

04-27-12 LETTING ITEM 182

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED  
HIGHWAY BRIDGE PROGRAM

BUREAU COUNTY  
FAIRFIELD ROAD DISTRICT SECTION 11-07119-00-BR  
TOWNSHIP ROAD 55 OVER UNION DITCH  
PROJECT NO. BROS-0011(083)  
JOB NUMBER C-93-004-12

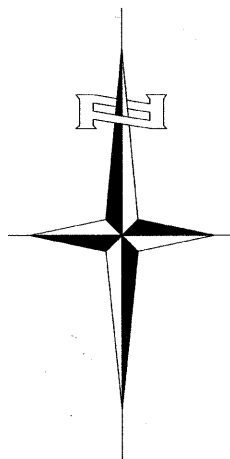
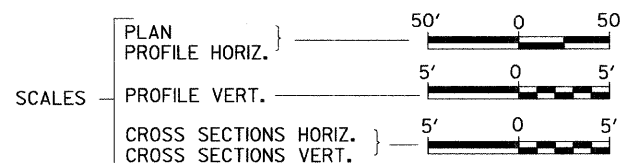
RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	11-07119-00-BR	BUREAU	21	1
FED. ROAD DIST. NO. 7	ILLINOIS	CONTRACT NO. 87499		

INDEX OF SHEETS

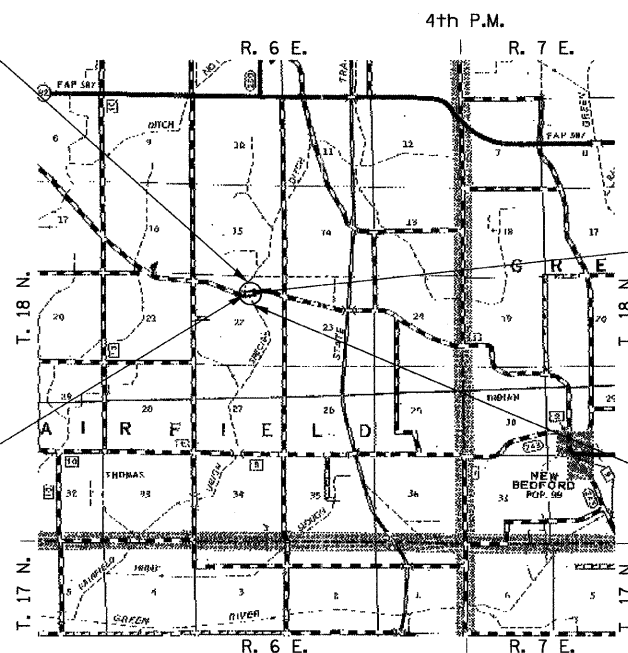
SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	GENERAL NOTES, DETAILS, TYPICAL SECTIONS
3.	SUMMARY OF QUANTITIES, SCHEDULES OF QUANTITIES
4.	TRAFFIC CONTROL PLAN
5.	EROSION CONTROL PLAN
6.	PLAN AND PROFILE
7.-17.	STRUCTURE PLANS
18.-21.	CROSS SECTIONS

REQUIRED HIGHWAY STANDARDS

- 000001-06
- 280001-06
- 515001-03
- 542401-01
- 601001-04
- 601101-01
- 630301-05
- 635006-03
- 701901-02
- BLR 21-9
- BLR 26-3
- BLR 27-1



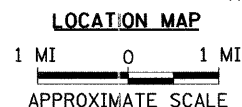
EXISTING STRUCTURE SN 006-4091  
THREE SPAN CONCRETE DECK ON GIRDER  
SUPERSTRUCTURE ON CONCRETE CAPPED  
TIMBER CLOSED ABUTMENTS AND EXPOSED  
TIMBER PILE CONCRETE CAPPED BENT PIERS  
±43'-9" BK TO BK, AND ±25'-0" O TO O DECK,  
SKEW 20° RT. AH. (TO BE REMOVED)



PROPOSED STRUCTURE SN 006-4096  
SINGLE SPAN 27" PPC DK BM STRUCTURE  
ON SPILL THRU PILE BENT ABUTMENTS  
71'-6" BK TO BK, AND 24'-0" O TO O DECK,  
20° RT. AH. SKEW

SECTION 11-07119-00-BR  
BEGINS  
STATION 18+50.00

SECTION 11-07119-00-BR  
ENDS  
STATION 21+50.00



NET LENGTH OF PROJECT = 300.00 FEET = 0.057 MILES  
DESIGN CLASSIFICATION: LOCAL ROAD (NON-URBAN)  
DESIGN ADT: 60 (2012)  
DESIGN SPEED: 30 MPH

UTILITY COMPANIES

- FRONTIER COMMUNICATIONS  
ROSEVILLE, ILLINOIS
- COMMONWEALTH EDISON CO.  
ROCKFORD, ILLINOIS

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

FAIRFIELD ROAD DISTRICT CONTRACT NO. 87499

PLANS DESIGNED IN ACCORDANCE WITH BUREAU  
OF LOCAL ROADS AND STREETS MANUAL GUIDELINES  
FOR TWO LANE RURAL LOCAL ROADS - RECONSTRUCTION

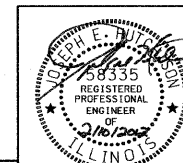
APPROVED Donald P. Kelly 02/21 2012  
FAIRFIELD ROAD DISTRICT  
HIGHWAY COMMISSIONER

APPROVED John C. Johnson 02/21 2012  
BUREAU COUNTY ENGINEER

PASSED [Signature] 2-23-2012 2012  
PROJECT IMPLEMENTATION ENGINEER

Released For  
Bid Based on  
Limited Review [Signature] 2-23 2012  
DEPUTY DIRECTOR OF HIGHWAYS,  
REGION TWO ENGINEER

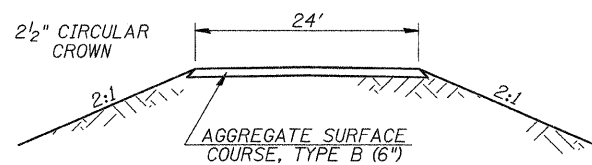
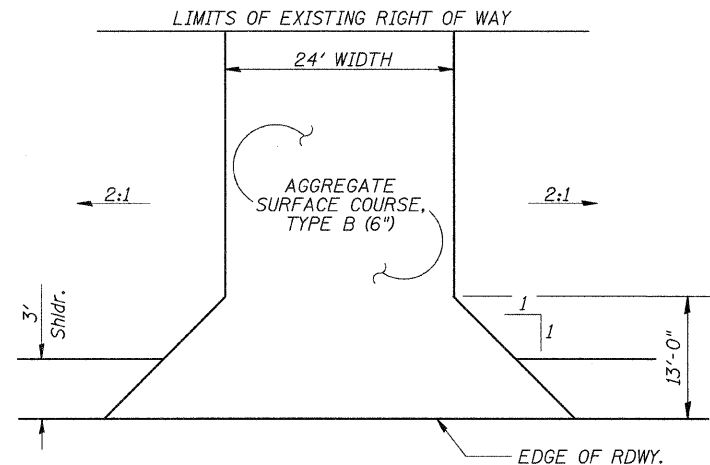
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



Hutchison Engineering, Inc.  
JACKSONVILLE ILLINOIS  
SHOREWOOD ILLINOIS

Chicago Engineer 11/20/2012  
SIGNATURE

2011 JOB#2984 & 3067



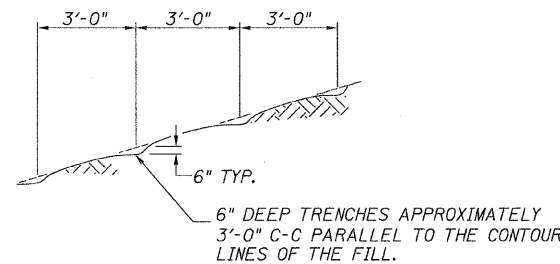
**FIELD ENTRANCES**

STA 20+60 LT  
STA 20+75 RT

**HOT-MIX ASPHALT MIXTURE REQUIREMENTS**

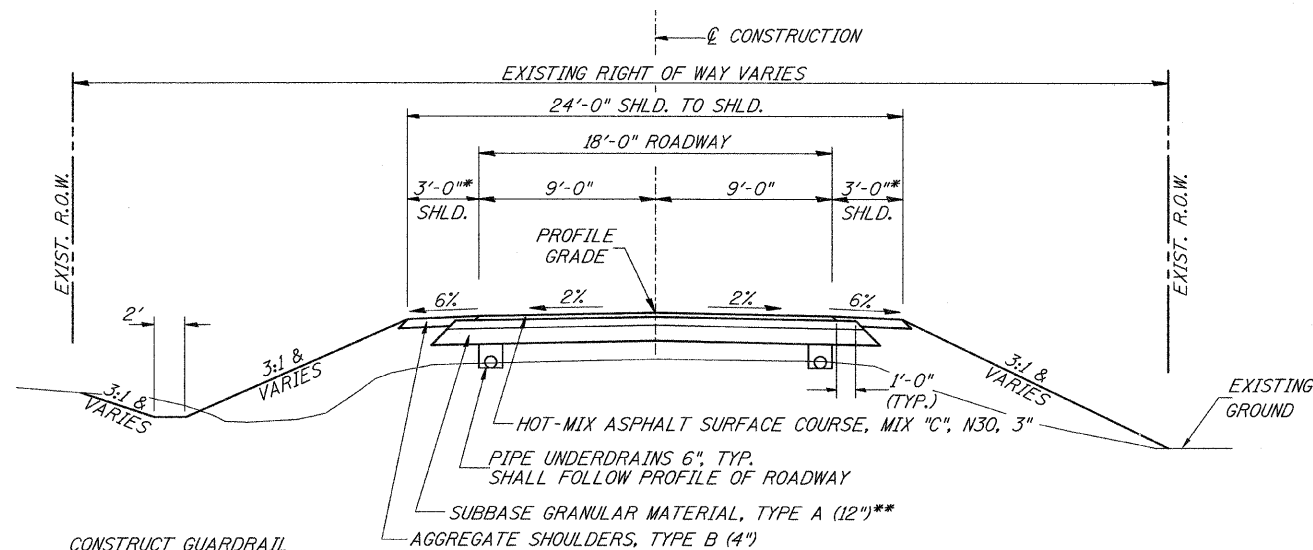
	HMA SURFACE
PG GRADE	PG 58-22
DESIGN AIR VOIDS	4% @ N30
MIXTURE COMPOSITION	IL-9.5L
FRICTION AGGREGATE	MIXTURE C
DENSITY TEST METHOD	CORES

\* MATERIAL SHALL BE COMPACTED TO 93.0-97.4 PERCENT OF THE MAXIMUM THEORETICAL DENSITY, EXCEPT THAT WHEN PLACED AS FIRST LIFT ON AN UNIMPROVED SUBGRADE THE MINIMUM PERCENT COMPACTION SHALL BE 92.0 PERCENT. THE MAXIMUM THEORETICAL DENSITY SHALL BE DETERMINED FROM THE MOVING AVERAGE AS SPECIFIED IN THE QC/QA SPECIFICATION.



NOTE: ALL SLOPES 3:1 OR STEEPER AND GREATER THAN 5' IN HEIGHT SHALL BE CONTOUR PLOWED AS SHOWN IN DETAIL. COST SHALL BE INCLUDED WITH SEEDING, CLASS 3 (SPECIAL).

**DETAIL OF CONTOUR PLOWING**



**PROPOSED TYPICAL SECTION**

STA. 18+50.00 TO STA. 19+64.25  
STA. 20+35.75 TO STA. 21+50.00

BRIDGE OMISSION  
STA. 19+64.25 TO STA. 20+35.75

CONSTRUCT GUARDRAIL SHOULDER WIDENING IN ACCORDANCE WITH STD 630301

\*\*TOP 4"-CA-6 GRADATION  
BOTTOM 8"-CA-2 GRADATION

**GENERAL NOTES**

THE REMOVAL OF EXISTING ASPHALT SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE PROJECT SHALL BE REMOVED AS EARTH EXCAVATION AND NO COMPENSATION WILL BE ALLOWED FOR ADDITIONAL LABOR OR EQUIPMENT REQUIRED.

ALL WASTE OR UNDESIRABLE MATERIAL AS IDENTIFIED BY THE ENGINEER SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY AT THE CONTRACTOR'S EXPENSE.

ALL EXISTING PRIVATELY OWNED UTILITIES REQUIRING ADJUSTMENT WILL BE MADE BY THE UTILITY COMPANY INVOLVED. WHERE NO PROVISIONS HAVE BEEN MADE FOR ADJUSTMENTS ON THE PLANS, NO ADDITIONAL COMPENSATION WILL BE ALLOWED DUE TO DELAYS OR INCONVENIENCES CAUSED BY THE SAID UTILITY ADJUSTMENTS.

THE PROFILE GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND IN THE STATION CROSS SECTIONS ARE TO THE TOP OF THE FINISHED SURFACE.

ALL EXISTING DRAINAGE STRUCTURES NOT BEING REMOVED BY THE CONTRACTOR THAT ARE DAMAGED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

ANY REFERENCE TO STANDARDS THROUGHOUT THE PLANS SHALL BE INTERPRETED TO BE THE LATEST STANDARDS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION

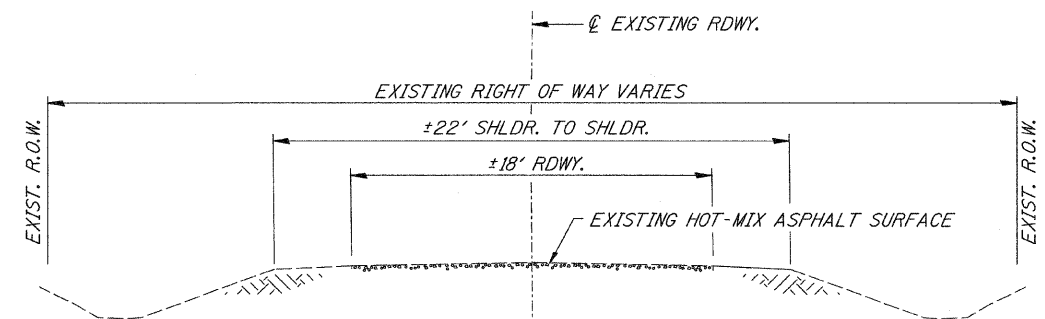
THE LOCATION OF UNDERGROUND UTILITIES SHOWN ON THE PLANS REPRESENTS THE BEST KNOWLEDGE OF THE COUNTY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF UNDERGROUND INSTALLATIONS BEFORE STARTING CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL INDEMNIFY THE COUNTY, ITS OFFICERS AND EMPLOYEES AGAINST ALL CLAIMS DUE TO DAMAGE TO CORPORATE OR PRIVATE PROPERTY RESULTING FROM HIS CONSTRUCTION OPERATIONS AS DESCRIBED IN ARTICLES 107.20 AND 107.26 OF THE STANDARD SPECIFICATIONS.

THE CONTRACTOR MAY BE REQUIRED TO CONDUCT SOME OF HIS GRADING AND TRENCHING OPERATIONS AROUND TRANSMISSION POLES AND UNDER TRANSMISSION LINES. THE ADDED COST OF SO DOING SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND PRESERVE PROPERTY MARKERS UNTIL THE OWNER, AN AUTHORIZED SURVEYOR, OR AGENT, HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

THE FINAL SURFACE OF ALL DISTURBED/EMBANKMENT AREAS SHALL BE SEEDED. THE TOP 4 INCHES OF THE SEEDER AREAS SHALL BE COHESIVE VEGETATION SUSTAINING SOIL SUBJECT TO THE APPROVAL OF THE ENGINEER. THE COST OF SHAPING THE SLOPES AND PROVIDING VEGETATION SUSTAINING SOIL WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF EARTH EXCAVATION. TOPSOIL MAY BE STRIPPED AND STOCKPILED FROM THE SITE OR HAULED IN FROM AN ALTERNATE LOCATION AS APPROVED BY THE ENGINEER.

ALL ELEVATIONS SHOWN REFER TO AN U.S.G.S. MEAN SEA LEVEL DATUM.



