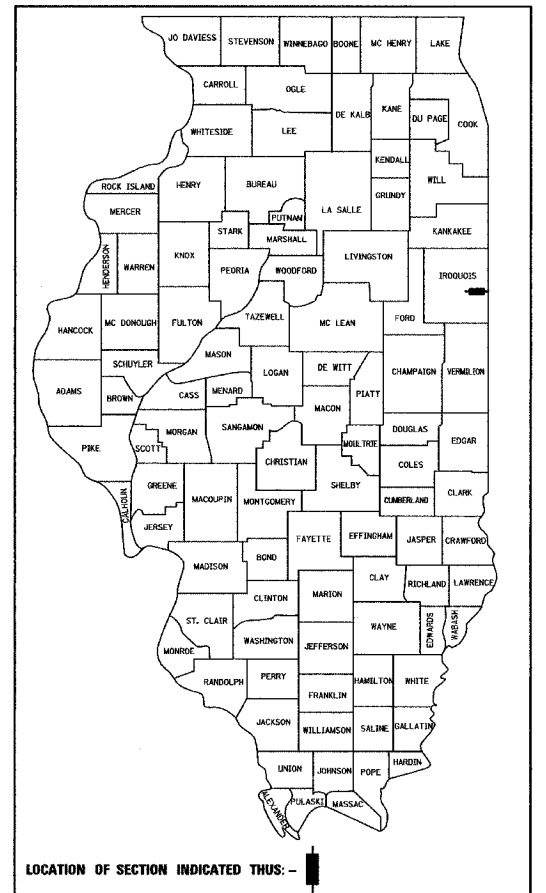


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
HIGHWAY BRIDGE PROGRAM
IROQUOIS COUNTY**

**SHELDON ROAD DISTRICT SECTION 98-26104-01-BR
STOCKLAND ROAD DISTRICT SECTION 98-25104-01-BR
TOWNSHIP ROAD 251 OVER COON CREEK
PROJECT NO. BROS-075(130)
JOB NUMBER C-93-018-07**

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
TR 251	*	IROQUOIS	18	1
PROJ. ROAD DIST. NO. 7		ILLINOIS	PROJECT BROS-075(130)	
* 98-26104-01-BR				CONTRACT #87336
98-25104-01-BR				



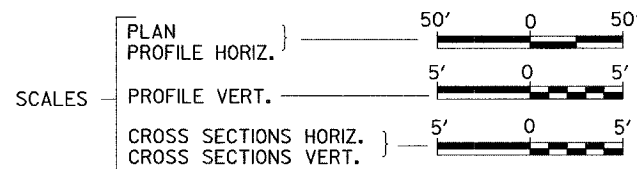
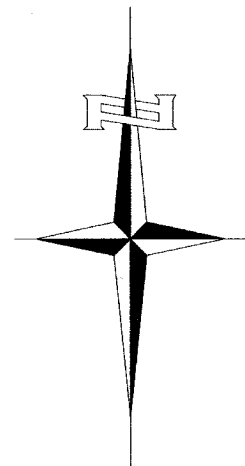
LOCATION OF SECTION INDICATED THUS: -

INDEX OF SHEETS

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

REQUIRED HIGHWAY STANDARDS

- 000001-04
- 280001-03
- 515001-02
- 635006-02
- 702001-06
- BLR-21-6

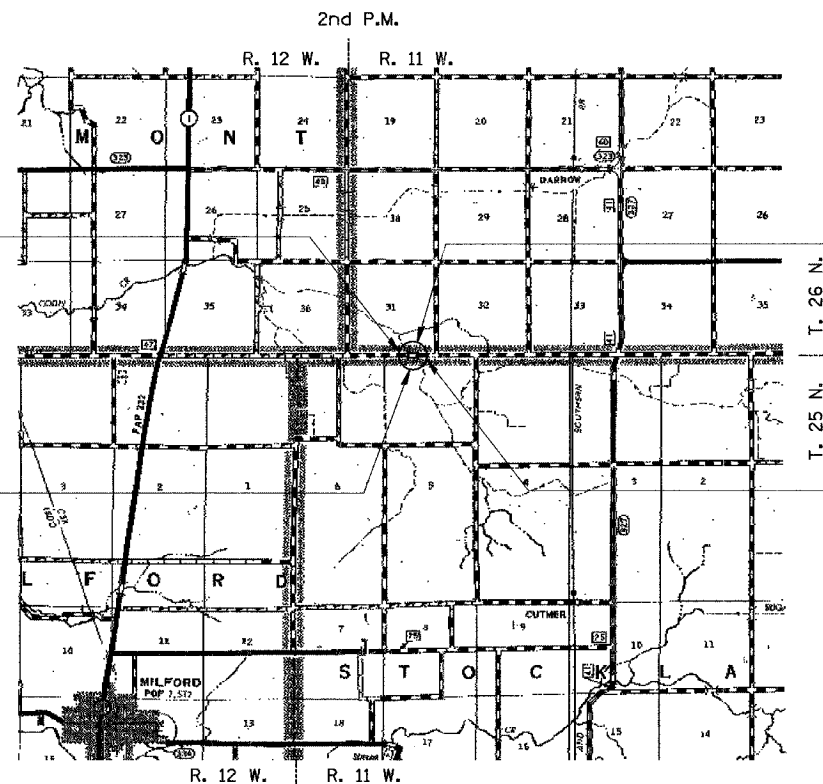


SECTION 98-26104-01-BR & SECTION 98-25104-01-BR BEGINS STATION 57+40.00

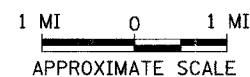
PROPOSED STRUCTURE NO. 038-5562 THREE SPAN 17" P.P.C. DECK BEAM STRUCTURE ON CONC. SPILL THRU ABUTMENTS AND CONC. ENCASED PIERS, 91'-7" BK. TO BK. AND 30'-0" O. TO O., 30° SKEW RT. AH.

EXISTING STRUCTURE 038-5526 SINGLE SPAN REINFORCED CONCRETE SLAB STRUCTURE ON TIMBER CLOSED ABUTMENTS 37'-0" BK. TO BK., AND 24'-0" O. TO O., 30° SKEW RT. AH. (TO BE REMOVED)

SECTION 98-26104-01-BR & SECTION 98-25104-01-BR ENDS STATION 62+40.00



LOCATION MAP



NET LENGTH OF PROJECT = 500.00 FEET = 0.095 MILES

DESIGN CLASSIFICATION: LOCAL ROAD (NON-URBAN)
DESIGN ADT = 109 (2007)
DESIGN SPEED = 30 MPH

UTILITY COMPANY
VERIZON
BLOOMINGTON, ILLINOIS

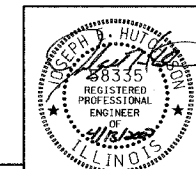
EASTERN ILLINOIS ELECTRIC COOPERATIVE
PAXTON, ILLINOIS

CALL J.U.L.I.E.
BEFORE YOU DIG
1-800-892-0123

CONTRACT NO. 87336

SHELDON & STOCKLAND ROAD DISTRICTS

APPROVED <u>4-19</u> 2007 <i>Richard Purnell</i> SHELDON ROAD DISTRICT HIGHWAY COMMISSIONER
APPROVED <u>4-17</u> 2007 <i>Ronald Gangelini</i> STOCKLAND ROAD DISTRICT HIGHWAY COMMISSIONER
APPROVED <u>April 17,</u> 2007 <i>John V. Moran</i> IROQUOIS COUNTY ENGINEER
PASSED <u>May 16</u> 2007 <i>Kenneth L. Ly</i> DISTRICT THREE ENGINEER OF LOCAL ROADS & STREETS
PASSED <u>May 16</u> 2007 <i>George F. Ryan</i> DEPUTY DIRECTOR OF HIGHWAYS, REGION TWO ENGINEER
Released For Bid Based on Limited Review <u>May 16</u> 2007 STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



Li Exp 11/30/2007
SIGNATURE

Hutchison Engineering, Inc.
JACKSONVILLE ILLINOIS
SHOREWOOD ILLINOIS
2007 JOB#2266

ENGINEERS SEAL

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	QUANTITY
20200100	EARTH EXCAVATION	CU YD	170
20300100	CHANNEL EXCAVATION	CU YD	450
① 20400800	FURNISHED EXCAVATION	CU YD	700
① 25001000	SEEDING, CLASS 2 (SPECIAL)	ACRE	0.6
① 28000300	TEMPORARY DITCH CHECKS	EACH	5
28000400	PERIMETER EROSION BARRIER	FOOT	210
28100209	STONE RIPRAP, CLASS A5	TON	590
28200200	FILTER FABRIC	SQ YD	570
① 40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	713
① 50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50200100	STRUCTURE EXCAVATION	CU YD	130
50300225	CONCRETE STRUCTURES	CU YD	125.6
50300280	CONCRETE ENCASEMENT	CU YD	7.8
50400305	PRECAST PRESTRESSED CONCRETE DECK BEAMS (17" DEPTH)	SQ FT	2,678
① 50800105	REINFORCEMENT BARS	POUND	10,910
50900205	STEEL RAILING, TYPE S1	FOOT	184
51201005	FURNISHING METAL SHELL PILES 12"	FOOT	1,065
51202305	DRIVING PILES	FOOT	1,065
51203200	TEST PILE METAL SHELLS	EACH	2
51500100	NAME PLATES	EACH	1
① 67100100	MOBILIZATION	L SUM	1
① 78201000	TERMINAL MARKER - DIRECT APPLIED	EACH	4
① X5020501	UNDERWATER STRUCTURE EXCAVATION PROTECTION-LOCATION 1	EACH	1
① X5020502	UNDERWATER STRUCTURE EXCAVATION PROTECTION-LOCATION 2	EACH	1

① SEE SPECIAL PROVISIONS

CONSTRUCTION CODE TYPE: X080

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 57+40.00 - 59+44.21	104			353	(275)
RDWY 60+35.79 - 62+40.00	66			475	(426)
CHANNEL		452			
STRUCTURE			130		
TOTAL	170	452	130	828	(701)
USE	170	450	130	-	(700)

(25% SHRINKAGE)

GENERAL NOTES

THE REMOVAL OF EXISTING OIL & CHIP SURFACE AND GRAVEL OR CRUSHED STONE BASE COURSE WHICH MAY BE NECESSARY FOR THE CONSTRUCTION OF THE NEW BRIDGE 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.

ALL ELEVATIONS SHOWN REFER TO AN ASSUMED DATUM.

AGGREGATE SURFACE COURSE, TYPE B

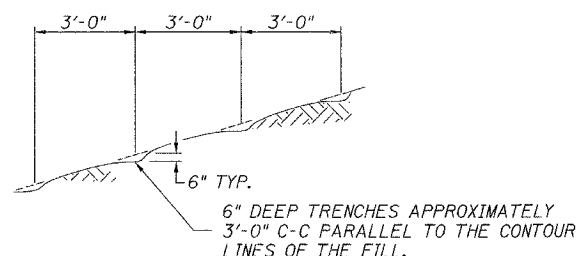
STATION TO STATION	WIDTH	LENGTH	TON
57+40.00 - 57+90.00	20.3' AVG.	50.00'	71
57+90.00 - 59+44.21	25.00'	154.21'	270
ABUTMENT BACKFILL-SEE SPECIAL PROVISIONS			30
60+35.79 - 61+90.00	25.00'	154.21'	270
61+90.00 - 62+40.00	20.5' AVG.	50.00'	72
TOTAL			713

PERIMETER EROSION BARRIER

STATION TO STATION	SIDE	FOOT
57+40 - 58+50	LEFT	115
61+50 - 62+40	LEFT	95
TOTAL		210

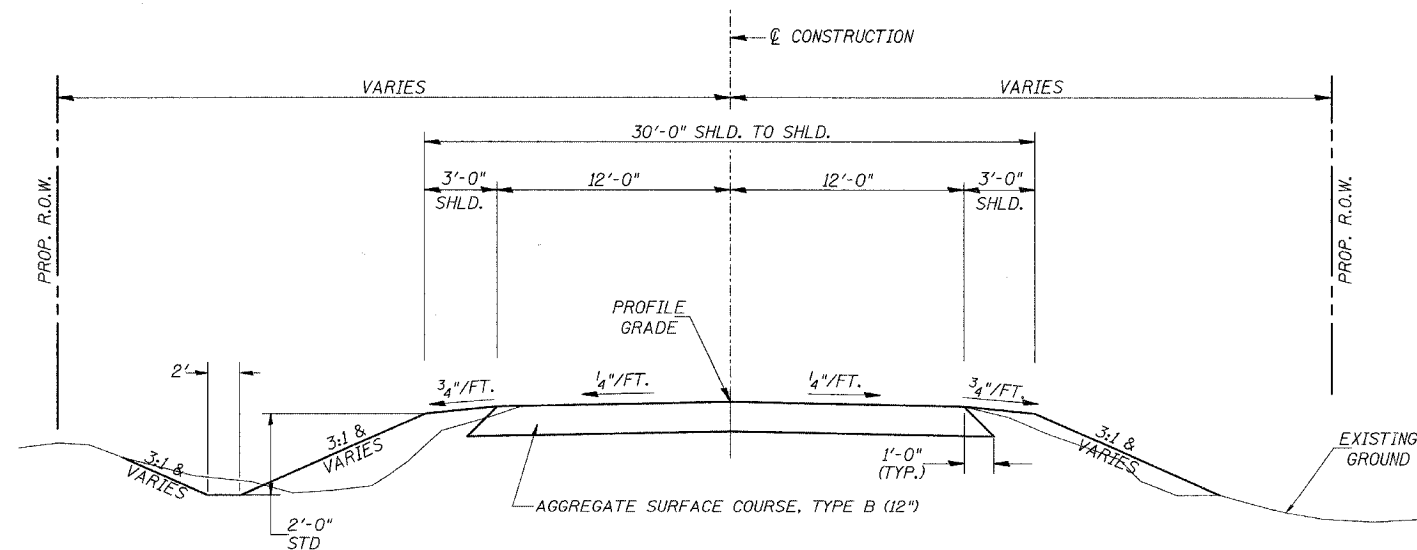
TEMPORARY DITCH CHECKS

STATION	SIDE	EACH
58+45	RIGHT	1
59+35	LEFT	1
59+50	RIGHT	1
60+25	LEFT	1
60+50	RIGHT	1
TOTAL		5



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 2 (SPECIAL).

