9-17-10 LETTING ITEM 019

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84*	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO. 72A73		

*84+2=86

INDEX OF SHEETS

1	TITLE SHEET
2	GENERAL NOTES & MIXTURE REQUIREMENTS
3 – 7	SUMMARY OF QUANTITIES
8 – 11	TYPICAL ROADWAY SECTIONS
12 – 14	DETAILS
15 – 17	SCHEDULE OF QUANTITIES
18 – 20	ALIGNMENT, TIES & BENCHMARKS
21 – 23	PLAN AND PROFILE
24 – 28	ROADWAY PLAN
29 – 31	STAGE CONSTRUCTION TRAFFIC DETAILS
32	EROSION CONTROL PLAN
33	PAVEMENT MARKING DETAILS
34	GRADING PLAN
*35 – 44	TRAFFIC SIGNAL DETAILS
45 – 74	STRUCTURE PLANS
75 – 84	CROSS SECTIONS
———	STANDARDS

*44A, 44B Added

LIST OF ILLINOIS DOT HIGHWAY STANDARDS

000001–05	606001–04
001001–02	606201–02
001006	630001–08
280001–05	631031–08
420401–08	635006–03
424001–05	666001–01
442201–03	701001–02
515001–03	701006–03
542106–02	701011–02
542301–02	701502–03
542601–02	701801–04
601001–03	701701–06
602301–02	701901–01
602306–02	704001–06
602416–01	780001–02
602701–02	781001–03
604001–03	814001–02
604006–04	BLR 21–8
604046–02	

701501-05 701801-04

100′ 200′ 300′ — 1″ = 100′
0 10′ 20′ 30′ — 1″ = 10′
0 50′ 100′ — 1″ = 50′
0 50′ 100′ — 1″ = 40′
0 50′ 100′ — 1″ = 30′
0 50′ 100′ — 1″ = 20′

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

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

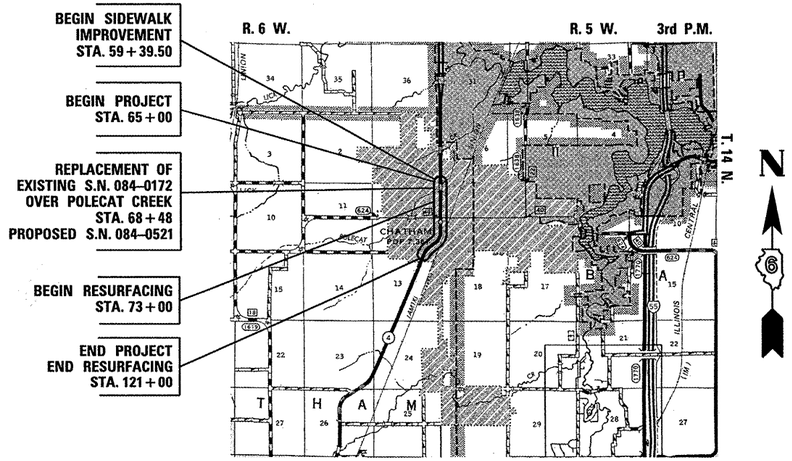
PROJECT ENGINEER: SAL MADONIA
SQUAD LEADER: MARCUS BRUCE

CONTRACT NO. 72A73

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

F.A.P. ROUTE 662 (IL 4)
SECTION H(RS–10,B–2)
PROJECT: ACBRF-0662(065)
SANGAMON COUNTY
C–96–073–09



LOCATION MAP

NET LENGTH OF PROJECT = 5,600 FEET = 1.061 MILES

D–96–504–07

LOCATION OF SECTION INDICATED THUS: –

ADT = 15,800 (2005)
% SU = 3.0 (2005)
% MU = 3.0 (2005)
TOWNSHIP: CHATHAM
FUNCTIONAL CLASSIFICATION: OTHER PRINCIPAL ARTERIAL

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED June 29 20 10
Roger D. Driskell
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
August 13 20 10
Scott E. Stitt, P.E. /BR
acting ENGINEER OF DESIGN AND ENVIRONMENT
August 13 20 10
Christine M. Reed /BR
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

CHRISTOPHER P. KOHLRUS 062-046558 LICENSED PROFESSIONAL ENGINEER OF STATE OF ILLINOIS

Christopher P. Kohlrus 6/25/10
EXPIRATION: 11/30/2011

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

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

Rev.

...\D672A73-sht-cover.dgn 6/24/2010 3:12:09 PM

ENVIRONMENTAL REVIEWS

PRIOR TO THE USE OF ANY PROPOSED BORROW AREAS, USE AREAS, (TEMPORARY ACCESS ROADS, DETOURS, RUN-AROUNDS, ETC.) AND/OR WASTE AREAS, THE CONTRACTOR SHALL FILE THE REQUIRED ENVIRONMENTAL RESOURCE REQUEST SURVEYS ACCORDING TO SECTION 107.22 OF THE STANDARD SPECIFICATIONS. THESE SURVEYS ARE REQUIRED IN ORDER FOR THE DEPARTMENT TO CONDUCT CULTURAL AND BIOLOGICAL RESOURCE SURVEYS FOR THE PROPOSED SITE.

PRIOR TO ANY WASTE MATERIALS BEING REMOVED FROM THE CONSTRUCTION SITE THE REQUIRED ENVIRONMENTAL RESOURCE SURVEYS WILL NEED TO BE OBTAINED AND FILED BY THE CONTRACTOR. EXCESS WASTE PRODUCTS REMOVED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF AS REQUIRED IN SECTION 202.03 OF THE STANDARD SPECIFICATIONS.

ANY PROTRUDING METAL BARS SHALL BE REMOVED PRIOR TO THE DISPOSAL OF BROKEN CONCRETE AT APPROVED DISPOSAL SITES.

THE REQUIRED ENVIRONMENTAL RESOURCE DOCUMENTATION SHALL INCLUDE THE FOLLOWING:

- BDE FORM 2289 (ENVIRONMENTAL SURVEY REQUEST)
- A LOCATION MAP SHOWING THE SIZE LIMITS AND LOCATION OF THE USE AREA
- SIGNED PROPERTY OWNER AGREEMENT FORM
- COLOR PHOTOGRAPHS DEPICTING THE USE AREA

PLEASE NOTE THAT A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR THE DISTRICT TO OBTAIN THE REQUIRED ENVIRONMENTAL CLEARANCES.

PROPERTY OWNER ACCESS REQUIREMENT

ACCESS MUST BE MAINTAINED TO ALL EXISTING PROPERTIES DURING CONSTRUCTION PER ARTICLE 107.09 UNLESS ARRANGEMENTS ARE MADE IN WRITING BY THE CONTRACTOR WITH THE PROPERTY OWNERS WITH A COPY TO THE ENGINEER FOR SHORT-TERM CLOSURES.

GENERAL NOTES

1.) THE THICKNESS OF BITUMINOUS MIXTURES SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.

2.) EXCEPT AS NOTED IN THE PLANS, PAVEMENT GRADES SHOWN ARE AT THE TOP OF PAVEMENT SURFACES.

3.) WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER OR AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION. THE CONTRACTOR WILL BE RESPONSIBLE FOR HAVING AN AUTHORIZED SURVEYOR RE-ESTABLISH ANY SECTION OR SUBSECTION MONUMENTS DESTROYED BY HIS OPERATIONS.

4.) SEEDING WILL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET OR IN AN UNTILLABLE CONDITION. AREAS TO BE SEEDED SHALL BE DETERMINED BY THE ENGINEER AND SEEDED AS SOON AS POSSIBLE.

5.) ALL SAW CUTS, NECESSARY TO COMPLETE THE WORK DETAILED IN THESE PLANS, SHALL BE INCLUDED IN THE COST FOR THE VARIOUS PAY ITEMS INVOLVED. THE MINIMUM SAW CUT DEPTH IN THE PAVEMENT SHALL BE 1½" UNLESS UNLESS OTHERWISE SPECIFIED IN A DETAIL SHOWN IN THE PLANS.

6.) UNLESS DIRECTED BY THE ENGINEER, PAVEMENT MARKING LINES SHALL NOT BE LAID DIRECTLY OVER A LONGITUDINAL CRACK OR JOINT NOR OVER A TAR OR ASPHALT PAINTED LINE. THE EDGE OF A CENTERLINE OR LANE LINE SHALL BE OFFSET A MINIMUM DISTANCE OF 2" FROM A LONGITUDINAL CRACK OR JOINT. EDGE LINES SHALL BE APPROXIMATELY 2" FROM THE EDGE LINE OF PAVEMENT. SEE SECTION 780 OF THE STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL ITEMS.

7.) ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OUTSIDE THE LIMITS OF RIGHT OF WAY ACCORDING TO ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE COST PER CUBIC YARD FOR EARTH EXCAVATION AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

8.) ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER LISTED IN THE INDEX OF SHEETS OR THE COPY OF THE STANDARD INCLUDED IN THESE PLANS.

9.) IN ADDITION TO THE FIELD SURVEYS, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE 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 A 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.

10.) THE EXISTING ROAD SIGNS THAT INTERFERE WITH CONSTRUCTION WILL BE REMOVED OR RELOCATED AS DIRECTED BY THE ENGINEER. AFTER THE CONSTRUCTION IS COMPLETED, THE CONTRACTOR WILL REPLACE THE SIGNS AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT, AND NO COMPENSATION WILL BE ALLOWED.

11.) THE LOCATION OF ALL UTILITIES ARE BASED ON INFORMATION PROVIDED BY OTHERS AND IS INTENDED TO BE APPROXIMATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBLITY 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.

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

13.) ALL ELEVATIONS SHOWN ON THE PLANS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM. ALL STATION AND OFFSET REFERENCES ARE TO THE ROADWAY CENTERLINE UNLESS OTHERWISE NOTED. THE STATE PLANE COORDINATE SYSTEM HAS BEEN USED FOR THE HORIZONTAL CONTROL.

14.) THE DISTRICT BUREAU OF OPERATIONS SHALL BE NOTIFIED AT LEAST 14 DAYS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS (PH: 217-785-5312)

15.) A COPY OF THE EXISTING BRIDGE PLANS WILL BE PROVIDED UPON REQUEST.

COMMITMENTS

1.) CONTACT IDOT STUDIES AND PLANS ON ANY MAJOR PLAN CHANGE

THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED TO CALCULATE THE PLAN QUANTITIES:

BITUMINOUS MATERIALS (PRIME COAT)	0.00038 TON/SQ. YD. (ON PAVEMENT)
BITUMINOUS MATERIALS (PRIME COAT)	0.001425 TON/SQ.YD. (ON AGG)
HOT MIX ASPHALT SURFACE / BINDER	0.056 TON/SQ. YD. PER 1"
AGGREGATE MATERIAL	2.05 TON/CU. YD.
RIPRAP	1.5 TON/CU. YD.
NITROGEN FERTILIZER NUTRIENT	90 LBS./ACRE
PHOSPHOROUS FERTILIZER NUTRIENT	90 LBS./ACRE
POTASSIUM FERTILIZER NUTRIENT	90 LBS./ACRE
AGGREGATE PRIME COAT	0.002 TON/SQ. YD.
AGRICULTURAL GROUND LIMESTONE	2.0 TON/ACRE

MIXTURE REQUIREMENTS

LOCATION(S):	
MIXTURE USE(S):	HMA BINDER
PG:	PG64-22
DESIGN AIR VOIDS:	4.0% @ N70
MIXTURE COMPOSITION:	IL 19.0
FRICTION AGGREGATE:	N/A

LOCATION(S):	
MIXTURE USE(S):	HMA SURFACE (MAINLINE & WALNUT STREET)
PG:	SBS PG70-22
DESIGN AIR VOIDS:	4.0% @ N70
MIXTURE COMPOSITION:	IL 9.5 OR 12.5
FRICTION AGGREGATE:	MIX D

LOCATION(S):	
MIXTURE USE(S):	INCIDENTAL HMA SURFACING
PG:	PG64-22
DESIGN AIR VOIDS:	4.0% @ N70
MIXTURE COMPOSITION:	IL 9.5 OR 12.5
FRICTION AGGREGATE:	MIX C

LOCATION(S):	
MIXTURE USE(S):	PATCHING
PG:	PG64-22
DESIGN AIR VOIDS:	4.0% @ N70
MIXTURE COMPOSITION:	IL 19.0
FRICTION AGGREGATE:	N/A

DISTRICT SIX

EXAMINED June 29 20 10

OPERATIONS ENGINEER

EXAMINED JUNE 28 20 10

PROJECT IMPLEMENTATION ENGINEER

EXAMINED June 29 20 10

PROGRAM DEVELOPMENT ENGINEER

USER NAME = $USER$	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 2.0000 ' / IN.	CHECKED -	REVISED -	
PLOT DATE = 6/23/2010	DATE -	REVISED -	

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

GENERAL NOTES & MIXTURE REQUIREMENTS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	2
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

...\D672A73-sht-gennote.dgn 6/23/2010 10:46:00 AM

SUMMARY OF QUANTITIES

				ROADWAY FAP 662 80% FEDERAL 20% STATE	STRUCTURE S.N. 084-0521 80% FEDERAL 20% STATE	PPP RESURFACING 80% FED. 20% STATE FAP662	SIDEWALK 80% STATE 20% VILLAGE
	SUMMARY OF QUANTITIES		TOTAL	CONSTRUCTION TYPE CODE			
CODE NO.	PAY ITEM	UNIT	QUANTITY	1000-2A	X071-2A	1000-2A	SFTY-1B
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	16	16			
20100500	TREE REMOVAL, ACRES	ACRE	0.1	0.1			
20200100	EARTH EXCAVATION	CU YD	623	597			26
20300100	CHANNEL EXCAVATION	CU YD	702	702			
20400800	FURNISHED EXCAVATION	CU YD	536	381			155
X2070504	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	225		225		
20800150	TRENCH BACKFILL	CU YD	127	127			
25000200	SEEDING, CLASS 2	ACRE	1.0	0.8			0.2
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	90	72			18
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	90	72			18
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	90	72			18
25000700	AGRICULTURAL GROUND LIMESTONE	TON	2.0	1.6			0.4
25100115	MULCH, METHOD 2	ACRE	1.0	0.8			0.2
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100	80			20
28000400	PERIMETER EROSION BARRIER	FOOT	1102	1102			
28000500	INLET AND PIPE PROTECTION	EACH	9	9			
28001000	AGGREGATE (EROSION CONTROL)	TON	25	25			
28100107	STONE RIPRAP, CLASS A4	SQ YD	2645	270	2375		
28200200	FILTER FABRIC	SQ YD	2645	270	2375		
31100100	SUB-BASE GRANULAR MATERIAL, TYPE A	TON	884	884			
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	9.9	1.5		8.4	
40600300	AGGREGATE(PRIME COAT)	TON	49.3	7.5		41.8	
40600895	CONSTRUCTING TEST STRIP	EACH	1	1			
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	3435	1222		2213	
40600990	TEMPORARY RAMP	SQ YD	472	80		392	
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	1797	1797			
40603540	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	3141	468		2673	
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	211			211	
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	4506				4506
42400800	DETECTABLE WARNINGS	SQ FT	41				41
44000100	PAVEMENT REMOVAL	SQ YD	286	286			

USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:44:13AM	DATE -	REVISED -

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

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	3
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

				ROADWAY FAP 662 80% FEDERAL 20% STATE	STRUCTURE S.N. 084-0521 80% FEDERAL 20% STATE	PPP RESURFACING 80% FED. 20% STATE FAP 662	SIDEWALK 80% STATE 20% VILLAGE
				CONSTRUCTION TYPE CODE			
CODE NO.	SUMMARY OF QUANTITIES PAY ITEM	UNIT	TOTAL QUANTITY	1000-2A	X071-2A	1000-2A	5F74-1B
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	23467			23467	
44000400	GUTTER REMOVAL	FOOT	358	358			
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	114	114			
44000600	SIDEWALK REMOVAL	SQ FT	91				91
Z0004552	APPROACH SLAB REMOVAL	SQ YD	267	267			
44004000	PAVED DITCH REMOVAL	FOOT	44	44			
44004250	PAVED SHOULDER REMOVAL	SQ YD	17	17			
X4404400	PAVEMENT REMOVAL (SPECIAL)	SQ YD	23	23			
44200164	PAVEMENT PATCHING, TYPE I, 14 INCH	SQ YD	235			235	
44200168	PAVEMENT PATCHING, TYPE II, 14 INCH	SQ YD	235			235	
44200172	PAVEMENT PATCHING, TYPE III, 14 INCH	SQ YD	235			235	
44200174	PAVEMENT PATCHING, TYPE IV, 14 INCH	SQ YD	235			235	
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1		
50104650	SLOPE WALL REMOVAL	SQ YD	418		418		
50200100	STRUCTURE EXCAVATION	CU YD	278		278		
50300100	FLOOR DRAINS	EACH	14		14		
50300225	CONCRETE STRUCTURES	CU YD	286.7		286.7		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	589.2		589.2		
50300260	BRIDGE DECK GROOVING	SQ YD	1324		1324		
50300280	CONCRETE ENCASEMENT	CU YD	18.2		18.2		
50300300	PROTECTIVE COAT	SQ YD	1773		1773		
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1		
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	60600		60600		
50500505	STUD SHEAR CONNECTORS	EACH	7140		7140		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	172190		172190		
50800515	BAR SPLICERS	EACH	848		848		
50901720	BICYCLE RAILING	FOOT	384		384		
50901750	PARAPET RAILING	FOOT	384		384		
51201400	FURNISHING STEEL PILES HP 10x42	FOOT	1362		1362		
51202305	DRIVING PILES	FOOT	550		550		
51203400	TEST PILE STEEL HP 10x42	EACH	2		2		
51204650	PILE SHOES	EACH	52		52		

USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:44:15AM	DATE -	REVISED -

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

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	HIRS-10,B-2)	SANGAMON	84	4
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

				ROADWAY FAP 662 80% FEDERAL 20% STATE	STRUCTURE S.N. 084-0521 80% FEDERAL 20% STATE	PPP RESURFACING 80% FED. 20% STATE FAP 662	SIDEWALK 80% STATE 20% VILLAGE
	SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE			
CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	I000-2A		I000-2A	SFTY-1B
51205200	TEMPORARY SHEET PILING	SQ FT	599		599		
51500100	NAME PLATES	EACH	1		1		
52100520	ANCHOR BOLTS, 1"	EACH	112		112		
542A0220	PIPE CULVERTS, CLASS A, TYPE 1 15"	FOOT	67		67		
542A0223	PIPE CULVERTS, CLASS A, TYPE 1 18"	FOOT	100		100		
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1	1			
54213663	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	EACH	2	2			
54215442	CAST-IN-PLACE REINFORCED CONCRETE END SECTIONS 42"	EACH	1	1			
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	58	58			
550A0470	STORM SEWERS, CLASS A, TYPE 2 42"	FOOT	100	100			
55100500	STORM SEWER REMOVAL 12"	FOOT	36	36			
55101800	STORM SEWER REMOVAL 42"	FOOT	100	100			
56109210	WATER VALVES TO BE ADJUSTED	EACH	5	5			
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	117		117		
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	48.0	48.0			
60107600	PIPE UNDERDRAINS 4"	FOOT	16	16			
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	240		240		
60235700	INLETS, TYPE A, TYPE 3 FRAME AND GRATE	EACH	1	1			
60236700	INLETS, TYPE A, TYPE 10 FRAME AND GRATE	EACH	1	1			
60240215	INLETS, TYPE B, TYPE 1 FRAME, CLOSED LID	EACH	1	1			
60240305	INLETS, TYPE B, TYPE 10 FRAME AND GRATE	EACH	1	1			
60255500	MANHOLES TO BE ADJUSTED	EACH	4	4			
60258000	MANHOLES TO BE RECONSTRUCTED (SPECIAL)	EACH	2	2			
60260100	INLETS TO BE ADJUSTED	EACH	3	3			
60404700	FRAMES AND GRATES, TYPE 10	EACH	2	2			
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	3	3			
60500060	REMOVING INLETS	EACH	2	2			
60603000	CONCRETE GUTTER, TYPE B (SPECIAL)	FOOT	242	242			
60603300	GUTTER OUTLET	EACH	1	1			
60603401	GUTTER OUTLET (SPECIAL)	FOOT	62	62			
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	84	84			

USER NAME = loughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:44:17AM	DATE -	REVISED -

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

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	5
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

				ROADWAY FAP 662 80% FEDERAL 20% STATE	STRUCTURE S.N. 084-0521 80% FEDERAL 20% STATE	PPP RESURFACING 80% FED. 20% STATE FAP 662	SIDEWALK 80% STATE 20% VILLAGE
	SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE			
CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	I000-2A		I000-2A	SFTY-1B
60611600	COMBINATION CONCRETE CURB AND GUTTER, (SPECIAL)	FOOT	15	15			
* 63000001	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6 FOOT POSTS	FOOT	25	25			
* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4	4			
* 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4	4			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12			
67100100	MOBILIZATION	L SUM	1	1			
70102622	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1			
70101830	TRAFFIC CONTROL AND PROTECTION, STANDARD BLR 21 701502	L SUM	1	1			
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD	L SUM	1	1			
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701 701501	L SUM	1	1			
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1			
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	12	12			
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10			
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	1580	160		1420	
70300230	TEMPORARY PAVEMENT MARKING - LINE 5"	FOOT	7365	7365			
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	20	20			
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	3737	3172		565	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1350	1350			
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	800	800			
* 78000300	THERMOPLASTIC PAVEMENT MARKING - LINE 5"	FOOT	15807	1588		14219	
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1865	1197		668	
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	899	899			
* 78004200	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LETTERS AND SYMBOLS	SQ FT	424	63		361	
* 78004220	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 5"	FOOT	389	389			
* 78004230	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 6"	FOOT	420	420			
* 78004250	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 12"	FOOT	240	240			
* 78004280	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 24"	FOOT	184	184			
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	190	38		152	
* 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4	4			
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1049	1049			
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	188	188			
* 81012500	CONDUIT IN TRENCH, 1½" DIA., PVC	FOOT	329			329	

Rev.

*SPECIALTY ITEMS

USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:44:20AM	DATE -	REVISED -

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

SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	6
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

					ROADWAY FAP 662 80% FEDERAL 20% STATE	STRUCTURE S.N. 084-0521 80% FEDERAL 20% STATE	PPP RESURFACING 80% FED. 20% STATE FAP 662	SIDEWALK 80% STATE 20% VILLAGE
	SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE			
	CODE NO.	PAY ITEM	UNIT	TOTAL QUANTITY	I000-2A		I000-2A	SFTY-1B
*	~~81012500~~	~~CONDUIT IN TRENCH, 1½" DIA., PVC~~	~~FOOT~~	~~329~~			~~329~~	
*	81021540	CONDUIT, AUGERED, 1½" DIA., PVC	FOOT	43			43	
*	81100500	CONDUIT, ATTACHED TO STRUCTURE, 1½" DIA., GALVANIZED STEEL	FOOT	133			133	
*	81306500	REMOVE EXISTING JUNCTION BOX	EACH	1			1	
*	81400100	HANDHOLE	EACH	1			1	
*	81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	329			329	
*	87100110	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 6 F	FOOT	2489			2489	
*	88600100	DECTECTOR LOOP, TYPE I	FOOT	2058			2058	
*	89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2489			2489	
	Z0001110	GAS VALVE TO BE ADJUSTED	EACH	1	1			
	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1			
	Z0024478	FLEXIBLE DELINEATORS	EACH	88	88			
	Z0030260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	4	4			
	Z0030330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	4	4			
	X6110089	STORM SEWERS, TYPE 2, WATER MAIN QUALITY PIPE, 12"	FOOT	60	60			
	X6110097	STORM SEWERS, TYPE 2, WATER MAIN QUALITY PIPE, 42"	FOOT	124	124			
	X0322494	CURB CUT	FOOT	12	12			
*	X0326301	SETTING AND DRIVING PILES IN ROCK	EACH	28		28		
	X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 1	EACH	1		1		
	X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION - LOCATION 2	EACH	1		1		
	X5080600	MECHANICAL SPLICERS	EACH	60		60		
	X6020088	MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1			
	X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1			
	X7240500	RELOCATE EXISTING SIGNS	EACH	3	3			
	X7010502	TRAFFIC CONTROL AND PROTECTION, STANDARD 701502 (SPECIAL)	L SUM	1	1			

* SPECIALTY ITEMS

USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:44:22AM	DATE -	REVISED -

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

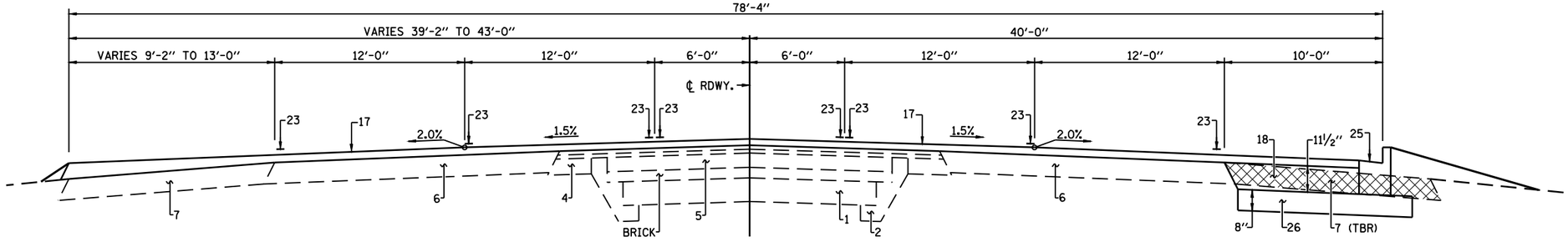
SUMMARY OF QUANTITIES

SCALE: NONE | SHEET NO. OF SHEETS | STA. | TO STA.

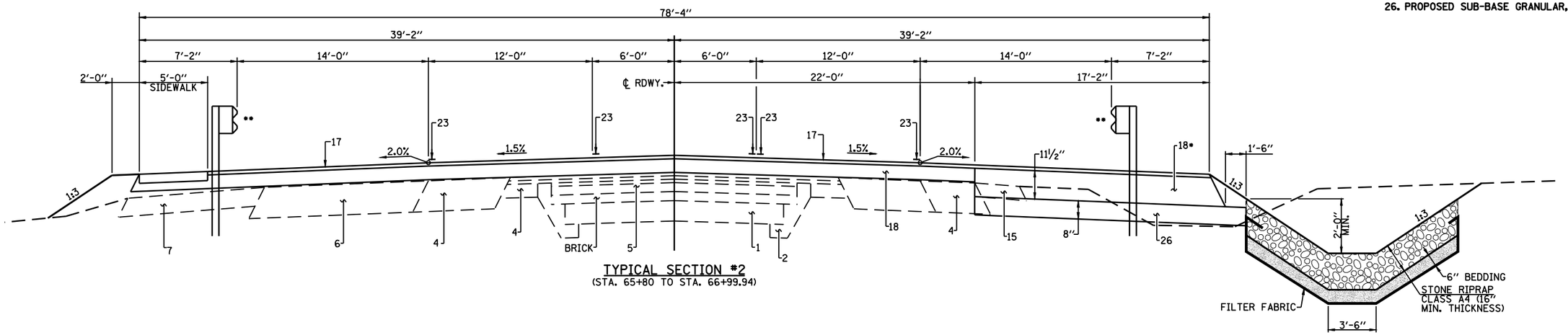
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	7
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PAVEMENT LEGEND

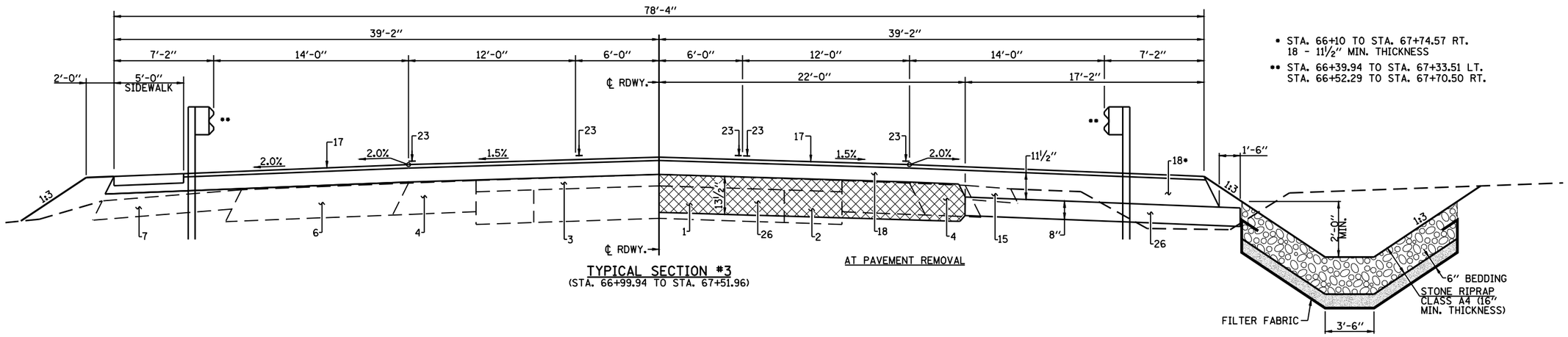
1. EXISTING CONCRETE PAVEMENT
2. EXISTING CONCRETE WIDENING
3. EXISTING HOT-MIX ASPHALT OVERLAY 5½" & VARIABLE
4. EXISTING HOT-MIX ASPHALT WIDENING 9"
5. EXISTING CONCRETE SURFACE 3"
6. EXISTING HOT-MIX ASPHALT SHOULDER 13½"
7. EXISTING HOT-MIX ASPHALT SHOULDER 8"
8. EXISTING AGGREGATE SHOULDER, TYPE A 6"
9. EXISTING AGGREGATE SUB BASE 6"
10. EXISTING HOT-MIX BASE COURSE 11¾"
11. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL) T.B.R.
12. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL)
13. EXISTING HOT-MIX ASPHALT PAVEMENT 12"
14. EXISTING PAINT PAVEMENT MARKING LINE 5"
15. EXISTING AGGREGATE SHOULDER 8"
16. EXISTING AGGREGATE SHOULDER WEDGE, TYPE A
17. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (1½" MIN.)**
18. **PROPOSED HOT-MIX ASPHALT BINDER COURSE (2¼" MIN.)**
19. **PROPOSED BRIDGE APPROACH SLAB 15"**
20. **PROPOSED CONCRETE GUTTER TYPE B (SPECIAL)**
21. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (2")**
22. **PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2"**
23. **PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 5"**
24. **PROPOSED TEMPORARY PAVEMENT MARKING LINE 5"**
25. **PROPOSED CONCRETE CURB AND GUTTER, B6-18**
26. **PROPOSED SUB-BASE GRANULAR, TYPE A (8" MIN.)**



TYPICAL SECTION #1
(STA. 65+00 TO STA. 65+80)



TYPICAL SECTION #2
(STA. 65+80 TO STA. 66+99.94)



TYPICAL SECTION #3
(STA. 66+99.94 TO STA. 67+51.96)

AT PAVEMENT REMOVAL

- * STA. 66+10 TO STA. 67+74.57 RT.
  18 - 11½" MIN. THICKNESS
- ** STA. 66+39.94 TO STA. 67+33.51 LT.
  STA. 66+52.29 TO STA. 67+70.50 RT.

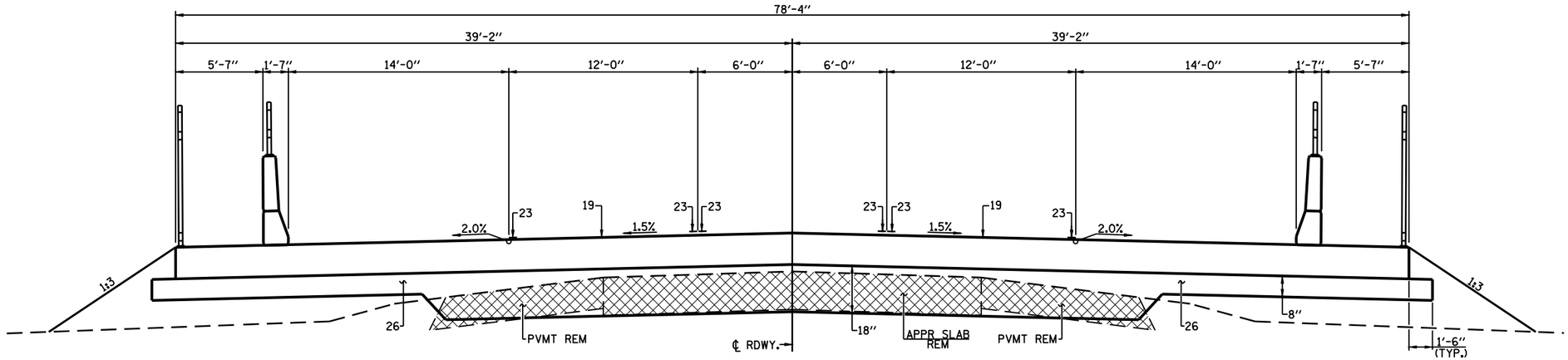
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73-sht-typicals.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 8.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 10:57:23AM	DATE -	REVISED -

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

TYPICAL ROADWAY SECTIONS

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	8
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



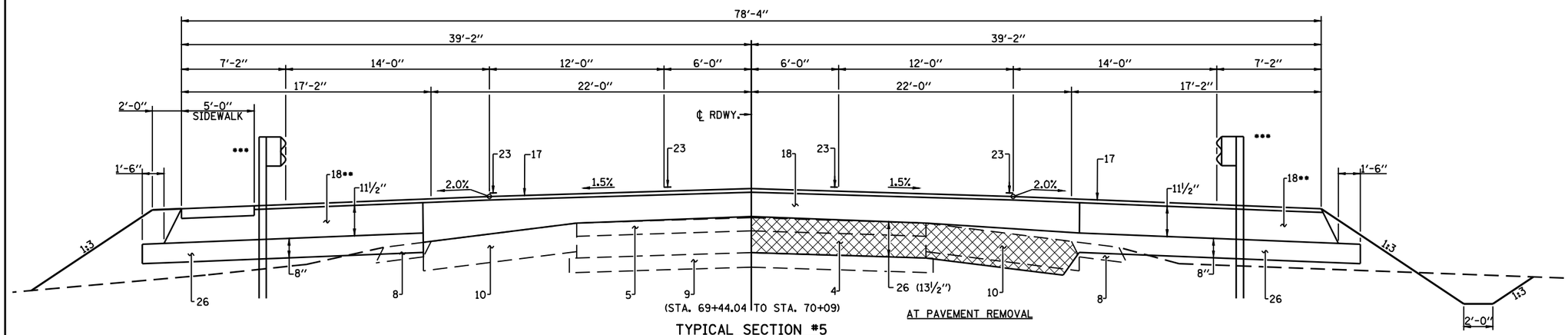
PAVEMENT LEGEND

1. EXISTING CONCRETE PAVEMENT
2. EXISTING CONCRETE WIDENING
3. EXISTING HOT-MIX ASPHALT OVERLAY 5½" & VARIABLE
4. EXISTING HOT-MIX ASPHALT WIDENING 9"
5. EXISTING CONCRETE SURFACE 3"
6. EXISTING HOT-MIX ASPHALT SHOULDER 13½"
7. EXISTING HOT-MIX ASPHALT SHOULDER 8"
8. EXISTING AGGREGATE SHOULDER, TYPE A 6"
9. EXISTING AGGREGATE SUB BASE 6"
10. EXISTING HOT-MIX BASE COURSE 11¾"
11. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL) T.B.R.
12. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL)
13. EXISTING HOT-MIX ASPHALT PAVEMENT 12"
14. EXISTING PAINT PAVEMENT MARKING LINE 5"
15. EXISTING AGGREGATE SHOULDER 8"
16. EXISTING AGGREGATE SHOULDER WEDGE, TYPE A
17. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (1½" MIN.)**
18. **PROPOSED HOT-MIX ASPHALT BINDER COURSE (2¼" MIN.)**
19. **PROPOSED BRIDGE APPROACH SLAB 15"**
20. **PROPOSED CONCRETE GUTTER TYPE B (SPECIAL)**
21. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (2")**
22. **PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2"**
23. **PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 5"**
24. **PROPOSED TEMPORARY PAVEMENT MARKING LINE 5"**
25. **PROPOSED CONCRETE CURB AND GUTTER, B6-18**
26. **PROPOSED SUB-BASE GRANULAR, TYPE A (8" MIN.)**

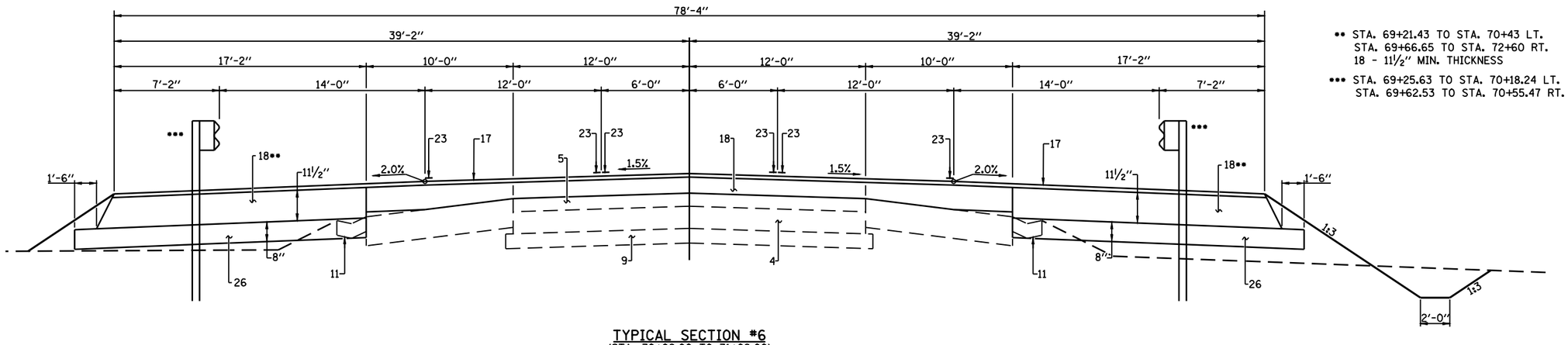
••• STA. 69+25.63 TO STA. 70+18.24 LT.
STA. 69+62.53 TO STA. 70+55.47 RT.

TYPICAL SECTION #4

(STA. 67+51.96 TO STA. 67+81.96 &
STA. 69+14.04 TO STA. 69+44.04)
BRIDGE OMISSION - STA. 67+81.96 TO STA. 69+14.04



TYPICAL SECTION #5



TYPICAL SECTION #6

(STA. 70+09.00 TO 71+02.00)

** STA. 69+21.43 TO STA. 70+43 LT.
STA. 69+66.55 TO STA. 72+60 RT.
18 - 11½" MIN. THICKNESS

••• STA. 69+25.63 TO STA. 70+18.24 LT.
STA. 69+62.53 TO STA. 70+55.47 RT.

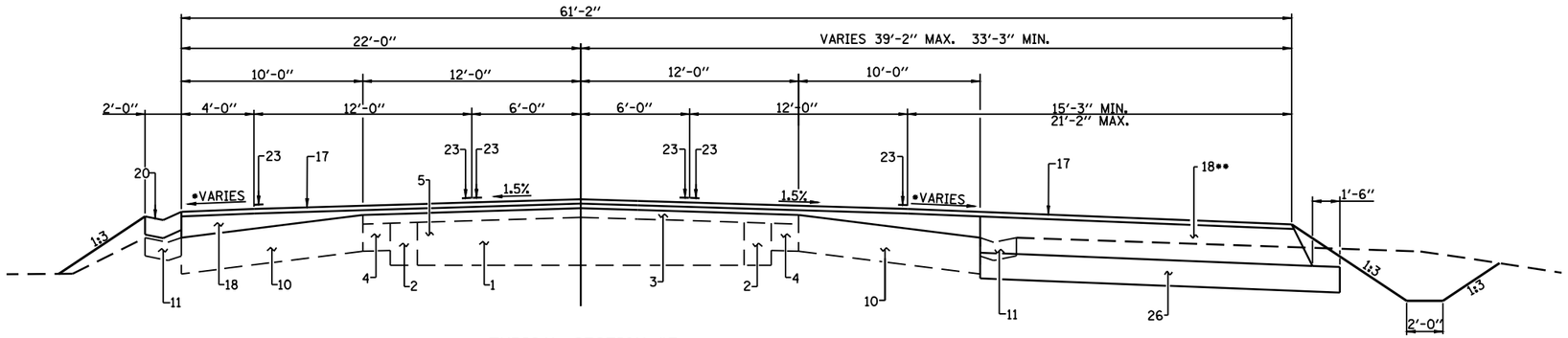
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73-sht-typicals.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 8.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 10:57:26AM	DATE -	REVISED -

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

TYPICAL ROADWAY SECTIONS

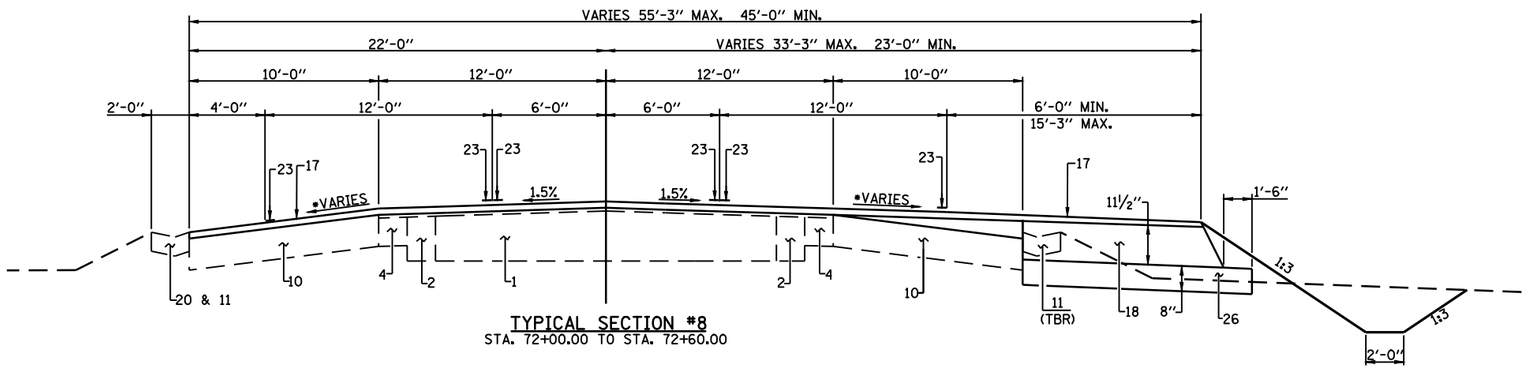
SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	9
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



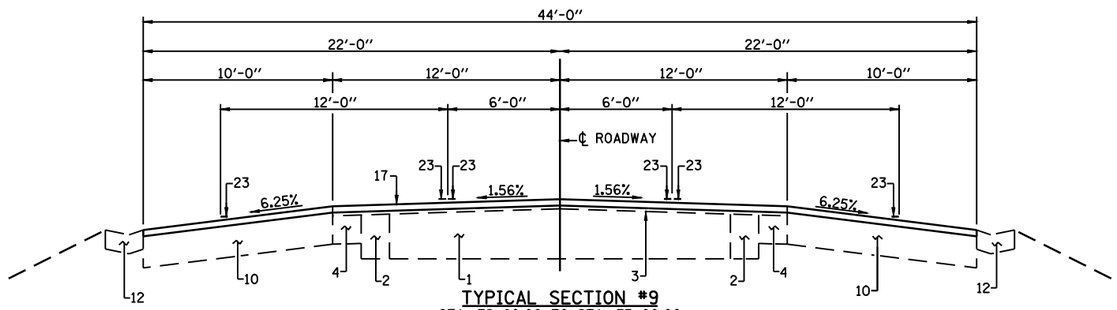
TYPICAL SECTION #7

STA. 71+02.00 TO STA. 72+00.00



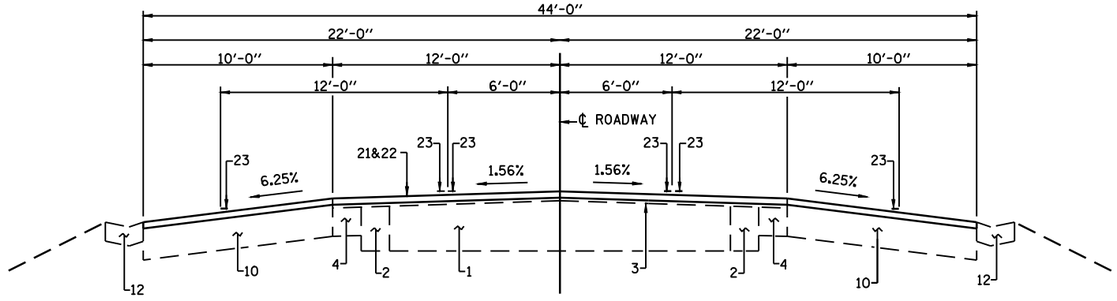
TYPICAL SECTION #8

STA. 72+00.00 TO STA. 72+60.00



TYPICAL SECTION #9

STA. 72+60.00 TO STA. 73+00.00



TYPICAL SECTION #10

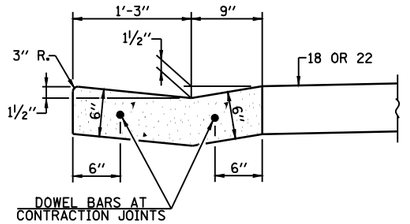
STA. 73+00.00 TO STA. 75+63.00

STA. 87+90.99 TO STA. 89+50.00

- VARY CROSS SLOPE FROM 2% AT 18' LT. & RT. - STA. 71+50 TO 6.25% AT 12' LT. & RT. - STA. 72+50
- ** STA. 69+66.65 TO STA. 72+60 RT. 18 - 11½" MIN. THICKNESS

PAVEMENT LEGEND

1. EXISTING CONCRETE PAVEMENT
2. EXISTING CONCRETE WIDENING
3. EXISTING HOT-MIX ASPHALT OVERLAY 5½" & VARIABLE
4. EXISTING HOT-MIX ASPHALT WIDENING 9"
5. EXISTING CONCRETE SURFACE 3"
6. EXISTING HOT-MIX ASPHALT SHOULDER 13½"
7. EXISTING HOT-MIX ASPHALT SHOULDER 8"
8. EXISTING AGGREGATE SHOULDER, TYPE A 6"
9. EXISTING AGGREGATE SUB BASE 6"
10. EXISTING HOT-MIX BASE COURSE 11¾"
11. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL) T.B.R.
12. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL)
13. EXISTING HOT-MIX ASPHALT PAVEMENT 12"
14. EXISTING PAINT PAVEMENT MARKING LINE 5"
15. EXISTING AGGREGATE SHOULDER 8"
16. EXISTING AGGREGATE SHOULDER WEDGE, TYPE A
17. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (1½" MIN.)**
18. **PROPOSED HOT-MIX ASPHALT BINDER COURSE (2¼" MIN.)**
19. **PROPOSED BRIDGE APPROACH SLAB 15"**
20. **PROPOSED CONCRETE GUTTER TYPE B (SPECIAL)**
21. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (2")**
22. **PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2"**
23. **PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 5"**
24. **PROPOSED TEMPORARY PAVEMENT MARKING LINE 5"**
25. **PROPOSED CONCRETE CURB AND GUTTER, B6-18**
26. **PROPOSED SUB-BASE GRANULAR, TYPE A (8" MIN.)**



NOTE: SEE STANDARD 606201 FOR DETAILS AND NOTES NOT SHOWN EXCEPT ½"Ø STEEL TIE BARS SHOWN IN STANDARD WILL NOT BE REQUIRED

DETAIL OF CONCRETE GUTTER TYPE B SPECIAL

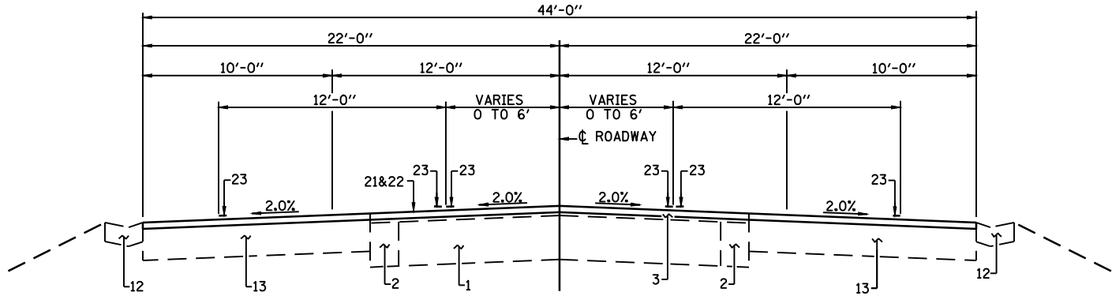
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672473-sht-typicals.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 8.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 10:57:29AM	DATE -	REVISED -

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

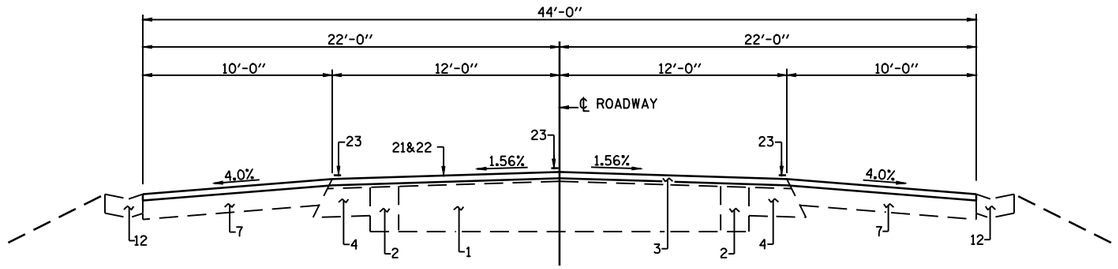
DETAILS & TYPICAL SECTIONS

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

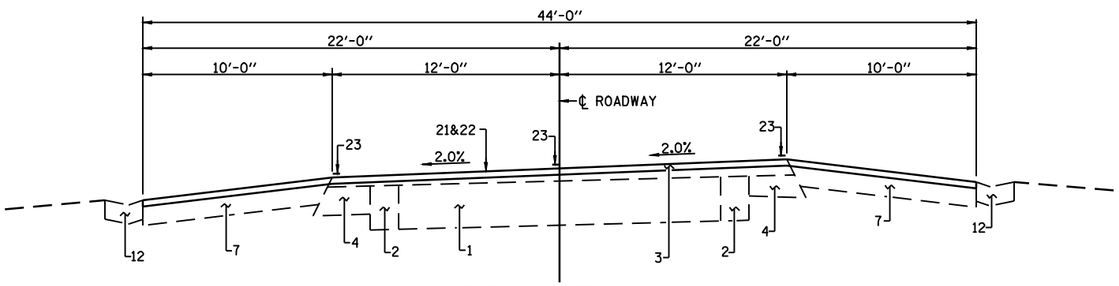
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	10
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



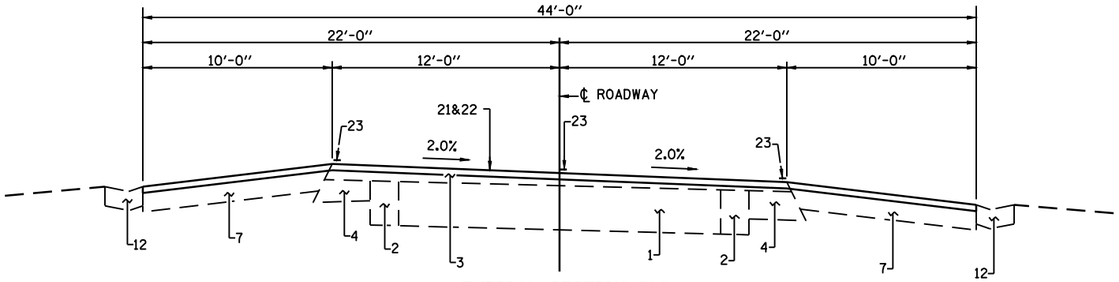
TYPICAL SECTION #11
STA. 89+50.00 TO STA. 98+00.00
STA. 75+63.00 TO STA. 87+90.99



TYPICAL SECTION #12
STA. 98+00.00 TO STA. 103+27.49
STA. 114+04.86 TO STA. 115+98.36



TYPICAL SECTION #13
STA. 103+27.49 TO STA. 114+04.86



TYPICAL SECTION #14
STA. 115+98.36 TO STA. 121+00.00

PAVEMENT LEGEND

1. EXISTING CONCRETE PAVEMENT
2. EXISTING CONCRETE WIDENING
3. EXISTING HOT-MIX ASPHALT OVERLAY 5½" & VARIABLE
4. EXISTING HOT-MIX ASPHALT WIDENING 9"
5. EXISTING CONCRETE SURFACE 3"
6. EXISTING HOT-MIX ASPHALT SHOULDER 13½"
7. EXISTING HOT-MIX ASPHALT SHOULDER 8"
8. EXISTING AGGREGATE SHOULDER, TYPE A 6"
9. EXISTING AGGREGATE SUB BASE 6"
10. EXISTING HOT-MIX BASE COURSE 11¾"
11. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL) T.B.R.
12. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL)
13. EXISTING HOT-MIX ASPHALT PAVEMENT 12"
14. EXISTING PAINT PAVEMENT MARKING LINE 5"
15. EXISTING AGGREGATE SHOULDER 8"
16. EXISTING AGGREGATE SHOULDER WEDGE, TYPE A
17. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (1½" MIN.)**
18. **PROPOSED HOT-MIX ASPHALT BINDER COURSE (2¼" MIN.)**
19. **PROPOSED BRIDGE APPROACH SLAB 15"**
20. **PROPOSED CONCRETE GUTTER TYPE B (SPECIAL)**
21. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (2")**
22. **PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2"**
23. **PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 5"**
24. **PROPOSED TEMPORARY PAVEMENT MARKING LINE 5"**
25. **PROPOSED CONCRETE CURB AND GUTTER, B6-18**
26. **PROPOSED SUB-BASE GRANULAR, TYPE A (8" MIN.)**

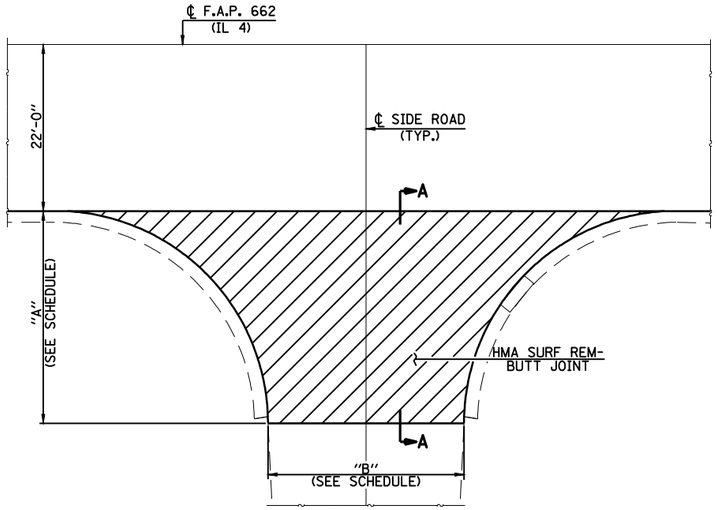
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73-sht-typicals.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 8.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 10:57:31AM	DATE -	REVISED -

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

DETAILS & TYPICAL SECTIONS

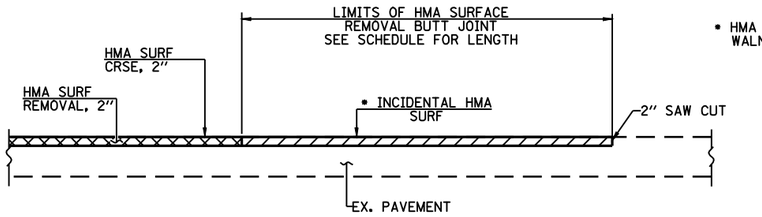
SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	11
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



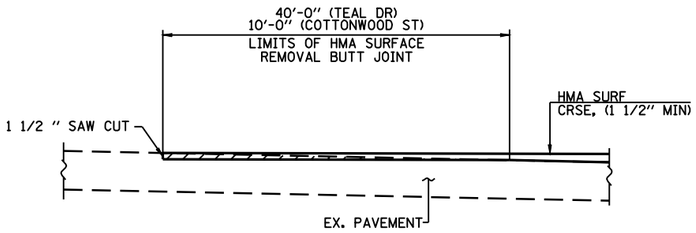
SIDE ROAD SCHEDULE

LOCATION	"A"	"B"	HMA SURF REM-BUTT JOINT (SQ. YD.)	INCIDENTAL HMA SURFACING (TON)	HMA SURF CRSE (TON)	BIT MATL (PC) (TON)	AGG PC (TON)	TEMP RAMP (SQ YD)
GLENWOOD LANE STA. 77+73 RT.	28'	26'	119	13.2		0.04	0.20	18.9
COTTONWOOD DRIVE STA. 80+26.2 LT.	28'	24'	115	13.0		0.03	0.15	17.6
COTTONWOOD DRIVE STA. 80+26.2 RT.	57'	36'	351	39.2		0.11	0.55	26.5
KIRKWOOD STREET STA. 83+67 LT.	27'	25.5'	115	12.8		0.03	0.15	19.0
ASH STREET STA. 88+24 RT.	27'	22.4'	103	11.5		0.03	0.15	16.6
WALNUT STREET STA. 93+84 LT.	33'	38.2'	181		19.8	0.05	0.25	28.3
WALNUT STREET STA. 93+84 RT.	27'	41.2'	147		18.6	0.04	0.20	30.6
MULBERRY STREET STA. 97+51 LT.	32'	38.4'	160	17.9		0.05	0.25	28.5
MULBERRY STREET STA. 97+51 RT.	27'	38.7'	141	15.7		0.04	0.20	28.7
CHESTNUT STREET STA. 101+17 LT.	28'	27.6'	130	14.5		0.04	0.20	20.5
CHESTNUT STREET STA. 101+17 RT.	15'	36.3'	91	10.1		0.03	0.15	26.9
LOCUST STREET STA. 104+93 RT.	31'	25.5'	142	15.8		0.04	0.20	18.9
SPRUCE STREET STA. 108+70 RT.	29'	29'	121	13.5		0.04	0.20	21.5
SPRUCE STREET STA. 110+29 LT.	25	22.8'	109	12.1		0.03	0.15	16.9
CIRCLE DRIVE STA. 113+68 LT.	19'	29.4'	85	9.5		0.03	0.15	21.8
CIRCLE DRIVE STA. 119+74 LT.	26'	23.2'	103	11.6		0.03	0.15	17.3
		TOTAL	2213	211	39	0.7	3.3	359

