

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	1
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91388		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED HIGHWAY BRIDGE PROGRAM

PROJECT BRS-487(106)
SECTION 07-00045-03-BR
JOB No. C-95-312-08
C.H. 36 / F.A.S. 487
McLEAN COUNTY
PROPOSED STR. NO. 057-3211

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	SUMMARY OF QUANTITIES AND GENERAL NOTES
3.	TYPICAL CROSS SECTIONS
4.	PLAN AND PROFILE
5.-12.	STATION CROSS SECTIONS
13.-22.	BRIDGE PLANS
23.	BORINGS
24.-27.	BRIDGE APPROACH PAVEMENT

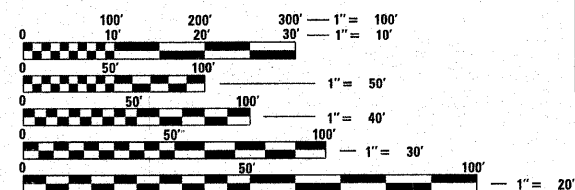
HIGHWAY STANDARDS:

515001-03	NAME PLATE FOR BRIDGES
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701901-01	TRAFFIC CONTROL DEVICES
BLR 21-8	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS
BLR 23-3	TRAFFIC BARRIER TERMINAL TYPE 1
BLR 26-1	STEEL PLATE BEAM GUARDRAIL 700MM (27 1/2") HEIGHT
BLR 27-1	TRAFFIC BARRIER TERMINAL TYPE 5A

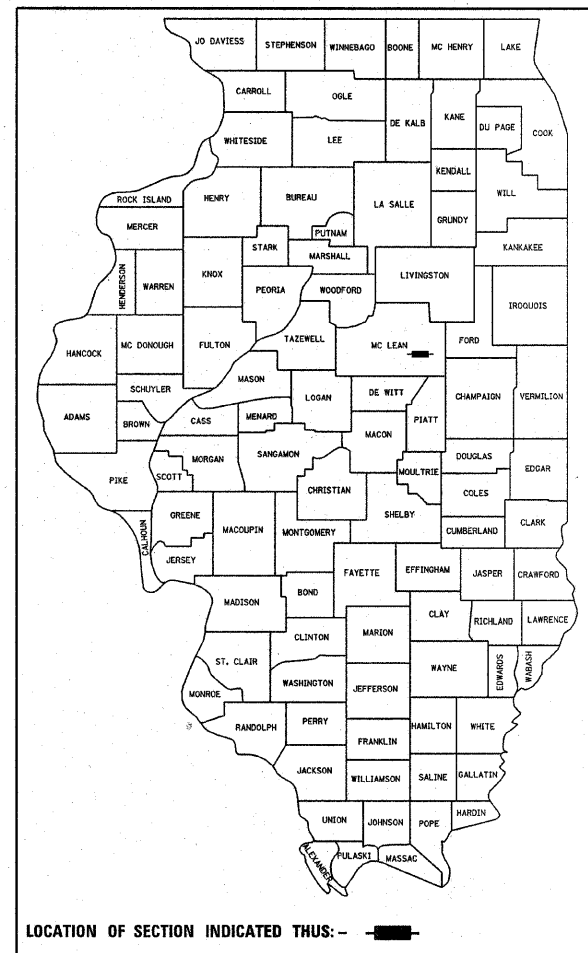
UTILITIES

VERIZON NORTH, INC.
1312 EAST EMPIRE STREET
PO BOX 2955
BLOOMINGTON, ILLINOIS 61702-2955

CORNBELT ENERGY
ONE ENERGY PLAZA
PO BOX 816
BLOOMINGTON, ILLINOIS



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.



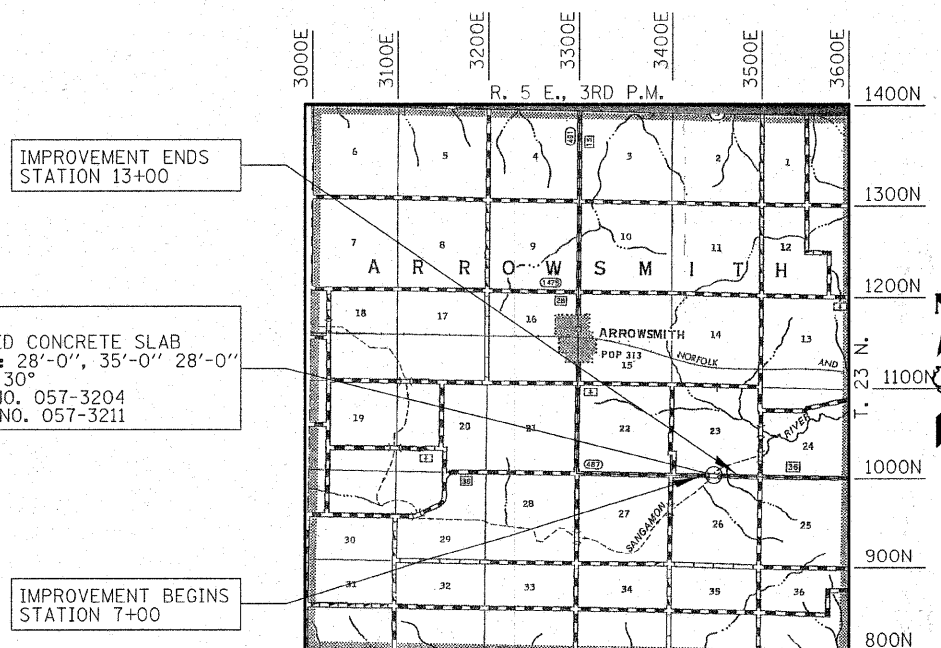
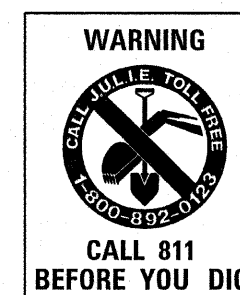
FUNCTIONAL CLASSIFICATION: RURAL COLLECTOR (400-750 ADT)
DESIGN SPEED: 50 MPH
DESIGN TRAFFIC: 650 ADT

McLEAN COUNTY HIGHWAY DEPARTMENT

APPROVED: *[Signature]* 1-23 20 09
COUNTY ENGINEER

PASSED: *[Signature]* 2/2 20 09
DISTRICT FIVE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review: *[Signature]* Feb 3 20 09
DEPUTY DIRECTOR OF HIGHWAYS
REGION THREE ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



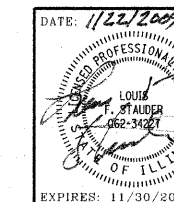
LOCATION MAP

APPROXIMATE SCALE: 0 1 MILE
NET LENGTH OF SECTION = 600 FEET = 0.114 MILES

STA. 10+00
CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE. THREE SPANS: 28'-0", 35'-0" 28'-0" 32'-0" RDWY.; SKEW = 30°
EXISTING STRUCTURE NO. 057-3204
PROPOSED STRUCTURE NO. 057-3211

IMPROVEMENT ENDS STATION 13+00

IMPROVEMENT BEGINS STATION 7+00



HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400
ELGIN • SPRINGFIELD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	2
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	

SUMMARY OF QUANTITIES

		CONSTRUCTION CODE X020-2H	
CODE NO	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	75
20300100	CHANNEL EXCAVATION	CU YD	255
20400800	FURNISHED EXCAVATION	CU YD	160
20700300	POROUS GRANULAR EMBANKMENT, SPECIAL	TON	105
> 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.6
> 28101500	RIPRAP, SPECIAL	SO YD	958
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	30
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	110
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	130
40600990	TEMPORARY RAMP	SO YD	48
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	237
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	94
42001165	BRIDGE APPROACH PAVEMENT	SO YD	214
42001300	PROTECTIVE COAT	SO YD	544
44000100	PAVEMENT REMOVAL	SO YD	251
48101200	AGGREGATE SHOULDERS, TYPE B	TON	320
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	31.7
50300255	CONCRETE SUPERSTRUCTURE	CU YD	137.4
50300260	BRIDGE DECK GROOVING	SO YD	523
50300280	CONCRETE ENCASEMENT	CU YD	16.3
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	38,590
50800515	BAR SPLICERS	EACH	66
* 50900205	STEEL RAILING, TYPE S1	FOOT	194
51201400	FURNISHING STEEL PILES HP10X42	FOOT	1,080
51202305	DRIVING PILES	FOOT	1,080
51203400	TEST PILE STEEL HP10X42	EACH	2
51500100	NAME PLATES	EACH	1
> 54200223	PIPE CULVERTS, CLASS D, TYPE 1 18"	FOOT	34
> 59100100	GEOCOMPOSITE WALL DRAIN	SO YD	36
60100060	CONCRETE HEADWALL FOR PIPE DRAINS	EACH	4
60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	110
* 63000002	STEEL PLATE BEAM GUARD RAIL, TYPE A <i>6.75 FOOT POSTS</i>	FOOT	300
* 63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
67100100	MOBILIZATION	L SUM	1
> * 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1,350
> * 78200405	GUARDRAIL MARKERS	EACH	10
> * 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
> * LR631020	TRAFFIC BARRIER TERMINAL, TYPE 1	EACH	4
XX005543	STEEL PLATE BEAM GUARD RAIL REMOVAL AND SALVAGE	FOOT	300

> SEE SPECIAL PROVISIONS
* SPECIALTY ITEMS

PAINT PAVEMENT MARKING - 4"		
LOCATION	SINGLE WHITE EDGE LINE	SKIP DASH YELLOW CENTERLINE
	78001110	
	FOOT	FOOT
RT STA 7+00 TO RT STA 13+00	600	
CL STA 7+00 TO RT STA 13+00		150
LT STA 7+00 TO CL STA 13+00	600	
SUB TOTAL	1200	150
TOTAL	1350	

GUARD RAIL SCHEDULE						
LOCATION	STEEL PLATE BEAM GUARDRAIL TYPE A	TRAFFIC BARRIER TERMINAL		TERMINAL MARKER DIRECT APPLIED	GUARDRAIL MARKERS	STEEL PLATE BEAM GUARDRAIL REMOVE & SALVAGE
		TYPE 1	5A			
	63000000	LR631020	63100075	78201000	78201000	XX005543
	FOOT	EACH	EACH	EACH	EACH	FOOT
RT STA. 8+04.0 TO RT STA. 9+42.2	100	1	1	1		75
LT STA. 8+72.5 TO LT STA. 9+60.7	50	1	1	1		75
RT STA. 10+39.3 TO RT STA. 11+27.6	50	1	1	1		75
LT STA. 10+57.8 TO LT STA. 11+96.0	100	1	1	1		75
RT STA. 8+04.0 TO RT STA. 11+27.6					5	
LT STA. 8+72.5 TO LT STA. 11+96.0					5	
TOTAL	300	4	4	4	10	300

GENERAL NOTES

ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2007," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN EARTH EXCAVATION. ALL MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE INCLUDED IN PAVEMENT REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

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.

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.

THE AREA TO BE SEEDED SHALL CONSIST OF ALL DISTURBED EARTH SURFACES WITHIN THE RIGHT-OF-WAY AS DIRECTED BY THE ENGINEER.
ESTIMATED QUANTITY = SEEDING CLASS 2 (SPECIAL) = 0.6 ACRES

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

HOT MIX ASPHALT	112 LB/IN/SQ YD
POROUS GRANULAR EMBANKMENT (SPECIAL)	2.00 TON/CU YD
AGGREGATE BASE COURSE	2.05 TON/CU YD
AGGREGATE SHOULDERS	2.00 TON/CU YD
BIT. MATERIALS (PRIME COAT)	0.10 GAL/SQ YD

ROADWAY SCHEDULE

LOCATION	AGGREGATE SURFACE COURSE TYPE B	BITUMINOUS MATERIAL PRIME COAT	BITUMINOUS SURFACE REMOVAL BUTT-JOINT	TEMPORARY RAMP	HOT-MIX ASPHALT BINDER CSE. IL-19.0 N50	HOT-MIX ASPHALT SURF. CSE MIX "C", N50	BRIDGE APPROACH PAVEMENT	PROTECTIVE COAT	PAVEMENT REMOVAL	AGGREGATE SHOULDER TYPE B	BRIDGE DECK GROOVING
	40200800	40300100	40600982	40600990	40603080	40603310	42001165	42001300	44000100	48101200	50300260
	TON	GAL	SQ YD	SQ YD	TON	TON	SQ YD	SQ YD	SQ YD	TON	SQ YD
STA 7+00.00 TO STA 9+53.63		55	49	24	153	47	107	107	128	177	107
STA 9+53.63 TO STA 10+46.37								330			309
STA 10+46.37 TO STA 13+00.00		55	81	24	84	47	107	107	123	143	107
ENTRANCES	30										
TOTAL	30	110	130	48	237	94	214	544	251	320	523

MIXTURE REQUIREMENTS

LOCATION(S):	C.H. 36
MIXTURE USE(S):	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50
AC/PG:	PG 64-22
RAP % (MAX):	25%
DESIGN AIR VOIDS:	4% @ NDes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 19.0
FRICTION AGGREGATE:	NONE
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

MIXTURE REQUIREMENTS

LOCATION(S):	C.H. 36
MIXTURE USE(S):	HOT-MIX ASPHALT SURFACE
AC/PG:	PG 64-22
RAP % (MAX):	15%
DESIGN AIR VOIDS:	4% @ NDes 50
MIXTURE COMPOSITION: (GRADATION MIXTURE):	IL 9.5
FRICTION AGGREGATE:	MIXTURE C
MIXTURE WEIGHTS	112 LBS/SY/INCH THICKNESS

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	SHRINKAGE FACTOR	PERCENT USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE
	20200100	20300100					
	CU.YD.	CU.YD.			CU.YD.	CU.YD.	CU.YD.
CH 36							
STA. 7+00 TO STA. 9+53.63	49		0.25	100	37	213	-176
STA. 9+53.63 TO STA. 10+46.37			0.25	100	0	0	0
STA. 10+46.37 TO STA. 13+00	26		0.25	100	20	137	-117
ENTRANCES	0		0.25	100	0	0	0
CHANNEL EXCAVATION		255	0.25	70	134	0	134
GRAND TOTAL	75	255			191	350	-159
USE TOTAL	75	255			191	350	-160

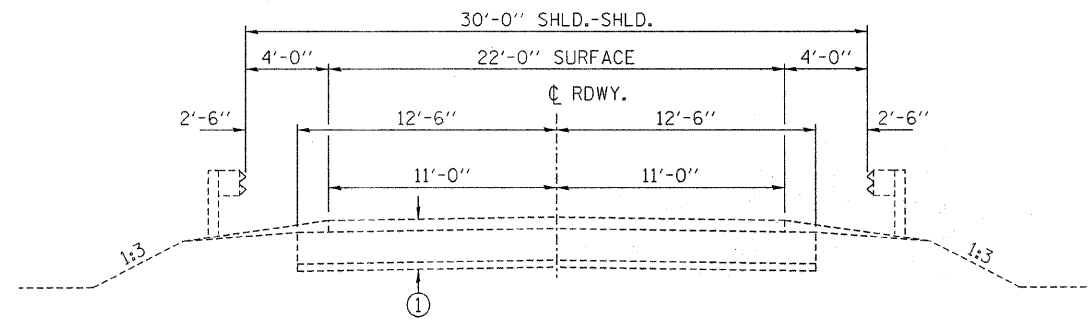
20400800 FURNISHED EXCAVATION = 160 CU YD

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

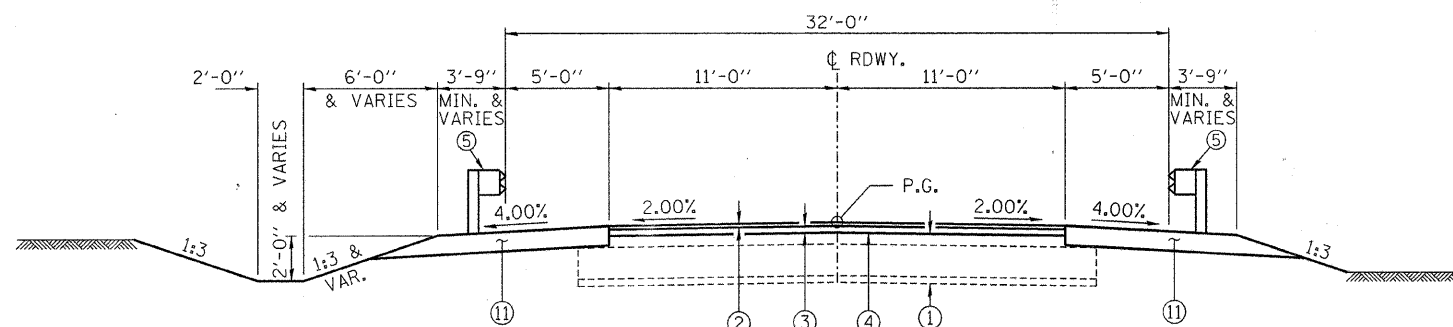
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 ELGIN • SPRINGFIELD
 PROJECT NUMBER: 12-59-0055-1 DATE: 02/19/09
 DESIGNED: S.W.M. CHECKED: L.P.S. DRAWN: D.A.B.

**SUMMARY OF QUANTITIES
AND GENERAL NOTES**
 SECTION 07-00045-03-BR
 C.H. 36 / F.A.S. 487
 McLEAN COUNTY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	MCLEAN	27	3
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91388		



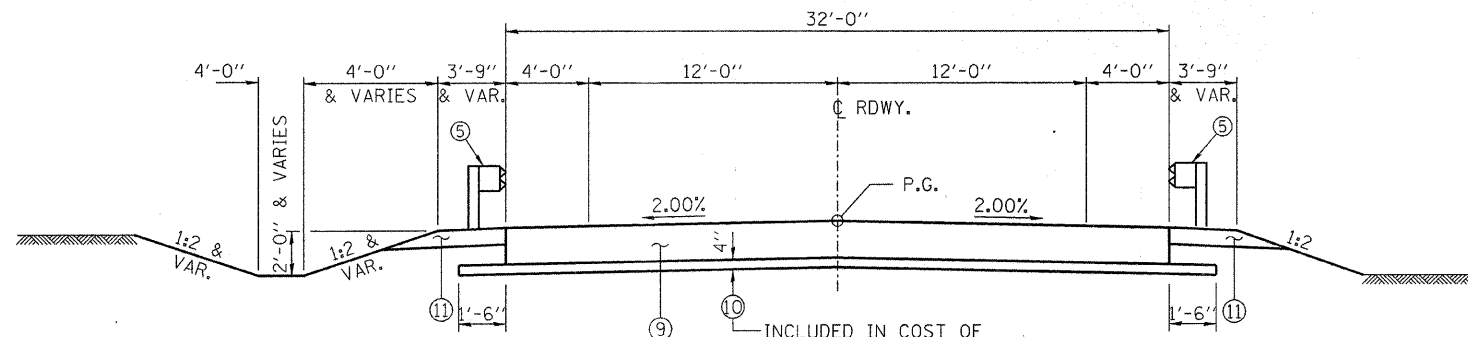
EXISTING TYPICAL SECTION
STA. 7+00 TO STA. 13+00



PROPOSED TYPICAL CROSS SECTION
STA. 7+00.00 TO STA. 9+23.63
STA. 10+76.37 TO STA. 13+00.00

SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

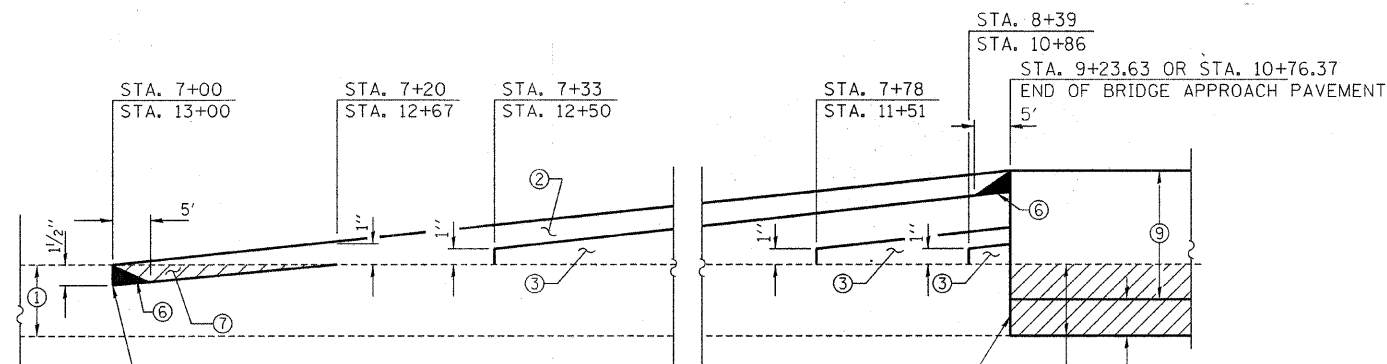


TYPICAL CROSS SECTION
STA. 9+23.63 TO STA. 9+53.63
STA. 10+46.37 TO STA. 10+76.37

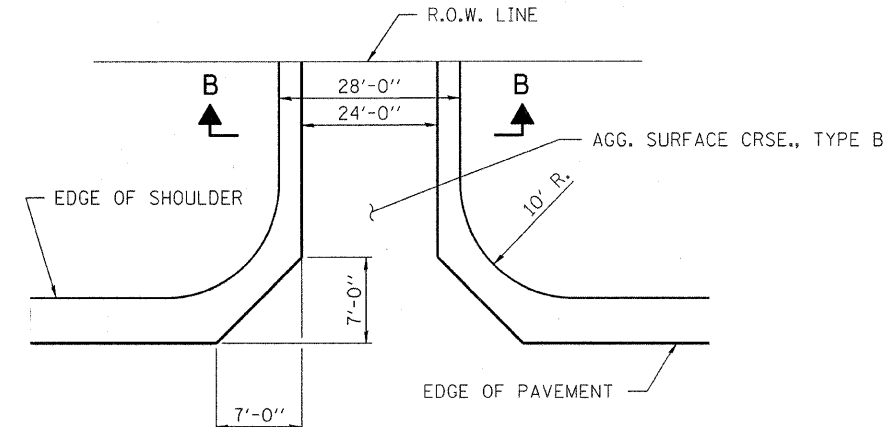
SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

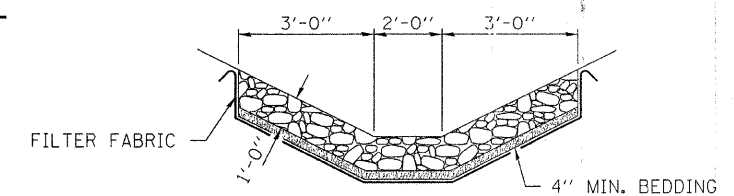
NOTE: CURBS ARE NOT REQUIRED ON THE BRIDGE APPROACH PAVEMENT



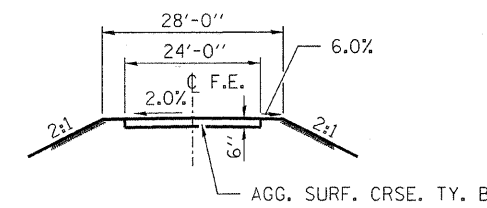
PAVEMENT TRANSITION DETAIL
AS DIRECTED BY THE ENGINEER



PRIVATE ENTRANCE DETAIL



RIPRAP (SPECIAL)
LT. STA. 9+00 TO STA. 9+74
SEE SHEET 14.



