

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	1
FEDERAL DIST.:		ALIAS:	PROJECT:	
* 89-05126-00-BR				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED BRIDGE REPLACEMENT

## BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

PROJECT NO. BROS-045(40)  
JOB NO. C-95-313-05  
EDGAR COUNTY  
SECTION 89-05126-00-BR

TR 137A

CONSTRUCTED UNDER THE PROVISIONS OF THE  
ILLINOIS HIGHWAY CODE

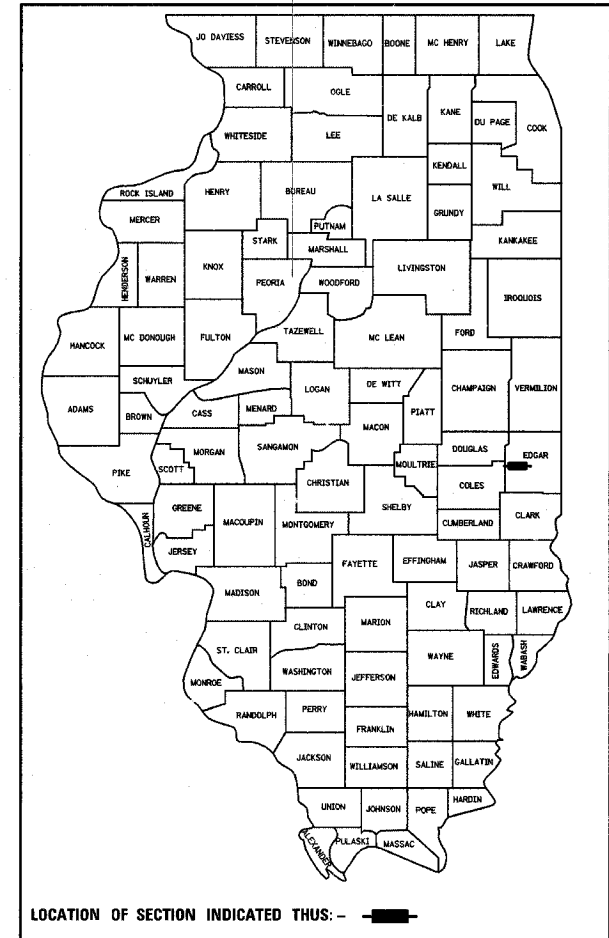
SCALES { PLAN 1" = 20'  
PROFILE HORIZ. 1" = 20'  
PROFILE VERT. 1" = 2'  
CROSS SECTIONS 1" = 5' (HORIZ) 1" = 2' (VERT)

**INDEX OF SHEETS**

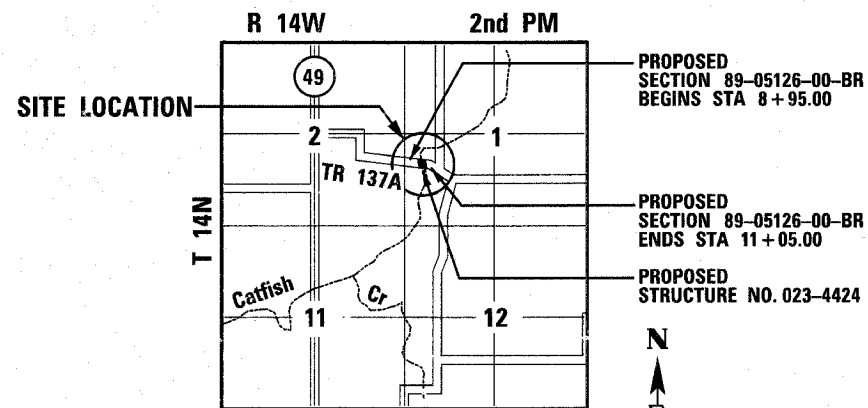
- 1 COVER SHEET
- 2 GENERAL NOTES AND QUANTITIES
- 3 TYPICAL SECTIONS
- 4 PLAN AND PROFILE
- 5 GRADING PLAN
- 6 GENERAL PLAN AND ELEVATION
- 7 BEAM DETAILS
- 8 TYPE SM STEEL BRIDGE RAIL SIDE MOUNTED
- 9 ABUTMENT NO. 1 DETAILS
- 10 ABUTMENT NO. 2 DETAILS
- 11 CONCRETE PILE DETAILS
- 12-19 CROSS SECTIONS

**STANDARDS**

- 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-02 NAME PLATES
- 702001-05 TRAFFIC CONTROL DEVICES
- BLR 21-6 TYPICAL APPLICATION FOR TRAFFIC CONTROL DEVICES FOR LOCAL HIGHWAYS



FUNCTIONAL CLASSIFICATION - LOCAL ROAD  
2003 ADT = 59  
2023 ADT = 72  
DESIGN SPEED = 30 MPH



LOCATION MAP

TOTAL LENGTH = 210 FEET (0.04 MI)  
NET LENGTH = 210 FEET (0.04 MI)

THE WORK INCLUDED IN THIS CONTRACT CONSISTS OF:  
REMOVAL OF EXISTING TWO SPAN STEEL STRINGER BRIDGE WITH CLOSED ABUTMENTS ON SPREAD FOOTINGS AND REPLACEMENT WITH A SINGLE SPAN PRECAST PRESTRESSED CONCRETE DECK BEAM (21" DEPTH) BRIDGE WITH PILE BENT ABUTMENTS, 27' CLEAR ROADWAY AND 51'-4 3/4" BACK TO BACK ABUTMENTS, 18 DEGREE SKEW, VARIABLE WIDTH TRANSITION APPROACHES, AND OTHER COLLATERAL WORK.

**UTILITY COMPANIES:**

VERIZON  
212 EAST GROVE  
RANTOUL, IL. 61866

ENERSTAR  
11597 IL HWY 1  
PARIS, IL 61944

APPROVED: Dele 6/6 20 05  
COUNTY ENGINEER

PASSED: David A. Saal 6/6 20 05  
DISTRICT ENGINEER OF LOCAL ROADS AND STREETS

Released for Bid Based on Limited Review: July 7 20 05  
REGIONAL ENGINEER

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

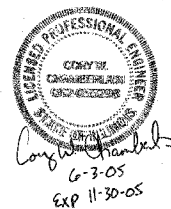


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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



HLC PROJ. 4817  
FIELD BOOK #469



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	2
FEDERAL DIST.	ILLINOIS	PROJECT		

\*89-05126-00-BR

SUMMARY OF QUANTITIES

Y080-2A

CODE NUMBER	PAY ITEM	UNIT	TOTAL
20200100	EARTH EXCAVATION	CU YD	66
20300100	CHANNEL EXCAVATION	CU YD	205
20400800	FURNISHED EXCAVATION	CU YD	252
25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.1
28100207	STONE RIPRAP, CLASS A4	TON	348
35101400	AGGREGATE BASE COURSE, TYPE B	TON	181
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	111
50300225	CONCRETE STRUCTURES	CU YD	26.8
50400405	PPC DECK BEAMS (21" DEPTH)	SQ FT	1350
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2060
50901005	STEEL RAILING, TYPE SM	FOOT	100
51201400	FURNISHING STEEL HP10x42 PILES	FOOT	189
51202700	DRIVING STEEL PILES	FOOT	189
51203400	TEST PILE STEEL HP10x42	EACH	1
51500100	NAME PLATES	EACH	1
67100100	MOBILIZATION	L sum	1

GENERAL NOTES

1. WHERE PERMANENT SURVEY MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE DISTURBED. THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER AND AN AUTHORIZED SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THE LOCATION.

2. THE ENGINEER SHALL NOT GUARANTEE THE WORK OF ANY CONTRACTOR OR SUBCONTRACTOR, SHALL HAVE NO SUPERVISION OF THE PERSONS DOING THE WORK, SHALL HAVE NO CHARGE OF THE WORK, SHALL NOT BE RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE JOB SITE OR HAVE ANY CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENT, SCAFFOLDING, SUPPORT, FORMS OR OTHER WORK AIDS, AND SHALL HAVE NO DUTIES OR RESPONSIBILITIES IMPOSED BY THE STRUCTURAL WORK ACT. IN ADDITION, THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SHALL BE MODIFIED AS FOLLOWS:

UNDER SECTION 105, ADD THE FOLLOWING SENTENCE: NOTHING CONTAINED HEREIN SHALL RELIEVE THE CONTRACTOR OF HIS/HER DUTIES TO OBSERVE AND COMPLY WITH ALL APPLICABLE LAWS, NOR SHALL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S COMPLIANCE WITH SUCH LAWS.

UNDER ARTICLE 107.01, ADD THE FOLLOWING SENTENCE: THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S DUTY TO OBSERVE AND COMPLY WITH THE PROVISIONS OF THIS ARTICLE, OR FOR THE CONTRACTOR'S FAILURE TO DO SO.

3. ALL ELEVATIONS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM. THE PROPOSED GRADE ELEVATIONS SHOWN ON THE PLAN AND PROFILE SHEETS AND STATION CROSS SECTIONS ARE THE ELEVATIONS FOR THE FINISHED SURFACE AT THE LOCATIONS INDICATED.

4. PROPOSED PROFILE GRADE IS SHOWN AT THE TOP OF THE AGGREGATE BASE COURSE.

EARTHWORK SCHEDULE

LOCATION	1	2	3	4
	20200100 EARTH EXCAVATION  (CU YD)	*EXCAVATION TO BE USED IN EMBANKMENT (ADJUSTED FOR SHRINKAGE)  (CU YD)	*EMBANKMENT (FILL)  (CU YD)	20400800 FURNISHED EXCAVATION  (CU YD)
8+95.00 TO 11+05.00	66	49	301	-252

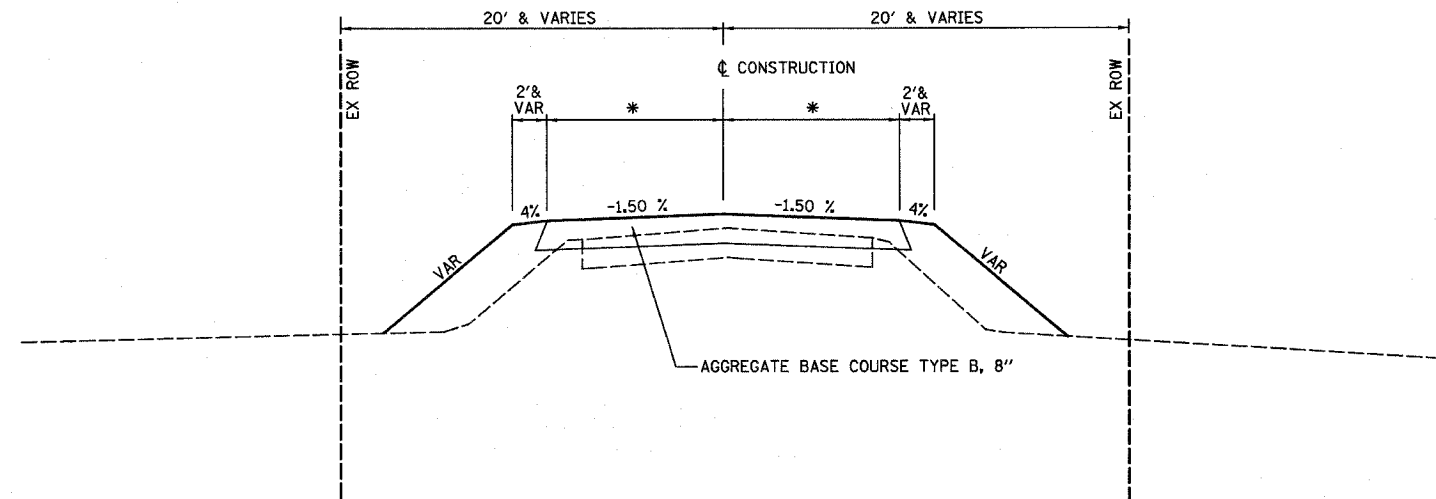
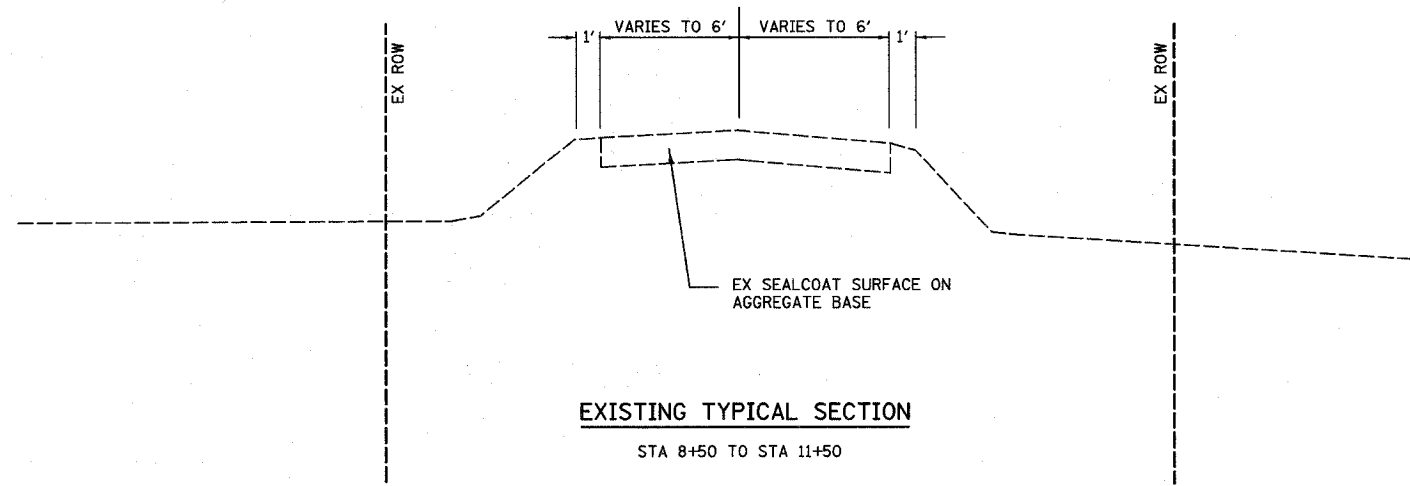
EARTH EXCAVATION SHRINKAGE FACTOR = 25%  
ITEMS MARKED WITH AN ASTERISK (\*) ARE FOR INFORMATIONAL PURPOSES ONLY



