

02-28-14 LETTING ITEM 119

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

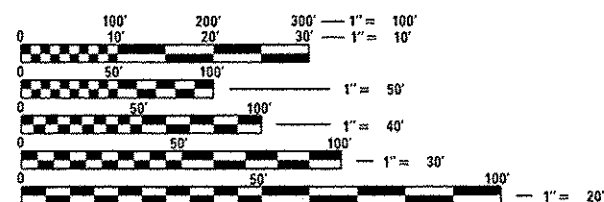
VARIOUS LOCATIONS
VARIOUS STRUCTURES
SECTION 2013-043BR
BRIDGE REPAIR
COOK COUNTY

D-91-411-13

SEE LOCATION MAPS
SHEETS 5-7

FOR INDEX OF SHEETS SEE SHEET NO. 2

IMPROVEMENTS ARE LOCATED IN THE CITY OF
FOREST VIEW AND THE VILLAGES OF SUMMIT
AND DOLTON.



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

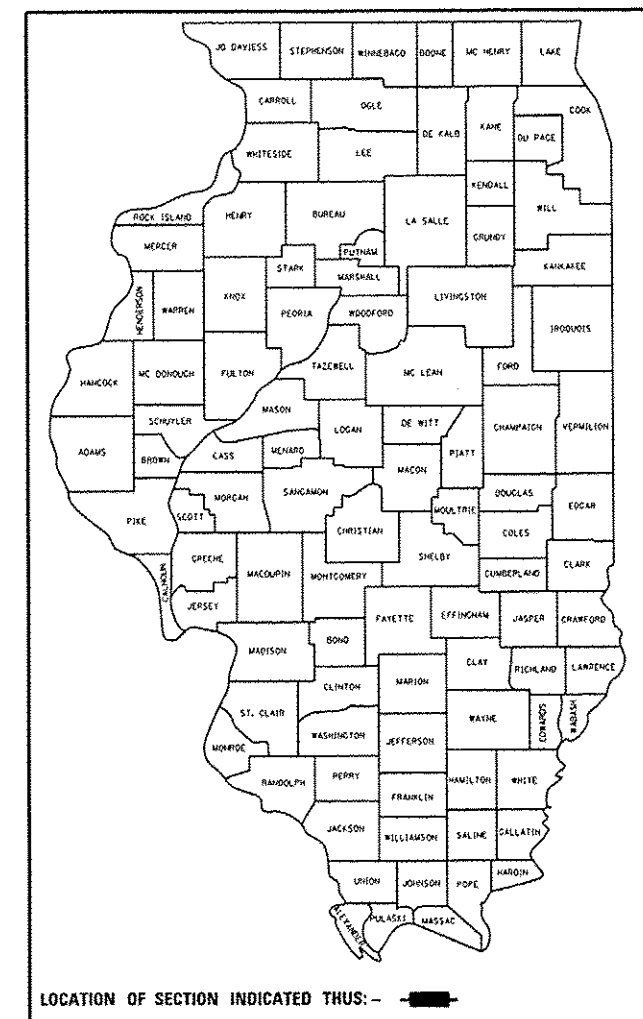
J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

PROJECT ENGINEER: J. ALAIN MIDY (847) 221-3056
PROJECT MANAGER: ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 60W97

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2013-043BR	COOK	22	1
ILLINOIS CONTRACT NO. 60W97				

*22 + 2 = 24



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED December 11, 2013
John Fortman
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

20
ENGINEER OF DESIGN AND ENVIRONMENT

20
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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2	INDEX OF SHEETS AND GENERAL NOTES
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8-14	BRIDGE REPAIR PLANS (LOCATION 1: SN 016-0014, LOCATION 2: SN 016-0015)
15-19	BRIDGE REPAIR PLANS (LOCATION 3: SN 016-0991)
20-22	BRIDGE REPAIR PLANS (LOCATION 4: SN 016-0158, LOCATION 5: SN 016-0159)
22A	TRAFFIC CONTROL & PROTECTION FOR SIDE ROADS, INTERSECTIONS, & DRIVEWAYS (TC-10)
22B	ARTERIAL ROAD INFORMATION SIGN (TC-22)

STATE STANDARDS

STANDARD NO.	STANDARD DESCRIPTION
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 M) TO (600 MM) FROM PAVEMENT EDGE
701101-04	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 M) TO 24" (600 mm) FROM PAVEMENT EDGE
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-03	TRAFFIC CONTROL DEVICES

GENERAL NOTES

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE BRIDGE INSPECTORS.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.

