

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

**PROPOSED  
HIGHWAY PLANS**

F.A.P. ROUTE 71 (IL 54)  
SECTION (113-RB)I

**NORTHWEST WINGWALL REPAIR  
RC GIRDER STRUCTURE  
STRUCTURE NO. 027-0017  
1.3 MILES NORTHEAST OF IL 115  
FORD COUNTY**

C-93-009-13

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71	(113-RB)I	FORD	9	1
		ILLINOIS	CONTRACT NO. 66C52	

1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. TYPICAL SECTION
5. TRAFFIC CONTROL DETAILS
- 6-9. STRUCTURE PLANS

**STANDARDS**

- 000001-06 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 001001-02 AREAS OF REINFORCEMENT BARS
- 001008 DECIMAL OF AN INCH AND OF A FOOT
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 482008-03 HMA SHOULDER ADJACENT TO RIGID PAVEMENT
- 601001-04 SUB-SURFACE DRAINS
- 601101-01 CONCRETE HEADWALL FOR PIPE DRAINS
- 630001-10 STEEL PLATE BEAM GUARDRAIL
- 701001-02 OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701008-04 OFF-ROAD OPERATIONS 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701011-03 OFF-ROAD MOVING OPERATIONS 2L, 2W, DAY ONLY
- 701101-03 OFF-ROAD OPERATIONS MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701108-02 OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701201-04 LANE CLOSURE, 2L, 2W, DAY ONLY, FOR SPEEDS ≥ 45 MPH
- 701208-03 LANE CLOSURE, 2L, 2W, NIGHT ONLY, FOR SPEEDS ≥ 45 MPH
- 701321-13 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-02 TRAFFIC CONTROL DEVICES
- 704001-07 TEMPORARY CONCRETE BARRIER

**PROJECT LOCATION**  
STA. 98 + 94.00



**RURAL  
MINOR ARTERIAL  
FAP 71 (IL 54)  
2011**

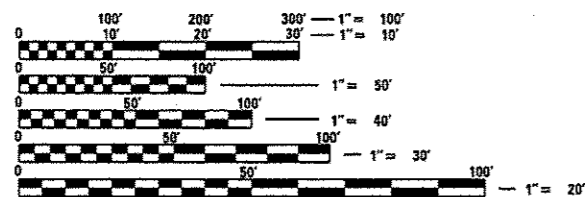
ADT	700
P.V.	82.86%
S.U.	7.14%
M.U.	10.00%

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Dec 13 2013  
*Paul [Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Feb 1 2013  
*John D. Baranzoli P.E./bl*  
ENGINEER OF DESIGN AND ENVIRONMENT

Feb 1 2013  
*Omer Oshman P.E./br*  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER



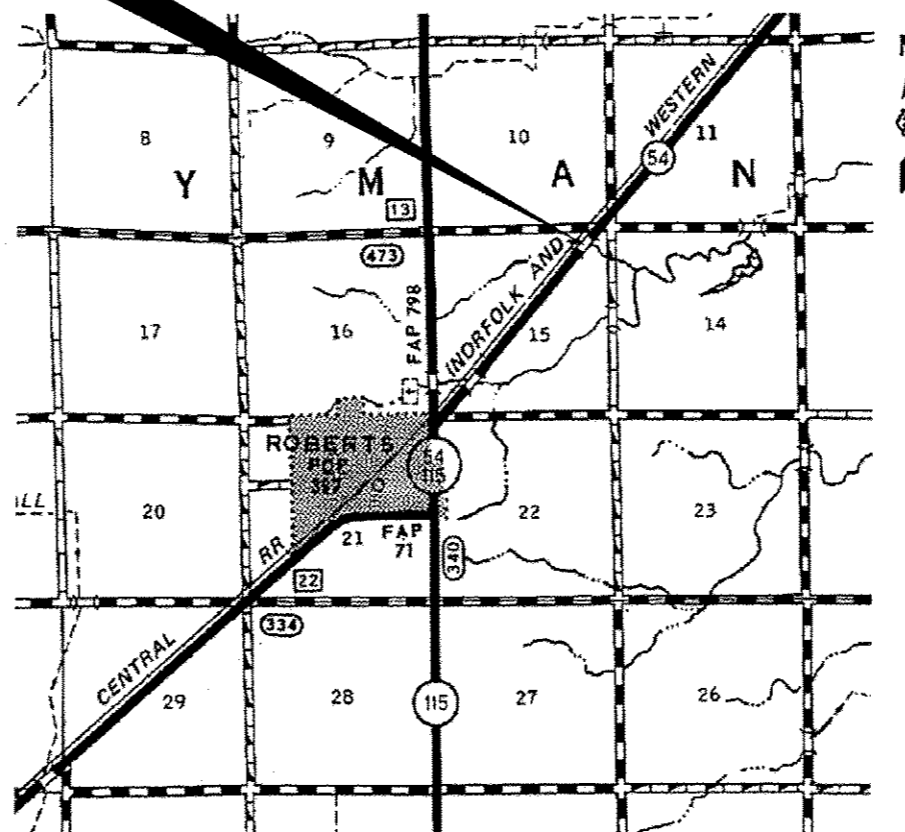
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

DISTRICT 3 NO. 815-434-6131

PROJECT ENGINEER: JOE KANNEL P.E.  
UNIT CHIEF: RON WOODSHANK  
TOWNSHIP: LYMAN

CONTRACT NO. 66C52



GROSS LENGTH = 36 FT. = 0.007 MILE  
NET LENGTH = 36 FT. = 0.007 MILE

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OF THE STATE OF ILLINOIS**

**GENERAL NOTES**

THE THICKNESS OF HMA SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE HMA IS PLACED.

