

04-27-12 LETTING ITEM 184

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS  
**PLANS FOR PROPOSED  
HIGHWAY BRIDGE PROGRAM**

PROJECT M-BRS-0183(308)  
SECTION 09-00171-00-BR  
VERMILION COUNTY  
F.A.U. 7043 / C.H. 6  
PROPOSED STRUCTURE NO. 092-0085  
C-95-306-11

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 7043	09-00171-00-BR	VERMILION	66	1
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91449		

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, ALIGNMENT TIES AND MISC. DETAILS
3.	SUMMARY OF QUANTITIES
4.-5.	SCHEDULE OF QUANTITIES
6.	TYPICAL CROSS SECTIONS
7.	PLAN AND PROFILE SHEET
8.-10.	STAGE CONSTRUCTION LAYOUT SHEETS
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34.-56.	STRUCTURE PLANS
57.-66.	EXISTING STRUCTURE PLANS

FOR HIGHWAY STANDARDS: SEE SHEET 2

**UTILITIES**

AMEREN IP (GAS ELEC)  
1155 E. VOORHEES ST., MC P-35  
DANVILLE, IL 61834  
ATTN. MARTIN FULLER  
618-236-6281  
ATTN. DAN COON

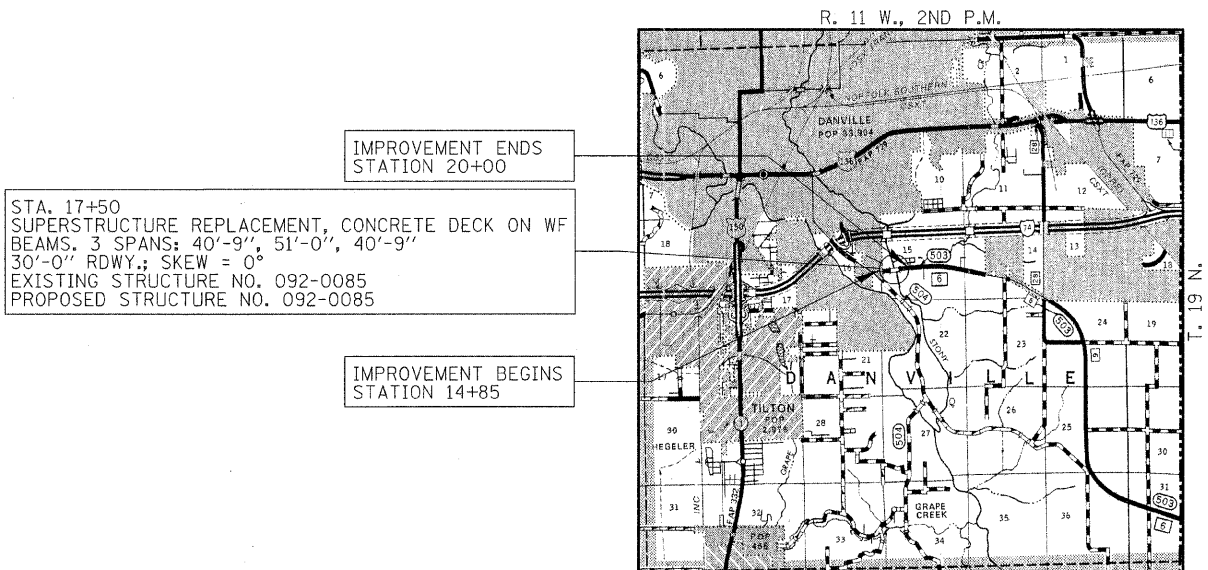
217-431-9703  
COMCAST (CABLE)  
806 1/2 EAST MAIN ST.  
DANVILLE, IL 61832  
JEFF BURRESS  
217-202-1204

AT&T (FIBER OPTIC)  
201 S. NEIL ST.  
CHAMPAIGN, IL 61821  
ATTN. MIKE MURPHY  
217-398-7979

AQUA ILLINOIS, INC. (WATER)  
322 NORTH GILBERT  
DANVILLE, IL 61832  
ATTN. JOSHUA GABEHART  
217-442-3063X126

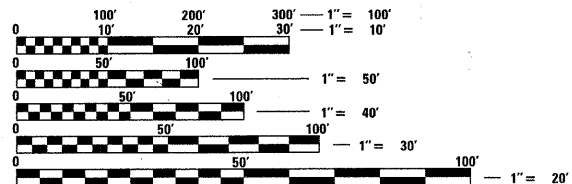


FUNCTIONAL CLASSIFICATION: MINOR ARTERIAL (URBAN)  
DESIGN SPEED: 40 MPH  
DESIGN TRAFFIC: 4100 ADT (2008)  
4700 ADT (2021)



LOCATION MAP

APPROXIMATE SCALE: 0 1 MILE  
NET LENGTH F.A.U. 7043 = 515.0 FEET = 0.098 MILES



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.

CONTRACT NO. 91449

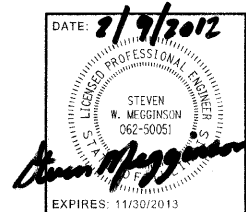


ILLINOIS DEPARTMENT OF TRANSPORTATION

APPROVED: *February 14, 2012*  
*Douglas R. Harker*  
COUNTY ENGINEER

PASSED: *2/17, 2012*  
*[Signature]*  
DISTRICT FIVE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review: *02/17, 2012*  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS  
REGION THREE ENGINEER  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

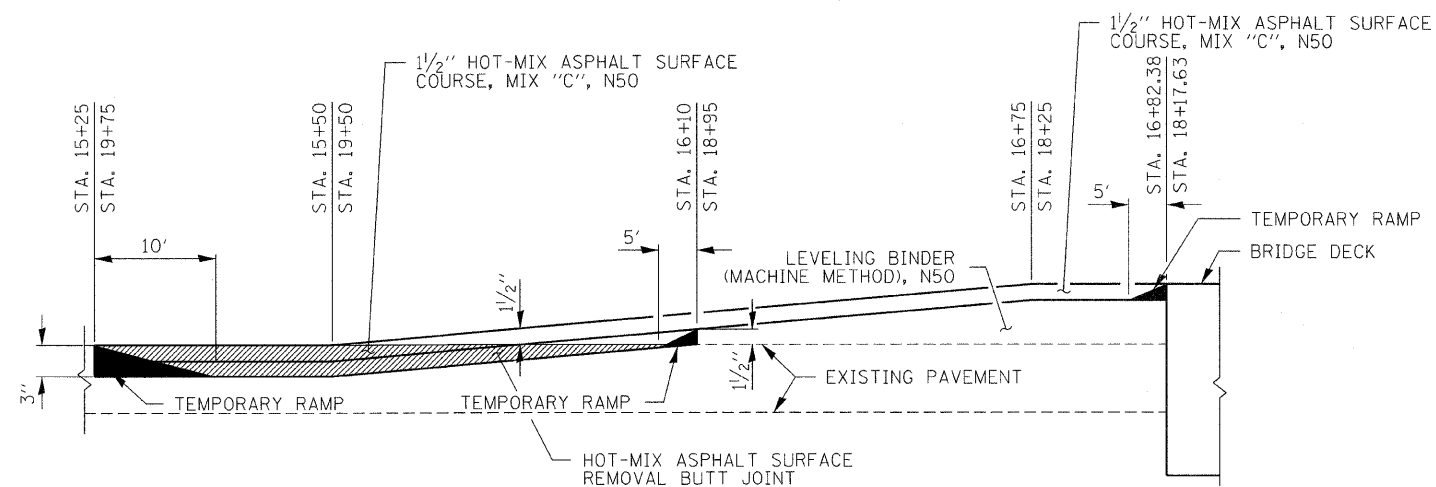


HAMPTON, LENZINI AND RENWICK, INC.  
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - LAND SURVEYORS  
3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
217.546.3400 www.hirengineering.com

**GENERAL NOTES**

- 1 ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2012," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- 2 ALL CLEARING AND GRUBBING SHALL BE CONSIDERED INCIDENTAL TO EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE CONSIDERED TO BE INCLUDED WITH THE CORRESPONDING PAVEMENT REMOVAL PAY ITEM AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 3 THE LOCATIONS OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- 4 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 MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- 5 THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER. SEEDING WILL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2012." ESTIMATED QUANTITY = SEEDING CLASS 2 (SPECIAL) = 0.25 ACRES
- 6 THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES:

POROUS GRANULAR EMBANKMENT	2.00 TON/CU YD
SUBBASE GRANULAR MATERIAL, TYPE B	2.05 TON/CU YD
ALL HOT MIX ASPHALT	112 LBS/SQ.YD./INCH OF THICKNESS
STONE RIPRAP, CLASS A5 (SPECIAL)	1.75 TON/CU YD



**PAVEMENT TRANSITION DETAIL**

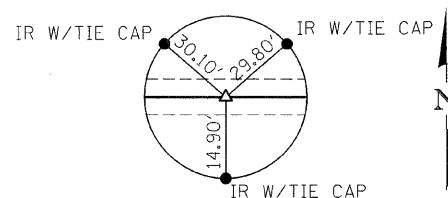
**HIGHWAY STANDARDS**

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 280001-06 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-03 NAME PLATE FOR BRIDGES
- 601101-01 CONCRETE HEADWAL FOR PIPE DRAIN
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 630201-06 PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
- 630301-05 SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
- 631032-07 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5M (15') AWAY
- 701006-03 OFF-ROAD OPERATIONS 2L, 2W, 4.5M (15') TO 600 MM (24") FROM PAVEMENT EDGE
- 701011-02 OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS > 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE, 2L, 2W, MOVING OPERATIONS, DAY ONLY
- 701321-12 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701326-04 LANE CLOSURE, 2L, 2W, PAVEMENT WIDENING FOR SPEEDS > 45 MPH
- 701901-02 TRAFFIC CONTROL DEVICES
- 704001-07 TEMPORARY CONCRETE BARRIER
- 780001-03 TYPICAL PAVEMENT MARKINGS

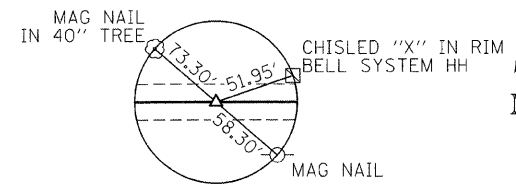
**ALIGNMENT FAU 7043/CH6/PERRYSVILLE ROAD**

DESCRIPTION	STATION	NORTHING	EASTING
FAU 7043/CH6			
P.O.T.	11+50.00	1254237.992	1189173.346
P.O.T.	23+50.07	1254341.736	1190368.923

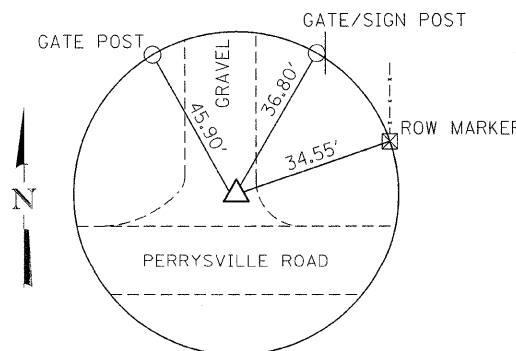
SURVEY CONTROL POINTS					
DESCRIPTION	STATION	OFFSET	NORTHING	EASTING	ELEVATION
FAU 7043/CH6					
CP#1	20+88.26	LT 22.62	1254341.637	1190106.134	557.703
CP#2	16+18.08	LT 14.99	1254293.387	1189638.377	559.683
CP#3	8+43.69	RT 19.84	1254191.743	1188869.899	576.663



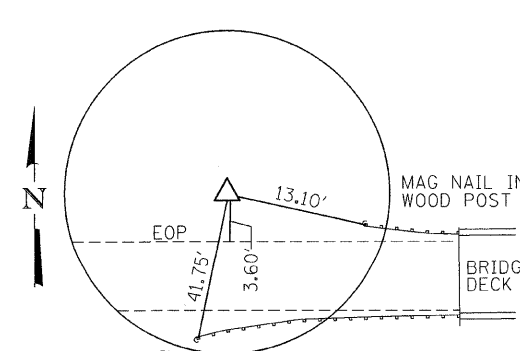
P.O.T. STA. 11+50.00  
MAG NAIL  
N. 1254237.992  
E. 1189173.346



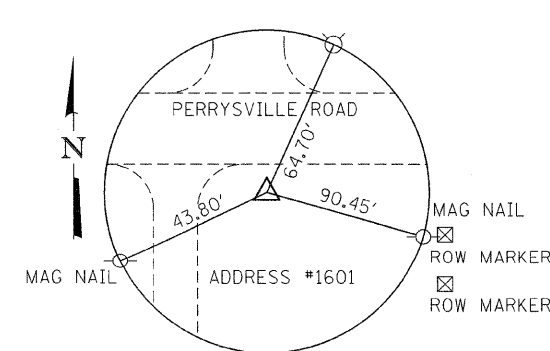
P.O.T. STA. 23+56.07  
MAG NAIL  
N. 1254341.736  
E. 1190368.923



CP# 1  
22.62' LT. STA. 20+88.26  
N. 1254341.637  
E. 1190106.134



CP# 2  
14.99' LT. STA. 16+18.08  
N. 1254293.387  
E. 1189638.377



CP# 3  
19.84' RT. STA. 8+43.69  
N. 1254191.743  
E. 1188869.905

FILE NAME = 180108-sht-notes.dgn	USER NAME =	DESIGNED - S.W.M.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3385 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - T.W.K.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.00989	PLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -
		DATE - 02/09/12	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**GENERAL NOTES, ALIGNMENT TIES AND MISC. DETAILS  
C.H. 6 / PERRYSVILLE ROAD**

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

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	2
CONTRACT NO. 91449				
ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES			
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY CODE 0014
20100500	TREE REMOVAL, ACRES	ACRE	0.10
20200100	EARTH EXCAVATION	CU YD	142
20300100	CHANNEL EXCAVATION	CU YD	500
20400800	FURNISHED EXCAVATION	CU YD	6
25100630	EROSION CONTROL BLANKET	SQ YD	246
28000400	PERIMETER EROSION BARRIER	FOOT	165
31101400	SUBBASE GRANULAR MATERIAL, TYPE B 6"	SQ YD	280
35400100	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 6"	SQ YD	280
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	78
40600300	AGGREGATE (PRIME COAT)	TON	2
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	79
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	404
40600990	TEMPORARY RAMP	SQ YD	92
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	66
44000400	GUTTER REMOVAL	FOOT	528
48203021	HOT-MIX ASPHALT SHOULDERS, 6"	SQ YD	265
48203100	HOT-MIX ASPHALT SHOULDERS	TON	48
50101500	REMOVAL OF EXISTING SUPERSTRUCTURES	EACH	1
50102400	CONCRETE REMOVAL	CU YD	0.4
50105220	PIPE CULVERT REMOVAL	FOOT	145
50300225	CONCRETE STRUCTURES	CU YD	1.8
50300255	CONCRETE SUPERSTRUCTURE	CU YD	115.1
50300260	BRIDGE DECK GROOVING	SQ YD	417
50300300	PROTECTIVE COAT	SQ YD	486
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1
50500505	STUD SHEAR CONNECTORS	EACH	2826
50800515	BAR SPLICERS	EACH	461
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	32250
*50901050	STEEL RAILING, TYPE SM	FOOT	272
51500100	NAME PLATES	EACH	1
52000110	PREFORMED JOINT STRIP SEAL	FOOT	60
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18
52100520	ANCHOR BOLTS, 1"	EACH	48

^ SEE SPECIAL PROVISIONS

SUMMARY OF QUANTITIES			
CODE NUMBER	ITEM	UNIT	TOTAL QUANTITY CODE 0014
60500050	REMOVING CATCH BASINS	EACH	5
*63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A 6 FOOT POSTS	FOOT	125
*63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	3
*63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	4
63200310	GUARDRAIL REMOVAL	FOOT	283
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1
70100500	TRAFFIC CONTROL AND PROTECTION, STANDARD 701326	L SUM	1
*70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70300100	SHORT TERM PAVEMENT MARKING	FOOT	20
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	1676
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	558
70400100	TEMPORARY CONCRETE BARRIER	FOOT	350
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	350
*78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1676
*78200410	GUARDRAIL MARKERS, TYPE A	EACH	12
*78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
78300100	PAVEMENT MARKING REMOVAL	SQ FT	558
^ X2501000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.25
^ X2810210	STONE RIPRAP, CLASS A5 (SPECIAL)	TON	1350
*^ X6310188	TRAFFIC BARRIER TERMINAL, TYPE 6A (MODIFIED)	EACH	1
^ Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	32
^ Z0015500	DEBRIS REMOVAL	L SUM	1
Z0013798	CONSTRUCTION LAYOUT	L SUM	1
^ Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
^ Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2

^ SEE SPECIAL PROVISIONS

\* SPECIALTY ITEMS

ROADWAY SCHEDULE										
LOCATION	SUBBASE GRANULAR MATERIAL TYPE B	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING	BITUMINOUS MATERIALS (PRIME COAT)	AGGREGATE (PRIME COAT)	LEVELING BINDER (MACHINE METHOD) N50	HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT	TEMPORARY RAMP	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50	HOT-MIX ASPHALT SHOULDERS	HOT-MIX ASPHALT SHOULDERS 6"
	6"	6"								
	31101400	35400100	40600100	40600300	40600625	40600982	40600990	40603310	48203100	48203021
	SQ YD	SQ YD	GALLON	TON	TON	SQ YD	SQ YD	TON	TON	SQ YD
FAU 7043/CH6										
STAGE 1										
LT. STA 15+25 TO LT. STA 16+82.38	70	70								
RT. STA 14+85 TO RT. STA 16+82.38	70	70	8							64
LT. STA 18+17.63 TO LT. STA 20+00	70	70								
RT. STA 18+17.63 TO RT. STA 19+75	70	70	8							72
CL. STA 15+50 TO CL. STA 16+81.88						208	24			
CL. STA 18+18.13 TO CL. STA 19+50						196	24			
STAGE 2										
LT. STA 15+25 TO LT. STA 16+82.38			10				11		12	72
RT. STA 14+85 TO RT. STA 16+82.38							11		12	
LT. STA 18+17.63 TO LT. STA 20+00			11				11		12	57
RT. STA 18+17.63 TO RT. STA 19+75							11		12	
CL. STA 15+25 TO CL. STA 16+81.88			21	1	37			33		
CL. STA 18+18.13 TO CL. STA 19+75			20	1	42			33		
TOTAL	280	280	78	2	79	404	92	66	48	265

60500050 REMOVING CATCH BASINS	
LOCATION	EACH
FAU 7043/CH6	
13 RT. STA 15+57	1
13 LT. STA 15+57	1
13 RT. STA 16+47	1
13 RT. STA 19+42	1
13 LT. STA 19+42	1
TOTAL	5

44000400 GUTTER REMOVAL	
LOCATION	FOOT
FAU 7043/CH6	
RT. STA 15+50 TO RT. STA 16+82.38	132
LT. STA 15+50 TO LT. STA 16+82.38	132
RT. STA 18+17.63 TO RT. STA 19+50	132
LT. STA 18+17.63 TO LT. STA 19+50	132
TOTAL	528

20100500 TREE REMOVAL, ACRES	
LOCATION	ACRE
FAU 7043/CH6	
LT. STA 15+50 TO LT. STA 16+80	0.02
LT. STA 18+20 TO LT. STA 20+00	0.05
TOTAL	0.07
TOTAL USE	0.10

25100630 EROSION CONTROL BLANKET	
LOCATION	SQ YD
FAU 7043/CH6	
LT. STA 15+25 TO LT. STA 16+80	246
TOTAL	246

28000400 PERIMETER EROSION BARRIER	
LOCATION	FOOT
FAU 7043/CH6	
LT. STA 15+25 TO LT. STA 16+80	165
TOTAL	165

50105220 PIPE CULVERT REMOVAL	
LOCATION	FOOT
FAU 7043/CH6	
13 RT. STA 15+57	30
13 LT. STA 15+57	30
13 LT. STA 16+47	25
13 RT. STA 19+42	30
13 LT. STA 19+42	30
TOTAL	145

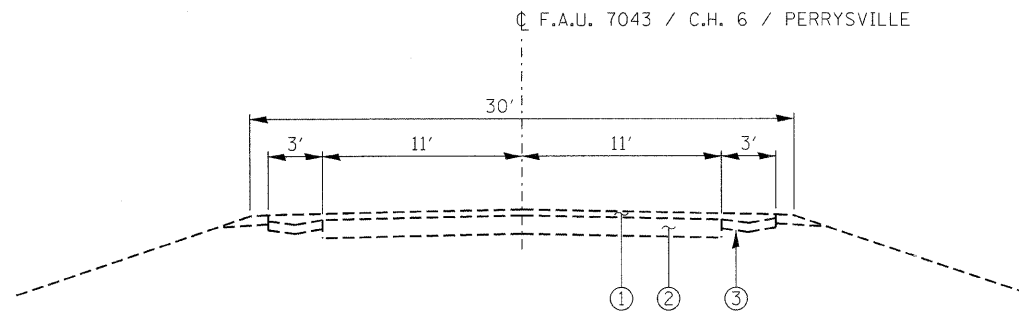
GUARDRAIL SCHEDULE							
LOCATION	STEEL PLATE BEAM GUARD RAIL TYPE A 6 FOOT POSTS	TRAFFIC BARRIER TERMINAL TYPE 6A	TRAFFIC BARRIER TERMINAL TYPE 6A (MODIFIED)	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	GUARDRAIL MARKERS TYPE A	TERMINAL MARKER DIRECT APPLIED	GUARDRAIL REMOVAL
	63000001	63100087	X6310188	63100167	78200410	78201000	63200310
	FOOT	EACH	EACH	EACH	EACH	EACH	FOOT
FAU 7043/CH6							
RT. STA 15+92 TO RT. STA 16+81.88							90
LT. STA 16+30 TO LT. STA 16+81.88							52
RT. STA 18+18.13 TO RT. STA 18+69							51
LT. STA 18+18.13 TO LT. STA 19+08							90
RT. STA 15+25.63 TO RT. STA 16+81.88	62.5	1		1		1	
LT. STA 15+88.13 TO LT. STA 16+81.88			1	1		1	
RT. STA 18+18.13 TO RT. STA 19+11.88		1		1		1	
LT. STA 18+18.13 TO LT. STA 19+74.38	62.5	1		1		1	
RT. STA 15+25.63 TO RT. STA 19+11.88					6		
LT. STA 15+88.13 TO LT. STA 19+74.38					6		
TOTAL	125	3	1	4	12	4	283

PAVEMENT MARKING SCHEDULE							
LOCATION	TEMPORARY		PAINT PAVEMENT MARKING PERMANENT		SHORT TERM PAVEMENT MARKING	WORK ZONE PAVEMENT MARKING REMOVAL	PAVEMENT MARKING REMOVAL
	4" SINGLE WHITE EDGE LINE	4" SKIPPED DASHED YELLOW CENTERLINE	4" SINGLE WHITE EDGE LINE	4" SKIPPED DASHED YELLOW CENTERLINE			
	70300220	70300220	78001110	78001110	70300100	70301000	78300100
FAS 7043/CH6	FOOT	FOOT	FOOT	FOOT	FOOT	SQ FT	SQ FT
LT. STA 13+80 TO LT. STA 21+25	745		745			248	248
RT. STA 13+80 TO RT. STA 21+25	745		745			248	248
CL. STA 13+80 TO LT. STA 21+25		186		186	20	62	62
SUBTOTAL	1490	186	1490	186	20	558	558
TOTAL	1676		1676		20	558	558

EARTHWORK SUMMARY							
LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	SHRINKAGE FACTOR	% USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE( 25%)	EMBANKMENT REQUIRED	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-)
	20200100 CUBIC YARD	20300100 CUBIC YARD			CUBIC YARD	CUBIC YARD	CUBIC YARD
FAU 7043/ CH6							
STAGE 1							
STA 14+85 TO STA 16+81.88	65		25.00%	100.00%	49	15	34
STA 18+18.13 TO STA 20+00	67		25.00%	100.00%	50	22	28
STAGE 2							
STA 14+85 TO STA 16+81.88	2		25.00%	100.00%	2	20	-18
STA 18+18.13 TO STA 20+00	8		25.00%	100.00%	6	56	-50
FROM BRIDGE BILL OF MATERIALS		500			0		0
	142	500			107	113	-6
	FURNISHED EXCAVATION					6	CU.YD.

STAGING SCHEDULE					
LOCATION	TEMPORARY CONCRETE BARRIER	RELOCATE TEMPORARY CONCRETE BARRIER	TEMPORARY BRIDGE TRAFFIC SIGNALS	IMPACT ATTENUATORS TEMPORARY (NON-REDIRECTIVE) TEST LEVEL 3	IMPACT ATTENUATORS RELOCATE (NON-REDIRECTIVE) TEST LEVEL 3
	70400100	70400200	70106500	Z0030250	Z0030350
FAS 7043/CH6	FOOT	FOOT	EACH	EACH	EACH
STAGE I					
CL. STA 13+70 TO STA 21+35	350		1	2	
STAGE II					
CL. STA 13+70 TO STA 21+35		350			2
TOTAL	350	350	1	2	2

X2501000 SEEDING, CLASS 2 (SPECIAL)	
LOCATION	ACRE
FAU 7043/CH6	
LT. STA 15+25 TO LT. STA 16+81	0.05
RT. STA 14+85 TO RT. STA 16+81	0.06
LT. STA 18+18 TO LT. STA 20+00	0.07
RT. STA 18+20 TO RT. STA 19+50	0.03
TOTAL	0.21
TOTAL USE	0.25



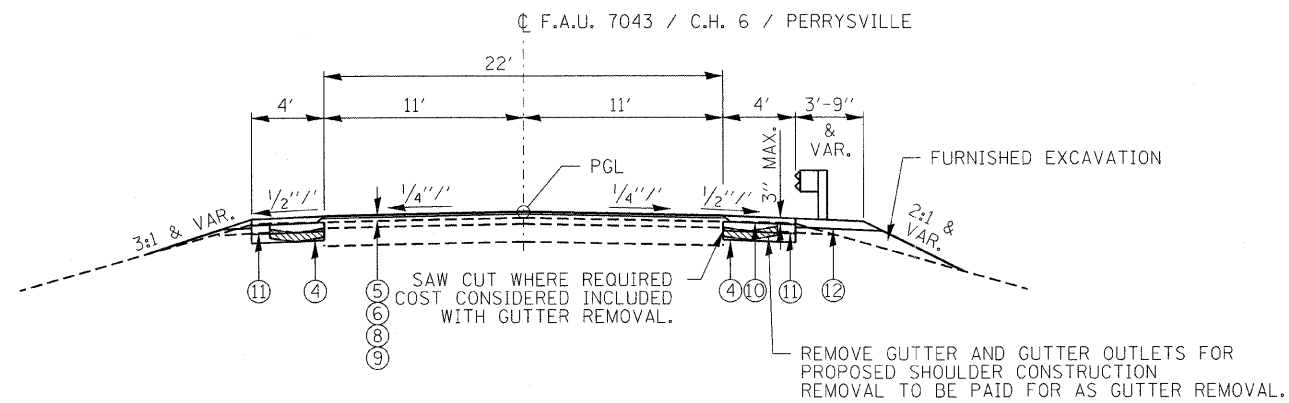
**EXISTING TYPICAL CROSS SECTION \***

STA. 15+25 TO STA. 16+82.38  
 STA. 18+17.63 TO STA. 19+75 \* - FROM STA. 16+42.38 TO STA. 16+82.38  
 AND FROM STA. 18+17.63 TO STA. 18+57.63  
 16 1/2" - 10 1/2" - 16 1/2" BRIDGE APPROACH PAVEMENT

	HMA SURFACE HMA SHOULDERS FINAL TOP LIFT	LEVELING BINDER MM, N50	HMA SHOULDERS LOWER LIFTS LIFT
PG GRADE	PG64-22	PG64-22	PG64-22
DESIGN AIR	4% @	4% @	4% @
VOIDS	N50	N50	N50
RAP % (MAX)	15%	25%	25%
MIXTURE COMPOSITION	IL 9.5	IL 9.5	IL 19.0
FRICTION			
AGGREGATE	MIXTURE C	NA	NA
DENSITY TEST METHOD	SATISFACTION OF ENGINEER	SATISFACTION OF ENGINEER	SATISFACTION OF ENGINEER

**PAVEMENT DESIGN (MECHANISTIC)**

DESIGN PERIOD 20 YEARS LOADING HS 20-44 (80,000 LBS)  
 STRUCTURAL DESIGN TRAFFIC (SDT) = 2022 ( 4752 )  
 PV = 4610 SU = 95 MU = 48  
 ROAD/STREET CLASSIFICATION: Class II  
 PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE  
 P = 50% S = 50% MU = 50%  
 TRAFFIC FACTOR ACTUAL TF 0.30 AC TYPE 64-22  
 MINIMUM TF  
 PG GRADE: BINDER = 64-22 SURFACE = 64-22  
 SUBGRADE SUPPORT RATING  
 SSR= POOR (STA. 15+25 TO STA. 16+82.38 )  
 SSR= POOR (STA. 18+17.63 TO STA. 19+75 )



**PROPOSED TYPICAL CROSS SECTION \*\***

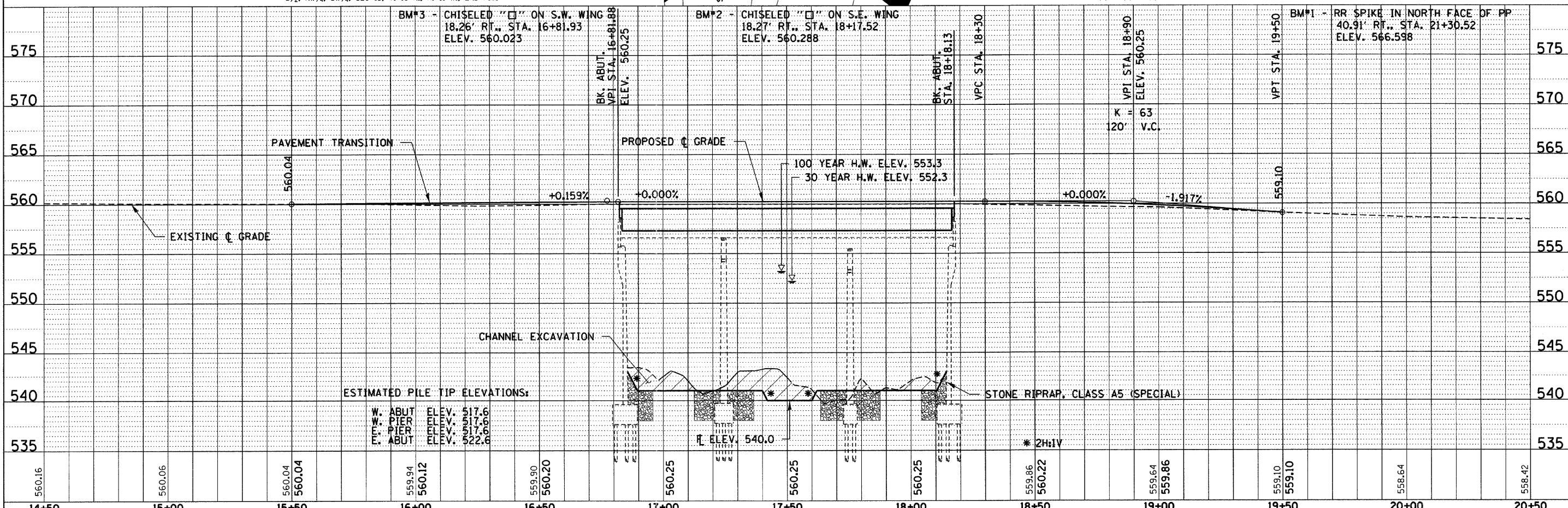
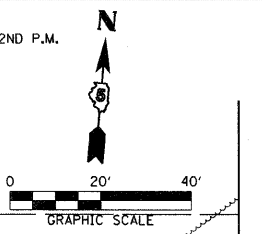
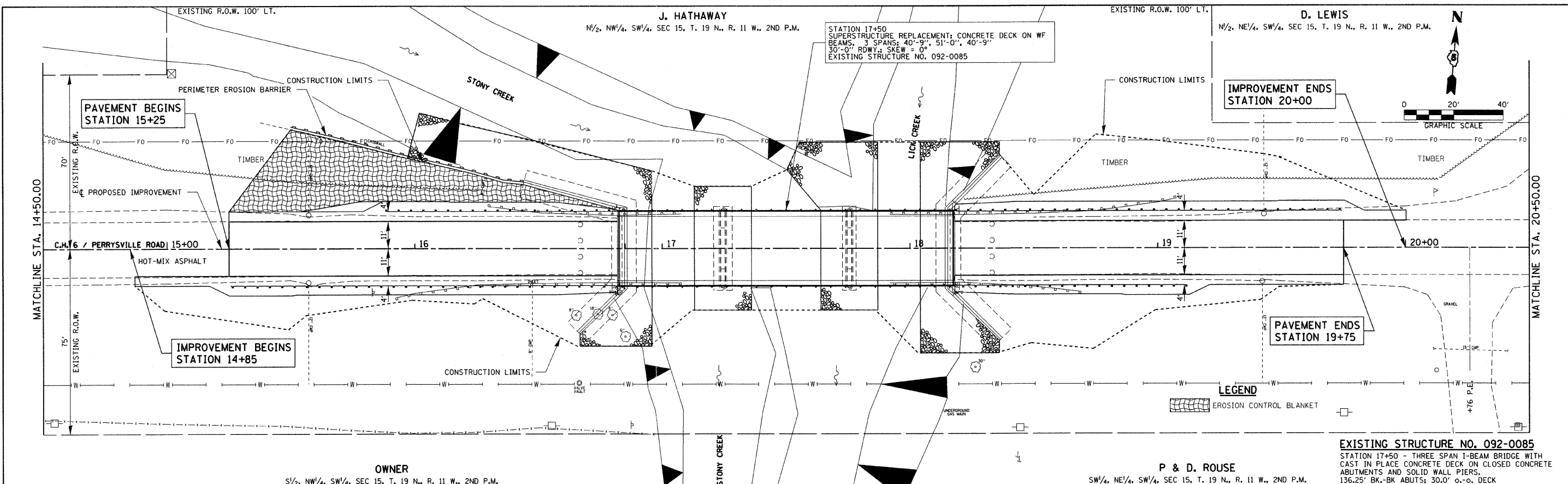
STA. 15+25 TO STA. 16+82.38  
 STA. 18+17.63 TO STA. 19+75  
 \*\* - FROM RT. STA. 14+85 TO RT. STA. 15+25  
 AND LT. STA. 19+75 TO LT. STA. 20+00  
 SHOULDER CONSTRUCTION ONLY  
 HOT-MIX ASPHALT SHOULDERS 6"

**LEGEND**

- ① EXIST HMA PAVEMENT (3")
- ② EXIST CONCRETE PAVEMENT (12" OR 16 1/2")
- ③ EXISTING GUTTER
- ④ SUBBASE GRANULAR MATERIAL, TYPE B (6")
- ⑤ HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1.5")
- ⑥ LEVELING BINDER (MACHINE METHOD), N50
- ⑦ HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT
- ⑧ BITUMINOUS MATERIALS (PRIME COAT)
- ⑨ AGGREGATE (PRIME COAT)
- ⑩ HOT-MIX ASPHALT SHOULDERS
- ⑪ PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 6"
- ⑫ HOT-MIX ASPHALT SHOULDERS, 6"

DATE  
BY  
DESIGNED  
DRAWN  
CHECKED  
DATE  
NO.

DATE  
BY  
DESIGNED  
DRAWN  
CHECKED  
DATE  
NO.



560.16	560.06	560.04	559.94	560.12	559.90	560.20	560.25	560.25	560.25	559.86	560.22	559.64	559.86	559.10	559.10	558.64	558.42
14+50	15+00	15+50	16+00	16+50	17+00	17+50	18+00	18+50	19+00	19+50	20+00	20+50					

FILE NAME = 100108-sh1-pp2.dgn  
 HAMPTON, LENZINI AND RENWICK, INC.  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 ILLINOIS PROFESSIONAL DESIGN FIRM  
 IBI/PZ/SE CORP. 184-000099

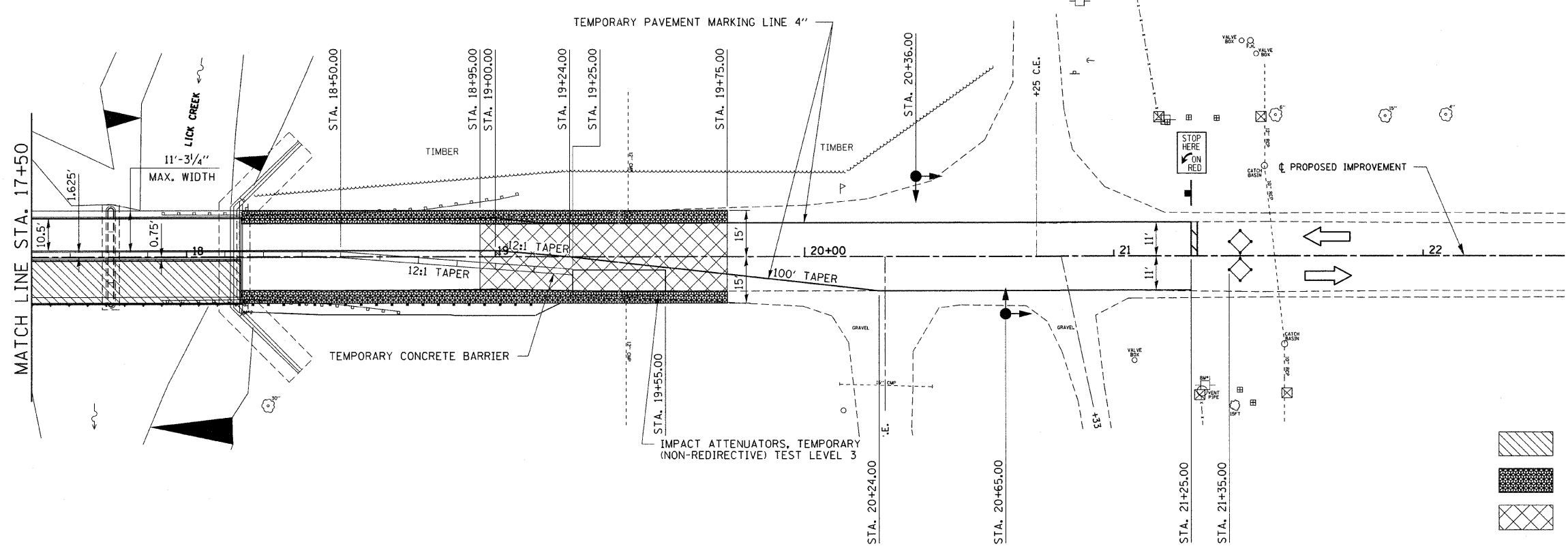
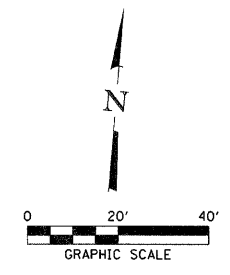
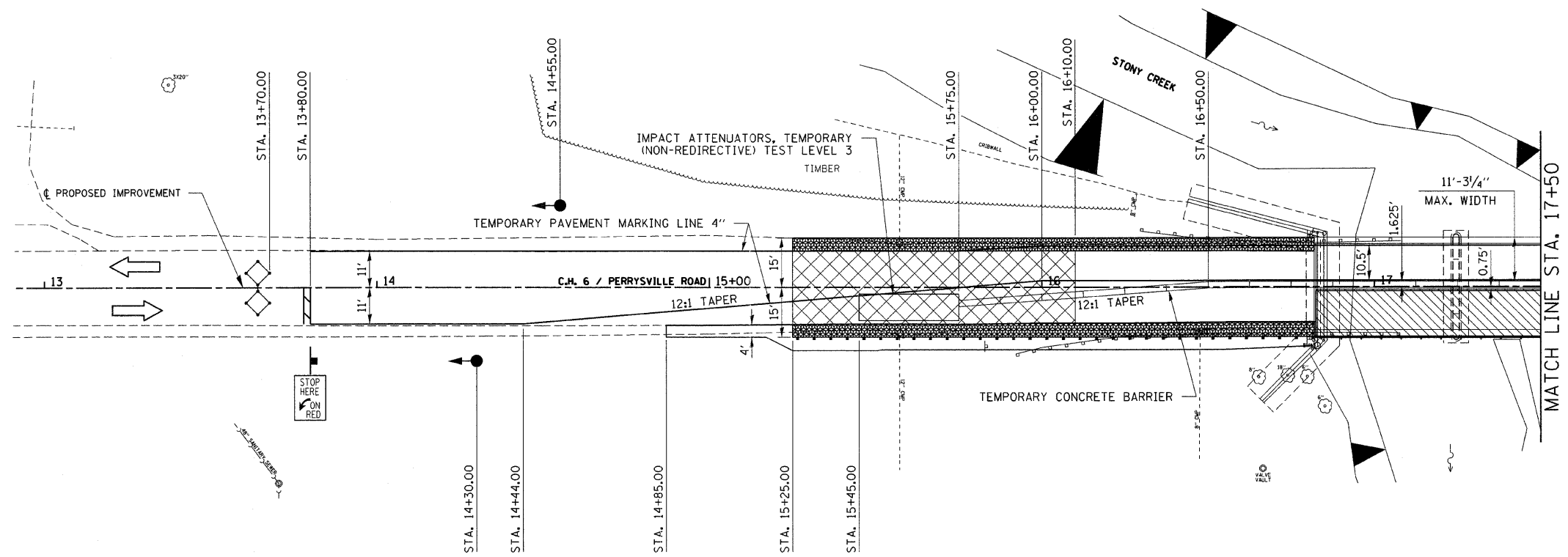
USER NAME =  
 DESIGNED - S.W.M.  
 DRAWN - T.W.K.  
 CHECKED - L.F.S.  
 DATE - 02/09/12

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

PLAN & PROFILE  
 C.H. 6 / PERRYVILLE ROAD  
 SCALE: H20:V5  
 SHEET NO. 1 OF 1 SHEETS  
 STA. TO STA.