**EXISTING TYPICAL SECTION**

FILE NAME = V:\Bridg\2984 - Bureau\2984\201.dgn	USER NAME = othomas	DESIGNED -	REVISED -	<b>BUREAU COUNTY TOWNSHIP ROAD 55 OVER UNION DITCH</b>	<b>GENERAL NOTES, DETAILS, TYPICAL SECTIONS</b>			RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+50.00 TO STA. 21+50.00	TR 55	11-07119-00-BR	BUREAU	21	2
		CHECKED -	REVISED -					CONTRACT NO. 87499				
		DATE -	REVISED -					FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BR05-00110837				

**SUMMARY OF QUANTITIES**

CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	255
20300100	CHANNEL EXCAVATION	CU YD	230
20700220	POROUS GRANULAR EMBANKMENT	CU YD	14.8
25100630	EROSION CONTROL BLANKET	SQ YD	1,043
28000305	TEMPORARY DITCH CHECKS	FOOT	36
28000400	PERIMETER EROSION BARRIER	FOOT	365
28000500	INLET AND PIPE PROTECTION	EACH	2
31100100	SUBBASE GRANULAR MATERIAL, TYPE A	TON	346
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	52
40300100	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	261
40603305	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N30	TON	78
48101200	AGGREGATE SHOULDERS, TYPE B	TON	25
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50105220	PIPE CULVERT REMOVAL	FOOT	132
50300225	CONCRETE STRUCTURES	CU YD	22.3
50300280	CONCRETE ENCASEMENT	CU YD	2.6
50400505	PRECAST PRESTRESSED CONCRETE DECK BEAMS (27" DEPTH)	SQ FT	1,668
50800105	REINFORCEMENT BARS	POUND	2,480
50900205	STEEL RAILING, TYPE S1	FOOT	143
51200957	FURNISHING METAL SHELL PILES 12"X0.250"	FOOT	504
51202305	DRIVING PILES	FOOT	504
51203200	TEST PILE METAL SHELLS	EACH	2
51500100	NAME PLATES	EACH	1
542D0220	PIPE CULVERTS, CLASS D, TYPE 1 15"	FOOT	72
54215550	METAL END SECTIONS 15"	EACH	4
60107700	PIPE UNDERDRAINS 6"	FOOT	504
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	1
63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	1
67100100	MOBILIZATION	L SUM	1
X2501100	SEEDING, CLASS 3 (SPECIAL)	ACRE	0.2
X2810208	STONE RIPRAP, CLASS A4 (SPECIAL)	TON	505
X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1
Z0013798	CONSTRUCTION LAYOUT	L SUM	1

① SEE SPECIAL PROVISIONS

CONSTRUCTION CODE TYPE: 0011

\* SPECIALTY ITEMS

**EARTHWORK SUMMARY**

STATION TO STATION	EARTH EXCAVATION	CHANNEL EXCAVATION	STRUCTURE EXCAVATION	FILL	WASTE (SHORTAGE)
	CU YD	CU YD	CU YD	CU YD	CU YD
RDWY 18+50.00 - 19+64.25	120			25	65
RDWY 20+35.75 - 21+50.00	135			27	74
CHANNEL		230			
STRUCTURE			65		
TOTAL	255	230	65	52	139
USE	255	230	*65	-	139

(@ 25% SHRINKAGE)

\*STRUCTURE EXCAVATION SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 502 OF THE STANDARD SPECIFICATIONS. INDIVIDUAL PAYMENT FOR STRUCTURE EXCAVATION WILL NOT BE MADE, BUT SHALL BE IN ACCORDANCE WITH SECTION 502.13.

**PAVEMENT SCHEDULE**

STATION TO STATION	WIDTH	LENGTH	SUBBASE GRANULAR MATERIAL, TYPE A (TON)	PRIME COAT GALLON 0.50 GAL/SQ YD	HOT-MIX ASPHALT SURF CSE, MIX "C", N30 TON 112#/SQ YD/IN
18+50.00 - 19+00.00	21.66' AVG.	50.00'	76		
19+00.00 - 19+64.25	21.50'	64.25'	97		
20+35.75 - 21+00.00	21.50'	64.25'	97		
21+00.00 - 21+50.00	21.74' AVG.	50.00'	76		
18+50.00 - 19+00.00	20.66' AVG.	50.00'		57	
19+00.00 - 19+64.25	20.50'	64.25'		73	
20+35.75 - 21+00.00	20.50'	64.25'		73	
21+00.00 - 21+50.00	20.74' AVG.	50.00'		58	
18+50.00 - 19+00.00	18.41' AVG.	50.00'			17
19+00.00 - 19+64.25	18.25'	64.25'			22
20+35.75 - 21+00.00	18.25'	64.25'			22
21+00.00 - 21+50.00	18.49' AVG.	50.00'			17
TOTAL			346	261	78

**EROSION CONTROL BLANKET**

STATION TO STATION	SIDE	WIDTH	LENGTH	AREA (SQ YD)
18+50 - 19+59	LEFT	VARIES	109'	261
18+50 - 19+79	RIGHT	VARIES	129'	321
20+22 - 21+50	LEFT	VARIES	128'	256
20+40 - 21+50	RIGHT	VARIES	110'	205
TOTAL				1,043

**TRAFFIC BARRIER TERMINAL, TYPE 5A**

SIDE	STATION TO STATION	EACH
RIGHT	19+55.37 - 19+68.62	1
TOTAL		1

**AGGREGATE SHOULDERS, TYPE B**

STATION TO STATION	SIDE	WIDTH	LENGTH	TON
18+50.00 - 19+00.00	LEFT	2.50' AVG.	50.00'	3
18+50.00 - 19+00.00	RIGHT	2.50' AVG.	50.00'	3
19+00.00 - 19+60.43	LEFT	3.00'	60.43'	4
19+00.00 - 19+68.07	RIGHT	3.00'	68.07'	5
20+31.93 - 20+36.50	LEFT	3.00'	4.57'	1
20+39.57 - 20+51.50	RIGHT	3.00'	11.93'	1
20+83.50 - 21+00.00	LEFT	3.00'	16.50'	1
20+98.50 - 21+00.00	RIGHT	3.00'	1.50'	1
21+00.00 - 21+50.00	LEFT	2.50' AVG.	50.00'	3
21+00.00 - 21+50.00	RIGHT	2.50' AVG.	50.00'	3
TOTAL				25

**INLET AND PIPE PROTECTION**

STATION	SIDE	EACH
20+78	LEFT	1
20+93	RIGHT	1
TOTAL		2

**TEMPORARY DITCH CHECKS**

STATION	SIDE	FOOT
19+59	LEFT	12
20+22	LEFT	12
20+40	RIGHT	12
TOTAL		36

**TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT**

SIDE	STATION TO STATION	EACH
RIGHT	19+05.37 - 19+55.37	1
TOTAL		1

**PIPE UNDERDRAINS 6"**

STATION TO STATION	SIDE	FOOT
18+50 - 19+67	RIGHT	125
18+50 - 19+50	LEFT	108
19+50 - 19+61	LEFT	19
20+33 - 21+50	LEFT	125
20+39 - 20+50	RIGHT	19
20+50 - 21+50	RIGHT	108
TOTAL		504

**PERIMETER EROSION BARRIER**

STATION TO STATION	SIDE	FOOT
18+50 - 19+00	LEFT	50
18+50 - 19+71	RIGHT	140
20+42 - 20+78	LEFT	55
20+57 - 20+93	RIGHT	45
21+00 - 21+50	LEFT	50
21+25 - 21+50	RIGHT	25
TOTAL		365

**AGGREGATE SURFACE COURSE, TYPE B**

STATION TO STATION	THICKNESS	WIDTH	LENGTH	TON
ENTR. - 20+60.00 LT	0.50'	24' & VAR.	26.0'	28
ENTR. - 20+75.00 RT	0.50'	24' & VAR.	20.9'	24
TOTAL				52

**METAL END SECTIONS 15"**

STATION	SIDE	EACH
20+42	LEFT	1
20+57	RIGHT	1
20+77	LEFT	1
20+92	RIGHT	1
TOTAL		4

**PIPE CULVERTS, CLASS D, TYPE 1 15"**

STATION	SIDE	FOOT
20+60	LEFT	36
20+75	RIGHT	36
TOTAL		72

**PIPE CULVERT REMOVAL**

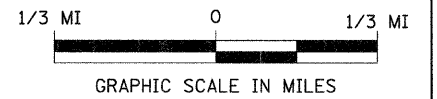
STATION	SIZE	SIDE	FOOT
19+36	10"	LEFT	20
20+38	10"	LEFT	47
20+67	10"	RIGHT	65
TOTAL			132

R 6 E, 4th PM



- 1 ROAD CLOSED  
2/3 MILE AHEAD  
LOCAL TRAFFIC ONLY  
R11-3
- 2 ROAD CLOSED  
1/3 MILE AHEAD  
LOCAL TRAFFIC ONLY  
R11-3
- 3 ROAD CLOSED  
AHEAD  
W20-3
- 4 ROAD CLOSED  
500 FT  
W20-3
- 5 TYPE III BARRICADES

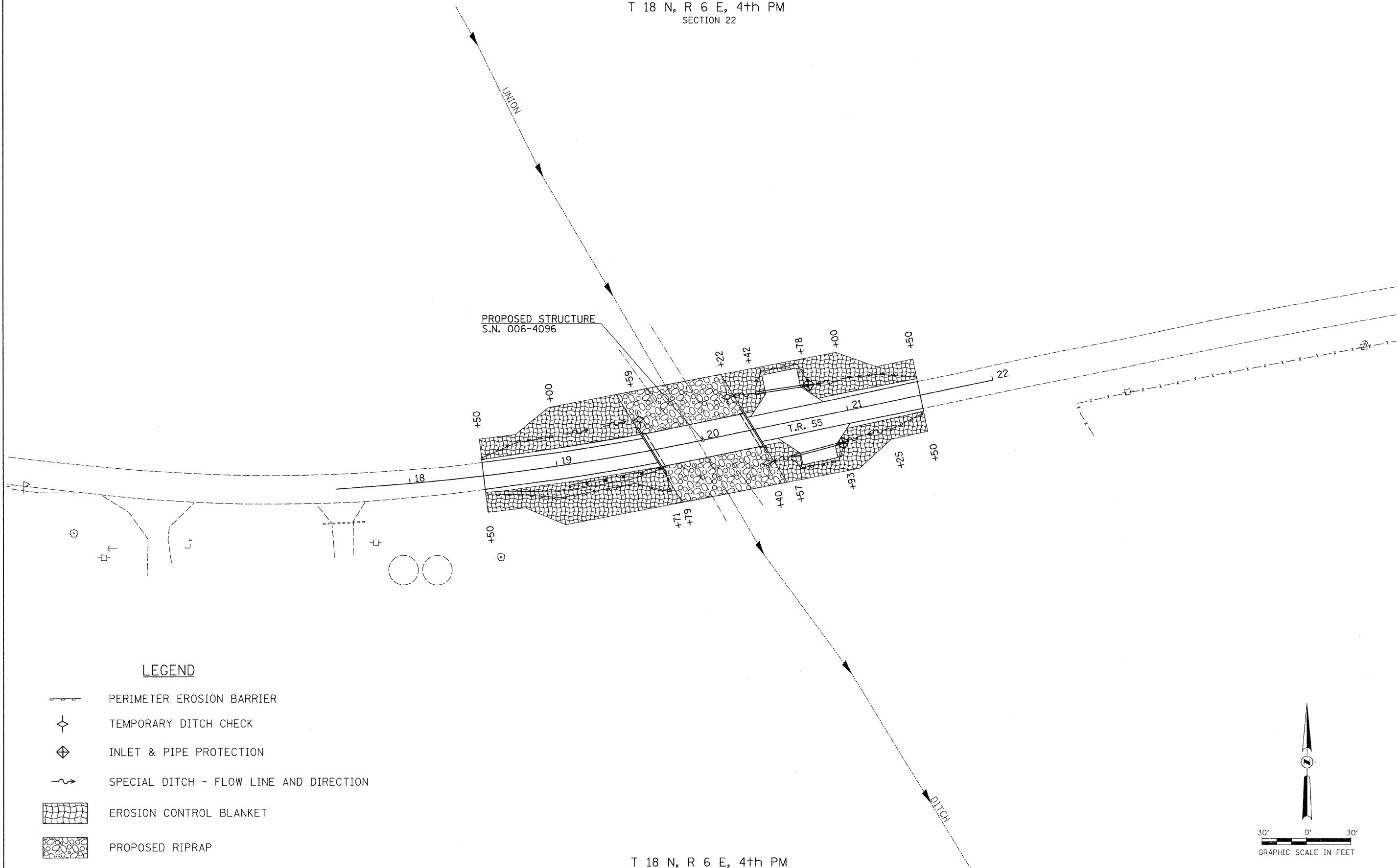
SEE STANDARD BLR 21  
AND SPECIAL PROVISIONS









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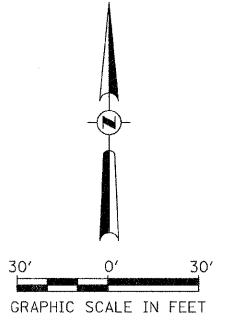
FILE NAME = V:\Bridge\2984 - Bureau\2984h001.dgn	USER NAME = othomas	DESIGNED -	REVISED -	<b>BUREAU COUNTY TOWNSHIP ROAD 55 OVER UNION DITCH</b>	<b>TRAFFIC CONTROL PLAN</b>			RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. 18+50.00 TO STA. 21+50.00	TR 55	11-07119-00-BR	BUREAU	21	4
		CHECKED -	REVISED -					CONTRACT NO. 87499				
		DATE - 04/18/11	REVISED -					FED. ROAD DIST. NO. 7 [ILLINOIS] FED. AID PROJECT BROS-00110831				

T 18 N, R 6 E, 4th PM  
SECTION 22



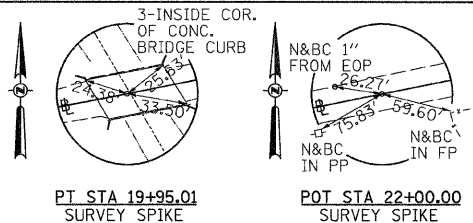
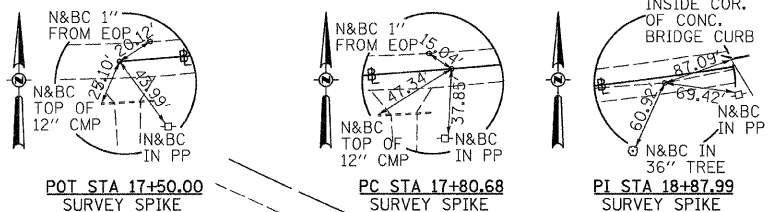
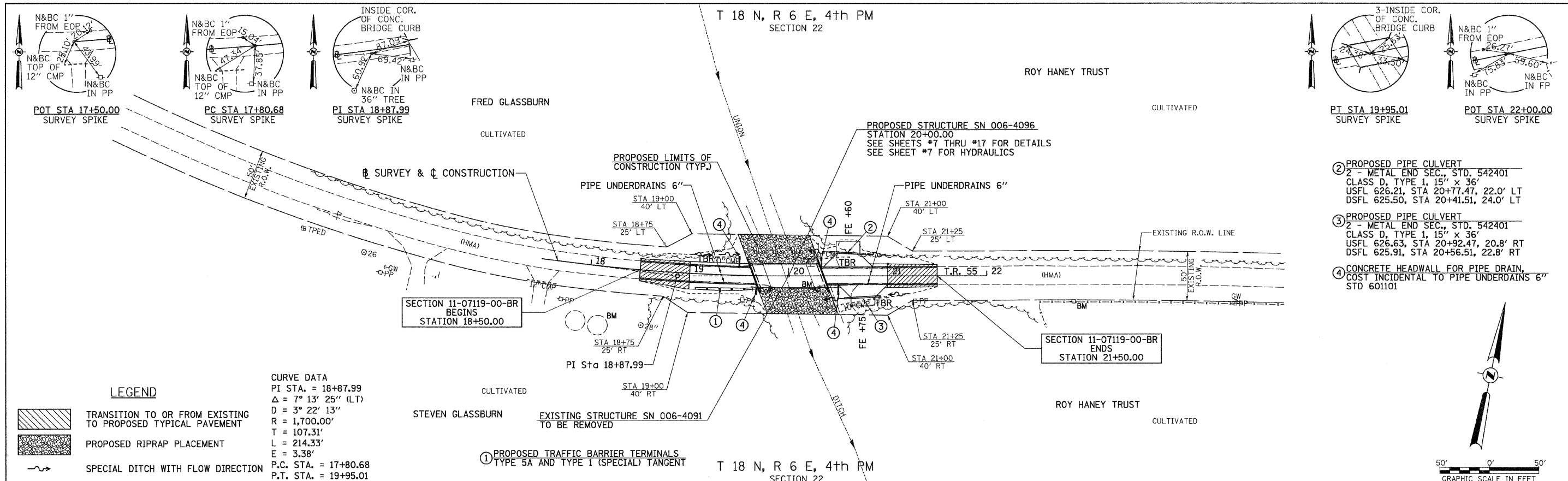
**LEGEND**

