STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED IN ELK GROVE VILLAGE

PROPOSED HIGHWAY PLANS

F.A.U. ROUTE 1339: IL 53 (BIESTERFIELD RD)

OVER I-290

SECTION: 0101-311 HB-I

BRIDGE PARAPET REPLACEMENT

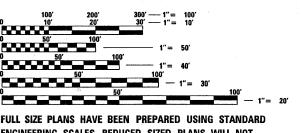
COOK COUNTY

C-91-213-07

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R11E

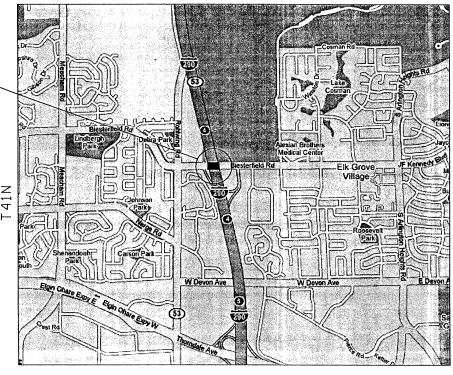
LOCATION OF IMPROVEMENT SN 016-0960



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
CR 811

PROJECT ENGINEER – BOB BORO (847) 705–4178 PROJECT MANAGER – KEN ENG



ELK GROVE AND JEFFERSON TOWNSHIPS

TRAFFIC DATA I-290

2005 ADT = 167,700 POSTED SPEED = 55 MPH

TRAFFIC DATA IL 53 (BIESTERFIELD RD.)

2005 ADT = 35,000 POSTED SPEED = 40 MPH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

0101-311 HB-I

D-91-213-07

SUBMITTED FEBRUARY 13, 20 08

LOCATION OF SECTION INDICATED THUS: -

Diane M. O'Kenfe QA DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 21, 20 08

Eric E. Harn (FD)
Interin Engineer of Design and Environmen

Christine M- Read

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

CONTRACT NO. 60C44

 \circ

INDEX OF SHEETS

LIST OF STATE STANDARDS

SHEET NO.	DESCRIPTION	ANDARD NO.	DESCRIPTION
. 1	COVER SHEET	701301 -02	E LANE CLOSURE 2L, 2W SHORT TIME OPERATIONS
. 2	INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES	701400 -02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
3	SUMMARY OF QUANTITIES	701401 -04	LANE CLOSURE, FREEWAY/EXPRESSWAY
4	TRAFFIC STAGING PLAN	701411 - 04	MULTI-LANE, TRAFFIC CONTROL AT ENTRANCE OR EXIT RAMPS
5-7	PLAN AND ELEVATION (BIESTERFIELD ROAD)	701446	TWO LANE CLOSURE FREEWAY/EXPRESSWAY
8	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC -14	701601 <i>-05</i>	URBAN LANE CLOSURE MULTILANE 1W OR 2W WITH NONTRAVERSABLE MEDIAN T
9	TRAFFIC CONTROL FOR SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	701901	TRAFFIC CONTROL DEVICES
10-12	TYPE 6 TERMINAL FOR USE WITH 21" HIGH SPBGR (BM22)	704001 -04	TEMPORARY CONCRETE BARRIER T
			I A

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.

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

THE REMOVAL OF GUARDRAIL TERMINAL SECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER FOOT FOR "GUARDRAIL REMOVAL."

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 (FOR ARTERIALS) AND (847)705-4151 (FOR EXPRESSWAYS) A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

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

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT

THE "ADVANCE WARNING SIGN DETAIL FOR ARTERIAL TRAFFIC" LOCATED IN THE SPECIAL PROVISIONS FOR "TEMPORARY INFORMATION SIGNING FOR LANE CLOSURES IS APPLICABLE ONLY TO ARTERIAL ROAD AND SHALL NOT BE APPLIED TO EXPRESSWAYS.

CONCRETE SUPERSTRUCTURE (OR CONCRETE WEARING SURFACE) SHALL HAVE A SEVEN DAY MINIMUM CURE

THE CONTRACTOR SHALL SALVAGE AND RETURN THE EXIST HANDRA. (262') TO:

DISTRICT BLOCK OFFICE
1101 BIESTERFI
ELK CRO VILLAGE, II

THIS THE SHALL INCLUDE REMOVING, TRANSPORTING AND SHIP OF THE EXISTING CARRIER BEAM TO THE ABOVE YARD WHICH COST IS INCLUDED IN THE COST OF "BRIDGE HANDRAIL " "OYAL"

NO SLIPFORMING OF PARAPETS IS ALLOWED

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 53 (BIESTERFIELD RD)									
	INDEX	OF SHEET	S, STATE	STANDA	RDS AND	GENERAL NOTES			
SCALE:		SHEET NO	O. OF	SHEETS	STA.	TO STA			

			K	ev.
F.A.U RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
1339	0101-311 HB-I	соок	12	2
		CONTRACT	NO. 6	OC44
FED. R	OAD DIST. NO. 1 ILLINOIS FED.	AID PROJECT		-