SECTION B-B

NOTES

- HOT-MIX ASPHALT SURFACE REMOVAL SHALL ONLY BE USED AT THE DIRECTION OF THE ENGINEER IF NEEDED TO TRANSITION TO EXISTING GRADE. OTHERWISE PAVEMENT SHALL MATCH THE APPROVED SECTION CONSTRUCTED BY OTHERS.
- COST OF SAWCUT SHALL BE INCLUDED IN THE UNIT COST BID FOR BRIDGE APPROACH PAVEMENT.

LEGEND

- | | |
|---|---|
| ① EXISTING CLASS I WEARING SURFACE (3") ON FULL DEPTH AGGREGATE SURFACE COURSE (9") ON SALVAGED AGGREGATE BASE (2") | ⑨ BRIDGE APPROACH PAVEMENT STD. 420401-06 |
| ② HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50 (1 1/2" THICKNESS) | ⑩ SUB-BASE GRANULAR MATERIAL, TY A, 4" (INCIDENTAL TO BRIDGE APPROACH PAVEMENT) |
| ③ HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 (2 3/4" MIN. 4" MAX.) VARIABLE DEPTH | ⑪ AGGREGATE SHOULDERS, TYPE B (6" DEPTH) |
| ④ BITUMINOUS MATERIALS (PRIME COAT) | ▨ PAVEMENT REMOVAL |
| ⑤ STEEL PLATE BEAM GUARD RAIL. SEE SCHEDULE OF QUANTITIES FOR STATIONING | |
| ⑥ TEMPORARY RAMP AT 1:40 (SEE ARTICLE 406.18) | |
| ⑦ HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT | |
| ⑧ PAVEMENT REMOVAL | |

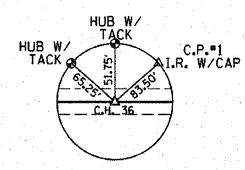
HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
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3085 STEVENSON DRIVE, SUITE 201
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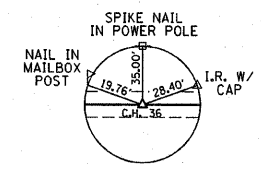
PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
DESIGNED: S.W.M. CHECKED: L.F.S. DRAWN: D.A.B.

TYPICAL CROSS SECTIONS
SECTION 07-00045-03-BR
C.H. 36 / F.A.S. 487
MCLEAN COUNTY

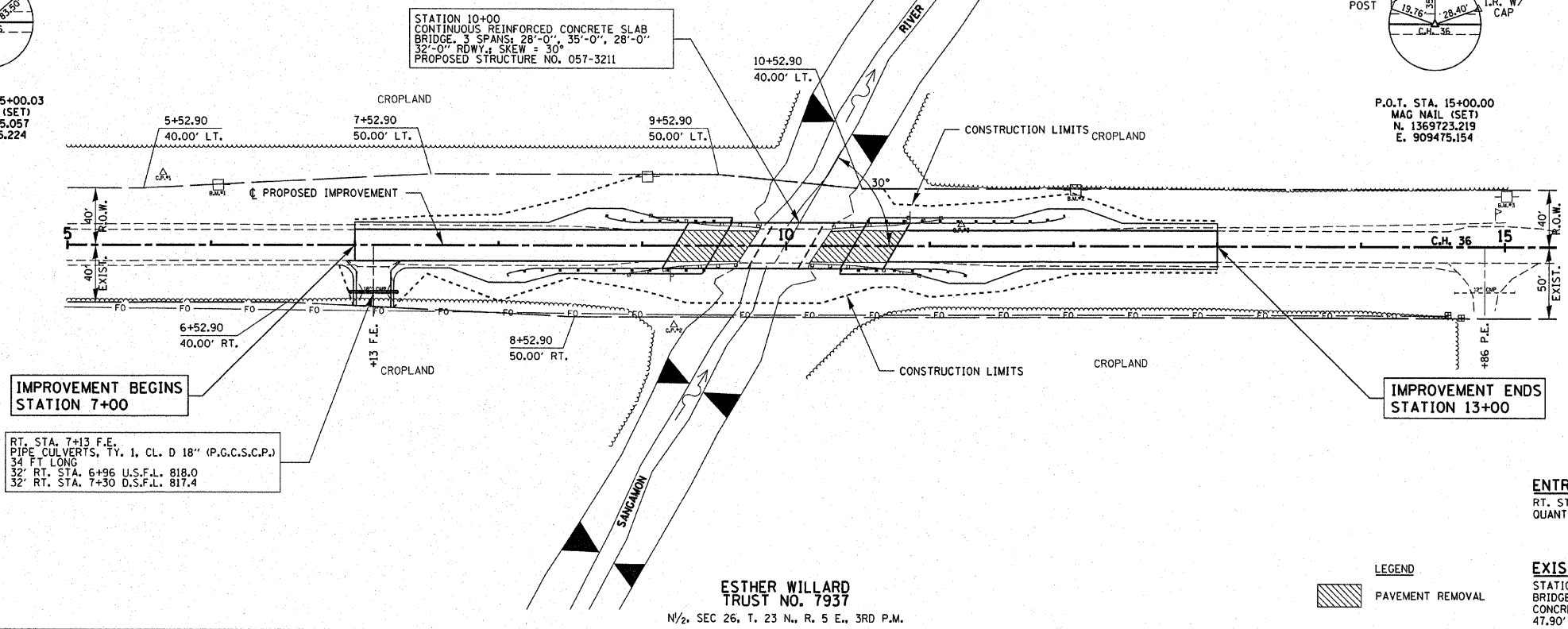
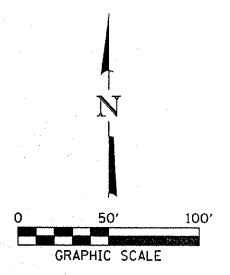


P.O.T. STA. 5+00.03
P.K. NAIL (SET)
N. 1369735.057
E. 908475.224

MARGARET L. LAZARETTE, TR.
SE 1/4, SW 1/4, SEC 23, T. 23 N., R. 5 E., 3RD P.M.



P.O.T. STA. 15+00.00
MAG NAIL (SET)
N. 1369723.219
E. 909475.154



IMPROVEMENT BEGINS
STATION 7+00

RT. STA. 7+13 F.E.
PIPE CULVERTS, TY. 1, CL. D 18" (P.C.C.S.C.P.)
34' FT LONG
32' RT. STA. 6+96 U.S.F.L. 818.0
32' RT. STA. 7+30 D.S.F.L. 817.4

IMPROVEMENT ENDS
STATION 13+00

ENTRANCES TO BE BUILT
RT. STA. 7+13 F.E. -5.6% AGG. 24' SURF.
QUANTITIES INCLUDED IN EARTHWORK TABLE.

EXISTING STRUCTURE NO. 057-3204
STATION 10+00 - TWO SPAN CAST IN PLACE CONC.
BRIDGE WITH CONCRETE PARAPETS ON CLOSED
CONCRETE ABUTMENTS AND WINGWALLS.
47.90' FC-FC, ABUTS; 32.72' O.-O, DECK

DATE	
BY	
REVIEWED	
PLANNED	
ALIGNED	
CHECKED	
FILE NAME	
NO.	

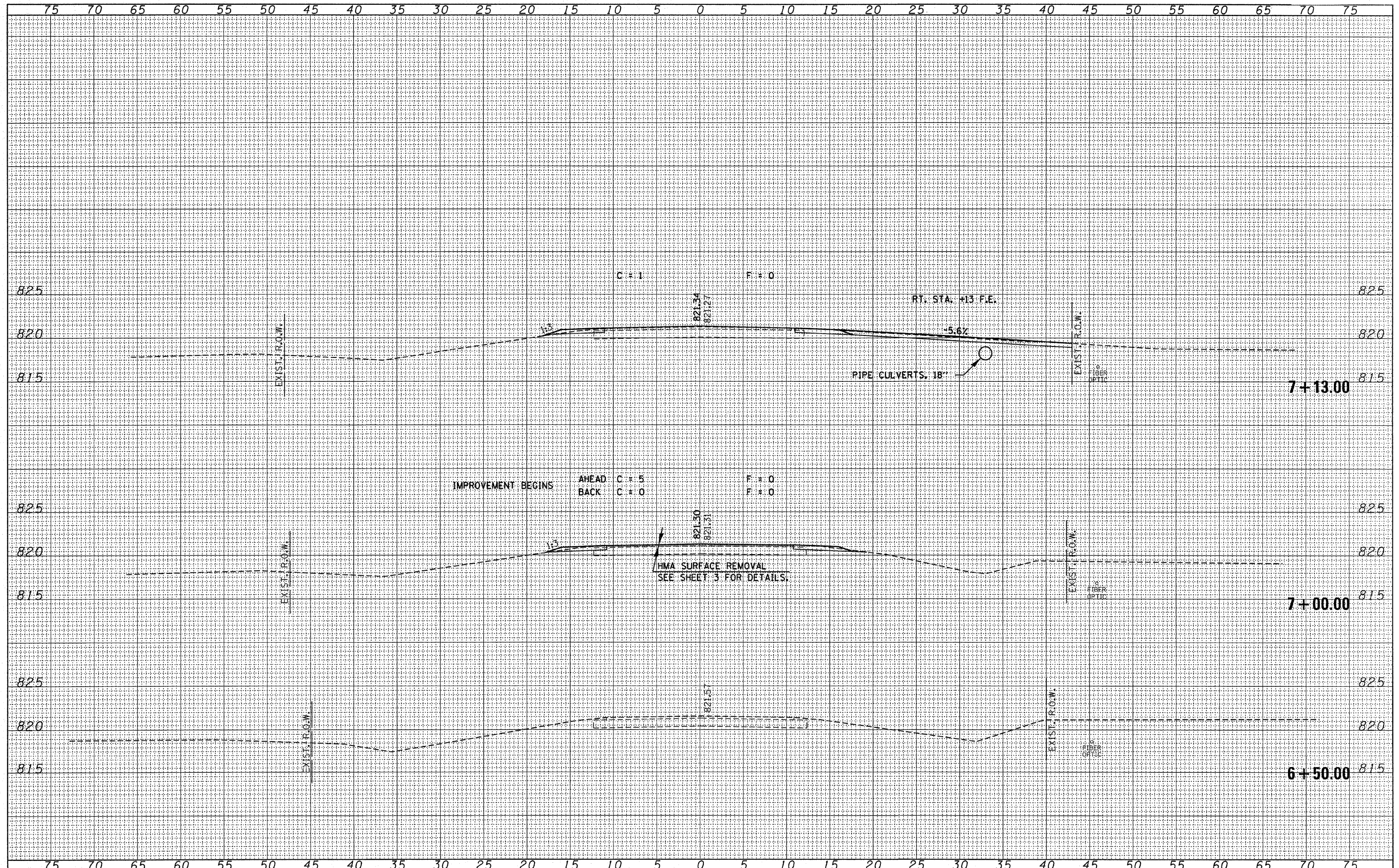
DATE	
BY	
REVIEWED	
GRADES	
CHECKED	
STRUCTURE	
NOTATIONS	
CHRD	
NO.	

840	BM#1 - SPIKE NAIL IN S. FACE OF POWER POLE 42' LT., STA. 6+05 ELEV. 821.41	BM#2 - SPIKE NAIL IN S. FACE OF POWER POLE 39' LT., STA. 12+01 ELEV. 819.58	P.I. STA. 9+23.05 ELEV. 822.00	P.I. STA. 10+76.95 ELEV. 822.00	BM#3 - SPIKE NAIL IN S. FACE OF POWER POLE 35' LT., STA. 15+01 ELEV. 823.02	840
835			NO CURVE	NO CURVE		835
830			EARTH EXCAVATION = 75 CU YD FURNISHED EXCAVATION = 160 CU YD			830
825			100 YEAR H.W. ELEV. 818.5 20 YEAR H.W. ELEV. 817.0			825
820			PROP. PAVEMENT TRANSITION +0.31% +0.00% -0.31% EXISTING C. GRADE			820
815			RIPRAP, SPECIAL SP. DITCH LT. 812.00 LT. CHANNEL EXCAVATION 2:1 @ RT. L'S			815
810			814.00 LT. ELEV. 806.7			810
805						805
800						800

FILE NAME = 59895-shr-ppi.dgn	USER NAME =	DESIGNED - J.W.F.	REVISED -	STATE OF ILLINOIS McLEAN COUNTY HIGHWAY DEPARTMENT	HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS	PLAN & PROFILE	C.H. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	DRAWN - D.T.M.	REVISED -				36	07-00045-03-BR	McLEAN	27	4
	PLOT DATE = 1/22/2009	CHECKED - S.W.M.	REVISED -				CONTRACT NO. 91388				
		DATE - 12/05/07	REVISED -				ILLINOIS FED. AID PROJECT				

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

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



FILE NAME = 59055-shr-sxa.dgn

USER NAME =	DESIGNED - J.W.F.	REVISED -
PLOT SCALE =	DRAWN - D.T.M.	REVISED -
PLOT DATE = 1/22/2009	CHECKED - S.W.M.	REVISED -
	DATE - 11/12/07	REVISED -

STATE OF ILLINOIS
McLEAN COUNTY HIGHWAY DEPARTMENT

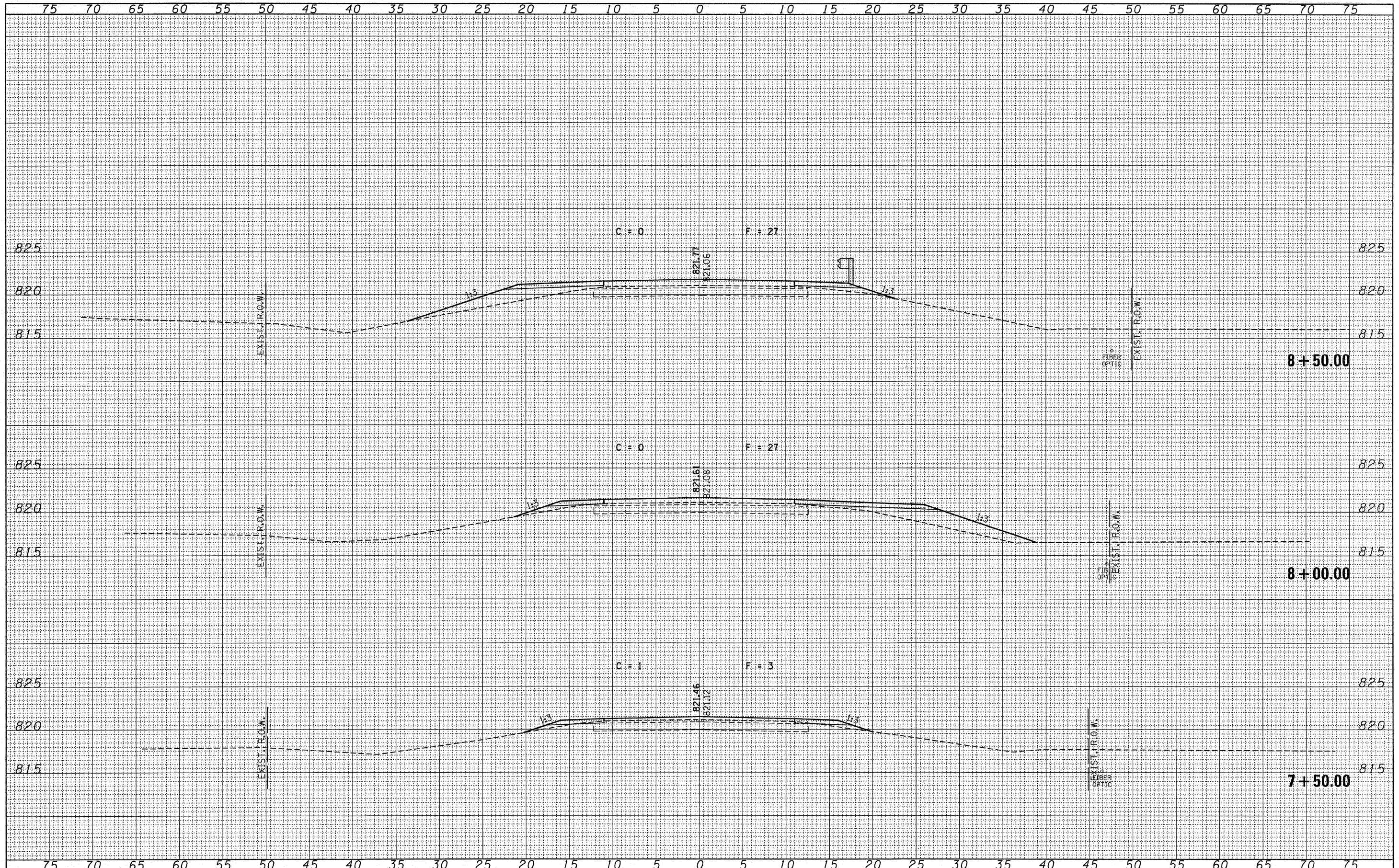
HLR HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

CROSS SECTIONS
SCALE: 5:5
SHEET NO. OF SHEETS
STA. 6+50.00 TO STA. 7+13.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36	07-00045-03-BR	McLEAN	27	5
CONTRACT NO. 91388			ILLINOIS FED. AID PROJECT	

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

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



FILE NAME = 59055-sh1-sxs.dgn

USER NAME =	DESIGNED - J.W.F.	REVISED -
	DRAWN - D.T.M.	REVISED -
PLOT SCALE =	CHECKED - S.W.M.	REVISED -
PLOT DATE = 1/22/2009	DATE - 11/12/07	REVISED -

STATE OF ILLINOIS
McLEAN COUNTY HIGHWAY DEPARTMENT

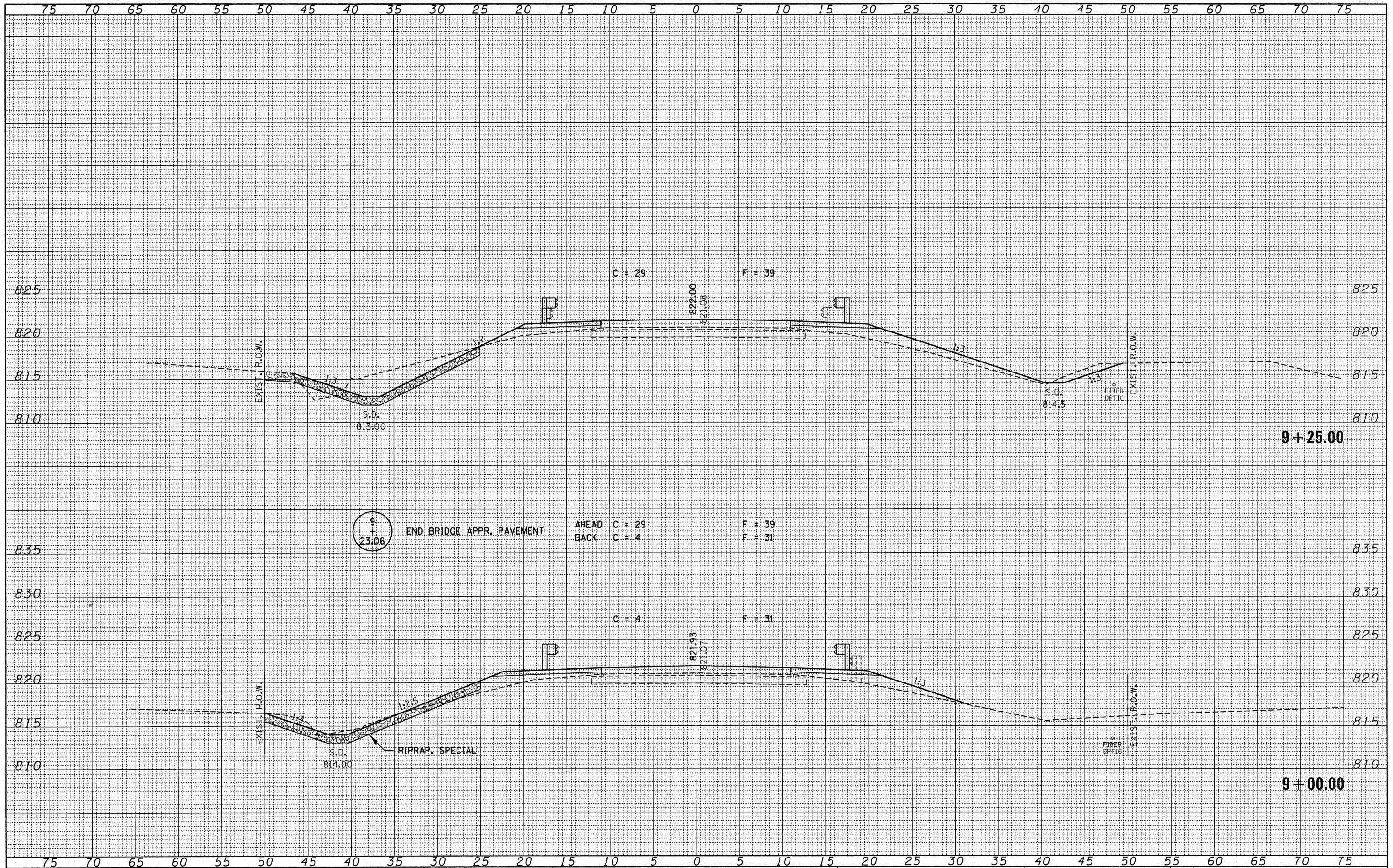
HLR HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
SCALE: 5/8" = 1' SHEET NO. OF SHEETS

CROSS SECTIONS	
C.H.	SECTION
36	07-00045-03-BR
STA. 7+50.00 TO STA. 8+50.00	

COUNTY	TOTAL SHEETS	SHEET NO.
McLEAN	27	6
CONTRACT NO. 91388		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		

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

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



FILE NAME = 99055-sh1-ssa.dgn

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 PLOT DATE = 1/22/2009

DESIGNED - J.W.F.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 11/12/07

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 McLEAN COUNTY HIGHWAY DEPARTMENT