GENERAL NOTES AND QUANTITIES

SECTION 89-05126-00-BR		TR 137A	DRAWN BY DATE DLB 12/04
EDGAR		COUNTY	CHECKED BY DATE GLF 3/05
		DECATUR 317 422-8544	BOOK NUMBER 469
		CHICAGO 773 714-0050	PROJECT No. 4817
			SHEET No.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	3
FEDERAL DIST. NO.		ILLINOIS	PROJECT	
*89-05126-00-BR				



**PROPOSED TYPICAL SECTION**

- \* VARIES FROM 7.2' TO 13.5'  
STA 8+95.00 RT TO STA 9+69.91 RT
- VARIES FROM 7.5' TO 13.5'  
STA 8+95.00 LT TO STA 9+70.61 LT
- VARIES FROM 13.5' TO 7.0'  
STA 10+29.39 RT TO STA 11+05.00 RT
- VARIES FROM 13.5' TO 7.6'  
STA 10+30.09 LT TO STA 11+05.00 LT

TYPICAL SECTIONS				
REVISIONS		SECTION 89-05126-00-BR	TR 137A	DRAWN BY DATE
No.	DATE	EDGAR	COUNTY	DLB 12/04
1				CHECKED BY DATE
2				GLF 3/05
3				BOOK NUMBER
4				469
5				PROJECT No.
6				4817
7				SHEET No.
8				
9				
10				

**HOMER L. CHASTAIN & ASSOCIATES, LLP**  
CONSULTING ENGINEERS  
184-001897

DECATUR  
017) 422-0544  
CHICAGO  
073) 714-0050

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	4
STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS PROJECT		
*89-05126-00-BR				

CONSTRUCTION ALIGNMENT DATA

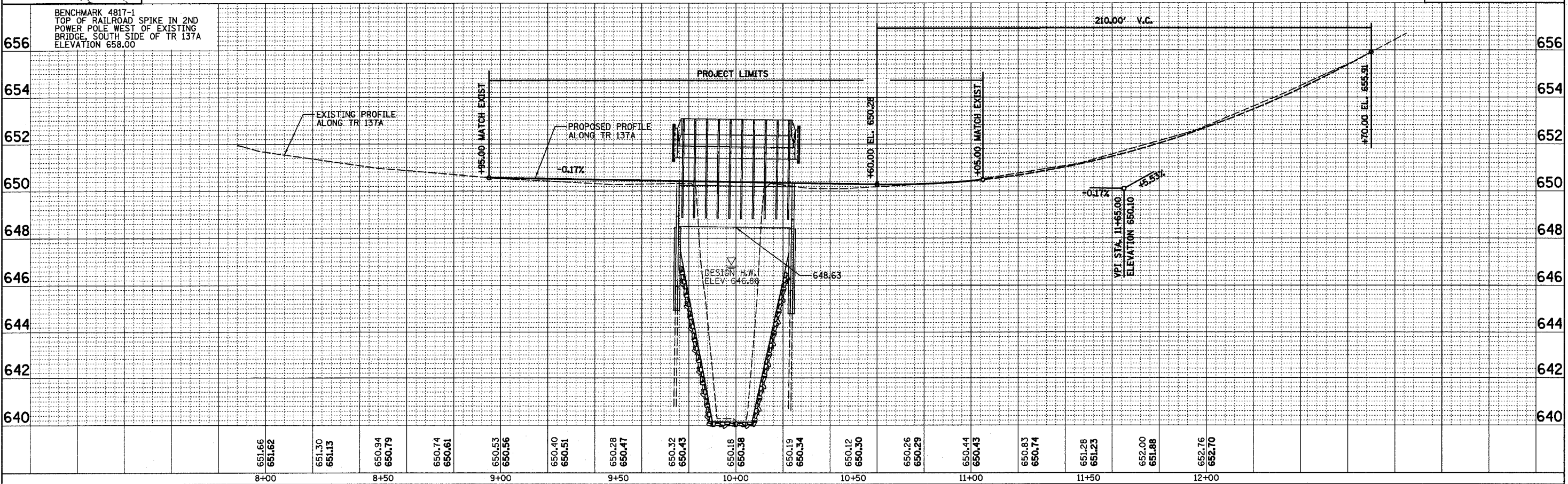
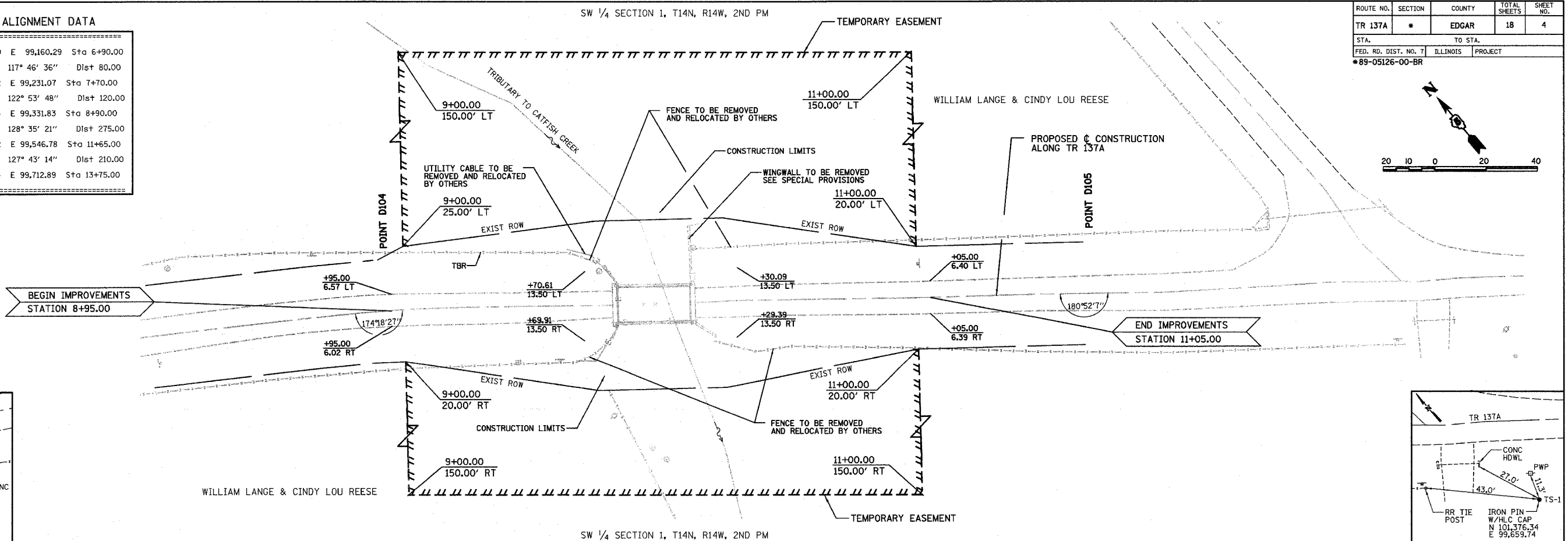
Point D102	N 101,776.90	E 99,160.29	Sta 6+90.00
Course from D102 to D103	117° 46' 36"	Dist 80.00	
Point D103	N 101,739.62	E 99,231.07	Sta 7+70.00
Course from D103 to D104	122° 53' 48"	Dist 120.00	
Point D104	N 101,674.44	E 99,331.83	Sta 8+90.00
Course from D104 to D105	128° 35' 21"	Dist 275.00	
Point D105	N 101,502.92	E 99,546.78	Sta 11+65.00
Course from D105 to D106	127° 43' 14"	Dist 210.00	
Point D106	N 101,374.44	E 99,712.89	Sta 13+75.00

DATE	BY

DBC:ATVR  
 0317 423-8544  
 CHICAGO  
 0770 714-0060  
 HOMER L. CHASTAIN & ASSOCIATES, LLP  
 500 N. PULASKI AVENUE, SUITE 1400  
 CHICAGO, IL 60610

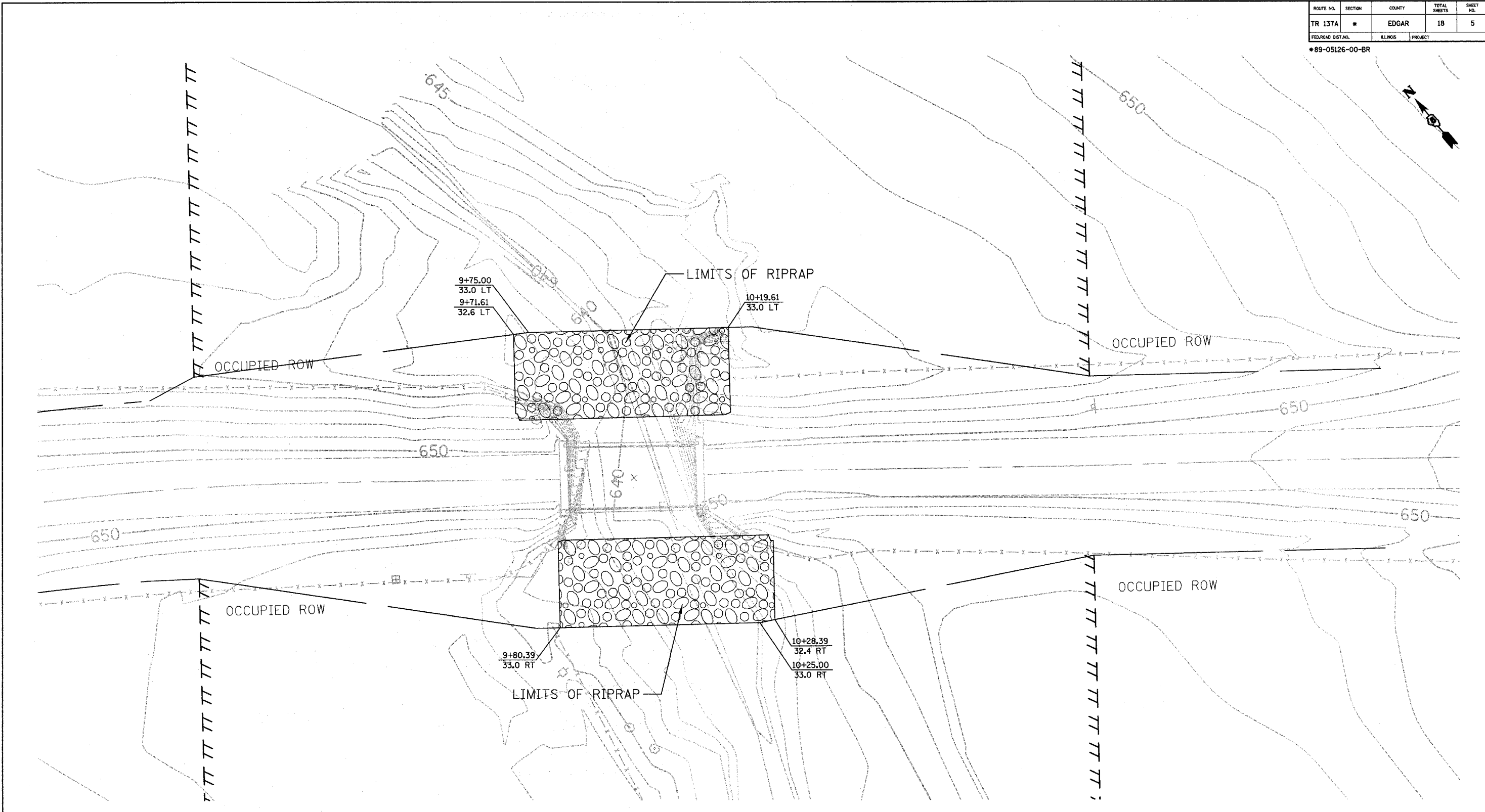
DATE	BY

PROFILE  
 SURVEYED  
 PLATTED  
 NOTED  
 CHANGED  
 BY'S NOTED  
 STRUCTURE NOTATIONS CHK'D  
 NO.