THE REPAIRS SHALL INCLUDE BUT NOT BE LIMITED TO AREAS SHOWN. THE ACTUAL AREAS TO BE DETERMINED BY THE ENGINEER AT THE TIME OF THE CONSTRUCTION.

REMOVAL OF EXISTING TIMBERS AND HARDWARE SHALL BE INCLUDED IN THE COST OF TREATED TIMBERS

FASTENERS SHALL BE ASTM A325 TYPE 1, MECHANICALLY GALVANIZED. COST OF NEW FASTENERS IS INCLUDED IN THE PAY ITEM "TREATED TIMBER".

ALL STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH AASHTO M111. EXCEPT HIGH STRENGTH BOLTS SHALL BE MECHANICALLY GALVANIZED.

ALL TIMBERS, INCLUDING LAMINATED TIMBERS, SHALL BE WHITE OAK OR RED OAK WITH Fb = 1,600 PSI (MIN.) AND PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT BOARD MEASURE FOR TREATED TIMBER.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

THE CONTRACTOR SHALL OBTAIN COAST GUARD APPROVAL FOR ANY WORK THAT MAY INTERFERE WITH NAVIGATIONAL OPERATIONS OF THE NAVIGABLE WATERS. A WORK PLAN SHALL BE PREPARED BY THE CONTRACTOR, REVIEWED AND APPROVED BY THE ENGINEER AND BE SUBMITTED BY THE ENGINEER TO THE COAST GUARD AT THE ADDRESS LISTED BELOW FOR THE APPROVAL.

BRIDGE ADMINISTRATOR
US COAST GUARD DISTRICT
1240 E. NINTH ST.
CLEVELAND, OH 44199-2060

EPOXY GROUTING TO BE DONE IN ACCORDANCE WITH ARTICLE 584 OF THE STANDARD SPECIFICATIONS
THE CONTRACTOR SHALL CONTACT THE IDOT TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

NO OVERNIGHT LANE CLOSURES WILL BE PERMITTED.

TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) SHALL ONLY APPLY TO S.N.'S 016-0014, 016-0015, 016-0158, AND 016-0159.

FILE NAME : c:\p\work\p\idoc\hardnettr\08259751\0	USER NAME : hardnettr	DESIGNED - BHJ RA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS AND GENERAL NOTES	SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	1113-shr-plandgn	DRAWN - 11/20/13	REVISED -									VAR.	2013-043BR	COOK	22	2
	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -									CONTRACT NO. 60W97				
	PLOT DATE = 1/14/2014	DATE - 11/21/13	REVISED -									ILLINOIS FED. AID PROJECT				

009 A.C. 10.

LOCATION	1				2				3			4				5			
STRUCTURE NUMBER	016-0014				016-0015				016-0991			016-0158				016-0159			
	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.	NORTH BASCULE	SOUTH BASCULE	TOTAL	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.	# OF TIMBERS	INDIVIDUAL LENGTH OF TIMBERS	TOTAL LENGTH - FEET	TOTAL LENGTH - F.B.M.
8x12 TIMBER UNDERWATER	*4	18'-10"	75.33'		*0	18'-10"	0'												
	12	13'-11"	167'		12	13'-11"	167'												
	8	18'-4"	146.7'		8	18'-4"	146.7'												
	4	17'-10"	71.3'		4	17'-10"	71.3'												
TOTAL			460.3'	3683			385'	3080											
6x12 TIMBER UNDERWATER	14	2'-0"	28'		30	2'-0"	60'					7	12'-8"	88.7'		1	12'-8"	12.67'	
												1	16'-0"	16'					
												1	10'-10"	10'					
												2	22'-6"	45'					
TOTAL			28'	168			60'	360						159.7	959			12.67'	77
STRUCTURAL REPAIR OF CONCRETE < OR = TO 5"									2 SF	1 SF	3 SF								
STRUCTURAL REPAIR OF CONCRETE > 5"									2 SF	0 SF	2 SF								
EPOXY CRACK INJECTION									14 FT	0 FT	14 FT								
6x12 TIMBER												2	12'-8"	25.33'	152	4	12'-8"	50.67'	305
4"x8"x1" TIMBER												7	1'-0"	7'	19	9	1'-0"	9'	24
4"x8"x1" TIMBER UNDERWATER												19	1'-0"	19'	51	3	1'-0"	3'	8