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  INLET & PIPE PROTECTION
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  EROSION CONTROL BLANKET
-  PROPOSED RIPRAP



T 18 N, R 6 E, 4th PM  
SECTION 22

FILE NAME = V:\Bridg\2984 - Bureau\2984S001.dgn	USER NAME = cthomas	DESIGNED -	REVISED -	<b>BUREAU COUNTY TOWNSHIP ROAD 55 OVER UNION DITCH</b>	<b>EROSION CONTROL PLAN</b>			RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 30.0000' / IN.	DRAWN -	REVISED -					TR 55	11-07119-00-BR	BUREAU	21	5
	PLOT DATE = 2/9/2012	CHECKED -	REVISED -					CONTRACT NO. 87499				
	DATE -	REVISED -		SCALE: 1" = 30'			SHEET NO. 1 OF 1 SHEETS	STA. 18+50.00 TO STA. 21+50.00	FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BROS-00110837		



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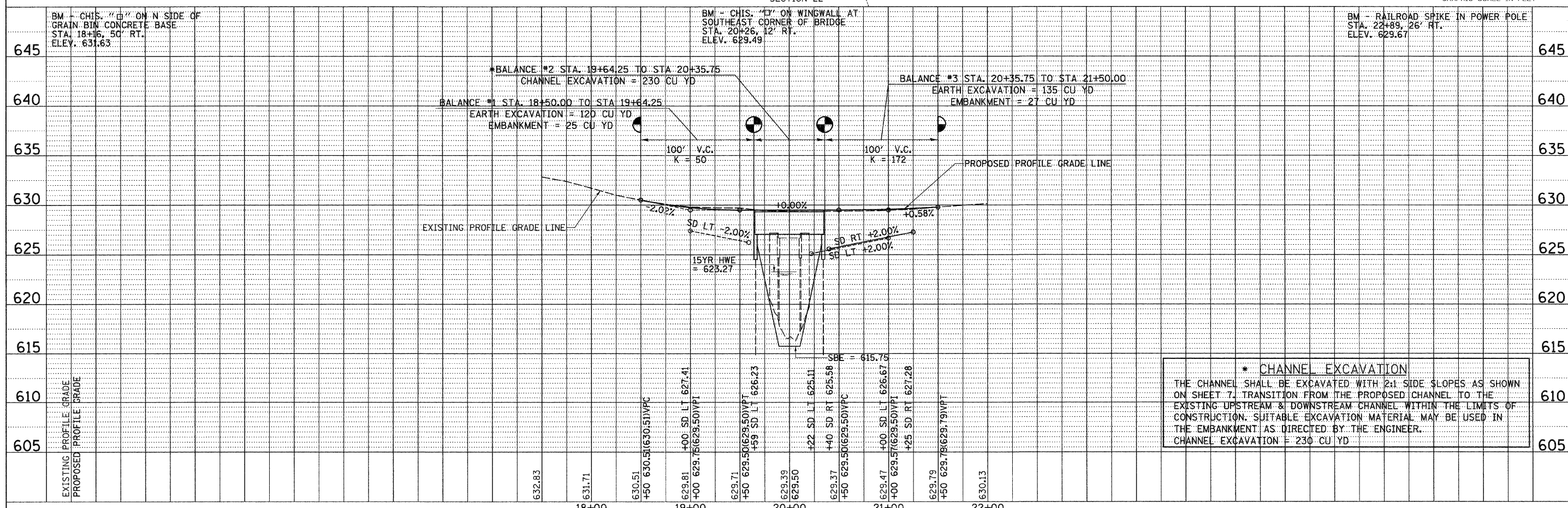
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**LEGEND**

- Transition to or from existing to proposed typical pavement
- Proposed riprap placement
- Special ditch with flow direction

**CURVE DATA**  
 PI STA. = 18+87.99  
 $\Delta = 7^\circ 13' 25''$  (LT)  
 $D = 3^\circ 22' 13''$   
 $R = 1,700.00'$   
 $T = 107.31'$   
 $L = 214.33'$   
 $E = 3.38'$   
 P.C. STA. = 17+80.68  
 P.T. STA. = 19+95.01

- 2 - METAL END SEC., STD. 542401 CLASS D, TYPE 1, 15" x 36" USFL 626.21, STA 20+77.47, 22.0' LT DSFL 625.50, STA 20+41.51, 24.0' LT
- 2 - METAL END SEC., STD. 542401 CLASS D, TYPE 1, 15" x 36" USFL 626.63, STA 20+92.47, 20.8' RT DSFL 625.91, STA 20+56.51, 22.8' RT
- CONCRETE HEADWALL FOR PIPE DRAIN, COST INCIDENTAL TO PIPE UNDERDAINS 6" STD 601101



**\* CHANNEL EXCAVATION**  
 THE CHANNEL SHALL BE EXCAVATED WITH 2:1 SIDE SLOPES AS SHOWN ON SHEET 7. TRANSITION FROM THE PROPOSED CHANNEL TO THE EXISTING UPSTREAM & DOWNSTREAM CHANNEL WITHIN THE LIMITS OF CONSTRUCTION. SUITABLE EXCAVATION MATERIAL MAY BE USED IN THE EMBANKMENT AS DIRECTED BY THE ENGINEER.  
 CHANNEL EXCAVATION = 230 CU YD

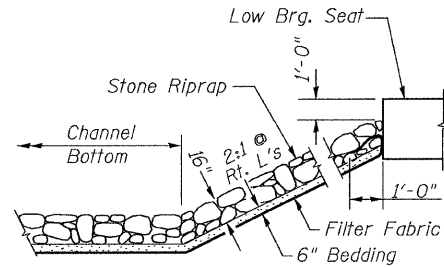
FILE NAME = V:\Bridge\2984 - Bureau\2984P001.dgn	USER NAME = cthomas	DESIGNED -	REVISED -	<b>BUREAU COUNTY TOWNSHIP ROAD 55 OVER UNION DITCH</b>	<b>PLAN AND PROFILE</b>	RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			55	11-07119-00-BR	BUREAU	21	6	
		CHECKED -	REVISED -			CONTRACT NO. 87499					
		DATE -	REVISED -			FED. ROAD DIST. NO. 7 ILLINOIS   FED. AID PROJECT BROS-0011083					



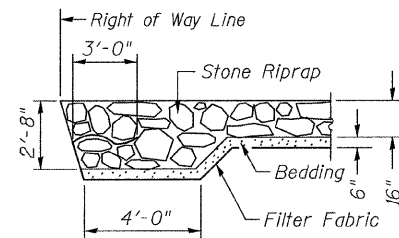
B.M.: Chisled "L" on N. Side of Grain Bin Concrete Base Sta. 18+16, 50' Rt. Elev. 631.63  
 RR Spike in Power Pole Sta. 22+89, 26' Rt. Elev. 629.67

**Existing Structure:**  
 Three span concrete deck on steel girders superstructure on concrete capped timber closed abutments and exposed timber pile concrete capped bent piers. The structure is +43'-9" back to back of abutments, +25' out to out deck, and is skewed 20°.

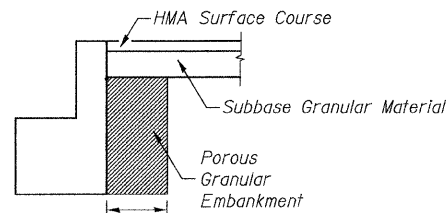
**Salvage: None**  
 Road to be closed to traffic during construction.



**STONE RIPRAP DETAIL**

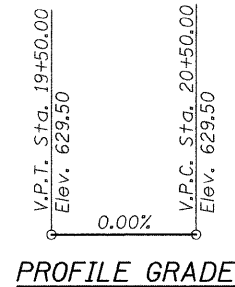


**SECTION A-A**

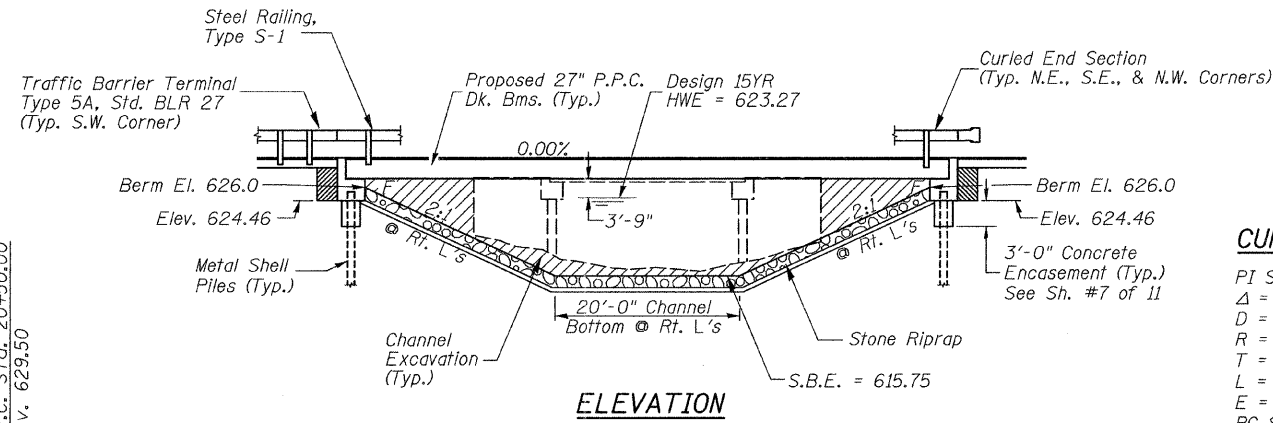


**SECTION B-B**

\*\* Pay Limits of Porous Granular Embankment



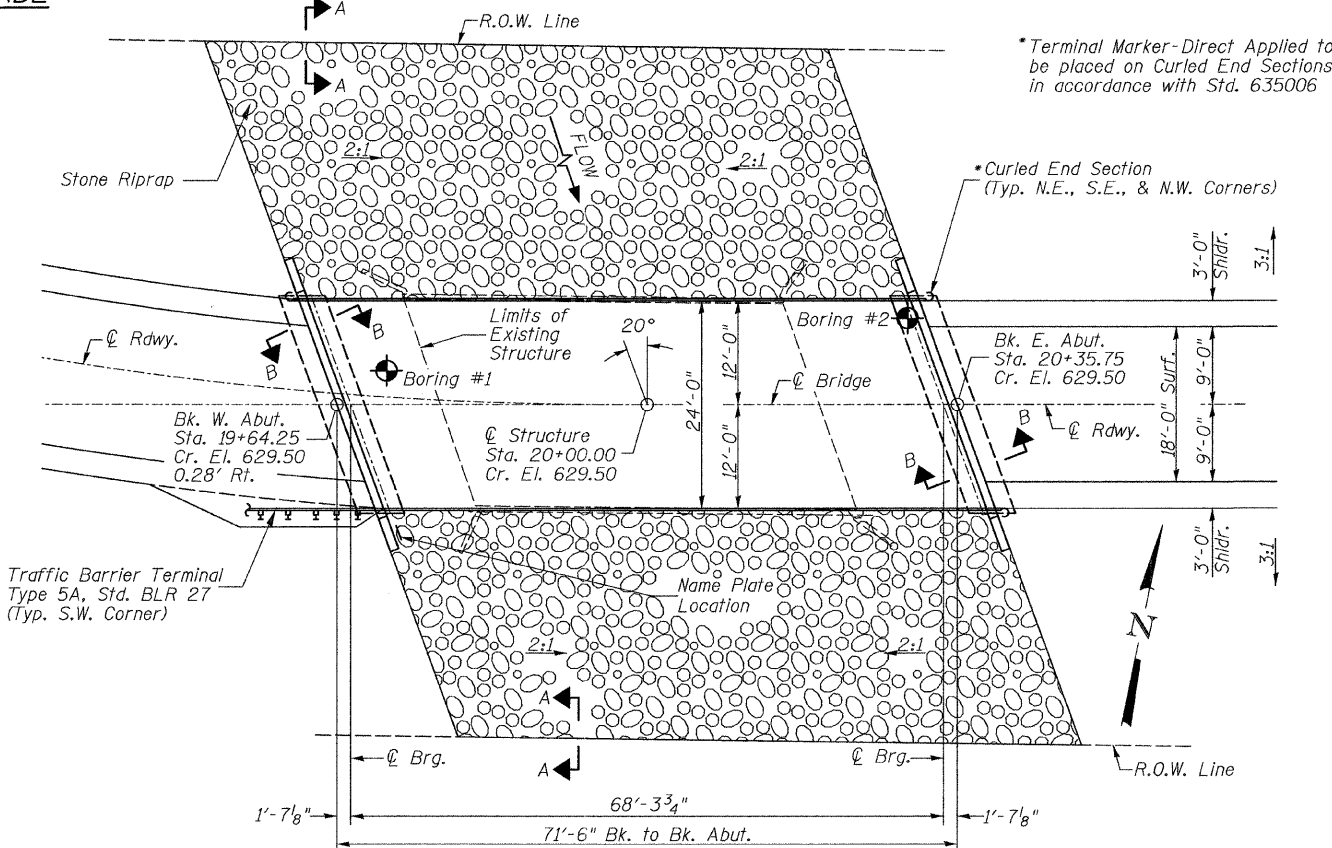
**PROFILE GRADE**



**ELEVATION**

**CURVE DATA**

PI STA = 18+87.99  
 $\Delta = 07^{\circ}13'25''$  (LT)  
 $D = 03^{\circ}22'13''$   
 $R = 1,700.00'$   
 $T = 107.31'$   
 $L = 214.33'$   
 $E = 3.38'$   
 PC STA = 17+80.68  
 PT STA = 19+95.01



**PLAN**

**DESIGN SPECIFICATIONS**

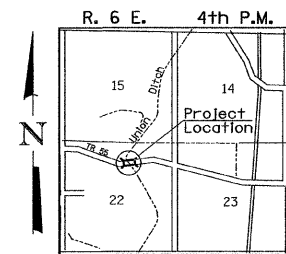
2010 AASHTO LRFD Bridge Design Specifications with Interims

**DESIGN STRESSES**

(FIELD UNITS)  $f'_c = 3,500$  p.s.i.  $f_y = 60,000$  p.s.i. (Rein.)  
 (PRECAST PRESTRESSED UNITS)  $f'_c = 6,000$  p.s.i.  $f'_{ci} = 5,000$  p.s.i.  $f'_s = 270,000$  p.s.i. ( $\frac{1}{2}$ " Strands)  $f'_{si} = 201,960$  p.s.i. ( $\frac{1}{2}$ " Strands)

**LOADING HL-93**

Allow 75#/sq. ft. for future wearing surface.



**LOCATION SKETCH**

**GENERAL NOTES**

The Contractor shall drive test piles to 110% of the nominal required bearing specified in production locations at the substructures specified or approved by the Engineer before ordering the remainder of the piles.  
 For Soil Boring Logs, See Sheets 8-11 of 11.  
 A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams according to Article 1020.05(b)(12) of the Standard Specifications.  
 Reinforcement Bars shall conform to the requirements of ASTM A706 Grade 60. Reinforcement Bars designated (E) shall be epoxy coated.  
 Layout of the slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
 Excavation behind existing abutment walls shall be done before removing existing Superstructure.  
 The existing structural steel coating may contain lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.  
 The top surface of the beams shall be finished according to the IDOT Manual for Fabrication of Precast Prestressed Concrete Products.