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	7
				CONTRACT NO. 91449
ILLINOIS FED. AID PROJECT				



**LEGEND**

	EXISTING STRUCTURE REMOVAL
	PCC BASE COURSE WIDENING 6"
	HMA SURFACE REMOVAL BUTT JOINT

FILE NAME = 100100-sht-stages.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62705	PLOT SCALE =	DRAWN - T.W.K.	REVISED -
<b>HLR</b> ILLINOIS PROFESSIONAL DESIGN FIRM 1 S. I. PE / SE CORP. 184 00089	PLOT DATE = 2/9/2012	CHECKED - S.W.M.	REVISED -
		DATE - 02/09/12	REVISED -

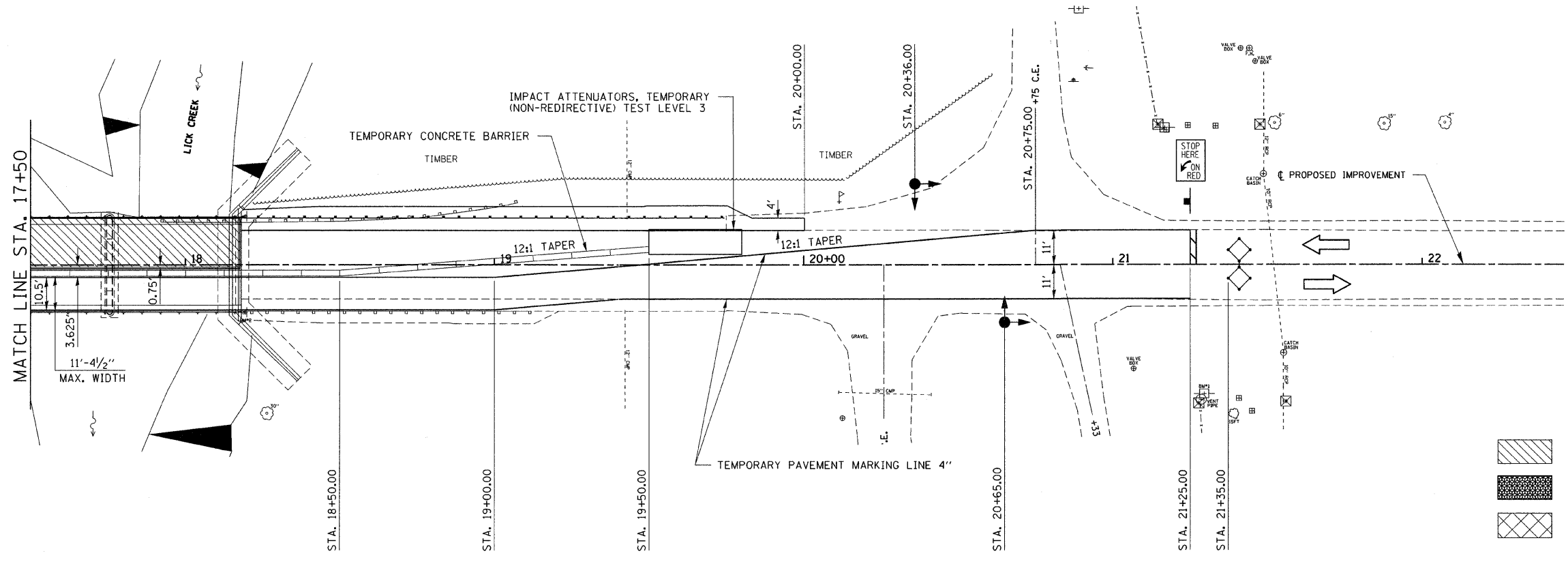
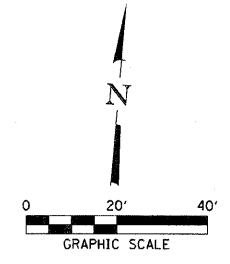
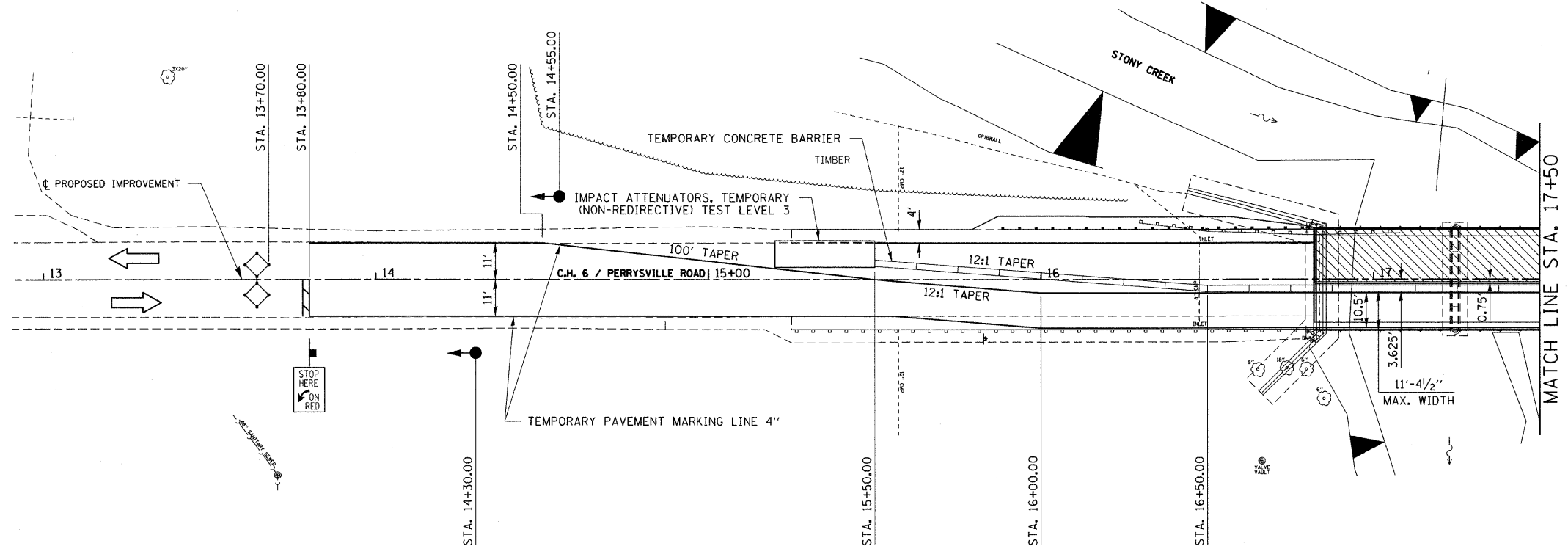
**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**STAGE 1  
C.H. 6 / PERRYSVILLE ROAD**

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

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	8
CONTRACT NO. 91449				
ILLINOIS FED. AID PROJECT				

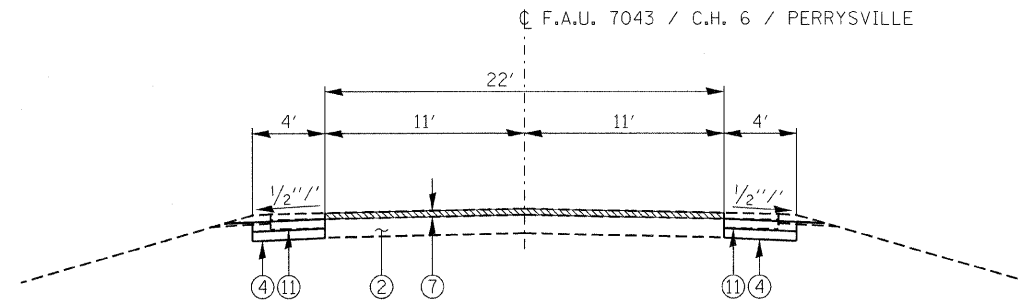




**LEGEND**

	EXISTING STRUCTURE REMOVAL
	PCC BASE COURSE WIDENING 6"
	HMA SURFACE REMOVAL BUTT JOINT

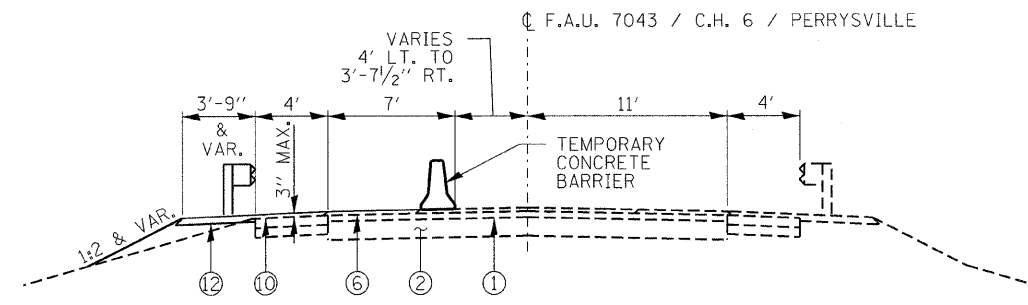
FILE NAME = 100108-sht-stages.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>STAGE 2 C.H. 6 / PERRYVILLE ROAD</b>				F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3343 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62769	PLLOT SCALE =	DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	9				
	PLLOT DATE = 2/9/2012	CHECKED - S.W.M.	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO. 91449				
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 134.003659		DATE - 02/09/12	REVISED -		ILLINOIS FED. AID PROJECT								



**PROPOSED STAGE 1 TYPICAL CROSS SECTION \***

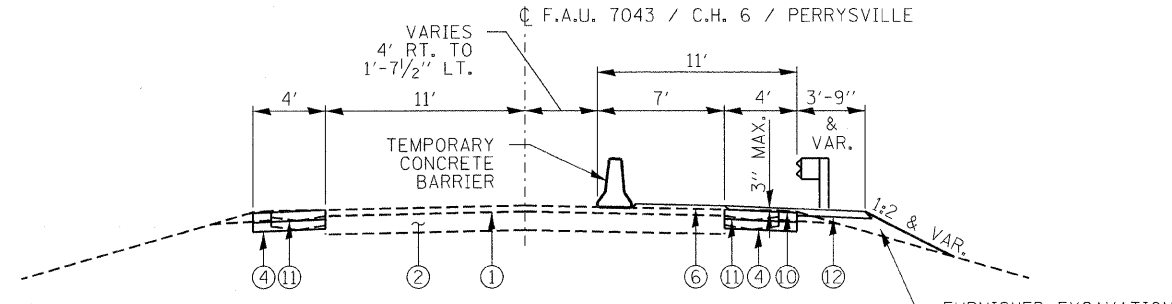
STA. 15+25 TO STA. 15+75  
STA. 19+25 TO STA. 19+75

\* - HMA SURFACE REMOVAL BUTT JOINT  
FROM STA. 15+25 TO STA. 16+10 AND  
FROM STA. 18+95 TO STA. 19+75



**PROPOSED STAGE 2 TYPICAL CROSS SECTION**

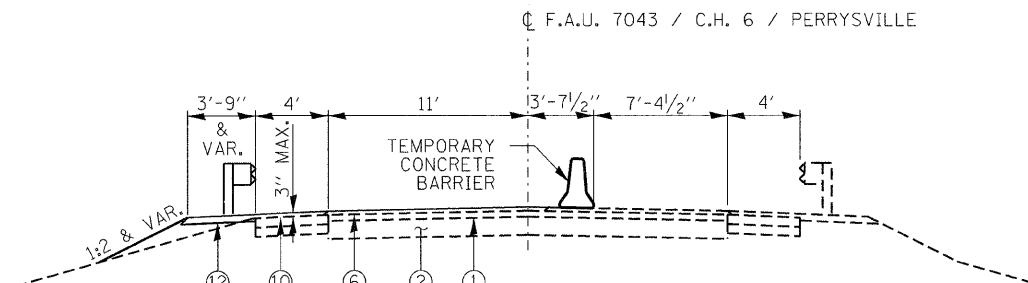
STA. 15+50 TO STA. 16+50  
STA. 18+50 TO STA. 19+50



**PROPOSED STAGE 1 TYPICAL CROSS SECTION**

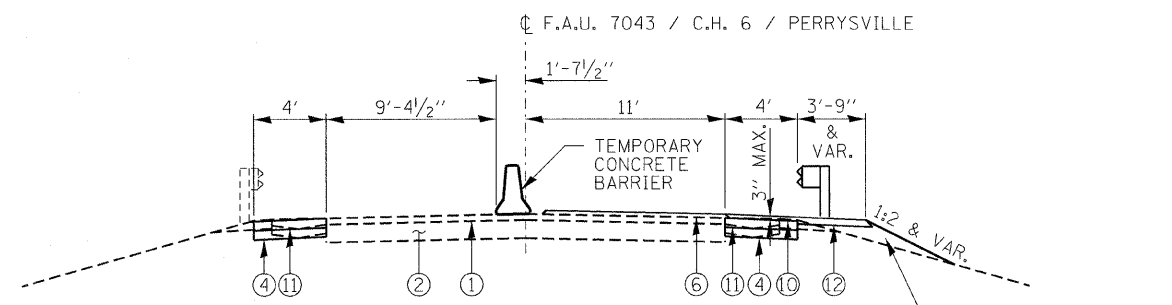
STA. 15+75 TO STA. 16+50 \*  
STA. 18+50 TO STA. 19+25 \*

\* - HMA SURFACE REMOVAL BUTT JOINT  
FROM STA. 15+25 TO STA. 16+10 AND  
FROM STA. 18+95 TO STA. 19+75



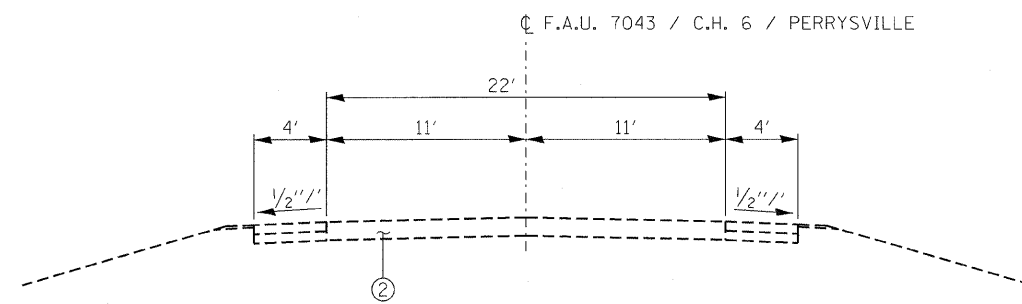
**PROPOSED STAGE 2 TYPICAL CROSS SECTION**

STA. 16+50 TO STA. 16+82.38  
STA. 18+17.63 TO STA. 18+50



**PROPOSED STAGE 1 TYPICAL CROSS SECTION**

STA. 16+50 TO STA. 16+82.38  
STA. 18+17.63 TO STA. 18+50



**PROPOSED STAGE 2 TYPICAL CROSS SECTION**

STA. 15+25 TO STA. 15+50  
STA. 19+50 TO STA. 19+75

**LEGEND**

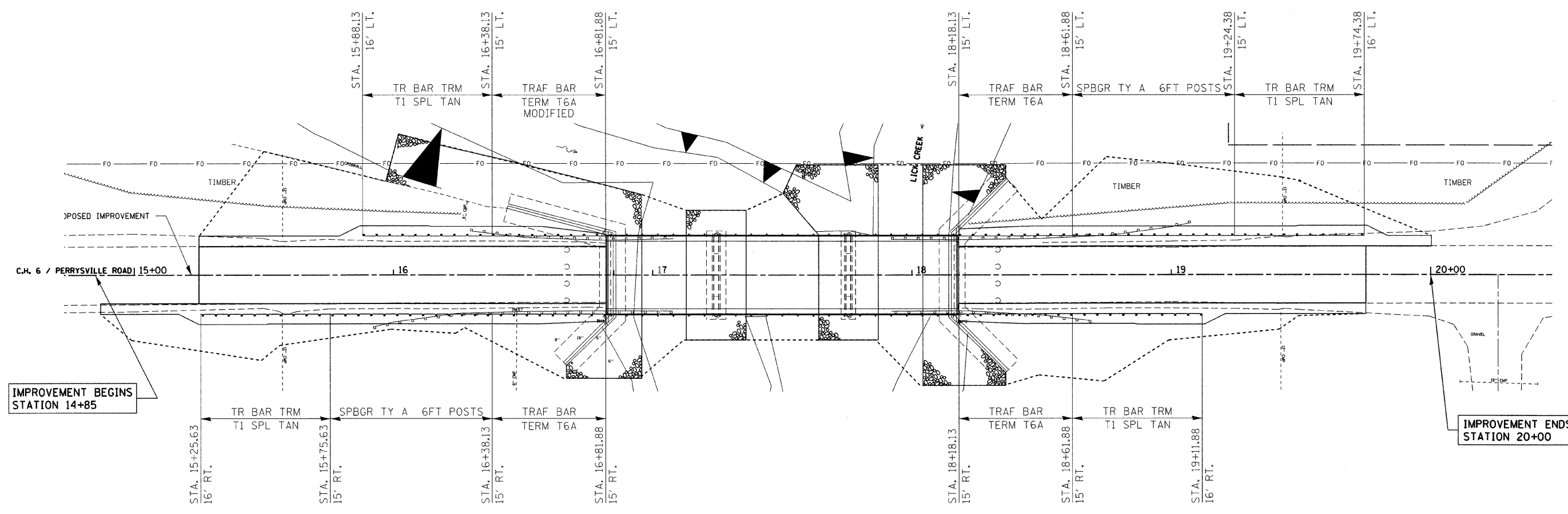
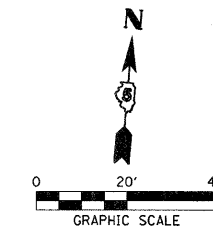
- ① EXIST HMA PAVEMENT (3")
- ② EXIST CONCRETE PAVEMENT (12" OR 16 1/2")
- ③ EXISTING GUTTER
- ④ SUBBASE GRANULAR MATERIAL, TYPE B (6")
- ⑤ HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1.5")
- ⑥ LEVELING BINDER (MACHINE METHOD), N50
- ⑦ HOT-MIX ASPHALT SURFACE REMOVAL BUTT JOINT
- ⑧ BITUMINOUS MATERIALS (PRIME COAT)
- ⑨ AGGREGATE (PRIME COAT)
- ⑩ HOT-MIX ASPHALT SHOULDERS
- ⑪ PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 6"
- ⑫ HOT-MIX ASPHALT SHOULDERS, 6"

FILE NAME = 100109-sht-stages.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3365 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62708	PLOT SCALE =	DRAWN - T.W.K.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 2/9/2012	CHECKED - S.W.M.	REVISED -
		DATE - 02/09/12	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

STAGE CONSTRUCTION TYPICAL SECTIONS C.H. 6 / PERRYSVILLE ROAD			
SCALE:	SHEET NO.	OF SHEETS	STA. TO STA.

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	10
CONTRACT NO. 91449				
ILLINOIS FED. AID PROJECT				



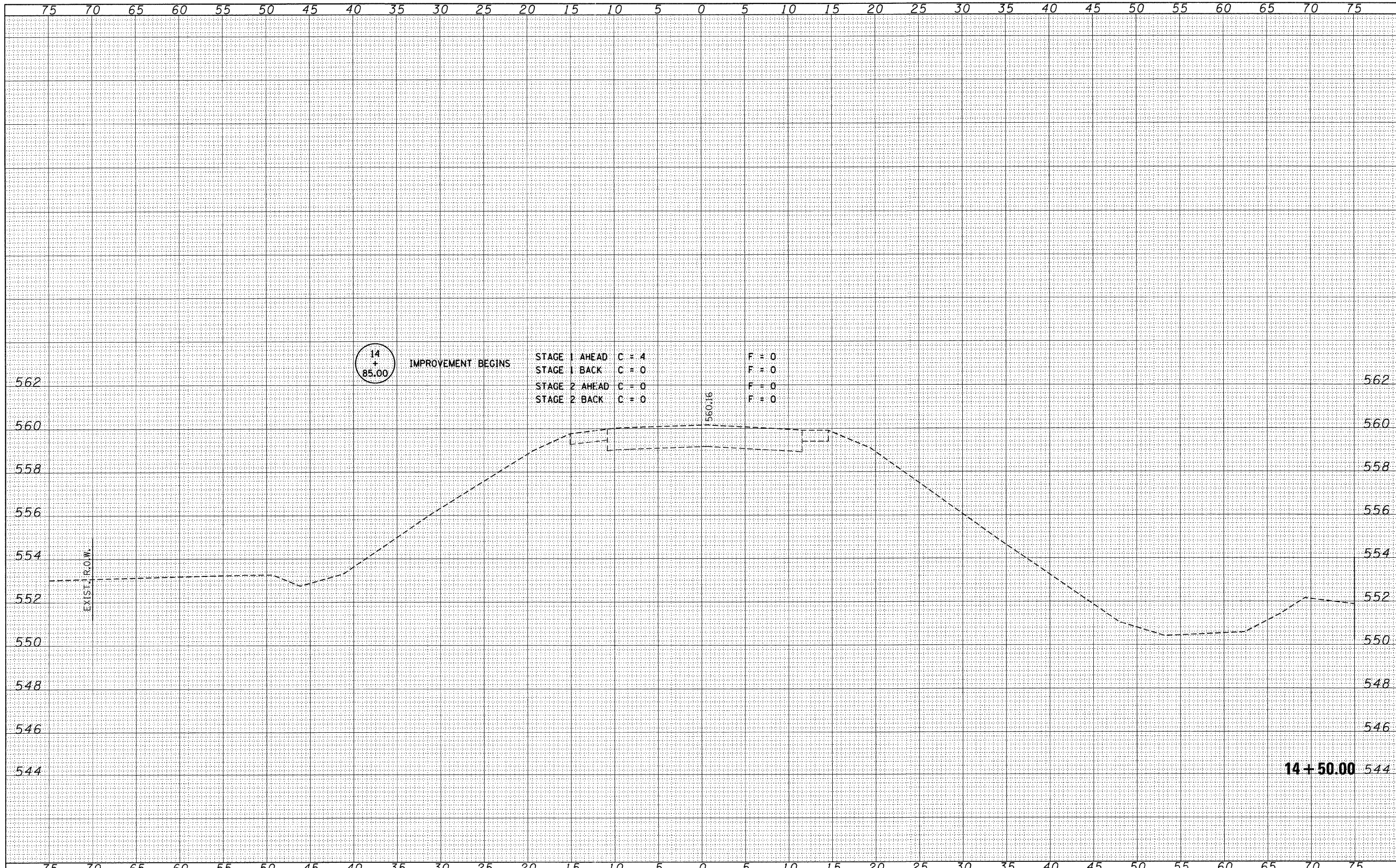
IMPROVEMENT BEGINS STATION 14+85

IMPROVEMENT ENDS STATION 20+00

FILE NAME = 100108-sht-guardrail.dgn	USER NAME =	DESIGNED - S.W.M.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>GUARDRAIL LAYOUT C.H. 6 / PERRYVILLE ROAD</b>		F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3650 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	11		
<b>HLR</b> ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000859	PLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -		SCALE: SHEET NO. OF SHEETS STA. TO STA.		CONTRACT NO. 91449		ILLINOIS FED. AID PROJECT		
		DATE - 02/09/12	REVISED -								

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

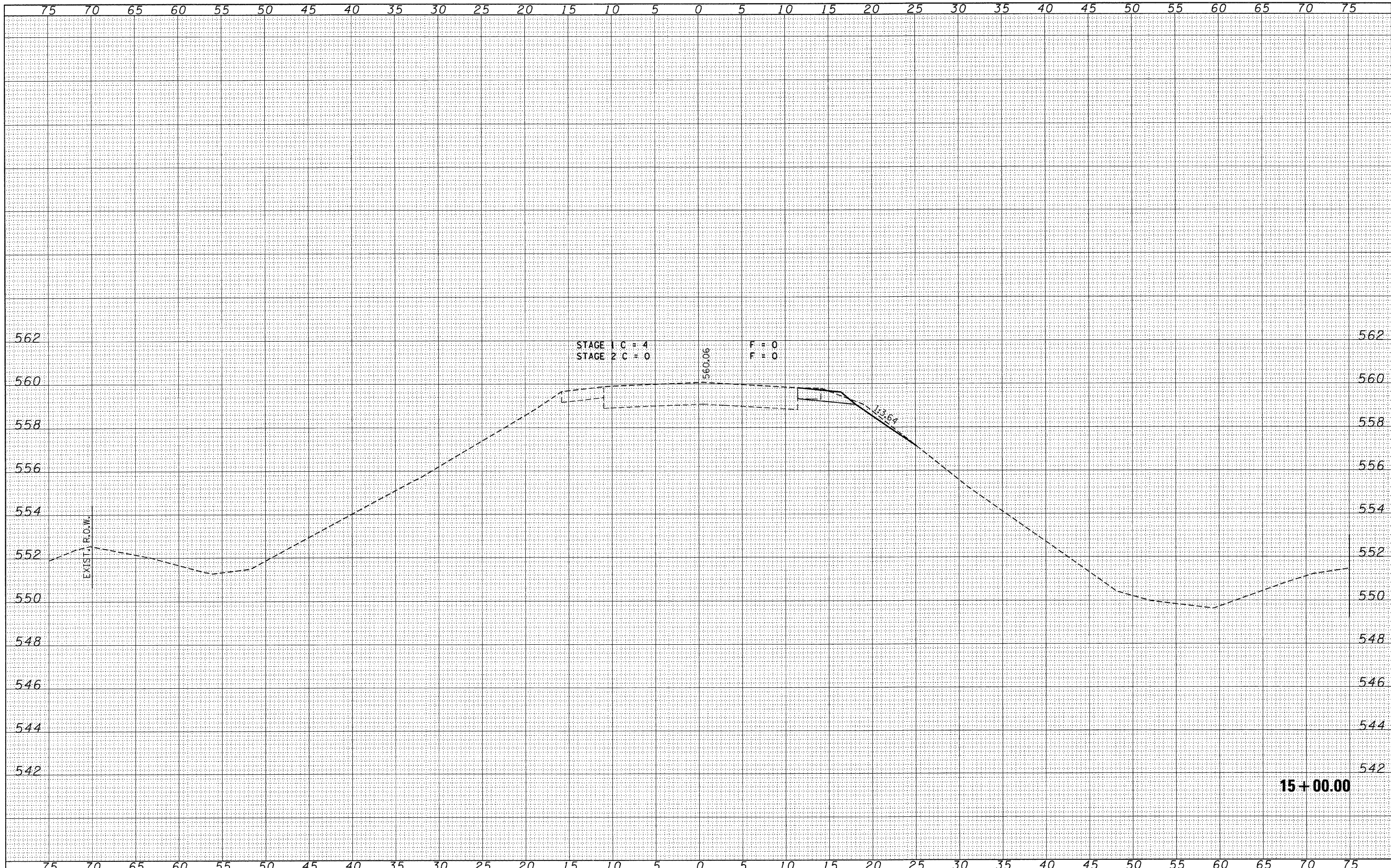
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SURVEYED	BY
TEMPLATE	
AREAS CHECKED	
NOTE BOOK	
NO.	



FILE NAME = 100103-sh1-sss.dgn	USER NAME =	DESIGNED - S.W.M.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>CROSS SECTIONS</b>				F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793 ILLINOIS PROFESSIONAL DESIGN FIRM 131 PF / 96 CORP. 14-000009	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		<b>C.H. 6 / PERRYVILLE ROAD</b>				7043	09-00171-00-BR	VERMILION	66	12
	PLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -		SCALE: H5:V2				SHEET NO. OF SHEETS		STA. 14+50.00 TO STA. 14+50.00		
		DATE - 02/09/12	REVISED -		ILLINOIS FED. AID PROJECT				CONTRACT NO. 91449				

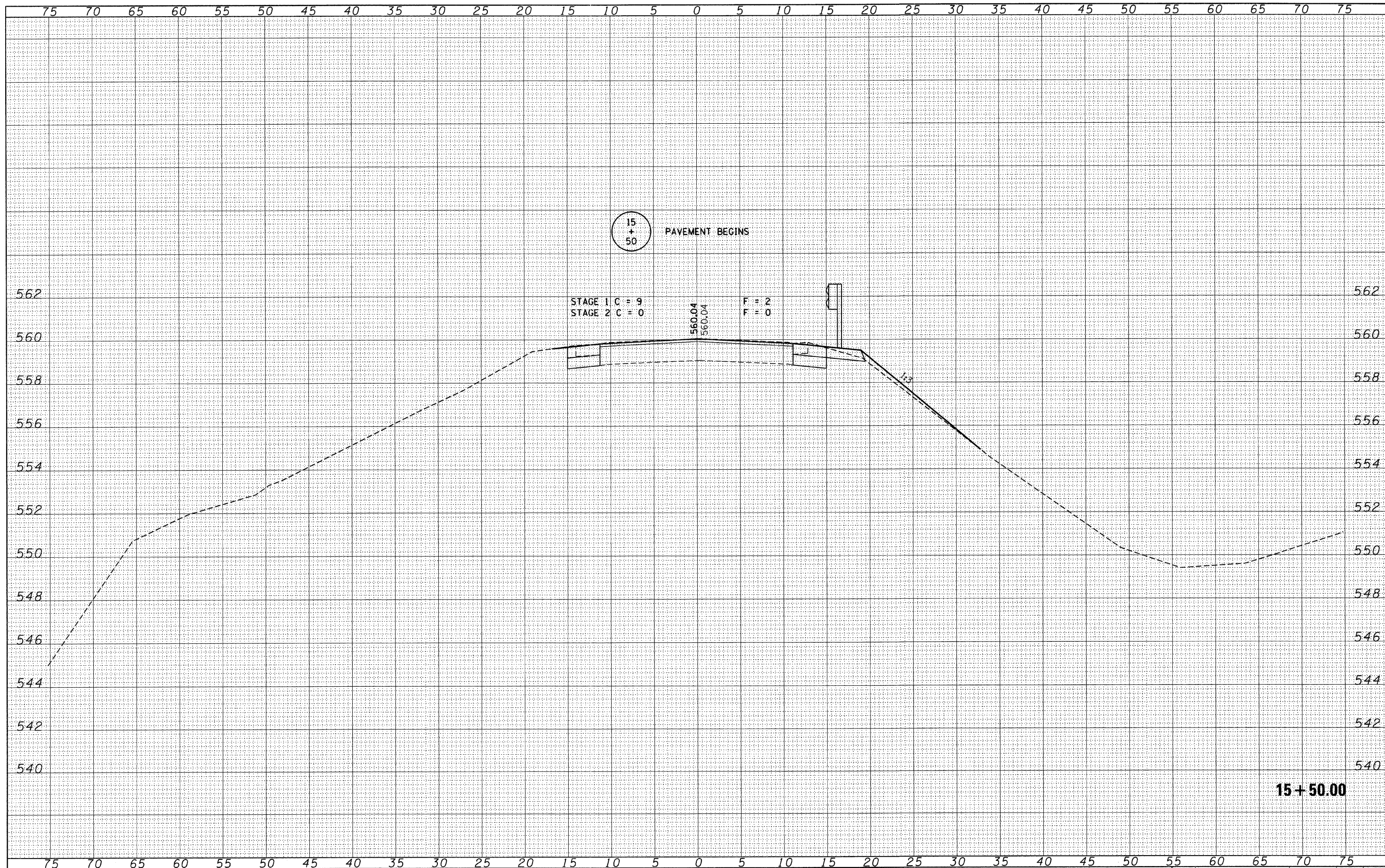
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BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
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AREAS CHECKED	
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AREAS CHECKED	

DATE	
BY	
DESIGNED	
DRAWN	
CHECKED	
DATE	
REVISIONS	
NO.	
AREAS CHECKED	
AREAS CHECKED	
AREAS CHECKED	
AREAS CHECKED	



15+00.00

FILE NAME = 100100-sh1-sxs.dgn	USER NAME =	DESIGNED - S.W.M.	REVISED -	STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT				CROSS SECTIONS C.H. 6 / PERRYSVILLE ROAD				F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3088 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62708 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000859	PLOT SCALE =	DRAWN - T.W.K.	REVISED -					SCALE: H5:V2	SHEET NO.	OF	SHEETS	STA. 15+00.00	TO STA. 15+00.00	7043	09-00171-00-BR	VERMILION
	PLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -									CONTRACT NO. 91449				
		DATE - 02/09/12	REVISED -									ILLINOIS FED. AID PROJECT				



DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

DATE	
BY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	

FILE NAME = 100100-sh1-xxx.dgn	USER NAME =
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3030 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62791 ILLINOIS PROFESSIONAL DESIGN FIRM 1.8 / PE / SE CORP. 164.000989	DESIGNED - S.W.M.
	DRAWN - T.W.K.
	CHECKED - L.F.S.
	DATE - 02/09/12
	REVISIONS
	REVISIONS
	REVISIONS
	REVISIONS

DESIGNED - S.W.M.	REVISIONS
DRAWN - T.W.K.	REVISIONS
CHECKED - L.F.S.	REVISIONS
DATE - 02/09/12	REVISIONS

**STATE OF ILLINOIS**  
**VERMILION COUNTY HIGHWAY DEPARTMENT**

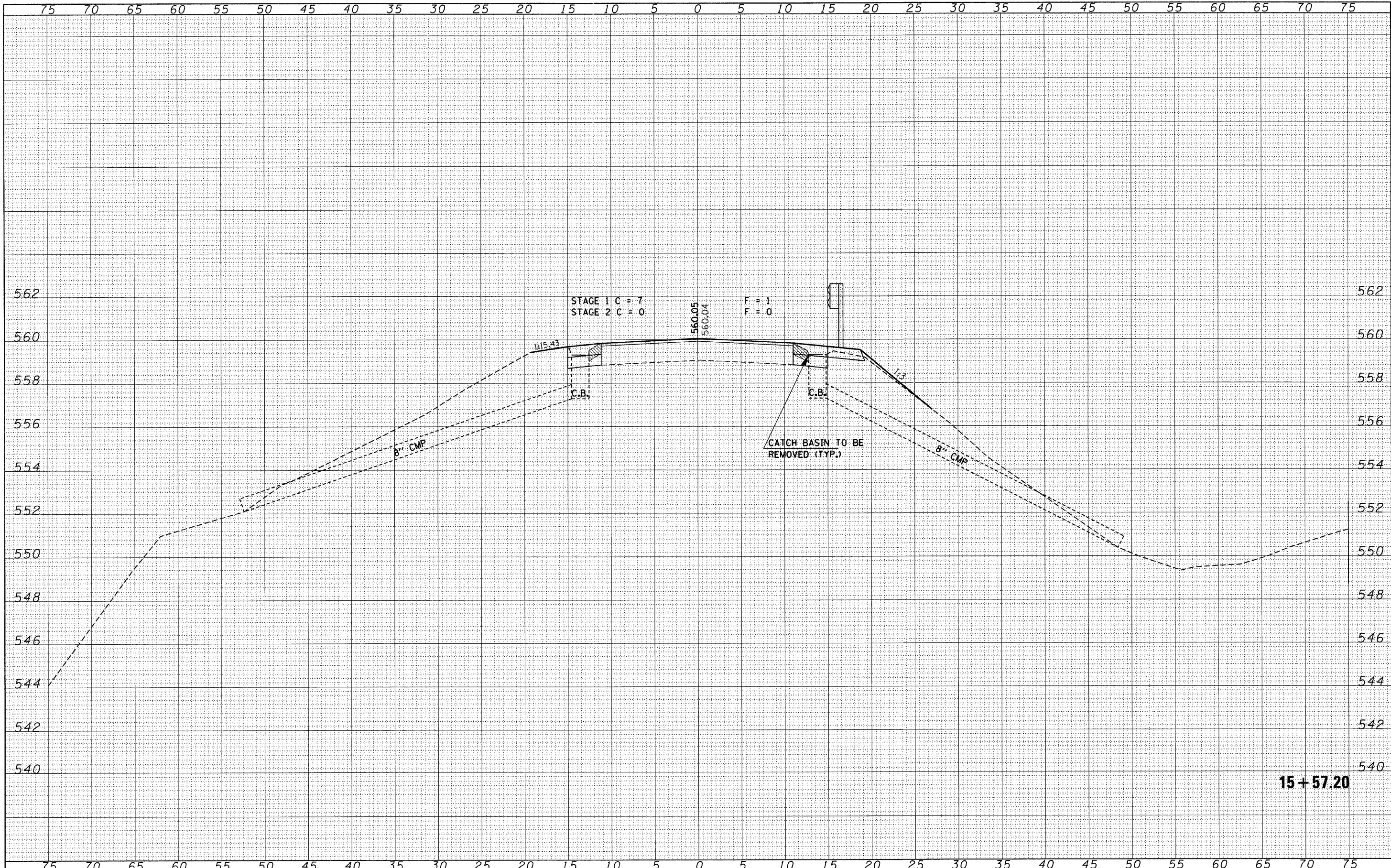
<b>CROSS SECTIONS</b>	
<b>C.H. 6 / PERRYSVILLE ROAD</b>	
SCALE: H5:V2	SHEET NO. OF SHEETS
STA. 15+50.00	TO STA. 15+50.00

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	14
				CONTRACT NO. 91449
ILLINOIS FED. AID PROJECT				

**15 + 50.00**

DATE	
BY	
REVISIONS	
DESIGNED	
DRAWN	
CHECKED	
DATE	
FILE NAME	
USER NAME	
DESIGNED	
DRAWN	
CHECKED	
DATE	

DATE	
BY	
REVISIONS	
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CHECKED	
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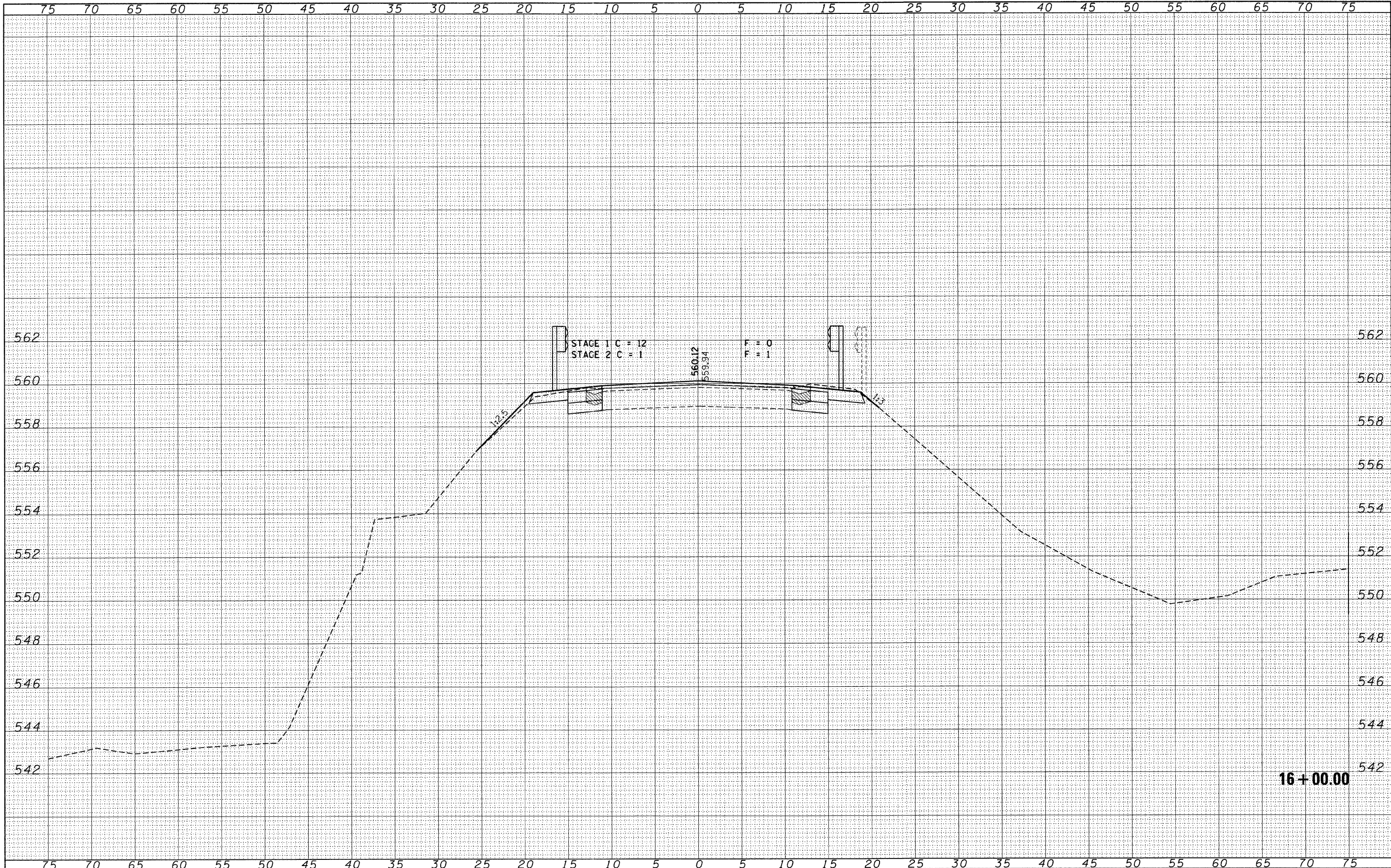


15+57.20

FILE NAME = 100108-ah1-axs.dgn HAMPTON, LENZINI AND RENWICK, INC. 3088 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62707 ILLINOIS PROFESSIONAL DESIGN FIRM I.P. / P.E. / S.E. CORP. 184-000859	USER NAME = PLOT SCALE = PLOT DATE = 2/9/2012	DESIGNED - S.W.M. DRAWN - T.W.K. CHECKED - L.F.S. DATE - 02/09/12	REVISED - REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>				<b>CROSS SECTIONS</b> <b>C.H. 6 / PERRYVILLE ROAD</b>				F.A.U. 7043 SECTION 09-00171-00-BR COUNTY VERMILION CONTRACT NO. 91449	TOTAL SHEETS 66 SHEET NO. 15
					SCALE: H5:V2	SHEET NO. OF SHEETS STA. 15+57.20 TO STA. 15+57.20				[ILLINOIS] FED. AID PROJECT			

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
REVISED	
TEMPLATE	
AREAS	
CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
REVISED	
TEMPLATE	
AREAS	
CHECKED	



16+00.00

FILE NAME = 100100-sh1-sxs.dgn  
 HAMPTON, LENZINI AND RENWICK, INC.  
 3088 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62709  
 ILLINOIS PROFESSIONAL DESIGN FIRM  
 LB / PF / SE CORP. 194.000399

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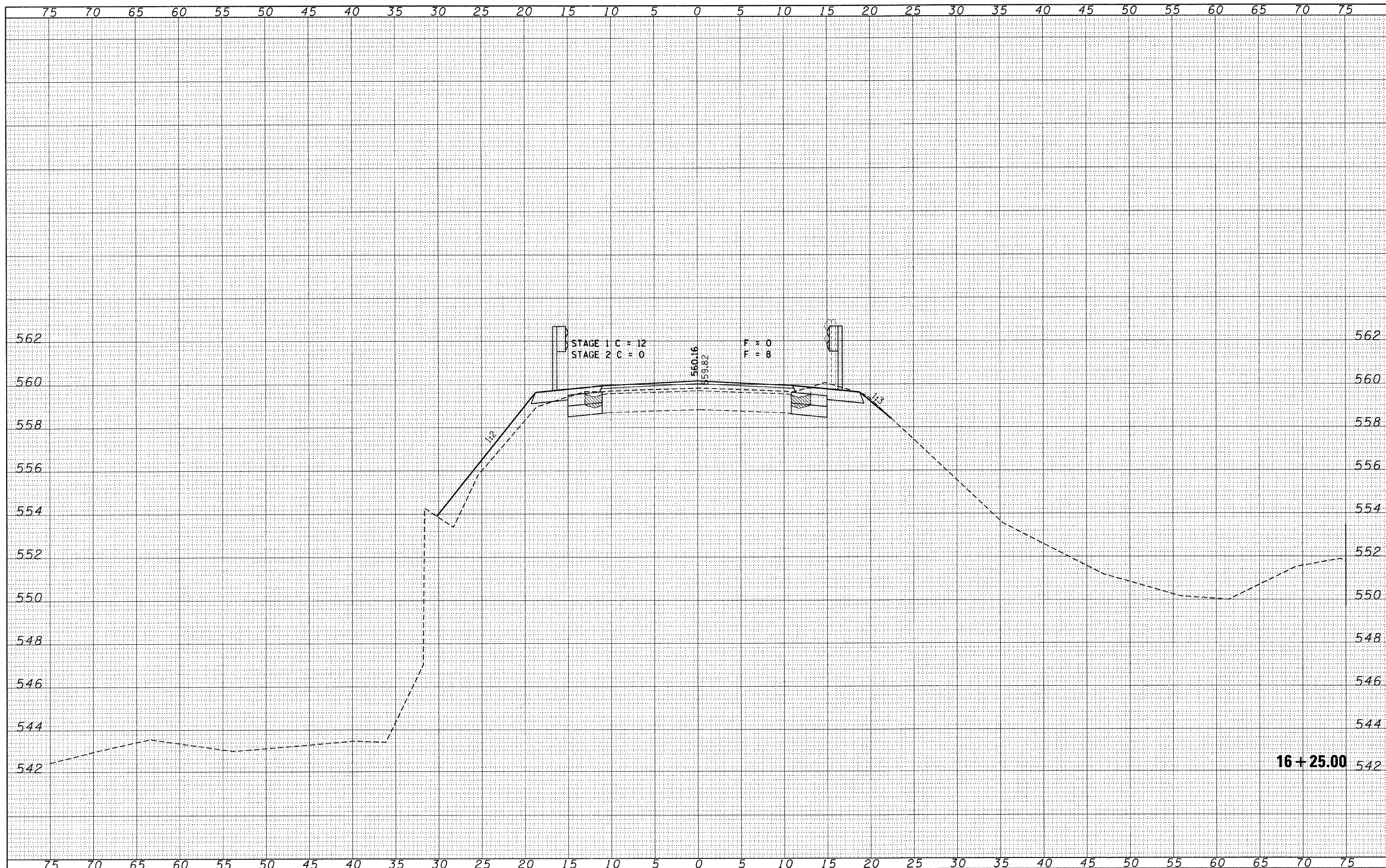
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DRAWN -	T.W.K.	REVISED -	
CHECKED -	L.F.S.	REVISED -	
DATE -	02/09/12	REVISED -	

STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

CROSS SECTIONS  
 C.H. 6 / PERRYSVILLE ROAD  
 SCALE: H5:V2  
 SHEET NO. OF SHEETS STA. 16+00.00 TO STA. 16+00.00

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	18
CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	





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

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

FILE NAME = 100120-sh1-ssx.dgn  
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 DRAWN - T.W.K.  
 CHECKED - L.F.S.  
 DATE - 02/09/12  
 PLOT SCALE =  
 PLOT DATE = 2/9/2012

DESIGNED - S.W.M.  
 DRAWN - T.W.K.  
 CHECKED - L.F.S.  
 DATE - 02/09/12

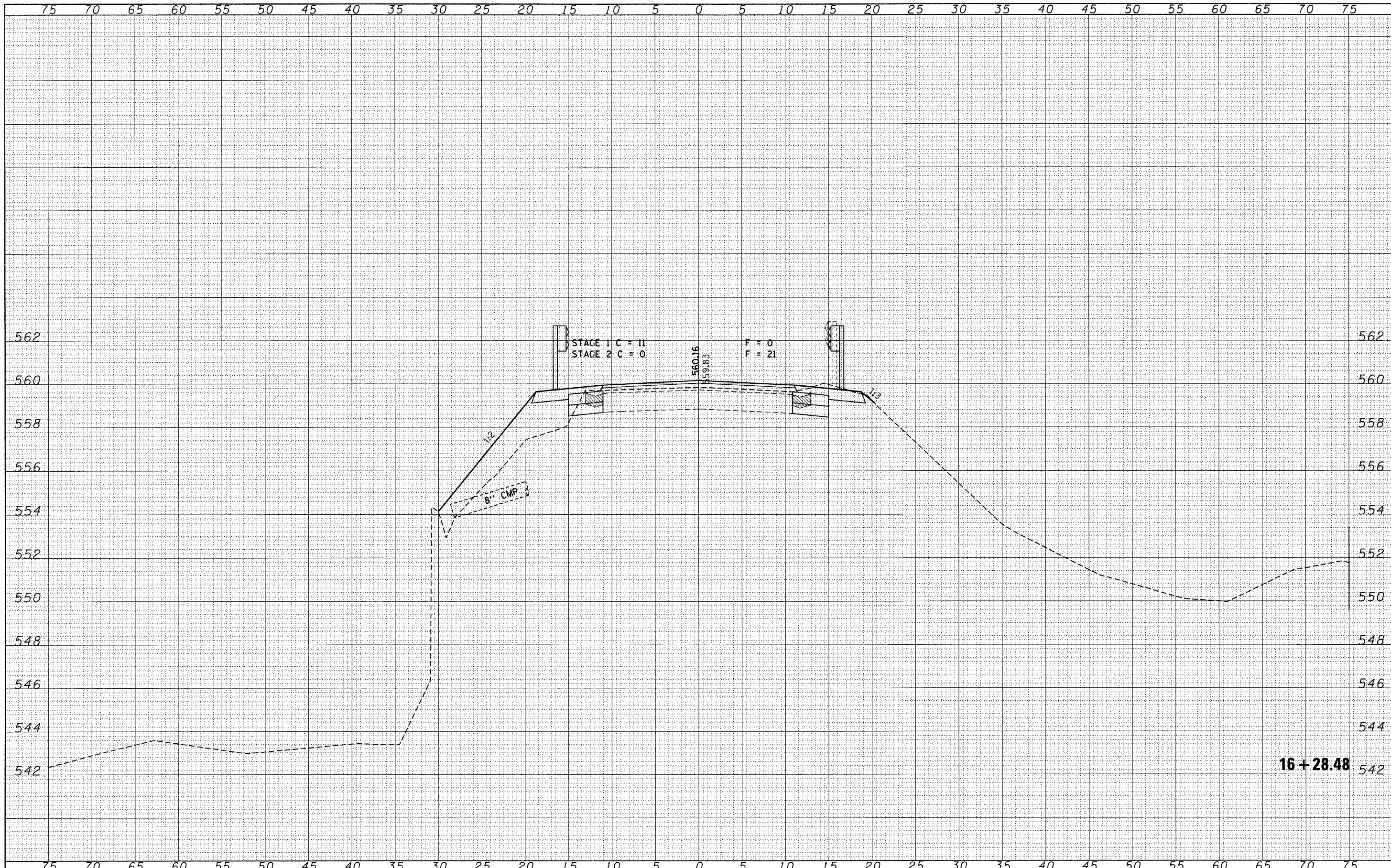
STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

CROSS SECTIONS  
 C.H. 6 / PERRYVILLE ROAD  
 SCALE: H5xV2  
 SHEET NO. OF SHEETS STA. 16+25.00 TO STA. 16+25.00

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	17
CONTRACT NO. 91449				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
NOTE BOOK NO.	
DESIGNED	
DRAWN	
CHECKED	
DATE	