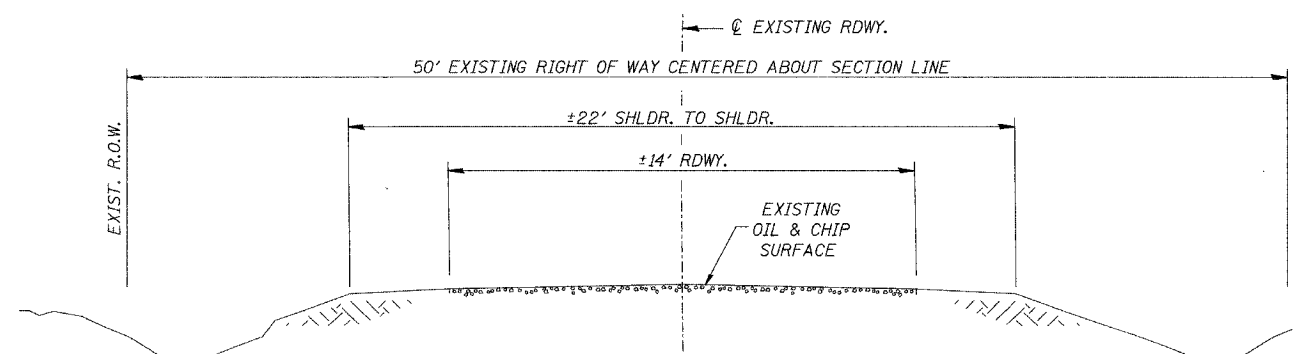
DETAIL OF CONTOUR PLOWING



PROPOSED TYPICAL SECTION

STA. 57+40.00 TO STA. 59+44.21
STA. 60+35.79 TO STA. 62+40.00
EXCEPT TRANSITIONS

BRIDGE OMISSION
STA. 59+44.21 TO STA. 60+35.79

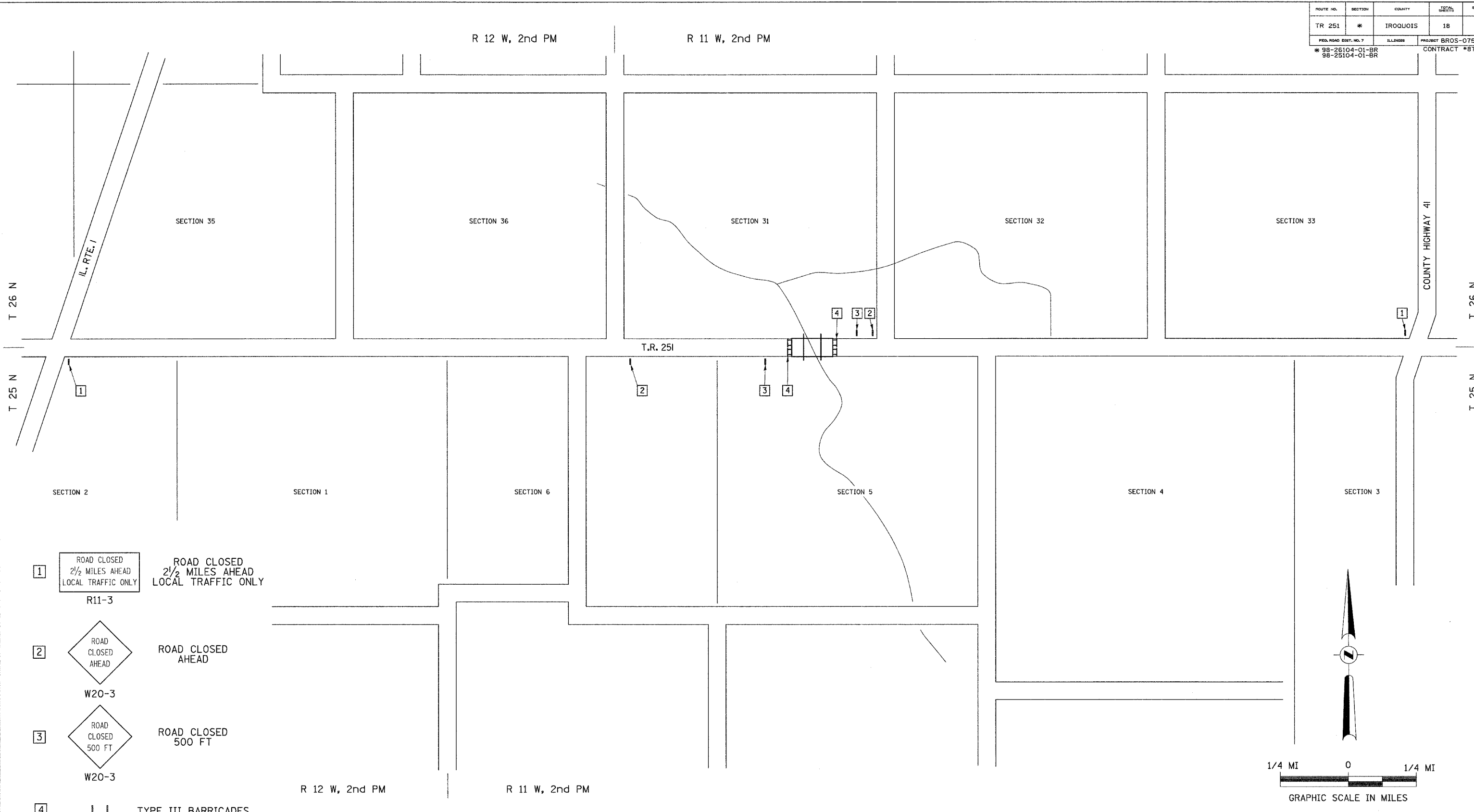


EXISTING TYPICAL SECTION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 251	*	IROQUOIS	18	3
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT BROS-075(130)	
* 98-26104-01-BR 98-25104-01-BR			CONTRACT #87336	

R 12 W, 2nd PM

R 11 W, 2nd PM



1 ROAD CLOSED
2 1/2 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3

ROAD CLOSED
2 1/2 MILES AHEAD
LOCAL TRAFFIC ONLY

2 ROAD CLOSED
AHEAD
W20-3

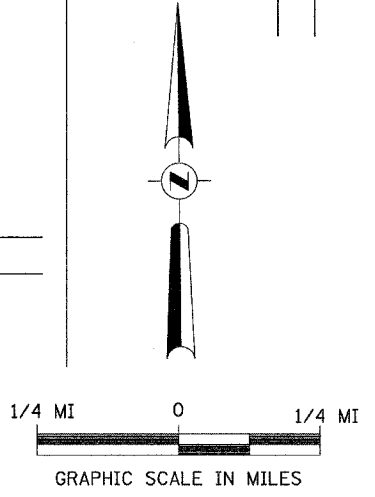
ROAD CLOSED
AHEAD

3 ROAD CLOSED
500 FT
W20-3

ROAD CLOSED
500 FT

4 TYPE III BARRICADES

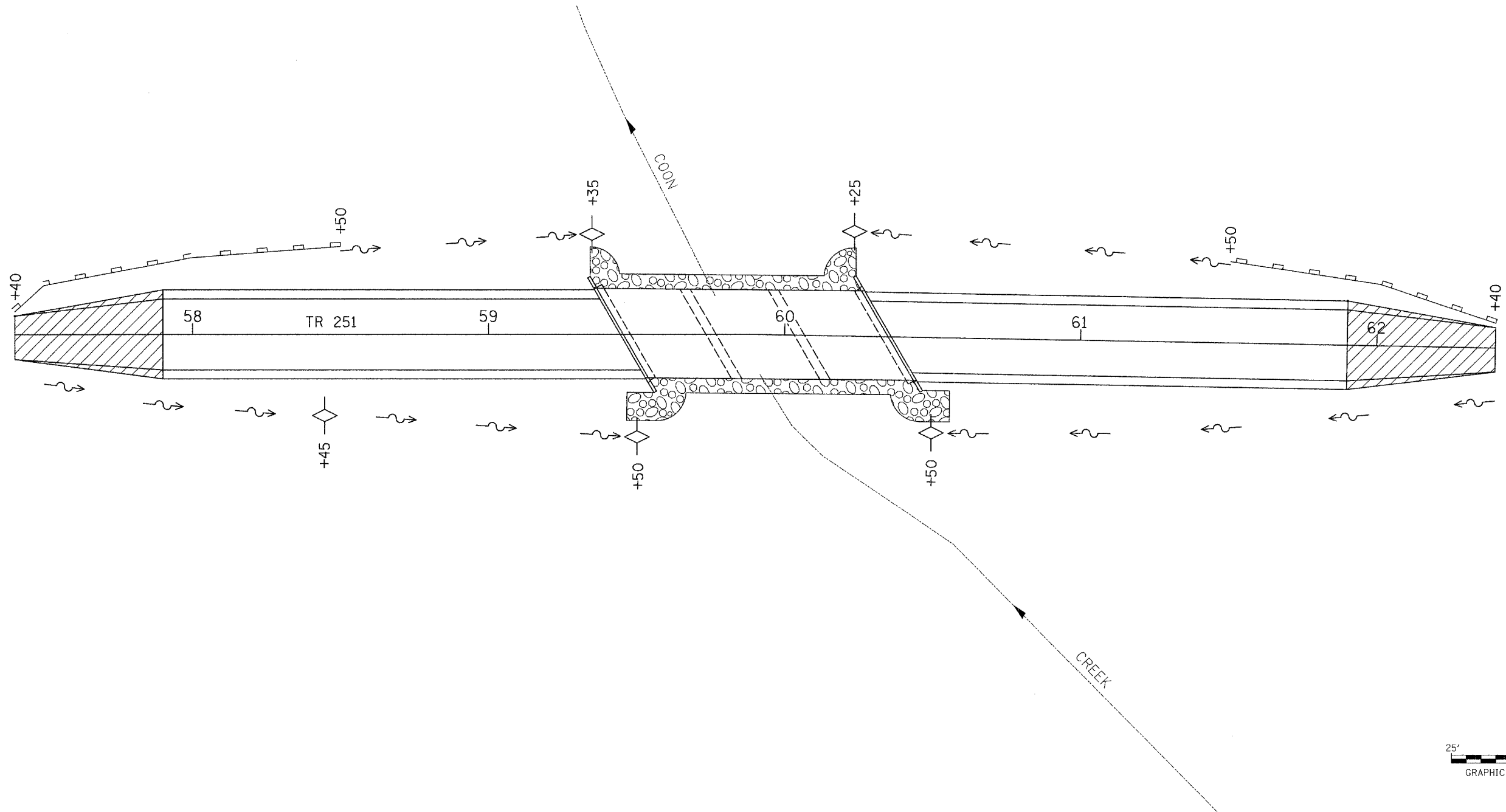
SEE STANDARD BLR 21
AND SPECIAL PROVISIONS







TRAFFIC CONTROL PLAN
TOWNSHIP ROAD 251 OVER COON CREEK
SECTION 98-26104-01-BR /98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00

T 26 N, R 11 W, 2nd PM
SECTION 31

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 251	*	IROQUOIS	18	4
FED. ROAD DEPT. NO. 7		ILLINOIS	PROJECT BROS-075(130)	
* 98-26104-01-BR 98-25104-01-BR		CONTRACT #87336		



LEGEND

-  PERIMETER EROSION BARRIER
-  TEMPORARY DITCH CHECK
-  SPECIAL DITCH - FLOW LINE AND DIRECTION
-  PROPOSED RIPRAP PLACEMENT

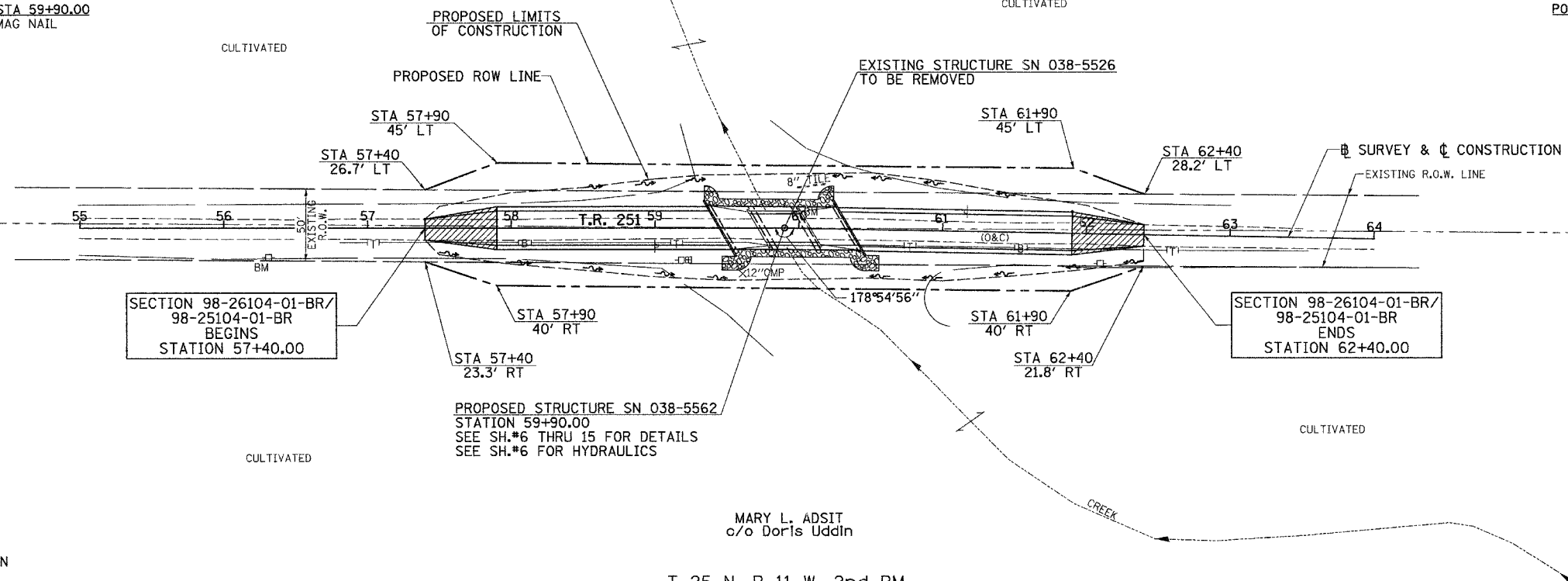
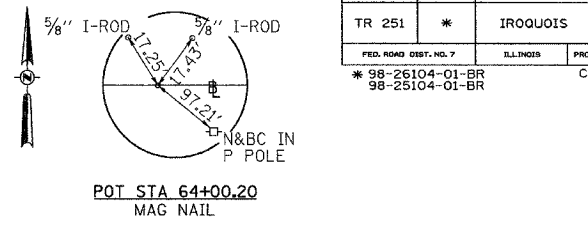
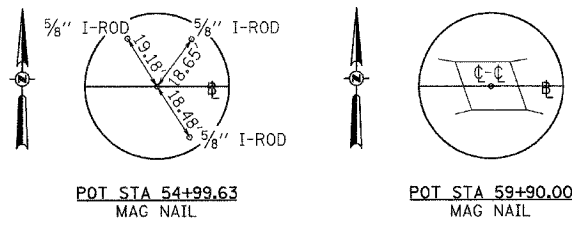
EROSION CONTROL PLAN
TOWNSHIP ROAD 251 OVER COON CREEK
SECTION 98-26104-01-BR/98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00