THE ENGINEER WILL BE THE SOLE JUDGE CONCERNING CURING TIME FOR THE VARIOUS HMA LIFTS.

FOR STABILIZATION, ALL TYPE III BARRICADES SHALL REQUIRE A MINIMUM OF FOUR SAND BAGS PER BARRICADE.

SEEDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN WET, OR IN AN UNTILLABLE CONDITION. LOCATIONS TO BE SEEDED WILL BE DETERMINED BY THE ENGINEER.

THE FINISHED EARTHWORK SHALL HAVE A VEGETATION SUSTAINING SOIL COVERING THE TOP FOUR INCHES IN AREAS TO BE SEEDED OR SODDED. THE VEGETATION SUSTAINING SOIL REQUIRED WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF "FURNISHED EXCAVATION".

ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE EDITION AS INDICATED BY THE SUBNUMBER SHOWN IN THE LIST OF STANDARDS OR THE COPY INCLUDED IN THESE PLANS.

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

HMA RESURFACING	112	LBS / SQ YD / IN
-----------------	-----	------------------

BITUMINOUS MATERIALS (PRIME COAT) RATES		
SURFACE TYPE	ESTIMATED TRUCK APPLICATION RATE	RESIDUAL RATE
AGGREGATE BASES	0.375 GAL / SQ YD	N/A
MILLED HMA OR PCC PAVEMENT	0.08 GAL / SQ YD	0.04 GAL / SQ YD
EXISTING PAVEMENT	0.05 GAL / SQ YD	0.025 GAL / SQ YD
FOG COAT (BETWEEN ADDITIONAL HMA LIFTS)	0.05 GAL / SQ YD	0.025 GAL / SQ YD

ESTIMATED TRUCK APPLICATION RATE USED FOR CALCULATING PLAN QUANTITIES

THE CONTRACTOR SHALL CONTACT J.U.L.I.E. AT LEAST 48 HOURS PRIOR TO EXCAVATION TO DETERMINE WHICH UTILITIES ARE IN THE AREA.

**HMA MIXTURE TABLE**

	HMA SHOULDER 8"
PG GRADE	PG64-22
DESIGN AIR VOIDS	4.0% @ N50
MIXTURE COMPOSITION	IL 19.0
FRICTION AGGREGATE	N/A
DENSITY CONTROL METHOD	CORES

**COMMITMENTS**

**DISPOSAL OF EXCAVATED MATERIALS.** ALL SUITABLE OR UNSUITABLE MATERIALS EXCAVATED DUE TO CONSTRUCTION OPERATIONS SHALL BE DISPOSED OF WITH THE LIMITS OF EXISTING RIGHT OF WAY. DISPOSAL OF EXCAVATED MATERIALS OFF THE RIGHT OF WAY SHALL NOT BE PERMITTED. EXCAVATED MATERIALS SHALL BE DISPOSED OF AT LOCATIONS DIRECTED BY THE ENGINEER. ANY SUCH DISPOSAL SHALL NOT CREATE AND UNSIGHTLY OR OBJECTIONABLE APPEARANCE OR DETRACT FROM THE NATURAL TOPOGRAPHIC FEATURES WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

DATE: 12-13-12

PREPARED BY: *D. Brunil*  
DISTRICT STUDIES & PLANS ENGINEER

EXAMINED BY: *Hyde J...*  
DISTRICT CONSTRUCTION ENGINEER

*Ray J. Phillips*  
DISTRICT MATERIALS ENGINEER

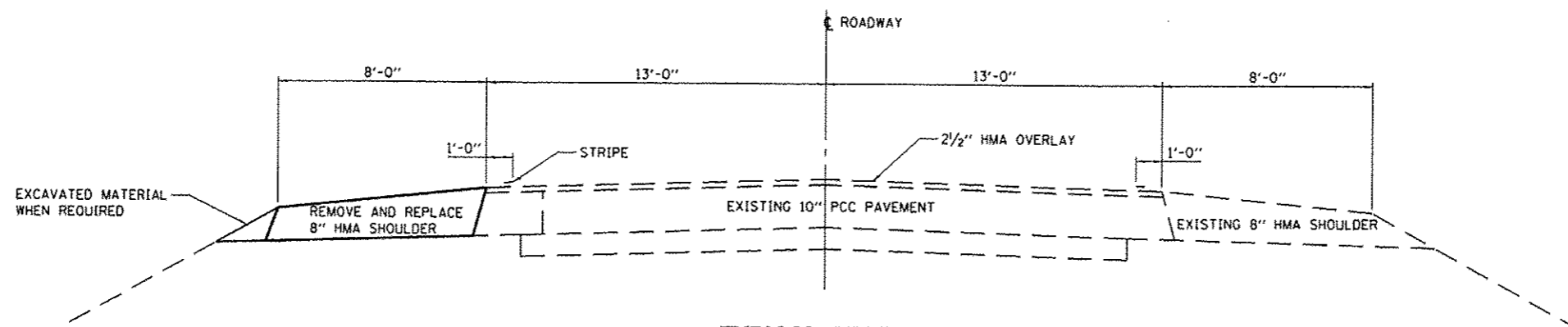
*John A. ...*  
DISTRICT OPERATIONS ENGINEER

