , , , , , , , , , , , , ,		
LOCATION	SIDE	WIDTH	BASE COURSE WIDENING 10"	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT BINDER COURSE IL-19, N70	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N70	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	HOT-MIX ASPHALT SHOULDERS 6"	PORTLAND CEMENT CONC PAVEMENT 10"
STATION TO STATION		FEET	SQ YD	GALLON	TON	TON	TON	SQ YD	SQ YD	SQ YD	SQ YD
SN 093-0005 (IL 1) BONPAS CREEK											
STA 146+22.46 (BK) TO STA 148+46.92 (AH)	LT/RT		75	<u> </u>						119	24
STA 147+83.00 (AH) TO STA 148+46.92 (AH)	LT/RT			92	0.4		16		and		
STA 147+83.00 TO STA 148+13.00	LT/RT							87			
STA 148+13.00 TO STA 148+46.92	LT/RT	26				5					
STA 148+46.92 TO STA 148+66.84	LT/RT	10							44.5		
STA 149+93.16 TO STA 150+13.08	LT/RT	10					, , , , , , , , , , , , , , , , , ,		44.5		
STA 150+13.08 TO STA 150+63.08	LT/RT						12				
STA 150+13.08 TO STA 152+06.75	LT/RT		75	***************************************						138	
STA 150+13.08 TO STA 150+31.08	LT/RT	26				3					
STA 150+31.08 TO STA 150+63.08	LT/RT	26		73	0, 3			92			
TOTAL			150	165	1	8	28	179	89	- 257	24

		PAVEMENT	MARKING	3		
		PAINT PAVEN	ENT MARKING	RAISED		
				REFLECTIVE	PAVEMENT.	WORK ZONE
LOCATION	SIDE	LINE 4"	LINE 6"	PAVEMENT	MARKING	PAVEMENT
				MARKER	REMOVAL	MARKING
		SOLID	SKIP DASH			REMOVAL
		WHITE	YELLOW			
STATION TO STATION		FOOT	FOOT	EACH	SQ FT	SQ FT
200 200 200 200 200 200 200 200 200 200						
SN 093-0005 (IL 1) BONPAS CREEK						
STA 144+19.71 TO STA 154+17.53	i.T/RT			12		52
STA 144+32, 21 TO STA 154+93, 00	LT/RT	* - · · · · · · · · · · · · · · · · · ·				52
STA 144+19.71 TO STA 147+24.38 (BK)	LT/RT	609			203	111
STA 144+19.71 TO STA 147+24.38 (BK)	CL		76		16	10
STA 144+32, 21 TO STA 147+24, 38 (BK)	LT/RT					97
STA 147+55.17 (AH) TO STA 154+17.53	CL		166		33	
STA 147+55.17 (AH) TO STA 147+83.00	CL					1
STA 147+55.17 (AH) TO STA 147+83.00	LT/RT					1
STA 147+55.17 (AH) TO STA 154+17.53	LT/RT	1325			442	
STA 147+24.38 (BK) TO STA 144+14.71	CL					
STA 147+55.17 (AH) TO STA 154+17.53	LT/RT					221
STA 147+55.71 (AH) TO STA 153+93.00	LT/RT					213
STA 150+63.08 TO STA 154+17.53	CL					12
STA 150+63.08 TO STA 154+17.53	LT/RT					8
TOTAL	.1	1934	242	12	694	778

REVISIONS
NAME DATE

SCHEDULE OF QUANTITIES

SHEET 1 OF 2

SCALE: VERT. NONE HORIZ. NONE DATE 06/20/07

DRAWN BY KMO . CHECKED BY SSM

GUARDRAIL											
LOCATION	SIDE	GUARDRAIL REMOVAL	STEEL PLATE BEAM GUARDRAIL, TYPE A	TRAFFIC BARRIER TERMINAL, TYPE 6A	TRAFFIC BARRIER TERMINAL TYPE 1. SPECIAL (TANGENT)	GUARDRAIL MARKERS. TYPE A	TERMINAL MARKER - DIRECT APPLIED				
STATION TO STATION		FOOT	FOOT	EACH	EACH	EACH	EACH				
SN 093-0005 (IL 1) BONPAS CREEK											
STA 146+22.46 TO STA 148+47.00	LT	114	100	1	1	4	1				
STA 146+34.96 TO STA 148+47.00	RT	112	100	1	1	4	1				
STA 150+13.00 TO STA 152+94.25	L,T	119	100	1	1	5	1				
STA 150+13.00 TO STA 152+06.75	RT	126	100	1	1	5	1				
SUBTO	TAL	471	400	4	4	18	4				

REMOVAL ITEMS	
LOCATION	CONCRETE REMOVAL
STATION TO STATION	CU YD
SN 093-0005 (IL 1) BONPAS CREEK	
STA 148+46.92 TO STA 148+66.84	4.5
STA 149+93.16 TO STA 150+13.08	4.5
TOTAL	9

	EROSION	CONTROL	
LOCATION	SIDE	TEMPORARY DITCH CHECKS	PERIMETER EROSION BARRIER
STATION TO STATION		EACH	FOOT
SN 093-0005 (IL 1) BONPAS CREEK			
STA 146+00.00 TO STA 153+13.54	LT	,	688
STA 145+15.97 TO STA 152+30.00	RT		692
STA 148+25.00	LT	1	
STA 148+25.00	RT	1	
STA 150+25.00	LT	1	
			·
TOTAL	· · · · · · · · · · · · · · · · · · ·	3	1380

	EARTI	IWORK			
LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	SHRINKAGE FACTOR	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
STATION TO STATION	CU YD	CU YD		CU YD	CU YD
SN 093-0005 (IL 1) BONPAS CREEK					
STA 145+20.00 TO STA 153+00.00	99	74	25	209	-135
SUBTOTAL	99	74		209	-135

REVISIONS DATE ILLINOI

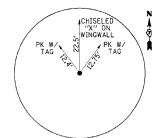
ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
SHEET 2 OF 2

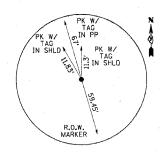
SCALE: VERT. NONE HORIZ. NONE DATE 06/20/07

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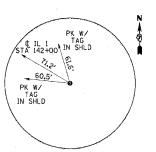
ALIGNMENT TIES:



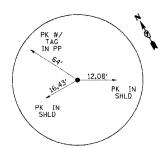
FAP 332 (IL 1) ALIGNMENT TIE P.O.T. STA 130+31.19



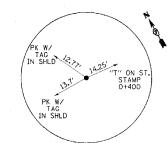
FAP 332 (IL 1) ALIGNMENT TIE P.C. STA 136+58.55



FAP 332 (IL 1) ALIGNMENT TIE P.I. (BOLT FOUND)



FAP 332 (IL 1) ALIGNMENT TIE P.T. STA 147+24.37



CONTRACT NO. 74003
COUNTY TOTAL SHEET NO.
WABASH 34 7

TO STA. FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

F.A.P. SECTION 332 1018-1

STA.

FAP 332 (IL 1) ALIGNMENT TIE P.O.T. STA 162+32.80

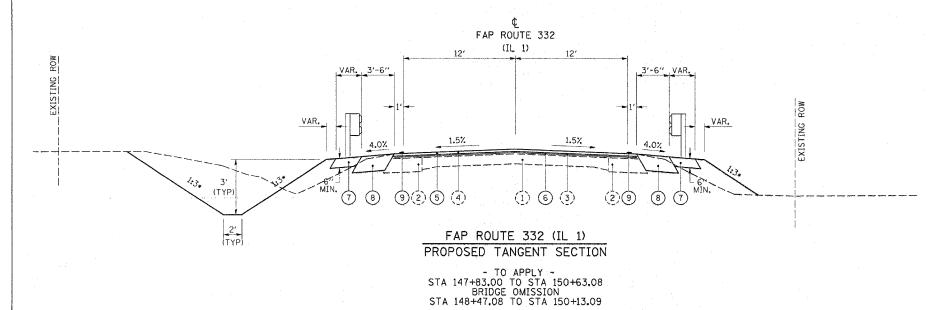
BENCHMARKS:

BM 516 - RR SPIKE IN POWER POLE EAST SIDE. STA \pm 153+59. ELEVATION - 395.978

BM 517 - CHISELED SQUARE ON SW WINGWALL OF BRIDGE SN 093-0005. ELEVATION - 390.496

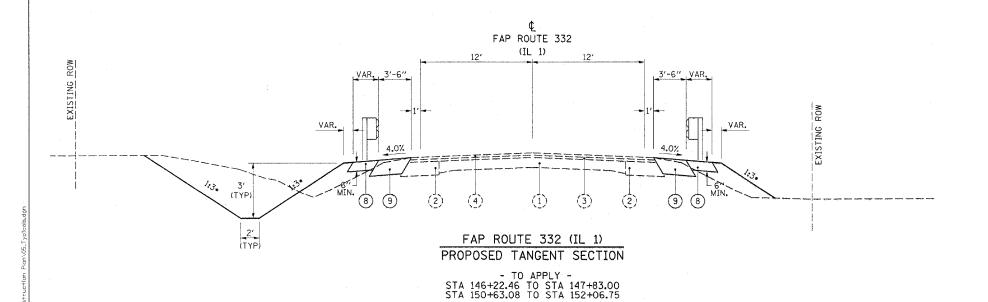
BM 518 - RR SPIKE IN 30" DIAMETER TREE ON SOUTH SIDE OF IL 1. STA $\pm 139 + 98$, 43' RT. ELEVATION - 403.720

ILLINOIS DEPARTMENT OF TRANSPORTATION **ALIGNMENT TIES & BENCHMARKS** SCALE: VERT. N/A HORIZ. N/A DATE 06/20/07 DRAWN BY KMO CHECKED BY SSM



