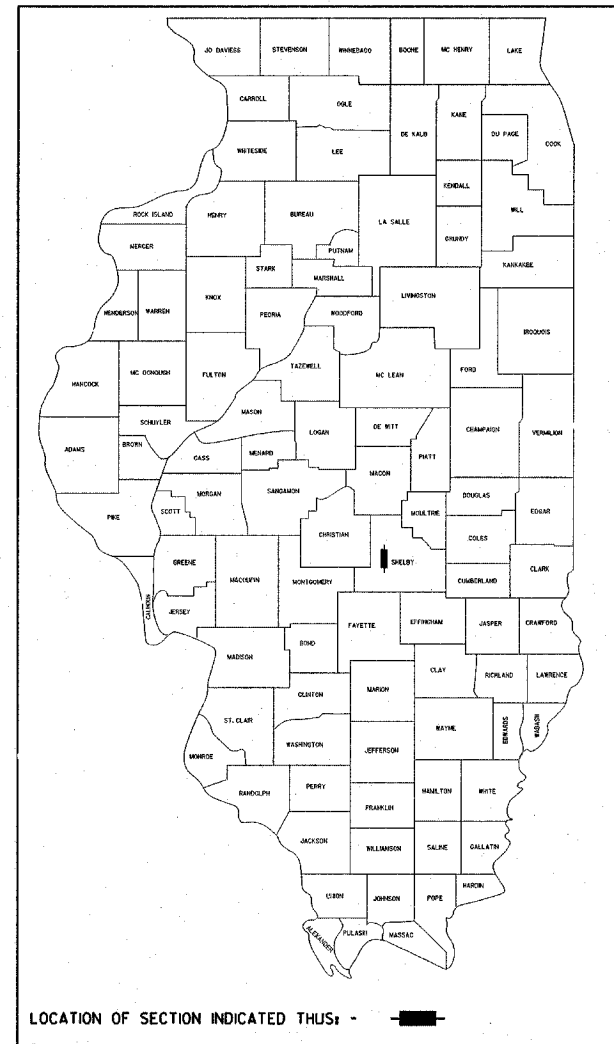


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PLANS FOR PROPOSED BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

ROUTE NO. T.R. 112	SECTION 02-23112 -00-BR	COUNTY SHELBY	TOTAL SHEETS 11
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-	

CONTRACT NO. 91336



INDEX OF SHEETS

1. COVER SHEET
2. SUMMARY OF QUANTITIES AND TYPICAL CROSS SECTIONS
3. PLAN AND PROFILE
- 4.-6. STATION CROSS SECTIONS
- 7.-10. BRIDGE PLANS
11. BORINGS

HIGHWAY STANDARDS:

- 000001-04 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
- 280001-02 TEMPORARY EROSION CONTROL SYSTEMS
- 515001-02 NAME PLATE FOR BRIDGES
- 630301-03 SHOULDER WIDENING FOR TYPE 1, (SPECIAL) GUARDRAIL TERMINALS
- 631026-02 TRAFFIC BARRIER TERMINAL 5 & 5A
- 702001-05 TRAFFIC CONTROL DEVICES
- BLR 21-6 TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR CONSTRUCTION ON RURAL LOCAL HIGHWAYS

UTILITIES

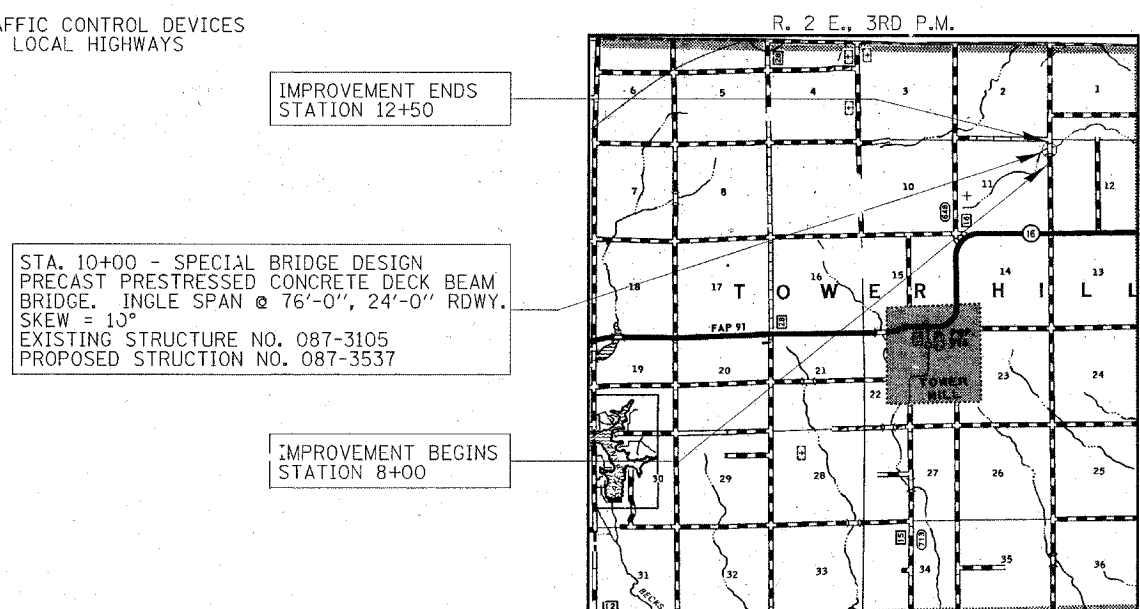
SHELBY CO-OP
PO BOX 560
SHELBYVILLE, ILLINOIS 62565
(217) 774-3986
ATTN: JIM MATLOCK

DESIGN FUNCTIONAL CLASSIFICATION:
LOCAL ROAD O-250 ADT
DESIGN TRAFFIC: 150 ADT
DESIGN SPEED: 30 M.P.H.

CONTRACT NO. 91336

SCALES	}	PLAN		50'
		PROFILE HORIZ.		50'
		PROFILE VERT.		5'
		CROSS SECTIONS		5'

PROJECT BROS-173(130) SECTION 02-23112-00-BR TOWER HILL ROAD DISTRICT SHELBY COUNTY T.R. 112 JOB NO. C-95-315-05



LAYOUT

APPROXIMATE SCALE:
GROSS LENGTH = NET LENGTH OF SECTION = 450 FEET = 0.082 MILES



APPROVED	<i>[Signature]</i> 12-12-05 COUN. Y. ENGINEER
APPROVED	<i>[Signature]</i> 12-13-05 ROAD COMMISSIONER
PASSED	<i>[Signature]</i> 12/20/05 DISTRICT FIVE ENGINEER OF LOCAL ROADS & STREETS
Releasing For Bid Based on Limited Review	<i>[Signature]</i> Dec 20 20 05 DEPUTY DIRECTOR OF HIGHWAYS REGION THREE ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DATE: *December 8, 2005*

BY: *[Signature]*

LICENSE EXPIRES: NOVEMBER 30, 2007

<p>LICENSE NO. 50051</p> <p><i>[Signature]</i> STATE LICENSED PROFESSIONAL ENGINEER OF ILLINOIS</p>	<p>Rice, Berry and Associates A Division of Hampton, Lenzini and Renwick, Inc. Civil & Structural Engineers 3085 Stevenson Drive Suite 201 Springfield, Illinois 62703 217-546-3400</p> <p>Account Number 12-87-003-1 P.O. Box 1036 DuQuoin, Illinois 62832 618-790-4637</p>
---	--