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE
				STATE FUNDS 100% STATE STRUCTURE 0040 RURAL
20400800	FURNISHED EXCAVATION	CU YD	53	53
25100630	EROSION CONTROL BLANKET	SO YD	50	50
44004250	PAVED SHOULDER REMOVAL	SO YD	22	22
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SO YD	22	22
50102400	CONCRETE REMOVAL	CU YD	38.2	38.2
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2563	2563
54003000	CONCRETE BOX CULVERTS	CU YD	38.2	38.2
59100100	GEOCOMPOSITE WALL DRAIN	SO YD	56	56
60100060	CONCRETE HEADWALLS FOR PIPE DRAINS	EACH	1	1
* 63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	36	36
* 63302400	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 5	EACH	1	1
67100100	MOBILIZATION	L SUM	1	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1
70100455	TRAFFIC CONTROL AND PROTECTION, STANDARD 701206	L SUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	176	176
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2	2
X0322924	RETAINING WALL REMOVAL	SO FT	51	51
X2020502	BRACED EXCAVATION	CU YD	224	224
X5860110	GRANULAR BACKFILL FOR STRUCTURES	CU YD	234	234
Z0046304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	50	50

22

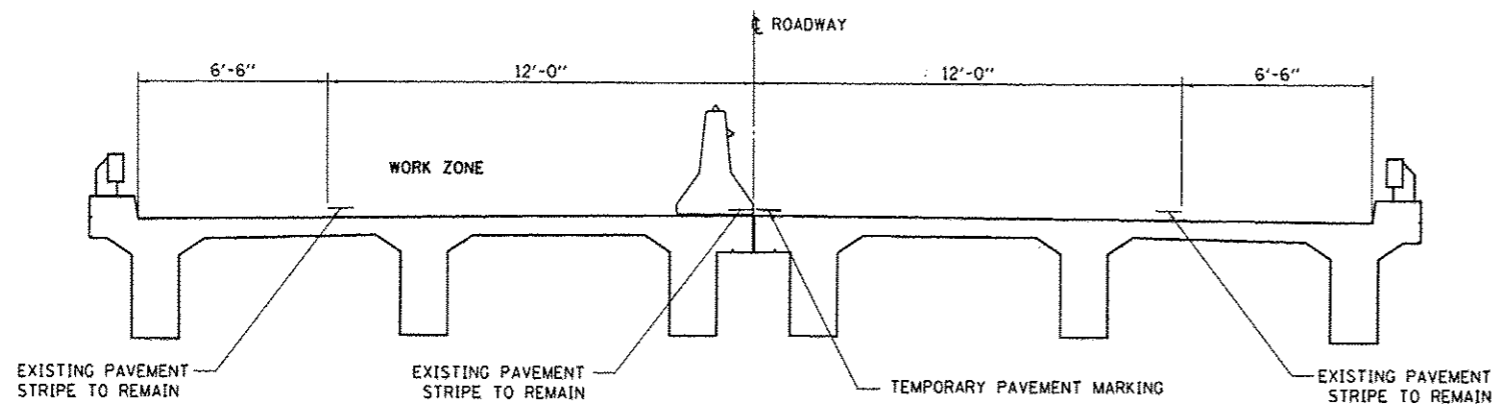
*\*Specialty Items*

FILE NAME =	USER NAME = woodshankr1	DESIGNED - RW	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SUMMARY OF QUANTITIES</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	PLOT DATE = 11/16/2012	DATE -	REVISED -			SCALE:	SHEET 1 OF 1 SHEETS	STA. TO STA.	[ILLINOIS] FED. AID PROJECT	

