

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

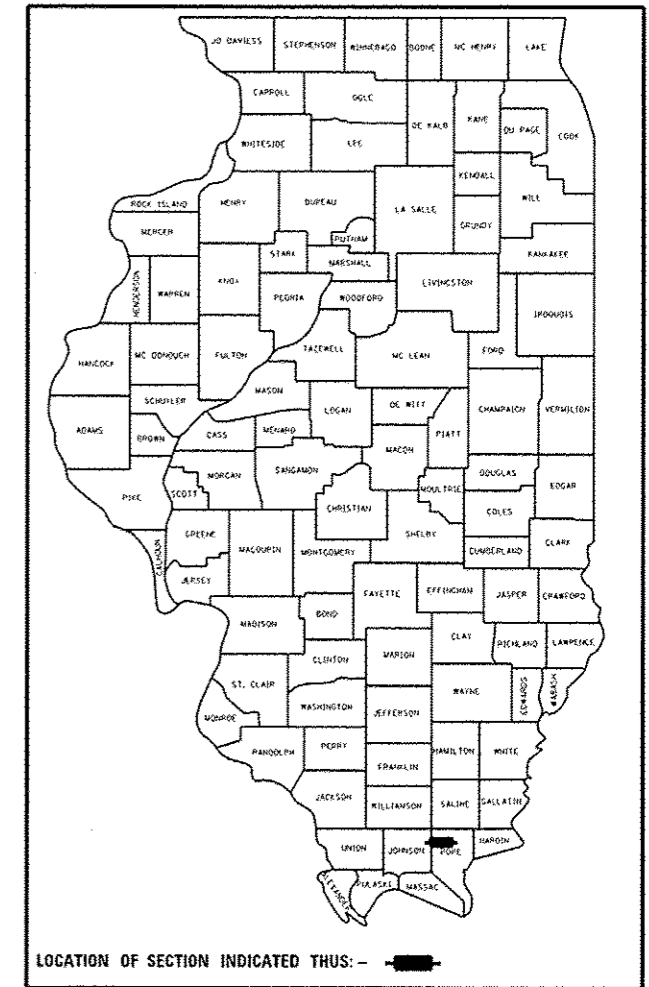
FAS ROUTE 932 (IL 147)  
SECTION D9 CM BRIDGE REPAIR 2016-1

BRIDGE REPAIR  
POPE COUNTY

C-99-030-15

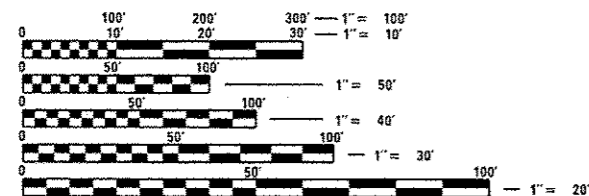
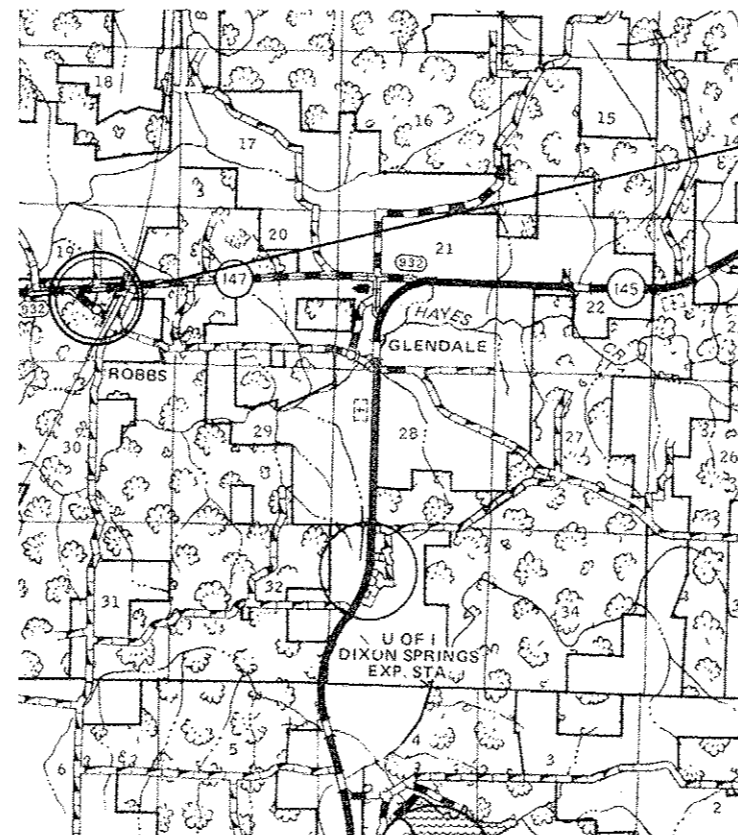
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
932	*	POPE	7	1
ILLINOIS CONTRACT NO. 78465				