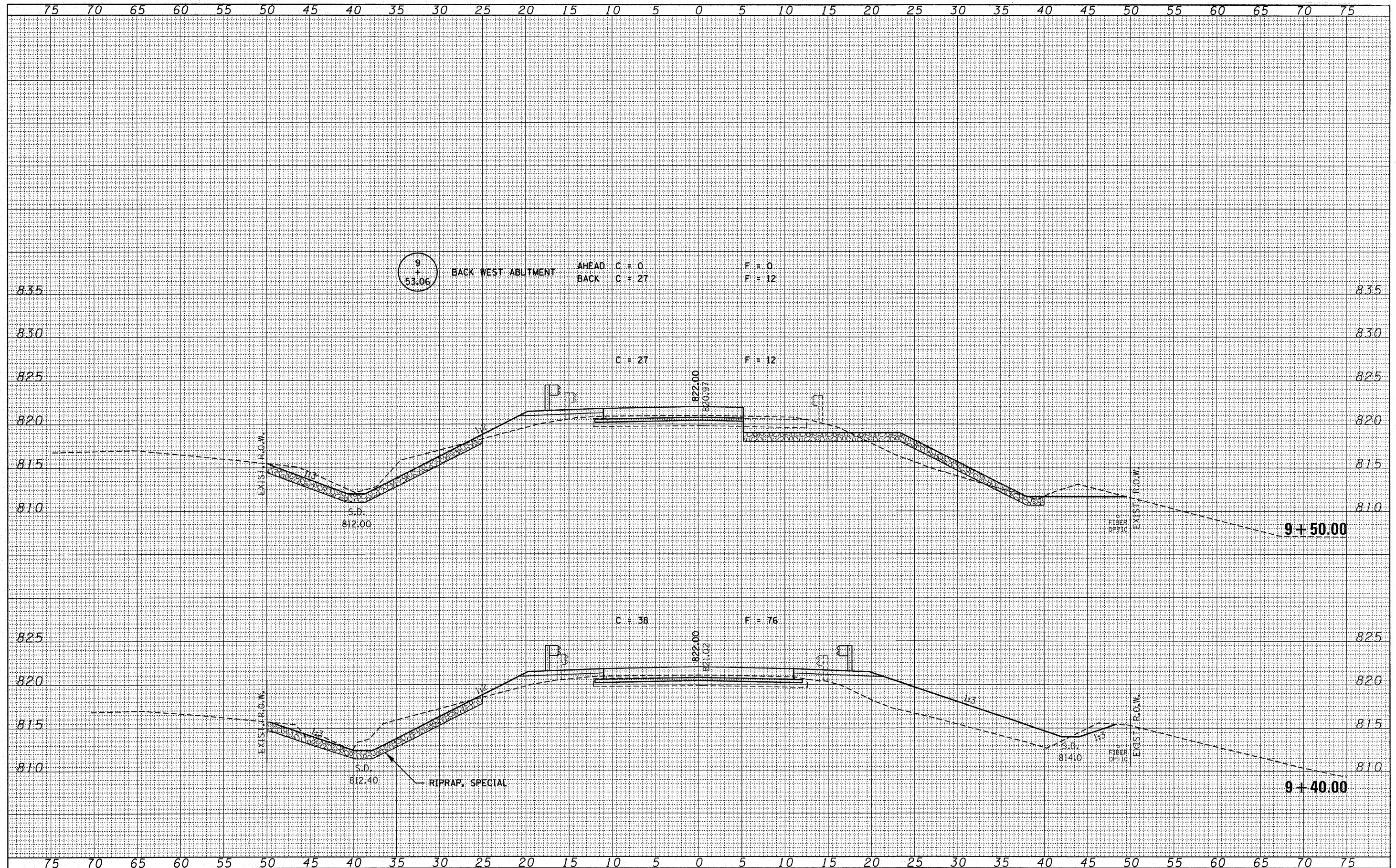
HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
 SCALE: 5:5

CROSS SECTIONS
 STA. 9+00.00 TO STA. 9+25.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36	07-00045-03-BR	McLEAN	27	7
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 91388	

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	



FILE NAME = 59055-sh1-sxs.dgn

USER NAME =	DESIGNED - J.W.F.	REVISED -
	DRAWN - D.T.M.	REVISED -
PLOT SCALE =	CHECKED - S.W.M.	REVISED -
PLOT DATE = 1/22/2009	DATE - 11/12/07	REVISED -

STATE OF ILLINOIS
McLEAN COUNTY HIGHWAY DEPARTMENT

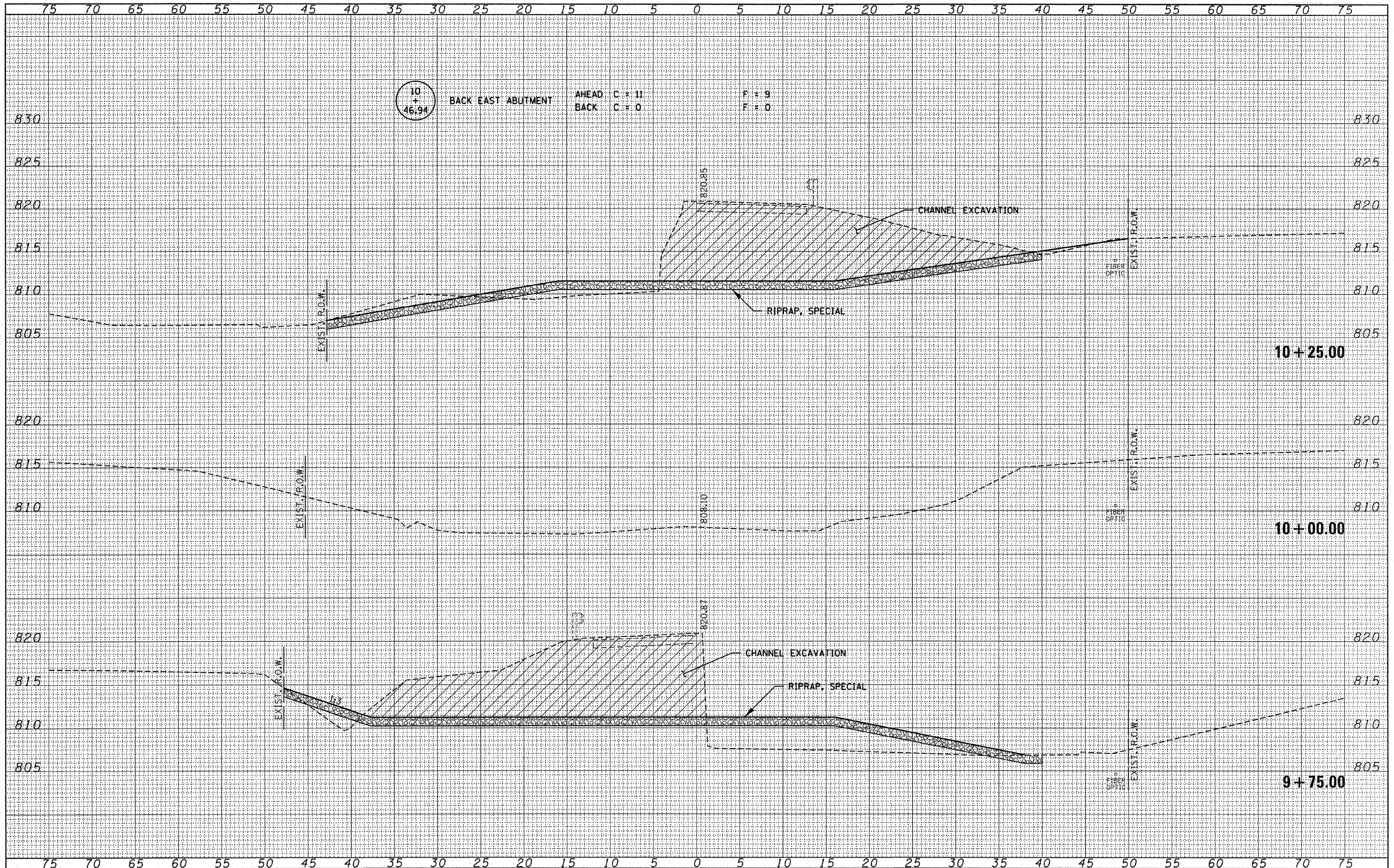
HLR HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

CROSS SECTIONS
C.H. 36 SECTION 07-00045-03-BR COUNTY McLEAN TOTAL SHEETS 27 SHEET NO. 8

SCALE: 5x5	SHEET NO. OF SHEETS	STA. 9+40.00 TO STA. 9+50.00	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT
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DATE	
BY	
FINAL SURVEY	
DESIGNED	
NOTE BOOK	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
DESIGNED	
NOTE BOOK	
NO.	



FILE NAME = 59055-ght-sss.dgn

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	DRAWN - D.T.M.	REVISED -
PLOT SCALE =	CHECKED - S.W.M.	REVISED -
PLOT DATE = 1/22/2009	DATE - 11/12/07	REVISED -

STATE OF ILLINOIS
McLEAN COUNTY HIGHWAY DEPARTMENT

HLR HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS
SCALE: 5:5

CROSS SECTIONS

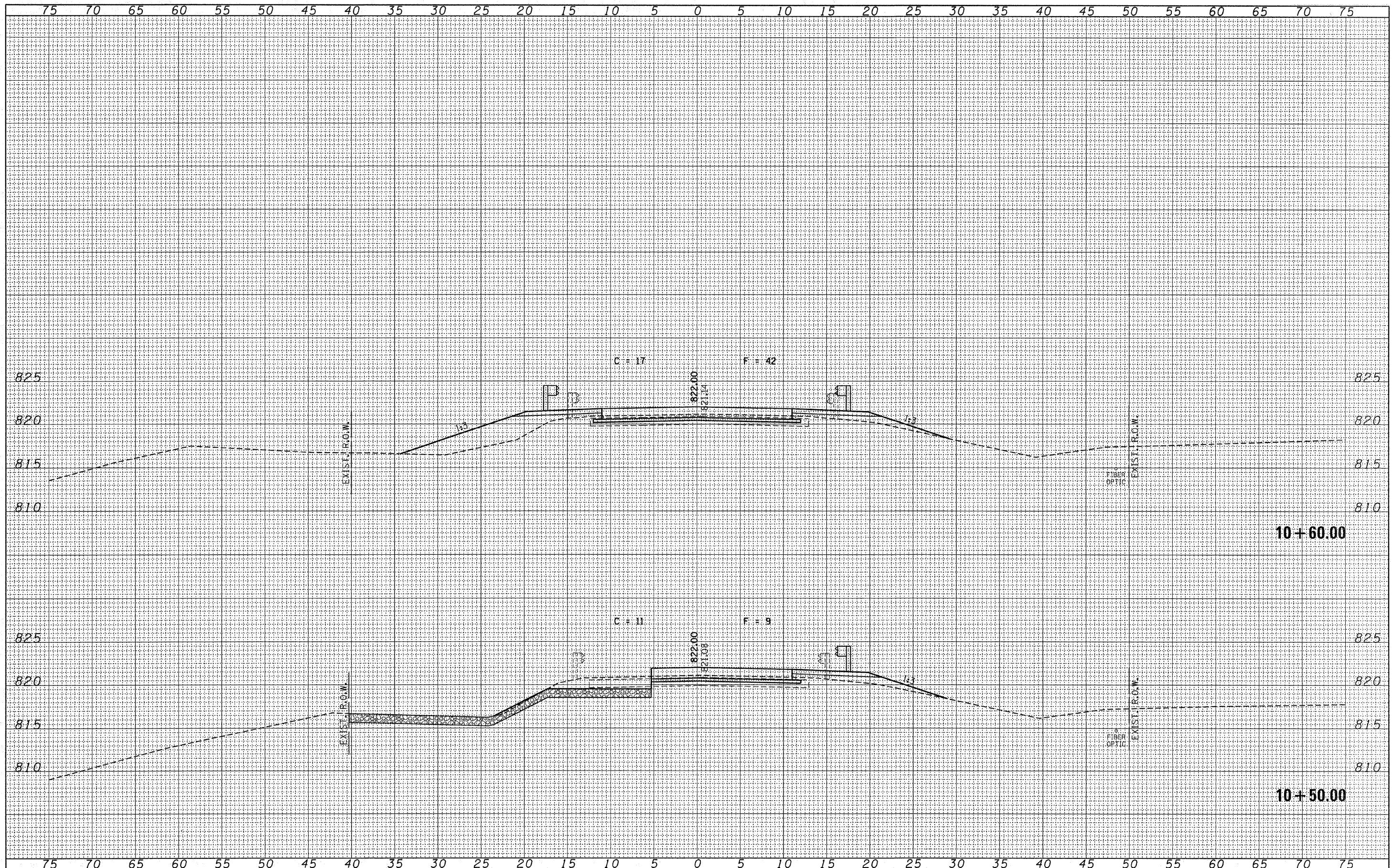
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36	07-00045-03-BR	McLEAN	27	9
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

STA. 9+75.00 TO STA. 10+25.00

CONTRACT NO. 91388

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

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



FILE NAME = 59055-sh1-sxs.dgn

USER NAME =
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 PLOT DATE = 1/22/2009

DESIGNED - J.W.F.
 DRAWN - D.T.M.
 CHECKED - S.W.M.
 DATE - 11/12/07

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 McLEAN COUNTY HIGHWAY DEPARTMENT

HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

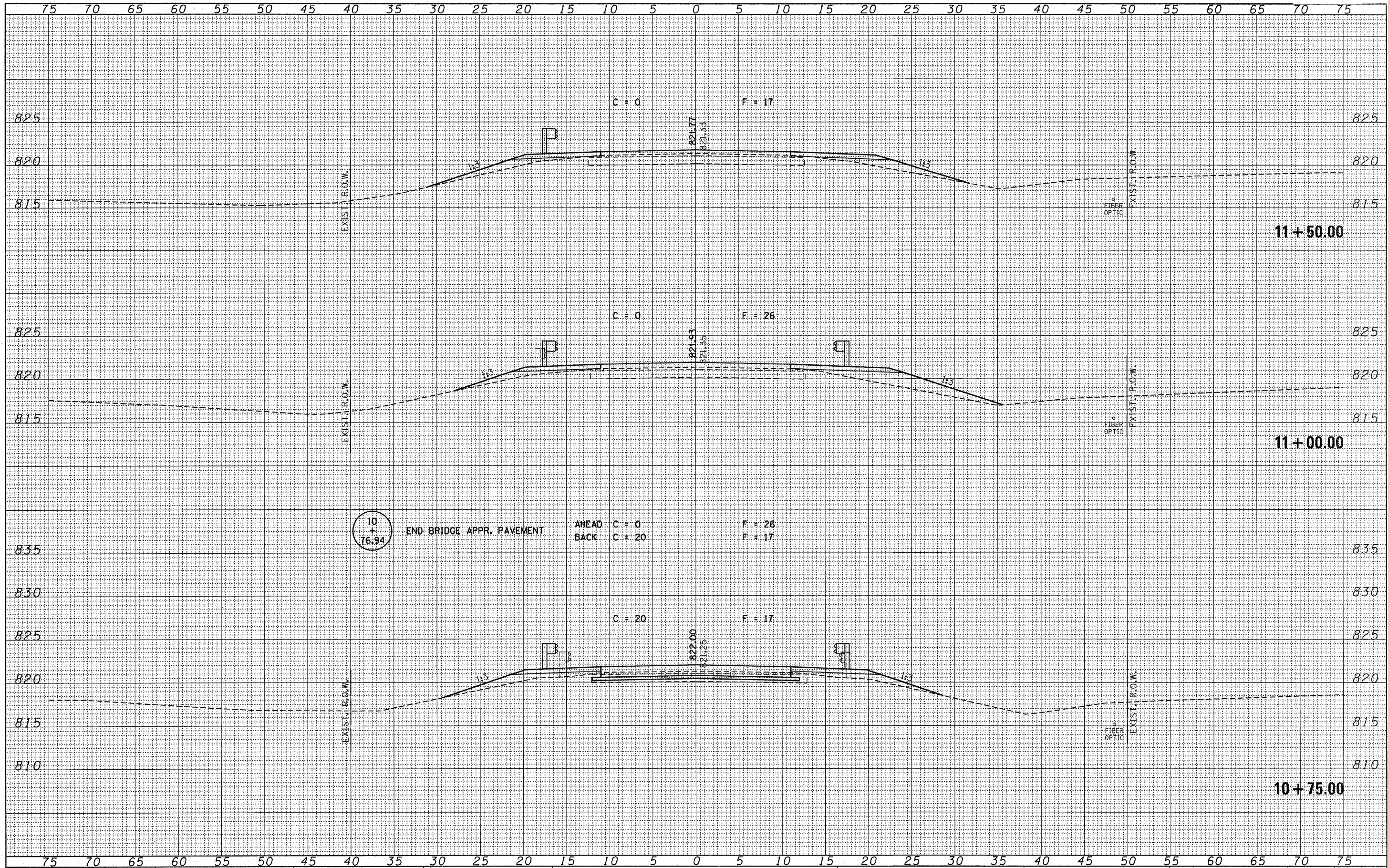
CROSS SECTIONS
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 36 07-00045-03-BR McLEAN 27 10

CONTRACT NO. 91388
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SCALE: 5:5 SHEET NO. OF SHEETS STA. 10+50.00 TO STA. 10+60.00

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

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



FILE NAME = 59055-shr-exs.dgn

USER NAME =
 PLOT SCALE =
 PLOT DATE = 1/22/2009

DESIGNED - J.W.F.	REVISED -
DRAWN - D.T.M.	REVISED -
CHECKED - S.W.M.	REVISED -
DATE - 11/12/07	REVISED -

STATE OF ILLINOIS
 McLEAN COUNTY HIGHWAY DEPARTMENT

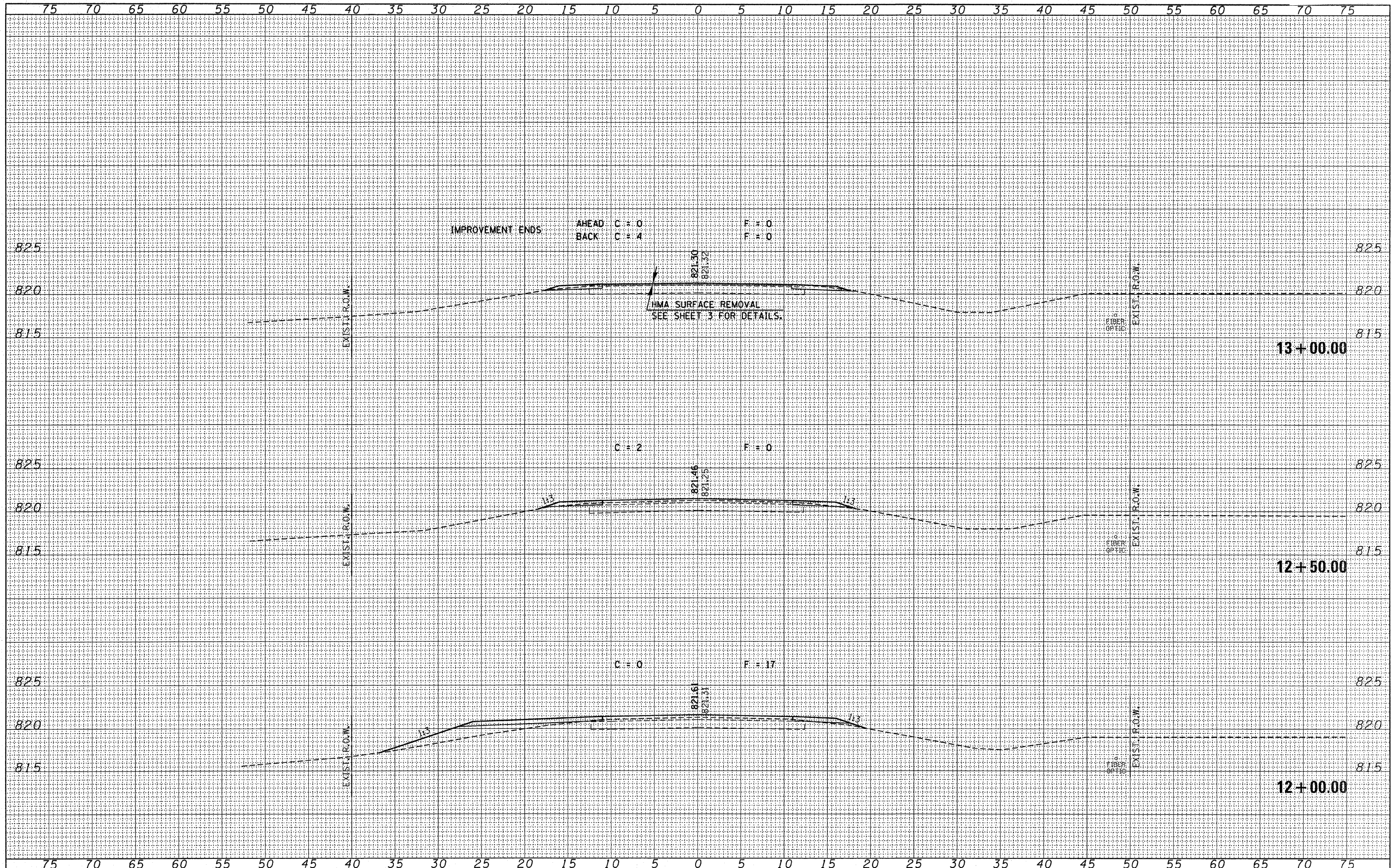
HLR HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS
 SCALE: 5:5 SHEET NO. OF SHEETS

CROSS SECTIONS
 STA. 10+75.00 TO STA. 11+50.00

C.H.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
36	07-00045-03-BR	McLEAN	27	11
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 91388	

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

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



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	DRAWN - D.T.M.	REVISED -
PLOT SCALE =	CHECKED - S.W.M.	REVISED -
PLOT DATE = 1/22/2009	DATE - 11/12/07	REVISED -

STATE OF ILLINOIS
McLEAN COUNTY HIGHWAY DEPARTMENT

HLR HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

CROSS SECTIONS
C.H. SECTION COUNTY TOTAL SHEETS SHEET NO.
36 07-00045-03-BR McLEAN 27 12

CONTRACT NO. 91388
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

SCALE: 5:5 SHEET NO. OF SHEETS STA. 12+00.00 TO STA. 13+00.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	13
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	

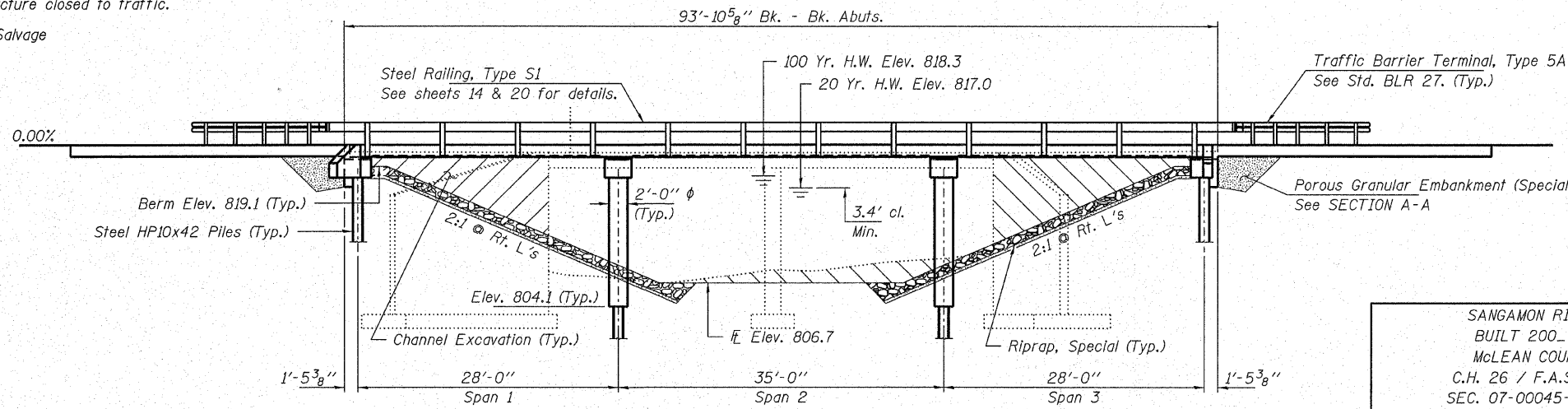
GENERAL NOTES

Layout of riprap may be varied in the field to suit existing ground conditions as directed by the Engineer.
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at West Abutment and Pier 2 or approved by the Engineer before ordering the remainder of piles.
 Excavation required to construct the Abutments shall be included in Concrete Structures. No additional compensation will be allowed for Structure Excavation.
 All proposed construction activity shall be in accordance with Nationwide Permit number 14 of the Department of the Army authorized under Section 404 of the Clean Water Act. The IEPA has issued Section 401 Water Quality Certification for this activity. See Special Provisions for conditions.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
 The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
 Bridge deck grooving shall be completed on bridge deck and bridge approach pavement after HMA surface is in place. Rollers shall not be allowed on the bridge deck grooving.
 Protective Coat shall be applied to the entire top and edge surfaces of the bridge deck and bridge approach pavement.
 All construction joints shall be bonded.
 See Sheet 23 for Borings.

