

ROUTE NO.	SECTION	COUNTY
F.A.S. 132	07-00358-00-BR	KANE
FED. ROAD DIST. NO.	ILLINOIS CONTRA	

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

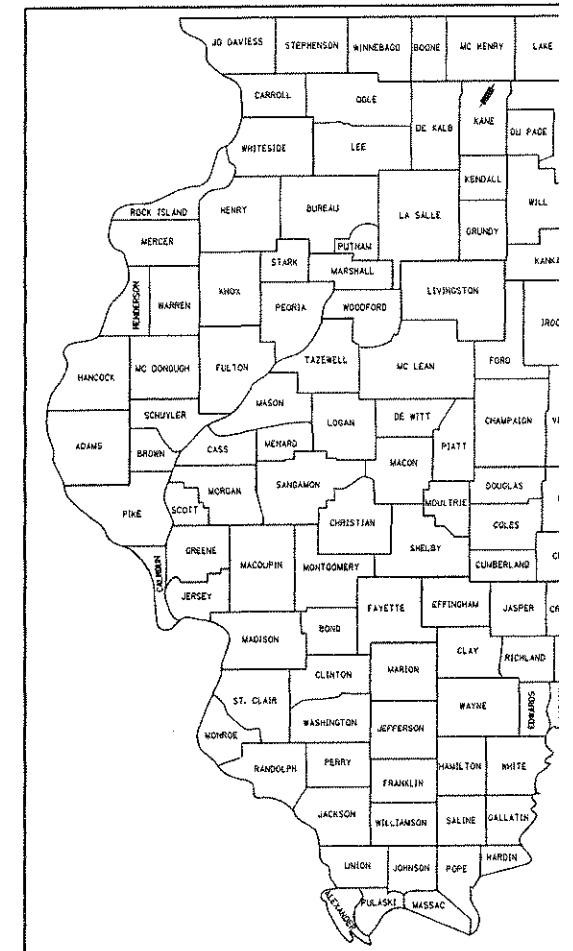
**PLANS FOR PROPOSED  
FEDERAL AID PROJECT  
HIGHWAY BRIDGE PROGRAM**

**F.A.S. 132 (DAMISCH ROAD / C.H.7 OVER TYLER CREEK)  
SECTION 07-00358-00-BR  
PROJECT BRM-8003(881)  
KANE COUNTY  
PROPOSED STRUCTURE NO. 045-6302  
C-91-046-08**

**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES & MIXTURE REQUIREMENTS
3.	SUMMARY OF QUANTITIES
4.	TYPICAL CROSS SECTIONS
5.	SCHEDULE OF QUANTITIES
6.	PLAN AND PROFILE
7.	EROSION CONTROL PLAN
8.	PAVEMENT MARKING PLAN
9.	MISCELLANEOUS DETAILS
10.-11.	DETOUR PLAN
12.-16.	STATION CROSS SECTIONS
17.-27.	BRIDGE PLANS
28.-29.	SOIL BORINGS

HIGHWAY STANDARDS:  
SEE SHEET 2



LOCATION OF SECTION INDICATED THUS: - [shaded box] -

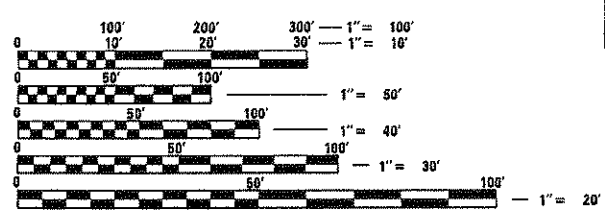
**UTILITIES**

**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 60120  
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

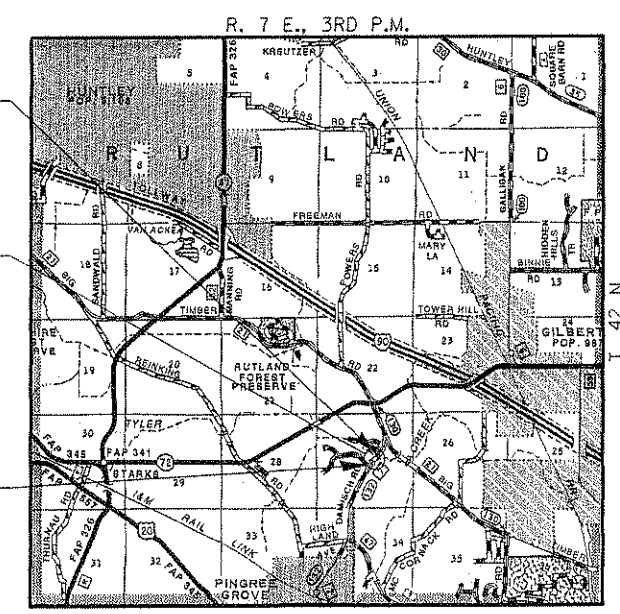


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

IMPROVEMENT ENDS  
STATION 96+80

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 BEGINS  
STATION 94+20



**LOCATION MAP**

APPROXIMATE SCALE: 1" = 1 MILE  
NET LENGTH OF SECTION = 260 FEET = 0.049 MILES



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

**KANE COUNTY DIVISION OF TRANSPORTATION**

APPROVED \_\_\_\_\_ 20\_\_\_\_  
COUNTY ENGINEER

PASSED \_\_\_\_\_ 20\_\_\_\_  
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

Releasing For Bid Based on Limited Review \_\_\_\_\_ 20\_\_\_\_  
DEPUTY DIRECTOR OF HIGHWAYS  
REGION ONE ENGINEER  
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT NO. \_\_\_\_\_

DATE: \_\_\_\_\_

**HAMPTON, LENZINI AND RENV**  
CIVIL ENGINEERS - STRUCTURAL ENGINEERS - U  
**HLR** 3085 STEVENSON DRIVE  
SPRINGFIELD, ILLINOIS 217.548.3400 www.hlrngi.com  
184.000599 ILLINOIS PROFESSIONAL DESIGN FIRM LS / PE / SI

EXPIRES: 11/30/2011 PROJECT NUMBER: 08 0043.130

**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. THE REMOVAL OF THE EXISTING OIL AND CHIP SURFACE WILL BE PAID FOR AS EARTH EXCAVATION. ALL BITUMINOUS MATERIAL SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR IN A METHOD APPROVED BY THE ENGINEER. PROPER DISPOSAL OF BITUMINOUS MATERIAL SHALL BE CONSIDERED INCLUDED IN THE COST OF PAVEMENT REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 3 THE LOCATIONS OF EXISTING GAS MAINS, ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- 4 WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- 5 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) = ??? 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.
AGGREGATE SURFACE COURSE	2.05 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 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 STREAMBANKS OR IN THE PATH OF THE STREAMFLOW.
- 16 DISTURBED AREAS SHALL RECEIVE PERMANENT STABILIZATION (IN CONFORMANCE WITH NOTE 24) 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.


**HIGHWAY STANDARDS**

- 000001-05 STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
- 280001-04 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-02 NAME PLATE FOR BRIDGES
- 630001-08 STEEL PLATE BEAM GUARDRAIL
- 631011-05 TRAFFIC BARRIER TERMINAL, TYPE 2
- 631032-04 TRAFFIC BARRIER TERMINAL, TYPE 6A
- 635006-03 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 635011-02 REFLECTOR MARKER AND MOUNTING DETAILS
- 701901 TRAFFIC CONTROL DEVICES
- BLR 21-7 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

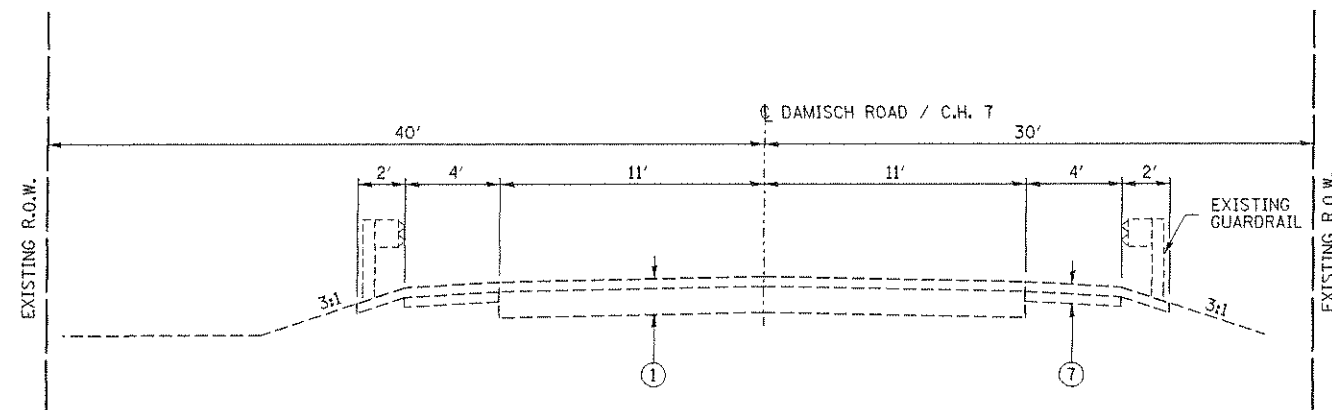
**MIXTURE REQUIREMENTS**

LOCATION	AC TYPE	AIR VOIDS	MAX RAP %
HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70	PG 64-22	4% @ 70 GYR	10
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	PG 64-22 *	4% @ 70 GYR	15
HOT-MIX ASPHALT SHOULDERS, 4"	PG 64-22 *	4% @ 30 GYR	50
TEMPORARY RAMP	PG 64-22 *	4% @ 30 GYR	50
INCIDENTAL HOT-MIX ASPHALT SURFACING	PG 64-22	4% @ 70 GYR	10

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/ INCH  
 \* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE 58-22

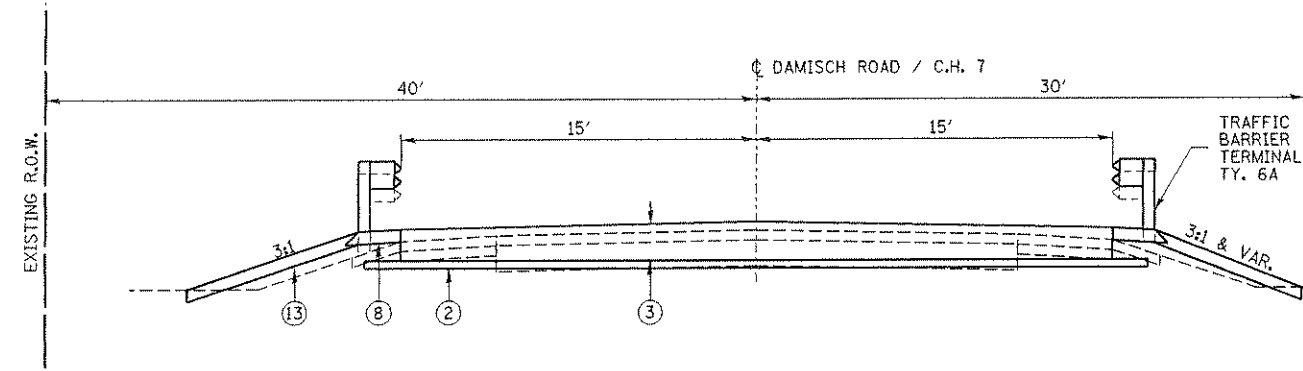
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		DRAWN - T.W.K.	REVISED -						132	07-00358-00-BR	KANE
	PLOT SCALE =	CHECKED -	REVISED -						FED. ROAD DIST. NO.   ILLINOIS FED. AID PROJECT		
	PLOT DATE = 12/9/2009	DATE - 12/02/09	REVISED -						SCALE:	SHEET NO. OF SHEETS	STA. TO STA.





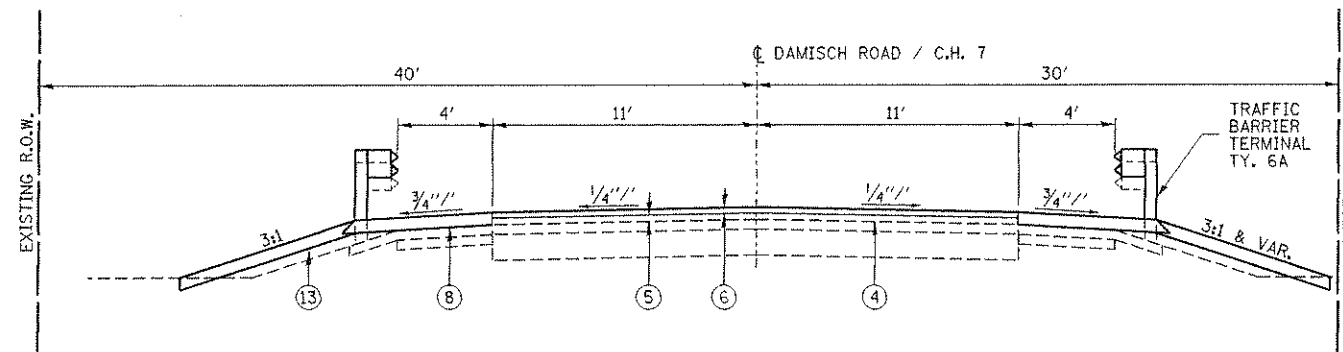
**EXISTING TYPICAL SECTION**

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



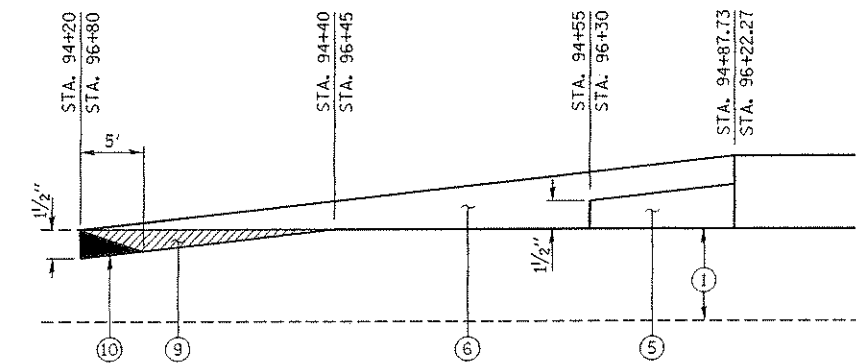
**PROPOSED TYPICAL SECTION**

STA. 94+87.73 TO STA. 95+17.73  
STA. 95+92.27 TO STA. 96+22.27



**PROPOSED TYPICAL SECTION**

STA. 94+20.00 TO STA. 94+87.73  
STA. 96+22.27 TO STA. 96+80.00



**TRANSITION DETAIL - BUTT JOINT**

**LEGEND**

- ① EXIST HMA/AGG PVT
- ② SUB-BASE GRANULAR MATERIAL, TYPE A 4"
- ③ BRIDGE APPROACH PAVEMENT
- ④ BITUMINOUS MATERIALS (PRIME COAT)
- ⑤ HOT-MIX ASPHALT BINDER COURSE - 1L19 N70 (1 1/2" MIN.)
- ⑥ HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N70 1 1/2"
- ⑦ EXIST HMA/AGG SHOULDERS
- ⑧ HOT-MIX ASPHALT SHOULDERS, 4"
- ⑨ HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT
- ⑩ TEMPORARY RAMP
- ⑪ PAVEMENT REMOVAL
- ⑫ AGGREGATE SURFACE COURSE, TYPE B
- ⑬ TOPSOIL FURNISH AND PLACE, 4"
- ⑭ TRAFFIC BARRIER TERMINAL, TYPE 6A & 6A (SPECIAL)

FILE NAME = 080043-shr-typicals.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	<b>STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION</b>	<b>HLR</b>	<b>TYPICAL SECTIONS DAMISCH ROAD / C.H. 7</b>		F.A.S.	SECTION	COUNTY
		DRAWN - T.W.K.	REVISED -			132	07-00358-00-BR	KANE		
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -			SCALE: SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
	PLOT DATE = 12/9/2009	DATE - 12/02/09	REVISED -							

ROADWAY SCHEDULE									
LOCATION	HOT-MIX ASPHALT SURFACE COURSE MIX "C",N70 1 1/2"	HOT-MIX ASPHALT BINDER COURSE IL 19.0,N70	BITUMINOUS MATERIAL PRIME COAT	HOT-MIX ASPHALT SHOULDERS 4"	AGGREGATE SHOULDERS TYPE B 4"	HOT-MIX ASPHALT SURFACE REMOVAL BUTT-JOINT	INCIDENTAL HOT-MIX ASPHALT SURFACE	TEMPORARY RAMP	PAVEMENT REMOVAL
	40603315	40603085	40600100	48203013	48101200	40200800	40800050	40600990	44000100
	TON	TON	GAL	SQ YD	TON	SQ YD	TON	SQ YD	SQ YD
CH 7 DAMISCH RD									
STA 94+20 TO STA 95+17.73	15	10	17	60	8	62		63	85
STA 95+92.27 TO STA 96+80	12	2	14	52	9	109		53	85
ENTRANCE RT 94+68						13	7	7	
BRIDGE									
STA 95+17.73 TO STA 95+92.27									
TOTAL	27	12	31	112	17	184	7	123	170

EROSION CONTROL						
LOCATION	SEEDING, CLASS 2A (SPECIAL)	TEMPORARY EROSION CONTROL SEEDING	TOPSOIL FURNISH AND PLACE, 4"	MULCH METHOD 2	EROSION CONTROL BLANKET	PER ERI BA
	25001020	28000250	21101615	25100115	25100630	280
	ACRE	POUND *	SQ YD	ACRE	SQ YD	F
CH 7 DAMISCH RD						
LT. STA. 94+00 TO LT. STA 95+08	0.02	3	83	0.02	83	
RT. STA. 94+20 TO RT. STA 95+26	0.01	3	51	0.01	51	
LT. STA. 95+84 TO LT. STA 96+80	0.02	4	101	0.02	101	
RT. STA. 96+01 TO RT. STA 96+80	0.01	2	42	0.01	42	
TOTAL	0.06	12	277	0.06	277	

\* 2 APPL @ 100LBS/ACRE

GUARDRAIL TABULATION						
LOCATION	TRAFFIC BARRIER TERMINAL TYPE 6A	TRAFFIC BARRIER TERMINAL TYPE 1 (SPECIAL) TANGENT	STEEL PLATE BEAM GUARD RAIL, TYPE A, 9 FOOT POSTS (SPECIAL)	TRAFFIC BARRIER TERMINAL TYPE 6A (SPECIAL)	GUARDRAIL MARKERS	GUARDRAIL REMOVAL
	63100087	63100167		XX005496	78200405	63200310
	EACH	EACH	FOOT	EACH	EACH	FOOT
CH 7 DAMISCH RD						
LT. STA. 94+02 TO LT. STA 95+05	1	1	12.5			102
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 TO LT. STA 96+52.51					4	
RT. STA. 94+86.00 TO RT. STA 96+69.83					3	
TOTAL	3	1	62.5	1	7	279

PAVEMENT MARKING SCHEDULE			
LOCATION	EPOXY PAVEMENT MARKING PERMANENT		PAVE MARY REM
	4" SINGLE WHITE EDGE LINE	4" SOLID YELLOW CENTERLINE	
	FOOT	FOOT	
CH 7 DAMISCH RD			
LT. STA 94+20 TO LT. STA 96+80	260		8
LCL. STA 94+20 TO LCL. STA 96+80		260	8
RCL. STA 94+20 TO RCL. STA 96+80		260	8
RT. STA 94+20 TO RT. STA 96+80	260		8
SUBTOTAL	520	520	34
TOTAL	1040		34

EARTHWORK SCHEDULE							
LOCATION	EARTH EXCAVATION	CHANNEL EXCAVATION	SHRINKAGE FACTOR	PERCENT USED	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE	EMBANKMENT REQUIRED	EARTHWORK BALANCE
	20200100 CU.YD.	20300100 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	2		25.00%	100.00%	2	27	-25
ENTRANCES			25.00%	100.00%	0		0
CHANNEL EXCAVATION			25.00%	70.00%	0		0
TOTAL	3	0			3	60	-57
TOTAL USE	3						-57

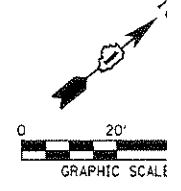
CULVERT SCHEDULE		
LOCATION	PIPE CULVERTS, TYPE 1, CORRUGATED STEEL OR ALUMINUM CULVERT PIPE 12"	STEEL END SECTIONS 12"
	54200637	54213667
	FOOT	EACH
CH 7 DAMISCH RD		
ENTRANCE RT 94+68	5	1
TOTAL	5	1

20400800 FURNISHED EXCAVATION = 57 CU YDS

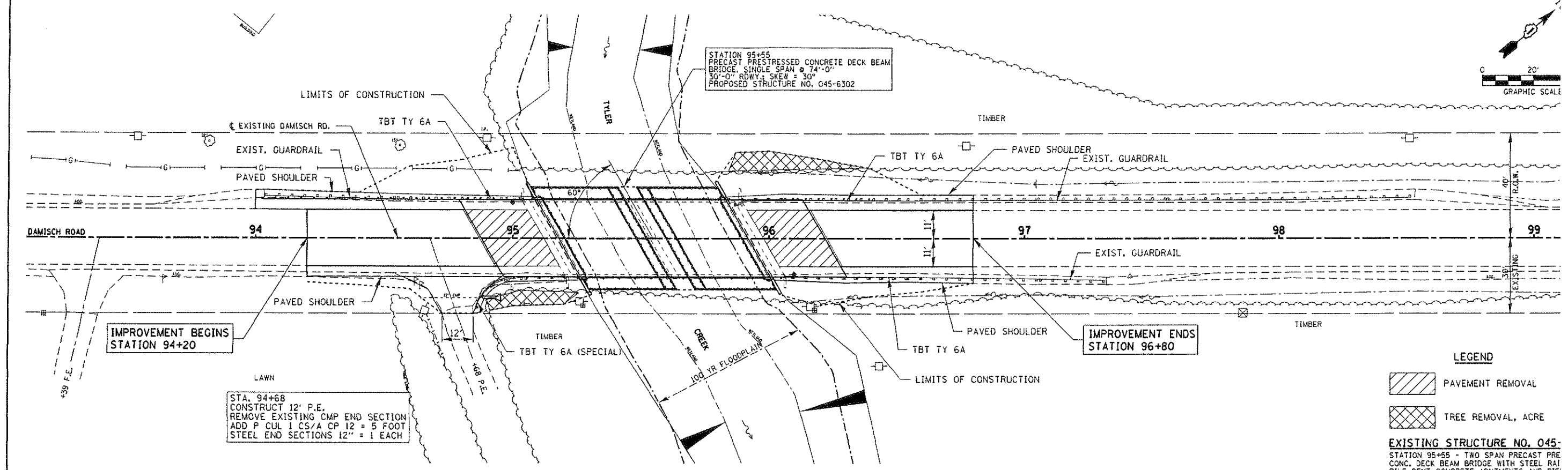
TREE REMOVAL	
LOCATION	TREE REMOVAL 20100500 ACRES
CH 7 DAMISCH RD	
RT. STA 94+90 TO RT. STA 95+28	0.004
LT. STA 95+84 TO LT. STA 96+40	0.006
TOTAL	0.01