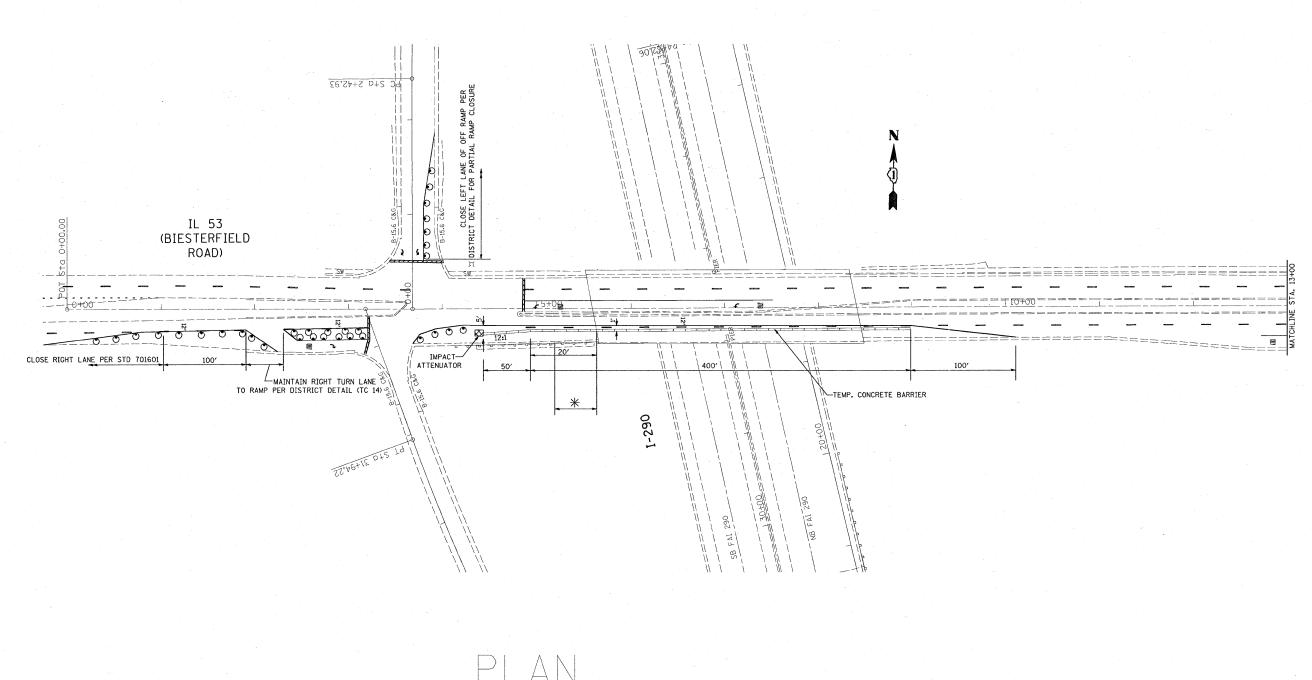
 F.A.U. RTE.	SECTION		COUNTY		TOTAL SHEETS	SHEET NO.
1339	0101-311 HB-I		соок		12	3
FED.	FED. ROAD DIST. NO. 1		INOIS	HIG	HWAY PRO	JECT

CONTRACT NO. 60C44 CONSTRUCTION TYPE CODE CONSTRUCTION TYPE CODE SUMMARY OF QUANTITIES SUMMARY OF QUANTITIES TOTAL TOTAL QUANTITIES 100% STATE SFTY-2A CODE NO ITEM QUANTITIES CODE NO ITEM UNIT UNIT CU YD CONCRETE REMOVAL 32.2 32.2 50102400 FOOT 262 50104100 BRIDGE HANDRAIL REMOVAL 262 50300255 CONCRETE SUPERSTRUCTURE CU YD 36.8 36.8 SQ YD 50300300 PROTECTIVE COAT 118.2 118.2 REINFORCEMENT BARS, EPOXY COATED POUND 5410 50800205 5410 TRAFFIC BARRIER TERMINAL. TYPE 6 EACH 63100085 FOOT 63200310 GUARDRAIL REMOVAL 45 45 ENGINEER'S FIELD OFFICE, TYPE A 67000400 CAL MO 67100100 MOBILIZATION L SUM L SUM 70101800 TRAFFIC CONTROL AND PROTECTION, (SPECIAL) FOOT 70400100 TEMPORARY CONCRETE BARRIER 450 450 SQ FT X0322467 TEMPORARY INFORMATION SIGNING FOR LANE 48 48 CLOSURE X7011015 TRAFFIC CONTROL AND PROTECTION L SUM (EXPRESSWAYS) IMPACT ATTENUATORS, TEMPORARY (NON-Z0030240 EACH REDIRECTIVE), TEST LEVEL 2