D-99-025-15



FOR INDEX OF SHEETS, SEE SHEET NO. 2

2013 ADT: 425  
12% TRUCKS  
TOWNSHIP: POPE COUNTY ROAD DISTRICT #2  
POSTED SPEED LIMIT: 55 MPH



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

DESIGN ENGINEER: ADRIAN ADAMS (618) 351-5262  
PROJECT ENGINEER: DAVID PICHE (618) 351-5227

GROSS LENGTH = 125.50 FT. = 0.024 MILE  
NET LENGTH = 125.50 FT. = 0.024 MILE

CONTRACT NO. 78465

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED *March 15 20 16*  
*Jeffrey S. Keiser*  
REGION FIVE ENGINEER

*Maureen M. Adams, P.E.*  
ENGINEER OF DESIGN AND ENVIRONMENT

*Maureen M. Adams, P.E.*  
DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS



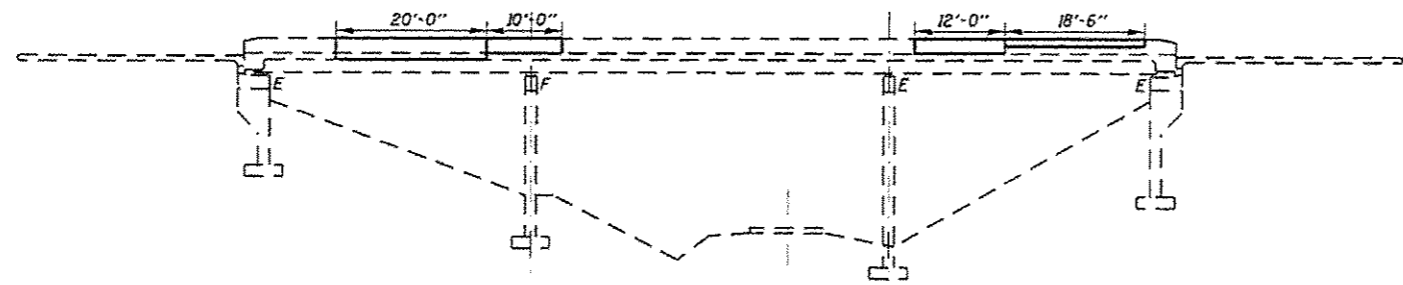
# SUMMARY OF QUANTITIES

*100% STATE*

CODE NUMBER	ITEM DESCRIPTION	UNIT	0014
			QUANTITY
50102400	CONCRETE REMOVAL	CU YD	4.6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	4.6
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	490
64300450	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	2
67100100	MOBILIZATION	LSUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	LSUM	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70106700	TEMPORARY RUMBLE STRIPS	EACH	6
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	2
70400100	TEMPORARY CONCRETE BARRIER	FOOT	288
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	LSUM	1