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

28000305 TEMPORARY DITCH CHEC	
LOCATION	F
CH 7 DAMISCH RD	
RT STA 94+90	
LT STA 95+97	
RT STA 96+20	
TOTAL	



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



IMPROVEMENT BEGINS  
 STATION 94+20

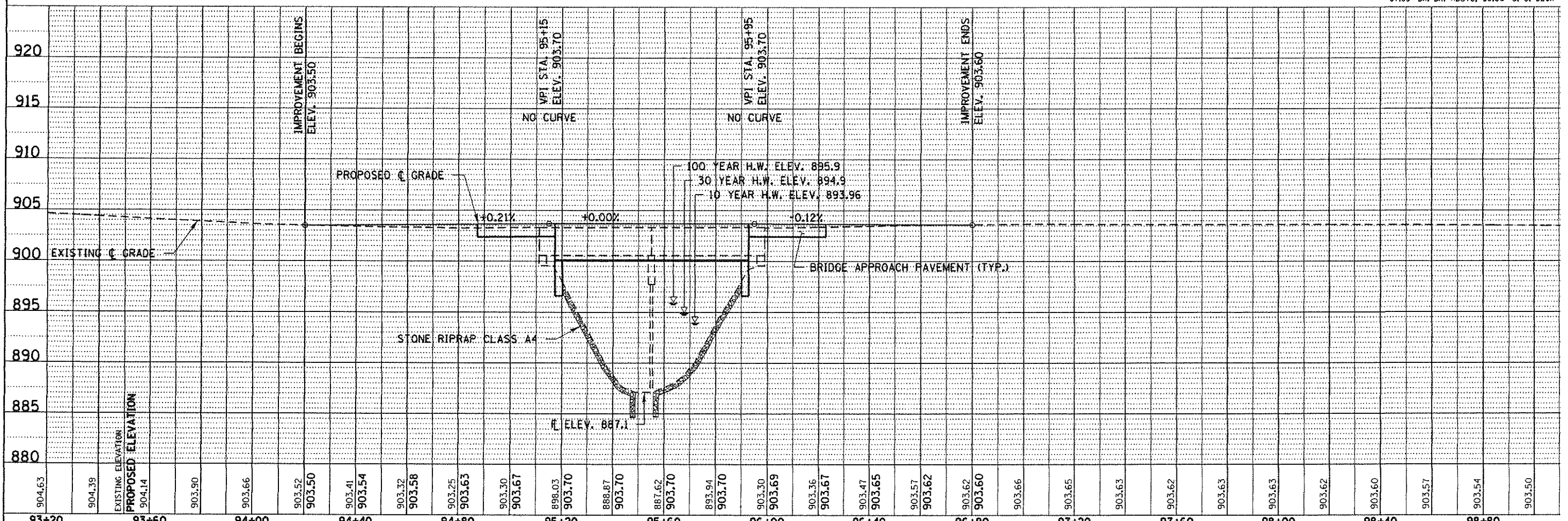
IMPROVEMENT ENDS  
 STATION 96+80

STA. 94+68  
 CONSTRUCT 12' P.E.  
 REMOVE EXISTING CMP END SECTION  
 ADD P CUL 1 CS/A CP 12 = 5 FOOT  
 STEEL END SECTIONS 12" = 1 EACH

**LEGEND**  
 PAVEMENT REMOVAL  
 TREE REMOVAL, ACRE  
**EXISTING STRUCTURE NO. 045-**  
 STATION 95+55 - TWO SPAN PRECAST PRE  
 CONC. DECK BEAM BRIDGE WITH STEEL RA  
 PILE BENT CONCRETE ABUTMENTS AND PILE  
 87.83' BK.-BK. ABUTS; 30.00' o.-o. DECK

PLAN	DATE
BY	
CHECKED	
DATE	
NO.	

PROFILE	DATE
BY	
CHECKED	
DATE	
NO.	

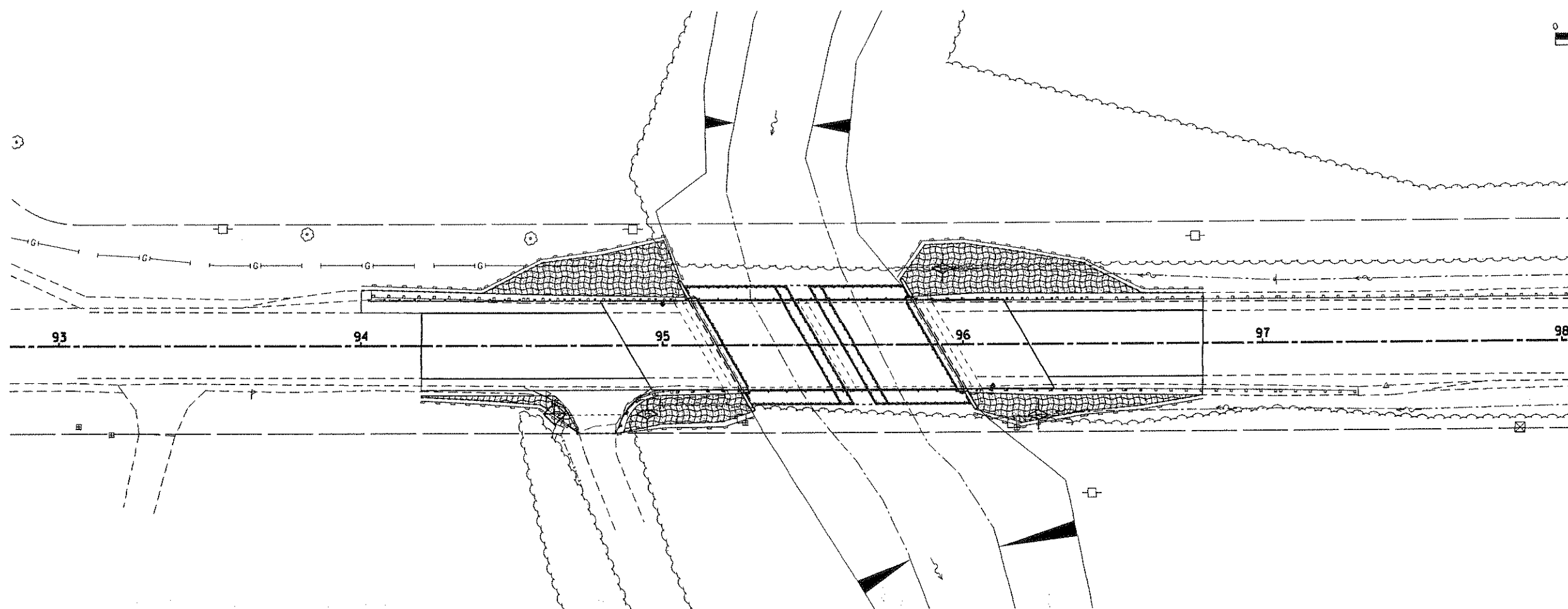
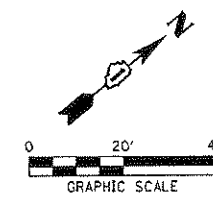


904.63	904.39	903.90	903.66	903.52	903.50	903.41	903.54	903.32	903.58	903.25	903.63	903.30	903.67	898.03	903.70	888.87	903.70	887.62	903.70	893.94	903.70	903.30	903.69	903.36	903.67	903.47	903.65	903.57	903.62	903.62	903.60	903.66	903.65	903.63	903.62	903.63	903.63	903.62	903.63	903.62	903.60	903.57	903.54	903.50
93+20	93+60	94+00	94+40	94+80	95+20	95+60	96+00	96+40	96+80	97+20	97+60	98+00	98+40	98+80																														

FILE NAME = 880043-shr-pp1.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>KANE COUNTY DIVISION OF TRANSPORTATION</b> 	<b>PLAN &amp; PROFILE</b> <b>DAMISCH ROAD / C.H. 7</b>	F.A.P. = 132	SECTION = 07-00358-00-BR	COUNTY = KANE	
PLOT SCALE =	CHECKED - S.W.M.	REVISED -	SCALE: 20			SHEET NO. 1 OF 1 SHEETS	STA. 104+00 TO STA. 110+00	FED. ROAD DIST. NO. ILLINOIS	FED. AID PROJECT
PLOT DATE = 12/9/2009	DATE = 12/08/09	REVISED -							

# EROSION CONTROL PLAN & STORMWATER POLLUTION PREVENTION PLAN

THIS PROJECT DISTURBS 0.3 ACRES OF TOTAL LAND AREA. COMPLIANCE WITH THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER PERMIT IS NECESSARY IF A PROJECT DISTURBS 1 OR MORE ACRES OF TOTAL LAND AREA; AN NPDES STORMWATER PERMIT WILL NOT BE REQUIRED FOR THIS PROJECT.



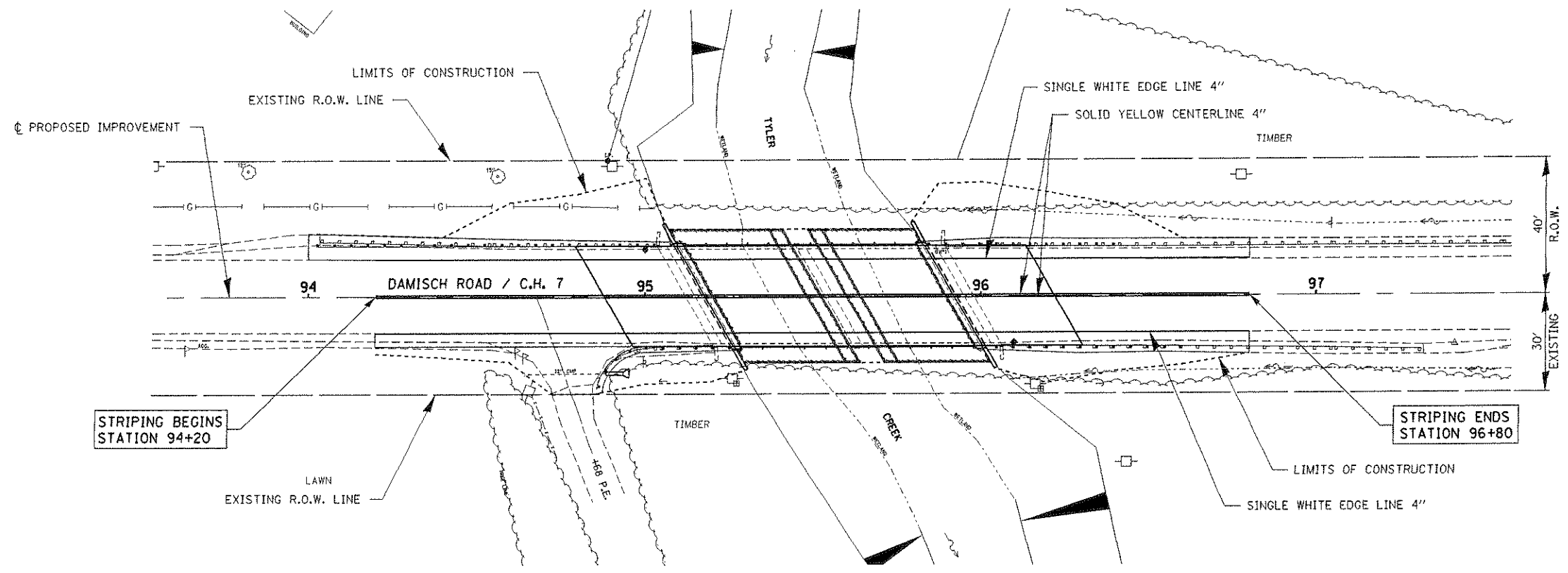
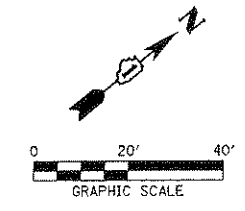
**GENERAL NOTES FOR SOIL EROSION CONTROL**

1. ALL VEGETATIVE AND STRUCTURAL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE REFERENCED FROM THE ILLINOIS URBAN MANUAL (REV. FEB 2003). SOIL EROSION AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED PRIOR TO THE COMMENCEMENT OF UPLAND DISTURBANCE. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER TO MINIMIZE EROSION. SOIL STABILIZATION MEASURES SHALL CONSIDER THE TIME OF YEAR, SITE CONDITIONS AND THE USE OF TEMPORARY OR PERMANENT MEASURES.
2. ALL TEMPORARY EROSION CONTROL MEASURES MUST BE MAINTAINED AND IMMEDIATELY REPLACED AS NEEDED AND AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTION AND REPAIR. THE CONTRACTOR SHALL INSPECT AND COMPLETE MAINTENANCE OF ALL ITEMS A MINIMUM OF EVERY 7 DAYS AND WITHIN 24 HOURS OF A ONE-HALF INCH RAINFALL. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SEEDING IS ACHIEVED.
3. PERIMETER EROSION BARRIER SHALL BE INSTALLED AT LOCATIONS SPECIFIED IN THE PLANS AT 5 FEET OUTSIDE THE TOE OF SLOPE OR INSIDE THE RIGHT-OF-WAY WHICHEVER IS CLOSER TO THE CENTERLINE, OR AS DIRECTED BY THE ENGINEER PRIOR TO THE START OF ANY EARTHWORK, CULVERT, OR STORM SEWER CONSTRUCTION. STAKES SHALL BE PLACED AT A MINIMUM OF 5 FOOT INTERVALS. SEE CODE 920 OF THE ILLINOIS URBAN MANUAL AND CONTRACT SPECIAL PROVISIONS.
4. THE PERIMETER EROSION BARRIER SHALL BE REMOVED WITHIN 30 DAYS AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED WITH VEGETATION. AFTER THE PERIMETER EROSION BARRIER IS REMOVED, ALL AREAS DAMAGED BY THE FENCE INSTALLATION SHALL BE RESTORED BY THE CONTRACTOR.
5. THE FENCE INSTALLATION, MAINTENANCE, REMOVAL AND THE RESTORATION OF THE AREA DISTURBED BY THE FENCE INSTALLATION IS INCLUDED IN COST OF THE PAY ITEM PERIMETER EROSION BARRIER.
6. TEMPORARY DITCH CHECKS SHALL BE CONSTRUCTED AS PER CONTRACT SPECIAL PROVISIONS ON 100 FEET CENTERS AS SHOWN HEREON OR AS DIRECTED BY THE ENGINEER. THE DITCH CHECKS SHALL BE INSTALLED IMMEDIATELY AS GRADING PROGRESSES THROUGH THE PROJECT. THE PAY ITEM FOR TEMPORARY DITCH CHECK SHALL INCLUDE THE COST OF INSTALLATION, MAINTENANCE AND REMOVAL. ONLY AGGREGATE DITCH CHECKS SHALL BE USED.
7. THE CONTRACTOR SHALL FURNISH AND PLACE TOPSOIL AND SHALL LAY EROSION CONTROL BLANKET ON ALL DISTURBED EARTH SLOPES. EROSION CONTROL BLANKET WITH GREEN DYE IS NOT PERMITTED.
8. REMOVAL OF TRAPPED SEDIMENT SHALL BE PAID FOR AS EARTH EXCAVATION. SEDIMENT SHALL BE REMOVED WHEN SILTATION REACHES 50% CAPACITY OF STRUCTURE. SEE APPLICABLE STANDARDS, SPECIFICATIONS, AND CONTRACT SPECIAL PROVISIONS FOR EROSION AND SEDIMENT CONTROL.
9. THE CONTRACTOR SHALL CLEAN UP AND GRADE THE WORK AREA AS THE PROJECT PROGRESSES TO ELIMINATE THE CONCENTRATION OF RUNOFF. THE PAVEMENT SHALL BE CLEANED DAILY TO REMOVE EARTH MATERIAL TO THE SATISFACTION OF THE ENGINEER.
10. STOCK PILES OF SOIL AND OTHER CONSTRUCTION MATERIALS TO REMAIN IN PLACE MORE THAN THREE DAYS SHALL BE FURNISHED WITH EROSION & SEDIMENT CONTROL MEASURES ( I.E. PER. EROS. BARR.) STOCK PILES TO REMAIN IN PLACE FOR THIRTY DAYS OR MORE SHALL RECEIVE TEMPORARY SEEDING.
11. TEMPORARY SEEDING SHALL BE COMPLETED ACCORDING TO CODE 905 OF ILLINOIS URBAN MANUAL ON ALL AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH CONSTRUCTION WILL BE STOPPED FOR A PERIOD OF MORE THAN 15 WORKING DAYS.
12. THE CONTRACTOR SHALL MAINTAIN AND PRESERVE ANY EXISTING SUB SURFACE DRAINAGE SYSTEMS (I.E. FIELD TILES) ACCORDING TO SECTION 611 OF THE IDOT STANDARD SPECIFICATIONS.

**LEGEND**

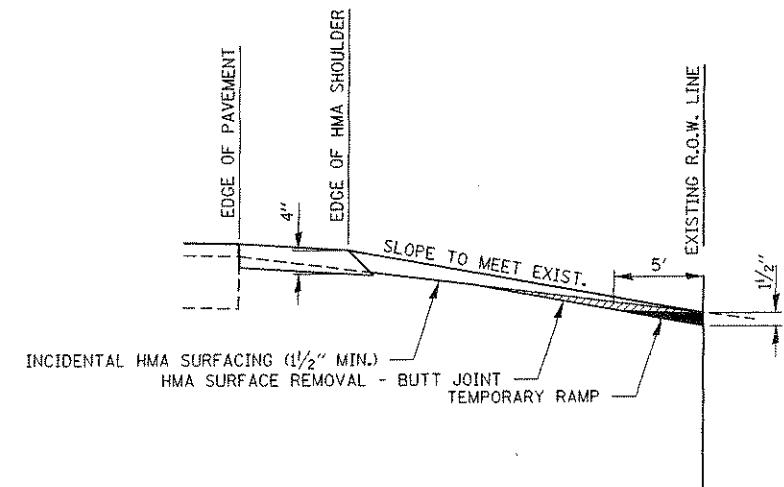
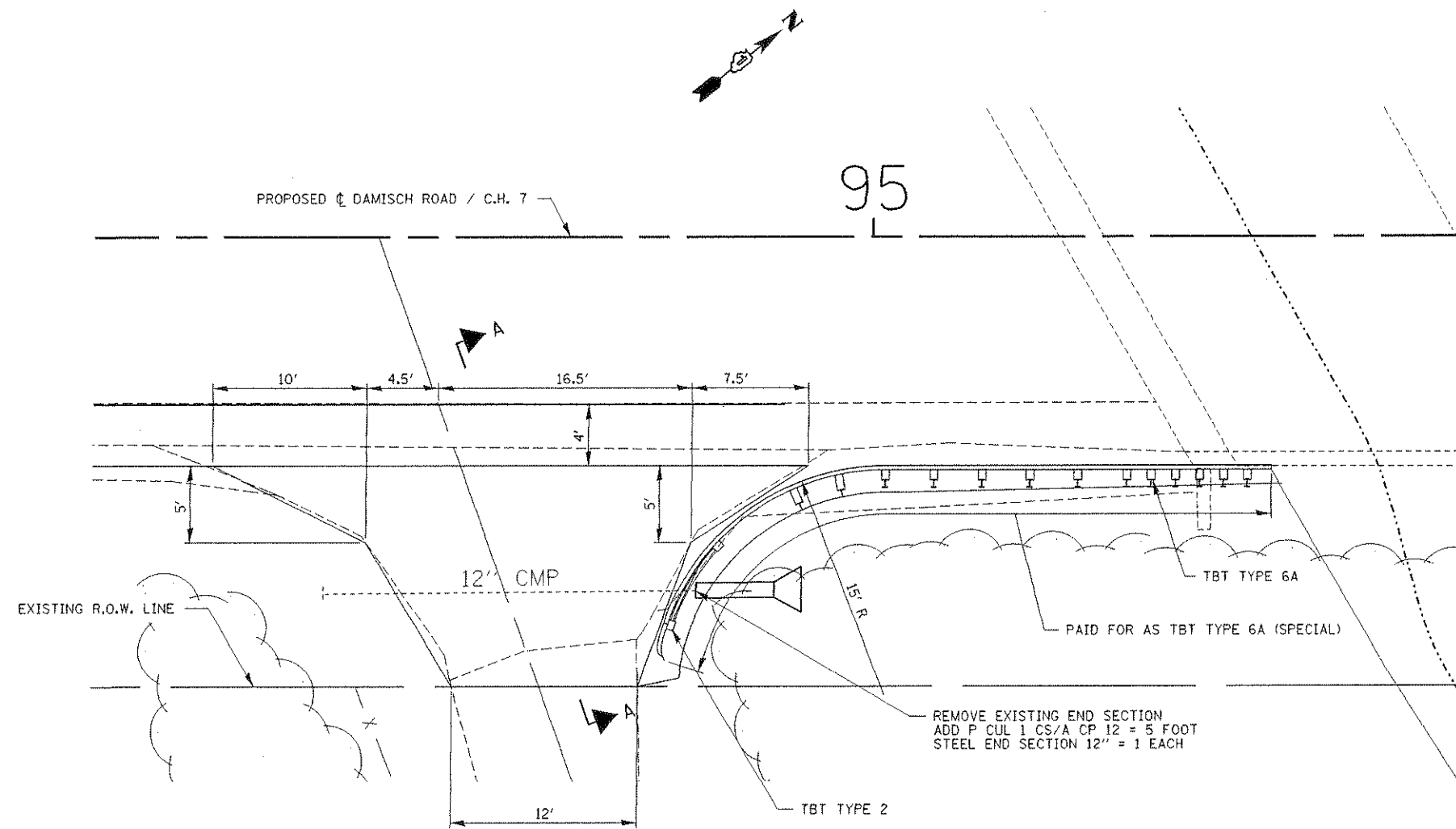
- INLET AND PIPE PROTECTION
- TEMPORARY DITCH CHECK
- SEEDING, CLASS 2A (SPECIAL) WITH EROSION CONTROL
- PERIMETER EROSION BARRIER

FILE NAME = 080043-shr-erosion.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	<b>STATE OF ILLINOIS KANE COUNTY DIVISION OF TRANSPORTATION</b>		<b>EROSION CONTROL PLAN DAMISCH ROAD / C.H. 7</b>	F.A.S.	SECTION	COUNTY
		DRAWN - T.W.K.	REVISED -				132	07-00358-00-BR	KANE
	PLOT SCALE =	CHECKED -	REVISED -				CONTRACT		
	PLOT DATE = 12/9/2009	DATE - 12/02/09	REVISED -				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		
				SCALE:		SHEET NO. OF SHEETS		STA. TO STA.	