* SPECIALTY ITEMS

REVISIONS ILLINOIS DEPARTMENT OF TRANSPORTATION SUMMARY OF QUANTITIES

PLOT DATE: 2/21/2008



* REMOVE EXISTING GUARDRAIL TERMINAL
CONNECTION TO BRIDGE AND INSTALL NEW
TRAFFIC BARRIER TERMINAL TYPE 6 PER DISTRICT DETAIL (BM 22)

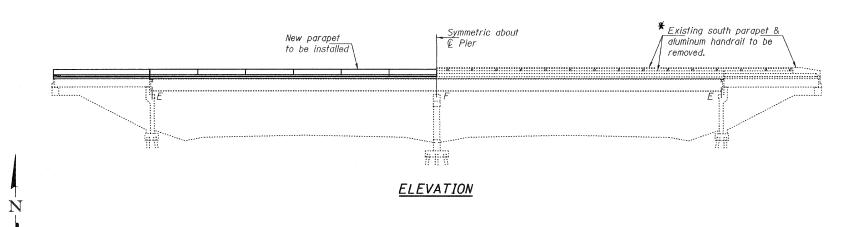
NOTES:

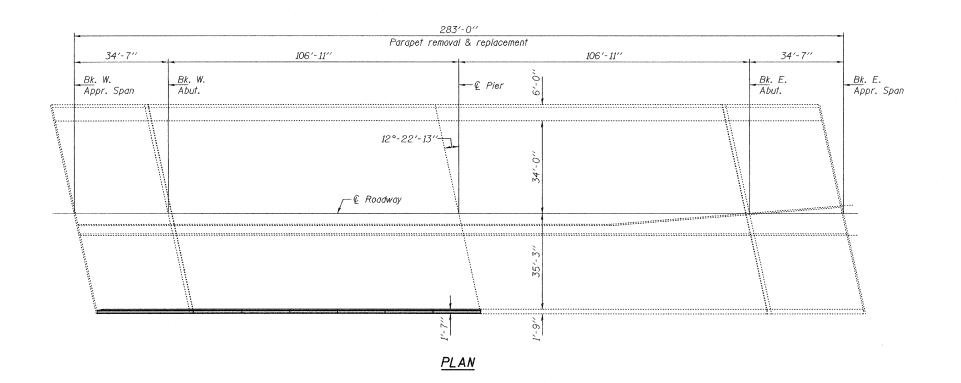
COST OF TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET ARE INCLUDED IN THE COST OF "TRAFFIC CONTROL & PROTECTION (SPECIAL)"

COVER CONFLICTING PAVEMENT MARKINGS WITH BLACK TYPE III TAPE. COST OF TYPE III TAPE AND ITS REMOVAL IS INCLUDED IN THE COST OF "TRAFFIC CONTROL & PROTECTION (SPECIAL)"

FILE NAME =	USER NAME = guillaumefp.	DESIGNED -	REVISED -		TRAFFIC STAGING PLAN	F.A.U SECTION COUNTY TOTAL SHEET
c:\projects\d121307\sh_rdwy.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS		1339 0101-311 HB-I COOK 12 4
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	BIESTERFIELD RD. OVER 1–290	CONTRACT NO. 60C44
*	PLOT DATE = 2/21/2008	DATE -	REVISED -		SCALE: 1"=50" SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION





MARCH 4. 2008 PASSED Roll & Orderson
ENGINEER OF BRIDGES AND STRUC

EXPIRES 11-30-2008

GENERAL NOTES

COOK

TOTAL SHEET NO. 1 12

Contract Number: 60C44

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (IL Modified). See Special Provisions.

Reinforcement bars designated (E) shall be epoxy coated.

I 290

FED, ROAD DIST, NO. 7

Plan dimensions and details relative to existing plans are subject to routine 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 upon 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 with Concrete Removal.

* Aluminum handrail to be salvaged. See special provision Bridge Handrail Removal.

DESIGN STRESSES FIELD UNITS f'c = 3,500 psi

fy = 60,000 psi (Reinforcement)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	32.2
Concrete Superstructure	Cu. Yd.	36.8
Reinforcement Bars, Epoxy Coated	Pound	5410
Bridge Handrail Removal	Foot	262
Protective Coat	Sq. Yd.	118.2

PLAN AND ELEVATION IL 53 (BIESTERFIELD ROAD) OVER I 290 COOK COUNTY SN 016-0960

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CHECKED VHV

DESIGNED Victor A. Veliz

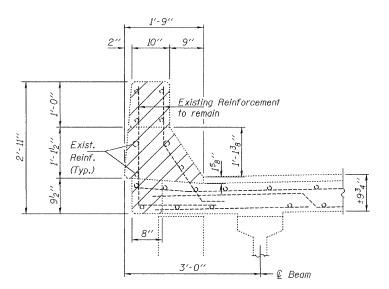
AJB

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

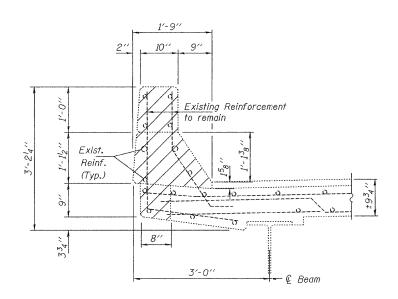
ROUTE NO.	BECTION	cou	COUNTY TOTAL SHEET NO.		SHEET NO.	SHEET NO.		
I 290		COOK		12	6	3 sн	EETS	
FED. ROAD DIST	NO. 7	ILLINOIS	FED. AID PRI	DJECT-	L			

* Epoxy grout bars in 6" min. holes according to Article 584 of the Standard Specifications.