31A 140141,00 10 31A 130713.03

* OR AS SHOWN ON CROSS SECTIONS



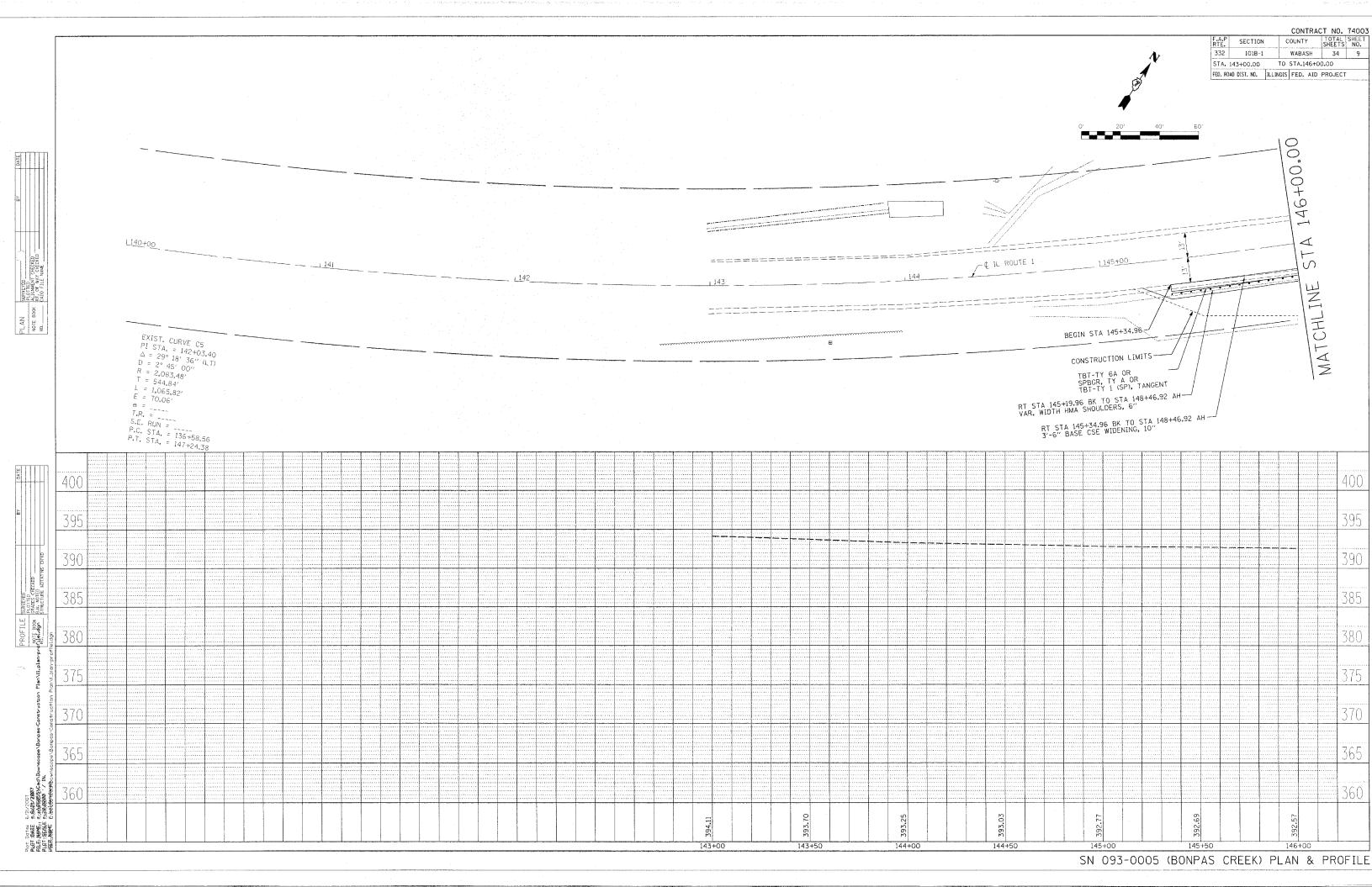
MATERIALS LEGEND

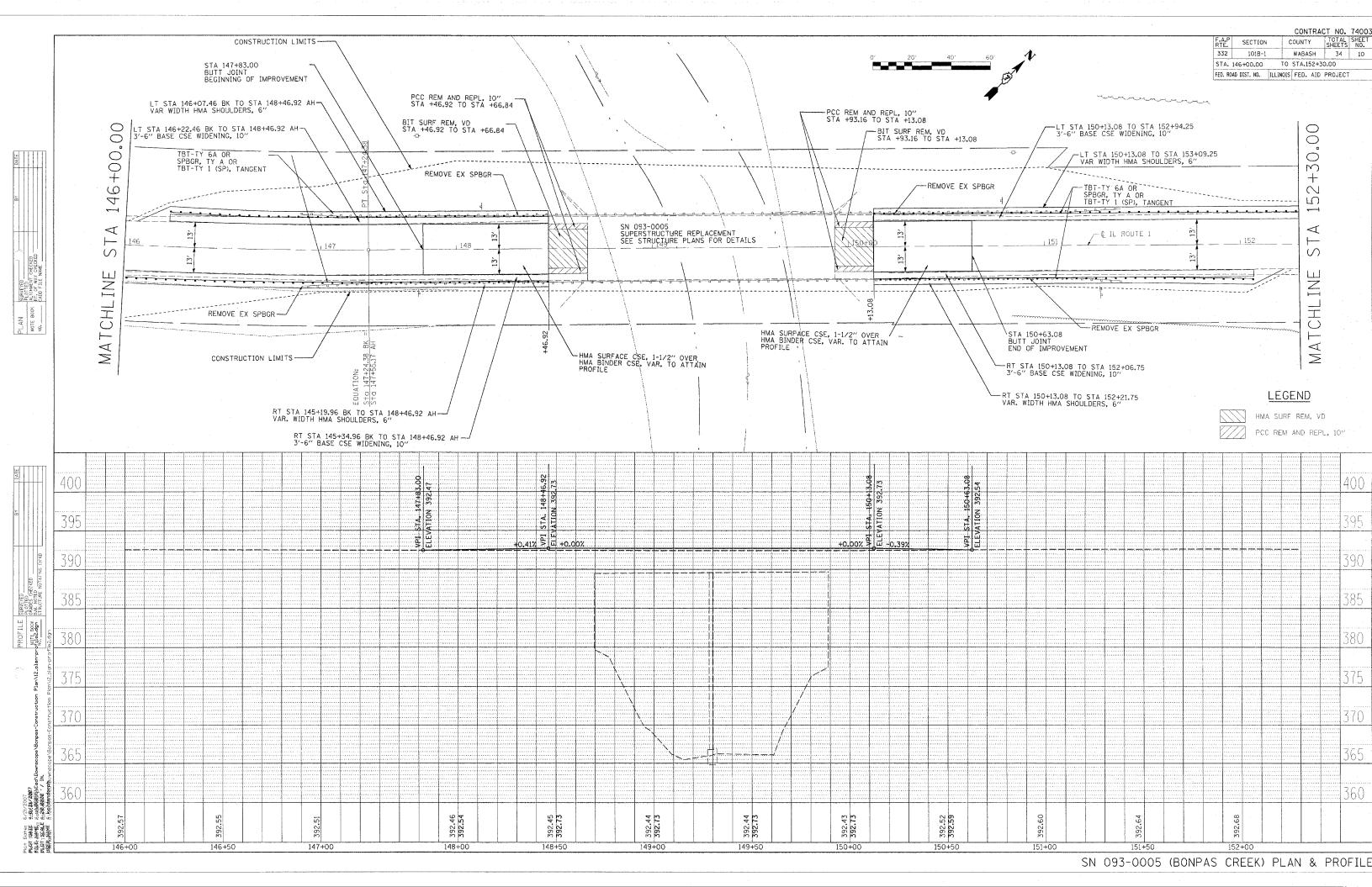
- (1) EXISTING PCC PAVEMENT
- (2) EXISTING WIDENING
- (3) EXISTING HOT-MIX ASPHALT BINDER COURSE, $1\frac{1}{2}$ "
- (4) EXISTING HOT-MIX ASPHALT SURFACE COURSE, CLASS I, $1\frac{1}{2}$ "
- 5) PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIXTURE "C", N70, (11/2")
- (6) PROPOSED HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70, (VARIABLE DEPTH)
- 7 PROPOSED HOT-MIX ASPHALT SHOULDERS, 6"
- 8 PROPOSED BASE COURSE WIDENING, 10"
- 9 PROPOSED PAVEMENT MARKING