BENCHMARK: Spike Nail in South face of power pole, 39' Lt., Sta. 12+01, Elev. 819.58

EXISTING STRUCTURE: Station 10+00 - Two span cast in place concrete bridge with concrete parapets on closed concrete abutments and wingwalls. 47.90' fc.-fc. Abuts; 32.72' o.-o. Deck Structure closed to traffic.

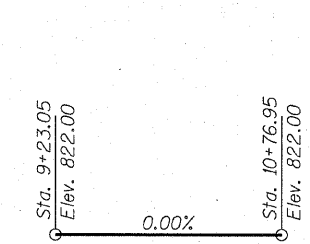
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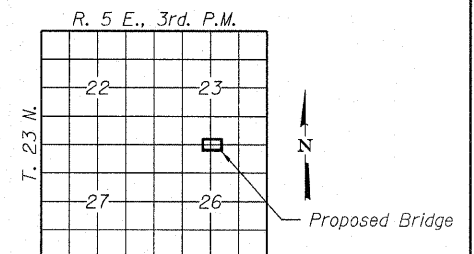
ELEVATION

SANGAMON RIVER
 BUILT 200_ BY
 McLEAN COUNTY
 C.H. 26 / F.A.S. 487
 SEC. 07-00045-03-BR
 STR. NO. 057-3211
 LOADING HS 20

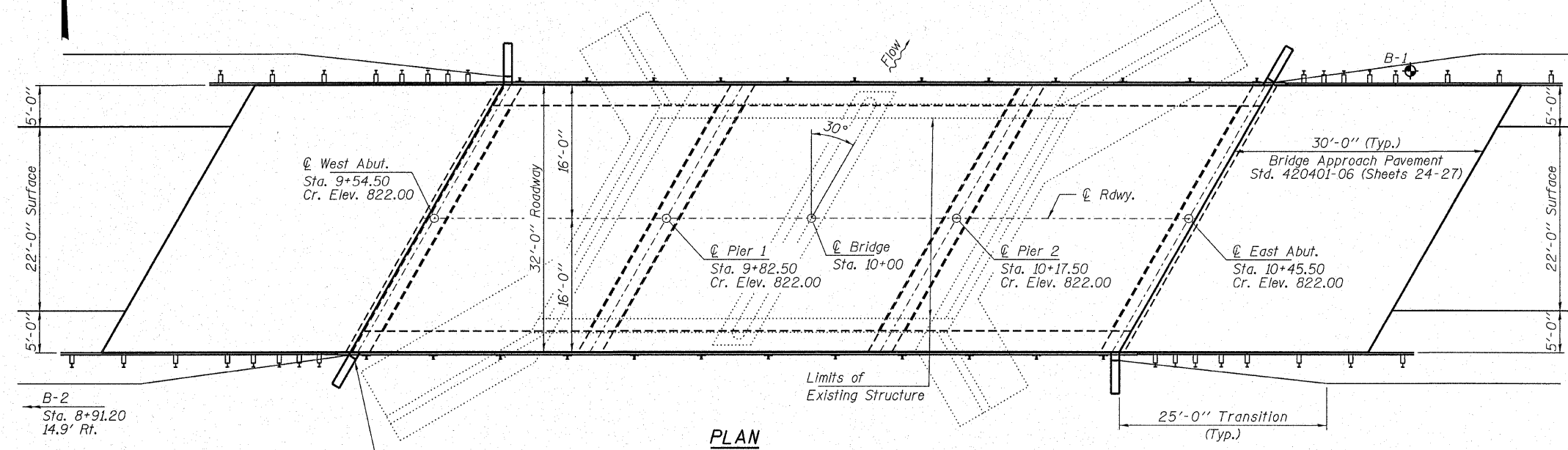
NAME PLATE
 See Std. 515001



PROFILE GRADE



LOCATION SKETCH



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	Cu Yd			255
Porous Granular Embankment (Special)	Ton		105	105
Riprap, Special	Sq. Yd.			958
Bridge Approach Pavement	Sq. Yd.			214
Protective Coat	Sq. Yd.	544		544
Removal of Existing Structures	Each			1
Concrete Structures	Cu. Yd.		31.7	31.7
Concrete Superstructure	Cu. Yd.	137.4		137.4
Bridge Deck Grooving	Sq. Yd.	523		523
Concrete Encasement	Cu. Yd.	16.3		16.3
Reinforcement Bars, Epoxy Coated	Pound	38,590		38,590
Bar Splacers	Each	66		66
Steel Railing, Type S1	Foot	194		194
Furnishing Steel Piles HPI0x42	Foot		1,080	1,080
Driving Piles	Foot		1,080	1,080
Test Pile Steel HPI0x42	Each		2	2
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Ft.			36
Concrete Headwall for Pipe Drains	Each		4	4
Pipe Underdrains for Structures 4"	Foot			110

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi Load Factor
 fy = 60,000 psi (Reinf.) Design

Loading HS 20-44

Design Specifications: 2002 AASHTO & all applicable Interims. 25#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.045g
 Site Coefficient (S) = 1.2

WATERWAY INFORMATION

Drainage Area = 20.1 Sq. Mi. Low Grade Elev. 821.0 @ Sta. 9+50

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Natural H.W.E. Exist.	Prop.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
Design	10	1482	350	360	816.1	0.8	0.9	816.9	817.0	
Base	20	1841	390	420	817.0	0.9	0.9	817.9	817.9	
Overtopping	100	2709	450	500	818.3	0.9	0.8	819.2	819.1	
Max. Calc.	500	3608	490	550	819.0	1.5	0.7	820.5	819.7	

10 Year Velocity through Existing Bridge = 5.0 fps
 10 Year Velocity through Existing Bridge = 4.6 fps

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 Standard Specifications for Highway Bridges".

Steven Megginson 1/21/09
 ILLINOIS STRUCTURAL NO. 081-6064



HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

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 (217) 546-3400

ELGIN • SPRINGFIELD

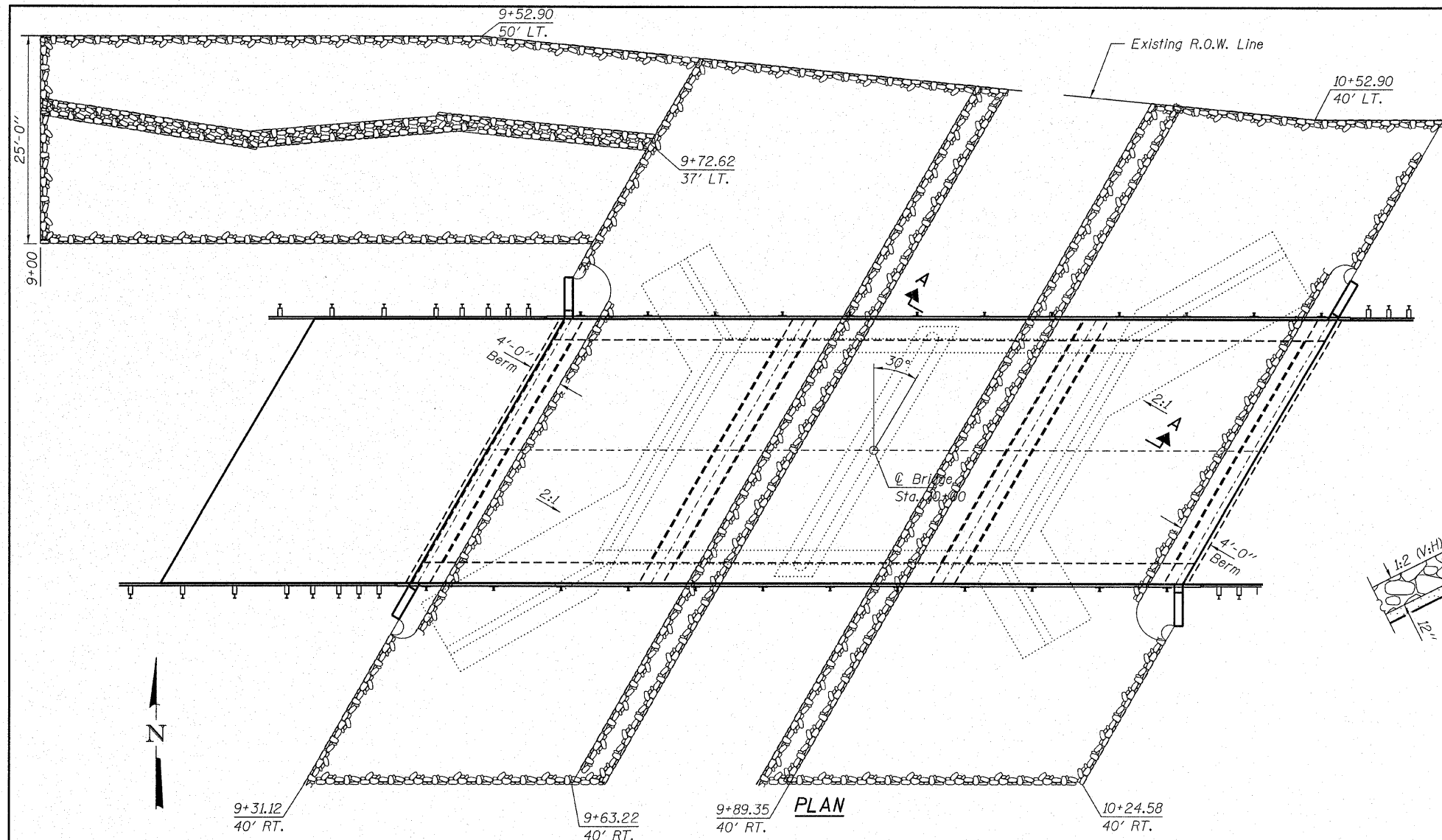
PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
 DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

GENERAL PLAN AND ELEVATION

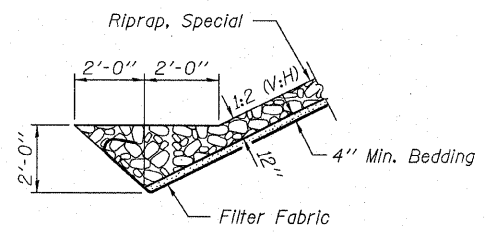
C.H. 36 / F.A.S. 487
 SECTION 07-00045-03-BR
 McLEAN COUNTY

STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	14
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	

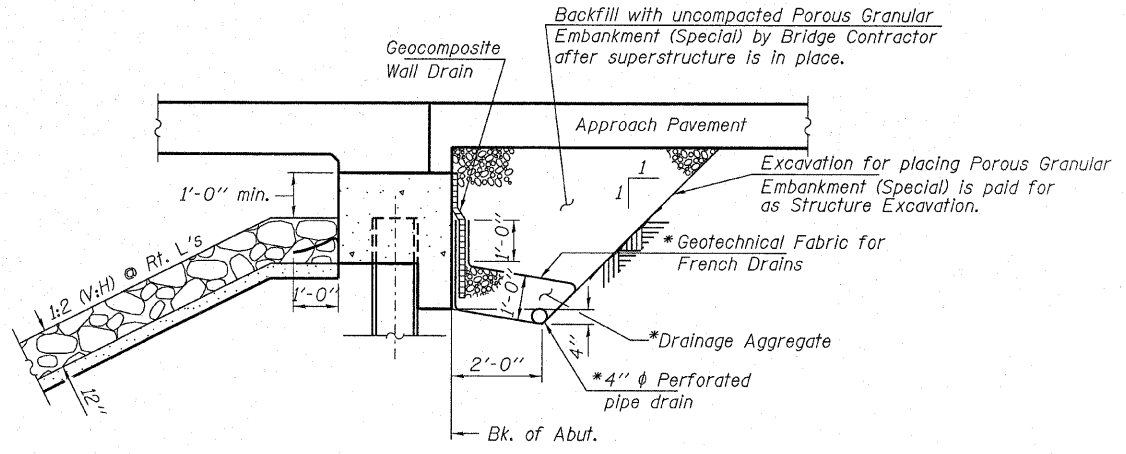


PLAN



SECTION A-A

Note: See Special Provisions for Riprap, Special.

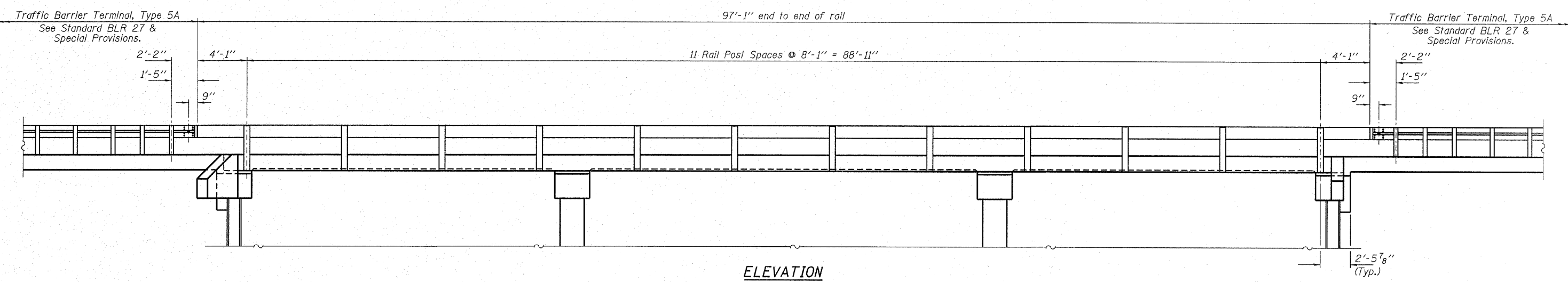


SECTION THRU INTEGRAL ABUTMENT

(Horiz. dim. @ Rt. L's)

* Included in the cost of Pipe Underdrains for Structures.

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



ELEVATION

Showing Rail Post Spaces
See sheet 20 for Railing Details.

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

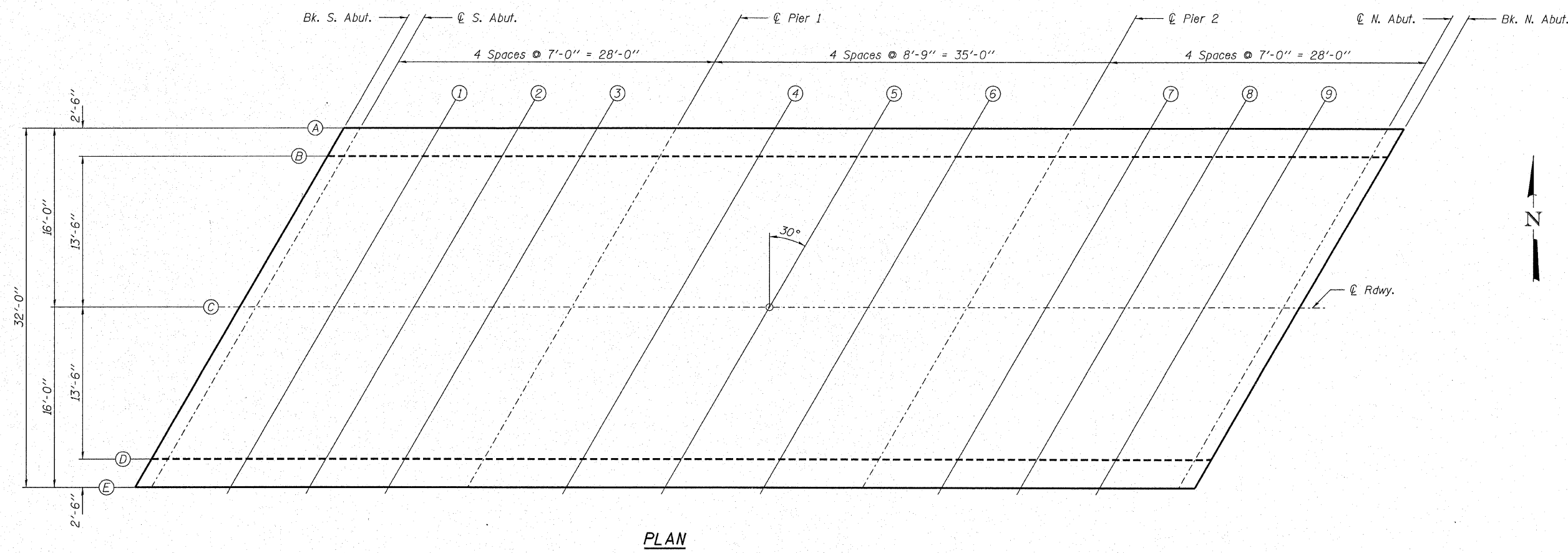
ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

GENERAL DETAILS

C.H. 36 / F.A.S. 487
SECTION 07-00045-03-BR
McLEAN COUNTY
STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO. C.H. 36	SECTION 07-00045 -03-BR	COUNTY McLEAN	TOTAL SHEETS 27	SHEET NO. 15
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91388		



PLAN

TABLE OF ELEVATIONS

LOCATION	BK. OF S. ABUT.	C. OF S. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF N. ABUT.	BK. OF N. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680
A ADJ.	821.680	821.680	821.688	821.689	821.685	821.680	821.687	821.693	821.687	821.680	821.685	821.689	821.688	821.680	821.680
** Bott. of Slab	820.343	820.343	820.351	820.353	820.348	820.343	820.350	820.356	820.350	820.343	820.348	820.353	820.351	820.343	820.343

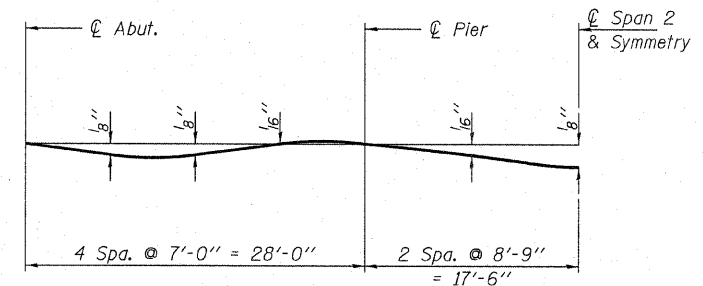
LOCATION	BK. OF S. ABUT.	C. OF S. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF N. ABUT.	BK. OF N. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730
B ADJ.	821.730	821.730	821.738	821.739	821.735	821.730	821.737	821.743	821.737	821.730	821.735	821.739	821.738	821.730	821.730
** Bott. of Slab	820.563	820.563	820.571	820.573	820.568	820.563	820.570	820.576	820.570	820.563	820.568	820.573	820.571	820.563	820.563

LOCATION	BK. OF S. ABUT.	C. OF S. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF N. ABUT.	BK. OF N. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000	822.000
C ADJ.	822.000	822.000	822.008	822.009	822.005	822.000	822.007	822.013	822.007	822.000	822.005	822.009	822.008	822.000	822.000
** Bott. of Slab	820.833	820.833	820.841	820.843	820.838	820.833	820.840	820.846	820.840	820.833	820.838	820.843	820.841	820.833	820.833

LOCATION	BK. OF S. ABUT.	C. OF S. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF N. ABUT.	BK. OF N. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730	821.730
B ADJ.	821.730	821.730	821.738	821.739	821.735	821.730	821.737	821.743	821.737	821.730	821.735	821.739	821.738	821.730	821.730
** Bott. of Slab	820.563	820.563	820.571	820.573	820.568	820.563	820.570	820.576	820.570	820.563	820.568	820.573	820.571	820.563	820.563

LOCATION	BK. OF S. ABUT.	C. OF S. ABUT.	SPAN 1			C. OF PIER 1	SPAN 2			C. OF PIER 2	SPAN 3			C. OF N. ABUT.	BK. OF N. ABUT.
			1	2	3		4	5	6		7	8	9		
LINE T.	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680	821.680
A ADJ.	821.680	821.680	821.688	821.689	821.685	821.680	821.687	821.693	821.687	821.680	821.685	821.689	821.688	821.680	821.680
** Bott. of Slab	820.343	820.343	820.351	820.353	820.348	820.343	820.350	820.356	820.350	820.343	820.348	820.353	820.351	820.343	820.343

T. - Theoretical elevation at top of slab
 Adj. - T adjusted for dead load deflection
 ** Bottom of slab elevation equals bottom of edge beam.



DEAD LOAD DEFLECTION DIAGRAM
 (Includes weight of concrete only.)

Notes: 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.

The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework in addition to allowance for dead load deflection.

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 LAND SURVEYORS

HLR

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 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
 DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

TOP OF SLAB ELEVATIONS

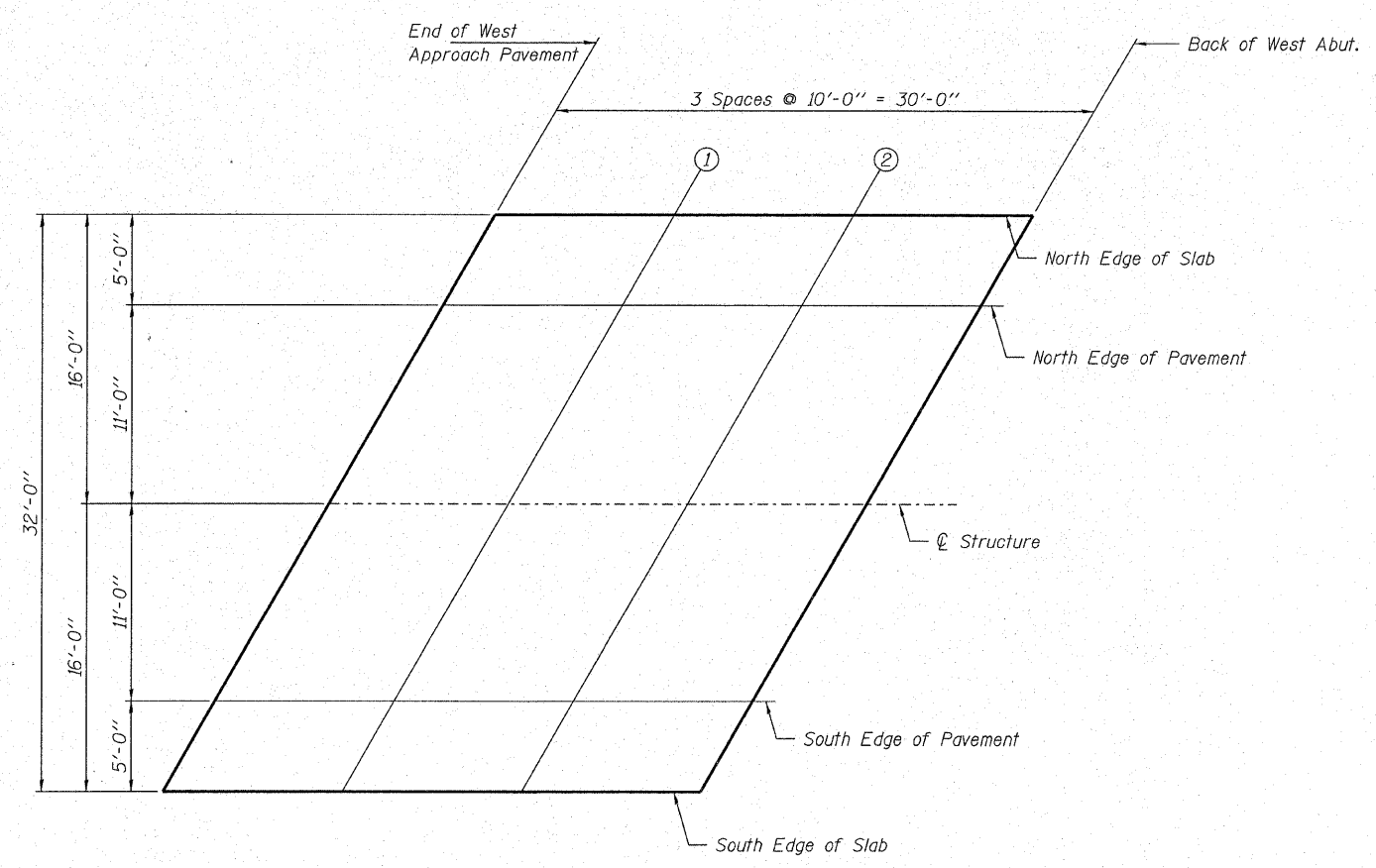
C.H. 36 / F.A.S. 487

SECTION 07-00045-03-BR

McLEAN COUNTY

STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	16
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	



PLAN

NORTH EDGE OF SLAB

	End of W. Appr.			Bk. of W. Abut.
		1	2	
Theoretical Grade Elevation	821.680	821.680	821.680	821.680

NORTH EDGE OF PAVEMENT

	End of W. Appr.			Bk. of W. Abut.
		1	2	
Theoretical Grade Elevation	821.780	821.780	821.780	821.780

☉ STRUCTURE & P.G.