SUMMARY OF QUANTITIES

CONSTRUCTION CODE
X081-2A

CODE NO	ITEM	UNIT	QUANTITY
20100110	TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	100
20100210	TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	120
20200100	EARTH EXCAVATION	CU YD	800
20300100	CHANNEL EXCAVATION	CU YD	225
20400800	FURNISHED EXCAVATION	CU YD	280
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	45
25000500	PHOSPHOROUS FERTILIZER NUTRIENT	POUND	45
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	45
25000200	SEEDING CLASS 2	ACRE	0.5
25100115	MULCH, METHOD 2	ACRE	0.5
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	100
28000300	TEMPORARY DITCH CHECKS	EACH	16
28100207	STONE RIPRAP, CLASS A4	TON	330
28102600	STONE RIPRAP DITCH	TON	360
28200200	FILTER FABRIC	SQ YD	470
40200800	AGGREGATE SURFACE COURSE, TYPE B	TON	380
50100100	REMOVAL OF EXISTING STRUCTURES	EACH	1
50300225	CONCRETE STRUCTURES	CU YD	20.0
50400605	PRECAST PRESTRESSED CONCRETE DECK BEAMS (33" DEPTH)	SQ FT	1,824
50800105	REINFORCEMENT BARS	POUND	2,550
50900205	STEEL RAILING, TYPE S1	FOOT	159
51201400	FURNISHING STEEL PILES HP10X42	FOOT	92
51204315	CONCRETE ENCASEMENT	CU YD	3.8
51500100	NAME PLATES	EACH	1
63100075	TRAFFIC BARRIER TERMINAL, TYPE 5A	EACH	4
63100167	TRAFFIC BARRIER TERMINAL TYPE 1, SPECIAL (TANGENT)	EACH	4
67100100	MOBILIZATION	L SUM	1
78201000	TERMINAL MARKER DIRECT APPLIED	EACH	4
Z0065000	SETTING PILES IN ROCK	EACH	8

SEE SPECIAL PROVISIONS

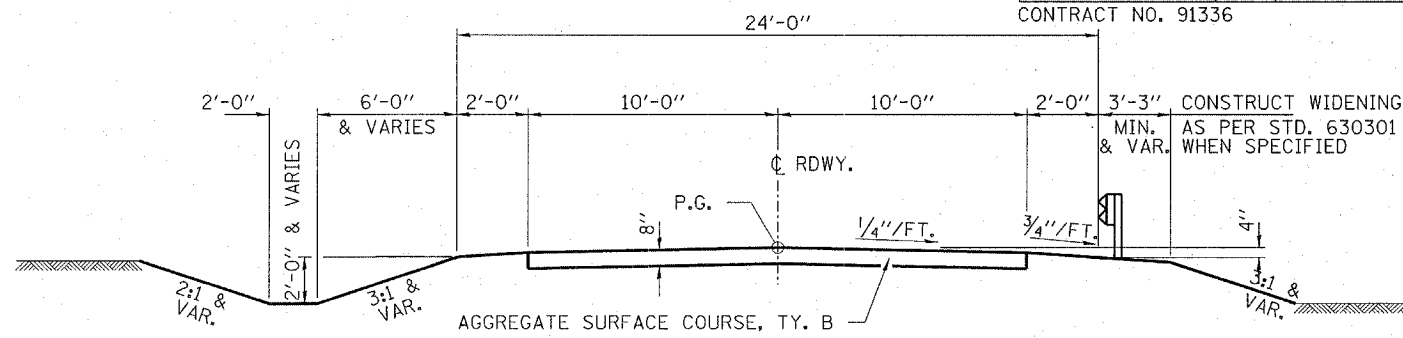
GENERAL NOTES

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, ADOPTED JANUARY 1, 2002," THESE PLANS AND THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS.
- ALL CLEARING AND GRUBBING AND REMOVAL OF EXISTING DRAINAGE STRUCTURES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- THE LOCATIONS OF EXISTING ELECTRIC POWER LINES, TELEPHONE LINES AND OTHER UTILITIES AS SHOWN ON THE PLANS ARE BASED ON CAREFUL FIELD INVESTIGATION AND THE BEST INFORMATION AVAILABLE, BUT THE LOCATIONS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ASCERTAIN THEIR EXACT LOCATION FROM THE INDIVIDUAL UTILITY COMPANIES AND BY FIELD INSPECTION.
- THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL SECTION OR SUBSECTION MONUMENTS UNTIL THE OWNER, HIS AGENT, PROFESSIONAL LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
- THE REVISION NUMBER INDICATED FOR THE STANDARDS LISTED IN THE INDEX OF SHEETS SHALL BE USED IN THE CONSTRUCTION OF THIS SECTION.
- THE FOLLOWING RATES OF APPLICATION HAVE BEEN USED IN CALCULATING PLAN QUANTITIES
 AGGREGATE SURFACE CSE. 2.05 TON/CU YD
 STONE RIPRAP, CL. A4 1.75 TON/CU YD (0.7 TON / SQ YD)
 STONE RIPRAP DITCH 1.75 TON/CU YD (0.5 TON / SQ YD)
- THE AREA TO BE SEEDED SHALL CONSIST OF ALL EARTH SURFACES DISTURBED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. ESTIMATED QUANTITY = 0.5 ACRES.
- TREES WITHIN THE RIGHT-OF-WAY WHICH INTERFERE WITH CONSTRUCTION SHALL BE REMOVED ONLY AT THE DIRECTION OF THE ENGINEER. SEE SHEET 3 FOR LOCATIONS.

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (CU YD)	SHRINKAGE FACTOR	PERCENT USED	AVAILABLE* EXCAVATION (CU YD)	EMBANKMENT REQUIRED (CU YD)	EARTHWORK BALANCE (CU YD)
STA. 6+00 TO STA. 9+59.33	571	25%	100%	428	184	244
STA. 9+59.33 TO STA. 10+36.68	0	25%	100%	0	0	0
STA. 10+36.68 TO STA. 14+00	223	25%	100%	167	809	-642
CHANNEL EXCAVATION ENTRANCES	225	25%	70%	118		118
TOTAL	794			713	993	-280
USE:	800					280

* AVAILABLE EXCAVATION = EXC. x (1-SHRINKAGE FACTOR) x % USED (FURN. EXC.)



SUGGESTED CUT SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

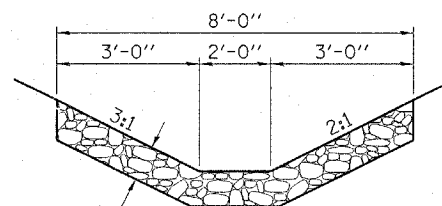
SUGGESTED FILL SECTION
CONSTRUCT AS SHOWN IN
STATION CROSS SECTIONS

ROAD CLASSIFICATION - LOCAL ROAD ADT 0-250
CURRENT ADT 125
DESIGN SPEED: 30 M.P.H.

TYPICAL CROSS SECTION

STA. 8+50 TO STA. 12+00

TRANSITION FROM PROPOSED ROADWAY TO THE EXISTING ROADWAY IS TO BE CONSTRUCTED FROM STA. 8+00 TO STA. 8+50 AND FROM STA. 12+00 TO STA. 12+50. SEE SHEET 7 FOR TRANSITION AT BRIDGE.