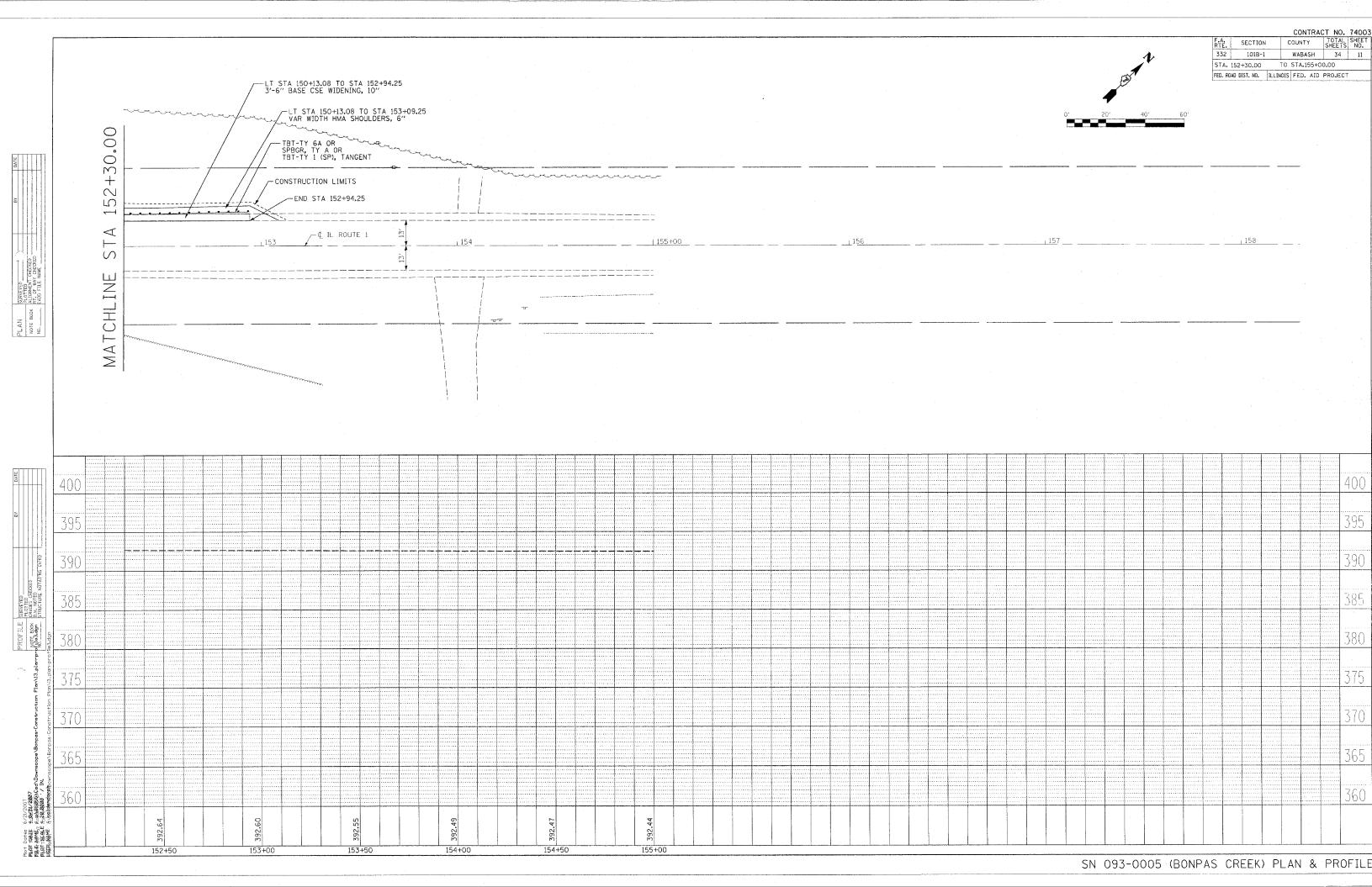
REVISIONS
NAME DATE

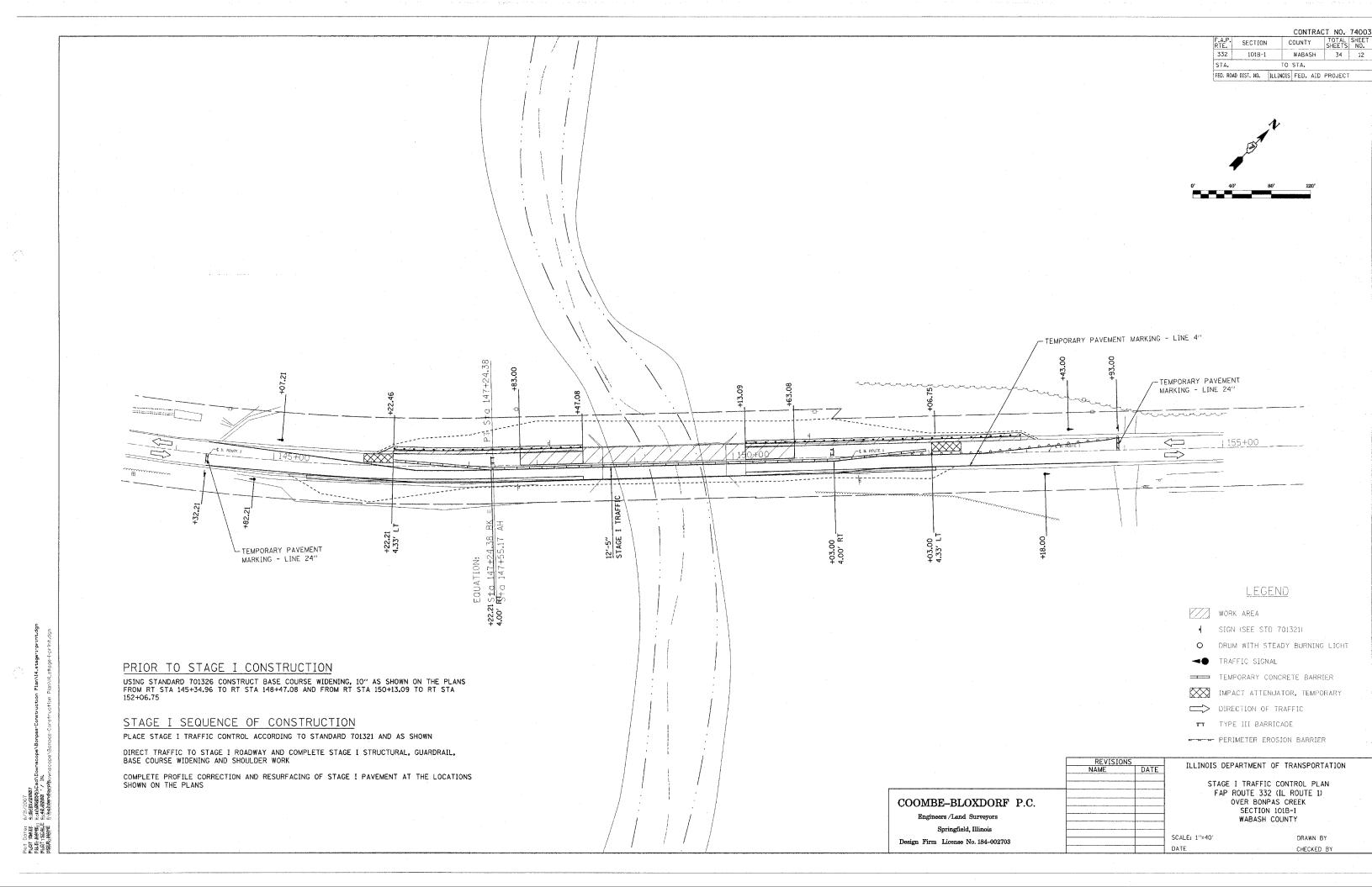
TYPICAL SECTIONS
IL 1

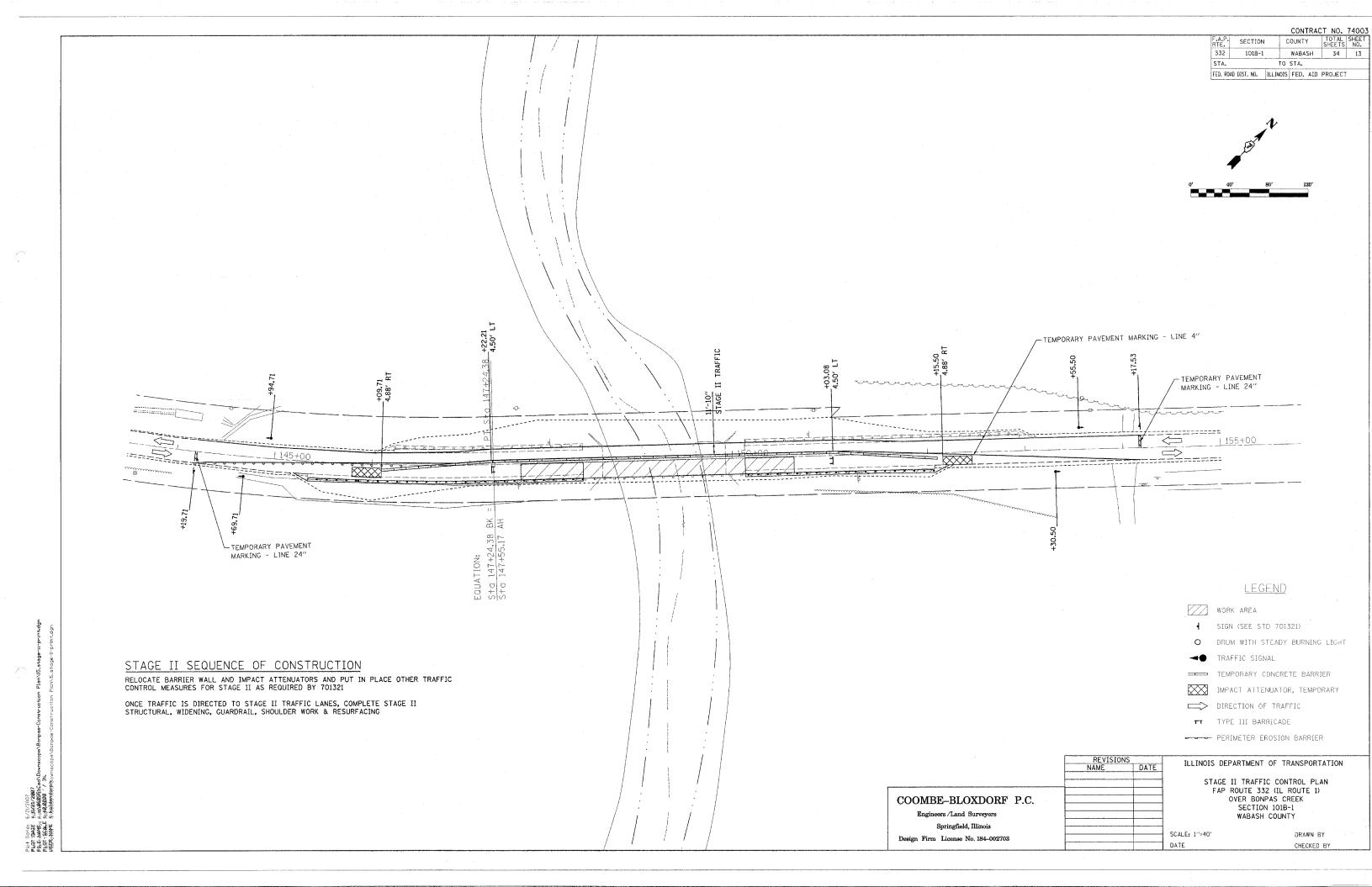
SCALE; VERT. N/A DRAWN BY KMO DATE 06/20/07 CHECKED BY SSM











Albion PROJECT LOCATION

INSTALL WIDTH RESTRICTION SIGNS

A 1 - EACH (60 × 48)
"BRIDGE CONSTRUCTION 3 MILES AHEAD MAXIMUM WIDTH
10 FT 4 IN"
TO BE INSTALLED JUST SOUTH OF IL 1/IL 130 INTERSECTION NORTH OF GRAYVILLE

B 1 - EACH (60 × 48) "BRIDGE CONSTRUCTION
13 MILES AHEAD MAXIMUM WIDTH
10 FT 4 IN"
TO BE INSTALLED JUST NORTH OF IL 1/IL 15 INTERSECTION AT MT CARMEL