Contract Number: 60C44

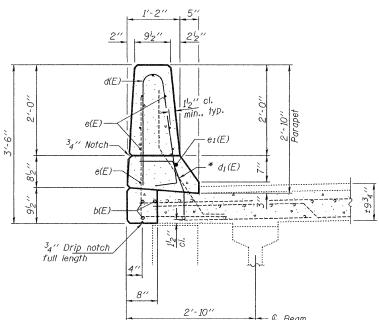


<u>SECTION THRU EXISTING PARAPET</u> (Showing removal at approaches)



SECTION THRU EXISTING PARAPET
(Showing removal at main spen)

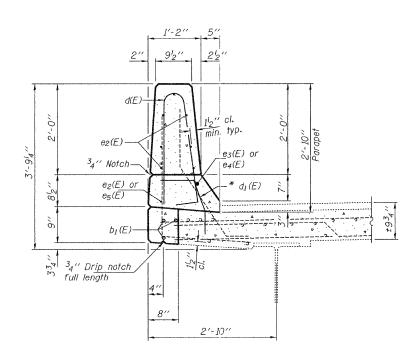
Hatched areas indicate concrete removal.



DESIGNED	VHV	MARCH 4, 2008
CHECKED	AJB	EXAMINED & Carl Prayry
DRAWN	baliva	PASSED Ralph E. Curdevan
NIEOKED.	VHV A.IR	ENGINEER OF BRIDGES AND STRUCTURES

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SECTION THRU PROPOSED PARAPET
(At approaches)



SECTION THRU PROPOSED PARAPET

(At main span)

REPAIR DETAILS

IL 53 (BIESTERFIELD ROAD)

OVER I 290

COOK COUNTY

SN 016-0960

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

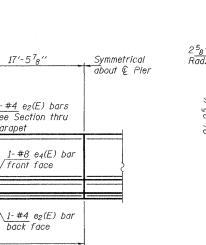
7-#4 e₂(E) bars. See

Section thru Parapet

SHEET NO. ROUTE NO. TOTAL 12 I 290 соок

SHEET NO. 3 3 SHEETS

Contract Number: 60C44



17'-5⁷8''

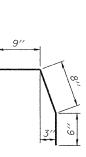
7-#4 e₂(E) bars

See Section thru Parapet

front face

back face

Aluminum sheeted joints in base of parapet

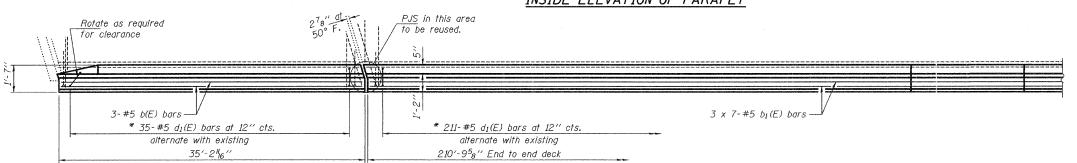


BAR d(E)

BAR d₁(E)

INSIDE ELEVATION OF PARAPET

5 Spaces at 17'-7" = 87'-11"



└-1 x 3-#8 e₃(E) bar, front face

└-1 x 4-#4 e₅(E) bar, back face

210'-9⁵8'' End to end parapet

212-#5 d(E) bars at 12" cts.

Lap with existing

PLAN

35'-216''

-1-#8 $e_1(E)$ bar, front face

1 x 2-#4 e(E) bar, back face

7 x 2-#4 e(E) bars. See

Section thru Parapet

36-#5 d(E) bars at 12" cts.

Lap with existing

2'-6"

Parapet_joint spacing

PLAN AT CURB

* Epoxy grout bars in 6" min. holes according to Article 584 of the Standard Specifications.

MINIMUM BAR LAP

#4 bar = 1'-4" #5 bar = 1'-8" #8 bar = 3'-5" See Sheet 2 of 3 for parapet details,

BILL OF MATERIAL

Bar	No.	Sîze	Length	Shape
b(E)	6	#5	34'-11''	
b1(E)	21	#5	31'-7''	

d(E)	284	#5	5'-7''	
$d_1(E)$	281	#5	1'-11''	7
e(E)	32	#4	18'-2"	
$e_i(E)$	2	#4	35'-0''	
9 ₂ (E)	86	#4	17'-3"	
e3(E)	6	#8	31'-8''	
e4(E)	2	#8	17'-3''	
e5(E)	8	#4	23'-1''	
<u> </u>	L	L		
	rcement Coated	Pound	5410	
Concre	ete structure)	Cu. Yds.	36.8
Rars in	dicated :	thus 1 x	3-#8 etc	indica

1 line of bars with 3 lengths per line.