12" RR4 GRADATION

STONE RIPRAP DITCH

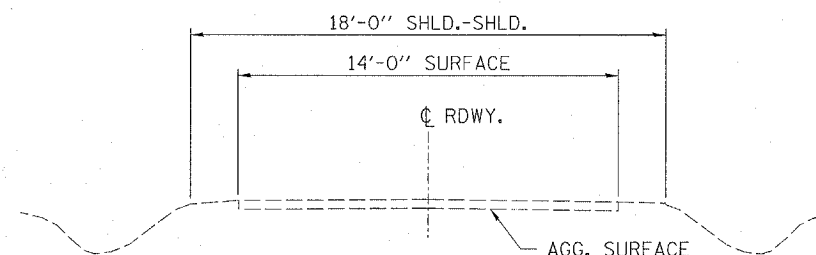
LT. & RT. STA. 8+00 TO STA. 9+75
LT. & RT. STA. 10+25 TO STA. 12+50
ESTIMATED QUANTITY = 360 TON

TRAFFIC BARRIER TERMINAL, TYPE 5A

LOCATION	EACH
RT. STA. 9+44.93 TO STA. 9+58.18	1
LT. STA. 9+49.16 TO STA. 9+62.41	1
RT. STA. 10+37.59 TO STA. 10+50.84	1
LT. STA. 10+41.82 TO STA. 10+55.07	1
TOTAL	4

TRAFFIC BARRIER TERMINAL, TY 1, SPL (TANG)

LOCATION	EACH
RT. STA. 8+94.93 TO STA. 9+44.93	1
LT. STA. 8+99.16 TO STA. 9+49.16	1
RT. STA. 10+50.84 TO STA. 11+00.84	1
LT. STA. 10+55.07 TO STA. 11+05.07	1
TOTAL	4



EXISTING CROSS SECTION

HLR
 Rice, Berry and Associates
 A Division of Hampton,
 Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 3085 Stevenson Drive
 Suite 201
 Springfield, Illinois 62703
 217-546-3400
 P.O. Box 1036
 Duquoin, Illinois 62832
 618-790-4637
 Account Number 12-87-0013-1
 Date: 12/07/05
 DESIGNED: D.B. CHECKED: S.W.M. DRAWN: D.B.

SUMMARY OF QUANTITIES AND TYPICAL SECTIONS

SECTION 02-23112-00-BR
TOWER HILL ROAD DISTRICT
SHELBY COUNTY

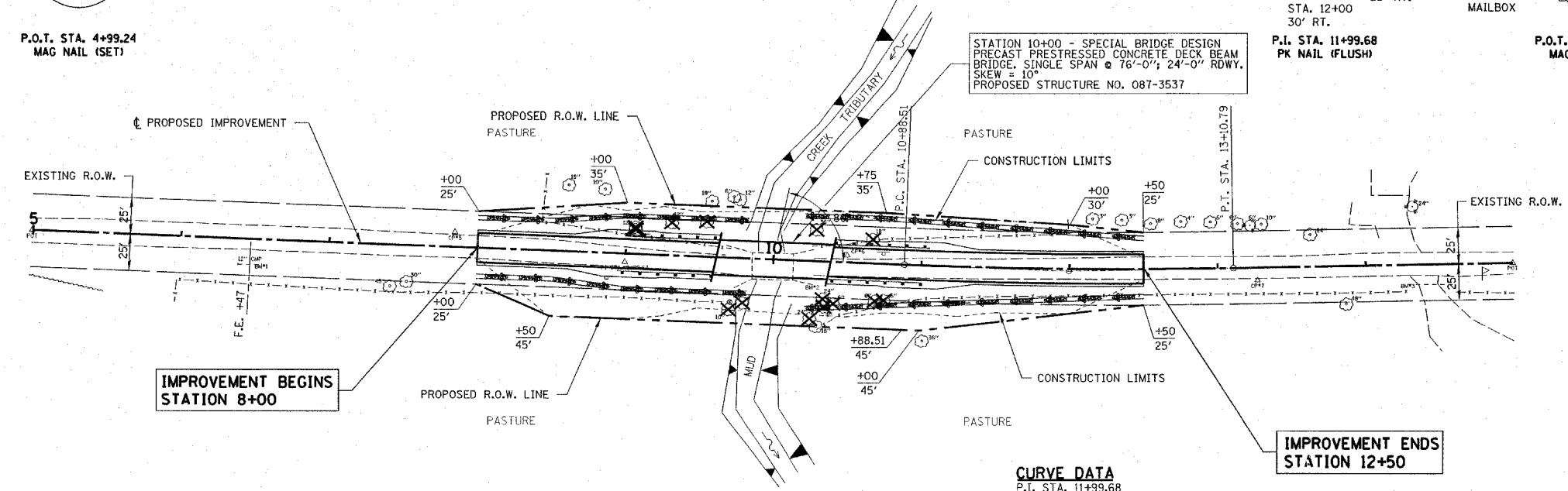
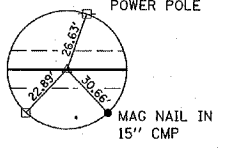
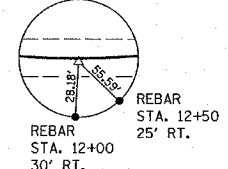
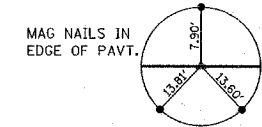
DATE: 02/20/23
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 PLOTTED: []
 CHECKED: []
 RT. OF MAG. CHECKED: []
 NO. MAG. HERE: []
 CAD FILE NAME: []

PROFILE
 SURVEYED: []
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 RT. OF MAG. CHECKED: []
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 CAD FILE NAME: []

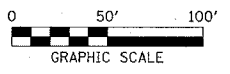
PARCEL 001
 EUGENE W. & JEAN SCHMIT TRUST
 NE 1/4, SEC 11, T. 11 N., R. 2 E., 3RD P.M.

PARCEL 002
 EUGENE W. & JEAN SCHMIT TRUST
 W 1/2, NW 1/4, SEC 12, T. 11 N., R. 2 E., 3RD P.M.

T.R.	SECTION	COUNTY	TOTAL SHEETS
112	02-23112-00-BR	SHELBY	11
STA. 5+00		TO STA. 15+00	
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 9133	
TOWER HILL ROAD DISTRICT			



CURVE DATA
 P.I. STA. 11+99.68
 $\Delta = 3^\circ 20' 03''$ (LT)
 $D = 1^\circ 30' 00''$
 $T = 111.17'$
 $R = 3,819.72'$
 $L = 222.28'$
 $E = 1.62'$
 P.C. STA. 10+88.51
 P.T. STA. 13+10.79
 NO CURVE