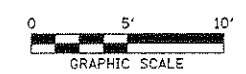


FILE NAME = 080043-sh-pvmstrck.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>KANE COUNTY DIVISION OF TRANSPORTATION</b>	<b>HLR</b>	<b>PAVEMENT MARKING PLAN</b> <b>DAMISCH ROAD / C.H. 7</b>	F.A.S.	SECTION	COUNTY
	PLOT SCALE =	CHECKED - S.W.M.	REVISED -				132	07-00358-00-BR	KANE
	PLOT DATE = 12/9/2009	DATE - 12/02/09	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT

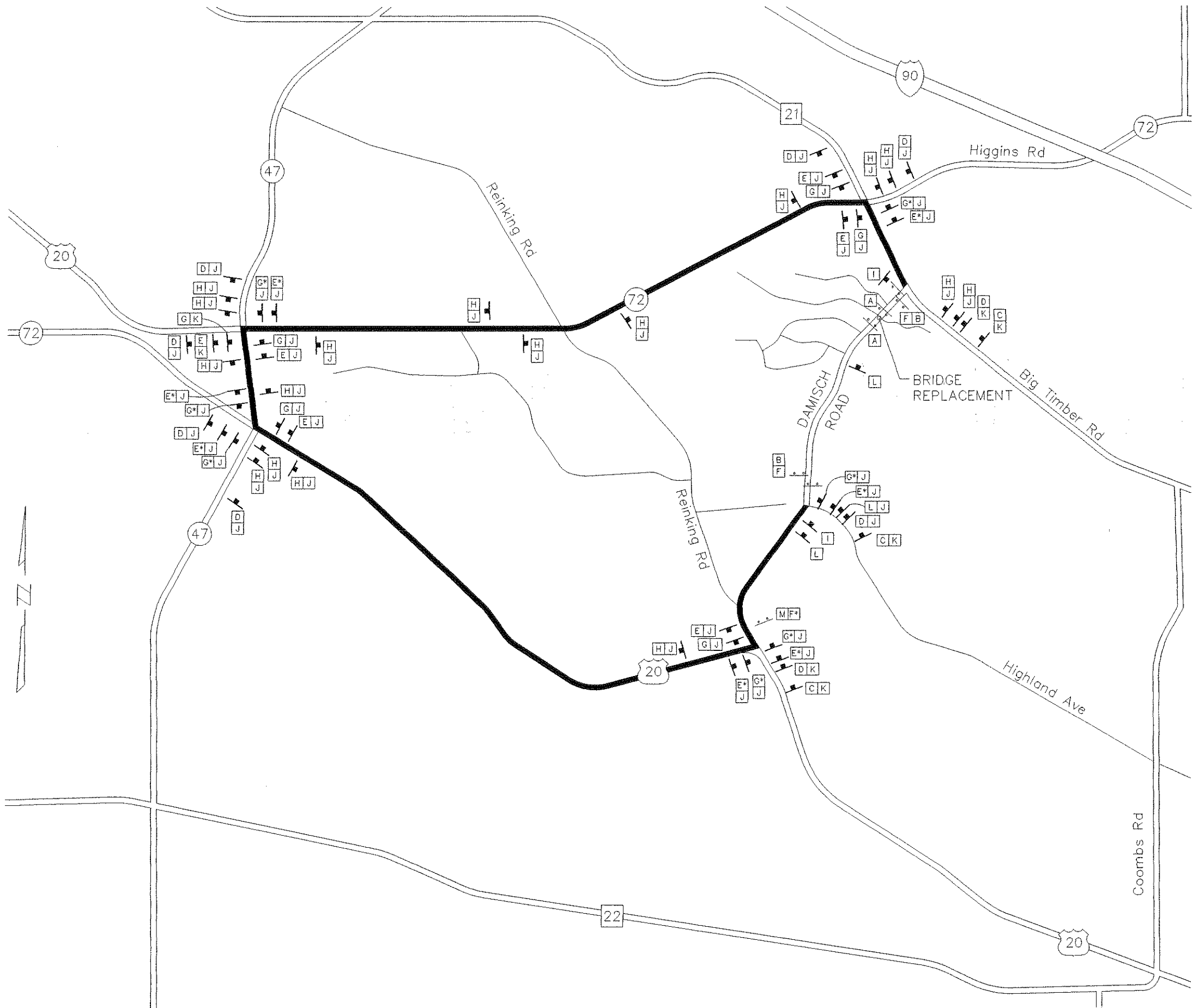




**ENTRANCE AND GUARDRAIL DETAIL**  
RT. STA. 94+68



FILE NAME = 088043-sh1-miscdet.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>HLR</b>	<b>MISCELLANEOUS DETAILS</b> <b>DAMISCH ROAD /C.H. 7</b>	F.A.S.	SECTION	COUNTY
	PLOT SCALE =	DRAWN - T.W.K.	REVISED -				132	07-00358-00-BR	KANE
	PLOT DATE = 12/9/2009	CHECKED -	REVISED -				FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
		DATE - 12/08/09	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.		



**DETOUR PLAN LEGEND**

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

<p><b>A</b> ROAD CLOSED R11-2 48"x30" (2 REOD.)</p> <p><b>B</b> ROAD CLOSED TO THRU TRAFFIC R11-4 60"x30" (2 REOD.)</p> <p><b>C</b> ROAD CLOSED AHEAD W20-1 48"x48" LOW INTENSITY FLASHING LIGHT &amp; 18"x18" ORANGE FLAG (4 REOD.)</p> <p><b>D</b> DETOUR AHEAD W20-2 48"x48" LOW INTENSITY FLASHING LIGHT &amp; 18"x18" ORANGE FLAG (11 REOD.)</p>	<p><b>E</b> → LEFT (6 REOD.)</p> <p><b>F</b> → LEFT (0 REOD.)</p> <p><b>G</b> → LEFT (6 REOD.)</p> <p><b>H</b> ↑</p> <p><b>I</b> END DETOUR</p> <p><b>J</b> DAMISCH RD 48"x12" (37 REOD.)</p> <p><b>K</b> DAMISCH RD - BIG TIMBER RD TO HIGHLAND AVE 48"x24" (20 REOD.)</p>	<p><b>M4-9 (R&amp;L)</b> 30"x30" (7 REOD.)</p> <p><b>M4-10 (R&amp;L)</b> 48"x18" (1 REOD.)</p> <p><b>M4-9 (R &amp; L)</b> 30"x24" (7 REOD.)</p> <p><b>M4-9</b> 30"x30" (17 REOD.)</p> <p><b>M4-8A</b> 24"x18" (2 REOD.)</p>
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FILE NAME = 080043-shtr-detour.dgn	USER NAME =	DESIGNED - L.F.S.	REVISED -	<b>STATE OF ILLINOIS</b> <b>KANE COUNTY DIVISION OF TRANSPORTATION</b>		<b>DETOUR PLAN</b> <b>DAMISCH ROAD / C.H. 7</b>	F.A.S.	SECTION	COUNTY
PLOT SCALE =	CHECKED -	REVISIED -	132				07-00358-00-BR	KANE	
PLOT DATE = 12/9/2009	DATE - 12/02/09	REVISED -	CONTRACT						
				SCALE:		SHEET NO. OF SHEETS STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

**DETOUR GENERAL NOTES**

- 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.
- 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.
- 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.
- 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.
- 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:

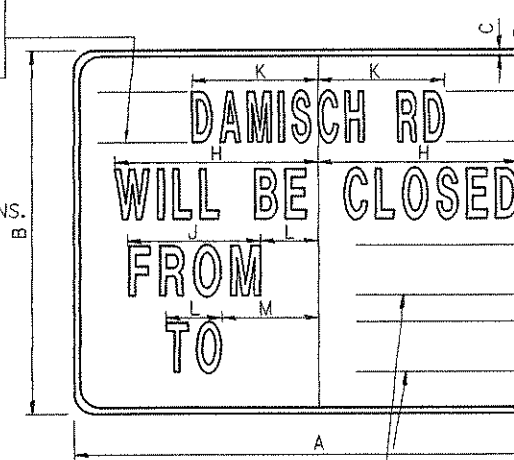
DAVID BOESCH  
KANE COUNTY DEPARTMENT OF TRANSPORTATION  
TRAFFIC ENGINEERING SECTION  
41W011 BURLINGTON ROAD  
ST. CHARLES, ILLINOIS 60175  
(630) 584-1170

- 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.
- LONGITUDINAL DIMENSIONS SHOWN ON THESE PLANS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
- THE ROAD SHALL NOT BE CLOSED UNTIL ALL SIGNING IS ERECTED IN ACCORDANCE WITH THE DETOUR PLAN AND INSPECTED AND APPROVED BY THE ENGINEER.
- 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.
- 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 IS DEEMED NECESSARY BY THE ENGINEER. ADDITIONS AND DELETIONS OF TRAFFIC CONTROL FOR THIS DETOUR SHALL BE CONSIDERED INCIDENTAL TO THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION" FOR TEMPORARY DETOUR.
- 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.
- ALL DETOUR SIGNING SHALL BE POST MOUNTED.
- 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.
- THE SIZES OF ALL SIGNS NOT SPECIFIED IN THESE PLANS SHALL BE AS REQUIRED BY THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 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.
- THE MINIMUM DIMENSIONS OF THE ORANGE WARNING FLAGS SHOWN IN THE PLANS ARE 18" BY 18".
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- THE FOLLOWING ILLINOIS DEPARTMENT OF TRANSPORTATION STANDARD IS APPLICABLE FOR THIS WORK: STANDARD 701901, BLR 21
- 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.
- 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.

ROAD NAME BLANK: 6 INCH BY 45 INCH  
FLUORESCENT ORANGE REFLECTIVE  
SHEETING WITH 5 INCH BLACK SERIES C  
UPPER CASE LETTERS.

**DETOUR INFORMATION SIGNS**

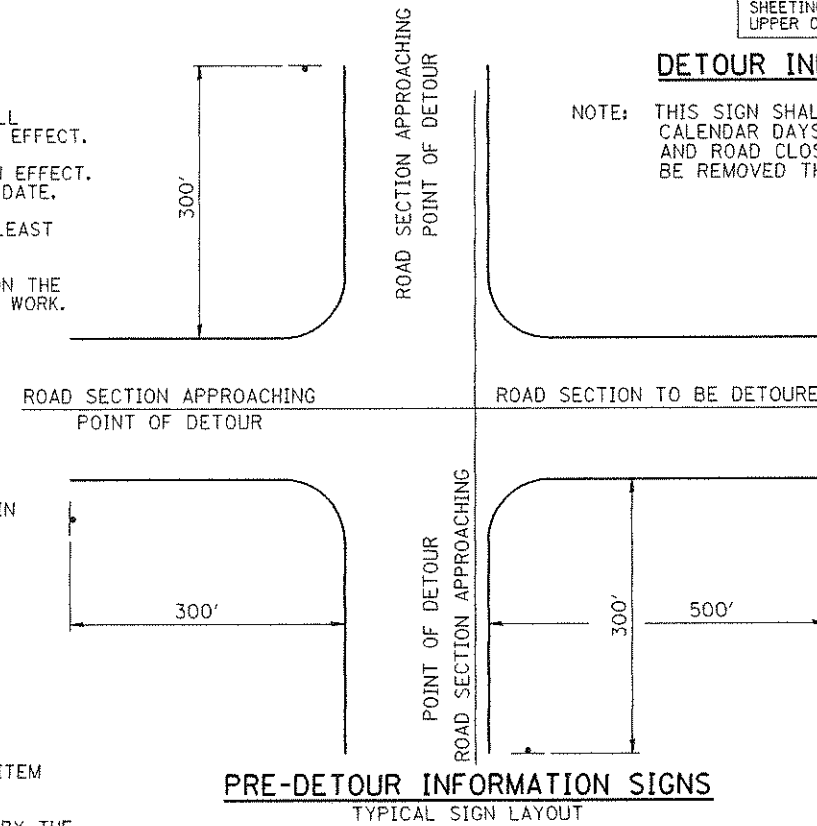
NOTE: THIS SIGN SHALL BE INSTALLED 7-10 CALENDAR DAYS PRIOR TO THE DETOUR AND ROAD CLOSURE. THE SIGNS SHALL BE REMOVED THE DAY THE DETOUR BEGINS.



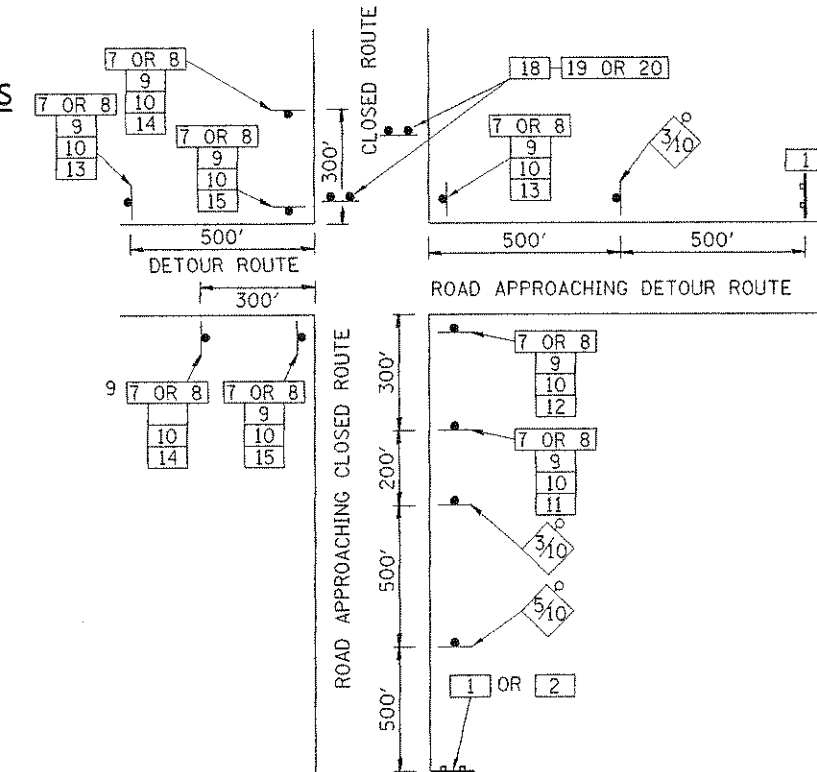
DATE BLANK: 6 INCH BY 24 INCH FLUORESCENT  
ORANGE REFLECTIVE SHEETING WITH 5 INCH  
BLACK SERIES C UPPER CASE LETTERS

**DIMENSIONS**

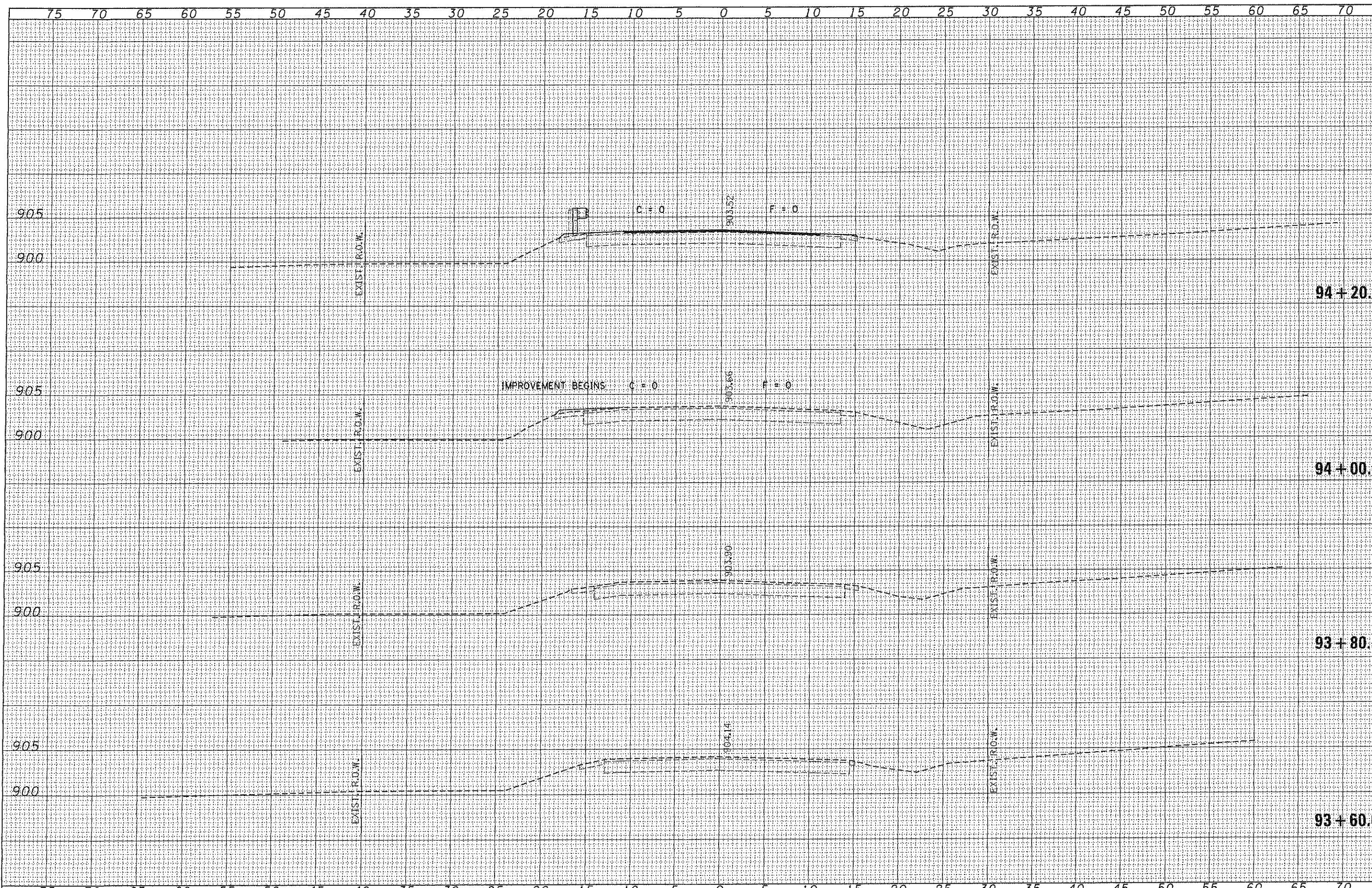
	A	B	C	D	E	F	G	H	J	K	L	M
STD	48"	36"	5/8"	1/8"	4 1/8"	5"	2 5/8"	9 3/4"	12"	6 7/8"	5 1/2"	8 1/2"



**LOCATIONS OF PRE-DETOUR INFORMATION SIGNS  
LOCATE SIGNS BY INTERSECTION:**



**TYPICAL INTERSECTION  
AT POINT OF DETOUR**



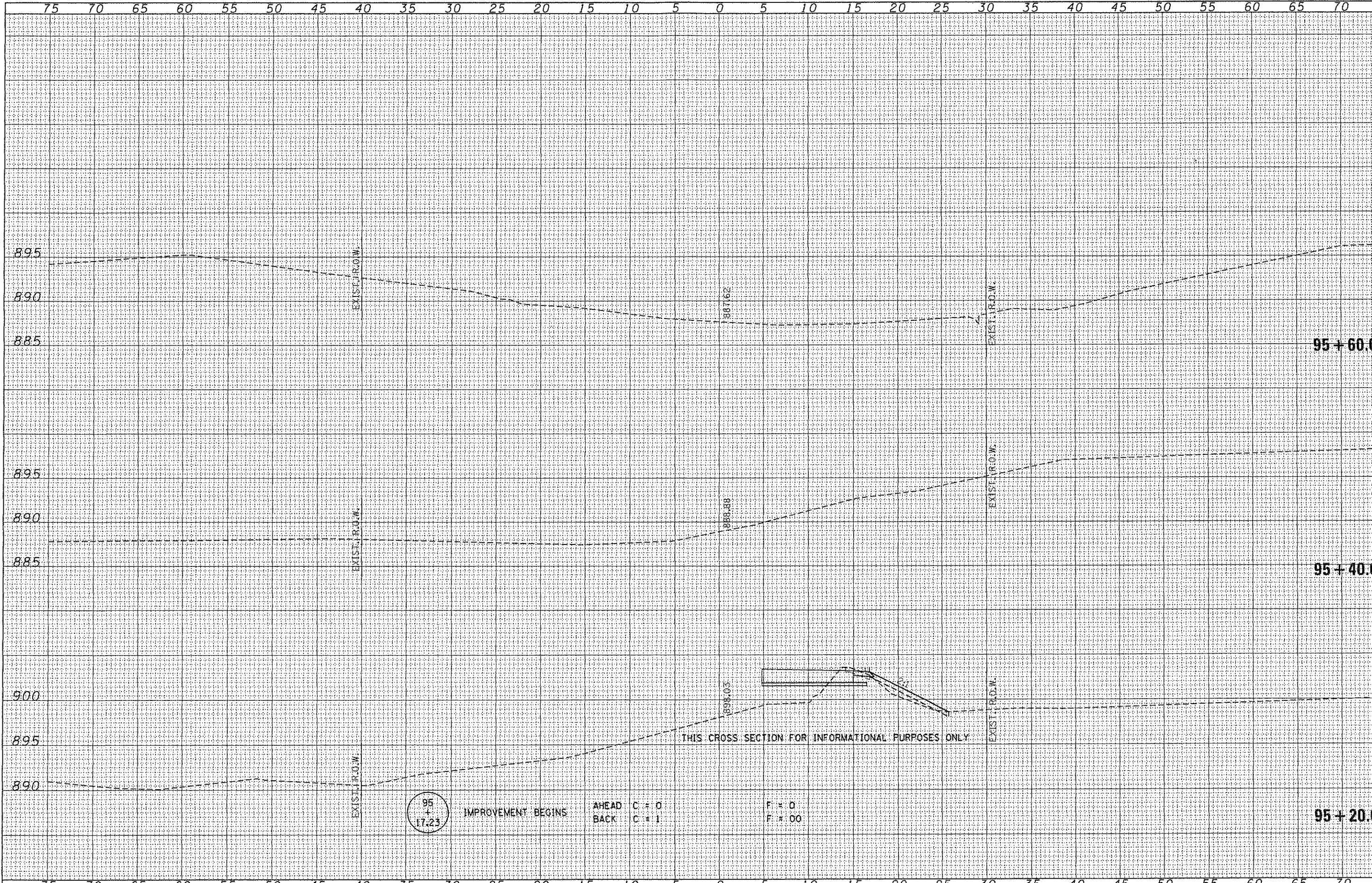
DATE	
BY	
NO.	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
TEMPLATE	AREAS CHECKED

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



DATE	
BY	
FINISHED	
DATE	
NO.	
NO.	
NO.	
NO.	