REPAIR DETAILS IL 53 (BIESTERFIELD ROAD) OVER I 290 COOK COUNTY SN 016-0960

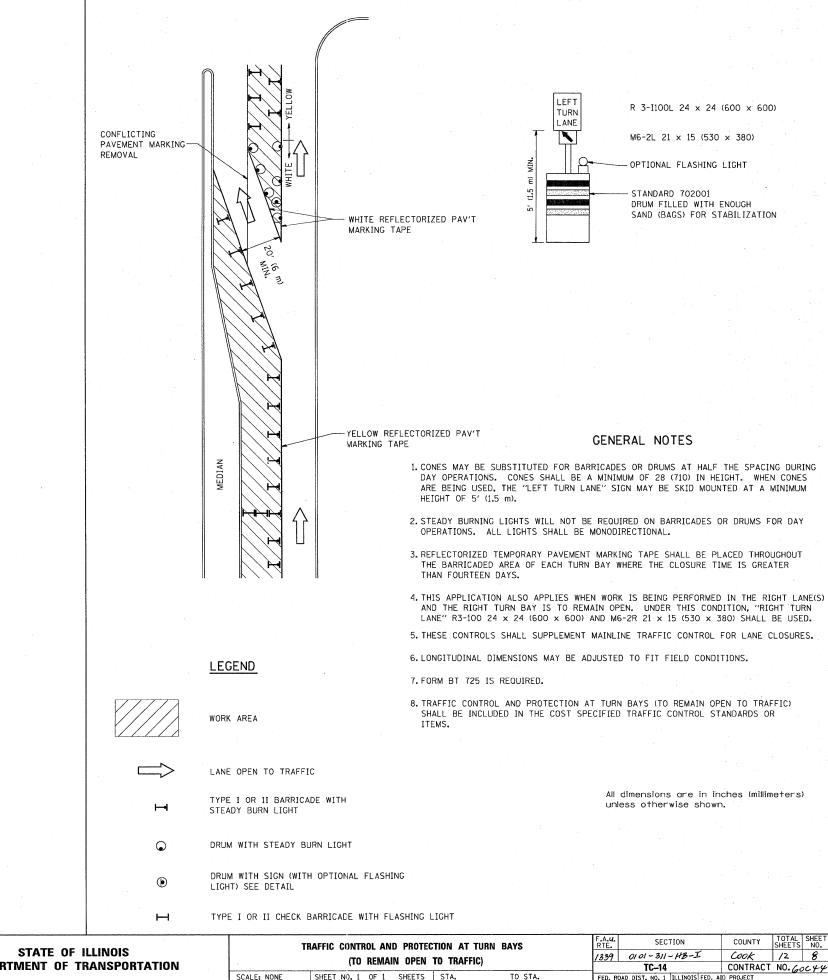
Non-staining gray one component non-sag elastomeric gun grade polyurethane sealant meeting the requirements of ASTM C-920, Type S, Grade NS, Class 25. Use T with a 58" backer rod. ⁵8''∮ Backer Rod — 1/2" Preformed Self-Expanding Cork Joint Filler according to Article 1051.07 of the Std. Spec. Cost included with Concrete Superstructure. Const. Jts. at Piers ^lg'' Aluminum sheet ASTM B 209 alloy 3003-H14. Cost Const. Jt (Optional) included with Concrete Superstructure Const. Jt. (Mandatory)

DESIGNED VHVAJBCHECKED PASSED baliva DRAWN VHV AJB CHECKED

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MARCH 4, 2008 Exalph E. anders