T 25 N, R 11 W, 2nd PM
SECTION 5

T 26 N, R 11 W, 2nd PM
SECTION 31

KAY E. FOSTER

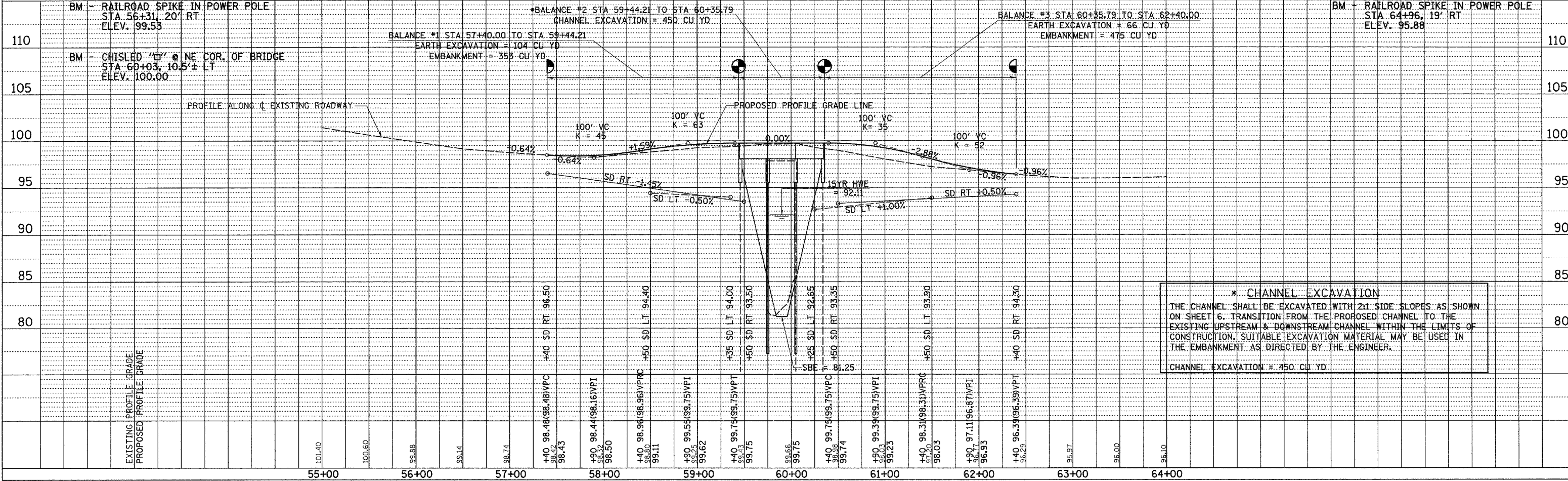
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 251	*	IROQUOIS	18	5
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT BROS-075(130)	
* 98-26104-01-BR		CONTRACT #87336		
98-25104-01-BR				



- LEGEND**
- TRANSITION TO OR FROM EXISTING TO PROPOSED TYPICAL PAVEMENT
 - PROPOSED RIPRAP PLACEMENT
 - SPECIAL DITCH WITH FLOW DIRECTION
 - BURIED TELEPHONE CABLE

T 25 N, R 11 W, 2nd PM
SECTION 5

MARY L. ADSIT
c/o Doris Uddin



*** CHANNEL EXCAVATION**
THE CHANNEL SHALL BE EXCAVATED WITH 2:1 SIDE SLOPES AS SHOWN ON SHEET 6. 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 = 450 CU YD

B.M.
 RR Spike in Power Pole Sta. 56+31, 20' RT Elev. 99.53
 RR Spike in Power Pole Sta. 64+96, 19' RT Elev. 95.88

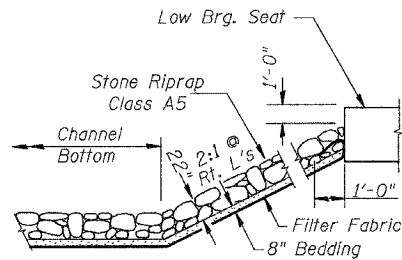
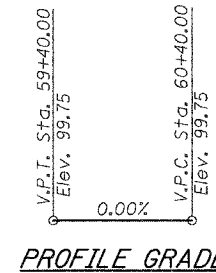
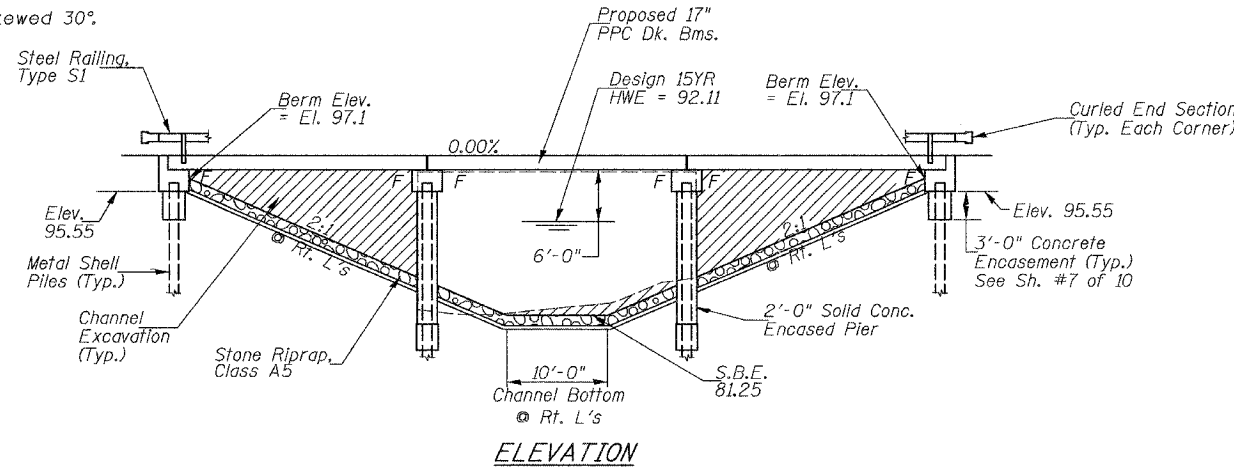
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 1 OF 10 SHEETS
TR 251	*	IROQUOIS	18	6	
FED. ROAD DIST. NO. 7		BILLINGS	PROJECT BROS-075(130)		
*98-26104-01-BR 98-25104-01-BR			CONTRACT #87336		

EXISTING STRUCTURE:

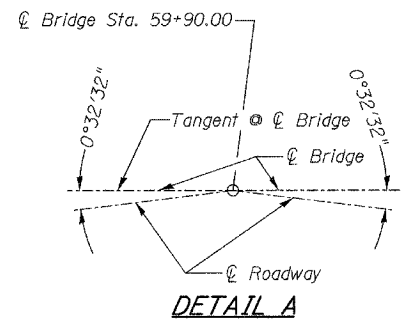
Single span reinforced concrete slab deck with concrete rail superstructure supported on timber-closed abutments with concrete caps and timber piling/backing. The structure is ±37' back to abutments, ±24' out to out of deck, and is skewed 30°. Str. No. 038-5526

Salvage: None

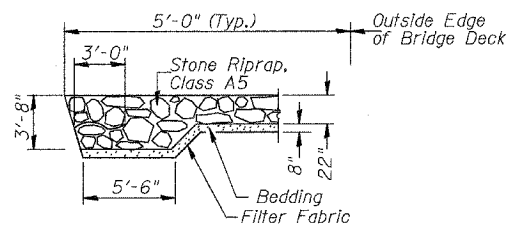
Road to be closed to traffic during construction.



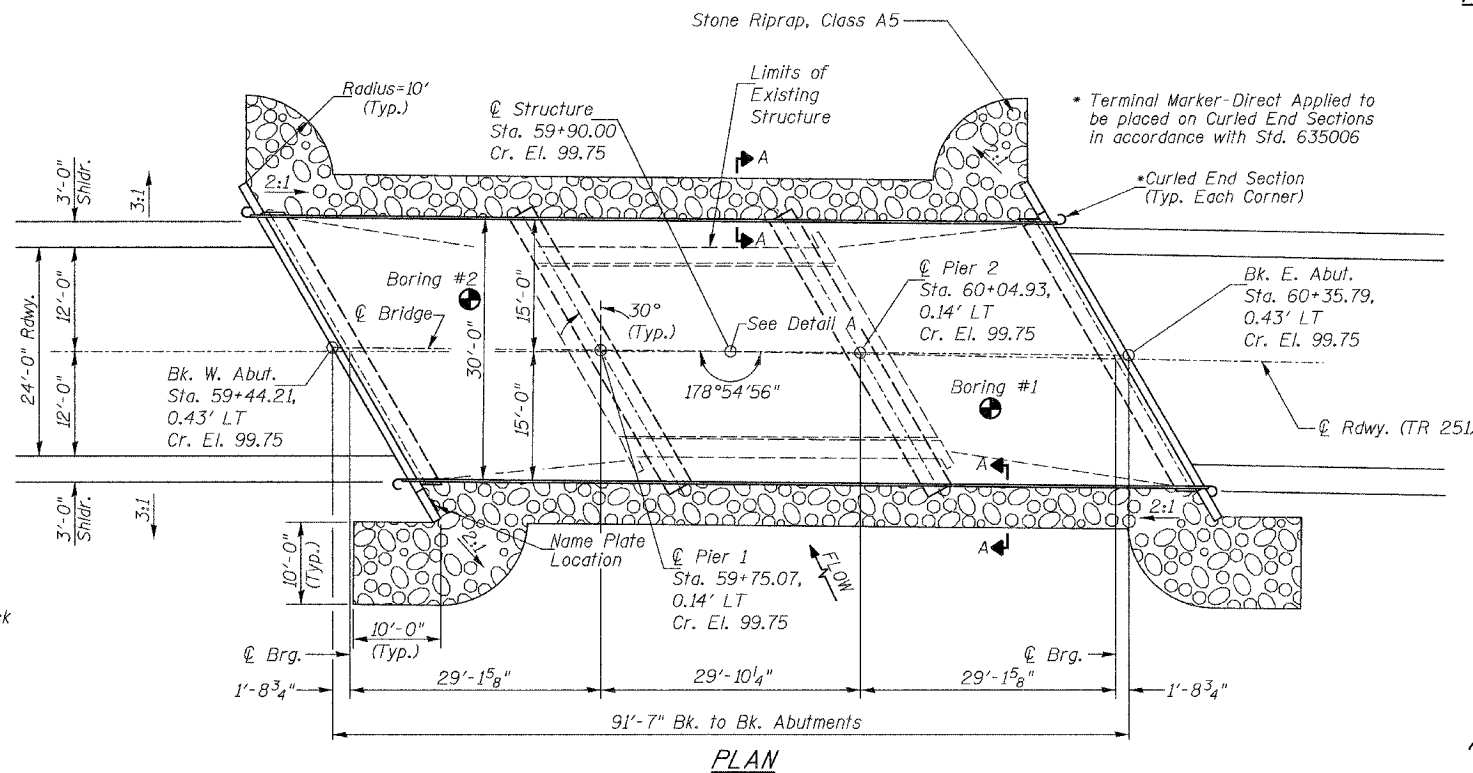
STONE RIPRAP DETAIL



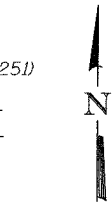
DETAIL A



SECTION A-A



PLAN



Professional Engineer Seal for E. Hutcheson, State of Illinois, License No. 413,000, Expires 11/30/2008.

GENERAL NOTES

The Contractor shall drive 2 test piles, in permanent locations, one at the East Abutment and one at Pier #1 as directed by the Engineer before ordering the remaining piles.
 For Soil Boring Logs, See Sheets 8-10 of 10.
 A Corrosion Inhibitor shall be used in the concrete for Precast Prestressed Concrete Deck Beams.
 Reinforcement Bars shall conform to AASHTO M-31 or M-322, Grade 60.
 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.

**COON CREEK
 BUILT 200_ BY
 STOCKLAND/SHELDON ROAD DISTRICTS
 IROQUOIS COUNTY
 SEC. 98-26104-01-BR / 98-25104-01-BR
 T.R. 251 STATION 59+90.00
 F.A. PROJ. BROS-075(130)
 STR. NO. 038-5562 LOADING HS20-44**

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	---	450	450
Stone Riprap, Class A5	TON	---	590	590
Filter Fabric	SQ YD	---	570	570
① Removal of Existing Structures	EACH	---	---	1
Structure Excavation	CU YD	---	130	130
Concrete Structures	CU YD	---	125.6	125.6
Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	2,678	---	2,678
① Reinforcement Bars	POUND	---	10,910	10,910
Steel Railing, Type S1	FOOT	---	184	184
Furnishing Metal Shell Piles 12"	FOOT	---	1,065	1,065
Driving Piles	FOOT	---	1,065	1,065
Test Pile Metal Shells	EACH	---	2	2
Concrete Encasement	CU YD	---	7.8	7.8
Name Plates	EACH	---	---	1
① Underwater Structure Excavation Protection-Location 1 (Pier #1)	EACH	---	1	1
① Underwater Structure Excavation Protection-Location 2 (Pier #2)	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 of E. Hutcheson, dated 4/13/2007, Illinois Structural No. 6440, Expires 11/30/2008.

DESIGN SPECIFICATIONS

2002 AASHTO & Interims

DESIGN STRESSES

(FIELD UNITS) f'c = 3,500 p.s.i., fy = 60,000 p.s.i. (Rein.)
 (PRECAST PRESTRESSED UNITS) f'c = 5,000 p.s.i., f'ci = 4,000 p.s.i., f's = 270,000 p.s.i. (1/2" Strands), f'si = 201,960 p.s.i. (1/2" Strands)

LOADING HS20-44

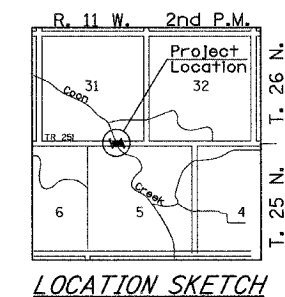
Allow 50#/sq. ft. future wearing surface.

WATERWAY INFORMATION

Drainage Area = 14.10 Sq. Mi.		Low Grade Elev. = 95.97 @ Sta. 63+00.00						
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. ft.		Nat. H.W.E. ft.	Head - ft.		Headwater Elev. - ft.
			Exist.	Prop.		Exist.	Prop.	
Design	15	1,251	263	317	92.11	0.06	0.03	92.17
Base	100	1,919	330	448	94.52	0.13	0.04	94.65

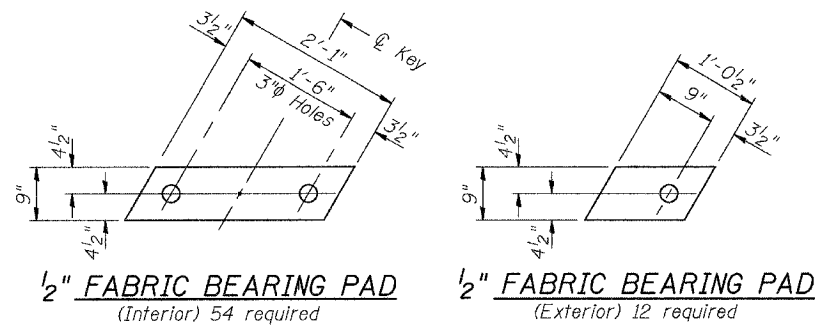
Construction of this project complies with IDNR, Office of Water Resources Statewide Permit No. 2

DESIGNED	B.A.N.
CHECKED	J.E.H.
DRAWN	C.E.T.
CHECKED	B.A.N./J.E.H.

