

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 132	07-00358-00-BR	KANE	33	1
FED. ROAD DIST. NO.	ILLINOIS CONTRACT NO. 63444		D-91-046-08	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID PROJECT HIGHWAY BRIDGE PROGRAM

F.A.S. 132 (DAMISCH ROAD / C.H.7 OVER TYLER CREEK)
SECTION 07-00358-00-BR
PROJECT BRM-8003(881)
BRIDGE REPLACEMENT
KANE COUNTY
C-91-046-08

INDEX OF SHEETS

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5.	SCHEDULE OF QUANTITIES
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15.-19.	STATION CROSS SECTIONS
20.-31.	BRIDGE PLANS
32.-33.	BORINGS

HIGHWAY STANDARDS:
SEE SHEET 2

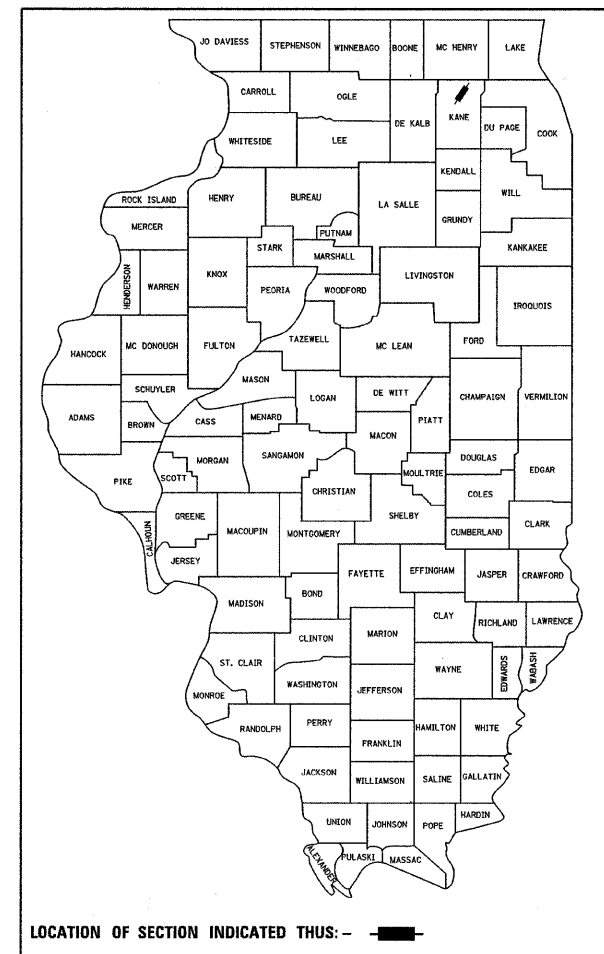
UTILITIES

POWER
COMMONWEALTH EDISON
#1 N 423 SWIFT ROAD
LOMBARD, IL 60148
JOE STACHO 630-437-2236

TELEPHONE
AT&T
225 E. CHICAGO ST.
ELGIN, IL 60126
630-573-5450

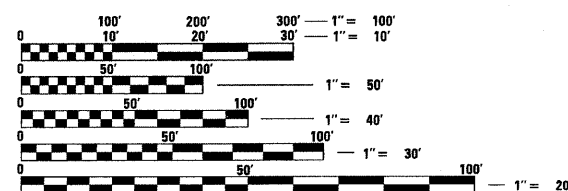
GAS
NICOR GAS
1844 FERRY RD.
NAPERVILLE, IL 60563
UTILITY CONSULTANT 630-388-2362

CABLE
COMCAST
688 INDUSTRIAL DRIVE
ELMHURST, IL 60126
MARTHA GIERAS 630-388-2362



PROJECT LOCATED IN THE
CITY OF ELGIN

FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR (NONURBAN)
DESIGN SPEED: 45 MPH
POSTED SPEED: 45 MPH
DESIGN TRAFFIC: 1938 ADT (2010) 6% TRUCKS

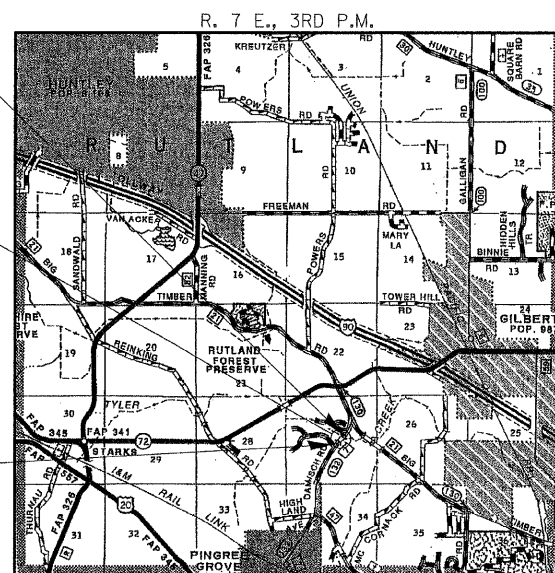


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

STA. 95+55
PRECAST PRESTRESSED CONCRETE DECK BEAM
BRIDGE, SINGLE SPAN @ 74'-0"
30'-0" RDWY.; SKEW = 30°
EXISTING STRUCTURE NO. 045-3015
PROPOSED STRUCTURE NO. 045-6302

IMPROVEMENT ENDS
STATION 96+80

IMPROVEMENT BEGINS
STATION 94+20



RUTLAND TOWNSHIP
LOCATION MAP

APPROXIMATE SCALE: 0 1 MILE
GROSS AND NET LENGTH OF SECTION = 260 FEET = 0.049 MILES



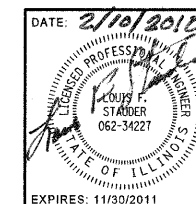
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OF THE STATE OF ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

APPROVED FEBRUARY 11 2010
KANE COUNTY ENGINEER

PASSED FEBRUARY 11 2010
DISTRICT ONE ENGINEER OF
LOCAL ROADS & STREETS

Releasing For
Bid Based on
Limited Review
FEBRUARY 11 2010
Debra M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS
REGION ONE ENGINEER



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

EXPIRES: 11/30/2011

PROJECT NUMBER: 08.0043.130

DATE: 01/07/10

FIELD ENGINEER : MARILYN SOLOMON 847-705-4407

CONTRACT NO. 63444

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, 2007," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.

2 ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. ALL MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER.

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 SEEDING WILL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2007." SEE EROSION CONTROL PLAN. ESTIMATED QUANTITY = SEEDING CLASS 2A (SPECIAL) = **0.13 ACRES**

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

POROUS GRANULAR EMBANKMENT, SPECIAL	2.00 TON/CU. YD.
STONE RIPRAP, CLASS A4	1.75 TON/CU. YD.
HOT-MIX ASPHALT	112 LBS/IN/SQ. YD.
BITUMINOUS MATERIALS (PRIME COAT)	0.1 GAL/SQ. YD.

7 FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION THE CONTRACTOR SHALL CALL J.U.L.I.E. (1-800-892-0123) TO HAVE THE LOCATION OF EXISTING UTILITIES STAKED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UNDERGROUND UTILITIES. DRAWINGS INDICATE ONLY APPROXIMATE LOCATIONS OF UTILITIES KNOWN TO EXIST AT THE TIME OF DESIGN.

8 THE CONTRACTOR SHALL CONTACT THE KANE COUNTY DIVISION OF TRANSPORTATION (KCDOT) AT LEAST SEVENTY-TWO (72) HOURS IN ADVANCE OF BEGINNING ANY WORK. WHERE IN STREAM WORK AND COORDINATION WITH THE KANE-DUPAGE SOIL AND WATER CONSERVATION DISTRICT (KDSWCD) IS NOTED ON THE PLANS, KDSWCD MUST BE CONTACTED AS NOTED ON THE PLANS.

9 EXPOSED EDGES OF NEW CONCRETE SHALL BE CHAMFERED 3/4" EXCEPT WHERE SHOWN OTHERWISE, CHAMFERS ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW FINISHED GROUND LEVEL.

10 THE CONTRACTOR SHALL NOT MOUNT CONSTRUCTION TRAFFIC SIGNS ON EXISTING SIGNS.

11 THE CONTRACTOR WILL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH BARRICADE USED. TYPE I OR TYPE II (ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL). ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR (4) SANDBAGS PER BARRICADE. (INCLUDE IN COST FOR TRAFFIC CONTROL AND PROTECTION).

12 THE CONTRACTOR'S OPERATIONS AND A TEMPORARY STORAGE ACTIVITIES SHALL BE LIMITED TO THE WORK AREA AND/OR CONSTRUCTION LIMITS. ANY ADDITIONAL STAGING AREAS ADJACENT TO THE THE PROJECT AREA ARE SUBJECT TO PRIOR APPROVAL BY THE ENGINEER AND MUST NOT CONFLICT WITH EXISTING SIDE ROADS, INTERSECTIONS, DRIVEWAYS, OR DRAINAGE. ALL OPERATIONS SHALL BE SUBJECT TO REGULATORY REQUIREMENTS PERMITTED FOR THIS PROJECT. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR COMPLIANCE WITH THE ABOVE REQUIREMENTS.

13 ALL PROPOSED STEEL PLATE BEAM GUARDRAIL, TYPE A AND ALL PROPOSED TRAFFIC BARRIER TERMINALS, FOR THE TYPE SPECIFIED SHALL HAVE GUARDRAIL DELINEATION INSTALLED AND PAID FOR ACCORDING TO THE SPECIAL PROVISION GUARDRAIL DELINEATION.

14 THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL EVENT EQUAL TO 1/2" OR MORE.

15 CONSTRUCTION MATERIALS AND OR OTHER STOCKPILES SHALL NOT BE LOCATED ON STREAM BANKS OR IN THE PATH OF THE STREAM FLOW.

16 DISTURBED AREAS SHALL RECEIVE PERMANENT STABILIZATION) WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION ACTIVITIES. TEMPORARY STABILIZATION OF WORK AREAS IS REQUIRED FOR ALL AREAS REMAINING UNDISTURBED FOR 14 DAYS, UNLESS WORK RESUMES PRIOR TO 21 DAYS. TEMPORARY STABILIZATION MUST BE APPROVED BY THE ENGINEER.


17 THE CONTRACTOR SHALL INSPECT ADJACENT STREETS DAILY AND CLEAN ADJACENT STREETS WHEN NECESSARY. ADJACENT STREETS SHALL BE KEPT CLEAR.

18 THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO STARTING ANY OTHER CONSTRUCTION WORK AT THE SITE.

19 THE ILLINOIS DEPARTMENT OF TRANSPORTATION IS NOT THE OWNER OF RECORD FOR THIS BRIDGE. THOSE SEEKING HISTORIC, AS BUILT OR OTHER EXISTING DOCUMENTS AND PLANS MUST CONTACT THE OWNER OF RECORD TO MAKE ARRANGEMENTS FOR ACCESS TO THIS INFORMATION.

HIGHWAY STANDARDS

000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
515001-03	NAME PLATE FOR BRIDGES
630001-08	STEEL PLATE BEAM GUARDRAIL
630301-05	SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
631011-06	TRAFFIC BARRIER TERMINAL, TYPE 2
631032-05	TRAFFIC BARRIER TERMINAL, TYPE 6A
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
BLR 21-8	TYPICAL APPLICATION OF TRAFFIC CONTROL; DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

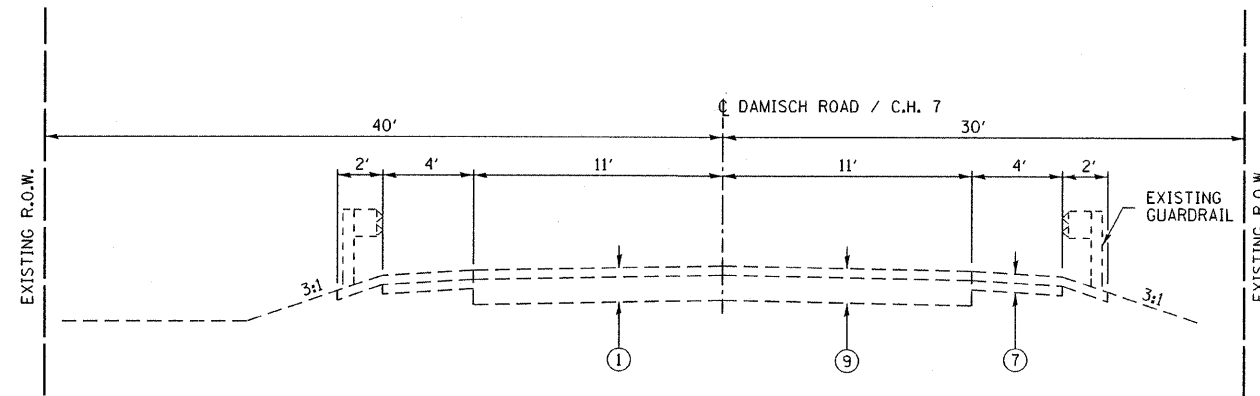
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	PLOT SCALE =	CHECKED - S.W.M.	REVISED -					132	07-00358-00-BR	KANE	33	2
PLOT DATE = 1/28/2018	DATE - 01/07/10	REVISED -	SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 63444						
								FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

SUMMARY OF QUANTITIES					
CODE No.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE	
				I-000	X081-2A
20100500	TREE REMOVAL, ACRES	ACRE	0.01	0.01	
20200100	EARTH EXCAVATION	CU YD	4	4	
20400800	FURNISHED EXCAVATION	CU YD	51	51	
A 20700400	POROUS GRANULAR EMBANKMENT, SPECIAL	CU YD	85		85
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	287	287	
A 25001020	SEEDING, CLASS 2A(SPECIAL)	ACRE	0.13	0.13	
25100115	MULCH, METHOD 2	ACRE	0.13	0.13	
A 25100630	EROSION CONTROL BLANKET	SQ YD	287	287	
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	27	27	
A 28000305	TEMPORARY DITCH CHECKS	FOOT	24	24	
28000400	PERIMETER EROSION BARRIER	FOOT	480	480	
28000500	INLET AND PIPE PROTECTION	EACH	1	1	
A 28100208	STONE RIPRAP, CLASS A4 (SPECIAL)	TON	245		245
28200200	FILTER FABRIC	SQ YD	320		320
40600100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	31	31	
40600625	LEVELING BINDER (MACHINE METHOD), N50	TON	38	38	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	184	184	
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	47	47	
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	7	7	
A 44000100	PAVEMENT REMOVAL	SQ YD	150	150	
A 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1		1
50300225	CONCRETE STRUCTURES	CU YD	49.0		49.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	86.1		86.1
50300260	BRIDGE DECK GROOVING	SQ YD	417		417
50300280	CONCRETE ENCASEMENT	CU YD	4		4
50300300	PROTECTIVE COAT	SQ YD	457		457
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	2220		2220
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	30180		30180
50800515	BAR SPLICERS	EACH	62		62

A - SEE SPECIAL PROVISIONS
 * SPECIALTY ITEMS

SUMMARY OF QUANTITIES					
CODE No.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE	
				I-000	X081-2A
* 50901050	STEEL RAILING, TYPE SM	FOOT	146		146
51201600	FURNISHING STEEL PILES HP12X53	FOOT	605		605
51202305	DRIVING PILES	FOOT	605		605
51203600	TEST PILE STEEL HP12X53	EACH	1		1
A 51500100	NAME PLATES	EACH	1		1
542D0217	PIPE CULVERTS, CLASS D, TYPE 1 12"	FOOT	5	5	
54213867	STEEL END SECTIONS 12"	EACH	1	1	
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	42		42
A 60109580	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	126		126
* A 63000003	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9 FOOT POSTS	FOOT	62.5	62.5	
* A 63100087	TRAFFIC BARRIER TERMINAL, TYPE 6A	EACH	3	3	
* A 63100088	TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL)	EACH	1	1	
* A 63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1	1	
A 63200310	GUARDRAIL REMOVAL	FOOT	279	279	
67100100	MOBILIZATION	L SUM	1	1	
A 70102550	TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR	EACH	1	1	
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	4	4	
* 78005110	EPOXY PAVEMENT MARKING - LINE 4"	FOOT	1040	1040	
* A 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	1	1	
78300100	PAVEMENT MARKING REMOVAL	SQ FT	348	348	
A X5030305	CONCRETE WEARING SURFACE, 5"	SQ YD	247		247
A Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	

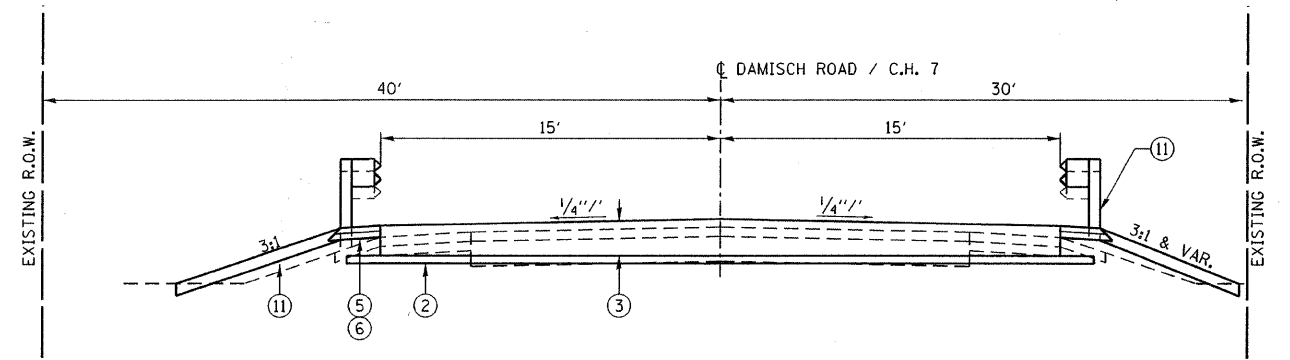
A - SEE SPECIAL PROVISIONS
 * SPECIALTY ITEMS



• PAVEMENT REMOVAL FOR NEW BRIDGE APPROACH SLAB.

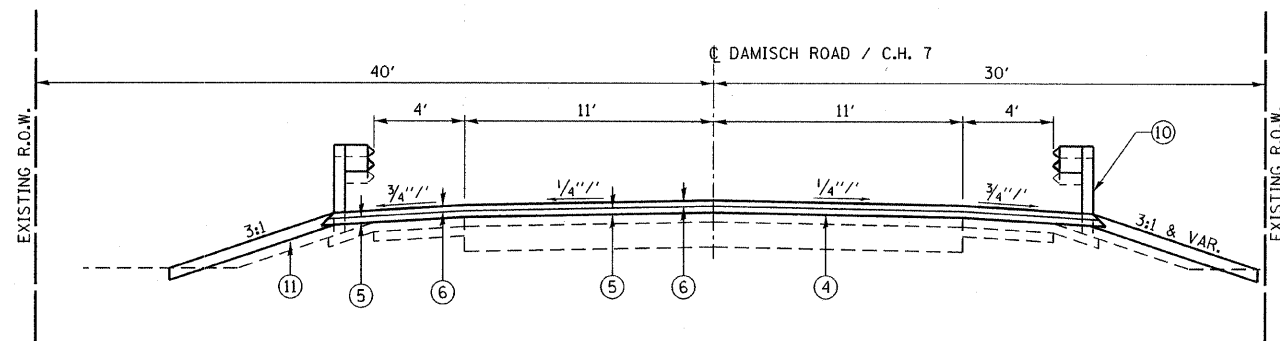
EXISTING TYPICAL SECTION

STA. 94+20.00 TO STA. 95+12.00
STA. 95+98.00 TO STA. 96+80.00



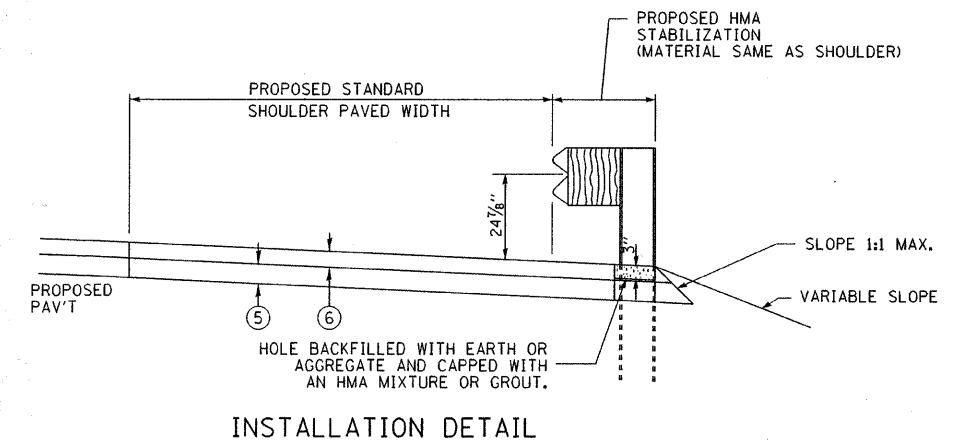
PROPOSED TYPICAL SECTION

STA. 94+20.00 TO STA. 94+88.00
STA. 96+22.00 TO STA. 96+80.00



PROPOSED TYPICAL SECTION

STA. 94+20.00 TO STA. 94+88.00
STA. 96+22.00 TO STA. 96+80.00



INSTALLATION DETAIL

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @Ndes
PAVEMENT RESURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5mm) 1 1/2"	4% @ 50 GYR
LEVELING BINDER (MACHINE METHOD), N50	4% @ 50 GYR
SHOULDERS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5mm) 1 1/2"	4% @ 50 GYR
LEVELING BINDER (MACHINE METHOD), N50	4% @ 50 GYR
INCIDENTAL HMA SURFACING	
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (IL 9.5mm) 2"	4% @ 50 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/ INCH THE "AC TYPE FOR POLYMERIZED HMA MIXES SHALL BE SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS FOR PERCENT OF "RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

LEGEND

- ① EXIST HMA/AGG PVT
- ② SUB-BASE GRANULAR MATERIAL, TYPE A 4"
- ③ BRIDGE APPROACH SLAB
- ④ BITUMINOUS MATERIALS (PRIME COAT)
- ⑤ LEVELING BINDER (MACHINE METHOD), N50 (3/4" MIN)
- ⑥ HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 (1 1/2" MIN)
- ⑦ EXIST HMA/AGG SHOULDERS
- ⑧ HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- ⑨ PAVEMENT REMOVAL
- ⑩ TRAFFIC BARRIER TERMINAL, TYPE 6A & 6A (SPECIAL) SEE INSTALLATION DETAIL THIS SHEET
- ⑪ TOPSOIL FURNISH AND PLACE, 4"

FILE NAME = 080043-sht-typicals.dgn

USER NAME =
PLOT SCALE =
PLOT DATE = 1/27/2010

DESIGNED - L.F.S.
DRAWN - T.W.K.
CHECKED - S.W.M.
DATE - 01/07/10

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
KANE COUNTY DIVISION OF TRANSPORTATION



SCALE:

TYPICAL SECTIONS
DAMISCH ROAD / C.H. 7
SHEET NO. OF SHEETS STA. TO STA.