	End of W. Appr.			Bk. of W. Abut.
		1	2	
Theoretical Grade Elevation	822.000	822.000	822.000	822.000

SOUTH EDGE OF PAVEMENT

	End of W. Appr.			Bk. of W. Abut.
		1	2	
Theoretical Grade Elevation	821.780	821.780	821.780	821.780

NORTH EDGE OF SLAB

	End of W. Appr.			Bk. of W. Abut.
		1	2	
Theoretical Grade Elevation	821.680	821.680	821.680	821.680

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 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

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 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400

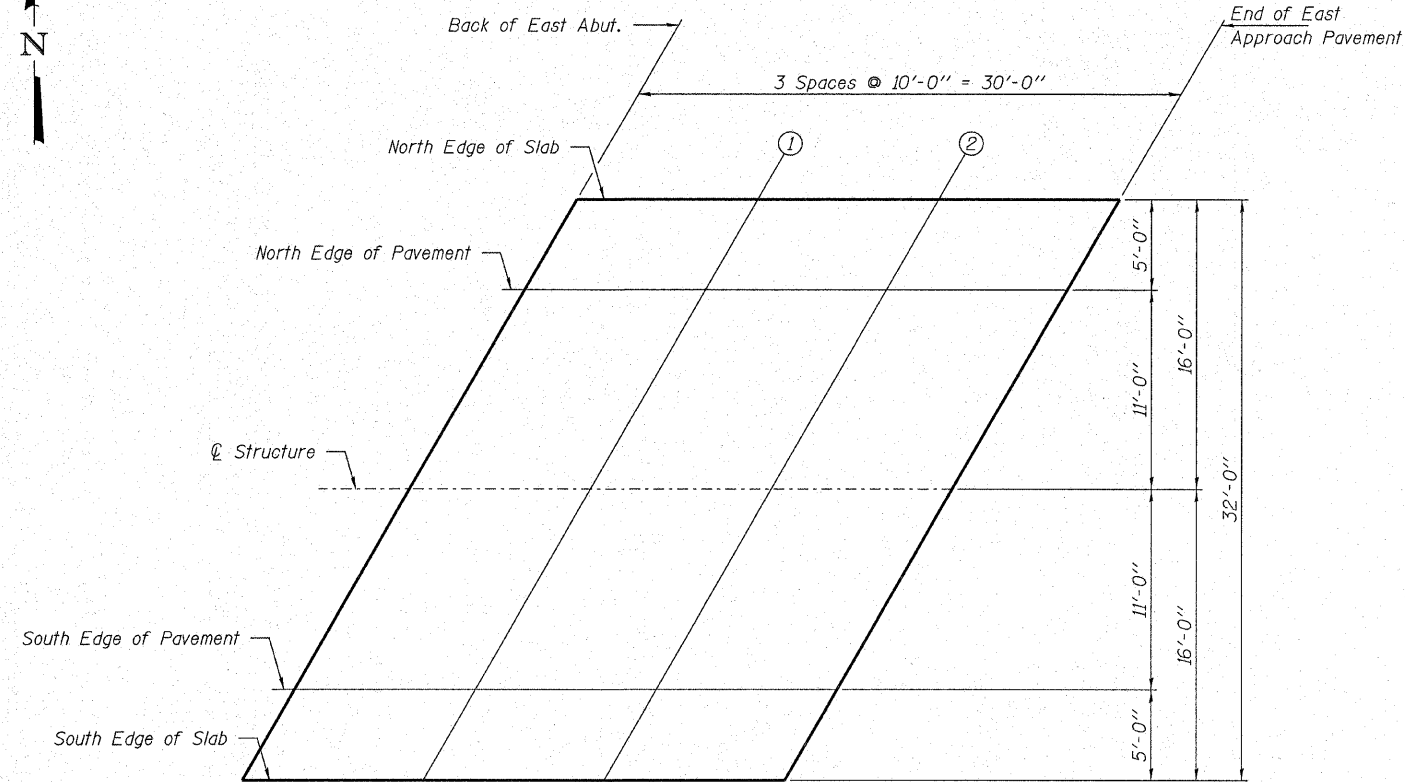
HLR

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
 DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

**TOP OF WEST APPROACH
 SLAB ELEVATIONS**
 C.H. 36 / F.A.S. 487
 SECTION 07-00045-03-BR
 McLEAN COUNTY
 STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	17
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	



PLAN

NORTH EDGE OF SLAB

	End of E. Appr.			Bk. of E. Abut.
		1	2	
Theoretical Grade Elevation	821.680	821.680	821.680	821.680

NORTH EDGE OF PAVEMENT

	End of E. Appr.			Bk. of E. Abut.
		1	2	
Theoretical Grade Elevation	821.780	821.780	821.780	821.780

Centerline of Structure & P.G.

	End of E. Appr.			Bk. of E. Abut.
		1	2	
Theoretical Grade Elevation	822.000	822.000	822.000	822.000

SOUTH EDGE OF PAVEMENT

	End of E. Appr.			Bk. of E. Abut.
		1	2	
Theoretical Grade Elevation	821.780	821.780	821.780	821.780

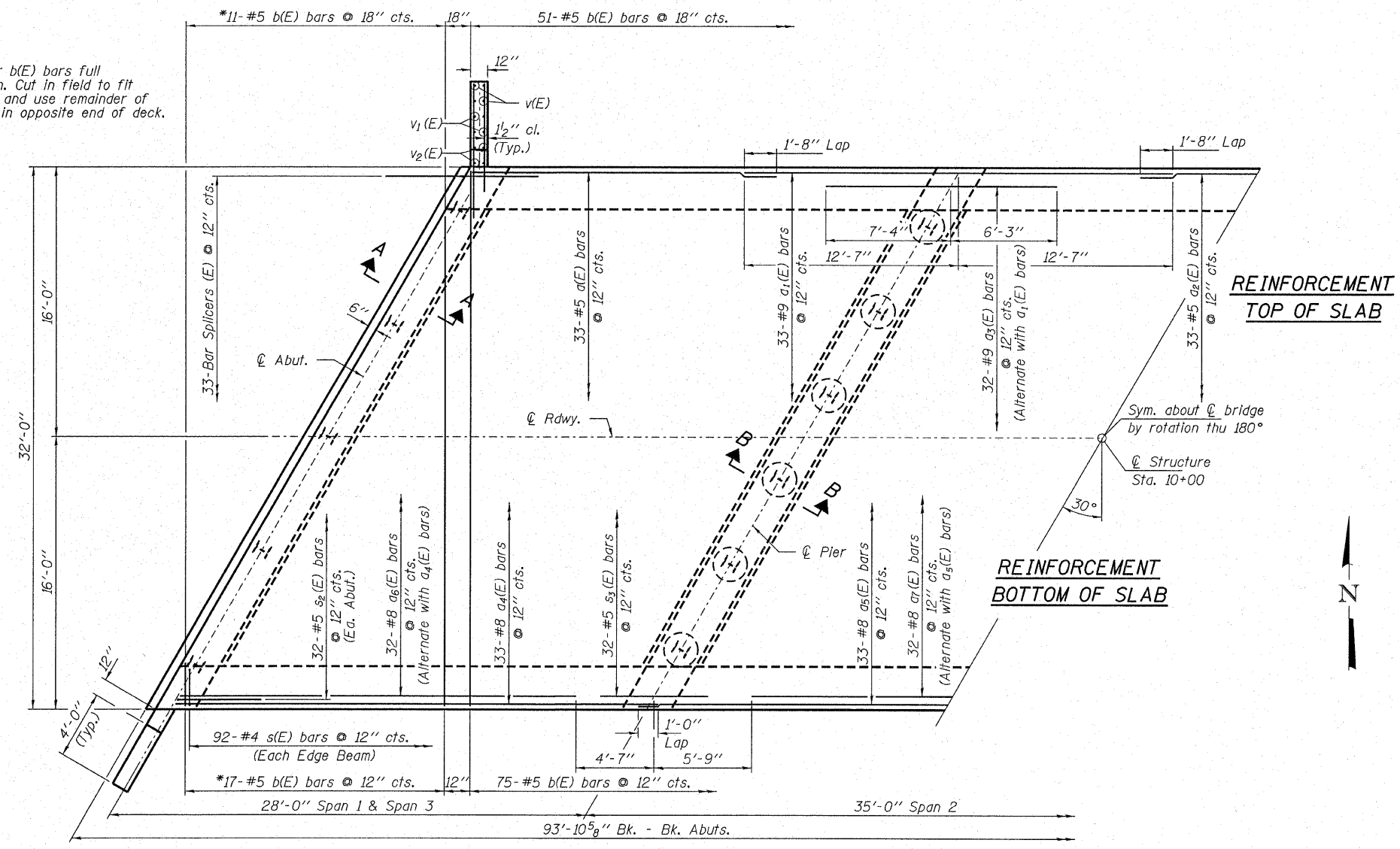
SOUTH EDGE OF SLAB

	End of E. Appr.			Bk. of E. Abut.
		1	2	
Theoretical Grade Elevation	821.680	821.680	821.680	821.680

<p>HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS</p> <p>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400</p> <p>HLR</p> <p>ELGIN • SPRINGFIELD</p>	<p>TOP OF EAST APPROACH SLAB ELEVATIONS C.H. 36 / F.A.S. 487 SECTION 07-00045-03-BR McLEAN COUNTY STRUCTURE NO. 057-3211 / STATION 10+00</p>
	<p>PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09</p>
	<p>DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.</p>

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	18
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91388		

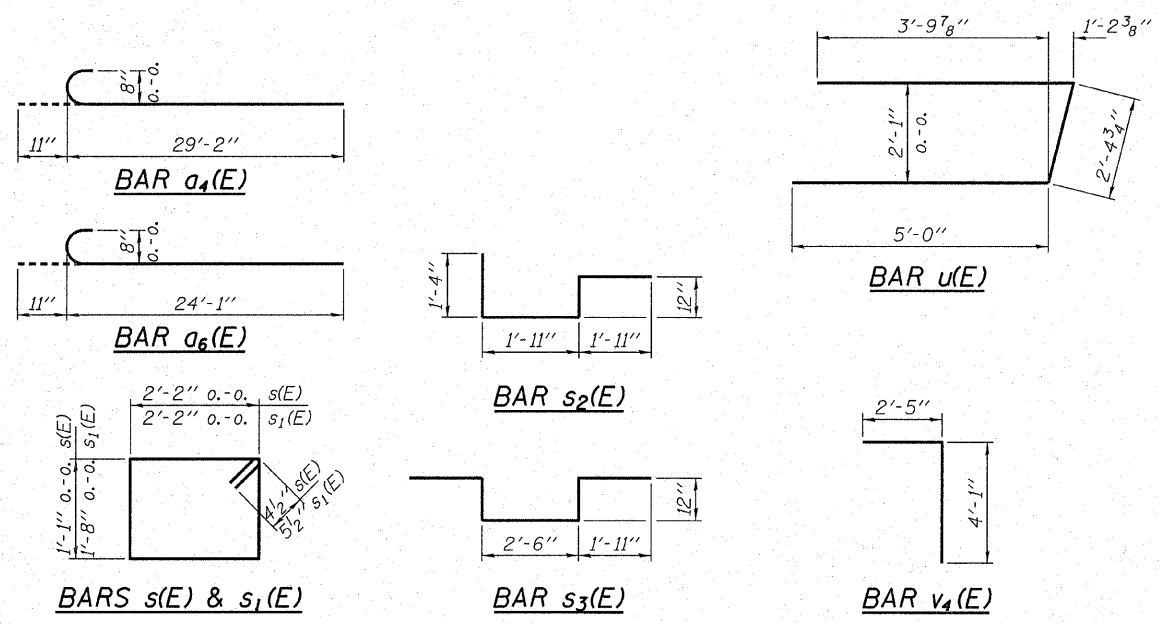
* Order b(E) bars full length. Cut in field to fit skew and use remainder of bars in opposite end of deck.



PLAN

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	66	#5	17'-10"	—
a ₁ (E)	66	#9	25'-2"	—
a ₂ (E)	33	#5	13'-4"	—
a ₃ (E)	64	#9	13'-7"	—
a ₄ (E)	66	#8	30'-1"	C
a ₅ (E)	33	#8	36'-0"	—
a ₆ (E)	64	#8	25'-0"	C
a ₇ (E)	32	#8	23'-6"	—
b(E)	154	#5	31'-8"	—
h(E)	24	#4	6'-9"	—
h ₁ (E)	24	#4	4'-9"	—
p(E)	22	#7	36'-8"	—
p ₁ (E)	20	#8	36'-8"	—
s(E)	184	#4	7'-3"	□
s ₁ (E)	136	#5	8'-7"	□
s ₂ (E)	64	#5	6'-2"	□
s ₃ (E)	64	#5	8'-4"	□
u(E)	24	#6	12'-5"	—
v(E)	16	#4	1'-4"	—
v ₁ (E)	16	#4	2'-4"	—
v ₂ (E)	16	#4	3'-4"	—
v ₃ (E)	192	#5	3'-2"	—
v ₄ (E)	64	#5	6'-6"	—



WING DETAIL
(Typ. all Wingwalls)

Note: For edge beam details see Detail A on sheet 19.

MIN. BAR LAPS
#5 - 1'-8"

Material	Unit	Quantity
Concrete Structures	Cu. Yd.	31.7
Concrete Superstructure	Cu. Yd.	137.4
Concrete Encasement	Cu. Yd.	16.3
Protective Coat	Sq. Yd.	309
Reinforcement Bars, Epoxy Coated	Pound	38,590
Steel Piles HP10x42	Foot	1,080
Test Pile Steel HP10x42	Each	2
Name Plates	Each	1
Bar Splicers (E)	Each	66

Reinforcement bars designated (E) shall be epoxy coated. For Elevations, Sections A-A, and B-B see sheet 19.

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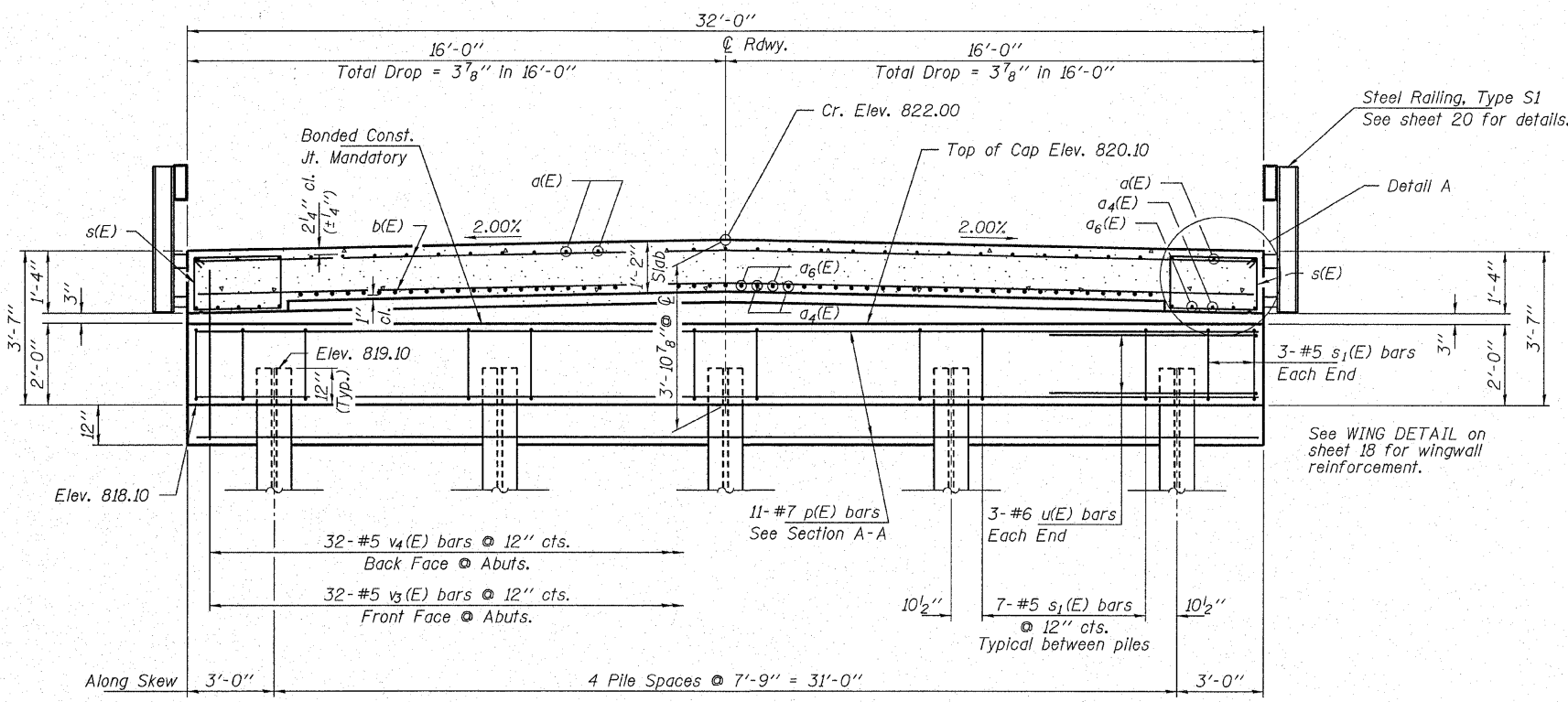
3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

ELGIN • SPRINGFIELD

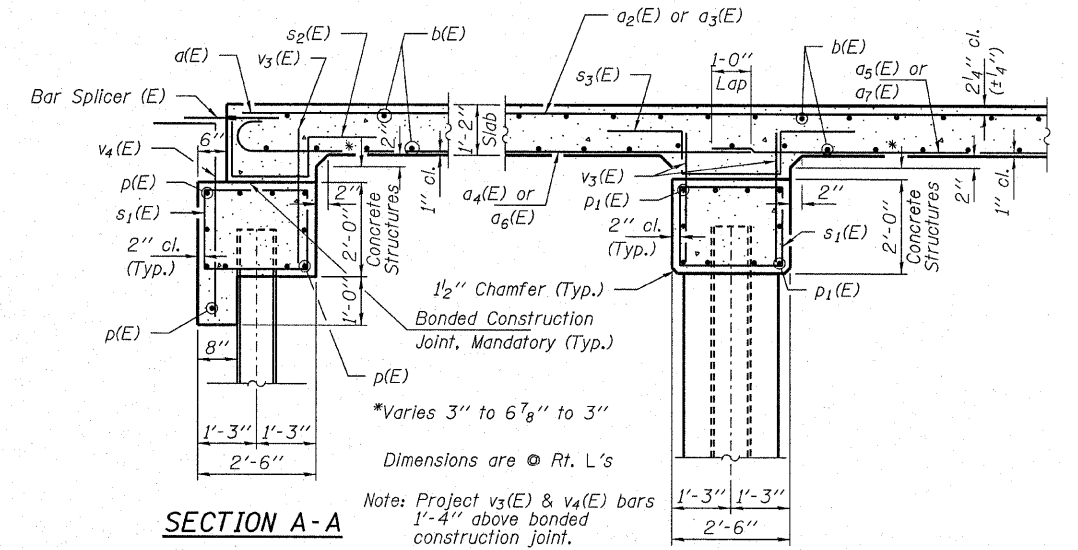
PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

SUPERSTRUCTURE
C.H. 36 / F.A.S. 487
SECTION 07-00045-03-BR
McLEAN COUNTY
STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	19
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91388		