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	5
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

\*89-05126-00-BR



REVISIONS				SECTION 89-05126-00-BR		TR 137A		DRAWN BY DATE	
No.	DATE	INITIALS		EDGAR	COUNTY	DLB	12/04		
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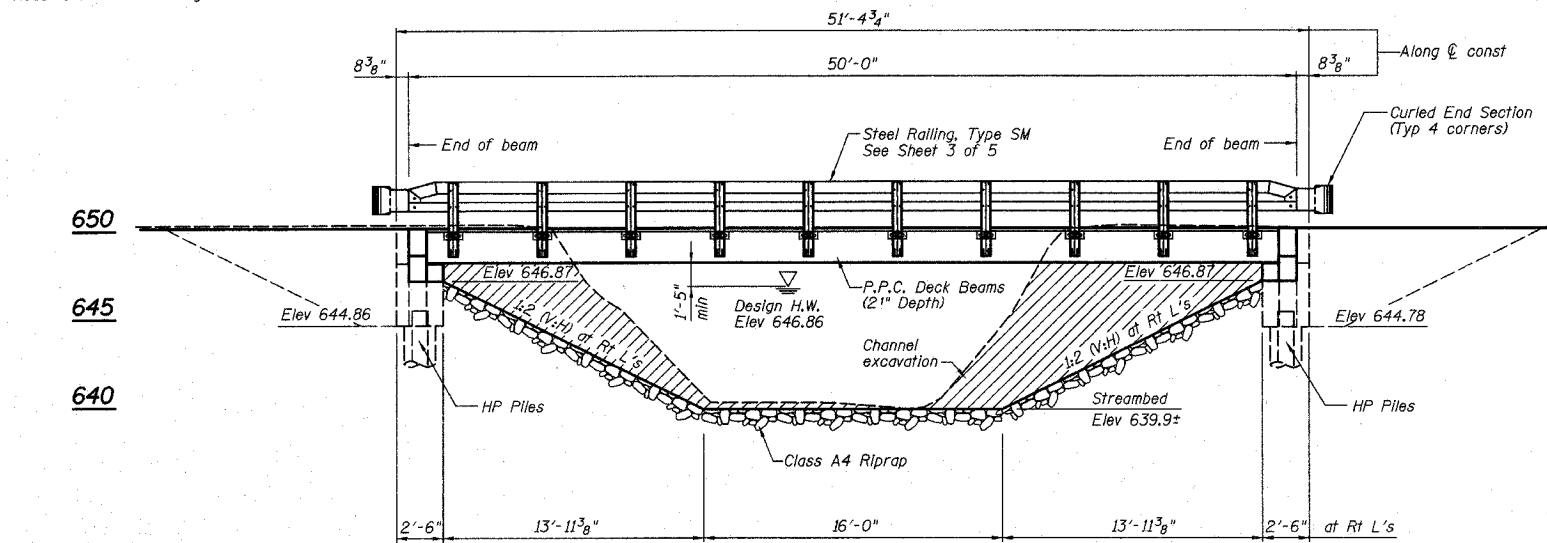
<p><b>HOMER L. CHASTAIN &amp; ASSOCIATES, LLP</b> CONSULTING ENGINEERS 184-00177</p>	<p>DECATUR (317) 422-8544</p>	<p>BOOK NUMBER 469</p>
	<p>CHICAGO 070 714-0060</p>	<p>PROJECT NO. 4817</p>
	<p>SHEET NO.</p>	

Bench Mark: BM 4817-1  
Elev 658.00

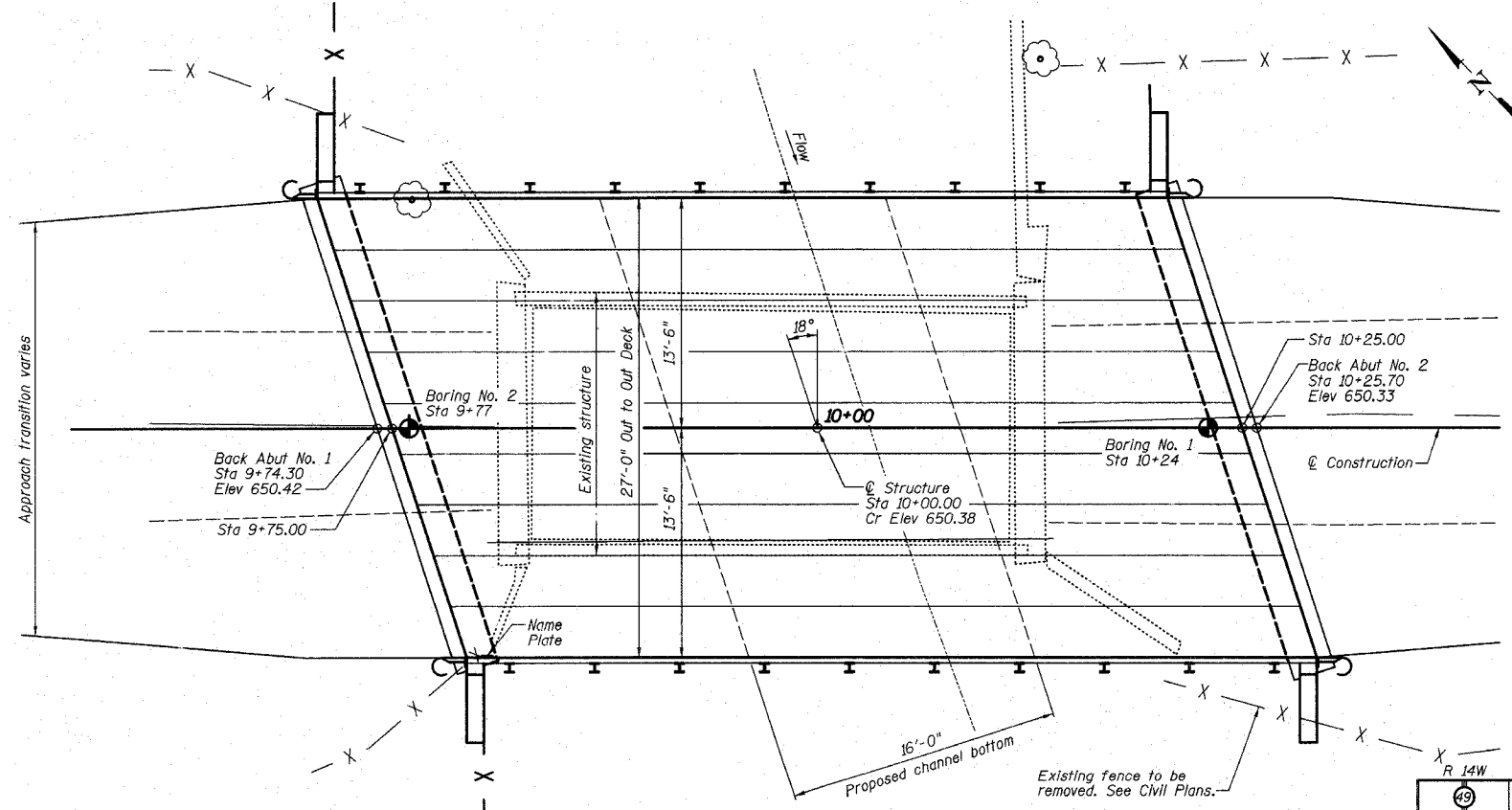
Existing Structure:  
Two span steel stringer bridge with closed abutments  
on spread footings. Remove and replace existing structure.  
Road to be closed during construction.

Sheet No 1  
of 5 Sheets

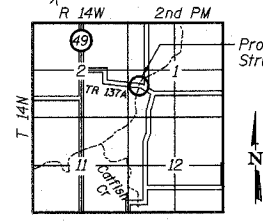
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	6
FEDERAL DIST. NO.	LINKS	PROJECT		



**ELEVATION**



**PLAN**



**LOCATION SKETCH**

TRIBUTARY TO CATFISH CREEK  
BUILT 20 BY  
EMBARASS ROAD DISTRICT  
EDGAR COUNTY  
SECTION 89-05126-00-BR  
STA. 10+00.00  
STR. NO. 023-4424 LOADING HS20

**NAME PLATE**  
See Std. 515001

**DESIGN SPECIFICATIONS**  
2002 AASHTO 17th Edition

**LOADING HS20**  
Allow 50 lb/sq ft for future wearing surface.

**DESIGN STRESSES**

**FIELD UNITS**  
f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

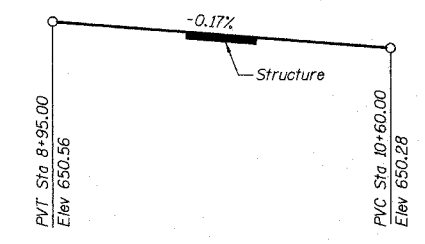
**PRECAST PRESTRESSED UNITS**  
f'c = 5,000 psi  
f'ci = 4,000 psi  
f's = 270,000 psi (1/2" φ stress relieved strands)  
f'si = 202,000 psi (1/2" φ stress relieved strands)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = .048  
Site Coefficient (S) = 1.5

**GENERAL NOTES**

For Boring Data see Special Provisions.  
Reinforcement bars shall conform to the requirements of AASHTO M-31 or M-322 Grade 60.  
Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
See Roadway Plans for Riprap Details.  
The top surface of the beams shall be finished according to Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finished surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 1/4".  
The Contractor shall drive one (1) test pile in a permanent location at Abutment No. 1 as directed by the Engineer before ordering the remainder of piles.  
All Construction joints shall be bonded.  
See Roadway Plans for channel excavation limits and quantities.



**CONSTRUCTION PROFILE**

**WATERWAY INFORMATION**

Drainage Area = 8.0 sq mi Low Grade Elev. = 650.27 @ Sta 10+66

Flood	Freq. Yr.	Q C.F.S.	Opening sq ft		Nat. H.W.E.		Head-Ft		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	15	758	160.4	207.4	646.86	0.23	0.12	647.09	646.98	
Base	100	1156	186.9	244.7	647.71	0.45	0.20	648.16	647.91	
Max Calc	500	1462	201.3	263.6	648.17	0.66	0.29	648.83	648.46	

**TOTAL BILL OF MATERIAL**

Item	Unit	Quantity
Removal of Existing Structures	Each	1
Structure Excavation	Cu Yd	111
Channel Excavation	Cu Yd	205
Concrete Structures	Cu Yd	26.8
Precast Prestressed Concrete Deck Beams (21" Depth)	Sq Ft	1350
Reinforcement Bars, Epoxy Coated	Pound	2060
Steel Railing, Type SM	LIn Ft	100
Furnishing Steel HP 10x42 Piles	Foot	189
Driving Steel Piles	Foot	189
Test Pile Steel HP 10x42	Each	1
Name Plates	Each	1



Cory W. Chastain  
DATE: 04/29/05  
EXP 11/30/06

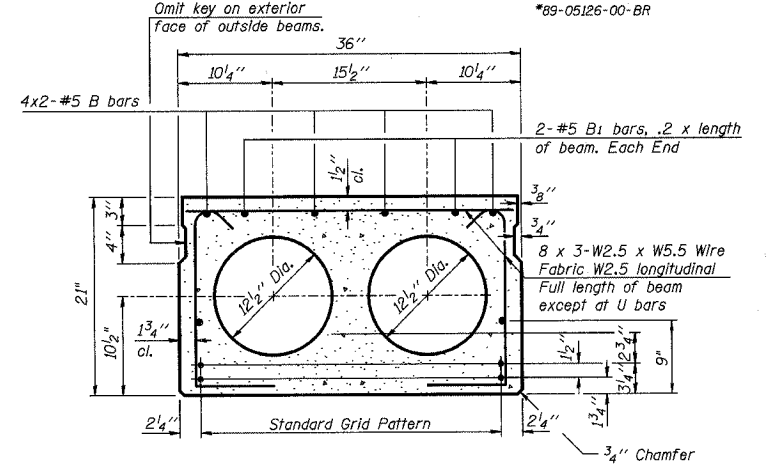
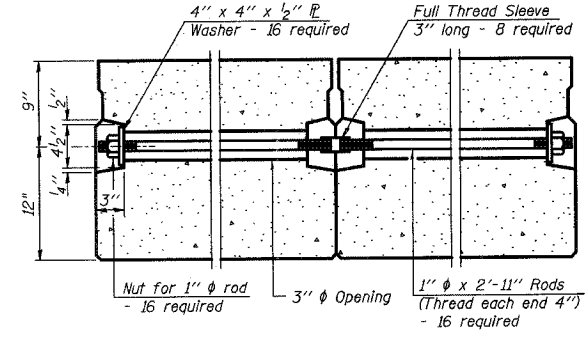
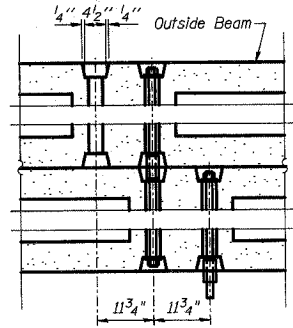
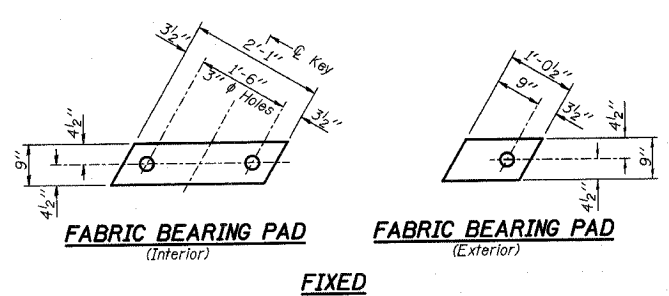
I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THIS BRIDGE DESIGN IS STRUCTURALLY ADEQUATE FOR THE DESIGN LOADING SHOWN ON THE PLANS. THE DESIGN IS AN ECONOMICAL ONE FOR THE STYLE OF STRUCTURE AND COMPLIES WITH THE REQUIREMENTS OF THE CURRENT "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."