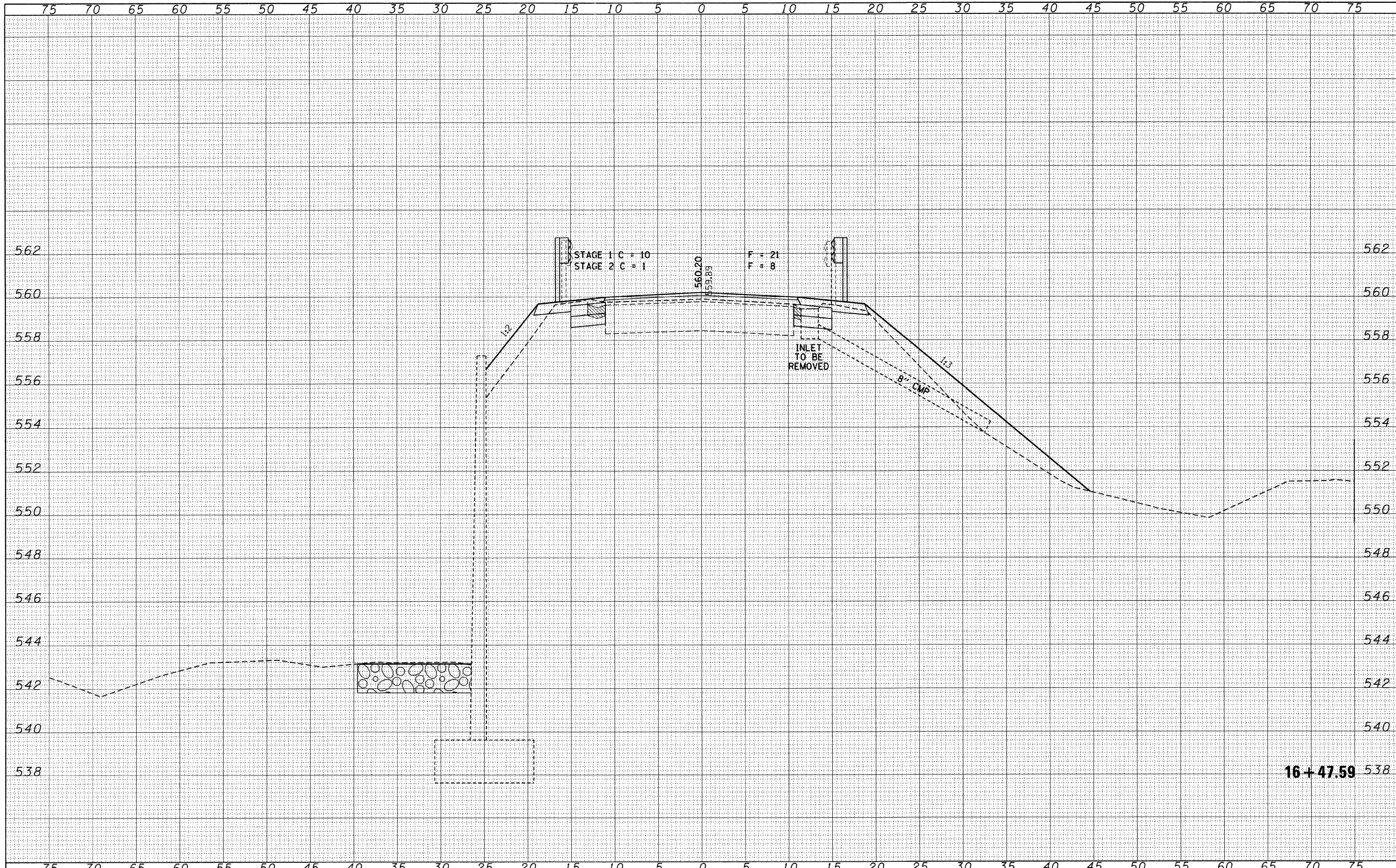
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BY	
ORIGINAL SURVEY	
NOTE BOOK NO.	
DESIGNED	
DRAWN	
CHECKED	
DATE	



FILE NAME = 100108-shr-axs.dgn	USER NAME =	DESIGNED - S.W.M.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>CROSS SECTIONS</b> <b>C.H. 6 / PERRYSVILLE ROAD</b>				F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000399	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	18				
PLOT DATE = 2/9/2012		CHECKED - L.F.S.	REVISED -		CONTRACT NO. 91449								
		DATE - 02/09/12	REVISED -		ILLINOIS FED. AID PROJECT								
				SCALE: H5:V2	SHEET NO.	OF	SHEETS	STA. 16+28.48	TO STA. 16+28.48				

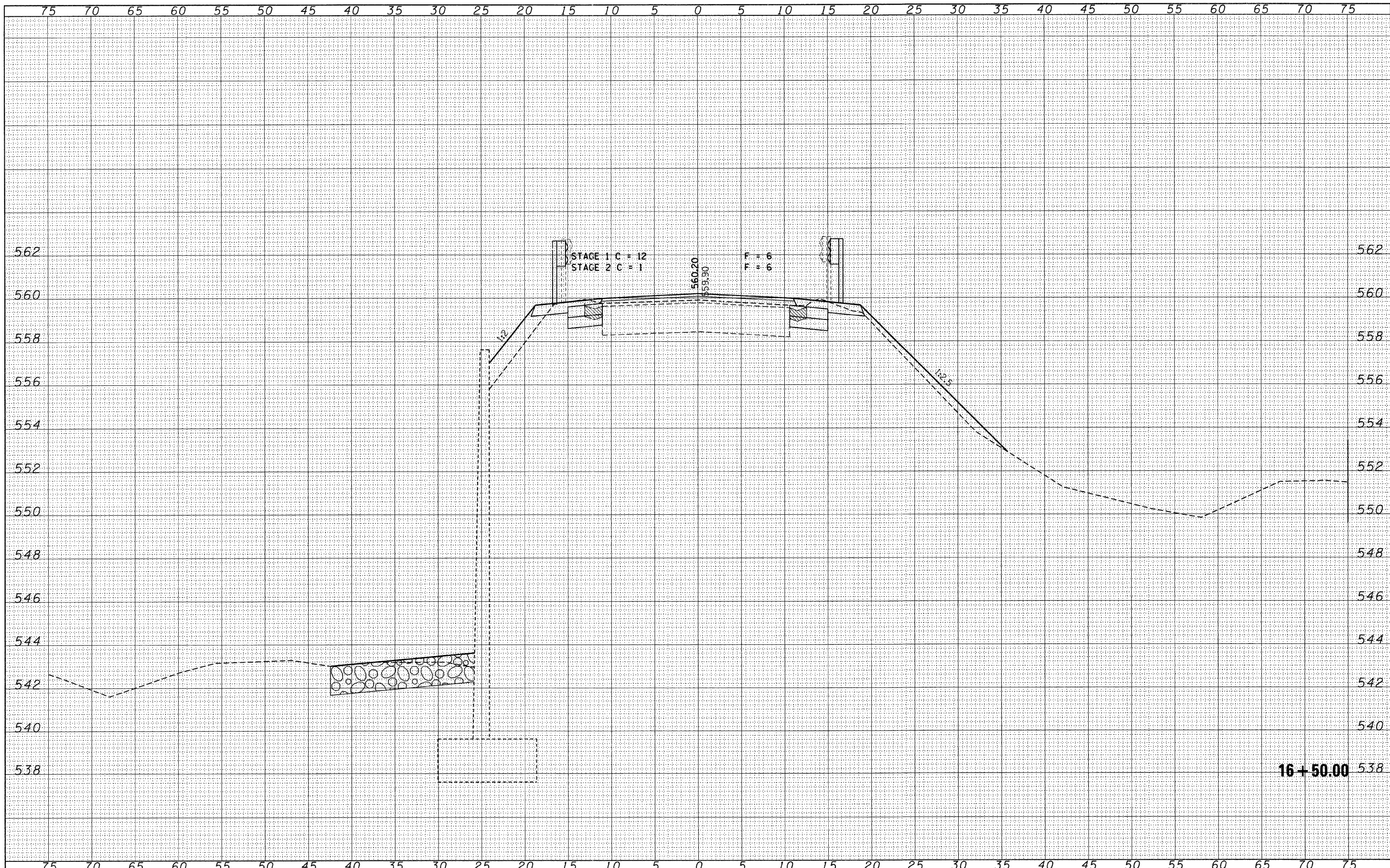
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DATE \_\_\_\_\_  
 BY \_\_\_\_\_  
 ORIGINAL SURVEY \_\_\_\_\_  
 SURVEY \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 TEMPLATE \_\_\_\_\_  
 AREAS CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_



16+47.59 538

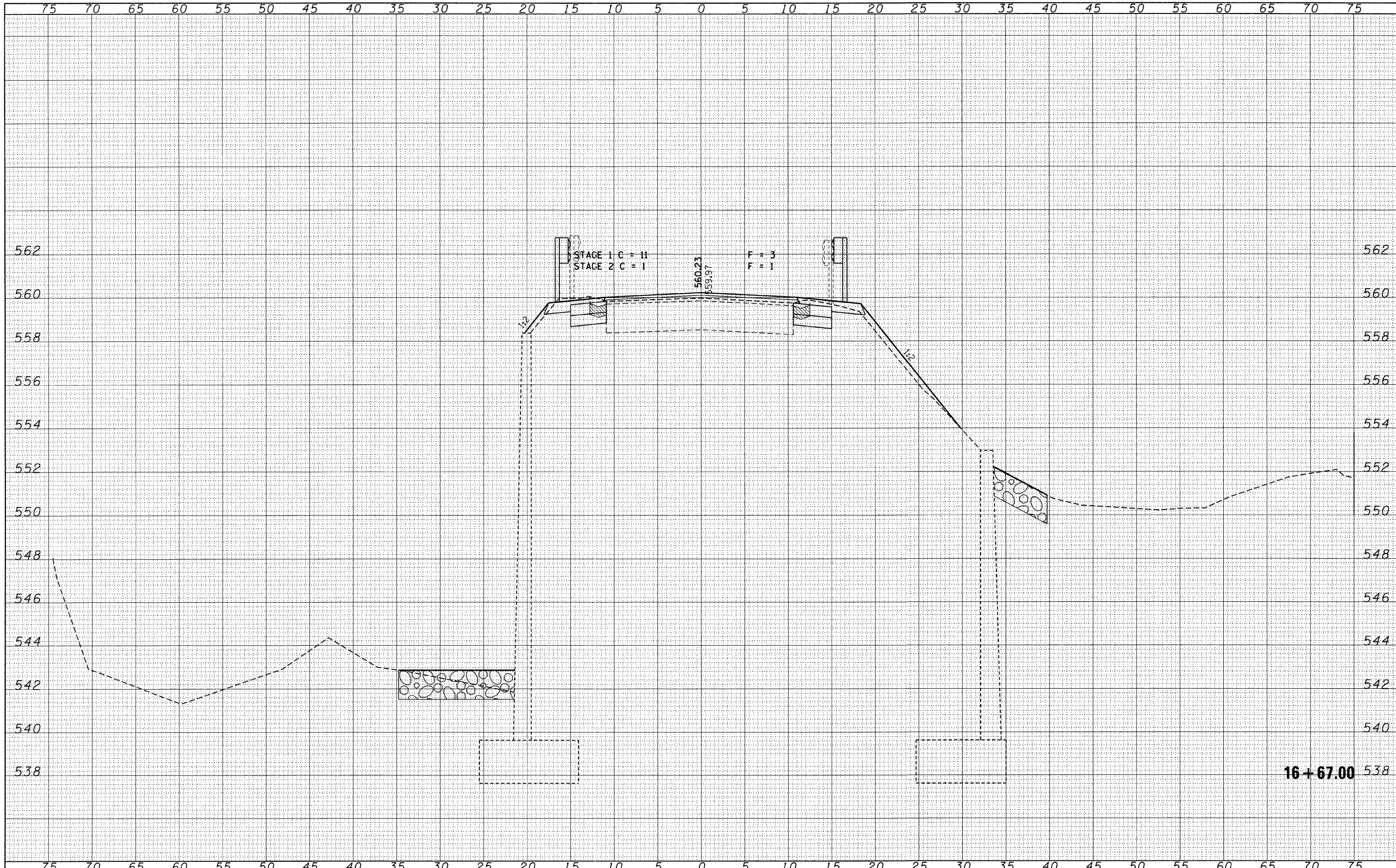
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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LSI / P / SE CORP. 14-000000	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	19	CONTRACT NO. 91449	ILLINOIS FED. AID PROJECT
	PLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -		SCALE: H5:V2	SHEET NO. OF SHEETS	STA. 16+47.59 TO STA. 16+47.59				
		DATE - 02/09/12	REVISED -								



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NOTE BOOK	
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FILE NAME = 100108-ah1-axo.dgn	USER NAME =	DESIGNED - S.W.M.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>CROSS SECTIONS C.H. 6 / PERRYSVILLE ROAD</b>			F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
<b>HLR</b> HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000999	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		SCALE: H5:V2	SHEET NO.	OF	SHEETS	STA. 16+50.00	TO STA. 16+50.00	7043	09-00171-00-BR	VERMILION	66	20
	PLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -												
		DATE - 02/09/12	REVISED -												
											CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	



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NOTE BOOK	
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AREAS CHECKED	
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FILE NAME = 100100-sh1-sss.dgn  
 HAMPTON, LENZINI AND RENWICK, INC.  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 ILLINOIS PROFESSIONAL DESIGN FIRM  
 LB / PE / BE / CDRP 186.000899

USER NAME =  
 PLOT SCALE =  
 PLOT DATE = 2/9/2012

DESIGNED - S.W.M.  
 DRAWN - T.W.K.  
 CHECKED - L.F.S.  
 DATE - 02/09/12

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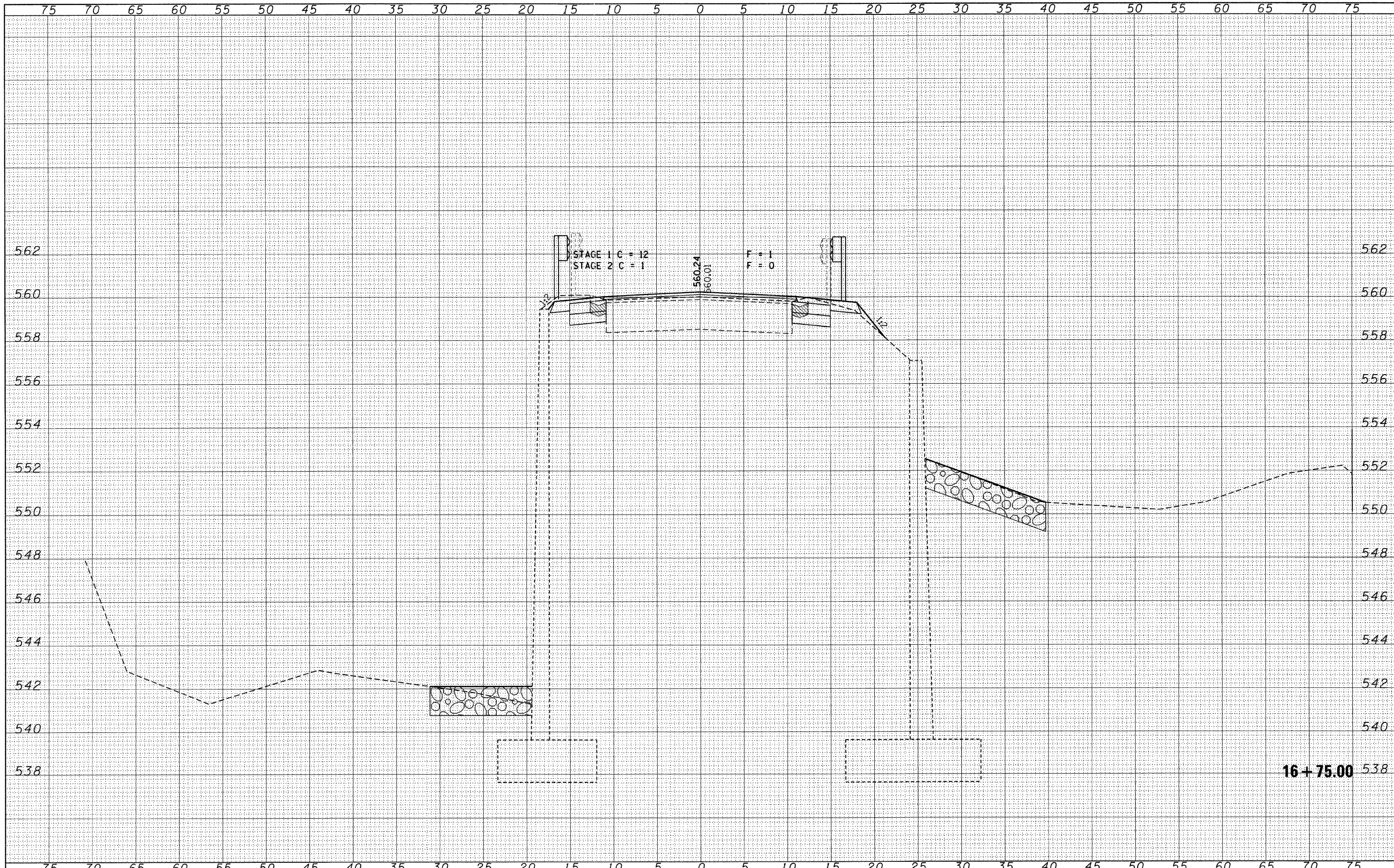
STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

CROSS SECTIONS  
 C.H. 6 / PERRYVILLE ROAD  
 SCALE: H5:V2  
 SHEET NO. OF SHEETS STA. 16+67.00 TO STA. 16+67.00

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	21
CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	

DATE	
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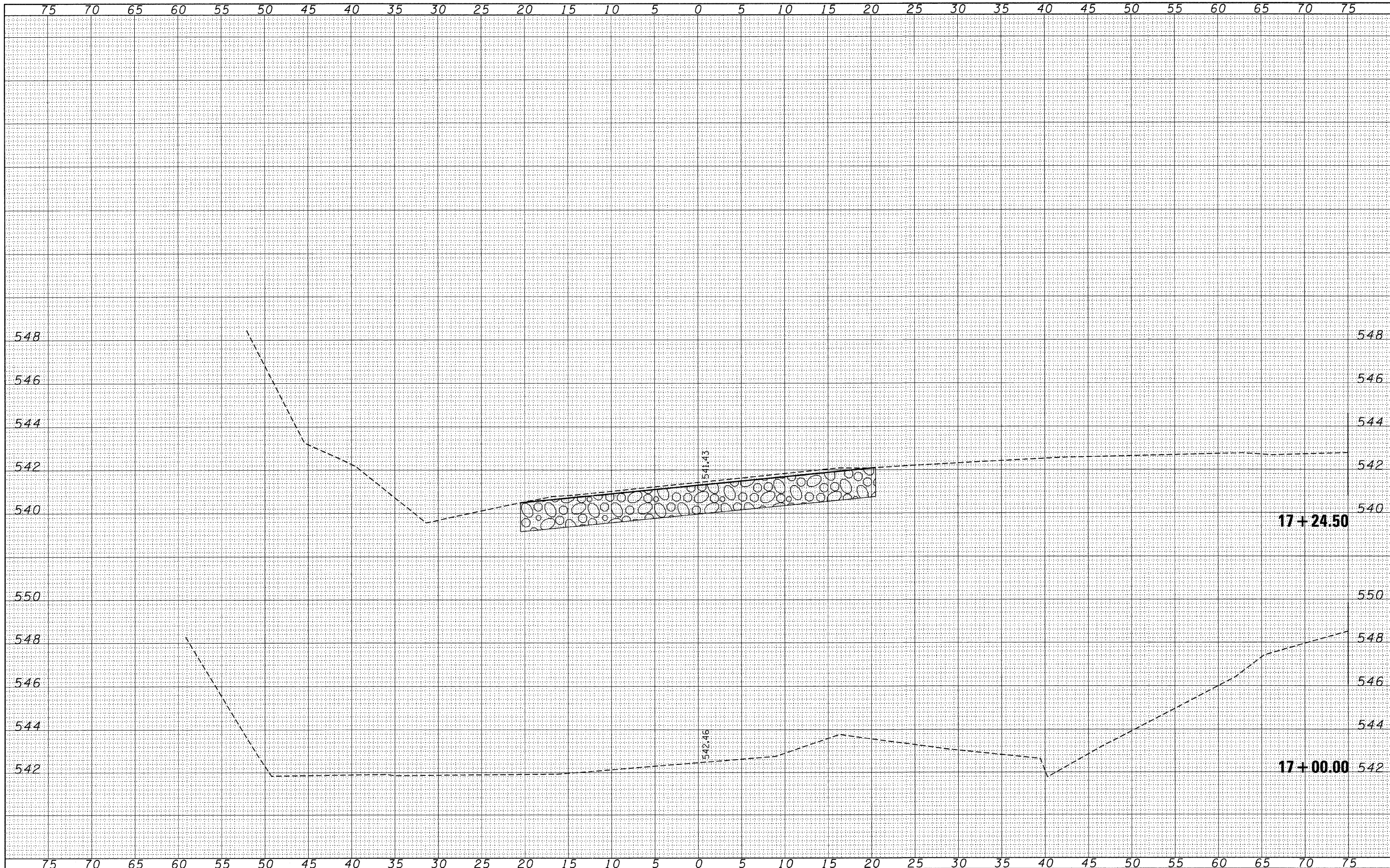


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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P.C. / BE CORP. 184-000989	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		SCALE: H5xV2	SHEET NO.	OF SHEETS	STA. 16+75.00	TO STA. 16+75.00	ILLINOIS FED. AID PROJECT	66	22
	PLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -							CONTRACT NO. 91449		
		DATE - 02/09/12	REVISED -									



FINAL SURVEY	DATE
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TEMPLATE AREAS CHECKED	
AREAS CHECKED	

ORIGINAL SURVEY	DATE
REVISED SURVEY	BY
NOTE BOOK	
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TEMPLATE AREAS CHECKED	
AREAS CHECKED	



FILE NAME = 100100-sh1-sxs.dgn  
 HAMPTON, LENZINI AND RENWICK, INC.  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 ILLINOIS PROFESSIONAL DESIGN FIRM  
 LB / PE / SE CORP. 194.000369

USER NAME =  
 PLOT SCALE =  
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 DRAWN - T.W.K.  
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 DATE - 02/09/12

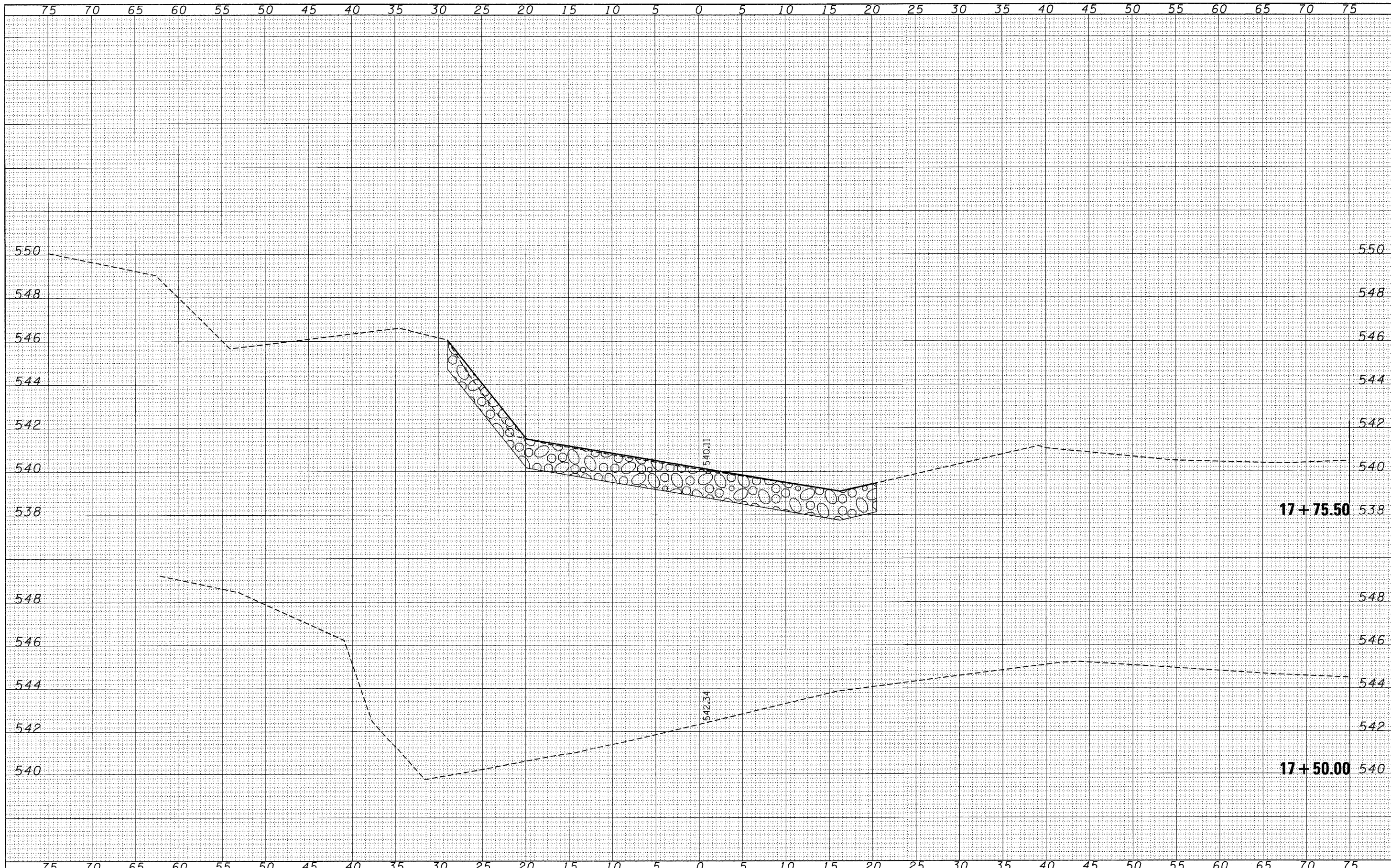
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STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

CROSS SECTIONS  
 C.H. 6 / PERRYSVILLE ROAD  
 SCALE: H5:V2  
 SHEET NO. OF SHEETS STA. 17+00.00 TO STA. 17+24.50

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	24
CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	





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AREAS CHECKED	
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FILE NAME = 100106-shr-sss.dgn  
 HAMPTON, LENZINI AND RENWICK, INC.  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62719  
 ILLINOIS PROFESSIONAL DESIGN FIRM  
 18 / PE / SE CORP 184-000889

USER NAME =  
 PLOT SCALE =  
 PLOT DATE = 2/9/2012

DESIGNED - S.W.M.  
 DRAWN - T.W.K.  
 CHECKED - L.F.S.  
 DATE - 02/09/12

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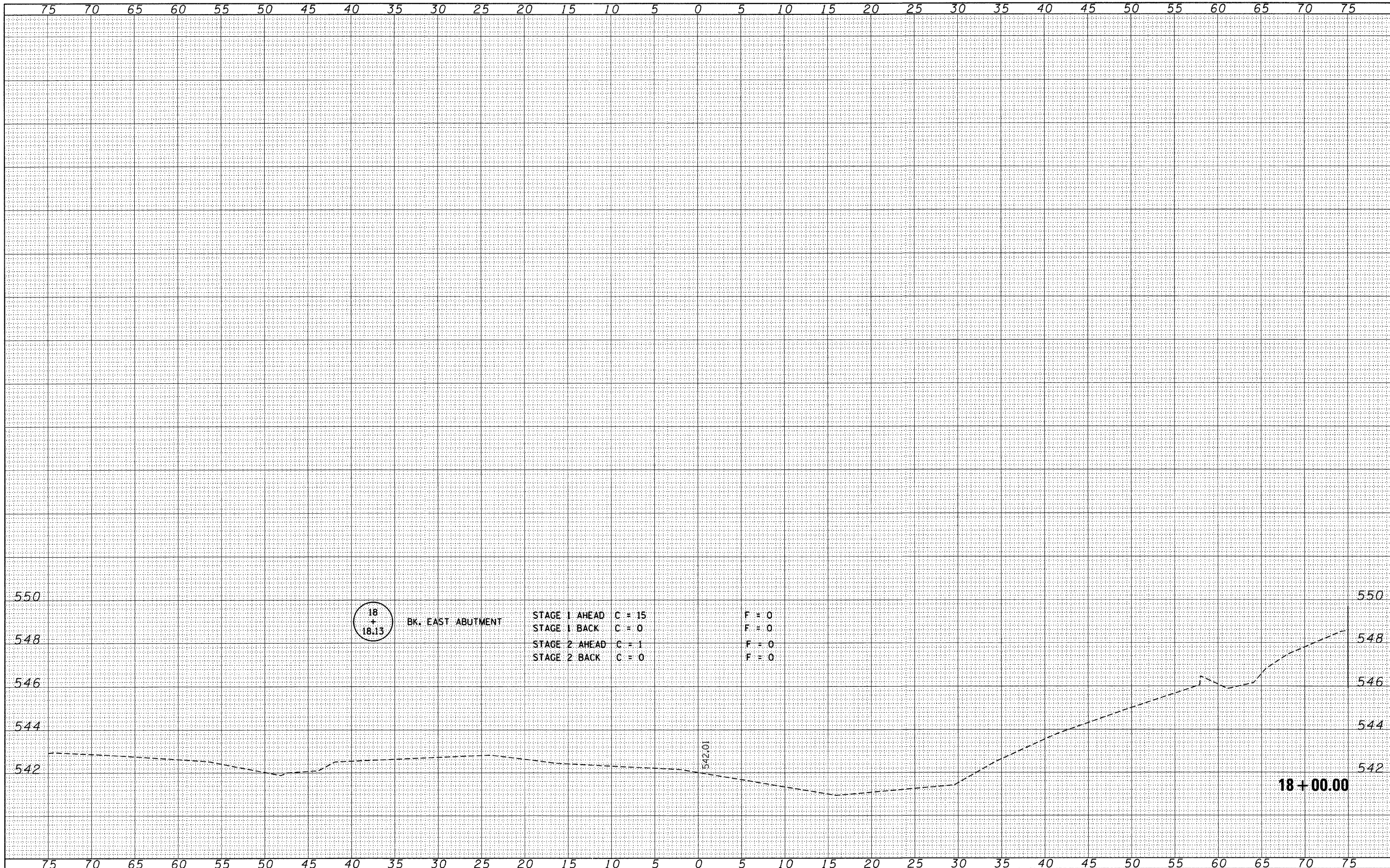
STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

CROSS SECTIONS  
 C.H. 6 / PERRYSVILLE ROAD  
 SCALE: H5:V2  
 SHEET NO. OF SHEETS STA. 17+50.00 TO STA. 17+75.50

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	25
CONTRACT NO. 91449				
ILLINOIS FED. AID PROJECT				

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FILE NAME = 100100-sh1-svs.dgn  
 HAMPTON, LENZINI AND RENWICK, INC.  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62709  
 ILLINOIS PROFESSIONAL DESIGN FIRM  
 LB / PE / SE CORP 184-00089

USER NAME =  
 PLOT SCALE =  
 PLOT DATE = 2/9/2012

DESIGNED - S.W.M.  
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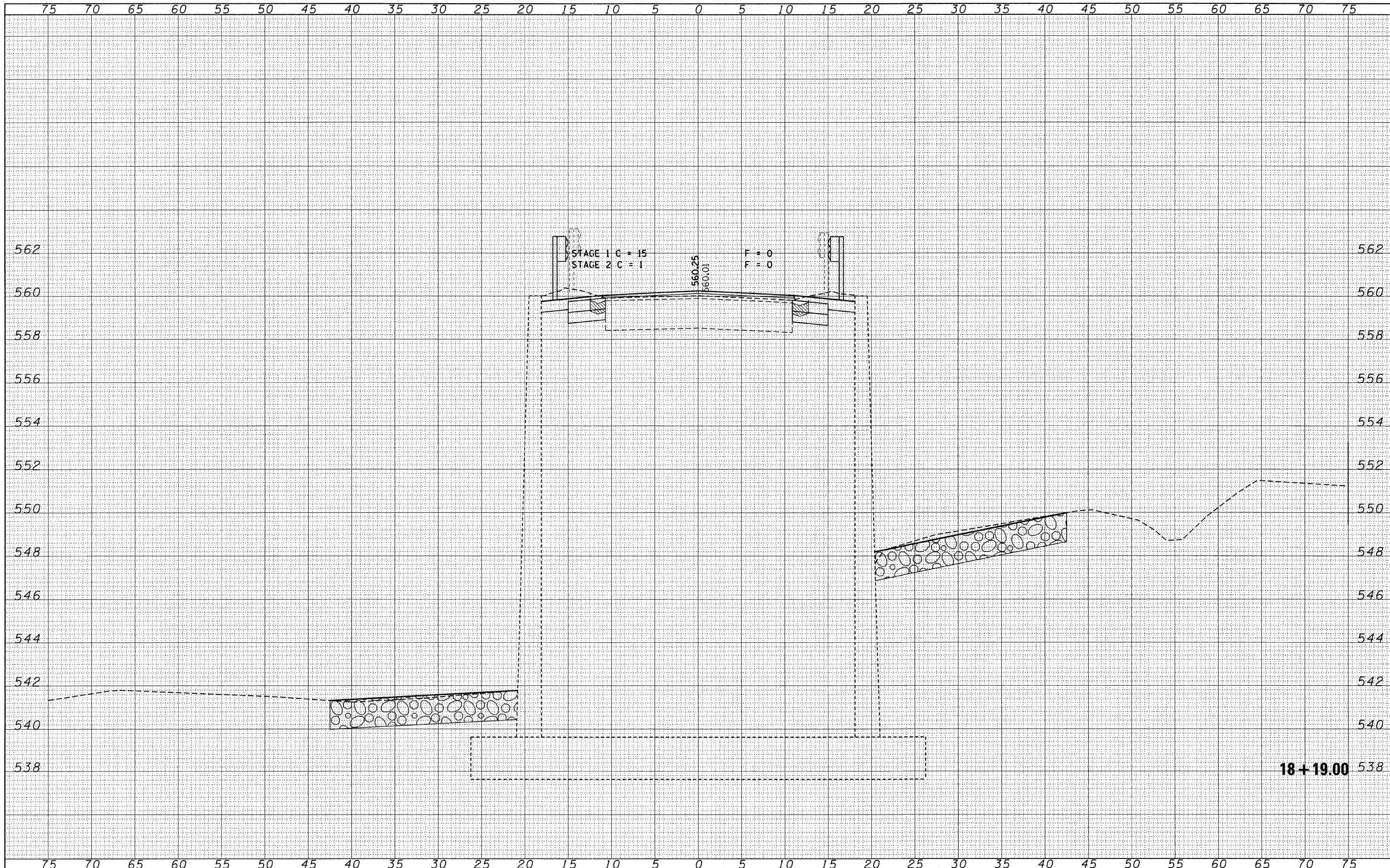
STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

CROSS SECTIONS  
 C.H. 6 / PERRYSVILLE ROAD  
 SCALE: H5:V2  
 SHEET NO. OF SHEETS STA. 18+00.00 TO STA. 18+00.00

F.A.U.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	26
CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	

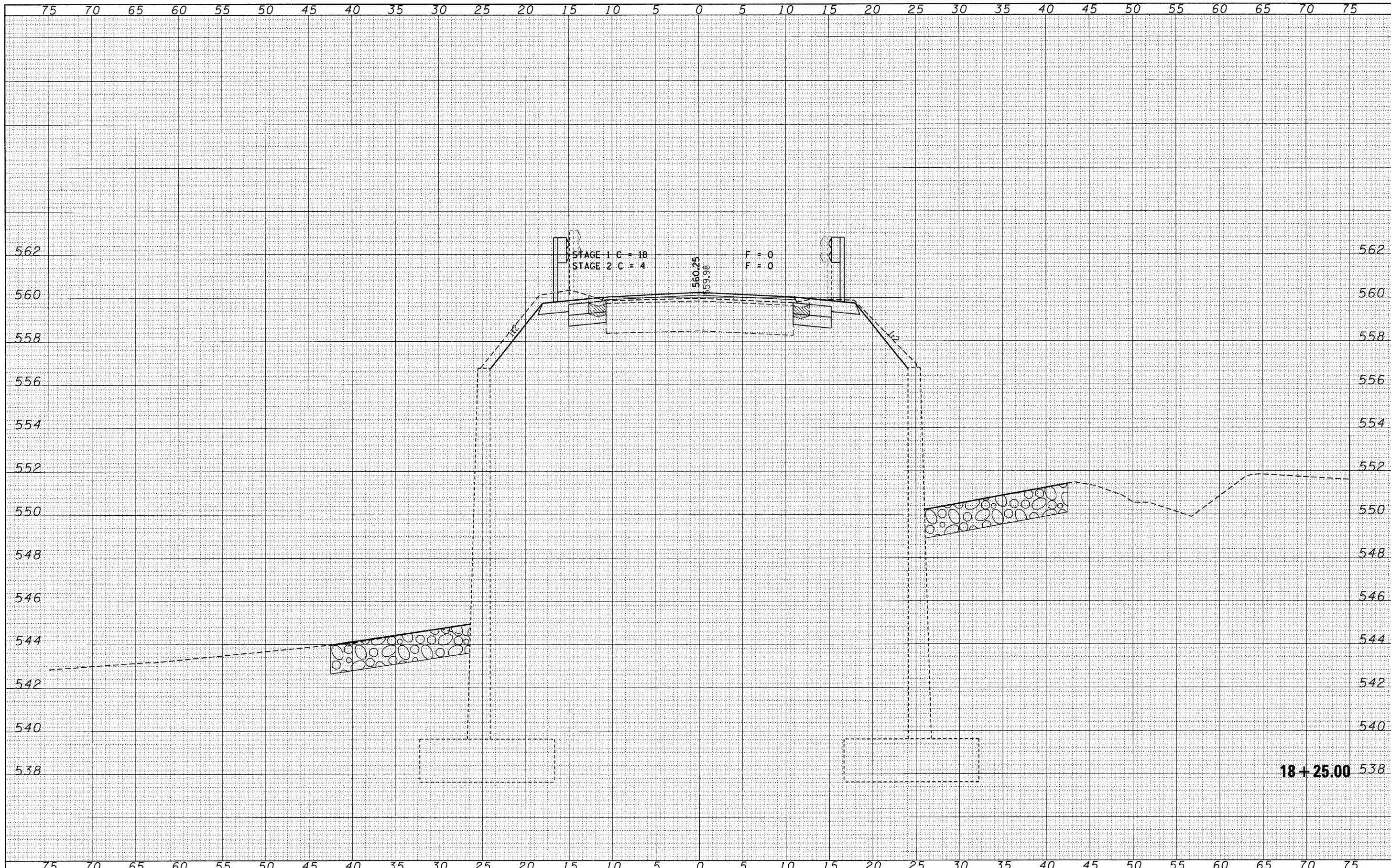
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18+19.00 538

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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3985 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62709 ILLINOIS PROFESSIONAL DESIGN FIRM LB / PE / SE CORP 184-000699	PLOT SCALE =	DRAWN - T.W.K.	REVISED -			7043	09-00171-00-BR	VERMILION	66	27
PLOT DATE = 2/9/2012	DATE - 02/09/12	CHECKED - L.F.S.	REVISED -	SCALE: H5:V2	SHEET NO. OF SHEETS	STA. 18+19.00	TO STA. 18+19.00	ILLINOIS FED. AID PROJECT		
		DATE - 02/09/12	REVISED -			CONTRACT NO. 91449				



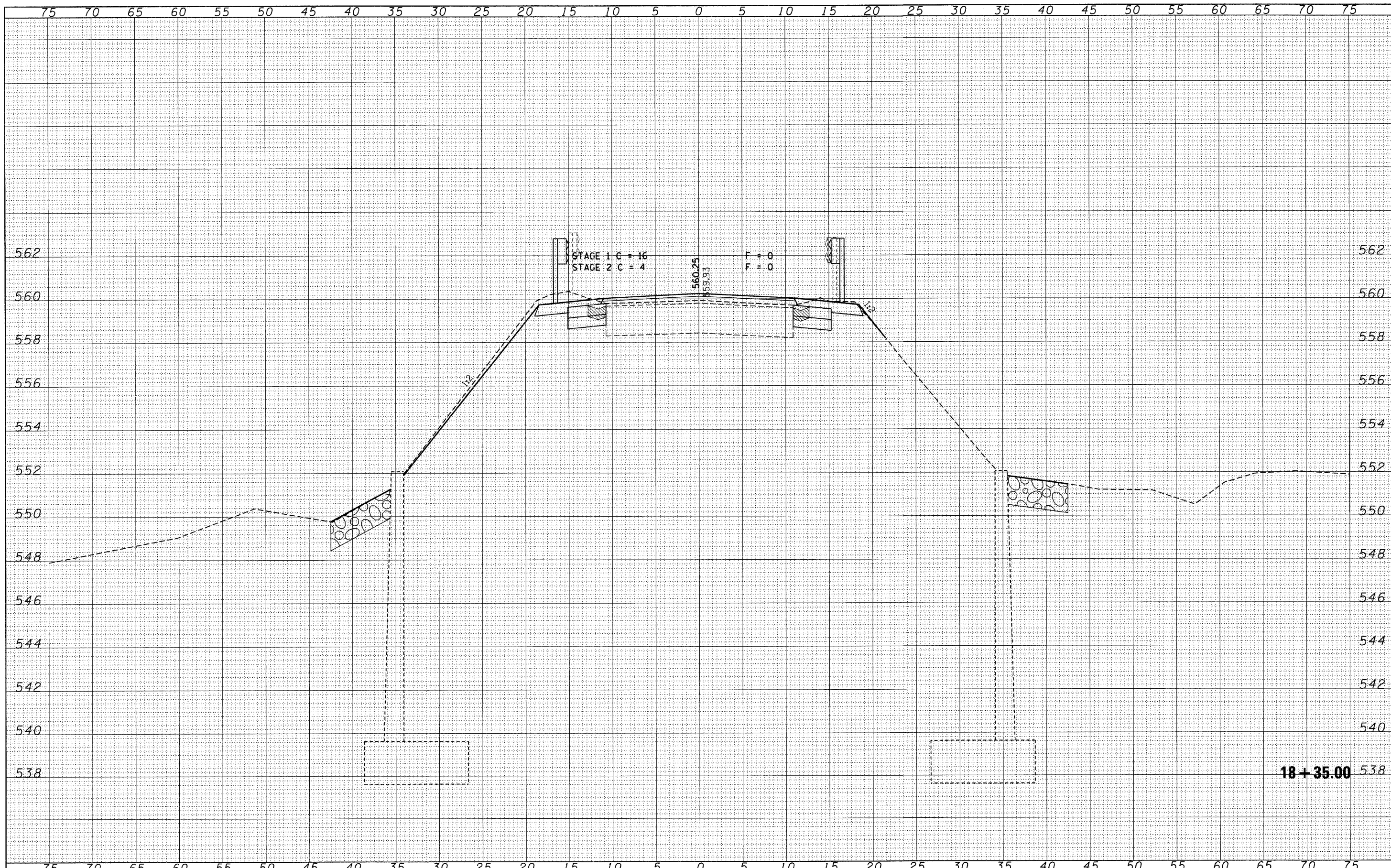
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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3038 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62709 ILLINOIS PROFESSIONAL DESIGN FIRM I.S./P.E./S.E. CORP. 184-000999	DRAWN - T.W.K. CHECKED - L.F.S. DATE - 02/09/12	REVISED - REVISED - REVISED -	SCALE: H5+V2 SHEET NO. OF SHEETS STA. 18+25.00 TO STA. 18+25.00		7043	09-00171-00-BR	VERMILION	66	28	CONTRACT NO. 91449	ILLINOIS FED. AID PROJECT

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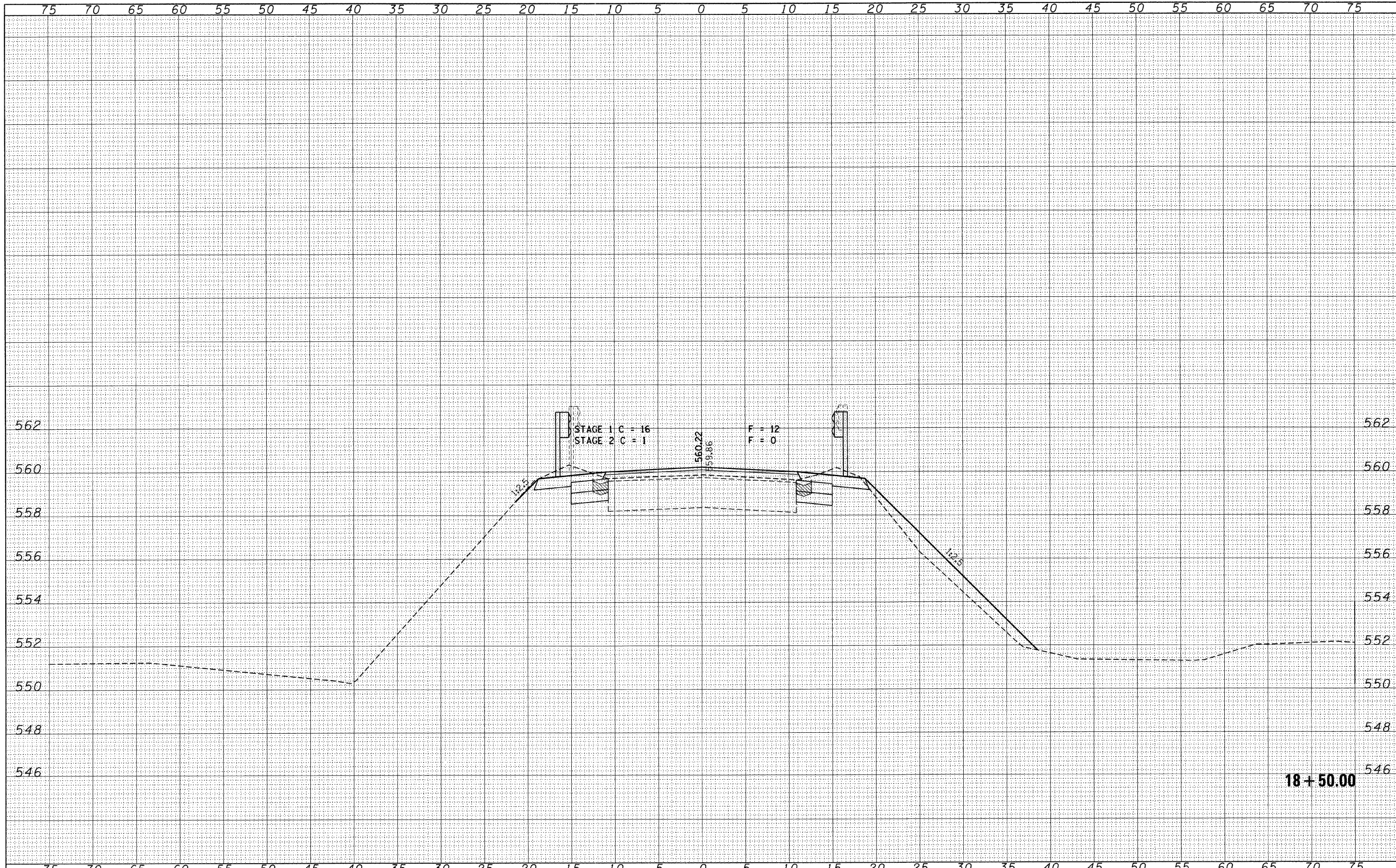


18+35.00

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HAMPTON, LENZINI AND RENWICK, INC. 5085 STEVENSON DRIVE, SUITE 207 SPRINGFIELD, ILLINOIS 62703 <b>HLR</b> ILLINOIS PROFESSIONAL DESIGN FIRM 1317 E. 98th COMB. 184-000098	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	29	CONTRACT NO. 91449 ILLINOIS FED. AID PROJECT		
PLOT DATE = 2/9/2012	DATE - 02/09/12	CHECKED - L.F.S.	REVISED -		SCALE: H5:V2	SHEET NO.	OF	SHEETS	STA. 18+35.00	TO STA. 18+35.00		
		DATE - 02/09/12	REVISED -									

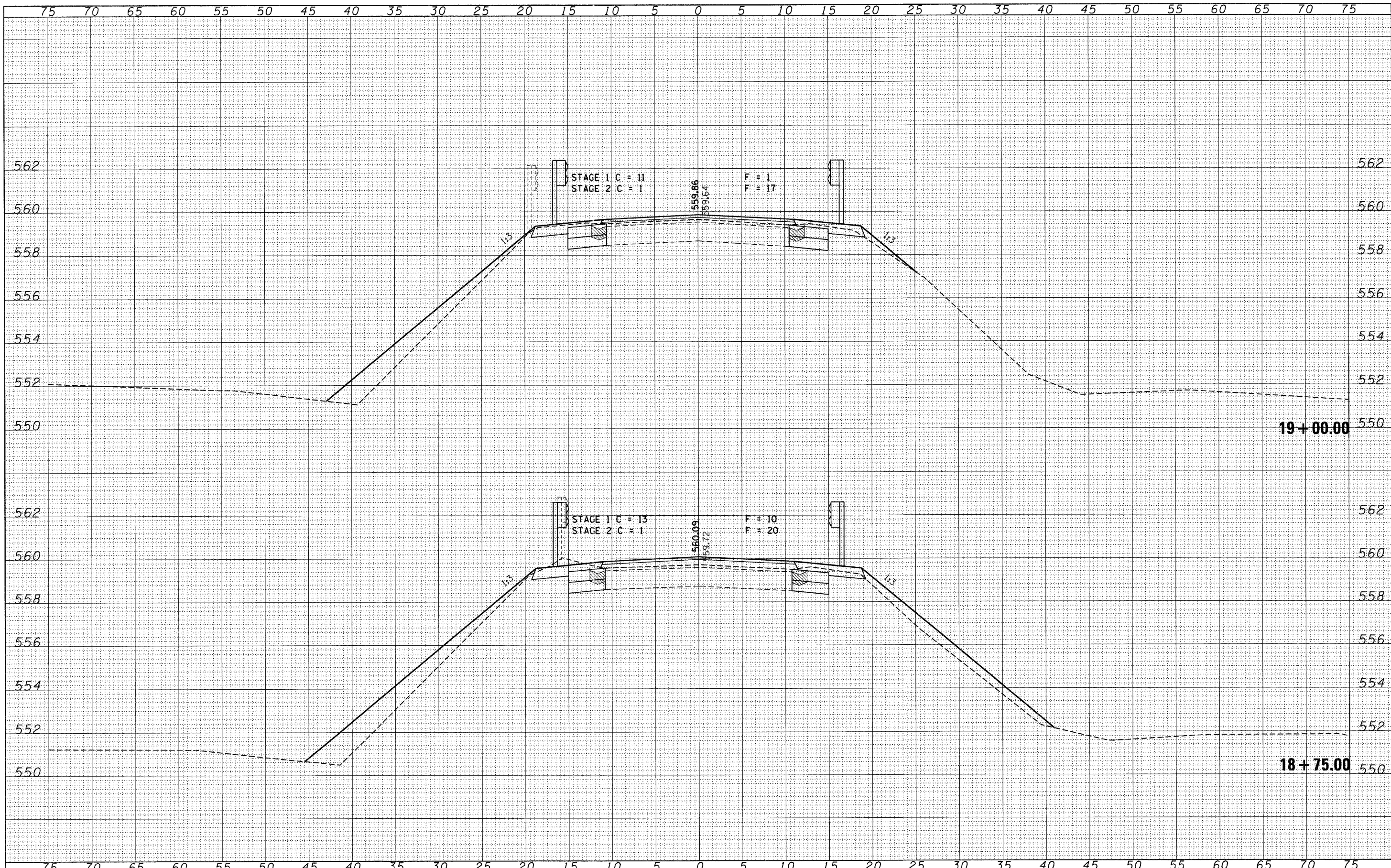
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ORIGINAL SURVEY BY DATE  
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 NOTE BOOK NO.