F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	4
CONTRACT NO. 63444				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

ROADWAY SCHEDULE						
LOCATION	HOT-MIX ASPHALT SURFACE COURSE MIX "C", N50 1 1/2"	LEVELING BINDER (MACHINE METHOD) N50	BITUMINOUS MATERIAL PRIME COAT	HOT-MIX ASPHALT SURFACE REMOVAL BUTT-JOINT	INCIDENTAL HOT-MIX ASPHALT SURFACE	PAVEMENT REMOVAL
	40603310	40600625	40600100	40200800	40800050	44000100
	TON	TON	GAL	SQ YD	TON	SQ YD
CH 7 DAMISCH RD						
STA 94+02 TO STA 95+18	25	24	17	62		75
STA 95+92 TO STA 96+80	22	14	14	109		75
ENTRANCE RT 94+68				13	7	
BRIDGE						
STA 95+17.73 TO STA 95+92.27						
TOTAL	47	38	31	184	7	150

EROSION CONTROL						
LOCATION	SEEDING, CLASS 2A (SPECIAL)	TEMPORARY EROSION CONTROL SEEDING	TOPSOIL FURNISH AND PLACE, 4"	MULCH METHOD 2	EROSION CONTROL BLANKET	PERIMETER EROSION BARRIER
	25001020	28000250	21101615	25100115	25100630	28000400
	ACRE	POUND *	SQ YD	ACRE	SQ YD	FOOT
CH 7 DAMISCH RD						
LT. STA. 94+00 TO LT. STA 95+08	0.06	12	82	0.06	82	136
RT. STA. 94+20 TO RT. STA. 95+26	0.02	5	57	0.02	57	123
LT. STA. 95+84 TO LT. STA 96+80	0.03	6	104	0.03	104	124
RT. STA. 96+01 TO RT. STA. 96+80	0.02	4	44	0.02	44	97
TOTAL	0.13	27	287	0.13	287	480

* 2 APPL @ 100LBS/ACRE

GUARDRAIL SCHEDULE						
LOCATION	TRAFFIC BARRIER TERMINAL TYPE 6A	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9 FOOT POSTS	TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL)	GUARDRAIL REMOVAL	TERMINAL MARKER DIRECT APPLIED
	63100087	63100167	63000003	63100088	63200310	78201000
	EACH	EACH	FOOT	EACH	FOOT	EACH
CH 7 DAMISCH RD						
LT. STA. 94+02.17 TO LT. STA. 95+08.57	1	1	12.5		102	1
RT. STA. 94+86.00 TO RT. STA. 95+25.89				1	44	
LT. STA. 95+84.11 TO LT. STA. 96+52.51	1		25		67	
RT. STA. 96+01.43 TO RT. STA. 96+69.83	1		25		66	
LT. STA. 94+02.17 TO LT. STA. 96+52.51						
RT. STA. 94+86.00 TO RT. STA. 96+69.83						
TOTAL	3	1	62.5	1	279	1

PAVEMENT MARKING SCHEDULE			
LOCATION	EPOXY PAVEMENT MARKING PERMANENT		PAVEMENT MARKING REMOVAL
	4" SINGLE WHITE EDGE LINE	4" SOLID YELLOW CENTERLINE	
	78005110	78005110	
	FOOT	FOOT	SQ FT
CH 7 DAMISCH RD			
LT. STA. 94+20 TO LT. STA. 96+80	260		87
LCL. STA. 94+20 TO LCL. STA. 96+80		260	87
RCL. STA. 94+20 TO RCL. STA. 96+80		260	87
RT. STA. 94+20 TO RT. STA. 96+80	260		87
SUBTOTAL	520	520	348
TOTAL	1040		348

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 7 DAMISCH RD							
STA 94+00 TO STA 95+17.23	1		25.00%	100.00%	1	33	-32
STA 95+92.77 TO STA 96+80	3		25.00%	100.00%	2	21	-19
ENTRANCES			25.00%	100.00%	0		0
CHANNEL EXCAVATION			25.00%	70.00%	0		0
TOTAL	4	0			3	54	-51
TOTAL USE	4						-51

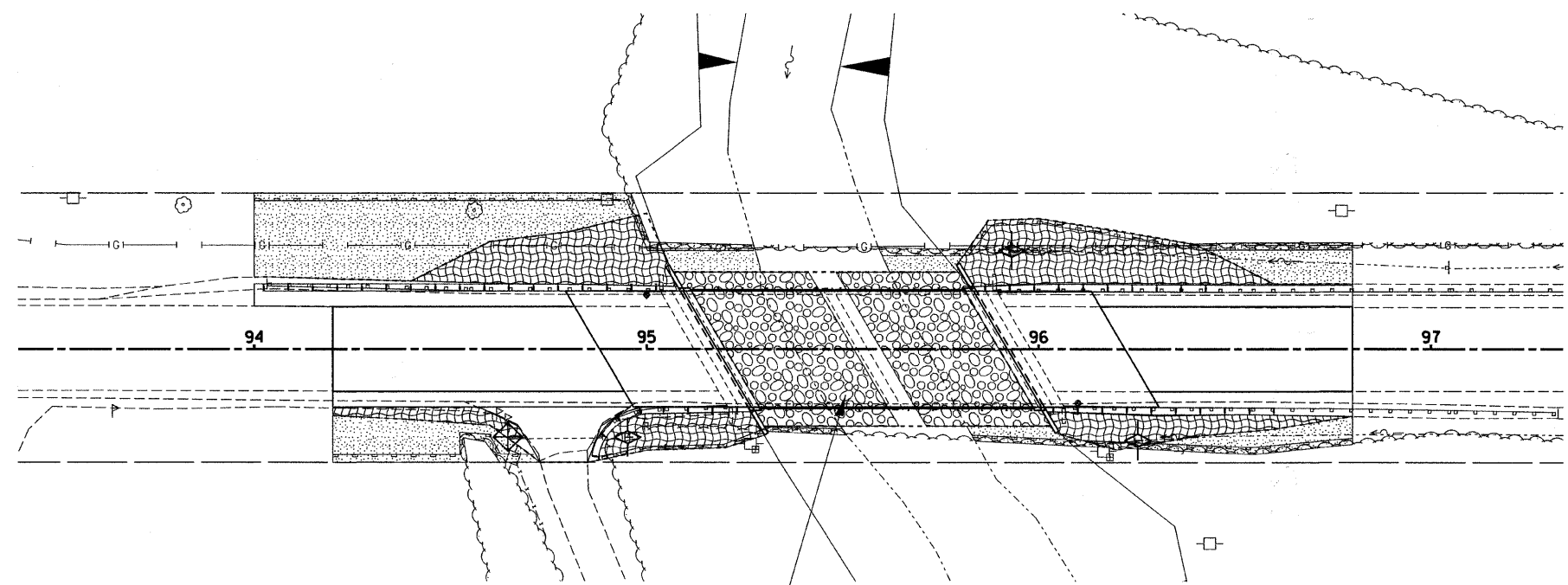
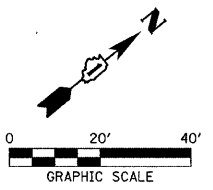
20400800 FURNISHED EXCAVATION = 51 CU YDS

CULVERT SCHEDULE		
LOCATION	PIPE CULVERTS CLASS D TYPE 1 12"	STEEL END SECTIONS 12"
	542D0217	54213867
	FOOT	EACH
CH 7 DAMISCH RD		
ENTRANCE RT 94+68	5	1
TOTAL	5	1

TREE REMOVAL	
LOCATION	TREE REMOVAL 20100500 ACRES
CH 7 DAMISCH RD	
RT. STA. 94+90 TO RT. STA. 95+28	0.004
LT. STA. 95+84 TO LT. STA. 96+40	0.006
TOTAL	0.01

28000500 INLET AND PIPE PROTECTION	
LOCATION	EACH
CH 7 DAMISCH RD	
RT STA. 94+62	1
TOTAL	1

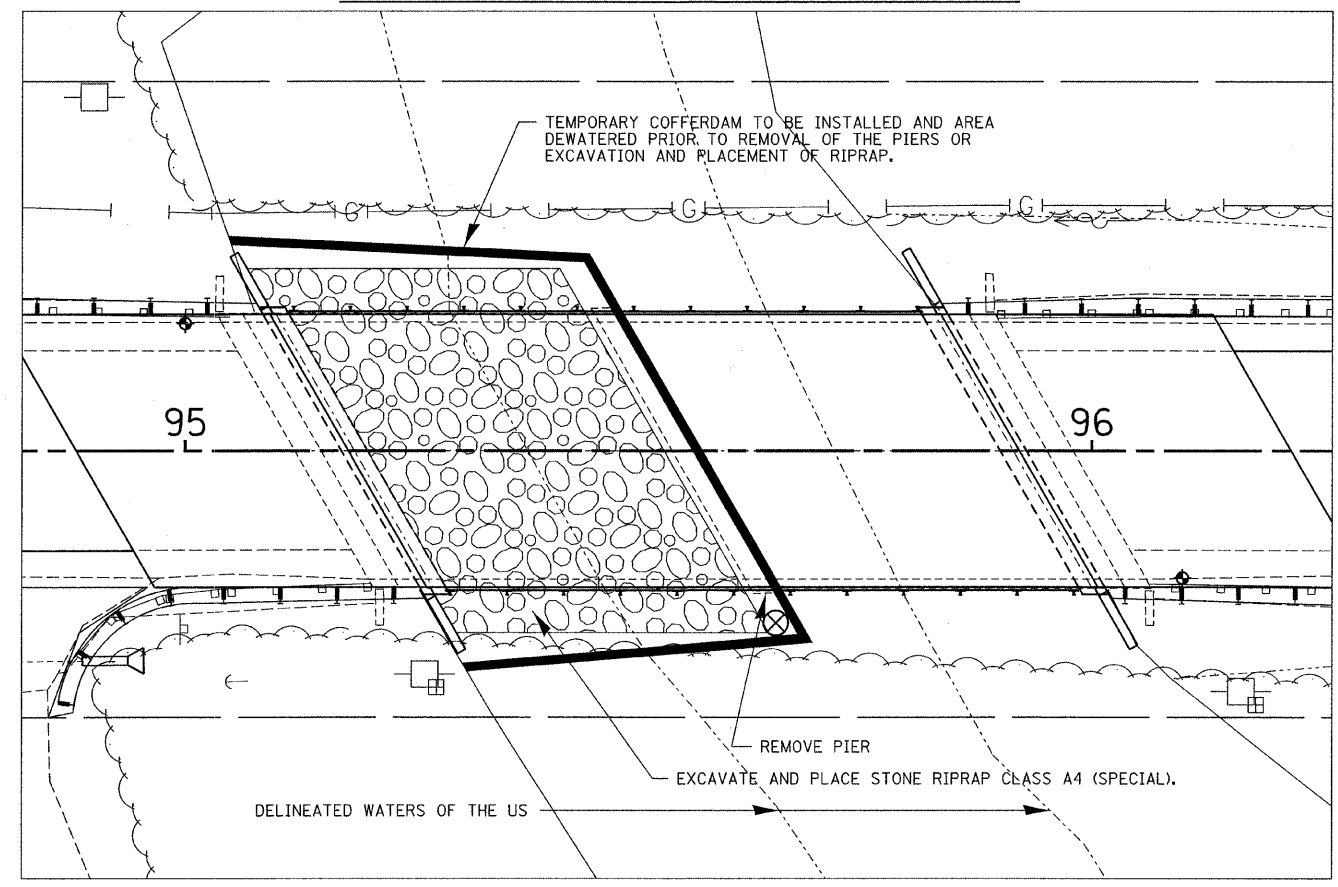
28000305 TEMPORARY DITCH CHECKS	
LOCATION	FOOT
CH 7 DAMISCH RD	
RT STA. 94+90	8
LT STA. 95+97	8
RT STA. 96+20	8
TOTAL	24



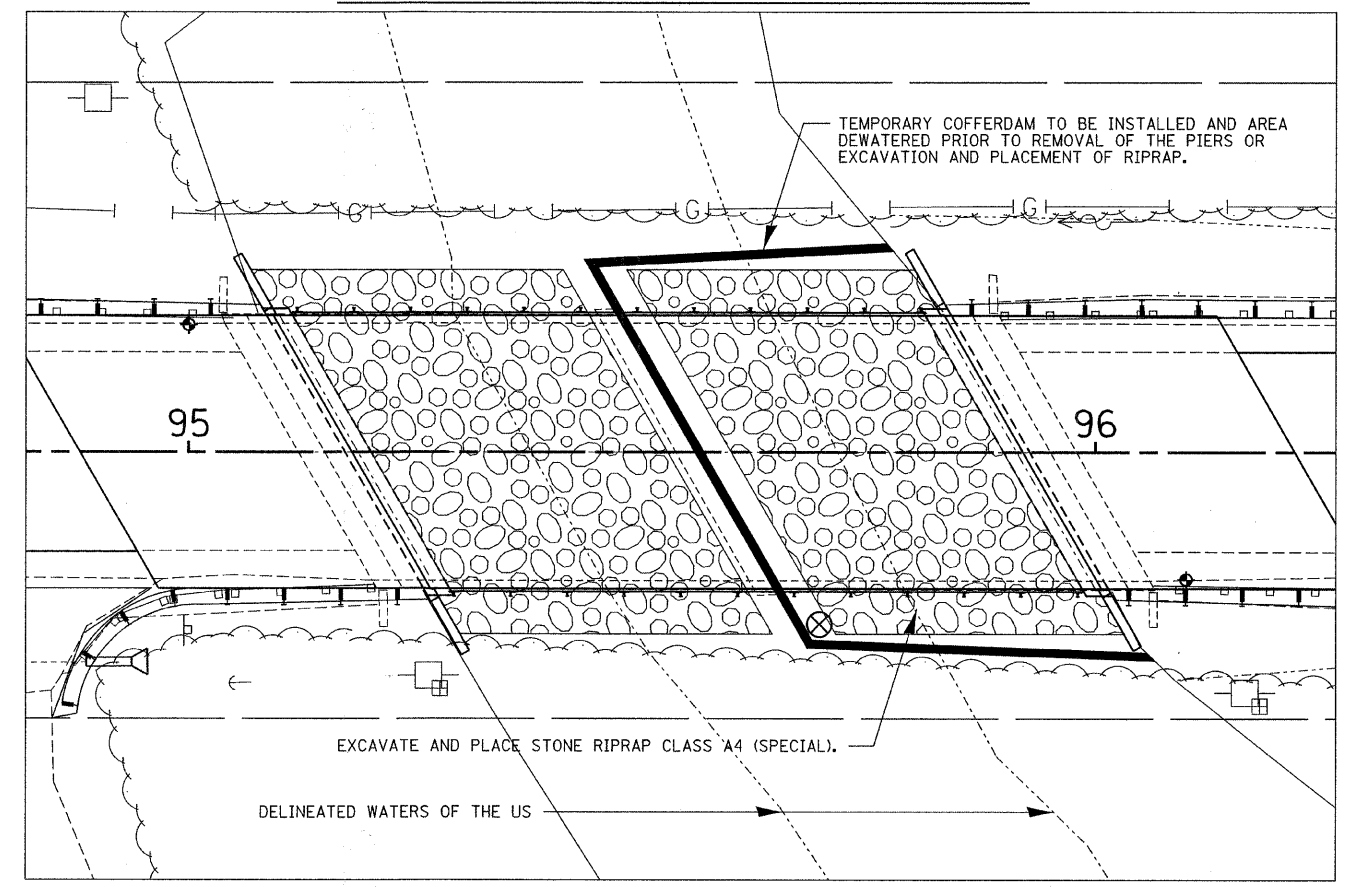
- LEGEND**
- INLET AND PIPE PROTECTION
 - TEMPORARY DITCH CHECK
 - EROSION CONTROL BLANKET WITH SEEDING, CLASS 2A (SPECIAL)
 - PERIMETER EROSION BARRIER
 - SEEDING, CLASS 2A (SPECIAL)
 - STONE RIPRAP CLASS A4 (SPECIAL)
 - TEMPORARY COFFERDAM
 - SUMP PIT OR SMALL PRE-TREATMENT SYSTEM CONSIDERED INCLUDED WITH STONE RIPRAP CLASS A4

STONE RIPRAP CLASS A4 (SPECIAL), (SEE BELOW FOR INSTALLATION PROCEDURES)

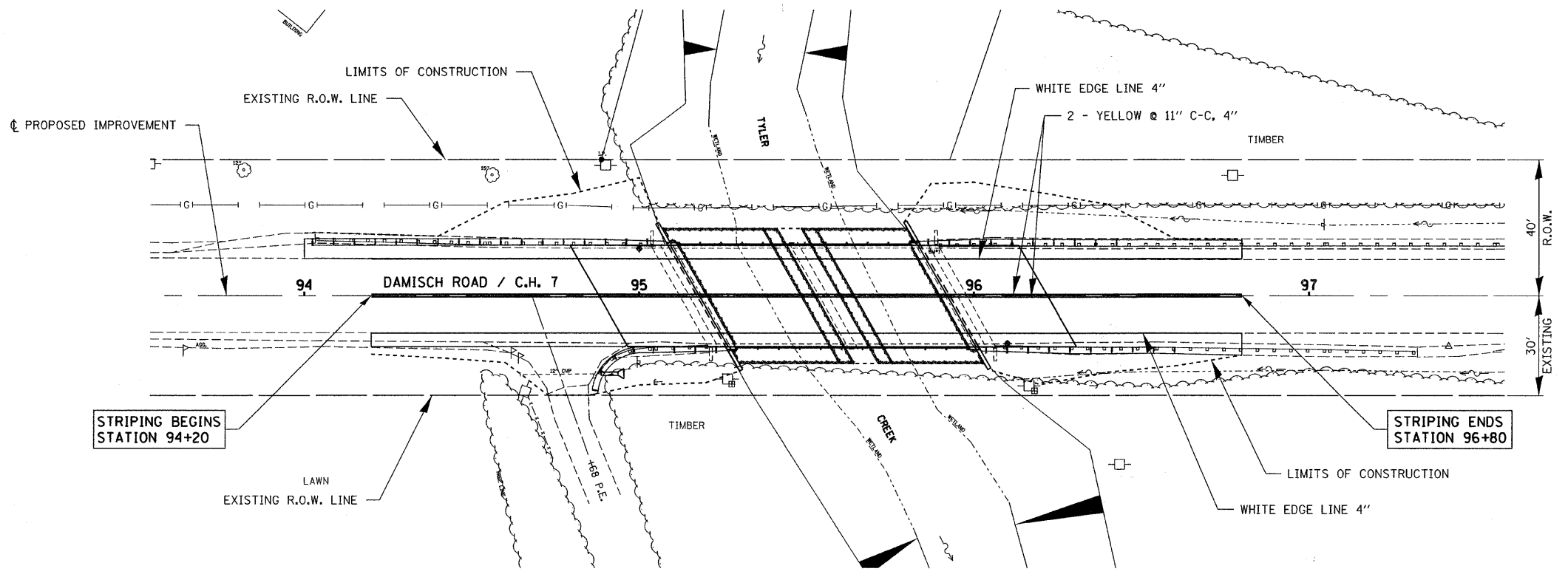
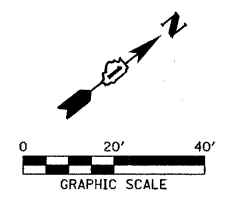
STONE RIPRAP CLASS A4 PLACEMENT - PHASE I