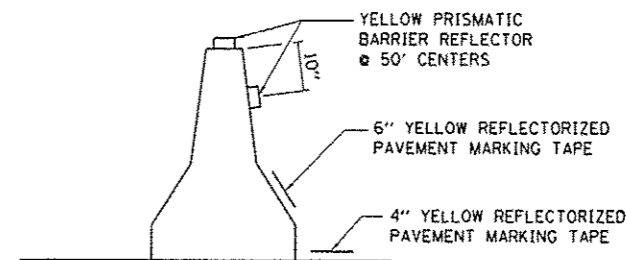


**TYPICAL SECTION  
ADJACENT TO STRUCTURE**

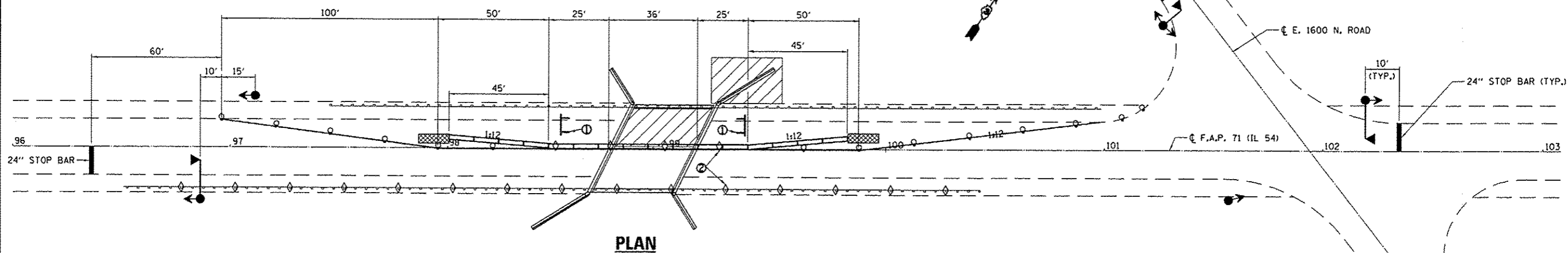
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	PLOT DATE * 11/16/2012	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					
				SCALE:	SHEET 1 OF 1 SHEETS	STA.	TO STA.				



**CROSS SECTION  
LOOKING NORTH**



**TEMPORARY CONCRETE BARRIER WALL DETAILS**



**PLAN**

- ① TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- ② BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS.

**SYMBOLS**

- WORK AREA
- SIGN
- TYPE III BARRICADE
- TRAFFIC SIGNAL WITH BACKPLATE
- MICROWAVE DETECTOR
- DRUM WITH STEADY BURNING BIDIRECTIONAL LIGHT
- TEMPORARY CONCRETE BARRIER
- CRYSTAL, BIDIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
- IMPACT ATTENUATOR

**GENERAL NOTES**

THIS SHEET PROVIDES DETAILS THAT ARE SUPPLEMENTAL TO STANDARD 701321. THESE DETAILS SHALL BE USED IN CONJUNCTION WITH WHAT IS SHOWN ON STANDARD 701321 AND IN CASE OF CONFLICT WITH ANY PART, OR PARTS, OF SAID STANDARD, THE DETAILS AS SHOWN SHALL TAKE PRECEDENCE AND SHALL GOVERN.

TRAFFIC SIGNALS WITH BACK PLATES AND MICROWAVE DETECTORS SHALL BE OPERATIONAL ONLY WHEN ALL TRAFFIC CONTROLS ARE IN PLACE. WHEN TRAFFIC SIGNALS ARE NOT IN OPERATIONS, FLAGGER SHALL BE USED AND TRAFFIC CONTROL SHALL CONFORM TO STANDARDS 701201 OR 701206.

TEMPORARY CONCRETE BARRIER SHALL BE ACCORDING TO STANDARD 704001.

EXISTING OR TEMPORARY PAVEMENT MARKINGS SHALL BE ON BOTH SIDES OF THE OPEN LANE FROM STOP BAR TO STOP BAR.

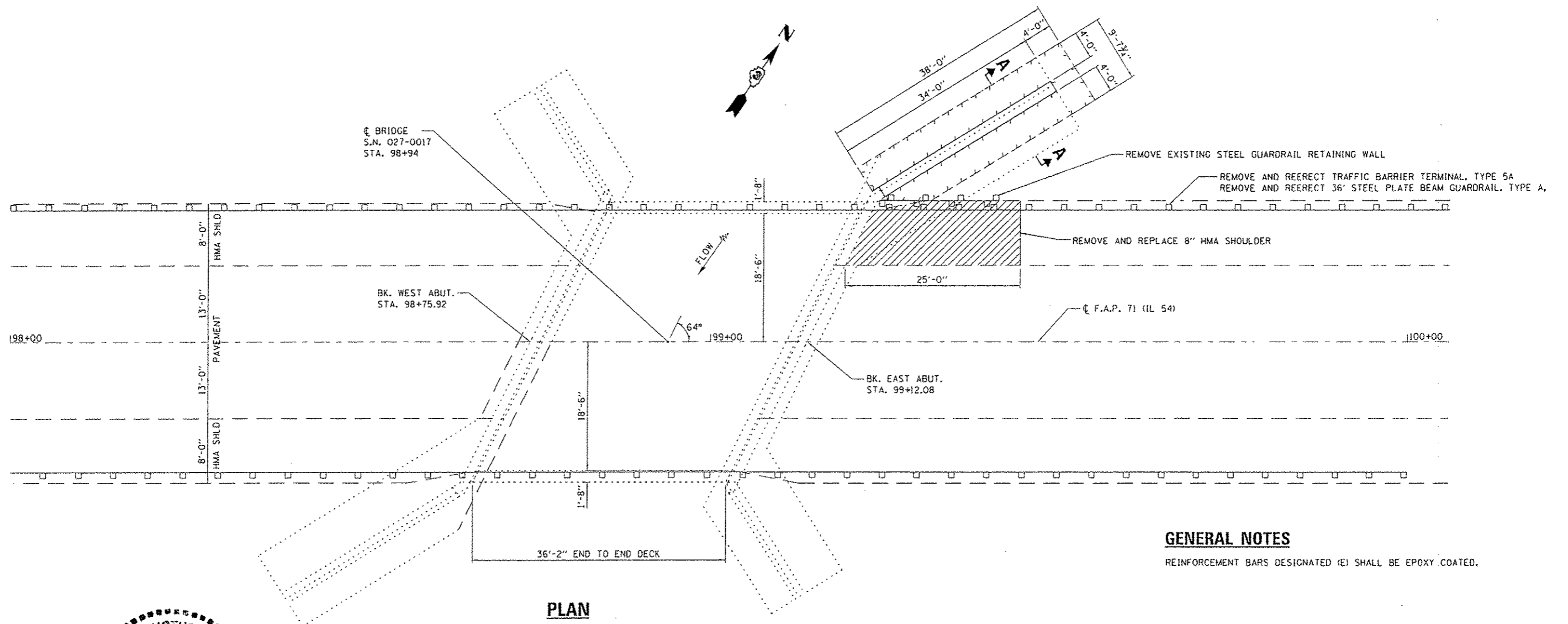
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