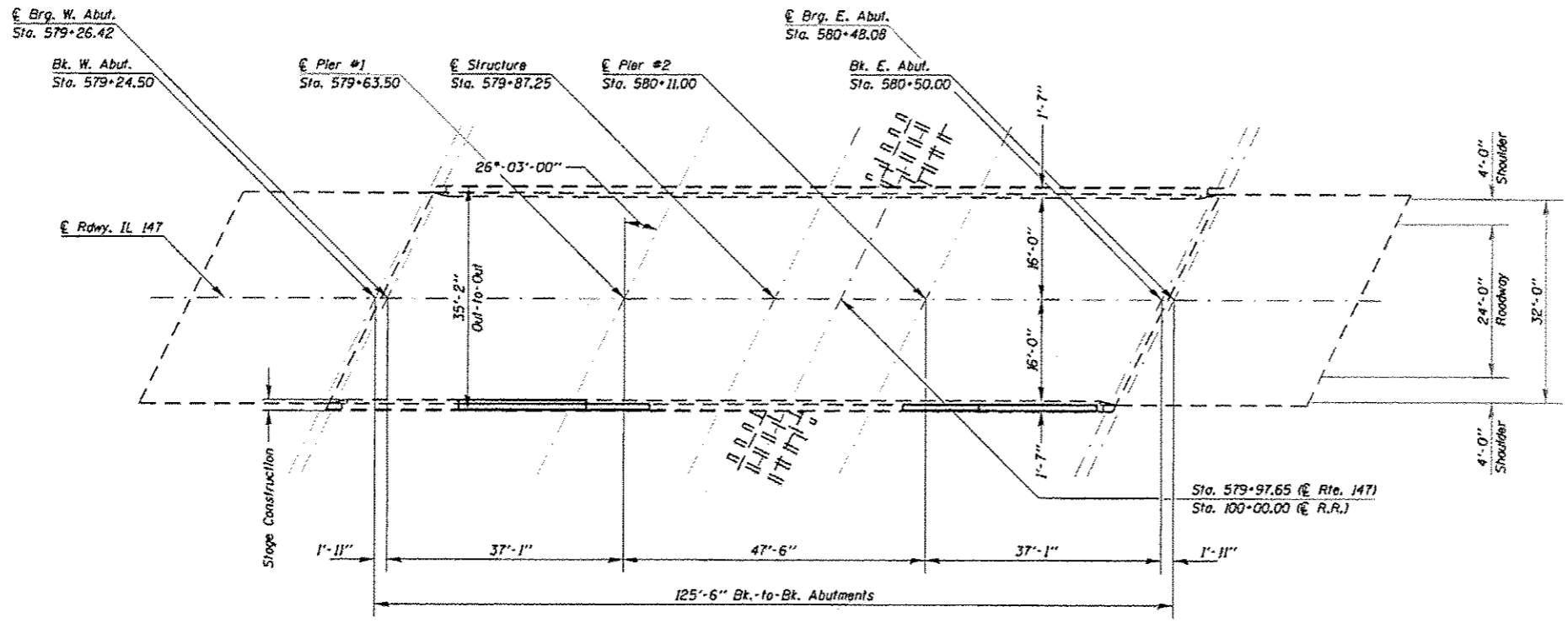
14

FILE NAME :	USER NAME : adamam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.S. RTE. 932	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	Documents\DOT Offices\District 9\Projects\Contract 2016\78465\CAD\Sheets\REVISED\plan.dgn	CHECKED -	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.	09 CM BRIDGE REPAIR 2016-1	POPE	7	3	CONTRACT NO. 78465
	PLT DATE : 3/16/2016	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				

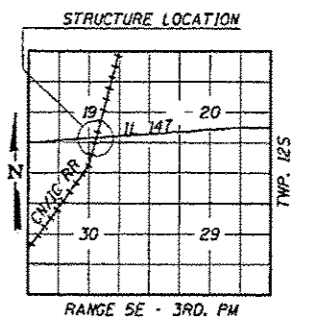


**ELEVATION**

**GENERAL NOTES**  
 Reinforcement bars designated (E) shall be epoxy coated.  
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.  
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included in Concrete Removal.  
 The work, material, and equipment involved in saw cutting shall be considered included in the price bid for Concrete Removal.