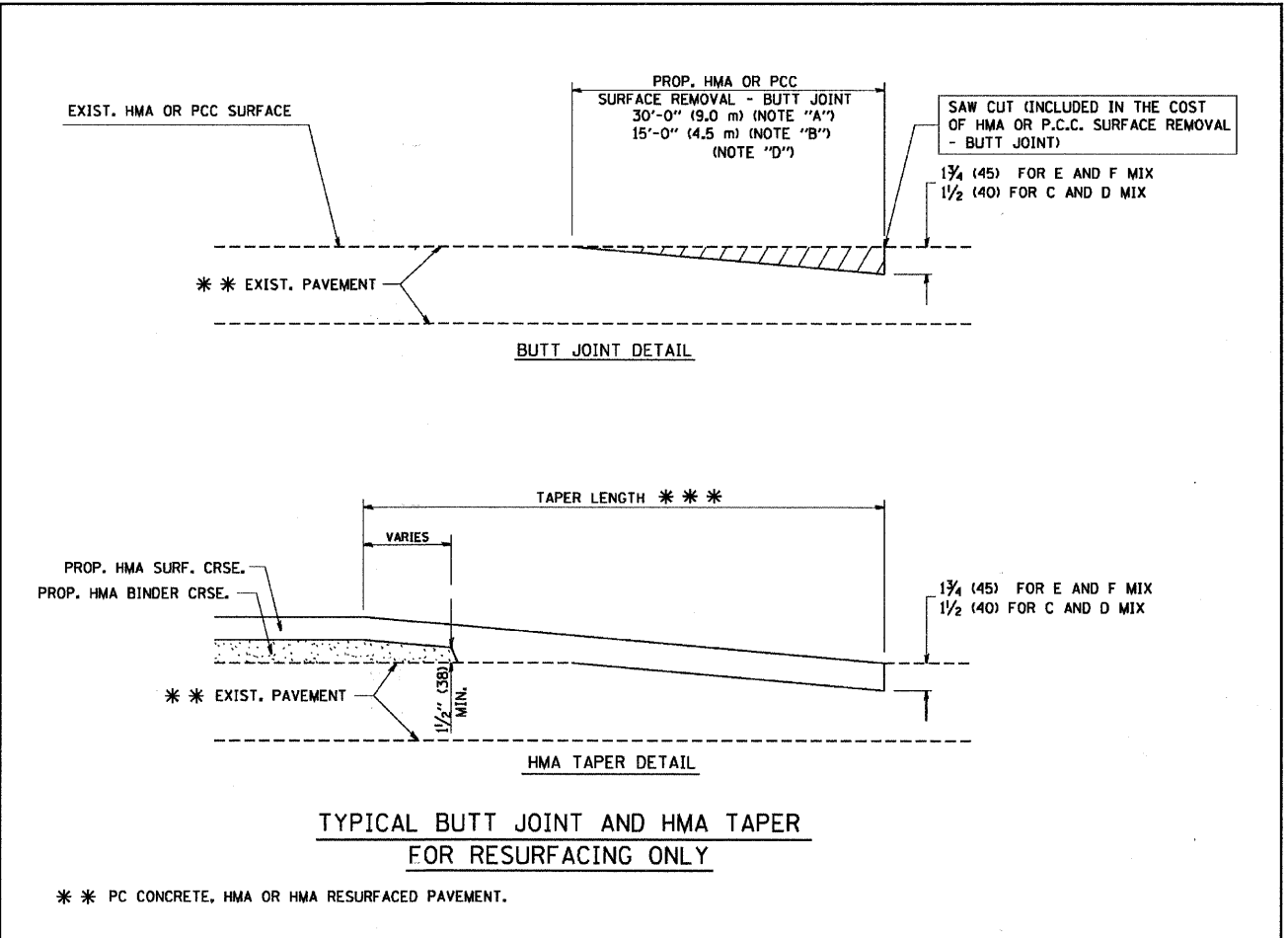
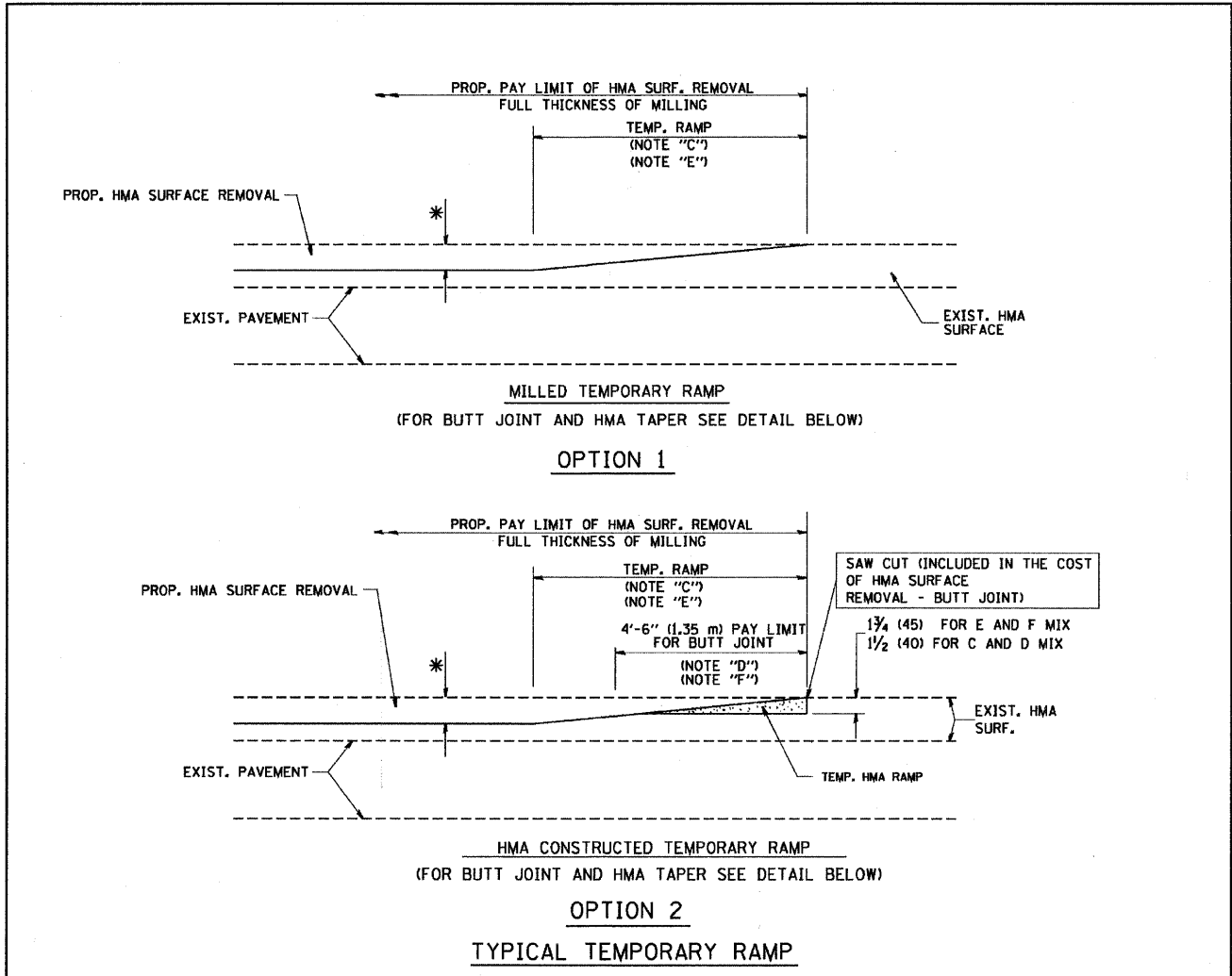
STONE RIPRAP CLASS A4 PLACEMENT - PHASE II



FILE NAME = 089043-sh1-erosion.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION		EROSION CONTROL PLAN DAMISCH ROAD / C.H. 7	F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE =	DRAWN - T.W.K.	REVISED -	132				07-00358-00-BR	KANE	33	8	
PLOT DATE = 2/10/2010	CHECKED - S.W.M.	REVISED -	CONTRACT NO. 63444								
DATE - 01/07/10	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT									



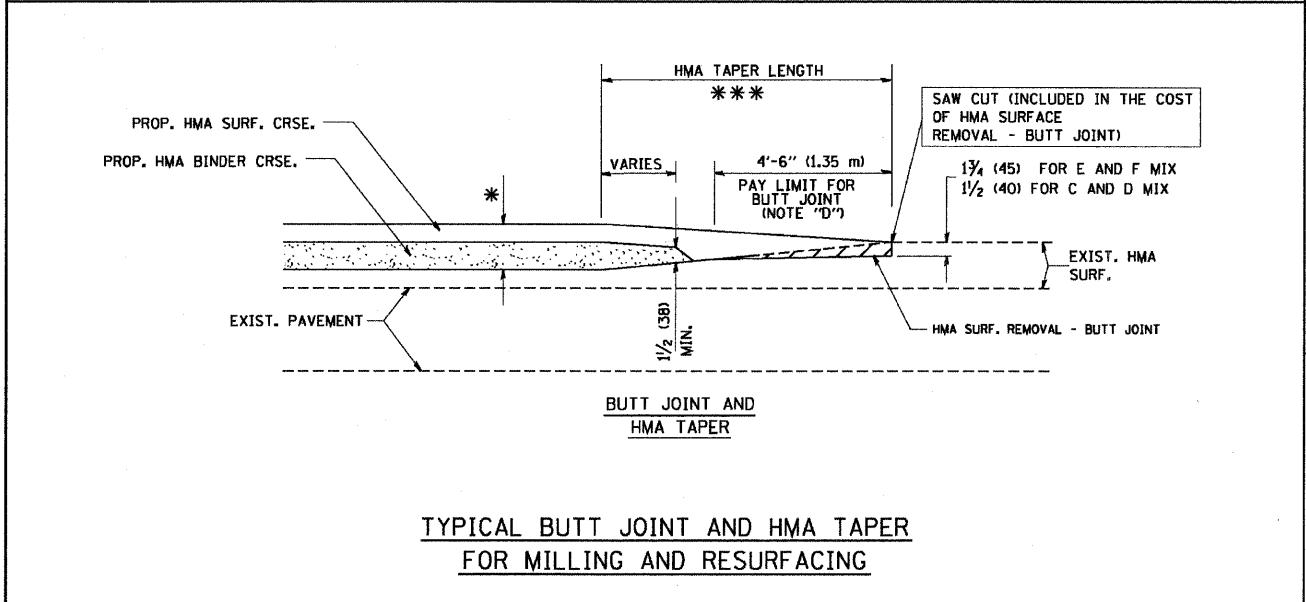
FILE NAME = 060043-shr-pvntmrk.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION		PAVEMENT MARKING PLAN DAMISCH ROAD / C.H. 7		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN - T.W.K.	REVISED -					132	07-00358-00-BR	KANE	33	9
	PLOT DATE = 1/28/2010	CHECKED - S.W.M.	REVISED -					CONTRACT NO. 63444				
		DATE - 01/07/10	REVISED -					FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				
				SCALE: 1" = 40'		SHEET NO. OF SHEETS STA. TO STA.						



NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 B: MINOR SIDE ROADS.
 C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
 * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
 *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
 10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

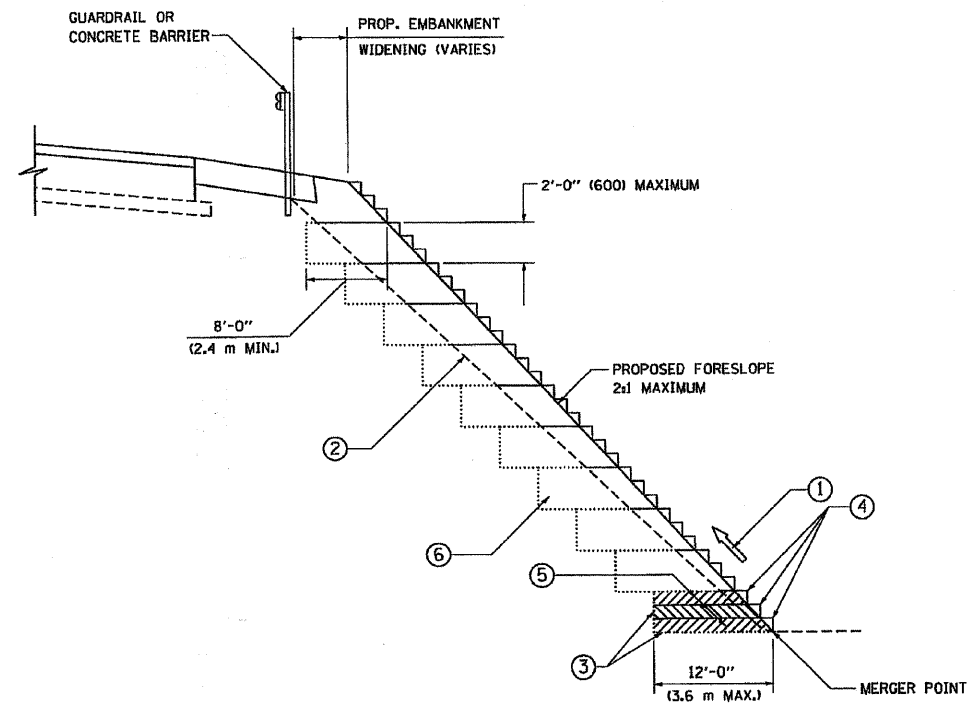
BASIS OF PAYMENT:
 THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".



ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME = M:\diststd\22x34\bd32.dgn	USER NAME = gagl1anob1	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS		F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 5/8" = 1' / IN.	CHECKED - S.W.M.	REVISOR - A. ABBAS 03-21-97	REVISOR - M. GOMEZ 04-06-01		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BD400-05 BD32		CONTRACT NO.
PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISOR - R. BORO 01-01-07							FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT

FILE NAME = 880843-eh1-standards.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION		BUTT JOINT DETAIL DAMISCH ROAD / C.H. 7		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
PLOT SCALE =	CHECKED - S.W.M.	REVISOR -	REVISOR -			SCALE: NONE	SHEET NO. OF SHEETS	STA.	TO STA.	132	07-00358-00-BR	KANE	33	10
PLOT DATE = 2/18/2010	DATE - 01/07/10	REVISOR -	REVISOR -							FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	CONTRACT NO. 63444	



TYPICAL BENCHING DETAIL
FOR EMBANKMENT

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME = W:\stated\22x34\bd51.dgn	USER NAME = gaglrenobt	DESIGNED - DRAWN - CADD	REVISED - REVISED -
PLOT SCALE = 50.0000' / IN.	CHECKED - S.E.B.	REVISED -	REVISED -
PLOT DATE = 1/4/2008	DATE - 06-16-04	REVISED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BENCHING DETAIL FOR EMBANKMENT WIDENING	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

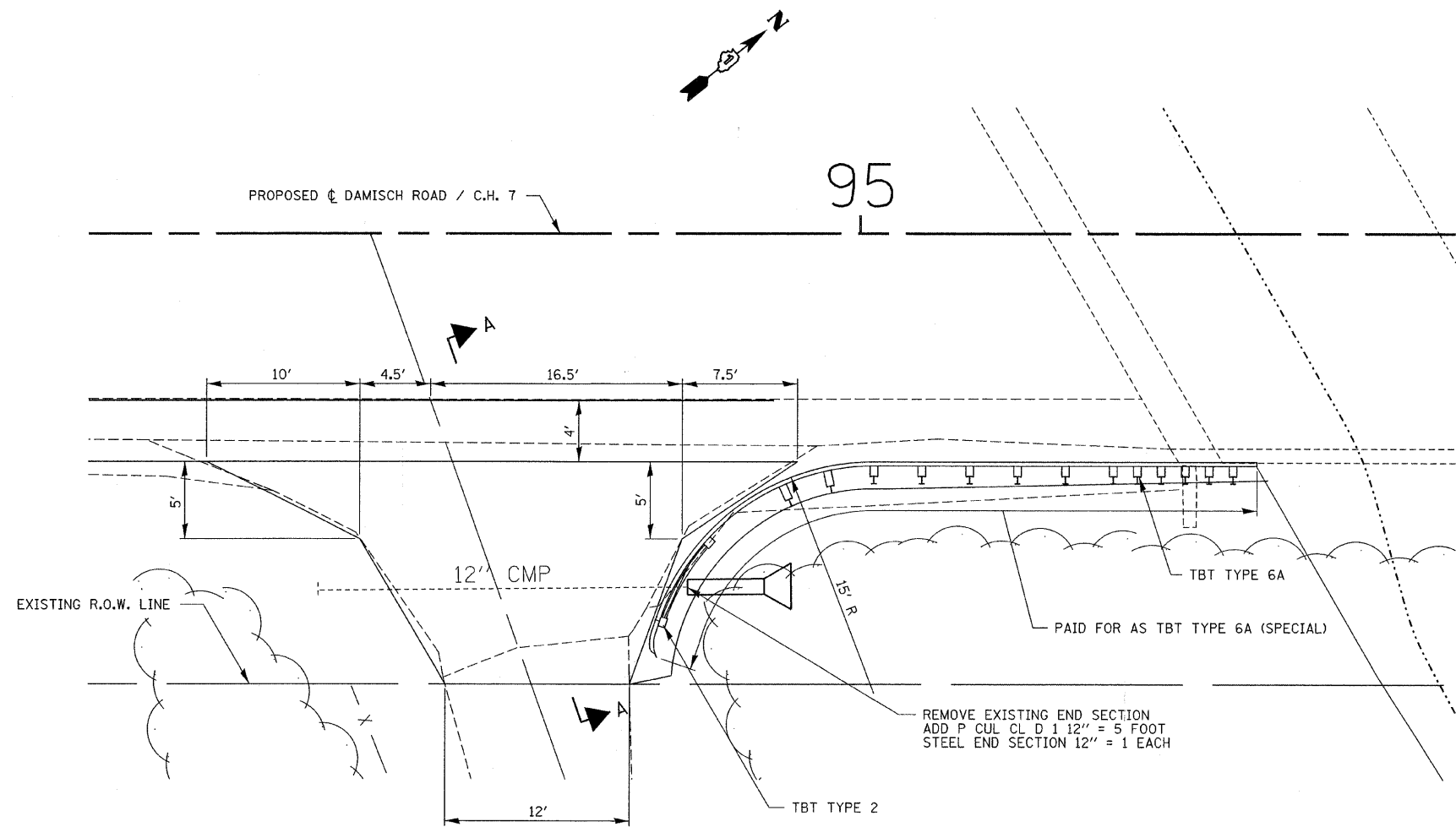
F.A.S. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	33	11
BD-51		CONTRACT NO.	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			

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PLOT SCALE =	CHECKED - S.W.M.	REVISED -	REVISED -
PLOT DATE = 2/18/2010	DATE - 01/07/10	REVISED -	REVISED -

STATE OF ILLINOIS
KANE COUNTY DIVISION OF TRANSPORTATION

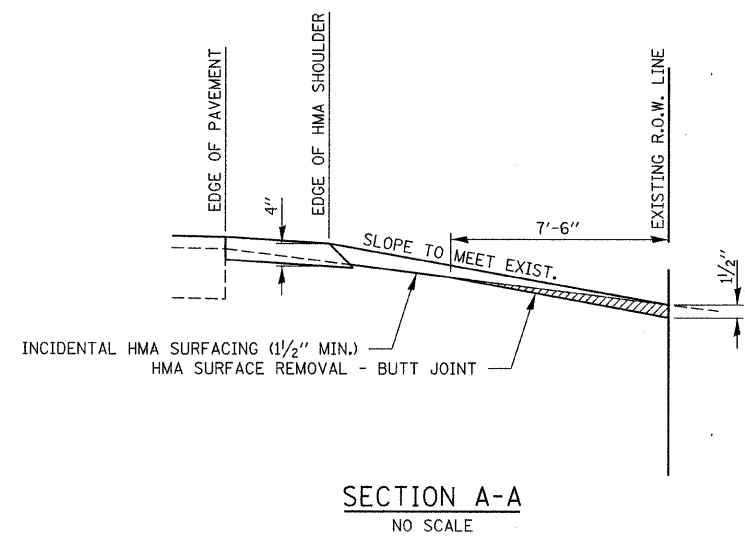
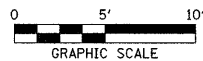
BENCHING DETAIL FOR EMBANKMENT WIDENING DAMISCH ROAD / C.H. 7	
SCALE:	SHEET NO. OF SHEETS STA. TO STA.

F.A.S. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	33	11
CONTRACT NO. 63444		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

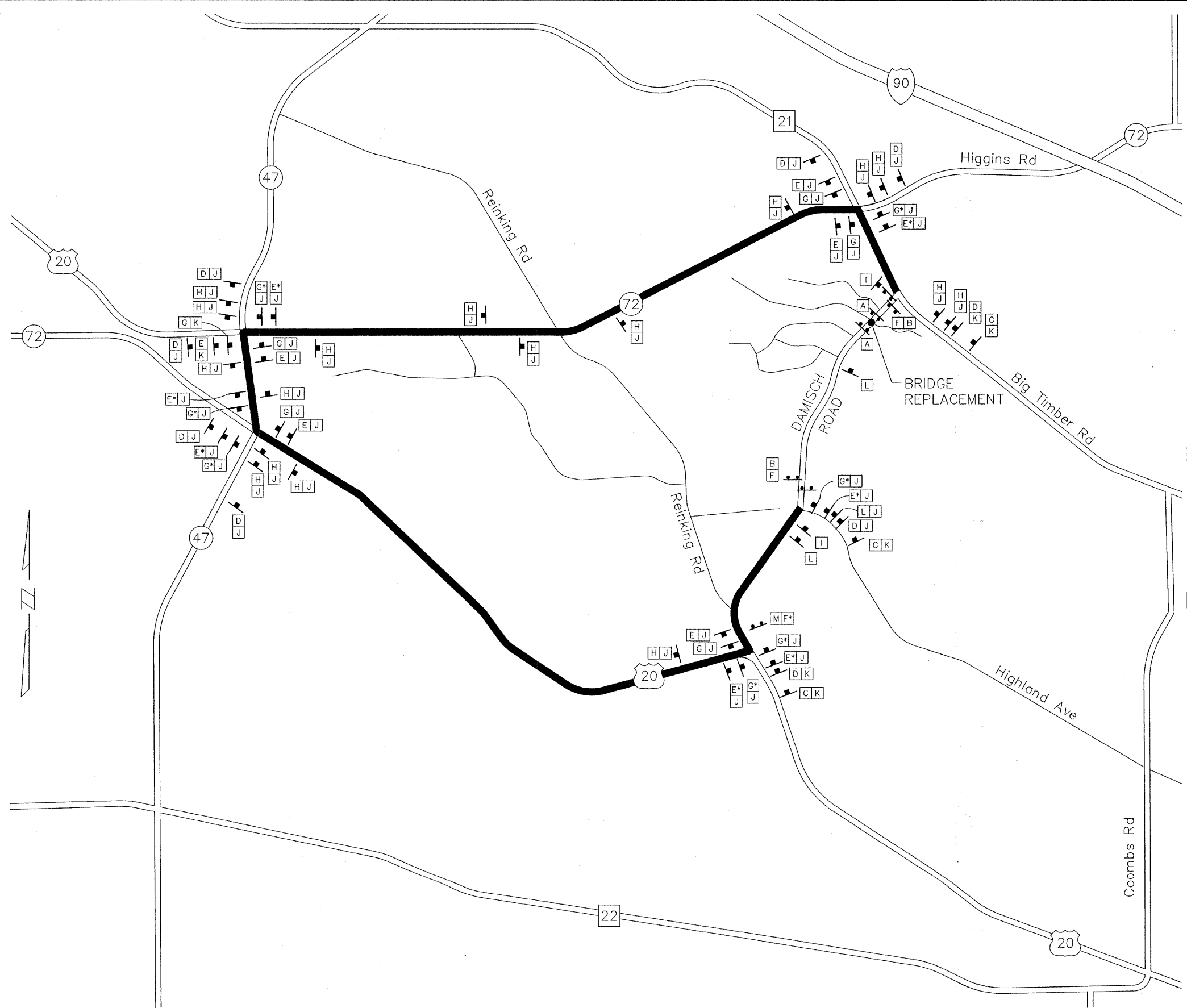


ENTRANCE AND GUARDRAIL DETAIL

RT. STA. 94+68



FILE NAME = 080043-shr-miscdet.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION	HLR	MISCELLANEOUS DETAILS DAMISCH ROAD /C.H. 7		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN - T.W.K.	REVISED -					132	07-00358-00-BR	KANE	33	12
	PLOT DATE = 2/18/2010	CHECKED -	REVISED -					CONTRACT NO. 63444				
	DATE - 01/07/10	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