PARAPET JOINT DETAILS

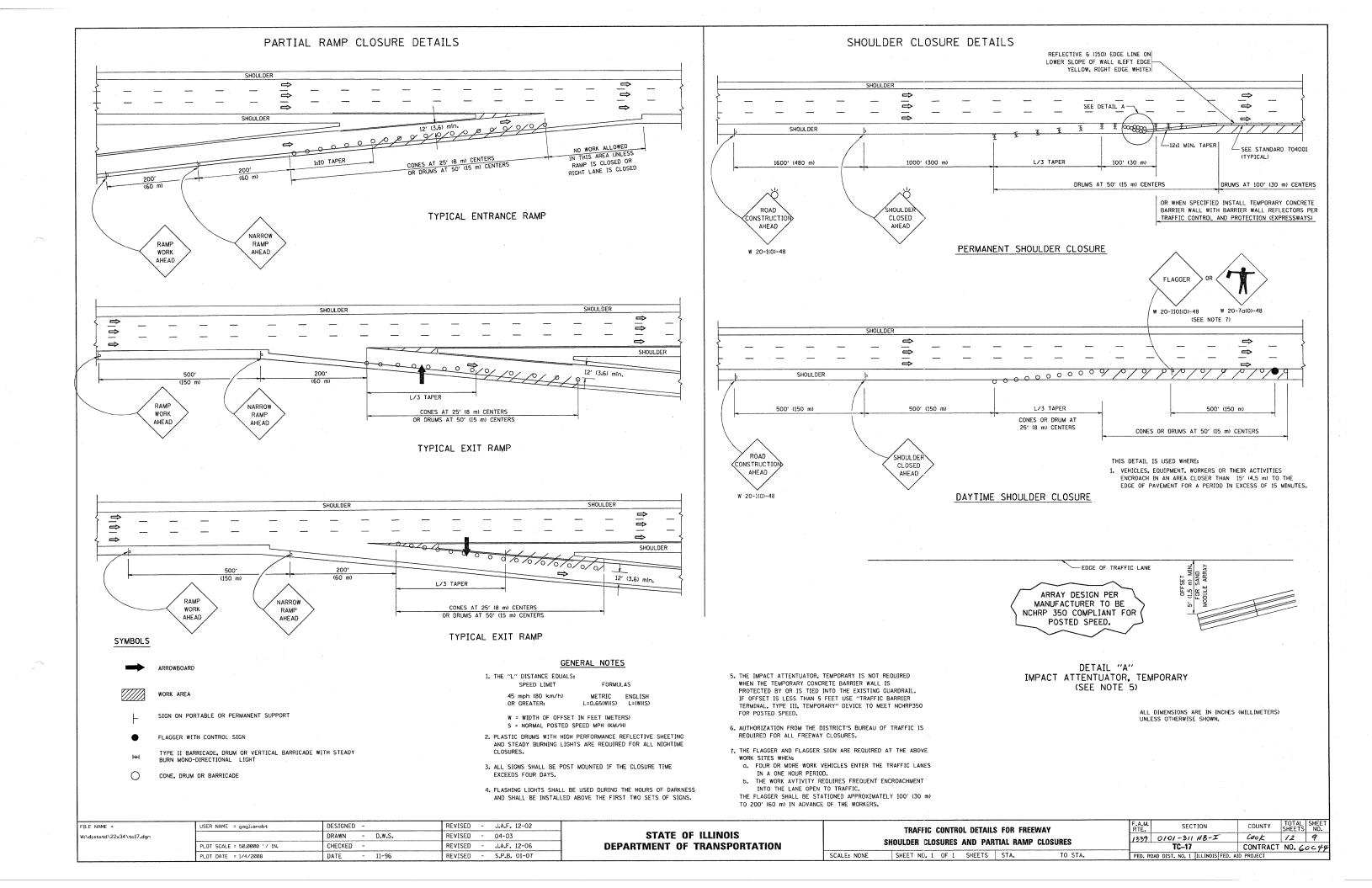


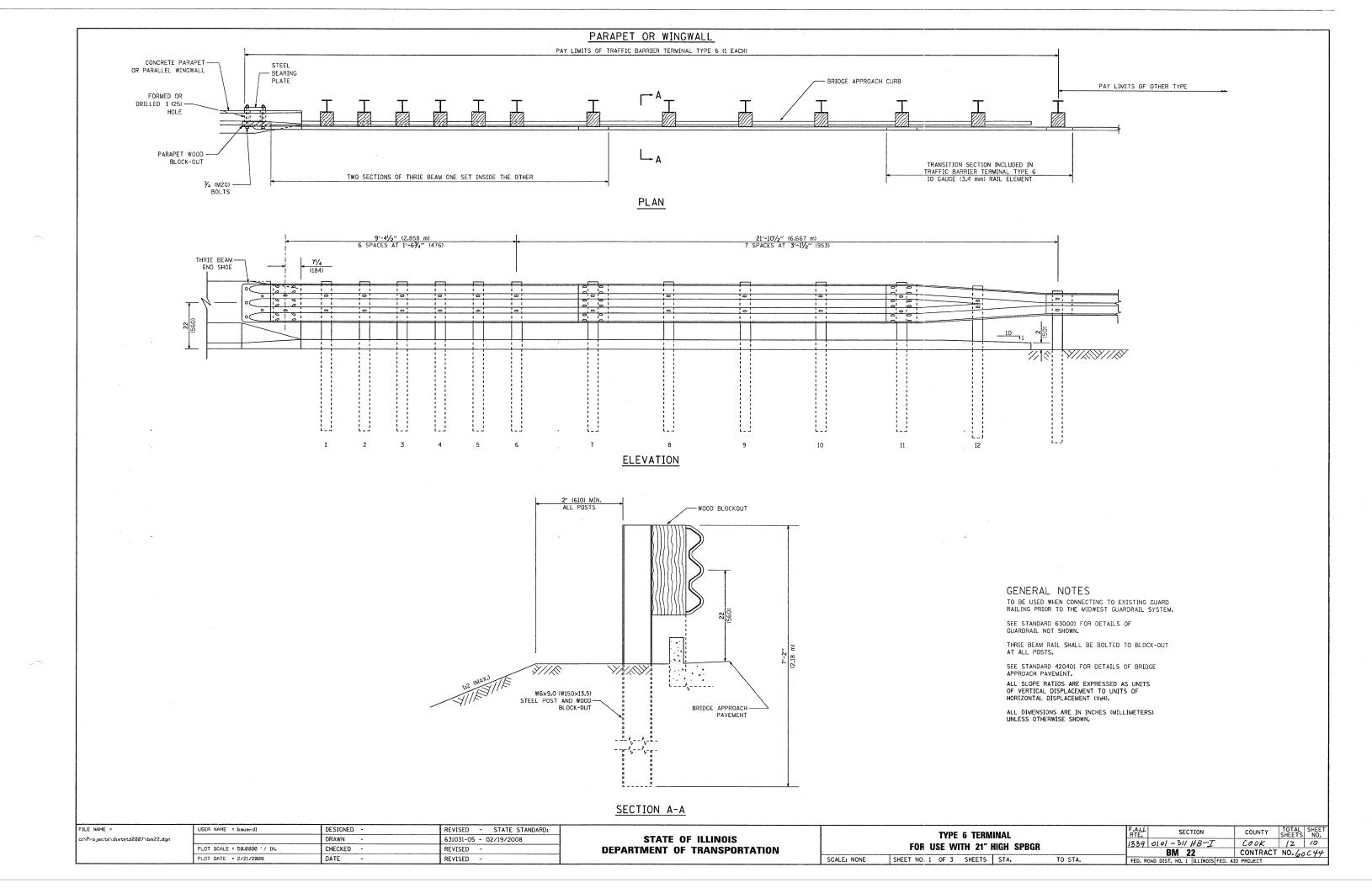
REVISED -T. RAMMACHER 09-08-94 FILE NAME = USER NAME = gaglianobt DESIGNED -W:\diststd\22x34\tc14.dgn DRAWN REVISED - A. HOUSEH 11-07-95 REVISED - A. HOUSEH 