DATE	
BY	
FINISHED	
DATE	
NO.	
NO.	
NO.	
NO.	



FILE NAME = 060043-eh1-svs.dgn

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

REVISIONS:  
 REVISED -  
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 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 KANE COUNTY DIVISION OF TRANSPORTATION

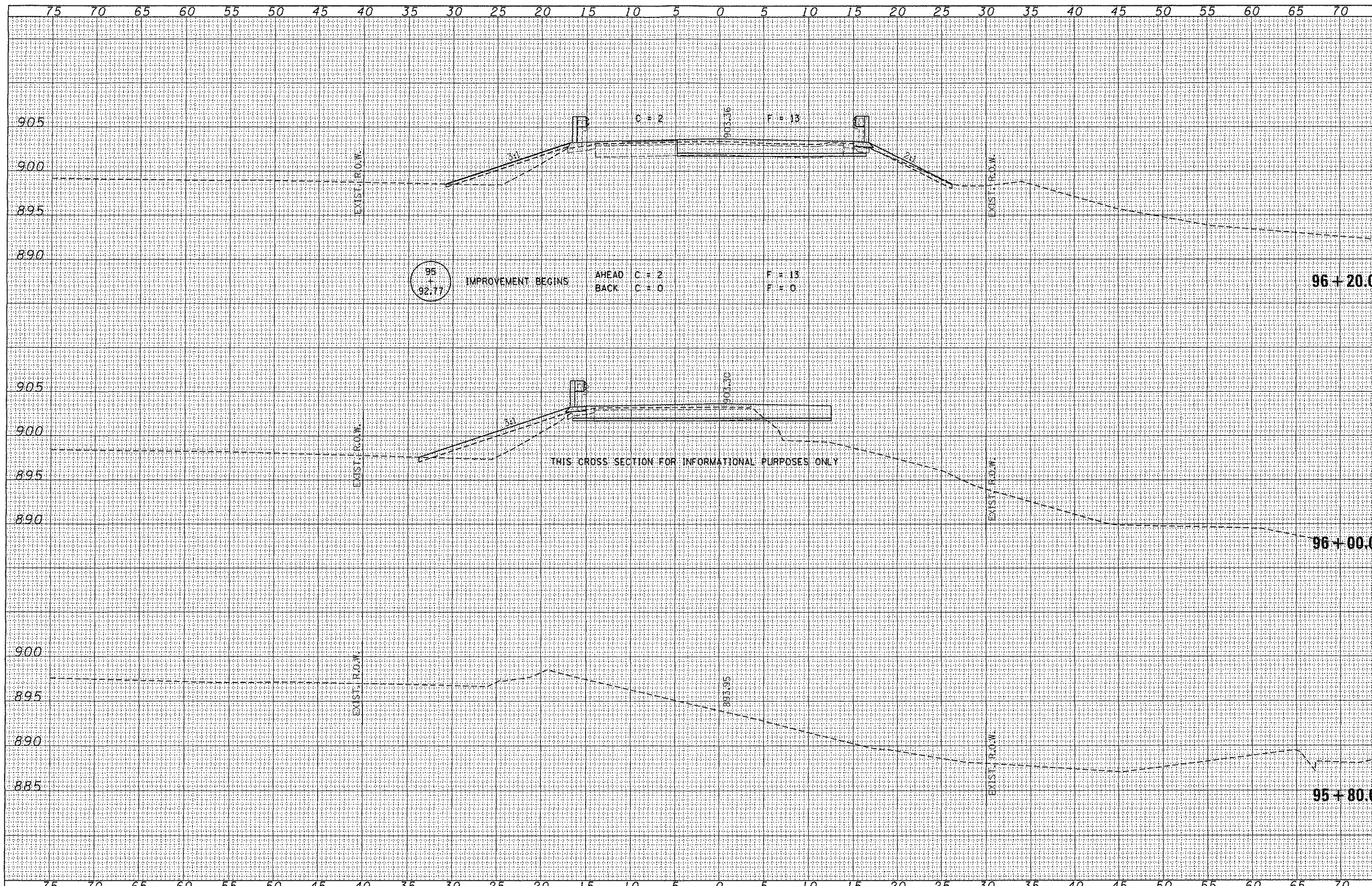


CROSS SECTIONS  
 DAMISCH ROAD /C.H. 7  
 SCALE: 5H:5V  
 SHEET NO. OF SHEETS STA. 95+20.00 TO STA. 95+60.00

SECTION	COUNTY
07-00358-00-BR	KANE
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

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

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



95 + 92.77

IMPROVEMENT BEGINS

AHEAD  
BACK

C = 2  
C = 0

F = 13  
F = 0

THIS CROSS SECTION FOR INFORMATIONAL PURPOSES ONLY

FILE NAME = 080043-ah4-exs.dgn

USER NAME =	DESIGNED - L.F.S.	REVISED -
	DRAWN - T.W.K.	REVISED -
PLOT SCALE =	CHECKED - S.W.M.	REVISED -
PLOT DATE = 12/9/2009	DATE - 12/09/09	REVISED -

STATE OF ILLINOIS  
KANE COUNTY DIVISION OF TRANSPORTATION



SCALE: 5H:5V

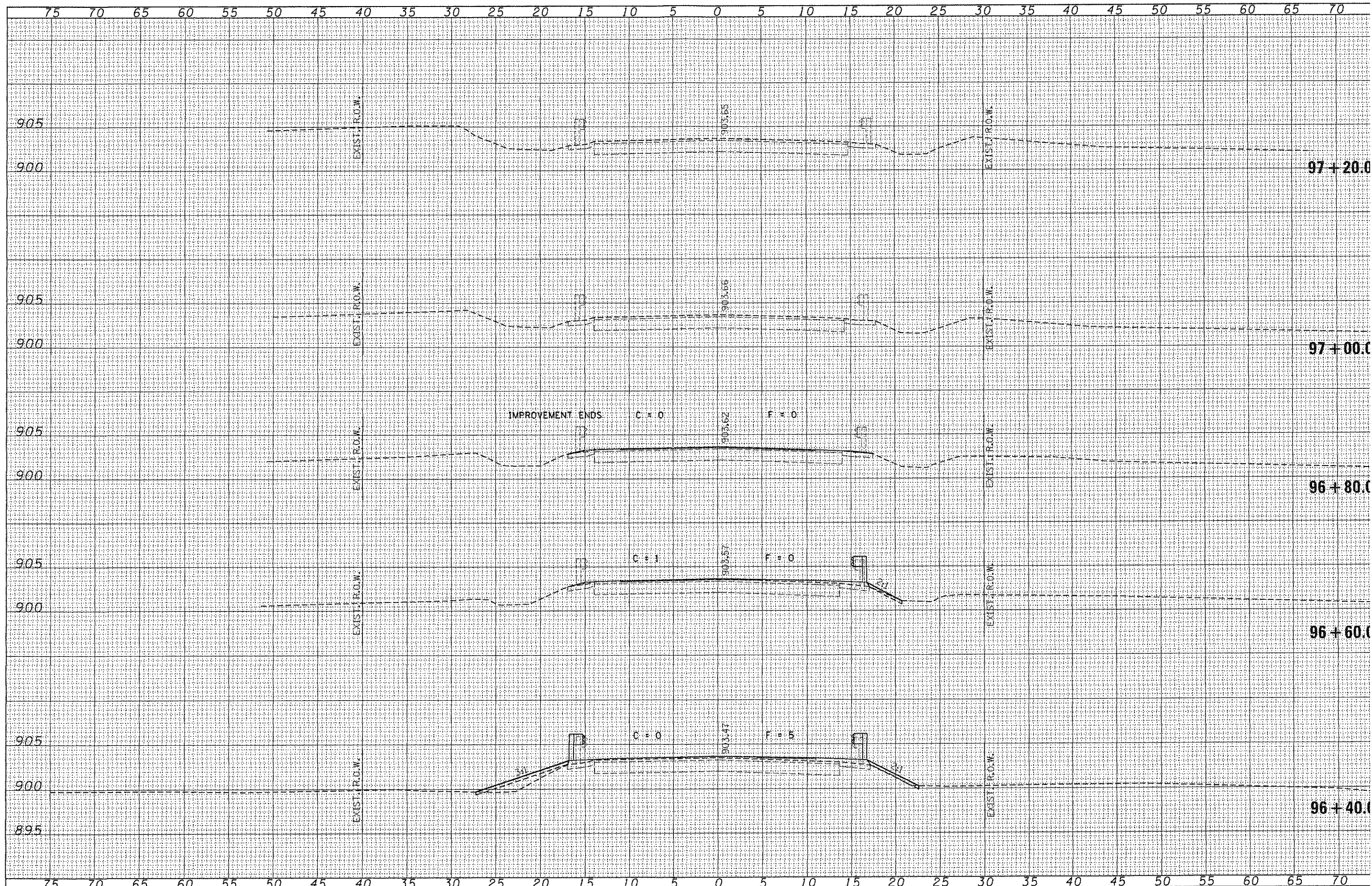
CROSS SECTIONS  
DAMISCH ROAD /C.H. 7

SHEET NO. OF SHEETS STA. 95+80.00 TO STA. 96+20.00

SECTION	COUNTY
07-00358-00-BR	KANE
	CONTRACT
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

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

DATE	
BY	
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USER NAME	
DESIGNED	
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DATE	



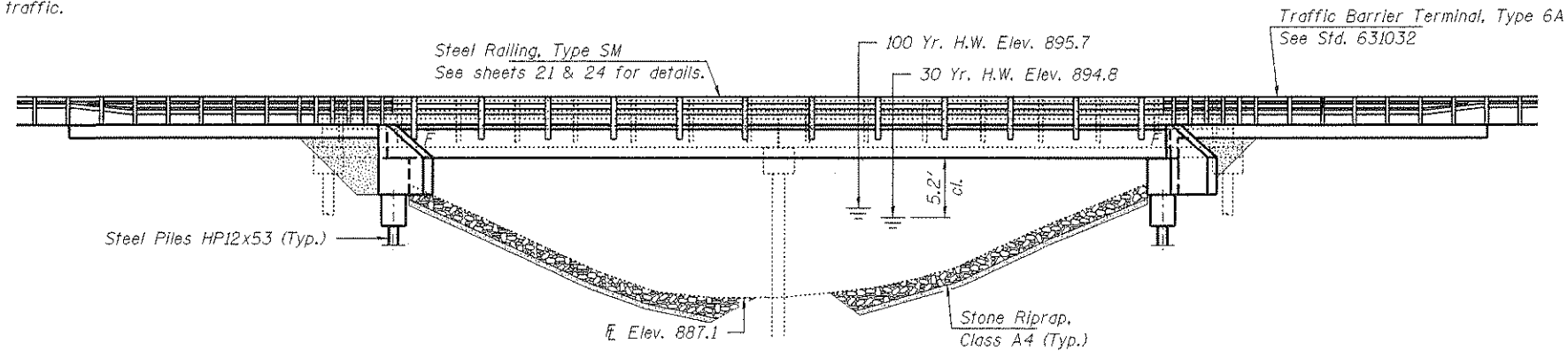
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060043-shr-sss.dgn		DRAWN - T.W.K.	REVISED -			07-00358-00-BR	KANE		
		CHECKED - S.W.M.	REVISED -				CONTRACT		
		DATE - 12/09/09	REVISED -			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
						SCALE: 5H:5V	SHEET NO. OF SHEETS	STA. 96+40.00 TO STA. 97+00.00	



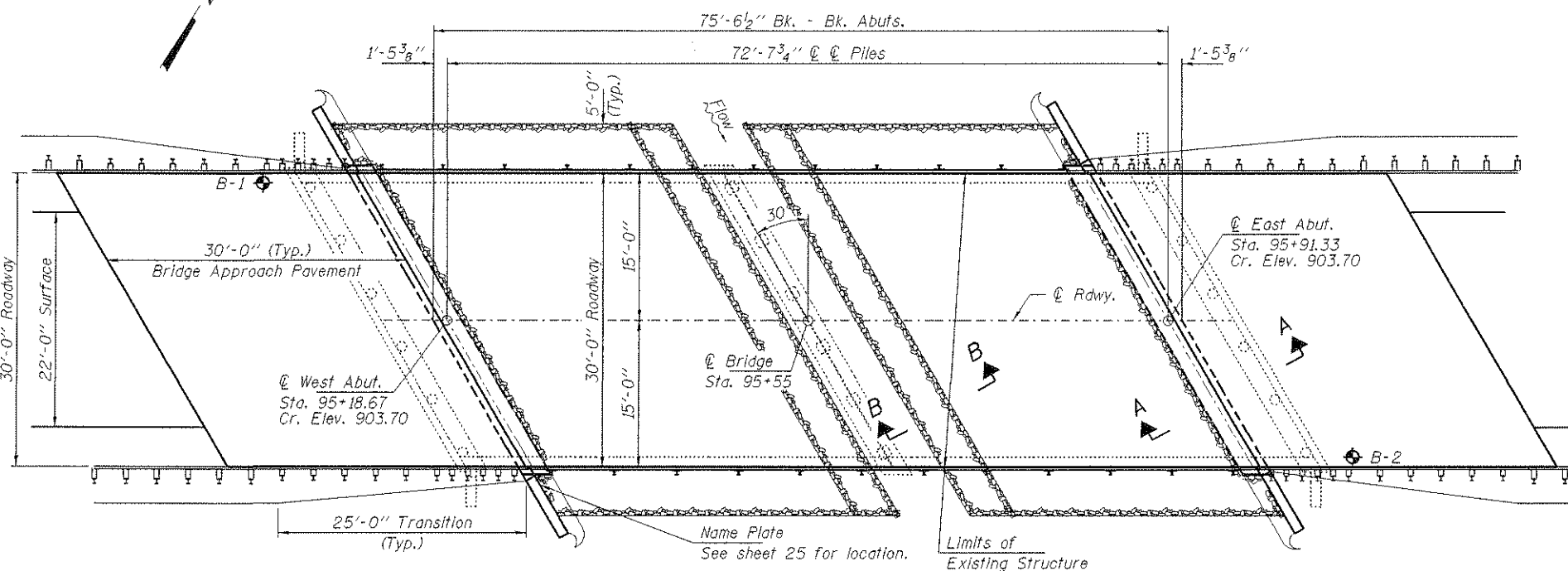
**BENCHMARK:**

**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



**ELEVATION**



**PLAN**

**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.  
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 28 & 29 for Borings.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB
Porous Granular Embankment, Special	Ton		
Stone Riprap, Class A4	Ton		
Filter Fabric	Sq. Yd.		
Removal of Existing Structures	Each		
Concrete Structures	Cu. Yd.		51.0
Concrete Superstructure	Cu. Yd.	83.3	
Bridge Deck Grooving	Sq. Yd.	417	
Concrete Encasement	Cu. Yd.		4.0
Protective Coat	Sq. Yd.	447	
Precast Prestressed Concrete Deck Beams (33" Depth)	Sq. Ft.	2,220	
Reinforcement Bars, Epoxy Coated	Pound	26,570	3,690
Bar Splicers	Each	60	
Steel Railing, Type SM	Foot	146	
Furnishing Steel Piles HP12x53	Foot		495
Driving Piles	Foot		495
Test Pile Steel HP12x53	Each		1
Name Plates	Each		1
Geocomposite Wall Drain	Sq. Yd.		
Pipe Underdrains For Structures 4"	Foot		
Concrete Wearing Surface, 5"	Sq. Yd.	247	

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
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

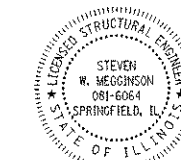
**WATERWAY INFORMATION**

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

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Natural H.W.E.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	361	215	214	893.77	0.02	0.00	893.79	893.77	
Base	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	

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."



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.

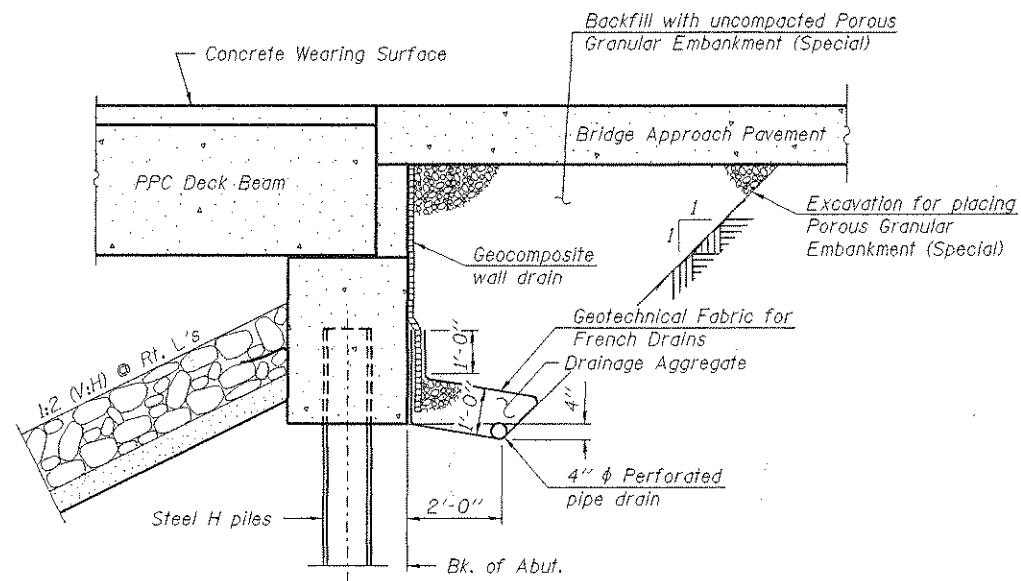
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS

**HLR**

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

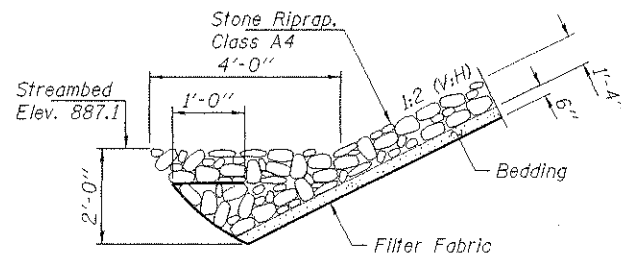
PROJECT NUMBER: 08.0043.130 DATE: 12/09/09

FAS	SECTION	COUNTY	TOT SHEET
132	07-00358-00-BR	KANE	2
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



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

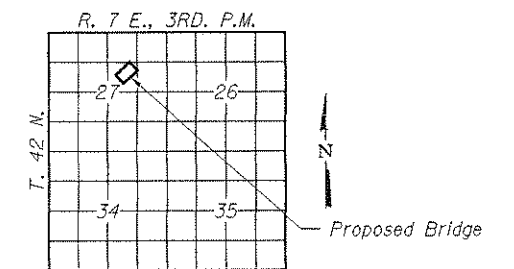
Note: See Special Provisions for Stone Riprap, Class A4.