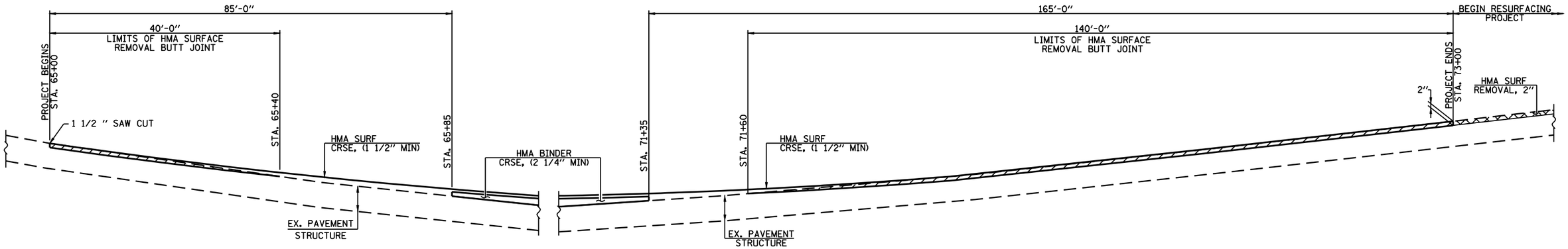


• HMA SURF CSE AT WALNUT ST

SECTION A-A



BUTT JOINT DETAIL
(TEAL DR - STA. 65+79.19 &
COTTONWOOD ST - STA. 70+57.14)



BUTT JOINT DETAIL
(STA. 65+00 TO STA. 65+85

BUTT JOINT DETAIL
(STA. 71+60 TO STA. 73+00

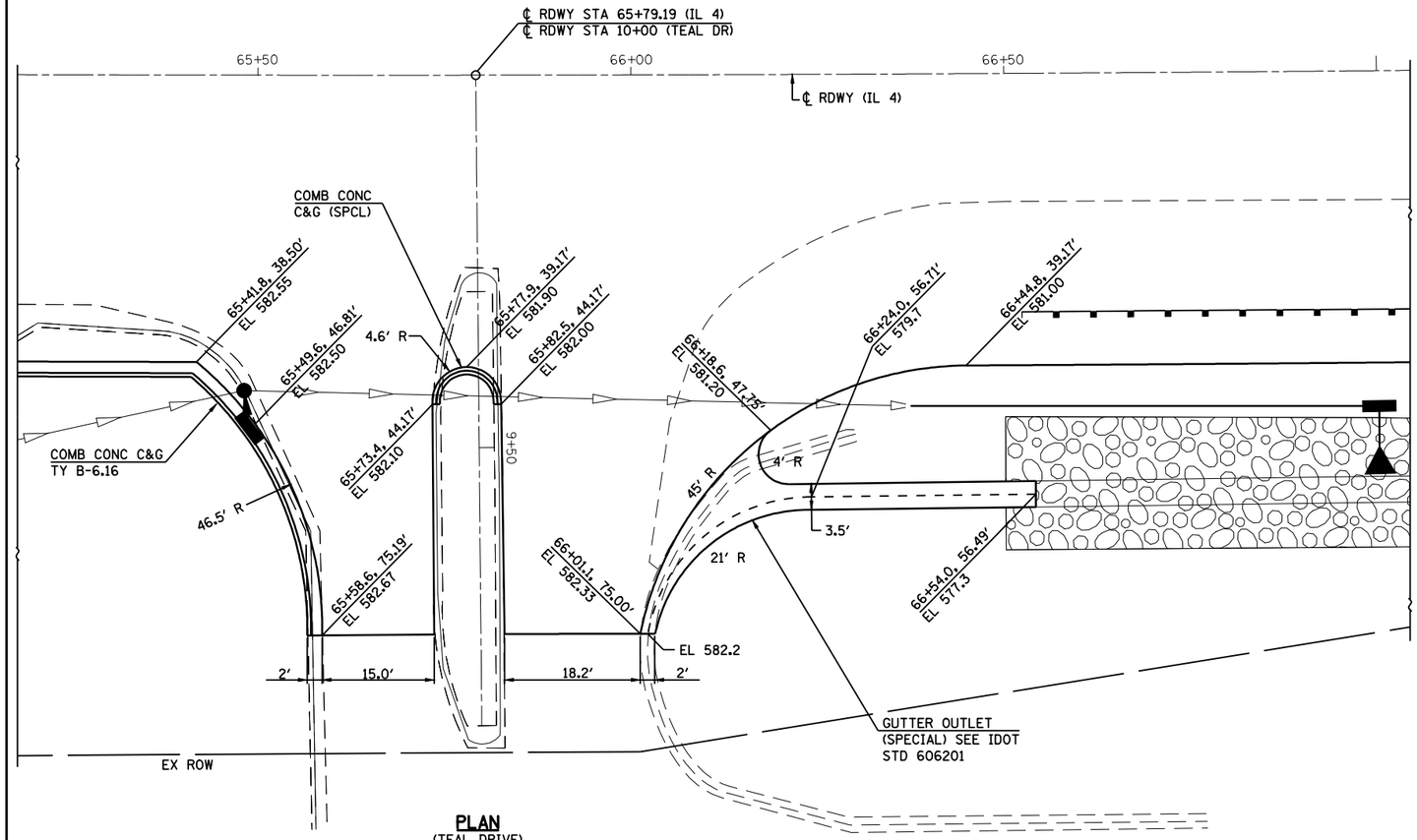
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:57:34AM	DATE -	REVISED -

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

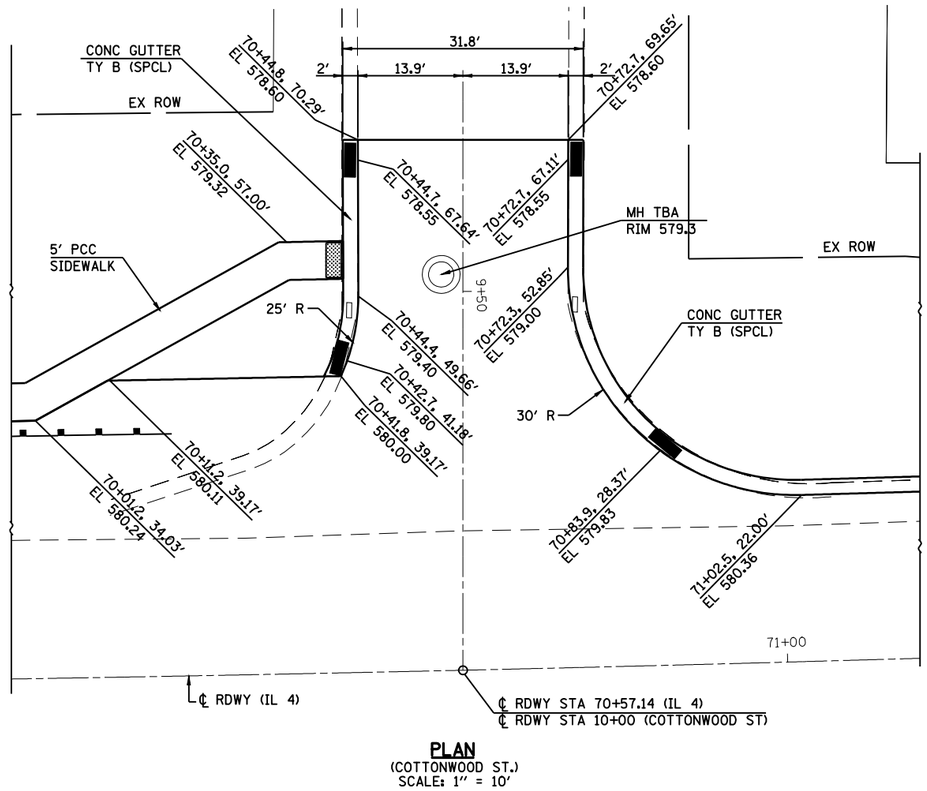
DETAILS

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

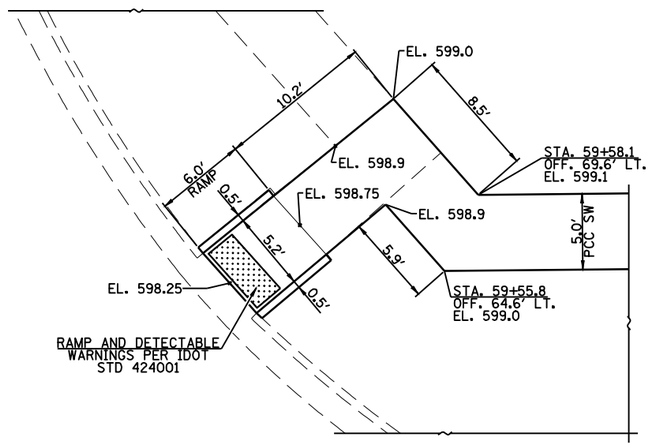
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10B-2)	SANGAMON	84	12
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PLAN
(TEAL DRIVE)
SCALE: 1" = 10'



PLAN
(COTTONWOOD ST.)
SCALE: 1" = 10'



PLAN
(SE CORNER PLUMMER BLVD & IL 4)
SCALE: 1" = 5'

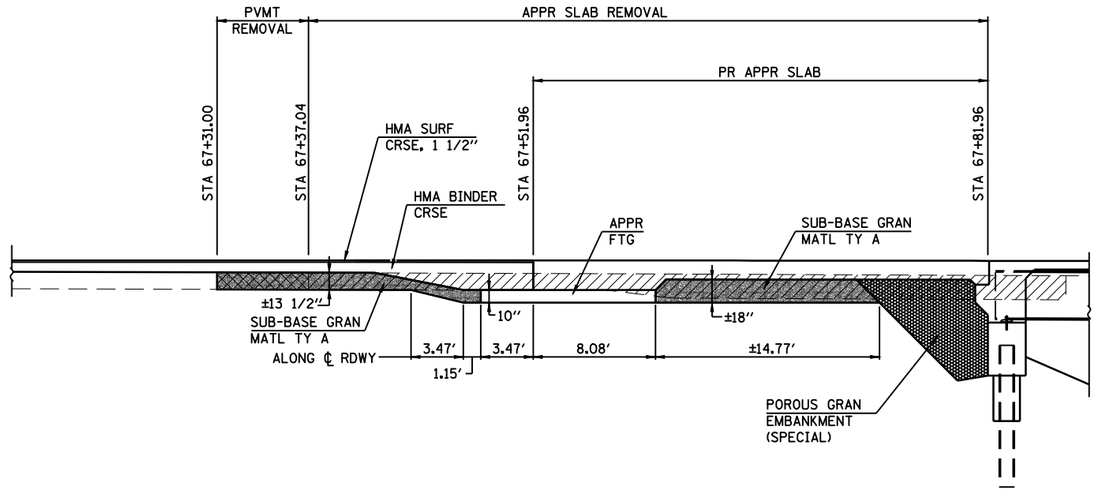
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2018 10:57:44AM	DATE -	REVISED -

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

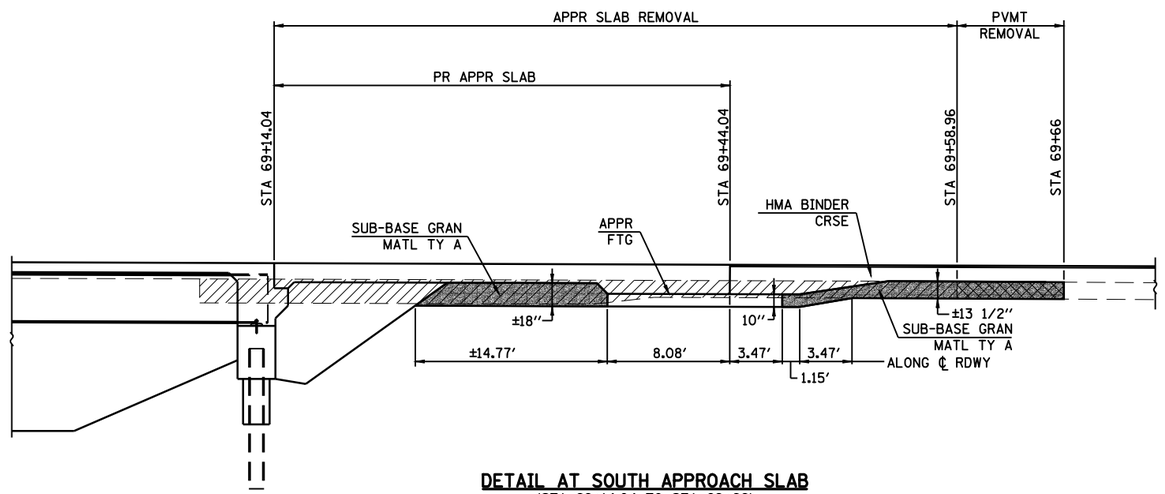
DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10B-2)	SANGAMON	84	13
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DETAIL AT NORTH APPROACH SLAB
(STA 67+31.00 TO STA 67+81.96)



DETAIL AT SOUTH APPROACH SLAB
(STA 69+14.04 TO STA 69+66)

USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 10.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:57:48AM	DATE -	REVISED -

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

DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10B-2)	SANGAMON	84	14
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

HOT MIX ASPHALT SCHEDULE

LOCATION	TEMPORARY RAMP	HMA BINDER CRSE, IL-19.0, N70	POLY HMA SURF CRSE, MIX "D", N70	BIT MATLS (PRIME COAT)	AGG PRIME COAT	HMA SURF REM - BUTT JOINT	HMA SURF REM 2"	INCIDENTAL HMA SURFACING
	SQ YD	TON	TON	TON	TON	SQ YD	SQ YD	TON
STA. 65+00 TO STA. 65+05	45							
STA. 65+00 TO STA. 65+40						318		
STA. 65+79.19 RT - TEAL DR.	19					183		
STA. 65+00 TO STA. 67+51.96		653	226	0.7	3.5			
STA. 69+44.04 TO STA. 73+00		1144	242	0.8	4.0			
STA. 70+57.14 LT - COTTONWOOD ST	16					31		
STA. 71+60 TO STA. 73+00						690		
STA. 73+00 TO STA. 121+00			2634	7.7	38.5		23467	
STA. 120+93.33 TO STA. 121+00	33							
COTTONWOOD DRIVE IMPACT ATTENUATORS		16						
FROM SIDE ROAD SCHEDULE	359		39	0.7	3.3	2213		211
TOTAL	472	1797	3141	9.9	49.3	3435	23467	211

PAVEMENT MARKING SCHEDULE

LOCATION	LENGTH (FT)	PAVEMENT MK. REMOVAL		SHORT TERM PVMT. MARKING		WORK ZONE PAVEMENT MK. REMOVAL		TEMPORARY PAVEMENT MARKING LINE - 5"		TEMPORARY PAVEMENT MARKING LINE - 24"	
		WHITE (SQ. FT)	YELLOW SKIP DASH & NO PASSING (SQ. FT)	WHITE (FT)	YELLOW (FT)	WHITE (SQ FT)	YELLOW SKIP DASH & NO PASSING (SQ FT)	WHITE (FT)	YELLOW (FT)	WHITE (FT)	YELLOW (FT)
STA. 65+00 TO STA. 70+10 LT.	510	214									
STA. 65+00 TO STA. 67+00 LT. (SKIP DASH)	200	21									
STA. 66+20 TO STA. 67+29 LT.	109	46									
STA. 66+30 TO STA. 70+12 LT. (DBL. SOLID)	382		319								
STA. 68+40 TO STA. 70+12 RT.	172	72									
STA. 70+93 TO STA. 73+87 LT.	294		123								
STA. 70+93 TO STA. 73+87 LT. (SKIP DASH)	294		34								
STA. 70+93 TO STA. 73+87 LT.	294		123								
STA. 72+20 TO STA. 73+87 RT. (SKIP DASH)	167		34								
STA. 66+52 - LT. TURN ARROW		15.6									
STA. 67+31 - LT. TURN ARROW		15.6									
STA. 69+18 - LT. TURN ARROW		15.6									
STA. 69+95 - LT. TURN ARROW		15.6									
STA. 65+00 TO STA. 73+00	800			225		94					
STA. 73+00 TO STA. 121+00	4800			1355		565					
STAGE I											
STA. 65+00 TO STA. 73+54 LT.						356		854			
STA. 65+32 TO STA. 73+68 ℄ (DBL. SOLID)							697		1672		
STA. 72+20 TO STA. 73+68 (DIAG.)							42		100		
STA. 64+70 TO STA. 73+54 RT.						369		886			
STAGE II											
STA. 65+00 TO STA. 73+87 LT.						373		895			
STA. 64+20 TO STA. 73+87 ℄ (DBL. SOLID)							808		1940		
STA. 64+20 TO STA. 65+24 (DIAG.)							29		70		
STA. 72+74 TO STA. 73+87 (DIAG.)							37		90		
STA. 65+29.2 TO STA. 73+87 RT.						358		858			
STA. 10+25 (TEAL DRIVE)						9				20	
SUB-TOTAL		416	633			2124	1613	3493	3872	20	
TOTAL		1049		1580		3737		7365		20	

NOTE: SHORT-TERM PAVEMENT MARKING QUANTITIES ARE FOR TWO APPLICATIONS.
• 10% OF TOTAL LENGTH FOR SHORT-TERM PAVEMENT MARKING

PERMANENT SEEDING SCHEDULE

LOCATION	SEEDING CLASS 2	NITROGEN FERTILIZER NUTRIENT	PHOSPHORUS FERTILIZER NUTRIENT	POTASSIUM FERTILIZER NUTRIENT	AGRICULTURAL GROUND LIMESTONE	MULCH METHOD 2	TEMPORARY EROSION CONTROL SEEDING
	ACRE	POUND	POUND	POUND	TON	ACRE	POUND
STA. 59+44 TO STA. 65+00 LT	0.2	18	18	18	0.4	0.2	20
STA. 65+00 TO STA. 67+50 LT	0.2	18	18	18	0.4	0.2	20
STA. 69+00 TO STA. 70+42 LT	0.1	9	9	9	0.2	0.1	10
STA. 70+75 TO STA. 72+50 LT	0.1	9	9	9	0.2	0.1	10
STA. 66+03 TO STA. 67+95 RT	0.1	9	9	9	0.2	0.1	10
STA. 69+41 TO STA. 73+00 RT	0.3	27	27	27	0.6	0.3	30
TOTAL	1.0	90	90	90	2.0	1.0	100

SCHEDULE
TRENCH BACKFILL

LOCATION	QUANTITY
	CU YD
STA. 65+48.2 TO STA. 65+48.9 RT.	1.0
STA. 70+41.7 TO STA. 70+43.7 LT.	16.9
STA. 70+43.7 TO STA. 70+73.7 LT.	7.8
STA. 70+39.6 TO STA. 70+39.8 RT.	28.9
STA. 71+48.9 TO STA. 71+10.2 RT.	72.2
TOTAL	127

SCHEDULE
PERIMETER EROSION BARRIER

LOCATION	QUANTITY
	FOOT
STA. 65+00 TO STA. 67+50 LT.	250
STA. 66+10 TO STA. 68+00 RT.	194
STA. 68+92 TO STA. 70+30 LT.	138
STA. 69+20 TO STA. 72+91 RT.	390
STA. 70+89 TO STA. 72+00 LT.	130
TOTAL	1102

SCHEDULE
SUB-BASE GRANULAR MATERIAL TYPE A

LOCATION	QUANTITY
	TON
STA. 65+00 TO STA. 65+58.5 RT	31
STA. 66+02 TO STA. 67+72 RT	162
STA. 67+04 TO STA. 67+36 LT	24
STA. 67+31 TO STA. 67+44 ℄	49
STA. 67+44 TO STA. 67+48.6 ℄	13
STA. 67+60.1 TO STA. 67+74.9	104
STA. 69+24.7 TO STA. 69+39.5	105
STA. 69+47.6 TO STA. 69+52.2 ℄	13
STA. 69+52.2 TO STA. 69+66 ℄	52
STA. 69+24.1 TO STA. 70+43 LT	98
STA. 69+60.5 TO STA. 72+61 RT	233
TOTAL	884

SCHEDULE
AGGREGATE (EROSION CONTROL)

LOCATION	QUANTITY
	TON
STA. 67+00 LT & RT	10
STA. 69+00 LT	5
STA. 69+31 RT	5
STA. 70+50 RT	5
TOTAL	25

SCHEDULE
PAVEMENT REMOVAL

LOCATION	PAVEMENT REMOVAL	APPR SLAB REMOVAL	PVMT REM (SPECIAL)
	SQ YD	SQ YD	SQ YD
STA. 67+31 TO STA. 67+37.04 ℄	29.6		
STA. 67+37.04 TO STA. 67+80 LT	42.8		
STA. 67+37.04 TO STA. 67+87.04 ℄		133.5	
STA. 67+37.04 TO STA. 68+00 RT	68.2		
STA. 68+97 TO STA. 69+58.96 LT	63.9		
STA. 69+08.96 TO STA. 69+58.96 ℄		133.5	
STA. 69+16 TO STA. 69+58.96 RT	45.8		
STA. 69+58.96 TO STA. 69+66 ℄	34.8		
STA. 69+80 TO STA. 70+05 LT			11.5
STA. 71+30 TO STA. 71+55 LT			11.5
TOTAL	286	267	23

SCHEDULE
STONE RIPRAP

LOCATION	STONE RIPRAP, CLASS A4	FILTER FABRIC
	SQ YD	SQ YD
STA. 66+50 TO STA. 67+94.6 RT (DITCH)	270	270
STA. 67+50 LT TO STA. 69+46 RT (BRIDGE)	2375	2375
TOTAL	2645	2645

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	CU YD	CU YD	CU YD	CU YD
STA. 59+50 TO STA. 66+50 LT	26	20	175	-155
STA. 66+50 TO STA. 67+50 LT	9	7	176	-169
STA. 69+00 TO STA. 72+50 LT	7	5	299	-294
STA. 66+20 TO STA. 68+00 RT	229	172	197	-25
STA. 69+50 TO STA. 73+00 RT	352	264	157	+107
TOTAL	623	468	1004	-536

GUTTER SCHEDULE

LOCATION	CONCRETE GUTTER TYPE B (SPECIAL)	GUTTER OUTLET	GUTTER OUTLET (SPECIAL)	GUTTER REMOVAL
	FOOT	EACH	FOOT	FOOT
STA. 66+03 TO STA. 66+54 RT.			62	
STA. 70+09 TO STA. 72+85 RT.				76
STA. 70+11 TO STA. 70+45 LT.				69
STA. 70+73 TO STA. 72+50 LT.	211			213
STA. 70+40 TO STA. 70+44 LT.	31			
STA. 72+49 TO STA. 72+85 RT.		1		
TOTAL	242	1	62	358

COMBINATION CURB & GUTTER SCHEDULE

LOCATION	COMBINATION CONCRETE CURB & GUTTER, TYPE B - 6.18'	COMBINATION CURB AND GUTTER REMOVAL	COMBINATION CONCRETE CURB & GUTTER (SPECIAL)
	FOOT	FOOT	FOOT
STA. 65+00 TO STA. 65+57 RT.	84		
STA. 65+17.3 TO STA. 65+58.7 RT.		72	
STA. 65+73.4 TO STA. 65+82.6 RT.		42	15
TOTAL	84	114	15

SCHEDULE
TREE REMOVAL

LOCATION	ACRES	(OVER 15 UNITS DIAMETER)
	ACRE	UNIT
STA. 67+70 75' LT. TO STA. 68+10 79.7' LT.	0.01	
STA. 68+90 60' RT. TO STA. 69+20 100' RT.	0.01	
STA. 60+05, 64' LT		16
TOTAL	0.1	16

SCHEDULE
INLET AND PIPE PROTECTION

LOCATION	QUANTITY
	EACH
STA. 65+48.2 RT	1
STA. 65+48.9 RT	1
STA. 65+50 LT	1
STA. 70+39.6 RT	1
STA. 70+41.7 LT	1
STA. 70+43.7 LT	1
STA. 70+73.7 LT	1
STA. 70+84.6 LT	1
STA. 71+48.9 RT	1
TOTAL	9

SCHEDULE
PAVED DITCH REMOVAL

LOCATION	QUANTITY
	FOOT
STA. 66+01 TO STA. 66+30 RT	44
TOTAL	44

SCHEDULE
PAVED SHOULDER REMOVAL

LOCATION	QUANTITY
	SQ YD
STA. 65+00 TO STA. 65+17.3 RT	17
TOTAL	17

FILE NAME = D672A73-sht-shedule.dgn

USER NAME = laughlinrl | PLOT SCALE = 2.0000 ' / IN. | PLOT DATE = Jun-28-2010 10:57:53AM

DESIGNED - | DRAWN - | CHECKED - | DATE -

REVISED - | REVISED - | REVISED - | REVISED -

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

QUANTITY SCHEDULES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	15
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

TRAFFIC CONTROL SCHEDULE

LOCATION	TEMP. CONC. BARRIER	RELOCATE TEMP. CONC. BARRIER	IMPACT ATTENUATORS, TEMP. (FULLY-REDIRECTIVE), NARROW, TEST LEVEL 3	IMPACT ATTENUATORS, RELOC. (FULLY-REDIRECTIVE), NARROW, TEST LEVEL 3
	FOOT	FOOT	EACH	EACH
STAGE I				
STA. 66+48 TO STA. 66+70 RT.			1	
STA. 66+70 TO STA. 72+20 RT.	550			
STA. 72+20 TO STA. 73+44.8 RT.	125			
STA. 73+44.8 TO STA. 73+66.8 RT.			1	
STA. 69+83 TO STA. 70+05 LT.			1	
STA. 70+05 TO STA. 71+30 LT.	125			
STA. 71+30 TO STA. 71+52 LT.			1	
STAGE II				
STA. 66+15.7 TO STA. 66+37.7 RT.				1
STA. 66+37.7 TO STA. 71+62.7 RT.	525			
STA. 71+62.7 TO STA. 72+49.8 RT.	25	62.5		
STA. 72+49.8 TO STA. 72+71.6 RT.				1
STA. 65+86.4 TO STA. 66+08.2 RT.				1
STA. 66+08.2 TO STA. 67+32.5 LT.		125		
STA. 67+32.5 TO STA. 71+57.3 LT.		425		
STA. 71+57.3 TO STA. 73+43 LT.		187.5		
STA. 73+43 TO STA. 73+64.6 LT.				1
TOTAL	1350	800	4	4

GUARDRAIL SCHDULE

LOCATION	TERMINAL MARKERS DIRECT APPLIED	TRAFFIC BARRIER TERMINAL TYPE 1 SPECIAL (TANGENT)	STEEL PLATE BEAM GUARDRAIL TYPE A, 6' POSTS	TRAFFIC BARRIER TERMINAL TYPE 6
	EACH	EACH	FOOT	EACH
STA. 66+40.33 LT.	1			
STA. 66+40.33 TO STA. 66+90.33 LT.		1		
STA. 66+90.33 TO STA. 67+33.48 LT.				1
STA. 69+25.56 TO STA. 69+68.71 LT.				1
STA. 69+68.71 TO STA. 70+18.71 LT.		1		
STA. 70+18.71 LT.	1			
STA. 66+52.29 RT.	1			
STA. 66+52.29 TO STA. 67+02.29 RT.		1		
STA. 67+02.29 TO STA. 67+27.29 RT.			25	
STA. 67+27.29 TO STA. 67+70.44 RT.				1
STA. 69+62.52 TO STA. 70+05.67 RT.				1
STA. 70+05.67 TO STA. 70+55.67 RT.		1		
STA. 70+55.67 RT.	1			
TOTAL	4	4	25	4

SCHEDULE
* ESTIMATED QUANTITIES FOR PAVEMENT PATCHING

LOCATION	PAVEMENT PATCHING TYPE I, 14"	PAVEMENT PATCHING TYPE II, 14"	PAVEMENT PATCHING TYPE III, 14"	PAVEMENT PATCHING TYPE IV, 14"
	SQ YD	SQ YD	SQ YD	SQ YD
STA. 73+00 TO STA. 121+00	235	235	235	235
TOTAL	235	235	235	235

* THE ABOVE ITEMS INCLUDE ESTIMATED QUANTITIES FOR PAVEMENT PATCHING FROM STA. 73+00 TO STA. 121+00.

END SECTION SCHEDULE

LOCATION	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"	CAST IN PLACE REINFORCED CONCRETE END SECTIONS 42"
	EACH	EACH	EACH
STA. 65+50, 51' LT.		1	
STA. 66+50, 55.5' LT.		1	
STA. 67+00, 50.4' RT.	1		
STA. 69+41, 80' RT.			1
TOTAL	1	2	1

SCHEDULE
STORM SEWER REMOVAL

LOCATION	12"	42"
	FOOT	FOOT
STA. 69+42 TO STA. 70+40 RT.		100
STA. 69+42 TO STA. 69+72 LT.	30	
STA. 69+42 48' LT. TO STA. 69+42 42' LT.	6	
TOTAL	36	100

CULVERT AND STORM SEWER SCHEDULE

LOCATION	PIPE CULVERTS CLASS A, TYPE 1 - 15"	PIPE CULVERTS CLASS A, TYPE 1 - 18"	STORM SEWER, TYPE 2, WATER MAIN QUALITY 12"	STORM SEWER, TYPE 2, WATER MAIN QUALITY 42"	STORM SEWER CLASS A, TYPE 2 12"	STORM SEWER CLASS A, TYPE 2 42"	PIPE UNDERDRAINS 4"
	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT	FOOT
STA. 65+48 TO STA. 65+49 RT.					4		
STA. 65+50 TO STA. 66+50 RT.		100					
STA. 66+37 TO STA. 67+00 RT.	63						
STA. 67+00 TO STA. 67+00 RT.	4						
STA. 67+32.5 RT.							16
STA. 69+41 TO STA. 70+40 RT.						100	
STA. 70+40 RT.			60				
STA. 70+44 TO STA. 70+72 LT.					28		
STA. 70+42 TO STA. 70+44 LT.					26		
STA. 70+40 TO STA. 71+49 RT.				124			
TOTAL	67	100	60	124	58	100	16

MANHOLE AND INLET SCHEDULE

LOCATION	MANHOLES, TYPE A, 8' DIAMETER, TYPE 1 FRAME, CLOSED LID	MANHOLES TO BE RECONSTRUCTED (SPECIAL)	INLETS TO BE ADJUSTED	INLETS, TYPE A TYPE 3 FRAME & GRATE	INLETS, TYPE A TYPE 10 FRAME & GRATE	FRAMES & LIDS TYPE 1, CLOSED LID	FRAMES AND GRATES, TYPE 10	INLETS, TYPE B TYPE 1 FRAME CLOSED LID	INLETS, TYPE B TYPE 10 FRAME AND GRATE
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
STA. 65+48.9, 47.4' RT.				1					
STA. 65+48.2, 42.3' RT.			1			1			
STA. 67+00, 45' RT.								1	
STA. 70+39.6, 20.6' RT.		1				1			
STA. 70+40, 80.5' RT.	1								
STA. 70+41.7, 41.6' LT.			1				1		
STA. 70+43.5, 67.5' LT.									
STA. 70+43.7, 67.7' LT.									1
STA. 70+73.7, 66.9' LT.					1				
STA. 70+84.6, 29.0' LT.			1				1		
STA. 71+48.9, 19.9' RT.		1				1			
TOTAL	1	2	3	1	1	3	2	1	1

RAISED REFLECTIVE PAVEMENT MARKER SCHEDULE

LOCATION	ONE WAY CRYSTAL/OPAQUE MARKER	TWO WAY AMBER MARKER	MARKER REMOVAL
	EACH	EACH	EACH
STA. 65+00 TO STA. 73+00	14	24	36
STA. 73+00 TO STA. 121+00	16	136	152
STA. 67+81.96 TO STA. 69+14.04			
SUB-TOTAL	30	160	
TOTAL	190		188

SCHEDULE
CONTROLLED LOW STRENGTH MATERIAL

LOCATION	QUANTITY
	CU. YD.
STA. 70+42 TO STA. 71+46.4	38.0
12" STORM SEWER REMOVAL (COTTONWOOD DR.)	10.0
TOTAL	48.0

SCHEDULE
MANHOLES TO BE ADJUSTED

LOCATION	QUANTITY
	EACH
STA. 107+30, 17' RT.	1
STA. 111+39, 15' RT.	1
STA. 118+03, 15' RT.	1
STA. 120+16, 14' RT.	1
TOTAL	4

SCHEDULE
WATER VALVE TO BE ADJUSTED

LOCATION	QUANTITY
	EACH
STA. 83+81.5, 17.5' LT.	1
STA. 93+47, 21.5' LT.	1
STA. 93+58, 18' LT.	1
STA. 93+55, 20' RT.	1
STA. 97+41, 21' RT.	1
TOTAL	5

SCHEDULE
GAS VALVE TO BE ADJUSTED

LOCATION	QUANTITY
	EACH
STA. 108+93, 28' RT.	1
TOTAL	1

SCHEDULE
REMOVING INLETS

LOCATION	QUANTITY
	EACH
STA. 69+42, 48' LT.	1
STA. 69+72, 48' LT.	1
TOTAL	2

SCHEDULE
CHANNEL EXCAVATION

LOCATION	QUANTITY
	CU. YD.
STA. 67+50 TO STA. 69+00, 0' TO 79' LT.	328
STA. 68+00 TO STA. 69+50, 0' TO 60' RT.	284
STA. 68+95, 62' RT. TO STA. 69+41, 97' RT.	90
TOTAL	702

SCHEDULE
FLEXIBLE DELINEATORS

LOCATION	QUANTITY
	EACH
STA. 65+32 TO STA. 73+68 (STAGE I)	41
STA. 64+20 TO STA. 73+87 (STAGE II)	47
TOTAL	88

FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D072A73-sht-shedule.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
	PLOT SCALE = 2.0000 ' / IN.	DRAWN -	REVISED -
	PLOT DATE = Jun-28-2010 10:57:56AM	CHECKED -	REVISED -
		DATE -	REVISED -

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

QUANTITY SCHEDULES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	16
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SCHEDULE
PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID

LOCATION	LINE 5"		LINE 6"		LINE 12"		LINE 24"		LETTERS AND SYMBOLS
	WHITE (FT)	YELLOW SKIP DASH & NO PASSING (FT)	WHITE (FT)	YELLOW SKIP DASH & NO PASSING (FT)	WHITE (FT)	YELLOW SKIP DASH & NO PASSING (FT)	WHITE (FT)	YELLOW SKIP DASH & NO PASSING (FT)	WHITE (SQ FT)
STA. 67+34.7 TO STA. 69+30.8 LT.	196								
STA. 67+62.20 TO STA. 69+54.4 LT.	193								
STA. 67+41 TO STA. 69+33.4 LT. (SKIP DASH)			48						
STA. 67+55 TO STA. 69+40.6 DBL. SOLID ℄				372					
STA. 67+75 TO STA. 69+54.4 RT. (DIAG.)					240				
COTTONWOOD DR. WEST							31		26
STA. 79+70							29		
STA. 80+72							25		
STA. 93+31							12		
WALNUT ST. EAST							12		
WALNUT ST. WEST							25		
STA. 94+26							14		
STA. 94+33							11		
STA. 66+50 LT. TURN ARROW									15.6
STA. 67+25 LT. TURN ARROW									15.6
STA. 69+20 LT. TURN ARROW									15.6
STA. 69+95 LT. TURN ARROW									15.6
STA. 78+20 LT. TURN ARROW									15.6
STA. 79+51 LT. TURN ARROW									15.6
STA. 80+94 LT. TURN ARROW									15.6
STA. 81+62 LT. TURN ARROW									15.6
STA. 82+87 LT. TURN ARROW									15.6
STA. 83+24 LT. TURN ARROW									15.6
STA. 84+26 LT. TURN ARROW									15.6
STA. 84+41 LT. TURN ARROW									15.6
STA. 85+60 LT. TURN ARROW									15.6
STA. 85+76 LT. TURN ARROW									15.6
STA. 87+54 LT. TURN ARROW									15.6
STA. 87+69 LT. TURN ARROW									15.6
STA. 89+12 LT. TURN ARROW									15.6
STA. 89+28 LT. TURN ARROW									15.6
STA. 91+02 LT. TURN ARROW									15.6
STA. 91+17 LT. TURN ARROW									15.6
STA. 92+56 LT. TURN ARROW									15.6
STA. 93+16 LT. TURN ARROW									15.6
STA. 94+54 LT. TURN ARROW									15.6
STA. 95+17 LT. TURN ARROW									15.6
STA. 110+31 LT., BIKE XING									23.4
SUB-TOTAL	389		48	372	240		184		
TOTAL	389		420		240		184		424

THERMOPLASTIC PAVEMENT MARKING SCHEDULE

LOCATION	LENGTH (FT)	LINE - 5"		LINE - 6"		LINE - 12"
		WHITE (FT)	YELLOW (FT)	WHITE (FT)	YELLOW (FT)	WHITE (FT)
STA. 64+20 TO STA. 67+62.2	342	431		248	724	349
STA. 69+30.8 TO STA. 73+00	369	623	534	81	144	550
STA. 73+00 TO STA. 79+70	670	1268	1406			
STA. 80+73 TO STA. 93+46	1273	2531	2764	234		
STA. 94+15				104		
STA. 94+26 TO STA. 97+17	292	675	770			
STA. 97+17 TO STA. 97+91	73		20			
STA. 97+91 TO STA. 100+77	286	572	80			
STA. 100+77 TO STA. 101+57	80		20			
STA. 101+57 TO STA. 104+54	297	596	80			
STA. 104+54 TO STA. 105+35	81	81	20			
STA. 105+35 TO STA. 108+36	301	602	80			
STA. 108+36 TO STA. 109+27	91	91	30			
STA. 109+27 TO STA. 109+89	62	124	20			
STA. 109+89 TO STA. 110+68	79	79	20			
STA. 110+68 TO STA. 113+30	262	524	70			
STA. 113+30 TO STA. 114+16	86	86	20			
STA. 114+16 TO STA. 119+31	515	1030	130			
STA. 119+31 TO STA. 120+13	82	82	20			
STA. 120+13 TO STA. 121+00	87	174	20			
COTTONWOOD DR. WEST		33	66	116		
WALNUT ST. EAST		13	12	106		
WALNUT ST. WEST		8	2	108		
SUB-TOTAL		9623	6184	997	868	899
TOTAL		15807		1865		899

SCHEDULE
SIDEWALK

LOCATION	CURB CUT	SIDEWALK REMOVAL	PCC SIDEWALK, 4"	DETECTABLE WARNINGS
	FOOT	SQ FT	SQ FT	SQ FT
STA. 59+39.9 TO STA. 59+55.6 LT		91		
STA. 59+42 LT				10
STA. 59+39 TO STA. 63+57 LT			2119	
STA. 63+54 LT				10
STA. 63+55.4 LT	6			
STA. 63+81 LT	6			
STA. 63+84 LT				11
STA. 63+81 TO STA. 67+32.4 LT			1769	
STA. 69+21.6 TO STA. 70+42.5 LT			618	
STA. 70+41 LT				10
TOTAL	12	91	4506	41

SCHEDULE
RELOCATE EXISTING SIGNS

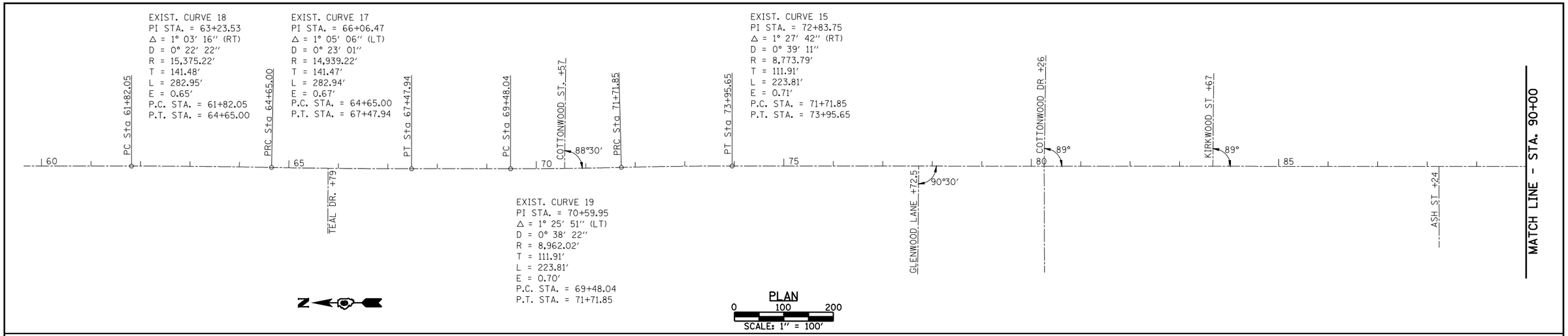
LOCATION	QUANTITY EACH
STA. 66+16 33' RT. TO STA. 66+22 48' RT. (STOP SIGN)	1
STA. 65+78 36' RT. TO STA. 65+78 43' RT. (STREET SIGN)	1
STA. 70+39 54' LT. TO STA. 70+39 48' LT. (STREET SIGN)	1
TOTAL	3

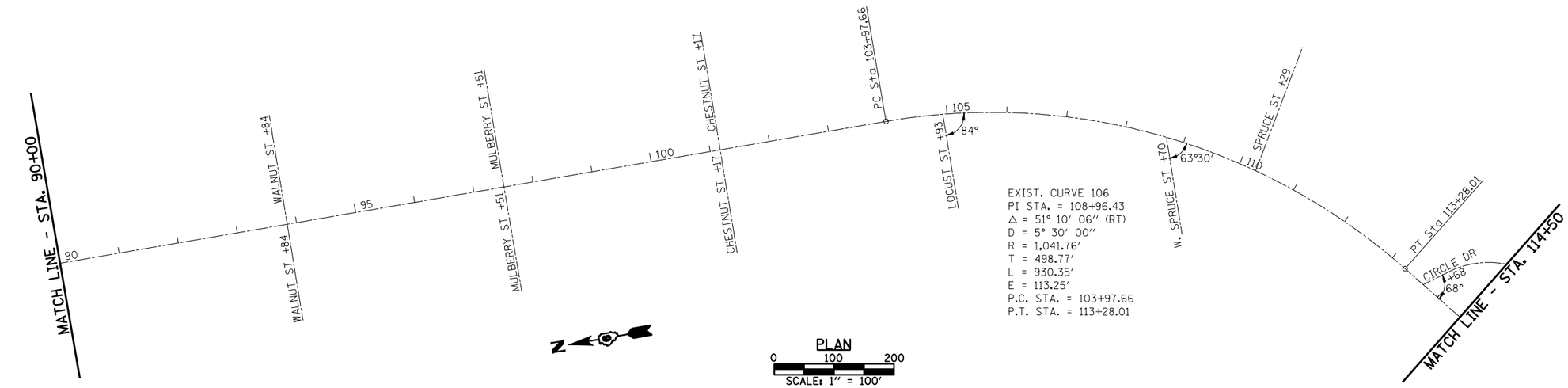
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907

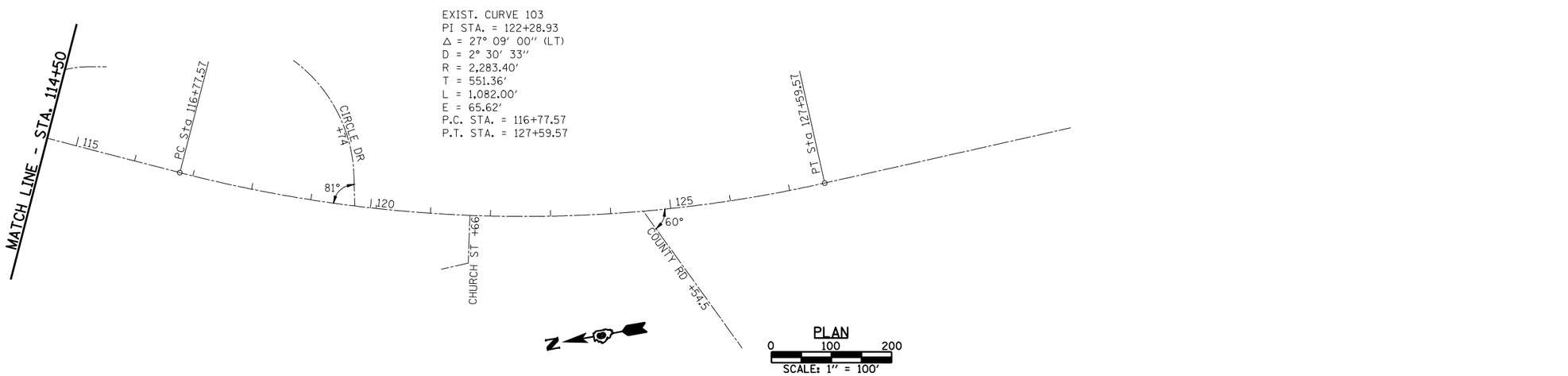
QUANTITY SCHEDULES

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	17
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		







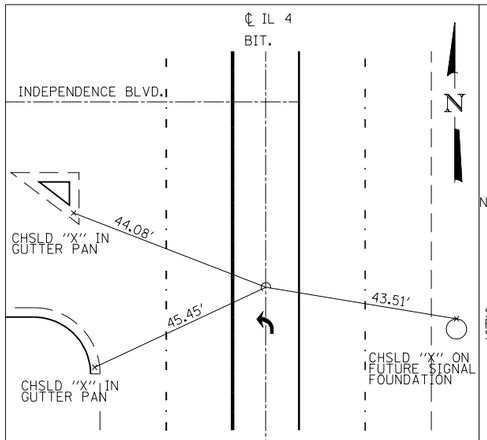
USER NAME = laughlinrl	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 200.0000 ′ / IN.	CHECKED -	REVISED -	
PLOT DATE = Jun-28-2010 10:58:04AM	DATE -	REVISED -	

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

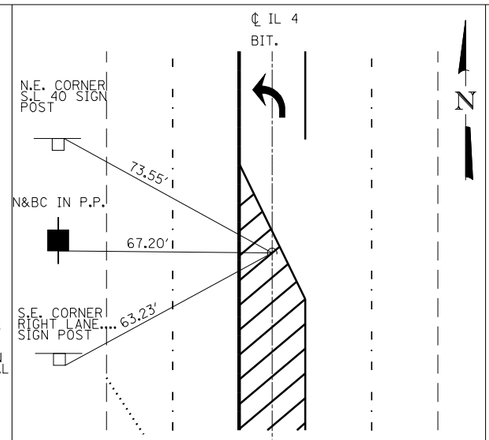
ALIGNMENT, TIES & BENCHMARKS

SCALE: 1″ = 200′ | SHEET NO. 1 OF 3 SHEETS | STA. | TO STA.

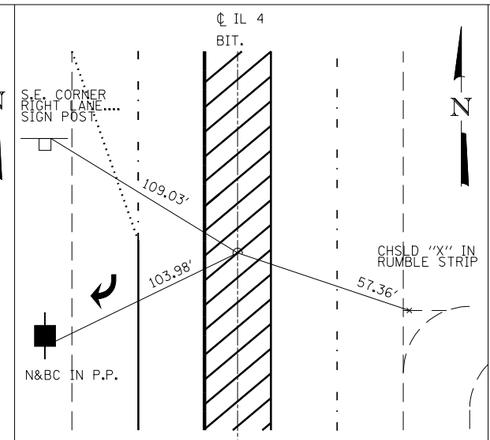
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	18
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



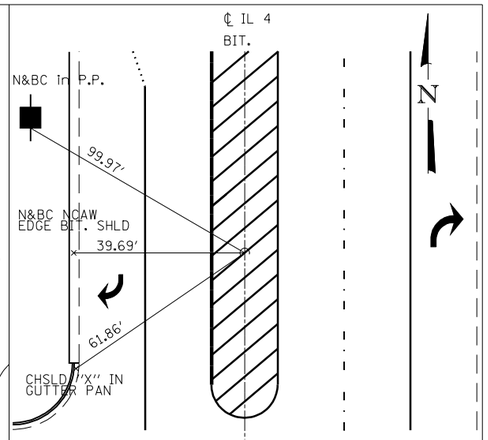
#1008 POT 49+04.368 DIMPLE ON ALUM. DISC. W/ CHLSD "X"



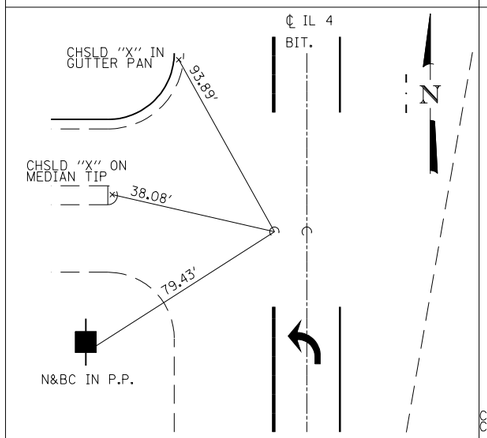
PC 61+82.048 DIMPLE ON ALUM. DISC. W/ CHSLD "X"



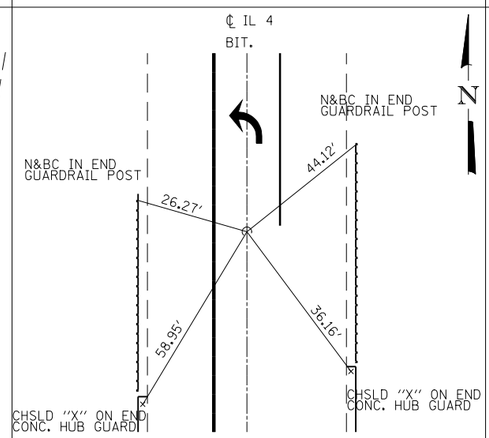
PI 63+23.529 SET PK N&BC W/ CHSLD "X"



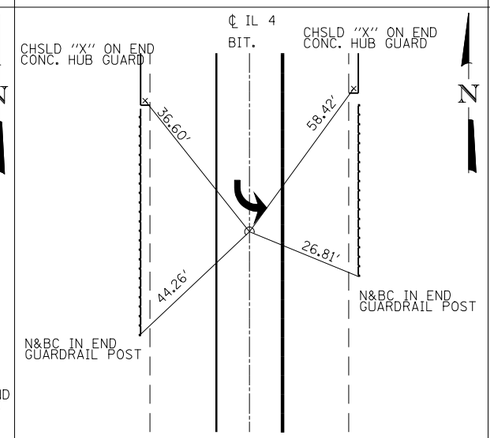
PRC 64+65.002 DIMPLE ON ALUM. DISC. W/ CHSLD "X"



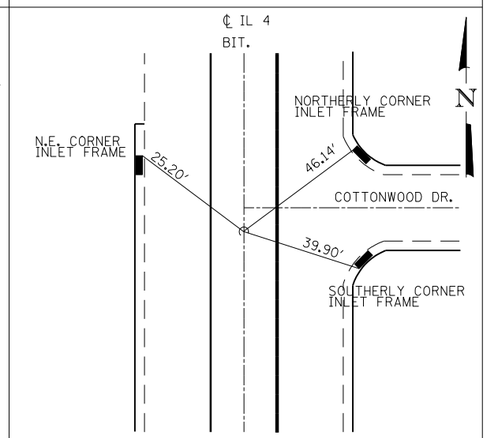
PI 17 66+06.475 MAG NAIL & BC W/ CHSLD "X"



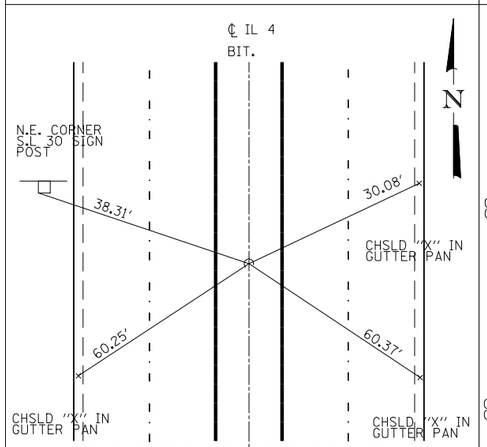
PT 67+47.938 DIMPLE ON ALUM. DISC. W/ CHSLD "X"



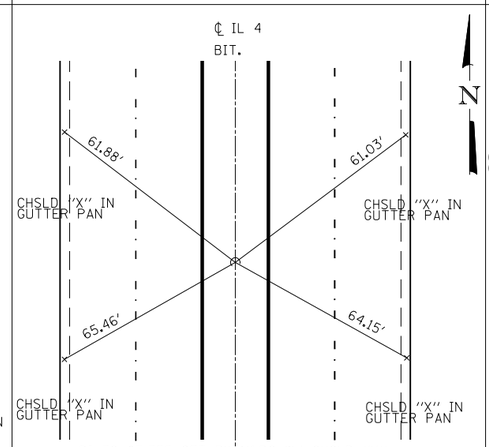
PC 69+48.037 SET PK N&BC W/ CHSLD "X"



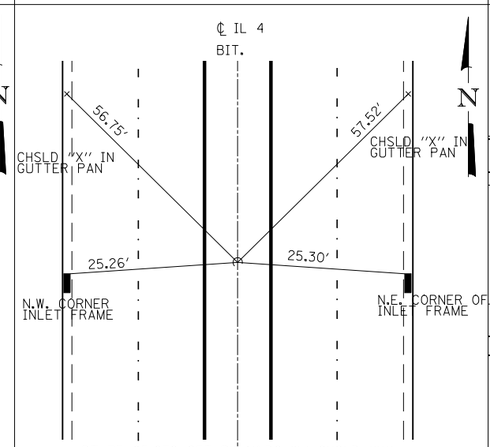
PI 70+59.947 SET PK N&BC W/ CHSLD "X"



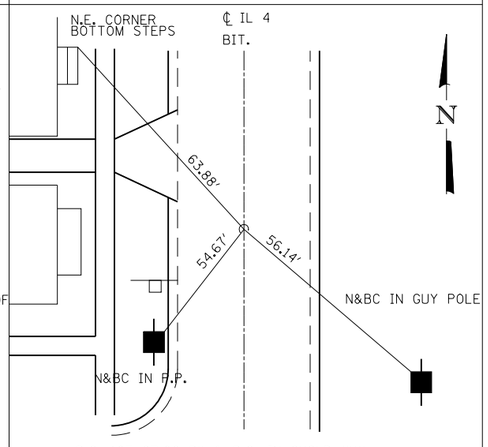
PRC 71+71.846 SET PK N&BC W/ CHSLD "X"



PI 72+83.755 SET PK N&BC W/ CHSLD "X"



PT 73+95.652 SET PK N&BC W/ CHSLD "X"



P.C. 103+97.66 PK & B.C. IN CHSLD "X"

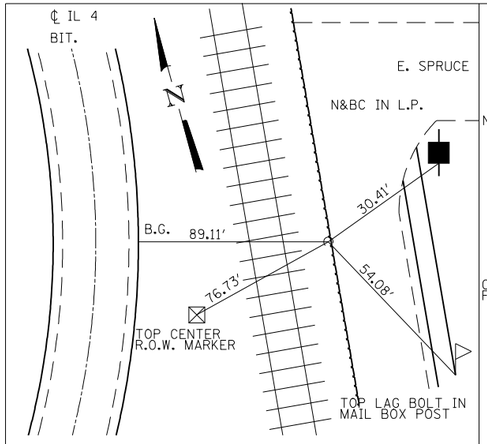
USER NAME = laughlinrl	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 8.0000 ' / IN.	CHECKED -	REVISED -	
PLOT DATE = Jun-28-2010 10:58:07AM	DATE -	REVISED -	

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

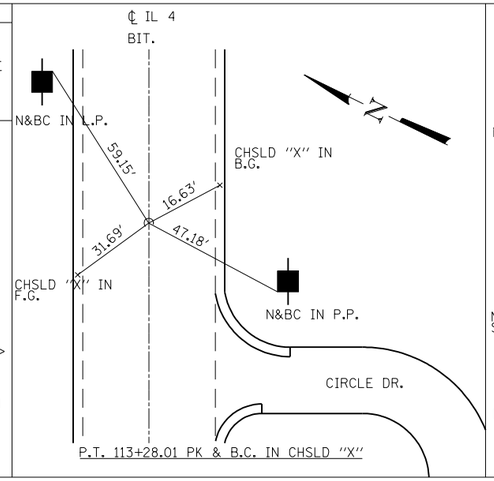
ALIGNMENT, TIES & BENCHMARKS

SCALE: NONE | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

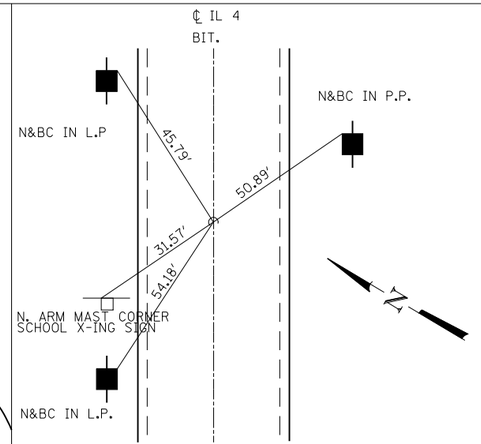
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10, B-2)	SANGAMON	84	19
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



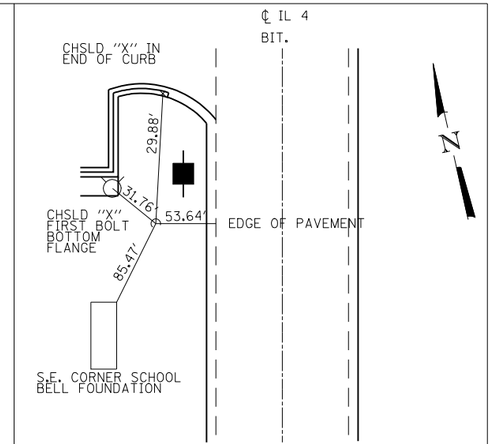
P.I. 108+96.43 PK & B.C. IN CHSLD "X"