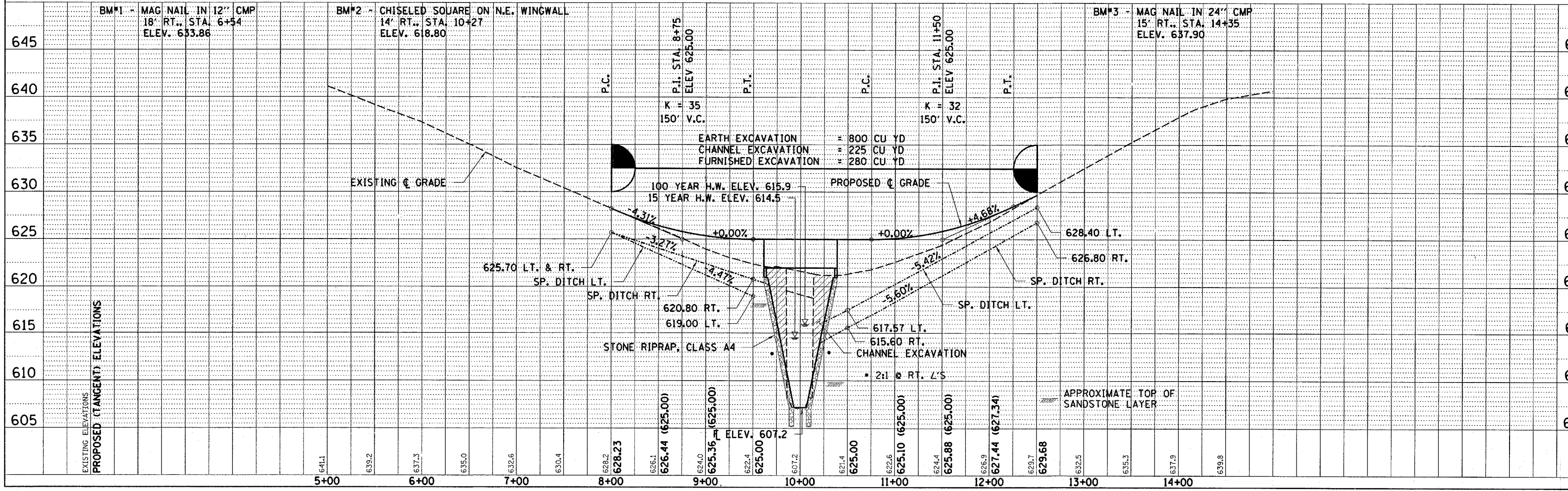


⊗ INDICATES TREES TO BE REMOVED

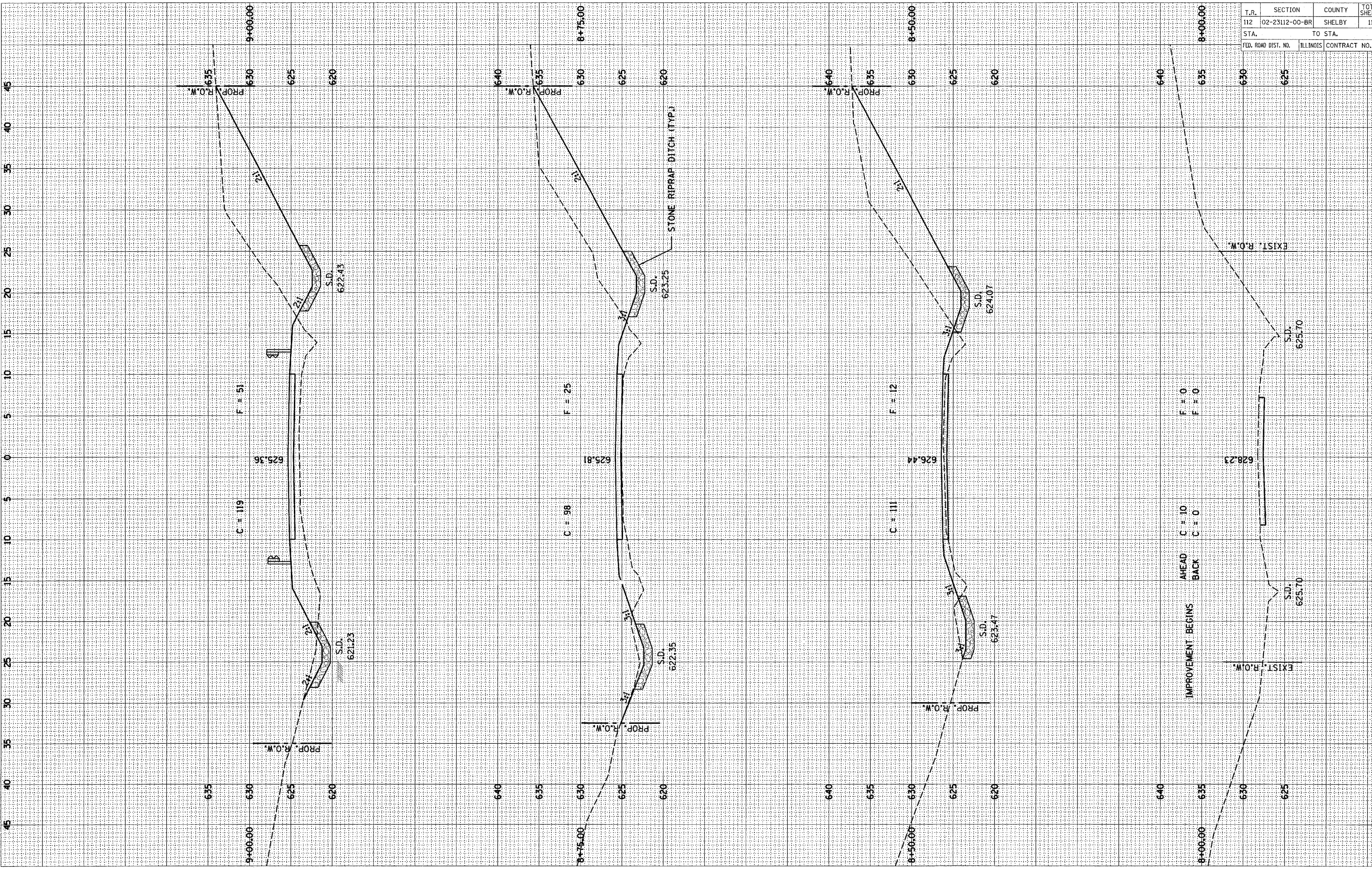
TEMPORARY DITCH CHECKS
 DITCH CHECK SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER IF EARTH SLOPES TO BE EXPOSED MORE THAN 7 DAYS.

CHANNEL EXCAVATION
 THE CHANNEL SHALL BE EXCAVATED AS SHOWN IN THE PLANS WITH 2:1 SIDE SLOPES WITHIN THE LIMIT OF THE PROPOSED STRUCTURE, THEN TAPER TO THE EXISTING CHANNEL AT THE R.O.W. LINES. ONLY SUITABLE EXCAVATED MATERIAL SHALL BE USED IN THE EMBANKMENT.