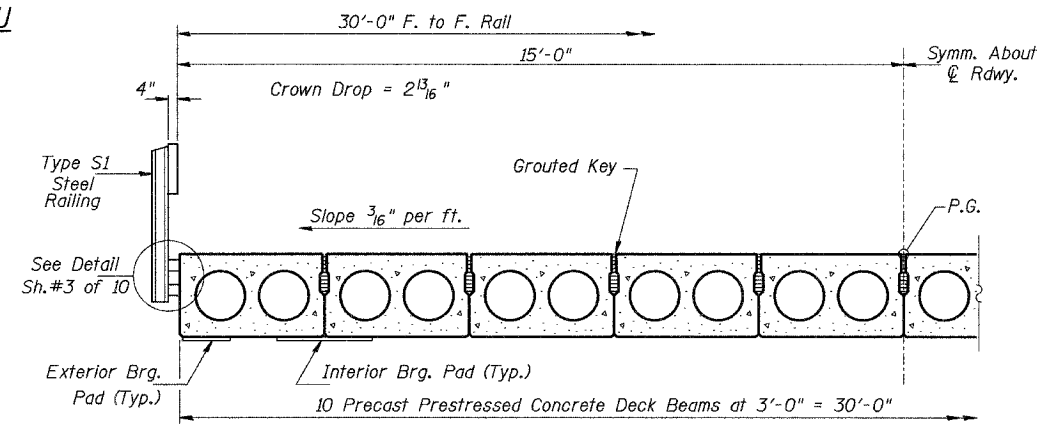
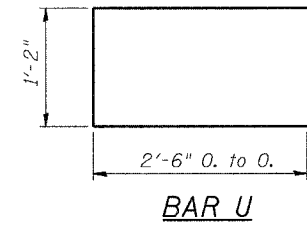
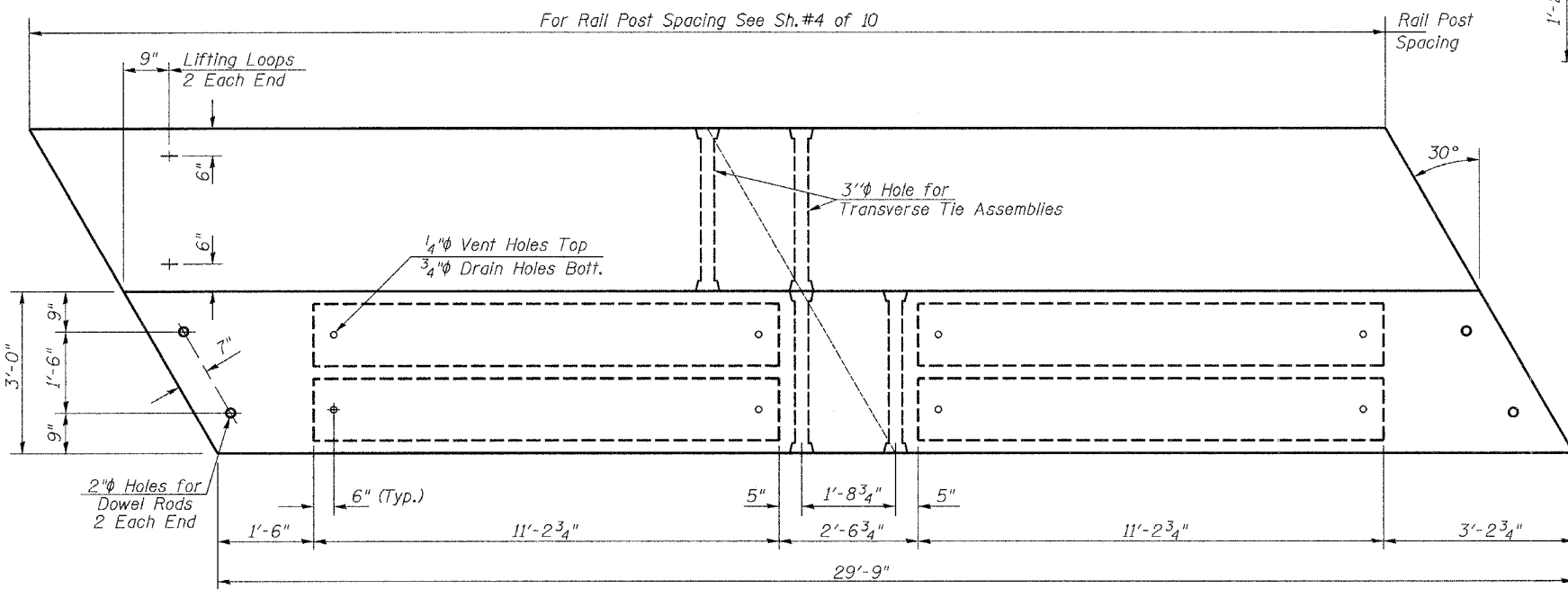
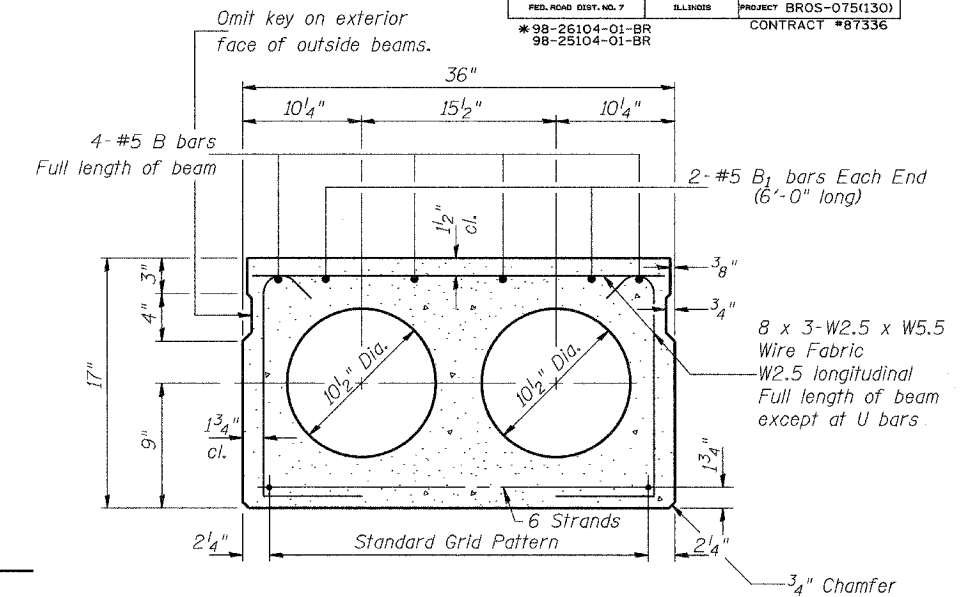
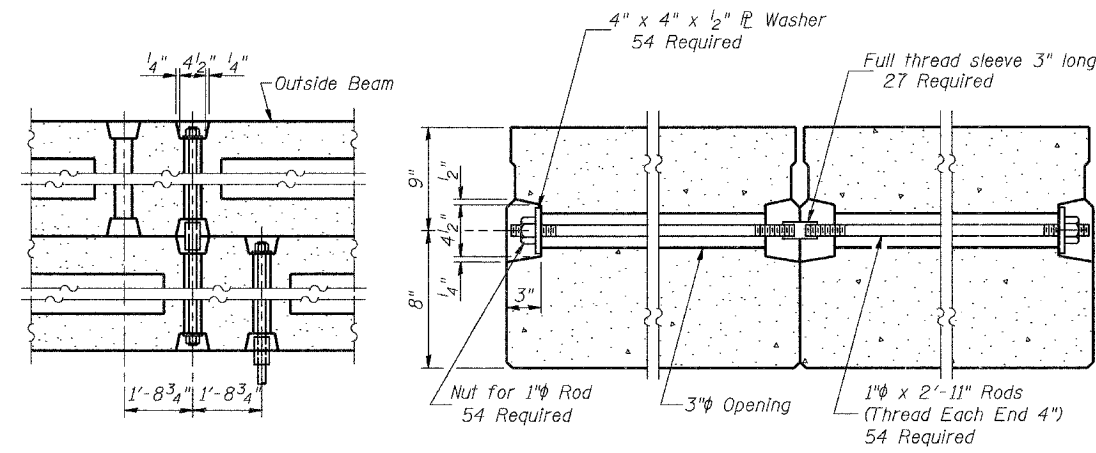


LOCATION SKETCH

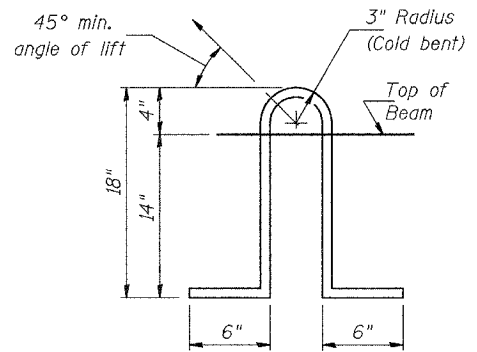
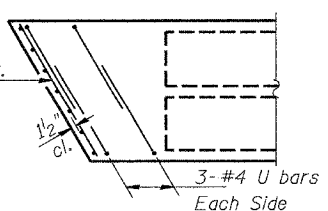
**GENERAL PLAN & ELEVATION
 T.R. 251 OVER COON CREEK
 SECTION 98-26104-01-BR / 98-25104-01-BR
 IROQUOIS COUNTY
 STR. NO. 038-5562
 STATION 59+90.00**



FIXED



8 x 3-W2.5 x W5.5 Wire Fabric, W5.5 vert. Full depth of beam. Each End.



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" ϕ -270 ksi strands, as shown.

The 1" 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 the requirements of AASHTO M-31 or M-322 Grade 60. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 1/8" 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.

A Corrosion Inhibitor shall be used in the concrete for precast prestressed concrete deck beams. Required Release Strength, f'cl, shall be 4,000 p.s.i.

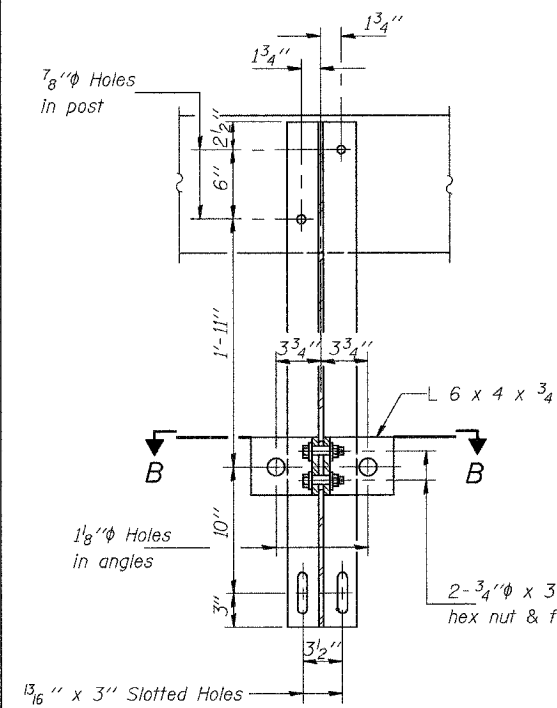
Rail post anchor devices shall be cast into outside face of exterior beams as specified elsewhere.

BILL OF MATERIAL

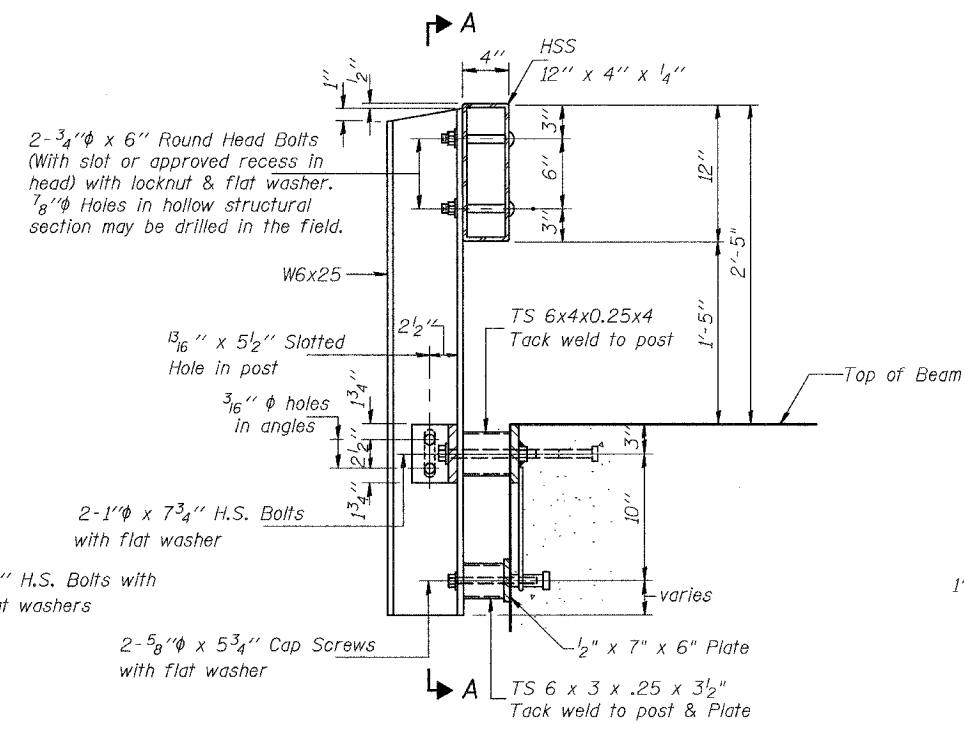
ITEM	UNIT	QUANTITY
Precast Prestressed Concrete Deck Beams (17" Depth)	SQ FT	2,678

SUPERSTRUCTURE SPANS 1-3
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00

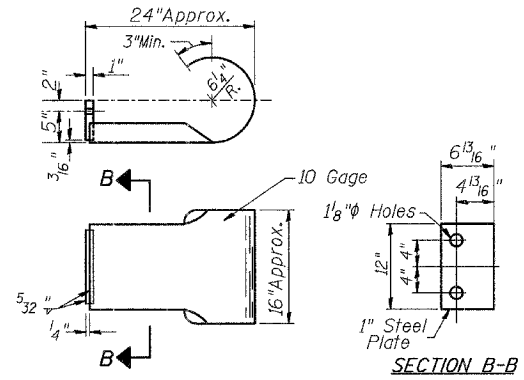
FOR RAIL POST SPACING SEE SH.#4 OF 10



SECTION A-A

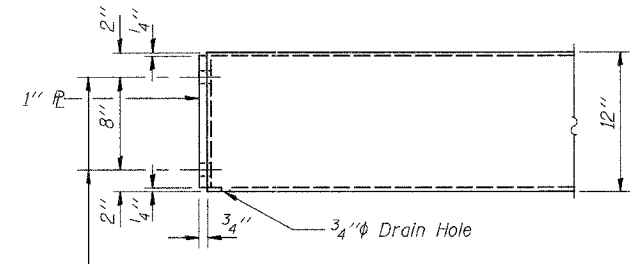


SECTION AT RAIL POST

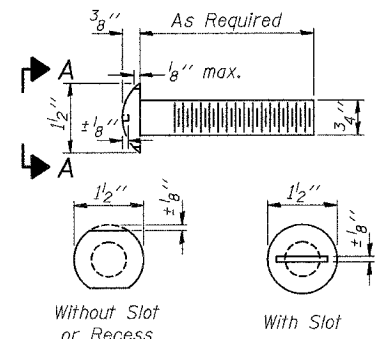


CURLLED END SECTION

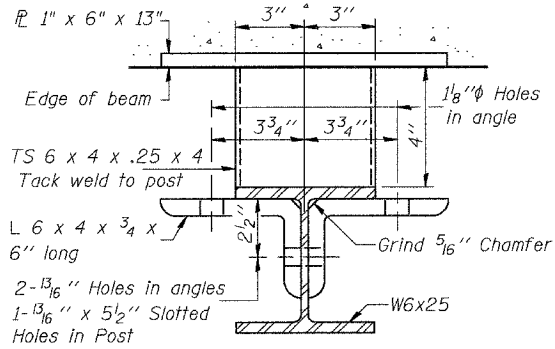
(4 Req'd) Cost Included with Steel Railing, Type S1. Terminal Markers - Direct Applied shall be placed on end of each Curled End Section. (Each Corner)