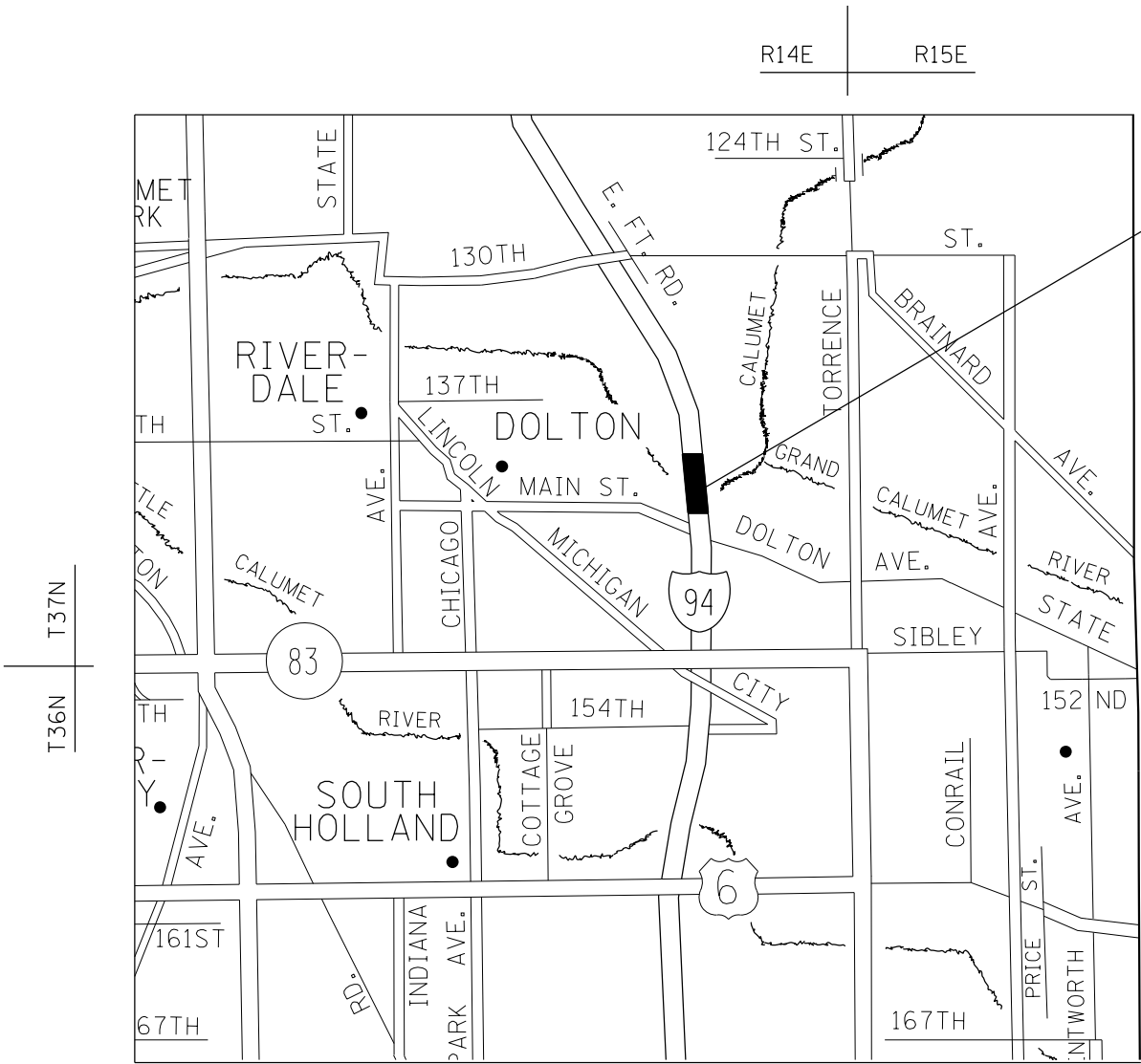
NOTE: TIMBERS THAT SPAN BETWEEN STRUCTURES 016-0014 AND 016-0015 HAVE BEEN CONSOLIDATED, AND ARE ACCOUNTED FOR UNDER ' OF TIMBERS' FOR S.N. 016-0014.