18+50.00

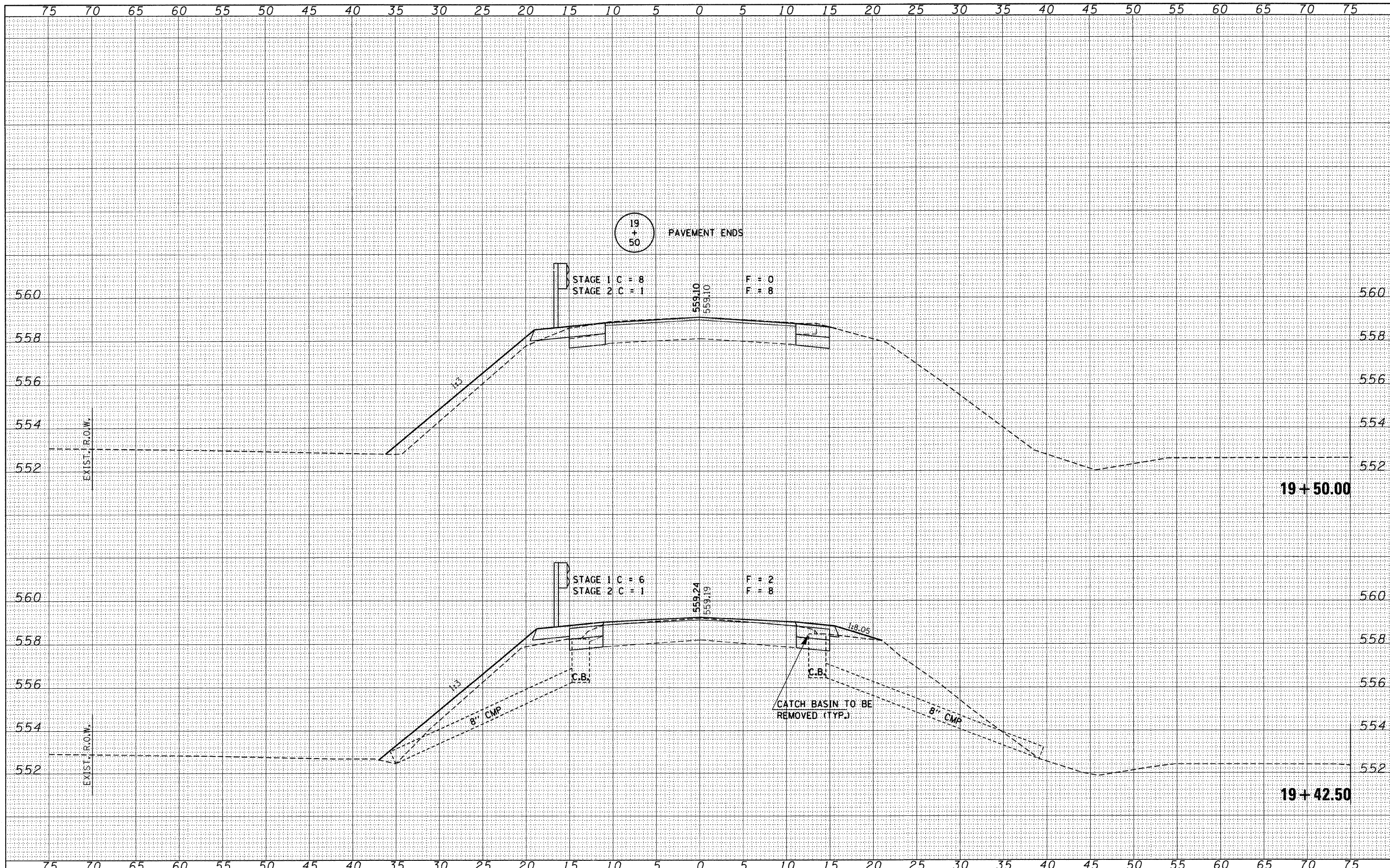
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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 308 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763 <b>HLR</b> ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P.E. / S.E. CORP. 04-000000	PLLOT SCALE =	DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	30	CONTRACT NO. 91449	ILLINOIS FED. AID PROJECT
DATE - 02/09/12	PLLOT DATE = 2/9/2012	CHECKED - L.F.S.	REVISED -		SCALE: H5:V2	SHEET NO.	OF SHEETS	STA. 18+50.00	TO STA. 18+50.00		
		DATE - 02/09/12	REVISED -								



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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62709 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-00989	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		SCALE: H5:V2	SHEET NO.	OF SHEETS	7043	09-00171-00-BR	VERMILION	66	31
PLOT DATE = 2/9/2012	DATE - 02/09/12	CHECKED - L.F.S.	REVISED -		STA. 18+75.00	TO STA. 19+00.00	CONTRACT NO. 91449		ILLINOIS FED. AID PROJECT			
		DATE - 02/09/12	REVISED -									



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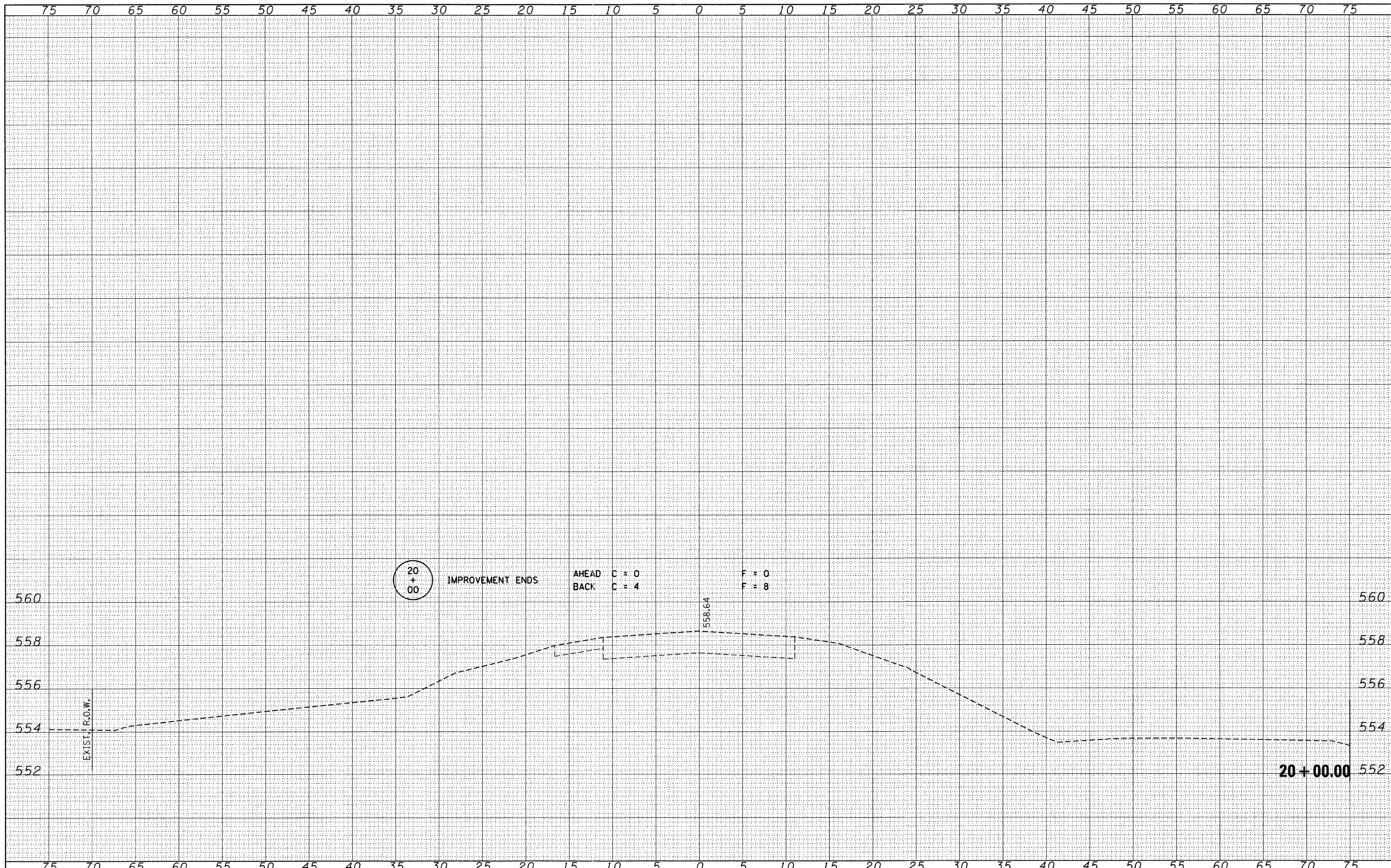
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<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 588 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P1 / 26 COMP. 18-000000		DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	32				
	PLOT SCALE =	CHECKED - L.F.S.	REVISED -		SCALE: H5:V2				SHEET NO.	OF SHEETS	STA. 19+42.50	TO STA. 19+50.00	CONTRACT NO. 91449
	PLOT DATE = 2/9/2012	DATE - 02/09/12	REVISED -		ILLINOIS FED. AID PROJECT								



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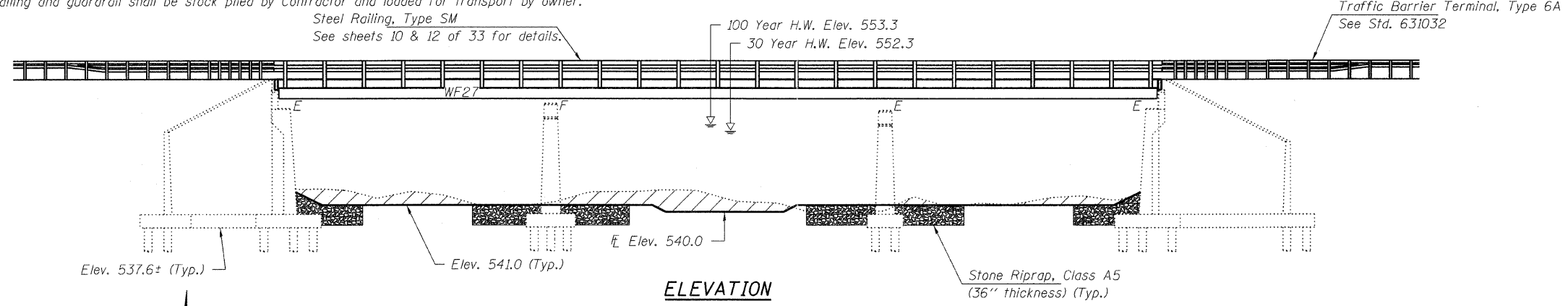


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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62719 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184-000999	PLOT SCALE =	DRAWN - T.W.K.	REVISED -		7043	09-00171-00-BR	VERMILION	66	33	CONTRACT NO. 91449	
PLOT DATE = 2/9/2012		CHECKED - L.F.S.	REVISED -		SCALE: H5:V2	SHEET NO.	OF SHEETS	STA. 20+00.00	TO STA. 20+00.00	ILLINOIS FED. AID PROJECT	
		DATE - 02/09/12	REVISED -								

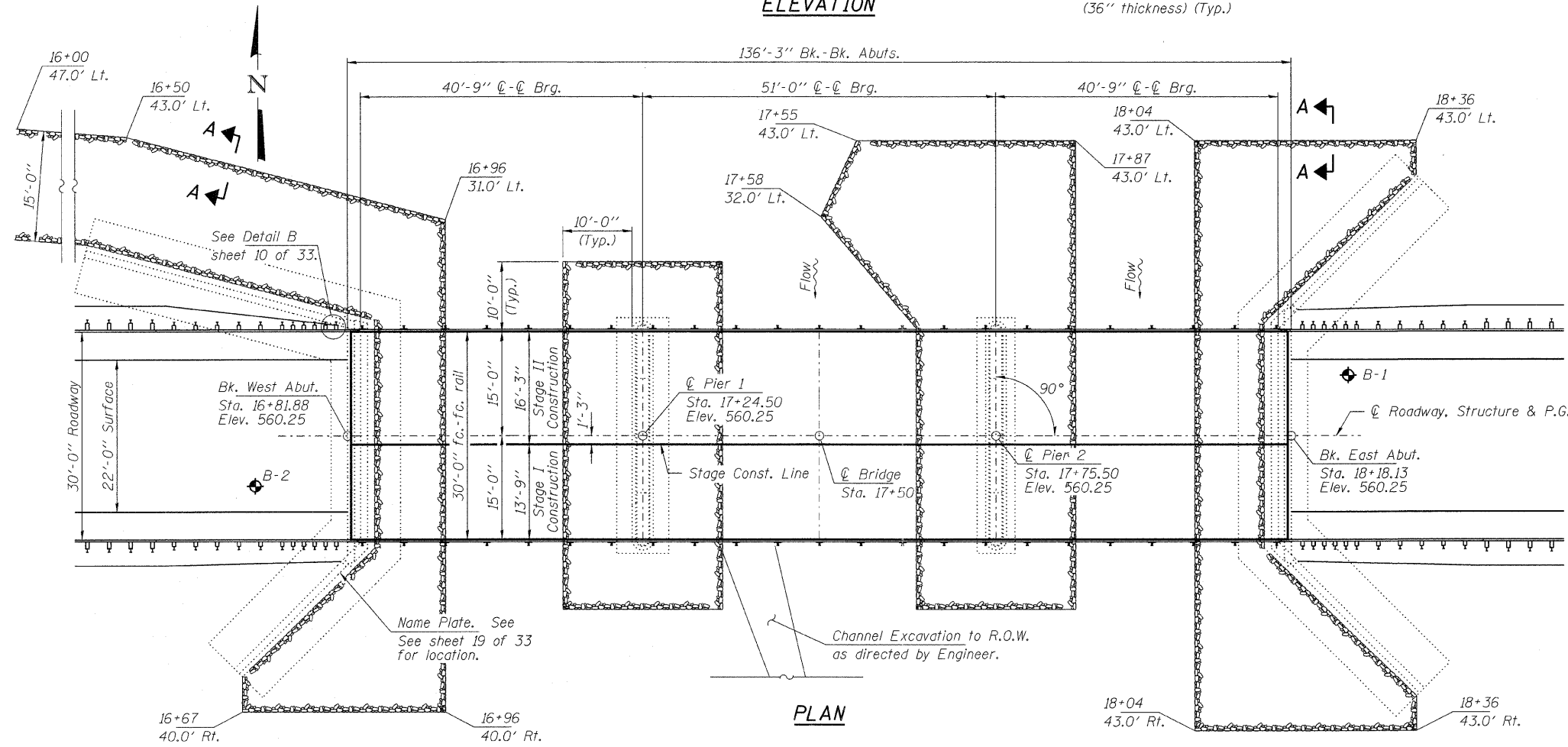
BENCHMARK: Chiseled "□" on S.E. Wing, 18' Rt., Sta. 10+68, Elev. 560.29

EXISTING STRUCTURE: Three span continuous steel I-beam bridge with cast in place concrete deck on closed concrete abutments and solid wall piers. 136.25' bk.-bk. abuts.; 30.0' o.-o. deck. Deck superstructure and bearings to be removed and replaced. Road will be closed to traffic during construction.

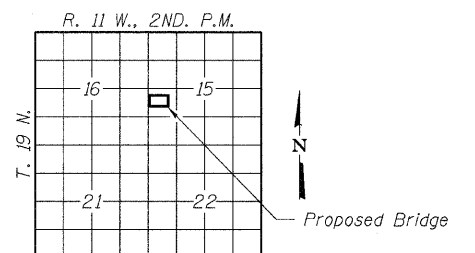
Steel railing and guardrail shall be stock piled by Contractor and loaded for transport by owner.



**ELEVATION**



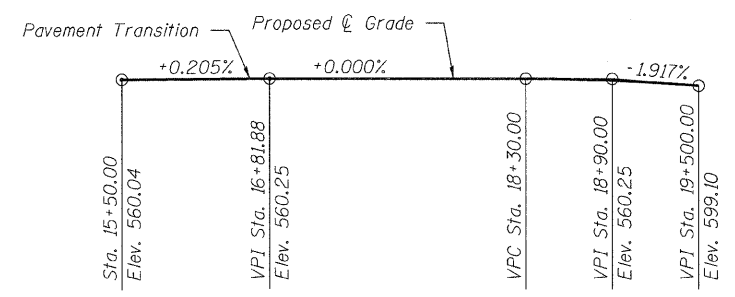
**PLAN**



**LOCATION SKETCH**

**INDEX OF STRUCTURE SHEETS**

1. General Plan & Elevation
2. General Data
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
- 5-8. Top of Slab Elevations
9. Superstructure
10. Superstructure Details
11. Preformed Joint Strip Seal
12. Steel Railing, Type SM
13. Structural Steel
- 14-15. Structural Steel Details
- 16-17. Bearing Details
18. Cantilever Forming Brackets for Superstructures with W27 Beams and Smaller
19. West Abutment Details
20. East Abutment Details
21. Pier Details
22. Bar Splicer Assembly and Mechanical Splicer Details
23. Borings
- 24-33. Existing Plans



**PROFILE GRADE**  
F.A.U. 7043/CH 6

**DESIGN SPECIFICATIONS**  
2010 AASHTO LRFD Bridge Design Specifications

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN STRESSES**  
f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinf.)  
f<sub>y</sub> = 50,000 psi (Structural Steel) (M270 GR. 50W)

**SEISMIC DATA**  
Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (S<sub>DI</sub>) = 0.132g  
Design Spectral Acceleration at 0.2 sec. (S<sub>DS</sub>) = 0.227g  
Soil Site Class = D

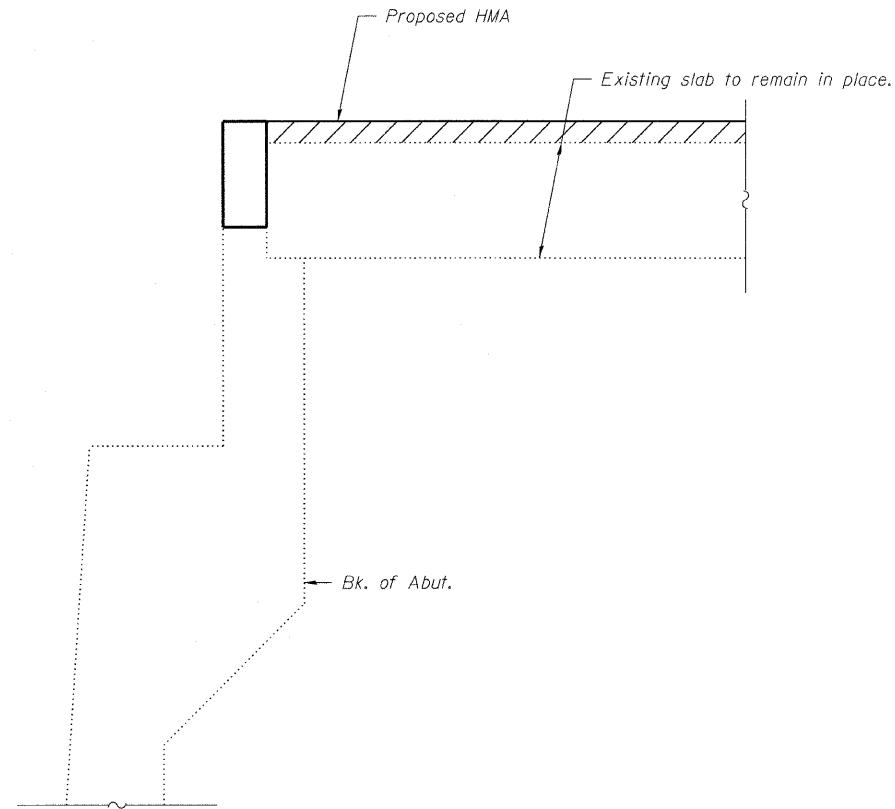
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "AASHTO LRFD Specifications."

*Steven W. Megginson* 2/9/2012  
ILLINOIS STRUCTURAL ENGINEER NO. 081-6064 Expires 11-30-2012

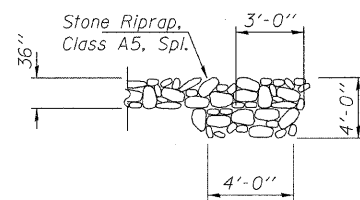


**GENERAL PLAN & ELEVATION**  
**PERRYSVILLE ROAD / FAU 7043**  
**OVER STONY CREEK**  
**SECTION 09-00171-00-BR**  
**VERMILION COUNTY**  
**STATION 17+50.00**  
**STRUCTURE NO. 092-0085**

FILE NAME = 100108-sht-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>GENERAL PLAN &amp; ELEVATION</b> <b>STRUCTURE NO. 092-0085</b> SHEET NO. 1 OF 33 SHEETS	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3685 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62701 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	34	
<b>LR</b>	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 91449					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT					



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



**SECTION A-A**

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation (ft.)	W. Abut.	Pier 1	Pier 2	E. Abut.
	540.9	533.0	526.3	540.9

**WATERWAY INFORMATION**

Drainage Area = 57.5 Sq. Mi. Existing Low Grade Elev. 558.4 @ Sta. 20+50  
Proposed Low Grade Elev. 558.4 @ Sta. 20+50

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Natural Head - Ft.		Headwater El.		
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	
Design	10	3780	1060	1060	550.98	0.62	0.62	551.60	551.60
Base	100	6930	1350	1350	553.31	0.28	0.28	553.59	553.59
Max. Calc.	500	9200	1500	1500	554.47	0.41	0.41	554.88	554.88

**GENERAL NOTES**

Fasteners shall be AASHTO M164 Type 1, mechanically galvanized bolts (in painted areas and M164 Type 3 in unpainted areas). Bolts  $\frac{1}{8}$ " $\phi$ , holes  $\frac{1}{16}$ " $\phi$ , unless otherwise noted.  
 Calculated weight of Structural Steel = 87,170 lbs.  
 All structural steel shall be AASHTO M 270 Grade 50W.  
 No field welding is permitted except as specified in the contract documents.  
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Plan dimensions and details relative to existing plans are subject to nominal construction 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 at the unit price bid for the work.  
 Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.  
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.  
 All structural steel and exposed surfaces of bearings within a distance of 7 ft. each way from the deck joints shall be painted as specified in the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel".  
 Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.  
 The locations for Structural Repair of Concrete shall be determined by the Engineer. Possible locations include the pier and abutment walls and bearing seats and the abutment backwall face.

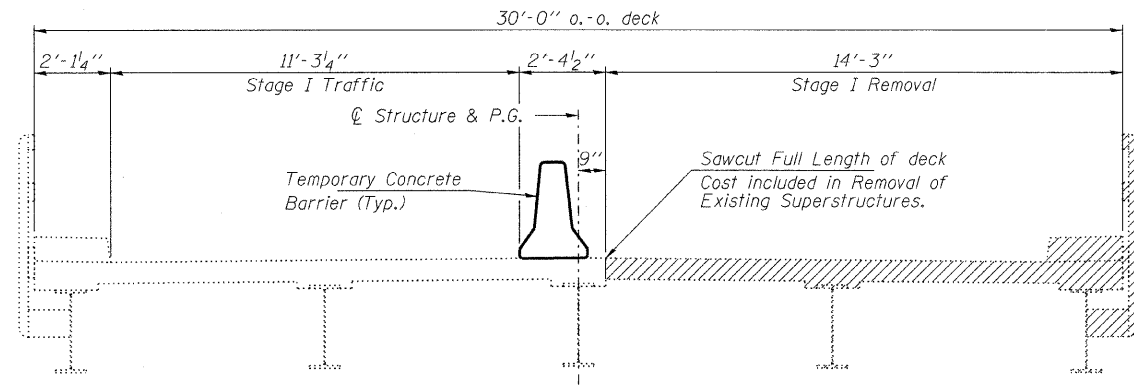
STONY CREEK  
 RE-BUILT 201 BY  
 VERMILION COUNTY  
 SEC. 09-00171-00-BR  
 STA. 17+50.00  
 STR. NO. 092-0085  
 LOADING HL-93

**NAME PLATE**  
See Std. 515001

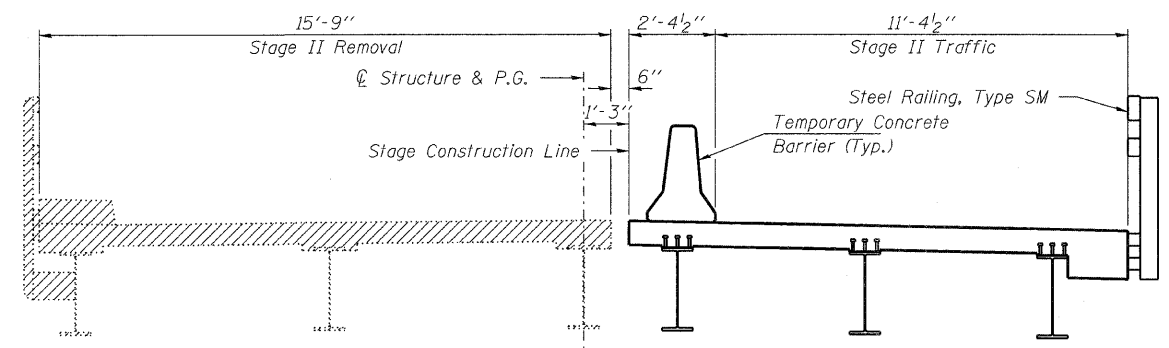
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

**TOTAL BILL OF MATERIAL**

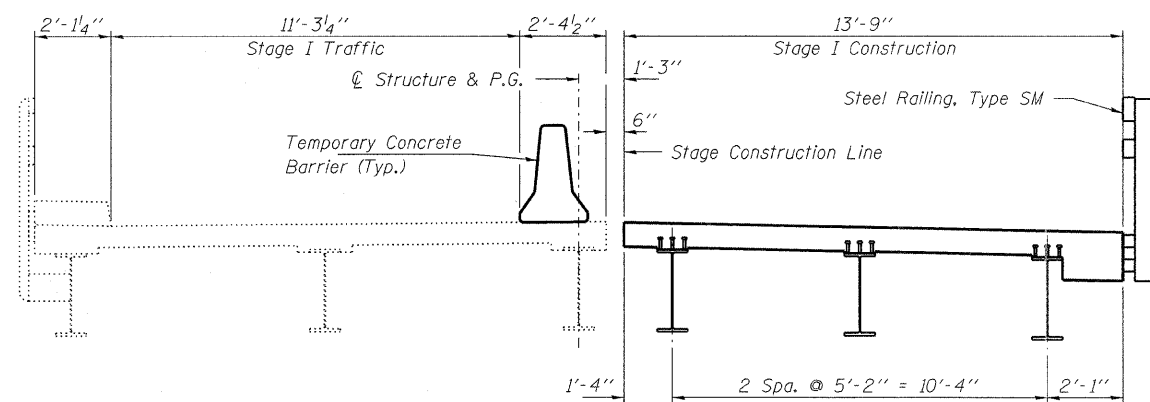
ITEM	UNIT	SUPER	SUB	TOTAL
Stone Riprap, Class A5, Special	Ton			1,350
Channel Excavation	Cu. Yd.			500
Removal of Existing Superstructures	Each			1
Concrete Superstructure	Cu. Yd.	115.1		115.1
Concrete Structures	Cu. Yd.		1.8	1.8
Concrete Removal	Cu. Yd.		0.4	0.4
Bridge Deck Grooving	Sq. Yd.	417		417
Protective Coat	Sq. Yd.	486		486
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	2,826		2,826
Reinforcement Bars, Epoxy Coated	Pound	32,010	240	32,250
Bar Splicers	Each	457	4	461
Steel Railing, Type SM	Foot	272		272
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each		18	18
Anchor Bolts, 1"	Each		48	48
Debris Removal	L. Sum			1
Structural Repair of Concrete (Depth equal to or less than 5 inches)	Sq. Ft.		32	32
Performed Joint Strip Seal	Foot	60		60



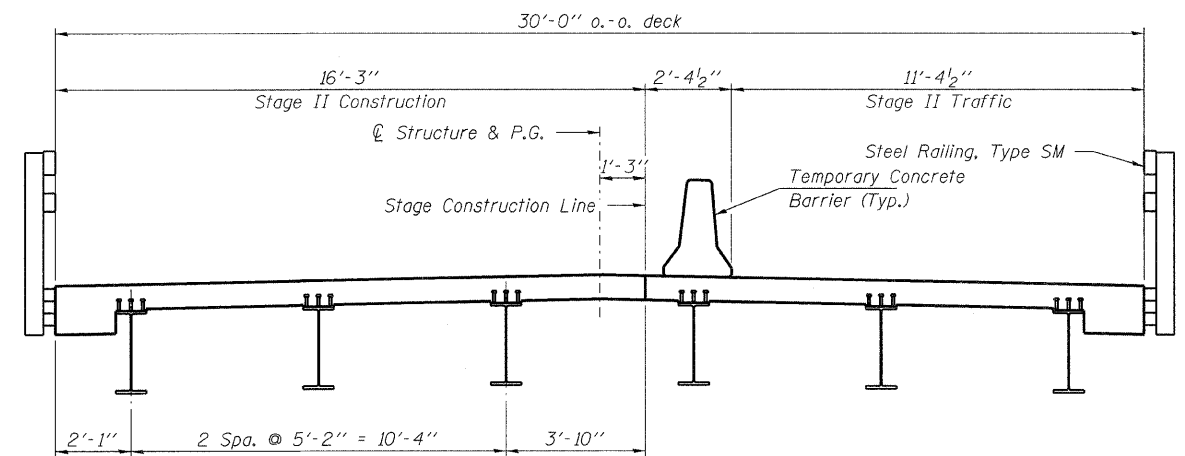
**STAGE I REMOVAL**



**STAGE II REMOVAL**



**STAGE I CONSTRUCTION**

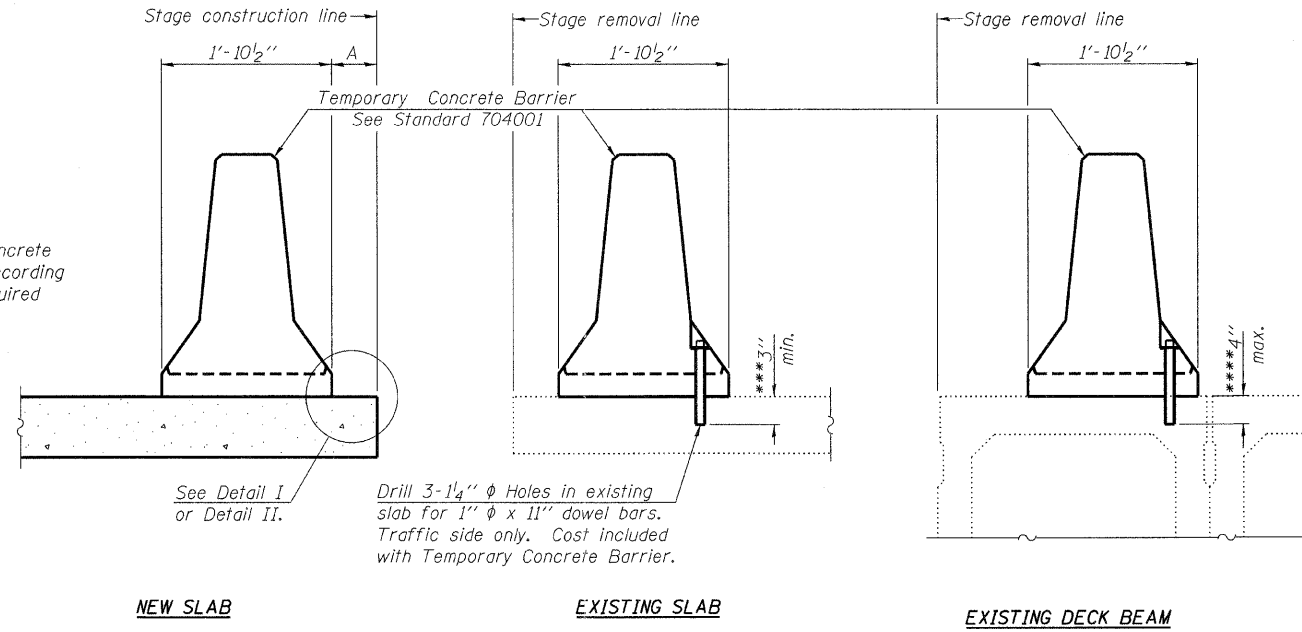


**STAGE II CONSTRUCTION**

Notes:  
 All sections are looking East.  
 Hatched areas indicate removal.  
 See Roadway Plans for quantity of Temporary Concrete Barrier.

FILE NAME = 100108-sht-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISIONS -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>STAGE CONSTRUCTION DETAILS STRUCTURE NO. 092-0085</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 353 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.M.S.	REVISIONS -			T043	09-00171-00-BR	VERMILION	66	36	
<b>ELR</b> ILLINOIS PROFESSIONAL DESIGN FIRM 13 / PE / SE CORP. 184.002859	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISIONS -			CONTRACT NO. 91449		ILLINOIS FED. AID PROJECT			
		CHECKED - S.W.M.	REVISIONS -								

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



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

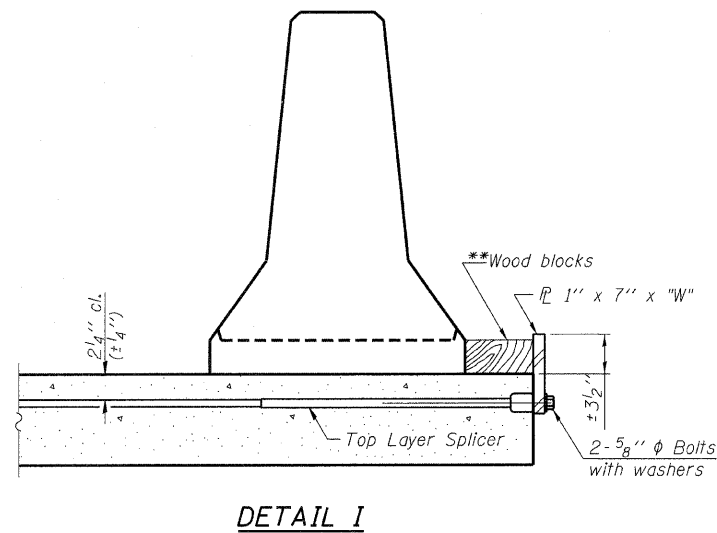
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel  $P_L$  to the top layer of couplers with 2- $\frac{5}{8}$ "  $\phi$  bolts screwed to coupler at approximate  $\frac{1}{2}$  of each barrier panel.

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

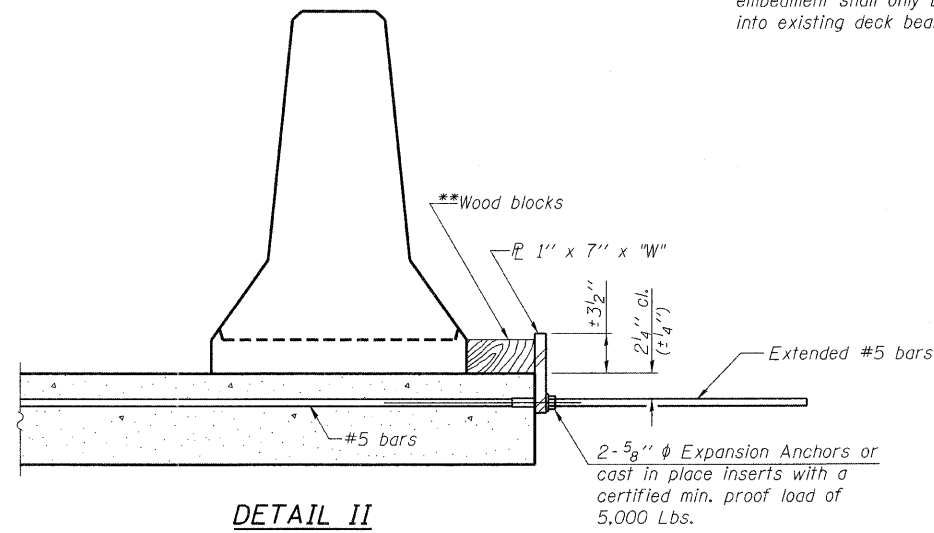
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

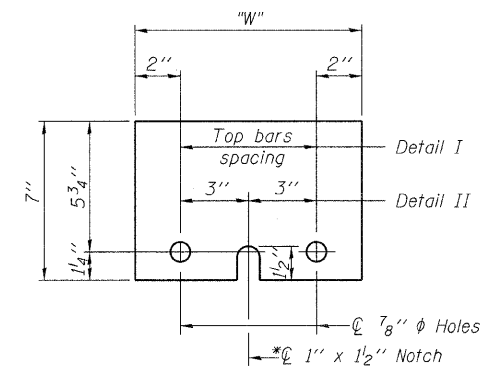
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER  $P_L$  1" x 7" x "W"**

\* Required only with Detail II

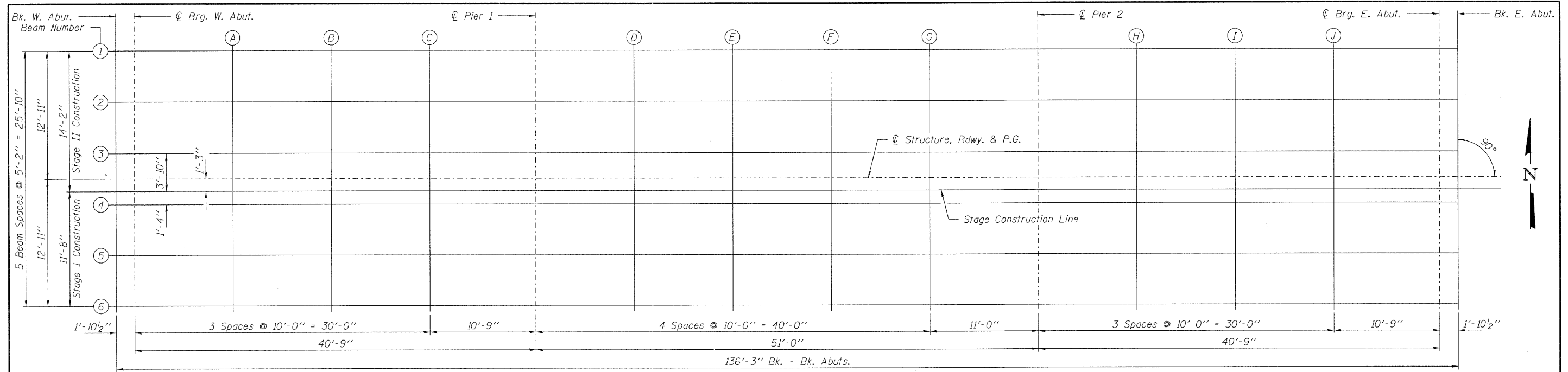
\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

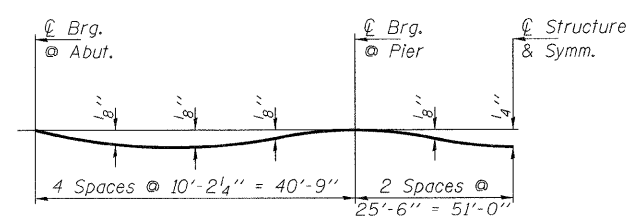
R-27

7-1-10

FILE NAME = 100108-sh-t-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 092-0085</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3003 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62763		CHECKED - S.W.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	37	
<b>ILR</b> ILLINOIS PROFESSIONAL DESIGN FIRM 13 / P.E. REG. NO. 184.000659	PLOT SCALE =	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 91449					
	PLOT DATE = 2/9/2012	CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT					
SHEET NO. 4 OF 33 SHEETS											



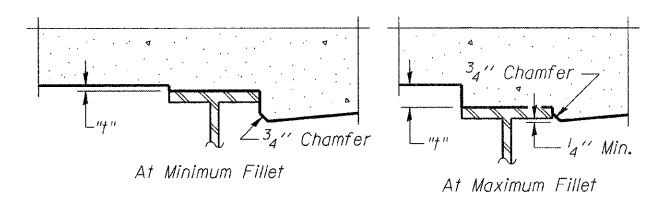
**PLAN**



**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 5 thru 8 of 33.



To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown above. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheets 5 thru 8 of 33, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

FILE NAME = 102108-sht-b-ridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>TOP OF SLAB ELEVATIONS STRUCTURE NO. 092-0085</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	38	
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.003889	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 91449					
		CHECKED - S.W.M.	REVISED -			[ILLINOIS] FED. AID PROJECT					
					SHEET NO. 5 OF 33 SHEETS						

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	-12.92	559.98	559.98
☉ Brg. W. Abut.	9+33.75	-12.92	559.98	559.98
A	9+43.75	-12.92	559.98	559.99
B	9+53.75	-12.92	559.98	559.99
C	9+63.75	-12.92	559.98	559.99
☉ Pier 1	9+74.50	-12.92	559.98	559.98
D	9+84.50	-12.92	559.98	559.99
E	9+94.50	-12.92	559.98	560.00
F	10+04.50	-12.92	559.98	560.00
G	10+14.50	-12.92	559.98	559.99
☉ Pier 2	10+25.50	-12.92	559.98	559.98
H	10+35.50	-12.92	559.98	559.99
I	10+45.50	-12.92	559.98	559.99
J	10+55.50	-12.92	559.98	559.99
☉ Brg. E. Abut.	10+66.25	-12.92	559.98	559.98
Bk. E. Abut.	10+68.13	-12.92	559.98	559.98

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	-7.75	560.09	560.09
☉ Brg. W. Abut.	9+33.75	-7.75	560.09	560.09
A	9+43.75	-7.75	560.09	560.10
B	9+53.75	-7.75	560.09	560.10
C	9+63.75	-7.75	560.09	560.10
☉ Pier 1	9+74.50	-7.75	560.09	560.09
D	9+84.50	-7.75	560.09	560.10
E	9+94.50	-7.75	560.09	560.11
F	10+04.50	-7.75	560.09	560.11
G	10+14.50	-7.75	560.09	560.10
☉ Pier 2	10+25.50	-7.75	560.09	560.09
H	10+35.50	-7.75	560.09	560.09
I	10+45.50	-7.75	560.09	560.10
J	10+55.50	-7.75	560.09	560.10
☉ Brg. E. Abut.	10+66.25	-7.75	560.09	560.09
Bk. E. Abut.	10+68.13	-7.75	560.09	560.09