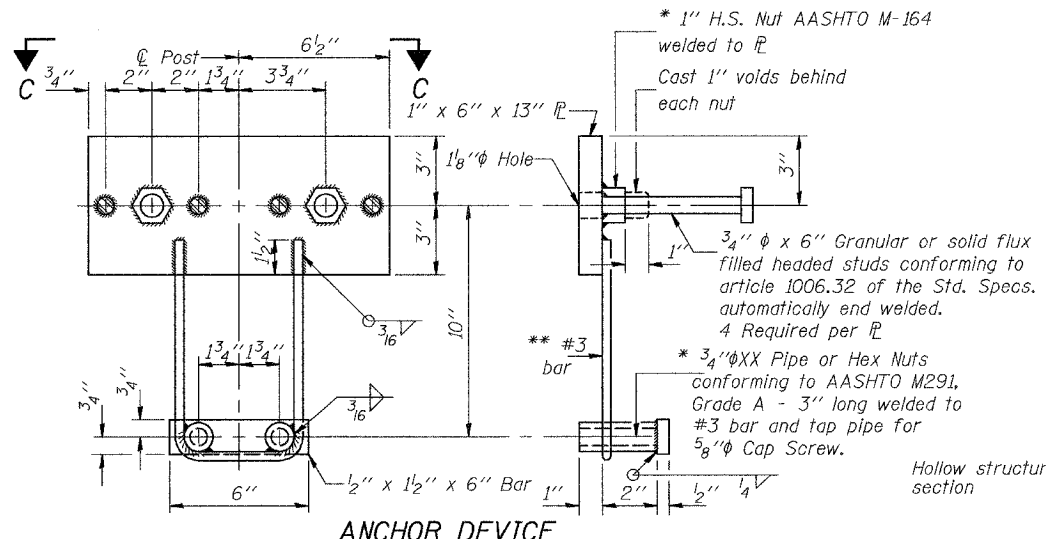
END OF RAIL DETAILS



VIEW A-A ROUND HEAD BOLT

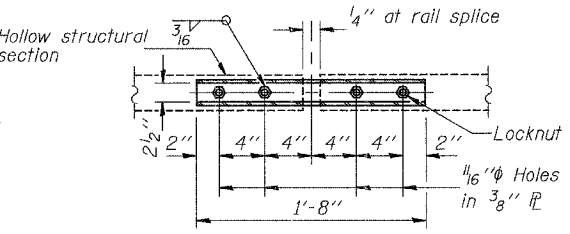


SECTION B-B

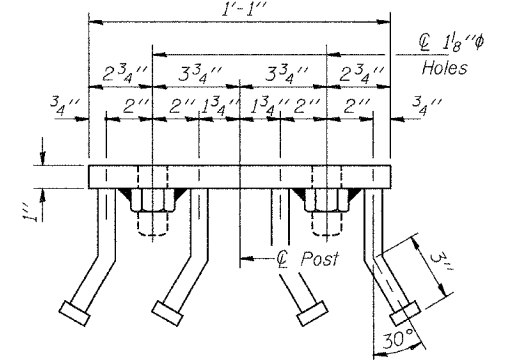


ANCHOR DEVICE

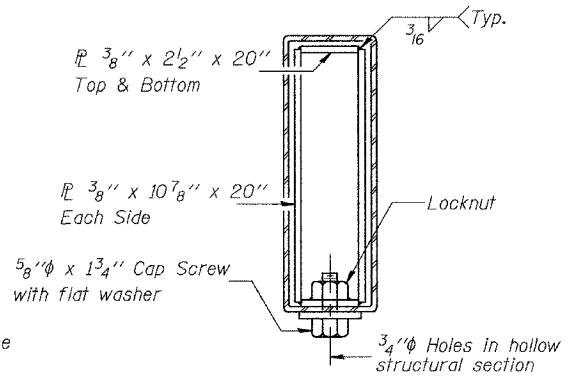
** Whenever the lower insert assemblies interfere with strand locations, the #3 bars shall be cut and adjusted in order to allow raising or lowering of the lower inserts. Maximum adjustment not to exceed 1/2 inch.



PLAN-BOTT. SPLICE P TYPICAL



VIEW C-C

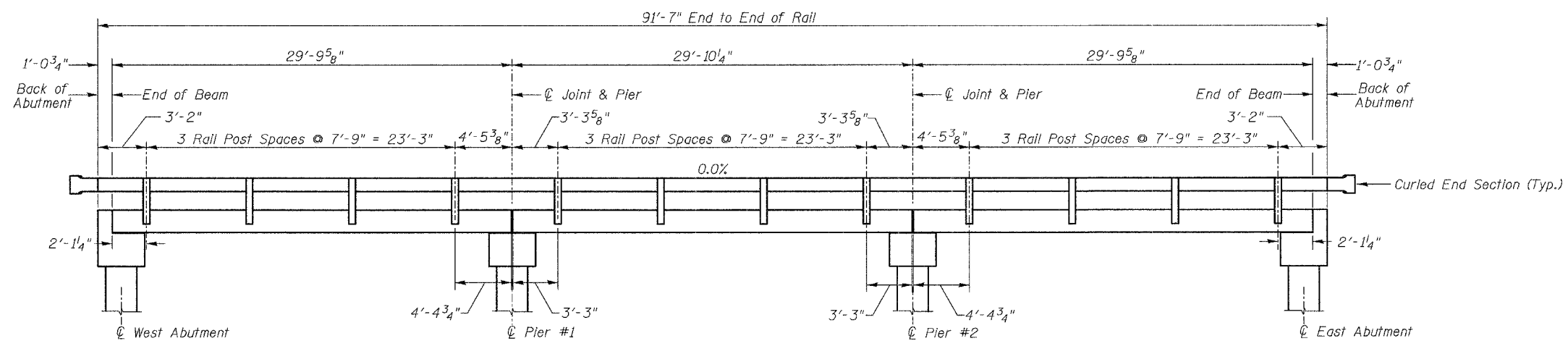


SECTIONS AT RAIL SPLICE

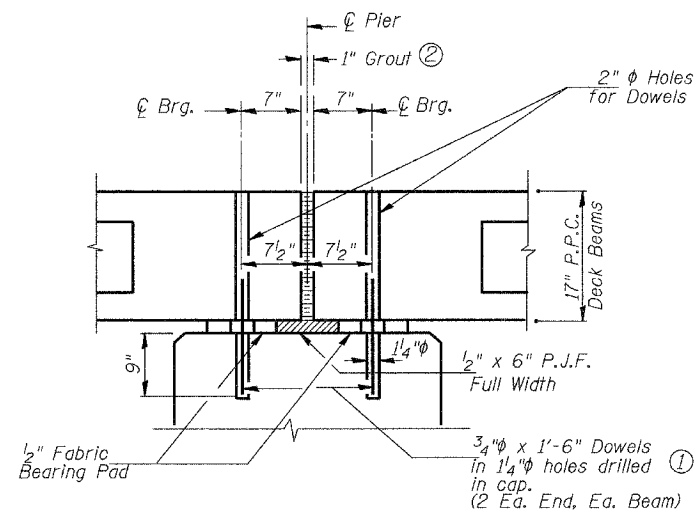
BILL OF MATERIAL

Item	Unit	Quantity
Steel Railing, Type S1	FOOT	184

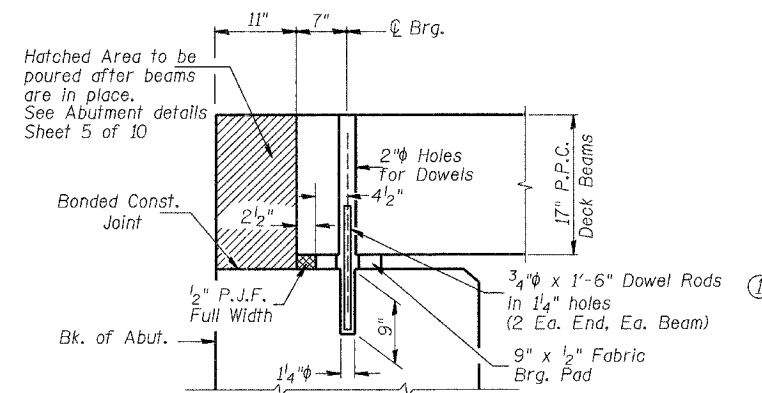
TYPE S1 STEEL RAILING
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00



RAIL POST SPACING



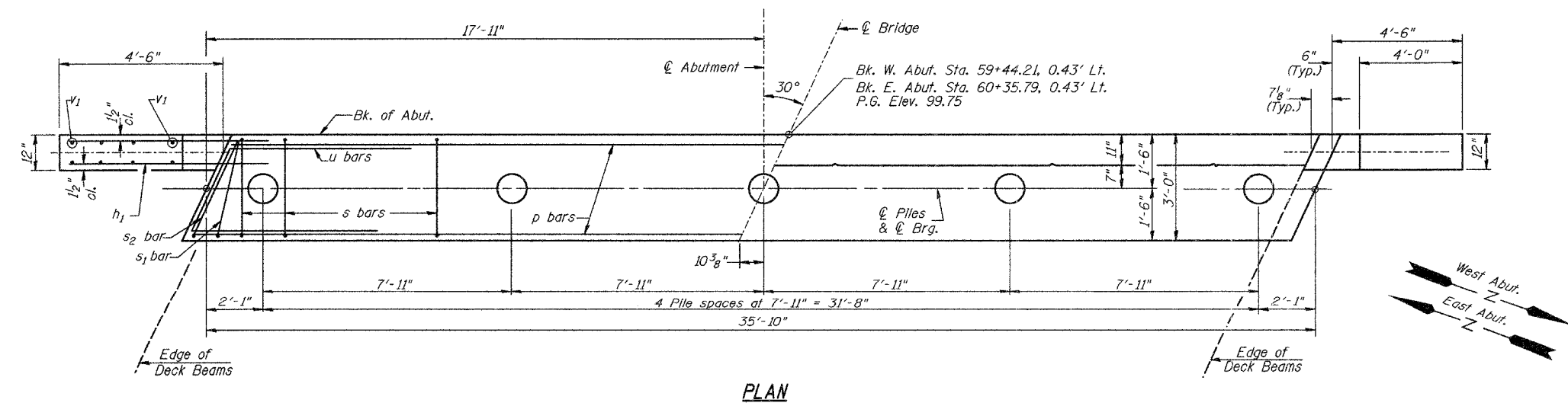
SECTION THRU PIERS
(At Right Angles)



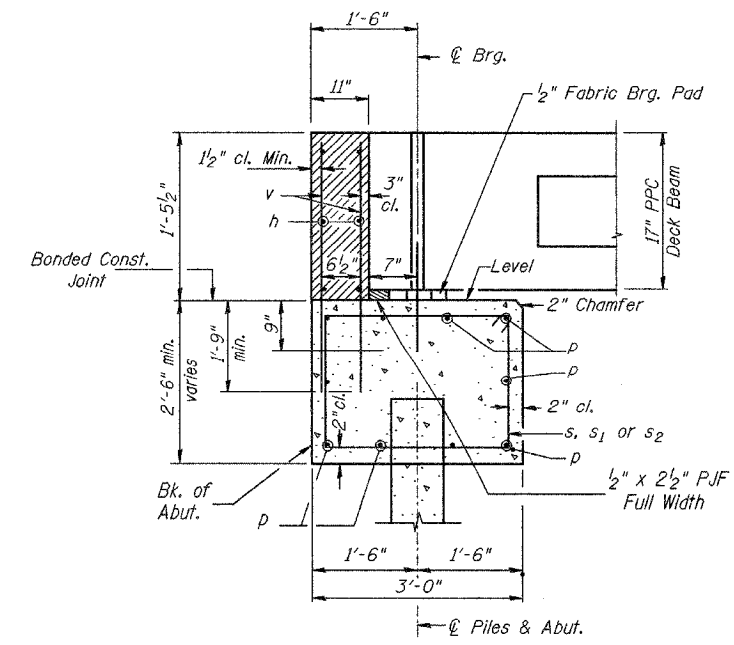
SECTION THRU ABUTMENTS
(At Right Angles)

- ① Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hr.) prior to grouting the shear keys.
- ② 1" Joint shall be packed with a very dry mix of 2:1 sand and P.C. mortar. 1" Dimension may vary plus or minus to accommodate tolerance in beam lengths.

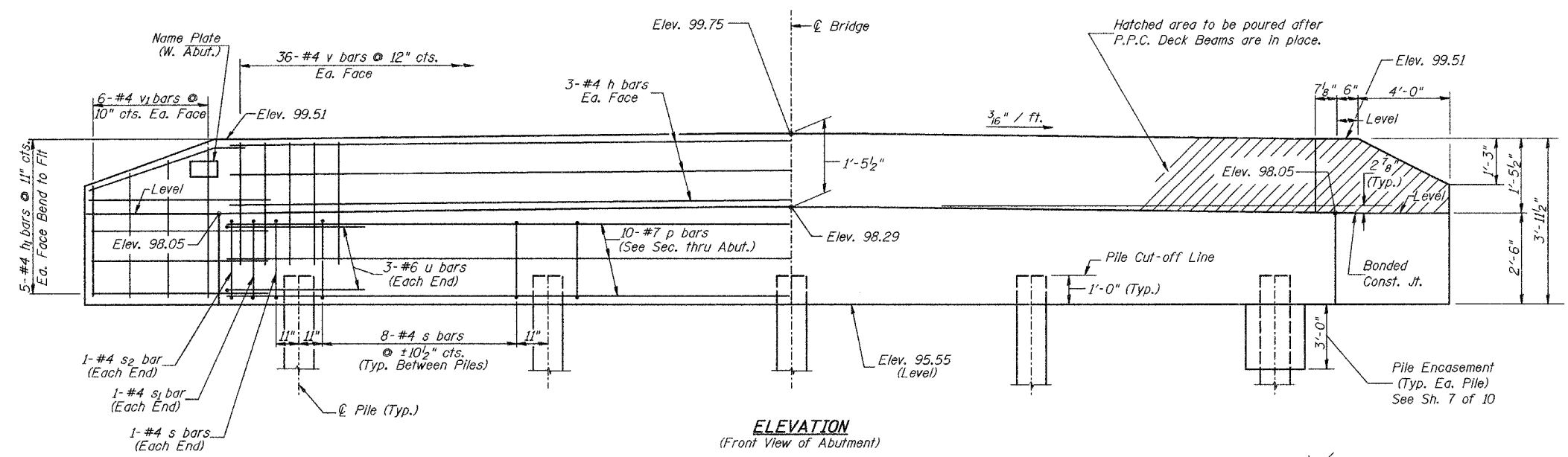
**SUPERSTRUCTURE DETAILS
AND RAIL POST SPACING
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00**



PLAN



SECTION THRU ABUT.
(At Right Angles)



ELEVATION
(Front View of Abutment)

**TWO ABUTMENTS
BILL OF MATERIAL**

BAR NO.	SIZE	LENGTH	SHAPE
h	#4	35'-7"	—
h ₁	#4	6'-6"	—
p	#7	35'-7"	—
s	#4	10'-5"	□
s ₁	#4	7'-8"	□
s ₂	#4	8'-4"	□
u	#6	12'-0"	▤
v	#4	3'-1"	—
v ₁	#4	6'-1"	—
Concrete Structures			CU YD 26.4
① Reinforcement Bars			POUND 3,040
Structure Excavation			CU YD 70
Name Plates			EACH 1
Furnishing Metal Shell Piles 12"			FOOT 306
Driving Piles			FOOT 306
Test Pile Metal Shells			EACH 1
Concrete Encasement			CU YD 2.6

① See Special Provisions

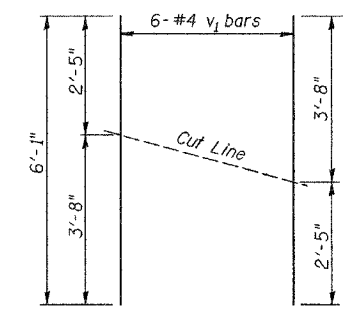
DESIGN STRESSES
 $f'_c = 3,500$ p.s.i.
 $f_y = 60,000$ p.s.i.