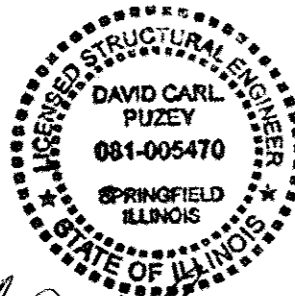
**TRAFFIC CONTROL DETAILS**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71	(113-RB)I	FORD	9	5
CONTRACT NO. 66C52				
[ILLINOIS] FED. AID PROJECT				



**GENERAL NOTES**  
 REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

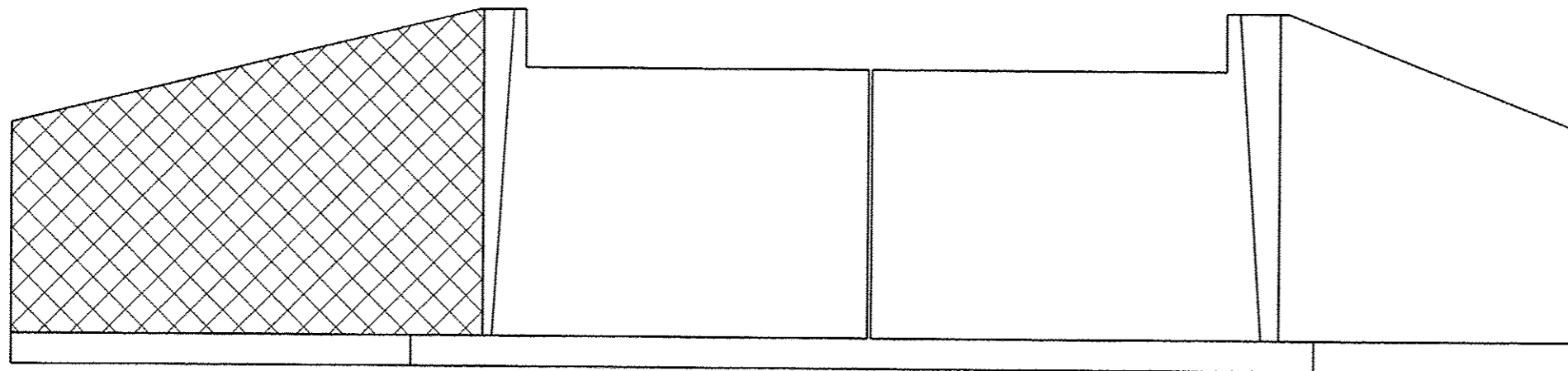


*David Carl Puzey* 1/17/13  
 Expires 11/30/14

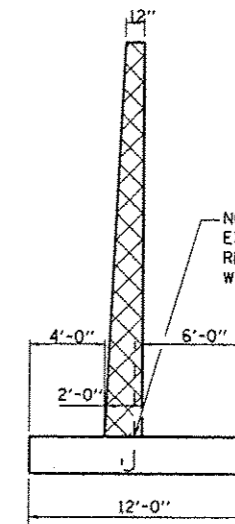
**PLAN**

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MODEL NAME:	PLOT SCALE: 1/8" = 1'-0"	CHECKED: SMR	REVISED: -		SCALE:	SHEET 1 OF 4 SHEETS	STA. TO STA.	CONTRACT NO. 66C52				
	PLOT DATE: 11/16/2012	DATE: -	REVISED: -		ILLINOIS FED. AID PROJECT							