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	-2.58	560.20	560.20
☉ Brg. W. Abut.	9+33.75	-2.58	560.20	560.20
A	9+43.75	-2.58	560.20	560.21
B	9+53.75	-2.58	560.20	560.21
C	9+63.75	-2.58	560.20	560.20
☉ Pier 1	9+74.50	-2.58	560.20	560.20
D	9+84.50	-2.58	560.20	560.20
E	9+94.50	-2.58	560.20	560.21
F	10+04.50	-2.58	560.20	560.21
G	10+14.50	-2.58	560.20	560.20
☉ Pier 2	10+25.50	-2.58	560.20	560.20
H	10+35.50	-2.58	560.20	560.20
I	10+45.50	-2.58	560.20	560.21
J	10+55.50	-2.58	560.20	560.21
☉ Brg. E. Abut.	10+66.25	-2.58	560.20	560.20
Bk. E. Abut.	10+68.13	-2.58	560.20	560.20

CL STRUCTURE, RDWY. & P.G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	0.00	560.25	560.25
CL Brg. W. Abut.	9+33.75	0.00	560.25	560.25
A	9+43.75	0.00	560.25	560.26
B	9+53.75	0.00	560.25	560.26
C	9+63.75	0.00	560.25	560.26
CL Pier 1	9+74.50	0.00	560.25	560.25
D	9+84.50	0.00	560.25	560.26
E	9+94.50	0.00	560.25	560.27
F	10+04.50	0.00	560.25	560.27
G	10+14.50	0.00	560.25	560.26
CL Pier 2	10+25.50	0.00	560.25	560.25
H	10+35.50	0.00	560.25	560.26
I	10+45.50	0.00	560.25	560.26
J	10+55.50	0.00	560.25	560.26
CL Brg. E. Abut.	10+66.25	0.00	560.25	560.25
Bk. E. Abut.	10+68.13	0.00	560.25	560.25

STAGE CONSTRUCTION LINE

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	1.25	560.22	560.22
CL Brg. W. Abut.	9+33.75	1.25	560.22	560.22
A	9+43.75	1.25	560.22	560.23
B	9+53.75	1.25	560.22	560.24
C	9+63.75	1.25	560.22	560.23
CL Pier 1	9+74.50	1.25	560.22	560.22
D	9+84.50	1.25	560.22	560.23
E	9+94.50	1.25	560.22	560.24
F	10+04.50	1.25	560.22	560.24
G	10+14.50	1.25	560.22	560.23
CL Pier 2	10+25.50	1.25	560.22	560.22
H	10+35.50	1.25	560.22	560.23
I	10+45.50	1.25	560.22	560.24
J	10+55.50	1.25	560.22	560.24
CL Brg. E. Abut.	10+66.25	1.25	560.22	560.22
Bk. E. Abut.	10+68.13	1.25	560.22	560.22

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	2.58	560.20	560.20
CL Brg. W. Abut.	9+33.75	2.58	560.20	560.20
A	9+43.75	2.58	560.20	560.21
B	9+53.75	2.58	560.20	560.21
C	9+63.75	2.58	560.20	560.20
CL Pier 1	9+74.50	2.58	560.20	560.20
D	9+84.50	2.58	560.20	560.20
E	9+94.50	2.58	560.20	560.21
F	10+04.50	2.58	560.20	560.21
G	10+14.50	2.58	560.20	560.20
CL Pier 2	10+25.50	2.58	560.20	560.20
H	10+35.50	2.58	560.20	560.20
I	10+45.50	2.58	560.20	560.21
J	10+55.50	2.58	560.20	560.21
CL Brg. E. Abut.	10+66.25	2.58	560.20	560.20
Bk. E. Abut.	10+68.13	2.58	560.20	560.20

FILE NAME = 100108-shr-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62769 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.001989		CHECKED - S.M.S.	REVISED -
	PLOT SCALE =	DRAWN - D.A.B.	REVISED -
	PLOT DATE = 2/9/2012	CHECKED - S.W.M.	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**TOP OF SLAB ELEVATIONS  
STRUCTURE NO. 092-0085**

SHEET NO. 7 OF 33 SHEETS

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	40
CONTRACT NO. 91449				
ILLINOIS FED. AID PROJECT				

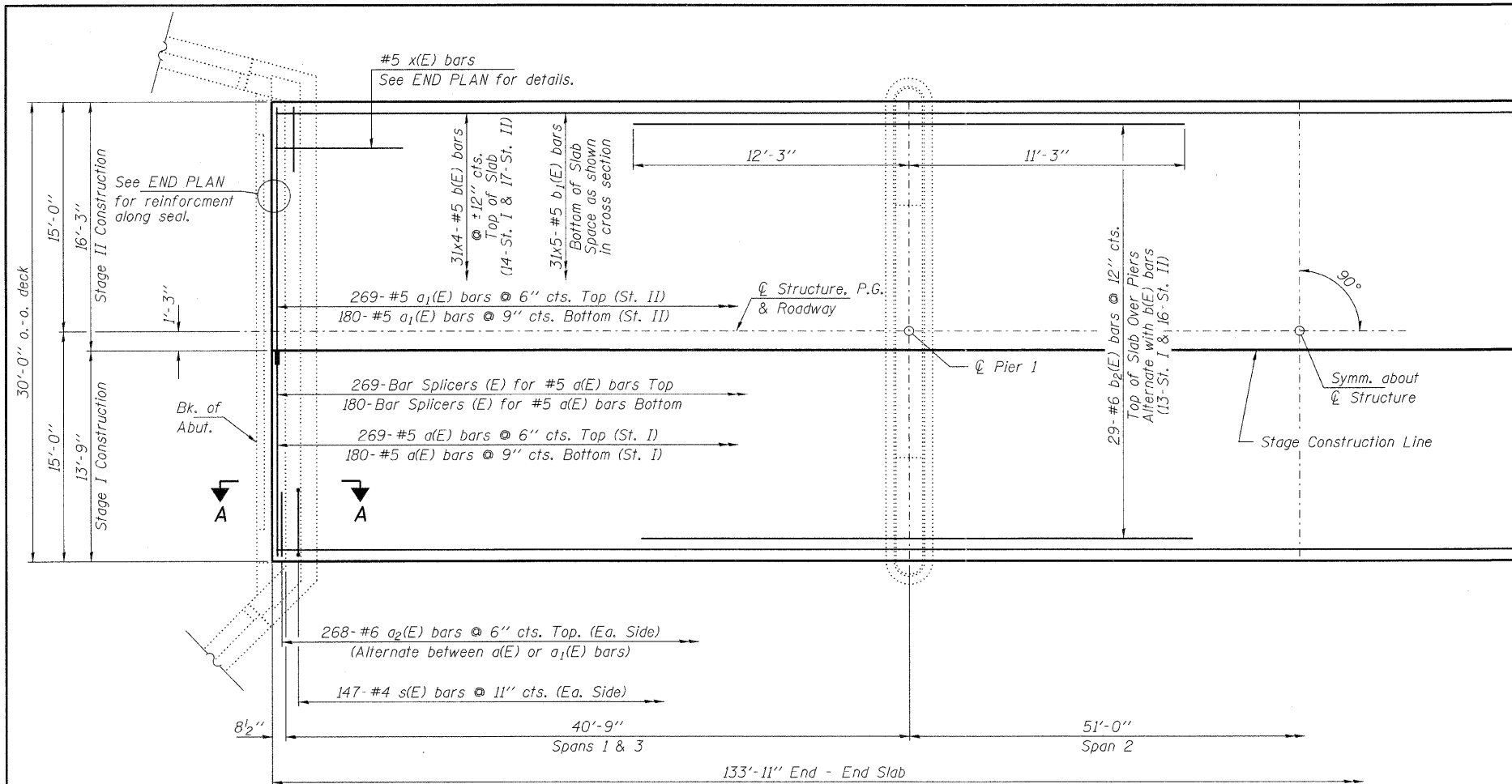


**BEAM 5**

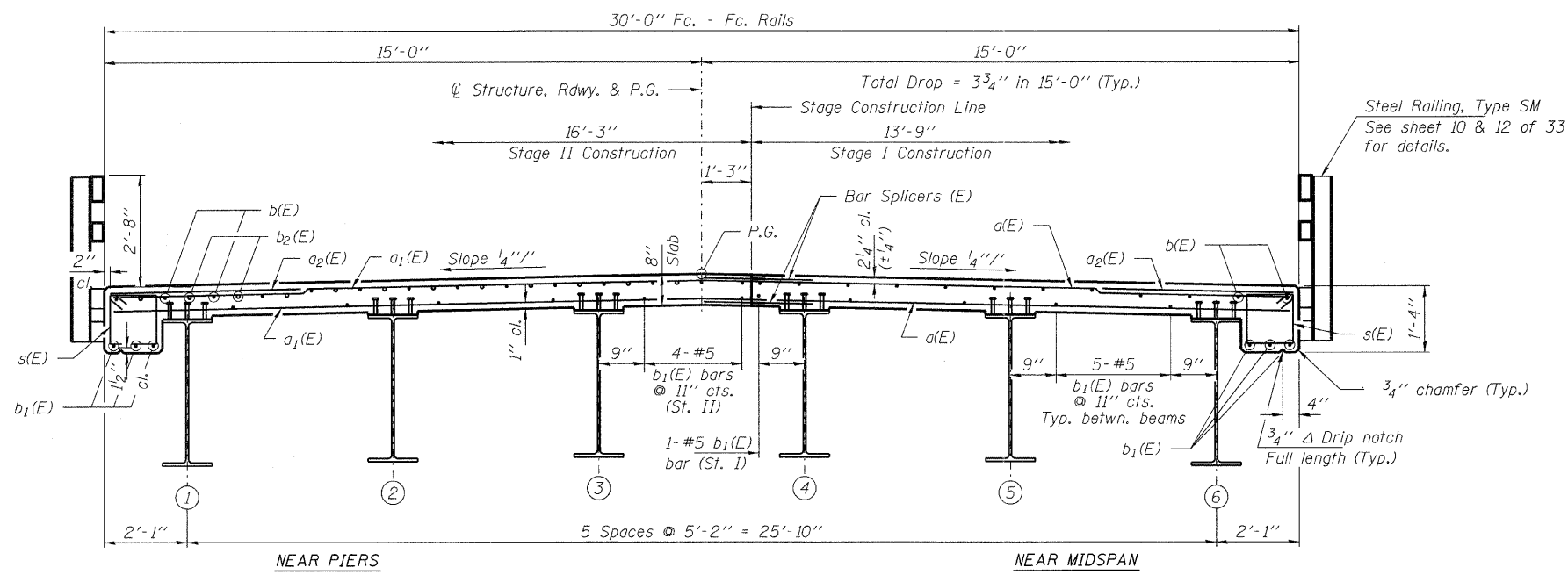
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	7.75	560.09	560.09
☉ Brg. W. Abut.	9+33.75	7.75	560.09	560.09
A	9+43.75	7.75	560.09	560.10
B	9+53.75	7.75	560.09	560.10
C	9+63.75	7.75	560.09	560.10
☉ Pier 1	9+74.50	7.75	560.09	560.09
D	9+84.50	7.75	560.09	560.10
E	9+94.50	7.75	560.09	560.11
F	10+04.50	7.75	560.09	560.11
G	10+14.50	7.75	560.09	560.10
☉ Pier 2	10+25.50	7.75	560.09	560.09
H	10+35.50	7.75	560.09	560.09
I	10+45.50	7.75	560.09	560.10
J	10+55.50	7.75	560.09	560.10
☉ Brg. E. Abut.	10+66.25	7.75	560.09	560.09
Bk. E. Abut.	10+68.13	7.75	560.09	560.09

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	9+31.88	12.92	559.98	559.98
☉ Brg. W. Abut.	9+33.75	12.92	559.98	559.98
A	9+43.75	12.92	559.98	559.99
B	9+53.75	12.92	559.98	559.99
C	9+63.75	12.92	559.98	559.99
☉ Pier 1	9+74.50	12.92	559.98	559.98
D	9+84.50	12.92	559.98	559.99
E	9+94.50	12.92	559.98	560.00
F	10+04.50	12.92	559.98	560.00
G	10+14.50	12.92	559.98	559.99
☉ Pier 2	10+25.50	12.92	559.98	559.98
H	10+35.50	12.92	559.98	559.99
I	10+45.50	12.92	559.98	559.99
J	10+55.50	12.92	559.98	559.99
☉ Brg. E. Abut.	10+66.25	12.92	559.98	559.98
Bk. E. Abut.	10+68.13	12.92	559.98	559.98



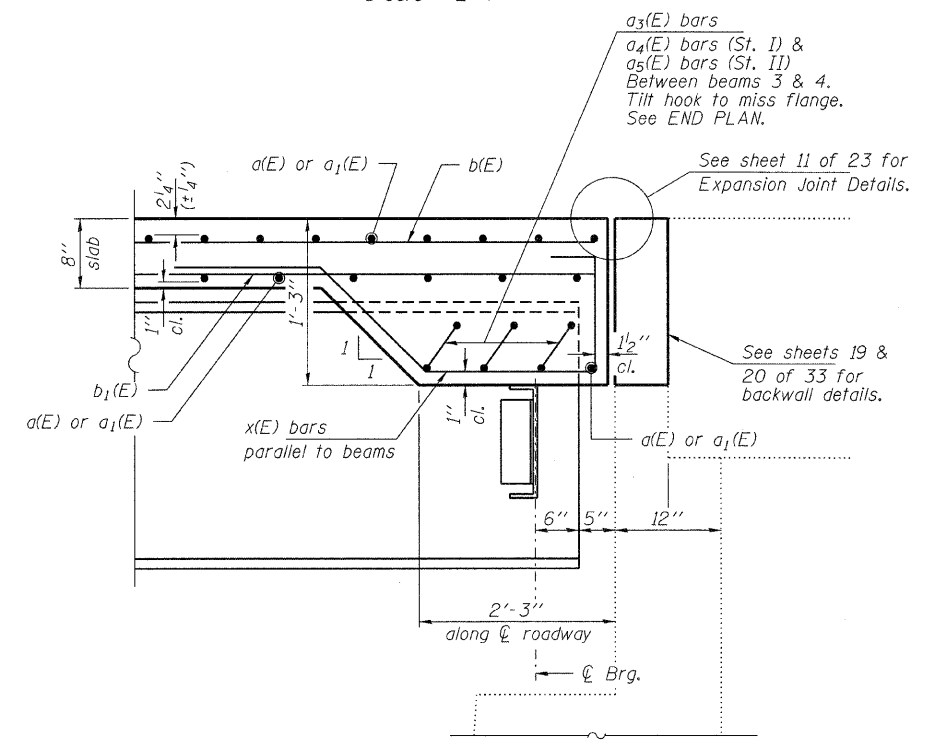
PLAN



CROSS SECTION  
(Looking East)

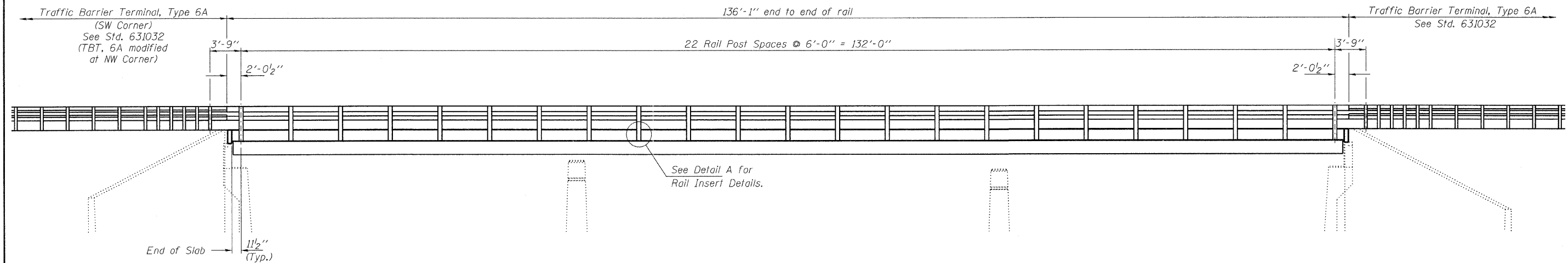
Notes:  
 Reinforcement bars in the top of the deck may be placed with a 1/2" minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.  
 Bars indicated thus 2x3-#6 etc. indicates 2 lines of bars with 3 lengths per line.  
 See sheet 10 of 33 for Superstructure Details, END PLAN and Bill of Material.  
 See sheet 10 of 33 for Section A-A.  
 All bars shall be epoxy coated.

MIN. BAR LAPS  
 #5 bars = 2'-7"



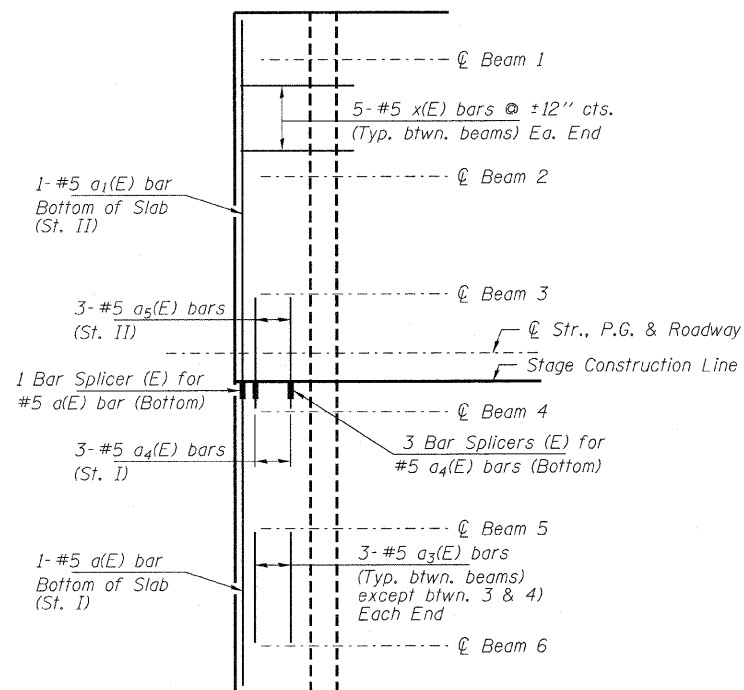
SECTION A-A

FILE NAME = 100108-sht-br-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>SUPERSTRUCTURE STRUCTURE NO. 092-0085</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62715 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 194.000969	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	42	
	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 91449					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT					
						SHEET NO. 9 OF 33 SHEETS					

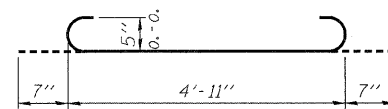
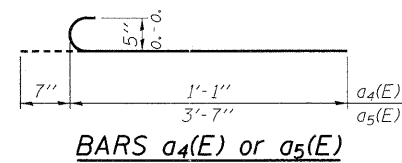


**RAILING ELEVATION**  
Showing Rail Post Spaces

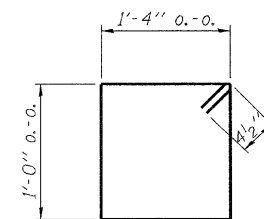
See sheet 8 of 27 for Railing Details.



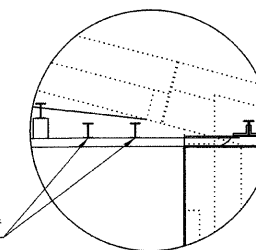
**END PLAN**



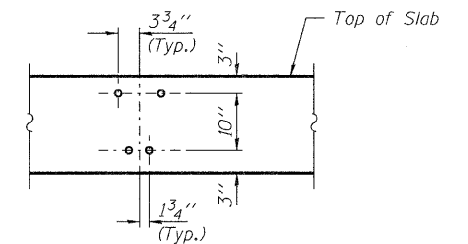
**BAR a3(E)**



**BAR s(E)**



**DETAIL B**



**DETAIL A**

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	451	#5	13'-5"	—
a1(E)	451	#5	15'-11"	—
a2(E)	536	#6	6'-6"	—
a3(E)	24	#5	6'-1"	U
a4(E)	6	#5	1'-8"	U
a5(E)	6	#5	4'-2"	U
b(E)	124	#5	35'-8"	—
b1(E)	155	#5	29'-1"	—
b2(E)	58	#6	23'-6"	—
s(E)	294	#4	5'-5"	□
x(E)	50	#5	6'-11"	~
Concrete Superstructure			Cu. Yd.	115.1
Bridge Deck Grooving			Sq. Yd.	417
Protective Coat			Sq. Yd.	486
Reinforcement Bars, Epoxy Coated			Pound	32,010
Bar Splicers			Each	457
Preformed Joint Strip Seal			Foot	60

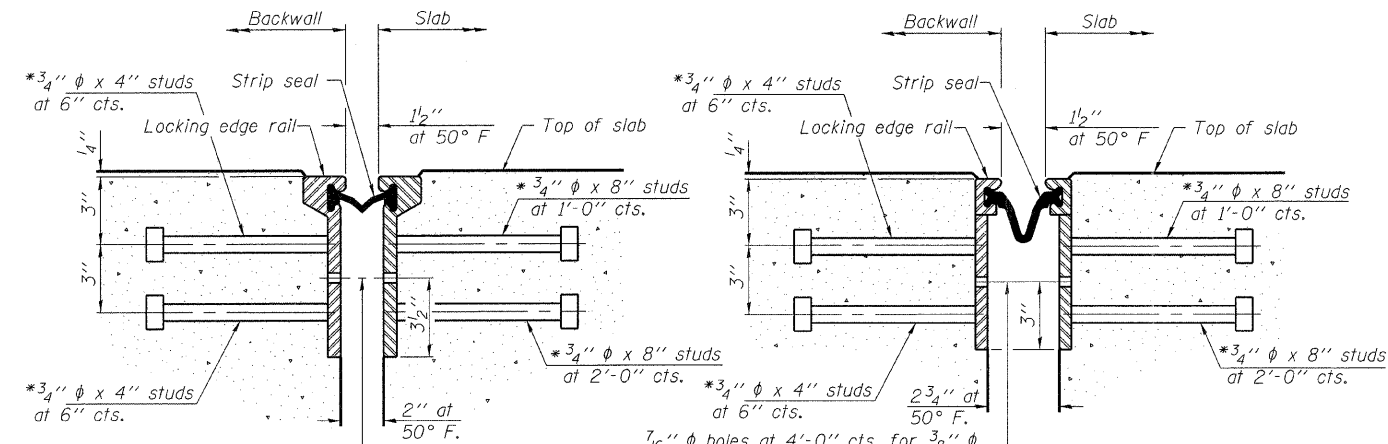
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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.M.S.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L51 FEE CODE 184-000000	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 092-0085**

SHEET NO. 10 OF 33 SHEETS

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	43
CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	



**SECTION THRU  
ROLLED RAIL JOINT**

**SECTION THRU  
WELDED RAIL JOINT**

**ROLLED  
EXTRUDED RAIL**

**WELDED RAIL**

**LOCKING EDGE  
RAIL SPLICE**

\*\*\* Back gouge not required if complete joint penetration is verified by mock-up.

The inside of the locking edge rail groove shall be free of weld residue.  
Rolled rail shown, welded rail similar.

**Notes:**  
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

**Note:**  
Rail shall be assembled in separate lengths per stage and welded continuous in Stage II Construction.

**Note:**  
Anchor studs extending in backwall shall be 4" long.

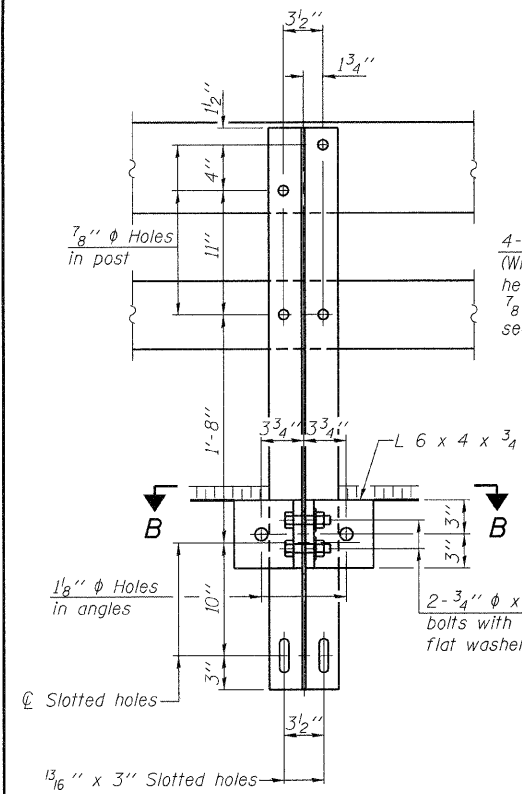
**BILL OF MATERIAL**

Item	Unit	Total
Preformed Joint Strip Seal	Foot	60

EJ-SSJ 7-1-10

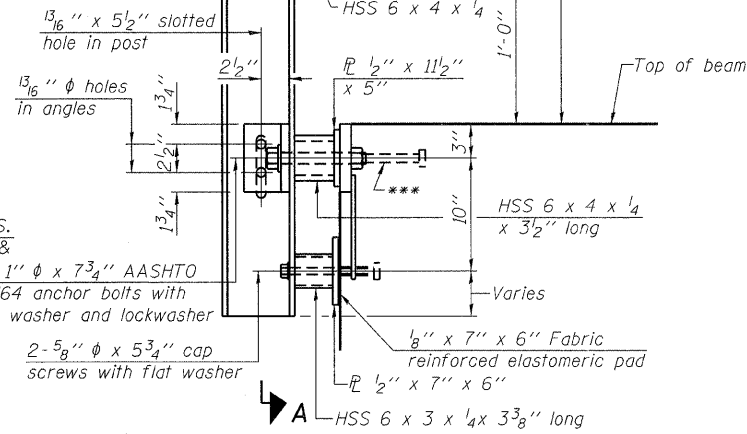
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

FILE NAME = 1020108-sht-br1.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>PREFORMED JOINT STRIP SEAL STRUCTURE NO. 092-0085</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC. 3635 S. EVANSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	44
ILLINOIS PROFESSIONAL DESIGN FIRM 131 PE / SE CORP. 194 000999	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 91449				
		CHECKED - S.W.M.	REVISED -			[ILLINOIS] FED. AID PROJECT				



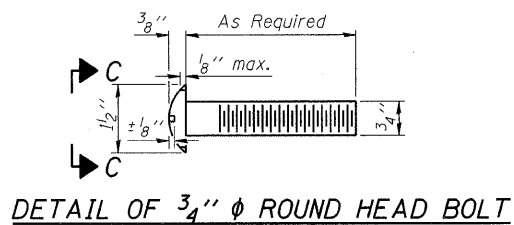
**SECTION A-A**

4-3/4" φ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 7/8" φ holes in hollow structural section may be drilled in the field.

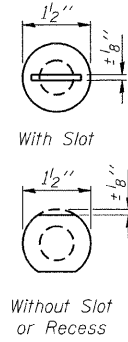


**SECTION AT RAIL POST**

Reinforcement bars in the top of the slab may be placed with a 1/2" minimum clearance in the area of the rail post anchor devices. The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

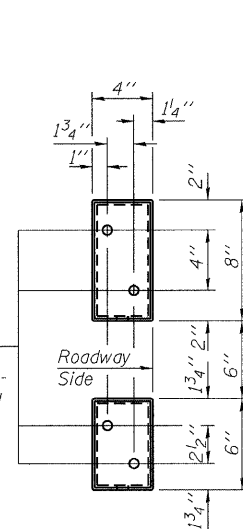


**DETAIL OF 3/4" φ ROUND HEAD BOLT**

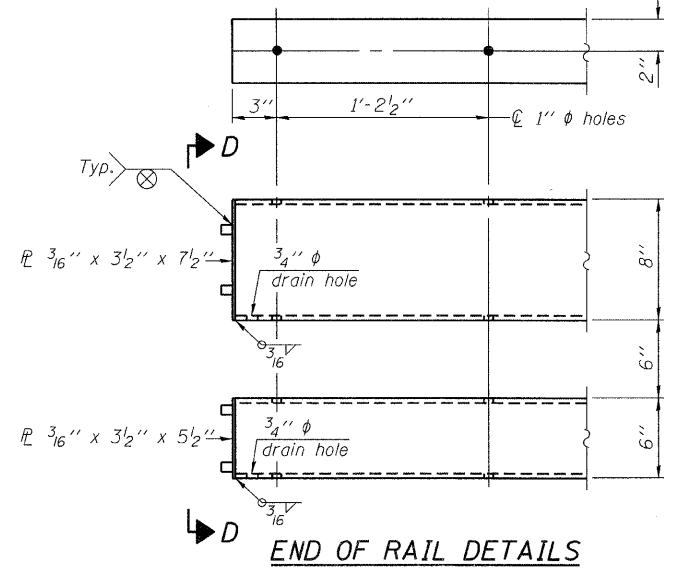


**VIEW C-C**

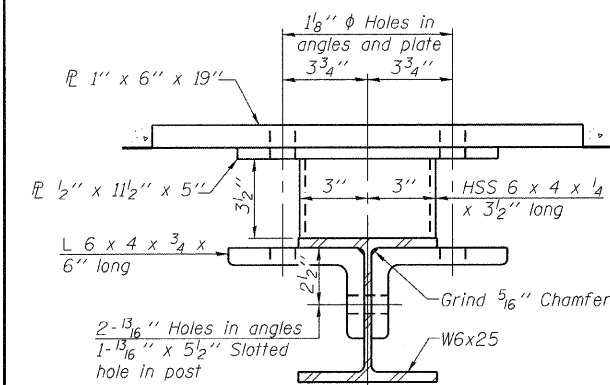
φ - 5/8" reduced base welded studs. Provide 4-5/8" washers and self-locking nuts or nuts and jam nuts for guardrail connection shown on Std. 631032.



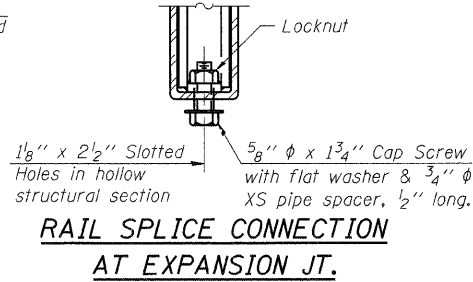
**VIEW D-D**



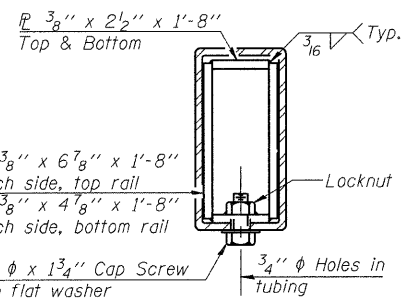
**END OF RAIL DETAILS**



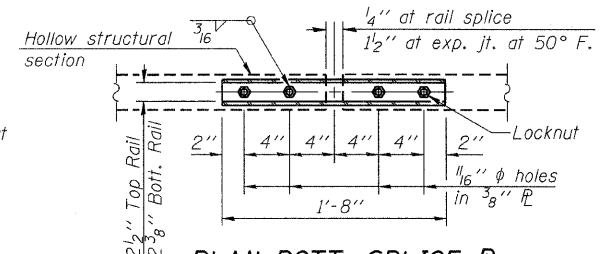
**SECTION B-B**



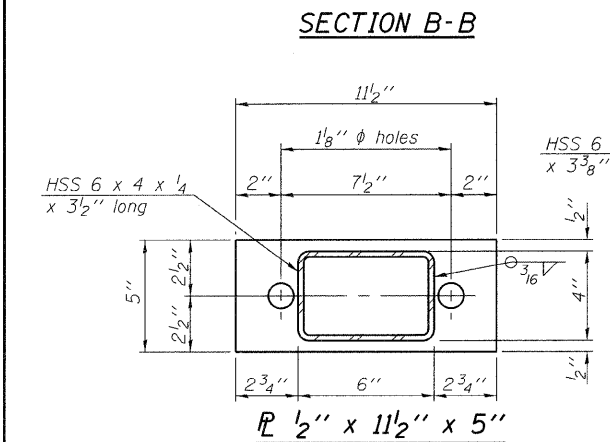
**RAIL SPLICE CONNECTION AT EXPANSION JT.**



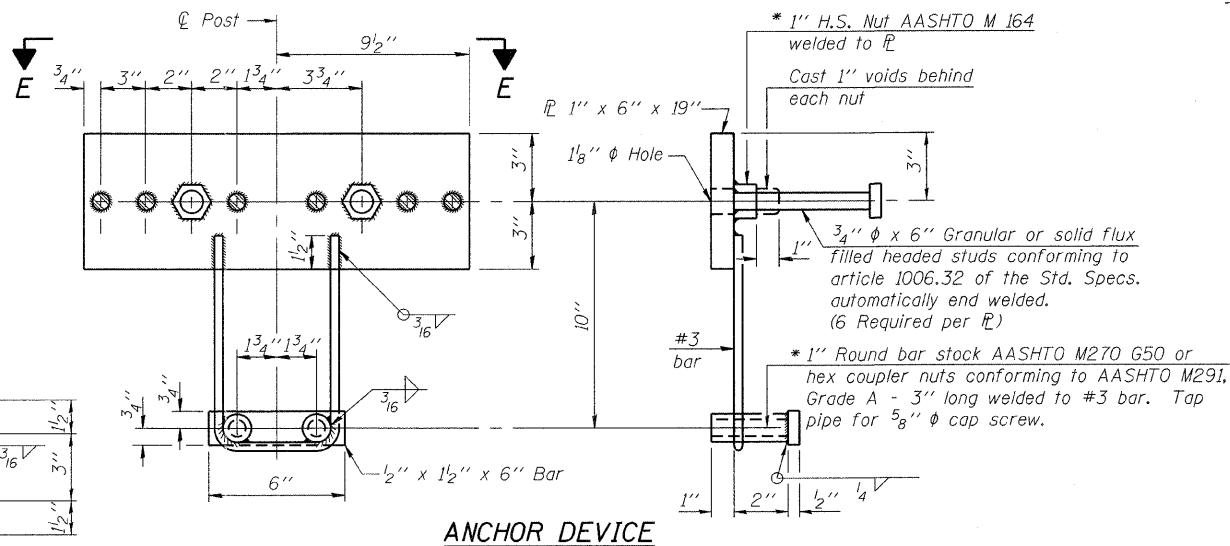
**SECTION AT RAIL SPLICE**



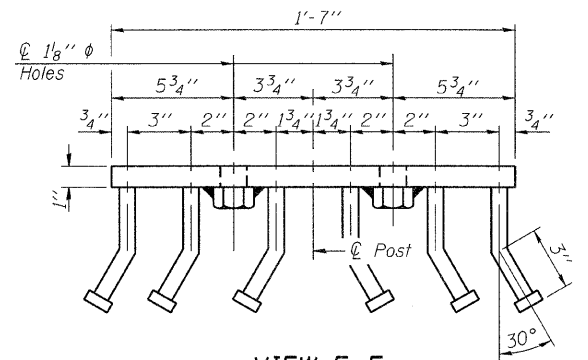
**PLAN-BOTT. SPLICE TYPICAL**



**SECTION B-B**



**ANCHOR DEVICE**



**VIEW E-E**

Notes:  
 All field drilled holes shall be coated with an approved zinc rich paint before erection.  
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Railing, Type SM.  
 All steel rail members shall be galvanized according to Article 509.05 of the Standard Specifications.  
 \*\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.

**BILL OF MATERIAL**

Item	Unit	Quantity
Steel Railing, Type SM	Foot	273

R-34HMAWS

7-1-10

(6'-3" Maximum Post Spacing) (1/4" minimum to 3/8" maximum HMA thickness)

\*Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

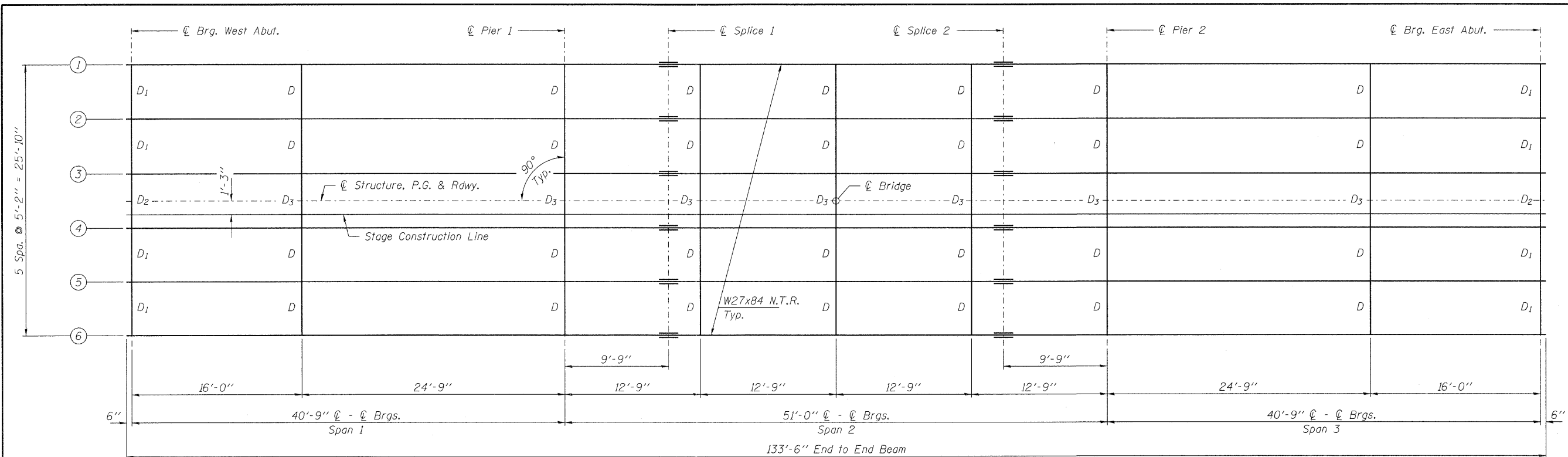
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HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62708 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / P/E / S.E. CORP. 194.000099	PLOT SCALE =	CHECKED - S.M.S.	REVISED -
	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS  
 VERMILION COUNTY HIGHWAY DEPARTMENT

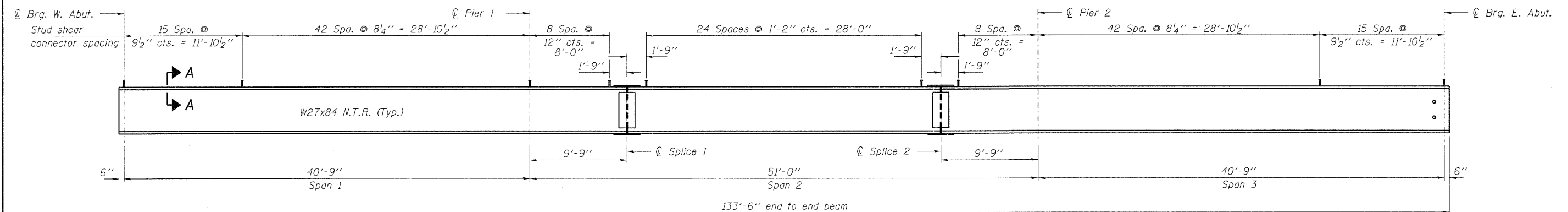
STEEL RAILING, TYPE SM  
 STRUCTURE NO. 092-0085

SHEET NO. 12 OF 33 SHEETS

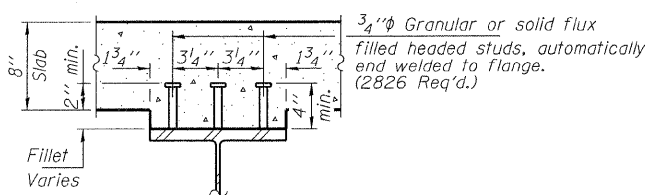
FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	45
				CONTRACT NO. 91449
ILLINOIS FED. AID PROJECT				



**PLAN**



**ELEVATION**



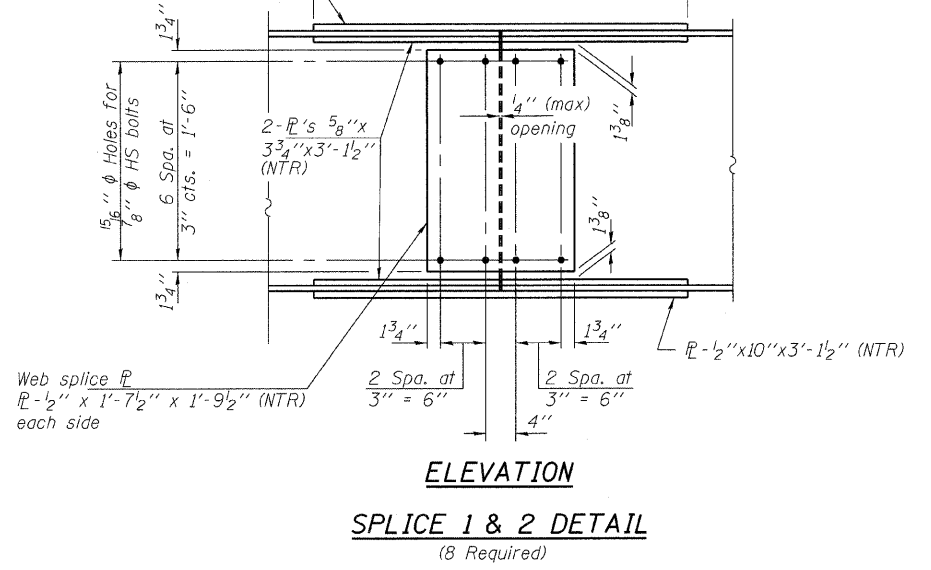
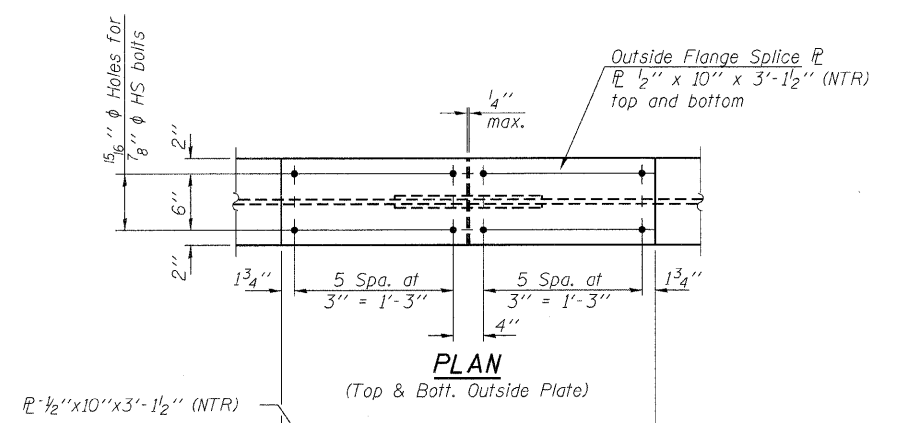
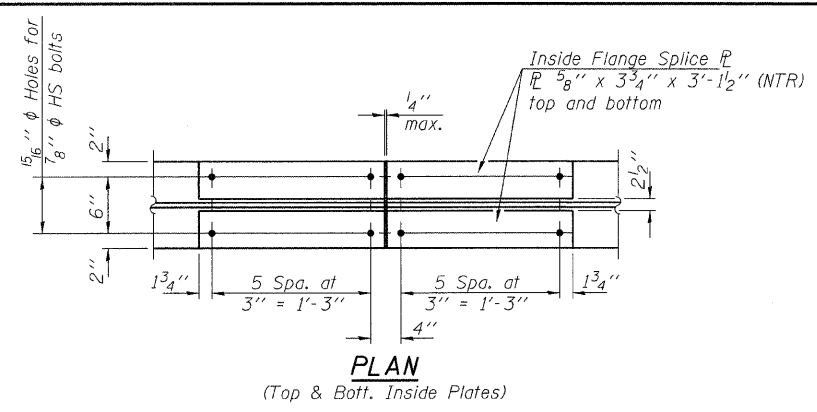
**SECTION A-A**

Location	☉ Brg. W. Abut.	☉ Brg. Pier 1	☉ Splice 1	☉ Splice 2	☉ Brg. Pier 2	☉ Brg. E. Abut.
BEAM 1	559.23	559.23	559.23	559.23	559.23	559.23
BEAM 2	559.34	559.34	559.34	559.34	559.34	559.34
BEAM 3	559.45	559.45	559.45	559.45	559.45	559.45
☉ STR.	559.50	559.50	559.50	559.50	559.50	559.50
BEAM 4	559.45	559.45	559.45	559.45	559.45	559.45
BEAM 5	559.34	559.34	559.34	559.34	559.34	559.34
BEAM 6	559.23	559.23	559.23	559.23	559.23	559.23

**TOP OF BEAM ELEVATIONS**

(For fabrication only)  
(Does not include Dead Load Deflections)

**Notes:**  
 Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.  
 All beams and splices shall be M270 Grade 50W.  
 All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.  
 For Structural Steel details see sheet 14 & 15 of 33.  
 Contractor has the option to eliminate one splice if desired. Remaining splice shall be located in position shown in plans.



INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or 2	0.5 Sp. 2
$I_s$	(in <sup>4</sup> )	2,850	2,850	2,850
$I_c(n)$	(in <sup>4</sup> )	8,593	8,593	8,593
$I_c(3n)$	(in <sup>4</sup> )	6,310	6,310	6,310
$I_c(cr)$	(in <sup>4</sup> )	-	-	-
$S_s$	(in <sup>3</sup> )	213	213	213
$S_c(n)$	(in <sup>3</sup> )	334	334	334
$S_c(3n)$	(in <sup>3</sup> )	301	301	301
$S_c(cr)$	(in <sup>3</sup> )	-	-	-
DC1	(k/')	0.64	0.64	0.64
M <sub>DC1</sub>	('k)	73	137	72
DC2	(k/')	0.04	0.04	0.04
M <sub>DC2</sub>	('k)	4	8	4
DW	(k/')	0.26	0.26	0.26
M <sub>DW</sub>	('k)	30	56	29
$M_k + IM$	('k)	375	326	387
$M_u$ (Strength I)	('k)	798	836	816
* $\phi_r M_n$	('k)	1,739	-	1,741
$f_s$ DC1	(ksi)	4.1	7.7	4.1
$f_s$ DC2	(ksi)	0.2	0.3	0.2
$f_s$ DW	(ksi)	1.2	2.2	1.2
$f_s$ 1.3(LL+IM)	(ksi)	17.5	15.2	18.1
$f_s$ (Service II)	(ksi)	23.0	25.5	23.4
0.95R <sub>n</sub> F <sub>yr</sub>	(ksi)	47.5	47.5	47.5
** $f_s$ (Total)(Strength I)	(ksi)	-	33.9	-
** $\phi_r F_n$	(ksi)	-	-	-
V <sub>r</sub>	(k)	18.9	18.9	20.0

\* Compact sections  
\*\* Non-compact sections

INTERIOR GIRDER REACTION TABLE			
		Abut.	Pier 1 or 2
R <sub>DC1</sub>	(k)	9.7	32.8
R <sub>DC2</sub>	(k)	0.6	1.8
R <sub>DW</sub>	(k)	4.0	13.3
R <sub>k + IM</sub>	(k)	49.9	75.8
R <sub>Total</sub>	(k)	64.2	123.7

$I_s, S_s$ : 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).