**SECTION B-B**

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

**NAME PLATE**  
See Std. 515001

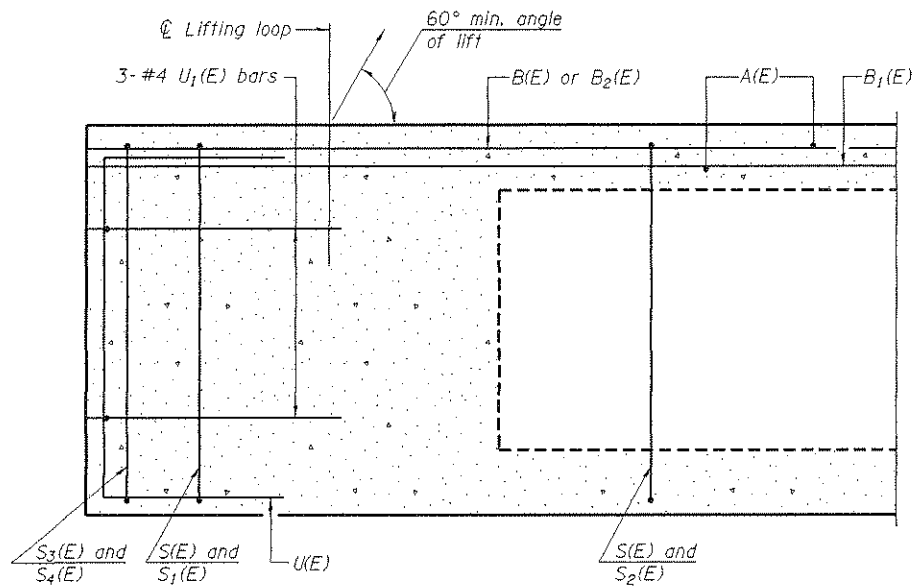


**LOCATION SKETCH**

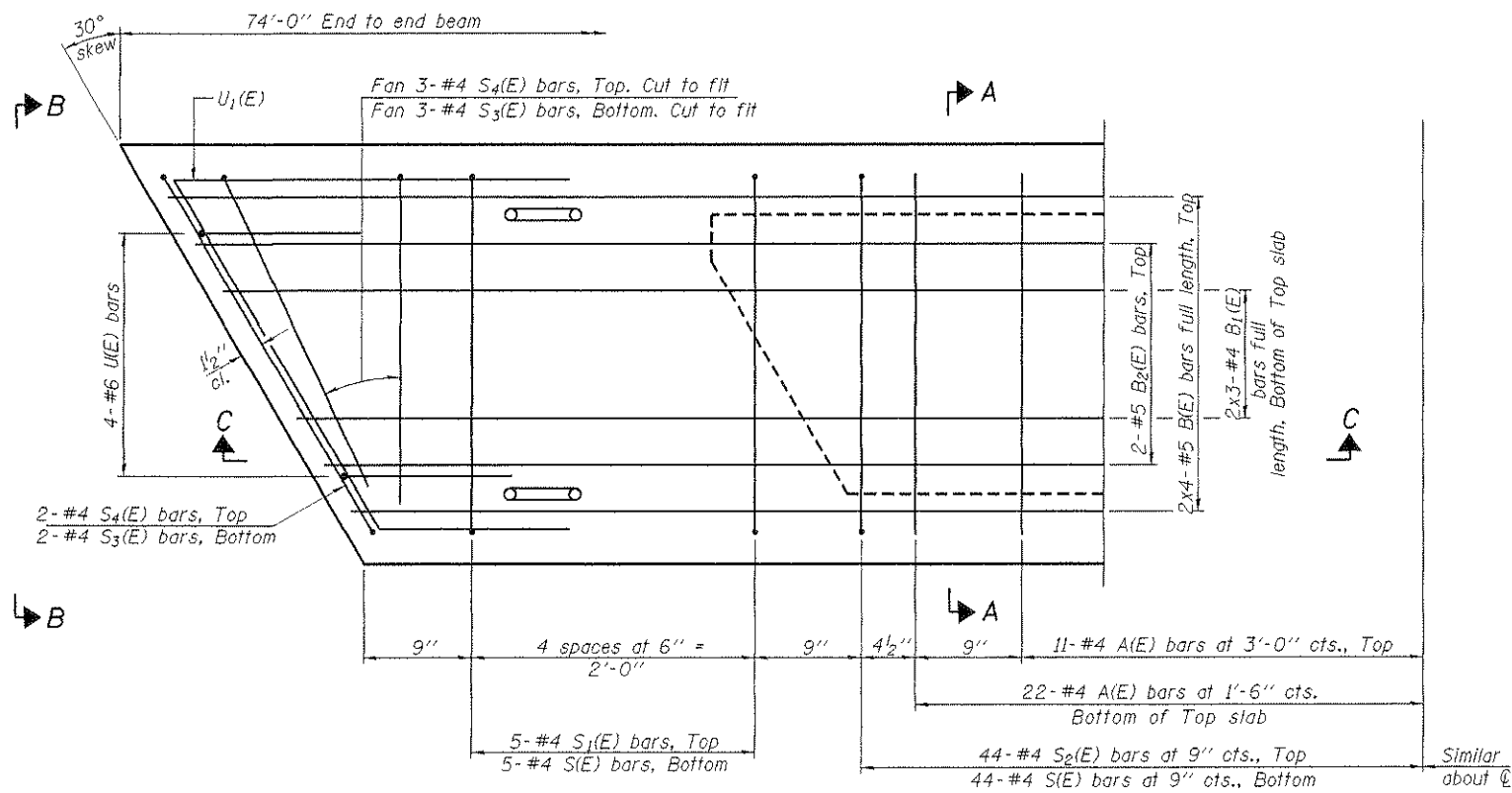
DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

**GENERAL DETAILS**  
**STRUCTURE NO. 045-6302**

<b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 548-3400	FAS	SECTION	COUNTY	TOT SHEETS
	132	07-00358-00-BR	KANE	23
PROJECT NUMBER: 08.0043.130	DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
DATE: 12/09/09	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		



SECTION C-C

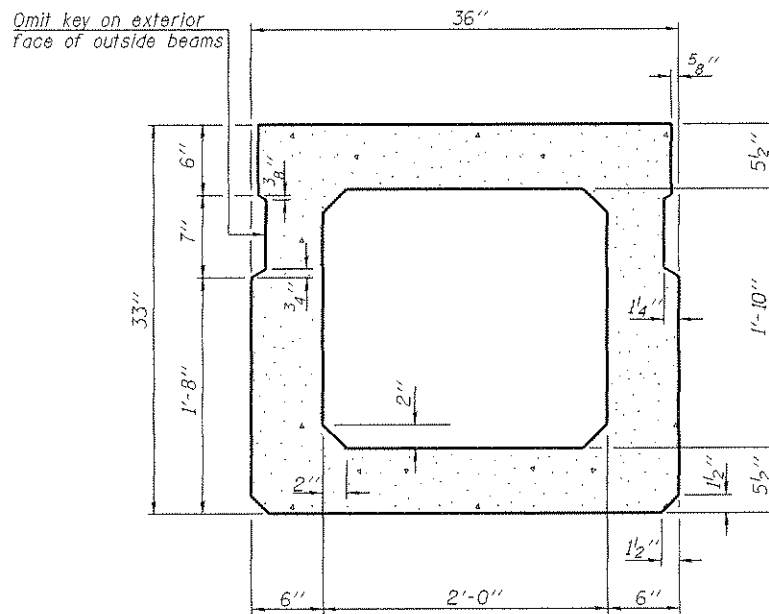


PLAN VIEW

Note: Spacing of S(E) and S<sub>2</sub>(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.

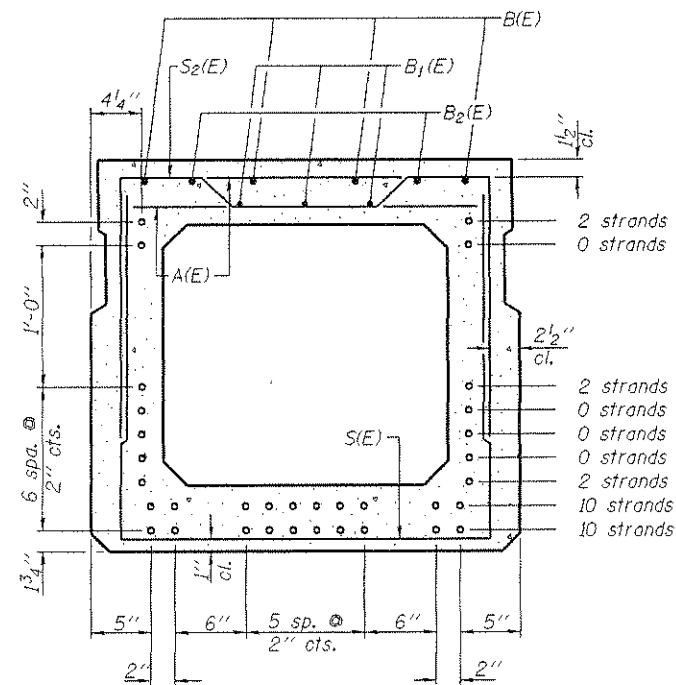
**MINIMUM BAR LAP**

#4 bar = 2'-0"  
#5 bar = 2'-6"



**SECTION A-A**

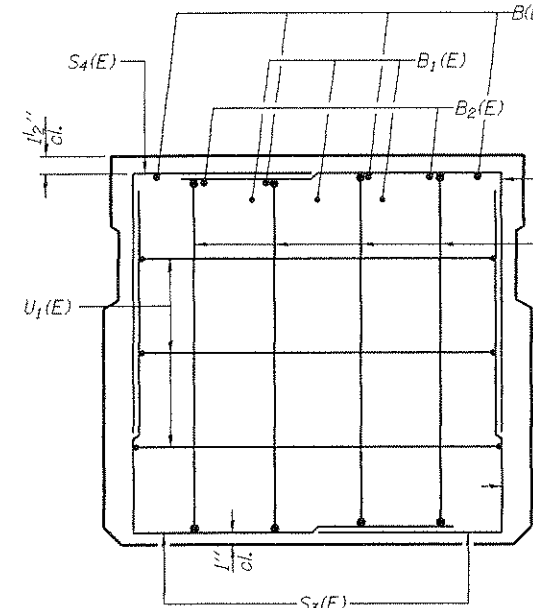
(Showing dimensions)



**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.



VIEW B-B

**BAR LIST  
ONE BEAM ONLY**  
(For information only)

Bar	No.	Size	Length	SI
A(E)	66	#4	2'-7"	-
B(E)	8	#5	38'-1"	-
B <sub>1</sub> (E)	6	#4	37'-10"	-
B <sub>2</sub> (E)	4	#5	10'-0"	-
S(E)	98	#4	7'-5"	L
S <sub>1</sub> (E)	10	#4	6'-3"	Γ
S <sub>2</sub> (E)	88	#4	6'-6"	Γ
S <sub>3</sub> (E)	6	#4	5'-0"	-
S <sub>4</sub> (E)	6	#4	4'-3"	-
U(E)	8	#6	5'-0"	-
U <sub>1</sub> (E)	6	#4	6'-10"	Σ

Note: See sheets 20 & 21 for addit details and Bill of Material.

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

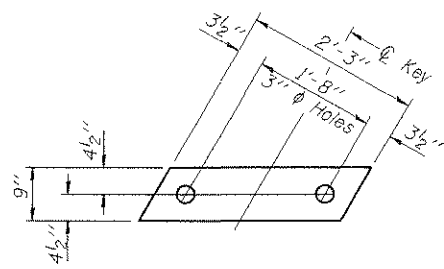
PD-3336-R

11-1-09

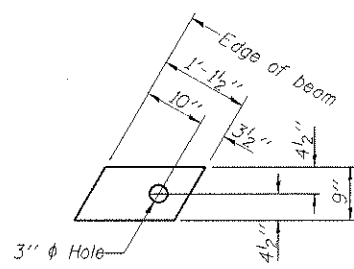
**HAMPTON, LENZINI & RENWICK, INC.**  
CIVIL & STRUCTURAL ENGINEERS  
LAND SURVEYORS  
**HLR** 3085 STEVENSON DRIVE, SUITE 201  
SPRINGFIELD, ILLINOIS 62703  
(217) 646-3400  
PROJECT NUMBER: 08.0043.130 DATE: 12/00/09

FAS	SECTION	COUNTY	TOT SHEETS
132	07-00358-00-BR	KANE	21
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	

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



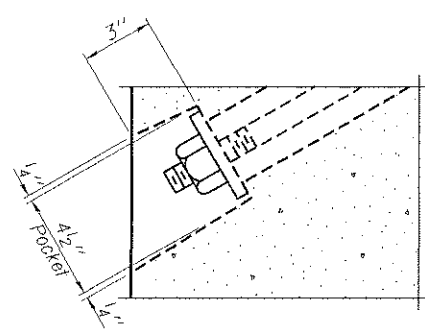
**FABRIC BEARING PAD**  
(Interior - 18 Req'd.)



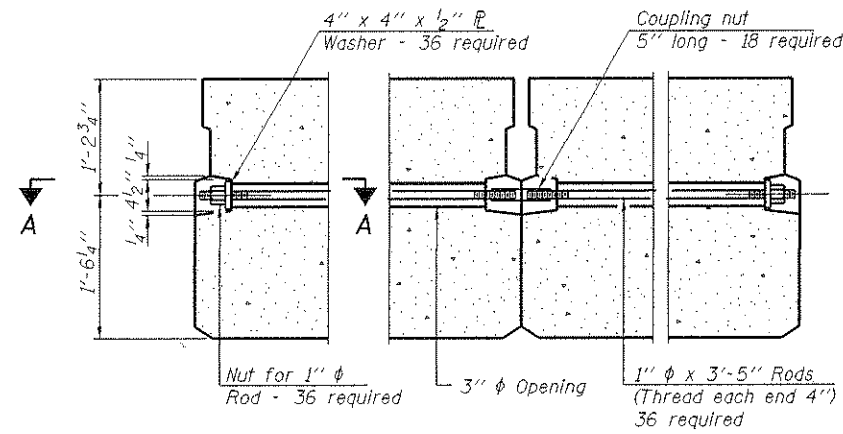
**FABRIC BEARING PAD**  
(Exterior - 4 Req'd.)

**FIXED**

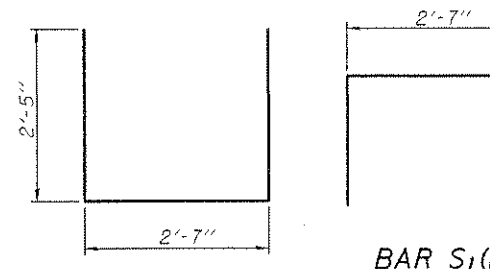
Notes:  
All bearing pads shall be 1" thick.  
Omit holes when using expansion bearings.  
Expansion bearing pad shall be bonded to the substructure.



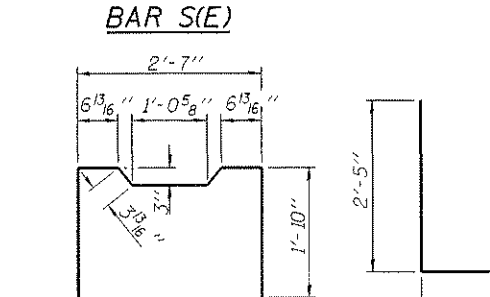
**SECTION A-A**



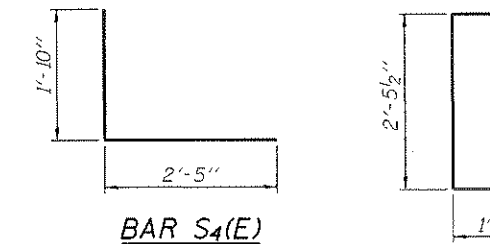
**TYPICAL TRANSVERSE TIE ASSEMBLY**



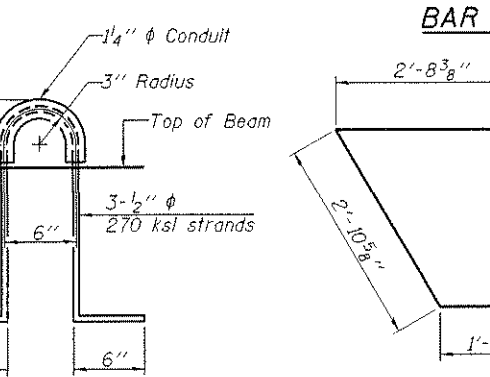
**BAR S1(E)**



**BAR S2(E)**

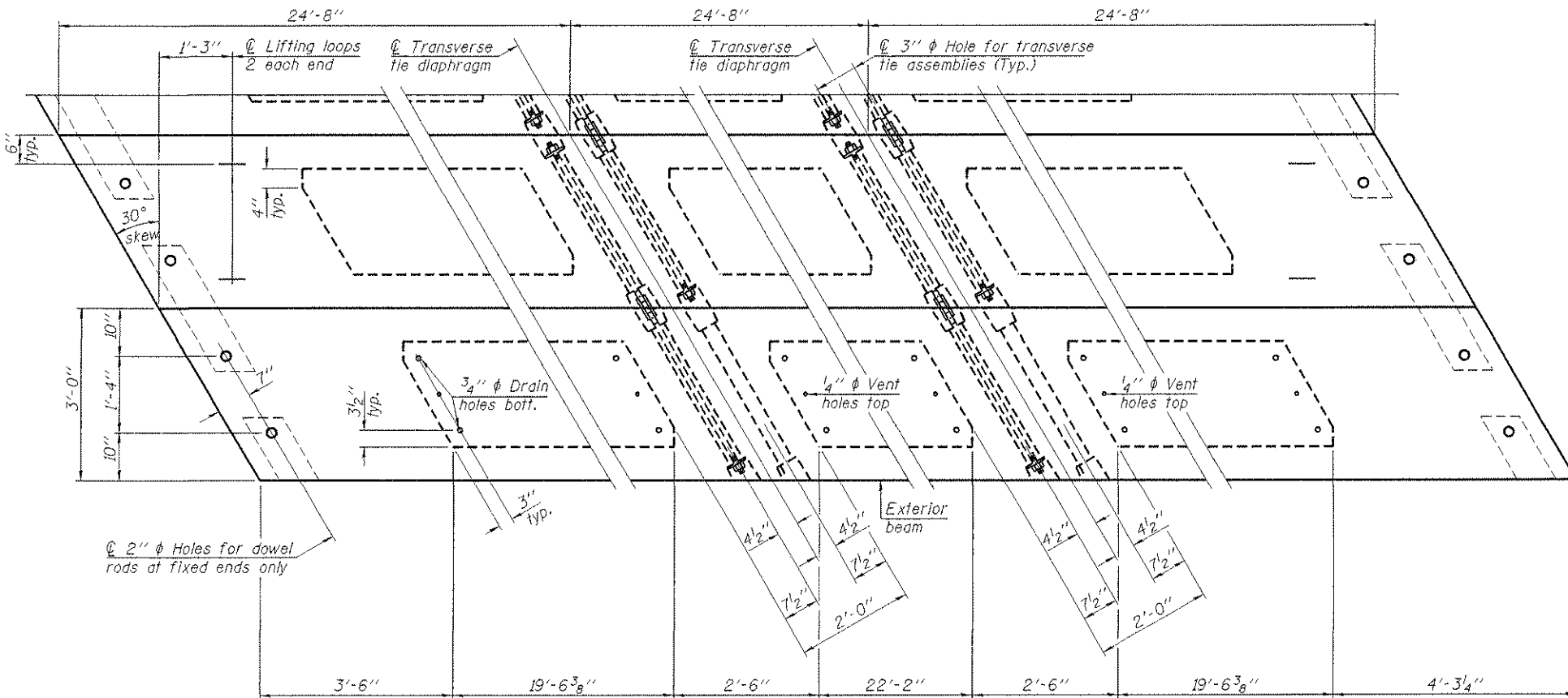


**BAR S4(E)**



**LIFTING LOOP DETAIL**

**BAR U1(E)**



**PLAN VIEW**

**NOTES**

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

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.

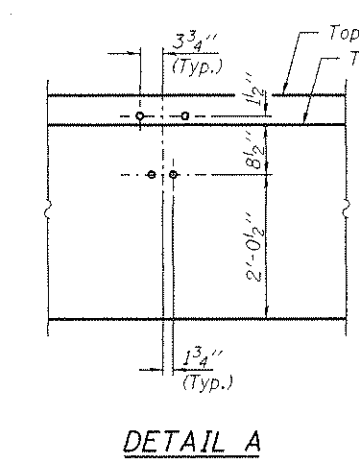
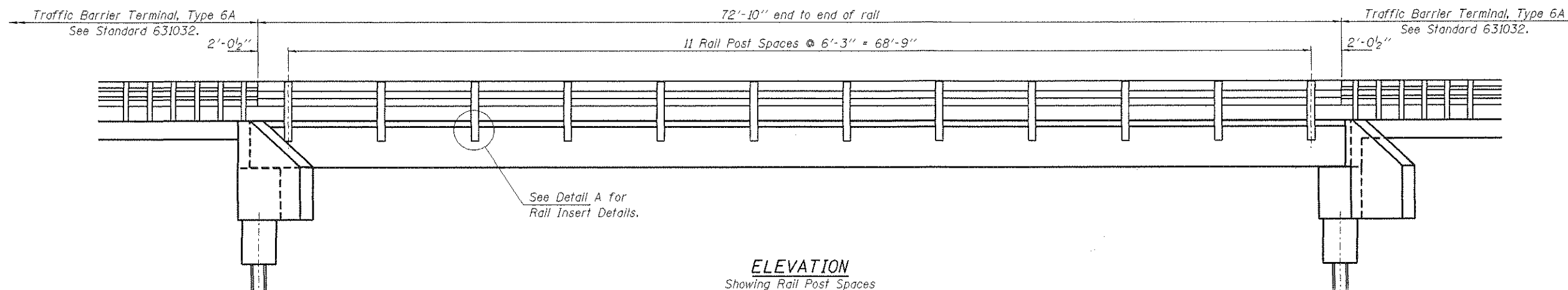
PD-3336-RD 11-1-09

**BILL OF MATERIAL**

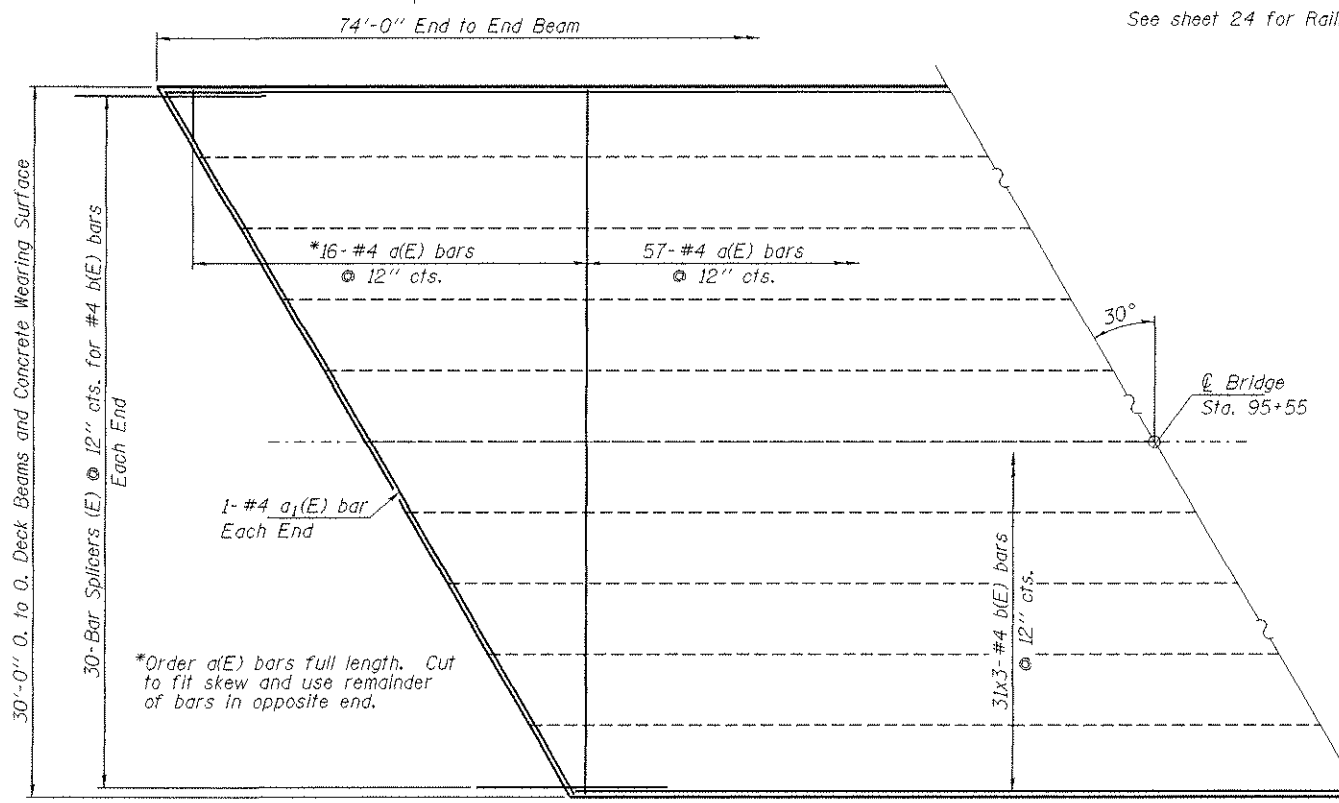
Precast Prestressed Conc. Deck Bms. (33" depth)	Sq. Ft.
---	---------

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

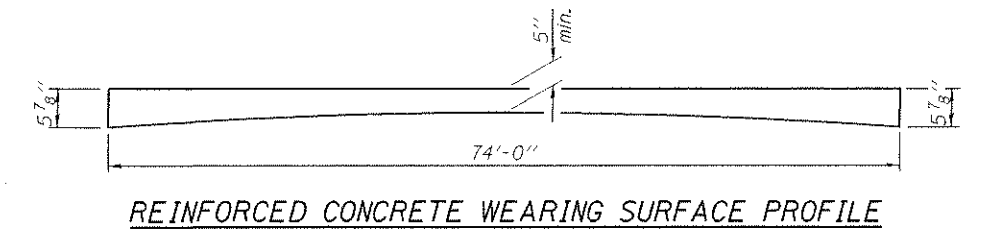
<b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS <b>HLR</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	FAS	SECTION	COUNTY	TOT SHE
	132	07-00358-00-BR	KANE	2
PROJECT NUMBER: 08.0043.130	DATE: 12/09/09	DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



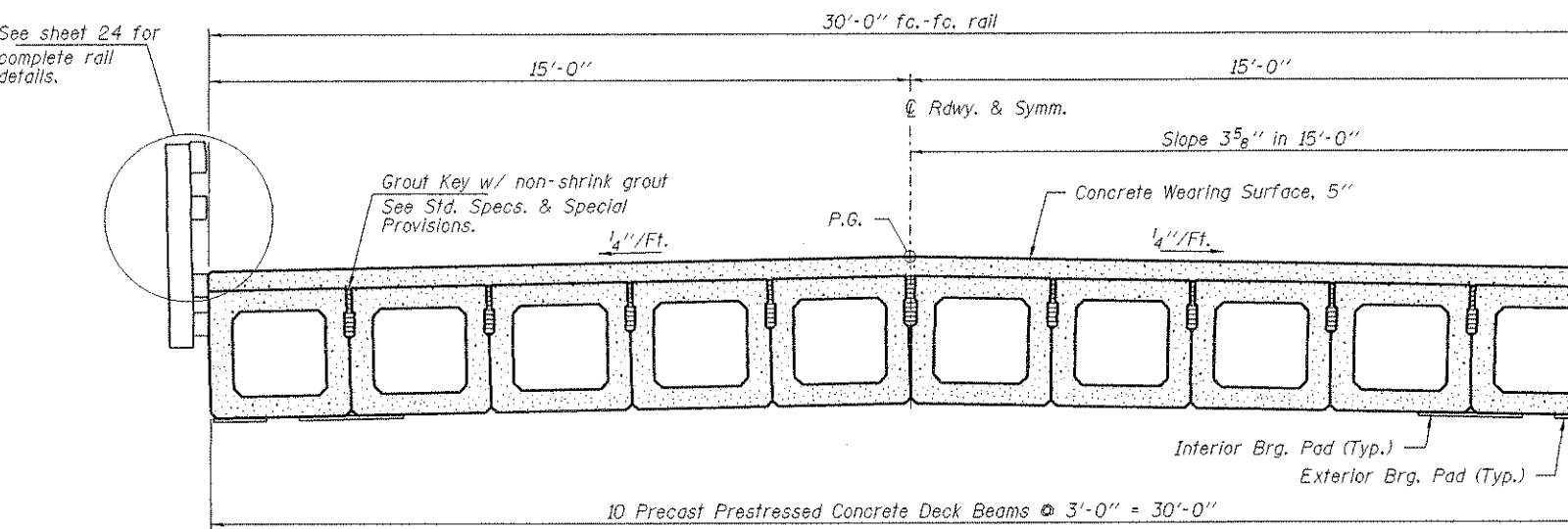
**ELEVATION**  
Showing Rail Post Spaces  
See sheet 24 for Railing Details.