FILE NAME = c:\p4\work\p4\dot\hardnettr\0359751\041113-Whi-plan.dgn Default	USER NAME = hardnettr	DESIGNED ~ BH; RA	REVISED ~	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SCHEDULE OF QUANTITIES				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN ~ 11 /20 /13	REVISED ~						VAR.	2013-043BR	COOK	22	4
	PLOT SCALE * 100.0000 ' / in.	CHECKED ~ JAM	REVISED ~						CONTRACT NO. 60W97				
	PLOT DATE * 12/11/2013	DATE ~ 11 /21 /13	REVISED ~						ILLINOIS FED. AID PROJECT				
SCALE:		SHEET	OF	SHEETS	STA.	TO STA.							

TRAFFIC DATA

I-94 OVER CALSAG CHANNEL

2012 ADT =158,600
POSTED SPEED LIMIT =55 MPH



LOCATION 4: SN 016-0158
I-94 (BISHOP FORD) (SB)
OVER LITTLE CALUMET RIVER

LOCATION 5: SN 016-0159
I-94 (BISHOP FORD) (NB)
OVER LITTLE CALUMET RIVER

VILLAGE OF DOLTON

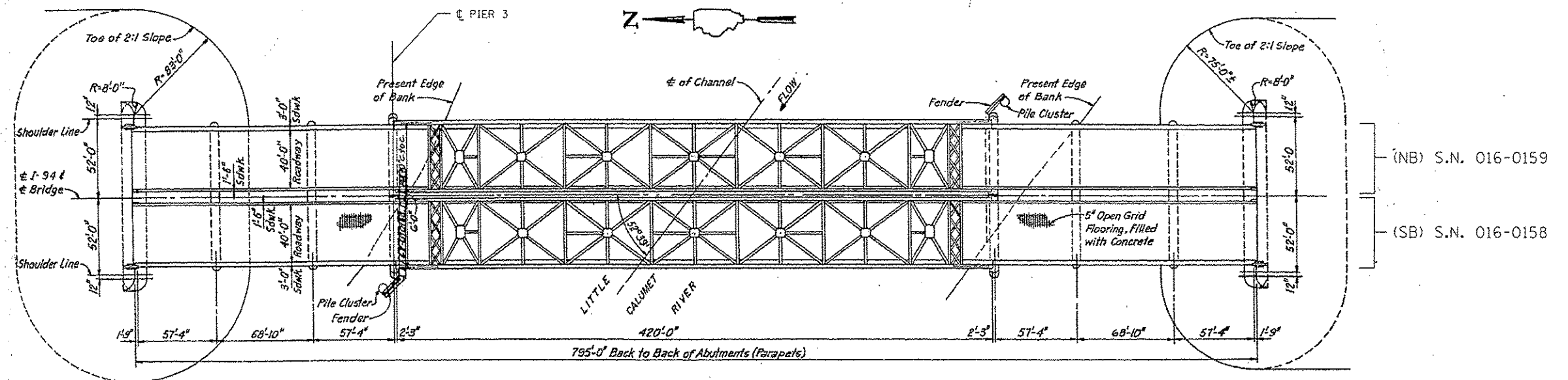
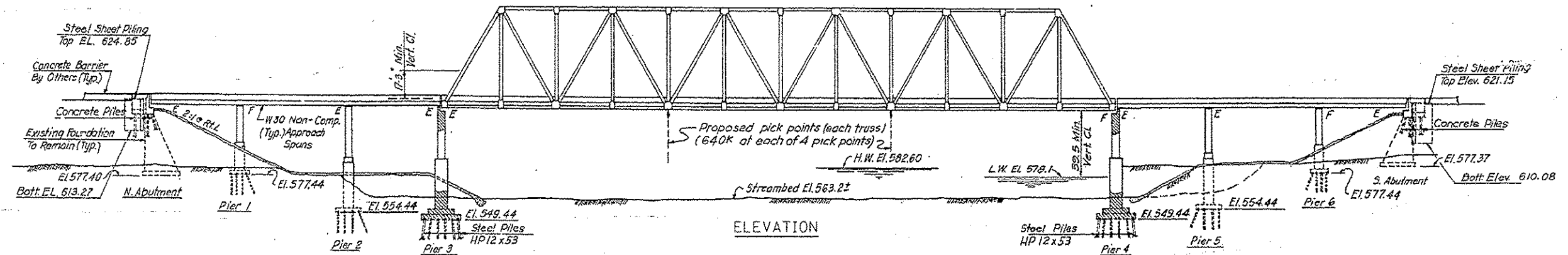
THORTON TOWNSHIP