P.T. 113+28.01 PK & B.C. IN CHSLD "X"



P.C. 116+77.57 PK & B.C. IN CHSLD "X"



P.I. 122+28.93 #5 REBAR W/ IDOT CAP (BURIED)

BM DA-3, SET CHSLD "X" ON TOP N.E. BOLT OF A FIRE HYDRANT IN N.E. QUAD OF IL4 AND PLUMMER BLVD. INTERSECTION @ MOBIL GAS STATION. NAVD 88. ELEV. 600.885
BM RA-7, FOUND CHSLD "+" IN WNW BOLT OF FIRE HYDRANT, EAST SIDE OF IL4 AT NORTH EDGE OF CHATAM 50+00, 2.1 MILE SOUTH OF JET SPAULDING ORCHARD/ WOODSIDE RD. NAVD 88. ELEV. 602.591
BM RA-8, FOUND CHSLD SQUARE IN S.E. WINGWALL BRIDGE # 084-•0172, STA. 68+48, 2.5 MILES S. OF INTERSECTION OF JET SPAULDING ORCHARD/ WOODSIDE RD. NAVD 88. ELEV. 579.512
BM RA-9, FOUND R.R. SPIKE IN P.P./L.P. NORTH EDGE OF HARDEES SOUTH ENTRANCE, 2.8 MILES SOUTH OF JET SPAULDING ORCHARD/ WOODSIDE RD. NAVD 88. ELEV. 604.008
BM RA-10, FOUND CHSLD SQUARE IN S.E. CORNER OF FOUNDATION FOR COMBINED MAST ARM, S.W. QUAD OF WALNUT ST. AND IL4 INTERSECTION. NAVD 88. ELEV. 605.175
BM RA-11, FOUND CHSLD "+" IN EAST BOLT OF FIRE HYDRANT, S.W. QUAD OF INTERSECTION CHESTNUT ST. & IL4, 0.15 S. JCT. WALNUT ST. NAVD 88. ELEV. 606.823
BM RA-12, FOUND CHSLD SQUARE IN NORTH END OF CONCRETE FOUNDATION OF SANGAMON PRAIRIES RECEPTION CENTER SIGN. 0.42 MILE SOUTH OF WALNUT ST. NAVD 88. ELEV. 602.347
BM RA-13, FOUND 60D NAIL IN POWER POLE WEST SIDE OF IL4, 0.64 MILE SOUTH OF JCT. WALNUT ST. STA. 127+60. NAVD 88. ELEV. 605.431

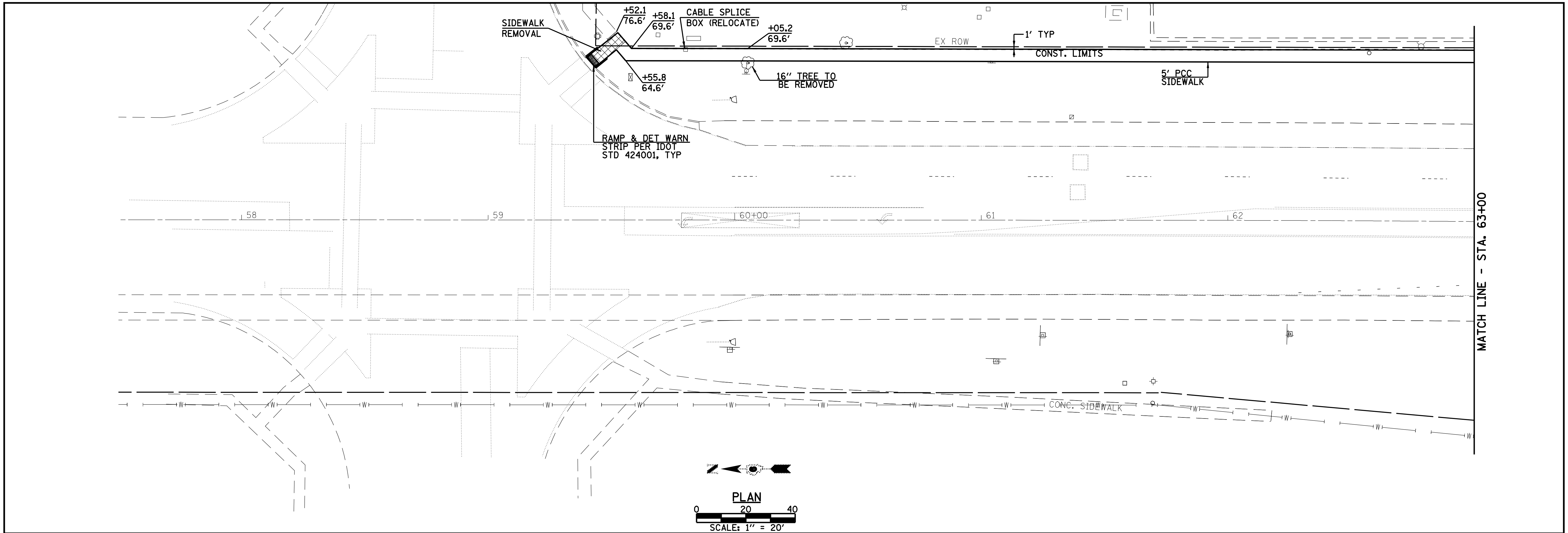
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 8.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:58:09AM	DATE -	REVISED -

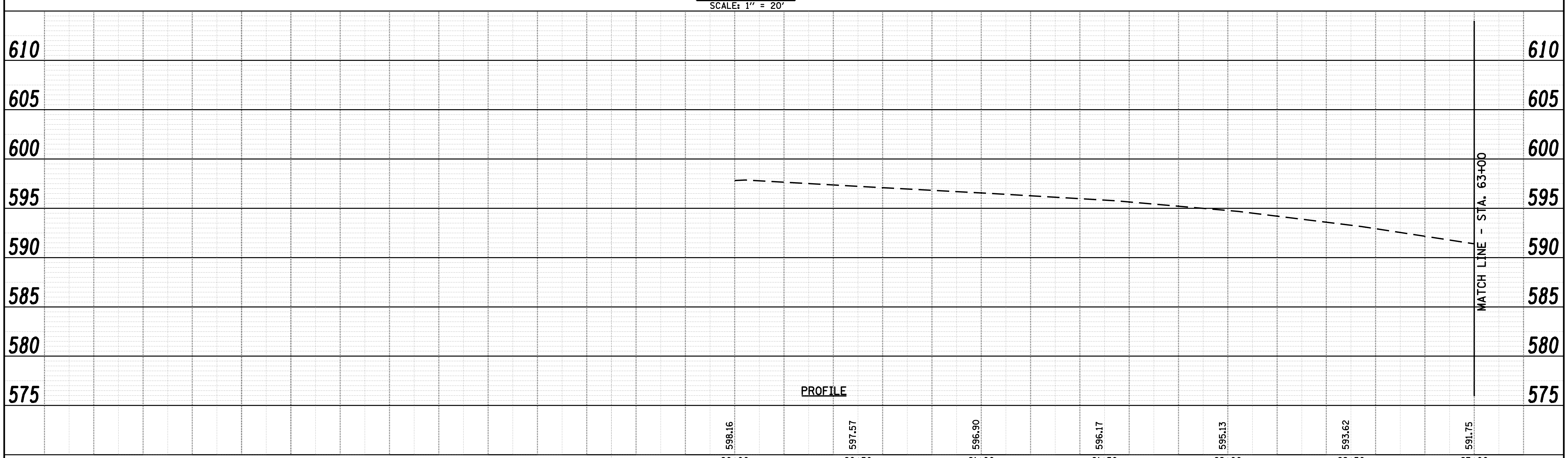
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm
No. 184-001907

ALIGNMENT, TIES & BENCHMARKS

SCALE: NONE | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10, B-2)	SANGAMON	84	20
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





PLAN: SURVEYED, PLOTTED, ALIGNMENT CHECKED, R.O.W. CHECKED, CADD FILE NAME, NOTE BOOK NO., BY, DATE

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

USER NAME = laughlinrl	DESIGNED -	REVISED -	
	CHECKED -	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED -	
PLOT DATE = Jun-28-2010 10:58:15AM	CHECKED -	REVISED -	

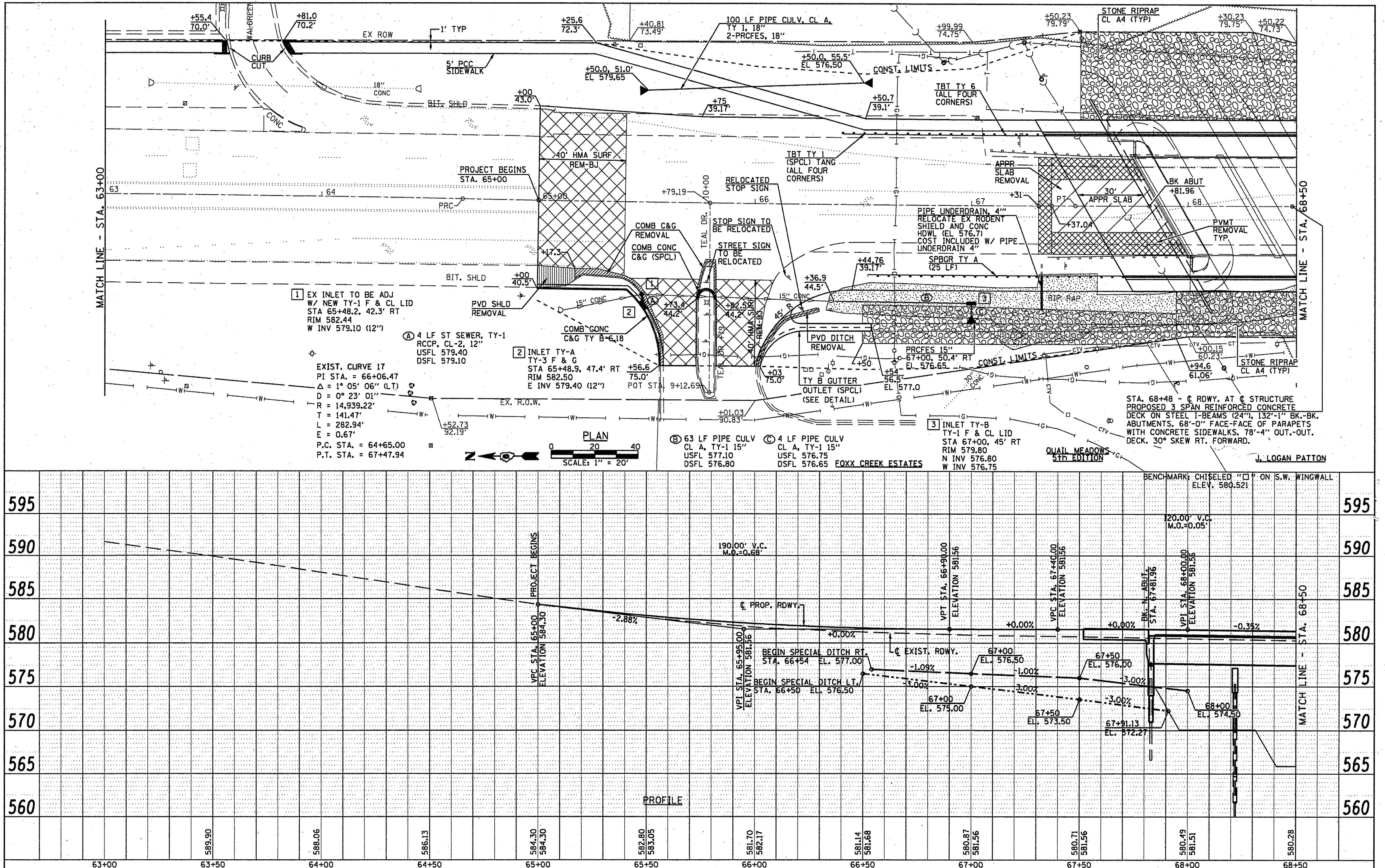
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907

PLAN & PROFILE

SCALE: 1" = 20' | SHEET NO. 1 OF 3 SHEETS | STA. 58+00.00 TO STA. 63+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	21
		CONTRACT NO.		

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



USER NAME = leughlnrl	DESIGNED -	REVISED -	
	CHECKED -	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED -	
PLOT DATE = Jul-07-2010 06:59:43AM	CHECKED -	REVISED -	

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

PLAN & PROFILE

SCALE: 1" = 20' | SHEET NO. 2 OF 3 SHEETS | STA. 63+00.00 TO STA. 68+50.00

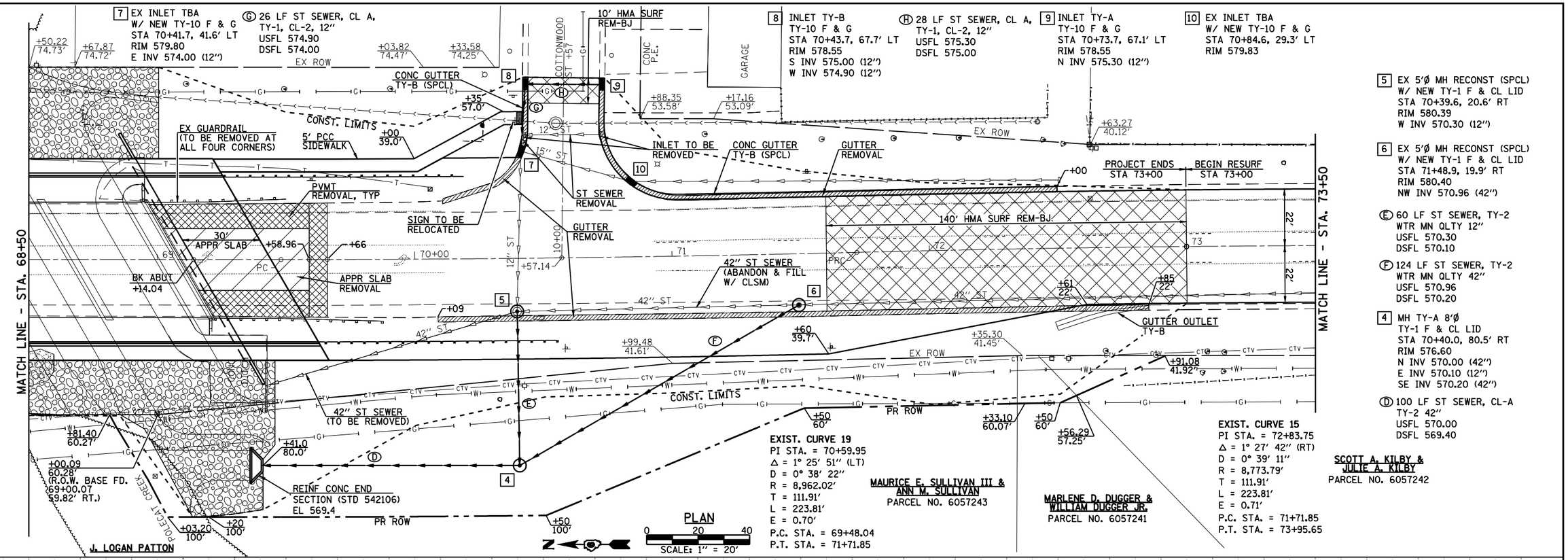
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	22
		CONTRACT NO.		

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

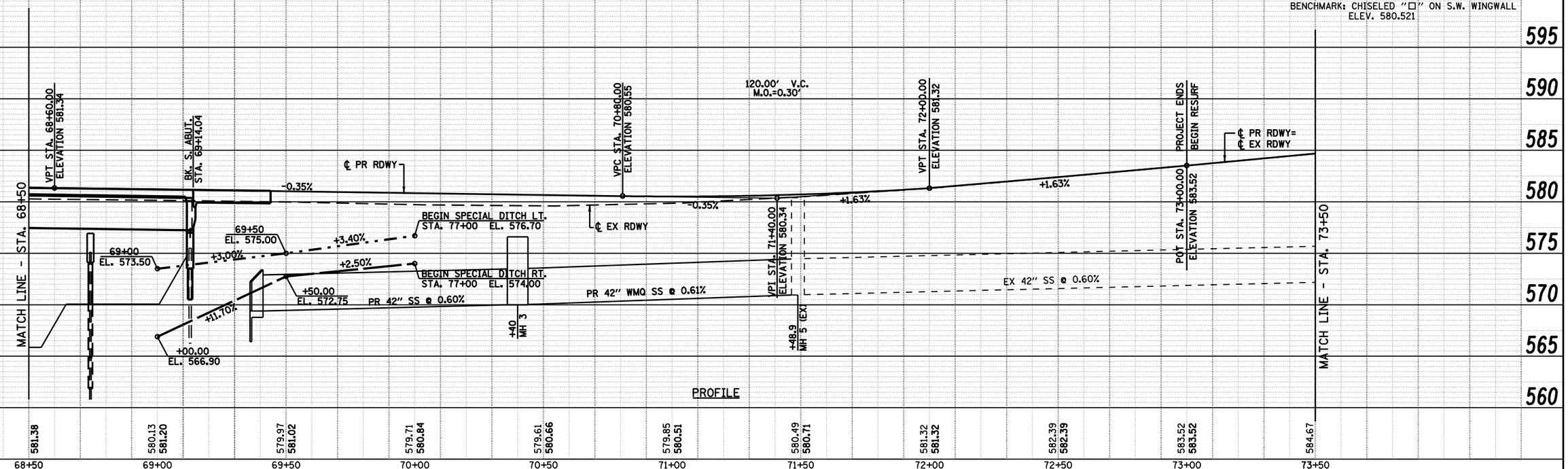
PLAN	SURVEYED / PLOTTED / ALIGNMENT CHECKED / R.O.W. CHECKED / CADD FILE NAME	BY	DATE
NOTE BOOK / NO.			

PROFILE	SURVEYED / PLOTTED / GRADES CHECKED / B.M. NOTED / STRUCTURE NOTATNS CHKD	BY	DATE
NOTE BOOK / NO.			

PLAN | SURVEYED | PLOTTED | ALIGNMENT CHECKED | RT. OF WAY CHECKED | CADD FILE NAME | NOTE BOOK | NO. | BY | DATE



PROFILE | SURVEYED | PLOTTED | ALIGNMENT CHECKED | R.O.W. NOTED | STRUCTURE NOTATN'S CHKD | NOTE BOOK | NO. | BY | DATE



USER NAME = laughlinrl	DESIGNED -	REVISED -	
	CHECKED -	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED -	
PLOT DATE = Jun-28-2010 10:58:26AM	CHECKED -	REVISED -	

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

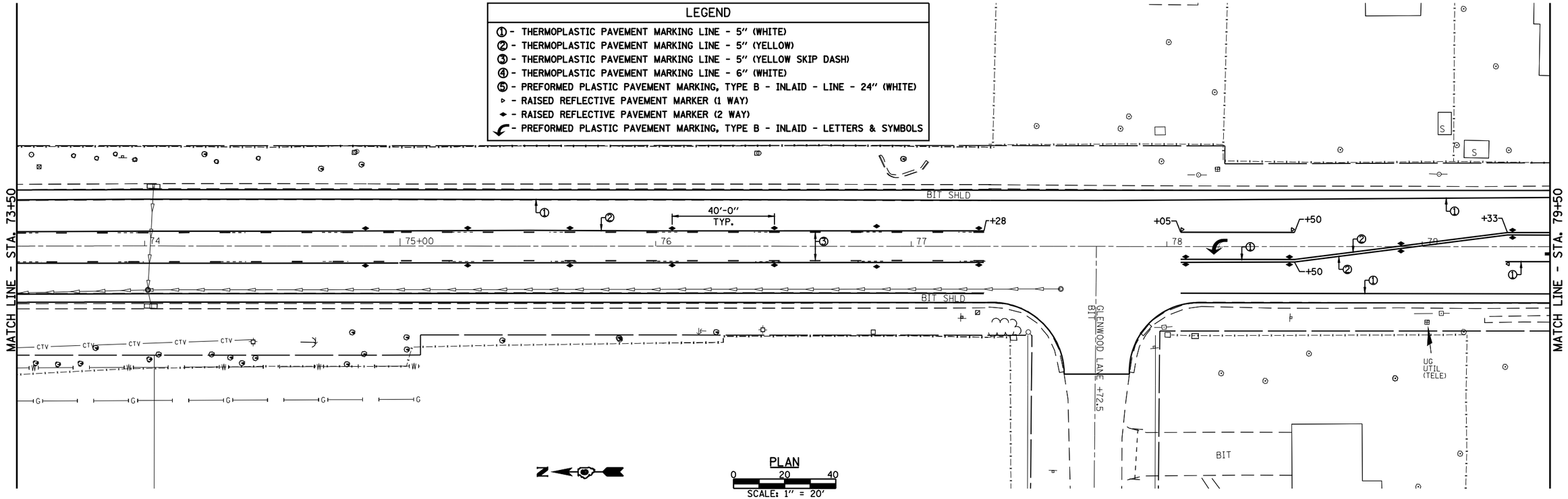
PLAN & PROFILE

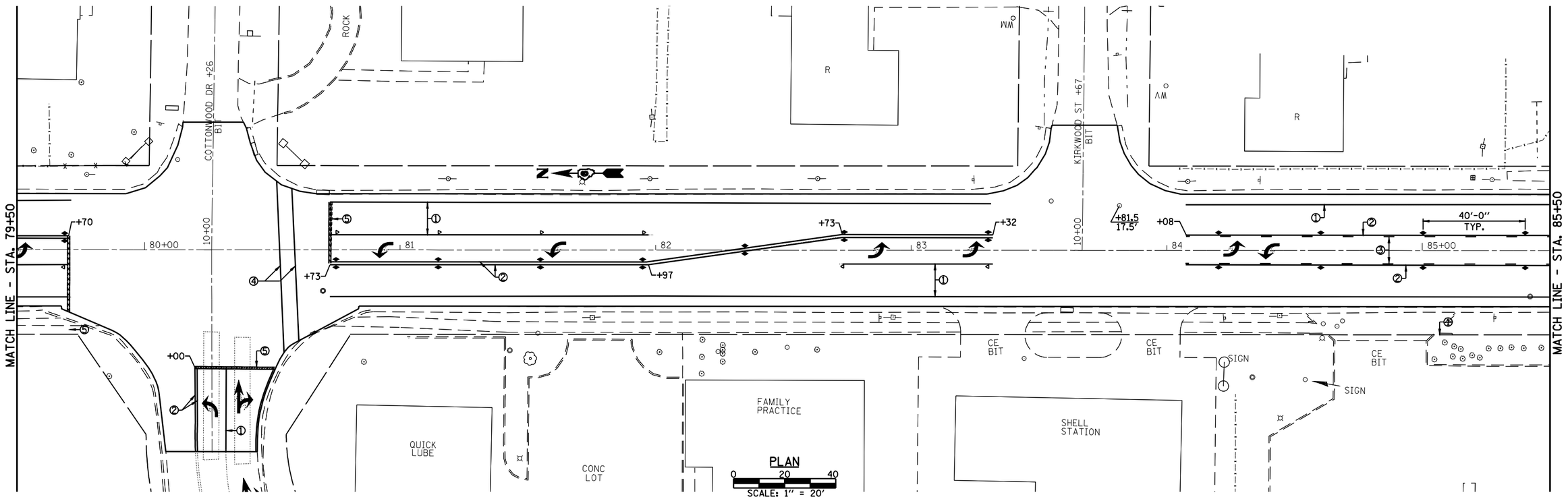
SCALE: 1" = 20' | SHEET NO. 3 OF 3 SHEETS | STA. 68+50.00 TO STA. 73+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	23
		CONTRACT NO.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND

① - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (WHITE)
② - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW)
③ - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW SKIP DASH)
④ - THERMOPLASTIC PAVEMENT MARKING LINE - 6" (WHITE)
⑤ - PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE - 24" (WHITE)
▹ - RAISED REFLECTIVE PAVEMENT MARKER (1 WAY)
◆ - RAISED REFLECTIVE PAVEMENT MARKER (2 WAY)
- PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LETTERS & SYMBOLS





USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:58:39AM	DATE -	REVISED -

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

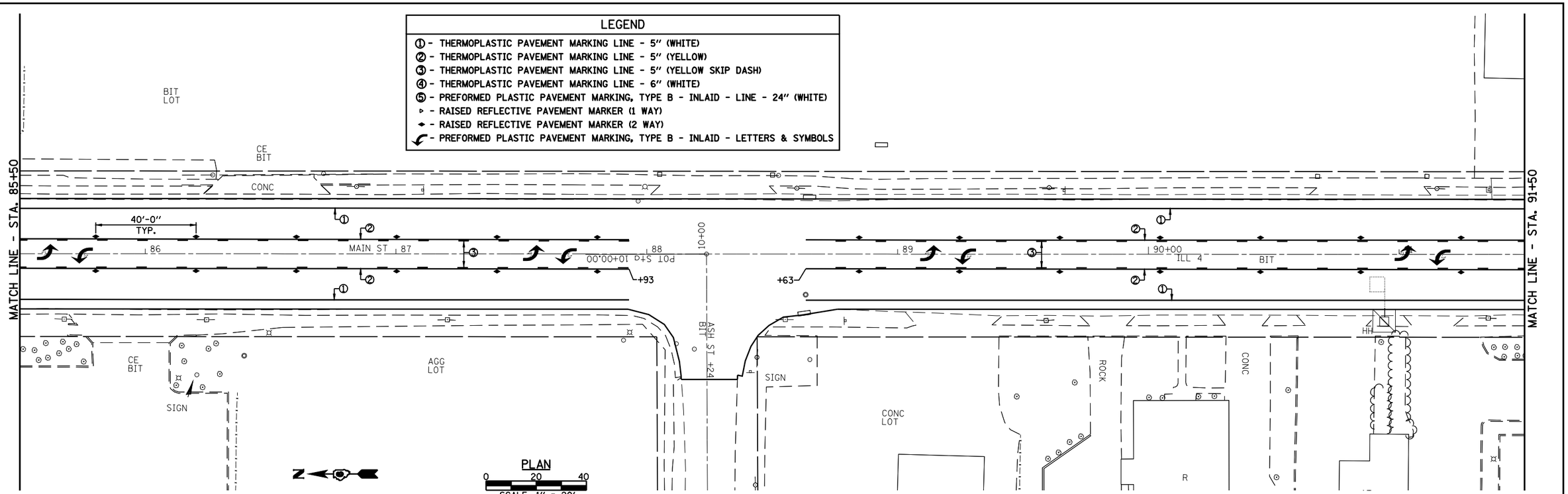
ROADWAY & PAVEMENT MARKING PLAN

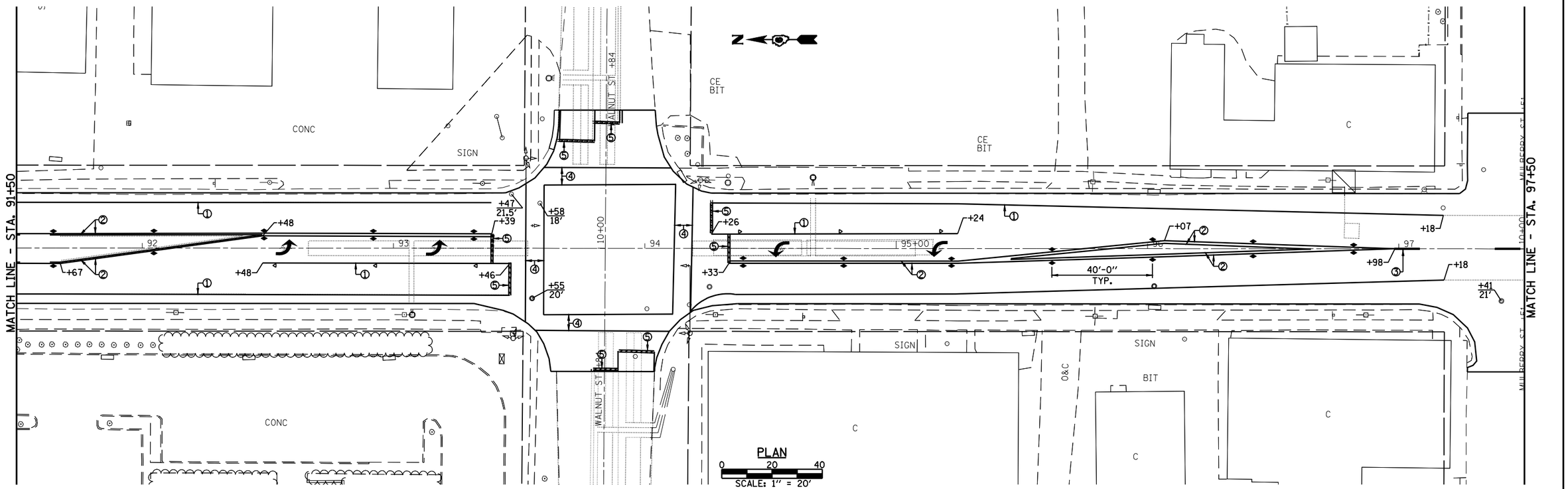
SCALE: 1" = 20' | SHEET NO. 1 OF 5 SHEETS | STA. 73+50 TO STA. 85+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	24
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

LEGEND

① - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (WHITE)
② - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW)
③ - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW SKIP DASH)
④ - THERMOPLASTIC PAVEMENT MARKING LINE - 6" (WHITE)
⑤ - PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE - 24" (WHITE)
▷ - RAISED REFLECTIVE PAVEMENT MARKER (1 WAY)
◆ - RAISED REFLECTIVE PAVEMENT MARKER (2 WAY)
↙ - PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LETTERS & SYMBOLS





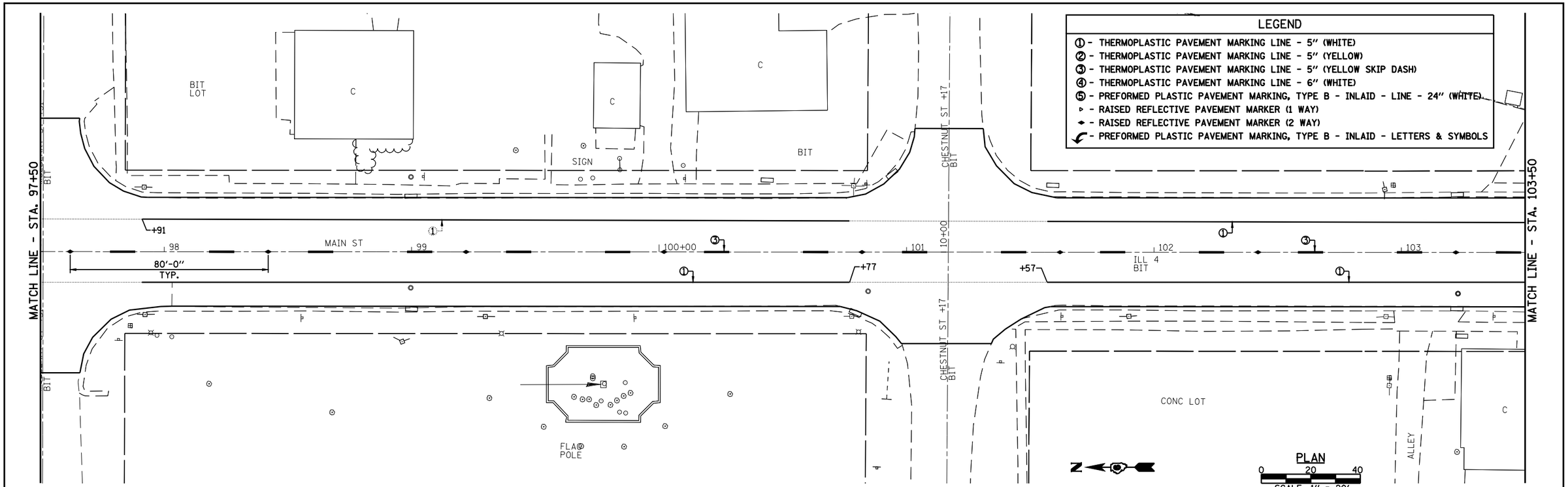
USER NAME = laughlinrl	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -	
PLOT DATE = Jun-28-2010 10:58:52AM	DATE -	REVISED -	

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

ROADWAY & PAVEMENT MARKING PLAN

SCALE: 1" = 20' | SHEET NO. 2 OF 5 SHEETS | STA. 85+50 TO STA. 97+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	25
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



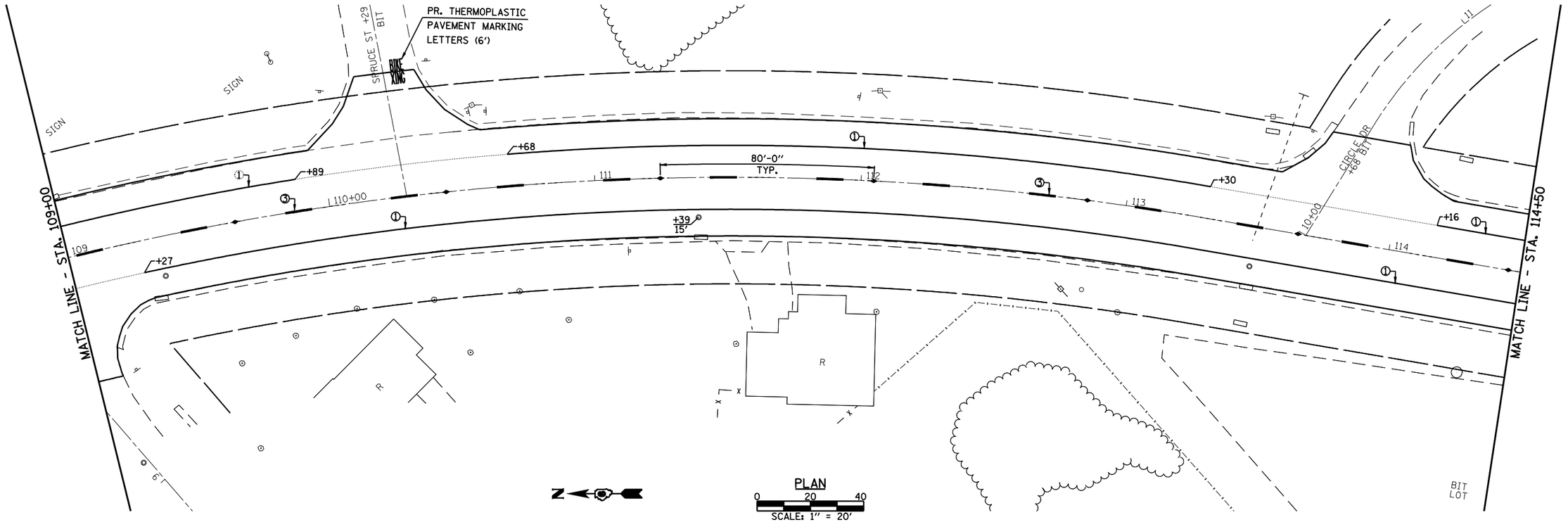
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:59:04AM	DATE -	REVISED -

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

ROADWAY & PAVEMENT MARKING PLAN

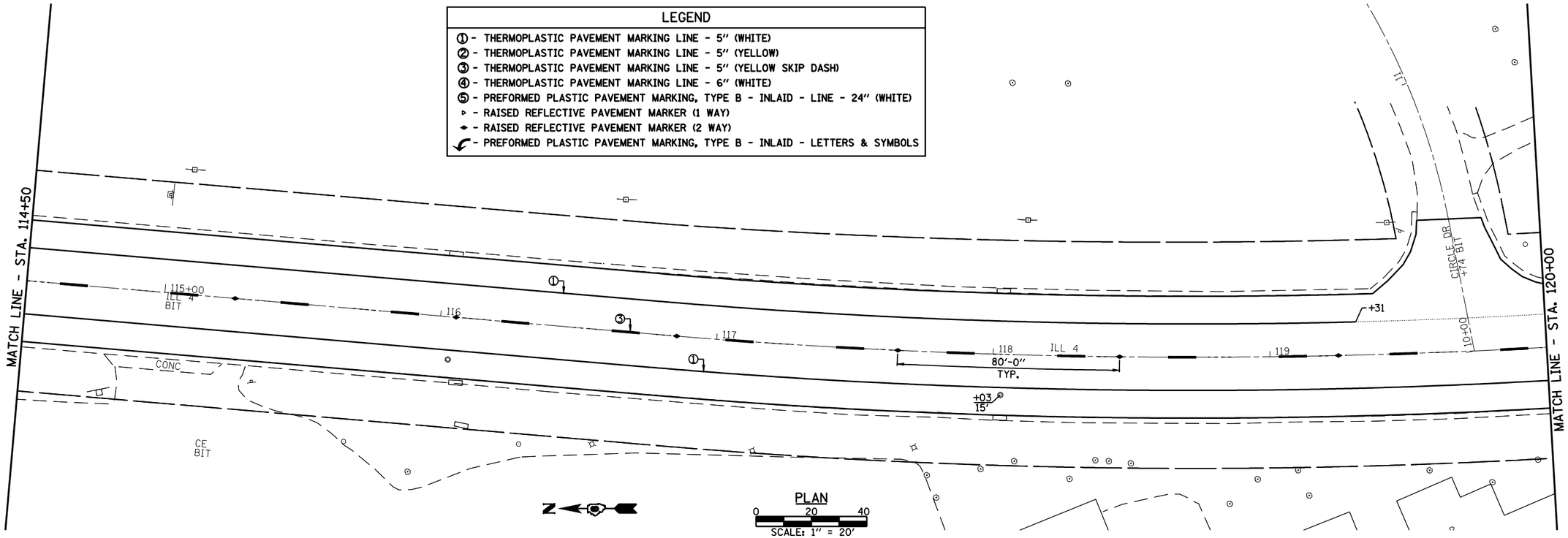
SCALE: 1" = 20' | SHEET NO. 3 OF 5 SHEETS | STA. 97+50 TO STA. 109+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	26
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

- ① - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (WHITE)
- ② - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW)
- ③ - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW SKIP DASH)
- ④ - THERMOPLASTIC PAVEMENT MARKING LINE - 6" (WHITE)
- ⑤ - PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE - 24" (WHITE)
- ▷ - RAISED REFLECTIVE PAVEMENT MARKER (1 WAY)
- ◆ - RAISED REFLECTIVE PAVEMENT MARKER (2 WAY)
- ➹ - PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LETTERS & SYMBOLS



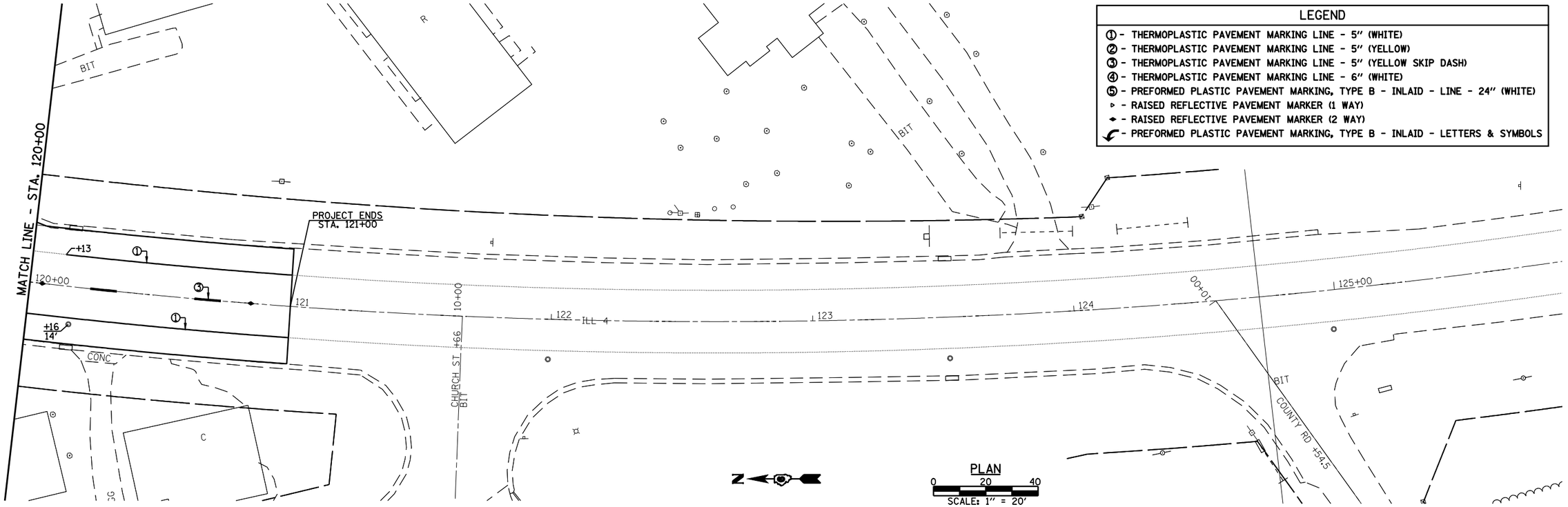
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:59:16AM	DATE -	REVISED -

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

ROADWAY & PAVEMENT MARKING PLAN

SCALE: 1" = 20' | SHEET NO. 4 OF 5 SHEETS | STA. 109+00 TO STA. 120+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	27
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



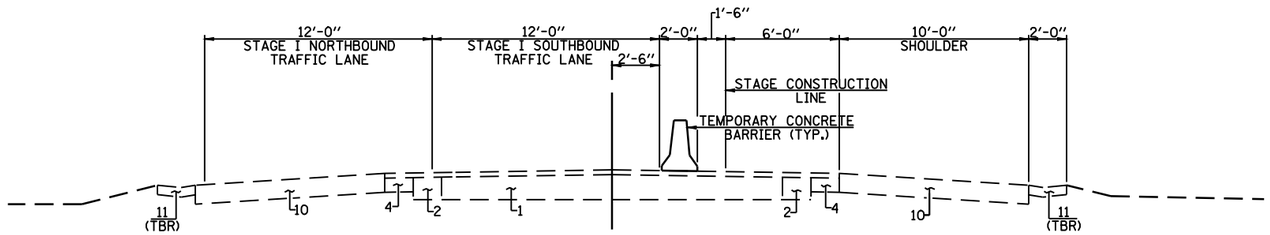
USER NAME = laughlinrl	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -	
PLOT DATE = Jun-28-2010 10:59:28AM	DATE -	REVISED -	

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

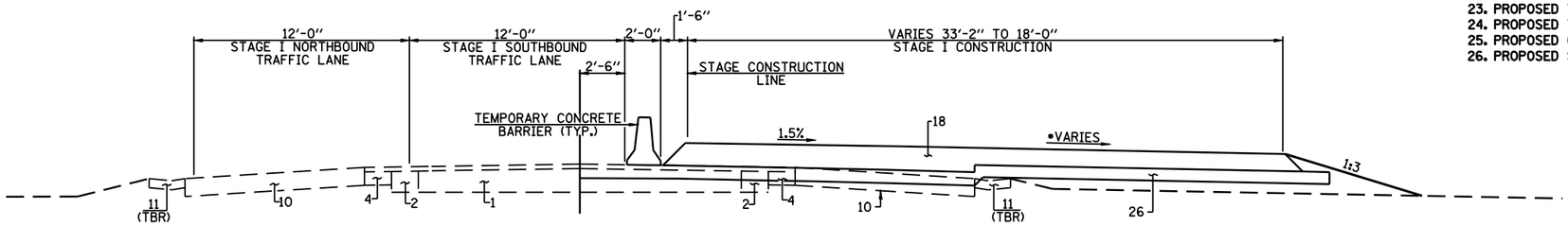
ROADWAY & PAVEMENT MARKING PLAN

SCALE: 1" = 20' | SHEET NO. 5 OF 5 SHEETS | STA. 120+00 TO STA. 126+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	28
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE I TRAFFIC

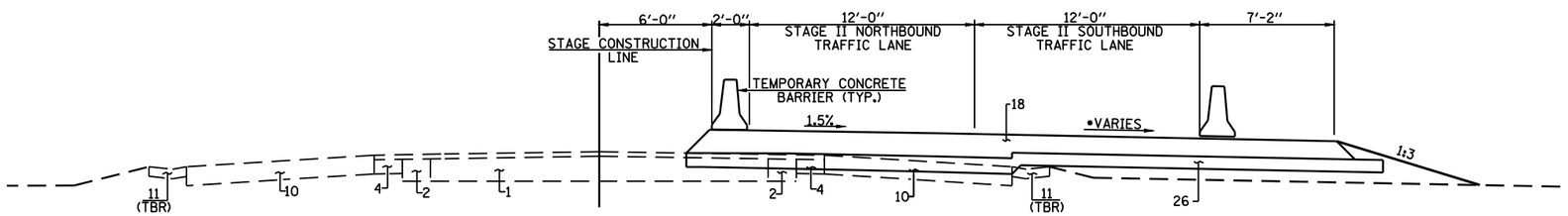


STAGE I TRAFFIC & CONSTRUCTION

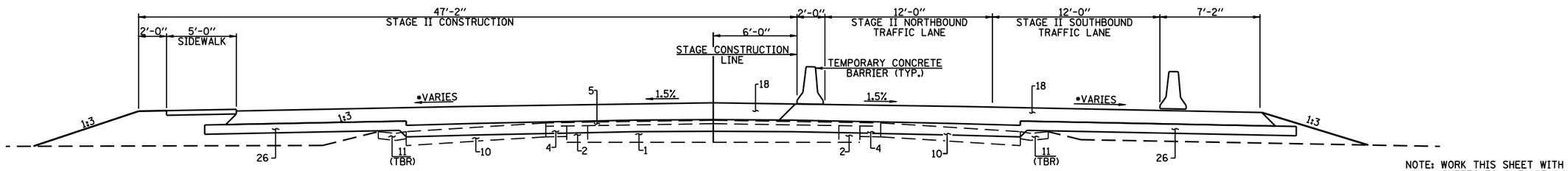
• - 2% AT STA. 71+50 TO 6.25% AT STA. 72+50

PAVEMENT LEGEND

1. EXISTING CONCRETE PAVEMENT
2. EXISTING CONCRETE WIDENING
3. EXISTING HOT-MIX ASPHALT OVERLAY 5½" & VARIABLE
4. EXISTING HOT-MIX ASPHALT WIDENING 9"
5. EXISTING CONCRETE SURFACE 3"
6. EXISTING HOT-MIX ASPHALT SHOULDER 13½"
7. EXISTING HOT-MIX ASPHALT SHOULDER 8"
8. EXISTING AGGREGATE SHOULDER, TYPE A 6"
9. EXISTING AGGREGATE SUB BASE 6"
10. EXISTING HOT-MIX BASE COURSE 11¾"
11. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL) T.B.R.
12. EXISTING CONCRETE GUTTER, TYPE B (SPECIAL)
13. EXISTING HOT-MIX ASPHALT PAVEMENT 12"
14. EXISTING PAINT PAVEMENT MARKING LINE 5"
15. EXISTING AGGREGATE SHOULDER 8"
16. EXISTING AGGREGATE SHOULDER WEDGE, TYPE A
17. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (1½" MIN.)**
18. **PROPOSED HOT-MIX ASPHALT BINDER COURSE (2¼" MIN.)**
19. **PROPOSED BRIDGE APPROACH SLAB 15"**
20. **PROPOSED CONCRETE GUTTER TYPE B (SPECIAL)**
21. **PROPOSED HOT-MIX ASPHALT SURFACE COURSE (2")**
22. **PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL 2"**
23. **PROPOSED THERMOPLASTIC PAVEMENT MARKING LINE 5"**
24. **PROPOSED TEMPORARY PAVEMENT MARKING LINE 5"**
25. **PROPOSED CONCRETE CURB AND GUTTER, B6-18**
26. **PROPOSED SUB-BASE GRANULAR, TYPE A (8" MIN.)**



STAGE II TRAFFIC



STAGE II TRAFFIC & CONSTRUCTION

NOTE: WORK THIS SHEET WITH SHEETS 30 & 31 OF 84

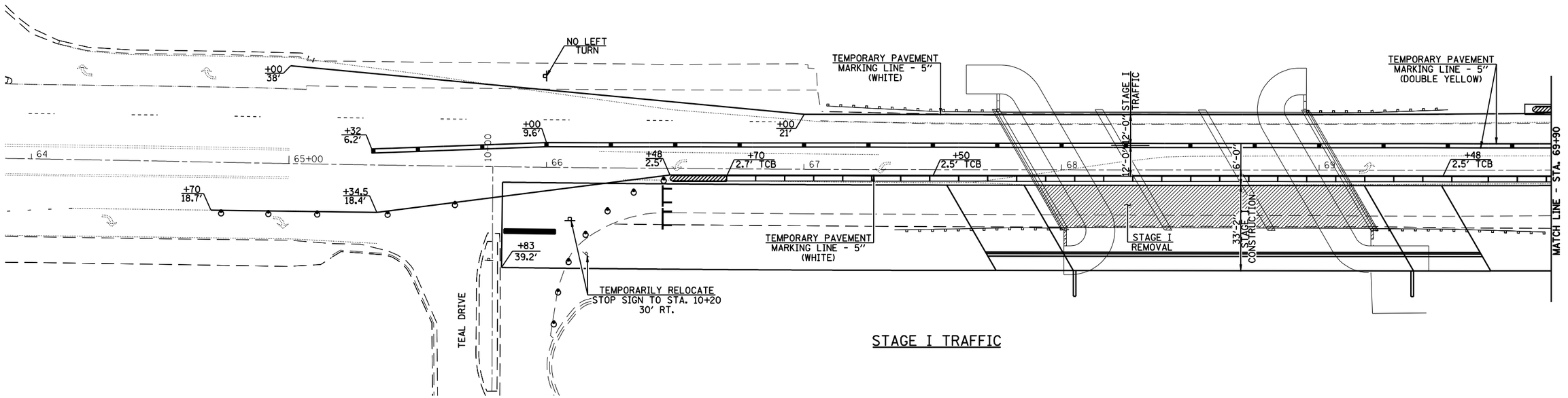
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 7.9980 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:59:30AM	DATE -	REVISED -

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

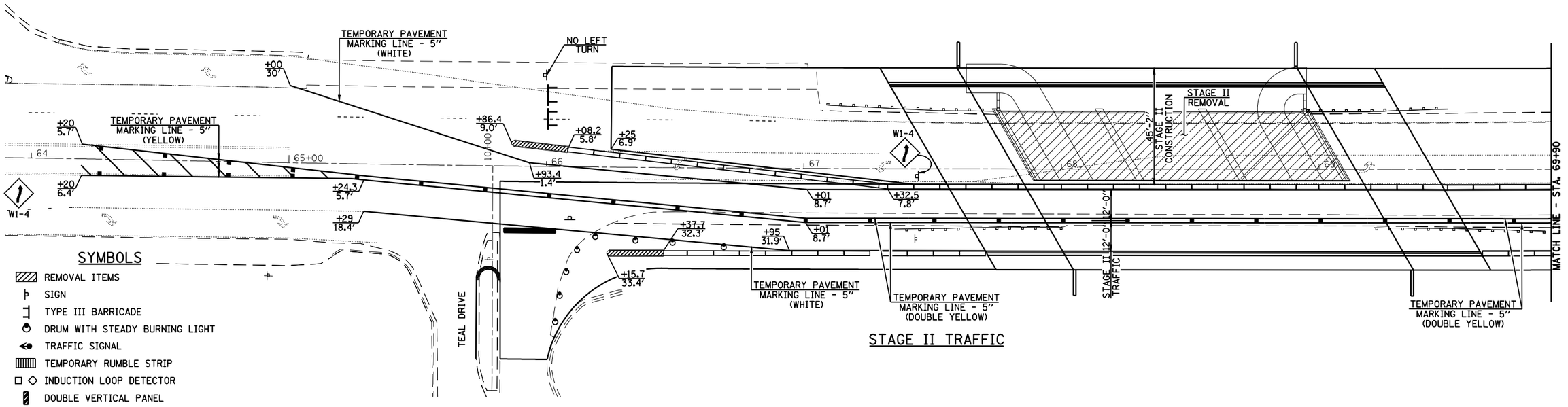
STAGE CONSTRUCTION TRAFFIC DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	29
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE I TRAFFIC



STAGE II TRAFFIC

SYMBOLS

- REMOVAL ITEMS
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- FLEXIBLE DELINEATOR

N

0 20 40

SCALE: 1" = 20'

NOTE: WORK THIS SHEET WITH OTHER STAGE CONSTRUCTION TRAFFIC DETAILS SHEETS.

INSTALL MAX WIDTH SIGNS (10'-6") 500' FROM RCA SIGNS.

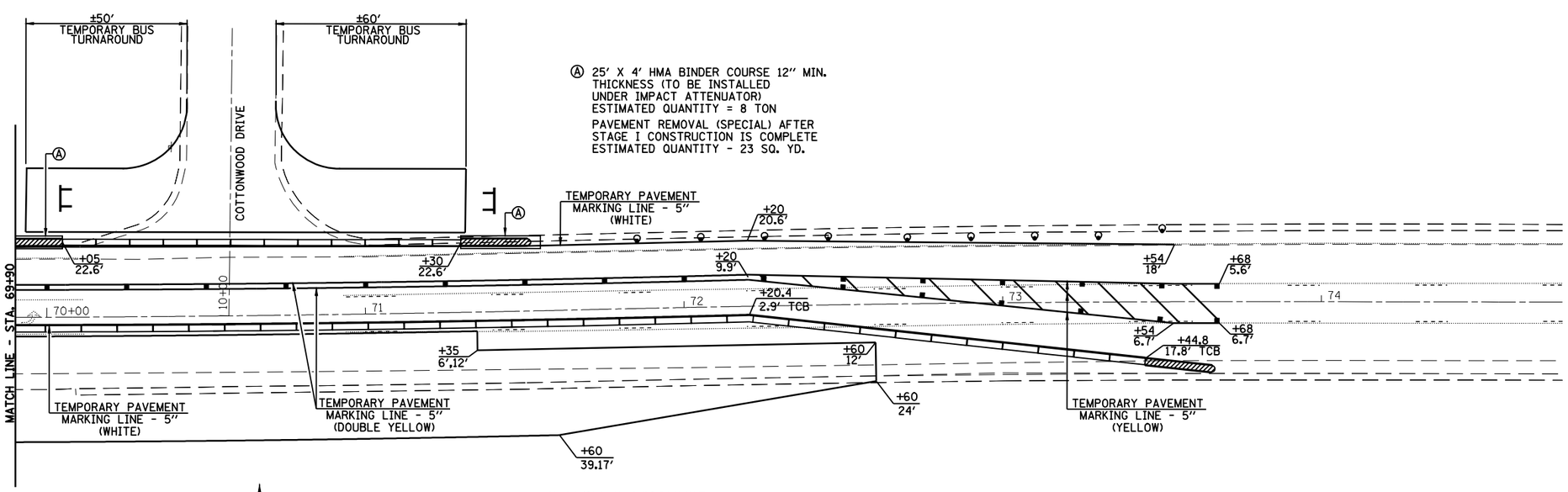
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:59:35AM	DATE -	REVISED -

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

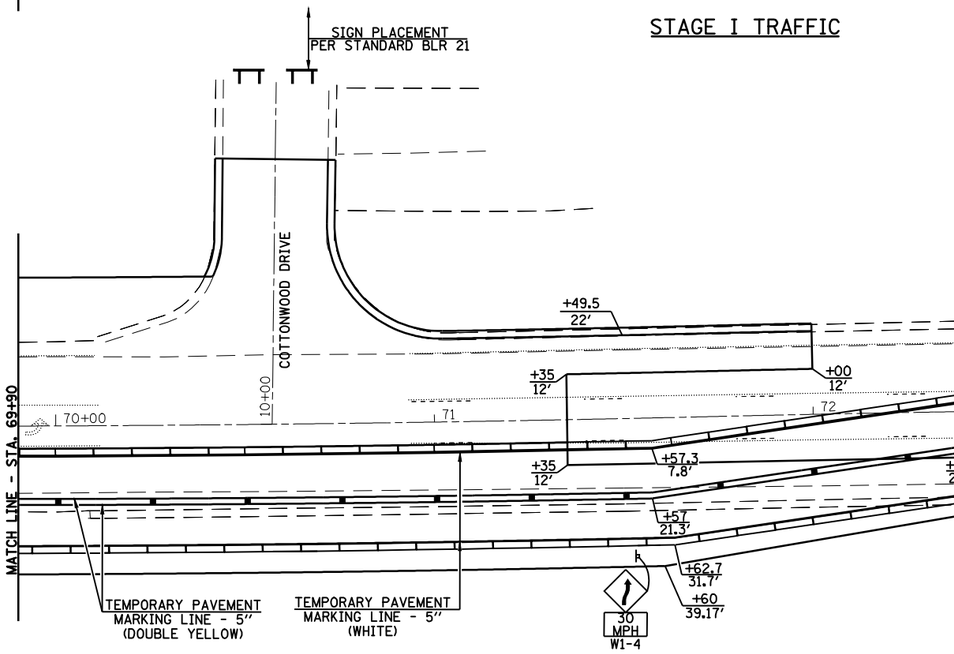
STAGE CONSTRUCTION TRAFFIC DETAILS

SCALE: 1" = 20' | SHEET NO. 2 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	30
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STAGE I TRAFFIC



STAGE II TRAFFIC

SYMBOLS

- REMOVAL ITEMS
- SIGN
- TYPE III BARRICADE
- DRUM WITH STEADY BURNING LIGHT
- TRAFFIC SIGNAL
- TEMPORARY RUMBLE STRIP
- INDUCTION LOOP DETECTOR
- DOUBLE VERTICAL PANEL
- TYPE C BIDIRECTIONAL REFLECTOR
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR
- STEADY BURNING LIGHTS AND DOUBLE VERTICAL PANELS
- FLEXIBLE DELINEATOR

NOTE: WORK THIS SHEET WITH OTHER STAGE CONSTRUCTION TRAFFIC DETAILS SHEETS.

INSTALL MAX WIDTH SIGNS (10'-6") 500' FROM RCA SIGNS.