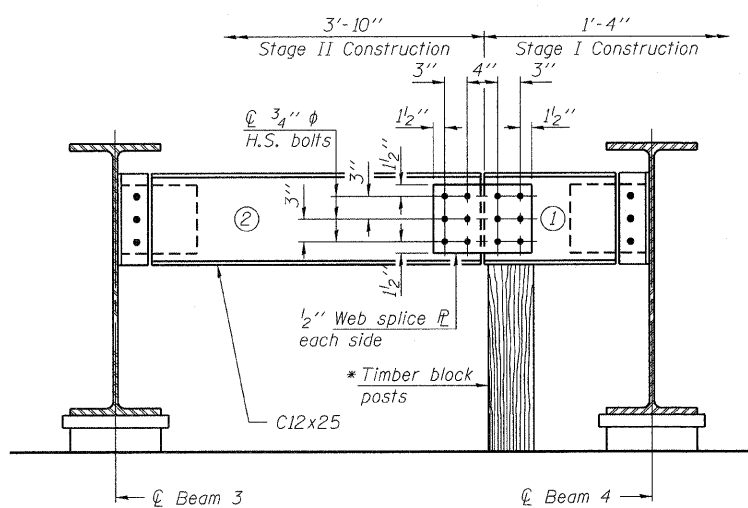
$I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) due to long-term composite (superimposed) dead loads (in.4 and in.3).

$I_c(cr), S_c(cr)$ : Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing  $f_s$  (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite dead loads (in.4 and in.3).

DC1: Un-factored non-composite dead load (kips/ft.).  
M<sub>DC1</sub>: 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<sub>DC2</sub>: 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<sub>DW</sub>: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).  
 $M_k + IM$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).  
M<sub>u</sub> (Strength I): Factored design moment (kip-ft.).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + IM$   
 $\phi_r M_n$ : Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).  
0.95R<sub>n</sub>F<sub>yr</sub>: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).  
 $\phi_r M_{nc}$ : 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).  
 $M_{DC1} + M_{DC2} + M_{DW} + 1.3 M_k + IM$   
 $f_s$  (Total)(Strength I): Sum of stresses as computed from the moments below on non-compact section (ksi).  
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + IM$   
V<sub>r</sub>: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

Notes:  
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.  
All beams and splices shall be M270 Grade 50W.

\* Cost of Timber Block Posts is included with Structural Steel.



**END DIAPHRAGM D<sub>2</sub>**  
(2 Required)

**END DIAPHRAGM STAGE CONSTRUCTION SEQUENCE**

- 1.) Order diaphragm in two sections.
- 2.) Attach section ① of diaphragm to beam
- 3.) Place timber block posts between section ① of diaphragm and abutment bearing section.
- 4.) Attach section ② of diaphragm to both beam and section ① of diaphragm during stage II construction with splice plates.
- 5.) Remove timber block posts.

**Notes:**

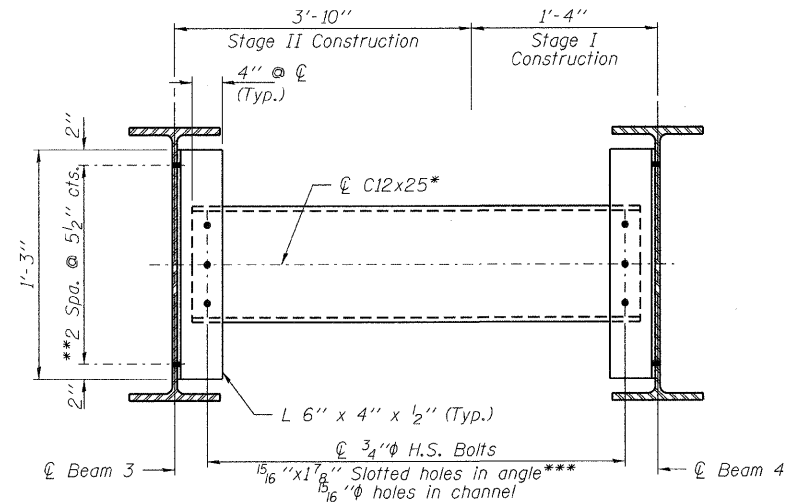
Two hardened washers required for each set of oversized holes.

Bolts in slots shall be finger tight until the second stage pour is complete and fully tightened after completion of the deck pour for Stage II Construction. Position slots so bolts start at the end with no concrete load and finish near the opposite end under deck load, allowing maximum displacement without laterally stressing main members.

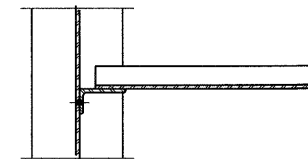
\*Alternate channels (C12X30) are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.

\*\*\*3/4" φ HS bolts, 5/16" φ holes.

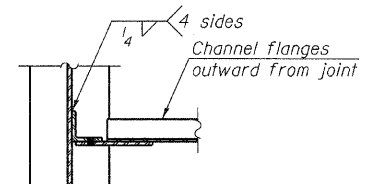
\*\*\*Use slotted holes in angle on South side of Beam 3 (Stage II Construction) and North side of Beam 4 (Stage I Construction) only.



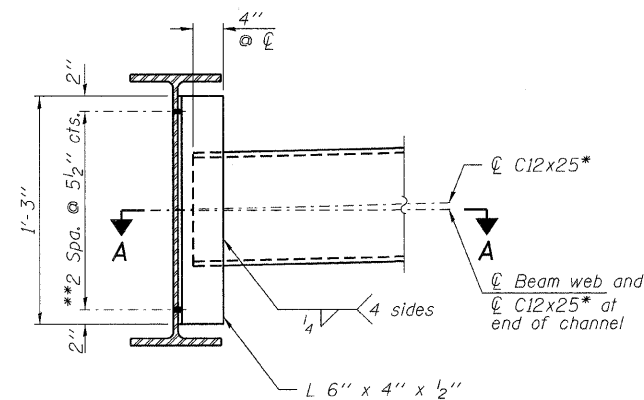
**INTERIOR DIAPHRAGM D<sub>3</sub>**  
(7 Required)



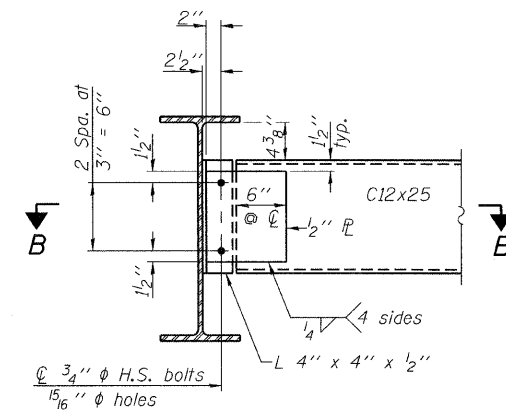
**SECTION A-A**



**SECTION B-B**



**INTERIOR DIAPHRAGM D**  
(28 Required)



**END DIAPHRAGM D<sub>1</sub>**  
(8 Required)

Note:  
Two hardened washers required for each set of oversized holes.

FILE NAME = 100108-sht-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3263 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62705	PLOT SCALE =	CHECKED - S.M.S.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000959	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

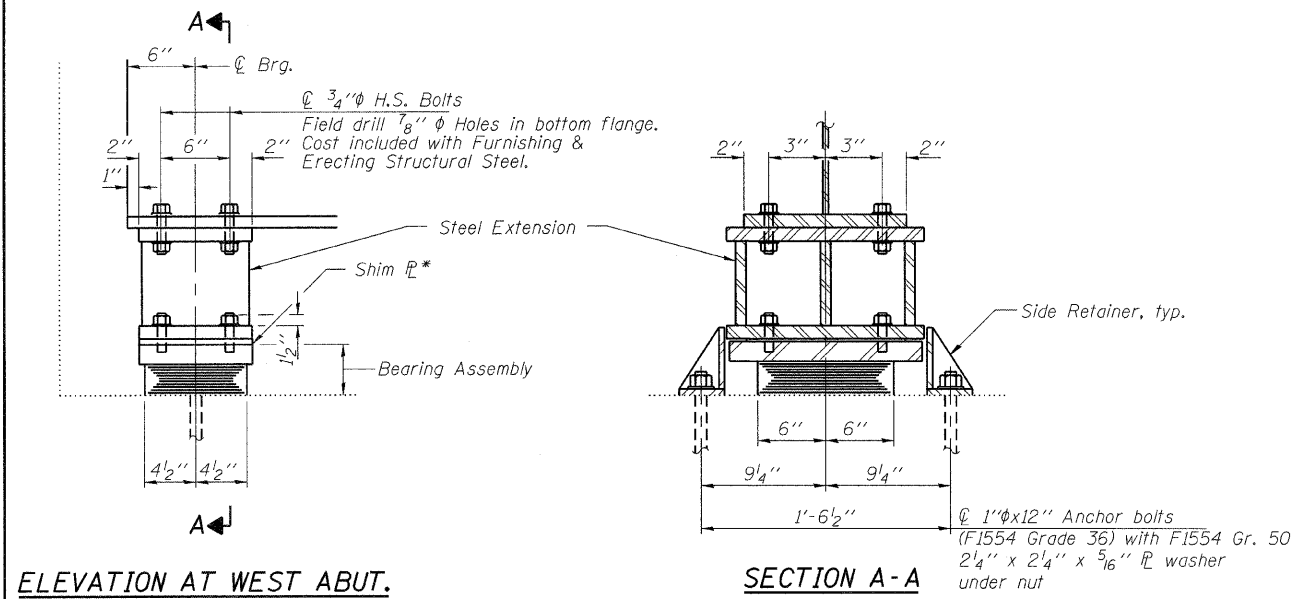
**STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT**

**STRUCTURAL STEEL DETAILS  
STRUCTURE NO. 092-0085**

SHEET NO. 15 OF 33 SHEETS

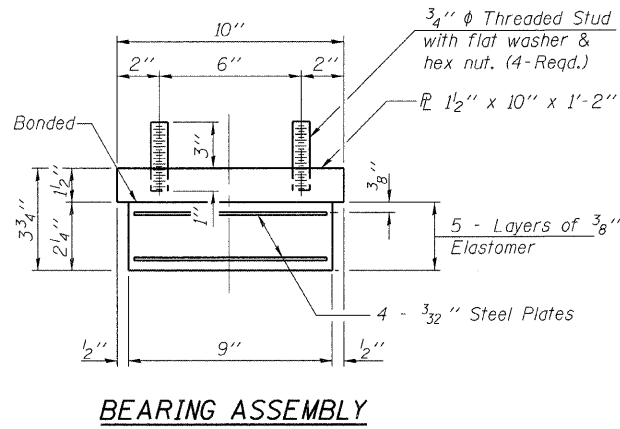
FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	48
CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	



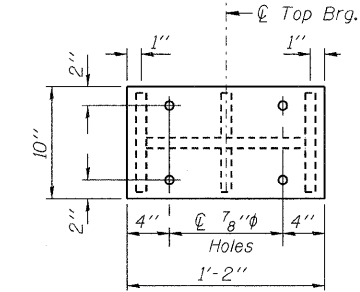


**ELEVATION AT WEST ABUT.**

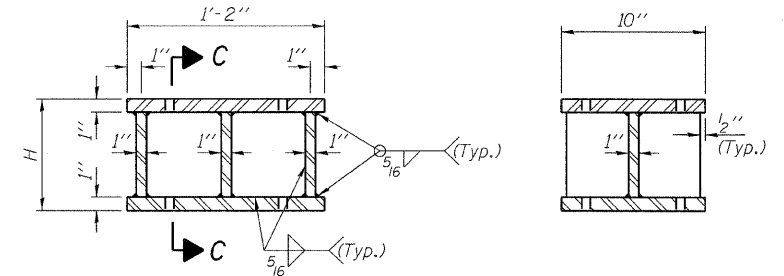
**TYPE I ELASTOMERIC EXP. BRG. AT WEST ABUTMENT**  
(6 Required)



**BEARING ASSEMBLY**

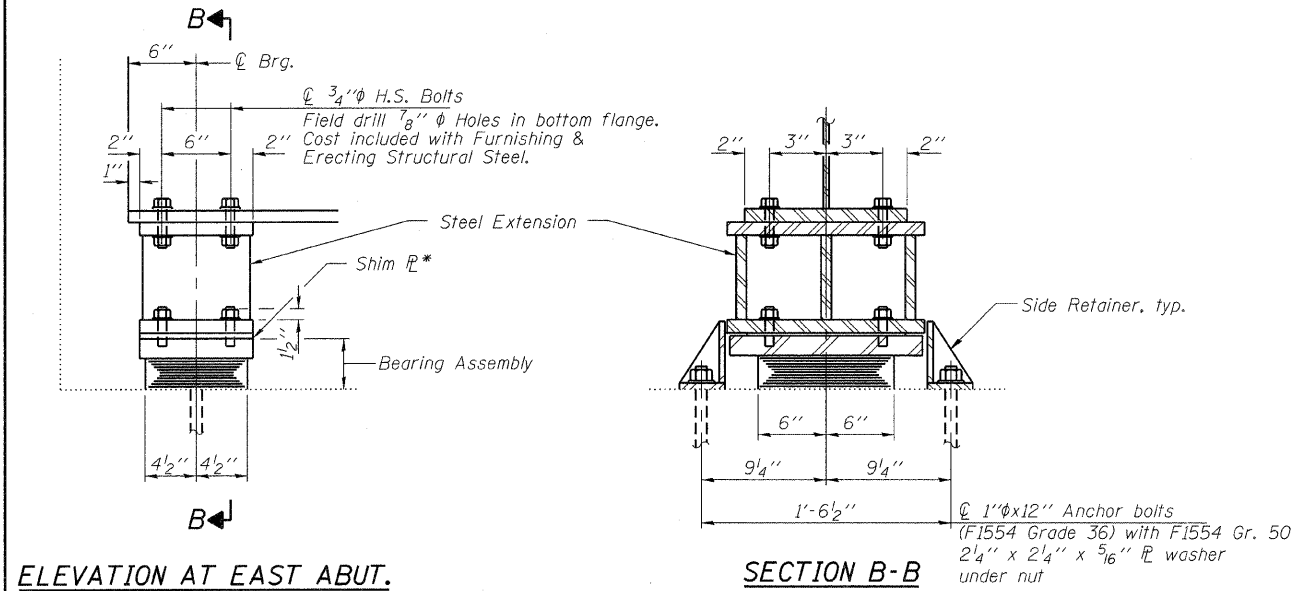


**PLAN STEEL EXTENSION**



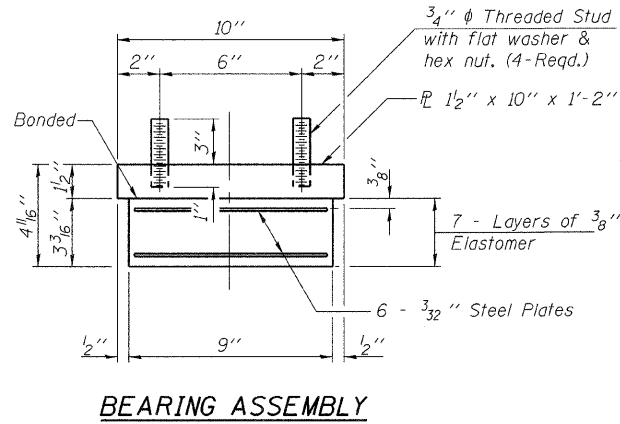
**ELEVATION STEEL EXTENSION**

**SECTION C-C**



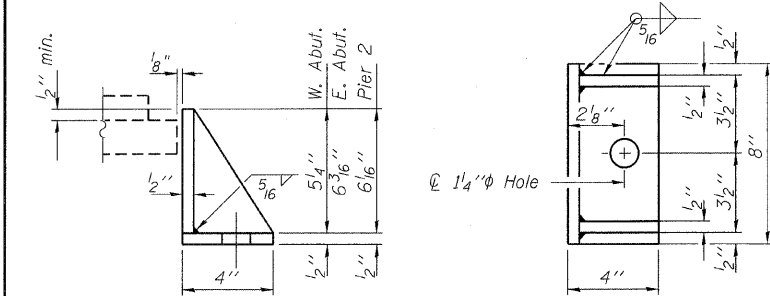
**ELEVATION AT EAST ABUT.**

**TYPE I ELASTOMERIC EXP. BRG. AT EAST ABUTMENT**  
(6 Required)



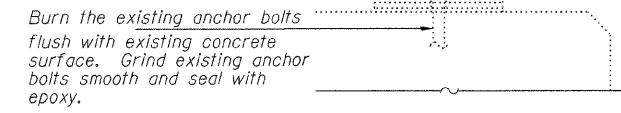
**BEARING ASSEMBLY**

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 for side retainers may be cast in place or installed in holes drilled before or after members are in place.  
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.  
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.  
All structural steel plates of the Bearing Assembly shall conform to the requirements of AASHTO M270 Grade 50W.  
Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.  
Two  $\frac{1}{8}''$  adjustment shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.  
New steel extensions, connection bolts, Fill  $\frac{1}{2}$ "s and Shim  $\frac{1}{2}$ "s are included in "Furnishing and Erecting Structural Steel".



**SIDE RETAINER**  
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

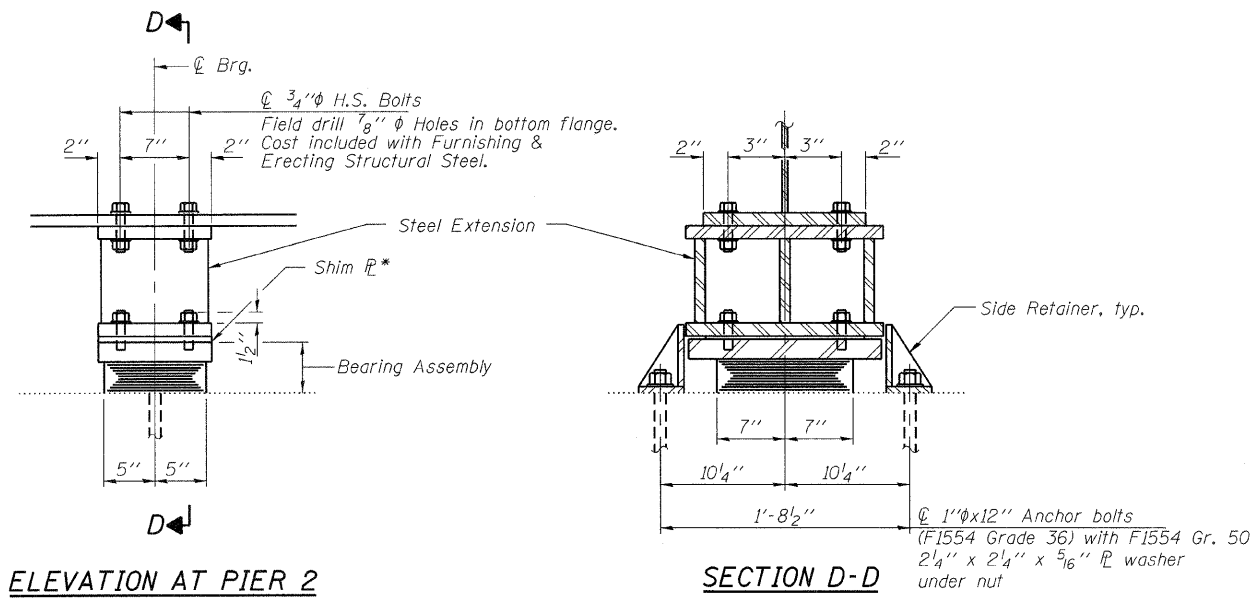
STEEL EXTENSION HEIGHTS "H"				
Beam	W. Abut.	Pier 1	Pier 2	E. Abut.
1	1'-0 <sup>5</sup> / <sub>8</sub> "	0'-6 <sup>1</sup> / <sub>4</sub> "	1'-3"	0'-11 <sup>1</sup> / <sub>2</sub> "
2	1'-0"	0'-6"	1'-2 <sup>5</sup> / <sub>8</sub> "	0'-11 <sup>3</sup> / <sub>8</sub> "
3	1'-1 <sup>1</sup> / <sub>4</sub> "	0'-7 <sup>1</sup> / <sub>4</sub> "	1'-4"	1'-0 <sup>5</sup> / <sub>8</sub> "
4	1'-1 <sup>1</sup> / <sub>4</sub> "	0'-7 <sup>1</sup> / <sub>4</sub> "	1'-4"	1'-0 <sup>5</sup> / <sub>8</sub> "
5	1'-0"	0'-6"	1'-2 <sup>5</sup> / <sub>8</sub> "	1'-11 <sup>3</sup> / <sub>8</sub> "
6	1'-0 <sup>5</sup> / <sub>8</sub> "	0'-6 <sup>1</sup> / <sub>8</sub> "	1'-3"	0'-11 <sup>1</sup> / <sub>8</sub> "



**EXISTING BEARING REMOVAL DETAIL**

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Anchor Bolts, 1"	Each	24

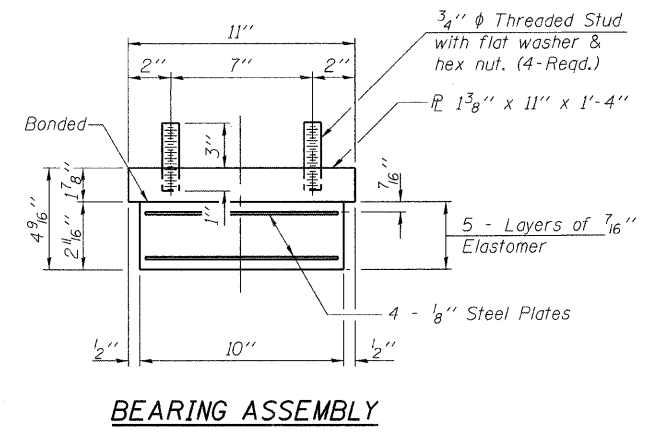


**ELEVATION AT PIER 2**

**SECTION D-D**

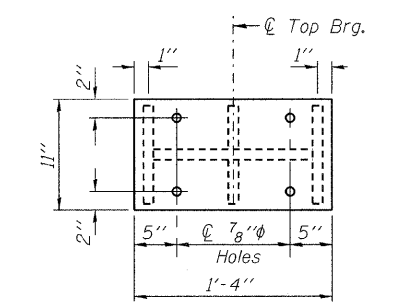
**TYPE I ELASTOMERIC EXP. BRG. AT PIER 2**

(6 Required)

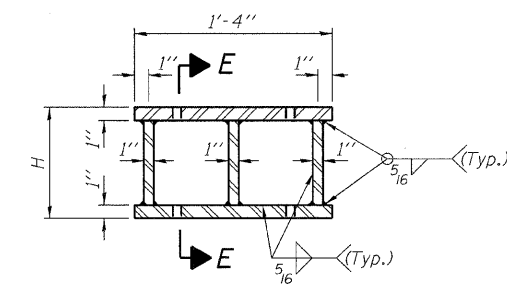


**BEARING ASSEMBLY**

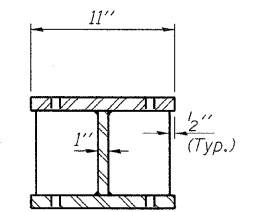
Note:  
Shim plates shall not be placed  
under Bearing Assembly.



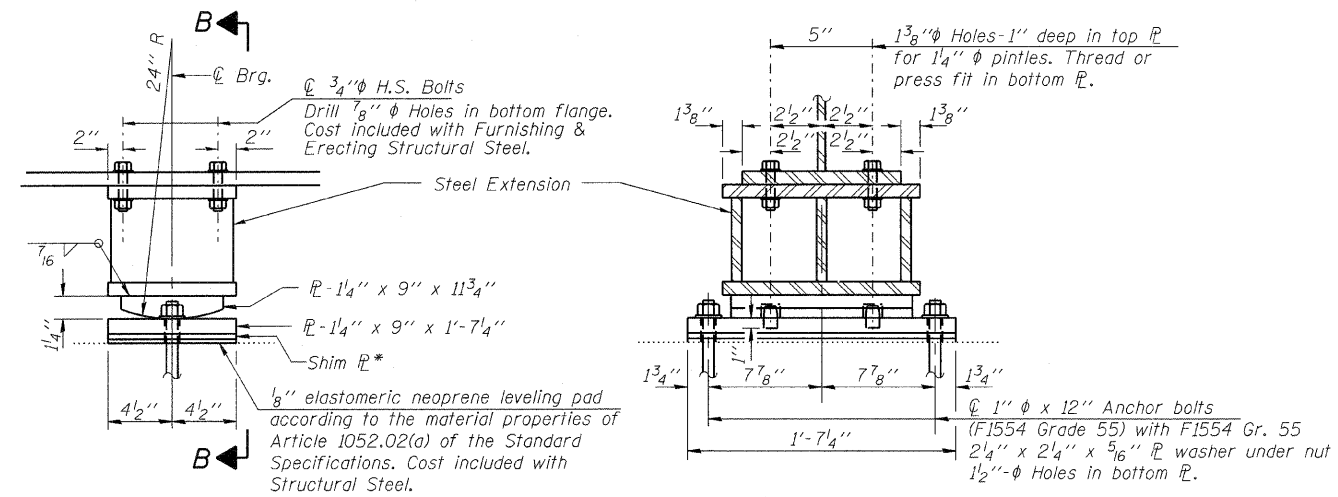
**PLAN STEEL EXTENSION**



**ELEVATION STEEL EXTENSION**



**SECTION E-E**

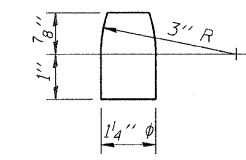


**ELEVATION AT PIER**

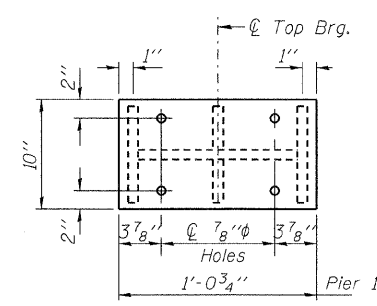
**SECTION B-B**

**FIXED BEARING AT PIER 1**

(6 Required)

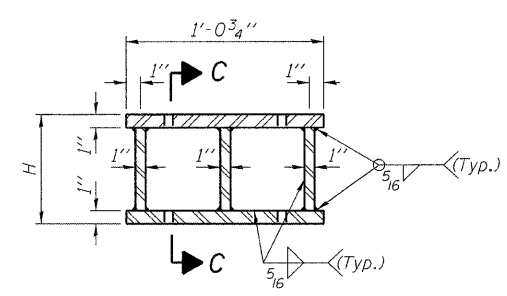


**PINTLE**



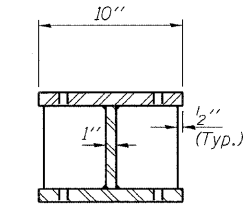
**PLAN STEEL EXTENSION**

Pier 1



**ELEVATION STEEL EXTENSION**

(Fixed Bearing - Pier 1)



**SECTION C-C**

Notes:  
New steel extensions, fixed bearing plates, connection bolts, Fill  $\phi$ 's and Shim  $\phi$ 's are included in "Furnishing and Erecting Structural Steel".  
The anchor bolt sizes and grades shown constitute a calculated seismic structural fuse. Substitution of higher diameter and/or grade bolts will not be allowed.  
All structural steel for the fixed bearings, including plate materials and pintles shall be AASHTO M270 Grade 50W.  
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.  
See sheet 16 of 33 for table of steel extension heights.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type 1	Each	6
Anchor Bolts, 1"	Each	24

FILE NAME = 100108-sht-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 5085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62765	PLOT SCALE =	CHECKED - S.M.S.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM 181 PF / SE CORP. 184 000859	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

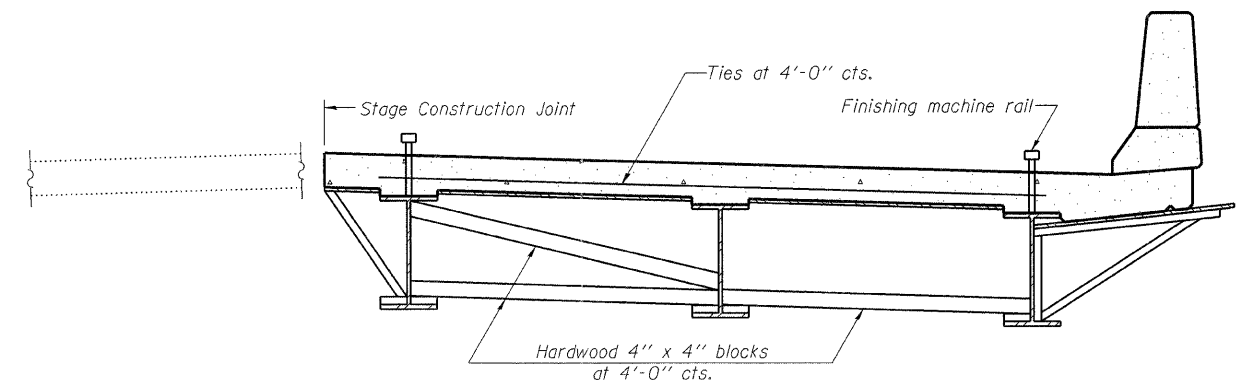
**STATE OF ILLINOIS**  
**VERMILION COUNTY HIGHWAY DEPARTMENT**

**BEARING DETAILS**  
**STRUCTURE NO. 092-0085**

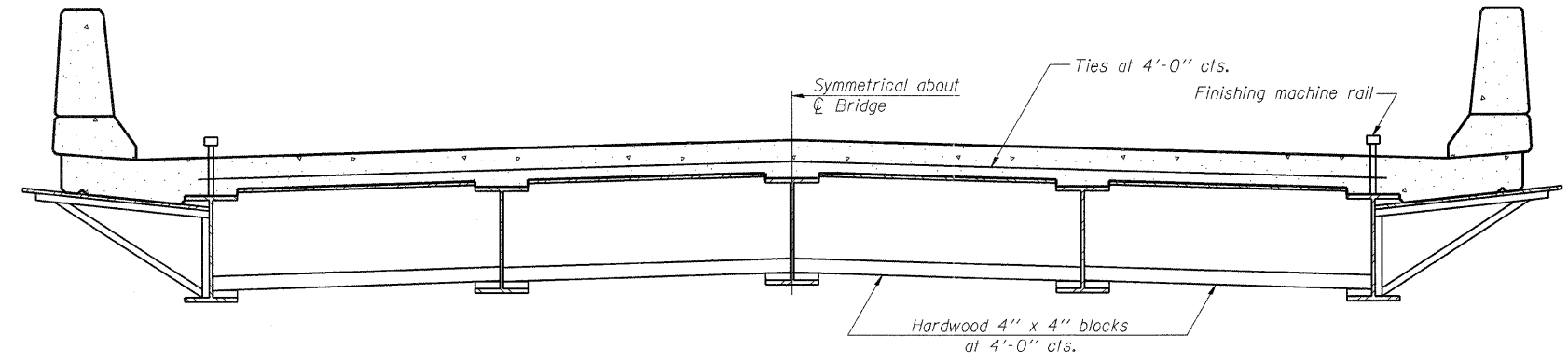
SHEET NO. 17 OF 33 SHEETS

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7043	09-00171-00-BR	VERMILION	66	50
			CONTRACT NO. 91449	
ILLINOIS FED. AID PROJECT				

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.



**FORM BRACES FOR  
STAGE CONSTRUCTION**

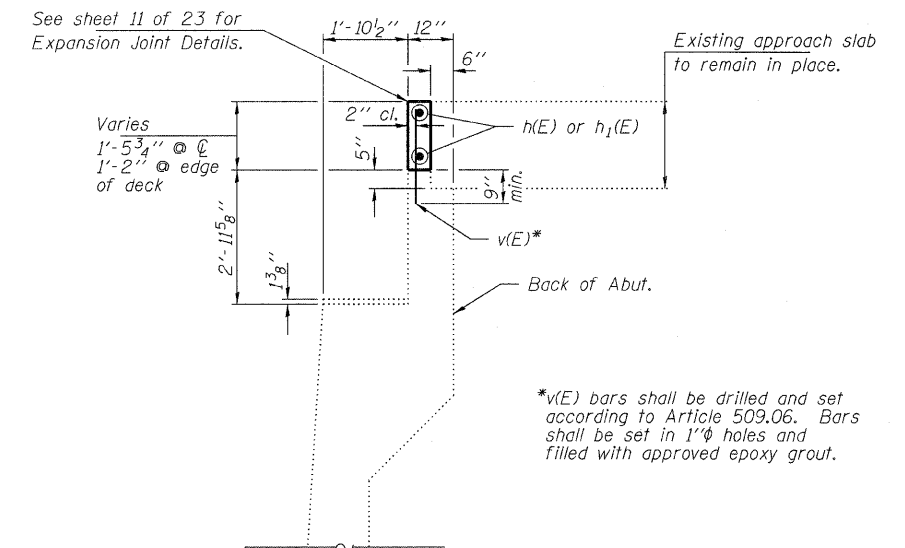
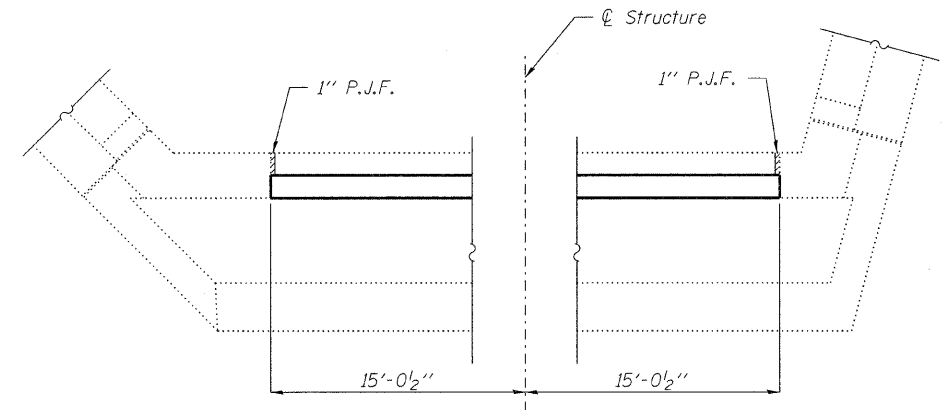
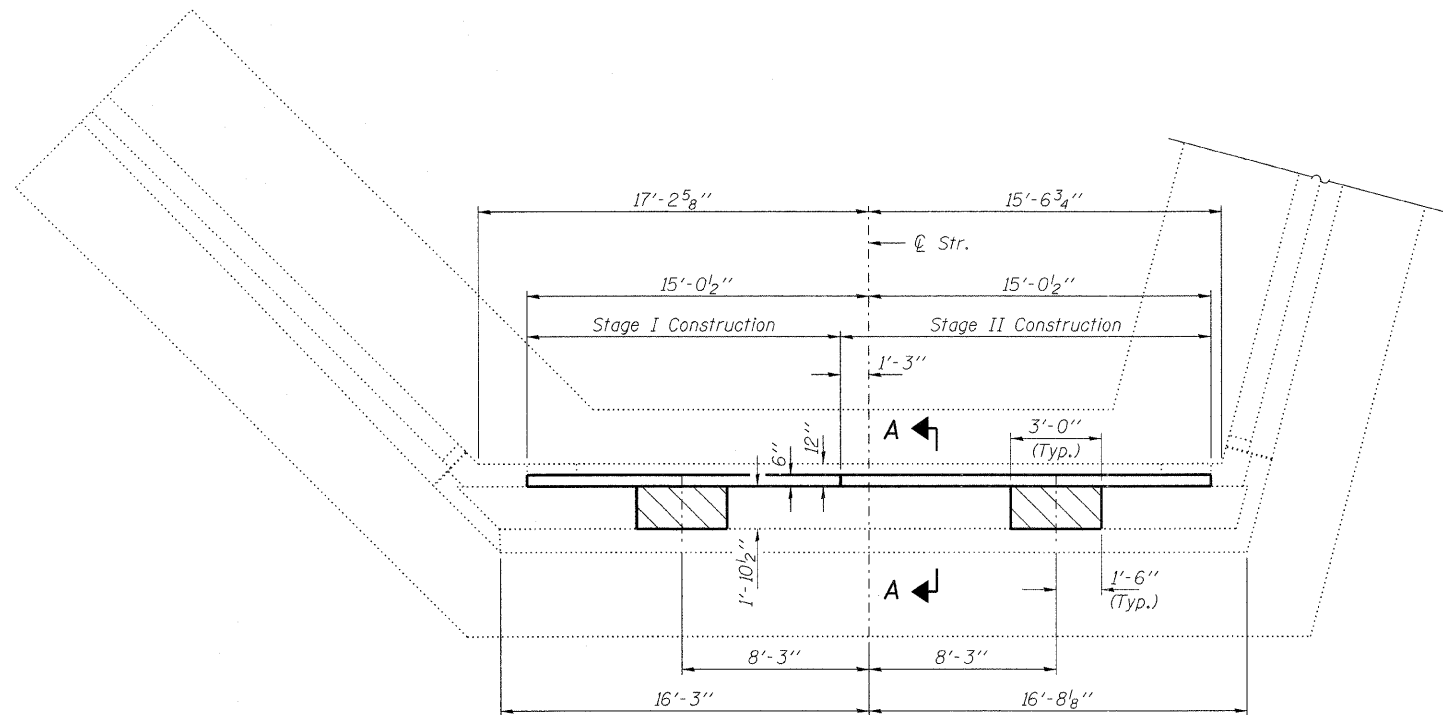


**FORM BRACES FOR  
STANDARD CONSTRUCTION**

SB-1

7-1-10

FILE NAME = 100105-sht-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>CANTILEVER FORMING BRACKETS FOR SUPERSTRUCTURES WITH W27 BEAMS AND SMALLER</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
<b>HAMPTON, LENZINI AND RENWICK, INC.</b> 3265 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L.S.I. P.E. REG. NO. 184-020959	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	51	
	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -			SHEET NO. 18 OF 33 SHEETS					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT					
						CONTRACT NO. 91449					



\*v(E) bars shall be drilled and set according to Article 509.06. Bars shall be set in 1"  $\phi$  holes and filled with approved epoxy grout.

Name Plate shall be located at Southwest Wingwall. Bolts shall be drilled and grouted as per Standard Specifications.

**ELEVATION**  
(Looking West)

Indicates Concrete Removal

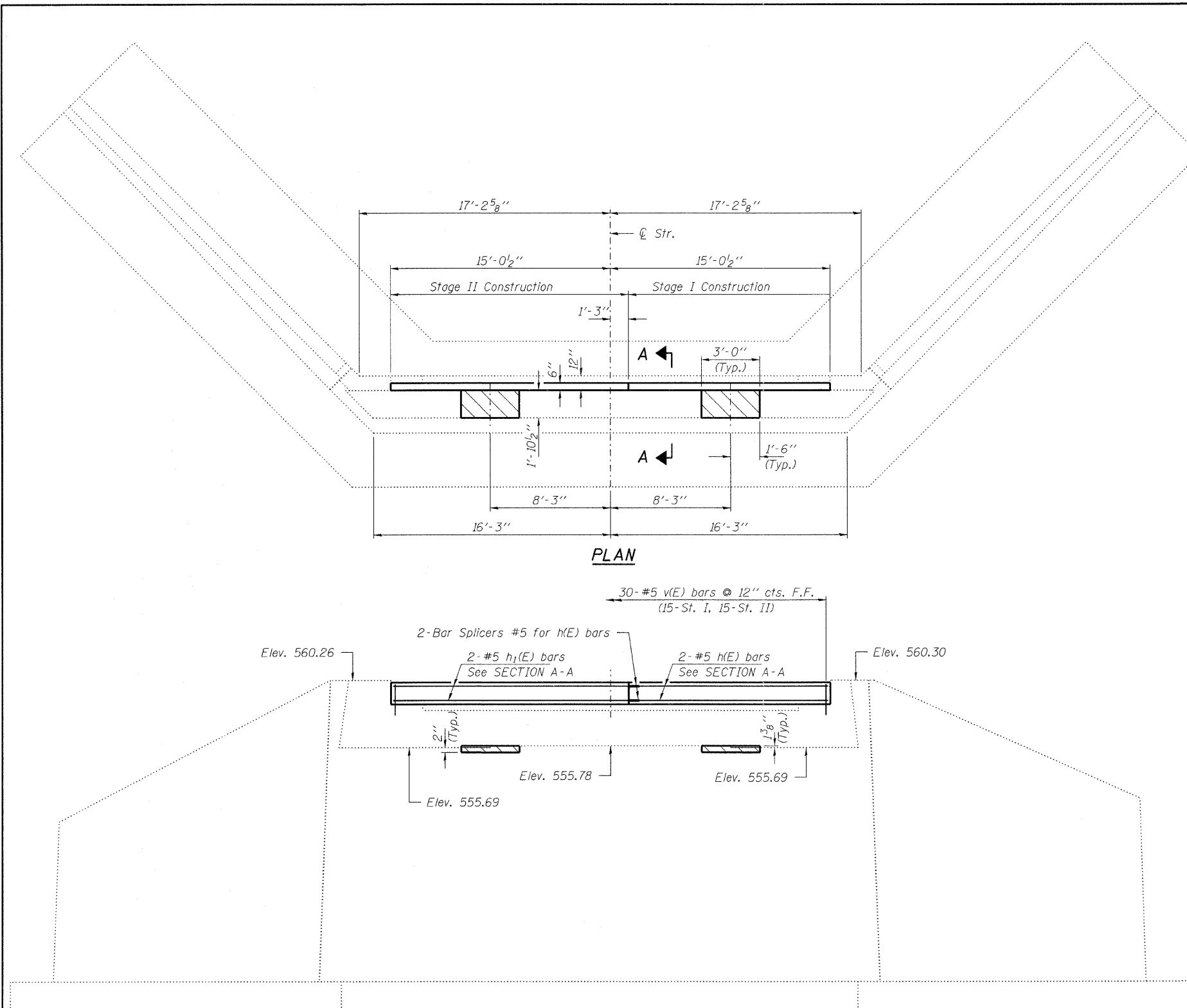
Remove concrete down to top mat of reinforcement in wall. Proposed bearing seat shall be poured to match existing cap elevation at the upper step (Elev. 555.80).

Notes:

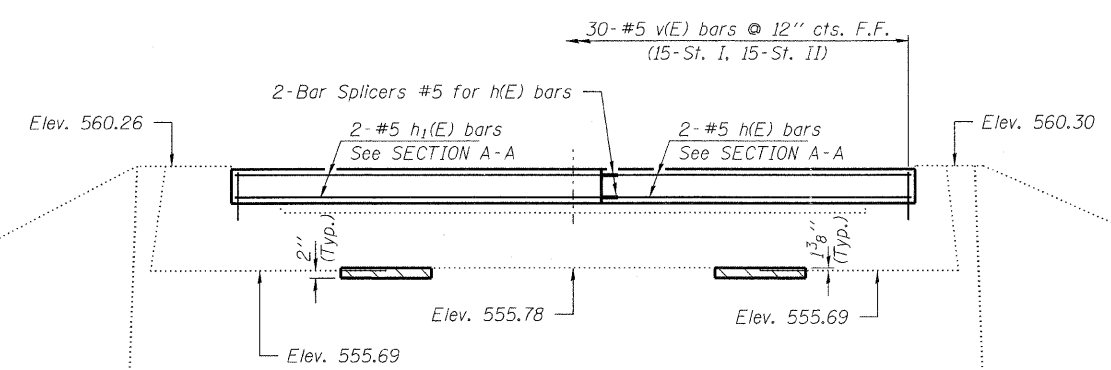
- Concrete damaged during the removal process shall be repaired at the expense of the Contractor.
- Structural Repair of Concrete shall be used to repair existing deterioration to the abutment backwalls and bearing seats as directed by the Engineer.
- Existing reinforcement shall be cleaned and incorporated into the new construction.
- Cost of drilling and grouting reinforcing bars included in cost for Concrete Structures.
- The backwall shall be poured after the deck.
- See sheet 11 of 23 for expansion joint details.

**BILL OF MATERIAL - W. ABUT.**

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	2	#5	13'-5"	—
h <sub>1</sub> (E)	2	#5	15'-11"	—
v(E)	30	#5	1'-9"	—
Concrete Removal			Cu. Yd.	0.1
Concrete Structures			Cu. Yd.	0.8
Reinforcement Bars, Epoxy Coated			Pound	120
Bar Splicers			Each	2
Structural Repair of Concrete Depth = 5"			Sq. Ft.	8



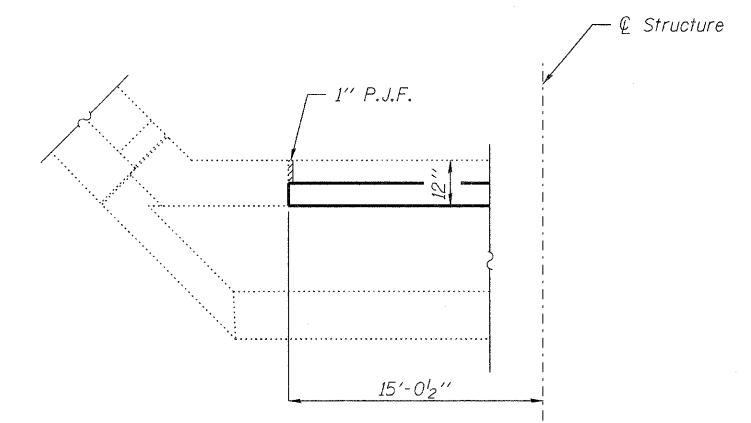
**PLAN**



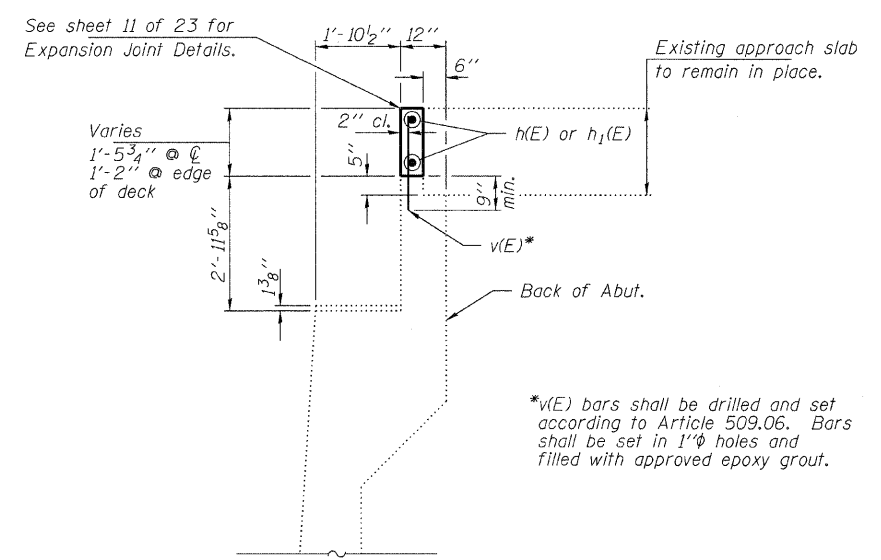
**ELEVATION**  
(Looking East)

Indicates Concrete Removal

Remove concrete down to top mat of reinforcement in wall. Proposed bearing seat shall be poured to match existing cap elevation at the upper step (Elev. 555.80).