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		DRAWN - 11 /20 /13	REVISED -						VAR.	2013-043BR	COOK	22	7
	PLOT SCALE = 100.0000' / in.	CHECKED - JAM	REVISED -		CONTRACT NO. 60W97				ILLINOIS FED. AID PROJECT				
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.		

Design Stresses
 $f_c = 3500$ psi
 $f_y = 60,000$ psi (Reinforcing)
 $f_s = 20,000$ psi (AASHTO M183)
 $f_s = 27,000$ psi (AASHTO M223, Gr. 50)

Loading
 $H_S = 20' 4$ ALT.
 Allow for 25 psf for
 Future wearing surface

Design Specifications
 AASHTO 1989 & Interim
 AASHTO 1983 Seismic Guide Specifications



PLAN

TOTAL BILL OF MATERIAL
 S.N. 016-0158 & S.N. 016-0159

ITEM	UNIT	TOTAL
TREATED TIMBER	F.B.M.	1595
HARDWARE	POUND	7320
UNDERWATER INSTALLATION OF TREATED TIMBER	F.B.M.	1095

BILL OF MATERIAL S.N. 016-0158

ITEM	UNIT	TOTAL
TREATED TIMBER	F.B.M.	1181
HARDWARE	POUND	3660
UNDERWATER INSTALLATION OF TREATED TIMBER	F.B.M.	1010

BILL OF MATERIAL S.N. 016-0159

ITEM	UNIT	TOTAL
TREATED TIMBER	F.B.M.	414
HARDWARE	POUND	3660
UNDERWATER INSTALLATION OF TREATED TIMBER	F.B.M.	85

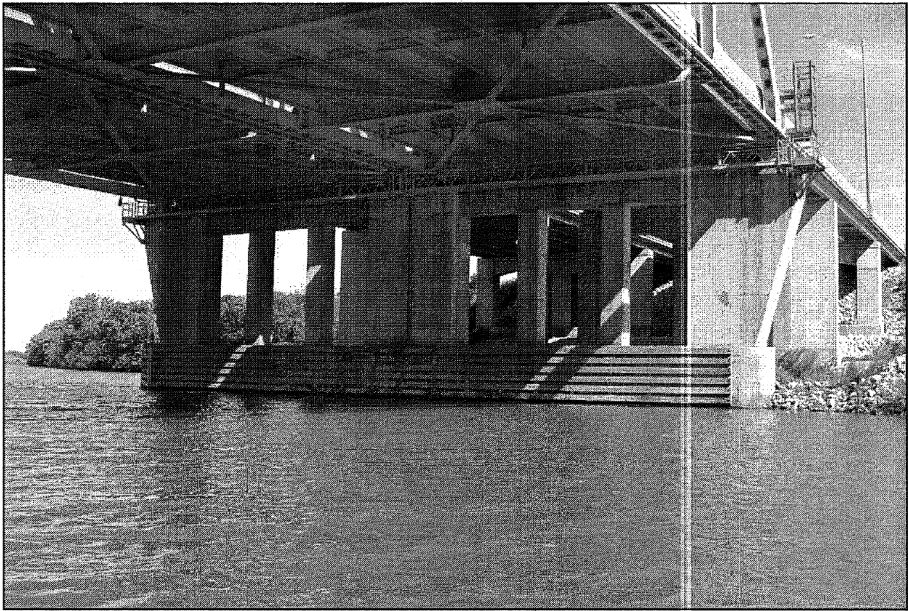
LOCATIONS 4-5
 I-94 OVER
 LITTLE CAL SAG
 CHANNEL
 S.N. 016-0158, 0159