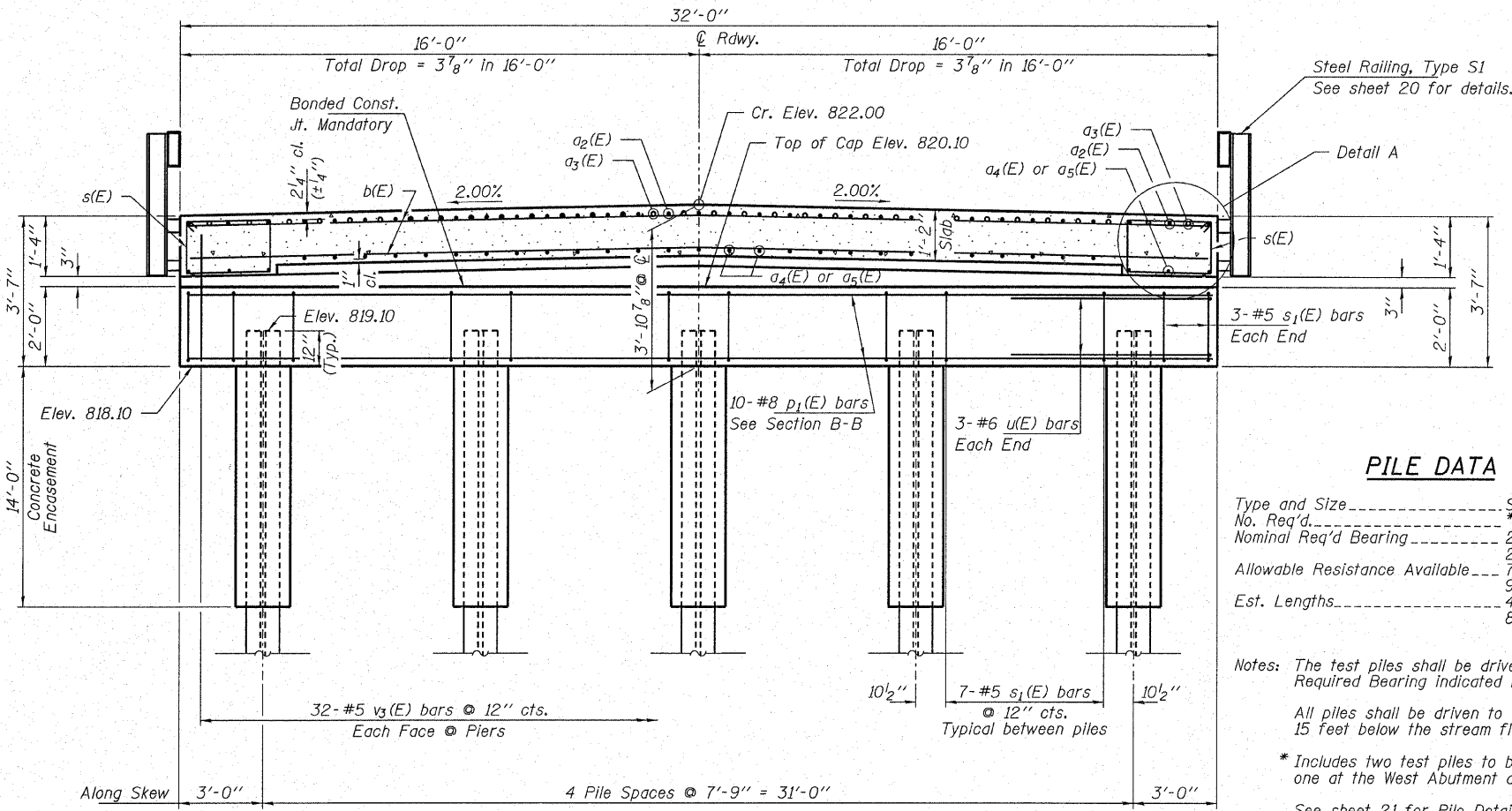


CROSS SECTION NEAR ABUTMENTS



SECTION A-A

SECTION B-B



CROSS SECTION AT PIER (Looking North)

PILE DATA

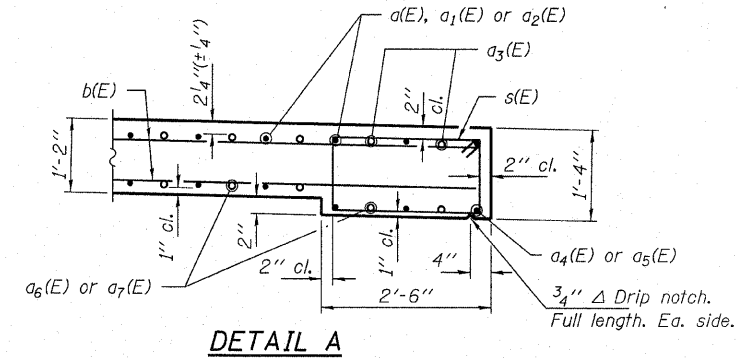
Type and Size	Steel HP10x42
No. Req'd.	*18
Nominal Req'd Bearing	219 Kips/Pile @ Abuts. 282 Kips/Pile @ Piers
Allowable Resistance Available	73 Kips/Pile @ Abuts. 94 Kips/Pile @ Piers
Est. Lengths	40 Ft/Pile @ Abuts. 80 Ft/Pile @ Piers

Notes: The test piles shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information

All piles shall be driven to a minimum tip elevation of 791.1, 15 feet below the stream flowline

* Includes two test piles to be driven in permanent locations, one at the West Abutment and one at Pier 2.

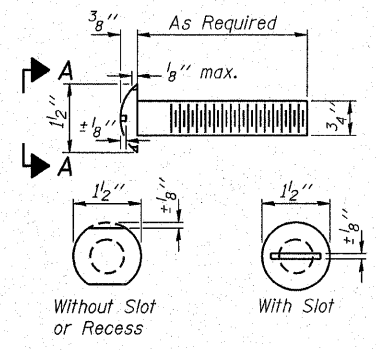
See sheet 21 for Pile Details.



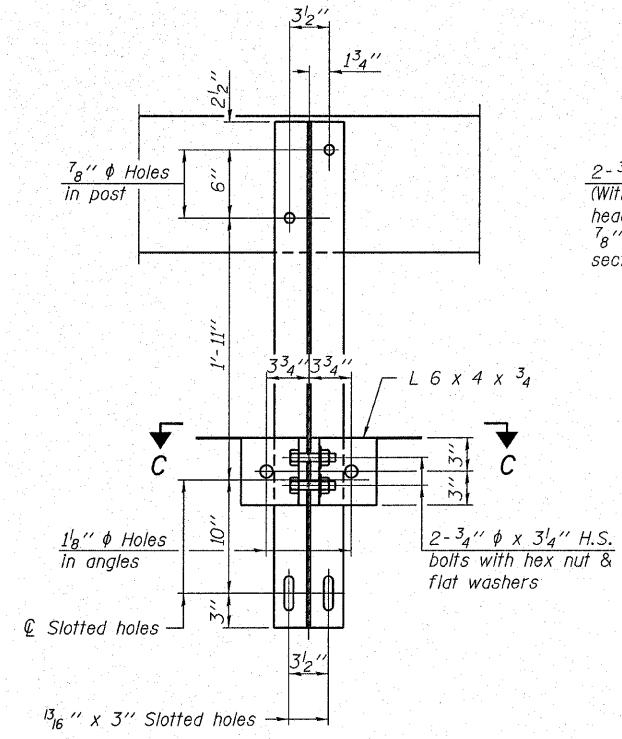
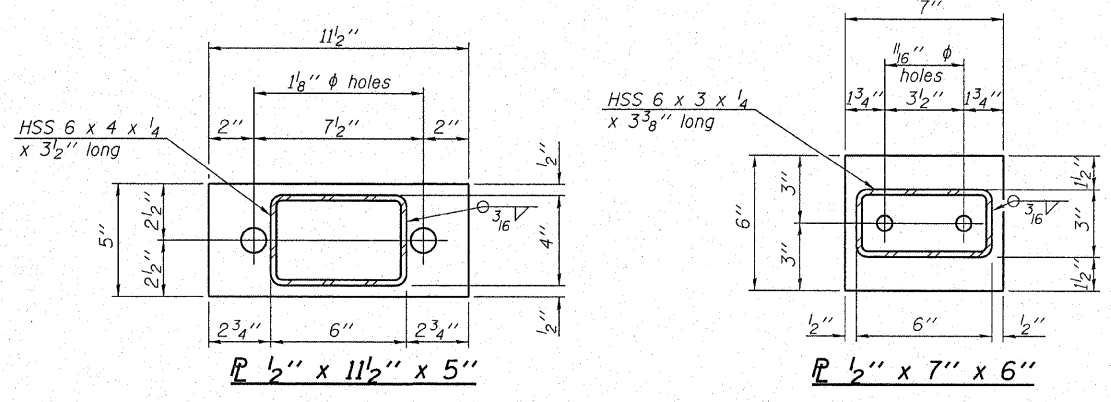
DETAIL A

	<p>HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS</p> <p>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400</p>	<p>SUPERSTRUCTURE DETAILS</p> <p>C.H. 36 / F.A.S. 487</p> <p>SECTION 07-00045-03-BR</p> <p>McLEAN COUNTY</p> <p>STRUCTURE NO. 057-3211 / STATION 10+00</p>
	<p>ELGIN • SPRINGFIELD</p> <p>PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09</p> <p>DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.</p>	

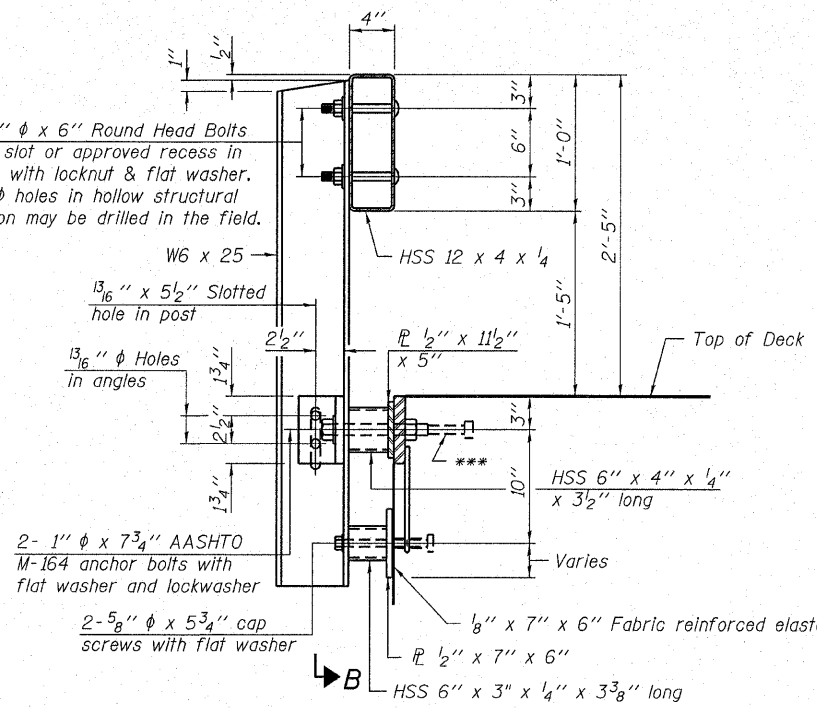
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	20
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	



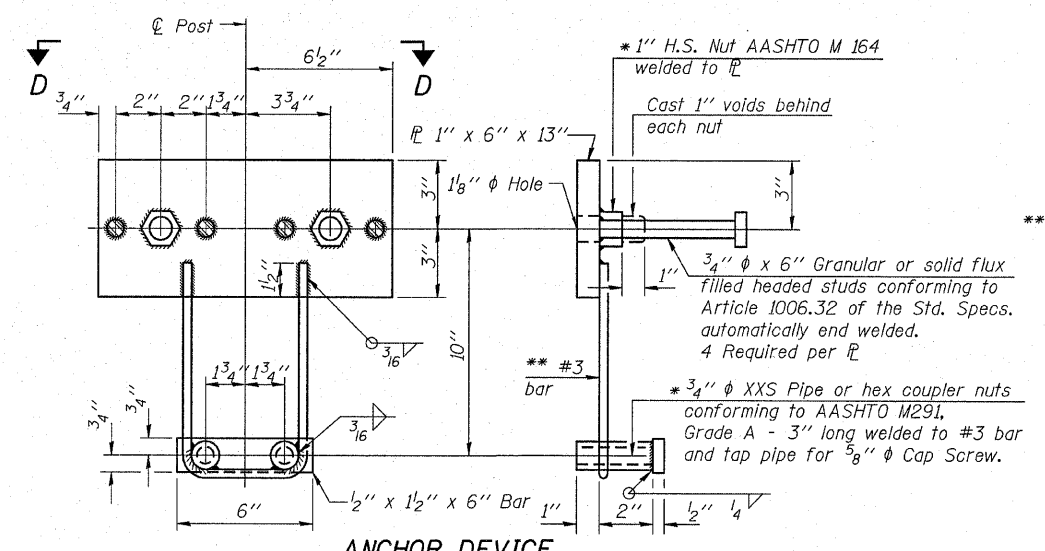
VIEW A-A
ROUND HEAD BOLT



SECTION B-B

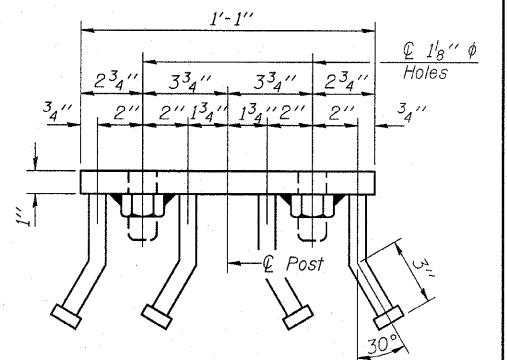


SECTION AT RAILING POST

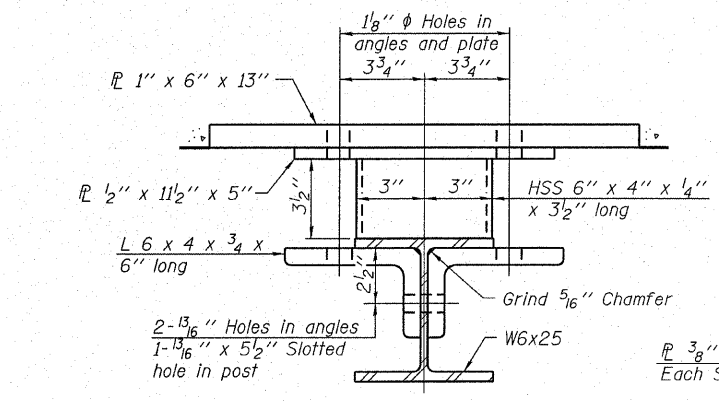


ANCHOR DEVICE

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 S-1.
All steel rail elements 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.

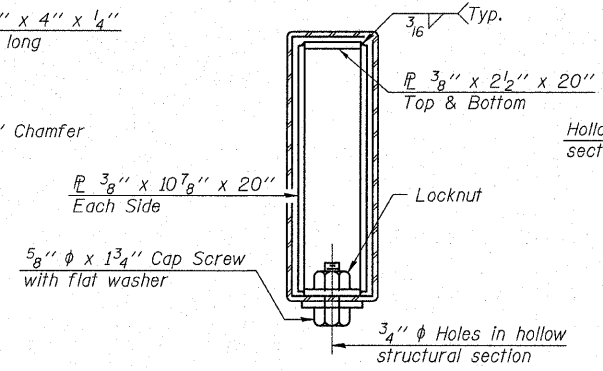


VIEW D-D

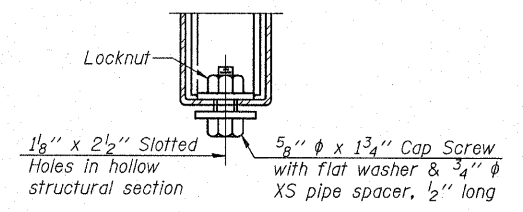


SECTION C-C

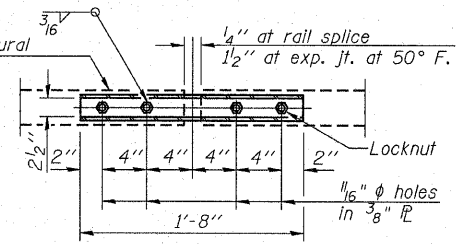
*** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2".



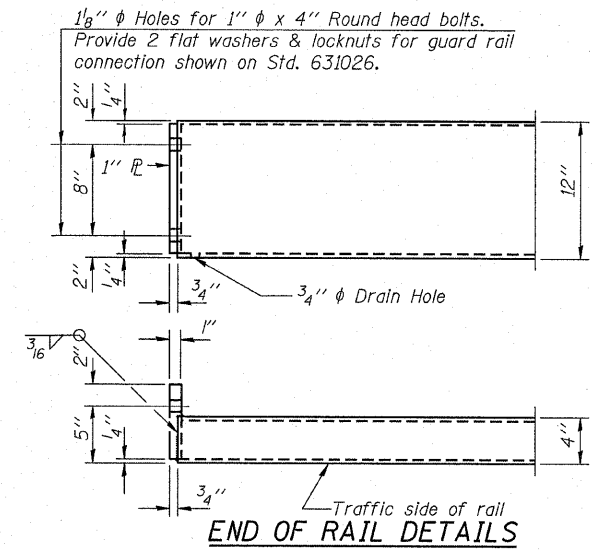
SECTIONS AT RAIL SPLICE



RAIL SPLICE CONNECTION
AT EXPANSION JT.



PLAN-BOTT. SPLICE R
TYPICAL



END OF RAIL DETAILS

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	Foot	194

HAMPTON, LENZINI & RENWICK, INC.
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LAND SURVEYORS

HLR

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

RAILING DETAILS

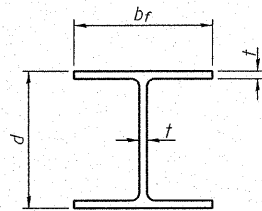
C.H. 36 / F.A.S. 487

SECTION 07-00045-03-BR

McLEAN COUNTY

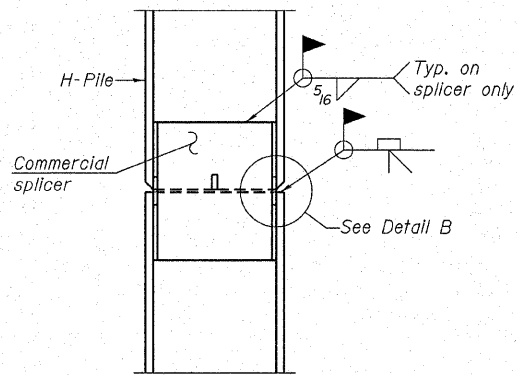
STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	21
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	

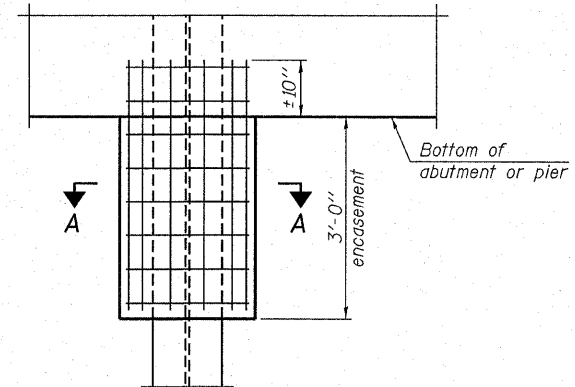


STEEL PILE TABLE

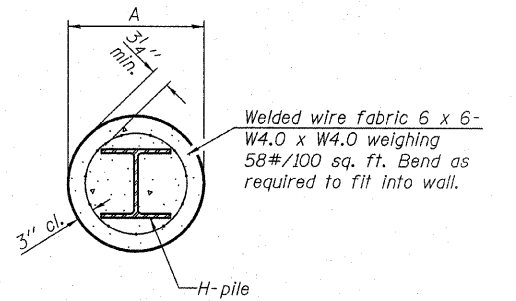
Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



ELEVATION



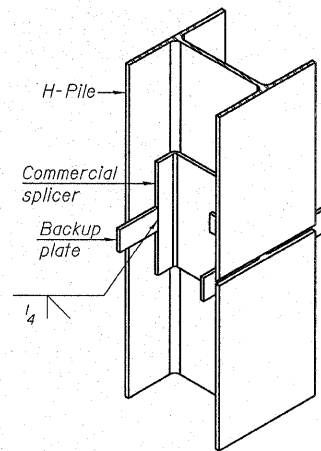
ELEVATION



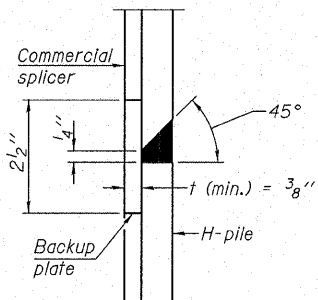
SECTION A-A

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

PILE ENCASEMENT

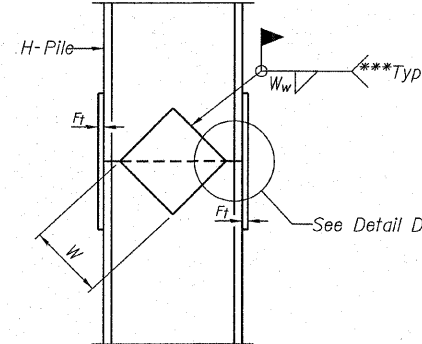


ISOMETRIC VIEW

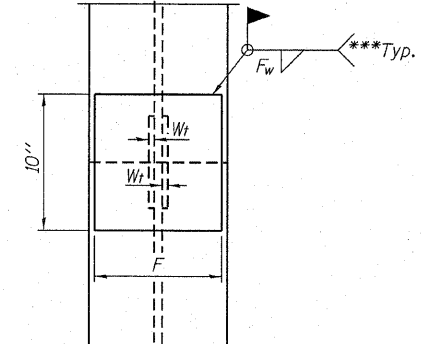


DETAIL "B"

WELDED COMMERCIAL SPLICE

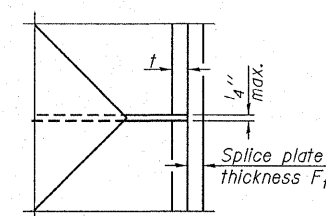


ELEVATION



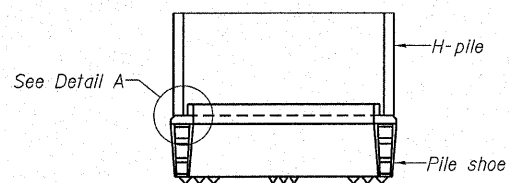
END VIEW

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

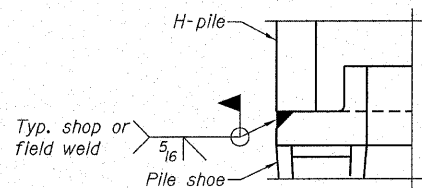


DETAIL D

WELDED PLATE FIELD SPLICE

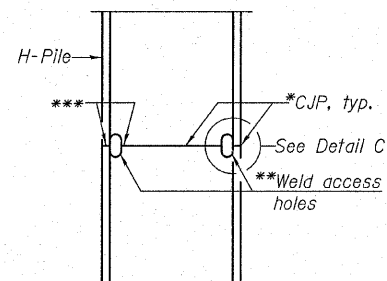


ELEVATION

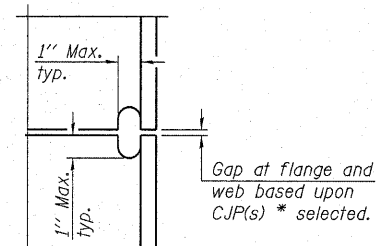


DETAIL A

H-PILE SHOE ATTACHMENT



ELEVATION



DETAIL C

COMPLETE PENETRATION WELD SPLICE

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

- * Use joint conforming to Figure 3.4 in AWS D1.1, Structure Welding Code - Steel.
- ** Preparation per Fig. 5.2 in AWS D1.1, Structure Welding Code - Steel.
- *** Interrupt welds 1/4" from end of each pile.