**UNION DITCH  
 BUILT 201 BY  
 FAIRFIELD ROAD DISTRICT  
 BUREAU COUNTY  
 SEC. 11-07119-00-BR  
 T.R. 55 STATION 20+00.00  
 F.A. PROJ. BROS-001(083)  
 STR. NO. 006-4096 LOADING HL-93**

**NAME PLATE**

Locate Name Plate at S.W. Wingwall Corner of Bridge (See Std. 515001)

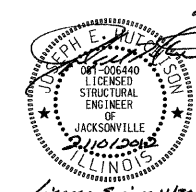
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Channel Excavation	CU YD	—	230	230
① Porous Granular Embankment	CU YD	—	14.8	14.8
① Stone Riprap, Class A4 (Special)	TON	—	505	505
① Removal of Existing Structures	EACH	—	—	1
Concrete Structures	CU YD	—	22.3	22.3
① Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,668	—	1,668
Reinforcement Bars	POUND	—	2,480	2,480
Steel Railing, Type S1	FOOT	143	—	143
Furnishing Metal Shell Piles 12"x0.250"	FOOT	—	504	504
Driving Piles	FOOT	—	504	504
Test Pile Metal Shells	EACH	—	2	2
Concrete Encasement	CU YD	—	2.6	2.6
Name Plates	EACH	—	1	1

① See Special Provisions

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 Standard Specification for Highway Bridges.  
 This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

*[Signature]* 2/10/2012  
 Illinois Structural No. 6440  
 Expires 11/30/2012



**GENERAL PLAN & ELEVATION  
 BUREAU COUNTY  
 SECTION 11-07119-00-BR  
 T.R. 55 OVER UNION DITCH**

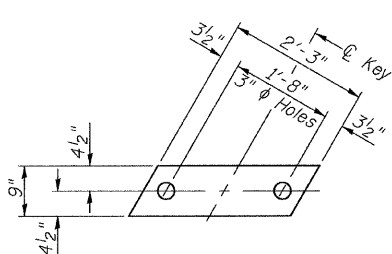
DESIGNED	S.T.M.
CHECKED	J.E.H.
DRAWN	S.T.M.
CHECKED	J.E.H.

Drainage Area = 11.68 Sq. Mi. Low Grade Elev. = 629.50 @ Sta. 20+00.00

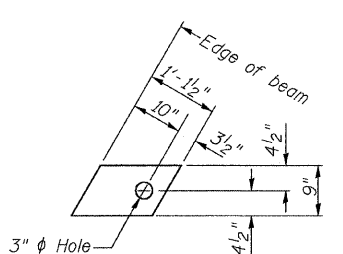
Flood Yr.	Q C.F.S.	Opening Exist.	Opening Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	15	414	195	264	623.27	0.01	0.00	623.28/623.27
Base	100	597	247	340	624.72	0.02	0.00	624.74/624.72

Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2

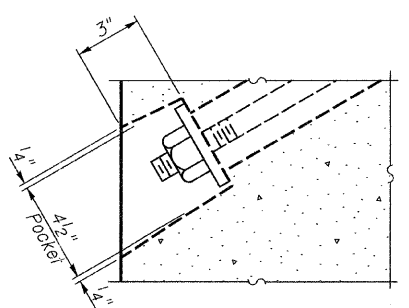
SHEET NO. 1 11 SHEETS	ROUTE NO. TR 55	SECTION 11-07119-00-BR	COUNTY BUREAU	TOTAL SHEETS 21	SHEET NO. 7
	S.N. 006-4096		CONTRACT NO. 87499		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BROS-001(083)			



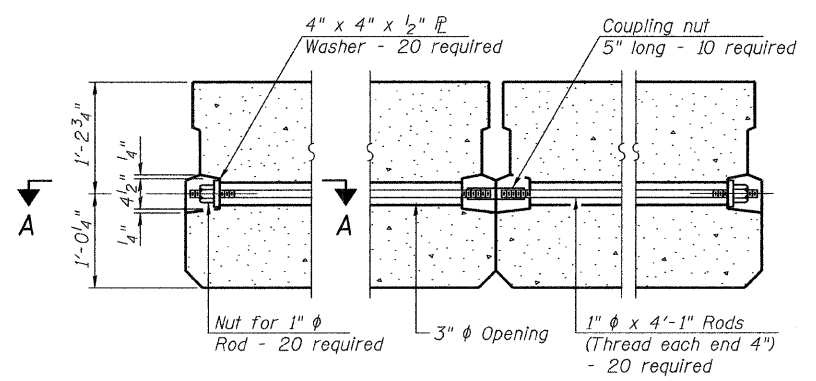
**1/2" FABRIC BEARING PAD**  
(Interior) 10 Required



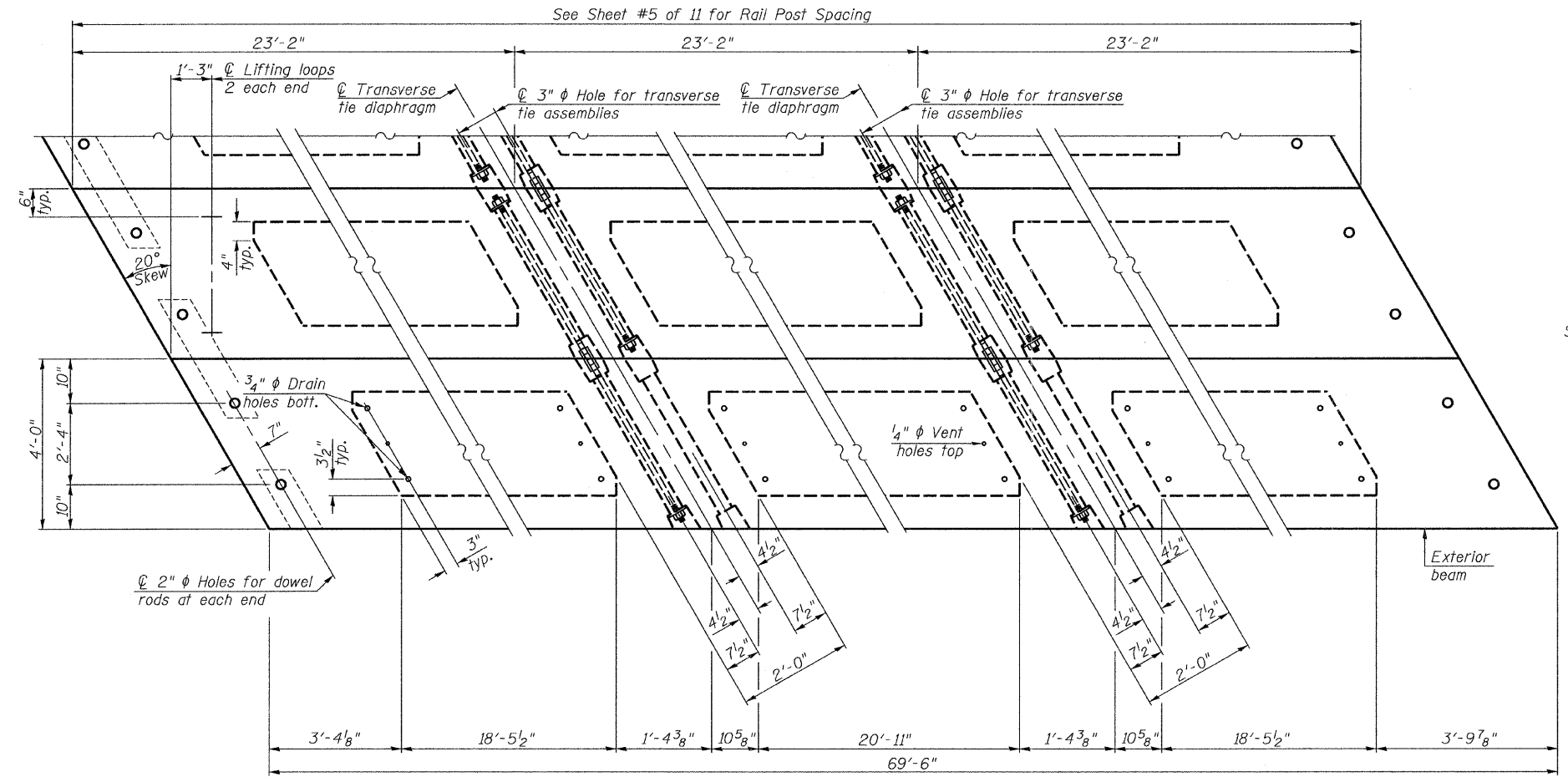
**1/2" FABRIC BEARING PAD**  
(Exterior) 4 Required  
**FIXED**



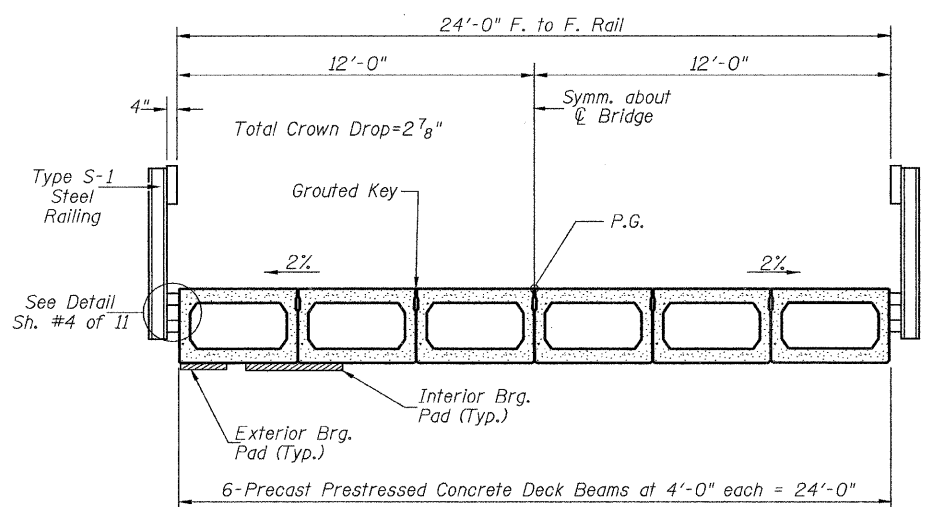
**SECTION A-A**



**TYPICAL TRANSVERSE TIE ASSEMBLY**



**PLAN VIEW**



**CROSS SECTION**

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
① Precast Prestressed Concrete Deck Beams (27" Depth)	SQ FT	1,668
② See Special Provisions		

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

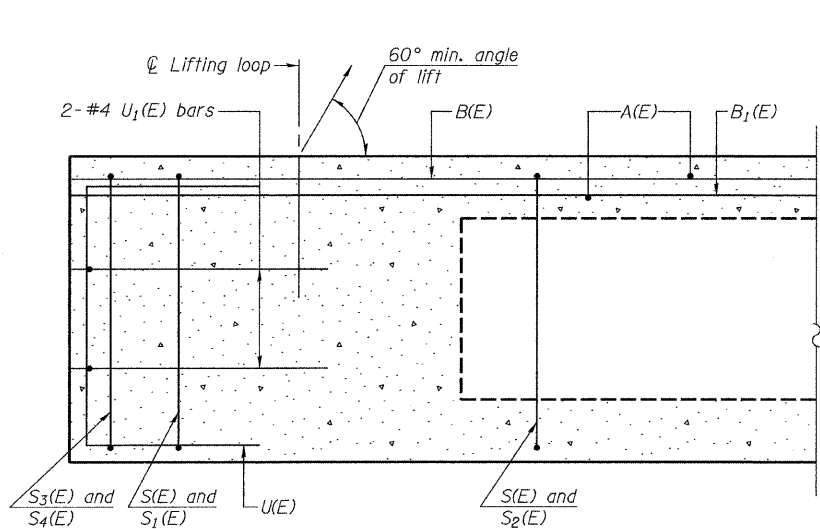
**NOTES**

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.  
 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" 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.

**SUPERSTRUCTURE**  
**BUREAU COUNTY**  
**SECTION 11-07119-00-BR**  
**T.R. 55 OVER UNION DITCH**

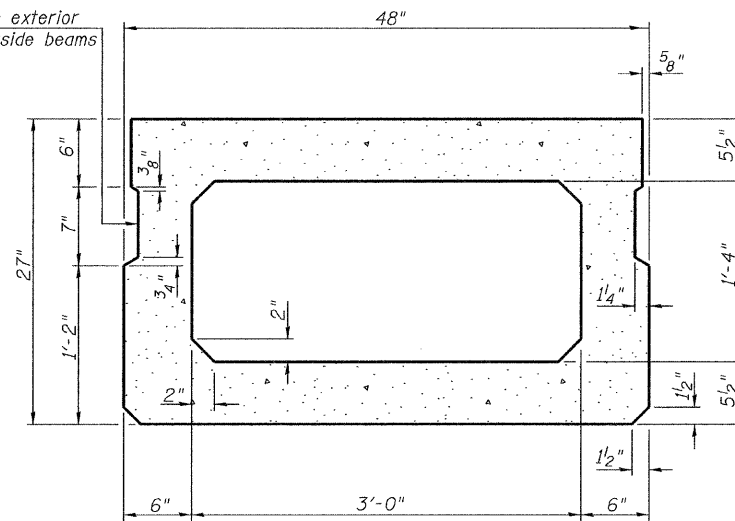
SHEET NO. 2	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	8
11 SHEETS	S.N. 006-4096		CONTRACT NO. 87499		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BROS-0011(083)		