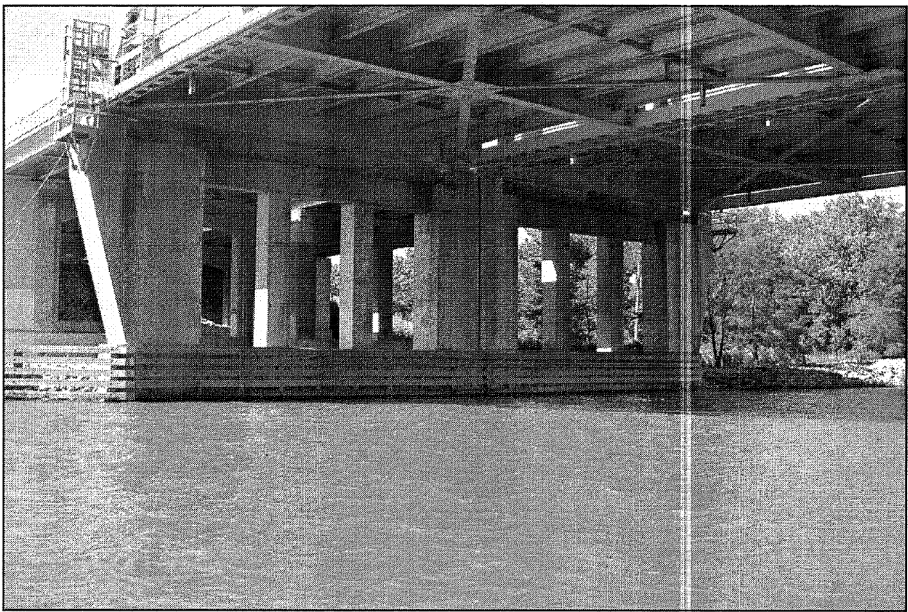
David Carl Puzey 1/23/14
 Expires 1/30/14