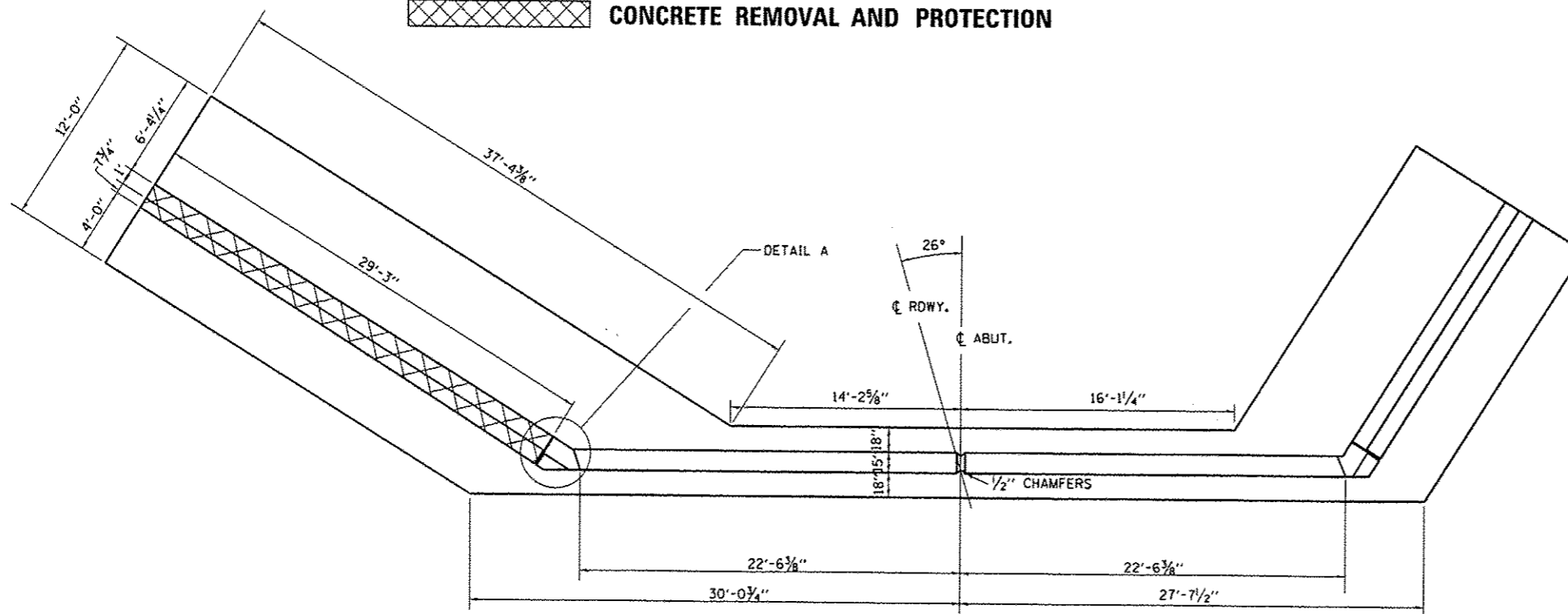


**ELEVATION**

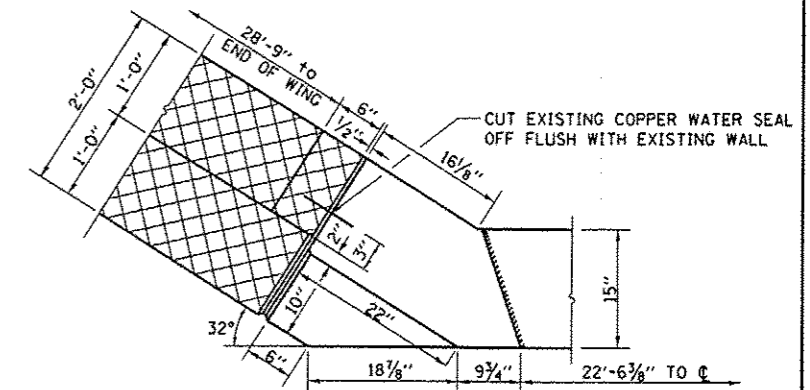


**SEC. THRU WING AT JOINT**

 **CONCRETE REMOVAL AND PROTECTION**



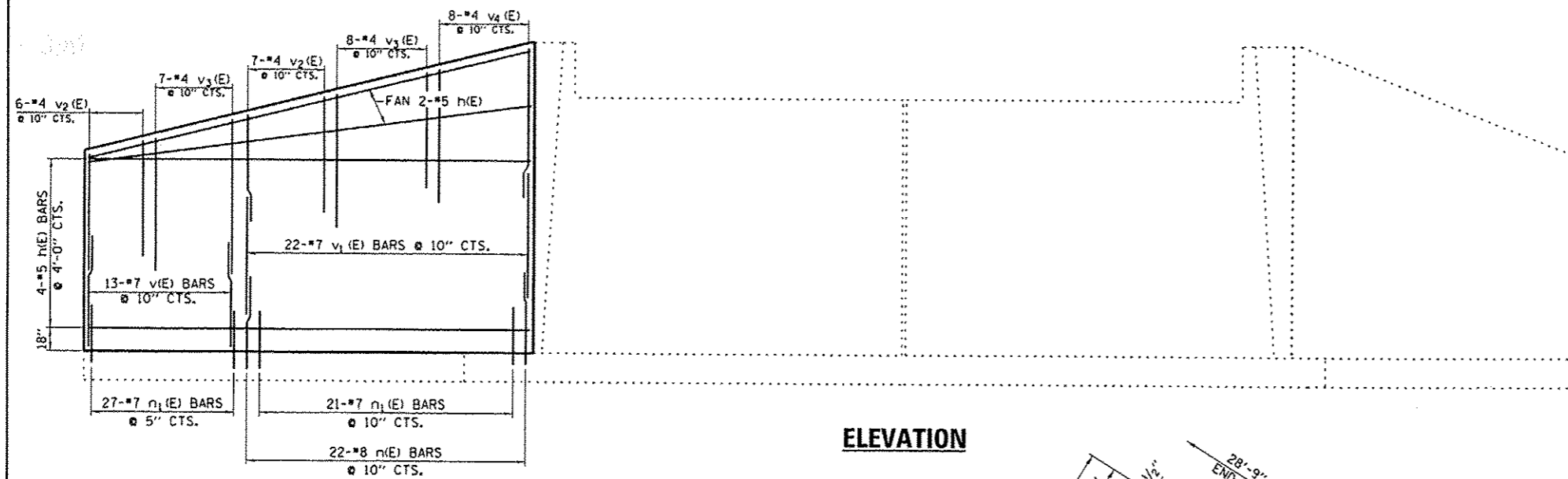
**PLAN - EAST ABUTMENT**



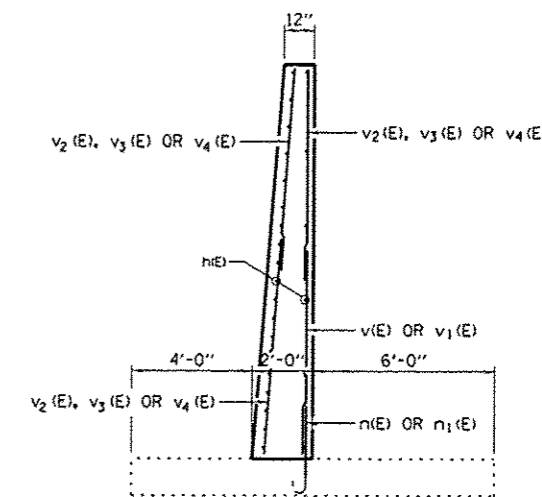
**CORNER DETAIL A**

FILE NAME :	USER NAME :	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CONCRETE REMOVAL DETAILS FOR STRUCTURE NO. 027-0017</b>	F.A.P.	SECTION	COUNTY	TOTAL	SHEET	
c:\pwwork\ps\dott\woodshankr\1\08314887\0	066C52-shr-details.dgn	DRAWN -	REVISED -			71	(113-RB)	FORD	9	8	
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	PLOT DATE = 11/16/2012	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					