© 1 ~ EACH (60 x 48) "BRIDGE CONSTRUCTION 6 MILES AHEAD MAXIMUM WIDTH TO BE INSTALLED SOUTH OF KEENSBURG ON IL 1

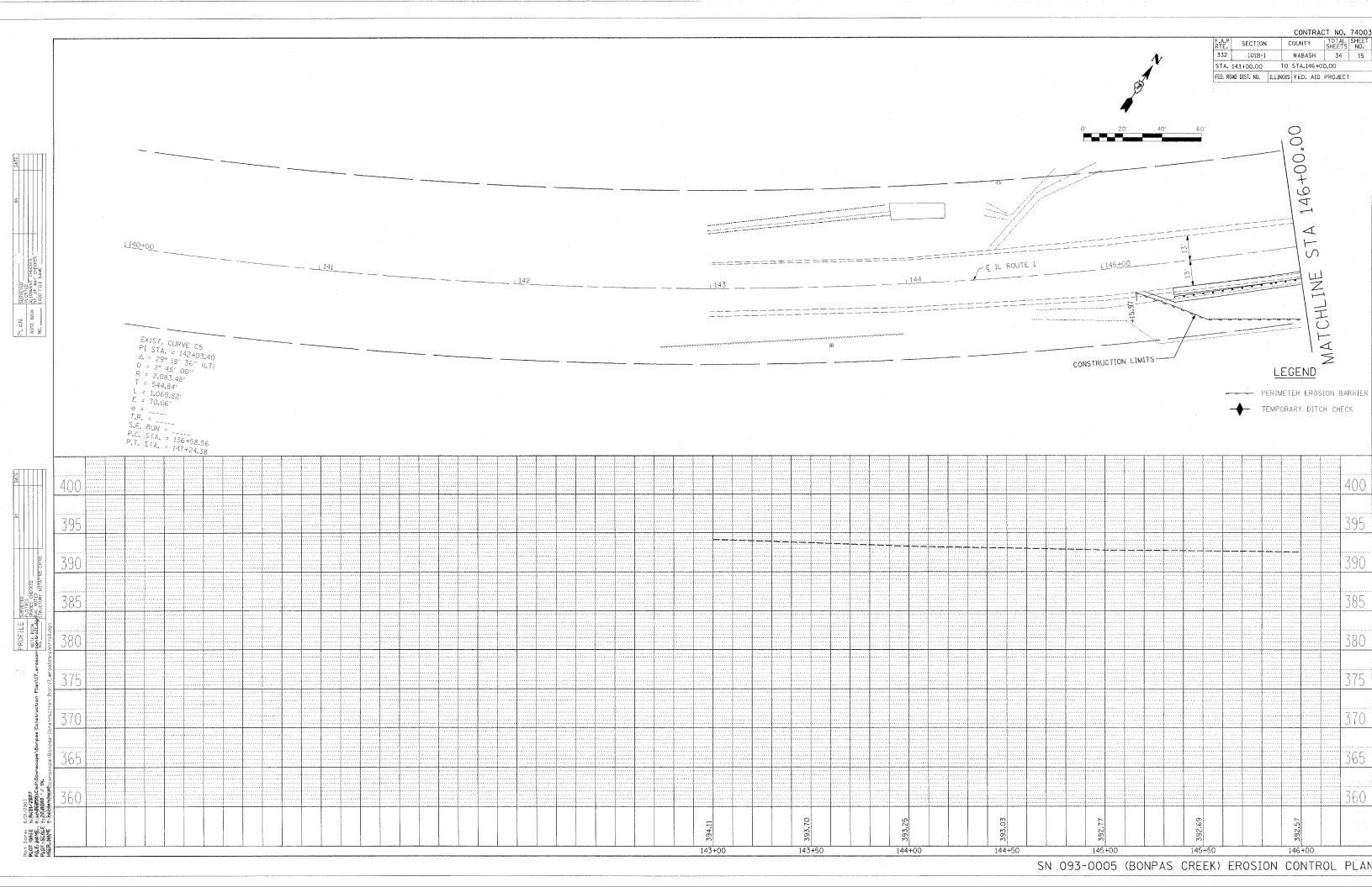
① 1 - EACH (30 × 12) "MAX WIDTH" "9'-6" INSTALLED UNDER EACH W20-4(0)-48-ONE LANE ROAD AHEAD SIGNS

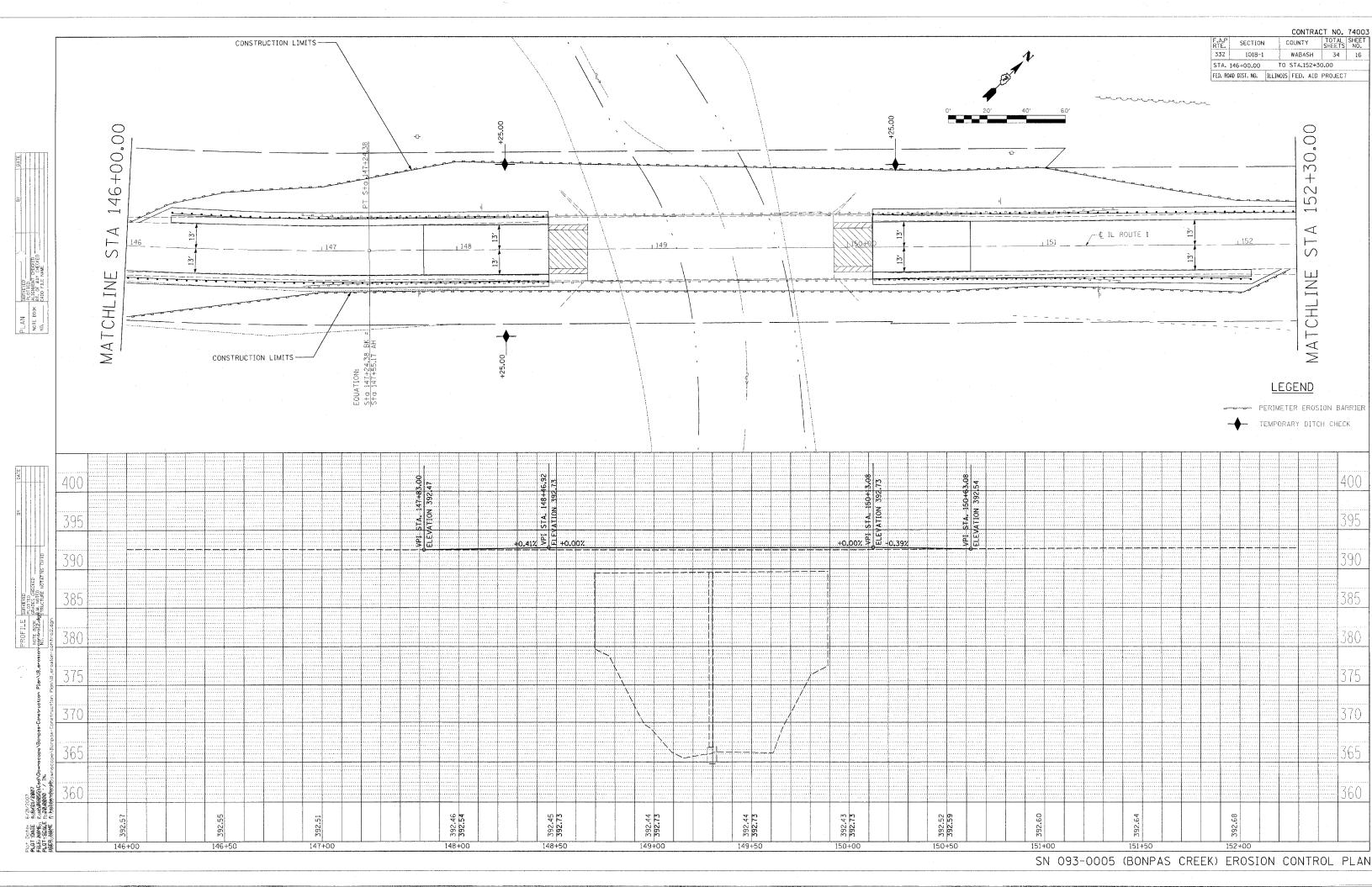
COOMBE-BLOXDORF P.C. Engineers /Land Surveyors Springfield, Illinois SCALE: N.T.S. Design Firm License No. 184-002703