**PLAN - R.C. WEARING SURFACE**

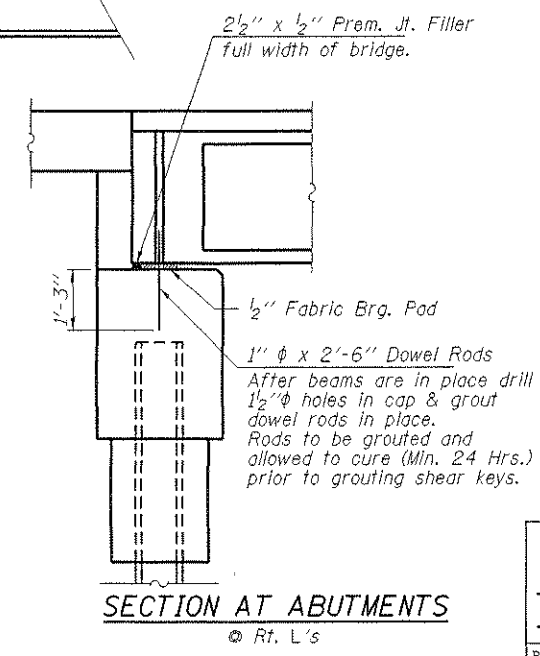


**REINFORCED CONCRETE WEARING SURFACE PROFILE**



**CROSS SECTION**  
See sheets 19 & 20 for Superstructure.

**MIN. BAR LAP**  
#4 bar = 1'-8"



**SECTION AT ABUTMENTS**  
@ Rt. L's

**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	S
a(E)	73	#4	29'-8"	—
a1(E)	2	#4	34'-3"	—
b(E)	93	#4	25'-8"	—
Bridge Deck Grooving			Sq. Yd.	
Protective Coat			Sq. Yd.	
Reinforcement Bars, Epoxy Coated			Pound	
Bar Splicers			Each	
Concrete Wearing Surface, 5"			Sq. Yd.	

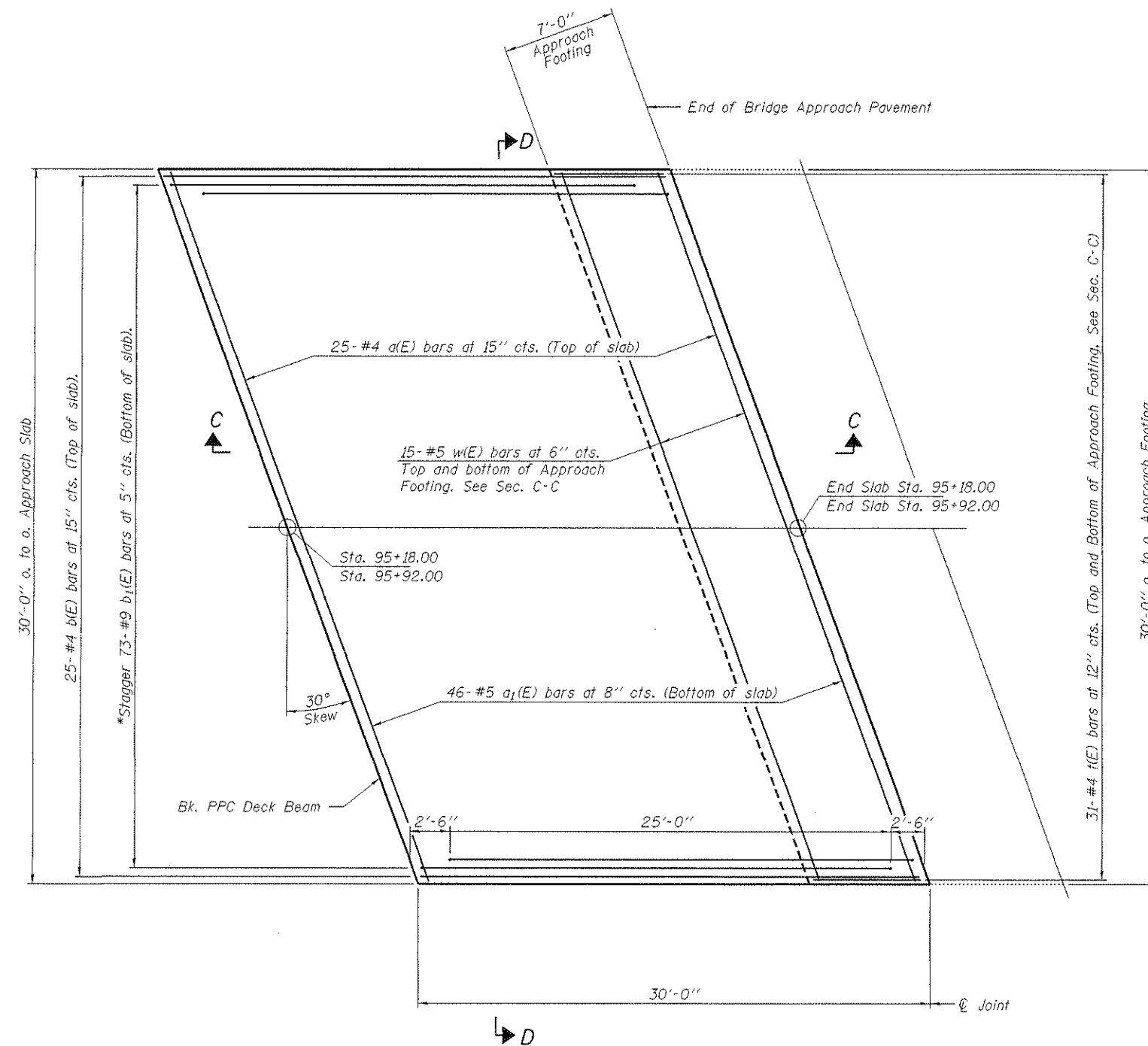
**SUPERSTRUCTURE DETAILS**  
STRUCTURE NO. 045-6302

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

Notes:  
Place strands symmetrically about C of beam.  
The R.C. Wearing Surface area covers the PPC deck beams only.  
Bars indicated thus 31x3-#4 etc. indicates 31 lines of bars with 3 lengths per line.

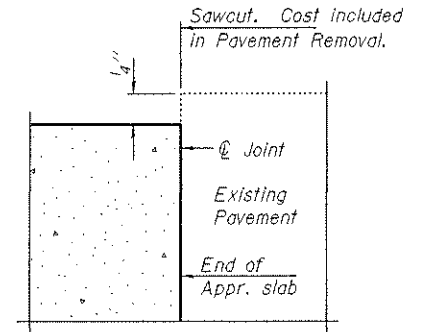
<b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS <b>HLR</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 548-3400	FAS	SECTION	COUNTY	TOT SHE
	132	07-00358-00-BR	KANE	2:
PROJECT NUMBER: 08.0043.130	DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
DATE: 12/02/09	ILLINOIS FED. AID PROJECT		FED. ROAD DIST. NO.	

Notes:  
 See sheet 23 for Sections C-C and D-D.  
 $a_1(E)$  and  $a_2(E)$  bar spacings measured along  $\text{C-C}$  Rdwy.



PLAN

\* Tilt #9  $b_1(E)$  bars as required to maintain clearance.  
 \*\* Space between  $a_1(E)$  bars, typ. each parapet.



FLEXIBLE PAVEMENT  
 DETAIL A

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

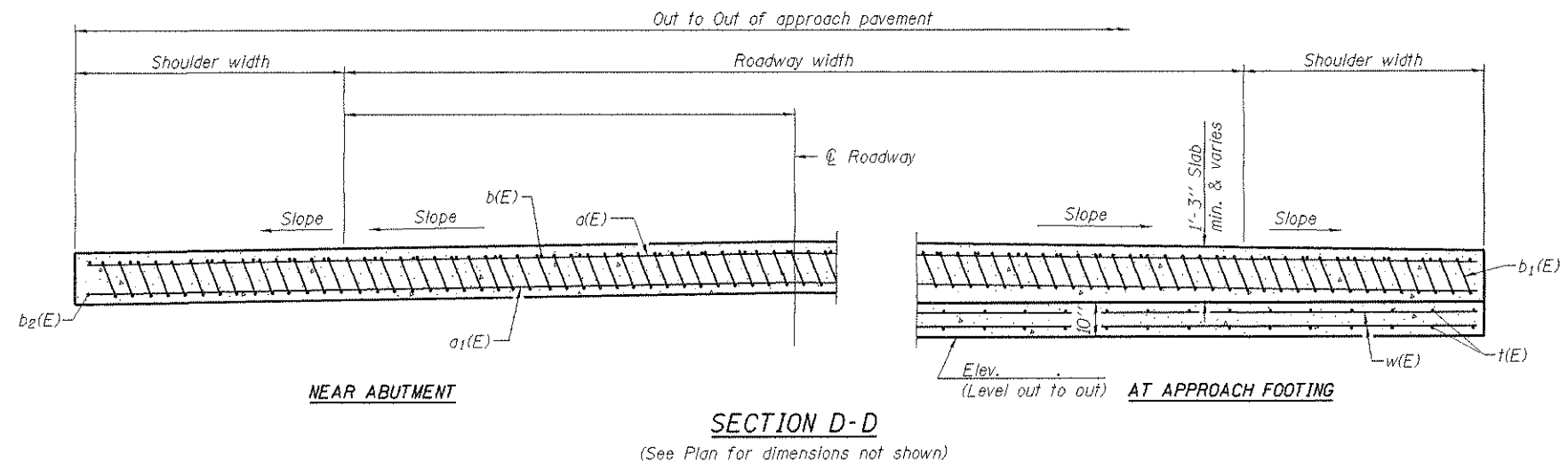
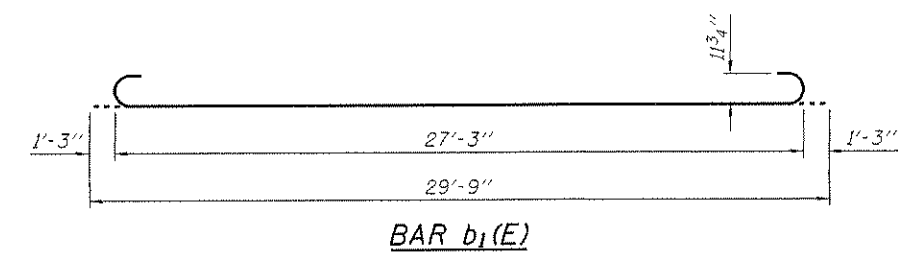
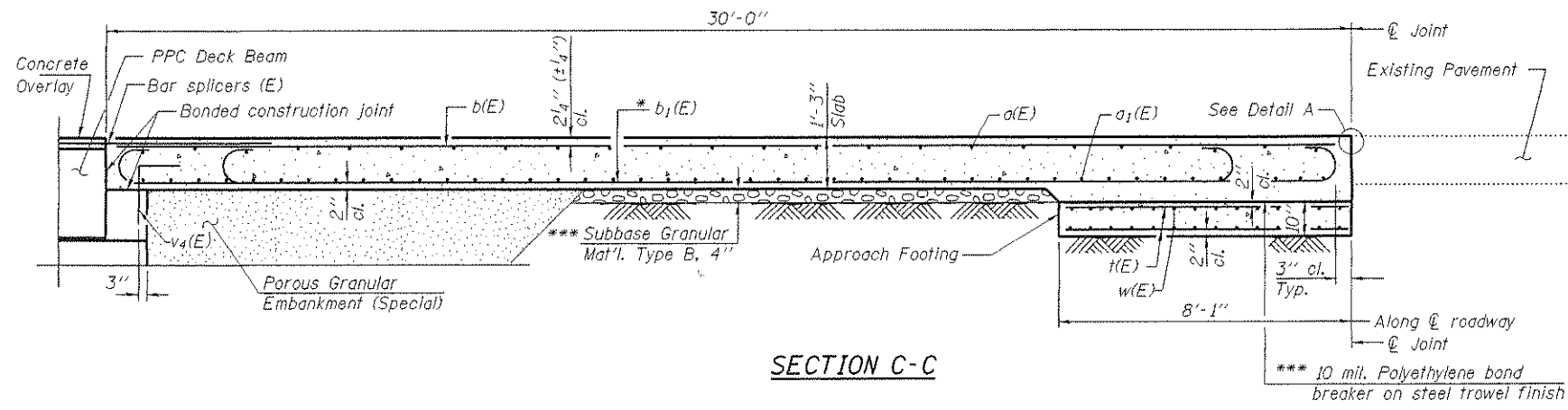
**HLR** 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400

PROJECT NUMBER: 08.0043.180 DATE: 12/00/09

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

(Sheet 1 of 2)  
 BRIDGE APPROACH SLAB DETA  
 STRUCTURE NO. 045-6302

Notes:  
 See sheet 22 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 25.  
 The approach footing maximum applied service bearing pressure ( $Q_{max}$ ) = 2.0 ks  
 For bar splicer details, see sheet 26.  
 Cost of excavation for approach footing included with Concrete Structures.  
 For Porous Granular Embankment (Special) and drainage treatment details, see sheet 18.



\* Tilt #9  $b_1(E)$  bars as required to maintain clearance.  
 \*\*\* Cost included with Concrete Superstructure.

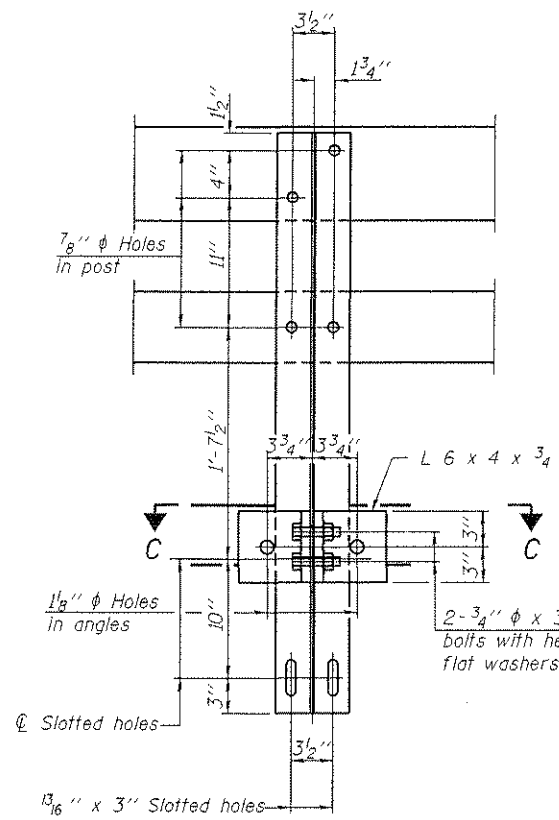
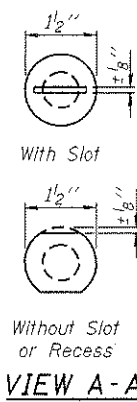
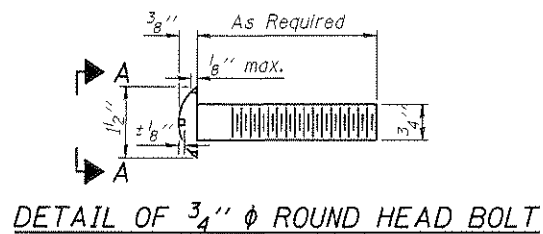
**TWO APPROACHES  
 BILL OF MATERIAL**

Bar	No.	Size	Length	Sh
$a(E)$	50	#4	34'-3"	—
$a_1(E)$	92	#5	34'-3"	—
$b(E)$	50	#4	29'-8"	—
$b_1(E)$	146	#9	29'-9"	—
$b_2(E)$	4	#4	14'-8"	—
$e(E)$	32	#4	14'-8"	—
$e_1(E)$	4	#8	14'-8"	—
$t(E)$	124	#4	7'-9"	—
$w(E)$	60	#5	34'-3"	—
Concrete Superstructure			Cu. Yd.	8.
Concrete Structures			Cu. Yd.	15
Reinforcement Bars, Epoxy Coated			Pound	23.
Bridge Deck Grooving			Sq. Yd.	1.
Protective Coat			Sq. Yd.	2

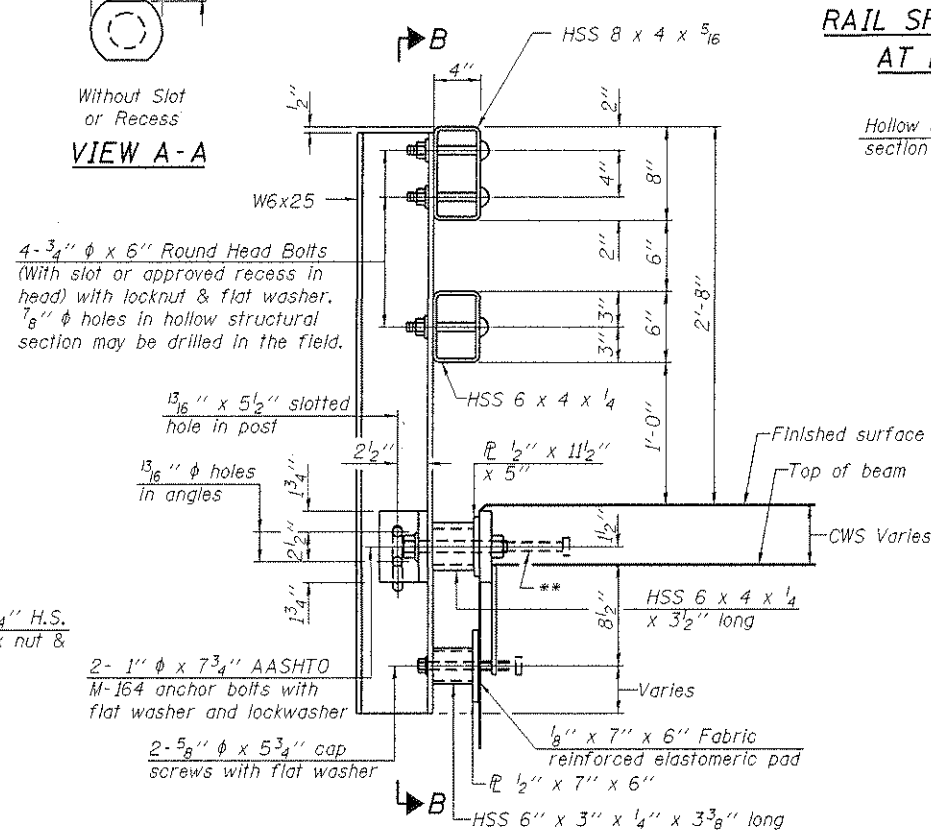
DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.