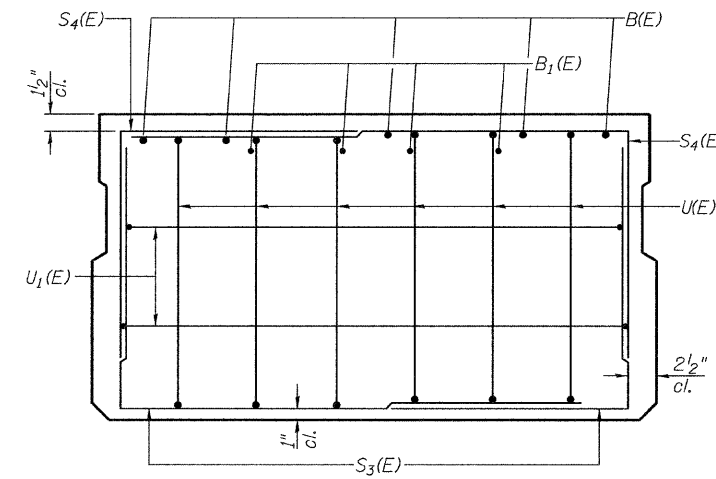


**SECTION C-C**

\*\*Omit key on exterior face of outside beams

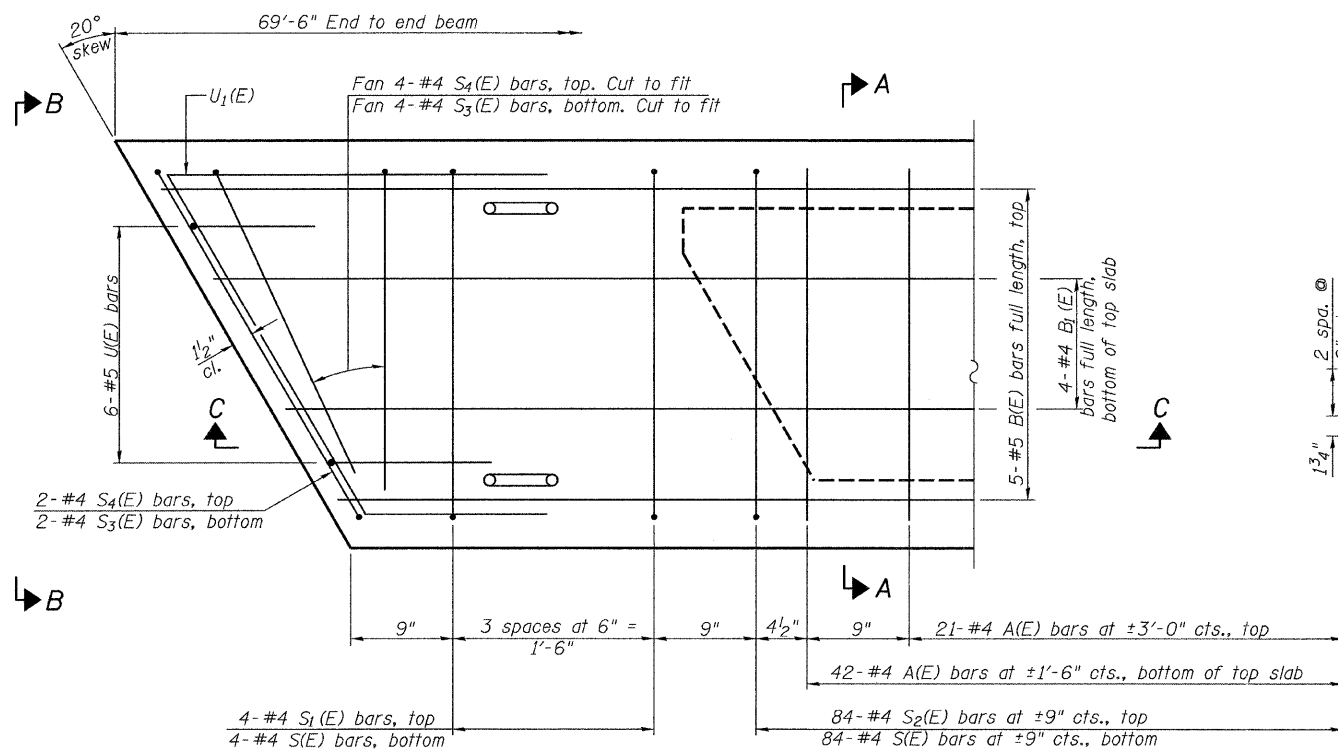


**SECTION A-A**  
(Showing dimensions)

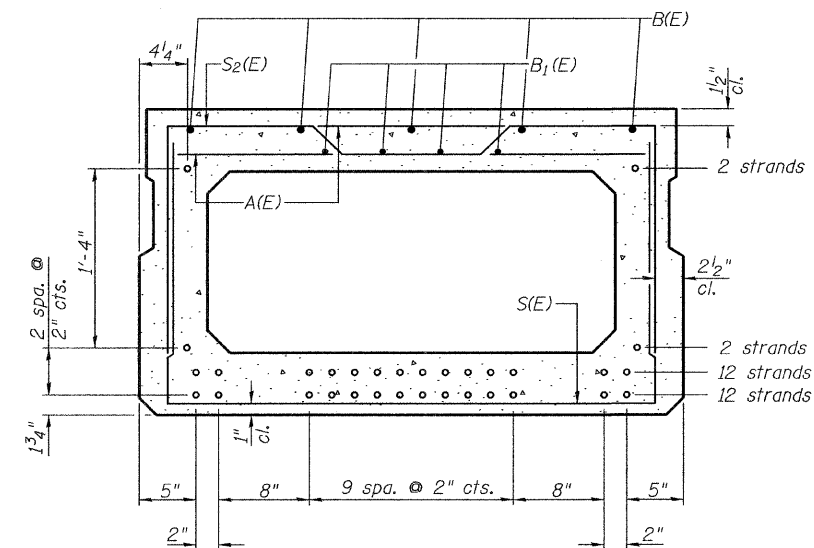


**VIEW B-B**

\*\*Rail post anchor devices (Sheet 4 of 11) to be cast into exterior face of outside beams.

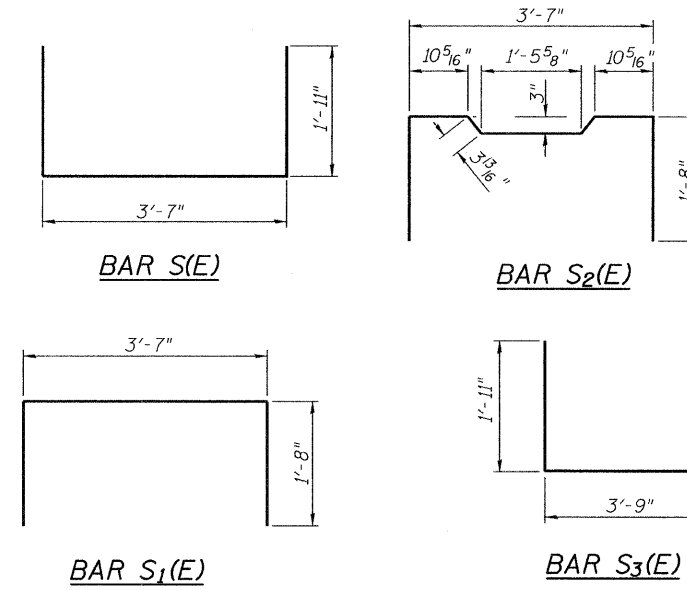


**PLAN VIEW**



**SECTION A-A**

28-1/2" Strands Each Strand Stressed to 30,900 Lbs.  
12-Strands 1 3/4" up, 12-Strands 3 3/4" up,  
2-Strands 5 3/4" up, 2-Strands 1'-9 3/4" up  
Note: Place the number of strands specified in each row symmetrically about the centerline of beam in the permissible strand locations shown.



**BAR S(E)**

**BAR S2(E)**

**BAR S1(E)**

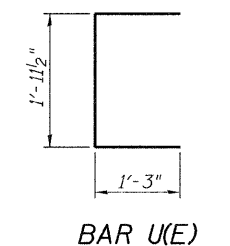
**BAR S3(E)**

**BAR LIST-ONE BEAM ONLY**

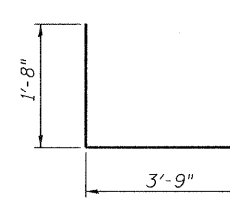
(For information only)

Bar	No.	Size	Length	Shape
A(E)	63	#4	3'-7"	—
B(E)	5	#5	*69'-3"	—
B1(E)	4	#4	*69'-3"	—
S(E)	92	#4	7'-5"	⌋
S1(E)	8	#4	6'-11"	⌋
S2(E)	84	#4	7'-2"	⌋
S3(E)	12	#4	5'-8"	⌋
S4(E)	12	#4	5'-5"	⌋
U(E)	12	#5	4'-6"	⌋
U1(E)	4	#4	7'-6"	⌋

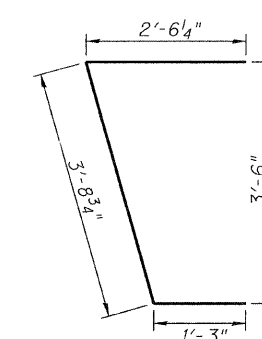
\* Total Length, Lap as necessary



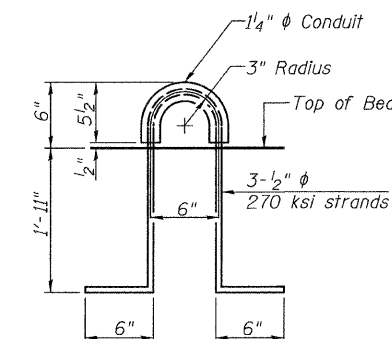
**BAR U(E)**



**BAR S4(E)**



**BAR U1(E)**



**LIFTING LOOP DETAIL**

Note: Spacing of S(E) and S2(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.

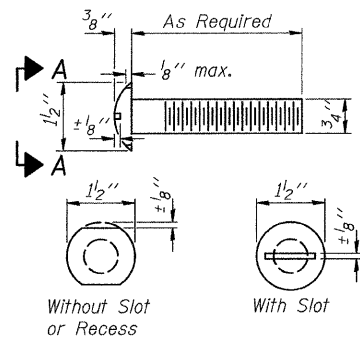
**MIN. BAR LAP**  
#4 bar = 2'-0"  
#5 bar = 2'-6"

Note: See sheet 2 of 11 for additional details and Bill of Material.

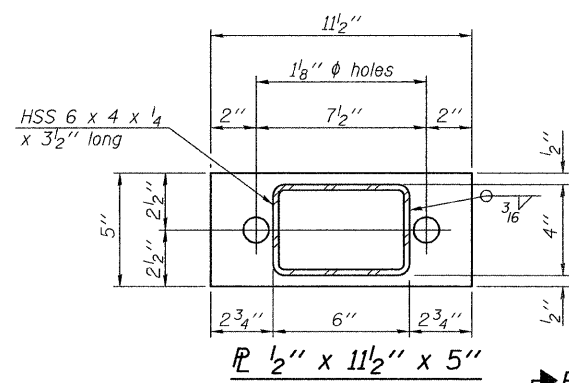
**SUPERSTRUCTURE DETAILS**  
**BUREAU COUNTY**  
**SECTION 11-07119-00-BR**  
**T.R. 55 OVER UNION DITCH**

SHEET NO. 3	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	9
11 SHEETS	S.N. 006-4096		CONTRACT NO. 87499		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0011083		

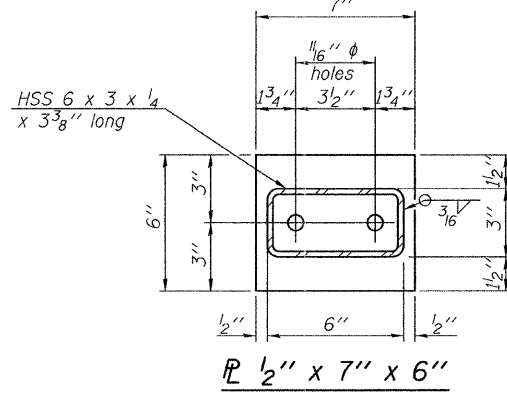
FOR RAIL POST SPACING SEE SH.#5 OF 11



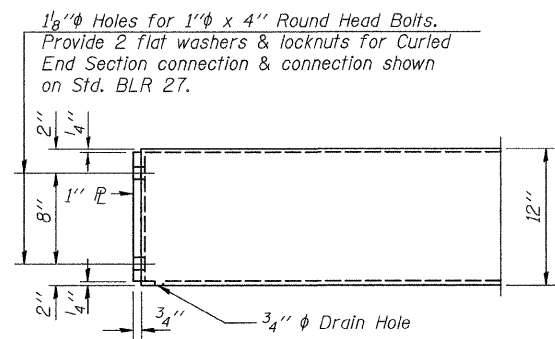
VIEW A-A  
ROUND HEAD BOLT



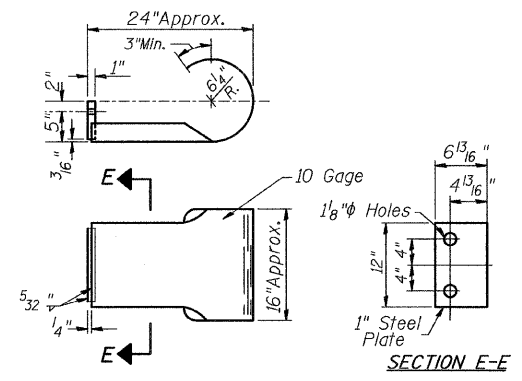
SECTION B-B  
R 1/2" x 11 1/2" x 5"



SECTION AT RAILING POST  
R 1/2" x 7" x 6"



END OF RAIL DETAILS



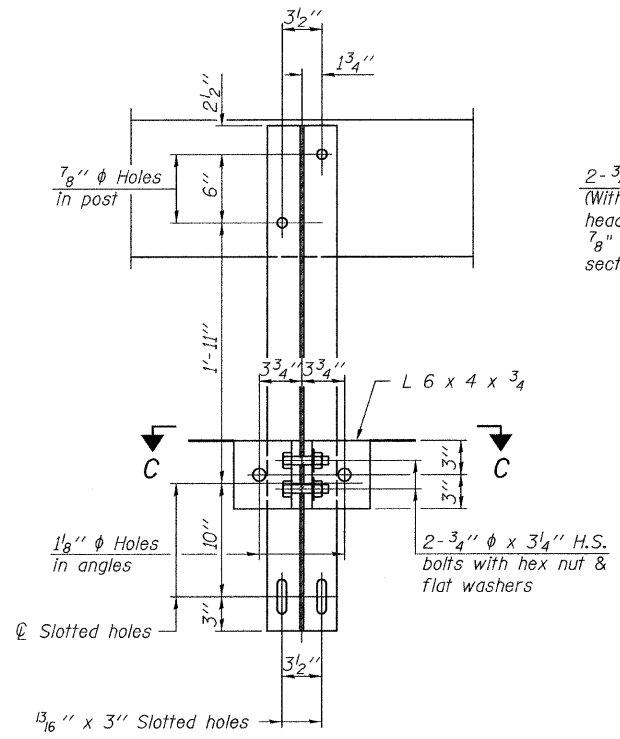
SECTION E-E  
CURLLED END SECTION

(3 Req'd) Cost Included with Steel Railing, Type S-1.  
Terminal Markers - Direct Applied shall be placed on end of each Curled End Section (N.E., S.E., & N.W. Corners) & Traffic Barrier Terminal, Type 1 (Special) Tangent (S.W. Corner).  
Cost included with item the Terminal Marker is applied to.

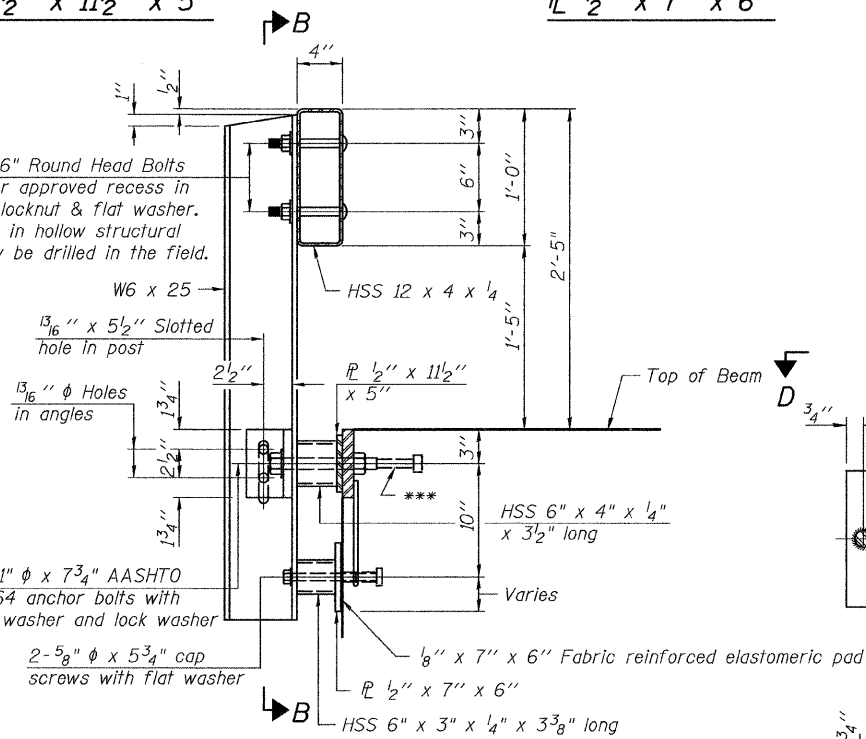
NOTES

All field drilled holes shall be coated with an approved zinc rich 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 S-1.  
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.

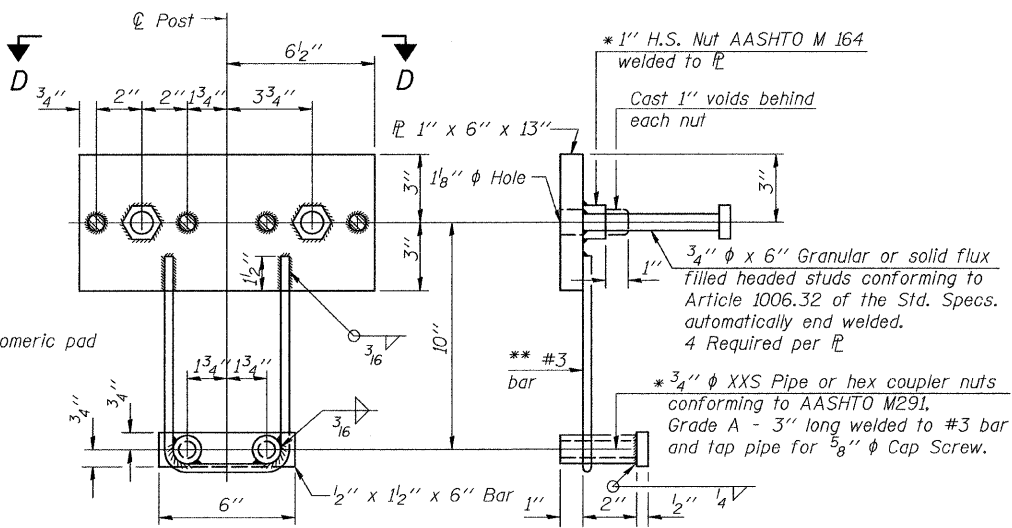
\*\*\* The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.