HAMPTON, LENZINI & RENWICK, INC.
CIVIL & STRUCTURAL ENGINEERS
LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 548-3400

ELGIN • SPRINGFIELD

PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

STEEL H PILE DETAILS

C.H. 36 / F.A.S. 487
SECTION 07-00045-03-BR
McLEAN COUNTY

STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	22
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	

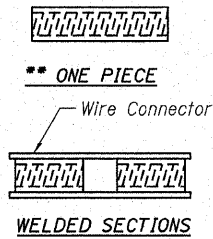
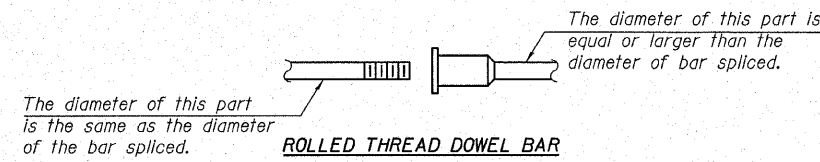
NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or rolled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$

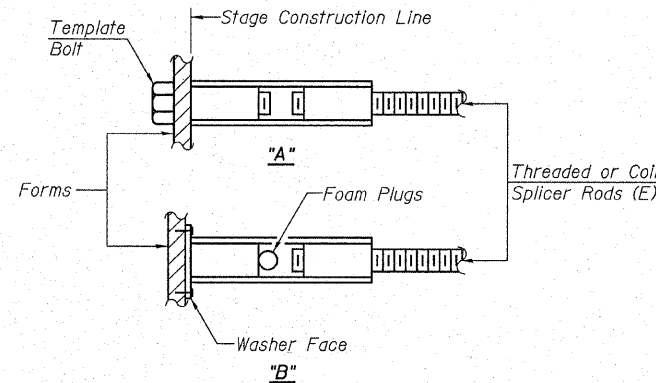
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

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



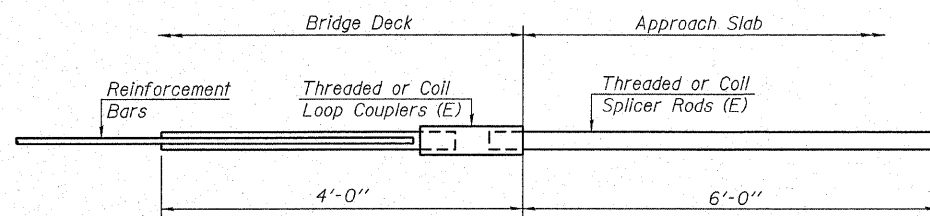
BAR SPLICER ASSEMBLY ALTERNATIVES

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



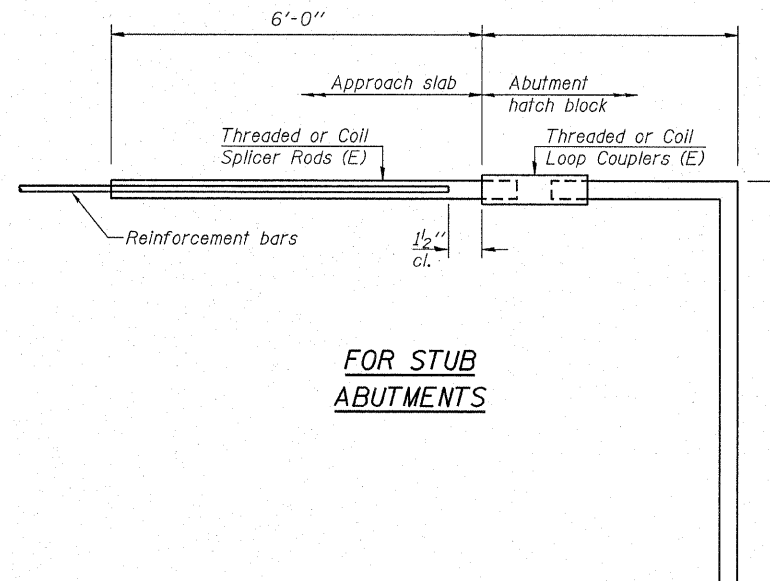
INSTALLATION AND SETTING METHODS

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



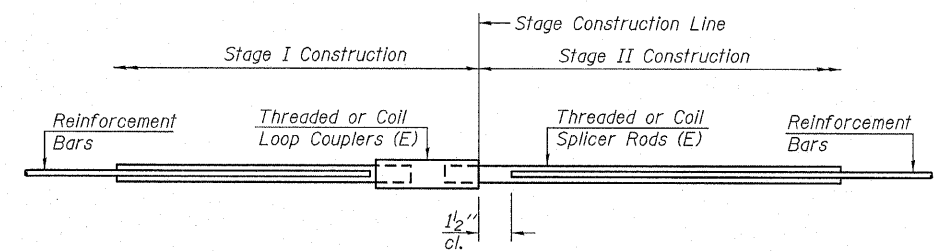
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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



FOR STUB ABUTMENTS

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



STANDARD

Bar Size	No. Assemblies Required	Location

HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400

ELGIN • SPRINGFIELD

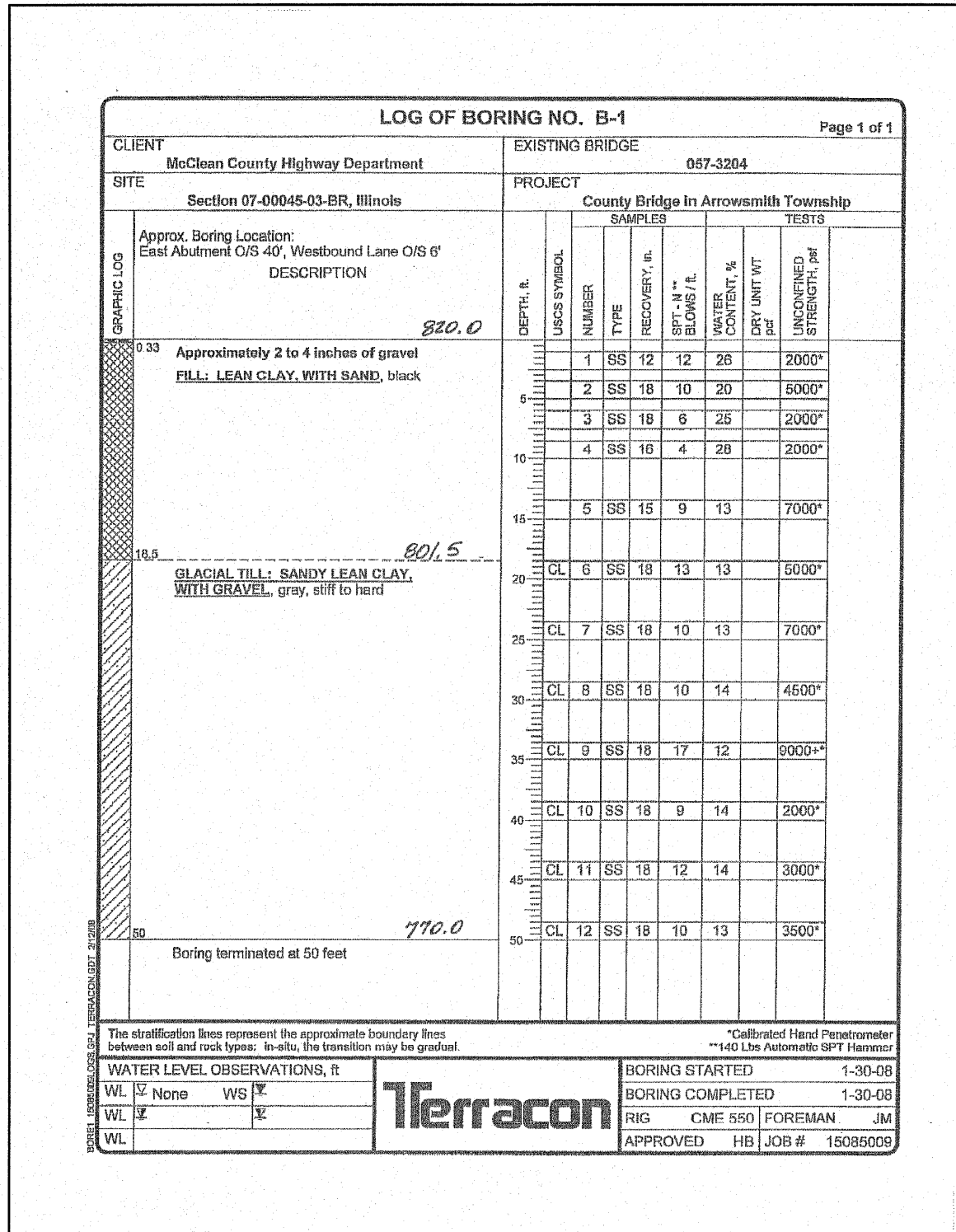
PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
 DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

BAR SPLICER ASSEMBLY DETAILS

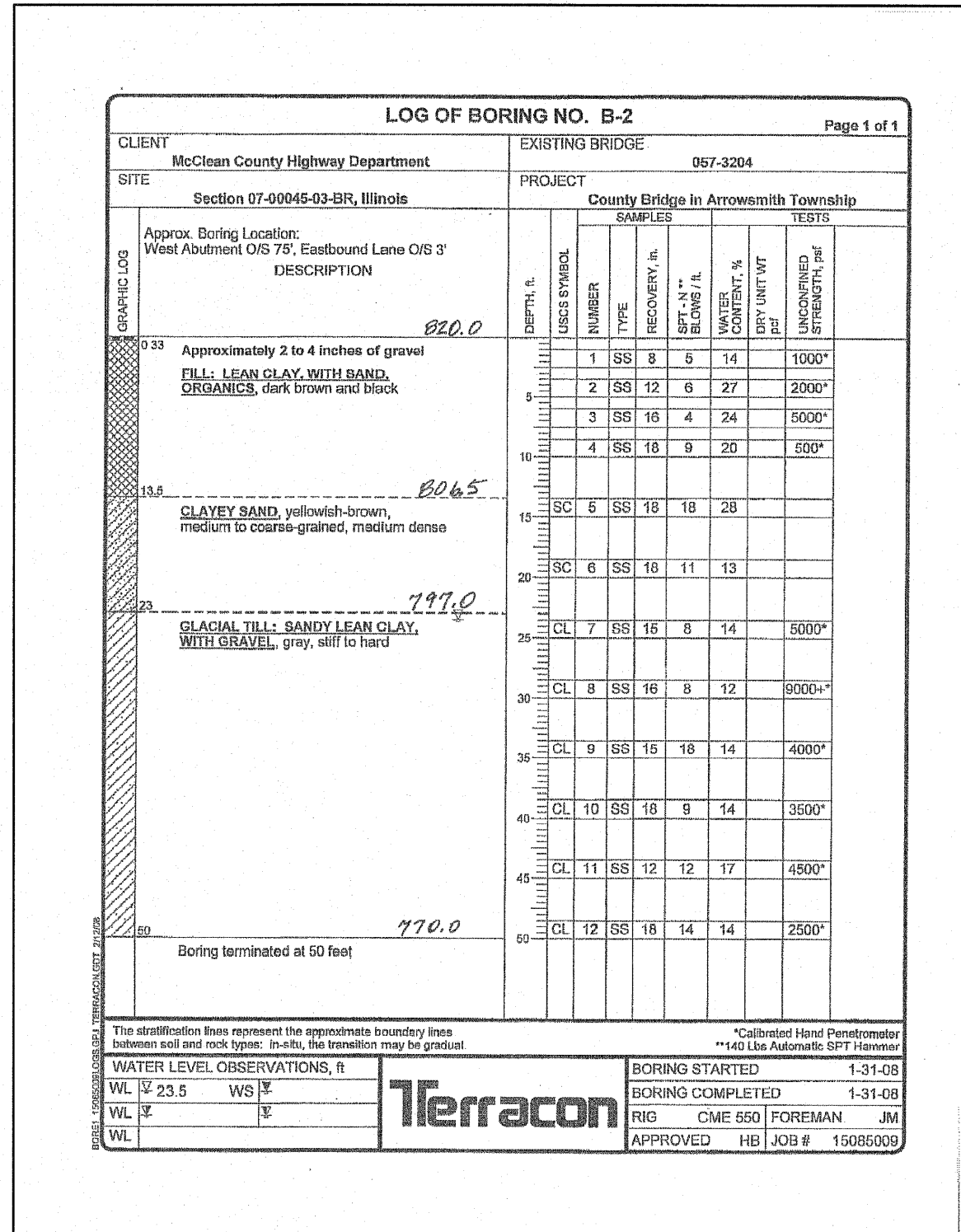
C.H. 36 / F.A.S. 487
 SECTION 07-00045-03-BR
 McLEAN COUNTY

STRUCTURE NO. 057-3211 / STATION 10+00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	23
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	



BORING 1

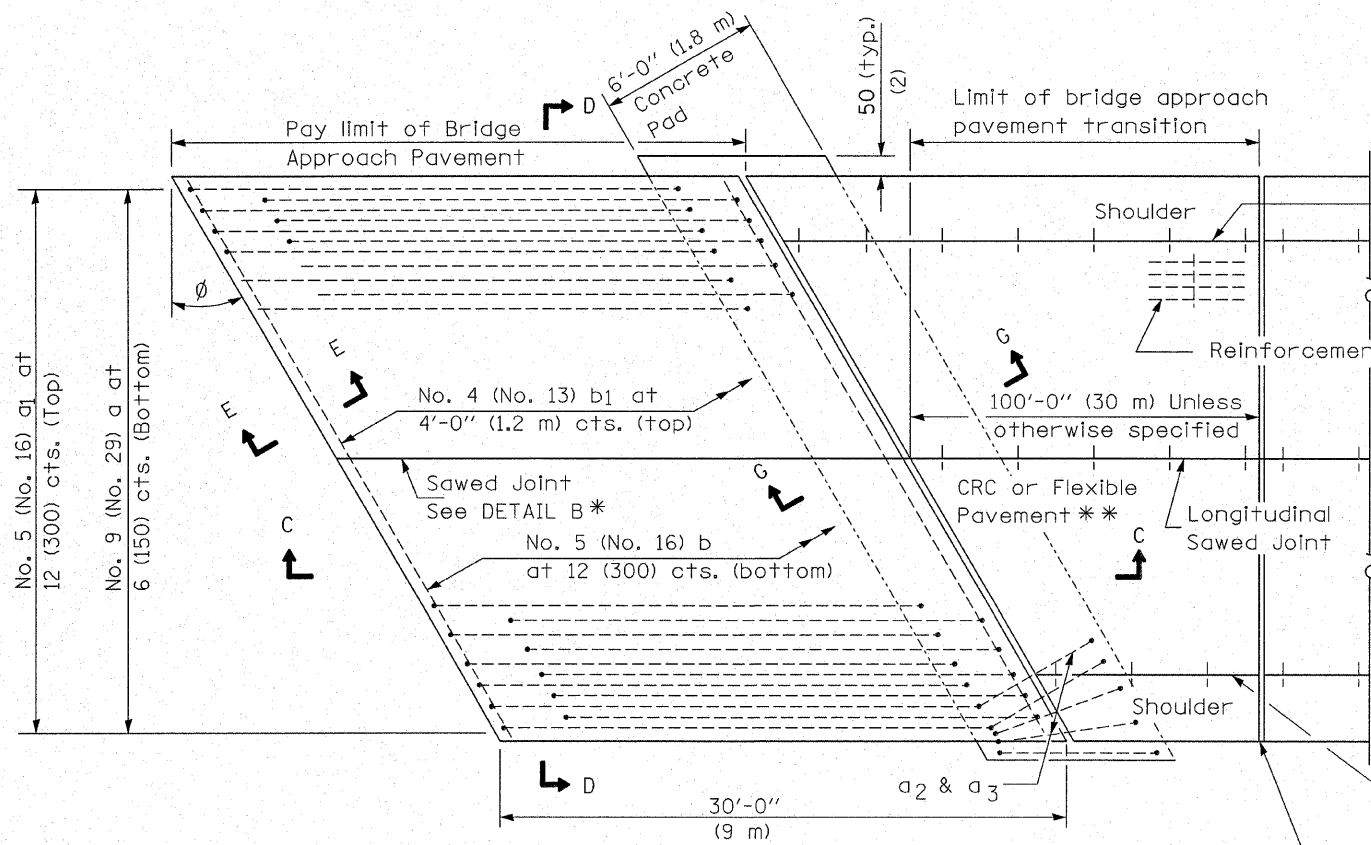


BORING 2

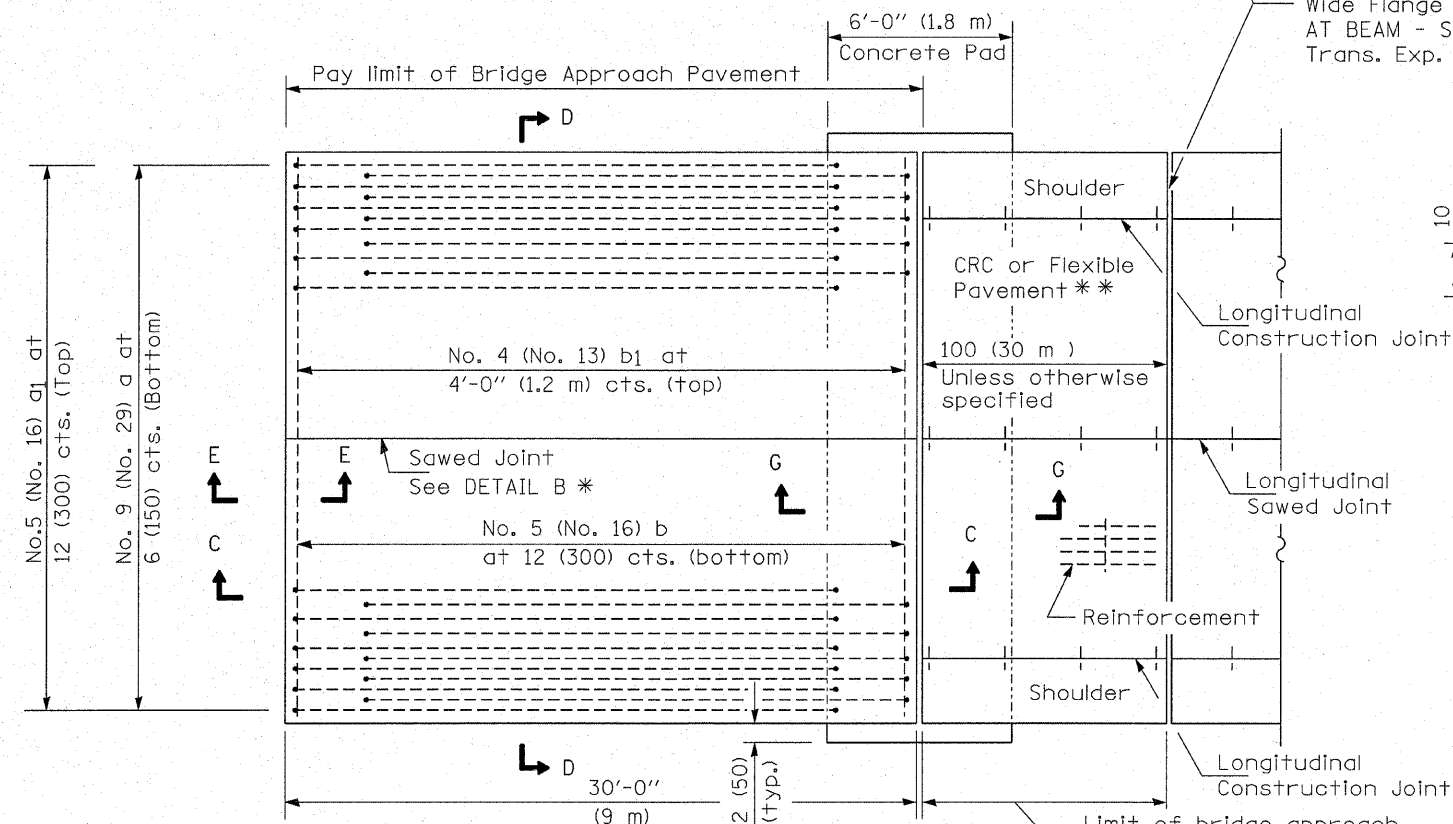
<p>HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS</p> <p>HLR</p> <p>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400</p> <p>ELGIN • SPRINGFIELD</p>	<p>BORINGS</p> <p>C.H. 36 / F.A.S. 487</p> <p>SECTION 07-00045-03-BR</p> <p>McLEAN COUNTY</p> <p>STRUCTURE NO. 057-3211 / STATION 10+00</p>
<p>PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09</p> <p>DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.</p>	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	24
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91388		

NEW CONSTRUCTION

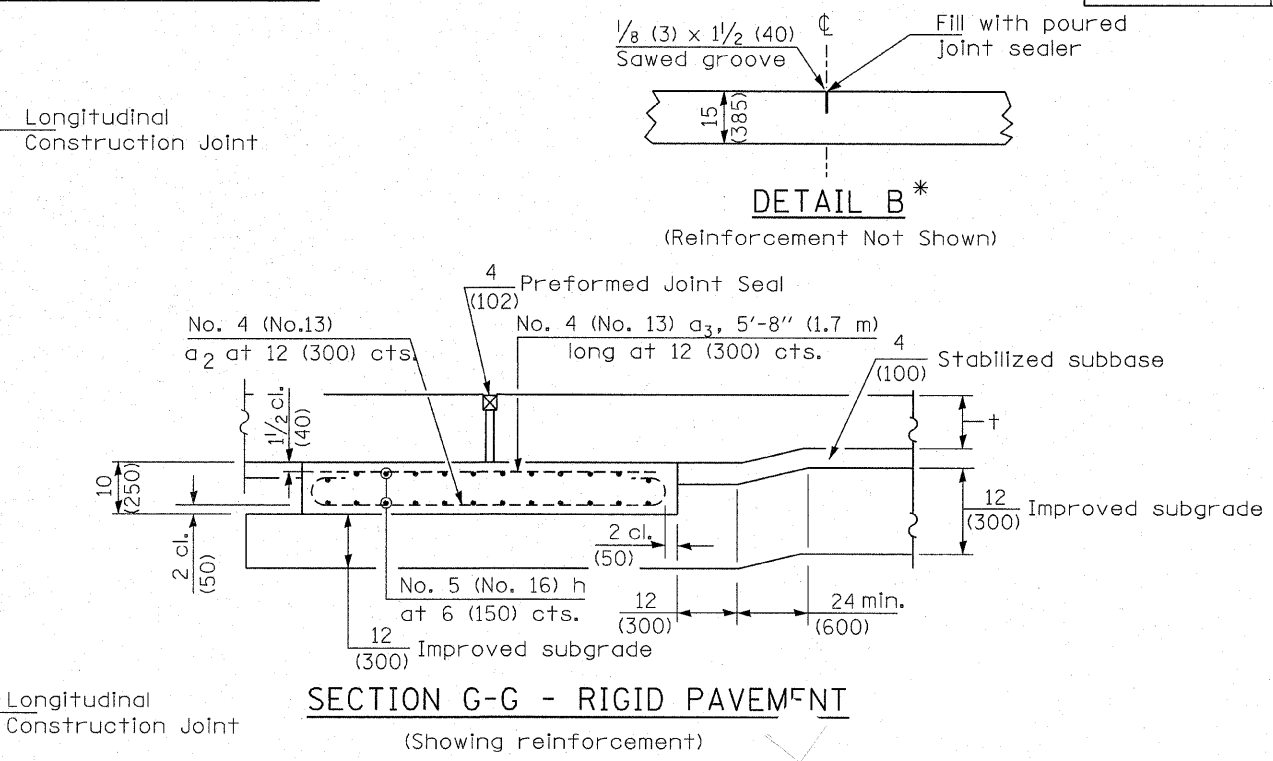


PLAN - WITH SKEW



PLAN - WITHOUT SKEW

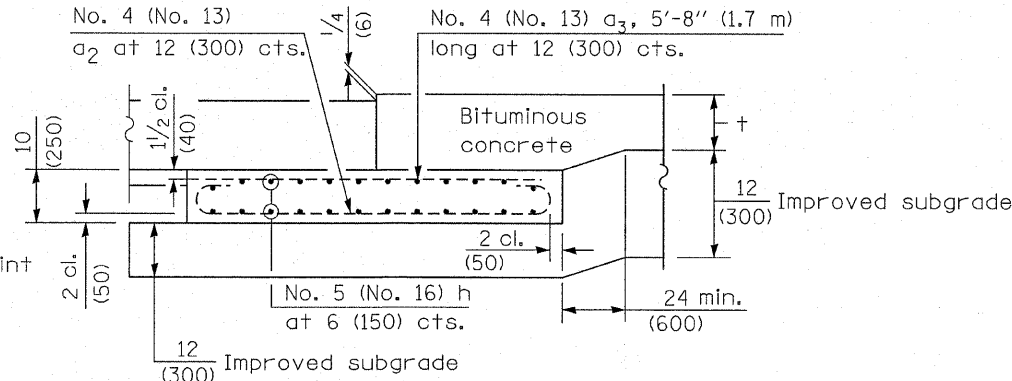
* Saw \perp or lane edge if poured two or more lane widths at a time.
 ** Omit Reinforcement, tie bars and Long. sawed Jt. for Flexible Pavement.