10-12-96 CHECKED PLOT SCALE = 50.0000 '/ IN. PLOT DATE = 1/4/2008 DATE REVISED -T. RAMMACHER 01-06-00

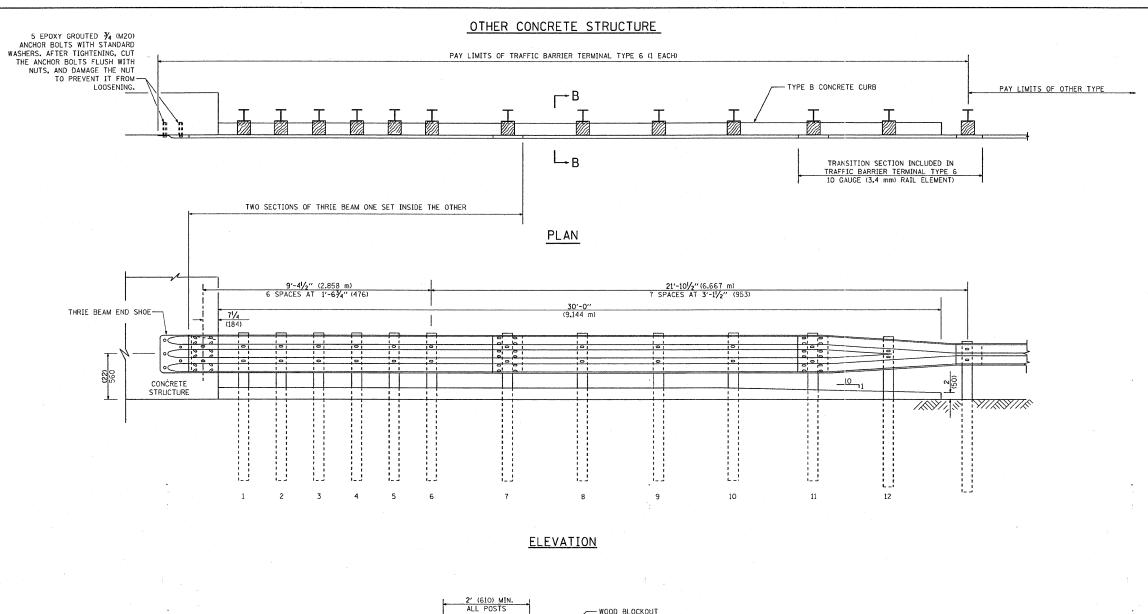
DEPARTMENT OF TRANSPORTATION

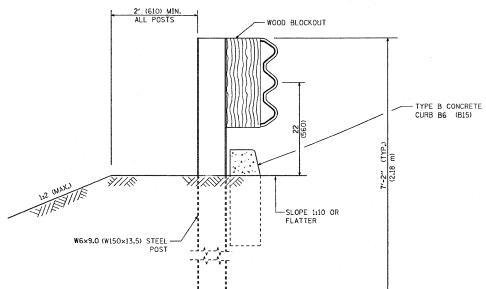
SHEET NO. 1 OF 1 SHEETS STA. TO STA.