SECTION B-B

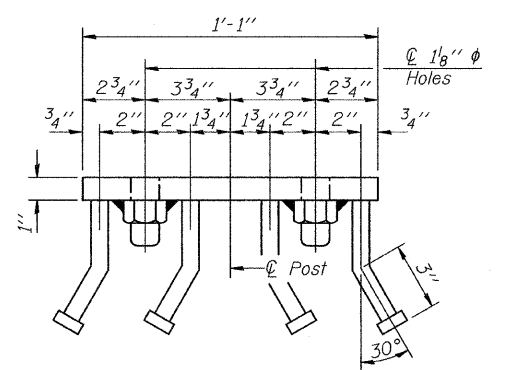


SECTION AT RAILING POST

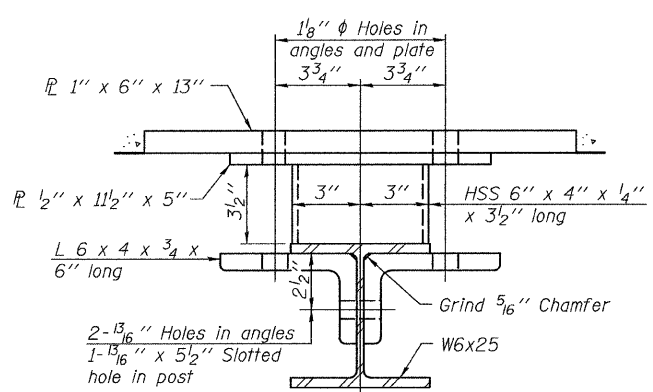


ANCHOR DEVICE

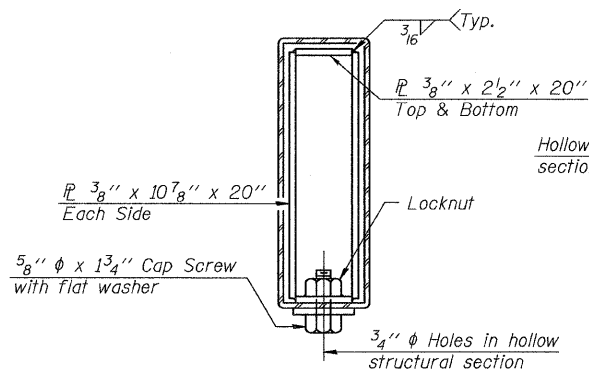
\* Threaded areas shall be plugged or blocked off during casting of beam.



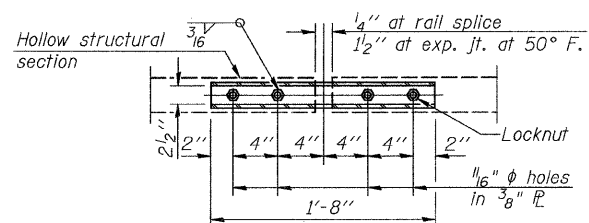
VIEW D-D



SECTION C-C



SECTIONS AT RAIL SPLICE



PLAN-BOTT. SPLICE R  
TYPICAL

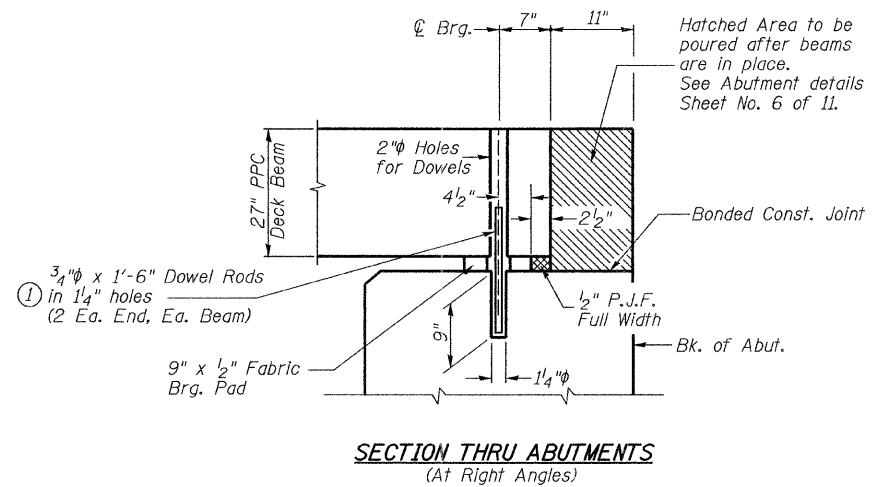
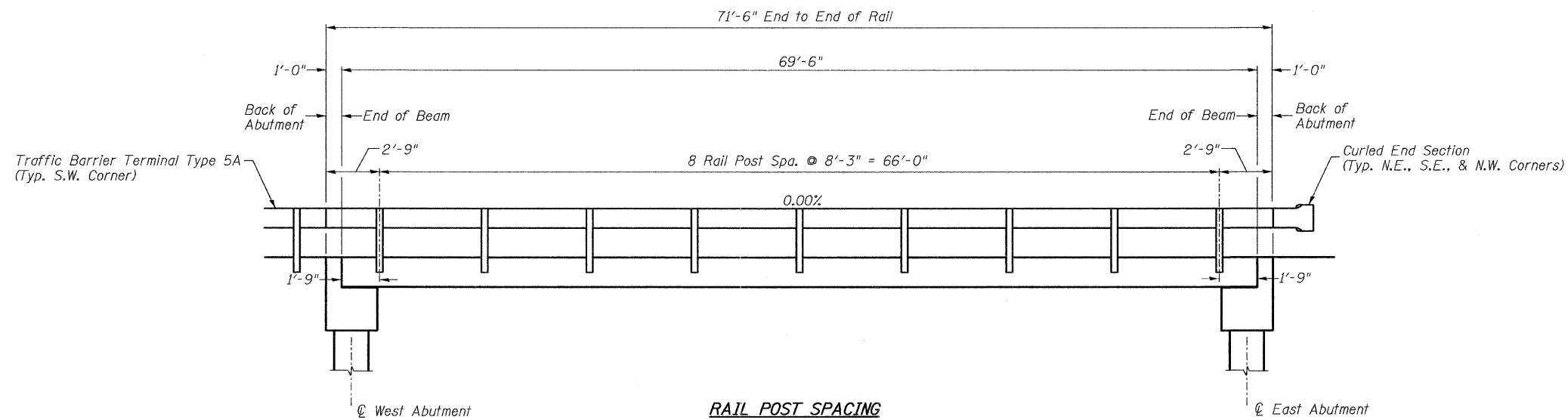
\*\* Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2 inch.

BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S-1	FOOT	143

STEEL RAILING, TYPE S-1  
BUREAU COUNTY  
SECTION 11-07119-00-BR  
T.R. 55 OVER UNION DITCH

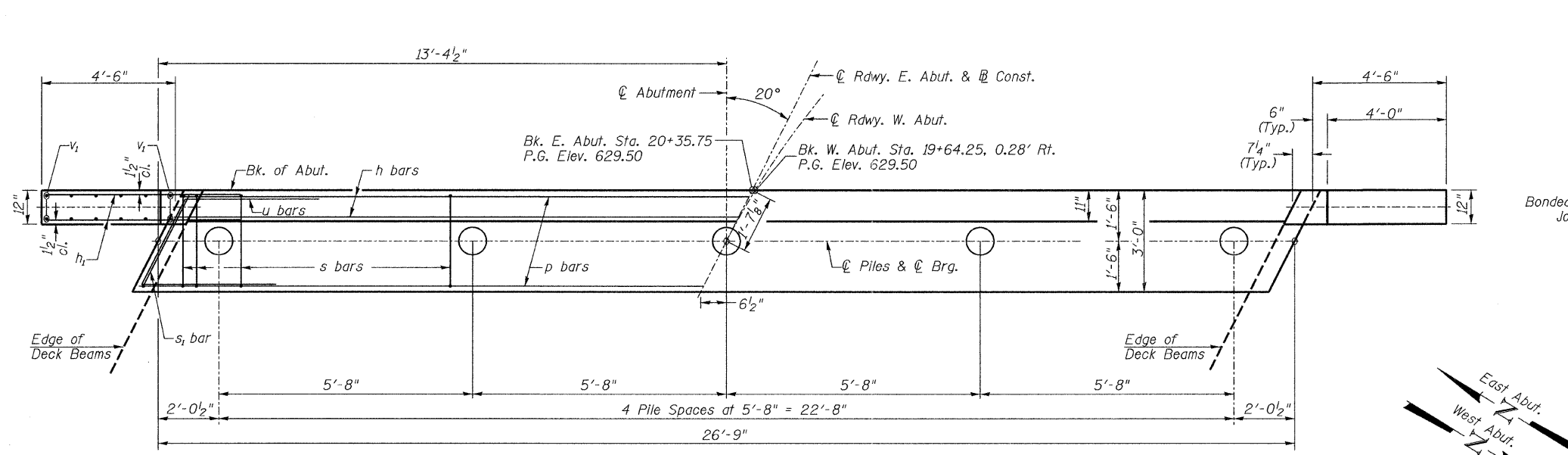
SHEET NO. 4	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	10
11 SHEETS	S.N. 006-4096		CONTRACT NO. 87499		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0011(083)		



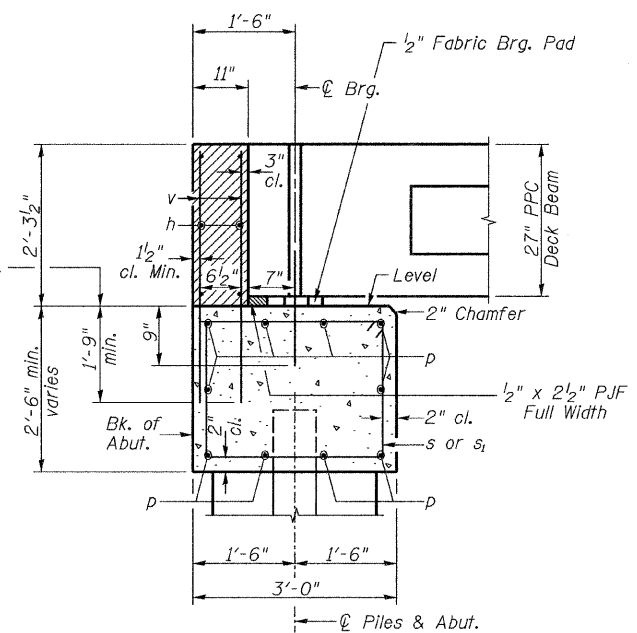
① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.

**RAIL POST SPACING AND  
SUPERSTRUCTURE DETAILS  
BUREAU COUNTY  
SECTION 11-07119-00-BR  
T.R. 55 OVER UNION DITCH**

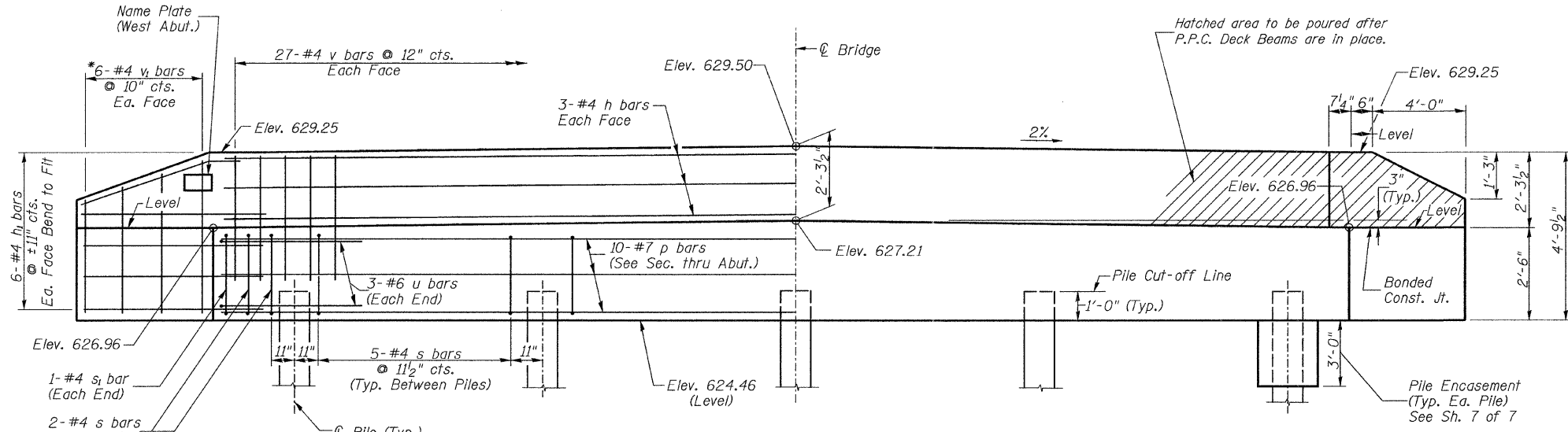
SHEET NO. 5	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
11 SHEETS	TR 55	11-07119-00-BR	BUREAU	21	11
		S.N. 006-4096	CONTRACT NO. 87499		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0011(083)		



**PLAN**



**SECTION THRU ABUT.**  
(At Right Angles)



**ELEVATION**  
(Front View of Abutment)

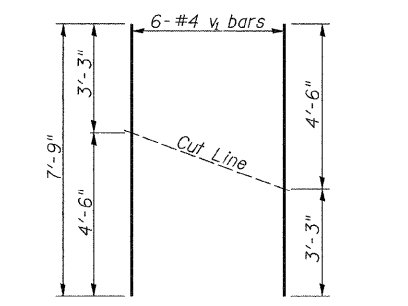
**TWO ABUTMENTS  
BILL OF MATERIAL**

BAR	NO.	SIZE	LENGTH	SHAPE
h	12	#4	26'-6"	—
h <sub>1</sub>	48	#4	6'-6"	—
p	20	#7	26'-6"	—
s	48	#4	10'-5"	□
s <sub>1</sub>	4	#4	7'-10"	□
u	12	#6	11'-9"	—
v	108	#4	4'-0"	—
v <sub>1</sub>	24	#4	7'-9"	—
Concrete Structures			CU YD	22.3
Reinforcement Bars			POUND	2,480
Name Plates			EACH	1
Furnishing Metal Shell Piles 12"x0.250"			FOOT	504
Driving Piles			FOOT	504
Test Pile Metal Shells			EACH	2
Concrete Encasement			CU YD	2.6

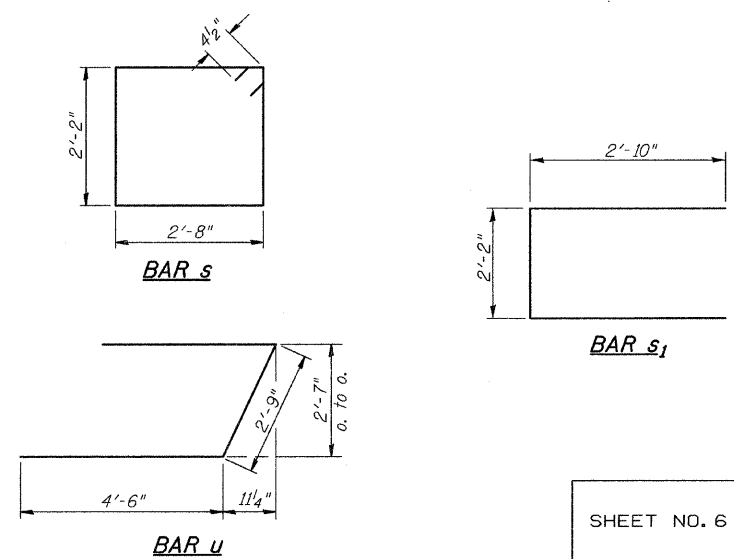
**DESIGN STRESSES**  
f'<sub>c</sub> = 3,500 p.s.i.  
f<sub>y</sub> = 60,000 p.s.i.