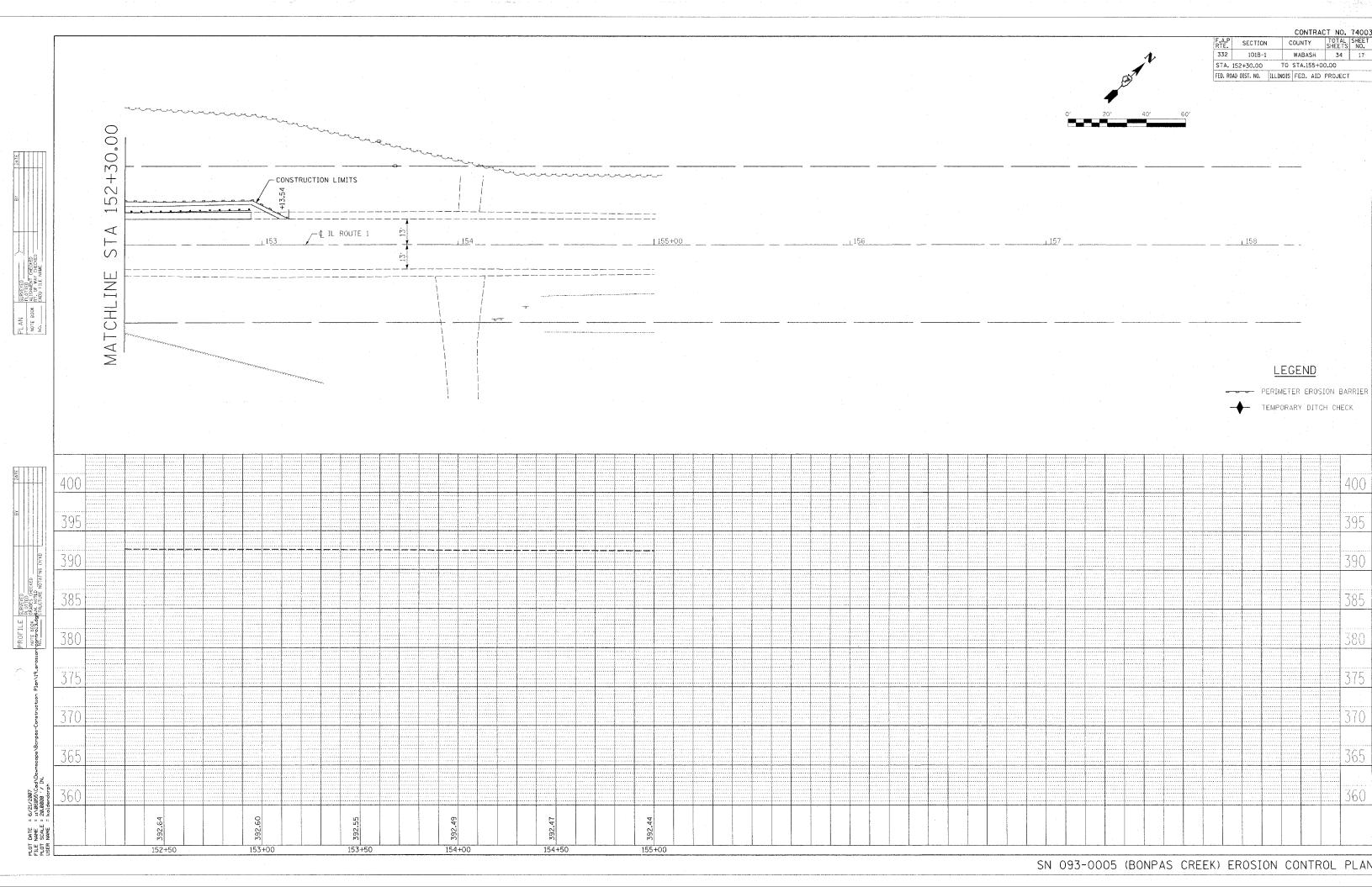
ILLINOIS DEPARTMENT OF TRANSPORTATION

STAGING WIDTH RESTRICTION SIGNAGE FAP ROUTE 332 (IL ROUTE 1) OVER BONPAS CREEK SECTION 101B-1 WABASH COUNTY

DRAWN BY CFC CHECKED BY







Benchmark: Chiseled "□" on N.E. corner of northeast abut. 15' Rt. Sta. 149+93, Elev. 394.00

Existing Structure: SN 093-0005 Built 1934 Sta. 149+30.00 as SBI Route 138. Rebuilt 1971 Sta. 149+30.00 as SBI Route 138, Section 101BR. Structure is two span precast prestressed concrete deck beam superstructure 128'-334" Bk. to Bk. abutments and 33'-0" out to out deck on closed concrete abutments supported by untreated timber piles and solid concrete pier on spread footing embedded 6" into rock. Bridge superstructure shall be removed and replaced with new beams and reinforced concrete wearing surface. Stage construction will be utilized allowing one lane of traffic during construction.

No Salvage

LOADING HS20-44

No allowance for future wearing surface

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS-EXISTING

FIELD UNITS-PROPOSED

 $f_c = 1,000 \text{ psi}$

 $f'_c = 5,000$ psi (concrete wearing surface) $f_V = 20,000$ psi (reinforcement) $f_V = 60,000$ psi (reinforcement)

PRECAST PRESTRESSED UNITS

 $f_c' = 5,000 \text{ psi}$

f'ci = 4,000 psi

 $f_s' = 270,000$ psi $\binom{1}{2}$ " ϕ Low Relaxation Strands) $f_{si}' = 201,960$ psi $\binom{1}{2}$ " ϕ Low Relaxation Strands)

PRECAST UNITS

 $f_c' = 4,500 \text{ psi}$ f = 60,000 psi

TOTAL SHEETS SHEET NO. SHEET NO. 134 FAP 332 18 101B-1 WARASH PED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJ

11 SHEETS

Contract # 74003

GENERAL NOTES

Plan dimensions and details relative to the existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new conctruction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc. A concrete sealer meeting the requirements of Section 587 of the Standard Specifications shall be applied to the exterior face and 9" in on the underside of the fascia beams. The sealer shall be applied after visible crack growth has subsided. This work shall be performed by the producer and included with the cost of the beam.

The Contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the beams when developing construction procedures for removal and replacement of the superstructure.

No drilling will be permitted into the existing precast deck beams to be used for Stage Itraffic lane or the proposed deck beams.

If the Contractor's procedure for existing beam removal or placement of new beams involves placement of cranes or other heavy equipment on new beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the new beams. To distribute load to multiple beams and protect the concrete, in all cases a double layer mat of heavy timbers shall be used at all times under crane tracks or wheels and any outriggers in the down position. If necessary, shims shall be used under the crane mat to ensure uniform contact with the underlying beams. Prior to placement of the timber mats the following shall be done: placement and tightening of transverse tie assemblies, grouting and curing the dowel rods 24 hours minimum and grouting and curing the shear keys.

Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost to be included in the cost of Removal of Existing Superstructures.

Layout of Slope Protection System may be varied to suit ground conditions in field as directed by the Engineer.

Reinforcement bars designated (E) shall be epoxy coated.

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60 (IL Modifled). See Special Provisions.

SHEET TITLE

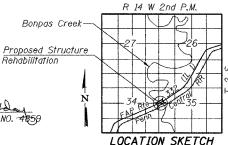
TOTAL BILL OF MATERIAL

TOTAL DILL OF W	/ · / L / ·	411 <u>L</u>		
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	4157		4157
Reinforcement Bars, Epoxy Coated	Pound	7590		7590
Steel Railing, Type SM	Foot	332		332
Name Plates	Each	1		1
Bar Splicers	Each	168		168
Concrete Wearing Surface, 5"	Sq. Yd.	613		613
Protective Coat	Sq. Yd.	613		613
Bridge Deck Grooving	Sq. Yd.	611		611
Preformed Joint Strip Seal	Foot	33		33
Precast Concrete Bridge Slab	Sq. Ft.	299		299
Removal of Existing Precast Concrete Unit	Sq. Ft.	299		299
Stone Riprap Class A5	Sq. Yd.			603
Filter Fabric	Sq. Yd.			603
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.		7	7
Epoxy Crack Injection	Foot		45	45

** Removal of existing Precast Concrete Unit shall be performed according to the requirements of Article 501 of The Standard Specifications.

APPROVED FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES



STATION 149+30 SN 093-0005 COOMBE-BLOXDORF P.C.

FAP 332 OVER BONPAS CREEK

FAP ROUTE 332 (IL 1) SECTION 101B-1

WABASH COUNTY

Springfield, Illinois Design Firm License No. 184-002703

Engineers / Land Surveyors

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION

06026

03/15/07

CHECKED BY GB/CME/MCB

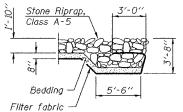
TFO

Steel Railing, Type SM Concrete Wearing Surface Traffic Barrier Terminal Side Mounted (Typ.) (5" Min. Thickness) Type 6A, Std. 631032 (Typ.) PPC Deck Beams ' Depth Sto Cic Class A5 ELEVATION 1-19'-11" Precast Unit Typ. Ea. Cor. (Typ.)Rk. S. Abutment Stage Construction Line Sta. 148+65.84 12'-0" Roadway (Wearing Surface) Stage Construction Line Elev. 392.73 (PPC Deck Beams) 12'-0" Roddway © FAP Route 332 & PG <u>& Bridge</u> Sta. 149+30.00 Bk. N. Abutment, Elev. 392.73 Sta. 149+94.16 *Location of Elev. 392.73 +A -End of Deck End of Deck-63'-078" 63'-078" 18'-11" 128'-334" Bk. to Bk. Existing Abutments 18'-11" 166'-134'' End to End Concrete Wearing Surface

STATION 149+30.00 REBUILT 20__ BY STATE OF ILLINOIS F.A.P. RTE 332 SEC. 101B-LOADING HS20 STRUCTURE NO. 093-0005

NAME PLATE

*The existing name plate shall be cleaned and relocated next to the new name plate. Both name plates shall be attached to the backside of the 8" rail element in the location shown. Cost included with Name Plates.



SECTION A-A

INDEX OF SHEETS

1) General Plan & Elevation

2) Staged Construction

3) Temporary Concrete Barrier For Stage Construction

4) Superstructure

5) Preformed Joint Strip Seal

8) Steel Railing, Type SM With Concrete Wearing Surface

10) Abutment Repair Details

PLAN

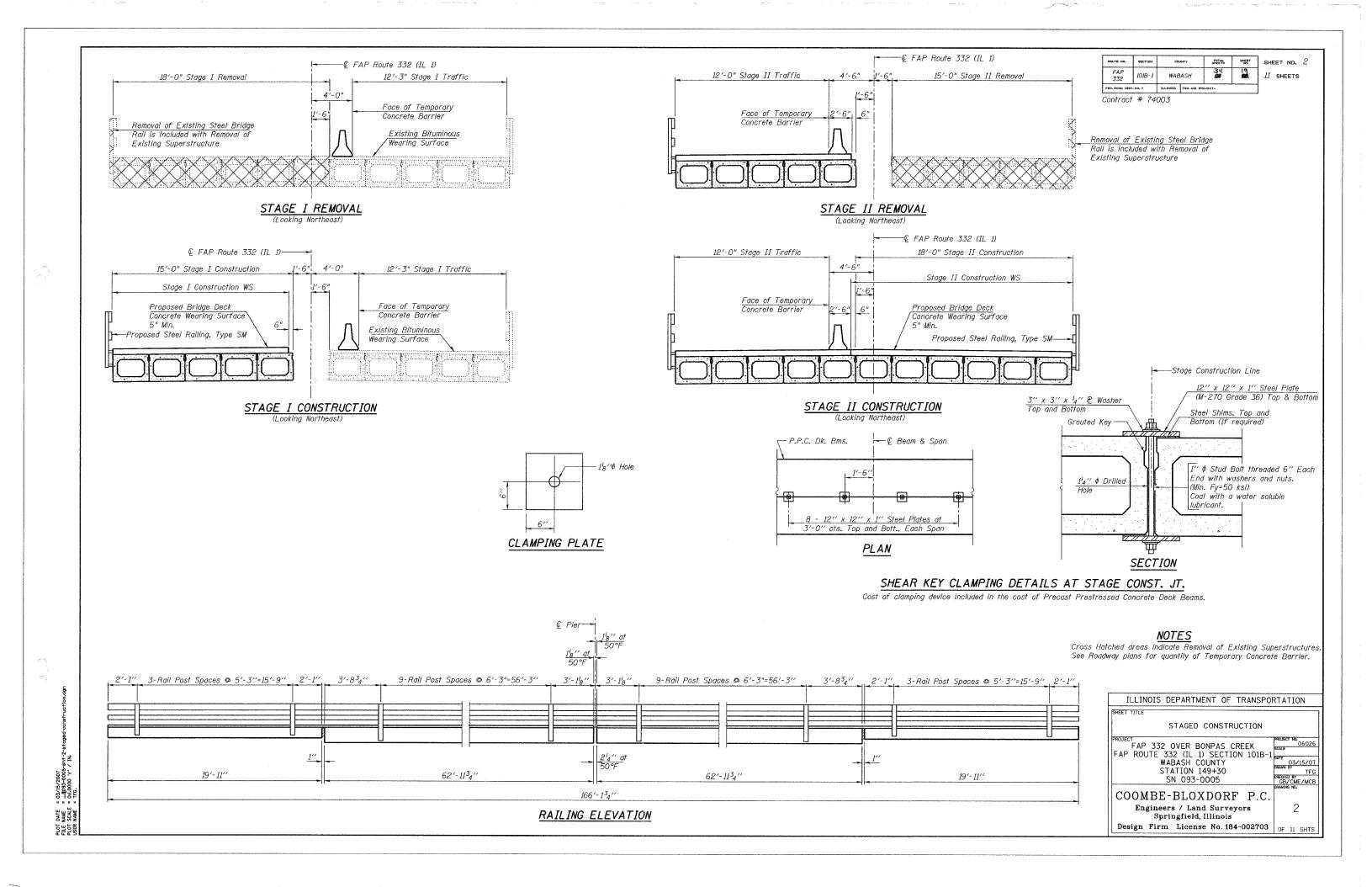
6) Approach Beam Details 7) Beam Details