NOTES

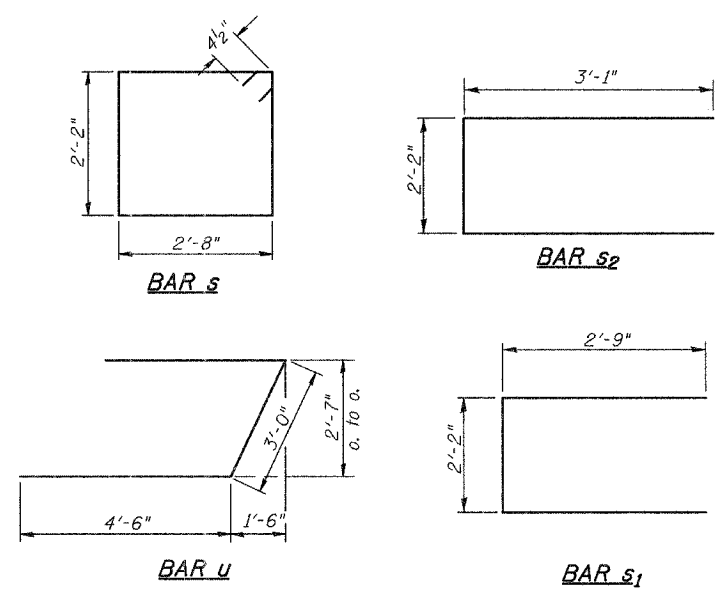
- The Backwall and the portion of the Wingwalls above the bonded construction joint shall be cast against the in-place beam.
- Reinforcement bars shall conform to A.A.S.H.T.O. M-31 or M-322, Grade 60.

PILE DATA

Type & Size: Metal Shell-12" x 0.25" walls
 Nominal Required Bearing: 150 kips
 Allowable Resistance Available: 50 kips
 Est. Length: 34' Each Abutment
 No. Req'd: 10 (Includes 1 Test Pile at East Abut.)

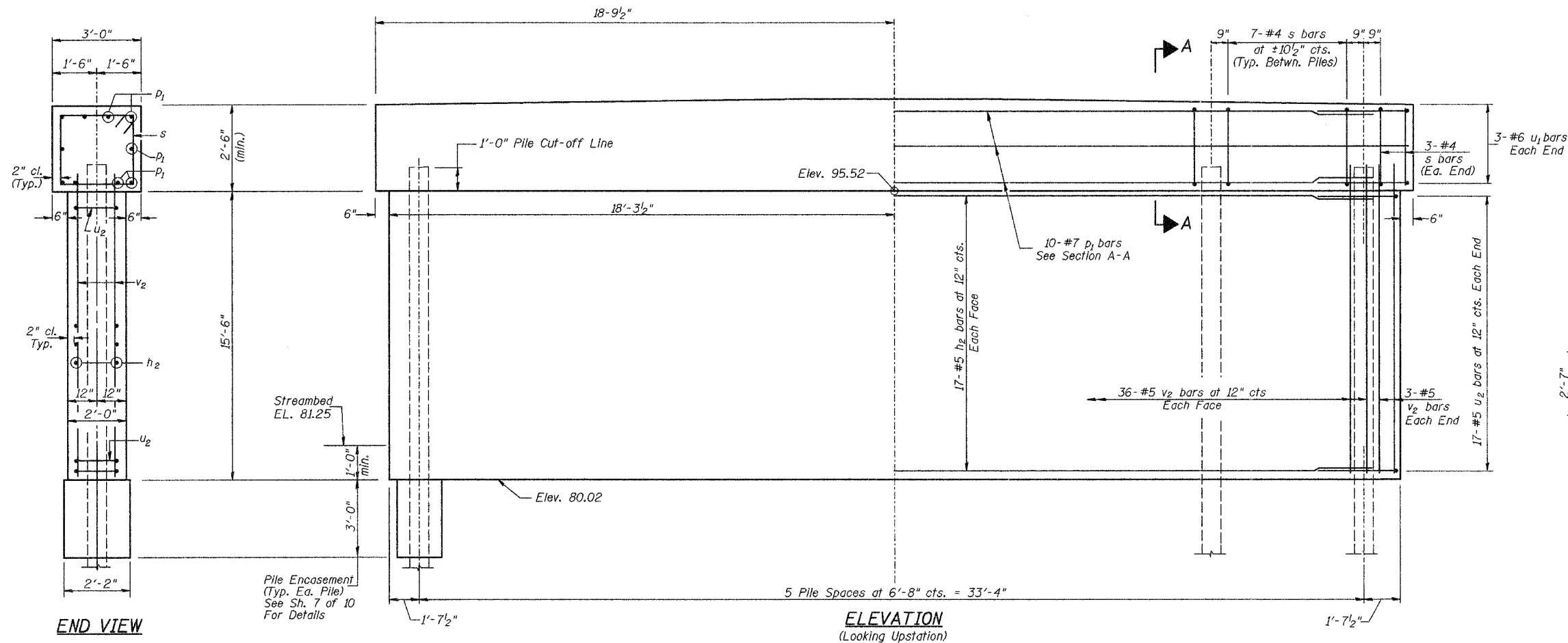
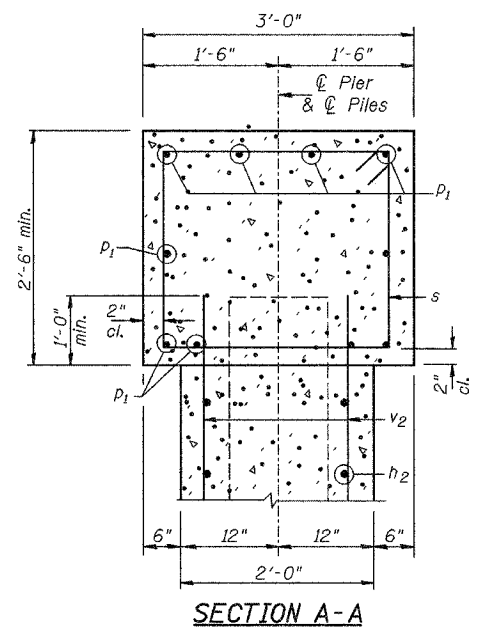
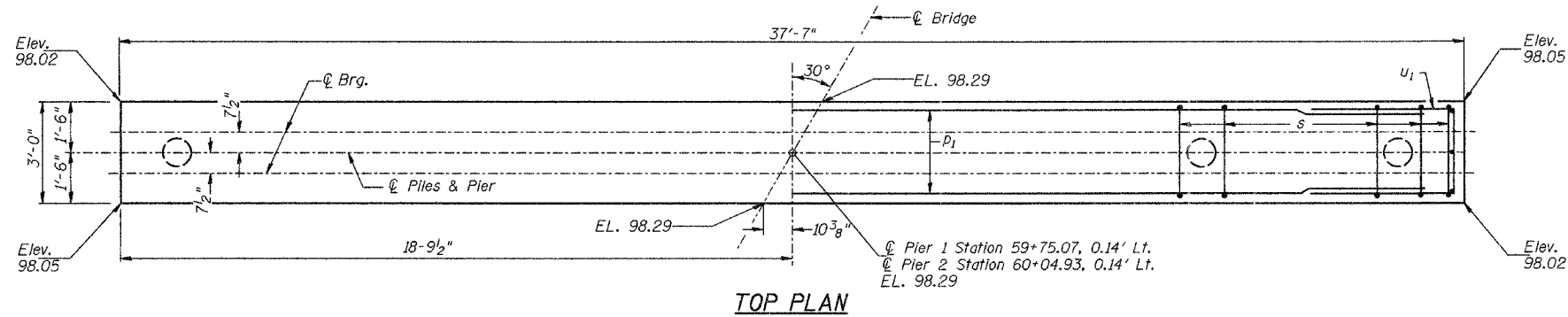


BAR CUTTING DIAGRAM
 Order v₁ bars full length. Cut as shown and use remainder of bars in opposite face.

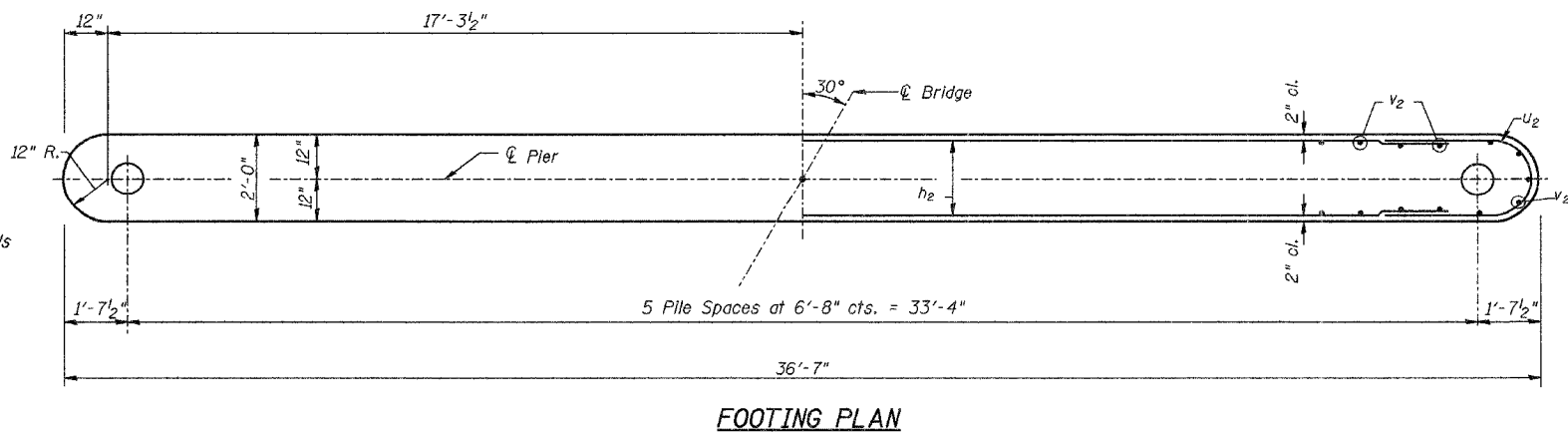


ABUTMENTS
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00

NOTES:
All edges shall have standard $\frac{3}{4}$ " chamfer.



END VIEW

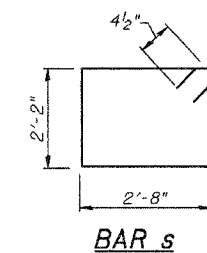
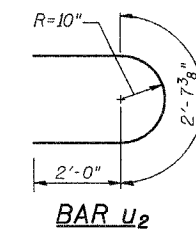
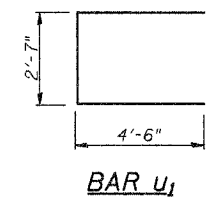


PILE DATA
Type & Size: Metal Shell-12" x 0.25" walls
Nominal Required Bearing: 330 kips
Allowable Resistance Available: 110 kips
Est. Length: 69' Each Pier
No. Req'd.: 12 (Includes 1 Test Pile at Pier #1)

**TWO PIERS
BILL OF MATERIAL**

BAR NO.	SIZE	LENGTH	SHAPE
h_2	#5	34'-3"	—
p_1	#7	37'-4"	—
s	#4	10'-5"	□
u_1	#6	11'-7"	⊔
u_2	#5	6'-8"	⊔
v_2	#5	16'-4"	—
Concrete Structures			CU YD 99.2
① Reinforcement Bars			POUND 7,870
Structure Excavation			CU YD 60
Furnishing Metal Shell Piles 12"			FOOT 759
Driving Piles			FOOT 759
Test Pile Metal Shells			EACH 1
Concrete Encasement			CU YD 5.2
① Underwater Structure Excavation Protection-Location 1			EACH 1
① Underwater Structure Excavation Protection-Location 2			EACH 1