- NOTES**
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
  - Reinforcement bars shall conform to ASTM A706 Grade 60.

**PILE DATA**  
Type & Size: Metal Shell 12"x0.250" walls  
Nominal Required Bearing: 245 kips  
Factored Resistance Available: 135 kips  
Est. Length: 60' East Abutment  
66' West Abutment  
No. Req'd.: 10 (Includes 1 Test Pile at Each Abut.)



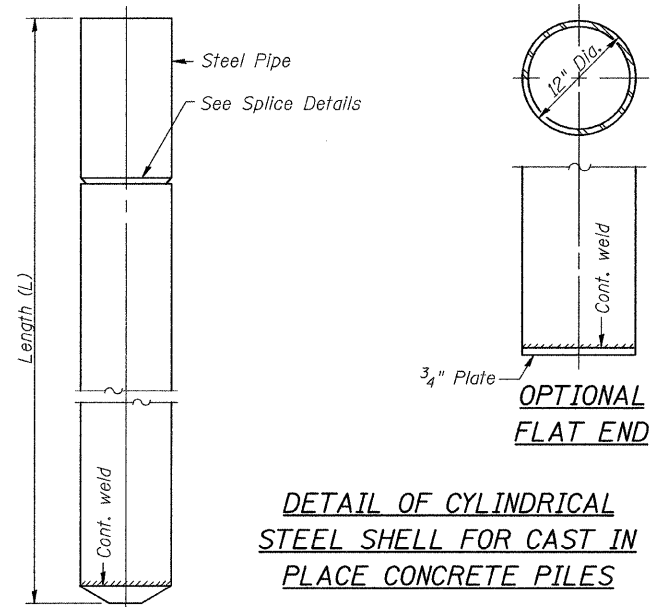
**BAR CUTTING DIAGRAM**  
\*Order v<sub>1</sub> bars full length. Cut as shown and use remainder of bars in opposite face.



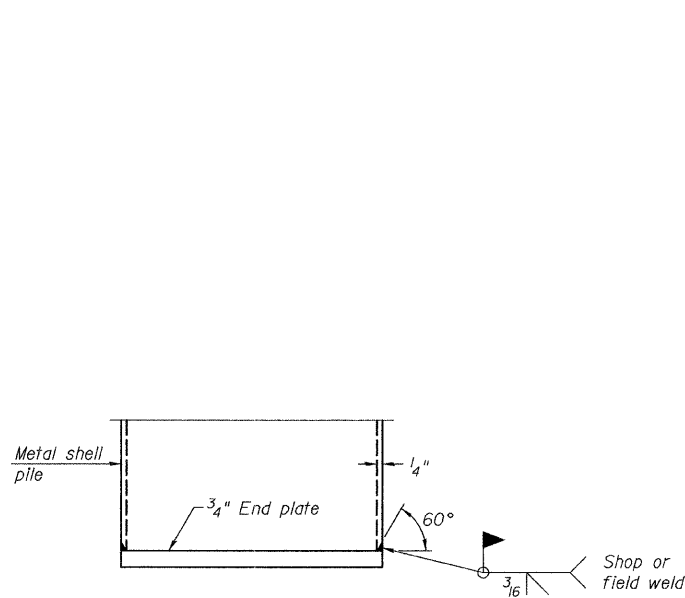
**ABUTMENTS  
BUREAU COUNTY  
SECTION 11-07119-00-BR  
T.R. 55 OVER UNION DITCH**

SHEET NO. 6 11 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	12
	S.N. 006-4096		CONTRACT NO. 87499		
FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0011083			

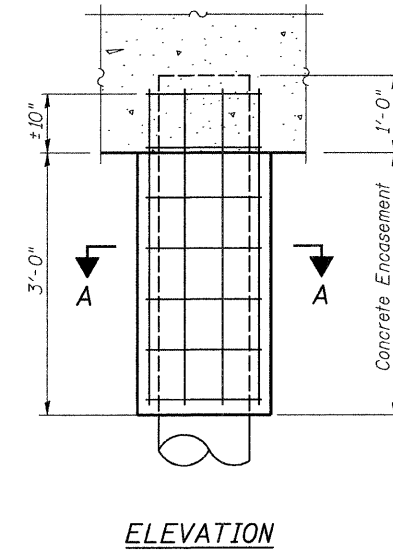
Notes: Driving and bearing ends of pipe shall be cut square. The thickness of the shell shall be 0.25 inches with a tolerance of 5%. The shell shall be according to Article 1006.05(a) of the Standard Specifications, and shall be ASTM A252 Grade 3.



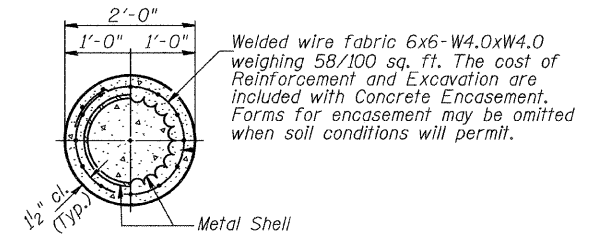
**DETAIL OF CYLINDRICAL STEEL SHELL FOR CAST IN PLACE CONCRETE PILES**



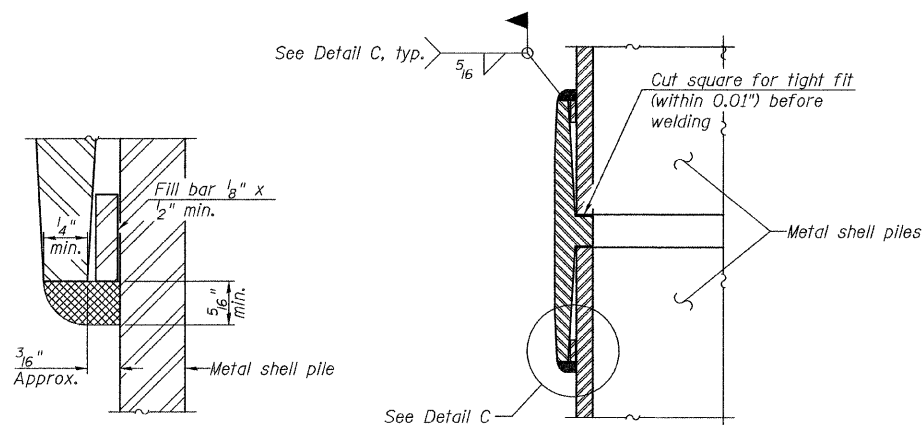
**END PLATE ATTACHMENT**



**ELEVATION**



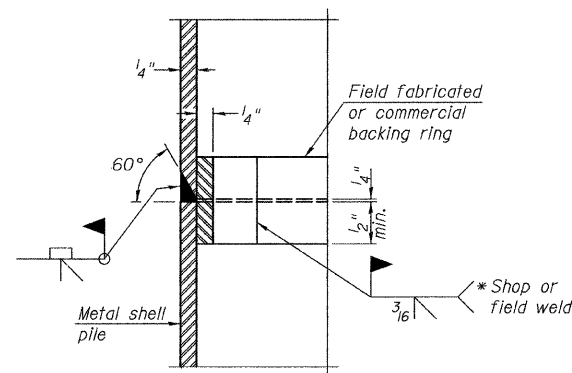
**SECTION A-A  
DETAIL OF METAL SHELL PILE ENCASEMENT AT ABUTMENTS**



**DETAIL C**

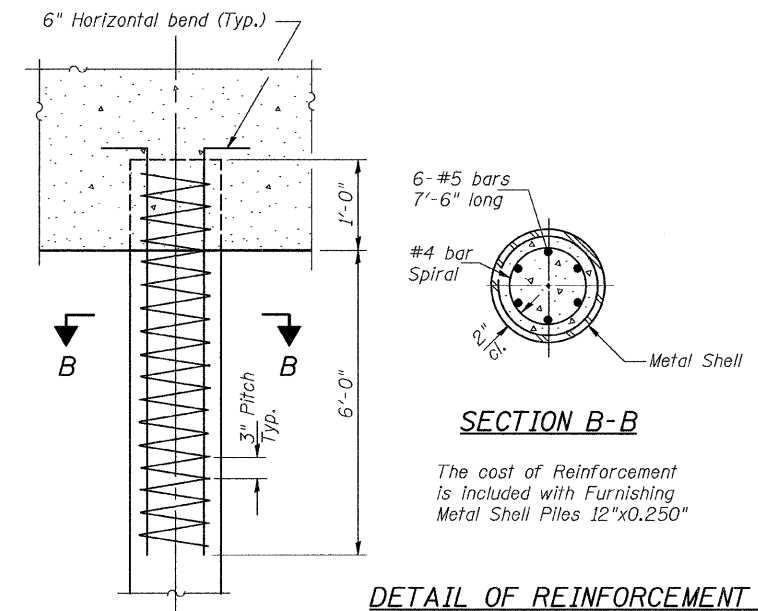
**WELDED COMMERCIAL SPLICE**

Notes:  
The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.  
Pile segments shall be driven to solid contact with splicer before welding.



**COMPLETE PENETRATION WELD SPLICE**

\* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



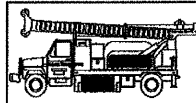
**DETAIL OF REINFORCEMENT FOR METAL SHELLS AT ABUTMENTS**

**SECTION B-B**

The cost of Reinforcement is included with Furnishing Metal Shell Piles 12"x0.250"

**METAL SHELL PILE DETAILS  
BUREAU COUNTY  
SECTION 11-07119-00-BR  
T.R. 55 OVER UNION DITCH**

SHEET NO. 7 11 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	13
S.N. 006-4096			CONTRACT NO. 87499		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BRS-0011(083)		



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 1 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

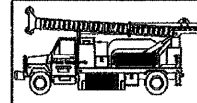
Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

Boring No. B-1  
Surface Elev. 629.40  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

Location: 4' Left Station 19+70

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
629.40										Randy Safranski Diedrich D-120	
628.40	Loose Black And Brown Silty Loam		1								
627.40			2								
626.40			3	1	SS	--	6	--	17		
625.40			4								
624.40			5								
623.40			6	2	SS	--	7	--	21		
622.40	Loose Brown Sandy Loam		7								
621.40			8	3	SS	--	8	--	20		
620.40			9								
619.40			10	4	SS	--	5	--	--		
618.40			11								
617.40	Medium Brown Very fine Sand		12								
616.40			13	5	SS	--	10	--	--		
615.40			14								
614.40			15	6	SS	--	12	--	--		
613.40			16								
612.40			17								
611.40			18	7	SS	--	11	--	--		
610.40			19								
609.40			20	8	SS	--	12	--	--		

Groundwater Data: Static water level after auger removal - elevation 619.0  
Comments:



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

Boring No. B-1  
Surface Elev. 629.40  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

Location: 4' Left Station 19+70

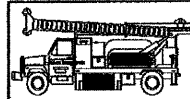
(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
608.40										Randy Safranski Diedrich D-120	
607.40	Loose Gray Very Fine Sand		22								
606.40			23	9	SS	--	9.0	--	--		
605.40			24								
604.40			25								
603.40			26	10	SS	--	8	--	--		
602.40			27								
601.40	Medium Gray Very Fine Sand		28								
600.40			29								
599.40			30								
598.40			31	11	SS	--	11	--	--		
597.40			32								
596.40			33								
595.40			34								
594.40			35	12	SS	--	11	--	--		
593.40			36								
592.40			37								
591.40			38								
590.40			39								
589.40			40								
588.40			41	13	SS	--	10	--	--		

Groundwater Data: Static water level after auger removal - elevation 619.0  
Comments:

*SOIL BORINGS  
BUREAU COUNTY  
SECTION 11-07119-00-BR  
T.R. 55 OVER UNION DITCH*

SHEET NO. 8	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	14
11 SHEETS	S.N. 006-4096		CONTRACT NO. 87499		
	FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT BRS-0011(083)		





**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 3 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

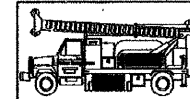
Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

Boring No. B-1  
Surface Elev. 629.40  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

Location: 4' Left Station 19+70

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
587.40										Randy Safranski Diedrich D-120	
586.40			43								
585.40			44								
584.40			45	14	SS	---	12	---	---		
583.40			46								
582.40			47								
581.40			48								
580.40			49								
579.40			50								
578.40	Medium Gray Very Fine Sand		51	15	SS	---	12	---	---		
577.40			52								
576.40			53								
575.40			54								
574.40			55								
573.40			56	16	SS	---	10	---	---		
572.40			57								
571.40			58								
570.40			59								
569.40			60								
568.40			61	17	SS	---	13	---	---		
567.40			62								

Groundwater Data: Static water level after auger removal - elevation 619.0  
Comments:



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 4 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

Boring No. B-1  
Surface Elev. 629.40  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

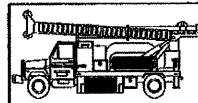
Location: 4' Left Station 19+70

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS
566.40										Randy Safranski Diedrich D-120	
565.40			64								
564.40			65	18	SS	---	11	---	---		
563.40			66								
562.40			67								
561.40			68								
560.40	Medium Gray Very Fine sand		69								
559.40			70	19	SS	---	12	---	---		
558.40			71								
557.40			72								
556.40			73								
555.40			74								
554.40			75								
553.40			76	20	SS	---	14	---	---		
552.40	Boring Terminated		77								
551.40			78								
550.40			79								
549.40			80								
548.40			81								
547.40			82								
546.40			83								

Groundwater Data: Static water level after auger removal - elevation 619.0  
Comments:

**SOIL BORINGS**  
**BUREAU COUNTY**  
**SECTION 11-07119-00-BR**  
**T.R. 55 OVER UNION DITCH**

SHEET NO. 9	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	15
11 SHEETS	S.N. 006-4096		CONTRACT NO. 87499		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0011(083)		



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 1 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

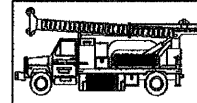
Boring No. B-2  
Surface Elev. 629.30  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

Location: 10' Left Station 20+30

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES					DRILLED BY			
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS	
629.30												
628.30			1									
627.30			2									
626.30	Loose Black And Brown Silty Loam		3	1	SS	--	7	--	18			
625.30			4									
624.30			5									
623.30			6	2	SS	--	6	--	15			
622.30			7									
621.30	Loose Brown Sandy Loam		8	3	SS	--	6	--	17			
620.30			9									
619.30	Very Loose Brown Sandy Loam		10	4	SS	--	3	--	--			
618.30			11									
617.30	Loose Brown Very Fine Sand		12									
616.30			13	5	SS	--	8	--	--			
615.30			14									
614.30	Medium Brown Very Fine Sand		15	6	SS	--	13	--	--			
613.30			16									
612.30			17									
611.30			18	7	SS	--	11	--	--			
610.30			19									
609.30			20	8	SS	--	10	--	--			

Groundwater Data: Static water level after auger removal - elevation 619.0

Comments:



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 2 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

Boring No. B-2  
Surface Elev. 629.30  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

Location: 10' Left Station 20+30

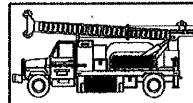
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				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	REMARKS	
608.30												
607.30			22									
606.30			23	9	SS	--	12	--	--			
605.30			24									
604.30			25									
603.30			26	10	SS	--	14	--	--			
602.30			27									
601.30			28									
600.30			29									
599.30			30									
598.30			31	11	SS	--	13	--	--			
597.30			32									
596.30	Medium Gray Very Fine Sand		33									
595.30			34									
594.30			35									
593.30			36	12	SS	--	12	--	--			
592.30			37									
591.30			38									
590.30			39									
589.30			40									
588.30			41	13	SS	--	10	--	--			

Groundwater Data: Static water level after auger removal - elevation 619.0

Comments:

**SOIL BORINGS**  
**BUREAU COUNTY**  
**SECTION 11-07119-00-BR**  
**T.R. 55 OVER UNION DITCH**

SHEET NO. 10  11 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	16
	S.N. 006-4096		CONTRACT NO. 87499		
	FED. ROAD DIST. NO. 7 ILLINOIS		FED. AID PROJECT BRS-0011(083)		



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 3 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