SECTION G-G - RIGID PAVEMENT

(Showing reinforcement)

Rigid Pavement only:
 Wide Flange Beam Terminal Joint (See DETAIL AT BEAM - Standard 421101 or 421106) or 2 (50)
 Trans. Exp. Joint as detailed on Standard 420001.



SECTION G-G - FLEXIBLE PAVEMENT

(Showing reinforcement)

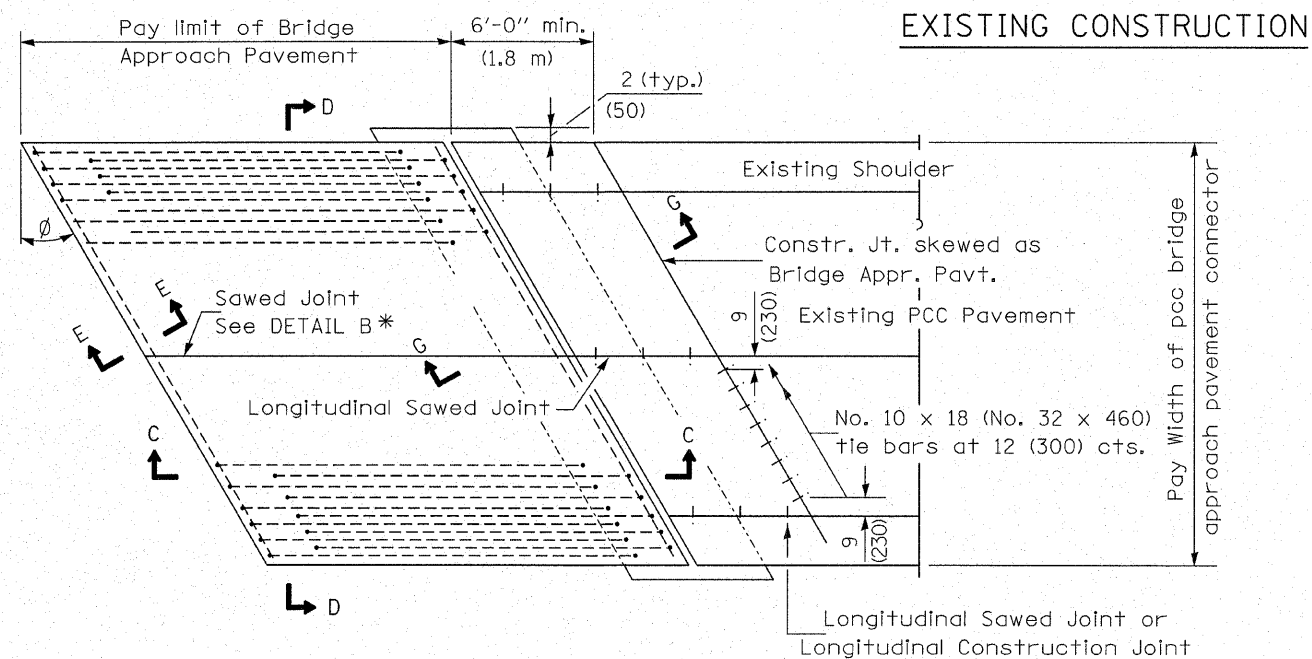
GENERAL NOTES

THICKNESS-"t"=Thickness of Pavement.
 See Standard 421001 for reinforcement details not shown.
 See Standard 420001 for joint details not shown.
 All dimensions are in inches (millimeters) unless otherwise shown.

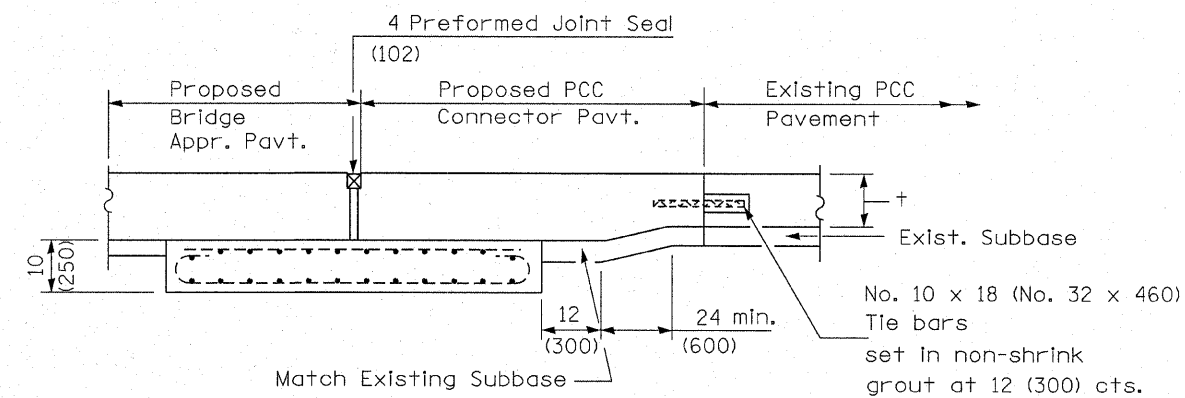
(Sheet 1 of 4)

<p>HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS</p> <p>HLR</p> <p>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400</p> <p>ELGIN • SPRINGFIELD</p>	<p>BRIDGE APPROACH PAVEMENT DETAIL</p> <p>C.H. 36 / F.A.S. 487</p> <p>SECTION 07-00045-03-BR</p> <p>McLEAN COUNTY</p> <p>STRUCTURE NO. 057-3211 / STATION 10+00</p>
	<p>PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09</p> <p>DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.</p>

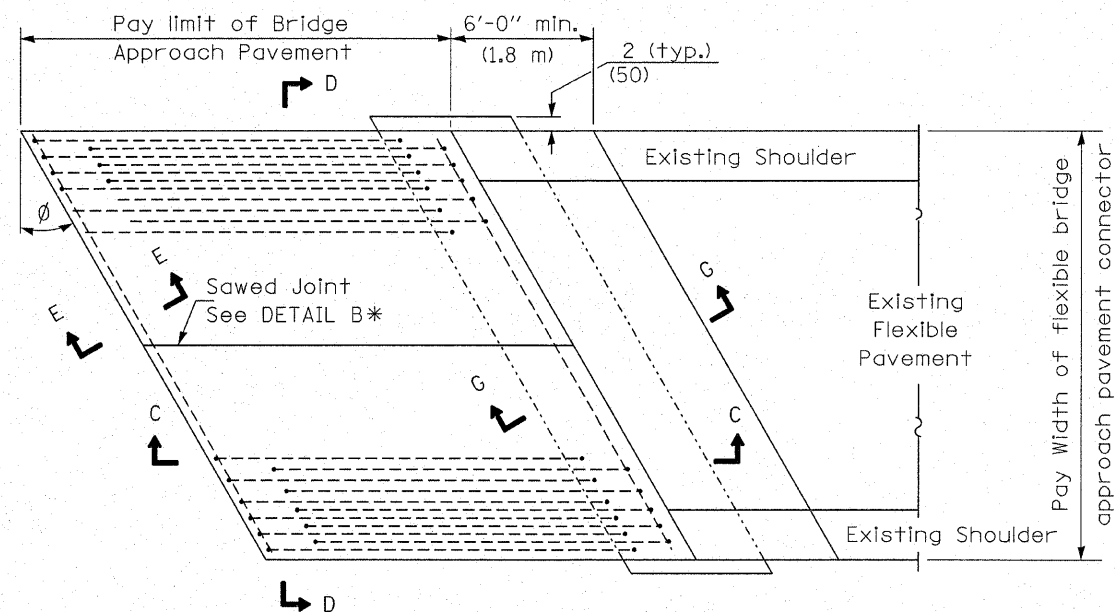
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	25
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	



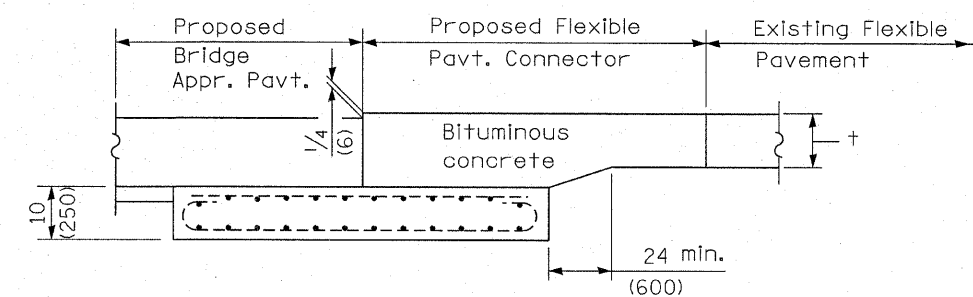
BRIDGE APPROACH PAVEMENT CONNECTOR (PCC)



SECTION G-G - RIGID PAVEMENT



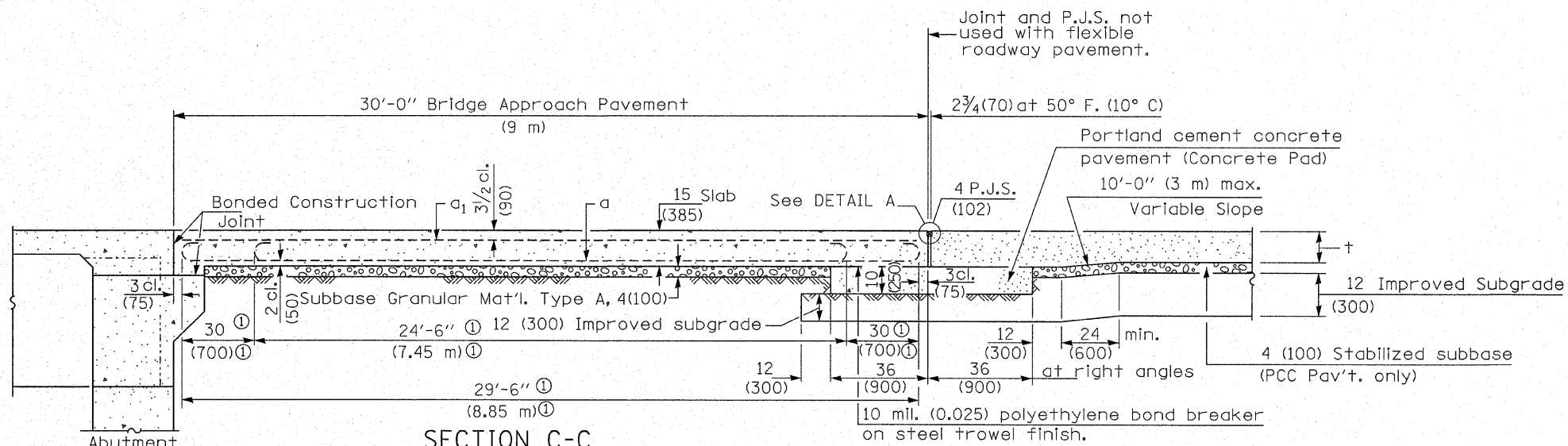
BRIDGE APPROACH PAVEMENT CONNECTOR (FLEXIBLE)



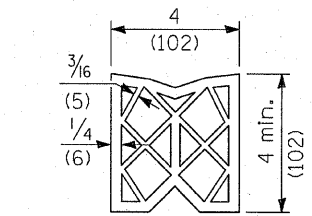
SECTION G-G - FLEXIBLE PAVEMENT

<p>HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS</p> <p>HLR</p> <p>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400</p> <p>ELGIN • SPRINGFIELD</p>	<p>BRIDGE APPROACH PAVEMENT DETAIL</p> <p>C.H. 36 / F.A.S. 487</p> <p>SECTION 07-00045-03-BR</p> <p>McLEAN COUNTY</p> <p>STRUCTURE NO. 057-3211 / STATION 10+00</p>
	<p>PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09</p> <p>DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.</p>

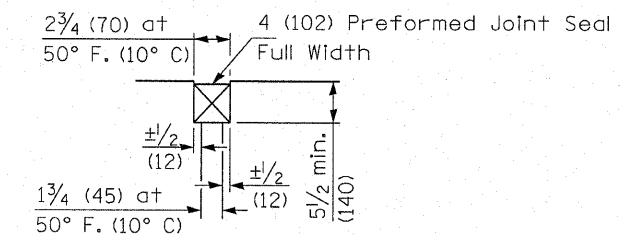
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C.H. 36	07-00045-03-BR	McLEAN	27	26
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91388		



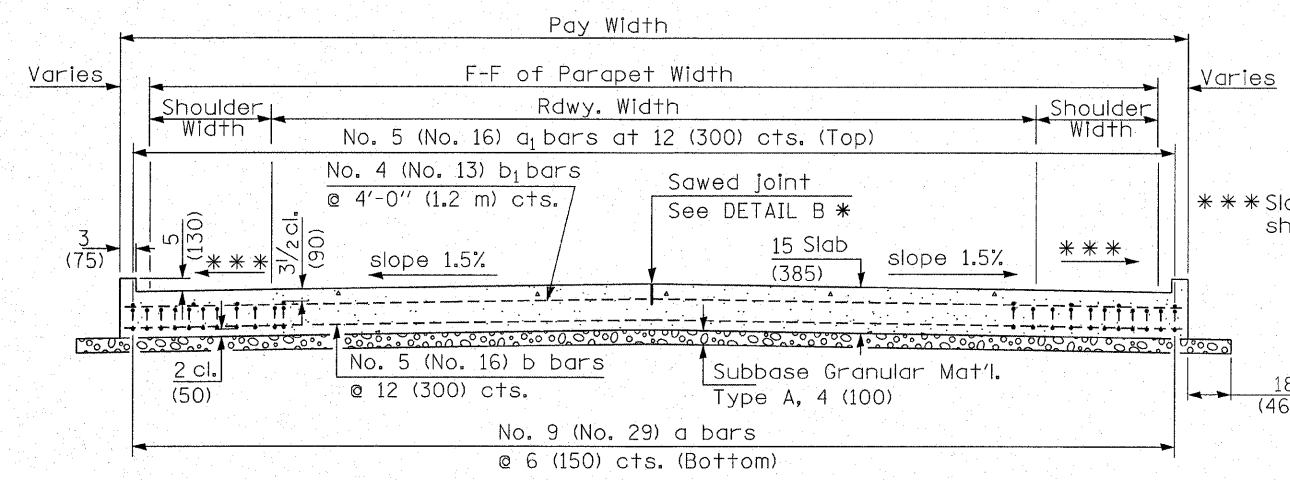
SECTION C-C
 ① Stagger No. 9 (No. 29) a bars as shown on plan - full width



PREFORMED JOINT SEAL

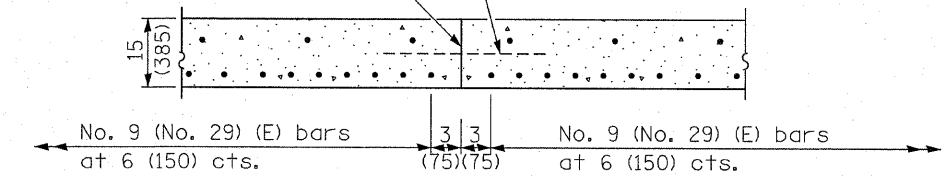


DETAIL A



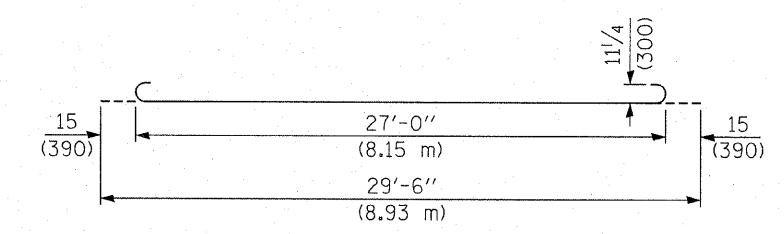
SECTION D-D
 (See Plan for Dimensions not shown)

Longitudinal Construction Joint in accordance with details shown on Standard 420001.

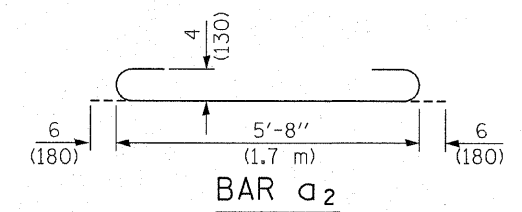


OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

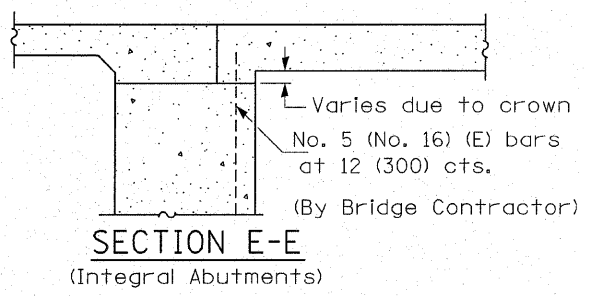
As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.



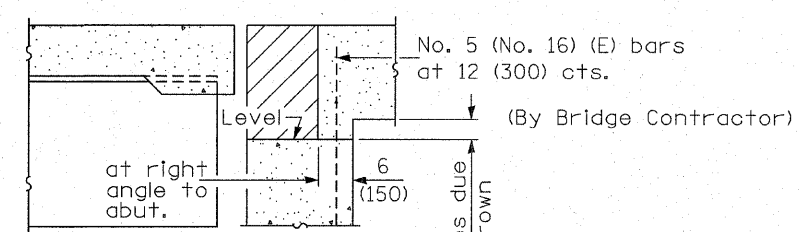
BAR a



BAR a2



SECTION E-E
 (Integral Abutments)



SECTION E-E
 (Jointed Abutments)

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

HAMPTON, LENZINI & RENWICK, INC.
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 LAND SURVEYORS

HLR

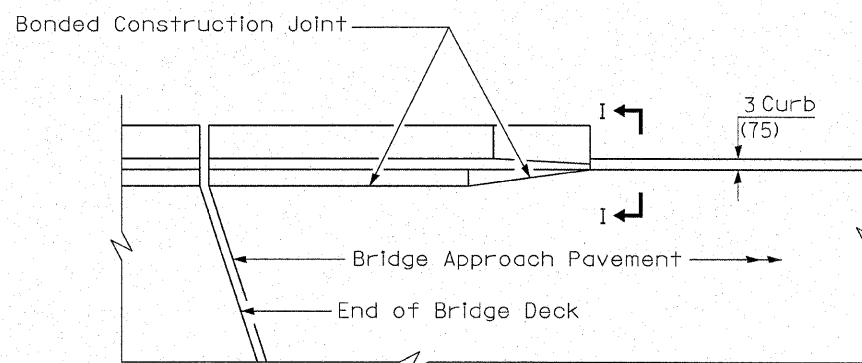
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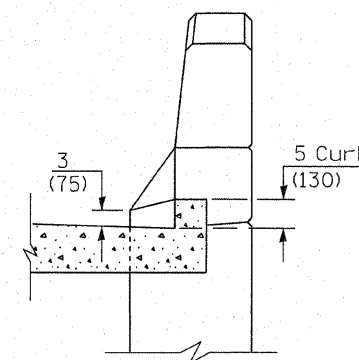
PROJECT NUMBER: 12-59-0055-1 DATE: 01/22/09
 DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.

**BRIDGE APPROACH PAVEMENT
 DETAIL**
 C.H. 36 / F.A.S. 487
 SECTION 07-00045-03-BR
 McLEAN COUNTY
 STRUCTURE NO. 057-3211 / STATION 10+00

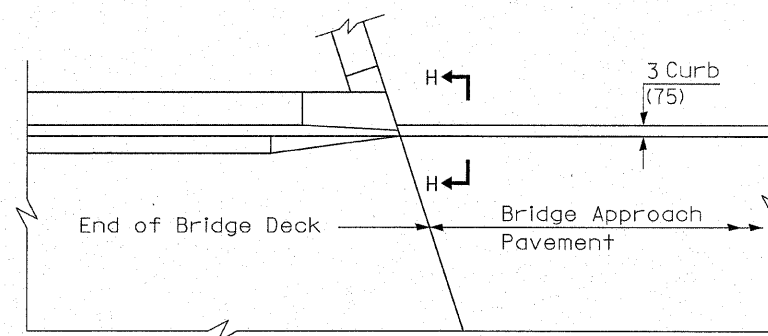
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
C.H. 36	07-00045-03-BR	McLEAN	27	27
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91388	



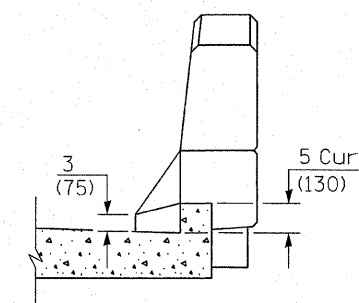
PARAPET TO CURB TRANSITION
PILE BENT ABUTMENT



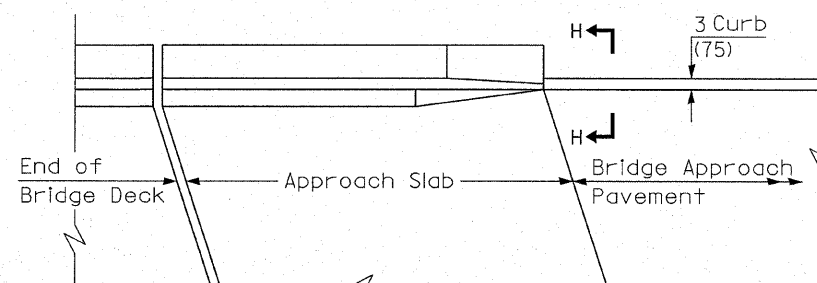
SECTION I - I



PARAPET TO CURB TRANSITION
INTEGRAL ABUTMENT




SECTION H - H



PARAPET TO CURB TRANSITION
VAULTED ABUTMENT

(Sheet 4 of 4)

 <p>HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS</p> <p>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400</p> <p>ELGIN • SPRINGFIELD</p>	<p>BRIDGE APPROACH PAVEMENT STANDARD 420401-06 C.H. 36 / F.A.S. 487</p> <p>SECTION 07-00045-03-BR McLEAN COUNTY</p> <p>STRUCTURE NO. 057-3211 / STATION 10+00</p>
	<p>PROJECT NUMBER: 12-59-0056-1 DATE: 01/22/09</p> <p>DESIGNED: P.S.L. CHECKED: S.W.M. DRAWN: D.A.B.</p>