9) Abutment & Pier Details

11) Bar Splicer Assembly Details

ILLINOIS STRUCTURAL NO. 4859 EXPIRES: 11/30/08 DATE: 3/15/07

PLC1 PLC1 USER



ROUTE NO.	SECTION	cor	MTY	TOTAL SHEETS	SHEET NO.	SH	EET NO. 3
FAP 332	101B-1	WA.5	ASH	34 #8	20	11	SHEETS
FED. ROAD DIST	. NO. 7	ILLINOIS	FED. AID PR	DJECT-			

Contract # 74003

Stage construction line ---- Stage removal line 1'-1012'' 1'-10'2" Temporary Concrete Barrier
| See Standard 704001 | 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". See Detail I Drill 1 4" \phi Holes in existing or Detall II. slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NEW SLAB

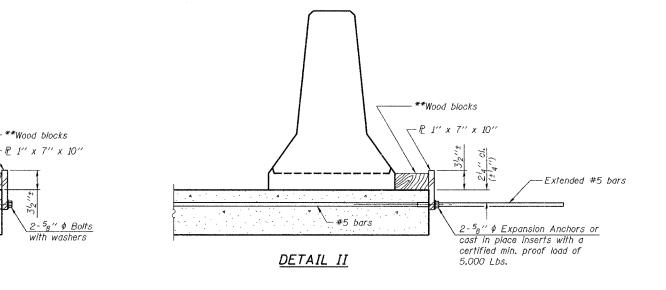
**Wood blocks

`─Top Layer Splicer

DETAIL I

EXISTING SLAB

SECTIONS THRU SLAB



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

NOTES

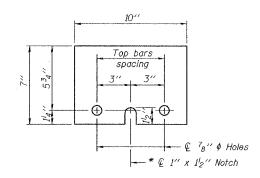
Detail I - With Bar Splicer or Couplers: Connect one (1) 1''x7''x10'' steel R to the top layer of couplers with 2-58" \$\phi\$ bolts

top layer of couplers with 2-2,4" \$\phi\$ bolts screwed to coupler at approximate \$\mathbb{Q}\$ of each barrier panel.

Detail II - With Extended Reinforcement Bars:

Connect one (1) 1"x7"x10" steel \$\mathbb{L}\$ to the concrete slab with 2-5,4" \$\phi\$ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \$\mathbb{L}\$ of each barrier panel. each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x 10" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready



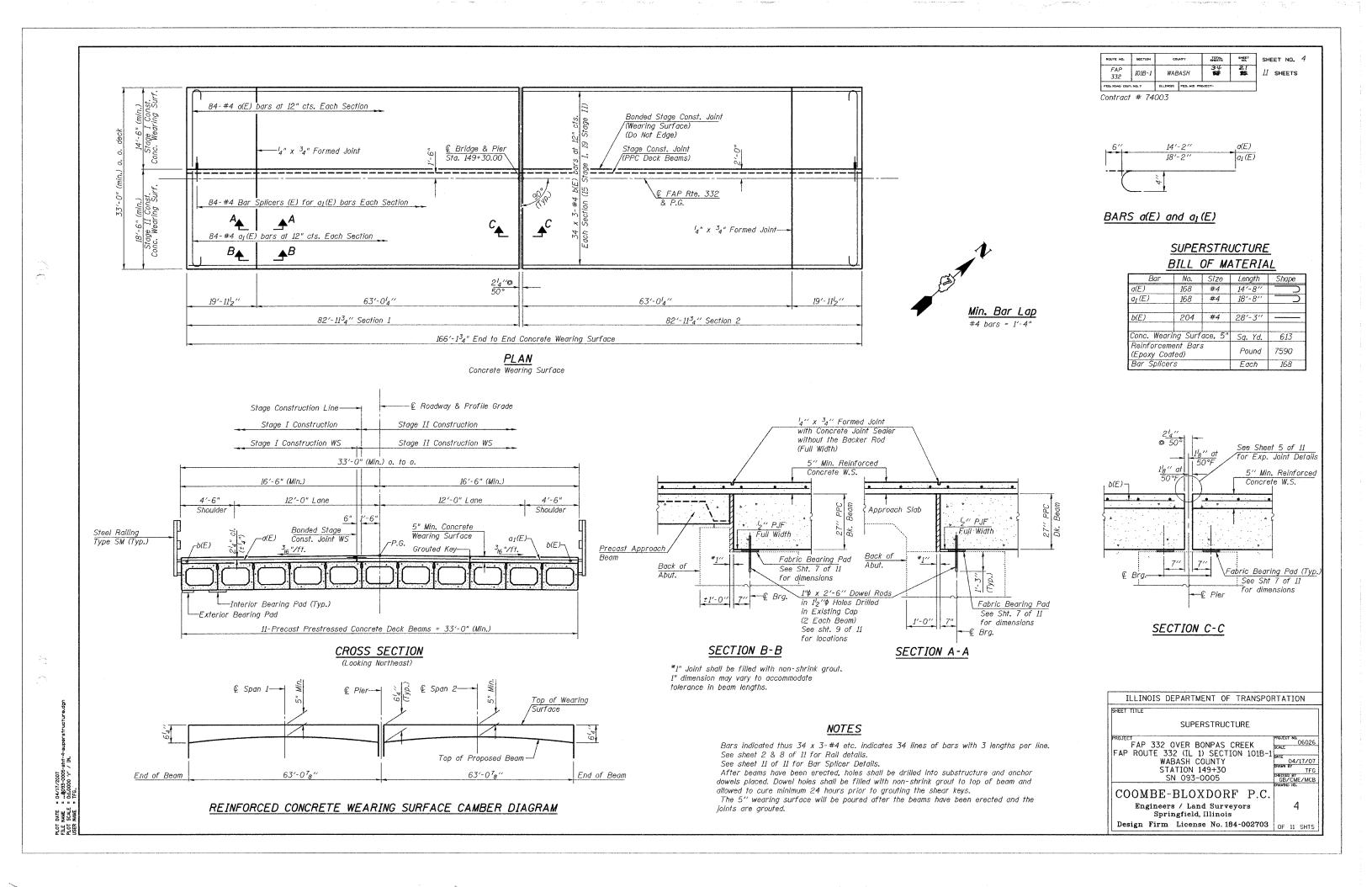
STEEL RETAINER P 1" x 7" x 10"

* Required only with Detail II

ILLINOIS DEPARTMENT OF TRANSPOR	RITATION
	THEIGH
TEMPORARY CONCRETE BARRIE FOR STAGE CONSTRUCTION	IR .
FAP 332 OVER BONPAS CREEK FAP ROUTE 332 (IL 1) SECTION 101B-1 WABASH COUNTY STATION 149+30 SN 093-0005	PROJECT NO. 906026 SCALE DATE 03/15/07 ORAWN 8Y TFG CHECKED BY GB/CME/MCB
COOMBE-BLOXDORF P.C. Engineers / Land Surveyors Springfield, Illinois	DRAWING NO.
Design Firm License No. 184-002703	OF 11 SHTS

DATE NAME SCALE PLOT PLOT PLOT N

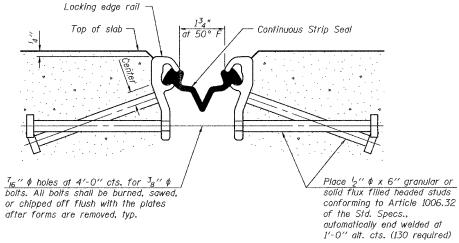
R-27 11-1-06



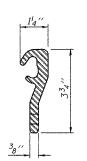
SHEET NO. 5

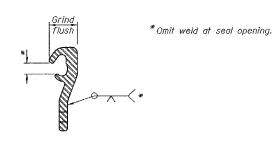
11 SHEETS

Contract # 74003



SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS





LOCKING EDGE RAIL

LOCKING EDGE RAIL SPLICE

Votes:

The strip seal shall be made continuous and shall have a minimum thickness of ${}^{l}_{4}$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue.

Locking Edge Rails may be spliced at slope discontinuities and stage
construction ioints.

The manufacturer's recommended installation methods shall be followed.