SUGGESTED STAGING SEQUENCE STAGE I

1. REMOVE EXISTING CONCRETE GUTTER FROM COTTONWOOD DRIVE TO STA. 72+00 LT.
2. CONSTRUCT HMA BINDER COURSE FOR IMPACT ATTENUATORS STA. 70+05 & STA. 71+30 LT.
3. ERECT TRAFFIC CONTROL FOR STAGE I. INSTALL TEMPORARY CONCRETE BARRIER STA. 66+70 TO STA. 73+44.8 RT. AND STA. 70+05 TO STA. 71+30 LT. DRIVE TEMPORARY SHEET PILING AT NORTH AND SOUTH ABUTMENTS.
4. REMOVE PAVEMENT AND EXISTING STRUCTURE STA. 67+31 TO STA. 69+66 RT.
5. CONSTRUCT PROPOSED STAGE I STRUCTURE AND APPROACH PAVEMENTS RT.
6. CONSTRUCT PROPOSED STORM SEWER STA. 69+41 TO STA. 71+49 RT. AND IMPROVEMENTS TO TEAL DRIVE MEDIAN.
7. CONSTRUCT PROPOSED HMA BINDER COURSE STA. 66+04.6 TO STA. 72+60 RT.

SUGGESTED STAGING SEQUENCE STAGE II

1. RELOCATE EXISTING TEMPORARY CONCRETE BARRIER AND INSTALL NEW TEMPORARY CONCRETE BARRIER STA. 66+08.20 TO STA. 73+43 LT. AND STA. 66+45.7 TO STA. 72+49.8 RT.
2. REMOVE PAVEMENT AND EXISTING STRUCTURE STA. 67+31 TO STA. 69+66 LT.
3. CONSTRUCT PROPOSED STAGE II STRUCTURE AND APPROACH PAVEMENT LT.
4. CONSTRUCT PROPOSED HMA BINDER COURSE STA. 66+25 TO STA. 67+46.03 LT. & CONSTRUCT HMA BINDER COURSE STA. 69+50.11 TO STA. 72+00 LT.
5. REMOVE TEMPORARY CONCRETE BARRIER AND TEMPORARY BUS TURNAROUND AT COTTONWOOD AND CLOSE OFF END OF COTTONWOOD STREET WITH TYPE III BARRICADES.
6. CONSTRUCT NEW INLETS AND STORM SEWER, ADJUST AND REMOVE EXISTING INLETS ON COTTONWOOD DRIVE.
7. CONSTRUCT CONCRETE GUTTER, TYPE B (SPECIAL) STA. 70+40 TO STA. 72+00.

N

0 20 40

SCALE: 1" = 20'

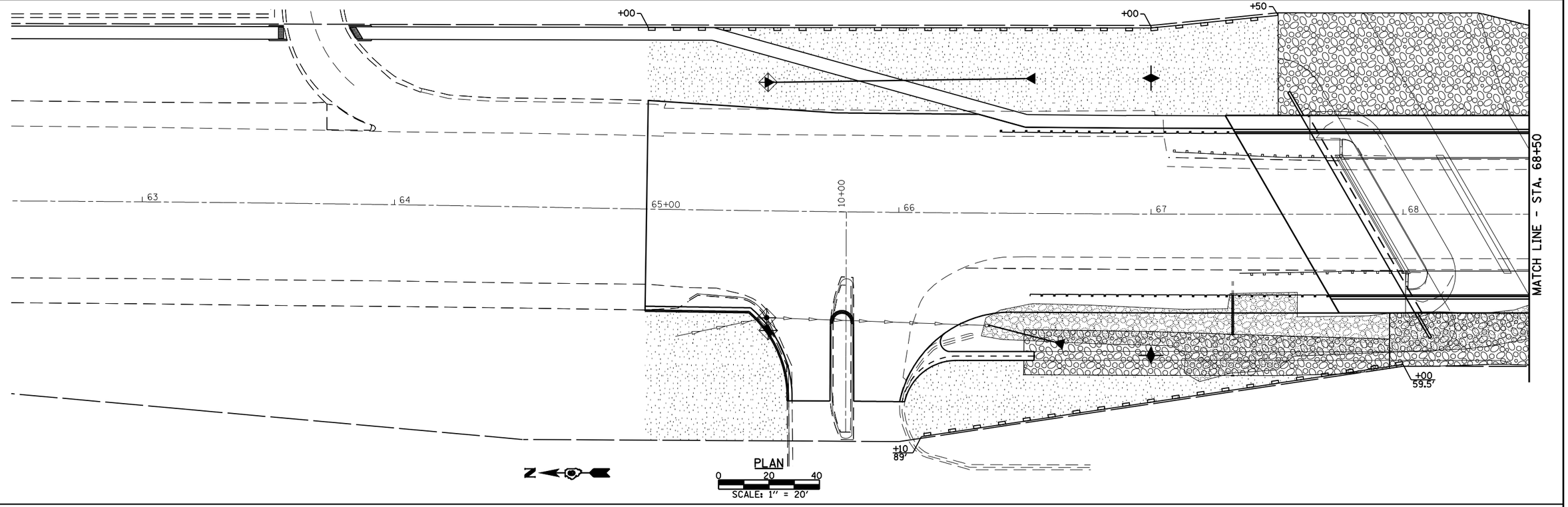
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2018 10:59:42AM	DATE -	REVISED -

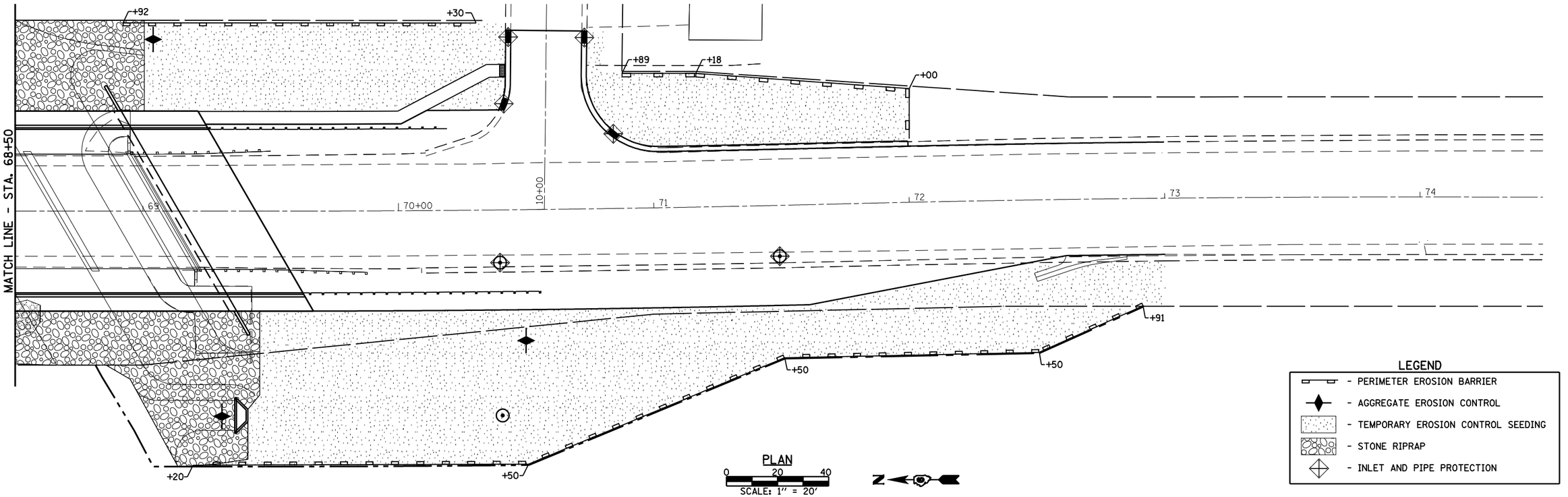
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907

STAGE CONSTRUCTION TRAFFIC DETAILS

SCALE: 1" = 20' | SHEET NO. 3 OF 3 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	31
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		





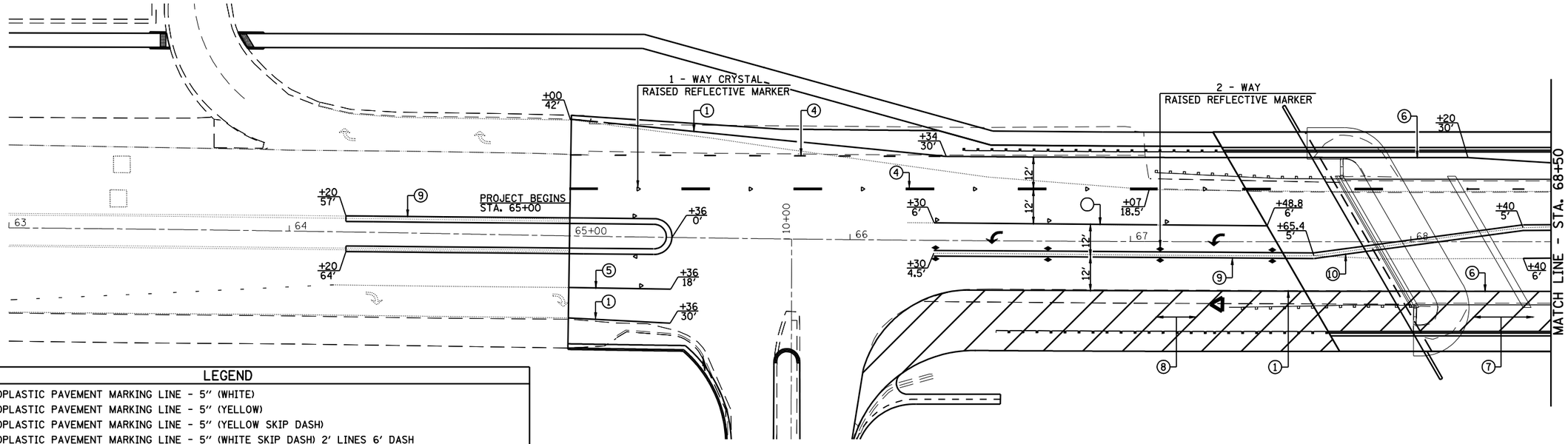
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:59:49AM	DATE -	REVISED -

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

EROSION CONTROL PLAN

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	32
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

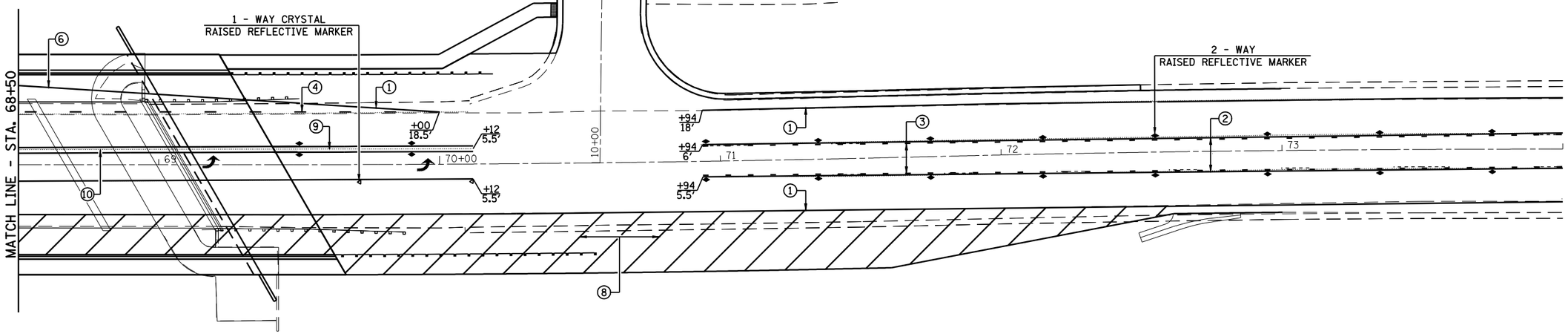


STRIPING PLAN

LEGEND

(1) - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (WHITE)
(2) - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW)
(3) - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (YELLOW SKIP DASH)
(4) - THERMOPLASTIC PAVEMENT MARKING LINE - 5" (WHITE SKIP DASH) 2' LINES 6' DASH
(5) - THERMOPLASTIC PAVEMENT MARKING LINE - 6" (WHITE)
(6) - PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 6" (WHITE)
(7) - PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 12" (WHITE)
(8) - THERMOPLASTIC PAVEMENT MARKING - LINE 12" SOLID (WHITE)
(9) - THERMOPLASTIC PAVEMENT MARKING - LINE 6" (DOUBLE YELLOW NO PASSING)
(10) - PREFORMED PLASTIC PAVEMENT MARKING - TYPE B - INLAID - LINE 6" (DOUBLE YELLOW NO PASSING)
▷ - RAISED REFLECTIVE PAVEMENT MARKER (1 WAY)
◆ - RAISED REFLECTIVE PAVEMENT MARKER (2 WAY)
PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LETTERS & SYMBOLS

NOTE: ALL TURN ARROWS TO BE THERMOPLASTIC PAVEMENT MARKING.



STRIPING PLAN

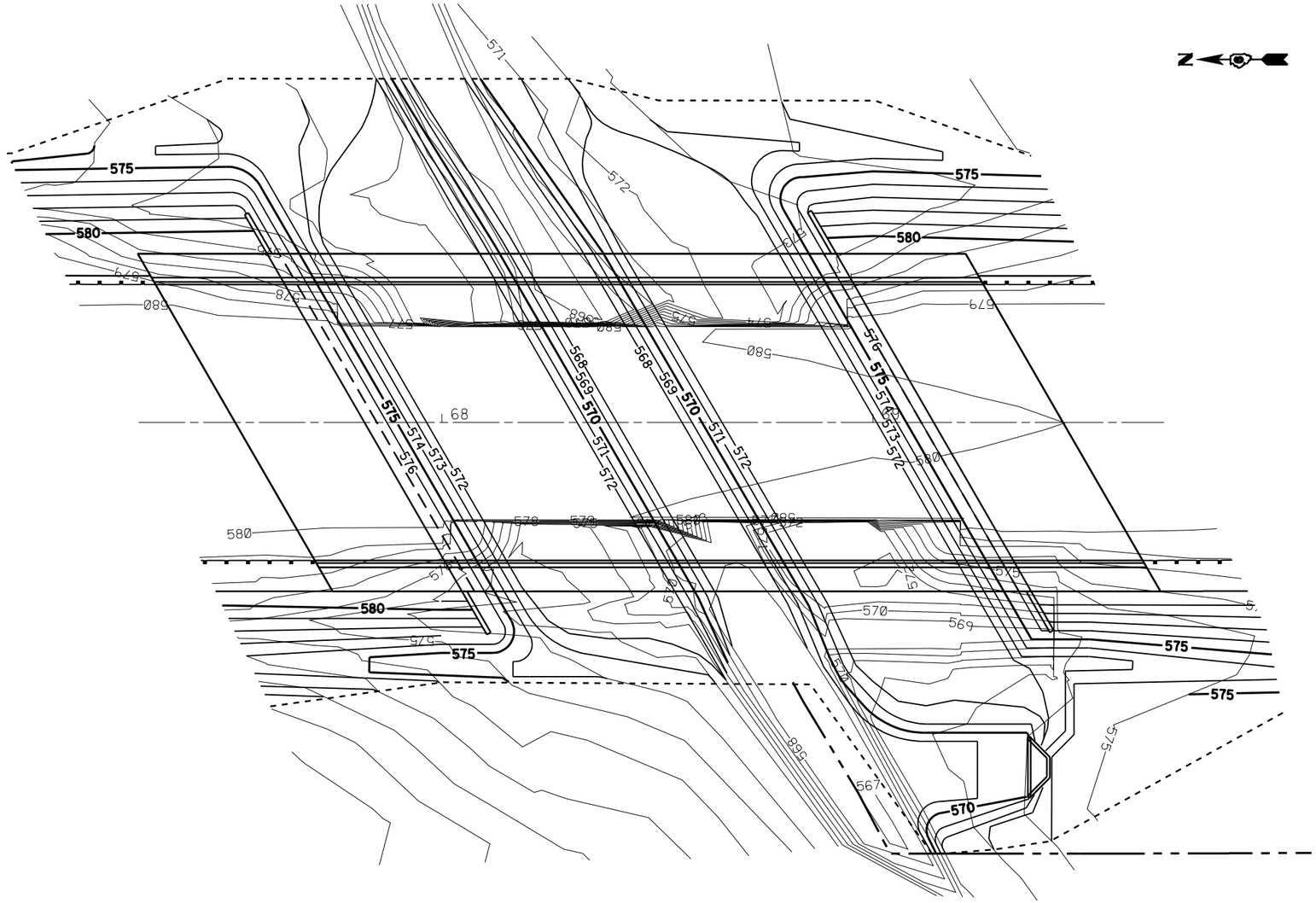
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 10:59:56AM	DATE -	REVISED -

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

PAVEMENT MARKING DETAILS

SCALE: 1" = 20' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	33
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



LEGEND

—575— - PROPOSED ELEVATION CONTOUR

—568— - EXISTING ELEVATION CONTOUR

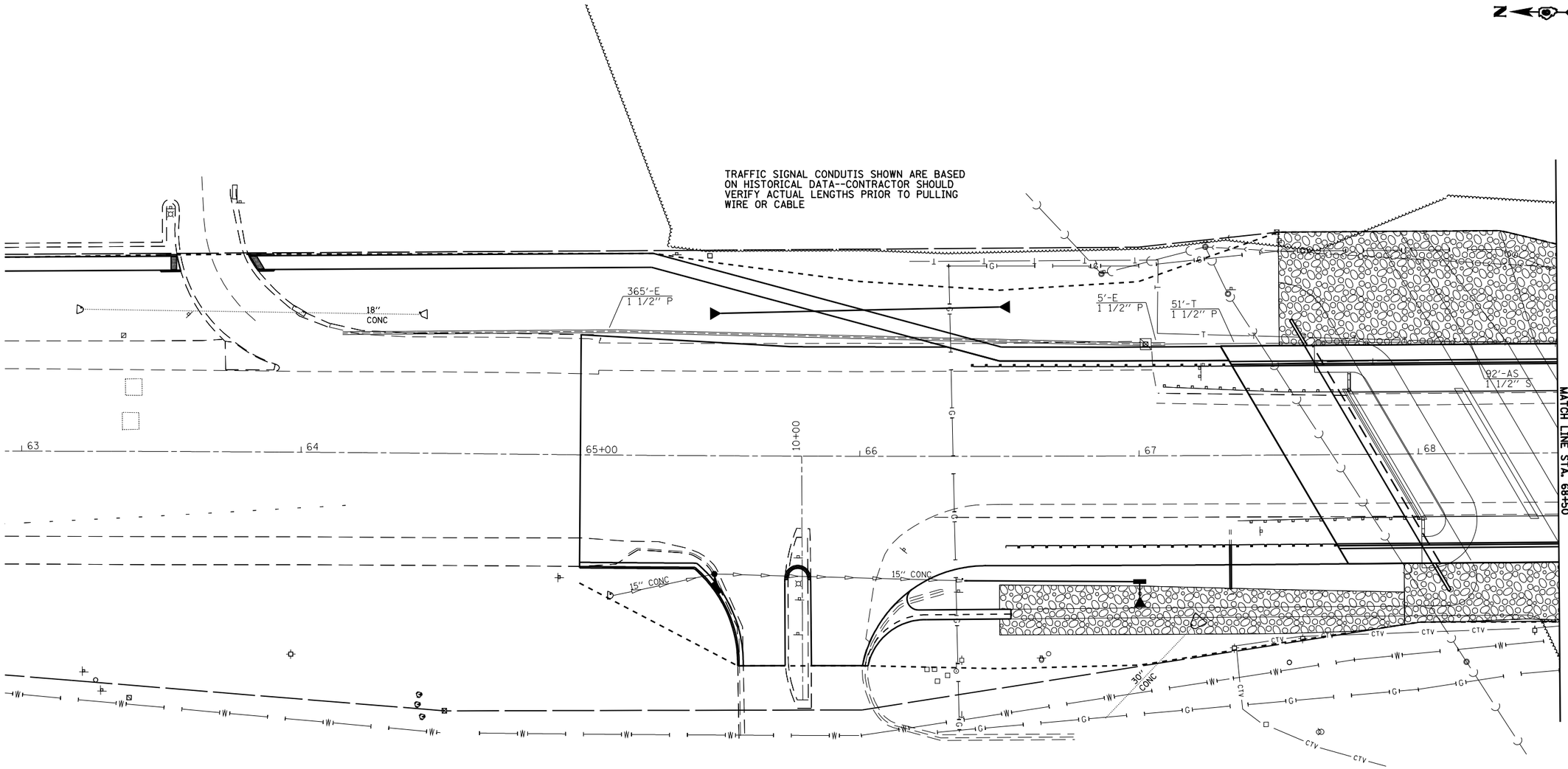
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 30.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 11:00:00AM	DATE -	REVISED -

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

GRADING PLAN

SCALE: 1" = 15' | SHEET NO. 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10, B-2)	SANGAMON	84	34
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTE: IN ORDER TO REACH THE CONTROLLER AT PLUMMER, THERE IS AN ADDITIONAL 628 FOOT OF CONDUIT, 1 DOUBLE HANDHOLE, 2 HANDHOLES, AND 1 JUNCTION BOX THAT IS NOT SHOWN ON THIS SHEET.

TRAFFIC SIGNAL INTERCONNECT QUANTITIES PLUMMER TO STA. 73+50

329	FOOT	CONDUIT IN TRENCH, 1 1/2" PVC
133	FOOT	CONDUIT ATTACHED TO STRUCTURE, 1 1/2" GALVANIZED STEEL
43	FOOT	CONDUIT AUGERED, 1 1/2" PVC
1,724	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO 62.5/125, 6 FIBER
329	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1,724	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	HANDHOLE
1	EACH	REMOVE EXISTING JUNCTION BOX

20' 0 20'
GRAPHIC SCALE

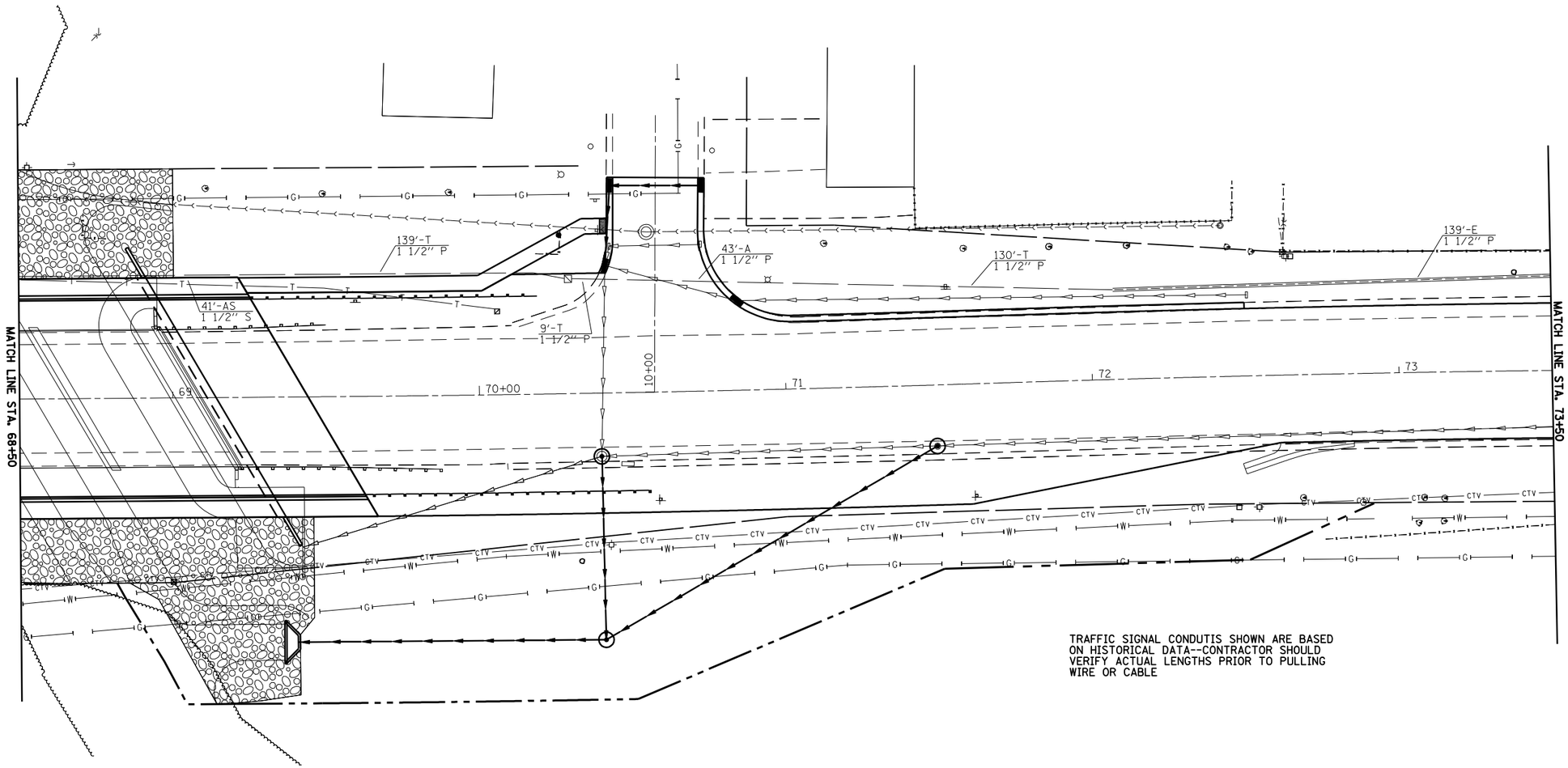
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D372A73_sht_ts_01.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:00:05AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN
IL 4 /MAIN ST. & TEAL DR.

SCALE: 1" = 20' | SHEET NO. 1 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	HRS-10,B-2)	SANGAMON	84	35
		CONTRACT NO. 72A73		
		ILLINOIS FED. AID PROJECT		



TRAFFIC SIGNAL CONDUTIS SHOWN ARE BASED ON HISTORICAL DATA--CONTRACTOR SHOULD VERIFY ACTUAL LENGTHS PRIOR TO PULLING WIRE OR CABLE

20' 0 20'
GRAPHIC SCALE

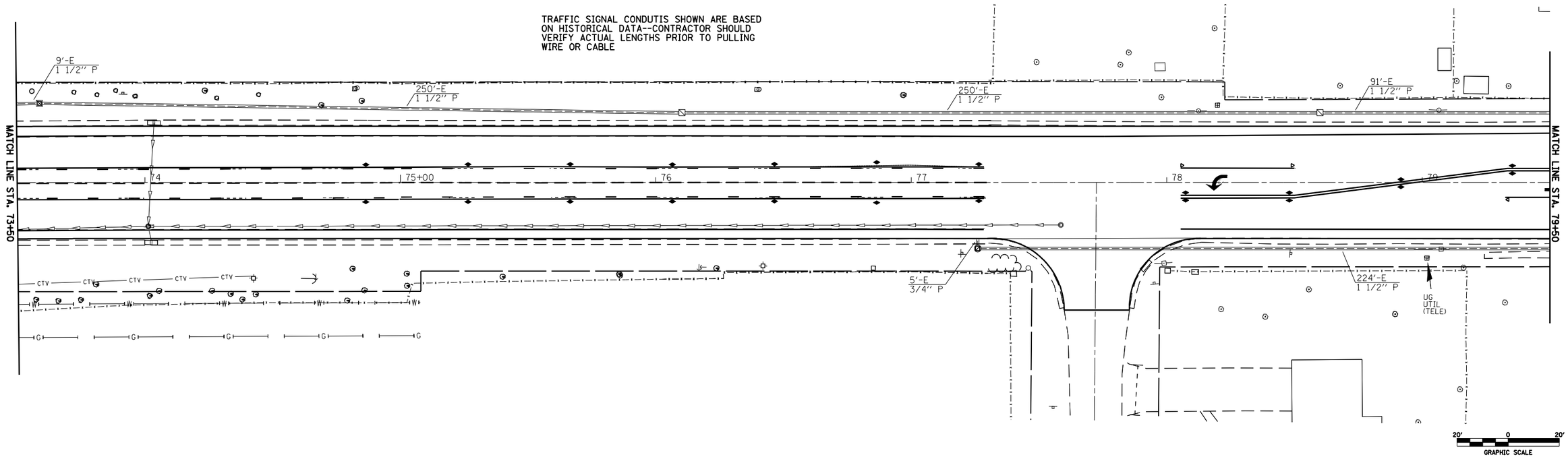
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73_sht_ts_02.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:00:10AM	DATE -	REVISED -

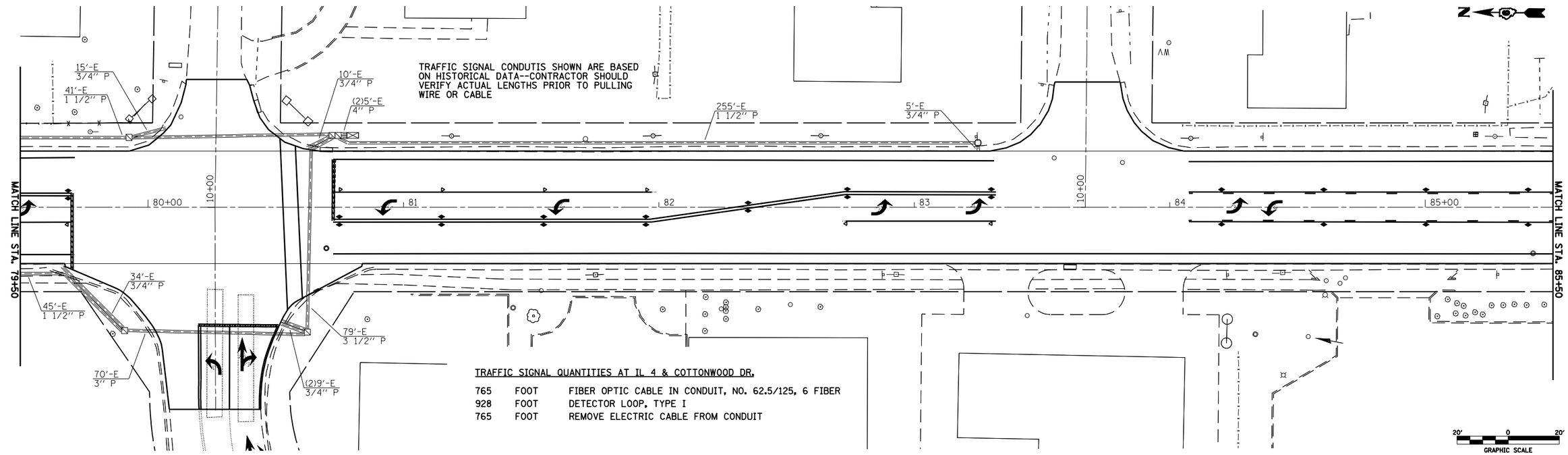
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN
IL 4 /MAIN ST. & TEAL DR.

SCALE: 1" = 20' | SHEET NO. 2 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	HRS-10,B-2)	SANGAMON	84	36
		CONTRACT NO. 72A73		
	ILLINOIS	FED. AID PROJECT		





TRAFFIC SIGNAL QUANTITIES AT IL 4 & COTTONWOOD DR.

765	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 6 FIBER
928	FOOT	DETECTOR LOOP, TYPE I
765	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT

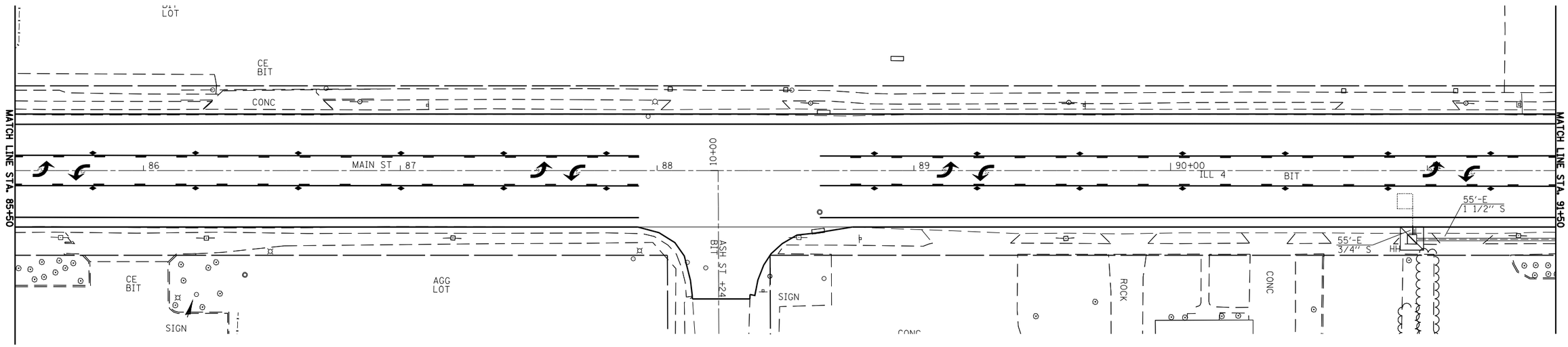
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73_sht_ts_03.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:00:18AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED PLAN
IL 4 /MAIN ST. & TEAL DR.

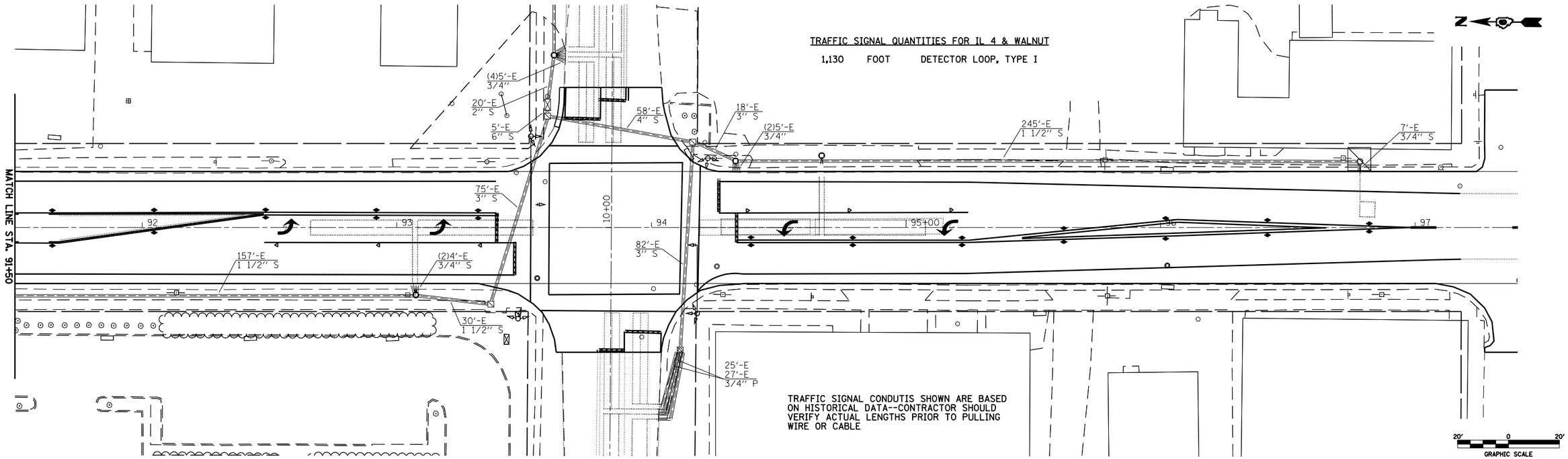
SCALE: 1" = 20' | SHEET NO. 3 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	37
		CONTRACT NO. 72A73		
		ILLINOIS	FED. AID PROJECT	



TRAFFIC SIGNAL CONDUTIS SHOWN ARE BASED ON HISTORICAL DATA--CONTRACTOR SHOULD VERIFY ACTUAL LENGTHS PRIOR TO PULLING WIRE OR CABLE

20' 0 20'
GRAPHIC SCALE



TRAFFIC SIGNAL QUANTITIES FOR IL 4 & WALNUT

1,130 FOOT DETECTOR LOOP, TYPE I

TRAFFIC SIGNAL CONDUTIS SHOWN ARE BASED ON HISTORICAL DATA--CONTRACTOR SHOULD VERIFY ACTUAL LENGTHS PRIOR TO PULLING WIRE OR CABLE

20' 0 20'
GRAPHIC SCALE

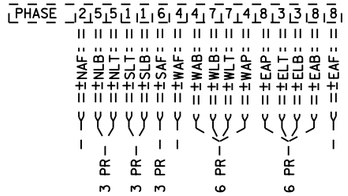
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73_sht_ts_04.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:00:29AM	DATE -	REVISED -

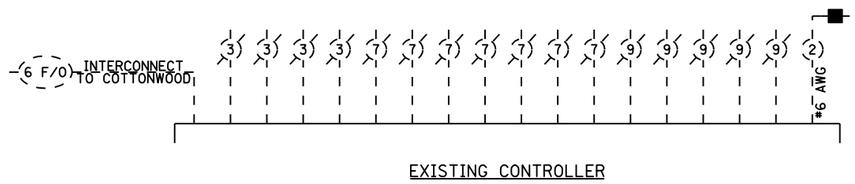
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

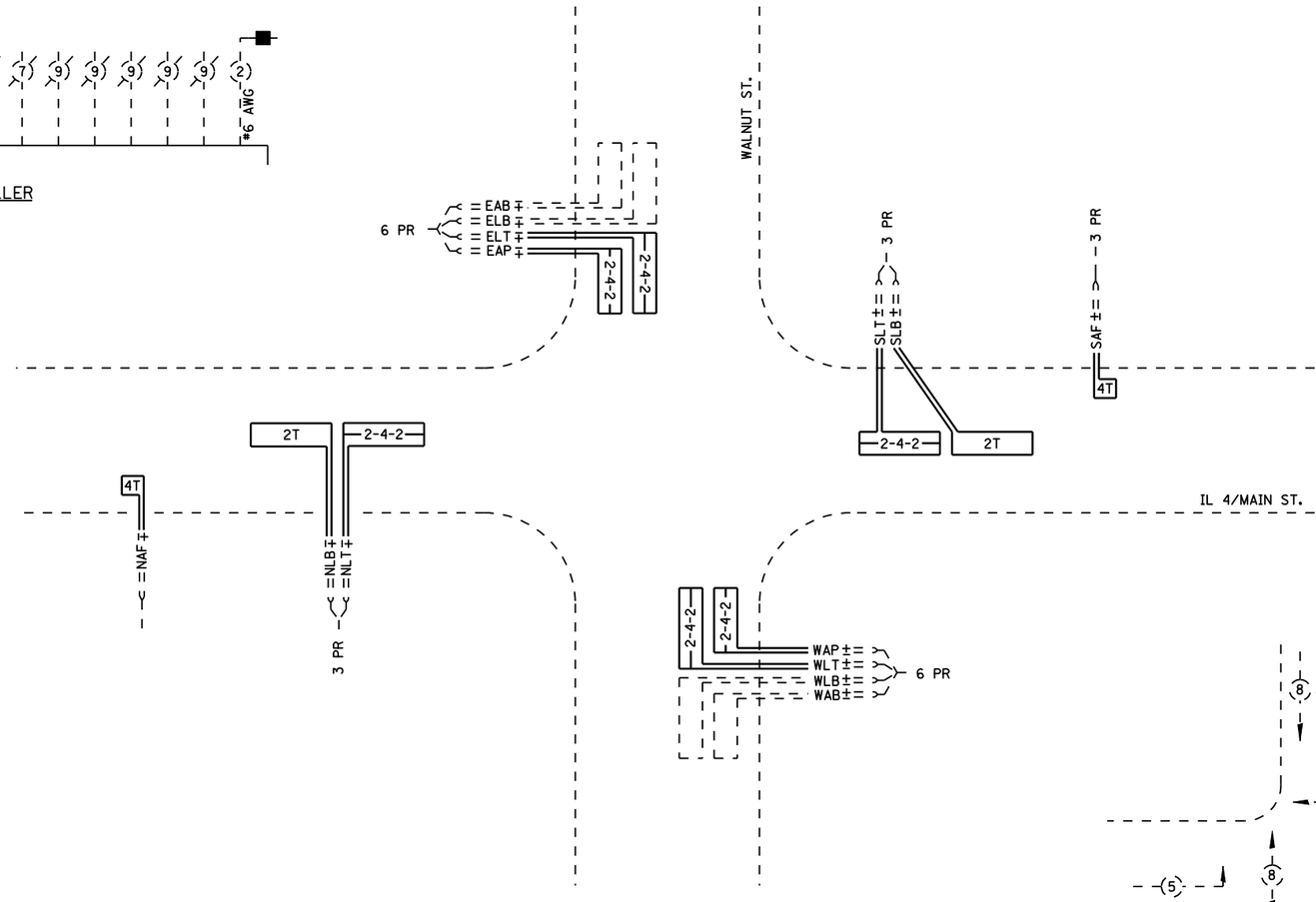
PROPOSED PLAN
IL 4 /MAIN ST. & TEAL DR.

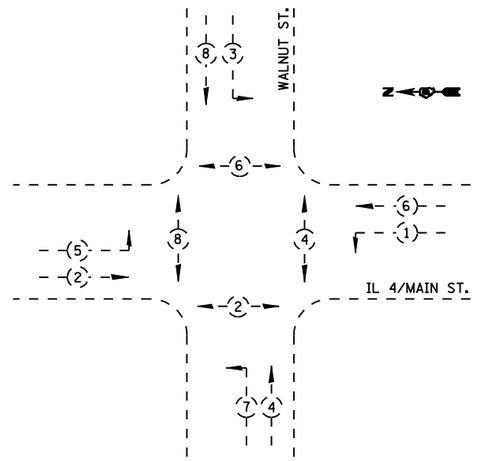
SCALE: 1" = 20' | SHEET NO. 4 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	38
		CONTRACT NO. 72A73		
		ILLINOIS	FED. AID PROJECT	





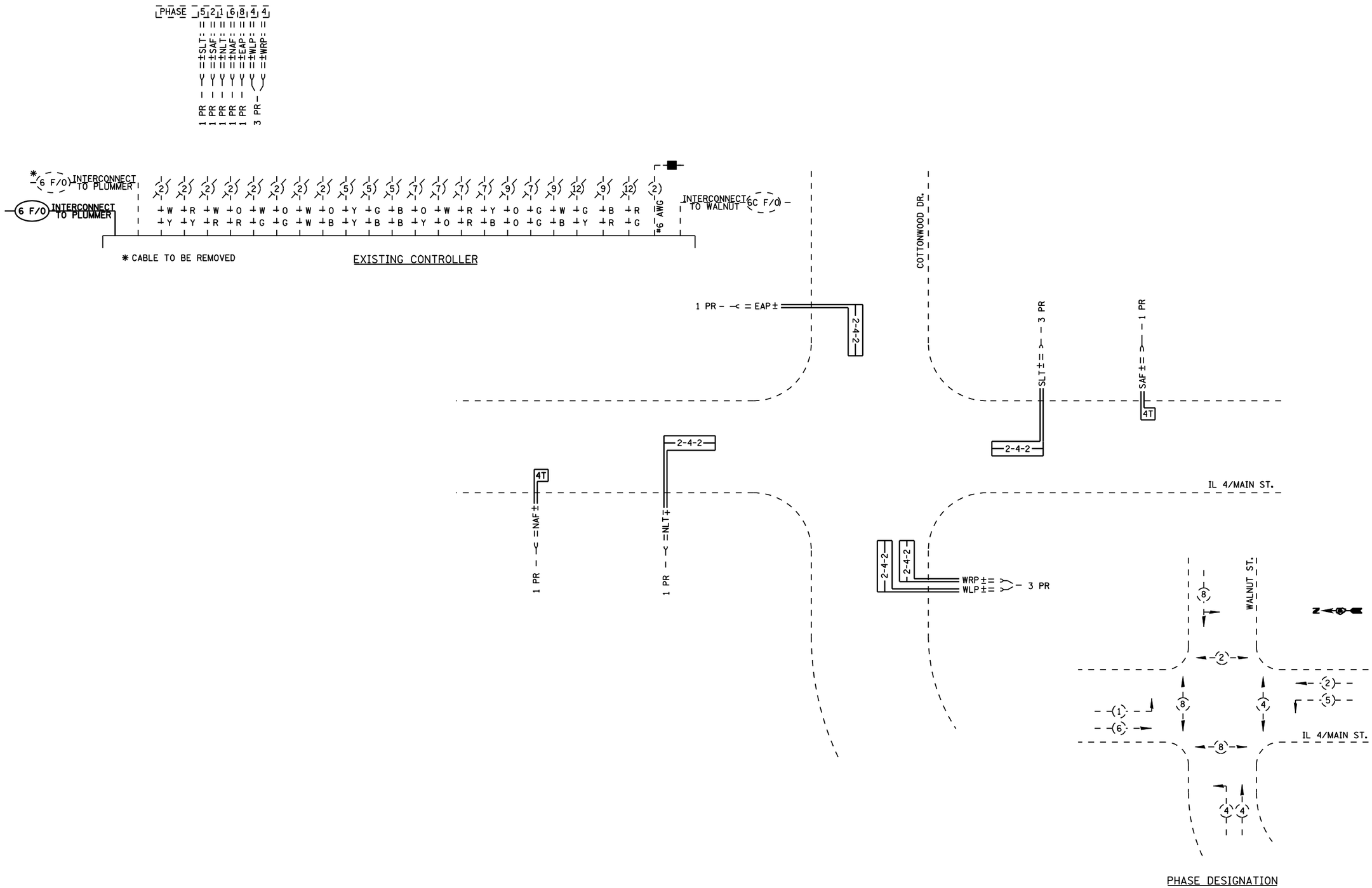




PHASE DESIGNATION

NOT TO SCALE

FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D72A73_sht_ts_05.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED CABLE PLAN IL 4/MAIN ST. & WALNUT ST.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000 ' / IN.	DRAWN -	REVISED -			662	H(RS-10,B-2)	SANGAMON	84	39
	PLOT DATE = Jun-28-2010 11:00:33AM	CHECKED -	REVISED -					CONTRACT NO. 72A73		
		DATE -	REVISED -		SCALE: 1" = 20' SHEET NO. 5 OF 10 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		



NOT TO SCALE

FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D72A73_sht_ts_06.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:00:35AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

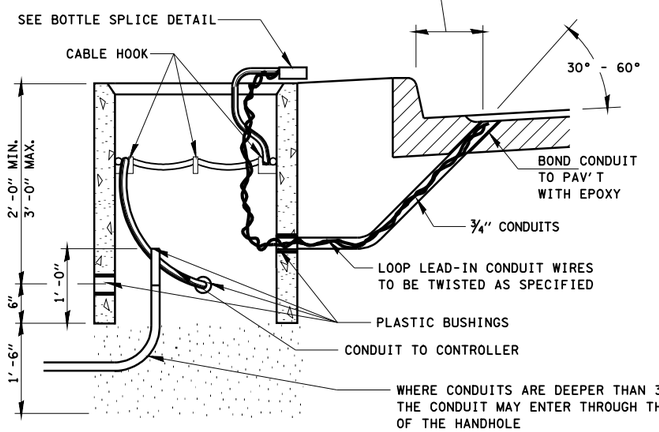
PROPOSED CABLE PLAN
IL 4/MAIN ST. & COTTONWOOD DR.

SCALE: 1" = 20' | SHEET NO. 6 OF 10 SHEETS | STA. | TO STA.

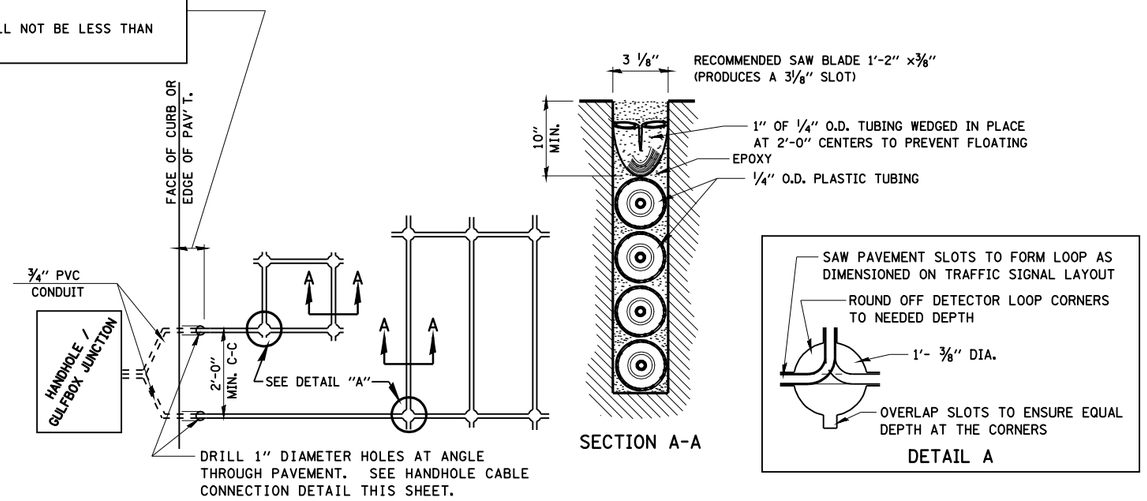
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	HRS-10,B-2)	SANGAMON	84	40
		CONTRACT NO. 72A73		
	ILLINOIS	FED. AID PROJECT		

LENGTH OF SLACK FOR LOOP LEAD-INS SHALL PROVIDE FOR MAKING THE SPLICE ON TOP OF THE HANDHOLE AND ONE COMPLETE LOOP OF THE INTERIOR OF THE HANDHOLE, THE SPLICE SHALL BE SUPPORTED BY A CABLE HOOK.

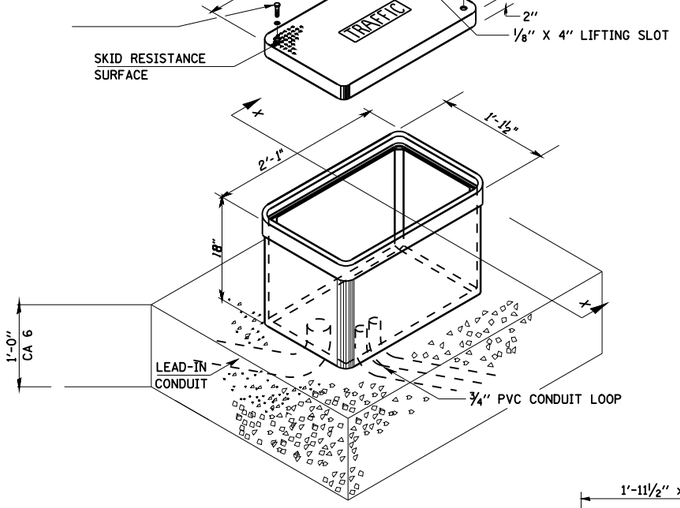
THE LOOP LEAD-IN CONDUIT HOLES SHALL BE PLACED AS CLOSE TO THE CURB AS POSSIBLE TO PERMIT SAW OVERLAP WITHOUT SCARRING FACE OF CURB.
IN NON-CURB LOCATIONS THE DISTANCE SHALL NOT BE LESS THAN 6".

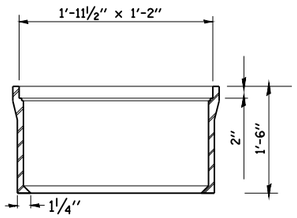


HANDHOLE CABLE CONNECTIONS

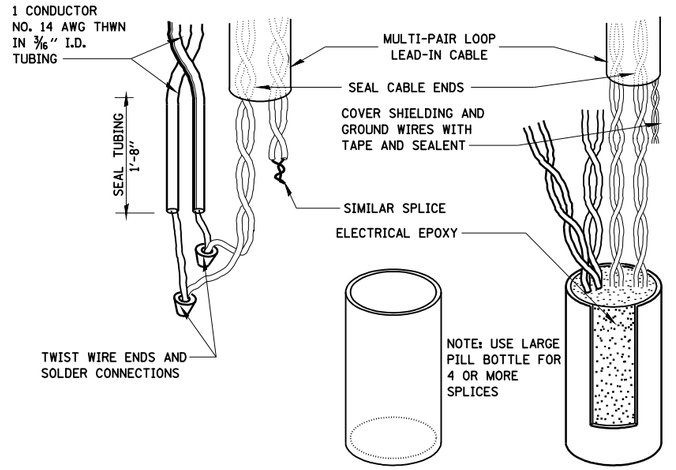


PAVEMENT SAWING DETAIL FOR TUBE ENCASED DETECTOR LOOP WIRE





GULFBOX JUNCTION

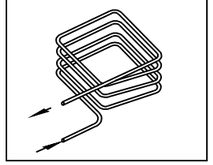


BOTTLE SPLICE DETAIL

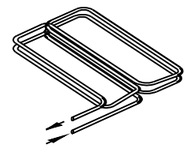
FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73_sht_ts_07.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL DETECTOR LOOP DETAILS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -			662	HRS-10,B-2)	SANGAMON	84	41
	PLOT SCALE = 40.0001 ' / IN.	CHECKED -	REVISED -					CONTRACT NO. 72A73		
	PLOT DATE = Jun-28-2010 11:00:37AM	DATE -	REVISED -		SCALE: 1" = 20' SHEET NO. 7 OF 10 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

LOOP NAME	# OF TURNS	INDUCT. @ SPLICE	OHMS @ SPLICE	INDUCT. @ CONTR.	OHMS @ CONTR.
IL 4 & Walnut					
NAF	4	140	0.32	170	4.75
NLB	2	158	0.61	169	2.25
NLT	2-4-2	383	1.15	394	2.79
WLT	2-4-2	331	1.10	345	3.20
WAP	2-4-2	331	1.10	345	3.20
SLT	2-4-2	327	1.00	336	2.27
SLB	2	184	0.81	192	2.07
SAF	4	141	0.36	172	4.84
ELT	2-4-2	286	0.88	288	1.18
ELB	2-4-2	268	0.77	270	1.07
IL 4 & Cottonwood					
NAF	4	140	0.32	179	6.20
NLT	2-4-2	390	1.32	405	3.62
WLT	2-4-2	425	1.31	434	2.62
WAP	2-4-2	422	1.24	431	2.54
SLT	2-4-2	473	1.43	473	1.53
SAF	4	140	0.32	164	3.92
EAP	2-4-2	344	1.06	352	2.33

DETECTOR LOOP



QUADRUPOLE LOOP



INSTALLING THE LOOP WIRE:
THE NEGATIVE LEAD SHALL BE CONNECTED TO THE BLACK CONDUCTOR OF A PAIR OF CONDUCTORS IN THE LEAD-IN CABLE AND THE POSITIVE LEAD SHALL BE CONNECTED TO THE COLOR-CODED CONDUCTOR OF THE CABLE PAIR.

DETECTOR LOOP WIRE INSTALLATION

DETECTOR NOTES:

1. THE DETECTOR LOOP SHALL BE CENTERED IN THE LANE IN WHICH IT IS SHOWN. ANY ADJUSTMENTS ARE TO BE MADE ONLY AT THE DIRECTION OF THE ENGINEER.
2. THE DETECTOR LOOPS SHALL CONSIST OF THE NUMBER OF TURNS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. ACCEPTANCE OF THE LOOPS AS METERED SHALL BE DETERMINED BY THE ENGINEER.
4. ALL DETECTOR WIRES SHALL BE MARKED WITH WATERPROOF LABELS USING THE WIRING IDENTIFICATION SHOWN ON THE PLANS. THE + AND - OF EACH LOOP MUST BE USED TO IDENTIFY CURRENT FLOW. ALWAYS CONNECT THE BLACK WIRE OF EACH PAIR TO THE NEGATIVE (-) LOOP WIRE.
5. ALL QUADRAPOLE LOOPS SHALL BE 2-4-2 DESIGN.
6. THE CONTRACTOR SHALL CONTACT DISTRICT 6 OPERATIONS FOR ASSISTANCE IN DETECTOR LOOP LAYOUT AT LEAST 48 HOURS BEFORE INSTALLING DETECTOR LOOPS (Ph.# 217-782-7314)

FILE NAME = c:\pw_work\PWIDOT\LAUGHLINRL\d0213035\D672A73_sht_ts_08.dgn	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0001 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:00:46AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

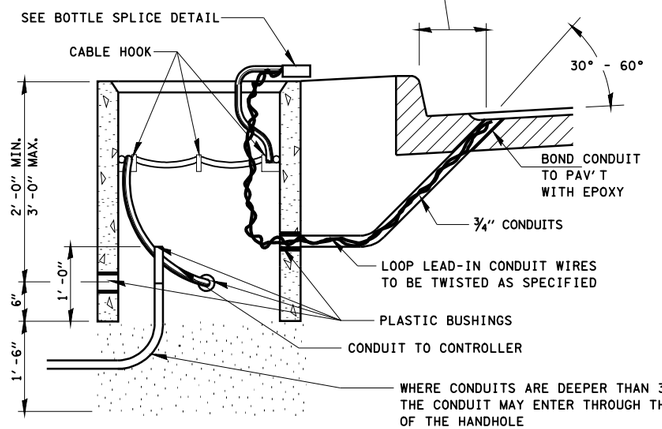
TRAFFIC SIGNAL DETECTOR LOOP DETAILS

SCALE: 1" = 20' | SHEET NO. 8 OF 10 SHEETS | STA. | TO STA.

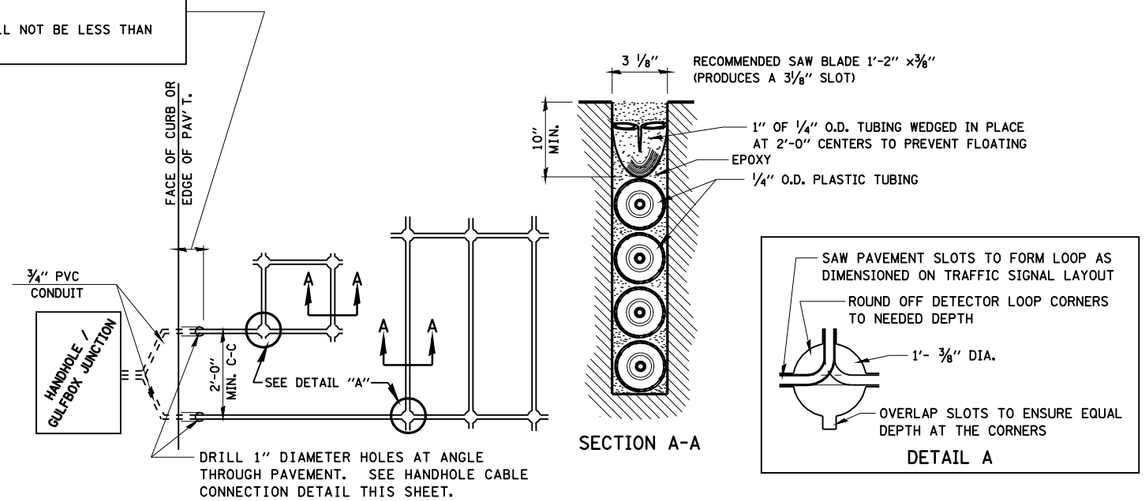
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	42
		CONTRACT NO. 72A73		
	ILLINOIS	FED. AID PROJECT		

LENGTH OF SLACK FOR LOOP LEAD-INS SHALL PROVIDE FOR MAKING THE SPLICE ON TOP OF THE HANDHOLE AND ONE COMPLETE LOOP OF THE INTERIOR OF THE HANDHOLE. THE SPLICE SHALL BE SUPPORTED BY A CABLE HOOK.