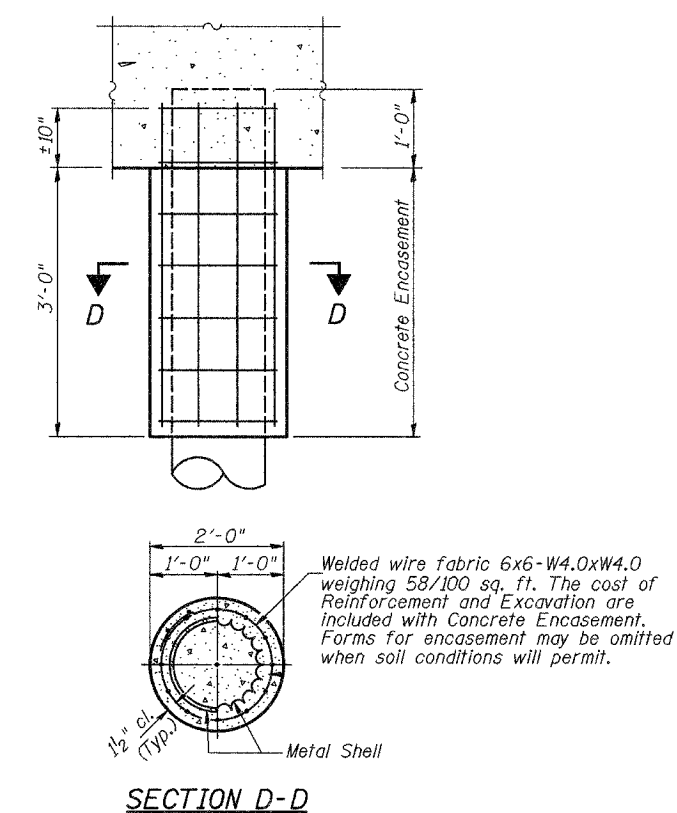
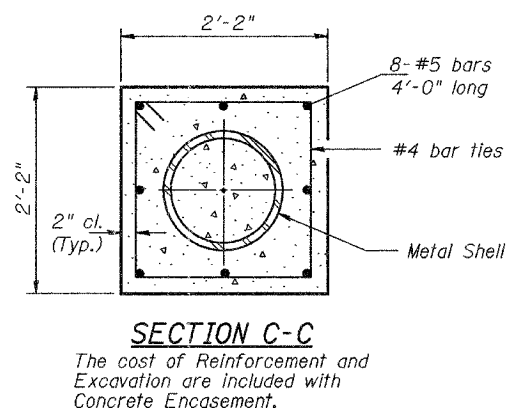
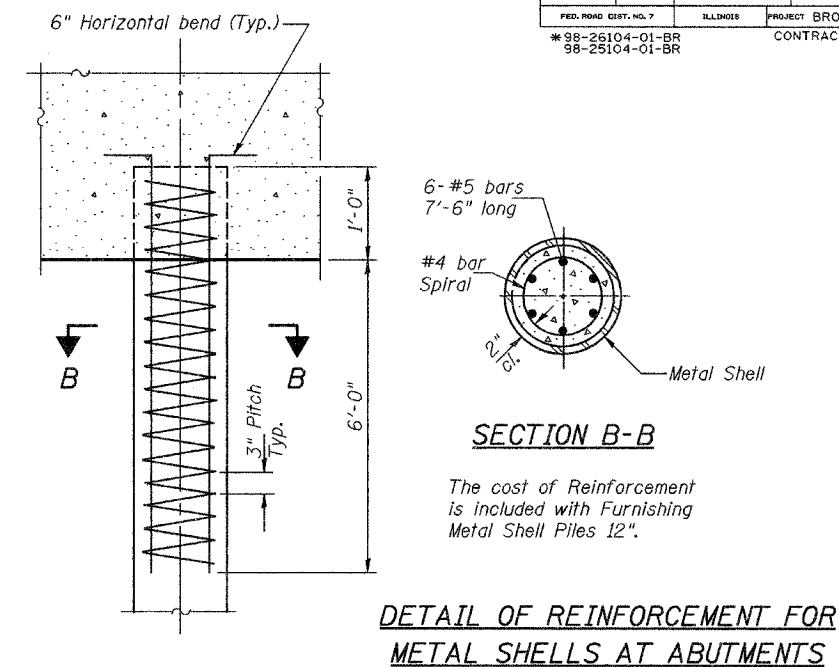
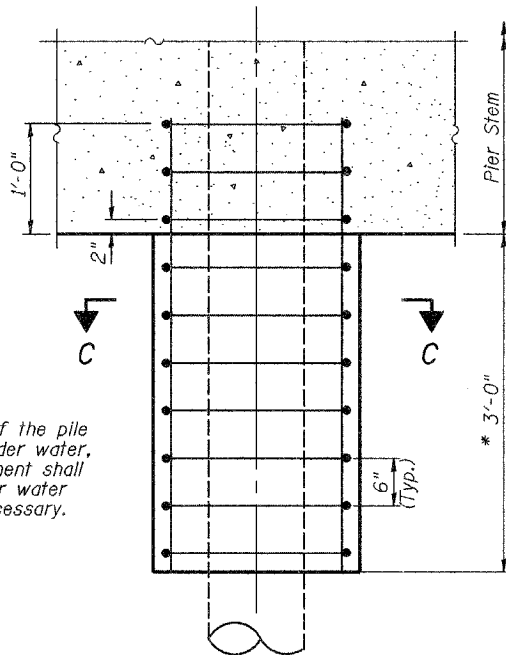
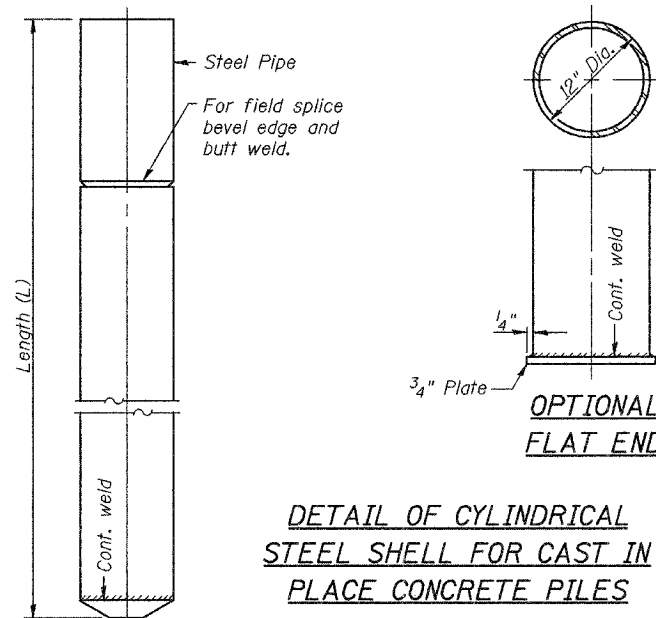
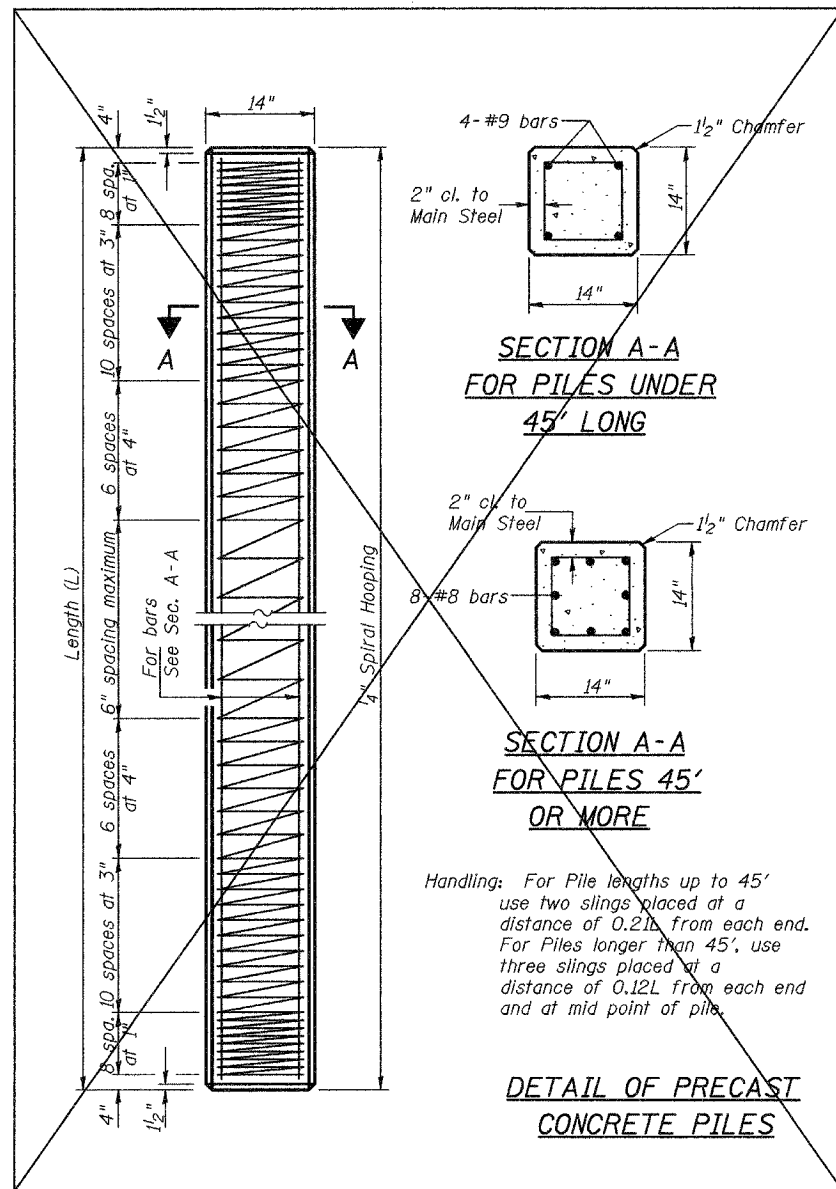
① See Special Provisions



PIERS
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 251	*	IROQUOIS	18	12
FED. ROAD EST. NO. 7		ILLINOIS	PROJECT BR05-075(130)	CONTRACT #87336
# 98-26104-01-BR		98-25104-01-BR		

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.



* If a portion of the pile encasement is under water, Concrete Encasement shall be tremied under water into forms as necessary.

PILE DETAILS
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00



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

BORING LOG
Sheet 1 of 3
Phone: 815-223-6696
Fax: 815-223-6659
E-Mail: Midwest@TheRamp.net

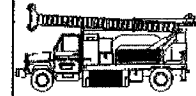
Client: Hutchison Engineering, Inc.
Project Name: Sec. 98-26104-00-BR & Sec 98-25104-00-BR
Project Site: Stockland / Sheldon Road Districts #2266
Iroquois County, Illinois

Boring No. B-1
Surface Elev. 99.50
Auger Depth 61' Rotary Depth NA
Start Date 05/28/05 Finish Date 05/28/05

Location: 6' Rt. Centerline Station 60+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 (%)		
99.50										Randy Safranski Diedrich D-120	
98.50	Stiff Black And Brown Silty Clay (Fill)		1								
97.50			2								
96.50			3	1	SS	1.1	6	B	23		
95.50			4								
94.50			5								
93.50			6	2	SS	1.4	9	B	20		
92.50			7								
91.50			8	3	SS	1.2	10	B	21		
90.50	Stiff Black Silty Clay		9								
89.50			10								
88.50			11	4	SS	1.2	6	B	22		
87.50			12								
86.50		13	5	SS	1.3	7	B	20			
85.50	Hard Brown Clay Till		14								
84.50			15	6	SS	5.3	20	B	16		
83.50	Very Stiff Gray Clay Till		16								
82.50			17								
81.50			18	7	SS	3.1	16	B	18		
80.50			19								
79.50		20	8	SS	2.5	14	B	20			

Groundwater Data: Static water level after auger removal - Elevation - 78.5.



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

BORING LOG
Sheet 2 of 3
Phone: 815-223-6696
Fax: 815-223-6659
E-Mail: Midwest@TheRamp.net

Client: Hutchison Engineering, Inc.
Project Name: Sec. 98-26104-00-BR & Sec 98-25104-00-BR
Project Site: Stockland / Sheldon Road Districts
Iroquois County, Illinois

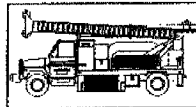
Boring No. B-1
Surface Elev. 99.50
Auger Depth 61' Rotary Depth NA
Start Date 05/28/05 Finish Date 05/28/05

Location: 6' Rt. Centerline Station 60+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)
78.50										Randy Safranski Diedrich D-120		
77.50	Very Stiff Gray Clay Till		22									
76.50			23	9	SS	3.1	15	B	18			
75.50			24									
74.50			25	10	SS	2.8	16	B	19			
73.50			26									
72.50			27									
71.50			28	11	SS	2.2	14	B	20			
70.50			29									
69.50			30	12	SS	2.4	15	B	18			
68.50		Medium Gray Silt		31								
67.50				32								
66.50				33	13	SS	--	16	--	22		
65.50				34								
64.50			35	14	SS	--	14	--	23			
63.50			36									
62.50			37									
61.50		38	15	SS	--	14	--	22				
60.50	Very Stiff Gray Clay Till		39									
59.50			40									
58.50			41	16	SS	2.3	13	B	18			

Groundwater Data: Static water level after auger removal - Elevation - 78.5.

SOIL BORING LOGS
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00



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

BORING LOG

Sheet 3 of 3

Phone: 815-223-6696
Fax: 815-223-6659
E-Mail: Midwest@TheRamp.net

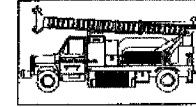
Client: Hutchison Engineering, Inc.
Project Name: Sec. 98-26104-00-BR & Sec 98-25104-00-BR
Project Site: Stockland / Sheldon Road Districts
Iroquois County, Illinois

Boring No. B-1
Surface Elev. 99.50
Auger Depth 61' Rotary Depth NA
Start Date 05/28/05 Finish Date 05/28/05

Location: 6' Rt. Centerline Station 60+30

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		Randy Saffranski Diedrich D-120	
57.50												
56.50	Stiff Gray Clay Till		43	17	SS	1.8	12	B	20			
55.50			44									
54.50	Medium Gray Fine Sand		45	18	SS	1.4	10	B	21			
53.50			46									
52.50	Hard Brownish Gray Silty Clay Loam Till With Sand Seams		47									
51.50			48	19	SS	--	16	--	--			
50.50			49									
49.50			50	20	SS	4.3	31	B	15			
48.50			51									
47.50			52									
46.50			53	21	SS	5.1	37	S	13			
45.50			54									
44.50			55	22	SS	5.3	40	S	13			
43.50			56									
42.50			57									
41.50			58	23	SS	4.6	33	B	14			
40.50			59									
39.50			60	24	SS	4.4	35	B	14			
38.50	Bottom of Boring		61									
37.50			62									

Groundwater Data: Static water level after auger removal - Elevation - 78.5.



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

BORING LOG

Sheet 1 of 3

Phone: 815-223-6696
Fax: 815-223-6659
E-Mail: Midwest@TheRamp.net

Client: Hutchison Engineering, Inc.
Project Name: Sec. 98-26104-00-BR & Sec 98-25104-00-BR # 2266
Project Site: Stockland / Sheldon Road Districts
Iroquois County, Illinois

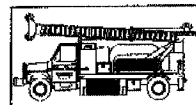
Boring No. B-2
Surface Elev. 99.70
Auger Depth 61' Rotary Depth NA
Start Date 05/28/05 Finish Date 05/28/05

Location: 6' L.A. Centerline Station 59+70

(DEPTH) *ELEV.	DESCRIPTION OF MATERIALS	Graphic Log	Depth in feet	SAMPLES						Dry Density (PCF)	DRILLED BY	REMARKS
				Sample No.	Sample Type	Qu (TSF)	N Value (Blows)	Bulge / Shear	Moisture (%)		Randy Saffranski Diedrich D-120	
99.70												
98.70	Very Stiff To Stiff Black, Brown And Gray Clay Silty Clay (Fill)		1									
97.70			2									
96.70			3	1	SS	2.2	11	S	14			
95.70			4									
94.70			5	2	SS	1.4	8	B	20			
93.70			6									
92.70			7									
91.70			8	3	SS	1.0	5	B	22			
90.70			9									
89.70			10									
88.70	Stiff Black Silty Clay		11	4	SS	1.2	7	B	19			
87.70			12									
86.70	Hard Brown Clay Till		13	5	SS	1.3	6	B	21			
85.70			14									
84.70			15	6	SS	4.6	19	B	17			
83.70			16									
82.70	Very Stiff Gray Clay Till		17									
81.70			18	7	SS	2.8	14	B	20			
80.70			19									
79.70			20	8	SS	2.6	13	B	20			

Groundwater Data: Static water level after auger removal - Elevation - 78.5.

SOIL BORING LOGS
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00



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

BORING LOG

Sheet 2 of 3

Phone: 815-223-6696
Fax: 815-223-6659
E-Mail: Midwest@TheRamp.net

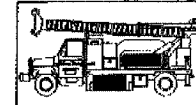
Client: Hutchison Engineering, Inc.
Project Name: Sec. 98-26104-00-BR & Sec 98-25104-00-BR
Project Site: Stockland / Sheldon Road Districts
Iroquois County, Illinois

Boring No. B-2
Surface Elev. 99.70
Auger Depth 61' Rotary Depth NA
Start Date 05/28/05 Finish Date 05/28/05

Location: 6' Lt. Centerline Station 59+70

(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 (%)		
78.70										Randy Safranski Diedrich D-120	
77.70			22								
76.70			23	9	SS	2.3	14	B	18		
75.70			24								
74.70			25								
73.70	Very Stiff Gray Clay Till		26	10	SS	2.3	15	B	17		
72.70			27								
71.70			28	11	SS	2.8	15	B	18		
70.70			29								
69.70			30								
68.70			31								
67.70			32								
66.70			33	12	SS	2.5	16	B	18		
65.70			34								
64.70			35								
63.70	Medium Gray Silt		36	13	SS	—	18	—	22		
62.70			37								
61.70			38	14	SS	—	15	—	23		
60.70			39								
59.70			40	15	SS	—	16	—	22		
58.70			41	16	SS	—	16	—	22		

Groundwater Data: Static water level after auger removal - Elevation - 78.5.