**PLAN**



**TOTAL BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	4.6
Concrete Superstructure	Cu. Yd.	4.6
Reinforcement Bars, Epoxy Coated	Pound	490



*David Carl Puzey* 5/5/16  
 Expires 11/30/16

**SCOPE OF WORK**

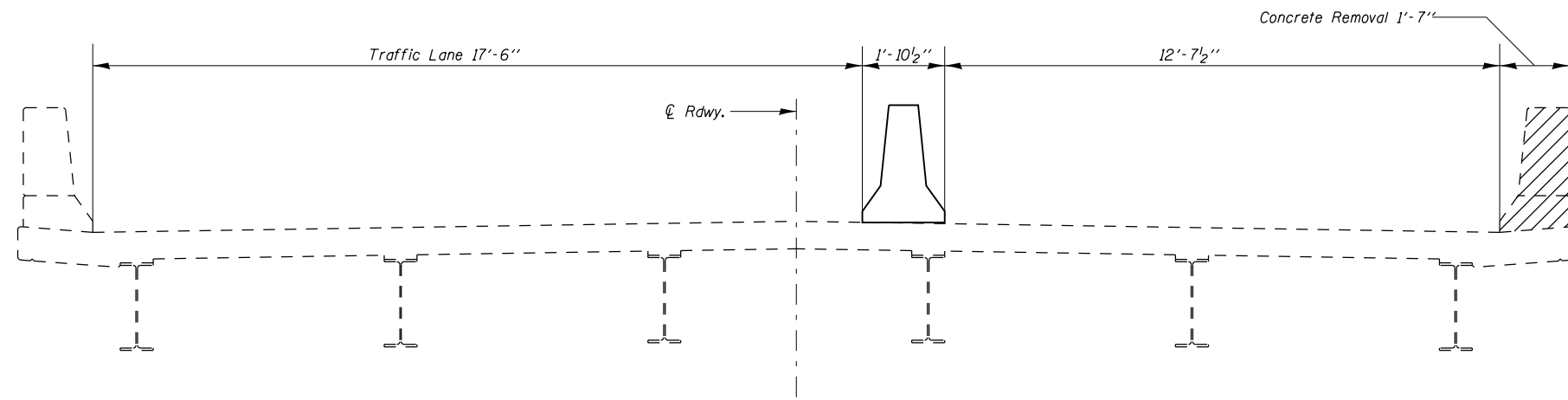
- 1) Setup TC&P 701321 with barrier for work in the EB lane of IL 147.
- 2) Perform parapet replacement as shown.
- 3) Remove TC&P 701321.

**DESIGN STRESSES**

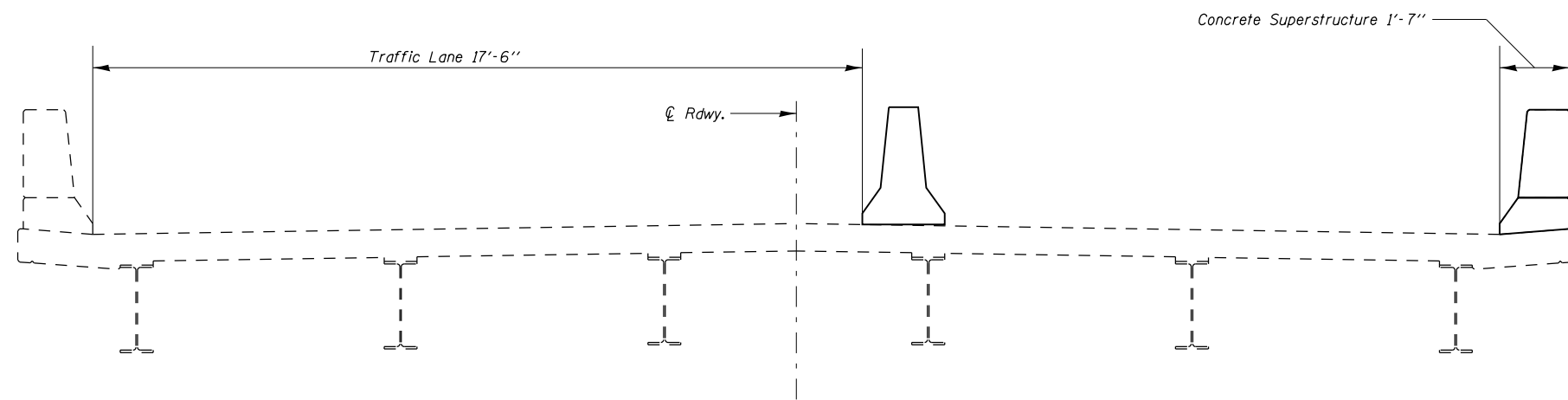
NEW CONSTRUCTION  
 FIELD UNITS  
 $f'_c = 3,500$  psi  
 $f_c = 60,000$  psi (Reinf.)