**CORNER DETAIL**

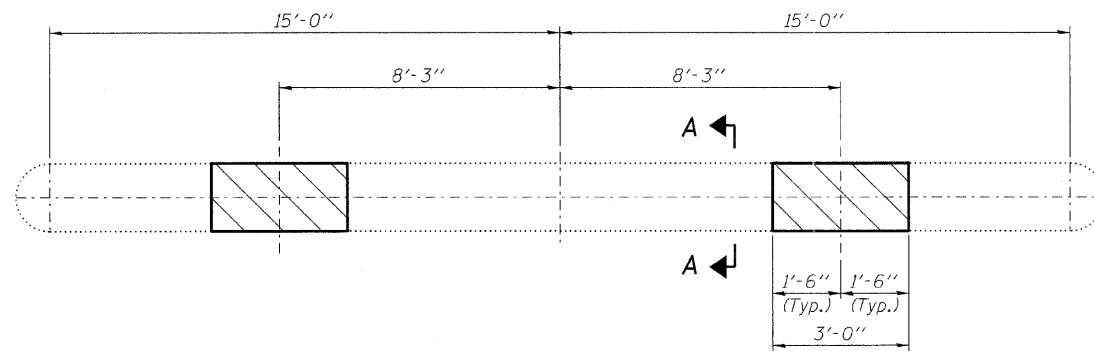


**SECTION A-A**

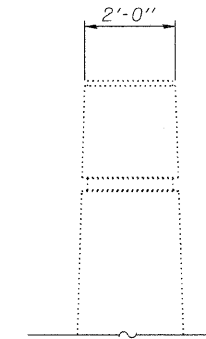
**BILL OF MATERIAL - E. ABUT.**

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	2	#5	13'-5"	————
h1(E)	2	#5	15'-11"	————
v(E)	30	#5	1'-9"	————
Concrete Removal			Cu. Yd.	0.1
Concrete Structures			Cu. Yd.	0.8
Reinforcement Bars, Epoxy Coated			Pound	120
Bar Splicers			Each	2
Structural Repair of Concrete Depth ≈ 5"			Sq. Ft.	8

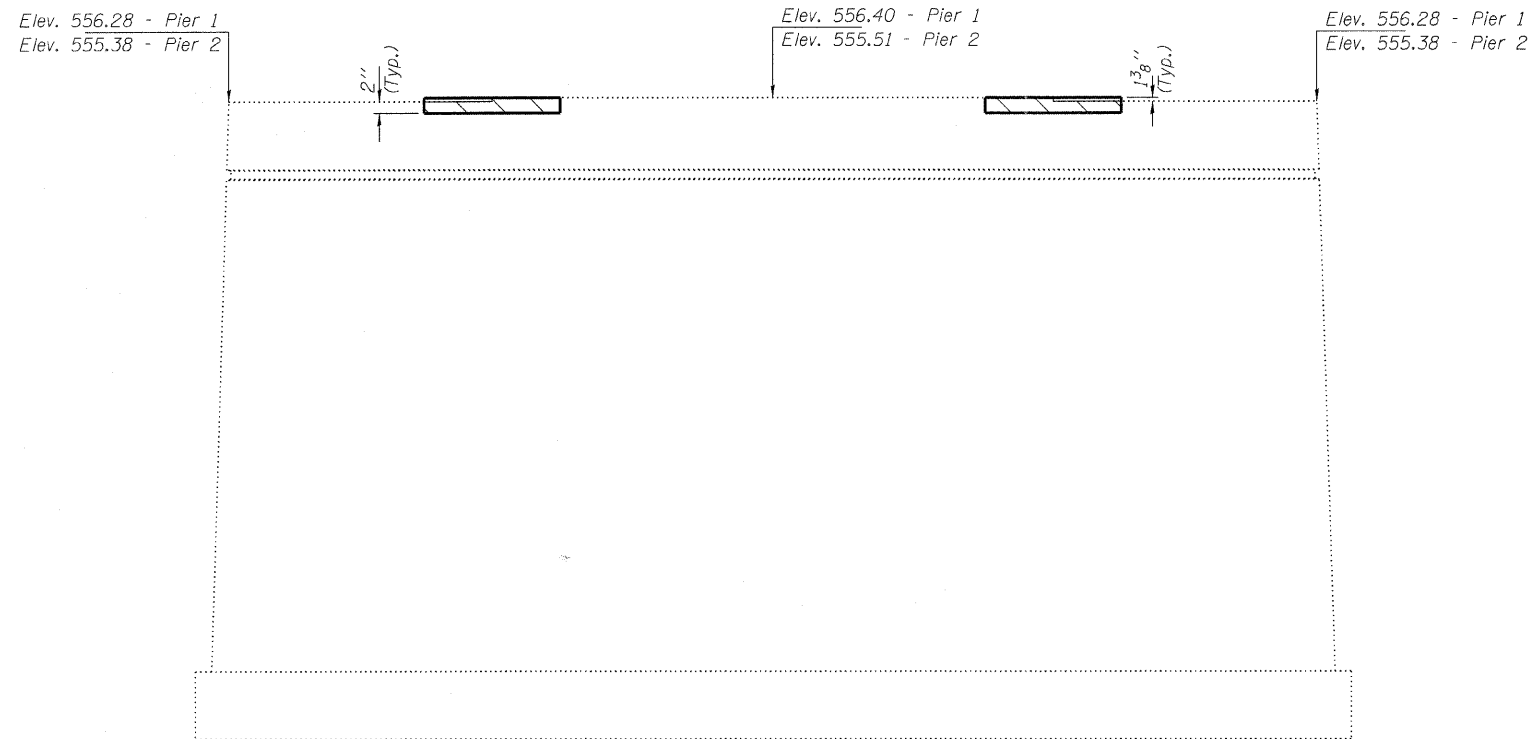
**Notes:**  
Concrete damaged during the removal process shall be repaired at the expense of the Contractor.  
Structural Repair of Concrete shall be used to repair existing deterioration to the abutment backwalls and bearing seats as directed by the Engineer.  
Existing reinforcement shall be cleaned and incorporated into the new construction.  
Cost of drilling and grouting reinforcing bars included in cost for Concrete Structures.  
The backwall shall be poured after the deck.  
See sheet 11 of 23 for expansion joint details.



**PLAN**



**SECTION A-A**



**ELEVATION**  
(Looking East)

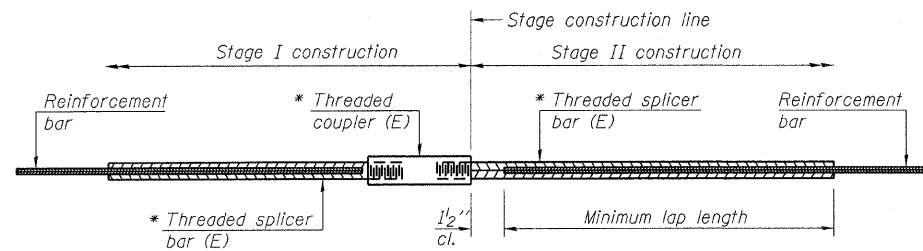
Remove concrete down to top mat of reinforcement in cap.  
Proposed bearing seat shall be poured to match existing cap elevation.  
(Elev. 556.40 - Pier 1; Elev. 555.51 - Pier 2)

Indicates Concrete Removal

Notes:  
Concrete damaged during the removal process shall be repaired at the expense of the Contractor.  
Structural Repair of Concrete shall be used to repair existing deterioration to the abutment backwalls and bearing seats as directed by the Engineer.  
Existing reinforcement shall be cleaned and incorporated into the new construction.

**BILL OF MATERIAL - 2 PIERS**

Item	Unit	Total
Concrete Removal	Cu. Yd.	0.2
Concrete Structures	Cu. Yd.	0.2
Structural Repair of Concrete Depth ≈ 5"	Sq. Ft.	16



**STANDARD BAR SPLICER ASSEMBLY**

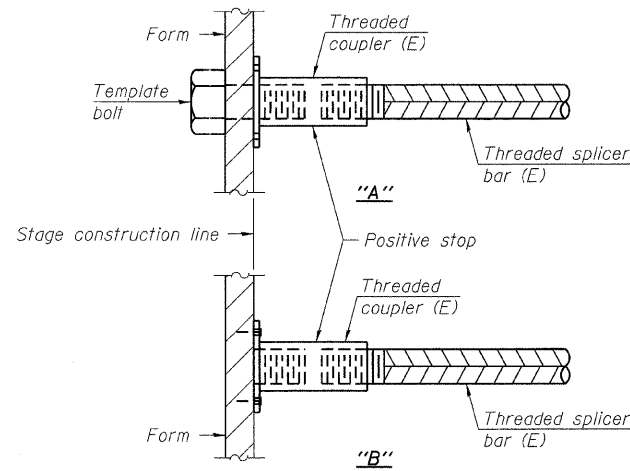
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

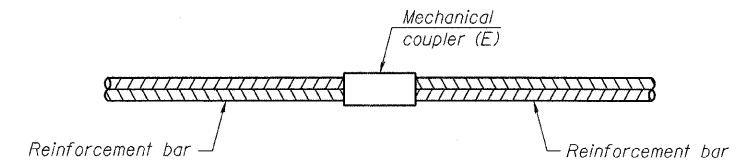
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#5	457	2'-7"
Backwalls	#5	4	2'-11"



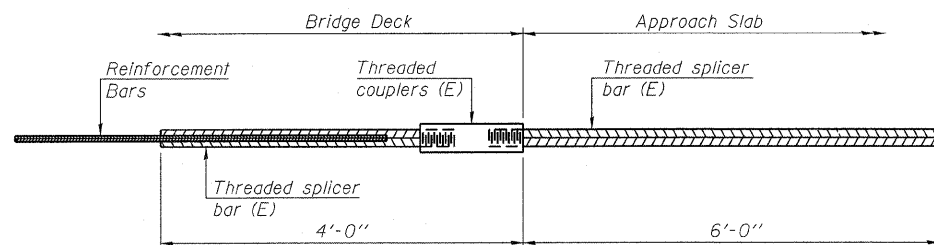
**INSTALLATION AND SETTING METHODS**

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



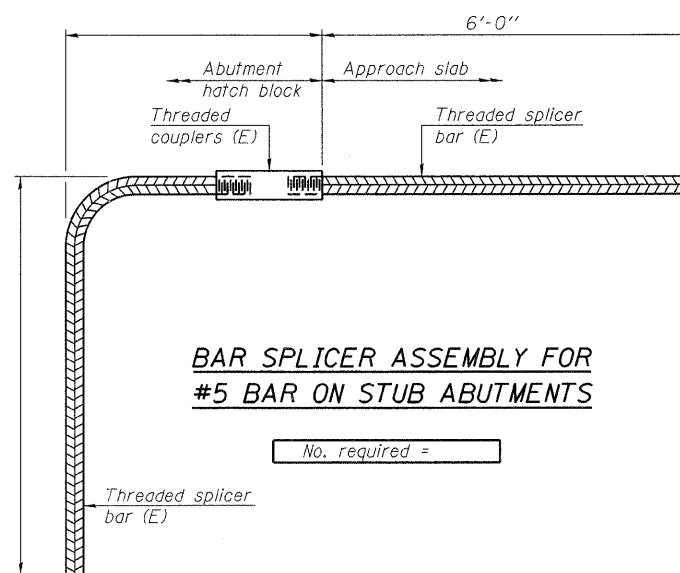
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



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

No. required =



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

No. required =

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
 All reinforcement shall be lapped and tied to the splicer bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
 See special provision for Mechanical Splicers.  
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 7-1-10

FILE NAME = 100108-sht-br-bridge.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -
HAMPTON, LENZINI AND RENWICK, INC. 3385 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703	PLOT SCALE =	CHECKED - S.M.S.	REVISED -
ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 184.000959	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -
		CHECKED - S.W.M.	REVISED -

STATE OF ILLINOIS  
VERMILION COUNTY HIGHWAY DEPARTMENT

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 092-0085

SHEET NO. 22 OF 33 SHEETS

FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
T043	09-00171-00-BR	VERMILION	66	55
CONTRACT NO. 91449			ILLINOIS FED. AID PROJECT	

**MET BRIDGE FOUNDATION SOIL BORING LOG**

Midwest Engineering and Testing, Inc.  
501 Mercury Drive  
Champaign, Illinois 61822  
217-359-2128

Route: County Highway 6 / Perrysville Road  
Section: 09-00171-00-BR  
County: Vermilion County  
Structure No. 092-0085  
Station: 10+95'  
Offset: 6' Lt.

Boring: B-1  
Page: Page 1 of 1  
Date of Boring: June 15 & 16, 2010  
Drilled By: Steve Turner  
Checked By: Daniel E. Tappendorf, P.E.  
MET Project No: 1-03048

Surface Water Elevation: 544.5 ft Ground Water Elevation: when drilling: 539.5 ft. at completion: 542.5 ft.	DEPTH (ft.)	BLOW COUNT (6")	Q <sub>u</sub> (tsf)	MC (%)	SOIL DESCRIPTION	DEPTH (ft.)	BLOW COUNT (6")	Q <sub>u</sub> (tsf)	MC (%)
Ground Surface Elevation: 559.5 ft.					3" Asphalt				
					17" Concrete				
					Brown medium to coarse SAND (SP) EL: 531.5 ft.				
					Gray clayey SILT (ML); EL: 526.5 ft.	30	3	1.3S	20
							9	16	
					Brown medium to coarse SAND (SP) EL: 526.5 ft.				
						5	5		12
							5		
					Brown clayey SAND (SC) EL: 550.0 ft.				
						4	4		11
							4		
					Gray clayey SILT (ML); Weatherd Shale EL: 547.5 ft.				
						10	15	4.5+P	13
							62	50/3"	
					Brown clayey SAND (SC) EL: 545.0 ft.				
						4	5		18
							6		
					Gray clayey SAND (SC) EL: 542.5 ft.				
						1	2	0.9S	18
							3		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						15	3		23
							7		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						5	6		12
							7		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						20	3		11
							7		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						20	3		11
							7		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						25	3		11
							8		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						25	3		11
							8		

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample  
MC - Moisture Content - Percent of dry weight  
Qu - Unconfined Compressive Strength - tons per square foot (tsf)

Type Failure: B - Bulge, S - Shear, P - Penetrometer  
Qu test

**BORING B-1**

**MET BRIDGE FOUNDATION SOIL BORING LOG**

Midwest Engineering and Testing, Inc.  
501 Mercury Drive  
Champaign, Illinois 61822  
217-359-2128

Route: County Highway 6 / Perrysville Road  
Section: 09-00171-00-BR  
County: Vermilion County  
Structure No. 092-0085  
Station: 9+00'  
Offset: 6' RL

Boring: B-2  
Page: Page 1 of 1  
Date of Boring: June 16, 2010  
Drilled By: Steve Turner  
Checked By: Daniel E. Tappendorf, P.E.  
MET Project No: 1-03048

Surface Water Elevation: 544.5 ft Ground Water Elevation: when drilling: 539.5 ft. at completion: 542.5 ft.	DEPTH (ft.)	BLOW COUNT (6")	Q <sub>u</sub> (tsf)	MC (%)	SOIL DESCRIPTION	DEPTH (ft.)	BLOW COUNT (6")	Q <sub>u</sub> (tsf)	MC (%)
Ground Surface Elevation: 559.5 ft.					3" Asphalt				
					12" Concrete				
					Brown clayey SAND (SC) EL: 555.0 ft.				
					Brown medium to coarse SAND (SP); EL: 526.5 ft.	30	7		13
							9	19	
					Brown sandy CLAY (SC) EL: 542.5 ft.				
						6	3	0.6B	11
							5		
					Gray clayey SILT (ML); Weatherd Shale EL: 542.5 ft.				
						10	4	1.4B	19
							3		
					Brown sandy CLAY (SC) EL: 542.5 ft.				
						10	2		21
							2		
					Gray clayey SILT (ML); Weatherd Shale EL: 542.5 ft.				
						15	2	0.7B	21
							2		
					Brown sandy CLAY (SC) EL: 542.5 ft.				
						15	3	0.7B	17
							5		
					Brown sandy CLAY (SC) EL: 542.5 ft.				
						20	4		12
							8		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						20	14		9
							19		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						25	17		11
							17		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						25	9		11
							11		
					Brown medium to coarse SAND (SP) EL: 513.0 ft.				
						25	9		11
							8		

N - Standard Penetration Test (SPT) = Sum of last two blow values in sample  
MC - Moisture Content - Percent of dry weight  
Qu - Unconfined Compressive Strength - tons per square foot (tsf)

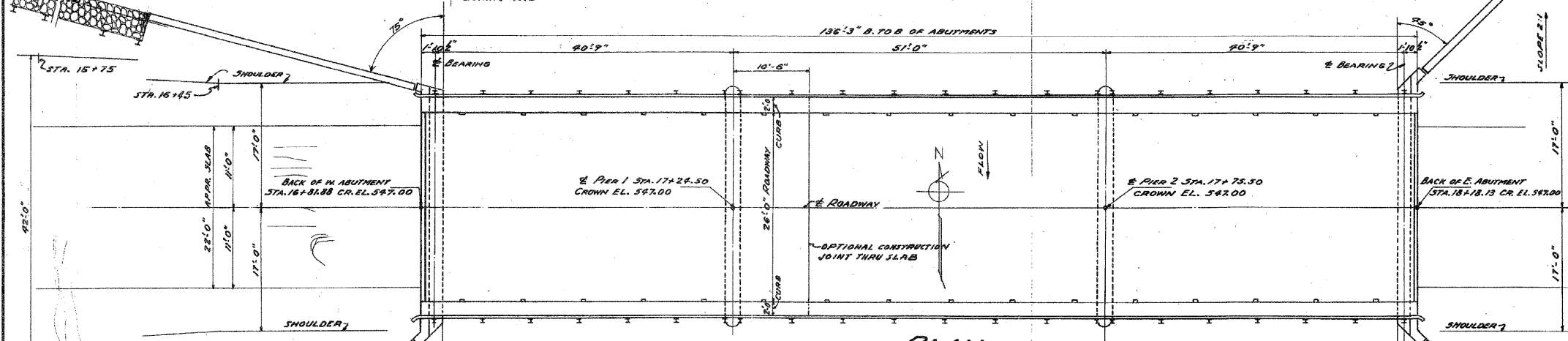
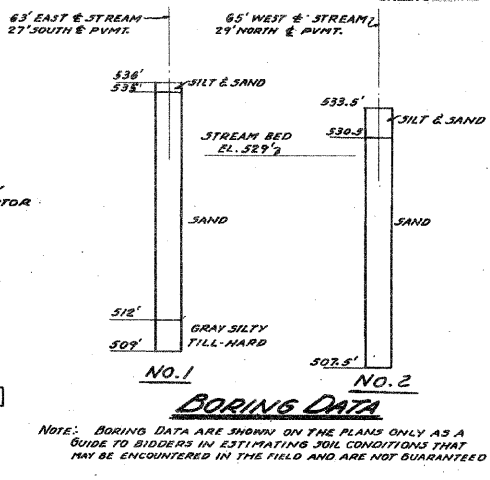
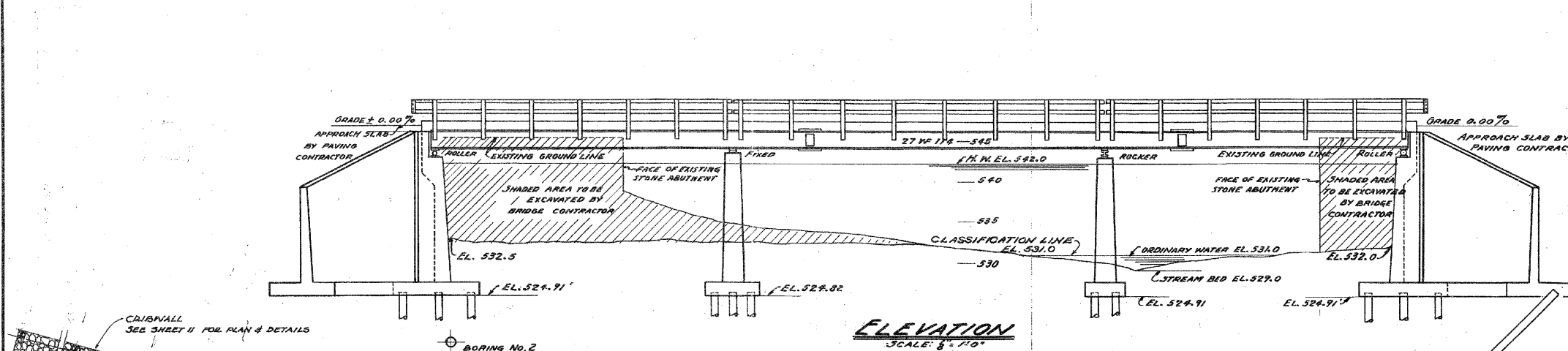
Type Failure: B - Bulge, S - Shear, P - Penetrometer  
Qu test

**BORING B-2**



D.M. 7/3 TOP OF CORNER POST @ N.W. CORNER  
RT. OF STATION 21+21, ELEV. 546.77  
EXISTING BRIDGE - SEE SHEET 1 FOR SKETCH & DESCRIPTION.

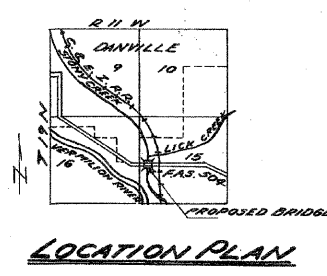
ROUTE NO.	SIC	COUNTY	TOTAL SHEETS	SHEET NO.
504	313	Vermilion	20	3
SHEET No. 3				



**GENERAL NOTES**  
CLASS X CONCRETE SHALL BE USED EXCEPT IN PIERS WHICH SHALL BE CLASS A CONCRETE. THE CONCRETE FLOOR SHALL BE POURED IN ONE CONTINUOUS POUR BETWEEN CONSTRUCTION JOINTS SHOWN AND SHALL BE FINISHED IN ACCORDANCE WITH ART. 81.3 (2) OF THE STANDARD SPECIFICATIONS. NO ADDITIONAL CONSTRUCTION IT WILL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.  
ALL CONNECTIONS SHOP AND FIELD SHALL BE RIVETED EXCEPT AS SHOWN. ALL RIVETS TO BE 3/4" IN 1/4" HOLES EXCEPT IN BEAM FLANGE SPLICES WHICH SHALL BE 3/4" IN 1/4" HOLES. ALL BEAM SPLICES SHALL BE SUB PUNCHED 1/8" AND REAMED TO CORRECT SIZE WITH 3 JOINING SECTIONS OF A LINE ASSEMBLED IN PROPER RELATIVE POSITIONS. BEAMS SHALL BE LEFT ASSEMBLED FOR SHOP INSPECTION.  
ALL ROLLERS, ROCKERS, BEARING PLATES, SHIM PLATES, LEAD PLATES, AND ANCHOR BOLTS SHALL BE PLUNGED, PAINTED AND SET IN ACCORDANCE WITH ART. 34.3 (C) OF THE STANDARD SPECIFICATIONS, AND ARE INCLUDED FOR PAYMENT AS STRUCTURAL STEEL. ESTIMATED WT.: 6770 LBS. ANCHOR BOLTS SHALL BE SET BEFORE RIVETING DIAPHRAGMS OVER ABUTMENTS AND PIERS.  
THE CONTRACTOR SHALL DRIVE TIMBER TEST PILES AS DIRECTED BY THE ENGINEER BEFORE ORDERING REMAINDER OF PILES. TIMBER TEST PILES NEED NOT BE DRIVEN AT THE LOCATION OF PERMANENT TIMBER PILES IF THEY ARE NOT DRIVEN WITHIN THE AREA OF THE FOOTING.  
Structural steel shall receive one shop coat of red lead paint & two field coats of aluminum paint. All paint shall be furnished and applied by the contractor.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB.	TOTAL
CLASS X CONCRETE	CU. YDS.	107.0	337.4	445.2
CLASS A CONCRETE	CU. YDS.		129.0	129.0
STRUCTURAL STEEL	LBS.	112,350		112,350
REINFORCEMENT BARS	LBS.	20,020	36,280	56,280
UNTREATED TIMBER PILING (20" LG)	LIN. FT.		2180	2180
UNTREATED TIMBER PILING (15" LG)	LIN. FT.		945	945
TIMBER TEST PILES	EACH		4	4
METAL PILE SHOES	EACH		176	176
CRIB WALL	LIN. FT.		100	100
NAME PLATE	EACH		1	1
REMOVAL OF EXISTING STRUCTURE	EACH		1	1
CHANNEL EXCAVATION	CU. YDS.			2515
TREE REMOVAL (6" TO 15" DIA)	IN. DIA.			37
TREE REMOVAL (OVER 15" DIA)	IN. DIA.			222
CLASS A EXCAVATION FOR STRUCTURES	CU. YDS.			900
CLASS X EXCAVATION FOR STRUCTURES	CU. YDS.			800

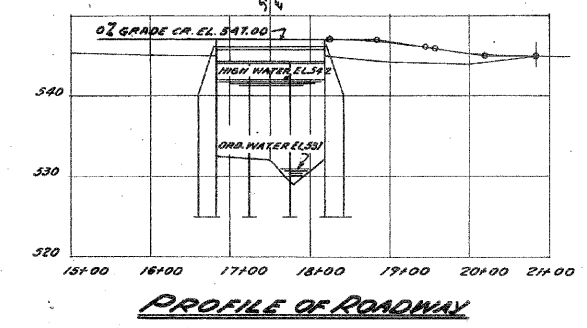


STATION - 17+50  
BUILT 1951  
F.A.S. RTE. 504 - SIC 313  
F.A. PROJECT 5-72 (2)  
LOADING H20-516

SEE STATE OF ILLINOIS STANDARD 1883  
**LETTERING ON NAME PLATE**

**WATERWAY INFORMATION**  
DRAINAGE AREA 34,000 ACRES  
CHANNEL OPENING 184' 0"  
PROPOSED OPENING 1320'  
C-IN-TALBOT FORMULA 0.45

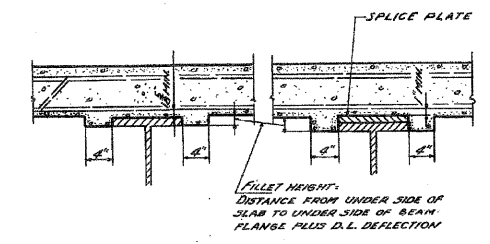
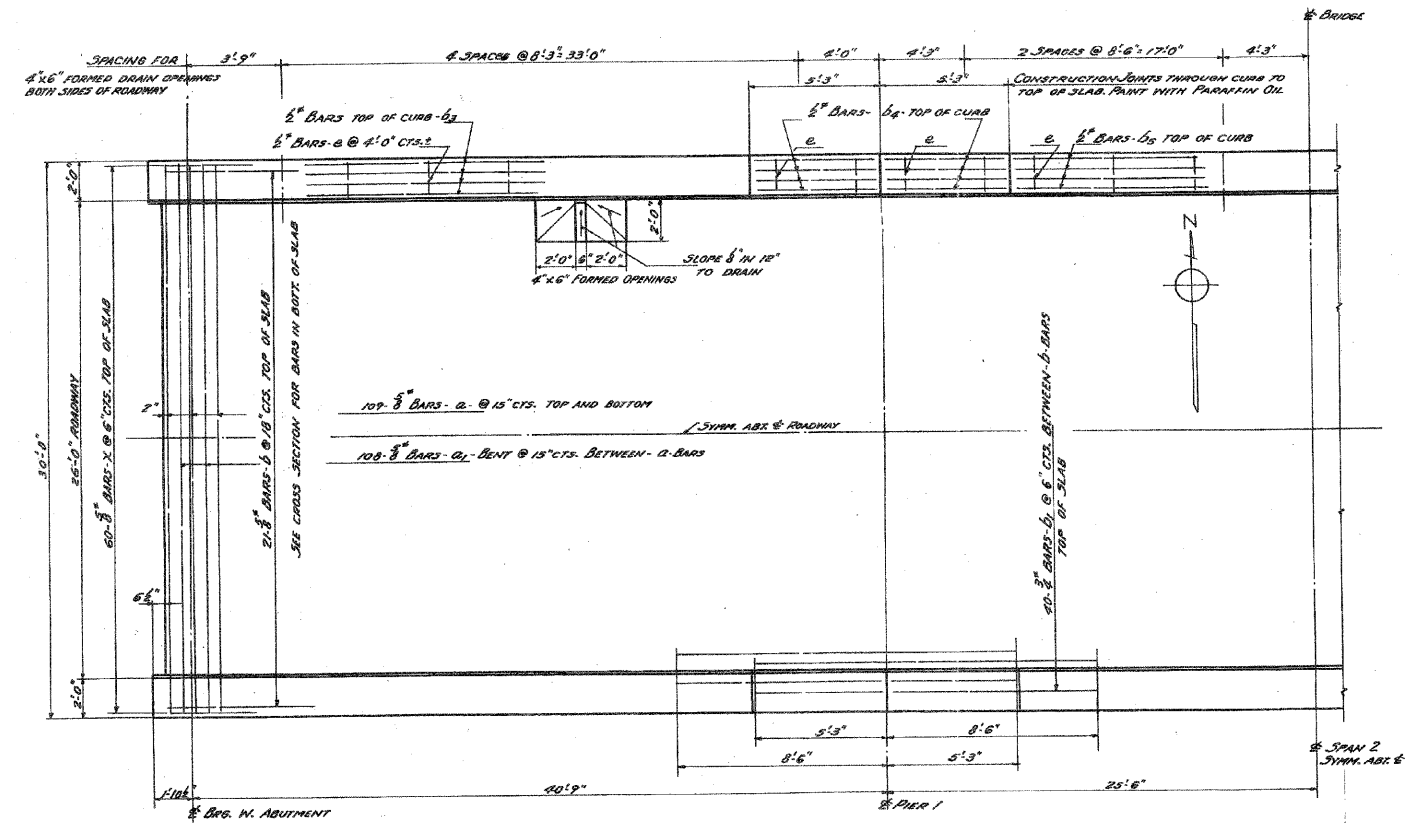
APPROVED [Signature] 1-9-51  
EXAMINED [Signature] 3-26-51  
PASSED [Signature]  
APPROVED [Signature]



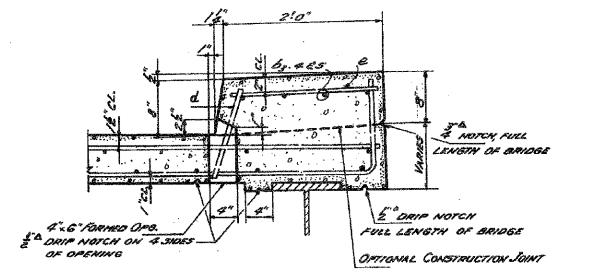
**DESIGN STRESSES**  
J6 1200 1/2" JUNIOR  
J5 300 1/2" SUB  
J3 2000 1/2" REG. I  
J2 1800 1/2" STRUCK  
DESIGN LOADING - H20-516-44

ALFRED BENESCH & ASSOCIATES  
CONSULTING ENGINEERS  
30 EAST ADAMS ST. CHICAGO 3, ILL.

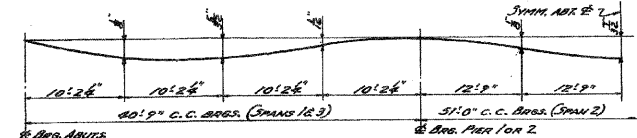
**PLAN AND ELEVATION  
STONY CREEK BRIDGE**  
PROJECT 5-72 (2)  
F.A.S. RTE. 504 - SIC 313  
SECTION 31-3  
VERMILION COUNTY  
STA. 17+50



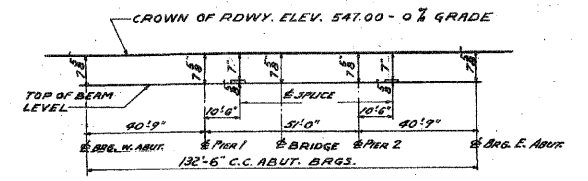
**TOP FLANGE ENCASUREMENT**



**WALK & FORMED OPENINGS**



**DEAD LOAD DEFLECTION DIAGRAM**

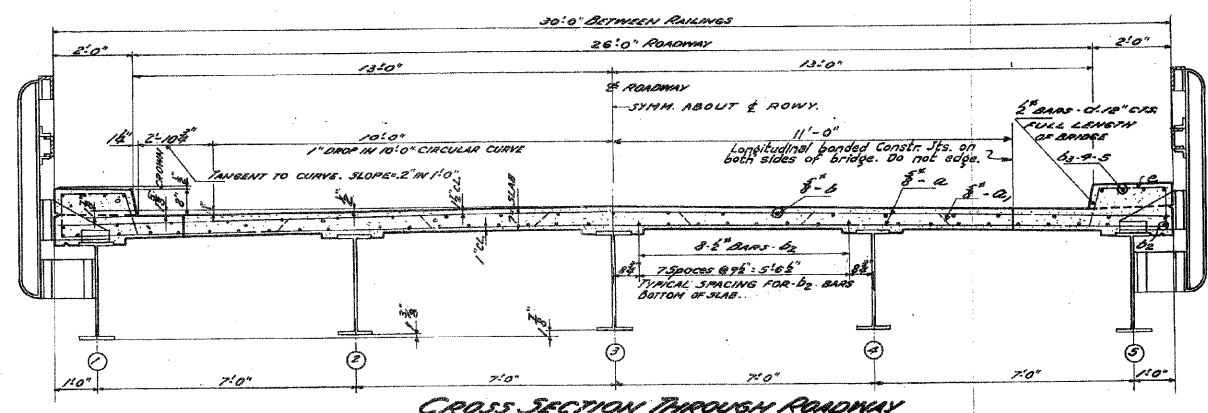


**LONGITUDINAL SECTION SHOWING RELATION OF SLAB AND TOP OF GIRDERS**

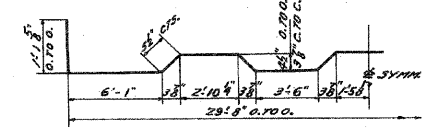
**BILL OF MATERIAL**

BAR NO.	SIZE	LENGTH	SHAPE
a	2/8	28'-6"	
a1	1/8	32'-0"	
b	1/8	28'-6"	
b1	80	19'-9"	
b2	170	28'-3"	
b3	32	19'-6"	
b4	32	5'-0"	
b5	16	21'-3"	
c	270	11'-0"	
e	7/8	11'-9"	
x	120	5'-0"	

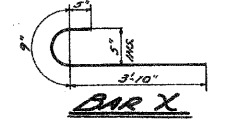
CLASS X CONCRETE Cu. Yds. 107.8  
REINFORCEMENT BARS Lbs. 20,020  
STRUCTURAL STEEL Lbs. 112,350



**CROSS SECTION THROUGH ROADWAY**



**BAR G1**



**BAR X**

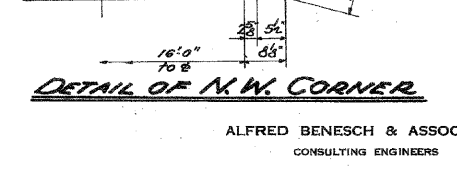
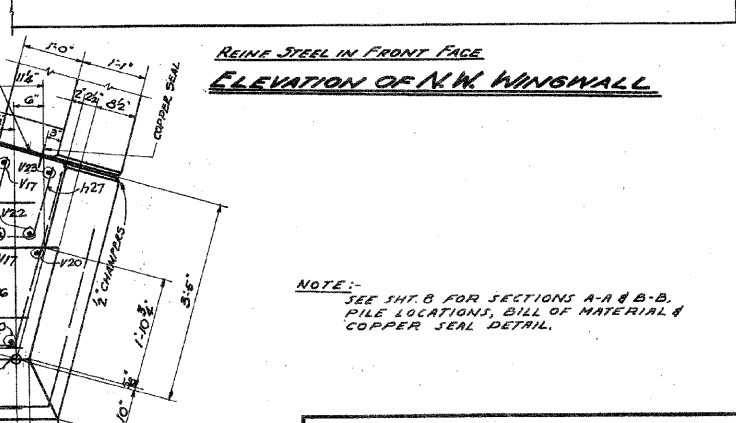
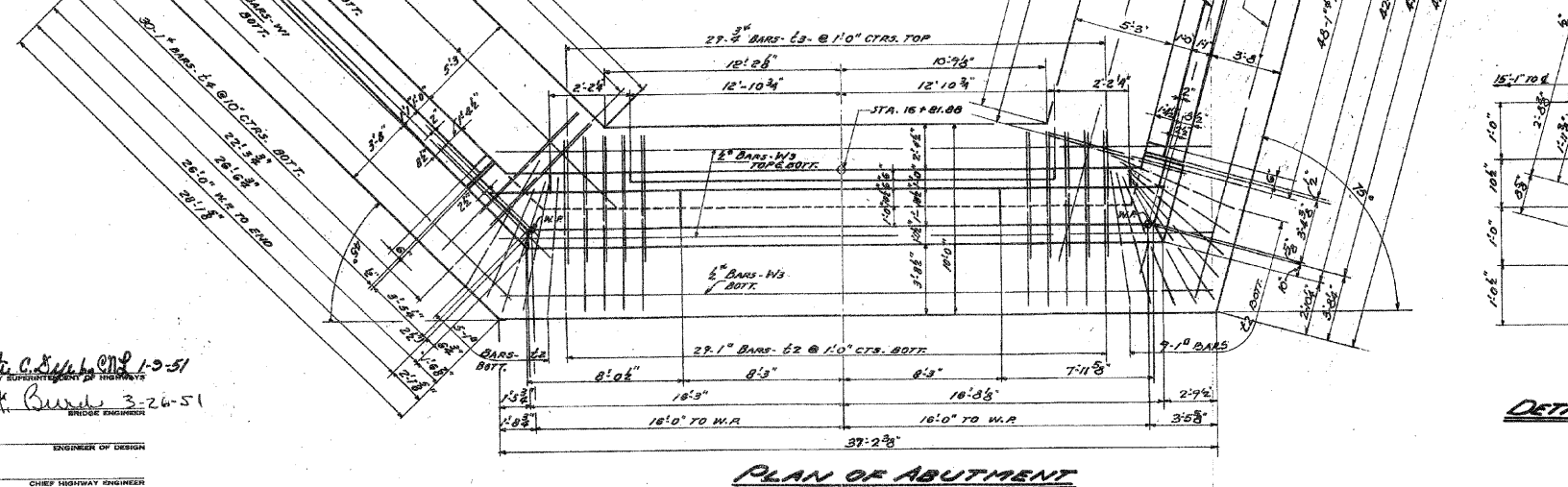
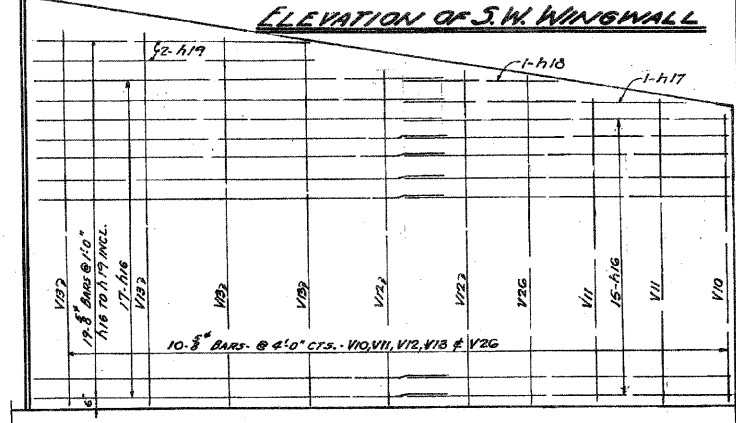
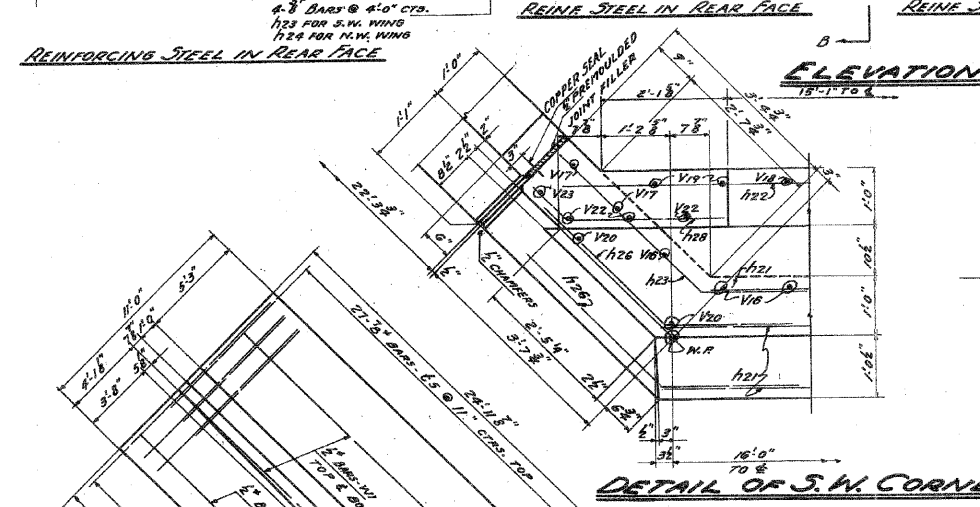
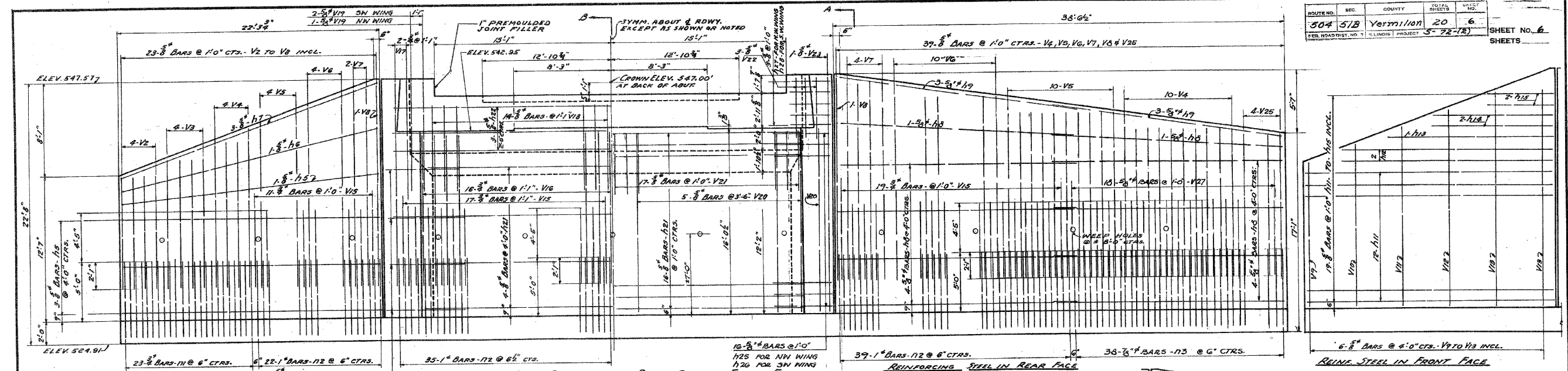
APPROVED *Walter C. Bull* 1-9-51  
EXAMINED *A. F. Burch* 3-26-51  
PASSED  
APPROVED

**SLAB DETAILS**  
**SPONGY CREEK BRIDGE**  
**PROJECT 5-72(2)**  
**P.A.S. RTE. 504 S.A. RTE. 4**  
**SECTION 51-B**  
**VERMILION COUNTY**  
**JTA. 174-50**

ALFRED BENESCH & ASSOCIATES  
CONSULTING ENGINEERS  
30 EAST ADAMS ST. CHICAGO 3, ILL.



ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
504	518	Vermilion	20	6
FED. ROAD DIST. NO.		ILLINOIS PROJECT	5-72-15	



NOTE: SEE SHT. B FOR SECTIONS A-A & B-B, PILE LOCATIONS, BILL OF MATERIAL & COPPER SEAL DETAIL.