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

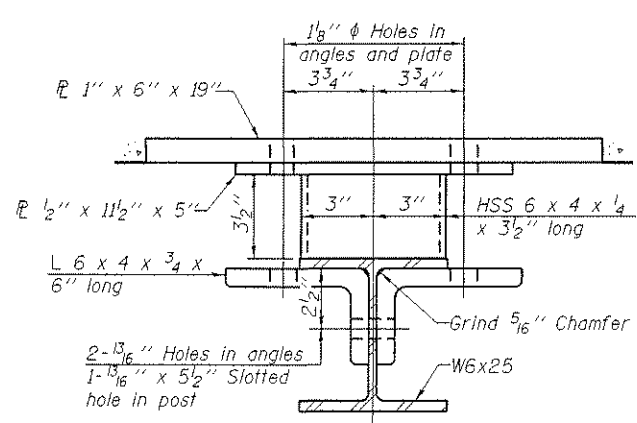
<b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS <b>HLR</b> 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	FAS	SECTION	COUNTY	TOT SHEET
	132	07-00358-00-BR	KANE	21
PROJECT NUMBER: 08.0043.150	DATE: 12/09/08	DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.
		FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	



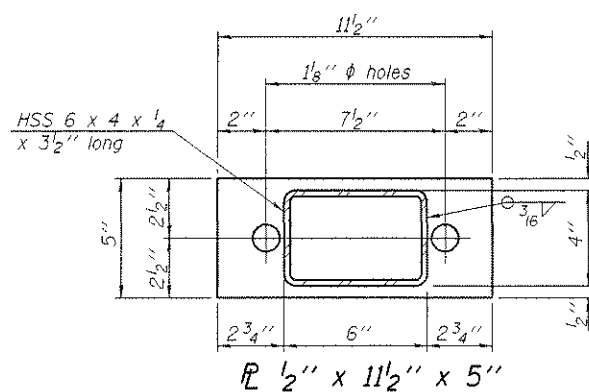
SECTION B-B



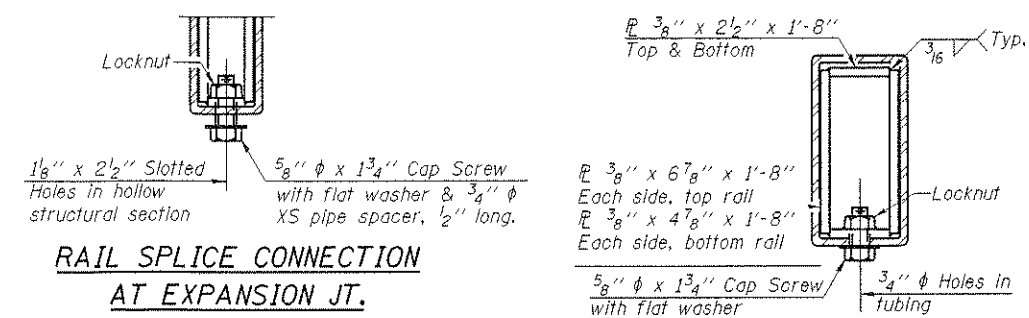
SECTION AT RAIL POST



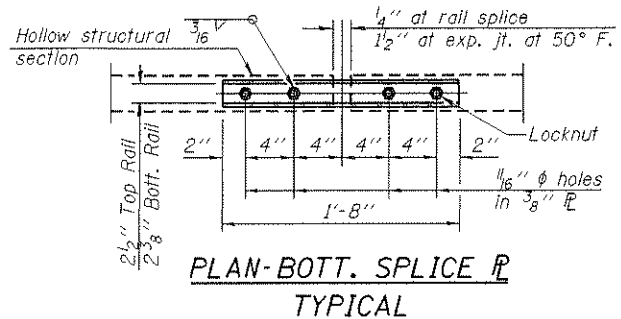
SECTION C-C



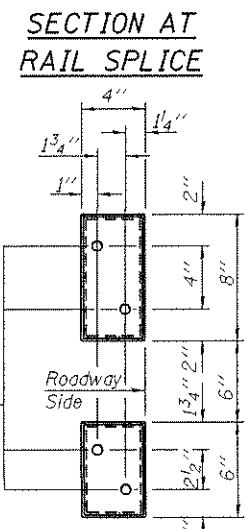
ANCHOR DEVICE



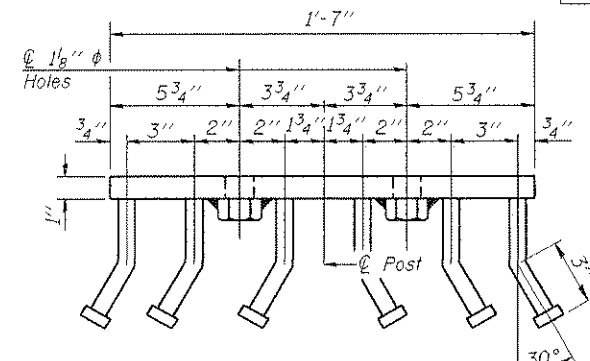
RAIL SPLICE CONNECTION AT EXPANSION JT.



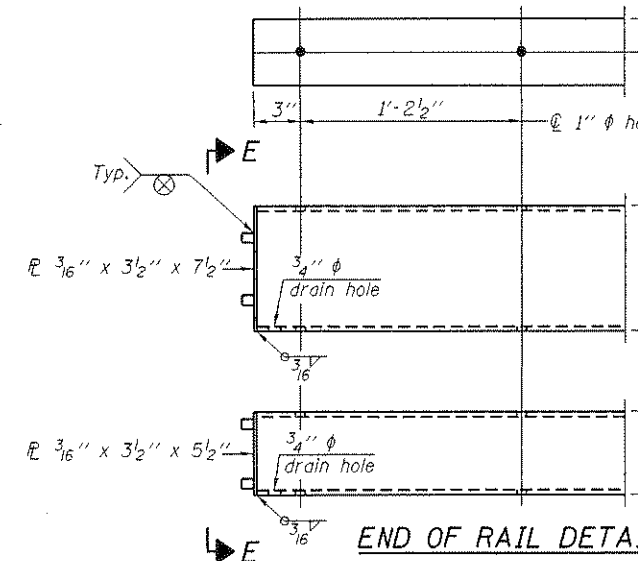
PLAN-BOTT. SPLICE TYPICAL



SECTION AT RAIL SPLICE



VIEW D-D



END OF RAIL DETAIL

Notes:  
 All field drilled holes shall be coated with an approved zinc 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 after device.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type SM	Foot	146

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

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

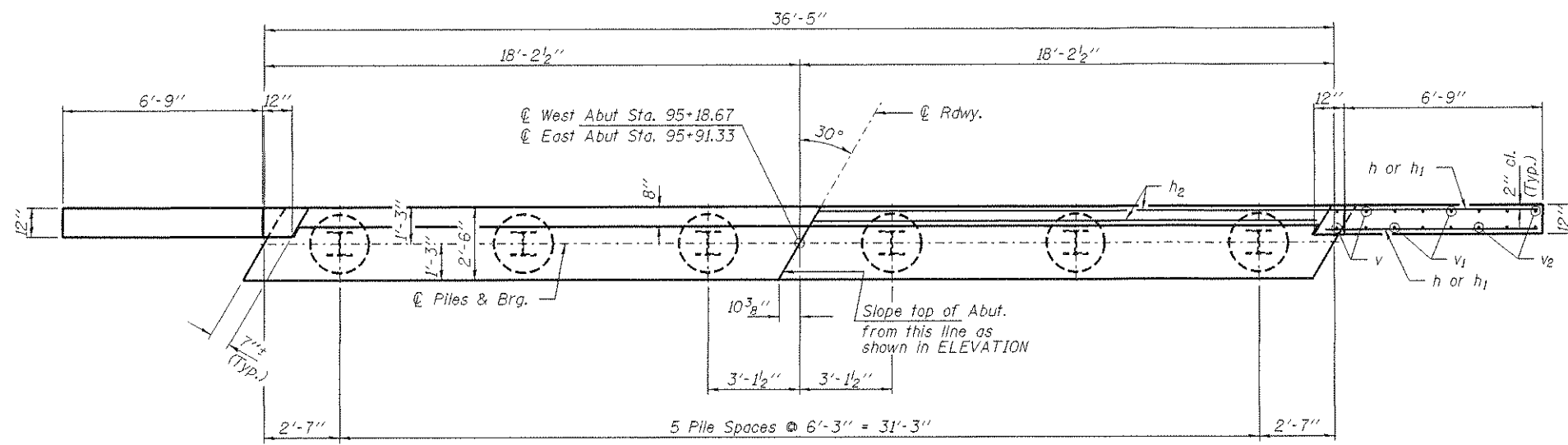
R-34CWS

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

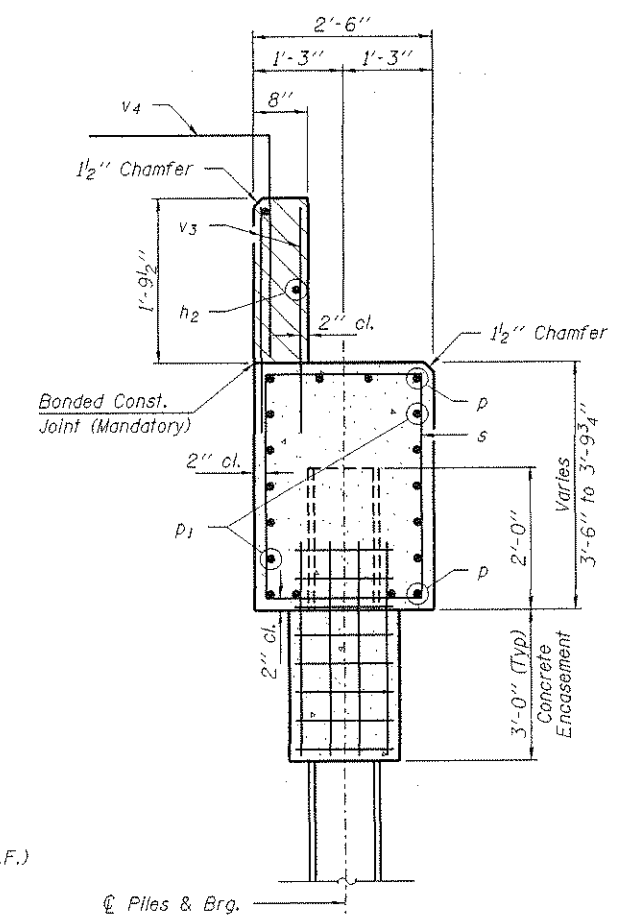
**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS  
  
 3085 STEVENSON DRIVE, SUITE 201  
 SPRINGFIELD, ILLINOIS 62703  
 (217) 546-3400  
 PROJECT NUMBER: 08.0043.130 DATE: 12/09/09

FAS	SECTION	COUNTY	TOT SHEET
132	07-00358-00-BR	KANE	2
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



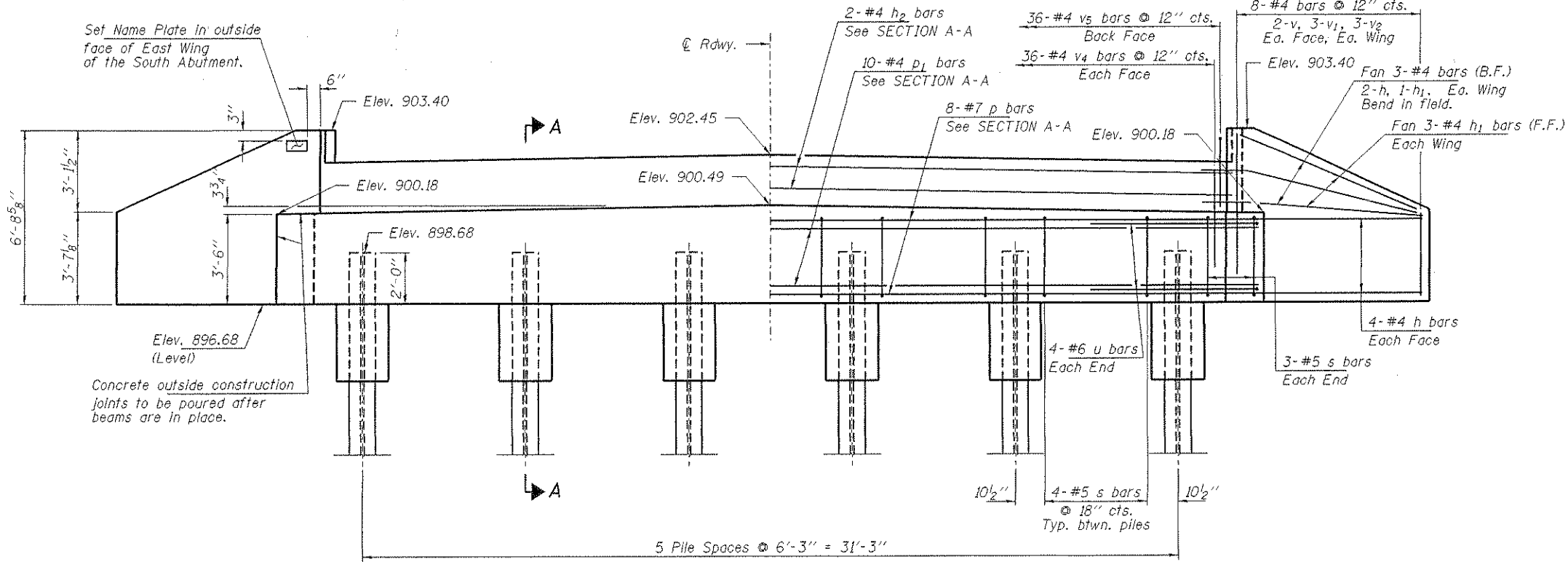


**ELEVATION**



**SECTION A-A**

Hatched area to be poured after beams are in place.



**PLAN**

**PILE DATA**

Type: Steel HP12x53  
 No. Req'd. (2 Abuts.): \*12  
 Factored Resistance Available: 191 Kips/Pile  
 Nominal Req'd Bearing: 382 Kips/Pile  
 Est. Length: 45 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.

**BILL OF MATERIAL - 2 ABUTS**

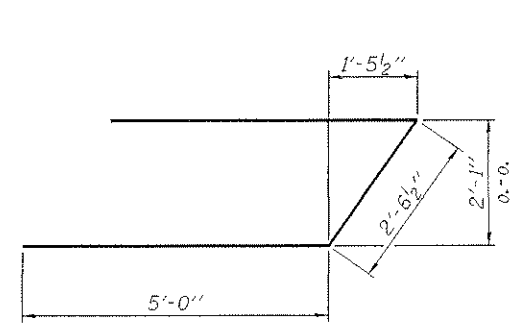
BAR	NO.	SIZE	LENGTH	S.
h	40	#4	9'-0"	—
h1	16	#4	7'-6"	—
h2	4	#4	34'-6"	—
p	16	#7	36'-1"	—
p1	20	#4	36'-1"	—
s	52	#5	11'-7"	—
u	16	#6	12'-7"	—
v	16	#4	6'-1"	—
v1	24	#4	4'-9"	—
v2	24	#4	3'-4"	—
v3	144	#4	2'-8"	—
v4	72	#4	4'-9"	—

Concrete Structures	Cu. Yd.
Concrete Encasement	Cu. Yd.
Reinforcement Bars, Epoxy Coated	Pound
Steel Piles HP12x53	Foot
Test Pile Steel HP12x53	Each
Name Plates	Each

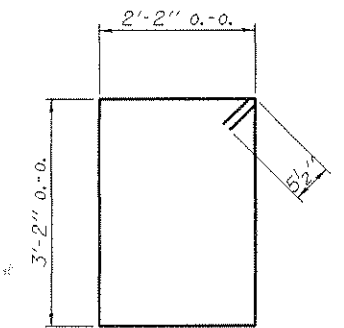
All reinforcement bars shall be epoxy coated.

**ABUTMENTS  
 STRUCTURE NO. 045-6302**

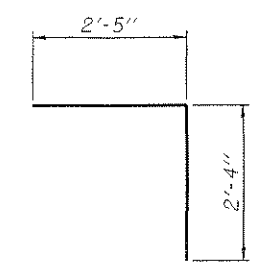
DESIGNED - S.W.M.
CHECKED - A.S.L.
DRAWN - D.A.B.
CHECKED - S.W.M.



**BAR u**



**BAR s**



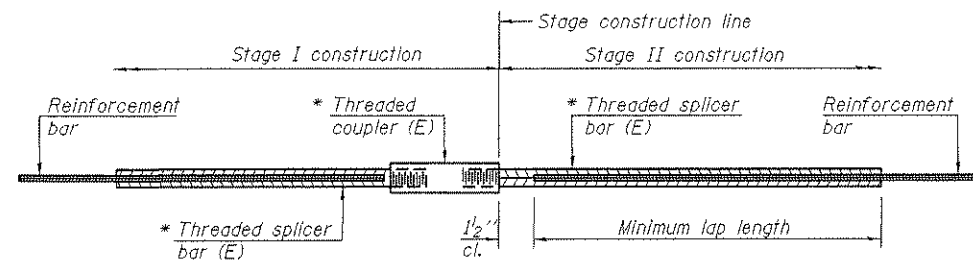
**BAR v4(E)**

**HAMPTON, LENZINI & RENWICK, INC.**  
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**HLR** 3085 STEVENSON DRIVE, SUITE 201  
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 (217) 546-3400

PROJECT NUMBER: 08.0043.130 DATE: 12/09/09

FAS	SECTION	COUNTY	TOT SHEET
132	07-00358-00-BR	KANE	21
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



**STANDARD BAR SPLICER ASSEMBLY**

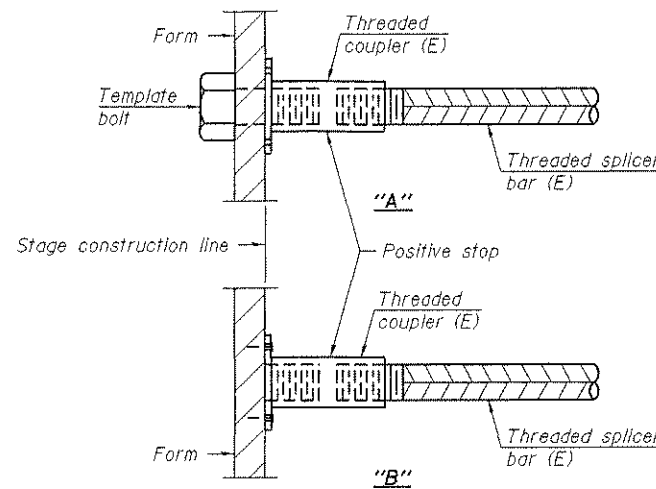
Bar size to be spliced	Minimum Lap Lengths			
	Table 1	Table 2	Table 3	Table 4
3, 4	1'-5"	1'-11"	2'-1"	2'-4"
5	1'-9"	2'-5"	2'-7"	2'-11"
6	2'-1"	2'-11"	3'-1"	3'-6"
7	2'-9"	3'-10"	4'-2"	4'-8"
8	3'-8"	5'-1"	5'-5"	6'-2"
9	4'-7"	6'-5"	6'-10"	7'-9"

- 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 1/2" + thread length

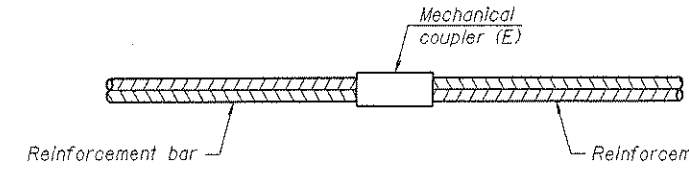
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

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



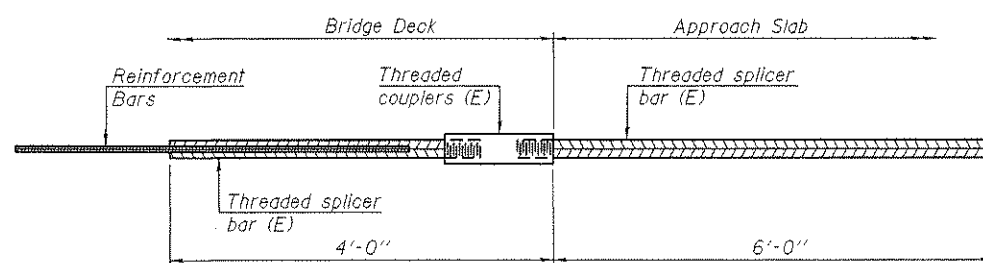
**INSTALLATION AND SETTING METHODS**

- "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.