BILL OF MATERIAL

		-	
<u>Item</u>	Unit	Quantity	
Preformed Joint Strip Seal	Foot	33	

ILLINOIS DEPARTMENT OF TRANSPORTATION

SHEET TITLE

PREFORMED JOINT STRIP SEAL

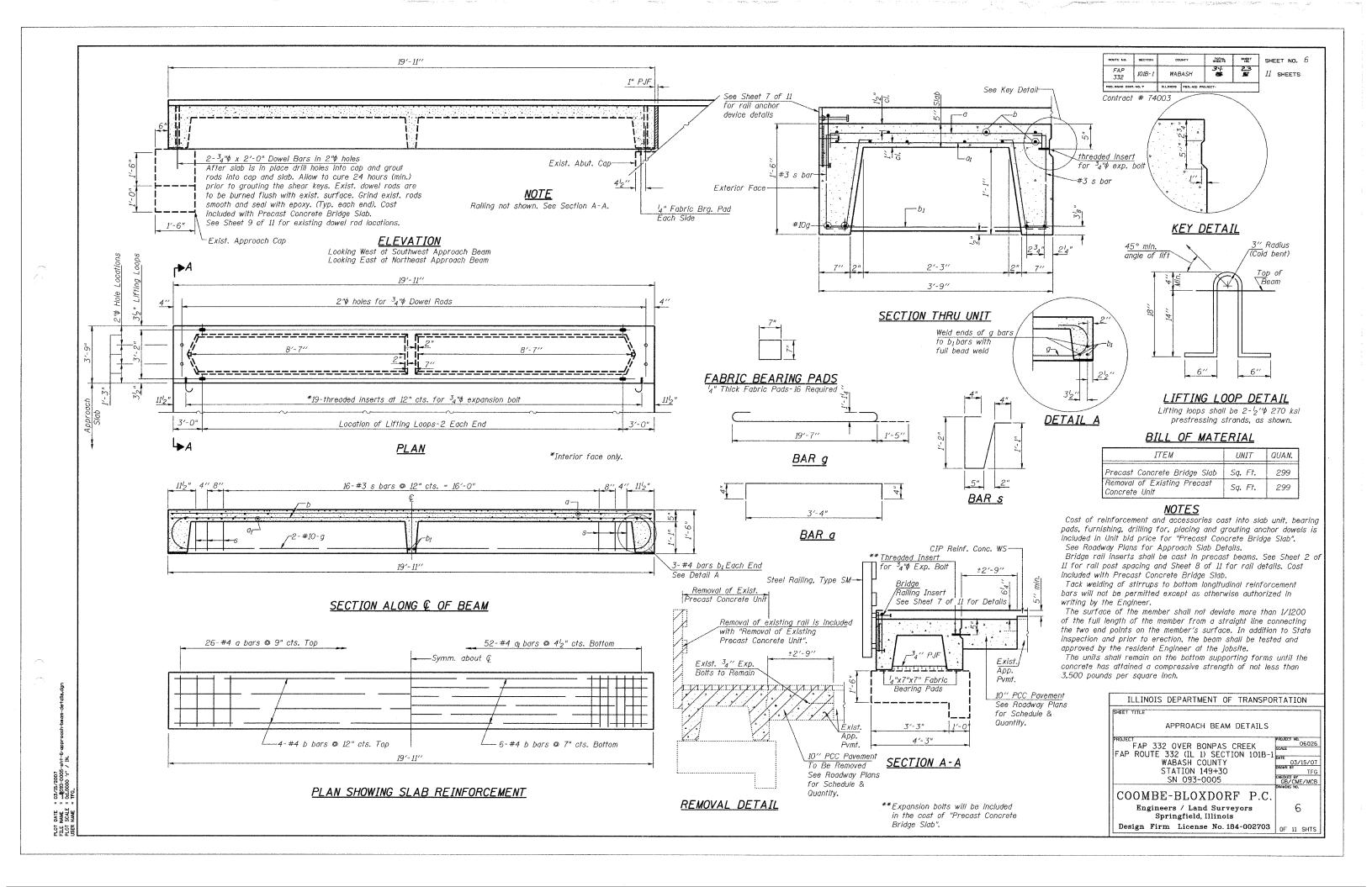
PROJECT
FAP 332 OVER BONPAS CREEK
FAP ROUTE 332 (IL 1) SECTION 101B-1
WABASH COUNTY
STATION 149+30
SN 093-0005

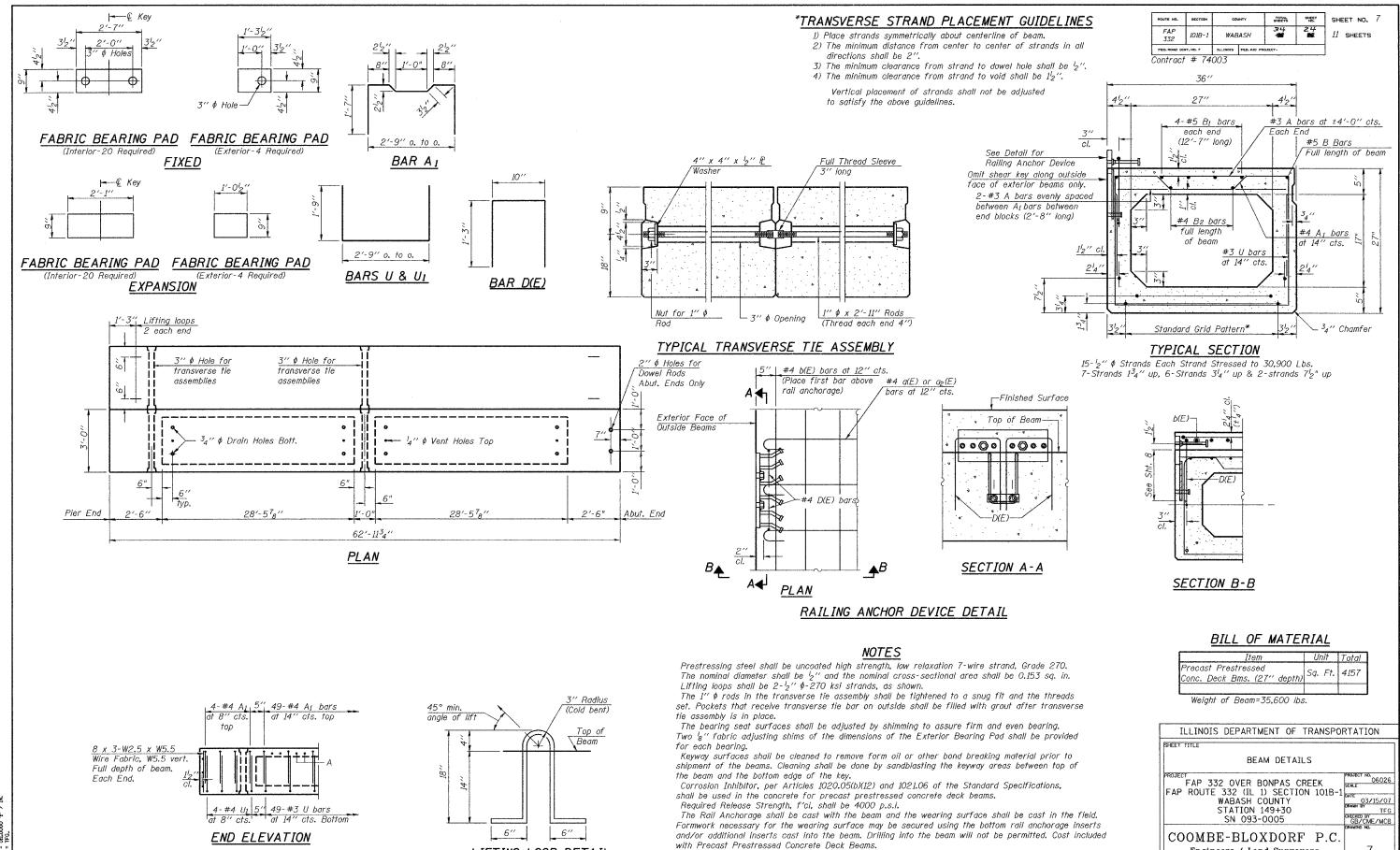
COOMBE-BLOXDORF P.C.

Engineers / Land Surveyors
Springfield, Illinois
Design Firm License No. 184-002703

OF 11 SHTS

PLOT DATE = 03/15/2007 FILE NAME = ...#093-0005-ent-5-eff/ip sedi.cd PLOT SCALE = 041,0000 'f" / 1N. USER NAME = TFG.





See sheet 4 of 11 for cross section.

See sheet 2 of 11 for rail post spacing and sheet 8 of 11 for rail details.

Non pre-stressing steel shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified).