**BRIDGE REPAIRS**  
**ILLINOIS ROUTE 147 OVER**  
**CANADIAN NATIONAL/IL. CENTRAL R.R.**  
**F.A.S. ROUTE 932 - SECTION D9 CM BRIDGE REPAIR 2016-1**  
**POPE COUNTY**  
**STATION 579+87.25**  
**STRUCTURE NO. 076-0021**

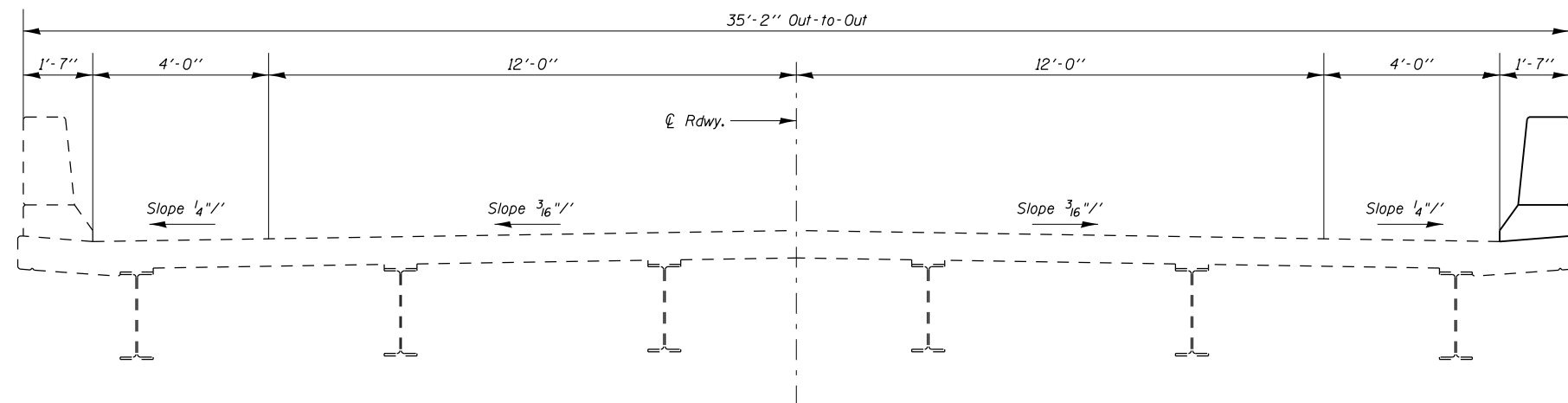
FILE NAME	USER NAME: adamson	DESIGNED: AKA	REVISIONS:	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A.S. RTE: 932	SECTION: D9	COUNTY: POPE	TOTAL SHEETS: 7	SHEET NO.: 4
PROJECT: ILLINOIS ROUTE 147 OVER CANADIAN NATIONAL/IL. CENTRAL R.R.	PROJECT OFFICE: District 9, Project: C...	DESIGNED DATE: 5/5/2016	REVISIONS: 1) REVISED: 5/5/2016	GENERAL PLAN AND ELEVATION	CONTRACT NO. 78465	ILLINOIS FED. AID PROJECT			
SCALE: 1" = 24.71'	DATE: 5/5/2016	CHECKED: CCC	REVISIONS:	SCALE: SHEET 1 OF 4 SHEETS STA. TO STA.					