DETOUR PLAN LEGEND

- A** SIGN DESCRIPTION (SEE BELOW)
- SIGN
- TYPE III BARRICADE WITH 2 HIGH INTENSITY WARNING LIGHTS & SIGNS AS NOTED

<p>A ROAD CLOSED R11-2 48"x30" (2 REQD.)</p> <p>B ROAD CLOSED TO THRU TRAFFIC R11-4 60"x30" (2 REQD.)</p> <p>C ROAD CLOSED AHEAD W20-1 48"x48" LOW INTENSITY FLASHING LIGHT & 18"x18" ORANGE FLAG (4 REQD.)</p> <p>D DETOUR AHEAD W20-2 48"x48" LOW INTENSITY FLASHING LIGHT & 18"x18" ORANGE FLAG (11 REQD.)</p>	<p>E ← LEFT (6 REQD.) M4-9 (R&L) 30"x30" (7 REQD.)</p> <p>F ← LEFT (0 REQD.) M4-10 (R&L) 48"x18" (1 REQD.)</p> <p>G ← LEFT (6 REQD.) M4-9 (R & L) 30"x24" (7 REQD.)</p> <p>H ↑ DETOUR M4-9 30"x30" (17 REQD.)</p> <p>I END DETOUR M4-BA 24"x18" (2 REQD.)</p> <p>J DAMISCH RD 48"x12" (37 REQD.)</p> <p>K DAMISCH RD - BIG TIMBER RD TO HIGHLAND AVE 48"x24" (20 REQD.)</p> <p>L ROAD CLOSED 500 FT 48"x48" LOW INTENSITY FLASHING LIGHT (3 REQD.)</p> <p>M ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY R11-3A 60"x30" (1 REQD.)</p>
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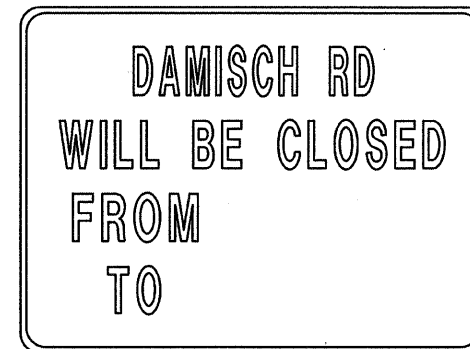
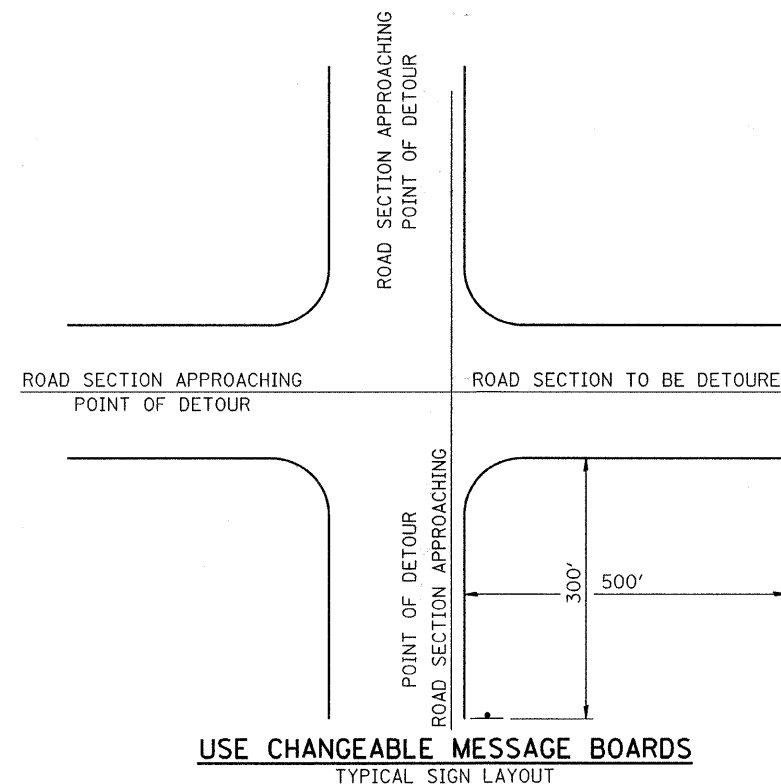
FILE NAME = 060043-sh1-detour.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION		DETOUR PLAN DAMISCH ROAD / C.H. 7	F.A.S. 132	SECTION 07-00358-00-BR	COUNTY KANE	TOTAL SHEETS 33	SHEET NO. 13
PLOT SCALE =	CHECKED -	DATE - 01/07/10	REVISED -	SCALE: SHEET NO. OF SHEETS STA. TO STA.			CONTRACT NO. 63444				
PLOT DATE = 1/28/2010	DATE -	REVISED -	REVISED -	FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT							

DETOUR GENERAL NOTES

1. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JAN. 1, 2007", "THE QUALITY STANDARD FOR WORK ZONE TRAFFIC CONTROL DEVICES ADOPTED 1990", THE DETAILS IN THESE PLANS, AND THE LATEST EDITION OF THE STATE OF ILLINOIS "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES", THE SPECIAL PROVISIONS FOR TRAFFIC CONTROL AND PROTECTION.
2. THE DURATION OF THE DETOUR SHALL NOT EXCEED 60 CALENDAR DAYS OR AUGUST 1, 2009 . THE CONTRACTOR SHALL SCHEDULE ALL WORK IN AN EXPEDIENT MANNER TO REDUCE THE LENGTH OF TIME THAT THE DETOUR NEEDS TO BE IN EFFECT.
3. THE ENGINEER SHALL BE NOTIFIED IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES FOR APPROVAL OF SUCH DATE.
4. IF DEEMED NECESSARY BY THE ENGINEER A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR SHALL BE HELD AT LEAST TWO WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT.
5. THE CONTRACTOR SHALL SUPPLY TO THE ENGINEER THE NAMES AND TELEPHONE NUMBERS OF HIS REPRESENTATIVES ON THE CONSTRUCTION SITE AND HIS REPRESENTATIVE RESPONSIBLE FOR THE DETOUR SIGNING PRIOR TO THE START OF THE WORK. THE KANE COUNTY HIGHWAY DEPARTMENT REPRESENTATIVE FOR THE DETOUR IS:

DAVID BOESCH
KANE COUNTY DEPARTMENT OF TRANSPORTATION
TRAFFIC ENGINEERING SECTION
41W011 BURLINGTON ROAD
ST. CHARLES, ILLINOIS 60175
(630) 584-1170

6. IF REQUESTED BY THE CONTRACTOR IN WRITING AT LEAST THREE WEEKS PRIOR TO THE DAY THE DETOUR IS TO BE IN EFFECT THE ENGINEER WILL FIELD LOCATE THE POSITIONS OF ANY SIGNS.
7. LONGITUDINAL DIMENSIONS SHOWN ON THESE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
8. THE ROAD SHALL NOT BE CLOSED UNTIL ALL SIGNING IS ERECTED IN ACCORDANCE WITH THE DETOUR PLAN AND INSPECTED AND APPROVED BY THE ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES INSTALLED BY HIM ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE DETOUR IS IN EFFECT.
10. THE TRAFFIC CONTROL SHOWN ON THE DETOUR PLAN IS THE MINIMUM NECESSARY TO ENSURE THIS ROAD CLOSURE. THE CONTRACTOR SHALL MAKE ALL CHANGES IN TRAFFIC CONTROL THAT ARE DEEMED NECESSARY BY THE ENGINEER. ADDITIONS AND DELETIONS OF TRAFFIC CONTROL FOR THIS DETOUR SHALL BE CONSIDERED INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION FOR TEMPORARY DETOUR".
11. ALL EXISTING SIGNING THAT IS NOT APPLICABLE WHILE THE DETOUR IS IN EFFECT SHALL BE COMPLETELY COVERED BY THE CONTRACTOR, IN A MANNER APPROVED BY THE ENGINEER.
12. ALL DETOUR SIGNING SHALL BE POST MOUNTED.
13. ALL DETOUR SIGNING EXCEPT REGULATORY SIGNS SHALL HAVE BLACK LEGENDS ON FLUORESCENT ORANGE SHEETING AND STANDARD BLACK BORDERS. THE FLUORESCENT ORANGE REFLECTIVE SHEETING SHALL MEET THE REQUIREMENTS OF ARTICLE 1084.02 OF THE STANDARD SPECIFICATIONS. ALL DETOUR SIGNING SHALL BE NEW OR LIKE NEW CONDITION. THE ENGINEER SHALL BE THE SOLE JUDGE OF THE CONDITION AND ACCEPTANCE OF THE SIGNS.
14. THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS SHALL BE AS REQUIRED BY THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
15. AS A MINIMUM, ALL AMBER FLASHING LIGHTS THAT ARE REQUIRED FOR THIS DETOUR SHALL MEET THE REQUIREMENTS FOR TYPE A-LOW INTENSITY FLASHING LIGHTS IN ARTICLE 1084.01 OF THE STANDARD SPECIFICATIONS. ALL LIGHTS SHALL OPERATE DURING THE HOURS OF DARKNESS. ONLY LIGHTS THAT HAVE BEEN APPROVED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION SHALL BE USED.
16. THE MINIMUM DIMENSIONS OF THE ORANGE WARNING FLAGS SHOWN IN THE PLANS ARE 18" BY 18".
17. ALL BARRICADES SHALL HAVE REFLECTORIZED STRIPING ON BOTH SIDES OF THE BARRICADES. THE TYPE III BARRICADES USED AT THE POINT OF CLOSURE TO THRU TRAFFIC SHALL NOT EXCEED 8'-0" IN WIDTH EACH, FOR A SINGLE APPROACH LANE.
18. THE "ROAD CLOSED" (R11-2), THE "ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY" (R11-3), AND THE "ROAD CLOSED TO THRU TRAFFIC" (R11-4) SIGNS SHALL BE MOUNTED ABOVE THE TOP OF THE BARRICADE. ALL TYPE III BARRICADES SHALL HAVE TWO (2) AMBER TYPE A-LOW INTENSITY FLASHING LIGHTS SPACED NEAR THE CENTERLINE OF THE SUPPORTS.
19. THE ROAD NAME SIGN SHALL HAVE A BLACK LEGEND ON FLUORESCENT ORANGE REFLECTIVE SHEETING. THE SIGN BLANK SHALL BE A 9" BY VARIABLE OR A 12" BY VARIABLE WITH DESIGN SERIES C LETTERS. THE CAPITAL LETTERS SHALL BE 6" WITH 5" LOWER CASE.
20. DURING NON-WORKING HOURS AT THE POINT OF ROAD CLOSURE TO ALL TRAFFIC THE CONTRACTOR SHALL PROVIDE A MEANS TO RESTRAIN THE BARRICADES FROM EASY MOVEMENT BY VANDALS. THE CHOSEN METHOD SHALL BE APPROVED BY THE ENGINEER.
21. CONSTRUCTION EQUIPMENT SHALL NOT BE PARKED IMMEDIATELY BEHIND THE TYPE III BARRICADES DURING NON-WORKING HOURS. IN ANY EVENT ARTICLE 701.04 OF THE STANDARD SPECIFICATIONS SHALL APPLY.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE VISIBILITY OF ALL DETOUR AND CONSTRUCTION SIGNING, INCLUDING BRUSHING BACK VEGETATION IF DEEMED NECESSARY BY THE ENGINEER.
23. THE FOLLOWING ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD IS APPLICABLE FOR THIS WORK: STANDARD 701901, BLR 21
24. THE ENGINEER SHALL BE NOTIFIED AT LEAST TWO (2) HOURS BEFORE THE ROAD IS TO BE OPENED TO TRAFFIC. THE ENGINEER WILL CONTACT THE APPROPRIATE LOCAL AGENCIES AND INTERESTED PARTIES.
25. THE PENALTY FOR EXCEEDING THE TIME LIMIT, AS STATED IN DETOUR GENERAL NOTE TWO OF THESE PLANS, SHALL EQUAL THE CHARGE OF TRAFFIC CONTROL DEFICIENCY OF \$1000 PER DAY, FOR EVERY CALENDAR DAY THE DETOUR AND ROAD CLOSURE EXCEEDS THE TIME LIMIT SET IN DETOUR GENERAL NOTE TWO. THIS PENALTY CAN BE ASSESSED IN ADDITION TO THE PENALTY SPECIFIED IN THE SPECIAL PROVISIONS FOR TRAFFIC CONTROL AND PROTECTION AND BOTH PENALTIES CAN BE CHARGED CONCURRENTLY.

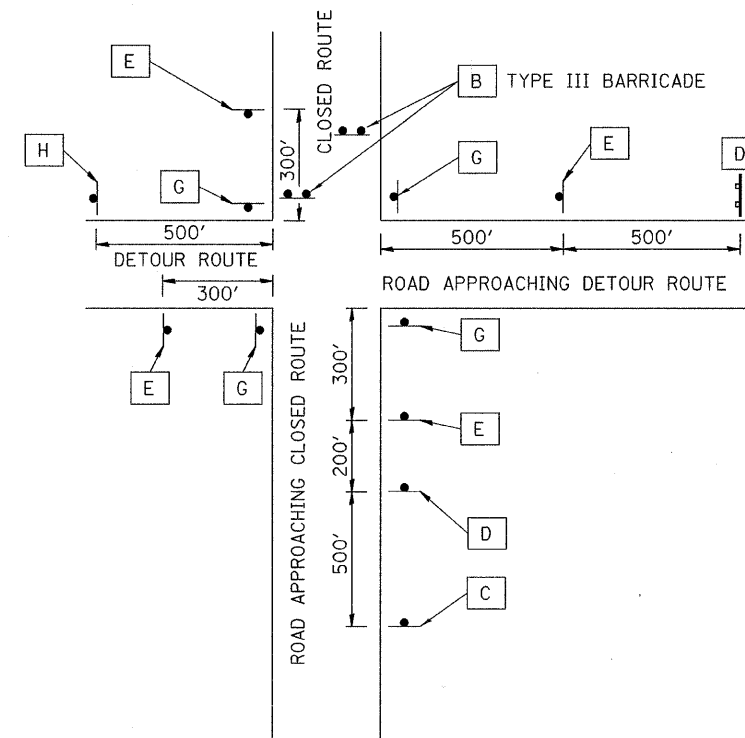


PRE-DETOUR INFORMATION

NOTE: THIS SIGN SHALL BE INSTALLED 7-10 CALENDAR DAYS PRIOR TO THE DETOUR AND ROAD CLOSURE. THE SIGNS SHALL BE REMOVED THE DAY THE DETOUR BEGINS.

LOCATIONS OF PRE-DETOUR INFORMATION BOARDS

DAMISCH ROAD @ BIG TIMBER
DAMISCH ROAD @ U.S. 20

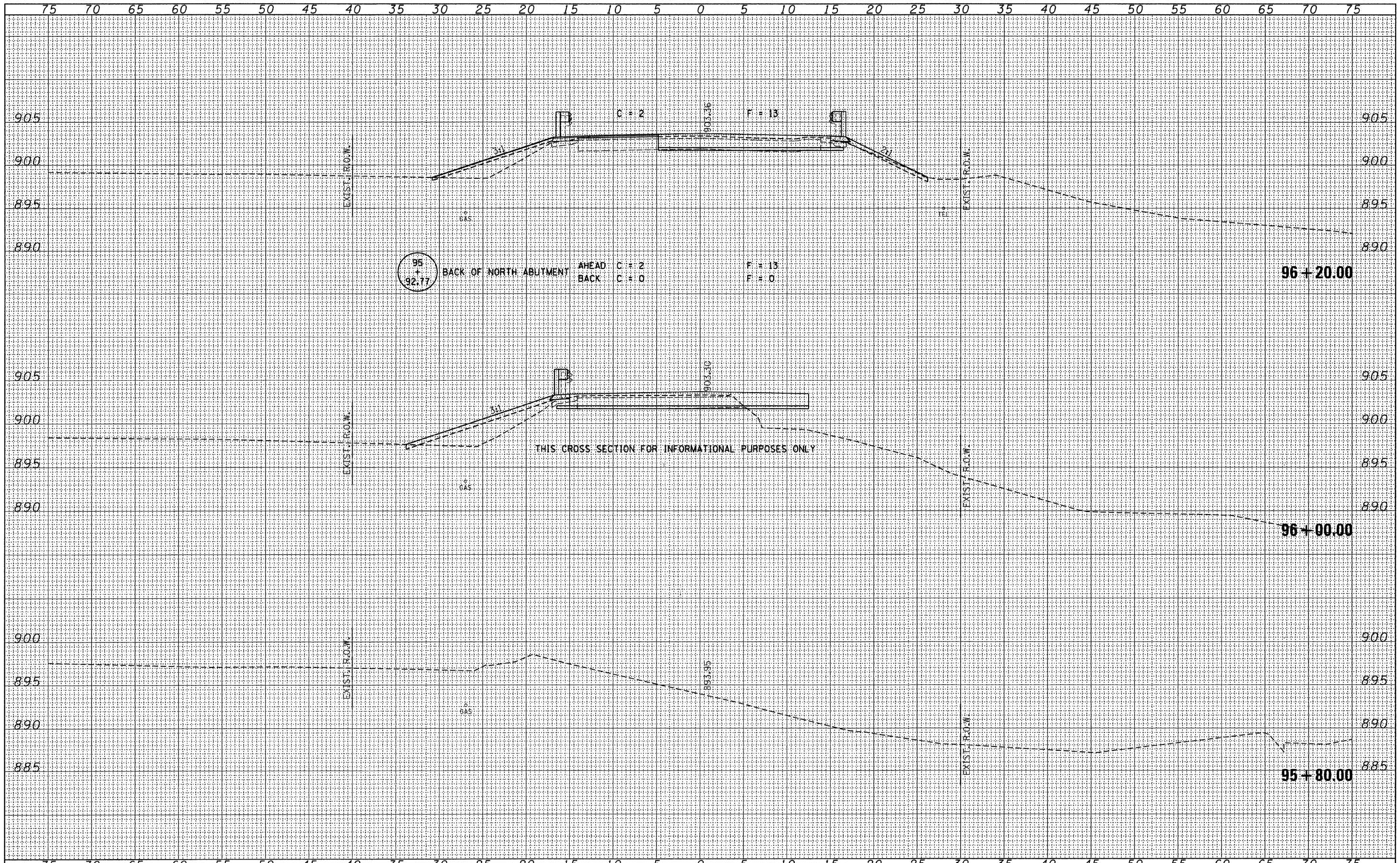



TYPICAL INTERSECTION AT POINT OF DETOUR

FILE NAME = 080043-shr-detour.dgn	USER NAME =	DESIGNED - L.F.S. DRAWN - T.W.K.	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION	HLR	DETOUR PLAN DAMISCH ROAD /C.H. 7			F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE =	CHECKED -	DATE - 01/07/10			SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	132	07-00358-00-BR	KANE
	PLOT DATE = 1/28/2010									CONTRACT NO. 63444				
											FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			

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

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



FILE NAME = 080043-shr-ava.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION 	CROSS SECTIONS		F.A.S.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - T.W.K.	REVISED -		132	07-00358-00-BR	KANE	33	18		
		CHECKED - S.W.M.	REVISED -		STA. 95+80.00 TO STA. 96+20.00		CONTRACT NO. 63444				
		DATE - 12/28/09	REVISED -		SCALE: 5H:5V		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

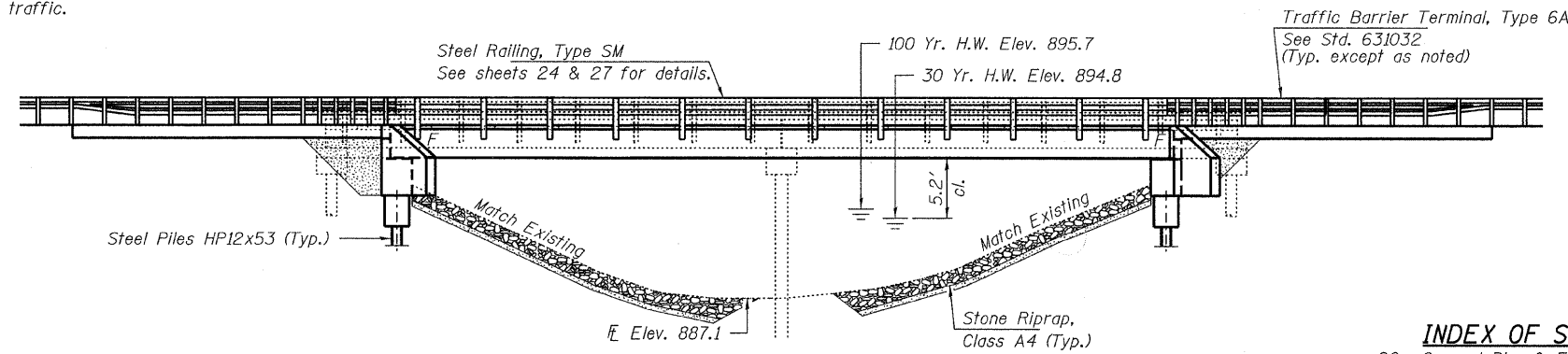
BENCHMARK: BM#1 - CHISLED "X" IN NW WINGWALL 15' LT. STA. 95+89.09 ELEV. 903.59

EXISTING STRUCTURE: Two span precast prestressed concrete deck beam bridge with steel railing on pile bent concrete abutments and piers. 87.83' bk.-bk. abuts.; 30.00' o.-o. deck Structure closed to traffic.