LEGEND

TIMBER REPLACEMENT



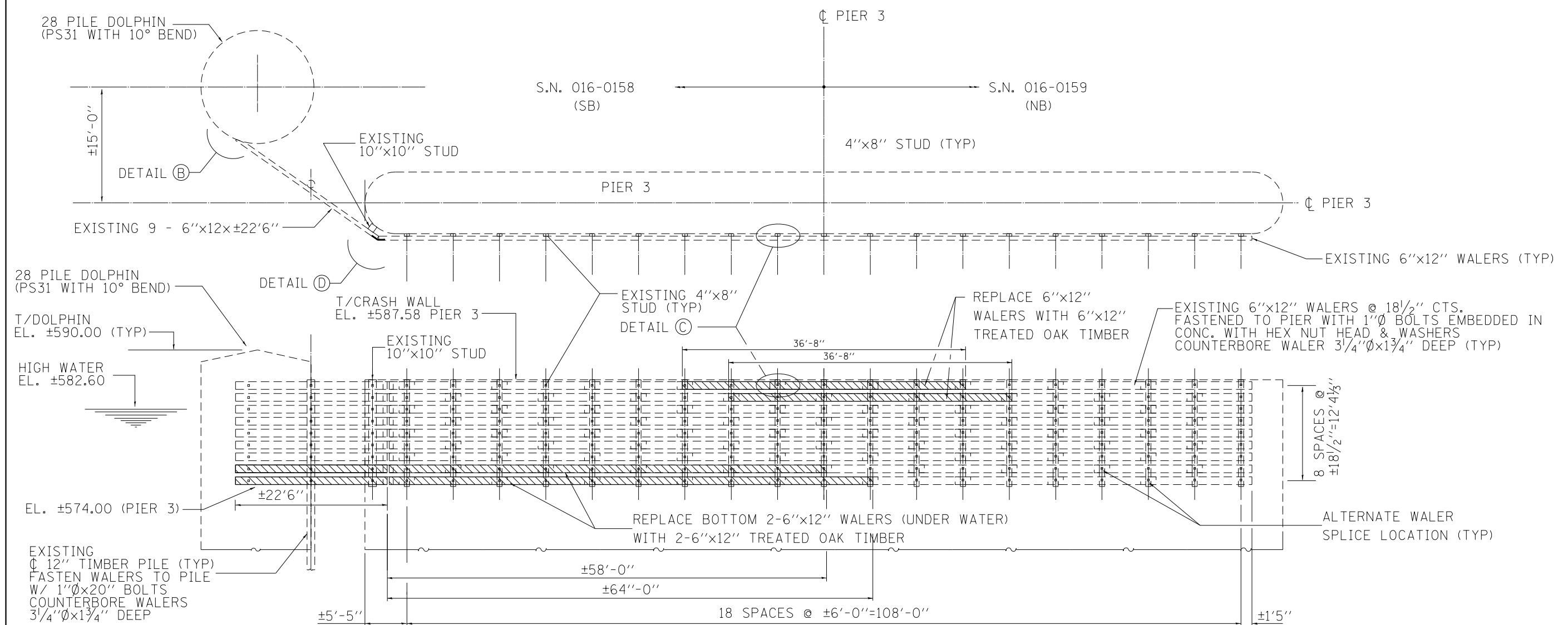
View of Northbound and Southbound Pier 3, Looking Northwest.



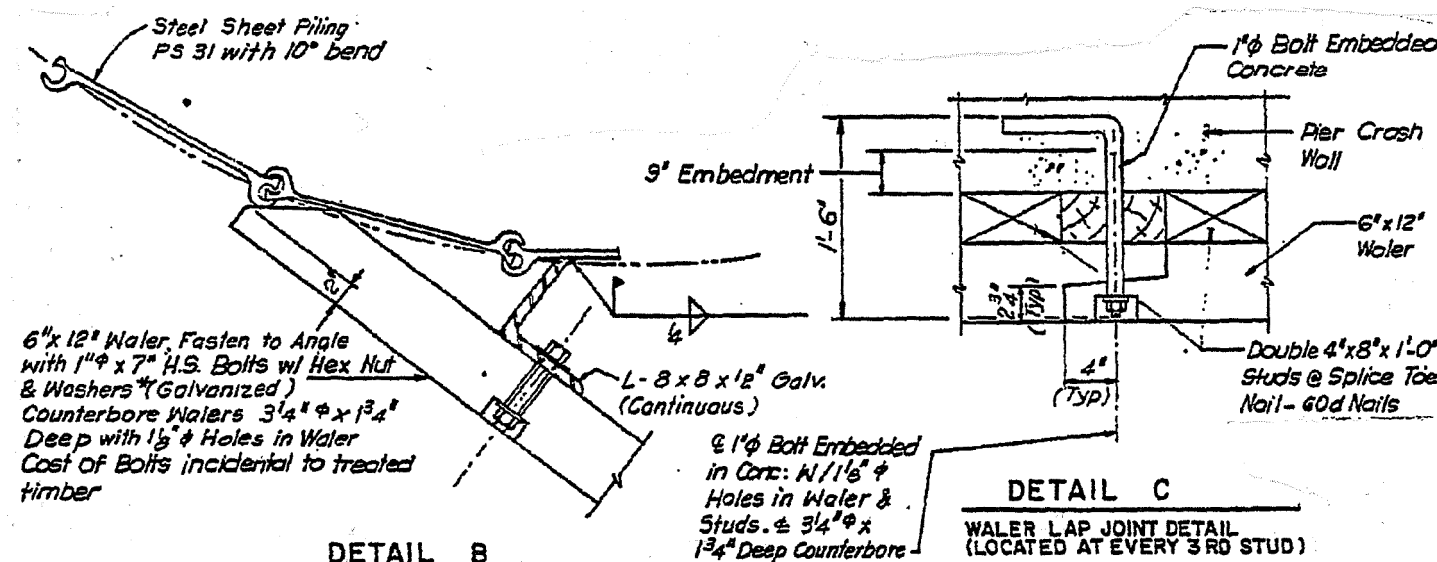
View of Northbound and Southbound Pier 4, Looking Southwest.