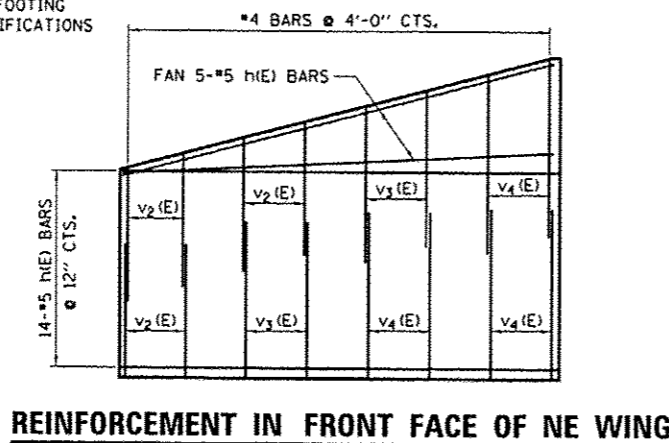
**ELEVATION**



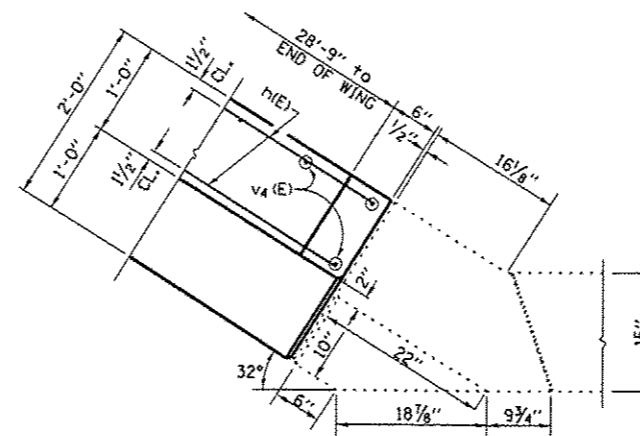
**SEC. THRU WING AT JOINT**

**REINFORCEMENT IN BACK FACE OF NE WING**

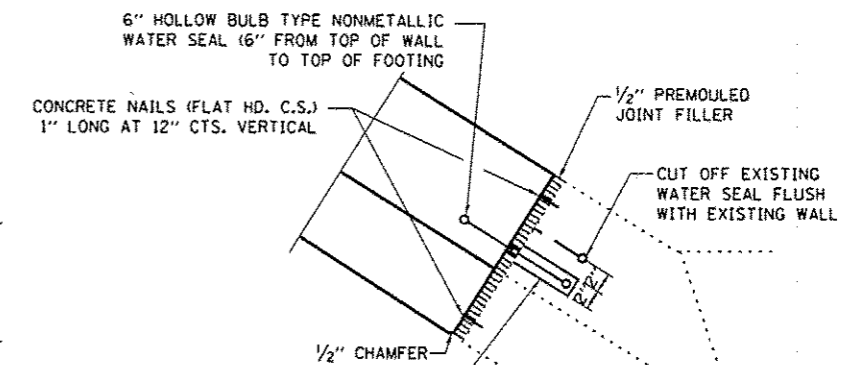
DRILL AND GROUT n(E) AND n1(E) BARS INTO EXISTING FOOTING IN ACCORDANCE WITH SECTION 584 OF THE STANDARD SPECIFICATIONS



**REINFORCEMENT IN FRONT FACE OF NE WING**

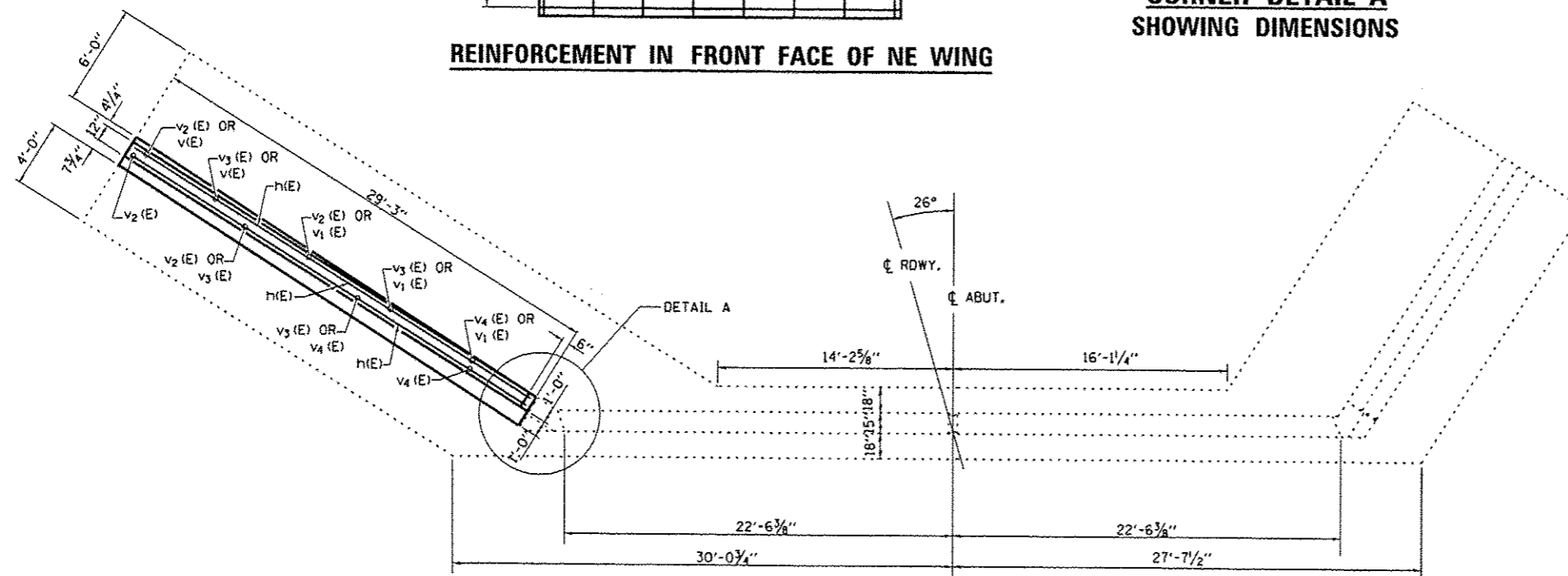


**CORNER DETAIL A SHOWING DIMENSIONS**



EPOXY NEW WATER SEAL INTO 2" WIDE SAWCUT GROOVE, EPOXY TO MEET THE REQUIREMENTS OF ASTM C881, TYPE III, GRADE 3, PRIME GROOVE4 WITH AN EPOXY MEETING ASTM C881, TYPE III, GRADE 1.

**CORNER DETAIL A WATERSEAL**



**PLAN - EAST ABUTMENT**

**BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	25	#5	28'-11"	————
n(E)	22	#8	6'-9"	————
n1(E)	48	#7	3'-9"	————
v(E)	13	#7	7'-6"	————
v1(E)	22	#7	11'-0"	————
v2(E)	19	#4	8'-9"	————
v3(E)	19	#4	10'-3"	————
v4(E)	14	#4	11'-9"	————
CONCRETE REMOVAL		CU YD	38.2	
CONCRETE BOX CULVERT		CU YD	38.2	
REINFORCEMENT BARS, EPOXY COATED		LBS	2563	