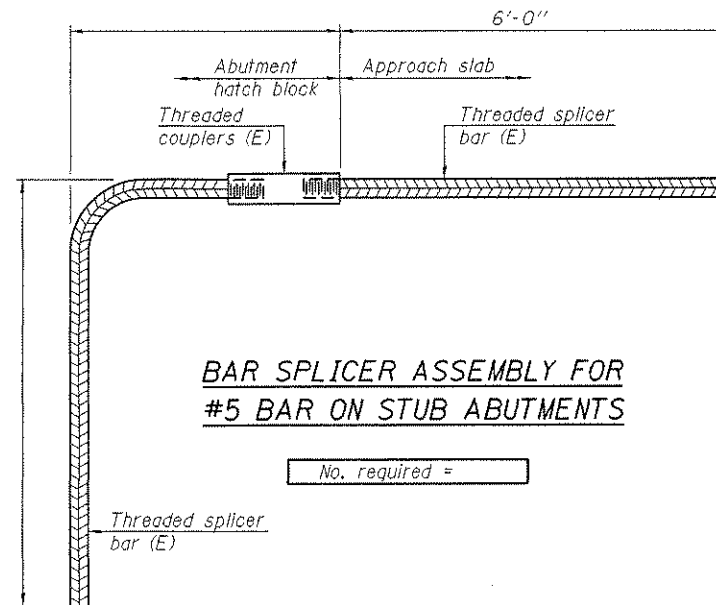
**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required
W. Abut.	#4	30
E. Abut.	#4	30



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

No. required =



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

No. required =

**NOTES**

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

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

BSD-1

11-1-09

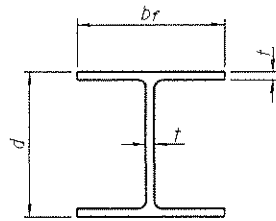
**HAMPTON, LENZINI & RENWICK, INC.**  
 CIVIL & STRUCTURAL ENGINEERS  
 LAND SURVEYORS

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

PROJECT NUMBER: 08.0043.130 DATE: 12/09/09

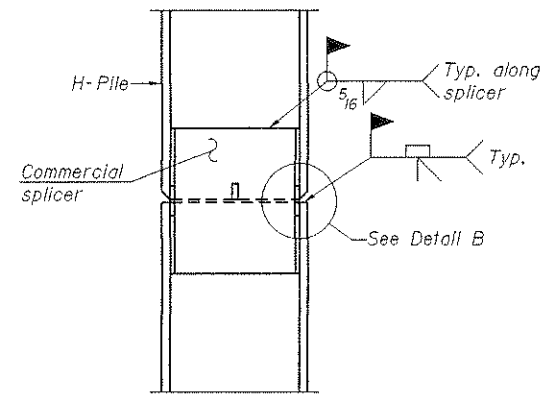
FAS	SECTION	COUNTY	TOT SHEET
132	07-00358-00-BR	KANE	2
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		

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

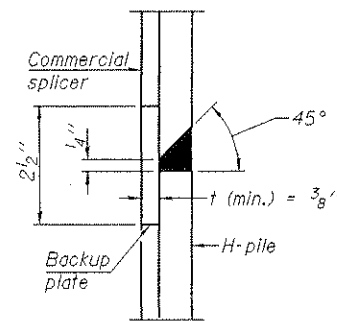


**STEEL PILE TABLE**

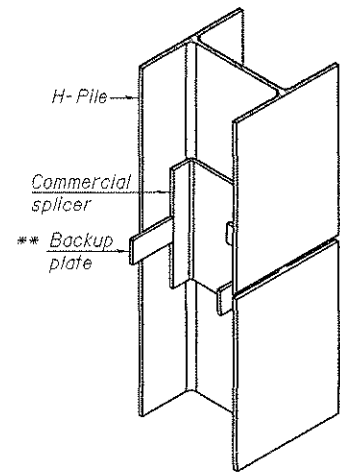
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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



**ELEVATION**

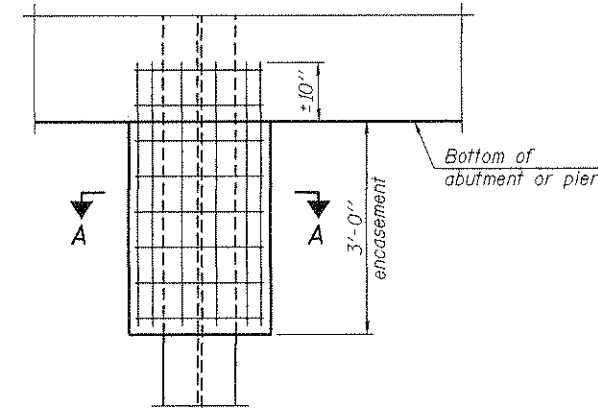


**DETAIL "B"**



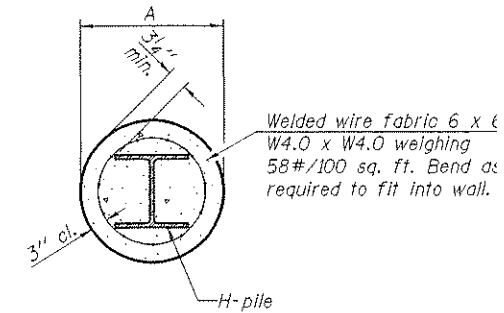
**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



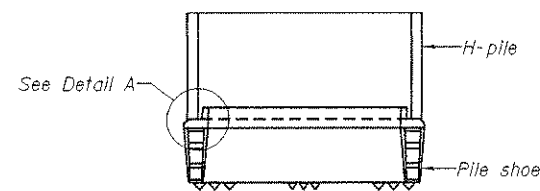
**ELEVATION**

**PILE ENCASEMENT**

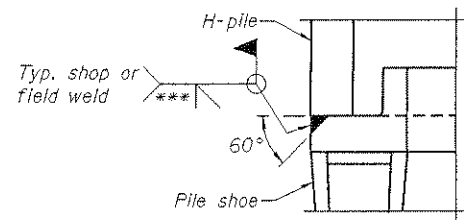


**SECTION A-A**

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

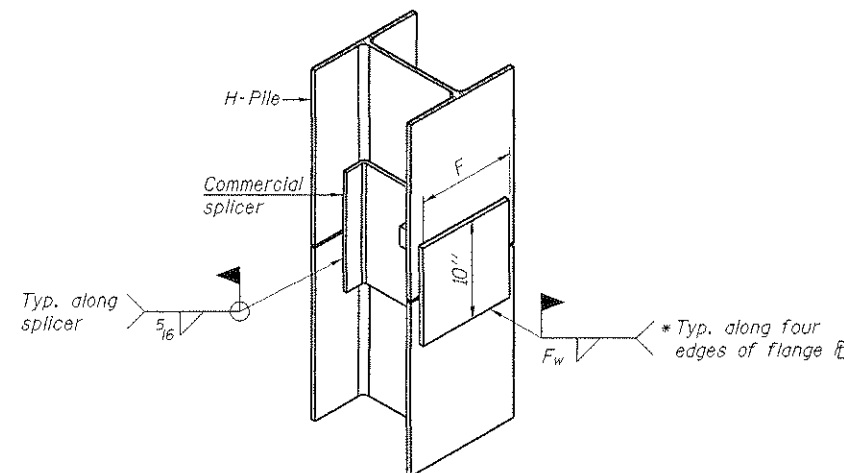


**ELEVATION**



**DETAIL A**

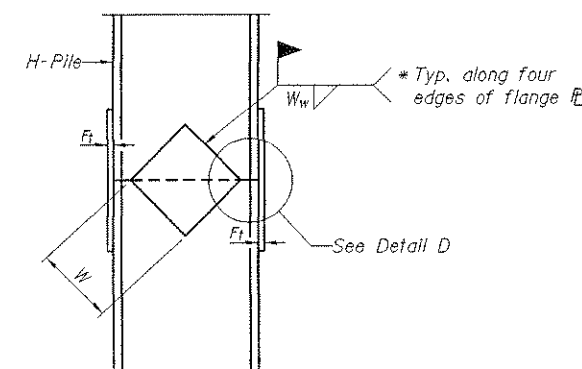
**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

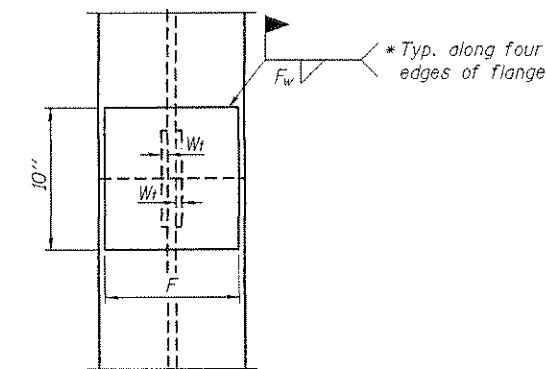
- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).



**ELEVATION**

**DETAIL D**

**WELDED PLATE FIELD SPLICE**



**END VIEW**

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>f</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5 8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5 8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5 8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5 8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5 8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5 8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

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

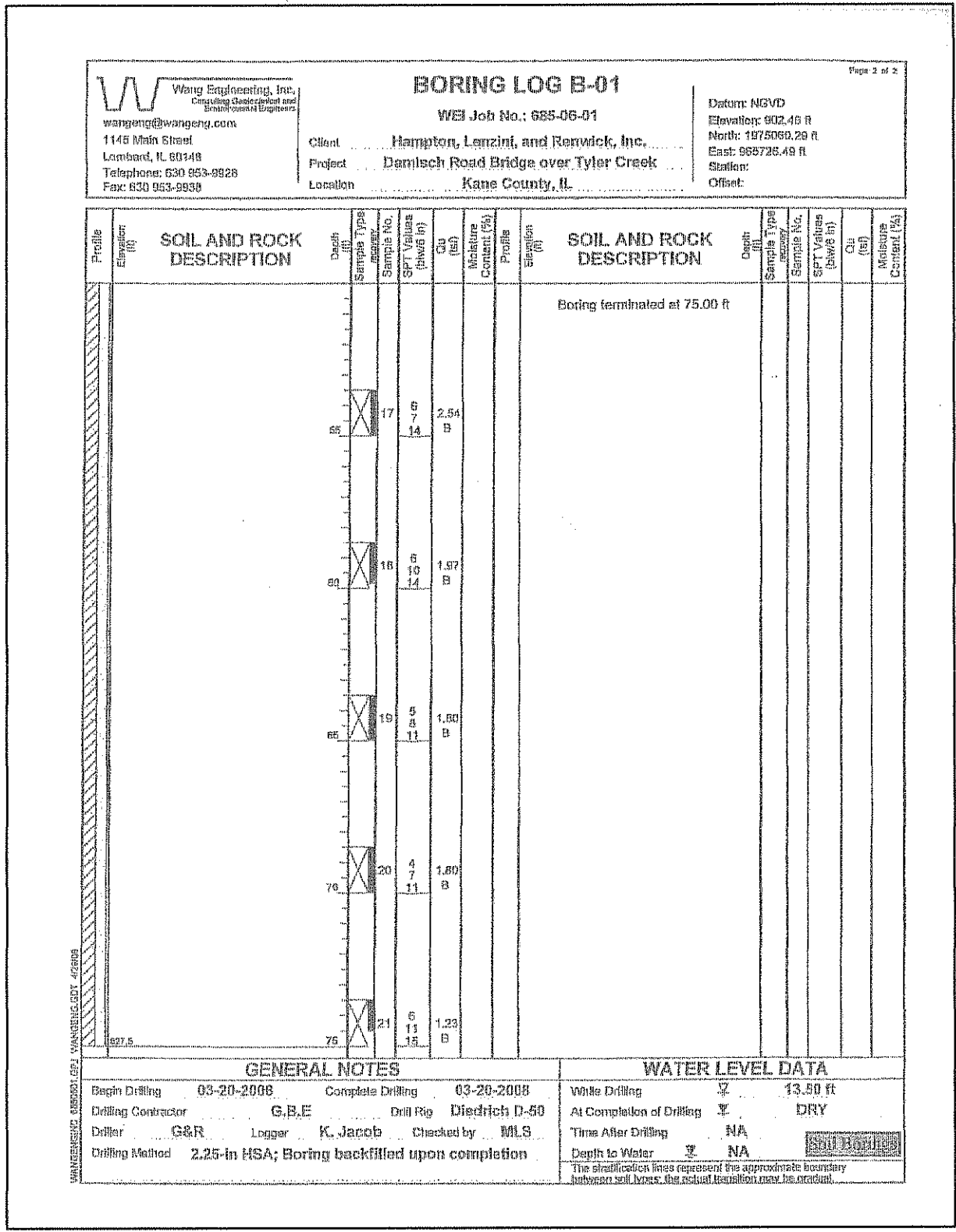
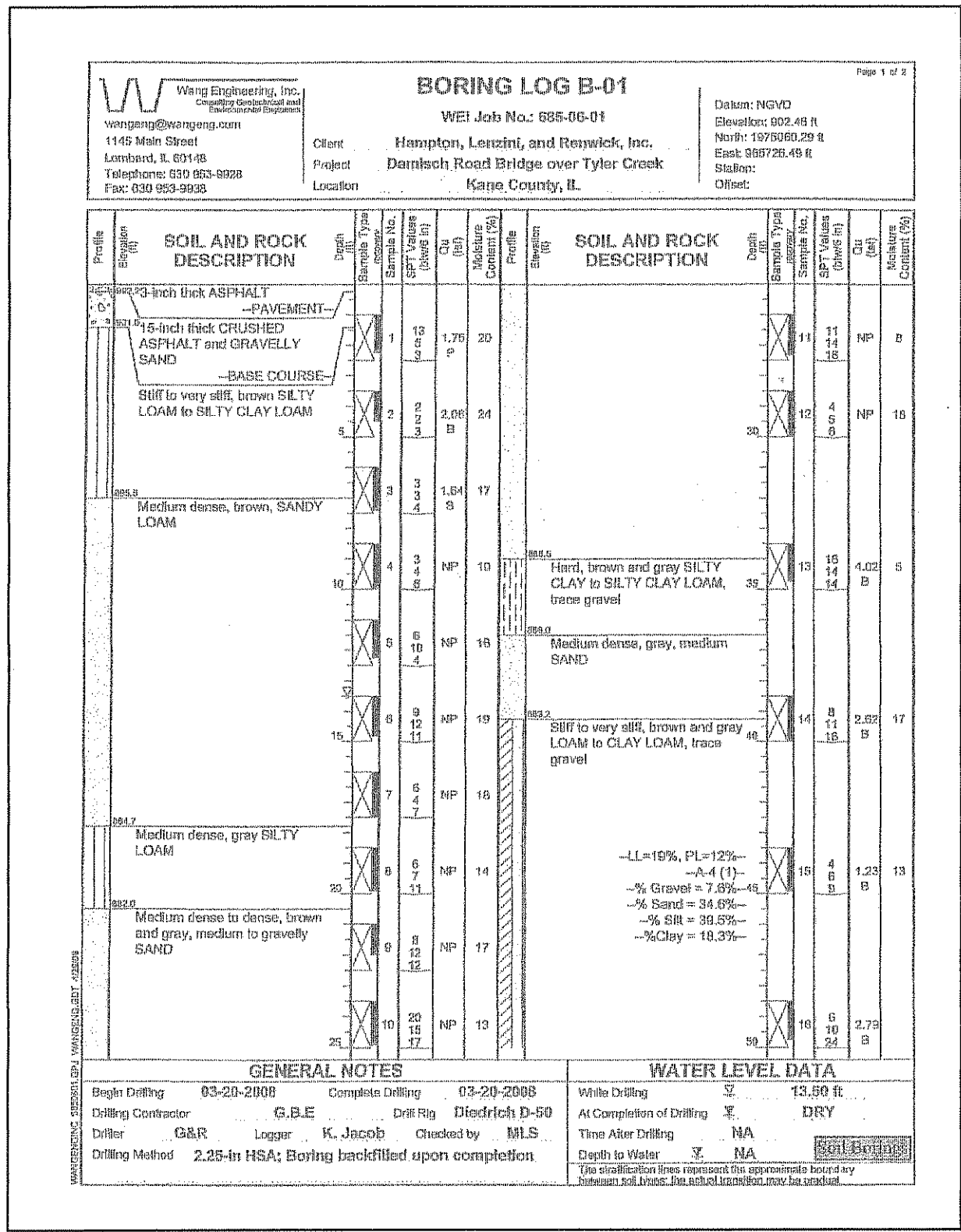
11-1-09

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

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

PROJECT NUMBER: DR.0043.130 DATE: 12/09/09

FAS	SECTION	COUNTY	TOT SHEET
132	07-00358-00-BR	KANE	2
DAMISCH ROAD OVER TYLER CREEK		CONTRACT NO.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	



DESIGNED - S.W.M.


CHECKED - A.S.L.

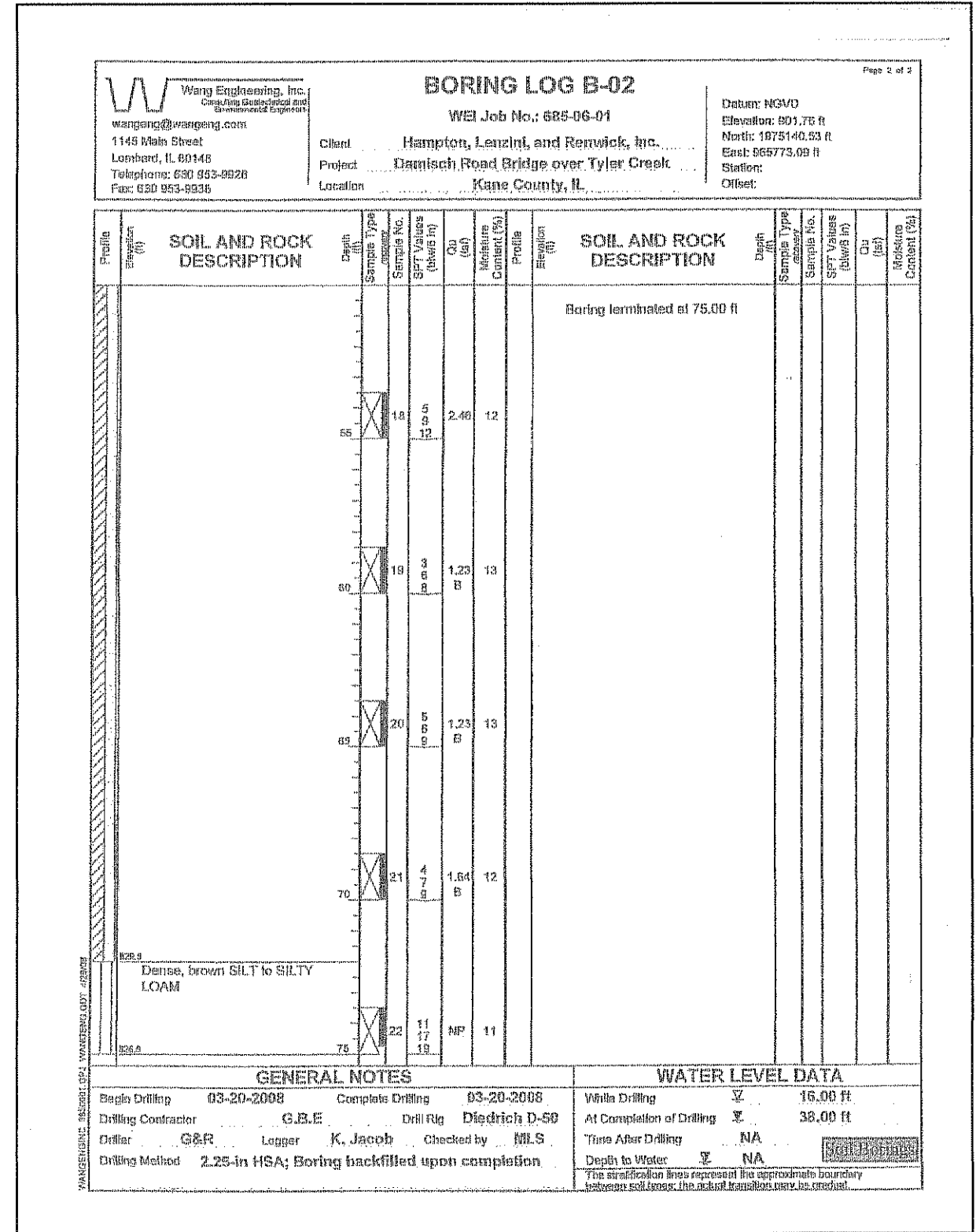
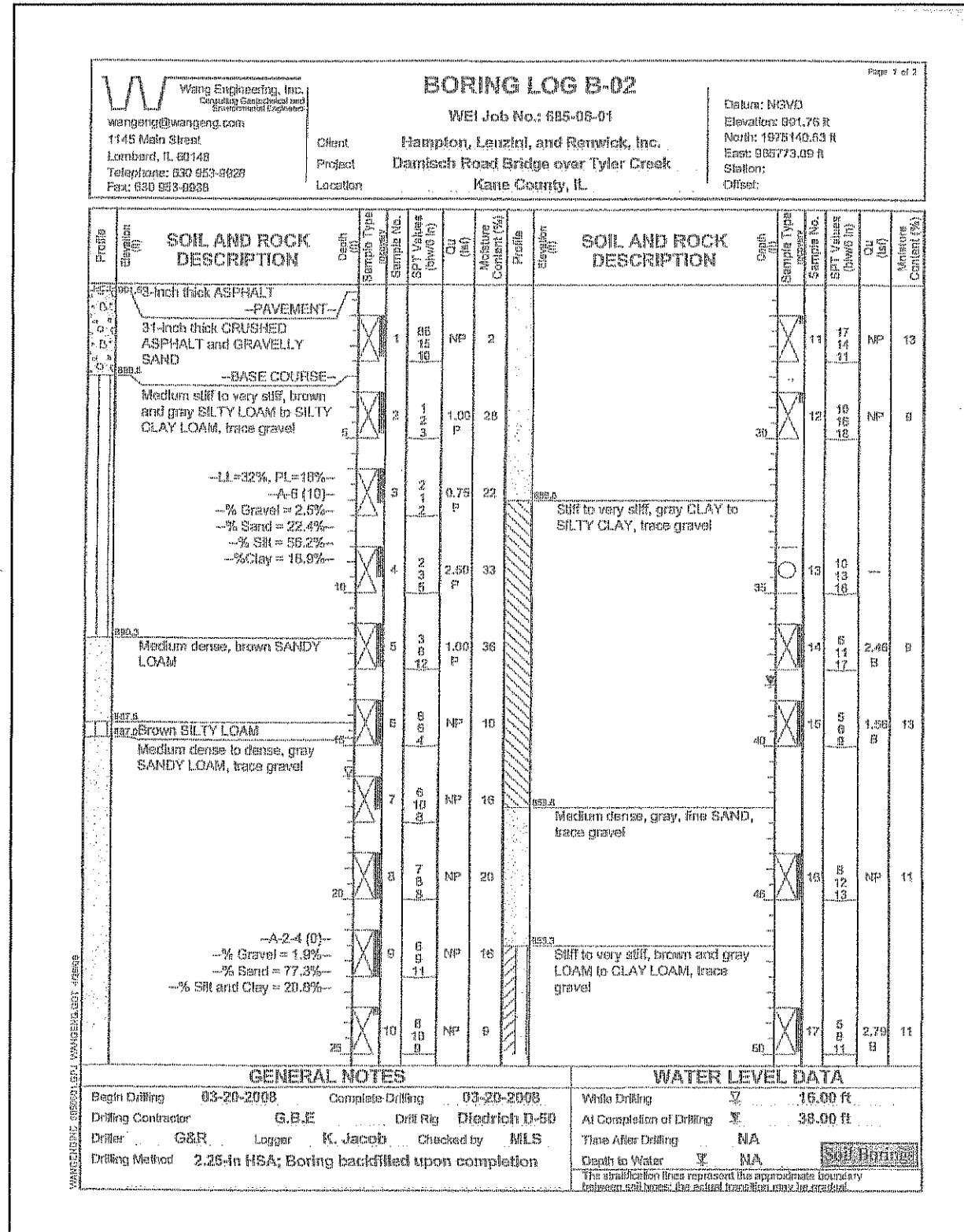
DRAWN - D.A.B.

CHECKED - S.W.M.

BORING 1

BORINGS  
STRUCTURE NO. 045-6302

 <b>HAMPTON, LENZINI &amp; RENWICK, INC.</b> CIVIL & STRUCTURAL ENGINEERS LAND SURVEYORS 3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 546-3400	FAS	SECTION	COUNTY	TO SHE
	132	07-00358-00-BR	KANE	2
	DAMISCH ROAD OVER TYLER CREEK			CONTRACT NO.
PROJECT NUMBER: 06.0043.130	DATE: 12/09/09	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT		



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

BORING 2

BORINGS  
STRUCTURE NO. 045-6302

<p>HAMPTON, LENZINI &amp; RENWICK, INC. CIVIL &amp; STRUCTURAL ENGINEERS LAND SURVEYORS</p> <p>3085 STEVENSON DRIVE, SUITE 201 SPRINGFIELD, ILLINOIS 62703 (217) 646-3400</p> <p>PROJECT NUMBER: 08.0043.130 DATE: 12/09/09</p>	FAS	SECTION	COUNTY	TOT SHEET
	132	07-00358-00-BR	KANE	2:
DAMISCH ROAD OVER TYLER CREEK			CONTRACT NO.	
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		