**CONCRETE REMOVAL**



**CONCRETE SUPERSTRUCTURE**



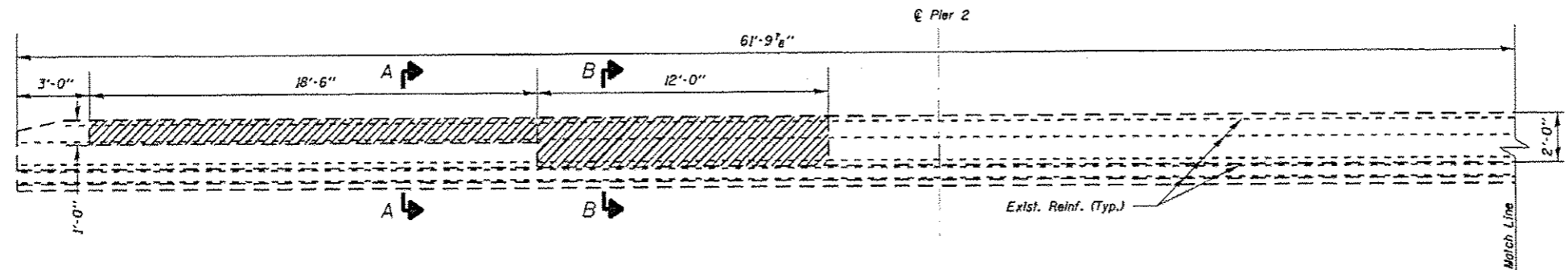
**SECTION THROUGH SUPERSTRUCTURE**

All Sections Looking East

**LANE CLOSURE DETAIL**  
**F.A.S. 932 SEC. D9 CM BRIDGE REPAIR 2016-1**  
**POPE COUNTY**  
**STATION 579+87.25**  
**STRUCTURE 076-0021**

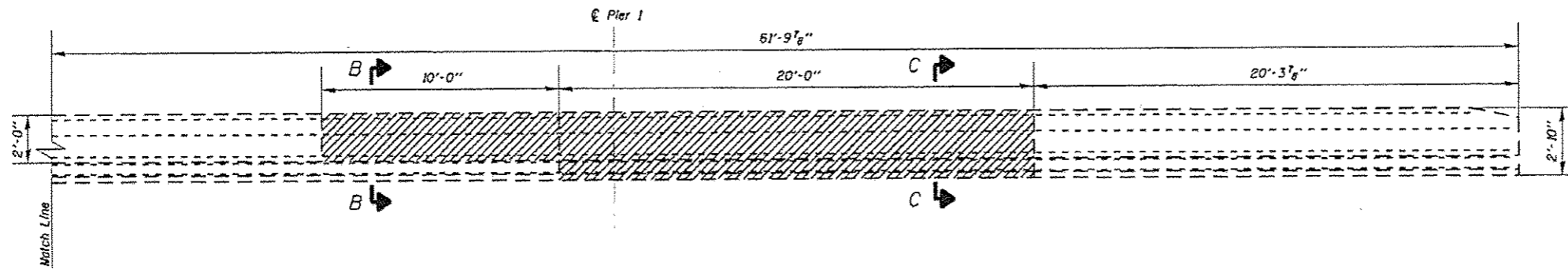
FILE NAME =	USER NAME = adamsam	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>LANE CLOSURE DETAIL</b>			F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL084EBIDINTEG\Illinois.gov\PWIDOT\Documents\IDOT Offices\District 9\Projects\Con	PROJECT = 2016\78465\CADData\CADsheets	DRAWN BY =	REVISIONS =					932		POPE	7	5
Default	PLOT SCALE = 3.7778 "/ in.	CHECKED -	REVISED -		• D9 CM BRIDGE REPAIR 2016-1			CONTRACT NO. 78465				
	PLOT DATE = 3/16/2016	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							

SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.



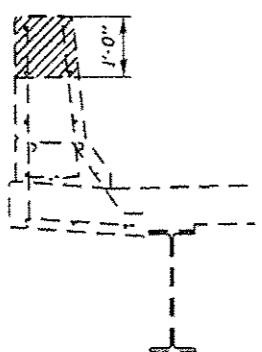
**ELEV VIEW OF PARAPET**  
Looking South

Limits of Concrete Removal

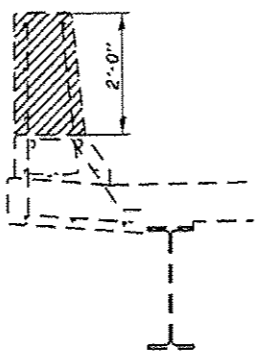


**ELEV VIEW OF PARAPET**  
Looking South

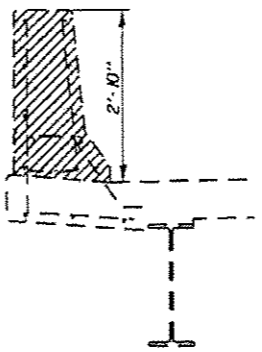
Note: Existing reinforcement shall be cut a min. 2'-7" (or as required) from removal line to provide required min. bar lap as shown on sheet 7 of 7. (Typ.)