No Salvage

GENERAL NOTES

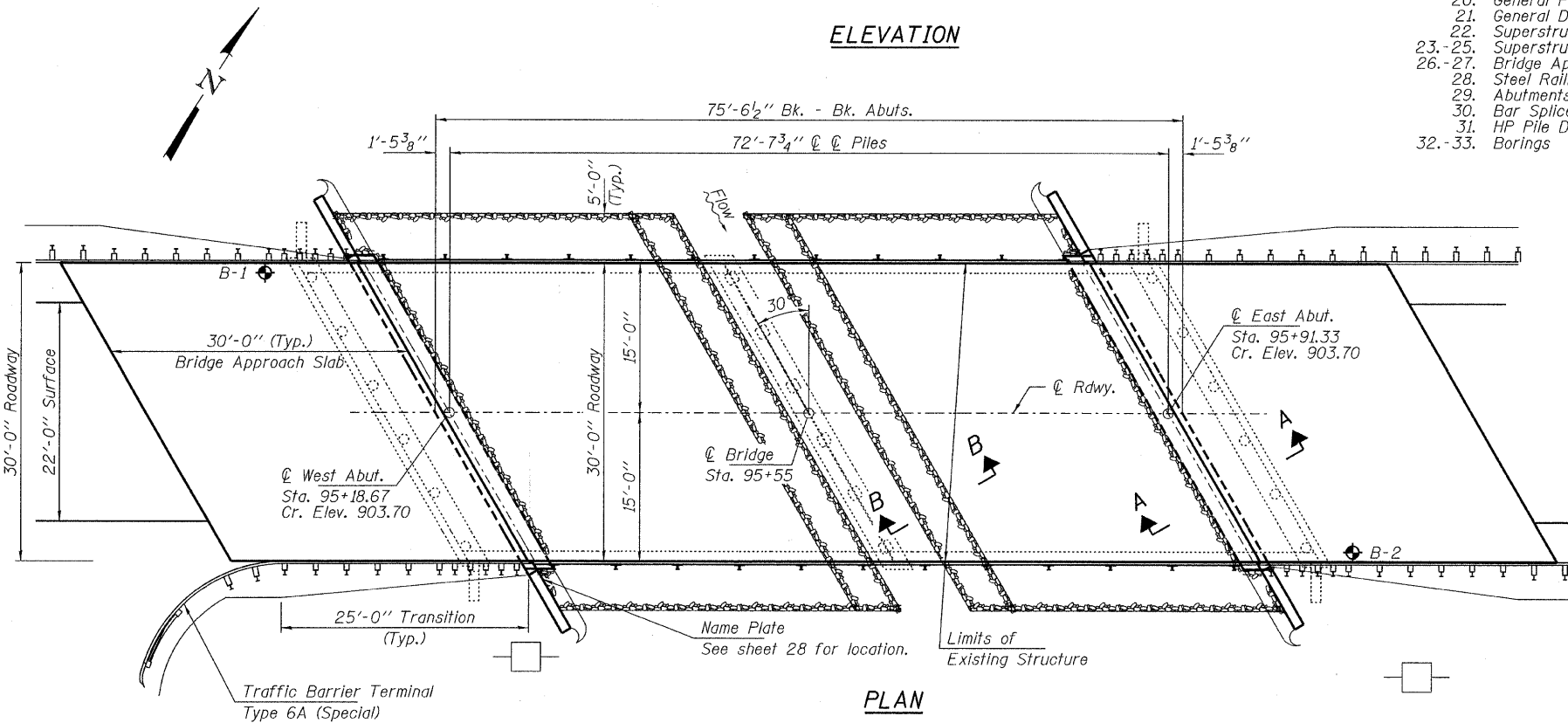
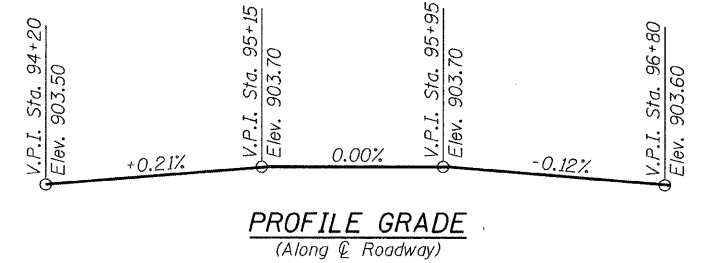
Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.
 The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at West Abutment or approved by the Engineer before ordering the remainder of piles.
 Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.
 Reinforcement bars designated (E) shall be epoxy coated.
 Excavation required to construct the Abutments shall be included in the cost of Concrete Structures. No additional compensation will be allowed for Structure Excavation.
 All proposed construction activities 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.
 See sheets 31 & 32 for Borings.



ELEVATION

INDEX OF STRUCTURE SHEETS

- 20. General Plan & Elevation
- 21. General Details
- 22. Superstructure
- 23.-25. Superstructure Details
- 26.-27. Bridge Approach Slab Details
- 28. Steel Railing, Type SM
- 29. Abutments
- 30. Bar Splicer Assembly and Mechanical Splicer Details
- 31. HP Pile Details
- 32.-33. Borings



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Porous Granular Embankment, Special	Cu. Yd.		85	85
Stone Riprap, Class A4 (Special)	Ton		245	245
Filter Fabric	Sq. Yd.		320	320
Removal of Existing Structures	Each		1	1
Concrete Structures	Cu. Yd.		49.0	49.0
Concrete Superstructure	Cu. Yd.	86.1		86.1
Bridge Deck Grooving	Sq. Yd.	417		417
Concrete Encasement	Cu. Yd.		4.0	4.0
Protective Coat	Sq. Yd.	457		457
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,220		2,220
Reinforcement Bars, Epoxy Coated	Pound	26,600	3,580	30,180
Bar Splicers	Each	62		62
Steel Railing, Type SM	Foot	146		146
Furnishing Steel Piles HP12x53	Foot		605	605
Driving Piles	Foot		605	605
Test Pile Steel HP12x53	Each		1	1
Name Plates	Each		1	1
Geocomposite Wall Drain	Sq. Yd.		42	42
Pipe Underdrains For Structures 4"	Foot		126	126
Concrete Wearing Surface, 5"	Sq. Yd.	247		247

DESIGN SCOUR TABLE

	W. Abut.	E. Abut.
Design Scour Elevation	896.51	896.51

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi (All Concrete except CWS)
 f'c = 5,000 psi (CWS)
 fy = 60,000 psi (Reinf.)

PRECAST PRESTRESSED UNITS

f'c = 6,000 psi
 f'ci = 5,000 psi
 fpu = 270,000 psi (1/2" low lax. strands)
 fpbt = 201,960 psi (1/2" low lax. strands)
 fy = 60,000 psi (Reinf.)

LOADING HL-93

Design Specifications: 2007 AASHTO LRFD with all applicable interims.
 50#/Sq. Ft. included in dead load for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
 Design Spectral Acceleration at 1.0 sec. (SD1) = 0.148g
 Design Spectral Acceleration at 0.2 sec. (SDS) = 0.083g
 Soil Site Class = D

WATERWAY INFORMATION

Flood	Freq. Yr.	C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.		
			Exist.	Prop.	Natural H.W.E.	Prop. Exist.	Prop. Exist.	Prop. Exist.	
	10	361	215	214	893.77	0.02	0.00	893.79	893.77
Design	30	500	267	266	894.76	0.02	0.00	894.78	894.76
Base	50	548	283	282	895.05	0.02	0.00	895.07	895.05
Base	100	672	323	322	895.73	0.02	0.00	895.75	895.73
Overtopping									
Max. Calc.	500	869	381	380	896.65	0.02	0.00	896.67	896.65

Drainage Area = 10.0± Sq. Mi. Existing Low Grade Elev. 903.25 @ Sta. 94+80
 Proposed Low Grade Elev. 903.5 @ Sta. 94+20

10 Year Velocity through Existing Bridge = 1.7 fps 10 Year Velocity through Proposed Bridge = 1.7 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 LRFD Specifications."

Steven W. Meigs 2/10/2010
 ILLINOIS STRUCTURAL NO. 081-6064



Expires 11-30-2010

**GENERAL PLAN AND ELEVATION
 STRUCTURE NO. 045-6302**

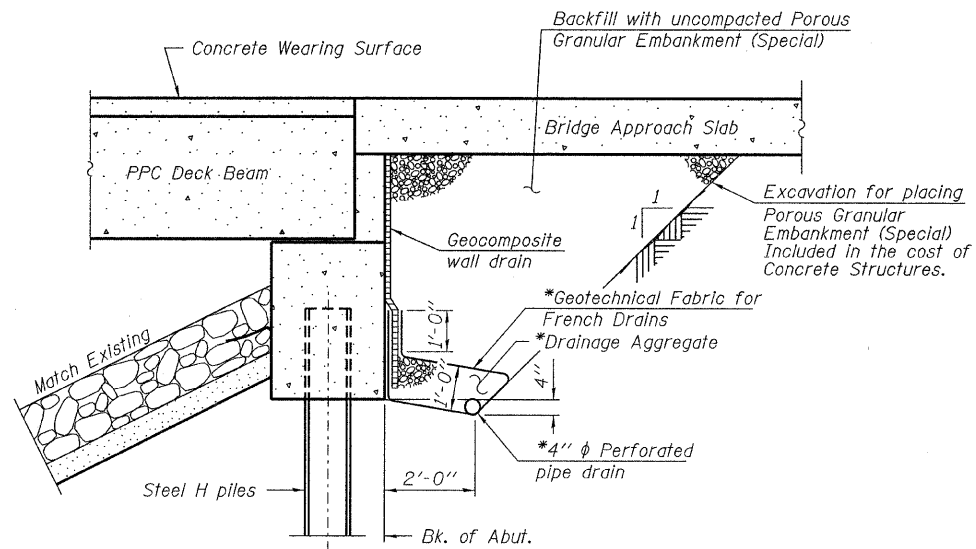
DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

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

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

PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

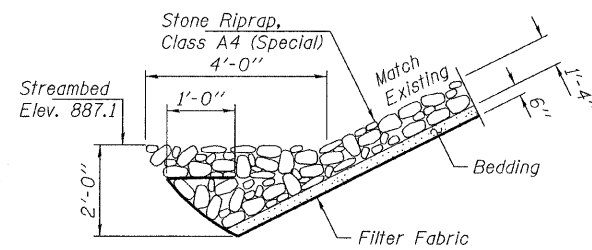
FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	20
DAMISCH ROAD OVER TYLER CREEK			CONTRACT NO. 63444	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



SECTION A-A
(Horiz. dim. @ Rt. L's)

Note: See Special Provisions for Stone Riprap, Class A4.

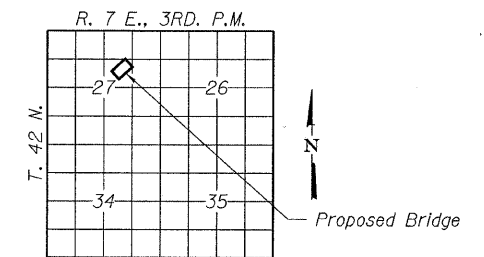
* Included in the cost of Pipe Underdrains For Structures 4"



SECTION B-B

TYLER CREEK
BUILT 20__ BY
KANE COUNTY
SEC. 07-00358-00-BR
DAMISCH ROAD / C.H. 7
STR. NO. 045-6302
LOADING HL-93


NAME PLATE
See Std. 515001

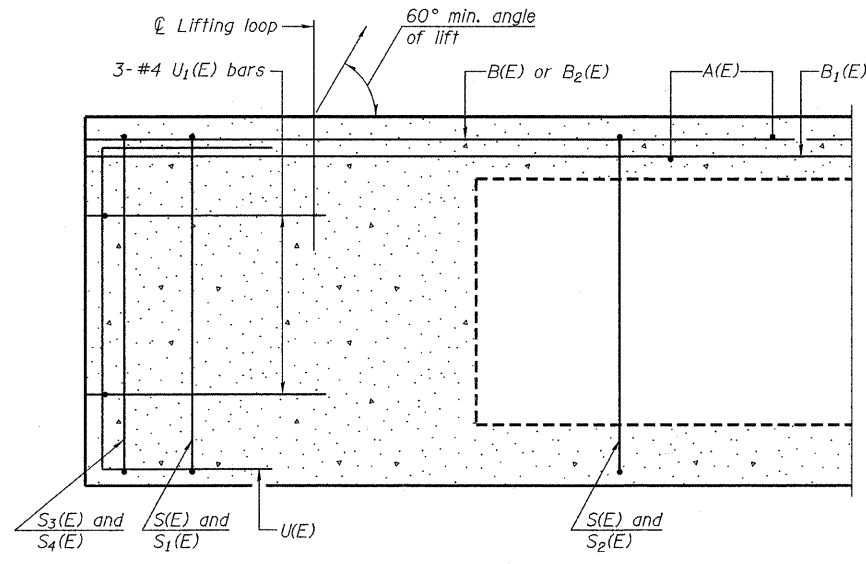


LOCATION SKETCH

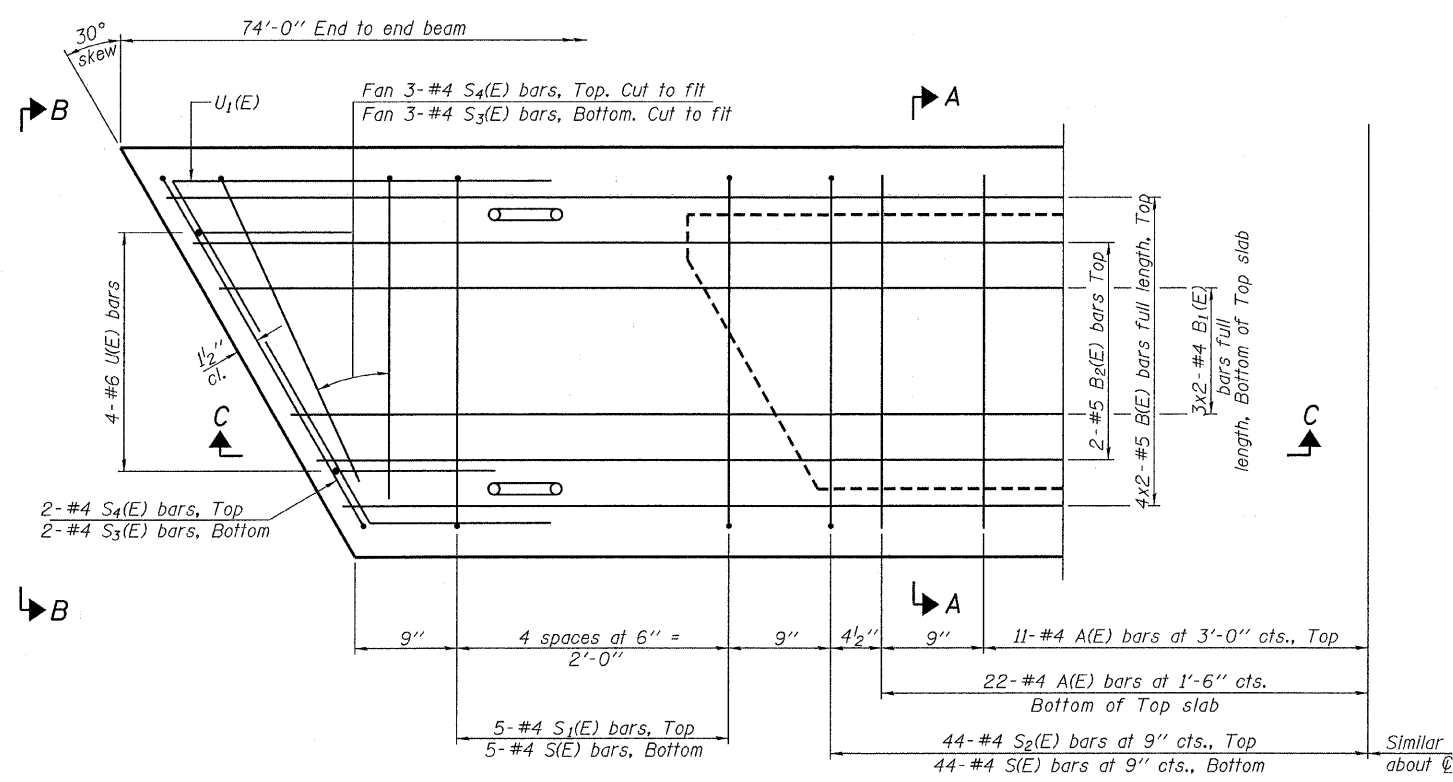
DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

GENERAL DETAILS
STRUCTURE NO. 045-6302

HAMPTON, LENZINI & RENWICK, INC. CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS  3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	132	07-00358-00-BR	KANE	33	21
PROJECT NUMBER: 08.0043.100	DATE: 01/07/10	DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444	
		FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	



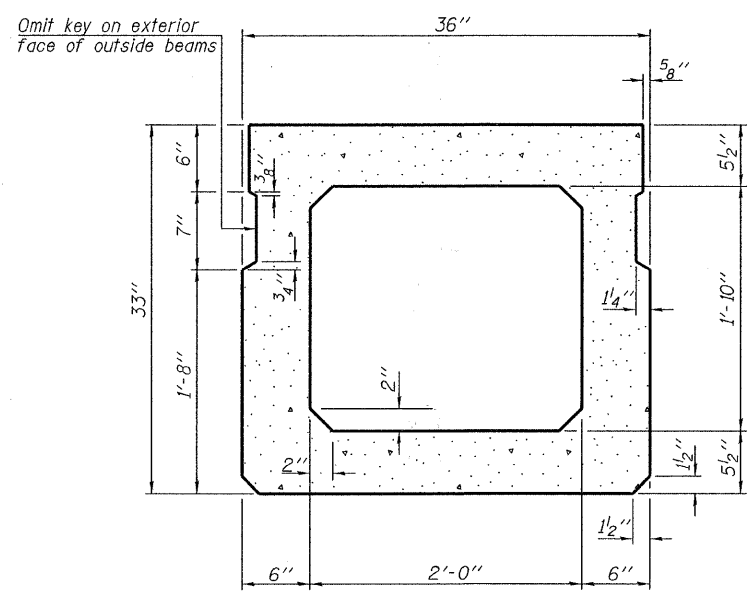
SECTION C-C



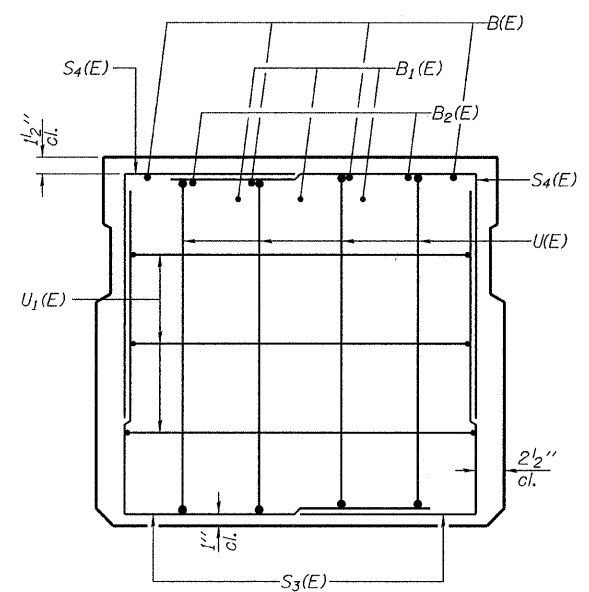
PLAN VIEW

Note: Spacing of S(E) and S2(E) bars may be adjusted up to 4" in the immediate area of the transverse tie diaphragms to miss the block outs for the transverse ties.

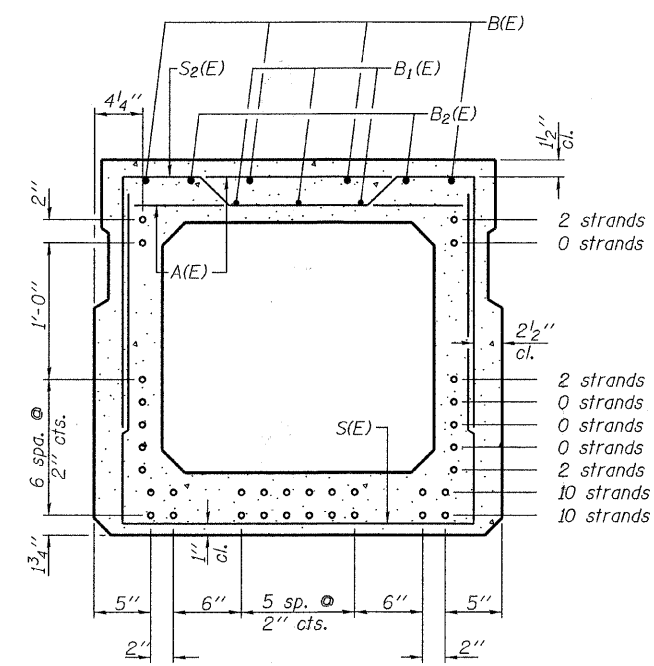
MINIMUM BAR LAP
 #4 bar = 2'-0"
 #5 bar = 2'-6"



SECTION A-A
(Showing dimensions)



VIEW B-B



SECTION A-A

(Showing reinforcement and permissible strand locations)
 Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.

BAR LIST
ONE BEAM ONLY
 (For information only)

Bar	No.	Size	Length	Shape
A(E)	66	#4	2'-7"	—
B(E)	8	#5	38'-2"	—
B1(E)	6	#4	37'-11"	—
B2(E)	4	#5	10'-0"	—
D(E)	48	#4	2'-9"	L ⊏
S(E)	98	#4	7'-5"	—
S1(E)	10	#4	6'-3"	⌋
S2(E)	88	#4	6'-6"	⌋
S3(E)	10	#4	4'-10"	⌋
S4(E)	10	#4	4'-3"	⌋
U(E)	8	#6	5'-0"	⌋
U1(E)	6	#4	6'-10"	⌋

Note: See sheets 22 thru 24 for additional details and Bill of Material.

DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

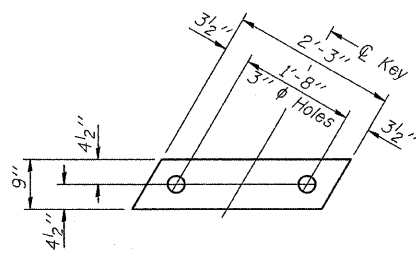
PD-3336-R

11-1-09

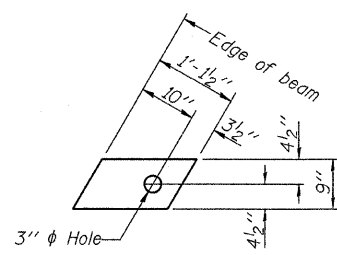
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 LAND SURVEYORS
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	22
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUPERSTRUCTURE
33" x 36" PPC DECK BEAM
STRUCTURE NO. 045-6302



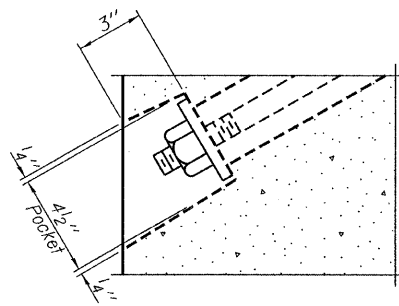
FABRIC BEARING PAD
(Interior - 18 Req'd.)



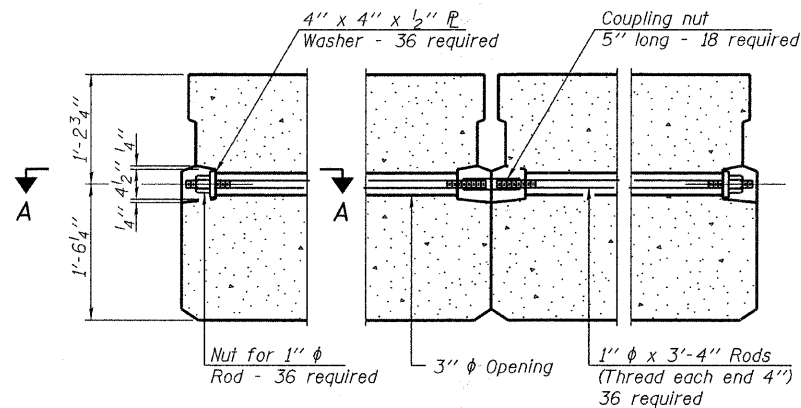
FABRIC BEARING PAD
(Exterior - 4 Req'd.)

FIXED

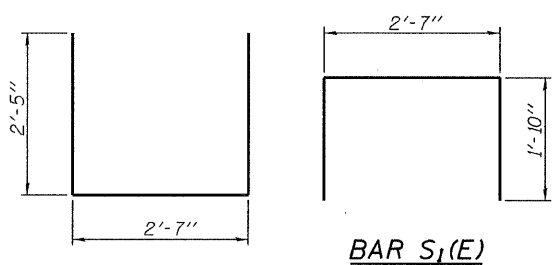
Notes:
All bearing pads shall be 1" thick.
Omit holes when using expansion bearings.
Expansion bearing pad shall be bonded to the substructure.



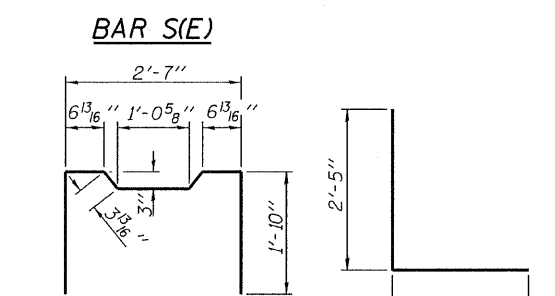
SECTION A-A



TYPICAL TRANSVERSE TIE ASSEMBLY

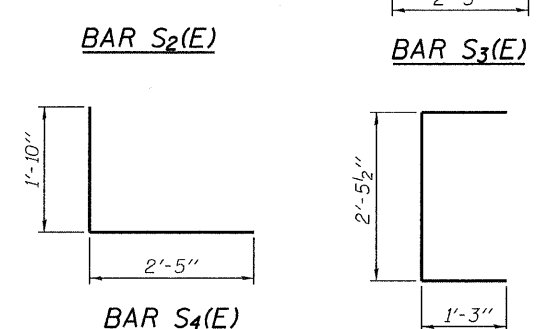


BAR S₁(E)



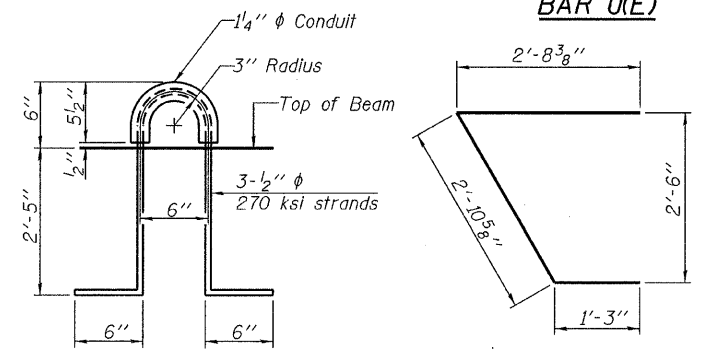
BAR S₂(E)

BAR S₃(E)



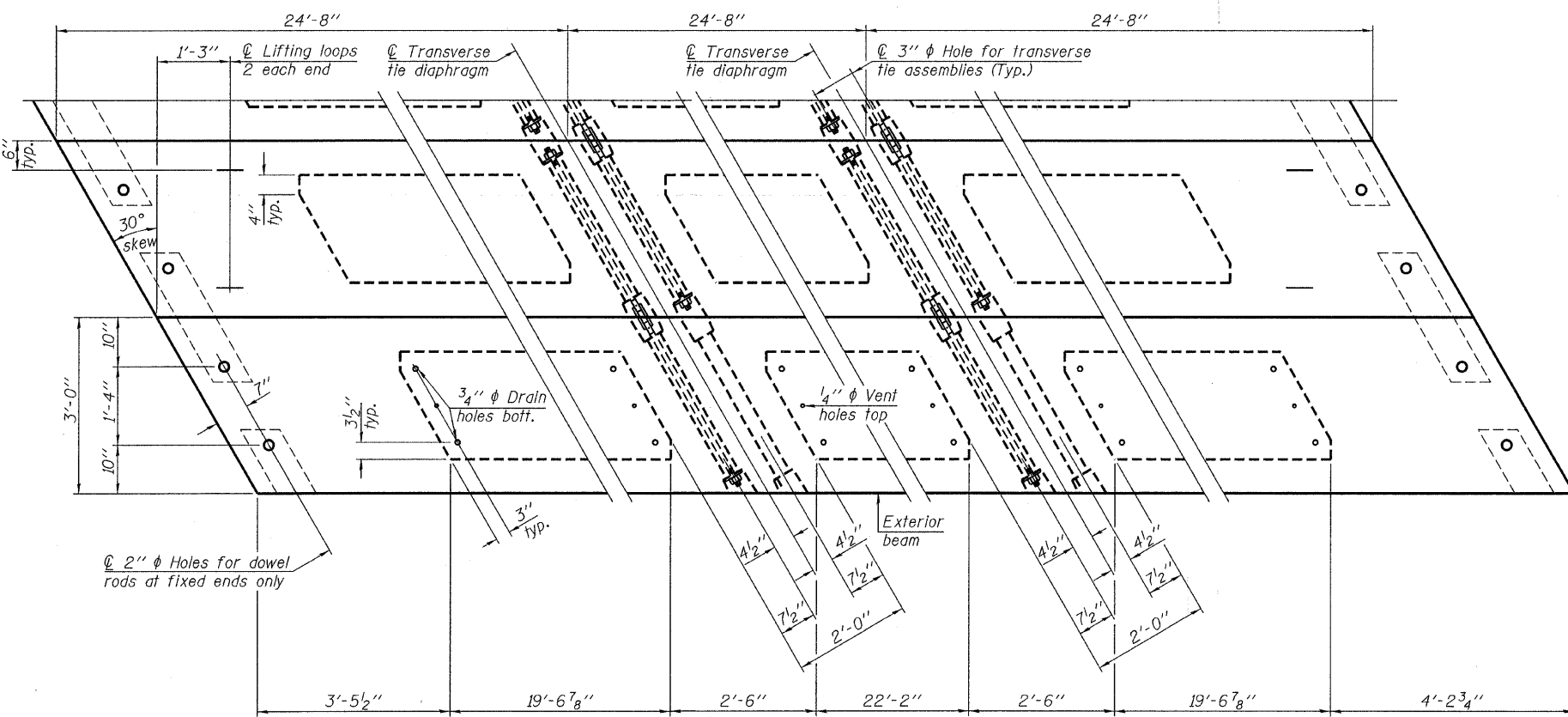
BAR S₄(E)

BAR U₁(E)



LIFTING LOOP DETAIL

BAR U₁(E)



PLAN VIEW

BILL OF MATERIAL

Precast Prestressed Conc. Deck Bms. (33" depth)	Sq. Ft.	2,220
---	---------	-------

SUPERSTRUCTURE DETAILS
33" x 36" PPC DECK BEAM DETAILS
STRUCTURE NO. 045-6302

Note: Connect beams in pairs with the transverse tie configuration shown.

NOTES

Prestressing steel shall be uncoated high strength, low relaxation 7-wire strand, Grade 270. The nominal diameter shall be 1/2" and the nominal cross-sectional area shall be 0.153 sq. in. The 1" rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets on exterior faces of bridge shall be filled with grout after transverse tie assembly is in place.
Reinforcement bars shall conform to ASTM A 706, Grade 60. (See Special Provisions). Two 1/8" fabric adjusting shims of the dimensions of the exterior bearing pad shall be provided for each bearing pad location.
A minimum 2 1/2" diameter lifting pin shall be used to engage the lifting loops during handling. Corrosion Inhibitor, per Article 1020.05(b)(12) and 1021.06 of the Standard Specifications, shall be used in the concrete for precast prestressed concrete deck beams.
Compressive strength of prestressed concrete, f'c, shall be 6000 psi.
Compressive strength of prestressed concrete at release, f'ci, shall be 5000 psi.

DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

PD-3336-RD

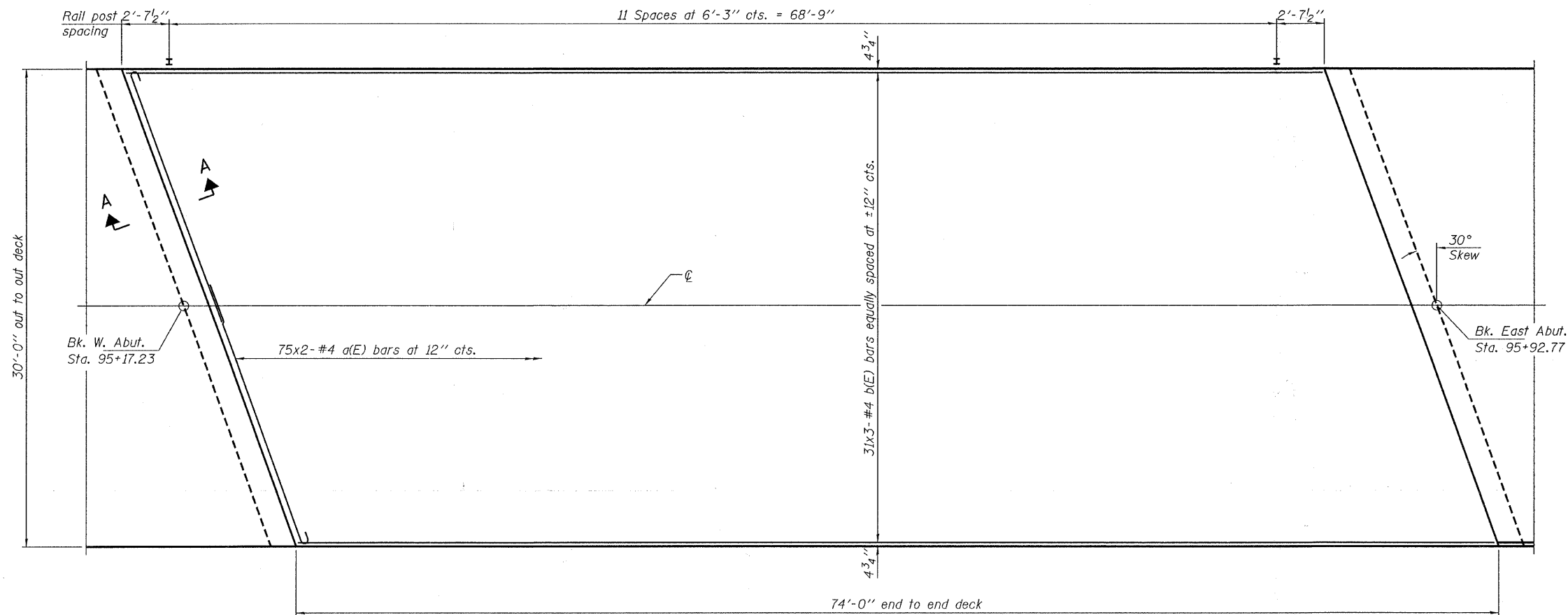
11-1-09

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

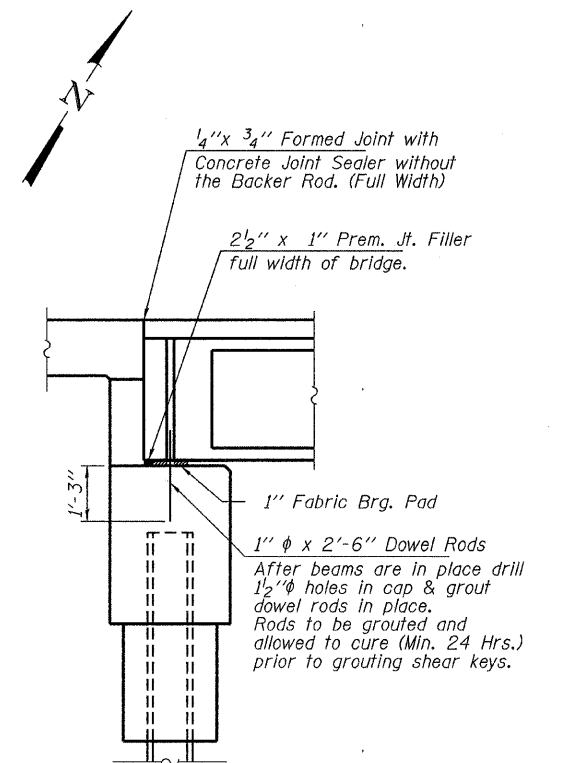
HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	23
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

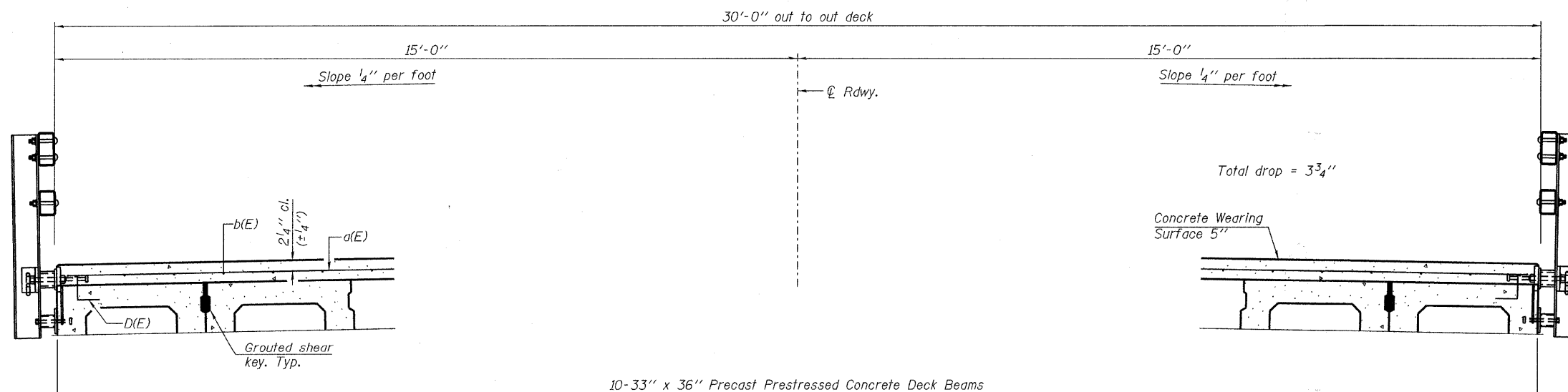


PLAN



SECTION A-A
(Dimensions are at Rt. L's)

Notes:
All concrete wearing surfaces shall be placed prior to casting a backwall and/or approach slab. See sheet 22 for fabric bearing pad details. Place strands symmetrically about ϕ of beam. The R.C. Wearing Surface area covers the PPC deck beams only.



CROSS SECTION
(Looking East)

MIN. BAR LAP
#4 bar = 2'-7"

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	75	#4	34'-9"	—
b(E)	93	#4	26'-3"	—
Bridge Deck Grooving			Sq. Yd.	230
Protective Coat			Sq. Yd.	257
Reinforcement Bars, Epoxy Coated			Pound	3,350
Bar Splicers			Each	62
Concrete Wearing Surface, 5"			Sq. Yd.	247

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 045-6302

DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

PDS-S-R34-R

11-1-09

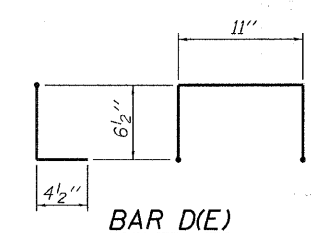
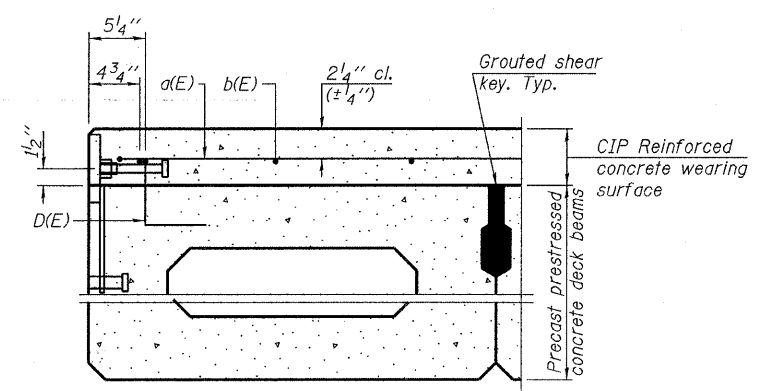
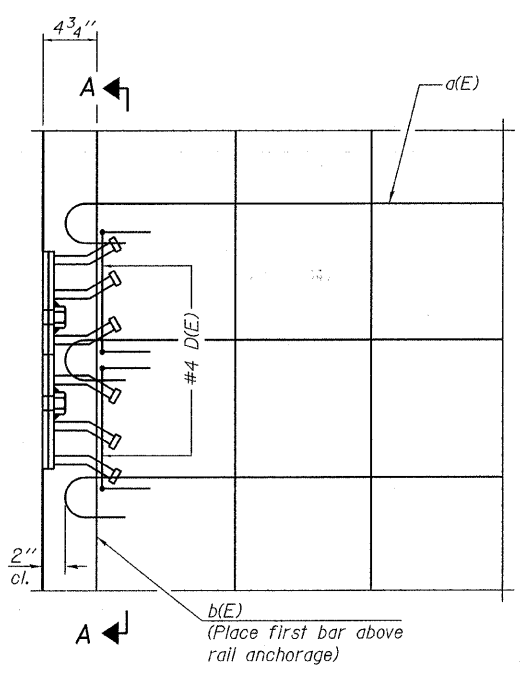
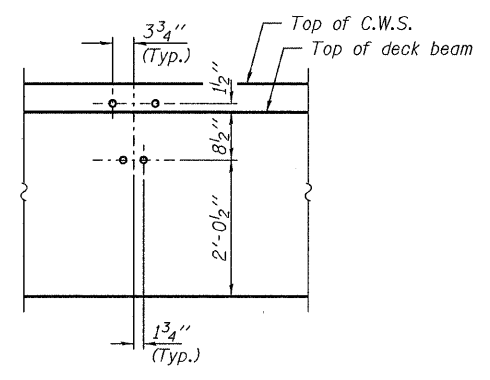
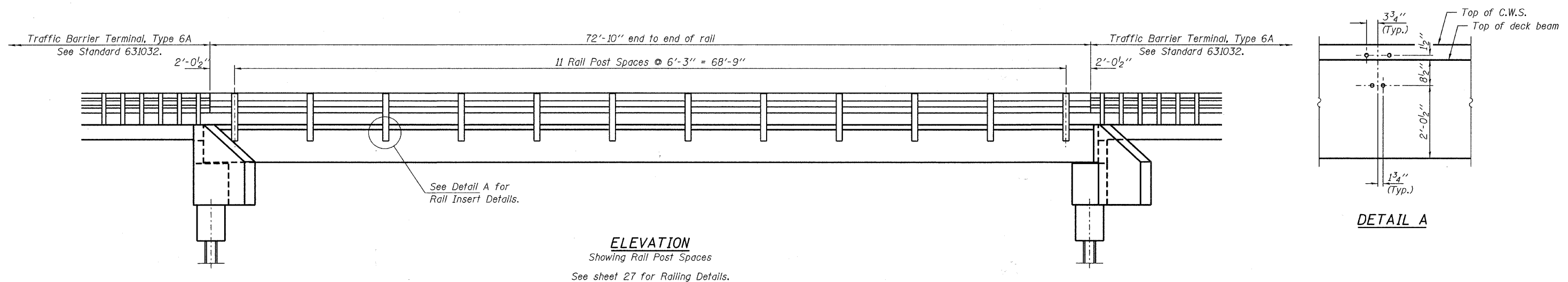
Notes:
See sheet 21, 22 & 24 for Superstructure Details and Bill of Material.
Bars indicated thus 31x3-#4 etc. indicates 31 lines of bars with 3 lengths per line.
Spacing of a(E) bars shall be measured along the ϕ of structure.