**GENERAL PLAN AND ELEVATION**

<table border="1"> <thead> <tr> <th>REVISIONS</th> <th>No.</th> <th>DATE</th> <th>INITIALS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	REVISIONS	No.	DATE	INITIALS																																													<p>TR 137A OVER TRIBUTARY OF CATFISH CREEK</p> <p>TR 137A SEC 89-05126-00-BR SN 023-4424</p> <p>EDGAR COUNTY</p> <p>HOMER L. CHASTAIN &amp; ASSOCIATES, LLP CONSULTING ENGINEERS 184-001397</p>	<p>DRAWN BY DATE R King 11/04</p> <p>CHECKED BY DATE JME 11/04</p> <p>DATE BY DATE CWC 11/04</p> <p>BOOK NUMBER 469</p> <p>PROJECT NO. 4817</p> <p>SHEET NO.</p>
REVISIONS	No.	DATE	INITIALS																																															

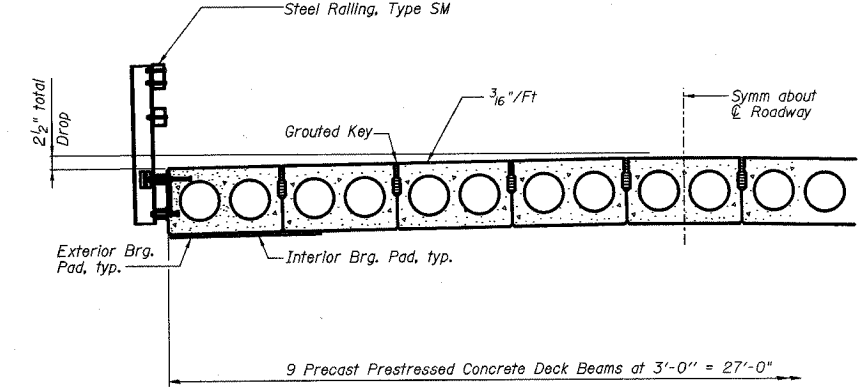
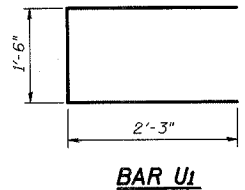
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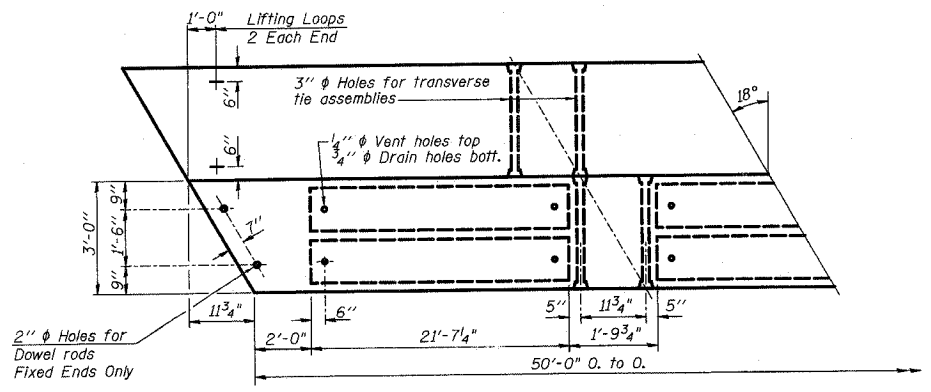


**TYPICAL SECTION**  
 1/2"  $\phi$  Strands, Each Strand Stressed to 30,900 Lbs.  
 6-Strands 1 1/4" up, 8-Strands 3/4" up, 2-Strands 9" up

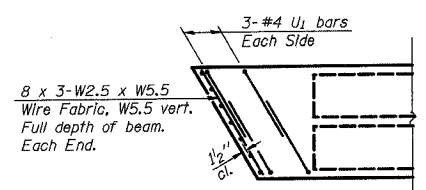
Note:  
Place strands symmetrically about  $\phi$  of beam.



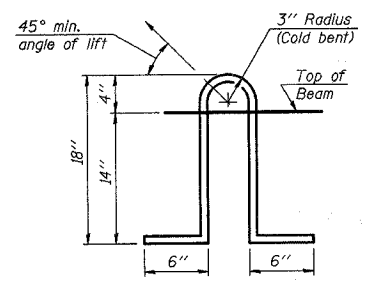
**HALF CROSS SECTION**



**PLAN**



**END PLAN**



**LIFTING LOOP DETAIL**

**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. Lifting loops shall be 2-1/2"  $\phi$ -270 ksi strands, as shown. The 1"  $\phi$  rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. Non prestressing steel shall conform to AASHTO M-31 or M-322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/2" fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength, f'cl, shall be 4000 p.s.i.

**BILL OF MATERIAL\***

Bar	No.	Size	Length	Shape
B	8	#5	26'-6"	—
B1	4	#5	10'-0"	—
U1	12	#4	6'-0"	C
Precast Prestressed Conc. Deck Bms.		Sq. Ft.	1350	

\*The above bar list is for one beam only. Bars indicated thus 4x2-#5 etc, indicates 4 lines of bars with 2 lengths per line.

**BEAM DETAILS**

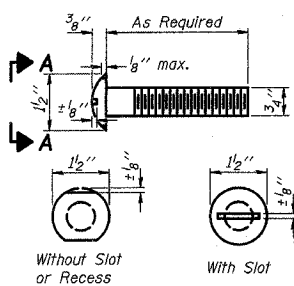
REVISIONS NO. DATE INITIALS		TR 137A OVER TRIBUTARY OF CATTISH CREEK SEC 89-05126-00-BR SN 023-4424 EDGAR COUNTY		DRAWN BY DATE R King 11/04 CHECKED BY DATE JMB 11/04 GA/SC BY DATE CWC 11/04 BOOK NUMBER 469 PROJECT NO. 4817 SHEET NO.
		HOMER L. CHASTAIN & ASSOCIATES, LLP CONSULTING ENGINEERS 184-001397		



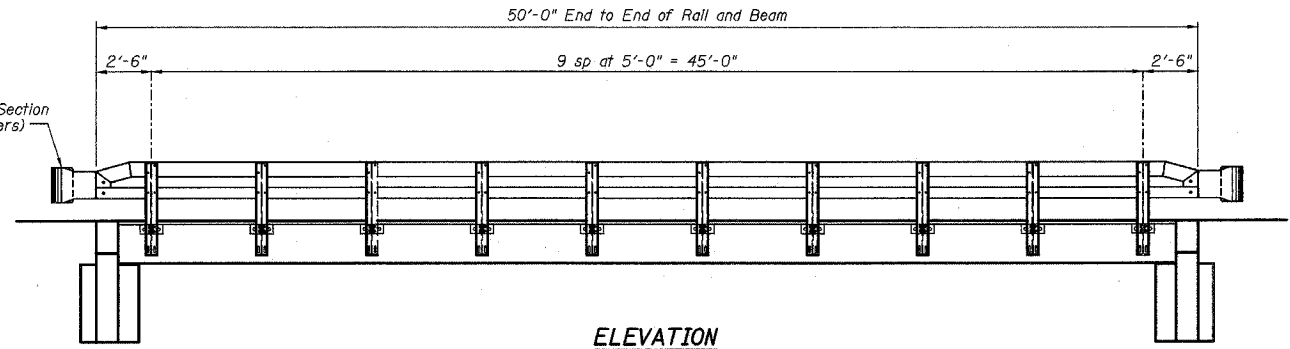
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	8
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

\*89-05126-00-BR

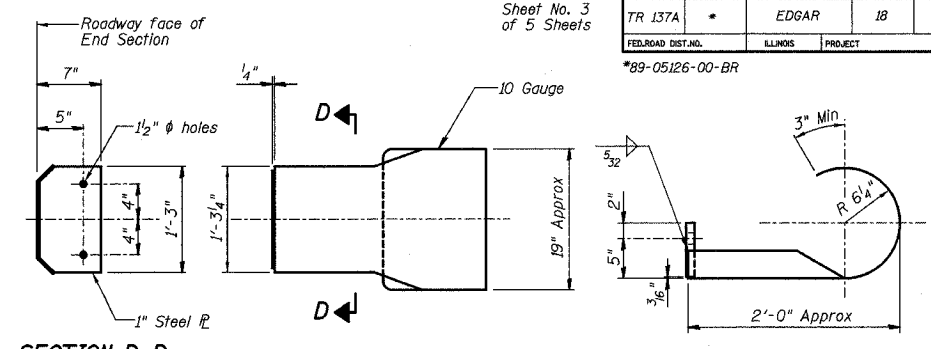
Sheet No. 3 of 5 Sheets



**VIEW A-A**  
**ROUND HEAD BOLT**



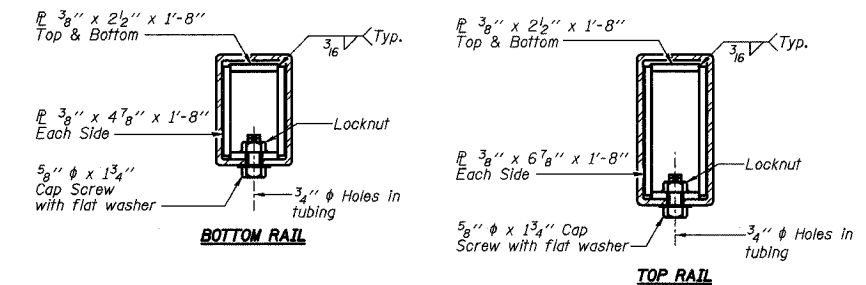
**ELEVATION**



**SECTION D-D**

**DETAILS OF CURLED END SECTION**

(Cost included with Steel Railing, Type SM)



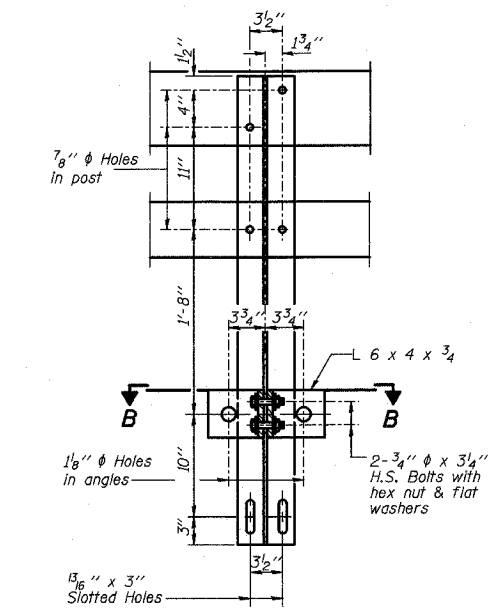
**SECTIONS AT RAIL SPLICE**

**NOTES**

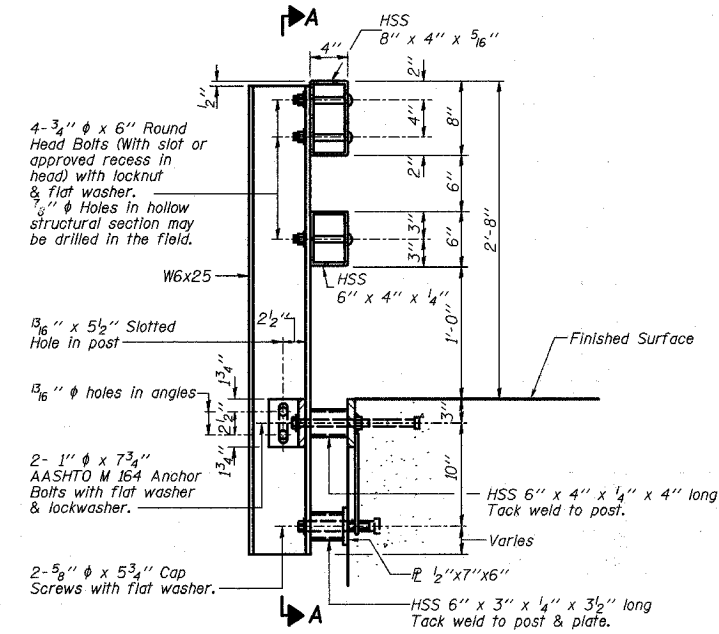
Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F. All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50. Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164. All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232. All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted. Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM. All field drilled holes shall be coated with an approved zinc rich paint before erection. The 1/2 inch x 7 inch x 6 inch plates that come in contact with concrete shall receive two coats of asphalt paint conforming to Section 1060.07 Type II or place 1/2 inch fabric bearing pads between the plates and concrete. The 3/4 inch high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(F)(2) of the Standard Specifications. The 1 inch high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/2 turn. The 5/8 inch cap screws in bottom of posts shall be tightened to a snug fit only.