**SECTION A-A**



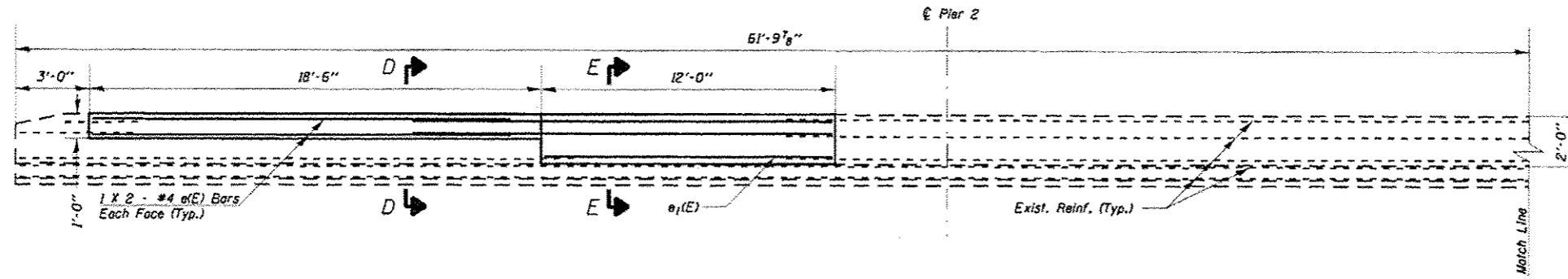
**SECTION B-B**



**SECTION C-C**

**SOUTH PARAPET DETAILS**  
**F.A.S. 932 SEC. D9 CM BRIDGE REPAIR 2016-1**  
**POPE COUNTY**  
**STATION 579+87.25**  
**STRUCTURE 076-0021**

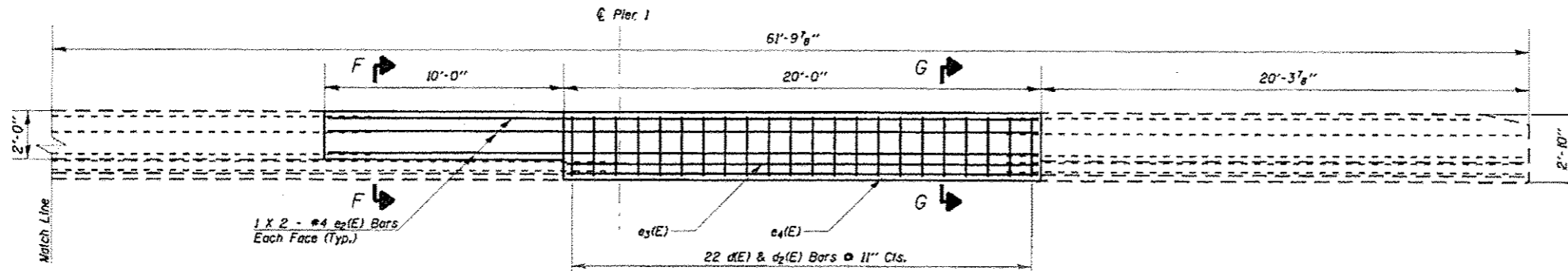
FILE NAME	USER NAME	DESIGNED	REVISED	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SOUTH PARAPET DETAILS</b>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PROJECT	PROJECT	DRAWN	REVISION			932		POPE	7	6
PLOT SCALE	PLOT DATE	CHECKED	REVISION			D9 CM BRIDGE REPAIR 2016-1		CONTRACT NO. 78465		
		DATE	REVISION			ILLINOIS FED. AID PROJECT				
SCALE: SHEET 3 OF 4 SHEETS STA. TO STA.										