EXISTING STRUCTURE NO. 087-3105
 STATION 10+00 - SINGLE SPAN STEEL BEAM BRIDGE WITH CONCRETE DECK ON CLOSED CONCRETE ABUTMENTS AND WINGWALLS. 27'-10" FC-FC, ABUT.; 19'-11" 0-0, DECK. REMOVAL OF EXISTING STRUCTURES = 1 EACH

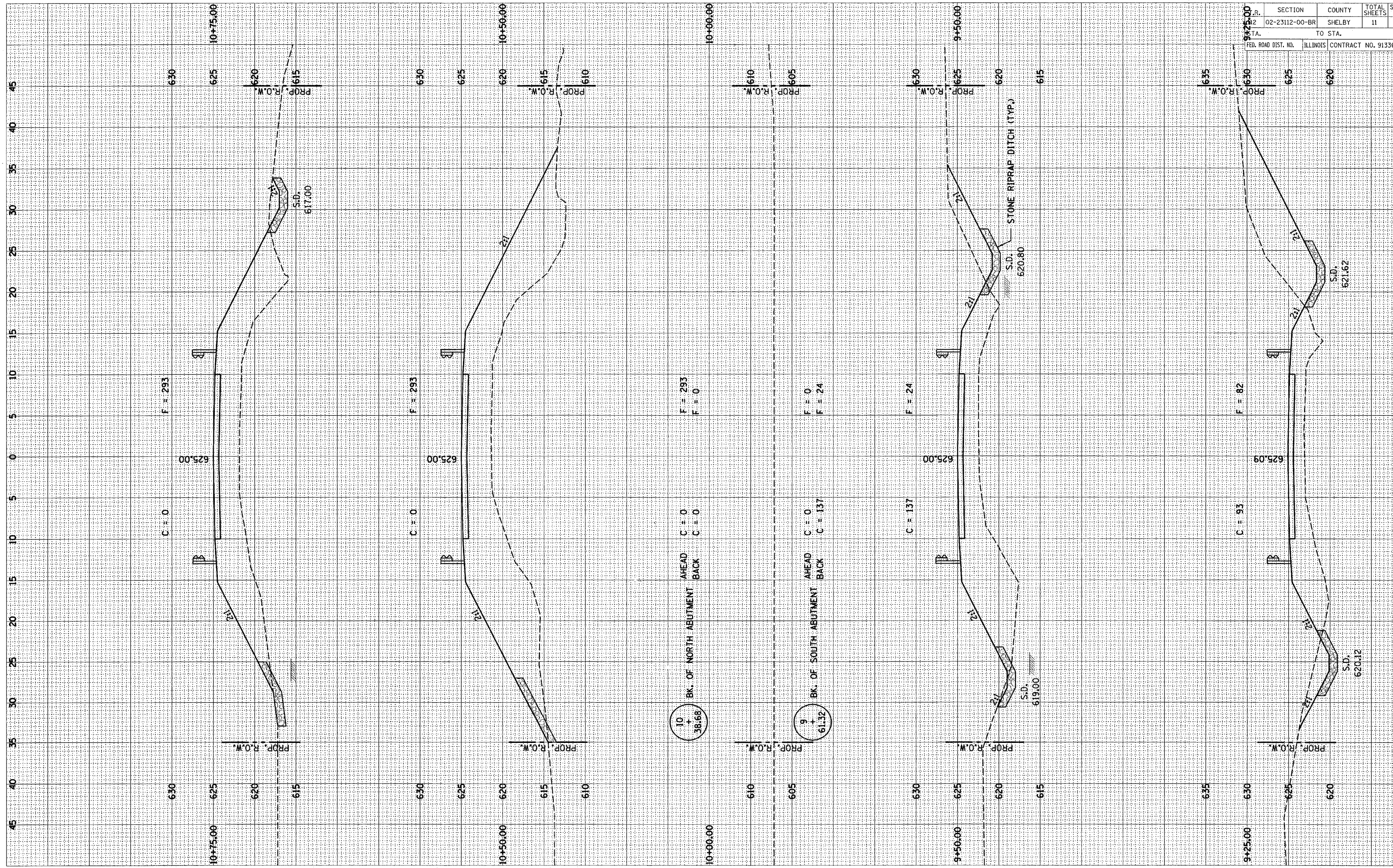


T.R.	SECTION	COUNTY	TOTAL SHEETS	SH
112	02-23112-00-BR	SHELBY	11	M
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 91336	