THE LOOP LEAD-IN CONDUIT HOLES SHALL BE PLACED AS CLOSE TO THE CURB AS POSSIBLE TO PERMIT SAW OVERLAP WITHOUT SCARRING FACE OF CURB.
IN NON-CURB LOCATIONS THE DISTANCE SHALL NOT BE LESS THAN 6".



HANDHOLE CABLE CONNECTIONS

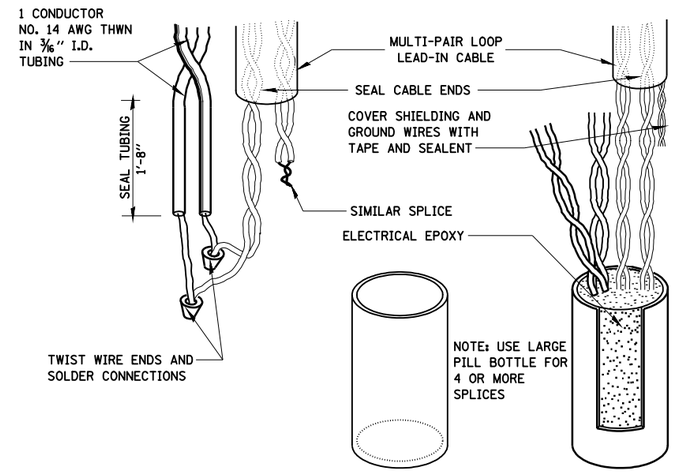


PAVEMENT SAWING DETAIL FOR TUBE ENCASED DETECTOR LOOP WIRE

GULFBOX JUNCTION DETAIL

(SHOWING CONNECTION OF TUBE-ENCASED DETECTOR LOOP TO MULTI-PAIR LEAD-IN CABLE)

JUNCTION BOX (SPECIAL)



BOTTLE SPLICE DETAIL

USER NAME = laughlinrl	DESIGNED -	REVISED -	
	DRAWN -	REVISED -	
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -	
PLOT DATE = Jun-28-2010 11:00:51AM	DATE -	REVISED -	

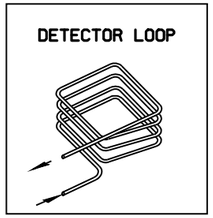
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

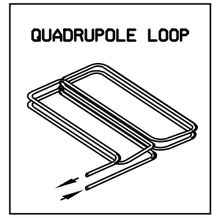
TRAFFIC SIGNAL
DETECTOR LOOP DETAILS

SCALE: | SHEET NO. 9 OF 10 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	43
		CONTRACT NO. 72A73		
	ILLINOIS	FED. AID PROJECT		

LOOP DESIGNATION	NUMBER OF TURNS	READING @ HANDHOLE OR JUNCTION BOX				READING @ CONTROLLER			
		CALCULATED		METERED		CALCULATED		METERED	
		$\mu\eta$	Ω	$\mu\eta$	Ω	$\mu\eta$	Ω	$\mu\eta$	Ω





INSTALLING THE LOOP WIRE:
THE NEGATIVE LEAD SHALL BE CONNECTED TO THE BLACK CONDUCTOR OF A PAIR OF CONDUCTORS IN THE LEAD-IN CABLE AND THE POSITIVE LEAD SHALL BE CONNECTED TO THE COLOR-CODED CONDUCTOR OF THE CABLE PAIR.

DETECTOR LOOP WIRE INSTALLATION

DETECTOR NOTES:

1. THE DETECTOR LOOP SHALL BE CENTERED IN THE LANE IN WHICH IT IS SHOWN. ANY ADJUSTMENTS ARE TO BE MADE ONLY AT THE DIRECTION OF THE ENGINEER.
2. THE DETECTOR LOOPS SHALL CONSIST OF THE NUMBER OF TURNS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
3. ACCEPTANCE OF THE LOOPS AS METERED SHALL BE DETERMINED BY THE ENGINEER.
4. ALL DETECTOR WIRES SHALL BE MARKED WITH WATERPROOF LABELS USING THE WIRING IDENTIFICATION SHOWN ON THE PLANS. THE + AND - OF EACH LOOP MUST BE USED TO IDENTIFY CURRENT FLOW. ALWAYS CONNECT THE BLACK WIRE OF EACH PAIR TO THE NEGATIVE (-) LOOP WIRE.
5. ALL QUADRAPOLE LOOPS SHALL BE 2-4-2 DESIGN.
6. THE CONTRACTOR SHALL CONTACT DISTRICT 6 OPERATIONS FOR ASSISTANCE IN DETECTOR LOOP LAYOUT AT LEAST 48 HOURS BEFORE INSTALLING DETECTOR LOOPS (Ph.* 217-782-7314)

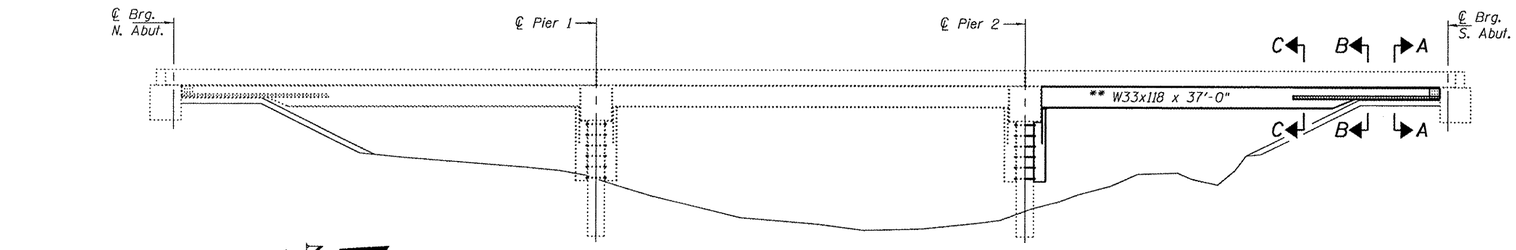
USER NAME = laughlinrl	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
PLOT DATE = Jun-28-2010 11:00:53AM	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

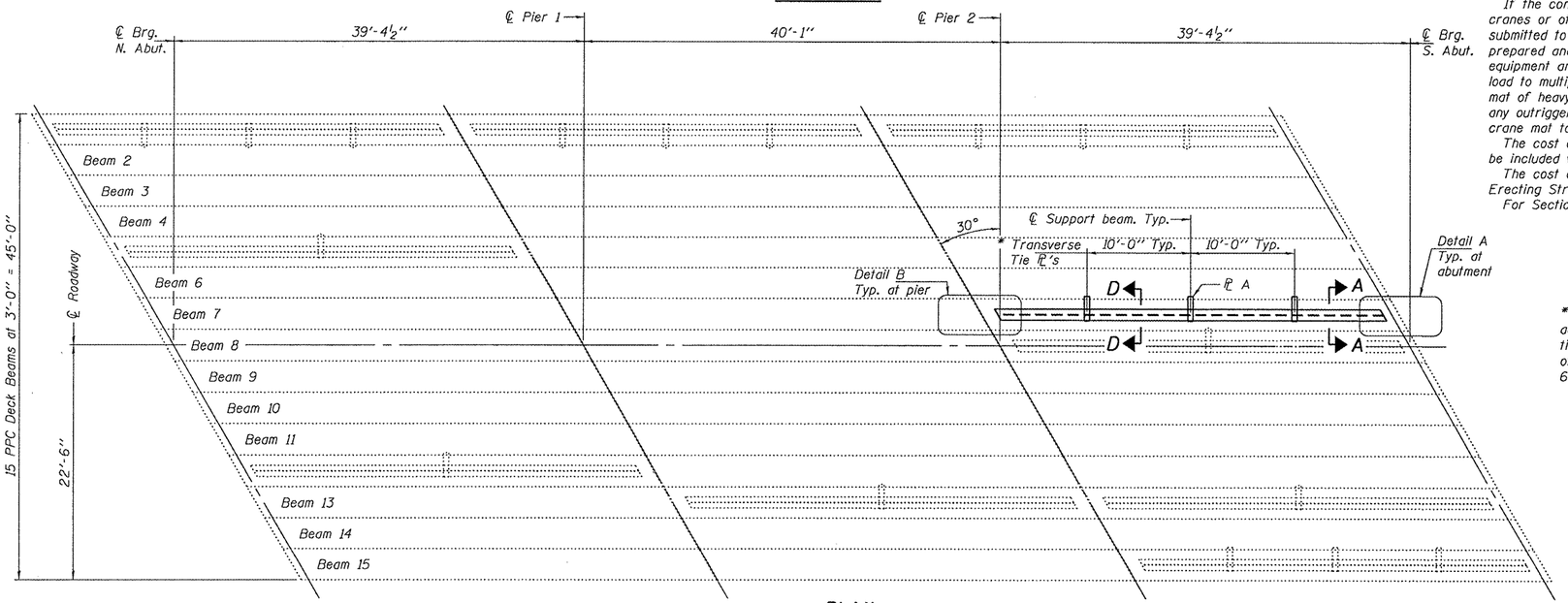
TRAFFIC SIGNAL
DETECTOR LOOP DETAILS

SCALE: | SHEET NO. 10 OF 10 SHEETS | STA. | TO STA.

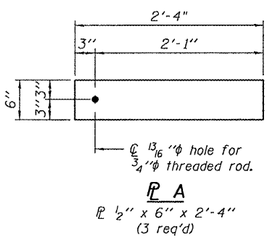
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	44
		CONTRACT NO. 72A73		
	ILLINOIS	FED. AID PROJECT		



ELEVATION



PLAN

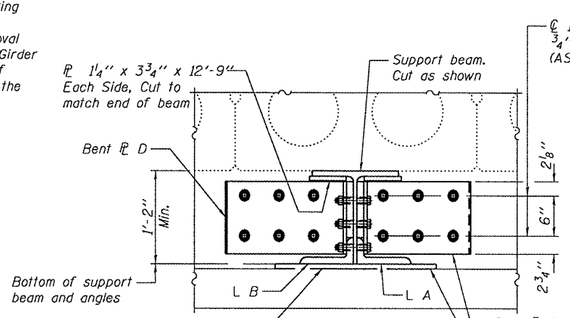


℄ A
℄ ½" x 6" x 2'-4"
(3 req'd)

** Contractor is to verify beam length prior to ordering material. Other sections meeting the section modulus requirements shown may be allowed subject to approval by the Bureau of Bridges and Structures. Maximum Girder depth = 33". No additional payment will be allowed if the contractor chooses a heavier steel section than the one specified in the plans.

STATE OF ILLINOIS
RALPH E. ANDERSON
081-004625
SPRINGFIELD
LICENSED STRUCTURAL ENGINEER

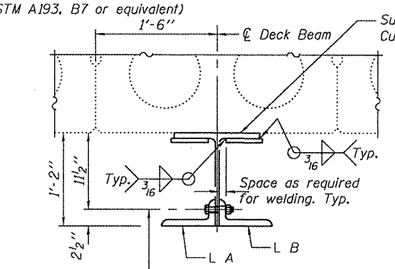
EXPIRES 11-30-2010



1'-0" x 2'-0" ℄ of thickness required to shim tightly between beam and neoprene pad. (To remain in place).

SECTION A-A

1'-0" x 2'-0" Neoprene leveling pad on slopewall



SECTION B-B

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Plan dimensions and details relative to existing plans are subject to routine variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 contractor is advised that the existing PPC Deck Beams are in a deteriorated condition with reduced load carrying capacity. It is the contractors responsibility to account for the condition of the beams when developing construction procedures.

See Section 584 of the Standard Specifications for Epoxy Grouting of Threaded Rods; Minimum embedment 9".

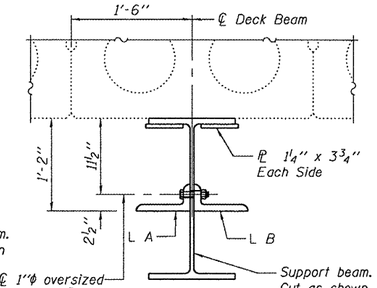
If the contractor's procedure for placement of beams involves placement of cranes or other heavy equipment on the bridge, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations, prepared and sealed by an Illinois Licensed Structural Engineer, verifying that the equipment and procedure used will not overstress the existing beams. To distribute load to multiple beams and protect the existing surface, 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.

The cost of epoxy grouting threaded rods on the pier cap and beams shall be included with Furnishing and Erecting Structural Steel.

The cost of any excavation required shall be included with Furnishing and Erecting Structural Steel.

For Section D-D see Sheet 2 of 2.

* ℄ Transverse tie ℄'s (3 per span). Place additional shims at midpoints between tie ℄'s. Securely weld shims to top flange of support beam. Min. shim size is 6" x flange width.



SECTION C-C

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Pound	6060

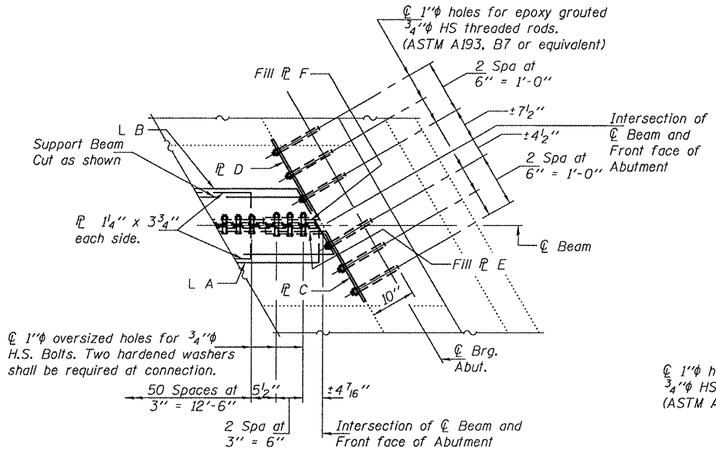
DESIGNED	Victor H. Vocit	EXAMINED	ENGINEER OF STRUCTURAL SERVICES
CHECKED	Victor H. Vocit	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
DRAWN	baliva	DATE	AUGUST 3, 2010
CHECKED	VHV		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

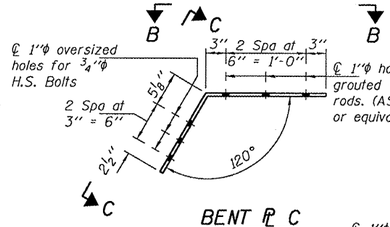
PRE-STAGE I TRAFFIC
ADDITIONAL PPC DECK BEAM SUPPORT
SN 084-0172
SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	44A
		CONTRACT NO. 72A73		
	ILLINOIS FED. AID PROJECT			

0840172CC2.dgn 8/3/2010 9:10:16 AM

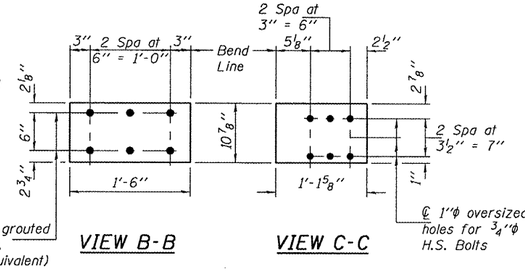


DETAIL A



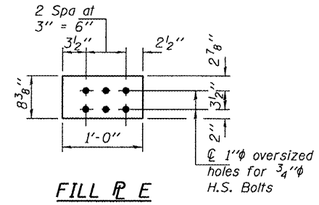
BENT ℙ C

ℙ 10 7/8" x 2'-7⅝" x ½"



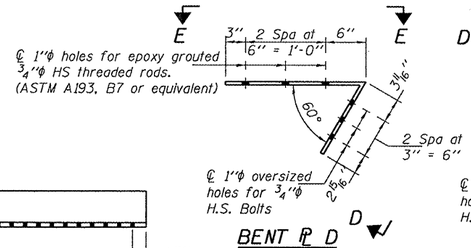
VIEW B-B

VIEW C-C



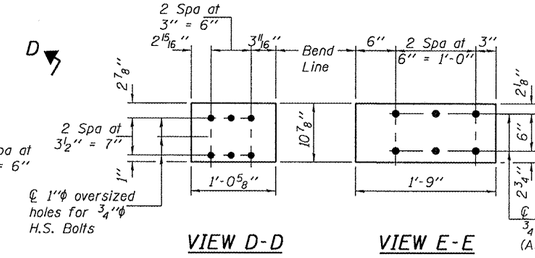
FILL ℙ E

ℙ 1'-0" x 8⅜" x 1"



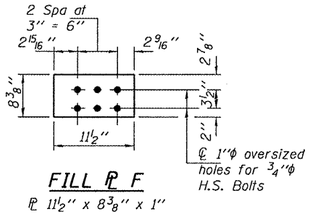
BENT ℙ D

ℙ 10 7/8" x 2'-9⅝" x ½"



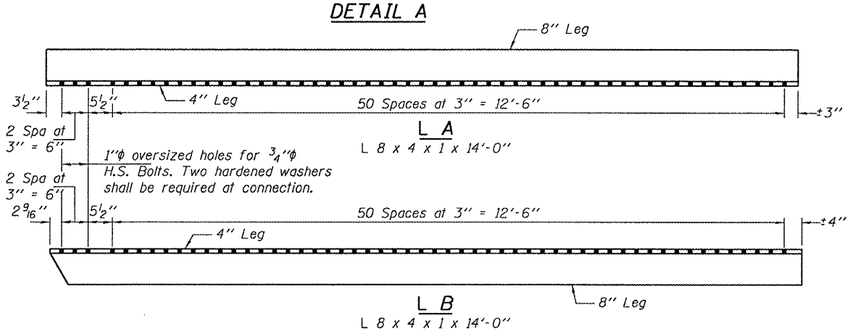
VIEW D-D

VIEW E-E



FILL ℙ F

ℙ 11½" x 8⅜" x 1"

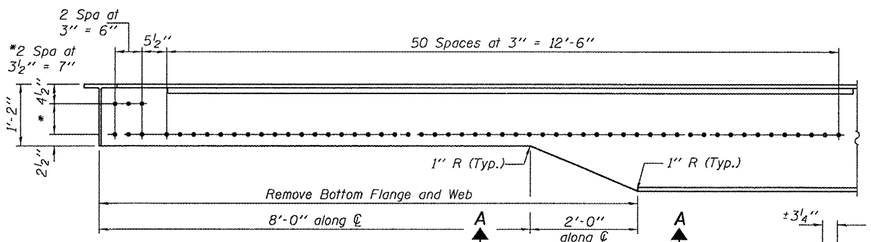


L A

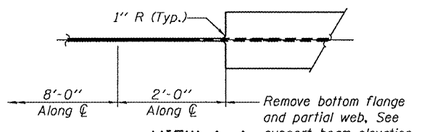
L 8 x 4 x 1 x 14'-0"

L B

L 8 x 4 x 1 x 14'-0"

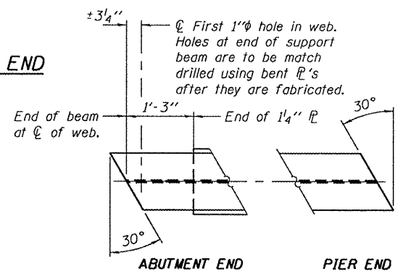


SUPPORT BEAM ELEVATION AT ABUTMENT END

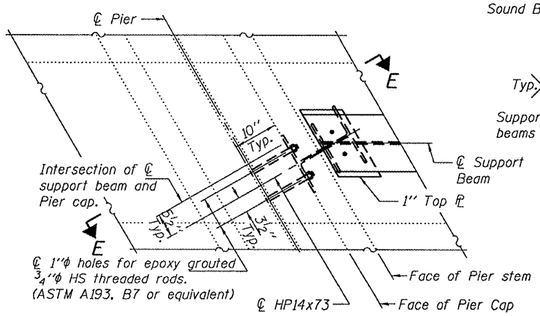


VIEW A-A

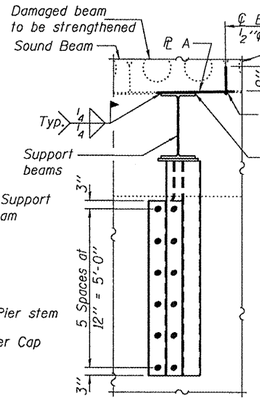
(Top flange omitted from view for clarity.)



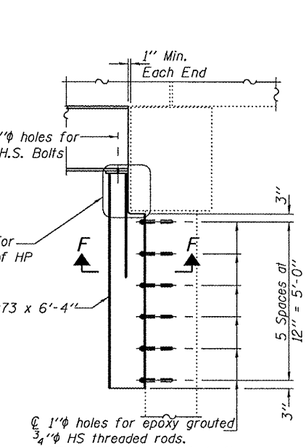
SUPPORT BEAM PARTIAL TOP FLANGE PLANS



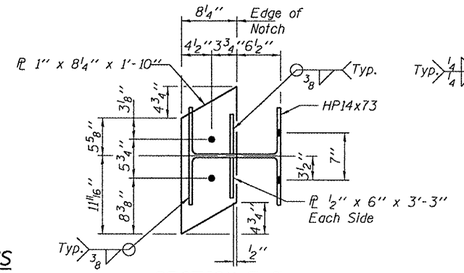
DETAIL B



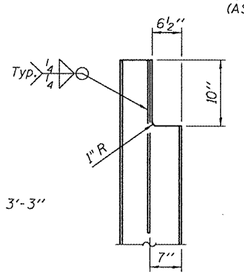
SECTION D-D



SECTION E-E



SECTION F-F



DETAIL C

DESIGNED	DAB	EXAMINED	ENGINEER OF STRUCTURAL SERVICES	DATE -	AUGUST 3, 2010	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED	VHV	PASSED	ENGINEER OF BRIDGES AND STRUCTURES			
DRAWN	baliva					
CHECKED	DAB VHV					

REPAIR DETAILS
SN 084-0172
SHEET NO. 2 OF 2 SHEETS

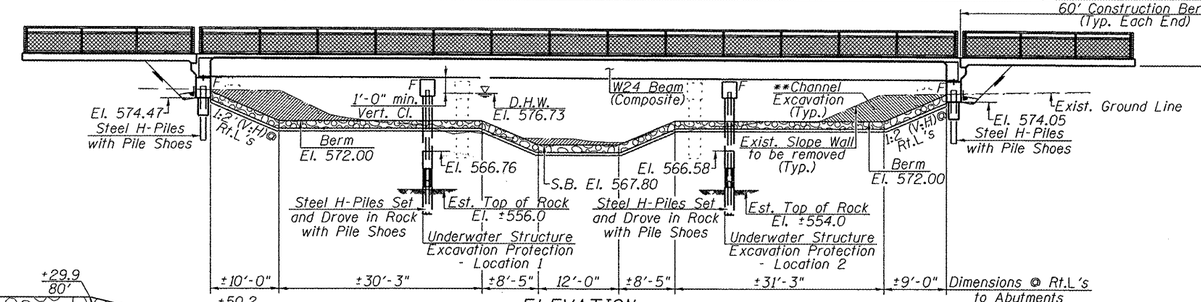
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	44B
		CONTRACT NO. 72A73		
		ILLINOIS FED. AID PROJECT		

0840172CC2.dgn 8/3/2010 9:08:32 AM

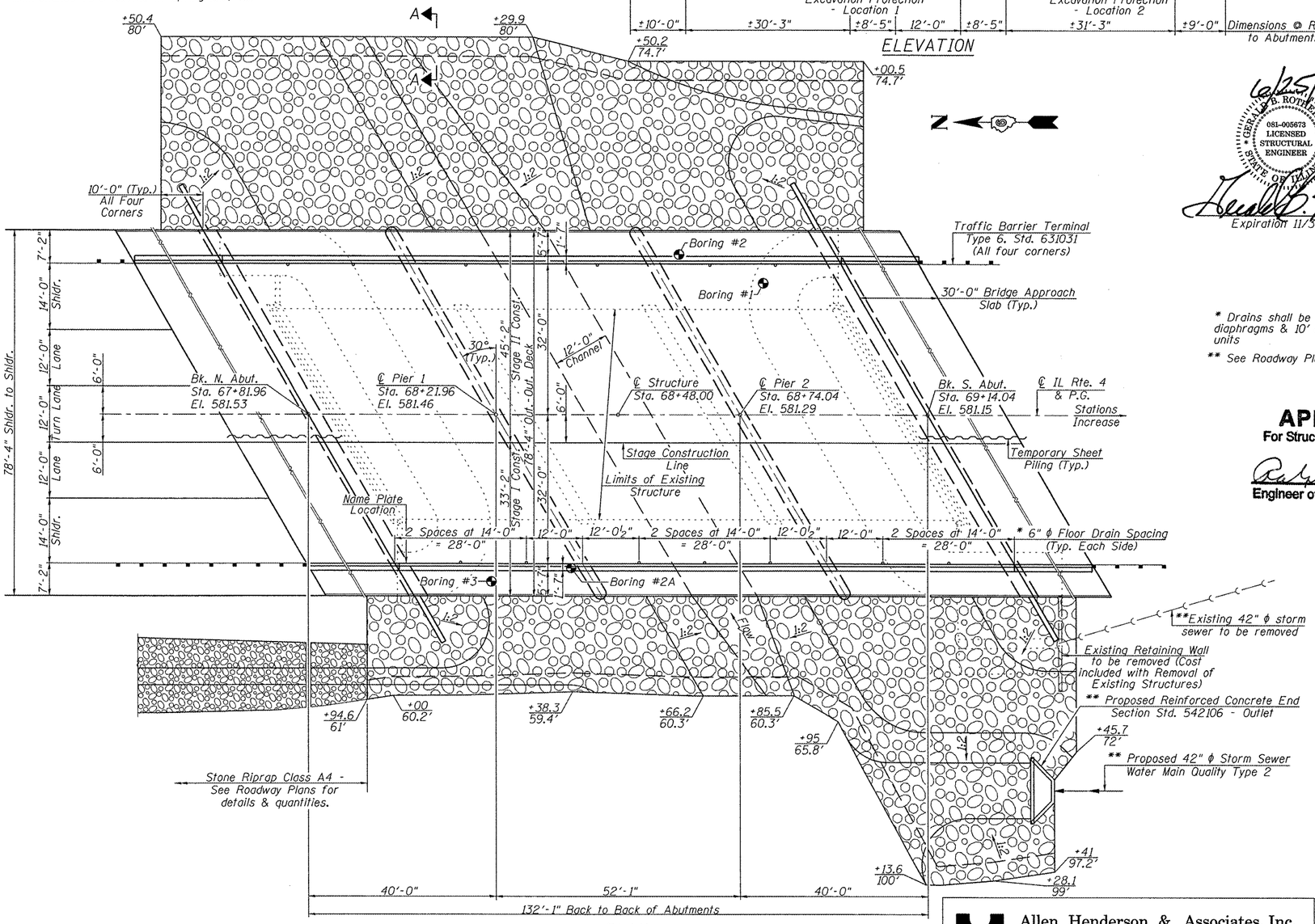
Bench Mark: Chiseled "□" on S.W. Wingwall of Existing Structure.
Elevation 580.521

Existing Structure: S.N. 084-0172 originally built in 1978 as F.A. Rte. 662. Section H-BR and rehabilitated in 1998 as F.A.P. Rte 662. Section H(RS-8). Due to the deteriorated condition of the superstructure several beams were shored in 2007 and 2008 with support beams. The existing structure consists of 3 simple spans of P.P.C. deck beams supported on pile bent abutments and piers. The structure is 123'-1" Bk.-Bk. Abutments and 45'-0" out-out deck. The structure is to be removed and replaced. Traffic to be maintained utilizing stage construction.

Salvage: Existing temporary shoring steel to be salvaged. The Contractor is to contact IDOT District Six Day Labor at (217) 782-7416. Day Labor will pick-up and transport the material to the IDOT District Six Maintenance Yard located in Springfield, IL.



ELEVATION



PLAN

* Drains shall be located clear of all diaphragms & 10' clear of substructure units

** See Roadway Plans for details & quantities

APPROVED
For Structural Adequacy Only
Ralph E. Anderson
Engineer of Bridges & Structures

6/25/2010
GERALD B. ROTHERHAM
081-005673
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS
Gerald B. Rotherham
Expiration 11/30/2010

INDEX OF SHEETS

LOADING HL-93

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

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications with 2008 and 2009 Interims

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M 270 Grade 50)
fy = 36,000 psi (M 270 Grade 36)

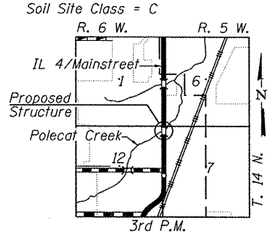
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.11g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.22g
Soil Site Class = C

STATION 68+48.00
BUILT 20 BY
STATE OF ILLINOIS
F.A.P. RTE. 662 SECTION H(RS-10,B-2)
LOADING HL-93
STRUCTURE NO. 084-0521

NAME PLATE

See Std. 515001



LOCATION SKETCH

GENERAL PLAN
IL 4 (MAIN STREET) OVER POLECAT CREEK
F.A.P. ROUTE 662 - SEC. H(RS-10,B-2)
SANGAMON COUNTY
STA. 68+48.00
S.N. 084-0521

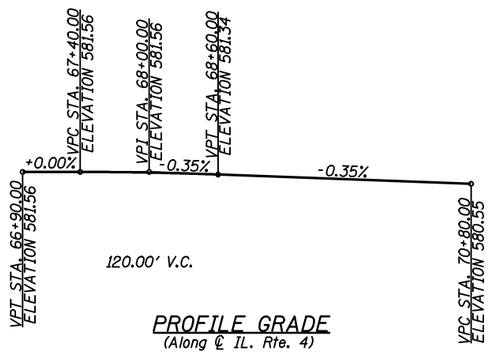
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907

SHEET NO. 1
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	45
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO. _	ILLINOIS	FED. AID PROJECT		

GENERAL NOTES

1. Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts. Bolts - 7/8 in. ϕ, holes $^{15}/_{16}$ in. ϕ, unless otherwise noted.
2. Calculated weight of Structural Steel = 149130 lbs. (M 270, Grade 50)
   20740 lbs. (M 270 Grade 36)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $^{1}/_{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
7. 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".
8. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
9. The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
10. 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.
11. If the Contractor's procedures for existing beam removal involves placement of heavy equipment on the exisiting deck beams, a detailed procedure shall be submitted to the Engineer for approval. The procedure shall include calculations sealed by an Illinois Licensed Structural Engineer, verifying the structural adequacy of the beams for the proposed loads. Cost included with Removal of Existing Structures.



PROFILE GRADE
(Along ℄ IL. Rte. 4)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		225	225
Stone Riprap, Class A4	Sq. Yd.		2375	2375
Filter Fabric	Sq. Yd		2375	2375
Removal of Existing Structures	Each		1	1
Slope Wall Removal	Sq. Yd.		418	418
Structure Excavation	Cu. Yd.		278	278
Floor Drains	Each	14		14
Concrete Structures	Cu. Yd.		286.7	286.7
Concrete Superstructure	Cu. Yd.	589.2		589.2
Bridge Deck Grooving	Sq. Yd.	1324		1324
Concrete Encasement	Cu. Yd.		18.2	18.2
Protective Coat	Sq. Yd.	1773		1773
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	7140		7140
Reinforcement Bars, Epoxy Coated	Pound	144810	27380	172190
Bar Splicers	Each	696	152	848
Bicycle Railing	Foot	384		384
Parapet Railing	Foot	384		384
Furnishing Steel Piles HP 10 x 42	Foot		1362	1362
Driving Piles	Foot		550	550
Test Pile Steel HP 10 x 42	Each		2	2
Pile Shoes	Each		52	52
Temporary Sheet Piling	Sq. Ft.		599	599
Name Plates	Each	1		1
Anchor Bolts, 1"	Each		112	112
Geocomposite Wall Drain	Sq. Yd.		117	117
Pipe Underdrains for Structures, 4"	Foot		240	240
Setting and Driving Piles in Rock	Each		28	28
Underwater Structure Excavation Protection - Location 1	Each		1	1
Underwater Structure Excavation Protection - Location 2	Each		1	1
Mechanical Splicers	Each		60	60

WATERWAY INFORMATION

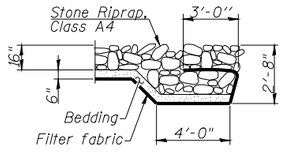
Drainage Area = 7.3 sq. mi.

Existing Low Grade Elev. 579.61 ℄ Sta. 70+50
Proposed Low Grade Elev. 580.51 ℄ Sta. 71+00

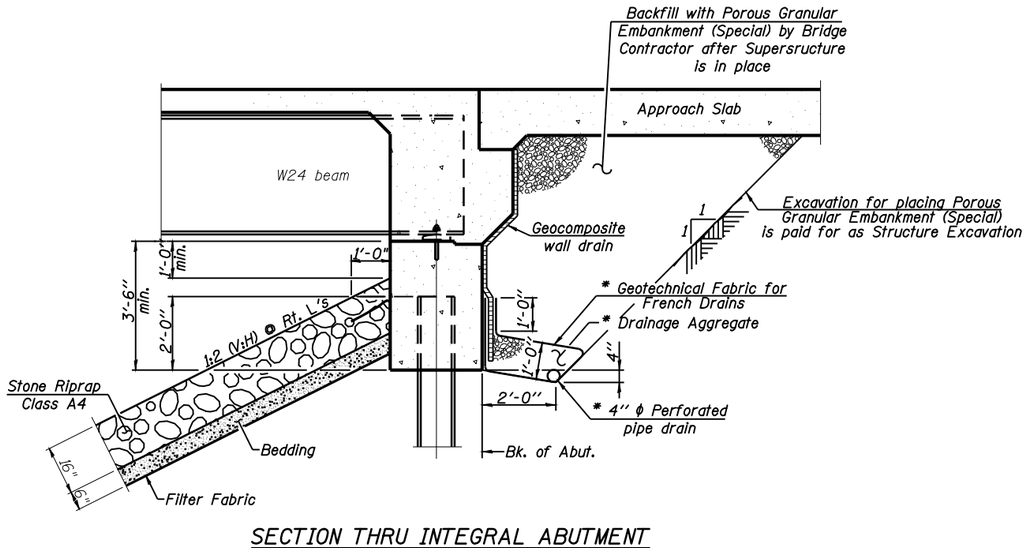
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1040	270	420	575.47	0.2	0.0	575.63	575.47
Design	50	1680	370	540	576.73	0.3	0.0	576.99	576.74
Base	100	1960	410	590	577.20	0.3	0.1	577.52	577.26
Overtop Existing	>500	-	-	-	-	-	-	-	-
Overtop Proposed	>500	-	-	-	-	-	-	-	-
Max. Calc.	500	2650	470	670	578.23	0.6	0.2	578.79	578.46

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	N. Abut.	Pier 1	Pier 2	S. Abut.
	574.5	564.0	563.9	574.0



SECTION A-A



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

* Included in the cost of Pipe Underdrains for Structures.

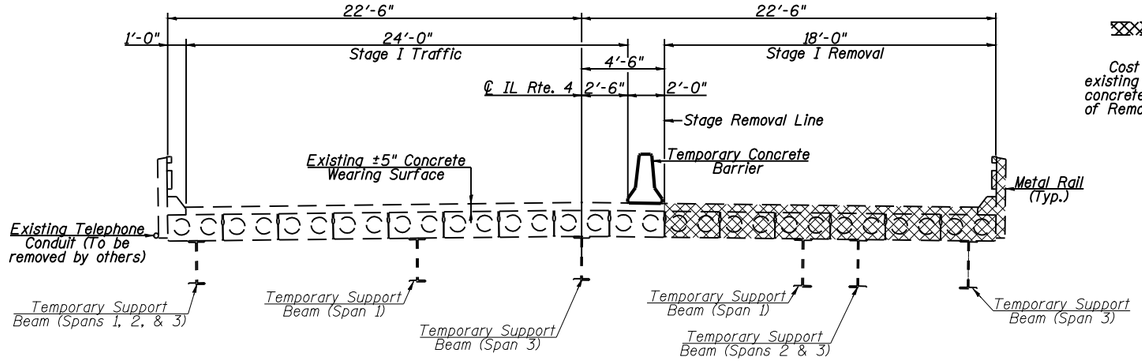
Note:
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).

GENERAL NOTES & BILL OF MATERIAL
S.N. 084-0521

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

SHEET NO. 2
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	46
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

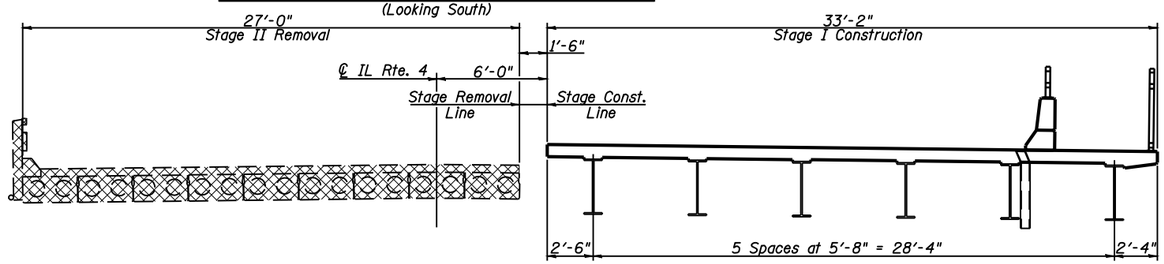


▨ - Indicates Limits of Removal of Existing Structure

Cost of removing existing temporary shoring, existing retaining wall, existing metal rails and concrete wearing surface is included in the cost of Removal of Existing Structure.

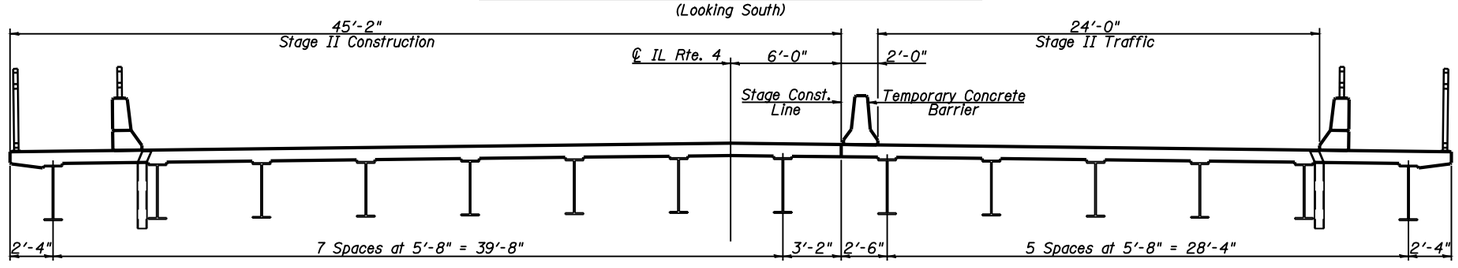
STAGE I REMOVAL & STAGE I TRAFFIC

(Looking South)



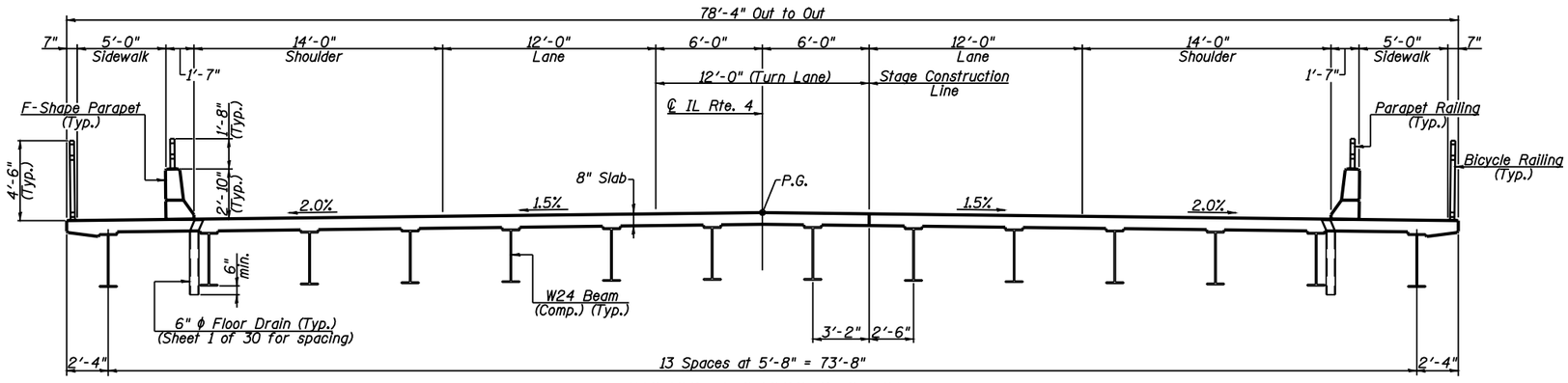
STAGE I CONSTRUCTION & STAGE II REMOVAL

(Looking South)



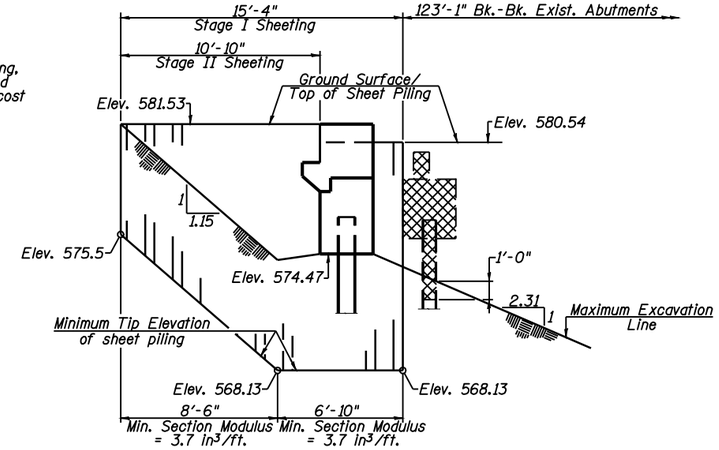
STAGE II CONSTRUCTION & STAGE II TRAFFIC

(Looking South)



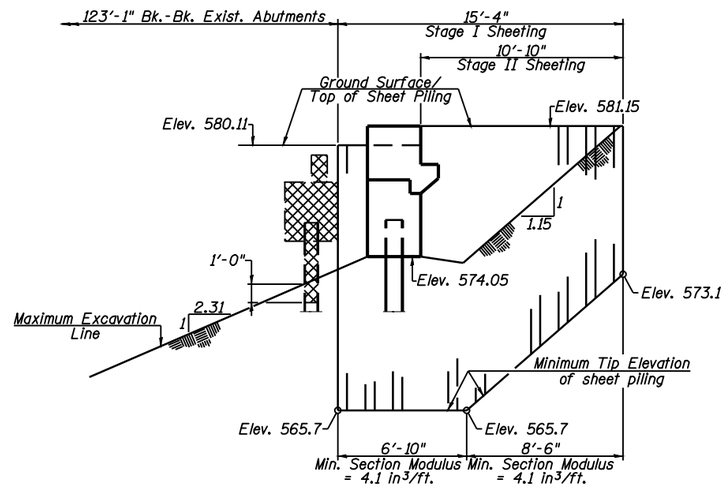
PROPOSED CROSS SECTION

(Looking South)



TEMPORARY SHEET PILING DETAIL - NORTH ABUTMENT

(Looking East)



TEMPORARY SHEET PILING DETAIL - SOUTH ABUTMENT

(Looking East)

Notes:
For quantity of temporary concrete barrier see Roadway Plans.
For details of temporary concrete barrier see sheet 4 of 30.
If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.

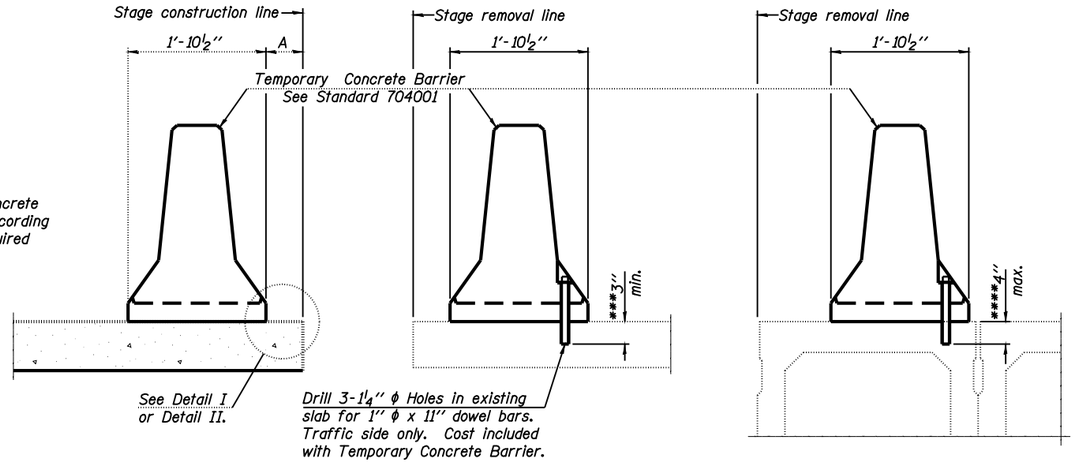
STAGE CONSTRUCTION DETAILS
S.N. 084-0521

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

SHEET NO. 3
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	47
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



NEW SLAB | EXISTING SLAB | EXISTING DECK BEAM

NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1"x7"x10" steel ℙ to the top layer of couplers with 2-⅝" ϕ bolts screwed to coupler at approximate ℄ of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1"x7"x 10" steel ℙ to the concrete slab or concrete wearing surface with 2-⅝" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate ℄ of each barrier panel.

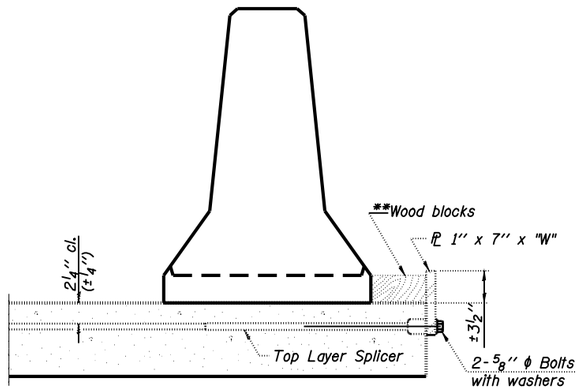
Cost of anchorage is included with Temporary Concrete Barrier.

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 to be placed.

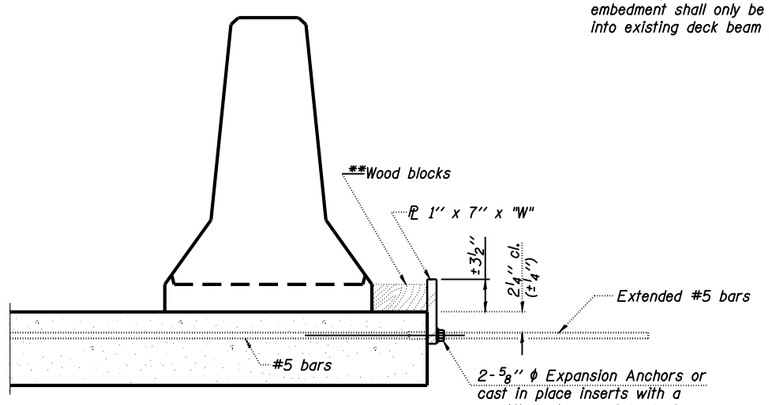
SECTIONS THRU SLAB OR DECK BEAM

*** 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.

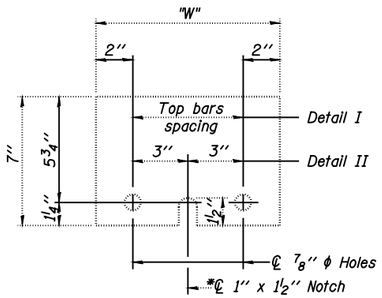
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER ℙ 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.

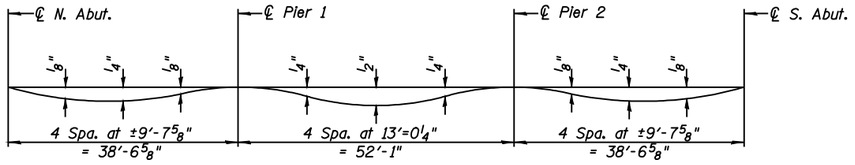
"W" = Top bars spacing + 4"

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION S.N. 084-0521

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

SHEET NO. 4
30 SHEETS

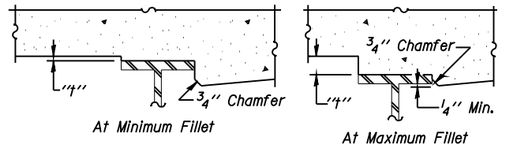
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	48
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DEAD LOAD DEFLECTION DIAGRAM

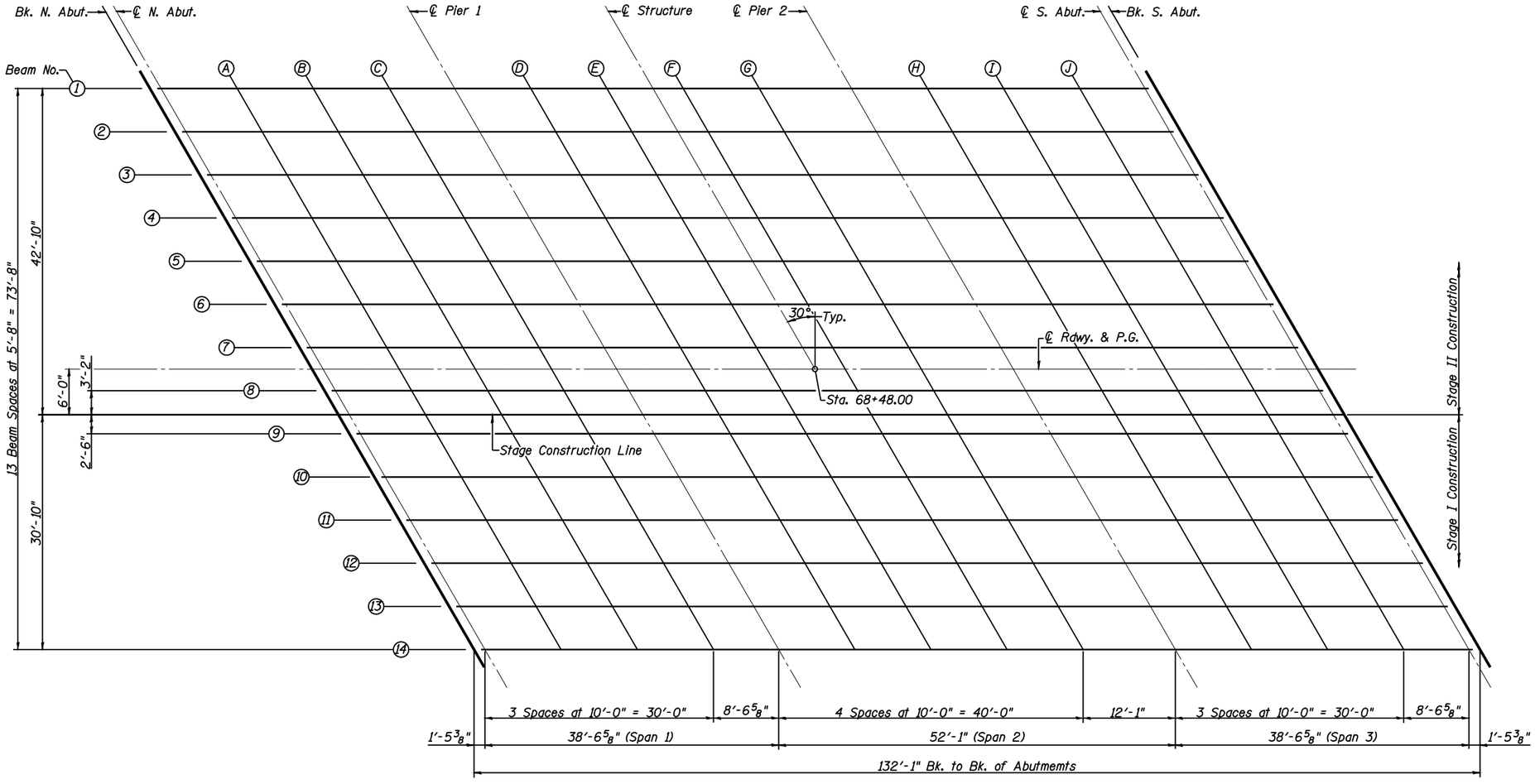
(Includes weight of concrete only.)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets 6, 7 & 8 of 30.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 6, 7 & 8 of 30, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



LAYOUT PLAN - DECK ELEVATIONS

TOP OF SLAB ELEVATIONS
S.N. 084-0521

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

SHEET NO. 5

30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	49
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+60.69	-36.833	580.91	580.91
℄ N. Abut.	67+62.13	-36.833	580.91	580.91
A	67+72.13	-36.833	580.90	580.91
B	67+82.13	-36.833	580.89	580.90
C	67+92.13	-36.833	580.87	580.88
℄ Pier 1	68+00.69	-36.833	580.86	580.86
D	68+10.69	-36.833	580.84	580.86
E	68+20.69	-36.833	580.82	580.86
F	68+30.69	-36.833	580.79	580.83
G	68+40.69	-36.833	580.77	580.79
℄ Pier 2	68+52.77	-36.833	580.73	580.73
H	68+62.77	-36.833	580.68	580.69
I	68+72.77	-36.833	580.65	580.67
J	68+82.77	-36.833	580.61	580.63
℄ S. Abut.	68+91.33	-36.833	580.58	580.58
Bk. S. Abut.	68+92.77	-36.833	580.58	580.58

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+63.96	-31.167	581.02	581.02
℄ N. Abut.	67+65.40	-31.167	581.02	581.02
A	67+75.40	-31.167	581.01	581.02
B	67+85.40	-31.167	581.00	581.01
C	67+95.40	-31.167	580.98	580.99
℄ Pier 1	68+03.96	-31.167	580.97	580.97
D	68+13.96	-31.167	580.95	580.97
E	68+23.96	-31.167	580.92	580.96
F	68+33.96	-31.167	580.90	580.94
G	68+43.96	-31.167	580.87	580.89
℄ Pier 2	68+56.04	-31.167	580.83	580.83
H	68+66.04	-31.167	580.79	580.79
I	68+76.04	-31.167	580.75	580.77
J	68+86.04	-31.167	580.72	580.73
℄ S. Abut.	68+94.60	-31.167	580.69	580.69
Bk. S. Abut.	68+96.04	-31.167	580.68	580.68

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+67.24	-25.500	581.13	581.13
℄ N. Abut.	67+68.68	-25.500	581.13	581.13
A	67+78.68	-25.500	581.12	581.13
B	67+88.68	-25.500	581.11	581.12
C	67+98.68	-25.500	581.09	581.09
℄ Pier 1	68+07.24	-25.500	581.07	581.07
D	68+17.24	-25.500	581.05	581.07
E	68+27.24	-25.500	581.03	581.07
F	68+37.24	-25.500	581.00	581.04
G	68+47.24	-25.500	580.97	581.00
℄ Pier 2	68+59.32	-25.500	580.93	580.93
H	68+69.32	-25.500	580.89	580.89
I	68+79.32	-25.500	580.85	580.87
J	68+89.32	-25.500	580.82	580.83
℄ S. Abut.	68+97.88	-25.500	580.79	580.79
Bk. S. Abut.	68+99.32	-25.500	580.78	580.78

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+70.51	-19.833	581.24	581.24
℄ N. Abut.	67+71.95	-19.833	581.24	581.24
A	67+81.95	-19.833	581.22	581.24
B	67+91.95	-19.833	581.21	581.23
C	68+01.95	-19.833	581.19	581.20
℄ Pier 1	68+10.51	-19.833	581.18	581.18
D	68+20.51	-19.833	581.16	581.17
E	68+30.51	-19.833	581.13	581.17
F	68+40.51	-19.833	581.10	581.14
G	68+50.51	-19.833	581.07	581.10
℄ Pier 2	68+62.59	-19.833	581.02	581.02
H	68+72.59	-19.833	580.99	580.99
I	68+82.59	-19.833	580.95	580.97
J	68+92.59	-19.833	580.92	580.93
℄ S. Abut.	69+01.15	-19.833	580.89	580.89
Bk. S. Abut.	69+02.59	-19.833	580.88	580.88

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+73.78	-14.167	581.33	581.33
℄ N. Abut.	67+75.22	-14.167	581.33	581.33
A	67+85.22	-14.167	581.32	581.33
B	67+95.22	-14.167	581.30	581.32
C	68+05.22	-14.167	581.29	581.29
℄ Pier 1	68+13.78	-14.167	581.27	581.27
D	68+23.78	-14.167	581.25	581.26
E	68+33.78	-14.167	581.22	581.26
F	68+43.78	-14.167	581.19	581.23
G	68+53.78	-14.167	581.16	581.18
℄ Pier 2	68+65.86	-14.167	581.11	581.11
H	68+75.86	-14.167	581.07	581.08
I	68+85.86	-14.167	581.04	581.05
J	68+95.86	-14.167	581.00	581.02
℄ S. Abut.	69+04.42	-14.167	580.97	580.97
Bk. S. Abut.	69+05.86	-14.167	580.97	580.97