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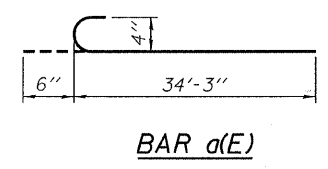
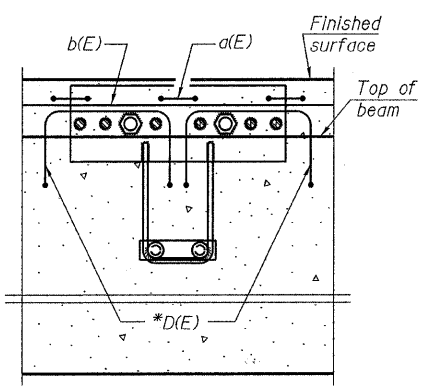
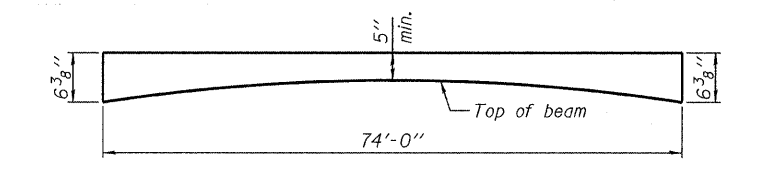
HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	24
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



* Place 2-#4 D(E) bars in beam at each post location as shown. D(E) bar included in cost of beam.



Notes:
Formwork necessary for the wearing surface may be secured utilizing the bottom rail anchorage inserts and/or additional inserts cast into the beam.

DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

PDS-S-R34-D 11-1-09

MINIMUM BAR LAP
#4 bar = 2'-0"

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LAND SURVEYORS

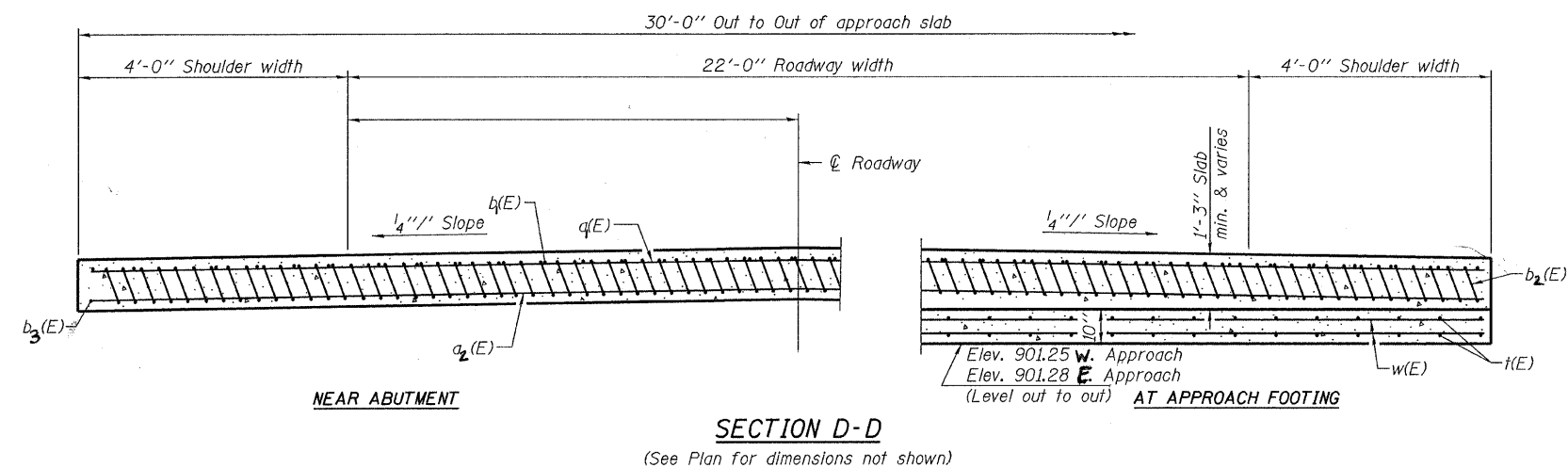
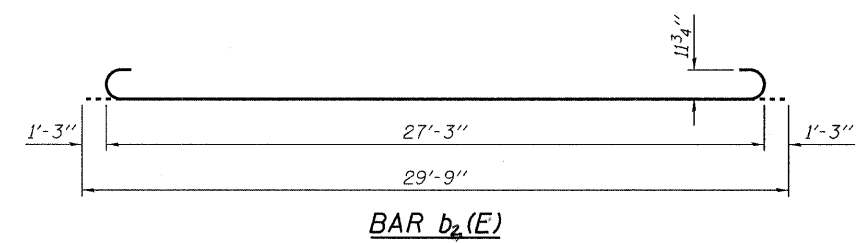
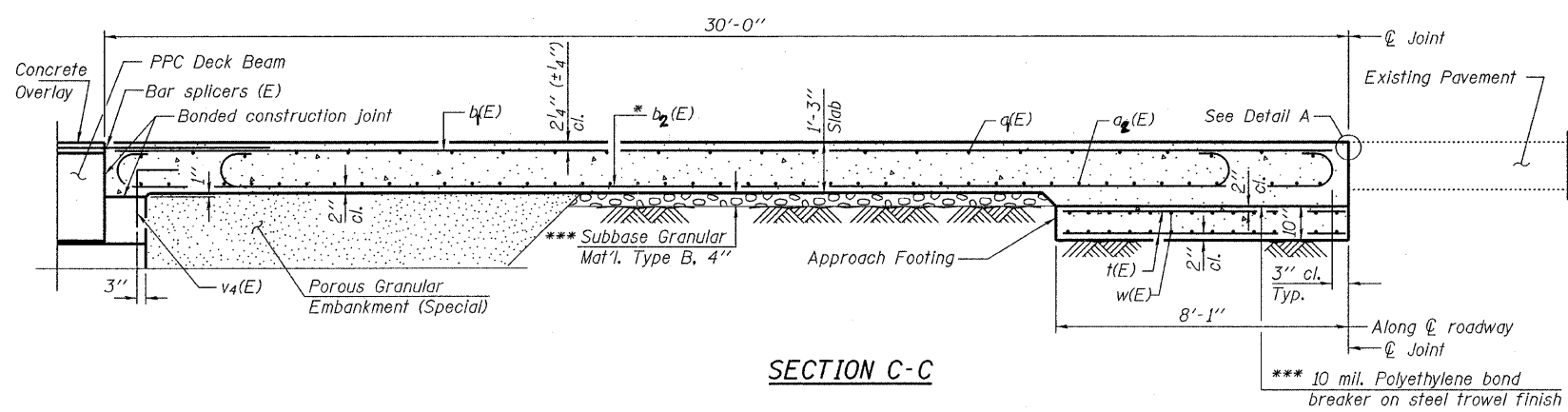
HLR 3085 STEVENSON DRIVE, SUITE 201
SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

SUPERSTRUCTURE DETAILS
STRUCTURE NO. 045-6302

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	25
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Notes:
 See sheet 25 for Detail A.
 Approach slab concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For $v_4(E)$ bar details, see sheet 28.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 For bar splicer details, see sheet 29.
 Cost of excavation for approach footing included with Concrete Structures.
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 20.



* Tilt #9 $b_2(E)$ bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.

**TWO APPROACHES
 BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$a_1(E)$	50	#4	34'-3"	—
$a_2(E)$	92	#5	34'-3"	—
$b_1(E)$	62	#4	29'-8"	—
$b_2(E)$	146	#9	29'-9"	—
$b_3(E)$	4	#4	14'-8"	—
$f(E)$	124	#4	7'-9"	—
$w(E)$	60	#5	34'-3"	—
Concrete Superstructure			Cu. Yd.	86.1
Concrete Structures			Cu. Yd.	15.0
Reinforcement Bars, Epoxy Coated			Pound	23,250
Bridge Deck Grooving			Sq. Yd.	187
Protective Coat			Sq. Yd.	200

DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

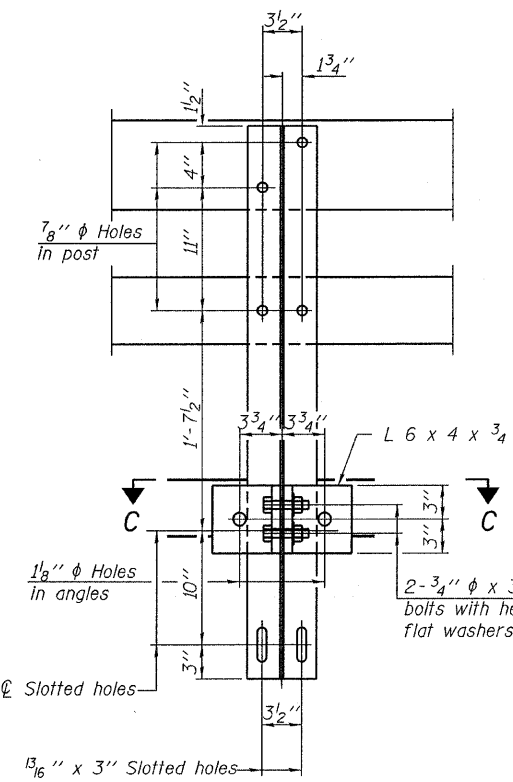
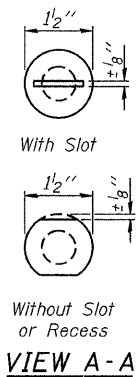
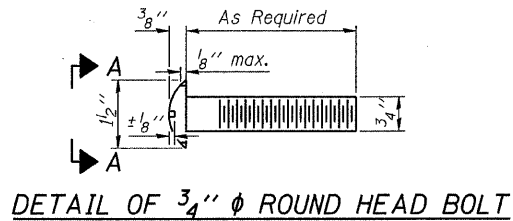
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 (217) 546-3400

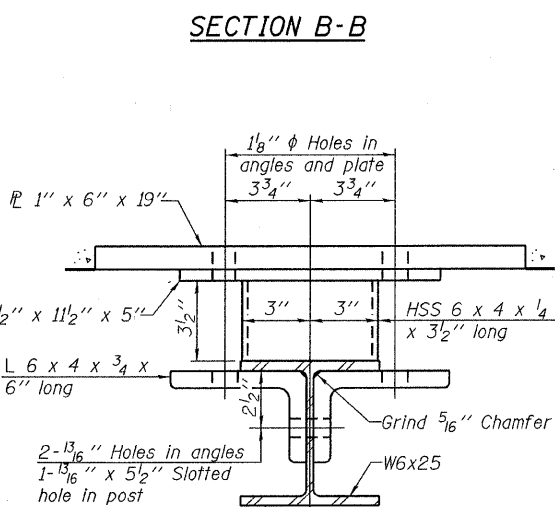
PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	27
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

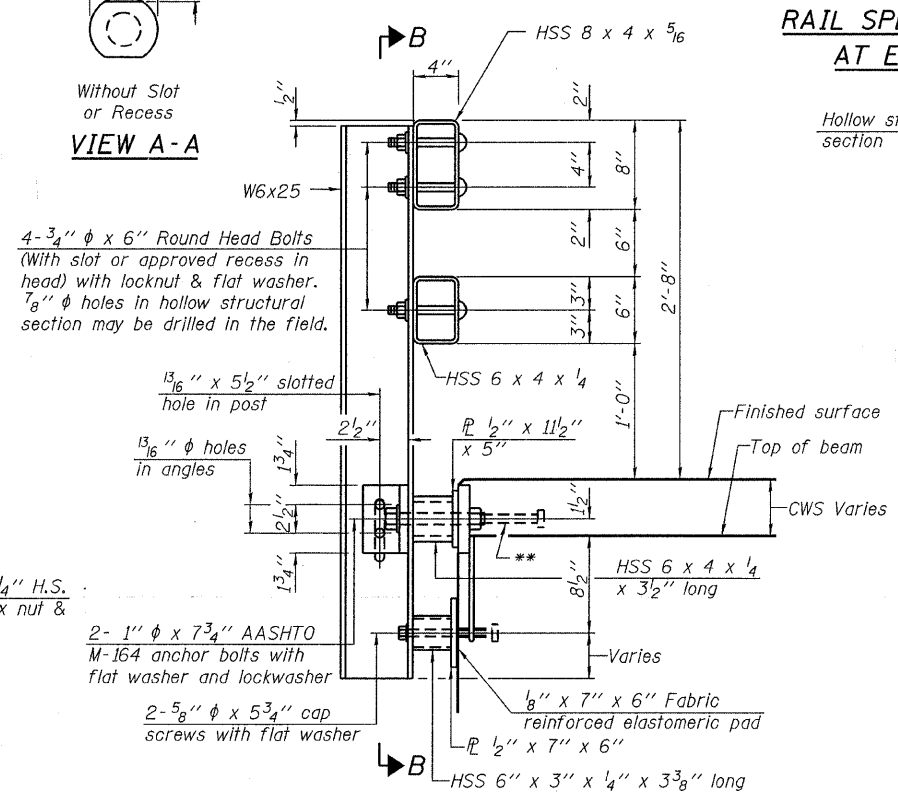
(Sheet 2 of 2)
**BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 045-6302**



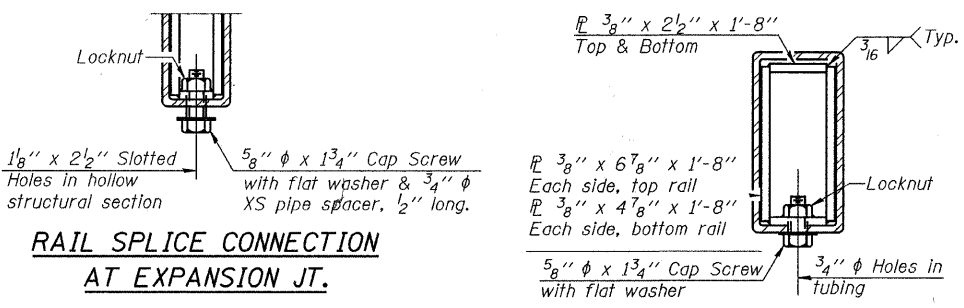
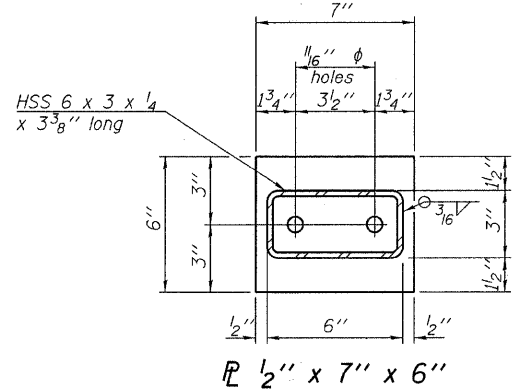
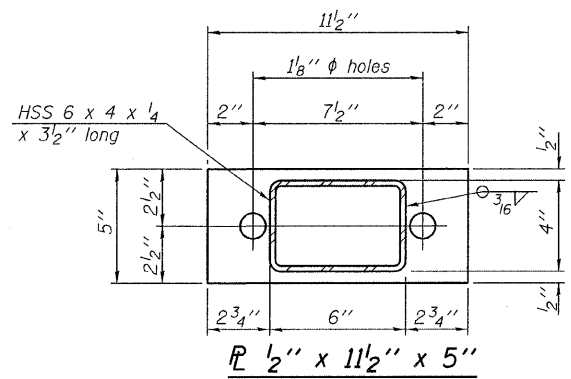
SECTION B-B



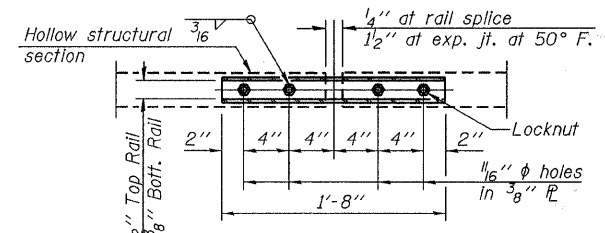
SECTION C-C



SECTION AT RAIL POST

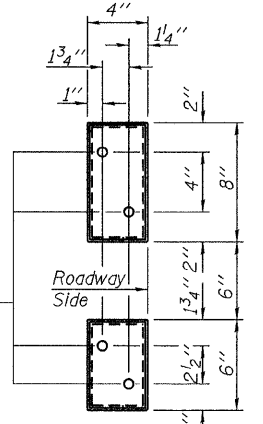


RAIL SPLICE CONNECTION AT EXPANSION JT.

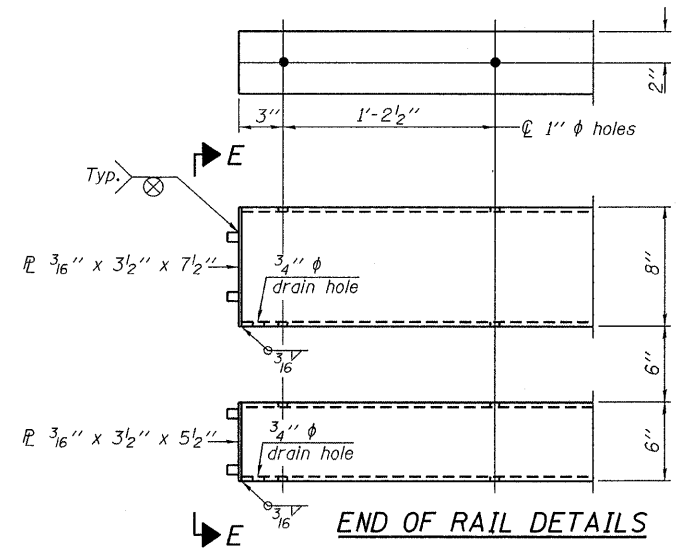


PLAN-BOTT. SPLICE P TYPICAL

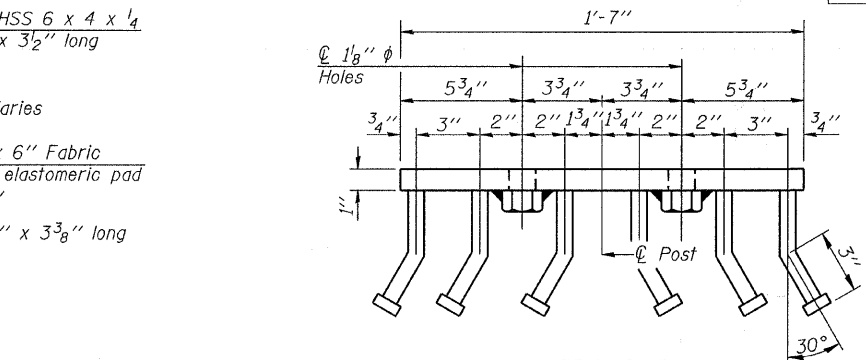
SECTION AT RAIL SPLICE



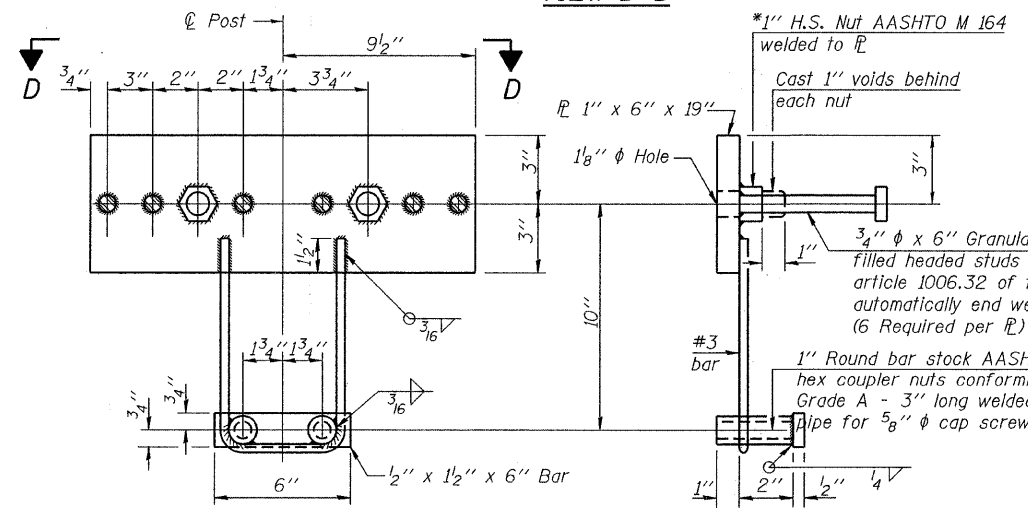
VIEW E-E



END OF RAIL DETAILS



VIEW D-D



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 SM.
 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.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	146

STEEL RAILING, TYPE SM WITH CONCRETE WEARING SURFACE STRUCTURE NO. 045-6302

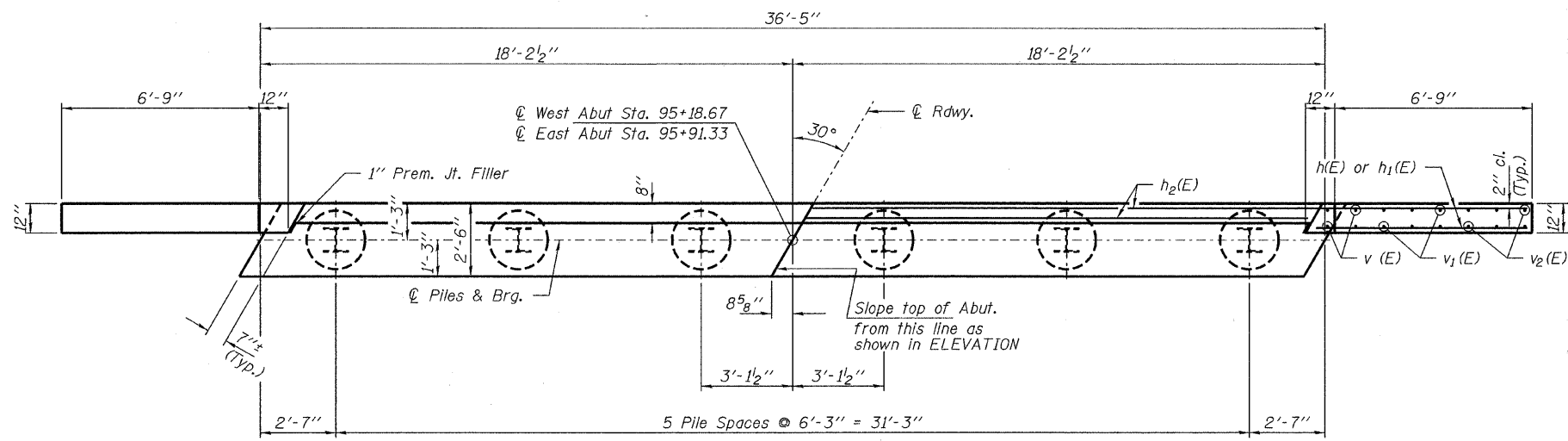
DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