APPROVED *Walter C. Sullivan* 1-3-51  
 COUNTY SUPERVISOR OF HIGHWAYS  
 EXAMINED *R. K. Burns* 3-26-51  
 BRIDGE ENGINEER  
 PASSED \_\_\_\_\_ ENGINEER OF DESIGN  
 APPROVED \_\_\_\_\_ CHIEF HIGHWAY ENGINEER

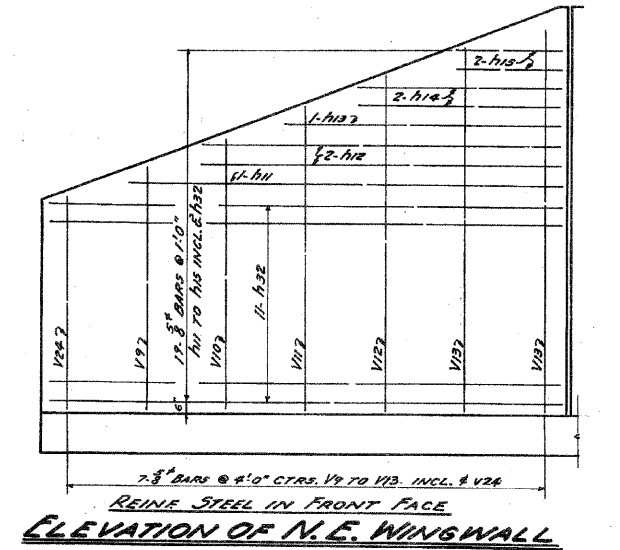
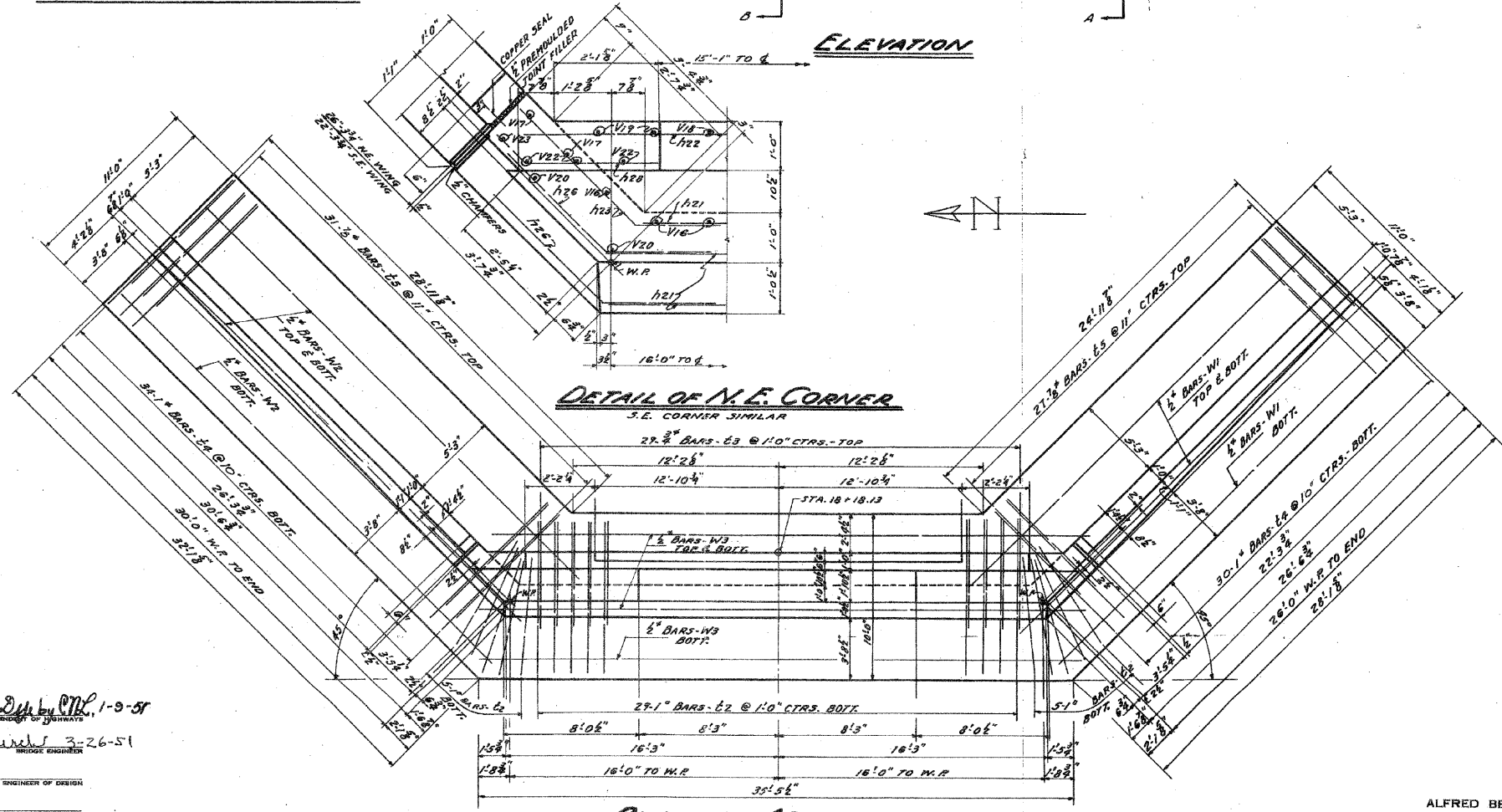
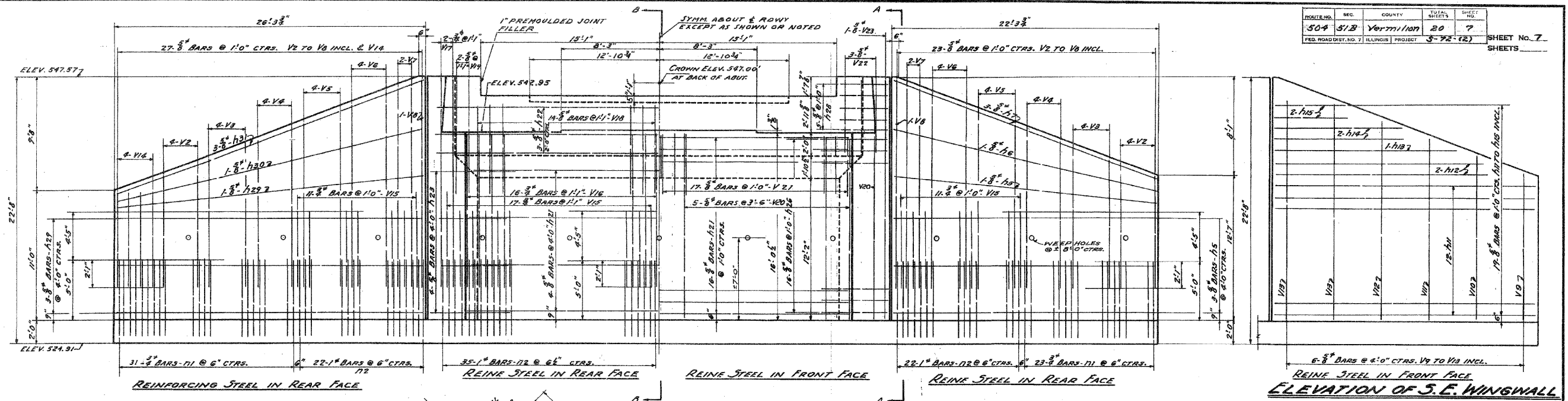
**WEST ABUTMENT**  
**STONY CREEK BRIDGE**  
 PROJECT 5-72(2)  
 I.A.S. RTE. 504 J.A. RTE. 4  
 SECTION 51-B  
 VERMILION COUNTY  
 STA. 17+50

ALFRED BENESCH & ASSOCIATES  
 CONSULTING ENGINEERS  
 39 EAST ADAMS ST. CHICAGO 3, ILL.

FILE NAME = 100108-shr-ExistPlans.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>EXISTING PLANS</b> <b>STRUCTURE NO. 092-0085</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 ILLINOIS PROFESSIONAL DESIGN FIRM L3 / PE / SE CORP. 194.009999	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	60	
	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -			CONTRACT NO. 91449					
		CHECKED - S.W.M.	REVISED -			ILLINOIS FED. AID PROJECT					
						SHEET NO. 27 OF 33 SHEETS					

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
504	51B	Vermilion	80	7
FED. ROAD DIST. NO. 7	ILLINOIS PROJECT	S-72(2)		

SHEET No. 7  
SHEETS



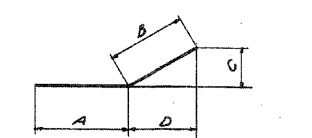
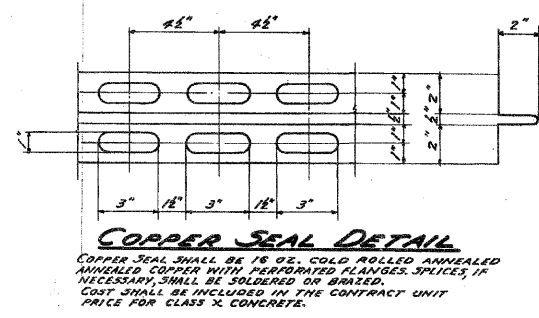
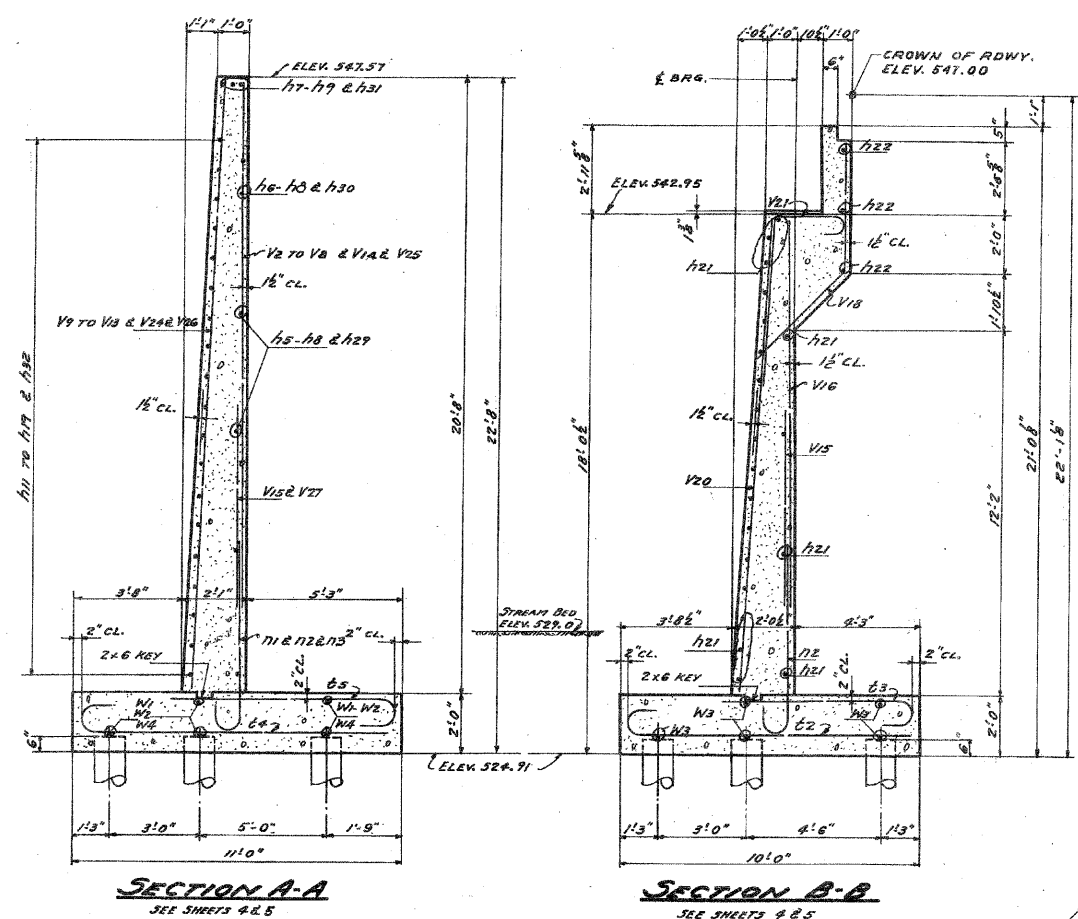
NOTE:  
SEE SHY. 8 FOR SECTIONS A-A & B-B,  
PILE LOCATIONS, BILL OF MATERIAL &  
COPPER SEAL DETAIL.

APPROVED *Walter C. Dyer* **CMC** 1-9-51  
COUNTY SUPERINTENDENT OF HIGHWAYS  
EXAMINED *W. F. Burch* 3-26-51  
ENGINEER  
PASSED  
APPROVED  
CHIEF HIGHWAY ENGINEER

**EAST ABUTMENT  
STONY CREEK BRIDGE  
PROJECT S-72(2)  
E.A.S. RTE. 504 S.A. RTE. 4  
SECTION 51-B  
VERMILION COUNTY  
STA. 17+50**

ALFRED BENESCH & ASSOCIATES  
CONSULTING ENGINEERS  
30 EAST ADAMS ST. CHICAGO 3, ILL.

FILE NAME = 100108-sht-ExistPlans.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>EXISTING PLANS STRUCTURE NO. 092-0085</b>	FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
HAMPTON, LENZINI AND RENWICK, INC. 3083 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62793	PLOT SCALE =	CHECKED - S.M.S.	REVISED -			7043	09-00171-00-BR	VERMILION	66	61	
ELR ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SE CORP. 184.000089	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -			SHEET NO. 28 OF 33 SHEETS					
		CHECKED - S.W.M.	REVISED -			CONTRACT NO. 91449					
						ILLINOIS FED. AID PROJECT					

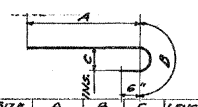


BAR SIZE	A	B	C	LGTH	D
A23	3'3"	2'3"	1'7"	5'6"	1'7"
A24	3'8"	2'8"	2'0"	4'9"	6'2"
A25	3'8"	2'11"	2'1"	5'0"	6'2"
A26	3'8"	3'2"	2'1"	4'3"	1'5'3"
A27	3'8"	1'4'2"	1'1'2"	2'3"	3'6"
A28	3'8"	2'6"	9"	6'3"	6'3"
A29	3'8"	4'3"	4'0"	2'10"	0'1'3"
A29	3'8"	6'1'3"	4'0"	2'10"	10'1'3"



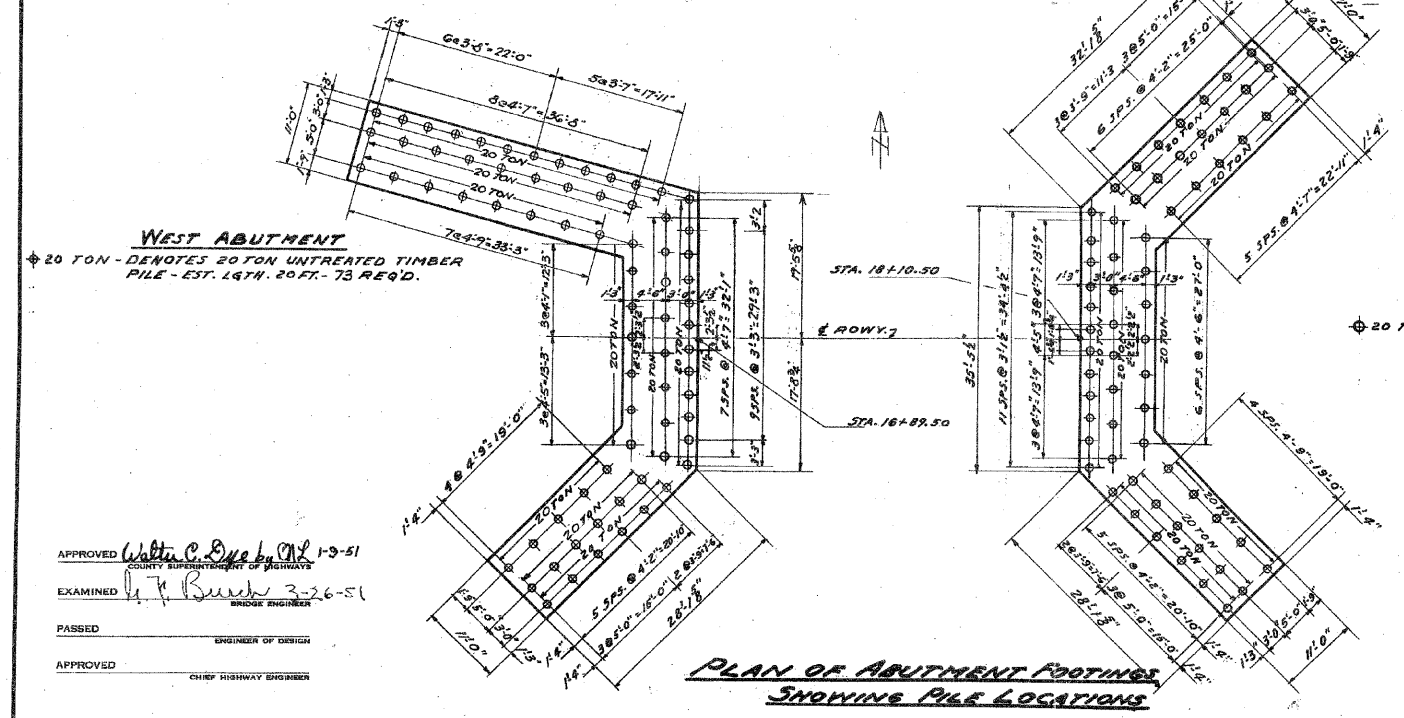
**BAR V21**

**BARS A23 TO A29 INCL. & V18 & V19**



BAR SIZE	A	B	C	LENGTH
A21	6'-2"	1'1"	7"	7'-9"
A22	6'-7"	10'2"	6"	7'-6"
A23	6'-1"	11'2"	8"	7'-9"
A24	5'-7"	11'2"	8"	10'-9"
A25	6'-10'2"	10'6"	6"	8'-3"
A26	10'1"	11'2"	8"	11'-9"
A27	8'-5"	11'	7"	10'-0"

**BARS A21-A27 INCL. & V18 & V19**



APPROVED *Walter C. Dyck* 1-3-51  
COUNTY SUPERVISOR OF HIGHWAYS

EXAMINED *H. F. Burch* 3-26-51  
BRIDGE ENGINEER

PASSED \_\_\_\_\_  
ENGINEER OF DESIGN

APPROVED \_\_\_\_\_  
CHIEF HIGHWAY ENGINEER

**EAST ABUTMENT**  
20 TON - DENOTES 20 TON UNTREATED TIMBER PILE - EST. LGTH. 15 FT. - 64' REQ'D.

**BILL OF MATERIAL-2 ABUTMENTS**

BAR	NO.	SIZE	LENGTH	SHAPE	BAR	NO.	SIZE	LENGTH	SHAPE
A5	8	3/8"	22'-0"		V7	10	3/8"	17'-0"	
A6	2	3/8"	22'-6"		V8	4	3/8"	17'-6"	
A7	6	3/8"	23'-3"		V9	3	3/8"	12'-9"	
A8	10	3/8"	20'-0"		V10	4	3/8"	14'-6"	
A9	6	3/8"	20'-3"		V11	5	3/8"	15'-9"	
					V12	5	3/8"	17'-3"	
A11	25	3/8"	22'-0"		V13	10	3/8"	18'-9"	
A12	6	3/8"	18'-3"		V14	4	3/8"	8'-0"	
A13	3	3/8"	14'-3"		V15	120	3/8"	6'-6"	
A14	6	3/8"	10'-6"		V16	64	3/8"	13'-0"	
A15	6	3/8"	5'-9"		V17	8	3/8"	17'-6"	
A16	32	3/8"	20'-0"		V18	56	3/8"	8'-3"	
A17	1	3/8"	16'-0"		V19	7	3/8"	10'-3"	
A18	1	3/8"	9'-6"		V20	24	3/8"	15'-9"	
A19	2	3/8"	14'-3"		V21	68	3/8"	8'-6"	
					V22	12	3/8"	5'-0"	
A21	40	3/8"	32'-0"		V23	4	3/8"	20'-3"	
A22	6	3/8"	34'-6"		V24	1	3/8"	11'-3"	
A23	12	3/8"	5'-6"		V25	4	3/8"	12'-0"	
A24	4	3/8"	4'-9"		V26	1	3/8"	16'-9"	
A25	16	3/8"	5'-0"		V27	77	3/8"	7'-6"	
A26	48	3/8"	5'-3"		V28	245	3/8"	7'-9"	
A27	5	3/8"	2'-3"		V29	36	3/8"	7'-9"	
A28	15	3/8"	3'-3"						
A29	4	3/8"	26'-0"		E2	32	1"	10'-9"	
A30	1	3/8"	26'-6"		E3	38	1"	8'-3"	
A31	3	3/8"	27'-9"		E4	142	1"	11'-9"	
A32	11	3/8"	26'-0"		E5	127	3/8"	10'-0"	
V27	13	3/8"	6'-6"						
V2	12	3/8"	9'-6"		W1	20	2"	15'-0"	
V3	12	3/8"	11'-0"		W2	10	2"	17'-0"	
V4	22	3/8"	12'-6"		W3	20	2"	19'-6"	
V5	22	3/8"	14'-0"		W4	10	2"	24'-0"	
V6	22	3/8"	15'-6"						

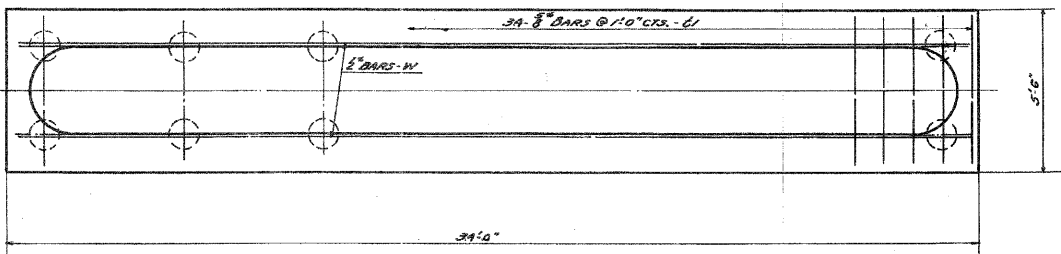
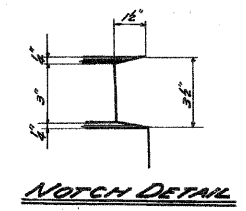
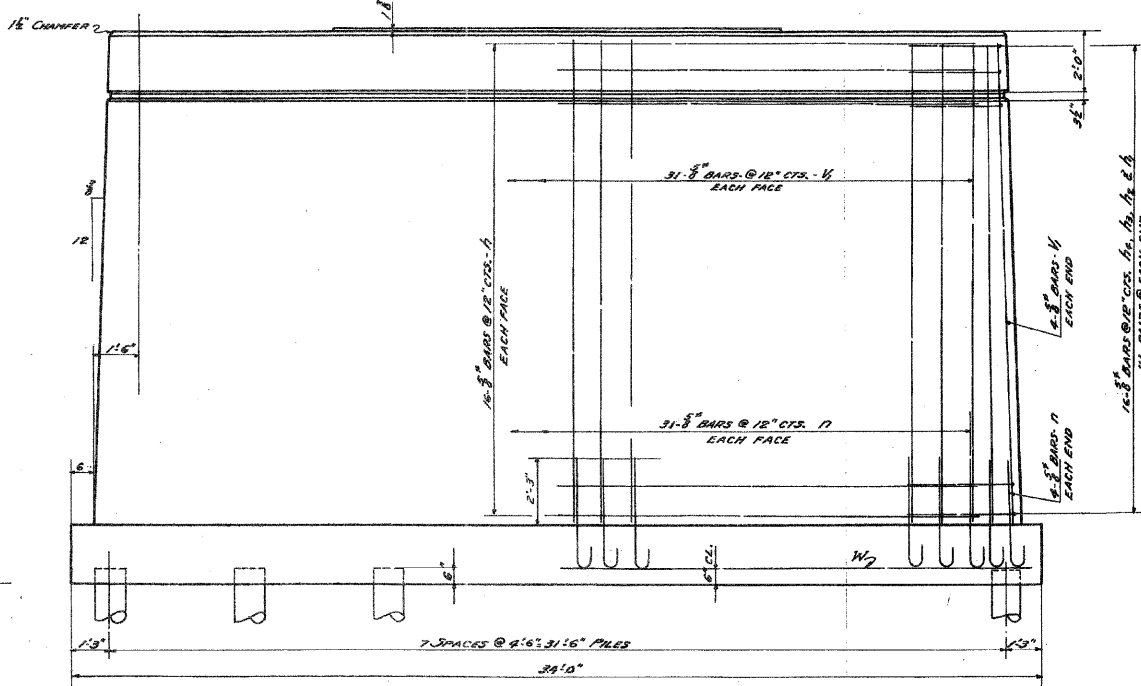
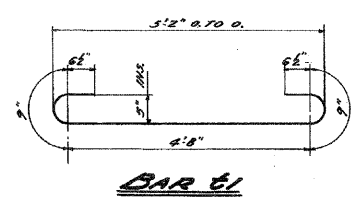
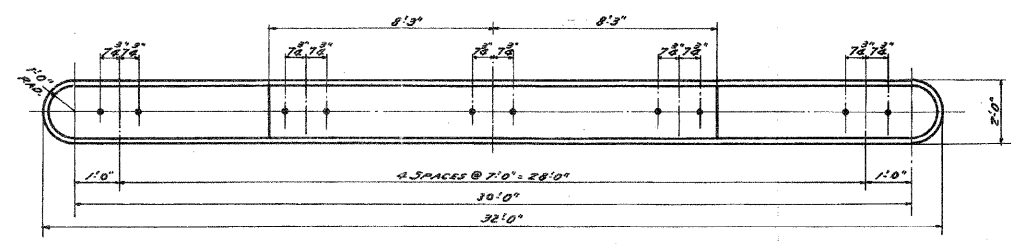
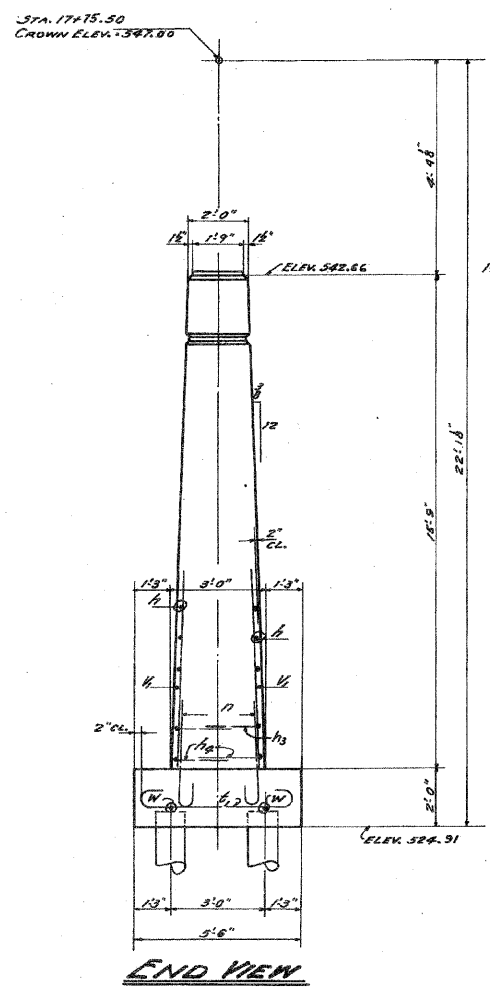
ITEM	UNIT	W. ABUT.	E. ABUT.
CLASS X CONCRETE	CU. YDS.	180.7	156.7
REINF. BARS	LBS.	15,950	13,550
UNTREATED TIMBER PILES (EST. LGTH. 20')/LIN. FT.	1440		
UNTREATED TIMBER PILES (EST. LGTH. 15')/LIN. FT.	945		
TIMBER TEST PILES	EACH	1	1
METAL PILE SHOES	EACH	73	64

NOTE  
SEE SHEET 3 FOR DETAIL OF PILE SHOE  
SEE SHEETS 6 & 7 FOR PLAN & ELEVATION OF ABUTMENTS.

**ABUTMENT DETAILS**  
**STONY CREEK BRIDGE**  
**PROJECT 5-72(2)**  
**F.A.S. RTE. 504 S.A. RTE. 4**  
**SECTION 51-B**  
**VERMILION COUNTY**  
**STA. 17450**

ALFRED BENESCH & ASSOCIATES  
CONSULTING ENGINEERS  
30 EAST ADAMS ST. CHICAGO 3, ILL.





16 UNTREATED TIMBER PILES  
CAP 20 TONS  
EST. LGTH. 20'-0"

**BILL OF MATERIAL - PIER NO. 2**

BAR NO.	SIZE	LENGTH	SHAPE	BAR NO.	SIZE	LENGTH	SHAPE
h	32	8"	30'-0"	1/2	70	8"	15'-6"
1/2	20	8"	4'-8"				
1/2	20	8"	4'-9"	6/4	34	8"	7'-3"
1/2	20	8"	5'-0"				
1/4	4	8"	5'-3"	W	4	8"	11'-6"
7	70	8"	4'-9"				
CLASS A CONCRETE			Cu. Yds.	60.3			
REINFORCEMENT BARS			LBS.	3100			
UNTREATED PILES (EST. LGTH. 20 FT)			LINE FT.	300			
TIMBER TEST PILES			EACH	1			
METAL PILE SHOES			EACH	16			

NOTE: FOR DETAILS OF BARS 1/2, 1/4, 1/2, 1/2, 1/2 AND  
DETAIL OF METAL PILE SHOE, SEE SHEET 9

APPROVED *Walter C. Spon* by *PMC* 1-9-51  
COUNTY SUPERINTENDENT OF HIGHWAYS

EXAMINED *H. J. Buehler* 3-26-51  
BRIDGE ENGINEER

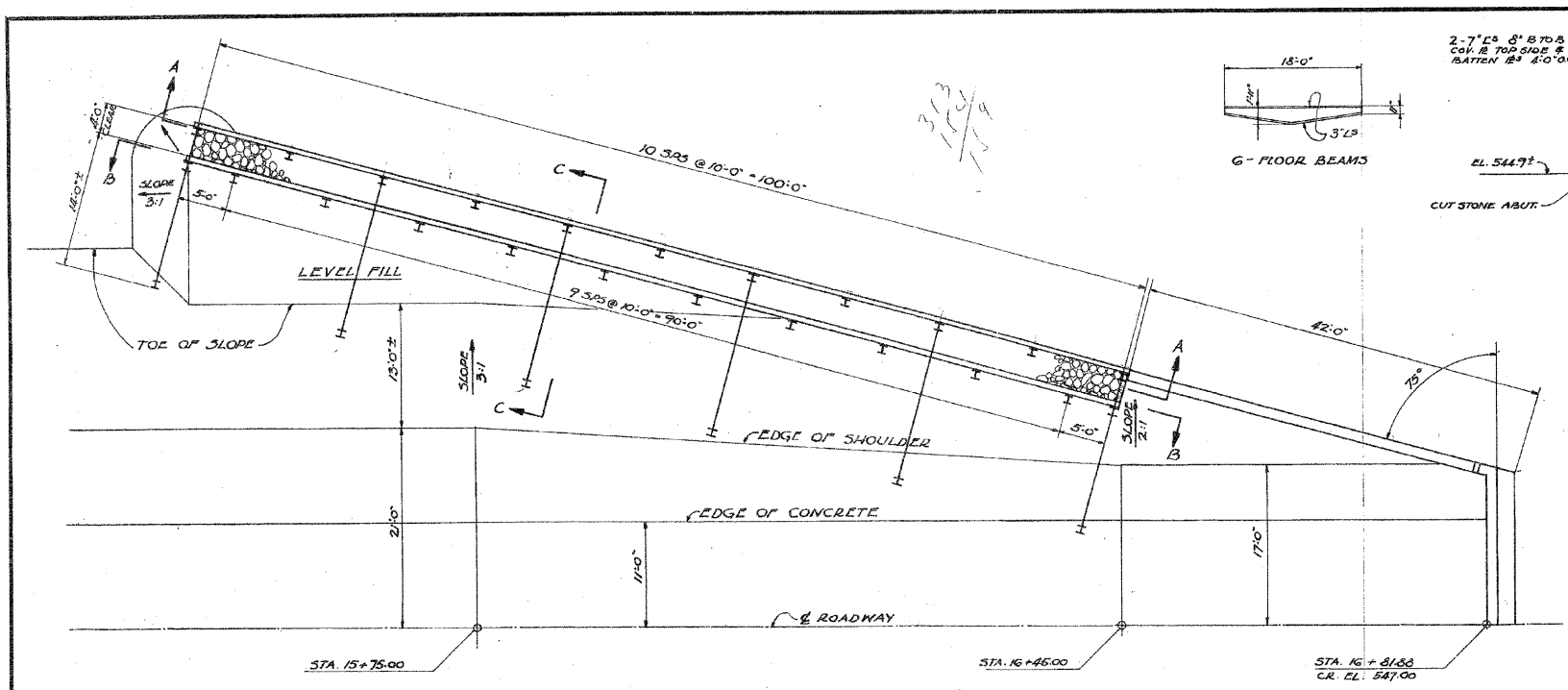
PASSED \_\_\_\_\_  
ENGINEER OF DESIGN

APPROVED \_\_\_\_\_  
CHIEF HIGHWAY ENGINEER

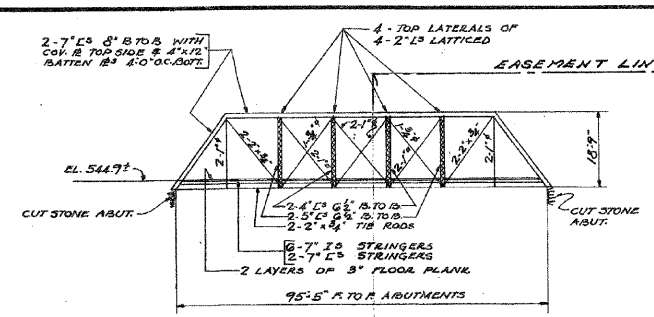
**PIER NO. 2**  
**STONY CREEK BRIDGE**  
**PROJECT 5-72(2)**  
**C.A.S. Rtg. 502 S.A. Rtg. 4**  
**SECTION 51-D**  
**VERMILION COUNTY**  
**SPA. 17A.50**

ALFRED BENESCH & ASSOCIATES  
CONSULTING ENGINEERS  
30 EAST ADAMS ST. CHICAGO 3, ILL.



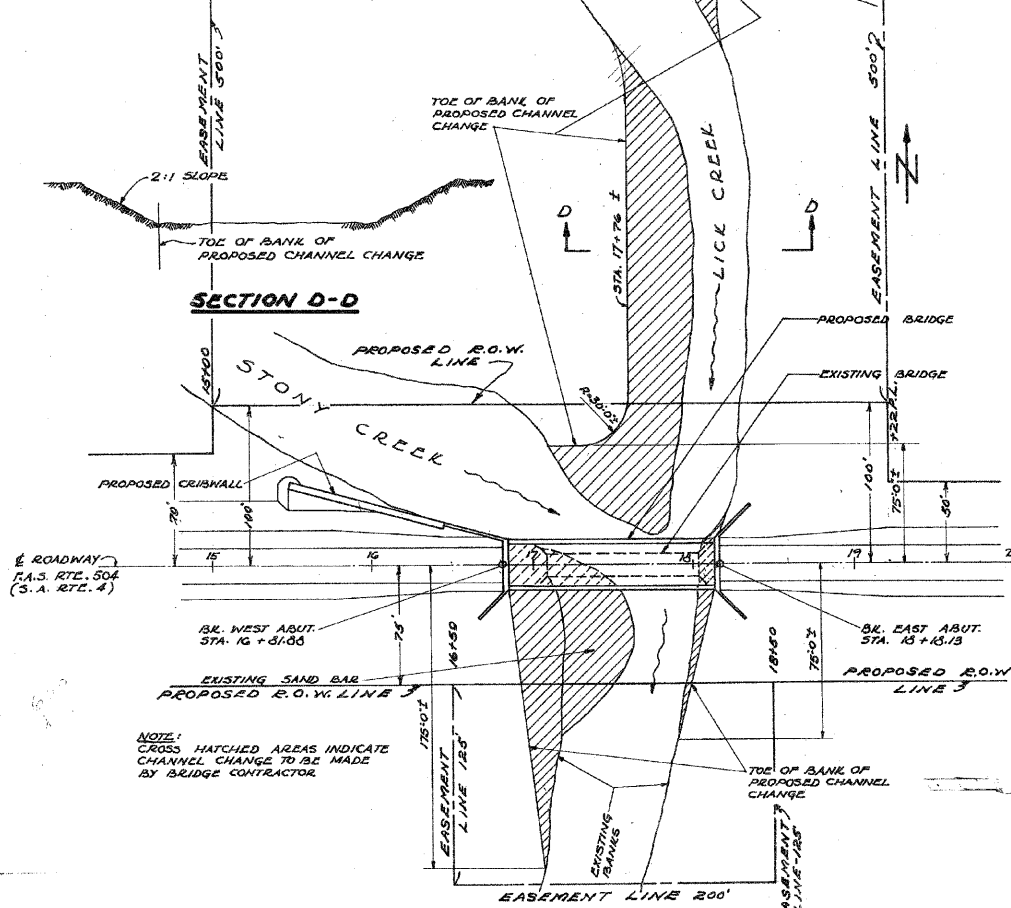


**PLAN OF CRIBWALL**

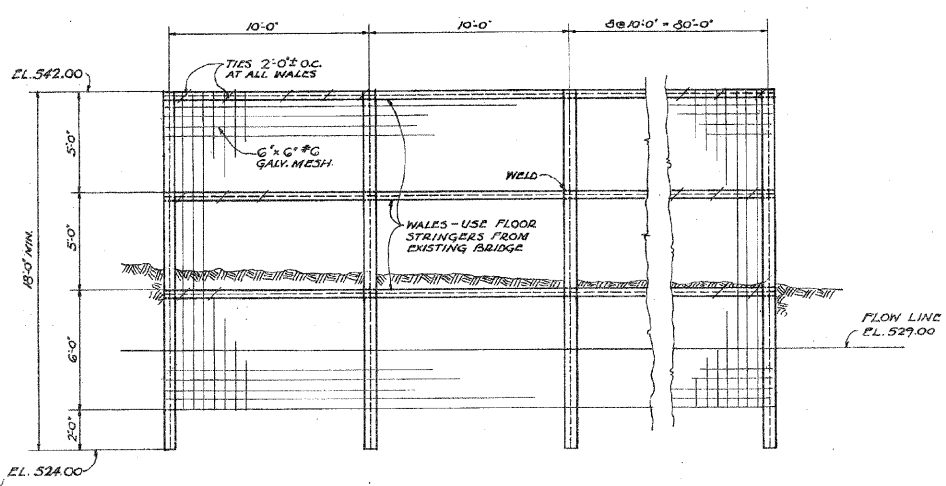


**ELEVATION OF EXIST. BRIDGE**  
16 FT. ROADWAY

EXISTING TRUSS SPAN AND STONE ABUTMENTS ARE TO BE REMOVED AND MATERIAL USED IN THE CONSTRUCTION OF THE CRIBWALL. SEE SPECIAL PROVISIONS.

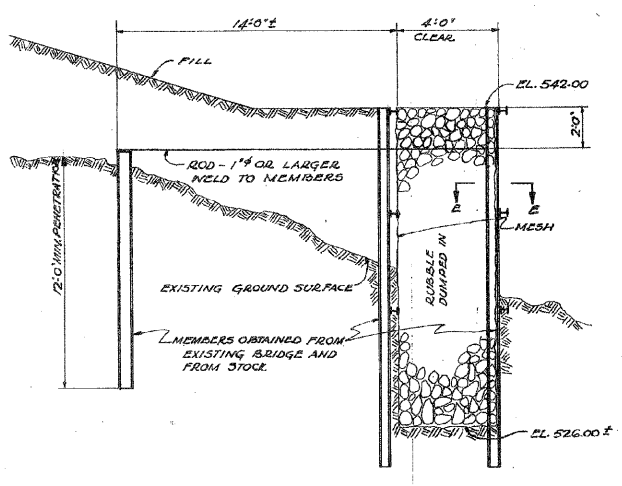


**PLAN OF PROPOSED CHANNEL CHANGE**

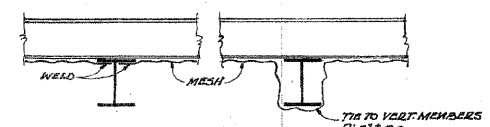


**VIEW A-A**  
VIEW B-B SIMILAR

NOTE: MEMBERS ADJACENT TO ABUTMENT SHALL BE DRIVEN A MIN. OF 2 FEET BELOW BOTTOM OF FOOTING.



**SECTION C-C**



**SECTION E-E**  
ALTERNATE METHODS FOR FASTENING MESH

- ADDITIONAL MATERIAL AVAILABLE FOR BUILDING CRIBWALL SEE SPECIAL PROVISIONS
- II 5' x 5' - 8 1/2" B70B 2 PCS 16'0" LG
  - II 6' x 6' - 8 1/2" B70B 3 PCS 16'0" LG
  - II 6' x 6' - 8 1/2" B70B 1 PC 13'8" LG
  - II 6' x 6' - 8 1/2" B70B 6 PCS 14'9" LG
  - II 6' x 6' - 8 1/2" B70B 2 PCS 15'6" LG
  - II 6' x 6' - 8 1/2" B70B 2 PCS 22'0" LG

APPROVED *Halter C. Dye*  
COUNTY SUPERINTENDENT OF HIGHWAYS

EXAMINED *W. E. Hansen*  
BRIDGE ENGINEER

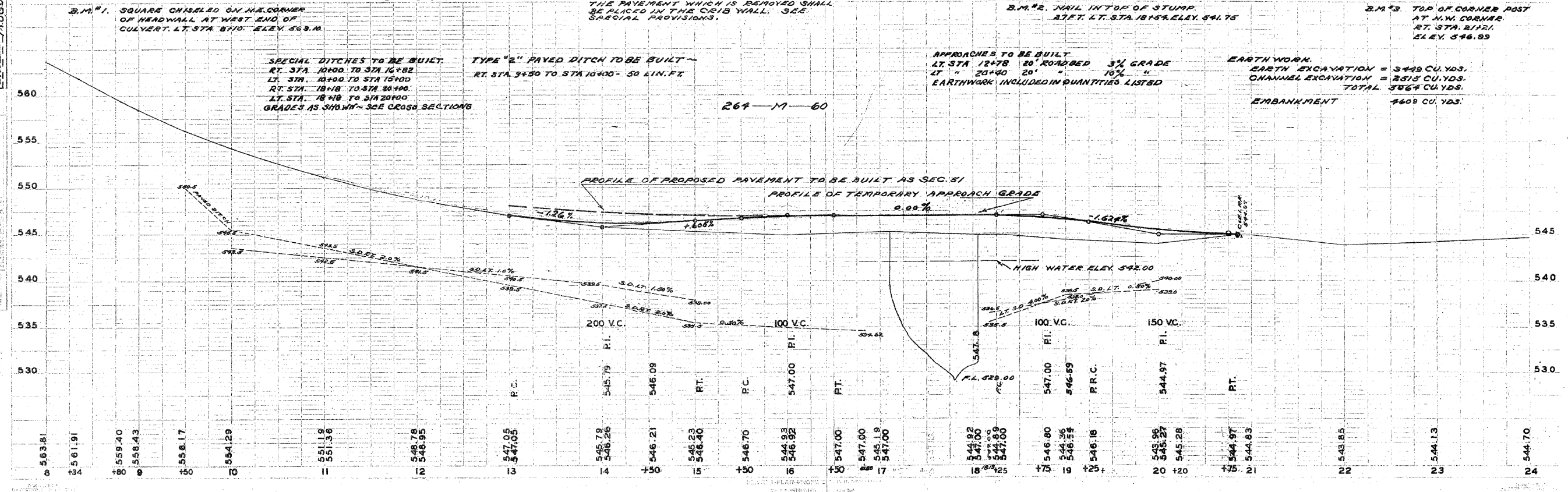
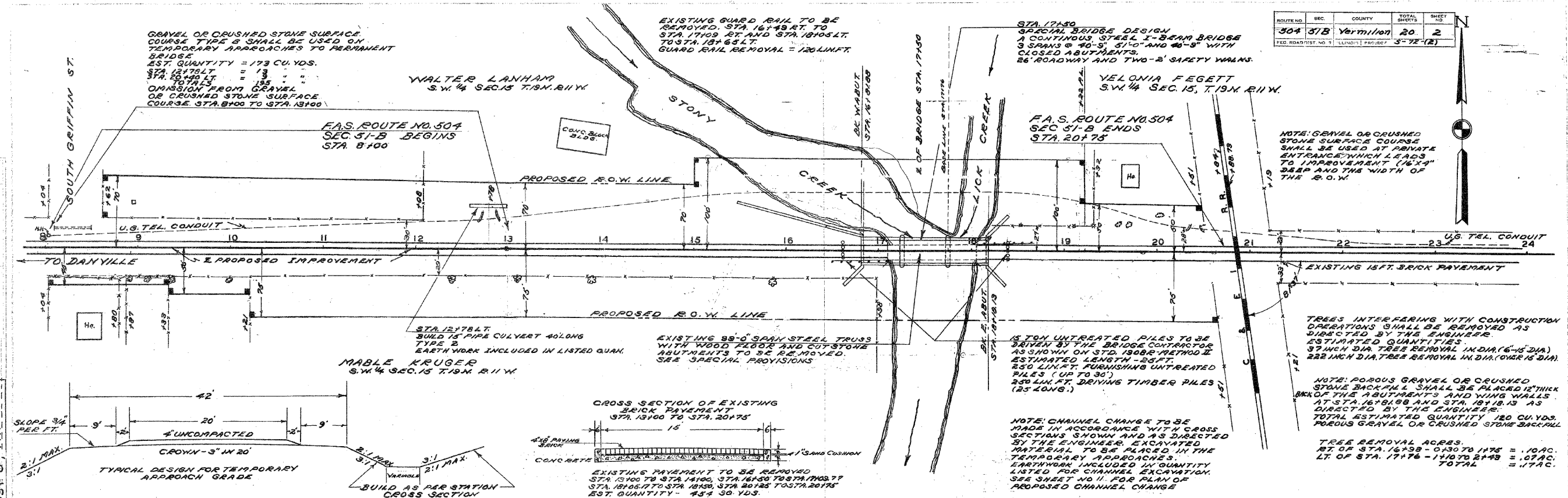
PASSED \_\_\_\_\_ ENGINEER OF DESIGN

APPROVED \_\_\_\_\_ CHIEF HIGHWAY ENGINEER

NOTE: CROSS HATCHED AREAS INDICATE CHANNEL CHANGE TO BE MADE BY BRIDGE CONTRACTOR

**CHANNEL CHANGE CRIBWALL & EXISTING STRUCTURE STONY CREEK BRIDGE**  
PROJECT 3-72(2)  
F.A.S. RTE. 504 S.A. RTE. 4  
SECTION 51-B  
VERMILION COUNTY  
STA. 17 + 50

ALFRED BENESCH & ASSOCIATES  
CONSULTING ENGINEERS  
38 EAST ADAMS ST. CHICAGO 3, ILL.



ENTIRE SECTION INSPECTED AND APPROVED AS TO POLICY, DIST. ENG. DATE: AUGUST 8, 2012

FILE NAME = 100108-shr-ExistPlans.dgn	USER NAME =	DESIGNED - C.C.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>VERMILION COUNTY HIGHWAY DEPARTMENT</b>	<b>EXISTING PLANS</b> <b>STRUCTURE NO. 092-0085</b>		FAU	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HAMPTON, LENZINI AND RENWICK, INC.	PLOT SCALE =	CHECKED - S.M.S.	REVISED -		7043	09-00171-00-BR	VERMILION	66	66		
388 STEVENSON DRIVE, SUITE 201	PLOT DATE = 2/9/2012	DRAWN - D.A.B.	REVISED -		CONTRACT NO. 91449						
SPRINGFIELD, ILLINOIS 62703		CHECKED - S.W.M.	REVISED -		ILLINOIS FED. AID PROJECT						
ILLINOIS PROFESSIONAL DESIGN FIRM											