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+77.05	-8.500	581.41	581.41
℄ N. Abut.	67+78.49	-8.500	581.41	581.41
A	67+88.49	-8.500	581.40	581.41
B	67+98.49	-8.500	581.38	581.40
C	68+08.49	-8.500	581.36	581.37
℄ Pier 1	68+17.05	-8.500	581.35	581.35
D	68+27.05	-8.500	581.32	581.34
E	68+37.05	-8.500	581.30	581.33
F	68+47.05	-8.500	581.27	581.31
G	68+57.05	-8.500	581.23	581.26
℄ Pier 2	68+69.13	-8.500	581.18	581.18
H	68+79.13	-8.500	581.15	581.15
I	68+89.13	-8.500	581.11	581.13
J	68+99.13	-8.500	581.08	581.09
℄ S. Abut.	69+07.69	-8.500	581.05	581.05
Bk. S. Abut.	69+09.13	-8.500	581.04	581.04

TOP OF SLAB ELEVATIONS
S.N. 084-0521

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

SHEET NO. 6
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	50
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+80.32	-2.833	581.49	581.49
℄ N. Abut.	67+81.76	-2.833	581.49	581.49
A	67+91.76	-2.833	581.48	581.49
B	68+01.76	-2.833	581.46	581.48
C	68+11.76	-2.833	581.44	581.45
℄ Pier 1	68+20.32	-2.833	581.42	581.42
D	68+30.32	-2.833	581.40	581.42
E	68+40.32	-2.833	581.37	581.41
F	68+50.32	-2.833	581.34	581.38
G	68+60.32	-2.833	581.30	581.32
℄ Pier 2	68+72.40	-2.833	581.25	581.25
H	68+82.40	-2.833	581.22	581.23
I	68+92.40	-2.833	581.18	581.20
J	69+02.40	-2.833	581.15	581.16
℄ S. Abut.	69+10.96	-2.833	581.12	581.12
Bk. S. Abut.	69+12.40	-2.833	581.11	581.11

℄ RDWY. (PROFILE GRADE LINE)

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+81.96	0.000	581.53	581.53
℄ N. Abut.	67+83.40	0.000	581.53	581.53
A	67+93.40	0.000	581.52	581.53
B	68+03.40	0.000	581.50	581.52
C	68+13.40	0.000	581.48	581.49
℄ Pier 1	68+21.96	0.000	581.46	581.46
D	68+31.96	0.000	581.44	581.46
E	68+41.96	0.000	581.41	581.45
F	68+51.96	0.000	581.38	581.42
G	68+61.96	0.000	581.33	581.36
℄ Pier 2	68+74.04	0.000	581.29	581.29
H	68+84.04	0.000	581.26	581.26
I	68+94.04	0.000	581.22	581.24
J	69+04.04	0.000	581.19	581.20
℄ S. Abut.	69+12.60	0.000	581.16	581.16
Bk. S. Abut.	69+14.04	0.000	581.15	581.15

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+83.59	2.833	581.49	581.49
℄ N. Abut.	67+85.03	2.833	581.49	581.49
A	67+95.03	2.833	581.47	581.49
B	68+05.03	2.833	581.46	581.47
C	68+15.03	2.833	581.44	581.44
℄ Pier 1	68+23.59	2.833	581.42	581.42
D	68+33.59	2.833	581.39	581.41
E	68+43.59	2.833	581.36	581.40
F	68+53.59	2.833	581.33	581.37
G	68+63.59	2.833	581.28	581.31
℄ Pier 2	68+75.67	2.833	581.24	581.24
H	68+85.67	2.833	581.21	581.21
I	68+95.67	2.833	581.17	581.19
J	69+05.67	2.833	581.14	581.15
℄ S. Abut.	69+14.23	2.833	581.11	581.11
Bk. S. Abut.	69+15.67	2.833	581.10	581.10

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+85.42	6.000	581.44	581.44
℄ N. Abut.	67+86.86	6.000	581.44	581.44
A	67+96.86	6.000	581.42	581.44
B	68+06.86	6.000	581.40	581.42
C	68+16.86	6.000	581.38	581.39
℄ Pier 1	68+25.42	6.000	581.36	581.36
D	68+35.42	6.000	581.34	581.36
E	68+45.42	6.000	581.31	581.35
F	68+55.42	6.000	581.28	581.32
G	68+65.42	6.000	581.23	581.26
℄ Pier 2	68+77.50	6.000	581.19	581.19
H	68+87.50	6.000	581.15	581.16
I	68+97.50	6.000	581.12	581.14
J	69+07.50	6.000	581.08	581.10
℄ S. Abut.	69+16.06	6.000	581.05	581.05
Bk. S. Abut.	69+17.50	6.000	581.05	581.05

BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+86.87	8.500	581.40	581.40
℄ N. Abut.	67+88.31	8.500	581.40	581.40
A	67+98.31	8.500	581.38	581.40
B	68+08.31	8.500	581.36	581.38
C	68+18.31	8.500	581.34	581.35
℄ Pier 1	68+26.87	8.500	581.32	581.32
D	68+36.87	8.500	581.30	581.31
E	68+46.87	8.500	581.27	581.31
F	68+56.87	8.500	581.23	581.27
G	68+66.87	8.500	581.19	581.21
℄ Pier 2	68+78.95	8.500	581.15	581.15
H	68+88.95	8.500	581.11	581.12
I	68+98.95	8.500	581.08	581.09
J	69+08.95	8.500	581.04	581.05
℄ S. Abut.	69+17.51	8.500	581.01	581.01
Bk. S. Abut.	69+18.95	8.500	581.01	581.01

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+90.14	14.167	581.31	581.31
℄ N. Abut.	67+91.58	14.167	581.31	581.31
A	68+01.58	14.167	581.29	581.31
B	68+11.58	14.167	581.27	581.29
C	68+21.58	14.167	581.25	581.25
℄ Pier 1	68+30.14	14.167	581.23	581.23
D	68+40.14	14.167	581.20	581.22
E	68+50.14	14.167	581.17	581.21
F	68+60.14	14.167	581.13	581.17
G	68+70.14	14.167	581.09	581.12
℄ Pier 2	68+82.22	14.167	581.05	581.05
H	68+92.22	14.167	581.01	581.02
I	69+02.22	14.167	580.98	581.00
J	69+12.22	14.167	580.94	580.96
℄ S. Abut.	69+20.78	14.167	580.91	580.91
Bk. S. Abut.	69+22.22	14.167	580.91	580.91

TOP OF SLAB ELEVATIONS
S.N. 084-0521

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

SHEET NO. 7
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	51
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+93.41	19.833	581.21	581.21
℄ N. Abut.	67+94.85	19.833	581.21	581.21
A	68+04.85	19.833	581.19	581.20
B	68+14.85	19.833	581.17	581.18
C	68+24.85	19.833	581.14	581.15
℄ Pier 1	68+33.41	19.833	581.12	581.12
D	68+43.41	19.833	581.09	581.11
E	68+53.41	19.833	581.06	581.10
F	68+63.41	19.833	581.02	581.06
G	68+73.41	19.833	580.98	581.01
℄ Pier 2	68+85.49	19.833	580.94	580.94
H	68+95.49	19.833	580.91	580.91
I	69+05.49	19.833	580.87	580.89
J	69+15.49	19.833	580.84	580.85
℄ S. Abut.	69+24.05	19.833	580.81	580.81
Bk. S. Abut.	69+25.49	19.833	580.81	580.81

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+96.68	25.500	581.09	581.09
℄ N. Abut.	67+98.12	25.500	581.09	581.09
A	68+08.12	25.500	581.07	581.09
B	68+18.12	25.500	581.05	581.07
C	68+28.12	25.500	581.03	581.03
℄ Pier 1	68+36.68	25.500	581.00	581.00
D	68+46.68	25.500	580.97	580.99
E	68+56.68	25.500	580.94	580.98
F	68+66.68	25.500	580.90	580.94
G	68+76.68	25.500	580.86	580.89
℄ Pier 2	68+88.76	25.500	580.82	580.82
H	68+98.76	25.500	580.78	580.79
I	69+08.76	25.500	580.75	580.77
J	69+18.76	25.500	580.71	580.73
℄ S. Abut.	69+27.32	25.500	580.68	580.68
Bk. S. Abut.	69+28.76	25.500	580.68	580.68

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	67+99.95	31.167	580.97	580.97
℄ N. Abut.	68+01.39	31.167	580.97	580.97
A	68+11.39	31.167	580.95	580.97
B	68+21.39	31.167	580.93	580.95
C	68+31.39	31.167	580.90	580.91
℄ Pier 1	68+39.95	31.167	580.88	580.88
D	68+49.95	31.167	580.85	580.87
E	68+59.95	31.167	580.82	580.86
F	68+69.95	31.167	580.77	580.81
G	68+79.95	31.167	580.74	580.76
℄ Pier 2	68+92.03	31.167	580.69	580.69
H	69+02.03	31.167	580.66	580.67
I	69+12.03	31.167	580.62	580.64
J	69+22.03	31.167	580.59	580.60
℄ S. Abut.	69+30.59	31.167	580.56	580.56
Bk. S. Abut.	69+32.03	31.167	580.55	580.55

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	68+03.22	36.833	580.86	580.86
℄ N. Abut.	68+04.66	36.833	580.85	580.85
A	68+14.66	36.833	580.83	580.85
B	68+24.66	36.833	580.81	580.82
C	68+34.66	36.833	580.78	580.79
℄ Pier 1	68+43.22	36.833	580.76	580.76
D	68+53.22	36.833	580.73	580.75
E	68+63.22	36.833	580.68	580.72
F	68+73.22	36.833	580.65	580.69
G	68+83.22	36.833	580.61	580.64
℄ Pier 2	68+95.30	36.833	580.57	580.57
H	69+05.30	36.833	580.53	580.54
I	69+15.30	36.833	580.50	580.52
J	69+25.30	36.833	580.46	580.48
℄ S. Abut.	69+33.86	36.833	580.43	580.43
Bk. S. Abut.	69+35.30	36.833	580.43	580.43

TOP OF SLAB ELEVATIONS
S.N. 084-0521

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	52
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EAST EDGE OF N. APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	67+29.35	-39.167	580.87
A1	67+39.35	-39.167	580.87
A2	67+49.35	-39.167	580.87
S. End N. Appr. Slab	67+59.35	-39.167	580.86

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	67+41.57	-18.000	581.29
A1	67+51.57	-18.000	581.29
A2	67+61.57	-18.000	581.28
S. End N. Appr. Slab	67+71.57	-18.000	581.28

℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	67+51.96	0.000	581.56
A1	67+61.96	0.000	581.55
A2	67+71.96	0.000	581.55
S. End N. Appr. Slab	67+81.96	0.000	581.53

STAGE CONSTRUCTION LINE

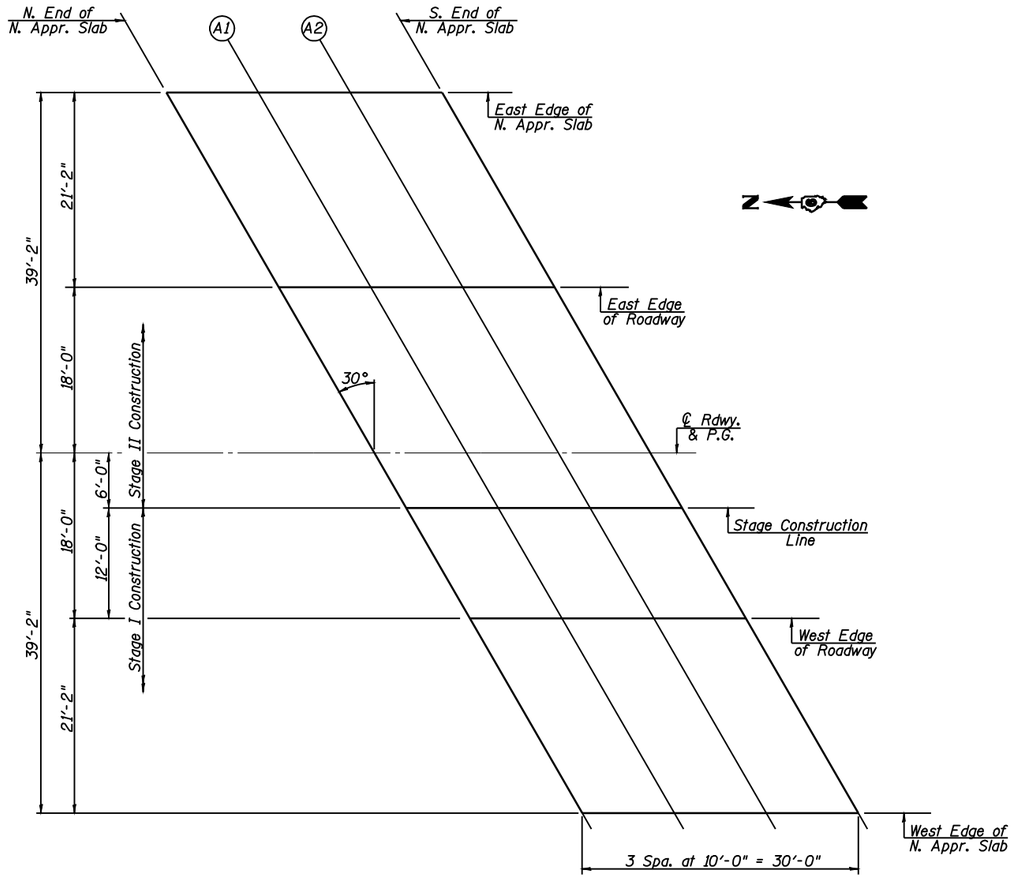
Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	67+55.42	6.000	581.47
A1	67+65.42	6.000	581.46
A2	67+75.42	6.000	581.45
S. End N. Appr. Slab	67+85.42	6.000	581.44

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	67+62.35	18.000	581.28
A1	67+72.35	18.000	581.27
A2	67+82.35	18.000	581.26
S. End N. Appr. Slab	67+92.35	18.000	581.25

WEST EDGE OF N. APPR. SLAB

Location	Station	Offset	Theoretical Grade Elevations
N. End N. Appr. Slab	67+74.57	39.167	580.85
A1	67+84.57	39.167	580.84
A2	67+94.57	39.167	580.82
S. End N. Appr. Slab	68+04.57	39.167	580.81



LAYOUT PLAN - N. APPROACH ELEVATIONS

TOP OF NORTH APPROACH SLAB ELEVATIONS
S.N. 084-0521

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

SHEET NO. 9
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	53
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

EAST EDGE OF S. APPROACH SLAB

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	68+91.43	-39.167	580.54
A3	69+01.43	-39.167	580.50
A4	69+11.43	-39.167	580.47
S. End S. Appr. Slab	69+21.43	-39.167	580.43

EAST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	69+03.65	-18.000	580.92
A3	69+13.65	-18.000	580.88
A4	69+23.65	-18.000	580.85
S. End S. Appr. Slab	69+33.65	-18.000	580.81

℄ ROADWAY & P.G.

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	69+14.04	0.000	581.15
A3	69+24.04	0.000	581.12
A4	69+34.04	0.000	581.08
S. End S. Appr. Slab	69+44.04	0.000	581.05

STAGE CONSTRUCTION LINE

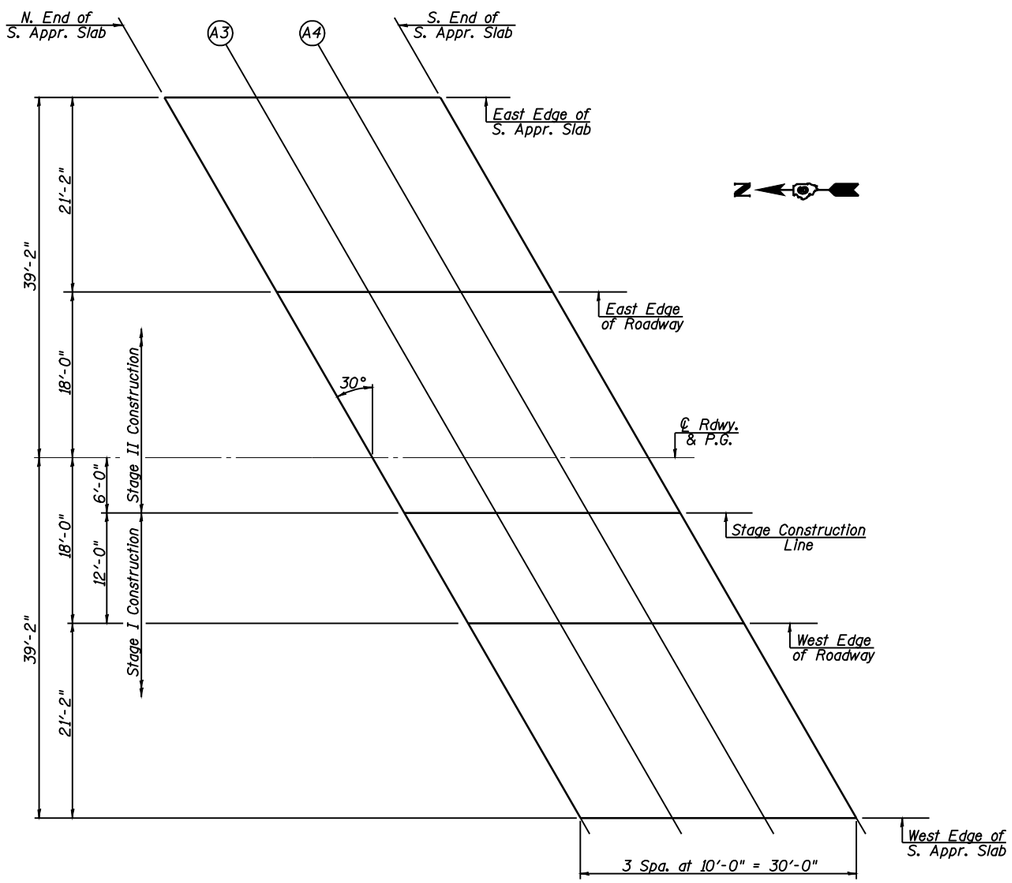
Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	69+17.50	6.000	581.05
A3	69+27.50	6.000	581.01
A4	69+37.50	6.000	580.98
S. End S. Appr. Slab	69+47.50	6.000	580.94

WEST EDGE OF ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	69+24.43	18.000	580.84
A3	69+34.43	18.000	580.81
A4	69+44.43	18.000	580.77
S. End S. Appr. Slab	69+54.43	18.000	580.74

WEST EDGE OF S. APPR. SLAB

Location	Station	Offset	Theoretical Grade Elevations
N. End S. Appr. Slab	69+36.66	39.167	580.38
A3	69+46.66	39.167	580.34
A4	69+56.66	39.167	580.31
S. End S. Appr. Slab	69+66.66	39.167	580.27



LAYOUT PLAN - S. APPROACH ELEVATIONS

TOP OF SOUTH APPROACH SLAB ELEVATIONS S.N. 084-0521

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

SHEET NO. 10
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	54
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

223-#6 a_6(E) bars at 7" cts.
(Lap with a_3(E) bars)
130-#5 a_7(E) bars at 12" cts.
143-#5 d_1(E) bars at 11" cts.
*27-#5 a_3(E) bars at 7" cts.(Top)
(Lap to a_2(E) bars)
*13-#5 a_5(E) bars at 10" cts.(Bott.)
(Lap to a_4(E) bars)
198-#5 a_3(E) bars @ 7" cts.(Top)
(Lap to a_2(E) bars)
145-#5 a_5(E) bars at 10" cts.(Bott.)
(Lap to a_4(E) bars)
1x2-#5 a_4(E) bars
(Top & Bott.) (Each End)
*17-#5 a_2(E) bars at 7" cts.(Top)
(Lap to a_3(E) bars)
*17-#5 a_4(E) bars at 10" cts.(Bott.)
(Lap to a_5(E) bars)
208-#5 a_2(E) bars at 7" cts.(Top)
(Lap to a_3(E) bars)
140-#5 a_4(E) bars at 10" cts.(Bott.)
(Lap to a_5(E) bars)
78-#6 b_1(E) bars at ±1'-0" cts.
(Top of Slab over Piers)
(33 - Stage I, 45 - Stage II)
79x4-#5 b(E) bars equally spaced
at ±1'-0" cts. (Top of Slab)
(34 - Stage I, 45 - Stage II)
30°
℄ Piers 1 & 2
Symm. about ℄ Span 2
℄ Rdwy. & P.G. Line
Bk. N. Abut.
1-Bar Splicer(E) for
#5 a_1(E) bars (Top & Bott.)
221-Bar Splicers(E) at 7" cts. for
#5 a(E) bars (Top)
155-Bar Splicers(E) at 10" cts. for
#5 a(E) bars (Bott.)
Stage Construction Line
*31-#5 a(E) bars at 7" cts.(Top)
*22-#5 a(E) bars at 10" cts.(Bott.)
194-#5 a(E) bars @ 7" cts.(Top)
136-#5 a(E) bars at 10" cts.(Bott.)
10"
(Typ.)
1x2-#5 a_1(E) bars
(Top & Bott.) (Each End)
Aluminum Sheeted
Construction Joints
in base of parapet
6'-6"
6'-6"
11"(Typ.)
16'-0"
16'-0"
223-#6 a_6(E) bars at 7" cts.
(Lap with a(E) bars)
130-#5 a_7(E) bars at 12" cts.
71x5-#5 b_2(E) bars spaced
as shown in cross section (Bott. of Slab)
(30 - Stage I, 41 - Stage II)
78'-4" out to out deck
45'-2" Stage II Construction
33'-2" Stage I Construction
32'-0"
32'-0"
5'-7"
1'-7"
5'-7"
1'-7"
79-#5 v(E) bars at 12" cts. (Each End)
(34 - Stage I, 45 - Stage II)
79 - Bar Splicers (E) at ±1'-0" cts.
for #5 b(E) bars (Each End)
40'-0" Span 1 & 3
52'-1" Span 2
132'-1" End to End of Deck

Notes:
See sheet 12 of 30 for superstructure details and Bill of Material.
Bars indicated thus 79 x 4-#5 etc. indicates 79 lines of bars with 4 lengths per line.
See sheet 12 of 30 for parapet reinforcement.
See sheet 1 of 30 for location of floor drains.
See sheet 26 of 30 for bar splicer details.
See sheet 17 of 30 for rail post spacing.

* Order a(E), a_2(E), a_3(E), a_4(E) & a_5(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

HALF PLAN

MINIMUM BAR LAP
(Unless otherwise noted)
#5 bar = 2'-6"

78'-4" out to out deck
45'-2" Stage II Construction
33'-2" Stage I Construction
5'-7"
1'-7"
32'-0"
32'-0"
1'-7"
5'-7"
7"
5'-0" Sidewalk
14'-0" Shldr.
12'-0" Lane
6'-0"
6'-0"
12'-0" Turn Lane
Stage Construction Line
12'-0" Lane
14'-0" Shldr.
5'-0" Sidewalk
7"
For details of railing see Sheet 16 of 30.
4'-6"
2'-10"
1'-8"
d(E)
d_1(E)
b(E)
b_1(E)
a_3(E)
2%
3'-3"
8" Slab
1.5%
3'-3"
a_2(E)
2¼"cl.
(±¼")
℄ Rdwy.
P.G.
Bar Splicers (E)
1.5%
b(E)
2%
2'-10"
d(E)
d_1(E)
a_6(E)
Total Drop = 8 3/8"
b_2(E)
a_7(E)
a_5(E)
a_4(E)
1"cl.
a(E)
b_2(E)
a_7(E)
10"
5-#5b_2(E) bars at 12" cts.(Typ. btwn. bms except as shown)
10"
10"
5-#5b_2(E) bars at 12" cts. (2 - Stage I, 3 - Stage II)
10"
3'-2"
2'-6"
1
14
2'-4"
2'-4"
13 Spaces at 5'-8" = 73'-8"
Near Pier
Near Midspan

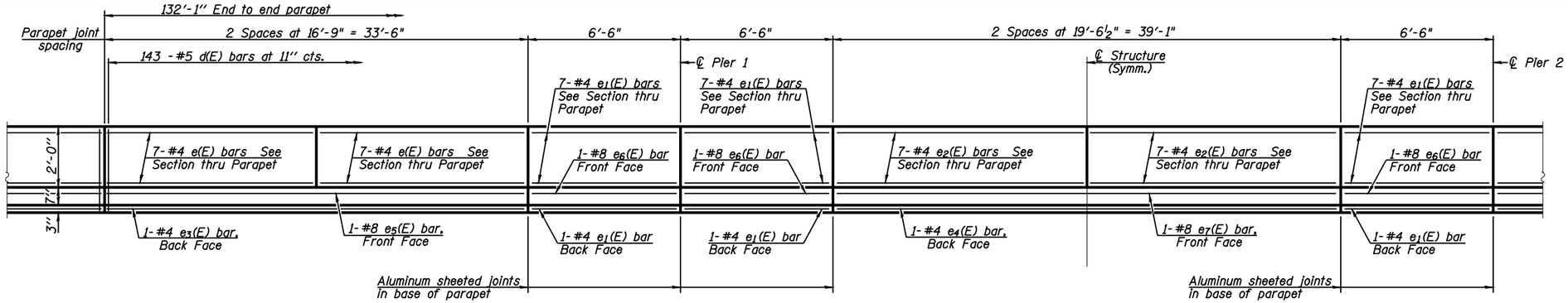
CROSS SECTION
(Looking South)

SUPERSTRUCTURE
S.N. 084-0521

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

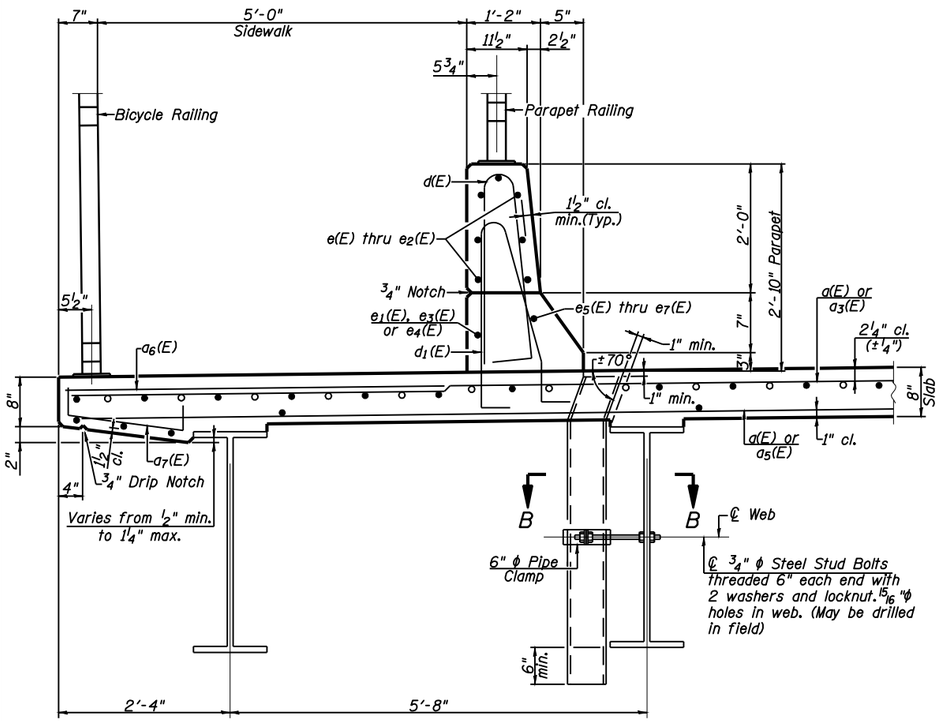
SHEET NO. 11
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	55
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

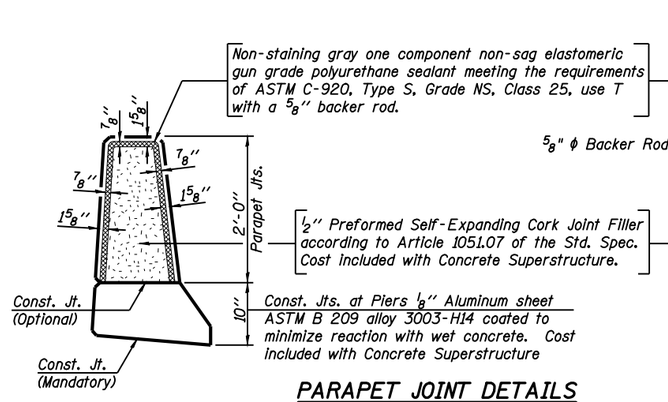


INSIDE ELEVATION OF EAST PARAPET

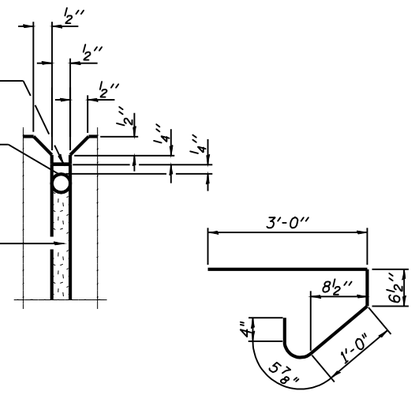
(West Parapet Similar)



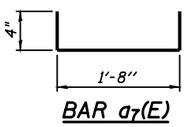
SECTION THRU PARAPET



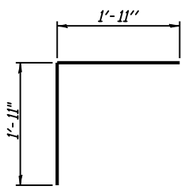
PARAPET JOINT DETAILS



BAR s(E)



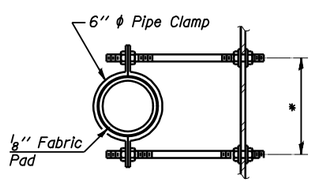
BAR a7(E)



BAR v(E)

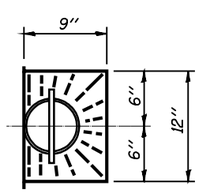
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	383	#5	32'-10"	——
a1(E)	8	#5	20'-3"	——
a2(E)	225	#5	18'-10"	——
a3(E)	225	#5	29'-4"	——
a4(E)	165	#5	27'-4"	——
a5(E)	158	#5	20'-10"	——
a6(E)	446	#6	6'-6"	——
a7(E)	260	#5	2'-4"	⌴
b(E)	316	#5	35'-6"	——
b1(E)	156	#6	32'-0"	——
b2(E)	355	#5	28'-10"	——
d(E)	286	#5	5'-7"	⌶
d1(E)	286	#5	6'-10"	⌶
e(E)	56	#4	16'-5"	——
e1(E)	64	#4	6'-2"	——
e2(E)	28	#4	19'-2"	——
e3(E)	4	#4	33'-2"	——
e4(E)	2	#4	38'-9"	——
e5(E)	4	#8	33'-2"	——
e6(E)	8	#8	6'-2"	——
e7(E)	2	#8	38'-9"	——
m(E)	20	#6	20'-8"	——
m1(E)	56	#6	9'-11"	——
m2(E)	30	#6	6'-2"	——
m3(E)	20	#6	27'-7"	——
s(E)	168	#5	5'-5"	⩛
s1(E)	144	#4	8'-4"	⊔
v(E)	158	#5	3'-10"	⌐
Reinforcement Bars, Epoxy Coated		Pound	78310	
Concrete Superstructure		Cu. Yds.	337.5	

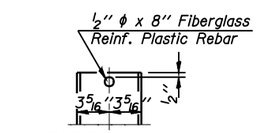


SECTION B-B

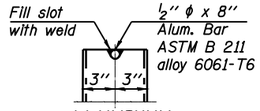
*Dimension as required by Pipe Clamp



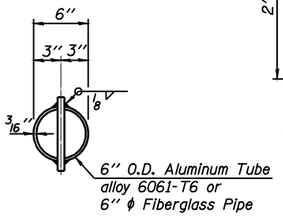
TOP PLAN



FIBERGLASS PIPE

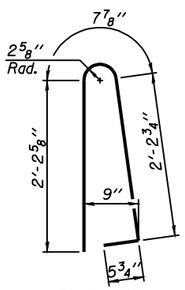


ALUMINUM TUBE

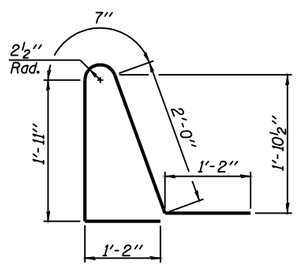


TOP PLAN

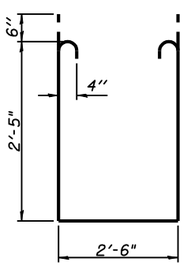
(Showing Aluminum Tube)



BAR d(E)



BAR d1(E)



BAR s1(E)

Notes:

The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to Society of Protective Coatings Spec. SSPC-SP1 prior to painting.

Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.

Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

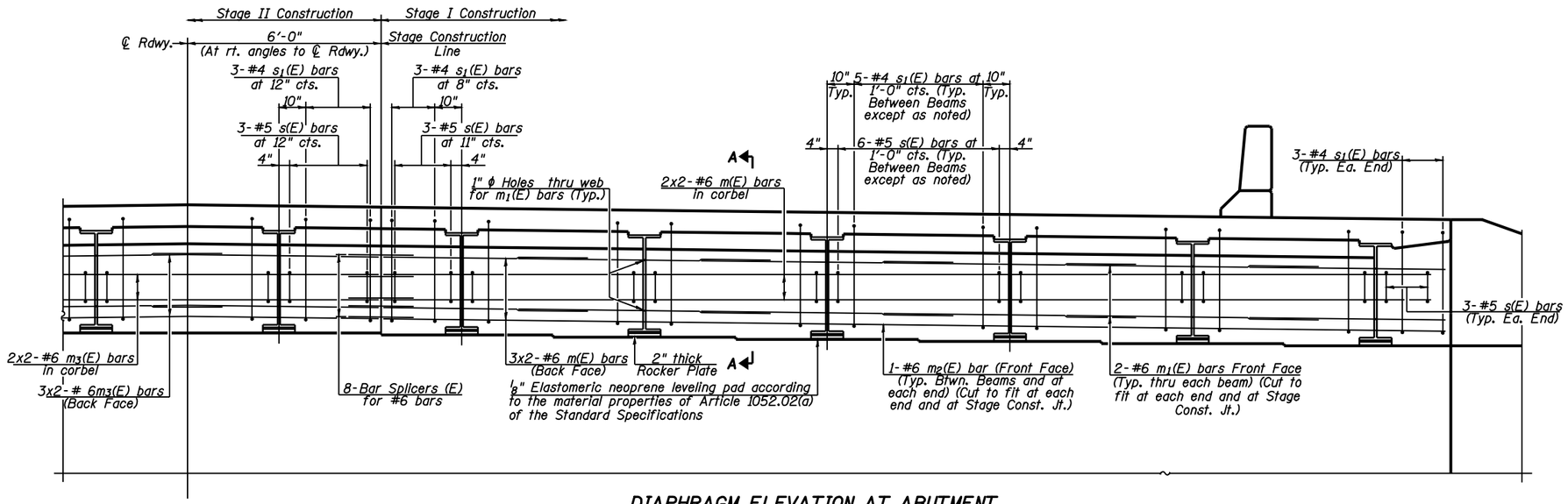
SUPERSTRUCTURE DETAILS S.N. 084-0521

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

SHEET NO. 12

30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	56
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



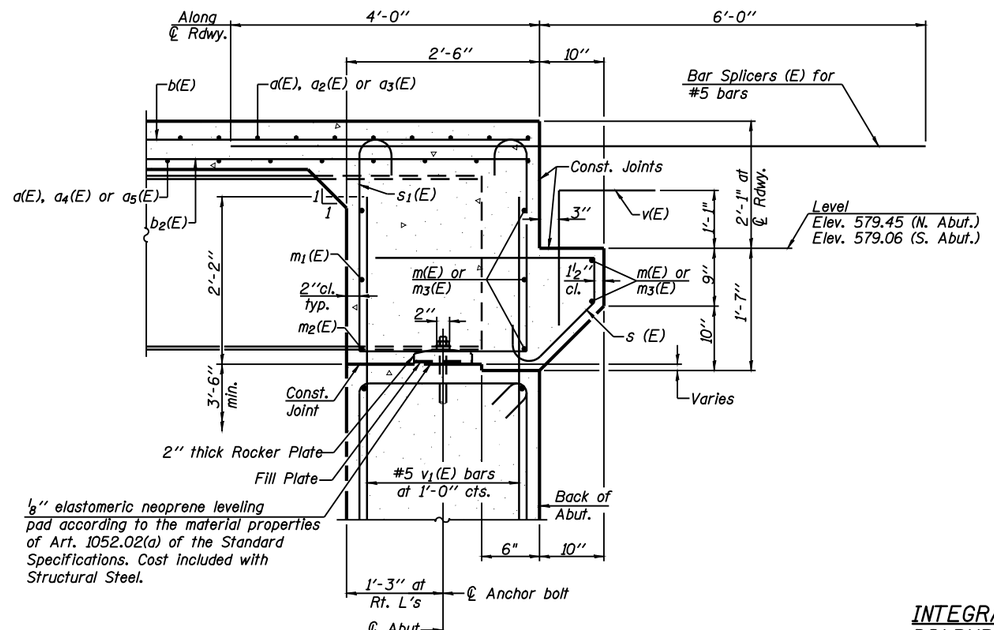
DIAPHRAGM ELEVATION AT ABUTMENT

(Looking South at South Abutment)
(North abutment similar)

Notes:
Reinforcement bars in diaphragm are billed with superstructure on sheet 12 of 30.
Concrete in diaphragm is included with Concrete Superstructure on sheet 12 of 30.
For details of bars s(E) & s_1(E) see sheet 12 of 30.
The s(E) and s_1(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
Bars indicated thus 2x2-#6 etc. indicates 2 lines of bars with 2 lengths per line
See sheet 26 of 30 for bar splicer details.

MIN. BAR LAP

#6 bar = 3'-4"



SECTION A-A

Dimensions at right angles to abutment, except as shown.

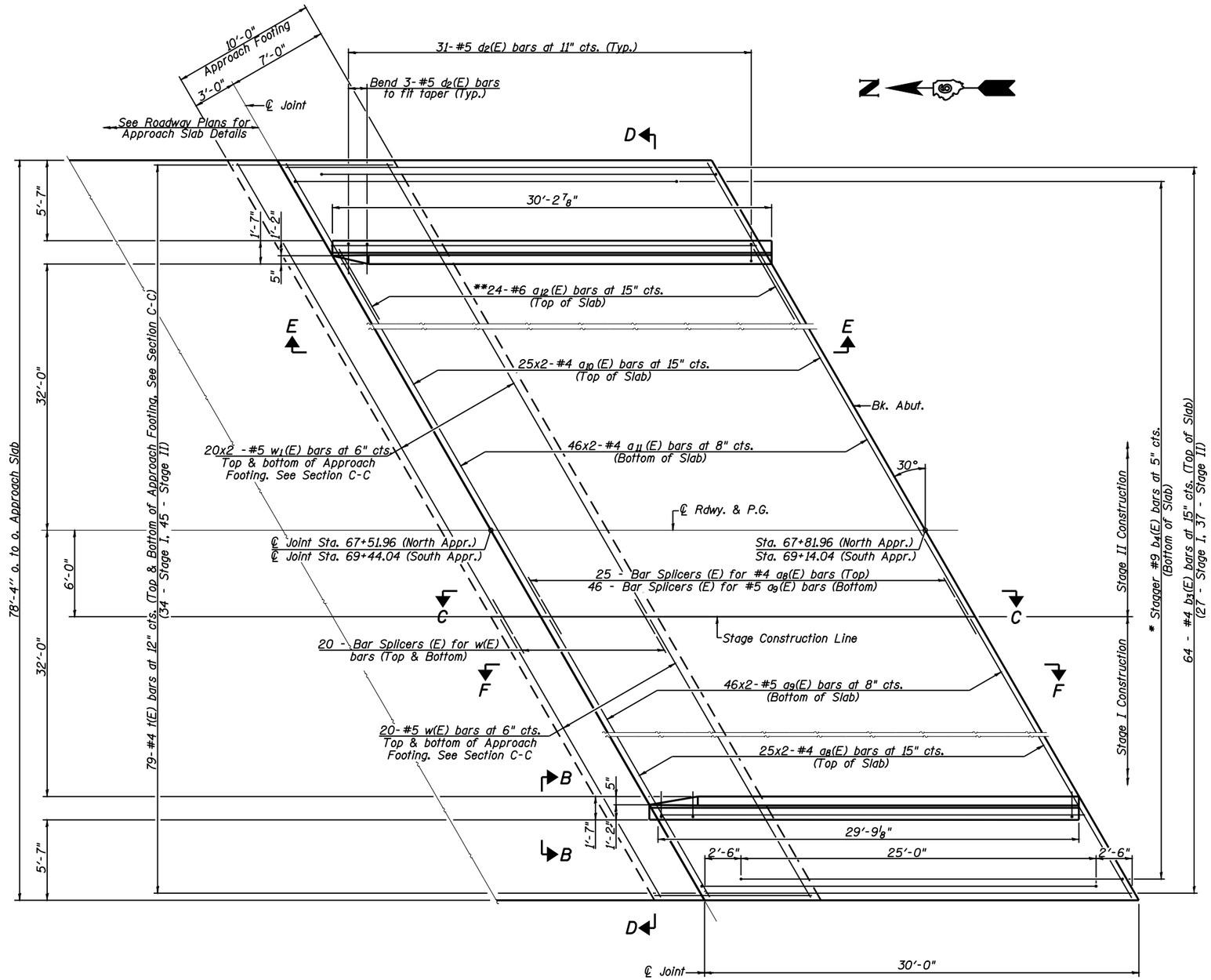
INTEGRAL ABUTMENT DIAPHRAGM DETAILS S.N. 084-0521

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

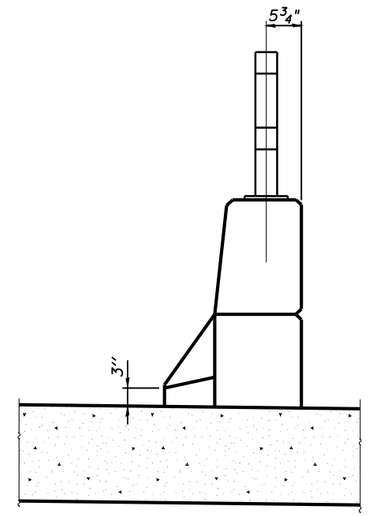
SHEET NO. 13
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	57
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Notes:
See sheet 15 of 30 for Sections C-C & D-D and View E-E.
$a_8(E)$, $a_9(E)$, $a_{10}(E)$ and $a_{11}(E)$ bar spacings measured along ℄ Rdwy.



PLAN - NORTH APPROACH
(South Approach Similar)



VIEW B-B

MINIMUM BAR LAP
#4 = 2'-0"
#5 = 2'-6"

* Tilt #9 $b_4(E)$ bars as required to maintain clearance.
** Space between $a_{10}(E)$ bars, typ. each parapet.

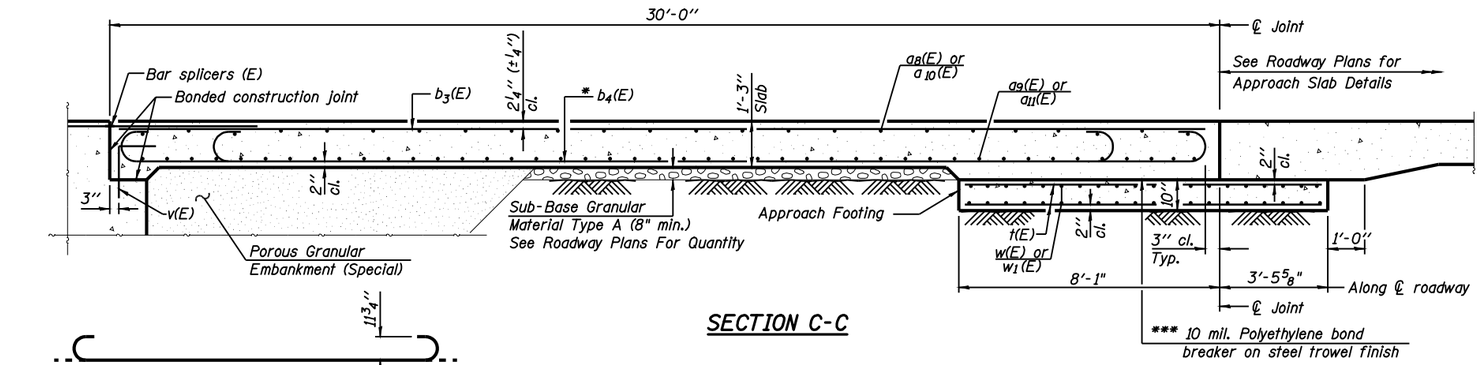
Bars indicated thus 25x2-#4 etc. indicates 25 lines of bars with 2 lengths per line.

(Sheet 1 of 2)
BRIDGE APPROACH SLAB DETAILS
S.N. 084-0521

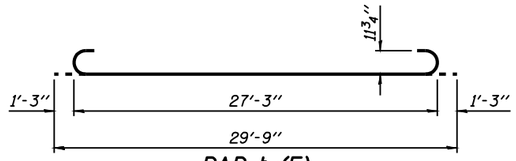
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907

SHEET NO. 14
30 SHEETS

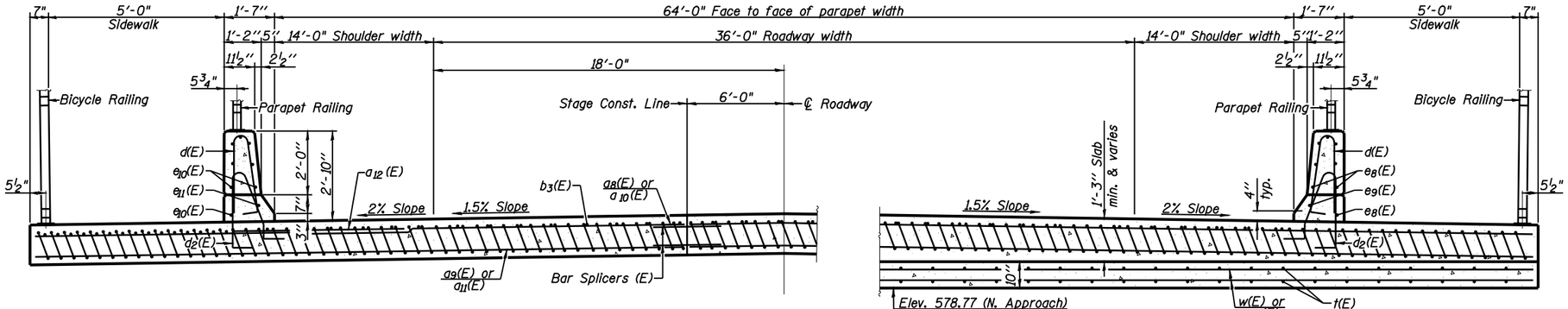
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	58
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



SECTION C-C



BAR b_4(E)

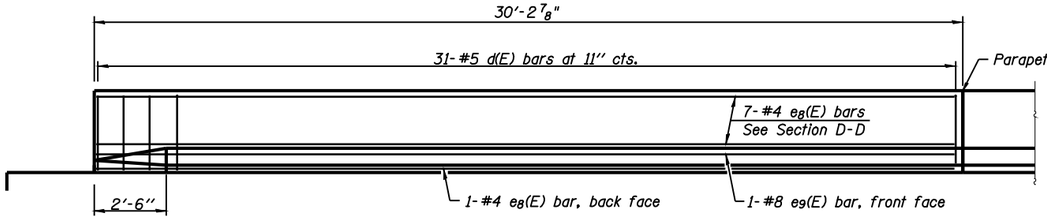


NEAR ABUTMENT

AT APPROACH FOOTING

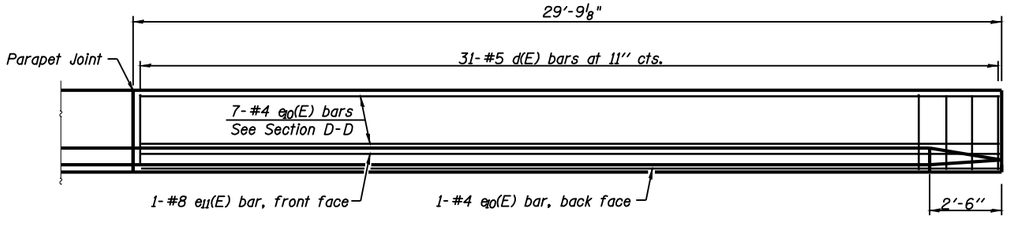
SECTION D-D

(See Plan for dimensions not shown)



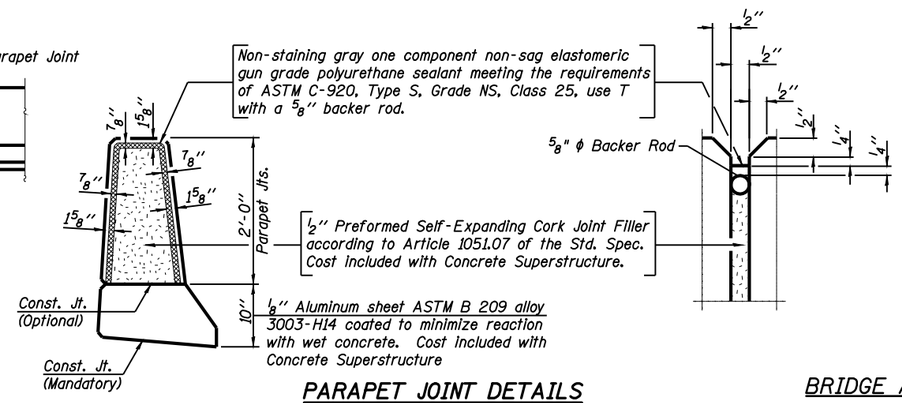
VIEW E-E

(West Parapet - South Approach Similar)



VIEW F-F

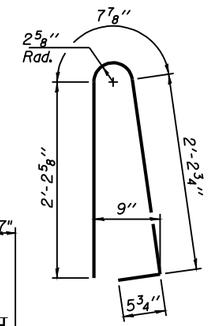
(East Parapet - South Approach Similar)



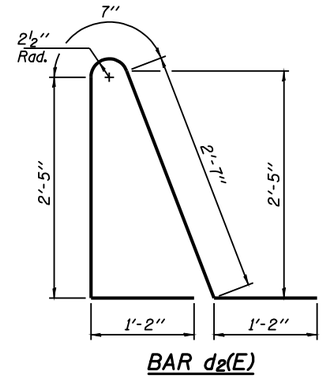
PARAPET JOINT DETAILS

Notes:

See sheet 14 of 30 for Detail A and View B-B.
Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
Approach footing concrete shall be paid for as Concrete Structures.
Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
For v(E) bar details, see sheet 12 of 30.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
For bar splicer details, see sheet 26 of 30.
Cost of excavation for approach footing included with Concrete Structures.
For Porous Granular Embankment (Special) and drainage treatment details, see sheet 2 of 30.
See sheet 17 of 30 for rail post spacing.



BAR d(E)



BAR d_2(E)

* Tilt #9 b_4(E) bars as required to maintain clearance.

TWO APPROACHES BILL OF MATERIAL

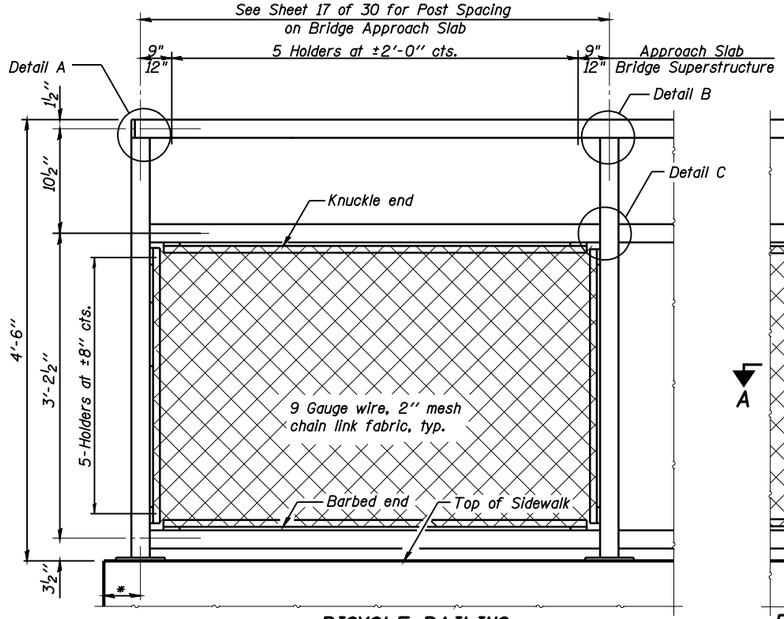
Bar	No.	Size	Length	Shape
a_8(E)	100	#4	20'-0"	—
a_9(E)	184	#5	20'-3"	—
a_{10}(E)	100	#4	27'-0"	—
a_{11}(E)	184	#5	27'-3"	—
a_{12}(E)	96	#6	6'-6"	—
b_3(E)	128	#4	29'-8"	—
b_4(E)	376	#9	29'-9"	⌐—
d(E)	124	#5	5'-7"	⌐
d_2(E)	124	#5	7'-11"	⌐
e_8(E)	16	#4	29'-11"	—
e_9(E)	2	#8	29'-11"	—
e_{10}(E)	16	#4	29'-5"	—
e_{11}(E)	2	#8	29'-5"	—
t(E)	316	#4	11'-2"	—
w(E)	80	#5	37'-9"	—
w_1(E)	160	#5	27'-2"	—
Concrete Superstructure		Cu. Yd.	251.7	
Concrete Structures		Cu. Yd.	55.9	
Reinforcement Bars, Epoxy Coated		Pound	66,500	

BRIDGE APPROACH SLAB DETAILS S.N. 084-0521

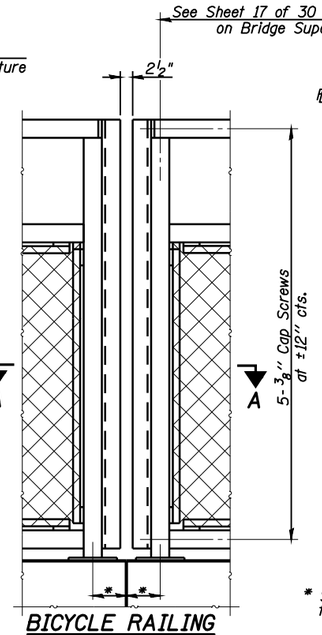
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907

SHEET NO. 15
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	59
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

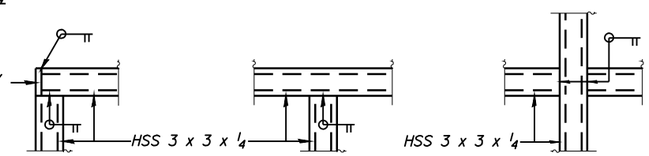


BICYCLE RAILING



BICYCLE RAILING

* See Sheet 17 of 30 for spacing

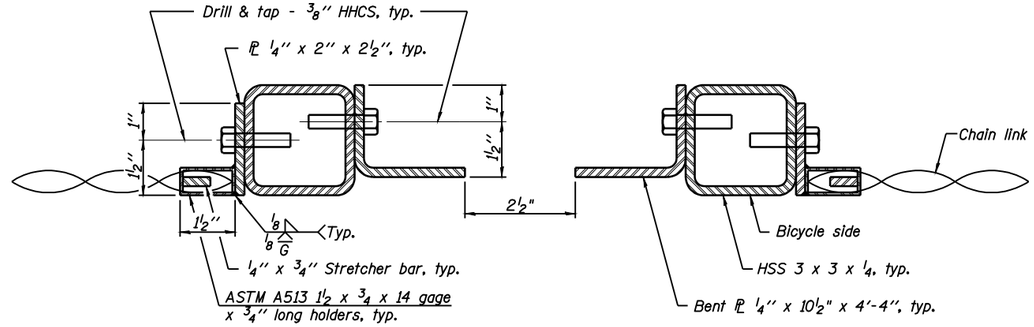


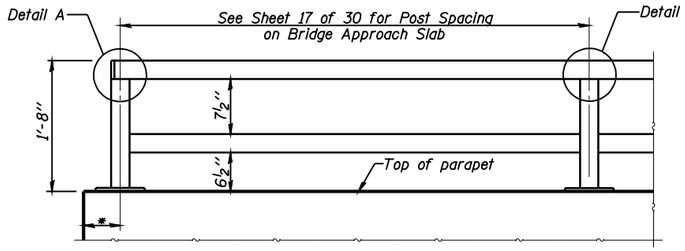
DETAIL A

DETAIL B

DETAIL C

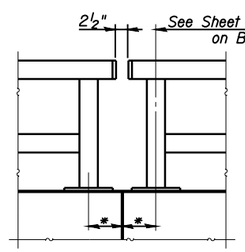
Note: All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.