**BILL OF MATERIAL**

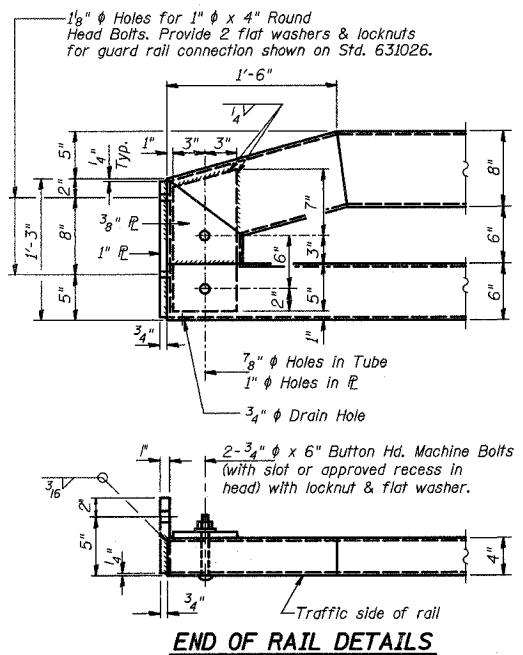
Item	Unit	Quantity
Steel Bridge Rail, Type SM	Foot	100



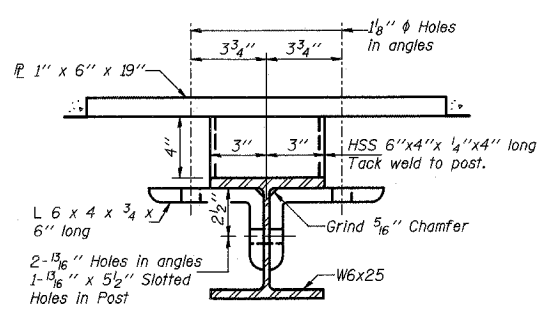
**SECTION A-A**



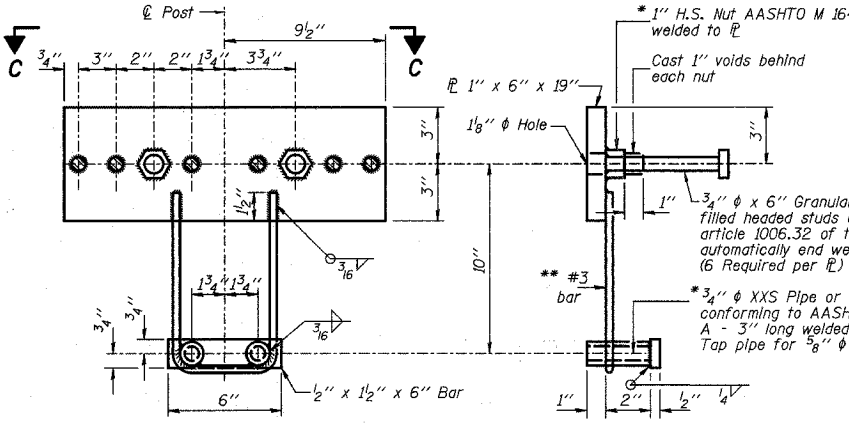
**SECTION AT RAIL POST**



**END OF RAIL DETAILS**

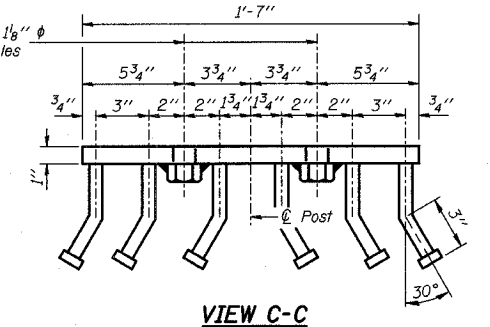


**SECTION B-B**



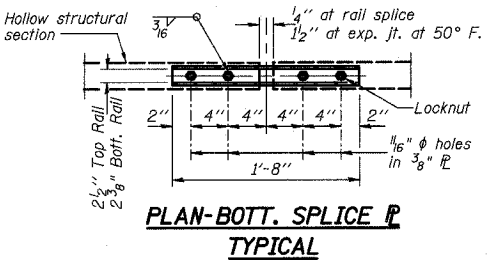
**ANCHOR DEVICE**

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

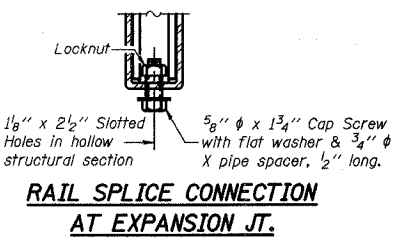


**VIEW C-C**

\*\*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.



**PLAN-BOTT. SPLICE TYPICAL**



**RAIL SPLICE CONNECTION AT EXPANSION JT.**

REVISIONS		TYPE SM STEEL BRIDGE RAIL SIDE MOUNTED	
No.	DATE	INITIALS	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

TR 137A OVER TRIBUTARY OF CATTISH CREEK		DATE: 11/04
TR 137A		CHECKED BY: JMB 11/04
EDGAR		DATE: 11/04
SEC 89-05126-00-BR		SCALE: CWC
SN 023-4424		TICK NUMBER: 469
COUNTY		PROJECT NO.: 4817
HOMER L. CHASTAIN & ASSOCIATES, LLP		SHEET NO.:
CONSULTING ENGINEERS		
184-001397		

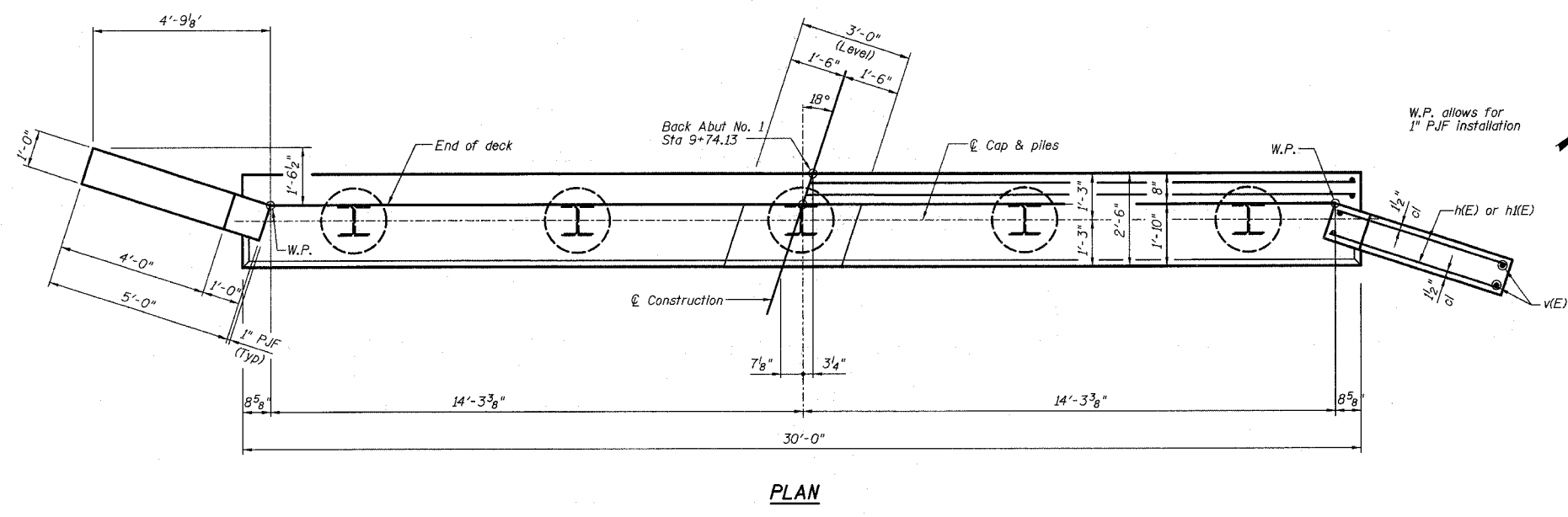
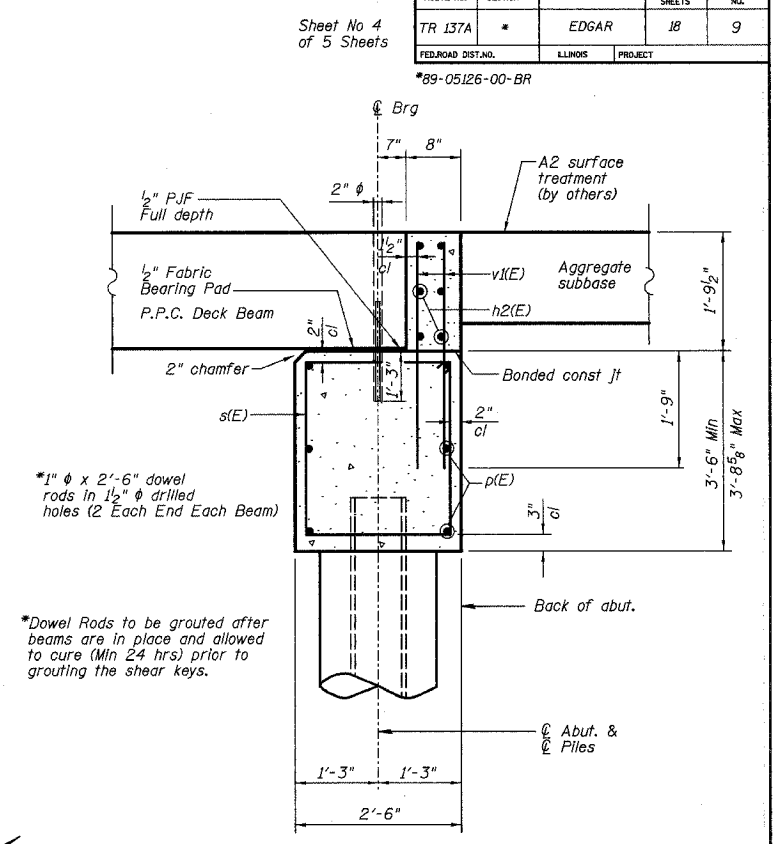
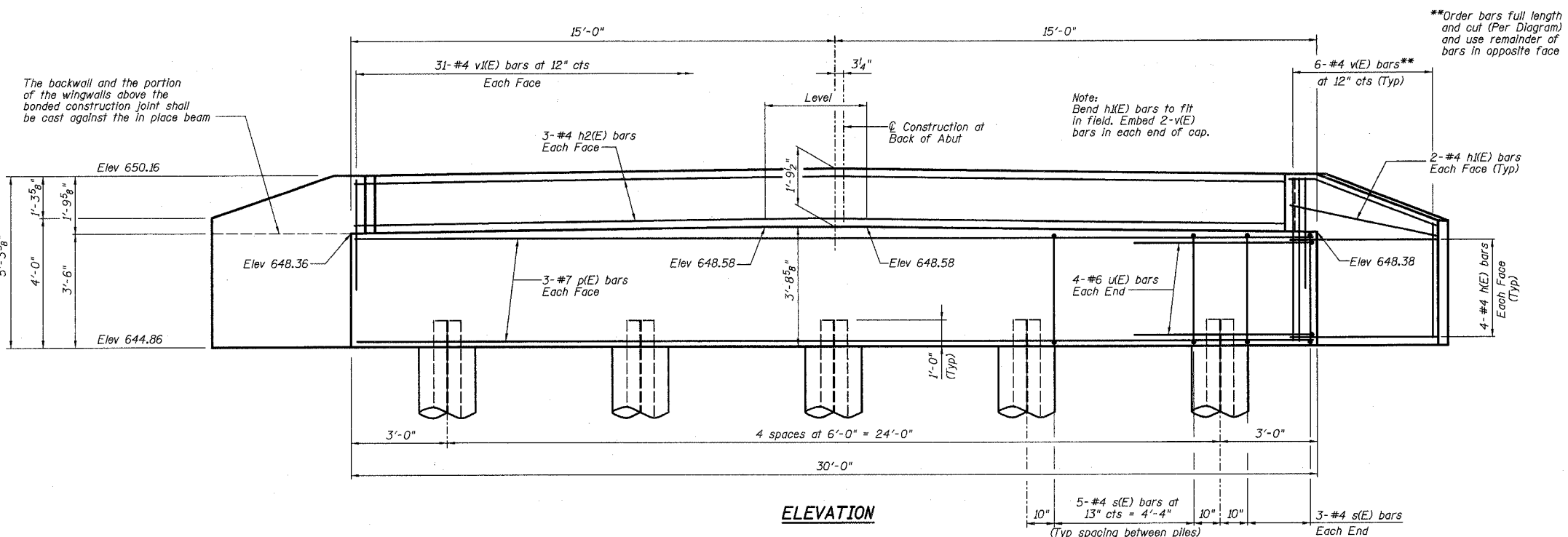


9133A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	9
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

Sheet No 4 of 5 Sheets

\*89-05126-00-BR



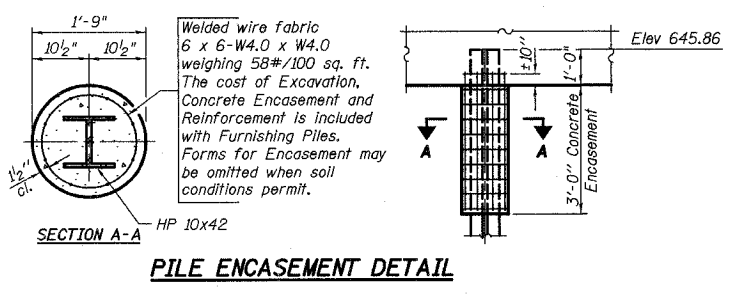
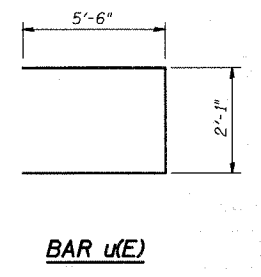
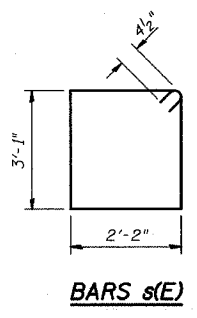
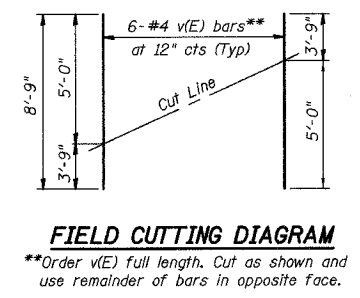
**PILE DATA:**

Type: HP 10x42  
 Capacity: 34 Ton driven to 51 Ton bearing  
 Est. Length: 21'  
 No. Req'd: 4 plus 1 test pile

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	16	#4	5'-10"	—
h2(E)	8	#4	5'-0"	—
h2(E)	6	#4	29'-8"	—
p(E)	6	#7	29'-8"	—
s(E)	26	#4	11'-3"	□
u(E)	8	#6	13'-1"	□
v(E)	12	#4	8'-9"	—
v(E)	62	#4	3'-8"	—
Structure Excavation		Cu Yd	55.5	
Concrete Structures		Cu Yd	13.4	
Reinforcement Bars (Epoxy Coated)		Pound	1030	
Furnishing steel HP10x42 Piles		Foot	84	
Driving Piles		Foot	84	
Test Pile		Each	1	

Reinforcement bars designated (E) shall be epoxy coated.