**ELEV VIEW OF PARAPET**

Looking South

\* The Contractor shall test 10% of the  $d_1(E)$  bars in the front face of the new parapet to meet the minimum certified pull out load of 9.2 kips. For every bar that fails to meet the pull out load of 9.2 kips, the Contractor shall test two additional bars and rebar on an additional  $d_1(E)$  bar = 4" on either side of the failed bar. The cost of testing, furnishing and installing additional bars shall be included with the cost of "Reinforcement Bars, Epoxy Coated".

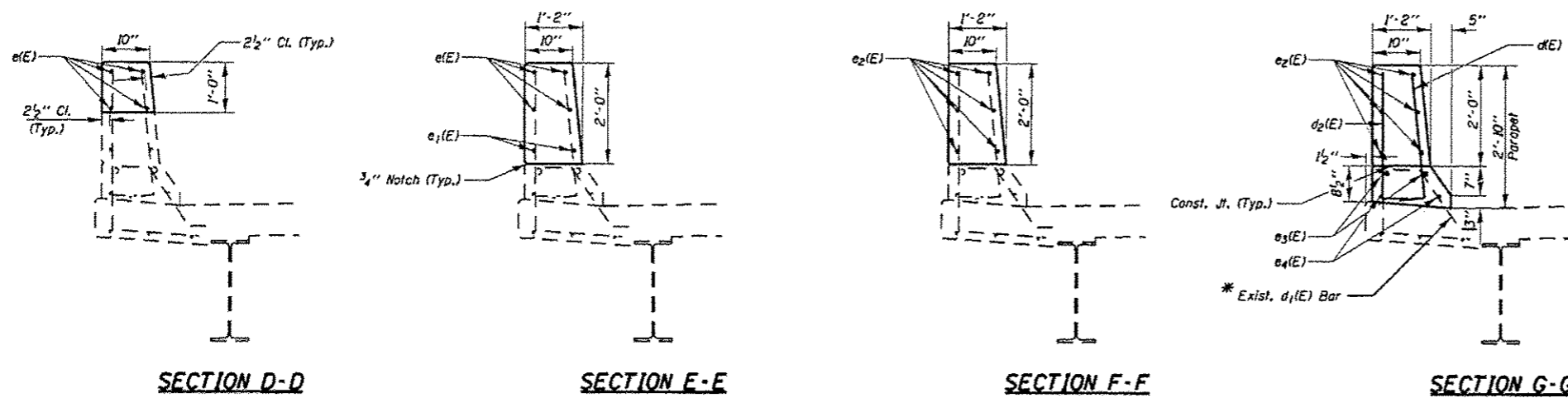


**ELEV VIEW OF PARAPET**

Looking South

**MIN. BAR LAP**

- #4 Bar = 2'-7"
- #5 Bar = 3'-2"
- #8 Bar = 6'-4"



Bar  $d_1(E)$  &  $d_2(E)$

**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
$d_1(E)$	22	5	3'-0"	
$d_2(E)$	22	4	3'-0"	
$e_1(E)$	8	4	16'-2"	
$e_2(E)$	2	4	11'-9"	
$e_3(E)$	12	4	15'-11"	
$e_4(E)$	2	8	19'-9"	
$e_5(E)$	2	5	19'-9"	
		CONCRETE SUPERSTRUCTURE	CU YD	4.6
		CONCRETE REMOVAL	CU YD	4.6
		REINFORCEMENT BARS EPOXY COATED	POUND	490

**SOUTH PARAPET DETAILS**  
**F.A.S. 932 SEC. D9 CM BRIDGE REPAIR 2016-1**  
**POPE COUNTY**  
**STATION 579+87.25**  
**STRUCTURE 076-0021**

FILE NAME	USER NAME	DESIGNED	REVISED	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SOUTH PARAPET DETAILS</b>	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PROJECT	DATE	CHECKED	REVISED			932		POPE	1	1	
MODEL NAME	DATE	DATE	DATE			D9 CM BRIDGE REPAIR 2016-1 CONTRACT NO. 78465					
SCALE: SHEET 4 OF 4 SHEETS STA. TO STA.						ILLINOIS FED. AID PROJECT					