PARAPET RAILING ELEVATION

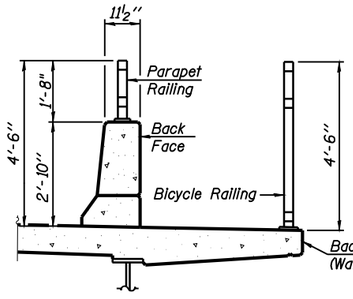
(Inside Face of Two Element Rail)



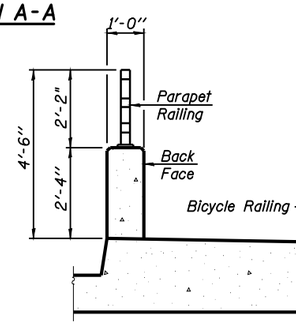
PARAPET RAILING

(Two Element Rail Shown - Three Element Rail Similar)

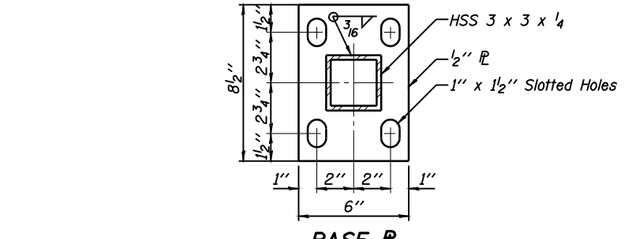
SECTION A-A



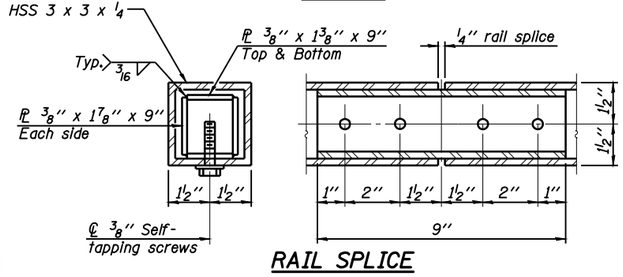
SECTION THRU DECK



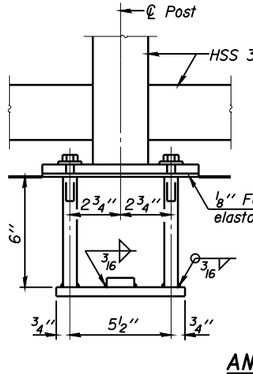
SECTION THRU SIDEWALK

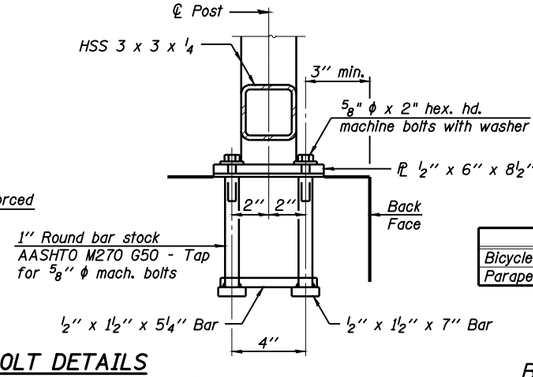


BASE PL



RAIL SPLICE





ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting ⅝" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

BILL OF MATERIAL

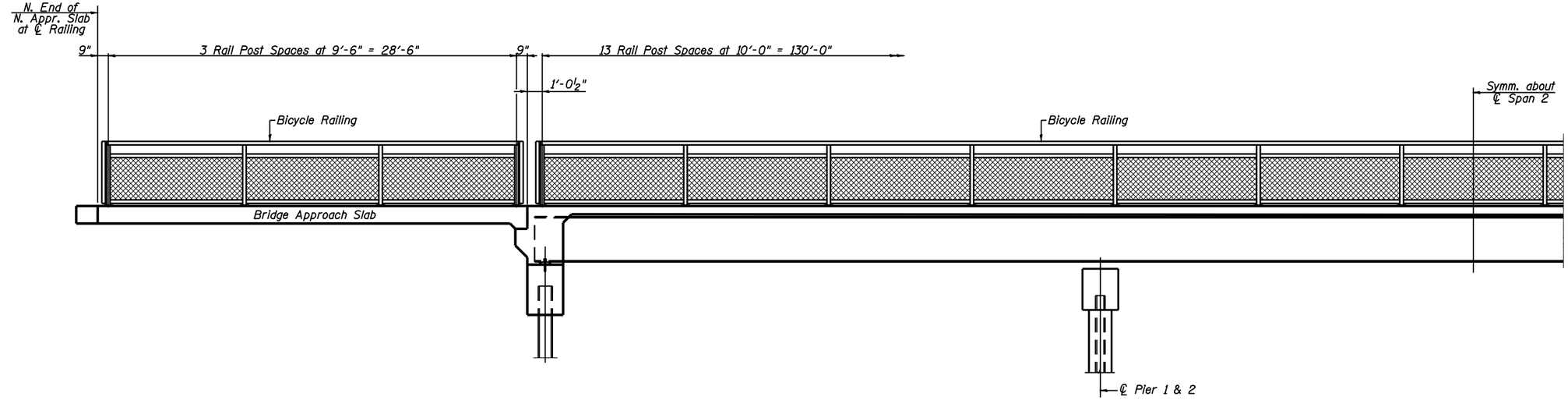
Item	Unit	Quantity
Bicycle Railing	Foot	384
Parapet Railing	Foot	384

BICYCLE RAILING S.N. 084-0521

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

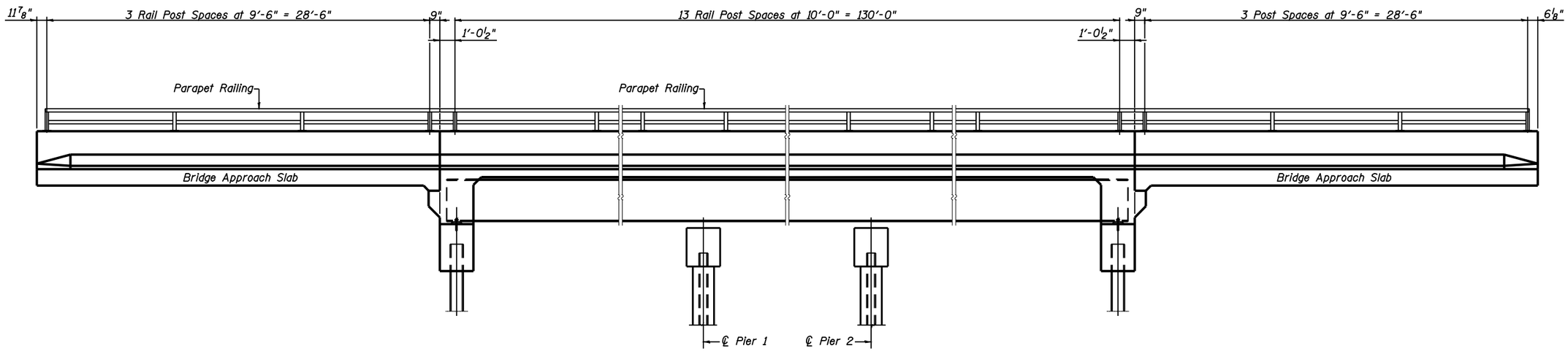
SHEET NO. 16
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	60
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



BICYCLE RAILING POST SPACING

(East Railing - Looking East)
(West Railing - Looking West)



PARAPET RAILING POST SPACING

(East Parapet - Looking East)
(West Parapet - Looking West)

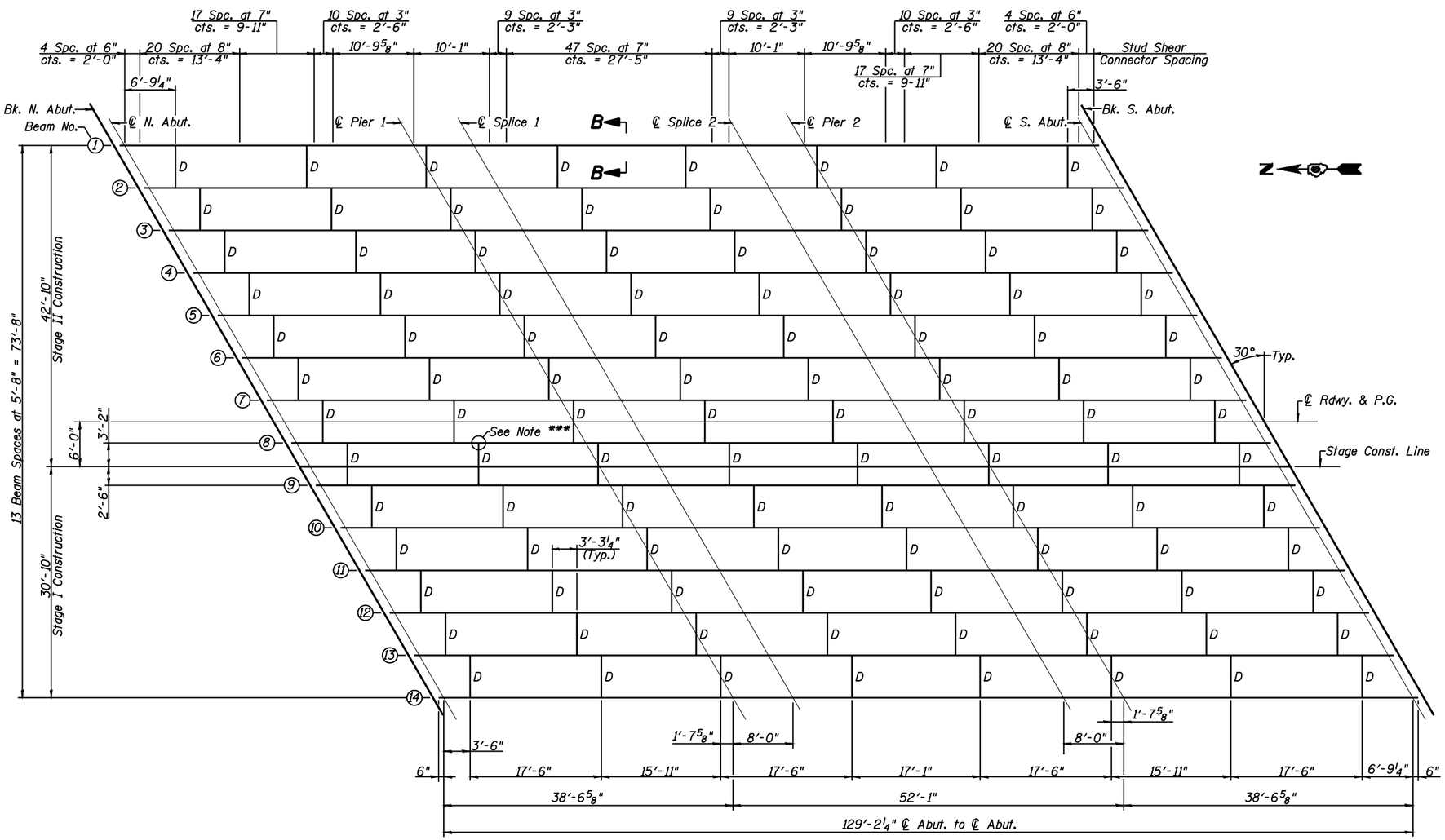
Note:
Rail post spacing along ℄ of rail.

BICYCLE RAILING DETAILS
S.N. 084-0521

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

SHEET NO. 17
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	61
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



FRAMING PLAN

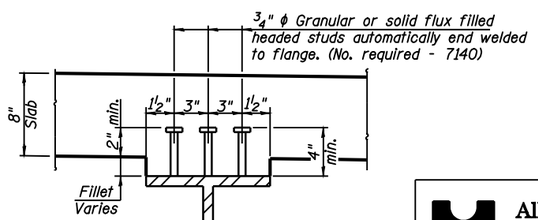
All beams are W24x76, AASHTO M 270, Grade 50, NTR.

Notes: Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
For remainder of structural steel details see sheet 19 of 30.

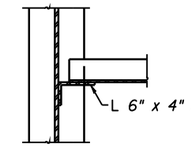
**** TOP OF BEAM ELEVATIONS

LOCATION	℄ N. Abut.	℄ Pier 1	℄ Splice 1	℄ Splice 2	℄ Pier 2	℄ S. Abut.
Beam 1	580.20	580.10	580.07	579.98	579.96	579.88
Beam 2	580.31	580.20	580.18	580.09	580.07	579.98
Beam 3	580.42	580.31	580.29	580.19	580.17	580.08
Beam 4	580.53	580.41	580.39	580.29	580.27	580.18
Beam 5	580.62	580.50	580.48	580.37	580.36	580.26
Beam 6	580.70	580.58	580.56	580.44	580.42	580.34
Beam 7	580.78	580.66	580.63	580.51	580.49	580.41
Beam 8	580.78	580.65	580.62	580.50	580.48	580.40
Beam 9	580.69	580.56	580.53	580.40	580.39	580.30
Beam 10	580.60	580.46	580.44	580.31	580.29	580.21
Beam 11	580.50	580.36	580.33	580.20	580.18	580.10
Beam 12	580.38	580.24	580.21	580.08	580.06	579.98
Beam 13	580.26	580.12	580.09	579.95	579.93	579.85
Beam 14	580.14	579.99	579.96	579.83	579.81	579.73

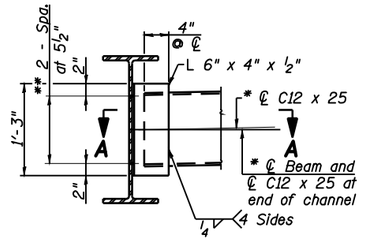
**** For fabrication only



SECTION B-B



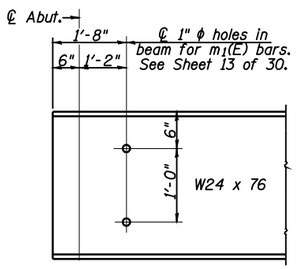
SECTION A-A



DIAPHRAGM D

104 Required

Notes:
Two hardened washers required for each set of oversized holes.
* Alternate C12 x 30 channels are permitted to facilitate material aquisition. Calculated weight of structural steel is based on the lighter section.
The alternate if utilized, shall be provided at no additional cost to the Department.
** 3/4" ϕ HS Bolts, 15/16" ϕ Holes.
All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
*** Use 13/16" x 1 7/8" vertical slotted holes in connection angles 6" x 4" x 1/2" at the West side of Beam 8 only. Provide 5/16" plate washers for slotted holes. The bolts for slotted holes in angles at Beam 8 shall only be finger tightened prior to deck pour for Stage II Construction. The bolts shall be fully tightened after completion of the deck pour for Stage II Construction.



TYP. END OF BEAM ELEVATION

STRUCTURAL STEEL
S.N. 084-0521

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

SHEET NO. 18
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	62
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier #1 or Pier #2	0.5 Sp. 2
I_s	(in^4)	2100	2100	2100
$I_c(n)$	(in^4)	6584	-	6584
$I_c(3n)$	(in^4)	4909	-	4909
S_s	(in^3)	176	176	176
$S_c(n)$	(in^3)	279	-	279
$S_c(3n)$	(in^3)	252	-	252
DC1	(k/')	0.671	0.671	0.671
M_{DC1}	('k)	62.6	142.8	84.8
DC2	(k/')	0.175	0.175	0.175
M_{DC2}	('k)	19.2	30.0	29.3
DW	(k/')	0.23	0.23	0.23
M_{DW}	('k)	25.3	39.4	38.6
M_{L+IM}	('k)	354.4	233.3	456.7
M_u (Strength I)	('k)	760.6	683.6	999.8
* $\phi_f M_n$, $\phi_f M_{nc}$	('k)	1442.1	733.3	1416.3
f_s DC1	(ksi)	4.3	14.5	5.8
f_s DC2	(ksi)	0.9	-	1.4
f_s DW	(ksi)	1.2	-	1.8
f_s 1.3(L+IM)	(ksi)	19.8	20.7	25.5
f_s (Service II)	(ksi)	26.2	35.2	34.5
f_s (Total)(Strength I)	(ksi)		-	
V_r	(k)	37.6	-	31.8

* Compact sections

INTERIOR GIRDER REACTION TABLE			
		Abuts.	Pier 1 or 2
R_{DC1}	(k)	9.2	34.1
R_{DC2}	(k)	2.6	8.7
R_{DW}	(k)	3.4	11.5
R_{L+IM}	(k)	58.8	77.0
R_{Total}	(k)	74	131.1

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

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

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

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

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

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

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

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

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

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

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

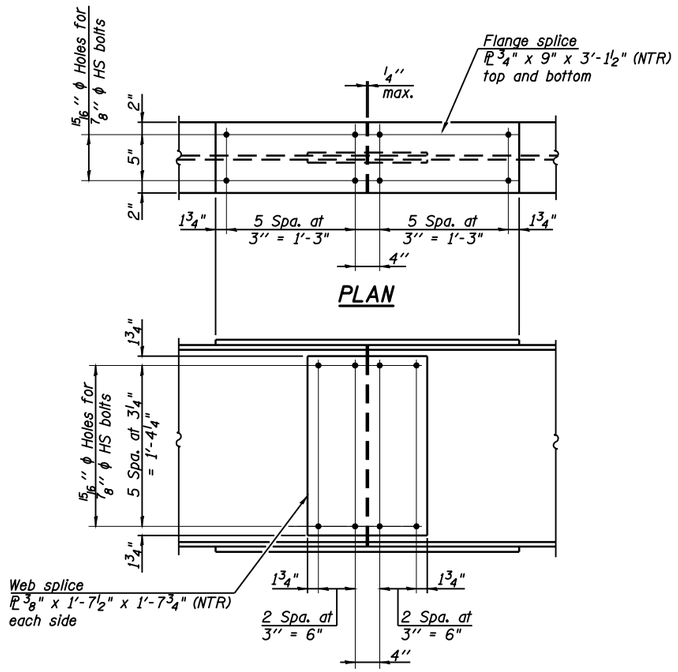
$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

$\phi_f M_{nc}$: Compact non-composite negative moment capacity computed according to Article A6.1.1 (kip-ft.).

f_s (Service II): Sum of stresses as computed from the moments below (ksi).
$M_{DC1} + M_{DC2} + M_{DW} + 1.3\ M_{L+IM}$

f_s (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

V_r: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.



SPLICE DETAIL
(28 Required)

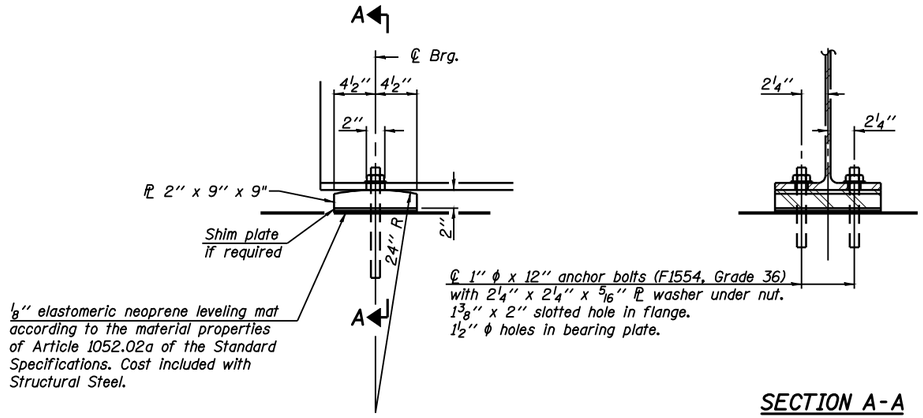
Note: All splice plate material shall be AASHTO M 270, Grade 50, NTR.
Load carrying components designated "NTR" shall conform to the supplemental requirements for Notch Toughness, Zone 2.

STRUCTURAL STEEL DETAILS
S.N. 084-0521

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

SHEET NO. 19
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	63
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

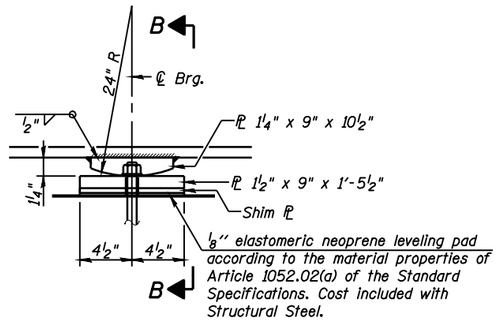


ELEVATION AT ABUTMENT

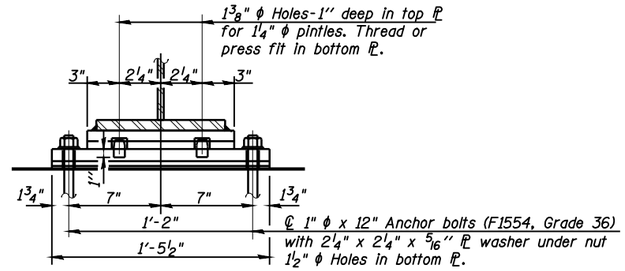
SECTION A-A

℄ 1" ϕ x 12" anchor bolts (F1554, Grade 36) with 2¼" x 2¼" x 5/16" ℄ washer under nut.
1⅜" x 2" slotted hole in flange.
1½" ϕ holes in bearing plate.

FIXED BEARING AT ABUTENT
(28 Required)

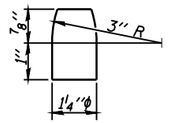


ELEVATION AT PIER



SECTION B-B

FIXED BEARING AT PIERS
(28 Required)



PINTLE

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Two ⅛" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.

The structural steel bearing plates of the fixed bearings shall conform to the requirements of AASHTO M 270, Grade 50.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	112

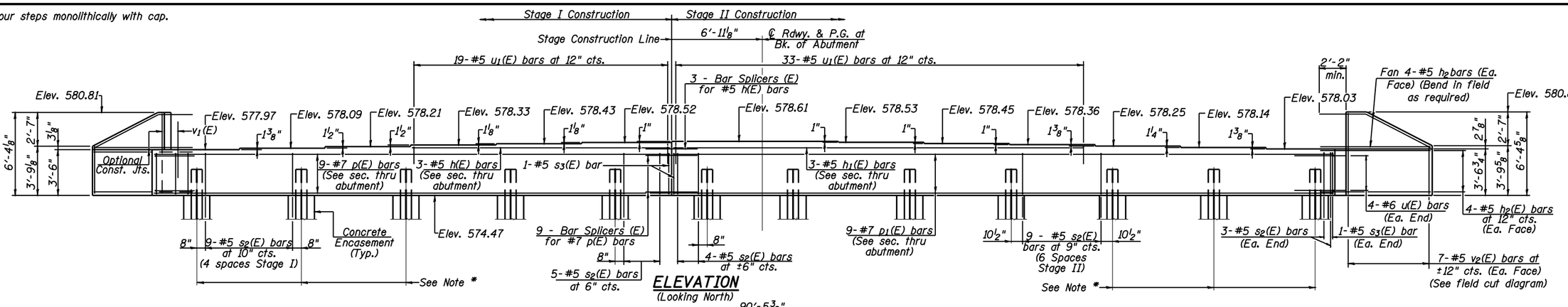
BEARING DETAILS
S.N. 084-0521

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

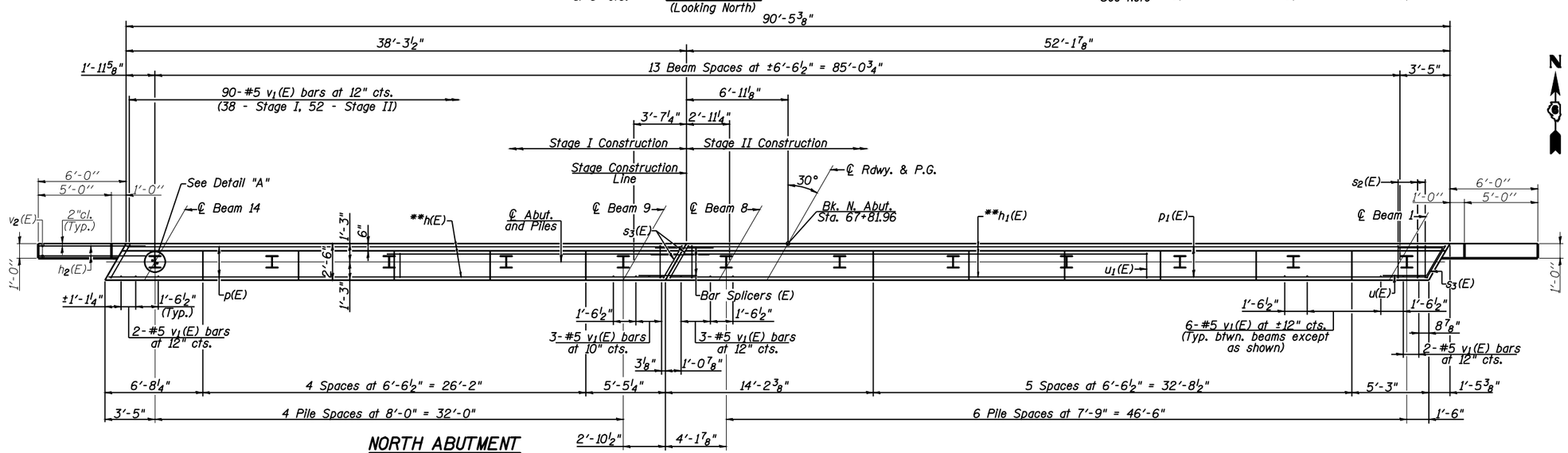
SHEET NO. 20
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	64
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

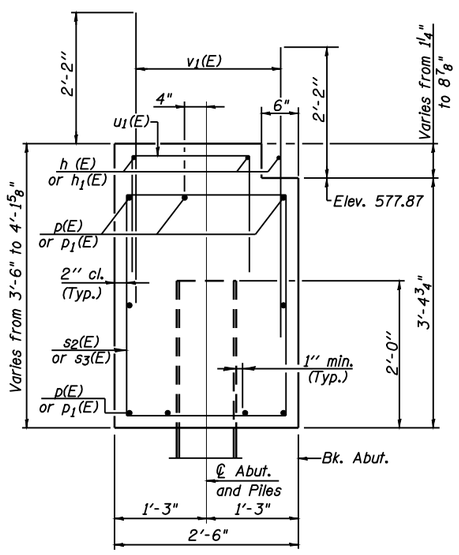
Note: Pour steps monolithically with cap.



ELEVATION
(Looking North)



PLAN



SEC. THRU ABUT.

NORTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	3	#5	19'-7"	
h1(E)	3	#5	33'-6"	
h2(E)	32	#5	9'-0"	
p(E)	9	#7	37'-11"	
p1(E)	9	#7	51'-9"	
s2(E)	105	#5	11'-3"	
s3(E)	4	#5	11'-11"	
u(E)	8	#6	8'-3"	
u1(E)	52	#5	6'-2"	
v1(E)	172	#5	5'-0"	
v2(E)	14	#5	9'-6"	
Structure Excavation		Cu. Yd.	69	
Concrete Structures		Cu. Yd.	33.8	
Reinforcement Bars, Epoxy Coated		Pound	4870	
Furnishing Steel Piles HP 10x42		Foot	275	
Driving Piles		Foot	275	
Test Pile, Steel HP 10x42		Each	1	
Pile Shoes		Each	12	
Concrete Encasement		Cu. Yd.	4.2	

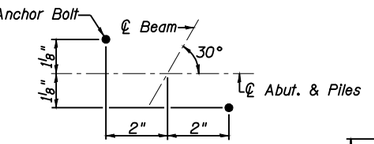
For details of Bar Splicers, see sheet 26 of 30.
For details of piles and Concrete Encasement, see sheet 25 of 30.

PILE DATA

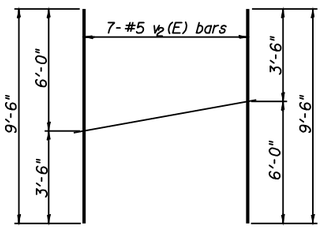
Type: Steel HP 10x42 with Pile Shoes
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Est. Length: 25 ft.
No. Production Piles: 11
No. Test Piles: 1

* The three end piles on each side of the abutment shall be driven through 2' diameter precored holes extending to elevation 566.0 according to Article 512.09(c) of the Standard Specifications. Cost included with driving piles.

** Cut bars to fit

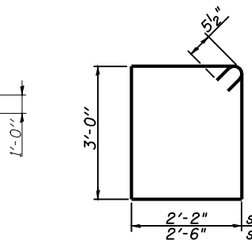


DETAIL A

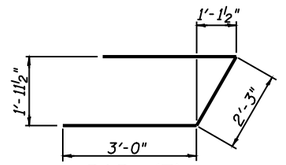


FIELD CUTTING DIAGRAM

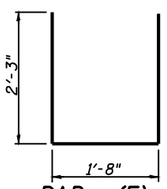
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BARS s2(E) & s3(E)



BAR u(E)



BAR u1(E)

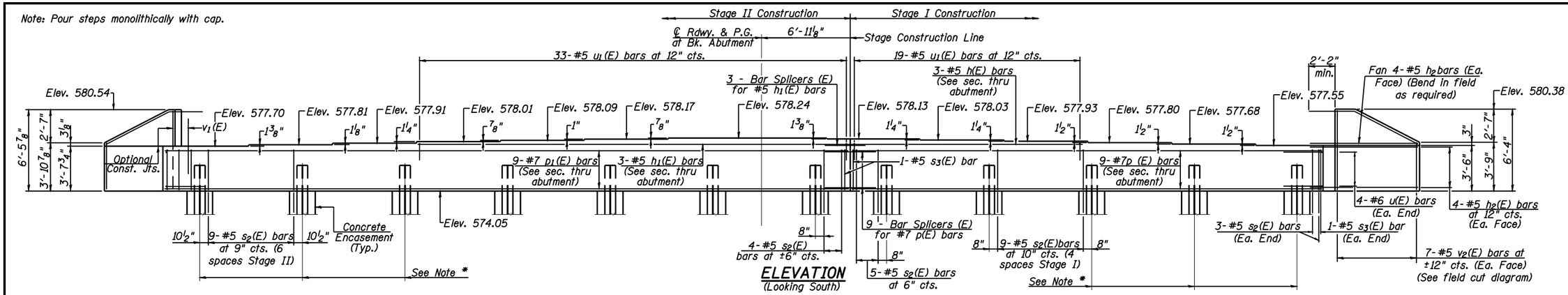
NORTH ABUTMENT
S.N. 084-0521

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

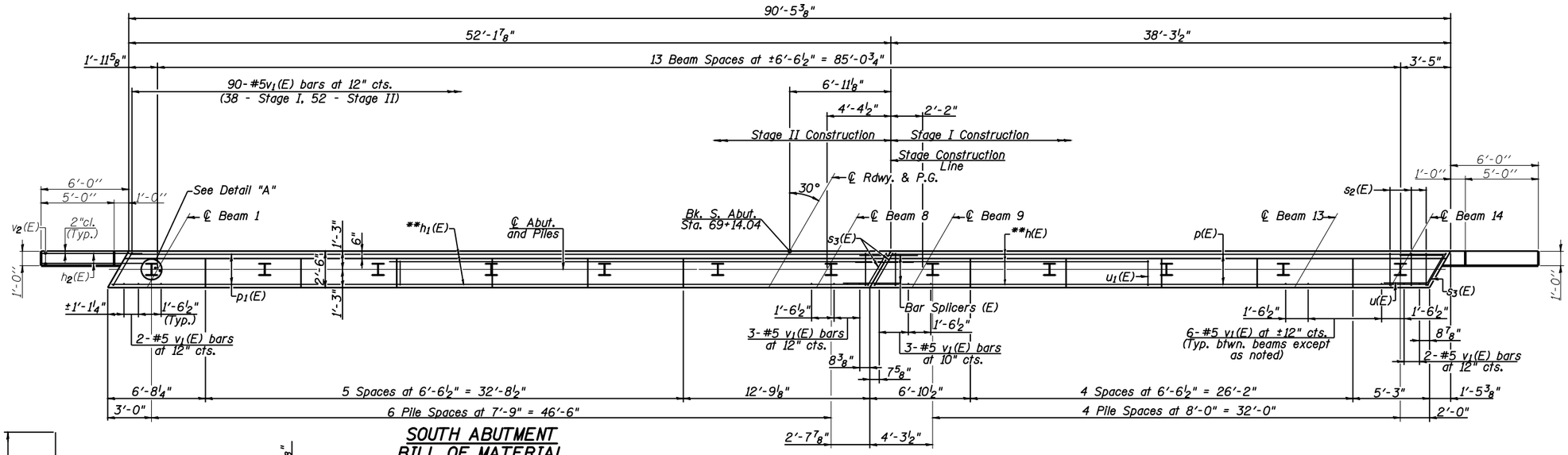
SHEET NO. 21
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	65
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

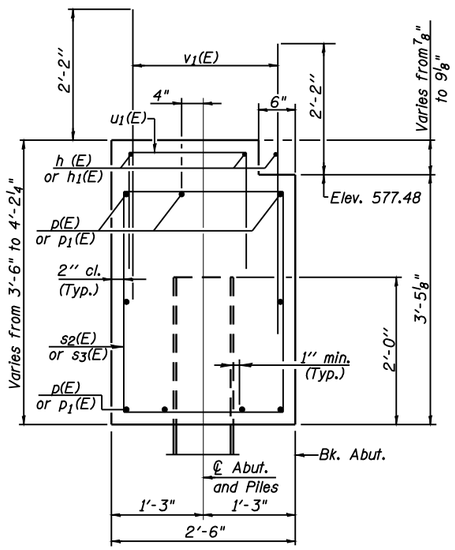
Note: Pour steps monolithically with cap.



ELEVATION
(Looking South)



PLAN

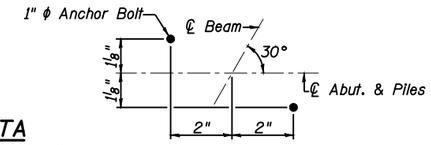


SEC. THRU ABUT.

SOUTH ABUTMENT BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	3	#5	19'-7"	
h1(E)	3	#5	33'-6"	
h2(E)	32	#5	9'-0"	
p(E)	9	#7	37'-11"	
p1(E)	9	#7	51'-9"	
s2(E)	105	#5	11'-3"	
s3(E)	4	#5	11'-11"	
u(E)	8	#6	8'-3"	
u1(E)	52	#5	6'-2"	
v1(E)	172	#5	5'-0"	
v2(E)	14	#5	9'-6"	
Structure Excavation		Cu. Yd.	69	
Concrete Structures		Cu. Yd.	34.2	
Reinforcement Bars, Epoxy Coated		Pound	4870	
Furnishing Steel Piles HP 10x42		Foot	275	
Driving Piles		Foot	275	
Test Pile, Steel HP 10x42		Each	1	
Pile Shoes		Each	12	
Concrete Encasement		Cu. Yd.	4.2	

For details of Bar Splicers, see sheet 26 of 30.
For details of piles and Concrete Encasement, see sheet 25 of 30.



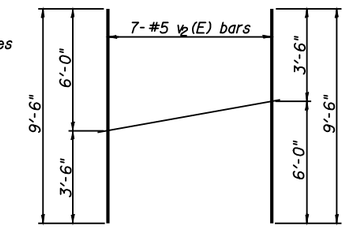
DETAIL A

PILE DATA

Type: Steel HP 10x42 with Pile Shoes
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Est. Length: 25 ft.
No. Production Piles: 11
No. Test Piles: 1

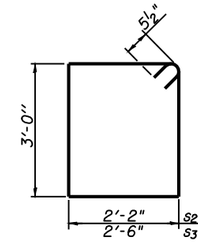
* The three end piles on each side of the abutment shall be driven through 2' diameter precored holes extending to elevation 566.0 according to Article 512.09(c) of the Standard Specifications. Cost included with driving piles.

** Cut bars to fit

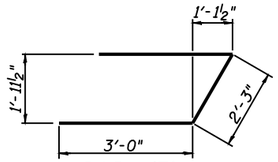


FIELD CUTTING DIAGRAM

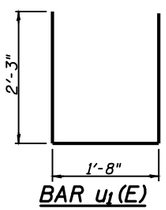
Order v2(E) full length. Cut as shown and use remainder of bars in opposite face.



BARS s2(E) & s3(E)



BAR u(E)



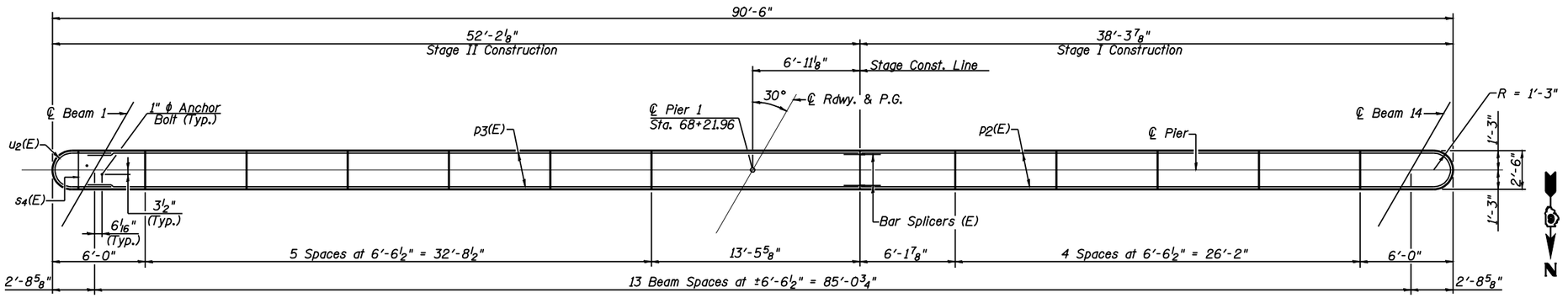
BAR u1(E)

SOUTH ABUTMENT
S.N. 084-0521

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

SHEET NO. 22
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	66
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TOP PLAN

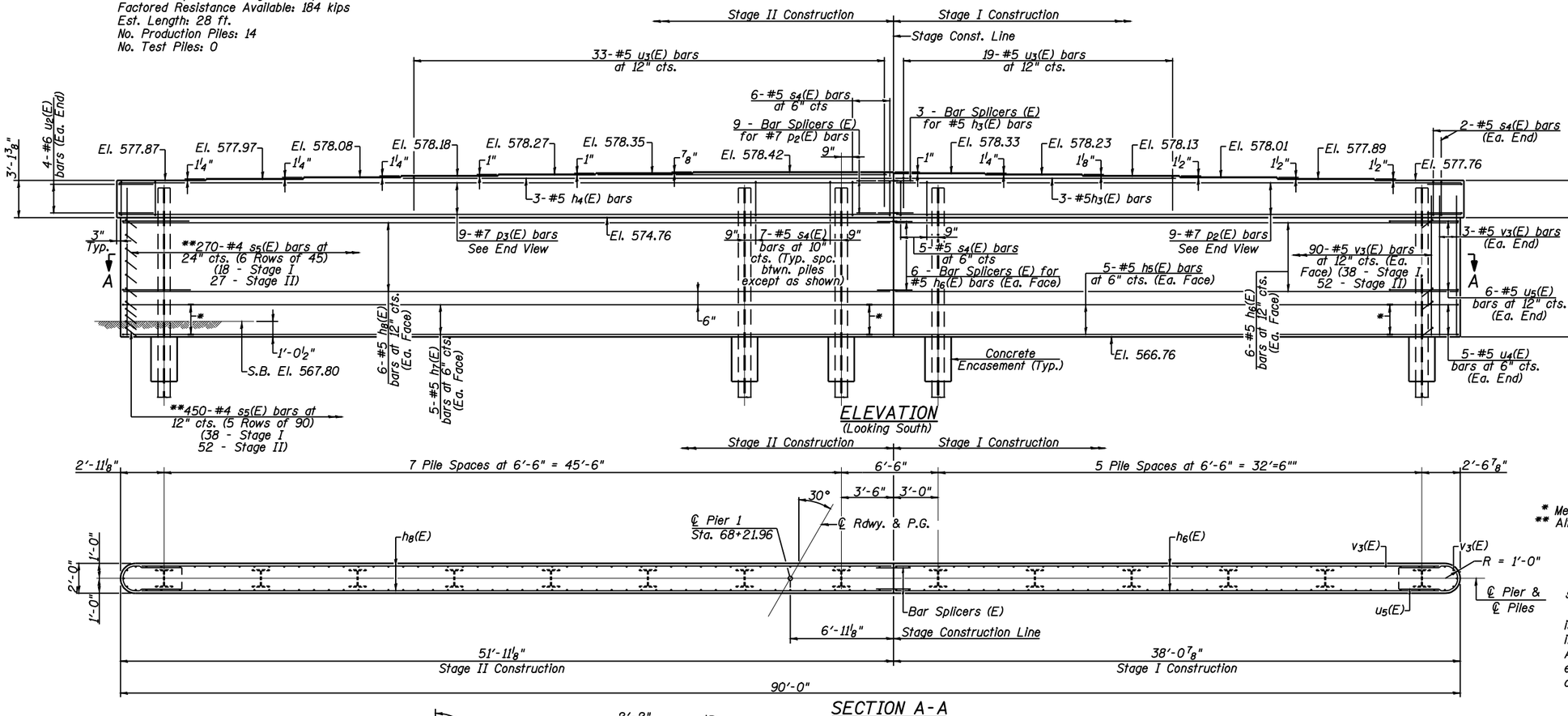
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_3(E)	3	#5	18'-11"	——
h_4(E)	3	#5	32'-9"	——
h_5(E)	10	#5	34'-8"	——
h_6(E)	12	#5	36'-8"	——
h_7(E)	10	#5	45'-7"	——
h_8(E)	12	#5	50'-9"	——
p_2(E)	9	#7	36'-8"	——
p_3(E)	9	#7	50'-9"	——
s_4(E)	99	#5	10'-7"	□
s_5(E)	720	#4	2'-9"	⌐
u_2(E)	8	#6	9'-3"	⊔
u_3(E)	52	#5	6'-8"	⊔
u_4(E)	10	#5	10'-2"	⊔
u_5(E)	12	#5	11'-10"	⊔
v_3(E)	186	#5	10'-2"	——

Structure Excavation	Cu. Yd.	68
Concrete Structures	Cu. Yd.	81.3
Reinforcement Bars, Epoxy Coated	Pound	8820
Furnishing Steel Piles, HP 10x42	Foot	392
Setting and Driving Piles in Rock	Each	14
Underwater Structure Excavation Protection - Location 1	Each	1
Pile Shoes	Each	14
Concrete Encasement	Cu. Yd.	4.9

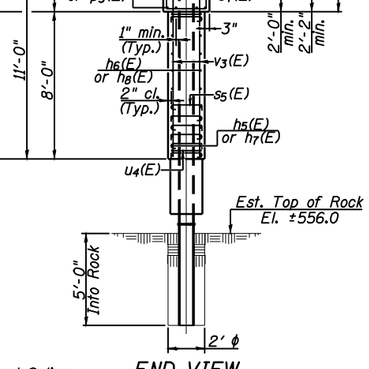
PILE DATA

Type: Steel HP 10x42 with Pile Shoes
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Est. Length: 28 ft.
No. Production Piles: 14
No. Test Piles: 0



ELEVATION
(Looking South)

SECTION A-A

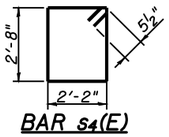


END VIEW

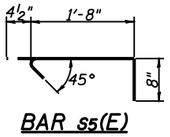
* Mechanical Splice
** Alternate Each End

For details of Bar Splicers, see sheet 26 of 30.
For details of piles and Concrete Encasement, see sheet 25 of 30.

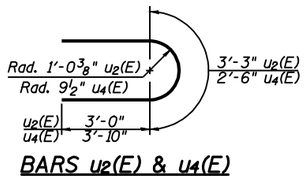
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.



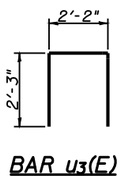
BAR s_4(E)



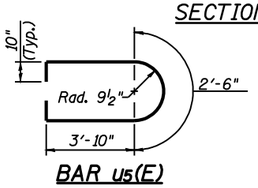
BAR s_5(E)



BARS u_2(E) & u_4(E)



BAR u_3(E)



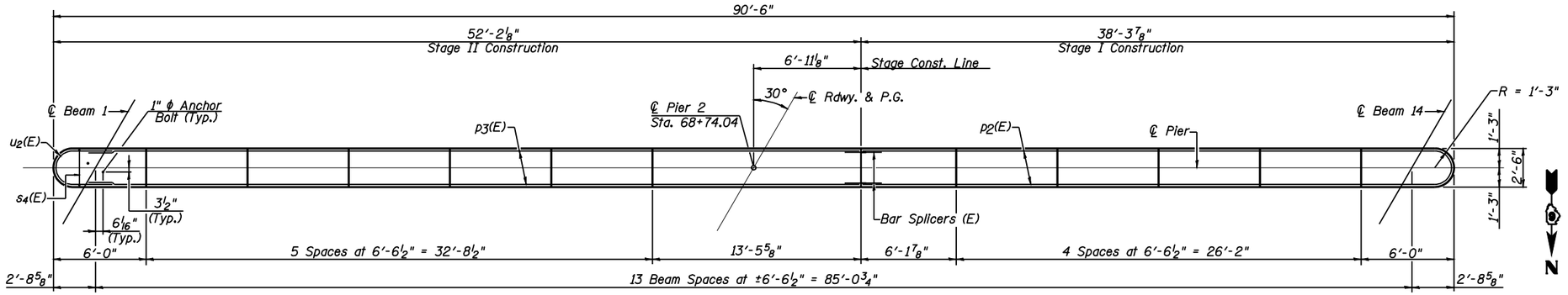
BAR u_5(E)

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

SHEET NO. 23
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	67
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

PIER 1
S.N. 084-0521



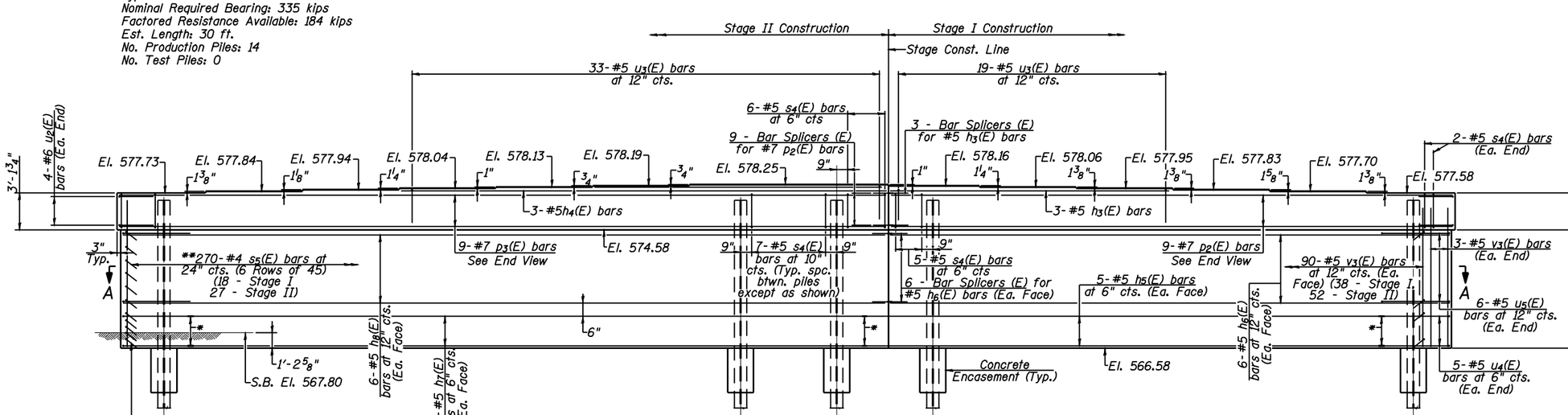
TOP PLAN

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_3(E)	3	#5	18'-11"	——
h_4(E)	3	#5	32'-9"	——
h_5(E)	10	#5	34'-8"	——
h_6(E)	12	#5	36'-8"	——
h_7(E)	10	#5	45'-7"	——
h_8(E)	12	#5	50'-9"	——
p_2(E)	9	#7	36'-8"	——
p_3(E)	9	#7	50'-9"	——
s_4(E)	99	#5	10'-7"	
s_5(E)	720	#4	2'-9"	
u_2(E)	8	#6	9'-3"	
u_3(E)	52	#5	6'-8"	
u_4(E)	10	#5	10'-2"	
u_5(E)	12	#5	11'-10"	
v_3(E)	186	#5	10'-2"	——
Structure Excavation		Cu. Yd.		72
Concrete Structures		Cu. Yd.		81.5
Reinforcement Bars, Epoxy Coated		Pound		8820
Furnishing Steel Piles, HP 10x42		Foot		420
Setting and Driving Piles in Rock		Each		14
Underwater Structure Excavation Protection - Location 2		Each		1
Pile Shoes		Each		14
Concrete Encasement		Cu. Yd.		4.9

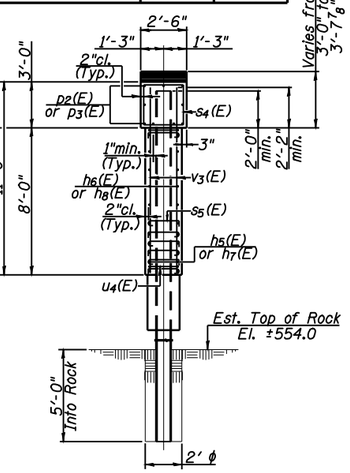
PILE DATA

Type: Steel HP 10x42 with Pile Shoes
Nominal Required Bearing: 335 kips
Factored Resistance Available: 184 kips
Est. Length: 30 ft.
No. Production Piles: 14
No. Test Piles: 0

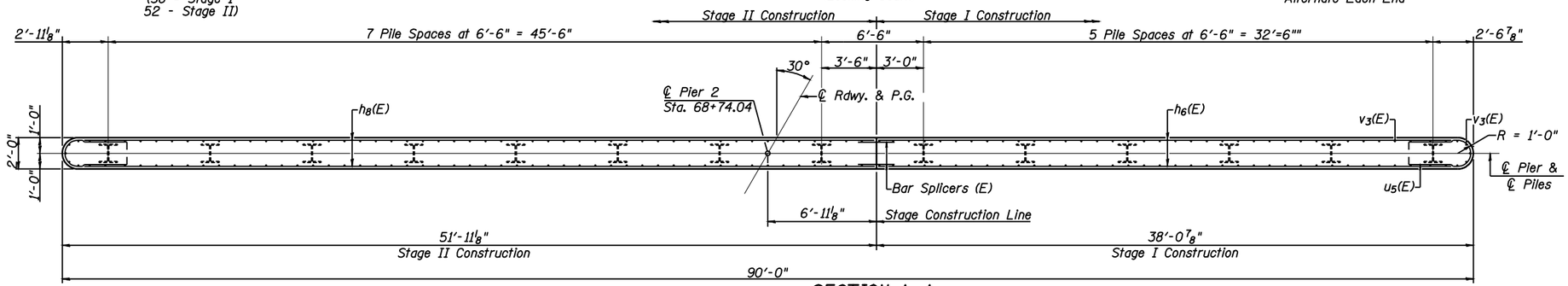


ELEVATION
(Looking South)

* Mechanical Splice
** Alternate Each End



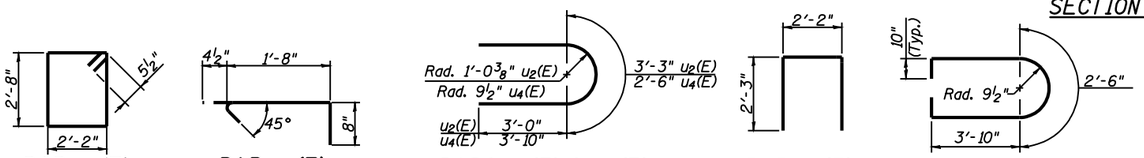
END VIEW



SECTION A-A

For details of Bar Splicers, see sheet 26 of 30.
For details of piles and Concrete Encasement, see sheet 25 of 30.

If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.

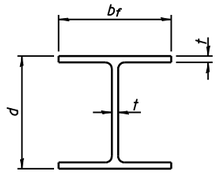


PIER 2
S.N. 084-0521

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

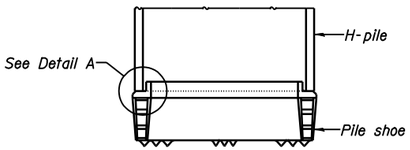
SHEET NO. 24
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	68
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

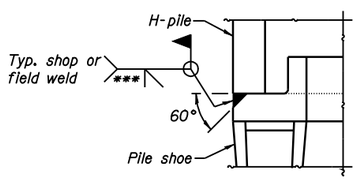


STEEL PILE TABLE

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"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

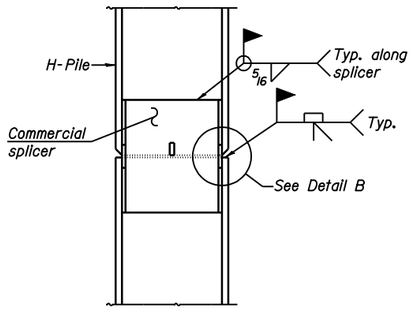


ELEVATION

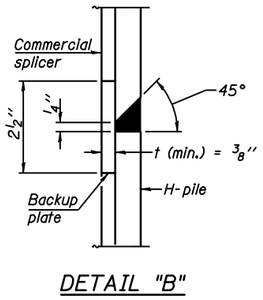


DETAIL A

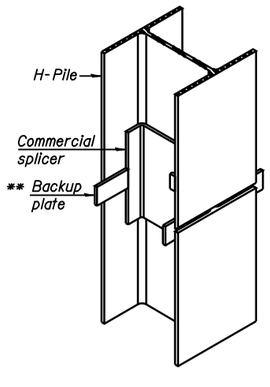
H-PILE SHOE ATTACHMENT



ELEVATION

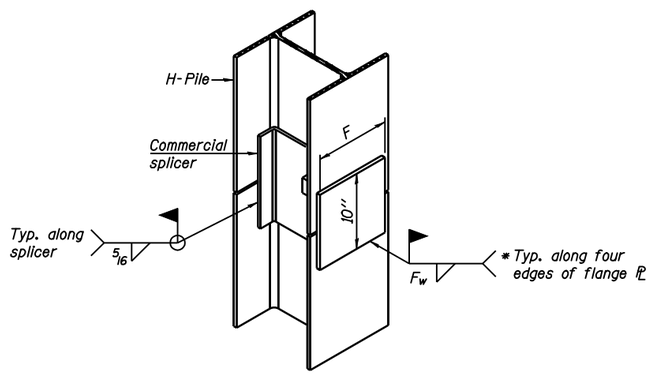


DETAIL "B"



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



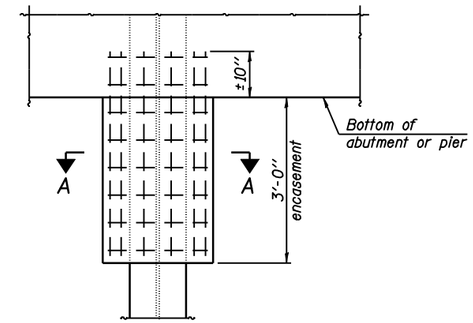
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

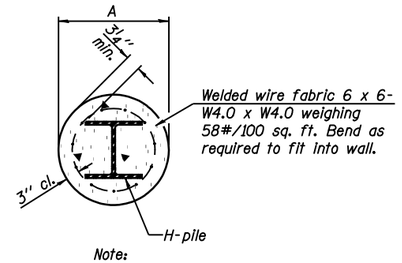
* Interrupt welds 1/4" from end of web and/or each flange.

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

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



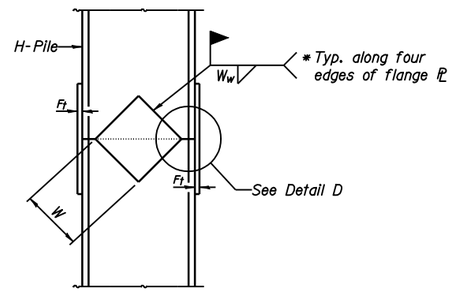
ELEVATION



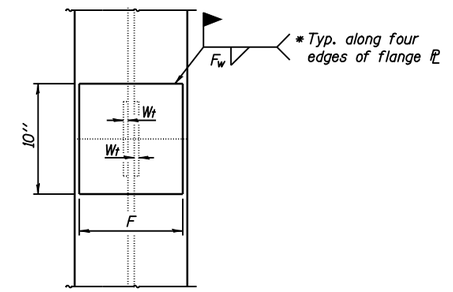
Note:
Forms for encasement may be omitted when soil conditions permit.

SECTION A-A

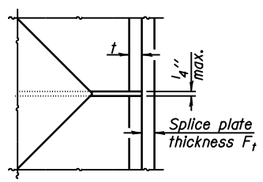
PILE ENCASEMENT



ELEVATION



END VIEW



DETAIL D

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"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

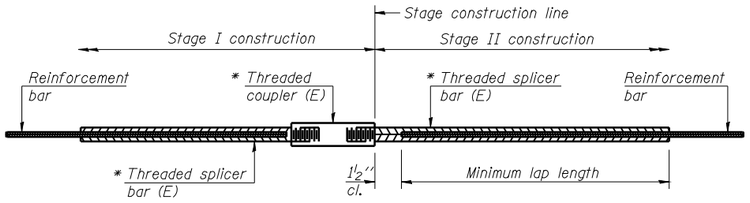
WELDED PLATE FIELD SPLICE

HP PILE DETAILS
S.N. 084-0521

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

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

SHEET NO. 25	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30 SHEETS	662	H(RS-10,B-2)	SANGAMON	84	69
			CONTRACT NO. 72A73		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STANDARD BAR SPLICER ASSEMBLY

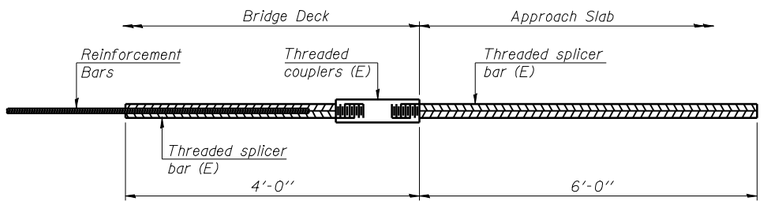
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C

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

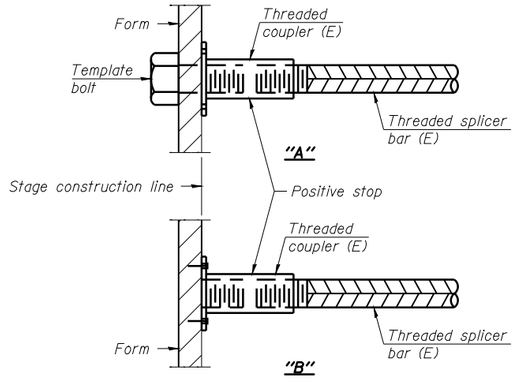
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Top of Slab	#5	223	2'-11"
Bottom of Slab	#5	157	2'-7"
N. Abut. Diaph.	#6	8	3'-6"
S. Abut. Diaph.	#6	8	3'-6"
Top of Approach Slab	#4	50	2'-1"
Bottom of Approach Slab	#5	92	2'-7"
Top of Approach Footing	#5	40	2'-11"
Bottom of Approach Footing	#5	40	2'-7"
N. Abut. Cap	#5	3	2'-11"
N. Abut. Cap	#7	9	4'-8"
S. Abut. Cap	#5	3	2'-11"
S. Abut. Cap	#7	9	4'-8"
Pier 1 Cap	#5	3	2'-11"
Pier 1 Cap	#7	9	4'-8"
Pier 1 Wall	#5	12	2'-11"
Pier 2 Cap	#5	3	2'-11"
Pier 2 Cap	#7	9	4'-8"
Pier 2 Wall	#5	12	2'-11"



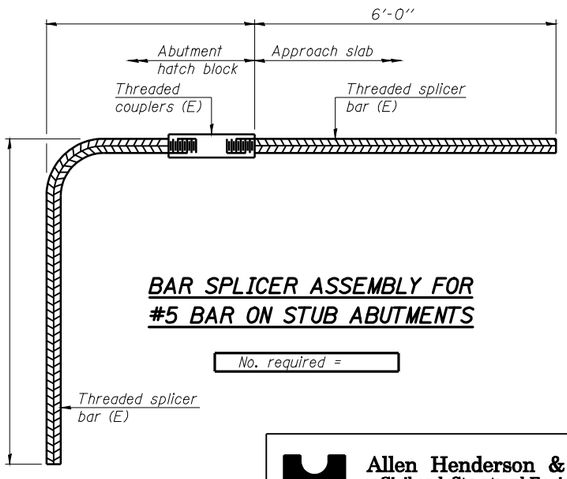
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required = 158



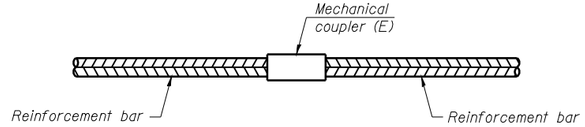
INSTALLATION AND SETTING METHODS

"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.