**ABUTMENT NO. 1 DETAILS**

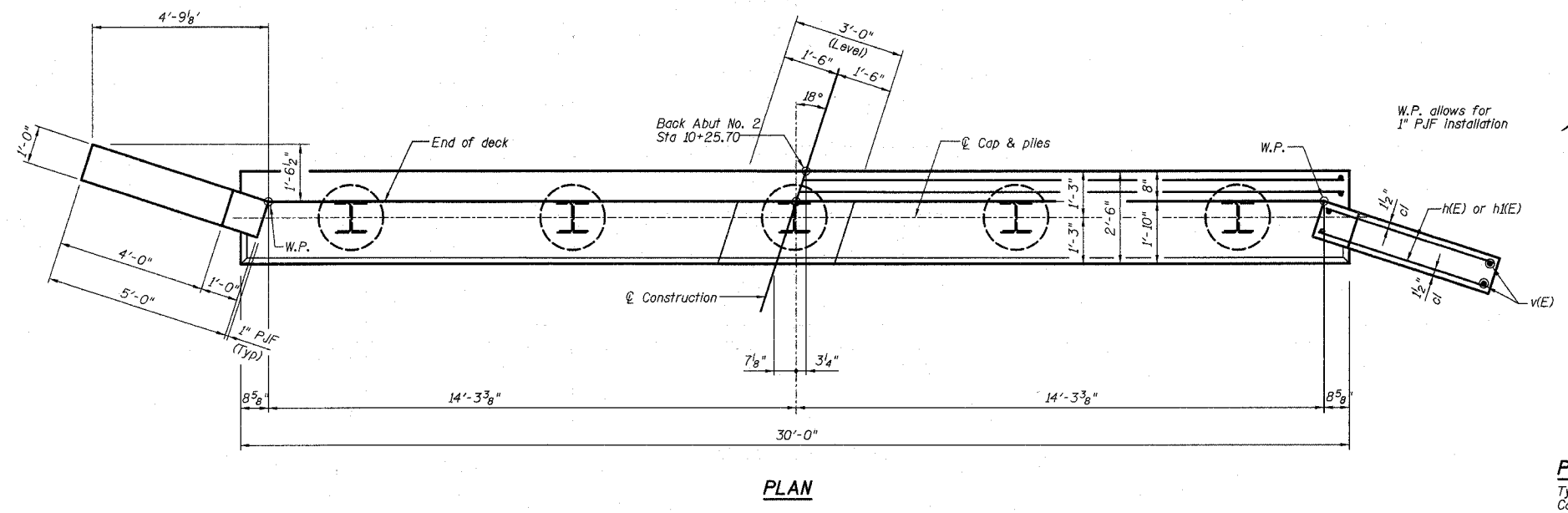
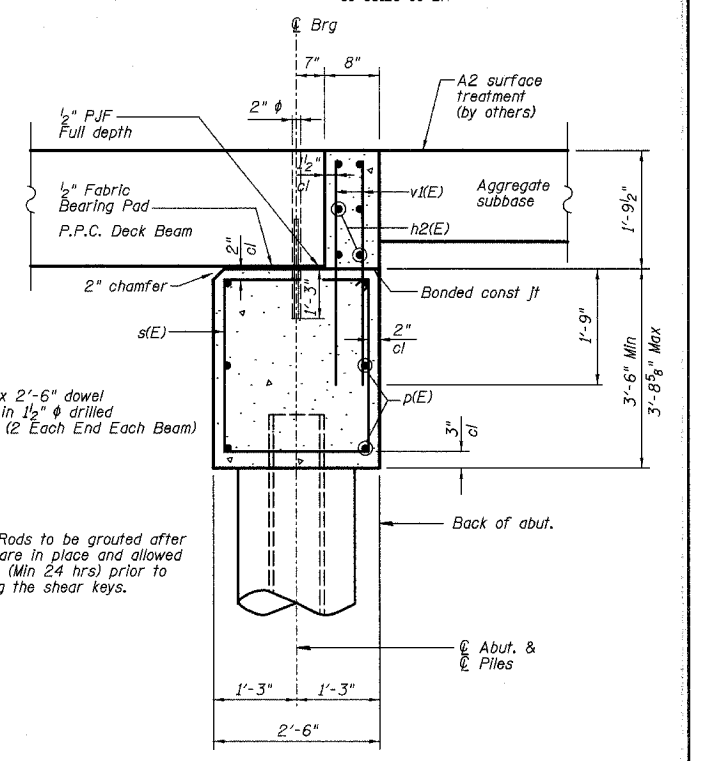
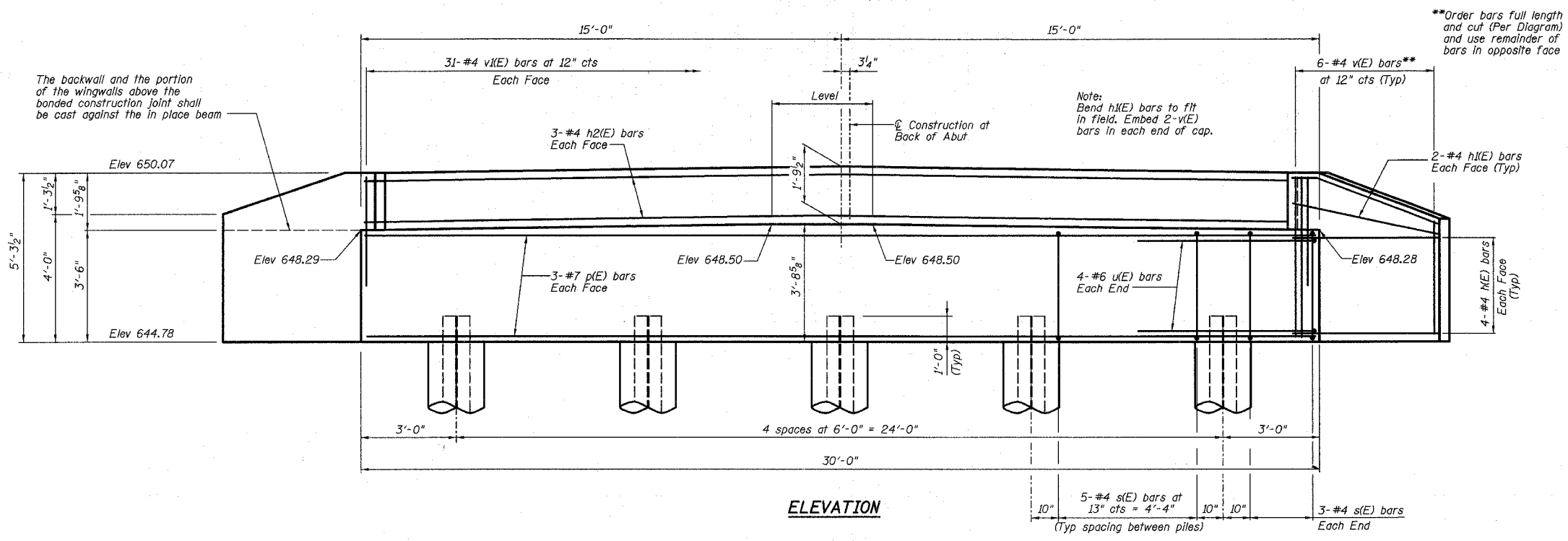
REVISIONS	TR 137A OVER TRIBUTARY OF CATFISH CREEK	DRAWN BY DATE R King 11/04
1		CHECKED BY DATE JMB 11/04
2		QA/QC BY DATE CWC 11/04
3		BOOK NUMBER 469
4	TR 137A	PROJECT No. 4817
5	SEC 89-05126-00-BR	SHEET No.
6	SN 023-4424	
7	EDGAR	COUNTY
8	HOMER L. CHASTAIN & ASSOCIATES, LLP	
9	CONSULTING ENGINEERS	
10	184-001397	

9133A

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	10
FED. ROAD DIST. NO.	LINKS	PROJECT		

Sheet No 5 of 5 Sheets

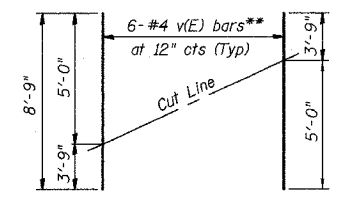
\*89-05126-00-BR



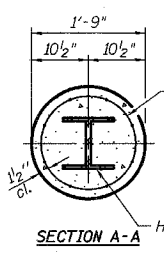
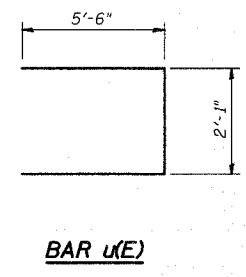
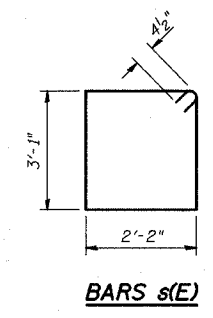
**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h(E)	16	#4	5'-10"	—
h1(E)	8	#4	5'-0"	—
h2(E)	6	#4	29'-8"	—
p(E)	6	#7	29'-8"	—
s(E)	26	#4	11'-3"	□
u(E)	8	#6	13'-1"	—
v(E)	12	#4	8'-9"	—
v1(E)	62	#4	3'-8"	—
Structure Excavation		Cu Yd	55.5	
Concrete Structures		Cu Yd	13.4	
Reinforcement Bars (Epoxy Coated)		Pound	1030	
Furnishing steel HP10x42 Piles		Foot	105	
Driving Piles		Foot	105	

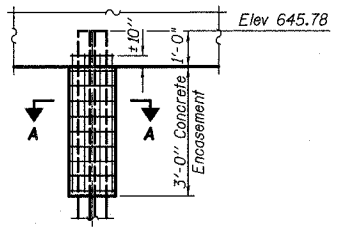
**PILE DATA:**  
Type: HP 10x42  
Capacity: 34 Ton driven to 51 Ton bearing  
Est. Length: 21'  
No. Req'd: 5



\*\*Order v(E) full length. Cut as shown and use remainder of bars in opposite face.



Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation, Concrete Encasement and Reinforcement is included with Furnishing Piles. Forms for Encasement may be omitted when soil conditions permit.