LOCATIONS 4-5
I-94 OVER
LITTLE CAL SAG
CHANNEL
S.N. 016-0158, 0159

FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATIONS 4-5 BRIDGE REPAIR PLANS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\p\idot\hardnettbr\d0359751\041113-sht-plan.dgn	DRAWN - 11 /20 /13	REVISED -	VAR.						2013-043BR	COOK	22	21	
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	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -		ILLINOIS FED. AID PROJECT								
					SCALE:	SHEET 2 OF 3 SHEETS	STA.	TO STA.					



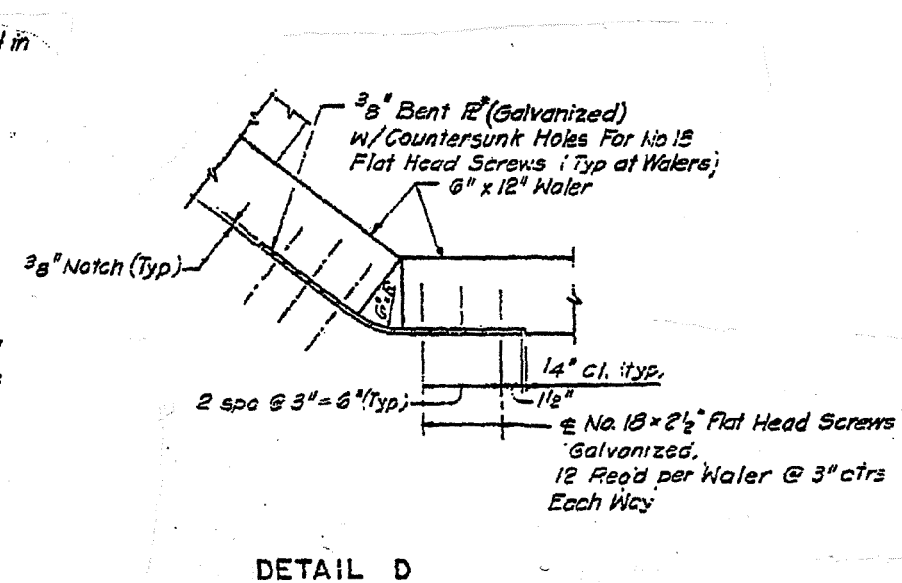
PIER NO. 3 NORTH ELEVATION (LOOKING NORTH)



LEGEND



TIMBER REPLACEMENT



NOTE

SEE SPECIAL PROVISIONS FOR UNDERWATER INSTALLATION OF TREATED LUMBER

FILE NAME =	USER NAME = hardnettbr	DESIGNED - BH; RA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATIONS 4-5 BRIDGE REPAIR PLANS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pw\work\pwidth\hardnettbr\d035975\04	11113-shr-plan.dgn	DRAWN - 11 /20 /13	REVISED -						VAR.	2013-043BR	COOK	22	22
	PLOT SCALE = 100.0000 ' / 1"	CHECKED - JAM	REVISED -						CONTRACT NO. 60W97				
	PLOT DATE = 12/11/2013	DATE - 11 /21 /13	REVISED -						ILLINOIS FED. AID PROJECT				
Default					SCALE:	SHEET 3 OF 3 SHEETS	STA.	TO STA.					