NOTE BOOK NO. AREAS CHECKED

NOTE BOOK NO. AREAS CHECKED

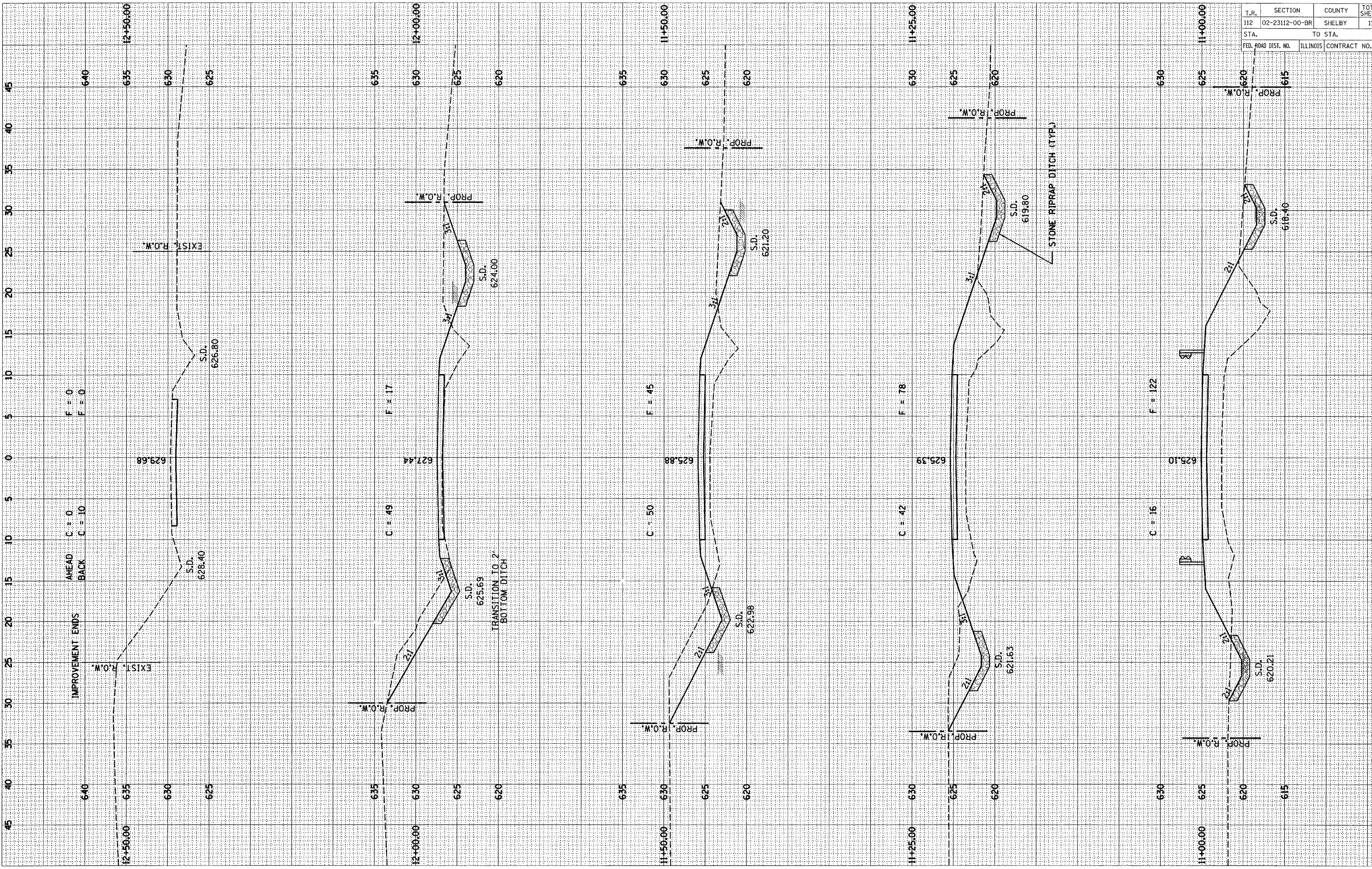


SECTION	COUNTY	TOTAL SHEETS
02-23112-00-BR	SHELBY	11
TO STA.		
FED. ROAD DIST. NO. ILLINOIS CONTRACT NO. 91336		

10
+
38.68
BK. OF NORTH ABUTMENT
AHEAD C = 0
BACK C = 0

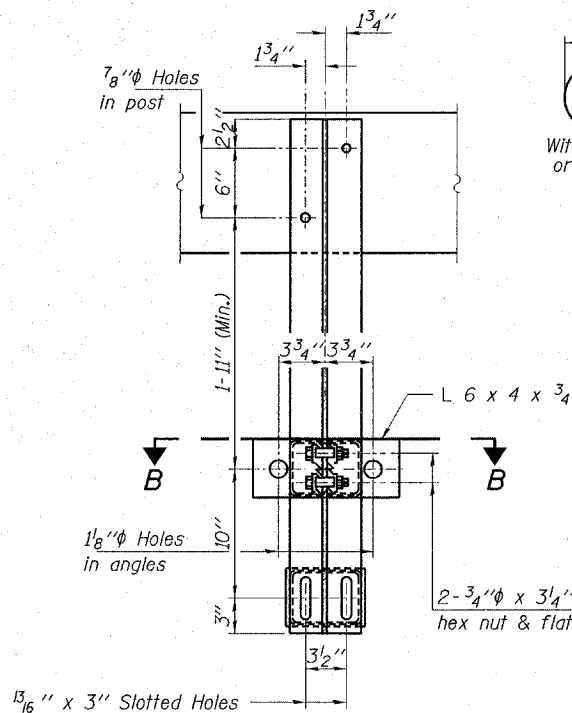
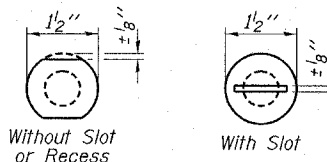
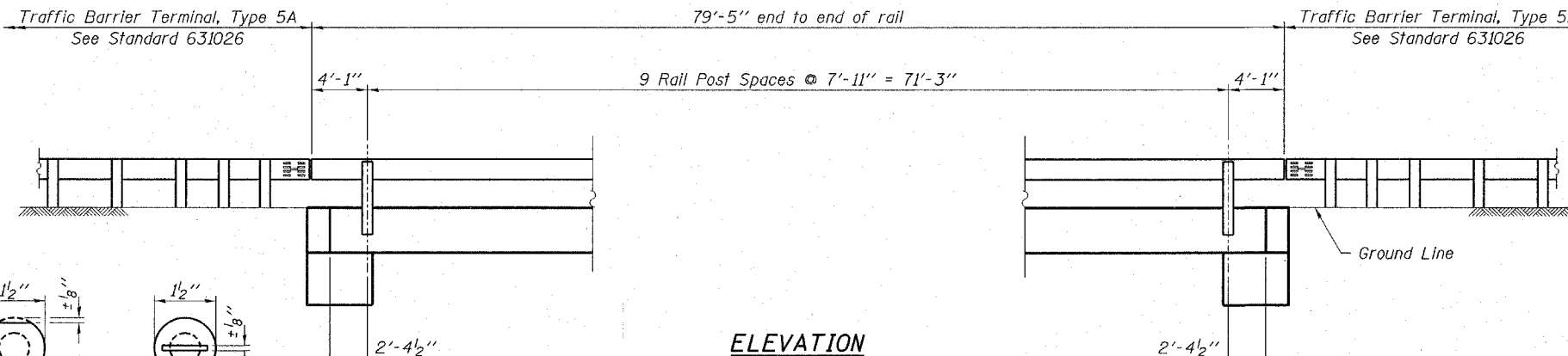
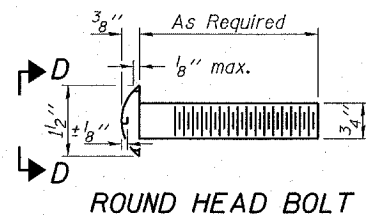
9
+
61.32
BK. OF SOUTH ABUTMENT
AHEAD C = 0
BACK C = 137

T.R.	SECTION	COUNTY	TOTAL SHEETS	SH
112	02-23112-00-BR	SHELBY	11	M
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS CONTRACT NO. 91336		