**ABUTMENT NO. 2 DETAILS**

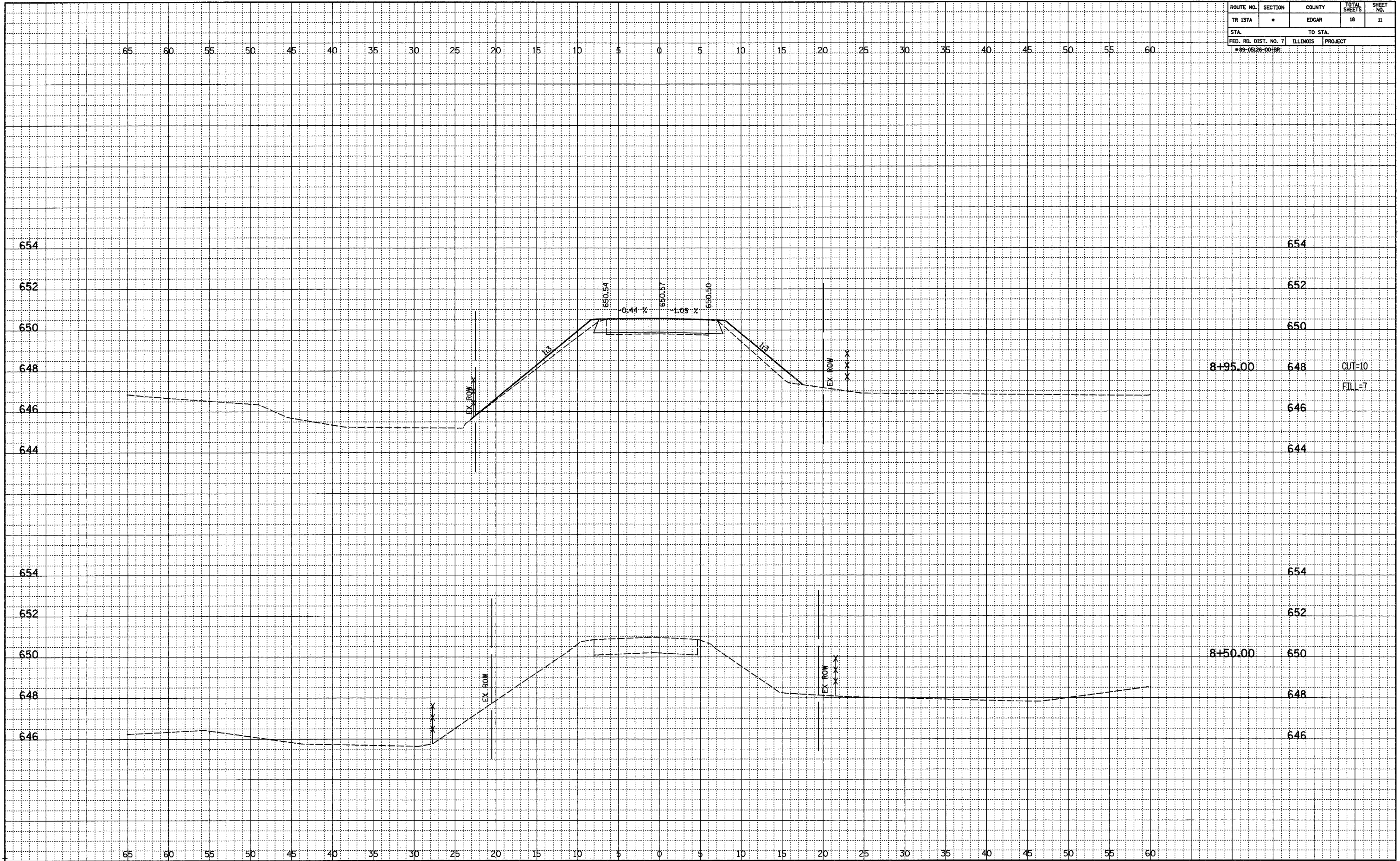
NO.	DATE	INITIALS	REVISIONS
1			
2			
3			
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12			

TR 137A OVER TRIBUTARY OF CATTFISH CREEK		DRAWN BY DATE R King 11/04
EDGAR		CHECKED BY DATE JMB 11/04
SEC 89-05126-00-BR		DATE CWC 11/04
SN 023-4424		BOOK NUMBER 469
COUNTY		PROJECT NO. 4817
HOMER L. CHASTAIN & ASSOCIATES, LLP CONSULTING ENGINEERS 184-001397		SHEET NO.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	•	EDGAR	18	11
STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS	PROJECT	
•89-05126-00-BR				

FINAL	SURVEYED	DATE
NOTEBOOK	PLOTTED	
NO.	BY	

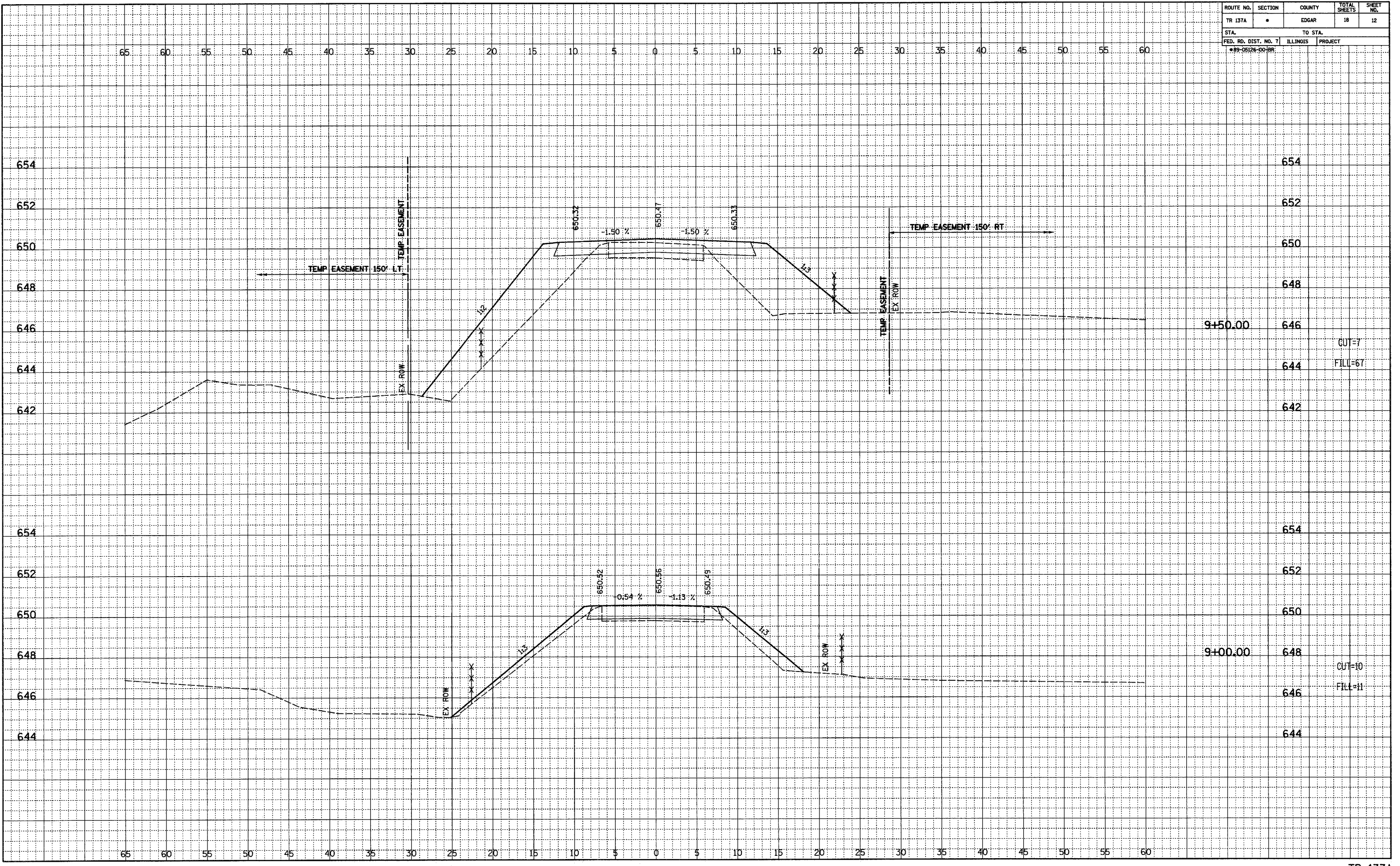
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NOTEBOOK	PLOTTED	
NO.	BY	



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	12
STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS	PROJECT	
*89-05126-00-18R				

FINAL SURVEYED AND ADJUSTED  
 NOTEBOOK ALIGNED CHECKED  
 FIT. OF WAY CHECKED  
 NO. \_\_\_\_\_ DATE \_\_\_\_\_  
 BY \_\_\_\_\_

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 BY \_\_\_\_\_

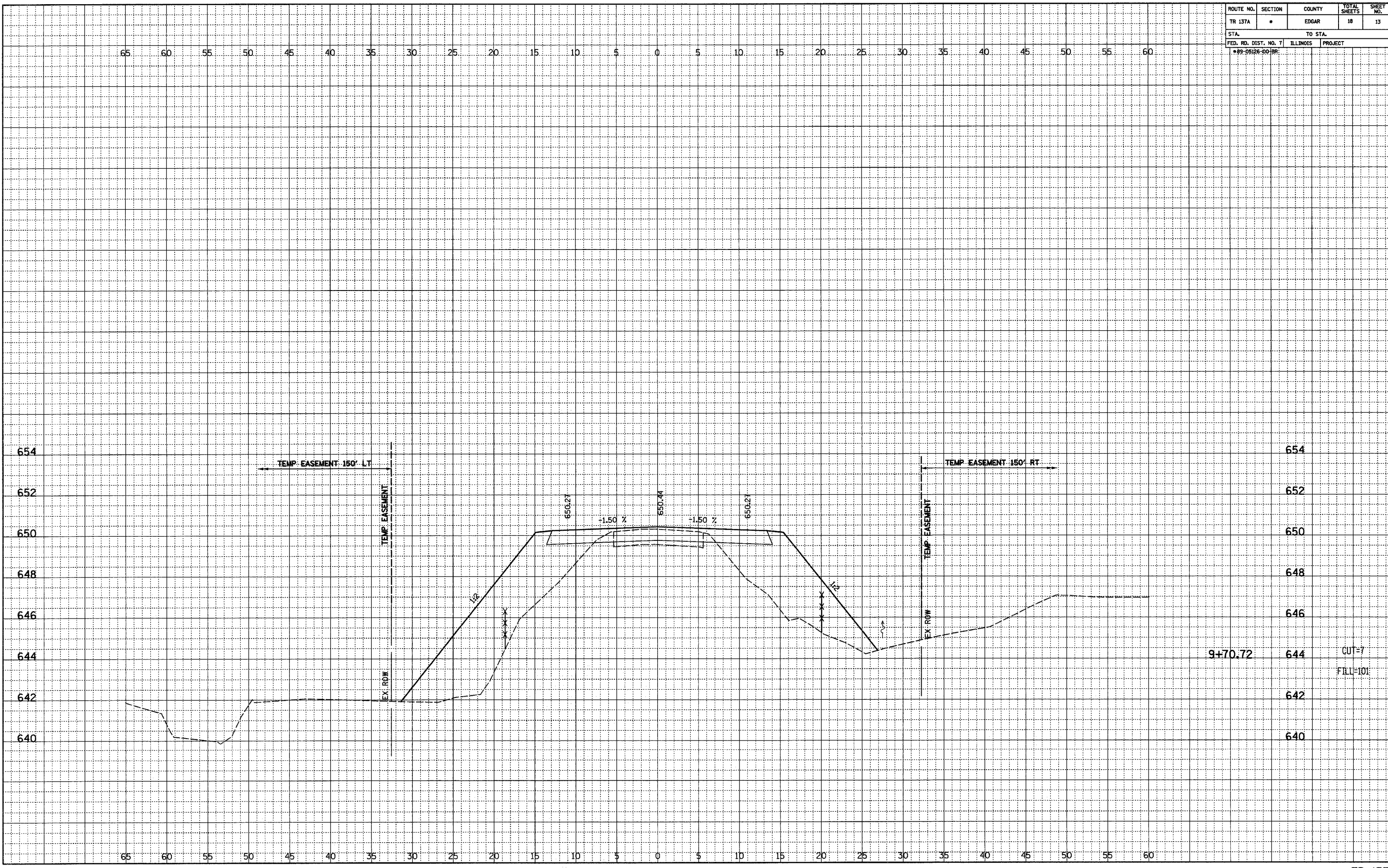




ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	•	EDGAR	18	13
STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS PROJECT		
•89-05126-00(BR)				

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 BY \_\_\_\_\_  
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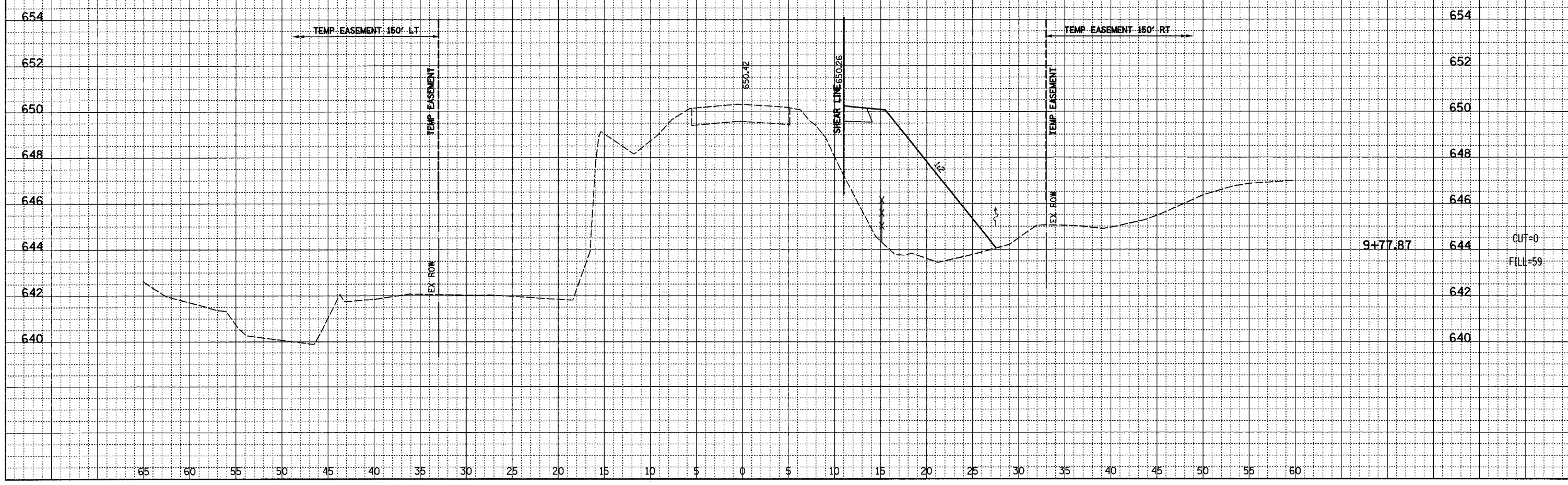


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STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS	PROJECT	
*89-09126-00-18*				

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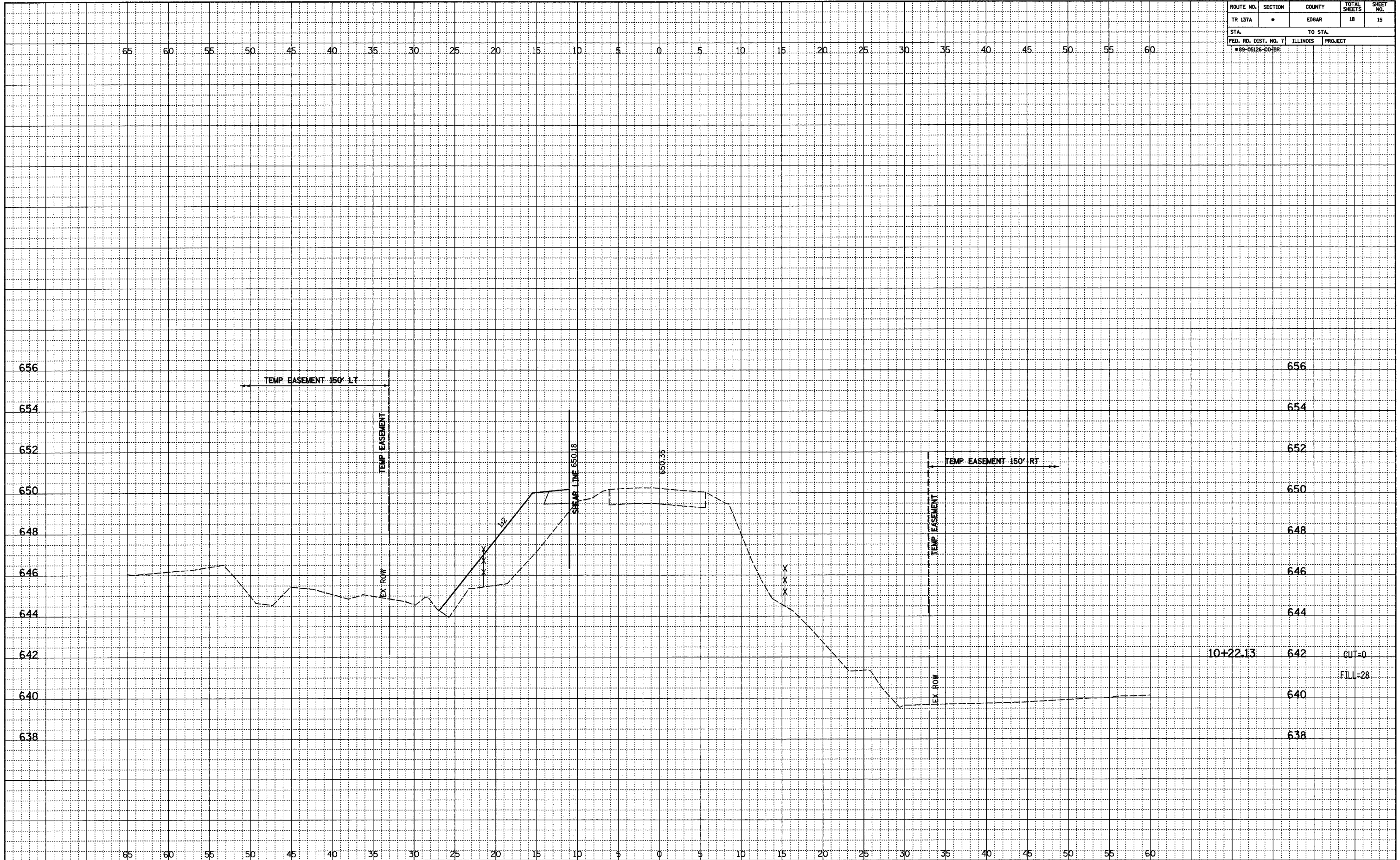
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 DATE \_\_\_\_\_



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TR 137A	•	EDGAR	18	15
STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS	PROJECT	
*99-09128-00-18*				

FINAL	SURVEYED	BY	DATE
NOTEBOOK	PLOTTED		
NO.	BY		

ORIGINAL	SURVEYED	BY	DATE
NOTEBOOK	PLOTTED		
NO.	BY		





ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	16
STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS PROJECT		
*89-05126-00-BR				

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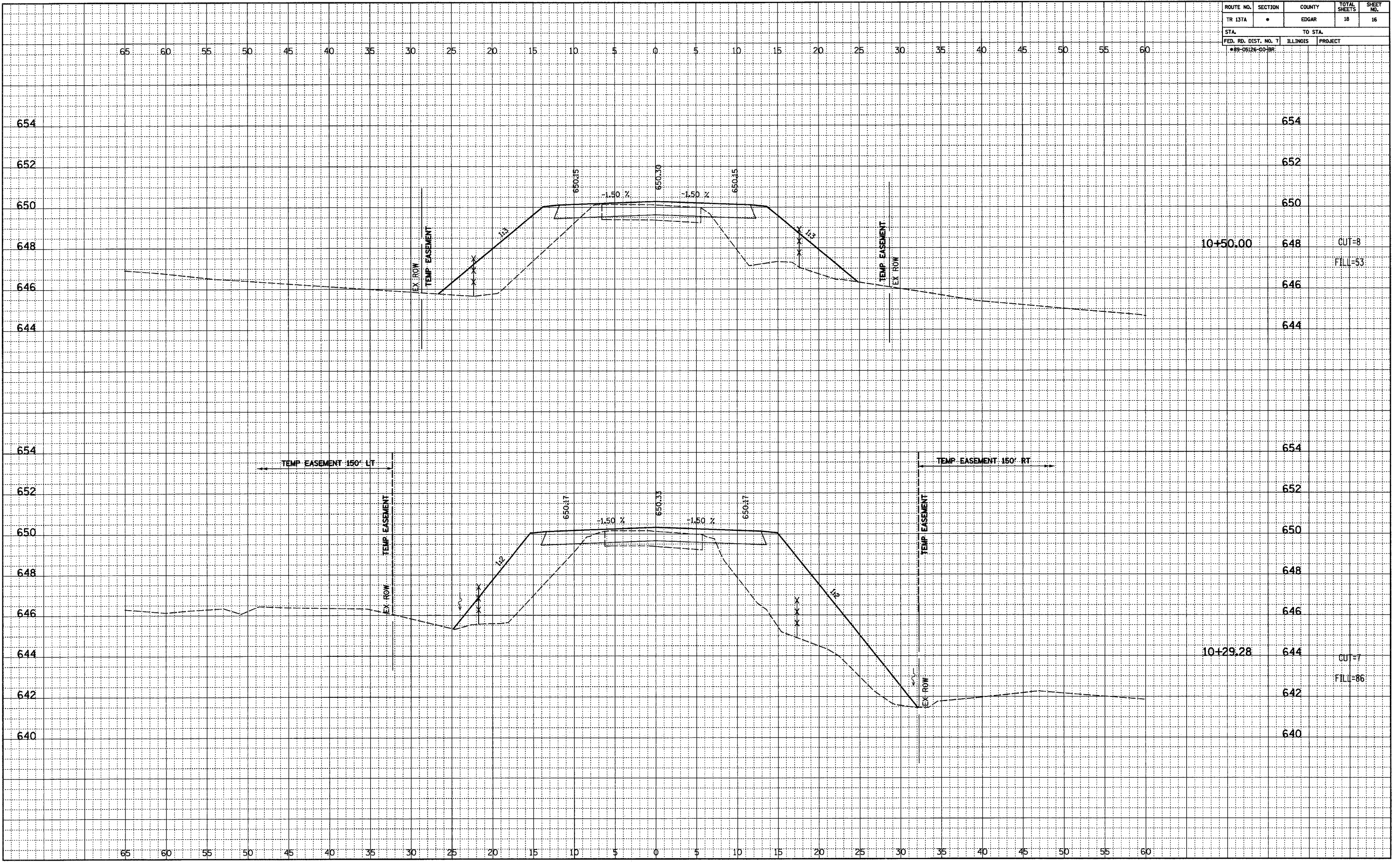
BY \_\_\_\_\_ DATE \_\_\_\_\_

PLANNED  
RT. OF WAY CHECKED

ORIGINAL SURVEYED  
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BY \_\_\_\_\_ DATE \_\_\_\_\_

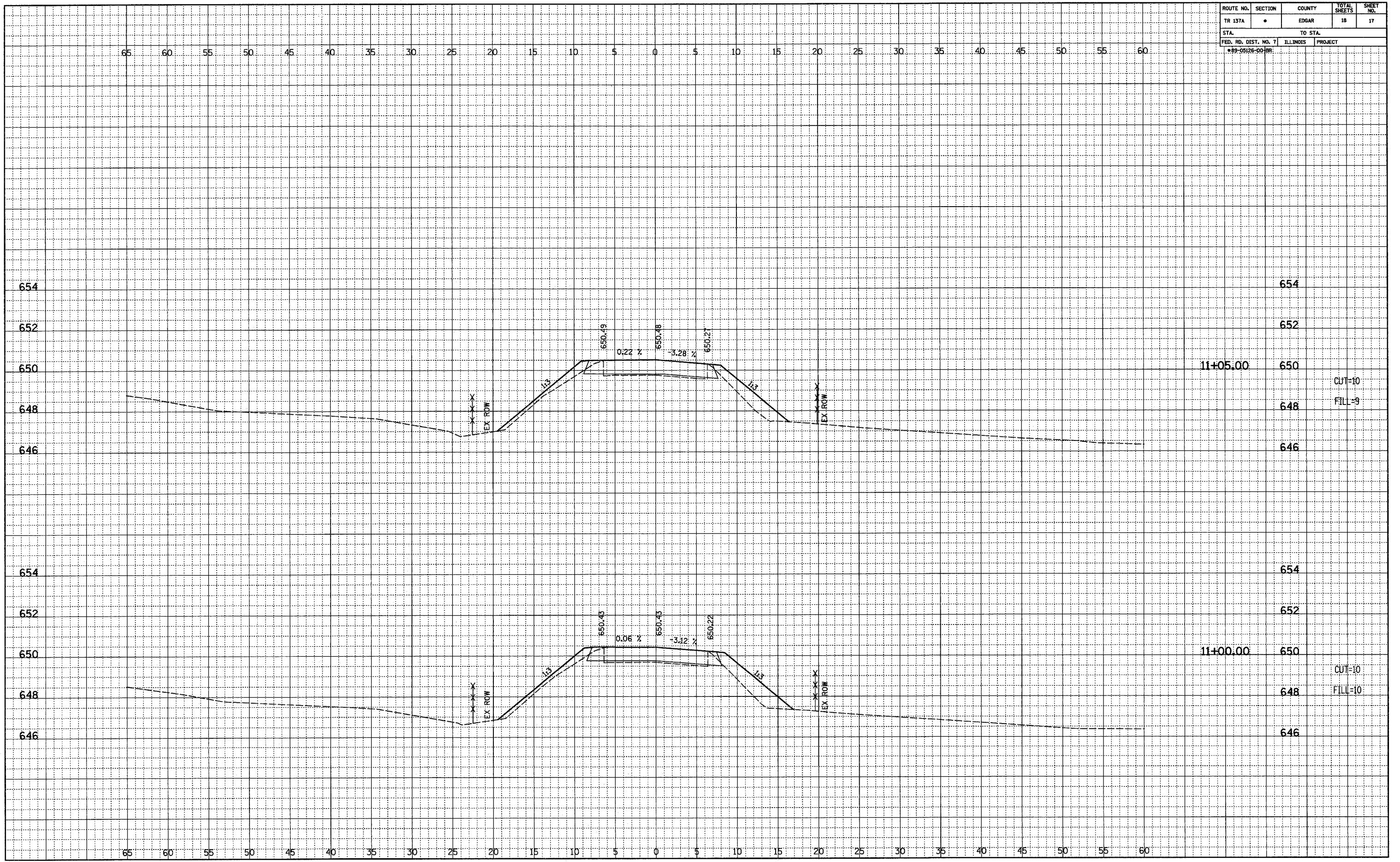
PLANNED  
STRUCTURE NOTATIONS OK'D



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STA.		TO STA.		
FED. RD. DIST. NO. 7		ILLINOIS	PROJECT	
*89-09126-00-PR				

FINAL SURVEYED	BY	DATE
PLOTTED		
NOTED		
NO. _____		

ORIGINAL SURVEYED	BY	DATE
PLOTTED		
NOTED		
NO. _____		



1/8" = 10' HORIZ. SCALE 1/4" = 1' VERT. SCALE



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 137A	*	EDGAR	18	18
STA.		TO STA.		
FED. RD. DIST. NO. 7	ILLINOIS	PROJECT		
*89-05126-00-PR				

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FINAL	SURVEYED	BY	DATE
NOTEBOOK	PLOTTED		
NO. _____	BY _____		
	DATE _____		

ORIGINAL	SURVEYED	BY	DATE
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	DATE _____		