R-34CWS

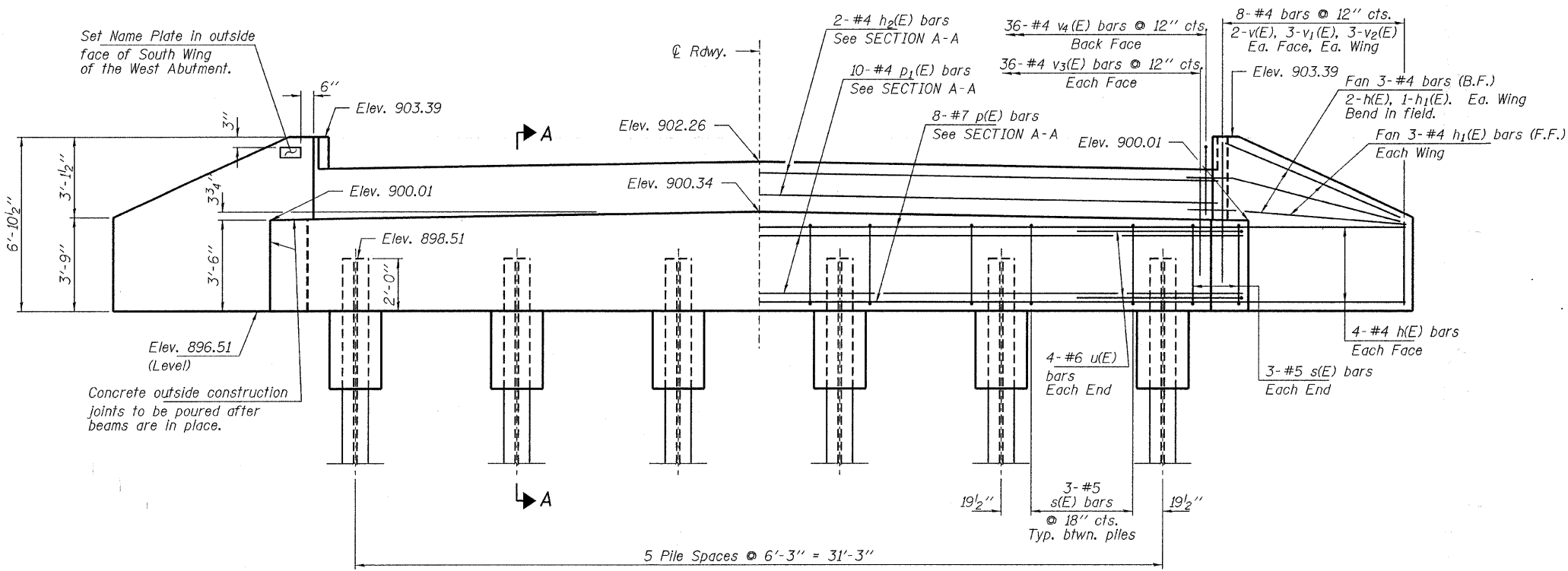
11-1-09 (6'-3" Maximum Post Spacing) (5" minimum to 7/8" maximum CWS thickness)

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 LAND SURVEYORS
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

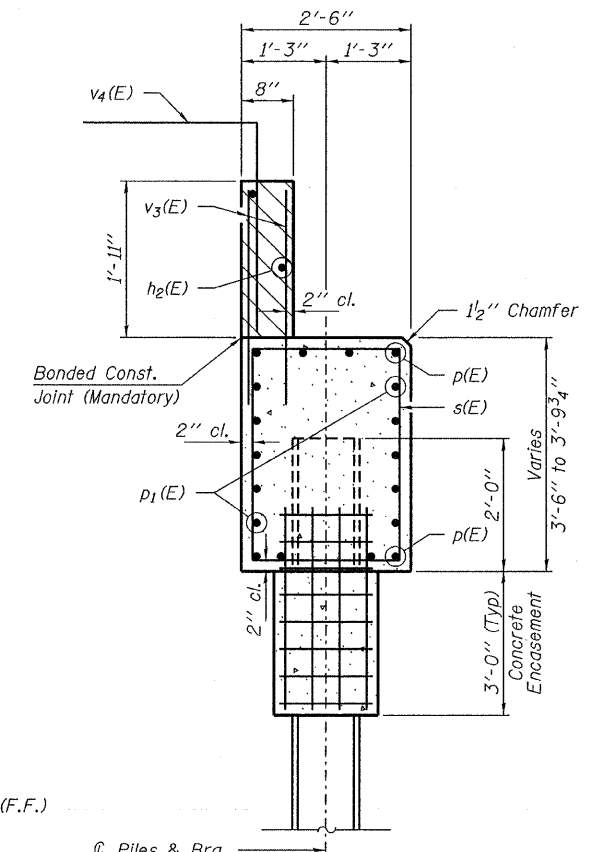
FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	28
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



PLAN



ELEVATION



SECTION A-A

Hatched area to be poured after beams are in place.

BILL OF MATERIAL - 2 ABUTS.

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	40	#4	9'-0"	—
h1(E)	16	#4	7'-6"	—
h2(E)	4	#4	34'-6"	—
p(E)	16	#7	36'-1"	—
p1(E)	20	#4	36'-1"	—
s(E)	42	#5	11'-7"	□
u(E)	16	#6	12'-5"	▭
v(E)	16	#4	6'-4"	—
v1(E)	24	#4	4'-9"	—
v2(E)	24	#4	3'-5"	—
v3(E)	144	#4	2'-9"	—
v4(E)	72	#4	4'-11"	└
Concrete Structures			Cu. Yd.	34.0
Concrete Encasement			Cu. Yd.	4.0
Reinforcement Bars, Epoxy Coated			Pound	3,580
Steel Piles HP12x53			Foot	605
Test Pile Steel HP12x53			Each	1
Name Plates			Each	1

All reinforcement bars shall be epoxy coated.

PILE DATA

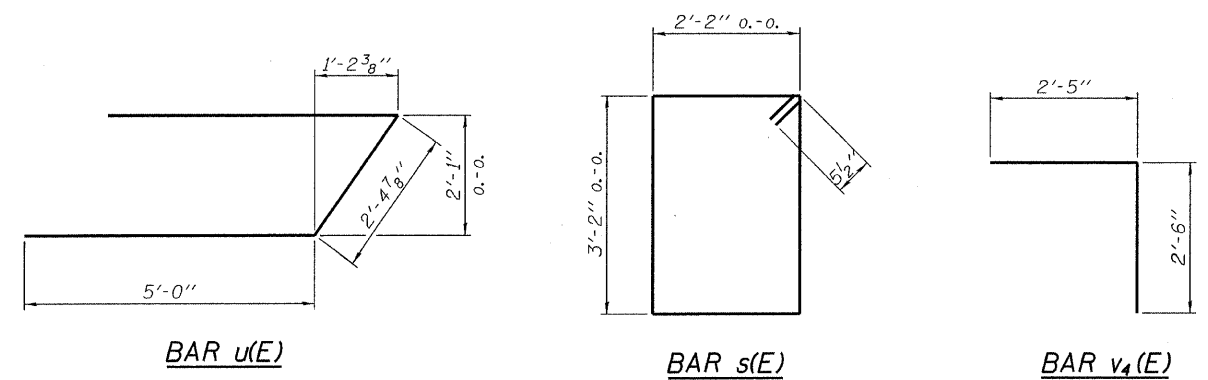
Type: Steel HP12x53
 No. Req'd. (2 Abutments): 12
 Factored Resistance Available: 194 Kips/Pile
 Nominal Req'd Bearing: 388 Kips/Pile
 Est. Length: 55 Ft/Pile

Notes: *Includes one test pile to be driven in permanent location at the West Abutment.

The Steel H-Piles shall be according to AASHTO M270 Grade 50.

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

DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.



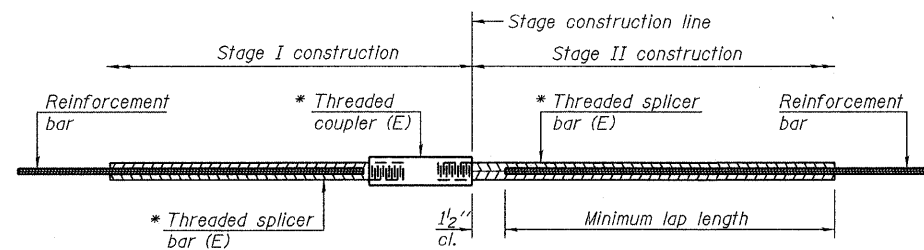
HAMPTON, LENZINI & RENWICK, INC.
 CIVIL & STRUCTURAL ENGINEERS
 LAND SURVEYORS

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

PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	29
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

ABUTMENTS
 STRUCTURE NO. 045-6302



STANDARD BAR SPLICER ASSEMBLY

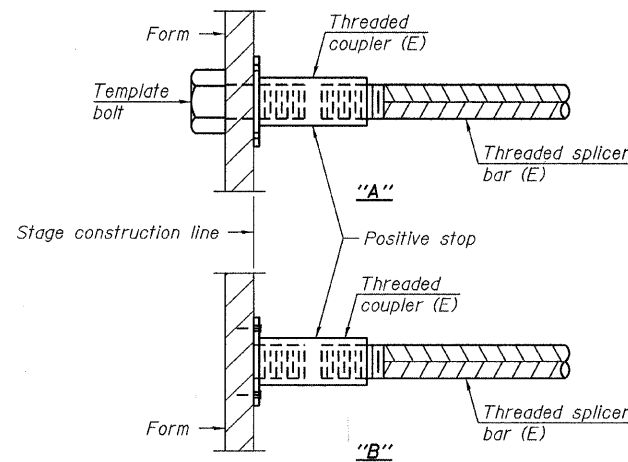
Minimum Lap Lengths				
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

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

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

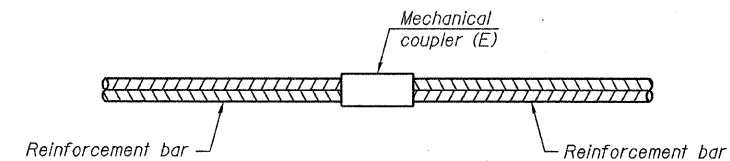
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



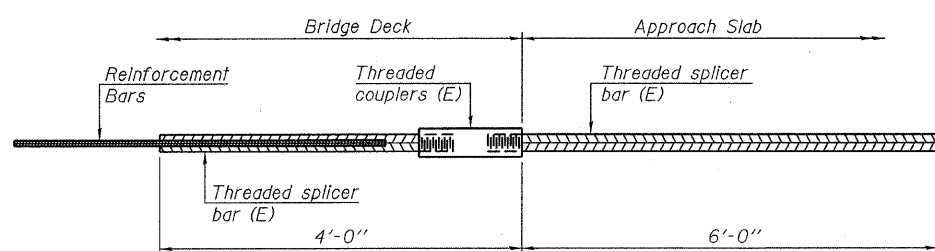
INSTALLATION AND SETTING METHODS

"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.



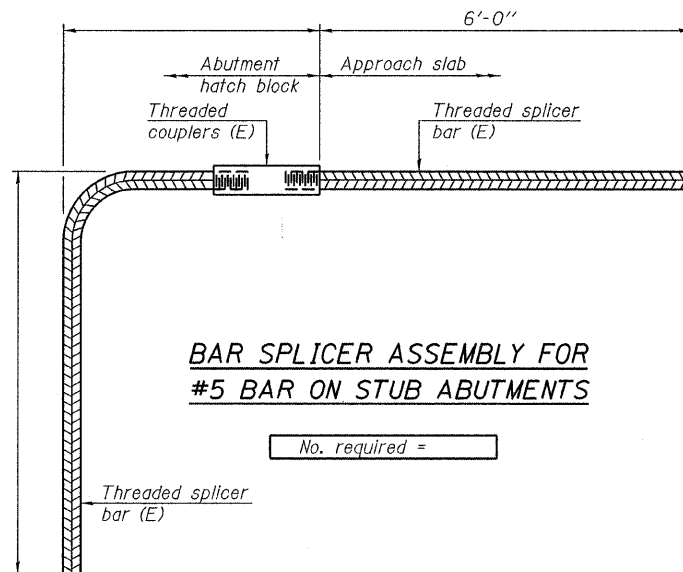
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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

No. required = 62



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.

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 STRUCTURE NO. 045-6302**

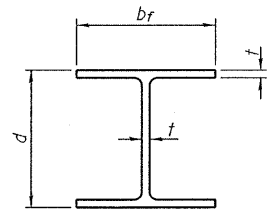
DESIGNED - S.W.M.
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DRAWN - D.A.B.
CHECKED - S.W.M.

BSD-1 11-1-09

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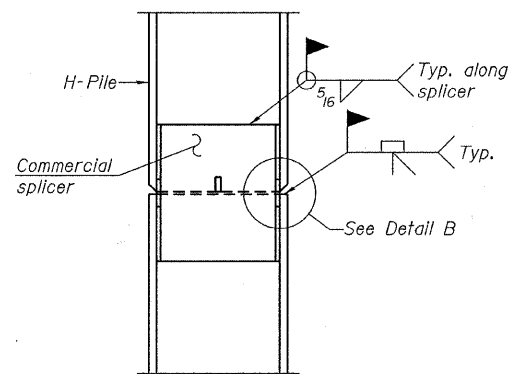
 3085 STEVENSON DRIVE, SUITE 201
 SPRINGFIELD, ILLINOIS 62703
 (217) 546-3400
 PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	30
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

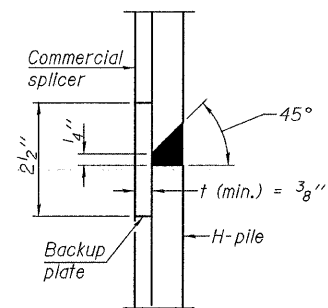


STEEL PILE TABLE

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

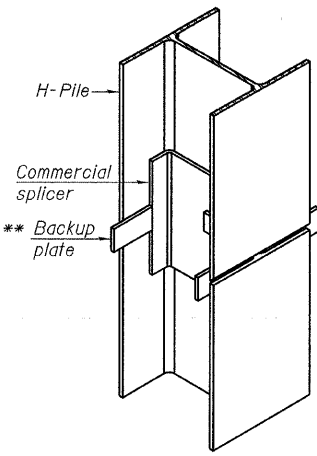


ELEVATION

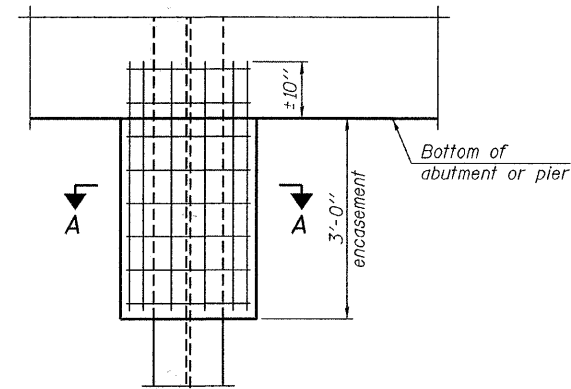


DETAIL "B"

WELDED COMMERCIAL SPLICE

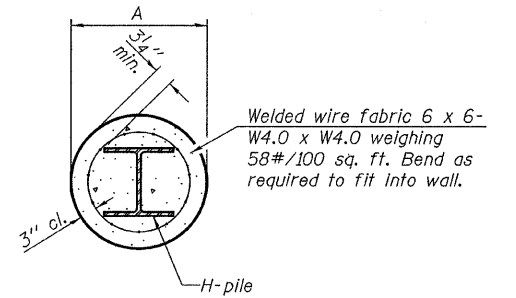


ISOMETRIC VIEW



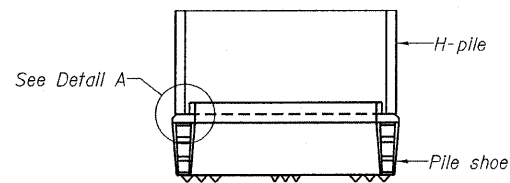
ELEVATION

PILE ENCASEMENT

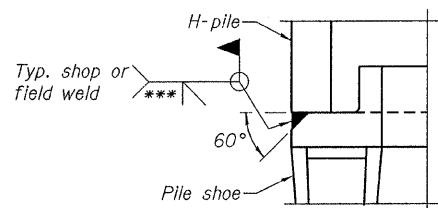


SECTION A-A

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

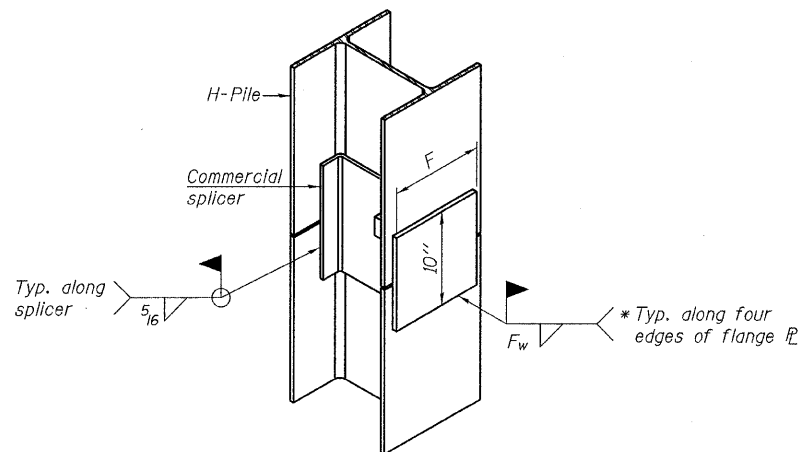


ELEVATION



DETAIL A

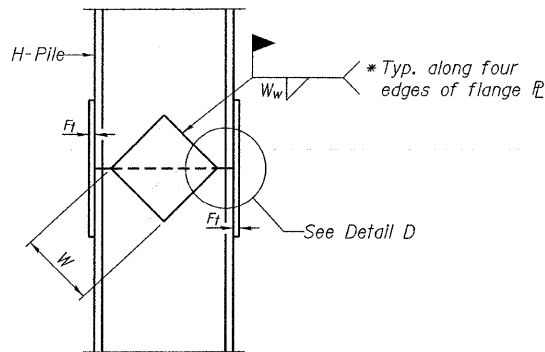
H-PILE SHOE ATTACHMENT



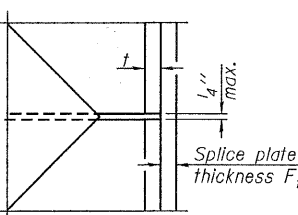
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds $\frac{1}{4}$ " from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer ($\frac{5}{16}$ " min.).

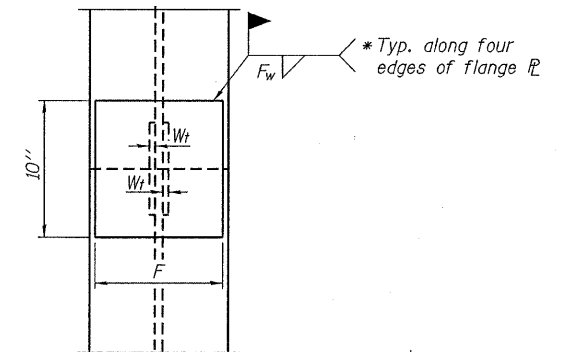


ELEVATION



DETAIL D

WELDED PLATE FIELD SPLICE



END VIEW

Designation	F	F _t	F _w	W	W _t	W _w
HP 14x117	12 $\frac{1}{2}$ "	1"	$\frac{7}{8}$ "	7 $\frac{3}{4}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "
x102	12 $\frac{1}{2}$ "	$\frac{7}{8}$ "	$\frac{3}{4}$ "	7 $\frac{3}{4}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "
x89	12 $\frac{1}{2}$ "	$\frac{3}{4}$ "	$\frac{11}{16}$ "	7 $\frac{3}{4}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "
x73	12 $\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{9}{16}$ "	7 $\frac{3}{4}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "
HP 12x84	10"	$\frac{7}{8}$ "	$\frac{11}{16}$ "	6 $\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "
x74	10"	$\frac{7}{8}$ "	$\frac{11}{16}$ "	6 $\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{1}{2}$ "
x63	10"	$\frac{5}{8}$ "	$\frac{1}{2}$ "	6 $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{3}{8}$ "
x53	10"	$\frac{5}{8}$ "	$\frac{1}{2}$ "	6 $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{3}{8}$ "
HP 10x57	8"	$\frac{3}{4}$ "	$\frac{9}{16}$ "	5 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{3}{8}$ "
x42	8"	$\frac{5}{8}$ "	$\frac{9}{16}$ "	5 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{3}{8}$ "
HP 8x36	7"	$\frac{5}{8}$ "	$\frac{7}{16}$ "	4 $\frac{1}{4}$ "	$\frac{1}{2}$ "	$\frac{3}{8}$ "

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

**HP PILE DETAILS
STRUCTURE NO. 045-6302**

DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

F-HP 11-1-09

HAMPTON, LENZINI & RENWICK, INC.
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SPRINGFIELD, ILLINOIS 62703
(217) 546-3400

PROJECT NUMBER: 08.0043.130 DATE: 01/07/10

FAS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
132	07-00358-00-BR	KANE	33	31
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO. 63444		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