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Pier 1 Wall	#5	30
Pier 2 Wall	#5	30

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

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

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See special provision for Mechanical Splicers.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS S.N. 084-0521

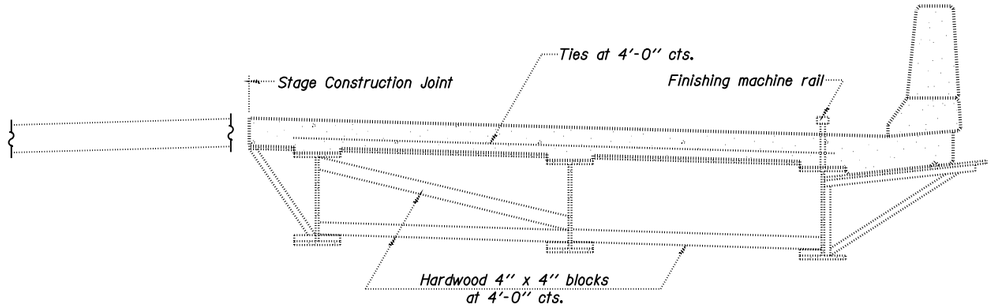
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm
No. 184-001907

SHEET NO. 26
30 SHEETS

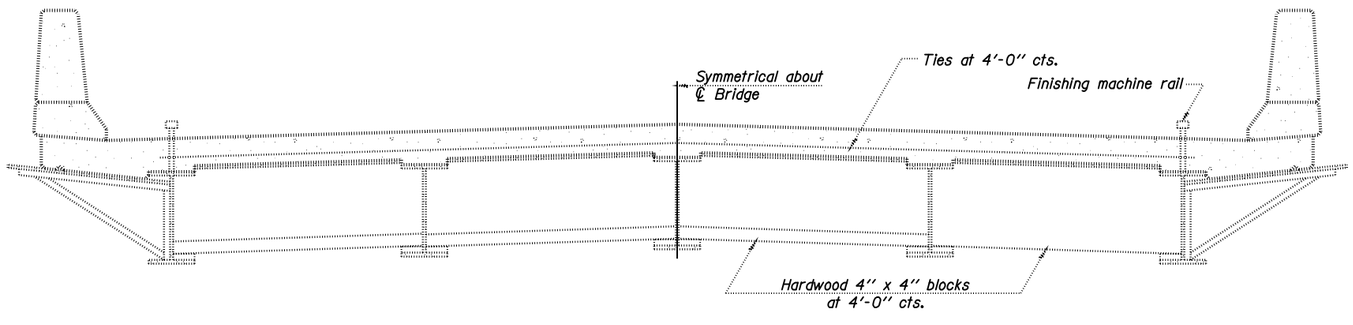
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	70
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BSD-1

11-1-09



FORM BRACES FOR STAGE CONSTRUCTION



FORM BRACES FOR STANDARD CONSTRUCTION

When cantilever forming brackets are used, the work shall be done according to Article 503.06(b) of the Standard Specifications, except as modified below and in the details shown on this sheet.

The finishing machine rails shall be placed on the top flange of the exterior beams.

The beams or girders, supporting cantilever forming brackets, shall be tied together at 4 foot intervals.

For Standard construction, or Stage Construction the Hardwood bracing materials shall be placed as shown between webs of beams in each bay.

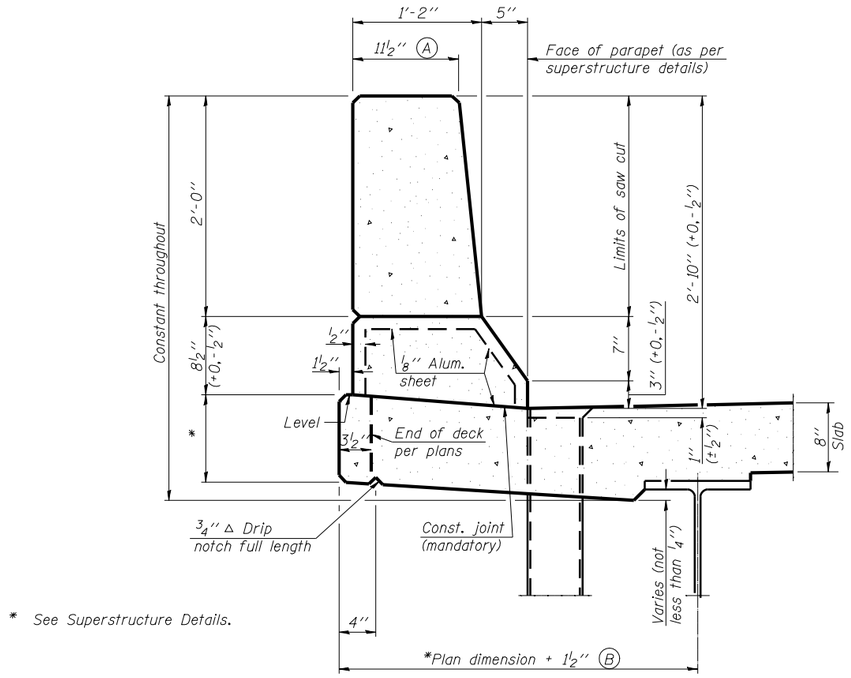
CANTILEVER FORMING BRACKETS
FOR SUPERSTRUCTURES
S.N. 084-0521

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

SHEET NO. 27
30 SHEETS

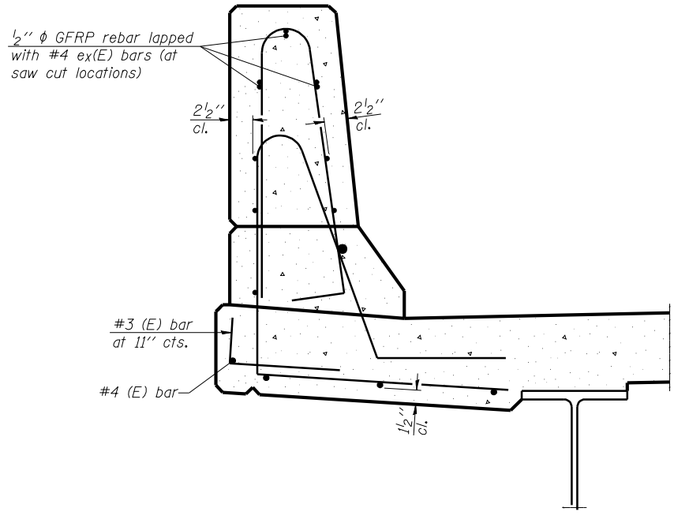
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	71
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SB-1 5-16-08



* See Superstructure Details.

SECTION
(Showing dimensions)



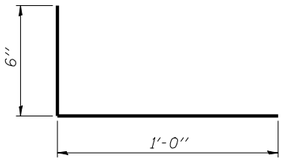
SECTION
(Showing reinforcement clearances for slip forming and additional reinforcement bars)

GENERAL NOTES

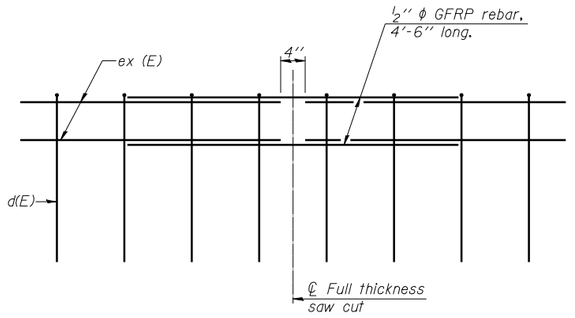
All dimensions shall remain the same as shown on superstructure details, except dimensions A and B which are to be revised as shown to provide additional clearance. Additional concrete needed to revise dimension A and B = 0.0165 cu. yds./ft. of parapet.

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

Steel superstructure shown. Other superstructure types similar.



#3 (E) BAR



GFRP REBAR STIFFENING DETAIL
(Place as shown in parapet section at each parapet joint location.)

CONCRETE PARAPET SLIPFORMING OPTION S.N. 084-0521

SFP-34 11-1-09

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

SHEET NO. 28
30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	72
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 6

Page 1 of 1 — Date 10/12/76

ROUTE FAP 662 (IL 4) DESCRIPTION Bridge over Polecat Creek LOGGED BY D. Bruun

SECTION H(RS-10), B-2 LOCATION NW 1/4, SEC. 7, TWP. 14N, RNG. 5W, 3 PM

COUNTY Sangamon DRILLING METHOD HAMMER TYPE

STRUCT. NO. 084-0172
Station
BORING NO. 1 S. Abutment
Station 68+79
Offset 28.0ft Lt
Ground Surface Elev. 573.7 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
First Encounter 562.7 ft
Upon Completion ft
After 24 Hrs. 571.2 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Black Moist SILTY CLAY					
			5	0.7 B	29
		-5			
			6	0.9 B	30
Gray			4	0.7 B	28
	563.70	-10			
Gray and Brown V. Moist SILTY CLAY LOAM Free Water			4	0.6 B	31
	560.70				
Gray Wet SANDY LOAM			4		18
	558.70	-15			
Gray Wet Med SAND w/ some Gravel			7		
	555.70				
Brown and Gray V. Moist CLAY LOAM (Till)	554.70				18
Gray Damp SHALE			28		
		-20			
Gray Damp SHALE *(continued)*			100 /3"		
	549.70		100 /2"		
Boring Complete		-25			
		-30			
		-35			
		-40			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\SANGAMON\084-0521.GPJ Data Template D6TEMPLT.GDT Date Printed 9/18/08
Latitude Longitude Datum NAD83 Job Number D96-504-07

Illinois Department of Transportation — SOIL BORING LOG

Division of Highways, District 6

Page 1 of 2 — Date 4/30/08

ROUTE FAP 662 (IL 4) DESCRIPTION Bridge over Polecat Creek LOGGED BY M. Tappan

SECTION H(RS-10), B-2 LOCATION NW 1/4, SEC. 7, TWP. 14N, RNG. 5W, 3 PM

COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 084-0521
Station
BORING NO. 2 S. Pier
Station 68+61
Offset 34.0ft Lt
Ground Surface Elev. 572.6 ft

Surface Water Elev. 569.9 ft
Stream Bed Elev. 568.9 ft
Groundwater Elev.:
First Encounter no encounter ft
Upon Completion Cored ft
After 13 Days Hrs. 570.6 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Dk Gray Moist SILTY CLAY			0 2 3	0.8 B	27
V. Dark		-5	0 2 2	0.9 B	29
Brown and Dk Gray			0 1 1	0.4 B	30
Free Water		-10	0 0 1	0.2 B	28
	560.60		0		
Gray Wet LOAM			0 W.O.H.	0.0 B	26
		-15	0 2 4	0.4 B	35
Gray and Brown Weathered Shale Residuum	557.10				
Gray Poor to Mod Indurated Fissile Clayey SHALE			7 17 44		11
	553.60				
Borehole continued with rock coring.		-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\SANGAMON\084-0521.GPJ Data Template D6TEMPLT.GDT Date Printed 9/18/08
Latitude 39D 40.995N Longitude 89D 42.276W Datum NAD83 Job Number D96-504-07

Illinois Department of Transportation — ROCK CORE LOG

Division of Highways, District 6

Page 2 of 2 — Date 4/30/08

ROUTE FAP 662 (IL 4) DESCRIPTION Bridge over Polecat Creek LOGGED BY M. Tappan

SECTION H(RS-10), B-2 LOCATION NW 1/4, SEC. 7, TWP. 14N, RNG. 5W, 3 PM

COUNTY Sangamon CORING METHOD Water

STRUCT. NO. 084-0521
Station
BORING NO. 2 S. Pier
Station 68+61
Offset 34.0ft Lt
Ground Surface Elev. 572.6 ft

CORING BARREL TYPE & SIZE NQ2WL
Core Diameter 2 in
Top of Rock Elev. 553.60 ft
Begin Core Elev. 553.60 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Begin Rock Core Dk Gray V. Well Indurated Clayey SHALE Thinly Bedded Open Joints 2"-12"	553.60	-20	1	90	71		50.2
Open Joints 1'-3' with some Argilliceous Shale Seams		-25	2	92	87		122.9
		-30					145.7
		-35	3	100	98		149.8
	533.60						

Color pictures of the cores Yes, On File
Cores will be stored for examination until 5 Years after Construction
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
RQD is the ratio of the total length of sound core specimens >4" to total length of core run BBS, form 138 (Rev. 8-99)

ROCK CORE 084-0521.GPJ D6TEMPLT.GDT 9/18/08

BORINGS
S.N. 084-0521

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

SHEET NO. 29 — 30 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	73
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Page 1 of 2

Date 4/30/08

ROUTE FAP 662 (IL 4) DESCRIPTION Bridge over Polecat Creek LOGGED BY M. Tappan

SECTION H(RS-10), B-2 LOCATION NW 1/4, SEC. 7, TWP. 14N, RNG. 5W, 3 PM

COUNTY Sangamon DRILLING METHOD HSA HAMMER TYPE 140# Auto

STRUCT. NO. 084-0521
Station
BORING NO. 2A N. Pier
Station 68+38
Offset 33.0ft Rt
Ground Surface Elev. 572.7 ft

Surface Water Elev. 569.9 ft
Stream Bed Elev. 568.9 ft
Groundwater Elev.:
▽First Encounter no encounter ft
▼Upon Completion Cored ft
▼After 13 Days Hrs. 570.2 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray to Dark Gray Moist SILTY CLAY (Disturbed) ▼			1 2 2	0.6 B	27
			1 1 2	0.5 B	26
Poor Recovery	567.70	-5			
Gray and Brown Moist SILTY CLAY			0 1 2	0.6 B	28
		-10	0 1 2	0.5 B	29
Olive Brown and Light Blue Gray Moist SILTY CLAY	559.70		0 0 2	0.4 B	30
Gray Wet LOAM			0 0 7	0.2 B	28
Olive Brown Moist Micaceous SILTY SHALE	557.70	-15			
Borehole continued with rock coring.		-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

File Name S:\SOILS\GINT FILES\SANGAMON\084-0521.GPJ Data Template D6TEMPLT.GDT Date Printed 9/18/08
Latitude 39D 40.999N Longitude 89D 42.291W Datum NAD83 Job Number D96-504-07

Illinois Department of Transportation
Division of Highways
District 6

ROCK CORE LOG

Page 2 of 2

Date 4/30/08

ROUTE FAP 662 (IL 4) DESCRIPTION Bridge over Polecat Creek LOGGED BY M. Tappan

SECTION H(RS-10), B-2 LOCATION NW 1/4, SEC. 7, TWP. 14N, RNG. 5W, 3 PM

COUNTY Sangamon CORING METHOD Water

STRUCT. NO. 084-0521
Station
BORING NO. 2A N. Pier
Station 68+38
Offset 33.0ft Rt
Ground Surface Elev. 572.7 ft

CORING BARREL TYPE & SIZE NQ2WL
Core Diameter 2 in
Top of Rock Elev. 557.70 ft
Begin Core Elev. 557.70 ft

Description	Elev.	DEPTH (ft)	CORE (#)	RECOVERY (%)	R.Q.D. (%)	CORE TIME (min/ft)	STRENGTH (tsf)
Begin Rock Core Dk Gray Well Indurated CLAYEY SHALE	557.70		1	0	0		
Dark Gray V. Well Indurated CLAYEY SHALE Thinly Bedded with Open Joints 2"-12"		-20	2	83	85		87.8 72.9
Closed Joints 1'-3'		-25	3	85	100		82.3
w/ some Argillaceous SHALE Seams		-30	4	90	100		167.8 139.7
	538.50	-35					

Color pictures of the cores Yes, On File
Cores will be stored for examination until 5 Years after Construction
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)
RQD is the ratio of the total length of sound core specimens >4" to total length of core run BBS, form 138 (Rev. 8-99)

ROCK CORE 084-0521.GPJ D6TEMPLT.GDT 9/18/08

Illinois Department of Transportation
Division of Highways
District 6

SOIL BORING LOG

Page 1 of 1

Date 10/13/76

ROUTE FAP 662 (IL 4) DESCRIPTION Bridge over Polecat Creek LOGGED BY D. Bruun

SECTION H(RS-10), B-2 LOCATION , SEC. 7, TWP. 14N, RNG. 5W, 3 PM

COUNTY Sangamon DRILLING METHOD HAMMER TYPE

STRUCT. NO. 084-0172
Station
BORING NO. 3 N. Abutment
Station 68+21
Offset 36.0ft Rt
Ground Surface Elev. 574.8 ft

Surface Water Elev. ft
Stream Bed Elev. ft
Groundwater Elev.:
▽First Encounter 565.8 ft
▼Upon Completion ft
▼After 3 Hrs. 568.8 ft

Description	Elev.	DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Brown and Gray Moist SILTY CLAY LOAM			9	1.0 B	24
	569.80	-5			
Brown and Gray Moist SILTY CLAY (Till) ▼			6	0.7 B	28
	566.30		6	1.0 B	28
Brown and Gray SILTY CLAY ▽ (Till) Free Water	564.80	-10			
Brown and Gray V. Moist SILTY CLAY LOAM			6	0.9 B	27
	561.30		16	0.85	22
Brown Moist SILTY CLAY LOAM (Shaley)	559.80	-15			
Brown and Gray Damp Sandy SHALE			100 /1"		11
	555.80		100 /2"		9
Boring Completed		-20			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer, E-Estimated)
Abbreviations W.O.H - Sampler Advanced By Weight of Hammer, W.O.P - Advanced by Weight of Pipe, B.S. - Before Seating
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) BBS, from 137 (Rev. 8-99)

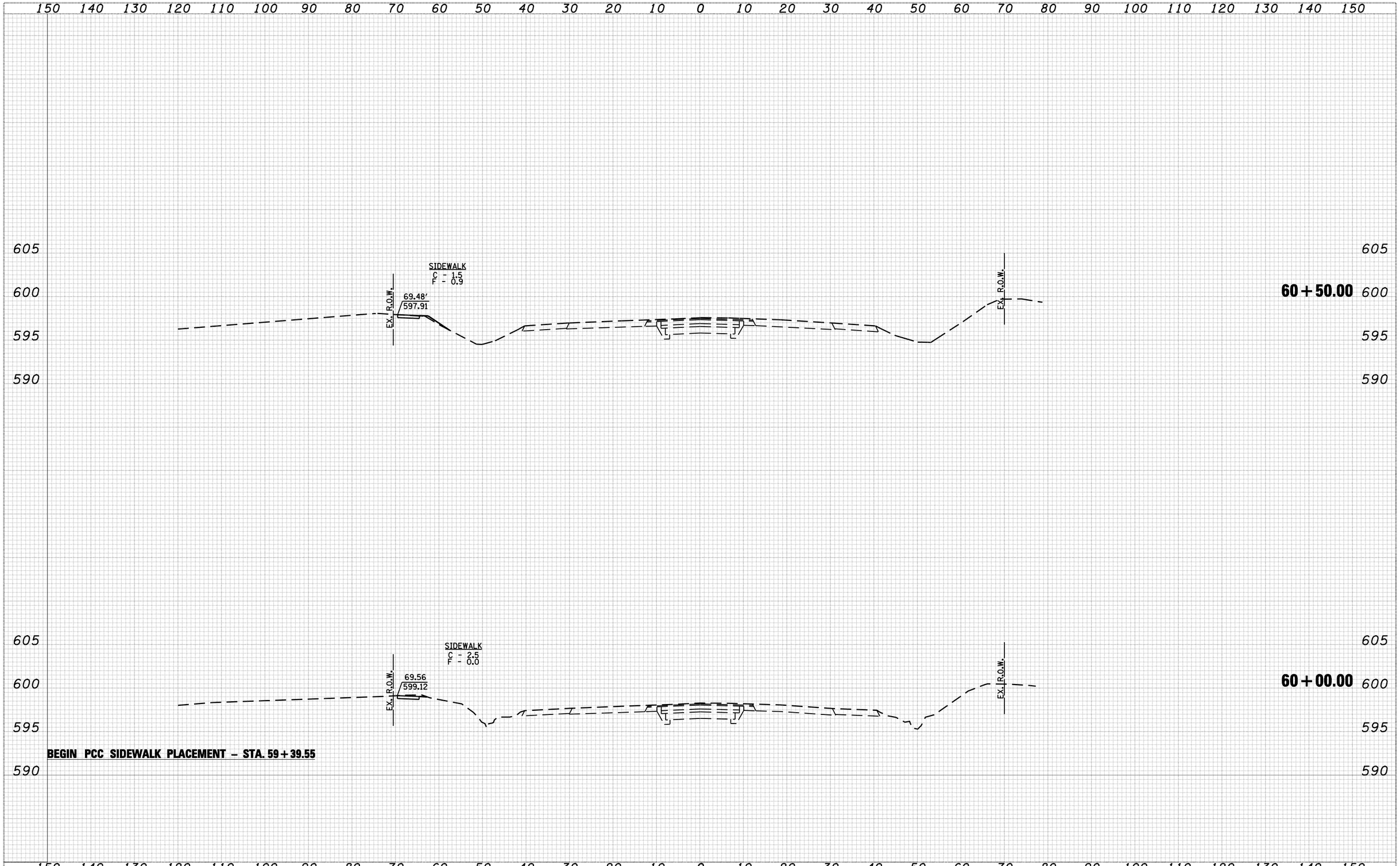
File Name S:\SOILS\GINT FILES\SANGAMON\084-0521.GPJ Data Template D6TEMPLT.GDT Date Printed 9/18/08
Latitude Longitude Datum NAD83 Job Number D96-504-07

BORINGS
S.N. 084-0521

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

SHEET NO. 30	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
30 SHEETS	662	H(RS-10,B-2)	SANGAMON	84	74
			CONTRACT NO. 72A73		
	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

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



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

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:02:43AM	DATE -	REVISED -

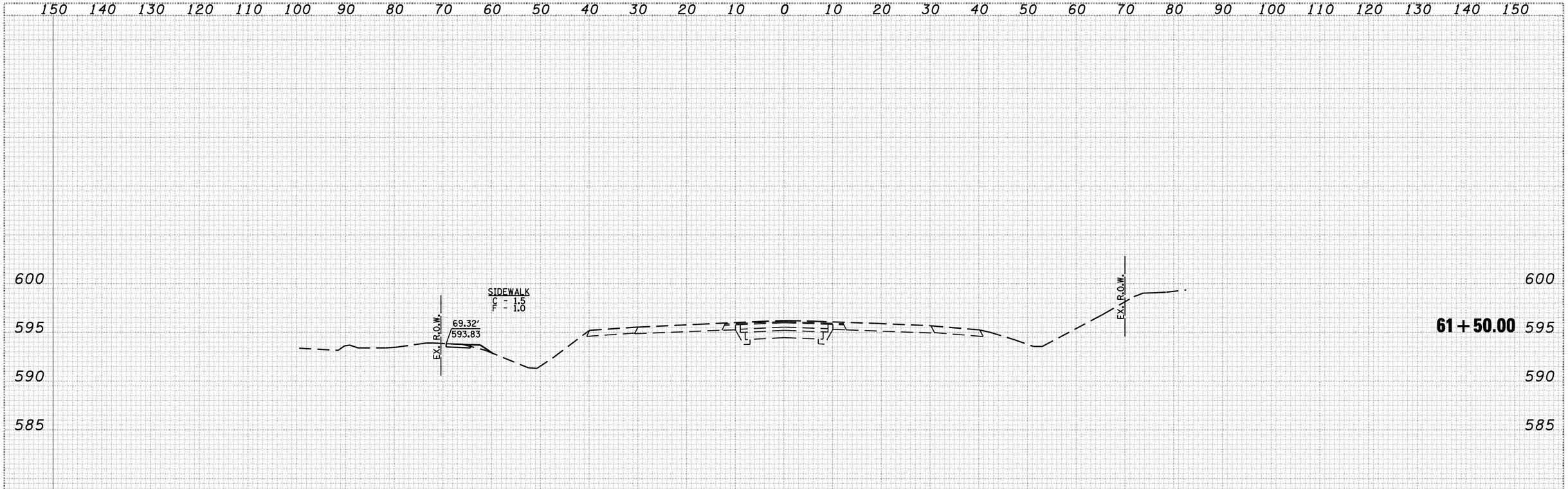
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm
No. 184-001907

CROSS SECTIONS

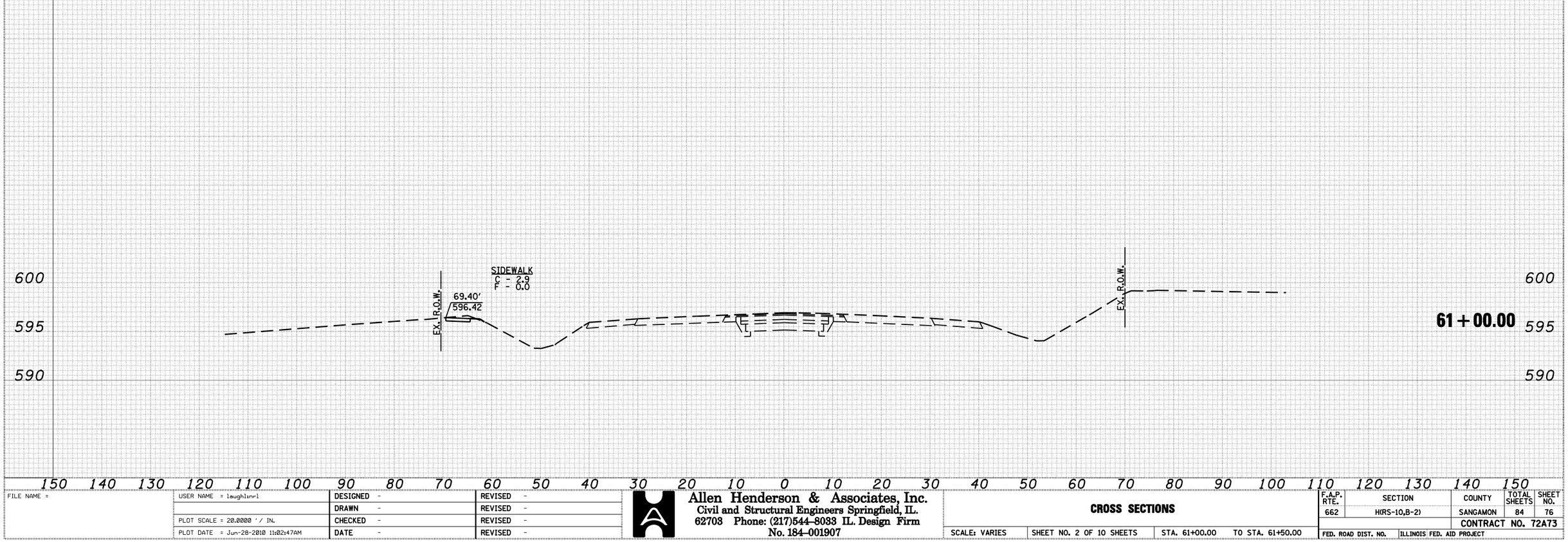
SCALE: VARIES | SHEET NO. 1 OF 10 SHEETS | STA. 60+00.00 TO STA. 60+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	75
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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



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



FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:02:47AM	DATE -	REVISED -

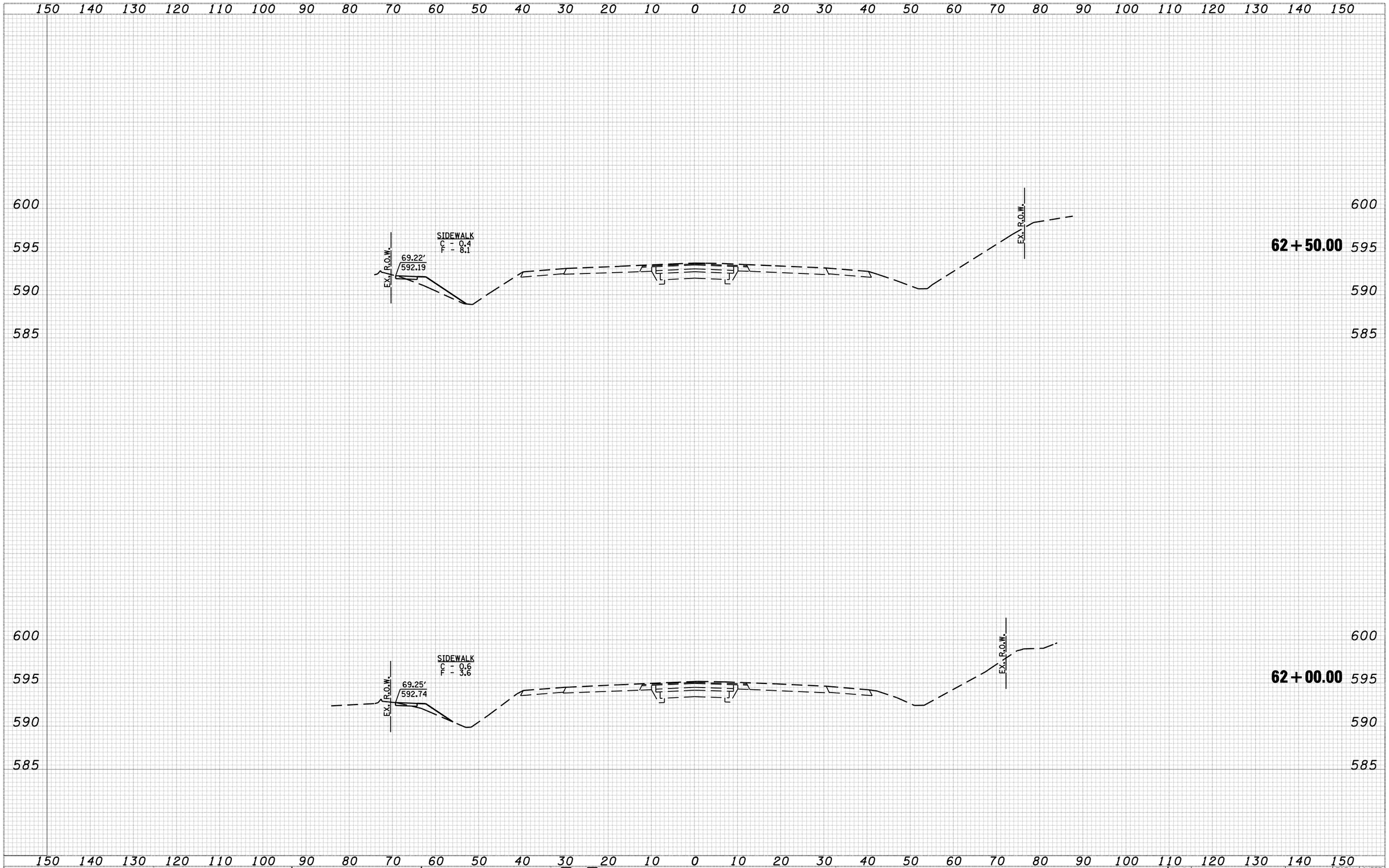
Allen Henderson & Associates, Inc.
Civil and Structural Engineers Springfield, IL.
62703 Phone: (217)544-8033 IL. Design Firm
No. 184-001907

CROSS SECTIONS

SCALE: VARIES | SHEET NO. 2 OF 10 SHEETS | STA. 61+00.00 | TO STA. 61+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	76
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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



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

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:02:52AM	DATE -	REVISED -

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

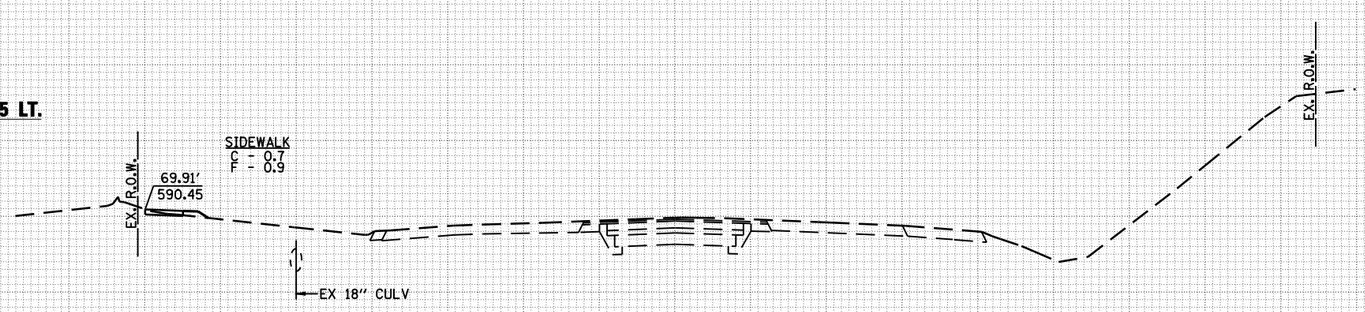
CROSS SECTIONS

SCALE: VARIES	SHEET NO. 3 OF 10 SHEETS	STA. 62+00.00	TO STA. 62+50.00

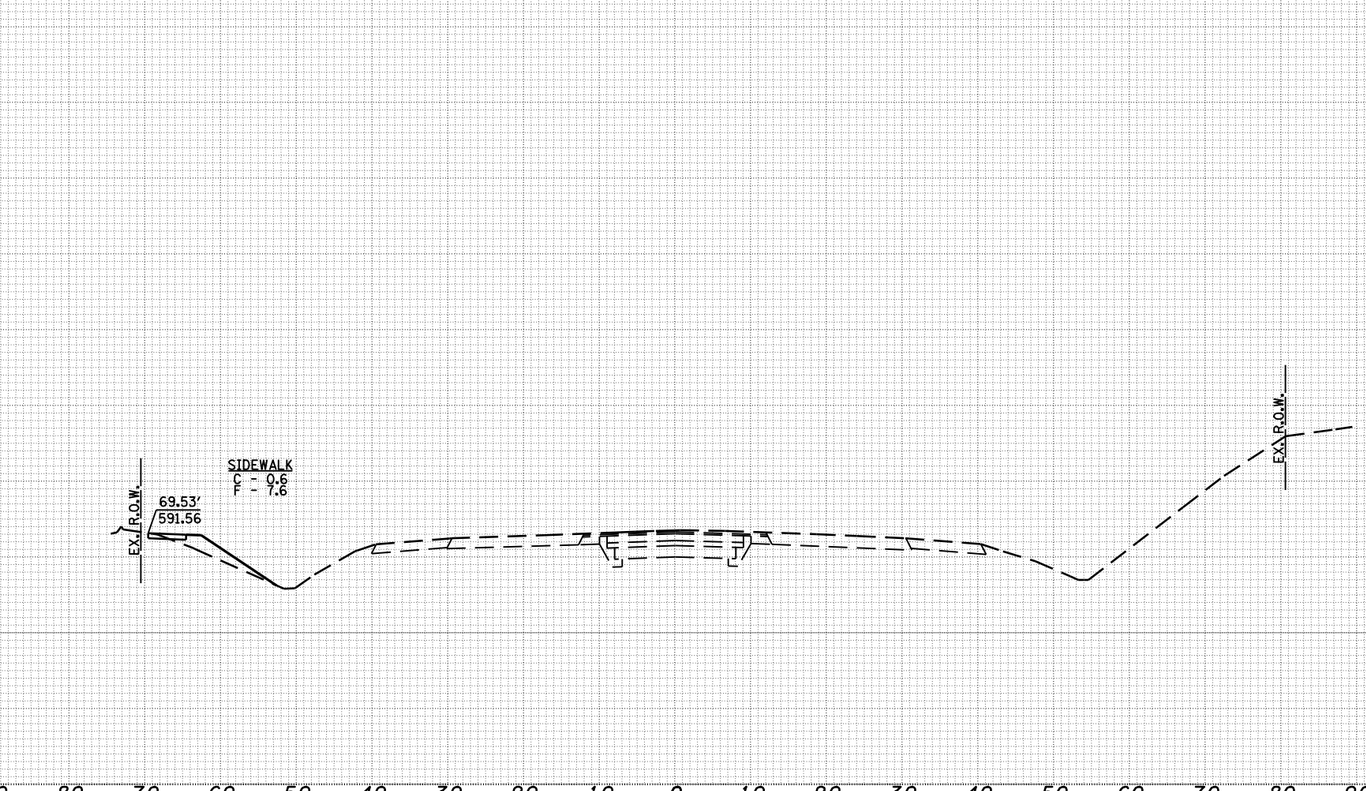
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	HRS-10,B-2)	SANGAMON	84	77
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

COMMERCIAL ENTRANCE (WALGREENS) – STA. 63+65 LT.



63+50.00



63+00.00

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

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:02:57AM	DATE -	REVISED -

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

CROSS SECTIONS

SCALE: VARIES	SHEET NO. 4 OF 10 SHEETS	STA. 63+00.00	TO STA. 63+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	78
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

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

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

595
590
585
580

PROJECT BEGINS – STA. 65+00

EX. R.O.W.

68.60'
585.47

SIDEWALK
C - 0.3
F - 16.5

584.30
C - 0
PC - 2
SURF - 10.25
BIND - 0

EX. R.O.W.

65+00.00

595
590
585
580

EX. R.O.W.

67.67'
587.10

SIDEWALK
C - 0.8
F - 11.9

EX. R.O.W.

64+50.00

595
590
585
580

600
595
590
585

EX. R.O.W.

67.67'
588.90

SIDEWALK
C - 1.1
F - 0.7

EX. R.O.W.

EX 18" CULV

EX. R.O.W.

64+00.00

600
595
590
585

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

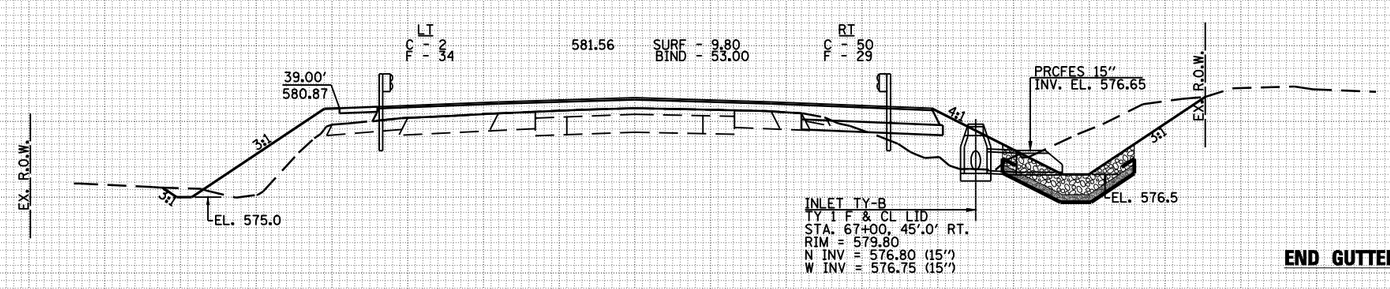
FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:03:01AM	DATE -	REVISED -

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

CROSS SECTIONS

SCALE: VARIES | SHEET NO. 5 OF 10 SHEETS | STA. 64+00.00 TO STA. 65+00.00

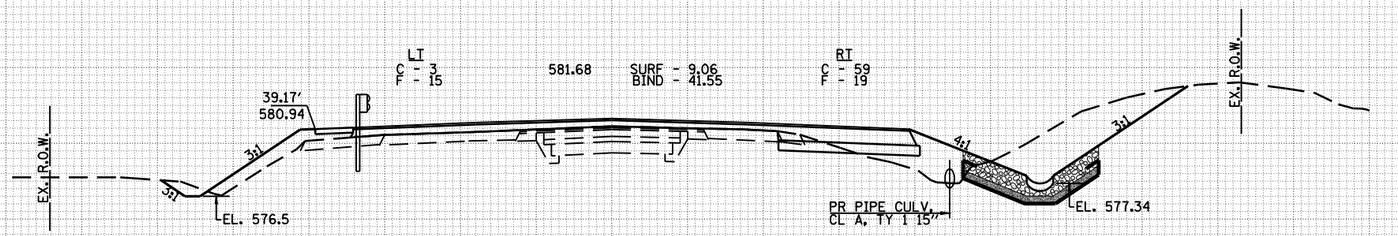
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	79
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			



67 + 00.00

END GUTTER OUTLET (SPECIAL) – STA. 66 + 54 RT.

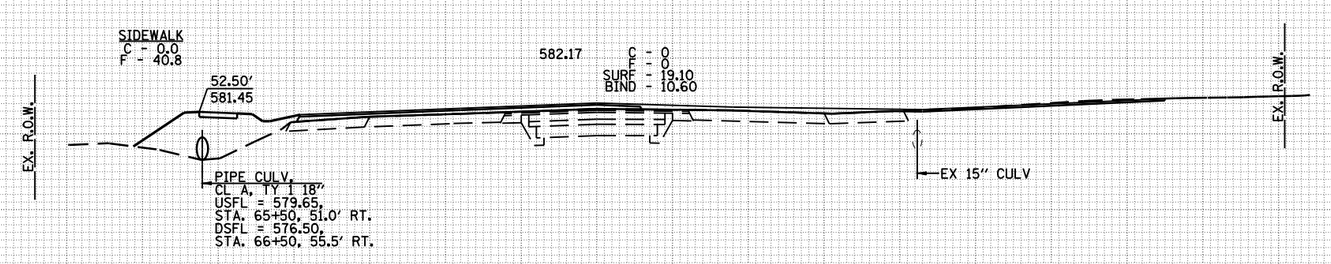
BEGIN GUARDRAIL – STA. 65 + 52.29 RT.



66 + 50.00

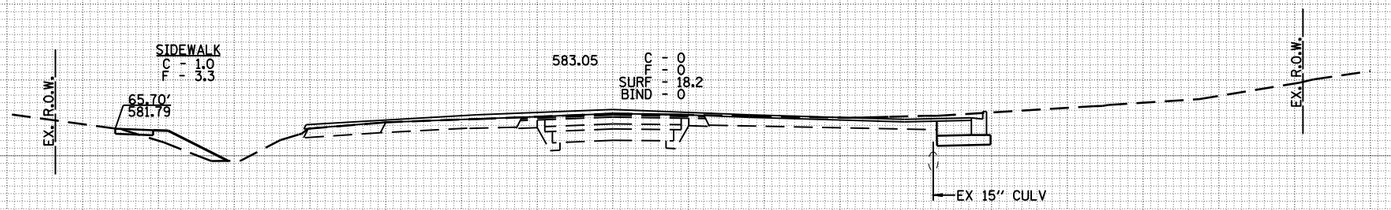
BEGIN GUARDRAIL – STA. 66 + 39.94 LT.

BEGIN STONE RIPRAP, CLASS A4 – STA. 66 + 50 RT.



66 + 00.00

TEAL DRIVE – STA. 65 + 79.19 RT.



65 + 50.00

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -	Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907	CROSS SECTIONS
		DRAWN -	REVISED -		
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -		SCALE: VARIES / SHEET NO. 6 OF 10 SHEETS / STA. 65+50.00 TO STA. 67+00.00
	PLOT DATE = Jun-28-2010 11:03:06AM	DATE -	REVISED -		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	HRS-10,B-2)	SANGAMON	84	80
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

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

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

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

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

580
575
570

581.38

EX. R.O.W.

R.O.W.

68+50.00

581.51

RT
C - 10
F - 66

3:1

EX. R.O.W.

EL. 574.5

68+00.00

BK. N. ABUT. – STA. 67+81.96

BEGIN BRIDGE APPROACH SLAB – STA. 67+51.96

LT
C - 2
F - 108

581.56

SURF - 4.90
BIND - 29.90

RT
C - 21
F - 29

EL. 573.5

EL. 576.0

67+50.00

BEGIN PAVEMENT REMOVAL – STA. 67+31

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:03:11AM	DATE -	REVISED -

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

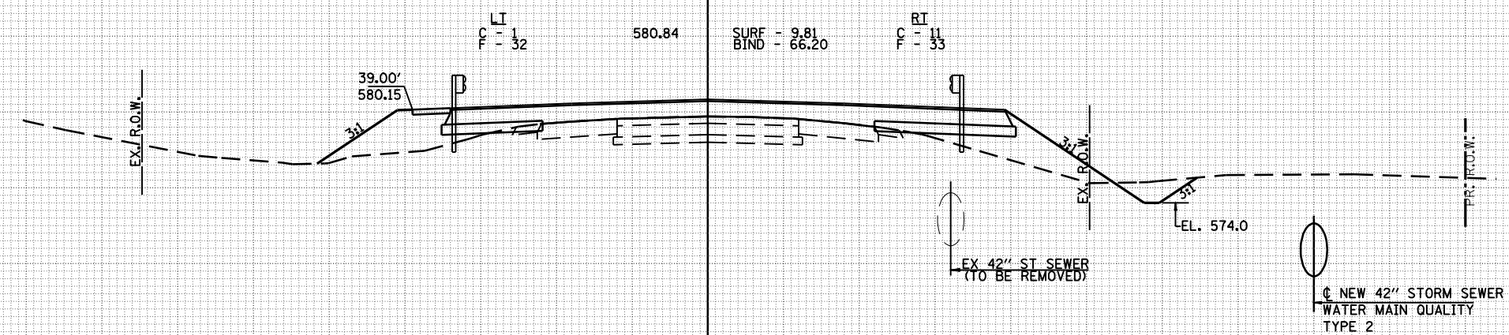
CROSS SECTIONS

SCALE: VARIES | SHEET NO. 7 OF 10 SHEETS | STA. 67+50.00 TO STA. 68+50.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	81
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

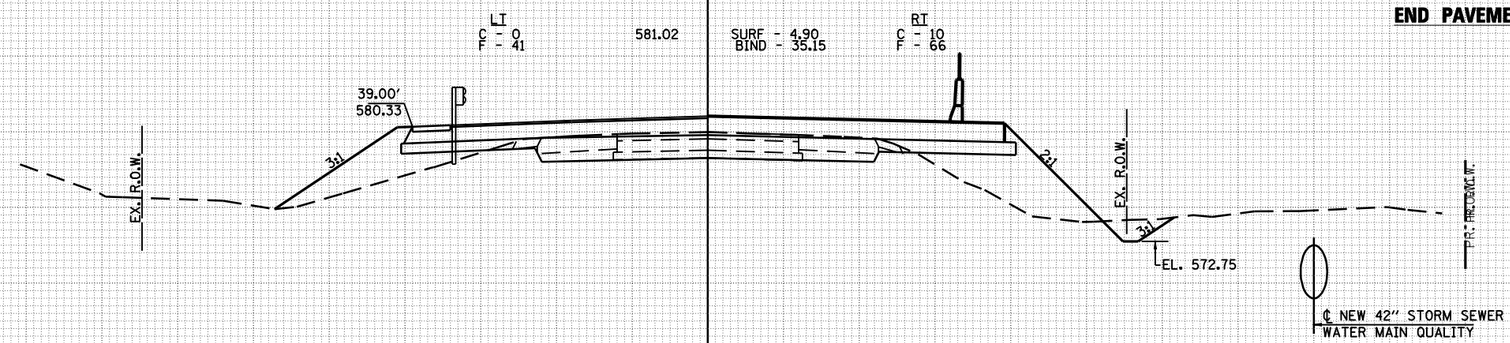
FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TEMPLATE		
NOTE BOOK		
AREAS		
NO.	AREAS CHECKED	

END GUARDRAIL – STA. 70+19.26 LT.



70+00.00

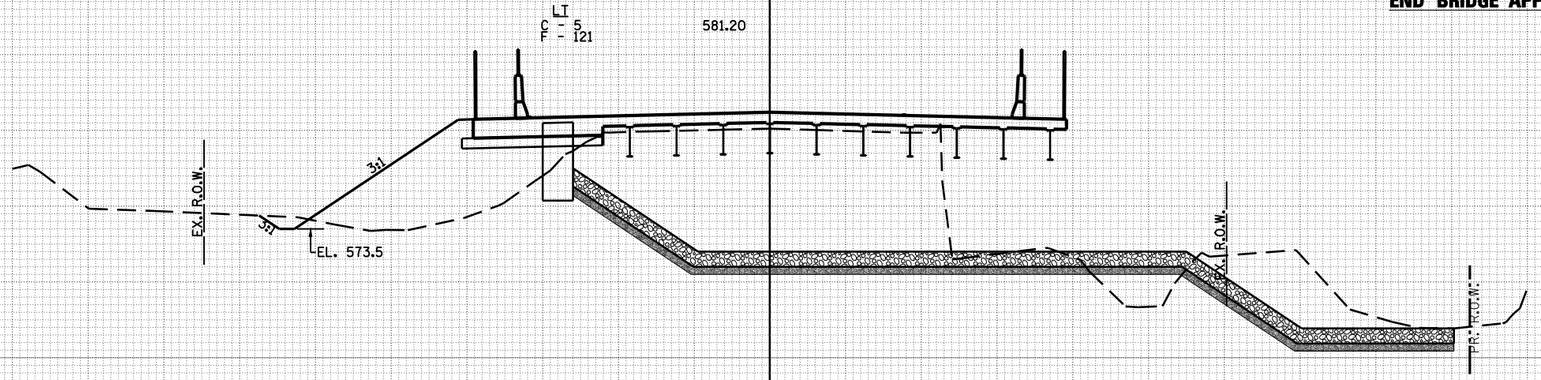
END PAVEMENT REMOVAL – STA. 69+66



69+50.00

END BRIDGE APPROACH SLAB – STA. 69+44.04

BK. S. ABUT. – STA. 69+14.04



69+00.00

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

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:03:20AM	DATE -	REVISED -

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

CROSS SECTIONS

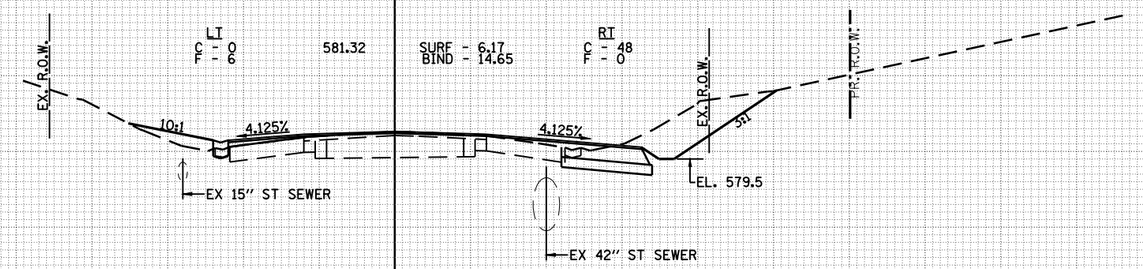
SCALE: VARIES | SHEET NO. 8 OF 10 SHEETS | STA. 69+00.00 | TO STA. 70+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	82
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

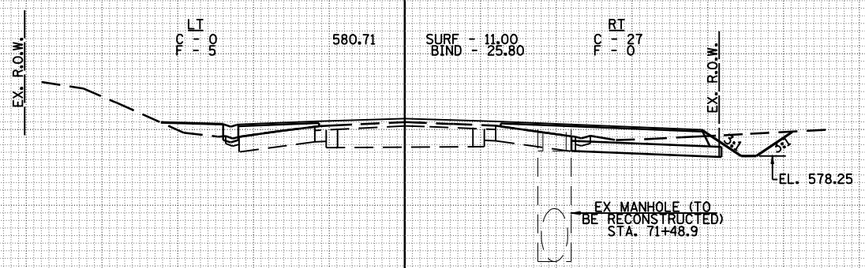
585
580

72+00.00



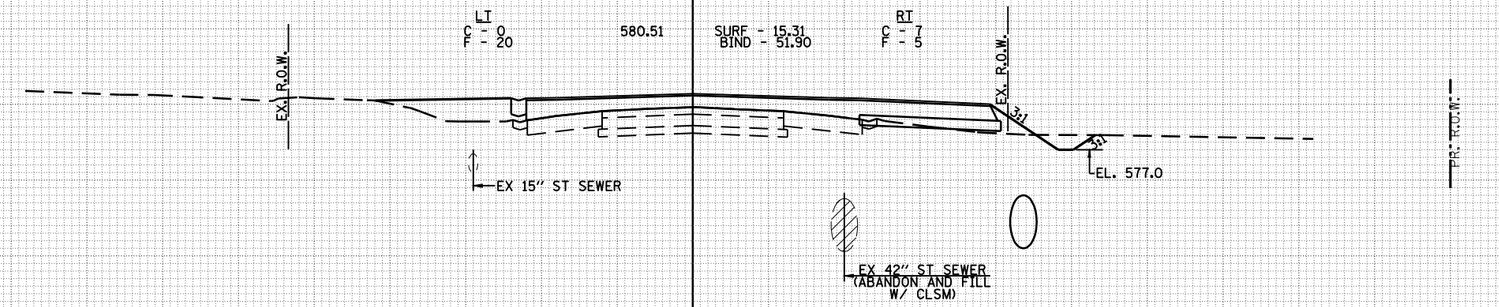
580

71+50.00



580
575

71+00.00

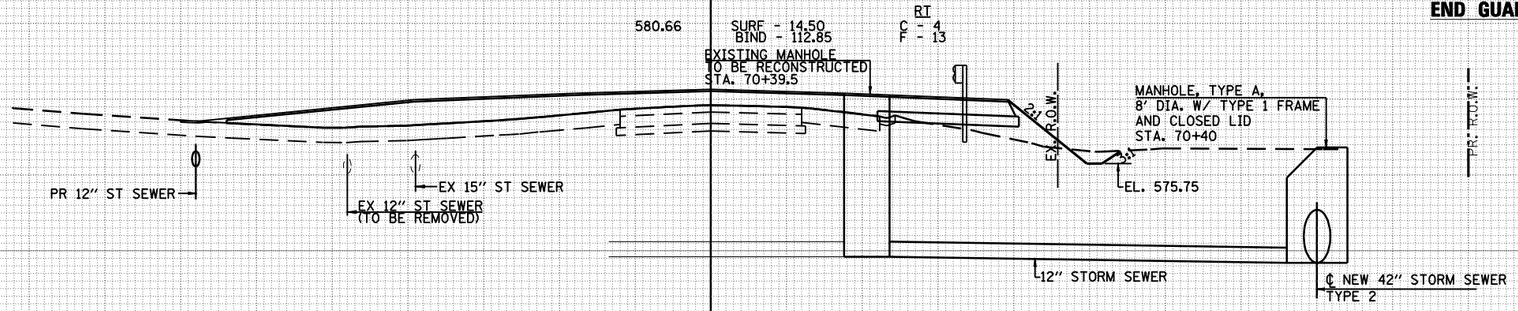


COTTONWOOD ST. – STA. 70+57.14 LT.

END GUARDRAIL – STA. 70+55.49 RT.

580
575

70+50.00



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

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

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

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:03:26AM	DATE -	REVISED -

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

CROSS SECTIONS

SCALE: VARIES | SHEET NO. 9 OF 10 SHEETS | STA. 70+50.00 | TO STA. 72+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	H(RS-10,B-2)	SANGAMON	84	83
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

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

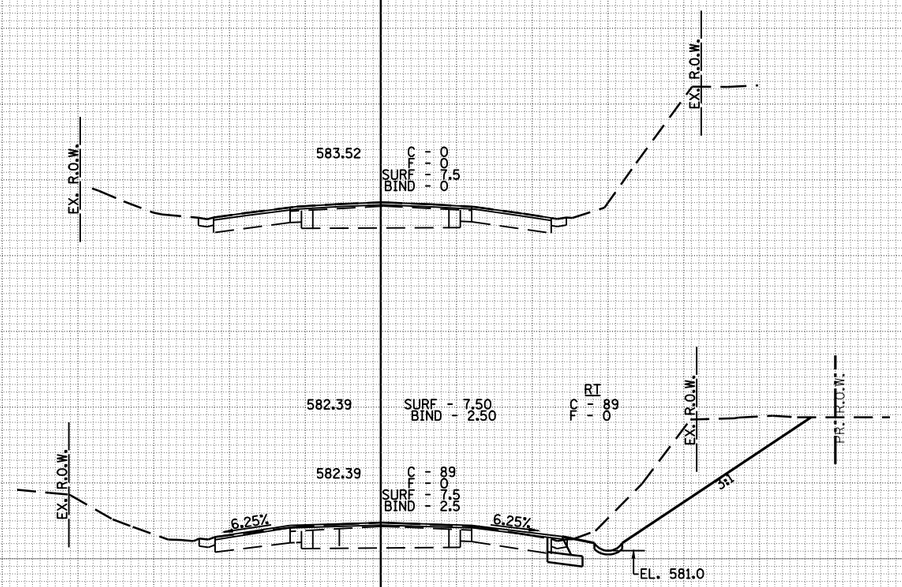
ORIGINAL SURVEY		BY	DATE
NOTE BOOK	SURVEYED		
NO.	PLOTTED		
	TEMPLATE		
	AREAS		
	AREAS CHECKED		

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

BEGIN RESURFACING PROJECT – STA. 73+00

END STRUCTURE REPLACEMENT PROJECT – STA. 73+00

END CONCRETE GUTTER, TYPE B (SPECIAL) – STA. 72+50 LT.



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

FILE NAME =	USER NAME = laughlinrl	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 20.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = Jun-28-2010 11:03:31AM	DATE -	REVISED -

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

CROSS SECTIONS

SCALE: VARIES | SHEET NO. 10 OF 10 SHEETS | STA. 72+50.00 TO STA. 73+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
662	HRS-10,B-2)	SANGAMON	84	84
		CONTRACT NO. 72A73		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		