CONTRACT NO. GOCYY TC-14







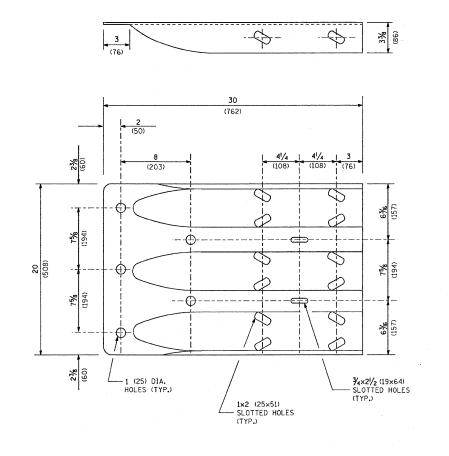


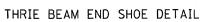
COUNTY SHEETS NO.

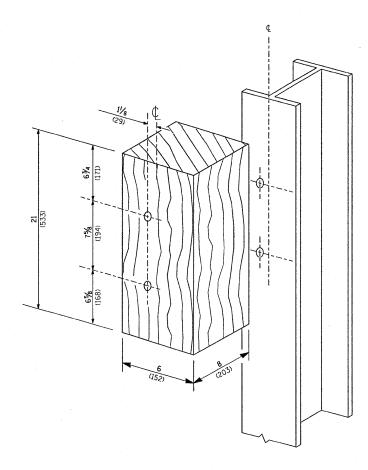
COOK /2 //

CONTRACT NO. GOC 44 FILE NAME = USER NAME = bauerdl DESIGNED -REVISED - STATE STANDARD: SECTION **TYPE 6 TERMINAL** c:\Projects\diststd2007\bm22.dgn DRAWN 631031-05 - 02/19/2008 STATE OF ILLINOIS | 1339 | 0| 0| -3| | HB-T | COOK | BM | 22 | CONTRA | FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT FOR USE WITH 21" HIGH SPBGR **DEPARTMENT OF TRANSPORTATION** CHECKED -PLOT SCALE = 50.0000 '/ IN. REVISED SCALE: NONE SHEET NO. 2 OF 3 SHEETS STA. PLOT DATE = 2/21/2008 DATE REVISED TO STA.

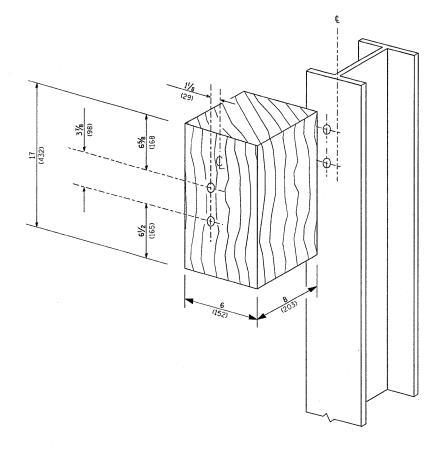
SECTION B-B



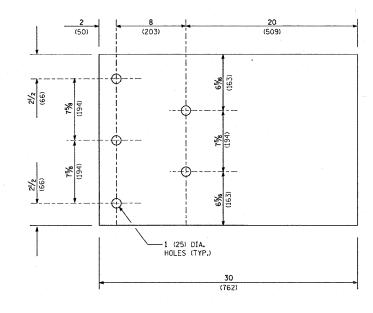




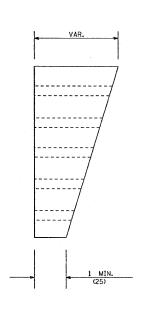
POSTS 1-11 WOOD BLOCKOUT DETAIL



POST 12 WOOD BLOCKOUT DETAIL



PARAPET WOOD BLOCK-OUT DETAIL



PARAPET STEEL BEARING PLATE DETAIL

-1 (25) DIA. HOLES (TYP.)

75/8

5/8 (16) STEEL -

(5 EACH INDIVIDUAL 5x5x5/6 (125x125x16) STEEL PLATES WITH CENTERED 1 (25) HOLES MAY BE SUBSTITUTED FOR THE PLATE SHOWN.)

LE NAME =	USER NAME = bauerdl	DESIGNED -	REVISED - STATE STANDARD:	
\Projects\diststd2007\bm22.dgn		DRAWN -	631031-05 - 02/19/2008	
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	
	PLOT DATE = 2/21/2008	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

	TYPE 6 TERMINAL			F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	EUB IIGE MI	TH 21" HIGH SPBG	:P	1339	0101-311 HB-I	COOK	12	12	
	I OIL OOL WI	iii Zi ilidii ərbu	#N		BM 22	CONTRACT	NO.		
SCALE: NONE	SHEET NO. 3 OF 3	SHEETS STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT			