

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP ROUTE 885 (IL 34 / 146)
SECTION 5B-1
PROJECT: BRF-0885(042)
HARDIN COUNTY
C-99-012-06

STRUCTURE REPLACEMENT
OVER THREE MILE CREEK

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 3

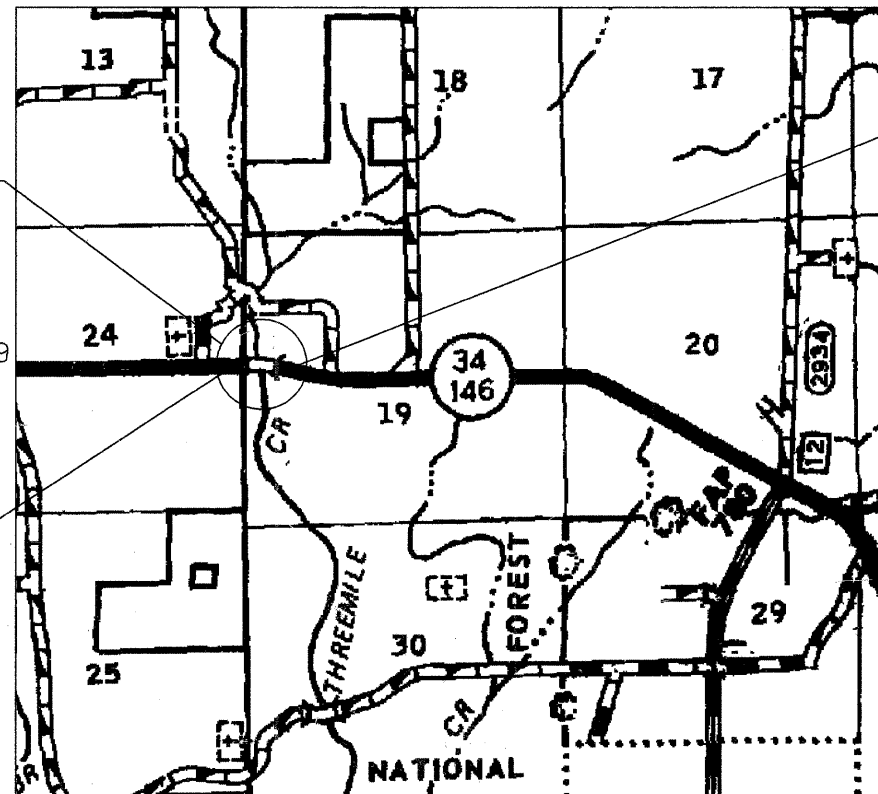
TRAFFIC DATA:
2008 ADT = 2760
18% TRUCKS
POSTED SPEED = 55 MPH

TOWNSHIPS:
STONE CHURCH

PROPOSED BRIDGE ON IL 34/146
OVER THREE MILE CREEK
STRUCTURE NUMBER 035-0015
STRUCTURE C STA. 76+80
SINGLE SPAN-STEEL BEAM BRIDGE
68'-0" BK TO BK ABUTS: 10° SKEW
EXIST. STRUCTURE NUMBER 035-0009

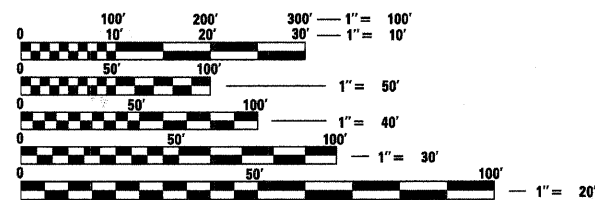
(035-0015) BEGINS
STA. 76+46.03

(035-0015) ENDS
STA. 77+14.03



FAP RTE 885 (IL 34/146):
GROSS LENGTH OF PROJECT : 1320 FT. = .25 MILES

SN 035-0015
ROADWAY LENGTH = 1136 FT
BRIDGE LENGTH = 68 FT
NET LENGTH OF PROJECT = 1204 FT



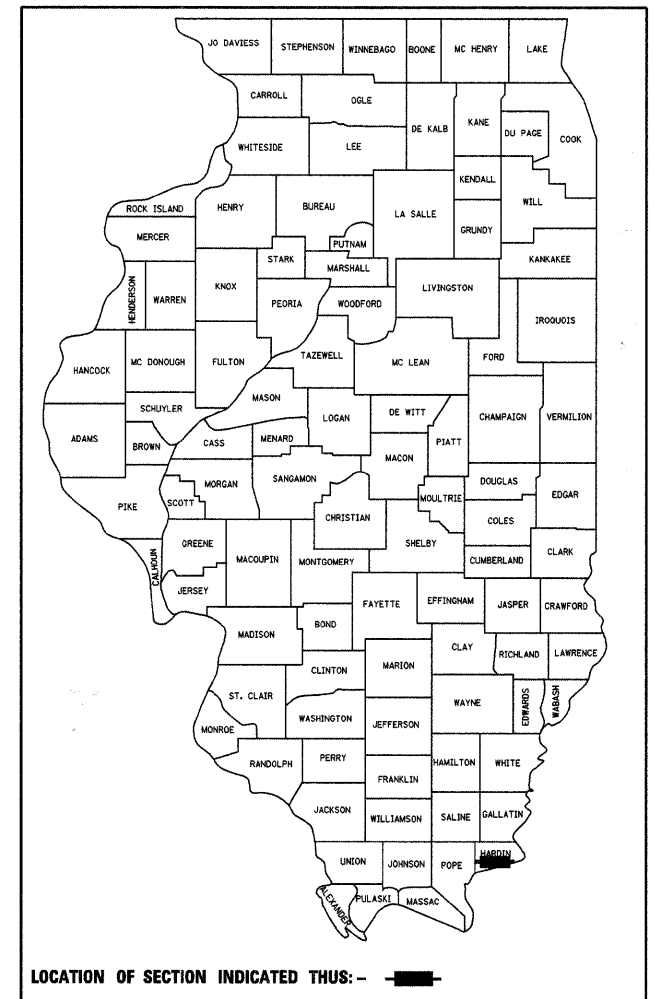
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

CONTRACT NO. 98949

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	5B-1	HARDIN	48	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	98949	

D-99-016-06



GEOTECH
ENGINEERING & TESTING, INC.

601 North 4th Street
Murray, Kentucky 42071
Phone: (270) 753-7307
Fax: (270) 753-4950
www.geotechengineers.net

500 South 17th Street
Paducah, Kentucky 42003
Phone: (270) 443-1955
Fax: (270) 443-1904

403 North Court Street
Marion, IL 62959
PHONE: (618) 997-9190

COPYRIGHT © 2008 - GEOTECH ENGINEERING & TESTING, INC.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Jan 9, 2009
May C. Lamm
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 27, 2009
Charles J. Ingessall
ENGINEER OF DESIGN AND ENVIRONMENT

March 27, 2009
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

PROJECT ENGINEER: DAVID PICHE (618) 549-2171

IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL EXISTING FIELD DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

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

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING STRUCTURES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. THE CONTRACTOR, HOWEVER, WILL BE PAID FOR THE ACTUAL QUANTITY FURNISHED AT THE UNIT PRICE BID FOR THE WORK. EXISTING PLANS ARE AVAILABLE FOR REVIEW AT THE DISTRICT 9 OFFICE.

QUANTITIES SHOWN IN THE PLANS FOR BRIDGE DECK GROOVING AND PROTECTIVE COAT INCLUDE THE BRIDGES, THE BRIDGE APPROACH PAVEMENTS (SPECIAL) AND THE BRIDGE DECK CONCRETE OVERLAYS.

ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE LEFT IN PLACE UNTIL REMOVAL IS REQUIRED TO CONSTRUCT FINAL GRADE LINES.

THE QUANTITY OF TEMPORARY PAVEMENT MARKING SHOWN IN THE PLANS IS BASED ON ONE APPLICATION FOR STAGE I AND STAGE II CONSTRUCTION.

VERTICAL PANELS SHOWN ON STANDARD 701321 WILL NOT BE REQUIRED ON THE STAGE II NEW BRIDGE PARAPET. THE BARRIER WALL REFLECTORS SHALL BE INSTALLED PRIOR TO OPENING TO TRAFFIC.

ON ALL SUPERELEVATED CURVES, THE PROPOSED BASE COURSE WIDENING SHALL BE CONSTRUCTED WITH A SLOPE CONFORMING TO THE RATE OF SUPERELEVATION OF THE EXISTING PAVEMENT.

ALL OBSTRUCTIONS WHICH ARE WITHIN THE CLEAR ZONE SHOWN ON THE TYPICAL SECTION, AND ARE NOT SHIELDED BY THE PROPOSED GUARDRAIL, SHALL BE REMOVED BETWEEN STATION 70+78 AND STATION 82+82. TYPICAL OBSTRUCTIONS ARE HEADWALLS, FOUNDATIONS, ETC. WHICH PROJECT 4 IN. OR MORE ABOVE THE GROUNDLINE; AND TREES WHICH WILL MATURE TO A DIAMETER OF 4 IN. OR GREATER.

000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
280001-04	TEMPORARY EROSION CONTROL SYSTEMS
420001-07	PAVEMENT JOINTS
420101-04	7.2 M (24') JOINTED PCC PAVEMENT
421001-02	REINFORCEMENT FOR CONTINUOUSLY REINFORCED PCC PAVEMENT
482006-03	BITUMINOUS SHOULDER ADJACENT TO RIGID PAVEMENT
515001-03	NAME PLATE FOR BRIDGES
630001-08	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
631031-07	TRAFFIC BARRIER TERMINAL, TYPE 6
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER & MOUNTING DETAILS
701001-02	OFF ROAD OPERATIONS, 2L, 2W, MORE THAN 4.5 (15') AWAY
701006-03	OFF-ROAD OPERATIONS, 2L 2W, 4.5m (15') TO PAVEMENT EDGE
701011-02	OFF ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
701201-03	LANE CLOSURE, 2L 2W, DAY ONLY, ON-ROAD TO 600mm (24") OFF-ROAD, FOR SPEEDS> 45 MPH
701301-03	LANE CLOSURE, 2L 2W, SHORT TIME OPERATIONS
701321-10	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
701326-03	LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING, FOR SPEEDS>45MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-05	TEMPORARY CONCRETE BARRIER
780001-02	TYPICAL PAVEMENT MARKINGS
BLR 21-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
601101-01	
701311-03	

1	COVER SHEET
2	INDEX OF SHEETS; GENERAL NOTES; STANDARDS
3-4	SUMMARY OF QUANTITIES
5	TYPICAL SECTIONS
6-7	SCHEDULE OF QUANTITIES
8	PLAN-PROFILE
9	STAGE CONSTRUCTION PLAN
10	BITUMINOUS SHOULDER PLAN & GUARDRAIL PLAN
11	EROSION CONTROL PLAN
12	RIGHT OF WAY
13	DETOUR SIGNING SHEET
14-31	STRUCTURE PLANS- SN 035-0009
32-37	DETAILS
38-48	CROSS SECTIONS

Location(s):	Base Course Widening
Mixture Use(s):	Hot-Mix Asphalt Binder Course, N90, IL-19.0
AC/PG:	PG64-22
RAP % (Max):	10
Design Air Voids:	4.0 %, 90 GYRATION DESIGN
Mixture Composition: (Gradation Mixture)	IL-19.0 mm
Friction Aggregate:	None

Prepared By: Joe Zdaniewicz
DISTRICT STUDIES & PLANS ENGINEER

Examined By: James Harris Emery
DISTRICT LAND ACQUISITION ENGINEER

Examined By: Carric Nelson
DISTRICT PROGRAM DEVELOPMENT ENGINEER

Examined By: Art Wiley
DISTRICT OPERATIONS ENGINEER

Examined By: John Smithers
DISTRICT CONSTRUCTION ENGINEER

Examined By: Bennett Pugh
DISTRICT MATERIALS ENGINEER

Examined By: John Smithers
DISTRICT PROJECT IMPLEMENTATION ENGINEER

Examined By: James R. May
ASSISTANT REGIONAL ENGINEER

Approved By: Max Yarni
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

DATE: Jan 9 2007

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, STANDARDS, INDEX OF SHEETS IL 34 /146 OVER THREE MILE CREEK				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						885	5B-1	HARDIN	48	2
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		CONTRACT NO. 98949								
	PLOT DATE = #DATE#	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

				COUNTY:	HARDIN
				LOCATION:	OVER THREE MILE CREEK
				ROUTE:	F.A.P. ROUTE 885 (34&146)
				FUNDING:	80% FEDERAL 20% STATE
CONSTRUCTION TYPE CODE:	I000	X071-2A			
CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY		
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	24	24	
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	18	18	
20200100	EARTH EXCAVATION	CU YD	945	95	850
20300100	CHANNEL EXCAVATION	CU YD	207		207
20400800	FURNISHED EXCAVATION	CU YD	135	15	120
20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	169		169
20900110	POROUS GRANULAR BACKFILL	CU YD	346		346
25000200	SEEDING, CLASS 2	ACRE	.75	.25	.50
25000350	SEEDING, CLASS 7	ACRE	.75	.25	.50
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	67.5	22.5	45
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	67.5	22.5	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	67.5	22.5	45
25000700	AGRICULTURAL GROUND LIMESTONE	TON	1.5	0.5	1.0
25100115	MULCH, METHOD 2	ACRE	0.75	0.25	0.50
25100630	EROSION CONTROL BLANKET	SQ YD	3444	1290	2154
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	78	25	53
28000300	TEMPORARY DITCH CHECK	EACH	4	1	3
28000400	PERIMETER EROSION BARRIER	FOOT	1888	862	1026
28000500	INLET & PIPE PROTECTION	EACH	3	2	1
28100105	STONE RIPRAP, CLASS A3	SQ YD	797		797
28100109	STONE RIPRAP, CLASS A5	SQ YD	696		696
28200200	FILTER FABRIC	SQ YD	1490		1490
35600716	HOT MIX ASPHALT BASE COURSE WIDENING 10"	SQ YD	60		60
40200500	AGGREGATE SURFACE COURSE, TYPE A 6"	SQ YD	58		58
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	174	174	
40603090	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90	TON	345	196	149
40603320	HOT-MIX ASPHALT SURFACE COURSE, MIX C, N90	TON	216	97	119
40800010	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	552	250	302
40800030	AGGREGATE (PRIME COAT)	TON	10	2	8
42001165	BRIDGE APPROACH PAVEMENT	SQ YD	224		224
42001420	BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)	SQ YD	67		67
44000100	PAVEMENT REMOVAL	SQ YD	355		355
44000198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	1094		1094
44004250	PAVED SHOULDER REMOVAL	SQ YD	60		60
44004510	PORTLAND CEMENT CONCRETE SHOULDER REMOVAL	SQ YD	56		56
48100100	AGGREGATE SHOULDERS, TYPE A	TON	18		18

				COUNTY:	HARDIN
				LOCATION:	OVER THREE MILE CREEK
				ROUTE:	F.A.P. ROUTE 885 (34&146)
				FUNDING:	80% FEDERAL 20% STATE
CONSTRUCTION TYPE CODE:	I000	X071-2A			
CODE NUMBER	ITEM DESCRIPTION	UNIT	QUANTITY		
48100700	AGGREGATE SHOULDERS, TYPE A 8"	SQ YD	429	46	383
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SQ YD	526		526
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SQ YD	223		223
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50105220	PIPE CULVERT REMOVAL	FOOT	57	11	46
50200100	STRUCTURE EXCAVATION	CU YD	270		270
50300100	FLOOR DRAINS	EACH	4		4
50300225	CONCRETE STRUCTURES	CU YD	45		45
50300255	CONCRETE SUPERSTRUCTURE	CU YD	96.2		96.2
50300260	BRIDGE DECK GROOVING	SQ YD	503		503
50300280	CONCRETE ENCASEMENT	CU YD	4.2		4.2
50300300	PROTECTIVE COAT	SQ YD	530		530
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1
50500505	STUD SHEAR CONNECTORS	EACH	1026		1026
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	28000		28000
50800515	BAR SPLICERS	EACH	317		317
51202305	DRIVING PILES	FOOT	354		354
51201610	FURNISHING STEEL PILES HP12X63	FOOT	354		354
51204650	PILE SHOES	EACH	12		12
51500100	NAME PLATES	EACH	1		1
52100520	ANCHOR BOLTS, 1"	EACH	24		24
54201060	PIPE CULVERTS, CLASS D, TYPE 2 15"	FOOT	57	11	46
54213450	END SECTIONS 15"	EACH	2	1	1
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	87		87
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	157		157
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4		4
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	EACH	2		2
* 63100169	TRAFFIC BARRIER TERMINAL, TYPE 1, (FLARED)	EACH	1		1
63200310	GUARDRAIL REMOVAL	FOOT	957		957
* 63000000	STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	550		550
66600105	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	EACH	4		4
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8		8
67100100	MOBILIZATION	L SUM	1		1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1		1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1		1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1		1

*Specialty Items

SUMMARY OF QUANTITIES

COUNTY:	HARDIN	
LOCATION:	OVER THREE MILE CREEK	
ROUTE:	F.A.P. ROUTE 885 (34&146)	
FUNDING:	80% FED. 20% STATE	80% FEDERAL /20% STATE

[illegible]

* Specialty Items

FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES IL 34 /146 OVER THREE MILE CREEK				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN	REVISED						885	5B-1	HARDIN	48	4
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		CONTRACT NO. 98949								
	PLOT DATE = #DATE#	DATE -	REVISED -		SCALE:	SHEET NO. OF	SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

EARTHWORK SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	EARTH EXCAVATION	FOR INFORMATION ONLY				REMARKS
		AVERAGE SHRINKAGE FACTOR	EARTH EXCAVATION (ADJUSTED)	EMBANKMENT	EARTHWORK BALANCE WASTE (+) SHORTAGE (-)	
	CU YD	%	CU YD	CU YD	CU YD	
FAP 889 (IL 34/146)						
PRE-STAGE 1						
STA. 73+93.09 LT TO STA. 76+22.65 LT	663	75.3	499	166	+333	
STA. 74+38.08 RT TO STA. 74+99.86 RT	21	50.0	10	68	-58	275 C.Y. WASTE PRE-STAGE 1
FAP 889 (IL 34/146)						
STAGE 1						
STA. 70+78 RT TO STA. 82+85 RT	107	45.3	48	269	-220	
FAP 889 (IL 34/146)						
STAGE 2						
STA. 70+78 LT TO STA. 82+82 LT	154	45.2	69	259	-190	
TOTAL	945		626	765	-135	135 C.Y. SHORTAGE TOTAL

PAVEMENT MARKING SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	TEMP PVT MKG LINE 4"		PAINT PVT MKG LINE 4"		SHORT - TERM PAVEMENT MARKING
	WHITE	YELLOW	WHITE	YELLOW	
	FOOT	FOOT	FOOT	FOOT	
STAGE 1					
STA 74+80 LT TO STA 78+80 LT	400	---			
STA 74+80 TO STA 78+80 CENTERLINE	400	---			
STAGE 2					
STA 74+93 RT TO STA 78+67 RT	374	---			
STA 74+93 TO STA 78+67 CENTERLINE	375	---			
POST STAGE 2					
STA 73+59 TO STA 82+82 CENTERLINE		1846		1846	
STA 70+78 TO STA 73+59-CENTERLINE		351		351	
STA 70+78 TO STA 82+82 CENTERLINE		---	1204		120
STA 70+78 RT TO STA 82+82 RT	1204	---	1204		
STA 70+78 LT TO STA 82+82 LT	1204	---	1204		
	3957	2197	2408	2197	
TOTALS	6154		4605		120

SEEDING AND FERTILIZING SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	TEMPORARY EROSION CONTROL SEEDING	SEEDING, CLASS 2	SEEDING, CLASS 7	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH, METHOD 2
	POUND	ACRE	ACRE	POUND	POUND	POUND	TON	ACRE
FAP 889 (IL 34/146)								
PRE-STAGE 1								
STA 73+79 TO STA 76+35 LT	3							
STAGE 1								
STA. 70+78 TO STA 82+82 RT	39	.39	.39	35.1	35.1	35.1	.78	.39
STAGE 2								
STA. 70+78 TO STA 82+82 LT	36	.36	.36	32.4	32.4	32.4	.72	.36
TOTALS	78	.75	.75	67.5	67.5	67.5	1.5	.75

TERMINAL AND GUARDRAIL SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	STEEL PLATE BEAM GUARDRAIL, TYPE A	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (FLARED)	TRAFFIC BARRIER TERMINAL TYPE 6	TEMPORARY TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)	REMOVE AND RE-ERECT TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL, TANGENT	GUARDRAIL REMOVAL	GUARDRAIL MARKERS	TERMINAL MARKERS - DIRECT APPLIED
	FOOT	EACH	EACH	EACH	EACH	EACH	FOOT	EACH	EACH
FAP 885 (34/146)									
PRE STAGE 1									
STA 73+95 RT TO STA 74+95 RT							100		
STA 73+61 LT TO STA 74+61 LT							100		
STA 74+11 LT TO STA 74+61 LT						1			
STAGE 1									
STA 74+28 RT TO STA 74+78 RT			1						1
STA 74+78 RT TO STA 76+03 RT	125								
STA 74+95 RT TO STA 77+64 RT					1		269		
STA 76+03 RT TO STA 76+49 RT					1				
STA 77+17 RT TO STA 77+63 RT									
STA 77+63 RT TO STA 78+25 RT	62.5								
STA 78+25 RT TO STA 78+75 RT		1						6	1
STA 74+28 RT TO STA 78+75 RT									
STAGE 2									
STA 73+59 LT TO STA 74+09 LT						1			1
STA 74+09 LT TO STA 75+97 LT	187.5						488		
STA 74+61 LT TO STA 79+50 LT					1				
STA 75+97 LT TO STA 76+43 LT					1				
STA 77+11 LT TO STA 77+57 LT									
STA 77+57 LT TO STA 79+32 LT	175								
STA 79+32 LT TO STA 79+82 LT		1							1
STA 73+59 LT TO STA 79+82 LT								7	
TOTALS	550	2	1	4	1	1	957	13	4

REMOVAL SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	PAVEMENT REMOVAL	PORTLAND CEMENT CONCRETE SHOULDER REMOVAL	PAVED SHOULDER REMOVAL	HOT-MIX ASPHALT SURFACE REMOVAL, VAR. DEPTH
	SQ YD	SQ YD	SQ YD	SQ YD
FAP 889 (IL 34/146)				
STAGE 1				
STA. 75+50 RT TO STA. 76+07 RT				82
STA. 76+07 RT TO STA. 76+65 RT	95			
STA. 76+95 RT TO STA. 77+53 RT	93			
STA. 77+53 RT TO STA. 78+50 RT				140
STA. 79+00 RT TO STA. 80+00 RT				144
STAGE 2				
STA. 74+00 LT TO STA. 76+07 LT				299
STA. 76+07 RT TO STA. 76+65 LT	84			
STA. 76+95 LT TO STA. 77+53 LT	83			
STA. 74+88 LT TO STA. 75+48 LT			20	
STA. 75+48 LT TO STA. 76+48 LT		38		
STA. 77+12 LT TO STA. 77+62 LT		18		
STA. 77+53 LT TO STA. 80+50 LT				429
STA. 77+62 LT TO STA. 78+82 LT			40	
TOTALS	355	56	60	1094

EROSION CONTROL SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	EROSION CONTROL BLANKET	STONE RIPRAP CLASS A3	PERIMETER EROSION BARRIER	TEMPORARY DITCH CHECKS	INLET PIPE PROTECTION	FILTER FABRIC
	SQ YD	SQ YD	FOOT	EACH	EACH	SQ YD
FAP 889 (IL 34/146)						
PRE- STAGE 1						
STA. 70+78 60' LT TO STA. 76+00 77' LT			560			
STA. 73+93 60' LT TO STA. 76+45 45' LT		787				787
STA 76+23 58' LT				1		
STAGE 1						
STA. 70+78 17' RT TO STA. 74+12 22' RT	505					
STA 73+46 28' RT					1	
STA. 74+08 70' RT TO STA. 76+62 58' RT			250			
STA. 74+24 26' RT TO STA. 76+50 37' RT	825					
STA 74+94 53' RT				1		
STA. 77+18 25' RT TO STA. 82+82 25' RT	562					
STA. 77+18 40' RT TO STA. 82+82 31' RT			514			
STA 78+23 29' RT				1		
STA 79+59 26' RT					1	
STA 82+54 26' RT					1	
STAGE 2						
STA. 70+78 13' LT TO STA. 73+50 16' LT	114					
STA. 73+50 13' LT TO STA. 76+38 38' LT	804					
STA. 77+21 19' LT TO STA. 82+82 13' LT	642					
STA. 77+21 37' LT TO STA. 82+82 38' LT			564			
STA 80+00 31' LT				1		
TOTAL	3444	787	1888	4	3	787

TREE REMOVAL

SN 035-0015 LOCATION STATION	OFFSET FROM E.P.	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	TREE REMOVAL (OVER 15 UNITS DIAMETER)
	FEET	UNIT	UNIT
76+50	30' RT.	12	
77+40	24' RT.	12	18
TOTAL		24	18

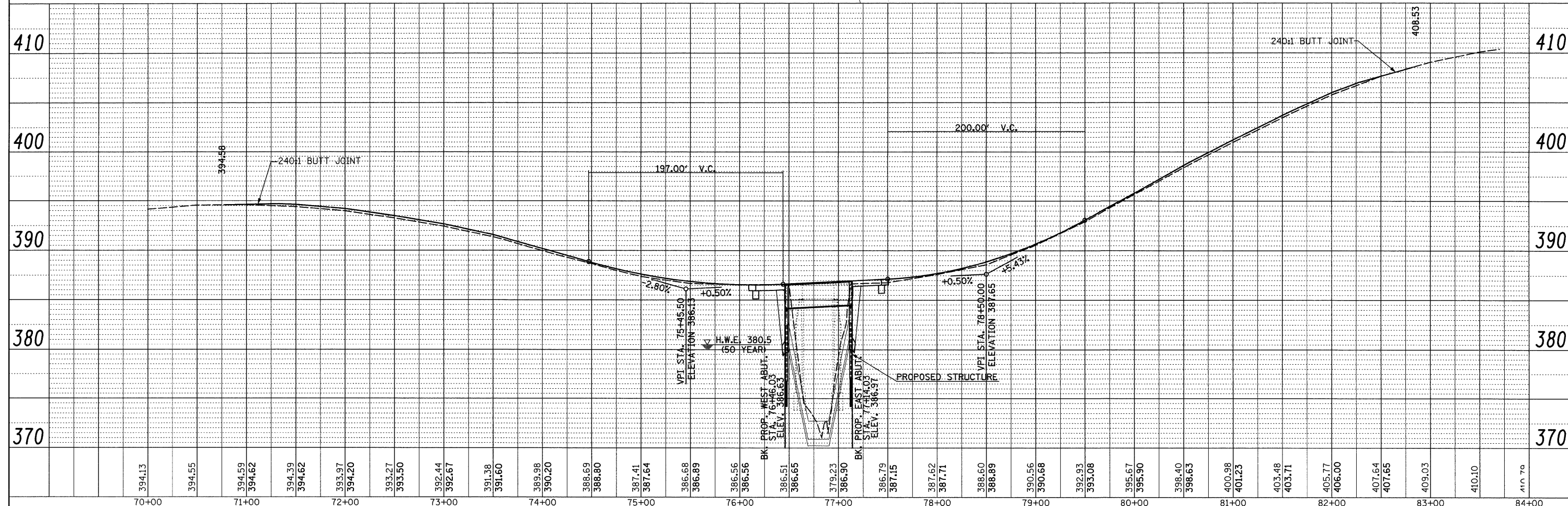
SIDEROAD SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	PIPE CULVERTS CLASS D TY. 2 15"	PIPE CULVERTS REMOVAL	END SECTIONS 15"	RELOCATE EXISTING MAILBOX	AGGREGATE SHOULDERS TYPE A, 6'	AGGREGATE SURF. CSE TYPE A, 6'
	FEET	FEET	EACH	EACH	TON	SQ YD
STA. LT 73+22				2	9	
STA. RT 73+71.9	57	57	2			58
STA. LT 80+18				1	9	
TOTALS	57	57	2	3	18	58

PAVING SCHEDULE

SN 035-0015 LOCATION STATION TO STATION	HOT-MIX ASPHALT SURFACE COURSE MIX C, N90	HOT-MIX ASPHALT BINDER COURSE IL-19.0, N90	HOT-MIX ASPHALT BASE COURSE WIDENING 10"	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	HOT-MIX ASPHALT SHOULDERS, 8"	HOT-MIX ASPHALT SHOULDERS, 10"	AGGREGATE SHOULDERS, TYPE A 8"	BRIDGE APPROACH PAVEMENT
	TON	TON		GALLON	TON	SQ. YD.	SQ. YD.	SQ. YD.	SQ. YD.
PRE STAGE 1									
STA. 74+88.00 TO STA. 75+47.99 LT			20						
STA. 77+61.60 TO STA. 78+82.00 LT			40						
STAGE 1									
STA. 70+78.00 TO STA. 73+99.41 RT						167		108	
STA. 70+78.00 TO STA. 76+07.00 RT	54	101		138	2.5				
STA. 75+55.00 TO STA. 76+48.85 RT							43		
STA. 76+15.92 TO STA. 76+48.68 RT									56
STA. 76+46.04 TO STA. 77+47.04 RT									56
STA. 77+17.22 TO STA. 78+05.00 RT							41		
STA. 77+53.00 TO STA. 82+82.00 RT	54	86		138	2.5				
STA. 78+84.50 TO STA. 82+82.00 RT								133	
STA. 78+05.00 TO STA. 82+82.00 RT						97			
STAGE 2									
STA. 70+78.00 TO STA. 73+52.16 LT								92	
STA. 70+78.00 TO STA. 75+15.00 LT						137			
STA. 70+78.00 TO STA. 76+07.00 LT	54	65		138	2.5				
STA. 75+15.00 TO STA. 76+43.29 LT							67		
STA. 76+13.19 TO STA. 76+16.00 LT									56
STA. 77+10.59 TO STA. 78+50.00 LT							72		
STA. 77+10.99 TO STA. 77+52.96 LT									56
STA. 77+53.00 TO STA. 82+82.00 LT	54	93		138	2.5				
STA. 78+50.00 TO STA. 82+82.00 LT						125			
STA. 79+91.29 TO STA. 82+82.00 LT								96	
TOTALS	216	345	60	552	10	526	223	429	224

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	GRADES CHECKED		
NO.	B.M. NOTED		
	STRUCTURE NOTATIONS CHECKED		



FILE NAME = \$FILE\$	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PLAN AND PROFILE IL 34 /146 OVER THREE MILE CREEK				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = \$SCALE\$	DRAWN -	REVISED -						885	5B-1	HARDIN	48	8
	PLOT DATE = \$DATE\$	CHECKED -	REVISED -		CONTRACT NO. 98949								
		DATE -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA. 69+00 TO STA. 84+00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

@ EXISTING STRUCTURE (035-0009)
 68' BK. TO BK. ABUTMENTS, 32'-3" CLEAR WIDTH
 10° RIGHT AHEAD SKEW
 STA. 76+80 (IL 146)

@ PROPOSED STRUCTURE (035-0015)
 68' SINGLE-SPAN STEEL BEAM BRIDGE
 10° RIGHT AHEAD SKEW
 STA. 76+80 (IL 146)

STA. 74+88.00-HMA BASE
 CSE WIDE 10", 3' WIDE

BEGIN TEMP. CONCRETE BARRIER
 ON 12:1; STA. 74+93.00 (≈ 4' LT. MIN.)

STA. 78+82.00-HMA BASE
 CSE WIDE 10", 3' WIDE

HOT-MIX ASPHALT
 SHOULDERS, 8"

EXIST. R/W

IL 34/146

STA. 75+55.00

STA. 78+05.00

15" PIPE

EXIST. R/W

BEGIN TEMP. CONC. BARRIER
 ON TANGENT STA. 75+80.00

END TEMP. CONC. BARRIER
 ON TANGENT STA. 77+80.00

END TEMP. CONCRETE BARRIER
 ON 12:1; STA. 78+67.00

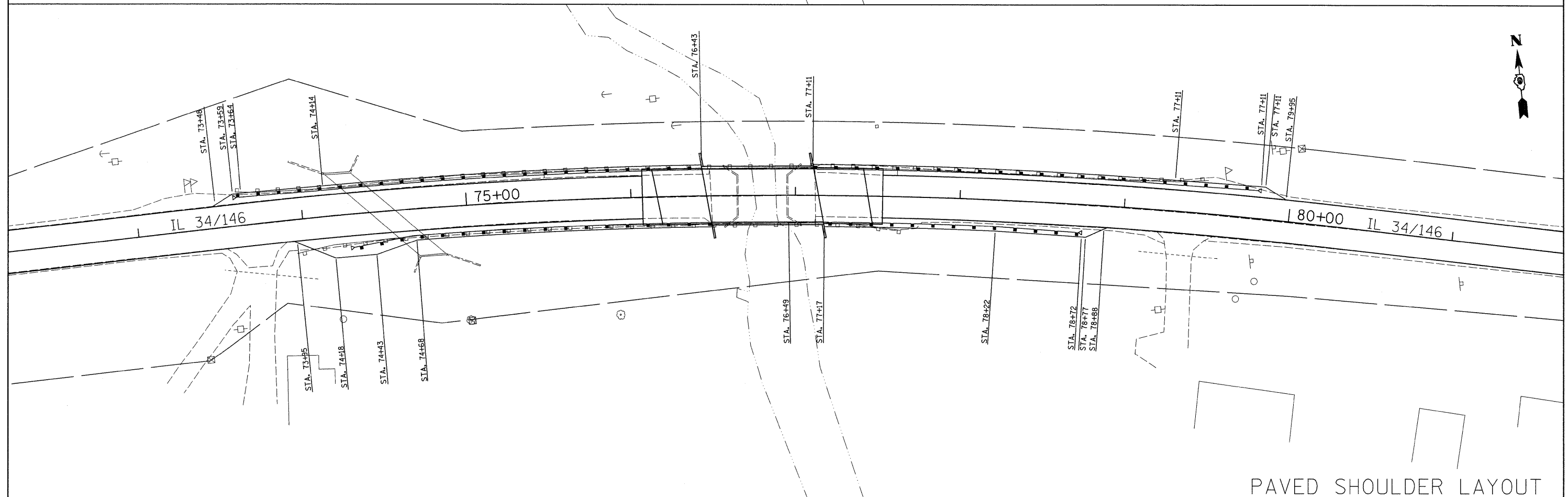
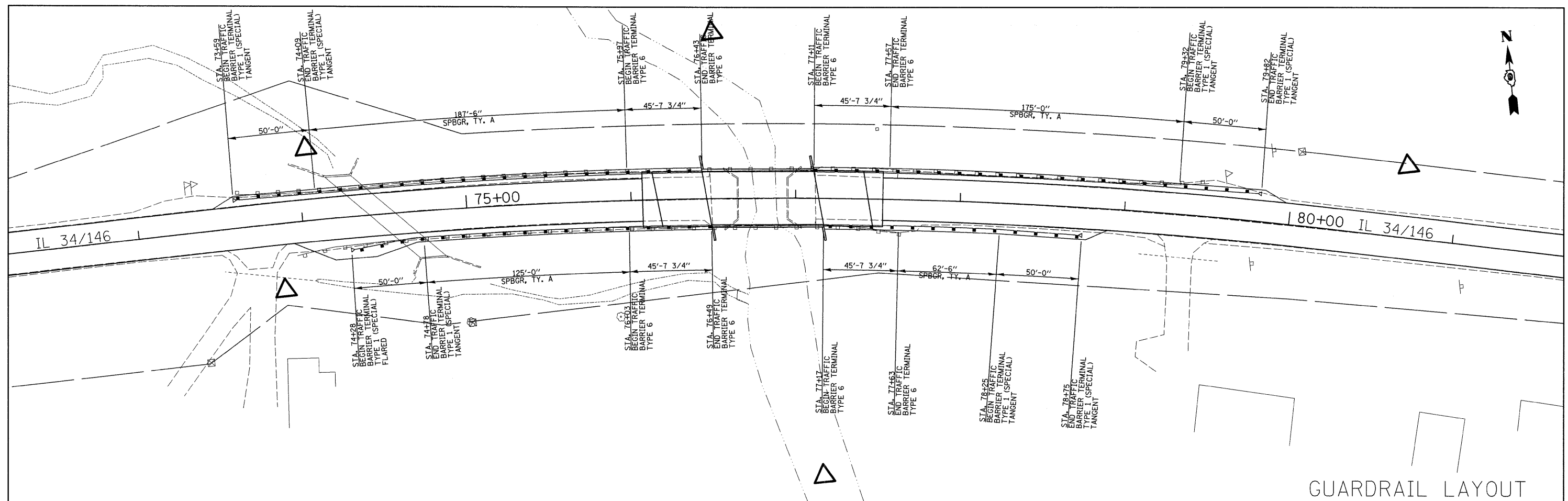
EXIST. R/W

STA. 80+00 IL 34/146

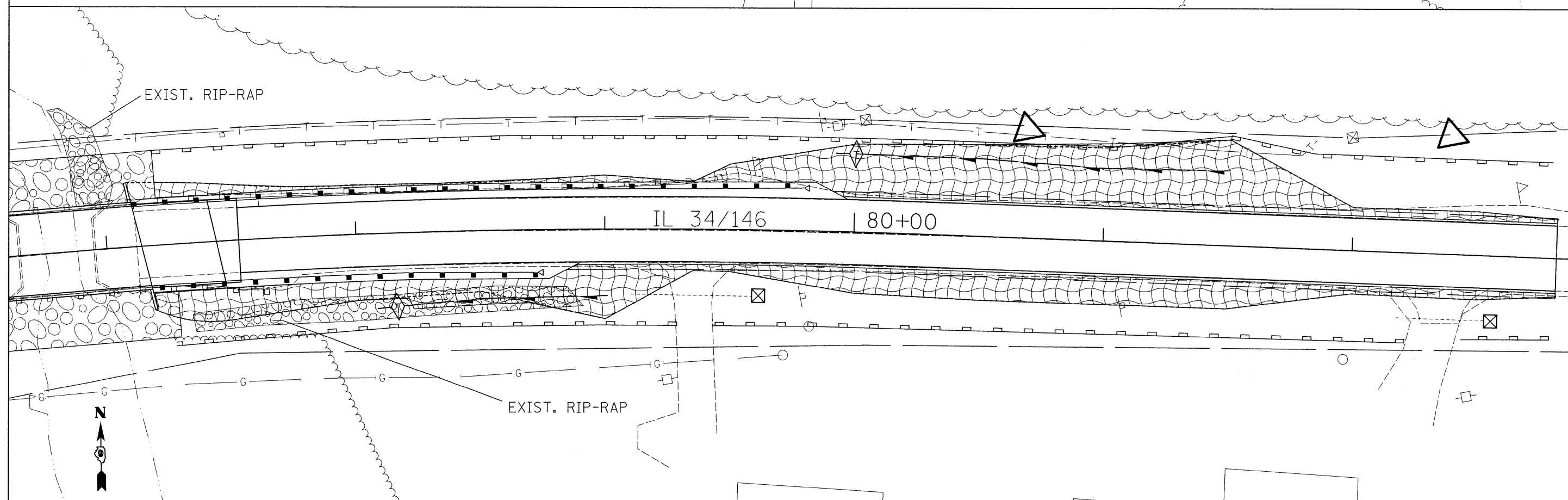
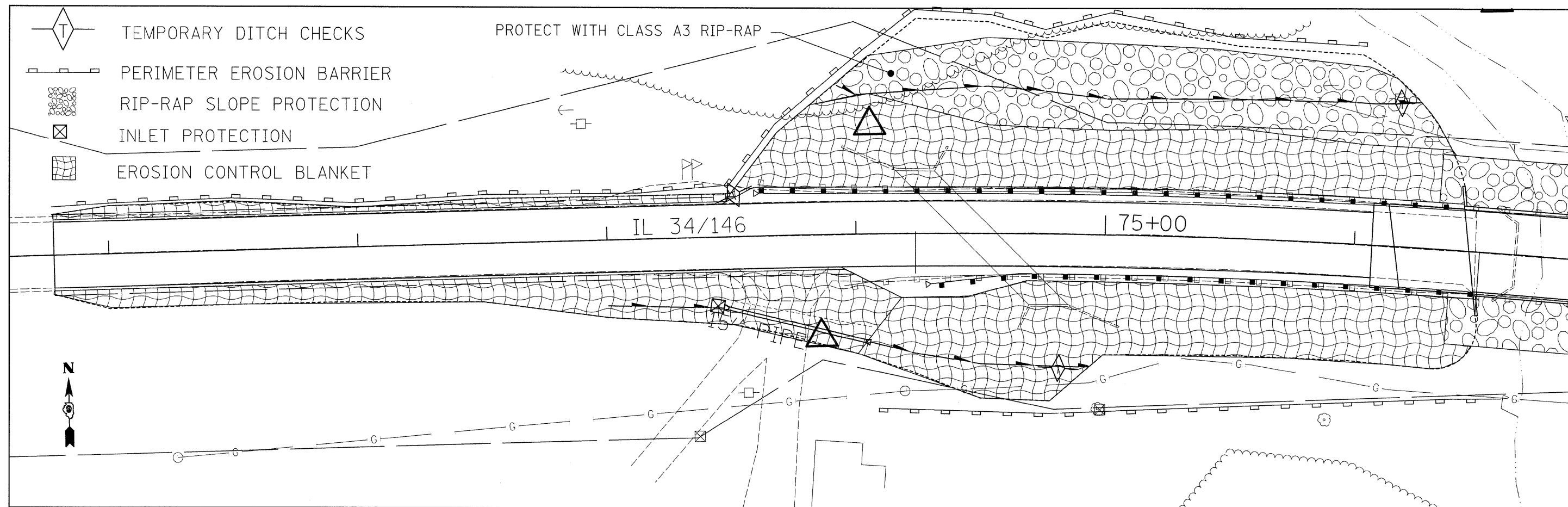
STAGE II TRAFFIC

STRUCTURE REMOVAL
 PAVEMENT REMOVAL
 PAVED SHOULDER REMOVAL

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	STAGE CONSTRUCTION IL 34 /146 OVER THREE MILE CREEK				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = \$SCALE\$	DRAWN -	REVISED -						885	5B-1	HARDIN	48	9
	PLOT DATE = \$DATE\$	CHECKED -	REVISED -		CONTRACT NO. 98949								
		DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA. 69+00 TO STA. 84+00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		



FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVED SHOULDER / GUARDRAIL LAYOUT IL 34 /146 OVER THREE MILE CREEK	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
\$FILEL\$		DRAWN -	REVISED -			885	5B-1	HARDIN	48	10
		CHECKED -	REVISED -			CONTRACT NO. 98949				
		DATE -	REVISED -							
				SCALE:	SHEET NO. OF SHEETS	STA. 69+00 TO STA. 84+00		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



FILE NAME = \$FILE\$	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	EROSION CONTROL IL 34 /146 OVER THREE MILE CREEK	SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -									885	5B-1	HARDIN	48	11
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -									CONTRACT NO. 9894				
	PLOT DATE = \$DATE\$	DATE -	REVISED -													

PARCEL NO.	NAME	PURPOSE	ACREAGE
68	CEDRIC AND KELLY BLAIR	ROW	0.324

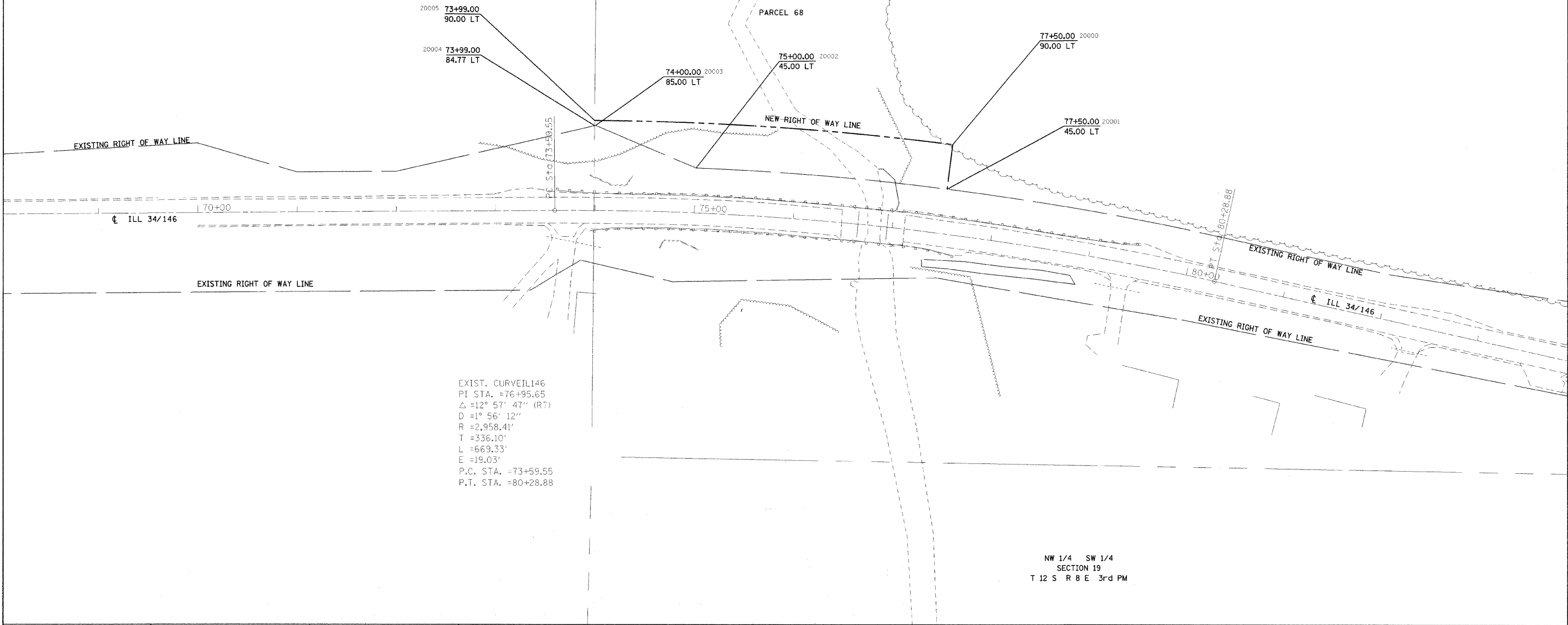


SE 1/4 NE 1/4
SECTION 24
T 12 S R 7 E 3rd PM

SW 1/4 NW 1/4
SECTION 19
T 12 S R 8 E 3rd PM

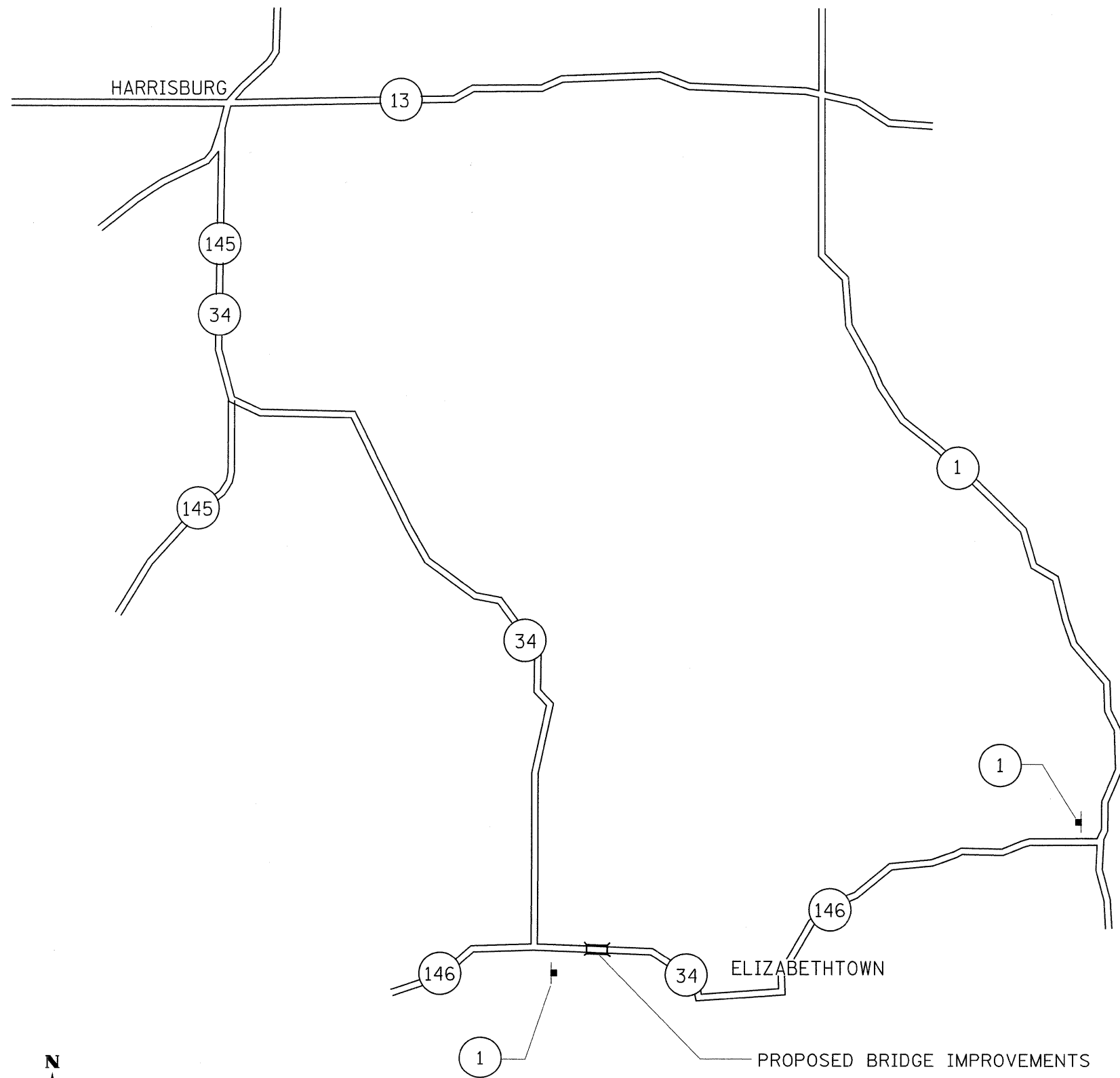
POINT COORDINATES

Pt 20000 N 288873.28 E 971623.71
Pt 20001 N 288828.63 E 971618.08
Pt 20002 N 288849.69 E 971365.23
Pt 20003 N 288892.12 E 971264.02
Pt 20004 N 288891.89 E 971262.99
Pt 20005 N 288897.12 E 971263.03



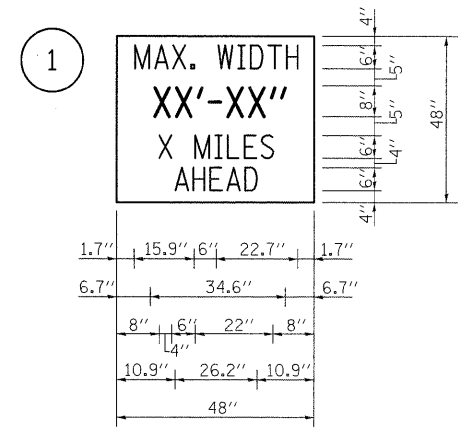
EXIST. CURVE ILL 34/146
PI STA. = 76+95.65
Δ = 12° 57' 47" (RT)
D = 1° 56' 12"
R = 2,958.41'
T = 336.10'
L = 669.33'
E = 19.03'
P.C. STA. = 73+59.55
P.T. STA. = 80+28.88

FILE NAME c:\p\work\K\PWIDOT\THOMPSONJA\dms48425\9901606-shrrow.dgn	USER NAME = thompsonja	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	RIGHT OF WAY PLANS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000 ' / IN.	DRAWN -	REVISED -					885	5B-1	HARDIN	48	12
	PLOT DATE = 2/23/2009	CHECKED -	REVISED -		CONTRACT NO. 98949							
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT							
SCALE: 1"=50feet		SHEET NO. 1 OF 1 SHEETS		STA. 69+00 TO STA. 83+00		FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT				



DETOUR SIGNING PLAN

SIGN LEGEND



W12-I103

SERIES D ALPHABET. NO BORDER.
BLACK ON WHITE.

DETOUR NOTES

1. THE CONTRACTOR SHALL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS DIRECTED BY THE ENGINEER. ALL SIGNS SHALL BE POST MOUNTED
2. THE ABOVE NOTED WORK, INCLUDING SIGN, POSTS, HARDWARE AND LABOR SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE, EACH, FOR TRAFFIC CONTROL AND PROTECTION, STD 701321 AND NO OTHER COMPENSATION WILL BE ALLOWED.
3. THE WIDTH SHOWN ON THE W12-I103 SIGN SHALL BE 11'-0" OR AS DIRECTED BY THE ENGINEER. THE "X" MILES AHEAD WILL BE DETERMINED BY THE ENGINEER.

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WIDE LOAD DETOUR				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						885	5B-1	HARDIN	48	13
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -						CONTRACT NO. 98949				
	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	

Bench Mark: Cut "□" on northwest headwall of box culvert at Sta. 74+10, Elev. 387.65

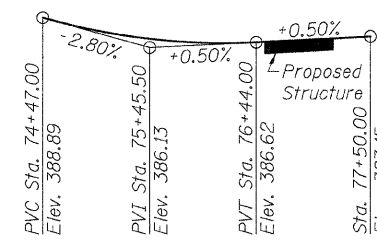
Existing Structure: S.N. 035-0009 was built in 1923 as S.B.I. 34, Section 5A, B, and C at Sta. 76+80.00. In 1978 under FA 885 Section 5B-DR-1, the superstructure was replaced and widened. Existing structure is a single span PPC deck beam bridge on closed abutments (top and bottom restrained), 32'-8" bk. to bk. abutments, 34'-0" out to out, with no skew. The contractor shall remove and replace the existing structure. Staged Construction shall be utilized to maintain one lane of traffic during construction.

No Salvage.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CURVE DATA

(Existing Curve IL 146)
 $\Delta = 12^\circ 57' 47''$
 $D = 1^\circ 56' 12''$
 $T = 336.10'$
 $L = 669.33'$
 $E = 19.03'$
 $R = 2958.41'$
 $S.E. = 0.039'/'$
 $P.C. = Sta. 73+59.55$
 $P.T. = Sta. 80+28.88$
 $P.I. = Sta. 76+95.65$



PROFILE GRADE
(along CL Rte. 34/146)

INDEX OF SHEETS

1. General Plan
2. General Notes & Details
3. Stage Construction Details
4. Deck Elevations
5. Approach Pavement Elevations
6. Superstructure
7. Superstructure Details
8. Concrete End Diaphragms
9. Framing Plan & Steel Details
10. West Abutment
11. East Abutment
12. Temporary Concrete Barrier
13. Bar Splicer Assembly Details
14. Steel Pile Details
15. Soil Borings-1
16. Soil Borings-2
17. Soil Borings-3
18. Soil Borings-4

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Bedrock Acceleration Coefficient (A) = 0.114g
Site Coefficient (S) = 1.5

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design
Specifications, with 2008 Interims

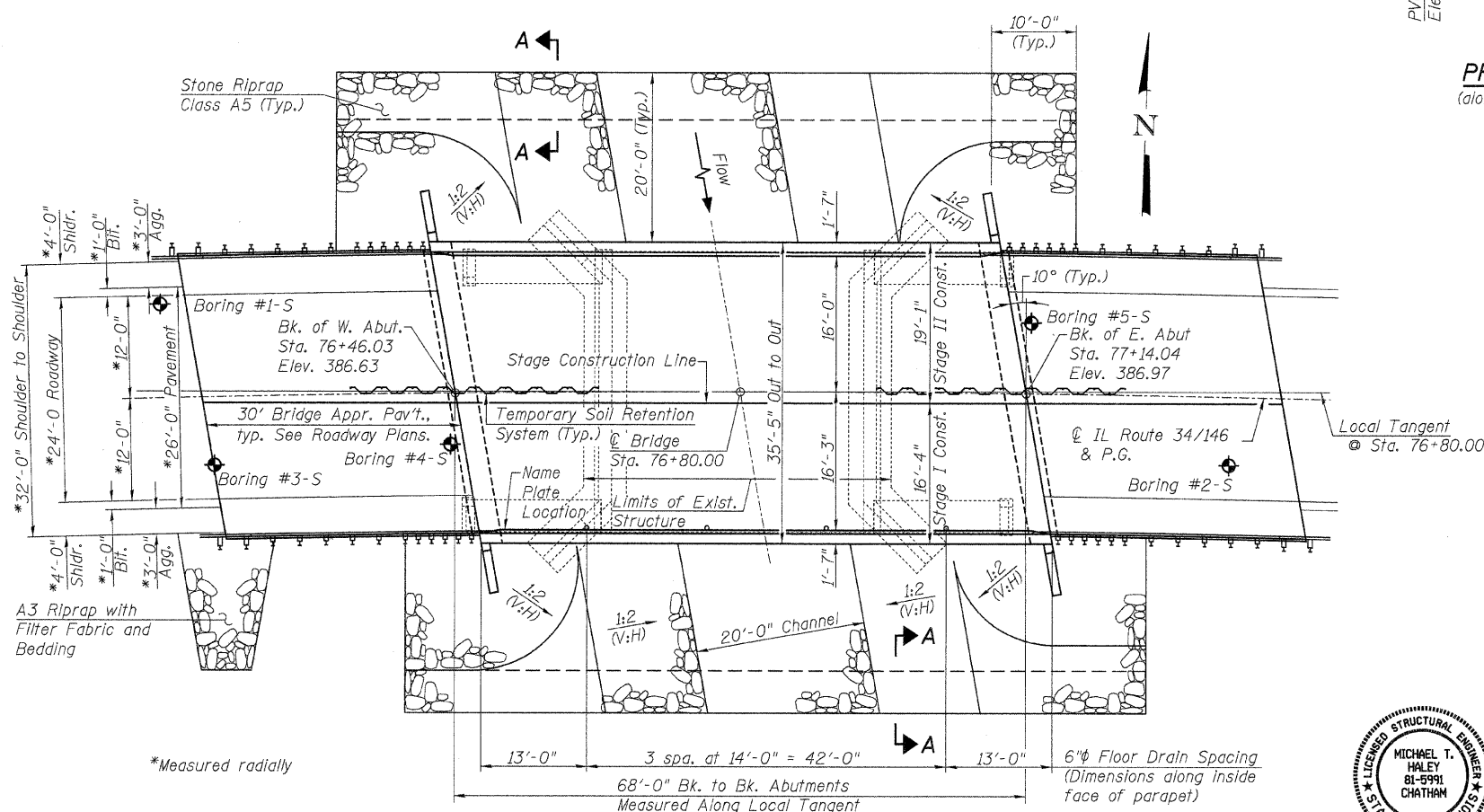
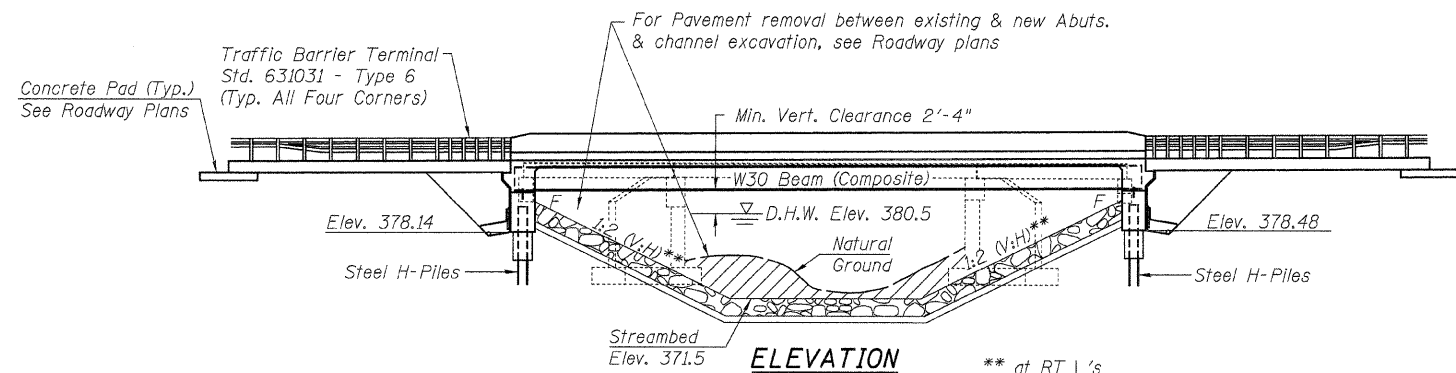
LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (Structural Steel, M270 Grade 50)



PLAN

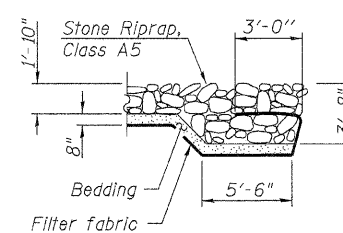
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	W. Abut.	E. Abut.
	378.14	378.48

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

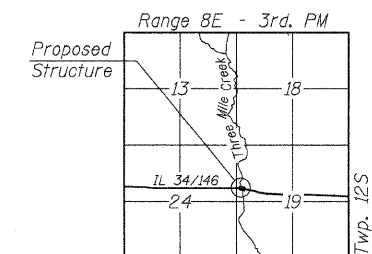
Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

Michael T. Haley
Licensed Structural Engineer
State of Illinois No. 81-5991
Expires 11/30/2010



SECTION A-A

Existing 10-yr Velocity = 10.1 ft/s Proposed 10-yr Velocity = 6.9 ft/s



LOCATION SKETCH

GENERAL PLAN
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	5B-1	Hardin	48	14
S.N. 035-0015				
CONTRACT NO. 98949				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts.
Bolts $\frac{7}{8}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted.
Calculated weight of Structural Steel = 53,290 lbs (AASHTO M270, Grade 50)
2,605 lbs (AASHTO M270, Grade 36)

No field welding is permitted except as specified in the contract documents.
Reinforcement bars shall conform to the requirements of ASTM A 706
Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be
used for shop and field painting of new structural steel except where otherwise
noted. The color of the final finish coat for all interior steel surfaces shall be
gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior
and bottom flange of the fascia beams shall be Interstate Green, Munsell. No.
7.5G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures".

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

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.
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.

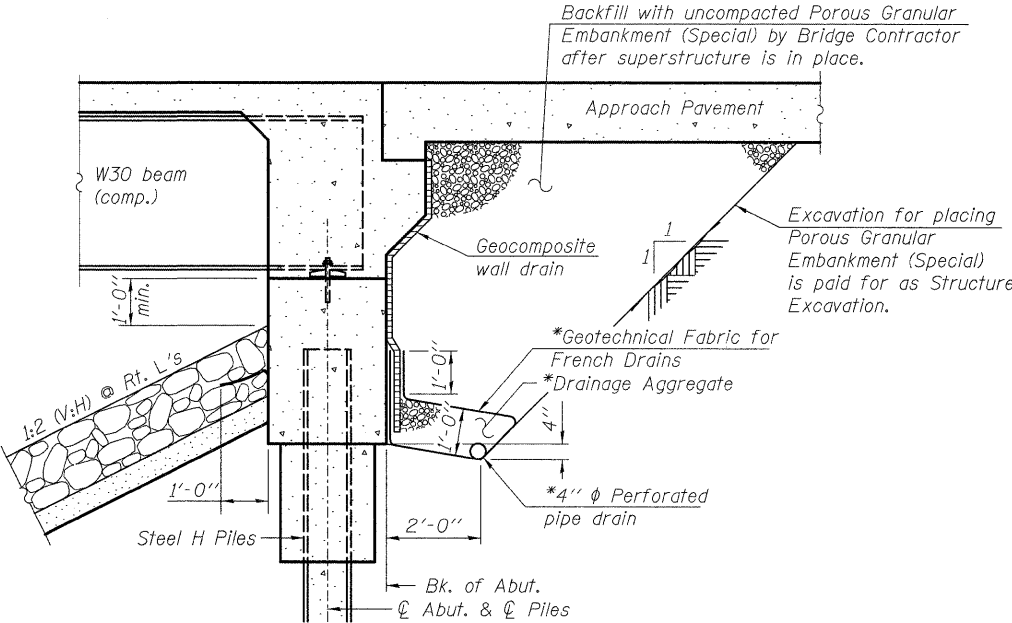
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Structure Excavation	Cu. Yd.	-	270	270
Concrete Structures	Cu. Yd.	-	45.0	45.0
Concrete Superstructure	Cu. Yd.	96.2	-	96.2
** Bridge Deck Grooving	Sq. Yd.	436	-	436
Concrete Encasement	Cu. Yd.	-	4.2	4.2
Reinforcement Bars, Epoxy Coated	Pound	19660	8340	28000
Furnishing and Erecting Structural Steel	Lump Sum	1	-	1
** Protective Coat	Sq. Yd.	530	-	530
Stud Shear Connectors	Each	1026	-	1026
Name Plates	Each	1	-	1
Furnishing Steel Piles HP12x63	Foot	-	354	354
Driving Piles	Foot	-	354	354
Pile Shoes	Each	-	12	12
Stone Riprap, Class A3	Sq. Yd.	-	10	10
Stone Riprap, Class A5	Sq. Yd.	-	696	696
Removal of Existing Structures	Each	1	-	1
Bar Splicers	Each	285	32	317
Pipe Underdrains for Structures, 4"	Foot	-	157	157
Porous Granular Embankment (Special)	Cu. Yd.	-	169	169
Temporary Soil Retention System	Sq. Ft.	-	515	515
Floor Drains	Each	4	-	4
Filter Fabric	Sq. Yd.	-	706	706
Geocomposite Wall Drain	Sq. Yd.	-	87	87
Anchor Bolts, 1"	Each	-	24	24

** Quantity includes approach pavement.

STATION 76+80.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RT. 885 SEC. 5B-1
LOADING HL-93
STR NO. 035-0015

NAME PLATE
See Std. 515001



SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

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

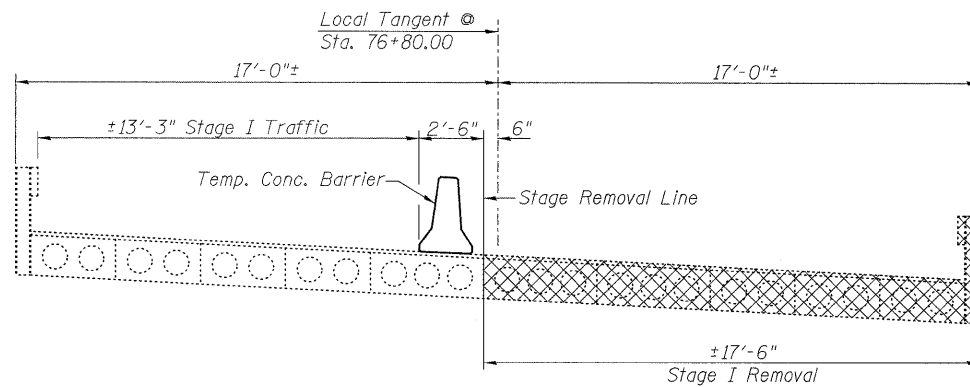
GENERAL NOTES
& DETAILS
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 2 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		885	5B-1	Hardin	48	15	
		S.N. 035-0015		CONTRACT NO. 98949			
Designed By: ESH Date: 8/2008		Checked By: MTH File: 035-0015.dgn		Drawn By: ESH		FED. ROAD DIST. NO. _ ILLINOIS	FED. AID PROJECT

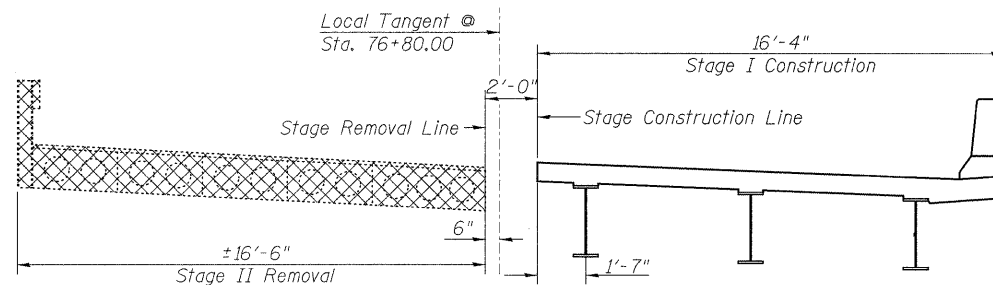
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

Notes:

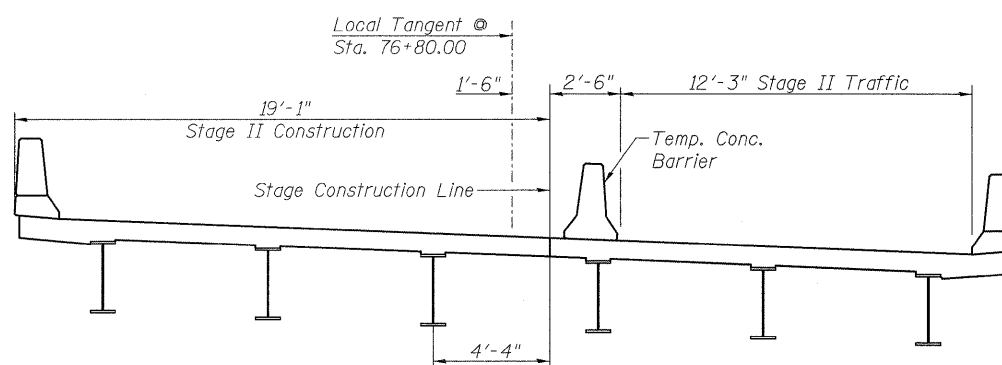
1. Cross Hatched areas indicate removal of existing structure.
2. Location of Stage Removal & Construction lines is also applicable to abutments.
3. See roadway plans for quantity of Temporary Concrete Barrier.
4. See sheet 12 of 18 for details of Temporary Concrete Barrier.
5. All tranverse dimensions are measured perpendicular to Local Tangent at Sta. 76+80.00, unless otherwise shown.
6. All cross sections are Looking East.
7. Removal of existing bridge railing and bituminous wearing surface is included with Removal of Existing Structure.
8. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.



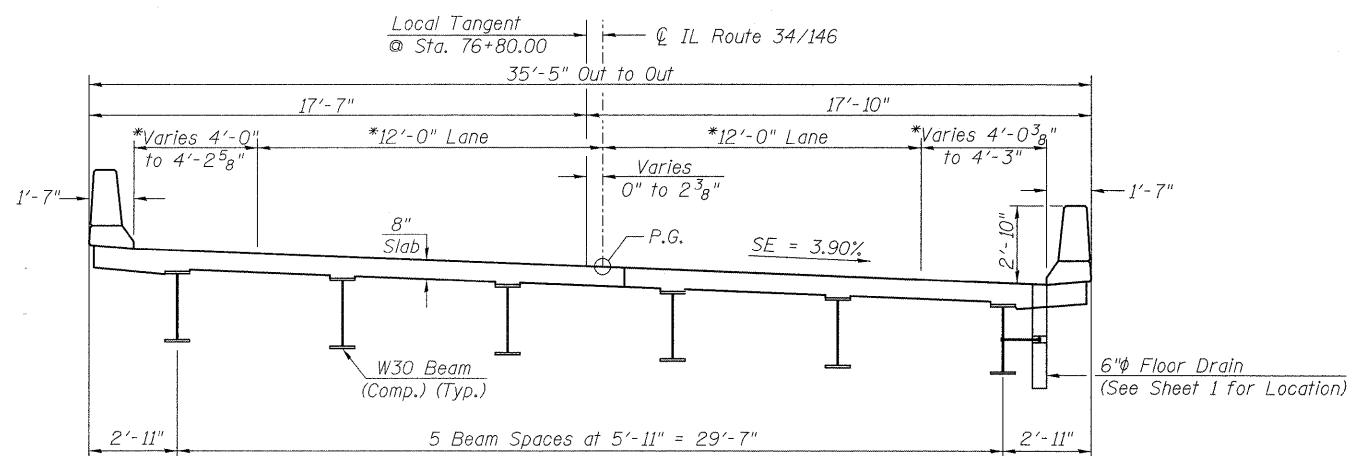
STAGE I REMOVAL & TRAFFIC



STAGE I CONSTRUCTION & STAGE II REMOVAL

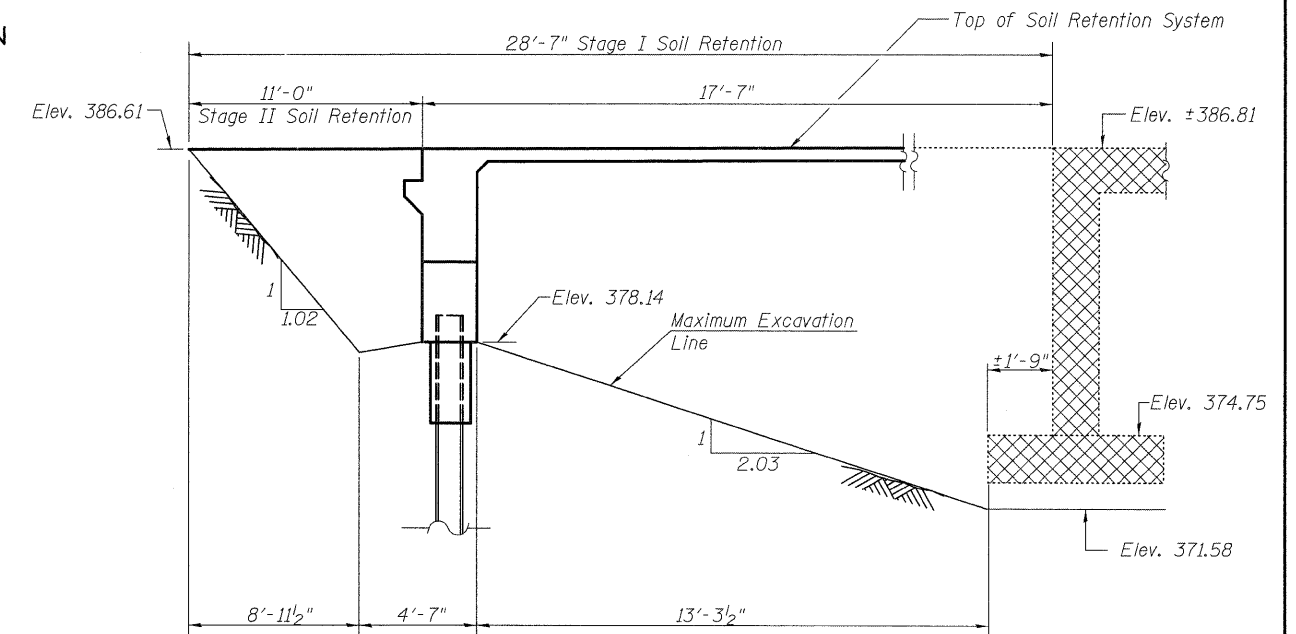


STAGE II CONSTRUCTION & TRAFFIC

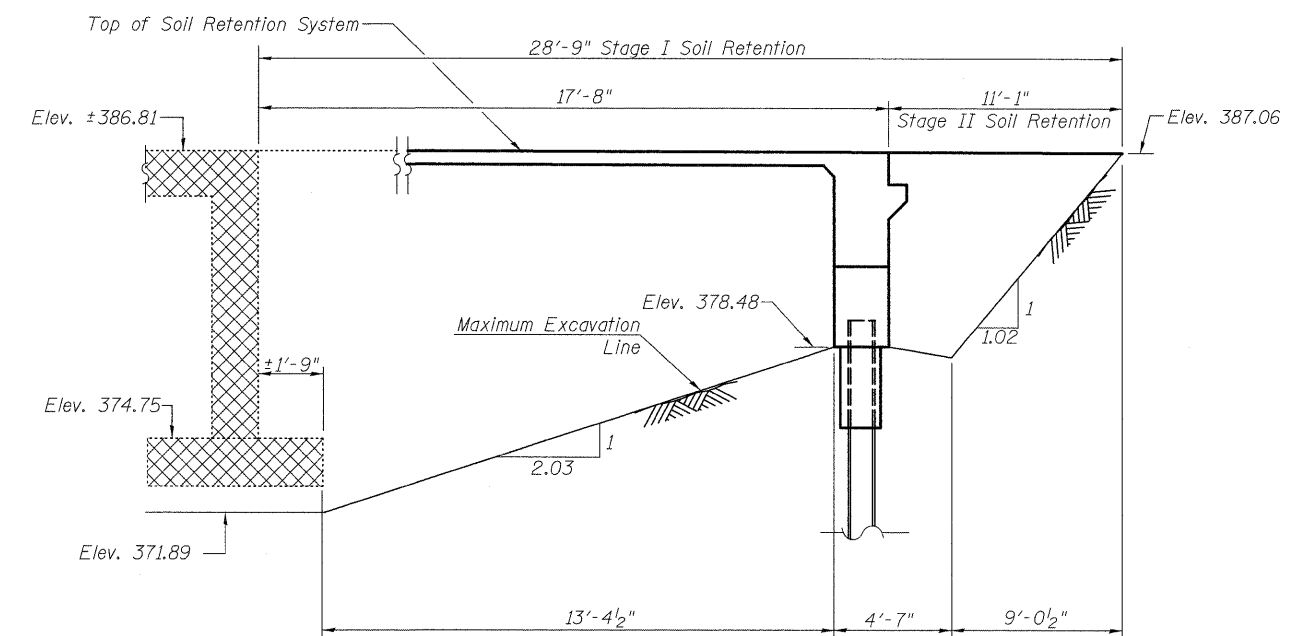


PROPOSED CROSS SECTION

*Radial Dimensions



TEMPORARY SOIL RETENTION SYSTEM AT WEST ABUT.



TEMPORARY SOIL RETENTION SYSTEM AT EAST ABUT.

STAGE CONSTRUCTION
DETAILS
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

	SHEET NO. 3		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	18 SHEETS		885	5B-1	Hardin	48	16
			S.N. 035-0015		CONTRACT NO. 98949		
			FED. ROAD DIST. NO. _		ILLINOIS FED. AID PROJECT		

BEAM 1

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+43.60	-14.89	387.20	387.20
℄ Brg. W. Abut.	76+44.86	-14.88	387.20	387.20
C	76+54.81	-14.77	387.25	387.32
D	76+64.76	-14.71	387.30	387.42
E	76+74.71	-14.67	387.35	387.49
F	76+84.66	-14.67	387.40	387.53
G	76+94.61	-14.70	387.45	387.55
H	77+04.56	-14.77	387.50	387.54
℄ Brg. E. Abut.	77+09.99	-14.82	387.53	387.53
Bk. of E. Abut.	77+11.26	-14.83	387.53	387.53

BEAM 2

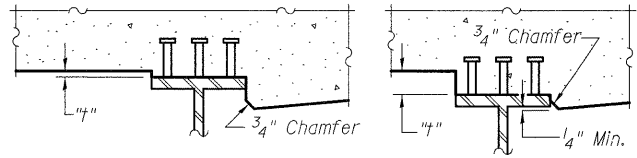
Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+44.56	-8.96	386.97	386.97
℄ Brg. W. Abut.	76+45.83	-8.95	386.98	386.98
C	76+55.80	-8.85	387.02	387.09
D	76+65.77	-8.78	387.07	387.19
E	76+75.74	-8.75	387.12	387.26
F	76+85.71	-8.76	387.17	387.30
G	76+95.68	-8.79	387.22	387.32
H	77+05.65	-8.86	387.27	387.31
℄ Brg. E. Abut.	77+11.09	-8.91	387.30	387.30
Bk. of E. Abut.	77+12.36	-8.93	387.31	387.31

BEAM 3

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+45.53	-3.03	386.75	386.75
℄ Brg. W. Abut.	76+46.80	-3.02	386.75	386.75
C	76+56.79	-2.92	386.80	386.87
D	76+66.78	-2.86	386.85	386.97
E	76+76.77	-2.84	386.89	387.03
F	76+86.76	-2.84	386.94	387.07
G	76+96.75	-2.88	387.00	387.10
H	77+06.74	-2.95	387.05	387.09
℄ Brg. E. Abut.	77+12.20	-3.01	387.08	387.08
Bk. of E. Abut.	77+13.47	-3.02	387.09	387.09

℄ ROADWAY & P.G.

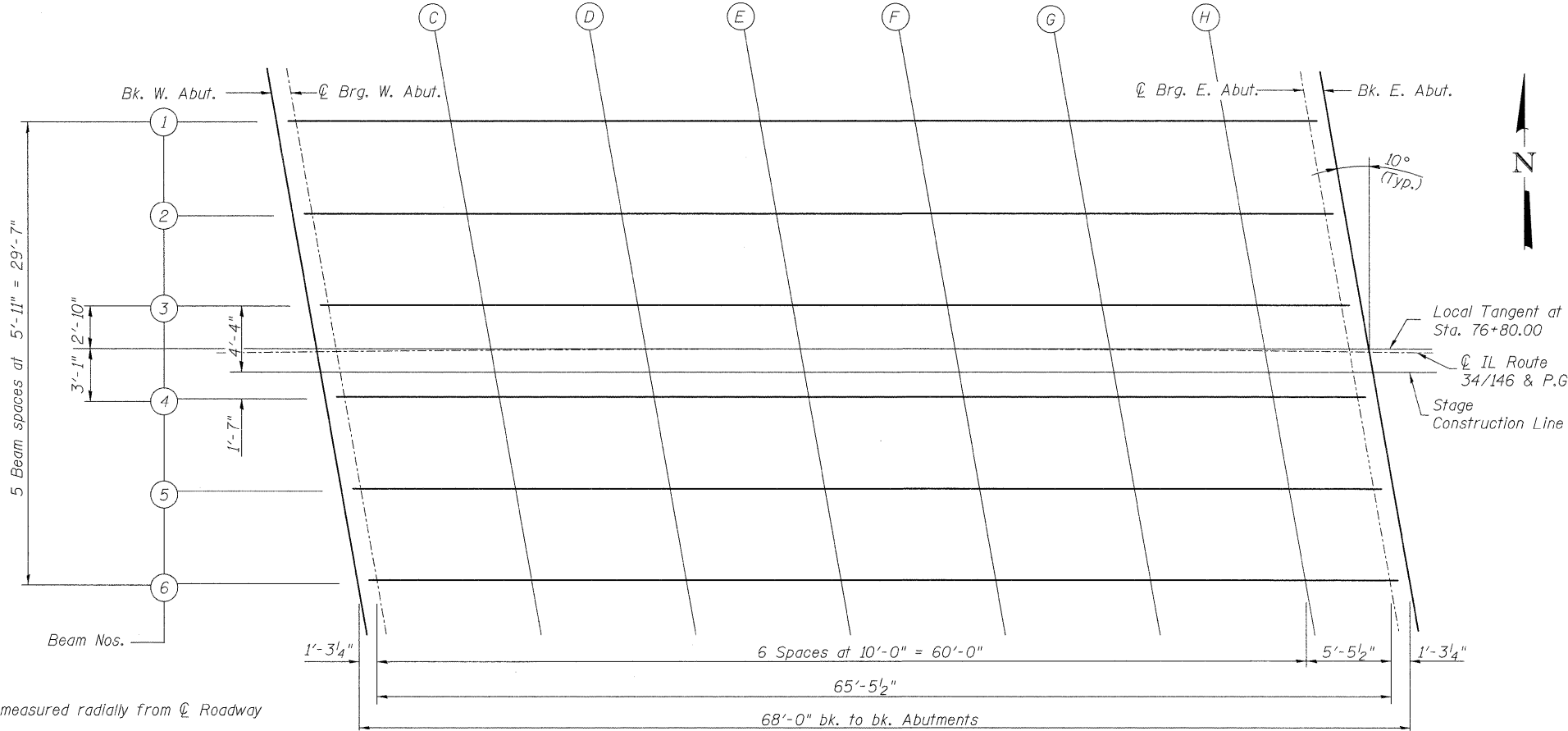
Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+46.03	0.00	386.63	386.63
℄ Brg. W. Abut.	76+47.30	0.00	386.64	386.64
C	76+57.29	0.00	386.69	386.76
D	76+67.28	0.00	386.74	386.86
E	76+77.27	0.00	386.79	386.93
F	76+87.27	0.00	386.84	386.97
G	76+97.28	0.00	386.89	386.99
H	77+07.29	0.00	386.94	386.98
℄ Brg. E. Abut.	77+12.76	0.00	386.96	386.96
Bk. of E. Abut.	77+14.04	0.00	386.97	386.97



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

FILLET HEIGHTS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



Note:
All offsets are measured radially from ℄ Roadway

STAGE CONSTRUCTION LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+46.25	1.31	386.58	386.58
℄ Brg. W. Abut.	76+47.52	1.32	386.59	386.59
C	76+57.52	1.42	386.63	386.70
D	76+67.53	1.47	386.68	386.80
E	76+77.53	1.50	386.73	386.87
F	76+87.54	1.49	386.78	386.91
G	76+97.54	1.45	386.83	386.93
H	77+07.55	1.37	386.88	386.92
℄ Brg. E. Abut.	77+13.01	1.32	386.91	386.91
Bk. of E. Abut.	77+14.28	1.30	386.92	386.92

BEAM 4

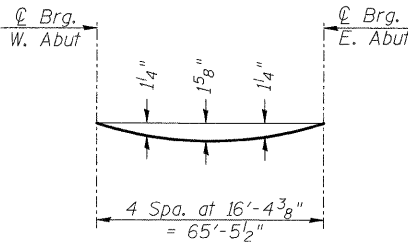
Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+46.51	2.89	386.52	386.52
℄ Brg. W. Abut.	76+47.78	2.91	386.53	386.53
C	76+57.79	3.00	386.57	386.64
D	76+67.80	3.06	386.62	386.74
E	76+77.81	3.08	386.67	386.81
F	76+87.82	3.07	386.72	386.85
G	76+97.83	3.03	386.77	386.87
H	77+07.84	2.95	386.82	386.86
℄ Brg. E. Abut.	77+13.30	2.90	386.85	386.85
Bk. of E. Abut.	77+14.58	2.88	386.86	386.86

BEAM 5

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+47.49	8.82	386.29	386.29
℄ Brg. W. Abut.	76+48.76	8.84	386.30	386.30
C	76+58.79	8.92	386.35	386.42
D	76+68.82	8.98	386.39	386.51
E	76+78.85	9.00	386.44	386.58
F	76+88.88	8.99	386.49	386.62
G	76+98.91	8.94	386.55	386.65
H	77+08.94	8.86	386.60	386.64
℄ Brg. E. Abut.	77+14.42	8.80	386.63	386.63
Bk. of E. Abut.	77+15.69	8.79	386.64	386.64

BEAM 6

Location	Station	Offset (ft)	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. of W. Abut.	76+48.47	14.75	386.07	386.07
℄ Brg. W. Abut.	76+49.75	14.76	386.07	386.07
C	76+59.80	14.85	386.12	386.19
D	76+69.85	14.90	386.17	386.29
E	76+79.90	14.92	386.22	386.36
F	76+89.95	14.90	386.27	386.40
G	77+00.00	14.85	386.32	386.42
H	77+10.05	14.76	386.37	386.41
℄ Brg. E. Abut.	77+15.54	14.70	386.40	386.40
Bk. of E. Abut.	77+16.81	14.69	386.41	386.41



DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete only)

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

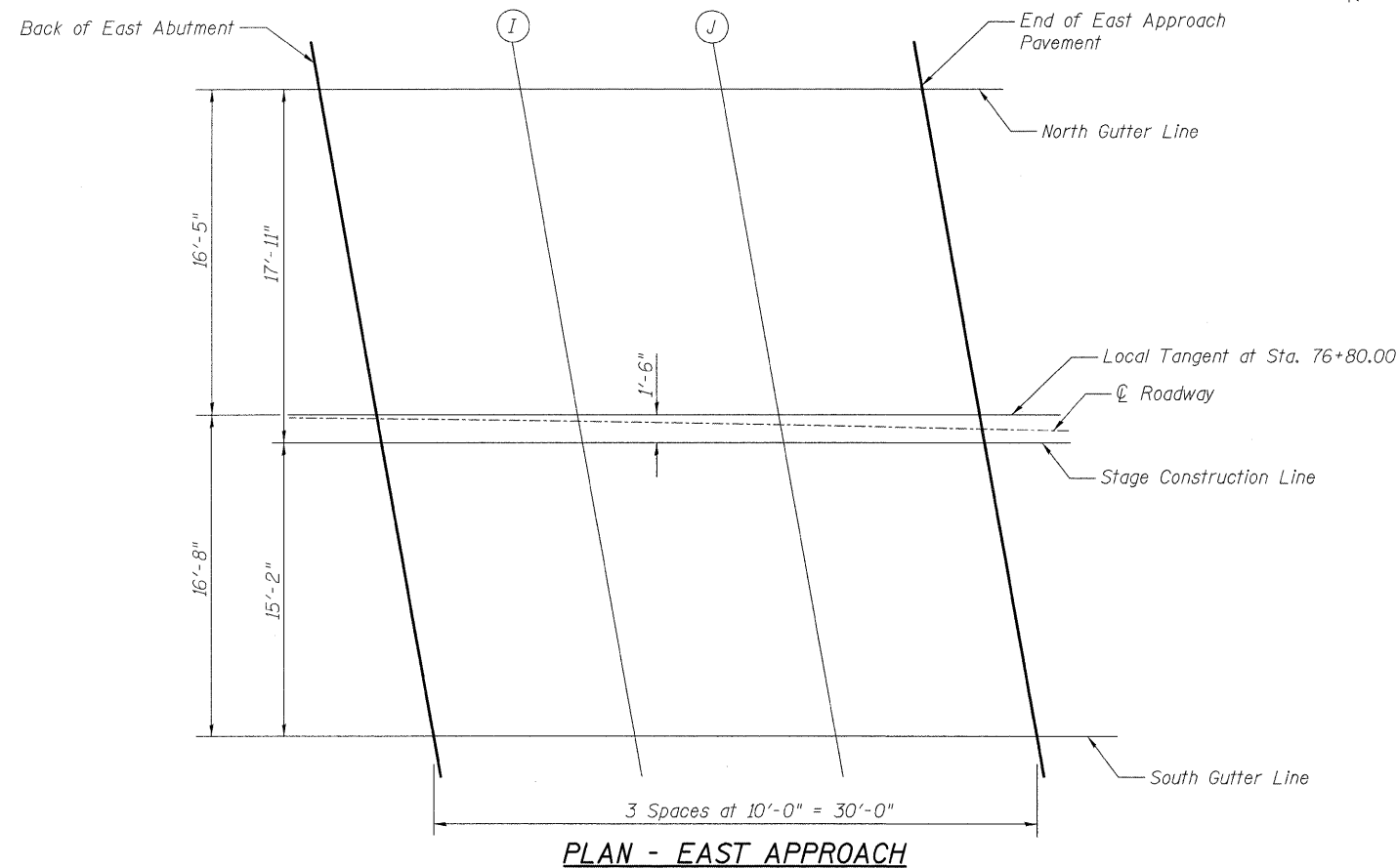
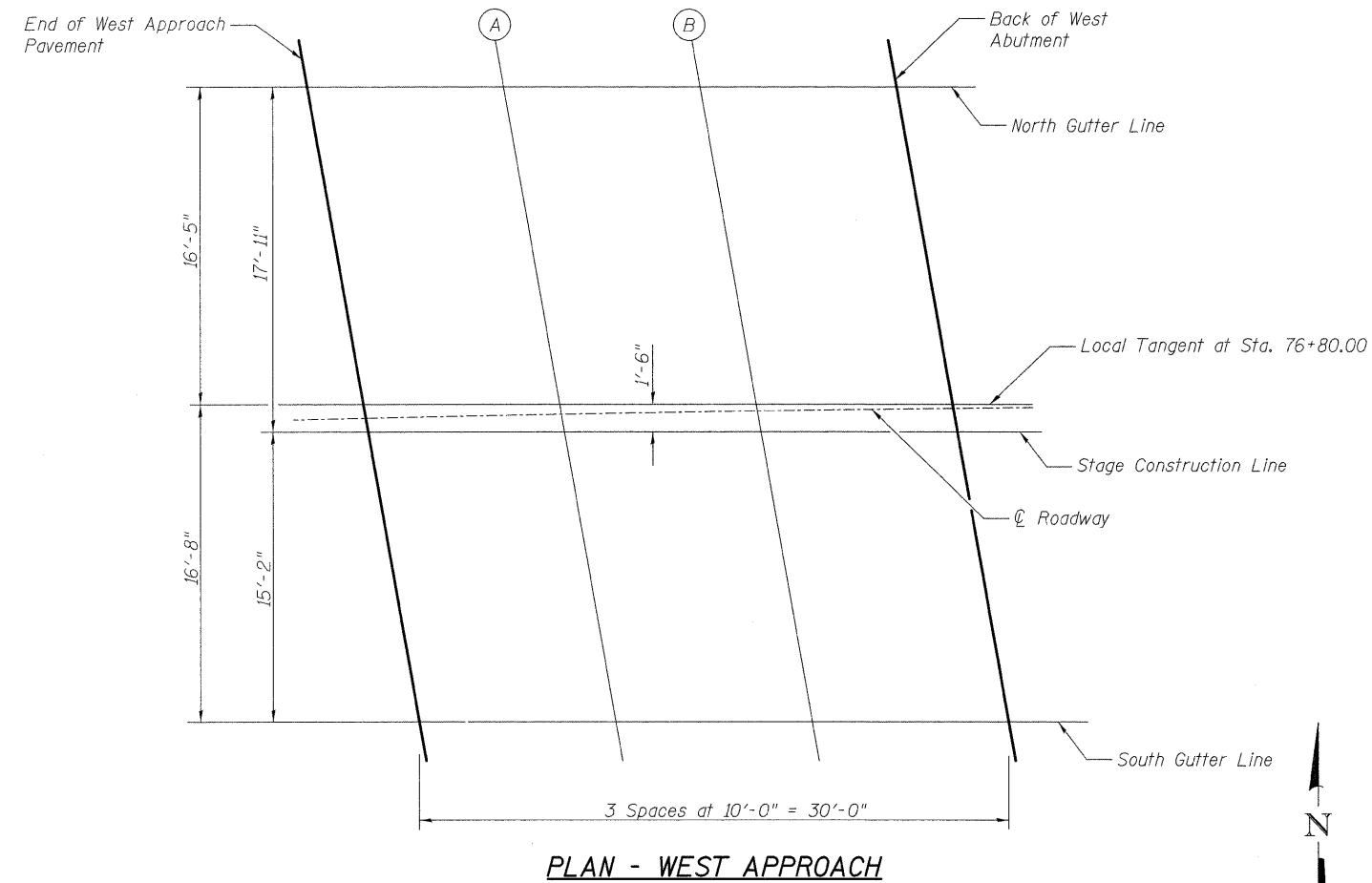
DECK ELEVATIONS
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

E LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois
Designed By: ESH
Checked By: MTH
Drawn By: ESH
Date: 8/2008
File: 035-0015.dgn

SHEET NO. 4
18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	5B-1	Hardin	48	17
S.N. 035-0015				
CONTRACT NO. 98949				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NORTH GUTTER LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Pav't.	76+13.49	-17.17	387.22
A	76+23.43	-16.96	387.22
B	76+33.37	-16.79	387.24
Bk. W. Abut.	76+43.31	-16.65	387.27
Bk. E. Abut.	77+10.93	-16.58	387.60
I	77+20.88	-16.70	387.66
J	77+30.82	-16.86	387.71
End E. Appr. Pav't	77+40.76	-17.04	387.77

CL ROADWAY & P.G.

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Pav't.	76+16.12	0.00	386.55
A	76+26.08	0.00	386.56
B	76+36.06	0.00	386.59
Bk. W. Abut.	76+46.03	0.00	386.63
Bk. E. Abut.	77+14.04	0.00	386.97
I	77+24.06	0.00	387.02
J	77+34.09	0.00	387.07
End E. Appr. Pav't	77+44.12	0.00	387.12

SOUTH GUTTER LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Pav't.	76+18.60	16.03	385.93
A	76+28.65	16.22	385.93
B	76+38.71	16.38	385.96
Bk. W. Abut.	76+48.76	16.50	386.00
Bk. E. Abut.	77+17.15	16.43	386.34
I	77+27.20	16.29	386.40
J	77+37.25	16.12	386.46
End E. Appr. Pav't	77+47.31	15.91	386.52

STAGE CONSTRUCTION LINE

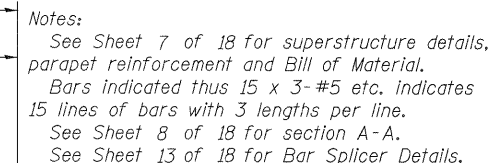
Location	Station	Offset (ft)	Theoretical Grade Elevations
End W. Appr. Pav't.	76+16.24	0.81	386.52
A	76+26.24	1.01	386.52
B	76+36.25	1.18	386.54
Bk. W. Abut.	76+46.25	1.31	386.58
Bk. E. Abut.	77+14.28	1.30	386.92
I	77+24.28	1.17	386.98
J	77+34.29	1.00	387.03
End E. Appr. Pav't	77+44.29	0.80	387.09

Note:
Offsets are measured radially from CL Roadway

APPROACH PAVEMENT
ELEVATIONS
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 5 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		885	5B-1	Hardin	48	18
		S.N. 035-0015			CONTRACT NO. 98949	
		FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT	
Designed By: ESH	Checked By: MTH	Drawn By: ESH				
Date: 8/2008	File: 035-0015.dgn					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SUPERSTRUCTURE
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

CROSS SECTION @ Sta. 76+80.00
(Looking East)

**Measured radially from C Roadway



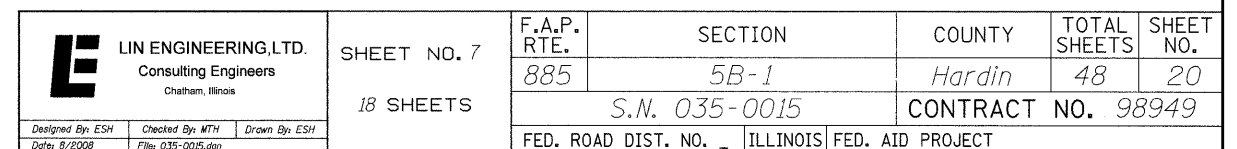
SHEET NO. 6

18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEE NO.
885	5B-1	Hardin	48	19
S.N. 035-0015		CONTRACT NO. 98949		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-99-016-06

68'-0" End to end parapet

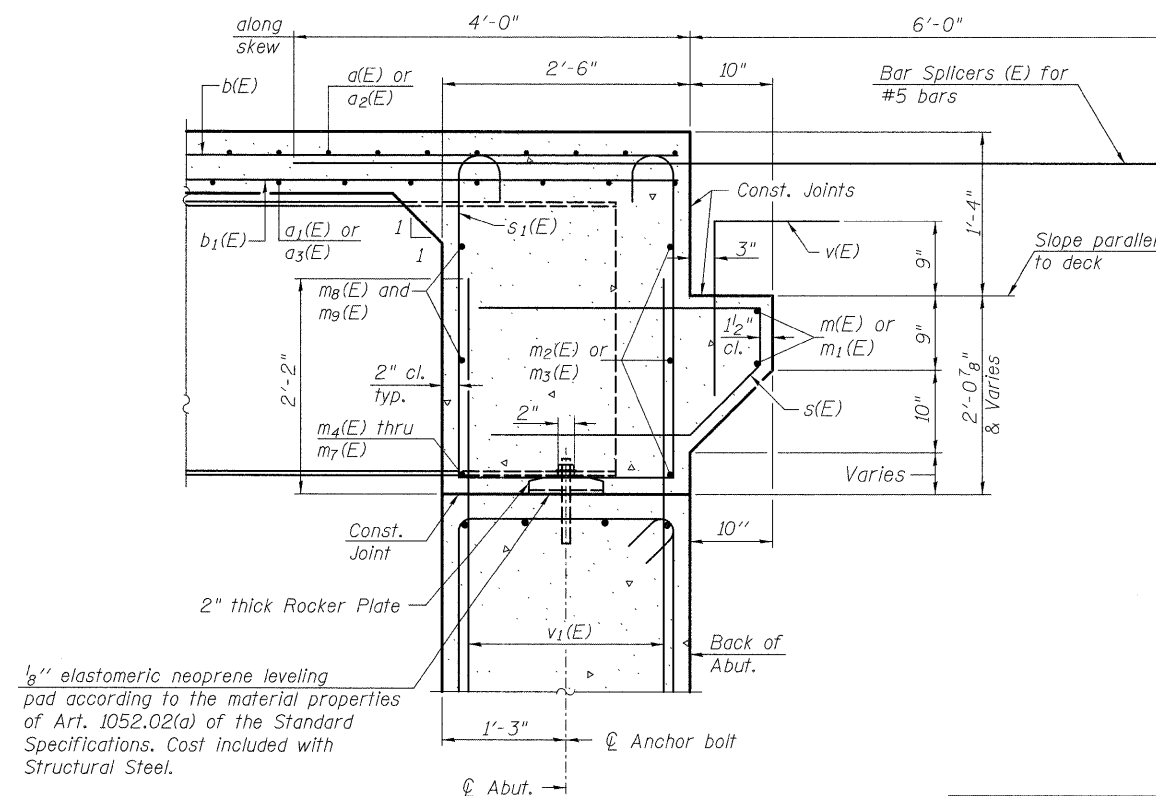


D-99-016-06

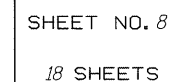
(Looking East)
(All horizontal dimensions at right angles to Local Tangent)
(West Abutment mirrored about Local Tangent)

Reinforcement bars in diaphragm are billed with superstructure on sheet 7 of 18.
Concrete in diaphragm is included with Concrete Superstructure on sheet 7 of 18.
For details of bars s(E) & s₁(E) see sheet 7 of 18.
The s(E) and s₁(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
For location of holes thru web, see sheet 9 of 18.

#6 bar = 2'-7"



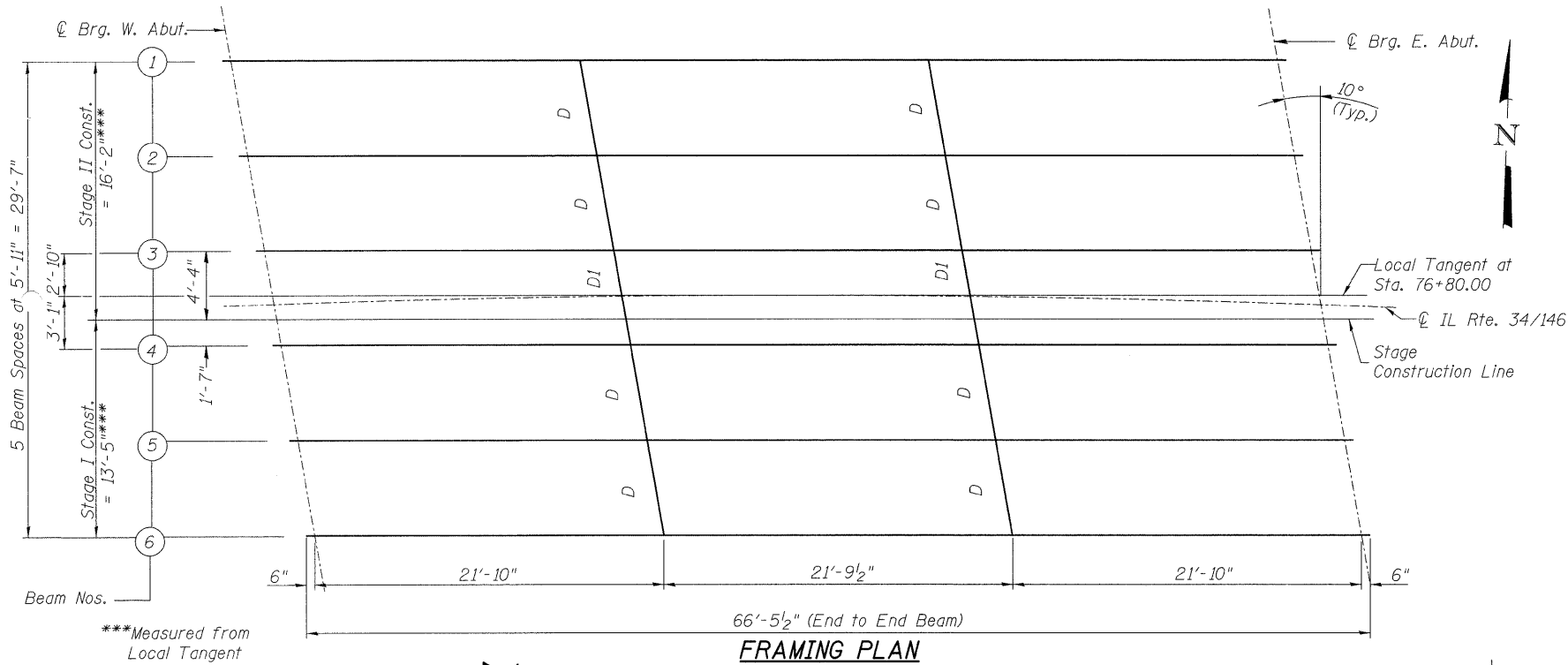
(Dimensions at right angles to abutment, except as shown.)



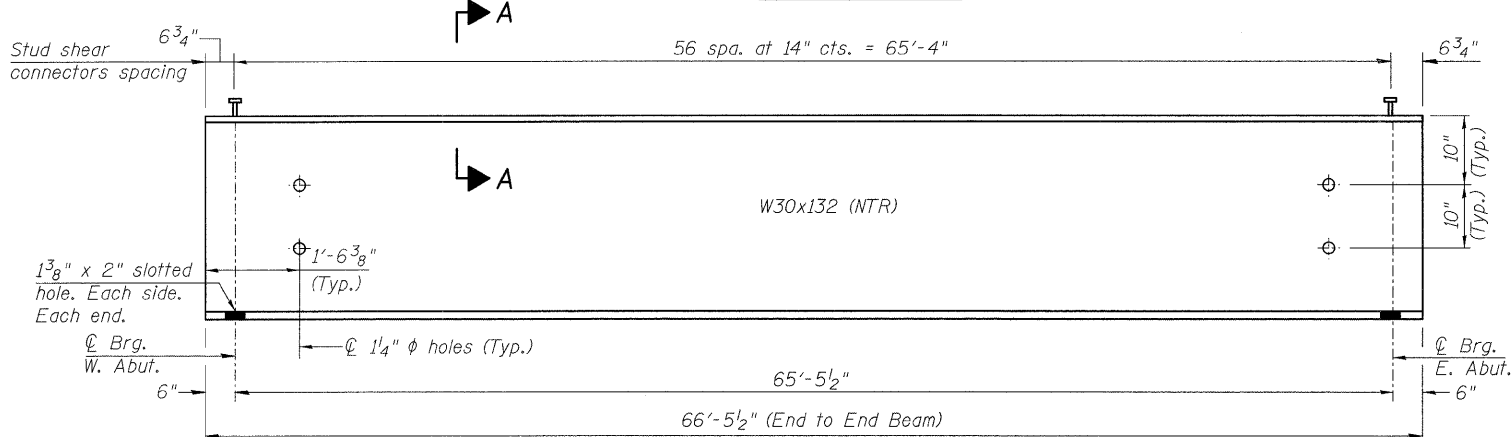
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	5B-1	Hardin	48	21
S.N. 035-0015		CONTRACT NO. 98949		
FED. ROAD DIST. NO. -	ILLINOIS	FED. AID PROJECT		

0-99-016-06

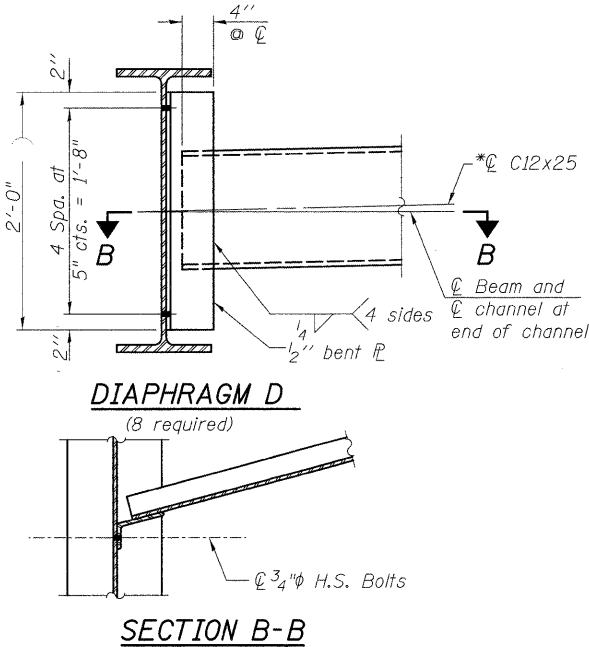
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



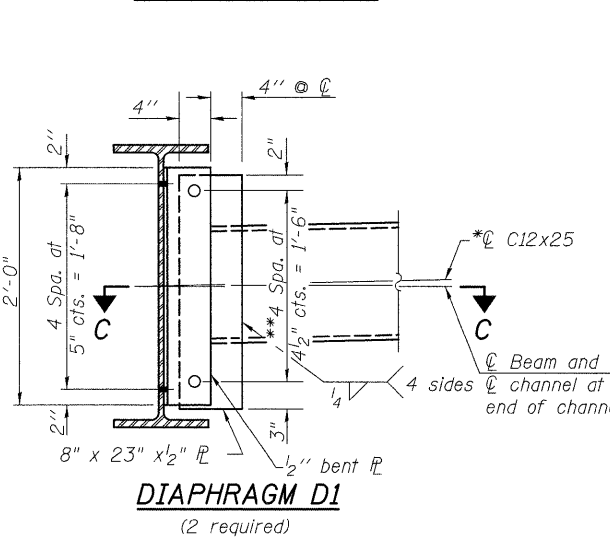
FRAMING PLAN



BEAM ELEVATION

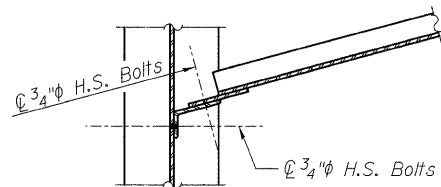


SECTION B-B



DIAPHRAGM D1

(2 required)



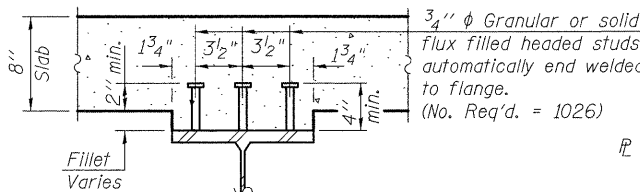
SECTION C-C

Notes:
3/4" ϕ H.S. Bolts 1 1/2" ϕ Holes, unless otherwise noted.
Two hardened washers required for each set of oversized holes and 5/8" plate washer over slotted holes.

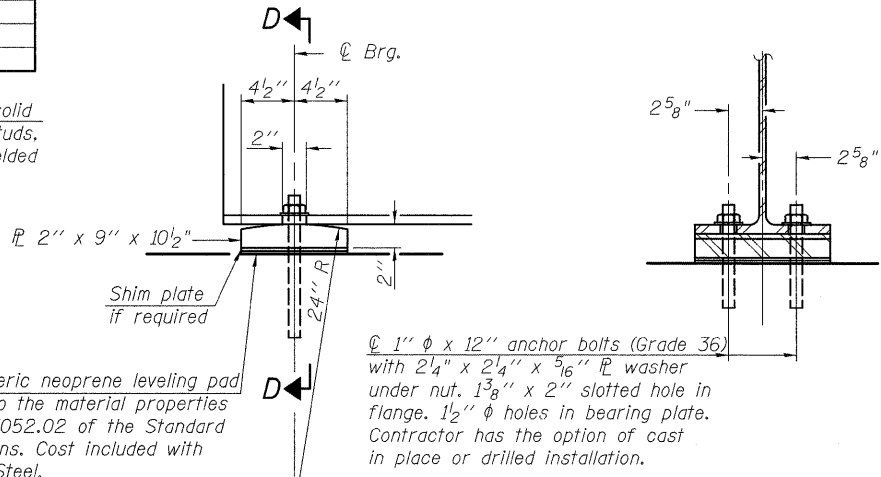
*C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on C12x25. The alternate, if utilized, shall be provided at no additional cost to the Department.
** 3/4" ϕ HS bolts, 1 1/2" x 1 1/8" vertical slotted holes in 8" x 23" x 1/2" plate and 1/2" bent plate. Slots shall be positioned such that the bolts start at one end with no concrete load and finish near the opposite end after the deck pour. Bolts in slotted holes shall be finger tightened and then fully tightened after second stage deck pour.

INTERIOR BEAM MOMENT TABLE		
		0.5 Span
I_s	(in ⁴)	5770
$I_e(n)$	(in ⁴)	15637
$I_e(3n)$	(in ⁴)	11289
S_s	(in ³)	381
$S_e(n)$	(in ³)	569
$S_e(3n)$	(in ³)	510
DC1	(k/ft)	0.749
M_{DC1}	(k)	401
DC2	(k/ft)	0.150
M_{DC2}	(k)	80
DW	(k/ft)	0.269
M_{DW}	(k)	144
$M_L + IM$	(k)	846
M_u (Strength I)	(k)	2298
$\phi_f M_n$	(k)	2810
f_s DC1	(ksi)	12.63
f_s DC2	(ksi)	1.88
f_s DW	(ksi)	3.39
f_s 1.3(L+IM)	(ksi)	23.19
f_s (Service II)	(ksi)	41.09
V_f	(k)	25.4

INTERIOR BEAM REACTION TABLE		
		Abut.
R_{DC1}	(k)	24.5
R_{DC2}	(k)	4.9
R_{DW}	(k)	8.8
$R_L + IM$	(k)	70.9
R_{Total}	(k)	109.1



SECTION A-A



ELEVATION AT ABUTMENT

SECTION D-D

NOTES:

- All beams shall be W30x132 AASHTO M270 Grade 50 (NTR). All diaphragms and connecting plates shall be AASHTO M270 Grade 36. All bearing plates shall be AASHTO M270 Grade 50.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
- 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.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

TOP OF BEAM ELEVATIONS

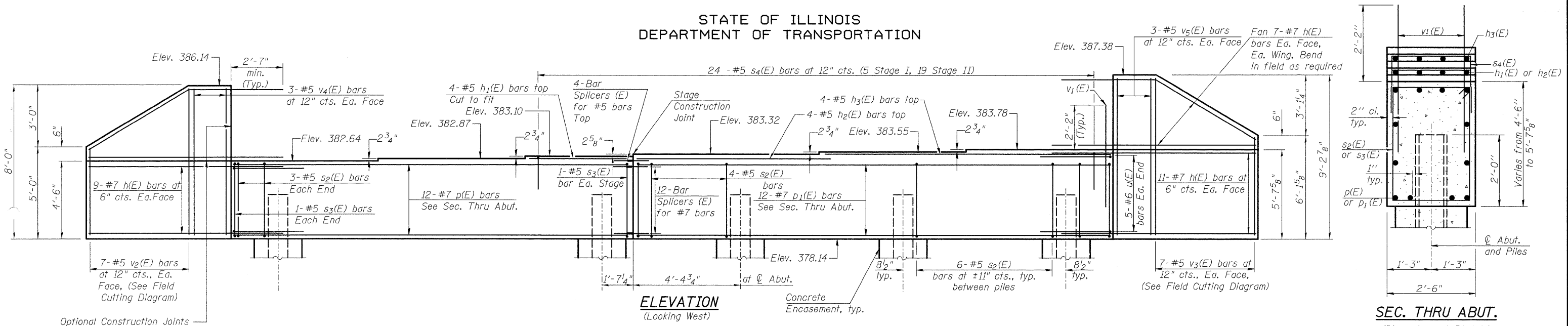
(For Fabrication Only)

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6
Br. W. Abut.	386.48	386.25	386.02	385.80	385.57	385.34
Br. E. Abut.	386.82	386.59	386.36	386.14	385.91	385.68

FRAMING PLAN &
STEEL DETAILS
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

	LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 9 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
			885	5B-1	Hardin	48	22	
			S.N. 035-0015			CONTRACT NO. 98949		
Designed By: ESH	Checked By: MTH	Drawn By: ESH	FED. ROAD DIST. NO. - ILLINOIS					FED. AID PROJECT
DATE: 8/20/88	FILE: 035-0015.dwg							

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SEC. THRU ABUT.

(Dimensions at Rt. L's)

BILL OF MATERIAL

(West Abutment)

Bar	No.	Size	Length	Shape
h(E)	68	#7	12'-6"	
h1(E)	4	#5	4'-6"	
h2(E)	4	#5	8'-0"	
h3(E)	4	#5	11'-5"	
p(E)	12	#7	16'-3"	
p1(E)	12	#7	19'-1"	
s2(E)	35	#5	13'-7"	
s3(E)	4	#5	13'-9"	
s4(E)	24	#5	6'-6"	
u(E)	10	#6	7'-11"	
v1(E)	72	#5	4'-4"	
v2(E)	7	#5	12'-4"	
v3(E)	7	#5	14'-9"	
v4(E)	6	#5	7'-8"	
v5(E)	6	#5	8'-11"	
Structure Excavation	Cu. Yd.	135		
Concrete Structures	Cu. Yd.	22.5		
Reinforcement Bars, Epoxy Coated	Pound	4170		
Furnishing Steel Piles HP12x63	Foot	162		
Driving Piles	Foot	162		
Pile Shoes	Each	6		
Concrete Encasement	Cu. Yd.	2.1		
Anchor Bolts, 1"	Each	12		

For details of Bar Splicers, see sheet 13 of 18.
For details of Piles and Concrete Encasement, see sheet 14 of 18.
For details of Integral Abutment Bearing, see sheet 9 of 18.
For drainage details, see Section Thru Integral Abutment on sheet 2 of 18.

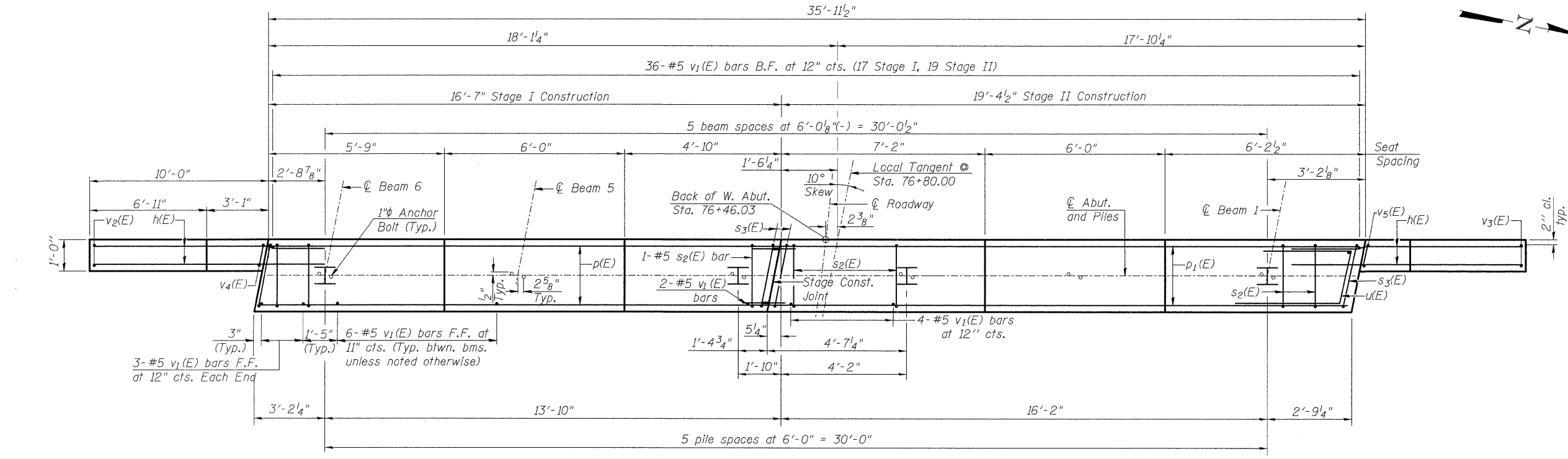
WEST ABUTMENT
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

Notes:
Four steps monolithically with cap.
Space reinforcement in cap to miss Anchor Bolts.

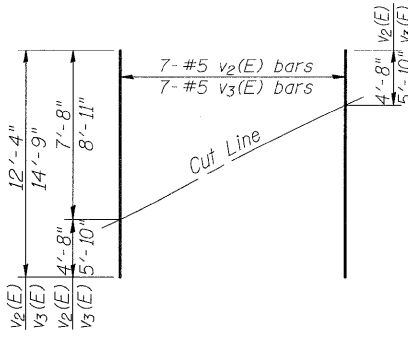
PILE DATA

Type: Steel HP12x63 with Pile shoes
Nominal Required Bearing: 497 kips
Factored Resistance Available: 249 kips
Est. Length: 27'
No. Production Piles: 6

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 10 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		885	5B-1	Hardin	48	23
		S.N. 035-0015		CONTRACT NO. 98949		
Designed By: ESH	Checked By: MTH	FED. ROAD DIST. NO. _ ILLINOIS		FED. AID PROJECT		
Draft: 5/2008	File: 035-0015.dgn					

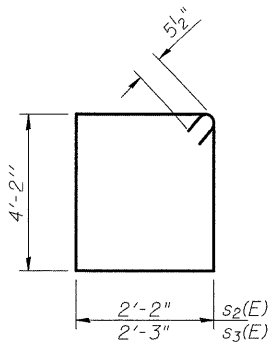


PLAN

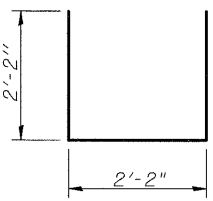


FIELD CUTTING DIAGRAM

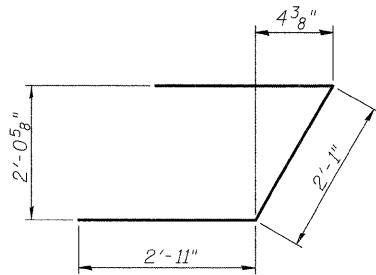
Order v2(E) and v3(E) full length. Cut as shown and use remainder of bars in opposite face.



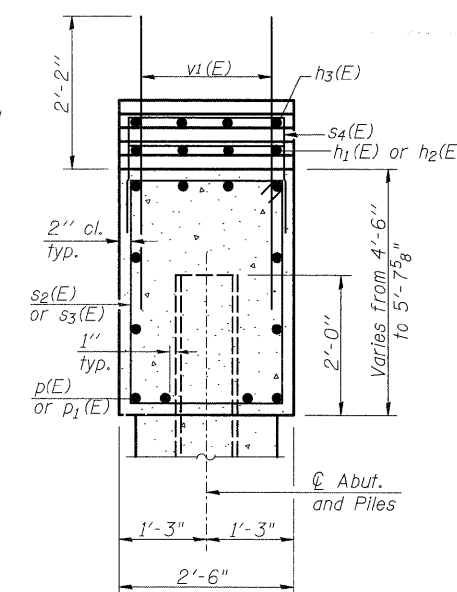
BARS s2(E) & s3(E)



BARS s4(E)



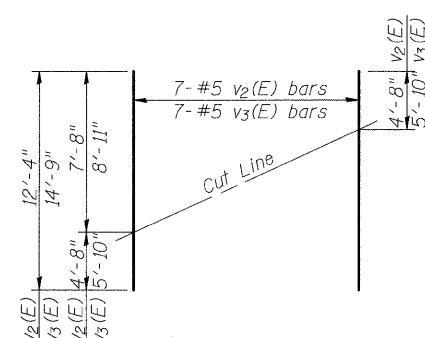
BAR u(E)

[illegible]

SEC. THRU ABUT.
(Dimensions at Rt. L's)

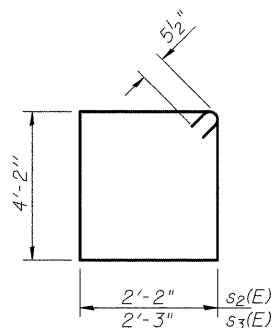
[illegible]

PLAN

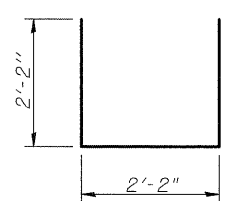


FIELD CUTTING DIAGRAM

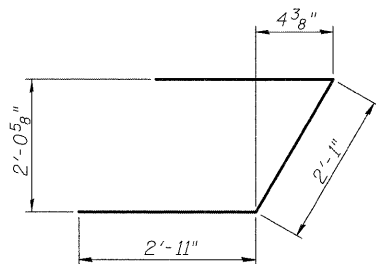
Order $v_2(E)$ and $v_3(E)$ full length. Cut as shown and use remainder of bars in opposite face.



BARS $s_2(E)$ & $s_3(E)$



$BARS \ s_4(E)$


$$BAR \ u(E)$$

Notes:
Pour steps monolithically with cap.
Space reinforcement in cap to miss Anchor Bolts.

PILE DATA

Type: Steel HP12x63 with Pile Shoes
Nominal Required Bearing: 497 kips
Factored Resistance Available: 249 kips
Est. Length: 32'
No. Production Piles: 6

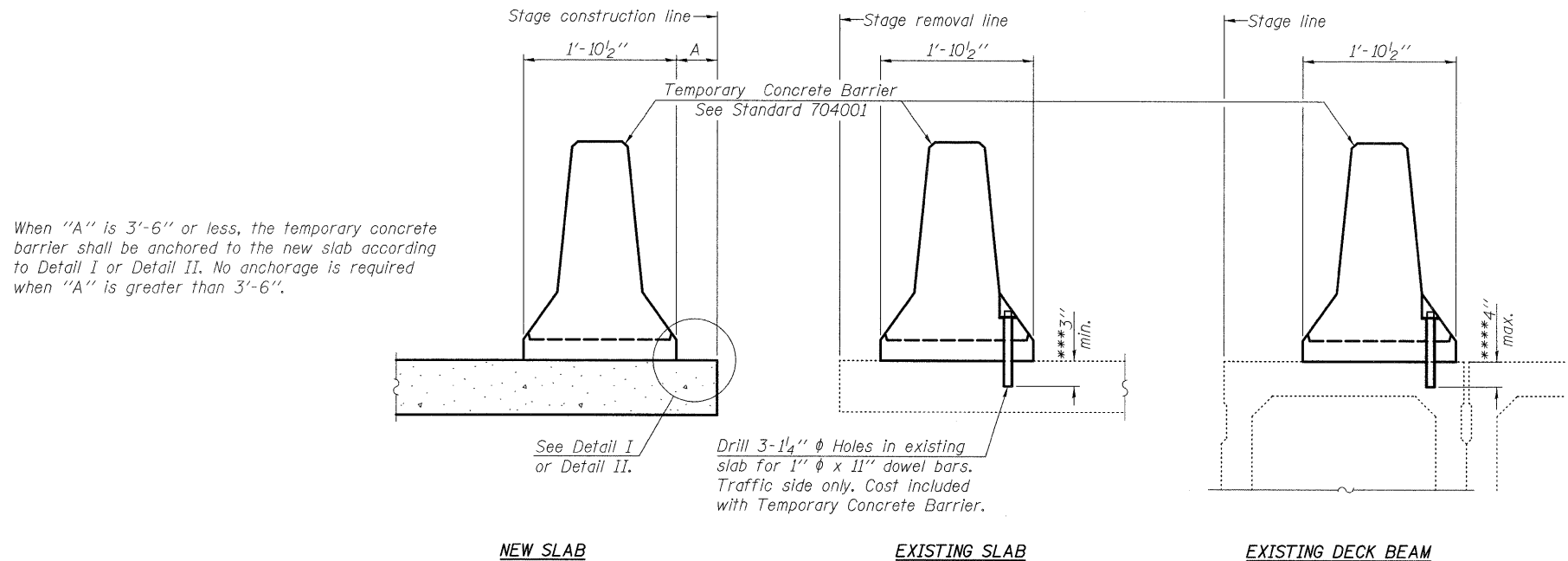
Bar	No.	Size	Length	Shape
$h(E)$	68	#7	12'-6"	_____
$h_1(E)$	4	#5	4'-6"	_____
$h_2(E)$	4	#5	8'-0"	_____
$h_3(E)$	4	#5	11'-5"	_____
$p(E)$	12	#7	16'-3"	_____
$p_1(E)$	12	#7	19'-1"	_____
$s_2(E)$	35	#5	13'-7"	☒
$s_3(E)$	4	#5	13'-9"	☒
$s_4(E)$	24	#5	6'-6"	☐
$u(E)$	10	#6	7'-11"	☒
$v_1(E)$	72	#5	4'-4"	_____
$v_2(E)$	7	#5	12'-4"	_____
$v_3(E)$	7	#5	14'-9"	_____
$v_4(E)$	6	#5	7'-8"	_____
$v_5(E)$	6	#5	8'-11"	_____
Structure Excavation			Cu. Yd.	135
Concrete Structures			Cu. Yd.	22.5
Reinforcement Bars, Epoxy Coated			Pound	4170
Furnishing Steel Piles HPI2x63			Foot	192
Driving Piles			Foot	192
Pile Shoes			Each	6
Concrete Encasement			Cu. Yd.	2.1
Anchor Bolts, 1"			Each	12

For details of Bar Splicers, see sheet 13 of 18.
 For details of Piles and Concrete Encasement,
 see sheet 14 of 18.
 For details of Integral Abutment Bearing, see
 sheet 9 of 18.
 For drainage details, see Section Thru Integral
 Abutment on sheet 2 of 18.

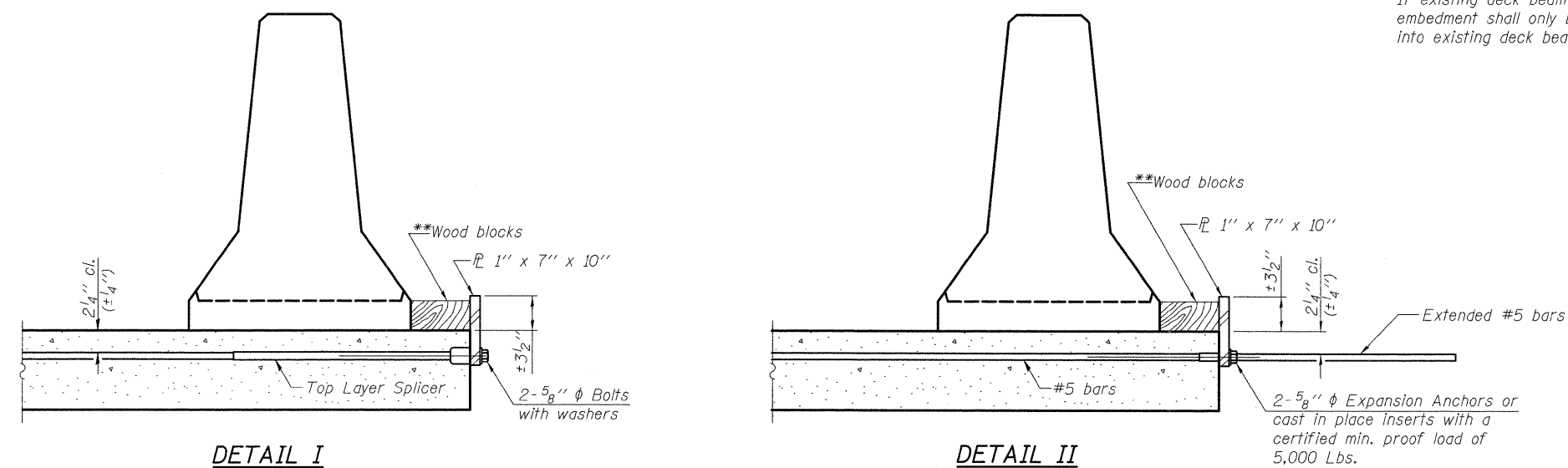
EAST ABUTMENT
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 11 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		885	5B-1	Hardin	48	24
		S.N. 035-0015			CONTRACT NO. 98949	
		FED. ROAD DIST. NO. _ ILLINOIS		FED. AID PROJECT		
Designed By: ESH Date: 8/2008	Checked By: MTH File: 035-0015.dgn	Drawn By: ESH				

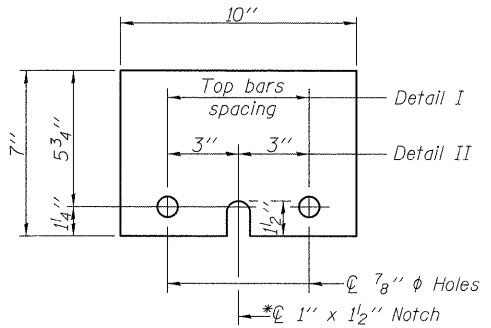
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTIONS THRU SLAB OR DECK BEAM



***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.



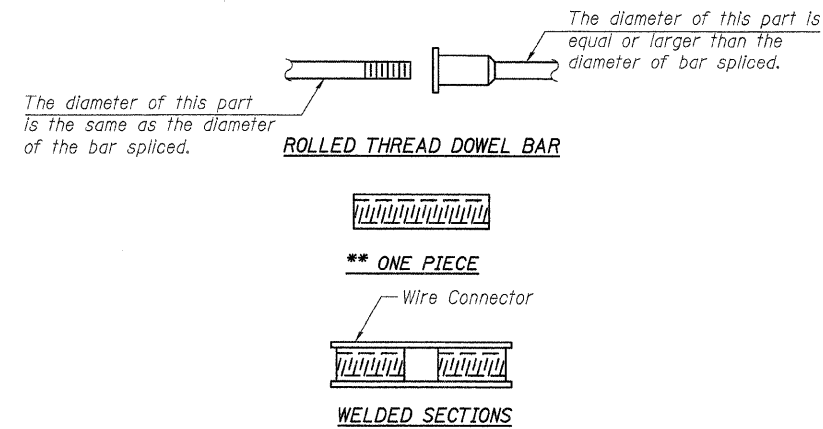
STEEL RETAINER PLATE 1" x 7" x 10"
*Required only with Detail II

**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.

TEMPORARY
CONCRETE BARRIER
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

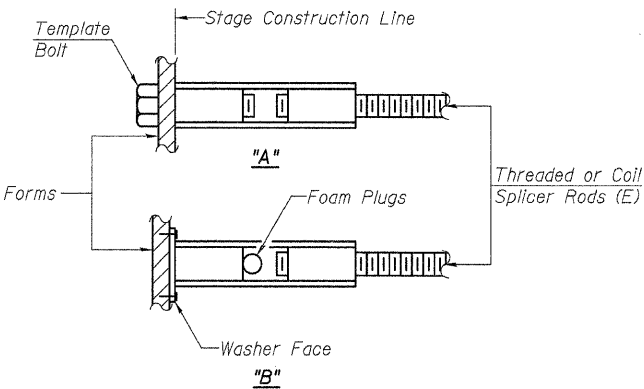
 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois Designed By: ESH Checked By: MTH Drawn By: ESH Date: 8/2008 File: 035-0015.dgn	SHEET NO. 12 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		885	5B-1	Hardin	48	25
		S.N. 035-0015			CONTRACT NO. 98949	
		FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



BAR SPLICER ASSEMBLY ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

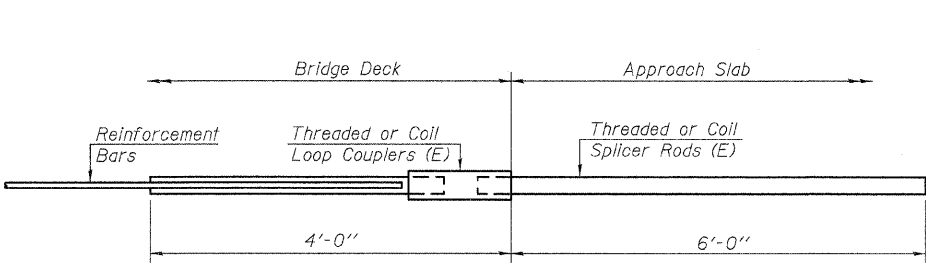
"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
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 reinforcement bars.
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 assembly satisfies the following requirements:

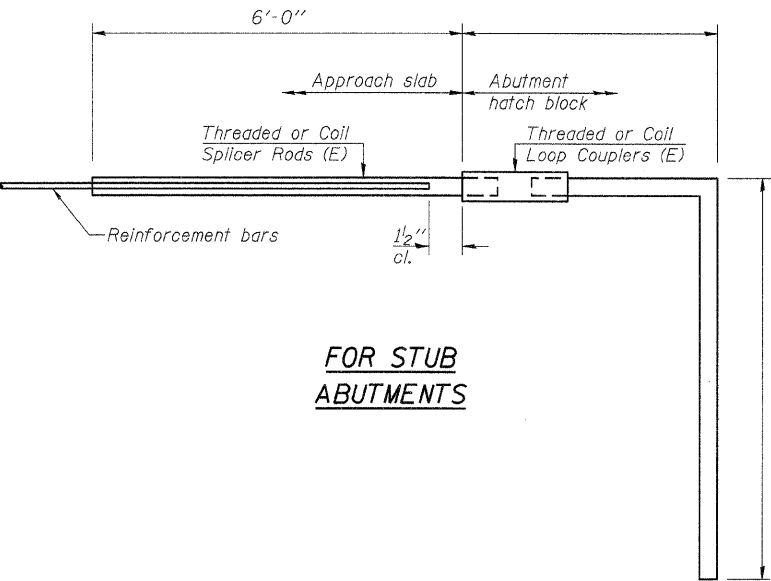
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-2"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8



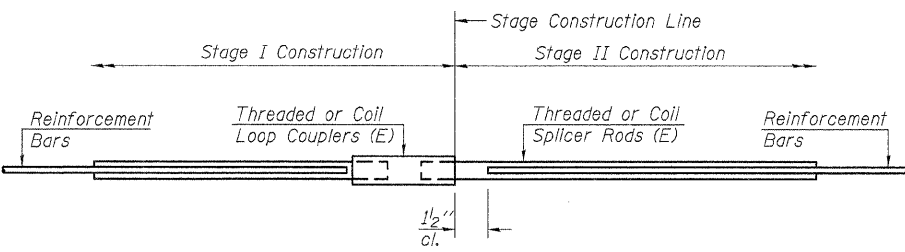
FOR INTEGRAL OR
SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required = 66



FOR STUB
ABUTMENTS

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



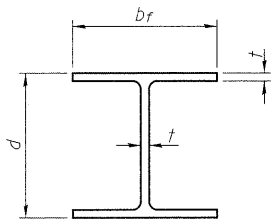
STANDARD

Bar Size	No. Assemblies Required	Location
#5	203	Deck
#5	8	Abutments
#7	24	Abutments
#6	16	Diaphragms

BAR SPLICER
ASSEMBLY DETAILS
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

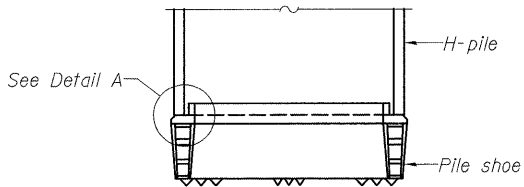
 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 13		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	18 SHEETS		885	5B-1	Hardin	48	26	
			S.N. 035-0015		CONTRACT NO. 98949			
			FED. ROAD DIST. NO. _		ILLINOIS		FED. AID PROJECT	
Designed By: ESH Date: 8/2008		Checked By: MTH File: 035-0015.dgn	Drawn By: ESH					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

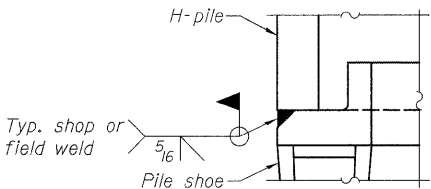


STEEL PILE TABLE

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

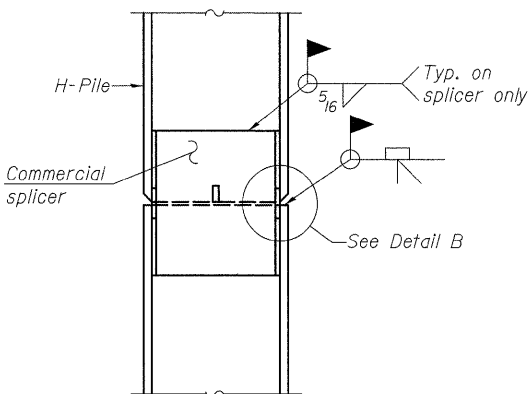


ELEVATION

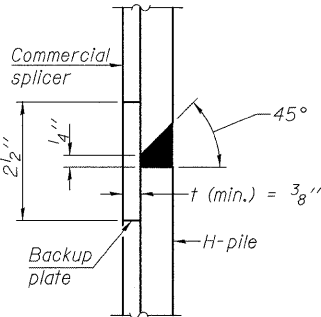


DETAIL A

H-PILE SHOE ATTACHMENT

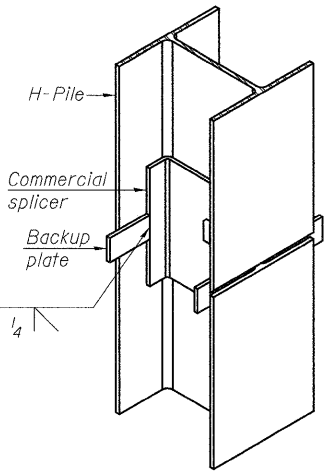


ELEVATION

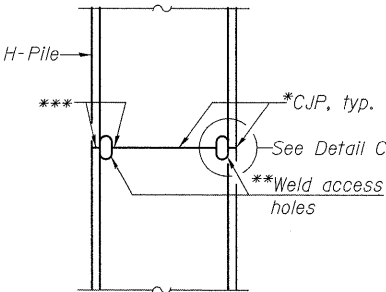


DETAIL "B"

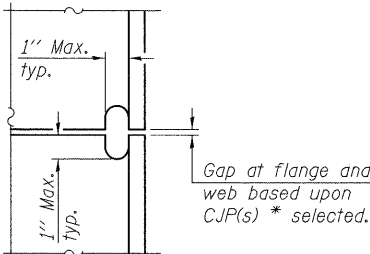
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

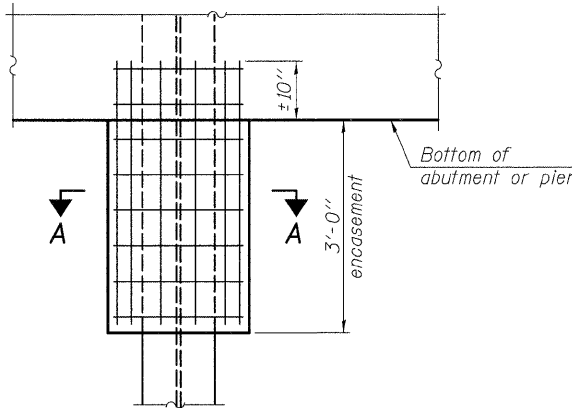


ELEVATION



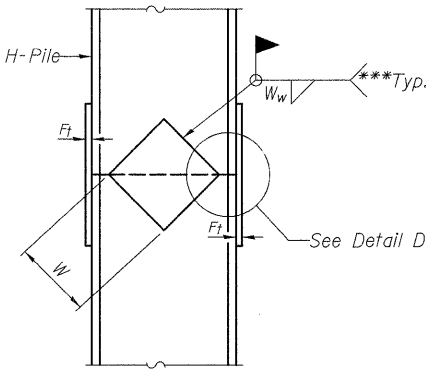
DETAIL C

COMPLETE PENETRATION WELD SPLICE

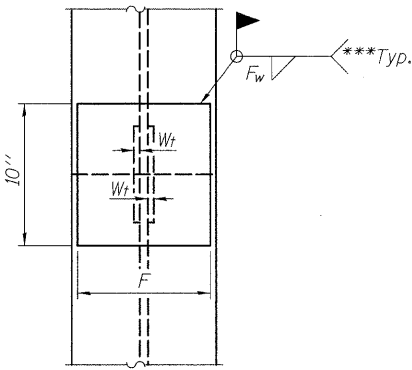


ELEVATION

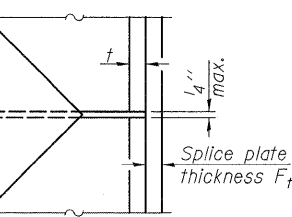
PILE ENCASEMENT



ELEVATION

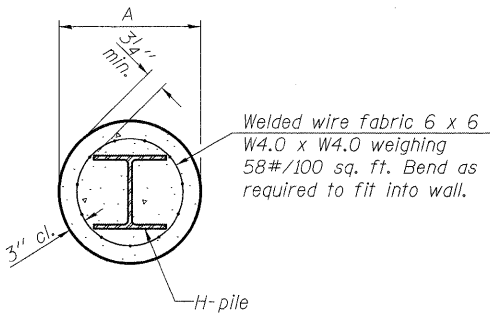


END VIEW



DETAIL D

WELDED PLATE FIELD SPLICE



SECTION A-A

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

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

STEEL PILE DETAILS
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

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

*Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code-Steel.

**Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code-Steel.

***Interrupt welds 1/4" from end of each pile.

LE LIN ENGINEERING, LTD.
Consulting Engineers
Chatham, Illinois

SHEET NO. 14

18 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	5B-1	Hardin	48	27
S.N. 035-0015				
CONTRACT NO. 98949				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION										Bridge Foundation	
District Nine Materials										Boring Log	
FAP 385 (IL 24/145) Over Three Mile Creek										Sheet 1 of 2	
Route: FAP 085 (IL 34/ Structure Number: 035-0009										Date: 11/27/2003	
Section 5E-DR-1										Bored By: Bryan Kailer	
County: Hardin										Checked By: Ron Graeff	
Location: 1.5 MI. S. IL 145											
Boring No 1-3	D	B			Surf Wat Elev: 372.8	D	B				
Station 75+12	E	L			Ground Water Elevation	E	L				
Offset 10' LP CL	P	O			when Drilling 364	P	O				
Ground Surface 367.5 ft	T	W	Qu	W%	At Completion	T	W	Qu	W%		
	H	S	tsf		At: Hrs:	H	S	tsf			
Discontinuous Pavement over Concrete											
								4	0.4B	40	
								4			
365.5											
Stiff, moist, brown Silty Clay		5						1			
Loam A-6 with Gravel		6	1.7B	16				4	0.3B	30	
		5						3			
363.0											
Stiff, moist, brown Clay to Silty Clay A7-6 with Gravel	5.0	2			Very soft, wet, brown Clay to Silty Clay A7-6 with Gravel	30.0	1				
		4	1.2B	30				3	0.1B	38	
		3						7			
360.5											
Soft, very moist, brown, Silty Clay Loam A-6		3						1			
		1	0.4B	26				3	0.1E	82	
		1			Augers kicked out			3			
378.0											
Medium, very moist, brown, Silty Clay Loam A-6 with Sandy Gravel Layers	10.0	2			Loose, wet, brown, Sandy Gravel	35.0	3				
		3	0.9B	21				4		29	
		2			No Grain Size Sample			5			
						350.5					
		1			Very soft, wet, brown Clay to Silty Clay A7-6 with Gravel			1			
		3	0.9B	20				1	0.1B	63	
		2						1			
373.0											
Stiff, very moist, brown, Clay A7-6 with Sandy Gravel Layers	15.0	3				40.0	1				
		2	1.1B	44				WR	0.1E	83	
		3						WR			
370.5											
Medium, very moist, brown, Clay A7-6 with a Sandy Gravel Mixture		2									
		3	0.6B	39							
		6									
368.0						343.0					
Soft, very moist, gray, Clay A7-6 with Gravel	20.0	1			Soft, very moist, brown Silty Clay Loam A-6	45.0	1				
		3	0.3B	65				WH	10.4	28	
		4						1			
365.5											
Soft, very moist to wet, brown, Clay A7-6 with some Gravel		2									
		6	0.3B	51							
		3									
						338.0					
25.0		1				50.0	WH				

Route: FAF 885 (IL 34/145)					Date: 1/21/2005				
Section: 5B-DA-1									
County: Hardin									
Boring No: 1-S	DEPTH	BLOWS	Qu tsf	W%		DEPTH	BLOWS	Qu tsf	W%
Station: 76+12									
Offset: 11' LE CS									
Ground Surface: 387.5 FT									
Very soft, wet, brown, Clay to Silty Clay A7-G with Gravel		WH	0.2B	26			WH	0.2B	46
		WH					WH		
333.0						308.0			
Soft, wet, brown, Clay A7-S with Gravel	55.0	WH			Very soft, wet, brown, Clay A7-6 with Gravel	80.0	WR		
		WH	0.4B	41			WR	0.1B	46
		WH					WR		
320.0						303.0			
Very soft, wet, brown, Clay A7-S	60.0	WR			Augers kicked out @ 85'	85.0			
		WH	0.2B	83	Bottom of hole = 85.0 ft.				
		WH							
					Free water observed at 14.5 ft.				
					Elevation referenced to Bk.				
					Existing W. Abut. Sta. 76+63				
					P.G. E. = 386.8 FT.				
65.0		WR			To convert 'N' values to 'N60' values multiply by 1.25.	80.0			
		WR	0.2B	41					
		WH							
70.0						95.0			
		WH	0.2B	54					
		WH							
75.0		WH				100.0			

SOIL BORINGS-1
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 15 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		885	5B-1	Hardin	48	28	
		S.N. 035-0015			CONTRACT NO. 98949		
		FED. ROAD DIST. NO. - ILLINOIS		FED. AID PROJECT			
Designed By: ESH	Checked By: MTH	Drawn By: ESH					
Date: 8/20/98	File: 035-0015.dwg						

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION										Bridge Foundation Boring Log			
District Nine Materials										Sheet 1 of 2			
FAP 885 (IL 34/146) Over Three Mile Creek										Date: 11/30/2009			
Route: FAP 885 (IL 34/146) Structure Number: 035-0009										Bored By: Bryan Keller			
Section 5B-DR-1										Checked By: Ron Graeff			
County: Hardin Location: 1.5 MI. E. IL 146													
Boring No: 2-3		D	B			Surf Wat Elev: 372.8		D	B				
Station: 77+38		E	L			Ground Water Elevation		E	L				
Offset: 8' RT CL		P	O			when Drilling 352		P	O				
Ground Surface 386.5 ft		T	W	Qu	W%	At Completion		T	W	Qu	W%		
		H	S	tsf		At: Hrs:		H	S	tsf	W%		
Dituminous Pavement over Concrete						Soft, very moist, brown Clay A7-6 with Gravel Layers			3	0.4B	47		
384.5						359.5							
Stiff, very moist, brown, Silty Clay A-5			2			Soft to medium, very moist brown to tan, Silty Clay Loam A-6 with Gravel Layers			3				
			3	1.7B	31				4	0.5P	24		
			4						7				
382.0						357.0							
Stiff, very moist, brown, Clay A7-6 with Gravel		5.0	1			Medium, very moist, brown, Clay A7-6 with some Gravel		30.0	1				
			3	1.2S	38				4	0.6S	55		
			4						2				
379.5													
Med Lm, very moist, brown, Silty Clay Loam A-6			1						1				
			1	0.8B	26				3	0.9B	40		
			1						2				
377.0													
Stiff, moist, grey mottled brown, Silty Clay Loam A-6		10.0	3					35.0	1				
			6	1.1B	21				1	0.7B	32		
			6						3				
374.5						349.5							
Dense, damp, brown, Sandy Gravel with Silty Clay Layers			7			Medium, wet, brown, Sandy Gravel with Clay Layers			3				
			22			10% Sand; 10% Silt			6		30		
			19			12% Clay 68% Gravel			7				
21% Sand; 14% Silt 5% Clay; 60% Gravel		372.0				347.0							
Stiff, moist, brown, Silty Clay to Clay A7-6 with some Gravel		15.0	2			Soft, very moist to wet, brown, Clay A7-6 with Gravel		40.0	1				
			6	1.5B	26				2	0.4B	53		
			8						3				
369.5													
Stiff, moist, brown, Clay A7-6 with Gravel			1			Boulders							
			6	1.1S	32								
			5										
						342.0							
		20.0	2			Very soft, wet, brown, Clay A7-6 with Gravel Layers and Boulders		45.0	3				
			4	1.5P	24				2	0.2B	50		
			7						8				
364.5													
Med Lm, very moist, brown, Clay A7-6 with some Gravel			1										
			4	0.8S	40								
			6										
362.0													
		25.0	5					50.0	2				

N-Std Penetr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fall, B-Bulge S-Shear E-Estimated P-Penetrometer)

ILLINOIS DEPARTMENT OF TRANSPORTATION										Bridge Foundation Boring Log			
District Nine Materials										Sheet 2 of 2			
FAP 885 (IL 34/146)										Date: 11/30/2009			
Route: FAP 885 (IL 34/146)													
Section: 5B-DR-1													
County: Hardin													
Boring No: 2-3		D	B			Surf Wat Elev: 372.8		D	B				
Station: 77+38		E	L			Ground Water Elevation		E	L				
Offset: 8' RT CL		P	O			when Drilling 352		P	O				
Ground Surface 386.5 ft		T	W	Qu	W%	At Completion		T	W	Qu	W%		
		H	S	tsf		At: Hrs:		H	S	tsf	W%		
Dituminous Pavement over Concrete						Soft, very moist, brown Clay A7-6 with Gravel Layers			3	0.4B	47		
384.5						359.5							
Stiff, very moist, brown, Silty Clay A-5			2			Soft to medium, very moist brown to tan, Silty Clay Loam A-6 with Gravel Layers			3				
			3	1.7B	31				4	0.5P	24		
			4						7				
382.0						357.0							
Stiff, very moist, brown, Clay A7-6 with Gravel		5.0	1			Medium, very moist, brown, Clay A7-6 with some Gravel		30.0	1				
			3	1.2S	38				4	0.6S	55		
			4						2				
379.5													
Med Lm, very moist, brown, Silty Clay Loam A-6			1						1				
			1	0.8B	26				3	0.9B	40		
			1						2				
377.0													
Stiff, moist, grey mottled brown, Silty Clay Loam A-6		10.0	3					35.0	1				
			6	1.1B	21				1	0.7B	32		
			6						3				
374.5						349.5							
Dense, damp, brown, Sandy Gravel with Silty Clay Layers			7			Medium, wet, brown, Sandy Gravel with Clay Layers			3				
			22			10% Sand; 10% Silt			6		30		
			19			12% Clay 68% Gravel			7				
21% Sand; 14% Silt 5% Clay; 60% Gravel		372.0				347.0							
Stiff, moist, brown, Silty Clay to Clay A7-6 with some Gravel		15.0	2			Soft, very moist to wet, brown, Clay A7-6 with Gravel		40.0	1				
			6	1.5B	26				2	0.4B	53		
			8						3				
369.5													
Stiff, moist, brown, Clay A7-6 with Gravel			1			Boulders							
			6	1.1S	32								
			5										
						342.0							
		20.0	2			Very soft, wet, brown, Clay A7-6 with Gravel Layers and Boulders		45.0	3				
			4	1.5P	24				2	0.2B	50		
			7						8				
364.5													
Med Lm, very moist, brown, Clay A7-6 with some Gravel			1										
			4	0.8S	40								
			6										
362.0													
		25.0	5					50.0	2				

N-Std Penetr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fall, B-Bulge S-Shear E-Estimated P-Penetrometer)

SOIL BORINGS-2
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 16 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		885	5B-1	Hardin	48	29
		S.N. 035-0015		CONTRACT NO. 98949		
Designed By: ESH Date: 8/2008		Checked By: MTH File: 035-0015.dgn	Drawn By: ESH	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

[illegible]

Sheet 2 of 2
 Date: 12/1/2005
 Project: DAP 885 (IL 34/145)
 Section: 50-DR-1
 County: Hardin

Depth (ft)	Soil Type	Moisture (%)	Temperature (°F)	Notes
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				
41				
42				
43				
44				
45				
46				
47				
48				
49				
50				
51				
52				
53				
54				
55				
56				
57				
58				
59				
60				
61				
62				
63				
64				
65				
66				
67				
68				
69				
70				
71				
72				
73				
74				
75				
76				
77				
78				
79				
80				
81				
82				
83				
84				
85				
86				
87				
88				
89				
90				
91				
92				
93				
94				
95				
96				
97				
98				
99				
100				

SOIL BORINGS-3
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

 LIN ENGINEERING, L.T.D. Consulting Engineers Chatham, Illinois	SHEET NO. 17 18 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		885	5B-1	Hardin	48	30
		S.N. 035-0015			CONTRACT NO. 98949	
Designed By ESH	Checked By MTH	FED. ROAD DIST. NO. - ILLINOIS				
Date: 8/2008	File: 035-0015.dgn	FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS DEPARTMENT OF TRANSPORTATION District Nine Materials					Bridge Foundation Boring Log				
FAD 885 (IL 34/146) Over Three Mile Creek					Sheet 1 of 1				
Route: FAD 885 (IL 34/ Structure Number: 035-0009					Date: 12/13/2007				
Section 5B-DR-1					Bored By: R Moberly				
County: Hardin Location: 1.5 Mi. East of IL 146					Checked By: R Moberly				
Boring No 4-S	D	B			Surf Wat Elev: 373.5	D	B		
Station 76+46	E	L			Ground Water Elevation	P	L		
Offset 6' R of CL	T	O	Qu		when Drilling	H	O	Qu	
Ground Surface 386.4 ft	H	W	tsf	W%	At Completion	T	W	tsf	W%
Augered to refusal without sampling to confirm depth to bedrock. See Boring No. 1-S and 2-S drilled November 2005 for soil data.									
5.0					30.0				
10.0					35.0				
15.0					40.0				
20.0					45.0				
25.0					50.0				
Refusal at 32.0 feet 354.4									
Hard dry, grey Limestone Cored 32.0 to 42.0 feet 100% Recovery 97% RQD									
344.4									
Bottom of hole = 42.0 feet									
Elevation referenced to Back of Exst West Abut. Sta. 76+83 P.G. Elev = 386.8 feet									

N-Std Penetr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

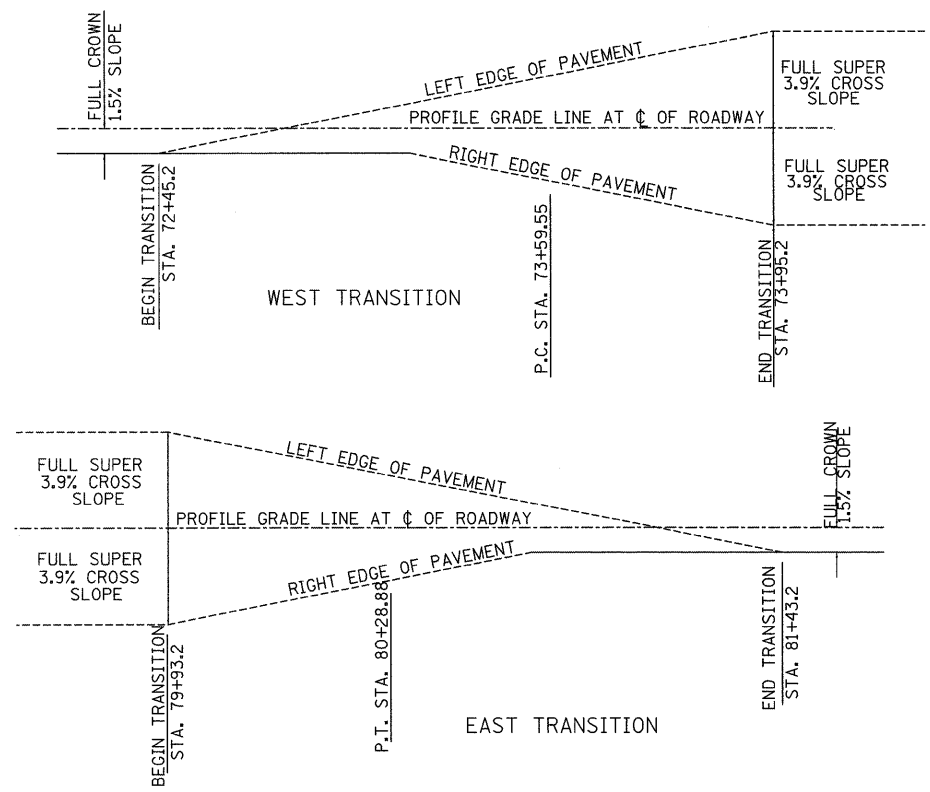
ILLINOIS DEPARTMENT OF TRANSPORTATION District Nine Materials					Bridge Foundation Boring Log				
FAD 885 (IL 34/146) Over Three Mile Creek					Sheet 1 of 1				
Route: FAD 885 (IL 34/ Structure Number: 035-0009					Date: 12/17/2007				
Section 5B-DR-1					Bored By: R Moberly				
County: Hardin Location: 1.5 Mi. East of IL 146					Checked By: R Moberly				
Boring No 5-S	D	B			Surf Wat Elev: 373.5	D	B		
Station 77+14	E	L			Ground Water Elevation	P	L		
Offset 8' L of CL	T	O	Qu		when Drilling	H	O	Qu	
Ground Surface 387.2 ft	H	W	tsf	W%	At Completion	T	W	tsf	W%
Augered to refusal without sampling to confirm depth to bedrock. See Boring No. 2-S drilled November 2005 for soil data.									
5.0					30.0				
10.0					35.0				
15.0					40.0				
20.0					45.0				
25.0					50.0				
Refusal at 37.0 feet 350.2									
Hard dry, grey Limestone Cored 37.0 to 45.0 feet 100% Recovery; 68% RQD									
341.2									
Bottom of hole = 42.0 feet									
Elevation referenced to Back of Exst West Abut. Sta. 76+83 P.G. Elev = 386.8 feet									

N-Std Penetr Test: 2" OD Sampler,
140# Hammer, 30" Fall (Type Fail. B-Bulge S-Shear E-Estimated P-Penetrometer)

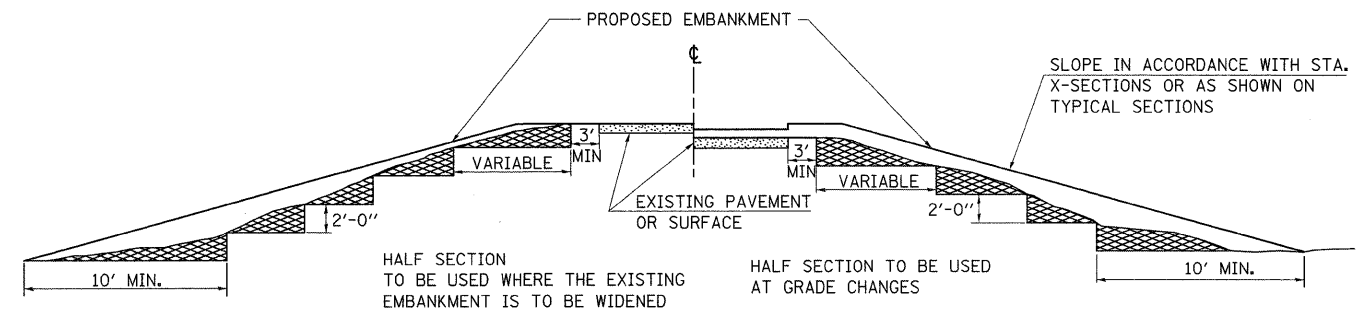
SOIL BORINGS-4
IL 34/146 OVER
THREE MILE CREEK
STATION 76+80.00

 LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	SHEET NO. 18	F.A.P. RTE. 885	SECTION 5B-1	COUNTY Hardin	TOTAL SHEETS 48	SHEET NO. 31
	18 SHEETS	S.N. 035-0015		CONTRACT NO. 98949		
	FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT			

SUPERELEVATION TRANSITION



TYPICAL CROSS SECTION SHOWING STEP CONSTRUCTION ON EXISTING FILL

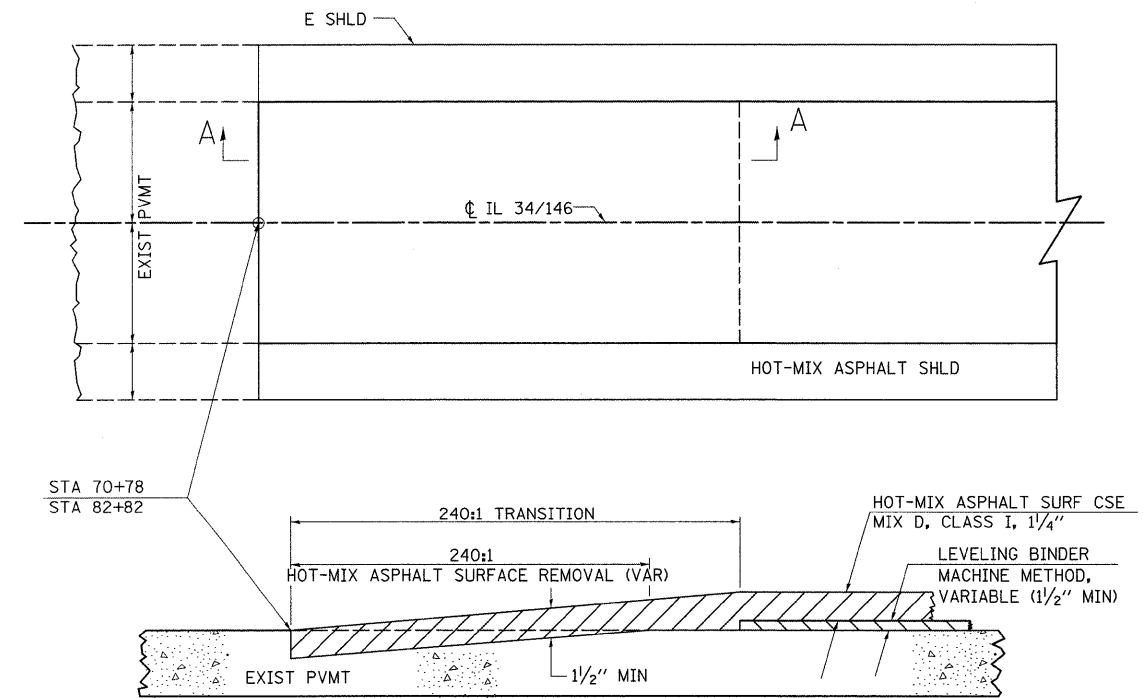


MATERIAL TO BE REMOVED AND REPLACED IN THE EMBANKMENT IN ACCORDANCE WITH ART. 205.04 OF THE STANDARD SPECIFICATION. COST TO BE INCLUDED IN THE VARIOUS ITEMS OF EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED BECAUSE OF THIS WORK.

REVISIONS	
REDRAWN	2-15-89
REVISED	8-15-94
CHECKED	6-3-99
REVISED	

STD. 9-16

BUTT JOINT

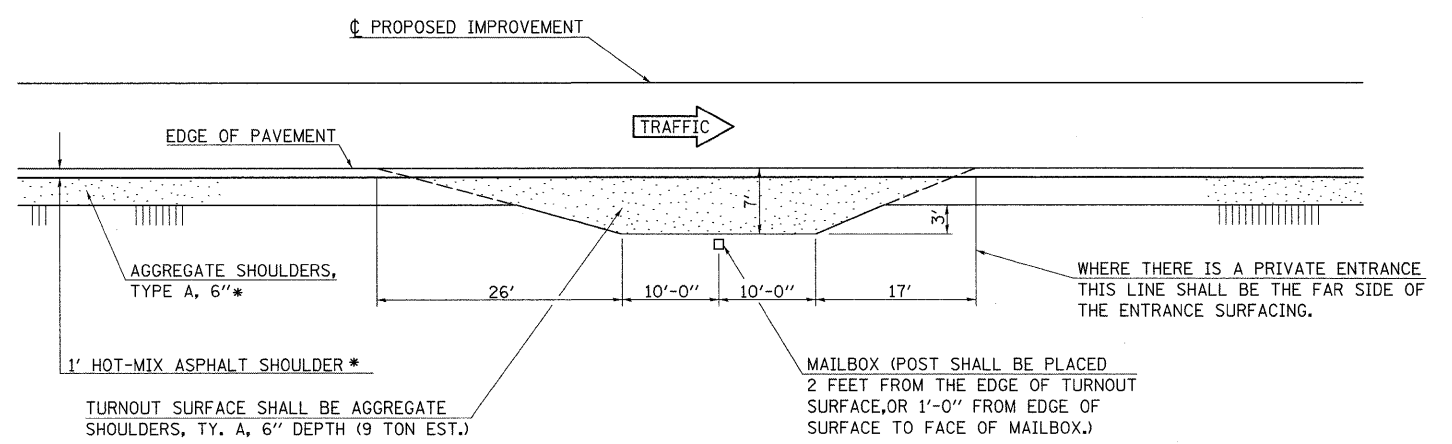


SECTION A-A

REVISIONS	
DRAWN	10-17-90
REVISED	01-11-07
REVISED	
REVISED	

STD. 9-86

MAILBOX TURNOUT



NOTE:

WHERE THERE IS MORE THAN ONE MAILBOX IN A GROUP, THE 10 FOOT DIM. SHALL BE MEASURED FROM THE FIRST AND LAST MAILBOX.

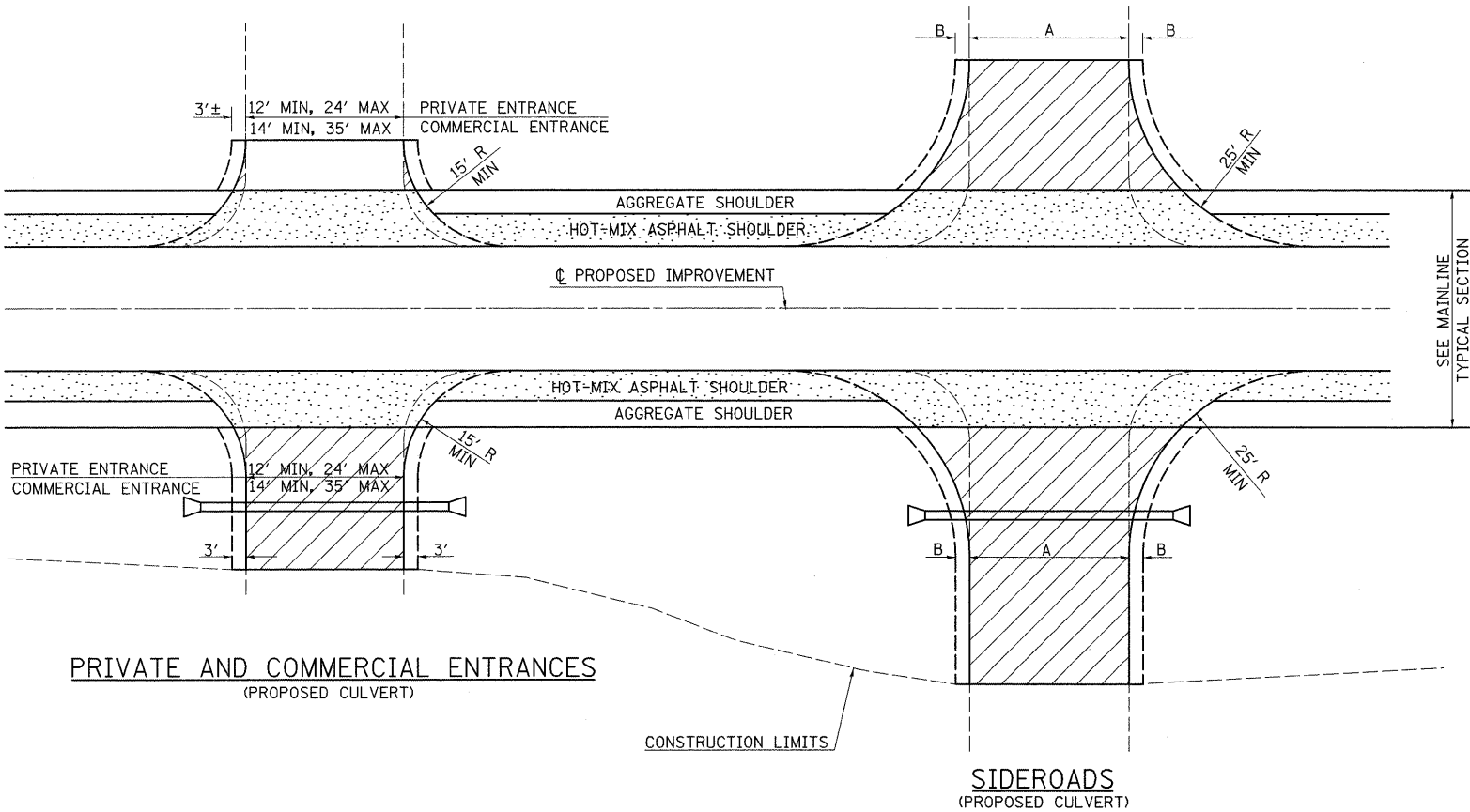
* IF APPLICABLE

REVISIONS	
REDRAWN	2-15-89
REVISED	01-10-07
REVISED	
REVISED	

STD. 9-15

RURAL SIDE APPROACH DETAILS

PRIVATE AND COMMERCIAL ENTRANCES



SIDEROAD DIMENSIONS (MIN.)

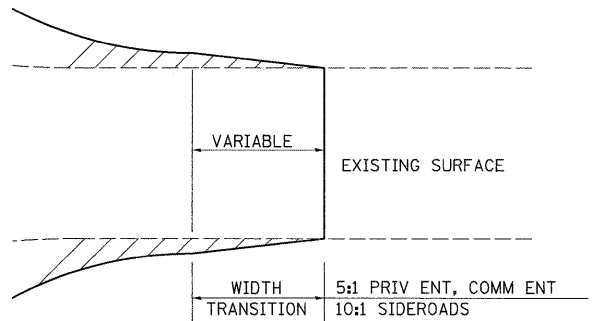
ADT	A (FT)	B (FT)
0 TO 250	18'	2'
250 TO 400	20'	2'
GREATER THAN 400	22'	4'

FIELD ENTRANCE TREATMENT

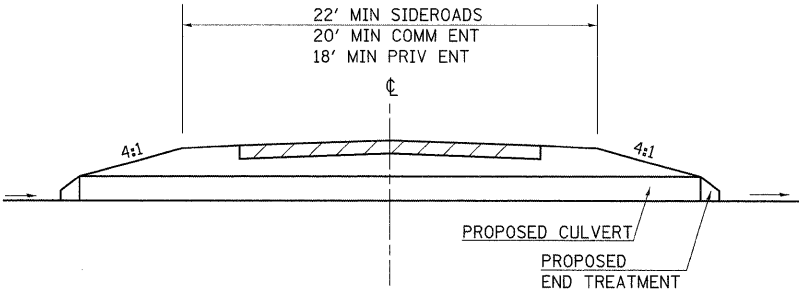
CONSTRUCT MAINLINE HOT-MIX ASPHALT AND AGGREGATE SHOULDERS THROUGH FIELD ENTRANCES.

IF A PIPE IS REQUIRED, PROVIDE A 22' WIDE EARTH EMBANKMENT WITH 15' RADII AT THE INTERSECTION.

WIDTH TRANSITION DETAIL TO EXISTING
(IF APPLICABLE)



DETAIL FOR CALCULATING CULVERT LENGTH



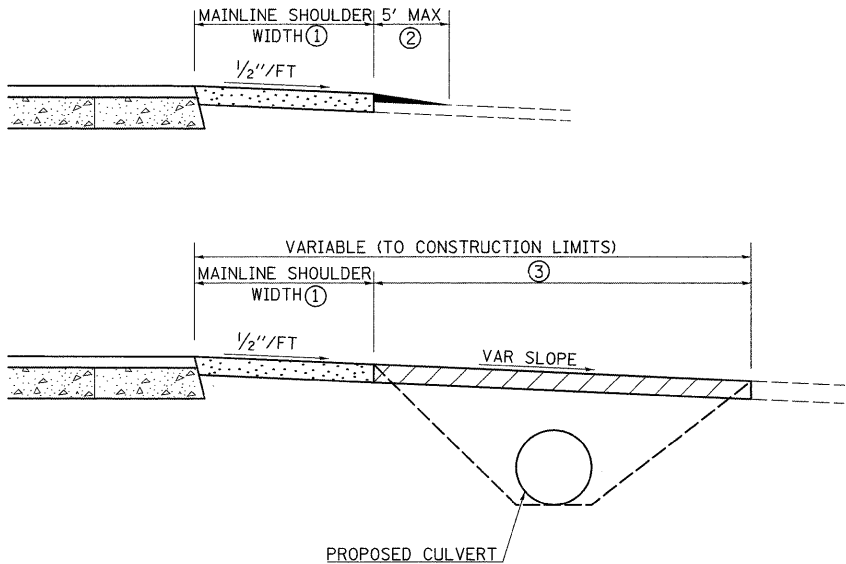
LEGEND

1. CONSTRUCT HOT-MIX ASPHALT SHOULDER "FULL SHOULDER WIDTH" THROUGH ENTRANCE/INTERSECTION UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
2. IF REQUIRED, AGGREGATE TAPER FOR EXISTING GRAVEL SURFACE; HOT-MIX ASPHALT TAPER FOR EXISTING HIGHER TYPE SURFACES.
3. 6" AGGREGATE SURFACE COURSE FOR EXISTING GRAVEL SURFACE; 2" HOT-MIX ASPHALT RESURFACING ON 4" AGGREGATE BASE COURSE FOR EXISTING HOT-MIX ASPHALT SURFACE; PCC DRIVEWAY PAVEMENT (6" - PE; 7" - CE) FOR EXISTING CONCRETE SURFACE.
4. 3" MINIMUM HOT-MIX ASPHALT RESURFACING ON 8" MINIMUM AGGREGATE BASE COURSE FOR EXISTING GRAVEL SURFACE OR OIL & CHIP SURFACE; MATCH EXISTING FOR EXISTING HIGHER TYPE SURFACES.

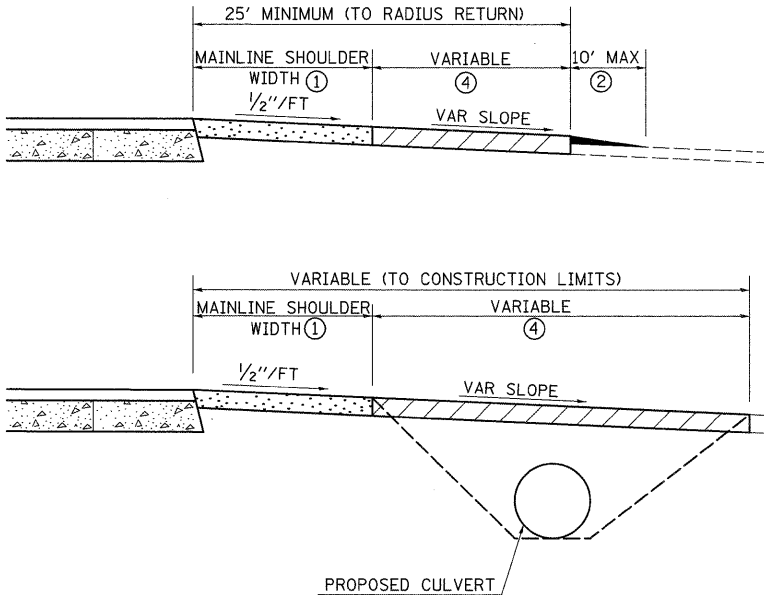
GENERAL NOTES

1. ENTRANCE LOCATIONS ARE TO COMPLY WITH IDOT'S POLICY "ACCESS TO STATE HIGHWAYS".
2. IN GENERAL, RELOCATED PRIVATE ENTRANCES ARE TO HAVE A 16' WIDE SURFACE WITH 3' WIDE SHOULDERS (22' WIDE EMBANKMENT).
3. SEE PLANS FOR PROPOSED PROFILE GRADES AT ENTRANCES/SIDEROADS. THE DESIRABLE MAXIMUM PROFILE GRADE FOR ENTRANCES ARE 12% FOR PE; 10% FOR CE.
4. ENTRANCE PIPE CULVERTS ARE TO BE A MINIMUM 15" DIAMETER AND NORMALLY REPLACED IN KIND; SIDEROAD PIPE CULVERTS ARE GENERALLY TO BE CONCRETE (18" MINIMUM DIAMETER).
5. THE INTERSECTION RADII OF SIDEROADS CONSTRUCTED TO FULL POLICY STANDARDS SHOULD COMPLY WITH THAT NOTED IN THE BUREAU OF LOCAL ROADS ADMINISTRATIVE POLICIES MANUAL (5-8-13).

PRIVATE AND COMMERCIAL ENTRANCES



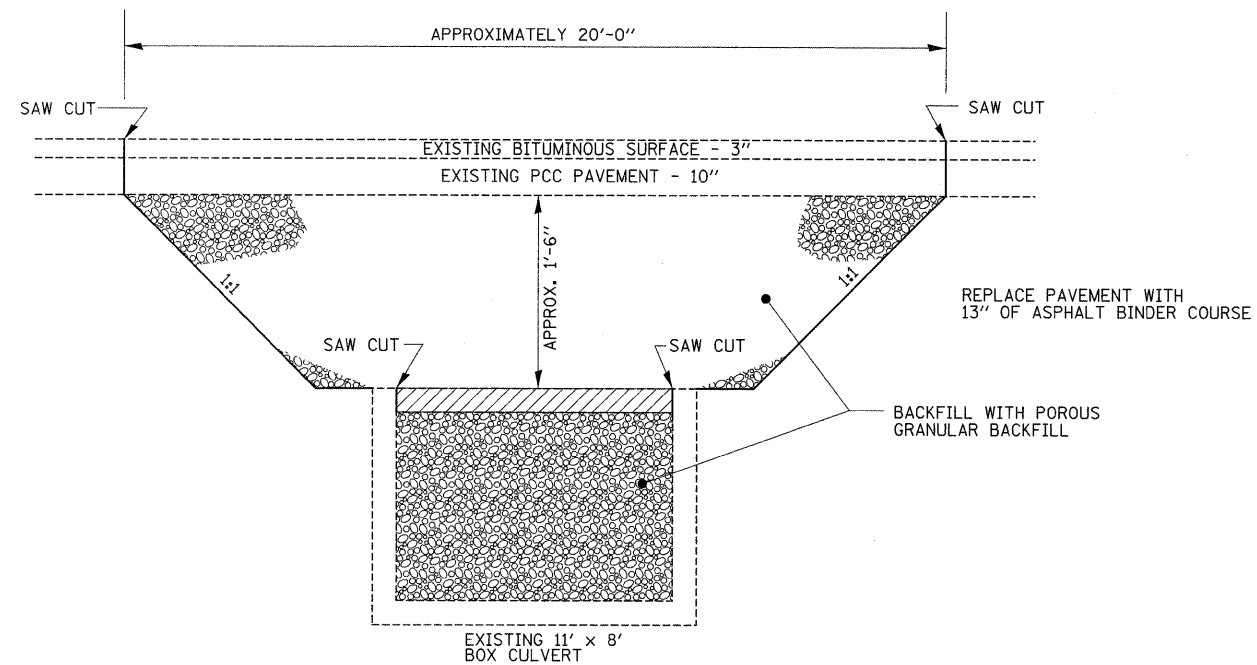
SIDEROADS



REVISIONS	
DRAWN	3-15-91
REVISED	10-02-91
REVISED	5-15-92
REVISED	1-20-00
REVISED	01-11-07

STD. 9-83

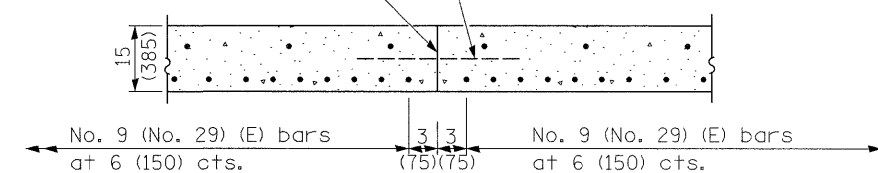
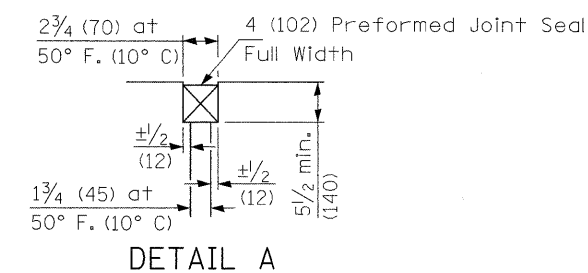
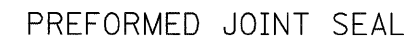
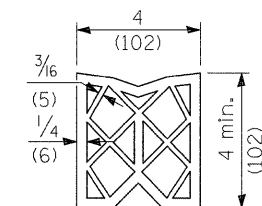
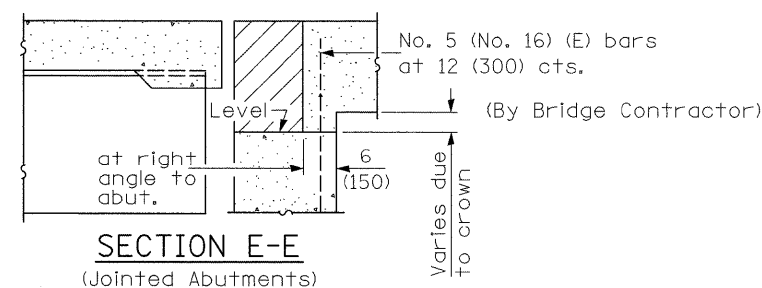
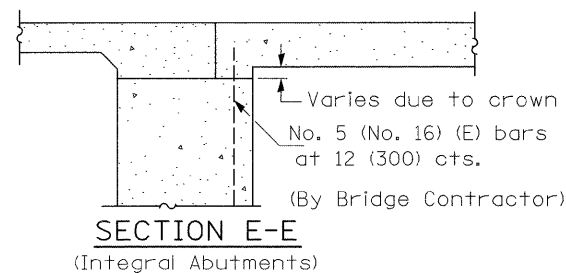
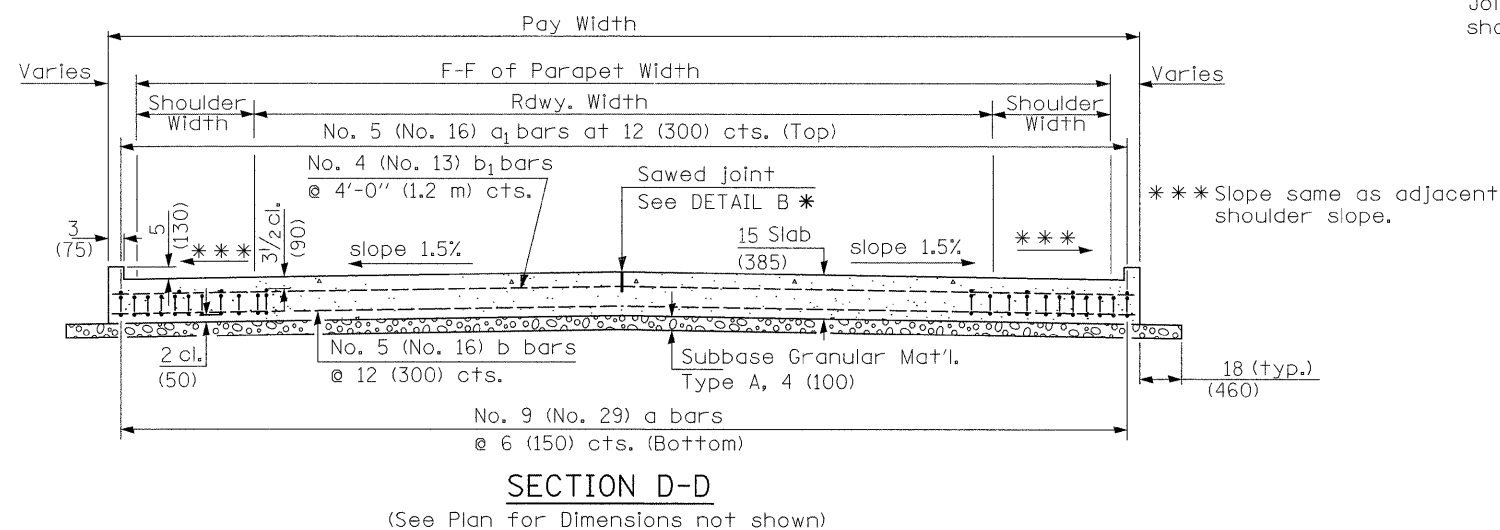
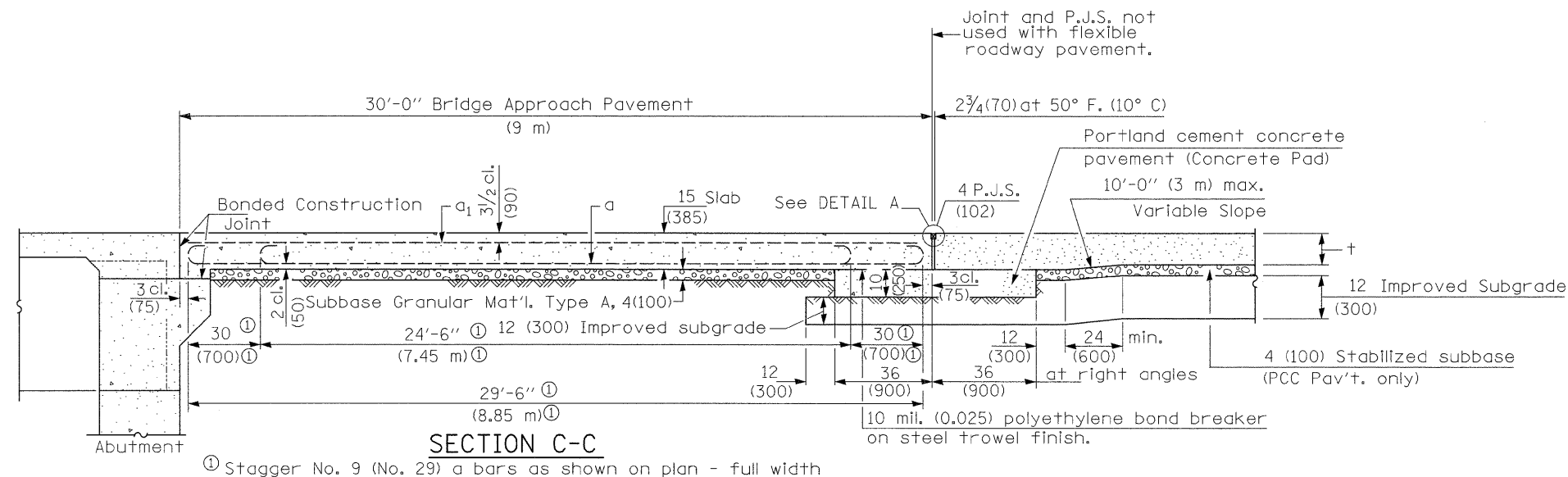
FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCALE: SHEET NO. OF SHEETS STA. TO STA.	F.A. RTE. 885	SECTION 5B-1	COUNTY HARDIN	TOTAL SHEETS 48	SHEET NO. 33	
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -			CONTRACT NO. 98949					
	PLOT DATE = \$DATE\$	DATE -	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



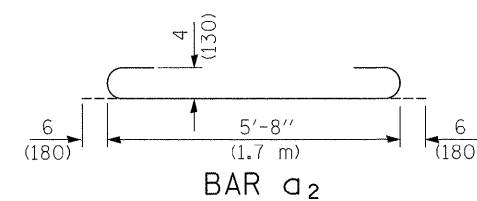
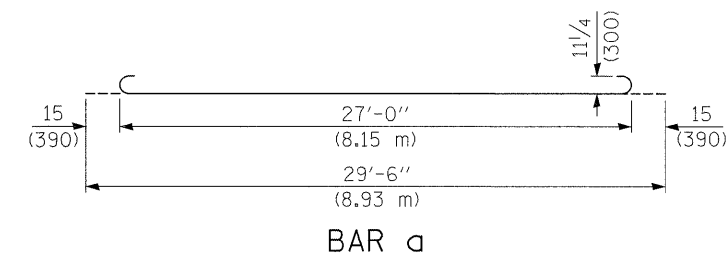
BOX CULVERT
TOP SLAB REMOVAL

- THIS WORK SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR REMOVE EXISTING BOX CULVERT SPECIAL
- POROUS GRANULAR BACKFILL SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CU YD OF POROUS GRANULAR BACKFILL

FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS IL 34 /146 OVER THREE MILE CREEK	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			885	5B-1	HARDIN	48	34
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -			CONTRACT NO. 98949				
	PLOT DATE = \$DATE\$	DATE -	REVISED -			SCALE:	SHEET NO.	OF	SHEETS	STA.
						FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

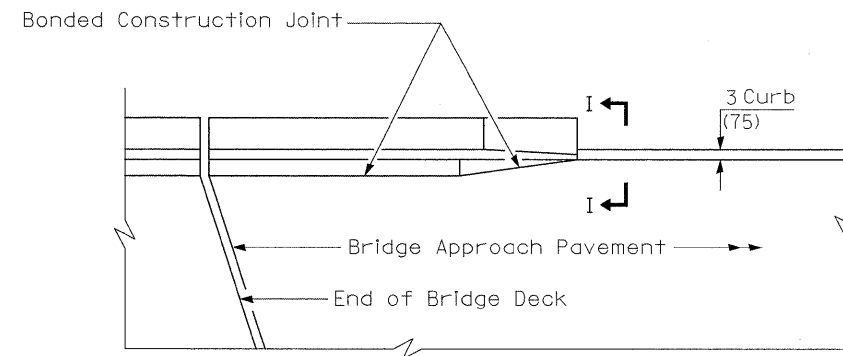


As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.

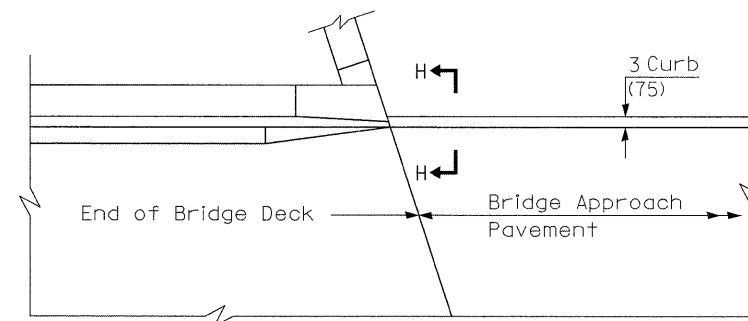


DESIGN STRESSES
 $f_y = 60,000$ p.s.i. (400 MPa)
 $f'_c = 3,500$ p.s.i. (24 MPa)
 $n = 8.5$

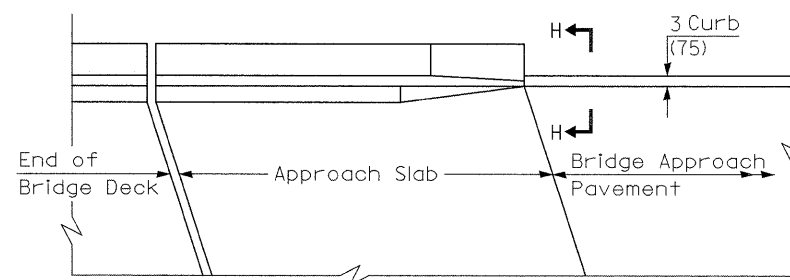
FILE NAME = \$FILEL\$	USER NAME = \$USER\$	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -		885	5B-1	HARDIN	48	36				
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -										
	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
				CONTRACT NO. 98949									



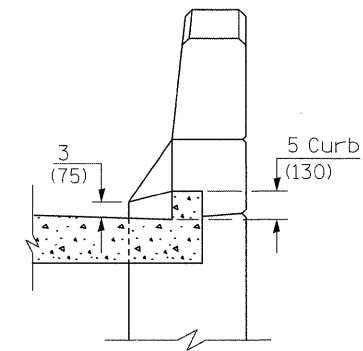
**PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT**



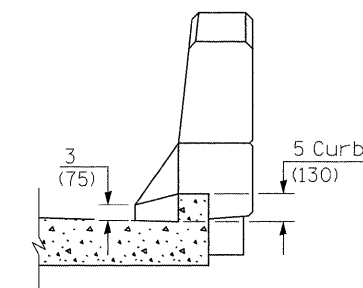
**PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT**



**PARAPET TO CURB TRANSITION
VAULTED ABUTMENT**



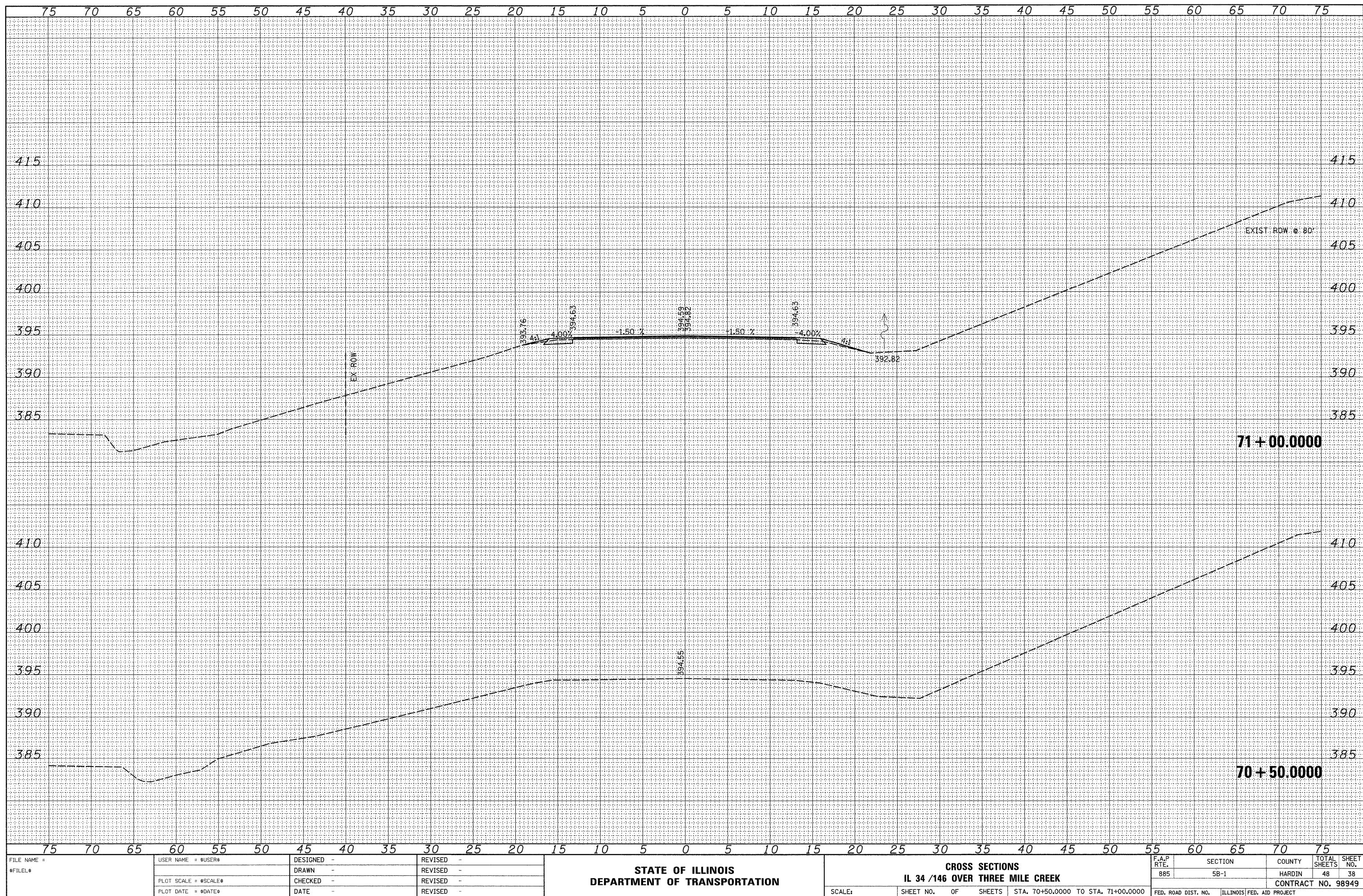
SECTION I - I



SECTION H - H

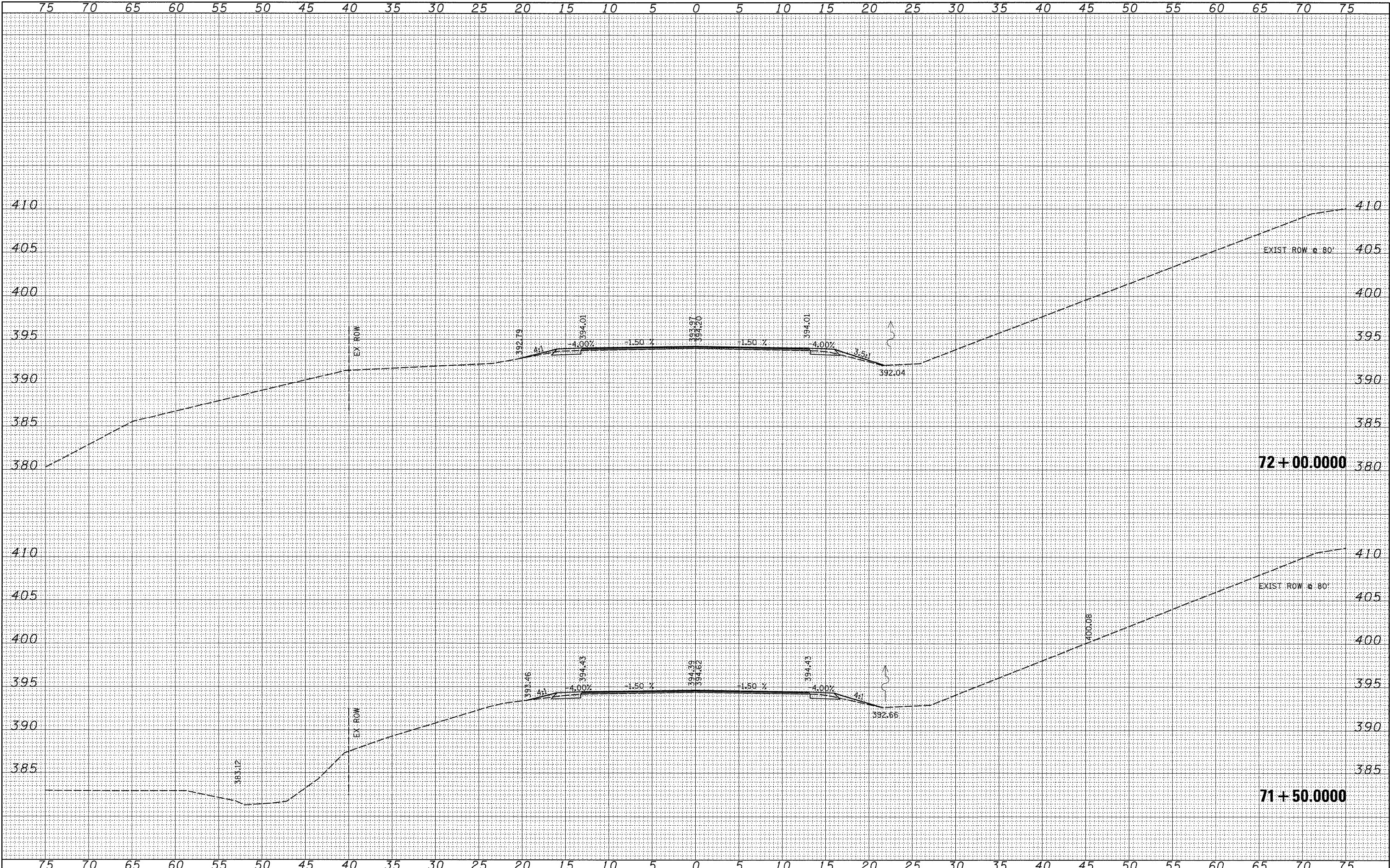
FILE NAME = #FILE#	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION					F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -						885	5B-1	HARDIN	48	37
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -						CONTRACT NO. 98949				
	PLOT DATE = #DATE#	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

ORIGINAL		BY	DATE
SURVEYED _____			
PLOTTED _____			
TEMPLATE _____			
AREAS _____			
NO.			



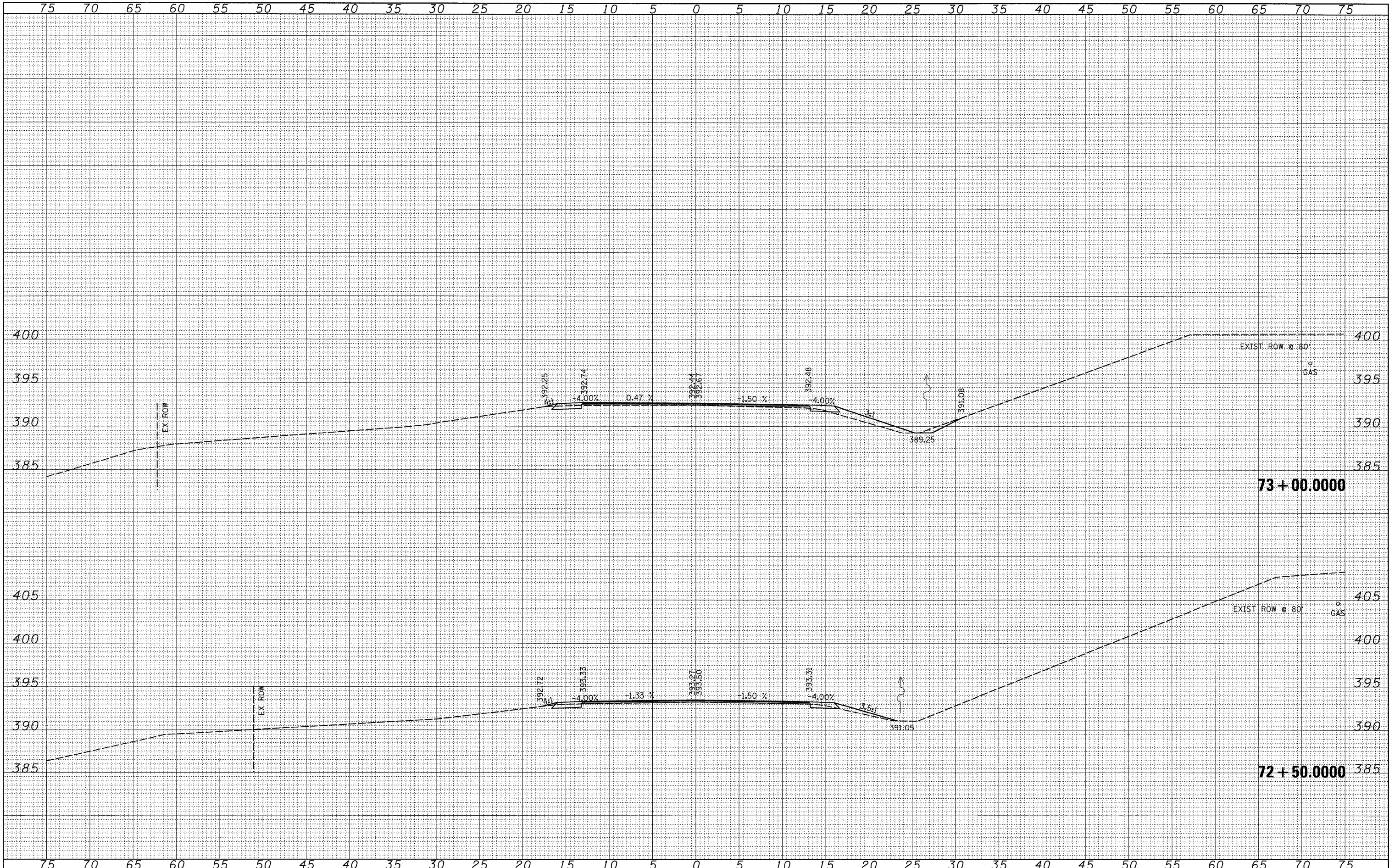
DATE	BY	FINL	SURVEYED	PLOTTED	TEMPLATE	NO.
		NO.	NO.	NO.	NO.	NO.

DATE	BY	ORIGINAL	SURVEYED	PLOTTED	TEMPLATE	NO.
		NO.	NO.	NO.	NO.	NO.



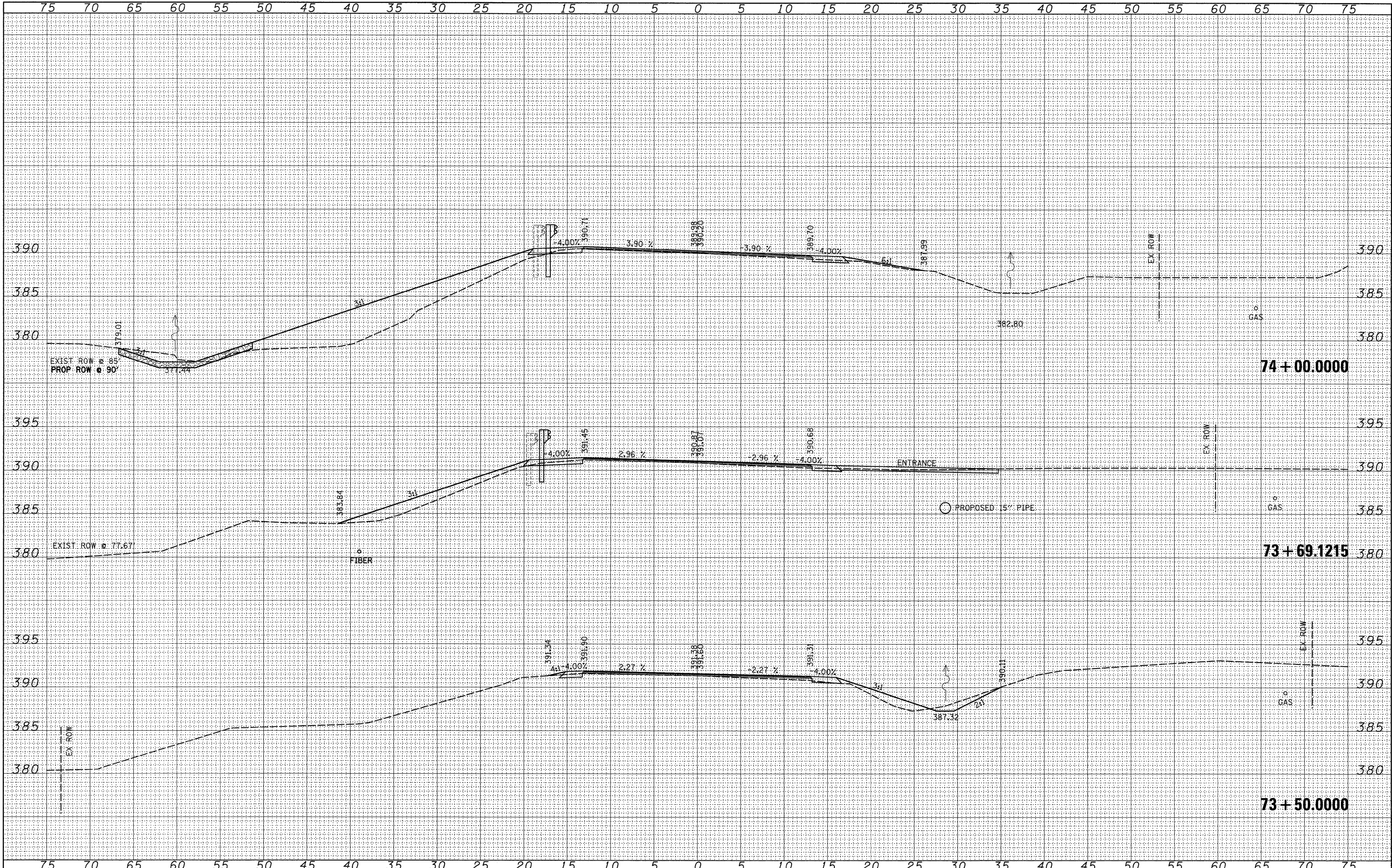
FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	CHECKED		

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



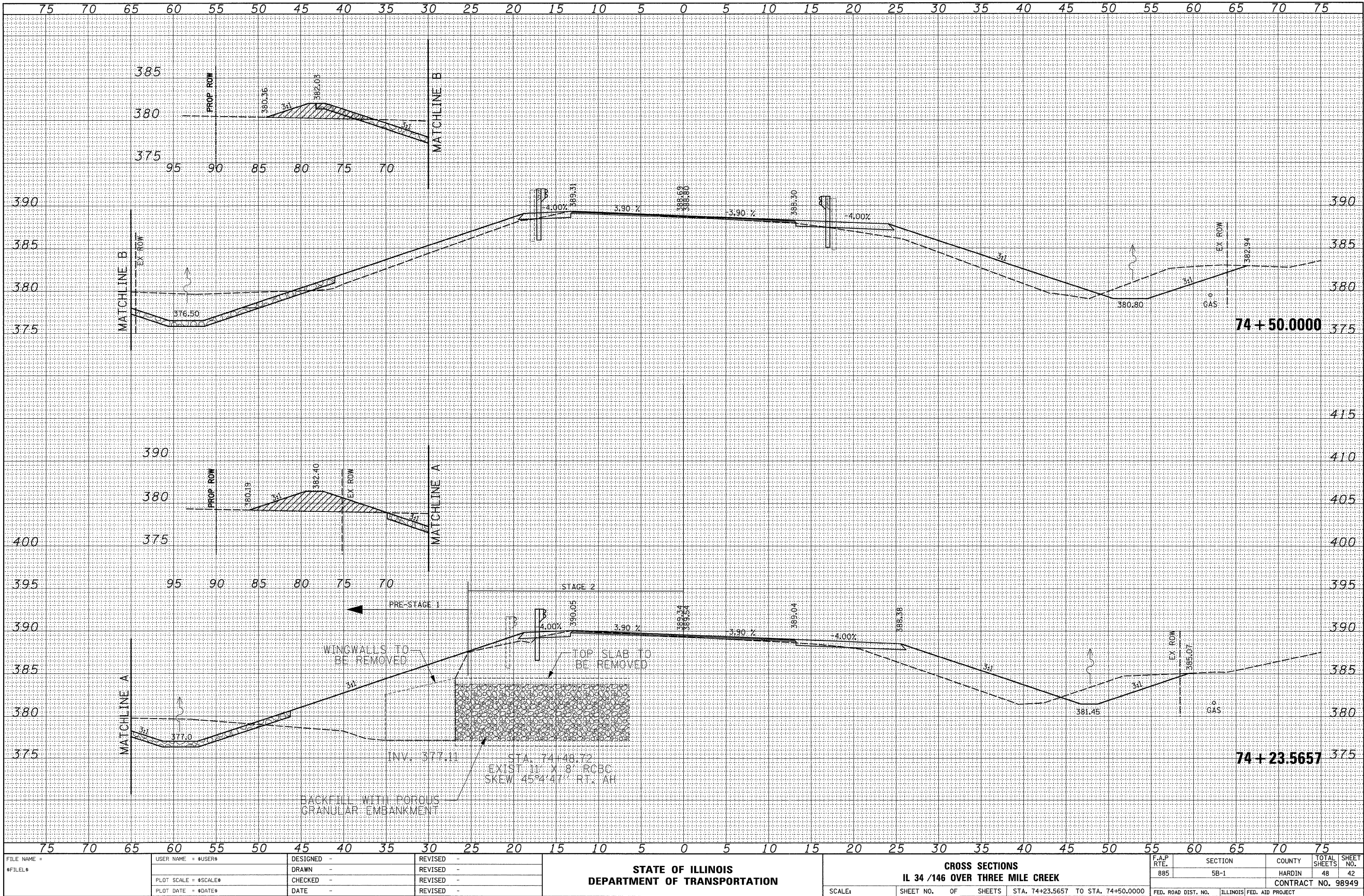
BY	DATE
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	

BY	DATE
SURVEYED	PLOTTED
NOTE BOOK	AREAS CHECKED
NO.	



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

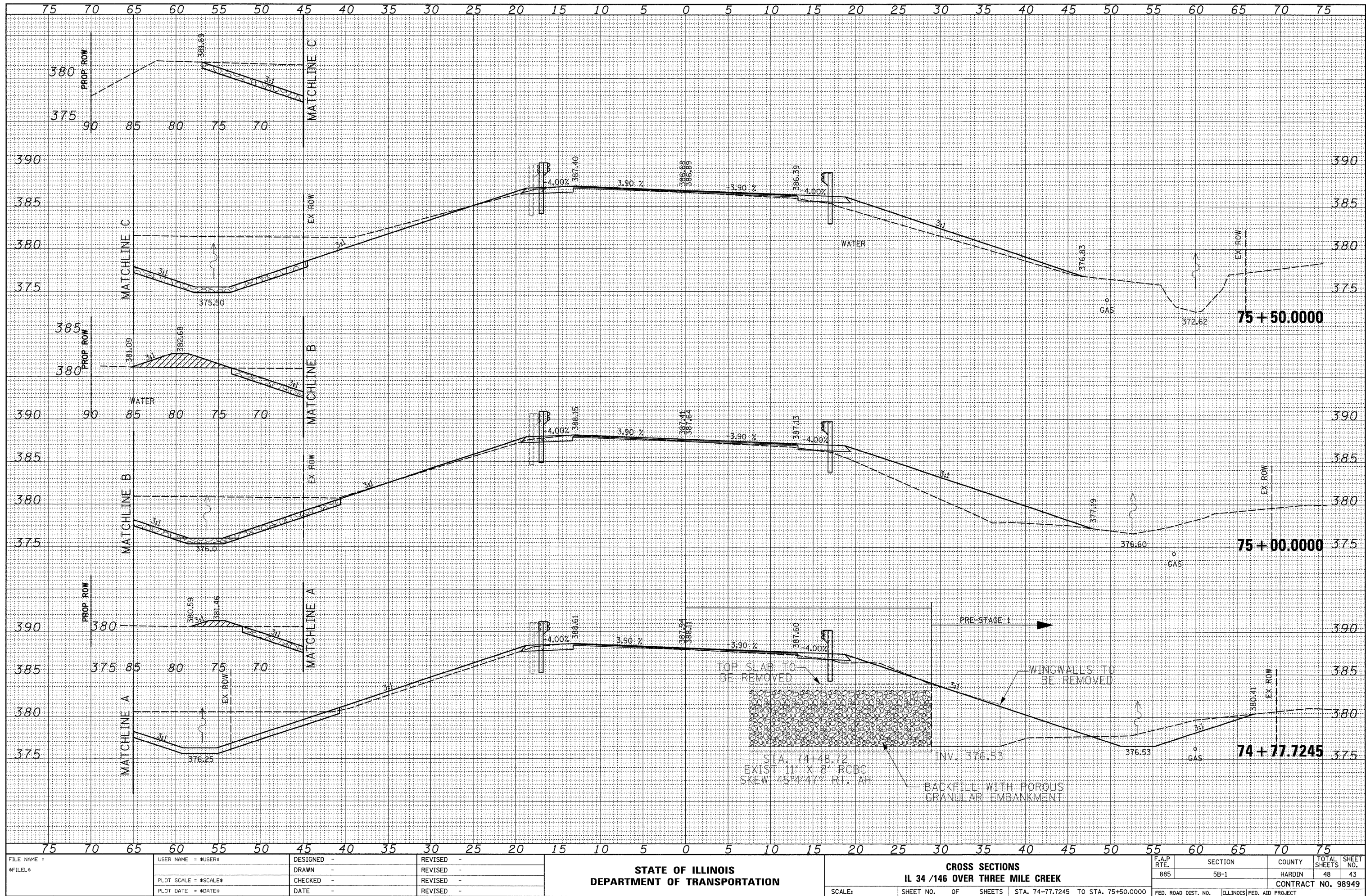
ORIGINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CROSS SECTIONS IL 34 /146 OVER THREE MILE CREEK				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -						885	5B-1	HARDIN	48	42
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		CONTRACT NO. 98949								
	PLOT DATE = #DATE#	DATE -	REVISED -										
					SCALE:	SHEET NO.	OF	SHEETS	STA. 74+23.5657	TO	STA. 74+50.0000	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

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

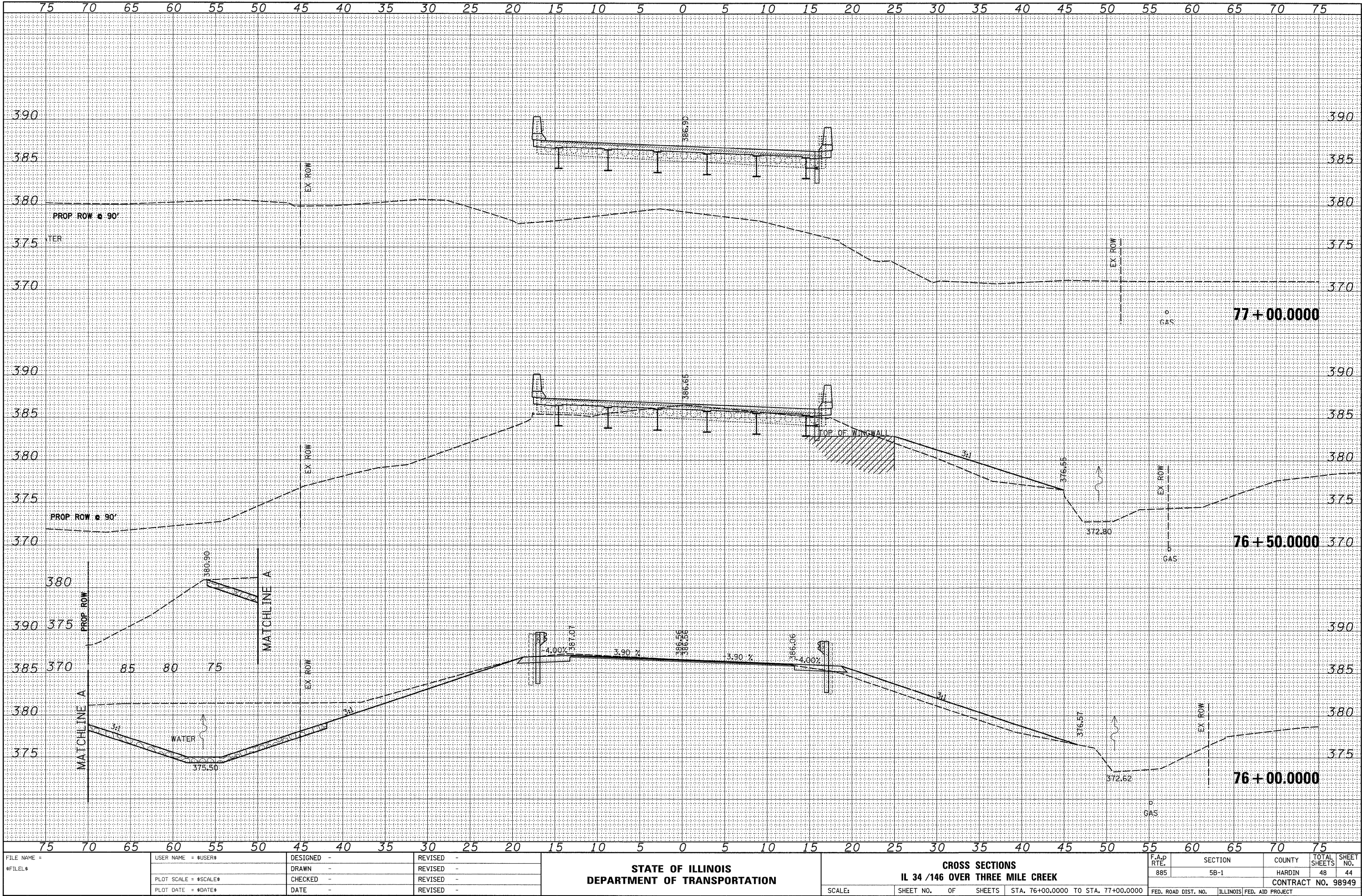
ORIGINAL	SURVEYED	BY	DATE
SURVEY	PLOTTED		
NOTE BOOK	TEMPLATE		
NO.	AREAS CHECKED		



FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				CROSS SECTIONS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -					IL 34 /146 OVER THREE MILE CREEK				885	5B-1	HARDIN	48	43
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -					SCALE:				CONTRACT NO. 98949				
	PLOT DATE = #DATE#	DATE -	REVISED -					SHEET NO. OF SHEETS STA. 74+77.7245 TO STA. 75+50.0000				FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

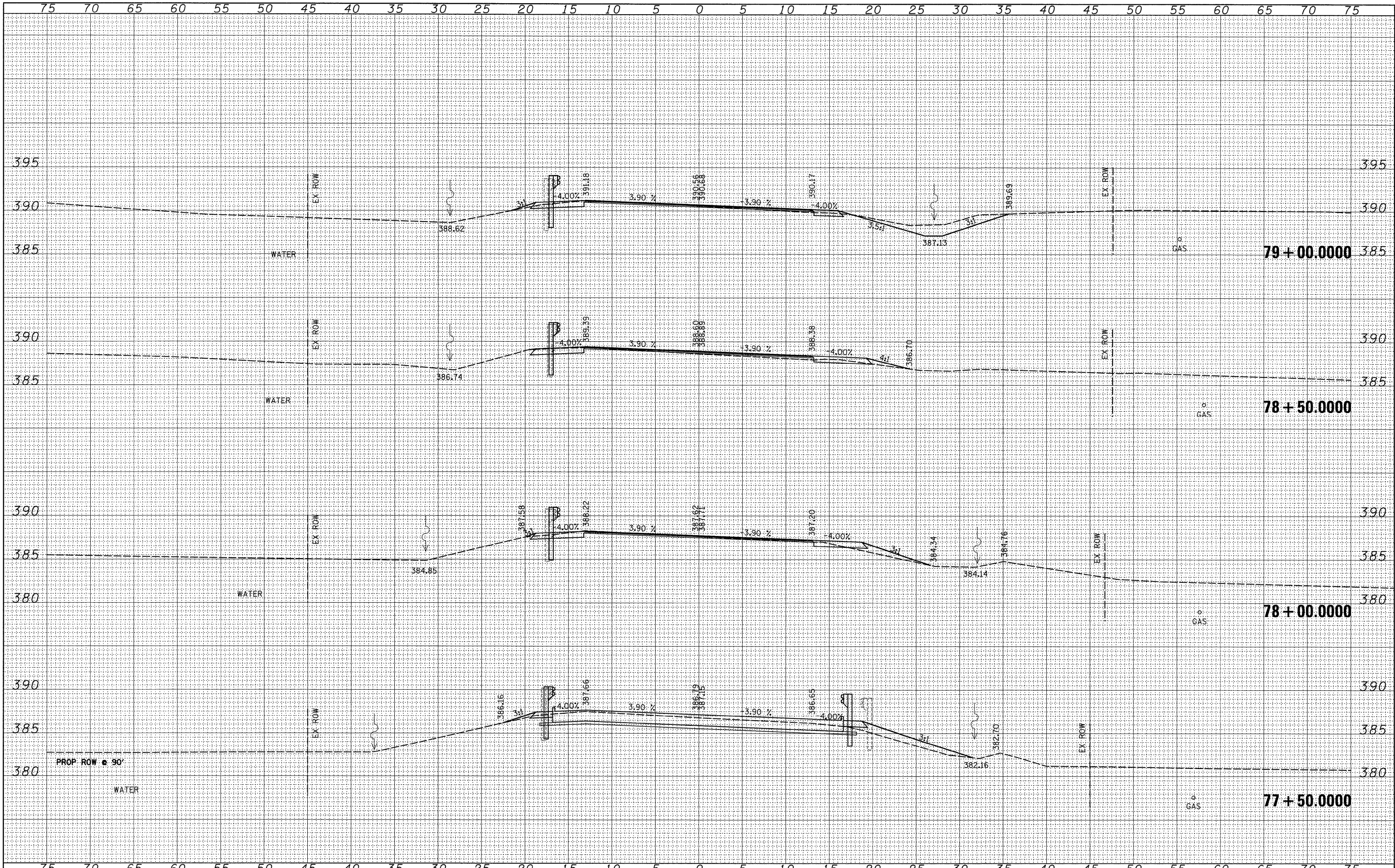
DATE	BY	NO.
FINAL SURVEY	SURVEYED	PLOTTED
NOTE BOOK	TEMPLATE	AREAS CHECKED

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

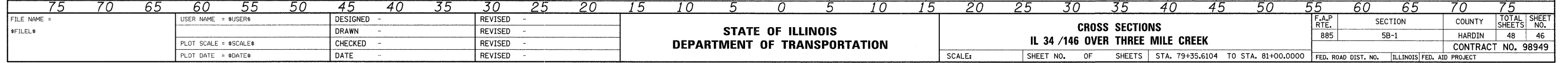


BY	DATE
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS
	CHECKED

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



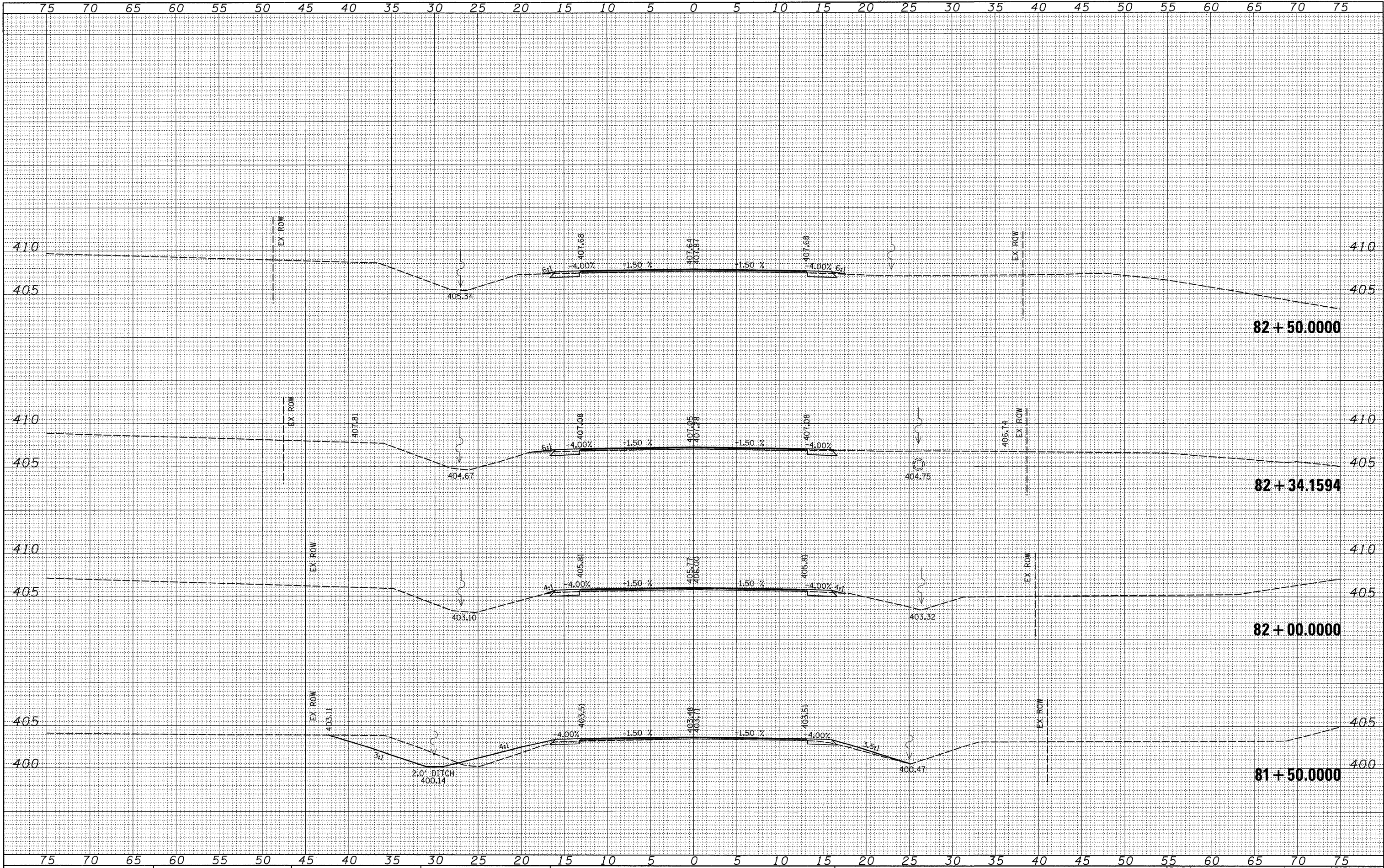
ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
	PLOTTED _____		
NOTE BOOK	TEMPLATE _____		
	AREAS _____		
NO. _____	AREAS CHECKED _____		



75		70		65		60		55		50		45		40		35		30		25		20		15		10		5		0		5		10		15		20		25		30		35		40		45		50		55		60		65		70		75	
FILE NAME = \$FILEL\$				USER NAME = \$USER\$				DESIGNED -				REVISED -				STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION												CROSS SECTIONS IL 34 /146 OVER THREE MILE CREEK								F.A.P. RTE.		SECTION		COUNTY		TOTAL SHEETS		SHEET NO.																	
				DRAWN -				REVISED -				885		5B-1																						HARDIN		48		46																					
PLOT SCALE = \$SCALE\$				CHECKED -				REVISED -																												CONTRACT NO. 98949																									
PLOT DATE = \$DATE\$				DATE -				REVISED -																																																					
																												SCALE:		SHEET NO.		OF		SHEETS		STA. 79+35.6104 TO STA. 81+00.0000												FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT													

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

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



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

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