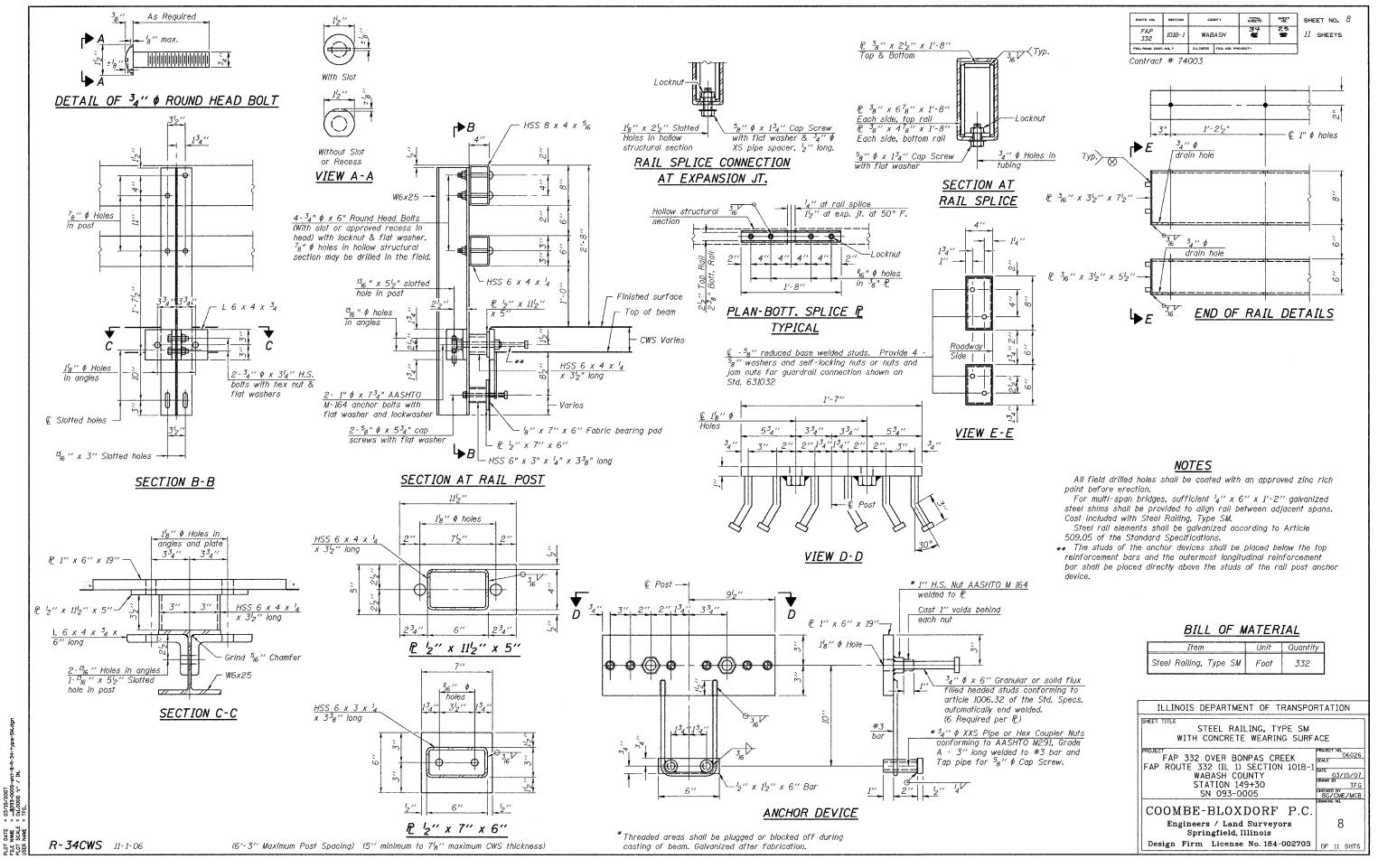
Engineers / Land Surveyors

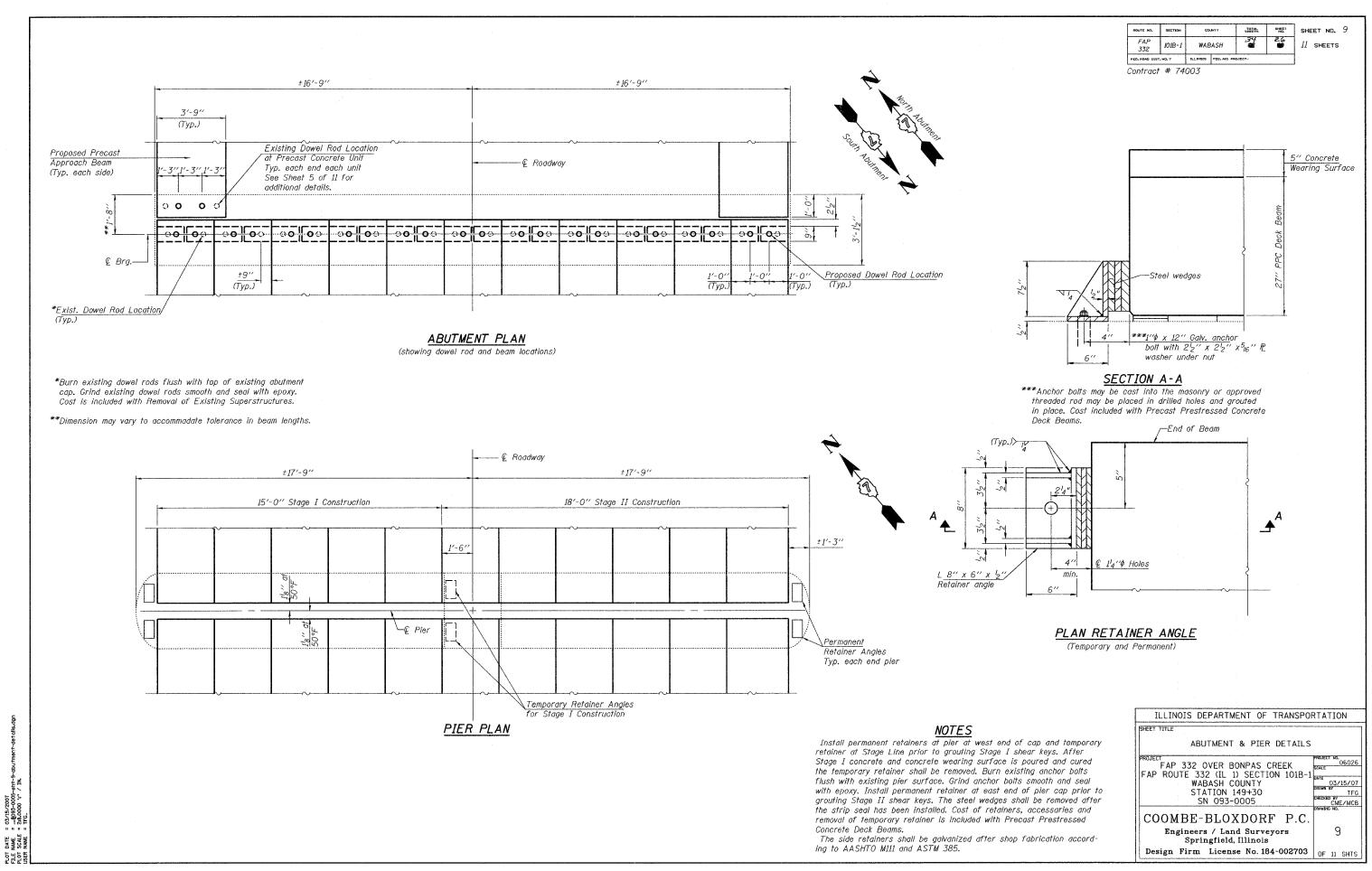
Springfield, Illinois

Design Firm License No. 184-002703 | OF 11 SHTS

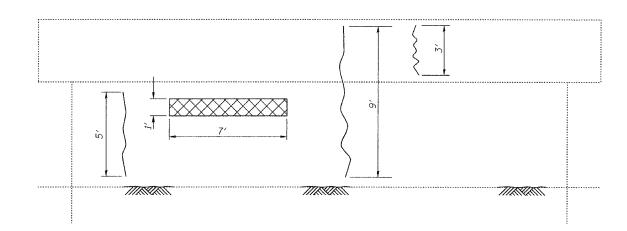
LIFTING LOOP DETAIL

DATE NAME SCALE NAME PLOT FILE PLOT

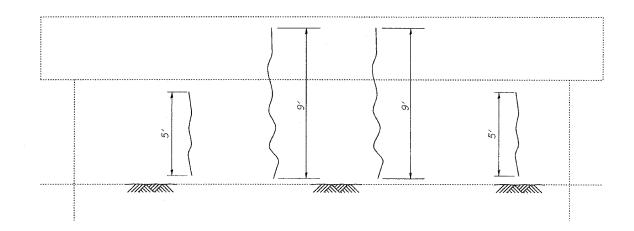




SHEET NO. 10 FAP 332 101B-1 WABASH Contract # 74003



NORTH ABUTMENT (Looking North)



SOUTH ABUTMENT

(Looking South)



Structural Repair of Concrete (Depth Greater Than 5")



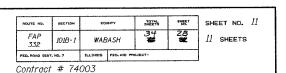
____ Epoxy Crack Injection

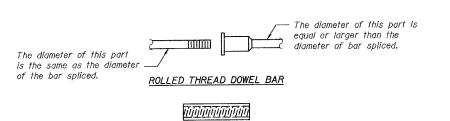
BILL OF MATERIAL

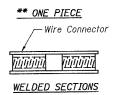
Item	Unit	Quantity	
Structural Repair of Concrete (Depth Greater Than 5")	Sq. Ft.	7	
Epoxy Crack Injection	Foot	45	

ILLINOIS DEPARTMENT OF TRANSPOR	RTATION
SHEET TIYLE	· · · · · · · · · · · · · · · · · · ·
ABUTMENT REPAIR DETAILS	
EAD 330 OVED DONDAS ODERV	PROJECT NO. 0602 SCALE
WABASH COUNTY	03/15/C DRAWN BY TF
ZN 093-0005	CHECKED BY GB/CME/MC
COOMBE-BLOXDORF P.C.	ORAWING NO.
Engineers / Land Surveyors Springfield, Illinois	10
Design Firm License No. 184-002703	OF 11 SHT

PLOT DATE = 03/15/2007 F1LE NAME = ...\$035-0005-sht-10-0 PLOT SCALE = 248,0000 'g" / IN, USER NAME = 1FG.

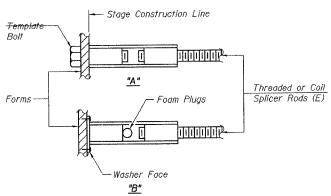






BAR SPLICER ASSEMBLY ALTERNATIVES

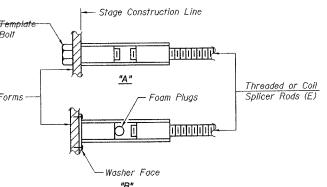
** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



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.

6'-0"



Stage Construction Line Stage II Construction Stage I Construction Threaded or Coil Threaded or Coil Reinforcement Reinforcement Splicer Rods (E) Loop Couplers (E) Bars Bars

Bar splicer assemblies shall be of an approved type and shall develop in tension at least

Other systems of similar design may be submitted to the Engineer for approval. Approval

shall be based on certified test results from an approved testing laboratory that the proposed

BAR SPLICER ASSEMBLIES

kips - tension

14.7

23.0

33.1

45.1

58.9

75.0

95.0

117.4

Strength Requirements

Min. Capacity | Min. Pull-Out Strength

kips - tension

7.9

12.3

17.4

23.8

31.3

39.6

50.3

61.8

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for

Minimum *Pull-out Strength = 0.66 x fy x A;

Minimum *Pull-out Strength = 0.66 x fy x A;

Where fy = Yield strength of lapped reinforcement bars in ksi.

A₁ = Tensile stress area of lapped reinforcement bars.

* = 28 day concrete

Splicer Rod or

Dowel Bar Length

1'-8'

2'-0"

2'-7"

3'-5"

4'-6"

5'-9"

7'-3"

9'-0"

125 percent of the yield strength of the lapped reinforcement bars.

bar splicer assembly satisfies the following requirements:

Bar Size to

be Spliced

#4

#5

#6

#7

#8

#9

#10

#11

reinforcement bars.

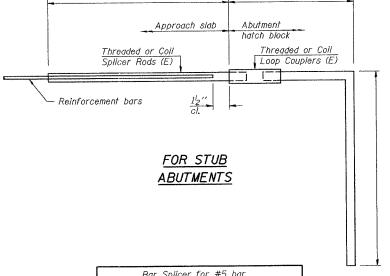
STANDARD

Bar Size	No. Assemblies Required	Location
#4	168	Conc. W.S.

Bridge Deck Approach Slab Threaded or Coil Splicer Rods (E) Threaded or Coil Reinforcement Loop Couplers (E) Bars 4'-0"

FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

	Bar Splicer for #5 bar
Min.	Capacity = 23.0 kips - tension
Min.	Pull-out Strength = 12.3 kips - tension
No.	Required =



Min. Pull-out Strength = 12.3 kips - tension

No. Required =

Bar Splicer for #5 bar Min. Capacity = 23.0 kips - tension

BSD-1 11-1-06