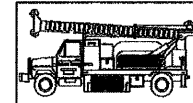
Boring No. B-2  
Surface Elev. 629.30  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

Location: 10' Left Station 20+30

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
587.30										Randy Safranski Diedrich D-120	
586.30			43								
585.30			44								
584.30			45								
583.30			46	14	SS	--	12	--	--		
582.30			47								
581.30	Medium Gray Very Fine Sand		48								
580.30			49								
579.30			50								
578.30			51	15	SS	--	11	--	--		
577.30			52								
576.30			53								
575.30			54								
574.30	Stiff Gray Silty Clay Loam		55	16	SS	1.2	7	B	23		
573.30			56								
572.30			57								
571.30	Medium Gray Very Fine Sand		58								
570.30			59								
569.30			60								
568.30			61	17	SS	--	14	--	--		
567.30			62								

Groundwater Data: Static water level after auger removal - elevation 619.0

Comments:



**Midwest Testing Services, Inc.**  
3705 Progress Blvd.  
Peru, IL 61354

**BORING LOG**

Sheet 4 of 4

Phone: 815-223-6696  
Fax: 815-223-6659  
e-mail: mts37@comcast.net

Client: Hutchison Engineering, Inc.  
Project Name: Section 11-07119-00-BR TR-55  
Project Site: Fairfield Township Bureau County, Illinois

Boring No. B-2  
Surface Elev. 629.30  
Auger Depth 76' Rotary Depth NA  
Start Date 12/03/11 Finish Date 12/03/11

Location: 10' Left Station 20+30

(DEPTH) ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)	Dry Density (PCF)	
566.30										Randy Safranski Diedrich D-120	
565.30			64								
564.30			65								
563.30			66	18	SS	--	12	--	--		
562.30			67								
561.30	Medium Gray Very Fine Sand		68								
560.30			69								
559.30			70								
558.30			71	19	SS	--	13	--	--		
557.30			72								
556.30			73								
555.30			74								
554.30			75								
553.30			76	20	SS	--	13	--	--		
553.30	Bottom of Boring		76								
552.30			77								
551.30			78								
550.30			79								
549.30			80								
548.30			81								
547.30			82								
546.30			83								

Groundwater Data: Static water level after auger removal - elevation 619.0

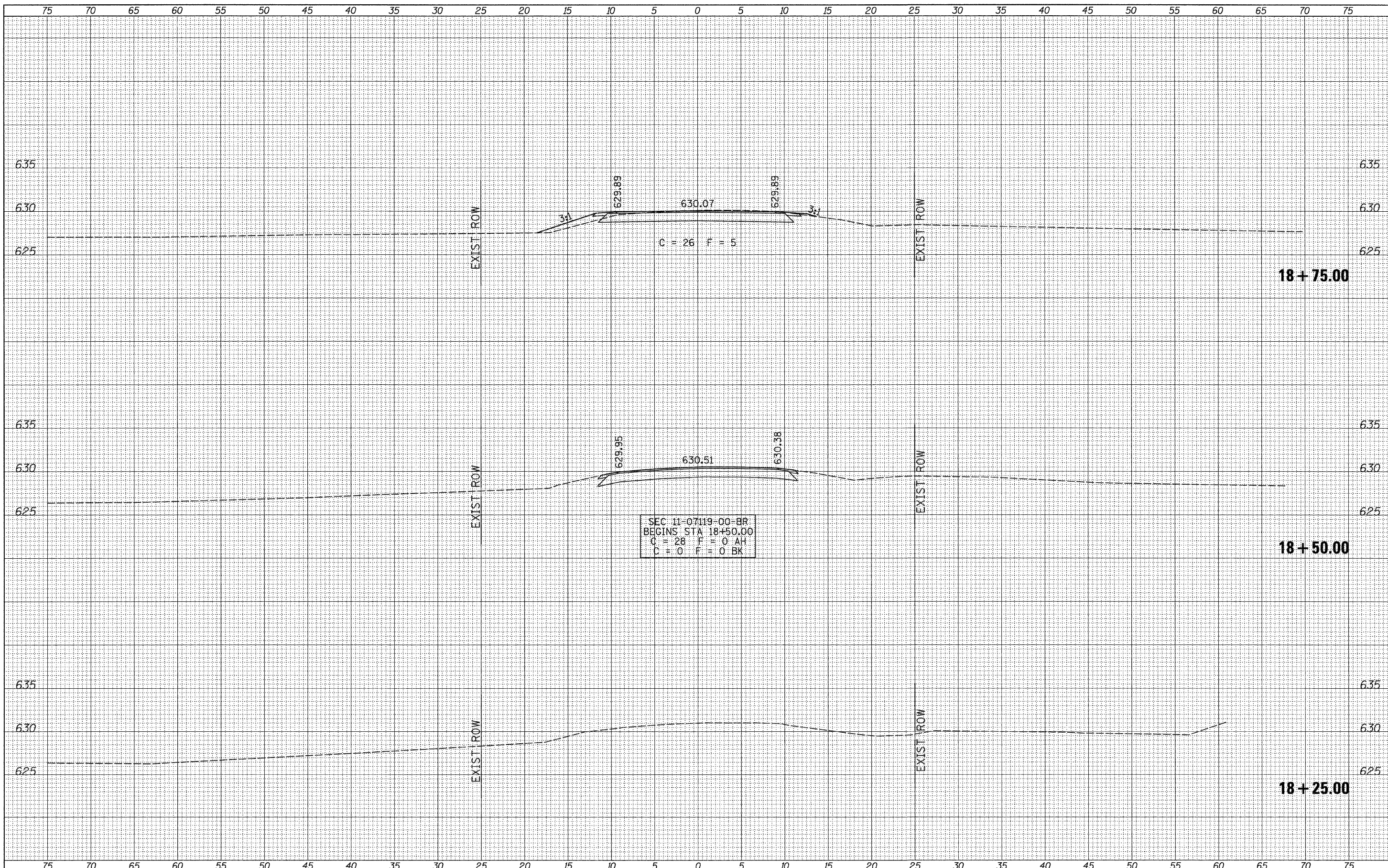
Comments:

*SOIL BORINGS  
BUREAU COUNTY  
SECTION 11-07119-00-BR  
T.R. 55 OVER UNION DITCH*

SHEET NO. 11 11 SHEETS	ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TR 55	11-07119-00-BR	BUREAU	21	17
		S.N. 006-4096	CONTRACT NO. 87499		
		FED. ROAD DIST. NO. 7 ILLINOIS	FED. AID PROJECT BRS-0011(083)		

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

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



FILE NAME = V:\Bridge\2984 - Bureau\2984xahs.dgn  
 USER NAME = othomas  
 PLLOT SCALE = 5,0000' / IN.  
 PLLOT DATE = 2/9/2012

DESIGNED -	REVISED -
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

**BUREAU COUNTY  
 TOWNSHIP ROAD 55  
 OVER UNION DITCH**

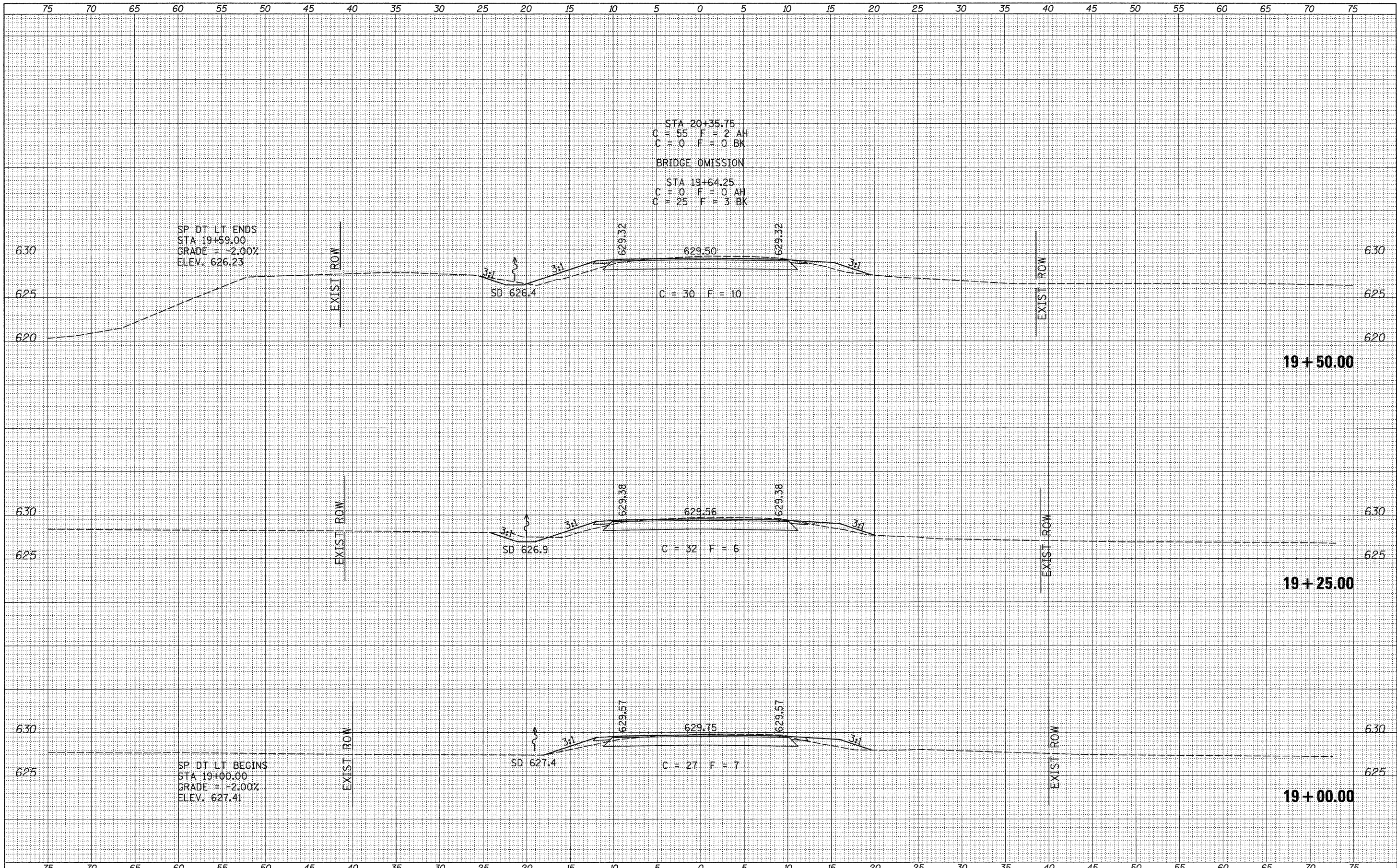
**CROSS SECTIONS**  
 SCALE: 1" = 5'-0" SHEET NO. 1 OF 4 SHEETS STA. 18+25.00 TO STA. 18+75.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	11-07119-00-BR	BUREAU	21	18
CONTRACT NO. 87499				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT BROS-0011083				



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

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



FILE NAME =	USER NAME = othomas	DESIGNED -	REVISED -	<b>BUREAU COUNTY TOWNSHIP ROAD 55 OVER UNION DITCH</b>	<b>CROSS SECTIONS</b>		RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
V:\Bridge\2984 - Bureau\2984xhta.dgn		DRAWN -	REVISED -		TR 55	11-07119-00-BR	BUREAU	21	19	CONTRACT NO. 87499		
		CHECKED -	REVISED -		SCALE: 1" = 5'-0"		SHEET NO. 2 OF 4 SHEETS		STA. 19+00.00 TO STA. 19+50.00		FED. ROAD DIST. NO. 7	ILLINOIS
		DATE -	REVISED -								FED. AID PROJECT BRGS-0011083	

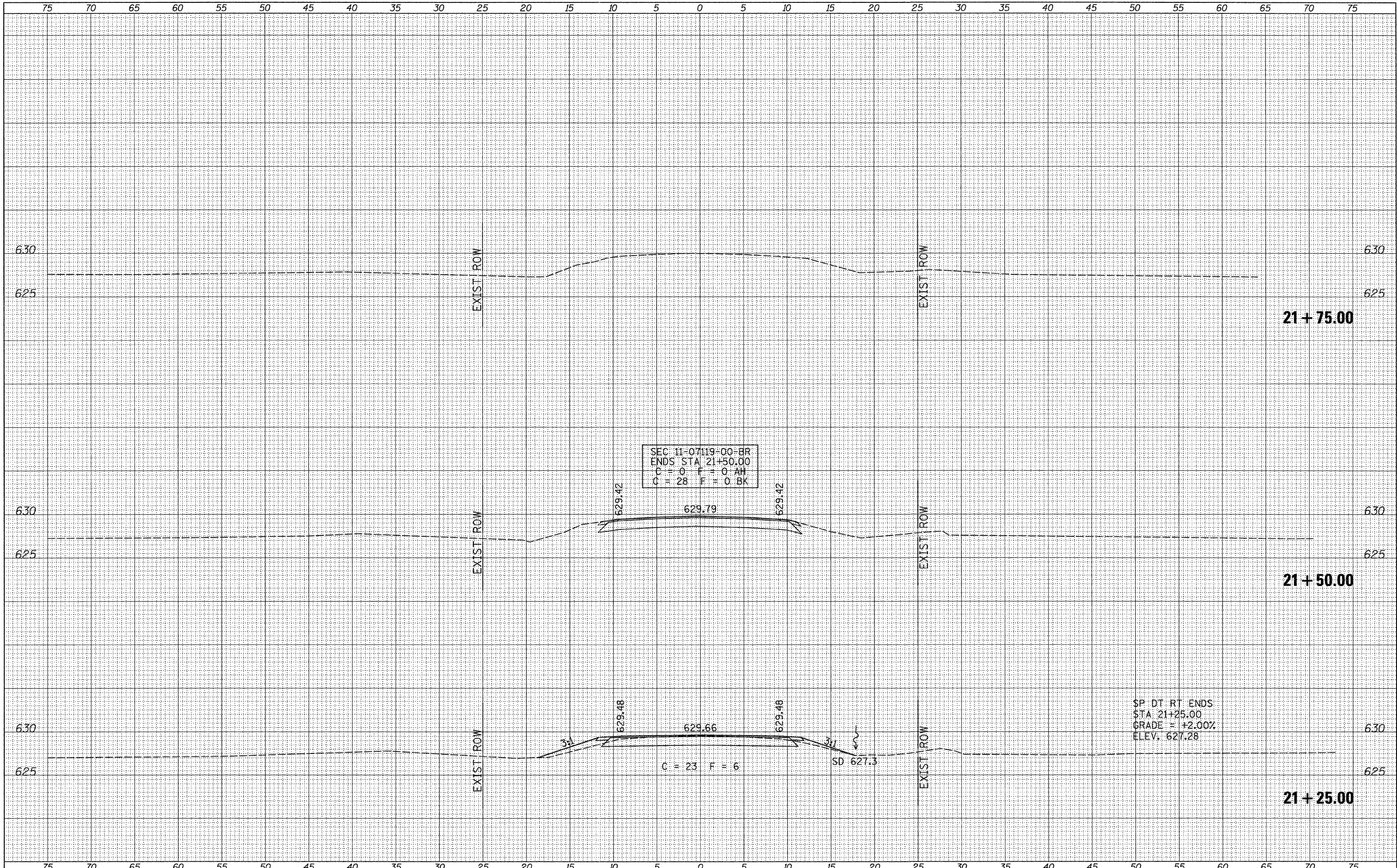






DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
NOTE BOOK	
AREAS CHECKED	
NO.	

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



FILE NAME =  
 V:\Bridge\2984 - Bureau\2984xahs.dgn

USER NAME = othomas	DESIGNED -	REVISED -
PLOT SCALE = 5.0000' / IN.	DRAWN -	REVISED -
PLOT DATE = 2/9/2012	CHECKED -	REVISED -
	DATE -	REVISED -

**BUREAU COUNTY  
 TOWNSHIP ROAD 55  
 OVER UNION DITCH**

**CROSS SECTIONS**  
 SCALE: 1" = 5'-0" SHEET NO. 4 OF 4 SHEETS STA. 21+25.00 TO STA. 21+75.00

RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 55	11-07119-00-BR	BUREAU	21	21
CONTRACT NO. 87499				
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT BROS-00110831	