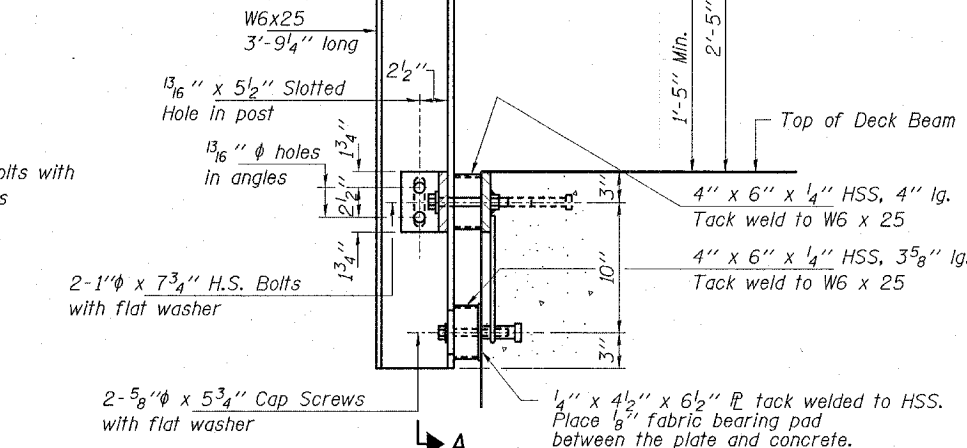
ROUTE BOOK NO. AREAS CHECKED

ROUTE BOOK NO. AREAS CHECKED

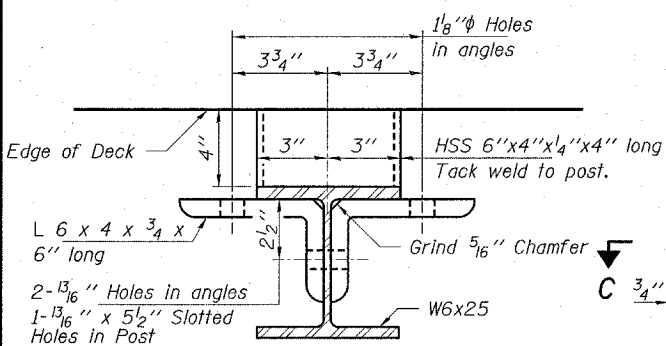


VIEW D-D

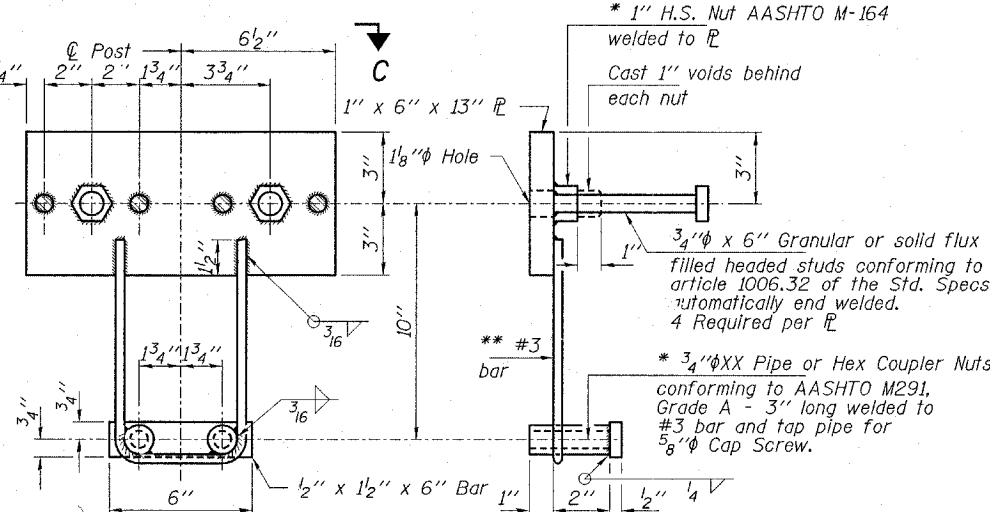
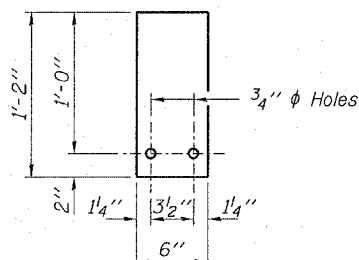
2-3/4" ϕ x 6" Round Head Bolts (With slot or approved recess in head) with locknut & flat washer. 1/8" ϕ Holes in hollow structural section may be drilled in the field.



** 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 2".

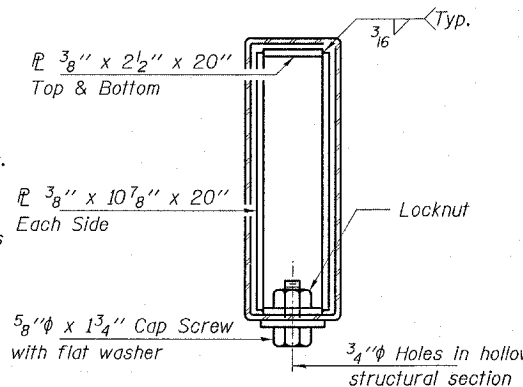
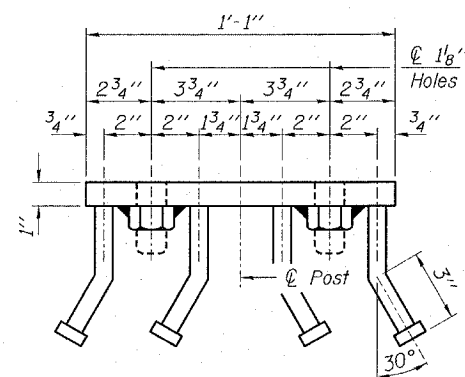
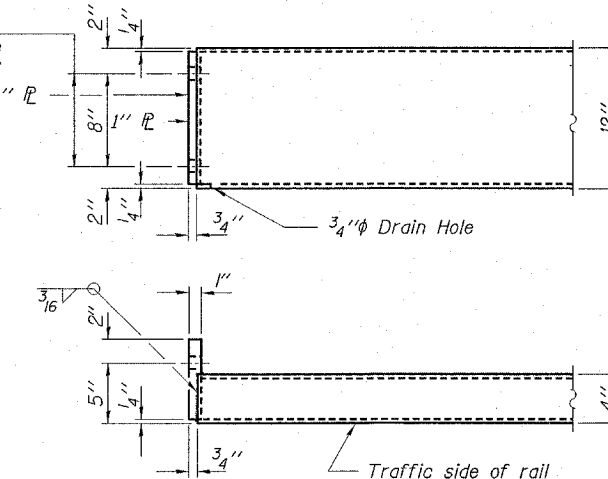


SECTION B-B



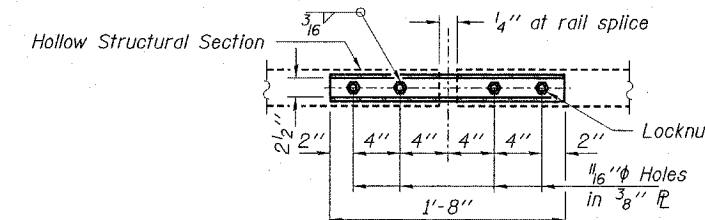
* Threaded areas shall be plugged or blocked off during casting of beam.

1/8" ϕ Holes for 1" ϕ x 4" Round Head Bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Std. 631026.



NOTES

Hollow structural sections shall conform to the requirements of A.S.T.M. 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 A.A.S.H.T.O. designation M-270 Grade 36 except posts and angles shall conform to A.A.S.H.T.O. M-270 Grade 50. Bolts, cap screws, and nuts shall conform to the requirements of A.S.T.M. designation A-307 except for high strength bolts, nuts and washers noted which shall conform to A.A.S.H.T.O. designation M-164. All bolts, nuts, cap screws, washers and lockwashers shall be galvanized in accordance with A.A.S.H.T.O. designation M-232. All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with A.S.T.M. A-385 and A.A.S.H.T.O. M-111. Galvanized rail shall not be painted. Railing shall be in accordance with Section 509 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per foot for STEEL RAILING, TYPE S1. All field drilled holes shall be coated with an approved zinc rich paint before erection. The 3/4" ϕ high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened in accordance with Art. 505.04(f)(2) of the Standard Specifications. The 1" ϕ 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" ϕ cap screws in bottom of posts shall be tightened to a snug fit only. 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 S1.