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

BORING LOG

Sheet 3 of 3

Phone: 815-223-6696
Fax: 815-223-6659
E-Mail: Midwest@TheRamp.net

Client: Hutchison Engineering, Inc.
Project Name: Sec. 98-26104-00-BR & Sec 98-25104-00-BR
Project Site: Stockland / Sheldon Road Districts
Iroquois County, Illinois

Boring No. B-2
Surface Elev. 99.70
Auger Depth 61' Rotary Depth NA
Start Date 05/28/05 Finish Date 05/28/05

Location: 6' Lt. Centerline Station 59+70

(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 (%)		
57.70										Randy Safranski Diedrich D-120	
56.70	Very Stiff Gray Clay Till		43	17	SS	2.4	14	B	18		
55.70			44								
54.70			45	18	SS	—	20	—	—		
53.70	Medium Gray Fine Sand		46								
52.70			47								
51.70			48	19	SS	—	12	—	—		
50.70			49								
49.70			50	20	SS	4.9	36	S	13		
48.70			51								
47.70			52								
46.70	Hard Brownish Gray Silty Clay Loam Till With Sand Seams		53	21	SS	4.5	31	B	14		
45.70			54								
44.70			55								
43.70			56	22	SS	5.3	35	S	13		
42.70			57								
41.70			58	23	SS	5.5	37	S	13		
40.70			59								
39.70			60								
38.70			61	24	SS	4.4	32	B	15		
37.70			62								

Groundwater Data: Static water level after auger removal - Elevation - 78.5.

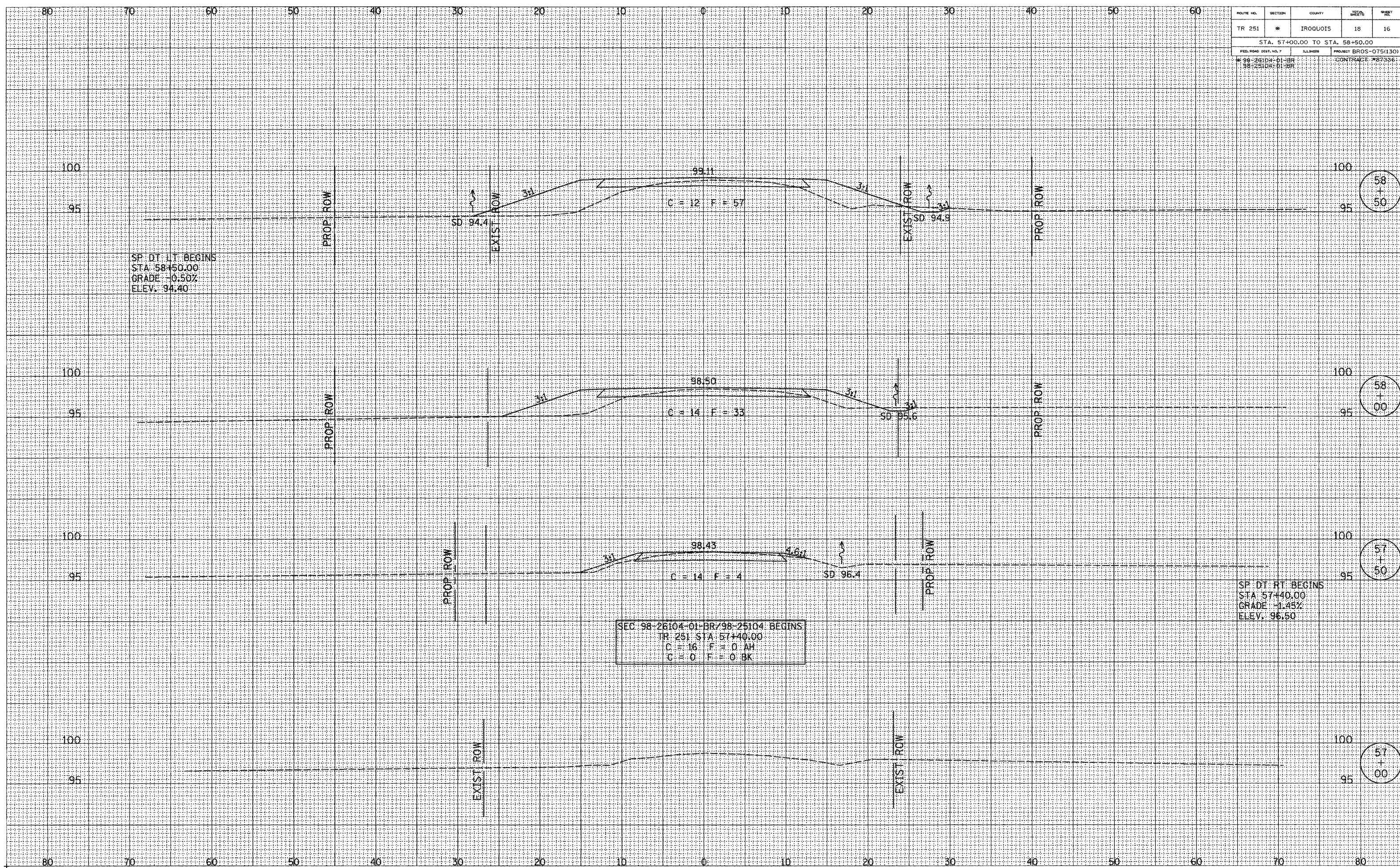
SOIL BORING LOGS
T.R. 251 OVER COON CREEK
SECTION 98-26104-01-BR / 98-25104-01-BR
IROQUOIS COUNTY
STATION 59+90.00

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 251	*	IROQUOIS	18	16
STA. 57+00.00 TO STA. 58+50.00				
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT BROS-075(130)	CONTRACT #873367	
* 98-26104-01-BR		* 98-26104-01-BR		

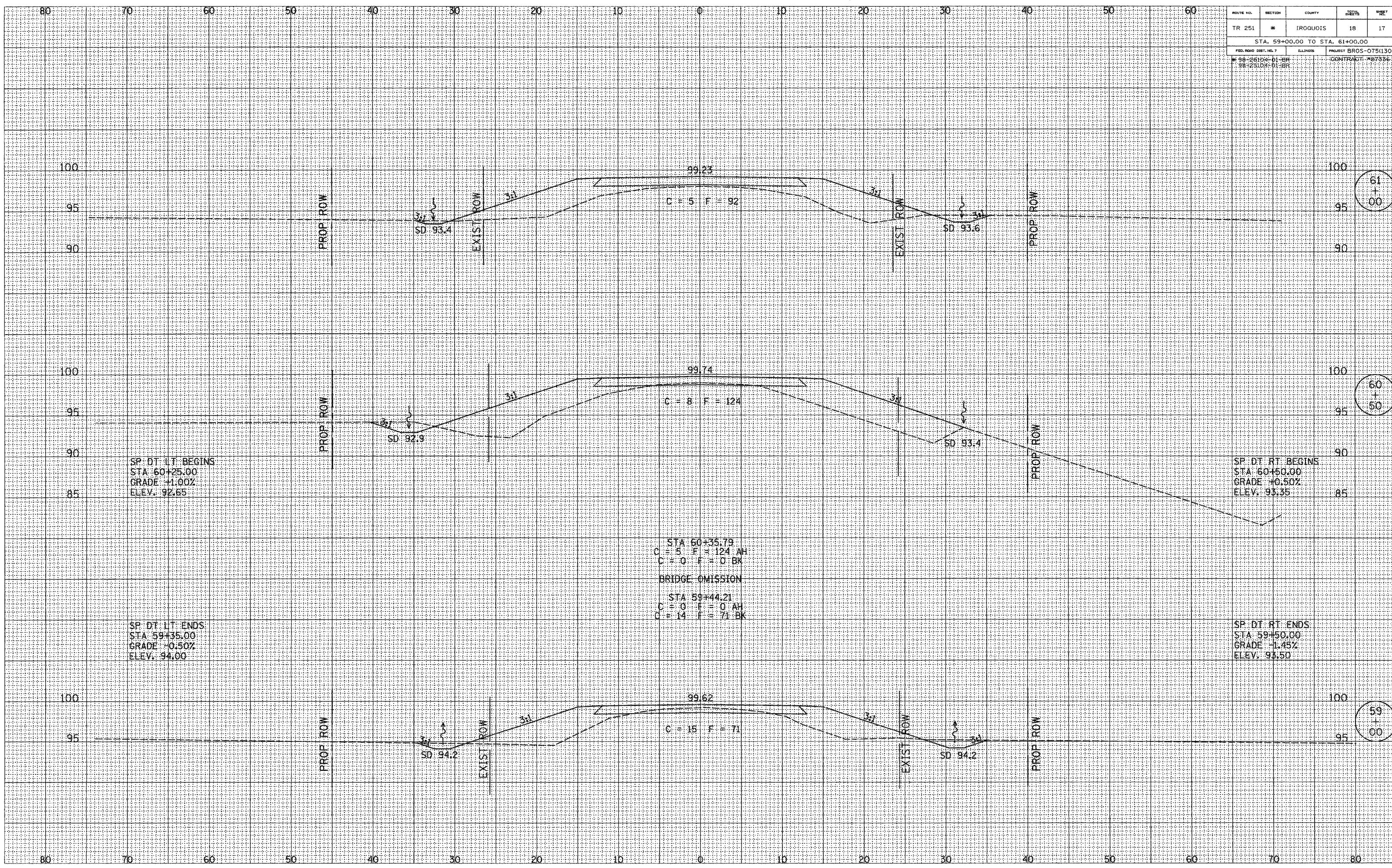
SP. DT. LT. BEGINS
 STA. 58+50.00
 GRADE -0.50%
 ELEV. 94.40

SEC 98-26104-01-BR/98-25104 BEGINS
 TR 251 STA. 57+40.00
 C = 16 F = 0 AH
 C = 0 F = 0 BK

SP. DT. RT. BEGINS
 STA. 57+40.00
 GRADE -1.45%
 ELEV. 96.50



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 251	*	IROQUOIS	18	17
STA. 59+00.00 TO STA. 61+00.00				
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT BROS-075(130)		
* 98-26104-01-BR		CONTRACT #87336		
98-23104-01-BR				



61
+
00

60
+
50

59
+
00

SP. DT. LT. BEGINS
STA. 60+25.00
GRADE +1.00%
ELEV. 92.65

SP. DT. RT. BEGINS
STA. 60+50.00
GRADE +0.50%
ELEV. 93.35

SP. DT. LT. ENDS
STA. 59+35.00
GRADE -0.50%
ELEV. 94.00

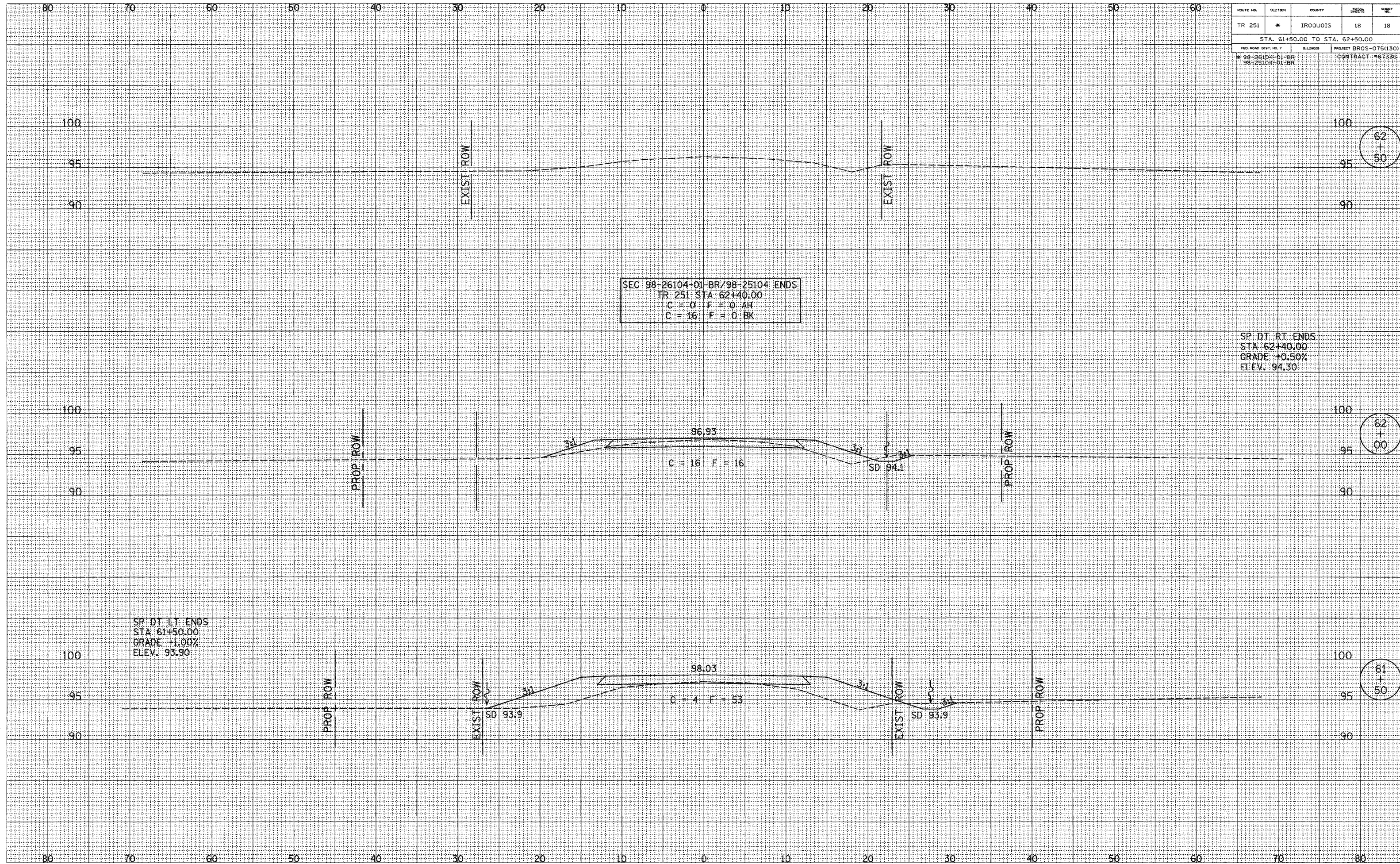
SP. DT. RT. ENDS
STA. 59+50.00
GRADE -1.45%
ELEV. 93.50

STA. 60+35.79
 $C = 5$ $F = 124$ AH
 $C = 0$ $F = 0$ BK
BRIDGE OMISSION
STA. 60+44.21
 $C = 0$ $F = 0$ AH
 $C = 14$ $F = 71$ BK

NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TR 251	*	IROQUOIS	18	18
STA. 61+50.00 TO STA. 62+50.00				
PROJECT BROS-075(130)			CONTRACT #87236	



SEC 98-26104+01-BR/98-25104 ENDS
 TR 251 STA 62+40.00
 C = 0 F = 0 AH
 C = 16 F = 0 BK

SP. DT. RT. ENDS
 STA 62+40.00
 GRADE +0.50%
 ELEV. 94.30

SP. DT. LT. ENDS
 STA 61+50.00
 GRADE +1.00%
 ELEV. 93.90

96.93
 C = 16 F = 16
 SD 94.1

98.03
 C = 4 F = 53
 SD 93.9

62
+
50

62
+
00

61
+
50

NOTE BOOK TEMPLATE AREAS CHECKED

NOTE BOOK TEMPLATE AREAS CHECKED