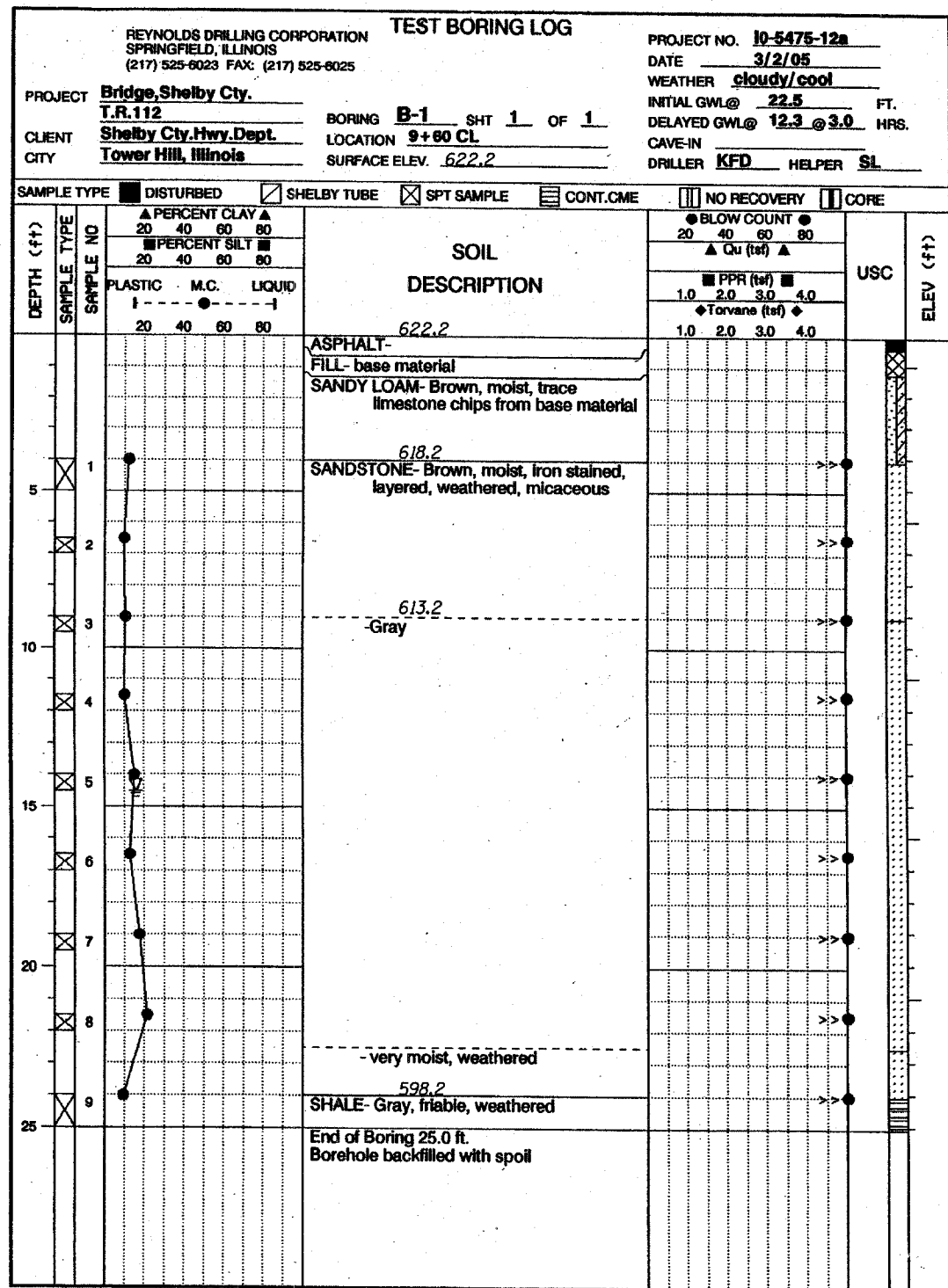


BILL OF MATERIAL

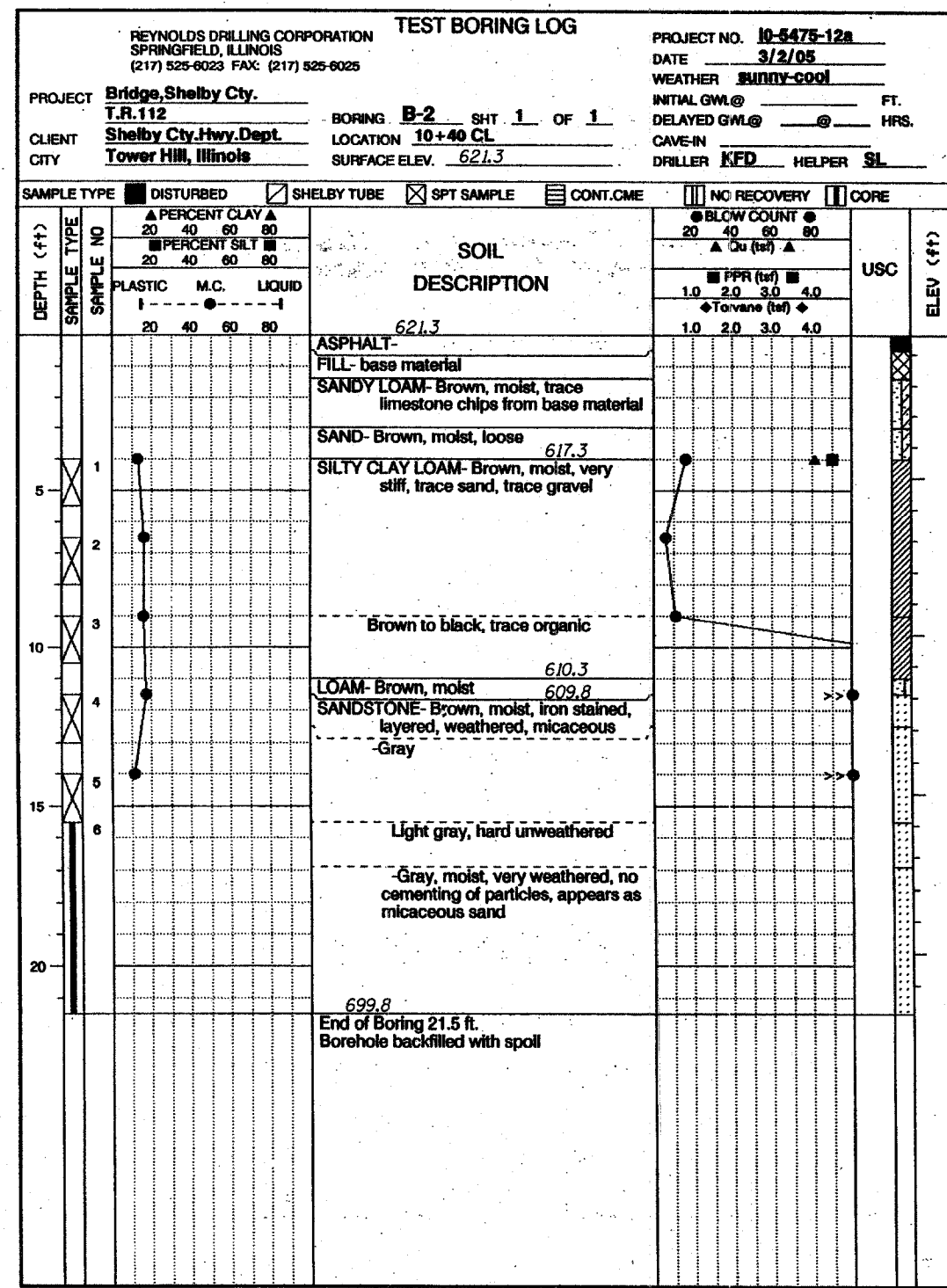
Item	Unit	Quantity
Steel Railing, Type S1	Foot	159

HLR
 Rice, Berry and Associates
 A Division of Hampton,
 Lenzi and Renwick, Inc.
 Civil & Structural Engineers
 3085 Stevenson Drive
 Suite 201
 Springfield, Illinois 62703
 217-546-3400
 Account Number
 12-87-0013-1
 Date: 12/07/05
 P.O. Box 1036
 DuQuoin, Illinois 62832
 618-790-4637
 DESIGNED: D.B. CHECKED: S.W.M. DRAWN: D.B.

RAILING DETAILS
SECTION 02-23112-00-BR
TOWER HILL ROAD DISTRICT
SHELBY COUNTY
STR. NO. 087-3537 / STATION 10+00



BORING 1



BORING 2

HLR
 Rice, Berry and Associates
 A Division of Hampton,
 Lenzini and Renwick, Inc.
 Civil & Structural Engineers
 3085 Stevenson Drive
 Suite 201
 Springfield, Illinois 62703
 217-546-3400
 P.O. Box 1036
 DuQuoin, Illinois 62832
 618-790-4637
 Account Number 12-87-0013-1
 Date: 12/07/05
 DESIGNED: D.B. CHECKED: S.W.M. DRAWN: D.B.

BORINGS
 SECTION 02-23112-00-BR
 TOWER HILL ROAD DISTRICT
 SHELBY COUNTY
 STR. NO. 087-3537 / STATION 10+00